FUNCTIONAL SERVICING AND STORMWATER MANAGEMENT REPORT

57 BATTEAUX ROAD DEVELOPMENT

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NOTTAWA LIMITED PARTNERSHIP

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CROZIER

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1.0 INTRODUCTION

C.F. Crozier & Associates Inc. (Crozier) has been retained by Nottawa Limited Partnership to complete a Functional Servicing Report to support of an Official Plan Amendment, Zoning By-Law Amendment and Draft Plan Approval for a proposed residential development located at 57 Batteaux Road, in the Village of Nottawa, Township of Clearview. The proposed development will herein be referred to as the Subject Development/Subject Lands.

Crozier is part of a team of consultants providing support for this development. Other members of the consulting team include:

- Celeste Phillips Planning Inc. (Planning)
- Azimuth Environmental Consulting Inc. (Ecology and Natural Heritage)
- Cambium Inc. (Geotechnical)
- C.F. Crozier & Associates Inc. (Civil, Transportation and Hydrogeology)

These consultants have prepared studies/plans to support the planning application. This report prepared by Crozier should be read in conjunction with the work of the other team members.

2.0 SITE DESCRIPTION

The Subject Lands is approximately 3.4 ha in the northern limits of the existing Community of Nottawa and is legally described as Part of Lot 36, Concession 8 (Geographic Township of Nottawasaga), Township of Clearview, County of Simcoe. The Site is bounded by existing residential to the west, east and south and Batteaux Road to the north. Please refer to **Figure 1** for the Site Location Plan.

The Subject Lands currently consists of single dwelling unit with accessory buildings and a large grass area in the rear. Per the Township of Clearview's Zoning By-Law, the majority of the Subject Lands is zoned as Development Area with a small portion at the north zoned as Residential Dwelling where the existing dwelling lies.

The development Draft Plan prepared by Celeste Phillips Planning Inc. dated January 20, 2026, includes 47 single detached units, a 20 m Right-of-Way (ROW) and two open space blocks. The proposed Draft Plan has been included as **Figure 2**.

3.0 BACKGROUND

This investigation has been based on pre-consultation meetings and discussions as well as review of material acquired from the Township of Clearview. In addition, several documents/plans were reviewed during this engineering assessment. They include:

- Nottawa Development Stormwater Management Implementation Report (Crozier, 2025)
- Nottawa Development Servicing Implementation Report (Crozier, 2025)
- Long Term Water Supply for Clearview, Schedule B Municipal Class EA (Burnside, February 2008)
- Natural Hazards Technical Guide (Nottawasaga Valley Conservation Authority, December 2013)
- Township of Clearview Engineering Standards (Township of Clearview, 2025)
- Traffic Impact Study (Crozier, February 2026)
- Nottawa 2024 Drinking Water Compliance Report (Township of Clearview, 2025)

- Semi-Annual Water and Wastewater Uncommitted Hydraulic Reserve Capacity Update Staff Report IN2025-03 (Town of Collingwood, 2025)
- Natural Hazards Technical Guide (Nottawasaga Valley Conservation Authority, December 2013)
- Geotechnical Exploration – 57 Batteaux Road (Cambium Inc, February 2026)

4.0 ROAD STANDARD

Access to the Subject Development will be provided via one connection to Batteaux Road. Within the Subject Development, there will be a looped road which will be a 20 m public ROW and will be constructed according to the Township of Clearview Engineering Standards.

Please refer to the Traffic Impact Study (Crozier, February 2026), submitted under separate cover, which identifies future operating conditions of the boundary road network surrounding the development.

5.0 GRADING

The site grading will be influenced by the existing and proposed drainage systems along with providing groundwater separation where required. Grading will tie into the existing elevations along the property limits, match the pre-development overland stormwater flow patterns where possible, and provide sufficient cover for the proposed water, sanitary and storm servicing.

The road network will be complete with curb and gutter throughout and will be designed in accordance with Township of Clearview Engineering Standards. Roadways will be designed to ensure no flooding of private property or ponding depths greater than 0.30 m occur during storm events including the 100-year design storm to ensure safe access and egress is provided.

Refer to **Drawing C102A** for overall grading of the Subject Development.

6.0 SANITARY SERVICING

6.1 Existing Sanitary Infrastructure

The Village of Nottawa does not have any municipal sanitary infrastructure; instead, all properties rely on septic systems.

6.2 Proposed Sanitary Infrastructure

The Georgian Communities Nottawa Development sanitary servicing strategy includes a proposed new sanitary trunk sewer along Batteaux Road. This sewer is currently being designed to convey wastewater flows to the Town of Collingwood's sanitary system. The proposed sanitary gravity trunk sewer is being sized to accommodate all projected sanitary flows from the Village of Nottawa. Upon construction of this trunk sewer, sanitary flows from the Subject Development will be discharged to the new system.

The external trunk sanitary sewer is proposed to be a 525 mm diameter pipe approximately 5.0 km long starting near the Subject Development and extending east along Batteaux Road and north along Sixth Concession across Township boundaries at Poplar Sideroad, continuing north along Sixth Line. The trunk sewer will be discharged to the existing Town of Collingwood sanitary sewer network at

the intersection of Sandford Fleming Drive and Sixth Line. From this connection, the wastewater will be conveyed via the gravity sewer to the existing St. Clair SPS and pumped via forcemain to the sanitary trunk sewer on Side Launch Way which discharges to the Collingwood Wastewater Treatment Plant (WWTP). Refer to **Figure 3** for the proposed external sanitary servicing route.

The Subject Development will accept 36.9 L/s of sanitary flows from the Georgian Communities Nottawa Development via a 200 mm diameter sanitary forcemain that discharges to a 300 mm diameter gravity sewer at Street A1. Gravity sanitary sewers within the Subject Development are proposed to collect wastewater from Streets A1 and A2 and discharge flows to the proposed external gravity trunk sewer along Batteaux Road. Refer to **Drawing C101A** for the general servicing plan.

Sanitary design flows were calculated per Township standards, and are presented below in **Table 1** below:

Table 1: Sanitary Design Criteria

Criteria	Standard
Average Flow Rate (L/cap/day)	400
Infiltration (L/s/ha)	0.23
Residential Density (PPU)	3

The estimated average daily flow (including infiltration) for the Subject Development is 1.43 L/s with a peak daily flow of 3.39 L/s. With the inclusion of the external Georgian Communities Nottawa Development flows, the peak daily flow through the development's pipes and to the trunk sewer on Batteaux Road is 40.29 L/s.

Since the Subject Development includes all single detached units, the equivalent single detached units for the development are 47 SDEs. Refer to Sanitary Demand Calculations provided in **Appendix A**.

7.0 Water Servicing

7.1 Existing Water Infrastructure

The community of Nottawa is primarily serviced by privately owned wells, excluding the McKean Subdivision, which is serviced by a municipal groundwater fed system. The McKean system is comprised of three wells, a 388 m^3 two-celled underground concrete reservoir, and a treatment and pumping station building. The wells, reservoir and treatment building are all located on Mel McKean Memorial Park.

The McKean Subdivision is serviced by 150 mm diameter PVC watermain throughout, and a 50 mm diameter watermain is extended north to the Nottawa Elementary School. A figure outlining the existing McKean distribution system has been included in **Appendix B**.

The current McKean Water System has a rated capacity of 1,055 m^3/d. The 3-year historical maximum day demand (MDD) for the system was 478 m^3/d (R.J. Burnside, 2008). Thus, the calculated reserve capacity of the McKean Water System is 577 m^3/day.

7.2 Proposed Water Servicing Strategy

The proposed municipal water infrastructure intended to serve the Georgian Communities Nottawa Development, along with current municipal water system users, is presently undergoing a Schedule 'C' Class Environmental Assessment (EA) led by Georgian Communities. This assessment will determine the preferred solution for expanding the Nottawa municipal water system, ensuring it is adequately sized to accommodate future needs including the Nottawa Elementary School expansion, the Township of Clearview Fire Hall, and the Subject Development. Please refer to the *Nottawa Development Servicing Implementation Report (Crozier, April 2025)* for more information regarding the proposed municipal water infrastructure.

The proposed water servicing solution for the Subject Development will be to decommission the existing 50 mm diameter watermain to the Nottawa Elementary School and extend a proposed 300 mm diameter watermain from Georgian Communities Nottawa Development north to service Nottawa Elementary School and Subject Development. From the 300 mm diameter watermain, a 250 mm watermain will loop around the south and east property line of the Nottawa Elementary School, west along Batteaux Road and throughout the Subject Development.

Additional services will be extended off the watermain loop to the Nottawa Elementary School and Fire Hall. Refer to **Drawing C101B** for the proposed water distribution system.

7.2.1 Water Demands

Water demands for the Subject Development have been estimated using Township standards and Table 3-1 of the Ministry of Environment, Conservation and Parks (MECP) Design Guidelines for Drinking Water Systems. Applicable design criteria have been summarized in **Table 2** below.

Table 2: Watermain Design Criteria

Criteria	Standard
Average Flow Rate (L/cap/day)	400
Maximum Day/Peak Hour Factors	2.00/3.75
Residential Density (PPU)	3

The following water demands have been calculated for the Subject Development design criteria identified in **Table 2** above:

- Average Daily Demand (ADD) – 0.65 L/s
- Max Daily Demand (MDD) – 1.31 L/s
- Peak Hour Demand (PHD) – 2.45 L/s

Since the Subject Development includes all single detached units, the equivalent single detached units for the development are 47 SDEs. Refer to **Appendix B** for the water demand calculations.

By using the criteria from **Table 2** above, the water capacity for Nottawa is summarized below in **Table 3**.

Table 3: Water Capacity Table

Description	Flow (m^3/day)
Firm Capacity of Existing Wells[1] ***(1)***	1055
McKean Subdivision 3-year Historical Total Maximum Day Demand (MDD)[2] ***(2)***	478
Reserve Capacity of Existing Wells[2] ***(3)***	577
Firm Capacity of Proposed New Well (PW1-23) ***(4)***	2160
Available Capacity ***(1) + (4)***	3215
Reserve Capacity ***(3) + (4)***	2737
Georgian Communities Nottawa Development MDD ***(6)***	1870
57 Batteaux Road MDD ***(7)***	113
Reserve Capacity (after development buildouts) ***(3) + (4) – (6) – (7)***	754

[1] per Nottawa 2024 Drinking Water Compliance Report (Township of Clearview, 2025)
[2] per Long Term Water Supply for Clearview Schedule B Municipal Class EA (Burnside, 2008)

7.2.2 Fire Flow Estimate

Per the Township of Clearview Standards, the Water Supply for Fire Protection, A Guide to Recommend Practice (Fire Underwriters Survey, 2020) is used to estimate fire flows for the Subject Development. Estimated flows are based on building floor area, construction type and structure exposure distance. The floor area and separation distances between buildings for the fire flow calculations were conservatively calculated using the maximum lot coverage and minimum front, side, and rear yard setback distances, respectively, identified in the zoning by-law.

Preliminary fire flows required to service the site were determined to be 133 L/s per the Fire Underwriters Survey. Fire flow calculations have been provided in **Appendix B**. Fire flows are expected to be refined within the detailed design stages when architectural drawings will be prepared.

The total design flow for the internal water distribution system is 135.45 L/s (Peak Hour Demand + Fire Flow). Hydraulic modelling of the existing and proposed water systems are to be completed by the Township's Engineer in conjunction with Crozier, to confirm adequate fire flows are provided for the proposed development as part of the municipal water system expansion.

8.0 Utilities

The Subject Development will be serviced with natural gas, telephone, cable TV and hydro. The design of such utilities will be coordinated with the local utility companies servicing the Township of Clearview by the Client's Utilities consultant (Tatham Engineering). Utilities are proposed to follow the alignment of the internal road network, with individual service connections to each lot. Composite utility plans will be completed in the future to show the design and layout of utilities throughout the Subject Development. The Georgian Communities Nottawa Development to the south of the Subject Development has circulated all utility providers and the Subject Development will be added as a future phase in that request.

9.0 STORMWATER MANAGEMENT (SWM)

9.1 Design Criteria

Stormwater and site drainage for the proposed development must meet the requirements of the Township of Clearview, NVCA, and MECP. The stormwater management criteria for the Subject Development include the following:

- Development Standards
  - Urban cross section for public roadway with 5- year storm sewer system.
  - Minor and major drainage system to convey frequent and infrequent rainfall/ runoff events, respectively.
  - Lot grading 2% optimum.

- Water Quality Control
  - 80% removal efficiency of total suspended solids per MECP 'enhanced protection' requirements.

- Water Quantity Control
  - Control of the post development peak flows to pre-development levels for all storms up to and including the 100-year event.

- Erosion Control
  - 48-hour detention of the 25 mm event.

9.2 Site Grading Criteria

The grading criteria that will be applied to the proposed residential development includes the following:

- All proposed residential dwellings must meet the minimum groundwater separation according to the seasonal high groundwater elevation determined by the Crozier groundwater monitoring program.

- Site grading must provide suitable cover over the storm sewer to prevent frost heave (i.e., 1.2 m minimum cover) and provide overland flow routes for major storm runoff.

9.3 Hydrologic Analysis

9.3.1 Quantity Control

Hydrological modelling was prepared for the pre- and post-development scenarios using the stormwater management hydrologic computer program Visual OTTHYMO 6.2 (VO). To meet quantity control requirements, the detention storage volumes required for the Subject Lands were determined to ensure that the post-development peak flow rates do not exceed the pre-development target flows at the following points of interest (POI):

- **POI #1:** Located at the northeast end of the Georgian Communities Nottawa Development within the existing watercourse. This POI includes flows from all Nottawa Development catchments and is the primary outlet of the Nottawa Development SWM Facility.

- **POI #2**: Located at the secondary outlet of the Georgian Communities Nottawa Development SWM Facility. This POI includes flows from the Nottawa Development catchments that are too large to be conveyed by the primary outlet into POI #1. Please note that this POI is not considered for this report and is only included to be consistent with the Nottawa Development.

- **POI #3:** Located on the eastern property line of the Subject Development where it connects to the swale on the school's property. This POI includes the flow from Catchment 103.

- **POI #4:** Located at the north end of the Subject Development on Batteaux Road. This POI includes the flow from Catchment 102.

- **POI #5:** Located downstream along the existing watercourse and includes flows from POI #1, POI #2, POI #3, and the school yard.

The locations of the modeled points of interest are shown on **Figure 4**.

To accurately assess the peak flows from the individual catchments, the NASHYD command in VO was used to model rural conditions, and the STANHYD command was used to model urban development conditions. The 2-, 5-, 10-, 25-, 50- and 100-year 4-hour Chicago and 24-hour SCS Type II distribution rainfall events, as well as Timmins regional storm were simulated, as is consistent with local standards. Rainfall depths and intensities were based on the MTO IDF Look-up Tool, with an additional 15% increase per discussions with the Township. IDF data has been provided in **Appendix C.**

Pre-Development Model Setup

To establish pre-development flows from the site, the pre-development hydrologic model from the *Nottawa Development Stormwater Management Implementation Report (Crozier, April 2025)* was expanded upon to include the Subject Development and the neighboring school yard to the east.

The Subject Development and external areas were delineated into catchments based on the existing drainage conditions. A topographic survey was completed by J.D. Barnes Ltd. dated February 26, 2025 that was used to delineate catchments within the Subject Development. The additional catchments have been listed below:

- **Catchment 102 (0.11 ha):** This catchment area represents the northern portion of the Subject Lands that drains north to Batteaux Road under pre-development conditions. It is characterized by an existing dwelling and a driveway.

- **Catchment 103 (3.28 ha):** The majority of the Subject Lands drains to a depression in the northeast portion of the development and outlets into the neighboring school property's swale. The catchment consists of cultivated fields with existing sheds.

- **Catchment EXT–SCHOOL PRE (5.46 ha):** This catchment includes the rear yard of the neighboring school property which drains to a swale within the property and connects to the existing watercourse.

- **Nottawa Development Catchments:** The *Nottawa Development Stormwater Management Implementation Report (Crozier, April 2025)* delineated 5 catchments which encompassed the Georgian Communities Nottawa Development, McKean Subdivision, and external areas. The Nottawa Development Catchments include the following:

    - Catchment 101 (51.91 ha)
    - EXT – South (120.6 ha)
    - EXT NW – West (28.38 ha)
    - EXT NW – East (10.21 ha)
    - EXT West (3.62 ha)
    - Outparcel (1.06 ha)

Please refer to **Figure 4** for the pre-development catchment plan for the Subject Development and **Figure 5** for the Nottawa Development Overall Subwatershed Pre-Development Drainage Plan.

Table 4 below summarizes the pre-development flow rates discharging from the Subject Development. Refer to **Appendix C** for the pre-development hydrologic parameter sheets and Visual OTTHYMO modelling output files.

Table 4: Pre-Development Peak Flow Rates

Event		POI #1 (m^3/s)	POI #3 (m^3/s)	POI #4 (m^3/s)	POI #5 (m^3/s)
Chicago	2-Year	1.059	0.019	0.007	1.086
	5-Year	1.952	0.036	0.010	2.003
	10-Year	2.643	0.050	0.012	2.714
	25-Year	3.623	0.071	0.014	3.721
	50-Year	4.400	0.088	0.018	4.524
	100-Year	5.225	0.105	0.020	5.374
SCS	2-Year	2.567	0.053	0.008	2.639
	5-Year	4.348	0.093	0.013	4.474
	10-Year	5.652	0.123	0.016	5.819
	25-Year	7.426	0.165	0.020	7.658
	50-Year	8.792	0.197	0.024	9.076
	100-Year	12.208	0.232	0.027	10.543
25mm		0.577	0.010	0.007	0.592
Regional		10.859	0.199	0.009	11.194

Post-Development Model Setup

It is proposed that the Subject Development be serviced by the Georgian Communities Nottawa Development SWM Facility. An open space easement at the southeast corner of the Subject Property will allow both the minor and major storms to outlet to an enhanced swale which travels east at the school's southern property line before turning south and connecting to the Georgian Communities Nottawa Development SWM Facility's northern forebay. Communication with the school regarding the enhanced swale on their property is currently in progress.

Since the submission of the *Nottawa Development Stormwater Management Implementation Report (Crozier, April 2025),* revisions have been made to the SWM facility design to reflect updated Township Standards (October 2025) and comments received for the second detailed design submission. The VO model and SWM facility design and calculations presented in this report incorporate these revisions and demonstrate that the applicable SWM criteria can be met. However, further refinements

are ongoing as part of the third detailed design submission. Once finalized, the SWM facility design and VO model included in the forthcoming Georgian Communities Nottawa Development design package will supersede the model and calculations presented in this report. With this in mind, the final SWM facility design will accommodate the proposed 57 Batteaux Development as shown in this report.

A post-development model was prepared by replacing the pre-development catchments with the post-development catchments identified below.

- **Catchment 201 (0.09 ha):** This catchment area represents the northern portion of the Subject Lands that drains north to Batteaux Road under post-development conditions.

- **Catchment 202 (2.72 ha):** The majority of the Subject Lands which is fully developed with single detached homes and a right-of-way. This catchment drains southeast to the enhanced grass swale and eventually the Georgian Communities Nottawa Development ent SWM Pond.

- **Catchment 203 (0.69 ha):** This catchment includes the rear portions of the north and eastern lots and drain uncontrolled to the school ditch. A small portion of the roadway that slopes towards Batteaux Road will be conveyed to the rear yard swales via a superelevated road structure and curb outlet.

- **Catchment EXT–SCHOOL POST (5.38 ha):** This catchment includes the rear yard of the neighboring school property which drains to a ditch and connects to the existing watercourse. 0.08 ha of the school property is being accounted for in Catchment 202 to account for the enhanced swale area which drains to the SWM Facility.

- **Nottawa Development Catchments:** The *Nottawa Development Stormwater Management Implementation Report (Crozier, April 2025)* delineated 18 catchments which encompassed the Georgian Communities Nottawa Development, McKean Subdivision, and external areas. Adjustments have since been made to the catchment areas and will be finalized as part of the Nottawa Development's 3rd Detailed Design submission. The Nottawa Development Catchments used for purposed of this report are shown on **Figure 7** and include the following:

    - Phase 1 West (5.31 ha)
    - Phase 1 East (8.46 ha)
    - Pond (6.40 ha)
    - Future East 1 (8.04 ha)
    - Future West 1 (9.07 ha)
    - Future West 2 (5.41 ha)
    - Central Channel (4.92 ha)
    - Northern Channel (0.78 ha)
    - Northwest Channel (1.00 ha)
    - North Ditch (0.20 ha)
    - Future East UNC (1.58 ha)
    - Future West UNC (0.72 ha)
    - Outparcel (1.06 ha)
    - External South (120.60 ha)
    - External West (3.62 ha)
    - External NW – West (28.77 ha)
    - External NW – East (9.49 ha)
    - External NW – Southeast (0.33 ha)

Refer to **Figure 6** for the Post-Development Catchment Plan, **Figure 7** for the Georgian Communities Nottawa Development Post Development Drainage Plan (Full Buildout). The post-development hydrologic parameter sheets and Visual OTTHYMO modelling output files are located in **Appendix D**.

The SWM Facility located on the Georgian Communities Nottawa Development, has four outlets to convey stormwater. The primary outlet structure consists of a 275 mm diameter extended detention orifice which outlets to the existing watercourse at POI #1. The secondary outlet structure consists of a 300 mm secondary orifice and a 1.48 m rectangular weir which outlet to a dedicated outlet channel and eventually to the existing tributary at 2278 Concession Six North Nottawasaga. The primary and secondary control structures are designed to convey the minor and major storms respectively. Should a rainfall event occur that exceeds the 100-year storm event, such as the Timmins regional storm, an emergency spillway has been designed to convey stormwater outflow to the dedicated outlet channel.

The results of the post-development VO model are summarized in the tables below, with SWM Facility calculations provided in **Appendix E**.

Table 5: SWM Facility Operating Characteristics

Event		Storage Volume (m^3)	Water Surface Elevation (m)
Chicago	2-Year	11,199	214.19
	5-Year	15,169	214.31
	10-Year	18,426	214.41
	25-Year	23,393	214.56
	50-Year	27,369	214.67
	100-Year	31,542	214.79
SCS	2-Year	16,505	214.36
	5-Year	25,294	214.70
	10-Year	31,972	214.80
	25-Year	34,439	214.86
	50-Year	36,752	214.92
	100-Year	40,417	215.02
25mm		7,309	214.06
Regional		44,807	215.12

**The top of berm for the SWM Facility has 61,802 m^3 of storage at 215.50 m*

As demonstrated in **Table 5** above, the SWM Facility has sufficient storage to accommodate the 100-year SCS design storm event below the invert of the emergency spillway (215.05 m) as well as sufficient storage to control the Regional storm event.

Table 6: Comparison of Pre-to-Post Development Peak Flow Rates

Event		POI #1		POI #3		POI #4		POI #5	
		Pre (m^3/s)	Post (m^3/s)	Pre (m^3/s)	Post (m^3/s)	Pre (m^3/s)	Post (m^3/s)	Pre (m^3/s)	Post (m^3/s)
Chicago	2-Year	1.059	0.084	0.019	0.005	0.007	0.009	1.086	0.856
	5-Year	1.952	0.104	0.036	0.009	0.010	0.012	2.003	1.717
	10-Year	2.643	0.116	0.050	0.013	0.012	0.014	2.714	2.324
	25-Year	3.623	0.133	0.071	0.020	0.014	0.017	3.721	3.057
	50-Year	4.400	0.144	0.088	0.026	0.018	0.019	4.524	3.634
	100-Year	5.225	0.155	0.105	0.033	0.020	0.021	5.374	4.244
SCS	2-Year	2.567	0.109	0.053	0.013	0.008	0.009	2.639	2.284
	5-Year	4.348	0.138	0.093	0.026	0.013	0.012	4.474	3.612
	10-Year	5.652	0.456	0.123	0.037	0.016	0.015	5.819	4.571
	25-Year	7.426	0.162	0.165	0.052	0.020	0.018	7.658	7.355
	50-Year	8.792	0.167	0.197	0.067	0.024	0.020	9.076	8.940
	100-Year	12.208	0.178	0.232	0.083	0.027	0.024	10.543	10.375
25mm		0.577	0.057	0.010	0.004	0.007	0.009	0.592	0.485
Regional		10.859	0.271	0.199	0.044	0.009	0.007	11.194	11.897

As demonstrated in **Table 6** above, the post-development peak flows have been controlled to meet or exceed the pre-development peak flow rate targets for storms up to and including the 100-year storm event with the exception of the Chicago storms for POI #4. The drainage area to Batteaux Road has been reduced as much as grading constraints allow. The rise in peak flows to the Batteaux Road ditch is minimal, at maximum of only 0.002 m^3/s.

9.3.2 Quality Control Analysis

Stormwater quality will be provided by the Georgian Communities Nottawa Development SWM Facility to an Enhanced Protection level per the Ministry of Environment's Stormwater Management Planning and Design Guide.

To help meet erosion control requirements, an extended detention orifice has been incorporated within the outlet structure design. Sizing of this structure was based on providing 48-hour detention of the runoff volume produced during the 25 mm event, per NVCA requirements.

The total drainage area contributing to the SWM Facility is 95.58 ha and has an impervious percentage of 40%. Based on the percent imperviousness, the minimum water quality volume for a stormwater wet pond is 8,028 m^3/s per the Stormwater Management Planning and Design Guide. The overall water quality requirement consists of 152 m^3/s and 40 m^3/s for the permanent pool and extended detention respectively. The required and provided volumes for quality control are summarized in **Table 6** below.

Table 7: SWM Facility Quality Control Characteristics

	SWM Facility	
	Required Volume (m^3)	Provided Volume (m^3)
Permanent Pool	10,665	32,958 (Dead)
MOE Extended Detention	3,823	11,553 (Active)
Erosion Control	8,028	11,553 (Active)

As demonstrated in **Table 7**, the proposed SWM Facility provides sufficient water quality storage. Please refer to **Appendix E** for SWM Facility calculations.

9.4 Hydraulic Analysis

9.4.1 Channel Design

An enhanced grass swale is proposed to convey minor and major flows from Catchment 202 to the Georgian Communities Nottawa Development SWM Facility. The swale capacity was modeled in the Bentley FlowMaster program as a trapezoidal cross section with side slopes of 3:1 and a 1 m flat bottom. Using the peak flow of 0.71 m^3/s from the 100-year 24-hour SCS type II storm, the normal depth was calculated to be 0.42 m which can be safely conveyed through the channel.

The enhanced grass swale from the Subject Development will connect to an existing swale created as part of the Georgian Communities Nottawa Development which accepts flows from a portion of the McKean Subdivision via a twin 700 mm diameter culvert. The combined swale was modeled as a trapezoidal channel with 3:1 side slopes and a 1 m flat bottom. Using the combined peak flow of 3.75 m3/s from the 100-year 24-hour SCS type II storm, the normal depth was calculated to be 0.88 m which can be safely conveyed through the channel.

Calculations for the enhanced swale and existing swale capacities are provided in **Appendix F**, and grading for the swales are shown in **Drawing C102B**.

9.4.2 Culvert Capacity Assessment

There are two culverts that convey the flows from the development to the Georgian Communities Nottawa Development SWM Facility. The first goes underneath the walking path between the east end of Donald Avenue and the running track on the School's property, and the second connects to the north forebay of the Georgian Communities Nottawa Development SWM Facility. Both culverts were sized using the Bentley CulvertMaster program to ensure sufficient capacity.

The culvert underneath the walking path conveys flows from Catchment 202 through a twin 600mm diameter CSP culvert. Based on the size and grading around the culvert, the maximum capacity is 1.13 m^3/s, which is greater than the peak flow of 0.71 m^3/s from the 100-year SCS Type II storm event.

The inlet into the SWM Facility for the Subject Development comes from a twin 1200 mm diameter culvert into the north forebay. The flow through this culvert is 3.75 m^3/s and includes Catchment 202 from the Subject Development and Catchment EXT NW – West from the Georgian Communities Nottawa Development. Using the Bentley CulvertMaster program, the maximum discharge through the culvert is 4.08 m^3/s, which can accommodate the development flows.

Calculations for the culverts are provided in **Appendix F**, with the grading plan shown in **Drawing C102B**.

10.0 Water Balance

A water balance analysis for the Subject Development was prepared using the Thornthwaite Method to determine pre-development and post-development infiltration volumes to determine the amount of infiltration/mitigation required to meet annual pre-development infiltration targets. Based on this analysis, the annual infiltration volumes were calculated to be 9,487 m^3/year and 4,439 m^3/year in the pre- and post-development scenarios respectively. This results in an infiltration deficit of approximately 5,048 m^3/year. Refer to **Appendix G** for the Water Balance results.

In order to mitigate the reduction in infiltration in the post-development scenario, low impact development (LID) features such as infiltration trenches and enhanced swales will be investigated further during the detailed design stages of development. Similar to the methodology used for the Georgian Communities Nottawa Development to increase infiltration volumes, rear yard infiltration trenches will be investigated on lots 1-20 in detailed design when more information is known regarding the high groundwater elevation and proposed lot elevations so that a minimum of 1 m clearance from the seasonally high groundwater elevation can be achieved. The rear yard infiltration trenches will collect runoff from the roof leader (via a dedicated roof leader connection). And from runoff from the lawn areas directed to the infiltration trenches.

11.0 Erosion & Sediment Controls

Sediment and erosion controls will be installed prior to the commencement of any earthworks and maintained throughout until the site is stabilized or as directed by the Engineer, NVCA and/or Township. Controls are to be inspected regularly, after each significant rainfall, and maintained in proper working condition.

The proposed erosion and sediment controls for the Subject Development are outlined below.

Stone Mud Mat

- A mud mat will be installed at the main access point to the site (57 Batteaux Road) to reduce the amount of mud tracking onto exiting paved roadways during site servicing operations.

Dust Suppression

- During earthwork activities, the Contractor will ensure that measures for dust suppression are provided as required, such as the application of water or lime.

Silt Fencing

- Heavy Duty Silt fence will be installed where required to intercept sheet flow. Heavy duty silt fence will be located around the perimeter of the site. It should be noted that additional silt fencing may be added based on field decisions by the Site Engineer and Owner prior to, during and following construction.

12.0 Conclusions & Recommendations

Based on the foregoing, we conclude that the proposed development can be adequately serviced.

1. Access to the Subject Development will be provided by a road connection from Batteaux Road. Municipal roads will be designed in accordance with the Township of Clearview Engineering Standards.

2. Wastewater from the Subject Development is proposed to be serviced via an internal gravity sanitary system to the proposed external trunk sanitary sewer that connects to the existing Collingwood wastewater collection system.

3. Wastewater from the Georgian Communities Nottawa Development Development will be pumped via a sanitary forcemain into the Subject Development's sanitary sewer system and conveyed through to the proposed external trunk sanitary sewer on Batteaux Road.

4. Internal watermain will follow the alignment of the internal road network complete with all valving, appurtenances, and hydrants to meet Township of Clearview Engineering Standards.

5. The proposed watermain will connect into the future watermain located within the Georgian Communities Nottawa Development Development.

6. Utilities are available to service the Subject Development.

7. The drainage outlet of the Subject Development is located on the southeast corner of the site and outlets to the Georgian Communities Nottawa Development Development stormwater management facility.

8. Stormwater quantity, quality and erosion controls will be provided via the Georgian Communities Nottawa Development Development stormwater management facility.

9. The Georgian Communities Nottawa Development Development stormwater management facility will be adequately sized to accommodate up to and including the 100-year flow design storm events and meets the pre-to-post flow objectives at all points of interest.

10. Water quality to an enhanced protection level will be provided by the Georgian Communities Nottawa Development Development stormwater management facility.

11. Erosion control will be met by providing a 48-hour drawdown of the 25 mm event in the Georgian Communities Nottawa Development stormwater management facility.

12. Water balance for the Subject Development will be achieved through rear yard infiltration trenches, enhanced grass swale and disconnected downspouts designed during the detailed design stages.

13. Sediment and erosion controls will be effective in preventing and controlling sediment from migrating into nearby swales, ditches and watercourse.

Respectfully submitted,

C.F. CROZIER & ASSOCIATES INC.

Adrian Mysliwiec, P.Eng.
Project Engineer

C.F. CROZIER & ASSOCIATES INC.

Amanda West, P.Eng.
Project Engineer

/cb

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APPENDIX A

Sanitary Demand Calculations

CROZIER

File: 1953-6180
Date: 2026-02-02
By: CB
Check By:

57 Batteaux Road Sanitary Demand

Developed Site Area	3.38	ha
Number of Residential Units and Land Usage		
1) Single Residential	**47**	Units
Person Per Residential Unit		
1) Single Residential	**3**	persons/unit
Total Residential Population	141	Persons
Unit Sewage Flows		
Residential	400	L/C-day
Infiltration	0.23	L/s/ha
Total Design Sewage Flows		
Infiltration/Inflow Residential	0.78	L/sec
Average Daily Residential Flow	0.65	L/sec
Residential Peak Factor (Harmon Formula)	4.00	
Peak Daily Flow (Internal)	3.39	L/sec
Peak Daily Flow (Georgian Communities Nottawa Development)	36.9	L/sec
Total Peak Daily Flow	**40.29**	**L/sec**

APPENDIX B

Water Demand and Fire Flow Calculations

CLEARVIEW

Nottawa
Water Distribution System

N

1:1,250

Queen St.

Buist St.

County Rd. 124

Townley St.

Donald Ave.

McKean Blvd.

Blackburn Ave.

Wagner Rd.

Gleasbn Rd.

HY-NO-0902
HY-NO-0901
HY-NO-0900
HY-NO-0903
HY-NO-0904
HY-NO-0905
HY-NO-0906
HY-NO-0907
HY-NO-0908
HY-NO-0909
HY-NO-0910
HY-NO-0911
HY-NO-0912
HY-NO-0913
HY-NO-0914
HY-NO-0915
HY-NO-0916
HY-NO-0917
HY-NO-0918
HY-NO-0919
HY-NO-0920
HY-NO-0921
HY-NO-0923

150 Ø PVC
150 G.V. PLUG AND THRUST PROTECTION
PLUG & BLOW-OFF
50 Ø
25 Ø PE
WELL #1
WELL #2
Reservoir
Control Building (Pumphouse)
WELL #3
Raw water line Well 3 to pumphouse
PARK

- Hydrant
- Blowoff
- Hydrant Valves
- Gate (System Valves)
- Plug (System Valves)
- Blow-offs (Control Valves)
- Curb Stop Valves
- Cap (Fitting)
- Tee (Fitting)
- Sampling Stations
- Abandoned Wells
- Storage Tanks
- Reservoirs
- Production Wells
- Enclosed Storage Facility
- Potable Water Main
- Raw Water Main
- Abandoned Main
- Service Lines
- E911 SLRN (Roads)
- Building Footprints
- Water Structures
- Lakes Ponds and Wide Rivers
- Parcel Fabric

Document Name: Water_Infrastructure_System_Overall_NO_v3

Date Saved: 2019-10-04 8:38:54 AM

CROZIER

File: 1953-6180
Date: 2026-02-12
By: CB
Check By:

57 Batteaux Road Water Demand

Number of Residential Units and Land Usage		
1) Single Residential	**47**	Units
Person Per Residential Unit		
1) Single Residential	**3**	persons/unit
Total Residential Population (Internal)	141	Persons
Domestic Water Design Flows		
Residential Unit Flow	400	L/C-day
Total Domestic Water Design Flows		
Average Daily Flow (Internal)	0.65	L/sec
Max Daily Demand Factor (Township Standards)	2	
Max Daily Demand (Internal)	1.31	L/sec
Peak Hour Demand Factor (MECP Design Guidelines, 2008)	3.75	
Peak Hour Demand (Internal)	2.45	L/sec

CROZIER

Project Name: 57 Batteaux Road
Project No: 1953-6180
Prepared By: CB
Checked By:
Date: 2026-02-09

Water Supply for Public Fire Protection - 2020
Fire Underwriters Survey
Part II - Guide for Determination of Required Fire Flows for Public Fire Protection in Canada

An estimate of fire flow required for a given area may be determined by the formula:

RFF = 220 * C * sqrt A

where:

RFF = the required fire flow in litres per minute (L/min)

C = the construction coefficient is related to the type of construction of the building
- = 1.5 for Type V Wood Frame Construction
- = 0.8 for Type IV-A Mass Timber Construction
- = 0.9 for Type IV-B Mass Timber Construction
- = 1.0 for Type IV-C Mass Timber Construction
- = 1.5 for Type IV-D Mass Timber Construction
- = 1.0 for Type III Ordinary Construction
- = 0.8 for Type II Non-combustible Construction
- = 0.6 for Type I Fire Resistive Construction

A = the total effective floor area (effective building area) in square metres (excluding basements at least 50 percent below grade) in the building considered

Step A. **Construction Coefficient (C)** 1 Type III Ordinary Construction

Step B. **Total Effective Floor Area**
Proposed Building: Single Detached Lot

	Yes/No/Unknown	
Is basement at least 50% below grade?	Yes	If yes, basement floor area excluded
Vertical openings protected?	No	*For consideration for effective area calculations

Calculate Effective Floor Area based on the highlighted cell

-C value from 1.0 to 1.5: 100% of all floor areas are used

-C value below 1 and vertical openings are not protected: Consider two largest floors plus 50% of all floor above to a max of eight

-C value below 1 and vertical openings are protected: Consider single largest floor plus 25% of the two immediately adjoining floors

Floors Above Grade	Total Floor Area (m^2)	% of Area Considered	Effective Floor Area (m^2)
Basement	NA	NA	NA
Ground Floor	390.0	100%	390.0
Level 2	390.0	100%	390.0
Total	**780.0**		**780.0**

Total Effective Floor Area **780.0** m^2

Step C. **Therefore RFF =** **6,000** **L/min (rounded to nearest 1000 L/min)**

Step D. **Occupancy Contents Adjustment Factor**

The required fire flow may be reduced by as much as -25% for occupancies having contents with very low fire hazard or may be increased by up to 25% surcharge for occupancies having a high fire hazard.

Type of Occupancy	Adjustment Factor	
Residential Occupancy	Limited Combustible	-15%

-900 L/min (reduction)

RFF = **5,100** **L/min (not rounded)**

Occupancy and Contents Adjustment Factor	
Non-Combustible	-25%
Limited Combustible	-15%
Combustible	0%
Free Burning	15%
Rapid Burning	25%

Step E. **Automatic Sprinkler Protection**

Sprinklers - The required fire flow may be reduced by up to 50% for complete automatic sprinkler protection depending upon adequacy of system.

	Yes/No/Unknown	*Possible Reduction Available	Actual Reduction Provided
Automatic sprinkler protection designed and installed in accordance with NFPA 13?	No	-30%	**0%**
Water supply is standard for both the system and Fire Department hose lines?	No	-10%	**0%**
Fully supervised system?	No	-10%	**0%**

*Reduction available assumes complete building coverage
*30% reduction typical for building requiring sprinkler system

Total Reduction % **0%** (reduction)

Total Reduced Flow **0 L/min (reduction, not rounded)**

Step F. **Automatic Sprinkler Protection**

Exposure - A percentage of water for the exposures should be added to the required fire flow for the subject building to provide adequate flow rates for hose streams used to reduce the spreading of fire from the subject building to exposed risks. The required fire flow of a subject building may be increased depending on the severity of exposed risks to the subject building and the distance between the exposed risks and the subject building. This charge considers the usage of water supplies to prevent exposed risks from igniting or being damaged during a major fire incident in the subject building.

Separation Distance	Maximum Exposure Adjustment Charge
0 to 3m	25%
3.1 to 10m	20%
10.1 to 20m	15%
20.1 to 30m	10%
Greater than 30m	0%

*If a vertical fire wall is properly constructed and has a rating of no less than 2 hours, then the boundary can be treated as protected with no exposure charge

*The maximum exposure adjustment charge to be applied to a subject building is 75%

*The distance in metres from the subject building facing wall to the exposed building facing wall, measured to the nearest metre, between the nearest points of the buildings. Where either the subject building or the exposed building is at a diagonal to the other building, the shortest distance should be increased by 3 metres and this adjusted value used as exposure distance.

Exposed buildings		Distance	Surcharge	
North	Adjacent Dwelling	2.4	25%	1275
East	Adjacent Dwelling	N/A	0%	0
South	Adjacent Dwelling	2.4	25%	1275
West	Adjacent Dwelling	35	0%	0
				2,550 L/min Surcharge (not rounded)

Step G. **Final Required Fire Flow**

Step D - Occupancy Adjusted Fire Flow Demand	5,100 L/min
Step E - Sprinkler (Reduction)	0 L/min
Step F - Exposure Charge	2,550 L/min
Final Required Fire Flow:	**7,650 L/min**
	8,000 L/min (rounded to nearest 1000L/min)
or	**133 L/s**
or	**2,113 USGPM**

Equivalent Fire Storage Volume (If Required)

Fire flow from above	8,000 L/min
Required duration	2.00 hours
	Refer to Table 1 for Duration
Therefore:	960,000 Litres or
	960 m^3 is the required fire storage volume.

Table 1 - FUS 2020

Required Duration of Fire Flow	
Flow Required (L/min)	**Duration (hours)**
2,000 or less	1.0
3,000	1.25
4,000	1.5
5,000	1.75
6,000	2.0
8,000	2.0
10,000	2.0
12,000	2.5
14,000	3.0
16,000	3.5
18,000	4.0
20,000	4.5
22,000	5.0
24,000	5.5
26,000	6.0
28,000	6.5
30,000	7.0
32,000	7.5
34,000	8.0
36,000	8.5
38,000	9.0
40,000 and over	9.5

Interpolate for intermediate figures

Active coordinate

44° 27' 15" N, 80° 12' 14" W (44.454167,-80.204167)

Retrieved: Thu, 30 Nov 2023 22:21:06 GMT



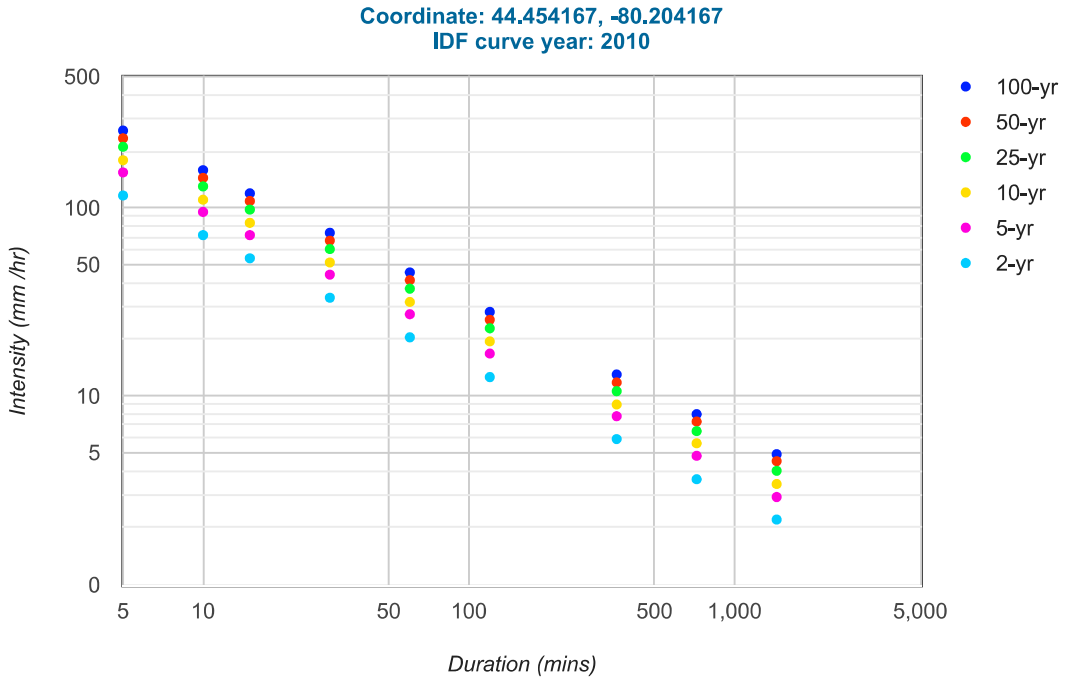
Location summary

These are the locations in the selection.

IDF Curve: 44° 27' 15" N, 80° 12' 14" W (44.454167,-80.204167)

Results

An IDF curve was found.



Coefficient summary

IDF Curve: 44° 27' 15" N, 80° 12' 14" W (44.454167,-80.204167)

Retrieved: Thu, 30 Nov 2023 22:21:06 GMT

Data year: 2010
IDF curve year: 2010

Return period	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
A	20.5	27.2	31.6	37.2	41.3	45.4
B	-0.699	-0.699	-0.699	-0.699	-0.699	-0.699

Statistics

Rainfall intensity (mm hr^{-1})

Duration	5-min	10-min	15-min	30-min	1-hr	2-hr	6-hr	12-hr	24-hr
2-yr	116.4	71.7	54.0	33.3	20.5	12.6	5.9	3.6	2.2
5-yr	154.5	95.2	71.7	44.2	27.2	16.8	7.8	4.8	2.9
10-yr	179.5	110.6	83.3	51.3	31.6	19.5	9.0	5.6	3.4
25-yr	211.3	130.2	98.0	60.4	37.2	22.9	10.6	6.5	4.0
50-yr	234.6	144.5	108.8	67.0	41.3	25.4	11.8	7.3	4.5
100-yr	257.9	158.8	119.6	73.7	45.4	28.0	13.0	8.0	4.9

Rainfall depth (mm)

Duration	5-min	10-min	15-min	30-min	1-hr	2-hr	6-hr	12-hr	24-hr
2-yr	9.7	12.0	13.5	16.6	20.5	25.3	35.2	43.3	53.4
5-yr	12.9	15.9	17.9	22.1	27.2	33.5	46.6	57.5	70.8
10-yr	15.0	18.4	20.8	25.6	31.6	38.9	54.2	66.8	82.2
25-yr	17.6	21.7	24.5	30.2	37.2	45.8	63.8	78.6	96.8
50-yr	19.5	24.1	27.2	33.5	41.3	50.9	70.8	87.3	107.5
100-yr	21.5	26.5	29.9	36.9	45.4	55.9	77.9	95.9	118.2

Terms of Use

You agree to the Terms of Use of this site by reviewing, using, or interpreting these data.

C2.05 Hydrology and Hydrologic Modeling

Pre-development peak flows shall be computed by a method such as the Rational Method or by an approved computer model. Watershed definition and pre-development flows must be reviewed and accepted by the Township Public Works Department.

Preliminary estimates of post-development flow rates may be computed using a method such as the Rational Method.

For all systems and for the design of surcharged sewers and detention facilities, the latest version of the computer model OTTHYMO or PCSWMM is recommended. Other hydrograph methods may be considered if it is demonstrated that the results are comparable to those from OTTHYMO. Post-development design flows may be determined using the Rational Method only where the design area is less than 40 ha and SWMFs are not considered.

Rainfall intensity-duration-frequency (IDF) equations or their curves and design storm hydrographs must be approved by the Township Public Works Department. The Township requires use of the online MTO IDF Curve lookup tool. Based on a review of literature regarding projected climate change scenarios, the IDF intensity values from the MTO IDF Curve lookup tool are to be increased by 15% to account for future climate change impacts.

Return period	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
A	23.575	31.28	36.34	42.78	47.495	52.21
B	-0.804	-0.804	-0.804	-0.804	-0.804	-0.804

Increased by 15%

APPENDIX C

Pre-Development Hydrologic Model

Nottawa Development

Pre-Development Hydrologic Parameter Sheets

CROZIER CONSULTING ENGINEERS

Project Name: Nottawa
Project Number: 1953-6040
Date: 2025.03.24
By: JGB/HB

D.A. NAME	101
D.A. AREA (ha)	51.91

Hydrologic Parameters: CALIB NASHYD Command
Pre Development Drainage Area: Catchment 101

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	42.7%	22.2
Edenvale Sandy Loam	EDV	B	48.8%	25.3
Granby Sandy Loam	GNY	B	8.5%	4.4
Total Area				51.91

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area	CN	Area	CN	Area	CN	Area (ha)	CN	Area	CN	Area	A*CN
TIG	0	98	0	98	0.35	98	0.29	98	0.77	98	1.41	138.18
EDV	0	98	0	98	0	98	0	98	0	98	0	0
GNY	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0		0		0.35		0.29		0.77			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area	CN	Area	CN	Area	CN	Area (ha)	CN	Area	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.00	50	0.37	49	20.37	62	20.74	1281.07
EDV	1.91	60	0.00	65	0.00	50	0.67	59	22.75	74	25.33	1837.63
GNY	0.81	60	0.00	65	0.00	50	0.81	59	2.81	74	4.43	304.33
Subtotal Area	2.72		0.00		0.00		1.85		45.93			

Composite Area Calculations		
	Total Pervious Area	50.50
	Total Impervious Area	1.4
	% Impervious	2.7%
	Composite Curve Number	68.6
	Total Area Check	51.91

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number							
				Tioga		Edenval		Granb			
Landuse	IA (mm)	Area (ha)	A * IA	RC	Area	RC	Area	RC	Area		A*RC
Woodland	10	2.72	27.2	0.08	0	0.25	2	0.25	1		0.68
Meadow	8	0	0	0.10	0	0.28	0	0.28	0		0
Wetland	16	0	0	0.05	0	0.05	0	0.05	0		0
Lawn	5	1.85	9.25	0.15	0	0.15	1	0.15	1		0.2775
Cultivated	7	46	321.51	0.22	20	0.35	23	0.35	3		13.4274
Impervious	2	1.41	2.82	0.95	1	0.95	0	0.95	0		1.3395
Composite IA		51.91	6.95011	Comp							0.303

Time to Peak Inputs						Uplands			Bransby Williams		Airport	
Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
	1540	5.5	0.36%	2.7	0.16	2.65	1.78	1.78	1.21	0.81	2.39	1.60

Appropriate calculated time to	1.60	Appropriate Method:	Airport

CROZIER CONSULTING ENGINEERS

Project Name: Nottawa
Project Number: 1953-6040
Date: 2025.02.20
By: HB

D.A. NAME **EXT-South**
D.A. AREA (ha) **120.6**

Hydrologic Parameters: CALIB NASHYD Command
Pre Development Drainage Area: Catchment EXT-South

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	5.7%	6.9
Edenvale Sandy Loam	EDV	C	16.0%	19.4
Granby Sandy Loam	GNY	C	16.9%	20.4
Harriston Loam	HAR	B	9.4%	11.4
Wiarton Loam	WIT	B	51.9%	62.6
Total Area				120.60

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area	CN	Area	CN	Area	CN	Area (ha)	CN	Area	CN	Area	A*CN
TIG	0.20	98	0.00	98	0.00	98	0.00	98	0.00	98	0.20	19.60
EDV	0.00	98	0.00	98	0.05	98	0.04	98	0.00	98	0.09	8.82
GNY	0.52	98	0.00	98	0.07	98	0.06	98	0.00	98	0.65	63.7
HAR	0.00	98	0.00	98	0.58	98	0.09	98	0.00	98	0.67	65.66
WIT	0.27	98	0.00	98	1.70	98	0.46	98	0.00	98	2.43	238.14
Subtotal Area	0.99		0		2.4		0.65		0			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area	CN	Area	CN	Area	CN	Area (ha)	CN	Area	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.00	50	0.00	49	6.72	62	6.72	416.64
EDV	0.00	73	0.00	76	0.00	50	0.67	79	18.59	82	19.26	1577.31
GNY	9.19	73	0.00	76	0.00	50	0.81	79	9.71	82	19.71	1531.08
HAR	0.00	60	0.00	65	0.62	50	10.07	69	0.00	74	10.69	725.83
WIT	8.09	60	0.00	65	1.73	50	20.83	69	29.53	74	60.18	4194.39
Subtotal Area	17.28		0.00		2.35		32.38		64.55			

Composite Area Calculations		
	Total Pervious Area	116.56
	Total Impervious Area	4.0
	% Impervious	3.3%
	Composite Curve Number	73.3
	Total Area Check	120.60

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number										
				Tioga Sandy		Edenvale Sandy		Granby Sandy		Harriston Loam		Wiarton Loam		
Landuse	IA (mm)	Area (ha)	A * IA	RC	Area	RC	Area	RC	Area	RC	Area	RC	Area	A*RC
Woodland	10	17.28	172.8	0.08	0	0.35	0	0.35	9	0.25	8	0.25	0	5.239
Meadow	8	0	0	0.10	0	0.40	0	0.40	0	0.28	0	0.28	2	0
Wetland	16	2.35	37.6	0.05	0	0.05	0	0.05	0	0.05	2	0.05	21	0.0865
Lawn	5	32.38	161.9	0.15	0	0.45	1	0.45	1	0.15	21	0.15	30	3.791
Cultivated	7	65	451.85	0.22	7	0.55	19	0.55	10	0.35	30	0.35	60	27.379
Impervious	2	4.04	8.08	0.95	0	0.95	0	0.95	1	0.95	1	0.95	0	1.530
Composite IA		120.6	6.90075	Composite Runoff Coefficient										0.315

Time to Peak Inputs						Uplands			Bransby Williams		Airport	
Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
	1016	6.5	0.64%	2.7	0.22	1.31	0.88	0.88	0.65	0.44	1.57	1.06

Appropriate calculated time to	1.06	Appropriate Method:	Airport

CROZIER CONSULTING ENGINEERS

Project Name: Nottawa
Project Number: 1953-6040
Date: 2025.03.11
By: HB

D.A. NAME **EXT NW - East**
D.A. AREA (ha) **10.21**

Hydrologic Parameters: CALIB NASHYD Command
Pre Development Drainage Area: Catchment EXT NW - East
Undeveloped

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	100.0%	10.21
Total Area				10.21

Impervious Landuses Present:

Soils	Roadway Area	Roadway CN	Sidewalk Area	Sidewalk CN	Driveway Area	Driveway CN	Building Area (ha)	Building CN	SWMF Area	SWMF CN	Subtotals Area	Subtotals A*CN
TIG	0	98	0	98	0.00	98	0.00	98	0.00	98	0.00	0.00
		98		98		98		98		98	0	0
		98		98		98		98		98	0	0
		98		98		98		98		98	0	0
		98		98		98		98		98	0	0
Subtotal Area	0		0		0		0		0			

Pervious Landuses Present:

Soils	Woodland Area	Woodland CN	Meadow Area	Meadow CN	Wetland Area	Wetland CN	Lawn Area (ha)	Lawn CN	Cultivated Area	Cultivated CN	Subtotals Area	Subtotals A*CN
TIG	0.00	32	0.00	38	0.00	50	0.00	49	10.21	62	10.21	633.02
											0.00	0.00
											0.00	0.00
											0.00	0.00
											0.00	0.00
Subtotal Area	0.00		0.00		0.00		0.00		10.21			

Composite Area Calculations		
	Total Pervious Area	10.21
	Total Impervious Area	0.0
	% Impervious	0.0%
	Composite Curve Number	62.0
	Total Area Check	10.21

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number								
Landuse	IA (mm)	Area (ha)	A * IA	Tioga RC	Tioga Area	0 RC	0 Area	0 RC	0 Area	0 RC	0 Area	A*RC
Woodland	10	0.00	0	0.08	0		0		0		0	0
Meadow	8	0	0	0.10	0		0		0		0	0
Wetland	16	0	0	0.05	0		0		0		0	0
Lawn	5	0	0	0.15	0		0		0		0	0.000
Cultivated	7	10	71.47	0.22	10		0		0		0	2.246
Impervious	2	0	0	0.95	0		0		0		0	0.000
Composite IA		10.21	7.0	Composite Runoff Coefficient								0.220

Time to Peak Inputs						Uplands			Bransby Williams		Airport	
Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Overland	67	1.5	2.24%	2.7	0.40	0.05	0.03	0.26	0.38	0.25	1.15	0.77
Watercourse	406	2	0.49%	4.6	0.32	0.35	0.23					

Appropriate calculated time to	0.77	Appropriate Method:	Airport

CROZIER CONSULTING ENGINEERS

Project Name: Nottawa
Project Number: 1953-6040
Date: 2025.02.20
By: JGB/HB

D.A. NAME **EXT NW - West**
D.A. AREA (ha) **28.38**

Hydrologic Parameters: CALIB NASHYD Command
Pre Development Drainage Area: Catchment EXT NW - West
Undeveloped

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	100	28.38
Total Area				28.38

Impervious Landuses Present:

Soils	Roadway Area	Roadway CN	Sidewalk Area	Sidewalk CN	Driveway Area	Driveway CN	Building Area (ha)	Building CN	SWMF Area	SWMF CN	Subtotals Area	Subtotals A*CN
TIG		98		98		98		98		98	0.00	0.00
											0	0
											0	0
											0	0
											0	0
Subtotal Area	0		0		0		0		0			

Pervious Landuses Present:

Soils	Woodland Area	Woodland CN	Meadow Area	Meadow CN	Wetland Area	Wetland CN	Lawn Area (ha)	Lawn CN	Cultivated Area	Cultivated CN	Subtotals Area	Subtotals A*CN
TIG	0.00	32	0.00	38	0.00	50		49	28.38	62	28.38	1759.56
											0.00	0.00
											0.00	0.00
											0.00	0.00
											0.00	0.00
Subtotal Area	0.00		0.00		0.00		0.00		28.38			

Composite Area Calculations	Total Pervious Area	28.38
	Total Impervious Area	0.0
	% Impervious	0.0%
	Composite Curve Number	62.0
	Total Area Check	28.38

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA	Composite Curve Number: Tioga RC	Tioga Area	RC	Area	RC	Area	RC	Area	A*RC
Woodland	10	0.00	0	0.08	0							0
Meadow	8	0	0	0.10	0							0
Wetland	16	0	0	0.05	0							0
Lawn	5	0	0	0.15	0							0.00
Cultivated	7	28	198.66	0.22	28							6
Impervious	2	0	0	0.95	0							0.00
Composite IA		28.38	7.00	Composite Runoff Coefficient								0.220

Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Uplands Tc (hr)	Uplands Tp(hr)	Uplands TOTAL Tp (hr)	Bransby Williams Tc (hr)	Bransby Williams Tp(hr)	Airport Tc (hr)	Airport Tp(hr)
Overland Flow	982	1	0.10%	2.7	0.09	3.17	2.12	2.12	1.05	0.71	3.18	2.13

Appropriate calculated time to	2.13	Appropriate Method:	Airport

CROZIER CONSULTING ENGINEERS

Project Name: Nottawa
Project Number: 1953-6040
Date: 2025.02.20
By: JGB/HB

D.A. NAME **EXT West**
D.A. AREA (ha) **3.62**

Hydrologic Parameters: CALIB NASHYD Command
Pre Development Drainage Area: Catchment EXT West
Undeveloped

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	100	3.622
Total Area				3.62

Impervious Landuses Present:

Soils	Roadway Area	Roadway CN	Sidewalk Area	Sidewalk CN	Driveway Area	Driveway CN	Building Area (ha)	Building CN	SWMF Area	SWMF CN	Subtotals Area	Subtotals A*CN
TIG	0.51	98	0.00	98	0.10	98	0.00	98	0.00	98	0.61	59.98
											0	0
											0	0
											0	0
											0	0
Subtotal Area	0.51		0		0.10207		0		0			

Pervious Landuses Present:

Soils	Woodland Area	Woodland CN	Meadow Area	Meadow CN	Wetland Area	Wetland CN	Lawn Area (ha)	Lawn CN	Cultivated Area	Cultivated CN	Subtotals Area	Subtotals A*CN
TIG	0.00	32	0.00	38	0.00	50	3.01	49	0.00	62	3.01	186.62
											0.00	0.00
											0.00	0.00
											0.00	0.00
											0.00	0.00
Subtotal Area	0.00		0.00		0.00		3.01		0.00			

	Composite Area Calculations	Total Pervious Area	3.01
		Total Impervious Area	0.6
		% Impervious	16.9%
		Composite Curve Number	68.1
		Total Area Check	3.62

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number								
				Tioga								
Landuse	IA (mm)	Area (ha)	A * IA	RC	Area	RC	Area	RC	Area	RC	Area	A*RC
Woodland	10	0.00	0	0.08	0							0
Meadow	8	0	0	0.10	0							0
Wetland	16	0	0	0.05	0							0
Lawn	5	3.0099	15.0496	0.15	3							0.45
Cultivated	7	0	0	0.22	0							0
Impervious	2	0.6121	1.22415	0.95	1							0.58
Composite IA		3.622	4.49	Composite Runoff Coefficient								0.285

Time to Peak Inputs						Uplands			Bransby Williams		Airport	
Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Ditch	454	0.5	0.11%	4.6	0.15	0.83	0.55	0.55	0.59	0.39	1.95	1.31

Appropriate calculated time to	1.31	Appropriate Method:	Airport

CROZIER CONSULTING ENGINEERS

Project Name: Nottawa
Project Number: 1953-6040
Date: 2025.02.20
By: HB

D.A. NAME **Outparcel**
D.A. AREA (ha) **1.06**

Hydrologic Parameters: CALIB NASHYD Command
Pre Development Drainage Area: Catchment Outparcel

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	100.0%	1.1
Total Area				1.06

Impervious Landuses Present:

Soils	Roadway Area	Roadway CN	Sidewalk Area	Sidewalk CN	Driveway Area	Driveway CN	Building Area (ha)	Building CN	SWMF Area	SWMF CN	Subtotals Area	Subtotals A*CN
TIG	0.00	98	0.00	98	0.03	98	0.07	98	0.00	98	0.10	9.80
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0		0		0.03		0.07		0			

Pervious Landuses Present:

Soils	Woodland Area	Woodland CN	Meadow Area	Meadow CN	Wetland Area	Wetland CN	Lawn Area (ha)	Lawn CN	Cultivated Area	Cultivated CN	Subtotals Area	Subtotals A*CN
TIG	0.00	32	0.00	38	0.00	50	0.99	49	0.00	62	0.99	48.51
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
Subtotal Area	0.00		0.00		0.00		0.99		0.00			

Composite Area Calculations		
	Total Pervious Area	0.99
	Total Impervious Area	0.1
	% Impervious	6.6%
	Composite Curve Number	55.0
	Total Area Check	1.06

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number								
				Tioga		0		0		0		
Landuse	IA (mm)	Area (ha)	A * IA	RC	Area	RC	Area	RC	Area	RC	Area	A*RC
Woodland	10	0.00	0	0.08	0		0		0		0	0
Meadow	8	0	0	0.10	0		0		0		0	0
Wetland	16	0	0	0.05	0		0		0		0	0
Lawn	5	0.99	4.95	0.15	1		0		0		0	0.149
Cultivated	7	0	0	0.22	0		0		0		0	0.000
Impervious	2	0.1	0.2	0.95	0		0		0		0	0.095
Composite IA		1.09	4.72477	Comp								0.230

Time to Peak Inputs						Uplands			Bransby Williams		Airport	
Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Overland	40	1	2.50%	2.7	0.43	0.03	0.02	0.02	0.03	0.02	0.22	0.15

Appropriate calculated time to	0.15	Appropriate Method:	Airport

57 Batteaux Road

Pre-Development Hydrologic Parameter Sheets & Model

Project Name:	57 Batteaux Road	**D.A. NAME**	**102**
Project Number:	1953-6180	**D.A. AREA (ha)**	**0.11**
Date:	2025-08-14		
By:	CB		

Hydrologic Parameters: CALIB STANDHYD Command
Pre Development Drainage Area: Catchment 102

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Tioga Sandy Loam	TIG	A	100.0%	0.11
				0
				0
				0
Total Area Check				0.11

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.00	98	0.00	98	0.03	98	0.02	98	0.00	50	0.05	4.90
0	0	98	0	98	0	98	0	98	0	50	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0		0		0.03		0.02		0			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.00	50	0.06	49	0.00	62	0.060	2.94
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
Subtotal Area	0		0		0		0.06		0			

Pervious Area Calculations	Total Pervious Area	0.06
	Composite Pervious Curve Number	49
Impervious Area Calculations	Total Directly Connected Area	0.03
	Total Indirectly Connected Area	0.020
	Total Impervious Area	0.050
	% X imp	27.3
	% T imp	45.5
	Total Area Check	0.11

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	0.060	0.300
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	30	0.25
Impervious	2.0	0.5	27	0.013

CROZIER CONSULTING ENGINEERS

Project Name: 57 Batteaux Road
Project Number: 1953-6180
Date: 2025-08-14
By: CB

D.A. NAME 103
D.A. AREA (ha) 3.28

Hydrologic Parameters: CALIB NASHYD Command
Pre Development Drainage Area: Catchment 103

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	100.0%	3.28
Total Area				3.28

Impervious Landuses Present:

Soils		Roadway Area	Roadway CN	Sidewalk Area	Sidewalk CN	Driveway Area	Driveway CN	Building Area (ha)	Building CN	SWMF Area	SWMF CN	Subtotals Area	Subtotals A*CN
TIG		0	98	0	98	0.03	98	0.02	98	0.00	98	0.05	4.90
	0	0	98	0	98	0	98	0	98	0	98	0	0
	0	0	98	0	98	0	98	0	98	0	98	0	0
	0	0	98	0	98	0	98	0	98	0	98	0	0
	0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area		0		0		0.03		0.02		0			

Pervious Landuses Present:

Soils		Woodland Area	Woodland CN	Meadow Area	Meadow CN	Wetland Area	Wetland CN	Lawn Area (ha)	Lawn CN	Cultivated Area	Cultivated CN	Subtotals Area	Subtotals A*CN
TIG		0.00	32	0.00	38	0.00	50	0.18	49	3.08	62	3.26	199.78
	0	0		0		0		0		0		0.00	0.00
	0	0		0		0		0		0		0.00	0.00
	0	0		0		0		0		0		0.00	0.00
	0	0		0		0		0		0		0.00	0.00
Subtotal Area		0.00		0.00		0.00		0.18		3.08			

Composite Area Calculations		
	Total Pervious Area	3.26
	Total Impervious Area	0.0
	% Impervious	0.6%
	Composite Curve Number	62.4
	Total Area Check	3.28

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number								
Landuse	IA (mm)	Area (ha)	A * IA	Tioga Sandy RC	Tioga Sandy Area	0 RC	0 Area	0 RC	0 Area	0 RC	0 Area	A*RC
Woodland	10	0.00	0	0.08	0		0		0		0	0
Meadow	8	0	0	0.10	0		0		0		0	0
Wetland	16	0	0	0.05	0		0		0		0	0
Lawn	5	0.18	0.9	0.15	0.18		0		0		0	0.027
Cultivated	7	3	21.56	0.22	3.08		0		0		0	0.678
Impervious	2	0.05	0.1	0.95	0.05		0		0		0	0.048
Composite IA		3.31	6.82	Composite Runoff Coefficient								0.23

Time to Peak Inputs						Uplands			Bransby Williams		Airport	
Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Overland	258	1.75	0.68%	2.7	0.22	0.32	0.22	0.22	0.24	0.16	0.86	0.58

Appropriate calculated time to	0.58	Appropriate Method:	Airport

CROZIER CONSULTING ENGINEERS

Project Name: 57 Batteaux Road
Project Number: 1953-6180
Date: 2025-08-14
By: CB

D.A. NAME **EXT - SCHOOL PRE**
D.A. AREA (ha) **5.46**

Hydrologic Parameters: CALIB NASHYD Command
Pre Development Drainage Area: Catchment EXT - SCHOOL PRE

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	100.0%	5.46
Total Area				5.46

Impervious Landuses Present:

Soils		Roadway Area	Roadway CN	Sidewalk Area	Sidewalk CN	Driveway Area	Driveway CN	Building Area (ha)	Building CN	SWMF Area	SWMF CN	Subtotals Area	Subtotals A*CN
TIG		0	98	0.19	98	0.00	98	0.00	98	0.00	98	0.19	18.62
	0	0	98	0	98	0	98	0	98	0	98	0	0
	0	0	98	0	98	0	98	0	98	0	98	0	0
	0	0	98	0	98	0	98	0	98	0	98	0	0
	0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area		0		0.19		0		0		0			

Pervious Landuses Present:

Soils		Woodland Area	Woodland CN	Meadow Area	Meadow CN	Wetland Area	Wetland CN	Lawn Area (ha)	Lawn CN	Cultivated Area	Cultivated CN	Subtotals Area	Subtotals A*CN
TIG		1.24	32	0.00	38	0.00	50	4.03	49	0.00	62	5.27	237.15
	0	0		0		0		0		0		0.00	0.00
	0	0		0		0		0		0		0.00	0.00
	0	0		0		0		0		0		0.00	0.00
	0	0		0		0		0		0		0.00	0.00
Subtotal Area		1.24		0.00		0.00		4.03		0.00			

Composite Area Calculations		
	Total Pervious Area	5.27
	Total Impervious Area	0.2
	% Impervious	3.5%
	Composite Curve Number	46.8
	Total Area Check	5.46

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number									
Landuse	IA (mm)	Area (ha)	A * IA	Tioga Sandy RC	Tioga Sandy Area	0 RC	0 Area	0 RC	0 Area	0 RC	0 Area	0 RC	0 Area	A*RC
Woodland	10	1.24	12.4	0.08	1.24		0		0		0		0	0.0992
Meadow	8	0	0	0.10	0		0		0		0		0	0
Wetland	16	0	0	0.05	0		0		0		0		0	0
Lawn	5	4.03	20.15	0.15	4.03		0		0		0		0	0.605
Cultivated	7	0	0	0.22	0		0		0		0		0	0
Impervious	2	0.19	0.38	0.95	0.19		0		0		0		0	0.181
Composite IA		5.46	6.03	Composite Runoff Coefficient										0.16

Time to Peak Inputs						Uplands			Bransby Williams		Airport	
Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Overland	405	2	0.49%	2.7	0.19	0.59	0.40	0.40	0.37	0.25	1.29	0.87

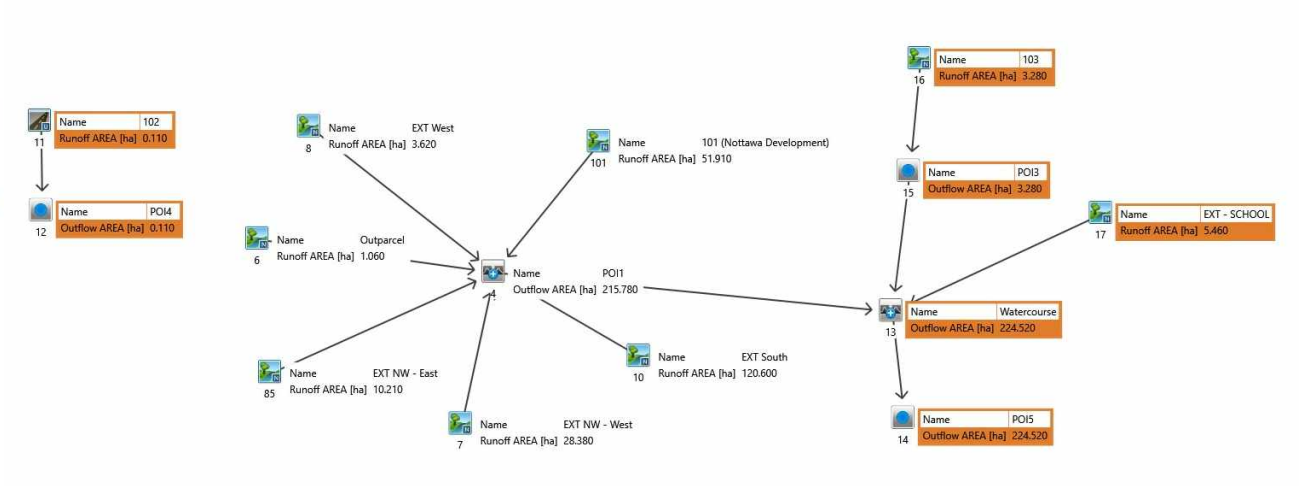
Appropriate calculated time to	0.87	Appropriate Method:	Airport

CROZIER

Project: 57 Batteaux
Project No.: 2243-7223
Design by: CB
Date: 2026-02-06

Visual OTTHYMO Pre-Development Model Schematic

Pre-Development



```
==========================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I      SS   U   U  AAAAA  L
        V  V    I       SS  U   U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\2f198843-e
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\2f198843-e


DATE: 02-17-2026                          TIME: 11:13:01

USER:


COMMENTS: _____________________________________________________________


------------------------------------------------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : A. 25mm                       **
  ************************************************


--------------------
|    READ STORM    |    Filename: C:\Users\cbuscher\AppD
|                  |              ata\Local\Temp\
|                  |              66bf999f-bf87-4bf0-a72c-2ffa5f6ec999\342e2b9c
| Ptotal= 26.26 mm |    Comments: 25mm
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.00    2.10 |  0.83   30.00 |  1.67    4.67 |  2.50    2.37
                0.08    2.29 |  0.92   80.70 |  1.75    4.23 |  2.58    2.26
                0.17    2.52 |  1.00   37.00 |  1.83    3.88 |  2.67    2.17
                0.25    2.81 |  1.08   20.30 |  1.92    3.58 |  2.75    2.08
                0.33    3.18 |  1.17   13.27 |  2.00    3.33 |  2.83    2.00
                0.42    3.68 |  1.25   10.09 |  2.08    3.11 |  2.92    1.93
                0.50    4.39 |  1.33    8.15 |  2.17    2.92 |  3.00    1.93
                0.58    5.49 |  1.42    6.85 |  2.25    2.76 |  3.08    1.93
                0.67    7.40 |  1.50    5.92 |  2.33    2.61 |  3.17    1.93
                0.75   11.54 |  1.58    5.22 |  2.42    2.48 |

------------------------------------------------------------------------------------------------------------------------

--------------------
| CALIB            |
| STANDHYD (  0011)|   Area    (ha)=   0.11
|ID= 1 DT= 5.0 min |   Total Imp(%)=  45.50   Dir. Conn.(%)=  27.30
--------------------
                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      0.05         0.06
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      0.50         2.00
     Length            (m)=     27.08        30.00
     Mannings n             =   0.013        0.250

     Max.Eff.Inten.(mm/hr)=     80.70         3.72
               over (min)        5.00        25.00
     Storage Coeff.  (min)=      1.56 (ii)   23.73 (ii)
     Unit Hyd. Tpeak (min)=      5.00        25.00
     Unit Hyd. peak  (cms)=      0.33         0.05
                                                    *TOTALS*
     PEAK FLOW       (cms)=      0.01         0.00          0.007 (iii)
     TIME TO PEAK    (hrs)=      1.00         1.50          1.00
     RUNOFF VOLUME    (mm)=     25.26         2.30          8.40
     TOTAL RAINFALL   (mm)=     26.26        26.26         26.26
     RUNOFF COEFFICIENT   =      0.96         0.09          0.32

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

     (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
         CN*  =  49.0    Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------------------------------------------------

  -------------------------
  | Junction Command(0012) |
  -------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 2(  0011)    0.11     0.01    1.00     8.40
  OUTFLOW: ID= 2(  0012)    0.11     0.01    1.00     8.40

  ------------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0101)|   Area    (ha)=  51.91   Curve Number   (CN)= 68.6
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.95   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.60

     Unit Hyd Qpeak  (cms)=   1.239

     PEAK FLOW       (cms)=   0.112 (i)
     TIME TO PEAK    (hrs)=   3.417
     RUNOFF VOLUME    (mm)=   2.749
     TOTAL RAINFALL   (mm)=  26.256
     RUNOFF COEFFICIENT   =   0.105

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0085)|   Area    (ha)=  10.21   Curve Number   (CN)= 62.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   7.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.77

     Unit Hyd Qpeak  (cms)=   0.506

     PEAK FLOW       (cms)=   0.026 (i)
     TIME TO PEAK    (hrs)=   2.167
     RUNOFF VOLUME    (mm)=   2.119
     TOTAL RAINFALL   (mm)=  26.256
     RUNOFF COEFFICIENT   =   0.081

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0006)|   Area    (ha)=   1.06   Curve Number   (CN)= 55.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.72   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.15

     Unit Hyd Qpeak  (cms)=   0.270

     PEAK FLOW       (cms)=   0.007 (i)
     TIME TO PEAK    (hrs)=   1.167
     RUNOFF VOLUME    (mm)=   2.010
     TOTAL RAINFALL   (mm)=  26.256
     RUNOFF COEFFICIENT   =   0.077

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0007)|   Area    (ha)=  28.38   Curve Number   (CN)= 62.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   7.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.87

     Unit Hyd Qpeak  (cms)=   0.580

     PEAK FLOW       (cms)=   0.042 (i)
     TIME TO PEAK    (hrs)=   3.667
     RUNOFF VOLUME    (mm)=   2.119
     TOTAL RAINFALL   (mm)=  26.256

     RUNOFF COEFFICIENT   =   0.081

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0008)|   Area    (ha)=   3.62   Curve Number   (CN)= 68.1
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.49   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.31

     Unit Hyd Qpeak  (cms)=   0.106

     PEAK FLOW       (cms)=   0.011 (i)
     TIME TO PEAK    (hrs)=   2.833
     RUNOFF VOLUME    (mm)=   3.365
     TOTAL RAINFALL   (mm)=  26.256
     RUNOFF COEFFICIENT   =   0.128

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0010)|   Area    (ha)= 120.60   Curve Number   (CN)= 73.3
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.06

     Unit Hyd Qpeak  (cms)=   4.346

     PEAK FLOW       (cms)=   0.409 (i)
     TIME TO PEAK    (hrs)=   2.583
     RUNOFF VOLUME    (mm)=   3.349
     TOTAL RAINFALL   (mm)=  26.256
     RUNOFF COEFFICIENT   =   0.128

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0004)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0010):   120.60   0.409     2.58     3.35
     + ID2= 2 (  0101):    51.91   0.112     3.42     2.75
       ==============================================
       ID = 3 (  0004):   172.51   0.508     2.75     3.17

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0004)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0004):   172.51   0.508     2.75     3.17
     + ID2= 2 (  0006):     1.06   0.007     1.17     2.01
       ==============================================
       ID = 1 (  0004):   173.57   0.509     2.75     3.16

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0004)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0004):   173.57   0.509     2.75     3.16
     + ID2= 2 (  0007):    28.38   0.042     3.67     2.12
       ==============================================
       ID = 3 (  0004):   201.95   0.543     2.75     3.01

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0004)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0004):   201.95   0.543     2.75     3.01
     + ID2= 2 (  0008):     3.62   0.011     2.83     3.37
       ==============================================
       ID = 1 (  0004):   205.57   0.554     2.75     3.02

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0004)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0004):   205.57   0.554     2.75     3.02
     + ID2= 2 (  0085):    10.21   0.026     2.17     2.12
       ==============================================
       ID = 3 (  0004):   215.78   0.577     2.75     2.98

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0016)|   Area    (ha)=   3.28   Curve Number   (CN)= 62.4
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.82   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.58

     Unit Hyd Qpeak  (cms)=   0.216

     PEAK FLOW       (cms)=   0.010 (i)
     TIME TO PEAK    (hrs)=   1.917
     RUNOFF VOLUME    (mm)=   2.190
     TOTAL RAINFALL   (mm)=  26.256
     RUNOFF COEFFICIENT   =   0.083

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------------------------------------------------

  -------------------------
  | Junction Command(0015) |
  -------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 2(  0016)    3.28     0.01    1.92     2.19
  OUTFLOW: ID= 2(  0015)    3.28     0.01    1.92     2.19

  ------------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0017)|   Area    (ha)=   5.46   Curve Number   (CN)= 46.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.03   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.87

     Unit Hyd Qpeak  (cms)=   0.240

     PEAK FLOW       (cms)=   0.008 (i)
     TIME TO PEAK    (hrs)=   2.333
     RUNOFF VOLUME    (mm)=   1.324
     TOTAL RAINFALL   (mm)=  26.256
     RUNOFF COEFFICIENT   =   0.050

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0013)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0015):     3.28   0.010     1.92     2.19
     + ID2= 2 (  0017):     5.46   0.008     2.33     1.32
       ==============================================
       ID = 3 (  0013):     8.74   0.018     2.08     1.65

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0013)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0013):     8.74   0.018     2.08     1.65
     + ID2= 2 (  0004):   215.78   0.577     2.75     2.93
       ==============================================
       ID = 1 (  0013):   224.52   0.592     2.75     2.93

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------------------------------------------------
```

```
  ------------------------
  | Junction Command(0014) |
  ------------------------

                         AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)    (hrs)    (mm)
  INFLOW : ID= 1(  0013)  224.52     0.59     2.75     2.93
  OUTFLOW: ID= 2(  0014)  224.52     0.59     2.75     2.93

  ------------------------------------------------------------------------------
==============================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I      SS   U   U  AAAAA  L
         V V    I     SS    U   U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M M M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\60e37544-f
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\60e37544-f

DATE: 02-17-2026                          TIME: 11:13:03

USER:


COMMENTS: _____________________________________________________

--------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : B. 2yr 4hr 10min Chicago C    **
  ************************************************

-------------------
| CHICAGO STORM   |     IDF curve parameters: A= 412.458
| Ptotal= 35.77 mm |                           B=   0.000
-------------------                           C=   0.699
                        used in:   INTENSITY =  A / (t + B)^C

                        Duration of storm  =  4.00 hrs
                        Storm time step    = 10.00 min
                        Time to peak ratio =  0.33

      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
      0.00    3.01 |  1.00   14.23 |'  2.00    5.95 |  3.00    3.46
      0.17    3.36 |  1.17   82.49 |'  2.17    5.25 |  3.17    3.26
      0.33    3.84 |  1.33   17.47 |'  2.33    4.73 |  3.33    3.09
      0.50    4.52 |  1.50   11.01 |'  2.50    4.31 |  3.50    2.93
      0.67    5.59 |  1.67    8.40 |'  2.67    3.98 |  3.67    2.80
      0.83    7.65 |  1.83    6.92 |'  2.83    3.70 |  3.83    2.67

--------------------------------------------------------------------------------
-------------------
| CALIB           |
|  STANDHYD (  0011)|   Area    (ha)=   0.11
|ID= 1 DT= 5.0 min |   Total Imp(%)=  45.50   Dir. Conn.(%)=  27.30
-------------------
                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      0.05         0.06
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      0.50         2.00
     Length            (m)=     27.08        30.00
     Mannings n           =     0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                                ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
      0.083    3.01 |  1.083   14.23 |'  2.083    5.95 |  3.08    3.46
      0.167    3.01 |  1.167   14.23 |'  2.167    5.95 |  3.17    3.46
      0.250    3.36 |  1.250   82.49 |'  2.250    5.25 |  3.25    3.26
      0.333    3.36 |  1.333   82.49 |'  2.333    5.25 |  3.33    3.26
      0.417    3.84 |  1.417   17.47 |'  2.417    4.73 |  3.42    3.09
      0.500    3.84 |  1.500   17.47 |'  2.500    4.73 |  3.50    3.09
      0.583    4.52 |  1.583   11.01 |'  2.583    4.31 |  3.58    2.93
      0.667    4.52 |  1.667   11.01 |'  2.667    4.31 |  3.67    2.93
      0.750    5.59 |  1.750    8.40 |'  2.750    3.98 |  3.75    2.80
      0.833    5.59 |  1.833    8.40 |'  2.833    3.98 |  3.83    2.80
      0.917    7.65 |  1.917    6.92 |'  2.917    3.70 |  3.92    2.67
      1.000    7.65 |  2.000    6.92 |'  3.000    3.70 |  4.00    2.67

     Unit Hyd Qpeak  (cms)=   0.506

     PEAK FLOW       (cms)=   0.048 (i)
     TIME TO PEAK    (hrs)=   2.417
     RUNOFF VOLUME    (mm)=   4.487
     TOTAL RAINFALL   (mm)=  35.770
     RUNOFF COEFFICIENT   =   0.125

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
-------------------
| CALIB           |
| NASHYD   (  0006)|   Area    (ha)=   1.06   Curve Number   (CN)= 55.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.72   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.15

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                                ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
      0.083    3.01 |  1.083   14.23 |'  2.083    5.95 |  3.08    3.46
      0.167    3.01 |  1.167   14.23 |'  2.167    5.95 |  3.17    3.46
      0.250    3.36 |  1.250   82.49 |'  2.250    5.25 |  3.25    3.26
      0.333    3.36 |  1.333   82.49 |'  2.333    5.25 |  3.33    3.26
      0.417    3.84 |  1.417   17.47 |'  2.417    4.73 |  3.42    3.09
      0.500    3.84 |  1.500   17.47 |'  2.500    4.73 |  3.50    3.09
      0.583    4.52 |  1.583   11.01 |'  2.583    4.31 |  3.58    2.93
      0.667    4.52 |  1.667   11.01 |'  2.667    4.31 |  3.67    2.93
      0.750    5.59 |  1.750    8.40 |'  2.750    3.98 |  3.75    2.80
      0.833    5.59 |  1.833    8.40 |'  2.833    3.98 |  3.83    2.80
      0.917    7.65 |  1.917    6.92 |'  2.917    3.70 |  3.92    2.67
      1.000    7.65 |  2.000    6.92 |'  3.000    3.70 |  4.00    2.67

     Unit Hyd Qpeak  (cms)=   0.270

     PEAK FLOW       (cms)=   0.013 (i)
     TIME TO PEAK    (hrs)=   1.417
     RUNOFF VOLUME    (mm)=   4.012
     TOTAL RAINFALL   (mm)=  35.770
     RUNOFF COEFFICIENT   =   0.112

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
-------------------
| CALIB           |
| NASHYD   (  0007)|   Area    (ha)=  28.38   Curve Number   (CN)= 62.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   7.00   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.87

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                                ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
      0.083    3.01 |  1.083   14.23 |'  2.083    5.95 |  3.08    3.46
      0.167    3.01 |  1.167   14.23 |'  2.167    5.95 |  3.17    3.46
      0.250    3.36 |  1.250   82.49 |'  2.250    5.25 |  3.25    3.26
      0.333    3.36 |  1.333   82.49 |'  2.333    5.25 |  3.33    3.26
      0.417    3.84 |  1.417   17.47 |'  2.417    4.73 |  3.42    3.09
      0.500    3.84 |  1.500   17.47 |'  2.500    4.73 |  3.50    3.09
      0.583    4.52 |  1.583   11.01 |'  2.583    4.31 |  3.58    2.93
      0.667    4.52 |  1.667   11.01 |'  2.667    4.31 |  3.67    2.93
      0.750    5.59 |  1.750    8.40 |'  2.750    3.98 |  3.75    2.80
      0.833    5.59 |  1.833    8.40 |'  2.833    3.98 |  3.83    2.80
      0.917    7.65 |  1.917    6.92 |'  2.917    3.70 |  3.92    2.67
      1.000    7.65 |  2.000    6.92 |'  3.000    3.70 |  4.00    2.67

     Unit Hyd Qpeak  (cms)=   0.580

     PEAK FLOW       (cms)=   0.083 (i)
     TIME TO PEAK    (hrs)=   4.250
     RUNOFF VOLUME    (mm)=   4.487
     TOTAL RAINFALL   (mm)=  35.770
     RUNOFF COEFFICIENT   =   0.125

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
-------------------
| CALIB           |
| NASHYD   (  0008)|   Area    (ha)=   3.62   Curve Number   (CN)= 68.1
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.49   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.31

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                                ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
      0.083    3.01 |  1.083   14.23 |'  2.083    5.95 |  3.08    3.46
      0.167    3.01 |  1.167   14.23 |'  2.167    5.95 |  3.17    3.46
      0.250    3.36 |  1.250   82.49 |'  2.250    5.25 |  3.25    3.26
      0.333    3.36 |  1.333   82.49 |'  2.333    5.25 |  3.33    3.26
      0.417    3.84 |  1.417   17.47 |'  2.417    4.73 |  3.42    3.09
      0.500    3.84 |  1.500   17.47 |'  2.500    4.73 |  3.50    3.09
      0.583    4.52 |  1.583   11.01 |'  2.583    4.31 |  3.58    2.93
      0.667    4.52 |  1.667   11.01 |'  2.667    4.31 |  3.67    2.93
      0.750    5.59 |  1.750    8.40 |'  2.750    3.98 |  3.75    2.80
      0.833    5.59 |  1.833    8.40 |'  2.833    3.98 |  3.83    2.80
      0.917    7.65 |  1.917    6.92 |'  2.917    3.70 |  3.92    2.67
      1.000    7.65 |  2.000    6.92 |'  3.000    3.70 |  4.00    2.67

     Unit Hyd Qpeak  (cms)=   0.106

     PEAK FLOW       (cms)=   0.019 (i)
     TIME TO PEAK    (hrs)=   3.250
     RUNOFF VOLUME    (mm)=   6.511
     TOTAL RAINFALL   (mm)=  35.770
     RUNOFF COEFFICIENT   =   0.182

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
-------------------
| CALIB           |
| NASHYD   (  0010)|   Area    (ha)= 120.60   Curve Number   (CN)= 73.3
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.90   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.06

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                                ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
      0.083    3.01 |  1.083   14.23 |'  2.083    5.95 |  3.08    3.46
      0.167    3.01 |  1.167   14.23 |'  2.167    5.95 |  3.17    3.46
      0.250    3.36 |  1.250   82.49 |'  2.250    5.25 |  3.25    3.26
      0.333    3.36 |  1.333   82.49 |'  2.333    5.25 |  3.33    3.26
      0.417    3.84 |  1.417   17.47 |'  2.417    4.73 |  3.42    3.09
      0.500    3.84 |  1.500   17.47 |'  2.500    4.73 |  3.50    3.09
      0.583    4.52 |  1.583   11.01 |'  2.583    4.31 |  3.58    2.93
      0.667    4.52 |  1.667   11.01 |'  2.667    4.31 |  3.67    2.93
      0.750    5.59 |  1.750    8.40 |'  2.750    3.98 |  3.75    2.80
      0.833    5.59 |  1.833    8.40 |'  2.833    3.98 |  3.83    2.80
      0.917    7.65 |  1.917    6.92 |'  2.917    3.70 |  3.92    2.67
      1.000    7.65 |  2.000    6.92 |'  3.000    3.70 |  4.00    2.67

     Unit Hyd Qpeak  (cms)=   0.506

     PEAK FLOW       (cms)=   0.048 (i)
     TIME TO PEAK    (hrs)=   2.417
     RUNOFF VOLUME    (mm)=   4.487
     TOTAL RAINFALL   (mm)=  35.770
     RUNOFF COEFFICIENT   =   0.125

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

                                ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
      0.083    3.01 |  1.083   14.23 |'  2.083    5.95 |  3.08    3.46
      0.167    3.01 |  1.167   14.23 |'  2.167    5.95 |  3.17    3.46
      0.250    3.36 |  1.250   82.49 |'  2.250    5.25 |  3.25    3.26
      0.333    3.36 |  1.333   82.49 |'  2.333    5.25 |  3.33    3.26
      0.417    3.84 |  1.417   17.47 |'  2.417    4.73 |  3.42    3.09
      0.500    3.84 |  1.500   17.47 |'  2.500    4.73 |  3.50    3.09
      0.583    4.52 |  1.583   11.01 |'  2.583    4.31 |  3.58    2.93
      0.667    4.52 |  1.667   11.01 |'  2.667    4.31 |  3.67    2.93
      0.750    5.59 |  1.750    8.40 |'  2.750    3.98 |  3.75    2.80
      0.833    5.59 |  1.833    8.40 |'  2.833    3.98 |  3.83    2.80
      0.917    7.65 |  1.917    6.92 |'  2.917    3.70 |  3.92    2.67
      1.000    7.65 |  2.000    6.92 |'  3.000    3.70 |  4.00    2.67

     Max.Eff.Inten.(mm/hr)=      82.49          7.08
                over (min)        5.00         20.00
     Storage Coeff.  (min)=      1.55 (ii)    18.68 (ii)
     Unit Hyd. Tpeak (min)=      5.00         20.00
     Unit Hyd. peak  (cms)=      0.33          0.06
                                                      *TOTALS*
     PEAK FLOW       (cms)=      0.01          0.00      0.007 (iii)
     TIME TO PEAK    (hrs)=      1.33          1.58       1.33
     RUNOFF VOLUME    (mm)=     34.77          4.45      12.62
     TOTAL RAINFALL   (mm)=     35.77         35.77      35.77
     RUNOFF COEFFICIENT   =      0.97          0.12       0.35

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

      (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
          CN*  =  49.0    Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------

  ------------------------
  | Junction Command(0012) |
  ------------------------

                         AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)    (hrs)    (mm)
  INFLOW : ID= 2(  0011)    0.11     0.01     1.33    12.62
  OUTFLOW: ID= 2(  0012)    0.11     0.01     1.33    12.62

  ------------------------------------------------------------------------------
-------------------
| CALIB           |
| NASHYD   (  0101)|   Area    (ha)=  51.91   Curve Number   (CN)= 68.6
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.95   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.60

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                                ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
      0.083    3.01 |  1.083   14.23 |'  2.083    5.95 |  3.08    3.46
      0.167    3.01 |  1.167   14.23 |'  2.167    5.95 |  3.17    3.46
      0.250    3.36 |  1.250   82.49 |'  2.250    5.25 |  3.25    3.26
      0.333    3.36 |  1.333   82.49 |'  2.333    5.25 |  3.33    3.26
      0.417    3.84 |  1.417   17.47 |'  2.417    4.73 |  3.42    3.09
      0.500    3.84 |  1.500   17.47 |'  2.500    4.73 |  3.50    3.09
      0.583    4.52 |  1.583   11.01 |'  2.583    4.31 |  3.58    2.93
      0.667    4.52 |  1.667   11.01 |'  2.667    4.31 |  3.67    2.93
      0.750    5.59 |  1.750    8.40 |'  2.750    3.98 |  3.75    2.80
      0.833    5.59 |  1.833    8.40 |'  2.833    3.98 |  3.83    2.80
      0.917    7.65 |  1.917    6.92 |'  2.917    3.70 |  3.92    2.67
      1.000    7.65 |  2.000    6.92 |'  3.000    3.70 |  4.00    2.67

     Unit Hyd Qpeak  (cms)=   1.239

     PEAK FLOW       (cms)=   0.211 (i)
     TIME TO PEAK    (hrs)=   3.833
     RUNOFF VOLUME    (mm)=   5.725
     TOTAL RAINFALL   (mm)=  35.770
     RUNOFF COEFFICIENT   =   0.160

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
```

```
              0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
              1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

    Unit Hyd Qpeak  (cms)=   4.346

    PEAK FLOW       (cms)=   0.743 (i)
    TIME TO PEAK    (hrs)=   2.917
    RUNOFF VOLUME    (mm)=   6.866
    TOTAL RAINFALL   (mm)=  35.770
    RUNOFF COEFFICIENT   =   0.192

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

---------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0004)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0010):    120.60   0.743     2.92     6.87
    + ID2= 2 (  0101):     51.91   0.211     3.83     5.72
      ==========================================================
      ID = 3 (  0004):    172.51   0.929     3.08     6.52

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
---------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0004)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0004):    172.51   0.929     3.08     6.52
    + ID2= 2 (  0006):      1.06   0.013     1.42     4.01
      ==========================================================
      ID = 1 (  0004):    173.57   0.931     3.08     6.51

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
---------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0004)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0004):    173.57   0.931     3.08     6.51
    + ID2= 2 (  0007):     28.38   0.083     4.25     4.49
      ==========================================================
      ID = 3 (  0004):    201.95   0.998     3.08     6.22

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
---------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0004)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0004):    201.95   0.998     3.08     6.22
    + ID2= 2 (  0008):      3.62   0.019     3.25     6.51
      ==========================================================
      ID = 1 (  0004):    205.57   1.017     3.08     6.23

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
---------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0004)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0004):    205.57   1.017     3.08     6.23
    + ID2= 2 (  0085):     10.21   0.048     2.42     4.49
      ==========================================================
      ID = 3 (  0004):    215.78   1.059     3.08     6.15

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
---------------------------------------------------------------------------------------------

--------------------
| CALIB            |
| NASHYD   (  0016)|   Area    (ha)=   3.28   Curve Number   (CN)= 62.4
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.82   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.58

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
```

```
                 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
                0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
                0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
                0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
                0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
                0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
                0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
                0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
                0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
                0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
                0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
                1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

    Unit Hyd Qpeak  (cms)=   0.216

    PEAK FLOW       (cms)=   0.019 (i)
    TIME TO PEAK    (hrs)=   2.167
    RUNOFF VOLUME    (mm)=   4.604
    TOTAL RAINFALL   (mm)=  35.770
    RUNOFF COEFFICIENT   =   0.129

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

---------------------------------------------------------------------------------------------

  --------------------------
  | Junction Command(0015) |
  --------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 2(  0016)    3.28     0.02     2.17     4.60
  OUTFLOW: ID= 2(  0015)    3.28     0.02     2.17     4.60

  ---------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0017)|   Area    (ha)=   5.46   Curve Number   (CN)= 46.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.03   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.87

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
```

```
                 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
                0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
                0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
                0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
                0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
                0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
                0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
                0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
                0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
                0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
                0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
                1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

    Unit Hyd Qpeak  (cms)=   0.240

    PEAK FLOW       (cms)=   0.015 (i)
    TIME TO PEAK    (hrs)=   2.583
    RUNOFF VOLUME    (mm)=   2.777
    TOTAL RAINFALL   (mm)=  35.770
    RUNOFF COEFFICIENT   =   0.078

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

---------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0013)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0015):      3.28   0.019     2.17     4.60
    + ID2= 2 (  0017):      5.46   0.015     2.58     2.78
      ==========================================================
      ID = 3 (  0013):      8.74   0.033     2.33     3.46

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
---------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0013)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0013):      8.74   0.033     2.33     3.46
    + ID2= 2 (  0004):    215.78   1.059     3.08     6.15
      ==========================================================
      ID = 1 (  0013):    224.52   1.086     3.08     6.04

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
---------------------------------------------------------------------------------------------

  --------------------------
  | Junction Command(0014) |
  --------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 1(  0013)  224.52     1.09     3.08     6.04
  OUTFLOW: ID= 2(  0014)  224.52     1.09     3.08     6.04

  ---------------------------------------------------------------------------------------------
=============================================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
         V V    I      SS   U   U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M M M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\572c4415-e
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\572c4415-e


DATE: 02-17-2026                          TIME: 11:13:02

USER:


COMMENTS: _____

---------------------------------------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : C. 5yr 4hr 10min Chicago C    **
  ************************************************

--------------------
| CHICAGO STORM    |    IDF curve parameters: A= 547.261
| Ptotal= 47.46 mm |                          B=   0.000
--------------------                          C=   0.699
                       used in:   INTENSITY =  A / (t + B)^C

                       Duration of storm  =  4.00 hrs
                       Storm time step    = 10.00 min
                       Time to peak ratio =  0.33

                 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.00     3.99 | 1.00    18.88 |  2.00    7.89 |  3.00    4.60
                0.17     4.46 | 1.17   109.44 |  2.17    6.97 |  3.17    4.33
                0.33     5.09 | 1.33    23.18 |  2.33    6.27 |  3.33    4.10
                0.50     5.99 | 1.50    14.61 |  2.50    5.72 |  3.50    3.89
                0.67     7.42 | 1.67    11.14 |  2.67    5.28 |  3.67    3.71
                0.83    10.15 | 1.83     9.18 |  2.83    4.91 |  3.83    3.55

---------------------------------------------------------------------------------------------
```

```
--------------------
| CALIB            |
| STANDHYD (  0011)|   Area    (ha)=   0.11
|ID= 1 DT= 5.0 min |   Total Imp(%)=  45.50   Dir. Conn.(%)=  27.30
--------------------

                             IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.05         0.06
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.50         2.00
     Length            (m)=      27.08        30.00
     Mannings n           =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
```

```
                 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.083    3.99 | 1.083   18.88 |  2.083    7.89 |  3.08    4.60
                0.167    3.99 | 1.167   18.88 |  2.167    7.89 |  3.17    4.60
                0.250    4.46 | 1.250  109.44 |  2.250    6.97 |  3.25    4.33
                0.333    4.46 | 1.333  109.44 |  2.333    6.97 |  3.33    4.33
                0.417    5.09 | 1.417   23.18 |  2.417    6.27 |  3.42    4.10
                0.500    5.09 | 1.500   23.18 |  2.500    6.27 |  3.50    4.10
                0.583    5.99 | 1.583   14.61 |  2.583    5.72 |  3.58    3.89
                0.667    5.99 | 1.667   14.61 |  2.667    5.72 |  3.67    3.89
                0.750    7.42 | 1.750   11.14 |  2.750    5.28 |  3.75    3.71
                0.833    7.42 | 1.833   11.14 |  2.833    5.28 |  3.83    3.71
                0.917   10.15 | 1.917    9.18 |  2.917    4.91 |  3.92    3.55
                1.000   10.15 | 2.000    9.18 |  3.000    4.91 |  4.00    3.55

     Max.Eff.Inten.(mm/hr)=     109.44         14.99
                  over (min)       5.00         15.00
     Storage Coeff.  (min)=       1.39 (ii)   14.07 (ii)
     Unit Hyd. Tpeak (min)=       5.00         15.00
     Unit Hyd. peak  (cms)=       0.33          0.08
                                                          *TOTALS*
     PEAK FLOW       (cms)=       0.01          0.00          0.010 (iii)
     TIME TO PEAK    (hrs)=       1.33          1.50          1.33
     RUNOFF VOLUME    (mm)=      46.46          7.90         18.36
     TOTAL RAINFALL   (mm)=      47.46         47.46         47.46
     RUNOFF COEFFICIENT   =       0.98          0.17          0.39

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
             CN*  =  49.0   Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
             THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  --------------------------
  | Junction Command(0012) |
  --------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 2(  0011)    0.11     0.01     1.33    18.36
  OUTFLOW: ID= 2(  0012)    0.11     0.01     1.33    18.36

  ---------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0101)|   Area    (ha)=  51.91   Curve Number   (CN)= 68.6
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.95   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.60

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
```

```
                 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.083    3.99 | 1.083   18.88 |  2.083    7.89 |  3.08    4.60
                0.167    3.99 | 1.167   18.88 |  2.167    7.89 |  3.17    4.60
                0.250    4.46 | 1.250  109.44 |  2.250    6.97 |  3.25    4.33
                0.333    4.46 | 1.333  109.44 |  2.333    6.97 |  3.33    4.33
                0.417    5.09 | 1.417   23.18 |  2.417    6.27 |  3.42    4.10
                0.500    5.09 | 1.500   23.18 |  2.500    6.27 |  3.50    4.10
                0.583    5.99 | 1.583   14.61 |  2.583    5.72 |  3.58    3.89
                0.667    5.99 | 1.667   14.61 |  2.667    5.72 |  3.67    3.89
                0.750    7.42 | 1.750   11.14 |  2.750    5.28 |  3.75    3.71
```

0.833	7.42	1.833	11.14	2.833	5.28	3.83	3.71
0.917	10.15	1.917	9.18	2.917	4.91	3.92	3.55
1.000	10.15	2.000	9.18	3.000	4.91	4.00	3.55

Unit Hyd Qpeak (cms)= 1.239

PEAK FLOW (cms)= 0.388 (i)
TIME TO PEAK (hrs)= 3.667
RUNOFF VOLUME (mm)= 10.468
TOTAL RAINFALL (mm)= 47.460
RUNOFF COEFFICIENT = 0.221

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0085) | Area (ha)= 10.21 Curve Number (CN)= 62.0
ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.77

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.99	1.083	18.88	2.083	7.89	3.08	4.60
0.167	3.99	1.167	18.88	2.167	7.89	3.17	4.60
0.250	4.46	1.250	109.44	2.250	6.97	3.25	4.33
0.333	4.46	1.333	109.44	2.333	6.97	3.33	4.33
0.417	5.09	1.417	23.18	2.417	6.27	3.42	4.10
0.500	5.09	1.500	23.18	2.500	6.27	3.50	4.10
0.583	5.99	1.583	14.61	2.583	5.72	3.58	3.89
0.667	5.99	1.667	14.61	2.667	5.72	3.67	3.89
0.750	7.42	1.750	11.14	2.750	5.28	3.75	3.71
0.833	7.42	1.833	11.14	2.833	5.28	3.83	3.71
0.917	10.15	1.917	9.18	2.917	4.91	3.92	3.55
1.000	10.15	2.000	9.18	3.000	4.91	4.00	3.55

Unit Hyd Qpeak (cms)= 0.506

PEAK FLOW (cms)= 0.093 (i)
TIME TO PEAK (hrs)= 2.417
RUNOFF VOLUME (mm)= 8.346
TOTAL RAINFALL (mm)= 47.460
RUNOFF COEFFICIENT = 0.176

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0006) | Area (ha)= 1.06 Curve Number (CN)= 55.0
ID= 1 DT= 5.0 min | Ia (mm)= 4.72 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.15

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.99	1.083	18.88	2.083	7.89	3.08	4.60
0.167	3.99	1.167	18.88	2.167	7.89	3.17	4.60
0.250	4.46	1.250	109.44	2.250	6.97	3.25	4.33
0.333	4.46	1.333	109.44	2.333	6.97	3.33	4.33
0.417	5.09	1.417	23.18	2.417	6.27	3.42	4.10
0.500	5.09	1.500	23.18	2.500	6.27	3.50	4.10
0.583	5.99	1.583	14.61	2.583	5.72	3.58	3.89
0.667	5.99	1.667	14.61	2.667	5.72	3.67	3.89
0.750	7.42	1.750	11.14	2.750	5.28	3.75	3.71
0.833	7.42	1.833	11.14	2.833	5.28	3.83	3.71
0.917	10.15	1.917	9.18	2.917	4.91	3.92	3.55
1.000	10.15	2.000	9.18	3.000	4.91	4.00	3.55

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.024 (i)
TIME TO PEAK (hrs)= 1.417
RUNOFF VOLUME (mm)= 7.248
TOTAL RAINFALL (mm)= 47.460
RUNOFF COEFFICIENT = 0.153

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0007) | Area (ha)= 28.38 Curve Number (CN)= 62.0
ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.99	1.083	18.88	2.083	7.89	3.08	4.60
0.167	3.99	1.167	18.88	2.167	7.89	3.17	4.60
0.250	4.46	1.250	109.44	2.250	6.97	3.25	4.33
0.333	4.46	1.333	109.44	2.333	6.97	3.33	4.33
0.417	5.09	1.417	23.18	2.417	6.27	3.42	4.10
0.500	5.09	1.500	23.18	2.500	6.27	3.50	4.10
0.583	5.99	1.583	14.61	2.583	5.72	3.58	3.89
0.667	5.99	1.667	14.61	2.667	5.72	3.67	3.89
0.750	7.42	1.750	11.14	2.750	5.28	3.75	3.71
0.833	7.42	1.833	11.14	2.833	5.28	3.83	3.71
0.917	10.15	1.917	9.18	2.917	4.91	3.92	3.55
1.000	10.15	2.000	9.18	3.000	4.91	4.00	3.55

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 1.370 (i)
TIME TO PEAK (hrs)= 2.833
RUNOFF VOLUME (mm)= 12.362
TOTAL RAINFALL (mm)= 47.460
RUNOFF COEFFICIENT = 0.260

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0004)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0010):	120.60	1.370	2.83	12.36
+ ID2= 2 (0101):	51.91	0.388	3.67	10.47
ID = 3 (0004):	172.51	1.710	2.92	11.79

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0004):	172.51	1.710	2.92	11.79
+ ID2= 2 (0006):	1.06	0.024	1.42	7.25
ID = 1 (0004):	173.57	1.714	2.92	11.76

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	173.57	1.714	2.92	11.76
+ ID2= 2 (0007):	28.38	0.154	4.17	8.35
ID = 3 (0004):	201.95	1.839	3.00	11.28

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0004):	201.95	1.839	3.00	11.28
+ ID2= 2 (0008):	3.62	0.033	3.17	11.40
ID = 1 (0004):	205.57	1.872	3.00	11.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	205.57	1.872	3.00	11.29
+ ID2= 2 (0085):	10.21	0.093	2.42	8.35
ID = 3 (0004):	215.78	1.952	3.00	11.15

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0008) | Area (ha)= 3.62 Curve Number (CN)= 68.1
ID= 1 DT= 5.0 min | Ia (mm)= 4.49 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.31

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.99	1.083	18.88	2.083	7.89	3.08	4.60
0.167	3.99	1.167	18.88	2.167	7.89	3.17	4.60
0.250	4.46	1.250	109.44	2.250	6.97	3.25	4.33
0.333	4.46	1.333	109.44	2.333	6.97	3.33	4.33
0.417	5.09	1.417	23.18	2.417	6.27	3.42	4.10
0.500	5.09	1.500	23.18	2.500	6.27	3.50	4.10
0.583	5.99	1.583	14.61	2.583	5.72	3.58	3.89
0.667	5.99	1.667	14.61	2.667	5.72	3.67	3.89
0.750	7.42	1.750	11.14	2.750	5.28	3.75	3.71
0.833	7.42	1.833	11.14	2.833	5.28	3.83	3.71
0.917	10.15	1.917	9.18	2.917	4.91	3.92	3.55
1.000	10.15	2.000	9.18	3.000	4.91	4.00	3.55

Unit Hyd Qpeak (cms)= 0.106

PEAK FLOW (cms)= 0.033 (i)
TIME TO PEAK (hrs)= 3.167
RUNOFF VOLUME (mm)= 11.400
TOTAL RAINFALL (mm)= 47.460
RUNOFF COEFFICIENT = 0.240

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0010) | Area (ha)= 120.60 Curve Number (CN)= 73.3
ID= 1 DT= 5.0 min | Ia (mm)= 6.90 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.06

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.99	1.083	18.88	2.083	7.89	3.08	4.60
0.167	3.99	1.167	18.88	2.167	7.89	3.17	4.60
0.250	4.46	1.250	109.44	2.250	6.97	3.25	4.33
0.333	4.46	1.333	109.44	2.333	6.97	3.33	4.33
0.417	5.09	1.417	23.18	2.417	6.27	3.42	4.10
0.500	5.09	1.500	23.18	2.500	6.27	3.50	4.10
0.583	5.99	1.583	14.61	2.583	5.72	3.58	3.89
0.667	5.99	1.667	14.61	2.667	5.72	3.67	3.89
0.750	7.42	1.750	11.14	2.750	5.28	3.75	3.71
0.833	7.42	1.833	11.14	2.833	5.28	3.83	3.71
0.917	10.15	1.917	9.18	2.917	4.91	3.92	3.55
1.000	10.15	2.000	9.18	3.000	4.91	4.00	3.55

Unit Hyd Qpeak (cms)= 0.216

PEAK FLOW (cms)= 0.036 (i)
TIME TO PEAK (hrs)= 2.083
RUNOFF VOLUME (mm)= 8.526
TOTAL RAINFALL (mm)= 47.460
RUNOFF COEFFICIENT = 0.180

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0015)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0016)	3.28	0.04	2.08	8.53
OUTFLOW: ID= 2(0015)	3.28	0.04	2.08	8.53

CALIB
NASHYD (0017) | Area (ha)= 5.46 Curve Number (CN)= 46.8
ID= 1 DT= 5.0 min | Ia (mm)= 6.03 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.99	1.083	18.88	2.083	7.89	3.08	4.60
0.167	3.99	1.167	18.88	2.167	7.89	3.17	4.60
0.250	4.46	1.250	109.44	2.250	6.97	3.25	4.33
0.333	4.46	1.333	109.44	2.333	6.97	3.33	4.33
0.417	5.09	1.417	23.18	2.417	6.27	3.42	4.10
0.500	5.09	1.500	23.18	2.500	6.27	3.50	4.10
0.583	5.99	1.583	14.61	2.583	5.72	3.58	3.89
0.667	5.99	1.667	14.61	2.667	5.72	3.67	3.89
0.750	7.42	1.750	11.14	2.750	5.28	3.75	3.71
0.833	7.42	1.833	11.14	2.833	5.28	3.83	3.71
0.917	10.15	1.917	9.18	2.917	4.91	3.92	3.55
1.000	10.15	2.000	9.18	3.000	4.91	4.00	3.55

Unit Hyd Qpeak (cms)= 0.240

PEAK FLOW (cms)= 0.029 (i)
TIME TO PEAK (hrs)= 2.583
RUNOFF VOLUME (mm)= 5.198
TOTAL RAINFALL (mm)= 47.460
RUNOFF COEFFICIENT = 0.110

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0013)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0015):     3.28   0.036     2.08     8.53
     + ID2= 2 (  0017):     5.46   0.029     2.58     5.20
       ========================================================
       ID = 3 (  0013):     8.74   0.063     2.25     6.45

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0013)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0013):     8.74   0.063     2.25     6.45
     + ID2= 2 (  0004):   215.78   1.952     3.00    11.15
       ========================================================
       ID = 1 (  0013):   224.52   2.003     3.00    10.96

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  ----------------------
  | Junction Command(0014) |
  ----------------------

                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 1(  0013)  224.52     2.00     3.00    10.96
  OUTFLOW: ID= 2(  0014)  224.52     2.00     3.00    10.96

  --------------------------------------------------------------------------------
================================================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
         V V    I      SS   U   U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M M M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\328e6d53-d
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\328e6d53-d

DATE: 02-17-2026                          TIME: 11:13:01

USER:


COMMENTS: _____

--------------------------------------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : D. 10yr 4hr 10min Chicago C   **
  ************************************************

--------------------
| CHICAGO STORM    |     IDF curve parameters: A= 635.788
| Ptotal= 55.14 mm |                           B=   0.000
--------------------                           C=   0.699
                        used in:   INTENSITY =  A / (t + B)^C

                        Duration of storm  =  4.00 hrs
                        Storm time step    = 10.00 min

                        Time to peak ratio =  0.33

                  ---- TRANSFORMED HYETOGRAPH ----
    TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
     hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
    0.00    4.64 |  1.00   21.94 |'  2.00    9.17 |  3.00    5.34
    0.17    5.18 |  1.17  127.15 |'  2.17    8.10 |  3.17    5.03
    0.33    5.91 |  1.33   26.92 |'  2.33    7.29 |  3.33    4.76
    0.50    6.96 |  1.50   16.98 |'  2.50    6.65 |  3.50    4.52
    0.67    8.62 |  1.67   12.95 |'  2.67    6.13 |  3.67    4.31
    0.83   11.80 |  1.83   10.66 |'  2.83    5.70 |  3.83    4.12

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--------------------
| CALIB            |
| STANDHYD (  0011)|   Area    (ha)=   0.11
|ID= 1 DT= 5.0 min |   Total Imp(%)=  45.50   Dir. Conn.(%)=  27.30
--------------------

                         IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      0.05         0.06
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope    (%)=       0.50         2.00
     Length           (m)=      27.08        30.00
     Mannings n          =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                  ---- TRANSFORMED HYETOGRAPH ----
    TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
     hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
   0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
   0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
   0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
   0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
   0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
   0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
   0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
   0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
   0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
   0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
   0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
   1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

     Max.Eff.Inten.(mm/hr)=     127.15        20.43
                over (min)        5.00        15.00
     Storage Coeff.  (min)=       1.30 (ii)   12.51 (ii)
     Unit Hyd. Tpeak (min)=       5.00        15.00
     Unit Hyd. peak  (cms)=       0.33         0.08
                                                      *TOTALS*
     PEAK FLOW       (cms)=       0.01         0.00       0.012 (iii)
     TIME TO PEAK    (hrs)=       1.33         1.50        1.33
     RUNOFF VOLUME    (mm)=      54.14        10.58       22.41
     TOTAL RAINFALL   (mm)=      55.14        55.14       55.14
     RUNOFF COEFFICIENT   =       0.98         0.19        0.41

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
             CN*  =  49.0   Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
             THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  --------------------------
  | Junction Command(0012) |
  --------------------------

                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 2(  0011)    0.11     0.01     1.33    22.41
  OUTFLOW: ID= 2(  0012)    0.11     0.01     1.33    22.41

  --------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0101)|   Area    (ha)=  51.91   Curve Number   (CN)= 68.6
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.95   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.60

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                  ---- TRANSFORMED HYETOGRAPH ----
    TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
     hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
   0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
   0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
   0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
   0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
   0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
   0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
   0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
   0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
   0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
   0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
   0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
   1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

     Unit Hyd Qpeak  (cms)=   1.239

     PEAK FLOW       (cms)=   0.525 (i)
     TIME TO PEAK    (hrs)=   3.667
     RUNOFF VOLUME    (mm)=  14.120
     TOTAL RAINFALL   (mm)=  55.137
     RUNOFF COEFFICIENT   =   0.256

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB            |
| NASHYD   (  0085)|   Area    (ha)=  10.21   Curve Number   (CN)= 62.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   7.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.77

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                  ---- TRANSFORMED HYETOGRAPH ----
    TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
     hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
   0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
   0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
   0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
   0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
   0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
   0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
   0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
   0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
   0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
   0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
   0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
   1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

     Unit Hyd Qpeak  (cms)=   0.506

     PEAK FLOW       (cms)=   0.129 (i)
     TIME TO PEAK    (hrs)=   2.333
     RUNOFF VOLUME    (mm)=  11.369
     TOTAL RAINFALL   (mm)=  55.137
     RUNOFF COEFFICIENT   =   0.206

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB            |
| NASHYD   (  0006)|   Area    (ha)=   1.06   Curve Number   (CN)= 55.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.72   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.15

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                  ---- TRANSFORMED HYETOGRAPH ----
    TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
     hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
   0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
   0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
   0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
   0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
   0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
   0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
   0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
   0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
   0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
   0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
   0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
   1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

     Unit Hyd Qpeak  (cms)=   0.270

     PEAK FLOW       (cms)=   0.033 (i)
     TIME TO PEAK    (hrs)=   1.417
     RUNOFF VOLUME    (mm)=   9.786
     TOTAL RAINFALL   (mm)=  55.137
     RUNOFF COEFFICIENT   =   0.177

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0007)|   Area    (ha)=  28.38   Curve Number   (CN)= 62.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   7.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.87

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                  ---- TRANSFORMED HYETOGRAPH ----
    TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
     hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
   0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
   0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
   0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
   0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
   0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
   0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
   0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
   0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
   0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
   0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
   0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
   1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

     Unit Hyd Qpeak  (cms)=   0.580

     PEAK FLOW       (cms)=   0.210 (i)
     TIME TO PEAK    (hrs)=   4.083
     RUNOFF VOLUME    (mm)=  11.369
     TOTAL RAINFALL   (mm)=  55.137
     RUNOFF COEFFICIENT   =   0.206

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB            |
| NASHYD   (  0008)|   Area    (ha)=   3.62   Curve Number   (CN)= 68.1
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.49   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.31

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                  ---- TRANSFORMED HYETOGRAPH ----
    TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
     hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
   0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
   0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
   0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
   0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
   0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
   0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
   0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
   0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
   0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
   0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
   0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
   1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

     Unit Hyd Qpeak  (cms)=   0.106

     PEAK FLOW       (cms)=   0.045 (i)
     TIME TO PEAK    (hrs)=   3.167
     RUNOFF VOLUME    (mm)=  15.121
     TOTAL RAINFALL   (mm)=  55.137
     RUNOFF COEFFICIENT   =   0.274
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(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0010)	Area	(ha)= 120.60	Curve Number	(CN)= 73.3	
ID= 1 DT= 5.0 min	Ia	(mm)= 6.90	# of Linear Res.(N)= 3.00		
	U.H. Tp(hrs)= 1.06				

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	4.64	1.083	21.94	2.083	9.17	3.08	5.34
0.167	4.64	1.167	21.94	2.167	9.17	3.17	5.34
0.250	5.18	1.250	127.15	2.250	8.10	3.25	5.03
0.333	5.18	1.333	127.15	2.333	8.10	3.33	5.03
0.417	5.91	1.417	26.92	2.417	7.29	3.42	4.76
0.500	5.91	1.500	26.92	2.500	7.29	3.50	4.76
0.583	6.96	1.583	16.98	2.583	6.65	3.58	4.52
0.667	6.96	1.667	16.98	2.667	6.65	3.67	4.52
0.750	8.62	1.750	12.95	2.750	6.13	3.75	4.31
0.833	8.62	1.833	12.95	2.833	6.13	3.83	4.31
0.917	11.80	1.917	10.66	2.917	5.70	3.92	4.12
1.000	11.80	2.000	10.66	3.000	5.70	4.00	4.12

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 1.853 (i)
TIME TO PEAK (hrs)= 2.750
RUNOFF VOLUME (mm)= 16.531
TOTAL RAINFALL (mm)= 55.137
RUNOFF COEFFICIENT = 0.300

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0004)					
1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0010):		120.60	1.853	2.75	16.53
+ ID2= 2 (0101):		51.91	0.525	3.67	14.12
ID = 3 (0004):		172.51	2.314	2.92	15.81

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
3 + 2 = 1		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0004):		172.51	2.314	2.92	15.81
+ ID2= 2 (0006):		1.06	0.033	1.42	9.79
ID = 1 (0004):		173.57	2.320	2.92	15.77

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):		173.57	2.320	2.92	15.77
+ ID2= 2 (0007):		28.38	0.210	4.08	11.37
ID = 3 (0004):		201.95	2.488	3.00	15.15

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
3 + 2 = 1		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0004):		201.95	2.488	3.00	15.15
+ ID2= 2 (0008):		3.62	0.045	3.17	15.12

0.833	8.62	1.833	12.95	2.833	6.13	3.83	4.31
0.917	11.80	1.917	10.66	2.917	5.70	3.92	4.12
1.000	11.80	2.000	10.66	3.000	5.70	4.00	4.12

Unit Hyd Qpeak (cms)= 0.240

PEAK FLOW (cms)= 0.040 (i)
TIME TO PEAK (hrs)= 2.500
RUNOFF VOLUME (mm)= 7.138
TOTAL RAINFALL (mm)= 55.137
RUNOFF COEFFICIENT = 0.129

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0013)					
1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0015):		3.28	0.050	2.08	11.59
+ ID2= 2 (0017):		5.46	0.040	2.50	7.14
ID = 3 (0013):		8.74	0.087	2.25	8.81

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0013)					
3 + 2 = 1		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0013):		8.74	0.087	2.25	8.81
+ ID2= 2 (0004):		215.78	2.643	2.92	14.97
ID = 1 (0013):		224.52	2.714	2.92	14.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0014)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0013)	224.52	2.71	2.92	14.73
OUTFLOW: ID= 2(0014)	224.52	2.71	2.92	14.73

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==============================================================================================================

       V    V   I    SSSSS  U    U    A    L              (v 6.2.2020)
       V    V   I    SS     U    U   A A   L
        V  V    I      SS   U    U  AAAAA  L
         V V    I       SS  U    U  A   A  L
          VV    I    SSSSS   UUUU   A   A  LLLLL

        OOO   TTTTT  TTTTT  H    H  Y   Y  M    M   OOO    TM
       O   O    T      T    H    H   Y Y   MM  MM  O   O
       O   O    T      T    H    H    Y    M MM M  O   O
        OOO     T      T    H    H    Y    M    M   OOO
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                  *****  D E T A I L E D   O U T P U T *****


   Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
   Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\9f359e6d-c
   Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\9f359e6d-c


DATE: 02-17-2026                          TIME: 11:13:04

USER:


COMMENTS: _____
```

ID = 1 (0004): 205.57 2.532 3.00 15.15

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):		205.57	2.532	3.00	15.15
+ ID2= 2 (0085):		10.21	0.129	2.33	11.37
ID = 3 (0004):		215.78	2.643	2.92	14.97

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0016)	Area	(ha)= 3.28	Curve Number	(CN)= 62.4	
ID= 1 DT= 5.0 min	Ia	(mm)= 6.82	# of Linear Res.(N)= 3.00		
	U.H. Tp(hrs)= 0.58				

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	4.64	1.083	21.94	2.083	9.17	3.08	5.34
0.167	4.64	1.167	21.94	2.167	9.17	3.17	5.34
0.250	5.18	1.250	127.15	2.250	8.10	3.25	5.03
0.333	5.18	1.333	127.15	2.333	8.10	3.33	5.03
0.417	5.91	1.417	26.92	2.417	7.29	3.42	4.76
0.500	5.91	1.500	26.92	2.500	7.29	3.50	4.76
0.583	6.96	1.583	16.98	2.583	6.65	3.58	4.52
0.667	6.96	1.667	16.98	2.667	6.65	3.67	4.52
0.750	8.62	1.750	12.95	2.750	6.13	3.75	4.31
0.833	8.62	1.833	12.95	2.833	6.13	3.83	4.31
0.917	11.80	1.917	10.66	2.917	5.70	3.92	4.12
1.000	11.80	2.000	10.66	3.000	5.70	4.00	4.12

Unit Hyd Qpeak (cms)= 0.216

PEAK FLOW (cms)= 0.050 (i)
TIME TO PEAK (hrs)= 2.083
RUNOFF VOLUME (mm)= 11.593
TOTAL RAINFALL (mm)= 55.137
RUNOFF COEFFICIENT = 0.210

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0015)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0016)	3.28	0.05	2.08	11.59
OUTFLOW: ID= 2(0015)	3.28	0.05	2.08	11.59

CALIB					
NASHYD (0017)	Area	(ha)= 5.46	Curve Number	(CN)= 46.8	
ID= 1 DT= 5.0 min	Ia	(mm)= 6.03	# of Linear Res.(N)= 3.00		
	U.H. Tp(hrs)= 0.87				

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	4.64	1.083	21.94	2.083	9.17	3.08	5.34
0.167	4.64	1.167	21.94	2.167	9.17	3.17	5.34
0.250	5.18	1.250	127.15	2.250	8.10	3.25	5.03
0.333	5.18	1.333	127.15	2.333	8.10	3.33	5.03
0.417	5.91	1.417	26.92	2.417	7.29	3.42	4.76
0.500	5.91	1.500	26.92	2.500	7.29	3.50	4.76
0.583	6.96	1.583	16.98	2.583	6.65	3.58	4.52
0.667	6.96	1.667	16.98	2.667	6.65	3.67	4.52
0.750	8.62	1.750	12.95	2.750	6.13	3.75	4.31

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  ************************************************
  ** SIMULATION : E. 25yr 4hr 10min Chicago C   **
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CHICAGO STORM	IDF curve parameters: A= 748.460
Ptotal= 64.91 mm	B= 0.000
	C= 0.699
	used in: INTENSITY = A / (t + B)^C
	Duration of storm = 4.00 hrs
	Storm time step = 10.00 min
	Time to peak ratio = 0.33

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	5.46	1.00	25.83	2.00	10.79	3.00	6.29
0.17	6.10	1.17	149.68	2.17	9.53	3.17	5.92
0.33	6.96	1.33	31.70	2.33	8.58	3.33	5.60
0.50	8.19	1.50	19.99	2.50	7.83	3.50	5.32
0.67	10.15	1.67	15.24	2.67	7.22	3.67	5.08
0.83	13.89	1.83	12.55	2.83	6.71	3.83	4.85

CALIB					
STANDHYD (0011)	Area	(ha)= 0.11			
ID= 1 DT= 5.0 min	Total Imp(%)= 45.50		Dir. Conn.(%)= 27.30		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.05	0.06
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	27.08	30.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	5.46	1.083	25.83	2.083	10.79	3.08	6.29
0.167	5.46	1.167	25.83	2.167	10.79	3.17	6.29
0.250	6.10	1.250	149.68	2.250	9.53	3.25	5.92
0.333	6.10	1.333	149.68	2.333	9.53	3.33	5.92
0.417	6.96	1.417	31.70	2.417	8.58	3.42	5.60
0.500	6.96	1.500	31.70	2.500	8.58	3.50	5.60
0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

			TOTALS
Max.Eff.Inten.(mm/hr)=	149.68	36.63	
over (min)	5.00	15.00	
Storage Coeff. (min)=	1.22 (ii)	10.10 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.33	0.10	
PEAK FLOW (cms)=	0.01	0.00	0.014 (iii)
TIME TO PEAK (hrs)=	1.33	1.50	1.33
RUNOFF VOLUME (mm)=	63.91	14.42	27.88
TOTAL RAINFALL (mm)=	64.91	64.91	64.91
RUNOFF COEFFICIENT =	0.98	0.22	0.43

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0012)

	AREA	QPEAK	TPEAK	R.V.

	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2(0011)	0.11	0.01	1.33	27.88
OUTFLOW: ID= 2(0012)	0.11	0.01	1.33	27.88

CALIB								
NASHYD (0101)	Area	(ha)=	51.91	Curve Number	(CN)= 68.6			
ID= 1 DT= 5.0 min	Ia	(mm)=	6.95	# of Linear Res.(N)= 3.00				
	U.H. Tp(hrs)=		1.60					

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	5.46	1.083	25.83	2.083	10.79	3.08	6.29
0.167	5.46	1.167	25.83	2.167	10.79	3.17	6.29
0.250	6.10	1.250	149.68	2.250	9.53	3.25	5.92
0.333	6.10	1.333	149.68	2.333	9.53	3.33	5.92
0.417	6.96	1.417	31.70	2.417	8.58	3.42	5.60
0.500	6.96	1.500	31.70	2.500	8.58	3.50	5.60
0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

Unit Hyd Qpeak (cms)= 1.239

PEAK FLOW (cms)= 0.720 (i)
TIME TO PEAK (hrs)= 3.583
RUNOFF VOLUME (mm)= 19.281
TOTAL RAINFALL (mm)= 64.909
RUNOFF COEFFICIENT = 0.297

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB								
NASHYD (0085)	Area	(ha)=	10.21	Curve Number	(CN)= 62.0			
ID= 1 DT= 5.0 min	Ia	(mm)=	7.00	# of Linear Res.(N)= 3.00				
	U.H. Tp(hrs)=		0.77					

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	5.46	1.083	25.83	2.083	10.79	3.08	6.29
0.167	5.46	1.167	25.83	2.167	10.79	3.17	6.29
0.250	6.10	1.250	149.68	2.250	9.53	3.25	5.92
0.333	6.10	1.333	149.68	2.333	9.53	3.33	5.92
0.417	6.96	1.417	31.70	2.417	8.58	3.42	5.60
0.500	6.96	1.500	31.70	2.500	8.58	3.50	5.60
0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

Unit Hyd Qpeak (cms)= 0.506

PEAK FLOW (cms)= 0.181 (i)
TIME TO PEAK (hrs)= 2.333
RUNOFF VOLUME (mm)= 15.700
TOTAL RAINFALL (mm)= 64.909
RUNOFF COEFFICIENT = 0.242

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB								
NASHYD (0006)	Area	(ha)=	1.06	Curve Number	(CN)= 55.0			
ID= 1 DT= 5.0 min	Ia	(mm)=	4.72	# of Linear Res.(N)= 3.00				
	U.H. Tp(hrs)=		0.15					

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

Unit Hyd Qpeak (cms)= 0.106

PEAK FLOW (cms)= 0.060 (i)
TIME TO PEAK (hrs)= 3.083
RUNOFF VOLUME (mm)= 20.347
TOTAL RAINFALL (mm)= 64.909
RUNOFF COEFFICIENT = 0.313

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB								
NASHYD (0010)	Area	(ha)=	120.60	Curve Number	(CN)= 73.3			
ID= 1 DT= 5.0 min	Ia	(mm)=	6.90	# of Linear Res.(N)= 3.00				
	U.H. Tp(hrs)=		1.06					

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	5.46	1.083	25.83	2.083	10.79	3.08	6.29
0.167	5.46	1.167	25.83	2.167	10.79	3.17	6.29
0.250	6.10	1.250	149.68	2.250	9.53	3.25	5.92
0.333	6.10	1.333	149.68	2.333	9.53	3.33	5.92
0.417	6.96	1.417	31.70	2.417	8.58	3.42	5.60
0.500	6.96	1.500	31.70	2.500	8.58	3.50	5.60
0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 2.537 (i)
TIME TO PEAK (hrs)= 2.750
RUNOFF VOLUME (mm)= 22.354
TOTAL RAINFALL (mm)= 64.909
RUNOFF COEFFICIENT = 0.344

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0004)					
1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0010):		120.60	2.537	2.75	22.35
+ ID2= 2 (0101):		51.91	0.720	3.58	19.28
ID = 3 (0004):		172.51	3.165	2.92	21.43

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
3 + 2 = 1		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0004):		172.51	3.165	2.92	21.43
+ ID2= 2 (0006):		1.06	0.047	1.42	13.44
ID = 1 (0004):		173.57	3.174	2.83	21.38

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):		173.57	3.174	2.83	21.38
+ ID2= 2 (0007):		28.38	0.290	4.08	15.70

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	5.46	1.083	25.83	2.083	10.79	3.08	6.29
0.167	5.46	1.167	25.83	2.167	10.79	3.17	6.29
0.250	6.10	1.250	149.68	2.250	9.53	3.25	5.92
0.333	6.10	1.333	149.68	2.333	9.53	3.33	5.92
0.417	6.96	1.417	31.70	2.417	8.58	3.42	5.60
0.500	6.96	1.500	31.70	2.500	8.58	3.50	5.60
0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.047 (i)
TIME TO PEAK (hrs)= 1.417
RUNOFF VOLUME (mm)= 13.439
TOTAL RAINFALL (mm)= 64.909
RUNOFF COEFFICIENT = 0.207

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB								
NASHYD (0007)	Area	(ha)=	28.38	Curve Number	(CN)= 62.0			
ID= 1 DT= 5.0 min	Ia	(mm)=	7.00	# of Linear Res.(N)= 3.00				
	U.H. Tp(hrs)=		1.87					

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	5.46	1.083	25.83	2.083	10.79	3.08	6.29
0.167	5.46	1.167	25.83	2.167	10.79	3.17	6.29
0.250	6.10	1.250	149.68	2.250	9.53	3.25	5.92
0.333	6.10	1.333	149.68	2.333	9.53	3.33	5.92
0.417	6.96	1.417	31.70	2.417	8.58	3.42	5.60
0.500	6.96	1.500	31.70	2.500	8.58	3.50	5.60
0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

Unit Hyd Qpeak (cms)= 0.580

PEAK FLOW (cms)= 0.290 (i)
TIME TO PEAK (hrs)= 4.083
RUNOFF VOLUME (mm)= 15.700
TOTAL RAINFALL (mm)= 64.909
RUNOFF COEFFICIENT = 0.242

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB								
NASHYD (0008)	Area	(ha)=	3.62	Curve Number	(CN)= 68.1			
ID= 1 DT= 5.0 min	Ia	(mm)=	4.49	# of Linear Res.(N)= 3.00				
	U.H. Tp(hrs)=		1.31					

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	5.46	1.083	25.83	2.083	10.79	3.08	6.29
0.167	5.46	1.167	25.83	2.167	10.79	3.17	6.29
0.250	6.10	1.250	149.68	2.250	9.53	3.25	5.92
0.333	6.10	1.333	149.68	2.333	9.53	3.33	5.92
0.417	6.96	1.417	31.70	2.417	8.58	3.42	5.60
0.500	6.96	1.500	31.70	2.500	8.58	3.50	5.60
0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32

ID = 3 (0004):	201.95	3.407	2.92	20.58

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
3 + 2 = 1		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0004):		201.95	3.407	2.92	20.58
+ ID2= 2 (0008):		3.62	0.060	3.08	20.35
ID = 1 (0004):		205.57	3.467	2.92	20.58

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):		205.57	3.467	2.92	20.58
+ ID2= 2 (0085):		10.21	0.181	2.33	15.70
ID = 3 (0004):		215.78	3.623	2.92	20.35

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB								
NASHYD (0016)	Area	(ha)=	3.28	Curve Number	(CN)= 62.4			
ID= 1 DT= 5.0 min	Ia	(mm)=	6.82	# of Linear Res.(N)= 3.00				
	U.H. Tp(hrs)=		0.58					

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	5.46	1.083	25.83	2.083	10.79	3.08	6.29
0.167	5.46	1.167	25.83	2.167	10.79	3.17	6.29
0.250	6.10	1.250	149.68	2.250	9.53	3.25	5.92
0.333	6.10	1.333	149.68	2.333	9.53	3.33	5.92
0.417	6.96	1.417	31.70	2.417	8.58	3.42	5.60
0.500	6.96	1.500	31.70	2.500	8.58	3.50	5.60
0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

Unit Hyd Qpeak (cms)= 0.216

PEAK FLOW (cms)= 0.071 (i)
TIME TO PEAK (hrs)= 2.083
RUNOFF VOLUME (mm)= 15.980
TOTAL RAINFALL (mm)= 64.909
RUNOFF COEFFICIENT = 0.246

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0015)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0016)	3.28	0.07	2.08	15.98
OUTFLOW: ID= 2(0015)	3.28	0.07	2.08	15.98

CALIB								
NASHYD (0017)	Area	(ha)=	5.46	Curve Number	(CN)= 46.8			
ID= 1 DT= 5.0 min	Ia	(mm)=	6.03	# of Linear Res.(N)= 3.00				
	U.H. Tp(hrs)=		0.87					

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```
                    ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
0.583    8.19 | 1.583   19.99 | 2.583    7.83 |  3.58    5.32
0.667    8.19 | 1.667   19.99 | 2.667    7.83 |  3.67    5.32
0.750   10.15 | 1.750   15.24 | 2.750    7.22 |  3.75    5.08
0.833   10.15 | 1.833   15.24 | 2.833    7.22 |  3.83    5.08
0.917   13.89 | 1.917   12.55 | 2.917    6.71 |  4.00    4.85
1.000   13.89 | 2.000   12.55 | 3.000    6.71 |

     Unit Hyd Qpeak  (cms)=   0.240

     PEAK FLOW       (cms)=   0.056 (i)
     TIME TO PEAK    (hrs)=   2.500
     RUNOFF VOLUME    (mm)=   9.972
     TOTAL RAINFALL   (mm)=  64.909
     RUNOFF COEFFICIENT   =   0.154

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0013)|
|   1 +  2 =  3    |        AREA     QPEAK    TPEAK     R.V.
--------------------        (ha)     (cms)    (hrs)     (mm)
       ID1= 1 (  0015):     3.28    0.071     2.08    15.98
     + ID2= 2 (  0017):     5.46    0.056     2.50     9.97
       ================================================
       ID = 3 (  0013):     8.74    0.122     2.25    12.23

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0013)|
|   3 +  2 =  1    |        AREA     QPEAK    TPEAK     R.V.
--------------------        (ha)     (cms)    (hrs)     (mm)
       ID1= 3 (  0013):     8.74    0.122     2.25    12.23
     + ID2= 2 (  0004):   215.78    3.623     2.92    20.35
       ================================================
       ID = 1 (  0013):   224.52    3.721     2.92    20.03

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

  --------------------------
  | Junction Command(0014) |
  --------------------------

                          AREA     QPEAK    TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 1(  0013)  224.52     3.72     2.92    20.03
  OUTFLOW: ID= 2(  0014)  224.52     3.72     2.92    20.03

  --------------------------------------------------------------------------------
================================================================================================================


       V    V   I    SSSSS  U   U    A    L                (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I      SS   U   U  AAAAA  L
         V V    I       SS  U   U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M M M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\05718f0c-fa
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\05718f0c-fa

DATE: 02-17-2026                          TIME: 11:13:00

USER:


COMMENTS: _____

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  ************************************************
  ** SIMULATION : F. 50yr 4hr 10min Chicago C   **
  ************************************************

--------------------
| CHICAGO STORM    |      IDF curve parameters: A= 830.951
| Ptotal= 72.06 mm |                            B=   0.000
--------------------                            C=   0.699
                           used in:   INTENSITY =  A / (t + B)^C

                           Duration of storm  =  4.00 hrs
                           Storm time step    = 10.00 min
                           Time to peak ratio =  0.33

                    ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.00     6.06 | 1.00    28.67 |  2.00   11.98 |  3.00    6.98
0.17     6.77 | 1.17   166.18 |  2.17   10.58 |  3.17    6.57
0.33     7.73 | 1.33    35.19 |  2.33    9.52 |  3.33    6.22
0.50     9.10 | 1.50    22.19 |  2.50    8.69 |  3.50    5.91
0.67    11.27 | 1.67    16.92 |  2.67    8.01 |  3.67    5.63
0.83    15.42 | 1.83    13.94 |  2.83    7.45 |  3.83    5.39

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--------------------
| CALIB            |
| STANDHYD (  0011)|   Area    (ha)=   0.11
|ID= 1 DT= 5.0 min |   Total Imp(%)=  45.50   Dir. Conn.(%)=  27.30
--------------------

                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      0.05          0.06
     Dep. Storage     (mm)=      1.00          5.00
     Average Slope     (%)=      0.50          2.00
     Length            (m)=     27.08         30.00
     Mannings n           =     0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                    ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.06 | 1.083   28.67 | 2.083   11.98 |  3.08    6.98
0.167    6.06 | 1.167   28.67 | 2.167   11.98 |  3.17    6.98
0.250    6.77 | 1.250  166.18 | 2.250   10.58 |  3.25    6.57
0.333    6.77 | 1.333  166.18 | 2.333   10.58 |  3.33    6.57
0.417    7.73 | 1.417   35.19 | 2.417    9.52 |  3.42    6.22
0.500    7.73 | 1.500   35.19 | 2.500    9.52 |  3.50    6.22
0.583    9.10 | 1.583   22.19 | 2.583    8.69 |  3.58    5.91
0.667    9.10 | 1.667   22.19 | 2.667    8.69 |  3.67    5.91
0.750   11.27 | 1.750   16.92 | 2.750    8.01 |  3.75    5.63
0.833   11.27 | 1.833   16.92 | 2.833    8.01 |  3.83    5.63
0.917   15.42 | 1.917   13.94 | 2.917    7.45 |  3.92    5.39
1.000   15.42 | 2.000   13.94 | 3.000    7.45 |  4.00    5.39

     Max.Eff.Inten.(mm/hr)=     166.18        45.04
           over (min)          5.00         10.00
     Storage Coeff. (min)=      1.17 (ii)     9.34 (ii)
     Unit Hyd. Tpeak (min)=     5.00         10.00
     Unit Hyd. peak  (cms)=     0.34          0.12
                                                    *TOTALS*
     PEAK FLOW       (cms)=     0.01          0.00      0.018 (iii)
     TIME TO PEAK    (hrs)=     1.33          1.42      1.33
     RUNOFF VOLUME    (mm)=    71.06         17.51     32.07
     TOTAL RAINFALL   (mm)=    72.06         72.06     72.06
     RUNOFF COEFFICIENT   =     0.99          0.24      0.45

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  --------------------------
  | Junction Command(0012) |
  --------------------------

                          AREA     QPEAK    TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 2(  0011)    0.11     0.02     1.33    32.07
  OUTFLOW: ID= 2(  0012)    0.11     0.02     1.33    32.07

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--------------------
| CALIB            |
| NASHYD   (  0101)|   Area    (ha)=  51.91   Curve Number   (CN)= 68.6
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.95   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.60

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                    ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.06 | 1.083   28.67 | 2.083   11.98 |  3.08    6.98
0.167    6.06 | 1.167   28.67 | 2.167   11.98 |  3.17    6.98
0.250    6.77 | 1.250  166.18 | 2.250   10.58 |  3.25    6.57
0.333    6.77 | 1.333  166.18 | 2.333   10.58 |  3.33    6.57
0.417    7.73 | 1.417   35.19 | 2.417    9.52 |  3.42    6.22
0.500    7.73 | 1.500   35.19 | 2.500    9.52 |  3.50    6.22
0.583    9.10 | 1.583   22.19 | 2.583    8.69 |  3.58    5.91
0.667    9.10 | 1.667   22.19 | 2.667    8.69 |  3.67    5.91
0.750   11.27 | 1.750   16.92 | 2.750    8.01 |  3.75    5.63
0.833   11.27 | 1.833   16.92 | 2.833    8.01 |  3.83    5.63
0.917   15.42 | 1.917   13.94 | 2.917    7.45 |  3.92    5.39
1.000   15.42 | 2.000   13.94 | 3.000    7.45 |  4.00    5.39

     Unit Hyd Qpeak  (cms)=   1.239

     PEAK FLOW       (cms)=   0.876 (i)
     TIME TO PEAK    (hrs)=   3.583
     RUNOFF VOLUME    (mm)=  23.375
     TOTAL RAINFALL   (mm)=  72.062
     RUNOFF COEFFICIENT   =   0.324

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB            |
| NASHYD   (  0085)|   Area    (ha)=  10.21   Curve Number   (CN)= 62.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   7.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.77

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                    ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.06 | 1.083   28.67 | 2.083   11.98 |  3.08    6.98
0.167    6.06 | 1.167   28.67 | 2.167   11.98 |  3.17    6.98
0.250    6.77 | 1.250  166.18 | 2.250   10.58 |  3.25    6.57
0.333    6.77 | 1.333  166.18 | 2.333   10.58 |  3.33    6.57
0.417    7.73 | 1.417   35.19 | 2.417    9.52 |  3.42    6.22
0.500    7.73 | 1.500   35.19 | 2.500    9.52 |  3.50    6.22
0.583    9.10 | 1.583   22.19 | 2.583    8.69 |  3.58    5.91
0.667    9.10 | 1.667   22.19 | 2.667    8.69 |  3.67    5.91
0.750   11.27 | 1.750   16.92 | 2.750    8.01 |  3.75    5.63
0.833   11.27 | 1.833   16.92 | 2.833    8.01 |  3.83    5.63
0.917   15.42 | 1.917   13.94 | 2.917    7.45 |  3.92    5.39
1.000   15.42 | 2.000   13.94 | 3.000    7.45 |  4.00    5.39

     Unit Hyd Qpeak  (cms)=   0.506

     PEAK FLOW       (cms)=   0.223 (i)
     TIME TO PEAK    (hrs)=   2.333
     RUNOFF VOLUME    (mm)=  19.177
     TOTAL RAINFALL   (mm)=  72.062
     RUNOFF COEFFICIENT   =   0.266

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB            |
| NASHYD   (  0006)|   Area    (ha)=   1.06   Curve Number   (CN)= 55.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.72   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.15

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                    ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.06 | 1.083   28.67 | 2.083   11.98 |  3.08    6.98
0.167    6.06 | 1.167   28.67 | 2.167   11.98 |  3.17    6.98
0.250    6.77 | 1.250  166.18 | 2.250   10.58 |  3.25    6.57
0.333    6.77 | 1.333  166.18 | 2.333   10.58 |  3.33    6.57
0.417    7.73 | 1.417   35.19 | 2.417    9.52 |  3.42    6.22
0.500    7.73 | 1.500   35.19 | 2.500    9.52 |  3.50    6.22
0.583    9.10 | 1.583   22.19 | 2.583    8.69 |  3.58    5.91
0.667    9.10 | 1.667   22.19 | 2.667    8.69 |  3.67    5.91
0.750   11.27 | 1.750   16.92 | 2.750    8.01 |  3.75    5.63
0.833   11.27 | 1.833   16.92 | 2.833    8.01 |  3.83    5.63
0.917   15.42 | 1.917   13.94 | 2.917    7.45 |  3.92    5.39
1.000   15.42 | 2.000   13.94 | 3.000    7.45 |  4.00    5.39

     Unit Hyd Qpeak  (cms)=   0.270

     PEAK FLOW       (cms)=   0.058 (i)
     TIME TO PEAK    (hrs)=   1.417
     RUNOFF VOLUME    (mm)=  16.386
     TOTAL RAINFALL   (mm)=  72.062
     RUNOFF COEFFICIENT   =   0.227

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB            |
| NASHYD   (  0007)|   Area    (ha)=  28.38   Curve Number   (CN)= 62.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   7.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.87

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                    ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.06 | 1.083   28.67 | 2.083   11.98 |  3.08    6.98
0.167    6.06 | 1.167   28.67 | 2.167   11.98 |  3.17    6.98
0.250    6.77 | 1.250  166.18 | 2.250   10.58 |  3.25    6.57
0.333    6.77 | 1.333  166.18 | 2.333   10.58 |  3.33    6.57
0.417    7.73 | 1.417   35.19 | 2.417    9.52 |  3.42    6.22
0.500    7.73 | 1.500   35.19 | 2.500    9.52 |  3.50    6.22
0.583    9.10 | 1.583   22.19 | 2.583    8.69 |  3.58    5.91
0.667    9.10 | 1.667   22.19 | 2.667    8.69 |  3.67    5.91
0.750   11.27 | 1.750   16.92 | 2.750    8.01 |  3.75    5.63
0.833   11.27 | 1.833   16.92 | 2.833    8.01 |  3.83    5.63
0.917   15.42 | 1.917   13.94 | 2.917    7.45 |  3.92    5.39
1.000   15.42 | 2.000   13.94 | 3.000    7.45 |  4.00    5.39

     Unit Hyd Qpeak  (cms)=   0.580

     PEAK FLOW       (cms)=   0.355 (i)
     TIME TO PEAK    (hrs)=   4.000
     RUNOFF VOLUME    (mm)=  19.177
     TOTAL RAINFALL   (mm)=  72.062
     RUNOFF COEFFICIENT   =   0.266

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB            |
| NASHYD   (  0008)|   Area    (ha)=   3.62   Curve Number   (CN)= 68.1
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.49   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.31
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

Unit Hyd Qpeak (cms)= 0.106

PEAK FLOW (cms)= 0.073 (i)
TIME TO PEAK (hrs)= 3.083
RUNOFF VOLUME (mm)= 24.475
TOTAL RAINFALL (mm)= 72.062
RUNOFF COEFFICIENT = 0.340

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0010) | ID= 1 DT= 5.0 min | Area (ha)= 120.60 Curve Number (CN)= 73.3
Ia (mm)= 6.90 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.06

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 3.077 (i)
TIME TO PEAK (hrs)= 2.750
RUNOFF VOLUME (mm)= 26.928
TOTAL RAINFALL (mm)= 72.062
RUNOFF COEFFICIENT = 0.374

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0004)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0010):	120.60	3.077	2.75	26.93
+ ID2= 2 (0101):	51.91	0.876	3.58	23.37
ID = 3 (0004):	172.51	3.844	2.83	25.86

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0004):	172.51	3.844	2.83	25.86
+ ID2= 2 (0006):	1.06	0.058	1.42	16.39
ID = 1 (0004):	173.57	3.853	2.83	25.80

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	173.57	3.853	2.83	25.80
+ ID2= 2 (0007):	28.38	0.355	4.00	19.18
ID = 3 (0004):	201.95	4.138	2.92	24.87

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0004):	201.95	4.138	2.92	24.87
+ ID2= 2 (0008):	3.62	0.073	3.08	24.47
ID = 1 (0004):	205.57	4.210	2.92	24.86

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	205.57	4.210	2.92	24.86
+ ID2= 2 (0085):	10.21	0.223	2.33	19.18
ID = 3 (0004):	215.78	4.400	2.92	24.59

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
NASHYD (0016) | ID= 1 DT= 5.0 min | Area (ha)= 3.28 Curve Number (CN)= 62.4
Ia (mm)= 6.82 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.58

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

Unit Hyd Qpeak (cms)= 0.216

PEAK FLOW (cms)= 0.088 (i)
TIME TO PEAK (hrs)= 2.000
RUNOFF VOLUME (mm)= 19.498
TOTAL RAINFALL (mm)= 72.062
RUNOFF COEFFICIENT = 0.271

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0015)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0016)	3.28	0.09	2.00	19.50
OUTFLOW: ID= 2(0015)	3.28	0.09	2.00	19.50

CALIB
NASHYD (0017) | ID= 1 DT= 5.0 min | Area (ha)= 5.46 Curve Number (CN)= 46.8
Ia (mm)= 6.03 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

Unit Hyd Qpeak (cms)= 0.240

PEAK FLOW (cms)= 0.070 (i)
TIME TO PEAK (hrs)= 2.500
RUNOFF VOLUME (mm)= 12.290
TOTAL RAINFALL (mm)= 72.062
RUNOFF COEFFICIENT = 0.171

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0013)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0015):	3.28	0.088	2.00	19.50
+ ID2= 2 (0017):	5.46	0.070	2.50	12.29
ID = 3 (0013):	8.74	0.151	2.17	15.00

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0013)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0013):	8.74	0.151	2.17	15.00
+ ID2= 2 (0004):	215.78	4.400	2.92	24.59
ID = 1 (0013):	224.52	4.524	2.83	24.22

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0014)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0013)	224.52	4.52	2.83	24.22
OUTFLOW: ID= 2(0014)	224.52	4.52	2.83	24.22

```
      V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
      V    V   I    SS     U   U   A A   L
       V  V    I     SS    U   U  AAAAA  L
        V V    I      SS   U   U  A   A  L
         VV    I    SSSSS  UUUUU  A   A  LLLLL
```

```
       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M M M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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```

***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\13f7ac03-3
Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\13f7ac03-3

DATE: 02-17-2026 TIME: 11:13:01

USER:

COMMENTS: _____

** SIMULATION : G. 100yr 4hr 10min Chicago C **

CHICAGO STORM | Ptotal= 79.22 mm |
IDF curve parameters: A= 913.443
B= 0.000
C= 0.699
used in: INTENSITY = A / (t + B)^C

Duration of storm = 4.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	6.66	1.00	31.52	2.00	13.17	3.00	7.67
0.17	7.44	1.17	182.68	2.17	11.63	3.17	7.23
0.33	8.49	1.33	38.68	2.33	10.47	3.33	6.84
0.50	10.00	1.50	24.39	2.50	9.55	3.50	6.50
0.67	12.39	1.67	18.60	2.67	8.81	3.67	6.19
0.83	16.95	1.83	15.32	2.83	8.19	3.83	5.92

CALIB
STANDHYD (0011) | ID= 1 DT= 5.0 min | Area (ha)= 0.11
Total Imp(%)= 45.50 Dir. Conn.(%)= 27.30

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.05	0.06
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	27.08	30.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Max.Eff.Inten.(mm/hr)= 182.68 54.15

```
            over (min)        5.00         10.00
     Storage Coeff.  (min)=    1.13 (ii)    8.72 (ii)
     Unit Hyd. Tpeak (min)=    5.00         10.00
     Unit Hyd. peak  (cms)=    0.34          0.12
                                                    *TOTALS*
     PEAK FLOW       (cms)=    0.02          0.01      0.020 (iii)
     TIME TO PEAK    (hrs)=    1.33          1.42      1.33
     RUNOFF VOLUME    (mm)=   78.22         20.81     36.43
     TOTAL RAINFALL   (mm)=   79.22         79.22     79.22
     RUNOFF COEFFICIENT   =    0.99          0.26      0.46

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* = 49.0     Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  -------------------------
  | Junction Command(0012) |
  -------------------------

                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 2(  0011)    0.11     0.02    1.33    36.43
  OUTFLOW: ID= 2(  0012)    0.11     0.02    1.33    36.43

  ------------------------------------------------------------------------------
-------------------
| CALIB             |
| NASHYD   (  0101)|   Area    (ha)=  51.91   Curve Number   (CN)= 68.6
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.95   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.60

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.66 | 1.083   31.52 | 2.083   13.17 |  3.08    7.67
0.167    6.66 | 1.167   31.52 | 2.167   13.17 |  3.17    7.67
0.250    7.44 | 1.250  182.68 | 2.250   11.63 |  3.25    7.23
0.333    7.44 | 1.333  182.68 | 2.333   11.63 |  3.33    7.23
0.417    8.49 | 1.417   38.68 | 2.417   10.47 |  3.42    6.84
0.500    8.49 | 1.500   38.68 | 2.500   10.47 |  3.50    6.84
0.583   10.00 | 1.583   24.39 | 2.583    9.55 |  3.58    6.50
0.667   10.00 | 1.667   24.39 | 2.667    9.55 |  3.67    6.50
0.750   12.39 | 1.750   18.60 | 2.750    8.81 |  3.75    6.19
0.833   12.39 | 1.833   18.60 | 2.833    8.81 |  3.83    6.19
0.917   16.95 | 1.917   15.32 | 2.917    8.19 |  3.92    5.92
1.000   16.95 | 2.000   15.32 | 3.000    8.19 |  4.00    5.92

    Unit Hyd Qpeak  (cms)=   1.239

    PEAK FLOW       (cms)=   1.040 (i)
    TIME TO PEAK    (hrs)=   3.500
    RUNOFF VOLUME    (mm)=  27.701
    TOTAL RAINFALL   (mm)=  79.216
    RUNOFF COEFFICIENT   =   0.350

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------
-------------------
| CALIB             |
| NASHYD   (  0085)|   Area    (ha)=  10.21   Curve Number   (CN)= 62.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   7.00   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.77

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.66 | 1.083   31.52 | 2.083   13.17 |  3.08    7.67
0.167    6.66 | 1.167   31.52 | 2.167   13.17 |  3.17    7.67
0.250    7.44 | 1.250  182.68 | 2.250   11.63 |  3.25    7.23
0.333    7.44 | 1.333  182.68 | 2.333   11.63 |  3.33    7.23
0.417    8.49 | 1.417   38.68 | 2.417   10.47 |  3.42    6.84
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    RUNOFF VOLUME    (mm)=  22.884
    TOTAL RAINFALL   (mm)=  79.216
    RUNOFF COEFFICIENT   =   0.289

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------
-------------------
| CALIB             |
| NASHYD   (  0008)|   Area    (ha)=   3.62   Curve Number   (CN)= 68.1
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.49   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.31

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.66 | 1.083   31.52 | 2.083   13.17 |  3.08    7.67
0.167    6.66 | 1.167   31.52 | 2.167   13.17 |  3.17    7.67
0.250    7.44 | 1.250  182.68 | 2.250   11.63 |  3.25    7.23
0.333    7.44 | 1.333  182.68 | 2.333   11.63 |  3.33    7.23
0.417    8.49 | 1.417   38.68 | 2.417   10.47 |  3.42    6.84
0.500    8.49 | 1.500   38.68 | 2.500   10.47 |  3.50    6.84
0.583   10.00 | 1.583   24.39 | 2.583    9.55 |  3.58    6.50
0.667   10.00 | 1.667   24.39 | 2.667    9.55 |  3.67    6.50
0.750   12.39 | 1.750   18.60 | 2.750    8.81 |  3.75    6.19
0.833   12.39 | 1.833   18.60 | 2.833    8.81 |  3.83    6.19
0.917   16.95 | 1.917   15.32 | 2.917    8.19 |  3.92    5.92
1.000   16.95 | 2.000   15.32 | 3.000    8.19 |  4.00    5.92

    Unit Hyd Qpeak  (cms)=   0.106

    PEAK FLOW       (cms)=   0.086 (i)
    TIME TO PEAK    (hrs)=   3.083
    RUNOFF VOLUME    (mm)=  28.826
    TOTAL RAINFALL   (mm)=  79.216
    RUNOFF COEFFICIENT   =   0.364

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------
-------------------
| CALIB             |
| NASHYD   (  0010)|   Area    (ha)= 120.60   Curve Number   (CN)= 73.3
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.90   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.06

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.66 | 1.083   31.52 | 2.083   13.17 |  3.08    7.67
0.167    6.66 | 1.167   31.52 | 2.167   13.17 |  3.17    7.67
0.250    7.44 | 1.250  182.68 | 2.250   11.63 |  3.25    7.23
0.333    7.44 | 1.333  182.68 | 2.333   11.63 |  3.33    7.23
0.417    8.49 | 1.417   38.68 | 2.417   10.47 |  3.42    6.84
0.500    8.49 | 1.500   38.68 | 2.500   10.47 |  3.50    6.84
0.583   10.00 | 1.583   24.39 | 2.583    9.55 |  3.58    6.50
0.667   10.00 | 1.667   24.39 | 2.667    9.55 |  3.67    6.50
0.750   12.39 | 1.750   18.60 | 2.750    8.81 |  3.75    6.19
0.833   12.39 | 1.833   18.60 | 2.833    8.81 |  3.83    6.19
0.917   16.95 | 1.917   15.32 | 2.917    8.19 |  3.92    5.92
1.000   16.95 | 2.000   15.32 | 3.000    8.19 |  4.00    5.92

    Unit Hyd Qpeak  (cms)=   4.346

    PEAK FLOW       (cms)=   3.648 (i)
    TIME TO PEAK    (hrs)=   2.667
    RUNOFF VOLUME    (mm)=  31.726
    TOTAL RAINFALL   (mm)=  79.216
    RUNOFF COEFFICIENT   =   0.400

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0004)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------        (ha)    (cms)    (hrs)     (mm)
```

```
0.500    8.49 | 1.500   38.68 | 2.500   10.47 |  3.50    6.84
0.583   10.00 | 1.583   24.39 | 2.583    9.55 |  3.58    6.50
0.667   10.00 | 1.667   24.39 | 2.667    9.55 |  3.67    6.50
0.750   12.39 | 1.750   18.60 | 2.750    8.81 |  3.75    6.19
0.833   12.39 | 1.833   18.60 | 2.833    8.81 |  3.83    6.19
0.917   16.95 | 1.917   15.32 | 2.917    8.19 |  3.92    5.92
1.000   16.95 | 2.000   15.32 | 3.000    8.19 |  4.00    5.92

    Unit Hyd Qpeak  (cms)=   0.506

    PEAK FLOW       (cms)=   0.268 (i)
    TIME TO PEAK    (hrs)=   2.333
    RUNOFF VOLUME    (mm)=  22.884
    TOTAL RAINFALL   (mm)=  79.216
    RUNOFF COEFFICIENT   =   0.289

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------
-------------------
| CALIB             |
| NASHYD   (  0006)|   Area    (ha)=   1.06   Curve Number   (CN)= 55.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.72   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.15

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.66 | 1.083   31.52 | 2.083   13.17 |  3.08    7.67
0.167    6.66 | 1.167   31.52 | 2.167   13.17 |  3.17    7.67
0.250    7.44 | 1.250  182.68 | 2.250   11.63 |  3.25    7.23
0.333    7.44 | 1.333  182.68 | 2.333   11.63 |  3.33    7.23
0.417    8.49 | 1.417   38.68 | 2.417   10.47 |  3.42    6.84
0.500    8.49 | 1.500   38.68 | 2.500   10.47 |  3.50    6.84
0.583   10.00 | 1.583   24.39 | 2.583    9.55 |  3.58    6.50
0.667   10.00 | 1.667   24.39 | 2.667    9.55 |  3.67    6.50
0.750   12.39 | 1.750   18.60 | 2.750    8.81 |  3.75    6.19
0.833   12.39 | 1.833   18.60 | 2.833    8.81 |  3.83    6.19
0.917   16.95 | 1.917   15.32 | 2.917    8.19 |  3.92    5.92
1.000   16.95 | 2.000   15.32 | 3.000    8.19 |  4.00    5.92

    Unit Hyd Qpeak  (cms)=   0.270

    PEAK FLOW       (cms)=   0.069 (i)
    TIME TO PEAK    (hrs)=   1.417
    RUNOFF VOLUME    (mm)=  19.544
    TOTAL RAINFALL   (mm)=  79.216
    RUNOFF COEFFICIENT   =   0.247

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------
-------------------
| CALIB             |
| NASHYD   (  0007)|   Area    (ha)=  28.38   Curve Number   (CN)= 62.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   7.00   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.87

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.66 | 1.083   31.52 | 2.083   13.17 |  3.08    7.67
0.167    6.66 | 1.167   31.52 | 2.167   13.17 |  3.17    7.67
0.250    7.44 | 1.250  182.68 | 2.250   11.63 |  3.25    7.23
0.333    7.44 | 1.333  182.68 | 2.333   11.63 |  3.33    7.23
0.417    8.49 | 1.417   38.68 | 2.417   10.47 |  3.42    6.84
0.500    8.49 | 1.500   38.68 | 2.500   10.47 |  3.50    6.84
0.583   10.00 | 1.583   24.39 | 2.583    9.55 |  3.58    6.50
0.667   10.00 | 1.667   24.39 | 2.667    9.55 |  3.67    6.50
0.750   12.39 | 1.750   18.60 | 2.750    8.81 |  3.75    6.19
0.833   12.39 | 1.833   18.60 | 2.833    8.81 |  3.83    6.19
0.917   16.95 | 1.917   15.32 | 2.917    8.19 |  3.92    5.92
1.000   16.95 | 2.000   15.32 | 3.000    8.19 |  4.00    5.92

    Unit Hyd Qpeak  (cms)=   0.580

    PEAK FLOW       (cms)=   0.424 (i)
    TIME TO PEAK    (hrs)=   4.000
```

```
      ID1= 1 (  0010):   120.60   3.648      2.67    31.73
    + ID2= 2 (  0101):    51.91   1.040      3.50    27.70
      ==========================================================
      ID = 3 (  0004):   172.51   4.560      2.83    30.51

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0004)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
-------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0004):   172.51   4.560      2.83    30.51
    + ID2= 2 (  0006):     1.06   0.069      1.42    19.54
      ==========================================================
      ID = 1 (  0004):   173.57   4.571      2.83    30.45

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0004)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0004):   173.57   4.571      2.83    30.45
    + ID2= 2 (  0007):    28.38   0.424      4.00    22.88
      ==========================================================
      ID = 3 (  0004):   201.95   4.909      2.92    29.38

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0004)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
-------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0004):   201.95   4.909      2.92    29.38
    + ID2= 2 (  0008):     3.62   0.086      3.08    28.83
      ==========================================================
      ID = 1 (  0004):   205.57   4.995      2.92    29.38

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0004)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0004):   205.57   4.995      2.92    29.38
    + ID2= 2 (  0085):    10.21   0.268      2.33    22.88
      ==========================================================
      ID = 3 (  0004):   215.78   5.225      2.83    29.07

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------
-------------------
| CALIB             |
| NASHYD   (  0016)|   Area    (ha)=   3.28   Curve Number   (CN)= 62.4
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.82   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.58

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.66 | 1.083   31.52 | 2.083   13.17 |  3.08    7.67
0.167    6.66 | 1.167   31.52 | 2.167   13.17 |  3.17    7.67
0.250    7.44 | 1.250  182.68 | 2.250   11.63 |  3.25    7.23
0.333    7.44 | 1.333  182.68 | 2.333   11.63 |  3.33    7.23
0.417    8.49 | 1.417   38.68 | 2.417   10.47 |  3.42    6.84
0.500    8.49 | 1.500   38.68 | 2.500   10.47 |  3.50    6.84
0.583   10.00 | 1.583   24.39 | 2.583    9.55 |  3.58    6.50
0.667   10.00 | 1.667   24.39 | 2.667    9.55 |  3.67    6.50
0.750   12.39 | 1.750   18.60 | 2.750    8.81 |  3.75    6.19
0.833   12.39 | 1.833   18.60 | 2.833    8.81 |  3.83    6.19
0.917   16.95 | 1.917   15.32 | 2.917    8.19 |  3.92    5.92
1.000   16.95 | 2.000   15.32 | 3.000    8.19 |  4.00    5.92

    Unit Hyd Qpeak  (cms)=   0.216

    PEAK FLOW       (cms)=   0.105 (i)
    TIME TO PEAK    (hrs)=   2.000
```

```
    RUNOFF VOLUME    (mm)=  23.247
    TOTAL RAINFALL   (mm)=  79.216
    RUNOFF COEFFICIENT   =   0.293

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  --------------------------
  | Junction Command(0015) |
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                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 2(  0016)    3.28     0.11     2.00    23.25
  OUTFLOW: ID= 2(  0015)    3.28     0.11     2.00    23.25

  -------------------------------------------------------------------------------

--------------------
| CALIB            |
| NASHYD   (  0017)|   Area    (ha)=   5.46   Curve Number   (CN)= 46.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.03   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.87

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
    TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
     hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
   0.083    6.66 | 1.083   31.52 | 2.083   13.17 |  3.08    7.67
   0.167    6.66 | 1.167   31.52 | 2.167   13.17 |  3.17    7.67
   0.250    7.44 | 1.250  182.68 | 2.250   11.63 |  3.25    7.23
   0.333    7.44 | 1.333  182.68 | 2.333   11.63 |  3.33    7.23
   0.417    8.49 | 1.417   38.68 | 2.417   10.47 |  3.42    6.84
   0.500    8.49 | 1.500   38.68 | 2.500   10.47 |  3.50    6.84
   0.583   10.00 | 1.583   24.39 | 2.583    9.55 |  3.58    6.50
   0.667   10.00 | 1.667   24.39 | 2.667    9.55 |  3.67    6.50
   0.750   12.39 | 1.750   18.60 | 2.750    8.81 |  3.75    6.19
   0.833   12.39 | 1.833   18.60 | 2.833    8.81 |  3.83    6.19
   0.917   16.95 | 1.917   15.32 | 2.917    8.19 |  3.92    5.92
   1.000   16.95 | 2.000   15.32 | 3.000    8.19 |  4.00    5.92

    Unit Hyd Qpeak  (cms)=   0.240

    PEAK FLOW       (cms)=   0.084 (i)
    TIME TO PEAK    (hrs)=   2.500
    RUNOFF VOLUME    (mm)=  14.799
    TOTAL RAINFALL   (mm)=  79.216
    RUNOFF COEFFICIENT   =   0.187

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0013)|
|   1 +  2 =  3    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0015):     3.28    0.105     2.00    23.25
     + ID2= 2 (  0017):     5.46    0.084     2.50    14.80
       ==========================================================
       ID = 3 (  0013):     8.74    0.182     2.17    17.97

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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--------------------
| ADD HYD  (  0013)|
|   3 +  2 =  1    |         AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0013):     8.74    0.182     2.17    17.97
     + ID2= 2 (  0004):   215.78    5.225     2.83    29.07
       ==========================================================
       ID = 1 (  0013):   224.52    5.374     2.83    28.64

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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  --------------------------
  | Junction Command(0014) |
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                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 1(  0013)  224.52     5.37     2.83    28.64
  OUTFLOW: ID= 2(  0014)  224.52     5.37     2.83    28.64

  -------------------------------------------------------------------------------

===============================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I      SS   U   U  AAAAA  L
         V V    I      SS   U   U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M M M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****

  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\0ee7feb9-8
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\0ee7feb9-8

DATE: 02-17-2026                          TIME: 11:13:00

USER:


COMMENTS: _____

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  ************************************************
  ** SIMULATION : H. 2yr 24hr 15min SCS Type II **
  ************************************************

-------------------
|    READ STORM    |    Filename: C:\Users\cbuscher\AppD
|                  |              ata\Local\Temp\
|                  |              66bf999f-bf87-4bf0-a72c-2ffa5f6ec999\71d3e780
| Ptotal= 61.36 mm |   Comments: 2yr 24hr 15min SCS Type II (MTO) C
-------------------
    TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
     hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
   0.00    0.00 |  6.25    1.10 | 12.50    8.84 | 18.75    1.10
   0.25    0.67 |  6.50    1.10 | 12.75    4.54 | 19.00    1.10
   0.50    0.67 |  6.75    1.10 | 13.00    4.54 | 19.25    1.10
   0.75    0.67 |  7.00    1.10 | 13.25    3.31 | 19.50    1.10
   1.00    0.67 |  7.25    1.35 | 13.50    3.31 | 19.75    1.10
   1.25    0.67 |  7.50    1.35 | 13.75    2.58 | 20.00    1.10
   1.50    0.67 |  7.75    1.35 | 14.00    2.58 | 20.25    0.74
   1.75    0.67 |  8.00    1.35 | 14.25    1.84 | 20.50    0.74
   2.00    0.67 |  8.25    1.60 | 14.50    1.84 | 20.75    0.74
   2.25    0.80 |  8.50    1.60 | 14.75    1.84 | 21.00    0.74
   2.50    0.80 |  8.75    1.72 | 15.00    1.84 | 21.25    0.74
   2.75    0.80 |  9.00    1.72 | 15.25    1.84 | 21.50    0.74
   3.00    0.80 |  9.25    1.96 | 15.50    1.84 | 21.75    0.74
   3.25    0.80 |  9.50    1.96 | 15.75    1.84 | 22.00    0.74
   3.50    0.80 |  9.75    2.21 | 16.00    1.84 | 22.25    0.74
   3.75    0.80 | 10.00    2.21 | 16.25    1.10 | 22.50    0.74
   4.00    0.80 | 10.25    2.82 | 16.50    1.10 | 22.75    0.74
   4.25    0.98 | 10.50    2.82 | 16.75    1.10 | 23.00    0.74
   4.50    0.98 | 10.75    3.80 | 17.00    1.10 | 23.25    0.74
   4.75    0.98 | 11.00    3.80 | 17.25    1.10 | 23.50    0.74
   5.00    0.98 | 11.25    5.89 | 17.50    1.10 | 23.75    0.74
   5.25    0.98 | 11.50    5.89 | 17.75    1.10 | 24.00    0.74
   5.50    0.98 | 11.75   18.16 | 18.00    1.10 |
   5.75    0.98 | 12.00   75.10 | 18.25    1.10 |
   6.00    0.98 | 12.25    8.84 | 18.50    1.10 |

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| CALIB            |
| STANDHYD (  0011)|   Area    (ha)=   0.11

|ID= 1 DT= 5.0 min |   Total Imp(%)=  45.50   Dir. Conn.(%)=  27.30
--------------------
                        IMPERVIOUS     PERVIOUS (i)
    Surface Area     (ha)=      0.05          0.06
    Dep. Storage     (mm)=      1.00          5.00
    Average Slope     (%)=      0.50          2.00
    Length            (m)=     27.08         30.00
    Mannings n             =   0.013         0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
    TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
     hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
   0.083    0.00 |  6.167    0.98 |12.250   75.10 | 18.33    1.10
   0.167    0.00 |  6.250    0.98 |12.333    8.84 | 18.42    1.10
   0.250    0.00 |  6.333    1.10 |12.417    8.84 | 18.50    1.10
   0.333    0.67 |  6.417    1.10 |12.500    8.84 | 18.58    1.10
   0.417    0.67 |  6.500    1.10 |12.583    8.84 | 18.67    1.10
   0.500    0.67 |  6.583    1.10 |12.667    8.84 | 18.75    1.10
   0.583    0.67 |  6.667    1.10 |12.750    8.84 | 18.83    1.10
   0.667    0.67 |  6.750    1.10 |12.833    4.54 | 18.92    1.10
   0.750    0.67 |  6.833    1.10 |12.917    4.54 | 19.00    1.10
   0.833    0.67 |  6.917    1.10 |13.000    4.54 | 19.08    1.10
   0.917    0.67 |  7.000    1.10 |13.083    4.54 | 19.17    1.10
   1.000    0.67 |  7.083    1.10 |13.167    4.54 | 19.25    1.10
   1.083    0.67 |  7.167    1.10 |13.250    4.54 | 19.33    1.10
   1.167    0.67 |  7.250    1.10 |13.333    3.31 | 19.42    1.10
   1.250    0.67 |  7.333    1.35 |13.417    3.31 | 19.50    1.10
   1.333    0.67 |  7.417    1.35 |13.500    3.31 | 19.58    1.10
   1.417    0.67 |  7.500    1.35 |13.583    3.31 | 19.67    1.10
   1.500    0.67 |  7.583    1.35 |13.667    3.31 | 19.75    1.10
   1.583    0.67 |  7.667    1.35 |13.750    3.31 | 19.83    1.10
   1.667    0.67 |  7.750    1.35 |13.833    2.58 | 19.92    1.10
   1.750    0.67 |  7.833    1.35 |13.917    2.58 | 20.00    1.10
   1.833    0.67 |  7.917    1.35 |14.000    2.58 | 20.08    1.10
   1.917    0.67 |  8.000    1.35 |14.083    2.58 | 20.17    1.10
   2.000    0.67 |  8.083    1.35 |14.167    2.58 | 20.25    1.10
   2.083    0.67 |  8.167    1.35 |14.250    2.58 | 20.33    0.74
   2.167    0.67 |  8.250    1.35 |14.333    1.84 | 20.42    0.74
   2.250    0.67 |  8.333    1.60 |14.417    1.84 | 20.50    0.74
   2.333    0.80 |  8.417    1.60 |14.500    1.84 | 20.58    0.74
   2.417    0.80 |  8.500    1.60 |14.583    1.84 | 20.67    0.74
   2.500    0.80 |  8.583    1.60 |14.667    1.84 | 20.75    0.74
   2.583    0.80 |  8.667    1.60 |14.750    1.84 | 20.83    0.74
   2.667    0.80 |  8.750    1.60 |14.833    1.84 | 20.92    0.74
   2.750    0.80 |  8.833    1.72 |14.917    1.84 | 21.00    0.74
   2.833    0.80 |  8.917    1.72 |15.000    1.84 | 21.08    0.74
   2.917    0.80 |  9.000    1.72 |15.083    1.84 | 21.17    0.74
   3.000    0.80 |  9.083    1.72 |15.167    1.84 | 21.25    0.74
   3.083    0.80 |  9.167    1.72 |15.250    1.84 | 21.33    0.74
   3.167    0.80 |  9.250    1.72 |15.333    1.84 | 21.42    0.74
   3.250    0.80 |  9.333    1.96 |15.417    1.84 | 21.50    0.74
   3.333    0.80 |  9.417    1.96 |15.500    1.84 | 21.58    0.74
   3.417    0.80 |  9.500    1.96 |15.583    1.84 | 21.67    0.74
   3.500    0.80 |  9.583    1.96 |15.667    1.84 | 21.75    0.74
   3.583    0.80 |  9.667    1.96 |15.750    1.84 | 21.83    0.74
   3.667    0.80 |  9.750    1.96 |15.833    1.84 | 21.92    0.74
   3.750    0.80 |  9.833    2.21 |15.917    1.84 | 22.00    0.74
   3.833    0.80 |  9.917    2.21 |16.000    1.84 | 22.08    0.74
   3.917    0.80 | 10.000    2.21 |16.083    1.84 | 22.17    0.74
   4.000    0.80 | 10.083    2.21 |16.167    1.84 | 22.25    0.74
   4.083    0.80 | 10.167    2.21 |16.250    1.84 | 22.33    0.74
   4.167    0.80 | 10.250    2.21 |16.333    1.10 | 22.42    0.74
   4.250    0.80 | 10.333    2.82 |16.417    1.10 | 22.50    0.74
   4.333    0.98 | 10.417    2.82 |16.500    1.10 | 22.58    0.74
   4.417    0.98 | 10.500    2.82 |16.583    1.10 | 22.67    0.74
   4.500    0.98 | 10.583    2.82 |16.667    1.10 | 22.75    0.74
   4.583    0.98 | 10.667    2.82 |16.750    1.10 | 22.83    0.74
   4.667    0.98 | 10.750    2.82 |16.833    1.10 | 22.92    0.74
   4.750    0.98 | 10.833    3.80 |16.917    1.10 | 23.00    0.74
   4.833    0.98 | 10.917    3.80 |17.000    1.10 | 23.08    0.74
   4.917    0.98 | 11.000    3.80 |17.083    1.10 | 23.17    0.74
   5.000    0.98 | 11.083    3.80 |17.167    1.10 | 23.25    0.74
   5.083    0.98 | 11.167    3.80 |17.250    1.10 | 23.33    0.74
   5.167    0.98 | 11.250    3.80 |17.333    1.10 | 23.42    0.74
   5.250    0.98 | 11.333    5.89 |17.417    1.10 | 23.50    0.74
   5.333    0.98 | 11.417    5.89 |17.500    1.10 | 23.58    0.74
   5.417    0.98 | 11.500    5.89 |17.583    1.10 | 23.67    0.74
   5.500    0.98 | 11.583    5.89 |17.667    1.10 | 23.75    0.74
   5.583    0.98 | 11.667    5.89 |17.750    1.10 | 23.83    0.74
   5.667    0.98 | 11.750    5.89 |17.833    1.10 | 23.92    0.74
   5.750    0.98 |11.833   18.16 |17.917    1.10 | 24.00    0.74
   5.833    0.98 |11.917   18.16 |18.000    1.10 | 24.08    0.74
   5.917    0.98 |12.000   18.16 |18.083    1.10 | 24.17    0.74
   6.000    0.98 |12.083   75.10 |18.167    1.10 | 24.25    0.74
   6.083    0.98 |12.167   75.10 |18.250    1.10 |

    Max.Eff.Inten.(mm/hr)=      75.10         22.82
          over (min)     =       5.00         15.00
    Storage Coeff.  (min)=       1.61 (ii)    12.33 (ii)
    Unit Hyd. Tpeak (min)=       5.00         15.00
    Unit Hyd. peak  (cms)=       0.32          0.08
                                                      *TOTALS*
    PEAK FLOW       (cms)=       0.01          0.00      0.008 (iii)
    TIME TO PEAK    (hrs)=      12.25         12.33        12.25
    RUNOFF VOLUME    (mm)=      60.36         12.98        25.85
    TOTAL RAINFALL   (mm)=      61.36         61.36        61.36
    RUNOFF COEFFICIENT   =       0.98          0.21         0.42

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  49.0    Ia = Dep. Storage  (Above)
       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
            THAN THE STORAGE COEFFICIENT.
      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  | Junction Command(0012) |
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                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 2(  0011)    0.11     0.01    12.25    25.85
  OUTFLOW: ID= 2(  0012)    0.11     0.01    12.25    25.85

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| CALIB            |
| NASHYD   (  0101)|   Area    (ha)=  51.91   Curve Number   (CN)= 68.6
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.95   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.60

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
    TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
     hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
   0.083    0.00 |  6.167    0.98 |12.250   75.10 | 18.33    1.10
   0.167    0.00 |  6.250    0.98 |12.333    8.84 | 18.42    1.10
   0.250    0.00 |  6.333    1.10 |12.417    8.84 | 18.50    1.10
   0.333    0.67 |  6.417    1.10 |12.500    8.84 | 18.58    1.10
   0.417    0.67 |  6.500    1.10 |12.583    8.84 | 18.67    1.10
   0.500    0.67 |  6.583    1.10 |12.667    8.84 | 18.75    1.10
   0.583    0.67 |  6.667    1.10 |12.750    8.84 | 18.83    1.10
   0.667    0.67 |  6.750    1.10 |12.833    4.54 | 18.92    1.10
   0.750    0.67 |  6.833    1.10 |12.917    4.54 | 19.00    1.10
   0.833    0.67 |  6.917    1.10 |13.000    4.54 | 19.08    1.10
   0.917    0.67 |  7.000    1.10 |13.083    4.54 | 19.17    1.10
   1.000    0.67 |  7.083    1.10 |13.167    4.54 | 19.25    1.10
   1.083    0.67 |  7.167    1.10 |13.250    4.54 | 19.33    1.10
   1.167    0.67 |  7.250    1.10 |13.333    3.31 | 19.42    1.10
   1.250    0.67 |  7.333    1.35 |13.417    3.31 | 19.50    1.10
   1.333    0.67 |  7.417    1.35 |13.500    3.31 | 19.58    1.10
   1.417    0.67 |  7.500    1.35 |13.583    3.31 | 19.67    1.10
   1.500    0.67 |  7.583    1.35 |13.667    3.31 | 19.75    1.10
   1.583    0.67 |  7.667    1.35 |13.750    3.31 | 19.83    1.10
   1.667    0.67 |  7.750    1.35 |13.833    2.58 | 19.92    1.10
   1.750    0.67 |  7.833    1.35 |13.917    2.58 | 20.00    1.10
   1.833    0.67 |  7.917    1.35 |14.000    2.58 | 20.08    1.10
   1.917    0.67 |  8.000    1.35 |14.083    2.58 | 20.17    1.10
   2.000    0.67 |  8.083    1.35 |14.167    2.58 | 20.25    1.10
   2.083    0.67 |  8.167    1.35 |14.250    2.58 | 20.33    0.74
   2.167    0.67 |  8.250    1.35 |14.333    1.84 | 20.42    0.74
   2.250    0.67 |  8.333    1.60 |14.417    1.84 | 20.50    0.74
   2.333    0.80 |  8.417    1.60 |14.500    1.84 | 20.58    0.74
   2.417    0.80 |  8.500    1.60 |14.583    1.84 | 20.67    0.74
   2.500    0.80 |  8.583    1.60 |14.667    1.84 | 20.75    0.74
   2.583    0.80 |  8.667    1.60 |14.750    1.84 | 20.83    0.74
   2.667    0.80 |  8.750    1.60 |14.833    1.84 | 20.92    0.74
   2.750    0.80 |  8.833    1.72 |14.917    1.84 | 21.00    0.74
   2.833    0.80 |  8.917    1.72 |15.000    1.84 | 21.08    0.74
   2.917    0.80 |  9.000    1.72 |15.083    1.84 | 21.17    0.74
```

3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Unit Hyd Qpeak (cms)= 1.239

PEAK FLOW (cms)= 0.487 (i)
TIME TO PEAK (hrs)= 14.000
RUNOFF VOLUME (mm)= 17.346
TOTAL RAINFALL (mm)= 61.360
RUNOFF COEFFICIENT = 0.283

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB							
NASHYD (0085)	Area (ha)= 10.21	Curve Number (CN)= 62.0
ID= 1 DT= 5.0 min	Ia (mm)= 7.00	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.77	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.037 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 12.060
TOTAL RAINFALL (mm)= 61.360
RUNOFF COEFFICIENT = 0.197

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB							
NASHYD (0007)	Area (ha)= 28.38	Curve Number (CN)= 62.0
ID= 1 DT= 5.0 min	Ia (mm)= 7.00	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 1.87	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Unit Hyd Qpeak (cms)= 0.506

PEAK FLOW (cms)= 0.133 (i)
TIME TO PEAK (hrs)= 13.000
RUNOFF VOLUME (mm)= 14.069
TOTAL RAINFALL (mm)= 61.360
RUNOFF COEFFICIENT = 0.229

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB							
NASHYD (0006)	Area (ha)= 1.06	Curve Number (CN)= 55.0
ID= 1 DT= 5.0 min	Ia (mm)= 4.72	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.15	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Unit Hyd Qpeak (cms)= 0.580

PEAK FLOW (cms)= 0.189 (i)
TIME TO PEAK (hrs)= 14.333
RUNOFF VOLUME (mm)= 14.069
TOTAL RAINFALL (mm)= 61.360

RUNOFF COEFFICIENT = 0.229

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
NASHYD (0008)	Area (ha)= 3.62	Curve Number (CN)= 68.1	
ID= 1 DT= 5.0 min	Ia (mm)= 4.49	# of Linear Res.(N)= 3.00	
	U.H. Tp(hrs)= 1.31		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 1.824 (i)
TIME TO PEAK (hrs)= 13.333
RUNOFF VOLUME (mm)= 20.179
TOTAL RAINFALL (mm)= 61.360
RUNOFF COEFFICIENT = 0.329

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0004)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0010):	120.60	1.824	13.33	20.18
+ ID2= 2 (0101):	51.91	0.487	14.00	17.35
ID = 3 (0004):	172.51	2.254	13.42	19.33

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0004):	172.51	2.254	13.42	19.33
+ ID2= 2 (0006):	1.06	0.037	12.25	12.06
ID = 1 (0004):	173.57	2.258	13.42	19.28

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	173.57	2.258	13.42	19.28
+ ID2= 2 (0007):	28.38	0.189	14.33	14.07
ID = 3 (0004):	201.95	2.410	13.50	18.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0004):	201.95	2.410	13.50	18.55
+ ID2= 2 (0008):	3.62	0.042	13.58	18.39
ID = 1 (0004):	205.57	2.452	13.50	18.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

ID1= 1 (0004):	205.57	2.452	13.50	18.55
+ ID2= 2 (0085):	10.21	0.133	13.00	14.07
ID = 3 (0004):	215.78	2.567	13.42	18.33

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
NASHYD (0016)	Area (ha)= 3.28	Curve Number (CN)= 62.4	
ID= 1 DT= 5.0 min	Ia (mm)= 6.82	# of Linear Res.(N)= 3.00	
	U.H. Tp(hrs)= 0.58		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74

5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Unit Hyd Qpeak (cms)= 0.216

PEAK FLOW (cms)= 0.053 (i)
TIME TO PEAK (hrs)= 12.750
RUNOFF VOLUME (mm)= 14.328
TOTAL RAINFALL (mm)= 61.360
RUNOFF COEFFICIENT = 0.234

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0015)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0016)	3.28	0.05	12.75	14.33
OUTFLOW: ID= 2(0015)	3.28	0.05	12.75	14.33

CALIB NASHYD (0017) | Area (ha)= 5.46 Curve Number (CN)= 46.8 | ID= 1 DT= 5.0 min | Ia (mm)= 6.03 # of Linear Res.(N)= 3.00 | U.H. Tp(hrs)= 0.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Unit Hyd Qpeak (cms)= 0.240

PEAK FLOW (cms)= 0.040 (i)
TIME TO PEAK (hrs)= 13.083
RUNOFF VOLUME (mm)= 8.897
TOTAL RAINFALL (mm)= 61.360
RUNOFF COEFFICIENT = 0.145

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0013)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0015):	3.28	0.053	12.75	14.33
+ ID2= 2 (0017):	5.46	0.040	13.08	8.90
ID = 3 (0013):	8.74	0.090	12.92	10.94

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0013)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0013):	8.74	0.090	12.92	10.94
+ ID2= 2 (0004):	215.78	2.567	13.42	18.33
ID = 1 (0013):	224.52	2.639	13.42	18.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0014)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0013)	224.52	2.64	13.42	18.05
OUTFLOW: ID= 2(0014)	224.52	2.64	13.42	18.05

V V I SSSSS U U A L (v 6.2.2020)
V V I SS U U A A L
V V I SS U U AAAAA L

V V I SS U U A L
VV I SSSSS UUUUU A A LLLLL

OOO TTTTT TTTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\9976abfc-5
Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\9976abfc-5

DATE: 02-17-2026 TIME: 11:13:04

USER:

COMMENTS: _____

****

			TOTALS
PEAK FLOW (cms)=	0.01	0.00	0.013 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.25
RUNOFF VOLUME (mm)=	80.42	21.87	37.79
TOTAL RAINFALL (mm)=	81.42	81.42	81.42
RUNOFF COEFFICIENT =	0.99	0.27	0.46

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0012)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0011)	0.11	0.01	12.25	37.79
OUTFLOW: ID= 2(0012)	0.11	0.01	12.25	37.79

CALIB NASHYD (0101) ID= 1 DT= 5.0 min	Area (ha)= 51.91 Curve Number (CN)= 68.6 Ia (mm)= 6.95 # of Linear Res.(N)= 3.00 U.H. Tp(hrs)= 1.60

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Unit Hyd Qpeak (cms)= 0.506

PEAK FLOW (cms)= 0.232 (i)
TIME TO PEAK (hrs)= 13.000
RUNOFF VOLUME (mm)= 24.069
TOTAL RAINFALL (mm)= 81.420
RUNOFF COEFFICIENT = 0.296

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB NASHYD (0006) ID= 1 DT= 5.0 min	Area (ha)= 1.06 Curve Number (CN)= 55.0 Ia (mm)= 4.72 # of Linear Res.(N)= 3.00 U.H. Tp(hrs)= 0.15

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Unit Hyd Qpeak (cms)= 1.239

PEAK FLOW (cms)= 0.832 (i)
TIME TO PEAK (hrs)= 14.000
RUNOFF VOLUME (mm)= 29.076
TOTAL RAINFALL (mm)= 81.420
RUNOFF COEFFICIENT = 0.357

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB NASHYD (0085) ID= 1 DT= 5.0 min	Area (ha)= 10.21 Curve Number (CN)= 62.0 Ia (mm)= 7.00 # of Linear Res.(N)= 3.00 U.H. Tp(hrs)= 0.77

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.063 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 20.557
TOTAL RAINFALL (mm)= 81.420
RUNOFF COEFFICIENT = 0.252

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB NASHYD (0007) ID= 1 DT= 5.0 min	Area (ha)= 28.38 Curve Number (CN)= 62.0 Ia (mm)= 7.00 # of Linear Res.(N)= 3.00 U.H. Tp(hrs)= 1.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47

0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Unit Hyd Qpeak (cms)= 0.580

PEAK FLOW (cms)= 0.329 (i)
TIME TO PEAK (hrs)= 14.333
RUNOFF VOLUME (mm)= 24.069
TOTAL RAINFALL (mm)= 81.420
RUNOFF COEFFICIENT = 0.296

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0008)	ID= 1 DT= 5.0 min	Area (ha)= 3.62	Curve Number (CN)= 68.1	Ia (mm)= 4.49	# of Linear Res.(N)= 3.00
		U.H. Tp(hrs)= 1.31			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Unit Hyd Qpeak (cms)= 0.106

PEAK FLOW (cms)= 0.070 (i)

TIME TO PEAK (hrs)= 13.583
RUNOFF VOLUME (mm)= 30.208
TOTAL RAINFALL (mm)= 81.420
RUNOFF COEFFICIENT = 0.371

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0010)	ID= 1 DT= 5.0 min	Area (ha)= 120.60	Curve Number (CN)= 73.3	Ia (mm)= 6.90	# of Linear Res.(N)= 3.00
		U.H. Tp(hrs)= 1.06			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 3.064 (i)
TIME TO PEAK (hrs)= 13.333
RUNOFF VOLUME (mm)= 33.245
TOTAL RAINFALL (mm)= 81.420
RUNOFF COEFFICIENT = 0.408

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0004)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0010):	120.60	3.064	13.33	33.24	
+ ID2= 2 (0101):	51.91	0.832	14.00	29.08	
ID = 3 (0004):	172.51	3.804	13.42	31.99	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
3 + 1 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (0004):	172.51	3.804	13.42	31.99	
+ ID2= 2 (0006):	1.06	0.063	12.25	20.56	
ID = 1 (0004):	173.57	3.810	13.42	31.92	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0004):	173.57	3.810	13.42	31.92	
+ ID2= 2 (0007):	28.38	0.329	14.33	24.07	
ID = 3 (0004):	201.95	4.080	13.42	30.82	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (0004):	201.95	4.080	13.42	30.82	
+ ID2= 2 (0008):	3.62	0.070	13.58	30.21	
ID = 1 (0004):	205.57	4.149	13.42	30.81	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0004):	205.57	4.149	13.42	30.81	
+ ID2= 2 (0085):	10.21	0.232	13.00	24.07	
ID = 3 (0004):	215.78	4.348	13.42	30.49	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0016)	ID= 1 DT= 5.0 min	Area (ha)= 3.28	Curve Number (CN)= 62.4	Ia (mm)= 4.49	# of Linear Res.(N)= 3.00
		U.H. Tp(hrs)= 1.31			

|ID= 1 DT= 5.0 min | Ia (mm)= 6.82 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.58

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Unit Hyd Qpeak (cms)= 0.216

PEAK FLOW (cms)= 0.093 (i)
TIME TO PEAK (hrs)= 12.750
RUNOFF VOLUME (mm)= 24.445
TOTAL RAINFALL (mm)= 81.420
RUNOFF COEFFICIENT = 0.300

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| Junction Command(0015) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0016)	3.28	0.09	12.75	24.44
OUTFLOW: ID= 2(0015)	3.28	0.09	12.75	24.44

CALIB NASHYD (0017) | ID= 1 DT= 5.0 min	Area (ha)= 5.46 Curve Number (CN)= 46.8 Ia (mm)= 6.03 # of Linear Res.(N)= 3.00 U.H. Tp(hrs)= 0.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Unit Hyd Qpeak (cms)= 0.240

PEAK FLOW (cms)= 0.071 (i)
TIME TO PEAK (hrs)= 13.083
RUNOFF VOLUME (mm)= 15.609
TOTAL RAINFALL (mm)= 81.420
RUNOFF COEFFICIENT = 0.192

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0013) | 1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
	ID1= 1 (0015):	3.28	0.093	12.75	24.44
	+ ID2= 2 (0017):	5.46	0.071	13.08	15.61
	ID = 3 (0013):	8.74	0.159	12.83	18.92

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0013) | 3 + 2 = 1		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
	ID1= 3 (0013):	8.74	0.159	12.83	18.92
	+ ID2= 2 (0004):	215.78	4.348	13.42	30.49
	ID = 1 (0013):	224.52	4.474	13.42	30.04

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| Junction Command(0014) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0013)	224.52	4.47	13.42	30.04
OUTFLOW: ID= 2(0014)	224.52	4.47	13.42	30.04

V V I SSSSS U U A L (v 6.2.2020)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUUU A A LLLLL

OOO TTTTT TTTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\vO2\voin.dat
Output filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\67065b11-f
Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\67065b11-f

DATE: 02-17-2026 TIME: 11:13:03

USER:

COMMENTS: _____

** SIMULATION : J. 10yr 24hr 15min SCS Type I **

READ STORM | Ptotal= 94.59 mm	Filename: C:\Users\cbuscher\AppData\Local\Temp\66bf999f-bf87-4bf0-a72c-2ffa5f6ec999\fbf6c308 Comments: 10yr 24hr 15min SCS Type II (MTO) C

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.00	6.25	1.70	12.50	13.62	18.75	1.70
0.25	1.04	6.50	1.70	12.75	7.00	19.00	1.70
0.50	1.04	6.75	1.70	13.00	7.00	19.25	1.70
0.75	1.04	7.00	1.70	13.25	5.11	19.50	1.70
1.00	1.04	7.25	2.08	13.50	5.11	19.75	1.70
1.25	1.04	7.50	2.08	13.75	3.97	20.00	1.70
1.50	1.04	7.75	2.08	14.00	3.97	20.25	1.14
1.75	1.04	8.00	2.08	14.25	2.84	20.50	1.14
2.00	1.04	8.25	2.46	14.50	2.84	20.75	1.14
2.25	1.23	8.50	2.46	14.75	2.84	21.00	1.14
2.50	1.23	8.75	2.65	15.00	2.84	21.25	1.14
2.75	1.23	9.00	2.65	15.25	2.84	21.50	1.14
3.00	1.23	9.25	3.03	15.50	2.84	21.75	1.14
3.25	1.23	9.50	3.03	15.75	2.84	22.00	1.14
3.50	1.23	9.75	3.41	16.00	2.84	22.25	1.14
3.75	1.23	10.00	3.41	16.25	1.70	22.50	1.14
4.00	1.23	10.25	4.35	16.50	1.70	22.75	1.14
4.25	1.51	10.50	4.35	16.75	1.70	23.00	1.14
4.50	1.51	10.75	5.86	17.00	1.70	23.25	1.14
4.75	1.51	11.00	5.86	17.25	1.70	23.50	1.14
5.00	1.51	11.25	9.08	17.50	1.70	23.75	1.14
5.25	1.51	11.50	9.08	17.75	1.70	24.00	1.14
5.50	1.51	11.75	28.00	18.00	1.70		
5.75	1.51	12.00	115.78	18.25	1.70		
6.00	1.51	12.25	13.62	18.50	1.70		

CALIB STANDHYD (0011) | ID= 1 DT= 5.0 min	Area (ha)= 0.11 Total Imp(%)= 45.50 Dir. Conn.(%)= 27.30

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.05	0.06
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	27.08	30.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70

0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Max.Eff.Inten.(mm/hr)=	115.78	55.26	
over (min)	5.00	10.00	
Storage Coeff. (min)=	1.35 (ii)	8.88 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.33	0.12	
			TOTALS
PEAK FLOW (cms)=	0.01	0.01	0.016 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	93.59	28.55	46.27
TOTAL RAINFALL (mm)=	94.59	94.59	94.59
RUNOFF COEFFICIENT =	0.99	0.30	0.49

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0012)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0011)	0.11	0.02	12.25	46.27
OUTFLOW: ID= 2(0012)	0.11	0.02	12.25	46.27

CALIB					
NASHYD (0101)	Area	(ha)=	51.91	Curve Number	(CN)= 68.6
ID= 1 DT= 5.0 min	Ia	(mm)=	6.95	# of Linear Res.(N)= 3.00	
	U.H. Tp(hrs)=		1.60		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 1.239

PEAK FLOW (cms)= 1.087 (i)
TIME TO PEAK (hrs)= 13.917
RUNOFF VOLUME (mm)= 37.669
TOTAL RAINFALL (mm)= 94.590
RUNOFF COEFFICIENT = 0.398

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0085)	Area	(ha)=	10.21	Curve Number	(CN)= 62.0
ID= 1 DT= 5.0 min	Ia	(mm)=	7.00	# of Linear Res.(N)= 3.00	
	U.H. Tp(hrs)=		0.77		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 0.506

PEAK FLOW (cms)= 0.306 (i)
TIME TO PEAK (hrs)= 13.000
RUNOFF VOLUME (mm)= 31.537
TOTAL RAINFALL (mm)= 94.590
RUNOFF COEFFICIENT = 0.333

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0006)	Area	(ha)=	1.06	Curve Number	(CN)= 55.0
ID= 1 DT= 5.0 min	Ia	(mm)=	4.72	# of Linear Res.(N)= 3.00	
	U.H. Tp(hrs)=		0.15		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14

2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.084 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 26.974
TOTAL RAINFALL (mm)= 94.590
RUNOFF COEFFICIENT = 0.285

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0007) | ID= 1 DT= 5.0 min | Area (ha)= 28.38 Curve Number (CN)= 62.0
Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 0.106

PEAK FLOW (cms)= 0.091 (i)
TIME TO PEAK (hrs)= 13.583
RUNOFF VOLUME (mm)= 38.826
TOTAL RAINFALL (mm)= 94.590
RUNOFF COEFFICIENT = 0.410

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB

1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 0.580

PEAK FLOW (cms)= 0.435 (i)
TIME TO PEAK (hrs)= 14.250
RUNOFF VOLUME (mm)= 31.537
TOTAL RAINFALL (mm)= 94.590
RUNOFF COEFFICIENT = 0.333

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0008) | ID= 1 DT= 5.0 min | Area (ha)= 3.62 Curve Number (CN)= 68.1
Ia (mm)= 4.49 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.31

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70

NASHYD (0010) | ID= 1 DT= 5.0 min | Area (ha)= 120.60 Curve Number (CN)= 73.3
Ia (mm)= 6.90 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.06

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 3.964 (i)
TIME TO PEAK (hrs)= 13.333
RUNOFF VOLUME (mm)= 42.670
TOTAL RAINFALL (mm)= 94.590
RUNOFF COEFFICIENT = 0.451

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0004)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0010):	120.60	3.964	13.33	42.67
+ ID2= 2 (0101):	51.91	1.087	13.92	37.67
ID = 3 (0004):	172.51	4.932	13.42	41.16

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0004):	172.51	4.932	13.42	41.16
+ ID2= 2 (0006):	1.06	0.084	12.25	26.97
ID = 1 (0004):	173.57	4.940	13.42	41.08

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	173.57	4.940	13.42	41.08
+ ID2= 2 (0007):	28.38	0.435	14.25	31.54
ID = 3 (0004):	201.95	5.300	13.42	39.74

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0004):	201.95	5.300	13.42	39.74
+ ID2= 2 (0008):	3.62	0.091	13.58	38.83
ID = 1 (0004):	205.57	5.389	13.42	39.72

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	205.57	5.389	13.42	39.72
+ ID2= 2 (0085):	10.21	0.306	13.00	31.54
ID = 3 (0004):	215.78	5.652	13.42	39.33

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0016)	Area (ha)=	3.28	Curve Number (CN)=	62.4	
ID= 1 DT= 5.0 min	Ia (mm)=	6.82	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.58			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 0.216

PEAK FLOW (cms)= 0.123 (i)
TIME TO PEAK (hrs)= 12.750
RUNOFF VOLUME (mm)= 31.988
TOTAL RAINFALL (mm)= 94.590
RUNOFF COEFFICIENT = 0.338

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0015)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0016)	3.28	0.12	12.75	31.99
OUTFLOW: ID= 2(0015)	3.28	0.12	12.75	31.99

CALIB					
NASHYD (0017)	Area (ha)=	5.46	Curve Number (CN)=	46.8	
ID= 1 DT= 5.0 min	Ia (mm)=	6.03	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.87			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 0.240

PEAK FLOW (cms)= 0.096 (i)
TIME TO PEAK (hrs)= 13.083
RUNOFF VOLUME (mm)= 20.787
TOTAL RAINFALL (mm)= 94.590
RUNOFF COEFFICIENT = 0.220

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0013)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0015):	3.28	0.123	12.75	31.99	
+ ID2= 2 (0017):	5.46	0.096	13.08	20.79	
ID = 3 (0013):	8.74	0.211	12.83	24.99	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0013)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (0013):	8.74	0.211	12.83	24.99	
+ ID2= 2 (0014):	215.78	5.652	13.42	39.33	
ID = 1 (0013):	224.52	5.819	13.33	38.78	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0014)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0013)	224.52	5.82	13.33	38.78
OUTFLOW: ID= 2(0014)	224.52	5.82	13.33	38.78

V V I SSSSS U U A L (v 6.2.2020)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
V V I SSSSS UUUUU A A LLLLL

OOO TTTTT TTTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\6940840b-c
Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\6940840b-c

DATE: 02-17-2026 TIME: 11:13:04

USER:

COMMENTS: _____

***

4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Unit Hyd Qpeak (cms)= 0.506

PEAK FLOW (cms)= 0.410 (i)
TIME TO PEAK (hrs)= 13.000
RUNOFF VOLUME (mm)= 41.876
TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.376

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0006) | Area (ha)= 1.06 Curve Number (CN)= 55.0
ID= 1 DT= 5.0 min | Ia (mm)= 4.72 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.15

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Unit Hyd Qpeak (cms)= 0.580

PEAK FLOW (cms)= 0.583 (i)
TIME TO PEAK (hrs)= 14.250
RUNOFF VOLUME (mm)= 41.876
TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.376

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0008) | Area (ha)= 3.62 Curve Number (CN)= 68.1
ID= 1 DT= 5.0 min | Ia (mm)= 4.49 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.31

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.113 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 35.950
TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.323

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0007) | Area (ha)= 28.38 Curve Number (CN)= 62.0
ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Unit Hyd Qpeak (cms)= 0.106

PEAK FLOW (cms)= 0.119 (i)
TIME TO PEAK (hrs)= 13.583
RUNOFF VOLUME (mm)= 50.562
TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.454

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0010) | Area (ha)= 120.60 Curve Number (CN)= 73.3
ID= 1 DT= 5.0 min | Ia (mm)= 6.90 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.06

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr

0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 5.187 (i)
TIME TO PEAK (hrs)= 13.250
RUNOFF VOLUME (mm)= 55.388
TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.497

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	136.28	18.167	2.00	24.25	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Unit Hyd Qpeak (cms)= 0.216

PEAK FLOW (cms)= 0.165 (i)
TIME TO PEAK (hrs)= 12.750
RUNOFF VOLUME (mm)= 42.418
TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.381

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| Junction Command(0015) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0016)	3.28	0.16	12.75	42.42
OUTFLOW: ID= 2(0015)	3.28	0.16	12.75	42.42

| ADD HYD (0004)|

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (0010):	120.60	5.187	13.25	55.39
+ ID2= 2 (0101):	51.91	1.437	13.92	49.39
ID = 3 (0004):	172.51	6.464	13.33	53.58

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0004)|

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (0004):	172.51	6.464	13.33	53.58
+ ID2= 2 (0006):	1.06	0.113	12.25	35.95
ID = 1 (0004):	173.57	6.475	13.33	53.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0004)|

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (0004):	173.57	6.475	13.33	53.48
+ ID2= 2 (0007):	28.38	0.583	14.25	41.88
ID = 3 (0004):	201.95	6.959	13.42	51.85

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0004)|

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (0004):	201.95	6.959	13.42	51.85
+ ID2= 2 (0008):	3.62	0.119	13.58	50.56
ID = 1 (0004):	205.57	7.077	13.42	51.82

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0004)|

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (0004):	205.57	7.077	13.42	51.82
+ ID2= 2 (0085):	10.21	0.410	13.00	41.88
ID = 3 (0004):	215.78	7.426	13.42	51.35

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| NASHYD (0016)| Area (ha)= 3.28 Curve Number (CN)= 62.4
|ID= 1 DT= 5.0 min | Ia (mm)= 6.82 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.58

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00

| CALIB |
| NASHYD (0017)| Area (ha)= 5.46 Curve Number (CN)= 46.8
|ID= 1 DT= 5.0 min | Ia (mm)= 6.03 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34

	6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
	6.083	1.78	12.167	136.29	18.250	2.00		

Unit Hyd Qpeak (cms)= 0.240

PEAK FLOW (cms)= 0.131 (i)
TIME TO PEAK (hrs)= 13.083
RUNOFF VOLUME (mm)= 28.149
TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.253

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0013)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0015):		3.28	0.165	12.75	42.42
+ ID2= 2 (0017):		5.46	0.131	13.08	28.15
ID = 3 (0013):		8.74	0.285	12.83	33.50

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0013)		AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1		(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0013):		8.74	0.285	12.83	33.50
+ ID2= 2 (0004):		215.78	7.426	13.42	51.35
ID = 1 (0013):		224.52	7.658	13.33	50.66

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0014)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0013)	224.52	7.66	13.33	50.66
OUTFLOW: ID= 2(0014)	224.52	7.66	13.33	50.66

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       V    V   I    SSSSS  U    U    A     L              (v 6.2.2020)
       V    V   I    SS     U    U   A A    L
        V  V    I      SS   U    U  AAAAA   L
         VV     I       SS  U    U  A   A   L
          VV    I    SSSSS   UUUU   A   A   LLLLL

        OOO   TTTTT  TTTTT  H   H   Y   Y   M   M   OOO    TM
       O   O    T      T    H   H    Y Y    MM MM  O   O
       O   O    T      T    H   H     Y     M M M  O   O
        OOO     T      T    H   H     Y     M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\394c5743-5
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\394c5743-5

DATE: 02-17-2026                          TIME: 11:13:02

USER:


COMMENTS: _____
```

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**************************************************
** SIMULATION : L. 50yr 24hr 15min SCS Type I **
**************************************************
```

READ STORM	Filename: C:\Users\cbuscher\AppData\Local\Temp\66bf999f-bf87-4bf0-a72c-2ffa5f6ec999\a5af3fc0
Ptotal=123.62 mm	Comments: 50yr 24hr 15min SCS Type II (MTO) C

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.00	6.25	2.23	12.50	17.80	18.75	2.23
0.25	1.36	6.50	2.23	12.75	9.15	19.00	2.23
0.50	1.36	6.75	2.23	13.00	9.15	19.25	2.23
0.75	1.36	7.00	2.23	13.25	6.68	19.50	2.23
1.00	1.36	7.25	2.72	13.50	6.68	19.75	2.23
1.25	1.36	7.50	2.72	13.75	5.19	20.00	2.23
1.50	1.36	7.75	2.72	14.00	5.19	20.25	1.48
1.75	1.36	8.00	2.72	14.25	3.71	20.50	1.48
2.00	1.36	8.25	3.21	14.50	3.71	20.75	1.48
2.25	1.61	8.50	3.21	14.75	3.71	21.00	1.48
2.50	1.61	8.75	3.46	15.00	3.71	21.25	1.48
2.75	1.61	9.00	3.46	15.25	3.71	21.50	1.48
3.00	1.61	9.25	3.96	15.50	3.71	21.75	1.48
3.25	1.61	9.50	3.96	15.75	3.71	22.00	1.48
3.50	1.61	9.75	4.45	16.00	3.71	22.25	1.48
3.75	1.61	10.00	4.45	16.25	2.23	22.50	1.48
4.00	1.61	10.25	5.69	16.50	2.23	22.75	1.48
4.25	1.98	10.50	5.69	16.75	2.23	23.00	1.48
4.50	1.98	10.75	7.66	17.00	2.23	23.25	1.48
4.75	1.98	11.00	7.66	17.25	2.23	23.50	1.48
5.00	1.98	11.25	11.87	17.50	2.23	23.75	1.48
5.25	1.98	11.50	11.87	17.75	2.23	24.00	1.48
5.50	1.98	11.75	36.59	18.00	2.23		
5.75	1.98	12.00	151.31	18.25	2.23		
6.00	1.98	12.25	17.80	18.50	2.23		

CALIB	
STANDHYD (0011)	Area (ha)= 0.11
ID= 1 DT= 5.0 min	Total Imp(%)= 45.50 Dir. Conn.(%)= 27.30

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.05	0.06
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	27.08	30.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

			TOTALS
Max.Eff.Inten.(mm/hr)=	151.31	87.65	
over (min)	5.00	10.00	
Storage Coeff. (min)=	1.22 (ii)	7.48 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.33	0.13	
PEAK FLOW (cms)=	0.01	0.01	0.024 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	122.62	45.18	66.27
TOTAL RAINFALL (mm)=	123.62	123.62	123.62
RUNOFF COEFFICIENT =	0.99	0.37	0.54

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0012)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0011)	0.11	0.02	12.25	66.27
OUTFLOW: ID= 2(0012)	0.11	0.02	12.25	66.27

CALIB	
NASHYD (0101)	Area (ha)= 51.91 Curve Number (CN)= 68.6
ID= 1 DT= 5.0 min	Ia (mm)= 6.95 # of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 1.60

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Unit Hyd Qpeak (cms)= 1.239

PEAK FLOW (cms)= 1.708 (i)
TIME TO PEAK (hrs)= 13.917
RUNOFF VOLUME (mm)= 58.437
TOTAL RAINFALL (mm)= 123.620
RUNOFF COEFFICIENT = 0.473

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0085) | Area (ha)= 10.21 Curve Number (CN)= 62.0
ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.77

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.135 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 43.021
TOTAL RAINFALL (mm)= 123.620
RUNOFF COEFFICIENT = 0.348

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0007) | Area (ha)= 28.38 Curve Number (CN)= 62.0
ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Unit Hyd Qpeak (cms)= 0.506

PEAK FLOW (cms)= 0.492 (i)
TIME TO PEAK (hrs)= 12.917
RUNOFF VOLUME (mm)= 49.946
TOTAL RAINFALL (mm)= 123.620
RUNOFF COEFFICIENT = 0.404

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0006) | Area (ha)= 1.06 Curve Number (CN)= 55.0
ID= 1 DT= 5.0 min | Ia (mm)= 4.72 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.15

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Unit Hyd Qpeak (cms)= 0.580

PEAK FLOW (cms)= 0.698 (i)
TIME TO PEAK (hrs)= 14.250
RUNOFF VOLUME (mm)= 49.946
TOTAL RAINFALL (mm)= 123.620
RUNOFF COEFFICIENT = 0.404

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0008) | Area (ha)= 3.62 Curve Number (CN)= 68.1
ID= 1 DT= 5.0 min | Ia (mm)= 4.49 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.31

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23

2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Unit Hyd Qpeak (cms)= 0.106

PEAK FLOW (cms)= 0.141 (i)
TIME TO PEAK (hrs)= 13.583
RUNOFF VOLUME (mm)= 59.602
TOTAL RAINFALL (mm)= 123.620
RUNOFF COEFFICIENT = 0.482

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0010)
ID= 1 DT= 5.0 min

Area (ha)= 120.60 Curve Number (CN)= 73.3
Ia (mm)= 6.90 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.06

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 6.123 (i)
TIME TO PEAK (hrs)= 13.250
RUNOFF VOLUME (mm)= 65.110
TOTAL RAINFALL (mm)= 123.620
RUNOFF COEFFICIENT = 0.527

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0004)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0010):	120.60	6.123	13.25	65.11
+ ID2= 2 (0101):	51.91	1.708	13.92	58.44
ID = 3 (0004):	172.51	7.644	13.33	63.10

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	172.51	7.644	13.33	63.10
+ ID2= 2 (0006):	1.06	0.135	12.25	43.02
ID = 1 (0004):	173.57	7.657	13.33	62.98

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	173.57	7.657	13.33	62.98
+ ID2= 2 (0007):	28.38	0.698	14.25	49.95
ID = 3 (0004):	201.95	8.235	13.42	61.15

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	201.95	8.235	13.42	61.15
+ ID2= 2 (0008):	3.62	0.141	13.58	59.60
ID = 1 (0004):	205.57	8.375	13.42	61.12

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	205.57	8.375	13.42	61.12
+ ID2= 2 (0085):	10.21	0.492	12.92	49.95
ID = 3 (0004):	215.78	8.792	13.33	60.59

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
NASHYD (0016)
ID= 1 DT= 5.0 min

Area (ha)= 3.28 Curve Number (CN)= 62.4
Ia (mm)= 6.82 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.58

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Unit Hyd Qpeak (cms)= 0.216

PEAK FLOW (cms)= 0.197 (i)
TIME TO PEAK (hrs)= 12.750
RUNOFF VOLUME (mm)= 50.553
TOTAL RAINFALL (mm)= 123.620
RUNOFF COEFFICIENT = 0.409

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0015)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0016)	3.28	0.20	12.75	50.55
OUTFLOW: ID= 2(0015)	3.28	0.20	12.75	50.55

CALIB
NASHYD (0017)
ID= 1 DT= 5.0 min

Area (ha)= 5.46 Curve Number (CN)= 46.8
Ia (mm)= 6.03 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Unit Hyd Qpeak (cms)= 0.240

PEAK FLOW (cms)= 0.159 (i)
TIME TO PEAK (hrs)= 13.083
RUNOFF VOLUME (mm)= 34.030
TOTAL RAINFALL (mm)= 123.620
RUNOFF COEFFICIENT = 0.275

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0013)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	ID1= 1 (0015):	3.28	0.197	12.75	50.55
	+ ID2= 2 (0017):	5.46	0.159	13.08	34.03
	ID = 3 (0013):	8.74	0.343	12.83	40.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0013)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1	ID1= 3 (0013):	8.74	0.343	12.83	40.23
	+ ID2= 2 (0004):	215.78	8.792	13.33	60.59
	ID = 1 (0013):	224.52	9.076	13.33	59.80

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0014)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0013)	224.52	9.08	13.33	59.80
OUTFLOW: ID= 2(0014)	224.52	9.08	13.33	59.80

V V I SSSSS U U A L (v 6.2.2020)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUUU A A LLLLL

OOO TTTTT TTTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\vO2\voin.dat
Output filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\d6e822a9-c
Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\d6e822a9-c

DATE: 02-17-2026 TIME: 11:13:05

USER:

COMMENTS: _____

** SIMULATION : M. 100yr 24hr 15min SCS Type **

READ STORM	Filename: C:\Users\cbuscher\AppD ata\Local\Temp\ 66bf999f-bf87-4bf0-a72c-2ffa5f6ec999\a2ae5b2a
Ptotal=135.89 mm	Comments: 100yr 24hr 15min SCS Type II (MTO) C

CALIB							
STANDHYD (0011)	Area (ha)= 0.11						
ID= 1 DT= 5.0 min	Total Imp(%)= 45.50 Dir. Conn.(%)= 27.30						

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.05	0.06
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	27.08	30.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

		PEAK	TIME	VOLUME
Max.Eff.Inten.(mm/hr)=	over (min)	166.33	102.61	
	over (min)	5.00	10.00	
Storage Coeff. (min)=		1.17 (ii)	7.05 (ii)	
Unit Hyd. Tpeak (min)=		5.00	10.00	
Unit Hyd. peak (cms)=		0.34	0.14	
				TOTALS
PEAK FLOW	(cms)=	0.01	0.01	0.027 (iii)
TIME TO PEAK	(hrs)=	12.25	12.25	12.25
RUNOFF VOLUME	(mm)=	134.89	52.86	75.21
TOTAL RAINFALL	(mm)=	135.89	135.89	135.89
RUNOFF COEFFICIENT	=	0.99	0.39	0.55

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0012)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0011)	0.11	0.03	12.25	75.21
OUTFLOW: ID= 2(0012)	0.11	0.03	12.25	75.21

CALIB					
NASHYD (0101)	Area (ha)=	51.91	Curve Number (CN)=	68.6	
ID= 1 DT= 5.0 min	Ia (mm)=	6.95	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	1.60			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45

0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Unit Hyd Qpeak (cms)= 1.239

PEAK FLOW (cms)= 1.989 (i)
TIME TO PEAK (hrs)= 13.917
RUNOFF VOLUME (mm)= 67.803
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.499

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

6.083	2.17	12.167	166.33	18.250	2.45		

Unit Hyd Qpeak (cms)= 0.506

PEAK FLOW (cms)= 0.578 (i)
TIME TO PEAK (hrs)= 12.917
RUNOFF VOLUME (mm)= 58.378
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.430

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB							
NASHYD (0006)	Area (ha)= 1.06	Curve Number (CN)= 55.0					
ID= 1 DT= 5.0 min	Ia (mm)= 4.72	# of Linear Res.(N)= 3.00					
	U.H. Tp(hrs)= 0.15						

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63

CALIB							
NASHYD (0035)	Area (ha)= 10.21	Curve Number (CN)= 62.0					
ID= 1 DT= 5.0 min	Ia (mm)= 7.00	# of Linear Res.(N)= 3.00					
	U.H. Tp(hrs)= 0.77						

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.159 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 50.463
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.371

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB							
NASHYD (0007)	Area (ha)= 28.38	Curve Number (CN)= 62.0					
ID= 1 DT= 5.0 min	Ia (mm)= 7.00	# of Linear Res.(N)= 3.00					
	U.H. Tp(hrs)= 1.87						

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63

3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Unit Hyd Qpeak (cms)= 0.580

PEAK FLOW (cms)= 0.820 (i)
TIME TO PEAK (hrs)= 14.250
RUNOFF VOLUME (mm)= 58.379
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.430

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0008)	Area (ha)=	3.62	Curve Number (CN)=	68.1	
ID= 1 DT= 5.0 min	Ia (mm)=	4.49	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	1.31			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Unit Hyd Qpeak (cms)= 0.106

PEAK FLOW (cms)= 0.164 (i)
TIME TO PEAK (hrs)= 13.583
RUNOFF VOLUME (mm)= 68.958
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.507

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0010)	Area (ha)=	120.60	Curve Number (CN)=	73.3	
ID= 1 DT= 5.0 min	Ia (mm)=	6.90	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	1.06			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 7.087 (i)
TIME TO PEAK (hrs)= 13.250
RUNOFF VOLUME (mm)= 75.113
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.553

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0004)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0010):	120.60	7.087	13.25	75.11
+ ID2= 2 (0101):	51.91	1.989	13.92	67.80
ID = 3 (0004):	172.51	8.860	13.33	72.91

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0004):	172.51	8.860	13.33	72.91
+ ID2= 2 (0006):	1.06	0.159	12.25	50.46
ID = 3 (0004):	173.57	8.875	13.33	72.78

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	173.57	8.875	13.33	72.78
+ ID2= 2 (0007):	28.38	0.820	14.25	58.38
ID = 3 (0004):	201.95	9.553	13.42	70.75

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0004):	201.95	9.553	13.42	70.75
+ ID2= 2 (0008):	3.62	0.164	13.58	68.96
ID = 1 (0004):	205.57	9.715	13.42	70.72

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	205.57	9.715	13.42	70.72
+ ID2= 2 (0085):	10.21	0.578	12.92	58.38
ID = 3 (0004):	215.78	10.208	13.33	70.14

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0016)	Area (ha)=	3.28	Curve Number (CN)=	62.4	
ID= 1 DT= 5.0 min	Ia (mm)=	6.82	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.58			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63

2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Unit Hyd Qpeak (cms)= 0.216

PEAK FLOW (cms)= 0.232 (i)
TIME TO PEAK (hrs)= 12.750
RUNOFF VOLUME (mm)= 59.047
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.435

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0015)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0016)	3.28	0.23	12.75	59.05
OUTFLOW: ID= 2(0015)	3.28	0.23	12.75	59.05

CALIB	
NASHYD (0017)	Area (ha)= 5.46 Curve Number (CN)= 46.8
ID= 1 DT= 5.0 min	Ia (mm)= 6.03 # of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Unit Hyd Qpeak (cms)= 0.240

PEAK FLOW (cms)= 0.189 (i)
TIME TO PEAK (hrs)= 13.083
RUNOFF VOLUME (mm)= 40.286
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.296

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0013)				
1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0015):		3.28	0.232	12.75	59.05
+ ID2= 2 (0017):		5.46	0.189	13.08	40.29
ID = 3 (0013):		8.74	0.405	12.83	47.33

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0013)				
3 + 2 = 1		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0013):		8.74	0.405	12.83	47.33
+ ID2= 2 (0004):		215.78	10.208	13.33	70.14
ID = 1 (0013):		224.52	10.543	13.33	69.25

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0014)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0013)	224.52	10.54	13.33	69.25
OUTFLOW: ID= 2(0014)	224.52	10.54	13.33	69.25

FINISH

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================================================================================

================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I      SS   U   U  AAAAA  L
        V  V    I       SS  U   U  A   A  L
         VV     I    SSSSS   UUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\c476c88f-1
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\c476c88f-1


DATE: 02-17-2026                          TIME: 11:13:05

USER:


COMMENTS: _____


  ************************************************
  ** SIMULATION : N. tim                        **
  ************************************************


--------------------
|    READ STORM    |    Filename: C:\Users\cbuscher\AppD
|                  |              ata\Local\Temp\
|                  |              66bf999f-bf87-4bf0-a72c-2ffa5f6ec999\2b68f528
| Ptotal=193.00 mm |    Comments: tim
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```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	15.00	3.00	3.00	6.00	43.00	9.00	13.00
1.00	20.00	4.00	5.00	7.00	20.00	10.00	13.00
2.00	10.00	5.00	20.00	8.00	23.00	11.00	8.00

CALIB	
STANDHYD (0011)	Area (ha)= 0.11
ID= 1 DT= 5.0 min	Total Imp(%)= 45.50 Dir. Conn.(%)= 27.30

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.05	0.06
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	27.08	30.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Max.Eff.Inten.(mm/hr)=		43.00	33.43	
over (min)		5.00	15.00	
Storage Coeff.	(min)=	2.01 (ii)	11.22 (ii)	
Unit Hyd. Tpeak (min)=		5.00	15.00	
Unit Hyd. peak	(cms)=	0.31	0.09	
				TOTALS
PEAK FLOW	(cms)=	0.00	0.01	0.009 (iii)
TIME TO PEAK	(hrs)=	6.42	7.00	
RUNOFF VOLUME	(mm)=	192.00	92.44	119.57
TOTAL RAINFALL	(mm)=	193.00	193.00	193.00
RUNOFF COEFFICIENT	=	0.99	0.48	0.62

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0012)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0011)	0.11	0.01	7.00	119.57
OUTFLOW: ID= 2(0012)	0.11	0.01	7.00	119.57

CALIB					
NASHYD (0101)	Area	(ha)=	51.91	Curve Number	(CN)= 68.6
ID= 1 DT= 5.0 min	Ia	(mm)=	6.95	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		1.60		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Unit Hyd Qpeak (cms)= 1.239

PEAK FLOW (cms)= 2.490 (i)
TIME TO PEAK (hrs)= 9.333
RUNOFF VOLUME (mm)= 114.499
TOTAL RAINFALL (mm)= 193.000
RUNOFF COEFFICIENT = 0.593

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0085)	Area	(ha)=	10.21	Curve Number	(CN)= 62.0
ID= 1 DT= 5.0 min	Ia	(mm)=	7.00	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		0.77		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.070 (i)
TIME TO PEAK (hrs)= 7.000
RUNOFF VOLUME (mm)= 88.980
TOTAL RAINFALL (mm)= 193.000
RUNOFF COEFFICIENT = 0.461

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0007)	Area	(ha)=	28.38	Curve Number	(CN)= 62.0
ID= 1 DT= 5.0 min	Ia	(mm)=	7.00	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		1.87		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Unit Hyd Qpeak (cms)= 0.580

PEAK FLOW (cms)= 1.152 (i)
TIME TO PEAK (hrs)= 9.750
RUNOFF VOLUME (mm)= 101.253
TOTAL RAINFALL (mm)= 193.000
RUNOFF COEFFICIENT = 0.525

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0008)	Area	(ha)=	3.62	Curve Number	(CN)= 68.1
ID= 1 DT= 5.0 min	Ia	(mm)=	4.49	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		1.31		

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Unit Hyd Qpeak (cms)= 0.506

PEAK FLOW (cms)= 0.549 (i)
TIME TO PEAK (hrs)= 7.500
RUNOFF VOLUME (mm)= 101.252
TOTAL RAINFALL (mm)= 193.000
RUNOFF COEFFICIENT = 0.525

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0006)	Area	(ha)=	1.06	Curve Number	(CN)= 55.0
ID= 1 DT= 5.0 min	Ia	(mm)=	4.72	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		0.15		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Unit Hyd Qpeak (cms)= 0.106

PEAK FLOW (cms)= 0.181 (i)
TIME TO PEAK (hrs)= 9.000
RUNOFF VOLUME (mm)= 115.567
TOTAL RAINFALL (mm)= 193.000
RUNOFF COEFFICIENT = 0.599

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0010)	Area	(ha)=	120.60	Curve Number	(CN)= 73.3
ID= 1 DT= 5.0 min	Ia	(mm)=	6.90	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		1.06		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00

1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 7.071 (i)
TIME TO PEAK (hrs)= 7.833
RUNOFF VOLUME (mm)= 124.302
TOTAL RAINFALL (mm)= 193.000
RUNOFF COEFFICIENT = 0.644

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0004)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0010):	120.60	7.071	7.83	124.30	
+ ID2= 2 (0101):	51.91	2.490	9.33	114.50	
ID = 3 (0004):	172.51	9.227	8.08	121.35	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (0004):	172.51	9.227	8.08	121.35	
+ ID2= 2 (0006):	1.06	0.070	7.00	88.98	
ID = 1 (0004):	173.57	9.265	8.08	121.15	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0004):	173.57	9.265	8.08	121.15	
+ ID2= 2 (0007):	28.38	1.152	9.75	101.25	
ID = 3 (0004):	201.95	10.201	8.25	118.36	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (0004):	201.95	10.201	8.25	118.36	
+ ID2= 2 (0008):	3.62	0.181	9.00	115.57	
ID = 1 (0004):	205.57	10.381	8.33	118.31	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0004)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0004):	205.57	10.381	8.33	118.31	

+ ID2= 2 (0085): 10.21 0.549 7.50 101.25
ID = 3 (0004): 215.78 10.859 8.25 117.50

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0016)	Area (ha)=	3.28	Curve Number (CN)=	62.4	
ID= 1 DT= 5.0 min	Ia (mm)=	6.82	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.58			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Unit Hyd Qpeak (cms)= 0.216

PEAK FLOW (cms)= 0.199 (i)
TIME TO PEAK (hrs)= 7.250
RUNOFF VOLUME (mm)= 102.178
TOTAL RAINFALL (mm)= 193.000
RUNOFF COEFFICIENT = 0.529

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0015)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0016)	3.28	0.20	7.25	102.18
OUTFLOW: ID= 2(0015)	3.28	0.20	7.25	102.18

CALIB					
NASHYD (0017)	Area (ha)=	5.46	Curve Number (CN)=	46.8	
ID= 1 DT= 5.0 min	Ia (mm)=	6.03	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.87			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Unit Hyd Qpeak (cms)= 0.240

PEAK FLOW (cms)= 0.196 (i)
TIME TO PEAK (hrs)= 7.667
RUNOFF VOLUME (mm)= 73.485
TOTAL RAINFALL (mm)= 193.000
RUNOFF COEFFICIENT = 0.381

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0013)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0015):	3.28	0.199	7.25	102.18	
+ ID2= 2 (0017):	5.46	0.196	7.67	73.49	
ID = 3 (0013):	8.74	0.385	7.42	84.25	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0013)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (0013):	8.74	0.385	7.42	84.25	
+ ID2= 2 (0004):	215.78	10.859	8.25	117.50	
ID = 1 (0013):	224.52	11.194	8.17	116.21	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0014)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0013)	224.52	11.19	8.17	116.21
OUTFLOW: ID= 2(0014)	224.52	11.19	8.17	116.21

APPENDIX D

Post-Development Hydrologic Model

Active coordinate

44° 27' 15" N, 80° 12' 14" W (44.454167,-80.204167)

Retrieved: Thu, 30 Nov 2023 22:21:06 GMT



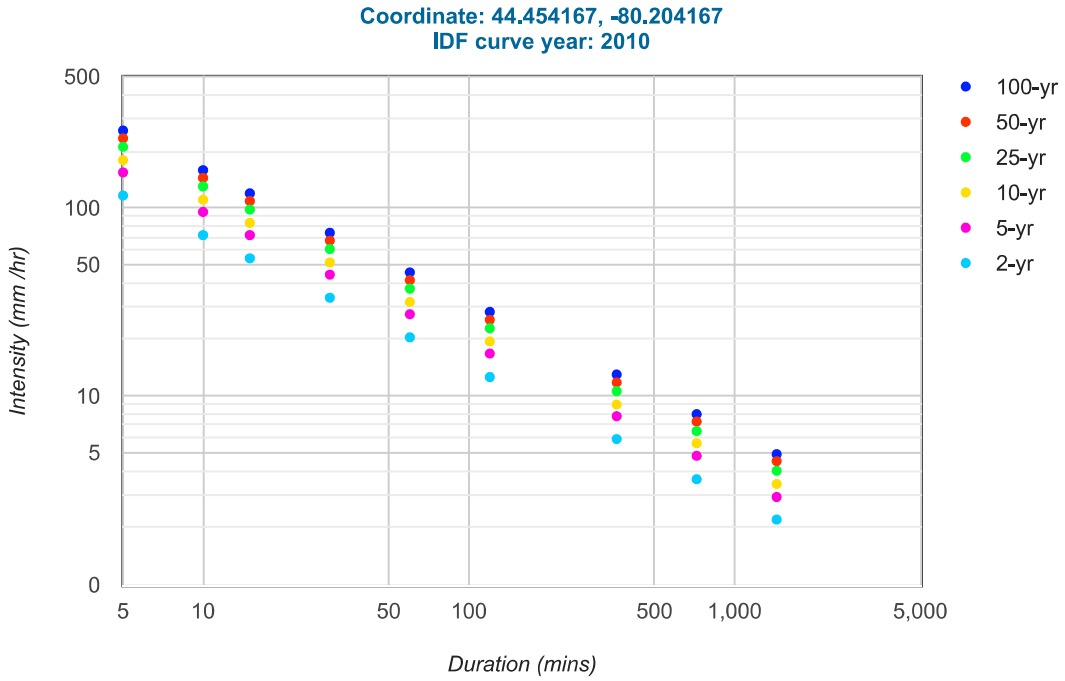
Location summary

These are the locations in the selection.

IDF Curve: 44° 27' 15" N, 80° 12' 14" W (44.454167,-80.204167)

Results

An IDF curve was found.



Coefficient summary

IDF Curve: 44° 27' 15" N, 80° 12' 14" W (44.454167,-80.204167)

Retrieved: Thu, 30 Nov 2023 22:21:06 GMT

Data year: 2010
IDF curve year: 2010

Return period	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
A	20.5	27.2	31.6	37.2	41.3	45.4
B	-0.699	-0.699	-0.699	-0.699	-0.699	-0.699

Statistics

Rainfall intensity (mm hr^{-1})

Duration	5-min	10-min	15-min	30-min	1-hr	2-hr	6-hr	12-hr	24-hr
2-yr	116.4	71.7	54.0	33.3	20.5	12.6	5.9	3.6	2.2
5-yr	154.5	95.2	71.7	44.2	27.2	16.8	7.8	4.8	2.9
10-yr	179.5	110.6	83.3	51.3	31.6	19.5	9.0	5.6	3.4
25-yr	211.3	130.2	98.0	60.4	37.2	22.9	10.6	6.5	4.0
50-yr	234.6	144.5	108.8	67.0	41.3	25.4	11.8	7.3	4.5
100-yr	257.9	158.8	119.6	73.7	45.4	28.0	13.0	8.0	4.9

Rainfall depth (mm)

Duration	5-min	10-min	15-min	30-min	1-hr	2-hr	6-hr	12-hr	24-hr
2-yr	9.7	12.0	13.5	16.6	20.5	25.3	35.2	43.3	53.4
5-yr	12.9	15.9	17.9	22.1	27.2	33.5	46.6	57.5	70.8
10-yr	15.0	18.4	20.8	25.6	31.6	38.9	54.2	66.8	82.2
25-yr	17.6	21.7	24.5	30.2	37.2	45.8	63.8	78.6	96.8
50-yr	19.5	24.1	27.2	33.5	41.3	50.9	70.8	87.3	107.5
100-yr	21.5	26.5	29.9	36.9	45.4	55.9	77.9	95.9	118.2

Terms of Use

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C2.05 Hydrology and Hydrologic Modeling

Pre-development peak flows shall be computed by a method such as the Rational Method or by an approved computer model. Watershed definition and pre-development flows must be reviewed and accepted by the Township Public Works Department.

Preliminary estimates of post-development flow rates may be computed using a method such as the Rational Method.

For all systems and for the design of surcharged sewers and detention facilities, the latest version of the computer model OTTHYMO or PCSWMM is recommended. Other hydrograph methods may be considered if it is demonstrated that the results are comparable to those from OTTHYMO. Post-development design flows may be determined using the Rational Method only where the design area is less than 40 ha and SWMFs are not considered.

Rainfall intensity-duration-frequency (IDF) equations or their curves and design storm hydrographs must be approved by the Township Public Works Department. The Township requires use of the online MTO IDF Curve lookup tool. Based on a review of literature regarding projected climate change scenarios, the IDF intensity values from the MTO IDF Curve lookup tool are to be increased by 15% to account for future climate change impacts.

Return period	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
A	23.575	31.28	36.34	42.78	47.495	52.21
B	-0.804	-0.804	-0.804	-0.804	-0.804	-0.804

Increased by 15%

Nottawa Development

Post-Development Hydrologic Parameter Sheets

CROZIER CONSULTING ENGINEERS

Project Name:	Nottawa	**D.A. NAME**	**Phase 1 West**
Project Number:	1953-6040	**D.A. AREA (ha)**	**5.31**
Date:	2025.03.24		
By:	HR		

Hydrologic Parameters: CALIB STANDHYD Command
Post Development Full Buildout Drainage Area: Catchment Phase 1 West

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Tioga Sandy Loam	TIG	A	50.8	2.7
Edenvale Sandy Loam	EDV	C	49.2	2.61
				0
				0
Total Area Check				5.31

Impervious Landuses Present:

		Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils		Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG		0.68	98	0.13	98	0.09	98	0.55	98	0.00	50	1.5	142.1
EDV		0.33	98	0.06	98	0.05	98	0.22	98	0.00	50	0.7	64.7
	0	0	98	0	98	0	98	0	98	0	98	0	0
	0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area		1.01		0.19		0.14		0.77		0			

Pervious Landuses Present:

		Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils		Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG		0	32	0	38	0	50	1.25	49	0	62	1.3	61.3
EDV		0	73	0	76	0	50	1.95	79	0	82	2.0	154.1
	0	0		0		0		0		0		0	0
	0	0		0		0		0		0		0	0
Subtotal Area		0		0		0		3.20		0			

Pervious Area Calculations	Total Pervious Area	3.20
	Composite Pervious Curve Number	67.3
Impervious Area Calculations	Total Directly Connected Area	1.3
	Total Indirectly Connected Area	0.770
	Total Impervious Area	2.110
	% X imp	25.2
	% T imp	39.7
	Total Area Check	5.31

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	3.200	16.000
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	35	0.25
Impervious	2.0	2.1	188	0.013

CROZIER CONSULTING ENGINEERS

Project Name:	Nottawa	**D.A. NAME**	**Phase 1 East**
Project Number:	1953-6040	**D.A. AREA (ha)**	**8.46**
Date:	2025.03.24		
By:	HR		

Hydrologic Parameters: CALIB STANDHYD Command

Post Development Full Buildout Drainage Area: Catchment Phase 1 East

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Edenvale Sandy Loam	EDV	C	80.4%	6.80
Granby Sandy Loam	GNY	C	19.6%	1.66
				0
				0
Total Area Check				8.46

Impervious Landuses Present:

Soils	Roadway Area (ha)	Roadway CN	Sidewalk Area (ha)	Sidewalk CN	Driveway Area (ha)	Driveway CN	Building Area (ha)	Building CN	SWMF Area (ha)	SWMF CN	Subtotals Area	Subtotals A*CN
EDV	1.07	98	0.19	98	0.43	98	2.32	98	0.00	50	4.01	392.98
GNY	0.30	98	0.06	98	0.14	98	0.54	98	0.00	50	1.04	101.92
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	1.37		0.25		0.57		2.86		0			

Pervious Landuses Present:

Soils	Woodland Area (ha)	Woodland CN	Meadow Area (ha)	Meadow CN	Wetland Area (ha)	Wetland CN	Lawn Area (ha)	Lawn CN	Cultivated Area (ha)	Cultivated CN	Subtotals Area	Subtotals A*CN
EDV	0.00	73	0.00	76	0.00	50	2.79	79	0.00	82	2.790	220.41
GNY	0.00	73	0.00	76	0.00	50	0.62	79	0.00	82	0.62	48.98
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
Subtotal Area	0		0		0		3.41		0			

Pervious Area Calculations	Total Pervious Area	3.41
	Composite Pervious Curve Number	79
Impervious Area Calculations	Total Directly Connected Area	2.2
	Total Indirectly Connected Area	2.860
	Total Impervious Area	5.050
	% X imp	25.9
	% T imp	59.7
	Total Area Check	8.46

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	3.410	17.050
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	35	0.25
Impervious	2.0	1.59	237	0.013

Project Name:	Nottawa	**D.A. NAME**	**POND**
Project Number:	1953-6040	**D.A. AREA (ha)**	**6.40**
Date:	2024.01.05		
By:	HR		

Hydrologic Parameters: CALIB STANDHYD Command
Post Development Full Buildout Drainage Area: Catchment POND

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Edenvale Sandy Loam	EDV	C	100	6.4
				0
				0
				0
Total Area Check				6.4

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
EDV	0.00	98	0.00	98	0.00	98	0.00	98	3.20	50	3.20	160.00
0	0	98	0	98	0	98	0	98	0	50	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0		0		0		0.00		3.2			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
EDV	0.00	73	0.00	76	0.00	50	3.20	79	0.00	82	3.200	252.80
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
Subtotal Area	0		0		0		3.20		0			

Pervious Area Calculations	Total Pervious Area	3.20
	Composite Pervious Curve Number	79
Impervious Area Calculations	Total Directly Connected Area	3.2
	Total Indirectly Connected Area	0.000
	Total Impervious Area	3.200
	% X imp	50.0
	% T imp	50.0
	Total Area Check	6.40

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	3.200	16.000
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	90	0.25
Impervious	2.0	0.36	207	0.013

Project Name:	Nottawa	**D.A. NAME**	**Future East 1**
Project Number:	1953-6040	**D.A. AREA (ha)**	**8.04**
Date:	2025.10.27		
By:	HR		

Hydrologic Parameters: CALIB STANDHYD Command
Post Development Full Buildout Drainage Area: Catchment Future East 1

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Edenvale Sandy Loam	EDV	C	67.8%	5.45
Granby Sandy Loam	GNY	C	32.2%	2.59
				0
				0
Total Area Check				8.04

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
EDV	3.82	98	0.00	98	0.00	98	0.00	98	0.00	50	3.82	373.87
GNY	1.81	98	0.00	98	0.00	98	0.00	98	0.00	50	1.813	177.674
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	5.628		0		0		0.00		0			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
EDV	0.00	73	0.00	76	0.00	50	1.64	79	0.00	82	1.635	129.17
GNY	0.00	73	0.00	76	0.00	50	0.78	79	0.00	82	0.777	61.383
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
Subtotal Area	0		0		0		2.41		0			

Pervious Area Calculations	Total Pervious Area	2.41
	Composite Pervious Curve Number	79
Impervious Area Calculations	Total Directly Connected Area	2.814
	Total Indirectly Connected Area	2.814
	Total Impervious Area	5.628
	% X imp	35.0
	% T imp	70.0
	Total Area Check	8.04

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	2.412	12.060
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	35	0.25
Impervious	2.0	0.36	232	0.013

Project Name:	Nottawa	**D.A. NAME**	**Future West 1**
Project Number:	1953-6040	**D.A. AREA (ha)**	**9.07**
Date:	2025.03.24		
By:	HR		

Hydrologic Parameters: CALIB STANDHYD Command
Post Development Full Buildout Drainage Area: Catchment Future West 1

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Tioga Sandy Loam	TIG	A	99.0	8.98
Edenvale Sandy Loam	EDV	C	1.0	0.09
				0
				0
Total Area Check				9.07

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	5.81	98	0.00	98	0.00	98	0.00	98	0.00	50	5.8	569.1
EDV	0.06	98	0.00	98	0.00	98	0.00	98	0.00	50	0.1	5.7
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	5.865		0		0		0.00		0			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.00	50	3.17	49	0.00	62	3.2	155.5
EDV	0.00	73	0.00	76	0.00	50	0.03	79	0.00	82	0.0	2.5
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
Subtotal Area	0		0		0		3.21		0			

Pervious Area Calculations	Total Pervious Area	3.21
	Composite Pervious Curve Number	49.3
Impervious Area Calculations	Total Directly Connected Area	2.9
	Total Indirectly Connected Area	2.933
	Total Impervious Area	5.865
	% X imp	32.3
	% T imp	64.7
	Total Area Check	9.07

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	3.205	16.025
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	35	0.25
Impervious	2.0	0.36	246	0.013

CROZIER CONSULTING ENGINEERS

Project Name:	Nottawa	**D.A. NAME**	**Future West 2**
Project Number:	1953-6040	**D.A. AREA (ha)**	**5.41**
Date:	2025.10.27		
By:	HR		

Hydrologic Parameters: CALIB STANDHYD Command
Post Development Full Buildout Drainage Area: Catchment Future West 2

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Tioga Sandy Loam	TIG	A	87.7	4.74
Edenvale Sandy Loam	EDV	B	12.3	0.67
				0
				0
Total Area Check				5.405161

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	3.32	98	0.00	98	0.00	98	0.00	98	0.00	50	3.3	325.2
EDV	0.47	98	0.00	98	0.00	98	0.00	98	0.00	50	0.5	45.6
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	3.7836127		0		0		0.00		0			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.00	50	1.42	49	0.00	62	1.4	69.7
EDV	0.00	73	0.00	76	0.00	50	0.20	79	0.00	82	0.2	15.8
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
Subtotal Area	0		0		0		1.62		0			

Pervious Area Calculations	Total Pervious Area	1.62
	Composite Pervious Curve Number	52.7
Impervious Area Calculations	Total Directly Connected Area	1.9
	Total Indirectly Connected Area	1.892
	Total Impervious Area	3.784
	% X imp	35.0
	% T imp	70.0
	Total Area Check	5.41

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	1.622	8.108
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	35	0.25
Impervious	2.0	0.36	190	0.013

CROZIER CONSULTING ENGINEERS

Project Name: Nottawa
Project Number: 1953-6040
Date: 2025.01.22
By: HR

D.A. NAME **Central Channel**
D.A. AREA (ha) **4.92**

Hydrologic Parameters: CALIB NASHYD Command
Post Development Full Buildout Drainage Area: Catchment Central Channel

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	20.3%	1.0
Edenvale Sandy Loam	EDV	C	79.7%	3.9
			0.0%	
			0.0%	
			0.0%	
Total Area				4.92

Impervious Landuses Present:

Soils	Roadway Area	Roadway CN	Sidewalk Area	Sidewalk CN	Driveway Area	Driveway CN	Building Area (ha)	Building CN	SWMF Area	SWMF CN	Subtotals Area	Subtotals A*CN
TIG	0.00	98	0.00	98	0.00	98	0.00	98	0.00	98	0.00	0.00
EDV	0.00	98	0.00	98	0.00	98	0.57	98	0.00	98	0.57	55.86
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0		0		0		0.57		0			

Pervious Landuses Present:

Soils	Woodland Area	Woodland CN	Meadow Area	Meadow CN	Wetland Area	Wetland CN	Lawn Area (ha)	Lawn CN	Cultivated Area	Cultivated CN	Subtotals Area	Subtotals A*CN
TIG	0.00	32	0.00	38	0.00	50	1.00	49	0.00	62	1.00	49.00
EDV	0.00	73	0.00	76	0.00	50	3.35	79	0.00	82	3.35	265.03
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
Subtotal Area	0.00		0.00		0.00		4.35		0.00			

Composite Area Calculations		
	Total Pervious Area	4.35
	Total Impervious Area	0.6
	% Impervious	11.6%
	Composite Curve Number	75.1
	Total Area Check	4.92

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number								
Landuse	IA (mm)	Area (ha)	A * IA	Tioga RC	Tioga Area	Edenval RC	Edenval Area	0 RC	0 Area	0 RC	0 Area	A*RC
Woodland	10	0.00	0	0.25	0.00	0.35	0.00		0		0	0
Meadow	8	0	0	0.28	0.00	0.40	0.00		0		0	0
Wetland	16	0	0	0.05	0.00	0.05	0.00		0		0	0
Lawn	5	4.3548	21.7742	0.15	1.00	0.45	3.35		0		0	1.660
Cultivated	7	0	0	0.35	0.00	0.55	0.00		0		0	0.000
Impervious	2	0.57	1.14	0.95	0.00	0.95	0.57		0		0	0.542
Composite IA		4.9248	4.65278	Comp								0.447

Time to Peak Inputs						Uplands			Bransby Williams		Airport	
Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Overland	920	0.9	0.10%	2.7	0.08	3.03	2.03	2.03	1.19	0.79	2.32	1.55

Appropriate calculated time to	1.55	Appropriate Method:	Airport

CROZIER CONSULTING ENGINEERS

Project Name: Nottawa
Project Number: 1953-6040
Date: 2025.01.22
By: HR

D.A. NAME **Northern Channel**
D.A. AREA (ha) **0.78**

Hydrologic Parameters: CALIB NASHYD Command
Post Development Full Buildout Drainage Area: Catchment Northern Channel

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	38.5%	0.30
Edenvale Sandy Loam	EDV	C	61.5%	0.48
Total Area				0.78

Impervious Landuses Present:												
	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area	CN	Area	CN	Area	CN	Area (ha)	CN	Area	CN	Area	A*CN
TIG	0	98	0.00	98	0.00	98	0.15	98	0.00	98	0.15	14.70
EDV	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0		0		0		0.15		0			

Pervious Landuses Present:												
	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area	CN	Area	CN	Area	CN	Area (ha)	CN	Area	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.05	50	0.10	49	0.00	62	0.15	7.40
EDV	0.00	73	0.00	76	0.00	50	0.48	79	0.00	82	0.48	37.92
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
Subtotal Area	0.00		0.00		0.05		0.58		0.00			

Composite Area Calculations		
	Total Pervious Area	0.63
	Total Impervious Area	0.2
	% Impervious	19.2%
	Composite Curve Number	76.9
	Total Area Check	0.78

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number										
				Tioga Sandy		Edenvale Sandy		0		0		0		
Landuse	IA (mm)	Area (ha)	A * IA	RC	Area	RC	Area	RC	Area	RC	Area	RC	Area	A*RC
Woodland	10	0.00	0	0.08	0.00	0.35	0.00		0		0		0	0
Meadow	8	0	0	0.10	0.00	0.40	0.00		0		0		0	0
Wetland	16	0.0472	0.75578	0.05	0.05	0.05	0.00		0		0		0	0.002362
Lawn	5	0.5828	2.91382	0.15	0.10	0.45	0.48		0		0		0	0.231
Cultivated	7	0	0	0.22	0.00	0.55	0.00		0		0		0	0.000
Impervious	2	0.15	0.3	0.95	0.15	0.95	0.00		0		0		0	0.143
Composite IA		0.78	5.08923	Composite Runoff Coefficient										0.482

Time to Peak Inputs						Uplands			Bransby Williams		Airport	
Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Overland	597	0.6	0.10%	2.7	0.09	1.94	1.30	1.30	0.92	0.62	1.75	1.17

Appropriate calculated time to	1.17	Appropriate Method:	Airport

Project Name:	Nottawa	**D.A. NAME**	**Northwest Channel**
Project Number:	1953-6040	**D.A. AREA (ha)**	**1.00**
Date:	2025.03.24		
By:	HB		

Hydrologic Parameters: CALIB STANDHYD Command

Post Development Full Buildout Drainage Area: Catchment Northwest Channel

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Tioga Sandy Loam	TIG	A	100	1
				0
				0
				0
Total Area Check				1

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.00	98	0.00	98	0.00	98	0.24	98	0.00	50	0.24	23.52
0	0	98	0	98	0	98	0	98	0	50	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0		0		0		0.24		0			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.00	50	0.76	49	0.00	62	0.760	37.24
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
Subtotal Area	0		0		0		0.76		0			

Pervious Area Calculations	Total Pervious Area	0.76
	Composite Pervious Curve Number	49
Impervious Area Calculations	Total Directly Connected Area	0
	Total Indirectly Connected Area	0.240
	Total Impervious Area	0.240
	% X imp	0.0
	% T imp	24.0
	Total Area Check	1.00

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	0.760	3.800
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	90	0.25
Impervious	2.0	0.36	82	0.013

CROZIER CONSULTING ENGINEERS

Project Name: Nottawa
Project Number: 1953-6040-2
Date: 2025.03.24
By: HR/HB
Submission: 2nd Sub DD

D.A. NAME **North Ditch**
D.A. AREA (ha) **0.2**

Hydrologic Parameters: CALIB NASHYD Command
Pre Development Drainage Area: Catchment North Ditch

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Tioga Sandy Loam	TIG	A	100.0%	0.20
Total Area				0.20

Impervious Landuses Present:

Soils	Roadway Area	Roadway CN	Sidewalk Area	Sidewalk CN	Driveway Area	Driveway CN	Building Area (ha)	Building CN	SWMF Area	SWMF CN	Subtotals Area	Subtotals A*CN
TIG	0.02	98	0.00	98	0.00	98	0.00	98	0.00	98	0.02	1.96
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0.02		0		0		0		0			

Pervious Landuses Present:

Soils	Woodland Area	Woodland CN	Meadow Area	Meadow CN	Wetland Area	Wetland CN	Lawn Area (ha)	Lawn CN	Cultivated Area	Cultivated CN	Subtotals Area	Subtotals A*CN
TIG	0.00	32	0.00	38	0.00	50	0.18	49	0.00	62	0.18	8.82
0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
Subtotal Area	0.00		0.00		0.00		0.18		0.00			

Composite Area Calculations		
	Total Pervious Area	0.18
	Total Impervious Area	0.0
	% Impervious	10.0%
	Composite Curve Number	53.9
	Total Area Check	0.20

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA	Composite Curve Number: Tioga Sandy Loam RC	Tioga Sandy Loam Area	0 RC	0 Area	0 RC	0 Area	0 RC	0 Area	0 RC	0 Area	A*RC
Woodland	10	0.00	0	0.08	0.00	0.35	0.00		0		0		0	0
Meadow	8	0	0	0.10	0.00	0.40	0.00		0		0		0	0
Wetland	16	0	0	0.05	0.00	0.05	0.00		0		0		0	0
Lawn	5	0.18	0.9	0.15	0.18	0.45	0.00		0		0		0	0.027
Cultivated	7	0	0	0.22	0.00	0.55	0.00		0		0		0	0.000
Impervious	2	0.02	0.04	0.95	0.02	0.95	0.00		0		0		0	0.019
Composite IA		0.2	4.7	Composite Runoff Coefficient										0.230

Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Uplands Tc (hr)	Uplands Tp(hr)	Uplands TOTAL Tp (hr)	Bransby Williams Tc (hr)	Bransby Williams Tp(hr)	Airport Tc (hr)	Airport Tp(hr)
Overland	125	0.125	0.10%	2.7	0.09	0.41	0.27	0.27	0.22	0.15	1.13	0.76

Appropriate calculated time to peak: 0.76 Appropriate Method: Airport

Project Name:	Nottawa	**D.A. NAME**	**Future East UNC**
Project Number:	1953-6040	**D.A. AREA (ha)**	**1.58**
Date:	2025.03.24		
By:	HB		

Hydrologic Parameters: CALIB STANDHYD Command
Post Development Full Buildout Drainage Area: Catchment Future East UNC

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Edenvale Sandy Loam	EDV	C	100	1.58
				0
				0
				0
Total Area Check				1.58

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
EDV	0.00	98	0.00	98	0.00	98	0.48	98	0.00	50	0.48	46.74
0	0	98	0	98	0	98	0	98	0	50	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0		0		0		0.48		0			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
EDV	0.00	73	0.00	76	0.00	50	1.10	79	0.00	82	1.103	87.14
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
Subtotal Area	0		0		0		1.10		0			

Pervious Area Calculations	Total Pervious Area	1.10
	Composite Pervious Curve Number	79
Impervious Area Calculations	Total Directly Connected Area	0
	Total Indirectly Connected Area	0.477
	Total Impervious Area	0.477
	% X imp	0.0
	% T imp	30.2
	Total Area Check	1.58

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	1.103	5.515
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	90	0.25
Impervious	2.0	0.36	103	0.013

Project Name:	Nottawa	**D.A. NAME**	**Future West UNC**
Project Number:	1953-6040	**D.A. AREA (ha)**	**0.72**
Date:	2025.03.24		
By:	HB		

Hydrologic Parameters: CALIB STANDHYD Command
Post Development Full Buildout Drainage Area: Catchment Future West UNC

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Edenvale Sandy Loam	EDV	C	100	0.72
				0
				0
				0
Total Area Check				0.72

Impervious Landuses Present:

Soils	Roadway Area (ha)	Roadway CN	Sidewalk Area (ha)	Sidewalk CN	Driveway Area (ha)	Driveway CN	Building Area (ha)	Building CN	SWMF Area (ha)	SWMF CN	Subtotals Area	Subtotals A*CN
EDV	0.03	98	0.00	98	0.00	98	0.30	98	0.00	50	0.33	32.19
0	0	98	0	98	0	98	0	98	0	50	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0.025205		0		0		0.30		0			

Pervious Landuses Present:

Soils	Woodland Area (ha)	Woodland CN	Meadow Area (ha)	Meadow CN	Wetland Area (ha)	Wetland CN	Lawn Area (ha)	Lawn CN	Cultivated Area (ha)	Cultivated CN	Subtotals Area	Subtotals A*CN
EDV	0.00	73	0.00	76	0.00	50	0.39	79	0.00	82	0.391	30.93
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
Subtotal Area	0		0		0		0.39		0			

Pervious Area Calculations	Total Pervious Area	0.39
	Composite Pervious Curve Number	79
Impervious Area Calculations	Total Directly Connected Area	0.025205
	Total Indirectly Connected Area	0.303
	Total Impervious Area	0.329
	% X imp	3.5
	% T imp	45.6
	Total Area Check	0.72

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	0.391	1.957
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	90	0.25
Impervious	2.0	0.36	69	0.013

CROZIER CONSULTING ENGINEERS

Project Name: Nottawa
Project Number: 1953-6040
Date: 2024.01.05
By: HR

D.A. NAME **Outparcel**
D.A. AREA (ha) **1.06**

Hydrologic Parameters: CALIB NASHYD Command
Post Development Full Buildout Drainage Area: Catchment Outparcel
Developed

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	100.0%	1.1
Total Area				1.06

Impervious Landuses Present:

Soils	Roadway Area	Roadway CN	Sidewalk Area	Sidewalk CN	Driveway Area	Driveway CN	Building Area (ha)	Building CN	SWMF Area	SWMF CN	Subtotals Area	Subtotals A*CN
TIG	0.00	98	0.00	98	0.03	98	0.07	98	0.00	98	0.10	9.80
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0		0		0.03		0.07		0			

Pervious Landuses Present:

Soils	Woodland Area	Woodland CN	Meadow Area	Meadow CN	Wetland Area	Wetland CN	Lawn Area (ha)	Lawn CN	Cultivated Area	Cultivated CN	Subtotals Area	Subtotals A*CN
TIG	0.00	32	0.00	38	0.00	50	0.99	49	0.00	62	0.99	48.51
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
Subtotal Area	0.00		0.00		0.00		0.99		0.00			

Composite Area Calculations		
	Total Pervious Area	0.99
	Total Impervious Area	0.1
	% Impervious	6.6%
	Composite Curve Number	55.0
	Total Area Check	1.06

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number								
				Tioga		0		0		0		
Landuse	IA (mm)	Area (ha)	A * IA	RC	Area	RC	Area	RC	Area	RC	Area	A*RC
Woodland	10	0.00	0	0.08	0		0		0		0	0
Meadow	8	0	0	0.10	0		0		0		0	0
Wetland	16	0	0	0.05	0		0		0		0	0
Lawn	5	0.99	4.95	0.15	1		0		0		0	0.149
Cultivated	7	0	0	0.22	0		0		0		0	0.000
Impervious	2	0.1	0.2	0.95	0		0		0		0	0.095
Composite IA		1.09	4.72477	Comp								0.230

Time to Peak Inputs						Uplands			Bransby Williams		Airport	
Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Overland	40	1	2.50%	2.7	0.43	0.03	0.02	0.02	0.03	0.02	0.22	0.15

Appropriate calculated time to	0.15	Appropriate Method:	Airport

CROZIER CONSULTING ENGINEERS

Project Name: Nottawa
Project Number: 1953-6040
Date: 2025.03.24
By: HR

D.A. NAME **EXT South**
D.A. AREA (ha) **120.6**

Hydrologic Parameters: CALIB NASHYD Command
Post Development Full Buildout Drainage Area: Catchment EXT South

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	5.7%	6.9
Edenvale Sandy Loam	EDV	C	16.0%	19.4
Granby Sandy Loam	GNY	C	16.9%	20.4
Harriston Loam	HAR	B	9.4%	11.4
Wiarton Loam	WIT	B	51.9%	62.6
Total Area				120.60

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area	CN	Area	CN	Area	CN	Area (ha)	CN	Area	CN	Area	A*CN
TIG	0.20	98	0.00	98	0.00	98	0.00	98	0.00	98	0.20	19.60
EDV	0.00	98	0.00	98	0.05	98	0.04	98	0.00	98	0.09	8.82
GNY	0.52	98	0.00	98	0.07	98	0.06	98	0.00	98	0.65	63.7
HAR	0.00	98	0.00	98	0.58	98	0.09	98	0.00	98	0.67	65.66
WIT	0.27	98	0.00	98	1.70	98	0.46	98	0.00	98	2.43	238.14
Subtotal Area	0.99		0		2.4		0.65		0			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area	CN	Area	CN	Area	CN	Area (ha)	CN	Area	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.00	50	0.00	49	6.72	62	6.72	416.64
EDV	0.00	73	0.00	76	0.00	50	0.67	79	18.59	82	19.26	1577.31
GNY	9.19	73	0.00	76	0.00	50	0.81	79	9.71	82	19.71	1531.08
HAR	0.00	60	0.00	65	0.62	50	10.07	69	0.00	74	10.69	725.83
WIT	8.09	60	0.00	65	1.73	50	20.83	69	29.53	74	60.18	4194.39
Subtotal Area	17.28		0.00		2.35		32.38		64.55			

Composite Area Calculations		
	Total Pervious Area	116.56
	Total Impervious Area	4.0
	% Impervious	3.3%
	Composite Curve Number	73.3
	Total Area Check	120.60

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number										
				Tioga Sandy		Edenvale Sandy		Granby Sandy		Harriston Loam		Wiarton Loam		
Landuse	IA (mm)	Area (ha)	A * IA	RC	Area	RC	Area	RC	Area	RC	Area	RC	Area	A*RC
Woodland	10	17.28	172.8	0.08	0	0.35	0	0.35	9	0.25	8	0.25	0	5.239
Meadow	8	0	0	0.10	0	0.40	0	0.40	0	0.28	0	0.28	2	0
Wetland	16	2.35	37.6	0.05	0	0.05	0	0.05	0	0.05	2	0.05	21	0.0865
Lawn	5	32.38	161.9	0.15	0	0.45	1	0.45	1	0.15	21	0.15	30	3.791
Cultivated	7	65	451.85	0.22	7	0.55	19	0.55	10	0.35	30	0.35	60	27.379
Impervious	2	4.04	8.08	0.95	0	0.95	0	0.95	1	0.95	1	0.95	0	1.530
Composite IA		120.6	6.90075	Composite Runoff Coefficient										0.315

Time to Peak Inputs						Uplands			Bransby Williams		Airport	
Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
	1016	6.5	0.64%	2.7	0.22	1.31	0.88	0.88	0.65	0.44	1.57	1.06

Appropriate calculated time to	1.06	Appropriate Method:	Airport

Project Name:	Nottawa	**D.A. NAME**	**EXT West**
Project Number:	1953-6040	**D.A. AREA (ha)**	**3.62**
Date:	2025.03.24		
By:	HR		

Hydrologic Parameters: CALIB STANDHYD Command
Post Development Full Buildout Drainage Area: Catchment EXT West
Developed

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Tioga Sandy Loam	TIG	A	100.0%	3.62
				0
				0
				0
Total Area Check				3.622

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.51	98	0.00	98	0.242073	98	0.21	98	0.00	50	0.96	94.28
0	0	98	0	98	0	98	0	98	0	50	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0.51		0		0.242073		0.21		0			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.00	50	2.66	49	0.00	62	2.660	130.34
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
Subtotal Area	0		0		0		2.66		0			

Pervious Area Calculations	Total Pervious Area	2.66
	Composite Pervious Curve Number	49
Impervious Area Calculations	Total Directly Connected Area	0.8
	Total Indirectly Connected Area	0.210
	Total Impervious Area	0.962
	% X imp	20.8
	% T imp	26.6
	Total Area Check	3.62

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	2.660	13.300
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	35	0.25
Impervious	2.0	0.64	155	0.013

Project Name:	Nottawa	**D.A. NAME**	**EXT NW - West**
Project Number:	1953-6040	**D.A. AREA (ha)**	**28.77**
Date:	2024.01.05		
By:	HR		

Hydrologic Parameters: CALIB STANDHYD Command
Post Development Full Buildout Drainage Area: Catchment EXT NW - West
Developed

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Tioga Sandy Loam	TIG	A	100	28.77
				0
				0
				0
Total Area Check				28.77

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	2.35	98	0	98	1.68	98	2.59	98	0.49	50	7.11	673.22
0	0	98	0	98	0	98	0	98	0	50	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	2.35		0		1.68		2.59		0.49			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.00	50	21.66	49	0.00	62	21.660	1061.36
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
Subtotal Area	0		0		0		21.66		0			

Pervious Area Calculations	Total Pervious Area	21.66
	Composite Pervious Curve Number	49
Impervious Area Calculations	Total Directly Connected Area	4.52
	Total Indirectly Connected Area	2.590
	Total Impervious Area	7.110
	% X imp	15.7
	% T imp	24.7
	Total Area Check	28.77

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	21.660	108.302
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	90	0.25
Impervious	2.0	0.36	438	0.013

CROZIER CONSULTING ENGINEERS

Project Name: Nottawa
Project Number: 1953-6040
Date: 2025.03.24
By: HR

D.A. NAME **EXT NW - East**
D.A. AREA (ha) **9.49**

Hydrologic Parameters: CALIB NASHYD Command
Post Development Full Buildout Drainage Area: Catchment EXT NW - East
Developed

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	100.0%	9.5
Total Area				9.49

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area	CN	Area	CN	Area	CN	Area (ha)	CN	Area	CN	Area	A*CN
TIG	0.61	98	0	98	0.34	98	0.54	98	0.00	98	1.49	146.06
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0.61		0		0.34		0.540404		0			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area	CN	Area	CN	Area	CN	Area (ha)	CN	Area	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.00	50	8.00	49	0.00	62	8.00	391.98
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
Subtotal Area	0.00		0.00		0.00		8.00		0.00			

Composite Area Calculations	Total Pervious Area	8.00
	Total Impervious Area	1.5
	% Impervious	15.7%
	Composite Curve Number	56.7
	Total Area Check	9.49

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number										
				Tioga Sandy		0		0		0		0		
Landuse	IA (mm)	Area (ha)	A * IA	RC	Area	RC	Area	RC	Area	RC	Area	RC	Area	A*RC
Woodland	10	0.00	0	0.08	0		0		0		0		0	0
Meadow	8	0	0	0.10	0		0		0		0		0	0
Wetland	16	0	0	0.05	0		0		0		0		0	0
Lawn	5	7.9996	39.998	0.15	8		0		0		0		0	1.200
Cultivated	7	0	0	0.22	0		0		0		0		0	0.000
Impervious	2	1.4904	2.98081	0.95	1		0		0		0		0	1.416
Composite IA		9.49	4.52885	Composite Runoff Coefficient										0.276

Time to Peak Inputs						Uplands			Bransby Williams		Airport	
Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Overland	94	1.5	1.60%	2.7	0.34	0.08	0.05	0.05	0.06	0.04	0.37	0.25

Appropriate calculated time to	0.25	Appropriate Method:	Airport

CROZIER CONSULTING ENGINEERS

Project Name: Nottawa
Project Number: 1953-6040
Date: 2025.03.11
By: HR

D.A. NAME **EXT NW - Southeast**
D.A. AREA (ha) **0.33**

Hydrologic Parameters: CALIB NASHYD Command
Post Development Full Buildout Drainage Area: Catchment EXT NW - Southeast
Developed

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	100.0%	0.3
Total Area				0.33

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area	CN	Area	CN	Area	CN	Area (ha)	CN	Area	CN	Area	A*CN
TIG	0	98	0	98	0.00	98	0.00	98	0.00	98	0.00	0.00
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0		0		0		0		0			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area	CN	Area	CN	Area	CN	Area (ha)	CN	Area	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.00	50	0.33	49	0.00	62	0.33	16.17
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
Subtotal Area	0.00		0.00		0.00		0.33		0.00			

Composite Area Calculations		
	Total Pervious Area	0.33
	Total Impervious Area	0.0
	% Impervious	0.0%
	Composite Curve Number	49.0
	Total Area Check	0.33

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number										
				Tioga Sandy		0		0		0		0		
Landuse	IA (mm)	Area (ha)	A * IA	RC	Area	RC	Area	RC	Area	RC	Area	RC	Area	A*RC
Woodland	10	0.00	0	0.08	0		0		0		0		0	0
Meadow	8	0	0	0.10	0		0		0		0		0	0
Wetland	16	0	0	0.05	0		0		0		0		0	0
Lawn	5	0.33	1.65	0.15	0		0		0		0		0	0.050
Cultivated	7	0	0	0.22	0		0		0		0		0	0.000
Impervious	2	0	0	0.95	0		0		0		0		0	0.000
Composite IA		0.33	5.00	Composite Runoff Coefficient										0.150

Time to Peak Inputs						Uplands			Bransby Williams		Airport	
Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Overland	14	0.15	1.07%	2.7	0.28	0.01	0.01	0.01	0.01	0.01	0.19	0.13

Appropriate calculated time to	0.13	Appropriate Method:	Airport

57 Batteaux Road

Post-Development Hydrologic Parameter Sheets & Model

Project Name:	57 Batteaux Road	**D.A. NAME**	**201**
Project Number:	1953-6180	**D.A. AREA (ha)**	**0.09**
Date:	2025-08-15		
By:	CB		

Hydrologic Parameters: CALIB STANDHYD Command
Post Development Drainage Area: Catchment 201

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Tioga Sandy Loam	TIG	A	100	0.09
				0
				0
				0
Total Area Check				0.09

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.04	98	0.00	98	0.00	98	0.00	98	0.00	50	0.04	3.82
0	0	98	0	98	0	98	0	98	0	50	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0.039		0		0		0.00		0			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.00	50	0.05	49	0.00	62	0.051	2.50
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
Subtotal Area	0		0		0		0.05		0			

Pervious Area Calculations	Total Pervious Area	0.05
	Composite Pervious Curve Number	49
Impervious Area Calculations	Total Directly Connected Area	0.039
	Total Indirectly Connected Area	0.000
	Total Impervious Area	0.039
	% X imp	43.3
	% T imp	43.3
	Total Area Check	0.09

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	0.051	0.255
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	46	0.25
Impervious	2.0	5	24	0.013

Project Name:	57 Batteaux Road	**D.A. NAME**	**202**
Project Number:	1953-6180	**D.A. AREA (ha)**	**2.72**
Date:	2026-02-06		
By:	CB		

Hydrologic Parameters: CALIB STANDHYD Command
Post Development Drainage Area: Catchment 202

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Tioga Sandy Loam	TIG	A	100	2.72
				0
				0
				0
Total Area Check				2.72

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.41	98	0.00	98	0.33	98	0.78	98	0.00	50	1.52	148.96
0	0	98	0	98	0	98	0	98	0	50	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0.41		0		0.33		0.78		0			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.00	50	1.20	49	0.00	62	1.200	58.80
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
Subtotal Area	0		0		0		1.20		0			

Pervious Area Calculations	Total Pervious Area	1.20
	Composite Pervious Curve Number	49
Impervious Area Calculations	Total Directly Connected Area	0.74
	Total Indirectly Connected Area	0.780
	Total Impervious Area	1.520
	% X imp	27.2
	% T imp	55.9
	Total Area Check	2.72

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	1.200	6.000
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	25	0.25
Impervious	2.0	0.5	135	0.013

Project Name:	57 Batteaux Road	**D.A. NAME**	**203**
Project Number:	1953-6180	**D.A. AREA (ha)**	**0.69**
Date:	2026-02-06		
By:	CB		

Hydrologic Parameters: CALIB STANDHYD Command
Post Development Drainage Area: Catchment 203

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic Group	% Area	Area
Tioga Sandy Loam	TIG	A	100	0.69
				0
				0
				0
Total Area Check				0.69

Impervious Landuses Present:

	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.02	98	0.00	98	0.00	98	0.27	98	0.00	50	0.29	28.42
0	0	98	0	98	0	98	0	98	0	50	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0.02		0		0		0.27		0			

Pervious Landuses Present:

	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
TIG	0.00	32	0.00	38	0.00	50	0.40	49	0.00	62	0.400	19.60
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
0	0		0		0		0		0		0	0
Subtotal Area	0		0		0		0.40		0			

Pervious Area Calculations	Total Pervious Area	0.40
	Composite Pervious Curve Number	49
Impervious Area Calculations	Total Directly Connected Area	0.02
	Total Indirectly Connected Area	0.270
	Total Impervious Area	0.290
	% X imp	2.9
	% T imp	42.0
	Total Area Check	0.69

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	0.400	2.000
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	170	0.25
Impervious	2.0	0.5	68	0.013

CROZIER CONSULTING ENGINEERS

Project Name: 57 Batteaux Road
Project Number: 1953-6180
Date: 2025-08-14
By: CB

D.A. NAME **EXT - SCHOOL POST**
D.A. AREA (ha) **5.38**

Hydrologic Parameters: CALIB NASHYD Command
Post Development Drainage Area: Catchment EXT - SCHOOL POST

Curve Number Calculation

Soil Types Present:

Type	ID	Hydrologic	% Area	Area
Tioga Sandy Loam	TIG	A	100.0%	5.38
Total Area				5.38

Impervious Landuses Present:

Soils	Roadway Area	Roadway CN	Sidewalk Area	Sidewalk CN	Driveway Area	Driveway CN	Building Area (ha)	Building CN	SWMF Area	SWMF CN	Subtotals Area	Subtotals A*CN
TIG	0	98	0.19	98	0.00	98	0.00	98	0.00	98	0.19	18.62
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
0	0	98	0	98	0	98	0	98	0	98	0	0
Subtotal Area	0		0.19		0		0		0			

Pervious Landuses Present:

Soils	Woodland Area	Woodland CN	Meadow Area	Meadow CN	Wetland Area	Wetland CN	Lawn Area (ha)	Lawn CN	Cultivated Area	Cultivated CN	Subtotals Area	Subtotals A*CN
TIG	1.24	32	0.00	38	0.00	50	3.95	49	0.00	62	5.19	233.23
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
0	0		0		0		0		0		0.00	0.00
Subtotal Area	1.24		0.00		0.00		3.95		0.00			

Composite Area Calculations		
Total Pervious Area		5.19
Total Impervious Area		0.2
% Impervious		3.5%
Composite Curve Number		46.8
Total Area Check		5.38

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA	Composite Curve Number: Tioga Sandy RC	Tioga Sandy Area	0 RC	0 Area	0 RC	0 Area	0 RC	0 Area	0 RC	0 Area	A*RC
Woodland	10	1.24	12.4	0.08	1.24		0		0		0		0	0.0992
Meadow	8	0	0	0.10	0		0		0		0		0	0
Wetland	16	0	0	0.05	0		0		0		0		0	0
Lawn	5	3.95	19.75	0.15	3.95		0		0		0		0	0.593
Cultivated	7	0	0	0.22	0		0		0		0		0	0
Impervious	2	0.19	0.38	0.95	0.19		0		0		0		0	0.181
Composite IA		5.38	6.05	Composite Runoff Coefficient										0.162

Time to Peak Inputs: Flow Path Description	Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Uplands Tc (hr)	Uplands Tp(hr)	Uplands TOTAL Tp (hr)	Bransby Williams Tc (hr)	Bransby Williams Tp(hr)	Airport Tc (hr)	Airport Tp(hr)
Overland	405	2	0.49%	2.7	0.19	0.59	0.40	0.40	0.37	0.25	1.29	0.87

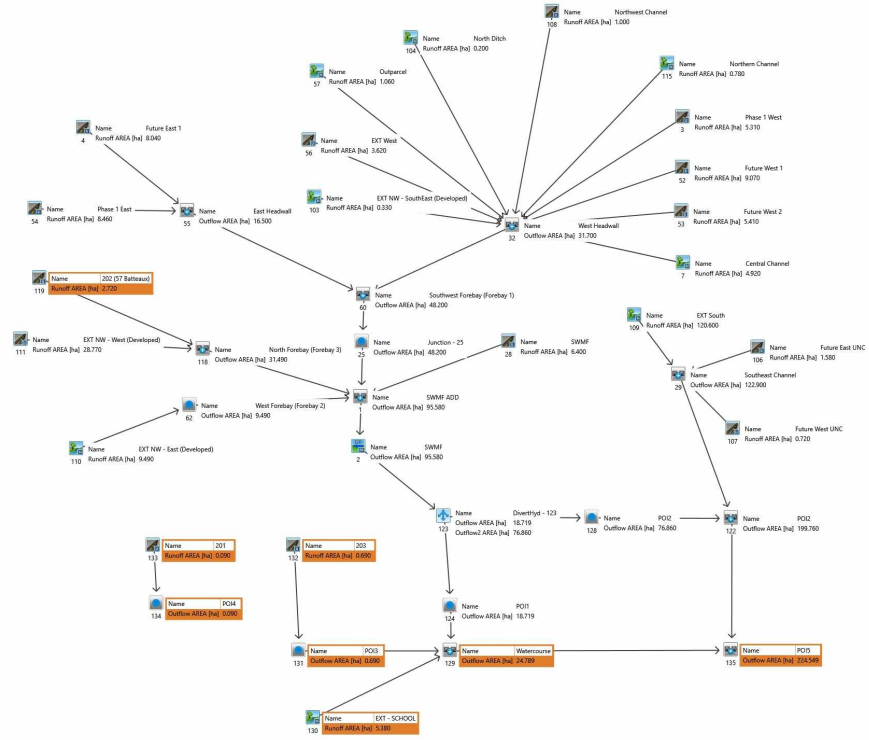
Appropriate calculated time to	0.87	Appropriate Method:	Airport

CROZIER

Project: 57 Batteaux
Project No.: 2243-7223
Design by: CB
Date: 2026-02-06

Visual OTTHYMO Post-Development Model Schematic

Pre-Development



```
================================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I      SS   U   U  AAAAA  L
         V V    I       SS  U   U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\db7b82bd-8
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\db7b82bd-8


DATE: 02-17-2026                          TIME: 11:15:52

USER:


COMMENTS: _____________________________________________________________


--------------------------------------------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : A. 25mm                       **
  ************************************************


--------------------
|    READ STORM    |    Filename: C:\Users\cbuscher\AppD
|                  |              ata\Local\Temp\
|                  |              8fd31c55-74ba-441d-b6e1-b71abe5a781b\342e2b9c
| Ptotal= 26.26 mm |    Comments: 25mm
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.00    2.10 |  0.83   30.00 |  1.67    4.67 |  2.50    2.37
                0.08    2.29 |  0.92   80.70 |  1.75    4.23 |  2.58    2.26
                0.17    2.52 |  1.00   37.00 |  1.83    3.88 |  2.67    2.17
                0.25    2.81 |  1.08   20.30 |  1.92    3.58 |  2.75    2.08
                0.33    3.18 |  1.17   13.27 |  2.00    3.33 |  2.83    2.00
                0.42    3.68 |  1.25   10.09 |  2.08    3.11 |  2.92    1.93
                0.50    4.39 |  1.33    8.15 |  2.17    2.92 |  3.00    1.93
                0.58    5.49 |  1.42    6.85 |  2.25    2.76 |  3.08    1.93
                0.67    7.40 |  1.50    5.92 |  2.33    2.61 |  3.17    1.93
                0.75   11.54 |  1.58    5.22 |  2.42    2.48 |

--------------------------------------------------------------------------------------------------------------------

--------------------
| CALIB            |
| STANDHYD (  0133)|   Area    (ha)=   0.09
|ID= 1 DT= 5.0 min |   Total Imp(%)=  43.30   Dir. Conn.(%)=  43.30
--------------------
                         IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      0.04         0.05
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      5.00         2.00
     Length            (m)=     24.49        46.00
     Mannings n            =    0.013        0.250

     Max.Eff.Inten.(mm/hr)=     80.70         1.35
               over (min)        5.00        45.00
     Storage Coeff.  (min)=     0.74 (ii)   43.73 (ii)
     Unit Hyd. Tpeak (min)=     5.00        45.00
     Unit Hyd. peak  (cms)=     0.34         0.03
                                                    *TOTALS*
     PEAK FLOW       (cms)=     0.01         0.00          0.009 (iii)
     TIME TO PEAK    (hrs)=     1.00         1.92          1.00
     RUNOFF VOLUME    (mm)=    25.26         1.58         11.61
     TOTAL RAINFALL   (mm)=    26.26        26.26         26.26
     RUNOFF COEFFICIENT   =     0.96         0.06          0.44
```

```
***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------------------------------------------

  -------------------------
  | Junction Command(0134) |
  -------------------------

                              AREA     QPEAK   TPEAK     R.V.
                              (ha)     (cms)    (hrs)    (mm)
  INFLOW : ID= 2(  0133)     0.09      0.01     1.00    11.61
  OUTFLOW: ID= 2(  0134)     0.09      0.01     1.00    11.61

  --------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0007)|   Area    (ha)=   4.92   Curve Number   (CN)= 75.1
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.65   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.55

     Unit Hyd Qpeak  (cms)=   0.121

     PEAK FLOW       (cms)=   0.017 (i)
     TIME TO PEAK    (hrs)=   3.167
     RUNOFF VOLUME    (mm)=   4.411
     TOTAL RAINFALL   (mm)=  26.256
     RUNOFF COEFFICIENT   =   0.168

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0057)|   Area    (ha)=   1.06   Curve Number   (CN)= 55.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.72   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.15

     Unit Hyd Qpeak  (cms)=   0.270

     PEAK FLOW       (cms)=   0.007 (i)
     TIME TO PEAK    (hrs)=   1.167
     RUNOFF VOLUME    (mm)=   2.010
     TOTAL RAINFALL   (mm)=  26.256
     RUNOFF COEFFICIENT   =   0.077

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0115)|   Area    (ha)=   0.78   Curve Number   (CN)= 76.9
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.17

     Unit Hyd Qpeak  (cms)=   0.025

     PEAK FLOW       (cms)=   0.003 (i)
     TIME TO PEAK    (hrs)=   2.667
     RUNOFF VOLUME    (mm)=   4.589
     TOTAL RAINFALL   (mm)=  26.256
     RUNOFF COEFFICIENT   =   0.175

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0103)|   Area    (ha)=   0.33   Curve Number   (CN)= 49.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.13

     Unit Hyd Qpeak  (cms)=   0.097

     PEAK FLOW       (cms)=   0.002 (i)
     TIME TO PEAK    (hrs)=   1.167
     RUNOFF VOLUME    (mm)=   1.565
     TOTAL RAINFALL   (mm)=  26.256
```

```
     RUNOFF COEFFICIENT   =   0.060

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0104)|   Area    (ha)=   0.20   Curve Number   (CN)= 53.9
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.70   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.76

     Unit Hyd Qpeak  (cms)=   0.010

     PEAK FLOW       (cms)=   0.000 (i)
     TIME TO PEAK    (hrs)=   2.083
     RUNOFF VOLUME    (mm)=   1.936
     TOTAL RAINFALL   (mm)=  26.256
     RUNOFF COEFFICIENT   =   0.074

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| STANDHYD (  0003)|   Area    (ha)=   5.31
|ID= 1 DT= 5.0 min |   Total Imp(%)=  39.70   Dir. Conn.(%)=  25.20
--------------------
                         IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      2.11         3.20
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      2.10         2.00
     Length            (m)=    188.15        35.00
     Mannings n            =    0.013        0.250

     Max.Eff.Inten.(mm/hr)=     80.70         7.00
               over (min)        5.00        25.00
     Storage Coeff.  (min)=     3.26 (ii)   22.13 (ii)
     Unit Hyd. Tpeak (min)=     5.00        25.00
     Unit Hyd. peak  (cms)=     0.27         0.05
                                                    *TOTALS*
     PEAK FLOW       (cms)=     0.26         0.03          0.259 (iii)
     TIME TO PEAK    (hrs)=     1.00         1.50          1.00
     RUNOFF VOLUME    (mm)=    25.26         4.06          9.40
     TOTAL RAINFALL   (mm)=    26.26        26.26         26.26
     RUNOFF COEFFICIENT   =     0.96         0.15          0.36

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  67.3    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| STANDHYD (  0052)|   Area    (ha)=   9.07
|ID= 1 DT= 5.0 min |   Total Imp(%)=  64.70   Dir. Conn.(%)=  32.30
--------------------
                         IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      5.87         3.20
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      0.36         2.00
     Length            (m)=    245.90        35.00
     Mannings n            =    0.013        0.250

     Max.Eff.Inten.(mm/hr)=     80.70         9.45
               over (min)        5.00        25.00
     Storage Coeff.  (min)=     6.49 (ii)   23.23 (ii)
     Unit Hyd. Tpeak (min)=     5.00        25.00
     Unit Hyd. peak  (cms)=     0.18         0.05
                                                    *TOTALS*
     PEAK FLOW       (cms)=     0.43         0.04          0.434 (iii)
     TIME TO PEAK    (hrs)=     1.00         1.42          1.00
     RUNOFF VOLUME    (mm)=    25.26         3.50         10.52
     TOTAL RAINFALL   (mm)=    26.26        26.26         26.26
     RUNOFF COEFFICIENT   =     0.96         0.13          0.40


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  49.3    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
```

```
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| STANDHYD (  0053)|   Area    (ha)=   5.41
|ID= 1 DT= 5.0 min |   Total Imp(%)=  70.00   Dir. Conn.(%)=  35.00
--------------------
                         IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      3.79         1.62
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      0.36         2.00
     Length            (m)=    189.91        35.00
     Mannings n            =    0.013        0.250

     Max.Eff.Inten.(mm/hr)=     80.70        15.94
               over (min)        5.00        20.00
     Storage Coeff.  (min)=     5.56 (ii)   19.14 (ii)
     Unit Hyd. Tpeak (min)=     5.00        20.00
     Unit Hyd. peak  (cms)=     0.20         0.06
                                                    *TOTALS*
     PEAK FLOW       (cms)=     0.30         0.04          0.304 (iii)
     TIME TO PEAK    (hrs)=     1.00         1.33          1.00
     RUNOFF VOLUME    (mm)=    25.26         4.44         11.72
     TOTAL RAINFALL   (mm)=    26.26        26.26         26.26
     RUNOFF COEFFICIENT   =     0.96         0.17          0.45


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  52.7    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| STANDHYD (  0056)|   Area    (ha)=   3.62
|ID= 1 DT= 5.0 min |   Total Imp(%)=  26.60   Dir. Conn.(%)=  20.80
--------------------
                         IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      0.96         2.66
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      2.00         2.00
     Length            (m)=    155.35        35.00
     Mannings n            =    0.013        0.250

     Max.Eff.Inten.(mm/hr)=     80.70         1.87
               over (min)        5.00        35.00
     Storage Coeff.  (min)=     2.94 (ii)   34.94 (ii)
     Unit Hyd. Tpeak (min)=     5.00        35.00
     Unit Hyd. peak  (cms)=     0.28         0.03
                                                    *TOTALS*
     PEAK FLOW       (cms)=     0.15         0.01          0.148 (iii)
     TIME TO PEAK    (hrs)=     1.00         1.67          1.00
     RUNOFF VOLUME    (mm)=    25.26         1.75          6.64
     TOTAL RAINFALL   (mm)=    26.26        26.26         26.26
     RUNOFF COEFFICIENT   =     0.96         0.07          0.25

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| STANDHYD (  0108)|   Area    (ha)=   1.00
|ID= 1 DT= 5.0 min |   Total Imp(%)=  24.00   Dir. Conn.(%)=   0.10
--------------------
                         IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      0.24         0.76
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      0.36         2.00
     Length            (m)=     81.65        90.00
     Mannings n            =    0.013        0.250

     Max.Eff.Inten.(mm/hr)=     80.70         2.27
               over (min)        5.00        60.00
     Storage Coeff.  (min)=     3.35 (ii)   55.52 (ii)
     Unit Hyd. Tpeak (min)=     5.00        60.00
```

```
     Unit Hyd. peak  (cms)=       0.26         0.02
                                                          *TOTALS*
     PEAK FLOW       (cms)=       0.00         0.00          0.003 (iii)
     TIME TO PEAK    (hrs)=       1.00         2.17          2.17
     RUNOFF VOLUME    (mm)=      25.26         2.25          2.24
     TOTAL RAINFALL   (mm)=      26.26        26.26         26.26
     RUNOFF COEFFICIENT   =       0.96         0.09          0.09

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
           YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------


--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0103):     0.33   0.002     1.17     1.57
     + ID2= 2 (  0104):     0.20   0.000     2.08     1.94
       ================================================
       ID = 3 (  0032):     0.53   0.002     1.17     1.71

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------


--------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):     0.53   0.002     1.17     1.71
     + ID2= 2 (  0108):     1.00   0.003     2.17     2.24
       ================================================
       ID = 1 (  0032):     1.53   0.003     2.08     2.06

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------


--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):     1.53   0.003     2.08     2.06
     + ID2= 2 (  0115):     0.78   0.003     2.67     4.59
       ================================================
       ID = 3 (  0032):     2.31   0.007     2.33     2.91

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------


--------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):     2.31   0.007     2.33     2.91
     + ID2= 2 (  0003):     5.31   0.259     1.00     9.40
       ================================================
       ID = 1 (  0032):     7.62   0.260     1.00     7.43

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------


--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):     7.62   0.260     1.00     7.43
     + ID2= 2 (  0052):     9.07   0.434     1.00    10.52
       ================================================
       ID = 3 (  0032):    16.69   0.694     1.00     9.11

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------


--------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
```

```
       ID1= 3 (  0032):    16.69   0.694     1.00     9.11
     + ID2= 2 (  0053):     5.41   0.304     1.00    11.72
       ================================================
       ID = 1 (  0032):    22.10   0.998     1.00     9.75

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------


--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):    22.10   0.998     1.00     9.75
     + ID2= 2 (  0056):     3.62   0.148     1.00     6.64
       ================================================
       ID = 3 (  0032):    25.72   1.146     1.00     9.31

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------


--------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):    25.72   1.146     1.00     9.31
     + ID2= 2 (  0057):     1.06   0.007     1.17     2.01
       ================================================
       ID = 1 (  0032):    26.78   1.149     1.00     9.02

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------


--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):    26.78   1.149     1.00     9.02
     + ID2= 2 (  0007):     4.92   0.017     3.17     4.41
       ================================================
       ID = 3 (  0032):    31.70   1.149     1.00     8.31

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------


--------------------
| CALIB            |
| STANDHYD (  0004)|   Area    (ha)=   8.04
|ID= 1 DT= 5.0 min |   Total Imp(%)=  70.00   Dir. Conn.(%)=  35.00
--------------------

                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       5.63         2.41
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.36         2.00
     Length            (m)=     231.52        35.00
     Mannings n            =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=      80.70        49.11
               over (min)        5.00        15.00
     Storage Coeff.  (min)=       6.26 (ii)   14.92 (ii)
     Unit Hyd. Tpeak (min)=       5.00        15.00
     Unit Hyd. peak  (cms)=       0.19         0.08
                                                          *TOTALS*
     PEAK FLOW       (cms)=       0.42         0.16          0.461 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.25          1.00
     RUNOFF VOLUME    (mm)=      25.26        10.41         15.60
     TOTAL RAINFALL   (mm)=      26.26        26.26         26.26
     RUNOFF COEFFICIENT   =       0.96         0.40          0.59


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB            |
| STANDHYD (  0054)|   Area    (ha)=   8.46
|ID= 1 DT= 5.0 min |   Total Imp(%)=  59.70   Dir. Conn.(%)=  25.90
--------------------

                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       5.05         3.41
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       1.59         2.00
```

```
     Length            (m)=     237.49        35.00
     Mannings n            =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=      80.70        35.90
               over (min)        5.00        15.00
     Storage Coeff.  (min)=       4.07 (ii)   13.88 (ii)
     Unit Hyd. Tpeak (min)=       5.00        15.00
     Unit Hyd. peak  (cms)=       0.24         0.08
                                                          *TOTALS*
     PEAK FLOW       (cms)=       0.39         0.17          0.433 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.25          1.00
     RUNOFF VOLUME    (mm)=      25.26         9.19         13.35
     TOTAL RAINFALL   (mm)=      26.26        26.26         26.26
     RUNOFF COEFFICIENT   =       0.96         0.35          0.51

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0055)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0004):     8.04   0.461     1.00    15.60
     + ID2= 2 (  0054):     8.46   0.433     1.00    13.35
       ================================================
       ID = 3 (  0055):    16.50   0.894     1.00    14.45

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0060)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):    31.70   1.149     1.00     8.31
     + ID2= 2 (  0055):    16.50   0.894     1.00    14.45
       ================================================
       ID = 3 (  0060):    48.20   2.043     1.00    10.41

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------


  --------------------------
  | Junction Command(0025) |
  --------------------------

                         AREA     QPEAK   TPEAK     R.V.
                         (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 1(  0060)   48.20     2.04    1.00    10.41
  OUTFLOW: ID= 2(  0025)   48.20     2.04    1.00    10.41

  --------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0110)|   Area    (ha)=   9.49   Curve Number   (CN)= 56.7
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.53   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.25

     Unit Hyd Qpeak  (cms)=   1.450

     PEAK FLOW       (cms)=   0.051 (i)
     TIME TO PEAK    (hrs)=   1.333
     RUNOFF VOLUME    (mm)=   2.187
     TOTAL RAINFALL   (mm)=  26.256
     RUNOFF COEFFICIENT   =   0.083

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  --------------------------
  | Junction Command(0062) |
  --------------------------

                         AREA     QPEAK   TPEAK     R.V.
                         (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 2(  0110)    9.49     0.05    1.33     2.19
```

```
  OUTFLOW: ID= 2(  0062)    9.49     0.05    1.33     2.19

  --------------------------------------------------------------------------------
--------------------
| CALIB            |
| STANDHYD (  0028)|   Area    (ha)=   6.40
|ID= 1 DT= 5.0 min |   Total Imp(%)=  50.00   Dir. Conn.(%)=  50.00
--------------------

                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       3.20         3.20
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.36         2.00
     Length            (m)=     206.56        90.00
     Mannings n            =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=      80.70         4.81
               over (min)        5.00        45.00
     Storage Coeff.  (min)=       5.84 (ii)   44.49 (ii)
     Unit Hyd. Tpeak (min)=       5.00        45.00
     Unit Hyd. peak  (cms)=       0.20         0.03
                                                          *TOTALS*
     PEAK FLOW       (cms)=       0.49         0.02          0.493 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.92          1.00
     RUNOFF VOLUME    (mm)=      25.26         5.09         15.17
     TOTAL RAINFALL   (mm)=      26.26        26.26         26.26
     RUNOFF COEFFICIENT   =       0.96         0.19          0.58


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
--------------------
| CALIB            |
| STANDHYD (  0111)|   Area    (ha)=  28.77
|ID= 1 DT= 5.0 min |   Total Imp(%)=  24.70   Dir. Conn.(%)=  15.70
--------------------

                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       7.11        21.66
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.36         2.00
     Length            (m)=     437.95        90.00
     Mannings n            =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=      58.85         1.49
               over (min)       10.00        75.00
     Storage Coeff.  (min)=      10.41 (ii)   72.16 (ii)
     Unit Hyd. Tpeak (min)=      10.00        75.00
     Unit Hyd. peak  (cms)=       0.11         0.02
                                                          *TOTALS*
     PEAK FLOW       (cms)=       0.50         0.04          0.506 (iii)
     TIME TO PEAK    (hrs)=       1.08         2.50          1.08
     RUNOFF VOLUME    (mm)=      25.26         1.84          5.52
     TOTAL RAINFALL   (mm)=      26.26        26.26         26.26
     RUNOFF COEFFICIENT   =       0.96         0.07          0.21

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
           YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
--------------------
| CALIB            |
| STANDHYD (  0119)|   Area    (ha)=   2.72
|ID= 1 DT= 5.0 min |   Total Imp(%)=  55.90   Dir. Conn.(%)=  27.20
--------------------

                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.52         1.20
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.50         2.00
     Length            (m)=     134.66        25.00
     Mannings n            =      0.013        0.250

     Max.Eff.Inten.(mm/hr)=      80.70         7.79
               over (min)        5.00        20.00
     Storage Coeff.  (min)=       4.10 (ii)   18.87 (ii)
```

```
     Unit Hyd. Tpeak (min)=       5.00        20.00
     Unit Hyd. peak  (cms)=       0.24         0.06
                                                      *TOTALS*
     PEAK FLOW       (cms)=       0.13         0.01          0.133 (iii)
     TIME TO PEAK    (hrs)=       1.00         1.33          1.00
     RUNOFF VOLUME    (mm)=      25.26         2.94          9.01
     TOTAL RAINFALL   (mm)=      26.26        26.26         26.26
     RUNOFF COEFFICIENT   =       0.96         0.11          0.34

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| ADD HYD  (  0118)|
|  1 +  2 =  3     |         AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0111):    28.77   0.506    1.08      5.52
     + ID2= 2 (  0119):     2.72   0.133    1.00      9.01
       ==========================================
       ID = 3 (  0118):    31.49   0.603    1.08      5.82

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0001)|
|  1 +  2 =  3     |         AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0118):    31.49   0.603    1.08      5.82
     + ID2= 2 (  0025):    48.20   2.043    1.00     10.41
       ==========================================
       ID = 3 (  0001):    79.69   2.509    1.00      8.60

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0001)|
|  3 +  2 =  1     |         AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0001):    79.69   2.509    1.00      8.60
     + ID2= 2 (  0028):     6.40   0.493    1.00     15.17
       ==========================================
       ID = 1 (  0001):    86.09   3.003    1.00      9.08

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0001)|
|  1 +  2 =  3     |         AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0001):    86.09   3.003    1.00      9.08
     + ID2= 2 (  0062):     9.49   0.051    1.33      2.19
       ==========================================
       ID = 3 (  0001):    95.58   3.011    1.00      8.40

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| RESERVOIR(  0002)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
-------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                         0.0000      0.0000   |    0.4660      3.2040
                         0.0000      0.2740   |    0.4720      3.3550
                         0.0420      0.5580   |    2.3890      3.4690
                         0.0680      0.8520   |    2.5030      3.5840
                         0.0860      1.1550   |    2.8990      3.9750
                         0.3770      1.4690   |    4.0830      4.4020
                         0.3970      1.7940   |    7.8030      4.8410
                         0.4160      2.1300   |   13.0620      5.2840
                         0.4340      2.4770   |   19.5770      5.7300
                         0.4500      2.8350   |   27.2220      6.1800

                              AREA     QPEAK     TPEAK       R.V.
                              (ha)     (cms)     (hrs)       (mm)
```

```
     Max.Eff.Inten.(mm/hr)=      80.70         3.64
           over (min)            5.00        70.00
     Storage Coeff.  (min)=      2.71 (ii)   66.00 (ii)
     Unit Hyd. Tpeak (min)=      5.00        70.00
     Unit Hyd. peak  (cms)=      0.29         0.02
                                                      *TOTALS*
     PEAK FLOW       (cms)=      0.00         0.00          0.004 (iii)
     TIME TO PEAK    (hrs)=      1.00         2.33          3.60
     RUNOFF VOLUME    (mm)=     25.26         2.99          3.60
     TOTAL RAINFALL   (mm)=     26.26        26.26         26.26
     RUNOFF COEFFICIENT   =      0.96         0.11          0.14

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
           YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  -------------------------
  | Junction Command(0131) |
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                         AREA     QPEAK   TPEAK    R.V.
                         (ha)     (cms)   (hrs)    (mm)
  INFLOW : ID= 2(  0132)    0.69     0.00    1.00     3.60
  OUTFLOW: ID= 2(  0131)    0.69     0.00    1.00     3.60

  --------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0129)|
|  1 +  2 =  3     |         AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0124):    95.57   0.057    4.08      5.51
     + ID2= 2 (  0130):     5.38   0.008    2.33      1.32
       ==========================================
       ID = 3 (  0129):   100.95   0.062    3.42      5.29

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0129)|
|  3 +  2 =  1     |         AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0129):   100.95   0.062    3.42      5.29
     + ID2= 2 (  0131):     0.69   0.004    1.00      3.60
       ==========================================
       ID = 1 (  0129):   101.64   0.064    3.42      5.28

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  -------------------------
  | Junction Command(0128) |
  -------------------------

                         AREA     QPEAK   TPEAK    R.V.
                         (ha)     (cms)   (hrs)    (mm)
  INFLOW : ID= 10(  0123)   0.01     0.00    4.08     5.51
  OUTFLOW: ID= 2(  0128)    0.01     0.00    4.08     5.51

  --------------------------------------------------------------------------------

-------------------
| CALIB            |
| NASHYD   (  0109)|   Area    (ha)= 120.60   Curve Number   (CN)= 73.3
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.90   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.06

     Unit Hyd Qpeak  (cms)=   4.346

     PEAK FLOW       (cms)=   0.409 (i)
     TIME TO PEAK    (hrs)=   2.583
     RUNOFF VOLUME    (mm)=   3.349
     TOTAL RAINFALL   (mm)=  26.256
     RUNOFF COEFFICIENT   =   0.128

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
```

```
   INFLOW : ID= 2 (  0001)     95.580      3.011      1.00       8.40
   OUTFLOW: ID= 1 (  0002)     95.580      0.057      4.08       5.51

                PEAK   FLOW   REDUCTION [Qout/Qin](%)=  1.90
                TIME SHIFT OF PEAK FLOW         (min)=185.00
                MAXIMUM  STORAGE   USED       (ha.m.)=  0.7309

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-------------------
| DIVERTHYD(  0123)|
| IN= 1   # OUT= 5 |
-------------------
     Outflow / Inflow  Relationships

      Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total
       (cms)     (cms)     (cms)     (cms)     (cms)     (cms)
       0.00      0.00      0.00      0.00      0.00      0.00
       0.00      0.00      0.00      0.00      0.00      0.00
       0.00      0.00      0.00      0.00      0.00      0.00
       0.04      0.00      0.00      0.00      0.00      0.04
       0.07      0.00      0.00      0.00      0.00      0.07
       0.09      0.00      0.00      0.00      0.00      0.09
       0.10      0.28      0.00      0.00      0.00      0.38
       0.12      0.28      0.00      0.00      0.00      0.40
       0.13      0.29      0.00      0.00      0.00      0.42
       0.14      0.30      0.00      0.00      0.00      0.43
       0.15      0.30      0.00      0.00      0.00      0.45
       0.16      0.31      0.00      0.00      0.00      0.47
       0.16      0.31      0.00      0.00      0.00      0.47
       0.16      2.23      0.00      0.00      0.00      2.39
       0.17      2.34      0.00      0.00      0.00      2.50
       0.17      2.73      0.00      0.00      0.00      2.90
       0.18      2.93      0.00      0.00      0.00      3.11

                           AREA     QPEAK     TPEAK     R.V.
                           (ha)     (cms)     (hrs)     (mm)
     TOTAL HYD.(ID= 1):   95.58      0.06      4.08      5.51
     ==========================================================
     ID= 2  (   2)    :   95.57      0.06      4.08      5.51
     ID= 3  (   2)    :    0.01      0.00      4.08      5.51
     ID= 4  (   2)    :    0.00      0.00      0.00      0.00
     ID= 5  (   2)    :    0.00      0.00      0.00      0.00
     ID= 6  (   2)    :    0.00      0.00      0.00      0.00
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  -------------------------
  | Junction Command(0124) |
  -------------------------

                         AREA     QPEAK   TPEAK    R.V.
                         (ha)     (cms)   (hrs)    (mm)
  INFLOW : ID= 1(  0123)   95.57     0.06    4.08     5.51
  OUTFLOW: ID= 2(  0124)   95.57     0.06    4.08     5.51

  --------------------------------------------------------------------------------

-------------------
| CALIB            |
| NASHYD   (  0130)|   Area    (ha)=   5.38   Curve Number   (CN)= 46.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.05   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.87

     Unit Hyd Qpeak  (cms)=   0.236

     PEAK FLOW       (cms)=   0.008 (i)
     TIME TO PEAK    (hrs)=   2.333
     RUNOFF VOLUME    (mm)=   1.321
     TOTAL RAINFALL   (mm)=  26.256
     RUNOFF COEFFICIENT   =   0.050

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| CALIB            |
| STANDHYD (  0132)|   Area    (ha)=   0.69
|ID= 1 DT= 5.0 min |   Total Imp(%)=  42.00   Dir. Conn.(%)=   3.00
-------------------

                         IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.29          0.40
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.50          2.00
     Length            (m)=      67.82        170.00
     Mannings n           =      0.013         0.250

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-------------------
| CALIB            |
| STANDHYD (  0106)|   Area    (ha)=   1.58
|ID= 1 DT= 5.0 min |   Total Imp(%)=  30.20   Dir. Conn.(%)=   0.10
-------------------

                         IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.48          1.10
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.36          2.00
     Length            (m)=     102.63         90.00
     Mannings n           =      0.013         0.250

     Max.Eff.Inten.(mm/hr)=      80.70         12.33
           over (min)            5.00         35.00
     Storage Coeff.  (min)=      3.84 (ii)   30.36 (ii)
     Unit Hyd. Tpeak (min)=      5.00         35.00
     Unit Hyd. peak  (cms)=      0.25          0.04
                                                      *TOTALS*
     PEAK FLOW       (cms)=      0.00          0.02          0.021 (iii)
     TIME TO PEAK    (hrs)=      1.00          1.58          1.58
     RUNOFF VOLUME    (mm)=     25.26          7.41          7.42
     TOTAL RAINFALL   (mm)=     26.26         26.26         26.26
     RUNOFF COEFFICIENT   =      0.96          0.28          0.28

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
           YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| CALIB            |
| STANDHYD (  0107)|   Area    (ha)=   0.72
|ID= 1 DT= 5.0 min |   Total Imp(%)=  45.60   Dir. Conn.(%)=   3.50
-------------------

                         IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.33          0.39
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.36          2.00
     Length            (m)=      69.28         90.00
     Mannings n           =      0.013         0.250

     Max.Eff.Inten.(mm/hr)=      80.70         20.92
           over (min)            5.00         25.00
     Storage Coeff.  (min)=      3.03 (ii)   24.50 (ii)
     Unit Hyd. Tpeak (min)=      5.00         25.00
     Unit Hyd. peak  (cms)=      0.27          0.05
                                                      *TOTALS*
     PEAK FLOW       (cms)=      0.00          0.01          0.014 (iii)
     TIME TO PEAK    (hrs)=      1.00          1.42          1.42
     RUNOFF VOLUME    (mm)=     25.26          8.93          9.48
     TOTAL RAINFALL   (mm)=     26.26         26.26         26.26
     RUNOFF COEFFICIENT   =      0.96          0.34          0.36

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
           YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0029)|
|  1 +  2 =  3     |         AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0106):     1.58   0.021    1.58      7.42
     + ID2= 2 (  0107):     0.72   0.014    1.42      9.48
       ==========================================
       ID = 3 (  0029):     2.30   0.033    1.58      8.06

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
```

```
--------------------
| ADD HYD  (  0029)|
|  3  +   2 =  1   |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0029):      2.30   0.033     1.58     8.06
     + ID2= 2 (  0109):    120.60   0.409     2.58     3.35
       ================================================
       ID = 1 (  0029):    122.90   0.424     2.58     3.44

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0122)|
|  1  +   2 =  3   |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0128):      0.01   0.000     4.08     5.51
     + ID2= 2 (  0029):    122.90   0.424     2.58     3.44
       ================================================
       ID = 3 (  0122):    122.91   0.424     2.58     3.44

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0135)|
|  1  +   2 =  3   |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0122):    122.91   0.424     2.58     3.44
     + ID2= 2 (  0129):    101.64   0.064     3.42     5.28
       ================================================
       ID = 3 (  0135):    224.55   0.485     2.58     4.27

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------
===============================================================================================================

      V    V   I    SSSSS  U    U    A    L                    (v 6.2.2020)
      V    V   I    SS     U    U   A A   L
       V  V    I      SS   U    U  AAAAA  L
       V  V    I       SS  U    U  A   A  L
        VV     I    SSSSS  UUUUU  A   A  LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO     TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M   M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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                *****  D E T A I L E D   O U T P U T *****


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\edac9858-0
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\edac9858-0

DATE: 02-17-2026                          TIME: 11:15:55

USER:


COMMENTS: _____________________________________________________

-------------------------------------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : B. 2yr 4hr 10min Chicago C    **
  ************************************************

--------------------
| CHICAGO STORM    |    IDF curve parameters: A= 412.458
| Ptotal= 35.77 mm |                          B=   0.000
--------------------                          C=   0.699
                       used in:   INTENSITY =  A / (t + B)^C

                       Duration of storm  =  4.00 hrs
                       Storm time step    = 10.00 min
                       Time to peak ratio =  0.33
```

```
                    ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
 0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
 0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
 0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
 0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
 0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
 0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
 0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
 0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
 0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
 0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
 1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

Unit Hyd Qpeak  (cms)=   0.121

PEAK FLOW       (cms)=   0.030 (i)
TIME TO PEAK    (hrs)=   3.583
RUNOFF VOLUME    (mm)=   8.396
TOTAL RAINFALL   (mm)=  35.770
RUNOFF COEFFICIENT   =   0.235

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
-------------------------------------------------------------------------------

------------------
| CALIB          |
| NASHYD  (  0057)|   Area    (ha)=   1.06   Curve Number   (CN)= 55.0
|ID= 1 DT= 5.0 min|   Ia      (mm)=   4.72   # of Linear Res.(N)= 3.00
------------------   U.H. Tp(hrs)=   0.15

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                    ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
 0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
 0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
 0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
 0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
 0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
 0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
 0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
 0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
 0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
 0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
 1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

Unit Hyd Qpeak  (cms)=   0.270

PEAK FLOW       (cms)=   0.013 (i)
TIME TO PEAK    (hrs)=   1.417
RUNOFF VOLUME    (mm)=   4.012
TOTAL RAINFALL   (mm)=  35.770
RUNOFF COEFFICIENT   =   0.112

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
-------------------------------------------------------------------------------

------------------
| CALIB          |
| NASHYD  (  0115)|   Area    (ha)=   0.78   Curve Number   (CN)= 76.9
|ID= 1 DT= 5.0 min|   Ia      (mm)=   5.10   # of Linear Res.(N)= 3.00
------------------   U.H. Tp(hrs)=   1.17

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                    ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
 0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
 0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
 0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
 0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
 0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
 0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
 0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
 0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
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```
                    ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.000    3.01 | 1.000   14.23 | 2.000    5.95 |  3.00    3.46
 0.017    3.36 | 1.017   82.49 | 2.017    5.25 |  3.17    3.26
 0.033    3.84 | 1.033   17.47 | 2.033    4.73 |  3.33    3.09
 0.050    4.52 | 1.050   11.01 | 2.050    4.31 |  3.50    2.93
 0.067    5.59 | 1.067    8.40 | 2.067    3.98 |  3.67    2.80
 0.083    7.65 | 1.083    6.92 | 2.083    3.70 |  3.83    2.67

-------------------------------------------------------------------------------
------------------
| CALIB          |
| STANDHYD (  0133)|   Area    (ha)=   0.09
| ID= 1 DT= 5.0 min|   Total Imp(%)=  43.30   Dir. Conn.(%)=  43.30
------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      0.04         0.05
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      5.00         2.00
     Length            (m)=     24.49        46.00
     Mannings n             =    0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                    ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
 0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
 0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
 0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
 0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
 0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
 0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
 0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
 0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
 0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
 0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
 1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

     Max.Eff.Inten.(mm/hr)=      82.49         2.68
                   over (min)        5.00        35.00
     Storage Coeff.  (min)=       0.73 (ii)   33.39 (ii)
     Unit Hyd. Tpeak (min)=       5.00        35.00
     Unit Hyd. peak  (cms)=       0.34         0.03
                                                      *TOTALS*
     PEAK FLOW       (cms)=       0.01         0.00       0.009 (iii)
     TIME TO PEAK    (hrs)=       1.33         1.92       1.33
     RUNOFF VOLUME    (mm)=      34.77         3.21      16.60
     TOTAL RAINFALL   (mm)=      35.77        35.77      35.77
     RUNOFF COEFFICIENT   =       0.97         0.09       0.46

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------

  --------------------------
  | Junction Command(0134) |
  --------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 2(  0133)    0.09     0.01    1.33    16.60
  OUTFLOW: ID= 2(  0134)    0.09     0.01    1.33    16.60

  -------------------------------------------------------------------------------
------------------
| CALIB          |
| NASHYD  (  0007)|   Area    (ha)=   4.92   Curve Number   (CN)= 75.1
|ID= 1 DT= 5.0 min|   Ia      (mm)=   4.65   # of Linear Res.(N)= 3.00
------------------   U.H. Tp(hrs)=   1.55

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
```

```
                    ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
 0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
 0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
 0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
 0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
 0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
 0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
 0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
 0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
 0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
 0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
 1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

Unit Hyd Qpeak  (cms)=   0.025

PEAK FLOW       (cms)=   0.006 (i)
TIME TO PEAK    (hrs)=   3.000
RUNOFF VOLUME    (mm)=   8.790
TOTAL RAINFALL   (mm)=  35.770
RUNOFF COEFFICIENT   =   0.246

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
-------------------------------------------------------------------------------

------------------
| CALIB          |
| NASHYD  (  0103)|   Area    (ha)=   0.33   Curve Number   (CN)= 49.0
|ID= 1 DT= 5.0 min|   Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
------------------   U.H. Tp(hrs)=   0.13

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                    ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
 0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
 0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
 0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
 0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
 0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
 0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
 0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
 0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
 0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
 0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
 1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

Unit Hyd Qpeak  (cms)=   0.097

PEAK FLOW       (cms)=   0.003 (i)
TIME TO PEAK    (hrs)=   1.417
RUNOFF VOLUME    (mm)=   3.175
TOTAL RAINFALL   (mm)=  35.770
RUNOFF COEFFICIENT   =   0.089

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
-------------------------------------------------------------------------------

------------------
| CALIB          |
| NASHYD  (  0104)|   Area    (ha)=   0.20   Curve Number   (CN)= 53.9
|ID= 1 DT= 5.0 min|   Ia      (mm)=   4.70   # of Linear Res.(N)= 3.00
------------------   U.H. Tp(hrs)=   0.76

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                    ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
 0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
 0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
 0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
 0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
 0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
 0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
 0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
 0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
 0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
 0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
 1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

Unit Hyd Qpeak  (cms)=   0.010

PEAK FLOW       (cms)=   0.001 (i)
TIME TO PEAK    (hrs)=   2.417
RUNOFF VOLUME    (mm)=   3.879
TOTAL RAINFALL   (mm)=  35.770
RUNOFF COEFFICIENT   =   0.108
```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
STANDHYD (0003)	Area (ha)= 5.31				
ID= 1 DT= 5.0 min	Total Imp(%)= 39.70	Dir. Conn.(%)= 25.20			

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	2.11	3.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	2.10	2.00
Length	(m)=	188.15	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.01	1.083	14.23	2.083	5.95	3.08	3.46
0.167	3.01	1.167	14.23	2.167	5.95	3.17	3.46
0.250	3.36	1.250	82.49	2.250	5.25	3.25	3.26
0.333	3.36	1.333	82.49	2.333	5.25	3.33	3.26
0.417	3.84	1.417	17.47	2.417	4.73	3.42	3.09
0.500	3.84	1.500	17.47	2.500	4.73	3.50	3.09
0.583	4.52	1.583	11.01	2.583	4.31	3.58	2.93
0.667	4.52	1.667	11.01	2.667	4.31	3.67	2.93
0.750	5.59	1.750	8.40	2.750	3.98	3.75	2.80
0.833	5.59	1.833	8.40	2.833	3.98	3.83	2.80
0.917	7.65	1.917	6.92	2.917	3.70	3.92	2.67
1.000	7.65	2.000	6.92	3.000	3.70	4.00	2.67

				TOTALS
Max.Eff.Inten.(mm/hr)=		82.49	13.54	
over (min)		5.00	20.00	
Storage Coeff. (min)=		3.23 (ii)	17.72 (ii)	
Unit Hyd. Tpeak (min)=		5.00	20.00	
Unit Hyd. peak (cms)=		0.27	0.06	
PEAK FLOW	(cms)=	0.30	0.07	0.315 (iii)
TIME TO PEAK	(hrs)=	1.33	1.58	1.33
RUNOFF VOLUME	(mm)=	34.77	7.68	14.50
TOTAL RAINFALL	(mm)=	35.77	35.77	35.77
RUNOFF COEFFICIENT	=	0.97	0.21	0.41

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 67.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
STANDHYD (0052)	Area (ha)= 9.07				
ID= 1 DT= 5.0 min	Total Imp(%)= 64.70	Dir. Conn.(%)= 32.30			

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	5.87	3.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	245.90	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.01	1.083	14.23	2.083	5.95	3.08	3.46
0.167	3.01	1.167	14.23	2.167	5.95	3.17	3.46
0.250	3.36	1.250	82.49	2.250	5.25	3.25	3.26
0.333	3.36	1.333	82.49	2.333	5.25	3.33	3.26
0.417	3.84	1.417	17.47	2.417	4.73	3.42	3.09
0.500	3.84	1.500	17.47	2.500	4.73	3.50	3.09
0.583	4.52	1.583	11.01	2.583	4.31	3.58	2.93
0.667	4.52	1.667	11.01	2.667	4.31	3.67	2.93
0.750	5.59	1.750	8.40	2.750	3.98	3.75	2.80
0.833	5.59	1.833	8.40	2.833	3.98	3.83	2.80
0.917	7.65	1.917	6.92	2.917	3.70	3.92	2.67
1.000	7.65	2.000	6.92	3.000	3.70	4.00	2.67

				TOTALS
Max.Eff.Inten.(mm/hr)=		82.49	17.90	
over (min)		5.00	20.00	
Storage Coeff. (min)=		6.43 (ii)	19.40 (ii)	
Unit Hyd. Tpeak (min)=		5.00	20.00	
Unit Hyd. peak (cms)=		0.18	0.06	
PEAK FLOW	(cms)=	0.55	0.08	0.579 (iii)
TIME TO PEAK	(hrs)=	1.33	1.58	1.33
RUNOFF VOLUME	(mm)=	34.77	6.49	15.63
TOTAL RAINFALL	(mm)=	35.77	35.77	35.77
RUNOFF COEFFICIENT	=	0.97	0.18	0.44

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
STANDHYD (0053)	Area (ha)= 5.41				
ID= 1 DT= 5.0 min	Total Imp(%)= 70.00	Dir. Conn.(%)= 35.00			

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.79	1.62
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	189.91	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.01	1.083	14.23	2.083	5.95	3.08	3.46
0.167	3.01	1.167	14.23	2.167	5.95	3.17	3.46
0.250	3.36	1.250	82.49	2.250	5.25	3.25	3.26
0.333	3.36	1.333	82.49	2.333	5.25	3.33	3.26
0.417	3.84	1.417	17.47	2.417	4.73	3.42	3.09
0.500	3.84	1.500	17.47	2.500	4.73	3.50	3.09
0.583	4.52	1.583	11.01	2.583	4.31	3.58	2.93
0.667	4.52	1.667	11.01	2.667	4.31	3.67	2.93
0.750	5.59	1.750	8.40	2.750	3.98	3.75	2.80
0.833	5.59	1.833	8.40	2.833	3.98	3.83	2.80
0.917	7.65	1.917	6.92	2.917	3.70	3.92	2.67
1.000	7.65	2.000	6.92	3.000	3.70	4.00	2.67

				TOTALS
Max.Eff.Inten.(mm/hr)=		82.49	25.74	
over (min)		5.00	20.00	
Storage Coeff. (min)=		5.51 (ii)	16.72 (ii)	
Unit Hyd. Tpeak (min)=		5.00	20.00	
Unit Hyd. peak (cms)=		0.20	0.06	
PEAK FLOW	(cms)=	0.37	0.07	0.397 (iii)
TIME TO PEAK	(hrs)=	1.33	1.58	1.33
RUNOFF VOLUME	(mm)=	34.77	8.07	17.42
TOTAL RAINFALL	(mm)=	35.77	35.77	35.77
RUNOFF COEFFICIENT	=	0.97	0.23	0.49

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.7 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
STANDHYD (0056)	Area (ha)= 3.62				
ID= 1 DT= 5.0 min	Total Imp(%)= 26.60	Dir. Conn.(%)= 20.80			

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.96	2.66
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	2.00	2.00
Length	(m)=	155.35	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.01	1.083	14.23	2.083	5.95	3.08	3.46
0.167	3.01	1.167	14.23	2.167	5.95	3.17	3.46
0.250	3.36	1.250	82.49	2.250	5.25	3.25	3.26
0.333	3.36	1.333	82.49	2.333	5.25	3.33	3.26
0.417	3.84	1.417	17.47	2.417	4.73	3.42	3.09
0.500	3.84	1.500	17.47	2.500	4.73	3.50	3.09
0.583	4.52	1.583	11.01	2.583	4.31	3.58	2.93
0.667	4.52	1.667	11.01	2.667	4.31	3.67	2.93
0.750	5.59	1.750	8.40	2.750	3.98	3.75	2.80
0.833	5.59	1.833	8.40	2.833	3.98	3.83	2.80
0.917	7.65	1.917	6.92	2.917	3.70	3.92	2.67

				TOTALS
Max.Eff.Inten.(mm/hr)=		82.49	3.84	
over (min)		5.00	30.00	
Storage Coeff. (min)=		2.92 (ii)	26.92 (ii)	
Unit Hyd. Tpeak (min)=		5.00	30.00	
Unit Hyd. peak (cms)=		0.28	0.04	
PEAK FLOW	(cms)=	0.17	0.02	0.170 (iii)
TIME TO PEAK	(hrs)=	1.33	1.75	1.33
RUNOFF VOLUME	(mm)=	34.77	3.51	10.01
TOTAL RAINFALL	(mm)=	35.77	35.77	35.77
RUNOFF COEFFICIENT	=	0.97	0.10	0.28

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
STANDHYD (0108)	Area (ha)= 1.00				
ID= 1 DT= 5.0 min	Total Imp(%)= 24.00	Dir. Conn.(%)= 0.10			

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.24	0.76
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	81.65	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.01	1.083	14.23	2.083	5.95	3.08	3.46
0.167	3.01	1.167	14.23	2.167	5.95	3.17	3.46
0.250	3.36	1.250	82.49	2.250	5.25	3.25	3.26
0.333	3.36	1.333	82.49	2.333	5.25	3.33	3.26
0.417	3.84	1.417	17.47	2.417	4.73	3.42	3.09
0.500	3.84	1.500	17.47	2.500	4.73	3.50	3.09
0.583	4.52	1.583	11.01	2.583	4.31	3.58	2.93
0.667	4.52	1.667	11.01	2.667	4.31	3.67	2.93
0.750	5.59	1.750	8.40	2.750	3.98	3.75	2.80
0.833	5.59	1.833	8.40	2.833	3.98	3.83	2.80
0.917	7.65	1.917	6.92	2.917	3.70	3.92	2.67
1.000	7.65	2.000	6.92	3.000	3.70	4.00	2.67

				TOTALS
Max.Eff.Inten.(mm/hr)=		82.49	4.60	
over (min)		5.00	45.00	
Storage Coeff. (min)=		3.32 (ii)	42.66 (ii)	
Unit Hyd. Tpeak (min)=		5.00	45.00	
Unit Hyd. peak (cms)=		0.26	0.03	
PEAK FLOW	(cms)=	0.00	0.01	0.005 (iii)
TIME TO PEAK	(hrs)=	1.33	2.08	2.08
RUNOFF VOLUME	(mm)=	34.77	4.38	4.39
TOTAL RAINFALL	(mm)=	35.77	35.77	35.77
RUNOFF COEFFICIENT	=	0.97	0.12	0.12

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0103):	0.33	0.003	1.42	3.18
+ ID2= 2 (0104):	0.20	0.001	2.42	3.88
ID = 3 (0032):	0.53	0.003	1.42	3.44

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0032):	0.53	0.003	1.42	3.44
+ ID2= 2 (0108):	1.00	0.005	2.08	4.39
ID = 1 (0032):	1.53	0.007	2.08	4.06

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0032):	1.53	0.007	2.08	4.06
+ ID2= 2 (0115):	0.78	0.006	3.00	8.79
ID = 3 (0032):	2.31	0.012	2.50	5.66

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0032):	2.31	0.012	2.50	5.66
+ ID2= 2 (0003):	5.31	0.315	1.33	14.50
ID = 1 (0032):	7.62	0.319	1.33	11.82

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0032):	7.62	0.319	1.33	11.82
+ ID2= 2 (0052):	9.07	0.579	1.33	15.63
ID = 3 (0032):	16.69	0.898	1.33	13.89

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0032):	16.69	0.898	1.33	13.89
+ ID2= 2 (0053):	5.41	0.397	1.33	17.42
ID = 1 (0032):	22.10	1.295	1.33	14.75

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):    22.10   1.295     1.33    14.75
     + ID2= 2 (  0056):     3.62   0.170     1.33    10.01
       ================================================
       ID = 3 (  0032):    25.72   1.466     1.33    14.08

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):    25.72   1.466     1.33    14.08
     + ID2= 2 (  0057):     1.06   0.013     1.42     4.01
       ================================================
       ID = 1 (  0032):    26.78   1.476     1.33    13.69

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):    26.78   1.476     1.33    13.69
     + ID2= 2 (  0007):     4.92   0.030     3.58     8.40
       ================================================
       ID = 3 (  0032):    31.70   1.476     1.33    12.86

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| CALIB            |
| STANDHYD (  0004)|   Area    (ha)=   8.04
|ID= 1 DT= 5.0 min |   Total Imp(%)=  70.00   Dir. Conn.(%)=  35.00
--------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       5.63          2.41
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.36          2.00
     Length            (m)=     231.52         35.00
     Mannings n            =      0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
     0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
     0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
     0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
     0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
     0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
     0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
     0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
     0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
     0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
     0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
     1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

     Max.Eff.Inten.(mm/hr)=      82.49         81.29
               over (min)        5.00         15.00
     Storage Coeff.  (min)=      6.20 (ii)    13.28 (ii)
     Unit Hyd. Tpeak (min)=      5.00         15.00
     Unit Hyd. peak  (cms)=      0.19          0.08
                                                    *TOTALS*
     PEAK FLOW       (cms)=      0.54          0.27          0.677 (iii)
     TIME TO PEAK    (hrs)=      1.33          1.50          1.33
     RUNOFF VOLUME    (mm)=     34.77         17.33         23.43
     TOTAL RAINFALL   (mm)=     35.77         35.77         35.77
     RUNOFF COEFFICIENT   =      0.97          0.48          0.66

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN* =  79.0    Ia = Dep. Storage  (Above)
        (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
             THAN THE STORAGE COEFFICIENT.
       (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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| CALIB            |
| STANDHYD (  0054)|   Area    (ha)=   8.46
|ID= 1 DT= 5.0 min |   Total Imp(%)=  59.70   Dir. Conn.(%)=  25.90
--------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       5.05          3.41
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       1.59          2.00
     Length            (m)=     237.49         35.00
     Mannings n            =      0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
     0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
     0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
     0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
     0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
     0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
     0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
     0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
     0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
     0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
     0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
     1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

     Max.Eff.Inten.(mm/hr)=      82.49         60.69
               over (min)        5.00         15.00
     Storage Coeff.  (min)=      4.03 (ii)    11.99 (ii)
     Unit Hyd. Tpeak (min)=      5.00         15.00
     Unit Hyd. peak  (cms)=      0.24          0.09
                                                    *TOTALS*
     PEAK FLOW       (cms)=      0.47          0.31          0.621 (iii)
     TIME TO PEAK    (hrs)=      1.33          1.50          1.33
     RUNOFF VOLUME    (mm)=     34.77         15.66         20.61
     TOTAL RAINFALL   (mm)=     35.77         35.77         35.77
     RUNOFF COEFFICIENT   =      0.97          0.44          0.58

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN* =  79.0    Ia = Dep. Storage  (Above)
        (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
             THAN THE STORAGE COEFFICIENT.
       (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0055)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0004):     8.04   0.677     1.33    23.43
     + ID2= 2 (  0054):     8.46   0.621     1.33    20.61
       ================================================
       ID = 3 (  0055):    16.50   1.297     1.33    21.98

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0060)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):    31.70   1.476     1.33    12.86
     + ID2= 2 (  0055):    16.50   1.297     1.33    21.98
       ================================================
       ID = 3 (  0060):    48.20   2.774     1.33    15.99

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  | Junction Command(0025) |
  --------------------------

                          AREA     QPEAK    TPEAK     R.V.
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                          (ha)     (cms)    (hrs)    (mm)
  INFLOW : ID= 1(  0060)   48.20     2.77     1.33    15.99
  OUTFLOW: ID= 2(  0025)   48.20     2.77     1.33    15.99

--------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0110)|   Area    (ha)=   9.49   Curve Number   (CN)= 56.7
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.53   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.25

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
     0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
     0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
     0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
     0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
     0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
     0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
     0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
     0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
     0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
     0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
     1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

     Unit Hyd Qpeak  (cms)=   1.450

     PEAK FLOW       (cms)=   0.089 (i)
     TIME TO PEAK    (hrs)=   1.583
     RUNOFF VOLUME    (mm)=   4.330
     TOTAL RAINFALL   (mm)=  35.770
     RUNOFF COEFFICIENT   =   0.121

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  | Junction Command(0062) |
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                          AREA     QPEAK    TPEAK     R.V.
                          (ha)     (cms)    (hrs)    (mm)
  INFLOW : ID= 2(  0110)   9.49     0.09     1.58     4.33
  OUTFLOW: ID= 2(  0062)   9.49     0.09     1.58     4.33

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| CALIB            |
| STANDHYD (  0028)|   Area    (ha)=   6.40
|ID= 1 DT= 5.0 min |   Total Imp(%)=  50.00   Dir. Conn.(%)=  50.00
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                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       3.20          3.20
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.36          2.00
     Length            (m)=     206.56         90.00
     Mannings n            =      0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
     0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
     0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
     0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
     0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
     0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
     0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
     0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
     0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
     0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
     0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
     1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

     Max.Eff.Inten.(mm/hr)=      82.49          9.45
               over (min)        5.00         40.00
     Storage Coeff.  (min)=      5.79 (ii)    35.29 (ii)
     Unit Hyd. Tpeak (min)=      5.00         40.00
     Unit Hyd. peak  (cms)=      0.20          0.03
                                                    *TOTALS*
     PEAK FLOW       (cms)=      0.62          0.04          0.628 (iii)
     TIME TO PEAK    (hrs)=      1.33          1.92          1.33
     RUNOFF VOLUME    (mm)=     34.77          9.63         22.20
     TOTAL RAINFALL   (mm)=     35.77         35.77         35.77
     RUNOFF COEFFICIENT   =      0.97          0.27          0.62

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN* =  79.0    Ia = Dep. Storage  (Above)
        (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
             THAN THE STORAGE COEFFICIENT.
       (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB            |
| STANDHYD (  0111)|   Area    (ha)=  28.77
|ID= 1 DT= 5.0 min |   Total Imp(%)=  24.70   Dir. Conn.(%)=  15.70
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                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       7.11         21.66
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.36          2.00
     Length            (m)=     437.95         90.00
     Mannings n            =      0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
     0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
     0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
     0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
     0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
     0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
     0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
     0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
     0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
     0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
     0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
     1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

     Max.Eff.Inten.(mm/hr)=      82.49          2.85
               over (min)       10.00         60.00
     Storage Coeff.  (min)=      9.09 (ii)    56.76 (ii)
     Unit Hyd. Tpeak (min)=     10.00         60.00
     Unit Hyd. peak  (cms)=      0.12          0.02
                                                    *TOTALS*
     PEAK FLOW       (cms)=      0.65          0.09          0.659 (iii)
     TIME TO PEAK    (hrs)=      1.42          2.42          1.42
     RUNOFF VOLUME    (mm)=     34.77          3.66          8.55
     TOTAL RAINFALL   (mm)=     35.77         35.77         35.77
     RUNOFF COEFFICIENT   =      0.97          0.10          0.24

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN* =  49.0    Ia = Dep. Storage  (Above)
        (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
             THAN THE STORAGE COEFFICIENT.
       (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB            |
| STANDHYD (  0119)|   Area    (ha)=   2.72
|ID= 1 DT= 5.0 min |   Total Imp(%)=  55.90   Dir. Conn.(%)=  27.20
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                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.52          1.20
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.50          2.00
     Length            (m)=     134.66         25.00
     Mannings n            =      0.013         0.250
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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.01	1.083	14.23	2.083	5.95	3.08	3.46
0.167	3.01	1.167	14.23	2.167	5.95	3.17	3.46
0.250	3.36	1.250	82.49	2.250	5.25	3.25	3.26
0.333	3.36	1.333	82.49	2.333	5.25	3.33	3.26
0.417	3.84	1.417	17.47	2.417	4.73	3.42	3.09
0.500	3.84	1.500	17.47	2.500	4.73	3.50	3.09
0.583	4.52	1.583	11.01	2.583	4.31	3.58	2.93
0.667	4.52	1.667	11.01	2.667	4.31	3.67	2.93
0.750	5.59	1.750	8.40	2.750	3.98	3.75	2.80
0.833	5.59	1.833	8.40	2.833	3.98	3.83	2.80
0.917	7.65	1.917	6.92	2.917	3.70	3.92	2.67
1.000	7.65	2.000	6.92	3.000	3.70	4.00	2.67

			TOTALS
Max.Eff.Inten.(mm/hr)=	82.49	12.94	
over (min)	5.00	20.00	
Storage Coeff. (min)=	4.06 (ii)	16.12 (ii)	
Unit Hyd. Tpeak (min)=	5.00	20.00	
Unit Hyd. peak (cms)=	0.24	0.06	
PEAK FLOW (cms)=	0.16	0.02	0.166 (iii)
TIME TO PEAK (hrs)=	1.33	1.58	1.33
RUNOFF VOLUME (mm)=	34.77	5.56	13.50
TOTAL RAINFALL (mm)=	35.77	35.77	35.77
RUNOFF COEFFICIENT =	0.97	0.16	0.38

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0118)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0111):	28.77	0.659	1.42	8.55
+ ID2= 2 (0119):	2.72	0.166	1.33	13.50
ID = 3 (0118):	31.49	0.783	1.33	8.97

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0118):	31.49	0.783	1.33	8.97
+ ID2= 2 (0025):	48.20	2.774	1.33	15.99
ID = 3 (0001):	79.69	3.557	1.33	13.21

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0001):	79.69	3.557	1.33	13.21
+ ID2= 2 (0028):	6.40	0.628	1.33	22.20
ID = 1 (0001):	86.09	4.186	1.33	13.88

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):	86.09	4.186	1.33	13.88
+ ID2= 2 (0062):	9.49	0.089	1.58	4.33
ID = 3 (0001):	95.58	4.227	1.33	12.93

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (0002) | OVERFLOW IS OFF
IN= 2---> OUT= 1
DT= 5.0 min

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.4660	3.2040
0.0000	0.2740	0.4720	3.3550
0.0420	0.5580	2.3890	3.4690
0.0680	0.8520	2.5030	3.5840
0.0860	1.1550	2.8990	3.9750
0.3770	1.4690	4.0830	4.4020
0.3970	1.7940	7.8030	4.8410
0.4160	2.1300	13.0620	5.2840
0.4340	2.4770	19.5770	5.7300
0.4500	2.8350	27.2220	6.1800

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0001)	95.580	4.227	1.33	12.93
OUTFLOW: ID= 1 (0002)	95.580	0.084	4.83	10.05

PEAK FLOW REDUCTION [Qout/Qin](%)= 1.99
TIME SHIFT OF PEAK FLOW (min)=210.00
MAXIMUM STORAGE USED (ha.m.)= 1.1199

DIVERTHYD (0123)
IN= 1 # OUT= 5

Outflow / Inflow Relationships

Flow 1 (cms)	+ Flow 2 (cms)	+ Flow 3 (cms)	+ Flow 4 (cms)	+ Flow 5 (cms)	= Total (cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.04	0.00	0.00	0.00	0.00	0.04
0.07	0.00	0.00	0.00	0.00	0.07
0.09	0.00	0.00	0.00	0.00	0.09
0.10	0.28	0.00	0.00	0.00	0.38
0.12	0.28	0.00	0.00	0.00	0.40
0.13	0.29	0.00	0.00	0.00	0.42
0.14	0.30	0.00	0.00	0.00	0.43
0.15	0.30	0.00	0.00	0.00	0.45
0.16	0.31	0.00	0.00	0.00	0.47
0.16	0.31	0.00	0.00	0.00	0.47
0.16	2.23	0.00	0.00	0.00	2.39
0.17	2.34	0.00	0.00	0.00	2.50
0.17	2.73	0.00	0.00	0.00	2.90
0.18	2.93	0.00	0.00	0.00	3.11

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	95.58	0.08	4.83	10.05
ID= 2 (2) :	95.57	0.08	4.83	10.05
ID= 3 (2) :	0.01	0.00	4.83	10.05
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

Junction Command(0124)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0123)	95.57	0.08	4.83	10.05
OUTFLOW: ID= 2(0124)	95.57	0.08	4.83	10.05

CALIB
NASHYD (0130) | Area (ha)= 5.38 Curve Number (CN)= 46.8
ID= 1 DT= 5.0 min | Ia (mm)= 6.05 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.01	1.083	14.23	2.083	5.95	3.08	3.46
0.167	3.01	1.167	14.23	2.167	5.95	3.17	3.46
0.250	3.36	1.250	82.49	2.250	5.25	3.25	3.26
0.333	3.36	1.333	82.49	2.333	5.25	3.33	3.26
0.417	3.84	1.417	17.47	2.417	4.73	3.42	3.09
0.500	3.84	1.500	17.47	2.500	4.73	3.50	3.09
0.583	4.52	1.583	11.01	2.583	4.31	3.58	2.93
0.667	4.52	1.667	11.01	2.667	4.31	3.67	2.93
0.750	5.59	1.750	8.40	2.750	3.98	3.75	2.80
0.833	5.59	1.833	8.40	2.833	3.98	3.83	2.80
0.917	7.65	1.917	6.92	2.917	3.70	3.92	2.67
1.000	7.65	2.000	6.92	3.000	3.70	4.00	2.67

Unit Hyd Qpeak (cms)= 0.236

PEAK FLOW	(cms)=	0.015 (i)
TIME TO PEAK	(hrs)=	2.583
RUNOFF VOLUME	(mm)=	2.773
TOTAL RAINFALL	(mm)=	35.770
RUNOFF COEFFICIENT	=	0.078

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0132) | Area (ha)= 0.69
ID= 1 DT= 5.0 min | Total Imp(%)= 42.00 Dir. Conn.(%)= 3.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.29	0.40
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	67.82	170.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.01	1.083	14.23	2.083	5.95	3.08	3.46
0.167	3.01	1.167	14.23	2.167	5.95	3.17	3.46
0.250	3.36	1.250	82.49	2.250	5.25	3.25	3.26
0.333	3.36	1.333	82.49	2.333	5.25	3.33	3.26
0.417	3.84	1.417	17.47	2.417	4.73	3.42	3.09
0.500	3.84	1.500	17.47	2.500	4.73	3.50	3.09
0.583	4.52	1.583	11.01	2.583	4.31	3.58	2.93
0.667	4.52	1.667	11.01	2.667	4.31	3.67	2.93
0.750	5.59	1.750	8.40	2.750	3.98	3.75	2.80
0.833	5.59	1.833	8.40	2.833	3.98	3.83	2.80
0.917	7.65	1.917	6.92	2.917	3.70	3.92	2.67
1.000	7.65	2.000	6.92	3.000	3.70	4.00	2.67

			TOTALS
Max.Eff.Inten.(mm/hr)=	82.49	6.70	
over (min)	5.00	55.00	
Storage Coeff. (min)=	2.69 (ii)	52.28 (ii)	
Unit Hyd. Tpeak (min)=	5.00	55.00	
Unit Hyd. peak (cms)=	0.29	0.02	
PEAK FLOW (cms)=	0.00	0.00	0.005 (iii)
TIME TO PEAK (hrs)=	1.33	2.25	1.33
RUNOFF VOLUME (mm)=	34.77	5.63	6.46
TOTAL RAINFALL (mm)=	35.77	35.77	35.77
RUNOFF COEFFICIENT =	0.97	0.16	0.18

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0131)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0132)	0.69	0.00	1.33	6.46
OUTFLOW: ID= 2(0131)	0.69	0.00	1.33	6.46

ADD HYD (0129)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0124):	95.57	0.084	4.83	10.05
+ ID2= 2 (0130):	5.38	0.015	2.58	2.77
ID = 3 (0129):	100.95	0.093	4.17	9.66

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0129)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0129):	100.95	0.093	4.17	9.66
+ ID2= 2 (0131):	0.69	0.005	1.33	6.46
ID = 1 (0129):	101.64	0.095	4.08	9.64

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0128)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 10(0123)	0.01	0.00	4.83	10.05
OUTFLOW: ID= 2(0128)	0.01	0.00	4.83	10.05

CALIB
NASHYD (0109) | Area (ha)= 120.60 Curve Number (CN)= 73.3
ID= 1 DT= 5.0 min | Ia (mm)= 6.90 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.06

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.01	1.083	14.23	2.083	5.95	3.08	3.46
0.167	3.01	1.167	14.23	2.167	5.95	3.17	3.46
0.250	3.36	1.250	82.49	2.250	5.25	3.25	3.26
0.333	3.36	1.333	82.49	2.333	5.25	3.33	3.26
0.417	3.84	1.417	17.47	2.417	4.73	3.42	3.09
0.500	3.84	1.500	17.47	2.500	4.73	3.50	3.09
0.583	4.52	1.583	11.01	2.583	4.31	3.58	2.93
0.667	4.52	1.667	11.01	2.667	4.31	3.67	2.93
0.750	5.59	1.750	8.40	2.750	3.98	3.75	2.80
0.833	5.59	1.833	8.40	2.833	3.98	3.83	2.80
0.917	7.65	1.917	6.92	2.917	3.70	3.92	2.67
1.000	7.65	2.000	6.92	3.000	3.70	4.00	2.67

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW	(cms)=	0.743 (i)
TIME TO PEAK	(hrs)=	2.917
RUNOFF VOLUME	(mm)=	6.866
TOTAL RAINFALL	(mm)=	35.770
RUNOFF COEFFICIENT	=	0.192

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0106) | Area (ha)= 1.58

```
|ID= 1 DT= 5.0 min |   Total Imp(%)=  30.20   Dir. Conn.(%)=   0.10
--------------------
                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.48         1.10
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.36         2.00
     Length            (m)=     102.63        90.00
     Mannings n           =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'    hrs   mm/hr |   hrs   mm/hr
 0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
 0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
 0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
 0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
 0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
 0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
 0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
 0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
 0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
 0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
 0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
 1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

     Max.Eff.Inten.(mm/hr)=      82.49        21.58
               over (min)        5.00        30.00
     Storage Coeff.  (min)=     3.81 (ii)   25.01 (ii)
     Unit Hyd. Tpeak (min)=     5.00        30.00
     Unit Hyd. peak  (cms)=     0.25         0.04
                                            *TOTALS*
     PEAK FLOW       (cms)=     0.00         0.04          0.038 (iii)
     TIME TO PEAK    (hrs)=     1.33         1.75           1.75
     RUNOFF VOLUME    (mm)=    34.77        13.11          13.12
     TOTAL RAINFALL   (mm)=    35.77        35.77          35.77
     RUNOFF COEFFICIENT   =     0.97         0.37           0.37

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
             YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0     Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB            |
| STANDHYD (  0107)|   Area    (ha)=   0.72
|ID= 1 DT= 5.0 min |   Total Imp(%)=  45.60   Dir. Conn.(%)=   3.50
--------------------
                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.33         0.39
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.36         2.00
     Length            (m)=      69.28        90.00
     Mannings n           =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'    hrs   mm/hr |   hrs   mm/hr
 0.083    3.01 | 1.083   14.23 | 2.083    5.95 |  3.08    3.46
 0.167    3.01 | 1.167   14.23 | 2.167    5.95 |  3.17    3.46
 0.250    3.36 | 1.250   82.49 | 2.250    5.25 |  3.25    3.26
 0.333    3.36 | 1.333   82.49 | 2.333    5.25 |  3.33    3.26
 0.417    3.84 | 1.417   17.47 | 2.417    4.73 |  3.42    3.09
 0.500    3.84 | 1.500   17.47 | 2.500    4.73 |  3.50    3.09
 0.583    4.52 | 1.583   11.01 | 2.583    4.31 |  3.58    2.93
 0.667    4.52 | 1.667   11.01 | 2.667    4.31 |  3.67    2.93
 0.750    5.59 | 1.750    8.40 | 2.750    3.98 |  3.75    2.80
 0.833    5.59 | 1.833    8.40 | 2.833    3.98 |  3.83    2.80
 0.917    7.65 | 1.917    6.92 | 2.917    3.70 |  3.92    2.67
 1.000    7.65 | 2.000    6.92 | 3.000    3.70 |  4.00    2.67

     Max.Eff.Inten.(mm/hr)=      82.49        37.11
               over (min)        5.00        25.00
     Storage Coeff.  (min)=     3.01 (ii)   20.08 (ii)
     Unit Hyd. Tpeak (min)=     5.00        25.00
     Unit Hyd. peak  (cms)=     0.28         0.05
                                            *TOTALS*
     PEAK FLOW       (cms)=     0.01         0.02          0.024 (iii)
     TIME TO PEAK    (hrs)=     1.33         1.67           1.67
     RUNOFF VOLUME    (mm)=    34.77        15.29          15.96
     TOTAL RAINFALL   (mm)=    35.77        35.77          35.77
     RUNOFF COEFFICIENT   =     0.97         0.43           0.45

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
             YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0     Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0029)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)     (cms)    (hrs)     (mm)
       ID1= 1 (  0106):      1.58    0.038     1.75    13.12
     + ID2= 2 (  0107):      0.72    0.024     1.67    15.96
       ==========================================================
       ID = 3 (  0029):      2.30    0.060     1.75    14.01

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0029)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)     (cms)    (hrs)     (mm)
       ID1= 3 (  0029):      2.30    0.060     1.75    14.01
     + ID2= 2 (  0109):    120.60    0.743     2.92     6.87
       ==========================================================
       ID = 1 (  0029):    122.90    0.766     2.83     7.00

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0122)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)     (cms)    (hrs)     (mm)
       ID1= 1 (  0128):      0.01    0.000     4.83    10.05
     + ID2= 2 (  0029):    122.90    0.766     2.83     7.00
       ==========================================================
       ID = 3 (  0122):    122.91    0.766     2.83     7.00

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0135)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)     (cms)    (hrs)     (mm)
       ID1= 1 (  0122):    122.91    0.766     2.83     7.00
     + ID2= 2 (  0129):    101.64    0.095     4.08     9.64
       ==========================================================
       ID = 3 (  0135):    224.55    0.856     2.92     8.19

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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===============================================================================================================================

       V    V   I    SSSSS  U   U    A    L                (v 6.2.2020)
       V    V   I   SS      U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
         V V    I       SS  U   U A   A  L
          VV    I    SSSSS   UUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M M M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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***** D E T A I L E D O U T P U T *****

```
  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\a2cb88c0-a
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\a2cb88c0-a

DATE: 02-17-2026                          TIME: 11:15:56

USER:


COMMENTS: _____________________________________________________

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  ************************************************
  ** SIMULATION : C. 5yr 4hr 10min Chicago C    **
  ************************************************

--------------------
| CHICAGO STORM    |    IDF curve parameters: A= 547.261
| Ptotal= 47.46 mm |                          B=   0.000
--------------------                          C=   0.699
                         used in:   INTENSITY =  A / (t + B)^C

                         Duration of storm  =  4.00 hrs
                         Storm time step    = 10.00 min
                         Time to peak ratio =  0.33

  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'    hrs   mm/hr |   hrs   mm/hr
  0.00    3.99 |  1.00   18.88 |  2.00    7.89 |  3.00    4.60
  0.17    4.46 |  1.17  109.44 |  2.17    6.97 |  3.17    4.33
  0.33    5.09 |  1.33   23.18 |  2.33    6.27 |  3.33    4.10
  0.50    5.99 |  1.50   14.61 |  2.50    5.72 |  3.50    3.89
  0.67    7.42 |  1.67   11.14 |  2.67    5.28 |  3.67    3.71
  0.83   10.15 |  1.83    9.18 |  2.83    4.91 |  3.83    3.55

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| CALIB            |
| STANDHYD (  0133)|   Area    (ha)=   0.09
|ID= 1 DT= 5.0 min |   Total Imp(%)=  43.30   Dir. Conn.(%)=  43.30
--------------------
                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.04         0.05
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       5.00         2.00
     Length            (m)=      24.49        46.00
     Mannings n           =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'    hrs   mm/hr |   hrs   mm/hr
 0.083    3.99 | 1.083   18.88 | 2.083    7.89 |  3.08    4.60
 0.167    3.99 | 1.167   18.88 | 2.167    7.89 |  3.17    4.60
 0.250    4.46 | 1.250  109.44 | 2.250    6.97 |  3.25    4.33
 0.333    4.46 | 1.333  109.44 | 2.333    6.97 |  3.33    4.33
 0.417    5.09 | 1.417   23.18 | 2.417    6.27 |  3.42    4.10
 0.500    5.09 | 1.500   23.18 | 2.500    6.27 |  3.50    4.10
 0.583    5.99 | 1.583   14.61 | 2.583    5.72 |  3.58    3.89
 0.667    5.99 | 1.667   14.61 | 2.667    5.72 |  3.67    3.89
 0.750    7.42 | 1.750   11.14 | 2.750    5.28 |  3.75    3.71
 0.833    7.42 | 1.833   11.14 | 2.833    5.28 |  3.83    3.71
 0.917   10.15 | 1.917    9.18 | 2.917    4.91 |  3.92    3.55
 1.000   10.15 | 2.000    9.18 | 3.000    4.91 |  4.00    3.55

     Max.Eff.Inten.(mm/hr)=     109.44         6.12
               over (min)        5.00        25.00
     Storage Coeff.  (min)=     0.65 (ii)   24.12 (ii)
     Unit Hyd. Tpeak (min)=     5.00        25.00
     Unit Hyd. peak  (cms)=     0.34         0.05
                                            *TOTALS*
     PEAK FLOW       (cms)=     0.01         0.00          0.012 (iii)
     TIME TO PEAK    (hrs)=     1.33         1.67           1.33
     RUNOFF VOLUME    (mm)=    46.46         5.88          23.30
     TOTAL RAINFALL   (mm)=    47.46        47.46          47.46
     RUNOFF COEFFICIENT   =     0.98         0.12           0.49

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0     Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  --------------------------
  | Junction Command(0134) |
  --------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 2(  0133)    0.09     0.01    1.33    23.30
  OUTFLOW: ID= 2(  0134)    0.09     0.01    1.33    23.30

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--------------------
| CALIB            |
| NASHYD   (  0007)|   Area    (ha)=   4.92   Curve Number   (CN)= 75.1
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.65   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.55

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'    hrs   mm/hr |   hrs   mm/hr
 0.083    3.99 | 1.083   18.88 | 2.083    7.89 |  3.08    4.60
 0.167    3.99 | 1.167   18.88 | 2.167    7.89 |  3.17    4.60
 0.250    4.46 | 1.250  109.44 | 2.250    6.97 |  3.25    4.33
 0.333    4.46 | 1.333  109.44 | 2.333    6.97 |  3.33    4.33
 0.417    5.09 | 1.417   23.18 | 2.417    6.27 |  3.42    4.10
 0.500    5.09 | 1.500   23.18 | 2.500    6.27 |  3.50    4.10
 0.583    5.99 | 1.583   14.61 | 2.583    5.72 |  3.58    3.89
 0.667    5.99 | 1.667   14.61 | 2.667    5.72 |  3.67    3.89
 0.750    7.42 | 1.750   11.14 | 2.750    5.28 |  3.75    3.71
 0.833    7.42 | 1.833   11.14 | 2.833    5.28 |  3.83    3.71
 0.917   10.15 | 1.917    9.18 | 2.917    4.91 |  3.92    3.55
 1.000   10.15 | 2.000    9.18 | 3.000    4.91 |  4.00    3.55

     Unit Hyd Qpeak  (cms)=   0.121

     PEAK FLOW       (cms)=   0.052 (i)
     TIME TO PEAK    (hrs)=   3.500
     RUNOFF VOLUME    (mm)=  14.427
     TOTAL RAINFALL   (mm)=  47.460
     RUNOFF COEFFICIENT   =   0.304

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0057)|   Area    (ha)=   1.06   Curve Number   (CN)= 55.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.72   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.15

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'    hrs   mm/hr |   hrs   mm/hr
 0.083    3.99 | 1.083   18.88 | 2.083    7.89 |  3.08    4.60
 0.167    3.99 | 1.167   18.88 | 2.167    7.89 |  3.17    4.60
 0.250    4.46 | 1.250  109.44 | 2.250    6.97 |  3.25    4.33
 0.333    4.46 | 1.333  109.44 | 2.333    6.97 |  3.33    4.33
 0.417    5.09 | 1.417   23.18 | 2.417    6.27 |  3.42    4.10
 0.500    5.09 | 1.500   23.18 | 2.500    6.27 |  3.50    4.10
 0.583    5.99 | 1.583   14.61 | 2.583    5.72 |  3.58    3.89
 0.667    5.99 | 1.667   14.61 | 2.667    5.72 |  3.67    3.89
 0.750    7.42 | 1.750   11.14 | 2.750    5.28 |  3.75    3.71
 0.833    7.42 | 1.833   11.14 | 2.833    5.28 |  3.83    3.71
 0.917   10.15 | 1.917    9.18 | 2.917    4.91 |  3.92    3.55
 1.000   10.15 | 2.000    9.18 | 3.000    4.91 |  4.00    3.55
```

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.024 (i)
TIME TO PEAK (hrs)= 1.417
RUNOFF VOLUME (mm)= 7.248
TOTAL RAINFALL (mm)= 47.460
RUNOFF COEFFICIENT = 0.153

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0115)	Area (ha)=	0.78	Curve Number (CN)=	76.9	
ID= 1 DT= 5.0 min	Ia (mm)=	5.10	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	1.17			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.99	1.083	18.88	2.083	7.89	3.08	4.60
0.167	3.99	1.167	18.88	2.167	7.89	3.17	4.60
0.250	4.46	1.250	109.44	2.250	6.97	3.25	4.33
0.333	4.46	1.333	109.44	2.333	6.97	3.33	4.33
0.417	5.09	1.417	23.18	2.417	6.27	3.42	4.10
0.500	5.09	1.500	23.18	2.500	6.27	3.50	4.10
0.583	5.99	1.583	14.61	2.583	5.72	3.58	3.89
0.667	5.99	1.667	14.61	2.667	5.72	3.67	3.89
0.750	7.42	1.750	11.14	2.750	5.28	3.75	3.71
0.833	7.42	1.833	11.14	2.833	5.28	3.83	3.71
0.917	10.15	1.917	9.18	2.917	4.91	3.92	3.55
1.000	10.15	2.000	9.18	3.000	4.91	4.00	3.55

Unit Hyd Qpeak (cms)= 0.025

PEAK FLOW (cms)= 0.010 (i)
TIME TO PEAK (hrs)= 2.917
RUNOFF VOLUME (mm)= 15.119
TOTAL RAINFALL (mm)= 47.460
RUNOFF COEFFICIENT = 0.319

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0103)	Area (ha)=	0.33	Curve Number (CN)=	49.0	
ID= 1 DT= 5.0 min	Ia (mm)=	5.00	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.13			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.99	1.083	18.88	2.083	7.89	3.08	4.60
0.167	3.99	1.167	18.88	2.167	7.89	3.17	4.60
0.250	4.46	1.250	109.44	2.250	6.97	3.25	4.33
0.333	4.46	1.333	109.44	2.333	6.97	3.33	4.33
0.417	5.09	1.417	23.18	2.417	6.27	3.42	4.10
0.500	5.09	1.500	23.18	2.500	6.27	3.50	4.10
0.583	5.99	1.583	14.61	2.583	5.72	3.58	3.89
0.667	5.99	1.667	14.61	2.667	5.72	3.67	3.89
0.750	7.42	1.750	11.14	2.750	5.28	3.75	3.71
0.833	7.42	1.833	11.14	2.833	5.28	3.83	3.71
0.917	10.15	1.917	9.18	2.917	4.91	3.92	3.55
1.000	10.15	2.000	9.18	3.000	4.91	4.00	3.55

Unit Hyd Qpeak (cms)= 0.097

PEAK FLOW (cms)= 0.006 (i)
TIME TO PEAK (hrs)= 1.417
RUNOFF VOLUME (mm)= 5.816
TOTAL RAINFALL (mm)= 47.460
RUNOFF COEFFICIENT = 0.123

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0104)	Area (ha)=	0.20	Curve Number (CN)=	53.9	
ID= 1 DT= 5.0 min	Ia (mm)=	4.70	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.76			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.99	1.083	18.88	2.083	7.89	3.08	4.60
0.167	3.99	1.167	18.88	2.167	7.89	3.17	4.60
0.250	4.46	1.250	109.44	2.250	6.97	3.25	4.33
0.333	4.46	1.333	109.44	2.333	6.97	3.33	4.33
0.417	5.09	1.417	23.18	2.417	6.27	3.42	4.10
0.500	5.09	1.500	23.18	2.500	6.27	3.50	4.10
0.583	5.99	1.583	14.61	2.583	5.72	3.58	3.89
0.667	5.99	1.667	14.61	2.667	5.72	3.67	3.89
0.750	7.42	1.750	11.14	2.750	5.28	3.75	3.71
0.833	7.42	1.833	11.14	2.833	5.28	3.83	3.71
0.917	10.15	1.917	9.18	2.917	4.91	3.92	3.55
1.000	10.15	2.000	9.18	3.000	4.91	4.00	3.55

Unit Hyd Qpeak (cms)= 0.010

PEAK FLOW (cms)= 0.002 (i)
TIME TO PEAK (hrs)= 2.333
RUNOFF VOLUME (mm)= 7.023
TOTAL RAINFALL (mm)= 47.460
RUNOFF COEFFICIENT = 0.148

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0003)	Area (ha)=	5.31	
ID= 1 DT= 5.0 min	Total Imp(%)=	39.70	Dir. Conn.(%)= 25.20

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	2.11	3.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	2.10	2.00
Length	(m)=	188.15	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.99	1.083	18.88	2.083	7.89	3.08	4.60
0.167	3.99	1.167	18.88	2.167	7.89	3.17	4.60
0.250	4.46	1.250	109.44	2.250	6.97	3.25	4.33
0.333	4.46	1.333	109.44	2.333	6.97	3.33	4.33
0.417	5.09	1.417	23.18	2.417	6.27	3.42	4.10
0.500	5.09	1.500	23.18	2.500	6.27	3.50	4.10
0.583	5.99	1.583	14.61	2.583	5.72	3.58	3.89
0.667	5.99	1.667	14.61	2.667	5.72	3.67	3.89
0.750	7.42	1.750	11.14	2.750	5.28	3.75	3.71
0.833	7.42	1.833	11.14	2.833	5.28	3.83	3.71
0.917	10.15	1.917	9.18	2.917	4.91	3.92	3.55
1.000	10.15	2.000	9.18	3.000	4.91	4.00	3.55

				TOTALS
Max.Eff.Inten.(mm/hr)=		109.44	24.43	
over (min)		5.00	15.00	
Storage Coeff. (min)=		2.88 (ii)	14.33 (ii)	
Unit Hyd. Tpeak (min)=		5.00	15.00	
Unit Hyd. peak (cms)=		0.28	0.08	
PEAK FLOW	(cms)=	0.40	0.14	0.461 (iii)
TIME TO PEAK	(hrs)=	1.33	1.50	1.33
RUNOFF VOLUME	(mm)=	46.46	13.20	21.58
TOTAL RAINFALL	(mm)=	47.46	47.46	47.46
RUNOFF COEFFICIENT	=	0.98	0.28	0.45

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 67.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0052)	Area (ha)=	9.07	
ID= 1 DT= 5.0 min	Total Imp(%)=	64.70	Dir. Conn.(%)= 32.30

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	5.87	3.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	245.90	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.99	1.083	18.88	2.083	7.89	3.08	4.60
0.167	3.99	1.167	18.88	2.167	7.89	3.17	4.60
0.250	4.46	1.250	109.44	2.250	6.97	3.25	4.33
0.333	4.46	1.333	109.44	2.333	6.97	3.33	4.33
0.417	5.09	1.417	23.18	2.417	6.27	3.42	4.10
0.500	5.09	1.500	23.18	2.500	6.27	3.50	4.10
0.583	5.99	1.583	14.61	2.583	5.72	3.58	3.89
0.667	5.99	1.667	14.61	2.667	5.72	3.67	3.89
0.750	7.42	1.750	11.14	2.750	5.28	3.75	3.71
0.833	7.42	1.833	11.14	2.833	5.28	3.83	3.71
0.917	10.15	1.917	9.18	2.917	4.91	3.92	3.55
1.000	10.15	2.000	9.18	3.000	4.91	4.00	3.55

				TOTALS
Max.Eff.Inten.(mm/hr)=		109.44	40.86	
over (min)		5.00	20.00	
Storage Coeff. (min)=		5.74 (ii)	15.06 (ii)	
Unit Hyd. Tpeak (min)=		5.00	20.00	
Unit Hyd. peak (cms)=		0.20	0.07	
PEAK FLOW	(cms)=	0.76	0.17	0.819 (iii)
TIME TO PEAK	(hrs)=	1.33	1.58	1.33
RUNOFF VOLUME	(mm)=	46.46	11.11	22.53
TOTAL RAINFALL	(mm)=	47.46	47.46	47.46
RUNOFF COEFFICIENT	=	0.98	0.23	0.47

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0053)	Area (ha)=	5.41	
ID= 1 DT= 5.0 min	Total Imp(%)=	70.00	Dir. Conn.(%)= 35.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.79	1.62
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	189.91	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.99	1.083	18.88	2.083	7.89	3.08	4.60
0.167	3.99	1.167	18.88	2.167	7.89	3.17	4.60
0.250	4.46	1.250	109.44	2.250	6.97	3.25	4.33
0.333	4.46	1.333	109.44	2.333	6.97	3.33	4.33
0.417	5.09	1.417	23.18	2.417	6.27	3.42	4.10
0.500	5.09	1.500	23.18	2.500	6.27	3.50	4.10
0.583	5.99	1.583	14.61	2.583	5.72	3.58	3.89
0.667	5.99	1.667	14.61	2.667	5.72	3.67	3.89
0.750	7.42	1.750	11.14	2.750	5.28	3.75	3.71
0.833	7.42	1.833	11.14	2.833	5.28	3.83	3.71
0.917	10.15	1.917	9.18	2.917	4.91	3.92	3.55
1.000	10.15	2.000	9.18	3.000	4.91	4.00	3.55

				TOTALS
Max.Eff.Inten.(mm/hr)=		109.44	57.88	
over (min)		5.00	15.00	
Storage Coeff. (min)=		4.92 (ii)	13.03 (ii)	
Unit Hyd. Tpeak (min)=		5.00	15.00	
Unit Hyd. peak (cms)=		0.22	0.08	
PEAK FLOW	(cms)=	0.51	0.13	0.579 (iii)
TIME TO PEAK	(hrs)=	1.33	1.50	1.33
RUNOFF VOLUME	(mm)=	46.46	13.56	25.07
TOTAL RAINFALL	(mm)=	47.46	47.46	47.46
RUNOFF COEFFICIENT	=	0.98	0.29	0.53

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.7 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0056)	Area (ha)=	3.62	
ID= 1 DT= 5.0 min	Total Imp(%)=	26.60	Dir. Conn.(%)= 20.80

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.96	2.66
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	2.00	2.00
Length	(m)=	155.35	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	3.99	1.083	18.88	2.083	7.89	3.08	4.60
0.167	3.99	1.167	18.88	2.167	7.89	3.17	4.60
0.250	4.46	1.250	109.44	2.250	6.97	3.25	4.33
0.333	4.46	1.333	109.44	2.333	6.97	3.33	4.33
0.417	5.09	1.417	23.18	2.417	6.27	3.42	4.10
0.500	5.09	1.500	23.18	2.500	6.27	3.50	4.10
0.583	5.99	1.583	14.61	2.583	5.72	3.58	3.89
0.667	5.99	1.667	14.61	2.667	5.72	3.67	3.89
0.750	7.42	1.750	11.14	2.750	5.28	3.75	3.71
0.833	7.42	1.833	11.14	2.833	5.28	3.83	3.71
0.917	10.15	1.917	9.18	2.917	4.91	3.92	3.55
1.000	10.15	2.000	9.18	3.000	4.91	4.00	3.55

				TOTALS
Max.Eff.Inten.(mm/hr)=		109.44	8.27	
over (min)		5.00	25.00	
Storage Coeff. (min)=		2.61 (ii)	20.26 (ii)	
Unit Hyd. Tpeak (min)=		5.00	25.00	
Unit Hyd. peak (cms)=		0.29	0.05	
PEAK FLOW	(cms)=	0.22	0.03	0.233 (iii)
TIME TO PEAK	(hrs)=	1.33	1.67	1.33
RUNOFF VOLUME	(mm)=	46.46	6.37	14.71
TOTAL RAINFALL	(mm)=	47.46	47.46	47.46
RUNOFF COEFFICIENT	=	0.98	0.13	0.31

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0108)	Area (ha)=	1.00	
ID= 1 DT= 5.0 min	Total Imp(%)=	24.00	Dir. Conn.(%)= 0.10

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.24	0.76
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00

```
Length            (m)=      81.65        90.00
Mannings n            =      0.013        0.250

    NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    3.99 | 1.083   18.88 | 2.083    7.89 |  3.08    4.60
0.167    3.99 | 1.167   18.88 | 2.167    7.89 |  3.17    4.60
0.250    4.46 | 1.250  109.44 | 2.250    6.97 |  3.25    4.33
0.333    4.46 | 1.333  109.44 | 2.333    6.97 |  3.33    4.33
0.417    5.09 | 1.417   23.18 | 2.417    6.27 |  3.42    4.10
0.500    5.09 | 1.500   23.18 | 2.500    6.27 |  3.50    4.10
0.583    5.99 | 1.583   14.61 | 2.583    5.72 |  3.58    3.89
0.667    5.99 | 1.667   14.61 | 2.667    5.72 |  3.67    3.89
0.750    7.42 | 1.750   11.14 | 2.750    5.28 |  3.75    3.71
0.833    7.42 | 1.833   11.14 | 2.833    5.28 |  3.83    3.71
0.917   10.15 | 1.917    9.18 | 2.917    4.91 |  3.92    3.55
1.000   10.15 | 2.000    9.18 | 3.000    4.91 |  4.00    3.55

Max.Eff.Inten.(mm/hr)=     109.44         9.89
          over (min)          5.00        35.00
Storage Coeff.  (min)=       2.96 (ii)   31.93 (ii)
Unit Hyd. Tpeak (min)=       5.00        35.00
Unit Hyd. peak  (cms)=       0.28         0.03
                                          *TOTALS*
PEAK FLOW       (cms)=       0.00         0.01          0.011 (iii)
TIME TO PEAK    (hrs)=       1.33         1.83           1.83
RUNOFF VOLUME    (mm)=      46.46         7.79           7.81
TOTAL RAINFALL   (mm)=      47.46        47.46          47.46
RUNOFF COEFFICIENT   =        0.98         0.16           0.16

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
             YOU SHOULD CONSIDER SPLITTING THE AREA.

      (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
          CN* =  49.0    Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
    (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0103):      0.33    0.006     1.42     5.82
    + ID2= 2 (  0104):      0.20    0.002     2.33     7.02
      ================================================
      ID = 3 (  0032):      0.53    0.007     1.42     6.27

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0032):      0.53    0.007     1.42     6.27
    + ID2= 2 (  0108):      1.00    0.011     1.83     7.81
      ================================================
      ID = 1 (  0032):      1.53    0.015     1.83     7.27

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0032):      1.53    0.015     1.83     7.27
    + ID2= 2 (  0115):      0.78    0.010     2.92    15.12
      ================================================
      ID = 3 (  0032):      2.31    0.021     2.25     9.92

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0032)|
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```
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0032):      2.31    0.021     2.25     9.92
    + ID2= 2 (  0003):      5.31    0.461     1.33    21.58
      ================================================
      ID = 1 (  0032):      7.62    0.469     1.33    18.04

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0032):      7.62    0.469     1.33    18.04
    + ID2= 2 (  0052):      9.07    0.819     1.33    22.53
      ================================================
      ID = 3 (  0032):     16.69    1.288     1.33    20.48

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0032):     16.69    1.288     1.33    20.48
    + ID2= 2 (  0053):      5.41    0.579     1.33    25.07
      ================================================
      ID = 1 (  0032):     22.10    1.867     1.33    21.60

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0032):     22.10    1.867     1.33    21.60
    + ID2= 2 (  0056):      3.62    0.233     1.33    14.71
      ================================================
      ID = 3 (  0032):     25.72    2.100     1.33    20.63

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0032):     25.72    2.100     1.33    20.63
    + ID2= 2 (  0057):      1.06    0.024     1.42     7.25
      ================================================
      ID = 1 (  0032):     26.78    2.120     1.33    20.10

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0032):     26.78    2.120     1.33    20.10
    + ID2= 2 (  0007):      4.92    0.052     3.50    14.43
      ================================================
      ID = 3 (  0032):     31.70    2.121     1.33    19.22

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| CALIB            |
| STANDHYD (  0004)|   Area    (ha)=   8.04
|ID= 1 DT= 5.0 min |   Total Imp(%)=  70.00   Dir. Conn.(%)=  35.00
--------------------

                      IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        5.63         2.41
     Dep. Storage     (mm)=        1.00         5.00
     Average Slope     (%)=        0.36         2.00
     Length            (m)=      231.52        35.00
     Mannings n            =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
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```
                          ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    3.99 | 1.083   18.88 | 2.083    7.89 |  3.08    4.60
0.167    3.99 | 1.167   18.88 | 2.167    7.89 |  3.17    4.60
0.250    4.46 | 1.250  109.44 | 2.250    6.97 |  3.25    4.33
0.333    4.46 | 1.333  109.44 | 2.333    6.97 |  3.33    4.33
0.417    5.09 | 1.417   23.18 | 2.417    6.27 |  3.42    4.10
0.500    5.09 | 1.500   23.18 | 2.500    6.27 |  3.50    4.10
0.583    5.99 | 1.583   14.61 | 2.583    5.72 |  3.58    3.89
0.667    5.99 | 1.667   14.61 | 2.667    5.72 |  3.67    3.89
0.750    7.42 | 1.750   11.14 | 2.750    5.28 |  3.75    3.71
0.833    7.42 | 1.833   11.14 | 2.833    5.28 |  3.83    3.71
0.917   10.15 | 1.917    9.18 | 2.917    4.91 |  3.92    3.55
1.000   10.15 | 2.000    9.18 | 3.000    4.91 |  4.00    3.55

Max.Eff.Inten.(mm/hr)=     109.44       130.26
          over (min)          5.00        15.00
Storage Coeff.  (min)=       5.54 (ii)   11.40 (ii)
Unit Hyd. Tpeak (min)=       5.00        15.00
Unit Hyd. peak  (cms)=       0.20         0.09
                                          *TOTALS*
PEAK FLOW       (cms)=       0.74         0.47          0.992 (iii)
TIME TO PEAK    (hrs)=       1.33         1.50           1.33
RUNOFF VOLUME    (mm)=      46.46        26.71          33.62
TOTAL RAINFALL   (mm)=      47.46        47.46          47.46
RUNOFF COEFFICIENT   =        0.98         0.56           0.71


      (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
          CN* =  79.0    Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
    (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB            |
| STANDHYD (  0054)|   Area    (ha)=   8.46
|ID= 1 DT= 5.0 min |   Total Imp(%)=  59.70   Dir. Conn.(%)=  25.90
--------------------

                      IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        5.05         3.41
     Dep. Storage     (mm)=        1.00         5.00
     Average Slope     (%)=        1.59         2.00
     Length            (m)=      237.49        35.00
     Mannings n            =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    3.99 | 1.083   18.88 | 2.083    7.89 |  3.08    4.60
0.167    3.99 | 1.167   18.88 | 2.167    7.89 |  3.17    4.60
0.250    4.46 | 1.250  109.44 | 2.250    6.97 |  3.25    4.33
0.333    4.46 | 1.333  109.44 | 2.333    6.97 |  3.33    4.33
0.417    5.09 | 1.417   23.18 | 2.417    6.27 |  3.42    4.10
0.500    5.09 | 1.500   23.18 | 2.500    6.27 |  3.50    4.10
0.583    5.99 | 1.583   14.61 | 2.583    5.72 |  3.58    3.89
0.667    5.99 | 1.667   14.61 | 2.667    5.72 |  3.67    3.89
0.750    7.42 | 1.750   11.14 | 2.750    5.28 |  3.75    3.71
0.833    7.42 | 1.833   11.14 | 2.833    5.28 |  3.83    3.71
0.917   10.15 | 1.917    9.18 | 2.917    4.91 |  3.92    3.55
1.000   10.15 | 2.000    9.18 | 3.000    4.91 |  4.00    3.55

Max.Eff.Inten.(mm/hr)=     109.44        99.54
          over (min)          5.00        15.00
Storage Coeff.  (min)=       3.60 (ii)   10.13 (ii)
Unit Hyd. Tpeak (min)=       5.00        15.00
Unit Hyd. peak  (cms)=       0.25         0.10
                                          *TOTALS*
PEAK FLOW       (cms)=       0.63         0.53          0.919 (iii)
TIME TO PEAK    (hrs)=       1.33         1.50           1.33
RUNOFF VOLUME    (mm)=      46.46        24.57          30.24
TOTAL RAINFALL   (mm)=      47.46        47.46          47.46
RUNOFF COEFFICIENT   =        0.98         0.52           0.64

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

      (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
          CN* =  79.0    Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
    (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0055)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0004):      8.04    0.992     1.33    33.62
    + ID2= 2 (  0054):      8.46    0.919     1.33    30.24
      ================================================
      ID = 3 (  0055):     16.50    1.912     1.33    31.89

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0060)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0032):     31.70    2.121     1.33    19.22
    + ID2= 2 (  0055):     16.50    1.912     1.33    31.89
      ================================================
      ID = 3 (  0060):     48.20    4.033     1.33    23.56

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  -------------------------
  | Junction Command(0025) |
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                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 1(  0060)  48.20     4.03    1.33    23.56
  OUTFLOW: ID= 2(  0025)  48.20     4.03    1.33    23.56

  --------------------------------------------------------------------------------

--------------------
| CALIB            |
| NASHYD   (  0110)|   Area    (ha)=   9.49   Curve Number   (CN)= 56.7
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.53   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.25

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    3.99 | 1.083   18.88 | 2.083    7.89 |  3.08    4.60
0.167    3.99 | 1.167   18.88 | 2.167    7.89 |  3.17    4.60
0.250    4.46 | 1.250  109.44 | 2.250    6.97 |  3.25    4.33
0.333    4.46 | 1.333  109.44 | 2.333    6.97 |  3.33    4.33
0.417    5.09 | 1.417   23.18 | 2.417    6.27 |  3.42    4.10
0.500    5.09 | 1.500   23.18 | 2.500    6.27 |  3.50    4.10
0.583    5.99 | 1.583   14.61 | 2.583    5.72 |  3.58    3.89
0.667    5.99 | 1.667   14.61 | 2.667    5.72 |  3.67    3.89
0.750    7.42 | 1.750   11.14 | 2.750    5.28 |  3.75    3.71
0.833    7.42 | 1.833   11.14 | 2.833    5.28 |  3.83    3.71
0.917   10.15 | 1.917    9.18 | 2.917    4.91 |  3.92    3.55
1.000   10.15 | 2.000    9.18 | 3.000    4.91 |  4.00    3.55

    Unit Hyd Qpeak  (cms)=   1.450

    PEAK FLOW       (cms)=   0.167 (i)
    TIME TO PEAK    (hrs)=   1.583
    RUNOFF VOLUME    (mm)=   7.773
    TOTAL RAINFALL   (mm)=  47.460
    RUNOFF COEFFICIENT   =   0.164

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  | Junction Command(0062) |
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                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 2(  0110)  9.49      0.17    1.58     7.77
  OUTFLOW: ID= 2(  0062)  9.49      0.17    1.58     7.77
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------------------------------------------------------------------------------
------------------
| CALIB            |
| STANDHYD (  0028)|   Area    (ha)=   6.40
|ID= 1 DT= 5.0 min |   Total Imp(%)=  50.00   Dir. Conn.(%)=  50.00
------------------

                        IMPERVIOUS     PERVIOUS (i)
     Surface Area     (ha)=      3.20         3.20
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      0.36         2.00
     Length            (m)=    206.56        90.00
     Mannings n             =    0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    3.99 | 1.083   18.88 | 2.083    7.89 |  3.08    4.60
 0.167    3.99 | 1.167   18.88 | 2.167    7.89 |  3.17    4.60
 0.250    4.46 | 1.250  109.44 | 2.250    6.97 |  3.25    4.33
 0.333    4.46 | 1.333  109.44 | 2.333    6.97 |  3.33    4.33
 0.417    5.09 | 1.417   23.18 | 2.417    6.27 |  3.42    4.10
 0.500    5.09 | 1.500   23.18 | 2.500    6.27 |  3.50    4.10
 0.583    5.99 | 1.583   14.61 | 2.583    5.72 |  3.58    3.89
 0.667    5.99 | 1.667   14.61 | 2.667    5.72 |  3.67    3.89
 0.750    7.42 | 1.750   11.14 | 2.750    5.28 |  3.75    3.71
 0.833    7.42 | 1.833   11.14 | 2.833    5.28 |  3.83    3.71
 0.917   10.15 | 1.917    9.18 | 2.917    4.91 |  3.92    3.55
 1.000   10.15 | 2.000    9.18 | 3.000    4.91 |  4.00    3.55

     Max.Eff.Inten.(mm/hr)=     109.44        18.66
               over (min)        5.00        30.00
     Storage Coeff.  (min)=     5.17 (ii)   27.65 (ii)
     Unit Hyd. Tpeak (min)=     5.00        30.00
     Unit Hyd. peak  (cms)=     0.21         0.04
                                                    *TOTALS*
     PEAK FLOW       (cms)=     0.85         0.09      0.872 (iii)
     TIME TO PEAK    (hrs)=     1.33         1.75       1.33
     RUNOFF VOLUME    (mm)=    46.46        16.39      31.42
     TOTAL RAINFALL   (mm)=    47.46        47.46      47.46
     RUNOFF COEFFICIENT   =     0.98         0.35       0.66

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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------------------
| CALIB            |
| STANDHYD (  0111)|   Area    (ha)=  28.77
|ID= 1 DT= 5.0 min |   Total Imp(%)=  24.70   Dir. Conn.(%)=  15.70
------------------

                        IMPERVIOUS     PERVIOUS (i)
     Surface Area     (ha)=      7.11        21.66
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      0.36         2.00
     Length            (m)=    437.95        90.00
     Mannings n             =    0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    3.99 | 1.083   18.88 | 2.083    7.89 |  3.08    4.60
 0.167    3.99 | 1.167   18.88 | 2.167    7.89 |  3.17    4.60
 0.250    4.46 | 1.250  109.44 | 2.250    6.97 |  3.25    4.33
 0.333    4.46 | 1.333  109.44 | 2.333    6.97 |  3.33    4.33
 0.417    5.09 | 1.417   23.18 | 2.417    6.27 |  3.42    4.10
 0.500    5.09 | 1.500   23.18 | 2.500    6.27 |  3.50    4.10
 0.583    5.99 | 1.583   14.61 | 2.583    5.72 |  3.58    3.89
 0.667    5.99 | 1.667   14.61 | 2.667    5.72 |  3.67    3.89
 0.750    7.42 | 1.750   11.14 | 2.750    5.28 |  3.75    3.71
 0.833    7.42 | 1.833   11.14 | 2.833    5.28 |  3.83    3.71
 0.917   10.15 | 1.917    9.18 | 2.917    4.91 |  3.92    3.55
 1.000   10.15 | 2.000    9.18 | 3.000    4.91 |  4.00    3.55

     Max.Eff.Inten.(mm/hr)=     109.44        29.94
               over (min)        5.00        15.00
     Storage Coeff.  (min)=     3.63 (ii)   12.25 (ii)
     Unit Hyd. Tpeak (min)=     5.00        15.00
     Unit Hyd. peak  (cms)=     0.25         0.09
                                                    *TOTALS*
     PEAK FLOW       (cms)=     0.21         0.05      0.239 (iii)
     TIME TO PEAK    (hrs)=     1.33         1.50       1.33
     RUNOFF VOLUME    (mm)=    46.46         9.65      19.66
     TOTAL RAINFALL   (mm)=    47.46        47.46      47.46
     RUNOFF COEFFICIENT   =     0.98         0.20       0.41

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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------------------
| ADD HYD  (  0118)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
------------------            (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0111):     28.77    0.930     1.42    12.88
     + ID2= 2 (  0119):      2.72    0.239     1.33    19.66
       ================================================
       ID = 3 (  0118):     31.49    1.118     1.33    13.46

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------

------------------
| ADD HYD  (  0001)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
------------------            (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0118):     31.49    1.118     1.33    13.46
     + ID2= 2 (  0025):     48.20    4.033     1.33    23.56
       ================================================
       ID = 3 (  0001):     79.69    5.151     1.33    19.57

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------

------------------
| ADD HYD  (  0001)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
------------------            (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0001):     79.69    5.151     1.33    19.57
     + ID2= 2 (  0028):      6.40    0.872     1.33    31.42
       ================================================
       ID = 1 (  0001):     86.09    6.023     1.33    20.45

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------

------------------
| ADD HYD  (  0001)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
------------------            (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0001):     86.09    6.023     1.33    20.45
     + ID2= 2 (  0062):      9.49    0.167     1.58     7.77
       ================================================
       ID = 3 (  0001):     95.58    6.105     1.33    19.19

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------

------------------
| RESERVOIR(  0002)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |     OUTFLOW    STORAGE    |  OUTFLOW    STORAGE
------------------      (cms)     (ha.m.)    |   (cms)     (ha.m.)
                         0.0000      0.0000    |    0.4660      3.2040
                         0.0000      0.2740    |    0.4720      3.3550
                         0.0420      0.5580    |    2.3890      3.4690
                         0.0680      0.8520    |    2.5030      3.5840
                         0.0860      1.1550    |    2.8990      3.9750
                         0.3770      1.4690    |    4.0830      4.4020
                         0.3970      1.7940    |    7.8030      4.8410
                         0.4160      2.1300    |   13.0620      5.2840
                         0.4340      2.4770    |   19.5770      5.7300
                         0.4500      2.8350    |   27.2220      6.1800

                            AREA     QPEAK     TPEAK      R.V.
                            (ha)     (cms)     (hrs)      (mm)
   INFLOW : ID= 2 (  0001)     95.580     6.105     1.33     19.19
   OUTFLOW: ID= 1 (  0002)     95.580     0.380     4.17     16.31

                PEAK   FLOW   REDUCTION [Qout/Qin](%)=  6.22
                TIME SHIFT OF PEAK FLOW          (min)=170.00
                MAXIMUM  STORAGE   USED        (ha.m.)=  1.5169

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------------------
| DIVERTHYD(  0123)|
| IN= 1   # OUT= 5 |
------------------
     Outflow / Inflow  Relationships

      Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total
       (cms)    (cms)    (cms)    (cms)    (cms)    (cms)
        0.00     0.00     0.00     0.00     0.00     0.00
        0.00     0.00     0.00     0.00     0.00     0.00
        0.00     0.00     0.00     0.00     0.00     0.00
        0.04     0.00     0.00     0.00     0.00     0.04
        0.07     0.00     0.00     0.00     0.00     0.07
        0.09     0.00     0.00     0.00     0.00     0.09
        0.10     0.28     0.00     0.00     0.00     0.38
        0.12     0.28     0.00     0.00     0.00     0.40
        0.13     0.29     0.00     0.00     0.00     0.42
        0.14     0.30     0.00     0.00     0.00     0.43
        0.15     0.30     0.00     0.00     0.00     0.45
        0.16     0.31     0.00     0.00     0.00     0.47
        0.16     0.31     0.00     0.00     0.00     0.47
        0.16     2.23     0.00     0.00     0.00     2.39
        0.17     2.34     0.00     0.00     0.00     2.50
        0.17     2.73     0.00     0.00     0.00     2.90
        0.18     2.93     0.00     0.00     0.00     3.11

                              AREA     QPEAK     TPEAK     R.V.
                              (ha)     (cms)     (hrs)     (mm)
     TOTAL HYD.(ID= 1):     95.58      0.38      4.17     16.31
     ================================================
     ID= 2  (   2)    :     70.79      0.10      4.17     16.31
     ID= 3  (   2)    :     24.79      0.28      4.17     16.31
     ID= 4  (   2)    :      0.00      0.00      0.00      0.00
     ID= 5  (   2)    :      0.00      0.00      0.00      0.00
     ID= 6  (   2)    :      0.00      0.00      0.00      0.00
------------------------------------------------------------------------------

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  | Junction Command(0124) |
  -------------------------

                              AREA     QPEAK     TPEAK     R.V.
                              (ha)     (cms)     (hrs)     (mm)
   INFLOW : ID= 1(  0123)     70.79      0.10      4.17     16.31
   OUTFLOW: ID= 2(  0124)     70.79      0.10      4.17     16.31

------------------------------------------------------------------------------
------------------
| CALIB            |
| NASHYD   (  0130)|   Area    (ha)=   5.38   Curve Number    (CN)= 46.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.05   # of Linear Res.(N)= 3.00
------------------   U.H. Tp(hrs)=   0.87

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    3.99 | 1.083   18.88 | 2.083    7.89 |  3.08    4.60
 0.167    3.99 | 1.167   18.88 | 2.167    7.89 |  3.17    4.60
 0.250    4.46 | 1.250  109.44 | 2.250    6.97 |  3.25    4.33
 0.333    4.46 | 1.333  109.44 | 2.333    6.97 |  3.33    4.33
 0.417    5.09 | 1.417   23.18 | 2.417    6.27 |  3.42    4.10
 0.500    5.09 | 1.500   23.18 | 2.500    6.27 |  3.50    4.10
 0.583    5.99 | 1.583   14.61 | 2.583    5.72 |  3.58    3.89
 0.667    5.99 | 1.667   14.61 | 2.667    5.72 |  3.67    3.89
 0.750    7.42 | 1.750   11.14 | 2.750    5.28 |  3.75    3.71
 0.833    7.42 | 1.833   11.14 | 2.833    5.28 |  3.83    3.71
 0.917   10.15 | 1.917    9.18 | 2.917    4.91 |  3.92    3.55
 1.000   10.15 | 2.000    9.18 | 3.000    4.91 |  4.00    3.55

     Unit Hyd Qpeak  (cms)=   0.236

     PEAK FLOW       (cms)=   0.028 (i)
     TIME TO PEAK    (hrs)=   2.583
     RUNOFF VOLUME    (mm)=   5.194
     TOTAL RAINFALL   (mm)=  47.460
     RUNOFF COEFFICIENT   =   0.109

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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------------------
| CALIB            |
| STANDHYD (  0132)|   Area    (ha)=   0.69
|ID= 1 DT= 5.0 min |   Total Imp(%)=  42.00   Dir. Conn.(%)=   3.00
------------------

                        IMPERVIOUS     PERVIOUS (i)
     Surface Area     (ha)=      0.29         0.40
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      0.50         2.00
     Length            (m)=     67.82       170.00
     Mannings n             =    0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    3.99 | 1.083   18.88 | 2.083    7.89 |  3.08    4.60
 0.167    3.99 | 1.167   18.88 | 2.167    7.89 |  3.17    4.60
 0.250    4.46 | 1.250  109.44 | 2.250    6.97 |  3.25    4.33
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              0.333    4.46 | 1.333  109.44 | 2.333    6.97 |  3.33    4.33
              0.417    5.09 | 1.417   23.18 | 2.417    6.27 |  3.42    4.10
              0.500    5.09 | 1.500   23.18 | 2.500    6.27 |  3.50    4.10
              0.583    5.99 | 1.583   14.61 | 2.583    5.72 |  3.58    3.89
              0.667    5.99 | 1.667   14.61 | 2.667    5.72 |  3.67    3.89
              0.750    7.42 | 1.750   11.14 | 2.750    5.28 |  3.75    3.71
              0.833    7.42 | 1.833   11.14 | 2.833    5.28 |  3.83    3.71
              0.917   10.15 | 1.917    9.18 | 2.917    4.91 |  3.92    3.55
              1.000   10.15 | 2.000    9.18 | 3.000    4.91 |  4.00    3.55

    Max.Eff.Inten.(mm/hr)=     109.44        13.48
              over (min)         5.00        40.00
    Storage Coeff.  (min)=       2.40 (ii)   39.89 (ii)
    Unit Hyd. Tpeak (min)=       5.00        40.00
    Unit Hyd. peak  (cms)=       0.30         0.03
                                                      *TOTALS*
    PEAK FLOW       (cms)=       0.01         0.01          0.009 (iii)
    TIME TO PEAK    (hrs)=       1.33         1.92          1.92
    RUNOFF VOLUME    (mm)=      46.46         9.76         10.83
    TOTAL RAINFALL   (mm)=      47.46        47.46         47.46
    RUNOFF COEFFICIENT   =       0.98         0.21          0.23

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
             YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  ---------------------------
  | Junction Command(0131) |
  ---------------------------

                           AREA     QPEAK   TPEAK     R.V.
                           (ha)     (cms)    (hrs)    (mm)
  INFLOW : ID= 2(  0132)    0.69     0.01    1.92    10.83
  OUTFLOW: ID= 2(  0131)    0.69     0.01    1.92    10.83

  --------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0129)|
|   1 +  2 =  3    |          AREA     QPEAK    TPEAK     R.V.
-------------------          (ha)     (cms)    (hrs)     (mm)
      ID1= 1 (  0124):    70.79   0.104    4.17    16.31
    + ID2= 2 (  0130):     5.38   0.028    2.58     5.19
      ================================================
      ID = 3 (  0129):    76.17   0.124    3.17    15.52

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0129)|
|   3 +  2 =  1    |          AREA     QPEAK    TPEAK     R.V.
-------------------          (ha)     (cms)    (hrs)     (mm)
      ID1= 3 (  0129):    76.17   0.124    3.17    15.52
    + ID2= 2 (  0131):     0.69   0.009    1.92    10.83
      ================================================
      ID = 1 (  0129):    76.86   0.129    2.92    15.48

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

  --------------------------
  | Junction Command(0128) |
  --------------------------

                           AREA     QPEAK   TPEAK     R.V.
                           (ha)     (cms)    (hrs)    (mm)
  INFLOW : ID= 10(  0123)   24.79     0.28    4.17    16.31
  OUTFLOW: ID= 2(  0128)    24.79     0.28    4.17    16.31

  --------------------------------------------------------------------------------

-------------------
| CALIB             |
| NASHYD   (  0109)|   Area    (ha)= 120.60   Curve Number   (CN)= 73.3
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.90   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.06
```

```
        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    3.99 | 1.083   18.88 | 2.083    7.89 |  3.08    4.60
               0.167    3.99 | 1.167   18.88 | 2.167    7.89 |  3.17    4.60
               0.250    4.46 | 1.250  109.44 | 2.250    6.97 |  3.25    4.33
               0.333    4.46 | 1.333  109.44 | 2.333    6.97 |  3.33    4.33
               0.417    5.09 | 1.417   23.18 | 2.417    6.27 |  3.42    4.10
               0.500    5.09 | 1.500   23.18 | 2.500    6.27 |  3.50    4.10
               0.583    5.99 | 1.583   14.61 | 2.583    5.72 |  3.58    3.89
               0.667    5.99 | 1.667   14.61 | 2.667    5.72 |  3.67    3.89
               0.750    7.42 | 1.750   11.14 | 2.750    5.28 |  3.75    3.71
               0.833    7.42 | 1.833   11.14 | 2.833    5.28 |  3.83    3.71
               0.917   10.15 | 1.917    9.18 | 2.917    4.91 |  3.92    3.55
               1.000   10.15 | 2.000    9.18 | 3.000    4.91 |  4.00    3.55

    Unit Hyd Qpeak  (cms)=   4.346

    PEAK FLOW       (cms)=   1.370 (i)
    TIME TO PEAK    (hrs)=   2.833
    RUNOFF VOLUME    (mm)=  12.362
    TOTAL RAINFALL   (mm)=  47.460
    RUNOFF COEFFICIENT   =   0.260

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| CALIB             |
| STANDHYD (  0106)|   Area    (ha)=   1.58
|ID= 1 DT= 5.0 min |   Total Imp(%)=  30.20   Dir. Conn.(%)=   0.10
-------------------
                          IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=       0.48         1.10
    Dep. Storage     (mm)=       1.00         5.00
    Average Slope     (%)=       0.36         2.00
    Length            (m)=     102.63        90.00
    Mannings n           =      0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    3.99 | 1.083   18.88 | 2.083    7.89 |  3.08    4.60
               0.167    3.99 | 1.167   18.88 | 2.167    7.89 |  3.17    4.60
               0.250    4.46 | 1.250  109.44 | 2.250    6.97 |  3.25    4.33
               0.333    4.46 | 1.333  109.44 | 2.333    6.97 |  3.33    4.33
               0.417    5.09 | 1.417   23.18 | 2.417    6.27 |  3.42    4.10
               0.500    5.09 | 1.500   23.18 | 2.500    6.27 |  3.50    4.10
               0.583    5.99 | 1.583   14.61 | 2.583    5.72 |  3.58    3.89
               0.667    5.99 | 1.667   14.61 | 2.667    5.72 |  3.67    3.89
               0.750    7.42 | 1.750   11.14 | 2.750    5.28 |  3.75    3.71
               0.833    7.42 | 1.833   11.14 | 2.833    5.28 |  3.83    3.71
               0.917   10.15 | 1.917    9.18 | 2.917    4.91 |  3.92    3.55
               1.000   10.15 | 2.000    9.18 | 3.000    4.91 |  4.00    3.55

    Max.Eff.Inten.(mm/hr)=     109.44        41.87
              over (min)         5.00        20.00
    Storage Coeff.  (min)=       3.40 (ii)   19.66 (ii)
    Unit Hyd. Tpeak (min)=       5.00        20.00
    Unit Hyd. peak  (cms)=       0.26         0.06
                                                      *TOTALS*
    PEAK FLOW       (cms)=       0.00         0.08          0.077 (iii)
    TIME TO PEAK    (hrs)=       1.33         1.58          1.58
    RUNOFF VOLUME    (mm)=      46.46        21.21         21.23
    TOTAL RAINFALL   (mm)=      47.46        47.46         47.46
    RUNOFF COEFFICIENT   =       0.98         0.45          0.45

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
             YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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| CALIB             |
| STANDHYD (  0107)|   Area    (ha)=   0.72
|ID= 1 DT= 5.0 min |   Total Imp(%)=  45.60   Dir. Conn.(%)=   3.50
-------------------
                          IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=       0.33         0.39
    Dep. Storage     (mm)=       1.00         5.00
    Average Slope     (%)=       0.36         2.00
    Length            (m)=      69.28        90.00
    Mannings n           =      0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    3.99 | 1.083   18.88 | 2.083    7.89 |  3.08    4.60
               0.167    3.99 | 1.167   18.88 | 2.167    7.89 |  3.17    4.60
               0.250    4.46 | 1.250  109.44 | 2.250    6.97 |  3.25    4.33
               0.333    4.46 | 1.333  109.44 | 2.333    6.97 |  3.33    4.33
               0.417    5.09 | 1.417   23.18 | 2.417    6.27 |  3.42    4.10
               0.500    5.09 | 1.500   23.18 | 2.500    6.27 |  3.50    4.10
               0.583    5.99 | 1.583   14.61 | 2.583    5.72 |  3.58    3.89
               0.667    5.99 | 1.667   14.61 | 2.667    5.72 |  3.67    3.89
               0.750    7.42 | 1.750   11.14 | 2.750    5.28 |  3.75    3.71
               0.833    7.42 | 1.833   11.14 | 2.833    5.28 |  3.83    3.71
               0.917   10.15 | 1.917    9.18 | 2.917    4.91 |  3.92    3.55
               1.000   10.15 | 2.000    9.18 | 3.000    4.91 |  4.00    3.55

    Max.Eff.Inten.(mm/hr)=     109.44        71.28
              over (min)         5.00        20.00
    Storage Coeff.  (min)=       2.69 (ii)   15.83 (ii)
    Unit Hyd. Tpeak (min)=       5.00        20.00
    Unit Hyd. peak  (cms)=       0.29         0.07
                                                      *TOTALS*
    PEAK FLOW       (cms)=       0.01         0.04          0.046 (iii)
    TIME TO PEAK    (hrs)=       1.33         1.58          1.58
    RUNOFF VOLUME    (mm)=      46.46        24.10         24.87
    TOTAL RAINFALL   (mm)=      47.46        47.46         47.46
    RUNOFF COEFFICIENT   =       0.98         0.51          0.52

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
             YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| ADD HYD  (  0029)|
|   1 +  2 =  3    |          AREA     QPEAK    TPEAK     R.V.
-------------------          (ha)     (cms)    (hrs)     (mm)
      ID1= 1 (  0106):     1.58   0.077    1.58    21.23
    + ID2= 2 (  0107):     0.72   0.046    1.58    24.87
      ================================================
      ID = 3 (  0029):     2.30   0.123    1.58    22.37

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0029)|
|   3 +  2 =  1    |          AREA     QPEAK    TPEAK     R.V.
-------------------          (ha)     (cms)    (hrs)     (mm)
      ID1= 3 (  0029):     2.30   0.123    1.58    22.37
    + ID2= 2 (  0109):   120.60   1.370    2.83    12.36
      ================================================
      ID = 1 (  0029):   122.90   1.401    2.83    12.55

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0122)|
|   1 +  2 =  3    |          AREA     QPEAK    TPEAK     R.V.
-------------------          (ha)     (cms)    (hrs)     (mm)
```

```
      ID1= 1 (  0128):    24.79   0.276    4.17    16.31
    + ID2= 2 (  0029):   122.90   1.401    2.83    12.55
      ================================================
      ID = 3 (  0122):   147.69   1.588    3.00    13.18

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0135)|
|   1 +  2 =  3    |          AREA     QPEAK    TPEAK     R.V.
-------------------          (ha)     (cms)    (hrs)     (mm)
      ID1= 1 (  0122):   147.69   1.588    3.00    13.18
    + ID2= 2 (  0129):    76.86   0.129    2.92    15.48
      ================================================
      ID = 3 (  0135):   224.55   1.717    3.00    13.97

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
================================================================================================================

       V     V   I    SSSSS  U   U    A    L                (v 6.2.2020)
       V     V   I   SS      U   U   A A   L
        V   V    I     SS    U   U  AAAAA  L
         V V     I      SS   U   U  A   A  L
          V      I   SSSSS   UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M M M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\vO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\7b617697-2
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\7b617697-2

DATE: 02-17-2026                          TIME: 11:15:57

USER:


COMMENTS: _____________________________________________


--------------------------------------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : D. 10yr 4hr 10min Chicago C   **
  ************************************************

---------------------
| CHICAGO STORM     |      IDF curve parameters: A= 635.788
| Ptotal= 55.14 mm |                            B=   0.000
---------------------                            C=   0.699
                           used in:   INTENSITY =  A / (t + B)^C

                           Duration of storm  =  4.00 hrs
                           Storm time step    = 10.00 min
                           Time to peak ratio =  0.33

                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.00     4.64 | 1.00   21.94 |  2.00    9.17 |  3.00    5.34
               0.17     5.18 | 1.17   127.15 |  2.17    8.10 |  3.17    5.03
               0.33     5.91 | 1.33   26.92 |  2.33    7.29 |  3.33    4.76
               0.50     6.96 | 1.50   16.98 |  2.50    6.65 |  3.50    4.52
               0.67     8.62 | 1.67   12.95 |  2.67    6.13 |  3.67    4.31
               0.83    11.80 | 1.83   10.66 |  2.83    5.70 |  3.83    4.12

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-------------------
| CALIB             |
| STANDHYD (  0133)|   Area    (ha)=   0.09
|ID= 1 DT= 5.0 min |   Total Imp(%)=  43.30   Dir. Conn.(%)=  43.30
-------------------
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```
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        0.04         0.05
     Dep. Storage     (mm)=        1.00         5.00
     Average Slope     (%)=        5.00         2.00
     Length            (m)=       24.49        46.00
     Mannings n           =       0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
     0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
     0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
     0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
     0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
     0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
     0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
     0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
     0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
     0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
     0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
     1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

     Max.Eff.Inten.(mm/hr)=     127.15         9.69
           over (min)           5.00        25.00
     Storage Coeff.  (min)=     0.62 (ii)   20.14 (ii)
     Unit Hyd. Tpeak (min)=     5.00        25.00
     Unit Hyd. peak  (cms)=     0.34         0.05
                                                    *TOTALS*
     PEAK FLOW       (cms)=     0.01         0.00      0.014 (iii)
     TIME TO PEAK    (hrs)=     1.33         1.67      1.33
     RUNOFF VOLUME    (mm)=    54.14         7.99     27.83
     TOTAL RAINFALL   (mm)=    55.14        55.14     55.14
     RUNOFF COEFFICIENT   =     0.98         0.14      0.50

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  --------------------------
  | Junction Command(0134) |
  --------------------------

                         AREA     QPEAK    TPEAK     R.V.
                         (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 2(  0133)    0.09     0.01     1.33    27.83
  OUTFLOW: ID= 2(  0134)    0.09     0.01     1.33    27.83

--------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0007)|   Area    (ha)=   4.92   Curve Number   (CN)= 75.1
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.65   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.55

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
     0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
     0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
     0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
     0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
     0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
     0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
     0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
     0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
     0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
     0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
     1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

     Unit Hyd Qpeak  (cms)=   0.121

     PEAK FLOW       (cms)=   0.069 (i)
     TIME TO PEAK    (hrs)=   3.500
     RUNOFF VOLUME    (mm)=  18.922
     TOTAL RAINFALL   (mm)=  55.137
     RUNOFF COEFFICIENT   =   0.343

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB            |
| NASHYD   (  0057)|   Area    (ha)=   1.06   Curve Number   (CN)= 55.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.72   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.15

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
     0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
     0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
     0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
     0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
     0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
     0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
     0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
     0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
     0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
     0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
     1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

     Unit Hyd Qpeak  (cms)=   0.270

     PEAK FLOW       (cms)=   0.033 (i)
     TIME TO PEAK    (hrs)=   1.417
     RUNOFF VOLUME    (mm)=   9.786
     TOTAL RAINFALL   (mm)=  55.137
     RUNOFF COEFFICIENT   =   0.177

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0115)|   Area    (ha)=   0.78   Curve Number   (CN)= 76.9
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.17

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
     0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
     0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
     0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
     0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
     0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
     0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
     0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
     0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
     0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
     0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
     1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

     Unit Hyd Qpeak  (cms)=   0.025

     PEAK FLOW       (cms)=   0.014 (i)
     TIME TO PEAK    (hrs)=   2.917
     RUNOFF VOLUME    (mm)=  19.815
     TOTAL RAINFALL   (mm)=  55.137
     RUNOFF COEFFICIENT   =   0.359

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB            |
| NASHYD   (  0103)|   Area    (ha)=   0.33   Curve Number   (CN)= 49.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.13

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
     0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
     0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
     0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
     0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
     0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
     0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
     0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
     0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
     0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
     0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
     1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

     Unit Hyd Qpeak  (cms)=   0.097

     PEAK FLOW       (cms)=   0.009 (i)
     TIME TO PEAK    (hrs)=   1.417
     RUNOFF VOLUME    (mm)=   7.913
     TOTAL RAINFALL   (mm)=  55.137
     RUNOFF COEFFICIENT   =   0.144

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB            |
| NASHYD   (  0104)|   Area    (ha)=   0.20   Curve Number   (CN)= 53.9
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.70   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.76

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
     0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
     0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
     0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
     0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
     0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
     0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
     0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
     0.750    8.62 | 1.713   12.95 | 2.750    6.13 |  3.75    4.31
     0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
     0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
     1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

     Unit Hyd Qpeak  (cms)=   0.010

     PEAK FLOW       (cms)=   0.002 (i)
     TIME TO PEAK    (hrs)=   2.333
     RUNOFF VOLUME    (mm)=   9.494
     TOTAL RAINFALL   (mm)=  55.137
     RUNOFF COEFFICIENT   =   0.172

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB            |
| STANDHYD (  0003)|   Area    (ha)=   5.31
|ID= 1 DT= 5.0 min |   Total Imp(%)=  39.70   Dir. Conn.(%)=  25.20
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                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        2.11         3.20
     Dep. Storage     (mm)=        1.00         5.00
     Average Slope     (%)=        2.10         2.00
     Length            (m)=      188.15        35.00
     Mannings n           =       0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
     0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
     0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
     0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
     0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
     0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
     0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
     0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
     0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
     0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
     0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
     1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

     Max.Eff.Inten.(mm/hr)=     127.15        42.53
           over (min)           5.00        15.00
     Storage Coeff.  (min)=     2.71 (ii)   11.89 (ii)
     Unit Hyd. Tpeak (min)=     5.00        15.00
     Unit Hyd. peak  (cms)=     0.29         0.09
                                                    *TOTALS*
     PEAK FLOW       (cms)=     0.46         0.20      0.563 (iii)
     TIME TO PEAK    (hrs)=     1.33         1.50      1.33
     RUNOFF VOLUME    (mm)=    54.14        17.34     26.61
     TOTAL RAINFALL   (mm)=    55.14        55.14     55.14
     RUNOFF COEFFICIENT   =     0.98         0.31      0.48

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  67.3    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB            |
| STANDHYD (  0052)|   Area    (ha)=   9.07
|ID= 1 DT= 5.0 min |   Total Imp(%)=  64.70   Dir. Conn.(%)=  32.30
--------------------

                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        5.87         3.20
     Dep. Storage     (mm)=        1.00         5.00
     Average Slope     (%)=        0.36         2.00
     Length            (m)=      245.90        35.00
     Mannings n           =       0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
     0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
     0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
     0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
     0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
     0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
     0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
     0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
     0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
     0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
     0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
     1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

     Max.Eff.Inten.(mm/hr)=     127.15        54.75
           over (min)           5.00        15.00
     Storage Coeff.  (min)=     5.41 (ii)   13.70 (ii)
     Unit Hyd. Tpeak (min)=     5.00        15.00
     Unit Hyd. peak  (cms)=     0.20         0.08
                                                    *TOTALS*
     PEAK FLOW       (cms)=     0.90         0.25      1.019 (iii)
     TIME TO PEAK    (hrs)=     1.33         1.50      1.33
     RUNOFF VOLUME    (mm)=    54.14        14.62     27.38
     TOTAL RAINFALL   (mm)=    55.14        55.14     55.14
     RUNOFF COEFFICIENT   =     0.98         0.27      0.50


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.3    Ia = Dep. Storage  (Above)
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(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0053)	Area (ha)= 5.41		
ID= 1 DT= 5.0 min	Total Imp(%)= 70.00	Dir. Conn.(%)= 35.00	

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.79	1.62
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	189.91	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	4.64	1.083	21.94	2.083	9.17	3.08	5.34
0.167	4.64	1.167	21.94	2.167	9.17	3.17	5.34
0.250	5.18	1.250	127.15	2.250	8.10	3.25	5.03
0.333	5.18	1.333	127.15	2.333	8.10	3.33	5.03
0.417	5.91	1.417	26.92	2.417	7.29	3.42	4.76
0.500	5.91	1.500	26.92	2.500	7.29	3.50	4.76
0.583	6.96	1.583	16.98	2.583	6.65	3.58	4.52
0.667	6.96	1.667	16.98	2.667	6.65	3.67	4.52
0.750	8.62	1.750	12.95	2.750	6.13	3.75	4.31
0.833	8.62	1.833	12.95	2.833	6.13	3.83	4.31
0.917	11.80	1.917	10.66	2.917	5.70	3.92	4.12
1.000	11.80	2.000	10.66	3.000	5.70	4.00	4.12

				TOTALS
Max.Eff.Inten.(mm/hr)=		127.15	76.80	
over (min)		5.00	15.00	
Storage Coeff. (min)=		4.63 (ii)	11.87 (ii)	
Unit Hyd. Tpeak (min)=		5.00	15.00	
Unit Hyd. peak (cms)=		0.22	0.09	
PEAK FLOW	(cms)=	0.60	0.19	0.699 (iii)
TIME TO PEAK	(hrs)=	1.33	1.50	1.33
RUNOFF VOLUME	(mm)=	54.14	17.66	30.43
TOTAL RAINFALL	(mm)=	55.14	55.14	55.14
RUNOFF COEFFICIENT	=	0.98	0.32	0.55

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.7 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0056)	Area (ha)= 3.62		
ID= 1 DT= 5.0 min	Total Imp(%)= 26.60	Dir. Conn.(%)= 20.80	

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.96	2.66
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	2.00	2.00
Length	(m)=	155.35	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	4.64	1.083	21.94	2.083	9.17	3.08	5.34
0.167	4.64	1.167	21.94	2.167	9.17	3.17	5.34
0.250	5.18	1.250	127.15	2.250	8.10	3.25	5.03
0.333	5.18	1.333	127.15	2.333	8.10	3.33	5.03
0.417	5.91	1.417	26.92	2.417	7.29	3.42	4.76
0.500	5.91	1.500	26.92	2.500	7.29	3.50	4.76
0.583	6.96	1.583	16.98	2.583	6.65	3.58	4.52
0.667	6.96	1.667	16.98	2.667	6.65	3.67	4.52
0.750	8.62	1.750	12.95	2.750	6.13	3.75	4.31
0.833	8.62	1.833	12.95	2.833	6.13	3.83	4.31
0.917	11.80	1.917	10.66	2.917	5.70	3.92	4.12
1.000	11.80	2.000	10.66	3.000	5.70	4.00	4.12

				TOTALS
Max.Eff.Inten.(mm/hr)=		127.15	13.15	
over (min)		5.00	20.00	
Storage Coeff. (min)=		2.46 (ii)	17.12 (ii)	
Unit Hyd. Tpeak (min)=		5.00	20.00	
Unit Hyd. peak (cms)=		0.30	0.06	
PEAK FLOW	(cms)=	0.26	0.05	0.280 (iii)
TIME TO PEAK	(hrs)=	1.33	1.58	1.33
RUNOFF VOLUME	(mm)=	54.14	8.63	18.09
TOTAL RAINFALL	(mm)=	55.14	55.14	55.14
RUNOFF COEFFICIENT	=	0.98	0.16	0.33

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0108)	Area (ha)= 1.00		
ID= 1 DT= 5.0 min	Total Imp(%)= 24.00	Dir. Conn.(%)= 0.10	

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.24	0.76
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	81.65	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	4.64	1.083	21.94	2.083	9.17	3.08	5.34
0.167	4.64	1.167	21.94	2.167	9.17	3.17	5.34
0.250	5.18	1.250	127.15	2.250	8.10	3.25	5.03
0.333	5.18	1.333	127.15	2.333	8.10	3.33	5.03
0.417	5.91	1.417	26.92	2.417	7.29	3.42	4.76
0.500	5.91	1.500	26.92	2.500	7.29	3.50	4.76
0.583	6.96	1.583	16.98	2.583	6.65	3.58	4.52
0.667	6.96	1.667	16.98	2.667	6.65	3.67	4.52
0.750	8.62	1.750	12.95	2.750	6.13	3.75	4.31
0.833	8.62	1.833	12.95	2.833	6.13	3.83	4.31
0.917	11.80	1.917	10.66	2.917	5.70	3.92	4.12
1.000	11.80	2.000	10.66	3.000	5.70	4.00	4.12

				TOTALS
Max.Eff.Inten.(mm/hr)=		127.15	14.87	
over (min)		5.00	30.00	
Storage Coeff. (min)=		2.79 (ii)	27.40 (ii)	
Unit Hyd. Tpeak (min)=		5.00	30.00	
Unit Hyd. peak (cms)=		0.28	0.04	
PEAK FLOW	(cms)=	0.00	0.02	0.017 (iii)
TIME TO PEAK	(hrs)=	1.33	1.75	1.75
RUNOFF VOLUME	(mm)=	54.14	10.44	10.47
TOTAL RAINFALL	(mm)=	55.14	55.14	55.14
RUNOFF COEFFICIENT	=	0.98	0.19	0.19

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

ID1= 1 (0103): 0.33 0.009 1.42 7.91
+ ID2= 2 (0104): 0.20 0.002 2.33 9.49
ID = 3 (0032): 0.53 0.009 1.42 8.51

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

ID1= 3 (0032): 0.53 0.009 1.42 8.51
+ ID2= 2 (0108): 1.00 0.017 1.75 10.47
ID = 1 (0032): 1.53 0.022 1.75 9.79

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

ID1= 1 (0032): 1.53 0.022 1.75 9.79
+ ID2= 2 (0115): 0.78 0.014 2.92 19.81
ID = 3 (0032): 2.31 0.028 2.00 13.17

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

ID1= 3 (0032): 2.31 0.028 2.00 13.17
+ ID2= 2 (0003): 5.31 0.563 1.33 26.61
ID = 1 (0032): 7.62 0.575 1.33 22.54

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

ID1= 1 (0032): 7.62 0.575 1.33 22.54
+ ID2= 2 (0052): 9.07 1.019 1.33 27.38
ID = 3 (0032): 16.69 1.594 1.33 25.17

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

ID1= 3 (0032): 16.69 1.594 1.33 25.17
+ ID2= 2 (0053): 5.41 0.699 1.33 30.43
ID = 1 (0032): 22.10 2.293 1.33 26.46

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

ID1= 1 (0032): 22.10 2.293 1.33 26.46
+ ID2= 2 (0056): 3.62 0.280 1.33 18.09
ID = 3 (0032): 25.72 2.572 1.33 25.28

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

ID1= 3 (0032): 25.72 2.572 1.33 25.28
+ ID2= 2 (0057): 1.06 0.033 1.42 9.79
ID = 1 (0032): 26.78 2.600 1.33 24.67

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

ID1= 1 (0032): 26.78 2.600 1.33 24.67
+ ID2= 2 (0007): 4.92 0.069 3.50 18.92
ID = 3 (0032): 31.70 2.602 1.33 23.78

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (0004)	Area (ha)= 8.04		
ID= 1 DT= 5.0 min	Total Imp(%)= 70.00	Dir. Conn.(%)= 35.00	

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	5.63	2.41
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	231.52	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	4.64	1.083	21.94	2.083	9.17	3.08	5.34
0.167	4.64	1.167	21.94	2.167	9.17	3.17	5.34
0.250	5.18	1.250	127.15	2.250	8.10	3.25	5.03
0.333	5.18	1.333	127.15	2.333	8.10	3.33	5.03
0.417	5.91	1.417	26.92	2.417	7.29	3.42	4.76
0.500	5.91	1.500	26.92	2.500	7.29	3.50	4.76
0.583	6.96	1.583	16.98	2.583	6.65	3.58	4.52
0.667	6.96	1.667	16.98	2.667	6.65	3.67	4.52
0.750	8.62	1.750	12.95	2.750	6.13	3.75	4.31
0.833	8.62	1.833	12.95	2.833	6.13	3.83	4.31
0.917	11.80	1.917	10.66	2.917	5.70	3.92	4.12
1.000	11.80	2.000	10.66	3.000	5.70	4.00	4.12

				TOTALS
Max.Eff.Inten.(mm/hr)=		127.15	164.80	
over (min)		5.00	15.00	
Storage Coeff. (min)=		5.22 (ii)	10.55 (ii)	
Unit Hyd. Tpeak (min)=		5.00	15.00	
Unit Hyd. peak (cms)=		0.21	0.09	
PEAK FLOW	(cms)=	0.87	0.61	1.214 (iii)
TIME TO PEAK	(hrs)=	1.33	1.50	1.33
RUNOFF VOLUME	(mm)=	54.14	33.23	40.55
TOTAL RAINFALL	(mm)=	55.14	55.14	55.14
RUNOFF COEFFICIENT	=	0.98	0.60	0.74

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0054)	Area (ha)= 8.46		
ID= 1 DT= 5.0 min	Total Imp(%)= 59.70	Dir. Conn.(%)= 25.90	

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	5.05	3.41
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.59	2.00
Length	(m)=	237.49	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	4.64	1.083	21.94	2.083	9.17	3.08	5.34
0.167	4.64	1.167	21.94	2.167	9.17	3.17	5.34
0.250	5.18	1.250	127.15	2.250	8.10	3.25	5.03
0.333	5.18	1.333	127.15	2.333	8.10	3.33	5.03
0.417	5.91	1.417	26.92	2.417	7.29	3.42	4.76
0.500	5.91	1.500	26.92	2.500	7.29	3.50	4.76
0.583	6.96	1.583	16.98	2.583	6.65	3.58	4.52
0.667	6.96	1.667	16.98	2.667	6.65	3.67	4.52
0.750	8.62	1.750	12.95	2.750	6.13	3.75	4.31
0.833	8.62	1.833	12.95	2.833	6.13	3.83	4.31
0.917	11.80	1.917	10.66	2.917	5.70	3.92	4.12
1.000	11.80	2.000	10.66	3.000	5.70	4.00	4.12

			TOTALS
Max.Eff.Inten.(mm/hr)=	127.15	127.33	
over (min)	5.00	10.00	
Storage Coeff. (min)=	3.39 (ii)	9.31 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.26	0.12	
PEAK FLOW (cms)=	0.74	0.76	1.368 (iii)
TIME TO PEAK (hrs)=	1.33	1.42	1.33
RUNOFF VOLUME (mm)=	54.14	30.82	36.86
TOTAL RAINFALL (mm)=	55.14	55.14	55.14
RUNOFF COEFFICIENT =	0.98	0.56	0.67

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0055)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	8.04	1.214	1.33	40.55
+ ID2= 2 (0054):	8.46	1.368	1.33	36.86
ID = 3 (0055):	16.50	2.581	1.33	38.66

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0060)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0032):	31.70	2.602	1.33	23.78
+ ID2= 2 (0055):	16.50	2.581	1.33	38.66
ID = 3 (0060):	48.20	5.183	1.33	28.87

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0025)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0060)	48.20	5.18	1.33	28.87
OUTFLOW: ID= 2(0025)	48.20	5.18	1.33	28.87

CALIB
NASHYD (0110)
ID= 1 DT= 5.0 min

Area (ha)= 9.49 Curve Number (CN)= 56.7
Ia (mm)= 4.53 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.25

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	4.64	1.083	21.94	2.083	9.17	3.08	5.34
0.167	4.64	1.167	21.94	2.167	9.17	3.17	5.34
0.250	5.18	1.250	127.15	2.250	8.10	3.25	5.03
0.333	5.18	1.333	127.15	2.333	8.10	3.33	5.03
0.417	5.91	1.417	26.92	2.417	7.29	3.42	4.76
0.500	5.91	1.500	26.92	2.500	7.29	3.50	4.76
0.583	6.96	1.583	16.98	2.583	6.65	3.58	4.52
0.667	6.96	1.667	16.98	2.667	6.65	3.67	4.52
0.750	8.62	1.750	12.95	2.750	6.13	3.75	4.31
0.833	8.62	1.833	12.95	2.833	6.13	3.83	4.31
0.917	11.80	1.917	10.66	2.917	5.70	3.92	4.12
1.000	11.80	2.000	10.66	3.000	5.70	4.00	4.12

Unit Hyd Qpeak (cms)= 1.450

PEAK FLOW	(cms)=	0.229 (i)
TIME TO PEAK	(hrs)=	1.583
RUNOFF VOLUME	(mm)=	10.463
TOTAL RAINFALL	(mm)=	55.137
RUNOFF COEFFICIENT	=	0.190

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0062)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0110)	9.49	0.23	1.58	10.46
OUTFLOW: ID= 2(0062)	9.49	0.23	1.58	10.46

CALIB
STANDHYD (0028)
ID= 1 DT= 5.0 min

Area (ha)= 6.40
Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	3.20	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	206.56	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	4.64	1.083	21.94	2.083	9.17	3.08	5.34
0.167	4.64	1.167	21.94	2.167	9.17	3.17	5.34
0.250	5.18	1.250	127.15	2.250	8.10	3.25	5.03
0.333	5.18	1.333	127.15	2.333	8.10	3.33	5.03
0.417	5.91	1.417	26.92	2.417	7.29	3.42	4.76
0.500	5.91	1.500	26.92	2.500	7.29	3.50	4.76
0.583	6.96	1.583	16.98	2.583	6.65	3.58	4.52
0.667	6.96	1.667	16.98	2.667	6.65	3.67	4.52
0.750	8.62	1.750	12.95	2.750	6.13	3.75	4.31
0.833	8.62	1.833	12.95	2.833	6.13	3.83	4.31
0.917	11.80	1.917	10.66	2.917	5.70	3.92	4.12
1.000	11.80	2.000	10.66	3.000	5.70	4.00	4.12

			TOTALS
Max.Eff.Inten.(mm/hr)=	127.15	28.70	
over (min)	5.00	25.00	
Storage Coeff. (min)=	4.87 (ii)	23.79 (ii)	
Unit Hyd. Tpeak (min)=	5.00	25.00	
Unit Hyd. peak (cms)=	0.22	0.05	
PEAK FLOW (cms)=	1.01	0.13	1.043 (iii)
TIME TO PEAK (hrs)=	1.33	1.67	1.33
RUNOFF VOLUME (mm)=	54.14	21.37	37.75
TOTAL RAINFALL (mm)=	55.14	55.14	55.14
RUNOFF COEFFICIENT =	0.98	0.39	0.68

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0111)
ID= 1 DT= 5.0 min

Area (ha)= 28.77
Total Imp(%)= 24.70 Dir. Conn.(%)= 15.70

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	7.11	21.66
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	437.95	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	4.64	1.083	21.94	2.083	9.17	3.08	5.34
0.167	4.64	1.167	21.94	2.167	9.17	3.17	5.34
0.250	5.18	1.250	127.15	2.250	8.10	3.25	5.03
0.333	5.18	1.333	127.15	2.333	8.10	3.33	5.03
0.417	5.91	1.417	26.92	2.417	7.29	3.42	4.76
0.500	5.91	1.500	26.92	2.500	7.29	3.50	4.76
0.583	6.96	1.583	16.98	2.583	6.65	3.58	4.52
0.667	6.96	1.667	16.98	2.667	6.65	3.67	4.52
0.750	8.62	1.750	12.95	2.750	6.13	3.75	4.31
0.833	8.62	1.833	12.95	2.833	6.13	3.83	4.31
0.917	11.80	1.917	10.66	2.917	5.70	3.92	4.12
1.000	11.80	2.000	10.66	3.000	5.70	4.00	4.12

			TOTALS
Max.Eff.Inten.(mm/hr)=	127.15	9.68	
over (min)	10.00	40.00	
Storage Coeff. (min)=	7.65 (ii)	36.87 (ii)	
Unit Hyd. Tpeak (min)=	10.00	40.00	
Unit Hyd. peak (cms)=	0.13	0.03	
PEAK FLOW (cms)=	1.06	0.29	1.124 (iii)
TIME TO PEAK (hrs)=	1.42	1.92	1.42
RUNOFF VOLUME (mm)=	54.14	8.95	16.05
TOTAL RAINFALL (mm)=	55.14	55.14	55.14
RUNOFF COEFFICIENT =	0.98	0.16	0.29

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0119)
ID= 1 DT= 5.0 min

Area (ha)= 2.72
Total Imp(%)= 55.90 Dir. Conn.(%)= 27.20

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.52	1.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	134.66	25.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	4.64	1.083	21.94	2.083	9.17	3.08	5.34
0.167	4.64	1.167	21.94	2.167	9.17	3.17	5.34
0.250	5.18	1.250	127.15	2.250	8.10	3.25	5.03
0.333	5.18	1.333	127.15	2.333	8.10	3.33	5.03
0.417	5.91	1.417	26.92	2.417	7.29	3.42	4.76
0.500	5.91	1.500	26.92	2.500	7.29	3.50	4.76
0.583	6.96	1.583	16.98	2.583	6.65	3.58	4.52
0.667	6.96	1.667	16.98	2.667	6.65	3.67	4.52
0.750	8.62	1.750	12.95	2.750	6.13	3.75	4.31
0.833	8.62	1.833	12.95	2.833	6.13	3.83	4.31
0.917	11.80	1.917	10.66	2.917	5.70	3.92	4.12
1.000	11.80	2.000	10.66	3.000	5.70	4.00	4.12

			TOTALS
Max.Eff.Inten.(mm/hr)=	127.15	40.45	
over (min)	5.00	15.00	
Storage Coeff. (min)=	3.42 (ii)	11.06 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.26	0.09	
PEAK FLOW (cms)=	0.25	0.08	0.287 (iii)
TIME TO PEAK (hrs)=	1.33	1.50	1.33
RUNOFF VOLUME (mm)=	54.14	12.79	24.04
TOTAL RAINFALL (mm)=	55.14	55.14	55.14
RUNOFF COEFFICIENT =	0.98	0.23	0.44

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0118)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0111):	28.77	1.124	1.42	16.05
+ ID2= 2 (0119):	2.72	0.287	1.33	24.04
ID = 3 (0118):	31.49	1.351	1.33	16.74

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0118):	31.49	1.351	1.33	16.74
+ ID2= 2 (0025):	48.20	5.183	1.33	28.87
ID = 3 (0001):	79.69	6.534	1.33	24.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0001):	79.69	6.534	1.33	24.07
+ ID2= 2 (0028):	6.40	1.043	1.33	37.75
ID = 1 (0001):	86.09	7.577	1.33	25.09

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):	86.09	7.577	1.33	25.09
+ ID2= 2 (0062):	9.49	0.229	1.58	10.46
ID = 3 (0001):	95.58	7.694	1.33	23.64

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0002)
IN= 2---> OUT= 1
DT= 5.0 min

OVERFLOW IS OFF

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.4660	3.2040
0.0000	0.2740	0.4720	3.3550
0.0420	0.5580	2.3890	3.4690
0.0680	0.8520	2.5030	3.5840
0.0860	1.1550	2.8990	3.9750
0.3770	1.4690	4.0830	4.4020

```
                    0.3970      1.7940   |    7.8030      4.8410
                    0.4160      2.1300   |   13.0620      5.2840
                    0.4340      2.4770   |   19.5770      5.7300
                    0.4500      2.8350   |   27.2220      6.1800

                       AREA      QPEAK     TPEAK       R.V.
                       (ha)      (cms)     (hrs)       (mm)
 INFLOW : ID= 2 (  0001)     95.580      7.694      1.33      23.64
 OUTFLOW: ID= 1 (  0002)     95.580      0.400      4.17      20.75

              PEAK   FLOW   REDUCTION [Qout/Qin](%)=  5.20
              TIME SHIFT OF PEAK FLOW          (min)=170.00
              MAXIMUM  STORAGE   USED        (ha.m.)=  1.8426

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| DIVERTHYD(  0123)|
| IN= 1   # OUT= 5 |
--------------------
     Outflow / Inflow  Relationships

      Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total
       (cms)    (cms)    (cms)    (cms)    (cms)    (cms)
        0.00     0.00     0.00     0.00     0.00     0.00
        0.00     0.00     0.00     0.00     0.00     0.00
        0.00     0.00     0.00     0.00     0.00     0.00
        0.04     0.00     0.00     0.00     0.00     0.04
        0.07     0.00     0.00     0.00     0.00     0.07
        0.09     0.00     0.00     0.00     0.00     0.09
        0.10     0.28     0.00     0.00     0.00     0.38
        0.12     0.28     0.00     0.00     0.00     0.40
        0.13     0.29     0.00     0.00     0.00     0.42
        0.14     0.30     0.00     0.00     0.00     0.43
        0.15     0.30     0.00     0.00     0.00     0.45
        0.16     0.31     0.00     0.00     0.00     0.47
        0.16     0.31     0.00     0.00     0.00     0.47
        0.16     2.23     0.00     0.00     0.00     2.39
        0.17     2.34     0.00     0.00     0.00     2.50
        0.17     2.73     0.00     0.00     0.00     2.90
        0.18     2.93     0.00     0.00     0.00     3.11

                       AREA      QPEAK     TPEAK     R.V.
                       (ha)      (cms)     (hrs)     (mm)
    TOTAL HYD.(ID= 1):  95.58      0.40      4.17    20.75
    ==========================================================
    ID= 2  (   2)    :  60.78      0.12      4.17    20.75
    ID= 3  (   2)    :  34.80      0.28      4.17    20.75
    ID= 4  (   2)    :   0.00      0.00      0.00     0.00
    ID= 5  (   2)    :   0.00      0.00      0.00     0.00
    ID= 6  (   2)    :   0.00      0.00      0.00     0.00
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  --------------------------
  | Junction Command(0124) |
  --------------------------

                       AREA      QPEAK     TPEAK     R.V.
                       (ha)      (cms)     (hrs)     (mm)
 INFLOW : ID= 1(  0123)   60.78      0.12      4.17    20.75
 OUTFLOW: ID= 2(  0124)   60.78      0.12      4.17    20.75

  --------------------------------------------------------------------------------
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| CALIB              |
| NASHYD   (  0130)|   Area    (ha)=   5.38   Curve Number   (CN)= 46.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.05   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.87

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
     TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
      hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
    0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
    0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
    0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
    0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
    0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
    0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
    0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
    0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
    0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
    0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
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    0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
    1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

    Unit Hyd Qpeak  (cms)=   0.236

    PEAK FLOW       (cms)=   0.039 (i)
    TIME TO PEAK    (hrs)=   2.500
    RUNOFF VOLUME    (mm)=   7.132
    TOTAL RAINFALL   (mm)=  55.137
    RUNOFF COEFFICIENT   =   0.129

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB              |
| STANDHYD (  0132)|   Area    (ha)=   0.69
|ID= 1 DT= 5.0 min |   Total Imp(%)=  42.00   Dir. Conn.(%)=   3.00
--------------------

                       IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=      0.29         0.40
    Dep. Storage     (mm)=      1.00         5.00
    Average Slope     (%)=      0.50         2.00
    Length            (m)=     67.82       170.00
    Mannings n           =     0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
     TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
      hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
    0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
    0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
    0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
    0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
    0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
    0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
    0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
    0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
    0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
    0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
    0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
    1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

    Max.Eff.Inten.(mm/hr)=     127.15        19.49
              over (min)        5.00        35.00
    Storage Coeff.  (min)=       2.26 (ii)   34.61 (ii)
    Unit Hyd. Tpeak (min)=       5.00        35.00
    Unit Hyd. peak  (cms)=       0.30         0.03
                                                      *TOTALS*
    PEAK FLOW       (cms)=       0.01         0.01      0.013 (iii)
    TIME TO PEAK    (hrs)=       1.33         1.83       1.83
    RUNOFF VOLUME    (mm)=      54.14        12.94      14.14
    TOTAL RAINFALL   (mm)=      55.14        55.14      55.14
    RUNOFF COEFFICIENT   =       0.98         0.23       0.26

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  --------------------------
  | Junction Command(0131) |
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                       AREA      QPEAK     TPEAK     R.V.
                       (ha)      (cms)     (hrs)     (mm)
 INFLOW : ID= 2(  0132)    0.69      0.01      1.83    14.14
 OUTFLOW: ID= 2(  0131)    0.69      0.01      1.83    14.14

  --------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0129)|
|   1 +  2 =  3    |        AREA      QPEAK     TPEAK     R.V.
--------------------        (ha)      (cms)     (hrs)     (mm)
```

```
      ID1= 1 (  0124):    60.78   0.116     4.17     20.75
    + ID2= 2 (  0130):     5.38   0.039     2.50      7.13
      ==========================================================
      ID = 3 (  0129):    66.16   0.145     2.92     19.65

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0129)|
|   3 +  2 =  1    |        AREA      QPEAK     TPEAK     R.V.
--------------------        (ha)      (cms)     (hrs)     (mm)
      ID1= 3 (  0129):    66.16   0.145     2.92     19.65
    + ID2= 2 (  0131):     0.69   0.013     1.83     14.14
      ==========================================================
      ID = 1 (  0129):    66.85   0.153     2.67     19.59

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  --------------------------
  | Junction Command(0128) |
  --------------------------

                       AREA      QPEAK     TPEAK     R.V.
                       (ha)      (cms)     (hrs)     (mm)
 INFLOW : ID= 10(  0123)   34.80      0.28      4.17    20.75
 OUTFLOW: ID= 2(  0128)   34.80      0.28      4.17    20.75

  --------------------------------------------------------------------------------
--------------------
| CALIB              |
| NASHYD   (  0109)|   Area    (ha)= 120.60   Curve Number   (CN)= 73.3
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.06

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
     TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
      hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
    0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
    0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
    0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
    0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
    0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
    0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
    0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
    0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
    0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
    0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
    0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
    1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

    Unit Hyd Qpeak  (cms)=   4.346

    PEAK FLOW       (cms)=   1.853 (i)
    TIME TO PEAK    (hrs)=   2.750
    RUNOFF VOLUME    (mm)=  16.531
    TOTAL RAINFALL   (mm)=  55.137
    RUNOFF COEFFICIENT   =   0.300

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB              |
| STANDHYD (  0106)|   Area    (ha)=   1.58
|ID= 1 DT= 5.0 min |   Total Imp(%)=  30.20   Dir. Conn.(%)=   0.10
--------------------

                       IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=      0.48         1.10
    Dep. Storage     (mm)=      1.00         5.00
    Average Slope     (%)=      0.36         2.00
    Length            (m)=    102.63        90.00
    Mannings n           =     0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
     TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
      hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
```

```
    0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
    0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
    0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
    0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
    0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
    0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
    0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
    0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
    0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
    0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
    0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
    1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

    Max.Eff.Inten.(mm/hr)=     127.15        63.92
              over (min)        5.00        20.00
    Storage Coeff.  (min)=       3.20 (ii)   16.93 (ii)
    Unit Hyd. Tpeak (min)=       5.00        20.00
    Unit Hyd. peak  (cms)=       0.27         0.06
                                                      *TOTALS*
    PEAK FLOW       (cms)=       0.00         0.11      0.109 (iii)
    TIME TO PEAK    (hrs)=       1.33         1.58       1.58
    RUNOFF VOLUME    (mm)=      54.14        26.99      27.01
    TOTAL RAINFALL   (mm)=      55.14        55.14      55.14
    RUNOFF COEFFICIENT   =       0.98         0.49       0.49

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB              |
| STANDHYD (  0107)|   Area    (ha)=   0.72
|ID= 1 DT= 5.0 min |   Total Imp(%)=  45.60   Dir. Conn.(%)=   3.50
--------------------

                       IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=      0.33         0.39
    Dep. Storage     (mm)=      1.00         5.00
    Average Slope     (%)=      0.36         2.00
    Length            (m)=     69.28        90.00
    Mannings n           =     0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
     TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
      hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
    0.083    4.64 | 1.083   21.94 | 2.083    9.17 |  3.08    5.34
    0.167    4.64 | 1.167   21.94 | 2.167    9.17 |  3.17    5.34
    0.250    5.18 | 1.250  127.15 | 2.250    8.10 |  3.25    5.03
    0.333    5.18 | 1.333  127.15 | 2.333    8.10 |  3.33    5.03
    0.417    5.91 | 1.417   26.92 | 2.417    7.29 |  3.42    4.76
    0.500    5.91 | 1.500   26.92 | 2.500    7.29 |  3.50    4.76
    0.583    6.96 | 1.583   16.98 | 2.583    6.65 |  3.58    4.52
    0.667    6.96 | 1.667   16.98 | 2.667    6.65 |  3.67    4.52
    0.750    8.62 | 1.750   12.95 | 2.750    6.13 |  3.75    4.31
    0.833    8.62 | 1.833   12.95 | 2.833    6.13 |  3.83    4.31
    0.917   11.80 | 1.917   10.66 | 2.917    5.70 |  3.92    4.12
    1.000   11.80 | 2.000   10.66 | 3.000    5.70 |  4.00    4.12

    Max.Eff.Inten.(mm/hr)=     127.15        91.09
              over (min)        5.00        15.00
    Storage Coeff.  (min)=       2.53 (ii)   14.45 (ii)
    Unit Hyd. Tpeak (min)=       5.00        15.00
    Unit Hyd. peak  (cms)=       0.29         0.08
                                                      *TOTALS*
    PEAK FLOW       (cms)=       0.01         0.06      0.065 (iii)
    TIME TO PEAK    (hrs)=       1.33         1.50       1.50
    RUNOFF VOLUME    (mm)=      54.14        30.29      31.11
    TOTAL RAINFALL   (mm)=      55.14        55.14      55.14
    RUNOFF COEFFICIENT   =       0.98         0.55       0.56

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
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          CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0029)|
|   1 +   2 =   3  |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0106):      1.58    0.109     1.58    27.01
     + ID2= 2 (  0107):      0.72    0.065     1.50    31.11
       ================================================
       ID = 3 (  0029):      2.30    0.164     1.58    28.29

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0029)|
|   3 +   2 =   1  |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0029):      2.30    0.164     1.58    28.29
     + ID2= 2 (  0109):    120.60    1.853     2.75    16.53
       ================================================
       ID = 1 (  0029):    122.90    1.892     2.75    16.75

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0122)|
|   1 +   2 =   3  |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0128):     34.80    0.284     4.17    20.75
     + ID2= 2 (  0029):    122.90    1.892     2.75    16.75
       ================================================
       ID = 3 (  0122):    157.70    2.171     2.75    17.63

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0135)|
|   1 +   2 =   3  |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0122):    157.70    2.171     2.75    17.63
     + ID2= 2 (  0129):     66.85    0.153     2.67    19.59
       ================================================
       ID = 3 (  0135):    224.55    2.324     2.75    18.22

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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==========================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I      SS   U   U  AAAAA  L
         V V    I       SS  U   U  A   A  L
          VV    I    SSSSS   UUUUU  A   A  LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M M M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\479edc35-0
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\479edc35-0

DATE: 02-17-2026                          TIME: 11:15:58

USER:
```

```
COMMENTS: ____________________________________________________

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  ************************************************
  ** SIMULATION : E. 25yr 4hr 10min Chicago C   **
  ************************************************

-------------------
| CHICAGO STORM   |    IDF curve parameters: A= 748.460
| Ptotal= 64.91 mm |                          B=   0.000
-------------------                          C=   0.699
                          used in:   INTENSITY =  A / (t + B)^C

                          Duration of storm  =  4.00 hrs
                          Storm time step    = 10.00 min
                          Time to peak ratio =  0.33

                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.00    5.46 |  1.00   25.83 |'  2.00   10.79 |  3.00    6.29
                0.17    6.10 |  1.17  149.68 |'  2.17    9.53 |  3.17    5.92
                0.33    6.96 |  1.33   31.70 |'  2.33    8.58 |  3.33    5.60
                0.50    8.19 |  1.50   19.99 |'  2.50    7.83 |  3.50    5.32
                0.67   10.15 |  1.67   15.24 |'  2.67    7.22 |  3.67    5.08
                0.83   13.89 |  1.83   12.55 |'  2.83    6.71 |  3.83    4.85

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| CALIB           |
| STANDHYD (  0133)|   Area    (ha)=   0.09
|ID= 1 DT= 5.0 min |   Total Imp(%)=  43.30   Dir. Conn.(%)=  43.30
-------------------

                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        0.04         0.05
     Dep. Storage     (mm)=        1.00         5.00
     Average Slope     (%)=        5.00         2.00
     Length            (m)=       24.49        46.00
     Mannings n           =       0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
               0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
               0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
               0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
               0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
               0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
               0.583    8.19 | 1.583   19.99 | 2.583    7.83 |  3.58    5.32
               0.667    8.19 | 1.667   19.99 | 2.667    7.83 |  3.67    5.32
               0.750   10.15 | 1.750   15.24 | 2.750    7.22 |  3.75    5.08
               0.833   10.15 | 1.833   15.24 | 2.833    7.22 |  3.83    5.08
               0.917   13.89 | 1.917   12.55 | 2.917    6.71 |  3.92    4.85
               1.000   13.89 | 2.000   12.55 | 3.000    6.71 |  4.00    4.85

     Max.Eff.Inten.(mm/hr)=     149.68        13.66
                  over (min)        5.00        20.00
     Storage Coeff.  (min)=       0.58 (ii)   17.60 (ii)
     Unit Hyd. Tpeak (min)=       5.00        20.00
     Unit Hyd. peak  (cms)=       0.34         0.06
                                                      *TOTALS*
     PEAK FLOW       (cms)=       0.02         0.00      0.017 (iii)
     TIME TO PEAK    (hrs)=       1.33         1.58       1.33
     RUNOFF VOLUME    (mm)=      63.91        11.07      33.85
     TOTAL RAINFALL   (mm)=      64.91        64.91      64.91
     RUNOFF COEFFICIENT   =       0.98         0.17       0.52

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* = 49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  | Junction Command(0134) |
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                          AREA     QPEAK    TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 2(  0133)    0.09     0.02     1.33    33.85
  OUTFLOW: ID= 2(  0134)    0.09     0.02     1.33    33.85

  ----------------------------------------------------------------------------------------
-------------------
| CALIB           |
| NASHYD   (  0007)|   Area    (ha)=   4.92   Curve Number   (CN)= 75.1
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.65   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.55

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
               0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
               0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
               0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
               0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
               0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
               0.583    8.19 | 1.583   19.99 | 2.583    7.83 |  3.58    5.32
               0.667    8.19 | 1.667   19.99 | 2.667    7.83 |  3.67    5.32
               0.750   10.15 | 1.750   15.24 | 2.750    7.22 |  3.75    5.08
               0.833   10.15 | 1.833   15.24 | 2.833    7.22 |  3.83    5.08
               0.917   13.89 | 1.917   12.55 | 2.917    6.71 |  3.92    4.85
               1.000   13.89 | 2.000   12.55 | 3.000    6.71 |  4.00    4.85

     Unit Hyd Qpeak  (cms)=   0.121

     PEAK FLOW       (cms)=   0.092 (i)
     TIME TO PEAK    (hrs)=   3.417
     RUNOFF VOLUME    (mm)=  25.132
     TOTAL RAINFALL   (mm)=  64.909
     RUNOFF COEFFICIENT   =   0.387

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB           |
| NASHYD   (  0057)|   Area    (ha)=   1.06   Curve Number   (CN)= 55.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.72   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.15

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
               0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
               0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
               0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
               0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
               0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
               0.583    8.19 | 1.583   19.99 | 2.583    7.83 |  3.58    5.32
               0.667    8.19 | 1.667   19.99 | 2.667    7.83 |  3.67    5.32
               0.750   10.15 | 1.750   15.24 | 2.750    7.22 |  3.75    5.08
               0.833   10.15 | 1.833   15.24 | 2.833    7.22 |  3.83    5.08
               0.917   13.89 | 1.917   12.55 | 2.917    6.71 |  3.92    4.85
               1.000   13.89 | 2.000   12.55 | 3.000    6.71 |  4.00    4.85

     Unit Hyd Qpeak  (cms)=   0.270

     PEAK FLOW       (cms)=   0.047 (i)
     TIME TO PEAK    (hrs)=   1.417
     RUNOFF VOLUME    (mm)=  13.439
     TOTAL RAINFALL   (mm)=  64.909
     RUNOFF COEFFICIENT   =   0.207

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB           |
| NASHYD   (  0115)|   Area    (ha)=   0.78   Curve Number   (CN)= 76.9
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|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.10   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.17

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
               0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
               0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
               0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
               0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
               0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
               0.583    8.19 | 1.583   19.99 | 2.583    7.83 |  3.58    5.32
               0.667    8.19 | 1.667   19.99 | 2.667    7.83 |  3.67    5.32
               0.750   10.15 | 1.750   15.24 | 2.750    7.22 |  3.75    5.08
               0.833   10.15 | 1.833   15.24 | 2.833    7.22 |  3.83    5.08
               0.917   13.89 | 1.917   12.55 | 2.917    6.71 |  3.92    4.85
               1.000   13.89 | 2.000   12.55 | 3.000    6.71 |  4.00    4.85

     Unit Hyd Qpeak  (cms)=   0.025

     PEAK FLOW       (cms)=   0.018 (i)
     TIME TO PEAK    (hrs)=   2.833
     RUNOFF VOLUME    (mm)=  26.278
     TOTAL RAINFALL   (mm)=  64.909
     RUNOFF COEFFICIENT   =   0.405

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| CALIB           |
| NASHYD   (  0103)|   Area    (ha)=   0.33   Curve Number   (CN)= 49.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.13

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
               0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
               0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
               0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
               0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
               0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
               0.583    8.19 | 1.583   19.99 | 2.583    7.83 |  3.58    5.32
               0.667    8.19 | 1.667   19.99 | 2.667    7.83 |  3.67    5.32
               0.750   10.15 | 1.750   15.24 | 2.750    7.22 |  3.75    5.08
               0.833   10.15 | 1.833   15.24 | 2.833    7.22 |  3.83    5.08
               0.917   13.89 | 1.917   12.55 | 2.917    6.71 |  3.92    4.85
               1.000   13.89 | 2.000   12.55 | 3.000    6.71 |  4.00    4.85

     Unit Hyd Qpeak  (cms)=   0.097

     PEAK FLOW       (cms)=   0.012 (i)
     TIME TO PEAK    (hrs)=   1.417
     RUNOFF VOLUME    (mm)=  10.957
     TOTAL RAINFALL   (mm)=  64.909
     RUNOFF COEFFICIENT   =   0.169

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB           |
| NASHYD   (  0104)|   Area    (ha)=   0.20   Curve Number   (CN)= 53.9
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.70   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.76

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
               0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
               0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
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0.333	6.10	1.333	149.68	2.333	9.53	3.33	5.92
0.417	6.96	1.417	31.70	2.417	8.58	3.42	5.60
0.500	6.96	1.500	31.70	2.500	8.58	3.50	5.60
0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

Unit Hyd Qpeak (cms)= 0.010

PEAK FLOW (cms)= 0.003 (i)
TIME TO PEAK (hrs)= 2.333
RUNOFF VOLUME (mm)= 13.056
TOTAL RAINFALL (mm)= 64.909
RUNOFF COEFFICIENT = 0.201

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0003)
ID= 1 DT= 5.0 min

Area (ha)= 5.31
Total Imp(%)= 39.70 Dir. Conn.(%)= 25.20

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.11	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	2.10	2.00
Length (m)=	188.15	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	5.46	1.083	25.83	2.083	10.79	3.08	6.29
0.167	5.46	1.167	25.83	2.167	10.79	3.17	6.29
0.250	6.10	1.250	149.68	2.250	9.53	3.25	5.92
0.333	6.10	1.333	149.68	2.333	9.53	3.33	5.92
0.417	6.96	1.417	31.70	2.417	8.58	3.42	5.60
0.500	6.96	1.500	31.70	2.500	8.58	3.50	5.60
0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

			TOTALS
Max.Eff.Inten.(mm/hr)=	149.68	58.15	
over (min)	5.00	15.00	
Storage Coeff. (min)=	2.54 (ii)	10.63 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.29	0.09	
PEAK FLOW (cms)=	0.55	0.29	0.695 (iii)
TIME TO PEAK (hrs)=	1.33	1.50	1.33
RUNOFF VOLUME (mm)=	63.91	23.11	33.39
TOTAL RAINFALL (mm)=	64.91	64.91	64.91
RUNOFF COEFFICIENT =	0.98	0.36	0.51

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 67.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0052)
ID= 1 DT= 5.0 min

Area (ha)= 9.07
Total Imp(%)= 64.70 Dir. Conn.(%)= 32.30

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	5.87	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	245.90	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	5.46	1.083	25.83	2.083	10.79	3.08	6.29
0.167	5.46	1.167	25.83	2.167	10.79	3.17	6.29
0.250	6.10	1.250	149.68	2.250	9.53	3.25	5.92
0.333	6.10	1.333	149.68	2.333	9.53	3.33	5.92
0.417	6.96	1.417	31.70	2.417	8.58	3.42	5.60
0.500	6.96	1.500	31.70	2.500	8.58	3.50	5.60
0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

			TOTALS
Max.Eff.Inten.(mm/hr)=	149.68	103.58	
over (min)	5.00	15.00	
Storage Coeff. (min)=	4.34 (ii)	10.76 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.23	0.09	
PEAK FLOW (cms)=	0.72	0.26	0.858 (iii)
TIME TO PEAK (hrs)=	1.33	1.50	1.33
RUNOFF VOLUME (mm)=	63.91	23.35	37.55
TOTAL RAINFALL (mm)=	64.91	64.91	64.91
RUNOFF COEFFICIENT =	0.98	0.36	0.58

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	5.46	1.083	25.83	2.083	10.79	3.08	6.29
0.167	5.46	1.167	25.83	2.167	10.79	3.17	6.29
0.250	6.10	1.250	149.68	2.250	9.53	3.25	5.92
0.333	6.10	1.333	149.68	2.333	9.53	3.33	5.92
0.417	6.96	1.417	31.70	2.417	8.58	3.42	5.60
0.500	6.96	1.500	31.70	2.500	8.58	3.50	5.60
0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

			TOTALS
Max.Eff.Inten.(mm/hr)=	149.68	74.66	
over (min)	5.00	15.00	
Storage Coeff. (min)=	5.07 (ii)	12.39 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.21	0.08	
PEAK FLOW (cms)=	1.08	0.35	1.253 (iii)
TIME TO PEAK (hrs)=	1.33	1.50	1.33
RUNOFF VOLUME (mm)=	63.91	19.55	33.88
TOTAL RAINFALL (mm)=	64.91	64.91	64.91
RUNOFF COEFFICIENT =	0.98	0.30	0.52

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0053)
ID= 1 DT= 5.0 min

Area (ha)= 5.41
Total Imp(%)= 70.00 Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	3.79	1.62
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	189.91	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	5.46	1.083	25.83	2.083	10.79	3.08	6.29
0.167	5.46	1.167	25.83	2.167	10.79	3.17	6.29
0.250	6.10	1.250	149.68	2.250	9.53	3.25	5.92
0.333	6.10	1.333	149.68	2.333	9.53	3.33	5.92
0.417	6.96	1.417	31.70	2.417	8.58	3.42	5.60
0.500	6.96	1.500	31.70	2.500	8.58	3.50	5.60
0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

			TOTALS
Max.Eff.Inten.(mm/hr)=	149.68	20.55	
over (min)	5.00	25.00	
Storage Coeff. (min)=	2.62 (ii)	24.23 (ii)	
Unit Hyd. Tpeak (min)=	5.00	25.00	
Unit Hyd. peak (cms)=	0.29	0.05	
PEAK FLOW (cms)=	0.00	0.03	0.026 (iii)
TIME TO PEAK (hrs)=	1.33	1.67	1.67
RUNOFF VOLUME (mm)=	63.91	14.24	14.27
TOTAL RAINFALL (mm)=	64.91	64.91	64.91
RUNOFF COEFFICIENT =	0.98	0.22	0.22

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0032)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0103):	0.33	0.012	1.42	10.96
+ ID2= 2 (0104):	0.20	0.003	2.33	13.06
ID = 3 (0032):	0.53	0.013	1.42	11.75

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0032):	0.53	0.013	1.42	11.75
+ ID2= 2 (0108):	1.00	0.026	1.67	14.27
ID = 1 (0032):	1.53	0.034	1.67	13.40

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0032):	1.53	0.034	1.67	13.40
+ ID2= 2 (0115):	0.78	0.018	2.83	26.28
ID = 3 (0032):	2.31	0.040	1.67	17.75

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0032):	2.31	0.040	1.67	17.75
+ ID2= 2 (0003):	5.31	0.695	1.33	33.39
ID = 1 (0032):	7.62	0.715	1.33	28.65

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0032):	7.62	0.715	1.33	28.65

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      + ID2= 2 (  0052):     9.07   1.253     1.33    33.88
        ==========================================
        ID = 3 (  0032):    16.69   1.968     1.33    31.49

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0032)|
|  3 +  2 =  1     |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):    16.69   1.968     1.33    31.49
     + ID2= 2 (  0053):     5.41   0.858     1.33    37.55
       ==========================================
       ID = 1 (  0032):    22.10   2.826     1.33    32.97

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0032)|
|  1 +  2 =  3     |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):    22.10   2.826     1.33    32.97
     + ID2= 2 (  0056):     3.62   0.337     1.33    22.72
       ==========================================
       ID = 3 (  0032):    25.72   3.164     1.33    31.53

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0032)|
|  3 +  2 =  1     |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):    25.72   3.164     1.33    31.53
     + ID2= 2 (  0057):     1.06   0.047     1.42    13.44
       ==========================================
       ID = 1 (  0032):    26.78   3.203     1.33    30.81

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0032)|
|  1 +  2 =  3     |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):    26.78   3.203     1.33    30.81
     + ID2= 2 (  0007):     4.92   0.092     3.42    25.13
       ==========================================
       ID = 3 (  0032):    31.70   3.205     1.33    29.93

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| CALIB             |
| STANDHYD (  0004)|   Area    (ha)=   8.04
|ID= 1 DT= 5.0 min |   Total Imp(%)=  70.00   Dir. Conn.(%)=  35.00
-------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       5.63         2.41
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.36         2.00
     Length            (m)=     231.52        35.00
     Mannings n            =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
     0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
     0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
     0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
     0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
     0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
     0.583    8.19 | 1.583   19.99 | 2.583    7.83 |  3.58    5.32
     0.667    8.19 | 1.667   19.99 | 2.667    7.83 |  3.67    5.32
     0.750   10.15 | 1.750   15.24 | 2.750    7.22 |  3.75    5.08
     0.833   10.15 | 1.833   15.24 | 2.833    7.22 |  3.83    5.08
     0.917   13.89 | 1.917   12.55 | 2.917    6.71 |  3.92    4.85
     1.000   13.89 | 2.000   12.55 | 3.000    6.71 |  4.00    4.85
```

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      Max.Eff.Inten.(mm/hr)=     149.68       210.62
            over (min)          5.00        10.00
      Storage Coeff.  (min)=    4.89 (ii)    9.72 (ii)
      Unit Hyd. Tpeak (min)=     5.00        10.00
      Unit Hyd. peak  (cms)=     0.22         0.11
                                                    *TOTALS*
      PEAK FLOW       (cms)=     1.04         0.87      1.776 (iii)
      TIME TO PEAK    (hrs)=     1.33         1.42       1.33
      RUNOFF VOLUME    (mm)=    63.91        41.80      49.53
      TOTAL RAINFALL   (mm)=    64.91        64.91      64.91
      RUNOFF COEFFICIENT   =     0.98         0.64       0.76

 ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
              CN*  =  79.0    Ia = Dep. Storage  (Above)
       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
              THAN THE STORAGE COEFFICIENT.
      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| CALIB             |
| STANDHYD (  0054)|   Area    (ha)=   8.46
|ID= 1 DT= 5.0 min |   Total Imp(%)=  59.70   Dir. Conn.(%)=  25.90
-------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       5.05         3.41
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       1.59         2.00
     Length            (m)=     237.49        35.00
     Mannings n            =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
     0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
     0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
     0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
     0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
     0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
     0.583    8.19 | 1.583   19.99 | 2.583    7.83 |  3.58    5.32
     0.667    8.19 | 1.667   19.99 | 2.667    7.83 |  3.67    5.32
     0.750   10.15 | 1.750   15.24 | 2.750    7.22 |  3.75    5.08
     0.833   10.15 | 1.833   15.24 | 2.833    7.22 |  3.83    5.08
     0.917   13.89 | 1.917   12.55 | 2.917    6.71 |  3.92    4.85
     1.000   13.89 | 2.000   12.55 | 3.000    6.71 |  4.00    4.85

      Max.Eff.Inten.(mm/hr)=     149.68       164.56
            over (min)          5.00        10.00
      Storage Coeff.  (min)=    3.18 (ii)    8.52 (ii)
      Unit Hyd. Tpeak (min)=     5.00        10.00
      Unit Hyd. peak  (cms)=     0.27         0.12
                                                    *TOTALS*
      PEAK FLOW       (cms)=     0.88         1.02      1.740 (iii)
      TIME TO PEAK    (hrs)=     1.33         1.42       1.33
      RUNOFF VOLUME    (mm)=    63.91        39.10      45.53
      TOTAL RAINFALL   (mm)=    64.91        64.91      64.91
      RUNOFF COEFFICIENT   =     0.98         0.60       0.70

 ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
              CN*  =  79.0    Ia = Dep. Storage  (Above)
       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
              THAN THE STORAGE COEFFICIENT.
      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| ADD HYD  (  0055)|
|  1 +  2 =  3     |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0004):     8.04   1.776     1.33    49.53
     + ID2= 2 (  0054):     8.46   1.740     1.33    45.53
       ==========================================
       ID = 3 (  0055):    16.50   3.516     1.33    47.48
```

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    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0060)|
|  1 +  2 =  3     |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):    31.70   3.205     1.33    29.93
     + ID2= 2 (  0055):    16.50   3.516     1.33    47.48
       ==========================================
       ID = 3 (  0060):    48.20   6.721     1.33    35.94

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  --------------------------
  | Junction Command(0025) |
  --------------------------

                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 1(  0060)   48.20     6.72    1.33    35.94
  OUTFLOW: ID= 2(  0025)   48.20     6.72    1.33    35.94

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-------------------
| CALIB             |
| NASHYD   (  0110)|   Area    (ha)=   9.49   Curve Number   (CN)= 56.7
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.53   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.25

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
     0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
     0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
     0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
     0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
     0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
     0.583    8.19 | 1.583   19.99 | 2.583    7.83 |  3.58    5.32
     0.667    8.19 | 1.667   19.99 | 2.667    7.83 |  3.67    5.32
     0.750   10.15 | 1.750   15.24 | 2.750    7.22 |  3.75    5.08
     0.833   10.15 | 1.833   15.24 | 2.833    7.22 |  3.83    5.08
     0.917   13.89 | 1.917   12.55 | 2.917    6.71 |  3.92    4.85
     1.000   13.89 | 2.000   12.55 | 3.000    6.71 |  4.00    4.85

     Unit Hyd Qpeak  (cms)=    1.450

     PEAK FLOW       (cms)=    0.319 (i)
     TIME TO PEAK    (hrs)=    1.583
     RUNOFF VOLUME    (mm)=   14.321
     TOTAL RAINFALL   (mm)=   64.909
     RUNOFF COEFFICIENT   =    0.221

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  --------------------------
  | Junction Command(0062) |
  --------------------------

                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 2(  0110)    9.49     0.32    1.58    14.32
  OUTFLOW: ID= 2(  0062)    9.49     0.32    1.58    14.32

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-------------------
| CALIB             |
| STANDHYD (  0028)|   Area    (ha)=   6.40
|ID= 1 DT= 5.0 min |   Total Imp(%)=  50.00   Dir. Conn.(%)=  50.00
-------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       3.20         3.20
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.36         2.00
     Length            (m)=     206.56        90.00
     Mannings n            =      0.013        0.250
```

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         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
     0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
     0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
     0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
     0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
     0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
     0.583    8.19 | 1.583   19.99 | 2.583    7.83 |  3.58    5.32
     0.667    8.19 | 1.667   19.99 | 2.667    7.83 |  3.67    5.32
     0.750   10.15 | 1.750   15.24 | 2.750    7.22 |  3.75    5.08
     0.833   10.15 | 1.833   15.24 | 2.833    7.22 |  3.83    5.08
     0.917   13.89 | 1.917   12.55 | 2.917    6.71 |  3.92    4.85
     1.000   13.89 | 2.000   12.55 | 3.000    6.71 |  4.00    4.85

      Max.Eff.Inten.(mm/hr)=     149.68        38.64
            over (min)          5.00        25.00
      Storage Coeff.  (min)=    4.56 (ii)   21.36 (ii)
      Unit Hyd. Tpeak (min)=     5.00        25.00
      Unit Hyd. peak  (cms)=     0.23         0.05
                                                    *TOTALS*
      PEAK FLOW       (cms)=     1.21         0.19      1.258 (iii)
      TIME TO PEAK    (hrs)=     1.33         1.67       1.33
      RUNOFF VOLUME    (mm)=    63.91        28.17      46.03
      TOTAL RAINFALL   (mm)=    64.91        64.91      64.91
      RUNOFF COEFFICIENT   =     0.98         0.43       0.71

 ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
              CN*  =  79.0    Ia = Dep. Storage  (Above)
       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
              THAN THE STORAGE COEFFICIENT.
      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| CALIB             |
| STANDHYD (  0111)|   Area    (ha)=  28.77
|ID= 1 DT= 5.0 min |   Total Imp(%)=  24.70   Dir. Conn.(%)=  15.70
-------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       7.11        21.66
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.36         2.00
     Length            (m)=     437.95        90.00
     Mannings n            =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
     0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
     0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
     0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
     0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
     0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
     0.583    8.19 | 1.583   19.99 | 2.583    7.83 |  3.58    5.32
     0.667    8.19 | 1.667   19.99 | 2.667    7.83 |  3.67    5.32
     0.750   10.15 | 1.750   15.24 | 2.750    7.22 |  3.75    5.08
     0.833   10.15 | 1.833   15.24 | 2.833    7.22 |  3.83    5.08
     0.917   13.89 | 1.917   12.55 | 2.917    6.71 |  3.92    4.85
     1.000   13.89 | 2.000   12.55 | 3.000    6.71 |  4.00    4.85

      Max.Eff.Inten.(mm/hr)=     149.68        14.95
            over (min)          5.00        35.00
      Storage Coeff.  (min)=    7.17 (ii)   31.72 (ii)
      Unit Hyd. Tpeak (min)=     5.00        35.00
      Unit Hyd. peak  (cms)=     0.17         0.03
                                                    *TOTALS*
      PEAK FLOW       (cms)=     1.48         0.44      1.557 (iii)
      TIME TO PEAK    (hrs)=     1.33         1.83       1.33
      RUNOFF VOLUME    (mm)=    63.91        12.32      20.42
      TOTAL RAINFALL   (mm)=    64.91        64.91      64.91
      RUNOFF COEFFICIENT   =     0.98         0.19       0.31

 ***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
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            YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| CALIB             |
| STANDHYD (  0119)|   Area    (ha)=   2.72
|ID= 1 DT= 5.0 min |   Total Imp(%)=  55.90   Dir. Conn.(%)=  27.20
-------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.52          1.20
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.50          2.00
     Length            (m)=     134.66         25.00
     Mannings n           =      0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
     TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
      hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
    0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
    0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
    0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
    0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
    0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
    0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
    0.583    8.19 | 1.583   19.99 | 2.583    7.83 |  3.58    5.32
    0.667    8.19 | 1.667   19.99 | 2.667    7.83 |  3.67    5.32
    0.750   10.15 | 1.750   15.24 | 2.750    7.22 |  3.75    5.08
    0.833   10.15 | 1.833   15.24 | 2.833    7.22 |  3.83    5.08
    0.917   13.89 | 1.917   12.55 | 2.917    6.71 |  3.92    4.85
    1.000   13.89 | 2.000   12.55 | 3.000    6.71 |  4.00    4.85

     Max.Eff.Inten.(mm/hr)=     149.68         55.62
           over (min)          5.00          10.00
     Storage Coeff.  (min)=     3.20 (ii)     9.93 (ii)
     Unit Hyd. Tpeak (min)=     5.00          10.00
     Unit Hyd. peak  (cms)=     0.27           0.11
                                                    *TOTALS*
     PEAK FLOW       (cms)=     0.30           0.12          0.386 (iii)
     TIME TO PEAK    (hrs)=     1.33           1.42           1.33
     RUNOFF VOLUME    (mm)=    63.91          17.25          29.94
     TOTAL RAINFALL   (mm)=    64.91          64.91          64.91
     RUNOFF COEFFICIENT   =     0.98           0.27           0.46

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
-------------------
| ADD HYD  (  0118)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0111):    28.77   1.557     1.33     20.42
     + ID2= 2 (  0119):     2.72   0.386     1.33     29.94
       ================================================
       ID = 3 (  0118):    31.49   1.943     1.33     21.24

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------
-------------------
| ADD HYD  (  0001)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0118):    31.49   1.943     1.33     21.24
     + ID2= 2 (  0025):    48.20   6.721     1.33     35.94
       ================================================
       ID = 3 (  0001):    79.69   8.664     1.33     30.13

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------------------------------------------------------------------
-------------------
| ADD HYD  (  0001)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0001):    86.09   9.922     1.33     31.31
     + ID2= 2 (  0062):     9.49   0.319     1.58     14.32
       ================================================
       ID = 3 (  0001):    95.58  10.090     1.33     29.63

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------
-------------------
| RESERVOIR(  0002)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
-------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0000   |   0.4660     3.2040
                          0.0000     0.2740   |   0.4720     3.3550
                          0.0420     0.5580   |   2.3890     3.4690
                          0.0680     0.8520   |   2.5030     3.5840
                          0.0860     1.1550   |   2.8990     3.9750
                          0.3770     1.4690   |   4.0830     4.4020
                          0.3970     1.7940   |   7.8030     4.8410
                          0.4160     2.1300   |  13.0620     5.2840
                          0.4340     2.4770   |  19.5770     5.7300
                          0.4500     2.8350   |  27.2220     6.1800

                                AREA     QPEAK     TPEAK       R.V.
                                (ha)     (cms)     (hrs)       (mm)
     INFLOW : ID= 2 (  0001)    95.580    10.090     1.33       29.63
     OUTFLOW: ID= 1 (  0002)    95.580     0.427     4.25       26.74

                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=  4.23
                    TIME SHIFT OF PEAK FLOW          (min)=175.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=  2.3393

-------------------------------------------------------------------------------
-------------------
| DIVERTHYD(  0123)|
| IN= 1   # OUT= 5 |
-------------------
     Outflow / Inflow  Relationships

      Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total
       (cms)    (cms)    (cms)    (cms)    (cms)    (cms)
        0.00     0.00     0.00     0.00     0.00     0.00
        0.00     0.00     0.00     0.00     0.00     0.00
        0.00     0.00     0.00     0.00     0.00     0.00
        0.04     0.00     0.00     0.00     0.00     0.04
        0.07     0.00     0.00     0.00     0.00     0.07
        0.09     0.00     0.00     0.00     0.00     0.09
        0.10     0.28     0.00     0.00     0.00     0.38
        0.12     0.28     0.00     0.00     0.00     0.40
        0.13     0.29     0.00     0.00     0.00     0.42
        0.14     0.30     0.00     0.00     0.00     0.43
        0.15     0.30     0.00     0.00     0.00     0.45
        0.16     0.31     0.00     0.00     0.00     0.47
        0.16     0.31     0.00     0.00     0.00     0.47
        0.16     2.23     0.00     0.00     0.00     2.39
        0.17     2.34     0.00     0.00     0.00     2.50
        0.17     2.73     0.00     0.00     0.00     2.90
        0.18     2.93     0.00     0.00     0.00     3.11

                              AREA     QPEAK     TPEAK     R.V.
                              (ha)     (cms)     (hrs)     (mm)
     TOTAL HYD.(ID= 1):     95.58      0.43      4.25     26.74
     ================================================================
     ID= 2  (   2)    :    53.63      0.13      4.25     26.74
     ID= 3  (   2)    :    41.94      0.29      4.25     26.74
     ID= 4  (   2)    :     0.00      0.00      0.00      0.00
```

```
     ID= 5  (   2)    :    0.00      0.00      0.00     0.00
     ID= 6  (   2)    :    0.00      0.00      0.00     0.00
-------------------------------------------------------------------------------

  ----------------------------
  | Junction Command(0124) |
  ----------------------------

                              AREA     QPEAK    TPEAK     R.V.
                              (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 1(  0123)    53.63      0.13     4.25     26.74
  OUTFLOW: ID= 2(  0124)    53.63      0.13     4.25     26.74

  -------------------------------------------------------------------------------
-------------------
| CALIB             |
| NASHYD   (  0130)|   Area    (ha)=   5.38   Curve Number   (CN)= 46.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.05   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.87

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
     TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
      hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
    0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
    0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
    0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
    0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
    0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
    0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
    0.583    8.19 | 1.583   19.99 | 2.583    7.83 |  3.58    5.32
    0.667    8.19 | 1.667   19.99 | 2.667    7.83 |  3.67    5.32
    0.750   10.15 | 1.750   15.24 | 2.750    7.22 |  3.75    5.08
    0.833   10.15 | 1.833   15.24 | 2.833    7.22 |  3.83    5.08
    0.917   13.89 | 1.917   12.55 | 2.917    6.71 |  3.92    4.85
    1.000   13.89 | 2.000   12.55 | 3.000    6.71 |  4.00    4.85

     Unit Hyd Qpeak  (cms)=   0.236

     PEAK FLOW       (cms)=   0.055 (i)
     TIME TO PEAK    (hrs)=   2.500
     RUNOFF VOLUME    (mm)=   9.966
     TOTAL RAINFALL   (mm)=  64.909
     RUNOFF COEFFICIENT   =   0.154

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| CALIB             |
| STANDHYD (  0132)|   Area    (ha)=   0.69
|ID= 1 DT= 5.0 min |   Total Imp(%)=  42.00   Dir. Conn.(%)=   3.00
-------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.29          0.40
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.50          2.00
     Length            (m)=      67.82        170.00
     Mannings n           =      0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
     TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
      hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
    0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
    0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
    0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
    0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
    0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
    0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
    0.583    8.19 | 1.583   19.99 | 2.583    7.83 |  3.58    5.32
    0.667    8.19 | 1.667   19.99 | 2.667    7.83 |  3.67    5.32
    0.750   10.15 | 1.750   15.24 | 2.750    7.22 |  3.75    5.08
    0.833   10.15 | 1.833   15.24 | 2.833    7.22 |  3.83    5.08
    0.917   13.89 | 1.917   12.55 | 2.917    6.71 |  3.92    4.85
    1.000   13.89 | 2.000   12.55 | 3.000    6.71 |  4.00    4.85

     Max.Eff.Inten.(mm/hr)=     149.68         29.28
           over (min)          5.00          30.00
     Storage Coeff.  (min)=     2.12 (ii)     29.60 (ii)
```

```
     Unit Hyd. Tpeak (min)=      5.00         30.00
     Unit Hyd. peak  (cms)=      0.31          0.04
                                                    *TOTALS*
     PEAK FLOW       (cms)=      0.01          0.02          0.020 (iii)
     TIME TO PEAK    (hrs)=      1.33          1.75           1.75
     RUNOFF VOLUME    (mm)=     63.91         17.43          18.80
     TOTAL RAINFALL   (mm)=     64.91         64.91          64.91
     RUNOFF COEFFICIENT   =      0.98          0.27           0.29

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  | Junction Command(0131) |
  ----------------------------

                              AREA     QPEAK    TPEAK     R.V.
                              (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 2(  0132)     0.69      0.02     1.75     18.80
  OUTFLOW: ID= 2(  0131)     0.69      0.02     1.75     18.80

  -------------------------------------------------------------------------------
-------------------
| ADD HYD  (  0129)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0124):    53.63   0.133     4.25     26.74
     + ID2= 2 (  0130):     5.38   0.055     2.50      9.97
       ================================================
       ID = 3 (  0129):    59.01   0.176     2.83     25.21

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------
-------------------
| ADD HYD  (  0129)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0129):    59.01   0.176     2.83     25.21
     + ID2= 2 (  0131):     0.69   0.020     1.75     18.80
       ================================================
       ID = 1 (  0129):    59.70   0.186     2.67     25.14

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  ----------------------------
  | Junction Command(0128) |
  ----------------------------

                              AREA     QPEAK    TPEAK     R.V.
                              (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 10(  0123)   41.94      0.29     4.25     26.74
  OUTFLOW: ID= 2(  0128)    41.94      0.29     4.25     26.74

  -------------------------------------------------------------------------------
-------------------
| CALIB             |
| NASHYD   (  0109)|   Area    (ha)= 120.60   Curve Number   (CN)= 73.3
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.90   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.06

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
     TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
      hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
    0.083    5.46 | 1.083   25.83 | 2.083   10.79 |  3.08    6.29
    0.167    5.46 | 1.167   25.83 | 2.167   10.79 |  3.17    6.29
    0.250    6.10 | 1.250  149.68 | 2.250    9.53 |  3.25    5.92
    0.333    6.10 | 1.333  149.68 | 2.333    9.53 |  3.33    5.92
    0.417    6.96 | 1.417   31.70 | 2.417    8.58 |  3.42    5.60
    0.500    6.96 | 1.500   31.70 | 2.500    8.58 |  3.50    5.60
```

0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 2.537 (i)
TIME TO PEAK (hrs)= 2.750
RUNOFF VOLUME (mm)= 22.354
TOTAL RAINFALL (mm)= 64.909
RUNOFF COEFFICIENT = 0.344

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0106)
ID= 1 DT= 5.0 min

Area (ha)= 1.58
Total Imp(%)= 30.20 Dir. Conn.(%)= 0.10

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.48	1.10
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	102.63	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	5.46	1.083	25.83	2.083	10.79	3.08	6.29
0.167	5.46	1.167	25.83	2.167	10.79	3.17	6.29
0.250	6.10	1.250	149.68	2.250	9.53	3.25	5.92
0.333	6.10	1.333	149.68	2.333	9.53	3.33	5.92
0.417	6.96	1.417	31.70	2.417	8.58	3.42	5.60
0.500	6.96	1.500	31.70	2.500	8.58	3.50	5.60
0.583	8.19	1.583	19.99	2.583	7.83	3.58	5.32
0.667	8.19	1.667	19.99	2.667	7.83	3.67	5.32
0.750	10.15	1.750	15.24	2.750	7.22	3.75	5.08
0.833	10.15	1.833	15.24	2.833	7.22	3.83	5.08
0.917	13.89	1.917	12.55	2.917	6.71	3.92	4.85
1.000	13.89	2.000	12.55	3.000	6.71	4.00	4.85

Max.Eff.Inten.(mm/hr)=	149.68		83.83					
over (min)	5.00		20.00					
Storage Coeff. (min)=	3.00 (ii)		15.32 (ii)					
Unit Hyd. Tpeak (min)=	5.00		20.00					
Unit Hyd. peak (cms)=	0.28		0.07					
					TOTALS			
PEAK FLOW (cms)=	0.00		0.15		0.150 (iii)			
TIME TO PEAK (hrs)=	1.33		1.58		1.58			
RUNOFF VOLUME (mm)=	63.91		34.73		34.76			
TOTAL RAINFALL (mm)=	64.91		64.91		64.91			
RUNOFF COEFFICIENT =	0.98		0.54		0.54			

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0107)
ID= 1 DT= 5.0 min

Area (ha)= 0.72
Total Imp(%)= 45.60 Dir. Conn.(%)= 3.50

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.33	0.39
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	69.28	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

Max.Eff.Inten.(mm/hr)=	166.18		19.60					
over (min)	5.00		20.00					
Storage Coeff. (min)=	0.55 (ii)		15.28 (ii)					
Unit Hyd. Tpeak (min)=	5.00		20.00					
Unit Hyd. peak (cms)=	0.34		0.07					
					TOTALS			
PEAK FLOW (cms)=	0.02		0.00		0.019 (iii)			
TIME TO PEAK (hrs)=	1.33		1.58		1.33			
RUNOFF VOLUME (mm)=	71.06		13.57		38.37			
TOTAL RAINFALL (mm)=	72.06		72.06		72.06			
RUNOFF COEFFICIENT =	0.99		0.19		0.53			

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0029)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0106):	1.58	0.150	1.58	34.76
+ ID2= 2 (0107):	0.72	0.091	1.50	39.37
ID = 3 (0029):	2.30	0.227	1.50	36.20

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0029)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0029):	2.30	0.227	1.50	36.20
+ ID2= 2 (0109):	120.60	2.537	2.75	22.35
ID = 1 (0029):	122.90	2.584	2.75	22.61

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0122)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0128):	41.94	0.294	4.25	26.74
+ ID2= 2 (0029):	122.90	2.584	2.75	22.61
ID = 3 (0122):	164.84	2.871	2.75	23.66

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0135)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0122):	164.84	2.871	2.75	23.66

+ ID2= 2 (0129):	59.70	0.186	2.67	25.14
ID = 3 (0135):	224.55	3.057	2.75	24.06

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
       V     V   I    SSSSS  U    U    A     L                (v 6.2.2020)
       V     V   I    SS     U    U   A A    L
        V   V    I      SS   U    U  AAAAA   L
         V V     I       SS  U    U  A   A   L
          V      I    SSSSS   UUUU   A   A   LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\813b6afc-4
Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\813b6afc-4

DATE: 02-17-2026 TIME: 11:15:59

USER:

COMMENTS: _____

```
  **********************************************
  ** SIMULATION : F. 50yr 4hr 10min Chicago C  **
  **********************************************
```

CHICAGO STORM
Ptotal= 72.06 mm

IDF curve parameters: A= 830.951
B= 0.000
C= 0.699
used in: INTENSITY = A / (t + B)^C

Duration of storm = 4.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	6.06	1.00	28.67	2.00	11.98	3.00	6.98
0.17	6.77	1.17	166.18	2.17	10.58	3.17	6.57
0.33	7.73	1.33	35.19	2.33	9.52	3.33	6.22
0.50	9.10	1.50	22.19	2.50	8.69	3.50	5.91
0.67	11.27	1.67	16.92	2.67	8.01	3.67	5.63
0.83	15.42	1.83	13.94	2.83	7.45	3.83	5.39

CALIB
STANDHYD (0133)
ID= 1 DT= 5.0 min

Area (ha)= 0.09
Total Imp(%)= 43.30 Dir. Conn.(%)= 43.30

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.04	0.05
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	5.00	2.00
Length (m)=	24.49	46.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr

---

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0133)	0.09	0.02	1.33	38.37
OUTFLOW: ID= 2(0134)	0.09	0.02	1.33	38.37

CALIB
NASHYD (0007)
ID= 1 DT= 5.0 min

Area (ha)= 4.92 Curve Number (CN)= 75.1
Ia (mm)= 4.65 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.55

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

Unit Hyd Qpeak (cms)= 0.121

PEAK FLOW (cms)= 0.110 (i)
TIME TO PEAK (hrs)= 3.417
RUNOFF VOLUME (mm)= 29.970
TOTAL RAINFALL (mm)= 72.062
RUNOFF COEFFICIENT = 0.416

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0057)

Area (ha)= 1.06 Curve Number (CN)= 55.0

|ID= 1 DT= 5.0 min | Ia (mm)= 4.72 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.15

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.058 (i)
TIME TO PEAK (hrs)= 1.417
RUNOFF VOLUME (mm)= 16.386
TOTAL RAINFALL (mm)= 72.062
RUNOFF COEFFICIENT = 0.227

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0115) | Area (ha)= 0.78 Curve Number (CN)= 76.9
|ID= 1 DT= 5.0 min | Ia (mm)= 5.10 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

Unit Hyd Qpeak (cms)= 0.025

PEAK FLOW (cms)= 0.022 (i)
TIME TO PEAK (hrs)= 2.833
RUNOFF VOLUME (mm)= 31.296
TOTAL RAINFALL (mm)= 72.062
RUNOFF COEFFICIENT = 0.434

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0103) | Area (ha)= 0.33 Curve Number (CN)= 49.0
|ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.13

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

Unit Hyd Qpeak (cms)= 0.097

PEAK FLOW (cms)= 0.015 (i)
TIME TO PEAK (hrs)= 1.417
RUNOFF VOLUME (mm)= 13.434
TOTAL RAINFALL (mm)= 72.062
RUNOFF COEFFICIENT = 0.186

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0104) | Area (ha)= 0.20 Curve Number (CN)= 53.9
|ID= 1 DT= 5.0 min | Ia (mm)= 4.70 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.76

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

Unit Hyd Qpeak (cms)= 0.010

PEAK FLOW (cms)= 0.004 (i)
TIME TO PEAK (hrs)= 2.333
RUNOFF VOLUME (mm)= 15.934
TOTAL RAINFALL (mm)= 72.062
RUNOFF COEFFICIENT = 0.221

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0003) | Area (ha)= 5.31
|ID= 1 DT= 5.0 min | Total Imp(%)= 39.70 Dir. Conn.(%)= 25.20

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.11	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	2.10	2.00
Length (m)=	188.15	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

Max.Eff.Inten.(mm/hr)= 166.18 70.60
over (min) 5.00 10.00
Storage Coeff. (min)= 2.44 (ii) 9.93 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.30 0.11

		TOTALS
PEAK FLOW	(cms)=	0.61 0.39 0.914 (iii)
TIME TO PEAK	(hrs)=	1.33 1.42 1.33
RUNOFF VOLUME	(mm)=	71.06 27.63 38.57
TOTAL RAINFALL	(mm)=	72.06 72.06 72.06
RUNOFF COEFFICIENT	=	0.99 0.38 0.54

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 67.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0052) | Area (ha)= 9.07
|ID= 1 DT= 5.0 min | Total Imp(%)= 64.70 Dir. Conn.(%)= 32.30

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	5.87	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	245.90	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

Max.Eff.Inten.(mm/hr)= 166.18 90.67
over (min) 5.00 15.00
Storage Coeff. (min)= 4.86 (ii) 11.64 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.22 0.09

		TOTALS
PEAK FLOW	(cms)=	1.21 0.44 1.432 (iii)
TIME TO PEAK	(hrs)=	1.33 1.50 1.33
RUNOFF VOLUME	(mm)=	71.06 23.46 38.83
TOTAL RAINFALL	(mm)=	72.06 72.06 72.06
RUNOFF COEFFICIENT	=	0.99 0.33 0.54

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0053) | Area (ha)= 5.41
|ID= 1 DT= 5.0 min | Total Imp(%)= 70.00 Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	3.79	1.62
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	189.91	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

Max.Eff.Inten.(mm/hr)= 166.18 22.87
over (min) 5.00 15.00
Storage Coeff. (min)= 2.21 (ii) 13.96 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.30 0.08

		TOTALS
PEAK FLOW	(cms)=	0.34 0.11 0.396 (iii)
TIME TO PEAK	(hrs)=	1.33 1.50 1.33

CALIB
STANDHYD (0056) | Area (ha)= 3.62
|ID= 1 DT= 5.0 min | Total Imp(%)= 26.60 Dir. Conn.(%)= 20.80

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.96	2.66
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	155.35	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

Max.Eff.Inten.(mm/hr)= 166.18 124.89
over (min) 5.00 10.00
Storage Coeff. (min)= 4.16 (ii) 9.16 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.24 0.12

		TOTALS
PEAK FLOW	(cms)=	0.81 0.36 1.099 (iii)
TIME TO PEAK	(hrs)=	1.33 1.42 1.33
RUNOFF VOLUME	(mm)=	71.06 27.81 42.95
TOTAL RAINFALL	(mm)=	72.06 72.06 72.06
RUNOFF COEFFICIENT	=	0.99 0.39 0.60

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.7 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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     RUNOFF VOLUME    (mm)=      71.06        14.55          26.30
     TOTAL RAINFALL   (mm)=      72.06        72.06          72.06
     RUNOFF COEFFICIENT   =       0.99         0.20           0.37

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0     Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| CALIB             |
| STANDHYD (  0108) |   Area    (ha)=   1.00
|ID= 1 DT= 5.0 min  |   Total Imp(%)=  24.00   Dir. Conn.(%)=   0.10
-------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      0.24         0.76
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      0.36         2.00
     Length            (m)=     81.65        90.00
     Mannings n             =    0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    6.06 | 1.083   28.67 | 2.083   11.98 |  3.08    6.98
     0.167    6.06 | 1.167   28.67 | 2.167   11.98 |  3.17    6.98
     0.250    6.77 | 1.250  166.18 | 2.250   10.58 |  3.25    6.57
     0.333    6.77 | 1.333  166.18 | 2.333   10.58 |  3.33    6.57
     0.417    7.73 | 1.417   35.19 | 2.417    9.52 |  3.42    6.22
     0.500    7.73 | 1.500   35.19 | 2.500    9.52 |  3.50    6.22
     0.583    9.10 | 1.583   22.19 | 2.583    8.69 |  3.58    5.91
     0.667    9.10 | 1.667   22.19 | 2.667    8.69 |  3.67    5.91
     0.750   11.27 | 1.750   16.92 | 2.750    8.01 |  3.75    5.63
     0.833   11.27 | 1.833   16.92 | 2.833    8.01 |  3.83    5.63
     0.917   15.42 | 1.917   13.94 | 2.917    7.45 |  3.92    5.39
     1.000   15.42 | 2.000   13.94 | 3.000    7.45 |  4.00    5.39

     Max.Eff.Inten.(mm/hr)=     166.18        29.05
               over (min)          5.00        25.00
     Storage Coeff.  (min)=       2.51 (ii)   21.33 (ii)
     Unit Hyd. Tpeak (min)=       5.00        25.00
     Unit Hyd. peak  (cms)=       0.29         0.05
                                                      *TOTALS*
     PEAK FLOW       (cms)=       0.00         0.03      0.034 (iii)
     TIME TO PEAK    (hrs)=       1.33         1.67       1.67
     RUNOFF VOLUME    (mm)=      71.06        17.30      17.34
     TOTAL RAINFALL   (mm)=      72.06        72.06      72.06
     RUNOFF COEFFICIENT   =       0.99         0.24       0.24

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
           YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0     Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0103):     0.33    0.015    1.42     13.43
     + ID2= 2 (  0104):     0.20    0.004    2.33     15.93
       ==========================================
       ID = 3 (  0032):     0.53    0.016    1.42     14.38

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
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       ID1= 3 (  0032):     0.53    0.016    1.42     14.38
     + ID2= 2 (  0108):     1.00    0.034    1.67     17.34
       ==========================================
       ID = 1 (  0032):     1.53    0.044    1.67     16.31

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):     1.53    0.044    1.67     16.31
     + ID2= 2 (  0115):     0.78    0.022    2.83     31.30
       ==========================================
       ID = 3 (  0032):     2.31    0.051    1.67     21.37

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):     2.31    0.051    1.67     21.37
     + ID2= 2 (  0003):     5.31    0.914    1.33     38.57
       ==========================================
       ID = 1 (  0032):     7.62    0.940    1.33     33.36

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):     7.62    0.940    1.33     33.36
     + ID2= 2 (  0052):     9.07    1.432    1.33     38.83
       ==========================================
       ID = 3 (  0032):    16.69    2.372    1.33     36.33

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):    16.69    2.372    1.33     36.33
     + ID2= 2 (  0053):     5.41    1.099    1.33     42.95
       ==========================================
       ID = 1 (  0032):    22.10    3.471    1.33     37.95

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):    22.10    3.471    1.33     37.95
     + ID2= 2 (  0056):     3.62    0.396    1.33     26.30
       ==========================================
       ID = 3 (  0032):    25.72    3.867    1.33     36.31

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):    25.72    3.867    1.33     36.31
     + ID2= 2 (  0057):     1.06    0.058    1.42     16.39
       ==========================================
       ID = 1 (  0032):    26.78    3.916    1.33     35.52

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
```

```
       ID1= 1 (  0032):    26.78    3.916    1.33     35.52
     + ID2= 2 (  0007):     4.92    0.110    3.42     29.97
       ==========================================
       ID = 3 (  0032):    31.70    3.919    1.33     34.66

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
-------------------
| CALIB             |
| STANDHYD (  0004) |   Area    (ha)=   8.04
|ID= 1 DT= 5.0 min  |   Total Imp(%)=  70.00   Dir. Conn.(%)=  35.00
-------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      5.63         2.41
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      0.36         2.00
     Length            (m)=    231.52        35.00
     Mannings n             =    0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    6.06 | 1.083   28.67 | 2.083   11.98 |  3.08    6.98
     0.167    6.06 | 1.167   28.67 | 2.167   11.98 |  3.17    6.98
     0.250    6.77 | 1.250  166.18 | 2.250   10.58 |  3.25    6.57
     0.333    6.77 | 1.333  166.18 | 2.333   10.58 |  3.33    6.57
     0.417    7.73 | 1.417   35.19 | 2.417    9.52 |  3.42    6.22
     0.500    7.73 | 1.500   35.19 | 2.500    9.52 |  3.50    6.22
     0.583    9.10 | 1.583   22.19 | 2.583    8.69 |  3.58    5.91
     0.667    9.10 | 1.667   22.19 | 2.667    8.69 |  3.67    5.91
     0.750   11.27 | 1.750   16.92 | 2.750    8.01 |  3.75    5.63
     0.833   11.27 | 1.833   16.92 | 2.833    8.01 |  3.83    5.63
     0.917   15.42 | 1.917   13.94 | 2.917    7.45 |  3.92    5.39
     1.000   15.42 | 2.000   13.94 | 3.000    7.45 |  4.00    5.39

     Max.Eff.Inten.(mm/hr)=     166.18       245.14
               over (min)          5.00        10.00
     Storage Coeff.  (min)=       4.69 (ii)    9.69 (ii)
     Unit Hyd. Tpeak (min)=       5.00        10.00
     Unit Hyd. peak  (cms)=       0.22         0.11
                                                      *TOTALS*
     PEAK FLOW       (cms)=       1.17         1.01      2.030 (iii)
     TIME TO PEAK    (hrs)=       1.33         1.42       1.33
     RUNOFF VOLUME    (mm)=      71.06        48.21      56.21
     TOTAL RAINFALL   (mm)=      72.06        72.06      72.06
     RUNOFF COEFFICIENT   =       0.99         0.67       0.78

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0     Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
-------------------
| CALIB             |
| STANDHYD (  0054) |   Area    (ha)=   8.46
|ID= 1 DT= 5.0 min  |   Total Imp(%)=  59.70   Dir. Conn.(%)=  25.90
-------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      5.05         3.41
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      1.59         2.00
     Length            (m)=    237.49        35.00
     Mannings n             =    0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    6.06 | 1.083   28.67 | 2.083   11.98 |  3.08    6.98
     0.167    6.06 | 1.167   28.67 | 2.167   11.98 |  3.17    6.98
     0.250    6.77 | 1.250  166.18 | 2.250   10.58 |  3.25    6.57
     0.333    6.77 | 1.333  166.18 | 2.333   10.58 |  3.33    6.57
     0.417    7.73 | 1.417   35.19 | 2.417    9.52 |  3.42    6.22
     0.500    7.73 | 1.500   35.19 | 2.500    9.52 |  3.50    6.22
     0.583    9.10 | 1.583   22.19 | 2.583    8.69 |  3.58    5.91
```

```
     0.667    9.10 | 1.667   22.19 | 2.667    8.69 |  3.67    5.91
     0.750   11.27 | 1.750   16.92 | 2.750    8.01 |  3.75    5.63
     0.833   11.27 | 1.833   16.92 | 2.833    8.01 |  3.83    5.63
     0.917   15.42 | 1.917   13.94 | 2.917    7.45 |  3.92    5.39
     1.000   15.42 | 2.000   13.94 | 3.000    7.45 |  4.00    5.39

     Max.Eff.Inten.(mm/hr)=     166.18       192.81
               over (min)          5.00        10.00
     Storage Coeff.  (min)=       3.05 (ii)    8.06 (ii)
     Unit Hyd. Tpeak (min)=       5.00        10.00
     Unit Hyd. peak  (cms)=       0.27         0.13
                                                      *TOTALS*
     PEAK FLOW       (cms)=       0.98         1.22      2.027 (iii)
     TIME TO PEAK    (hrs)=       1.33         1.42       1.33
     RUNOFF VOLUME    (mm)=      71.06        45.34      52.00
     TOTAL RAINFALL   (mm)=      72.06        72.06      72.06
     RUNOFF COEFFICIENT   =       0.99         0.63       0.72

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0     Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| ADD HYD  (  0055)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0004):     8.04    2.030    1.33     56.21
     + ID2= 2 (  0054):     8.46    2.027    1.33     52.00
       ==========================================
       ID = 3 (  0055):    16.50    4.057    1.33     54.05

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0060)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):    31.70    3.919    1.33     34.66
     + ID2= 2 (  0055):    16.50    4.057    1.33     54.05
       ==========================================
       ID = 3 (  0060):    48.20    7.976    1.33     41.30

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

  -------------------------
  | Junction Command(0025) |
  -------------------------

                          AREA     QPEAK    TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 1(  0060)   48.20     7.98     1.33     41.30
  OUTFLOW: ID= 2(  0025)   48.20     7.98     1.33     41.30

--------------------------------------------------------------------------------
-------------------
| CALIB             |
| NASHYD  (  0110)  |   Area    (ha)=   9.49   Curve Number   (CN)= 56.7
|ID= 1 DT= 5.0 min  |   Ia      (mm)=   4.53   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.25

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    6.06 | 1.083   28.67 | 2.083   11.98 |  3.08    6.98
     0.167    6.06 | 1.167   28.67 | 2.167   11.98 |  3.17    6.98
     0.250    6.77 | 1.250  166.18 | 2.250   10.58 |  3.25    6.57
     0.333    6.77 | 1.333  166.18 | 2.333   10.58 |  3.33    6.57
     0.417    7.73 | 1.417   35.19 | 2.417    9.52 |  3.42    6.22
     0.500    7.73 | 1.500   35.19 | 2.500    9.52 |  3.50    6.22
     0.583    9.10 | 1.583   22.19 | 2.583    8.69 |  3.58    5.91
     0.667    9.10 | 1.667   22.19 | 2.667    8.69 |  3.67    5.91
     0.750   11.27 | 1.750   16.92 | 2.750    8.01 |  3.75    5.63
     0.833   11.27 | 1.833   16.92 | 2.833    8.01 |  3.83    5.63
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              0.917   15.42 | 1.917   13.94 | 2.917    7.45 |  3.92    5.39
              1.000   15.42 | 2.000   13.94 | 3.000    7.45 |  4.00    5.39

    Unit Hyd Qpeak  (cms)=   1.450

    PEAK FLOW       (cms)=   0.392 (i)
    TIME TO PEAK    (hrs)=   1.583
    RUNOFF VOLUME    (mm)=  17.426
    TOTAL RAINFALL   (mm)=  72.062
    RUNOFF COEFFICIENT   =   0.242

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  ---------------------------
  | Junction Command(0062) |
  ---------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)    (hrs)    (mm)
  INFLOW : ID= 2(  0110)    9.49     0.39    1.58    17.43
  OUTFLOW: ID= 2(  0062)    9.49     0.39    1.58    17.43

-------------------------------------------------------------------------------

------------------
| CALIB          |
| STANDHYD (  0028)|   Area    (ha)=   6.40
|ID= 1 DT= 5.0 min |   Total Imp(%)=  50.00   Dir. Conn.(%)=  50.00
------------------

                        IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=      3.20         3.20
    Dep. Storage     (mm)=      1.00         5.00
    Average Slope     (%)=      0.36         2.00
    Length            (m)=    206.56        90.00
    Mannings n           =     0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                    ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.06 | 1.083   28.67 | 2.083   11.98 |  3.08    6.98
0.167    6.06 | 1.167   28.67 | 2.167   11.98 |  3.17    6.98
0.250    6.77 | 1.250  166.18 | 2.250   10.58 |  3.25    6.57
0.333    6.77 | 1.333  166.18 | 2.333   10.58 |  3.33    6.57
0.417    7.73 | 1.417   35.19 | 2.417    9.52 |  3.42    6.22
0.500    7.73 | 1.500   35.19 | 2.500    9.52 |  3.50    6.22
0.583    9.10 | 1.583   22.19 | 2.583    8.69 |  3.58    5.91
0.667    9.10 | 1.667   22.19 | 2.667    8.69 |  3.67    5.91
0.750   11.27 | 1.750   16.92 | 2.750    8.01 |  3.75    5.63
0.833   11.27 | 1.833   16.92 | 2.833    8.01 |  3.83    5.63
0.917   15.42 | 1.917   13.94 | 2.917    7.45 |  3.92    5.39
1.000   15.42 | 2.000   13.94 | 3.000    7.45 |  4.00    5.39

    Max.Eff.Inten.(mm/hr)=    166.18        54.65
              over (min)        5.00        20.00
    Storage Coeff.  (min)=    4.38 (ii)   19.00 (ii)
    Unit Hyd. Tpeak (min)=    5.00        20.00
    Unit Hyd. peak  (cms)=    0.23         0.06
                                                  *TOTALS*
    PEAK FLOW       (cms)=    1.35         0.25      1.444 (iii)
    TIME TO PEAK    (hrs)=    1.33         1.58       1.33
    RUNOFF VOLUME    (mm)=   71.06        33.42      52.24
    TOTAL RAINFALL   (mm)=   72.06        72.06      72.06
    RUNOFF COEFFICIENT   =    0.99         0.46       0.72

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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------------------
| CALIB          |
| STANDHYD (  0111)|   Area    (ha)=  28.77
|ID= 1 DT= 5.0 min |   Total Imp(%)=  24.70   Dir. Conn.(%)=  15.70
------------------

                        IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=      7.11        21.66
```

```
    Dep. Storage     (mm)=      1.00         5.00
    Average Slope     (%)=      0.36         2.00
    Length            (m)=    437.95        90.00
    Mannings n           =     0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                    ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.06 | 1.083   28.67 | 2.083   11.98 |  3.08    6.98
0.167    6.06 | 1.167   28.67 | 2.167   11.98 |  3.17    6.98
0.250    6.77 | 1.250  166.18 | 2.250   10.58 |  3.25    6.57
0.333    6.77 | 1.333  166.18 | 2.333   10.58 |  3.33    6.57
0.417    7.73 | 1.417   35.19 | 2.417    9.52 |  3.42    6.22
0.500    7.73 | 1.500   35.19 | 2.500    9.52 |  3.50    6.22
0.583    9.10 | 1.583   22.19 | 2.583    8.69 |  3.58    5.91
0.667    9.10 | 1.667   22.19 | 2.667    8.69 |  3.67    5.91
0.750   11.27 | 1.750   16.92 | 2.750    8.01 |  3.75    5.63
0.833   11.27 | 1.833   16.92 | 2.833    8.01 |  3.83    5.63
0.917   15.42 | 1.917   13.94 | 2.917    7.45 |  3.92    5.39
1.000   15.42 | 2.000   13.94 | 3.000    7.45 |  4.00    5.39

    Max.Eff.Inten.(mm/hr)=    166.18        18.41
              over (min)        5.00        30.00
    Storage Coeff.  (min)=    6.87 (ii)   29.46 (ii)
    Unit Hyd. Tpeak (min)=    5.00        30.00
    Unit Hyd. peak  (cms)=    0.18         0.04
                                                  *TOTALS*
    PEAK FLOW       (cms)=    1.67         0.58      1.793 (iii)
    TIME TO PEAK    (hrs)=    1.33         1.75       1.33
    RUNOFF VOLUME    (mm)=   71.06        15.04      23.84
    TOTAL RAINFALL   (mm)=   72.06        72.06      72.06
    RUNOFF COEFFICIENT   =    0.99         0.21       0.33

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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------------------
| CALIB          |
| STANDHYD (  0119)|   Area    (ha)=   2.72
|ID= 1 DT= 5.0 min |   Total Imp(%)=  55.90   Dir. Conn.(%)=  27.20
------------------

                        IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=      1.52         1.20
    Dep. Storage     (mm)=      1.00         5.00
    Average Slope     (%)=      0.50         2.00
    Length            (m)=    134.66        25.00
    Mannings n           =     0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                    ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.06 | 1.083   28.67 | 2.083   11.98 |  3.08    6.98
0.167    6.06 | 1.167   28.67 | 2.167   11.98 |  3.17    6.98
0.250    6.77 | 1.250  166.18 | 2.250   10.58 |  3.25    6.57
0.333    6.77 | 1.333  166.18 | 2.333   10.58 |  3.33    6.57
0.417    7.73 | 1.417   35.19 | 2.417    9.52 |  3.42    6.22
0.500    7.73 | 1.500   35.19 | 2.500    9.52 |  3.50    6.22
0.583    9.10 | 1.583   22.19 | 2.583    8.69 |  3.58    5.91
0.667    9.10 | 1.667   22.19 | 2.667    8.69 |  3.67    5.91
0.750   11.27 | 1.750   16.92 | 2.750    8.01 |  3.75    5.63
0.833   11.27 | 1.833   16.92 | 2.833    8.01 |  3.83    5.63
0.917   15.42 | 1.917   13.94 | 2.917    7.45 |  3.92    5.39
1.000   15.42 | 2.000   13.94 | 3.000    7.45 |  4.00    5.39

    Max.Eff.Inten.(mm/hr)=    166.18        67.90
              over (min)        5.00        10.00
    Storage Coeff.  (min)=    3.07 (ii)    9.28 (ii)
    Unit Hyd. Tpeak (min)=    5.00        10.00
    Unit Hyd. peak  (cms)=    0.27         0.12
                                                  *TOTALS*
    PEAK FLOW       (cms)=    0.33         0.15        0.445 (iii)
```

```
    TIME TO PEAK    (hrs)=      1.33         1.42          1.33
    RUNOFF VOLUME    (mm)=     71.06        20.79         34.47
    TOTAL RAINFALL   (mm)=     72.06        72.06         72.06
    RUNOFF COEFFICIENT   =      0.99         0.29          0.48

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0118)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0111):    28.77    1.793     1.33    23.84
    + ID2= 2 (  0119):     2.72    0.445     1.33    34.47
      ==============================================
      ID = 3 (  0118):    31.49    2.238     1.33    24.76

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0001)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0118):    31.49    2.238     1.33    24.76
    + ID2= 2 (  0025):    48.20    7.976     1.33    41.30
      ==============================================
      ID = 3 (  0001):    79.69   10.214     1.33    34.76

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0001)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0001):    79.69   10.214     1.33    34.76
    + ID2= 2 (  0028):     6.40    1.444     1.33    52.24
      ==============================================
      ID = 1 (  0001):    86.09   11.658     1.33    36.06

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0001)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0001):    86.09   11.658     1.33    36.06
    + ID2= 2 (  0062):     9.49    0.392     1.58    17.43
      ==============================================
      ID = 3 (  0001):    95.58   11.867     1.33    34.21

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------

-------------------
| RESERVOIR(  0002)|    OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |    OUTFLOW    STORAGE    |  OUTFLOW    STORAGE
-------------------      (cms)     (ha.m.)    |   (cms)     (ha.m.)
                          0.0000     0.0000    |    0.4660      3.2040
                          0.0000     0.2740    |    0.4720      3.3550
                          0.0420     0.5580    |    2.3890      3.4690
                          0.0680     0.8520    |    2.5030      3.5840
                          0.0860     1.1550    |    2.8990      3.9750
                          0.3770     1.4690    |    4.0830      4.4020
                          0.3970     1.7940    |    7.8030      4.8410
                          0.4160     2.1300    |   13.0620      5.2840
                          0.4340     2.4770    |   19.5770      5.7300
                          0.4500     2.8350    |   27.2220      6.1800

                             AREA     QPEAK     TPEAK      R.V.
                             (ha)     (cms)     (hrs)      (mm)
   INFLOW : ID= 2 (  0001)    95.580    11.867     1.33      34.21
   OUTFLOW: ID= 1 (  0002)    95.580     0.446     4.25      31.33

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=  3.76
```

```
                  TIME SHIFT OF PEAK FLOW         (min)=175.00
                  MAXIMUM  STORAGE   USED        (ha.m.)=  2.7369

-------------------------------------------------------------------------------

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| DIVERTHYD(  0123)|
| IN= 1   # OUT= 5 |
-------------------
     Outflow / Inflow  Relationships

      Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total
       (cms)    (cms)    (cms)    (cms)    (cms)    (cms)
        0.00     0.00     0.00     0.00     0.00     0.00
        0.00     0.00     0.00     0.00     0.00     0.00
        0.00     0.00     0.00     0.00     0.00     0.00
        0.04     0.00     0.00     0.00     0.00     0.04
        0.07     0.00     0.00     0.00     0.00     0.07
        0.09     0.00     0.00     0.00     0.00     0.09
        0.10     0.28     0.00     0.00     0.00     0.38
        0.12     0.28     0.00     0.00     0.00     0.40
        0.13     0.29     0.00     0.00     0.00     0.42
        0.14     0.30     0.00     0.00     0.00     0.43
        0.15     0.30     0.00     0.00     0.00     0.45
        0.16     0.31     0.00     0.00     0.00     0.47
        0.16     0.31     0.00     0.00     0.00     0.47
        0.16     2.23     0.00     0.00     0.00     2.39
        0.17     2.34     0.00     0.00     0.00     2.50
        0.17     2.73     0.00     0.00     0.00     2.90
        0.18     2.93     0.00     0.00     0.00     3.11

                          AREA     QPEAK     TPEAK      R.V.
                          (ha)     (cms)     (hrs)      (mm)
    TOTAL HYD.(ID= 1):   95.58      0.45      4.25     31.33
    ==============================================
    ID= 2  (   2)    :   50.33      0.14      4.25     31.33
    ID= 3  (   2)    :   45.25      0.30      4.25     31.33
    ID= 4  (   2)    :    0.00      0.00      0.00      0.00
    ID= 5  (   2)    :    0.00      0.00      0.00      0.00
    ID= 6  (   2)    :    0.00      0.00      0.00      0.00

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  ---------------------------
  | Junction Command(0124) |
  ---------------------------

                          AREA     QPEAK    TPEAK     R.V.
                          (ha)     (cms)     (hrs)    (mm)
  INFLOW : ID= 1(  0123)   50.33     0.14     4.25    31.33
  OUTFLOW: ID= 2(  0124)   50.33     0.14     4.25    31.33

-------------------------------------------------------------------------------

------------------
| CALIB          |
| NASHYD   (  0130)|   Area    (ha)=   5.38   Curve Number   (CN)= 46.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.05   # of Linear Res.(N)= 3.00
------------------   U.H. Tp(hrs)=   0.87

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                    ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
0.083    6.06 | 1.083   28.67 | 2.083   11.98 |  3.08    6.98
0.167    6.06 | 1.167   28.67 | 2.167   11.98 |  3.17    6.98
0.250    6.77 | 1.250  166.18 | 2.250   10.58 |  3.25    6.57
0.333    6.77 | 1.333  166.18 | 2.333   10.58 |  3.33    6.57
0.417    7.73 | 1.417   35.19 | 2.417    9.52 |  3.42    6.22
0.500    7.73 | 1.500   35.19 | 2.500    9.52 |  3.50    6.22
0.583    9.10 | 1.583   22.19 | 2.583    8.69 |  3.58    5.91
0.667    9.10 | 1.667   22.19 | 2.667    8.69 |  3.67    5.91
0.750   11.27 | 1.750   16.92 | 2.750    8.01 |  3.75    5.63
0.833   11.27 | 1.833   16.92 | 2.833    8.01 |  3.83    5.63
0.917   15.42 | 1.917   13.94 | 2.917    7.45 |  3.92    5.39
1.000   15.42 | 2.000   13.94 | 3.000    7.45 |  4.00    5.39

    Unit Hyd Qpeak  (cms)=   0.236

    PEAK FLOW       (cms)=   0.069 (i)
    TIME TO PEAK    (hrs)=   2.500
    RUNOFF VOLUME    (mm)=  12.283
    TOTAL RAINFALL   (mm)=  72.062
    RUNOFF COEFFICIENT   =   0.170
```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	STANDHYD (0132)	ID= 1 DT= 5.0 min	Area (ha)= 0.69	Total Imp(%)= 42.00	Dir. Conn.(%)= 3.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.29	0.40
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	67.82	170.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.06	1.083	28.67	2.083	11.98	3.08	6.98
0.167	6.06	1.167	28.67	2.167	11.98	3.17	6.98
0.250	6.77	1.250	166.18	2.250	10.58	3.25	6.57
0.333	6.77	1.333	166.18	2.333	10.58	3.33	6.57
0.417	7.73	1.417	35.19	2.417	9.52	3.42	6.22
0.500	7.73	1.500	35.19	2.500	9.52	3.50	6.22
0.583	9.10	1.583	22.19	2.583	8.69	3.58	5.91
0.667	9.10	1.667	22.19	2.667	8.69	3.67	5.91
0.750	11.27	1.750	16.92	2.750	8.01	3.75	5.63
0.833	11.27	1.833	16.92	2.833	8.01	3.83	5.63
0.917	15.42	1.917	13.94	2.917	7.45	3.92	5.39
1.000	15.42	2.000	13.94	3.000	7.45	4.00	5.39

| | | |

| Ptotal= 79.22 mm |

B= 0.000
C= 0.699
used in: INTENSITY = A / (t + B)^C

Duration of storm = 4.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	6.66	1.00	31.52	2.00	13.17	3.00	7.67
0.17	7.44	1.17	182.68	2.17	11.63	3.17	7.23
0.33	8.49	1.33	38.68	2.33	10.47	3.33	6.84
0.50	10.00	1.50	24.39	2.50	9.55	3.50	6.50
0.67	12.39	1.67	18.60	2.67	8.81	3.67	6.19
0.83	16.95	1.83	15.32	2.83	8.19	3.83	5.92

| CALIB
| STANDHYD (0133)| Area (ha)= 0.09
|ID= 1 DT= 5.0 min | Total Imp(%)= 43.30 Dir. Conn.(%)= 43.30

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.04	0.05
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	5.00	2.00
Length (m)=	24.49	46.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

			TOTALS
Max.Eff.Inten.(mm/hr)=	182.68	23.75	
over (min)	5.00	15.00	
Storage Coeff. (min)=	0.53 (ii)	14.17 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.34	0.08	
PEAK FLOW (cms)=	0.02	0.00	0.021 (iii)
TIME TO PEAK (hrs)=	1.33	1.50	1.33
RUNOFF VOLUME (mm)=	78.22	16.27	42.99
TOTAL RAINFALL (mm)=	79.22	79.22	79.22
RUNOFF COEFFICIENT =	0.99	0.21	0.54

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| Junction Command(0134) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0133)	0.09	0.02	1.33	42.99
OUTFLOW: ID= 2(0134)	0.09	0.02	1.33	42.99

| CALIB |

| NASHYD (0007)| Area (ha)= 4.92 Curve Number (CN)= 75.1
|ID= 1 DT= 5.0 min | Ia (mm)= 4.65 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 1.55

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Unit Hyd Qpeak (cms)= 0.121

PEAK FLOW (cms)= 0.128 (i)
TIME TO PEAK (hrs)= 3.417
RUNOFF VOLUME (mm)= 35.017
TOTAL RAINFALL (mm)= 79.216
RUNOFF COEFFICIENT = 0.442

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| NASHYD (0057)| Area (ha)= 1.06 Curve Number (CN)= 55.0
|ID= 1 DT= 5.0 min | Ia (mm)= 4.72 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.15

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.069 (i)
TIME TO PEAK (hrs)= 1.417
RUNOFF VOLUME (mm)= 19.544
TOTAL RAINFALL (mm)= 79.216
RUNOFF COEFFICIENT = 0.247

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| NASHYD (0115)| Area (ha)= 0.78 Curve Number (CN)= 76.9
|ID= 1 DT= 5.0 min | Ia (mm)= 5.10 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 1.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67

0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Unit Hyd Qpeak (cms)= 0.025

PEAK FLOW (cms)= 0.026 (i)
TIME TO PEAK (hrs)= 2.833
RUNOFF VOLUME (mm)= 36.517
TOTAL RAINFALL (mm)= 79.216
RUNOFF COEFFICIENT = 0.461

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| NASHYD (0103)| Area (ha)= 0.33 Curve Number (CN)= 49.0
|ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.13

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Unit Hyd Qpeak (cms)= 0.097

PEAK FLOW (cms)= 0.019 (i)
TIME TO PEAK (hrs)= 1.417
RUNOFF VOLUME (mm)= 16.106
TOTAL RAINFALL (mm)= 79.216
RUNOFF COEFFICIENT = 0.203

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| NASHYD (0104)| Area (ha)= 0.20 Curve Number (CN)= 53.9
|ID= 1 DT= 5.0 min | Ia (mm)= 4.70 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.76

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Unit Hyd Qpeak (cms)= 0.010

PEAK FLOW (cms)= 0.004 (i)
TIME TO PEAK (hrs)= 2.250
RUNOFF VOLUME (mm)= 19.022
TOTAL RAINFALL (mm)= 79.216
RUNOFF COEFFICIENT = 0.240

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0003)| Area (ha)= 5.31
|ID= 1 DT= 5.0 min | Total Imp(%)= 39.70 Dir. Conn.(%)= 25.20

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.11	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	2.10	2.00
Length (m)=	188.15	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

			TOTALS
PEAK FLOW (cms)=	0.67	0.48	1.049 (iii)
TIME TO PEAK (hrs)=	1.33	1.42	1.33
RUNOFF VOLUME (mm)=	78.22	32.36	43.92
TOTAL RAINFALL (mm)=	79.22	79.22	79.22
RUNOFF COEFFICIENT =	0.99	0.41	0.55

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 67.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0052)| Area (ha)= 9.07
|ID= 1 DT= 5.0 min | Total Imp(%)= 64.70 Dir. Conn.(%)= 32.30

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	5.87	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	245.90	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23

	0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
	0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
	0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
	0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
	0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
	0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
	0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
	1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Max.Eff.Inten.(mm/hr)=	182.68	107.78	
over (min)	5.00	15.00	
Storage Coeff. (min)=	4.68 (ii)	11.00 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.22	0.09	
			TOTALS
PEAK FLOW (cms)=	1.34	0.53	1.617 (iii)
TIME TO PEAK (hrs)=	1.33	1.50	1.33
RUNOFF VOLUME (mm)=	78.22	27.58	43.93
TOTAL RAINFALL (mm)=	79.22	79.22	79.22
RUNOFF COEFFICIENT =	0.99	0.35	0.55

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0053)	Area (ha)= 5.41
ID= 1 DT= 5.0 min	Total Imp(%)= 70.00 Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	3.79	1.62
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	189.91	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Max.Eff.Inten.(mm/hr)=	182.68	147.48	
over (min)	5.00	10.00	
Storage Coeff. (min)=	4.01 (ii)	8.82 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.24	0.12	
			TOTALS
PEAK FLOW (cms)=	0.89	0.44	1.247 (iii)
TIME TO PEAK (hrs)=	1.33	1.42	1.33
RUNOFF VOLUME (mm)=	78.22	32.48	48.48
TOTAL RAINFALL (mm)=	79.22	79.22	79.22
RUNOFF COEFFICIENT =	0.99	0.41	0.61

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.7 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB

STANDHYD (0056)	Area (ha)= 3.62
ID= 1 DT= 5.0 min	Total Imp(%)= 26.60 Dir. Conn.(%)= 20.80

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.96	2.66
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	155.35	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Max.Eff.Inten.(mm/hr)=	182.68	35.69	
over (min)	5.00	15.00	
Storage Coeff. (min)=	2.12 (ii)	11.96 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.31	0.09	
			TOTALS
PEAK FLOW (cms)=	0.38	0.14	0.449 (iii)
TIME TO PEAK (hrs)=	1.33	1.50	1.33
RUNOFF VOLUME (mm)=	78.22	17.41	30.05
TOTAL RAINFALL (mm)=	79.22	79.22	79.22
RUNOFF COEFFICIENT =	0.99	0.22	0.38

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0108)	Area (ha)= 1.00
ID= 1 DT= 5.0 min	Total Imp(%)= 24.00 Dir. Conn.(%)= 0.10

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.24	0.76
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	81.65	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Max.Eff.Inten.(mm/hr)=	182.68	34.82	
over (min)	5.00	20.00	
Storage Coeff. (min)=	2.42 (ii)	19.92 (ii)	
Unit Hyd. Tpeak (min)=	5.00	20.00	
Unit Hyd. peak (cms)=	0.30	0.06	
			TOTALS
PEAK FLOW (cms)=	0.00	0.04	0.044 (iii)
TIME TO PEAK (hrs)=	1.33	1.58	1.58
RUNOFF VOLUME (mm)=	78.22	20.57	20.61
TOTAL RAINFALL (mm)=	79.22	79.22	79.22
RUNOFF COEFFICIENT =	0.99	0.26	0.26

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0032)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0103):	0.33	0.019	1.42	16.11
+ ID2= 2 (0104):	0.20	0.004	2.25	19.02
ID = 3 (0032):	0.53	0.020	1.42	17.21

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0032):	0.53	0.020	1.42	17.21
+ ID2= 2 (0108):	1.00	0.044	1.58	20.61
ID = 1 (0032):	1.53	0.057	1.58	19.43

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0032):	1.53	0.057	1.58	19.43
+ ID2= 2 (0115):	0.78	0.026	2.83	36.52
ID = 3 (0032):	2.31	0.064	1.58	25.20

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0032):	2.31	0.064	1.58	25.20
+ ID2= 2 (0003):	5.31	1.049	1.33	43.92
ID = 1 (0032):	7.62	1.084	1.33	38.24

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0032):	7.62	1.084	1.33	38.24
+ ID2= 2 (0052):	9.07	1.617	1.33	43.93
ID = 3 (0032):	16.69	2.701	1.33	41.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.

	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0032):	16.69	2.701	1.33	41.34
+ ID2= 2 (0053):	5.41	1.247	1.33	48.48
ID = 1 (0032):	22.10	3.948	1.33	43.09

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0032):	22.10	3.948	1.33	43.09
+ ID2= 2 (0056):	3.62	0.449	1.33	30.05
ID = 3 (0032):	25.72	4.396	1.33	41.25

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0032):	25.72	4.396	1.33	41.25
+ ID2= 2 (0057):	1.06	0.069	1.42	19.54
ID = 1 (0032):	26.78	4.455	1.33	40.39

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0032):	26.78	4.455	1.33	40.39
+ ID2= 2 (0007):	4.92	0.128	3.42	35.02
ID = 3 (0032):	31.70	4.459	1.33	39.56

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
STANDHYD (0004)	Area (ha)= 8.04
ID= 1 DT= 5.0 min	Total Imp(%)= 70.00 Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	5.63	2.41
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	231.52	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Max.Eff.Inten.(mm/hr)=	182.68	280.26	
over (min)	5.00	10.00	
Storage Coeff. (min)=	4.51 (ii)	9.33 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.23	0.12	
			TOTALS
PEAK FLOW (cms)=	1.30	1.18	2.308 (iii)
TIME TO PEAK (hrs)=	1.33	1.42	1.33
RUNOFF VOLUME (mm)=	78.22	54.73	62.95

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     TOTAL RAINFALL   (mm)=      79.22        79.22          79.22
     RUNOFF COEFFICIENT   =       0.99         0.69           0.79

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| CALIB              |
| STANDHYD (  0054)  |   Area    (ha)=   8.46
|ID= 1 DT= 5.0 min   |   Total Imp(%)=  59.70   Dir. Conn.(%)=  25.90
--------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      5.05         3.41
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      1.59         2.00
     Length            (m)=    237.49        35.00
     Mannings n             =    0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |' TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'  hrs   mm/hr |   hrs   mm/hr
 0.083    6.66 | 1.083   31.52 | 2.083   13.17 |  3.08    7.67
 0.167    6.66 | 1.167   31.52 | 2.167   13.17 |  3.17    7.67
 0.250    7.44 | 1.250  182.68 | 2.250   11.63 |  3.25    7.23
 0.333    7.44 | 1.333  182.68 | 2.333   11.63 |  3.33    7.23
 0.417    8.49 | 1.417   38.68 | 2.417   10.47 |  3.42    6.84
 0.500    8.49 | 1.500   38.68 | 2.500   10.47 |  3.50    6.84
 0.583   10.00 | 1.583   24.39 | 2.583    9.55 |  3.58    6.50
 0.667   10.00 | 1.667   24.39 | 2.667    9.55 |  3.67    6.50
 0.750   12.39 | 1.750   18.60 | 2.750    8.81 |  3.75    6.19
 0.833   12.39 | 1.833   18.60 | 2.833    8.81 |  3.83    6.19
 0.917   16.95 | 1.917   15.32 | 2.917    8.19 |  3.92    5.92
 1.000   16.95 | 2.000   15.32 | 3.000    8.19 |  4.00    5.92

     Max.Eff.Inten.(mm/hr)=     182.68       221.72
               over (min)         5.00        10.00
     Storage Coeff.  (min)=       2.94 (ii)    7.67 (ii)
     Unit Hyd. Tpeak (min)=       5.00        10.00
     Unit Hyd. peak  (cms)=       0.28         0.13
                                                      *TOTALS*
     PEAK FLOW       (cms)=       1.08         1.42          2.324 (iii)
     TIME TO PEAK    (hrs)=       1.33         1.42          1.33
     RUNOFF VOLUME    (mm)=      78.22        51.69         58.56
     TOTAL RAINFALL   (mm)=      79.22        79.22         79.22
     RUNOFF COEFFICIENT   =       0.99         0.65          0.74

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| ADD HYD  (  0055)|
|  1 +  2 =  3     |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0004):     8.04   2.308     1.33    62.95
    +  ID2= 2 (  0054):     8.46   2.324     1.33    58.56
       ==================================================
       ID = 3 (  0055):    16.50   4.632     1.33    60.70

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0060)|
|  1 +  2 =  3     |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):    31.70   4.459     1.33    39.56
    +  ID2= 2 (  0055):    16.50   4.632     1.33    60.70
       ==================================================
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       ID = 3 (  0060):    48.20   9.091     1.33    46.79

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  | Junction Command(0025) |
  --------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 1(  0060)   48.20     9.09    1.33    46.79
  OUTFLOW: ID= 2(  0025)   48.20     9.09    1.33    46.79

  --------------------------------------------------------------------------------
--------------------
| CALIB              |
| NASHYD   (  0110)  |   Area    (ha)=   9.49   Curve Number   (CN)= 56.7
|ID= 1 DT= 5.0 min   |   Ia      (mm)=   4.53   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.25

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |' TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'  hrs   mm/hr |   hrs   mm/hr
 0.083    6.66 | 1.083   31.52 | 2.083   13.17 |  3.08    7.67
 0.167    6.66 | 1.167   31.52 | 2.167   13.17 |  3.17    7.67
 0.250    7.44 | 1.250  182.68 | 2.250   11.63 |  3.25    7.23
 0.333    7.44 | 1.333  182.68 | 2.333   11.63 |  3.33    7.23
 0.417    8.49 | 1.417   38.68 | 2.417   10.47 |  3.42    6.84
 0.500    8.49 | 1.500   38.68 | 2.500   10.47 |  3.50    6.84
 0.583   10.00 | 1.583   24.39 | 2.583    9.55 |  3.58    6.50
 0.667   10.00 | 1.667   24.39 | 2.667    9.55 |  3.67    6.50
 0.750   12.39 | 1.750   18.60 | 2.750    8.81 |  3.75    6.19
 0.833   12.39 | 1.833   18.60 | 2.833    8.81 |  3.83    6.19
 0.917   16.95 | 1.917   15.32 | 2.917    8.19 |  3.92    5.92
 1.000   16.95 | 2.000   15.32 | 3.000    8.19 |  4.00    5.92

     Unit Hyd Qpeak  (cms)=   1.450

     PEAK FLOW       (cms)=   0.471 (i)
     TIME TO PEAK    (hrs)=   1.583
     RUNOFF VOLUME    (mm)=  20.746
     TOTAL RAINFALL   (mm)=  79.216
     RUNOFF COEFFICIENT   =   0.262

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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  | Junction Command(0062) |
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                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 2(  0110)    9.49     0.47    1.58    20.75
  OUTFLOW: ID= 2(  0062)    9.49     0.47    1.58    20.75

  --------------------------------------------------------------------------------
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| CALIB              |
| STANDHYD (  0028)  |   Area    (ha)=   6.40
|ID= 1 DT= 5.0 min   |   Total Imp(%)=  50.00   Dir. Conn.(%)=  50.00
--------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      3.20         3.20
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      0.36         2.00
     Length            (m)=    206.56        90.00
     Mannings n             =    0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |' TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'  hrs   mm/hr |   hrs   mm/hr
 0.083    6.66 | 1.083   31.52 | 2.083   13.17 |  3.08    7.67
 0.167    6.66 | 1.167   31.52 | 2.167   13.17 |  3.17    7.67
 0.250    7.44 | 1.250  182.68 | 2.250   11.63 |  3.25    7.23
 0.333    7.44 | 1.333  182.68 | 2.333   11.63 |  3.33    7.23
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 0.417    8.49 | 1.417   38.68 | 2.417   10.47 |  3.42    6.84
 0.500    8.49 | 1.500   38.68 | 2.500   10.47 |  3.50    6.84
 0.583   10.00 | 1.583   24.39 | 2.583    9.55 |  3.58    6.50
 0.667   10.00 | 1.667   24.39 | 2.667    9.55 |  3.67    6.50
 0.750   12.39 | 1.750   18.60 | 2.750    8.81 |  3.75    6.19
 0.833   12.39 | 1.833   18.60 | 2.833    8.81 |  3.83    6.19
 0.917   16.95 | 1.917   15.32 | 2.917    8.19 |  3.92    5.92
 1.000   16.95 | 2.000   15.32 | 3.000    8.19 |  4.00    5.92

     Max.Eff.Inten.(mm/hr)=     182.68        64.33
               over (min)         5.00        20.00
     Storage Coeff.  (min)=       4.22 (ii)   17.91 (ii)
     Unit Hyd. Tpeak (min)=       5.00        20.00
     Unit Hyd. peak  (cms)=       0.24         0.06
                                                      *TOTALS*
     PEAK FLOW       (cms)=       1.50         0.31          1.613 (iii)
     TIME TO PEAK    (hrs)=       1.33         1.58          1.33
     RUNOFF VOLUME    (mm)=      78.22        38.86         58.54
     TOTAL RAINFALL   (mm)=      79.22        79.22         79.22
     RUNOFF COEFFICIENT   =       0.99         0.49          0.74

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB              |
| STANDHYD (  0111)  |   Area    (ha)=  28.77
|ID= 1 DT= 5.0 min   |   Total Imp(%)=  24.70   Dir. Conn.(%)=  15.70
--------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      7.11        21.66
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      0.36         2.00
     Length            (m)=    437.95        90.00
     Mannings n             =    0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |' TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'  hrs   mm/hr |   hrs   mm/hr
 0.083    6.66 | 1.083   31.52 | 2.083   13.17 |  3.08    7.67
 0.167    6.66 | 1.167   31.52 | 2.167   13.17 |  3.17    7.67
 0.250    7.44 | 1.250  182.68 | 2.250   11.63 |  3.25    7.23
 0.333    7.44 | 1.333  182.68 | 2.333   11.63 |  3.33    7.23
 0.417    8.49 | 1.417   38.68 | 2.417   10.47 |  3.42    6.84
 0.500    8.49 | 1.500   38.68 | 2.500   10.47 |  3.50    6.84
 0.583   10.00 | 1.583   24.39 | 2.583    9.55 |  3.58    6.50
 0.667   10.00 | 1.667   24.39 | 2.667    9.55 |  3.67    6.50
 0.750   12.39 | 1.750   18.60 | 2.750    8.81 |  3.75    6.19
 0.833   12.39 | 1.833   18.60 | 2.833    8.81 |  3.83    6.19
 0.917   16.95 | 1.917   15.32 | 2.917    8.19 |  3.92    5.92
 1.000   16.95 | 2.000   15.32 | 3.000    8.19 |  4.00    5.92

     Max.Eff.Inten.(mm/hr)=     182.68        25.56
               over (min)         5.00        30.00
     Storage Coeff.  (min)=       6.62 (ii)   26.43 (ii)
     Unit Hyd. Tpeak (min)=       5.00        30.00
     Unit Hyd. peak  (cms)=       0.18         0.04
                                                      *TOTALS*
     PEAK FLOW       (cms)=       1.86         0.75          2.023 (iii)
     TIME TO PEAK    (hrs)=       1.33         1.75          1.33
     RUNOFF VOLUME    (mm)=      78.22        17.97         27.43
     TOTAL RAINFALL   (mm)=      79.22        79.22         79.22
     RUNOFF COEFFICIENT   =       0.99         0.23          0.35

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
             YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB              |
| STANDHYD (  0119)  |   Area    (ha)=   2.72
|ID= 1 DT= 5.0 min   |   Total Imp(%)=  55.90   Dir. Conn.(%)=  27.20
--------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      1.52         1.20
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      0.50         2.00
     Length            (m)=    134.66        25.00
     Mannings n             =    0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |' TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'  hrs   mm/hr |   hrs   mm/hr
 0.083    6.66 | 1.083   31.52 | 2.083   13.17 |  3.08    7.67
 0.167    6.66 | 1.167   31.52 | 2.167   13.17 |  3.17    7.67
 0.250    7.44 | 1.250  182.68 | 2.250   11.63 |  3.25    7.23
 0.333    7.44 | 1.333  182.68 | 2.333   11.63 |  3.33    7.23
 0.417    8.49 | 1.417   38.68 | 2.417   10.47 |  3.42    6.84
 0.500    8.49 | 1.500   38.68 | 2.500   10.47 |  3.50    6.84
 0.583   10.00 | 1.583   24.39 | 2.583    9.55 |  3.58    6.50
 0.667   10.00 | 1.667   24.39 | 2.667    9.55 |  3.67    6.50
 0.750   12.39 | 1.750   18.60 | 2.750    8.81 |  3.75    6.19
 0.833   12.39 | 1.833   18.60 | 2.833    8.81 |  3.83    6.19
 0.917   16.95 | 1.917   15.32 | 2.917    8.19 |  3.92    5.92
 1.000   16.95 | 2.000   15.32 | 3.000    8.19 |  4.00    5.92

     Max.Eff.Inten.(mm/hr)=     182.68        81.10
               over (min)         5.00        10.00
     Storage Coeff.  (min)=       2.95 (ii)    8.74 (ii)
     Unit Hyd. Tpeak (min)=       5.00        10.00
     Unit Hyd. peak  (cms)=       0.28         0.12
                                                      *TOTALS*
     PEAK FLOW       (cms)=       0.36         0.18          0.506 (iii)
     TIME TO PEAK    (hrs)=       1.33         1.42          1.33
     RUNOFF VOLUME    (mm)=      78.22        24.56         39.15
     TOTAL RAINFALL   (mm)=      79.22        79.22         79.22
     RUNOFF COEFFICIENT   =       0.99         0.31          0.49

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| ADD HYD  (  0118)|
|  1 +  2 =  3     |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0111):    28.77   2.023     1.33    27.43
    +  ID2= 2 (  0119):     2.72   0.506     1.33    39.15
       ==================================================
       ID = 3 (  0118):    31.49   2.530     1.33    28.44

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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| ADD HYD  (  0001)|
|  1 +  2 =  3     |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0118):    31.49   2.530     1.33    28.44
    +  ID2= 2 (  0025):    48.20   9.091     1.33    46.79
       ==================================================
       ID = 3 (  0001):    79.69  11.621     1.33    39.54

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0001)|
|  3 +  2 =  1     |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0001):    79.69  11.621     1.33    39.54
    +  ID2= 2 (  0028):     6.40   1.613     1.33    58.54
       ==================================================
       ID = 1 (  0001):    86.09  13.234     1.33    40.95
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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0001):		86.09	13.234	1.33	40.95
+ ID2= 2 (0062):		9.49	0.471	1.58	20.75
ID = 3 (0001):		95.58	13.488	1.33	38.95

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0002)	OVERFLOW IS OFF			
IN= 2---> OUT= 1				
DT= 5.0 min	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.4660	3.2040
	0.0000	0.2740	0.4720	3.3550
	0.0420	0.5580	2.3890	3.4690
	0.0680	0.8520	2.5030	3.5840
	0.0860	1.1550	2.8990	3.9750
	0.3770	1.4690	4.0830	4.4020
	0.3970	1.7940	7.8030	4.8410
	0.4160	2.1300	13.0620	5.2840
	0.4340	2.4770	19.5770	5.7300
	0.4500	2.8350	27.2220	6.1800

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0001)	95.580	13.488	1.33	38.95
OUTFLOW: ID= 1 (0002)	95.580	0.464	4.25	36.06

PEAK FLOW REDUCTION [Qout/Qin](%)= 3.44
TIME SHIFT OF PEAK FLOW (min)=175.00
MAXIMUM STORAGE USED (ha.m.)= 3.1542

DIVERTHYD(0123)					
IN= 1 # OUT= 5					
Outflow / Inflow Relationships					
Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total					
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.04	0.00	0.00	0.00	0.00	0.04
0.07	0.00	0.00	0.00	0.00	0.07
0.09	0.00	0.00	0.00	0.00	0.09
0.10	0.28	0.00	0.00	0.00	0.38
0.12	0.28	0.00	0.00	0.00	0.40
0.13	0.29	0.00	0.00	0.00	0.42
0.14	0.30	0.00	0.00	0.00	0.43
0.15	0.30	0.00	0.00	0.00	0.45
0.16	0.31	0.00	0.00	0.00	0.47
0.16	0.31	0.00	0.00	0.00	0.47
0.16	2.23	0.00	0.00	0.00	2.39
0.17	2.34	0.00	0.00	0.00	2.50
0.17	2.73	0.00	0.00	0.00	2.90
0.18	2.93	0.00	0.00	0.00	3.11

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	95.58	0.46	4.25	36.06
ID= 2 (2) :	47.97	0.15	4.25	36.06
ID= 3 (2) :	47.61	0.31	4.25	36.06
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

Junction Command(0124)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0123)	47.97	0.15	4.25	36.06
OUTFLOW: ID= 2(0124)	47.97	0.15	4.25	36.06

CALIB					
NASHYD (0130)	Area	(ha)=	5.38	Curve Number	(CN)= 46.8
ID= 1 DT= 5.0 min	Ia	(mm)=	6.05	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		0.87		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Unit Hyd Qpeak (cms)= 0.236

PEAK FLOW (cms)= 0.083 (i)
TIME TO PEAK (hrs)= 2.500
RUNOFF VOLUME (mm)= 14.792
TOTAL RAINFALL (mm)= 79.216
RUNOFF COEFFICIENT = 0.187

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
STANDHYD (0132)	Area	(ha)=	0.69		
ID= 1 DT= 5.0 min	Total Imp(%)=		42.00	Dir. Conn.(%)=	3.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.29	0.40
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	67.82	170.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Max.Eff.Inten.(mm/hr)=	182.68	47.09	
over (min)	5.00	25.00	
Storage Coeff. (min)=	1.96 (ii)	24.68 (ii)	
Unit Hyd. Tpeak (min)=	5.00	25.00	
Unit Hyd. peak (cms)=	0.31	0.05	
			TOTALS
PEAK FLOW (cms)=	0.01	0.03	0.033 (iii)
TIME TO PEAK (hrs)=	1.33	1.67	1.67
RUNOFF VOLUME (mm)=	78.22	24.80	26.38
TOTAL RAINFALL (mm)=	79.22	79.22	79.22
RUNOFF COEFFICIENT =	0.99	0.31	0.33

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0131)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0132)	0.69	0.03	1.67	26.38
OUTFLOW: ID= 2(0131)	0.69	0.03	1.67	26.38

ADD HYD (0129)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0124):		47.97	0.155	4.25	36.06
+ ID2= 2 (0130):		5.38	0.083	2.50	14.79
ID = 3 (0129):		53.35	0.223	2.67	33.92

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0129)		AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1		(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0129):		53.35	0.223	2.67	33.92
+ ID2= 2 (0131):		0.69	0.033	1.67	26.38
ID = 1 (0129):		54.04	0.238	2.50	33.82

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0128)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 10(0123)	47.61	0.31	4.25	36.06
OUTFLOW: ID= 2(0128)	47.61	0.31	4.25	36.06

CALIB					
NASHYD (0109)	Area	(ha)=	120.60	Curve Number	(CN)= 73.3
ID= 1 DT= 5.0 min	Ia	(mm)=	6.90	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		1.06		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 3.648 (i)
TIME TO PEAK (hrs)= 2.667
RUNOFF VOLUME (mm)= 31.726
TOTAL RAINFALL (mm)= 79.216
RUNOFF COEFFICIENT = 0.400

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
STANDHYD (0106)	Area	(ha)=	1.58		
ID= 1 DT= 5.0 min	Total Imp(%)=		30.20	Dir. Conn.(%)=	0.10

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.48	1.10
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	102.63	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23
0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Max.Eff.Inten.(mm/hr)=	182.68	151.99	
over (min)	5.00	15.00	
Storage Coeff. (min)=	2.77 (ii)	12.48 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.28	0.08	
			TOTALS
PEAK FLOW (cms)=	0.00	0.24	0.239 (iii)
TIME TO PEAK (hrs)=	1.33	1.50	1.50
RUNOFF VOLUME (mm)=	78.22	46.66	46.68
TOTAL RAINFALL (mm)=	79.22	79.22	79.22
RUNOFF COEFFICIENT =	0.99	0.59	0.59

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
STANDHYD (0107)	Area	(ha)=	0.72		
ID= 1 DT= 5.0 min	Total Imp(%)=		45.60	Dir. Conn.(%)=	3.50

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.33	0.39
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	69.28	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	6.66	1.083	31.52	2.083	13.17	3.08	7.67
0.167	6.66	1.167	31.52	2.167	13.17	3.17	7.67
0.250	7.44	1.250	182.68	2.250	11.63	3.25	7.23
0.333	7.44	1.333	182.68	2.333	11.63	3.33	7.23

0.417	8.49	1.417	38.68	2.417	10.47	3.42	6.84
0.500	8.49	1.500	38.68	2.500	10.47	3.50	6.84
0.583	10.00	1.583	24.39	2.583	9.55	3.58	6.50
0.667	10.00	1.667	24.39	2.667	9.55	3.67	6.50
0.750	12.39	1.750	18.60	2.750	8.81	3.75	6.19
0.833	12.39	1.833	18.60	2.833	8.81	3.83	6.19
0.917	16.95	1.917	15.32	2.917	8.19	3.92	5.92
1.000	16.95	2.000	15.32	3.000	8.19	4.00	5.92

Max.Eff.Inten.(mm/hr)=	182.68	210.37	
over (min)	5.00	15.00	
Storage Coeff. (min)=	2.19 (ii)	10.72 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.31	0.09	
			TOTALS
PEAK FLOW (cms)=	0.01	0.12	0.128 (iii)
TIME TO PEAK (hrs)=	1.33	1.50	1.50
RUNOFF VOLUME (mm)=	78.22	50.99	51.94
TOTAL RAINFALL (mm)=	79.22	79.22	79.22
RUNOFF COEFFICIENT =	0.99	0.64	0.66

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0029)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0106):	1.58	0.239	1.50	46.68	
+ ID2= 2 (0107):	0.72	0.128	1.50	51.94	
ID = 3 (0029):	2.30	0.367	1.50	48.33	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0029)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (0029):	2.30	0.367	1.50	48.33	
+ ID2= 2 (0109):	120.60	3.648	2.67	31.73	
ID = 1 (0029):	122.90	3.707	2.67	32.04	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0122)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0128):	47.61	0.309	4.25	36.06	
+ ID2= 2 (0029):	122.90	3.707	2.67	32.04	
ID = 3 (0122):	170.51	4.007	2.67	33.16	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0135)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0122):	170.51	4.007	2.67	33.16	
+ ID2= 2 (0129):	54.04	0.238	2.50	33.82	
ID = 3 (0135):	224.55	4.244	2.67	33.32	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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 V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
 V    V   I    SS     U   U   A A   L
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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Max.Eff.Inten.(mm/hr)=	75.10	10.19	
over (min)	5.00	20.00	
Storage Coeff. (min)=	0.76 (ii)	19.90 (ii)	
Unit Hyd. Tpeak (min)=	5.00	20.00	

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 V    V   I    SSSSS  U   U    A    L
 V    V   I    SS     U   U   A A   L
  VV     I    SSSSS  UUUUU  A   A  LLLLL

  OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
 O   O    T      T    H   H   Y Y   MM MM  O   O
 O   O    T      T    H   H    Y    M M M  O   O
  OOO     T      T    H   H    Y    M   M   OOO
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            *****  D E T A I L E D   O U T P U T *****

  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\4035252c-0
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\4035252c-0

DATE: 02-17-2026                    TIME: 11:16:01

USER:

COMMENTS: _____
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  **********************************************
  ** SIMULATION : H. 2yr 24hr 15min SCS Type II **
  **********************************************
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READ STORM	Filename: C:\Users\cbuscher\AppD ata\Local\Temp\ 8fd31c55-74ba-441d-b6e1-b71abe5a781b\71d3e780
Ptotal= 61.36 mm	Comments: 2yr 24hr 15min SCS Type II (MTO) C

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.00	6.25	1.10	12.50	8.84	18.75	1.10
0.25	0.67	6.50	1.10	12.75	4.54	19.00	1.10
0.50	0.67	6.75	1.10	13.00	4.54	19.25	1.10
0.75	0.67	7.00	1.10	13.25	3.31	19.50	1.10
1.00	0.67	7.25	1.35	13.50	3.31	19.75	1.10
1.25	0.67	7.50	1.35	13.75	2.58	20.00	1.10
1.50	0.67	7.75	1.35	14.00	2.58	20.25	0.74
1.75	0.67	8.00	1.35	14.25	1.84	20.50	0.74
2.00	0.67	8.25	1.60	14.50	1.84	20.75	0.74
2.25	0.80	8.50	1.60	14.75	1.84	21.00	0.74
2.50	0.80	8.75	1.72	15.00	1.84	21.25	0.74
2.75	0.80	9.00	1.72	15.25	1.84	21.50	0.74
3.00	0.80	9.25	1.96	15.50	1.84	21.75	0.74
3.25	0.80	9.50	1.96	15.75	1.84	22.00	0.74
3.50	0.80	9.75	2.21	16.00	1.84	22.25	0.74
3.75	0.80	10.00	2.21	16.25	1.10	22.50	0.74
4.00	0.80	10.25	2.82	16.50	1.10	22.75	0.74
4.25	0.98	10.50	2.82	16.75	1.10	23.00	0.74
4.50	0.98	10.75	3.80	17.00	1.10	23.25	0.74
4.75	0.98	11.00	3.80	17.25	1.10	23.50	0.74
5.00	0.98	11.25	5.89	17.50	1.10	23.75	0.74
5.25	0.98	11.50	5.89	17.75	1.10	24.00	0.74
5.50	0.98	11.75	18.16	18.00	1.10		
5.75	0.98	12.00	75.10	18.25	1.10		
6.00	0.98	12.25	8.84	18.50	1.10		

CALIB				
STANDHYD (0133)	Area (ha)=	0.09		
ID= 1 DT= 5.0 min	Total Imp(%)=	43.30	Dir. Conn.(%)=	43.30

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.04	0.05
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	5.00	2.00
Length	(m)=	24.49	46.00
Mannings n	=	0.013	0.250

Unit Hyd. peak (cms)=	0.34	0.06	
			TOTALS
PEAK FLOW (cms)=	0.01	0.00	0.009 (iii)
TIME TO PEAK (hrs)=	12.25	12.50	12.25
RUNOFF VOLUME (mm)=	60.36	9.90	31.69
TOTAL RAINFALL (mm)=	61.36	61.36	61.36
RUNOFF COEFFICIENT =	0.98	0.16	0.52

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0134)				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0133)	0.09	0.01	12.25	31.69
OUTFLOW: ID= 2(0134)	0.09	0.01	12.25	31.69

CALIB				
NASHYD (0007)	Area (ha)=	4.92	Curve Number (CN)=	75.1
ID= 1 DT= 5.0 min	Ia (mm)=	4.65	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=	1.55		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74

3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Unit Hyd Qpeak (cms)= 0.121

PEAK FLOW (cms)= 0.064 (i)
TIME TO PEAK (hrs)= 13.917
RUNOFF VOLUME (mm)= 22.820
TOTAL RAINFALL (mm)= 61.360
RUNOFF COEFFICIENT = 0.372

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0057) | Area (ha)= 1.06 Curve Number (CN)= 55.0
ID= 1 DT= 5.0 min | Ia (mm)= 4.72 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.15

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.037 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 12.060
TOTAL RAINFALL (mm)= 61.360
RUNOFF COEFFICIENT = 0.197

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0115) | Area (ha)= 0.78 Curve Number (CN)= 76.9
ID= 1 DT= 5.0 min | Ia (mm)= 5.10 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Unit Hyd Qpeak (cms)= 0.097

PEAK FLOW (cms)= 0.010 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 9.805
TOTAL RAINFALL (mm)= 61.360
RUNOFF COEFFICIENT = 0.160

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0103) | Area (ha)= 0.33 Curve Number (CN)= 49.0
ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.13

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10

CALIB
NASHYD (0104) | Area (ha)= 0.20 Curve Number (CN)= 53.9
ID= 1 DT= 5.0 min | Ia (mm)= 4.70 # of Linear Res.(N)= 3.00

---------- U.H. Tp(hrs)= 0.76

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Unit Hyd Qpeak (cms)= 0.010

PEAK FLOW (cms)= 0.002 (i)
TIME TO PEAK (hrs)= 13.000
RUNOFF VOLUME (mm)= 11.711
TOTAL RAINFALL (mm)= 61.360
RUNOFF COEFFICIENT = 0.191

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0003) | Area (ha)= 5.31
ID= 1 DT= 5.0 min | Total Imp(%)= 39.70 Dir. Conn.(%)= 25.20

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.11	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	2.10	2.00
Length (m)=	188.15	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Max.Eff.Inten.(mm/hr)=		75.10		38.37				
over (min)		5.00		15.00				
Storage Coeff. (min)=		3.35 (ii)		12.91 (ii)				
Unit Hyd. Tpeak (min)=		5.00		15.00				
Unit Hyd. peak (cms)=		0.26		0.08				
						TOTALS		
PEAK FLOW	(cms)=	0.28		0.20		0.442 (iii)		
TIME TO PEAK	(hrs)=	12.25		12.33		12.25		
RUNOFF VOLUME	(mm)=	60.36		20.96		30.89		
TOTAL RAINFALL	(mm)=	61.36		61.36		61.36		
RUNOFF COEFFICIENT	=	0.98		0.34		0.50		

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 67.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0052) | Area (ha)= 9.07
ID= 1 DT= 5.0 min | Total Imp(%)= 64.70 Dir. Conn.(%)= 32.30

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	5.87	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	245.90	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Max.Eff.Inten.(mm/hr)=		75.10		49.25				
over (min)		5.00		20.00				
Storage Coeff. (min)=		6.68 (ii)		15.33 (ii)				
Unit Hyd. Tpeak (min)=		5.00		20.00				
Unit Hyd. peak (cms)=		0.18		0.07				
						TOTALS		
PEAK FLOW	(cms)=	0.56		0.22		0.707 (iii)		
TIME TO PEAK	(hrs)=	12.25		12.42		12.25		
RUNOFF VOLUME	(mm)=	60.36		17.71		31.48		
TOTAL RAINFALL	(mm)=	61.36		61.36		61.36		
RUNOFF COEFFICIENT	=	0.98		0.29		0.51		

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0053) | Area (ha)= 5.41
ID= 1 DT= 5.0 min | Total Imp(%)= 70.00 Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	3.79	1.62
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	189.91	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr

0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Max.Eff.Inten.(mm/hr)=	75.10	67.01	
over (min)	5.00	15.00	
Storage Coeff. (min)=	5.72 (ii)	13.36 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.20	0.08	
			TOTALS
PEAK FLOW (cms)=	0.37	0.17	0.518 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.25
RUNOFF VOLUME (mm)=	60.36	21.23	34.92
TOTAL RAINFALL (mm)=	61.36	61.36	61.36
RUNOFF COEFFICIENT =	0.98	0.35	0.57

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.7 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0056)	Area (ha)=	3.62	
ID= 1 DT= 5.0 min	Total Imp(%)=	26.60	Dir. Conn.(%)= 20.80

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.96	2.66
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	2.00	2.00
Length	(m)=	155.35	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Max.Eff.Inten.(mm/hr)=	75.10	15.05	
over (min)	5.00	20.00	
Storage Coeff. (min)=	3.03 (ii)	16.93 (ii)	
Unit Hyd. Tpeak (min)=	5.00	20.00	
Unit Hyd. peak (cms)=	0.27	0.06	
			TOTALS
PEAK FLOW (cms)=	0.16	0.06	0.193 (iii)
TIME TO PEAK (hrs)=	12.25	12.42	12.25
RUNOFF VOLUME (mm)=	60.36	10.66	21.00
TOTAL RAINFALL (mm)=	61.36	61.36	61.36
RUNOFF COEFFICIENT =	0.98	0.17	0.34

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0108)	Area (ha)=	1.00	
ID= 1 DT= 5.0 min	Total Imp(%)=	24.00	Dir. Conn.(%)= 0.10

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.24	0.76
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	81.65	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Max.Eff.Inten.(mm/hr)=	75.10	14.71	
over (min)	5.00	30.00	
Storage Coeff. (min)=	3.45 (ii)	28.16 (ii)	
Unit Hyd. Tpeak (min)=	5.00	30.00	
Unit Hyd. peak (cms)=	0.26	0.04	
			TOTALS
PEAK FLOW (cms)=	0.00	0.02	0.018 (iii)
TIME TO PEAK (hrs)=	12.25	12.58	12.58
RUNOFF VOLUME (mm)=	60.36	12.81	12.84
TOTAL RAINFALL (mm)=	61.36	61.36	61.36
RUNOFF COEFFICIENT =	0.98	0.21	0.21

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0032)					
1 + 2 = 3		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0103):		0.33	0.010	12.25	9.80
+ ID2= 2 (0104):		0.20	0.002	13.00	11.71
ID = 3 (0032):		0.53	0.011	12.25	10.52

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0032):     0.53   0.011    12.25    10.52
    + ID2= 2 (  0108):     1.00   0.018    12.58    12.84
      ================================================
      ID = 1 (  0032):     1.53   0.022    12.58    12.04

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0032):     1.53   0.022    12.58    12.04
    + ID2= 2 (  0115):     0.78   0.013    13.42    23.87
      ================================================
      ID = 3 (  0032):     2.31   0.030    12.67    16.03

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0032):     2.31   0.030    12.67    16.03
    + ID2= 2 (  0003):     5.31   0.442    12.25    30.89
      ================================================
      ID = 1 (  0032):     7.62   0.464    12.25    26.38

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0032):     7.62   0.464    12.25    26.38
    + ID2= 2 (  0052):     9.07   0.707    12.25    31.48
      ================================================
      ID = 3 (  0032):    16.69   1.171    12.25    29.15

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0032):    16.69   1.171    12.25    29.15
    + ID2= 2 (  0053):     5.41   0.518    12.25    34.92
      ================================================
      ID = 1 (  0032):    22.10   1.689    12.25    30.57

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0032):    22.10   1.689    12.25    30.57
    + ID2= 2 (  0056):     3.62   0.193    12.25    21.00
      ================================================
      ID = 3 (  0032):    25.72   1.882    12.25    29.22

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0032):    25.72   1.882    12.25    29.22
    + ID2= 2 (  0057):     1.06   0.037    12.25    12.06
      ================================================
      ID = 1 (  0032):    26.78   1.919    12.25    28.54

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
-------------------
```

```
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0032):    26.78   1.919    12.25    28.54
    + ID2= 2 (  0007):     4.92   0.064    13.92    22.82
      ================================================
      ID = 3 (  0032):    31.70   1.930    12.25    27.65

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
-------------------
| CALIB             |
| STANDHYD (  0004)|   Area    (ha)=   8.04
|ID= 1 DT= 5.0 min |   Total Imp(%)=  70.00   Dir. Conn.(%)=  35.00
-------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=     5.63          2.41
     Dep. Storage     (mm)=     1.00          5.00
     Average Slope     (%)=     0.36          2.00
     Length            (m)=   231.52         35.00
     Mannings n            =   0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
```

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

```
    Max.Eff.Inten.(mm/hr)=      75.10       122.87
          over (min)            5.00        15.00
    Storage Coeff.  (min)=      6.44 (ii)   12.44 (ii)
    Unit Hyd. Tpeak (min)=      5.00        15.00
    Unit Hyd. peak  (cms)=      0.18         0.08
                                                    *TOTALS*
    PEAK FLOW       (cms)=      0.54         0.51       0.987 (iii)
    TIME TO PEAK    (hrs)=     12.25        12.33      12.25
    RUNOFF VOLUME    (mm)=     60.36        38.65      46.25
    TOTAL RAINFALL   (mm)=     61.36        61.36      61.36
    RUNOFF COEFFICIENT   =      0.98         0.63       0.75


      (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
          CN*  =  79.0     Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
    (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
```

```
-------------------
| CALIB             |
| STANDHYD (  0054)|   Area    (ha)=   8.46
|ID= 1 DT= 5.0 min |   Total Imp(%)=  59.70   Dir. Conn.(%)=  25.90
-------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=     5.05          3.41
     Dep. Storage     (mm)=     1.00          5.00
     Average Slope     (%)=     1.59          2.00
     Length            (m)=   237.49         35.00
     Mannings n            =   0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
```

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

```
    Max.Eff.Inten.(mm/hr)=      75.10       97.99
          over (min)            5.00       15.00
    Storage Coeff.  (min)=      4.19 (ii)  10.76 (ii)
    Unit Hyd. Tpeak (min)=      5.00       15.00
    Unit Hyd. peak  (cms)=      0.24        0.09
                                                   *TOTALS*
    PEAK FLOW       (cms)=      0.45        0.60       0.977 (iii)
    TIME TO PEAK    (hrs)=     12.25       12.33      12.25
    RUNOFF VOLUME    (mm)=     60.36       36.06      42.35
    TOTAL RAINFALL   (mm)=     61.36       61.36      61.36
    RUNOFF COEFFICIENT   =      0.98        0.59       0.69

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

      (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
          CN*  =  79.0     Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
    (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
```

```
| ADD HYD  (  0055)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0004):     8.04   0.987    12.25    46.25
    + ID2= 2 (  0054):     8.46   0.977    12.25    42.35
      ================================================
      ID = 3 (  0055):    16.50   1.964    12.25    44.25

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
| ADD HYD  (  0060)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
```

```
      ID1= 1 (  0032):    31.70   1.930     12.25    27.65
    + ID2= 2 (  0055):    16.50   1.964     12.25    44.25
      ==========================================
      ID = 3 (  0060):    48.20   3.893     12.25    33.34

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

Junction Command(0025)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0060)	48.20	3.89	12.25	33.34
OUTFLOW: ID= 2(0025)	48.20	3.89	12.25	33.34

CALIB NASHYD (0110) ID= 1 DT= 5.0 min

Area (ha)= 9.49 Curve Number (CN)= 56.7
Ia (mm)= 4.53 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.25

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Unit Hyd Qpeak (cms)= 1.450

PEAK FLOW (cms)= 0.252 (i)
TIME TO PEAK (hrs)= 12.333
RUNOFF VOLUME (mm)= 12.867
TOTAL RAINFALL (mm)= 61.360
RUNOFF COEFFICIENT = 0.210

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0062)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0110)	9.49	0.25	12.33	12.87
OUTFLOW: ID= 2(0062)	9.49	0.25	12.33	12.87

CALIB STANDHYD (0028) ID= 1 DT= 5.0 min

Area (ha)= 6.40
Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.20	3.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	206.56	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Max.Eff.Inten.(mm/hr)=	75.10	28.44	
over (min)	5.00	25.00	
Storage Coeff. (min)=	6.01 (ii)	25.00 (ii)	
Unit Hyd. Tpeak (min)=	5.00	25.00	
Unit Hyd. peak (cms)=	0.19	0.05	
			TOTALS
PEAK FLOW (cms)=	0.63	0.13	0.697 (iii)
TIME TO PEAK (hrs)=	12.25	12.50	12.25
RUNOFF VOLUME (mm)=	60.36	25.64	43.00
TOTAL RAINFALL (mm)=	61.36	61.36	61.36
RUNOFF COEFFICIENT =	0.98	0.42	0.70

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB STANDHYD (0111) ID= 1 DT= 5.0 min

Area (ha)= 28.77
Total Imp(%)= 24.70 Dir. Conn.(%)= 15.70

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	7.11	21.66
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	437.95	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Max.Eff.Inten.(mm/hr)=	75.10	9.36	
over (min)	10.00	40.00	
Storage Coeff. (min)=	9.44 (ii)	39.05 (ii)	
Unit Hyd. Tpeak (min)=	10.00	40.00	
Unit Hyd. peak (cms)=	0.12	0.03	
			TOTALS

```
     PEAK FLOW       (cms)=       0.73          0.30          0.828 (iii)
     TIME TO PEAK    (hrs)=      12.25         12.83          12.25
     RUNOFF VOLUME    (mm)=      60.36         11.05          18.79
     TOTAL RAINFALL   (mm)=      61.36         61.36          61.36
     RUNOFF COEFFICIENT   =       0.98          0.18           0.31

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
            YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
--------------------
| CALIB              |
| STANDHYD (  0119)| Area    (ha)=   2.72
|ID= 1 DT= 5.0 min | Total Imp(%)=  55.90   Dir. Conn.(%)=  27.20
--------------------
                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.52          1.20
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.50          2.00
     Length            (m)=     134.66         25.00
     Mannings n             =     0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                              ---- TRANSFORMED HYETOGRAPH ----
          TIME    RAIN |   TIME    RAIN |'  TIME    RAIN |   TIME    RAIN
           hrs   mm/hr |    hrs   mm/hr |'   hrs   mm/hr |    hrs   mm/hr
         0.083    0.00 |  6.167    0.98 |12.250   75.10 |  18.33    1.10
         0.167    0.00 |  6.250    0.98 |12.333    8.84 |  18.42    1.10
         0.250    0.00 |  6.333    1.10 |12.417    8.84 |  18.50    1.10
         0.333    0.67 |  6.417    1.10 |12.500    8.84 |  18.58    1.10
         0.417    0.67 |  6.500    1.10 |12.583    8.84 |  18.67    1.10
         0.500    0.67 |  6.583    1.10 |12.667    8.84 |  18.75    1.10
         0.583    0.67 |  6.667    1.10 |12.750    8.84 |  18.83    1.10
         0.667    0.67 |  6.750    1.10 |12.833    4.54 |  18.92    1.10
         0.750    0.67 |  6.833    1.10 |12.917    4.54 |  19.00    1.10
         0.833    0.67 |  6.917    1.10 |13.000    4.54 |  19.08    1.10
         0.917    0.67 |  7.000    1.10 |13.083    4.54 |  19.17    1.10
         1.000    0.67 |  7.083    1.10 |13.167    4.54 |  19.25    1.10
         1.083    0.67 |  7.167    1.10 |13.250    4.54 |  19.33    1.10
         1.167    0.67 |  7.250    1.10 |13.333    3.31 |  19.42    1.10
         1.250    0.67 |  7.333    1.35 |13.417    3.31 |  19.50    1.10
         1.333    0.67 |  7.417    1.35 |13.500    3.31 |  19.58    1.10
         1.417    0.67 |  7.500    1.35 |13.583    3.31 |  19.67    1.10
         1.500    0.67 |  7.583    1.35 |13.667    3.31 |  19.75    1.10
         1.583    0.67 |  7.667    1.35 |13.750    3.31 |  19.83    1.10
         1.667    0.67 |  7.750    1.35 |13.833    2.58 |  19.92    1.10
         1.750    0.67 |  7.833    1.35 |13.917    2.58 |  20.00    1.10
         1.833    0.67 |  7.917    1.35 |14.000    2.58 |  20.08    1.10
         1.917    0.67 |  8.000    1.35 |14.083    2.58 |  20.17    1.10
         2.000    0.67 |  8.083    1.35 |14.167    2.58 |  20.25    1.10
         2.083    0.67 |  8.167    1.35 |14.250    2.58 |  20.33    0.74
         2.167    0.67 |  8.250    1.35 |14.333    1.84 |  20.42    0.74
         2.250    0.67 |  8.333    1.60 |14.417    1.84 |  20.50    0.74
         2.333    0.80 |  8.417    1.60 |14.500    1.84 |  20.58    0.74
         2.417    0.80 |  8.500    1.60 |14.583    1.84 |  20.67    0.74
         2.500    0.80 |  8.583    1.60 |14.667    1.84 |  20.75    0.74
         2.583    0.80 |  8.667    1.60 |14.750    1.84 |  20.83    0.74
         2.667    0.80 |  8.750    1.60 |14.833    1.84 |  20.92    0.74
         2.750    0.80 |  8.833    1.72 |14.917    1.84 |  21.00    0.74
         2.833    0.80 |  8.917    1.72 |15.000    1.84 |  21.08    0.74
         2.917    0.80 |  9.000    1.72 |15.083    1.84 |  21.17    0.74
         3.000    0.80 |  9.083    1.72 |15.167    1.84 |  21.25    0.74
         3.083    0.80 |  9.167    1.72 |15.250    1.84 |  21.33    0.74
         3.167    0.80 |  9.250    1.72 |15.333    1.84 |  21.42    0.74
         3.250    0.80 |  9.333    1.96 |15.417    1.84 |  21.50    0.74
         3.333    0.80 |  9.417    1.96 |15.500    1.84 |  21.58    0.74
         3.417    0.80 |  9.500    1.96 |15.583    1.84 |  21.67    0.74
         3.500    0.80 |  9.583    1.96 |15.667    1.84 |  21.75    0.74
         3.583    0.80 |  9.667    1.96 |15.750    1.84 |  21.83    0.74
         3.667    0.80 |  9.750    1.96 |15.833    1.84 |  21.92    0.74
         3.750    0.80 |  9.833    2.21 |15.917    1.84 |  22.00    0.74
         3.833    0.80 |  9.917    2.21 |16.000    1.84 |  22.08    0.74
         3.917    0.80 |10.000    2.21 |16.083    1.84 |  22.17    0.74
         4.000    0.80 |10.083    2.21 |16.167    1.84 |  22.25    0.74
         4.083    0.80 |10.167    2.21 |16.250    1.84 |  22.33    0.74
         4.167    0.80 |10.250    2.21 |16.333    1.10 |  22.42    0.74
         4.250    0.80 |10.333    2.82 |16.417    1.10 |  22.50    0.74
         4.333    0.98 |10.417    2.82 |16.500    1.10 |  22.58    0.74
         4.417    0.98 |10.500    2.82 |16.583    1.10 |  22.67    0.74
         4.500    0.98 |10.583    2.82 |16.667    1.10 |  22.75    0.74
         4.583    0.98 |10.667    2.82 |16.750    1.10 |  22.83    0.74
         4.667    0.98 |10.750    2.82 |16.833    1.10 |  22.92    0.74
         4.750    0.98 |10.833    3.80 |16.917    1.10 |  23.00    0.74
         4.833    0.98 |10.917    3.80 |17.000    1.10 |  23.08    0.74
         4.917    0.98 |11.000    3.80 |17.083    1.10 |  23.17    0.74
         5.000    0.98 |11.083    3.80 |17.167    1.10 |  23.25    0.74
         5.083    0.98 |11.167    3.80 |17.250    1.10 |  23.33    0.74
         5.167    0.98 |11.250    3.80 |17.333    1.10 |  23.42    0.74
         5.250    0.98 |11.333    5.89 |17.417    1.10 |  23.50    0.74
         5.333    0.98 |11.417    5.89 |17.500    1.10 |  23.58    0.74
         5.417    0.98 |11.500    5.89 |17.583    1.10 |  23.67    0.74
         5.500    0.98 |11.583    5.89 |17.667    1.10 |  23.75    0.74
         5.583    0.98 |11.667    5.89 |17.750    1.10 |  23.83    0.74
         5.667    0.98 |11.750    5.89 |17.833    1.10 |  23.92    0.74
         5.750    0.98 |11.833   18.16 |17.917    1.10 |  24.00    0.74
         5.833    0.98 |11.917   18.16 |18.000    1.10 |  24.08    0.74
         5.917    0.98 |12.000   18.16 |18.083    1.10 |  24.17    0.74
         6.000    0.98 |12.083   75.10 |18.167    1.10 |  24.25    0.74
         6.083    0.98 |12.167   75.10 |18.250    1.10 |

     Max.Eff.Inten.(mm/hr)=      75.10         37.22
           over (min)            5.00         15.00
     Storage Coeff.  (min)=     4.22 (ii)     12.12 (ii)
     Unit Hyd. Tpeak (min)=     5.00         15.00
     Unit Hyd. peak  (cms)=     0.24          0.09
                                                        *TOTALS*
     PEAK FLOW       (cms)=       0.15          0.07          0.212 (iii)
     TIME TO PEAK    (hrs)=      12.25         12.33          12.25
     RUNOFF VOLUME    (mm)=      60.36         15.57          27.75
     TOTAL RAINFALL   (mm)=      61.36         61.36          61.36
     RUNOFF COEFFICIENT   =       0.98          0.25           0.45

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0118)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0111):     28.77    0.828    12.25     18.79
     + ID2= 2 (  0119):      2.72    0.212    12.25     27.75
       ==============================================
       ID = 3 (  0118):     31.49    1.040    12.25     19.56

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0001)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0118):     31.49    1.040    12.25     19.56
     + ID2= 2 (  0025):     48.20    3.893    12.25     33.34
       ==============================================
       ID = 3 (  0001):     79.69    4.933    12.25     27.89

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0001)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0001):     79.69    4.933    12.25     27.89
     + ID2= 2 (  0028):      6.40    0.697    12.25     43.00
       ==============================================
       ID = 1 (  0001):     86.09    5.631    12.25     29.02

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0001)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0001):     86.09    5.631    12.25     29.02
     + ID2= 2 (  0062):      9.49    0.252    12.33     12.87
       ==============================================
       ID = 3 (  0001):     95.58    5.836    12.25     27.41

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| RESERVOIR(  0002)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |     OUTFLOW    STORAGE    |  OUTFLOW    STORAGE
--------------------      (cms)    (ha.m.)    |   (cms)    (ha.m.)
                          0.0000     0.0000    |    0.4660     3.2040
                          0.0000     0.2740    |    0.4720     3.3550
                          0.0420     0.5580    |    2.3890     3.4690
                          0.0680     0.8520    |    2.5030     3.5840
                          0.0860     1.1550    |    2.8990     3.9750
                          0.3770     1.4690    |    4.0830     4.4020
                          0.3970     1.7940    |    7.8030     4.8410
                          0.4160     2.1300    |   13.0620     5.2840
                          0.4340     2.4770    |   19.5770     5.7300
                          0.4500     2.8350    |   27.2220     6.1800

                             AREA     QPEAK     TPEAK      R.V.
                              (ha)     (cms)     (hrs)      (mm)
   INFLOW : ID= 2 (  0001)     95.580      5.836     12.25      27.41
   OUTFLOW: ID= 1 (  0002)     95.580      0.388     14.67      24.53

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)=  6.65
                  TIME SHIFT OF PEAK FLOW       (min)=145.00
                  MAXIMUM  STORAGE   USED      (ha.m.)=  1.6505

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--------------------
| DIVERTHYD(  0123)|
| IN= 1   # OUT= 5 |
--------------------
     Outflow / Inflow  Relationships

      Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total
       (cms)    (cms)    (cms)    (cms)    (cms)    (cms)
        0.00     0.00     0.00     0.00     0.00     0.00
        0.00     0.00     0.00     0.00     0.00     0.00
        0.00     0.00     0.00     0.00     0.00     0.00
        0.04     0.00     0.00     0.00     0.00     0.04
        0.07     0.00     0.00     0.00     0.00     0.07
        0.09     0.00     0.00     0.00     0.00     0.09
        0.10     0.28     0.00     0.00     0.00     0.38
        0.12     0.28     0.00     0.00     0.00     0.40
        0.13     0.29     0.00     0.00     0.00     0.42
        0.14     0.30     0.00     0.00     0.00     0.43
        0.15     0.30     0.00     0.00     0.00     0.45
        0.16     0.31     0.00     0.00     0.00     0.47
        0.16     0.31     0.00     0.00     0.00     0.47
        0.16     2.23     0.00     0.00     0.00     2.39
        0.17     2.34     0.00     0.00     0.00     2.50
        0.17     2.73     0.00     0.00     0.00     2.90
        0.18     2.93     0.00     0.00     0.00     3.11

                          AREA     QPEAK     TPEAK      R.V.
                           (ha)     (cms)     (hrs)      (mm)
     TOTAL HYD.(ID= 1):   95.58      0.39     14.67     24.53
     ==========================================================
     ID= 2  (   2)    :   56.94      0.11     14.67     24.53
     ID= 3  (   2)    :   38.64      0.28     14.67     24.53
     ID= 4  (   2)    :    0.00      0.00      0.00      0.00
     ID= 5  (   2)    :    0.00      0.00      0.00      0.00
     ID= 6  (   2)    :    0.00      0.00      0.00      0.00
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   --------------------------
   | Junction Command(0124) |
   --------------------------

                          AREA     QPEAK    TPEAK     R.V.
                           (ha)     (cms)    (hrs)     (mm)
   INFLOW : ID= 1(  0123)   56.94     0.11    14.67     24.53
   OUTFLOW: ID= 2(  0124)   56.94     0.11    14.67     24.53

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--------------------
| CALIB              |
| NASHYD   (  0130)| Area    (ha)=   5.38   Curve Number   (CN)= 46.8
|ID= 1 DT= 5.0 min | Ia      (mm)=   6.05   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   0.87

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                              ---- TRANSFORMED HYETOGRAPH ----
          TIME    RAIN |   TIME    RAIN |'  TIME    RAIN |   TIME    RAIN
           hrs   mm/hr |    hrs   mm/hr |'   hrs   mm/hr |    hrs   mm/hr
         0.083    0.00 |  6.167    0.98 |12.250   75.10 |  18.33    1.10
         0.167    0.00 |  6.250    0.98 |12.333    8.84 |  18.42    1.10
         0.250    0.00 |  6.333    1.10 |12.417    8.84 |  18.50    1.10
         0.333    0.67 |  6.417    1.10 |12.500    8.84 |  18.58    1.10
         0.417    0.67 |  6.500    1.10 |12.583    8.84 |  18.67    1.10
         0.500    0.67 |  6.583    1.10 |12.667    8.84 |  18.75    1.10
         0.583    0.67 |  6.667    1.10 |12.750    8.84 |  18.83    1.10
         0.667    0.67 |  6.750    1.10 |12.833    4.54 |  18.92    1.10
         0.750    0.67 |  6.833    1.10 |12.917    4.54 |  19.00    1.10
         0.833    0.67 |  6.917    1.10 |13.000    4.54 |  19.08    1.10
         0.917    0.67 |  7.000    1.10 |13.083    4.54 |  19.17    1.10
         1.000    0.67 |  7.083    1.10 |13.167    4.54 |  19.25    1.10
         1.083    0.67 |  7.167    1.10 |13.250    4.54 |  19.33    1.10
         1.167    0.67 |  7.250    1.10 |13.333    3.31 |  19.42    1.10
         1.250    0.67 |  7.333    1.35 |13.417    3.31 |  19.50    1.10
         1.333    0.67 |  7.417    1.35 |13.500    3.31 |  19.58    1.10
         1.417    0.67 |  7.500    1.35 |13.583    3.31 |  19.67    1.10
         1.500    0.67 |  7.583    1.35 |13.667    3.31 |  19.75    1.10
         1.583    0.67 |  7.667    1.35 |13.750    3.31 |  19.83    1.10
         1.667    0.67 |  7.750    1.35 |13.833    2.58 |  19.92    1.10
         1.750    0.67 |  7.833    1.35 |13.917    2.58 |  20.00    1.10
         1.833    0.67 |  7.917    1.35 |14.000    2.58 |  20.08    1.10
         1.917    0.67 |  8.000    1.35 |14.083    2.58 |  20.17    1.10
         2.000    0.67 |  8.083    1.35 |14.167    2.58 |  20.25    1.10
         2.083    0.67 |  8.167    1.35 |14.250    2.58 |  20.33    0.74
         2.167    0.67 |  8.250    1.35 |14.333    1.84 |  20.42    0.74
         2.250    0.67 |  8.333    1.60 |14.417    1.84 |  20.50    0.74
         2.333    0.80 |  8.417    1.60 |14.500    1.84 |  20.58    0.74
         2.417    0.80 |  8.500    1.60 |14.583    1.84 |  20.67    0.74
         2.500    0.80 |  8.583    1.60 |14.667    1.84 |  20.75    0.74
         2.583    0.80 |  8.667    1.60 |14.750    1.84 |  20.83    0.74
         2.667    0.80 |  8.750    1.60 |14.833    1.84 |  20.92    0.74
         2.750    0.80 |  8.833    1.72 |14.917    1.84 |  21.00    0.74
         2.833    0.80 |  8.917    1.72 |15.000    1.84 |  21.08    0.74
         2.917    0.80 |  9.000    1.72 |15.083    1.84 |  21.17    0.74
         3.000    0.80 |  9.083    1.72 |15.167    1.84 |  21.25    0.74
         3.083    0.80 |  9.167    1.72 |15.250    1.84 |  21.33    0.74
         3.167    0.80 |  9.250    1.72 |15.333    1.84 |  21.42    0.74
         3.250    0.80 |  9.333    1.96 |15.417    1.84 |  21.50    0.74
         3.333    0.80 |  9.417    1.96 |15.500    1.84 |  21.58    0.74
         3.417    0.80 |  9.500    1.96 |15.583    1.84 |  21.67    0.74
         3.500    0.80 |  9.583    1.96 |15.667    1.84 |  21.75    0.74
         3.583    0.80 |  9.667    1.96 |15.750    1.84 |  21.83    0.74
         3.667    0.80 |  9.750    1.96 |15.833    1.84 |  21.92    0.74
         3.750    0.80 |  9.833    2.21 |15.917    1.84 |  22.00    0.74
         3.833    0.80 |  9.917    2.21 |16.000    1.84 |  22.08    0.74
         3.917    0.80 |10.000    2.21 |16.083    1.84 |  22.17    0.74
         4.000    0.80 |10.083    2.21 |16.167    1.84 |  22.25    0.74
         4.083    0.80 |10.167    2.21 |16.250    1.84 |  22.33    0.74
         4.167    0.80 |10.250    2.21 |16.333    1.10 |  22.42    0.74
         4.250    0.80 |10.333    2.82 |16.417    1.10 |  22.50    0.74
         4.333    0.98 |10.417    2.82 |16.500    1.10 |  22.58    0.74
         4.417    0.98 |10.500    2.82 |16.583    1.10 |  22.67    0.74
         4.500    0.98 |10.583    2.82 |16.667    1.10 |  22.75    0.74
         4.583    0.98 |10.667    2.82 |16.750    1.10 |  22.83    0.74
         4.667    0.98 |10.750    2.82 |16.833    1.10 |  22.92    0.74
         4.750    0.98 |10.833    3.80 |16.917    1.10 |  23.00    0.74
         4.833    0.98 |10.917    3.80 |17.000    1.10 |  23.08    0.74
         4.917    0.98 |11.000    3.80 |17.083    1.10 |  23.17    0.74
         5.000    0.98 |11.083    3.80 |17.167    1.10 |  23.25    0.74
         5.083    0.98 |11.167    3.80 |17.250    1.10 |  23.33    0.74
         5.167    0.98 |11.250    3.80 |17.333    1.10 |  23.42    0.74
         5.250    0.98 |11.333    5.89 |17.417    1.10 |  23.50    0.74
         5.333    0.98 |11.417    5.89 |17.500    1.10 |  23.58    0.74
         5.417    0.98 |11.500    5.89 |17.583    1.10 |  23.67    0.74
         5.500    0.98 |11.583    5.89 |17.667    1.10 |  23.75    0.74
         5.583    0.98 |11.667    5.89 |17.750    1.10 |  23.83    0.74
         5.667    0.98 |11.750    5.89 |17.833    1.10 |  23.92    0.74
         5.750    0.98 |11.833   18.16 |17.917    1.10 |  24.00    0.74
         5.833    0.98 |11.917   18.16 |18.000    1.10 |  24.08    0.74
         5.917    0.98 |12.000   18.16 |18.083    1.10 |  24.17    0.74
         6.000    0.98 |12.083   75.10 |18.167    1.10 |  24.25    0.74
         6.083    0.98 |12.167   75.10 |18.250    1.10 |
```

Unit Hyd Qpeak (cms)= 0.236

PEAK FLOW (cms)= 0.039 (i)
TIME TO PEAK (hrs)= 13.083
RUNOFF VOLUME (mm)= 8.891
TOTAL RAINFALL (mm)= 61.360
RUNOFF COEFFICIENT = 0.145

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0132) | Area (ha)= 0.69
|ID= 1 DT= 5.0 min | Total Imp(%)= 42.00 Dir. Conn.(%)= 3.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.29	0.40
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	67.82	170.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

		IMPERVIOUS	PERVIOUS (i)
Max.Eff.Inten.(mm/hr)=		75.10	18.14
over (min)		5.00	40.00
Storage Coeff. (min)=		2.79 (ii)	36.08 (ii)
Unit Hyd. Tpeak (min)=		5.00	40.00
Unit Hyd. peak (cms)=		0.28	0.03
			TOTALS
PEAK FLOW (cms)=		0.00	0.01 0.013 (iii)
TIME TO PEAK (hrs)=		12.25	12.75 12.75
RUNOFF VOLUME (mm)=		60.36	15.74 17.05
TOTAL RAINFALL (mm)=		61.36	61.36 61.36
RUNOFF COEFFICIENT =		0.98	0.26 0.28

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| Junction Command(0131) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0132)	0.69	0.01	12.75	17.05
OUTFLOW: ID= 2(0131)	0.69	0.01	12.75	17.05

| ADD HYD (0129) |
| 1 + 2 = 3 |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0124):	56.94	0.109	14.67	24.53
+ ID2= 2 (0130):	5.38	0.039	13.08	8.89
ID = 3 (0129):	62.32	0.144	13.25	23.18

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0129) |
| 3 + 2 = 1 |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0129):	62.32	0.144	13.25	23.18
+ ID2= 2 (0131):	0.69	0.013	12.75	17.05
ID = 1 (0129):	63.01	0.153	13.17	23.11

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| Junction Command(0128) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 10(0123)	38.64	0.28	14.67	24.53
OUTFLOW: ID= 2(0128)	38.64	0.28	14.67	24.53

| CALIB |
| NASHYD (0109) | Area (ha)= 120.60 Curve Number (CN)= 73.3
|ID= 1 DT= 5.0 min | Ia (mm)= 6.90 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 1.06

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 1.824 (i)
TIME TO PEAK (hrs)= 13.333
RUNOFF VOLUME (mm)= 20.179
TOTAL RAINFALL (mm)= 61.360
RUNOFF COEFFICIENT = 0.329

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0106) | Area (ha)= 1.58
|ID= 1 DT= 5.0 min | Total Imp(%)= 30.20 Dir. Conn.(%)= 0.10

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.48	1.10
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	102.63	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74

4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Max.Eff.Inten.(mm/hr)=	75.10	64.26	
over (min)	5.00	20.00	
Storage Coeff. (min)=	3.95 (ii)	17.66 (ii)	
Unit Hyd. Tpeak (min)=	5.00	20.00	
Unit Hyd. peak (cms)=	0.24	0.06	
			TOTALS
PEAK FLOW (cms)=	0.00	0.10	0.103 (iii)
TIME TO PEAK (hrs)=	12.25	12.42	12.42
RUNOFF VOLUME (mm)=	60.36	31.88	31.90
TOTAL RAINFALL (mm)=	61.36	61.36	61.36
RUNOFF COEFFICIENT =	0.98	0.52	0.52

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0107)	Area (ha)=	0.72	
ID= 1 DT= 5.0 min	Total Imp(%)=	45.60	Dir. Conn.(%)= 3.50

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.33	0.39
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	69.28	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.98	12.250	75.10	18.33	1.10
0.167	0.00	6.250	0.98	12.333	8.84	18.42	1.10
0.250	0.00	6.333	1.10	12.417	8.84	18.50	1.10
0.333	0.67	6.417	1.10	12.500	8.84	18.58	1.10
0.417	0.67	6.500	1.10	12.583	8.84	18.67	1.10
0.500	0.67	6.583	1.10	12.667	8.84	18.75	1.10
0.583	0.67	6.667	1.10	12.750	8.84	18.83	1.10
0.667	0.67	6.750	1.10	12.833	4.54	18.92	1.10
0.750	0.67	6.833	1.10	12.917	4.54	19.00	1.10
0.833	0.67	6.917	1.10	13.000	4.54	19.08	1.10
0.917	0.67	7.000	1.10	13.083	4.54	19.17	1.10
1.000	0.67	7.083	1.10	13.167	4.54	19.25	1.10
1.083	0.67	7.167	1.10	13.250	4.54	19.33	1.10
1.167	0.67	7.250	1.10	13.333	3.31	19.42	1.10
1.250	0.67	7.333	1.35	13.417	3.31	19.50	1.10
1.333	0.67	7.417	1.35	13.500	3.31	19.58	1.10
1.417	0.67	7.500	1.35	13.583	3.31	19.67	1.10
1.500	0.67	7.583	1.35	13.667	3.31	19.75	1.10
1.583	0.67	7.667	1.35	13.750	3.31	19.83	1.10
1.667	0.67	7.750	1.35	13.833	2.58	19.92	1.10
1.750	0.67	7.833	1.35	13.917	2.58	20.00	1.10
1.833	0.67	7.917	1.35	14.000	2.58	20.08	1.10
1.917	0.67	8.000	1.35	14.083	2.58	20.17	1.10
2.000	0.67	8.083	1.35	14.167	2.58	20.25	1.10
2.083	0.67	8.167	1.35	14.250	2.58	20.33	0.74
2.167	0.67	8.250	1.35	14.333	1.84	20.42	0.74
2.250	0.67	8.333	1.60	14.417	1.84	20.50	0.74
2.333	0.80	8.417	1.60	14.500	1.84	20.58	0.74
2.417	0.80	8.500	1.60	14.583	1.84	20.67	0.74
2.500	0.80	8.583	1.60	14.667	1.84	20.75	0.74
2.583	0.80	8.667	1.60	14.750	1.84	20.83	0.74
2.667	0.80	8.750	1.60	14.833	1.84	20.92	0.74
2.750	0.80	8.833	1.72	14.917	1.84	21.00	0.74
2.833	0.80	8.917	1.72	15.000	1.84	21.08	0.74
2.917	0.80	9.000	1.72	15.083	1.84	21.17	0.74
3.000	0.80	9.083	1.72	15.167	1.84	21.25	0.74
3.083	0.80	9.167	1.72	15.250	1.84	21.33	0.74
3.167	0.80	9.250	1.72	15.333	1.84	21.42	0.74
3.250	0.80	9.333	1.96	15.417	1.84	21.50	0.74
3.333	0.80	9.417	1.96	15.500	1.84	21.58	0.74
3.417	0.80	9.500	1.96	15.583	1.84	21.67	0.74
3.500	0.80	9.583	1.96	15.667	1.84	21.75	0.74
3.583	0.80	9.667	1.96	15.750	1.84	21.83	0.74
3.667	0.80	9.750	1.96	15.833	1.84	21.92	0.74
3.750	0.80	9.833	2.21	15.917	1.84	22.00	0.74
3.833	0.80	9.917	2.21	16.000	1.84	22.08	0.74
3.917	0.80	10.000	2.21	16.083	1.84	22.17	0.74
4.000	0.80	10.083	2.21	16.167	1.84	22.25	0.74
4.083	0.80	10.167	2.21	16.250	1.84	22.33	0.74
4.167	0.80	10.250	2.21	16.333	1.10	22.42	0.74
4.250	0.80	10.333	2.82	16.417	1.10	22.50	0.74
4.333	0.98	10.417	2.82	16.500	1.10	22.58	0.74
4.417	0.98	10.500	2.82	16.583	1.10	22.67	0.74
4.500	0.98	10.583	2.82	16.667	1.10	22.75	0.74
4.583	0.98	10.667	2.82	16.750	1.10	22.83	0.74
4.667	0.98	10.750	2.82	16.833	1.10	22.92	0.74
4.750	0.98	10.833	3.80	16.917	1.10	23.00	0.74
4.833	0.98	10.917	3.80	17.000	1.10	23.08	0.74
4.917	0.98	11.000	3.80	17.083	1.10	23.17	0.74
5.000	0.98	11.083	3.80	17.167	1.10	23.25	0.74
5.083	0.98	11.167	3.80	17.250	1.10	23.33	0.74
5.167	0.98	11.250	3.80	17.333	1.10	23.42	0.74
5.250	0.98	11.333	5.89	17.417	1.10	23.50	0.74
5.333	0.98	11.417	5.89	17.500	1.10	23.58	0.74
5.417	0.98	11.500	5.89	17.583	1.10	23.67	0.74
5.500	0.98	11.583	5.89	17.667	1.10	23.75	0.74
5.583	0.98	11.667	5.89	17.750	1.10	23.83	0.74
5.667	0.98	11.750	5.89	17.833	1.10	23.92	0.74
5.750	0.98	11.833	18.16	17.917	1.10	24.00	0.74
5.833	0.98	11.917	18.16	18.000	1.10	24.08	0.74
5.917	0.98	12.000	18.16	18.083	1.10	24.17	0.74
6.000	0.98	12.083	75.10	18.167	1.10	24.25	0.74
6.083	0.98	12.167	75.10	18.250	1.10		

Max.Eff.Inten.(mm/hr)=	75.10	88.74	
over (min)	5.00	20.00	
Storage Coeff. (min)=	3.12 (ii)	15.17 (ii)	
Unit Hyd. Tpeak (min)=	5.00	20.00	
Unit Hyd. peak (cms)=	0.27	0.07	
			TOTALS
PEAK FLOW (cms)=	0.01	0.05	0.055 (iii)
TIME TO PEAK (hrs)=	12.25	12.42	12.42
RUNOFF VOLUME (mm)=	60.36	35.48	36.33
TOTAL RAINFALL (mm)=	61.36	61.36	61.36
RUNOFF COEFFICIENT =	0.98	0.58	0.59

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0029)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0106):	0.58	0.103	12.42	31.90
+ ID2= 2 (0107):	0.72	0.055	12.42	36.33
ID = 3 (0029):	2.30	0.157	12.42	33.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0029)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0029):	2.30	0.157	12.42	33.29
+ ID2= 2 (0109):	120.60	1.824	13.33	20.18
ID = 1 (0029):	122.90	1.855	13.33	20.42

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0122)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0128):	38.64	0.279	14.67	24.53
+ ID2= 2 (0029):	122.90	1.855	13.33	20.42
ID = 3 (0122):	161.54	2.132	13.33	21.41

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0135)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0122):	161.54	2.132	13.33	21.41
+ ID2= 2 (0129):	63.01	0.153	13.17	23.11
ID = 3 (0135):	224.55	2.284	13.33	21.88

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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V V I SSSSS U U A L (v 6.2.2020)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUUU A A LLLLL

OOO TTTTT TTTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\3d61a524-f
Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\3d61a524-f

DATE: 02-17-2026 TIME: 11:16:02

USER:

COMMENTS: _____

** SIMULATION : I. 5yr 24hr 15min SCS Type II **

READ STORM	Filename: C:\Users\cbuscher\AppD ata\Local\Temp\ 8fd31c55-74ba-441d-b6e1-b71abe5a781b\f1c83fd9
Ptotal= 81.42 mm	Comments: 5yr 24hr 15min SCS Type II (MTO) C

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.00	6.25	1.47	12.50	11.72	18.75	1.47
0.25	0.90	6.50	1.47	12.75	6.03	19.00	1.47
0.50	0.90	6.75	1.47	13.00	6.03	19.25	1.47
0.75	0.90	7.00	1.47	13.25	4.40	19.50	1.47
1.00	0.90	7.25	1.79	13.50	4.40	19.75	1.47
1.25	0.90	7.50	1.79	13.75	3.42	20.00	1.47
1.50	0.90	7.75	1.79	14.00	3.42	20.25	0.98
1.75	0.90	8.00	1.79	14.25	2.44	20.50	0.98
2.00	0.90	8.25	2.12	14.50	2.44	20.75	0.98
2.25	1.06	8.50	2.12	14.75	2.44	21.00	0.98
2.50	1.06	8.75	2.28	15.00	2.44	21.25	0.98
2.75	1.06	9.00	2.28	15.25	2.44	21.50	0.98
3.00	1.06	9.25	2.61	15.50	2.44	21.75	0.98
3.25	1.06	9.50	2.61	15.75	2.44	22.00	0.98
3.50	1.06	9.75	2.93	16.00	2.44	22.25	0.98
3.75	1.06	10.00	2.93	16.25	1.47	22.50	0.98
4.00	1.06	10.25	3.75	16.50	1.47	22.75	0.98
4.25	1.30	10.50	3.75	16.75	1.47	23.00	0.98
4.50	1.30	10.75	5.05	17.00	1.47	23.25	0.98
4.75	1.30	11.00	5.05	17.25	1.47	23.50	0.98
5.00	1.30	11.25	7.82	17.50	1.47	23.75	0.98
5.25	1.30	11.50	7.82	17.75	1.47	24.00	0.98
5.50	1.30	11.75	24.10	18.00	1.47		
5.75	1.30	12.00	99.66	18.25	1.47		
6.00	1.30	12.25	11.72	18.50	1.47		

CALIB			
STANDHYD (0133)	Area (ha)=	0.09	
ID= 1 DT= 5.0 min	Total Imp(%)=	43.30	Dir. Conn.(%)= 43.30

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.04	0.05
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	5.00	2.00
Length (m)=	24.49	46.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98

2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Max.Eff.Inten.(mm/hr)=	99.66	22.59	
over (min)	5.00	15.00	
Storage Coeff. (min)=	0.68 (ii)	14.59 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.34	0.08	
			TOTALS
PEAK FLOW (cms)=	0.01	0.00	0.012 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.25
RUNOFF VOLUME (mm)=	80.42	17.14	44.47
TOTAL RAINFALL (mm)=	81.42	81.42	81.42
RUNOFF COEFFICIENT =	0.99	0.21	0.55

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0134)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0133)	0.09	0.01	12.25	44.47
OUTFLOW: ID= 2(0134)	0.09	0.01	12.25	44.47

CALIB			
NASHYD (0007)	Area (ha)=	4.92	Curve Number (CN)= 75.1
ID= 1 DT= 5.0 min	Ia (mm)=	4.65	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)=	1.55	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Unit Hyd Qpeak (cms)= 0.121

PEAK FLOW	(cms)=	0.103 (i)
TIME TO PEAK	(hrs)=	13.833
RUNOFF VOLUME	(mm)=	36.609
TOTAL RAINFALL	(mm)=	81.420
RUNOFF COEFFICIENT	=	0.450

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
NASHYD (0057)	Area (ha)=	1.06	Curve Number (CN)= 55.0
ID= 1 DT= 5.0 min	Ia (mm)=	4.72	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)=	0.15	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW	(cms)=	0.063 (i)
TIME TO PEAK	(hrs)=	12.250
RUNOFF VOLUME	(mm)=	20.557
TOTAL RAINFALL	(mm)=	81.420
RUNOFF COEFFICIENT	=	0.252

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
NASHYD (0115)	Area (ha)=	0.78	Curve Number (CN)= 76.9
ID= 1 DT= 5.0 min	Ia (mm)=	5.10	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)=	1.17	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98

4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Unit Hyd Qpeak (cms)= 0.025

PEAK FLOW (cms)= 0.021 (i)
TIME TO PEAK (hrs)= 13.417
RUNOFF VOLUME (mm)= 38.162
TOTAL RAINFALL (mm)= 81.420
RUNOFF COEFFICIENT = 0.469

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0103)	Area (ha)= 0.33	Curve Number (CN)= 49.0			
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 3.00			
	U.H. Tp(hrs)= 0.13				

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Unit Hyd Qpeak (cms)= 0.010

PEAK FLOW (cms)= 0.004 (i)
TIME TO PEAK (hrs)= 13.000
RUNOFF VOLUME (mm)= 20.013
TOTAL RAINFALL (mm)= 81.420
RUNOFF COEFFICIENT = 0.246

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0003)	Area (ha)= 5.31		
ID= 1 DT= 5.0 min	Total Imp(%)= 39.70	Dir. Conn.(%)= 25.20	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.11	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	2.10	2.00
Length (m)=	188.15	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

			TOTALS
Max.Eff.Inten.(mm/hr)=	99.66	61.98	
over (min)	5.00	15.00	
Storage Coeff. (min)=	2.99 (ii)	10.88 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.28	0.09	
PEAK FLOW (cms)=	0.37	0.35	0.667 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.25
RUNOFF VOLUME (mm)=	80.42	33.86	45.59
TOTAL RAINFALL (mm)=	81.42	81.42	81.42
RUNOFF COEFFICIENT =	0.99	0.42	0.56

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 67.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Unit Hyd Qpeak (cms)= 0.097

PEAK FLOW (cms)= 0.018 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 16.966
TOTAL RAINFALL (mm)= 81.420
RUNOFF COEFFICIENT = 0.208

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0104)	Area (ha)= 0.20	Curve Number (CN)= 53.9			
ID= 1 DT= 5.0 min	Ia (mm)= 4.70	# of Linear Res.(N)= 3.00			
	U.H. Tp(hrs)= 0.76				

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

CALIB	STANDHYD (0052)	ID= 1 DT= 5.0 min	Area (ha)= 9.07	Total Imp(%)= 64.70	Dir. Conn.(%)= 32.30

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	5.87	3.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	245.90	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

				TOTALS
Max.Eff.Inten.(mm/hr)=		99.66	107.31	
over (min)		5.00	15.00	
Storage Coeff. (min)=		5.11 (ii)	11.44 (ii)	
Unit Hyd. Tpeak (min)=		5.00	15.00	
Unit Hyd. peak (cms)=		0.21	0.09	
PEAK FLOW	(cms)=	0.50	0.30	0.760 (iii)
TIME TO PEAK	(hrs)=	12.25	12.33	12.25
RUNOFF VOLUME	(mm)=	80.42	33.95	50.22
TOTAL RAINFALL	(mm)=	81.42	81.42	81.42
RUNOFF COEFFICIENT	=	0.99	0.42	0.62

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.7 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	STANDHYD (0056)	ID= 1 DT= 5.0 min	Area (ha)= 3.62	Total Imp(%)= 26.60	Dir. Conn.(%)= 20.80

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.96	2.66
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	2.00	2.00
Length	(m)=	155.35	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

				TOTALS
Max.Eff.Inten.(mm/hr)=		99.66	80.57	
over (min)		5.00	15.00	
Storage Coeff. (min)=		5.96 (ii)	13.07 (ii)	
Unit Hyd. Tpeak (min)=		5.00	15.00	
Unit Hyd. peak (cms)=		0.19	0.08	
PEAK FLOW	(cms)=	0.76	0.42	1.111 (iii)
TIME TO PEAK	(hrs)=	12.25	12.33	12.25
RUNOFF VOLUME	(mm)=	80.42	28.89	45.53
TOTAL RAINFALL	(mm)=	81.42	81.42	81.42
RUNOFF COEFFICIENT	=	0.99	0.35	0.56

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	STANDHYD (0053)	ID= 1 DT= 5.0 min	Area (ha)= 5.41	Total Imp(%)= 70.00	Dir. Conn.(%)= 35.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.79	1.62
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	189.91	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

				TOTALS
Max.Eff.Inten.(mm/hr)=		99.66	26.14	
over (min)		5.00	15.00	
Storage Coeff. (min)=		2.71 (ii)	13.85 (ii)	
Unit Hyd. Tpeak (min)=		5.00	15.00	
Unit Hyd. peak (cms)=		0.29	0.08	
PEAK FLOW	(cms)=	0.21	0.12	0.304 (iii)
TIME TO PEAK	(hrs)=	12.25	12.33	12.25
RUNOFF VOLUME	(mm)=	80.42	18.32	31.24
TOTAL RAINFALL	(mm)=	81.42	81.42	81.42
RUNOFF COEFFICIENT	=	0.99	0.23	0.38

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB              |
| STANDHYD (  0108)| Area    (ha)=   1.00
|ID= 1 DT= 5.0 min | Total Imp(%)=  24.00   Dir. Conn.(%)=   0.10
--------------------
                        IMPERVIOUS     PERVIOUS (i)
     Surface Area     (ha)=      0.24         0.76
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope    (%)=      0.36         2.00
     Length           (m)=     81.65        90.00
     Mannings n             =   0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    0.00 | 6.167    1.30 |12.250   99.66 | 18.33    1.47
 0.167    0.00 | 6.250    1.30 |12.333   11.74 | 18.42    1.47
 0.250    0.00 | 6.333    1.47 |12.417   11.72 | 18.50    1.47
 0.333    0.90 | 6.417    1.47 |12.500   11.72 | 18.58    1.47
 0.417    0.90 | 6.500    1.47 |12.583   11.72 | 18.67    1.47
 0.500    0.90 | 6.583    1.47 |12.667   11.72 | 18.75    1.47
 0.583    0.90 | 6.667    1.47 |12.750   11.72 | 18.83    1.47
 0.667    0.90 | 6.750    1.47 |12.833    6.03 | 18.92    1.47
 0.750    0.90 | 6.833    1.47 |12.917    6.03 | 19.00    1.47
 0.833    0.90 | 6.917    1.47 |13.000    6.03 | 19.08    1.47
 0.917    0.90 | 7.000    1.47 |13.083    6.03 | 19.17    1.47
 1.000    0.90 | 7.083    1.47 |13.167    6.03 | 19.25    1.47
 1.083    0.90 | 7.167    1.47 |13.250    6.03 | 19.33    1.47
 1.167    0.90 | 7.250    1.47 |13.333    4.40 | 19.42    1.47
 1.250    0.90 | 7.333    1.79 |13.417    4.40 | 19.50    1.47
 1.333    0.90 | 7.417    1.79 |13.500    4.40 | 19.58    1.47
 1.417    0.90 | 7.500    1.79 |13.583    4.40 | 19.67    1.47
 1.500    0.90 | 7.583    1.79 |13.667    4.40 | 19.75    1.47
 1.583    0.90 | 7.667    1.79 |13.750    4.40 | 19.83    1.47
 1.667    0.90 | 7.750    1.79 |13.833    3.42 | 19.92    1.47
 1.750    0.90 | 7.833    1.79 |13.917    3.42 | 20.00    1.47
 1.833    0.90 | 7.917    1.79 |14.000    3.42 | 20.08    1.47
 1.917    0.90 | 8.000    1.79 |14.083    3.42 | 20.17    1.47
 2.000    0.90 | 8.083    1.79 |14.167    3.42 | 20.25    1.47
 2.083    0.90 | 8.167    1.79 |14.250    3.42 | 20.33    0.98
 2.167    0.90 | 8.250    1.79 |14.333    2.44 | 20.42    0.98
 2.250    0.90 | 8.333    2.12 |14.417    2.44 | 20.50    0.98
 2.333    1.06 | 8.417    2.12 |14.500    2.44 | 20.58    0.98
 2.417    1.06 | 8.500    2.12 |14.583    2.44 | 20.67    0.98
 2.500    1.06 | 8.583    2.12 |14.667    2.44 | 20.75    0.98
 2.583    1.06 | 8.667    2.12 |14.750    2.44 | 20.83    0.98
 2.667    1.06 | 8.750    2.12 |14.833    2.44 | 20.92    0.98
 2.750    1.06 | 8.833    2.28 |14.917    2.44 | 21.00    0.98
 2.833    1.06 | 8.917    2.28 |15.000    2.44 | 21.08    0.98
 2.917    1.06 | 9.000    2.28 |15.083    2.44 | 21.17    0.98
 3.000    1.06 | 9.083    2.28 |15.167    2.44 | 21.25    0.98
 3.083    1.06 | 9.167    2.28 |15.250    2.44 | 21.33    0.98
 3.167    1.06 | 9.250    2.28 |15.333    2.44 | 21.42    0.98
 3.250    1.06 | 9.333    2.61 |15.417    2.44 | 21.50    0.98
 3.333    1.06 | 9.417    2.61 |15.500    2.44 | 21.58    0.98
 3.417    1.06 | 9.500    2.61 |15.583    2.44 | 21.67    0.98
 3.500    1.06 | 9.583    2.61 |15.667    2.44 | 21.75    0.98
 3.583    1.06 | 9.667    2.61 |15.750    2.44 | 21.83    0.98
 3.667    1.06 | 9.750    2.61 |15.833    2.44 | 21.92    0.98
 3.750    1.06 | 9.833    2.93 |15.917    2.44 | 22.00    0.98
 3.833    1.06 | 9.917    2.93 |16.000    2.44 | 22.08    0.98
 3.917    1.06 |10.000    2.93 |16.083    2.44 | 22.17    0.98
 4.000    1.06 |10.083    2.93 |16.167    2.44 | 22.25    0.98
 4.083    1.06 |10.167    2.93 |16.250    2.44 | 22.33    0.98
 4.167    1.06 |10.250    2.93 |16.333    1.47 | 22.42    0.98
 4.250    1.06 |10.333    3.75 |16.417    1.47 | 22.50    0.98
 4.333    1.30 |10.417    3.75 |16.500    1.47 | 22.58    0.98
 4.417    1.30 |10.500    3.75 |16.583    1.47 | 22.67    0.98
 4.500    1.30 |10.583    3.75 |16.667    1.47 | 22.75    0.98
 4.583    1.30 |10.667    3.75 |16.750    1.47 | 22.83    0.98
 4.667    1.30 |10.750    3.75 |16.833    1.47 | 22.92    0.98
 4.750    1.30 |10.833    5.05 |16.917    1.47 | 23.00    0.98
 4.833    1.30 |10.917    5.05 |17.000    1.47 | 23.08    0.98
 4.917    1.30 |11.000    5.05 |17.083    1.47 | 23.17    0.98
 5.000    1.30 |11.083    5.05 |17.167    1.47 | 23.25    0.98
 5.083    1.30 |11.167    5.05 |17.250    1.47 | 23.33    0.98
 5.167    1.30 |11.250    5.05 |17.333    1.47 | 23.42    0.98
 5.250    1.30 |11.333    7.82 |17.417    1.47 | 23.50    0.98
 5.333    1.30 |11.417    7.82 |17.500    1.47 | 23.58    0.98
 5.417    1.30 |11.500    7.82 |17.583    1.47 | 23.67    0.98
 5.500    1.30 |11.583    7.82 |17.667    1.47 | 23.75    0.98
 5.583    1.30 |11.667    7.82 |17.750    1.47 | 23.83    0.98
 5.667    1.30 |11.750    7.82 |17.833    1.47 | 23.92    0.98
 5.750    1.30 |11.833   24.10 |17.917    1.47 | 24.00    0.98
 5.833    1.30 |11.917   24.10 |18.000    1.47 | 24.08    0.98
 5.917    1.30 |12.000   24.10 |18.083    1.47 | 24.17    0.98
 6.000    1.30 |12.083   99.65 |18.167    1.47 | 24.25    0.98
 6.083    1.30 |12.167   99.66 |18.250    1.47 |

     Max.Eff.Inten.(mm/hr)=      99.66        30.00
               over (min)        5.00        25.00
     Storage Coeff.  (min)=      3.08 (ii)   21.66 (ii)
     Unit Hyd. Tpeak (min)=      5.00        25.00
     Unit Hyd. peak  (cms)=      0.27         0.05
                                                    *TOTALS*
     PEAK FLOW       (cms)=      0.00         0.04      0.036 (iii)
     TIME TO PEAK    (hrs)=     12.25        12.50        12.50
     RUNOFF VOLUME    (mm)=     80.42        21.61        21.66
     TOTAL RAINFALL   (mm)=     81.42        81.42        81.42
     RUNOFF COEFFICIENT   =      0.99         0.27         0.27

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0103):      0.33   0.018    12.25    16.97
     + ID2= 2 (  0104):      0.20   0.004    13.00    20.01
       ==============================================
       ID = 3 (  0032):      0.53   0.019    12.25    18.12

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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--------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):      0.53   0.019    12.25    18.12
     + ID2= 2 (  0108):      1.00   0.036    12.50    21.66
       ==============================================
       ID = 1 (  0032):      1.53   0.045    12.50    20.43

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):      1.53   0.045    12.50    20.43
     + ID2= 2 (  0115):      0.78   0.021    13.42    38.16
       ==============================================
       ID = 3 (  0032):      2.31   0.055    12.50    26.42

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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--------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):      2.31   0.055    12.50    26.42
     + ID2= 2 (  0003):      5.31   0.667    12.25    45.59
       ==============================================
       ID = 1 (  0032):      7.62   0.710    12.25    39.78

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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--------------------
| ADD HYD  (  0032)|
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|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):      7.62   0.710    12.25    39.78
     + ID2= 2 (  0052):      9.07   1.111    12.25    45.53
       ==============================================
       ID = 3 (  0032):     16.69   1.821    12.25    42.91

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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--------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):     16.69   1.821    12.25    42.91
     + ID2= 2 (  0053):      5.41   0.760    12.25    50.22
       ==============================================
       ID = 1 (  0032):     22.10   2.581    12.25    44.70

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):     22.10   2.581    12.25    44.70
     + ID2= 2 (  0056):      3.62   0.304    12.25    31.24
       ==============================================
       ID = 3 (  0032):     25.72   2.885    12.25    42.80

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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--------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):     25.72   2.885    12.25    42.80
     + ID2= 2 (  0057):      1.06   0.063    12.25    20.56
       ==============================================
       ID = 1 (  0032):     26.78   2.949    12.25    41.92

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):     26.78   2.949    12.25    41.92
     + ID2= 2 (  0007):      4.92   0.103    13.83    36.61
       ==============================================
       ID = 3 (  0032):     31.70   2.967    12.25    41.10

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB              |
| STANDHYD (  0004)| Area    (ha)=   8.04
|ID= 1 DT= 5.0 min | Total Imp(%)=  70.00   Dir. Conn.(%)=  35.00
--------------------
                        IMPERVIOUS     PERVIOUS (i)
     Surface Area     (ha)=      5.63         2.41
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope    (%)=      0.36         2.00
     Length           (m)=    231.52        35.00
     Mannings n             =   0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    0.00 | 6.167    1.30 |12.250   99.66 | 18.33    1.47
 0.167    0.00 | 6.250    1.30 |12.333   11.74 | 18.42    1.47
 0.250    0.00 | 6.333    1.47 |12.417   11.72 | 18.50    1.47
 0.333    0.90 | 6.417    1.47 |12.500   11.72 | 18.58    1.47
 0.417    0.90 | 6.500    1.47 |12.583   11.72 | 18.67    1.47
 0.500    0.90 | 6.583    1.47 |12.667   11.72 | 18.75    1.47
 0.583    0.90 | 6.667    1.47 |12.750   11.72 | 18.83    1.47
 0.667    0.90 | 6.750    1.47 |12.833    6.03 | 18.92    1.47
 0.750    0.90 | 6.833    1.47 |12.917    6.03 | 19.00    1.47
 0.833    0.90 | 6.917    1.47 |13.000    6.03 | 19.08    1.47
 0.917    0.90 | 7.000    1.47 |13.083    6.03 | 19.17    1.47
 1.000    0.90 | 7.083    1.47 |13.167    6.03 | 19.25    1.47
 1.083    0.90 | 7.167    1.47 |13.250    6.03 | 19.33    1.47
 1.167    0.90 | 7.250    1.47 |13.333    4.40 | 19.42    1.47
 1.250    0.90 | 7.333    1.79 |13.417    4.40 | 19.50    1.47
 1.333    0.90 | 7.417    1.79 |13.500    4.40 | 19.58    1.47
 1.417    0.90 | 7.500    1.79 |13.583    4.40 | 19.67    1.47
 1.500    0.90 | 7.583    1.79 |13.667    4.40 | 19.75    1.47
 1.583    0.90 | 7.667    1.79 |13.750    4.40 | 19.83    1.47
 1.667    0.90 | 7.750    1.79 |13.833    3.42 | 19.92    1.47
 1.750    0.90 | 7.833    1.79 |13.917    3.42 | 20.00    1.47
 1.833    0.90 | 7.917    1.79 |14.000    3.42 | 20.08    1.47
 1.917    0.90 | 8.000    1.79 |14.083    3.42 | 20.17    1.47
 2.000    0.90 | 8.083    1.79 |14.167    3.42 | 20.25    1.47
 2.083    0.90 | 8.167    1.79 |14.250    3.42 | 20.33    0.98
 2.167    0.90 | 8.250    1.79 |14.333    2.44 | 20.42    0.98
 2.250    0.90 | 8.333    2.12 |14.417    2.44 | 20.50    0.98
 2.333    1.06 | 8.417    2.12 |14.500    2.44 | 20.58    0.98
 2.417    1.06 | 8.500    2.12 |14.583    2.44 | 20.67    0.98
 2.500    1.06 | 8.583    2.12 |14.667    2.44 | 20.75    0.98
 2.583    1.06 | 8.667    2.12 |14.750    2.44 | 20.83    0.98
 2.667    1.06 | 8.750    2.12 |14.833    2.44 | 20.92    0.98
 2.750    1.06 | 8.833    2.28 |14.917    2.44 | 21.00    0.98
 2.833    1.06 | 8.917    2.28 |15.000    2.44 | 21.08    0.98
 2.917    1.06 | 9.000    2.28 |15.083    2.44 | 21.17    0.98
 3.000    1.06 | 9.083    2.28 |15.167    2.44 | 21.25    0.98
 3.083    1.06 | 9.167    2.28 |15.250    2.44 | 21.33    0.98
 3.167    1.06 | 9.250    2.28 |15.333    2.44 | 21.42    0.98
 3.250    1.06 | 9.333    2.61 |15.417    2.44 | 21.50    0.98
 3.333    1.06 | 9.417    2.61 |15.500    2.44 | 21.58    0.98
 3.417    1.06 | 9.500    2.61 |15.583    2.44 | 21.67    0.98
 3.500    1.06 | 9.583    2.61 |15.667    2.44 | 21.75    0.98
 3.583    1.06 | 9.667    2.61 |15.750    2.44 | 21.83    0.98
 3.667    1.06 | 9.750    2.61 |15.833    2.44 | 21.92    0.98
 3.750    1.06 | 9.833    2.93 |15.917    2.44 | 22.00    0.98
 3.833    1.06 | 9.917    2.93 |16.000    2.44 | 22.08    0.98
 3.917    1.06 |10.000    2.93 |16.083    2.44 | 22.17    0.98
 4.000    1.06 |10.083    2.93 |16.167    2.44 | 22.25    0.98
 4.083    1.06 |10.167    2.93 |16.250    2.44 | 22.33    0.98
 4.167    1.06 |10.250    2.93 |16.333    1.47 | 22.42    0.98
 4.250    1.06 |10.333    3.75 |16.417    1.47 | 22.50    0.98
 4.333    1.30 |10.417    3.75 |16.500    1.47 | 22.58    0.98
 4.417    1.30 |10.500    3.75 |16.583    1.47 | 22.67    0.98
 4.500    1.30 |10.583    3.75 |16.667    1.47 | 22.75    0.98
 4.583    1.30 |10.667    3.75 |16.750    1.47 | 22.83    0.98
 4.667    1.30 |10.750    3.75 |16.833    1.47 | 22.92    0.98
 4.750    1.30 |10.833    5.05 |16.917    1.47 | 23.00    0.98
 4.833    1.30 |10.917    5.05 |17.000    1.47 | 23.08    0.98
 4.917    1.30 |11.000    5.05 |17.083    1.47 | 23.17    0.98
 5.000    1.30 |11.083    5.05 |17.167    1.47 | 23.25    0.98
 5.083    1.30 |11.167    5.05 |17.250    1.47 | 23.33    0.98
 5.167    1.30 |11.250    5.05 |17.333    1.47 | 23.42    0.98
 5.250    1.30 |11.333    7.82 |17.417    1.47 | 23.50    0.98
 5.333    1.30 |11.417    7.82 |17.500    1.47 | 23.58    0.98
 5.417    1.30 |11.500    7.82 |17.583    1.47 | 23.67    0.98
 5.500    1.30 |11.583    7.82 |17.667    1.47 | 23.75    0.98
 5.583    1.30 |11.667    7.82 |17.750    1.47 | 23.83    0.98
 5.667    1.30 |11.750    7.82 |17.833    1.47 | 23.92    0.98
 5.750    1.30 |11.833   24.10 |17.917    1.47 | 24.00    0.98
 5.833    1.30 |11.917   24.10 |18.000    1.47 | 24.08    0.98
 5.917    1.30 |12.000   24.10 |18.083    1.47 | 24.17    0.98
 6.000    1.30 |12.083   99.65 |18.167    1.47 | 24.25    0.98
 6.083    1.30 |12.167   99.66 |18.250    1.47 |

     Max.Eff.Inten.(mm/hr)=      99.66       177.70
               over (min)        5.00        15.00
     Storage Coeff.  (min)=      5.75 (ii)   10.93 (ii)
     Unit Hyd. Tpeak (min)=      5.00        15.00
     Unit Hyd. peak  (cms)=      0.20         0.09
                                                    *TOTALS*
     PEAK FLOW       (cms)=      0.73         0.78      1.433 (iii)
     TIME TO PEAK    (hrs)=     12.25        12.33        12.25
     RUNOFF VOLUME    (mm)=     80.42        56.76        65.04
     TOTAL RAINFALL   (mm)=     81.42        81.42        81.42
     RUNOFF COEFFICIENT   =      0.99         0.70         0.80

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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| CALIB             |
| STANDHYD (  0054) |   Area    (ha)=   8.46
|ID= 1 DT= 5.0 min  |   Total Imp(%)=  59.70   Dir. Conn.(%)=  25.90
 -------------------

                        IMPERVIOUS     PERVIOUS (i)
     Surface Area     (ha)=      5.05          3.41
     Dep. Storage     (mm)=      1.00          5.00
     Average Slope     (%)=      1.59          2.00
     Length            (m)=    237.49         35.00
     Mannings n             =     0.013         0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    0.00 | 6.167    1.30 |12.250   99.66 | 18.33    1.47
     0.167    0.00 | 6.250    1.30 |12.333   11.74 | 18.42    1.47
     0.250    0.00 | 6.333    1.47 |12.417   11.72 | 18.50    1.47
     0.333    0.90 | 6.417    1.47 |12.500   11.72 | 18.58    1.47
     0.417    0.90 | 6.500    1.47 |12.583   11.72 | 18.67    1.47
     0.500    0.90 | 6.583    1.47 |12.667   11.72 | 18.75    1.47
     0.583    0.90 | 6.667    1.47 |12.750   11.72 | 18.83    1.47
     0.667    0.90 | 6.750    1.47 |12.833    6.03 | 18.92    1.47
     0.750    0.90 | 6.833    1.47 |12.917    6.03 | 19.00    1.47
     0.833    0.90 | 6.917    1.47 |13.000    6.03 | 19.08    1.47
     0.917    0.90 | 7.000    1.47 |13.083    6.03 | 19.17    1.47
     1.000    0.90 | 7.083    1.47 |13.167    6.03 | 19.25    1.47
     1.083    0.90 | 7.167    1.47 |13.250    6.03 | 19.33    1.47
     1.167    0.90 | 7.250    1.47 |13.333    4.40 | 19.42    1.47
     1.250    0.90 | 7.333    1.79 |13.417    4.40 | 19.50    1.47
     1.333    0.90 | 7.417    1.79 |13.500    4.40 | 19.58    1.47
     1.417    0.90 | 7.500    1.79 |13.583    4.40 | 19.67    1.47
     1.500    0.90 | 7.583    1.79 |13.667    4.40 | 19.75    1.47
     1.583    0.90 | 7.667    1.79 |13.750    4.40 | 19.83    1.47
     1.667    0.90 | 7.750    1.79 |13.833    3.42 | 19.92    1.47
     1.750    0.90 | 7.833    1.79 |13.917    3.42 | 20.00    1.47
     1.833    0.90 | 7.917    1.79 |14.000    3.42 | 20.08    1.47
     1.917    0.90 | 8.000    1.79 |14.083    3.42 | 20.17    1.47
     2.000    0.90 | 8.083    1.79 |14.167    3.42 | 20.25    1.47
     2.083    0.90 | 8.167    1.79 |14.250    3.42 | 20.33    0.98
     2.167    0.90 | 8.250    1.79 |14.333    2.44 | 20.42    0.98
     2.250    0.90 | 8.333    2.12 |14.417    2.44 | 20.50    0.98
     2.333    1.06 | 8.417    2.12 |14.500    2.44 | 20.58    0.98
     2.417    1.06 | 8.500    2.12 |14.583    2.44 | 20.67    0.98
     2.500    1.06 | 8.583    2.12 |14.667    2.44 | 20.75    0.98
     2.583    1.06 | 8.667    2.12 |14.750    2.44 | 20.83    0.98
     2.667    1.06 | 8.750    2.12 |14.833    2.44 | 20.92    0.98
     2.750    1.06 | 8.833    2.28 |14.917    2.44 | 21.00    0.98
     2.833    1.06 | 8.917    2.28 |15.000    2.44 | 21.08    0.98
     2.917    1.06 | 9.000    2.28 |15.083    2.44 | 21.17    0.98
     3.000    1.06 | 9.083    2.28 |15.167    2.44 | 21.25    0.98
     3.083    1.06 | 9.167    2.28 |15.250    2.44 | 21.33    0.98
     3.167    1.06 | 9.250    2.28 |15.333    2.44 | 21.42    0.98
     3.250    1.06 | 9.333    2.61 |15.417    2.44 | 21.50    0.98
     3.333    1.06 | 9.417    2.61 |15.500    2.44 | 21.58    0.98
     3.417    1.06 | 9.500    2.61 |15.583    2.44 | 21.67    0.98
     3.500    1.06 | 9.583    2.61 |15.667    2.44 | 21.75    0.98
     3.583    1.06 | 9.667    2.61 |15.750    2.44 | 21.83    0.98
     3.667    1.06 | 9.750    2.61 |15.833    2.44 | 21.92    0.98
     3.750    1.06 | 9.833    2.93 |15.917    2.44 | 22.00    0.98
     3.833    1.06 | 9.917    2.93 |16.000    2.44 | 22.08    0.98
     3.917    1.06 |10.000    2.93 |16.083    2.44 | 22.17    0.98
     4.000    1.06 |10.083    2.93 |16.167    2.44 | 22.25    0.98
     4.083    1.06 |10.167    2.93 |16.250    2.44 | 22.33    0.98
     4.167    1.06 |10.250    2.93 |16.333    1.47 | 22.42    0.98
     4.250    1.06 |10.333    3.75 |16.417    1.47 | 22.50    0.98
     4.333    1.30 |10.417    3.75 |16.500    1.47 | 22.58    0.98
     4.417    1.30 |10.500    3.75 |16.583    1.47 | 22.67    0.98
     4.500    1.30 |10.583    3.75 |16.667    1.47 | 22.75    0.98
     4.583    1.30 |10.667    3.75 |16.750    1.47 | 22.83    0.98
     4.667    1.30 |10.750    3.75 |16.833    1.47 | 22.92    0.98
     4.750    1.30 |10.833    5.05 |16.917    1.47 | 23.00    0.98
     4.833    1.30 |10.917    5.05 |17.000    1.47 | 23.08    0.98
     4.917    1.30 |11.000    5.05 |17.083    1.47 | 23.17    0.98
     5.000    1.30 |11.083    5.05 |17.167    1.47 | 23.25    0.98
     5.083    1.30 |11.167    5.05 |17.250    1.47 | 23.33    0.98
     5.167    1.30 |11.250    5.05 |17.333    1.47 | 23.42    0.98
     5.250    1.30 |11.333    7.82 |17.417    1.47 | 23.50    0.98
     5.333    1.30 |11.417    7.82 |17.500    1.47 | 23.58    0.98
     5.417    1.30 |11.500    7.82 |17.583    1.47 | 23.67    0.98
     5.500    1.30 |11.583    7.82 |17.667    1.47 | 23.75    0.98
     5.583    1.30 |11.667    7.82 |17.750    1.47 | 23.83    0.98
     5.667    1.30 |11.750    7.82 |17.833    1.47 | 23.92    0.98
     5.750    1.30 |11.833   24.10 |17.917    1.47 | 24.00    0.98
     5.833    1.30 |11.917   24.10 |18.000    1.47 | 24.08    0.98
     5.917    1.30 |12.000   24.10 |18.083    1.47 | 24.17    0.98
     6.000    1.30 |12.083   99.65 |18.167    1.47 | 24.25    0.98
     6.083    1.30 |12.167   99.66 |18.250    1.47 |

     Max.Eff.Inten.(mm/hr)=      99.66       143.89
               over (min)        5.00        10.00
     Storage Coeff.  (min)=     3.74 (ii)    9.37 (ii)
     Unit Hyd. Tpeak (min)=     5.00        10.00
     Unit Hyd. peak  (cms)=     0.25         0.12
                                                    *TOTALS*
     PEAK FLOW       (cms)=     0.60         1.00     1.601 (iii)
     TIME TO PEAK    (hrs)=    12.25        12.25    12.25
     RUNOFF VOLUME    (mm)=    80.42        53.66    60.59
     TOTAL RAINFALL   (mm)=    81.42        81.42    81.42
     RUNOFF COEFFICIENT   =     0.99         0.66     0.74

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  79.0   Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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 -------------------
| ADD HYD  (  0055)|
|  1 +  2 =  3     |          AREA    QPEAK    TPEAK     R.V.
 -------------------           (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0004):      8.04    1.433    12.25    65.04
      + ID2= 2 (  0054):      8.46    1.601    12.25    60.59
        ==========================================================
        ID = 3 (  0055):     16.50    3.034    12.25    62.76

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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 -------------------
| ADD HYD  (  0060)|
|  1 +  2 =  3     |          AREA    QPEAK    TPEAK     R.V.
 -------------------           (ha)    (cms)    (hrs)     (mm)
        ID1= 1 (  0032):     31.70    2.967    12.25    41.10
      + ID2= 2 (  0055):     16.50    3.034    12.25    62.76
        ==========================================================
        ID = 3 (  0060):     48.20    6.001    12.25    48.51

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  -------------------------
  | Junction Command(0025) |
  -------------------------

                             AREA     QPEAK   TPEAK     R.V.
                             (ha)     (cms)    (hrs)    (mm)
  INFLOW : ID= 1(  0060)    48.20     6.00    12.25    48.51
  OUTFLOW: ID= 2(  0025)    48.20     6.00    12.25    48.51

  ---------------------------------------------------------------------------------------
 -------------------
| CALIB             |
| NASHYD  (  0110)  |   Area    (ha)=   9.49   Curve Number   (CN)= 56.7
|ID= 1 DT= 5.0 min  |   Ia      (mm)=   4.53   # of Linear Res.(N)= 3.00
 -------------------    U.H. Tp(hrs)=   0.25

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    0.00 | 6.167    1.30 |12.250   99.66 | 18.33    1.47
     0.167    0.00 | 6.250    1.30 |12.333   11.74 | 18.42    1.47
     0.250    0.00 | 6.333    1.47 |12.417   11.72 | 18.50    1.47
     0.333    0.90 | 6.417    1.47 |12.500   11.72 | 18.58    1.47
     0.417    0.90 | 6.500    1.47 |12.583   11.72 | 18.67    1.47
     0.500    0.90 | 6.583    1.47 |12.667   11.72 | 18.75    1.47
     0.583    0.90 | 6.667    1.47 |12.750   11.72 | 18.83    1.47
     0.667    0.90 | 6.750    1.47 |12.833    6.03 | 18.92    1.47
     0.750    0.90 | 6.833    1.47 |12.917    6.03 | 19.00    1.47
     0.833    0.90 | 6.917    1.47 |13.000    6.03 | 19.08    1.47
     0.917    0.90 | 7.000    1.47 |13.083    6.03 | 19.17    1.47
     1.000    0.90 | 7.083    1.47 |13.167    6.03 | 19.25    1.47
     1.083    0.90 | 7.167    1.47 |13.250    6.03 | 19.33    1.47
     1.167    0.90 | 7.250    1.47 |13.333    4.40 | 19.42    1.47
     1.250    0.90 | 7.333    1.79 |13.417    4.40 | 19.50    1.47
     1.333    0.90 | 7.417    1.79 |13.500    4.40 | 19.58    1.47
     1.417    0.90 | 7.500    1.79 |13.583    4.40 | 19.67    1.47
     1.500    0.90 | 7.583    1.79 |13.667    4.40 | 19.75    1.47
     1.583    0.90 | 7.667    1.79 |13.750    4.40 | 19.83    1.47
     1.667    0.90 | 7.750    1.79 |13.833    3.42 | 19.92    1.47
     1.750    0.90 | 7.833    1.79 |13.917    3.42 | 20.00    1.47
     1.833    0.90 | 7.917    1.79 |14.000    3.42 | 20.08    1.47
     1.917    0.90 | 8.000    1.79 |14.083    3.42 | 20.17    1.47
     2.000    0.90 | 8.083    1.79 |14.167    3.42 | 20.25    1.47
     2.083    0.90 | 8.167    1.79 |14.250    3.42 | 20.33    0.98
     2.167    0.90 | 8.250    1.79 |14.333    2.44 | 20.42    0.98
     2.250    0.90 | 8.333    2.12 |14.417    2.44 | 20.50    0.98
     2.333    1.06 | 8.417    2.12 |14.500    2.44 | 20.58    0.98
     2.417    1.06 | 8.500    2.12 |14.583    2.44 | 20.67    0.98
     2.500    1.06 | 8.583    2.12 |14.667    2.44 | 20.75    0.98
     2.583    1.06 | 8.667    2.12 |14.750    2.44 | 20.83    0.98
     2.667    1.06 | 8.750    2.12 |14.833    2.44 | 20.92    0.98
     2.750    1.06 | 8.833    2.28 |14.917    2.44 | 21.00    0.98
     2.833    1.06 | 8.917    2.28 |15.000    2.44 | 21.08    0.98
     2.917    1.06 | 9.000    2.28 |15.083    2.44 | 21.17    0.98
     3.000    1.06 | 9.083    2.28 |15.167    2.44 | 21.25    0.98
     3.083    1.06 | 9.167    2.28 |15.250    2.44 | 21.33    0.98
     3.167    1.06 | 9.250    2.28 |15.333    2.44 | 21.42    0.98
     3.250    1.06 | 9.333    2.61 |15.417    2.44 | 21.50    0.98
     3.333    1.06 | 9.417    2.61 |15.500    2.44 | 21.58    0.98
     3.417    1.06 | 9.500    2.61 |15.583    2.44 | 21.67    0.98
     3.500    1.06 | 9.583    2.61 |15.667    2.44 | 21.75    0.98
     3.583    1.06 | 9.667    2.61 |15.750    2.44 | 21.83    0.98
     3.667    1.06 | 9.750    2.61 |15.833    2.44 | 21.92    0.98
     3.750    1.06 | 9.833    2.93 |15.917    2.44 | 22.00    0.98
     3.833    1.06 | 9.917    2.93 |16.000    2.44 | 22.08    0.98
     3.917    1.06 |10.000    2.93 |16.083    2.44 | 22.17    0.98
     4.000    1.06 |10.083    2.93 |16.167    2.44 | 22.25    0.98
     4.083    1.06 |10.167    2.93 |16.250    2.44 | 22.33    0.98
     4.167    1.06 |10.250    2.93 |16.333    1.47 | 22.42    0.98
     4.250    1.06 |10.333    3.75 |16.417    1.47 | 22.50    0.98
     4.333    1.30 |10.417    3.75 |16.500    1.47 | 22.58    0.98
     4.417    1.30 |10.500    3.75 |16.583    1.47 | 22.67    0.98
     4.500    1.30 |10.583    3.75 |16.667    1.47 | 22.75    0.98
     4.583    1.30 |10.667    3.75 |16.750    1.47 | 22.83    0.98
     4.667    1.30 |10.750    3.75 |16.833    1.47 | 22.92    0.98
     4.750    1.30 |10.833    5.05 |16.917    1.47 | 23.00    0.98
     4.833    1.30 |10.917    5.05 |17.000    1.47 | 23.08    0.98
     4.917    1.30 |11.000    5.05 |17.083    1.47 | 23.17    0.98
     5.000    1.30 |11.083    5.05 |17.167    1.47 | 23.25    0.98
     5.083    1.30 |11.167    5.05 |17.250    1.47 | 23.33    0.98
     5.167    1.30 |11.250    5.05 |17.333    1.47 | 23.42    0.98
     5.250    1.30 |11.333    7.82 |17.417    1.47 | 23.50    0.98
     5.333    1.30 |11.417    7.82 |17.500    1.47 | 23.58    0.98
     5.417    1.30 |11.500    7.82 |17.583    1.47 | 23.67    0.98
     5.500    1.30 |11.583    7.82 |17.667    1.47 | 23.75    0.98
     5.583    1.30 |11.667    7.82 |17.750    1.47 | 23.83    0.98
     5.667    1.30 |11.750    7.82 |17.833    1.47 | 23.92    0.98
     5.750    1.30 |11.833   24.10 |17.917    1.47 | 24.00    0.98
     5.833    1.30 |11.917   24.10 |18.000    1.47 | 24.08    0.98
     5.917    1.30 |12.000   24.10 |18.083    1.47 | 24.17    0.98
     6.000    1.30 |12.083   99.65 |18.167    1.47 | 24.25    0.98
     6.083    1.30 |12.167   99.66 |18.250    1.47 |

     Unit Hyd Qpeak  (cms)=   1.450

     PEAK FLOW       (cms)=   0.433 (i)
     TIME TO PEAK    (hrs)=  12.333
     RUNOFF VOLUME    (mm)=  21.809
     TOTAL RAINFALL   (mm)=  81.420
     RUNOFF COEFFICIENT   =   0.268

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  | Junction Command(0062) |
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                             AREA     QPEAK   TPEAK     R.V.
                             (ha)     (cms)    (hrs)    (mm)
  INFLOW : ID= 2(  0110)     9.49      0.43    12.33    21.81
  OUTFLOW: ID= 2(  0062)     9.49      0.43    12.33    21.81

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| CALIB             |
| STANDHYD (  0028) |   Area    (ha)=   6.40
|ID= 1 DT= 5.0 min  |   Total Imp(%)=  50.00   Dir. Conn.(%)=  50.00
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                        IMPERVIOUS     PERVIOUS (i)
     Surface Area     (ha)=      3.20          3.20
     Dep. Storage     (mm)=      1.00          5.00
     Average Slope     (%)=      0.36          2.00
     Length            (m)=    206.56         90.00
     Mannings n             =     0.013         0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    0.00 | 6.167    1.30 |12.250   99.66 | 18.33    1.47
     0.167    0.00 | 6.250    1.30 |12.333   11.74 | 18.42    1.47
     0.250    0.00 | 6.333    1.47 |12.417   11.72 | 18.50    1.47
     0.333    0.90 | 6.417    1.47 |12.500   11.72 | 18.58    1.47
     0.417    0.90 | 6.500    1.47 |12.583   11.72 | 18.67    1.47
     0.500    0.90 | 6.583    1.47 |12.667   11.72 | 18.75    1.47
     0.583    0.90 | 6.667    1.47 |12.750   11.72 | 18.83    1.47
     0.667    0.90 | 6.750    1.47 |12.833    6.03 | 18.92    1.47
     0.750    0.90 | 6.833    1.47 |12.917    6.03 | 19.00    1.47
     0.833    0.90 | 6.917    1.47 |13.000    6.03 | 19.08    1.47
     0.917    0.90 | 7.000    1.47 |13.083    6.03 | 19.17    1.47
     1.000    0.90 | 7.083    1.47 |13.167    6.03 | 19.25    1.47
     1.083    0.90 | 7.167    1.47 |13.250    6.03 | 19.33    1.47
     1.167    0.90 | 7.250    1.47 |13.333    4.40 | 19.42    1.47
     1.250    0.90 | 7.333    1.79 |13.417    4.40 | 19.50    1.47
     1.333    0.90 | 7.417    1.79 |13.500    4.40 | 19.58    1.47
     1.417    0.90 | 7.500    1.79 |13.583    4.40 | 19.67    1.47
     1.500    0.90 | 7.583    1.79 |13.667    4.40 | 19.75    1.47
     1.583    0.90 | 7.667    1.79 |13.750    4.40 | 19.83    1.47
     1.667    0.90 | 7.750    1.79 |13.833    3.42 | 19.92    1.47
     1.750    0.90 | 7.833    1.79 |13.917    3.42 | 20.00    1.47
     1.833    0.90 | 7.917    1.79 |14.000    3.42 | 20.08    1.47
     1.917    0.90 | 8.000    1.79 |14.083    3.42 | 20.17    1.47
     2.000    0.90 | 8.083    1.79 |14.167    3.42 | 20.25    1.47
     2.083    0.90 | 8.167    1.79 |14.250    3.42 | 20.33    0.98
     2.167    0.90 | 8.250    1.79 |14.333    2.44 | 20.42    0.98
     2.250    0.90 | 8.333    2.12 |14.417    2.44 | 20.50    0.98
     2.333    1.06 | 8.417    2.12 |14.500    2.44 | 20.58    0.98
     2.417    1.06 | 8.500    2.12 |14.583    2.44 | 20.67    0.98
     2.500    1.06 | 8.583    2.12 |14.667    2.44 | 20.75    0.98
     2.583    1.06 | 8.667    2.12 |14.750    2.44 | 20.83    0.98
     2.667    1.06 | 8.750    2.12 |14.833    2.44 | 20.92    0.98
     2.750    1.06 | 8.833    2.28 |14.917    2.44 | 21.00    0.98
     2.833    1.06 | 8.917    2.28 |15.000    2.44 | 21.08    0.98
     2.917    1.06 | 9.000    2.28 |15.083    2.44 | 21.17    0.98
     3.000    1.06 | 9.083    2.28 |15.167    2.44 | 21.25    0.98
     3.083    1.06 | 9.167    2.28 |15.250    2.44 | 21.33    0.98
     3.167    1.06 | 9.250    2.28 |15.333    2.44 | 21.42    0.98
     3.250    1.06 | 9.333    2.61 |15.417    2.44 | 21.50    0.98
     3.333    1.06 | 9.417    2.61 |15.500    2.44 | 21.58    0.98
     3.417    1.06 | 9.500    2.61 |15.583    2.44 | 21.67    0.98
     3.500    1.06 | 9.583    2.61 |15.667    2.44 | 21.75    0.98
     3.583    1.06 | 9.667    2.61 |15.750    2.44 | 21.83    0.98
     3.667    1.06 | 9.750    2.61 |15.833    2.44 | 21.92    0.98
     3.750    1.06 | 9.833    2.93 |15.917    2.44 | 22.00    0.98
     3.833    1.06 | 9.917    2.93 |16.000    2.44 | 22.08    0.98
     3.917    1.06 |10.000    2.93 |16.083    2.44 | 22.17    0.98
     4.000    1.06 |10.083    2.93 |16.167    2.44 | 22.25    0.98
     4.083    1.06 |10.167    2.93 |16.250    2.44 | 22.33    0.98
     4.167    1.06 |10.250    2.93 |16.333    1.47 | 22.42    0.98
     4.250    1.06 |10.333    3.75 |16.417    1.47 | 22.50    0.98
     4.333    1.30 |10.417    3.75 |16.500    1.47 | 22.58    0.98
     4.417    1.30 |10.500    3.75 |16.583    1.47 | 22.67    0.98
     4.500    1.30 |10.583    3.75 |16.667    1.47 | 22.75    0.98
     4.583    1.30 |10.667    3.75 |16.750    1.47 | 22.83    0.98
     4.667    1.30 |10.750    3.75 |16.833    1.47 | 22.92    0.98
     4.750    1.30 |10.833    5.05 |16.917    1.47 | 23.00    0.98
     4.833    1.30 |10.917    5.05 |17.000    1.47 | 23.08    0.98
     4.917    1.30 |11.000    5.05 |17.083    1.47 | 23.17    0.98
     5.000    1.30 |11.083    5.05 |17.167    1.47 | 23.25    0.98
     5.083    1.30 |11.167    5.05 |17.250    1.47 | 23.33    0.98
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5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Max.Eff.Inten.(mm/hr)=	99.66	57.08	
over (min)	5.00	20.00	
Storage Coeff. (min)=	5.37 (ii)	19.74 (ii)	
Unit Hyd. Tpeak (min)=	5.00	20.00	
Unit Hyd. peak (cms)=	0.21	0.06	
			TOTALS
PEAK FLOW (cms)=	0.84	0.25	1.010 (iii)
TIME TO PEAK (hrs)=	12.25	12.42	12.25
RUNOFF VOLUME (mm)=	80.42	40.57	60.49
TOTAL RAINFALL (mm)=	81.42	81.42	81.42
RUNOFF COEFFICIENT =	0.99	0.50	0.74

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0111)	Area (ha)=	28.77	
ID= 1 DT= 5.0 min	Total Imp(%)=	24.70	Dir. Conn.(%)= 15.70

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	7.11	21.66
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	437.95	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Max.Eff.Inten.(mm/hr)=	99.66	61.75	
over (min)	5.00	15.00	
Storage Coeff. (min)=	3.77 (ii)	10.22 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.25	0.09	
			TOTALS
PEAK FLOW (cms)=	0.20	0.13	0.314 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.25
RUNOFF VOLUME (mm)=	80.42	25.76	40.63
TOTAL RAINFALL (mm)=	81.42	81.42	81.42
RUNOFF COEFFICIENT =	0.99	0.32	0.50

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Max.Eff.Inten.(mm/hr)=	99.66	18.63	
over (min)	10.00	35.00	
Storage Coeff. (min)=	8.43 (ii)	30.92 (ii)	
Unit Hyd. Tpeak (min)=	10.00	35.00	
Unit Hyd. peak (cms)=	0.12	0.04	
			TOTALS
PEAK FLOW (cms)=	1.01	0.60	1.239 (iii)
TIME TO PEAK (hrs)=	12.25	12.67	12.25
RUNOFF VOLUME (mm)=	80.42	18.91	28.57
TOTAL RAINFALL (mm)=	81.42	81.42	81.42
RUNOFF COEFFICIENT =	0.99	0.23	0.35

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0119)	Area (ha)=	2.72	
ID= 1 DT= 5.0 min	Total Imp(%)=	55.90	Dir. Conn.(%)= 27.20

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.52	1.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	134.66	25.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0118)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0111):	28.77	1.239	12.25	28.57
+ ID2= 2 (0119):	2.72	0.314	12.25	40.63
ID = 3 (0118):	31.49	1.553	12.25	29.61

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0118):	31.49	1.553	12.25	29.61
+ ID2= 2 (0025):	48.20	6.001	12.25	48.51
ID = 3 (0001):	79.69	7.555	12.25	41.04

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0001):	79.69	7.555	12.25	41.04
+ ID2= 2 (0028):	6.40	1.010	12.25	60.49
ID = 1 (0001):	86.09	8.565	12.25	42.49

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):	86.09	8.565	12.25	42.49
+ ID2= 2 (0062):	9.49	0.433	12.33	21.81
ID = 3 (0001):	95.58	8.923	12.25	40.44

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0002)	OVERFLOW IS OFF			
IN= 2---> OUT= 1				
DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.4660	3.2040
	0.0000	0.2740	0.4720	3.3550
	0.0420	0.5580	2.3890	3.4690
	0.0680	0.8520	2.5030	3.5840
	0.0860	1.1550	2.8990	3.9750
	0.3770	1.4690	4.0830	4.4020
	0.3970	1.7940	7.8030	4.8410
	0.4160	2.1300	13.0620	5.2840
	0.4340	2.4770	19.5770	5.7300
	0.4500	2.8350	27.2220	6.1800

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0001)	95.580	8.923	12.25	40.44
OUTFLOW: ID= 1 (0002)	95.580	0.436	16.25	37.55

PEAK FLOW REDUCTION [Qout/Qin](%)= 4.89
TIME SHIFT OF PEAK FLOW (min)=240.00
MAXIMUM STORAGE USED (ha.m.)= 2.5294

DIVERTHYD (0123)

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| IN= 1   # OUT= 5 |
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     Outflow / Inflow  Relationships

      Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total
       (cms)    (cms)    (cms)    (cms)    (cms)    (cms)
        0.00     0.00     0.00     0.00     0.00     0.00
        0.00     0.00     0.00     0.00     0.00     0.00
        0.00     0.00     0.00     0.00     0.00     0.00
        0.04     0.00     0.00     0.00     0.00     0.04
        0.07     0.00     0.00     0.00     0.00     0.07
        0.09     0.00     0.00     0.00     0.00     0.09
        0.10     0.28     0.00     0.00     0.00     0.38
        0.12     0.28     0.00     0.00     0.00     0.40
        0.13     0.29     0.00     0.00     0.00     0.42
        0.14     0.30     0.00     0.00     0.00     0.43
        0.15     0.30     0.00     0.00     0.00     0.45
        0.16     0.31     0.00     0.00     0.00     0.47
        0.16     0.31     0.00     0.00     0.00     0.47
        0.16     2.23     0.00     0.00     0.00     2.39
        0.17     2.34     0.00     0.00     0.00     2.50
        0.17     2.73     0.00     0.00     0.00     2.90
        0.18     2.93     0.00     0.00     0.00     3.11

                          AREA     QPEAK      TPEAK     R.V.
                          (ha)     (cms)      (hrs)     (mm)
     TOTAL HYD.(ID= 1):  95.58      0.44      16.25    37.55
     ==========================================================
     ID= 2  (   2)    :  47.17      0.14      16.25    37.55
     ID= 3  (   2)    :  48.41      0.30      16.25    37.55
     ID= 4  (   2)    :   0.00      0.00       0.00     0.00
     ID= 5  (   2)    :   0.00      0.00       0.00     0.00
     ID= 6  (   2)    :   0.00      0.00       0.00     0.00
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   -------------------------
   | Junction Command(0124) |
   -------------------------

                          AREA     QPEAK    TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
   INFLOW : ID= 1(  0123)   47.17     0.14   16.25    37.55
   OUTFLOW: ID= 2(  0124)   47.17     0.14   16.25    37.55

   -------------------------------------------------------------------------------

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| CALIB            |
| NASHYD   (  0130)|   Area    (ha)=   5.38   Curve Number   (CN)= 46.8
|ID= 1 DT= 5.0 min |   Ia        (mm)=   6.05   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.87

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                    ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    0.00 | 6.167    1.30 |12.250   99.66 | 18.33    1.47
     0.167    0.00 | 6.250    1.30 |12.333   11.74 | 18.42    1.47
     0.250    0.00 | 6.333    1.47 |12.417   11.72 | 18.50    1.47
     0.333    0.90 | 6.417    1.47 |12.500   11.72 | 18.58    1.47
     0.417    0.90 | 6.500    1.47 |12.583   11.72 | 18.67    1.47
     0.500    0.90 | 6.583    1.47 |12.667   11.72 | 18.75    1.47
     0.583    0.90 | 6.667    1.47 |12.750   11.72 | 18.83    1.47
     0.667    0.90 | 6.750    1.47 |12.833    6.03 | 18.92    1.47
     0.750    0.90 | 6.833    1.47 |12.917    6.03 | 19.00    1.47
     0.833    0.90 | 6.917    1.47 |13.000    6.03 | 19.08    1.47
     0.917    0.90 | 7.000    1.47 |13.083    6.03 | 19.17    1.47
     1.000    0.90 | 7.083    1.47 |13.167    6.03 | 19.25    1.47
     1.083    0.90 | 7.167    1.47 |13.250    6.03 | 19.33    1.47
     1.167    0.90 | 7.250    1.47 |13.333    4.40 | 19.42    1.47
     1.250    0.90 | 7.333    1.79 |13.417    4.40 | 19.50    1.47
     1.333    0.90 | 7.417    1.79 |13.500    4.40 | 19.58    1.47
     1.417    0.90 | 7.500    1.79 |13.583    4.40 | 19.67    1.47
     1.500    0.90 | 7.583    1.79 |13.667    4.40 | 19.75    1.47
     1.583    0.90 | 7.667    1.79 |13.750    4.40 | 19.83    1.47
     1.667    0.90 | 7.750    1.79 |13.833    3.42 | 19.92    1.47
     1.750    0.90 | 7.833    1.79 |13.917    3.42 | 20.00    1.47
     1.833    0.90 | 7.917    1.79 |14.000    3.42 | 20.08    1.47
     1.917    0.90 | 8.000    1.79 |14.083    3.42 | 20.17    1.47
     2.000    0.90 | 8.083    1.79 |14.167    3.42 | 20.25    1.47
     2.083    0.90 | 8.167    1.79 |14.250    3.42 | 20.33    0.98
     2.167    0.90 | 8.250    1.79 |14.333    2.44 | 20.42    0.98
     2.250    0.90 | 8.333    2.12 |14.417    2.44 | 20.50    0.98
     2.333    1.06 | 8.417    2.12 |14.500    2.44 | 20.58    0.98
     2.417    1.06 | 8.500    2.12 |14.583    2.44 | 20.67    0.98
     2.500    1.06 | 8.583    2.12 |14.667    2.44 | 20.75    0.98
     2.583    1.06 | 8.667    2.12 |14.750    2.44 | 20.83    0.98
     2.667    1.06 | 8.750    2.12 |14.833    2.44 | 20.92    0.98
     2.750    1.06 | 8.833    2.28 |14.917    2.44 | 21.00    0.98
     2.833    1.06 | 8.917    2.28 |15.000    2.44 | 21.08    0.98
     2.917    1.06 | 9.000    2.28 |15.083    2.44 | 21.17    0.98
     3.000    1.06 | 9.083    2.28 |15.167    2.44 | 21.25    0.98
     3.083    1.06 | 9.167    2.28 |15.250    2.44 | 21.33    0.98
     3.167    1.06 | 9.250    2.28 |15.333    2.44 | 21.42    0.98
     3.250    1.06 | 9.333    2.61 |15.417    2.44 | 21.50    0.98
     3.333    1.06 | 9.417    2.61 |15.500    2.44 | 21.58    0.98
     3.417    1.06 | 9.500    2.61 |15.583    2.44 | 21.67    0.98
     3.500    1.06 | 9.583    2.61 |15.667    2.44 | 21.75    0.98
     3.583    1.06 | 9.667    2.61 |15.750    2.44 | 21.83    0.98
     3.667    1.06 | 9.750    2.61 |15.833    2.44 | 21.92    0.98
     3.750    1.06 | 9.833    2.93 |15.917    2.44 | 22.00    0.98
     3.833    1.06 | 9.917    2.93 |16.000    2.44 | 22.08    0.98
     3.917    1.06 |10.000    2.93 |16.083    2.44 | 22.17    0.98
     4.000    1.06 |10.083    2.93 |16.167    2.44 | 22.25    0.98
     4.083    1.06 |10.167    2.93 |16.250    2.44 | 22.33    0.98
     4.167    1.06 |10.250    2.93 |16.333    1.47 | 22.42    0.98
     4.250    1.06 |10.333    3.75 |16.417    1.47 | 22.50    0.98
     4.333    1.30 |10.417    3.75 |16.500    1.47 | 22.58    0.98
     4.417    1.30 |10.500    3.75 |16.583    1.47 | 22.67    0.98
     4.500    1.30 |10.583    3.75 |16.667    1.47 | 22.75    0.98
     4.583    1.30 |10.667    3.75 |16.750    1.47 | 22.83    0.98
     4.667    1.30 |10.750    3.75 |16.833    1.47 | 22.92    0.98
     4.750    1.30 |10.833    5.05 |16.917    1.47 | 23.00    0.98
     4.833    1.30 |10.917    5.05 |17.000    1.47 | 23.08    0.98
     4.917    1.30 |11.000    5.05 |17.083    1.47 | 23.17    0.98
     5.000    1.30 |11.083    5.05 |17.167    1.47 | 23.25    0.98
     5.083    1.30 |11.167    5.05 |17.250    1.47 | 23.33    0.98
     5.167    1.30 |11.250    5.05 |17.333    1.47 | 23.42    0.98
     5.250    1.30 |11.333    7.82 |17.417    1.47 | 23.50    0.98
     5.333    1.30 |11.417    7.82 |17.500    1.47 | 23.58    0.98
     5.417    1.30 |11.500    7.82 |17.583    1.47 | 23.67    0.98
     5.500    1.30 |11.583    7.82 |17.667    1.47 | 23.75    0.98
     5.583    1.30 |11.667    7.82 |17.750    1.47 | 23.83    0.98
     5.667    1.30 |11.750    7.82 |17.833    1.47 | 23.92    0.98
     5.750    1.30 |11.833   24.10 |17.917    1.47 | 24.00    0.98
     5.833    1.30 |11.917   24.10 |18.000    1.47 | 24.08    0.98
     5.917    1.30 |12.000   24.10 |18.083    1.47 | 24.17    0.98
     6.000    1.30 |12.083   99.65 |18.167    1.47 | 24.25    0.98
     6.083    1.30 |12.167   99.66 |18.250    1.47 |

     Unit Hyd Qpeak  (cms)=   0.236

     PEAK FLOW       (cms)=   0.070 (i)
     TIME TO PEAK    (hrs)=  13.083
     RUNOFF VOLUME    (mm)=  15.601
     TOTAL RAINFALL   (mm)=  81.420
     RUNOFF COEFFICIENT   =   0.192

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB            |
| STANDHYD (  0132)|   Area    (ha)=   0.69
|ID= 1 DT= 5.0 min |   Total Imp(%)=  42.00   Dir. Conn.(%)=   3.00
--------------------
                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      0.29          0.40
     Dep. Storage     (mm)=      1.00          5.00
     Average Slope     (%)=      0.50          2.00
     Length            (m)=     67.82        170.00
     Mannings n             =     0.013         0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                    ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    0.00 | 6.167    1.30 |12.250   99.66 | 18.33    1.47
     0.167    0.00 | 6.250    1.30 |12.333   11.74 | 18.42    1.47
     0.250    0.00 | 6.333    1.47 |12.417   11.72 | 18.50    1.47
     0.333    0.90 | 6.417    1.47 |12.500   11.72 | 18.58    1.47
     0.417    0.90 | 6.500    1.47 |12.583   11.72 | 18.67    1.47
     0.500    0.90 | 6.583    1.47 |12.667   11.72 | 18.75    1.47
     0.583    0.90 | 6.667    1.47 |12.750   11.72 | 18.83    1.47
     0.667    0.90 | 6.750    1.47 |12.833    6.03 | 18.92    1.47
     0.750    0.90 | 6.833    1.47 |12.917    6.03 | 19.00    1.47
     0.833    0.90 | 6.917    1.47 |13.000    6.03 | 19.08    1.47
     0.917    0.90 | 7.000    1.47 |13.083    6.03 | 19.17    1.47
     1.000    0.90 | 7.083    1.47 |13.167    6.03 | 19.25    1.47
     1.083    0.90 | 7.167    1.47 |13.250    6.03 | 19.33    1.47
     1.167    0.90 | 7.250    1.47 |13.333    4.40 | 19.42    1.47
     1.250    0.90 | 7.333    1.79 |13.417    4.40 | 19.50    1.47
     1.333    0.90 | 7.417    1.79 |13.500    4.40 | 19.58    1.47
     1.417    0.90 | 7.500    1.79 |13.583    4.40 | 19.67    1.47
     1.500    0.90 | 7.583    1.79 |13.667    4.40 | 19.75    1.47
     1.583    0.90 | 7.667    1.79 |13.750    4.40 | 19.83    1.47
     1.667    0.90 | 7.750    1.79 |13.833    3.42 | 19.92    1.47
     1.750    0.90 | 7.833    1.79 |13.917    3.42 | 20.00    1.47
     1.833    0.90 | 7.917    1.79 |14.000    3.42 | 20.08    1.47
     1.917    0.90 | 8.000    1.79 |14.083    3.42 | 20.17    1.47
     2.000    0.90 | 8.083    1.79 |14.167    3.42 | 20.25    1.47
     2.083    0.90 | 8.167    1.79 |14.250    3.42 | 20.33    0.98
     2.167    0.90 | 8.250    1.79 |14.333    2.44 | 20.42    0.98
     2.250    0.90 | 8.333    2.12 |14.417    2.44 | 20.50    0.98
     2.333    1.06 | 8.417    2.12 |14.500    2.44 | 20.58    0.98
     2.417    1.06 | 8.500    2.12 |14.583    2.44 | 20.67    0.98
     2.500    1.06 | 8.583    2.12 |14.667    2.44 | 20.75    0.98
     2.583    1.06 | 8.667    2.12 |14.750    2.44 | 20.83    0.98
     2.667    1.06 | 8.750    2.12 |14.833    2.44 | 20.92    0.98
     2.750    1.06 | 8.833    2.28 |14.917    2.44 | 21.00    0.98
     2.833    1.06 | 8.917    2.28 |15.000    2.44 | 21.08    0.98
     2.917    1.06 | 9.000    2.28 |15.083    2.44 | 21.17    0.98
     3.000    1.06 | 9.083    2.28 |15.167    2.44 | 21.25    0.98
     3.083    1.06 | 9.167    2.28 |15.250    2.44 | 21.33    0.98
     3.167    1.06 | 9.250    2.28 |15.333    2.44 | 21.42    0.98
     3.250    1.06 | 9.333    2.61 |15.417    2.44 | 21.50    0.98
     3.333    1.06 | 9.417    2.61 |15.500    2.44 | 21.58    0.98
     3.417    1.06 | 9.500    2.61 |15.583    2.44 | 21.67    0.98
     3.500    1.06 | 9.583    2.61 |15.667    2.44 | 21.75    0.98
     3.583    1.06 | 9.667    2.61 |15.750    2.44 | 21.83    0.98
     3.667    1.06 | 9.750    2.61 |15.833    2.44 | 21.92    0.98
     3.750    1.06 | 9.833    2.93 |15.917    2.44 | 22.00    0.98
     3.833    1.06 | 9.917    2.93 |16.000    2.44 | 22.08    0.98
     3.917    1.06 |10.000    2.93 |16.083    2.44 | 22.17    0.98
     4.000    1.06 |10.083    2.93 |16.167    2.44 | 22.25    0.98
     4.083    1.06 |10.167    2.93 |16.250    2.44 | 22.33    0.98
     4.167    1.06 |10.250    2.93 |16.333    1.47 | 22.42    0.98
     4.250    1.06 |10.333    3.75 |16.417    1.47 | 22.50    0.98
     4.333    1.30 |10.417    3.75 |16.500    1.47 | 22.58    0.98
     4.417    1.30 |10.500    3.75 |16.583    1.47 | 22.67    0.98
     4.500    1.30 |10.583    3.75 |16.667    1.47 | 22.75    0.98
     4.583    1.30 |10.667    3.75 |16.750    1.47 | 22.83    0.98
     4.667    1.30 |10.750    3.75 |16.833    1.47 | 22.92    0.98
     4.750    1.30 |10.833    5.05 |16.917    1.47 | 23.00    0.98
     4.833    1.30 |10.917    5.05 |17.000    1.47 | 23.08    0.98
     4.917    1.30 |11.000    5.05 |17.083    1.47 | 23.17    0.98
     5.000    1.30 |11.083    5.05 |17.167    1.47 | 23.25    0.98
     5.083    1.30 |11.167    5.05 |17.250    1.47 | 23.33    0.98
     5.167    1.30 |11.250    5.05 |17.333    1.47 | 23.42    0.98
     5.250    1.30 |11.333    7.82 |17.417    1.47 | 23.50    0.98
     5.333    1.30 |11.417    7.82 |17.500    1.47 | 23.58    0.98
     5.417    1.30 |11.500    7.82 |17.583    1.47 | 23.67    0.98
     5.500    1.30 |11.583    7.82 |17.667    1.47 | 23.75    0.98
     5.583    1.30 |11.667    7.82 |17.750    1.47 | 23.83    0.98
     5.667    1.30 |11.750    7.82 |17.833    1.47 | 23.92    0.98
     5.750    1.30 |11.833   24.10 |17.917    1.47 | 24.00    0.98
     5.833    1.30 |11.917   24.10 |18.000    1.47 | 24.08    0.98
     5.917    1.30 |12.000   24.10 |18.083    1.47 | 24.17    0.98
     6.000    1.30 |12.083   99.65 |18.167    1.47 | 24.25    0.98
     6.083    1.30 |12.167   99.66 |18.250    1.47 |

     Max.Eff.Inten.(mm/hr)=      99.66        39.07
           over (min)            5.00        30.00
     Storage Coeff.  (min)=       2.49 (ii)  26.98 (ii)
     Unit Hyd. Tpeak (min)=       5.00        30.00
     Unit Hyd. peak  (cms)=       0.29         0.04                *TOTALS*

     PEAK FLOW       (cms)=       0.01         0.03                0.026 (iii)
     TIME TO PEAK    (hrs)=      12.25        12.58                12.58
     RUNOFF VOLUME    (mm)=      80.42        26.01                27.62
     TOTAL RAINFALL   (mm)=      81.42        81.42                81.42
     RUNOFF COEFFICIENT   =       0.99         0.32                 0.34

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  49.0    Ia = Dep. Storage  (Above)

      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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   -------------------------
   | Junction Command(0131) |
   -------------------------

                          AREA     QPEAK    TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
   INFLOW : ID= 2(  0132)   0.69     0.03    12.58    27.62
   OUTFLOW: ID= 2(  0131)   0.69     0.03    12.58    27.62

   -------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0129)|
|   1  +  2 =  3   |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0124):    47.17   0.138    16.25    37.55
     + ID2= 2 (  0130):     5.38   0.070    13.08    15.60
       ================================================
       ID = 3 (  0129):    52.55   0.200    13.25    35.30

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0129)|
|   3  +  2 =  1   |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0129):    52.55   0.200    13.25    35.30
     + ID2= 2 (  0131):     0.69   0.026    12.58    27.62
       ================================================
       ID = 1 (  0129):    53.24   0.215    13.08    35.20

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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   -------------------------
   | Junction Command(0128) |
   -------------------------

                          AREA     QPEAK    TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
   INFLOW : ID= 1(  0123)   48.41     0.30    16.25    37.55
   OUTFLOW: ID= 2(  0128)   48.41     0.30    16.25    37.55

   -------------------------------------------------------------------------------

--------------------
| CALIB            |
| NASHYD   (  0109)|   Area    (ha)= 120.60   Curve Number   (CN)= 73.3
|ID= 1 DT= 5.0 min |   Ia        (mm)=   6.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.06

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                    ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    0.00 | 6.167    1.30 |12.250   99.66 | 18.33    1.47
     0.167    0.00 | 6.250    1.30 |12.333   11.74 | 18.42    1.47
     0.250    0.00 | 6.333    1.47 |12.417   11.72 | 18.50    1.47
     0.333    0.90 | 6.417    1.47 |12.500   11.72 | 18.58    1.47
     0.417    0.90 | 6.500    1.47 |12.583   11.72 | 18.67    1.47
     0.500    0.90 | 6.583    1.47 |12.667   11.72 | 18.75    1.47
     0.583    0.90 | 6.667    1.47 |12.750   11.72 | 18.83    1.47
     0.667    0.90 | 6.750    1.47 |12.833    6.03 | 18.92    1.47
     0.750    0.90 | 6.833    1.47 |12.917    6.03 | 19.00    1.47
     0.833    0.90 | 6.917    1.47 |13.000    6.03 | 19.08    1.47
     0.917    0.90 | 7.000    1.47 |13.083    6.03 | 19.17    1.47
     1.000    0.90 | 7.083    1.47 |13.167    6.03 | 19.25    1.47
     1.083    0.90 | 7.167    1.47 |13.250    6.03 | 19.33    1.47
     1.167    0.90 | 7.250    1.47 |13.333    4.40 | 19.42    1.47
     1.250    0.90 | 7.333    1.79 |13.417    4.40 | 19.50    1.47
     1.333    0.90 | 7.417    1.79 |13.500    4.40 | 19.58    1.47
     1.417    0.90 | 7.500    1.79 |13.583    4.40 | 19.67    1.47
     1.500    0.90 | 7.583    1.79 |13.667    4.40 | 19.75    1.47
     1.583    0.90 | 7.667    1.79 |13.750    4.40 | 19.83    1.47
     1.667    0.90 | 7.750    1.79 |13.833    3.42 | 19.92    1.47
     1.750    0.90 | 7.833    1.79 |13.917    3.42 | 20.00    1.47
```

1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 3.064 (i)
TIME TO PEAK (hrs)= 13.333
RUNOFF VOLUME (mm)= 33.245
TOTAL RAINFALL (mm)= 81.420
RUNOFF COEFFICIENT = 0.408

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0106)
ID= 1 DT= 5.0 min

Area (ha)= 1.58
Total Imp(%)= 30.20 Dir. Conn.(%)= 0.10

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.48	1.10
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	102.63	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Max.Eff.Inten.(mm/hr)=	99.66	97.95
over (min)	5.00	20.00
Storage Coeff. (min)=	3.53 (ii)	15.11 (ii)
Unit Hyd. Tpeak (min)=	5.00	20.00
Unit Hyd. peak (cms)=	0.26	0.07
		TOTALS
PEAK FLOW (cms)=	0.00	0.17 0.168 (iii)
TIME TO PEAK (hrs)=	12.25	12.42 12.42
RUNOFF VOLUME (mm)=	80.42	48.54 48.57
TOTAL RAINFALL (mm)=	81.42	81.42 81.42
RUNOFF COEFFICIENT =	0.99	0.60 0.60

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0107)
ID= 1 DT= 5.0 min

Area (ha)= 0.72
Total Imp(%)= 45.60 Dir. Conn.(%)= 3.50

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.33	0.39
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	69.28	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.30	12.250	99.66	18.33	1.47
0.167	0.00	6.250	1.30	12.333	11.74	18.42	1.47
0.250	0.00	6.333	1.47	12.417	11.72	18.50	1.47
0.333	0.90	6.417	1.47	12.500	11.72	18.58	1.47
0.417	0.90	6.500	1.47	12.583	11.72	18.67	1.47
0.500	0.90	6.583	1.47	12.667	11.72	18.75	1.47
0.583	0.90	6.667	1.47	12.750	11.72	18.83	1.47
0.667	0.90	6.750	1.47	12.833	6.03	18.92	1.47
0.750	0.90	6.833	1.47	12.917	6.03	19.00	1.47
0.833	0.90	6.917	1.47	13.000	6.03	19.08	1.47
0.917	0.90	7.000	1.47	13.083	6.03	19.17	1.47
1.000	0.90	7.083	1.47	13.167	6.03	19.25	1.47
1.083	0.90	7.167	1.47	13.250	6.03	19.33	1.47
1.167	0.90	7.250	1.47	13.333	4.40	19.42	1.47
1.250	0.90	7.333	1.79	13.417	4.40	19.50	1.47
1.333	0.90	7.417	1.79	13.500	4.40	19.58	1.47
1.417	0.90	7.500	1.79	13.583	4.40	19.67	1.47
1.500	0.90	7.583	1.79	13.667	4.40	19.75	1.47
1.583	0.90	7.667	1.79	13.750	4.40	19.83	1.47
1.667	0.90	7.750	1.79	13.833	3.42	19.92	1.47
1.750	0.90	7.833	1.79	13.917	3.42	20.00	1.47
1.833	0.90	7.917	1.79	14.000	3.42	20.08	1.47
1.917	0.90	8.000	1.79	14.083	3.42	20.17	1.47
2.000	0.90	8.083	1.79	14.167	3.42	20.25	1.47
2.083	0.90	8.167	1.79	14.250	3.42	20.33	0.98
2.167	0.90	8.250	1.79	14.333	2.44	20.42	0.98
2.250	0.90	8.333	2.12	14.417	2.44	20.50	0.98
2.333	1.06	8.417	2.12	14.500	2.44	20.58	0.98
2.417	1.06	8.500	2.12	14.583	2.44	20.67	0.98
2.500	1.06	8.583	2.12	14.667	2.44	20.75	0.98
2.583	1.06	8.667	2.12	14.750	2.44	20.83	0.98
2.667	1.06	8.750	2.12	14.833	2.44	20.92	0.98
2.750	1.06	8.833	2.28	14.917	2.44	21.00	0.98
2.833	1.06	8.917	2.28	15.000	2.44	21.08	0.98
2.917	1.06	9.000	2.28	15.083	2.44	21.17	0.98
3.000	1.06	9.083	2.28	15.167	2.44	21.25	0.98
3.083	1.06	9.167	2.28	15.250	2.44	21.33	0.98
3.167	1.06	9.250	2.28	15.333	2.44	21.42	0.98
3.250	1.06	9.333	2.61	15.417	2.44	21.50	0.98
3.333	1.06	9.417	2.61	15.500	2.44	21.58	0.98
3.417	1.06	9.500	2.61	15.583	2.44	21.67	0.98
3.500	1.06	9.583	2.61	15.667	2.44	21.75	0.98
3.583	1.06	9.667	2.61	15.750	2.44	21.83	0.98
3.667	1.06	9.750	2.61	15.833	2.44	21.92	0.98
3.750	1.06	9.833	2.93	15.917	2.44	22.00	0.98
3.833	1.06	9.917	2.93	16.000	2.44	22.08	0.98
3.917	1.06	10.000	2.93	16.083	2.44	22.17	0.98
4.000	1.06	10.083	2.93	16.167	2.44	22.25	0.98
4.083	1.06	10.167	2.93	16.250	2.44	22.33	0.98
4.167	1.06	10.250	2.93	16.333	1.47	22.42	0.98
4.250	1.06	10.333	3.75	16.417	1.47	22.50	0.98
4.333	1.30	10.417	3.75	16.500	1.47	22.58	0.98
4.417	1.30	10.500	3.75	16.583	1.47	22.67	0.98
4.500	1.30	10.583	3.75	16.667	1.47	22.75	0.98
4.583	1.30	10.667	3.75	16.750	1.47	22.83	0.98
4.667	1.30	10.750	3.75	16.833	1.47	22.92	0.98
4.750	1.30	10.833	5.05	16.917	1.47	23.00	0.98
4.833	1.30	10.917	5.05	17.000	1.47	23.08	0.98
4.917	1.30	11.000	5.05	17.083	1.47	23.17	0.98
5.000	1.30	11.083	5.05	17.167	1.47	23.25	0.98
5.083	1.30	11.167	5.05	17.250	1.47	23.33	0.98
5.167	1.30	11.250	5.05	17.333	1.47	23.42	0.98
5.250	1.30	11.333	7.82	17.417	1.47	23.50	0.98
5.333	1.30	11.417	7.82	17.500	1.47	23.58	0.98
5.417	1.30	11.500	7.82	17.583	1.47	23.67	0.98
5.500	1.30	11.583	7.82	17.667	1.47	23.75	0.98
5.583	1.30	11.667	7.82	17.750	1.47	23.83	0.98
5.667	1.30	11.750	7.82	17.833	1.47	23.92	0.98
5.750	1.30	11.833	24.10	17.917	1.47	24.00	0.98
5.833	1.30	11.917	24.10	18.000	1.47	24.08	0.98
5.917	1.30	12.000	24.10	18.083	1.47	24.17	0.98
6.000	1.30	12.083	99.65	18.167	1.47	24.25	0.98
6.083	1.30	12.167	99.66	18.250	1.47		

Max.Eff.Inten.(mm/hr)=	99.66	132.14
over (min)	5.00	15.00
Storage Coeff. (min)=	2.79 (ii)	13.06 (ii)
Unit Hyd. Tpeak (min)=	5.00	15.00
Unit Hyd. peak (cms)=	0.28	0.08
		TOTALS
PEAK FLOW (cms)=	0.01	0.09 0.093 (iii)
TIME TO PEAK (hrs)=	12.25	12.33 12.33
RUNOFF VOLUME (mm)=	80.42	52.96 53.91
TOTAL RAINFALL (mm)=	81.42	81.42 81.42
RUNOFF COEFFICIENT =	0.99	0.65 0.66

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0029)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0106):	1.58	0.168	12.42	48.57
+ ID2= 2 (0107):	0.72	0.093	12.33	53.91
ID = 3 (0029):	2.30	0.255	12.42	50.24

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0029)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0029):	2.30	0.255	12.42	50.24
+ ID2= 2 (0109):	120.60	3.064	13.33	33.24
ID = 1 (0029):	122.90	3.106	13.25	33.56

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0122)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0128):	48.41	0.298	16.25	37.55
+ ID2= 2 (0029):	122.90	3.106	13.25	33.56
ID = 3 (0122):	171.31	3.399	13.25	34.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0135)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0122):	171.31	3.399	13.25	34.69

```
      + ID2= 2 (  0129):    53.24   0.215    13.08    35.20
        ==========================================
        ID = 3 (  0135):   224.55   3.612    13.25    34.81

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------
===============================================================================

       V    V   I    SSSSS  U   U    A    L                (v 6.2.2020)
       V    V   I   SS      U   U   A A   L
        V  V    I     SS     U   U  AAAAA  L
         V V    I       SS   U   U A   A  L
          VV    I    SSSSS   UUUUU A   A  LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M M M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****


  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\a5014130-a
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\a5014130-a


DATE: 02-17-2026                          TIME: 11:16:04

USER:


COMMENTS: _____________________________________________________


-------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : J. 10yr 24hr 15min SCS Type I **
  ************************************************


--------------------
|    READ STORM    |    Filename: C:\Users\cbuscher\AppD
|                  |              ata\Local\Temp\
|                  |              8fd31c55-74ba-441d-b6e1-b71abe5a781b\fbf6c308
| Ptotal= 94.59 mm |    Comments: 10yr 24hr 15min SCS Type II (MTO) C
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                  hrs   mm/hr |    hrs   mm/hr |'    hrs   mm/hr |    hrs   mm/hr
                0.00    0.00 |  6.25    1.70 | 12.50   13.62 | 18.75    1.70
                0.25    1.04 |  6.50    1.70 | 12.75    7.00 | 19.00    1.70
                0.50    1.04 |  6.75    1.70 | 13.00    7.00 | 19.25    1.70
                0.75    1.04 |  7.00    1.70 | 13.25    5.11 | 19.50    1.70
                1.00    1.04 |  7.25    2.08 | 13.50    5.11 | 19.75    1.70
                1.25    1.04 |  7.50    2.08 | 13.75    3.97 | 20.00    1.70
                1.50    1.04 |  7.75    2.08 | 14.00    3.97 | 20.25    1.14
                1.75    1.04 |  8.00    2.08 | 14.25    2.84 | 20.50    1.14
                2.00    1.04 |  8.25    2.46 | 14.50    2.84 | 20.75    1.14
                2.25    1.23 |  8.50    2.46 | 14.75    2.84 | 21.00    1.14
                2.50    1.23 |  8.75    2.65 | 15.00    2.84 | 21.25    1.14
                2.75    1.23 |  9.00    2.65 | 15.25    2.84 | 21.50    1.14
                3.00    1.23 |  9.25    3.03 | 15.50    2.84 | 21.75    1.14
                3.25    1.23 |  9.50    3.03 | 15.75    2.84 | 22.00    1.14
                3.50    1.23 |  9.75    3.41 | 16.00    2.84 | 22.25    1.14
                3.75    1.23 | 10.00    3.41 | 16.25    1.70 | 22.50    1.14
                4.00    1.23 | 10.25    4.35 | 16.50    1.70 | 22.75    1.14
                4.25    1.51 | 10.50    4.35 | 16.75    1.70 | 23.00    1.14
                4.50    1.51 | 10.75    5.86 | 17.00    1.70 | 23.25    1.14
                4.75    1.51 | 11.00    5.86 | 17.25    1.70 | 23.50    1.14
                5.00    1.51 | 11.25    9.08 | 17.50    1.70 | 23.75    1.14
                5.25    1.51 | 11.50    9.08 | 17.75    1.70 | 24.00    1.14
                5.50    1.51 | 11.75   28.00 | 18.00    1.70 |
                5.75    1.51 | 12.00  115.78 | 18.25    1.70 |
                6.00    1.51 | 12.25   13.62 | 18.50    1.70 |

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| CALIB            |
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| STANDHYD (  0133)|   Area    (ha)=   0.09
|ID= 1 DT= 5.0 min |   Total Imp(%)=  43.30   Dir. Conn.(%)=  43.30
--------------------
                           IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      0.04          0.05
     Dep. Storage     (mm)=      1.00          5.00
     Average Slope     (%)=      5.00          2.00
     Length            (m)=     24.49         46.00
     Mannings n             =    0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                        ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                  hrs   mm/hr |    hrs   mm/hr |'    hrs   mm/hr |    hrs   mm/hr
                0.083   0.00 |  6.167   1.51 |12.250  115.78 | 18.33    1.70
                0.167   0.00 |  6.250   1.51 |12.333   13.63 | 18.42    1.70
                0.250   0.00 |  6.333   1.70 |12.417   13.62 | 18.50    1.70
                0.333   1.04 |  6.417   1.70 |12.500   13.62 | 18.58    1.70
                0.417   1.04 |  6.500   1.70 |12.583   13.62 | 18.67    1.70
                0.500   1.04 |  6.583   1.70 |12.667   13.62 | 18.75    1.70
                0.583   1.04 |  6.667   1.70 |12.750   13.62 | 18.83    1.70
                0.667   1.04 |  6.750   1.70 |12.833    7.00 | 18.92    1.70
                0.750   1.04 |  6.833   1.70 |12.917    7.00 | 19.00    1.70
                0.833   1.04 |  6.917   1.70 |13.000    7.00 | 19.08    1.70
                0.917   1.04 |  7.000   1.70 |13.083    7.00 | 19.17    1.70
                1.000   1.04 |  7.083   1.70 |13.167    7.00 | 19.25    1.70
                1.083   1.04 |  7.167   1.70 |13.250    7.00 | 19.33    1.70
                1.167   1.04 |  7.250   1.70 |13.333    5.11 | 19.42    1.70
                1.250   1.04 |  7.333   2.08 |13.417    5.11 | 19.50    1.70
                1.333   1.04 |  7.417   2.08 |13.500    5.11 | 19.58    1.70
                1.417   1.04 |  7.500   2.08 |13.583    5.11 | 19.67    1.70
                1.500   1.04 |  7.583   2.08 |13.667    5.11 | 19.75    1.70
                1.583   1.04 |  7.667   2.08 |13.750    5.11 | 19.83    1.70
                1.667   1.04 |  7.750   2.08 |13.833    3.97 | 19.92    1.70
                1.750   1.04 |  7.833   2.08 |13.917    3.97 | 20.00    1.70
                1.833   1.04 |  7.917   2.08 |14.000    3.97 | 20.08    1.70
                1.917   1.04 |  8.000   2.08 |14.083    3.97 | 20.17    1.70
                2.000   1.04 |  8.083   2.08 |14.167    3.97 | 20.25    1.70
                2.083   1.04 |  8.167   2.08 |14.250    3.97 | 20.33    1.14
                2.167   1.04 |  8.250   2.08 |14.333    2.84 | 20.42    1.14
                2.250   1.04 |  8.333   2.46 |14.417    2.84 | 20.50    1.14
                2.333   1.23 |  8.417   2.46 |14.500    2.84 | 20.58    1.14
                2.417   1.23 |  8.500   2.46 |14.583    2.84 | 20.67    1.14
                2.500   1.23 |  8.583   2.46 |14.667    2.84 | 20.75    1.14
                2.583   1.23 |  8.667   2.46 |14.750    2.84 | 20.83    1.14
                2.667   1.23 |  8.750   2.46 |14.833    2.84 | 20.92    1.14
                2.750   1.23 |  8.833   2.65 |14.917    2.84 | 21.00    1.14
                2.833   1.23 |  8.917   2.65 |15.000    2.84 | 21.08    1.14
                2.917   1.23 |  9.000   2.65 |15.083    2.84 | 21.17    1.14
                3.000   1.23 |  9.083   2.65 |15.167    2.84 | 21.25    1.14
                3.083   1.23 |  9.167   2.65 |15.250    2.84 | 21.33    1.14
                3.167   1.23 |  9.250   2.65 |15.333    2.84 | 21.42    1.14
                3.250   1.23 |  9.333   3.03 |15.417    2.84 | 21.50    1.14
                3.333   1.23 |  9.417   3.03 |15.500    2.84 | 21.58    1.14
                3.417   1.23 |  9.500   3.03 |15.583    2.84 | 21.67    1.14
                3.500   1.23 |  9.583   3.03 |15.667    2.84 | 21.75    1.14
                3.583   1.23 |  9.667   3.03 |15.750    2.84 | 21.83    1.14
                3.667   1.23 |  9.750   3.03 |15.833    2.84 | 21.92    1.14
                3.750   1.23 |  9.833   3.41 |15.917    2.84 | 22.00    1.14
                3.833   1.23 |  9.917   3.41 |16.000    2.84 | 22.08    1.14
                3.917   1.23 | 10.000   3.41 |16.083    2.84 | 22.17    1.14
                4.000   1.23 | 10.083   3.41 |16.167    2.84 | 22.25    1.14
                4.083   1.23 | 10.167   3.41 |16.250    2.84 | 22.33    1.14
                4.167   1.23 | 10.250   3.41 |16.333    1.70 | 22.42    1.14
                4.250   1.23 | 10.333   4.35 |16.417    1.70 | 22.50    1.14
                4.333   1.51 | 10.417   4.35 |16.500    1.70 | 22.58    1.14
                4.417   1.51 | 10.500   4.35 |16.583    1.70 | 22.67    1.14
                4.500   1.51 | 10.583   4.35 |16.667    1.70 | 22.75    1.14
                4.583   1.51 | 10.667   4.35 |16.750    1.70 | 22.83    1.14
                4.667   1.51 | 10.750   4.35 |16.833    1.70 | 22.92    1.14
                4.750   1.51 | 10.833   5.86 |16.917    1.70 | 23.00    1.14
                4.833   1.51 | 10.917   5.86 |17.000    1.70 | 23.08    1.14
                4.917   1.51 | 11.000   5.86 |17.083    1.70 | 23.17    1.14
                5.000   1.51 | 11.083   5.86 |17.167    1.70 | 23.25    1.14
                5.083   1.51 | 11.167   5.86 |17.250    1.70 | 23.33    1.14
                5.167   1.51 | 11.250   5.86 |17.333    1.70 | 23.42    1.14
                5.250   1.51 | 11.333   9.08 |17.417    1.70 | 23.50    1.14
                5.333   1.51 | 11.417   9.08 |17.500    1.70 | 23.58    1.14
                5.417   1.51 | 11.500   9.08 |17.583    1.70 | 23.67    1.14
                5.500   1.51 | 11.583   9.08 |17.667    1.70 | 23.75    1.14
                5.583   1.51 | 11.667   9.08 |17.750    1.70 | 23.83    1.14
                5.667   1.51 | 11.750   9.08 |17.833    1.70 | 23.92    1.14
                5.750   1.51 | 11.833   28.00 |17.917    1.70 | 24.00    1.14
                5.833   1.51 | 11.917   28.00 |18.000    1.70 | 24.08    1.14
                5.917   1.51 | 12.000   28.00 |18.083    1.70 | 24.17    1.14
                6.000   1.51 | 12.083  115.77 |18.167    1.70 | 24.25    1.13
                6.083   1.51 | 12.167  115.78 |18.250    1.70 |

     Max.Eff.Inten.(mm/hr)=     115.78        30.07
           over (min)          5.00          15.00
     Storage Coeff.   (min)=    0.64 (ii)     13.05 (ii)
     Unit Hyd. Tpeak (min)=     5.00          15.00
     Unit Hyd. peak  (cms)=     0.34           0.08
                                                    *TOTALS*
     PEAK FLOW       (cms)=     0.01           0.00      0.015 (iii)
     TIME TO PEAK    (hrs)=    12.25          12.33     12.25
     RUNOFF VOLUME    (mm)=    93.59          22.68     53.30
     TOTAL RAINFALL   (mm)=    94.59          94.59     94.59
     RUNOFF COEFFICIENT   =     0.99           0.24      0.56

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  | Junction Command(0134) |
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                          AREA     QPEAK    TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 2(  0133)    0.09     0.01   12.25     53.30
  OUTFLOW: ID= 2(  0134)    0.09     0.01   12.25     53.30

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| CALIB            |
| NASHYD   (  0007)|   Area    (ha)=   4.92   Curve Number   (CN)= 75.1
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.65   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.55

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                        ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                  hrs   mm/hr |    hrs   mm/hr |'    hrs   mm/hr |    hrs   mm/hr
                0.083   0.00 |  6.167   1.51 |12.250  115.78 | 18.33    1.70
                0.167   0.00 |  6.250   1.51 |12.333   13.63 | 18.42    1.70
                0.250   0.00 |  6.333   1.70 |12.417   13.62 | 18.50    1.70
                0.333   1.04 |  6.417   1.70 |12.500   13.62 | 18.58    1.70
                0.417   1.04 |  6.500   1.70 |12.583   13.62 | 18.67    1.70
                0.500   1.04 |  6.583   1.70 |12.667   13.62 | 18.75    1.70
                0.583   1.04 |  6.667   1.70 |12.750   13.62 | 18.83    1.70
                0.667   1.04 |  6.750   1.70 |12.833    7.00 | 18.92    1.70
                0.750   1.04 |  6.833   1.70 |12.917    7.00 | 19.00    1.70
                0.833   1.04 |  6.917   1.70 |13.000    7.00 | 19.08    1.70
                0.917   1.04 |  7.000   1.70 |13.083    7.00 | 19.17    1.70
                1.000   1.04 |  7.083   1.70 |13.167    7.00 | 19.25    1.70
                1.083   1.04 |  7.167   1.70 |13.250    7.00 | 19.33    1.70
                1.167   1.04 |  7.250   1.70 |13.333    5.11 | 19.42    1.70
                1.250   1.04 |  7.333   2.08 |13.417    5.11 | 19.50    1.70
                1.333   1.04 |  7.417   2.08 |13.500    5.11 | 19.58    1.70
                1.417   1.04 |  7.500   2.08 |13.583    5.11 | 19.67    1.70
                1.500   1.04 |  7.583   2.08 |13.667    5.11 | 19.75    1.70
                1.583   1.04 |  7.667   2.08 |13.750    5.11 | 19.83    1.70
                1.667   1.04 |  7.750   2.08 |13.833    3.97 | 19.92    1.70
                1.750   1.04 |  7.833   2.08 |13.917    3.97 | 20.00    1.70
                1.833   1.04 |  7.917   2.08 |14.000    3.97 | 20.08    1.70
                1.917   1.04 |  8.000   2.08 |14.083    3.97 | 20.17    1.70
                2.000   1.04 |  8.083   2.08 |14.167    3.97 | 20.25    1.70
                2.083   1.04 |  8.167   2.08 |14.250    3.97 | 20.33    1.14
                2.167   1.04 |  8.250   2.08 |14.333    2.84 | 20.42    1.14
                2.250   1.04 |  8.333   2.46 |14.417    2.84 | 20.50    1.14
                2.333   1.23 |  8.417   2.46 |14.500    2.84 | 20.58    1.14
                2.417   1.23 |  8.500   2.46 |14.583    2.84 | 20.67    1.14
                2.500   1.23 |  8.583   2.46 |14.667    2.84 | 20.75    1.14
                2.583   1.23 |  8.667   2.46 |14.750    2.84 | 20.83    1.14
                2.667   1.23 |  8.750   2.46 |14.833    2.84 | 20.92    1.14
                2.750   1.23 |  8.833   2.65 |14.917    2.84 | 21.00    1.14
                2.833   1.23 |  8.917   2.65 |15.000    2.84 | 21.08    1.14
                2.917   1.23 |  9.000   2.65 |15.083    2.84 | 21.17    1.14
                3.000   1.23 |  9.083   2.65 |15.167    2.84 | 21.25    1.14
                3.083   1.23 |  9.167   2.65 |15.250    2.84 | 21.33    1.14
                3.167   1.23 |  9.250   2.65 |15.333    2.84 | 21.42    1.14
                3.250   1.23 |  9.333   3.03 |15.417    2.84 | 21.50    1.14
                3.333   1.23 |  9.417   3.03 |15.500    2.84 | 21.58    1.14
                3.417   1.23 |  9.500   3.03 |15.583    2.84 | 21.67    1.14
                3.500   1.23 |  9.583   3.03 |15.667    2.84 | 21.75    1.14
                3.583   1.23 |  9.667   3.03 |15.750    2.84 | 21.83    1.14
                3.667   1.23 |  9.750   3.03 |15.833    2.84 | 21.92    1.14
                3.750   1.23 |  9.833   3.41 |15.917    2.84 | 22.00    1.14
                3.833   1.23 |  9.917   3.41 |16.000    2.84 | 22.08    1.14
                3.917   1.23 | 10.000   3.41 |16.083    2.84 | 22.17    1.14
                4.000   1.23 | 10.083   3.41 |16.167    2.84 | 22.25    1.14
                4.083   1.23 | 10.167   3.41 |16.250    2.84 | 22.33    1.14
                4.167   1.23 | 10.250   3.41 |16.333    1.70 | 22.42    1.14
                4.250   1.23 | 10.333   4.35 |16.417    1.70 | 22.50    1.14
                4.333   1.51 | 10.417   4.35 |16.500    1.70 | 22.58    1.14
                4.417   1.51 | 10.500   4.35 |16.583    1.70 | 22.67    1.14
                4.500   1.51 | 10.583   4.35 |16.667    1.70 | 22.75    1.14
                4.583   1.51 | 10.667   4.35 |16.750    1.70 | 22.83    1.14
                4.667   1.51 | 10.750   4.35 |16.833    1.70 | 22.92    1.14
                4.750   1.51 | 10.833   5.86 |16.917    1.70 | 23.00    1.14
                4.833   1.51 | 10.917   5.86 |17.000    1.70 | 23.08    1.14
                4.917   1.51 | 11.000   5.86 |17.083    1.70 | 23.17    1.14
                5.000   1.51 | 11.083   5.86 |17.167    1.70 | 23.25    1.14
                5.083   1.51 | 11.167   5.86 |17.250    1.70 | 23.33    1.14
                5.167   1.51 | 11.250   5.86 |17.333    1.70 | 23.42    1.14
                5.250   1.51 | 11.333   9.08 |17.417    1.70 | 23.50    1.14
                5.333   1.51 | 11.417   9.08 |17.500    1.70 | 23.58    1.14
                5.417   1.51 | 11.500   9.08 |17.583    1.70 | 23.67    1.14
                5.500   1.51 | 11.583   9.08 |17.667    1.70 | 23.75    1.14
                5.583   1.51 | 11.667   9.08 |17.750    1.70 | 23.83    1.14
                5.667   1.51 | 11.750   9.08 |17.833    1.70 | 23.92    1.14
                5.750   1.51 | 11.833   28.00 |17.917    1.70 | 24.00    1.14
                5.833   1.51 | 11.917   28.00 |18.000    1.70 | 24.08    1.14
                5.917   1.51 | 12.000   28.00 |18.083    1.70 | 24.17    1.14
                6.000   1.51 | 12.083  115.77 |18.167    1.70 | 24.25    1.13
                6.083   1.51 | 12.167  115.78 |18.250    1.70 |

     Unit Hyd Qpeak  (cms)=    0.121

     PEAK FLOW       (cms)=    0.132 (i)
     TIME TO PEAK    (hrs)=   13.833
     RUNOFF VOLUME    (mm)=   46.448
     TOTAL RAINFALL   (mm)=   94.590
     RUNOFF COEFFICIENT   =    0.491

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB            |
| NASHYD   (  0057)|   Area    (ha)=   1.06   Curve Number   (CN)= 55.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.72   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.15

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.


                        ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                  hrs   mm/hr |    hrs   mm/hr |'    hrs   mm/hr |    hrs   mm/hr
                0.083   0.00 |  6.167   1.51 |12.250  115.78 | 18.33    1.70
                0.167   0.00 |  6.250   1.51 |12.333   13.63 | 18.42    1.70
                0.250   0.00 |  6.333   1.70 |12.417   13.62 | 18.50    1.70
                0.333   1.04 |  6.417   1.70 |12.500   13.62 | 18.58    1.70
                0.417   1.04 |  6.500   1.70 |12.583   13.62 | 18.67    1.70
                0.500   1.04 |  6.583   1.70 |12.667   13.62 | 18.75    1.70
                0.583   1.04 |  6.667   1.70 |12.750   13.62 | 18.83    1.70
                0.667   1.04 |  6.750   1.70 |12.833    7.00 | 18.92    1.70
                0.750   1.04 |  6.833   1.70 |12.917    7.00 | 19.00    1.70
                0.833   1.04 |  6.917   1.70 |13.000    7.00 | 19.08    1.70
                0.917   1.04 |  7.000   1.70 |13.083    7.00 | 19.17    1.70
                1.000   1.04 |  7.083   1.70 |13.167    7.00 | 19.25    1.70
                1.083   1.04 |  7.167   1.70 |13.250    7.00 | 19.33    1.70
                1.167   1.04 |  7.250   1.70 |13.333    5.11 | 19.42    1.70
                1.250   1.04 |  7.333   2.08 |13.417    5.11 | 19.50    1.70
                1.333   1.04 |  7.417   2.08 |13.500    5.11 | 19.58    1.70
                1.417   1.04 |  7.500   2.08 |13.583    5.11 | 19.67    1.70
                1.500   1.04 |  7.583   2.08 |13.667    5.11 | 19.75    1.70
                1.583   1.04 |  7.667   2.08 |13.750    5.11 | 19.83    1.70
                1.667   1.04 |  7.750   2.08 |13.833    3.97 | 19.92    1.70
                1.750   1.04 |  7.833   2.08 |13.917    3.97 | 20.00    1.70
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1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.084 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 26.974
TOTAL RAINFALL (mm)= 94.590
RUNOFF COEFFICIENT = 0.285

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0115)
ID= 1 DT= 5.0 min

Area (ha)= 0.78 Curve Number (CN)= 76.9
Ia (mm)= 5.10 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 0.097

PEAK FLOW (cms)= 0.024 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 22.451

0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 0.025

PEAK FLOW (cms)= 0.027 (i)
TIME TO PEAK (hrs)= 13.417
RUNOFF VOLUME (mm)= 48.302
TOTAL RAINFALL (mm)= 94.590
RUNOFF COEFFICIENT = 0.511

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0103)
ID= 1 DT= 5.0 min

Area (ha)= 0.33 Curve Number (CN)= 49.0
Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.13

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TOTAL RAINFALL (mm)= 94.590
RUNOFF COEFFICIENT = 0.237

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0104)
ID= 1 DT= 5.0 min

Area (ha)= 0.20 Curve Number (CN)= 53.9
Ia (mm)= 4.70 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.76

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14

5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 0.010

PEAK FLOW (cms)= 0.005 (i)
TIME TO PEAK (hrs)= 13.000
RUNOFF VOLUME (mm)= 26.299
TOTAL RAINFALL (mm)= 94.590
RUNOFF COEFFICIENT = 0.278

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0003)
ID= 1 DT= 5.0 min

Area (ha)= 5.31
Total Imp(%)= 39.70 Dir. Conn.(%)= 25.20

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.11	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	2.10	2.00
Length (m)=	188.15	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 115.78 103.50
over (min) 5.00 15.00
Storage Coeff. (min)= 5.62 (ii) 12.04 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.20 0.09

		TOTALS
PEAK FLOW (cms)=	0.89	0.56	1.366 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.25
RUNOFF VOLUME (mm)=	93.59	37.08	55.33
TOTAL RAINFALL (mm)=	94.59	94.59	94.59
RUNOFF COEFFICIENT =	0.99	0.39	0.58

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0053)
ID= 1 DT= 5.0 min

Area (ha)= 5.41
Total Imp(%)= 70.00 Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	3.79	1.62
Dep. Storage (mm)=	1.00	5.00

4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 115.78 78.90
over (min) 5.00 10.00
Storage Coeff. (min)= 2.82 (ii) 9.98 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.28 0.11

		TOTALS
PEAK FLOW (cms)=	0.43	0.48	0.914 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	93.59	43.15	55.86
TOTAL RAINFALL (mm)=	94.59	94.59	94.59
RUNOFF COEFFICIENT =	0.99	0.46	0.59

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 67.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0052)
ID= 1 DT= 5.0 min

Area (ha)= 9.07
Total Imp(%)= 64.70 Dir. Conn.(%)= 32.30

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	5.87	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	245.90	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

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     Max.Eff.Inten.(mm/hr)=     115.78       136.26
           over (min)          5.00        15.00
     Storage Coeff.  (min)=     4.81 (ii)   10.57 (ii)
     Unit Hyd. Tpeak (min)=     5.00        15.00
     Unit Hyd. peak  (cms)=     0.22         0.09
                                                      *TOTALS*
     PEAK FLOW       (cms)=     0.59         0.40        0.931 (iii)
     TIME TO PEAK    (hrs)=    12.25        12.33       12.25
     RUNOFF VOLUME    (mm)=    93.59        43.12       60.78
     TOTAL RAINFALL   (mm)=    94.59        94.59       94.59
     RUNOFF COEFFICIENT   =     0.99         0.46        0.64

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  52.7     Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB             |
| STANDHYD (  0056)|   Area    (ha)=   3.62
|ID= 1 DT= 5.0 min |   Total Imp(%)=  26.60   Dir. Conn.(%)=  20.80
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                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=     0.96         2.66
     Dep. Storage     (mm)=     1.00         5.00
     Average Slope     (%)=     2.00         2.00
     Length            (m)=   155.35        35.00
     Mannings n            =    0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
       hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
     0.083    0.00 | 6.167    1.51 |12.250  115.78 | 18.33    1.70
     0.167    0.00 | 6.250    1.51 |12.333   13.63 | 18.42    1.70
     0.250    0.00 | 6.333    1.70 |12.417   13.62 | 18.50    1.70
     0.333    1.04 | 6.417    1.70 |12.500   13.62 | 18.58    1.70
     0.417    1.04 | 6.500    1.70 |12.583   13.62 | 18.67    1.70
     0.500    1.04 | 6.583    1.70 |12.667   13.62 | 18.75    1.70
     0.583    1.04 | 6.667    1.70 |12.750   13.62 | 18.83    1.70
     0.667    1.04 | 6.750    1.70 |12.833    7.00 | 18.92    1.70
     0.750    1.04 | 6.833    1.70 |12.917    7.00 | 19.00    1.70
     0.833    1.04 | 6.917    1.70 |13.000    7.00 | 19.08    1.70
     0.917    1.04 | 7.000    1.70 |13.083    7.00 | 19.17    1.70
     1.000    1.04 | 7.083    1.70 |13.167    7.00 | 19.25    1.70
     1.083    1.04 | 7.167    1.70 |13.250    7.00 | 19.33    1.70
     1.167    1.04 | 7.250    1.70 |13.333    5.11 | 19.42    1.70
     1.250    1.04 | 7.333    2.08 |13.417    5.11 | 19.50    1.70
     1.333    1.04 | 7.417    2.08 |13.500    5.11 | 19.58    1.70
     1.417    1.04 | 7.500    2.08 |13.583    5.11 | 19.67    1.70
     1.500    1.04 | 7.583    2.08 |13.667    5.11 | 19.75    1.70
     1.583    1.04 | 7.667    2.08 |13.750    5.11 | 19.83    1.70
     1.667    1.04 | 7.750    2.08 |13.833    3.97 | 19.92    1.70
     1.750    1.04 | 7.833    2.08 |13.917    3.97 | 20.00    1.70
     1.833    1.04 | 7.917    2.08 |14.000    3.97 | 20.08    1.70
     1.917    1.04 | 8.000    2.08 |14.083    3.97 | 20.17    1.70
     2.000    1.04 | 8.083    2.08 |14.167    3.97 | 20.25    1.70
     2.083    1.04 | 8.167    2.08 |14.250    3.97 | 20.33    1.14
     2.167    1.04 | 8.250    2.08 |14.333    2.84 | 20.42    1.14
     2.250    1.04 | 8.333    2.46 |14.417    2.84 | 20.50    1.14
     2.333    1.23 | 8.417    2.46 |14.500    2.84 | 20.58    1.14
     2.417    1.23 | 8.500    2.46 |14.583    2.84 | 20.67    1.14
     2.500    1.23 | 8.583    2.46 |14.667    2.84 | 20.75    1.14
     2.583    1.23 | 8.667    2.46 |14.750    2.84 | 20.83    1.14
     2.667    1.23 | 8.750    2.46 |14.833    2.84 | 20.92    1.14
     2.750    1.23 | 8.833    2.65 |14.917    2.84 | 21.00    1.14
     2.833    1.23 | 8.917    2.65 |15.000    2.84 | 21.08    1.14
     2.917    1.23 | 9.000    2.65 |15.083    2.84 | 21.17    1.14
     3.000    1.23 | 9.083    2.65 |15.167    2.84 | 21.25    1.14
     3.083    1.23 | 9.167    2.65 |15.250    2.84 | 21.33    1.14
     3.167    1.23 | 9.250    2.65 |15.333    2.84 | 21.42    1.14
     3.250    1.23 | 9.333    3.03 |15.417    2.84 | 21.50    1.14
     3.333    1.23 | 9.417    3.03 |15.500    2.84 | 21.58    1.14
     3.417    1.23 | 9.500    3.03 |15.583    2.84 | 21.67    1.14
     3.500    1.23 | 9.583    3.03 |15.667    2.84 | 21.75    1.14
     3.583    1.23 | 9.667    3.03 |15.750    2.84 | 21.83    1.14
     3.667    1.23 | 9.750    3.03 |15.833    2.84 | 21.92    1.14
     3.750    1.23 | 9.833    3.41 |15.917    2.84 | 22.00    1.14
     3.833    1.23 | 9.917    3.41 |16.000    2.84 | 22.08    1.14
     3.917    1.23 |10.000    3.41 |16.083    2.84 | 22.17    1.14
     4.000    1.23 |10.083    3.41 |16.167    2.84 | 22.25    1.14
     4.083    1.23 |10.167    3.41 |16.250    2.84 | 22.33    1.14
     4.167    1.23 |10.250    3.41 |16.333    1.70 | 22.42    1.14
     4.250    1.23 |10.333    4.35 |16.417    1.70 | 22.50    1.14
     4.333    1.51 |10.417    4.35 |16.500    1.70 | 22.58    1.14
     4.417    1.51 |10.500    4.35 |16.583    1.70 | 22.67    1.14
     4.500    1.51 |10.583    4.35 |16.667    1.70 | 22.75    1.14
     4.583    1.51 |10.667    4.35 |16.750    1.70 | 22.83    1.14
     4.667    1.51 |10.750    4.35 |16.833    1.70 | 22.92    1.14
     4.750    1.51 |10.833    5.86 |16.917    1.70 | 23.00    1.14
     4.833    1.51 |10.917    5.86 |17.000    1.70 | 23.08    1.14
     4.917    1.51 |11.000    5.86 |17.083    1.70 | 23.17    1.14
     5.000    1.51 |11.083    5.86 |17.167    1.70 | 23.25    1.14
     5.083    1.51 |11.167    5.86 |17.250    1.70 | 23.33    1.14
     5.167    1.51 |11.250    5.86 |17.333    1.70 | 23.42    1.14
     5.250    1.51 |11.333    9.08 |17.417    1.70 | 23.50    1.14
     5.333    1.51 |11.417    9.08 |17.500    1.70 | 23.58    1.14
     5.417    1.51 |11.500    9.08 |17.583    1.70 | 23.67    1.14
     5.500    1.51 |11.583    9.08 |17.667    1.70 | 23.75    1.14
     5.583    1.51 |11.667    9.08 |17.750    1.70 | 23.83    1.14
     5.667    1.51 |11.750    9.08 |17.833    1.70 | 23.92    1.14
     5.750    1.51 |11.833   28.00 |17.917    1.70 | 24.00    1.14
     5.833    1.51 |11.917   28.00 |18.000    1.70 | 24.08    1.14
     5.917    1.51 |12.000   28.00 |18.083    1.70 | 24.17    1.14
     6.000    1.51 |12.083  115.77 |18.167    1.70 | 24.25    1.13
     6.083    1.51 |12.167  115.78 |18.250    1.70 |

     Max.Eff.Inten.(mm/hr)=     115.78       39.46
           over (min)          5.00        20.00
     Storage Coeff.  (min)=     2.90 (ii)   19.55 (ii)
     Unit Hyd. Tpeak (min)=     5.00        20.00
     Unit Hyd. peak  (cms)=     0.28         0.06
                                                      *TOTALS*
     PEAK FLOW       (cms)=     0.00         0.05        0.052 (iii)
     TIME TO PEAK    (hrs)=    12.25        12.42       12.25
     RUNOFF VOLUME    (mm)=    93.59        28.24       28.29
     TOTAL RAINFALL   (mm)=    94.59        94.59       94.59
     RUNOFF COEFFICIENT   =     0.99         0.30        0.30

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
            YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0     Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| ADD HYD  (  0032)|
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|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0103):     0.33    0.024    12.25    22.45
     + ID2= 2 (  0104):     0.20    0.005    13.00    26.30
       ================================================
       ID = 3 (  0032):     0.53    0.025    12.25    23.90

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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| ADD HYD  (  0032)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):     0.53    0.025    12.25    23.90
     + ID2= 2 (  0108):     1.00    0.052    12.42    28.29
       ================================================
       ID = 1 (  0032):     1.53    0.068    12.33    26.77

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):     1.53    0.068    12.33    26.77
     + ID2= 2 (  0115):     0.78    0.027    13.42    48.30
       ================================================
       ID = 3 (  0032):     2.31    0.079    12.42    34.04

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):     2.31    0.079    12.42    34.04
     + ID2= 2 (  0003):     5.31    0.914    12.25    55.86
       ================================================
       ID = 1 (  0032):     7.62    0.979    12.25    49.25

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):     7.62    0.979    12.25    49.25
     + ID2= 2 (  0052):     9.07    1.366    12.25    55.33
       ================================================
       ID = 3 (  0032):    16.69    2.346    12.25    52.55

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0032):    16.69    2.346    12.25    52.55
     + ID2= 2 (  0053):     5.41    0.931    12.25    60.78
       ================================================
       ID = 1 (  0032):    22.10    3.276    12.25    54.57

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0032):    22.10    3.276    12.25    54.57
     + ID2= 2 (  0056):     3.62    0.379    12.25    38.60
       ================================================
       ID = 3 (  0032):    25.72    3.655    12.25    52.32

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0032)|
```

```
|   3 +  2 =  1    |          AREA     QPEAK     TPEAK      R.V.
-------------------          (ha)     (cms)     (hrs)      (mm)
      ID1= 3 (  0032):     25.72    3.655     12.25     52.32
    + ID2= 2 (  0057):      1.06    0.084     12.25     26.97
      ==========================================================
      ID = 1 (  0032):     26.78    3.739     12.25     51.32

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA     QPEAK     TPEAK      R.V.
-------------------          (ha)     (cms)     (hrs)      (mm)
      ID1= 1 (  0032):     26.78    3.739     12.25     51.32
    + ID2= 2 (  0007):      4.92    0.132     13.83     46.45
      ==========================================================
      ID = 3 (  0032):     31.70    3.764     12.25     50.56

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------

--------------------
| CALIB            |
| STANDHYD (  0004)|   Area    (ha)=   8.04
|ID= 1 DT= 5.0 min |   Total Imp(%)=  70.00   Dir. Conn.(%)=  35.00
--------------------

                        IMPERVIOUS     PERVIOUS (i)
     Surface Area     (ha)=      5.63          2.41
     Dep. Storage     (mm)=      1.00          5.00
     Average Slope     (%)=      0.36          2.00
     Length            (m)=    231.52         35.00
     Mannings n           =     0.013         0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    0.00 | 6.167    1.51 |12.250  115.78 | 18.33    1.70
 0.167    0.00 | 6.250    1.51 |12.333   13.63 | 18.42    1.70
 0.250    0.00 | 6.333    1.70 |12.417   13.62 | 18.50    1.70
 0.333    1.04 | 6.417    1.70 |12.500   13.62 | 18.58    1.70
 0.417    1.04 | 6.500    1.70 |12.583   13.62 | 18.67    1.70
 0.500    1.04 | 6.583    1.70 |12.667   13.62 | 18.75    1.70
 0.583    1.04 | 6.667    1.70 |12.750   13.62 | 18.83    1.70
 0.667    1.04 | 6.750    1.70 |12.833    7.00 | 18.92    1.70
 0.750    1.04 | 6.833    1.70 |12.917    7.00 | 19.00    1.70
 0.833    1.04 | 6.917    1.70 |13.000    7.00 | 19.08    1.70
 0.917    1.04 | 7.000    1.70 |13.083    7.00 | 19.17    1.70
 1.000    1.04 | 7.083    1.70 |13.167    7.00 | 19.25    1.70
 1.083    1.04 | 7.167    1.70 |13.250    7.00 | 19.33    1.70
 1.167    1.04 | 7.250    1.70 |13.333    5.11 | 19.42    1.70
 1.250    1.04 | 7.333    2.08 |13.417    5.11 | 19.50    1.70
 1.333    1.04 | 7.417    2.08 |13.500    5.11 | 19.58    1.70
 1.417    1.04 | 7.500    2.08 |13.583    5.11 | 19.67    1.70
 1.500    1.04 | 7.583    2.08 |13.667    5.11 | 19.75    1.70
 1.583    1.04 | 7.667    2.08 |13.750    5.11 | 19.83    1.70
 1.667    1.04 | 7.750    2.08 |13.833    3.97 | 19.92    1.70
 1.750    1.04 | 7.833    2.08 |13.917    3.97 | 20.00    1.70
 1.833    1.04 | 7.917    2.08 |14.000    3.97 | 20.08    1.70
 1.917    1.04 | 8.000    2.08 |14.083    3.97 | 20.17    1.70
 2.000    1.04 | 8.083    2.08 |14.167    3.97 | 20.25    1.70
 2.083    1.04 | 8.167    2.08 |14.250    3.97 | 20.33    1.14
 2.167    1.04 | 8.250    2.08 |14.333    2.84 | 20.42    1.14
 2.250    1.04 | 8.333    2.46 |14.417    2.84 | 20.50    1.14
 2.333    1.23 | 8.417    2.46 |14.500    2.84 | 20.58    1.14
 2.417    1.23 | 8.500    2.46 |14.583    2.84 | 20.67    1.14
 2.500    1.23 | 8.583    2.46 |14.667    2.84 | 20.75    1.14
 2.583    1.23 | 8.667    2.46 |14.750    2.84 | 20.83    1.14
 2.667    1.23 | 8.750    2.46 |14.833    2.84 | 20.92    1.14
 2.750    1.23 | 8.833    2.65 |14.917    2.84 | 21.00    1.14
 2.833    1.23 | 8.917    2.65 |15.000    2.84 | 21.08    1.14
 2.917    1.23 | 9.000    2.65 |15.083    2.84 | 21.17    1.14
 3.000    1.23 | 9.083    2.65 |15.167    2.84 | 21.25    1.14
 3.083    1.23 | 9.167    2.65 |15.250    2.84 | 21.33    1.14
 3.167    1.23 | 9.250    2.65 |15.333    2.84 | 21.42    1.14
 3.250    1.23 | 9.333    3.03 |15.417    2.84 | 21.50    1.14
 3.333    1.23 | 9.417    3.03 |15.500    2.84 | 21.58    1.14
 3.417    1.23 | 9.500    3.03 |15.583    2.84 | 21.67    1.14
 3.500    1.23 | 9.583    3.03 |15.667    2.84 | 21.75    1.14
 3.583    1.23 | 9.667    3.03 |15.750    2.84 | 21.83    1.14
 3.667    1.23 | 9.750    3.03 |15.833    2.84 | 21.92    1.14
 3.750    1.23 | 9.833    3.41 |15.917    2.84 | 22.00    1.14
 3.833    1.23 | 9.917    3.41 |16.000    2.84 | 22.08    1.14
 3.917    1.23 |10.000    3.41 |16.083    2.84 | 22.17    1.14
 4.000    1.23 |10.083    3.41 |16.167    2.84 | 22.25    1.14
 4.083    1.23 |10.167    3.41 |16.250    2.84 | 22.33    1.14
 4.167    1.23 |10.250    3.41 |16.333    1.70 | 22.42    1.14
 4.250    1.23 |10.333    4.35 |16.417    1.70 | 22.50    1.14
 4.333    1.51 |10.417    4.35 |16.500    1.70 | 22.58    1.14
 4.417    1.51 |10.500    4.35 |16.583    1.70 | 22.67    1.14
 4.500    1.51 |10.583    4.35 |16.667    1.70 | 22.75    1.14
 4.583    1.51 |10.667    4.35 |16.750    1.70 | 22.83    1.14
 4.667    1.51 |10.750    4.35 |16.833    1.70 | 22.92    1.14
 4.750    1.51 |10.833    5.86 |16.917    1.70 | 23.00    1.14
 4.833    1.51 |10.917    5.86 |17.000    1.70 | 23.08    1.14
 4.917    1.51 |11.000    5.86 |17.083    1.70 | 23.17    1.14
 5.000    1.51 |11.083    5.86 |17.167    1.70 | 23.25    1.14
 5.083    1.51 |11.167    5.86 |17.250    1.70 | 23.33    1.14
 5.167    1.51 |11.250    5.86 |17.333    1.70 | 23.42    1.14
 5.250    1.51 |11.333    9.08 |17.417    1.70 | 23.50    1.14
 5.333    1.51 |11.417    9.08 |17.500    1.70 | 23.58    1.14
 5.417    1.51 |11.500    9.08 |17.583    1.70 | 23.67    1.14
 5.500    1.51 |11.583    9.08 |17.667    1.70 | 23.75    1.14
 5.583    1.51 |11.667    9.08 |17.750    1.70 | 23.83    1.14
 5.667    1.51 |11.750    9.08 |17.833    1.70 | 23.92    1.14
 5.750    1.51 |11.833   28.00 |17.917    1.70 | 24.00    1.14
 5.833    1.51 |11.917   28.00 |18.000    1.70 | 24.08    1.14
 5.917    1.51 |12.000   28.00 |18.083    1.70 | 24.17    1.14
 6.000    1.51 |12.083  115.77 |18.167    1.70 | 24.25    1.13
 6.083    1.51 |12.167  115.78 |18.250    1.70 |

    Max.Eff.Inten.(mm/hr)=     115.78       174.54
          over (min)           5.00        10.00
    Storage Coeff.  (min)=     3.52 (ii)    8.74 (ii)
    Unit Hyd. Tpeak (min)=     5.00        10.00
    Unit Hyd. peak  (cms)=     0.26         0.12
                                                    *TOTALS*
    PEAK FLOW       (cms)=      0.70         1.26       1.955 (iii)
    TIME TO PEAK    (hrs)=     12.25        12.25        12.25
    RUNOFF VOLUME    (mm)=     93.59        65.64        72.88
    TOTAL RAINFALL   (mm)=     94.59        94.59        94.59
    RUNOFF COEFFICIENT   =      0.99         0.69         0.77

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

      (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
          CN*  =  79.0    Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
    (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0055)|
|   1 +  2 =  3    |          AREA     QPEAK     TPEAK      R.V.
-------------------          (ha)     (cms)     (hrs)      (mm)
      ID1= 1 (  0004):      8.04    1.736     12.25     77.60
```

```
    + ID2= 2 (  0054):      8.46    1.955     12.25     72.88
      ==========================================================
      ID = 3 (  0055):     16.50    3.692     12.25     75.18

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0060)|
|   1 +  2 =  3    |          AREA     QPEAK     TPEAK      R.V.
-------------------          (ha)     (cms)     (hrs)      (mm)
      ID1= 1 (  0032):     31.70    3.764     12.25     50.56
    + ID2= 2 (  0055):     16.50    3.692     12.25     75.18
      ==========================================================
      ID = 3 (  0060):     48.20    7.456     12.25     58.99

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
------------------------------------------------------------------------------

  --------------------------
  | Junction Command(0025) |
  --------------------------

                          AREA     QPEAK     TPEAK      R.V.
                          (ha)     (cms)     (hrs)      (mm)
  INFLOW : ID= 1(  0060)  48.20     7.46     12.25     58.99
  OUTFLOW: ID= 2(  0025)  48.20     7.46     12.25     58.99

------------------------------------------------------------------------------

--------------------
| CALIB            |
| NASHYD   (  0110)|   Area    (ha)=   9.49   Curve Number   (CN)= 56.7
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.53   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.25

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    0.00 | 6.167    1.51 |12.250  115.78 | 18.33    1.70
 0.167    0.00 | 6.250    1.51 |12.333   13.63 | 18.42    1.70
 0.250    0.00 | 6.333    1.70 |12.417   13.62 | 18.50    1.70
 0.333    1.04 | 6.417    1.70 |12.500   13.62 | 18.58    1.70
 0.417    1.04 | 6.500    1.70 |12.583   13.62 | 18.67    1.70
 0.500    1.04 | 6.583    1.70 |12.667   13.62 | 18.75    1.70
 0.583    1.04 | 6.667    1.70 |12.750   13.62 | 18.83    1.70
 0.667    1.04 | 6.750    1.70 |12.833    7.00 | 18.92    1.70
 0.750    1.04 | 6.833    1.70 |12.917    7.00 | 19.00    1.70
 0.833    1.04 | 6.917    1.70 |13.000    7.00 | 19.08    1.70
 0.917    1.04 | 7.000    1.70 |13.083    7.00 | 19.17    1.70
 1.000    1.04 | 7.083    1.70 |13.167    7.00 | 19.25    1.70
 1.083    1.04 | 7.167    1.70 |13.250    7.00 | 19.33    1.70
 1.167    1.04 | 7.250    1.70 |13.333    5.11 | 19.42    1.70
 1.250    1.04 | 7.333    2.08 |13.417    5.11 | 19.50    1.70
 1.333    1.04 | 7.417    2.08 |13.500    5.11 | 19.58    1.70
 1.417    1.04 | 7.500    2.08 |13.583    5.11 | 19.67    1.70
 1.500    1.04 | 7.583    2.08 |13.667    5.11 | 19.75    1.70
 1.583    1.04 | 7.667    2.08 |13.750    5.11 | 19.83    1.70
 1.667    1.04 | 7.750    2.08 |13.833    3.97 | 19.92    1.70
 1.750    1.04 | 7.833    2.08 |13.917    3.97 | 20.00    1.70
 1.833    1.04 | 7.917    2.08 |14.000    3.97 | 20.08    1.70
 1.917    1.04 | 8.000    2.08 |14.083    3.97 | 20.17    1.70
 2.000    1.04 | 8.083    2.08 |14.167    3.97 | 20.25    1.70
 2.083    1.04 | 8.167    2.08 |14.250    3.97 | 20.33    1.14
 2.167    1.04 | 8.250    2.08 |14.333    2.84 | 20.42    1.14
 2.250    1.04 | 8.333    2.46 |14.417    2.84 | 20.50    1.14
 2.333    1.23 | 8.417    2.46 |14.500    2.84 | 20.58    1.14
 2.417    1.23 | 8.500    2.46 |14.583    2.84 | 20.67    1.14
 2.500    1.23 | 8.583    2.46 |14.667    2.84 | 20.75    1.14
 2.583    1.23 | 8.667    2.46 |14.750    2.84 | 20.83    1.14
 2.667    1.23 | 8.750    2.46 |14.833    2.84 | 20.92    1.14
 2.750    1.23 | 8.833    2.65 |14.917    2.84 | 21.00    1.14
 2.833    1.23 | 8.917    2.65 |15.000    2.84 | 21.08    1.14
 2.917    1.23 | 9.000    2.65 |15.083    2.84 | 21.17    1.14
 3.000    1.23 | 9.083    2.65 |15.167    2.84 | 21.25    1.14
 3.083    1.23 | 9.167    2.65 |15.250    2.84 | 21.33    1.14
 3.167    1.23 | 9.250    2.65 |15.333    2.84 | 21.42    1.14
 3.250    1.23 | 9.333    3.03 |15.417    2.84 | 21.50    1.14
 3.333    1.23 | 9.417    3.03 |15.500    2.84 | 21.58    1.14
 3.417    1.23 | 9.500    3.03 |15.583    2.84 | 21.67    1.14
 3.500    1.23 | 9.583    3.03 |15.667    2.84 | 21.75    1.14
 3.583    1.23 | 9.667    3.03 |15.750    2.84 | 21.83    1.14
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3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 1.450

PEAK FLOW (cms)= 0.572 (i)
TIME TO PEAK (hrs)= 12.333
RUNOFF VOLUME (mm)= 28.533
TOTAL RAINFALL (mm)= 94.590
RUNOFF COEFFICIENT = 0.302

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0062)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0110)	9.49	0.57	12.33	28.53
OUTFLOW: ID= 2(0062)	9.49	0.57	12.33	28.53

CALIB
STANDHYD (0028)
ID= 1 DT= 5.0 min

Area (ha)= 6.40
Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	3.20	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	206.56	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 115.78 72.00
over (min) 5.00 20.00
Storage Coeff. (min)= 5.06 (ii) 18.15 (ii)
Unit Hyd. Tpeak (min)= 5.00 20.00
Unit Hyd. peak (cms)= 0.21 0.06

			TOTALS
PEAK FLOW	(cms)=	0.99	0.33	1.211 (iii)
TIME TO PEAK	(hrs)=	12.25	12.42	12.25
RUNOFF VOLUME	(mm)=	93.59	51.09	72.34
TOTAL RAINFALL	(mm)=	94.59	94.59	94.59
RUNOFF COEFFICIENT	=	0.99	0.54	0.76

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0111)

Area (ha)= 28.77

CALIB
STANDHYD (0029)
ID= 1 DT= 5.0 min

Area (ha)= 2.72
Total Imp(%)= 55.90 Dir. Conn.(%)= 27.20

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.52	1.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	134.66	25.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 115.78 29.42
over (min) 10.00 30.00
Storage Coeff. (min)= 7.94 (ii) 26.67 (ii)
Unit Hyd. Tpeak (min)= 10.00 30.00
Unit Hyd. peak (cms)= 0.13 0.04

			TOTALS
PEAK FLOW	(cms)=	1.19	0.87	1.613 (iii)
TIME TO PEAK	(hrs)=	12.25	12.58	12.33
RUNOFF VOLUME	(mm)=	93.59	24.89	35.68
TOTAL RAINFALL	(mm)=	94.59	94.59	94.59
RUNOFF COEFFICIENT	=	0.99	0.26	0.38

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0119)
ID= 1 DT= 5.0 min

Area (ha)= 2.72
Total Imp(%)= 55.90 Dir. Conn.(%)= 27.20

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.52	1.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	134.66	25.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14

3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Max.Eff.Inten.(mm/hr)=	115.78	79.93	
over (min)	5.00	10.00	
Storage Coeff. (min)=	3.55 (ii)	9.37 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.26	0.12	
			TOTALS
PEAK FLOW (cms)=	0.24	0.19	0.422 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	93.59	33.31	49.70
TOTAL RAINFALL (mm)=	94.59	94.59	94.59
RUNOFF COEFFICIENT =	0.99	0.35	0.53

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0118)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0111):	28.77	1.613	12.33	35.68
+ ID2= 2 (0119):	2.72	0.422	12.25	49.70
ID = 3 (0118):	31.49	2.014	12.25	36.89

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0118):	31.49	2.014	12.25	36.89
+ ID2= 2 (0025):	48.20	7.456	12.25	58.99
ID = 3 (0001):	79.69	9.470	12.25	50.26

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)
3 + 2 = 1

	AREA (ha)	QPEAK	TPEAK	R.V.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0001):	79.69	9.470	12.25	50.26
+ ID2= 2 (0028):	6.40	1.211	12.25	72.34
ID = 1 (0001):	86.09	10.681	12.25	51.90

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):	86.09	10.681	12.25	51.90
+ ID2= 2 (0062):	9.49	0.572	12.33	28.53
ID = 3 (0001):	95.58	11.155	12.25	49.58

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0002) OVERFLOW IS OFF
IN= 2---> OUT= 1
DT= 5.0 min

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.4660	3.2040
0.0000	0.2740	0.4720	3.3550
0.0420	0.5580	2.3890	3.4690
0.0680	0.8520	2.5030	3.5840
0.0860	1.1550	2.8990	3.9750
0.3770	1.4690	4.0830	4.4020
0.3970	1.7940	7.8030	4.8410
0.4160	2.1300	13.0620	5.2840
0.4340	2.4770	19.5770	5.7300
0.4500	2.8350	27.2220	6.1800

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0001)	95.580	11.155	12.25	49.58
OUTFLOW: ID= 1 (0002)	95.580	0.466	16.42	46.69

PEAK FLOW REDUCTION [Qout/Qin](%)= 4.17
TIME SHIFT OF PEAK FLOW (min)=250.00
MAXIMUM STORAGE USED (ha.m.)= 3.1972

DIVERTHYD(0123)
IN= 1 # OUT= 5

Outflow / Inflow Relationships

Flow 1 (cms)	+ Flow 2 (cms)	+ Flow 3 (cms)	+ Flow 4 (cms)	+ Flow 5 (cms)	= Total (cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.04	0.00	0.00	0.00	0.00	0.04
0.07	0.00	0.00	0.00	0.00	0.07
0.09	0.00	0.00	0.00	0.00	0.09
0.10	0.28	0.00	0.00	0.00	0.38
0.12	0.28	0.00	0.00	0.00	0.40
0.13	0.29	0.00	0.00	0.00	0.42
0.14	0.30	0.00	0.00	0.00	0.43
0.15	0.30	0.00	0.00	0.00	0.45
0.16	0.31	0.00	0.00	0.00	0.47
0.16	0.31	0.00	0.00	0.00	0.47
0.16	2.23	0.00	0.00	0.00	2.39
0.17	2.34	0.00	0.00	0.00	2.50
0.17	2.73	0.00	0.00	0.00	2.90
0.18	2.93	0.00	0.00	0.00	3.11

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	95.58	0.47	16.42	46.69
ID= 2 (2) :	44.73	0.16	16.42	46.69
ID= 3 (2) :	50.85	0.31	16.42	46.69
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

Junction Command(0124)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0123)	44.73	0.16	16.42	46.69
OUTFLOW: ID= 2(0124)	44.73	0.16	16.42	46.69

CALIB
NASHYD (0130)
ID= 1 DT= 5.0 min

Area (ha)= 5.38 Curve Number (CN)= 46.8
Ia (mm)= 6.05 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 0.236

PEAK FLOW	(cms)=	0.094 (i)
TIME TO PEAK	(hrs)=	13.083
RUNOFF VOLUME	(mm)=	20.778
TOTAL RAINFALL	(mm)=	94.590
RUNOFF COEFFICIENT	=	0.220

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0132)
ID= 1 DT= 5.0 min

Area (ha)= 0.69
Total Imp(%)= 42.00 Dir. Conn.(%)= 3.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.29	0.40
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	67.82	170.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14

3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Max.Eff.Inten.(mm/hr)=	115.78	50.87	
over (min)	5.00	25.00	
Storage Coeff. (min)=	2.35 (ii)	24.38 (ii)	
Unit Hyd. Tpeak (min)=	5.00	25.00	
Unit Hyd. peak (cms)=	0.30	0.05	
			TOTALS
PEAK FLOW (cms)=	0.01	0.04	0.037 (iii)
TIME TO PEAK (hrs)=	12.25	12.50	12.50
RUNOFF VOLUME (mm)=	93.59	33.61	35.38
TOTAL RAINFALL (mm)=	94.59	94.59	94.59
RUNOFF COEFFICIENT =	0.99	0.36	0.37

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0131)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0132)	0.69	0.04	12.50	35.38
OUTFLOW: ID= 2(0131)	0.69	0.04	12.50	35.38

ADD HYD (0129)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0124):	44.73	0.156	16.42	46.69
+ ID2= 2 (0130):	5.38	0.094	13.08	20.78
ID = 3 (0129):	50.11	0.240	13.17	43.91

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0129)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0129):	50.11	0.240	13.17	43.91
+ ID2= 2 (0131):	0.69	0.037	12.50	35.38

4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW	(cms)=	3.964 (i)
TIME TO PEAK	(hrs)=	13.333
RUNOFF VOLUME	(mm)=	42.670
TOTAL RAINFALL	(mm)=	94.590
RUNOFF COEFFICIENT	=	0.451

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0106) Area (ha)= 1.58
ID= 1 DT= 5.0 min Total Imp(%)= 30.20 Dir. Conn.(%)= 0.10

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.48	1.10
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	102.63	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14

ID = 1 (0129): 50.80 0.257 13.00 43.79

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0128)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 10(0123)	50.85	0.31	16.42	46.69
OUTFLOW: ID= 2(0128)	50.85	0.31	16.42	46.69

CALIB
NASHYD (0109) Area (ha)= 120.60 Curve Number (CN)= 73.3
ID= 1 DT= 5.0 min Ia (mm)= 6.90 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.06

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70
0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Max.Eff.Inten.(mm/hr)=	115.78	120.95	
over (min)	5.00	15.00	
Storage Coeff. (min)=	3.32 (ii)	13.96 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.26	0.08	
			TOTALS
PEAK FLOW (cms)=	0.00	0.23	0.227 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.33
RUNOFF VOLUME (mm)=	93.59	60.02	60.04
TOTAL RAINFALL (mm)=	94.59	94.59	94.59
RUNOFF COEFFICIENT =	0.99	0.63	0.63

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0107) Area (ha)= 0.72
ID= 1 DT= 5.0 min Total Imp(%)= 45.60 Dir. Conn.(%)= 3.50

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.33	0.39
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	69.28	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.51	12.250	115.78	18.33	1.70
0.167	0.00	6.250	1.51	12.333	13.63	18.42	1.70
0.250	0.00	6.333	1.70	12.417	13.62	18.50	1.70
0.333	1.04	6.417	1.70	12.500	13.62	18.58	1.70
0.417	1.04	6.500	1.70	12.583	13.62	18.67	1.70
0.500	1.04	6.583	1.70	12.667	13.62	18.75	1.70
0.583	1.04	6.667	1.70	12.750	13.62	18.83	1.70

0.667	1.04	6.750	1.70	12.833	7.00	18.92	1.70
0.750	1.04	6.833	1.70	12.917	7.00	19.00	1.70
0.833	1.04	6.917	1.70	13.000	7.00	19.08	1.70
0.917	1.04	7.000	1.70	13.083	7.00	19.17	1.70
1.000	1.04	7.083	1.70	13.167	7.00	19.25	1.70
1.083	1.04	7.167	1.70	13.250	7.00	19.33	1.70
1.167	1.04	7.250	1.70	13.333	5.11	19.42	1.70
1.250	1.04	7.333	2.08	13.417	5.11	19.50	1.70
1.333	1.04	7.417	2.08	13.500	5.11	19.58	1.70
1.417	1.04	7.500	2.08	13.583	5.11	19.67	1.70
1.500	1.04	7.583	2.08	13.667	5.11	19.75	1.70
1.583	1.04	7.667	2.08	13.750	5.11	19.83	1.70
1.667	1.04	7.750	2.08	13.833	3.97	19.92	1.70
1.750	1.04	7.833	2.08	13.917	3.97	20.00	1.70
1.833	1.04	7.917	2.08	14.000	3.97	20.08	1.70
1.917	1.04	8.000	2.08	14.083	3.97	20.17	1.70
2.000	1.04	8.083	2.08	14.167	3.97	20.25	1.70
2.083	1.04	8.167	2.08	14.250	3.97	20.33	1.14
2.167	1.04	8.250	2.08	14.333	2.84	20.42	1.14
2.250	1.04	8.333	2.46	14.417	2.84	20.50	1.14
2.333	1.23	8.417	2.46	14.500	2.84	20.58	1.14
2.417	1.23	8.500	2.46	14.583	2.84	20.67	1.14
2.500	1.23	8.583	2.46	14.667	2.84	20.75	1.14
2.583	1.23	8.667	2.46	14.750	2.84	20.83	1.14
2.667	1.23	8.750	2.46	14.833	2.84	20.92	1.14
2.750	1.23	8.833	2.65	14.917	2.84	21.00	1.14
2.833	1.23	8.917	2.65	15.000	2.84	21.08	1.14
2.917	1.23	9.000	2.65	15.083	2.84	21.17	1.14
3.000	1.23	9.083	2.65	15.167	2.84	21.25	1.14
3.083	1.23	9.167	2.65	15.250	2.84	21.33	1.14
3.167	1.23	9.250	2.65	15.333	2.84	21.42	1.14
3.250	1.23	9.333	3.03	15.417	2.84	21.50	1.14
3.333	1.23	9.417	3.03	15.500	2.84	21.58	1.14
3.417	1.23	9.500	3.03	15.583	2.84	21.67	1.14
3.500	1.23	9.583	3.03	15.667	2.84	21.75	1.14
3.583	1.23	9.667	3.03	15.750	2.84	21.83	1.14
3.667	1.23	9.750	3.03	15.833	2.84	21.92	1.14
3.750	1.23	9.833	3.41	15.917	2.84	22.00	1.14
3.833	1.23	9.917	3.41	16.000	2.84	22.08	1.14
3.917	1.23	10.000	3.41	16.083	2.84	22.17	1.14
4.000	1.23	10.083	3.41	16.167	2.84	22.25	1.14
4.083	1.23	10.167	3.41	16.250	2.84	22.33	1.14
4.167	1.23	10.250	3.41	16.333	1.70	22.42	1.14
4.250	1.23	10.333	4.35	16.417	1.70	22.50	1.14
4.333	1.51	10.417	4.35	16.500	1.70	22.58	1.14
4.417	1.51	10.500	4.35	16.583	1.70	22.67	1.14
4.500	1.51	10.583	4.35	16.667	1.70	22.75	1.14
4.583	1.51	10.667	4.35	16.750	1.70	22.83	1.14
4.667	1.51	10.750	4.35	16.833	1.70	22.92	1.14
4.750	1.51	10.833	5.86	16.917	1.70	23.00	1.14
4.833	1.51	10.917	5.86	17.000	1.70	23.08	1.14
4.917	1.51	11.000	5.86	17.083	1.70	23.17	1.14
5.000	1.51	11.083	5.86	17.167	1.70	23.25	1.14
5.083	1.51	11.167	5.86	17.250	1.70	23.33	1.14
5.167	1.51	11.250	5.86	17.333	1.70	23.42	1.14
5.250	1.51	11.333	9.08	17.417	1.70	23.50	1.14
5.333	1.51	11.417	9.08	17.500	1.70	23.58	1.14
5.417	1.51	11.500	9.08	17.583	1.70	23.67	1.14
5.500	1.51	11.583	9.08	17.667	1.70	23.75	1.14
5.583	1.51	11.667	9.08	17.750	1.70	23.83	1.14
5.667	1.51	11.750	9.08	17.833	1.70	23.92	1.14
5.750	1.51	11.833	28.00	17.917	1.70	24.00	1.14
5.833	1.51	11.917	28.00	18.000	1.70	24.08	1.14
5.917	1.51	12.000	28.00	18.083	1.70	24.17	1.14
6.000	1.51	12.083	115.77	18.167	1.70	24.25	1.13
6.083	1.51	12.167	115.78	18.250	1.70		

Max.Eff.Inten.(mm/hr)=	115.78	166.76	
over (min)	5.00	15.00	
Storage Coeff. (min)=	2.63 (ii)	11.98 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.29	0.09	
			TOTALS
PEAK FLOW (cms)=	0.01	0.12	0.117 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.33
RUNOFF VOLUME (mm)=	93.59	64.87	65.86
TOTAL RAINFALL (mm)=	94.59	94.59	94.59
RUNOFF COEFFICIENT =	0.99	0.69	0.70

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0029)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0106):	1.58	0.227	12.33	60.04
+ ID2= 2 (0107):	0.72	0.117	12.33	65.86
ID = 3 (0029):	2.30	0.345	12.33	61.87

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0029)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0029):	2.30	0.345	12.33	61.87
+ ID2= 2 (0109):	120.60	3.964	13.33	42.67
ID = 1 (0029):	122.90	4.014	13.25	43.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0122)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0128):	50.85	0.310	16.42	46.69
+ ID2= 2 (0029):	122.90	4.014	13.25	43.03
ID = 3 (0122):	173.75	4.317	13.25	44.10

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0135)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0122):	173.75	4.317	13.25	44.10
+ ID2= 2 (0129):	50.80	0.257	13.00	43.79
ID = 3 (0135):	224.55	4.571	13.25	44.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
       V    V   I    SSSSS  U   U    A    L                (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
         V V    I      SS   U   U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M M M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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***** D E T A I L E D O U T P U T *****

```
  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\bc474bfe-c
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\bc474bfe-c

DATE: 02-17-2026                          TIME: 11:16:05

USER:
```

COMMENTS: _____

```
  ************************************************
  ** SIMULATION : K. 25yr 24hr 15min SCS Type I **
  ************************************************
```

READ STORM	Filename: C:\Users\cbuscher\AppD ata\Local\Temp\ 8fd31c55-74ba-441d-b6e1-b71abe5a781b\017a3d01
Ptotal=111.35 mm	Comments: 25yr 24hr 15min SCS Type II (MTO) C

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.00	6.25	2.00	12.50	16.03	18.75	2.00
0.25	1.22	6.50	2.00	12.75	8.24	19.00	2.00
0.50	1.22	6.75	2.00	13.00	8.24	19.25	2.00
0.75	1.22	7.00	2.00	13.25	6.01	19.50	2.00
1.00	1.22	7.25	2.45	13.50	6.01	19.75	2.00
1.25	1.22	7.50	2.45	13.75	4.68	20.00	2.00
1.50	1.22	7.75	2.45	14.00	4.68	20.25	1.34
1.75	1.22	8.00	2.45	14.25	3.34	20.50	1.34
2.00	1.22	8.25	2.90	14.50	3.34	20.75	1.34
2.25	1.45	8.50	2.90	14.75	3.34	21.00	1.34
2.50	1.45	8.75	3.12	15.00	3.34	21.25	1.34
2.75	1.45	9.00	3.12	15.25	3.34	21.50	1.34
3.00	1.45	9.25	3.56	15.50	3.34	21.75	1.34
3.25	1.45	9.50	3.56	15.75	3.34	22.00	1.34
3.50	1.45	9.75	4.01	16.00	3.34	22.25	1.34
3.75	1.45	10.00	4.01	16.25	2.00	22.50	1.34
4.00	1.45	10.25	5.12	16.50	2.00	22.75	1.34
4.25	1.78	10.50	5.12	16.75	2.00	23.00	1.34
4.50	1.78	10.75	6.90	17.00	2.00	23.25	1.34
4.75	1.78	11.00	6.90	17.25	2.00	23.50	1.34
5.00	1.78	11.25	10.69	17.50	2.00	23.75	1.34
5.25	1.78	11.50	10.69	17.75	2.00	24.00	1.34
5.50	1.78	11.75	32.96	18.00	2.00		
5.75	1.78	12.00	136.29	18.25	2.00		
6.00	1.78	12.25	16.03	18.50	2.00		

CALIB			
STANDHYD (0133)	Area (ha)=	0.09	
ID= 1 DT= 5.0 min	Total Imp(%)=	43.30	Dir. Conn.(%)= 43.30

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.04	0.05
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	5.00	2.00
Length (m)=	24.49	46.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.03	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Max.Eff.Inten.(mm/hr)=	136.29	40.71	
over (min)	5.00	15.00	
Storage Coeff. (min)=	0.60 (ii)	11.59 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.34	0.09	
			TOTALS
PEAK FLOW (cms)=	0.01	0.00	0.018 (iii)
TIME TO PEAK (hrs)=	12.17	12.33	12.25
RUNOFF VOLUME (mm)=	110.35	30.51	64.99
TOTAL RAINFALL (mm)=	111.35	111.35	111.35
RUNOFF COEFFICIENT =	0.99	0.27	0.58

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0134)				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0133)	0.09	0.02	12.25	64.99
OUTFLOW: ID= 2(0134)	0.09	0.02	12.25	64.99

CALIB					
NASHYD (0007)	Area (ha)=	4.92	Curve Number (CN)=	75.1	
ID= 1 DT= 5.0 min	Ia (mm)=	4.65	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	1.55			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.113 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 35.950
TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.323

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0115)	Area (ha)=	0.78	Curve Number (CN)=	76.9	
ID= 1 DT= 5.0 min	Ia (mm)=	5.10	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	1.17			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Unit Hyd Qpeak (cms)= 0.121

PEAK FLOW (cms)= 0.171 (i)
TIME TO PEAK (hrs)= 13.833
RUNOFF VOLUME (mm)= 59.633
TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.536

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0057)	Area (ha)=	1.06	Curve Number (CN)=	55.0	
ID= 1 DT= 5.0 min	Ia (mm)=	4.72	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.15			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Unit Hyd Qpeak (cms)= 0.025

PEAK FLOW (cms)= 0.035 (i)
TIME TO PEAK (hrs)= 13.417
RUNOFF VOLUME (mm)= 61.838
TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.555

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
NASHYD (0103)	Area (ha)=	0.33	Curve Number (CN)=	49.0	
ID= 1 DT= 5.0 min	Ia (mm)=	5.00	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.13			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34

2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Unit Hyd Qpeak (cms)= 0.097

PEAK FLOW (cms)= 0.032 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 30.206
TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.271

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0104) | Area (ha)= 0.20 Curve Number (CN)= 53.9
ID= 1 DT= 5.0 min | Ia (mm)= 4.70 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.76

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Max.Eff.Inten.(mm/hr)=	136.29	101.62	
over (min)	5.00	10.00	
Storage Coeff. (min)=	2.64 (ii)	9.11 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.29	0.12	
			TOTALS
PEAK FLOW (cms)=	0.51	0.65	1.159 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	110.35	55.69	69.46

1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Unit Hyd Qpeak (cms)= 0.010

PEAK FLOW (cms)= 0.007 (i)
TIME TO PEAK (hrs)= 12.917
RUNOFF VOLUME (mm)= 35.108
TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.315

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0003) | Area (ha)= 5.31
ID= 1 DT= 5.0 min | Total Imp(%)= 39.70 Dir. Conn.(%)= 25.20

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	2.11	3.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	2.10	2.00
Length	(m)=	188.15	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN

TOTAL RAINFALL (mm)=	111.35	111.35	111.35
RUNOFF COEFFICIENT =	0.99	0.50	0.62

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 67.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0052) | Area (ha)= 9.07
ID= 1 DT= 5.0 min | Total Imp(%)= 64.70 Dir. Conn.(%)= 32.30

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	5.87	3.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	245.90	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34

4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

			TOTALS
Max.Eff.Inten.(mm/hr)=	136.29	134.82	
over (min)	5.00	15.00	
Storage Coeff. (min)=	5.26 (ii)	11.04 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.21	0.09	
PEAK FLOW (cms)=	1.06	0.76	1.711 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.25
RUNOFF VOLUME (mm)=	110.35	48.28	68.33
TOTAL RAINFALL (mm)=	111.35	111.35	111.35
RUNOFF COEFFICIENT =	0.99	0.43	0.61

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0053)	Area (ha)=	5.41	
ID= 1 DT= 5.0 min	Total Imp(%)=	70.00	Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	3.79	1.62
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	189.91	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

			TOTALS
Max.Eff.Inten.(mm/hr)=	136.29	50.67	
over (min)	5.00	15.00	
Storage Coeff. (min)=	2.39 (ii)	10.94 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.30	0.09	
PEAK FLOW (cms)=	0.28	0.23	0.481 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.25
RUNOFF VOLUME (mm)=	110.35	32.38	48.60
TOTAL RAINFALL (mm)=	111.35	111.35	111.35
RUNOFF COEFFICIENT =	0.99	0.29	0.44

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0108)	Area (ha)=	1.00	
ID= 1 DT= 5.0 min	Total Imp(%)=	24.00	Dir. Conn.(%)= 0.10

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.24	0.76
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	81.65	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34

4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Max.Eff.Inten.(mm/hr)=	136.29	66.41	
over (min)	5.00	20.00	
Storage Coeff. (min)=	2.72 (ii)	16.24 (ii)	
Unit Hyd. Tpeak (min)=	5.00	20.00	
Unit Hyd. peak (cms)=	0.29	0.06	
			TOTALS
PEAK FLOW (cms)=	0.00	0.08	0.076 (iii)
TIME TO PEAK (hrs)=	12.25	12.42	12.42
RUNOFF VOLUME (mm)=	110.35	37.47	37.53
TOTAL RAINFALL (mm)=	111.35	111.35	111.35
RUNOFF COEFFICIENT =	0.99	0.34	0.34

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0103):	0.33	0.032	12.25	30.21
+ ID2= 2 (0104):	0.20	0.007	12.92	35.11
ID = 3 (0032):	0.53	0.034	12.25	32.06

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0032):	0.53	0.034	12.25	32.06
+ ID2= 2 (0108):	1.00	0.076	12.42	37.53
ID = 1 (0032):	1.53	0.097	12.33	35.64

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0032):	1.53	0.097	12.33	35.64
+ ID2= 2 (0115):	0.78	0.035	13.42	61.84
ID = 3 (0032):	2.31	0.111	12.42	44.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Max.Eff.Inten.(mm/hr)=	136.29	260.37	
over (min)	5.00	10.00	
Storage Coeff. (min)=	5.07 (ii)	9.52 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.21	0.12	
			TOTALS
PEAK FLOW (cms)=	1.02	1.30	2.324 (iii)

3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0032):	2.31	0.111	12.42	44.48
+ ID2= 2 (0003):	5.31	1.159	12.25	69.46
ID = 1 (0032):	7.62	1.253	12.25	61.89

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0032):	7.62	1.253	12.25	61.89
+ ID2= 2 (0052):	9.07	1.711	12.25	68.33
ID = 3 (0032):	16.69	2.964	12.25	65.39

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0032):	16.69	2.964	12.25	65.39
+ ID2= 2 (0053):	5.41	1.255	12.25	74.69
ID = 1 (0032):	22.10	4.219	12.25	67.67

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0032):	22.10	4.219	12.25	67.67
+ ID2= 2 (0056):	3.62	0.481	12.25	48.60
ID = 3 (0032):	25.72	4.700	12.25	64.98

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0032):	25.72	4.700	12.25	64.98
+ ID2= 2 (0057):	1.06	0.113	12.25	35.95
ID = 1 (0032):	26.78	4.813	12.25	63.83

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0032):	26.78	4.813	12.25	63.83
+ ID2= 2 (0007):	4.92	0.171	13.83	59.63
ID = 3 (0032):	31.70	4.846	12.25	63.18

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (0004)	Area (ha)= 8.04		
ID= 1 DT= 5.0 min	Total Imp(%)= 70.00	Dir. Conn.(%)= 35.00	
	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	5.63	2.41	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	0.36	2.00	
Length (m)=	231.52	35.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	110.35	84.81	93.75
TOTAL RAINFALL (mm)=	111.35	111.35	111.35
RUNOFF COEFFICIENT =	0.99	0.76	0.84

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0054)	Area (ha)= 8.46		
ID= 1 DT= 5.0 min	Total Imp(%)= 59.70	Dir. Conn.(%)= 25.90	
	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	5.05	3.41	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.59	2.00	
Length (m)=	237.49	35.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34

4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

			TOTALS
Max.Eff.Inten.(mm/hr)=	136.29	213.78	
over (min)	5.00	10.00	
Storage Coeff. (min)=	3.30 (ii)	8.11 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.27	0.13	
PEAK FLOW (cms)=	0.82	1.59	2.416 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	110.35	81.19	88.74
TOTAL RAINFALL (mm)=	111.35	111.35	111.35
RUNOFF COEFFICIENT =	0.99	0.73	0.80

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0055)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0004):		8.04	2.324	12.25	93.75
+ ID2= 2 (0054):		8.46	2.416	12.25	88.74
ID = 3 (0055):		16.50	4.740	12.25	91.18

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0060)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0032):		31.70	4.846	12.25	63.18
+ ID2= 2 (0055):		16.50	4.740	12.25	91.18
ID = 3 (0060):		48.20	9.587	12.25	72.77

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0025)		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 1(0060)		48.20	9.59	12.25	72.77
OUTFLOW: ID= 2(0025)		48.20	9.59	12.25	72.77

CALIB			
NASHYD (0110)	Area	(ha)= 9.49	Curve Number (CN)= 56.7
ID= 1 DT= 5.0 min	Ia	(mm)= 4.53	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.25		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.340

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0062)		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2(0110)		9.49	0.77	12.33	37.90
OUTFLOW: ID= 2(0062)		9.49	0.77	12.33	37.90

CALIB			
STANDHYD (0028)	Area	(ha)= 6.40	
ID= 1 DT= 5.0 min	Total Imp(%)= 50.00	Dir. Conn.(%)= 50.00	

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.20	3.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	206.56	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00

Unit Hyd Qpeak (cms)= 1.450

PEAK FLOW	(cms)=	0.766 (i)
TIME TO PEAK	(hrs)=	12.333
RUNOFF VOLUME	(mm)=	37.905

			TOTALS
Max.Eff.Inten.(mm/hr)=	136.29	91.73	
over (min)	5.00	20.00	
Storage Coeff. (min)=	4.74 (ii)	16.62 (ii)	
Unit Hyd. Tpeak (min)=	5.00	20.00	
Unit Hyd. peak (cms)=	0.22	0.06	
PEAK FLOW (cms)=	1.17	0.44	1.472 (iii)
TIME TO PEAK (hrs)=	12.25	12.42	12.25
RUNOFF VOLUME (mm)=	110.35	65.05	87.70
TOTAL RAINFALL (mm)=	111.35	111.35	111.35
RUNOFF COEFFICIENT =	0.99	0.58	0.79

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0111)	Area	(ha)= 28.77	
ID= 1 DT= 5.0 min	Total Imp(%)= 24.70	Dir. Conn.(%)= 15.70	

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	7.11	21.66
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	437.95	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00

1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Max.Eff.Inten.(mm/hr)=	136.29	39.65	
over (min)	5.00	25.00	
Storage Coeff. (min)=	7.44 (ii)	24.06 (ii)	
Unit Hyd. Tpeak (min)=	5.00	25.00	
Unit Hyd. peak (cms)=	0.17	0.05	
			TOTALS
PEAK FLOW (cms)=	1.53	1.28	2.225 (iii)
TIME TO PEAK (hrs)=	12.25	12.50	12.25
RUNOFF VOLUME (mm)=	110.35	33.30	45.40
TOTAL RAINFALL (mm)=	111.35	111.35	111.35
RUNOFF COEFFICIENT =	0.99	0.30	0.41

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0119)	Area (ha)=	2.72	
ID= 1 DT= 5.0 min	Total Imp(%)=	55.90	Dir. Conn.(%)= 27.20

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.52	1.20
Dep. Storage (mm)=	1.00	5.00

Max.Eff.Inten.(mm/hr)=	136.29	105.00	
over (min)	5.00	10.00	
Storage Coeff. (min)=	3.32 (ii)	8.54 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.26	0.12	
			TOTALS
PEAK FLOW (cms)=	0.28	0.26	0.534 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	110.35	43.71	61.83
TOTAL RAINFALL (mm)=	111.35	111.35	111.35
RUNOFF COEFFICIENT =	0.99	0.39	0.56

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0118)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0111):	28.77	2.225	12.25	45.40	
+ ID2= 2 (0119):	2.72	0.534	12.25	61.83	
ID = 3 (0118):	31.49	2.759	12.25	46.82	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0118):	31.49	2.759	12.25	46.82	
+ ID2= 2 (0025):	48.20	9.587	12.25	72.77	
ID = 3 (0001):	79.69	12.346	12.25	62.51	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (0001):	79.69	12.346	12.25	62.51	
+ ID2= 2 (0028):	6.40	1.472	12.25	87.70	
ID = 1 (0001):	86.09	13.818	12.25	64.38	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0001):	86.09	13.818	12.25	64.38	
+ ID2= 2 (0062):	9.49	0.766	12.33	37.90	
ID = 3 (0001):	95.58	14.455	12.25	61.76	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0002)	OVERFLOW IS OFF			
IN= 2---> OUT= 1				
DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.4660	3.2040
	0.0000	0.2740	0.4720	3.3550
	0.0420	0.5580	2.3890	3.4690
	0.0680	0.8520	2.5030	3.5840
	0.0860	1.1550	2.8990	3.9750
	0.3770	1.4690	4.0830	4.4020
	0.3970	1.7940	7.8030	4.8410
	0.4160	2.1300	13.0620	5.2840
	0.4340	2.4770	19.5770	5.7300
	0.4500	2.8350	27.2220	6.1800

Average Slope	(%)=	0.50	2.00
Length	(m)=	134.66	25.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0001)	95.580	14.455	12.25	61.76
OUTFLOW: ID= 1 (0002)	95.580	1.967	13.25	58.87

PEAK FLOW REDUCTION [Qout/Qin](%)= 13.61
TIME SHIFT OF PEAK FLOW (min)= 60.00
MAXIMUM STORAGE USED (ha.m.)= 3.4439

DIVERTHYD(0123)		
IN= 1 # OUT= 5		
Outflow / Inflow	Relationships	

Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total					
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.04	0.00	0.00	0.00	0.00	0.04
0.07	0.00	0.00	0.00	0.00	0.07
0.09	0.00	0.00	0.00	0.00	0.09
0.10	0.28	0.00	0.00	0.00	0.38
0.12	0.28	0.00	0.00	0.00	0.40
0.13	0.29	0.00	0.00	0.00	0.42
0.14	0.30	0.00	0.00	0.00	0.43
0.15	0.30	0.00	0.00	0.00	0.45
0.16	0.31	0.00	0.00	0.00	0.47
0.16	0.31	0.00	0.00	0.00	0.47
0.16	2.23	0.00	0.00	0.00	2.39
0.17	2.34	0.00	0.00	0.00	2.50
0.17	2.73	0.00	0.00	0.00	2.90
0.18	2.93	0.00	0.00	0.00	3.11

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	95.58	1.97	13.25	58.87
ID= 2 (2) :	38.07	0.16	13.25	58.87
ID= 3 (2) :	57.51	1.80	13.25	58.87
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

Junction Command(0124)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0123)	38.07	0.16	13.25	58.87
OUTFLOW: ID= 2(0124)	38.07	0.16	13.25	58.87

CALIB				
NASHYD (0130)	Area (ha)=	5.38	Curve Number (CN)=	46.8
ID= 1 DT= 5.0 min	Ia (mm)=	6.05	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=	0.87		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00

1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Unit Hyd Qpeak (cms)= 0.236

PEAK FLOW (cms)= 0.129 (i)
TIME TO PEAK (hrs)= 13.083
RUNOFF VOLUME (mm)= 28.139
TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.253

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0132)
ID= 1 DT= 5.0 min

Area (ha)= 0.69
Total Imp(%)= 42.00 Dir. Conn.(%)= 3.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.29	0.40
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	67.82	170.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

	TOTALS			
PEAK FLOW (cms)=	0.01	0.05	0.052	(iii)
TIME TO PEAK (hrs)=	12.25	12.50	12.50	
RUNOFF VOLUME (mm)=	110.35	44.07	46.04	
TOTAL RAINFALL (mm)=	111.35	111.35	111.35	
RUNOFF COEFFICIENT =	0.99	0.40	0.41	

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0131)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0132)	0.69	0.05	12.50	46.04
OUTFLOW: ID= 2(0131)	0.69	0.05	12.50	46.04

ADD HYD (0129)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0124):	38.07	0.162	13.25	58.87
+ ID2= 2 (0130):	5.38	0.129	13.08	28.14
ID = 3 (0129):	43.45	0.291	13.08	55.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0129)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0129):	43.45	0.291	13.08	55.07
+ ID2= 2 (0131):	0.69	0.052	12.50	46.04
ID = 1 (0129):	44.14	0.315	13.00	54.92

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0128)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 10(0123)	57.51	1.80	13.25	58.87
OUTFLOW: ID= 2(0128)	57.51	1.80	13.25	58.87

CALIB
NASHYD (0109)
ID= 1 DT= 5.0 min

Area (ha)= 120.60 Curve Number (CN)= 73.3
Ia (mm)= 6.90 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.06

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

Max.Eff.Inten.(mm/hr)=	136.29	79.75
over (min)	5.00	25.00
Storage Coeff. (min)=	2.20 (ii)	20.61 (ii)
Unit Hyd. Tpeak (min)=	5.00	25.00
Unit Hyd. peak (cms)=	0.30	0.05

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 5.187 (i)
TIME TO PEAK (hrs)= 13.250
RUNOFF VOLUME (mm)= 55.388
TOTAL RAINFALL (mm)= 111.350
RUNOFF COEFFICIENT = 0.497

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0106)
ID= 1 DT= 5.0 min

Area (ha)= 1.58
Total Imp(%)= 30.20 Dir. Conn.(%)= 0.10

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.48	1.10

```
Dep. Storage     (mm)=       1.00          5.00
Average Slope     (%)=       0.36          2.00
Length            (m)=     102.63         90.00
Mannings n           =      0.013         0.250

    NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
```

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34
3.583	1.45	9.667	3.56	15.750	3.34	21.83	1.34
3.667	1.45	9.750	3.56	15.833	3.34	21.92	1.34
3.750	1.45	9.833	4.01	15.917	3.34	22.00	1.34
3.833	1.45	9.917	4.01	16.000	3.34	22.08	1.34
3.917	1.45	10.000	4.01	16.083	3.34	22.17	1.34
4.000	1.45	10.083	4.01	16.167	3.34	22.25	1.34
4.083	1.45	10.167	4.01	16.250	3.34	22.33	1.34
4.167	1.45	10.250	4.01	16.333	2.00	22.42	1.34
4.250	1.45	10.333	5.12	16.417	2.00	22.50	1.34
4.333	1.78	10.417	5.12	16.500	2.00	22.58	1.34
4.417	1.78	10.500	5.12	16.583	2.00	22.67	1.34
4.500	1.78	10.583	5.12	16.667	2.00	22.75	1.34
4.583	1.78	10.667	5.12	16.750	2.00	22.83	1.34
4.667	1.78	10.750	5.12	16.833	2.00	22.92	1.34
4.750	1.78	10.833	6.90	16.917	2.00	23.00	1.34
4.833	1.78	10.917	6.90	17.000	2.00	23.08	1.34
4.917	1.78	11.000	6.90	17.083	2.00	23.17	1.34
5.000	1.78	11.083	6.90	17.167	2.00	23.25	1.34
5.083	1.78	11.167	6.90	17.250	2.00	23.33	1.34
5.167	1.78	11.250	6.90	17.333	2.00	23.42	1.34
5.250	1.78	11.333	10.69	17.417	2.00	23.50	1.34
5.333	1.78	11.417	10.69	17.500	2.00	23.58	1.34
5.417	1.78	11.500	10.69	17.583	2.00	23.67	1.34
5.500	1.78	11.583	10.69	17.667	2.00	23.75	1.34
5.583	1.78	11.667	10.69	17.750	2.00	23.83	1.34
5.667	1.78	11.750	10.69	17.833	2.00	23.92	1.34
5.750	1.78	11.833	32.96	17.917	2.00	24.00	1.34
5.833	1.78	11.917	32.96	18.000	2.00	24.08	1.34
5.917	1.78	12.000	32.96	18.083	2.00	24.17	1.34
6.000	1.78	12.083	136.28	18.167	2.00	24.25	1.34
6.083	1.78	12.167	136.29	18.250	2.00		

```
Max.Eff.Inten.(mm/hr)=     136.29       204.58
          over (min)         5.00        15.00
Storage Coeff.  (min)=      2.46 (ii)   11.08 (ii)
Unit Hyd. Tpeak (min)=      5.00        15.00
Unit Hyd. peak  (cms)=      0.30         0.09
                                          *TOTALS*
PEAK FLOW       (cms)=      0.01         0.15          0.149 (iii)
TIME TO PEAK    (hrs)=     12.25        12.33          12.33
RUNOFF VOLUME    (mm)=    110.35        80.35          81.39
TOTAL RAINFALL   (mm)=    111.35       111.35         111.35
RUNOFF COEFFICIENT   =      0.99         0.72           0.73

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0029)|
|   1 +  2 =  3    |          AREA    QPEAK     TPEAK      R.V.
--------------------          (ha)    (cms)     (hrs)      (mm)
       ID1= 1 (  0106):      1.58    0.296     12.33     75.07
     + ID2= 2 (  0107):      0.72    0.149     12.33     81.39
       ================================================
       ID = 3 (  0029):      2.30    0.445     12.33     77.05

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0029)|
|   3 +  2 =  1    |          AREA    QPEAK     TPEAK      R.V.
--------------------          (ha)    (cms)     (hrs)      (mm)
       ID1= 3 (  0029):      2.30    0.445     12.33     77.05
     + ID2= 2 (  0109):    120.60    5.187     13.25     55.39
       ================================================
       ID = 1 (  0029):    122.90    5.245     13.25     55.79

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0122)|
|   1 +  2 =  3    |          AREA    QPEAK     TPEAK      R.V.
--------------------          (ha)    (cms)     (hrs)      (mm)
```

```
Max.Eff.Inten.(mm/hr)=     136.29       156.09
          over (min)         5.00        15.00
Storage Coeff.  (min)=      3.11 (ii)   12.72 (ii)
Unit Hyd. Tpeak (min)=      5.00        15.00
Unit Hyd. peak  (cms)=      0.27         0.08
                                          *TOTALS*
PEAK FLOW       (cms)=      0.00         0.30          0.296 (iii)
TIME TO PEAK    (hrs)=     12.25        12.33          12.33
RUNOFF VOLUME    (mm)=    110.35        75.04          75.07
TOTAL RAINFALL   (mm)=    111.35       111.35         111.35
RUNOFF COEFFICIENT   =      0.99         0.67           0.67

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
--------------------
| CALIB            |
| STANDHYD (  0107)|   Area    (ha)=   0.72
|ID= 1 DT= 5.0 min |   Total Imp(%)=  45.60   Dir. Conn.(%)=   3.50
--------------------
                           IMPERVIOUS    PERVIOUS (i)
Surface Area     (ha)=       0.33         0.39
Dep. Storage     (mm)=       1.00         5.00
Average Slope     (%)=       0.36         2.00
Length            (m)=      69.28        90.00
Mannings n           =      0.013        0.250

    NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
```

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.78	12.250	136.29	18.33	2.00
0.167	0.00	6.250	1.78	12.333	16.05	18.42	2.00
0.250	0.00	6.333	2.00	12.417	16.03	18.50	2.00
0.333	1.22	6.417	2.00	12.500	16.03	18.58	2.00
0.417	1.22	6.500	2.00	12.583	16.03	18.67	2.00
0.500	1.22	6.583	2.00	12.667	16.03	18.75	2.00
0.583	1.22	6.667	2.00	12.750	16.03	18.83	2.00
0.667	1.22	6.750	2.00	12.833	8.24	18.92	2.00
0.750	1.22	6.833	2.00	12.917	8.24	19.00	2.00
0.833	1.22	6.917	2.00	13.000	8.24	19.08	2.00
0.917	1.22	7.000	2.00	13.083	8.24	19.17	2.00
1.000	1.22	7.083	2.00	13.167	8.24	19.25	2.00
1.083	1.22	7.167	2.00	13.250	8.24	19.33	2.00
1.167	1.22	7.250	2.00	13.333	6.01	19.42	2.00
1.250	1.22	7.333	2.45	13.417	6.01	19.50	2.00
1.333	1.22	7.417	2.45	13.500	6.01	19.58	2.00
1.417	1.22	7.500	2.45	13.583	6.01	19.67	2.00
1.500	1.22	7.583	2.45	13.667	6.01	19.75	2.00
1.583	1.22	7.667	2.45	13.750	6.01	19.83	2.00
1.667	1.22	7.750	2.45	13.833	4.68	19.92	2.00
1.750	1.22	7.833	2.45	13.917	4.68	20.00	2.00
1.833	1.22	7.917	2.45	14.000	4.68	20.08	2.00
1.917	1.22	8.000	2.45	14.083	4.68	20.17	2.00
2.000	1.22	8.083	2.45	14.167	4.68	20.25	2.00
2.083	1.22	8.167	2.45	14.250	4.68	20.33	1.34
2.167	1.22	8.250	2.45	14.333	3.34	20.42	1.34
2.250	1.22	8.333	2.90	14.417	3.34	20.50	1.34
2.333	1.45	8.417	2.90	14.500	3.34	20.58	1.34
2.417	1.45	8.500	2.90	14.583	3.34	20.67	1.34
2.500	1.45	8.583	2.90	14.667	3.34	20.75	1.34
2.583	1.45	8.667	2.90	14.750	3.34	20.83	1.34
2.667	1.45	8.750	2.90	14.833	3.34	20.92	1.34
2.750	1.45	8.833	3.12	14.917	3.34	21.00	1.34
2.833	1.45	8.917	3.12	15.000	3.34	21.08	1.34
2.917	1.45	9.000	3.12	15.083	3.34	21.17	1.34
3.000	1.45	9.083	3.12	15.167	3.34	21.25	1.34
3.083	1.45	9.167	3.12	15.250	3.34	21.33	1.34
3.167	1.45	9.250	3.12	15.333	3.34	21.42	1.34
3.250	1.45	9.333	3.56	15.417	3.34	21.50	1.34
3.333	1.45	9.417	3.56	15.500	3.34	21.58	1.34
3.417	1.45	9.500	3.56	15.583	3.34	21.67	1.34
3.500	1.45	9.583	3.56	15.667	3.34	21.75	1.34

```
      ID1= 1 (  0128):    57.51   1.804     13.25     58.87
    + ID2= 2 (  0029):   122.90   5.245     13.25     55.79
      ================================================
      ID = 3 (  0122):   180.41   7.049     13.25     56.77

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------

--------------------
| ADD HYD  (  0135)|
|   1 +  2 =  3    |          AREA    QPEAK     TPEAK      R.V.
--------------------          (ha)    (cms)     (hrs)      (mm)
       ID1= 1 (  0122):    180.41   7.049     13.25     56.77
     + ID2= 2 (  0129):     44.14   0.315     13.00     54.92
       ================================================
       ID = 3 (  0135):    224.55   7.355     13.25     56.41

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
================================================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I      SS   U   U  AAAAA  L
         V V    I      SS   U   U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M M M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****

  Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
  Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\6d7cebce-9
  Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\6d7cebce-9

DATE: 02-17-2026                          TIME: 11:16:06

USER:


COMMENTS: _____

--------------------------------------------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : L. 50yr 24hr 15min SCS Type I **
  ************************************************


--------------------
|    READ STORM    |    Filename: C:\Users\cbuscher\AppD
|                  |              ata\Local\Temp\
|                  |              8fd31c55-74ba-441d-b6e1-b71abe5a781b\a5af3fc0
| Ptotal=123.62 mm |    Comments: 50yr 24hr 15min SCS Type II (MTO) C
--------------------
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.00	6.25	2.23	12.50	17.80	18.75	2.23
0.25	1.36	6.50	2.23	12.75	9.15	19.00	2.23
0.50	1.36	6.75	2.23	13.00	9.15	19.25	2.23
0.75	1.36	7.00	2.23	13.25	6.68	19.50	2.23
1.00	1.36	7.25	2.72	13.50	6.68	19.75	2.23
1.25	1.36	7.50	2.72	13.75	5.19	20.00	2.23
1.50	1.36	7.75	2.72	14.00	5.19	20.25	1.48
1.75	1.36	8.00	2.72	14.25	3.71	20.50	1.48
2.00	1.36	8.25	3.21	14.50	3.71	20.75	1.48
2.25	1.61	8.50	3.21	14.75	3.71	21.00	1.48
2.50	1.61	8.75	3.46	15.00	3.71	21.25	1.48
2.75	1.61	9.00	3.46	15.25	3.71	21.50	1.48
3.00	1.61	9.25	3.96	15.50	3.71	21.75	1.48
3.25	1.61	9.50	3.96	15.75	3.71	22.00	1.48
3.50	1.61	9.75	4.45	16.00	3.71	22.25	1.48
3.75	1.61	10.00	4.45	16.25	2.23	22.50	1.48
4.00	1.61	10.25	5.69	16.50	2.23	22.75	1.48

4.25	1.98	10.50	5.69	16.75	2.23	23.00	1.48
4.50	1.98	10.75	7.66	17.00	2.23	23.25	1.48
4.75	1.98	11.00	7.66	17.25	2.23	23.50	1.48
5.00	1.98	11.25	11.87	17.50	2.23	23.75	1.48
5.25	1.98	11.50	11.87	17.75	2.23	24.00	1.48
5.50	1.98	11.75	36.59	18.00	2.23		
5.75	1.98	12.00	151.31	18.25	2.23		
6.00	1.98	12.25	17.80	18.50	2.23		

CALIB
STANDHYD (0133)
ID= 1 DT= 5.0 min

Area (ha)= 0.09
Total Imp(%)= 43.30 Dir. Conn.(%)= 43.30

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.04	0.05
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	5.00	2.00
Length	(m)=	24.49	46.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Unit Hyd Qpeak (cms)= 0.121

PEAK FLOW (cms)= 0.200 (i)
TIME TO PEAK (hrs)= 13.833
RUNOFF VOLUME (mm)= 69.659
TOTAL RAINFALL (mm)= 123.620
RUNOFF COEFFICIENT = 0.563

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0057)
ID= 1 DT= 5.0 min

Area (ha)= 1.06 Curve Number (CN)= 55.0
Ia (mm)= 4.72 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.15

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23

4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Max.Eff.Inten.(mm/hr)=	151.31	53.30	
over (min)	5.00	15.00	
Storage Coeff. (min)=	0.57 (ii)	10.45 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.34	0.09	
			TOTALS
PEAK FLOW (cms)=	0.02	0.00	0.020 (iii)
TIME TO PEAK (hrs)=	12.17	12.33	12.25
RUNOFF VOLUME (mm)=	122.62	36.74	73.82
TOTAL RAINFALL (mm)=	123.62	123.62	123.62
RUNOFF COEFFICIENT =	0.99	0.30	0.60

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0134)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0133)	0.09	0.02	12.25	73.82
OUTFLOW: ID= 2(0134)	0.09	0.02	12.25	73.82

CALIB
NASHYD (0007)
ID= 1 DT= 5.0 min

Area (ha)= 4.92 Curve Number (CN)= 75.1
Ia (mm)= 4.65 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.55

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.135 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 43.021
TOTAL RAINFALL (mm)= 123.620
RUNOFF COEFFICIENT = 0.348

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0115)
ID= 1 DT= 5.0 min

Area (ha)= 0.78 Curve Number (CN)= 76.9
Ia (mm)= 5.10 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Unit Hyd Qpeak (cms)= 0.025

PEAK FLOW (cms)= 0.041 (i)
TIME TO PEAK (hrs)= 13.417
RUNOFF VOLUME (mm)= 72.100

TOTAL RAINFALL (mm)= 123.620
RUNOFF COEFFICIENT = 0.583

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
NASHYD (0103)	Area (ha)= 0.33 Curve Number (CN)= 49.0
ID= 1 DT= 5.0 min	Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.13

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48

CALIB	
NASHYD (0104)	Area (ha)= 0.20 Curve Number (CN)= 53.9
ID= 1 DT= 5.0 min	Ia (mm)= 4.70 # of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.76

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48

CALIB	
STANDHYD (0003)	Area (ha)= 5.31
ID= 1 DT= 5.0 min	Total Imp(%)= 39.70 Dir. Conn.(%)= 25.20

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.11	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	2.10	2.00
Length (m)=	188.15	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48

2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Max.Eff.Inten.(mm/hr)=	151.31	118.89	
over (min)	5.00	10.00	
Storage Coeff. (min)=	2.53 (ii)	8.61 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.29	0.12	
			TOTALS
PEAK FLOW (cms)=	0.56	0.79	1.348 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	122.62	65.28	79.73
TOTAL RAINFALL (mm)=	123.62	123.62	123.62
RUNOFF COEFFICIENT =	0.99	0.53	0.64

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 67.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0052)
ID= 1 DT= 5.0 min

Area (ha)= 9.07
Total Imp(%)= 64.70 Dir. Conn.(%)= 32.30

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	5.87	3.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	245.90	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Max.Eff.Inten.(mm/hr)=	151.31	158.98	
over (min)	5.00	15.00	
Storage Coeff. (min)=	5.05 (ii)	10.46 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.21	0.09	
			TOTALS
PEAK FLOW (cms)=	1.18	0.91	1.977 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.25
RUNOFF VOLUME (mm)=	122.62	56.93	78.15
TOTAL RAINFALL (mm)=	123.62	123.62	123.62
RUNOFF COEFFICIENT =	0.99	0.46	0.63

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0053)
ID= 1 DT= 5.0 min

Area (ha)= 5.41
Total Imp(%)= 70.00 Dir. Conn.(%)= 35.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.79	1.62
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	189.91	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Max.Eff.Inten.(mm/hr)=	151.31	204.87	
over (min)	5.00	10.00	
Storage Coeff. (min)=	4.32 (ii)	9.21 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.23	0.12	
			TOTALS
PEAK FLOW (cms)=	0.78	0.67	1.447 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	122.62	64.97	85.14
TOTAL RAINFALL (mm)=	123.62	123.62	123.62
RUNOFF COEFFICIENT =	0.99	0.53	0.69

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.7 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0056)
ID= 1 DT= 5.0 min

Area (ha)= 3.62
Total Imp(%)= 26.60 Dir. Conn.(%)= 20.80

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.96	2.66
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	2.00	2.00
Length	(m)=	155.35	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48

2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Max.Eff.Inten.(mm/hr)=	151.31	60.93	
over (min)	5.00	15.00	
Storage Coeff. (min)=	2.29 (ii)	10.23 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.30	0.09	
			TOTALS
PEAK FLOW (cms)=	0.32	0.29	0.562 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.25
RUNOFF VOLUME (mm)=	122.62	38.90	56.31
TOTAL RAINFALL (mm)=	123.62	123.62	123.62
RUNOFF COEFFICIENT =	0.99	0.31	0.46

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0108)	Area (ha)=	1.00	
ID= 1 DT= 5.0 min	Total Imp(%)=	24.00	Dir. Conn.(%)= 0.10

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.24	0.76
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	81.65	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Max.Eff.Inten.(mm/hr)=	151.31	79.58	
over (min)	5.00	20.00	
Storage Coeff. (min)=	2.60 (ii)	15.18 (ii)	
Unit Hyd. Tpeak (min)=	5.00	20.00	
Unit Hyd. peak (cms)=	0.29	0.07	
			TOTALS
PEAK FLOW (cms)=	0.00	0.09	0.093 (iii)
TIME TO PEAK (hrs)=	12.25	12.42	12.42
RUNOFF VOLUME (mm)=	122.62	44.73	44.80
TOTAL RAINFALL (mm)=	123.62	123.62	123.62
RUNOFF COEFFICIENT =	0.99	0.36	0.36

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0032)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0103):	0.33	0.039	12.25	36.37	
+ ID2= 2 (0104):	0.20	0.008	12.92	42.06	
ID = 3 (0032):	0.53	0.042	12.25	38.52	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (0032):	0.53	0.042	12.25	38.52	
+ ID2= 2 (0108):	1.00	0.093	12.42	44.80	
ID = 1 (0032):	1.53	0.120	12.33	42.62	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0032):	1.53	0.120	12.33	42.62	
+ ID2= 2 (0115):	0.78	0.041	13.42	72.10	
ID = 3 (0032):	2.31	0.136	12.42	52.58	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (0032):	2.31	0.136	12.42	52.58	
+ ID2= 2 (0003):	5.31	1.348	12.25	79.73	
ID = 1 (0032):	7.62	1.462	12.25	71.50	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0032):	7.62	1.462	12.25	71.50	
+ ID2= 2 (0052):	9.07	1.977	12.25	78.15	
ID = 3 (0032):	16.69	3.439	12.25	75.11	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (0032):	16.69	3.439	12.25	75.11	
+ ID2= 2 (0053):	5.41	1.447	12.25	85.14	
ID = 1 (0032):	22.10	4.885	12.25	77.57	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0032):	22.10	4.885	12.25	77.57	
+ ID2= 2 (0056):	3.62	0.562	12.25	56.31	
ID = 3 (0032):	25.72	5.447	12.25	74.58	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (0032):	25.72	5.447	12.25	74.58	
+ ID2= 2 (0057):	1.06	0.135	12.25	43.02	
ID = 1 (0032):	26.78	5.582	12.25	73.33	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0032):	26.78	5.582	12.25	73.33	
+ ID2= 2 (0007):	4.92	0.200	13.83	69.66	
ID = 3 (0032):	31.70	5.623	12.25	72.76	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (0004)	Area (ha)=	8.04	
ID= 1 DT= 5.0 min	Total Imp(%)=	70.00	Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	5.63	2.41
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	231.52	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48

2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Max.Eff.Inten.(mm/hr)=	151.31	294.28	
over (min)	5.00	10.00	
Storage Coeff. (min)=	4.87 (ii)	9.10 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.22	0.12	
			TOTALS
PEAK FLOW (cms)=	1.14	1.50	2.643 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	122.62	96.52	105.65
TOTAL RAINFALL (mm)=	123.62	123.62	123.62
RUNOFF COEFFICIENT =	0.99	0.78	0.85

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0054)	Area (ha)=	8.46	
ID= 1 DT= 5.0 min	Total Imp(%)=	59.70	Dir. Conn.(%)= 25.90

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	5.05	3.41
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.59	2.00
Length (m)=	237.49	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Max.Eff.Inten.(mm/hr)=	151.31	242.56	
over (min)	5.00	10.00	
Storage Coeff. (min)=	3.16 (ii)	7.74 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.27	0.13	
			TOTALS
PEAK FLOW (cms)=	0.91	1.84	2.758 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	122.62	92.73	100.47
TOTAL RAINFALL (mm)=	123.62	123.62	123.62
RUNOFF COEFFICIENT =	0.99	0.75	0.81

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0055)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0004):	8.04	2.643	12.25	105.65	
+ ID2= 2 (0054):	8.46	2.758	12.25	100.47	
ID = 3 (0055):	16.50	5.401	12.25	103.00	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0060)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0032):	31.70	5.623	12.25	72.76	
+ ID2= 2 (0055):	16.50	5.401	12.25	103.00	
ID = 3 (0060):	48.20	11.024	12.25	83.11	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0025)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0060)	48.20	11.02	12.25	83.11
OUTFLOW: ID= 2(0025)	48.20	11.02	12.25	83.11

CALIB					
NASHYD (0110)	Area (ha)=	9.49	Curve Number (CN)=	56.7	
ID= 1 DT= 5.0 min	Ia (mm)=	4.53	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.25			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Unit Hyd Qpeak (cms)= 1.450

PEAK FLOW	(cms)=	0.920 (i)
TIME TO PEAK	(hrs)=	12.333
RUNOFF VOLUME	(mm)=	45.267
TOTAL RAINFALL	(mm)=	123.620
RUNOFF COEFFICIENT	=	0.366

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0062)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0110)	9.49	0.92	12.33	45.27
OUTFLOW: ID= 2(0062)	9.49	0.92	12.33	45.27

CALIB			
STANDHYD (0028)	Area (ha)=	6.40	
ID= 1 DT= 5.0 min	Total Imp(%)=	50.00	Dir. Conn.(%)= 50.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	3.20	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	206.56	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Max.Eff.Inten.(mm/hr)=	151.31	106.54	
over (min)	5.00	20.00	
Storage Coeff. (min)=	4.54 (ii)	15.74 (ii)	
Unit Hyd. Tpeak (min)=	5.00	20.00	
Unit Hyd. peak (cms)=	0.23	0.07	
			TOTALS
PEAK FLOW (cms)=	1.31	0.52	1.668 (iii)
TIME TO PEAK (hrs)=	12.25	12.42	12.25
RUNOFF VOLUME (mm)=	122.62	75.59	99.10
TOTAL RAINFALL (mm)=	123.62	123.62	123.62
RUNOFF COEFFICIENT =	0.99	0.61	0.80

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0111)	Area (ha)= 28.77
ID= 1 DT= 5.0 min	Total Imp(%)= 24.70 Dir. Conn.(%)= 15.70

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	7.11	21.66
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	437.95	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Max.Eff.Inten.(mm/hr)=	151.31	60.19	
over (min)	5.00	25.00	
Storage Coeff. (min)=	7.13 (ii)	21.20 (ii)	
Unit Hyd. Tpeak (min)=	5.00	25.00	
Unit Hyd. peak (cms)=	0.17	0.05	
			TOTALS
PEAK FLOW (cms)=	1.72	1.65	2.618 (iii)
TIME TO PEAK (hrs)=	12.25	12.50	12.25
RUNOFF VOLUME (mm)=	122.62	39.96	52.94
TOTAL RAINFALL (mm)=	123.62	123.62	123.62
RUNOFF COEFFICIENT =	0.99	0.32	0.43

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0119)	Area (ha)= 2.72
ID= 1 DT= 5.0 min	Total Imp(%)= 55.90 Dir. Conn.(%)= 27.20

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.52	1.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	134.66	25.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Max.Eff.Inten.(mm/hr)=	151.31	124.49	
over (min)	5.00	10.00	
Storage Coeff. (min)=	3.19 (ii)	8.06 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.27	0.13	
			TOTALS
PEAK FLOW (cms)=	0.31	0.31	0.620 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	122.62	51.80	71.06
TOTAL RAINFALL (mm)=	123.62	123.62	123.62
RUNOFF COEFFICIENT =	0.99	0.42	0.57

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0118)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0111):	28.77	2.618	12.25	52.94
+ ID2= 2 (0119):	2.72	0.620	12.25	71.06
ID = 3 (0118):	31.49	3.239	12.25	54.50

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-------------------
| ADD HYD  (  0001)|
|   1 +  2 =  3    |
-------------------
```

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0118):	31.49	3.239	12.25	54.50
+ ID2= 2 (0025):	48.20	11.024	12.25	83.11
ID = 3 (0001):	79.69	14.263	12.25	71.81

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-------------------
| ADD HYD  (  0001)|
|   3 +  2 =  1    |
-------------------
```

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0001):	79.69	14.263	12.25	71.81
+ ID2= 2 (0028):	6.40	1.668	12.25	99.10
ID = 1 (0001):	86.09	15.931	12.25	73.84

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-------------------
| ADD HYD  (  0001)|
|   1 +  2 =  3    |
-------------------
```

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):	86.09	15.931	12.25	73.84
+ ID2= 2 (0062):	9.49	0.920	12.33	45.27
ID = 3 (0001):	95.58	16.698	12.25	71.00

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| RESERVOIR(  0002)|    OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |
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OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.4660	3.2040
0.0000	0.2740	0.4720	3.3550
0.0420	0.5580	2.3890	3.4690
0.0680	0.8520	2.5030	3.5840
0.0860	1.1550	2.8990	3.9750
0.3770	1.4690	4.0830	4.4020
0.3970	1.7940	7.8030	4.8410
0.4160	2.1300	13.0620	5.2840
0.4340	2.4770	19.5770	5.7300
0.4500	2.8350	27.2220	6.1800

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0001)	95.580	16.698	12.25	71.00
OUTFLOW: ID= 1 (0002)	95.580	2.595	13.08	68.11

PEAK FLOW REDUCTION [Qout/Qin](%)= 15.54
TIME SHIFT OF PEAK FLOW (min)= 50.00
MAXIMUM STORAGE USED (ha.m.)= 3.6752

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| DIVERTHYD(  0123)|
| IN= 1   # OUT= 5 |
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Outflow / Inflow Relationships

Flow 1 (cms)	+ Flow 2 (cms)	+ Flow 3 (cms)	+ Flow 4 (cms)	+ Flow 5 (cms)	= Total (cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.04	0.00	0.00	0.00	0.00	0.04
0.07	0.00	0.00	0.00	0.00	0.07
0.09	0.00	0.00	0.00	0.00	0.09
0.10	0.28	0.00	0.00	0.00	0.38
0.12	0.28	0.00	0.00	0.00	0.40
0.13	0.29	0.00	0.00	0.00	0.42
0.14	0.30	0.00	0.00	0.00	0.43
0.15	0.30	0.00	0.00	0.00	0.45
0.16	0.31	0.00	0.00	0.00	0.47
0.16	0.31	0.00	0.00	0.00	0.47
0.16	2.23	0.00	0.00	0.00	2.39
0.17	2.34	0.00	0.00	0.00	2.50
0.17	2.73	0.00	0.00	0.00	2.90
0.18	2.93	0.00	0.00	0.00	3.11

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	95.58	2.59	13.08	68.11
ID= 2 (2) :	33.81	0.17	13.08	68.11
ID= 3 (2) :	61.77	2.43	13.08	68.11
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

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| Junction Command(0124) |
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	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0123)	33.81	0.17	13.08	68.11
OUTFLOW: ID= 2(0124)	33.81	0.17	13.08	68.11

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| CALIB            |
| NASHYD  (  0130)|   Area    (ha)=   5.38   Curve Number   (CN)= 46.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.05   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.87
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

Unit Hyd Qpeak (cms)= 0.236

PEAK FLOW (cms)= 0.157 (i)
TIME TO PEAK (hrs)= 13.083
RUNOFF VOLUME (mm)= 34.020
TOTAL RAINFALL (mm)= 123.620
RUNOFF COEFFICIENT = 0.275

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB            |
| STANDHYD (  0132)|   Area    (ha)=   0.69
|ID= 1 DT= 5.0 min |   Total Imp(%)=  42.00   Dir. Conn.(%)=   3.00
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	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.29	0.40
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	67.82	170.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

			TOTALS
Max.Eff.Inten.(mm/hr)=	151.31	94.88	
over (min)	5.00	20.00	
Storage Coeff. (min)=	2.11 (ii)	19.28 (ii)	
Unit Hyd. Tpeak (min)=	5.00	20.00	
Unit Hyd. peak (cms)=	0.31	0.06	
PEAK FLOW (cms)=	0.01	0.07	0.067 (iii)
TIME TO PEAK (hrs)=	12.25	12.42	12.42
RUNOFF VOLUME (mm)=	122.62	52.21	54.31
TOTAL RAINFALL (mm)=	123.62	123.62	123.62
RUNOFF COEFFICIENT =	0.99	0.42	0.44

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------------
| Junction Command(0131) |
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	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0132)	0.69	0.07	12.42	54.31
OUTFLOW: ID= 2(0131)	0.69	0.07	12.42	54.31

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-------------------
| ADD HYD  (  0129)|
|   1 +  2 =  3    |
-------------------
```

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

```
       ID1= 1 (  0124):    33.81   0.167    13.08    68.11
     + ID2= 2 (  0130):     5.38   0.157    13.08    34.02
       ==========================================
       ID = 3 (  0129):    39.19   0.324    13.08    63.43

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
--------------------
| ADD HYD  (  0129)|
|  3 +  2 =  1     |
--------------------          AREA    QPEAK    TPEAK     R.V.
                              (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0129):    39.19   0.324    13.08    63.43
     + ID2= 2 (  0131):     0.69   0.067    12.42    54.31
       ==========================================
       ID = 1 (  0129):    39.88   0.350    12.92    63.28

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

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  --------------------------
  | Junction Command(0128) |
  --------------------------


                         AREA     QPEAK   TPEAK     R.V.
                         (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 10(  0123)  61.77     2.43   13.08    68.11
  OUTFLOW: ID= 2(  0128)   61.77     2.43   13.08    68.11
```

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--------------------
| CALIB            |
| NASHYD   (  0109)|   Area    (ha)= 120.60   Curve Number   (CN)= 73.3
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.06

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
```

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

```
    Unit Hyd Qpeak  (cms)=   4.346

    PEAK FLOW       (cms)=   6.123 (i)
    TIME TO PEAK    (hrs)=  13.250
    RUNOFF VOLUME    (mm)=  65.110
    TOTAL RAINFALL   (mm)= 123.620
    RUNOFF COEFFICIENT   =   0.527

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
```

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--------------------
| CALIB            |
| STANDHYD (  0106)|   Area    (ha)=   1.58
|ID= 1 DT= 5.0 min |   Total Imp(%)=  30.20   Dir. Conn.(%)=   0.10
--------------------

                        IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=      0.48         1.10
    Dep. Storage     (mm)=      1.00         5.00
    Average Slope     (%)=      0.36         2.00
    Length            (m)=    102.63        90.00
    Mannings n            =     0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
```

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

```
    Max.Eff.Inten.(mm/hr)=     151.31       178.36
          over (min)           5.00        15.00
    Storage Coeff.  (min)=     2.99 (ii)   12.10 (ii)
    Unit Hyd. Tpeak (min)=     5.00        15.00
    Unit Hyd. peak  (cms)=     0.28         0.09
                                                    *TOTALS*
    PEAK FLOW       (cms)=     0.00         0.35      0.347 (iii)
    TIME TO PEAK    (hrs)=    12.25        12.33        12.33
    RUNOFF VOLUME    (mm)=   122.62        86.25        86.29
    TOTAL RAINFALL   (mm)=   123.62       123.62       123.62
    RUNOFF COEFFICIENT   =     0.99         0.70         0.70

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
             YOU SHOULD CONSIDER SPLITTING THE AREA.

      (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
          CN*  =  79.0    Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
    (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
```

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--------------------
| CALIB            |
| STANDHYD (  0107)|   Area    (ha)=   0.72
|ID= 1 DT= 5.0 min |   Total Imp(%)=  45.60   Dir. Conn.(%)=   3.50
--------------------

                        IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=      0.33         0.39
    Dep. Storage     (mm)=      1.00         5.00
    Average Slope     (%)=      0.36         2.00
    Length            (m)=     69.28        90.00
    Mannings n            =     0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
```

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.98	12.250	151.31	18.33	2.23
0.167	0.00	6.250	1.98	12.333	17.82	18.42	2.23
0.250	0.00	6.333	2.23	12.417	17.80	18.50	2.23
0.333	1.36	6.417	2.23	12.500	17.80	18.58	2.23
0.417	1.36	6.500	2.23	12.583	17.80	18.67	2.23
0.500	1.36	6.583	2.23	12.667	17.80	18.75	2.23
0.583	1.36	6.667	2.23	12.750	17.80	18.83	2.23
0.667	1.36	6.750	2.23	12.833	9.15	18.92	2.23
0.750	1.36	6.833	2.23	12.917	9.15	19.00	2.23
0.833	1.36	6.917	2.23	13.000	9.15	19.08	2.23
0.917	1.36	7.000	2.23	13.083	9.15	19.17	2.23
1.000	1.36	7.083	2.23	13.167	9.15	19.25	2.23
1.083	1.36	7.167	2.23	13.250	9.15	19.33	2.23
1.167	1.36	7.250	2.23	13.333	6.68	19.42	2.23
1.250	1.36	7.333	2.72	13.417	6.68	19.50	2.23
1.333	1.36	7.417	2.72	13.500	6.68	19.58	2.23
1.417	1.36	7.500	2.72	13.583	6.68	19.67	2.23
1.500	1.36	7.583	2.72	13.667	6.68	19.75	2.23
1.583	1.36	7.667	2.72	13.750	6.68	19.83	2.23
1.667	1.36	7.750	2.72	13.833	5.19	19.92	2.23
1.750	1.36	7.833	2.72	13.917	5.19	20.00	2.23
1.833	1.36	7.917	2.72	14.000	5.19	20.08	2.23
1.917	1.36	8.000	2.72	14.083	5.19	20.17	2.23
2.000	1.36	8.083	2.72	14.167	5.19	20.25	2.23
2.083	1.36	8.167	2.72	14.250	5.19	20.33	1.48
2.167	1.36	8.250	2.72	14.333	3.71	20.42	1.48
2.250	1.36	8.333	3.21	14.417	3.71	20.50	1.48
2.333	1.61	8.417	3.21	14.500	3.71	20.58	1.48
2.417	1.61	8.500	3.21	14.583	3.71	20.67	1.48
2.500	1.61	8.583	3.21	14.667	3.71	20.75	1.48
2.583	1.61	8.667	3.21	14.750	3.71	20.83	1.48
2.667	1.61	8.750	3.21	14.833	3.71	20.92	1.48
2.750	1.61	8.833	3.46	14.917	3.71	21.00	1.48
2.833	1.61	8.917	3.46	15.000	3.71	21.08	1.48
2.917	1.61	9.000	3.46	15.083	3.71	21.17	1.48
3.000	1.61	9.083	3.46	15.167	3.71	21.25	1.48
3.083	1.61	9.167	3.46	15.250	3.71	21.33	1.48
3.167	1.61	9.250	3.46	15.333	3.71	21.42	1.48
3.250	1.61	9.333	3.96	15.417	3.71	21.50	1.48
3.333	1.61	9.417	3.96	15.500	3.71	21.58	1.48
3.417	1.61	9.500	3.96	15.583	3.71	21.67	1.48
3.500	1.61	9.583	3.96	15.667	3.71	21.75	1.48
3.583	1.61	9.667	3.96	15.750	3.71	21.83	1.48
3.667	1.61	9.750	3.96	15.833	3.71	21.92	1.48
3.750	1.61	9.833	4.45	15.917	3.71	22.00	1.48
3.833	1.61	9.917	4.45	16.000	3.71	22.08	1.48
3.917	1.61	10.000	4.45	16.083	3.71	22.17	1.48
4.000	1.61	10.083	4.45	16.167	3.71	22.25	1.48
4.083	1.61	10.167	4.45	16.250	3.71	22.33	1.48
4.167	1.61	10.250	4.45	16.333	2.23	22.42	1.48
4.250	1.61	10.333	5.69	16.417	2.23	22.50	1.48
4.333	1.98	10.417	5.69	16.500	2.23	22.58	1.48
4.417	1.98	10.500	5.69	16.583	2.23	22.67	1.48
4.500	1.98	10.583	5.69	16.667	2.23	22.75	1.48
4.583	1.98	10.667	5.69	16.750	2.23	22.83	1.48
4.667	1.98	10.750	5.69	16.833	2.23	22.92	1.48
4.750	1.98	10.833	7.66	16.917	2.23	23.00	1.48
4.833	1.98	10.917	7.66	17.000	2.23	23.08	1.48
4.917	1.98	11.000	7.66	17.083	2.23	23.17	1.48
5.000	1.98	11.083	7.66	17.167	2.23	23.25	1.48
5.083	1.98	11.167	7.66	17.250	2.23	23.33	1.48
5.167	1.98	11.250	7.66	17.333	2.23	23.42	1.48
5.250	1.98	11.333	11.87	17.417	2.23	23.50	1.48
5.333	1.98	11.417	11.87	17.500	2.23	23.58	1.48
5.417	1.98	11.500	11.87	17.583	2.23	23.67	1.48
5.500	1.98	11.583	11.87	17.667	2.23	23.75	1.48
5.583	1.98	11.667	11.87	17.750	2.23	23.83	1.48
5.667	1.98	11.750	11.87	17.833	2.23	23.92	1.48
5.750	1.98	11.833	36.59	17.917	2.23	24.00	1.48
5.833	1.98	11.917	36.59	18.000	2.23	24.08	1.48
5.917	1.98	12.000	36.59	18.083	2.23	24.17	1.48
6.000	1.98	12.083	151.30	18.167	2.23	24.25	1.48
6.083	1.98	12.167	151.31	18.250	2.23		

```
    Max.Eff.Inten.(mm/hr)=     151.31       232.34
          over (min)           5.00        15.00
```

```
     Storage Coeff.  (min)=       2.36 (ii)   10.55 (ii)
     Unit Hyd. Tpeak (min)=       5.00        15.00
     Unit Hyd. peak  (cms)=       0.30         0.09
                                                    *TOTALS*
     PEAK FLOW       (cms)=       0.01         0.17          0.172 (iii)
     TIME TO PEAK    (hrs)=      12.25        12.33          12.33
     RUNOFF VOLUME    (mm)=     122.62        91.86          92.93
     TOTAL RAINFALL   (mm)=     123.62       123.62         123.62
     RUNOFF COEFFICIENT   =       0.99         0.74           0.75

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
           YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0     Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0029)|
|   1 +  2 =  3    |        AREA     QPEAK     TPEAK      R.V.
-------------------        (ha)      (cms)     (hrs)      (mm)
       ID1= 1 (  0106):     1.58     0.347     12.33     86.29
     + ID2= 2 (  0107):     0.72     0.172     12.33     92.93
       ================================================
       ID = 3 (  0029):     2.30     0.519     12.33     88.36

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0029)|
|   3 +  2 =  1    |        AREA     QPEAK     TPEAK      R.V.
-------------------        (ha)      (cms)     (hrs)      (mm)
       ID1= 3 (  0029):     2.30     0.519     12.33     88.36
     + ID2= 2 (  0109):   120.60     6.123     13.25     65.11
       ================================================
       ID = 1 (  0029):   122.90     6.187     13.25     65.54

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0122)|
|   1 +  2 =  3    |        AREA     QPEAK     TPEAK      R.V.
-------------------        (ha)      (cms)     (hrs)      (mm)
       ID1= 1 (  0128):    61.77     2.428     13.08     68.11
     + ID2= 2 (  0029):   122.90     6.187     13.25     65.54
       ================================================
       ID = 3 (  0122):   184.67     8.602     13.25     66.40

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------

-------------------
| ADD HYD  (  0135)|
|   1 +  2 =  3    |        AREA     QPEAK     TPEAK      R.V.
-------------------        (ha)      (cms)     (hrs)      (mm)
       ID1= 1 (  0122):   184.67     8.602     13.25     66.40
     + ID2= 2 (  0129):    39.88     0.350     12.92     63.28
       ================================================
       ID = 3 (  0135):   224.55     8.940     13.25     65.85

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------

 FINISH
================================================================================

================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I      SS   U   U  AAAAA  L
         V  V   I       SS  U   U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
```

```
             OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****

   Input   filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
   Output  filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\96c89310-a
   Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\96c89310-a

DATE: 02-17-2026                          TIME: 11:15:54

USER:


COMMENTS: _____________________________________________

-------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : M. 100yr 24hr 15min SCS Type  **
  ************************************************


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|     READ STORM    |    Filename: C:\Users\cbuscher\AppD
|                   |              ata\Local\Temp\
|                   |              8fd31c55-74ba-441d-b6e1-b71abe5a781b\a2ae5b2a
| Ptotal=135.89 mm  |    Comments: 100yr 24hr 15min SCS Type II (MTO) C
-------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.00    0.00 |  6.25    2.45 | 12.50   19.57 | 18.75    2.45
                0.25    1.49 |  6.50    2.45 | 12.75   10.06 | 19.00    2.45
                0.50    1.49 |  6.75    2.45 | 13.00   10.06 | 19.25    2.45
                0.75    1.49 |  7.00    2.45 | 13.25    7.34 | 19.50    2.45
                1.00    1.49 |  7.25    2.99 | 13.50    7.34 | 19.75    2.45
                1.25    1.49 |  7.50    2.99 | 13.75    5.71 | 20.00    2.45
                1.50    1.49 |  7.75    2.99 | 14.00    5.71 | 20.25    1.63
                1.75    1.49 |  8.00    2.99 | 14.25    4.08 | 20.50    1.63
                2.00    1.49 |  8.25    3.53 | 14.50    4.08 | 20.75    1.63
                2.25    1.77 |  8.50    3.53 | 14.75    4.08 | 21.00    1.63
                2.50    1.77 |  8.75    3.80 | 15.00    4.08 | 21.25    1.63
                2.75    1.77 |  9.00    3.80 | 15.25    4.08 | 21.50    1.63
                3.00    1.77 |  9.25    4.35 | 15.50    4.08 | 21.75    1.63
                3.25    1.77 |  9.50    4.35 | 15.75    4.08 | 22.00    1.63
                3.50    1.77 |  9.75    4.89 | 16.00    4.08 | 22.25    1.63
                3.75    1.77 | 10.00    4.89 | 16.25    2.45 | 22.50    1.63
                4.00    1.77 | 10.25    6.25 | 16.50    2.45 | 22.75    1.63
                4.25    2.17 | 10.50    6.25 | 16.75    2.45 | 23.00    1.63
                4.50    2.17 | 10.75    8.43 | 17.00    2.45 | 23.25    1.63
                4.75    2.17 | 11.00    8.43 | 17.25    2.45 | 23.50    1.63
                5.00    2.17 | 11.25   13.05 | 17.50    2.45 | 23.75    1.63
                5.25    2.17 | 11.50   13.05 | 17.75    2.45 | 24.00    1.63
                5.50    2.17 | 11.75   40.22 | 18.00    2.45 |
                5.75    2.17 | 12.00  166.33 | 18.25    2.45 |
                6.00    2.17 | 12.25   19.57 | 18.50    2.45 |

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| CALIB             |
| STANDHYD (  0133) |   Area    (ha)=   0.09
|ID= 1 DT= 5.0 min  |   Total Imp(%)=  43.30   Dir. Conn.(%)=  43.30
-------------------

                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        0.04          0.05
     Dep. Storage     (mm)=        1.00          5.00
     Average Slope     (%)=        5.00          2.00
     Length            (m)=       24.49         46.00
     Mannings n            =       0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                              ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    0.00 | 6.167    2.17 |12.250  166.33 | 18.33    2.45
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```
               0.167    0.00 | 6.250    2.17 |12.333   19.59 | 18.42    2.45
               0.250    0.00 | 6.333    2.45 |12.417   19.57 | 18.50    2.45
               0.333    1.49 | 6.417    2.45 |12.500   19.57 | 18.58    2.45
               0.417    1.49 | 6.500    2.45 |12.583   19.57 | 18.67    2.45
               0.500    1.49 | 6.583    2.45 |12.667   19.57 | 18.75    2.45
               0.583    1.49 | 6.667    2.45 |12.750   19.57 | 18.83    2.45
               0.667    1.49 | 6.750    2.45 |12.833   10.06 | 18.92    2.45
               0.750    1.49 | 6.833    2.45 |12.917   10.06 | 19.00    2.45
               0.833    1.49 | 6.917    2.45 |13.000   10.06 | 19.08    2.45
               0.917    1.49 | 7.000    2.45 |13.083   10.06 | 19.17    2.45
               1.000    1.49 | 7.083    2.45 |13.167   10.06 | 19.25    2.45
               1.083    1.49 | 7.167    2.45 |13.250   10.06 | 19.33    2.45
               1.167    1.49 | 7.250    2.45 |13.333    7.34 | 19.42    2.45
               1.250    1.49 | 7.333    2.99 |13.417    7.34 | 19.50    2.45
               1.333    1.49 | 7.417    2.99 |13.500    7.34 | 19.58    2.45
               1.417    1.49 | 7.500    2.99 |13.583    7.34 | 19.67    2.45
               1.500    1.49 | 7.583    2.99 |13.667    7.34 | 19.75    2.45
               1.583    1.49 | 7.667    2.99 |13.750    7.34 | 19.83    2.45
               1.667    1.49 | 7.750    2.99 |13.833    5.71 | 19.92    2.45
               1.750    1.49 | 7.833    2.99 |13.917    5.71 | 20.00    2.45
               1.833    1.49 | 7.917    2.99 |14.000    5.71 | 20.08    2.45
               1.917    1.49 | 8.000    2.99 |14.083    5.71 | 20.17    2.45
               2.000    1.49 | 8.083    2.99 |14.167    5.71 | 20.25    2.45
               2.083    1.49 | 8.167    2.99 |14.250    5.71 | 20.33    1.63
               2.167    1.49 | 8.250    2.99 |14.333    4.08 | 20.42    1.63
               2.250    1.49 | 8.333    3.53 |14.417    4.08 | 20.50    1.63
               2.333    1.77 | 8.417    3.53 |14.500    4.08 | 20.58    1.63
               2.417    1.77 | 8.500    3.53 |14.583    4.08 | 20.67    1.63
               2.500    1.77 | 8.583    3.53 |14.667    4.08 | 20.75    1.63
               2.583    1.77 | 8.667    3.53 |14.750    4.08 | 20.83    1.63
               2.667    1.77 | 8.750    3.53 |14.833    4.08 | 20.92    1.63
               2.750    1.77 | 8.833    3.80 |14.917    4.08 | 21.00    1.63
               2.833    1.77 | 8.917    3.80 |15.000    4.08 | 21.08    1.63
               2.917    1.77 | 9.000    3.80 |15.083    4.08 | 21.17    1.63
               3.000    1.77 | 9.083    3.80 |15.167    4.08 | 21.25    1.63
               3.083    1.77 | 9.167    3.80 |15.250    4.08 | 21.33    1.63
               3.167    1.77 | 9.250    3.80 |15.333    4.08 | 21.42    1.63
               3.250    1.77 | 9.333    4.35 |15.417    4.08 | 21.50    1.63
               3.333    1.77 | 9.417    4.35 |15.500    4.08 | 21.58    1.63
               3.417    1.77 | 9.500    4.35 |15.583    4.08 | 21.67    1.63
               3.500    1.77 | 9.583    4.35 |15.667    4.08 | 21.75    1.63
               3.583    1.77 | 9.667    4.35 |15.750    4.08 | 21.83    1.63
               3.667    1.77 | 9.750    4.35 |15.833    4.08 | 21.92    1.63
               3.750    1.77 | 9.833    4.89 |15.917    4.08 | 22.00    1.63
               3.833    1.77 | 9.917    4.89 |16.000    4.08 | 22.08    1.63
               3.917    1.77 |10.000    4.89 |16.083    4.08 | 22.17    1.63
               4.000    1.77 |10.083    4.89 |16.167    4.08 | 22.25    1.63
               4.083    1.77 |10.167    4.89 |16.250    4.08 | 22.33    1.63
               4.167    1.77 |10.250    4.89 |16.333    2.45 | 22.42    1.63
               4.250    1.77 |10.333    6.25 |16.417    2.45 | 22.50    1.63
               4.333    2.17 |10.417    6.25 |16.500    2.45 | 22.58    1.63
               4.417    2.17 |10.500    6.25 |16.583    2.45 | 22.67    1.63
               4.500    2.17 |10.583    6.25 |16.667    2.45 | 22.75    1.63
               4.583    2.17 |10.667    6.25 |16.750    2.45 | 22.83    1.63
               4.667    2.17 |10.750    6.25 |16.833    2.45 | 22.92    1.63
               4.750    2.17 |10.833    8.43 |16.917    2.45 | 23.00    1.63
               4.833    2.17 |10.917    8.43 |17.000    2.45 | 23.08    1.63
               4.917    2.17 |11.000    8.43 |17.083    2.45 | 23.17    1.63
               5.000    2.17 |11.083    8.43 |17.167    2.45 | 23.25    1.63
               5.083    2.17 |11.167    8.43 |17.250    2.45 | 23.33    1.63
               5.167    2.17 |11.250    8.43 |17.333    2.45 | 23.42    1.63
               5.250    2.17 |11.333   13.05 |17.417    2.45 | 23.50    1.63
               5.333    2.17 |11.417   13.05 |17.500    2.45 | 23.58    1.63
               5.417    2.17 |11.500   13.05 |17.583    2.45 | 23.67    1.63
               5.500    2.17 |11.583   13.05 |17.667    2.45 | 23.75    1.63
               5.583    2.17 |11.667   13.05 |17.750    2.45 | 23.83    1.63
               5.667    2.17 |11.750   13.05 |17.833    2.45 | 23.92    1.63
               5.750    2.17 |11.833   40.22 |17.917    2.45 | 24.00    1.63
               5.833    2.17 |11.917   40.22 |18.000    2.45 | 24.08    1.63
               5.917    2.17 |12.000   40.22 |18.083    2.45 | 24.17    1.63
               6.000    2.17 |12.083  166.31 |18.167    2.45 | 24.25    1.63
               6.083    2.17 |12.167  166.33 |18.250    2.45 |

     Max.Eff.Inten.(mm/hr)=     166.33        62.94
               over (min)         5.00        10.00
     Storage Coeff.  (min)=       0.55 (ii)    9.79 (ii)
     Unit Hyd. Tpeak (min)=       5.00        10.00
     Unit Hyd. peak  (cms)=       0.34         0.11
                                                    *TOTALS*
     PEAK FLOW       (cms)=       0.02         0.01          0.024 (iii)
     TIME TO PEAK    (hrs)=      12.17        12.25          12.25
     RUNOFF VOLUME    (mm)=     134.89        43.34          82.93
     TOTAL RAINFALL   (mm)=     135.89       135.89         135.89
     RUNOFF COEFFICIENT   =       0.99         0.32           0.61
```

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***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  -------------------------
  | Junction Command(0134) |
  -------------------------

                            AREA     QPEAK    TPEAK     R.V.
                            (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 2(  0133)    0.09     0.02    12.25     82.93
  OUTFLOW: ID= 2(  0134)    0.09     0.02    12.25     82.93

  -------------------------------------------------------------------------------
-------------------
| CALIB             |
| NASHYD  (  0007)  |   Area    (ha)=   4.92   Curve Number   (CN)= 75.1
|ID= 1 DT= 5.0 min  |   Ia      (mm)=   4.65   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.55

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                              ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    0.00 | 6.167    2.17 |12.250  166.33 | 18.33    2.45
               0.167    0.00 | 6.250    2.17 |12.333   19.59 | 18.42    2.45
               0.250    0.00 | 6.333    2.45 |12.417   19.57 | 18.50    2.45
               0.333    1.49 | 6.417    2.45 |12.500   19.57 | 18.58    2.45
               0.417    1.49 | 6.500    2.45 |12.583   19.57 | 18.67    2.45
               0.500    1.49 | 6.583    2.45 |12.667   19.57 | 18.75    2.45
               0.583    1.49 | 6.667    2.45 |12.750   19.57 | 18.83    2.45
               0.667    1.49 | 6.750    2.45 |12.833   10.06 | 18.92    2.45
               0.750    1.49 | 6.833    2.45 |12.917   10.06 | 19.00    2.45
               0.833    1.49 | 6.917    2.45 |13.000   10.06 | 19.08    2.45
               0.917    1.49 | 7.000    2.45 |13.083   10.06 | 19.17    2.45
               1.000    1.49 | 7.083    2.45 |13.167   10.06 | 19.25    2.45
               1.083    1.49 | 7.167    2.45 |13.250   10.06 | 19.33    2.45
               1.167    1.49 | 7.250    2.45 |13.333    7.34 | 19.42    2.45
               1.250    1.49 | 7.333    2.99 |13.417    7.34 | 19.50    2.45
               1.333    1.49 | 7.417    2.99 |13.500    7.34 | 19.58    2.45
               1.417    1.49 | 7.500    2.99 |13.583    7.34 | 19.67    2.45
               1.500    1.49 | 7.583    2.99 |13.667    7.34 | 19.75    2.45
               1.583    1.49 | 7.667    2.99 |13.750    7.34 | 19.83    2.45
               1.667    1.49 | 7.750    2.99 |13.833    5.71 | 19.92    2.45
               1.750    1.49 | 7.833    2.99 |13.917    5.71 | 20.00    2.45
               1.833    1.49 | 7.917    2.99 |14.000    5.71 | 20.08    2.45
               1.917    1.49 | 8.000    2.99 |14.083    5.71 | 20.17    2.45
               2.000    1.49 | 8.083    2.99 |14.167    5.71 | 20.25    2.45
               2.083    1.49 | 8.167    2.99 |14.250    5.71 | 20.33    1.63
               2.167    1.49 | 8.250    2.99 |14.333    4.08 | 20.42    1.63
               2.250    1.49 | 8.333    3.53 |14.417    4.08 | 20.50    1.63
               2.333    1.77 | 8.417    3.53 |14.500    4.08 | 20.58    1.63
               2.417    1.77 | 8.500    3.53 |14.583    4.08 | 20.67    1.63
               2.500    1.77 | 8.583    3.53 |14.667    4.08 | 20.75    1.63
               2.583    1.77 | 8.667    3.53 |14.750    4.08 | 20.83    1.63
               2.667    1.77 | 8.750    3.53 |14.833    4.08 | 20.92    1.63
               2.750    1.77 | 8.833    3.80 |14.917    4.08 | 21.00    1.63
               2.833    1.77 | 8.917    3.80 |15.000    4.08 | 21.08    1.63
               2.917    1.77 | 9.000    3.80 |15.083    4.08 | 21.17    1.63
               3.000    1.77 | 9.083    3.80 |15.167    4.08 | 21.25    1.63
               3.083    1.77 | 9.167    3.80 |15.250    4.08 | 21.33    1.63
               3.167    1.77 | 9.250    3.80 |15.333    4.08 | 21.42    1.63
               3.250    1.77 | 9.333    4.35 |15.417    4.08 | 21.50    1.63
               3.333    1.77 | 9.417    4.35 |15.500    4.08 | 21.58    1.63
               3.417    1.77 | 9.500    4.35 |15.583    4.08 | 21.67    1.63
               3.500    1.77 | 9.583    4.35 |15.667    4.08 | 21.75    1.63
               3.583    1.77 | 9.667    4.35 |15.750    4.08 | 21.83    1.63
               3.667    1.77 | 9.750    4.35 |15.833    4.08 | 21.92    1.63
               3.750    1.77 | 9.833    4.89 |15.917    4.08 | 22.00    1.63
               3.833    1.77 | 9.917    4.89 |16.000    4.08 | 22.08    1.63
               3.917    1.77 |10.000    4.89 |16.083    4.08 | 22.17    1.63
               4.000    1.77 |10.083    4.89 |16.167    4.08 | 22.25    1.63
               4.083    1.77 |10.167    4.89 |16.250    4.08 | 22.33    1.63
               4.167    1.77 |10.250    4.89 |16.333    2.45 | 22.42    1.63
               4.250    1.77 |10.333    6.25 |16.417    2.45 | 22.50    1.63
```

4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Unit Hyd Qpeak (cms)= 0.121

PEAK FLOW (cms)= 0.230 (i)
TIME TO PEAK (hrs)= 13.833
RUNOFF VOLUME (mm)= 79.941
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.588

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0057) | Area (ha)= 1.06 Curve Number (CN)= 55.0
ID= 1 DT= 5.0 min | Ia (mm)= 4.72 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.15

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.159 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 50.463
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.371

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0115) | Area (ha)= 0.78 Curve Number (CN)= 76.9
ID= 1 DT= 5.0 min | Ia (mm)= 5.10 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Unit Hyd Qpeak (cms)= 0.025

PEAK FLOW (cms)= 0.047 (i)
TIME TO PEAK (hrs)= 13.417
RUNOFF VOLUME (mm)= 82.599
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.608

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0103) | Area (ha)= 0.33 Curve Number (CN)= 49.0
ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.13

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Unit Hyd Qpeak (cms)= 0.097

PEAK FLOW (cms)= 0.046 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 42.914
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.316

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0104) | Area (ha)= 0.20 Curve Number (CN)= 53.9
ID= 1 DT= 5.0 min | Ia (mm)= 4.70 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.76

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Unit Hyd Qpeak (cms)= 0.010

PEAK FLOW (cms)= 0.009 (i)
TIME TO PEAK (hrs)= 12.917
RUNOFF VOLUME (mm)= 49.386
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.363

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0003) | Area (ha)= 5.31
ID= 1 DT= 5.0 min | Total Imp(%)= 39.70 Dir. Conn.(%)= 25.20

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.11	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	2.10	2.00
Length (m)=	188.15	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Max.Eff.Inten.(mm/hr)=	166.33	136.59	
over (min)	5.00	10.00	
Storage Coeff. (min)=	2.44 (ii)	8.19 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.30	0.13	
			TOTALS
PEAK FLOW (cms)=	0.62	0.92	1.542 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	134.89	75.15	90.21
TOTAL RAINFALL (mm)=	135.89	135.89	135.89
RUNOFF COEFFICIENT =	0.99	0.55	0.66

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 67.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0052) | Area (ha)= 9.07
ID= 1 DT= 5.0 min | Total Imp(%)= 64.70 Dir. Conn.(%)= 32.30

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	5.87	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	245.90	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Max.Eff.Inten.(mm/hr)=	166.33	184.00	
over (min)	5.00	10.00	
Storage Coeff. (min)=	4.86 (ii)	9.96 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.22	0.11	
			TOTALS
PEAK FLOW (cms)=	1.31	1.14	2.447 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	134.89	65.92	88.20
TOTAL RAINFALL (mm)=	135.89	135.89	135.89
RUNOFF COEFFICIENT =	0.99	0.49	0.65

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0053) | Area (ha)= 5.41
ID= 1 DT= 5.0 min | Total Imp(%)= 70.00 Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	3.79	1.62
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	189.91	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45

0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Max.Eff.Inten.(mm/hr)=	166.33	235.31	
over (min)	5.00	10.00	
Storage Coeff. (min)=	4.16 (ii)	9.16 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.24	0.12	
			TOTALS
PEAK FLOW (cms)=	0.86	0.77	1.631 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	134.89	74.72	95.78
TOTAL RAINFALL (mm)=	135.89	135.89	135.89
RUNOFF COEFFICIENT =	0.99	0.55	0.70

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.7 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0056) Area (ha)= 3.62
ID= 1 DT= 5.0 min Total Imp(%)= 26.60 Dir. Conn.(%)= 20.80

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.96	2.66
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	2.00	2.00
Length	(m)=	155.35	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Max.Eff.Inten.(mm/hr)=	166.33	71.79	
over (min)	5.00	10.00	
Storage Coeff. (min)=	2.21 (ii)	9.64 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.30	0.11	
			TOTALS
PEAK FLOW (cms)=	0.35	0.37	0.713 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	134.89	45.79	64.32
TOTAL RAINFALL (mm)=	135.89	135.89	135.89
RUNOFF COEFFICIENT =	0.99	0.34	0.47

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0108) Area (ha)= 1.00
ID= 1 DT= 5.0 min Total Imp(%)= 24.00 Dir. Conn.(%)= 0.10

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.24	0.76
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	81.65	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Max.Eff.Inten.(mm/hr)=	166.33	93.46	
over (min)	5.00	15.00	
Storage Coeff. (min)=	2.51 (ii)	14.30 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.29	0.08	
			TOTALS
PEAK FLOW (cms)=	0.00	0.12	0.118 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.33
RUNOFF VOLUME (mm)=	134.89	52.36	52.43
TOTAL RAINFALL (mm)=	135.89	135.89	135.89
RUNOFF COEFFICIENT =	0.99	0.39	0.39

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0032)
1 + 2 = 3

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0103):		0.33	0.046	12.25	42.91
+ ID2= 2 (0104):		0.20	0.009	12.42	49.39
ID = 3 (0032):		0.53	0.049	12.25	45.36

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0032)
3 + 2 = 1

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0032):		0.53	0.049	12.25	45.36
+ ID2= 2 (0108):		1.00	0.118	12.33	52.43

```
      ============================================
      ID = 1 (  0032):     1.53   0.161    12.33     49.98

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0032):     1.53   0.161    12.33     49.98
    + ID2= 2 (  0115):     0.78   0.047    13.42     82.60
      ============================================
      ID = 3 (  0032):     2.31   0.177    12.33     61.00

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
-------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0032):     2.31   0.177    12.33     61.00
    + ID2= 2 (  0003):     5.31   1.542    12.25     90.21
      ============================================
      ID = 1 (  0032):     7.62   1.703    12.25     81.35

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0032):     7.62   1.703    12.25     81.35
    + ID2= 2 (  0052):     9.07   2.447    12.25     88.20
      ============================================
      ID = 3 (  0032):    16.69   4.150    12.25     85.07

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
-------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0032):    16.69   4.150    12.25     85.07
    + ID2= 2 (  0053):     5.41   1.631    12.25     95.78
      ============================================
      ID = 1 (  0032):    22.10   5.781    12.25     87.69

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0032):    22.10   5.781    12.25     87.69
    + ID2= 2 (  0056):     3.62   0.713    12.25     64.32
      ============================================
      ID = 3 (  0032):    25.72   6.494    12.25     84.40

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
-------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 3 (  0032):    25.72   6.494    12.25     84.40
    + ID2= 2 (  0057):     1.06   0.159    12.25     50.46
      ============================================
      ID = 1 (  0032):    26.78   6.654    12.25     83.06

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0032):    26.78   6.654    12.25     83.06
    + ID2= 2 (  0007):     4.92   0.230    13.83     79.94
```

```
      ============================================
      ID = 3 (  0032):    31.70   6.702    12.25     82.58

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

```
-------------------
| CALIB            |
| STANDHYD (  0004)|   Area    (ha)=   8.04
|ID= 1 DT= 5.0 min |   Total Imp(%)=  70.00   Dir. Conn.(%)=  35.00
-------------------
                          IMPERVIOUS     PERVIOUS (i)
     Surface Area     (ha)=       5.63          2.41
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.36          2.00
     Length            (m)=     231.52         35.00
     Mannings n             =     0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    0.00 |  6.167    2.17 |12.250  166.33 | 18.33    2.45
 0.167    0.00 |  6.250    2.17 |12.333   19.59 | 18.42    2.45
 0.250    0.00 |  6.333    2.45 |12.417   19.57 | 18.50    2.45
 0.333    1.49 |  6.417    2.45 |12.500   19.57 | 18.58    2.45
 0.417    1.49 |  6.500    2.45 |12.583   19.57 | 18.67    2.45
 0.500    1.49 |  6.583    2.45 |12.667   19.57 | 18.75    2.45
 0.583    1.49 |  6.667    2.45 |12.750   19.57 | 18.83    2.45
 0.667    1.49 |  6.750    2.45 |12.833   10.06 | 18.92    2.45
 0.750    1.49 |  6.833    2.45 |12.917   10.06 | 19.00    2.45
 0.833    1.49 |  6.917    2.45 |13.000   10.06 | 19.08    2.45
 0.917    1.49 |  7.000    2.45 |13.083   10.06 | 19.17    2.45
 1.000    1.49 |  7.083    2.45 |13.167   10.06 | 19.25    2.45
 1.083    1.49 |  7.167    2.45 |13.250   10.06 | 19.33    2.45
 1.167    1.49 |  7.250    2.45 |13.333    7.34 | 19.42    2.45
 1.250    1.49 |  7.333    2.99 |13.417    7.34 | 19.50    2.45
 1.333    1.49 |  7.417    2.99 |13.500    7.34 | 19.58    2.45
 1.417    1.49 |  7.500    2.99 |13.583    7.34 | 19.67    2.45
 1.500    1.49 |  7.583    2.99 |13.667    7.34 | 19.75    2.45
 1.583    1.49 |  7.667    2.99 |13.750    7.34 | 19.83    2.45
 1.667    1.49 |  7.750    2.99 |13.833    5.71 | 19.92    2.45
 1.750    1.49 |  7.833    2.99 |13.917    5.71 | 20.00    2.45
 1.833    1.49 |  7.917    2.99 |14.000    5.71 | 20.08    2.45
 1.917    1.49 |  8.000    2.99 |14.083    5.71 | 20.17    2.45
 2.000    1.49 |  8.083    2.99 |14.167    5.71 | 20.25    2.45
 2.083    1.49 |  8.167    2.99 |14.250    5.71 | 20.33    1.63
 2.167    1.49 |  8.250    2.99 |14.333    4.08 | 20.42    1.63
 2.250    1.49 |  8.333    3.53 |14.417    4.08 | 20.50    1.63
 2.333    1.77 |  8.417    3.53 |14.500    4.08 | 20.58    1.63
 2.417    1.77 |  8.500    3.53 |14.583    4.08 | 20.67    1.63
 2.500    1.77 |  8.583    3.53 |14.667    4.08 | 20.75    1.63
 2.583    1.77 |  8.667    3.53 |14.750    4.08 | 20.83    1.63
 2.667    1.77 |  8.750    3.53 |14.833    4.08 | 20.92    1.63
 2.750    1.77 |  8.833    3.80 |14.917    4.08 | 21.00    1.63
 2.833    1.77 |  8.917    3.80 |15.000    4.08 | 21.08    1.63
 2.917    1.77 |  9.000    3.80 |15.083    4.08 | 21.17    1.63
 3.000    1.77 |  9.083    3.80 |15.167    4.08 | 21.25    1.63
 3.083    1.77 |  9.167    3.80 |15.250    4.08 | 21.33    1.63
 3.167    1.77 |  9.250    3.80 |15.333    4.08 | 21.42    1.63
 3.250    1.77 |  9.333    4.35 |15.417    4.08 | 21.50    1.63
 3.333    1.77 |  9.417    4.35 |15.500    4.08 | 21.58    1.63
 3.417    1.77 |  9.500    4.35 |15.583    4.08 | 21.67    1.63
 3.500    1.77 |  9.583    4.35 |15.667    4.08 | 21.75    1.63
 3.583    1.77 |  9.667    4.35 |15.750    4.08 | 21.83    1.63
 3.667    1.77 |  9.750    4.35 |15.833    4.08 | 21.92    1.63
 3.750    1.77 |  9.833    4.89 |15.917    4.08 | 22.00    1.63
 3.833    1.77 |  9.917    4.89 |16.000    4.08 | 22.08    1.63
 3.917    1.77 |10.000    4.89 |16.083    4.08 | 22.17    1.63
 4.000    1.77 |10.083    4.89 |16.167    4.08 | 22.25    1.63
 4.083    1.77 |10.167    4.89 |16.250    4.08 | 22.33    1.63
 4.167    1.77 |10.250    4.89 |16.333    2.45 | 22.42    1.63
 4.250    1.77 |10.333    6.25 |16.417    2.45 | 22.50    1.63
 4.333    2.17 |10.417    6.25 |16.500    2.45 | 22.58    1.63
 4.417    2.17 |10.500    6.25 |16.583    2.45 | 22.67    1.63
 4.500    2.17 |10.583    6.25 |16.667    2.45 | 22.75    1.63
 4.583    2.17 |10.667    6.25 |16.750    2.45 | 22.83    1.63
 4.667    2.17 |10.750    6.25 |16.833    2.45 | 22.92    1.63
 4.750    2.17 |10.833    8.43 |16.917    2.45 | 23.00    1.63
 4.833    2.17 |10.917    8.43 |17.000    2.45 | 23.08    1.63
 4.917    2.17 |11.000    8.43 |17.083    2.45 | 23.17    1.63
 5.000    2.17 |11.083    8.43 |17.167    2.45 | 23.25    1.63
 5.083    2.17 |11.167    8.43 |17.250    2.45 | 23.33    1.63
 5.167    2.17 |11.250    8.43 |17.333    2.45 | 23.42    1.63
 5.250    2.17 |11.333   13.05 |17.417    2.45 | 23.50    1.63
 5.333    2.17 |11.417   13.05 |17.500    2.45 | 23.58    1.63
 5.417    2.17 |11.500   13.05 |17.583    2.45 | 23.67    1.63
 5.500    2.17 |11.583   13.05 |17.667    2.45 | 23.75    1.63
 5.583    2.17 |11.667   13.05 |17.750    2.45 | 23.83    1.63
 5.667    2.17 |11.750   13.05 |17.833    2.45 | 23.92    1.63
 5.750    2.17 |11.833   40.22 |17.917    2.45 | 24.00    1.63
 5.833    2.17 |11.917   40.22 |18.000    2.45 | 24.08    1.63
 5.917    2.17 |12.000   40.22 |18.083    2.45 | 24.17    1.63
 6.000    2.17 |12.083  166.31 |18.167    2.45 | 24.25    1.63
 6.083    2.17 |12.167  166.33 |18.250    2.45 |

     Max.Eff.Inten.(mm/hr)=     166.33       328.13
           over (min)           5.00        10.00
     Storage Coeff.  (min)=     4.69 (ii)    9.68 (ii)
     Unit Hyd. Tpeak (min)=     5.00        10.00
     Unit Hyd. peak  (cms)=     0.22         0.11
                                                    *TOTALS*
     PEAK FLOW       (cms)=     1.26         1.64      2.899 (iii)
     TIME TO PEAK    (hrs)=    12.25        12.25     12.25
     RUNOFF VOLUME    (mm)=   134.89       108.31    117.62
     TOTAL RAINFALL   (mm)=   135.89       135.89    135.89
     RUNOFF COEFFICIENT    =     0.99         0.80      0.87

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
```

```
-------------------
| CALIB            |
| STANDHYD (  0054)|   Area    (ha)=   8.46
|ID= 1 DT= 5.0 min |   Total Imp(%)=  59.70   Dir. Conn.(%)=  25.90
-------------------
                          IMPERVIOUS     PERVIOUS (i)
     Surface Area     (ha)=       5.05          3.41
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       1.59          2.00
     Length            (m)=     237.49         35.00
     Mannings n             =     0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
 TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
  hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    0.00 |  6.167    2.17 |12.250  166.33 | 18.33    2.45
 0.167    0.00 |  6.250    2.17 |12.333   19.59 | 18.42    2.45
 0.250    0.00 |  6.333    2.45 |12.417   19.57 | 18.50    2.45
 0.333    1.49 |  6.417    2.45 |12.500   19.57 | 18.58    2.45
 0.417    1.49 |  6.500    2.45 |12.583   19.57 | 18.67    2.45
 0.500    1.49 |  6.583    2.45 |12.667   19.57 | 18.75    2.45
 0.583    1.49 |  6.667    2.45 |12.750   19.57 | 18.83    2.45
 0.667    1.49 |  6.750    2.45 |12.833   10.06 | 18.92    2.45
 0.750    1.49 |  6.833    2.45 |12.917   10.06 | 19.00    2.45
 0.833    1.49 |  6.917    2.45 |13.000   10.06 | 19.08    2.45
 0.917    1.49 |  7.000    2.45 |13.083   10.06 | 19.17    2.45
 1.000    1.49 |  7.083    2.45 |13.167   10.06 | 19.25    2.45
 1.083    1.49 |  7.167    2.45 |13.250   10.06 | 19.33    2.45
 1.167    1.49 |  7.250    2.45 |13.333    7.34 | 19.42    2.45
 1.250    1.49 |  7.333    2.99 |13.417    7.34 | 19.50    2.45
 1.333    1.49 |  7.417    2.99 |13.500    7.34 | 19.58    2.45
 1.417    1.49 |  7.500    2.99 |13.583    7.34 | 19.67    2.45
 1.500    1.49 |  7.583    2.99 |13.667    7.34 | 19.75    2.45
 1.583    1.49 |  7.667    2.99 |13.750    7.34 | 19.83    2.45
 1.667    1.49 |  7.750    2.99 |13.833    5.71 | 19.92    2.45
 1.750    1.49 |  7.833    2.99 |13.917    5.71 | 20.00    2.45
 1.833    1.49 |  7.917    2.99 |14.000    5.71 | 20.08    2.45
 1.917    1.49 |  8.000    2.99 |14.083    5.71 | 20.17    2.45
 2.000    1.49 |  8.083    2.99 |14.167    5.71 | 20.25    2.45
 2.083    1.49 |  8.167    2.99 |14.250    5.71 | 20.33    1.63
 2.167    1.49 |  8.250    2.99 |14.333    4.08 | 20.42    1.63
 2.250    1.49 |  8.333    3.53 |14.417    4.08 | 20.50    1.63
 2.333    1.77 |  8.417    3.53 |14.500    4.08 | 20.58    1.63
 2.417    1.77 |  8.500    3.53 |14.583    4.08 | 20.67    1.63
 2.500    1.77 |  8.583    3.53 |14.667    4.08 | 20.75    1.63
 2.583    1.77 |  8.667    3.53 |14.750    4.08 | 20.83    1.63
 2.667    1.77 |  8.750    3.53 |14.833    4.08 | 20.92    1.63
 2.750    1.77 |  8.833    3.80 |14.917    4.08 | 21.00    1.63
 2.833    1.77 |  8.917    3.80 |15.000    4.08 | 21.08    1.63
 2.917    1.77 |  9.000    3.80 |15.083    4.08 | 21.17    1.63
 3.000    1.77 |  9.083    3.80 |15.167    4.08 | 21.25    1.63
 3.083    1.77 |  9.167    3.80 |15.250    4.08 | 21.33    1.63
 3.167    1.77 |  9.250    3.80 |15.333    4.08 | 21.42    1.63
 3.250    1.77 |  9.333    4.35 |15.417    4.08 | 21.50    1.63
 3.333    1.77 |  9.417    4.35 |15.500    4.08 | 21.58    1.63
 3.417    1.77 |  9.500    4.35 |15.583    4.08 | 21.67    1.63
 3.500    1.77 |  9.583    4.35 |15.667    4.08 | 21.75    1.63
 3.583    1.77 |  9.667    4.35 |15.750    4.08 | 21.83    1.63
 3.667    1.77 |  9.750    4.35 |15.833    4.08 | 21.92    1.63
 3.750    1.77 |  9.833    4.89 |15.917    4.08 | 22.00    1.63
 3.833    1.77 |  9.917    4.89 |16.000    4.08 | 22.08    1.63
 3.917    1.77 |10.000    4.89 |16.083    4.08 | 22.17    1.63
 4.000    1.77 |10.083    4.89 |16.167    4.08 | 22.25    1.63
 4.083    1.77 |10.167    4.89 |16.250    4.08 | 22.33    1.63
 4.167    1.77 |10.250    4.89 |16.333    2.45 | 22.42    1.63
 4.250    1.77 |10.333    6.25 |16.417    2.45 | 22.50    1.63
 4.333    2.17 |10.417    6.25 |16.500    2.45 | 22.58    1.63
 4.417    2.17 |10.500    6.25 |16.583    2.45 | 22.67    1.63
 4.500    2.17 |10.583    6.25 |16.667    2.45 | 22.75    1.63
 4.583    2.17 |10.667    6.25 |16.750    2.45 | 22.83    1.63
 4.667    2.17 |10.750    6.25 |16.833    2.45 | 22.92    1.63
 4.750    2.17 |10.833    8.43 |16.917    2.45 | 23.00    1.63
 4.833    2.17 |10.917    8.43 |17.000    2.45 | 23.08    1.63
 4.917    2.17 |11.000    8.43 |17.083    2.45 | 23.17    1.63
 5.000    2.17 |11.083    8.43 |17.167    2.45 | 23.25    1.63
 5.083    2.17 |11.167    8.43 |17.250    2.45 | 23.33    1.63
 5.167    2.17 |11.250    8.43 |17.333    2.45 | 23.42    1.63
 5.250    2.17 |11.333   13.05 |17.417    2.45 | 23.50    1.63
 5.333    2.17 |11.417   13.05 |17.500    2.45 | 23.58    1.63
 5.417    2.17 |11.500   13.05 |17.583    2.45 | 23.67    1.63
 5.500    2.17 |11.583   13.05 |17.667    2.45 | 23.75    1.63
 5.583    2.17 |11.667   13.05 |17.750    2.45 | 23.83    1.63
 5.667    2.17 |11.750   13.05 |17.833    2.45 | 23.92    1.63
 5.750    2.17 |11.833   40.22 |17.917    2.45 | 24.00    1.63
 5.833    2.17 |11.917   40.22 |18.000    2.45 | 24.08    1.63
 5.917    2.17 |12.000   40.22 |18.083    2.45 | 24.17    1.63
 6.000    2.17 |12.083  166.31 |18.167    2.45 | 24.25    1.63
 6.083    2.17 |12.167  166.33 |18.250    2.45 |

     Max.Eff.Inten.(mm/hr)=     166.33       271.35
           over (min)           5.00        10.00
     Storage Coeff.  (min)=     3.05 (ii)    7.42 (ii)
     Unit Hyd. Tpeak (min)=     5.00        10.00
     Unit Hyd. peak  (cms)=     0.27         0.13
                                                    *TOTALS*
     PEAK FLOW       (cms)=     1.01         2.10      3.103 (iii)
     TIME TO PEAK    (hrs)=    12.25        12.25     12.25
     RUNOFF VOLUME    (mm)=   134.89       104.39    112.29
     TOTAL RAINFALL   (mm)=   135.89       135.89    135.89
     RUNOFF COEFFICIENT    =     0.99         0.77      0.83

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  79.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
```

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-------------------
| ADD HYD  (  0055)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0004):     8.04   2.899    12.25    117.62
    + ID2= 2 (  0054):     8.46   3.103    12.25    112.29
      ============================================
      ID = 3 (  0055):    16.50   6.003    12.25    114.88

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
```

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-------------------
| ADD HYD  (  0060)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0032):    31.70   6.702    12.25     82.58
    + ID2= 2 (  0055):    16.50   6.003    12.25    114.88
      ============================================
      ID = 3 (  0060):    48.20  12.705    12.25     93.64
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| Junction Command(0025) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0060)	48.20	12.70	12.25	93.64
OUTFLOW: ID= 2(0025)	48.20	12.70	12.25	93.64

CALIB NASHYD (0110) | ID= 1 DT= 5.0 min	Area (ha)= 9.49 Curve Number (CN)= 56.7 Ia (mm)= 4.53 # of Linear Res.(N)= 3.00 U.H. Tp(hrs)= 0.25

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45 |		

Max.Eff.Inten.(mm/hr)=	166.33	121.58	
over (min)	5.00	15.00	
Storage Coeff. (min)=	4.38 (ii)	14.99 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.23	0.08	
			TOTALS
PEAK FLOW (cms)=	1.44	0.64	1.994 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.25
RUNOFF VOLUME (mm)=	134.89	86.35	110.62
TOTAL RAINFALL (mm)=	135.89	135.89	135.89
RUNOFF COEFFICIENT =	0.99	0.64	0.81

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB STANDHYD (0111) | ID= 1 DT= 5.0 min	Area (ha)= 28.77 Total Imp(%)= 24.70 Dir. Conn.(%)= 15.70

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	7.11	21.66
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	437.95	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45 |		

Unit Hyd Qpeak (cms)= 1.450

PEAK FLOW	(cms)=	1.082 (i)
TIME TO PEAK	(hrs)=	12.333
RUNOFF VOLUME	(mm)=	52.998
TOTAL RAINFALL	(mm)=	135.890
RUNOFF COEFFICIENT	=	0.390

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| Junction Command(0062) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0110)	9.49	1.08	12.33	53.00
OUTFLOW: ID= 2(0062)	9.49	1.08	12.33	53.00

CALIB STANDHYD (0028) | ID= 1 DT= 5.0 min	Area (ha)= 6.40 Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.20	3.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	206.56	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45 |		

Max.Eff.Inten.(mm/hr)=	166.33	71.03	
over (min)	5.00	25.00	
Storage Coeff. (min)=	6.87 (ii)	20.03 (ii)	
Unit Hyd. Tpeak (min)=	5.00	25.00	
Unit Hyd. peak (cms)=	0.18	0.05	
			TOTALS
PEAK FLOW (cms)=	1.90	2.00	3.006 (iii)
TIME TO PEAK (hrs)=	12.25	12.50	12.25
RUNOFF VOLUME (mm)=	134.89	46.99	60.79

```
     TOTAL RAINFALL   (mm)=     135.89       135.89         135.89
     RUNOFF COEFFICIENT    =      0.99         0.35           0.45

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
            YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
--------------------
| CALIB
|  STANDHYD (  0119)|   Area    (ha)=   2.72
|ID= 1 DT= 5.0 min |   Total Imp(%)=  55.90   Dir. Conn.(%)=  27.20
--------------------
                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      1.52         1.20
     Dep. Storage     (mm)=      1.00         5.00
     Average Slope     (%)=      0.50         2.00
     Length            (m)=    134.66        25.00
     Mannings n             =    0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |   TIME    RAIN |'  TIME    RAIN |   TIME    RAIN
       hrs   mm/hr |    hrs   mm/hr |'   hrs   mm/hr |    hrs   mm/hr
     0.083    0.00 |  6.167    2.17 |12.250  166.33 | 18.33    2.45
     0.167    0.00 |  6.250    2.17 |12.333   19.59 | 18.42    2.45
     0.250    0.00 |  6.333    2.45 |12.417   19.57 | 18.50    2.45
     0.333    1.49 |  6.417    2.45 |12.500   19.57 | 18.58    2.45
     0.417    1.49 |  6.500    2.45 |12.583   19.57 | 18.67    2.45
     0.500    1.49 |  6.583    2.45 |12.667   19.57 | 18.75    2.45
     0.583    1.49 |  6.667    2.45 |12.750   19.57 | 18.83    2.45
     0.667    1.49 |  6.750    2.45 |12.833   10.06 | 18.92    2.45
     0.750    1.49 |  6.833    2.45 |12.917   10.06 | 19.00    2.45
     0.833    1.49 |  6.917    2.45 |13.000   10.06 | 19.08    2.45
     0.917    1.49 |  7.000    2.45 |13.083   10.06 | 19.17    2.45
     1.000    1.49 |  7.083    2.45 |13.167   10.06 | 19.25    2.45
     1.083    1.49 |  7.167    2.45 |13.250   10.06 | 19.33    2.45
     1.167    1.49 |  7.250    2.45 |13.333    7.34 | 19.42    2.45
     1.250    1.49 |  7.333    2.99 |13.417    7.34 | 19.50    2.45
     1.333    1.49 |  7.417    2.99 |13.500    7.34 | 19.58    2.45
     1.417    1.49 |  7.500    2.99 |13.583    7.34 | 19.67    2.45
     1.500    1.49 |  7.583    2.99 |13.667    7.34 | 19.75    2.45
     1.583    1.49 |  7.667    2.99 |13.750    7.34 | 19.83    2.45
     1.667    1.49 |  7.750    2.99 |13.833    5.71 | 19.92    2.45
     1.750    1.49 |  7.833    2.99 |13.917    5.71 | 20.00    2.45
     1.833    1.49 |  7.917    2.99 |14.000    5.71 | 20.08    2.45
     1.917    1.49 |  8.000    2.99 |14.083    5.71 | 20.17    2.45
     2.000    1.49 |  8.083    2.99 |14.167    5.71 | 20.25    2.45
     2.083    1.49 |  8.167    2.99 |14.250    5.71 | 20.33    1.63
     2.167    1.49 |  8.250    2.99 |14.333    4.08 | 20.42    1.63
     2.250    1.49 |  8.333    3.53 |14.417    4.08 | 20.50    1.63
     2.333    1.77 |  8.417    3.53 |14.500    4.08 | 20.58    1.63
     2.417    1.77 |  8.500    3.53 |14.583    4.08 | 20.67    1.63
     2.500    1.77 |  8.583    3.53 |14.667    4.08 | 20.75    1.63
     2.583    1.77 |  8.667    3.53 |14.750    4.08 | 20.83    1.63
     2.667    1.77 |  8.750    3.53 |14.833    4.08 | 20.92    1.63
     2.750    1.77 |  8.833    3.80 |14.917    4.08 | 21.00    1.63
     2.833    1.77 |  8.917    3.80 |15.000    4.08 | 21.08    1.63
     2.917    1.77 |  9.000    3.80 |15.083    4.08 | 21.17    1.63
     3.000    1.77 |  9.083    3.80 |15.167    4.08 | 21.25    1.63
     3.083    1.77 |  9.167    3.80 |15.250    4.08 | 21.33    1.63
     3.167    1.77 |  9.250    3.80 |15.333    4.08 | 21.42    1.63
     3.250    1.77 |  9.333    4.35 |15.417    4.08 | 21.50    1.63
     3.333    1.77 |  9.417    4.35 |15.500    4.08 | 21.58    1.63
     3.417    1.77 |  9.500    4.35 |15.583    4.08 | 21.67    1.63
     3.500    1.77 |  9.583    4.35 |15.667    4.08 | 21.75    1.63
     3.583    1.77 |  9.667    4.35 |15.750    4.08 | 21.83    1.63
     3.667    1.77 |  9.750    4.35 |15.833    4.08 | 21.92    1.63
     3.750    1.77 |  9.833    4.89 |15.917    4.08 | 22.00    1.63
     3.833    1.77 |  9.917    4.89 |16.000    4.08 | 22.08    1.63
     3.917    1.77 | 10.000    4.89 |16.083    4.08 | 22.17    1.63
     4.000    1.77 | 10.083    4.89 |16.167    4.08 | 22.25    1.63
     4.083    1.77 | 10.167    4.89 |16.250    4.08 | 22.33    1.63
     4.167    1.77 | 10.250    4.89 |16.333    2.45 | 22.42    1.63
     4.250    1.77 | 10.333    6.25 |16.417    2.45 | 22.50    1.63
     4.333    2.17 | 10.417    6.25 |16.500    2.45 | 22.58    1.63
     4.417    2.17 | 10.500    6.25 |16.583    2.45 | 22.67    1.63
     4.500    2.17 | 10.583    6.25 |16.667    2.45 | 22.75    1.63
     4.583    2.17 | 10.667    6.25 |16.750    2.45 | 22.83    1.63
     4.667    2.17 | 10.750    6.25 |16.833    2.45 | 22.92    1.63
     4.750    2.17 | 10.833    8.43 |16.917    2.45 | 23.00    1.63
     4.833    2.17 | 10.917    8.43 |17.000    2.45 | 23.08    1.63
     4.917    2.17 | 11.000    8.43 |17.083    2.45 | 23.17    1.63
     5.000    2.17 | 11.083    8.43 |17.167    2.45 | 23.25    1.63
     5.083    2.17 | 11.167    8.43 |17.250    2.45 | 23.33    1.63
     5.167    2.17 | 11.250    8.43 |17.333    2.45 | 23.42    1.63
     5.250    2.17 | 11.333   13.05 |17.417    2.45 | 23.50    1.63
     5.333    2.17 | 11.417   13.05 |17.500    2.45 | 23.58    1.63
     5.417    2.17 | 11.500   13.05 |17.583    2.45 | 23.67    1.63
     5.500    2.17 | 11.583   13.05 |17.667    2.45 | 23.75    1.63
     5.583    2.17 | 11.667   13.05 |17.750    2.45 | 23.83    1.63
     5.667    2.17 | 11.750   13.05 |17.833    2.45 | 23.92    1.63
     5.750    2.17 | 11.833   40.22 |17.917    2.45 | 24.00    1.63
     5.833    2.17 | 11.917   40.22 |18.000    2.45 | 24.08    1.63
     5.917    2.17 | 12.000   40.22 |18.083    2.45 | 24.17    1.63
     6.000    2.17 | 12.083  166.31 |18.167    2.45 | 24.25    1.63
     6.083    2.17 | 12.167  166.33 |18.250    2.45 |

     Max.Eff.Inten.(mm/hr)=     166.33       144.79
               over (min)          5.00        10.00
     Storage Coeff.  (min)=        3.07 (ii)    7.66 (ii)
     Unit Hyd. Tpeak (min)=        5.00        10.00
     Unit Hyd. peak  (cms)=        0.27         0.13
                                                          *TOTALS*
     PEAK FLOW       (cms)=        0.34         0.37          0.710 (iii)
     TIME TO PEAK    (hrs)=       12.25        12.25          12.25
     RUNOFF VOLUME    (mm)=      134.89        60.24          80.55
     TOTAL RAINFALL   (mm)=      135.89       135.89         135.89
     RUNOFF COEFFICIENT    =       0.99         0.44           0.59

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
--------------------
| ADD HYD  (  0118)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0111):    28.77    3.006    12.25    60.79
     + ID2= 2 (  0119):     2.72    0.710    12.25    80.55
       ========================================================
       ID = 3 (  0118):    31.49    3.716    12.25    62.50

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| ADD HYD  (  0001)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0118):    31.49    3.716    12.25    62.50
     + ID2= 2 (  0025):    48.20   12.705    12.25    93.64
       ========================================================
       ID = 3 (  0001):    79.69   16.421    12.25    81.33

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| ADD HYD  (  0001)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 3 (  0001):    79.69   16.421    12.25    81.33
     + ID2= 2 (  0028):     6.40    1.994    12.25   110.62
       ========================================================
       ID = 1 (  0001):    86.09   18.415    12.25    83.51

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| ADD HYD  (  0001)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0001):    86.09   18.415    12.25    83.51
```

```
     + ID2= 2 (  0062):     9.49    1.082    12.33    53.00
       ========================================================
       ID = 3 (  0001):    95.58   19.320    12.25    80.48

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
--------------------
| RESERVOIR(  0002)|     OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT=  5.0 min     |     OUTFLOW    STORAGE    |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                         0.0000      0.0000    |    0.4660      3.2040
                         0.0000      0.2740    |    0.4720      3.3550
                         0.0420      0.5580    |    2.3890      3.4690
                         0.0680      0.8520    |    2.5030      3.5840
                         0.0860      1.1550    |    2.8990      3.9750
                         0.3770      1.4690    |    4.0830      4.4020
                         0.3970      1.7940    |    7.8030      4.8410
                         0.4160      2.1300    |   13.0620      5.2840
                         0.4340      2.4770    |   19.5770      5.7300
                         0.4500      2.8350    |   27.2220      6.1800

                            AREA     QPEAK     TPEAK       R.V.
                            (ha)     (cms)     (hrs)       (mm)
   INFLOW : ID= 2 (  0001)     95.580     19.320      12.25      80.48
   OUTFLOW: ID= 1 (  0002)     95.580      3.082      13.00      77.59

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 15.95
                  TIME SHIFT OF PEAK FLOW          (min)= 45.00
                  MAXIMUM  STORAGE   USED        (ha.m.)=  4.0417

--------------------------------------------------------------------------------
--------------------
| DIVERTHYD(  0123)|
| IN= 1   # OUT= 5 |
--------------------
     Outflow / Inflow  Relationships

      Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total
      (cms)    (cms)    (cms)    (cms)    (cms)    (cms)
       0.00     0.00     0.00     0.00     0.00     0.00
       0.00     0.00     0.00     0.00     0.00     0.00
       0.00     0.00     0.00     0.00     0.00     0.00
       0.04     0.00     0.00     0.00     0.00     0.04
       0.07     0.00     0.00     0.00     0.00     0.07
       0.09     0.00     0.00     0.00     0.00     0.09
       0.10     0.28     0.00     0.00     0.00     0.38
       0.12     0.28     0.00     0.00     0.00     0.40
       0.13     0.29     0.00     0.00     0.00     0.42
       0.14     0.30     0.00     0.00     0.00     0.43
       0.15     0.30     0.00     0.00     0.00     0.45
       0.16     0.31     0.00     0.00     0.00     0.47
       0.16     0.31     0.00     0.00     0.00     0.47
       0.16     2.23     0.00     0.00     0.00     2.39
       0.17     2.34     0.00     0.00     0.00     2.50
       0.17     2.73     0.00     0.00     0.00     2.90
       0.18     2.93     0.00     0.00     0.00     3.11

                         AREA     QPEAK     TPEAK     R.V.
                         (ha)     (cms)     (hrs)     (mm)
     TOTAL HYD.(ID= 1):  95.58      3.08     13.00     77.59
     ================================================
     ID= 2  (   2)    :  30.29      0.18     13.00     77.59
     ID= 3  (   2)    :  65.29      2.90     13.00     77.59
     ID= 4  (   2)    :   0.00      0.00      0.00      0.00
     ID= 5  (   2)    :   0.00      0.00      0.00      0.00
     ID= 6  (   2)    :   0.00      0.00      0.00      0.00
--------------------------------------------------------------------------------

   ---------------------------
   | Junction Command(0124) |
   ---------------------------

                         AREA     QPEAK    TPEAK     R.V.
                         (ha)     (cms)     (hrs)     (mm)
   INFLOW : ID= 1(  0123)   30.29      0.18    13.00     77.59
   OUTFLOW: ID= 2(  0124)   30.29      0.18    13.00     77.59

--------------------------------------------------------------------------------
--------------------
| CALIB
| NASHYD   (  0130)|   Area    (ha)=   5.38   Curve Number   (CN)= 46.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.05   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.87
```

```
        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                          ---- TRANSFORMED HYETOGRAPH ----
      TIME    RAIN |   TIME    RAIN |'  TIME    RAIN |   TIME    RAIN
       hrs   mm/hr |    hrs   mm/hr |'   hrs   mm/hr |    hrs   mm/hr
     0.083    0.00 |  6.167    2.17 |12.250  166.33 | 18.33    2.45
     0.167    0.00 |  6.250    2.17 |12.333   19.59 | 18.42    2.45
     0.250    0.00 |  6.333    2.45 |12.417   19.57 | 18.50    2.45
     0.333    1.49 |  6.417    2.45 |12.500   19.57 | 18.58    2.45
     0.417    1.49 |  6.500    2.45 |12.583   19.57 | 18.67    2.45
     0.500    1.49 |  6.583    2.45 |12.667   19.57 | 18.75    2.45
     0.583    1.49 |  6.667    2.45 |12.750   19.57 | 18.83    2.45
     0.667    1.49 |  6.750    2.45 |12.833   10.06 | 18.92    2.45
     0.750    1.49 |  6.833    2.45 |12.917   10.06 | 19.00    2.45
     0.833    1.49 |  6.917    2.45 |13.000   10.06 | 19.08    2.45
     0.917    1.49 |  7.000    2.45 |13.083   10.06 | 19.17    2.45
     1.000    1.49 |  7.083    2.45 |13.167   10.06 | 19.25    2.45
     1.083    1.49 |  7.167    2.45 |13.250   10.06 | 19.33    2.45
     1.167    1.49 |  7.250    2.45 |13.333    7.34 | 19.42    2.45
     1.250    1.49 |  7.333    2.99 |13.417    7.34 | 19.50    2.45
     1.333    1.49 |  7.417    2.99 |13.500    7.34 | 19.58    2.45
     1.417    1.49 |  7.500    2.99 |13.583    7.34 | 19.67    2.45
     1.500    1.49 |  7.583    2.99 |13.667    7.34 | 19.75    2.45
     1.583    1.49 |  7.667    2.99 |13.750    7.34 | 19.83    2.45
     1.667    1.49 |  7.750    2.99 |13.833    5.71 | 19.92    2.45
     1.750    1.49 |  7.833    2.99 |13.917    5.71 | 20.00    2.45
     1.833    1.49 |  7.917    2.99 |14.000    5.71 | 20.08    2.45
     1.917    1.49 |  8.000    2.99 |14.083    5.71 | 20.17    2.45
     2.000    1.49 |  8.083    2.99 |14.167    5.71 | 20.25    2.45
     2.083    1.49 |  8.167    2.99 |14.250    5.71 | 20.33    1.63
     2.167    1.49 |  8.250    2.99 |14.333    4.08 | 20.42    1.63
     2.250    1.49 |  8.333    3.53 |14.417    4.08 | 20.50    1.63
     2.333    1.77 |  8.417    3.53 |14.500    4.08 | 20.58    1.63
     2.417    1.77 |  8.500    3.53 |14.583    4.08 | 20.67    1.63
     2.500    1.77 |  8.583    3.53 |14.667    4.08 | 20.75    1.63
     2.583    1.77 |  8.667    3.53 |14.750    4.08 | 20.83    1.63
     2.667    1.77 |  8.750    3.53 |14.833    4.08 | 20.92    1.63
     2.750    1.77 |  8.833    3.80 |14.917    4.08 | 21.00    1.63
     2.833    1.77 |  8.917    3.80 |15.000    4.08 | 21.08    1.63
     2.917    1.77 |  9.000    3.80 |15.083    4.08 | 21.17    1.63
     3.000    1.77 |  9.083    3.80 |15.167    4.08 | 21.25    1.63
     3.083    1.77 |  9.167    3.80 |15.250    4.08 | 21.33    1.63
     3.167    1.77 |  9.250    3.80 |15.333    4.08 | 21.42    1.63
     3.250    1.77 |  9.333    4.35 |15.417    4.08 | 21.50    1.63
     3.333    1.77 |  9.417    4.35 |15.500    4.08 | 21.58    1.63
     3.417    1.77 |  9.500    4.35 |15.583    4.08 | 21.67    1.63
     3.500    1.77 |  9.583    4.35 |15.667    4.08 | 21.75    1.63
     3.583    1.77 |  9.667    4.35 |15.750    4.08 | 21.83    1.63
     3.667    1.77 |  9.750    4.35 |15.833    4.08 | 21.92    1.63
     3.750    1.77 |  9.833    4.89 |15.917    4.08 | 22.00    1.63
     3.833    1.77 |  9.917    4.89 |16.000    4.08 | 22.08    1.63
     3.917    1.77 | 10.000    4.89 |16.083    4.08 | 22.17    1.63
     4.000    1.77 | 10.083    4.89 |16.167    4.08 | 22.25    1.63
     4.083    1.77 | 10.167    4.89 |16.250    4.08 | 22.33    1.63
     4.167    1.77 | 10.250    4.89 |16.333    2.45 | 22.42    1.63
     4.250    1.77 | 10.333    6.25 |16.417    2.45 | 22.50    1.63
     4.333    2.17 | 10.417    6.25 |16.500    2.45 | 22.58    1.63
     4.417    2.17 | 10.500    6.25 |16.583    2.45 | 22.67    1.63
     4.500    2.17 | 10.583    6.25 |16.667    2.45 | 22.75    1.63
     4.583    2.17 | 10.667    6.25 |16.750    2.45 | 22.83    1.63
     4.667    2.17 | 10.750    6.25 |16.833    2.45 | 22.92    1.63
     4.750    2.17 | 10.833    8.43 |16.917    2.45 | 23.00    1.63
     4.833    2.17 | 10.917    8.43 |17.000    2.45 | 23.08    1.63
     4.917    2.17 | 11.000    8.43 |17.083    2.45 | 23.17    1.63
     5.000    2.17 | 11.083    8.43 |17.167    2.45 | 23.25    1.63
     5.083    2.17 | 11.167    8.43 |17.250    2.45 | 23.33    1.63
     5.167    2.17 | 11.250    8.43 |17.333    2.45 | 23.42    1.63
     5.250    2.17 | 11.333   13.05 |17.417    2.45 | 23.50    1.63
     5.333    2.17 | 11.417   13.05 |17.500    2.45 | 23.58    1.63
     5.417    2.17 | 11.500   13.05 |17.583    2.45 | 23.67    1.63
     5.500    2.17 | 11.583   13.05 |17.667    2.45 | 23.75    1.63
     5.583    2.17 | 11.667   13.05 |17.750    2.45 | 23.83    1.63
     5.667    2.17 | 11.750   13.05 |17.833    2.45 | 23.92    1.63
     5.750    2.17 | 11.833   40.22 |17.917    2.45 | 24.00    1.63
     5.833    2.17 | 11.917   40.22 |18.000    2.45 | 24.08    1.63
     5.917    2.17 | 12.000   40.22 |18.083    2.45 | 24.17    1.63
     6.000    2.17 | 12.083  166.31 |18.167    2.45 | 24.25    1.63
     6.083    2.17 | 12.167  166.33 |18.250    2.45 |

     Unit Hyd Qpeak  (cms)=   0.236

     PEAK FLOW       (cms)=   0.186 (i)
```

TIME TO PEAK (hrs)= 13.083
RUNOFF VOLUME (mm)= 40.275
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.296

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB STANDHYD (0132) | Area (ha)= 0.69
|ID= 1 DT= 5.0 min | Total Imp(%)= 42.00 Dir. Conn.(%)= 3.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.29	0.40
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	67.82	170.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Max.Eff.Inten.(mm/hr)= 166.33 138.92
over (min) 5.00 20.00
Storage Coeff. (min)= 2.03 (ii) 16.78 (ii)
Unit Hyd. Tpeak (min)= 5.00 20.00
Unit Hyd. peak (cms)= 0.31 0.06

		TOTALS
PEAK FLOW	(cms)=	0.01	0.08	0.083 (iii)
TIME TO PEAK	(hrs)=	12.25	12.42	12.42
RUNOFF VOLUME	(mm)=	134.89	60.70	62.91
TOTAL RAINFALL	(mm)=	135.89	135.89	135.89
RUNOFF COEFFICIENT	=	0.99	0.45	0.46

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| Junction Command(0131) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0132)	0.69	0.08	12.42	62.91
OUTFLOW: ID= 2(0131)	0.69	0.08	12.42	62.91

ADD HYD (0129)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	ID1= 1 (0124):	30.29	0.178	13.00	77.59
	+ ID2= 2 (0130):	5.38	0.186	13.08	40.28
	ID = 3 (0129):	35.67	0.364	13.08	71.97

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0129)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1	ID1= 3 (0129):	35.67	0.364	13.08	71.97
	+ ID2= 2 (0131):	0.69	0.083	12.42	62.91
	ID = 1 (0129):	36.36	0.392	12.92	71.79

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| Junction Command(0128) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 10(0123)	65.29	2.90	13.00	77.59
OUTFLOW: ID= 2(0128)	65.29	2.90	13.00	77.59

| CALIB NASHYD (0109) | Area (ha)= 120.60 Curve Number (CN)= 73.3
|ID= 1 DT= 5.0 min | Ia (mm)= 6.90 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 1.06

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Unit Hyd Qpeak (cms)= 4.346

PEAK FLOW (cms)= 7.087 (i)
TIME TO PEAK (hrs)= 13.250
RUNOFF VOLUME (mm)= 75.113
TOTAL RAINFALL (mm)= 135.890
RUNOFF COEFFICIENT = 0.553

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB STANDHYD (0106) | Area (ha)= 1.58
|ID= 1 DT= 5.0 min | Total Imp(%)= 30.20 Dir. Conn.(%)= 0.10

	IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.48	1.10
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	102.63	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63

4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Max.Eff.Inten.(mm/hr)=	166.33	200.71	
over (min)	5.00	15.00	
Storage Coeff. (min)=	2.88 (ii)	11.56 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.28	0.09	
			TOTALS
PEAK FLOW (cms)=	0.00	0.40	0.398 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.33
RUNOFF VOLUME (mm)=	134.89	97.61	97.65
TOTAL RAINFALL (mm)=	135.89	135.89	135.89
RUNOFF COEFFICIENT =	0.99	0.72	0.72

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0107)
ID= 1 DT= 5.0 min

Area (ha)= 0.72
Total Imp(%)= 45.60 Dir. Conn.(%)= 3.50

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.33	0.39
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	69.28	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.17	12.250	166.33	18.33	2.45
0.167	0.00	6.250	2.17	12.333	19.59	18.42	2.45
0.250	0.00	6.333	2.45	12.417	19.57	18.50	2.45
0.333	1.49	6.417	2.45	12.500	19.57	18.58	2.45
0.417	1.49	6.500	2.45	12.583	19.57	18.67	2.45
0.500	1.49	6.583	2.45	12.667	19.57	18.75	2.45
0.583	1.49	6.667	2.45	12.750	19.57	18.83	2.45
0.667	1.49	6.750	2.45	12.833	10.06	18.92	2.45
0.750	1.49	6.833	2.45	12.917	10.06	19.00	2.45
0.833	1.49	6.917	2.45	13.000	10.06	19.08	2.45
0.917	1.49	7.000	2.45	13.083	10.06	19.17	2.45
1.000	1.49	7.083	2.45	13.167	10.06	19.25	2.45
1.083	1.49	7.167	2.45	13.250	10.06	19.33	2.45
1.167	1.49	7.250	2.45	13.333	7.34	19.42	2.45
1.250	1.49	7.333	2.99	13.417	7.34	19.50	2.45
1.333	1.49	7.417	2.99	13.500	7.34	19.58	2.45
1.417	1.49	7.500	2.99	13.583	7.34	19.67	2.45
1.500	1.49	7.583	2.99	13.667	7.34	19.75	2.45
1.583	1.49	7.667	2.99	13.750	7.34	19.83	2.45
1.667	1.49	7.750	2.99	13.833	5.71	19.92	2.45
1.750	1.49	7.833	2.99	13.917	5.71	20.00	2.45
1.833	1.49	7.917	2.99	14.000	5.71	20.08	2.45
1.917	1.49	8.000	2.99	14.083	5.71	20.17	2.45
2.000	1.49	8.083	2.99	14.167	5.71	20.25	2.45
2.083	1.49	8.167	2.99	14.250	5.71	20.33	1.63
2.167	1.49	8.250	2.99	14.333	4.08	20.42	1.63
2.250	1.49	8.333	3.53	14.417	4.08	20.50	1.63
2.333	1.77	8.417	3.53	14.500	4.08	20.58	1.63
2.417	1.77	8.500	3.53	14.583	4.08	20.67	1.63
2.500	1.77	8.583	3.53	14.667	4.08	20.75	1.63
2.583	1.77	8.667	3.53	14.750	4.08	20.83	1.63
2.667	1.77	8.750	3.53	14.833	4.08	20.92	1.63
2.750	1.77	8.833	3.80	14.917	4.08	21.00	1.63
2.833	1.77	8.917	3.80	15.000	4.08	21.08	1.63
2.917	1.77	9.000	3.80	15.083	4.08	21.17	1.63
3.000	1.77	9.083	3.80	15.167	4.08	21.25	1.63
3.083	1.77	9.167	3.80	15.250	4.08	21.33	1.63
3.167	1.77	9.250	3.80	15.333	4.08	21.42	1.63
3.250	1.77	9.333	4.35	15.417	4.08	21.50	1.63
3.333	1.77	9.417	4.35	15.500	4.08	21.58	1.63
3.417	1.77	9.500	4.35	15.583	4.08	21.67	1.63
3.500	1.77	9.583	4.35	15.667	4.08	21.75	1.63
3.583	1.77	9.667	4.35	15.750	4.08	21.83	1.63
3.667	1.77	9.750	4.35	15.833	4.08	21.92	1.63
3.750	1.77	9.833	4.89	15.917	4.08	22.00	1.63
3.833	1.77	9.917	4.89	16.000	4.08	22.08	1.63
3.917	1.77	10.000	4.89	16.083	4.08	22.17	1.63
4.000	1.77	10.083	4.89	16.167	4.08	22.25	1.63
4.083	1.77	10.167	4.89	16.250	4.08	22.33	1.63
4.167	1.77	10.250	4.89	16.333	2.45	22.42	1.63
4.250	1.77	10.333	6.25	16.417	2.45	22.50	1.63
4.333	2.17	10.417	6.25	16.500	2.45	22.58	1.63
4.417	2.17	10.500	6.25	16.583	2.45	22.67	1.63
4.500	2.17	10.583	6.25	16.667	2.45	22.75	1.63
4.583	2.17	10.667	6.25	16.750	2.45	22.83	1.63
4.667	2.17	10.750	6.25	16.833	2.45	22.92	1.63
4.750	2.17	10.833	8.43	16.917	2.45	23.00	1.63
4.833	2.17	10.917	8.43	17.000	2.45	23.08	1.63
4.917	2.17	11.000	8.43	17.083	2.45	23.17	1.63
5.000	2.17	11.083	8.43	17.167	2.45	23.25	1.63
5.083	2.17	11.167	8.43	17.250	2.45	23.33	1.63
5.167	2.17	11.250	8.43	17.333	2.45	23.42	1.63
5.250	2.17	11.333	13.05	17.417	2.45	23.50	1.63
5.333	2.17	11.417	13.05	17.500	2.45	23.58	1.63
5.417	2.17	11.500	13.05	17.583	2.45	23.67	1.63
5.500	2.17	11.583	13.05	17.667	2.45	23.75	1.63
5.583	2.17	11.667	13.05	17.750	2.45	23.83	1.63
5.667	2.17	11.750	13.05	17.833	2.45	23.92	1.63
5.750	2.17	11.833	40.22	17.917	2.45	24.00	1.63
5.833	2.17	11.917	40.22	18.000	2.45	24.08	1.63
5.917	2.17	12.000	40.22	18.083	2.45	24.17	1.63
6.000	2.17	12.083	166.31	18.167	2.45	24.25	1.63
6.083	2.17	12.167	166.33	18.250	2.45		

Max.Eff.Inten.(mm/hr)=	166.33	260.11	
over (min)	5.00	15.00	
Storage Coeff. (min)=	2.27 (ii)	10.10 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.30	0.10	
			TOTALS
PEAK FLOW (cms)=	0.01	0.19	0.196 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.33
RUNOFF VOLUME (mm)=	134.89	103.47	104.57
TOTAL RAINFALL (mm)=	135.89	135.89	135.89
RUNOFF COEFFICIENT =	0.99	0.76	0.77

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0029)
1 + 2 = 3

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0106):		1.58	0.398	12.33	97.65
+ ID2= 2 (0107):		0.72	0.196	12.33	104.57
		==========	==========	==========	==========

ID = 3 (0029): 2.30 0.595 12.33 99.81

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0029)
3 + 2 = 1

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0029):		2.30	0.595	12.33	99.81
+ ID2= 2 (0109):		120.60	7.087	13.25	75.11
		==========	==========	==========	==========
ID = 1 (0029):		122.90	7.157	13.25	75.58

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0122)
1 + 2 = 3

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0128):		65.29	2.904	13.00	77.59
+ ID2= 2 (0029):		122.90	7.157	13.25	75.58
		==========	==========	==========	==========
ID = 3 (0122):		188.19	9.992	13.17	76.28

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0135)
1 + 2 = 3

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0122):		188.19	9.992	13.17	76.28
+ ID2= 2 (0129):		36.36	0.392	12.92	71.79
		==========	==========	==========	==========
ID = 3 (0135):		224.55	10.375	13.17	75.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

==========

V V I SSSSS U U A L (v 6.2.2020)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUUU A A LLLLL

OOO TTTTT TTTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\90b6e88f-a
Summary filename: C:\Users\cbuscher\AppData\Local\Civica\VH5\852cc72f-b9c3-4bc0-93c6-8ba1df6dda66\90b6e88f-a

DATE: 02-17-2026 TIME: 11:15:51

USER:

COMMENTS: _____

****
** SIMULATION : N. tim **
****

READ STORM

Filename: C:\Users\cbuscher\AppData\Local\Temp\8fd31c55-74ba-441d-b6e1-b71abe5a781b\2b68f528

Ptotal=193.00 mm	Comments: tim

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	15.00	3.00	3.00	6.00	43.00	9.00	13.00
1.00	20.00	4.00	5.00	7.00	20.00	10.00	13.00
2.00	10.00	5.00	20.00	8.00	23.00	11.00	8.00

CALIB
STANDHYD (0133)
ID= 1 DT= 5.0 min

Area (ha)= 0.09
Total Imp(%)= 43.30 Dir. Conn.(%)= 43.30

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.04	0.05
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	2.00	2.00
Length	(m)=	24.49	46.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Max.Eff.Inten.(mm/hr)=	43.00	21.04	
over (min)	5.00	20.00	
Storage Coeff. (min)=	0.95 (ii)	15.27 (ii)	
Unit Hyd. Tpeak (min)=	5.00	20.00	
Unit Hyd. peak (cms)=	0.34	0.07	
			TOTALS
PEAK FLOW (cms)=	0.00	0.00	0.007 (iii)
TIME TO PEAK (hrs)=	6.25	7.00	7.00
RUNOFF VOLUME (mm)=	192.00	78.13	127.35
TOTAL RAINFALL (mm)=	193.00	193.00	193.00
RUNOFF COEFFICIENT =	0.99	0.40	0.66

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0134)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0133)	0.09	0.01	7.00	127.35
OUTFLOW: ID= 2(0134)	0.09	0.01	7.00	127.35

CALIB | NASHYD (0007) | ID= 1 DT= 5.0 min | Area (ha)= 4.92 | Ia (mm)= 4.65 | U.H. Tp(hrs)= 1.55 | Curve Number (CN)= 75.1 | # of Linear Res.(N)= 3.00

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Unit Hyd Qpeak (cms)= 0.121

PEAK FLOW (cms)= 0.266 (i)
TIME TO PEAK (hrs)= 9.250
RUNOFF VOLUME (mm)= 130.154
TOTAL RAINFALL (mm)= 193.000
RUNOFF COEFFICIENT = 0.674

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB | NASHYD (0057) | ID= 1 DT= 5.0 min | Area (ha)= 1.06 | Ia (mm)= 4.72 | U.H. Tp(hrs)= 0.15 | Curve Number (CN)= 55.0 | # of Linear Res.(N)= 3.00

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Unit Hyd Qpeak (cms)= 0.270

PEAK FLOW (cms)= 0.070 (i)
TIME TO PEAK (hrs)= 7.000
RUNOFF VOLUME (mm)= 88.980
TOTAL RAINFALL (mm)= 193.000
RUNOFF COEFFICIENT = 0.461

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB | NASHYD (0115) | ID= 1 DT= 5.0 min | Area (ha)= 0.78 | Ia (mm)= 5.10 | U.H. Tp(hrs)= 1.17 | Curve Number (CN)= 76.9 | # of Linear Res.(N)= 3.00

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00

CALIB | NASHYD (0104) | ID= 1 DT= 5.0 min | Area (ha)= 0.20 | Ia (mm)= 4.70 | U.H. Tp(hrs)= 0.76 | Curve Number (CN)= 53.9 | # of Linear Res.(N)= 3.00

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Unit Hyd Qpeak (cms)= 0.010

PEAK FLOW (cms)= 0.009 (i)
TIME TO PEAK (hrs)= 7.500
RUNOFF VOLUME (mm)= 87.418
TOTAL RAINFALL (mm)= 193.000
RUNOFF COEFFICIENT = 0.453

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB | STANDHYD (0003) | ID= 1 DT= 5.0 min | Area (ha)= 5.31 | Total Imp(%)= 39.70 | Dir. Conn.(%)= 25.20

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	2.11	3.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	2.10	2.00
Length	(m)=	188.15	35.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00

0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Max.Eff.Inten.(mm/hr)=		43.00	41.12
over (min)		5.00	15.00
Storage Coeff. (min)=		4.19 (ii)	13.48 (ii)
Unit Hyd. Tpeak (min)=		5.00	15.00
Unit Hyd. peak (cms)=		0.24	0.08
			TOTALS
PEAK FLOW	(cms)=	0.16	0.35	0.510 (iii)
TIME TO PEAK	(hrs)=	6.92	7.00	7.00
RUNOFF VOLUME	(mm)=	192.00	123.79	140.98
TOTAL RAINFALL	(mm)=	193.00	193.00	193.00
RUNOFF COEFFICIENT	=	0.99	0.64	0.73

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 67.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0052)	Area	(ha)=	9.07
ID= 1 DT= 5.0 min	Total Imp(%)=	64.70	Dir. Conn.(%)= 32.30

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	5.87	3.20
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	245.90	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Max.Eff.Inten.(mm/hr)=		43.00	57.18
over (min)		10.00	20.00
Storage Coeff. (min)=		8.35 (ii)	16.49 (ii)
Unit Hyd. Tpeak (min)=		10.00	20.00
Unit Hyd. peak (cms)=		0.12	0.06
			TOTALS
PEAK FLOW	(cms)=	0.35	0.47	0.818 (iii)
TIME TO PEAK	(hrs)=	7.00	7.00	7.00
RUNOFF VOLUME	(mm)=	192.00	110.99	137.16
TOTAL RAINFALL	(mm)=	193.00	193.00	193.00
RUNOFF COEFFICIENT	=	0.99	0.58	0.71

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.3 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0053)	Area	(ha)=	5.41
ID= 1 DT= 5.0 min	Total Imp(%)=	70.00	Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	3.79	1.62
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	189.91	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Max.Eff.Inten.(mm/hr)=		43.00	70.91
over (min)		5.00	15.00
Storage Coeff. (min)=		7.15 (ii)	14.62 (ii)
Unit Hyd. Tpeak (min)=		5.00	15.00
Unit Hyd. peak (cms)=		0.17	0.08
			TOTALS
PEAK FLOW	(cms)=	0.23	0.30	0.530 (iii)
TIME TO PEAK	(hrs)=	7.00	7.00	7.00
RUNOFF VOLUME	(mm)=	192.00	122.89	147.07
TOTAL RAINFALL	(mm)=	193.00	193.00	193.00
RUNOFF COEFFICIENT	=	0.99	0.64	0.76

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 52.7 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0056)	Area	(ha)=	3.62
ID= 1 DT= 5.0 min	Total Imp(%)=	26.60	Dir. Conn.(%)= 20.80

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.96	2.66
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	155.35	35.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Max.Eff.Inten.(mm/hr)=		43.00	23.79
over (min)		5.00	20.00
Storage Coeff. (min)=		3.79 (ii)	15.36 (ii)
Unit Hyd. Tpeak (min)=		5.00	20.00
Unit Hyd. peak (cms)=		0.25	0.07
			TOTALS
PEAK FLOW	(cms)=	0.09	0.16	0.251 (iii)
TIME TO PEAK	(hrs)=	6.92	7.00	7.00
RUNOFF VOLUME	(mm)=	192.00	81.87	104.78
TOTAL RAINFALL	(mm)=	193.00	193.00	193.00
RUNOFF COEFFICIENT	=	0.99	0.42	0.54

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0108)	Area	(ha)=	1.00
ID= 1 DT= 5.0 min	Total Imp(%)=	24.00	Dir. Conn.(%)= 0.10

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.24	0.76
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.36	2.00
Length (m)=	81.65	90.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Max.Eff.Inten.(mm/hr)=		43.00	32.12
over (min)		5.00	25.00

```
Storage Coeff.  (min)=       4.31 (ii)   22.39 (ii)
Unit Hyd. Tpeak (min)=       5.00        25.00
Unit Hyd. peak  (cms)=       0.23         0.05
                                                *TOTALS*
PEAK FLOW       (cms)=       0.00         0.06        0.059 (iii)
TIME TO PEAK    (hrs)=       6.58         7.08         7.08
RUNOFF VOLUME    (mm)=     192.00        91.71        91.80
TOTAL RAINFALL   (mm)=     193.00       193.00       193.00
RUNOFF COEFFICIENT   =       0.99         0.48         0.48

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
            YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  49.0     Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------


-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)     (cms)    (hrs)     (mm)
      ID1= 1 (  0103):       0.33    0.019     7.00     77.36
    + ID2= 2 (  0104):       0.20    0.009     7.50     87.42
      ==========================================================
      ID = 3 (  0032):       0.53    0.027     7.00     81.15

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------


-------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)     (cms)    (hrs)     (mm)
      ID1= 3 (  0032):       0.53    0.027     7.00     81.15
    + ID2= 2 (  0108):       1.00    0.059     7.08     91.80
      ==========================================================
      ID = 1 (  0032):       1.53    0.085     7.00     88.11

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------


-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)     (cms)    (hrs)     (mm)
      ID1= 1 (  0032):       1.53    0.085     7.00     88.11
    + ID2= 2 (  0115):       0.78    0.047     8.00    133.63
      ==========================================================
      ID = 3 (  0032):       2.31    0.119     7.08    103.48

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)     (cms)    (hrs)     (mm)
      ID1= 3 (  0032):       2.31    0.119     7.08    103.48
    + ID2= 2 (  0003):       5.31    0.510     7.00    140.98
      ==========================================================
      ID = 1 (  0032):       7.62    0.628     7.00    129.61

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)     (cms)    (hrs)     (mm)
      ID1= 1 (  0032):       7.62    0.628     7.00    129.61
    + ID2= 2 (  0052):       9.07    0.818     7.00    137.16
      ==========================================================
      ID = 3 (  0032):      16.69    1.446     7.00    133.71

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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| ADD HYD  (  0032)|
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```
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)     (cms)    (hrs)     (mm)
      ID1= 3 (  0032):      16.69    1.446     7.00    133.71
    + ID2= 2 (  0053):       5.41    0.530     7.00    147.07
      ==========================================================
      ID = 1 (  0032):      22.10    1.976     7.00    136.98

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------


-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)     (cms)    (hrs)     (mm)
      ID1= 1 (  0032):      22.10    1.976     7.00    136.98
    + ID2= 2 (  0056):       3.62    0.251     7.00    104.78
      ==========================================================
      ID = 3 (  0032):      25.72    2.227     7.00    132.45

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| ADD HYD  (  0032)|
|   3 +  2 =  1    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)     (cms)    (hrs)     (mm)
      ID1= 3 (  0032):      25.72    2.227     7.00    132.45
    + ID2= 2 (  0057):       1.06    0.070     7.00     88.98
      ==========================================================
      ID = 1 (  0032):      26.78    2.297     7.00    130.73

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------


-------------------
| ADD HYD  (  0032)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)     (cms)    (hrs)     (mm)
      ID1= 1 (  0032):      26.78    2.297     7.00    130.73
    + ID2= 2 (  0007):       4.92    0.266     9.25    130.15
      ==========================================================
      ID = 3 (  0032):      31.70    2.444     7.00    130.64

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| CALIB            |
| STANDHYD (  0004)|   Area    (ha)=   8.04
|ID= 1 DT= 5.0 min |   Total Imp(%)=  70.00   Dir. Conn.(%)=  35.00
-------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       5.63         2.41
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.36         2.00
     Length            (m)=     231.52        35.00
     Mannings n            =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                  ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083   15.00 | 3.083    3.00 | 6.083   43.00 |  9.08   13.00
 0.167   15.00 | 3.167    3.00 | 6.167   43.00 |  9.17   13.00
 0.250   15.00 | 3.250    3.00 | 6.250   43.00 |  9.25   13.00
 0.333   15.00 | 3.333    3.00 | 6.333   43.00 |  9.33   13.00
 0.417   15.00 | 3.417    3.00 | 6.417   43.00 |  9.42   13.00
 0.500   15.00 | 3.500    3.00 | 6.500   43.00 |  9.50   13.00
 0.583   15.00 | 3.583    3.00 | 6.583   43.00 |  9.58   13.00
 0.667   15.00 | 3.667    3.00 | 6.667   43.00 |  9.67   13.00
 0.750   15.00 | 3.750    3.00 | 6.750   43.00 |  9.75   13.00
 0.833   15.00 | 3.833    3.00 | 6.833   43.00 |  9.83   13.00
 0.917   15.00 | 3.917    3.00 | 6.917   43.00 |  9.92   13.00
 1.000   15.00 | 4.000    3.00 | 7.000   43.00 | 10.00   13.00
 1.083   20.00 | 4.083    5.00 | 7.083   20.00 | 10.08   13.00
 1.167   20.00 | 4.167    5.00 | 7.167   20.00 | 10.17   13.00
 1.250   20.00 | 4.250    5.00 | 7.250   20.00 | 10.25   13.00
 1.333   20.00 | 4.333    5.00 | 7.333   20.00 | 10.33   13.00
 1.417   20.00 | 4.417    5.00 | 7.417   20.00 | 10.42   13.00
 1.500   20.00 | 4.500    5.00 | 7.500   20.00 | 10.50   13.00
 1.583   20.00 | 4.583    5.00 | 7.583   20.00 | 10.58   13.00
 1.667   20.00 | 4.667    5.00 | 7.667   20.00 | 10.67   13.00
 1.750   20.00 | 4.750    5.00 | 7.750   20.00 | 10.75   13.00
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 1.833   20.00 | 4.833    5.00 | 7.833   20.00 | 10.83   13.00
 1.917   20.00 | 4.917    5.00 | 7.917   20.00 | 10.92   13.00
 2.000   20.00 | 5.000    5.00 | 8.000   20.00 | 11.00   13.00
 2.083   10.00 | 5.083   20.00 | 8.083   23.00 | 11.08    8.00
 2.167   10.00 | 5.167   20.00 | 8.167   23.00 | 11.17    8.00
 2.250   10.00 | 5.250   20.00 | 8.250   23.00 | 11.25    8.00
 2.333   10.00 | 5.333   20.00 | 8.333   23.00 | 11.33    8.00
 2.417   10.00 | 5.417   20.00 | 8.417   23.00 | 11.42    8.00
 2.500   10.00 | 5.500   20.00 | 8.500   23.00 | 11.50    8.00
 2.583   10.00 | 5.583   20.00 | 8.583   23.00 | 11.58    8.00
 2.667   10.00 | 5.667   20.00 | 8.667   23.00 | 11.67    8.00
 2.750   10.00 | 5.750   20.00 | 8.750   23.00 | 11.75    8.00
 2.833   10.00 | 5.833   20.00 | 8.833   23.00 | 11.83    8.00
 2.917   10.00 | 5.917   20.00 | 8.917   23.00 | 11.92    8.00
 3.000   10.00 | 6.000   20.00 | 9.000   23.00 | 12.00    8.00

Max.Eff.Inten.(mm/hr)=      43.00        88.63
      over (min)            10.00        15.00
Storage Coeff.  (min)=       8.05 (ii)   14.89 (ii)
Unit Hyd. Tpeak (min)=      10.00        15.00
Unit Hyd. peak  (cms)=       0.13         0.08
                                                *TOTALS*
PEAK FLOW       (cms)=       0.34         0.58        0.915 (iii)
TIME TO PEAK    (hrs)=       7.00         7.00         7.00
RUNOFF VOLUME    (mm)=     192.00       163.91       173.74
TOTAL RAINFALL   (mm)=     193.00       193.00       193.00
RUNOFF COEFFICIENT   =       0.99         0.85         0.90


   (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
       CN*  =  79.0     Ia = Dep. Storage  (Above)
  (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
       THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB            |
| STANDHYD (  0054)|   Area    (ha)=   8.46
|ID= 1 DT= 5.0 min |   Total Imp(%)=  59.70   Dir. Conn.(%)=  25.90
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                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       5.05         3.41
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       1.59         2.00
     Length            (m)=     237.49        35.00
     Mannings n            =      0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                  ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083   15.00 | 3.083    3.00 | 6.083   43.00 |  9.08   13.00
 0.167   15.00 | 3.167    3.00 | 6.167   43.00 |  9.17   13.00
 0.250   15.00 | 3.250    3.00 | 6.250   43.00 |  9.25   13.00
 0.333   15.00 | 3.333    3.00 | 6.333   43.00 |  9.33   13.00
 0.417   15.00 | 3.417    3.00 | 6.417   43.00 |  9.42   13.00
 0.500   15.00 | 3.500    3.00 | 6.500   43.00 |  9.50   13.00
 0.583   15.00 | 3.583    3.00 | 6.583   43.00 |  9.58   13.00
 0.667   15.00 | 3.667    3.00 | 6.667   43.00 |  9.67   13.00
 0.750   15.00 | 3.750    3.00 | 6.750   43.00 |  9.75   13.00
 0.833   15.00 | 3.833    3.00 | 6.833   43.00 |  9.83   13.00
 0.917   15.00 | 3.917    3.00 | 6.917   43.00 |  9.92   13.00
 1.000   15.00 | 4.000    3.00 | 7.000   43.00 | 10.00   13.00
 1.083   20.00 | 4.083    5.00 | 7.083   20.00 | 10.08   13.00
 1.167   20.00 | 4.167    5.00 | 7.167   20.00 | 10.17   13.00
 1.250   20.00 | 4.250    5.00 | 7.250   20.00 | 10.25   13.00
 1.333   20.00 | 4.333    5.00 | 7.333   20.00 | 10.33   13.00
 1.417   20.00 | 4.417    5.00 | 7.417   20.00 | 10.42   13.00
 1.500   20.00 | 4.500    5.00 | 7.500   20.00 | 10.50   13.00
 1.583   20.00 | 4.583    5.00 | 7.583   20.00 | 10.58   13.00
 1.667   20.00 | 4.667    5.00 | 7.667   20.00 | 10.67   13.00
 1.750   20.00 | 4.750    5.00 | 7.750   20.00 | 10.75   13.00
 1.833   20.00 | 4.833    5.00 | 7.833   20.00 | 10.83   13.00
 1.917   20.00 | 4.917    5.00 | 7.917   20.00 | 10.92   13.00
 2.000   20.00 | 5.000    5.00 | 8.000   20.00 | 11.00   13.00
 2.083   10.00 | 5.083   20.00 | 8.083   23.00 | 11.08    8.00
 2.167   10.00 | 5.167   20.00 | 8.167   23.00 | 11.17    8.00
 2.250   10.00 | 5.250   20.00 | 8.250   23.00 | 11.25    8.00
 2.333   10.00 | 5.333   20.00 | 8.333   23.00 | 11.33    8.00
 2.417   10.00 | 5.417   20.00 | 8.417   23.00 | 11.42    8.00
 2.500   10.00 | 5.500   20.00 | 8.500   23.00 | 11.50    8.00
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 2.583   10.00 | 5.583   20.00 | 8.583   23.00 | 11.58    8.00
 2.667   10.00 | 5.667   20.00 | 8.667   23.00 | 11.67    8.00
 2.750   10.00 | 5.750   20.00 | 8.750   23.00 | 11.75    8.00
 2.833   10.00 | 5.833   20.00 | 8.833   23.00 | 11.83    8.00
 2.917   10.00 | 5.917   20.00 | 8.917   23.00 | 11.92    8.00
 3.000   10.00 | 6.000   20.00 | 9.000   23.00 | 12.00    8.00

Max.Eff.Inten.(mm/hr)=      43.00        74.09
      over (min)            5.00        15.00
Storage Coeff.  (min)=       5.24 (ii)   12.58 (ii)
Unit Hyd. Tpeak (min)=       5.00        15.00
Unit Hyd. peak  (cms)=       0.21         0.08
                                                *TOTALS*
PEAK FLOW       (cms)=       0.26         0.69        0.951 (iii)
TIME TO PEAK    (hrs)=       6.92         7.00         7.00
RUNOFF VOLUME    (mm)=     192.00       159.50       167.92
TOTAL RAINFALL   (mm)=     193.00       193.00       193.00
RUNOFF COEFFICIENT   =       0.99         0.83         0.87


   (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
       CN*  =  79.0     Ia = Dep. Storage  (Above)
  (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
       THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| ADD HYD  (  0055)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)     (cms)    (hrs)     (mm)
      ID1= 1 (  0004):       8.04    0.915     7.00    173.74
    + ID2= 2 (  0054):       8.46    0.951     7.00    167.92
      ==========================================================
      ID = 3 (  0055):      16.50    1.866     7.00    170.75

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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| ADD HYD  (  0060)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
-------------------           (ha)     (cms)    (hrs)     (mm)
      ID1= 1 (  0032):      31.70    2.444     7.00    130.64
    + ID2= 2 (  0055):      16.50    1.866     7.00    170.75
      ==========================================================
      ID = 3 (  0060):      48.20    4.310     7.00    144.37

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  | Junction Command(0025) |
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                           AREA     QPEAK    TPEAK     R.V.
                           (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 1(  0060)   48.20     4.31     7.00    144.37
  OUTFLOW: ID= 2(  0025)   48.20     4.31     7.00    144.37

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| CALIB            |
| NASHYD  (  0110)|   Area    (ha)=   9.49   Curve Number    (CN)= 56.7
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.53   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.25

         NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                  ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083   15.00 | 3.083    3.00 | 6.083   43.00 |  9.08   13.00
 0.167   15.00 | 3.167    3.00 | 6.167   43.00 |  9.17   13.00
 0.250   15.00 | 3.250    3.00 | 6.250   43.00 |  9.25   13.00
 0.333   15.00 | 3.333    3.00 | 6.333   43.00 |  9.33   13.00
 0.417   15.00 | 3.417    3.00 | 6.417   43.00 |  9.42   13.00
 0.500   15.00 | 3.500    3.00 | 6.500   43.00 |  9.50   13.00
 0.583   15.00 | 3.583    3.00 | 6.583   43.00 |  9.58   13.00
 0.667   15.00 | 3.667    3.00 | 6.667   43.00 |  9.67   13.00
 0.750   15.00 | 3.750    3.00 | 6.750   43.00 |  9.75   13.00
 0.833   15.00 | 3.833    3.00 | 6.833   43.00 |  9.83   13.00
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0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Unit Hyd Qpeak (cms)= 1.450

PEAK FLOW	(cms)=	0.625 (i)	
TIME TO PEAK	(hrs)=	7.000	
RUNOFF VOLUME	(mm)=	92.805	
TOTAL RAINFALL	(mm)=	193.000	
RUNOFF COEFFICIENT	=	0.481	

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0062)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0110)	9.49	0.63	7.00	92.81
OUTFLOW: ID= 2(0062)	9.49	0.63	7.00	92.81

CALIB STANDHYD (0028) | ID= 1 DT= 5.0 min | Area (ha)= 6.40 | Total Imp(%)= 50.00 | Dir. Conn.(%)= 50.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	3.20	3.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	206.56	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Max.Eff.Inten.(mm/hr)=		43.00	36.31	
over (min)		10.00	25.00	
Storage Coeff. (min)=		7.52 (ii)	24.73 (ii)	
Unit Hyd. Tpeak (min)=		10.00	25.00	
Unit Hyd. peak (cms)=		0.13	0.05	
				TOTALS
PEAK FLOW	(cms)=	0.38	0.29	0.666 (iii)
TIME TO PEAK	(hrs)=	7.00	7.08	7.00
RUNOFF VOLUME	(mm)=	192.00	138.32	165.16
TOTAL RAINFALL	(mm)=	193.00	193.00	193.00
RUNOFF COEFFICIENT	=	0.99	0.72	0.86

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB STANDHYD (0111) | ID= 1 DT= 5.0 min | Area (ha)= 28.77 | Total Imp(%)= 24.70 | Dir. Conn.(%)= 15.70

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	7.11	21.66
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	437.95	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Max.Eff.Inten.(mm/hr)=		43.00	45.92	
over (min)		5.00	15.00	
Storage Coeff. (min)=		5.27 (ii)	12.54 (ii)	
Unit Hyd. Tpeak (min)=		5.00	15.00	
Unit Hyd. peak (cms)=		0.21	0.08	
				TOTALS
PEAK FLOW	(cms)=	0.09	0.15	0.234 (iii)
TIME TO PEAK	(hrs)=	6.92	7.00	7.00
RUNOFF VOLUME	(mm)=	192.00	103.08	127.26
TOTAL RAINFALL	(mm)=	193.00	193.00	193.00
RUNOFF COEFFICIENT	=	0.99	0.53	0.66

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB STANDHYD (0119) | ID= 1 DT= 5.0 min | Area (ha)= 2.72 | Total Imp(%)= 55.90 | Dir. Conn.(%)= 27.20

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.52	1.20
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	134.66	25.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Max.Eff.Inten.(mm/hr)=		43.00	24.98	
over (min)		10.00	35.00	
Storage Coeff. (min)=		11.80 (ii)	31.80 (ii)	
Unit Hyd. Tpeak (min)=		10.00	35.00	
Unit Hyd. peak (cms)=		0.10	0.03	
				TOTALS
PEAK FLOW	(cms)=	0.54	1.18	1.643 (iii)
TIME TO PEAK	(hrs)=	7.00	7.25	7.00
RUNOFF VOLUME	(mm)=	192.00	83.70	100.70
TOTAL RAINFALL	(mm)=	193.00	193.00	193.00
RUNOFF COEFFICIENT	=	0.99	0.43	0.52

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 49.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0118)

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0111):		28.77	1.643	7.00	100.70
+ ID2= 2 (0119):		2.72	0.234	7.00	127.26
ID = 3 (0118):		31.49	1.877	7.00	103.00

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0118):		31.49	1.877	7.00	103.00
+ ID2= 2 (0025):		48.20	4.310	7.00	144.37
ID = 3 (0001):		79.69	6.187	7.00	128.02

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0001):		79.69	6.187	7.00	128.02
+ ID2= 2 (0028):		6.40	0.666	7.00	165.16
ID = 1 (0001):		86.09	6.853	7.00	130.78

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0001)

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):		86.09	6.853	7.00	130.78
+ ID2= 2 (0062):		9.49	0.625	7.00	92.81
ID = 3 (0001):		95.58	7.479	7.00	127.01

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0002) | IN= 2---> OUT= 1 | DT= 5.0 min | OVERFLOW IS OFF

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.4660	3.2040
0.0000	0.2740	0.4720	3.3550
0.0420	0.5580	2.3890	3.4690
0.0680	0.8520	2.5030	3.5840
0.0860	1.1550	2.8990	3.9750
0.3770	1.4690	4.0830	4.4020
0.3970	1.7940	7.8030	4.8410

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                        0.4160      2.1300   |   13.0620      5.2840
                        0.4340      2.4770   |   19.5770      5.7300
                        0.4500      2.8350   |   27.2220      6.1800

                                    AREA      QPEAK     TPEAK       R.V.
                                     (ha)      (cms)     (hrs)       (mm)
  INFLOW : ID= 2 (  0001)         95.580      7.479     7.00      127.01
  OUTFLOW: ID= 1 (  0002)         95.580      4.730     9.00      124.13

                  PEAK   FLOW   REDUCTION [Qout/Qin](%)= 63.25
                  TIME SHIFT OF PEAK FLOW          (min)=120.00
                  MAXIMUM  STORAGE   USED        (ha.m.)=  4.4892

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| DIVERTHYD(  0123)|
| IN= 1   # OUT= 5 |
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     Outflow / Inflow  Relationships

      Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total
       (cms)    (cms)    (cms)    (cms)    (cms)    (cms)
        0.00     0.00     0.00     0.00     0.00     0.00
        0.00     0.00     0.00     0.00     0.00     0.00
        0.00     0.00     0.00     0.00     0.00     0.00
        0.04     0.00     0.00     0.00     0.00     0.04
        0.07     0.00     0.00     0.00     0.00     0.07
        0.09     0.00     0.00     0.00     0.00     0.09
        0.10     0.28     0.00     0.00     0.00     0.38
        0.12     0.28     0.00     0.00     0.00     0.40
        0.13     0.29     0.00     0.00     0.00     0.42
        0.14     0.30     0.00     0.00     0.00     0.43
        0.15     0.30     0.00     0.00     0.00     0.45
        0.16     0.31     0.00     0.00     0.00     0.47
        0.16     0.31     0.00     0.00     0.00     0.47
        0.16     2.23     0.00     0.00     0.00     2.39
        0.17     2.34     0.00     0.00     0.00     2.50
        0.17     2.73     0.00     0.00     0.00     2.90
        0.18     2.93     0.00     0.00     0.00     3.11
                    OUTFLOW TABLES EXCEEDED

                                AREA      QPEAK     TPEAK     R.V.
                                 (ha)      (cms)     (hrs)     (mm)
    TOTAL HYD.(ID= 1):         95.58      4.73      9.00   124.13
    ==========================================================
    ID= 2  (   2)    :        18.72      0.27      9.00   124.13
    ID= 3  (   2)    :        76.86      4.46      9.00   124.13
    ID= 4  (   2)    :         0.00      0.00      0.00     0.00
    ID= 5  (   2)    :         0.00      0.00      0.00     0.00
    ID= 6  (   2)    :         0.00      0.00      0.00     0.00
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  | Junction Command(0124) |
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                                AREA      QPEAK     TPEAK     R.V.
                                 (ha)      (cms)     (hrs)     (mm)
  INFLOW : ID= 1(  0123)       18.72      0.27      9.00   124.13
  OUTFLOW: ID= 2(  0124)       18.72      0.27      9.00   124.13

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| CALIB            |
| NASHYD   (  0130)|   Area    (ha)=   5.38   Curve Number   (CN)= 46.8
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.05   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.87

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
     TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
      hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
    0.083   15.00 | 3.083    3.00 | 6.083   43.00 |  9.08   13.00
    0.167   15.00 | 3.167    3.00 | 6.167   43.00 |  9.17   13.00
    0.250   15.00 | 3.250    3.00 | 6.250   43.00 |  9.25   13.00
    0.333   15.00 | 3.333    3.00 | 6.333   43.00 |  9.33   13.00
    0.417   15.00 | 3.417    3.00 | 6.417   43.00 |  9.42   13.00
    0.500   15.00 | 3.500    3.00 | 6.500   43.00 |  9.50   13.00
    0.583   15.00 | 3.583    3.00 | 6.583   43.00 |  9.58   13.00
    0.667   15.00 | 3.667    3.00 | 6.667   43.00 |  9.67   13.00
    0.750   15.00 | 3.750    3.00 | 6.750   43.00 |  9.75   13.00
    0.833   15.00 | 3.833    3.00 | 6.833   43.00 |  9.83   13.00
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    0.917   15.00 | 3.917    3.00 | 6.917   43.00 |  9.92   13.00
    1.000   15.00 | 4.000    3.00 | 7.000   43.00 | 10.00   13.00
    1.083   20.00 | 4.083    5.00 | 7.083   20.00 | 10.08   13.00
    1.167   20.00 | 4.167    5.00 | 7.167   20.00 | 10.17   13.00
    1.250   20.00 | 4.250    5.00 | 7.250   20.00 | 10.25   13.00
    1.333   20.00 | 4.333    5.00 | 7.333   20.00 | 10.33   13.00
    1.417   20.00 | 4.417    5.00 | 7.417   20.00 | 10.42   13.00
    1.500   20.00 | 4.500    5.00 | 7.500   20.00 | 10.50   13.00
    1.583   20.00 | 4.583    5.00 | 7.583   20.00 | 10.58   13.00
    1.667   20.00 | 4.667    5.00 | 7.667   20.00 | 10.67   13.00
    1.750   20.00 | 4.750    5.00 | 7.750   20.00 | 10.75   13.00
    1.833   20.00 | 4.833    5.00 | 7.833   20.00 | 10.83   13.00
    1.917   20.00 | 4.917    5.00 | 7.917   20.00 | 10.92   13.00
    2.000   20.00 | 5.000    5.00 | 8.000   20.00 | 11.00   13.00
    2.083   10.00 | 5.083   20.00 | 8.083   23.00 | 11.08    8.00
    2.167   10.00 | 5.167   20.00 | 8.167   23.00 | 11.17    8.00
    2.250   10.00 | 5.250   20.00 | 8.250   23.00 | 11.25    8.00
    2.333   10.00 | 5.333   20.00 | 8.333   23.00 | 11.33    8.00
    2.417   10.00 | 5.417   20.00 | 8.417   23.00 | 11.42    8.00
    2.500   10.00 | 5.500   20.00 | 8.500   23.00 | 11.50    8.00
    2.583   10.00 | 5.583   20.00 | 8.583   23.00 | 11.58    8.00
    2.667   10.00 | 5.667   20.00 | 8.667   23.00 | 11.67    8.00
    2.750   10.00 | 5.750   20.00 | 8.750   23.00 | 11.75    8.00
    2.833   10.00 | 5.833   20.00 | 8.833   23.00 | 11.83    8.00
    2.917   10.00 | 5.917   20.00 | 8.917   23.00 | 11.92    8.00
    3.000   10.00 | 6.000   20.00 | 9.000   23.00 | 12.00    8.00

    Unit Hyd Qpeak  (cms)=   0.236

    PEAK FLOW       (cms)=   0.193 (i)
    TIME TO PEAK    (hrs)=   7.667
    RUNOFF VOLUME    (mm)=  73.473
    TOTAL RAINFALL   (mm)= 193.000
    RUNOFF COEFFICIENT   =   0.381

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB            |
| STANDHYD (  0132)|   Area    (ha)=   0.69
|ID= 1 DT= 5.0 min |   Total Imp(%)=  42.00   Dir. Conn.(%)=   3.00
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                        IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=      0.29          0.40
    Dep. Storage     (mm)=      1.00          5.00
    Average Slope     (%)=      0.50          2.00
    Length            (m)=     67.82        170.00
    Mannings n           =     0.013         0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
     TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
      hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
    0.083   15.00 | 3.083    3.00 | 6.083   43.00 |  9.08   13.00
    0.167   15.00 | 3.167    3.00 | 6.167   43.00 |  9.17   13.00
    0.250   15.00 | 3.250    3.00 | 6.250   43.00 |  9.25   13.00
    0.333   15.00 | 3.333    3.00 | 6.333   43.00 |  9.33   13.00
    0.417   15.00 | 3.417    3.00 | 6.417   43.00 |  9.42   13.00
    0.500   15.00 | 3.500    3.00 | 6.500   43.00 |  9.50   13.00
    0.583   15.00 | 3.583    3.00 | 6.583   43.00 |  9.58   13.00
    0.667   15.00 | 3.667    3.00 | 6.667   43.00 |  9.67   13.00
    0.750   15.00 | 3.750    3.00 | 6.750   43.00 |  9.75   13.00
    0.833   15.00 | 3.833    3.00 | 6.833   43.00 |  9.83   13.00
    0.917   15.00 | 3.917    3.00 | 6.917   43.00 |  9.92   13.00
    1.000   15.00 | 4.000    3.00 | 7.000   43.00 | 10.00   13.00
    1.083   20.00 | 4.083    5.00 | 7.083   20.00 | 10.08   13.00
    1.167   20.00 | 4.167    5.00 | 7.167   20.00 | 10.17   13.00
    1.250   20.00 | 4.250    5.00 | 7.250   20.00 | 10.25   13.00
    1.333   20.00 | 4.333    5.00 | 7.333   20.00 | 10.33   13.00
    1.417   20.00 | 4.417    5.00 | 7.417   20.00 | 10.42   13.00
    1.500   20.00 | 4.500    5.00 | 7.500   20.00 | 10.50   13.00
    1.583   20.00 | 4.583    5.00 | 7.583   20.00 | 10.58   13.00
    1.667   20.00 | 4.667    5.00 | 7.667   20.00 | 10.67   13.00
    1.750   20.00 | 4.750    5.00 | 7.750   20.00 | 10.75   13.00
    1.833   20.00 | 4.833    5.00 | 7.833   20.00 | 10.83   13.00
    1.917   20.00 | 4.917    5.00 | 7.917   20.00 | 10.92   13.00
    2.000   20.00 | 5.000    5.00 | 8.000   20.00 | 11.00   13.00
    2.083   10.00 | 5.083   20.00 | 8.083   23.00 | 11.08    8.00
    2.167   10.00 | 5.167   20.00 | 8.167   23.00 | 11.17    8.00
    2.250   10.00 | 5.250   20.00 | 8.250   23.00 | 11.25    8.00
    2.333   10.00 | 5.333   20.00 | 8.333   23.00 | 11.33    8.00
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    2.417   10.00 | 5.417   20.00 | 8.417   23.00 | 11.42    8.00
    2.500   10.00 | 5.500   20.00 | 8.500   23.00 | 11.50    8.00
    2.583   10.00 | 5.583   20.00 | 8.583   23.00 | 11.58    8.00
    2.667   10.00 | 5.667   20.00 | 8.667   23.00 | 11.67    8.00
    2.750   10.00 | 5.750   20.00 | 8.750   23.00 | 11.75    8.00
    2.833   10.00 | 5.833   20.00 | 8.833   23.00 | 11.83    8.00
    2.917   10.00 | 5.917   20.00 | 8.917   23.00 | 11.92    8.00
    3.000   10.00 | 6.000   20.00 | 9.000   23.00 | 12.00    8.00

    Max.Eff.Inten.(mm/hr)=      43.00         45.73
              over (min)          5.00         30.00
    Storage Coeff.  (min)=       3.49 (ii)   26.49 (ii)
    Unit Hyd. Tpeak (min)=       5.00         30.00
    Unit Hyd. peak  (cms)=       0.26          0.04
                                                      *TOTALS*
    PEAK FLOW       (cms)=       0.00          0.04          0.044 (iii)
    TIME TO PEAK    (hrs)=       6.67          7.17           7.17
    RUNOFF VOLUME    (mm)=     192.00        103.72         106.35
    TOTAL RAINFALL   (mm)=     193.00        193.00         193.00
    RUNOFF COEFFICIENT   =       0.99          0.54           0.55

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
             YOU SHOULD CONSIDER SPLITTING THE AREA.

      (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
          CN*  =  49.0    Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
    (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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  | Junction Command(0131) |
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                                AREA      QPEAK     TPEAK     R.V.
                                 (ha)      (cms)     (hrs)     (mm)
  INFLOW : ID= 2(  0132)         0.69      0.04      7.17   106.35
  OUTFLOW: ID= 2(  0131)         0.69      0.04      7.17   106.35

  ------------------------------------------------------------------------------------------

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| ADD HYD  (  0129)|
|   1 +  2 =  3    |          AREA     QPEAK     TPEAK      R.V.
--------------------           (ha)      (cms)     (hrs)      (mm)
       ID1= 1 (  0124):      18.72     0.271      9.00    124.13
     + ID2= 2 (  0130):       5.38     0.193      7.67     73.47
       ================================================
       ID = 3 (  0129):      24.10     0.451      9.08    112.82

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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--------------------
| ADD HYD  (  0129)|
|   3 +  2 =  1    |          AREA     QPEAK     TPEAK      R.V.
--------------------           (ha)      (cms)     (hrs)      (mm)
       ID1= 3 (  0129):      24.10     0.451      9.08    112.82
     + ID2= 2 (  0131):       0.69     0.044      7.17    106.35
       ================================================
       ID = 1 (  0129):      24.79     0.484      7.67    112.64

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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  --------------------------
  | Junction Command(0128) |
  --------------------------

                                AREA      QPEAK     TPEAK     R.V.
                                 (ha)      (cms)     (hrs)     (mm)
  INFLOW : ID= 10(  0123)       76.86      4.46      9.00   124.13
  OUTFLOW: ID= 2(  0128)        76.86      4.46      9.00   124.13

  ------------------------------------------------------------------------------------------

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| CALIB            |
| NASHYD   (  0109)|   Area    (ha)= 120.60   Curve Number   (CN)= 73.3
|ID= 1 DT= 5.0 min |   Ia      (mm)=   6.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.06
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        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
     TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
      hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
    0.083   15.00 | 3.083    3.00 | 6.083   43.00 |  9.08   13.00
    0.167   15.00 | 3.167    3.00 | 6.167   43.00 |  9.17   13.00
    0.250   15.00 | 3.250    3.00 | 6.250   43.00 |  9.25   13.00
    0.333   15.00 | 3.333    3.00 | 6.333   43.00 |  9.33   13.00
    0.417   15.00 | 3.417    3.00 | 6.417   43.00 |  9.42   13.00
    0.500   15.00 | 3.500    3.00 | 6.500   43.00 |  9.50   13.00
    0.583   15.00 | 3.583    3.00 | 6.583   43.00 |  9.58   13.00
    0.667   15.00 | 3.667    3.00 | 6.667   43.00 |  9.67   13.00
    0.750   15.00 | 3.750    3.00 | 6.750   43.00 |  9.75   13.00
    0.833   15.00 | 3.833    3.00 | 6.833   43.00 |  9.83   13.00
    0.917   15.00 | 3.917    3.00 | 6.917   43.00 |  9.92   13.00
    1.000   15.00 | 4.000    3.00 | 7.000   43.00 | 10.00   13.00
    1.083   20.00 | 4.083    5.00 | 7.083   20.00 | 10.08   13.00
    1.167   20.00 | 4.167    5.00 | 7.167   20.00 | 10.17   13.00
    1.250   20.00 | 4.250    5.00 | 7.250   20.00 | 10.25   13.00
    1.333   20.00 | 4.333    5.00 | 7.333   20.00 | 10.33   13.00
    1.417   20.00 | 4.417    5.00 | 7.417   20.00 | 10.42   13.00
    1.500   20.00 | 4.500    5.00 | 7.500   20.00 | 10.50   13.00
    1.583   20.00 | 4.583    5.00 | 7.583   20.00 | 10.58   13.00
    1.667   20.00 | 4.667    5.00 | 7.667   20.00 | 10.67   13.00
    1.750   20.00 | 4.750    5.00 | 7.750   20.00 | 10.75   13.00
    1.833   20.00 | 4.833    5.00 | 7.833   20.00 | 10.83   13.00
    1.917   20.00 | 4.917    5.00 | 7.917   20.00 | 10.92   13.00
    2.000   20.00 | 5.000    5.00 | 8.000   20.00 | 11.00   13.00
    2.083   10.00 | 5.083   20.00 | 8.083   23.00 | 11.08    8.00
    2.167   10.00 | 5.167   20.00 | 8.167   23.00 | 11.17    8.00
    2.250   10.00 | 5.250   20.00 | 8.250   23.00 | 11.25    8.00
    2.333   10.00 | 5.333   20.00 | 8.333   23.00 | 11.33    8.00
    2.417   10.00 | 5.417   20.00 | 8.417   23.00 | 11.42    8.00
    2.500   10.00 | 5.500   20.00 | 8.500   23.00 | 11.50    8.00
    2.583   10.00 | 5.583   20.00 | 8.583   23.00 | 11.58    8.00
    2.667   10.00 | 5.667   20.00 | 8.667   23.00 | 11.67    8.00
    2.750   10.00 | 5.750   20.00 | 8.750   23.00 | 11.75    8.00
    2.833   10.00 | 5.833   20.00 | 8.833   23.00 | 11.83    8.00
    2.917   10.00 | 5.917   20.00 | 8.917   23.00 | 11.92    8.00
    3.000   10.00 | 6.000   20.00 | 9.000   23.00 | 12.00    8.00

    Unit Hyd Qpeak  (cms)=   4.346

    PEAK FLOW       (cms)=   7.071 (i)
    TIME TO PEAK    (hrs)=   7.833
    RUNOFF VOLUME    (mm)= 124.302
    TOTAL RAINFALL   (mm)= 193.000
    RUNOFF COEFFICIENT   =   0.644

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB            |
| STANDHYD (  0106)|   Area    (ha)=   1.58
|ID= 1 DT= 5.0 min |   Total Imp(%)=  30.20   Dir. Conn.(%)=   0.10
--------------------

                        IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=      0.48          1.10
    Dep. Storage     (mm)=      1.00          5.00
    Average Slope     (%)=      0.36          2.00
    Length            (m)=    102.63         90.00
    Mannings n           =     0.013         0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                        ---- TRANSFORMED HYETOGRAPH ----
     TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
      hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
    0.083   15.00 | 3.083    3.00 | 6.083   43.00 |  9.08   13.00
    0.167   15.00 | 3.167    3.00 | 6.167   43.00 |  9.17   13.00
    0.250   15.00 | 3.250    3.00 | 6.250   43.00 |  9.25   13.00
    0.333   15.00 | 3.333    3.00 | 6.333   43.00 |  9.33   13.00
    0.417   15.00 | 3.417    3.00 | 6.417   43.00 |  9.42   13.00
    0.500   15.00 | 3.500    3.00 | 6.500   43.00 |  9.50   13.00
    0.583   15.00 | 3.583    3.00 | 6.583   43.00 |  9.58   13.00
    0.667   15.00 | 3.667    3.00 | 6.667   43.00 |  9.67   13.00
    0.750   15.00 | 3.750    3.00 | 6.750   43.00 |  9.75   13.00
    0.833   15.00 | 3.833    3.00 | 6.833   43.00 |  9.83   13.00
    0.917   15.00 | 3.917    3.00 | 6.917   43.00 |  9.92   13.00
    1.000   15.00 | 4.000    3.00 | 7.000   43.00 | 10.00   13.00
```

1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Max.Eff.Inten.(mm/hr)=		43.00	55.78
over (min)		5.00	20.00
Storage Coeff. (min)=		4.94 (ii)	19.44 (ii)
Unit Hyd. Tpeak (min)=		5.00	20.00
Unit Hyd. peak (cms)=		0.22	0.06
			TOTALS
PEAK FLOW	(cms)=	0.00	0.16 (iii)
TIME TO PEAK	(hrs)=	6.67	7.00
RUNOFF VOLUME	(mm)=	192.00	151.73
TOTAL RAINFALL	(mm)=	193.00	193.00
RUNOFF COEFFICIENT	=	0.99	0.79

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0107)
ID= 1 DT= 5.0 min

Area (ha)= 0.72
Total Imp(%)= 45.60 Dir. Conn.(%)= 3.50

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.33	0.39
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.36	2.00
Length	(m)=	69.28	90.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	15.00	3.083	3.00	6.083	43.00	9.08	13.00
0.167	15.00	3.167	3.00	6.167	43.00	9.17	13.00
0.250	15.00	3.250	3.00	6.250	43.00	9.25	13.00
0.333	15.00	3.333	3.00	6.333	43.00	9.33	13.00
0.417	15.00	3.417	3.00	6.417	43.00	9.42	13.00
0.500	15.00	3.500	3.00	6.500	43.00	9.50	13.00
0.583	15.00	3.583	3.00	6.583	43.00	9.58	13.00
0.667	15.00	3.667	3.00	6.667	43.00	9.67	13.00
0.750	15.00	3.750	3.00	6.750	43.00	9.75	13.00
0.833	15.00	3.833	3.00	6.833	43.00	9.83	13.00
0.917	15.00	3.917	3.00	6.917	43.00	9.92	13.00
1.000	15.00	4.000	3.00	7.000	43.00	10.00	13.00
1.083	20.00	4.083	5.00	7.083	20.00	10.08	13.00
1.167	20.00	4.167	5.00	7.167	20.00	10.17	13.00
1.250	20.00	4.250	5.00	7.250	20.00	10.25	13.00
1.333	20.00	4.333	5.00	7.333	20.00	10.33	13.00
1.417	20.00	4.417	5.00	7.417	20.00	10.42	13.00
1.500	20.00	4.500	5.00	7.500	20.00	10.50	13.00
1.583	20.00	4.583	5.00	7.583	20.00	10.58	13.00
1.667	20.00	4.667	5.00	7.667	20.00	10.67	13.00
1.750	20.00	4.750	5.00	7.750	20.00	10.75	13.00
1.833	20.00	4.833	5.00	7.833	20.00	10.83	13.00
1.917	20.00	4.917	5.00	7.917	20.00	10.92	13.00
2.000	20.00	5.000	5.00	8.000	20.00	11.00	13.00
2.083	10.00	5.083	20.00	8.083	23.00	11.08	8.00
2.167	10.00	5.167	20.00	8.167	23.00	11.17	8.00
2.250	10.00	5.250	20.00	8.250	23.00	11.25	8.00
2.333	10.00	5.333	20.00	8.333	23.00	11.33	8.00
2.417	10.00	5.417	20.00	8.417	23.00	11.42	8.00
2.500	10.00	5.500	20.00	8.500	23.00	11.50	8.00
2.583	10.00	5.583	20.00	8.583	23.00	11.58	8.00
2.667	10.00	5.667	20.00	8.667	23.00	11.67	8.00
2.750	10.00	5.750	20.00	8.750	23.00	11.75	8.00
2.833	10.00	5.833	20.00	8.833	23.00	11.83	8.00
2.917	10.00	5.917	20.00	8.917	23.00	11.92	8.00
3.000	10.00	6.000	20.00	9.000	23.00	12.00	8.00

Max.Eff.Inten.(mm/hr)=		43.00	71.08
over (min)		5.00	20.00
Storage Coeff. (min)=		3.90 (ii)	17.06 (ii)
Unit Hyd. Tpeak (min)=		5.00	20.00
Unit Hyd. peak (cms)=		0.25	0.06
			TOTALS
PEAK FLOW	(cms)=	0.00	0.07 (iii)
TIME TO PEAK	(hrs)=	6.75	7.00
RUNOFF VOLUME	(mm)=	192.00	158.47
TOTAL RAINFALL	(mm)=	193.00	193.00
RUNOFF COEFFICIENT	=	0.99	0.82

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 79.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0029)
1 + 2 = 3

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0106):		1.58	0.160	7.00	151.77
+ ID2= 2 (0107):		0.72	0.077	7.00	159.63
ID = 3 (0029):		2.30	0.238	7.00	154.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0029)
3 + 2 = 1

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0029):		2.30	0.238	7.00	154.23
+ ID2= 2 (0109):		120.60	7.071	7.83	124.30
ID = 1 (0029):		122.90	7.204	7.83	124.86

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0122)
1 + 2 = 3

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0128):		76.86	4.459	9.00	124.13
+ ID2= 2 (0029):		122.90	7.204	7.83	124.86
ID = 3 (0122):		199.76	11.416	7.83	124.58

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0135)
1 + 2 = 3

		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0122):		199.76	11.416	7.83	124.58
+ ID2= 2 (0129):		24.79	0.484	7.67	112.64
ID = 3 (0135):		224.55	11.897	7.83	123.26

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

APPENDIX E

SWM Facility Calculations

CROZIER CONSULTING ENGINEERS

Project: 1953-6040
Project No.: Nottawa
Design by: JGB
Date: 2025.11.11

SWM Facility - Stage Storage Outflow Calculations

Outlet Structure #1	
E.D. Orifice Diameter:	0.275 m
E.D. Orifice Invert Elevation:	213.8 m
V- Notch Weir Angle (degrees)	0
V-Notch Weir Constant	0.00
V-Notch Weir Invert	0 m
Secondary Orifice Diameter	0 m
Secondary Orifice Invert	0 m
Rectangular Orifice Height	0 m
Rectangular Orifice Width	0 m
Rectangular Orifice Invert	0 m
Rectangular Weir Invert	0 m
Lower Rectangular Weir Width	0.00 m
Lower Rectanular Weir Invert	0.00 m
Upper Rectangular Weir Width	0.00 m
Upper Rectanular Weir Invert	0.00 m

Outlet Structure #2	
Rectangular Weir Width	1.48 m
Rectangular Weir Invert	214.08 m
Emergency Spillway Elev.	215.05 m
Spilway Bottom Width	37 m
Trapezoidal Side Slopes	0.1:1
Secondary Orifice Diameter	0.3 m
Secondary Orifice Invert	212.26 m
Secondary Orifice Diameter	0 m
Secondary Orifice Invert	0 m

Eliptical By-Pass Pipe

Water Quality Volume/ED Elevation	214.08

	Pond Dimensions					Outlet Structure Discharge										
	Elev. (m)	Depth Above PP (m)	Depth 2nd Orifice (m)	Area (sqm)	Storage Volume (cu.m)	ED Orifice Discharge (cu.m/s)	V-Notch Weir Discharge (cu.m/s)	Rectangular Weir Discharge (cu.m/s)	Rectangular Weir Discharge (cu.m/s)	Secondary Orifice Discharge (cu.m/s)	Rectangular Weir Discharge (cu.m/s)	Rectangular Orifice Discharge (cu.m/s)	Spillway Width (m)	Spillway Discharge (cu.m/s)	Storage (ha-m)	Total Discharge (cu.m/s)
PP	213.80	0.00	0.00	26934	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000
	213.90	0.10	0.00	27908	2742	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.274	0.000
	214.00	0.20	0.00	28882	5582	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.558	0.042
	214.10	0.30	0.00	29856	8519	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.852	0.068
ED	214.20	0.40	0.00	30830	11553	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.155	0.086
2nd Orifice Engages	214.30	0.50	2.04	31935	14691	0.10	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	1.469	0.377
	214.40	0.60	2.14	33041	17940	0.11	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	1.794	0.397
	214.50	0.70	2.24	34146	21299	0.13	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	2.130	0.416
	214.60	0.80	2.34	35251	24769	0.14	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	2.477	0.434
	214.70	0.90	2.44	36356	28349	0.15	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	2.835	0.450
	214.80	1.00	2.54	37461	32040	0.16	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	3.204	0.466
	214.84	1.04	2.58	37903	33548	0.16	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	3.355	0.472
Rectangular Weir Engages	214.87	1.07	2.61	38235	34690	0.16	0.00	1.91	0.00	0.31	0.00	0.00	0.00	0.00	3.469	2.389
	214.90	1.10	2.64	38566	35842	0.17	0.00	2.02	0.00	0.32	0.00	0.00	0.00	0.00	3.584	2.503
100YR SCS	215.00	1.20	2.74	39671	39753	0.17	0.00	2.40	0.00	0.32	0.00	0.00	0.00	0.00	3.975	2.899
Spillway	215.05	1.25	2.79	43549	41834	0.18	0.00	2.60	0.00	0.33	0.00	0.00	37.00	0.00	4.183	3.105
	215.10	1.30	2.84	43732	44016	0.18	0.00	2.81	0.00	0.33	0.00	0.00	37.30	0.77	4.402	4.083
	215.20	1.40	2.94	44099	48408	0.19	0.00	3.23	0.00	0.33	0.00	0.00	37.90	4.05	4.841	7.803
	215.30	1.50	3.04	44465	52836	0.20	0.00	3.67	0.00	0.34	0.00	0.00	38.50	8.85	5.284	13.062
	215.40	1.60	3.14	44831	57301	0.20	0.00	4.13	0.00	0.35	0.00	0.00	39.10	14.90	5.730	19.577
TOB	215.50	1.70	3.24	45197	61802	0.21	0.00	4.61	0.00	0.35	0.00	0.00	39.70	22.05	6.180	27.222

Notes:
1. Secondary orifice does not engage until 214.30 due to grading around structure.
2. Rectangular weir does not engage until 214.87 m due to grading around structure.

CROZIER CONSULTING ENGINEERS

Project #: 1953-6040
Project: Nottawa
Date: 2025.03.24
Updated: 2025.10.27
By / Check: HR, JGB / HB

Water Quality Requirements for Wet Pond

Areas Contributing	Area (ha)	% Imp	25mm RV (mm)	25mm RV (m^3)
Nottawa Development				
EXT West	3.62	26.6	6.64	240
EXT NW - East (Developed)	9.49	15.7	2.19	208
EXT NW - West (Developed)	28.77	24.7	5.52	1587
EXT NW - SouthEast (Developed)	0.33	0.0	1.57	5
Central Channel	4.92	11.6	4.41	217
Northern Channel	0.78	19.2	4.59	36
Northwest Channel	1.00	24.0	2.25	22
North Ditch	0.20	10.0	1.94	4
Phase 1 East	8.46	59.7	13.35	1130
Future East 1	8.04	70.0	15.60	1254
Outparcel	1.06	6.6	2.01	21
Phase 1 West	5.31	39.7	9.40	499
Future West 1	9.07	64.7	10.53	955
Future West 2	5.41	70.0	11.72	634
SWMF	6.40	50.0	15.17	971
57 Batteaux Road				
202	2.72	55.9	9.01	245
WEIGHTED IMP	**95.58**	**40**		**8028**

MOE Total WQ Volume (m^3/ha)	151
MOE ED Volume (m^3/ha)	40
MOE ED Volume (m^3)	3823
MOE PP Volume (m^3/ha)	111
MOE PP Volume (m^3)	10638
Pond Required ED Volume (m^3)	8028
Pond Required PP Volume (m^3)	10638
Available ED Volume (m^3)	11553
Provided PP Volume (m^3)	32958

CROZIER
CONSULTING ENGINEERS

Project: Nottawa
Project No.: 1953-6040
Design by: HR
Date: 2025.10.27
Check By: HB

EXTENDED DETENTION SPECIFICATIONS - SWM FACILITY (PER MECP)

Extended Detention Volume (Area x runoff from 25mm storm event)		8028
t (drawdown time - seconds, *hours in italics*)	*48.0*	172800
Ao (cross section area of orifice - sqm)		0.0594
h (maximum water elevation above orifice for extended detention- m)		0.28
C (discharge coefficient)		0.64
Ap (average surface area for extended detention - sqm)		28354

t = 2*Ap*(h^0.5)/(C*Ao*(g*2)^0.5)

Ao = 0.06125713 sqm

d= 279 mm

Extended Detention Orifice Diameter (as designed) d= **275** mm

APPENDIX F

Enhanced Swale Conveyance Capacity

57 Batteaux Swale - Report

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.030	
Channel Slope	0.30000	%
Left Side Slope	3.00	m/m (H:V)
Right Side Slope	3.00	m/m (H:V)
Bottom Width	1.00	m
Discharge	0.71	m³/s

Results

Normal Depth	0.42	m
Flow Area	10.27	ft²
Wetted Perimeter	12.02	ft
Hydraulic Radius	0.26	m
Top Width	11.57	ft
Critical Depth	0.92	ft
Critical Slope	0.01598	ft/ft
Velocity	2.44	ft/s
Velocity Head	0.09	ft
Specific Energy	1.48	ft
Froude Number	0.46	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	m
Length	0.00	m
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	m
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.42	m
Critical Depth	0.92	ft
Channel Slope	0.30000	%
Critical Slope	0.01598	ft/ft

Messages

Notes

100-yr SCS Flow from Catchment 202

57 Batteaux Swale - Cross Section

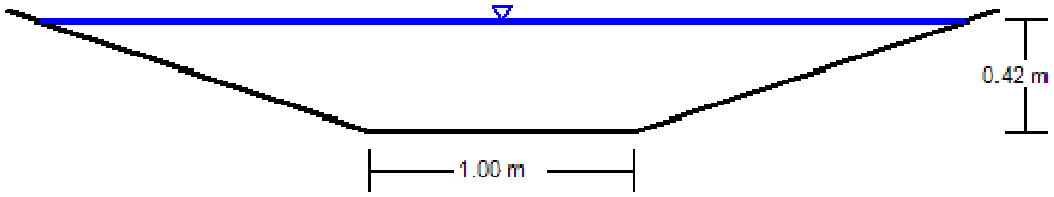
Project Description

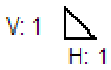
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.030	
Channel Slope	0.30000	%
Normal Depth	0.42	m
Left Side Slope	3.00	m/m (H:V)
Right Side Slope	3.00	m/m (H:V)
Bottom Width	1.00	m
Discharge	0.71	m³/s

Cross Section Image





57 Batteaux + McKean Channel - Report

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.00300	m/m
Discharge	3.75	m³/s

Section Definitions

Station (m)	Elevation (m)
0+00	215.15
0+03	214.09
0+04	214.09
0+08	215.15

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 215.15)	(0+08, 215.15)	0.030

Options

Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	0.88	m
Elevation Range	214.09 to 215.15 m	
Flow Area	3.32	m²
Wetted Perimeter	6.84	m
Hydraulic Radius	0.49	m
Top Width	6.57	m
Normal Depth	0.88	m
Critical Depth	0.64	m
Critical Slope	0.01279	m/m

57 Batteaux + McKean Channel - Report

Results

Velocity		1.13	m/s
Velocity Head		0.06	m
Specific Energy		0.94	m
Froude Number		0.51	
Flow Type	Subcritical		

GVF Input Data

Downstream Depth	0.00	m
Length	0.00	m
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	m
Profile Description		
Profile Headloss	0.00	m
Downstream Velocity	Infinity	m/s
Upstream Velocity	Infinity	m/s
Normal Depth	0.88	m
Critical Depth	0.64	m
Channel Slope	0.00300	m/m
Critical Slope	0.01279	m/m

57 Batteaux + McKean Channel - Cross Section

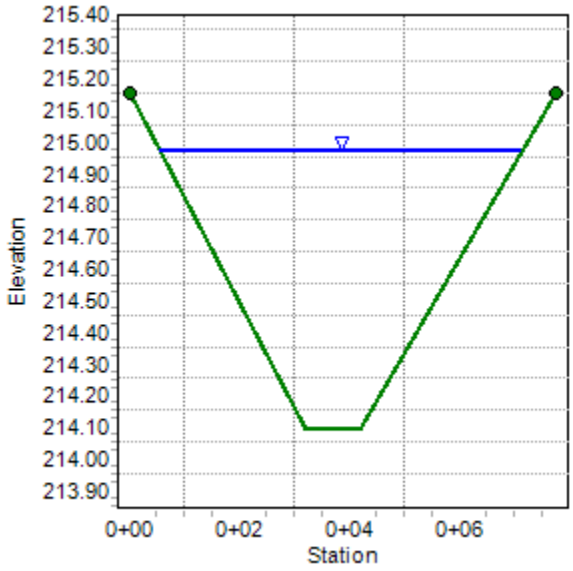
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.00300	m/m
Normal Depth	0.88	m
Discharge	3.75	m³/s

Cross Section Image



Culvert Calculator Report
Walkway Culvert

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	215.15	m	Headwater Depth/Height	1.33	
Computed Headwater Elev	215.15	m	Discharge	1.1292	m³/s
Inlet Control HW Elev.	215.15	m	Tailwater Elevation	214.31	m
Outlet Control HW Elev.	215.15	m	Control Type	Outlet Control	

Grades					
Upstream Invert	214.34	m	Downstream Invert	214.31	m
Length	8.72	m	Constructed Slope	0.3440	%

Hydraulic Profile					
Profile	M2		Depth, Downstream	0.49	m
Slope Type	Mild		Normal Depth	N/A	m
Flow Regime	Subcritical		Critical Depth	0.49	m
Velocity Downstream	2.25	m/s	Critical Slope	0.6894	%

Section					
Section Shape	Circular		Mannings Coefficient	0.012	
Section Material	HDPE (Smooth Interior)		Span	0.61	m
Section Size	600 mm		Rise	0.61	m
Number Sections	2				

Outlet Control Properties					
Outlet Control HW Elev.	215.15	m	Upstream Velocity Head	0.20	m
Ke	0.20		Entrance Loss	0.04	m

Inlet Control Properties					
Inlet Control HW Elev.	215.15	m	Flow Control	N/A	
Inlet Type	Groove end projecting		Area Full	0.6	m²
K	0.00450		HDS 5 Chart	1	
M	2.00000		HDS 5 Scale	3	
C	0.03170		Equation Form	1	
Y	0.69000				

Culvert Calculator Report
North Forebay

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	215.15	m	Headwater Depth/Height	1.04	
Computed Headwater Eleva	215.15	m	Discharge	4.0766	m³/s
Inlet Control HW Elev.	215.08	m	Tailwater Elevation	0.00	m
Outlet Control HW Elev.	215.15	m	Control Type	Outlet Control	

Grades					
Upstream Invert	213.88	m	Downstream Invert	213.80	m
Length	25.41	m	Constructed Slope	0.3148	%

Hydraulic Profile					
Profile	M2		Depth, Downstream	0.78	m
Slope Type	Mild		Normal Depth	0.90	m
Flow Regime	Subcritical		Critical Depth	0.78	m
Velocity Downstream	2.58	m/s	Critical Slope	0.4558	%

Section					
Section Shape	Circular		Mannings Coefficient	0.013	
Section Material	CMP		Span	1.22	m
Section Size	1200 mm		Rise	1.22	m
Number Sections	2				

Outlet Control Properties					
Outlet Control HW Elev.	215.15	m	Upstream Velocity Head	0.27	m
Ke	0.50		Entrance Loss	0.13	m

Inlet Control Properties					
Inlet Control HW Elev.	215.08	m	Flow Control	Unsubmerged	
Inlet Type	Headwall		Area Full	2.3	m²
K	0.00780		HDS 5 Chart	2	
M	2.00000		HDS 5 Scale	1	
C	0.03790		Equation Form	1	
Y	0.69000				

APPENDIX G

Water Balance

Project Name: 57 Batteaux Road
Project No: 1953-6180
Modelled By: CB
Checked By:
Date: 6-Feb-2026

Water Budget - Pre-Development
Project Name: 57 Batteaux Road
Water Balance/Water Budget Assessment

Pre-development area available for infiltration (landscaped/lawn area considered to infiltrate)
Pre-development area not available for infiltration (total site area less landscaped area noted above)
Remaining Impervious area (e.g. parking asphalt area, building/rooftop area)

Note: site land use areas consistent with Pre-Development SWM hydrologic modeling & calculations

Catchment Designation	Site - Pre-Development			
	Pervious Area	Impervious	Road Area	Totals
Area (m^2)	32700	400	700	33800
Pervious Area (m^2)	32700			32700
Impervious Area (m^2)		400	700	1100
Infiltration Factors				
Topography Infiltration Factor	0.2	0.2	0.2	
Soil Infiltration Factor	0.4	0.4	0.4	
Land Cover Infiltration Factor	0.1	0.1	0.1	
MOE Infiltration Factor	0.7	0.7	0.7	
Actual Infiltration Factor	0.7	0.00	0.00	
Run-off Coefficient	0.25	0.9	0.9	
Runoff from Impervious Surfaces *	0	0.72	0.72	
Inputs (per Unit Area)				
Precipitation (mm/yr)	992	992	992	992
Run-On (mm/yr)	0	0	0	0
Other Inputs (mm/yr)	0	0	0	0
Total Inputs (mm/yr)	**992**	**992**	**992**	**992**
Outputs (per Unit Area)				
Precipitation Surplus (mm/yr)	414	714	714	424
Net Surplus (mm/yr)	414	714	714	424
Evapotranspiration (mm/yr) *	578	198	198	565
Infiltration (mm/yr)	290	0	0	281
Soakaway Infiltration (mm/yr)	0	0	0	0
Total Infiltration (mm/yr)	290	0	0	281
Runoff Pervious Areas (mm/yr)	124	0	0	120
Runoff Impervious Areas (mm/yr)	0	794	794	26
Total Runoff (mm/yr)	124	794	794	146
Total Outputs (mm/yr)	**992**	**992**	**992**	**992**
Difference (Inputs- Outputs)	**0**	**0**	**0**	**0**
Inputs (Volumes)				
Precipitation (m^3/yr)	32438	397	694	33530
Run-On (m^3/yr)	0	0	0	0
Other Inputs (m^3/yr)	0	0	0	0
Total Inputs (m^3/yr)	**32438**	**397**	**694**	**33530**
Outputs (Volumes)				
Precipitation Surplus (m^3/yr)	13553	286	500	14339
Net Surplus (m^3/yr)	13553	286	500	14339
Evapotranspiration (m^3/yr) *	18885	79	139	19103
Infiltration (m^3/yr)	9487	0	0	9487
Soakaway Infiltration (m^3/yr)	0	0	0	0
Total Infiltration (m^3/yr)	9487	0	0	9487
Runoff Pervious Areas (m^3/yr)	4066	0	0	4066
Runoff Impervious Areas (m^3/yr)	0	317	556	873
Total Runoff (m^3/yr)	4066	317	556	4939
Total Outputs (m^3/yr)	**32438**	**397**	**694**	**33530**
Difference (Inputs- Outputs)	**0**	**0**	**0**	**0**

NOTES:
* Evaporation from impervious areas was assumed to be 20% of precipitation.

CROZIER

Project Name: 57 Batteaux Road
Project No: 1953-6180
Modelled By: CB
Checked By:
Date: 6-Feb-2026

Water Budget - Post-Development *without Mitigation*
Project Name: 57 Batteaux Road
Water Balance/Water Budget Assessment

Post-development area available for infiltration (landscaped/lawn area considered to infiltrate)
Post-development area not available for infiltration (total site area less landscaped area noted above)
Remaining Impervious area (e.g. parking asphalt area, building/rooftop area)

Note: site land use areas consistent with Post-Development SWM hydrologic modeling & calculations

Catchment Designation	Site - Post-Development			
	Pervious Area	Impervious Block & Building Area	Impervious Road Area	Totals
Area (m^2)	15300	10500	8000	33800
Pervious Area (m^2)	15300			15300
Impervious Area (m^2)		10500	8000	18500
Infiltration Factors				
Topography Infiltration Factor	0.2	0.2	0.2	
Soil Infiltration Factor	0.4	0.4	0.4	
Land Cover Infiltration Factor	0.1	0.1	0.1	
MOE Infiltration Factor	0.7	0.7	0.70	
Actual Infiltration Factor	0.7	0.00	0.00	
Run-off Coefficient	0.25	0.9	0.9	
Runoff from Impervious Surfaces *	0	0.72	0.72	
Inputs (per Unit Area)				
Precipitation (mm/yr)	992	992	992	992
Run-On (mm/yr)	0	0	0	0
Other Inputs (mm/yr)	0	0	0	0
Total Inputs (mm/yr)	**992**	**992**	**992**	**992**
Outputs (per Unit Area)				
Precipitation Surplus (mm/yr)	414	714	714	579
Net Surplus (mm/yr)	414	714	714	579
Evapotranspiration (mm/yr) *	578	198	198	370
Infiltration (mm/yr)	290	0	0	131
Soakaway Infiltration (mm/yr)	0	0	0	0
Total Infiltration (mm/yr)	290	0	0	131
Runoff Pervious Areas (mm/yr)	124	0	0	56
Runoff Impervious Areas (mm/yr)	0	794	794	434
Total Runoff (mm/yr)	124	794	794	491
Total Outputs (mm/yr)	**992**	**992**	**992**	**992**
Difference (Inputs- Outputs)	**0**	**0**	**0**	**0**
Inputs (Volumes)				
Precipitation (m^3/yr)	15178	10416	7936	33530
Run-On (m^3/yr)	0	0	0	0
Other Inputs (m^3/yr)	0	0	0	0
Total Inputs (m^3/yr)	**15178**	**10416**	**7936**	**33530**
Outputs (Volumes)				
Precipitation Surplus (m^3/yr)	6341	7500	5714	19555
Net Surplus (m^3/yr)	6341	7500	5714	19555
Evapotranspiration (m^3/yr) *	8836	2083	1587	12507
Infiltration (m^3/yr)	4439	0	0	4439
Soakaway Infiltration (m^3/yr)	0	0	0	0
Total Infiltration (m^3/yr)	4439	0	0	4439
Runoff Pervious Areas (m^3/yr)	1902	0	0	1902
Runoff Impervious Areas (m^3/yr)	0	8333	6349	14682
Total Runoff (m^3/yr)	1902	8333	6349	16584
Total Outputs (m^3/yr)	**15178**	**10416**	**7936**	**33530**
Difference (Inputs- Outputs)	**0**	**0**	**0**	**0**

Pre-Development Total Infiltration:
9487 m3/yr

NOTES:
* Evaporation from impervious areas was assumed to be 20% of precipitation.

CROZIER

Project: 57 Batteaux Road
Project No: 1953-6180
Modelled By: CB
Checked By:
Date: 6-Feb-2026

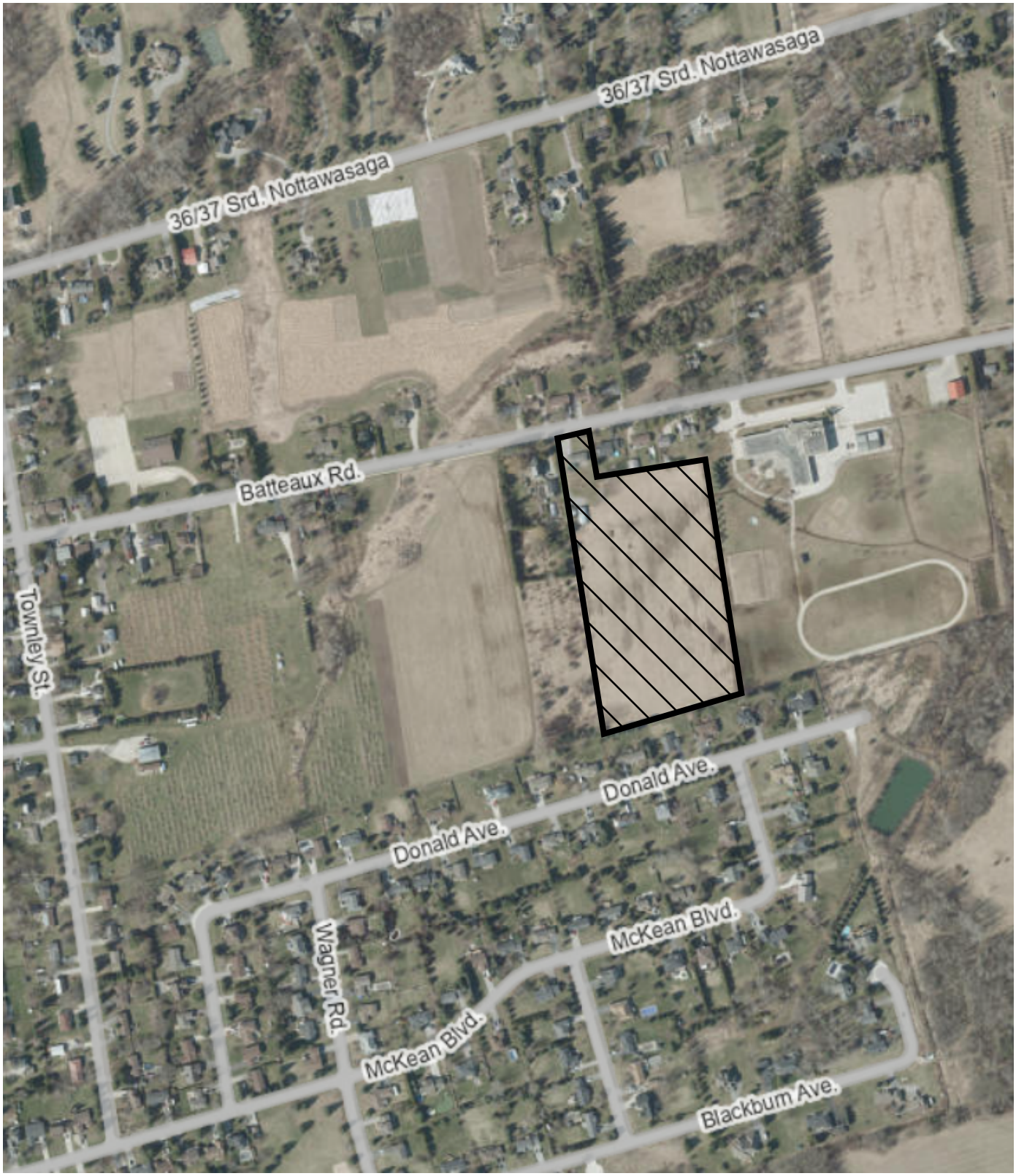
Water Budget Summary
Project Name: 57 Batteaux Road
Water Balance/Water Budget Assessment

Characteristic	Site			
	Pre-Development	Post-Development	Change (Pre to Post)	Change (Pre to Post)
Inputs (Volumes)				
Precipitation (m^3/yr)	33530	33530	0%	0
Run-On (m^3/yr)	0	0	0%	0
Other inputs (m^3/yr)	0	0	0%	0
Total Inputs (m^3/yr)	**33530**	**33530**	**0**	**0**
Outputs (Volumes)				
Precipitation Surplus (m^3/yr)	14339	19555	36%	5216
Net Surplus (m^3/yr)	14339	19555	36%	5216
Evapotranspiration (m^3/yr)	19103	12507	-35%	-6597
Infiltration (m^3/yr)	9487	4439	-53%	-5048
Soakaway Infiltration (m^3/yr)	0	0	-	**0**
Total Infiltration (m^3/yr)	**9487**	**4439**	-53%	-5048
Runoff Pervious Areas (m^3/yr)	4066	1902	-53%	-2164
Runoff Impervious Areas (m^3/yr)	873	14682	-	13809
Total Runoff (m^3/yr)	4939	16584	236%	11645
Total Outputs (m^3/yr)	**33530**	**33530**	0%	0

FIGURES & DRAWINGS

Figure 1:	Site Location Plan
Figure 2:	Draft Plan
Figure 3:	External Sanitary Servicing Route
Figure 4:	Pre-Development Drainage Plan
***Figure 5:**	Nottawa Development Overall Subwatershed Pre-Development Drainage Plan
Figure 6:	Post-Development Drainage Plan
***Figure 7:**	Nottawa Development Post-Development Drainage Plan
Drawings C101A:	General Servicing Plan
Drawings C101B:	Nottawa School Overall Servicing Plan
Drawings C102A-B:	Grading Plan

*Previously submitted as part of the Nottawa Development SWM Implementation Report (Crozier, April 2025)



Legend

= SUBJECT LANDS

Project

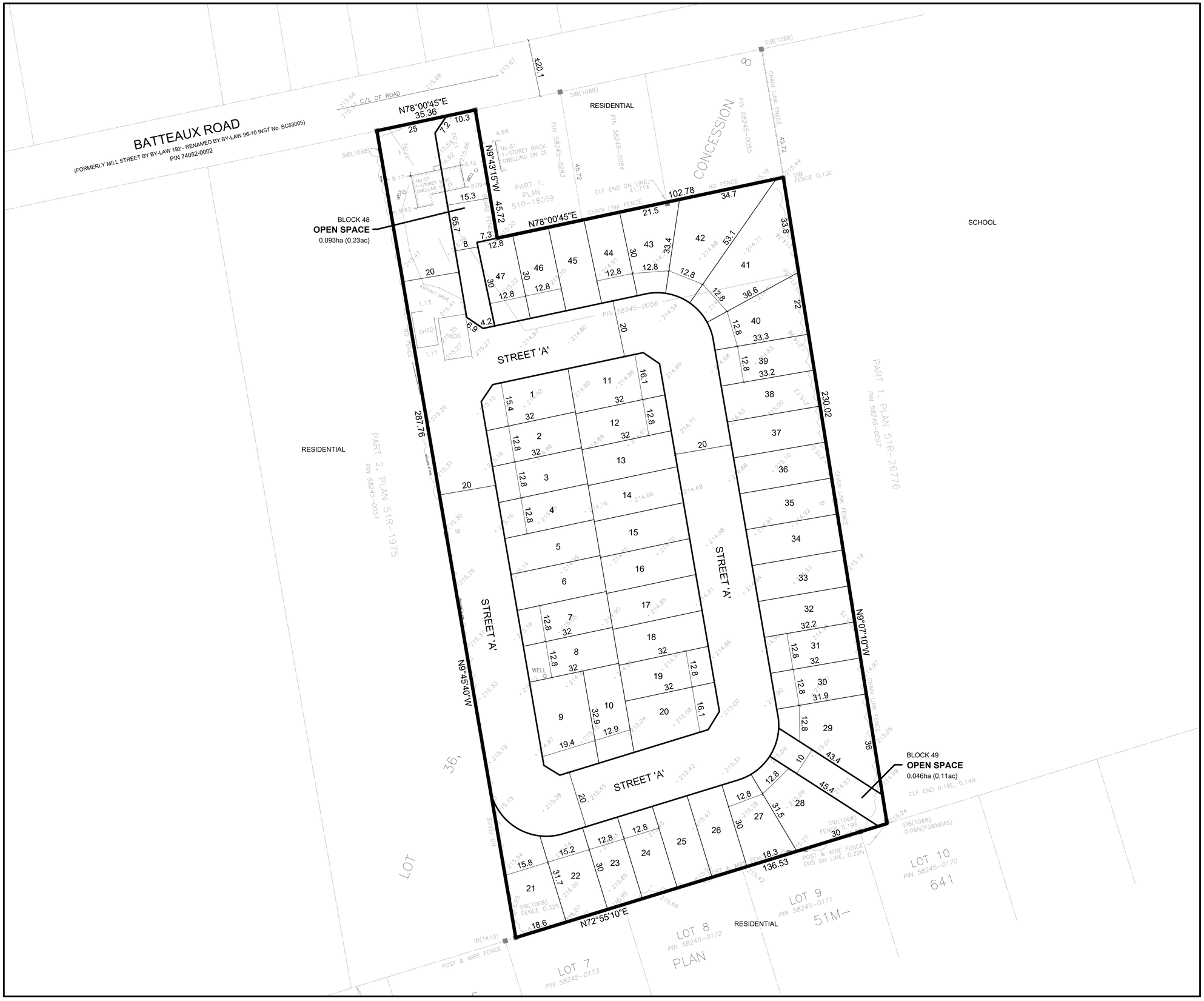
57 BATTEAUX ROAD

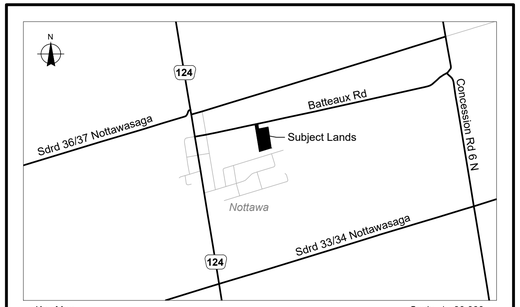
Drawing

SITE LOCATION PLAN

CROZIER CONSULTING ENGINEERS

Drawn By	Design By	Project	1953-6180
Scale N.T.S.	Date	Check By	Drawing FIG. 1





Key Map — Scale 1 : 30,000

DRAFT PLAN OF SUBDIVISION

PART 1, PLAN 51R-1975
PART OF LOT 36, CONCESSION 8
(FORMER GEOGRAPHIC TOWNSHIP OF NOTTAWASAGA)
TOWNSHIP OF CLEARVIEW, COUNTY OF SIMCOE

LAND USE SCHEDULE

LAND USE	LOT/BLOCK	UNITS	AREA ha	AREA ac	AREA %
RESIDENTIAL	1 - 47	47	2.148	5.31	63.5
OPEN SPACE	48 & 49		0.139	0.34	4.1
STREET 'A'			1.097	2.71	32.4
TOTAL	**49**	**47**	**3.384**	**8.36**	**100.0**

ADDITIONAL INFORMATION REQUIRED UNDER SECTION 51(17) OF THE PLANNING ACT

a) AS SHOWN
b) AS SHOWN
c) AS SHOWN
d) AS SHOWN
e) AS SHOWN
f) AS SHOWN
f1) NONE
g) AS SHOWN
h) MUNICIPAL WATER
i) TIOGA SANDY LOAM
j) AS SHOWN
f) AS SHOWN
k) FULL MUNICIPAL SERVICES
l) AS SHOWN

TOWNSHIP OF CLEARVIEW APPROVAL

APPROVED IN ACCORDANCE WITH SECTION 51(31) OF THE *PLANNING ACT*, RSO, 1990, CHAPTER P.13, AS AMENDED,

THIS _____ DAY OF _____, 20_____.

OWNER'S CERTIFICATE

NOTTAWA LIMITED PARTNERSHIP, BEING THE REGISTERED OWNER OF THE SUBJECT LANDS, HEREBY AUTHORIZES CELESTE PHILLIPS PLANNING INC. TO PREPARE AND SUBMIT A DRAFT PLAN OF SUBDIVISION FOR APPROVAL.

DATE: _____

DAVID BUNSTON, PRESIDENT
NOTTAWA LIMITED PARTNERSHIP

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LAND TO BE SUBDIVIDED AND THEIR RELATIONSHIP TO THE ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN ON THIS PLAN.

DATE: JANUARY 20, 2026

PIER DE ROSA,O.L.S.
J.D. BARNES LIMITED

No.	DATE	REVISION	BY

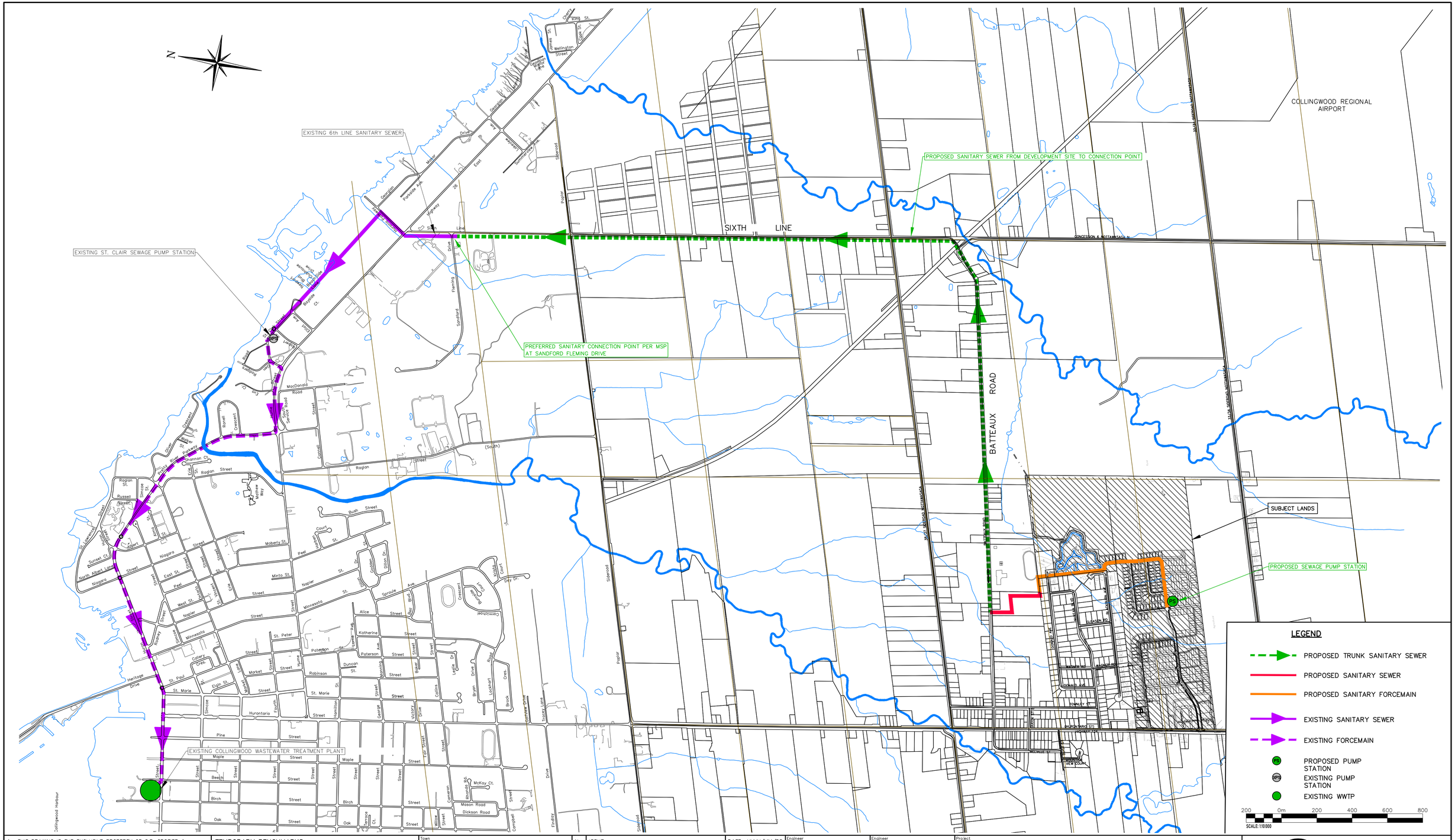
STAMP

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Scale 1 : 600

Date: January 20, 2026
Drawn By: AM
Checked By: CP

N

celeste PHILLIPS PLANNING INC.
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celeste@cplan.ca



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TEMPORARY BENCHMARKS

TBM#1–
TBM#2–
TBM#3–

***ADD REFERENCE TO SURVEY/SOURCE

Town

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Engineer

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

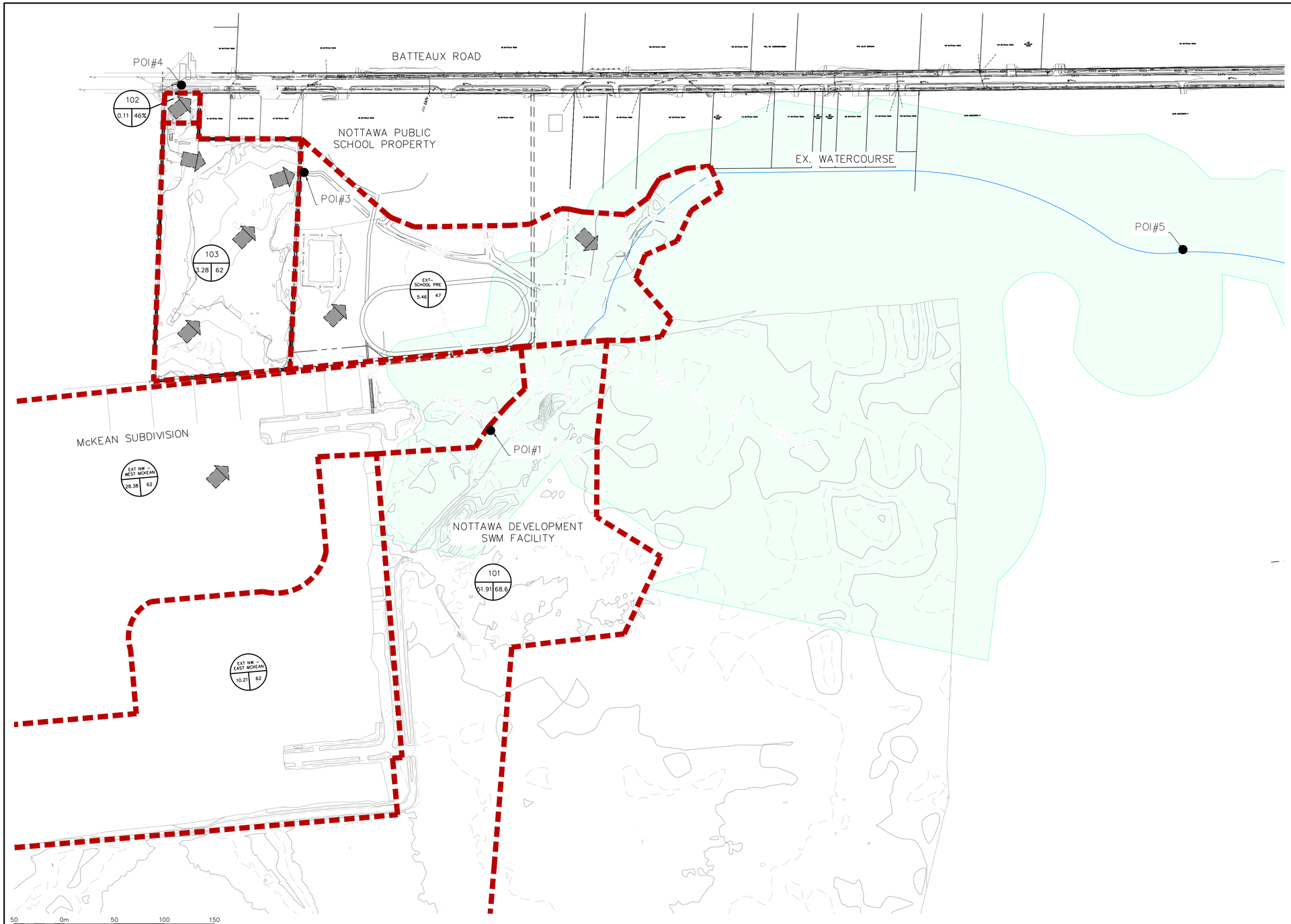
Engineer

Project: NOTTAWA DEVELOPMENT
TOWNSHIP OF CLEARVIEW/
TOWN OF COLLINGWOOD

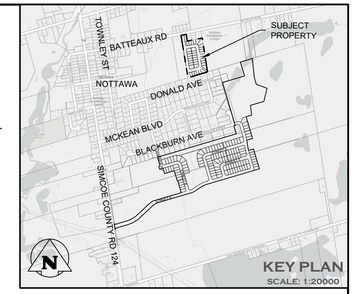
Drawing: EXTERNAL SERVICING ROUTE
SANITARY

CROZIER CONSULTING ENGINEERS

Drawn By	Design By	Project
J.O., D.K.		1953–6040
Check By	Check By	Drawing
P.W., J.L.		FIG. 3







LEGEND

- PROPERTY LIMITS
- EXISTING ROAD NETWORK
- EXISTING CONTURS (m)
- CATCHMENT BOUNDARY
- OVERLAND FLOW DIRECTION
- ID — CATCHMENT IDENTIFICATION
- AREA CN/IMP — COMPOSITE CURVE NUMBER (NASHYD)/PERCENT IMPERVIOUS (STANHYD)
- CATCHMENT AREA (ha)

NOTE:
1. CONTOURS SOURCE (OUTSIDE SUBJECT LANDS): SURVEY JD BARNES SEPT 2022 & JOE TOPO MARCH 2024.
2. CONTOURS SOURCE (INSIDE SUBJECT LANDS): SURVEY JD BARNES FEB 26, 2025.
3. MCKEAN DEVELOPMENT MODELLED IN UNDEVELOPED CONDITIONS.

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Town

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Engineer

Engineer

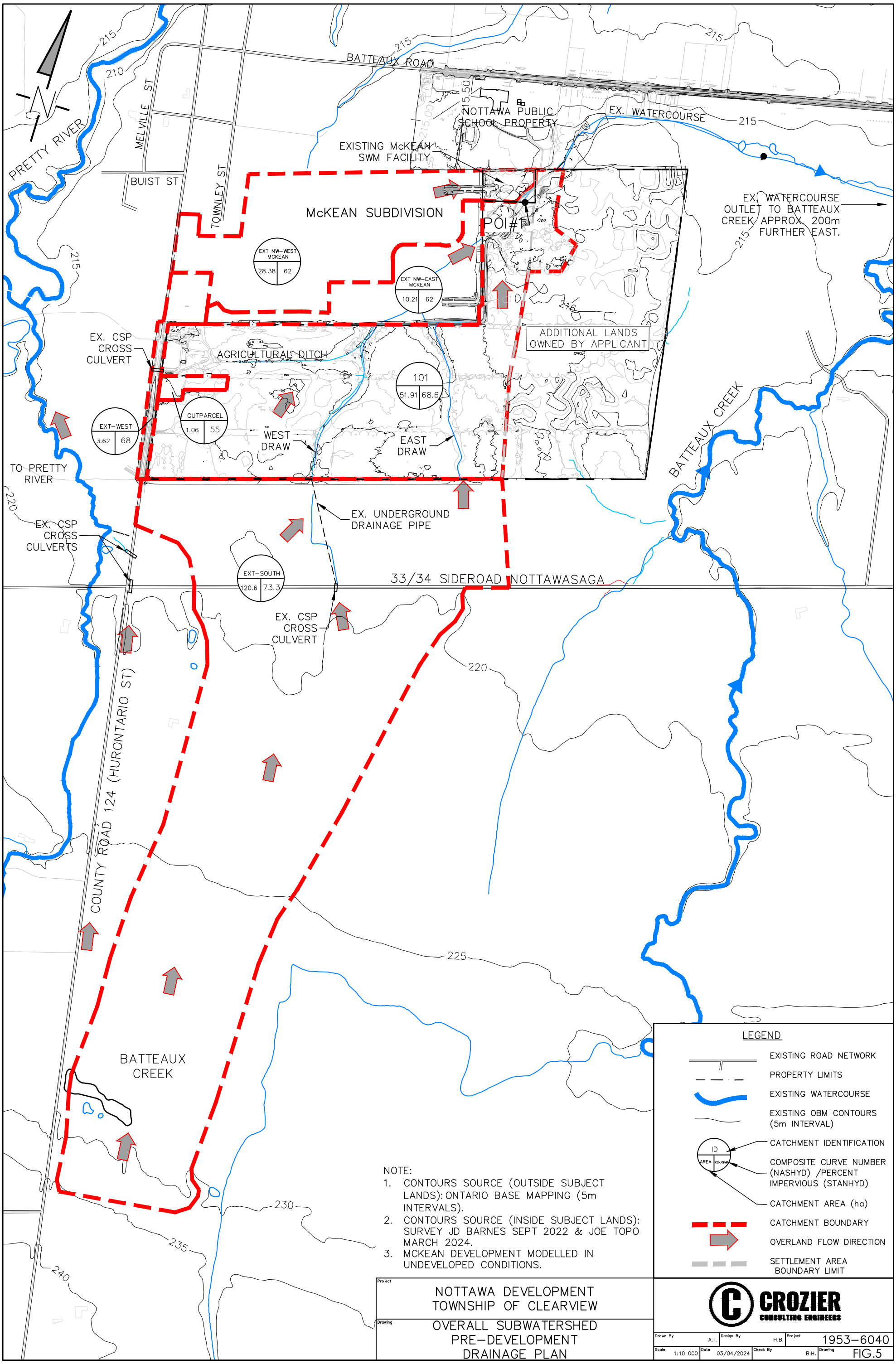
Project
57 BATTEAUX ROAD
TOWNSHIP OF CLEARVIEW

Drawing
PRE-DEVELOPMENT DRAINAGE PLAN

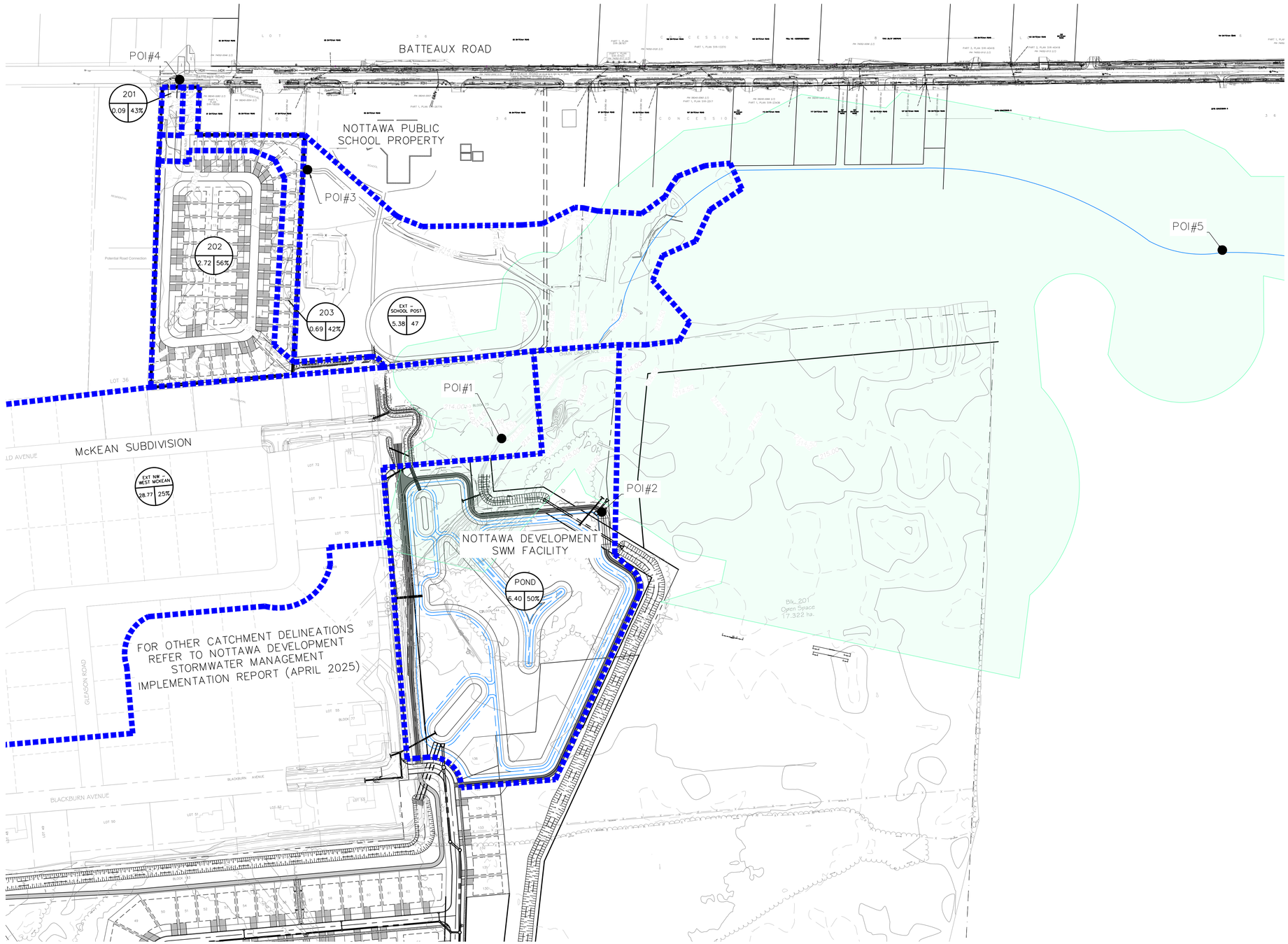
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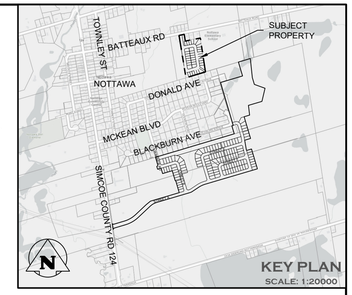
Drawn By	Design By	Project
V.P.	V.P./A.M./A.W.	1953-6180
Check By	Check By	Drawing
A.W./R.W.	A.W./R.W.	FIG4

C:\Users\oparovyk\DC\ACCDocs\Crozier Consulting Engineers\1953-6180 - 57 Batteaux Rd\Project Files\Civil_Sheets\FIG\6180_FIG4_PRE DR.dwg, FIG4, 2026-02-18 4:09:42 PM, oparovyk



File Last Updated: Tue, 25 Mar 2025
Drawing: C:\USERS\ATESHCHUK\DC\ACCDOCS\CROZIER CONSULTING ENGINEERS\1953-6040 - NOTTAWA DEVELOPMENT\PROJECT FILES\CIVIL_SHEETS\FIGS\6040_FIG3AB.DWG, Layout Tab:FIG3A





LEGEND

- PROPERTY LIMITS
- EXISTING ROAD NETWORK
- EXISTING CONTURS (m)
- CATCHMENT BOUNDARY

ID
AREA CN/IMP

- CATCHMENT IDENTIFICATION
- COMPOSITE CURVE NUMBER (NASHYD)/PERCENT IMPERVIOUS (STANHYD)
- CATCHMENT AREA (ha)

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Engineer

Engineer

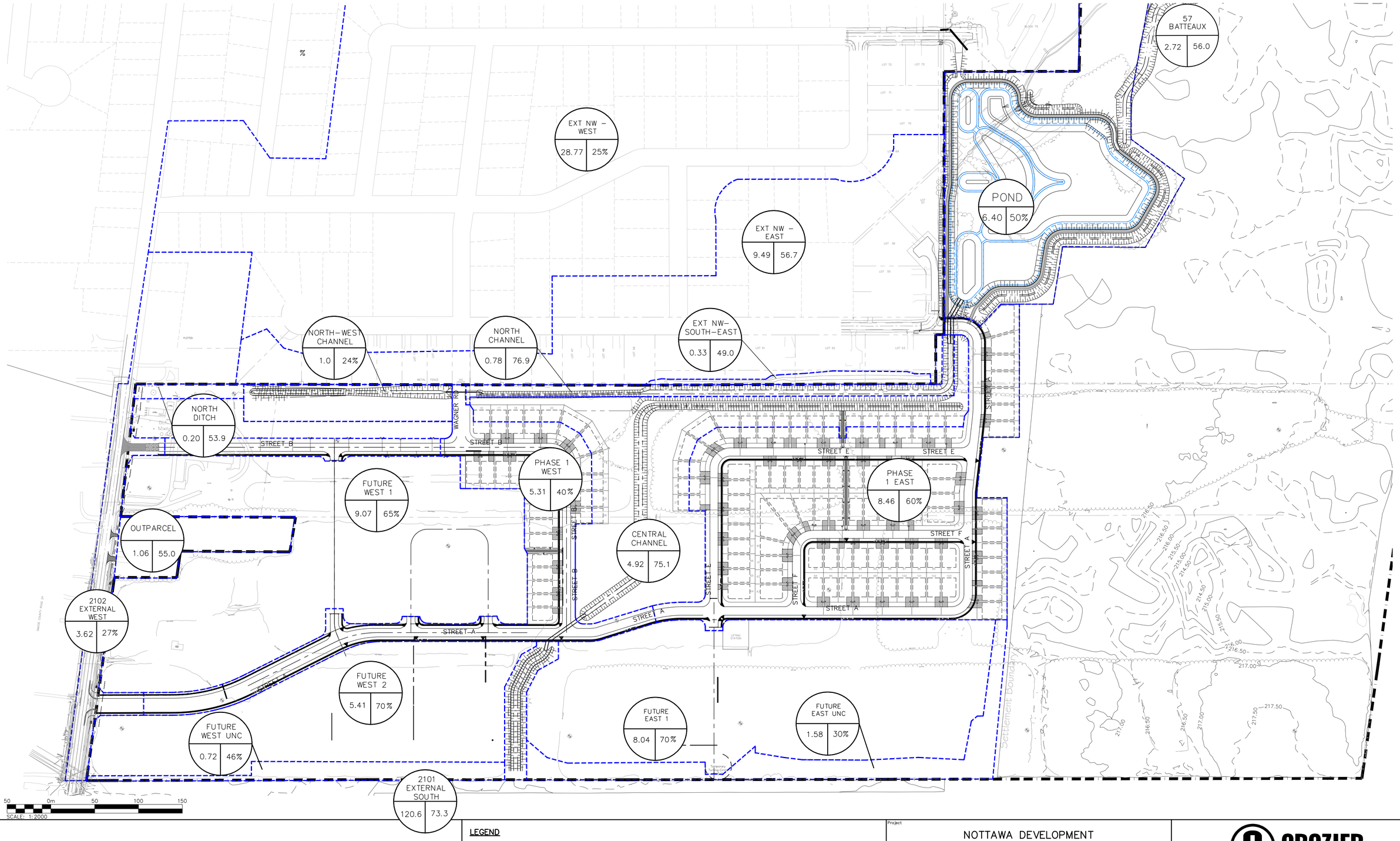
Project
57 BATTEAUX ROAD
TOWNSHIP OF CLEARVIEW

Drawing
POST DEVELOPMENT
DRAINAGE PLAN

CROZIER

Drawn By	Design By	Project
V.P.	V.P./A.M./A.W.	1953-6180
Check By	Check By	Drawing
A.W./R.W.	A.W./R.W.	FIG6

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LEGEND

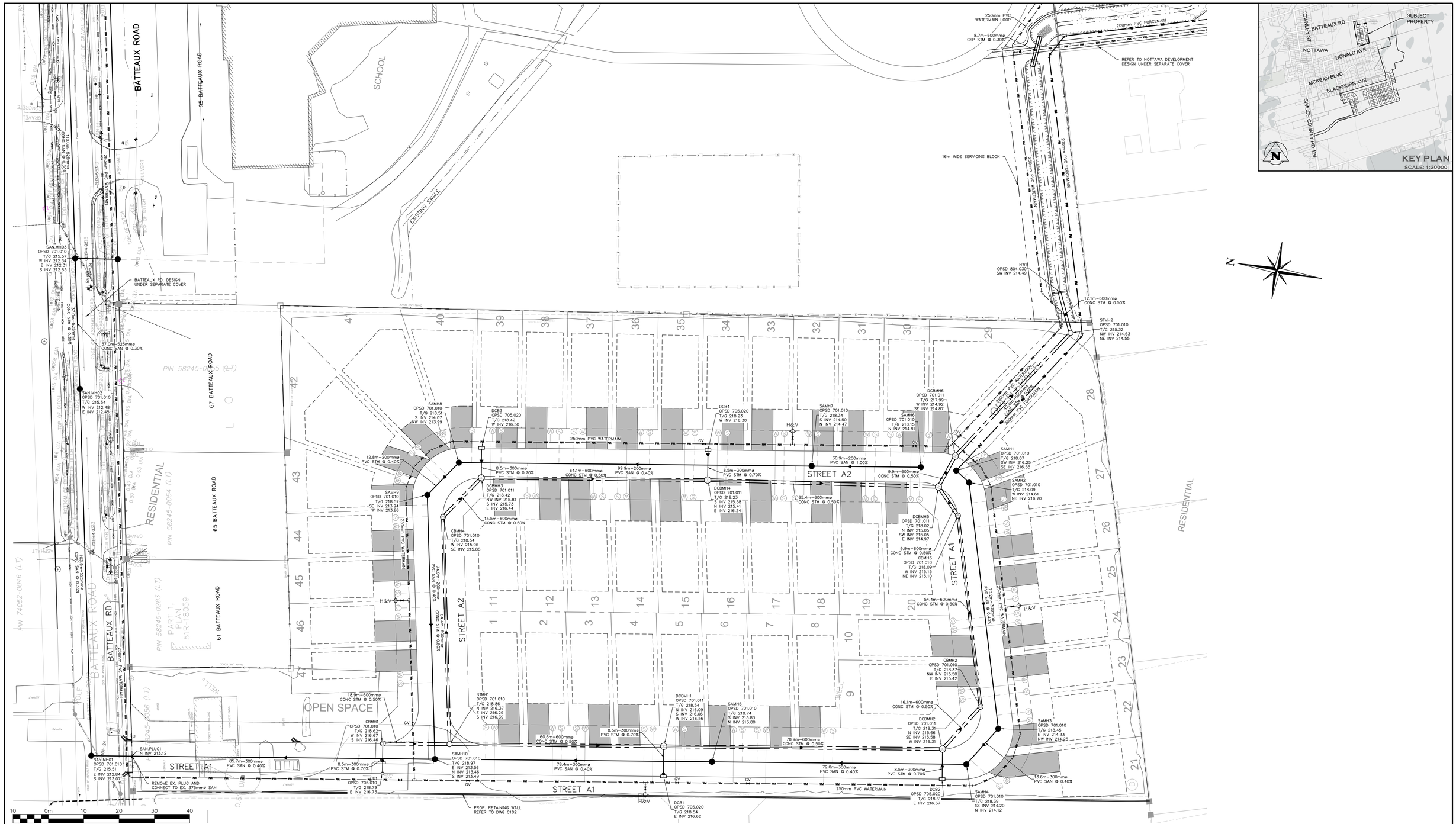
- STORM CATCHMENT
- CATCHMENT IDENTIFICATION
- COMPOSITE CURVE NUMBER (NASHYD) /PERCENT IMPERVIOUS (STANHYD)
- CATCHMENT AREA (ha)
- EXISTING CONTOURS (m)
- PROPERTY LIMIT

Project: NOTTAWA DEVELOPMENT
TOWNSHIP OF CLEARVIEW

Drawing: POST DEVELOPMENT DRAINAGE PLAN –FULL BUILDOUT CONDITIONS

CROZIER CONSULTING ENGINEERS

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Check By	Check By	Scale
B.H./R.W.	B.H./R.W.	Drawing FIG4B



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Engineer

Engineer

Project

57 BATTEAUX ROAD
TOWNSHIP OF CLEARVIEW

Drawing

GENERAL SERVICING PLAN

CROZIER

Drawn By	Design By	Project
V.P.	V.P./A.W./R.W.	1953–6180
Check By	Check By	Drawing
A.W./R.W.	A.W./R.W.	C101A

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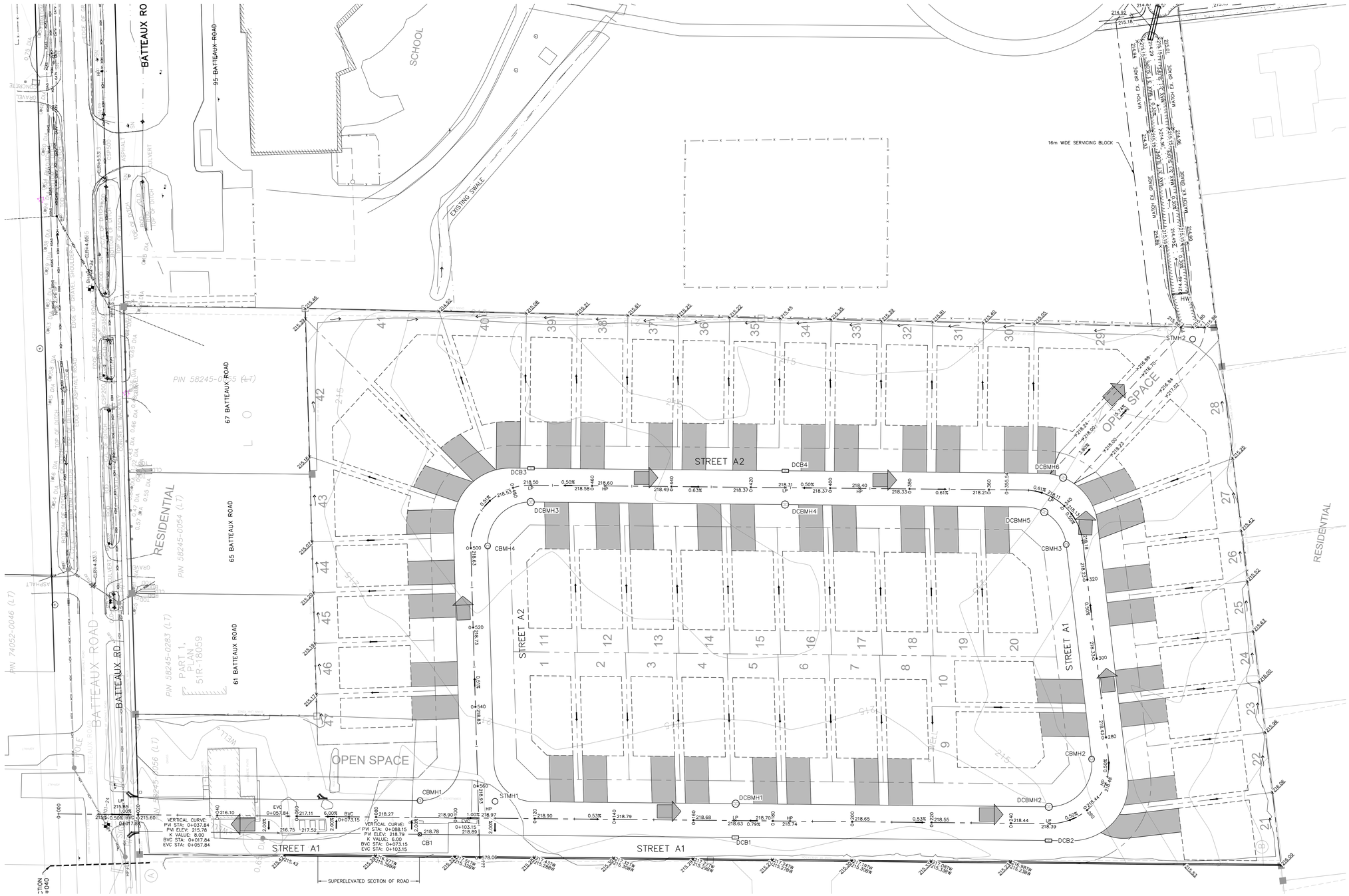
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57 BATTEAUX ROAD
TOWNSHIP OF CLEARVIEW

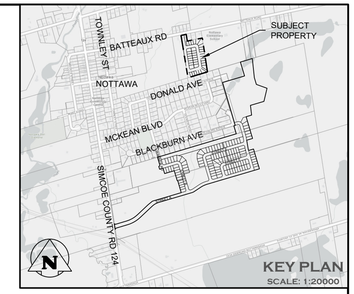
Drawing
NOTTAWA SCHOOL
OVERALL SERVICING PLAN

CROZIER

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Check By	Check By	Drawing
A.W./R.W.	A.W./R.W.	C101B

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Project

57 BATTEAUX ROAD
TOWNSHIP OF CLEARVIEW

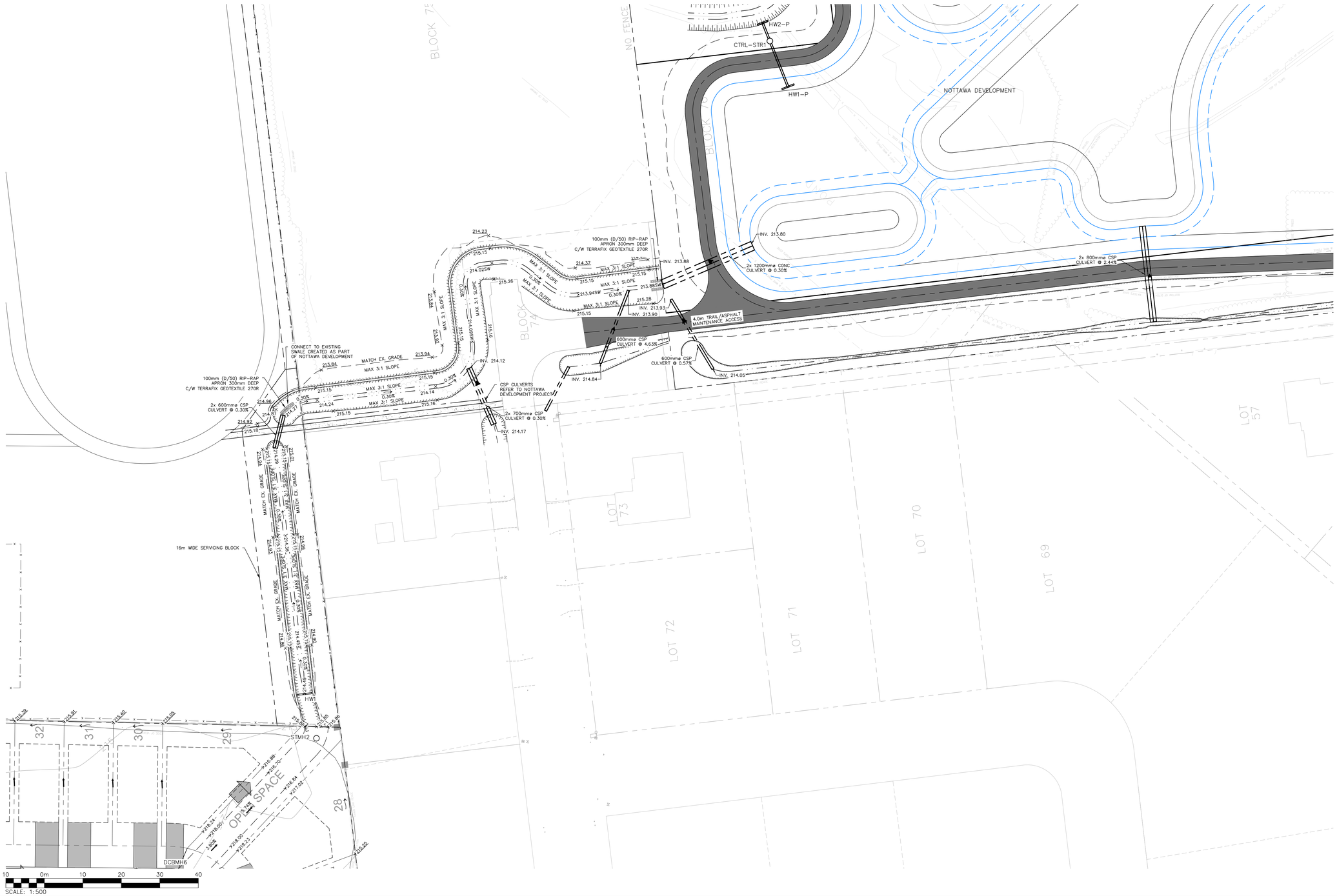
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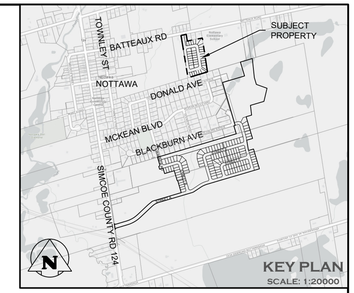
GRADING PLAN

CROZIER

Drawn By	Design By	Project
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Check By	Check By	Drawing
A.W./R.W.	A.W./R.W.	C102A

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Project
57 BATTEAUX ROAD
TOWNSHIP OF CLEARVIEW

Drawing
GRADING PLAN

CROZIER

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Check By	Check By	Drawing
A.W./R.W.	A.W./R.W.	C102B

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