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PRELIMINARY HYDROLOGY AND HYDRAULICS STUDY

FOR:

Newland Simpson Hemet
35655 Simpson Road
Hemet, County of Riverside County, CA 92596

Prepared for:

Newland Capital Group, LLC
200 Spectrum Center Dr. Suite 300
Irvine, CA 92618

Project No: IRV21-0204

Prepared by: ______________________ 10/20/23

Signature   Date

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I. Introduction

i. Background

The purpose of this Hydrology and Hydraulics study is to quantify the pre-and-post-project drainage conditions and support the grading and storm drain design of the project site by retaining the full proposed condition 100-year, 3-hour storm event volume and ensuring that there will be no negative impacts to surrounding and downstream properties. The subject site is located on undeveloped, agricultural land on the South side of Simpson Road in the City of Hemet, California 92596, located in Riverside County. The site consists of approximately 74.88 acres, which includes onsite and off-site areas. The site is bound on North by Simpson Road, on the East and South by Salt Creek, and on the West by neighboring properties. A portion of the site is bisected by 100 ft Right-of-Way of Warren Road.

Please refer to Appendix A for the vicinity map.

The project will be disturbing the entirety of the property that is currently undeveloped agricultural land. The proposed project includes clearing and grubbing of existing vegetation & topsoil to construct two new industrial warehouse buildings, appurtenant parking and loading areas, private storm drain improvements, and BMPs for stormwater pollutant control and mitigation of increases in runoff. The proposed hydrology will mimic the existing site drainage patterns to the maximum extent practicable, ultimately flowing from the Northeast to the Southwest direction. Runoff from the site will ultimately be conveyed overland via proposed valley gutter and curb & gutter systems to underground storm drain systems as well as directly into the downstream infiltration basins. Runoff will then be detained in either one of the four (4) underground infiltration basins and/or one of the two (2) above ground infiltration basins for low flow storm events throughout the project site. The basins will fill with stormwater runoff until they reach the design runoff volume capacity and then infiltrate into the below ground subsurface within the first 72 hours after the rainstorm event. The runoff from the larger design storm events will be conveyed downstream via storm pipe and ultimately discharge into Salt Creek Channel.

Per the Santa Ana River Watershed Technical Guidance Document, the site will require a fully executed WQMP during the plan check process.

II. Site Discussion & Methodology

i. Site Information and Properties

The site is located within the Santa Ana River Watershed, with runoff from the site traveling via overland flow to Salt Creek before heading downstream to the Canyon Lake and then ultimately to Elsinore Lake. Currently, the project site is undeveloped agricultural land, with minimal vegetative cover and impervious surfaces in the existing condition. Per the Riverside County Hydrology Manual, the site is composed of soils belonging to Hydrologic Soil Groups (HSG) B and C according to the Hydrologic Soils Group Map for Winchester.

Please refer to Appendix B for the Soils Map.

The site is very flat, with elevations ranging from just over 1504 feet in the Northeastern corner of the property to just under 1494 feet in the Southwestern corner. The site naturally drains to the West and South, with slopes generally less than 0.5% throughout.

Five (5) in-situ percolation tests were performed on site at depths up to 10 feet to determine the infiltration rate of the soil. The testing resulted in measured infiltration rates ranging from 1.0 to 9.5

inches per hour. The infiltration testing was performed by Southern California Geotechnical.

Please refer to Appendix J for the Geotechnical Investigation Report.

The proposed project is a single development and is not part of a larger phased development.

In the proposed condition, the site will feature two industrial warehouse buildings, Building 1 and Building 2, with areas of 883, 080 SF and 309,337.76SF respectfully. The buildings are centrally located on the western portion of the property, to the west of Warren Road, with loading docks along eastern and western face for building 1 and along the western face for building 2, and drive aisles surrounding the building. Trailer spaces are proposed on the east and west side of Building 1 and on the east side of Building 2, along with proposed pedestrian parking spaces on the north and south ends of both buildings. Landscaping areas are included throughout. Three access driveways are proposed for Building 1, and two access driveways for Building 2 from Simpson Road along the northern property line. The site is approximately 90% impervious surfaces and 10% pervious surfaces.

ii. Design Standards

The City of Hemet Storm Drain Criteria and Drainage Design Manual, as well as The Riverside County Hydrology Manual, was used as a guide for the design of drainage facilities and to establish criteria for flood protection levels within this project. The Riverside County Hydrology Manual and City of Hemet Master Flood Control and Drainage Plan will be used for flood routing analysis in the final design.

iii. Hydrology Software

The CivilCADD/Civil Design (CivilD) Engineering Software Riverside County Module was used for the Rational Method and Unit Hydrograph hydrology calculations. The Rational Method Analysis was used to determine the peak flows for the 10-year and 100-year storm event frequencies. The Unit Hydrograph Method Analysis was utilized to determine peak flows and volumes for the 100-year 3-hour and 24-hour storm events.

The hydrographs generated were used to assist the Flood Routing Analysis in determining the detention capacity and maximum ponding elevation of the proposed infiltration basins, as well as the outflow peak flow rate for the 100-year 3-hour and 24-hour design storm events.

iv. Hydraulics Software

The CivilD Rational Method Software was used to estimate the pipe sizes for the proposed storm drain network. The WSPG software will be used during final design to confirm the capacities of the proposed pipes.

III. Hydrologic Analysis

i. Existing Condition

In the existing condition, the project site consists of undeveloped agricultural land with minimal vegetation and no impervious surfaces within the project site limits. Runoff from the site travels via overland flow to Salt Creek before heading downstream to the Canyon Lake and then ultimately to Elsinore Lake. The project site has been divided into two (2) separate drainage areas (DA), A and B, with Warren Road as the ridge line.

Drainage Area A (DA A) is approximately 9.73 acres and incorporates the portion of the project site located to the east of Warren Road. This area slopes from the northeast corner of the property southwest toward Warren Road and Salt Creek.

Drainage Area B (DA B) is approximately 65.15 acres and incorporates the portion of the project site located on the west of Warren Road. This area slopes from Warren Road southwest to the neighboring property and Salt Creek.

Please note, the Drainage Area A & B include portions of the existing public right-of-way easement on Simpson Avenue and Warren Road.

Total existing drainage study area is approximately 74.88 acres.

Please refer to Appendix D for the Existing Drainage Area Exhibit, EX1.

Please refer to Appendix F for the Existing Hydrology Calculations.

ii. <u>Proposed Condition</u>

In the proposed condition, the project site Drainage Areas have been divided into four (4) proposed Drainage Areas A through D. Proposed Drainage Area D corresponds to the existing Drainage Area A, with the proposed Drainage areas A through C corresponding to the existing Drainage Area B.

Proposed Drainage Area A (DA A) is approximately 18.75 acres and incorporates the western proportion of the industrial warehouse Building 1 plus the western truck dock and corresponding trailer parking area as well as half of the northern parking area. This area includes subareas A1.1, A1.2, and A1.3. The runoff from the proposed development will sheet flow overland to concrete valley gutters and concrete curb & gutter systems before entering a downstream catch basin. The runoff will then be conveyed downstream to an underground infiltration basin. The underground infiltration is designed to mitigate the full volume generated by the 3hr, 100yr storm event per the proposed development.

Propose Drainage Area B (DA B) is approximately 25.46 acres and incorporates the western portion of the industrial warehouse Building 1 plus the eastern truck dock and corresponding trailer parking area, as well as half of the northern parking area, and southern parking lot. This area includes subareas B1.1, B1.2, B2, and B3. The runoff from the proposed development will sheet flow overland to concrete valley gutters and concrete curb & gutter systems before entering a downstream catch basin. The runoff will then be conveyed downstream to an underground infiltration basin that is designed to mitigate the full volume generated by the 3hr, 100yr storm event per the proposed development.

Proposed Drainage Area C (DA C) is approximately 18.14 acres and incorporates both the eastern and western portion of the industrial warehouse Building 2, along with the associated eastern truck dock and western trailer parking area, as well as the parking lot to the north and south. This area includes subareas C1, C2, and C3. The runoff from the proposed development will sheet flow overland to concrete valley gutters and concrete curb & gutter system before entering a downstream catch basin. The runoff will then be conveyed downstream to one of the three (3) infiltration basins (an above ground infiltration basin and two (2) underground infiltration basins) that are designed to mitigate the full volume generated by the 3hr, 100yr storm event per the proposed development.

Proposed Drainage Area D (DA D) is approximately 9.56 acres and incorporates the western trailer parking lot, plus half width of Warren Road, and a portion of the half width of Simpson Road. This area includes only subarea D1. The runoff from the proposed development will sheet flow overland to curb & gutter systems before entering a downstream concrete valley gutter that will convey the runoff into an above ground infiltration basin. The basin is designed to mitigate the full volume generated by the 3hr, 100yr storm event per the proposed development.

The proposed drainage study area is 71.91 acres, which only includes the proposed onsite areas.

The proposed above ground and underground infiltration basins are be designed to retain the peak flow and volume of runoff from the 100-year 3-hour storm event. The design runoff volume will be stored and infiltrated per the calculated design infiltration rate based on the recommended infiltration rates from the Geotechnical Report to meet the 72-hour drawdown time requirement. The lowest recommended infiltration rate for infiltration systems was 3.5 inches per hour. The factor of safety was determined to be 3. The resulting design infiltration rate is 1.183 inches per hour. The additional runoff volume generated by larger storm events will be discharged via an overflow outlet pipe and conveyed via proposed storm drain to Salt Creek Channel.

The runoff from DA A to C will be conveyed downstream to a pump station & level spreader at the southwest corner of the property. The pump station & level spreader will be designed to convey the outflows from basins A1, B3, C1, C2, & C3 in the 100yr 24hr design storm event. The runoff will be pumped into the level spreader and dispersed through a perforated pipe and flow to the Salt Creek Channel overland as sheet flow.

The runoff from DA D will be conveyed downstream to an existing storm drain below Warren Road Bridge and discharge into Salt Creek Channel.

Please note, the proposed drainage areas A through C noted above do not include the public right-of-way improvements of Simpson Road and Warren Road. The remaining portion of off-site improvements will be analyzed and incorporated for the Final Design submission phase of this project.

Please refer to the Appendix E for the Proposed Drainage Area Exhibit, P1.

Please refer to Appendix G for the Hydrology Calculations.

iii. Unit Hydrograph Analysis

The Unit Hydrograph Method of Riverside County was used via Civil Design Hydrologic software to calculate the peak flow rates and total runoff volumes. The variables taken into consideration in the computation include the 2-year and 100-year storm event rainfall depths for the 3-hour AND 24-hour storm durations, Antecedent Moisture Condition (AMC), Runoff Index (RI), soil type, loss rates, and land use conditions characteristics of flow conveyance.

Flow rates and volumes were determined for existing and proposed conditions for the 100-year 3-hour and 24-hour storm events. The site will be designed in such a way that the site will retain the 100-year 3-hour storm event peak flows and volume. The underground infiltration basins, as well as the above ground infiltration basins, were sized to retain the proposed condition 100-year 3-hour design storm volume and reduce the peak flow upon discharge of stormwater runoff to Salt Creek. Infiltration basins were also designed to mitigate the water quality volume for pollutant control.

Rainfall depth data, associated with 1-hour, 3-hour, and 24-hour precipitation durations for the 2-year and 100-year storm event frequencies, was obtained from NOAA Atlas 14 Point Precipitation Frequency Estimates. These rainfall depths were used instead of the depths taken from the Riverside County Hydrology Manual Isopluvial Maps.

Please refer to Appendix C for the NOAA Atlas 14 data.

In accordance with the Riverside County Hydrology Manual, AMC III was used for the 100-year storm event.

The RI value for the AMC III is program-calculated based on the RI value for the AMC II condition.
An RI value of 86 for AMC II resulted in an RI value of 94.4 for AMC III for the existing condition. An RI value is 69.0 for AMC II resulted in an RI value of 84.4 for AMC III in the proposed condition.

The soil type was determined using the C-1.43 Winchester Plate in the Riverside County Hydrology Manual, which is based on the United States Department of Agriculture (USDA), National Resource Conservation Service (NRCS) classification for soil runoff potential. The Hydrologic Soil Group was determined to be B and C. Please note, our analysis assumed a more conservative soil group of C for the purposes of this report.

Please refer to Appendix B for Soils Information.

A low loss rate of 90% (0.9) was used for the existing condition. The following equation was used to calculate the low loss rate for proposed condition areas:

$$0.9 - (0.8 \times \% \text{ impervious})$$

Table 1 summarizes the low loss rates for the proposed condition areas.

Table 1 – Summary of Proposed Condition Low Loss Rates

BASIN ID	IMPERVIOUSNESS	LOW LOSS RATE
A1*	0.919	0.165
B1**	0.922	0.162
B2	0.948	0.141
B3	0.806	0.255
C1	0.891	0.187
C2	0.806	0.255
C3	0.667	0.367
D1	0.642	0.387
*Area A1 includes subareas A1.1, A1.2, and A1.3 **Area B1 includes subareas B1.1 and B1.2		

The Unit Hydrograph Method calculations performed via the Civil Design Hydrologic software determined the pre-development and post-development peak flow rates and volumes for the site's drainage areas. The rainfall depths are summarized in Table 2 below. Tables 3A & 3B below summarizes the peak flow rates and volumes by storm event and frequency and duration in the existing condition. Tables 4A & 4B below summarizes the peak flow rates and volumes by storm event and frequency and duration in the proposed condition. Refer to Appendix "F" and Appendix "G" for the pre-development and post-development unit hydrograph calculation printouts.

Table 2 – Summary of Rainfall Depths

Storm Event Frequency	Storm Duration	Rainfall Depth (inches)
2-year	1-hour	0.507
	3-hour	0.869
	24-hour	2.13
100-year	1-hour	1.57
	3-hour	2.22
	24-hour	5.59

Table 3A – Summary of Peak Flow Rates and Volumes for 100-year 3-hour Storm Event – Existing

HYDROLOGIC SUMMARY TABLE			
EXISTING CONDITION – 100YEAR 3 HOUR DURATION			
BASIN ID	AREA (ACRES)	Q (CFS)	V (FT^3)
A*	9.73	17.90	70,866.5
B**	65.15	100.715	474,193.9
TOTAL	74.88	118.615	545,060.4
*Area A includes subareas A.1 and A.2 **Area B includes subareas B.1, B.2, B.3, and B.4.			

Table 3B – Summary of Peak Flow Rates and Volumes for 100-year 24-hour Storm Event – Existing

HYDROLOGIC SUMMARY TABLE			
EXISTING CONDITION – 100YEAR 24 HOUR DURATION			
BASIN ID	AREA (ACRES)	Q (CFS)	V (FT^3)
A*	9.73	6.83	90,630.9
B**	65.15	43.76	573,685.20
TOTAL	74.88	50.59	664,316.10
*Area A includes subareas A.1 and A.2 **Area B includes subareas B.1, B.2, B.3, and B.4.			

Table 4A – Summary of Peak Flow Rates for 100-year 3-hour Storm Event – Proposed

HYDROLOGIC SUMMARY TABLE			
PROPOSED CONDITION – 100 YEAR 3 HOUR DURATION			
BASIN ID	AREA	Q (UNMITIGATED)	V
	(ACRES)	(CFS)	(FT^3)
A1*	18.747	35.29	144,260.5
B**	25.46	13.72	194,779.6
C1	7.996	15.55	61,111.2
C2	7.326	14.52	54,816.5
C3	2.820	5.68	20,361.7
D1	9.559	19.16	68,567.5
TOTAL	71.905	103.90	543,897.0
*Area A1 includes subarea A1.1, A1.2, and A1.3 **Area B includes subarea B1.1, B1.2, B2, B3			

Table 4B – Summary of Peak Flow Rates for 100-year 24-hour Storm Event – Proposed

HYDROLOGIC SUMMARY TABLE			
PROPOSED CONDITION – 100 YEAR 24 HOUR DURATION			
BASIN ID	AREA	Q (UNMITIGATED)	V
	(ACRES)	(CFS)	(FT^3)
A1*	18.747	13.81	22,4334.0
B**	25.46	17.66	222,269.3
C1	7.996	5.86	94,686.4
C2	7.326	5.28	82,859.8
C3	2.820	1.97	29,329.0
D1	9.559	6.65	97,744.3
TOTAL	71.905	140.245	751,222.7
*Area A1 includes subarea A1.1, A1.2, and A1.3 **Area B includes subarea B1.1, B1.2, B2, B3			

Due to the proposed improvements, the 100-year 3-hour peak runoff rate and volume decreases in the proposed condition, with the 100-year 24-hour peak runoff rate and volume increasing in the proposed condition. These proposed peak runoff rates & volumes will be mitigated by the infiltration basins. Please refer to the next section for the Flood Routing calculations.

Please refer to the Appendix E for the Proposed Drainage Area Exhibit, P1.

Please refer to Appendix G for the Hydrology Calculations.

iv. Flood Routing

Per the City of Hemet Storm Drain Criteria and Drainage Design Manual, the proposed infiltration basins were analyzed to determine the capacity, discharge, and maximum ponding depth to demonstrate that the full proposed condition 100-year, 3-hour storm volume is retained and infiltrated.

Table 5 summarizes the proposed infiltration basin characteristics and required retention volume.

Table 5 – Summary of Basin Characteristics & Required Volume

PROPOSED BASIN ID	BASIN FOOTPRINT (SF)	BASIN DEPTH (FT)	PROVIDED RETENTION VOLUME (FT^3)	REQUIRED RETENTION VOLUME (FT^3)
A1 (Underground Basin)	63,102	3.75	144,622	144,260.5
B3 (Underground Basin)	45,310	6.75	197,382	194,779.6
C1 (Underground Basin)	27,228	3.75	61,884	61,111.2
C2 (Underground Basin)	24,369	3.75	55,597	54,816.5
C3 (Above-ground Basin)	8,131	4.00	46,847	20,361.7
D1 (Above-ground Basin)	24,373	4.00	92,737	68,567.5

In the 100-year 3-hour design storm event, the infiltration basins are designed to fill up & infiltrate the entirety of the peak runoff volume, with zero runoff exiting the outlet structure on each infiltration basin. The infiltration rate for each basin was determined based on the design infiltration rate of 1.18 in/hr taken as a cfs over the footprint of the basin.

In the 100-year 24-hour design storm event, Basin A1, B3, C1, C2, C3 will fill up, infiltrate a portion of the peak runoff volume, and outlet the additional runoff to the downstream outlet pipe. The runoff will then be conveyed downstream by an on-site storm drain network to a proposed pump station and level spreader. The pump station and level spreader will discharge the runoff overland as sheet flow to Salt Creek.

In the 100-year 24-hour design storm event, Basin D1 will fill up, infiltrate a portion of the peak runoff volume, and outlet the additional runoff through the outlet pipe. The runoff will then be conveyed downstream by the outlet pipe to an existing storm drain culvert under Warren Road bridge, and discharge to Salt Creek.

The flood routing of each infiltration basin was performed, and the proposed condition outflow hydrograph was obtained. Tables 6A & Table 6B summarizes the proposed condition runoff rate, ponding depth, and volume for each design storm event duration.

Table 6A – Summary of 100-year 3-hour Flood Routing

PROPOSED BASIN ID	INFILTRATION RATE (CFS)	PEAK OUTFLOW (CFS)*	MAX VOLUME (AC-FT)	MAX PONDING DEPTH (FT)
A1 (Underground Basin)	1.72	0.00	2.91	3.06
B3 (Underground Basin)	1.24	0.00	4.17	5.88
C1 (Underground Basin)	0.74	0.00	1.23	3.02
C2 (Underground Basin)	0.67	0.00	1.11	3.01
C3 (Above-ground Basin)	0.22	0.00	0.43	1.89
D1 (Above-ground Basin)	0.67	0.00	1.44	2.15

*Peak outflow is runoff leaving the basin through the outlet structure & pipe. Due to the infiltration rate & size of the basin, no outflow leaves the basin in the 100-year 3-hour design storm event.

Table 6B – Summary of 100-year 24-hour Flood Routing

PROPOSED BASIN ID	INFILTRATION RATE (CFS)	PEAK OUTFLOW (CFS)*	MAX VOLUME (AC-FT)	MAX PONDING DEPTH (FT)
A1 (Underground Basin)	1.72	20.01	3.32	5.22
B3 (Underground Basin)	1.24	26.16	4.53	7.80
C1 (Underground Basin)	0.74	10.09	1.42	4.75
C2 (Underground Basin)	0.67	5.14	1.28	4.13
C3 (Above-ground Basin)	0.22	1.32	0.54	2.31
D1 (Above-ground Basin)	0.67	3.30	2.21	3.09

*Peak outflow is the runoff leaving the basin through the outlet structure & pipe, this does not include the peak runoff that is infiltrated.

Each proposed infiltration basin is sized to accommodate the anticipated peak inflow & volume generated by their respective drainage areas, resulting in a reduction to the peak outflow rate & volume.

Please refer to Appendix H for the Flood Routing Calculations.

IV. Hydraulic Analysis

i. Design/Analyze Storm Drain Facilities

In the final design, the storm drain system upstream of the infiltration basins will be sized to convey the 10-year 24-hour storm event, as stated in the City of Hemet Drainage Manual. The storm drain system downstream of the infiltration basins will be sized to convey the 100-year 24-hour. The Civil Design Rational Method analysis provided estimated pipe sizes for pipe runs.

Please refer to Appendix I for the Hydraulic calculations.

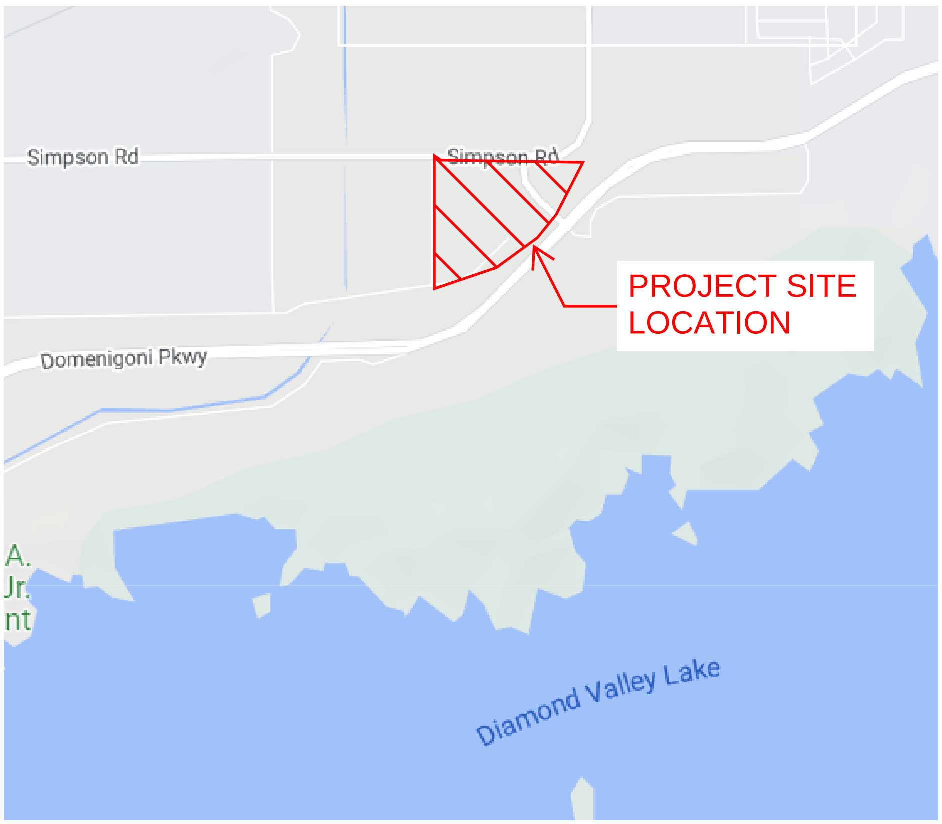
V. Conclusion

This Hydrology and Hydraulic Stude demonstrates that the proposed condition will meet the intent of the City of Hemet Storm Drain Criteria and Drainage Design Manual, and the County of Riverside Hydrology Manual.

The entire 100-year 3-hour peak runoff rate & volume will be mitigated by the proposed stormwater design. The project will be developed to result in no negative impact on the existing downstream storm drain facilities, downstream properties, and receiving waters.

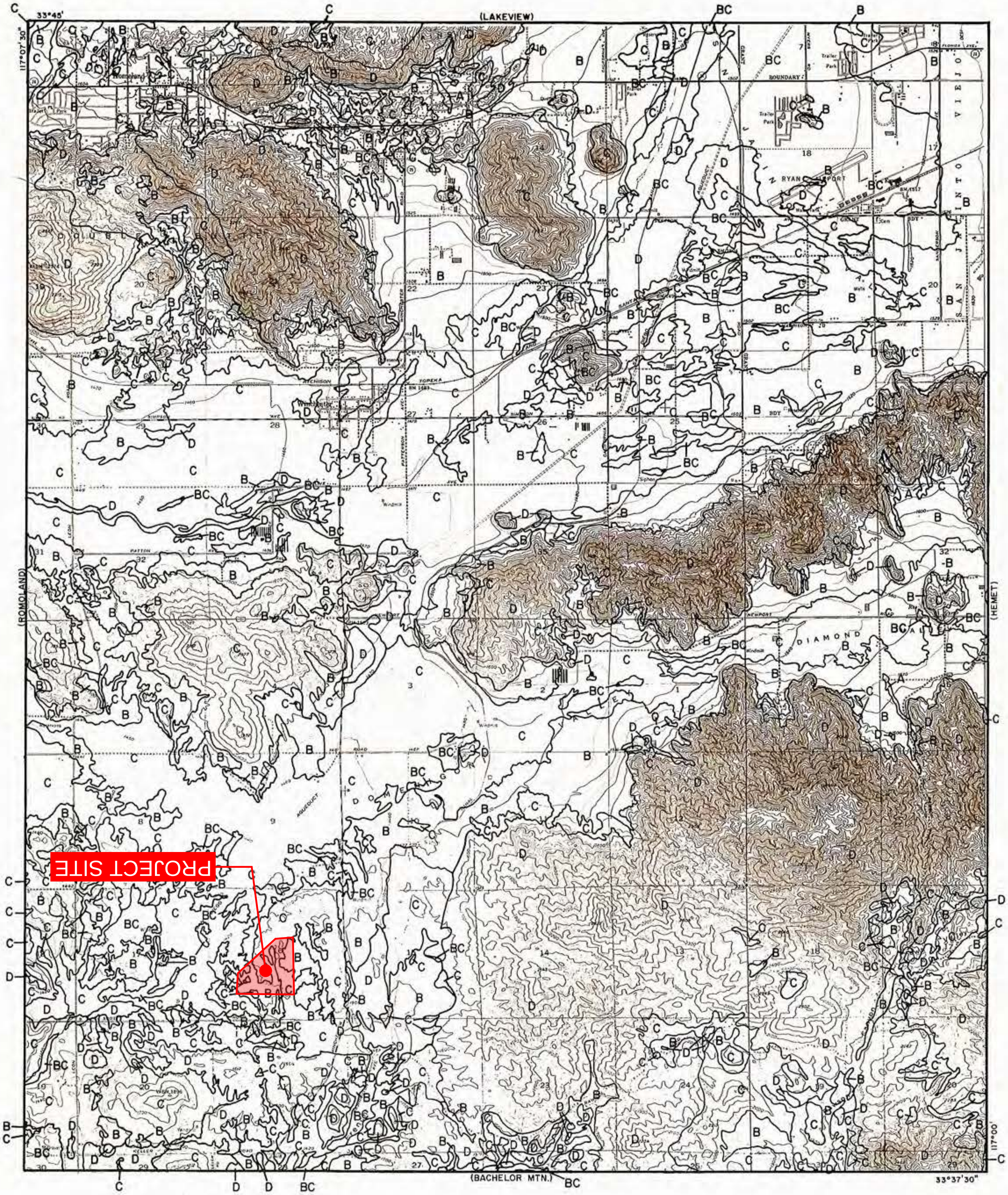
Appendix A – Vicinity Map

VICINITY MAP



SCALE: N.T.S.

Appendix B – Soil Map & Data



LEGEND
SOILS GROUP BOUNDARY
A SOILS GROUP DESIGNATION

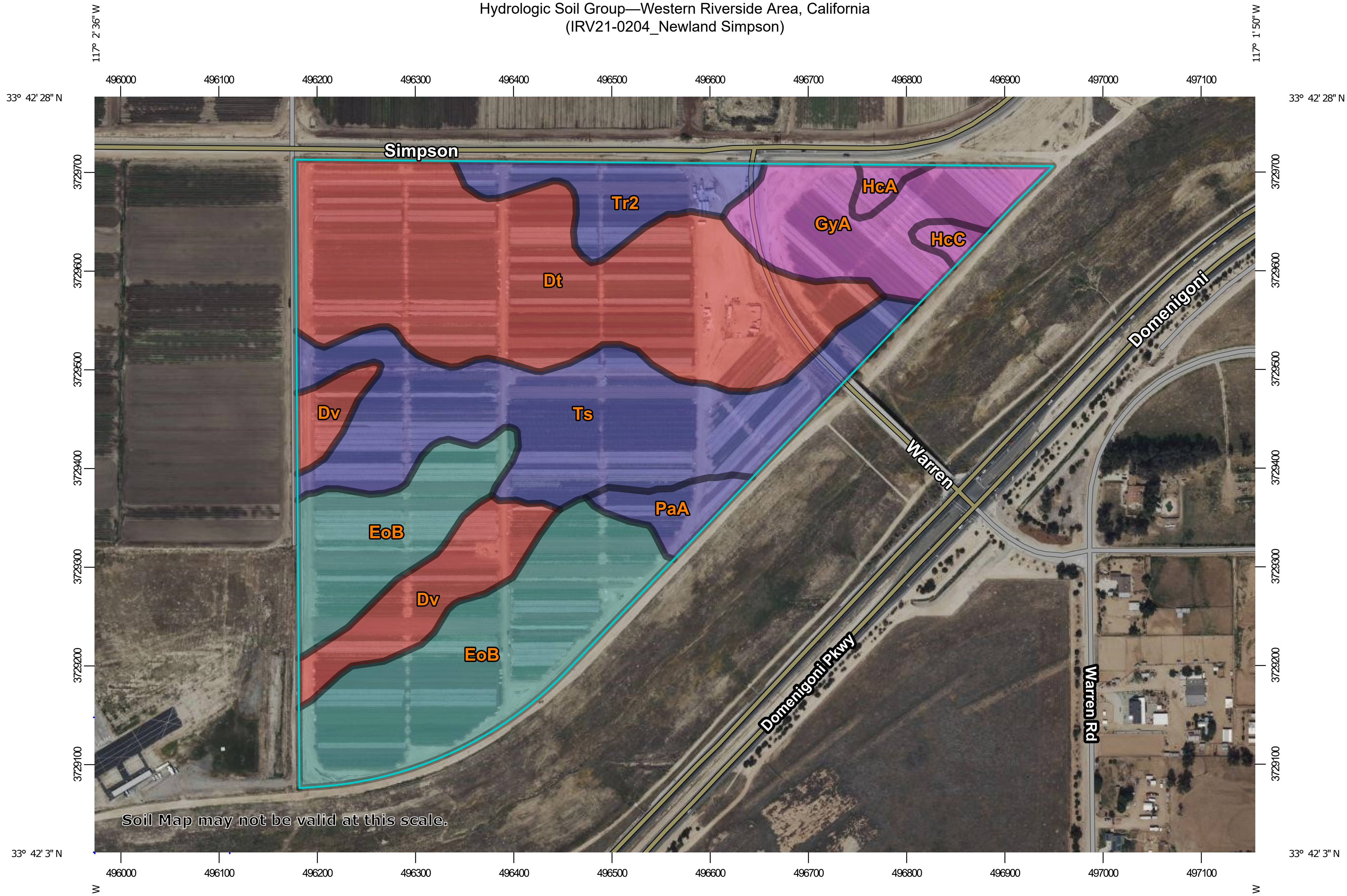
RCFC & WCD
HYDROLOGY MANUAL

0 FEET 5000

HYDROLOGIC SOILS GROUP MAP FOR WINCHESTER

PLATE C-1.43

Hydrologic Soil Group—Western Riverside Area, California
(IRV21-0204_Newland Simpson)



Map Scale: 1:5,400 if printed on A landscape (11" x 8.5") sheet.

N

0 50 100 200 300 Meters

0 250 500 1000 1500 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 15, Sep 6, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 14, 2022—Mar 17, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Dt	Domino fine sandy loam, saline-alkali	D	21.5	29.7%
Dv	Domino silt loam, saline-alkali	D	5.4	7.4%
EoB	Exeter sandy loam, slightly saline-alkali, 0 to 5 perce nt slopes	C	17.2	23.8%
GyA	Greenfield sandy loam, 0 to 2 percent slopes	A	6.5	9.0%
HcA	Hanford coarse sandy loam, 0 to 2 percent slopes	A	0.6	0.8%
HcC	Hanford coarse sandy loam, 2 to 8 percent slopes	A	0.5	0.7%
PaA	Pachappa fine sandy loam, 0 to 2 percent slopes	B	1.6	2.2%
Tr2	Traver loamy fine sand, saline-alkali, eroded	B	3.8	5.3%
Ts	Traver fine sandy loam, saline-alkali	B	15.3	21.1%
Totals for Area of Interest			**72.3**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix C – NOAA ATLAS 14 and Riverside County Hydrology Slope Intensity Duration Curve

NOAA Atlas 14, Volume 6, Version 2
Location name: Hemet, California, USA*
Latitude: 33.7074°, Longitude: -117.0361°
Elevation: 1501 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.081** (0.068-0.098)	**0.117** (0.098-0.141)	**0.165** (0.138-0.200)	**0.206** (0.171-0.252)	**0.265** (0.211-0.335)	**0.312** (0.244-0.404)	**0.362** (0.276-0.481)	**0.416** (0.307-0.569)	**0.494** (0.349-0.705)	**0.558** (0.381-0.825)
10-min	**0.116** (0.097-0.140)	**0.167** (0.140-0.202)	**0.237** (0.198-0.287)	**0.296** (0.245-0.362)	**0.380** (0.303-0.481)	**0.447** (0.349-0.579)	**0.519** (0.395-0.689)	**0.596** (0.441-0.815)	**0.707** (0.501-1.01)	**0.799** (0.546-1.18)
15-min	**0.141** (0.118-0.170)	**0.202** (0.169-0.245)	**0.287** (0.239-0.347)	**0.358** (0.296-0.437)	**0.459** (0.366-0.581)	**0.541** (0.422-0.700)	**0.628** (0.478-0.833)	**0.721** (0.533-0.986)	**0.856** (0.605-1.22)	**0.967** (0.660-1.43)
30-min	**0.226** (0.189-0.273)	**0.326** (0.272-0.394)	**0.461** (0.384-0.559)	**0.576** (0.476-0.704)	**0.739** (0.590-0.935)	**0.871** (0.680-1.13)	**1.01** (0.768-1.34)	**1.16** (0.858-1.59)	**1.38** (0.974-1.97)	**1.56** (1.06-2.30)
60-min	**0.352** (0.295-0.425)	**0.507** (0.424-0.613)	**0.718** (0.599-0.870)	**0.897** (0.741-1.10)	**1.15** (0.918-1.46)	**1.36** (1.06-1.75)	**1.57** (1.20-2.09)	**1.81** (1.34-2.47)	**2.14** (1.52-3.06)	**2.42** (1.65-3.59)
2-hr	**0.526** (0.440-0.635)	**0.718** (0.601-0.868)	**0.972** (0.811-1.18)	**1.18** (0.977-1.44)	**1.47** (1.17-1.86)	**1.70** (1.32-2.20)	**1.93** (1.47-2.56)	**2.18** (1.61-2.98)	**2.52** (1.78-3.60)	**2.79** (1.91-4.13)
3-hr	**0.648** (0.543-0.783)	**0.869** (0.726-1.05)	**1.16** (0.965-1.40)	**1.39** (1.15-1.70)	**1.72** (1.37-2.17)	**1.96** (1.53-2.54)	**2.22** (1.69-2.95)	**2.48** (1.84-3.40)	**2.85** (2.02-4.07)	**3.14** (2.14-4.65)
6-hr	**0.931** (0.779-1.12)	**1.23** (1.03-1.48)	**1.61** (1.34-1.95)	**1.92** (1.59-2.35)	**2.34** (1.87-2.97)	**2.66** (2.08-3.45)	**2.99** (2.28-3.97)	**3.33** (2.46-4.55)	**3.79** (2.68-5.41)	**4.15** (2.83-6.14)
12-hr	**1.22** (1.02-1.47)	**1.61** (1.35-1.95)	**2.13** (1.77-2.58)	**2.55** (2.10-3.11)	**3.12** (2.49-3.95)	**3.56** (2.78-4.60)	**4.01** (3.05-5.32)	**4.47** (3.30-6.12)	**5.11** (3.62-7.30)	**5.61** (3.83-8.31)
24-hr	**1.59** (1.41-1.84)	**2.13** (1.88-2.46)	**2.85** (2.51-3.30)	**3.44** (3.01-4.02)	**4.27** (3.62-5.15)	**4.92** (4.08-6.05)	**5.59** (4.53-7.04)	**6.29** (4.96-8.14)	**7.27** (5.51-9.79)	**8.05** (5.90-11.2)
2-day	**1.88** (1.67-2.17)	**2.56** (2.26-2.96)	**3.47** (3.06-4.02)	**4.23** (3.70-4.94)	**5.29** (4.48-6.37)	**6.12** (5.08-7.53)	**6.99** (5.66-8.80)	**7.90** (6.23-10.2)	**9.18** (6.96-12.4)	**10.2** (7.48-14.2)
3-day	**1.98** (1.76-2.29)	**2.73** (2.41-3.15)	**3.73** (3.29-4.32)	**4.57** (3.99-5.34)	**5.74** (4.86-6.92)	**6.67** (5.53-8.20)	**7.64** (6.19-9.62)	**8.66** (6.83-11.2)	**10.1** (7.65-13.6)	**11.2** (8.24-15.7)
4-day	**2.11** (1.87-2.44)	**2.93** (2.59-3.39)	**4.04** (3.56-4.68)	**4.96** (4.34-5.79)	**6.26** (5.30-7.55)	**7.30** (6.05-8.98)	**8.38** (6.79-10.5)	**9.52** (7.51-12.3)	**11.1** (8.43-15.0)	**12.4** (9.10-17.3)
7-day	**2.33** (2.06-2.69)	**3.29** (2.91-3.81)	**4.61** (4.06-5.34)	**5.72** (5.00-6.68)	**7.29** (6.17-8.79)	**8.55** (7.10-10.5)	**9.88** (8.00-12.4)	**11.3** (8.91-14.6)	**13.3** (10.1-17.9)	**14.9** (10.9-20.8)
10-day	**2.46** (2.18-2.84)	**3.52** (3.11-4.07)	**4.98** (4.38-5.76)	**6.21** (5.43-7.25)	**7.97** (6.75-9.60)	**9.39** (7.79-11.5)	**10.9** (8.83-13.7)	**12.5** (9.86-16.2)	**14.8** (11.2-19.9)	**16.7** (12.2-23.2)
20-day	**2.92** (2.58-3.37)	**4.22** (3.73-4.88)	**6.03** (5.32-6.99)	**7.59** (6.64-8.87)	**9.85** (8.34-11.9)	**11.7** (9.71-14.4)	**13.7** (11.1-17.2)	**15.8** (12.5-20.5)	**19.0** (14.4-25.5)	**21.5** (15.8-30.0)
30-day	**3.40** (3.01-3.92)	**4.90** (4.33-5.66)	**7.00** (6.17-8.11)	**8.83** (7.72-10.3)	**11.5** (9.74-13.9)	**13.7** (11.4-16.9)	**16.1** (13.1-20.3)	**18.7** (14.8-24.2)	**22.6** (17.1-30.4)	**25.8** (18.9-35.9)
45-day	**4.02** (3.55-4.63)	**5.70** (5.03-6.58)	**8.08** (7.12-9.36)	**10.2** (8.90-11.9)	**13.3** (11.2-16.0)	**15.9** (13.2-19.5)	**18.7** (15.2-23.5)	**21.8** (17.2-28.3)	**26.5** (20.1-35.7)	**30.4** (22.3-42.4)
60-day	**4.68** (4.14-5.40)	**6.52** (5.76-7.53)	**9.15** (8.06-10.6)	**11.5** (10.0-13.4)	**15.0** (12.7-18.0)	**17.9** (14.8-22.0)	**21.1** (17.1-26.6)	**24.7** (19.5-32.0)	**30.1** (22.8-40.6)	**34.8** (25.5-48.4)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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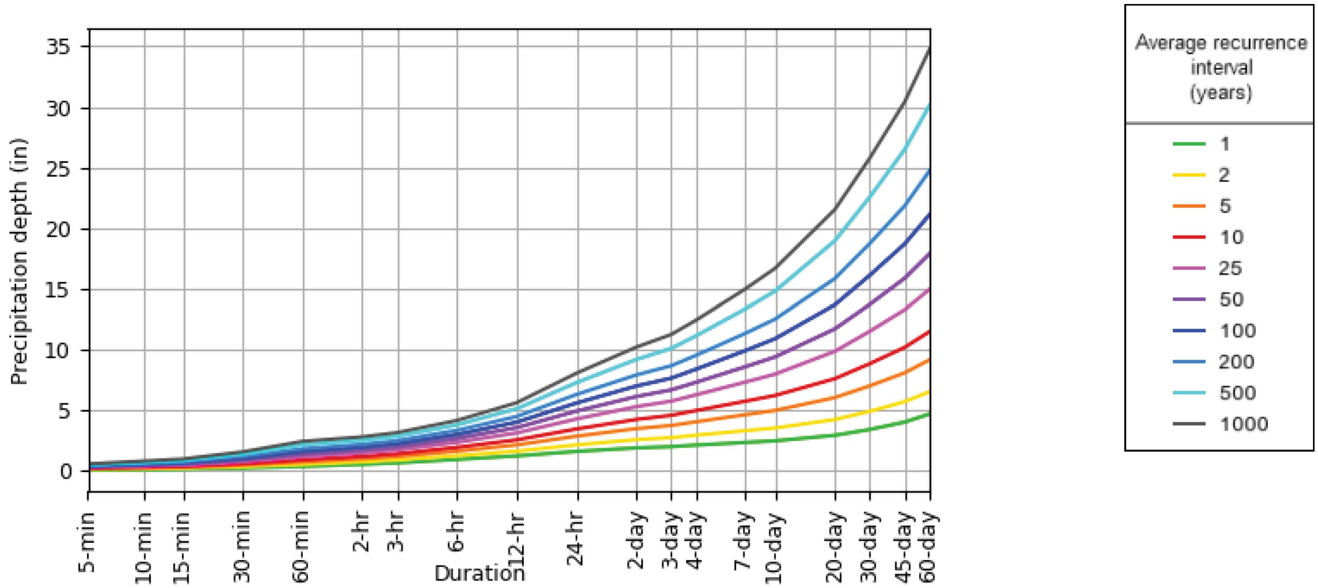
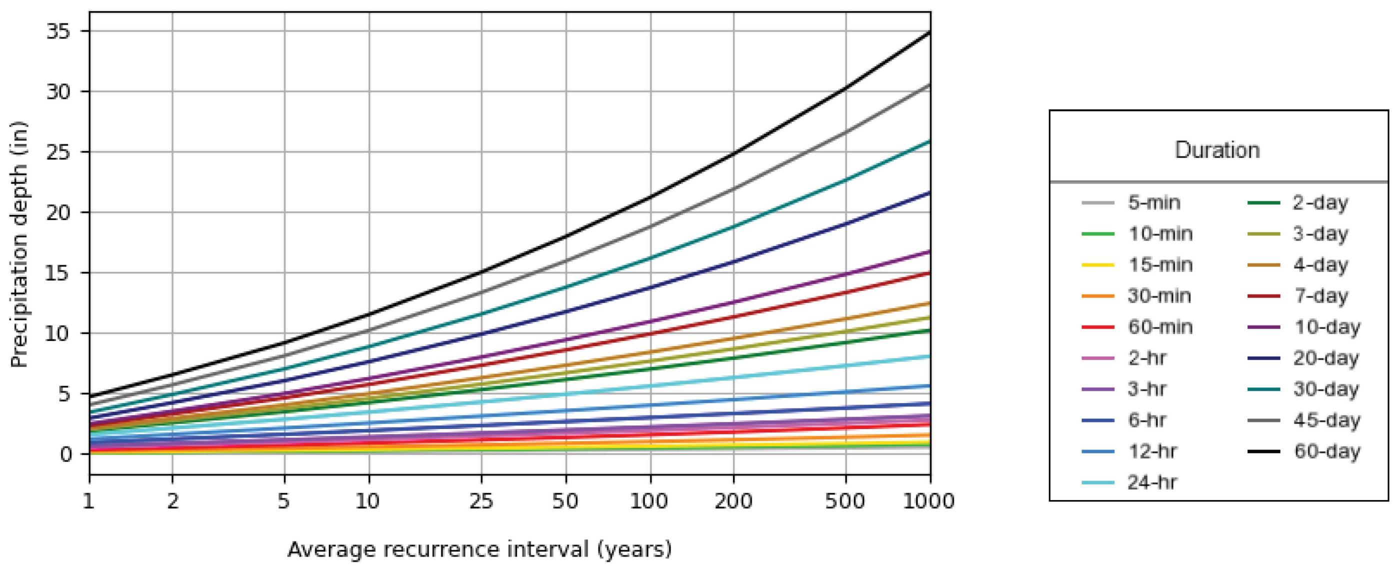
PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 33.7074°, Longitude: -117.0361°





NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Thu Jul 27 21:36:11 2023

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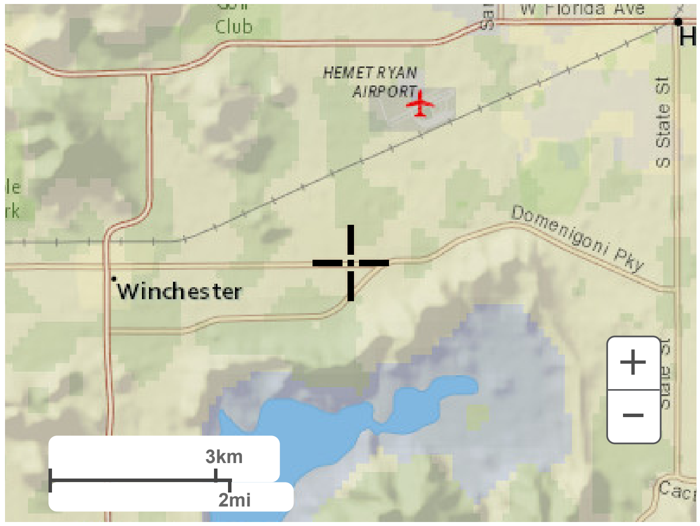
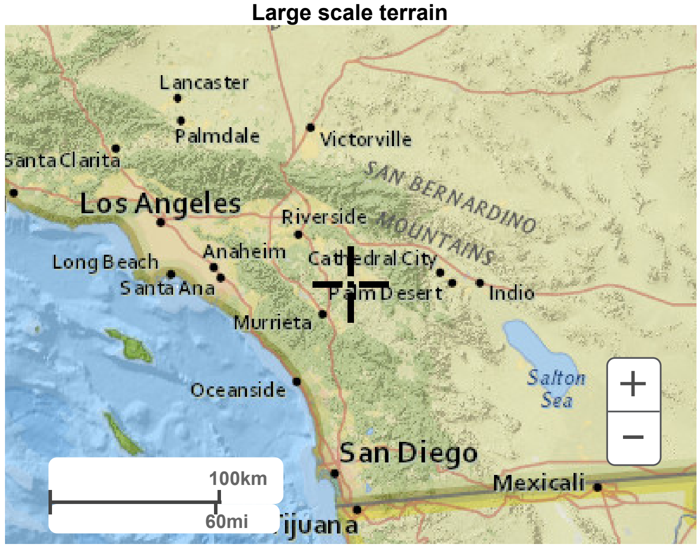
Maps & aerials

Small scale terrain



Large scale terrain

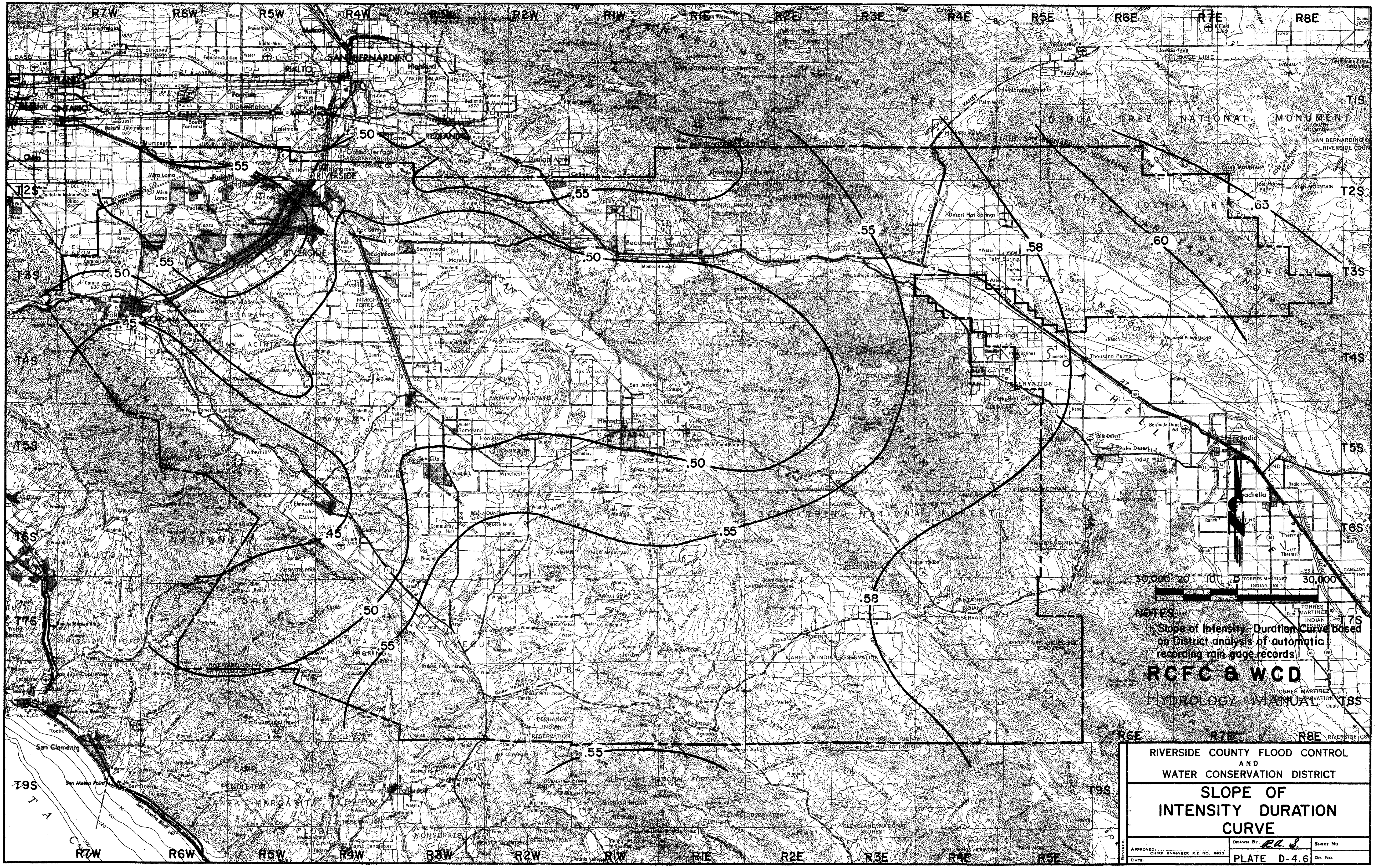


Large scale map

Large scale aerial

[Back to Top](#)

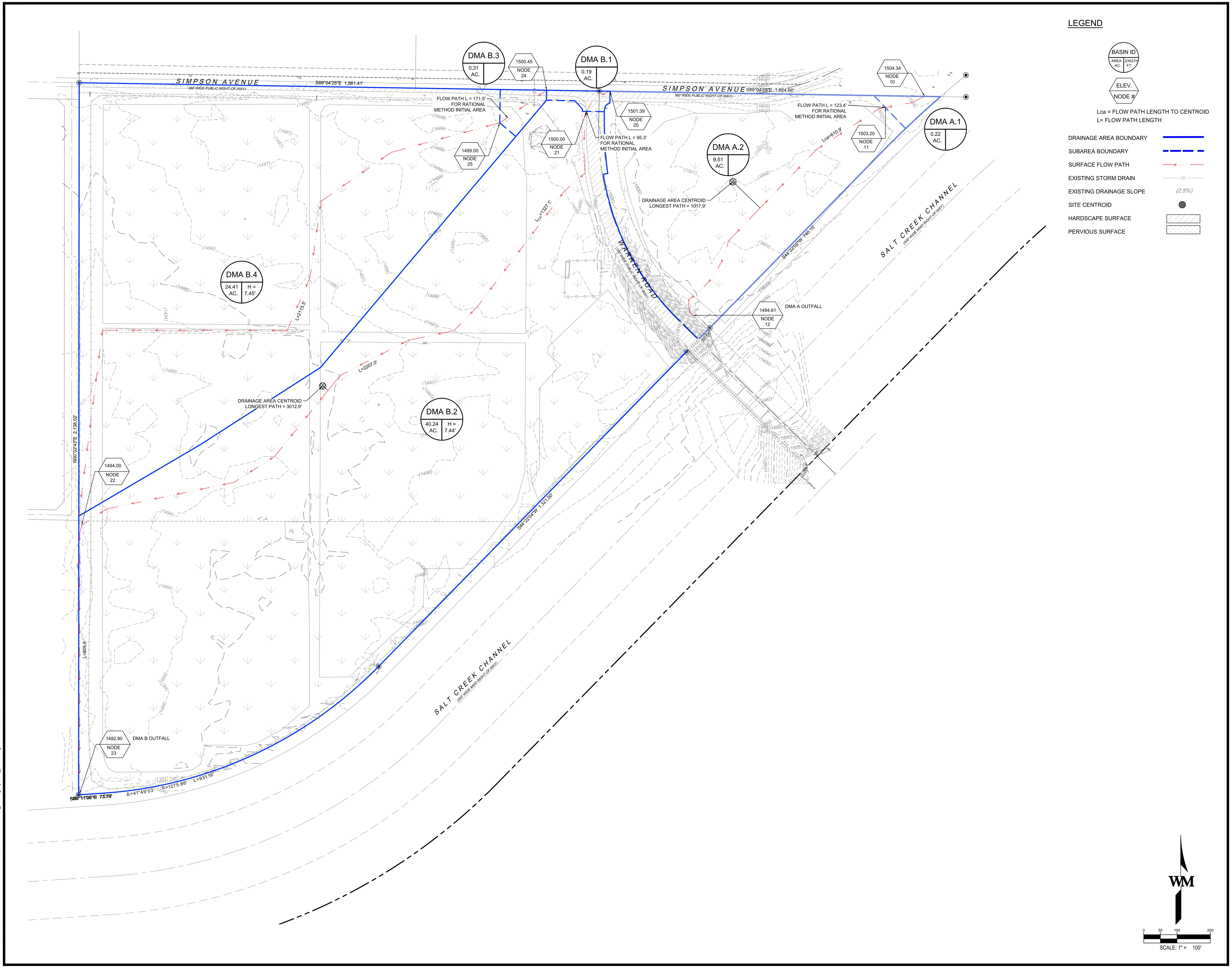
US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov



RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
SLOPE OF INTENSITY DURATION CURVE
PLATE D-4.6
DRAWN BY: R.A.S.
SHEET NO.
DR. NO.
APPROVED: CHIEF ENGINEER R.E. NO. 8822
DATE
REVISED
RCFC & WCD
HYDROLOGY MANUAL
NOTES:
1. Slope of Intensity-Duration Curve based on District analysis of automatic recording rain gage records.
30,000
20
10
0
30,000
.45
.50
.55
.58
.60
.65
R7W
R6W
R5W
R4W
R3W
R2W
R1W
R1E
R2E
R3E
R4E
R5E
R6E
R7E
R8E
T1S
T2S
T3S
T4S
T5S
T6S
T7S
T8S
T9S
RIVERSIDE
SAN BERNARDINO
CORONA
REDLANDS
Palm Springs
Indio
Hemet
San Jacinto
Elsinore
Temecula
Beaumont
Fallbrook
San Clemente
JOSHUA TREE NATIONAL MONUMENT
SAN BERNARDINO NATIONAL FOREST
CLEVELAND NATIONAL FOREST

Appendix D – Existing Condition Hydrology Exhibit

CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT



WARE MALCOMB
CIVIL ENGINEERING & SURVEYING

10 edelman
irvine, ca 92618
p 949.660.9128
waremalcomb.com

REGISTERED PROFESSIONAL ENGINEER
LUCAS A. CORSBIE
No. 72588
CIVIL
STATE OF CALIFORNIA
07/28/2023
FOR AND ON BEHALF OF WARE MALCOMB

NEWLAND SIMPSON
35655 SIMPSON RD
HEMET, CA 92596

EXISTING HYDROLOGY

NO.	DATE	REMARKS

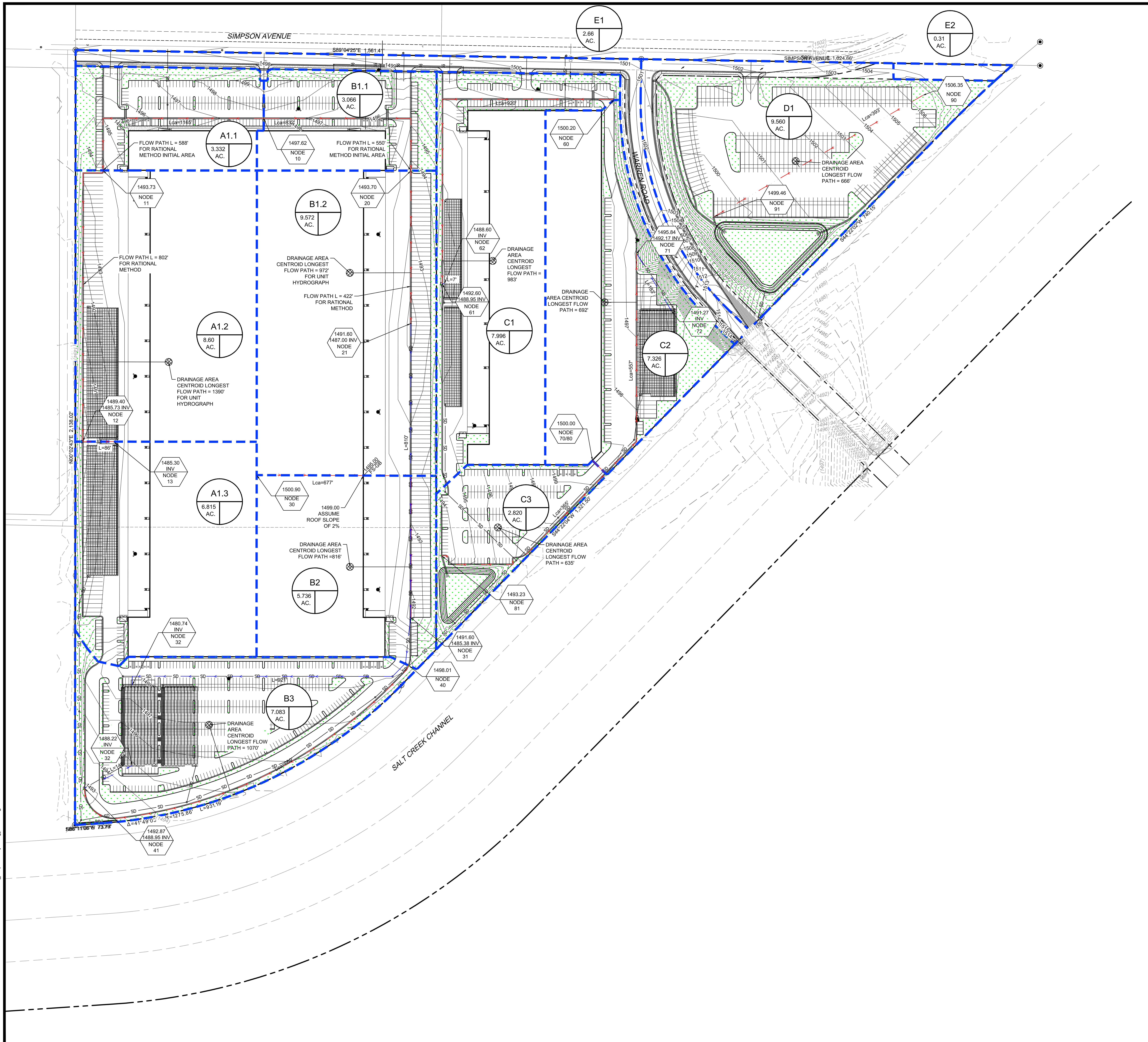
JOB NO.:	IRV21-0204
PA / PM:	
DESIGNED:	
DATE:	07/12/2022
PLOT DATE:	07/28/23

SHEET
EX1
Sheet 1 of 1

\\wma-arch.com\wm\IRV21\0204\00\Civil\CAD\Sheets\Exhibits\IRV21-0204_Existing Hydrology Plan.dwg 7/28/2023 3:31 PM ALO 1:1

Appendix E – Proposed Condition Hydrology Exhibit

CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT



LEGEND

BASIN ID / AREA AC.

ELEV. / NODE #

Lca = FLOW PATH LENGTH TO CENTROID
L= FLOW PATH LENGTH

DRAINAGE AREA BOUNDARY

SUBAREA BOUNDARY

SURFACE FLOW PATH

EXISTING STORM DRAIN

EXISTING DRAINAGE SLOPE (2.5%)

SITE CENTROID

SCALE: 1" = 100'

WARE MALCOMB
CIVIL ENGINEERING & SURVEYING

10 edelman
irvine, ca 92618
p 949.660.9128
waremalcomb.com

REGISTERED PROFESSIONAL ENGINEER
LUCAS A. CORBITE
No. 72588
CIVIL
STATE OF CALIFORNIA

10/20/2023

FOR AND ON BEHALF OF WARE MALCOMB

NEWLAND SIMPSON

35655 SIMPSON RD
HEMET, CA 92596

PROPOSED HYDROLOGY EXHIBIT

NO.	DATE	REMARKS
01	10/20/23	PER CITY LTR 09/14/23

JOB NO.:	IRV21-0204
PA / PM:	
DESIGNED:	
DATE:	07/12/2022
PLOT DATE:	10/20/23

SHEET
P1
Sheet P1 of

Appendix F – Existing Condition Hydrologic Calculations

```
                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study        Date: 07/31/23  File:SimpsonExARat10yr.out
------------------------------------------------------------------------
IRV21-0204 NEWLAND SIMPSON
EXISTING CONDITIONS DMA A
RATIONAL METHOD
10 YEAR STORM EVENT
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6350

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =   10.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year =  10.0
Calculated rainfall intensity data:
1 hour intensity =  0.944(In/Hr)
Slope of intensity duration curve = 0.5300




++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   123.400(Ft.)
Top (of initial area) elevation =  1504.340(Ft.)
Bottom (of initial area) elevation =  1503.200(Ft.)
Difference in elevation =     1.140(Ft.)
Slope =    0.00924  s(percent)=       0.92
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    9.283 min.
Rainfall intensity =      2.539(In/Hr) for a    10.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.829
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  86.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      0.463(CFS)
Total initial stream area =        0.220(Ac.)
Pervious area fraction = 1.000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       11.000 to Point/Station       12.000
**** IRREGULAR CHANNEL FLOW TRAVEL TIME ****
______________________________________________________________________
Estimated mean flow rate at midpoint of channel =      6.472(CFS)
```

```
Depth of flow =   0.120(Ft.), Average velocity =   1.118(Ft/s)
        ******* Irregular Channel Data ***********
-----------------------------------------------------------------
Information entered for subchannel number 1 :
Point number      'X' coordinate     'Y' coordinate
        1              0.00             0.50
        2            200.00             0.00
        3            400.00             0.50
Manning's 'N' friction factor =   0.020
-----------------------------------------------------------------
Sub-Channel flow  =      6.472(CFS)
  '     '        flow top width =     96.248(Ft.)
  '     '    velocity=    1.118(Ft/s)
  '     '        area =      5.790(Sq.Ft)
  '     '        Froude number =     0.803

Upstream point elevation =  1503.200(Ft.)
Downstream point elevation =  1494.610(Ft.)
Flow length =   894.500(Ft.)
Travel time  =   13.34 min.
Time of concentration =   22.62 min.
Depth of flow =   0.120(Ft.)
Average velocity =   1.118(Ft/s)
Total irregular channel flow =     6.472(CFS)
Irregular channel normal depth above invert elev. =   0.120(Ft.)
Average velocity of channel(s) =   1.118(Ft/s)
 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.792
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  86.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.584(In/Hr) for a    10.0 year storm
Subarea runoff =     11.921(CFS) for      9.510(Ac.)
Total runoff =     12.384(CFS)  Total area =       9.730(Ac.)
Depth of flow =   0.153(Ft.), Average velocity =   1.315(Ft/s)
End of computations, total study area =           9.73 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 1.000
Area averaged RI index number =  86.0
```

```
                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study       Date: 07/31/23  File:SimpsonExBRat10yr.out
------------------------------------------------------------------------
IRV21-0204 NEWLAND SIMPSON
EXISTING CONDITIONS DMA B
RATIONAL METHOD
10 YEAR STORM EVENT
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6350

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =   10.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year =  10.0
Calculated rainfall intensity data:
1 hour intensity =  0.944(In/Hr)
Slope of intensity duration curve = 0.5300




++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       20.000 to Point/Station       21.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =    95.300(Ft.)
Top (of initial area) elevation =  1501.390(Ft.)
Bottom (of initial area) elevation =  1500.000(Ft.)
Difference in elevation =     1.390(Ft.)
Slope =    0.01459  s(percent)=       1.46
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.641 min.
Rainfall intensity =      2.815(In/Hr) for a    10.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.836
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  86.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      0.447(CFS)
Total initial stream area =        0.190(Ac.)
Pervious area fraction = 1.000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       21.000 to Point/Station       22.000
**** IRREGULAR CHANNEL FLOW TRAVEL TIME ****
______________________________________________________________________
Estimated mean flow rate at midpoint of channel =     15.617(CFS)
```

```
Depth of flow =   0.195(Ft.), Average velocity =   0.821(Ft/s)
        ******* Irregular Channel Data ***********
-----------------------------------------------------------------
Information entered for subchannel number 1 :
Point number      'X' coordinate     'Y' coordinate
        1              0.00              0.50
        2            250.00              0.00
        3            500.00              0.50
Manning's 'N' friction factor =   0.020
-----------------------------------------------------------------
Sub-Channel flow  =     15.617(CFS)
  '     '        flow top width =    195.068(Ft.)
  '     '    velocity=    0.821(Ft/s)
  '     '        area =     19.026(Sq.Ft)
  '     '        Froude number =     0.463

Upstream point elevation =  1500.000(Ft.)
Downstream point elevation =  1494.000(Ft.)
Flow length =  2207.000(Ft.)
Travel time  =   44.81 min.
Time of concentration =   52.45 min.
Depth of flow =   0.195(Ft.)
Average velocity =   0.821(Ft/s)
Total irregular channel flow =    15.617(CFS)
Irregular channel normal depth above invert elev. =   0.195(Ft.)
Average velocity of channel(s) =   0.821(Ft/s)
 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.741
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  86.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.014(In/Hr) for a    10.0 year storm
Subarea runoff =     30.251(CFS) for     40.240(Ac.)
Total runoff =     30.698(CFS)  Total area =      40.430(Ac.)
Depth of flow =   0.251(Ft.), Average velocity =   0.972(Ft/s)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       22.000 to Point/Station       22.000
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     40.430(Ac.)
Runoff from this stream =     30.698(CFS)
Time of concentration =   52.45 min.
Rainfall intensity =     1.014(In/Hr)
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       24.000 to Point/Station       25.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   171.500(Ft.)
Top (of initial area) elevation =  1500.450(Ft.)
Bottom (of initial area) elevation =  1499.000(Ft.)
Difference in elevation =     1.450(Ft.)
Slope =    0.00845  s(percent)=       0.85
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.779 min.
Rainfall intensity =      2.346(In/Hr) for a    10.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.824
Decimal fraction soil group A = 0.000
```

```
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  86.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      0.599(CFS)
Total initial stream area =        0.310(Ac.)
Pervious area fraction = 1.000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       25.000 to Point/Station       22.000
**** IRREGULAR CHANNEL FLOW TRAVEL TIME ****
______________________________________________________________________
Estimated mean flow rate at midpoint of channel =      8.731(CFS)
Depth of flow =   0.161(Ft.), Average velocity =   0.670(Ft/s)
        ******* Irregular Channel Data ***********
-----------------------------------------------------------------
Information entered for subchannel number 1 :
Point number      'X' coordinate     'Y' coordinate
        1              0.00              0.50
        2            250.00              0.00
        3            500.00              0.50
Manning's 'N' friction factor =   0.020
-----------------------------------------------------------------
Sub-Channel flow  =      8.731(CFS)
  '     '        flow top width =    161.400(Ft.)
  '     '    velocity=    0.670(Ft/s)
  '     '        area =     13.025(Sq.Ft)
  '     '        Froude number =     0.416

Upstream point elevation =  1499.000(Ft.)
Downstream point elevation =  1494.000(Ft.)
Flow length =  2142.200(Ft.)
Travel time  =   53.26 min.
Time of concentration =   64.04 min.
Depth of flow =   0.161(Ft.)
Average velocity =   0.670(Ft/s)
Total irregular channel flow =     8.731(CFS)
Irregular channel normal depth above invert elev. =   0.161(Ft.)
Average velocity of channel(s) =   0.670(Ft/s)
 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.727
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  86.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      0.912(In/Hr) for a    10.0 year storm
Subarea runoff =     16.190(CFS) for     24.410(Ac.)
Total runoff =     16.789(CFS)  Total area =      24.720(Ac.)
Depth of flow =   0.206(Ft.), Average velocity =   0.789(Ft/s)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       22.000 to Point/Station       22.000
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =     24.720(Ac.)
Runoff from this stream =     16.789(CFS)
Time of concentration =   64.04 min.
Rainfall intensity =     0.912(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
```

```
 No.       (CFS)       (min)                 (In/Hr)


1       30.698     52.45                 1.014
2       16.789     64.04                 0.912
Largest stream flow has longer or shorter time of concentration
Qp =     30.698 + sum of
          Qa          Tb/Ta
          16.789 *    0.819 =     13.750
Qp =     44.448

Total of 2 main streams to confluence:
Flow rates before confluence point:
      30.698      16.789
Area of streams before confluence:
       40.430      24.720


Results of confluence:
Total flow rate =     44.448(CFS)
Time of concentration =    52.452 min.
Effective stream area after confluence  =     65.150(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       22.000 to Point/Station       23.000
**** IRREGULAR CHANNEL FLOW TRAVEL TIME ****
______________________________________________________________________
Depth of flow =   0.329(Ft.), Average velocity =   0.823(Ft/s)
        ******* Irregular Channel Data ***********
-----------------------------------------------------------------
Information entered for subchannel number 1 :
Point number      'X' coordinate     'Y' coordinate
        1             0.00             0.50
        2           250.00             0.00
        3           500.00             0.50
Manning's 'N' friction factor =   0.020
-----------------------------------------------------------------
Sub-Channel flow  =     44.448(CFS)
  '     '        flow top width =    328.575(Ft.)
  '     '    velocity=    0.823(Ft/s)
  '     '        area =     53.981(Sq.Ft)
  '     '        Froude number =     0.358

Upstream point elevation =  1494.000(Ft.)
Downstream point elevation =  1492.900(Ft.)
Flow length =   805.900(Ft.)
Travel time  =   16.31 min.
Time of concentration =   68.76 min.
Depth of flow =   0.329(Ft.)
Average velocity =   0.823(Ft/s)
Total irregular channel flow =    44.448(CFS)
Irregular channel normal depth above invert elev. =   0.329(Ft.)
Average velocity of channel(s) =   0.823(Ft/s)
End of computations, total study area =           65.15 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 1.000
Area averaged RI index number =  86.0
```

```
                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study        Date: 07/31/23  File:SimpsonExARat100yr.out
------------------------------------------------------------------------
IRV21-0204 NEWLAND SIMPSON
EXISTING CONDITIONS DMA A
RATIONAL METHOD
100 YEAR STORM EVENT
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6350

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =  100.00 Antecedent Moisture Condition = 3

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity =  1.570(In/Hr)
Slope of intensity duration curve = 0.5300





++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   123.400(Ft.)
Top (of initial area) elevation =  1504.340(Ft.)
Bottom (of initial area) elevation =  1503.200(Ft.)
Difference in elevation =     1.140(Ft.)
Slope =    0.00924  s(percent)=       0.92
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    9.283 min.
Rainfall intensity =      4.221(In/Hr) for a   100.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.883
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  94.40
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      0.820(CFS)
Total initial stream area =        0.220(Ac.)
Pervious area fraction = 1.000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       11.000 to Point/Station       12.000
**** IRREGULAR CHANNEL FLOW TRAVEL TIME ****
______________________________________________________________________
Estimated mean flow rate at midpoint of channel =     12.361(CFS)
```

```
Depth of flow =   0.153(Ft.), Average velocity =   1.314(Ft/s)
        ******* Irregular Channel Data ***********
-----------------------------------------------------------------
Information entered for subchannel number 1 :
Point number      'X' coordinate     'Y' coordinate
        1              0.00              0.50
        2            200.00              0.00
        3            400.00              0.50
Manning's 'N' friction factor =   0.020
-----------------------------------------------------------------
Sub-Channel flow  =     12.361(CFS)
  '     '        flow top width =    122.679(Ft.)
  '     '    velocity=    1.314(Ft/s)
  '     '        area =      9.406(Sq.Ft)
  '     '        Froude number =     0.836

Upstream point elevation =  1503.200(Ft.)
Downstream point elevation =  1494.610(Ft.)
Flow length =   894.500(Ft.)
Travel time  =   11.34 min.
Time of concentration =   20.63 min.
Depth of flow =   0.153(Ft.)
Average velocity =   1.314(Ft/s)
Total irregular channel flow =    12.361(CFS)
Irregular channel normal depth above invert elev. =   0.153(Ft.)
Average velocity of channel(s) =   1.314(Ft/s)
 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.875
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  94.40
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      2.765(In/Hr) for a   100.0 year storm
Subarea runoff =     23.006(CFS) for      9.510(Ac.)
Total runoff =     23.826(CFS)  Total area =       9.730(Ac.)
Depth of flow =   0.196(Ft.), Average velocity =   1.548(Ft/s)
End of computations, total study area =           9.73 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 1.000
Area averaged RI index number =  86.0
```

```
                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study        Date: 07/31/23  File:SimpsonExBRat100yr.out
------------------------------------------------------------------------
IRV21-0204 NEWLAND SIMPSON
EXISTING CONDITIONS DMA B
RATIONAL METHOD
100 YEAR STORM EVENT
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6350

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =  100.00 Antecedent Moisture Condition = 3

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity =  1.570(In/Hr)
Slope of intensity duration curve = 0.5300




++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       20.000 to Point/Station       21.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =    95.300(Ft.)
Top (of initial area) elevation =  1501.390(Ft.)
Bottom (of initial area) elevation =  1500.000(Ft.)
Difference in elevation =     1.390(Ft.)
Slope =    0.01459  s(percent)=       1.46
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.641 min.
Rainfall intensity =      4.680(In/Hr) for a   100.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.885
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  94.40
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      0.787(CFS)
Total initial stream area =        0.190(Ac.)
Pervious area fraction = 1.000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       21.000 to Point/Station       22.000
**** IRREGULAR CHANNEL FLOW TRAVEL TIME ****
______________________________________________________________________
Estimated mean flow rate at midpoint of channel =     32.592(CFS)
```

```
Depth of flow =   0.257(Ft.), Average velocity =   0.987(Ft/s)
        ******* Irregular Channel Data ***********
-----------------------------------------------------------------
Information entered for subchannel number 1 :
Point number      'X' coordinate     'Y' coordinate
        1              0.00              0.50
        2            250.00              0.00
        3            500.00              0.50
Manning's 'N' friction factor =   0.020
-----------------------------------------------------------------
Sub-Channel flow  =     32.592(CFS)
  '     '        flow top width =    257.040(Ft.)
  '     '    velocity=    0.987(Ft/s)
  '     '        area =     33.035(Sq.Ft)
  '     '        Froude number =     0.485

Upstream point elevation =  1500.000(Ft.)
Downstream point elevation =  1494.000(Ft.)
Flow length =  2207.000(Ft.)
Travel time  =   37.28 min.
Time of concentration =   44.92 min.
Depth of flow =   0.257(Ft.)
Average velocity =   0.987(Ft/s)
Total irregular channel flow =    32.592(CFS)
Irregular channel normal depth above invert elev. =   0.257(Ft.)
Average velocity of channel(s) =   0.987(Ft/s)
 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.863
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  94.40
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.830(In/Hr) for a   100.0 year storm
Subarea runoff =     63.538(CFS) for     40.240(Ac.)
Total runoff =     64.325(CFS)  Total area =      40.430(Ac.)
Depth of flow =   0.332(Ft.), Average velocity =   1.169(Ft/s)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       22.000 to Point/Station       22.000
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     40.430(Ac.)
Runoff from this stream =     64.325(CFS)
Time of concentration =   44.92 min.
Rainfall intensity =     1.830(In/Hr)
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       24.000 to Point/Station       25.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   171.500(Ft.)
Top (of initial area) elevation =  1500.450(Ft.)
Bottom (of initial area) elevation =  1499.000(Ft.)
Difference in elevation =     1.450(Ft.)
Slope =    0.00845  s(percent)=       0.85
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.779 min.
Rainfall intensity =      3.900(In/Hr) for a   100.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.882
Decimal fraction soil group A = 0.000
```

```
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  94.40
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      1.066(CFS)
Total initial stream area =        0.310(Ac.)
Pervious area fraction = 1.000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       25.000 to Point/Station       22.000
**** IRREGULAR CHANNEL FLOW TRAVEL TIME ****
______________________________________________________________________
Estimated mean flow rate at midpoint of channel =     18.321(CFS)
Depth of flow =   0.213(Ft.), Average velocity =   0.807(Ft/s)
        ******* Irregular Channel Data ***********
-----------------------------------------------------------------
Information entered for subchannel number 1 :
Point number      'X' coordinate     'Y' coordinate
        1              0.00             0.50
        2            250.00             0.00
        3            500.00             0.50
Manning's 'N' friction factor =   0.020
-----------------------------------------------------------------
Sub-Channel flow  =     18.321(CFS)
  '     '        flow top width =    213.114(Ft.)
  '     '    velocity=    0.807(Ft/s)
  '     '        area =     22.709(Sq.Ft)
  '     '        Froude number =     0.436

Upstream point elevation =  1499.000(Ft.)
Downstream point elevation =  1494.000(Ft.)
Flow length =  2142.200(Ft.)
Travel time  =   44.25 min.
Time of concentration =   55.03 min.
Depth of flow =   0.213(Ft.)
Average velocity =   0.807(Ft/s)
Total irregular channel flow =    18.321(CFS)
Irregular channel normal depth above invert elev. =   0.213(Ft.)
Average velocity of channel(s) =   0.807(Ft/s)
 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.859
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  94.40
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.644(In/Hr) for a   100.0 year storm
Subarea runoff =     34.450(CFS) for     24.410(Ac.)
Total runoff =     35.517(CFS)  Total area =      24.720(Ac.)
Depth of flow =   0.273(Ft.), Average velocity =   0.952(Ft/s)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       22.000 to Point/Station       22.000
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =     24.720(Ac.)
Runoff from this stream =     35.517(CFS)
Time of concentration =   55.03 min.
Rainfall intensity =     1.644(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
```

```
 No.       (CFS)       (min)                 (In/Hr)


1       64.325     44.92                 1.830
2       35.517     55.03                 1.644
Largest stream flow has longer or shorter time of concentration
Qp =     64.325 + sum of
          Qa          Tb/Ta
          35.517 *    0.816 =     28.993
Qp =     93.318

Total of 2 main streams to confluence:
Flow rates before confluence point:
      64.325      35.517
Area of streams before confluence:
       40.430       24.720


Results of confluence:
Total flow rate =     93.318(CFS)
Time of concentration =    44.924 min.
Effective stream area after confluence  =     65.150(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       22.000 to Point/Station       23.000
**** IRREGULAR CHANNEL FLOW TRAVEL TIME ****
______________________________________________________________________
Depth of flow =   0.434(Ft.), Average velocity =   0.991(Ft/s)
        ******* Irregular Channel Data ***********
-----------------------------------------------------------------
Information entered for subchannel number 1 :
Point number      'X' coordinate     'Y' coordinate
        1              0.00             0.50
        2            250.00             0.00
        3            500.00             0.50
Manning's 'N' friction factor =   0.020
-----------------------------------------------------------------
Sub-Channel flow  =     93.318(CFS)
  '     '        flow top width =    433.937(Ft.)
  '     '    velocity=    0.991(Ft/s)
  '     '        area =     94.151(Sq.Ft)
  '     '        Froude number =     0.375

Upstream point elevation =  1494.000(Ft.)
Downstream point elevation =  1492.900(Ft.)
Flow length =   805.900(Ft.)
Travel time  =   13.55 min.
Time of concentration =   58.48 min.
Depth of flow =   0.434(Ft.)
Average velocity =   0.991(Ft/s)
Total irregular channel flow =    93.318(CFS)
Irregular channel normal depth above invert elev. =   0.434(Ft.)
Average velocity of channel(s) =   0.991(Ft/s)
End of computations, total study area =           65.15 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 1.000
Area averaged RI index number =  86.0
```

Newland Simpson Hemet
Simpson Road
City of Hemet, County of Riverside, CA
Dated: 10/13/23
Last Revised:

PRE DEVELOPMENT - Unit Hydrograph PEAK FLOW

PEAK FLOW SUMMARY - 100YR 3HR*		
Drainage Management Area (DMA)	**Volume (cf)**	**Peak Flow (cfs)**
DMA A	70866.5	17.90
DMA B	474193.9	100.72

**Per CIVILD, refer to output data calculations*

PEAK FLOW SUMMARY - 100YR 24HR*		
Drainage Management Area (DMA)	**Volume (cf)**	**Peak Flow (cfs)**
DMA A	90630.9	6.83
DMA B	573685.2	43.76

**Per CIVILD, refer to output data calculations*

NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-3HR
PRE DEVELOPMENT
DMA A

```
       U n i t   H y d r o g r a p h   A n a l y s i s

       Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2012, Version 8.2
              Study date  07/28/23 File: SimpsonExAUH3100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6312

---------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



---------------------------------------------------------------------
EXISTING CONDITIONS
UNIT HYDROGRAPH
AREA A
100 YEAR 3 HOUR STORM EVENT
--------------------------------------------------------------------
Drainage Area =       9.73(Ac.)  =      0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =       9.73(Ac.)  =      0.015 Sq. Mi.
Length along longest watercourse =    1017.90(Ft.)
Length along longest watercourse measured to centroid =     610.90(Ft.)
Length along longest watercourse =      0.193 Mi.
Length along longest watercourse measured to centroid =      0.116 Mi.
Difference in elevation =       9.73(Ft.)
Slope along watercourse =     50.4710 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time =    0.081 Hr.
Lag time =     4.83 Min.
25% of lag time =     1.21 Min.
40% of lag time =     1.93 Min.
Unit time =     5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.73           0.87                  8.46

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.73           2.22                 21.60

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.869(In)
Area Averaged 100-Year Rainfall =    2.220(In)

Point rain (area averaged) =    2.220(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    2.220(In)

Sub-Area Data:
Area(Ac.)          Runoff Index   Impervious %
     9.730            86.00          0.025
 Total Area Entered =      9.73(Ac.)
```

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
86.0	94.4	0.073	0.025	0.071	1.000	0.071
					Sum (F) =	0.071

Area averaged mean soil loss (F) (In/Hr) = 0.071
Minimum soil loss rate ((In/Hr)) = 0.036
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period	(hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	103.435	20.253	1.986
2	0.167	206.871	48.622	4.768
3	0.250	310.306	15.138	1.484
4	0.333	413.742	6.883	0.675
5	0.417	517.177	3.843	0.377
6	0.500	620.613	2.471	0.242
7	0.583	724.048	1.496	0.147
8	0.667	827.484	1.293	0.127
			Sum = 100.000	Sum= 9.806

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	1.30	0.346	0.071	(0.312)	0.275
2	0.17	1.30	0.346	0.071	(0.312)	0.275
3	0.25	1.10	0.293	0.071	(0.264)	0.222
4	0.33	1.50	0.400	0.071	(0.360)	0.328
5	0.42	1.50	0.400	0.071	(0.360)	0.328
6	0.50	1.80	0.479	0.071	(0.432)	0.408
7	0.58	1.50	0.400	0.071	(0.360)	0.328
8	0.67	1.80	0.479	0.071	(0.432)	0.408
9	0.75	1.80	0.479	0.071	(0.432)	0.408
10	0.83	1.50	0.400	0.071	(0.360)	0.328
11	0.92	1.60	0.426	0.071	(0.384)	0.355
12	1.00	1.80	0.479	0.071	(0.432)	0.408
13	1.08	2.20	0.586	0.071	(0.527)	0.515
14	1.17	2.20	0.586	0.071	(0.527)	0.515
15	1.25	2.20	0.586	0.071	(0.527)	0.515
16	1.33	2.00	0.533	0.071	(0.479)	0.462
17	1.42	2.60	0.693	0.071	(0.623)	0.621
18	1.50	2.70	0.719	0.071	(0.647)	0.648
19	1.58	2.40	0.639	0.071	(0.575)	0.568
20	1.67	2.70	0.719	0.071	(0.647)	0.648
21	1.75	3.30	0.879	0.071	(0.791)	0.808
22	1.83	3.10	0.826	0.071	(0.743)	0.755
23	1.92	2.90	0.773	0.071	(0.695)	0.701
24	2.00	3.00	0.799	0.071	(0.719)	0.728
25	2.08	3.10	0.826	0.071	(0.743)	0.755
26	2.17	4.20	1.119	0.071	(1.007)	1.048
27	2.25	5.00	1.332	0.071	(1.199)	1.261
28	2.33	3.50	0.932	0.071	(0.839)	0.861
29	2.42	6.80	1.811	0.071	(1.630)	1.740
30	2.50	7.30	1.945	0.071	(1.750)	1.873
31	2.58	8.20	2.184	0.071	(1.966)	2.113
32	2.67	5.90	1.572	0.071	(1.415)	1.501
33	2.75	2.00	0.533	0.071	(0.479)	0.462
34	2.83	1.80	0.479	0.071	(0.432)	0.408

```
35   2.92     1.80      0.479          0.071     (  0.432)        0.408
36   3.00     0.60      0.160          0.071     (  0.144)        0.089
                (Loss Rate Not Used)
   Sum =      100.0                                   Sum =    24.1
     Flood volume = Effective rainfall      2.01(In)
      times area       9.7(Ac.)/[(In)/(Ft.)] =       1.6(Ac.Ft)
     Total soil loss =      0.21(In)
     Total soil loss =     0.173(Ac.Ft)
     Total rainfall =      2.22(In)
     Flood volume =       70866.5 Cubic Feet
     Total soil loss =        7540.3 Cubic Feet
     --------------------------------------------------------------------
      Peak flow rate of this hydrograph =      17.900(CFS)
     --------------------------------------------------------------------
     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         3 - H O U R    S T O R M
                    R u n o f f      H y d r o g r a p h
     --------------------------------------------------------------------
                  Hydrograph in    5   Minute intervals ((CFS))

     --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        5.0       10.0      15.0      20.0
-----------------------------------------------------------------------
  0+ 5       0.0038      0.55  VQ        |         |         |         |
  0+10       0.0166      1.86  V  Q      |         |         |         |
  0+15       0.0315      2.16  V   Q     |         |         |         |
  0+20       0.0473      2.31  |V  Q     |         |         |         |
  0+25       0.0669      2.84  |V   Q    |         |         |         |
  0+30       0.0888      3.19  | V   Q   |         |         |         |
  0+35       0.1129      3.50  | V    Q  |         |         |         |
  0+40       0.1368      3.46  |  V  Q   |         |         |         |
  0+45       0.1629      3.79  |   V  Q  |         |         |         |
  0+50       0.1886      3.74  |   V  Q  |         |         |         |
  0+55       0.2125      3.47  |    VQ   |         |         |         |
  1+ 0       0.2373      3.60  |    V Q  |         |         |         |
  1+ 5       0.2654      4.07  |     V Q |         |         |         |
  1+10       0.2974      4.65  |      V Q|         |         |         |
  1+15       0.3308      4.85  |       VQ|         |         |         |
  1+20       0.3640      4.83  |       VQ|         |         |         |
  1+25       0.3980      4.94  |        Q|         |         |         |
  1+30       0.4373      5.71  |         VQ        |         |         |
  1+35       0.4780      5.90  |         |Q        |         |         |
  1+40       0.5181      5.82  |         |QV       |         |         |
  1+45       0.5626      6.47  |         |  QV     |         |         |
  1+50       0.6124      7.23  |         |    QV   |         |         |
  1+55       0.6616      7.15  |         |   Q V   |         |         |
  2+ 0       0.7099      7.01  |         |   Q  V  |         |         |
  2+ 5       0.7592      7.15  |         |   Q   V |         |         |
  2+10       0.8135      7.88  |         |    Q    V         |         |
  2+15       0.8807      9.76  |         |        Q|V        |         |
  2+20       0.9527     10.45  |         |         Q  V      |         |
  2+25       1.0271     10.81  |         |         |Q   V    |         |
  2+30       1.1299     14.93  |         |         |      V Q|         |
  2+35       1.2486     17.24  |         |         |         V   Q     |
  2+40       1.3719     17.90  |         |         |         |  V Q    |
  2+45       1.4660     13.66  |         |         |      Q  |     V   |
  2+50       1.5217      8.08  |         |     Q   |         |      V  |
  2+55       1.5635      6.07  |         | Q       |         |       V |
  3+ 0       1.5953      4.62  |        Q|         |         |        V|
  3+ 5       1.6118      2.39  |   Q     |         |         |        V|
  3+10       1.6198      1.16  | Q       |         |         |        V|
  3+15       1.6237      0.57  |Q        |         |         |        V|
  3+20       1.6254      0.25  Q         |         |         |        V|
  3+25       1.6263      0.13  Q         |         |         |        V|
  3+30       1.6268      0.06  Q         |         |         |        V|
  3+35       1.6269      0.01  Q         |         |         |         V
----------------------------------------------------------------------
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NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-3HR
PRE DEVELOPMENT
DMA B

```
       U n i t   H y d r o g r a p h   A n a l y s i s

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              Study date  07/28/23 File: SimpsonExBUH3100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6312

---------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



---------------------------------------------------------------------
EXISTING CONDITION
UNIT HYDROGRAPH
AREA B
100 YEAR 3 HOUR STORM EVENT
--------------------------------------------------------------------
Drainage Area =      65.15(Ac.)  =      0.102 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      65.15(Ac.)  =      0.102 Sq. Mi.
Length along longest watercourse =    3012.90(Ft.)
Length along longest watercourse measured to centroid =    1327.10(Ft.)
Length along longest watercourse =      0.571 Mi.
Length along longest watercourse measured to centroid =      0.251 Mi.
Difference in elevation =       6.05(Ft.)
Slope along watercourse =     10.6024 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time =    0.220 Hr.
Lag time =    13.19 Min.
25% of lag time =     3.30 Min.
40% of lag time =     5.28 Min.
Unit time =     5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       65.15           0.87                 56.62

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       65.15           2.22                144.63

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.869(In)
Area Averaged 100-Year Rainfall =    2.220(In)

Point rain (area averaged) =    2.220(In)
Areal adjustment factor =   99.97 %
Adjusted average point rain =    2.219(In)

Sub-Area Data:
Area(Ac.)          Runoff Index   Impervious %
    65.150           86.00         0.021
 Total Area Entered =     65.15(Ac.)
```

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
86.0	94.4	0.073	0.021	0.071	1.000	0.071
					Sum (F) =	0.071

Area averaged mean soil loss (F) (In/Hr) = 0.071
Minimum soil loss rate ((In/Hr)) = 0.036
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	37.914	4.023	2.641
2	0.167	75.828	16.266	10.680
3	0.250	113.741	25.475	16.726
4	0.333	151.655	18.455	12.118
5	0.417	189.569	9.188	6.033
6	0.500	227.483	5.575	3.660
7	0.583	265.397	4.125	2.709
8	0.667	303.310	3.246	2.131
9	0.750	341.224	2.484	1.631
10	0.833	379.138	2.096	1.376
11	0.917	417.052	1.638	1.076
12	1.000	454.966	1.281	0.841
13	1.083	492.879	1.166	0.766
14	1.167	530.793	1.037	0.681
15	1.250	568.707	0.821	0.539
16	1.333	606.621	0.700	0.459
17	1.417	644.535	0.582	0.382
18	1.500	682.448	0.475	0.312
19	1.583	720.362	0.381	0.250
20	1.667	758.276	0.379	0.249
21	1.750	796.190	0.379	0.249
22	1.833	834.104	0.228	0.149
			Sum = 100.000	Sum= 65.659

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	1.30	0.346	0.071	(0.312)	0.275
2	0.17	1.30	0.346	0.071	(0.312)	0.275
3	0.25	1.10	0.293	0.071	(0.264)	0.222
4	0.33	1.50	0.399	0.071	(0.360)	0.328
5	0.42	1.50	0.399	0.071	(0.360)	0.328
6	0.50	1.80	0.479	0.071	(0.431)	0.408
7	0.58	1.50	0.399	0.071	(0.360)	0.328
8	0.67	1.80	0.479	0.071	(0.431)	0.408
9	0.75	1.80	0.479	0.071	(0.431)	0.408
10	0.83	1.50	0.399	0.071	(0.360)	0.328
11	0.92	1.60	0.426	0.071	(0.384)	0.355
12	1.00	1.80	0.479	0.071	(0.431)	0.408
13	1.08	2.20	0.586	0.071	(0.527)	0.514
14	1.17	2.20	0.586	0.071	(0.527)	0.514
15	1.25	2.20	0.586	0.071	(0.527)	0.514
16	1.33	2.00	0.533	0.071	(0.479)	0.461
17	1.42	2.60	0.692	0.071	(0.623)	0.621
18	1.50	2.70	0.719	0.071	(0.647)	0.648
19	1.58	2.40	0.639	0.071	(0.575)	0.568
20	1.67	2.70	0.719	0.071	(0.647)	0.648

```
21   1.75     3.30      0.879          0.071     (  0.791)       0.807
22   1.83     3.10      0.826          0.071     (  0.743)       0.754
23   1.92     2.90      0.772          0.071     (  0.695)       0.701
24   2.00     3.00      0.799          0.071     (  0.719)       0.728
25   2.08     3.10      0.826          0.071     (  0.743)       0.754
26   2.17     4.20      1.119          0.071     (  1.007)       1.047
27   2.25     5.00      1.332          0.071     (  1.198)       1.260
28   2.33     3.50      0.932          0.071     (  0.839)       0.861
29   2.42     6.80      1.811          0.071     (  1.630)       1.740
30   2.50     7.30      1.944          0.071     (  1.750)       1.873
31   2.58     8.20      2.184          0.071     (  1.965)       2.112
32   2.67     5.90      1.571          0.071     (  1.414)       1.500
33   2.75     2.00      0.533          0.071     (  0.479)       0.461
34   2.83     1.80      0.479          0.071     (  0.431)       0.408
35   2.92     1.80      0.479          0.071     (  0.431)       0.408
36   3.00     0.60      0.160          0.071     (  0.144)       0.088
              (Loss Rate Not Used)
   Sum =     100.0                                   Sum =    24.1
      Flood volume = Effective rainfall      2.01(In)
       times area      65.2(Ac.)/[(In)/(Ft.)] =      10.9(Ac.Ft)
      Total soil loss =      0.21(In)
      Total soil loss =     1.163(Ac.Ft)
      Total rainfall =      2.22(In)
      Flood volume =     474193.9 Cubic Feet
      Total soil loss =      50674.2 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =    100.715(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          3 - H O U R    S T O R M
                     R u n o f f     H y d r o g r a p h
      --------------------------------------------------------------------
                 Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft    Q(CFS)  0       50.0      100.0     150.0     200.0
-----------------------------------------------------------------------
  0+ 5       0.0050       0.73  Q         |         |         |         |
  0+10       0.0302       3.66  Q         |         |         |         |
  0+15       0.0862       8.12  VQ        |         |         |         |
  0+20       0.1630      11.16  V Q       |         |         |         |
  0+25       0.2531      13.07  V Q       |         |         |         |
  0+30       0.3593      15.42  |V Q      |         |         |         |
  0+35       0.4818      17.78  |V Q      |         |         |         |
  0+40       0.6161      19.51  | VQ      |         |         |         |
  0+45       0.7586      20.69  | V Q     |         |         |         |
  0+50       0.9093      21.88  |  VQ     |         |         |         |
  0+55       1.0630      22.31  |  VQ     |         |         |         |
  1+ 0       1.2155      22.14  |   Q     |         |         |         |
  1+ 5       1.3740      23.01  |   QV    |         |         |         |
  1+10       1.5484      25.32  |    Q    |         |         |         |
  1+15       1.7409      27.96  |    QV   |         |         |         |
  1+20       1.9447      29.59  |    Q V  |         |         |         |
  1+25       2.1543      30.43  |     QV  |         |         |         |
  1+30       2.3745      31.97  |     Q V |         |         |         |
  1+35       2.6126      34.57  |     Q  V|         |         |         |
  1+40       2.8632      36.39  |      Q  V         |         |         |
  1+45       3.1233      37.77  |      Q  |V        |         |         |
  1+50       3.4027      40.56  |       Q | V       |         |         |
  1+55       3.7030      43.60  |       Q |  V      |         |         |
  2+ 0       4.0116      44.81  |       Q |   V     |         |         |
  2+ 5       4.3219      45.05  |        Q|    V    |         |         |
  2+10       4.6424      46.53  |        Q|      V  |         |         |
  2+15       4.9949      51.19  |         Q       V |         |         |
  2+20       5.3945      58.01  |         |Q       V|         |         |
  2+25       5.8327      63.63  |         | Q       |V        |         |
  2+30       6.3243      71.38  |         |   Q     |  V      |         |
  2+35       6.9160      85.92  |         |      Q  |    V    |         |
  2+40       7.5988      99.13  |         |        Q|      V  |         |
  2+45       8.2924     100.72  |         |         Q         V         |
  2+50       8.8858      86.16  |         |      Q  |         | V       |
```

```
     2+55        9.3341      65.10  |         |  Q      |         |   V      |
     3+ 0        9.6801      50.23  |         Q         |         |    V     |
     3+ 5        9.9542      39.81  |      Q  |         |         |     V    |
     3+10       10.1589      29.71  |    Q    |         |         |      V   |
     3+15       10.3078      21.62  |   Q     |         |         |      V   |
     3+20       10.4215      16.51  |  Q      |         |         |       V  |
     3+25       10.5126      13.22  | Q       |         |         |       V  |
     3+30       10.5868      10.77  | Q       |         |         |       V  |
     3+35       10.6478       8.87  |Q        |         |         |        V|
     3+40       10.6987       7.39  |Q        |         |         |        V|
     3+45       10.7407       6.09  |Q        |         |         |        V|
     3+50       10.7751       5.01  |Q        |         |         |        V|
     3+55       10.8035       4.12  Q         |         |         |        V|
     4+ 0       10.8263       3.32  Q         |         |         |        V|
     4+ 5       10.8447       2.67  Q         |         |         |        V|
     4+10       10.8596       2.16  Q         |         |         |        V|
     4+15       10.8708       1.62  Q         |         |         |        V|
     4+20       10.8781       1.07  Q         |         |         |        V|
     4+25       10.8820       0.57  Q         |         |         |        V|
     4+30       10.8841       0.29  Q         |         |         |        V|
     4+35       10.8853       0.18  Q         |         |         |        V|
     4+40       10.8859       0.08  Q         |         |         |        V|
     4+45       10.8860       0.01  Q         |         |         |         V
----------------------------------------------------------------------
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NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-24HR
PRE DEVELOPMENT
DMA A

U n i t   H y d r o g r a p h   A n a l y s i s

Study date 10/17/23 File: SIMPSONEXAUH24100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6491

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

NEWLAND SIMPSON HEMET
PRE DEVELOPMENT - DMA A
UNIT HYDROGRAPH
100YR 24HR

Drainage Area = 9.73(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.73(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 1017.90(Ft.)
Length along longest watercourse measured to centroid = 610.90(Ft.)
Length along longest watercourse = 0.193 Mi.
Length along longest watercourse measured to centroid = 0.116 Mi.
Difference in elevation = 9.73(Ft.)
Slope along watercourse = 50.4710 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.081 Hr.
Lag time = 4.83 Min.
25% of lag time = 1.21 Min.
40% of lag time = 1.93 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
9.73	2.13	20.72

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
9.73	5.59	54.39

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 2.130(In)
Area Averaged 100-Year Rainfall = 5.590(In)

Point rain (area averaged) = 5.590(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 5.590(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
9.730	86.00	0.025

Total Area Entered = 9.73(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
86.0	94.4	0.073	0.025	0.071	1.000	0.071
					Sum (F) =	0.071

Area averaged mean soil loss (F) (In/Hr) = 0.071
Minimum soil loss rate ((In/Hr)) = 0.036
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	103.435	20.253	1.986
2	0.167	206.871	48.622	4.768
3	0.250	310.306	15.138	1.484
4	0.333	413.742	6.883	0.675
5	0.417	517.177	3.843	0.377
6	0.500	620.613	2.471	0.242
7	0.583	724.048	1.496	0.147
8	0.667	827.484	1.293	0.127

Sum = 100.000   Sum=   9.806

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.045	(0.126)	0.040	0.004
2	0.17	0.07	0.045	(0.126)	0.040	0.004
3	0.25	0.07	0.045	(0.125)	0.040	0.004
4	0.33	0.10	0.067	(0.125)	0.060	0.007
5	0.42	0.10	0.067	(0.124)	0.060	0.007
6	0.50	0.10	0.067	(0.124)	0.060	0.007
7	0.58	0.10	0.067	(0.123)	0.060	0.007
8	0.67	0.10	0.067	(0.123)	0.060	0.007
9	0.75	0.10	0.067	(0.122)	0.060	0.007
10	0.83	0.13	0.089	(0.122)	0.080	0.009
11	0.92	0.13	0.089	(0.121)	0.080	0.009
12	1.00	0.13	0.089	(0.121)	0.080	0.009
13	1.08	0.10	0.067	(0.120)	0.060	0.007
14	1.17	0.10	0.067	(0.120)	0.060	0.007
15	1.25	0.10	0.067	(0.119)	0.060	0.007
16	1.33	0.10	0.067	(0.119)	0.060	0.007
17	1.42	0.10	0.067	(0.118)	0.060	0.007
18	1.50	0.10	0.067	(0.118)	0.060	0.007
19	1.58	0.10	0.067	(0.118)	0.060	0.007
20	1.67	0.10	0.067	(0.117)	0.060	0.007
21	1.75	0.10	0.067	(0.117)	0.060	0.007
22	1.83	0.13	0.089	(0.116)	0.080	0.009
23	1.92	0.13	0.089	(0.116)	0.080	0.009
24	2.00	0.13	0.089	(0.115)	0.080	0.009
25	2.08	0.13	0.089	(0.115)	0.080	0.009
26	2.17	0.13	0.089	(0.114)	0.080	0.009
27	2.25	0.13	0.089	(0.114)	0.080	0.009
28	2.33	0.13	0.089	(0.113)	0.080	0.009
29	2.42	0.13	0.089	(0.113)	0.080	0.009
30	2.50	0.13	0.089	(0.112)	0.080	0.009
31	2.58	0.17	0.112	(0.112)	0.101	0.011
32	2.67	0.17	0.112	(0.111)	0.101	0.011
33	2.75	0.17	0.112	(0.111)	0.101	0.011
34	2.83	0.17	0.112	(0.111)	0.101	0.011
35	2.92	0.17	0.112	(0.110)	0.101	0.011
36	3.00	0.17	0.112	(0.110)	0.101	0.011
37	3.08	0.17	0.112	(0.109)	0.101	0.011
38	3.17	0.17	0.112	(0.109)	0.101	0.011
39	3.25	0.17	0.112	(0.108)	0.101	0.011
40	3.33	0.17	0.112	(0.108)	0.101	0.011
41	3.42	0.17	0.112	(0.107)	0.101	0.011

42	3.50	0.17	0.112	(0.107)	0.101	0.011
43	3.58	0.17	0.112	(0.106)	0.101	0.011
44	3.67	0.17	0.112	(0.106)	0.101	0.011
45	3.75	0.17	0.112	(0.106)	0.101	0.011
46	3.83	0.20	0.134	0.105	(0.121)	0.029
47	3.92	0.20	0.134	0.105	(0.121)	0.029
48	4.00	0.20	0.134	0.104	(0.121)	0.030
49	4.08	0.20	0.134	0.104	(0.121)	0.030
50	4.17	0.20	0.134	0.103	(0.121)	0.031
51	4.25	0.20	0.134	0.103	(0.121)	0.031
52	4.33	0.23	0.157	0.102	(0.141)	0.054
53	4.42	0.23	0.157	0.102	(0.141)	0.054
54	4.50	0.23	0.157	0.102	(0.141)	0.055
55	4.58	0.23	0.157	0.101	(0.141)	0.055
56	4.67	0.23	0.157	0.101	(0.141)	0.056
57	4.75	0.23	0.157	0.100	(0.141)	0.056
58	4.83	0.27	0.179	0.100	(0.161)	0.079
59	4.92	0.27	0.179	0.099	(0.161)	0.079
60	5.00	0.27	0.179	0.099	(0.161)	0.080
61	5.08	0.20	0.134	0.099	(0.121)	0.036
62	5.17	0.20	0.134	0.098	(0.121)	0.036
63	5.25	0.20	0.134	0.098	(0.121)	0.036
64	5.33	0.23	0.157	0.097	(0.141)	0.059
65	5.42	0.23	0.157	0.097	(0.141)	0.060
66	5.50	0.23	0.157	0.096	(0.141)	0.060
67	5.58	0.27	0.179	0.096	(0.161)	0.083
68	5.67	0.27	0.179	0.096	(0.161)	0.083
69	5.75	0.27	0.179	0.095	(0.161)	0.084
70	5.83	0.27	0.179	0.095	(0.161)	0.084
71	5.92	0.27	0.179	0.094	(0.161)	0.085
72	6.00	0.27	0.179	0.094	(0.161)	0.085
73	6.08	0.30	0.201	0.094	(0.181)	0.108
74	6.17	0.30	0.201	0.093	(0.181)	0.108
75	6.25	0.30	0.201	0.093	(0.181)	0.109
76	6.33	0.30	0.201	0.092	(0.181)	0.109
77	6.42	0.30	0.201	0.092	(0.181)	0.109
78	6.50	0.30	0.201	0.091	(0.181)	0.110
79	6.58	0.33	0.224	0.091	(0.201)	0.133
80	6.67	0.33	0.224	0.091	(0.201)	0.133
81	6.75	0.33	0.224	0.090	(0.201)	0.133
82	6.83	0.33	0.224	0.090	(0.201)	0.134
83	6.92	0.33	0.224	0.089	(0.201)	0.134
84	7.00	0.33	0.224	0.089	(0.201)	0.135
85	7.08	0.33	0.224	0.089	(0.201)	0.135
86	7.17	0.33	0.224	0.088	(0.201)	0.135
87	7.25	0.33	0.224	0.088	(0.201)	0.136
88	7.33	0.37	0.246	0.087	(0.221)	0.159
89	7.42	0.37	0.246	0.087	(0.221)	0.159
90	7.50	0.37	0.246	0.087	(0.221)	0.159
91	7.58	0.40	0.268	0.086	(0.241)	0.182

92	7.67	0.40	0.268	0.086	(0.241)	0.183
93	7.75	0.40	0.268	0.085	(0.241)	0.183
94	7.83	0.43	0.291	0.085	(0.262)	0.206
95	7.92	0.43	0.291	0.085	(0.262)	0.206
96	8.00	0.43	0.291	0.084	(0.262)	0.206
97	8.08	0.50	0.335	0.084	(0.302)	0.252
98	8.17	0.50	0.335	0.083	(0.302)	0.252
99	8.25	0.50	0.335	0.083	(0.302)	0.252
100	8.33	0.50	0.335	0.083	(0.302)	0.253
101	8.42	0.50	0.335	0.082	(0.302)	0.253
102	8.50	0.50	0.335	0.082	(0.302)	0.254
103	8.58	0.53	0.358	0.082	(0.322)	0.276
104	8.67	0.53	0.358	0.081	(0.322)	0.277
105	8.75	0.53	0.358	0.081	(0.322)	0.277
106	8.83	0.57	0.380	0.080	(0.342)	0.300
107	8.92	0.57	0.380	0.080	(0.342)	0.300
108	9.00	0.57	0.380	0.080	(0.342)	0.301
109	9.08	0.63	0.425	0.079	(0.382)	0.346
110	9.17	0.63	0.425	0.079	(0.382)	0.346
111	9.25	0.63	0.425	0.078	(0.382)	0.346
112	9.33	0.67	0.447	0.078	(0.402)	0.369
113	9.42	0.67	0.447	0.078	(0.402)	0.369
114	9.50	0.67	0.447	0.077	(0.402)	0.370
115	9.58	0.70	0.470	0.077	(0.423)	0.393
116	9.67	0.70	0.470	0.077	(0.423)	0.393
117	9.75	0.70	0.470	0.076	(0.423)	0.393
118	9.83	0.73	0.492	0.076	(0.443)	0.416
119	9.92	0.73	0.492	0.076	(0.443)	0.416
120	10.00	0.73	0.492	0.075	(0.443)	0.417
121	10.08	0.50	0.335	0.075	(0.302)	0.261
122	10.17	0.50	0.335	0.074	(0.302)	0.261
123	10.25	0.50	0.335	0.074	(0.302)	0.261
124	10.33	0.50	0.335	0.074	(0.302)	0.262
125	10.42	0.50	0.335	0.073	(0.302)	0.262
126	10.50	0.50	0.335	0.073	(0.302)	0.262
127	10.58	0.67	0.447	0.073	(0.402)	0.375
128	10.67	0.67	0.447	0.072	(0.402)	0.375
129	10.75	0.67	0.447	0.072	(0.402)	0.375
130	10.83	0.67	0.447	0.072	(0.402)	0.376
131	10.92	0.67	0.447	0.071	(0.402)	0.376
132	11.00	0.67	0.447	0.071	(0.402)	0.376
133	11.08	0.63	0.425	0.071	(0.382)	0.354
134	11.17	0.63	0.425	0.070	(0.382)	0.355
135	11.25	0.63	0.425	0.070	(0.382)	0.355
136	11.33	0.63	0.425	0.069	(0.382)	0.355
137	11.42	0.63	0.425	0.069	(0.382)	0.356
138	11.50	0.63	0.425	0.069	(0.382)	0.356
139	11.58	0.57	0.380	0.068	(0.342)	0.312
140	11.67	0.57	0.380	0.068	(0.342)	0.312
141	11.75	0.57	0.380	0.068	(0.342)	0.312

142	11.83	0.60	0.402	0.067	(0.362)	0.335
143	11.92	0.60	0.402	0.067	(0.362)	0.335
144	12.00	0.60	0.402	0.067	(0.362)	0.336
145	12.08	0.83	0.559	0.066	(0.503)	0.493
146	12.17	0.83	0.559	0.066	(0.503)	0.493
147	12.25	0.83	0.559	0.066	(0.503)	0.493
148	12.33	0.87	0.581	0.065	(0.523)	0.516
149	12.42	0.87	0.581	0.065	(0.523)	0.516
150	12.50	0.87	0.581	0.065	(0.523)	0.517
151	12.58	0.93	0.626	0.064	(0.563)	0.562
152	12.67	0.93	0.626	0.064	(0.563)	0.562
153	12.75	0.93	0.626	0.064	(0.563)	0.562
154	12.83	0.97	0.648	0.063	(0.584)	0.585
155	12.92	0.97	0.648	0.063	(0.584)	0.585
156	13.00	0.97	0.648	0.063	(0.584)	0.586
157	13.08	1.13	0.760	0.063	(0.684)	0.698
158	13.17	1.13	0.760	0.062	(0.684)	0.698
159	13.25	1.13	0.760	0.062	(0.684)	0.698
160	13.33	1.13	0.760	0.062	(0.684)	0.699
161	13.42	1.13	0.760	0.061	(0.684)	0.699
162	13.50	1.13	0.760	0.061	(0.684)	0.699
163	13.58	0.77	0.514	0.061	(0.463)	0.454
164	13.67	0.77	0.514	0.060	(0.463)	0.454
165	13.75	0.77	0.514	0.060	(0.463)	0.454
166	13.83	0.77	0.514	0.060	(0.463)	0.455
167	13.92	0.77	0.514	0.059	(0.463)	0.455
168	14.00	0.77	0.514	0.059	(0.463)	0.455
169	14.08	0.90	0.604	0.059	(0.543)	0.545
170	14.17	0.90	0.604	0.059	(0.543)	0.545
171	14.25	0.90	0.604	0.058	(0.543)	0.545
172	14.33	0.87	0.581	0.058	(0.523)	0.523
173	14.42	0.87	0.581	0.058	(0.523)	0.524
174	14.50	0.87	0.581	0.057	(0.523)	0.524
175	14.58	0.87	0.581	0.057	(0.523)	0.524
176	14.67	0.87	0.581	0.057	(0.523)	0.525
177	14.75	0.87	0.581	0.056	(0.523)	0.525
178	14.83	0.83	0.559	0.056	(0.503)	0.503
179	14.92	0.83	0.559	0.056	(0.503)	0.503
180	15.00	0.83	0.559	0.056	(0.503)	0.503
181	15.08	0.80	0.537	0.055	(0.483)	0.481
182	15.17	0.80	0.537	0.055	(0.483)	0.482
183	15.25	0.80	0.537	0.055	(0.483)	0.482
184	15.33	0.77	0.514	0.054	(0.463)	0.460
185	15.42	0.77	0.514	0.054	(0.463)	0.460
186	15.50	0.77	0.514	0.054	(0.463)	0.460
187	15.58	0.63	0.425	0.054	(0.382)	0.371
188	15.67	0.63	0.425	0.053	(0.382)	0.371
189	15.75	0.63	0.425	0.053	(0.382)	0.372
190	15.83	0.63	0.425	0.053	(0.382)	0.372
191	15.92	0.63	0.425	0.053	(0.382)	0.372

192	16.00	0.63	0.425	0.052	(0.382)	0.373
193	16.08	0.13	0.089	0.052	(0.080)	0.037
194	16.17	0.13	0.089	0.052	(0.080)	0.038
195	16.25	0.13	0.089	0.051	(0.080)	0.038
196	16.33	0.13	0.089	0.051	(0.080)	0.038
197	16.42	0.13	0.089	0.051	(0.080)	0.039
198	16.50	0.13	0.089	0.051	(0.080)	0.039
199	16.58	0.10	0.067	0.050	(0.060)	0.017
200	16.67	0.10	0.067	0.050	(0.060)	0.017
201	16.75	0.10	0.067	0.050	(0.060)	0.017
202	16.83	0.10	0.067	0.050	(0.060)	0.017
203	16.92	0.10	0.067	0.049	(0.060)	0.018
204	17.00	0.10	0.067	0.049	(0.060)	0.018
205	17.08	0.17	0.112	0.049	(0.101)	0.063
206	17.17	0.17	0.112	0.049	(0.101)	0.063
207	17.25	0.17	0.112	0.048	(0.101)	0.063
208	17.33	0.17	0.112	0.048	(0.101)	0.064
209	17.42	0.17	0.112	0.048	(0.101)	0.064
210	17.50	0.17	0.112	0.048	(0.101)	0.064
211	17.58	0.17	0.112	0.047	(0.101)	0.064
212	17.67	0.17	0.112	0.047	(0.101)	0.065
213	17.75	0.17	0.112	0.047	(0.101)	0.065
214	17.83	0.13	0.089	0.047	(0.080)	0.043
215	17.92	0.13	0.089	0.047	(0.080)	0.043
216	18.00	0.13	0.089	0.046	(0.080)	0.043
217	18.08	0.13	0.089	0.046	(0.080)	0.043
218	18.17	0.13	0.089	0.046	(0.080)	0.044
219	18.25	0.13	0.089	0.046	(0.080)	0.044
220	18.33	0.13	0.089	0.045	(0.080)	0.044
221	18.42	0.13	0.089	0.045	(0.080)	0.044
222	18.50	0.13	0.089	0.045	(0.080)	0.044
223	18.58	0.10	0.067	0.045	(0.060)	0.022
224	18.67	0.10	0.067	0.045	(0.060)	0.023
225	18.75	0.10	0.067	0.044	(0.060)	0.023
226	18.83	0.07	0.045	(0.044)	0.040	0.004
227	18.92	0.07	0.045	(0.044)	0.040	0.004
228	19.00	0.07	0.045	(0.044)	0.040	0.004
229	19.08	0.10	0.067	0.043	(0.060)	0.024
230	19.17	0.10	0.067	0.043	(0.060)	0.024
231	19.25	0.10	0.067	0.043	(0.060)	0.024
232	19.33	0.13	0.089	0.043	(0.080)	0.047
233	19.42	0.13	0.089	0.043	(0.080)	0.047
234	19.50	0.13	0.089	0.042	(0.080)	0.047
235	19.58	0.10	0.067	0.042	(0.060)	0.025
236	19.67	0.10	0.067	0.042	(0.060)	0.025
237	19.75	0.10	0.067	0.042	(0.060)	0.025
238	19.83	0.07	0.045	(0.042)	0.040	0.004
239	19.92	0.07	0.045	(0.042)	0.040	0.004
240	20.00	0.07	0.045	(0.041)	0.040	0.004
241	20.08	0.10	0.067	0.041	(0.060)	0.026

242	20.17	0.10	0.067	0.041	(0.060)	0.026
243	20.25	0.10	0.067	0.041	(0.060)	0.026
244	20.33	0.10	0.067	0.041	(0.060)	0.026
245	20.42	0.10	0.067	0.040	(0.060)	0.027
246	20.50	0.10	0.067	0.040	(0.060)	0.027
247	20.58	0.10	0.067	0.040	(0.060)	0.027
248	20.67	0.10	0.067	0.040	(0.060)	0.027
249	20.75	0.10	0.067	0.040	(0.060)	0.027
250	20.83	0.07	0.045	0.040	(0.040)	0.005
251	20.92	0.07	0.045	0.039	(0.040)	0.005
252	21.00	0.07	0.045	0.039	(0.040)	0.005
253	21.08	0.10	0.067	0.039	(0.060)	0.028
254	21.17	0.10	0.067	0.039	(0.060)	0.028
255	21.25	0.10	0.067	0.039	(0.060)	0.028
256	21.33	0.07	0.045	0.039	(0.040)	0.006
257	21.42	0.07	0.045	0.039	(0.040)	0.006
258	21.50	0.07	0.045	0.038	(0.040)	0.006
259	21.58	0.10	0.067	0.038	(0.060)	0.029
260	21.67	0.10	0.067	0.038	(0.060)	0.029
261	21.75	0.10	0.067	0.038	(0.060)	0.029
262	21.83	0.07	0.045	0.038	(0.040)	0.007
263	21.92	0.07	0.045	0.038	(0.040)	0.007
264	22.00	0.07	0.045	0.038	(0.040)	0.007
265	22.08	0.10	0.067	0.037	(0.060)	0.030
266	22.17	0.10	0.067	0.037	(0.060)	0.030
267	22.25	0.10	0.067	0.037	(0.060)	0.030
268	22.33	0.07	0.045	0.037	(0.040)	0.008
269	22.42	0.07	0.045	0.037	(0.040)	0.008
270	22.50	0.07	0.045	0.037	(0.040)	0.008
271	22.58	0.07	0.045	0.037	(0.040)	0.008
272	22.67	0.07	0.045	0.037	(0.040)	0.008
273	22.75	0.07	0.045	0.037	(0.040)	0.008
274	22.83	0.07	0.045	0.036	(0.040)	0.008
275	22.92	0.07	0.045	0.036	(0.040)	0.008
276	23.00	0.07	0.045	0.036	(0.040)	0.008
277	23.08	0.07	0.045	0.036	(0.040)	0.009
278	23.17	0.07	0.045	0.036	(0.040)	0.009
279	23.25	0.07	0.045	0.036	(0.040)	0.009
280	23.33	0.07	0.045	0.036	(0.040)	0.009
281	23.42	0.07	0.045	0.036	(0.040)	0.009
282	23.50	0.07	0.045	0.036	(0.040)	0.009
283	23.58	0.07	0.045	0.036	(0.040)	0.009
284	23.67	0.07	0.045	0.036	(0.040)	0.009
285	23.75	0.07	0.045	0.036	(0.040)	0.009
286	23.83	0.07	0.045	0.036	(0.040)	0.009
287	23.92	0.07	0.045	0.036	(0.040)	0.009
288	24.00	0.07	0.045	0.036	(0.040)	0.009

(Loss Rate Not Used)

Sum = 100.0 Sum = 48.3

Flood volume = Effective rainfall 4.02(In)

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 times area       9.7(Ac.)/[(In)/(Ft.)] =       3.3(Ac.Ft)
Total soil loss =      1.57(In)
Total soil loss =     1.269(Ac.Ft)
Total rainfall =      5.59(In)
Flood volume =      142148.8 Cubic Feet
Total soil loss =       55285.7 Cubic Feet
--------------------------------------------------------------------
 Peak flow rate of this hydrograph =      6.826(CFS)
--------------------------------------------------------------------
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                   24 - H O U R   S T O R M
              R u n o f f     H y d r o g r a p h
--------------------------------------------------------------------
           Hydrograph in   5   Minute intervals ((CFS))

--------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
-----------------------------------------------------------------------
  0+ 5       0.0001      0.01   Q         |         |         |         |
  0+10       0.0003      0.03   Q         |         |         |         |
  0+15       0.0005      0.04   Q         |         |         |         |
  0+20       0.0008      0.04   Q         |         |         |         |
  0+25       0.0012      0.06   Q         |         |         |         |
  0+30       0.0016      0.06   Q         |         |         |         |
  0+35       0.0021      0.06   Q         |         |         |         |
  0+40       0.0025      0.06   Q         |         |         |         |
  0+45       0.0030      0.07   Q         |         |         |         |
  0+50       0.0035      0.07   Q         |         |         |         |
  0+55       0.0040      0.08   Q         |         |         |         |
  1+ 0       0.0046      0.08   Q         |         |         |         |
  1+ 5       0.0051      0.08   Q         |         |         |         |
  1+10       0.0056      0.07   Q         |         |         |         |
  1+15       0.0061      0.07   Q         |         |         |         |
  1+20       0.0066      0.07   Q         |         |         |         |
  1+25       0.0070      0.07   Q         |         |         |         |
  1+30       0.0075      0.07   Q         |         |         |         |
  1+35       0.0080      0.07   Q         |         |         |         |
  1+40       0.0084      0.07   Q         |         |         |         |
  1+45       0.0089      0.07   Q         |         |         |         |
  1+50       0.0093      0.07   Q         |         |         |         |
  1+55       0.0099      0.08   Q         |         |         |         |
  2+ 0       0.0105      0.08   Q         |         |         |         |
  2+ 5       0.0111      0.09   Q         |         |         |         |
  2+10       0.0117      0.09   Q         |         |         |         |
  2+15       0.0123      0.09   Q         |         |         |         |
  2+20       0.0129      0.09   Q         |         |         |         |
  2+25       0.0135      0.09   Q         |         |         |         |
  2+30       0.0141      0.09   Q         |         |         |         |
  2+35       0.0147      0.09   Q         |         |         |         |
  2+40       0.0154      0.10   Q         |         |         |         |
```

```
2+45       0.0162      0.11  Q          |         |         |         |
2+50       0.0169      0.11  Q          |         |         |         |
2+55       0.0176      0.11  Q          |         |         |         |
3+ 0       0.0184      0.11  Q          |         |         |         |
3+ 5       0.0191      0.11  Q          |         |         |         |
3+10       0.0199      0.11  Q          |         |         |         |
3+15       0.0207      0.11  Q          |         |         |         |
3+20       0.0214      0.11  Q          |         |         |         |
3+25       0.0222      0.11  Q          |         |         |         |
3+30       0.0229      0.11  Q          |         |         |         |
3+35       0.0237      0.11  Q          |         |         |         |
3+40       0.0244      0.11  Q          |         |         |         |
3+45       0.0252      0.11  Q          |         |         |         |
3+50       0.0262      0.15  Q          |         |         |         |
3+55       0.0278      0.23  Q          |         |         |         |
4+ 0       0.0296      0.26  VQ         |         |         |         |
4+ 5       0.0315      0.28  VQ         |         |         |         |
4+10       0.0335      0.29  VQ         |         |         |         |
4+15       0.0355      0.30  VQ         |         |         |         |
4+20       0.0379      0.35  VQ         |         |         |         |
4+25       0.0410      0.46  VQ         |         |         |         |
4+30       0.0445      0.50  VQ         |         |         |         |
4+35       0.0480      0.52  V Q        |         |         |         |
4+40       0.0517      0.53  V Q        |         |         |         |
4+45       0.0554      0.54  V Q        |         |         |         |
4+50       0.0595      0.59  V Q        |         |         |         |
4+55       0.0643      0.70  V Q        |         |         |         |
5+ 0       0.0694      0.74  V Q        |         |         |         |
5+ 5       0.0741      0.67  V Q        |         |         |         |
5+10       0.0773      0.47  VQ         |         |         |         |
5+15       0.0802      0.42  VQ         |         |         |         |
5+20       0.0832      0.44  |Q         |         |         |         |
5+25       0.0868      0.53  |VQ        |         |         |         |
5+30       0.0907      0.56  |VQ        |         |         |         |
5+35       0.0950      0.62  |VQ        |         |         |         |
5+40       0.1000      0.73  |VQ        |         |         |         |
5+45       0.1053      0.77  |V Q       |         |         |         |
5+50       0.1108      0.80  |V Q       |         |         |         |
5+55       0.1164      0.81  |V Q       |         |         |         |
6+ 0       0.1221      0.82  |V Q       |         |         |         |
6+ 5       0.1281      0.87  |V Q       |         |         |         |
6+10       0.1349      0.99  |V Q       |         |         |         |
6+15       0.1419      1.02  |V  Q      |         |         |         |
6+20       0.1491      1.04  |V  Q      |         |         |         |
6+25       0.1564      1.06  |V  Q      |         |         |         |
6+30       0.1637      1.07  | V Q      |         |         |         |
6+35       0.1714      1.12  | V Q      |         |         |         |
6+40       0.1799      1.23  | V Q      |         |         |         |
6+45       0.1886      1.27  | V  Q     |         |         |         |
6+50       0.1975      1.29  | V  Q     |         |         |         |
```

```
 6+55       0.2064      1.30  | V  Q    |         |         |         |
 7+ 0       0.2154      1.31  | V  Q    |         |         |         |
 7+ 5       0.2245      1.32  | V  Q    |         |         |         |
 7+10       0.2336      1.32  | V  Q    |         |         |         |
 7+15       0.2427      1.33  | V  Q    |         |         |         |
 7+20       0.2522      1.38  |  V Q    |         |         |         |
 7+25       0.2624      1.49  |  V Q    |         |         |         |
 7+30       0.2729      1.52  |  V  Q   |         |         |         |
 7+35       0.2839      1.59  |  V  Q   |         |         |         |
 7+40       0.2956      1.71  |  V  Q   |         |         |         |
 7+45       0.3076      1.75  |  V  Q   |         |         |         |
 7+50       0.3201      1.81  |  V   Q  |         |         |         |
 7+55       0.3335      1.94  |   V  Q  |         |         |         |
 8+ 0       0.3471      1.98  |   V  Q  |         |         |         |
 8+ 5       0.3615      2.09  |   V   Q |         |         |         |
 8+10       0.3775      2.32  |   V    Q|         |         |         |
 8+15       0.3939      2.39  |   V    Q|         |         |         |
 8+20       0.4107      2.43  |    V   Q|         |         |         |
 8+25       0.4276      2.45  |    V   Q|         |         |         |
 8+30       0.4446      2.47  |    V   Q|         |         |         |
 8+35       0.4620      2.52  |    V    Q         |         |         |
 8+40       0.4802      2.64  |    V    Q         |         |         |
 8+45       0.4986      2.68  |     V   Q         |         |         |
 8+50       0.5175      2.74  |     V   Q         |         |         |
 8+55       0.5372      2.86  |     V   |Q        |         |         |
 9+ 0       0.5572      2.90  |     V   |Q        |         |         |
 9+ 5       0.5779      3.01  |      V  | Q       |         |         |
 9+10       0.6002      3.24  |      V  | Q       |         |         |
 9+15       0.6231      3.32  |      V  |  Q      |         |         |
 9+20       0.6465      3.40  |      V  |  Q      |         |         |
 9+25       0.6708      3.53  |       V |   Q     |         |         |
 9+30       0.6954      3.58  |       V |   Q     |         |         |
 9+35       0.7205      3.65  |       V |   Q     |         |         |
 9+40       0.7465      3.77  |        V|    Q    |         |         |
 9+45       0.7727      3.81  |        V|    Q    |         |         |
 9+50       0.7994      3.88  |        V|    Q    |         |         |
 9+55       0.8270      4.00  |         V     Q   |         |         |
10+ 0       0.8548      4.04  |         V     Q   |         |         |
10+ 5       0.8807      3.75  |         V    Q    |         |         |
10+10       0.9015      3.02  |         |VQ       |         |         |
10+15       0.9208      2.80  |         |Q        |         |         |
10+20       0.9393      2.70  |         QV        |         |         |
10+25       0.9576      2.65  |         QV        |         |         |
10+30       0.9756      2.61  |         QV        |         |         |
10+35       0.9950      2.81  |         |QV       |         |         |
10+40       1.0179      3.33  |         | VQ      |         |         |
10+45       1.0420      3.50  |         | V Q     |         |         |
10+50       1.0667      3.58  |         |  VQ     |         |         |
10+55       1.0916      3.63  |         |  VQ     |         |         |
11+ 0       1.1168      3.66  |         |  VQ     |         |         |
```

```
11+ 5       1.1418      3.63  |         |  VQ     |         |         |
11+10       1.1662      3.54  |         |   Q     |         |         |
11+15       1.1904      3.51  |         |   Q     |         |         |
11+20       1.2146      3.50  |         |   Q     |         |         |
11+25       1.2386      3.50  |         |  Q V    |         |         |
11+30       1.2627      3.49  |         |  Q V    |         |         |
11+35       1.2862      3.41  |         |  Q V    |         |         |
11+40       1.3081      3.19  |         | Q   V   |         |         |
11+45       1.3297      3.13  |         | Q   V   |         |         |
11+50       1.3514      3.15  |         | Q   V   |         |         |
11+55       1.3737      3.24  |         | Q   V   |         |         |
12+ 0       1.3962      3.27  |         |  Q   V  |         |         |
12+ 5       1.4209      3.59  |         |   Q  V  |         |         |
12+10       1.4508      4.34  |         |      Q  |         |         |
12+15       1.4824      4.58  |         |       Q |         |         |
12+20       1.5150      4.74  |         |       Q |         |         |
12+25       1.5488      4.91  |         |       VQ|         |         |
12+30       1.5832      4.99  |         |        Q|         |         |
12+35       1.6184      5.12  |         |        VQ         |         |
12+40       1.6553      5.36  |         |         VQ        |         |
12+45       1.6927      5.44  |         |         VQ        |         |
12+50       1.7307      5.52  |         |         |VQ       |         |
12+55       1.7696      5.65  |         |         |VQ       |         |
13+ 0       1.8088      5.69  |         |         | Q       |         |
13+ 5       1.8497      5.94  |         |         | VQ      |         |
13+10       1.8944      6.49  |         |         |  V Q    |         |
13+15       1.9404      6.67  |         |         |  V  Q   |         |
13+20       1.9868      6.75  |         |         |   V Q   |         |
13+25       2.0336      6.80  |         |         |   V  Q  |         |
13+30       2.0806      6.83  |         |         |    V Q  |         |
13+35       2.1244      6.36  |         |         |    QV   |         |
13+40       2.1602      5.20  |         |         Q     V   |         |
13+45       2.1935      4.84  |         |        Q|     V   |         |
13+50       2.2257      4.67  |         |       Q |      V  |         |
13+55       2.2573      4.59  |         |       Q |      V  |         |
14+ 0       2.2885      4.53  |         |       Q |       V |         |
14+ 5       2.3207      4.67  |         |       Q |       V |         |
14+10       2.3556      5.07  |         |         Q       V |         |
14+15       2.3915      5.21  |         |         Q        V|         |
14+20       2.4275      5.23  |         |         Q        V|         |
14+25       2.4630      5.16  |         |         Q         V         |
14+30       2.4984      5.15  |         |         Q         V         |
14+35       2.5339      5.15  |         |         Q         |V        |
14+40       2.5694      5.15  |         |         Q         |V        |
14+45       2.6049      5.15  |         |         Q         |V        |
14+50       2.6400      5.11  |         |         Q         | V       |
14+55       2.6745      5.00  |         |         Q         | V       |
15+ 0       2.7087      4.97  |         |        Q|         |  V      |
15+ 5       2.7426      4.91  |         |        Q|         |  V      |
15+10       2.7756      4.80  |         |        Q|         |   V     |
```

```
15+15       2.8084      4.77  |         |        Q|         |   V     |
15+20       2.8408      4.71  |         |       Q |         |   V     |
15+25       2.8725      4.59  |         |       Q |         |    V    |
15+30       2.9038      4.55  |         |       Q |         |    V    |
15+35       2.9338      4.36  |         |      Q  |         |    V    |
15+40       2.9609      3.93  |         |    Q    |         |     V   |
15+45       2.9870      3.79  |         |    Q    |         |     V   |
15+50       3.0127      3.73  |         |   Q     |         |     V   |
15+55       3.0381      3.70  |         |   Q     |         |      V  |
16+ 0       3.0634      3.68  |         |   Q     |         |      V  |
16+ 5       3.0841      3.00  |         |Q        |         |      V  |
16+10       3.0937      1.39  |    Q    |         |         |      V  |
16+15       3.0998      0.89  |  Q      |         |         |      V  |
16+20       3.1044      0.67  | Q       |         |         |       V |
16+25       3.1082      0.55  | Q       |         |         |       V |
16+30       3.1114      0.47  |Q        |         |         |       V |
16+35       3.1140      0.38  |Q        |         |         |       V |
16+40       3.1156      0.23  Q         |         |         |       V |
16+45       3.1170      0.20  Q         |         |         |       V |
16+50       3.1183      0.19  Q         |         |         |       V |
16+55       3.1195      0.18  Q         |         |         |       V |
17+ 0       3.1208      0.18  Q         |         |         |       V |
17+ 5       3.1226      0.27  |Q        |         |         |       V |
17+10       3.1259      0.48  |Q        |         |         |       V |
17+15       3.1297      0.55  | Q       |         |         |       V |
17+20       3.1337      0.58  | Q       |         |         |       V |
17+25       3.1378      0.60  | Q       |         |         |       V |
17+30       3.1420      0.61  | Q       |         |         |       V |
17+35       3.1463      0.62  | Q       |         |         |       V |
17+40       3.1507      0.63  | Q       |         |         |       V |
17+45       3.1550      0.63  | Q       |         |         |       V |
17+50       3.1591      0.59  | Q       |         |         |       V |
17+55       3.1624      0.49  |Q        |         |         |       V |
18+ 0       3.1656      0.46  |Q        |         |         |       V |
18+ 5       3.1686      0.44  |Q        |         |         |       V |
18+10       3.1716      0.44  |Q        |         |         |       V |
18+15       3.1746      0.43  |Q        |         |         |       V |
18+20       3.1776      0.43  |Q        |         |         |       V |
18+25       3.1805      0.43  |Q        |         |         |       V |
18+30       3.1835      0.43  |Q        |         |         |        V|
18+35       3.1862      0.39  |Q        |         |         |        V|
18+40       3.1882      0.29  |Q        |         |         |        V|
18+45       3.1899      0.26  |Q        |         |         |        V|
18+50       3.1914      0.21  Q         |         |         |        V|
18+55       3.1921      0.11  Q         |         |         |        V|
19+ 0       3.1927      0.08  Q         |         |         |        V|
19+ 5       3.1934      0.10  Q         |         |         |        V|
19+10       3.1946      0.18  Q         |         |         |        V|
19+15       3.1961      0.21  Q         |         |         |        V|
19+20       3.1979      0.26  |Q        |         |         |        V|
```

```
 19+25        3.2005      0.38  |Q         |         |         |        V|
 19+30        3.2034      0.42  |Q         |         |         |        V|
 19+35        3.2061      0.39  |Q         |         |         |        V|
 19+40        3.2081      0.30  |Q         |         |         |        V|
 19+45        3.2100      0.27  |Q         |         |         |        V|
 19+50        3.2115      0.22  Q          |         |         |        V|
 19+55        3.2124      0.12  Q          |         |         |        V|
 20+ 0        3.2129      0.08  Q          |         |         |        V|
 20+ 5        3.2137      0.11  Q          |         |         |        V|
 20+10        3.2150      0.20  Q          |         |         |        V|
 20+15        3.2166      0.23  Q          |         |         |        V|
 20+20        3.2183      0.24  Q          |         |         |        V|
 20+25        3.2200      0.25  Q          |         |         |        V|
 20+30        3.2217      0.25  |Q         |         |         |        V|
 20+35        3.2235      0.26  |Q         |         |         |        V|
 20+40        3.2253      0.26  |Q         |         |         |        V|
 20+45        3.2272      0.27  |Q         |         |         |        V|
 20+50        3.2287      0.22  Q          |         |         |        V|
 20+55        3.2295      0.12  Q          |         |         |        V|
 21+ 0        3.2301      0.09  Q          |         |         |        V|
 21+ 5        3.2309      0.12  Q          |         |         |        V|
 21+10        3.2324      0.22  Q          |         |         |        V|
 21+15        3.2341      0.25  Q          |         |         |        V|
 21+20        3.2356      0.22  Q          |         |         |        V|
 21+25        3.2364      0.12  Q          |         |         |        V|
 21+30        3.2370      0.09  Q          |         |         |        V|
 21+35        3.2378      0.12  Q          |         |         |        V|
 21+40        3.2394      0.23  Q          |         |         |        V|
 21+45        3.2412      0.25  |Q         |         |         |        V|
 21+50        3.2427      0.22  Q          |         |         |        V|
 21+55        3.2435      0.12  Q          |         |         |        V|
 22+ 0        3.2442      0.10  Q          |         |         |        V|
 22+ 5        3.2451      0.13  Q          |         |         |        V|
 22+10        3.2467      0.23  Q          |         |         |        V|
 22+15        3.2485      0.26  |Q         |         |         |        V|
 22+20        3.2501      0.23  Q          |         |         |        V|
 22+25        3.2510      0.13  Q          |         |         |        V|
 22+30        3.2517      0.10  Q          |         |         |        V|
 22+35        3.2524      0.09  Q          |         |         |        V|
 22+40        3.2530      0.09  Q          |         |         |        V|
 22+45        3.2536      0.08  Q          |         |         |        V|
 22+50        3.2542      0.08  Q          |         |         |        V|
 22+55        3.2547      0.08  Q          |         |         |        V|
 23+ 0        3.2553      0.08  Q          |         |         |        V|
 23+ 5        3.2558      0.08  Q          |         |         |        V|
 23+10        3.2564      0.08  Q          |         |         |        V|
 23+15        3.2570      0.08  Q          |         |         |        V|
 23+20        3.2576      0.08  Q          |         |         |        V|
 23+25        3.2582      0.09  Q          |         |         |        V|
 23+30        3.2588      0.09  Q          |         |         |        V|
```

```
   23+35        3.2593      0.09  Q          |         |         |        V|
   23+40        3.2600      0.09  Q          |         |         |        V|
   23+45        3.2606      0.09  Q          |         |         |        V|
   23+50        3.2612      0.09  Q          |         |         |        V|
   23+55        3.2618      0.09  Q          |         |         |        V|
   24+ 0        3.2624      0.09  Q          |         |         |        V|
   24+ 5        3.2629      0.07  Q          |         |         |        V|
   24+10        3.2631      0.03  Q          |         |         |        V|
   24+15        3.2632      0.01  Q          |         |         |        V|
   24+20        3.2632      0.01  Q          |         |         |        V|
   24+25        3.2633      0.00  Q          |         |         |        V|
   24+30        3.2633      0.00  Q          |         |         |        V|
   24+35        3.2633      0.00  Q          |         |         |         V
-----------------------------------------------------------------------
```

NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-24HR
PRE DEVELOPMENT
DMA B

U n i t   H y d r o g r a p h   A n a l y s i s

Study date 10/17/23 File: SIMPSONEXBUH24100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6491

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

NEWLAND SIMPSON HEMET
PRE DEVELOPMENT - DMA B
UNIT HYDROGRAPH
100YR 24HR

Drainage Area = 65.15(Ac.) = 0.102 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 65.15(Ac.) =
0.102 Sq. Mi.
Length along longest watercourse = 3012.90(Ft.)
Length along longest watercourse measured to centroid = 1327.10(Ft.)
Length along longest watercourse = 0.571 Mi.
Length along longest watercourse measured to centroid = 0.251 Mi.
Difference in elevation = 6.05(Ft.)
Slope along watercourse = 10.6024 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.220 Hr.
Lag time = 13.19 Min.
25% of lag time = 3.30 Min.
40% of lag time = 5.28 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
65.15	2.13	138.77

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
65.15	5.59	364.19

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 2.130(In)
Area Averaged 100-Year Rainfall = 5.590(In)

Point rain (area averaged) = 5.590(In)
Areal adjustment factor = 99.99 %
Adjusted average point rain = 5.589(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
65.150	86.00	0.021

Total Area Entered = 65.15(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
86.0	94.4	0.073	0.021	0.071	1.000	0.071
					Sum (F) =	0.071

Area averaged mean soil loss (F) (In/Hr) = 0.071
Minimum soil loss rate ((In/Hr)) = 0.036
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	37.914	4.023	2.641
2	0.167	75.828	16.266	10.680
3	0.250	113.741	25.475	16.726
4	0.333	151.655	18.455	12.118
5	0.417	189.569	9.188	6.033
6	0.500	227.483	5.575	3.660
7	0.583	265.397	4.125	2.709
8	0.667	303.310	3.246	2.131

9	0.750	341.224	2.484	1.631
10	0.833	379.138	2.096	1.376
11	0.917	417.052	1.638	1.076
12	1.000	454.966	1.281	0.841
13	1.083	492.879	1.166	0.766
14	1.167	530.793	1.037	0.681
15	1.250	568.707	0.821	0.539
16	1.333	606.621	0.700	0.459
17	1.417	644.535	0.582	0.382
18	1.500	682.448	0.475	0.312
19	1.583	720.362	0.381	0.250
20	1.667	758.276	0.379	0.249
21	1.750	796.190	0.379	0.249
22	1.833	834.104	0.228	0.149
			Sum = 100.000	Sum= 65.659

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.045	(0.127)	0.040	0.004
2	0.17	0.07	0.045	(0.126)	0.040	0.004
3	0.25	0.07	0.045	(0.126)	0.040	0.004
4	0.33	0.10	0.067	(0.125)	0.060	0.007
5	0.42	0.10	0.067	(0.125)	0.060	0.007
6	0.50	0.10	0.067	(0.124)	0.060	0.007
7	0.58	0.10	0.067	(0.124)	0.060	0.007
8	0.67	0.10	0.067	(0.123)	0.060	0.007
9	0.75	0.10	0.067	(0.123)	0.060	0.007
10	0.83	0.13	0.089	(0.122)	0.080	0.009
11	0.92	0.13	0.089	(0.122)	0.080	0.009
12	1.00	0.13	0.089	(0.121)	0.080	0.009
13	1.08	0.10	0.067	(0.121)	0.060	0.007
14	1.17	0.10	0.067	(0.120)	0.060	0.007
15	1.25	0.10	0.067	(0.120)	0.060	0.007
16	1.33	0.10	0.067	(0.119)	0.060	0.007
17	1.42	0.10	0.067	(0.119)	0.060	0.007
18	1.50	0.10	0.067	(0.118)	0.060	0.007
19	1.58	0.10	0.067	(0.118)	0.060	0.007
20	1.67	0.10	0.067	(0.117)	0.060	0.007
21	1.75	0.10	0.067	(0.117)	0.060	0.007
22	1.83	0.13	0.089	(0.117)	0.080	0.009
23	1.92	0.13	0.089	(0.116)	0.080	0.009
24	2.00	0.13	0.089	(0.116)	0.080	0.009
25	2.08	0.13	0.089	(0.115)	0.080	0.009
26	2.17	0.13	0.089	(0.115)	0.080	0.009
27	2.25	0.13	0.089	(0.114)	0.080	0.009

28	2.33	0.13	0.089	(0.114)	0.080	0.009
29	2.42	0.13	0.089	(0.113)	0.080	0.009
30	2.50	0.13	0.089	(0.113)	0.080	0.009
31	2.58	0.17	0.112	(0.112)	0.101	0.011
32	2.67	0.17	0.112	(0.112)	0.101	0.011
33	2.75	0.17	0.112	(0.111)	0.101	0.011
34	2.83	0.17	0.112	(0.111)	0.101	0.011
35	2.92	0.17	0.112	(0.111)	0.101	0.011
36	3.00	0.17	0.112	(0.110)	0.101	0.011
37	3.08	0.17	0.112	(0.110)	0.101	0.011
38	3.17	0.17	0.112	(0.109)	0.101	0.011
39	3.25	0.17	0.112	(0.109)	0.101	0.011
40	3.33	0.17	0.112	(0.108)	0.101	0.011
41	3.42	0.17	0.112	(0.108)	0.101	0.011
42	3.50	0.17	0.112	(0.107)	0.101	0.011
43	3.58	0.17	0.112	(0.107)	0.101	0.011
44	3.67	0.17	0.112	(0.106)	0.101	0.011
45	3.75	0.17	0.112	(0.106)	0.101	0.011
46	3.83	0.20	0.134	0.106	(0.121)	0.029
47	3.92	0.20	0.134	0.105	(0.121)	0.029
48	4.00	0.20	0.134	0.105	(0.121)	0.029
49	4.08	0.20	0.134	0.104	(0.121)	0.030
50	4.17	0.20	0.134	0.104	(0.121)	0.030
51	4.25	0.20	0.134	0.103	(0.121)	0.031
52	4.33	0.23	0.157	0.103	(0.141)	0.054
53	4.42	0.23	0.157	0.102	(0.141)	0.054
54	4.50	0.23	0.157	0.102	(0.141)	0.055
55	4.58	0.23	0.157	0.102	(0.141)	0.055
56	4.67	0.23	0.157	0.101	(0.141)	0.055
57	4.75	0.23	0.157	0.101	(0.141)	0.056
58	4.83	0.27	0.179	0.100	(0.161)	0.079
59	4.92	0.27	0.179	0.100	(0.161)	0.079
60	5.00	0.27	0.179	0.099	(0.161)	0.079
61	5.08	0.20	0.134	0.099	(0.121)	0.035
62	5.17	0.20	0.134	0.099	(0.121)	0.036
63	5.25	0.20	0.134	0.098	(0.121)	0.036
64	5.33	0.23	0.157	0.098	(0.141)	0.059
65	5.42	0.23	0.157	0.097	(0.141)	0.059
66	5.50	0.23	0.157	0.097	(0.141)	0.060
67	5.58	0.27	0.179	0.096	(0.161)	0.082
68	5.67	0.27	0.179	0.096	(0.161)	0.083
69	5.75	0.27	0.179	0.096	(0.161)	0.083
70	5.83	0.27	0.179	0.095	(0.161)	0.084
71	5.92	0.27	0.179	0.095	(0.161)	0.084
72	6.00	0.27	0.179	0.094	(0.161)	0.085
73	6.08	0.30	0.201	0.094	(0.181)	0.107
74	6.17	0.30	0.201	0.093	(0.181)	0.108
75	6.25	0.30	0.201	0.093	(0.181)	0.108
76	6.33	0.30	0.201	0.093	(0.181)	0.109
77	6.42	0.30	0.201	0.092	(0.181)	0.109

78	6.50	0.30	0.201	0.092	(0.181)	0.109
79	6.58	0.33	0.224	0.091	(0.201)	0.132
80	6.67	0.33	0.224	0.091	(0.201)	0.133
81	6.75	0.33	0.224	0.091	(0.201)	0.133
82	6.83	0.33	0.224	0.090	(0.201)	0.133
83	6.92	0.33	0.224	0.090	(0.201)	0.134
84	7.00	0.33	0.224	0.089	(0.201)	0.134
85	7.08	0.33	0.224	0.089	(0.201)	0.135
86	7.17	0.33	0.224	0.089	(0.201)	0.135
87	7.25	0.33	0.224	0.088	(0.201)	0.135
88	7.33	0.37	0.246	0.088	(0.221)	0.158
89	7.42	0.37	0.246	0.087	(0.221)	0.159
90	7.50	0.37	0.246	0.087	(0.221)	0.159
91	7.58	0.40	0.268	0.087	(0.241)	0.182
92	7.67	0.40	0.268	0.086	(0.241)	0.182
93	7.75	0.40	0.268	0.086	(0.241)	0.183
94	7.83	0.43	0.291	0.085	(0.262)	0.205
95	7.92	0.43	0.291	0.085	(0.262)	0.206
96	8.00	0.43	0.291	0.085	(0.262)	0.206
97	8.08	0.50	0.335	0.084	(0.302)	0.251
98	8.17	0.50	0.335	0.084	(0.302)	0.252
99	8.25	0.50	0.335	0.083	(0.302)	0.252
100	8.33	0.50	0.335	0.083	(0.302)	0.252
101	8.42	0.50	0.335	0.083	(0.302)	0.253
102	8.50	0.50	0.335	0.082	(0.302)	0.253
103	8.58	0.53	0.358	0.082	(0.322)	0.276
104	8.67	0.53	0.358	0.081	(0.322)	0.276
105	8.75	0.53	0.358	0.081	(0.322)	0.277
106	8.83	0.57	0.380	0.081	(0.342)	0.299
107	8.92	0.57	0.380	0.080	(0.342)	0.300
108	9.00	0.57	0.380	0.080	(0.342)	0.300
109	9.08	0.63	0.425	0.080	(0.382)	0.345
110	9.17	0.63	0.425	0.079	(0.382)	0.346
111	9.25	0.63	0.425	0.079	(0.382)	0.346
112	9.33	0.67	0.447	0.078	(0.402)	0.369
113	9.42	0.67	0.447	0.078	(0.402)	0.369
114	9.50	0.67	0.447	0.078	(0.402)	0.370
115	9.58	0.70	0.470	0.077	(0.423)	0.392
116	9.67	0.70	0.470	0.077	(0.423)	0.393
117	9.75	0.70	0.470	0.077	(0.423)	0.393
118	9.83	0.73	0.492	0.076	(0.443)	0.416
119	9.92	0.73	0.492	0.076	(0.443)	0.416
120	10.00	0.73	0.492	0.075	(0.443)	0.416
121	10.08	0.50	0.335	0.075	(0.302)	0.260
122	10.17	0.50	0.335	0.075	(0.302)	0.261
123	10.25	0.50	0.335	0.074	(0.302)	0.261
124	10.33	0.50	0.335	0.074	(0.302)	0.261
125	10.42	0.50	0.335	0.074	(0.302)	0.262
126	10.50	0.50	0.335	0.073	(0.302)	0.262
127	10.58	0.67	0.447	0.073	(0.402)	0.374

128	10.67	0.67	0.447	0.073	(0.402)	0.375
129	10.75	0.67	0.447	0.072	(0.402)	0.375
130	10.83	0.67	0.447	0.072	(0.402)	0.375
131	10.92	0.67	0.447	0.071	(0.402)	0.376
132	11.00	0.67	0.447	0.071	(0.402)	0.376
133	11.08	0.63	0.425	0.071	(0.382)	0.354
134	11.17	0.63	0.425	0.070	(0.382)	0.354
135	11.25	0.63	0.425	0.070	(0.382)	0.355
136	11.33	0.63	0.425	0.070	(0.382)	0.355
137	11.42	0.63	0.425	0.069	(0.382)	0.355
138	11.50	0.63	0.425	0.069	(0.382)	0.356
139	11.58	0.57	0.380	0.069	(0.342)	0.311
140	11.67	0.57	0.380	0.068	(0.342)	0.312
141	11.75	0.57	0.380	0.068	(0.342)	0.312
142	11.83	0.60	0.402	0.068	(0.362)	0.335
143	11.92	0.60	0.402	0.067	(0.362)	0.335
144	12.00	0.60	0.402	0.067	(0.362)	0.335
145	12.08	0.83	0.559	0.067	(0.503)	0.492
146	12.17	0.83	0.559	0.066	(0.503)	0.493
147	12.25	0.83	0.559	0.066	(0.503)	0.493
148	12.33	0.87	0.581	0.066	(0.523)	0.516
149	12.42	0.87	0.581	0.065	(0.523)	0.516
150	12.50	0.87	0.581	0.065	(0.523)	0.516
151	12.58	0.93	0.626	0.065	(0.563)	0.561
152	12.67	0.93	0.626	0.064	(0.563)	0.562
153	12.75	0.93	0.626	0.064	(0.563)	0.562
154	12.83	0.97	0.648	0.064	(0.584)	0.585
155	12.92	0.97	0.648	0.063	(0.584)	0.585
156	13.00	0.97	0.648	0.063	(0.584)	0.585
157	13.08	1.13	0.760	0.063	(0.684)	0.697
158	13.17	1.13	0.760	0.062	(0.684)	0.698
159	13.25	1.13	0.760	0.062	(0.684)	0.698
160	13.33	1.13	0.760	0.062	(0.684)	0.698
161	13.42	1.13	0.760	0.061	(0.684)	0.699
162	13.50	1.13	0.760	0.061	(0.684)	0.699
163	13.58	0.77	0.514	0.061	(0.463)	0.453
164	13.67	0.77	0.514	0.061	(0.463)	0.454
165	13.75	0.77	0.514	0.060	(0.463)	0.454
166	13.83	0.77	0.514	0.060	(0.463)	0.454
167	13.92	0.77	0.514	0.060	(0.463)	0.455
168	14.00	0.77	0.514	0.059	(0.463)	0.455
169	14.08	0.90	0.604	0.059	(0.543)	0.545
170	14.17	0.90	0.604	0.059	(0.543)	0.545
171	14.25	0.90	0.604	0.058	(0.543)	0.545
172	14.33	0.87	0.581	0.058	(0.523)	0.523
173	14.42	0.87	0.581	0.058	(0.523)	0.523
174	14.50	0.87	0.581	0.058	(0.523)	0.524
175	14.58	0.87	0.581	0.057	(0.523)	0.524
176	14.67	0.87	0.581	0.057	(0.523)	0.524
177	14.75	0.87	0.581	0.057	(0.523)	0.525

178	14.83	0.83	0.559	0.056	(0.503)	0.503
179	14.92	0.83	0.559	0.056	(0.503)	0.503
180	15.00	0.83	0.559	0.056	(0.503)	0.503
181	15.08	0.80	0.537	0.055	(0.483)	0.481
182	15.17	0.80	0.537	0.055	(0.483)	0.481
183	15.25	0.80	0.537	0.055	(0.483)	0.482
184	15.33	0.77	0.514	0.055	(0.463)	0.460
185	15.42	0.77	0.514	0.054	(0.463)	0.460
186	15.50	0.77	0.514	0.054	(0.463)	0.460
187	15.58	0.63	0.425	0.054	(0.382)	0.371
188	15.67	0.63	0.425	0.054	(0.382)	0.371
189	15.75	0.63	0.425	0.053	(0.382)	0.372
190	15.83	0.63	0.425	0.053	(0.382)	0.372
191	15.92	0.63	0.425	0.053	(0.382)	0.372
192	16.00	0.63	0.425	0.052	(0.382)	0.372
193	16.08	0.13	0.089	0.052	(0.080)	0.037
194	16.17	0.13	0.089	0.052	(0.080)	0.038
195	16.25	0.13	0.089	0.052	(0.080)	0.038
196	16.33	0.13	0.089	0.051	(0.080)	0.038
197	16.42	0.13	0.089	0.051	(0.080)	0.038
198	16.50	0.13	0.089	0.051	(0.080)	0.039
199	16.58	0.10	0.067	0.051	(0.060)	0.016
200	16.67	0.10	0.067	0.050	(0.060)	0.017
201	16.75	0.10	0.067	0.050	(0.060)	0.017
202	16.83	0.10	0.067	0.050	(0.060)	0.017
203	16.92	0.10	0.067	0.050	(0.060)	0.017
204	17.00	0.10	0.067	0.049	(0.060)	0.018
205	17.08	0.17	0.112	0.049	(0.101)	0.063
206	17.17	0.17	0.112	0.049	(0.101)	0.063
207	17.25	0.17	0.112	0.049	(0.101)	0.063
208	17.33	0.17	0.112	0.048	(0.101)	0.063
209	17.42	0.17	0.112	0.048	(0.101)	0.064
210	17.50	0.17	0.112	0.048	(0.101)	0.064
211	17.58	0.17	0.112	0.048	(0.101)	0.064
212	17.67	0.17	0.112	0.047	(0.101)	0.064
213	17.75	0.17	0.112	0.047	(0.101)	0.065
214	17.83	0.13	0.089	0.047	(0.080)	0.043
215	17.92	0.13	0.089	0.047	(0.080)	0.043
216	18.00	0.13	0.089	0.046	(0.080)	0.043
217	18.08	0.13	0.089	0.046	(0.080)	0.043
218	18.17	0.13	0.089	0.046	(0.080)	0.043
219	18.25	0.13	0.089	0.046	(0.080)	0.044
220	18.33	0.13	0.089	0.046	(0.080)	0.044
221	18.42	0.13	0.089	0.045	(0.080)	0.044
222	18.50	0.13	0.089	0.045	(0.080)	0.044
223	18.58	0.10	0.067	0.045	(0.060)	0.022
224	18.67	0.10	0.067	0.045	(0.060)	0.022
225	18.75	0.10	0.067	0.044	(0.060)	0.023
226	18.83	0.07	0.045	(0.044)	0.040	0.004
227	18.92	0.07	0.045	(0.044)	0.040	0.004

228	19.00	0.07	0.045	(0.044)	0.040	0.004
229	19.08	0.10	0.067	0.044	(0.060)	0.023
230	19.17	0.10	0.067	0.043	(0.060)	0.024
231	19.25	0.10	0.067	0.043	(0.060)	0.024
232	19.33	0.13	0.089	0.043	(0.080)	0.046
233	19.42	0.13	0.089	0.043	(0.080)	0.047
234	19.50	0.13	0.089	0.043	(0.080)	0.047
235	19.58	0.10	0.067	0.042	(0.060)	0.025
236	19.67	0.10	0.067	0.042	(0.060)	0.025
237	19.75	0.10	0.067	0.042	(0.060)	0.025
238	19.83	0.07	0.045	(0.042)	0.040	0.004
239	19.92	0.07	0.045	(0.042)	0.040	0.004
240	20.00	0.07	0.045	(0.041)	0.040	0.004
241	20.08	0.10	0.067	0.041	(0.060)	0.026
242	20.17	0.10	0.067	0.041	(0.060)	0.026
243	20.25	0.10	0.067	0.041	(0.060)	0.026
244	20.33	0.10	0.067	0.041	(0.060)	0.026
245	20.42	0.10	0.067	0.041	(0.060)	0.026
246	20.50	0.10	0.067	0.040	(0.060)	0.027
247	20.58	0.10	0.067	0.040	(0.060)	0.027
248	20.67	0.10	0.067	0.040	(0.060)	0.027
249	20.75	0.10	0.067	0.040	(0.060)	0.027
250	20.83	0.07	0.045	0.040	(0.040)	0.005
251	20.92	0.07	0.045	0.040	(0.040)	0.005
252	21.00	0.07	0.045	0.039	(0.040)	0.005
253	21.08	0.10	0.067	0.039	(0.060)	0.028
254	21.17	0.10	0.067	0.039	(0.060)	0.028
255	21.25	0.10	0.067	0.039	(0.060)	0.028
256	21.33	0.07	0.045	0.039	(0.040)	0.006
257	21.42	0.07	0.045	0.039	(0.040)	0.006
258	21.50	0.07	0.045	0.039	(0.040)	0.006
259	21.58	0.10	0.067	0.038	(0.060)	0.029
260	21.67	0.10	0.067	0.038	(0.060)	0.029
261	21.75	0.10	0.067	0.038	(0.060)	0.029
262	21.83	0.07	0.045	0.038	(0.040)	0.007
263	21.92	0.07	0.045	0.038	(0.040)	0.007
264	22.00	0.07	0.045	0.038	(0.040)	0.007
265	22.08	0.10	0.067	0.038	(0.060)	0.029
266	22.17	0.10	0.067	0.037	(0.060)	0.030
267	22.25	0.10	0.067	0.037	(0.060)	0.030
268	22.33	0.07	0.045	0.037	(0.040)	0.007
269	22.42	0.07	0.045	0.037	(0.040)	0.008
270	22.50	0.07	0.045	0.037	(0.040)	0.008
271	22.58	0.07	0.045	0.037	(0.040)	0.008
272	22.67	0.07	0.045	0.037	(0.040)	0.008
273	22.75	0.07	0.045	0.037	(0.040)	0.008
274	22.83	0.07	0.045	0.037	(0.040)	0.008
275	22.92	0.07	0.045	0.037	(0.040)	0.008
276	23.00	0.07	0.045	0.036	(0.040)	0.008
277	23.08	0.07	0.045	0.036	(0.040)	0.008

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278  23.17     0.07      0.045          0.036    (  0.040)       0.008
279  23.25     0.07      0.045          0.036    (  0.040)       0.009
280  23.33     0.07      0.045          0.036    (  0.040)       0.009
281  23.42     0.07      0.045          0.036    (  0.040)       0.009
282  23.50     0.07      0.045          0.036    (  0.040)       0.009
283  23.58     0.07      0.045          0.036    (  0.040)       0.009
284  23.67     0.07      0.045          0.036    (  0.040)       0.009
285  23.75     0.07      0.045          0.036    (  0.040)       0.009
286  23.83     0.07      0.045          0.036    (  0.040)       0.009
287  23.92     0.07      0.045          0.036    (  0.040)       0.009
288  24.00     0.07      0.045          0.036    (  0.040)       0.009
                (Loss Rate Not Used)
    Sum =     100.0                                  Sum =    48.2
       Flood volume = Effective rainfall      4.02(In)
        times area      65.2(Ac.)/[(In)/(Ft.)] =      21.8(Ac.Ft)
       Total soil loss =      1.57(In)
       Total soil loss =     8.523(Ac.Ft)
       Total rainfall =      5.59(In)
       Flood volume =      950570.9 Cubic Feet
       Total soil loss =      371265.1 Cubic Feet
       --------------------------------------------------------------------
        Peak flow rate of this hydrograph =     43.757(CFS)
       --------------------------------------------------------------------
       ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          24 - H O U R    S T O R M
                     R u n o f f     H y d r o g r a p h
       --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

       --------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0       12.5      25.0      37.5      50.0
 -----------------------------------------------------------------------
   0+ 5       0.0001      0.01   Q        |         |         |         |
   0+10       0.0005      0.06   Q        |         |         |         |
   0+15       0.0014      0.13   Q        |         |         |         |
   0+20       0.0028      0.19   Q        |         |         |         |
   0+25       0.0044      0.25   Q        |         |         |         |
   0+30       0.0065      0.30   Q        |         |         |         |
   0+35       0.0088      0.34   Q        |         |         |         |
   0+40       0.0113      0.36   Q        |         |         |         |
   0+45       0.0139      0.38   Q        |         |         |         |
   0+50       0.0166      0.40   Q        |         |         |         |
   0+55       0.0196      0.43   Q        |         |         |         |
   1+ 0       0.0229      0.47   Q        |         |         |         |
   1+ 5       0.0263      0.50   Q        |         |         |         |
   1+10       0.0297      0.50   Q        |         |         |         |
   1+15       0.0330      0.47   Q        |         |         |         |
   1+20       0.0361      0.45   Q        |         |         |         |
   1+25       0.0392      0.45   Q        |         |         |         |
   1+30       0.0423      0.45   Q        |         |         |         |
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1+35       0.0453      0.45  Q          |         |         |         |
1+40       0.0484      0.45  Q          |         |         |         |
1+45       0.0515      0.45  Q          |         |         |         |
1+50       0.0546      0.45  Q          |         |         |         |
1+55       0.0578      0.47  Q          |         |         |         |
2+ 0       0.0614      0.51  Q          |         |         |         |
2+ 5       0.0651      0.54  Q          |         |         |         |
2+10       0.0689      0.55  Q          |         |         |         |
2+15       0.0727      0.56  Q          |         |         |         |
2+20       0.0766      0.56  Q          |         |         |         |
2+25       0.0805      0.57  Q          |         |         |         |
2+30       0.0845      0.57  Q          |         |         |         |
2+35       0.0885      0.58  Q          |         |         |         |
2+40       0.0927      0.61  Q          |         |         |         |
2+45       0.0971      0.65  Q          |         |         |         |
2+50       0.1018      0.67  Q          |         |         |         |
2+55       0.1065      0.69  Q          |         |         |         |
3+ 0       0.1113      0.70  Q          |         |         |         |
3+ 5       0.1162      0.71  Q          |         |         |         |
3+10       0.1211      0.71  Q          |         |         |         |
3+15       0.1260      0.72  Q          |         |         |         |
3+20       0.1310      0.72  Q          |         |         |         |
3+25       0.1359      0.72  Q          |         |         |         |
3+30       0.1409      0.72  Q          |         |         |         |
3+35       0.1459      0.73  Q          |         |         |         |
3+40       0.1510      0.73  Q          |         |         |         |
3+45       0.1560      0.73  Q          |         |         |         |
3+50       0.1613      0.78  Q          |         |         |         |
3+55       0.1680      0.97  Q          |         |         |         |
4+ 0       0.1767      1.26  VQ         |         |         |         |
4+ 5       0.1869      1.49  VQ         |         |         |         |
4+10       0.1981      1.61  VQ         |         |         |         |
4+15       0.2098      1.70  VQ         |         |         |         |
4+20       0.2223      1.83  VQ         |         |         |         |
4+25       0.2370      2.13  VQ         |         |         |         |
4+30       0.2546      2.56  V Q        |         |         |         |
4+35       0.2744      2.88  V Q        |         |         |         |
4+40       0.2955      3.06  V Q        |         |         |         |
4+45       0.3174      3.18  V Q        |         |         |         |
4+50       0.3404      3.34  V Q        |         |         |         |
4+55       0.3656      3.67  V Q        |         |         |         |
5+ 0       0.3940      4.11  V  Q       |         |         |         |
5+ 5       0.4238      4.33  V  Q       |         |         |         |
5+10       0.4517      4.05  V  Q       |         |         |         |
5+15       0.4754      3.43  V Q        |         |         |         |
5+20       0.4964      3.06  V Q        |         |         |         |
5+25       0.5180      3.13  V Q        |         |         |         |
5+30       0.5415      3.42  V Q        |         |         |         |
5+35       0.5670      3.70  |VQ        |         |         |         |
5+40       0.5948      4.04  |V Q       |         |         |         |
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5+45       0.6256      4.47  |V Q      |         |         |         |
5+50       0.6586      4.80  |V Q      |         |         |         |
5+55       0.6929      4.98  |V Q      |         |         |         |
6+ 0       0.7281      5.10  |V  Q     |         |         |         |
6+ 5       0.7643      5.26  |V  Q     |         |         |         |
6+10       0.8027      5.58  |V  Q     |         |         |         |
6+15       0.8442      6.02  |V  Q     |         |         |         |
6+20       0.8879      6.35  |V   Q    |         |         |         |
6+25       0.9330      6.54  |V   Q    |         |         |         |
6+30       0.9789      6.67  |V   Q    |         |         |         |
6+35       1.0260      6.84  |V   Q    |         |         |         |
6+40       1.0753      7.17  |V   Q    |         |         |         |
6+45       1.1278      7.61  | V   Q   |         |         |         |
6+50       1.1825      7.95  | V   Q   |         |         |         |
6+55       1.2386      8.15  | V   Q   |         |         |         |
7+ 0       1.2957      8.29  | V   Q   |         |         |         |
7+ 5       1.3536      8.40  | V   Q   |         |         |         |
7+10       1.4121      8.50  | V   Q   |         |         |         |
7+15       1.4712      8.58  | V   Q   |         |         |         |
7+20       1.5312      8.71  | V   Q   |         |         |         |
7+25       1.5932      9.01  | V    Q  |         |         |         |
7+30       1.6582      9.43  |  V   Q  |         |         |         |
7+35       1.7258      9.81  |  V   Q  |         |         |         |
7+40       1.7963     10.23  |  V    Q |         |         |         |
7+45       1.8702     10.73  |  V    Q |         |         |         |
7+50       1.9471     11.17  |  V    Q |         |         |         |
7+55       2.0272     11.62  |  V     Q|         |         |         |
8+ 0       2.1108     12.15  |  V     Q|         |         |         |
8+ 5       2.1980     12.66  |   V     Q         |         |         |
8+10       2.2901     13.38  |   V     Q         |         |         |
8+15       2.3886     14.29  |   V     |Q        |         |         |
8+20       2.4917     14.97  |   V     |Q        |         |         |
8+25       2.5974     15.36  |   V     | Q       |         |         |
8+30       2.7049     15.61  |   V     | Q       |         |         |
8+35       2.8143     15.88  |    V    | Q       |         |         |
8+40       2.9264     16.28  |    V    |  Q      |         |         |
8+45       3.0421     16.79  |    V    |  Q      |         |         |
8+50       3.1608     17.24  |    V    |  Q      |         |         |
8+55       3.2829     17.72  |     V   |   Q     |         |         |
9+ 0       3.4087     18.26  |     V   |   Q     |         |         |
9+ 5       3.5381     18.79  |     V   |    Q    |         |         |
9+10       3.6726     19.52  |     V   |    Q    |         |         |
9+15       3.8134     20.45  |     V   |     Q   |         |         |
9+20       3.9594     21.20  |      V  |     Q   |         |         |
9+25       4.1097     21.83  |      V  |      Q  |         |         |
9+30       4.2644     22.46  |      V  |      Q  |         |         |
9+35       4.4229     23.00  |       V |       Q |         |         |
9+40       4.5850     23.55  |       V |       Q |         |         |
9+45       4.7513     24.14  |       V |        Q|         |         |
9+50       4.9211     24.65  |        V|        Q|         |         |
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 9+55       5.0944     25.17  |        V|         Q         |         |
10+ 0       5.2717     25.74  |        V|         Q         |         |
10+ 5       5.4492     25.77  |        V|         Q         |         |
10+10       5.6170     24.37  |         V        Q|         |         |
10+15       5.7682     21.95  |         V      Q  |         |         |
10+20       5.9074     20.21  |         V     Q   |         |         |
10+25       6.0411     19.40  |         |V   Q    |         |         |
10+30       6.1715     18.94  |         |V   Q    |         |         |
10+35       6.3017     18.91  |         |V   Q    |         |         |
10+40       6.4385     19.85  |         |V   Q    |         |         |
10+45       6.5868     21.54  |         | V    Q  |         |         |
10+50       6.7434     22.74  |         | V     Q |         |         |
10+55       6.9039     23.30  |         | V     Q |         |         |
11+ 0       7.0667     23.63  |         | V     Q |         |         |
11+ 5       7.2305     23.79  |         |  V     Q|         |         |
11+10       7.3939     23.72  |         |  V    Q |         |         |
11+15       7.5557     23.48  |         |  V    Q |         |         |
11+20       7.7163     23.33  |         |   V   Q |         |         |
11+25       7.8767     23.28  |         |   V   Q |         |         |
11+30       8.0369     23.27  |         |   V   Q |         |         |
11+35       8.1965     23.17  |         |    V  Q |         |         |
11+40       8.3528     22.70  |         |    V  Q |         |         |
11+45       8.5041     21.96  |         |    V Q  |         |         |
11+50       8.6521     21.50  |         |    V Q  |         |         |
11+55       8.8003     21.51  |         |     VQ  |         |         |
12+ 0       8.9501     21.76  |         |     VQ  |         |         |
12+ 5       9.1041     22.35  |         |     VQ  |         |         |
12+10       9.2700     24.10  |         |     V  Q|         |         |
12+15       9.4544     26.77  |         |      V  |Q        |         |
12+20       9.6524     28.75  |         |      V  |  Q      |         |
12+25       9.8586     29.95  |         |       V |  Q      |         |
12+30      10.0715     30.91  |         |       V |   Q     |         |
12+35      10.2900     31.73  |         |       V |    Q    |         |
12+40      10.5152     32.69  |         |        V|     Q   |         |
12+45      10.7479     33.79  |         |        V|      Q  |         |
12+50      10.9867     34.68  |         |         V      Q  |         |
12+55      11.2307     35.42  |         |         V       Q |         |
13+ 0      11.4796     36.15  |         |         |V      Q |         |
13+ 5      11.7345     37.01  |         |         |V       Q|         |
13+10      12.0002     38.58  |         |         |V        Q         |
13+15      12.2807     40.73  |         |         | V       | Q       |
13+20      12.5721     42.31  |         |         |  V      |  Q      |
13+25      12.8695     43.19  |         |         |  V      |   Q     |
13+30      13.1709     43.76  |         |         |   V     |    Q    |
13+35      13.4708     43.55  |         |         |   V     |   Q     |
13+40      13.7551     41.28  |         |         |    V    |  Q      |
13+45      14.0131     37.46  |         |         |    V   Q|         |
13+50      14.2522     34.72  |         |         |     VQ  |         |
13+55      14.4823     33.41  |         |         |     Q   |         |
14+ 0      14.7072     32.66  |         |         |     Q   |         |
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14+ 5      14.9300     32.36  |         |         |    Q V  |         |
14+10      15.1567     32.90  |         |         |     QV  |         |
14+15      15.3915     34.10  |         |         |      QV |         |
14+20      15.6316     34.87  |         |         |      QV |         |
14+25      15.8725     34.97  |         |         |      Q V|         |
14+30      16.1120     34.78  |         |         |      Q V|         |
14+35      16.3504     34.61  |         |         |      Q V|         |
14+40      16.5884     34.55  |         |         |      Q  V         |
14+45      16.8262     34.53  |         |         |      Q  V         |
14+50      17.0635     34.45  |         |         |      Q  |V        |
14+55      17.2989     34.19  |         |         |      Q  |V        |
15+ 0      17.5317     33.80  |         |         |      Q  | V       |
15+ 5      17.7621     33.46  |         |         |     Q   | V       |
15+10      17.9900     33.08  |         |         |     Q   | V       |
15+15      18.2146     32.61  |         |         |     Q   |  V      |
15+20      18.4366     32.23  |         |         |    Q    |  V      |
15+25      18.6559     31.85  |         |         |    Q    |   V     |
15+30      18.8721     31.39  |         |         |    Q    |   V     |
15+35      19.0843     30.82  |         |         |   Q     |   V     |
15+40      19.2888     29.69  |         |         |  Q      |    V    |
15+45      19.4822     28.09  |         |         | Q       |    V    |
15+50      19.6677     26.92  |         |         |Q        |     V   |
15+55      19.8489     26.31  |         |         |Q        |     V   |
16+ 0      20.0274     25.93  |         |         Q         |     V   |
16+ 5      20.1979     24.75  |         |        Q|         |      V  |
16+10      20.3422     20.95  |         |     Q   |         |      V  |
16+15      20.4467     15.17  |         | Q       |         |      V  |
16+20      20.5222     10.97  |       Q |         |         |      V  |
16+25      20.5831      8.84  |      Q  |         |         |      V  |
16+30      20.6349      7.53  |     Q   |         |         |      V  |
16+35      20.6796      6.49  |    Q    |         |         |      V  |
16+40      20.7173      5.48  |   Q     |         |         |      V  |
16+45      20.7483      4.51  |  Q      |         |         |       V |
16+50      20.7741      3.74  | Q       |         |         |       V |
16+55      20.7963      3.23  | Q       |         |         |       V |
17+ 0      20.8159      2.85  | Q       |         |         |       V |
17+ 5      20.8341      2.64  | Q       |         |         |       V |
17+10      20.8536      2.83  | Q       |         |         |       V |
17+15      20.8767      3.36  | Q       |         |         |       V |
17+20      20.9023      3.72  | Q       |         |         |       V |
17+25      20.9289      3.85  |  Q      |         |         |       V |
17+30      20.9558      3.91  |  Q      |         |         |       V |
17+35      20.9830      3.95  |  Q      |         |         |       V |
17+40      21.0102      3.96  |  Q      |         |         |       V |
17+45      21.0374      3.95  |  Q      |         |         |       V |
17+50      21.0644      3.91  |  Q      |         |         |       V |
17+55      21.0900      3.73  | Q       |         |         |       V |
18+ 0      21.1134      3.40  | Q       |         |         |       V |
18+ 5      21.1352      3.17  | Q       |         |         |       V |
18+10      21.1564      3.08  | Q       |         |         |       V |
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18+15      21.1773      3.03  | Q        |         |         |      V |
18+20      21.1979      3.00  | Q        |         |         |      V |
18+25      21.2185      2.98  | Q        |         |         |      V |
18+30      21.2390      2.98  | Q        |         |         |      V |
18+35      21.2590      2.91  | Q        |         |         |      V |
18+40      21.2775      2.68  | Q        |         |         |       V|
18+45      21.2934      2.31  |Q         |         |         |       V|
18+50      21.3071      1.99  |Q         |         |         |       V|
18+55      21.3185      1.66  |Q         |         |         |       V|
19+ 0      21.3273      1.27  |Q         |         |         |       V|
19+ 5      21.3344      1.03  Q          |         |         |       V|
19+10      21.3418      1.08  Q          |         |         |       V|
19+15      21.3507      1.29  |Q         |         |         |       V|
19+20      21.3610      1.50  |Q         |         |         |       V|
19+25      21.3734      1.80  |Q         |         |         |       V|
19+30      21.3886      2.20  |Q         |         |         |       V|
19+35      21.4053      2.43  |Q         |         |         |       V|
19+40      21.4214      2.34  |Q         |         |         |       V|
19+45      21.4356      2.07  |Q         |         |         |       V|
19+50      21.4481      1.81  |Q         |         |         |       V|
19+55      21.4586      1.52  |Q         |         |         |       V|
20+ 0      21.4664      1.13  Q          |         |         |       V|
20+ 5      21.4727      0.91  Q          |         |         |       V|
20+10      21.4796      1.00  Q          |         |         |       V|
20+15      21.4883      1.27  |Q         |         |         |       V|
20+20      21.4983      1.46  |Q         |         |         |       V|
20+25      21.5090      1.55  |Q         |         |         |       V|
20+30      21.5200      1.60  |Q         |         |         |       V|
20+35      21.5313      1.63  |Q         |         |         |       V|
20+40      21.5428      1.67  |Q         |         |         |       V|
20+45      21.5544      1.69  |Q         |         |         |       V|
20+50      21.5658      1.66  |Q         |         |         |       V|
20+55      21.5757      1.43  |Q         |         |         |       V|
21+ 0      21.5831      1.08  Q          |         |         |       V|
21+ 5      21.5892      0.88  Q          |         |         |       V|
21+10      21.5960      0.99  Q          |         |         |       V|
21+15      21.6050      1.30  |Q         |         |         |       V|
21+20      21.6150      1.46  |Q         |         |         |       V|
21+25      21.6241      1.32  |Q         |         |         |       V|
21+30      21.6310      1.00  Q          |         |         |       V|
21+35      21.6368      0.83  Q          |         |         |       V|
21+40      21.6435      0.98  Q          |         |         |       V|
21+45      21.6524      1.30  |Q         |         |         |       V|
21+50      21.6626      1.48  |Q         |         |         |       V|
21+55      21.6719      1.34  |Q         |         |         |       V|
22+ 0      21.6790      1.03  Q          |         |         |       V|
22+ 5      21.6850      0.87  Q          |         |         |       V|
22+10      21.6919      1.01  Q          |         |         |       V|
22+15      21.7011      1.33  |Q         |         |         |       V|
22+20      21.7115      1.51  |Q         |         |         |       V|
```

```
   22+25      21.7210      1.38  |Q         |         |         |        V|
   22+30      21.7283      1.07  Q          |         |         |        V|
   22+35      21.7341      0.84  Q          |         |         |        V|
   22+40      21.7393      0.75  Q          |         |         |        V|
   22+45      21.7441      0.70  Q          |         |         |        V|
   22+50      21.7487      0.67  Q          |         |         |        V|
   22+55      21.7532      0.64  Q          |         |         |        V|
   23+ 0      21.7575      0.62  Q          |         |         |        V|
   23+ 5      21.7616      0.61  Q          |         |         |        V|
   23+10      21.7658      0.60  Q          |         |         |        V|
   23+15      21.7699      0.60  Q          |         |         |        V|
   23+20      21.7740      0.60  Q          |         |         |        V|
   23+25      21.7781      0.59  Q          |         |         |        V|
   23+30      21.7821      0.58  Q          |         |         |        V|
   23+35      21.7861      0.58  Q          |         |         |        V|
   23+40      21.7901      0.58  Q          |         |         |        V|
   23+45      21.7941      0.59  Q          |         |         |        V|
   23+50      21.7982      0.59  Q          |         |         |        V|
   23+55      21.8022      0.59  Q          |         |         |        V|
   24+ 0      21.8062      0.58  Q          |         |         |        V|
   24+ 5      21.8100      0.56  Q          |         |         |        V|
   24+10      21.8132      0.46  Q          |         |         |        V|
   24+15      21.8154      0.32  Q          |         |         |        V|
   24+20      21.8168      0.21  Q          |         |         |        V|
   24+25      21.8179      0.15  Q          |         |         |        V|
   24+30      21.8187      0.12  Q          |         |         |        V|
   24+35      21.8194      0.10  Q          |         |         |        V|
   24+40      21.8200      0.08  Q          |         |         |        V|
   24+45      21.8204      0.06  Q          |         |         |        V|
   24+50      21.8208      0.05  Q          |         |         |        V|
   24+55      21.8211      0.04  Q          |         |         |        V|
   25+ 0      21.8213      0.04  Q          |         |         |        V|
   25+ 5      21.8215      0.03  Q          |         |         |        V|
   25+10      21.8217      0.02  Q          |         |         |        V|
   25+15      21.8218      0.02  Q          |         |         |        V|
   25+20      21.8219      0.01  Q          |         |         |        V|
   25+25      21.8220      0.01  Q          |         |         |        V|
   25+30      21.8220      0.01  Q          |         |         |        V|
   25+35      21.8221      0.01  Q          |         |         |        V|
   25+40      21.8221      0.00  Q          |         |         |        V|
   25+45      21.8221      0.00  Q          |         |         |         V
----------------------------------------------------------------------
```

Appendix G – Proposed Condition Hydrologic Calculations

```
                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study        Date: 07/27/23  File:NSPRRATA10.out
------------------------------------------------------------------------
PROPOSED CONDITION
RATIONAL METHOD
AREA A
10 YEAR STORM
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6491

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =   10.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year =  10.0
Calculated rainfall intensity data:
1 hour intensity =  0.944(In/Hr)
Slope of intensity duration curve = 0.5300




++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   588.000(Ft.)
Top (of initial area) elevation =  1497.620(Ft.)
Bottom (of initial area) elevation =  1493.730(Ft.)
Difference in elevation =     3.890(Ft.)
Slope =    0.00662  s(percent)=       0.66
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.490 min.
Rainfall intensity =      2.380(In/Hr) for a    10.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.882
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      6.993(CFS)
Total initial stream area =        3.332(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       11.000 to Point/Station       12.000
**** IRREGULAR CHANNEL FLOW TRAVEL TIME ****
______________________________________________________________________
Estimated mean flow rate at midpoint of channel =     14.550(CFS)
```

```
Depth of flow =   0.576(Ft.), Average velocity =   3.198(Ft/s)
!!Warning: Water is above left or right bank elevations
        ******* Irregular Channel Data ***********
-----------------------------------------------------------------
Information entered for subchannel number 1 :
Point number      'X' coordinate     'Y' coordinate
        1              0.00             0.50
        2              0.50             0.00
        3              2.50             0.17
        4             57.50             1.52
Manning's 'N' friction factor =   0.013
-----------------------------------------------------------------
Sub-Channel flow  =     14.551(CFS)
  '     '        flow top width =     19.152(Ft.)
  '     '    velocity=    3.198(Ft/s)
  '     '        area =      4.550(Sq.Ft)
  '     '        Froude number =     1.156

Upstream point elevation =  1493.730(Ft.)
Downstream point elevation =  1489.400(Ft.)
Flow length =   802.000(Ft.)
Travel time  =    4.18 min.
Time of concentration =   14.67 min.
Depth of flow =   0.576(Ft.)
Average velocity =   3.198(Ft/s)
Total irregular channel flow =    14.550(CFS)
Irregular channel normal depth above invert elev. =   0.576(Ft.)
Average velocity of channel(s) =   3.198(Ft/s)
!!Warning: Water is above left or right bank elevations
 Adding area flow to channel
COMMERCIAL subarea type
Runoff Coefficient = 0.879
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Rainfall intensity =      1.992(In/Hr) for a    10.0 year storm
Subarea runoff =     15.063(CFS) for      8.600(Ac.)
Total runoff =     22.056(CFS)  Total area =      11.932(Ac.)
Depth of flow =   0.656(Ft.), Average velocity =   3.548(Ft/s)
!!Warning: Water is above left or right bank elevations


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       12.000 to Point/Station       12.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.879
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    14.67 min.
Rainfall intensity =      1.992(In/Hr) for a    10.0 year storm
Subarea runoff =     11.937(CFS) for      6.815(Ac.)
Total runoff =     33.993(CFS)  Total area =      18.747(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       12.000 to Point/Station       13.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________
Upstream point/station elevation =  1485.730(Ft.)
Downstream point/station elevation =  1485.300(Ft.)
```

```
Pipe length  =    86.00(Ft.)   Manning's N = 0.010
No. of pipes = 1  Required pipe flow  =    33.993(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =    33.993(CFS)
Normal flow depth in pipe =   22.27(In.)
Flow top width inside pipe =   26.25(In.)
Critical Depth =   23.79(In.)
Pipe flow velocity =      8.69(Ft/s)
Travel time through pipe =    0.16 min.
Time of concentration (TC) =    14.83 min.
End of computations, total study area =           18.75 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number =  69.0
```

```
                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study        Date: 07/27/23  File:NSPRRATA100.out
------------------------------------------------------------------------
PROPOSED CONDITION
RATIONAL METHOD
AREA A
100 YEAR STORM
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6491

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =  100.00 Antecedent Moisture Condition = 3

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity =  1.570(In/Hr)
Slope of intensity duration curve = 0.5300




++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       11.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   588.000(Ft.)
Top (of initial area) elevation =  1497.620(Ft.)
Bottom (of initial area) elevation =  1493.730(Ft.)
Difference in elevation =     3.890(Ft.)
Slope =    0.00662  s(percent)=       0.66
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.490 min.
Rainfall intensity =      3.957(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.895
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  84.40
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     11.795(CFS)
Total initial stream area =        3.332(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       11.000 to Point/Station       12.000
**** IRREGULAR CHANNEL FLOW TRAVEL TIME ****
______________________________________________________________________
Estimated mean flow rate at midpoint of channel =     24.812(CFS)
```

```
Depth of flow =   0.681(Ft.), Average velocity =   3.654(Ft/s)
!!Warning: Water is above left or right bank elevations
        ******* Irregular Channel Data ***********
-----------------------------------------------------------------
Information entered for subchannel number 1 :
Point number      'X' coordinate     'Y' coordinate
        1              0.00             0.50
        2              0.50             0.00
        3              2.50             0.17
        4             57.50             1.52
Manning's 'N' friction factor =   0.013
-----------------------------------------------------------------
Sub-Channel flow  =     24.812(CFS)
  '     '        flow top width =     23.436(Ft.)
  '     '    velocity=    3.654(Ft/s)
  '     '        area =      6.789(Sq.Ft)
  '     '        Froude number =     1.197

Upstream point elevation =  1493.730(Ft.)
Downstream point elevation =  1489.400(Ft.)
Flow length =   802.000(Ft.)
Travel time  =    3.66 min.
Time of concentration =   14.15 min.
Depth of flow =   0.681(Ft.)
Average velocity =   3.654(Ft/s)
Total irregular channel flow =    24.812(CFS)
Irregular channel normal depth above invert elev. =   0.681(Ft.)
Average velocity of channel(s) =   3.654(Ft/s)
!!Warning: Water is above left or right bank elevations
 Adding area flow to channel
COMMERCIAL subarea type
Runoff Coefficient = 0.894
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  84.40
Pervious area fraction =  0.100; Impervious fraction =  0.900
Rainfall intensity =      3.376(In/Hr) for a   100.0 year storm
Subarea runoff =     25.956(CFS) for      8.600(Ac.)
Total runoff =     37.752(CFS)  Total area =      11.932(Ac.)
Depth of flow =   0.780(Ft.), Average velocity =   4.059(Ft/s)
!!Warning: Water is above left or right bank elevations


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       12.000 to Point/Station       12.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.894
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  84.40
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    14.15 min.
Rainfall intensity =      3.376(In/Hr) for a   100.0 year storm
Subarea runoff =     20.569(CFS) for      6.815(Ac.)
Total runoff =     58.320(CFS)  Total area =      18.747(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       12.000 to Point/Station       13.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________
Upstream point/station elevation =  1485.730(Ft.)
Downstream point/station elevation =  1485.300(Ft.)
```

```
Pipe length  =    86.00(Ft.)   Manning's N = 0.010
No. of pipes = 1  Required pipe flow  =    58.320(CFS)
Nearest computed pipe diameter  =     36.00(In.)
Calculated individual pipe flow  =    58.320(CFS)
Normal flow depth in pipe =   28.03(In.)
Flow top width inside pipe =   29.89(In.)
Critical Depth =   29.64(In.)
Pipe flow velocity =      9.87(Ft/s)
Travel time through pipe =    0.15 min.
Time of concentration (TC) =    14.29 min.
End of computations, total study area =           18.75 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number =  69.0
```

```
                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study        Date: 07/27/23  File:NSPRRATB10.out
------------------------------------------------------------------------
PROPOSED CONDITION
RATIONAL METHOD
AREA B
10 YEAR STORM
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6350

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =   10.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year =  10.0
Calculated rainfall intensity data:
1 hour intensity =  0.944(In/Hr)
Slope of intensity duration curve = 0.5300





++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       20.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   550.000(Ft.)
Top (of initial area) elevation =  1497.620(Ft.)
Bottom (of initial area) elevation =  1493.700(Ft.)
Difference in elevation =     3.920(Ft.)
Slope =    0.00713  s(percent)=       0.71
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.062 min.
Rainfall intensity =      2.433(In/Hr) for a    10.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.882
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      6.581(CFS)
Total initial stream area =        3.066(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       20.000 to Point/Station       21.000
**** IRREGULAR CHANNEL FLOW TRAVEL TIME ****
______________________________________________________________________
Estimated mean flow rate at midpoint of channel =     15.841(CFS)
```

```
Depth of flow =   0.599(Ft.), Average velocity =   3.168(Ft/s)
!!Warning: Water is above left or right bank elevations
        ******* Irregular Channel Data ***********
-----------------------------------------------------------------
Information entered for subchannel number 1 :
Point number      'X' coordinate     'Y' coordinate
        1              0.00              0.50
        2              0.50              0.00
        3              2.50              0.17
        4             57.50              1.52
Manning's 'N' friction factor =   0.013
-----------------------------------------------------------------
Sub-Channel flow  =     15.841(CFS)
  '     '        flow top width =     20.086(Ft.)
  '     '    velocity=    3.168(Ft/s)
  '     '        area =      5.000(Sq.Ft)
  '     '        Froude number =     1.119

Upstream point elevation =  1493.700(Ft.)
Downstream point elevation =  1491.600(Ft.)
Flow length =   422.000(Ft.)
Travel time  =    2.22 min.
Time of concentration =   12.28 min.
Depth of flow =   0.599(Ft.)
Average velocity =   3.168(Ft/s)
Total irregular channel flow =    15.841(CFS)
Irregular channel normal depth above invert elev. =   0.599(Ft.)
Average velocity of channel(s) =   3.168(Ft/s)
!!Warning: Water is above left or right bank elevations
 Adding area flow to channel
COMMERCIAL subarea type
Runoff Coefficient = 0.881
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Rainfall intensity =      2.189(In/Hr) for a    10.0 year storm
Subarea runoff =     18.452(CFS) for      9.572(Ac.)
Total runoff =     25.033(CFS)  Total area =      12.638(Ac.)
Depth of flow =   0.692(Ft.), Average velocity =   3.552(Ft/s)
!!Warning: Water is above left or right bank elevations


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       21.000 to Point/Station      31.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________
Upstream point/station elevation =  1487.000(Ft.)
Downstream point/station elevation =  1485.380(Ft.)
Pipe length  =   810.00(Ft.)   Manning's N = 0.010
No. of pipes = 1  Required pipe flow  =    25.033(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =    25.033(CFS)
Normal flow depth in pipe =   26.25(In.)
Flow top width inside pipe =   19.84(In.)
Critical Depth =   20.46(In.)
Pipe flow velocity =      5.50(Ft/s)
Travel time through pipe =    2.45 min.
Time of concentration (TC) =    14.74 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       31.000 to Point/Station      31.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________
Along Main Stream number: 1 in normal stream number 1
Stream flow area =     12.638(Ac.)
```

```
Runoff from this stream =     25.033(CFS)
Time of concentration =   14.74 min.
Rainfall intensity =     1.987(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       30.000 to Point/Station      31.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   816.000(Ft.)
Top (of initial area) elevation =  1500.900(Ft.)
Bottom (of initial area) elevation =  1491.600(Ft.)
Difference in elevation =     9.300(Ft.)
Slope =    0.01140  s(percent)=       1.14
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.726 min.
Rainfall intensity =      2.352(In/Hr) for a    10.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.882
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     11.895(CFS)
Total initial stream area =        5.736(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       31.000 to Point/Station      31.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________
Along Main Stream number: 1 in normal stream number 2
Stream flow area =      5.736(Ac.)
Runoff from this stream =     11.895(CFS)
Time of concentration =   10.73 min.
Rainfall intensity =     2.352(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       25.033     14.74                 1.987
2       11.895     10.73                 2.352
Largest stream flow has longer time of concentration
Qp =     25.033 + sum of
          Qb         Ia/Ib
          11.895 *    0.845 =     10.052
Qp =     35.084

Total of 2 streams to confluence:
Flow rates before confluence point:
      25.033      11.895
Area of streams before confluence:
       12.638        5.736
Results of confluence:
Total flow rate =     35.084(CFS)
Time of concentration =    14.736 min.
Effective stream area after confluence =     18.374(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       31.000 to Point/Station      32.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________
Upstream point/station elevation =  1485.380(Ft.)
```

```
Downstream point/station elevation =  1480.740(Ft.)
Pipe length  =   921.00(Ft.)   Manning's N = 0.010
No. of pipes = 1  Required pipe flow  =    35.084(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =    35.084(CFS)
Normal flow depth in pipe =   22.83(In.)
Flow top width inside pipe =   25.59(In.)
Critical Depth =   24.12(In.)
Pipe flow velocity =      8.76(Ft/s)
Travel time through pipe =    1.75 min.
Time of concentration (TC) =    16.49 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       32.000 to Point/Station       32.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________
Along Main Stream number: 1 in normal stream number 1
Stream flow area =     18.374(Ac.)
Runoff from this stream =     35.084(CFS)
Time of concentration =   16.49 min.
Rainfall intensity =     1.873(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       40.000 to Point/Station       41.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =  1070.000(Ft.)
Top (of initial area) elevation =  1498.010(Ft.)
Bottom (of initial area) elevation =  1492.870(Ft.)
Difference in elevation =     5.140(Ft.)
Slope =    0.00480  s(percent)=       0.48
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   14.209 min.
Rainfall intensity =      2.026(In/Hr) for a    10.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.879
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     12.622(CFS)
Total initial stream area =        7.083(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       41.000 to Point/Station       32.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________
Upstream point/station elevation =  1488.950(Ft.)
Downstream point/station elevation =  1488.220(Ft.)
Pipe length  =   146.00(Ft.)   Manning's N = 0.010
No. of pipes = 1  Required pipe flow  =    12.622(CFS)
Nearest computed pipe diameter  =     21.00(In.)
Calculated individual pipe flow  =    12.622(CFS)
Normal flow depth in pipe =   15.09(In.)
Flow top width inside pipe =   18.88(In.)
Critical Depth =   15.88(In.)
Pipe flow velocity =      6.82(Ft/s)
Travel time through pipe =    0.36 min.
Time of concentration (TC) =    14.57 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       32.000 to Point/Station       32.000
```

**** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 2
Stream flow area =   7.083(Ac.)
Runoff from this stream =   12.622(CFS)
Time of concentration =   14.57 min.
Rainfall intensity =   2.000(In/Hr)
Summary of stream data:

Stream No.	Flow rate (CFS)	TC (min)	Rainfall Intensity (In/Hr)
1	35.084	16.49	1.873
2	12.622	14.57	2.000

```
Largest stream flow has longer time of concentration
Qp =     35.084 + sum of
          Qb         Ia/Ib
          12.622 *    0.936 =     11.819
Qp =     46.903

Total of 2 streams to confluence:
Flow rates before confluence point:
      35.084      12.622
Area of streams before confluence:
       18.374       7.083
Results of confluence:
Total flow rate =     46.903(CFS)
Time of concentration =    16.489 min.
Effective stream area after confluence =     25.457(Ac.)
End of computations, total study area =           25.46 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number =  69.0
```

```
                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study        Date: 07/27/23  File:NSPRRATB100.out
------------------------------------------------------------------------
PROPOSED CONDITION
RATIONAL METHOD
AREA B
100 YEAR STORM
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6491

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =  100.00 Antecedent Moisture Condition = 3

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity =  1.570(In/Hr)
Slope of intensity duration curve = 0.5300





++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       10.000 to Point/Station       20.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   550.000(Ft.)
Top (of initial area) elevation =  1497.620(Ft.)
Bottom (of initial area) elevation =  1493.700(Ft.)
Difference in elevation =     3.920(Ft.)
Slope =    0.00713  s(percent)=       0.71
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.062 min.
Rainfall intensity =      4.045(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.895
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  84.40
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     11.097(CFS)
Total initial stream area =        3.066(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       20.000 to Point/Station       21.000
**** IRREGULAR CHANNEL FLOW TRAVEL TIME ****
______________________________________________________________________
Estimated mean flow rate at midpoint of channel =     26.889(CFS)
```

```
Depth of flow =   0.708(Ft.), Average velocity =   3.617(Ft/s)
!!Warning: Water is above left or right bank elevations
        ******* Irregular Channel Data ***********
-----------------------------------------------------------------
Information entered for subchannel number 1 :
Point number      'X' coordinate     'Y' coordinate
        1              0.00              0.50
        2              0.50              0.00
        3              2.50              0.17
        4             57.50              1.52
Manning's 'N' friction factor =   0.013
-----------------------------------------------------------------
Sub-Channel flow  =     26.889(CFS)
  '     '        flow top width =     24.532(Ft.)
  '     '    velocity=    3.617(Ft/s)
  '     '        area =      7.435(Sq.Ft)
  '     '        Froude number =     1.158

Upstream point elevation =  1493.700(Ft.)
Downstream point elevation =  1491.600(Ft.)
Flow length =   422.000(Ft.)
Travel time  =    1.94 min.
Time of concentration =   12.01 min.
Depth of flow =   0.708(Ft.)
Average velocity =   3.617(Ft/s)
Total irregular channel flow =    26.889(CFS)
Irregular channel normal depth above invert elev. =   0.708(Ft.)
Average velocity of channel(s) =   3.617(Ft/s)
!!Warning: Water is above left or right bank elevations
 Adding area flow to channel
COMMERCIAL subarea type
Runoff Coefficient = 0.894
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  84.40
Pervious area fraction =  0.100; Impervious fraction =  0.900
Rainfall intensity =      3.683(In/Hr) for a   100.0 year storm
Subarea runoff =     31.531(CFS) for      9.572(Ac.)
Total runoff =     42.628(CFS)  Total area =      12.638(Ac.)
Depth of flow =   0.822(Ft.), Average velocity =   4.059(Ft/s)
!!Warning: Water is above left or right bank elevations


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       21.000 to Point/Station      31.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________
Upstream point/station elevation =  1487.000(Ft.)
Downstream point/station elevation =  1485.380(Ft.)
Pipe length  =   810.00(Ft.)   Manning's N = 0.010
No. of pipes = 1  Required pipe flow  =    42.628(CFS)
Nearest computed pipe diameter  =     39.00(In.)
Calculated individual pipe flow  =    42.628(CFS)
Normal flow depth in pipe =   28.59(In.)
Flow top width inside pipe =   34.50(In.)
Critical Depth =   24.95(In.)
Pipe flow velocity =      6.54(Ft/s)
Travel time through pipe =    2.07 min.
Time of concentration (TC) =    14.07 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       31.000 to Point/Station      31.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________
Along Main Stream number: 1 in normal stream number 1
Stream flow area =     12.638(Ac.)
```

```
Runoff from this stream =     42.628(CFS)
Time of concentration =   14.07 min.
Rainfall intensity =     3.386(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       30.000 to Point/Station      31.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   816.000(Ft.)
Top (of initial area) elevation =  1504.920(Ft.)
Bottom (of initial area) elevation =  1491.600(Ft.)
Difference in elevation =    13.320(Ft.)
Slope =    0.01632  s(percent)=       1.63
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    9.982 min.
Rainfall intensity =      4.062(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.895
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  84.40
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     20.849(CFS)
Total initial stream area =        5.736(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       31.000 to Point/Station      31.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________
Along Main Stream number: 1 in normal stream number 2
Stream flow area =      5.736(Ac.)
Runoff from this stream =     20.849(CFS)
Time of concentration =    9.98 min.
Rainfall intensity =     4.062(In/Hr)
Summary of stream data:

Stream   Flow rate      TC           Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)


1       42.628     14.07                 3.386
2       20.849      9.98                 4.062
Largest stream flow has longer time of concentration
Qp =     42.628 + sum of
          Qb         Ia/Ib
          20.849 *    0.834 =     17.380
Qp =     60.008

Total of 2 streams to confluence:
Flow rates before confluence point:
      42.628      20.849
Area of streams before confluence:
       12.638       5.736
Results of confluence:
Total flow rate =     60.008(CFS)
Time of concentration =    14.072 min.
Effective stream area after confluence =     18.374(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       31.000 to Point/Station      32.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________
Upstream point/station elevation =  1485.380(Ft.)
```

```
Downstream point/station elevation =  1480.740(Ft.)
Pipe length  =   921.00(Ft.)   Manning's N = 0.010
No. of pipes = 1  Required pipe flow  =    60.008(CFS)
Nearest computed pipe diameter  =     36.00(In.)
Calculated individual pipe flow  =    60.008(CFS)
Normal flow depth in pipe =   28.73(In.)
Flow top width inside pipe =   28.90(In.)
Critical Depth =   30.01(In.)
Pipe flow velocity =      9.92(Ft/s)
Travel time through pipe =    1.55 min.
Time of concentration (TC) =    15.62 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       32.000 to Point/Station       32.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________
Along Main Stream number: 1 in normal stream number 1
Stream flow area =     18.374(Ac.)
Runoff from this stream =     60.008(CFS)
Time of concentration =   15.62 min.
Rainfall intensity =     3.204(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       40.000 to Point/Station       41.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =  1070.000(Ft.)
Top (of initial area) elevation =  1498.010(Ft.)
Bottom (of initial area) elevation =  1492.870(Ft.)
Difference in elevation =     5.140(Ft.)
Slope =    0.00480  s(percent)=       0.48
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   14.209 min.
Rainfall intensity =      3.369(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.894
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  84.40
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     21.328(CFS)
Total initial stream area =        7.083(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       41.000 to Point/Station       32.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________
Upstream point/station elevation =  1488.950(Ft.)
Downstream point/station elevation =  1488.220(Ft.)
Pipe length  =   146.00(Ft.)   Manning's N = 0.010
No. of pipes = 1  Required pipe flow  =    21.328(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    21.328(CFS)
Normal flow depth in pipe =   20.25(In.)
Flow top width inside pipe =   17.43(In.)
Critical Depth =   19.82(In.)
Pipe flow velocity =      7.53(Ft/s)
Travel time through pipe =    0.32 min.
Time of concentration (TC) =    14.53 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       32.000 to Point/Station       32.000
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```
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________
Along Main Stream number: 1 in normal stream number 2
Stream flow area =      7.083(Ac.)
Runoff from this stream =     21.328(CFS)
Time of concentration =   14.53 min.
Rainfall intensity =     3.329(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       60.008     15.62                 3.204
2       21.328     14.53                 3.329
Largest stream flow has longer time of concentration
Qp =     60.008 + sum of
          Qb         Ia/Ib
          21.328 *    0.962 =     20.528
Qp =     80.536

Total of 2 streams to confluence:
Flow rates before confluence point:
      60.008      21.328
Area of streams before confluence:
       18.374       7.083
Results of confluence:
Total flow rate =     80.536(CFS)
Time of concentration =    15.619 min.
Effective stream area after confluence =     25.457(Ac.)
End of computations, total study area =           25.46 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number =  69.0
```

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                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study        Date: 07/27/23  File:NSPRRATC110.out
------------------------------------------------------------------------
PROPOSED CONDITION
RATIONAL METHOD
AREA C1
10 YEAR STORM
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6491

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =   10.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year =  10.0
Calculated rainfall intensity data:
1 hour intensity =  0.944(In/Hr)
Slope of intensity duration curve = 0.5300




++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       60.000 to Point/Station       61.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   983.000(Ft.)
Top (of initial area) elevation =  1500.200(Ft.)
Bottom (of initial area) elevation =  1492.600(Ft.)
Difference in elevation =     7.600(Ft.)
Slope =    0.00773  s(percent)=       0.77
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   12.488 min.
Rainfall intensity =      2.170(In/Hr) for a    10.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.881
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     15.276(CFS)
Total initial stream area =        7.996(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       61.000 to Point/Station       62.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________
Upstream point/station elevation =  1488.950(Ft.)
```

```
Downstream point/station elevation =  1488.600(Ft.)
Pipe length  =     6.00(Ft.)   Manning's N = 0.010
No. of pipes = 1  Required pipe flow  =    15.276(CFS)
Nearest computed pipe diameter  =     15.00(In.)
Calculated individual pipe flow  =    15.276(CFS)
Normal flow depth in pipe =    9.73(In.)
Flow top width inside pipe =   14.32(In.)
Critical depth could not be calculated.
Pipe flow velocity =     18.16(Ft/s)
Travel time through pipe =    0.01 min.
Time of concentration (TC) =    12.49 min.
End of computations, total study area =            8.00 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number =  69.0
```

```
                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study        Date: 07/27/23  File:NSPRRATC210.out
------------------------------------------------------------------------
PROPOSED CONDITION
RATIONAL METHOD
AREA C2
10 YEAR STORM
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6491

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =   10.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year =  10.0
Calculated rainfall intensity data:
1 hour intensity =  0.944(In/Hr)
Slope of intensity duration curve = 0.5300





++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       70.000 to Point/Station       71.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   692.000(Ft.)
Top (of initial area) elevation =  1500.000(Ft.)
Bottom (of initial area) elevation =  1495.840(Ft.)
Difference in elevation =     4.160(Ft.)
Slope =    0.00601  s(percent)=       0.60
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   11.412 min.
Rainfall intensity =      2.276(In/Hr) for a    10.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.881
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     14.693(CFS)
Total initial stream area =        7.326(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       71.000 to Point/Station       72.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________
Upstream point/station elevation =  1492.170(Ft.)
```

```
Downstream point/station elevation =  1491.270(Ft.)
Pipe length  =   183.00(Ft.)   Manning's N = 0.010
No. of pipes = 1  Required pipe flow  =    14.693(CFS)
Nearest computed pipe diameter  =     21.00(In.)
Calculated individual pipe flow  =    14.693(CFS)
Normal flow depth in pipe =   17.55(In.)
Flow top width inside pipe =   15.55(In.)
Critical Depth =   17.05(In.)
Pipe flow velocity =      6.84(Ft/s)
Travel time through pipe =    0.45 min.
Time of concentration (TC) =    11.86 min.
End of computations, total study area =            7.33 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number =  69.0
```

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                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study        Date: 07/27/23  File:NSPRRATC310.out
------------------------------------------------------------------------
PROPOSED CONDITION
RATIONAL METHOD
AREA C3
10 YEAR STORM
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6491

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =   10.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year =  10.0
Calculated rainfall intensity data:
1 hour intensity =  0.944(In/Hr)
Slope of intensity duration curve = 0.5300





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Process from Point/Station       80.000 to Point/Station       81.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   635.000(Ft.)
Top (of initial area) elevation =  1500.000(Ft.)
Bottom (of initial area) elevation =  1493.230(Ft.)
Difference in elevation =     6.770(Ft.)
Slope =    0.01066  s(percent)=      1.07
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    9.833 min.
Rainfall intensity =      2.463(In/Hr) for a    10.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.882
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      6.128(CFS)
Total initial stream area =        2.820(Ac.)
Pervious area fraction = 0.100
End of computations, total study area =            2.82 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number =  69.0
```

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                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study        Date: 07/27/23  File:NSPRRATC1100.out
------------------------------------------------------------------------
PROPOSED CONDITION
RATIONAL METHOD
AREA C1
100 YEAR STORM
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6491

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =  100.00 Antecedent Moisture Condition = 3

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity =  1.570(In/Hr)
Slope of intensity duration curve = 0.5300




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Process from Point/Station       60.000 to Point/Station       61.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   983.000(Ft.)
Top (of initial area) elevation =  1500.200(Ft.)
Bottom (of initial area) elevation =  1492.600(Ft.)
Difference in elevation =     7.600(Ft.)
Slope =    0.00773  s(percent)=       0.77
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   12.488 min.
Rainfall intensity =      3.607(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.894
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  84.40
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     25.793(CFS)
Total initial stream area =        7.996(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       61.000 to Point/Station       62.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________
Upstream point/station elevation =  1488.950(Ft.)
```

```
Downstream point/station elevation =  1488.600(Ft.)
Pipe length  =     6.00(Ft.)   Manning's N = 0.010
No. of pipes = 1  Required pipe flow  =    25.793(CFS)
Nearest computed pipe diameter  =     18.00(In.)
Calculated individual pipe flow  =    25.793(CFS)
Normal flow depth in pipe =   11.98(In.)
Flow top width inside pipe =   16.99(In.)
Critical depth could not be calculated.
Pipe flow velocity =     20.65(Ft/s)
Travel time through pipe =    0.00 min.
Time of concentration (TC) =    12.49 min.
End of computations, total study area =            8.00 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number =  69.0
```

```
                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study        Date: 07/27/23  File:NSPRRATC2100.out
------------------------------------------------------------------------
PROPOSED CONDITION
RATIONAL METHOD
AREA C2
100 YEAR STORM
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6491

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =  100.00 Antecedent Moisture Condition = 3

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity =  1.570(In/Hr)
Slope of intensity duration curve = 0.5300





++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       70.000 to Point/Station       71.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   692.000(Ft.)
Top (of initial area) elevation =  1500.000(Ft.)
Bottom (of initial area) elevation =  1495.840(Ft.)
Difference in elevation =     4.160(Ft.)
Slope =    0.00601  s(percent)=       0.60
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   11.412 min.
Rainfall intensity =      3.784(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.894
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  84.40
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     24.795(CFS)
Total initial stream area =        7.326(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       71.000 to Point/Station       72.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________
Upstream point/station elevation =  1492.170(Ft.)
```

```
Downstream point/station elevation =  1491.270(Ft.)
Pipe length  =   183.00(Ft.)   Manning's N = 0.010
No. of pipes = 1  Required pipe flow  =    24.795(CFS)
Nearest computed pipe diameter  =     27.00(In.)
Calculated individual pipe flow  =    24.795(CFS)
Normal flow depth in pipe =   19.62(In.)
Flow top width inside pipe =   24.07(In.)
Critical Depth =   20.88(In.)
Pipe flow velocity =      8.01(Ft/s)
Travel time through pipe =    0.38 min.
Time of concentration (TC) =    11.79 min.
End of computations, total study area =            7.33 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number =  69.0
```

```
                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study        Date: 07/27/23  File:NSPRRATC3100.out
------------------------------------------------------------------------
PROPOSED CONDITION
RATIONAL METHOD
AREA C3
100 YEAR STORM
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6491

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =  100.00 Antecedent Moisture Condition = 3

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity =  1.570(In/Hr)
Slope of intensity duration curve = 0.5300





++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       80.000 to Point/Station       81.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   635.000(Ft.)
Top (of initial area) elevation =  1500.000(Ft.)
Bottom (of initial area) elevation =  1493.230(Ft.)
Difference in elevation =     6.770(Ft.)
Slope =    0.01066  s(percent)=      1.07
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    9.833 min.
Rainfall intensity =      4.095(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.895
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  84.40
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     10.333(CFS)
Total initial stream area =        2.820(Ac.)
Pervious area fraction = 0.100
End of computations, total study area =            2.82 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number =  69.0
```

```
                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study       Date: 07/27/23  File:NSPRRATD10.out
------------------------------------------------------------------------
PROPOSED RATIONAL METHOD
10-YEAR STORM
AREA D

------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6491

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =   10.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year =  10.0
Calculated rainfall intensity data:
1 hour intensity =  0.944(In/Hr)
Slope of intensity duration curve = 0.5300





++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      90.000 to Point/Station      91.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   666.000(Ft.)
Top (of initial area) elevation =  1506.350(Ft.)
Bottom (of initial area) elevation =  1499.460(Ft.)
Difference in elevation =     6.890(Ft.)
Slope =    0.01035  s(percent)=      1.03
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.082 min.
Rainfall intensity =      2.430(In/Hr) for a    10.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.882
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  69.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     20.497(CFS)
Total initial stream area =        9.560(Ac.)
Pervious area fraction = 0.100
End of computations, total study area =            9.56 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number =  69.0
```

```
                Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2018 Version 9.0
        Rational Hydrology Study        Date: 07/27/23  File:NSPRRATD100.out
------------------------------------------------------------------------
PROPOSED RATIONAL METHOD
100-YEAR STORM
AREA D

------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

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


Program License Serial Number 6491

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =  100.00 Antecedent Moisture Condition = 3

2 year, 1 hour precipitation =  0.507(In.)
100 year, 1 hour precipitation =  1.570(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity =  1.570(In/Hr)
Slope of intensity duration curve = 0.5300





++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       90.000 to Point/Station       91.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________
Initial area flow distance =   666.000(Ft.)
Top (of initial area) elevation =  1506.350(Ft.)
Bottom (of initial area) elevation =  1499.460(Ft.)
Difference in elevation =     6.890(Ft.)
Slope =    0.01035  s(percent)=       1.03
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.082 min.
Rainfall intensity =      4.040(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.895
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 3)  =  84.40
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     34.564(CFS)
Total initial stream area =        9.560(Ac.)
Pervious area fraction = 0.100
End of computations, total study area =            9.56 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number =  69.0
```

Newland Simpson Hemet
Simpson Road
City of Hemet, County of Riverside, CA
Dated: 10/13/23
Last Revised:

POST DEVELOPMENT - Unit Hydrograph PEAK FLOW

PEAK FLOW SUMMARY - 100YR 3HR*

Drainage Management Area (DMA)	Volume (ac-ft)	Post Peak Flow (cfs)	Pre Peak Flow (cfs)	% Difference
DMA A	144260.5	35.28		
DMA B (TOTAL COMBINED B1, B2, B3)	194779.6	13.72		
DMA C1	61111.2	15.55		
DMA C2	54816.5	14.52		
DMA C3	20361.7	5.68		
TOTAL (A - C)**	475329.5	84.74	100.72	84.14%
DMA D1	68567.5	19.16	17.90	107.04%

**Per CIVILD, refer to output data calculations*
***Total (A-C) is the same DMA area as Pre Development DMA B*

PEAK FLOW SUMMARY - 100YR 24HR*

Drainage Management Area (DMA)	Volume (ac-ft)	Post Peak Flow (cfs)	Pre Peak Flow (cfs)	% Difference
DMA A	224334.00	13.81		
DMA B (TOTAL COMBINED B1, B2, B3)	222269.26	17.66		
DMA C1	94686.37	5.86		
DMA C2	82859.83	5.28		
DMA C3	29328.95	1.97		
TOTAL (A - C)**	653478.41	44.58	43.76	101.89%
DMA D1	97744.28	6.65	6.83	97.42%

**Per CIVILD, refer to output data calculations*
***Total (A-C) is the same DMA area as Pre Development DMA B*

NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-3HR
POST DEVELOPMENT
DMA A

```
        U n i t   H y d r o g r a p h   A n a l y s i s

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                Study date  07/27/23 File: NSPRUHA3100.out

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

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6350

---------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



---------------------------------------------------------------------
PROPOSED CONDITION
UNIT HYDROGRAPH
AREA A
100 YEAR 3 HOUR STORM EVENT
--------------------------------------------------------------------
Drainage Area =      18.75(Ac.)  =      0.029 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      18.75(Ac.)  =      0.029 Sq. Mi.
Length along longest watercourse =    1390.00(Ft.)
Length along longest watercourse measured to centroid =    1165.00(Ft.)
Length along longest watercourse =      0.263 Mi.
Length along longest watercourse measured to centroid =      0.221 Mi.
Difference in elevation =       8.22(Ft.)
Slope along watercourse =     31.2242 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =     0.063 Hr.
Lag time =      3.81 Min.
25% of lag time =      0.95 Min.
40% of lag time =      1.52 Min.
Unit time =      5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       18.75            0.87                  16.29

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       18.75            2.22                  41.62

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.869(In)
Area Averaged 100-Year Rainfall =    2.220(In)

Point rain (area averaged) =    2.220(In)
Areal adjustment factor =   99.99 %
Adjusted average point rain =    2.220(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
```

18.747 69.00 0.919
Total Area Entered = 18.75(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	84.4	0.194	0.919	0.034	1.000	0.034
					Sum (F) =	0.034

Area averaged mean soil loss (F) (In/Hr) = 0.034
Minimum soil loss rate ((In/Hr)) = 0.017
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.165

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	131.257	28.364	5.359
2	0.167	262.514	48.225	9.111
3	0.250	393.770	12.409	2.344
4	0.333	525.027	5.539	1.047
5	0.417	656.284	3.036	0.574
6	0.500	787.541	1.646	0.311
7	0.583	918.798	0.781	0.148
			Sum = 100.000	Sum= 18.893

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	1.30	0.346	0.034	(0.057)	0.313
2	0.17	1.30	0.346	0.034	(0.057)	0.313
3	0.25	1.10	0.293	0.034	(0.048)	0.260
4	0.33	1.50	0.400	0.034	(0.066)	0.366
5	0.42	1.50	0.400	0.034	(0.066)	0.366
6	0.50	1.80	0.479	0.034	(0.079)	0.446
7	0.58	1.50	0.400	0.034	(0.066)	0.366
8	0.67	1.80	0.479	0.034	(0.079)	0.446
9	0.75	1.80	0.479	0.034	(0.079)	0.446
10	0.83	1.50	0.400	0.034	(0.066)	0.366
11	0.92	1.60	0.426	0.034	(0.070)	0.393
12	1.00	1.80	0.479	0.034	(0.079)	0.446
13	1.08	2.20	0.586	0.034	(0.097)	0.553
14	1.17	2.20	0.586	0.034	(0.097)	0.553
15	1.25	2.20	0.586	0.034	(0.097)	0.553
16	1.33	2.00	0.533	0.034	(0.088)	0.499
17	1.42	2.60	0.693	0.034	(0.114)	0.659
18	1.50	2.70	0.719	0.034	(0.119)	0.686
19	1.58	2.40	0.639	0.034	(0.105)	0.606
20	1.67	2.70	0.719	0.034	(0.119)	0.686
21	1.75	3.30	0.879	0.034	(0.145)	0.846
22	1.83	3.10	0.826	0.034	(0.136)	0.792
23	1.92	2.90	0.772	0.034	(0.127)	0.739
24	2.00	3.00	0.799	0.034	(0.132)	0.766
25	2.08	3.10	0.826	0.034	(0.136)	0.792
26	2.17	4.20	1.119	0.034	(0.185)	1.085
27	2.25	5.00	1.332	0.034	(0.220)	1.298
28	2.33	3.50	0.932	0.034	(0.154)	0.899
29	2.42	6.80	1.811	0.034	(0.299)	1.778
30	2.50	7.30	1.945	0.034	(0.321)	1.911
31	2.58	8.20	2.184	0.034	(0.360)	2.151

```
32   2.67     5.90      1.572          0.034    (  0.259)        1.538
33   2.75     2.00      0.533          0.034    (  0.088)        0.499
34   2.83     1.80      0.479          0.034    (  0.079)        0.446
35   2.92     1.80      0.479          0.034    (  0.079)        0.446
36   3.00     0.60      0.160       (  0.034)       0.026        0.133
               (Loss Rate Not Used)
   Sum =     100.0                                 Sum =    25.4
      Flood volume = Effective rainfall      2.12(In)
       times area      18.7(Ac.)/[(In)/(Ft.)] =       3.3(Ac.Ft)
      Total soil loss =      0.10(In)
      Total soil loss =     0.156(Ac.Ft)
      Total rainfall =      2.22(In)
      Flood volume =      144260.5 Cubic Feet
      Total soil loss =       6801.7 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =     35.278(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          3 - H O U R     S T O R M
                     R u n o f f      H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       10.0      20.0      30.0      40.0
-----------------------------------------------------------------------
  0+ 5       0.0115      1.68  VQ        |         |         |         |
  0+10       0.0427      4.53  V   Q     |         |         |         |
  0+15       0.0770      4.98  V   Q     |         |         |         |
  0+20       0.1141      5.39  |V   Q    |         |         |         |
  0+25       0.1583      6.42  |V    Q   |         |         |         |
  0+30       0.2075      7.14  | V    Q  |         |         |         |
  0+35       0.2595      7.56  |  V   Q  |         |         |         |
  0+40       0.3111      7.49  |  V   Q  |         |         |         |
  0+45       0.3672      8.14  |   V   Q |         |         |         |
  0+50       0.4215      7.88  |    V Q  |         |         |         |
  0+55       0.4722      7.36  |    V Q  |         |         |         |
  1+ 0       0.5254      7.73  |     VQ  |         |         |         |
  1+ 5       0.5859      8.78  |      VQ |         |         |         |
  1+10       0.6539      9.87  |      V Q|         |         |         |
  1+15       0.7239     10.17  |       V Q         |         |         |
  1+20       0.7929     10.02  |        VQ         |         |         |
  1+25       0.8651     10.47  |         Q         |         |         |
  1+30       0.9476     11.99  |         |Q        |         |         |
  1+35       1.0312     12.14  |         | Q       |         |         |
  1+40       1.1141     12.04  |         | QV      |         |         |
  1+45       1.2074     13.54  |         |  QV     |         |         |
  1+50       1.3098     14.87  |         |   QV    |         |         |
  1+55       1.4100     14.54  |         |   Q  V  |         |         |
  2+ 0       1.5082     14.27  |         |   Q   V |         |         |
  2+ 5       1.6086     14.58  |         |   Q    V|         |         |
  2+10       1.7218     16.43  |         |     Q    V         |         |
  2+15       1.8617     20.31  |         |         Q V       |         |
  2+20       2.0050     20.82  |         |         Q   V     |         |
  2+25       2.1614     22.71  |         |         | Q   V   |         |
  2+30       2.3743     30.90  |         |         |       V Q         |
  2+35       2.6171     35.26  |         |         |         |V    Q   |
  2+40       2.8601     35.28  |         |         |         |    VQ   |
  2+45       3.0339     25.24  |         |         |    Q    |     V   |
  2+50       3.1344     14.58  |         |   Q     |         |      V  |
  2+55       3.2124     11.33  |         |Q        |         |       V |
  3+ 0       3.2687      8.18  |       Q |         |         |        V|
  3+ 5       3.2950      3.81  |  Q      |         |         |        V|
  3+10       3.3048      1.42  |Q        |         |         |        V|
  3+15       3.3090      0.61  Q         |         |         |        V|
  3+20       3.3109      0.28  Q         |         |         |        V|
  3+25       3.3116      0.11  Q         |         |         |        V|
  3+30       3.3118      0.02  Q         |         |         |        V|
----------------------------------------------------------------------
```

```
       U n i t   H y d r o g r a p h   A n a l y s i s

       Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018, Version 9.0
               Study date  07/27/23 File: NSPRUHB13100.out

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

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6350

---------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



---------------------------------------------------------------------
PROPOSED CONDITION
UNIT HYDROGRAPH
AREA B1
100 YEAR 3 HOUR STORM EVENT
--------------------------------------------------------------------
Drainage Area =      12.64(Ac.)  =      0.020 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      12.64(Ac.)  =      0.020 Sq. Mi.
Length along longest watercourse =     972.00(Ft.)
Length along longest watercourse measured to centroid =     832.00(Ft.)
Length along longest watercourse =      0.184 Mi.
Length along longest watercourse measured to centroid =      0.158 Mi.
Difference in elevation =       9.30(Ft.)
Slope along watercourse =     50.5185 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =    0.045 Hr.
Lag time =     2.67 Min.
25% of lag time =     0.67 Min.
40% of lag time =     1.07 Min.
Unit time =     5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       12.64            0.87                  10.98

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       12.64            2.22                  28.06

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.869(In)
Area Averaged 100-Year Rainfall =    2.220(In)

Point rain (area averaged) =    2.220(In)
Areal adjustment factor =   99.99 %
Adjusted average point rain =    2.220(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
```

12.638 69.00 0.922
Total Area Entered = 12.64(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	84.4	0.194	0.922	0.033	1.000	0.033
					Sum (F) =	0.033

Area averaged mean soil loss (F) (In/Hr) = 0.033
Minimum soil loss rate ((In/Hr)) = 0.016
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.162

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	187.246	41.109	5.236
2	0.167	374.493	44.267	5.638
3	0.250	561.739	9.334	1.189
4	0.333	748.986	3.745	0.477
5	0.417	936.232	1.545	0.197
			Sum = 100.000	Sum= 12.737

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	1.30	0.346	0.033	(0.056)	0.313
2	0.17	1.30	0.346	0.033	(0.056)	0.313
3	0.25	1.10	0.293	0.033	(0.047)	0.260
4	0.33	1.50	0.400	0.033	(0.065)	0.367
5	0.42	1.50	0.400	0.033	(0.065)	0.367
6	0.50	1.80	0.479	0.033	(0.078)	0.447
7	0.58	1.50	0.400	0.033	(0.065)	0.367
8	0.67	1.80	0.479	0.033	(0.078)	0.447
9	0.75	1.80	0.479	0.033	(0.078)	0.447
10	0.83	1.50	0.400	0.033	(0.065)	0.367
11	0.92	1.60	0.426	0.033	(0.069)	0.393
12	1.00	1.80	0.479	0.033	(0.078)	0.447
13	1.08	2.20	0.586	0.033	(0.095)	0.553
14	1.17	2.20	0.586	0.033	(0.095)	0.553
15	1.25	2.20	0.586	0.033	(0.095)	0.553
16	1.33	2.00	0.533	0.033	(0.086)	0.500
17	1.42	2.60	0.693	0.033	(0.112)	0.660
18	1.50	2.70	0.719	0.033	(0.117)	0.686
19	1.58	2.40	0.639	0.033	(0.104)	0.606
20	1.67	2.70	0.719	0.033	(0.117)	0.686
21	1.75	3.30	0.879	0.033	(0.142)	0.846
22	1.83	3.10	0.826	0.033	(0.134)	0.793
23	1.92	2.90	0.773	0.033	(0.125)	0.740
24	2.00	3.00	0.799	0.033	(0.129)	0.766
25	2.08	3.10	0.826	0.033	(0.134)	0.793
26	2.17	4.20	1.119	0.033	(0.181)	1.086
27	2.25	5.00	1.332	0.033	(0.216)	1.299
28	2.33	3.50	0.932	0.033	(0.151)	0.899
29	2.42	6.80	1.811	0.033	(0.293)	1.778
30	2.50	7.30	1.945	0.033	(0.315)	1.912
31	2.58	8.20	2.184	0.033	(0.354)	2.151
32	2.67	5.90	1.572	0.033	(0.255)	1.539
33	2.75	2.00	0.533	0.033	(0.086)	0.500

```
34   2.83     1.80      0.479          0.033    (  0.078)        0.447
35   2.92     1.80      0.479          0.033    (  0.078)        0.447
36   3.00     0.60      0.160       (  0.033)       0.026        0.134
               (Loss Rate Not Used)
   Sum =     100.0                                 Sum =    25.5
      Flood volume = Effective rainfall      2.12(In)
       times area      12.6(Ac.)/[(In)/(Ft.)] =       2.2(Ac.Ft)
      Total soil loss =      0.10(In)
      Total soil loss =     0.104(Ac.Ft)
      Total rainfall =      2.22(In)
      Flood volume =       97325.5 Cubic Feet
      Total soil loss =       4513.4 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =     24.854(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          3 - H O U R   S T O R M
                     R u n o f f     H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        7.5      15.0      22.5      30.0
-----------------------------------------------------------------------
  0+ 5       0.0113      1.64  V Q       |         |         |         |
  0+10       0.0348      3.41  V   Q     |         |         |         |
  0+15       0.0589      3.50  |V  Q     |         |         |         |
  0+20       0.0858      3.91  |V   Q    |         |         |         |
  0+25       0.1169      4.51  | V   Q   |         |         |         |
  0+30       0.1515      5.03  | V   Q   |         |         |         |
  0+35       0.1866      5.10  |  V  Q   |         |         |         |
  0+40       0.2224      5.19  |  V  Q   |         |         |         |
  0+45       0.2608      5.58  |   V  Q  |         |         |         |
  0+50       0.2968      5.23  |    VQ   |         |         |         |
  0+55       0.3309      4.94  |    VQ   |         |         |         |
  1+ 0       0.3673      5.29  |     VQ  |         |         |         |
  1+ 5       0.4097      6.15  |      VQ |         |         |         |
  1+10       0.4566      6.81  |       VQ|         |         |         |
  1+15       0.5045      6.97  |        Q|         |         |         |
  1+20       0.5510      6.75  |       QV|         |         |         |
  1+25       0.6013      7.31  |        QV         |         |         |
  1+30       0.6584      8.28  |         |Q        |         |         |
  1+35       0.7147      8.18  |         Q V       |         |         |
  1+40       0.7715      8.24  |         Q  V      |         |         |
  1+45       0.8368      9.48  |         | Q V     |         |         |
  1+50       0.9068     10.17  |         |  Q  V   |         |         |
  1+55       0.9743      9.80  |         |  Q   V  |         |         |
  2+ 0       1.0409      9.67  |         | Q     V |         |         |
  2+ 5       1.1090      9.90  |         |  Q     V|         |         |
  2+10       1.1888     11.58  |         |    Q    |V        |         |
  2+15       1.2879     14.38  |         |        Q|  V      |         |
  2+20       1.3833     13.86  |         |       Q |   V     |         |
  2+25       1.4977     16.61  |         |         | Q   V   |         |
  2+30       1.6489     21.95  |         |         |        Q|         |
  2+35       1.8200     24.85  |         |         |         | VQ      |
  2+40       1.9819     23.50  |         |         |         |Q   V    |
  2+45       2.0860     15.12  |         |         Q         |      V  |
  2+50       2.1438      8.39  |         |Q        |         |       V |
  2+55       2.1893      6.61  |       Q |         |         |        V|
  3+ 0       2.2189      4.29  |    Q    |         |         |        V|
  3+ 5       2.2299      1.60  | Q       |         |         |        V|
  3+10       2.2331      0.46  Q         |         |         |        V|
  3+15       2.2341      0.15  Q         |         |         |        V|
  3+20       2.2343      0.03  Q         |         |         |        V|
----------------------------------------------------------------------
```

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       U n i t   H y d r o g r a p h   A n a l y s i s

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               Study date  07/27/23 File: NSPRUHB23100.out


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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6350

---------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format




---------------------------------------------------------------------
PROPOSED CONDITION
UNIT HYDROGRAPH
AREA B2
100 YEAR 3 HOUR STORM EVENT
--------------------------------------------------------------------
Drainage Area =       5.74(Ac.)  =      0.009 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =       5.74(Ac.)  =      0.009 Sq. Mi.
Length along longest watercourse =     816.00(Ft.)
Length along longest watercourse measured to centroid =     677.00(Ft.)
Length along longest watercourse =      0.155 Mi.
Length along longest watercourse measured to centroid =      0.128 Mi.
Difference in elevation =       9.30(Ft.)
Slope along watercourse =     60.1765 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =    0.037 Hr.
Lag time =     2.23 Min.
25% of lag time =     0.56 Min.
40% of lag time =     0.89 Min.
Unit time =     5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        5.74            0.87                   4.98

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        5.74            2.22                  12.73

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.869(In)
Area Averaged 100-Year Rainfall =    2.220(In)

Point rain (area averaged) =    2.220(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    2.220(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
```

5.736 69.00 0.948
Total Area Entered = 5.74(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	84.4	0.194	0.948	0.028	1.000	0.028
					Sum (F) =	0.028

Area averaged mean soil loss (F) (In/Hr) = 0.028
Minimum soil loss rate ((In/Hr)) = 0.014
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.141

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	223.740	47.223	2.730
2	0.167	447.480	41.744	2.413
3	0.250	671.219	7.908	0.457
4	0.333	894.959	3.124	0.181
			Sum = 100.000	Sum= 5.781

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	1.30	0.346	0.028	(0.049)	0.318
2	0.17	1.30	0.346	0.028	(0.049)	0.318
3	0.25	1.10	0.293	0.028	(0.041)	0.265
4	0.33	1.50	0.400	0.028	(0.056)	0.371
5	0.42	1.50	0.400	0.028	(0.056)	0.371
6	0.50	1.80	0.480	0.028	(0.068)	0.451
7	0.58	1.50	0.400	0.028	(0.056)	0.371
8	0.67	1.80	0.480	0.028	(0.068)	0.451
9	0.75	1.80	0.480	0.028	(0.068)	0.451
10	0.83	1.50	0.400	0.028	(0.056)	0.371
11	0.92	1.60	0.426	0.028	(0.060)	0.398
12	1.00	1.80	0.480	0.028	(0.068)	0.451
13	1.08	2.20	0.586	0.028	(0.083)	0.558
14	1.17	2.20	0.586	0.028	(0.083)	0.558
15	1.25	2.20	0.586	0.028	(0.083)	0.558
16	1.33	2.00	0.533	0.028	(0.075)	0.504
17	1.42	2.60	0.693	0.028	(0.098)	0.664
18	1.50	2.70	0.719	0.028	(0.101)	0.691
19	1.58	2.40	0.639	0.028	(0.090)	0.611
20	1.67	2.70	0.719	0.028	(0.101)	0.691
21	1.75	3.30	0.879	0.028	(0.124)	0.851
22	1.83	3.10	0.826	0.028	(0.116)	0.797
23	1.92	2.90	0.773	0.028	(0.109)	0.744
24	2.00	3.00	0.799	0.028	(0.113)	0.771
25	2.08	3.10	0.826	0.028	(0.116)	0.797
26	2.17	4.20	1.119	0.028	(0.158)	1.090
27	2.25	5.00	1.332	0.028	(0.188)	1.304
28	2.33	3.50	0.932	0.028	(0.131)	0.904
29	2.42	6.80	1.811	0.028	(0.255)	1.783
30	2.50	7.30	1.945	0.028	(0.274)	1.916
31	2.58	8.20	2.184	0.028	(0.308)	2.156
32	2.67	5.90	1.572	0.028	(0.222)	1.543
33	2.75	2.00	0.533	0.028	(0.075)	0.504
34	2.83	1.80	0.480	0.028	(0.068)	0.451

```
35   2.92     1.80      0.480          0.028    (  0.068)        0.451
36   3.00     0.60      0.160       (  0.028)       0.023        0.137
               (Loss Rate Not Used)
   Sum =     100.0                              Sum =    25.6
      Flood volume = Effective rainfall      2.14(In)
       times area       5.7(Ac.)/[(In)/(Ft.)] =       1.0(Ac.Ft)
      Total soil loss =      0.08(In)
      Total soil loss =     0.041(Ac.Ft)
      Total rainfall =      2.22(In)
      Flood volume =       44455.8 Cubic Feet
      Total soil loss =       1767.2 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =     11.494(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          3 - H O U R   S T O R M
                     R u n o f f     H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        5.0      10.0      15.0      20.0
----------------------------------------------------------------------
  0+ 5       0.0060      0.87  VQ        |         |         |         |
  0+10       0.0172      1.64  V  Q      |         |         |         |
  0+15       0.0285      1.64  |V Q      |         |         |         |
  0+20       0.0413      1.86  |V Q      |         |         |         |
  0+25       0.0557      2.09  | V Q     |         |         |         |
  0+30       0.0718      2.35  | V Q     |         |         |         |
  0+35       0.0879      2.34  |  VQ     |         |         |         |
  0+40       0.1045      2.40  |   Q     |         |         |         |
  0+45       0.1222      2.57  |   VQ    |         |         |         |
  0+50       0.1386      2.38  |   QV    |         |         |         |
  0+55       0.1542      2.27  |   Q V   |         |         |         |
  1+ 0       0.1710      2.44  |   Q V   |         |         |         |
  1+ 5       0.1907      2.86  |    Q V  |         |         |         |
  1+10       0.2124      3.15  |     Q V |         |         |         |
  1+15       0.2345      3.21  |     Q  V|         |         |         |
  1+20       0.2557      3.08  |     Q   V         |         |         |
  1+25       0.2790      3.39  |     Q   V         |         |         |
  1+30       0.3053      3.82  |      Q  |V        |         |         |
  1+35       0.3310      3.73  |      Q  | V       |         |         |
  1+40       0.3572      3.80  |      Q  |  V      |         |         |
  1+45       0.3875      4.40  |       Q |    V    |         |         |
  1+50       0.4195      4.66  |        Q|     V   |         |         |
  1+55       0.4503      4.47  |       Q |      V  |         |         |
  2+ 0       0.4808      4.42  |       Q |       V |         |         |
  2+ 5       0.5119      4.52  |        Q|         V         |         |
  2+10       0.5491      5.39  |         Q         |V        |         |
  2+15       0.5952      6.70  |         |  Q      |  V      |         |
  2+20       0.6383      6.26  |         | Q       |    V    |         |
  2+25       0.6923      7.85  |         |    Q    |      V  |         |
  2+30       0.7625     10.19  |         |         Q        V|         |
  2+35       0.8416     11.49  |         |         | Q       | V       |
  2+40       0.9148     10.62  |         |         |Q        |    V    |
  2+45       0.9591      6.44  |         | Q       |         |      V  |
  2+50       0.9835      3.55  |      Q  |         |         |       V |
  2+55       1.0030      2.83  |    Q    |         |         |        V|
  3+ 0       1.0151      1.76  |  Q      |         |         |        V|
  3+ 5       1.0194      0.62  |Q        |         |         |        V|
  3+10       1.0204      0.14  Q         |         |         |        V|
  3+15       1.0206      0.02  Q         |         |         |        V|
----------------------------------------------------------------------
```

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       U n i t   H y d r o g r a p h   A n a l y s i s

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               Study date  07/27/23 File: NSPRUHB33100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6350

---------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



---------------------------------------------------------------------
PROPOSED CONDITION
UNIT HYDROGRAPH
AREA B3
100 YEAR 3 HOUR STORM EVENT
--------------------------------------------------------------------
Drainage Area =       7.08(Ac.)  =      0.011 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =       7.08(Ac.)  =      0.011 Sq. Mi.
Length along longest watercourse =    1070.00(Ft.)
Length along longest watercourse measured to centroid =     609.00(Ft.)
Length along longest watercourse =      0.203 Mi.
Length along longest watercourse measured to centroid =      0.115 Mi.
Difference in elevation =       5.14(Ft.)
Slope along watercourse =     25.3637 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =    0.047 Hr.
Lag time =     2.80 Min.
25% of lag time =     0.70 Min.
40% of lag time =     1.12 Min.
Unit time =     5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        7.08            0.87                   6.16

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        7.08            2.22                  15.72

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.869(In)
Area Averaged 100-Year Rainfall =    2.220(In)

Point rain (area averaged) =    2.220(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    2.220(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
```

```
     7.083           69.00         0.806
 Total Area Entered =      7.08(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  84.4      0.194     0.806        0.053       1.000      0.053
                                                  Sum (F) =   0.053
Area averaged mean soil loss (F) (In/Hr) =  0.053
Minimum soil loss rate ((In/Hr)) =  0.027
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.255
---------------------------------------------------------------------

                U n i t  H y d r o g r a p h
                        VALLEY S-Curve
--------------------------------------------------------------------
                Unit Hydrograph Data
---------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                            Graph %           (CFS)
---------------------------------------------------------------------
    1   0.083        178.319        39.390              2.812
    2   0.167        356.638        44.908              3.206
    3   0.250        534.958         9.737              0.695
    4   0.333        713.277         4.008              0.286
    5   0.417        891.596         1.957              0.140
                              Sum = 100.000   Sum=       7.138
-----------------------------------------------------------------------
```

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Loss rate(In./Hr) Low	Effective (In/Hr)
1	0.08	1.30	0.346	0.053	(0.088)	0.293
2	0.17	1.30	0.346	0.053	(0.088)	0.293
3	0.25	1.10	0.293	0.053	(0.075)	0.240
4	0.33	1.50	0.400	0.053	(0.102)	0.346
5	0.42	1.50	0.400	0.053	(0.102)	0.346
6	0.50	1.80	0.480	0.053	(0.122)	0.426
7	0.58	1.50	0.400	0.053	(0.102)	0.346
8	0.67	1.80	0.480	0.053	(0.122)	0.426
9	0.75	1.80	0.480	0.053	(0.122)	0.426
10	0.83	1.50	0.400	0.053	(0.102)	0.346
11	0.92	1.60	0.426	0.053	(0.109)	0.373
12	1.00	1.80	0.480	0.053	(0.122)	0.426
13	1.08	2.20	0.586	0.053	(0.149)	0.533
14	1.17	2.20	0.586	0.053	(0.149)	0.533
15	1.25	2.20	0.586	0.053	(0.149)	0.533
16	1.33	2.00	0.533	0.053	(0.136)	0.480
17	1.42	2.60	0.693	0.053	(0.177)	0.639
18	1.50	2.70	0.719	0.053	(0.183)	0.666
19	1.58	2.40	0.639	0.053	(0.163)	0.586
20	1.67	2.70	0.719	0.053	(0.183)	0.666
21	1.75	3.30	0.879	0.053	(0.224)	0.826
22	1.83	3.10	0.826	0.053	(0.211)	0.773
23	1.92	2.90	0.773	0.053	(0.197)	0.719
24	2.00	3.00	0.799	0.053	(0.204)	0.746
25	2.08	3.10	0.826	0.053	(0.211)	0.773
26	2.17	4.20	1.119	0.053	(0.285)	1.066
27	2.25	5.00	1.332	0.053	(0.340)	1.279
28	2.33	3.50	0.932	0.053	(0.238)	0.879
29	2.42	6.80	1.811	0.053	(0.462)	1.758
30	2.50	7.30	1.945	0.053	(0.496)	1.891
31	2.58	8.20	2.184	0.053	(0.557)	2.131
32	2.67	5.90	1.572	0.053	(0.401)	1.518
33	2.75	2.00	0.533	0.053	(0.136)	0.480

```
34   2.83     1.80      0.480          0.053    (  0.122)        0.426
35   2.92     1.80      0.480          0.053    (  0.122)        0.426
36   3.00     0.60      0.160       (  0.053)       0.041        0.119
               (Loss Rate Not Used)
   Sum =     100.0                                 Sum =    24.7
      Flood volume = Effective rainfall      2.06(In)
       times area       7.1(Ac.)/[(In)/(Ft.)] =       1.2(Ac.Ft)
      Total soil loss =      0.16(In)
      Total soil loss =     0.094(Ac.Ft)
      Total rainfall =      2.22(In)
      Flood volume =       52998.3 Cubic Feet
      Total soil loss =       4079.0 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =     13.715(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          3 - H O U R    S T O R M
                     R u n o f f      H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        5.0      10.0      15.0      20.0
-----------------------------------------------------------------------
  0+ 5       0.0057      0.82  VQ        |         |         |         |
  0+10       0.0178      1.76  V  Q      |         |         |         |
  0+15       0.0304      1.82  V  Q      |         |         |         |
  0+20       0.0443      2.03  |V  Q     |         |         |         |
  0+25       0.0607      2.38  |V  Q     |         |         |         |
  0+30       0.0790      2.66  | V  Q    |         |         |         |
  0+35       0.0977      2.72  |  V Q    |         |         |         |
  0+40       0.1167      2.75  |  V Q    |         |         |         |
  0+45       0.1372      2.98  |   VQ    |         |         |         |
  0+50       0.1565      2.80  |    Q    |         |         |         |
  0+55       0.1746      2.63  |    Q    |         |         |         |
  1+ 0       0.1940      2.82  |    QV   |         |         |         |
  1+ 5       0.2166      3.28  |     QV  |         |         |         |
  1+10       0.2418      3.66  |      Q  |         |         |         |
  1+15       0.2676      3.75  |      QV |         |         |         |
  1+20       0.2927      3.64  |      Q V|         |         |         |
  1+25       0.3198      3.93  |      Q  V         |         |         |
  1+30       0.3507      4.48  |       Q |V        |         |         |
  1+35       0.3813      4.44  |       Q | V       |         |         |
  1+40       0.4121      4.47  |       Q |  V      |         |         |
  1+45       0.4475      5.15  |         Q   V     |         |         |
  1+50       0.4857      5.55  |         |Q   V    |         |         |
  1+55       0.5225      5.35  |         Q      V  |         |         |
  2+ 0       0.5588      5.27  |         Q       V |         |         |
  2+ 5       0.5961      5.40  |         Q        V|         |         |
  2+10       0.6395      6.31  |         | Q       |V        |         |
  2+15       0.6937      7.87  |         |    Q    | V       |         |
  2+20       0.7463      7.64  |         |    Q    |   V     |         |
  2+25       0.8088      9.07  |         |       Q |     V   |         |
  2+30       0.8920     12.09  |         |         |   Q    V|         |
  2+35       0.9865     13.72  |         |         |      Q  | V       |
  2+40       1.0763     13.05  |         |         |     Q   |    V    |
  2+45       1.1348      8.49  |         |     Q   |         |      V  |
  2+50       1.1669      4.67  |        Q|         |         |       V |
  2+55       1.1919      3.63  |      Q  |         |         |        V|
  3+ 0       1.2081      2.35  |   Q     |         |         |        V|
  3+ 5       1.2141      0.87  |Q        |         |         |        V|
  3+10       1.2159      0.26  Q         |         |         |        V|
  3+15       1.2166      0.09  Q         |         |         |        V|
  3+20       1.2167      0.02  Q         |         |         |         V
-----------------------------------------------------------------------
```

NEWLAND SIMPSON
HEMET
POST DEVELOPMENT
UNIT HYDROGRAPH
100YR-3HR
TOTAL B

```
                 FLOOD HYDROGRAPH ROUTING PROGRAM
        Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018
                    Study date: 10/16/23

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


NEWLAND SIMPSON
POST DEVELOPMENT - DMA B (TOTAL COMBINED)
100YR 3HR


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


Program License Serial Number 6491

--------------------------------------------------------------------
********************* HYDROGRAPH INFORMATION *********************

                From study/file name: NSPRUHCOMB1B2.rte
****************************HYDROGRAPH DATA****************************
                Number of intervals =    40
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =       36.348 (CFS)
                Total volume =       3.255 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
***********************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       32.000 to Point/Station       32.000
**** ADD/COMBINE/RECOVER HYDROGRAPHS ****
______________________________________________________________________
********************* HYDROGRAPH INFORMATION *********************

                From study/file name: NSPRUHB33100.rte
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                  P R I N T   O F   S T O R M
               R u n o f f     H y d r o g r a p h
--------------------------------------------------------------------
            Hydrograph in   5   Minute intervals (CFS)

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

```
  Time(h+m) Add q(CFS)  Tot. Q   0       12.5      25.0      37.5      50.1
  -----------------------------------------------------------------------
    0+ 5       0.8245      3.33  q Q       |         |         |         |
    0+10       1.7645      6.81  |q   Q    |         |         |         |
    0+15       1.8184      6.96  |q   Q    |         |         |         |
    0+20       2.0312      7.80  |q    Q   |         |         |         |
    0+25       2.3769      8.97  |q     Q  |         |         |         |
    0+30       2.6606     10.03  | q     Q |         |         |         |
    0+35       2.7151     10.16  | q     Q |         |         |         |
    0+40       2.7541     10.34  | q     Q |         |         |         |
    0+45       2.9777     11.13  | q     Q |         |         |         |
    0+50       2.7968     10.41  | q     Q |         |         |         |
    0+55       2.6271      9.84  | q    Q  |         |         |         |
    1+ 0       2.8180     10.56  | q     Q |         |         |         |
    1+ 5       3.2843     12.29  | q      Q|         |         |         |
    1+10       3.6596     13.62  | q       Q         |         |         |
    1+15       3.7527     13.92  | q       |Q        |         |         |
    1+20       3.6407     13.47  | q       Q         |         |         |
    1+25       3.9344     14.63  |  q      |Q        |         |         |
    1+30       4.4849     16.59  |  q      |  Q      |         |         |
    1+35       4.4414     16.35  |  q      |  Q      |         |         |
    1+40       4.4668     16.51  |  q      |  Q      |         |         |
    1+45       5.1471     19.02  |   q     |    Q    |         |         |
    1+50       5.5463     20.37  |   q     |     Q   |         |         |
    1+55       5.3484     19.62  |   q     |    Q    |         |         |
    2+ 0       5.2724     19.36  |   q     |    Q    |         |         |
    2+ 5       5.4028     19.83  |   q     |    Q    |         |         |
    2+10       6.3084     23.28  |    q    |       Q |         |         |
    2+15       7.8665     28.95  |     q   |         |  Q      |         |
    2+20       7.6410     27.76  |     q   |         | Q       |         |
    2+25       9.0683     33.52  |      q  |         |     Q   |         |
    2+30      12.0866     44.22  |        q|         |         |    Q    |
    2+35      13.7151     50.06  |         q         |         |         Q
    2+40      13.0488     47.16  |         q         |         |      Q  |
    2+45       8.4887     30.04  |     q   |         |   Q     |         |
    2+50       4.6678     16.60  |  q      |  Q      |         |         |
    2+55       3.6325     13.07  | q       Q         |         |         |
    3+ 0       2.3482      8.40  |q    Q   |         |         |         |
    3+ 5       0.8674      3.08  q Q       |         |         |         |
    3+10       0.2644      0.87  Q         |         |         |         |
    3+15       0.0937      0.27  Q         |         |         |         |
    3+20       0.0166      0.04  Q         |         |         |         |
-----------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                        Number of intervals =    40
                        Time interval =    5.0 (Min.)
                        Maximum/Peak flow rate =       50.063 (CFS)
                        Total volume =       4.472 (Ac.Ft)
                Status of hydrographs being held in storage
                           Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
```

```
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
***********************************************************************

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


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       32.000 to Point/Station       32.000
**** STORE OR DELETE CURRENT HYDROGRAPH ****
______________________________________________________________________
Current stream hydrograph saved in file NSPRUHTOTALB3100.rte
****************************HYDROGRAPH DATA****************************
                Number of intervals =     0
                Time interval =    0.0 (Min.)
                Maximum/Peak flow rate =        0.000 (CFS)
                Total volume =       0.000 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
***********************************************************************

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

NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-3HR
POST DEVELOPMENT
DMA C1

```
        U n i t   H y d r o g r a p h   A n a l y s i s

        Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018, Version 9.0
                Study date  07/27/23 File: NSPRUHC13100.out

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6350

---------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



---------------------------------------------------------------------
PROPOSED CONDITION
UNIT HYDROGRAPH
AREA C1
100 YEAR 3 HOUR STORM EVENT
--------------------------------------------------------------------
Drainage Area =       8.00(Ac.)  =      0.012 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =       8.00(Ac.)  =      0.012 Sq. Mi.
Length along longest watercourse =     983.00(Ft.)
Length along longest watercourse measured to centroid =     920.00(Ft.)
Length along longest watercourse =      0.186 Mi.
Length along longest watercourse measured to centroid =      0.174 Mi.
Difference in elevation =       7.60(Ft.)
Slope along watercourse =     40.8220 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =     0.048 Hr.
Lag time =      2.90 Min.
25% of lag time =      0.73 Min.
40% of lag time =      1.16 Min.
Unit time =      5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        8.00           0.87                    6.95

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        8.00           2.22                   17.75

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =     0.869(In)
Area Averaged 100-Year Rainfall =     2.220(In)

Point rain (area averaged) =     2.220(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =     2.220(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
```

7.996 69.00 0.891
Total Area Entered = 8.00(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	84.4	0.194	0.891	0.038	1.000	0.038
					Sum (F) =	0.038

Area averaged mean soil loss (F) (In/Hr) = 0.038
Minimum soil loss rate ((In/Hr)) = 0.019
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.187

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	172.337	38.177	3.076
2	0.167	344.674	45.344	3.654
3	0.250	517.011	10.026	0.808
4	0.333	689.347	4.188	0.337
5	0.417	861.684	2.266	0.183
			Sum = 100.000	Sum= 8.058

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	1.30	0.346	0.038	(0.065)	0.308
2	0.17	1.30	0.346	0.038	(0.065)	0.308
3	0.25	1.10	0.293	0.038	(0.055)	0.255
4	0.33	1.50	0.400	0.038	(0.075)	0.361
5	0.42	1.50	0.400	0.038	(0.075)	0.361
6	0.50	1.80	0.480	0.038	(0.090)	0.441
7	0.58	1.50	0.400	0.038	(0.075)	0.361
8	0.67	1.80	0.480	0.038	(0.090)	0.441
9	0.75	1.80	0.480	0.038	(0.090)	0.441
10	0.83	1.50	0.400	0.038	(0.075)	0.361
11	0.92	1.60	0.426	0.038	(0.080)	0.388
12	1.00	1.80	0.480	0.038	(0.090)	0.441
13	1.08	2.20	0.586	0.038	(0.110)	0.548
14	1.17	2.20	0.586	0.038	(0.110)	0.548
15	1.25	2.20	0.586	0.038	(0.110)	0.548
16	1.33	2.00	0.533	0.038	(0.100)	0.494
17	1.42	2.60	0.693	0.038	(0.130)	0.654
18	1.50	2.70	0.719	0.038	(0.135)	0.681
19	1.58	2.40	0.639	0.038	(0.120)	0.601
20	1.67	2.70	0.719	0.038	(0.135)	0.681
21	1.75	3.30	0.879	0.038	(0.164)	0.841
22	1.83	3.10	0.826	0.038	(0.154)	0.787
23	1.92	2.90	0.773	0.038	(0.144)	0.734
24	2.00	3.00	0.799	0.038	(0.149)	0.761
25	2.08	3.10	0.826	0.038	(0.154)	0.787
26	2.17	4.20	1.119	0.038	(0.209)	1.080
27	2.25	5.00	1.332	0.038	(0.249)	1.294
28	2.33	3.50	0.932	0.038	(0.174)	0.894
29	2.42	6.80	1.811	0.038	(0.339)	1.773
30	2.50	7.30	1.945	0.038	(0.364)	1.906
31	2.58	8.20	2.184	0.038	(0.408)	2.146
32	2.67	5.90	1.572	0.038	(0.294)	1.533
33	2.75	2.00	0.533	0.038	(0.100)	0.494

```
  34   2.83     1.80      0.480          0.038    (  0.090)        0.441
  35   2.92     1.80      0.480          0.038    (  0.090)        0.441
  36   3.00     0.60      0.160      (  0.038)      0.030        0.130
                 (Loss Rate Not Used)
     Sum =     100.0                              Sum =    25.3
        Flood volume = Effective rainfall      2.11(In)
         times area       8.0(Ac.)/[(In)/(Ft.)] =       1.4(Ac.Ft)
        Total soil loss =      0.11(In)
        Total soil loss =     0.076(Ac.Ft)
        Total rainfall =      2.22(In)
        Flood volume =       61111.2 Cubic Feet
        Total soil loss =        3323.1 Cubic Feet
        --------------------------------------------------------------------
         Peak flow rate of this hydrograph =     15.546(CFS)
        ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                            3 - H O U R    S T O R M
                       R u n o f f      H y d r o g r a p h
        --------------------------------------------------------------------
                    Hydrograph in   5   Minute intervals ((CFS))

        --------------------------------------------------------------------
  Time(h+m) Volume Ac.Ft   Q(CFS)  0        5.0      10.0      15.0      20.0
  -----------------------------------------------------------------------
    0+ 5       0.0065      0.95  VQ        |         |         |         |
    0+10       0.0208      2.07  V   Q     |         |         |         |
    0+15       0.0357      2.16  |V  Q     |         |         |         |
    0+20       0.0522      2.40  |V  Q     |         |         |         |
    0+25       0.0714      2.80  | V  Q    |         |         |         |
    0+30       0.0929      3.11  | V   Q   |         |         |         |
    0+35       0.1148      3.18  |  V  Q   |         |         |         |
    0+40       0.1370      3.22  |  V  Q   |         |         |         |
    0+45       0.1610      3.48  |   V Q   |         |         |         |
    0+50       0.1836      3.28  |    VQ   |         |         |         |
    0+55       0.2048      3.09  |    VQ   |         |         |         |
    1+ 0       0.2275      3.30  |     Q   |         |         |         |
    1+ 5       0.2538      3.81  |      Q  |         |         |         |
    1+10       0.2830      4.24  |       Q |         |         |         |
    1+15       0.3130      4.35  |       Q |         |         |         |
    1+20       0.3421      4.23  |       QV|         |         |         |
    1+25       0.3734      4.55  |        QV         |         |         |
    1+30       0.4091      5.17  |         QV        |         |         |
    1+35       0.4444      5.13  |         Q V       |         |         |
    1+40       0.4799      5.15  |         Q  V      |         |         |
    1+45       0.5206      5.91  |         |Q  V     |         |         |
    1+50       0.5645      6.37  |         | Q   V   |         |         |
    1+55       0.6070      6.16  |         | Q    V  |         |         |
    2+ 0       0.6488      6.07  |         | Q     V |         |         |
    2+ 5       0.6916      6.22  |         | Q      V|         |         |
    2+10       0.7412      7.21  |         |   Q     |V        |         |
    2+15       0.8029      8.96  |         |      Q  | V       |         |
    2+20       0.8633      8.76  |         |      Q  |   V     |         |
    2+25       0.9341     10.28  |         |         Q     V   |         |
    2+30       1.0285     13.71  |         |         |      Q V|         |
    2+35       1.1355     15.55  |         |         |         |QV       |
    2+40       1.2379     14.87  |         |         |        Q|    V    |
    2+45       1.3056      9.83  |         |        Q|         |      V  |
    2+50       1.3433      5.48  |         Q         |         |       V |
    2+55       1.3728      4.28  |       Q |         |         |        V|
    3+ 0       1.3922      2.82  |    Q    |         |         |        V|
    3+ 5       1.3996      1.07  | Q       |         |         |        V|
    3+10       1.4019      0.33  Q         |         |         |        V|
    3+15       1.4028      0.12  Q         |         |         |        V|
    3+20       1.4029      0.02  Q         |         |         |         V
-----------------------------------------------------------------------
```

NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-3HR
POST DEVELOPMENT
DMA C2

U n i t   H y d r o g r a p h   A n a l y s i s

Study date 07/27/23 File: NSPRUHC23100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6350

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

PROPOSED CONDITION
UNIT HYDROGRAPH
AREA C2
100 YEAR 3 HOUR STORM EVENT

Drainage Area = 7.33(Ac.) = 0.011 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 7.33(Ac.) = 0.011 Sq. Mi.
Length along longest watercourse = 692.00(Ft.)
Length along longest watercourse measured to centroid = 557.00(Ft.)
Length along longest watercourse = 0.131 Mi.
Length along longest watercourse measured to centroid = 0.105 Mi.
Difference in elevation = 4.16(Ft.)
Slope along watercourse = 31.7410 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.037 Hr.
Lag time = 2.20 Min.
25% of lag time = 0.55 Min.
40% of lag time = 0.88 Min.
Unit time = 5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
7.33	0.87	6.37

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
7.33	2.22	16.26

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 0.869(In)
Area Averaged 100-Year Rainfall = 2.220(In)

Point rain (area averaged) = 2.220(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 2.220(In)

Sub-Area Data:
Area(Ac.) Runoff Index Impervious %

7.326 69.00 0.806

Total Area Entered = 7.33(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	84.4	0.194	0.806	0.053	1.000	0.053
					Sum (F) =	0.053

Area averaged mean soil loss (F) (In/Hr) = 0.053
Minimum soil loss rate ((In/Hr)) = 0.027
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.255

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	227.175	47.735	3.524
2	0.167	454.350	41.515	3.065
3	0.250	681.525	7.789	0.575
4	0.333	908.700	2.962	0.219
			Sum = 100.000	Sum= 7.383

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	1.30	0.346	0.053	(0.088)	0.293
2	0.17	1.30	0.346	0.053	(0.088)	0.293
3	0.25	1.10	0.293	0.053	(0.075)	0.240
4	0.33	1.50	0.400	0.053	(0.102)	0.346
5	0.42	1.50	0.400	0.053	(0.102)	0.346
6	0.50	1.80	0.480	0.053	(0.122)	0.426
7	0.58	1.50	0.400	0.053	(0.102)	0.346
8	0.67	1.80	0.480	0.053	(0.122)	0.426
9	0.75	1.80	0.480	0.053	(0.122)	0.426
10	0.83	1.50	0.400	0.053	(0.102)	0.346
11	0.92	1.60	0.426	0.053	(0.109)	0.373
12	1.00	1.80	0.480	0.053	(0.122)	0.426
13	1.08	2.20	0.586	0.053	(0.149)	0.533
14	1.17	2.20	0.586	0.053	(0.149)	0.533
15	1.25	2.20	0.586	0.053	(0.149)	0.533
16	1.33	2.00	0.533	0.053	(0.136)	0.480
17	1.42	2.60	0.693	0.053	(0.177)	0.639
18	1.50	2.70	0.719	0.053	(0.183)	0.666
19	1.58	2.40	0.639	0.053	(0.163)	0.586
20	1.67	2.70	0.719	0.053	(0.183)	0.666
21	1.75	3.30	0.879	0.053	(0.224)	0.826
22	1.83	3.10	0.826	0.053	(0.211)	0.773
23	1.92	2.90	0.773	0.053	(0.197)	0.719
24	2.00	3.00	0.799	0.053	(0.204)	0.746
25	2.08	3.10	0.826	0.053	(0.211)	0.773
26	2.17	4.20	1.119	0.053	(0.285)	1.066
27	2.25	5.00	1.332	0.053	(0.340)	1.279
28	2.33	3.50	0.932	0.053	(0.238)	0.879
29	2.42	6.80	1.811	0.053	(0.462)	1.758
30	2.50	7.30	1.945	0.053	(0.496)	1.891
31	2.58	8.20	2.184	0.053	(0.557)	2.131
32	2.67	5.90	1.572	0.053	(0.401)	1.518
33	2.75	2.00	0.533	0.053	(0.136)	0.480
34	2.83	1.80	0.480	0.053	(0.122)	0.426

```
35   2.92     1.80      0.480          0.053    (  0.122)        0.426
36   3.00     0.60      0.160       (  0.053)       0.041        0.119
               (Loss Rate Not Used)
   Sum =     100.0                                   Sum =    24.7
      Flood volume = Effective rainfall      2.06(In)
       times area       7.3(Ac.)/[(In)/(Ft.)] =       1.3(Ac.Ft)
      Total soil loss =      0.16(In)
      Total soil loss =     0.097(Ac.Ft)
      Total rainfall =      2.22(In)
      Flood volume =       54816.5 Cubic Feet
      Total soil loss =       4218.9 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =     14.519(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          3 - H O U R    S T O R M
                     R u n o f f      H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        5.0      10.0      15.0      20.0
-----------------------------------------------------------------------
  0+ 5       0.0071      1.03  V Q       |         |         |         |
  0+10       0.0204      1.93  V  Q      |         |         |         |
  0+15       0.0336      1.91  |V Q      |         |         |         |
  0+20       0.0487      2.19  |V  Q     |         |         |         |
  0+25       0.0658      2.49  | V Q     |         |         |         |
  0+30       0.0852      2.82  | V  Q    |         |         |         |
  0+35       0.1045      2.80  |  V Q    |         |         |         |
  0+40       0.1244      2.89  |  V Q    |         |         |         |
  0+45       0.1458      3.10  |   V Q   |         |         |         |
  0+50       0.1654      2.85  |    Q    |         |         |         |
  0+55       0.1841      2.72  |    Q    |         |         |         |
  1+ 0       0.2043      2.94  |    QV   |         |         |         |
  1+ 5       0.2283      3.48  |     QV  |         |         |         |
  1+10       0.2547      3.84  |      QV |         |         |         |
  1+15       0.2817      3.91  |      QV |         |         |         |
  1+20       0.3075      3.75  |      Q V|         |         |         |
  1+25       0.3361      4.15  |       Q V         |         |         |
  1+30       0.3684      4.70  |        Q|V        |         |         |
  1+35       0.4000      4.58  |        Q| V       |         |         |
  1+40       0.4321      4.67  |        Q|  V      |         |         |
  1+45       0.4696      5.44  |         Q   V     |         |         |
  1+50       0.5093      5.77  |         |Q    V   |         |         |
  1+55       0.5474      5.53  |         |Q     V  |         |         |
  2+ 0       0.5850      5.46  |         Q       V |         |         |
  2+ 5       0.6235      5.59  |         |Q       V|         |         |
  2+10       0.6698      6.71  |         |  Q      |V        |         |
  2+15       0.7275      8.38  |         |     Q   |  V      |         |
  2+20       0.7813      7.80  |         |    Q    |   V     |         |
  2+25       0.8492      9.86  |         |        Q|     V   |         |
  2+30       0.9377     12.85  |         |         |    Q   V|         |
  2+35       1.0377     14.52  |         |         |        Q| V       |
  2+40       1.1297     13.36  |         |         |     Q   |    V    |
  2+45       1.1847      7.99  |         |    Q    |         |      V  |
  2+50       1.2144      4.31  |       Q |         |         |       V |
  2+55       1.2380      3.42  |     Q   |         |         |        V|
  3+ 0       1.2523      2.08  |   Q     |         |         |        V|
  3+ 5       1.2571      0.70  |Q        |         |         |        V|
  3+10       1.2582      0.16  Q         |         |         |        V|
  3+15       1.2584      0.03  Q         |         |         |         V
-----------------------------------------------------------------------
```

NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-3HR
POST DEVELOPMENT
DMA C3

```
        U n i t   H y d r o g r a p h   A n a l y s i s

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                Study date  07/27/23 File: NSPRUHC33100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6350

---------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



---------------------------------------------------------------------
PROPOSED CONDITION
UNIT HYDROGRAPH
AREA C3
100 YEAR 3 HOUR STORM EVENT
--------------------------------------------------------------------
Drainage Area =       2.82(Ac.)  =      0.004 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =       2.82(Ac.)  =      0.004 Sq. Mi.
Length along longest watercourse =     635.00(Ft.)
Length along longest watercourse measured to centroid =     365.00(Ft.)
Length along longest watercourse =      0.120 Mi.
Length along longest watercourse measured to centroid =      0.069 Mi.
Difference in elevation =       6.77(Ft.)
Slope along watercourse =     56.2923 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =     0.027 Hr.
Lag time =      1.63 Min.
25% of lag time =      0.41 Min.
40% of lag time =      0.65 Min.
Unit time =      5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        2.82            0.87                      2.45

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        2.82            2.22                      6.26

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =     0.869(In)
Area Averaged 100-Year Rainfall =     2.220(In)

Point rain (area averaged) =     2.220(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =     2.220(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
```

2.820	69.00	0.667

Total Area Entered = 2.82(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	84.4	0.194	0.667	0.077	1.000	0.077
					Sum (F) =	0.077

Area averaged mean soil loss (F) (In/Hr) = 0.077
Minimum soil loss rate ((In/Hr)) = 0.039
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.367

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	307.311	57.418	1.632
2	0.167	614.622	36.730	1.044
3	0.250	921.933	5.852	0.166
			Sum = 100.000	Sum= 2.842

The following loss rate calculations reflect use of the minimum calculated loss
rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	1.30	0.346	0.077	(0.127)	0.269
2	0.17	1.30	0.346	0.077	(0.127)	0.269
3	0.25	1.10	0.293	0.077	(0.108)	0.216
4	0.33	1.50	0.400	0.077	(0.147)	0.322
5	0.42	1.50	0.400	0.077	(0.147)	0.322
6	0.50	1.80	0.480	0.077	(0.176)	0.402
7	0.58	1.50	0.400	0.077	(0.147)	0.322
8	0.67	1.80	0.480	0.077	(0.176)	0.402
9	0.75	1.80	0.480	0.077	(0.176)	0.402
10	0.83	1.50	0.400	0.077	(0.147)	0.322
11	0.92	1.60	0.426	0.077	(0.156)	0.349
12	1.00	1.80	0.480	0.077	(0.176)	0.402
13	1.08	2.20	0.586	0.077	(0.215)	0.509
14	1.17	2.20	0.586	0.077	(0.215)	0.509
15	1.25	2.20	0.586	0.077	(0.215)	0.509
16	1.33	2.00	0.533	0.077	(0.196)	0.455
17	1.42	2.60	0.693	0.077	(0.254)	0.615
18	1.50	2.70	0.719	0.077	(0.264)	0.642
19	1.58	2.40	0.639	0.077	(0.235)	0.562
20	1.67	2.70	0.719	0.077	(0.264)	0.642
21	1.75	3.30	0.879	0.077	(0.323)	0.802
22	1.83	3.10	0.826	0.077	(0.303)	0.748
23	1.92	2.90	0.773	0.077	(0.284)	0.695
24	2.00	3.00	0.799	0.077	(0.293)	0.722
25	2.08	3.10	0.826	0.077	(0.303)	0.748
26	2.17	4.20	1.119	0.077	(0.411)	1.041
27	2.25	5.00	1.332	0.077	(0.489)	1.255
28	2.33	3.50	0.932	0.077	(0.342)	0.855
29	2.42	6.80	1.811	0.077	(0.665)	1.734
30	2.50	7.30	1.945	0.077	(0.714)	1.867
31	2.58	8.20	2.184	0.077	(0.802)	2.107
32	2.67	5.90	1.572	0.077	(0.577)	1.494
33	2.75	2.00	0.533	0.077	(0.196)	0.455
34	2.83	1.80	0.480	0.077	(0.176)	0.402
35	2.92	1.80	0.480	0.077	(0.176)	0.402

```
  36   3.00     0.60      0.160       (  0.077)       0.059        0.101
                 (Loss Rate Not Used)
     Sum =     100.0                                   Sum =    23.9
        Flood volume = Effective rainfall      1.99(In)
         times area       2.8(Ac.)/[(In)/(Ft.)] =       0.5(Ac.Ft)
        Total soil loss =      0.23(In)
        Total soil loss =     0.054(Ac.Ft)
        Total rainfall =      2.22(In)
        Flood volume =       20361.7 Cubic Feet
        Total soil loss =        2363.3 Cubic Feet
        --------------------------------------------------------------------
         Peak flow rate of this hydrograph =      5.679(CFS)
        --------------------------------------------------------------------
        ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                            3 - H O U R    S T O R M
                       R u n o f f      H y d r o g r a p h
        --------------------------------------------------------------------
                    Hydrograph in   5   Minute intervals ((CFS))

        --------------------------------------------------------------------
  Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
  -----------------------------------------------------------------------
    0+ 5       0.0030      0.44  VQ        |         |         |         |
    0+10       0.0080      0.72  V Q       |         |         |         |
    0+15       0.0126      0.68  |VQ       |         |         |         |
    0+20       0.0181      0.80  |V Q      |         |         |         |
    0+25       0.0243      0.90  | VQ      |         |         |         |
    0+30       0.0315      1.05  | V Q     |         |         |         |
    0+35       0.0384      1.00  |  Q      |         |         |         |
    0+40       0.0457      1.06  |  VQ     |         |         |         |
    0+45       0.0535      1.13  |   Q     |         |         |         |
    0+50       0.0605      1.01  |   QV    |         |         |         |
    0+55       0.0672      0.97  |  Q V    |         |         |         |
    1+ 0       0.0746      1.07  |   Q V   |         |         |         |
    1+ 5       0.0836      1.31  |    Q V  |         |         |         |
    1+10       0.0934      1.43  |    Q V  |         |         |         |
    1+15       0.1034      1.45  |    Q  V |         |         |         |
    1+20       0.1127      1.36  |    Q   V|         |         |         |
    1+25       0.1235      1.56  |     Q   V         |         |         |
    1+30       0.1357      1.77  |      Q  |V        |         |         |
    1+35       0.1473      1.69  |     Q   | V       |         |         |
    1+40       0.1593      1.74  |     Q   |  V      |         |         |
    1+45       0.1736      2.07  |       Q |   V     |         |         |
    1+50       0.1885      2.17  |       Q |     V   |         |         |
    1+55       0.2026      2.05  |       Q |      V  |         |         |
    2+ 0       0.2166      2.03  |       Q |       V |         |         |
    2+ 5       0.2310      2.09  |       Q |        V|         |         |
    2+10       0.2489      2.60  |         Q         |V        |         |
    2+15       0.2714      3.26  |         |  Q      |  V      |         |
    2+20       0.2912      2.88  |         |Q        |   V     |         |
    2+25       0.3183      3.93  |         |    Q    |      V  |         |
    2+30       0.3527      5.00  |         |         Q         V         |
    2+35       0.3918      5.68  |         |         | Q       |  V      |
    2+40       0.4259      4.95  |         |        Q|         |     V   |
    2+45       0.4442      2.65  |         Q         |         |       V |
    2+50       0.4537      1.38  |    Q    |         |         |       V |
    2+55       0.4616      1.15  |   Q     |         |         |        V|
    3+ 0       0.4661      0.65  | Q       |         |         |        V|
    3+ 5       0.4673      0.17  Q         |         |         |        V|
    3+10       0.4674      0.02  Q         |         |         |         V
-----------------------------------------------------------------------
```

NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-3HR
POST DEVELOPMENT
DMA D1

```
       U n i t   H y d r o g r a p h   A n a l y s i s

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               Study date  07/27/23 File: NSPRUHD3100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6350

---------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



---------------------------------------------------------------------
PROPOSED CONDITION
AREA D1
UNIT HYDROGRAPH
100 YEAR 3 HOUR STORM EVENT
--------------------------------------------------------------------
Drainage Area =       9.56(Ac.)  =      0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =       9.56(Ac.)  =      0.015 Sq. Mi.
Length along longest watercourse =     666.00(Ft.)
Length along longest watercourse measured to centroid =     393.00(Ft.)
Length along longest watercourse =      0.126 Mi.
Length along longest watercourse measured to centroid =      0.074 Mi.
Difference in elevation =       6.89(Ft.)
Slope along watercourse =     54.6234 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =    0.029 Hr.
Lag time =     1.71 Min.
25% of lag time =     0.43 Min.
40% of lag time =     0.69 Min.
Unit time =     5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.56            0.87                    8.31

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        9.56            2.22                   21.22

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.869(In)
Area Averaged 100-Year Rainfall =    2.220(In)

Point rain (area averaged) =    2.220(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    2.220(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
```

9.559	69.00	0.642

Total Area Entered = 9.56(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	84.4	0.194	0.642	0.082	1.000	0.082
					Sum (F) =	0.082

Area averaged mean soil loss (F) (In/Hr) = 0.082
Minimum soil loss rate ((In/Hr)) = 0.041
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.387

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	291.763	55.818	5.377
2	0.167	583.527	37.587	3.621
3	0.250	875.290	6.595	0.635
			Sum = 100.000	Sum= 9.634

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	1.30	0.346	0.082	(0.134)	0.264
2	0.17	1.30	0.346	0.082	(0.134)	0.264
3	0.25	1.10	0.293	0.082	(0.113)	0.211
4	0.33	1.50	0.400	0.082	(0.155)	0.318
5	0.42	1.50	0.400	0.082	(0.155)	0.318
6	0.50	1.80	0.479	0.082	(0.186)	0.398
7	0.58	1.50	0.400	0.082	(0.155)	0.318
8	0.67	1.80	0.479	0.082	(0.186)	0.398
9	0.75	1.80	0.479	0.082	(0.186)	0.398
10	0.83	1.50	0.400	0.082	(0.155)	0.318
11	0.92	1.60	0.426	0.082	(0.165)	0.344
12	1.00	1.80	0.479	0.082	(0.186)	0.398
13	1.08	2.20	0.586	0.082	(0.227)	0.504
14	1.17	2.20	0.586	0.082	(0.227)	0.504
15	1.25	2.20	0.586	0.082	(0.227)	0.504
16	1.33	2.00	0.533	0.082	(0.206)	0.451
17	1.42	2.60	0.693	0.082	(0.268)	0.611
18	1.50	2.70	0.719	0.082	(0.278)	0.637
19	1.58	2.40	0.639	0.082	(0.247)	0.557
20	1.67	2.70	0.719	0.082	(0.278)	0.637
21	1.75	3.30	0.879	0.082	(0.340)	0.797
22	1.83	3.10	0.826	0.082	(0.320)	0.744
23	1.92	2.90	0.773	0.082	(0.299)	0.691
24	2.00	3.00	0.799	0.082	(0.309)	0.717
25	2.08	3.10	0.826	0.082	(0.320)	0.744
26	2.17	4.20	1.119	0.082	(0.433)	1.037
27	2.25	5.00	1.332	0.082	(0.515)	1.250
28	2.33	3.50	0.932	0.082	(0.361)	0.851
29	2.42	6.80	1.811	0.082	(0.701)	1.730
30	2.50	7.30	1.945	0.082	(0.753)	1.863
31	2.58	8.20	2.184	0.082	(0.845)	2.103
32	2.67	5.90	1.572	0.082	(0.608)	1.490
33	2.75	2.00	0.533	0.082	(0.206)	0.451
34	2.83	1.80	0.479	0.082	(0.186)	0.398
35	2.92	1.80	0.479	0.082	(0.186)	0.398

```
  36   3.00     0.60      0.160       (  0.082)       0.062        0.098
                 (Loss Rate Not Used)
     Sum =     100.0                               Sum =    23.7
        Flood volume = Effective rainfall      1.98(In)
         times area       9.6(Ac.)/[(In)/(Ft.)] =       1.6(Ac.Ft)
        Total soil loss =      0.24(In)
        Total soil loss =     0.194(Ac.Ft)
        Total rainfall =      2.22(In)
        Flood volume =       68567.5 Cubic Feet
        Total soil loss =        8461.5 Cubic Feet
      --------------------------------------------------------------------
        Peak flow rate of this hydrograph =     19.160(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          3 - H O U R    S T O R M
                     R u n o f f      H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
  Time(h+m) Volume Ac.Ft   Q(CFS)  0        5.0      10.0      15.0      20.0
  ---------------------------------------------------------------------
    0+ 5       0.0098      1.42  V Q       |         |         |         |
    0+10       0.0262      2.38  V   Q     |         |         |         |
    0+15       0.0418      2.26  |V  Q     |         |         |         |
    0+20       0.0600      2.64  |V   Q    |         |         |         |
    0+25       0.0806      2.99  | V  Q    |         |         |         |
    0+30       0.1047      3.49  | V   Q   |         |         |         |
    0+35       0.1277      3.35  |  V  Q   |         |         |         |
    0+40       0.1521      3.54  |  V   Q  |         |         |         |
    0+45       0.1782      3.78  |   V  Q  |         |         |         |
    0+50       0.2016      3.40  |    VQ   |         |         |         |
    0+55       0.2241      3.26  |    VQ   |         |         |         |
    1+ 0       0.2488      3.59  |     VQ  |         |         |         |
    1+ 5       0.2789      4.37  |      VQ |         |         |         |
    1+10       0.3119      4.79  |      V Q|         |         |         |
    1+15       0.3454      4.86  |       VQ|         |         |         |
    1+20       0.3769      4.57  |        Q|         |         |         |
    1+25       0.4130      5.24  |         Q         |         |         |
    1+30       0.4538      5.93  |         |Q        |         |         |
    1+35       0.4930      5.70  |         |QV       |         |         |
    1+40       0.5333      5.85  |         |Q V      |         |         |
    1+45       0.5812      6.95  |         |  QV     |         |         |
    1+50       0.6315      7.30  |         |   Q V   |         |         |
    1+55       0.6791      6.92  |         |  Q   V  |         |         |
    2+ 0       0.7262      6.83  |         |  Q    V |         |         |
    2+ 5       0.7747      7.04  |         |   Q    V|         |         |
    2+10       0.8348      8.73  |         |      Q  |V        |         |
    2+15       0.9103     10.96  |         |         |Q V      |         |
    2+20       0.9775      9.76  |         |        Q|   V     |         |
    2+25       1.0683     13.18  |         |         |     QV  |         |
    2+30       1.1842     16.83  |         |         |         V  Q      |
    2+35       1.3161     19.16  |         |         |         |  V    Q |
    2+40       1.4320     16.82  |         |         |         |  Q  V   |
    2+45       1.4950      9.16  |         |       Q |         |      V  |
    2+50       1.5276      4.72  |        Q|         |         |       V |
    2+55       1.5542      3.87  |      Q  |         |         |        V|
    3+ 0       1.5695      2.22  |   Q     |         |         |        V|
    3+ 5       1.5737      0.61  |Q        |         |         |        V|
    3+10       1.5741      0.06  Q         |         |         |        V|
----------------------------------------------------------------------
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NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-24HR
POST DEVELOPMENT
DMA A

U n i t   H y d r o g r a p h   A n a l y s i s

Study date 10/17/23 File: NSPRUHA24100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6491

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA A
UNIT HYDROGRAPH
100YR 24 HR

Drainage Area = 18.75(Ac.) = 0.029 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 18.75(Ac.) =
0.029 Sq. Mi.
Length along longest watercourse = 1390.00(Ft.)
Length along longest watercourse measured to centroid = 1165.00(Ft.)
Length along longest watercourse = 0.263 Mi.
Length along longest watercourse measured to centroid = 0.221 Mi.
Difference in elevation = 8.22(Ft.)
Slope along watercourse = 31.2242 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.063 Hr.
Lag time = 3.81 Min.
25% of lag time = 0.95 Min.
40% of lag time = 1.52 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
18.75	2.13	39.93

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
18.75	5.59	104.80

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 2.130(In)
Area Averaged 100-Year Rainfall = 5.590(In)

Point rain (area averaged) = 5.590(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 5.590(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
18.747	69.00	0.919

Total Area Entered = 18.75(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	84.4	0.194	0.919	0.034	1.000	0.034
					Sum (F) =	0.034

Area averaged mean soil loss (F) (In/Hr) = 0.034
Minimum soil loss rate ((In/Hr)) = 0.017
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.165

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period	(hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	131.257	28.364	5.359
2	0.167	262.514	48.225	9.111
3	0.250	393.770	12.409	2.344
4	0.333	525.027	5.539	1.047
5	0.417	656.284	3.036	0.574
6	0.500	787.541	1.646	0.311
7	0.583	918.798	0.781	0.148
			Sum = 100.000	Sum= 18.893

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.045	(0.059)	0.007	0.037
2	0.17	0.07	0.045	(0.059)	0.007	0.037
3	0.25	0.07	0.045	(0.059)	0.007	0.037
4	0.33	0.10	0.067	(0.059)	0.011	0.056
5	0.42	0.10	0.067	(0.058)	0.011	0.056
6	0.50	0.10	0.067	(0.058)	0.011	0.056
7	0.58	0.10	0.067	(0.058)	0.011	0.056
8	0.67	0.10	0.067	(0.058)	0.011	0.056
9	0.75	0.10	0.067	(0.058)	0.011	0.056
10	0.83	0.13	0.089	(0.057)	0.015	0.075
11	0.92	0.13	0.089	(0.057)	0.015	0.075
12	1.00	0.13	0.089	(0.057)	0.015	0.075
13	1.08	0.10	0.067	(0.057)	0.011	0.056
14	1.17	0.10	0.067	(0.056)	0.011	0.056
15	1.25	0.10	0.067	(0.056)	0.011	0.056
16	1.33	0.10	0.067	(0.056)	0.011	0.056
17	1.42	0.10	0.067	(0.056)	0.011	0.056
18	1.50	0.10	0.067	(0.056)	0.011	0.056
19	1.58	0.10	0.067	(0.055)	0.011	0.056
20	1.67	0.10	0.067	(0.055)	0.011	0.056
21	1.75	0.10	0.067	(0.055)	0.011	0.056
22	1.83	0.13	0.089	(0.055)	0.015	0.075
23	1.92	0.13	0.089	(0.054)	0.015	0.075
24	2.00	0.13	0.089	(0.054)	0.015	0.075
25	2.08	0.13	0.089	(0.054)	0.015	0.075
26	2.17	0.13	0.089	(0.054)	0.015	0.075
27	2.25	0.13	0.089	(0.054)	0.015	0.075
28	2.33	0.13	0.089	(0.053)	0.015	0.075
29	2.42	0.13	0.089	(0.053)	0.015	0.075
30	2.50	0.13	0.089	(0.053)	0.015	0.075
31	2.58	0.17	0.112	(0.053)	0.018	0.093
32	2.67	0.17	0.112	(0.052)	0.018	0.093
33	2.75	0.17	0.112	(0.052)	0.018	0.093
34	2.83	0.17	0.112	(0.052)	0.018	0.093
35	2.92	0.17	0.112	(0.052)	0.018	0.093
36	3.00	0.17	0.112	(0.052)	0.018	0.093
37	3.08	0.17	0.112	(0.051)	0.018	0.093
38	3.17	0.17	0.112	(0.051)	0.018	0.093
39	3.25	0.17	0.112	(0.051)	0.018	0.093
40	3.33	0.17	0.112	(0.051)	0.018	0.093
41	3.42	0.17	0.112	(0.051)	0.018	0.093
42	3.50	0.17	0.112	(0.050)	0.018	0.093

43	3.58	0.17	0.112	(0.050)	0.018	0.093
44	3.67	0.17	0.112	(0.050)	0.018	0.093
45	3.75	0.17	0.112	(0.050)	0.018	0.093
46	3.83	0.20	0.134	(0.050)	0.022	0.112
47	3.92	0.20	0.134	(0.049)	0.022	0.112
48	4.00	0.20	0.134	(0.049)	0.022	0.112
49	4.08	0.20	0.134	(0.049)	0.022	0.112
50	4.17	0.20	0.134	(0.049)	0.022	0.112
51	4.25	0.20	0.134	(0.048)	0.022	0.112
52	4.33	0.23	0.157	(0.048)	0.026	0.131
53	4.42	0.23	0.157	(0.048)	0.026	0.131
54	4.50	0.23	0.157	(0.048)	0.026	0.131
55	4.58	0.23	0.157	(0.048)	0.026	0.131
56	4.67	0.23	0.157	(0.047)	0.026	0.131
57	4.75	0.23	0.157	(0.047)	0.026	0.131
58	4.83	0.27	0.179	(0.047)	0.030	0.149
59	4.92	0.27	0.179	(0.047)	0.030	0.149
60	5.00	0.27	0.179	(0.047)	0.030	0.149
61	5.08	0.20	0.134	(0.046)	0.022	0.112
62	5.17	0.20	0.134	(0.046)	0.022	0.112
63	5.25	0.20	0.134	(0.046)	0.022	0.112
64	5.33	0.23	0.157	(0.046)	0.026	0.131
65	5.42	0.23	0.157	(0.046)	0.026	0.131
66	5.50	0.23	0.157	(0.045)	0.026	0.131
67	5.58	0.27	0.179	(0.045)	0.030	0.149
68	5.67	0.27	0.179	(0.045)	0.030	0.149
69	5.75	0.27	0.179	(0.045)	0.030	0.149
70	5.83	0.27	0.179	(0.045)	0.030	0.149
71	5.92	0.27	0.179	(0.044)	0.030	0.149
72	6.00	0.27	0.179	(0.044)	0.030	0.149
73	6.08	0.30	0.201	(0.044)	0.033	0.168
74	6.17	0.30	0.201	(0.044)	0.033	0.168
75	6.25	0.30	0.201	(0.044)	0.033	0.168
76	6.33	0.30	0.201	(0.043)	0.033	0.168
77	6.42	0.30	0.201	(0.043)	0.033	0.168
78	6.50	0.30	0.201	(0.043)	0.033	0.168
79	6.58	0.33	0.224	(0.043)	0.037	0.187
80	6.67	0.33	0.224	(0.043)	0.037	0.187
81	6.75	0.33	0.224	(0.042)	0.037	0.187
82	6.83	0.33	0.224	(0.042)	0.037	0.187
83	6.92	0.33	0.224	(0.042)	0.037	0.187
84	7.00	0.33	0.224	(0.042)	0.037	0.187
85	7.08	0.33	0.224	(0.042)	0.037	0.187
86	7.17	0.33	0.224	(0.042)	0.037	0.187
87	7.25	0.33	0.224	(0.041)	0.037	0.187
88	7.33	0.37	0.246	(0.041)	0.041	0.205
89	7.42	0.37	0.246	(0.041)	0.041	0.205
90	7.50	0.37	0.246	(0.041)	0.041	0.205
91	7.58	0.40	0.268	0.041	(0.044)	0.228
92	7.67	0.40	0.268	0.040	(0.044)	0.228

93	7.75	0.40	0.268	0.040	(0.044)	0.228
94	7.83	0.43	0.291	0.040	(0.048)	0.251
95	7.92	0.43	0.291	0.040	(0.048)	0.251
96	8.00	0.43	0.291	0.040	(0.048)	0.251
97	8.08	0.50	0.335	0.039	(0.055)	0.296
98	8.17	0.50	0.335	0.039	(0.055)	0.296
99	8.25	0.50	0.335	0.039	(0.055)	0.296
100	8.33	0.50	0.335	0.039	(0.055)	0.296
101	8.42	0.50	0.335	0.039	(0.055)	0.297
102	8.50	0.50	0.335	0.039	(0.055)	0.297
103	8.58	0.53	0.358	0.038	(0.059)	0.319
104	8.67	0.53	0.358	0.038	(0.059)	0.320
105	8.75	0.53	0.358	0.038	(0.059)	0.320
106	8.83	0.57	0.380	0.038	(0.063)	0.342
107	8.92	0.57	0.380	0.038	(0.063)	0.342
108	9.00	0.57	0.380	0.037	(0.063)	0.343
109	9.08	0.63	0.425	0.037	(0.070)	0.388
110	9.17	0.63	0.425	0.037	(0.070)	0.388
111	9.25	0.63	0.425	0.037	(0.070)	0.388
112	9.33	0.67	0.447	0.037	(0.074)	0.410
113	9.42	0.67	0.447	0.037	(0.074)	0.411
114	9.50	0.67	0.447	0.036	(0.074)	0.411
115	9.58	0.70	0.470	0.036	(0.077)	0.433
116	9.67	0.70	0.470	0.036	(0.077)	0.433
117	9.75	0.70	0.470	0.036	(0.077)	0.434
118	9.83	0.73	0.492	0.036	(0.081)	0.456
119	9.92	0.73	0.492	0.036	(0.081)	0.456
120	10.00	0.73	0.492	0.035	(0.081)	0.457
121	10.08	0.50	0.335	0.035	(0.055)	0.300
122	10.17	0.50	0.335	0.035	(0.055)	0.300
123	10.25	0.50	0.335	0.035	(0.055)	0.301
124	10.33	0.50	0.335	0.035	(0.055)	0.301
125	10.42	0.50	0.335	0.035	(0.055)	0.301
126	10.50	0.50	0.335	0.034	(0.055)	0.301
127	10.58	0.67	0.447	0.034	(0.074)	0.413
128	10.67	0.67	0.447	0.034	(0.074)	0.413
129	10.75	0.67	0.447	0.034	(0.074)	0.413
130	10.83	0.67	0.447	0.034	(0.074)	0.413
131	10.92	0.67	0.447	0.034	(0.074)	0.414
132	11.00	0.67	0.447	0.033	(0.074)	0.414
133	11.08	0.63	0.425	0.033	(0.070)	0.392
134	11.17	0.63	0.425	0.033	(0.070)	0.392
135	11.25	0.63	0.425	0.033	(0.070)	0.392
136	11.33	0.63	0.425	0.033	(0.070)	0.392
137	11.42	0.63	0.425	0.033	(0.070)	0.392
138	11.50	0.63	0.425	0.032	(0.070)	0.392
139	11.58	0.57	0.380	0.032	(0.063)	0.348
140	11.67	0.57	0.380	0.032	(0.063)	0.348
141	11.75	0.57	0.380	0.032	(0.063)	0.348
142	11.83	0.60	0.402	0.032	(0.066)	0.371

143	11.92	0.60	0.402	0.032	(0.066)	0.371
144	12.00	0.60	0.402	0.031	(0.066)	0.371
145	12.08	0.83	0.559	0.031	(0.092)	0.528
146	12.17	0.83	0.559	0.031	(0.092)	0.528
147	12.25	0.83	0.559	0.031	(0.092)	0.528
148	12.33	0.87	0.581	0.031	(0.096)	0.551
149	12.42	0.87	0.581	0.031	(0.096)	0.551
150	12.50	0.87	0.581	0.031	(0.096)	0.551
151	12.58	0.93	0.626	0.030	(0.103)	0.596
152	12.67	0.93	0.626	0.030	(0.103)	0.596
153	12.75	0.93	0.626	0.030	(0.103)	0.596
154	12.83	0.97	0.648	0.030	(0.107)	0.619
155	12.92	0.97	0.648	0.030	(0.107)	0.619
156	13.00	0.97	0.648	0.030	(0.107)	0.619
157	13.08	1.13	0.760	0.029	(0.125)	0.731
158	13.17	1.13	0.760	0.029	(0.125)	0.731
159	13.25	1.13	0.760	0.029	(0.125)	0.731
160	13.33	1.13	0.760	0.029	(0.125)	0.731
161	13.42	1.13	0.760	0.029	(0.125)	0.731
162	13.50	1.13	0.760	0.029	(0.125)	0.732
163	13.58	0.77	0.514	0.029	(0.085)	0.486
164	13.67	0.77	0.514	0.028	(0.085)	0.486
165	13.75	0.77	0.514	0.028	(0.085)	0.486
166	13.83	0.77	0.514	0.028	(0.085)	0.486
167	13.92	0.77	0.514	0.028	(0.085)	0.486
168	14.00	0.77	0.514	0.028	(0.085)	0.486
169	14.08	0.90	0.604	0.028	(0.100)	0.576
170	14.17	0.90	0.604	0.028	(0.100)	0.576
171	14.25	0.90	0.604	0.027	(0.100)	0.576
172	14.33	0.87	0.581	0.027	(0.096)	0.554
173	14.42	0.87	0.581	0.027	(0.096)	0.554
174	14.50	0.87	0.581	0.027	(0.096)	0.554
175	14.58	0.87	0.581	0.027	(0.096)	0.554
176	14.67	0.87	0.581	0.027	(0.096)	0.555
177	14.75	0.87	0.581	0.027	(0.096)	0.555
178	14.83	0.83	0.559	0.026	(0.092)	0.533
179	14.92	0.83	0.559	0.026	(0.092)	0.533
180	15.00	0.83	0.559	0.026	(0.092)	0.533
181	15.08	0.80	0.537	0.026	(0.089)	0.511
182	15.17	0.80	0.537	0.026	(0.089)	0.511
183	15.25	0.80	0.537	0.026	(0.089)	0.511
184	15.33	0.77	0.514	0.026	(0.085)	0.489
185	15.42	0.77	0.514	0.026	(0.085)	0.489
186	15.50	0.77	0.514	0.025	(0.085)	0.489
187	15.58	0.63	0.425	0.025	(0.070)	0.400
188	15.67	0.63	0.425	0.025	(0.070)	0.400
189	15.75	0.63	0.425	0.025	(0.070)	0.400
190	15.83	0.63	0.425	0.025	(0.070)	0.400
191	15.92	0.63	0.425	0.025	(0.070)	0.400
192	16.00	0.63	0.425	0.025	(0.070)	0.400

193	16.08	0.13	0.089	(0.024)	0.015	0.075
194	16.17	0.13	0.089	(0.024)	0.015	0.075
195	16.25	0.13	0.089	(0.024)	0.015	0.075
196	16.33	0.13	0.089	(0.024)	0.015	0.075
197	16.42	0.13	0.089	(0.024)	0.015	0.075
198	16.50	0.13	0.089	(0.024)	0.015	0.075
199	16.58	0.10	0.067	(0.024)	0.011	0.056
200	16.67	0.10	0.067	(0.024)	0.011	0.056
201	16.75	0.10	0.067	(0.024)	0.011	0.056
202	16.83	0.10	0.067	(0.023)	0.011	0.056
203	16.92	0.10	0.067	(0.023)	0.011	0.056
204	17.00	0.10	0.067	(0.023)	0.011	0.056
205	17.08	0.17	0.112	(0.023)	0.018	0.093
206	17.17	0.17	0.112	(0.023)	0.018	0.093
207	17.25	0.17	0.112	(0.023)	0.018	0.093
208	17.33	0.17	0.112	(0.023)	0.018	0.093
209	17.42	0.17	0.112	(0.023)	0.018	0.093
210	17.50	0.17	0.112	(0.022)	0.018	0.093
211	17.58	0.17	0.112	(0.022)	0.018	0.093
212	17.67	0.17	0.112	(0.022)	0.018	0.093
213	17.75	0.17	0.112	(0.022)	0.018	0.093
214	17.83	0.13	0.089	(0.022)	0.015	0.075
215	17.92	0.13	0.089	(0.022)	0.015	0.075
216	18.00	0.13	0.089	(0.022)	0.015	0.075
217	18.08	0.13	0.089	(0.022)	0.015	0.075
218	18.17	0.13	0.089	(0.022)	0.015	0.075
219	18.25	0.13	0.089	(0.021)	0.015	0.075
220	18.33	0.13	0.089	(0.021)	0.015	0.075
221	18.42	0.13	0.089	(0.021)	0.015	0.075
222	18.50	0.13	0.089	(0.021)	0.015	0.075
223	18.58	0.10	0.067	(0.021)	0.011	0.056
224	18.67	0.10	0.067	(0.021)	0.011	0.056
225	18.75	0.10	0.067	(0.021)	0.011	0.056
226	18.83	0.07	0.045	(0.021)	0.007	0.037
227	18.92	0.07	0.045	(0.021)	0.007	0.037
228	19.00	0.07	0.045	(0.021)	0.007	0.037
229	19.08	0.10	0.067	(0.020)	0.011	0.056
230	19.17	0.10	0.067	(0.020)	0.011	0.056
231	19.25	0.10	0.067	(0.020)	0.011	0.056
232	19.33	0.13	0.089	(0.020)	0.015	0.075
233	19.42	0.13	0.089	(0.020)	0.015	0.075
234	19.50	0.13	0.089	(0.020)	0.015	0.075
235	19.58	0.10	0.067	(0.020)	0.011	0.056
236	19.67	0.10	0.067	(0.020)	0.011	0.056
237	19.75	0.10	0.067	(0.020)	0.011	0.056
238	19.83	0.07	0.045	(0.020)	0.007	0.037
239	19.92	0.07	0.045	(0.020)	0.007	0.037
240	20.00	0.07	0.045	(0.019)	0.007	0.037
241	20.08	0.10	0.067	(0.019)	0.011	0.056
242	20.17	0.10	0.067	(0.019)	0.011	0.056

243	20.25	0.10	0.067	(0.019)	0.011	0.056
244	20.33	0.10	0.067	(0.019)	0.011	0.056
245	20.42	0.10	0.067	(0.019)	0.011	0.056
246	20.50	0.10	0.067	(0.019)	0.011	0.056
247	20.58	0.10	0.067	(0.019)	0.011	0.056
248	20.67	0.10	0.067	(0.019)	0.011	0.056
249	20.75	0.10	0.067	(0.019)	0.011	0.056
250	20.83	0.07	0.045	(0.019)	0.007	0.037
251	20.92	0.07	0.045	(0.019)	0.007	0.037
252	21.00	0.07	0.045	(0.018)	0.007	0.037
253	21.08	0.10	0.067	(0.018)	0.011	0.056
254	21.17	0.10	0.067	(0.018)	0.011	0.056
255	21.25	0.10	0.067	(0.018)	0.011	0.056
256	21.33	0.07	0.045	(0.018)	0.007	0.037
257	21.42	0.07	0.045	(0.018)	0.007	0.037
258	21.50	0.07	0.045	(0.018)	0.007	0.037
259	21.58	0.10	0.067	(0.018)	0.011	0.056
260	21.67	0.10	0.067	(0.018)	0.011	0.056
261	21.75	0.10	0.067	(0.018)	0.011	0.056
262	21.83	0.07	0.045	(0.018)	0.007	0.037
263	21.92	0.07	0.045	(0.018)	0.007	0.037
264	22.00	0.07	0.045	(0.018)	0.007	0.037
265	22.08	0.10	0.067	(0.018)	0.011	0.056
266	22.17	0.10	0.067	(0.018)	0.011	0.056
267	22.25	0.10	0.067	(0.018)	0.011	0.056
268	22.33	0.07	0.045	(0.017)	0.007	0.037
269	22.42	0.07	0.045	(0.017)	0.007	0.037
270	22.50	0.07	0.045	(0.017)	0.007	0.037
271	22.58	0.07	0.045	(0.017)	0.007	0.037
272	22.67	0.07	0.045	(0.017)	0.007	0.037
273	22.75	0.07	0.045	(0.017)	0.007	0.037
274	22.83	0.07	0.045	(0.017)	0.007	0.037
275	22.92	0.07	0.045	(0.017)	0.007	0.037
276	23.00	0.07	0.045	(0.017)	0.007	0.037
277	23.08	0.07	0.045	(0.017)	0.007	0.037
278	23.17	0.07	0.045	(0.017)	0.007	0.037
279	23.25	0.07	0.045	(0.017)	0.007	0.037
280	23.33	0.07	0.045	(0.017)	0.007	0.037
281	23.42	0.07	0.045	(0.017)	0.007	0.037
282	23.50	0.07	0.045	(0.017)	0.007	0.037
283	23.58	0.07	0.045	(0.017)	0.007	0.037
284	23.67	0.07	0.045	(0.017)	0.007	0.037
285	23.75	0.07	0.045	(0.017)	0.007	0.037
286	23.83	0.07	0.045	(0.017)	0.007	0.037
287	23.92	0.07	0.045	(0.017)	0.007	0.037
288	24.00	0.07	0.045	(0.017)	0.007	0.037

(Loss Rate Not Used)

Sum = 100.0 Sum = 60.7

Flood volume = Effective rainfall 5.06(In)

times area 18.7(Ac.)/[(In)/(Ft.)] = 7.9(Ac.Ft)

```
Total soil loss =       0.53(In)
Total soil loss =      0.824(Ac.Ft)
Total rainfall =       5.59(In)
Flood volume =       344505.1 Cubic Feet
Total soil loss =        35889.5 Cubic Feet
--------------------------------------------------------------------
 Peak flow rate of this hydrograph =      13.808(CFS)
--------------------------------------------------------------------
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                    24 - H O U R   S T O R M
               R u n o f f     H y d r o g r a p h
--------------------------------------------------------------------
            Hydrograph in   5   Minute intervals ((CFS))

--------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0         5.0       10.0      15.0      20.0
-----------------------------------------------------------------------
  0+ 5       0.0014      0.20   Q         |         |         |         |
  0+10       0.0051      0.54   VQ        |         |         |         |
  0+15       0.0094      0.63   VQ        |         |         |         |
  0+20       0.0147      0.77   VQ        |         |         |         |
  0+25       0.0213      0.96   VQ        |         |         |         |
  0+30       0.0283      1.01   V Q       |         |         |         |
  0+35       0.0355      1.04   V Q       |         |         |         |
  0+40       0.0427      1.05   V Q       |         |         |         |
  0+45       0.0500      1.06   V Q       |         |         |         |
  0+50       0.0580      1.16   V Q       |         |         |         |
  0+55       0.0671      1.33   V Q       |         |         |         |
  1+ 0       0.0766      1.37   V Q       |         |         |         |
  1+ 5       0.0855      1.29   V Q       |         |         |         |
  1+10       0.0933      1.13   V Q       |         |         |         |
  1+15       0.1008      1.09   V Q       |         |         |         |
  1+20       0.1082      1.08   V Q       |         |         |         |
  1+25       0.1156      1.07   V Q       |         |         |         |
  1+30       0.1229      1.06   V Q       |         |         |         |
  1+35       0.1302      1.06   V Q       |         |         |         |
  1+40       0.1375      1.06   V Q       |         |         |         |
  1+45       0.1448      1.06   V Q       |         |         |         |
  1+50       0.1527      1.16   V Q       |         |         |         |
  1+55       0.1619      1.33   V Q       |         |         |         |
  2+ 0       0.1714      1.37   V Q       |         |         |         |
  2+ 5       0.1809      1.39   V Q       |         |         |         |
  2+10       0.1906      1.40   V Q       |         |         |         |
  2+15       0.2003      1.41    |VQ      |         |         |         |
  2+20       0.2100      1.41    |VQ      |         |         |         |
  2+25       0.2198      1.41    |VQ      |         |         |         |
  2+30       0.2295      1.41    |VQ      |         |         |         |
  2+35       0.2399      1.51    |V Q     |         |         |         |
  2+40       0.2515      1.68    |V Q     |         |         |         |
  2+45       0.2634      1.73    |V Q     |         |         |         |
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2+50       0.2754      1.75  |V Q      |         |         |         |
2+55       0.2875      1.76  |V Q      |         |         |         |
3+ 0       0.2996      1.76  |V Q      |         |         |         |
3+ 5       0.3118      1.76  |V Q      |         |         |         |
3+10       0.3239      1.76  |V Q      |         |         |         |
3+15       0.3361      1.76  |V Q      |         |         |         |
3+20       0.3482      1.76  |V Q      |         |         |         |
3+25       0.3604      1.76  |V Q      |         |         |         |
3+30       0.3725      1.76  |V Q      |         |         |         |
3+35       0.3847      1.76  |V Q      |         |         |         |
3+40       0.3968      1.76  | VQ      |         |         |         |
3+45       0.4090      1.76  | VQ      |         |         |         |
3+50       0.4218      1.86  | VQ      |         |         |         |
3+55       0.4358      2.03  | V Q     |         |         |         |
4+ 0       0.4502      2.08  | V Q     |         |         |         |
4+ 5       0.4646      2.10  | V Q     |         |         |         |
4+10       0.4791      2.11  | V Q     |         |         |         |
4+15       0.4937      2.11  | V Q     |         |         |         |
4+20       0.5090      2.22  | V Q     |         |         |         |
4+25       0.5254      2.39  | V Q     |         |         |         |
4+30       0.5422      2.43  | V Q     |         |         |         |
4+35       0.5590      2.45  | V Q     |         |         |         |
4+40       0.5760      2.46  | V Q     |         |         |         |
4+45       0.5930      2.47  | V Q     |         |         |         |
4+50       0.6107      2.57  |  V Q    |         |         |         |
4+55       0.6296      2.74  |  V Q    |         |         |         |
5+ 0       0.6487      2.78  |  V Q    |         |         |         |
5+ 5       0.6667      2.60  |  V Q    |         |         |         |
5+10       0.6823      2.27  |  VQ     |         |         |         |
5+15       0.6974      2.19  |  VQ     |         |         |         |
5+20       0.7130      2.26  |  VQ     |         |         |         |
5+25       0.7295      2.40  |  VQ     |         |         |         |
5+30       0.7463      2.44  |  VQ     |         |         |         |
5+35       0.7639      2.55  |  V Q    |         |         |         |
5+40       0.7827      2.73  |  V Q    |         |         |         |
5+45       0.8019      2.78  |   VQ    |         |         |         |
5+50       0.8212      2.80  |   VQ    |         |         |         |
5+55       0.8406      2.81  |   VQ    |         |         |         |
6+ 0       0.8600      2.82  |   VQ    |         |         |         |
6+ 5       0.8801      2.92  |   VQ    |         |         |         |
6+10       0.9014      3.09  |   V Q   |         |         |         |
6+15       0.9230      3.14  |   V Q   |         |         |         |
6+20       0.9448      3.16  |   V Q   |         |         |         |
6+25       0.9666      3.17  |   V Q   |         |         |         |
6+30       0.9885      3.17  |   V Q   |         |         |         |
6+35       1.0110      3.28  |    VQ   |         |         |         |
6+40       1.0348      3.45  |    VQ   |         |         |         |
6+45       1.0588      3.49  |    VQ   |         |         |         |
6+50       1.0830      3.51  |    V Q  |         |         |         |
6+55       1.1072      3.52  |    V Q  |         |         |         |
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 7+ 0       1.1315      3.53  |    V Q  |         |         |         |
 7+ 5       1.1558      3.53  |    V Q  |         |         |         |
 7+10       1.1801      3.53  |    V Q  |         |         |         |
 7+15       1.2044      3.53  |     VQ  |         |         |         |
 7+20       1.2294      3.63  |     VQ  |         |         |         |
 7+25       1.2556      3.80  |     VQ  |         |         |         |
 7+30       1.2821      3.84  |     VQ  |         |         |         |
 7+35       1.3095      3.98  |     VQ  |         |         |         |
 7+40       1.3384      4.20  |     V Q |         |         |         |
 7+45       1.3677      4.26  |     V Q |         |         |         |
 7+50       1.3981      4.41  |      VQ |         |         |         |
 7+55       1.4300      4.63  |      V Q|         |         |         |
 8+ 0       1.4623      4.69  |      V Q|         |         |         |
 8+ 5       1.4964      4.96  |      V Q|         |         |         |
 8+10       1.5335      5.38  |      V  Q         |         |         |
 8+15       1.5714      5.50  |      V  |Q        |         |         |
 8+20       1.6097      5.55  |       V |Q        |         |         |
 8+25       1.6481      5.58  |       V |Q        |         |         |
 8+30       1.6867      5.60  |       V |Q        |         |         |
 8+35       1.7261      5.73  |       V |Q        |         |         |
 8+40       1.7670      5.94  |       V |Q        |         |         |
 8+45       1.8083      5.99  |        V|Q        |         |         |
 8+50       1.8506      6.14  |        V| Q       |         |         |
 8+55       1.8944      6.36  |        V| Q       |         |         |
 9+ 0       1.9386      6.42  |        V| Q       |         |         |
 9+ 5       1.9847      6.69  |         V  Q      |         |         |
 9+10       2.0337      7.12  |         V   Q     |         |         |
 9+15       2.0835      7.23  |         V   Q     |         |         |
 9+20       2.1345      7.41  |         V   Q     |         |         |
 9+25       2.1871      7.64  |         |V   Q    |         |         |
 9+30       2.2402      7.71  |         |V   Q    |         |         |
 9+35       2.2944      7.86  |         |V   Q    |         |         |
 9+40       2.3500      8.08  |         |V    Q   |         |         |
 9+45       2.4061      8.14  |         | V   Q   |         |         |
 9+50       2.4632      8.29  |         | V   Q   |         |         |
 9+55       2.5219      8.51  |         | V    Q  |         |         |
10+ 0       2.5809      8.58  |         |  V   Q  |         |         |
10+ 5       2.6344      7.77  |         |  V Q    |         |         |
10+10       2.6782      6.36  |         | QV      |         |         |
10+15       2.7195      6.00  |         |Q V      |         |         |
10+20       2.7597      5.84  |         |Q V      |         |         |
10+25       2.7994      5.76  |         |Q  V     |         |         |
10+30       2.8387      5.71  |         |Q  V     |         |         |
10+35       2.8820      6.29  |         | Q V     |         |         |
10+40       2.9324      7.31  |         |   Q     |         |         |
10+45       2.9845      7.58  |         |    Q    |         |         |
10+50       3.0375      7.70  |         |    Q    |         |         |
10+55       3.0910      7.76  |         |    Q    |         |         |
11+ 0       3.1448      7.80  |         |    Q    |         |         |
11+ 5       3.1978      7.70  |         |    QV   |         |         |
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11+10       3.2495      7.50  |         |    QV   |         |         |
11+15       3.3008      7.45  |         |   Q V   |         |         |
11+20       3.3520      7.43  |         |   Q V   |         |         |
11+25       3.4031      7.42  |         |   Q  V  |         |         |
11+30       3.4542      7.42  |         |   Q  V  |         |         |
11+35       3.5036      7.18  |         |   Q  V  |         |         |
11+40       3.5502      6.77  |         |  Q   V  |         |         |
11+45       3.5962      6.67  |         |  Q    V |         |         |
11+50       3.6427      6.75  |         |  Q    V |         |         |
11+55       3.6904      6.93  |         |  Q    V |         |         |
12+ 0       3.7384      6.97  |         |  Q    V |         |         |
12+ 5       3.7923      7.83  |         |    Q   V|         |         |
12+10       3.8562      9.27  |         |       QV|         |         |
12+15       3.9226      9.65  |         |        Q|         |         |
12+20       3.9911      9.94  |         |        QV         |         |
12+25       4.0616     10.24  |         |         Q         |         |
12+30       4.1328     10.34  |         |         Q         |         |
12+35       4.2060     10.63  |         |         |Q        |         |
12+40       4.2821     11.05  |         |         |VQ       |         |
12+45       4.3590     11.17  |         |         | Q       |         |
12+50       4.4371     11.34  |         |         | Q       |         |
12+55       4.5168     11.57  |         |         | VQ      |         |
13+ 0       4.5970     11.64  |         |         |  Q      |         |
13+ 5       4.6815     12.27  |         |         |  VQ     |         |
13+10       4.7731     13.31  |         |         |   V Q   |         |
13+15       4.8667     13.58  |         |         |   V  Q  |         |
13+20       4.9610     13.70  |         |         |    V Q  |         |
13+25       5.0559     13.77  |         |         |    V Q  |         |
13+30       5.1510     13.81  |         |         |     VQ  |         |
13+35       5.2371     12.51  |         |         |    QV   |         |
13+40       5.3079     10.27  |         |         Q     V   |         |
13+45       5.3746      9.70  |         |        Q|      V  |         |
13+50       5.4396      9.44  |         |       Q |      V  |         |
13+55       5.5037      9.30  |         |       Q |      V  |         |
14+ 0       5.5673      9.23  |         |       Q |       V |         |
14+ 5       5.6339      9.67  |         |        Q|       V |         |
14+10       5.7061     10.49  |         |         Q       V |         |
14+15       5.7799     10.70  |         |         |Q       V|         |
14+20       5.8534     10.68  |         |         |Q       V|         |
14+25       5.9260     10.53  |         |         |Q       V|         |
14+30       5.9983     10.51  |         |         |Q        V         |
14+35       6.0707     10.50  |         |         |Q        V         |
14+40       6.1429     10.49  |         |         Q         |V        |
14+45       6.2151     10.49  |         |         Q         |V        |
14+50       6.2865     10.37  |         |         Q         |V        |
14+55       6.3565     10.17  |         |         Q         | V       |
15+ 0       6.4262     10.12  |         |         Q         | V       |
15+ 5       6.4949      9.97  |         |        Q|         | V       |
15+10       6.5621      9.76  |         |        Q|         |  V      |
15+15       6.6290      9.70  |         |        Q|         |  V      |
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15+20       6.6948      9.56  |         |        Q|         |  V      |
15+25       6.7591      9.35  |         |       Q |         |   V     |
15+30       6.8231      9.29  |         |       Q |         |   V     |
15+35       6.8836      8.78  |         |      Q  |         |   V     |
15+40       6.9384      7.96  |         |    Q    |         |    V    |
15+45       6.9918      7.74  |         |    Q    |         |    V    |
15+50       7.0445      7.65  |         |    Q    |         |    V    |
15+55       7.0968      7.60  |         |    Q    |         |    V    |
16+ 0       7.1490      7.58  |         |    Q    |         |     V   |
16+ 5       7.1891      5.82  |         |Q        |         |     V   |
16+10       7.2087      2.85  |    Q    |         |         |     V   |
16+15       7.2231      2.09  |   Q     |         |         |     V   |
16+20       7.2351      1.75  |  Q      |         |         |     V   |
16+25       7.2459      1.56  |  Q      |         |         |     V   |
16+30       7.2559      1.46  | Q       |         |         |     V   |
16+35       7.2650      1.31  | Q       |         |         |     V   |
16+40       7.2728      1.14  | Q       |         |         |     V   |
16+45       7.2804      1.10  | Q       |         |         |     V   |
16+50       7.2878      1.08  | Q       |         |         |     V   |
16+55       7.2951      1.07  | Q       |         |         |     V   |
17+ 0       7.3025      1.06  | Q       |         |         |     V   |
17+ 5       7.3111      1.26  | Q       |         |         |     V   |
17+10       7.3221      1.60  |  Q      |         |         |      V  |
17+15       7.3338      1.69  |  Q      |         |         |      V  |
17+20       7.3457      1.73  |  Q      |         |         |      V  |
17+25       7.3577      1.75  |  Q      |         |         |      V  |
17+30       7.3698      1.76  |  Q      |         |         |      V  |
17+35       7.3820      1.76  |  Q      |         |         |      V  |
17+40       7.3941      1.76  |  Q      |         |         |      V  |
17+45       7.4063      1.76  |  Q      |         |         |      V  |
17+50       7.4177      1.66  |  Q      |         |         |      V  |
17+55       7.4280      1.49  | Q       |         |         |      V  |
18+ 0       7.4380      1.45  | Q       |         |         |      V  |
18+ 5       7.4479      1.43  | Q       |         |         |      V  |
18+10       7.4576      1.42  | Q       |         |         |      V  |
18+15       7.4674      1.41  | Q       |         |         |      V  |
18+20       7.4771      1.41  | Q       |         |         |      V  |
18+25       7.4868      1.41  | Q       |         |         |      V  |
18+30       7.4965      1.41  | Q       |         |         |      V  |
18+35       7.5056      1.31  | Q       |         |         |      V  |
18+40       7.5134      1.14  | Q       |         |         |       V |
18+45       7.5210      1.10  | Q       |         |         |       V |
18+50       7.5277      0.98  |Q        |         |         |       V |
18+55       7.5332      0.80  |Q        |         |         |       V |
19+ 0       7.5384      0.75  |Q        |         |         |       V |
19+ 5       7.5441      0.83  |Q        |         |         |       V |
19+10       7.5508      0.98  |Q        |         |         |       V |
19+15       7.5579      1.02  | Q       |         |         |       V |
19+20       7.5657      1.14  | Q       |         |         |       V |
19+25       7.5748      1.32  | Q       |         |         |       V |
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19+30       7.5843      1.37  | Q       |         |         |       V |
19+35       7.5932      1.29  | Q       |         |         |       V |
19+40       7.6010      1.13  | Q       |         |         |       V |
19+45       7.6085      1.09  | Q       |         |         |       V |
19+50       7.6152      0.98  |Q        |         |         |       V |
19+55       7.6207      0.80  |Q        |         |         |       V |
20+ 0       7.6259      0.75  |Q        |         |         |       V |
20+ 5       7.6316      0.83  |Q        |         |         |       V |
20+10       7.6383      0.98  |Q        |         |         |       V |
20+15       7.6454      1.02  | Q       |         |         |       V |
20+20       7.6525      1.04  | Q       |         |         |       V |
20+25       7.6598      1.05  | Q       |         |         |       V |
20+30       7.6670      1.06  | Q       |         |         |       V |
20+35       7.6743      1.06  | Q       |         |         |       V |
20+40       7.6816      1.06  | Q       |         |         |       V |
20+45       7.6889      1.06  | Q       |         |         |       V |
20+50       7.6955      0.96  |Q        |         |         |       V |
20+55       7.7010      0.79  |Q        |         |         |       V |
21+ 0       7.7061      0.74  |Q        |         |         |       V |
21+ 5       7.7118      0.83  |Q        |         |         |        V|
21+10       7.7185      0.98  |Q        |         |         |        V|
21+15       7.7256      1.02  | Q       |         |         |        V|
21+20       7.7321      0.94  |Q        |         |         |        V|
21+25       7.7374      0.78  |Q        |         |         |        V|
21+30       7.7425      0.74  |Q        |         |         |        V|
21+35       7.7482      0.83  |Q        |         |         |        V|
21+40       7.7550      0.98  |Q        |         |         |        V|
21+45       7.7621      1.02  | Q       |         |         |        V|
21+50       7.7685      0.94  |Q        |         |         |        V|
21+55       7.7739      0.78  |Q        |         |         |        V|
22+ 0       7.7790      0.74  |Q        |         |         |        V|
22+ 5       7.7847      0.83  |Q        |         |         |        V|
22+10       7.7915      0.98  |Q        |         |         |        V|
22+15       7.7985      1.02  | Q       |         |         |        V|
22+20       7.8050      0.94  |Q        |         |         |        V|
22+25       7.8104      0.78  |Q        |         |         |        V|
22+30       7.8155      0.74  |Q        |         |         |        V|
22+35       7.8205      0.73  |Q        |         |         |        V|
22+40       7.8254      0.71  |Q        |         |         |        V|
22+45       7.8303      0.71  |Q        |         |         |        V|
22+50       7.8351      0.71  |Q        |         |         |        V|
22+55       7.8400      0.71  |Q        |         |         |        V|
23+ 0       7.8448      0.71  |Q        |         |         |        V|
23+ 5       7.8497      0.71  |Q        |         |         |        V|
23+10       7.8546      0.71  |Q        |         |         |        V|
23+15       7.8594      0.71  |Q        |         |         |        V|
23+20       7.8643      0.71  |Q        |         |         |        V|
23+25       7.8691      0.71  |Q        |         |         |        V|
23+30       7.8740      0.71  |Q        |         |         |        V|
23+35       7.8789      0.71  |Q        |         |         |        V|
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   23+40        7.8837      0.71  |Q         |         |         |        V|
   23+45        7.8886      0.71  |Q         |         |         |        V|
   23+50        7.8935      0.71  |Q         |         |         |        V|
   23+55        7.8983      0.71  |Q         |         |         |        V|
   24+ 0        7.9032      0.71  |Q         |         |         |        V|
   24+ 5        7.9067      0.51  |Q         |         |         |        V|
   24+10        7.9078      0.17  Q          |         |         |        V|
   24+15        7.9083      0.08  Q          |         |         |        V|
   24+20        7.9086      0.04  Q          |         |         |        V|
   24+25        7.9087      0.02  Q          |         |         |        V|
   24+30        7.9087      0.01  Q          |         |         |         V
-----------------------------------------------------------------------
```

NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-24HR
POST DEVELOPMENT
DMA B1

```
        U n i t   H y d r o g r a p h   A n a l y s i s

        Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018, Version 9.0
                Study date  10/17/23 File: NSPRUHB124100.out


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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6491

---------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



---------------------------------------------------------------------
NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA B1
UNIT HYDROGRAPH
100YR 24HR
--------------------------------------------------------------------
Drainage Area =      12.64(Ac.)  =      0.020 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      12.64(Ac.)  =
0.020 Sq. Mi.
Length along longest watercourse =     972.00(Ft.)
Length along longest watercourse measured to centroid =     832.00(Ft.)
Length along longest watercourse =      0.184 Mi.
Length along longest watercourse measured to centroid =      0.158 Mi.
Difference in elevation =       9.30(Ft.)
Slope along watercourse =     50.5185 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =    0.045 Hr.
Lag time =     2.67 Min.
25% of lag time =     0.67 Min.
40% of lag time =     1.07 Min.
Unit time =     5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:
```

```
Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       12.64            1.90                  24.01

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       12.64            5.00                  63.19

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.900(In)
Area Averaged 100-Year Rainfall =    5.000(In)

Point rain (area averaged) =    5.000(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    5.000(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
    12.638           69.00         0.922
 Total Area Entered =     12.64(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  84.4      0.194     0.922        0.033       1.000      0.033
                                                  Sum (F) =   0.033
Area averaged mean soil loss (F) (In/Hr) =  0.033
Minimum soil loss rate ((In/Hr)) =  0.016
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.162
---------------------------------------------------------------------

                U n i t  H y d r o g r a p h
                        VALLEY S-Curve
--------------------------------------------------------------------
                Unit Hydrograph Data
---------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                            Graph %           (CFS)
---------------------------------------------------------------------
    1   0.083        187.246         41.109              5.236
    2   0.167        374.493         44.267              5.638
    3   0.250        561.739          9.334              1.189
    4   0.333        748.986          3.745              0.477
    5   0.417        936.232          1.545              0.197
                              Sum = 100.000   Sum=      12.737
----------------------------------------------------------------------
```

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.040	(0.058)	0.006	0.034
2	0.17	0.07	0.040	(0.058)	0.006	0.034
3	0.25	0.07	0.040	(0.058)	0.006	0.034
4	0.33	0.10	0.060	(0.058)	0.010	0.050
5	0.42	0.10	0.060	(0.058)	0.010	0.050
6	0.50	0.10	0.060	(0.057)	0.010	0.050
7	0.58	0.10	0.060	(0.057)	0.010	0.050
8	0.67	0.10	0.060	(0.057)	0.010	0.050
9	0.75	0.10	0.060	(0.057)	0.010	0.050
10	0.83	0.13	0.080	(0.056)	0.013	0.067
11	0.92	0.13	0.080	(0.056)	0.013	0.067
12	1.00	0.13	0.080	(0.056)	0.013	0.067
13	1.08	0.10	0.060	(0.056)	0.010	0.050
14	1.17	0.10	0.060	(0.056)	0.010	0.050
15	1.25	0.10	0.060	(0.055)	0.010	0.050
16	1.33	0.10	0.060	(0.055)	0.010	0.050
17	1.42	0.10	0.060	(0.055)	0.010	0.050
18	1.50	0.10	0.060	(0.055)	0.010	0.050
19	1.58	0.10	0.060	(0.054)	0.010	0.050
20	1.67	0.10	0.060	(0.054)	0.010	0.050
21	1.75	0.10	0.060	(0.054)	0.010	0.050
22	1.83	0.13	0.080	(0.054)	0.013	0.067
23	1.92	0.13	0.080	(0.054)	0.013	0.067
24	2.00	0.13	0.080	(0.053)	0.013	0.067
25	2.08	0.13	0.080	(0.053)	0.013	0.067
26	2.17	0.13	0.080	(0.053)	0.013	0.067
27	2.25	0.13	0.080	(0.053)	0.013	0.067
28	2.33	0.13	0.080	(0.053)	0.013	0.067
29	2.42	0.13	0.080	(0.052)	0.013	0.067
30	2.50	0.13	0.080	(0.052)	0.013	0.067
31	2.58	0.17	0.100	(0.052)	0.016	0.084
32	2.67	0.17	0.100	(0.052)	0.016	0.084
33	2.75	0.17	0.100	(0.051)	0.016	0.084
34	2.83	0.17	0.100	(0.051)	0.016	0.084
35	2.92	0.17	0.100	(0.051)	0.016	0.084
36	3.00	0.17	0.100	(0.051)	0.016	0.084
37	3.08	0.17	0.100	(0.051)	0.016	0.084
38	3.17	0.17	0.100	(0.050)	0.016	0.084
39	3.25	0.17	0.100	(0.050)	0.016	0.084
40	3.33	0.17	0.100	(0.050)	0.016	0.084
41	3.42	0.17	0.100	(0.050)	0.016	0.084
42	3.50	0.17	0.100	(0.050)	0.016	0.084
43	3.58	0.17	0.100	(0.049)	0.016	0.084
44	3.67	0.17	0.100	(0.049)	0.016	0.084

45	3.75	0.17	0.100	(0.049)	0.016	0.084
46	3.83	0.20	0.120	(0.049)	0.019	0.101
47	3.92	0.20	0.120	(0.049)	0.019	0.101
48	4.00	0.20	0.120	(0.048)	0.019	0.101
49	4.08	0.20	0.120	(0.048)	0.019	0.101
50	4.17	0.20	0.120	(0.048)	0.019	0.101
51	4.25	0.20	0.120	(0.048)	0.019	0.101
52	4.33	0.23	0.140	(0.048)	0.023	0.117
53	4.42	0.23	0.140	(0.047)	0.023	0.117
54	4.50	0.23	0.140	(0.047)	0.023	0.117
55	4.58	0.23	0.140	(0.047)	0.023	0.117
56	4.67	0.23	0.140	(0.047)	0.023	0.117
57	4.75	0.23	0.140	(0.047)	0.023	0.117
58	4.83	0.27	0.160	(0.046)	0.026	0.134
59	4.92	0.27	0.160	(0.046)	0.026	0.134
60	5.00	0.27	0.160	(0.046)	0.026	0.134
61	5.08	0.20	0.120	(0.046)	0.019	0.101
62	5.17	0.20	0.120	(0.046)	0.019	0.101
63	5.25	0.20	0.120	(0.045)	0.019	0.101
64	5.33	0.23	0.140	(0.045)	0.023	0.117
65	5.42	0.23	0.140	(0.045)	0.023	0.117
66	5.50	0.23	0.140	(0.045)	0.023	0.117
67	5.58	0.27	0.160	(0.045)	0.026	0.134
68	5.67	0.27	0.160	(0.044)	0.026	0.134
69	5.75	0.27	0.160	(0.044)	0.026	0.134
70	5.83	0.27	0.160	(0.044)	0.026	0.134
71	5.92	0.27	0.160	(0.044)	0.026	0.134
72	6.00	0.27	0.160	(0.044)	0.026	0.134
73	6.08	0.30	0.180	(0.043)	0.029	0.151
74	6.17	0.30	0.180	(0.043)	0.029	0.151
75	6.25	0.30	0.180	(0.043)	0.029	0.151
76	6.33	0.30	0.180	(0.043)	0.029	0.151
77	6.42	0.30	0.180	(0.043)	0.029	0.151
78	6.50	0.30	0.180	(0.042)	0.029	0.151
79	6.58	0.33	0.200	(0.042)	0.032	0.168
80	6.67	0.33	0.200	(0.042)	0.032	0.168
81	6.75	0.33	0.200	(0.042)	0.032	0.168
82	6.83	0.33	0.200	(0.042)	0.032	0.168
83	6.92	0.33	0.200	(0.041)	0.032	0.168
84	7.00	0.33	0.200	(0.041)	0.032	0.168
85	7.08	0.33	0.200	(0.041)	0.032	0.168
86	7.17	0.33	0.200	(0.041)	0.032	0.168
87	7.25	0.33	0.200	(0.041)	0.032	0.168
88	7.33	0.37	0.220	(0.041)	0.036	0.184
89	7.42	0.37	0.220	(0.040)	0.036	0.184
90	7.50	0.37	0.220	(0.040)	0.036	0.184
91	7.58	0.40	0.240	(0.040)	0.039	0.201
92	7.67	0.40	0.240	(0.040)	0.039	0.201
93	7.75	0.40	0.240	(0.040)	0.039	0.201
94	7.83	0.43	0.260	0.039	(0.042)	0.221

95	7.92	0.43	0.260	0.039	(0.042)	0.221
96	8.00	0.43	0.260	0.039	(0.042)	0.221
97	8.08	0.50	0.300	0.039	(0.049)	0.261
98	8.17	0.50	0.300	0.039	(0.049)	0.261
99	8.25	0.50	0.300	0.039	(0.049)	0.261
100	8.33	0.50	0.300	0.038	(0.049)	0.262
101	8.42	0.50	0.300	0.038	(0.049)	0.262
102	8.50	0.50	0.300	0.038	(0.049)	0.262
103	8.58	0.53	0.320	0.038	(0.052)	0.282
104	8.67	0.53	0.320	0.038	(0.052)	0.282
105	8.75	0.53	0.320	0.037	(0.052)	0.283
106	8.83	0.57	0.340	0.037	(0.055)	0.303
107	8.92	0.57	0.340	0.037	(0.055)	0.303
108	9.00	0.57	0.340	0.037	(0.055)	0.303
109	9.08	0.63	0.380	0.037	(0.062)	0.343
110	9.17	0.63	0.380	0.037	(0.062)	0.343
111	9.25	0.63	0.380	0.036	(0.062)	0.344
112	9.33	0.67	0.400	0.036	(0.065)	0.364
113	9.42	0.67	0.400	0.036	(0.065)	0.364
114	9.50	0.67	0.400	0.036	(0.065)	0.364
115	9.58	0.70	0.420	0.036	(0.068)	0.384
116	9.67	0.70	0.420	0.036	(0.068)	0.384
117	9.75	0.70	0.420	0.035	(0.068)	0.385
118	9.83	0.73	0.440	0.035	(0.071)	0.405
119	9.92	0.73	0.440	0.035	(0.071)	0.405
120	10.00	0.73	0.440	0.035	(0.071)	0.405
121	10.08	0.50	0.300	0.035	(0.049)	0.265
122	10.17	0.50	0.300	0.035	(0.049)	0.265
123	10.25	0.50	0.300	0.034	(0.049)	0.266
124	10.33	0.50	0.300	0.034	(0.049)	0.266
125	10.42	0.50	0.300	0.034	(0.049)	0.266
126	10.50	0.50	0.300	0.034	(0.049)	0.266
127	10.58	0.67	0.400	0.034	(0.065)	0.366
128	10.67	0.67	0.400	0.034	(0.065)	0.366
129	10.75	0.67	0.400	0.033	(0.065)	0.367
130	10.83	0.67	0.400	0.033	(0.065)	0.367
131	10.92	0.67	0.400	0.033	(0.065)	0.367
132	11.00	0.67	0.400	0.033	(0.065)	0.367
133	11.08	0.63	0.380	0.033	(0.062)	0.347
134	11.17	0.63	0.380	0.033	(0.062)	0.347
135	11.25	0.63	0.380	0.032	(0.062)	0.348
136	11.33	0.63	0.380	0.032	(0.062)	0.348
137	11.42	0.63	0.380	0.032	(0.062)	0.348
138	11.50	0.63	0.380	0.032	(0.062)	0.348
139	11.58	0.57	0.340	0.032	(0.055)	0.308
140	11.67	0.57	0.340	0.032	(0.055)	0.308
141	11.75	0.57	0.340	0.031	(0.055)	0.309
142	11.83	0.60	0.360	0.031	(0.058)	0.329
143	11.92	0.60	0.360	0.031	(0.058)	0.329
144	12.00	0.60	0.360	0.031	(0.058)	0.329

145	12.08	0.83	0.500	0.031	(0.081)	0.469
146	12.17	0.83	0.500	0.031	(0.081)	0.469
147	12.25	0.83	0.500	0.030	(0.081)	0.469
148	12.33	0.87	0.520	0.030	(0.084)	0.490
149	12.42	0.87	0.520	0.030	(0.084)	0.490
150	12.50	0.87	0.520	0.030	(0.084)	0.490
151	12.58	0.93	0.560	0.030	(0.091)	0.530
152	12.67	0.93	0.560	0.030	(0.091)	0.530
153	12.75	0.93	0.560	0.030	(0.091)	0.530
154	12.83	0.97	0.580	0.029	(0.094)	0.551
155	12.92	0.97	0.580	0.029	(0.094)	0.551
156	13.00	0.97	0.580	0.029	(0.094)	0.551
157	13.08	1.13	0.680	0.029	(0.110)	0.651
158	13.17	1.13	0.680	0.029	(0.110)	0.651
159	13.25	1.13	0.680	0.029	(0.110)	0.651
160	13.33	1.13	0.680	0.029	(0.110)	0.651
161	13.42	1.13	0.680	0.028	(0.110)	0.652
162	13.50	1.13	0.680	0.028	(0.110)	0.652
163	13.58	0.77	0.460	0.028	(0.075)	0.432
164	13.67	0.77	0.460	0.028	(0.075)	0.432
165	13.75	0.77	0.460	0.028	(0.075)	0.432
166	13.83	0.77	0.460	0.028	(0.075)	0.432
167	13.92	0.77	0.460	0.028	(0.075)	0.432
168	14.00	0.77	0.460	0.027	(0.075)	0.433
169	14.08	0.90	0.540	0.027	(0.087)	0.513
170	14.17	0.90	0.540	0.027	(0.087)	0.513
171	14.25	0.90	0.540	0.027	(0.087)	0.513
172	14.33	0.87	0.520	0.027	(0.084)	0.493
173	14.42	0.87	0.520	0.027	(0.084)	0.493
174	14.50	0.87	0.520	0.027	(0.084)	0.493
175	14.58	0.87	0.520	0.026	(0.084)	0.494
176	14.67	0.87	0.520	0.026	(0.084)	0.494
177	14.75	0.87	0.520	0.026	(0.084)	0.494
178	14.83	0.83	0.500	0.026	(0.081)	0.474
179	14.92	0.83	0.500	0.026	(0.081)	0.474
180	15.00	0.83	0.500	0.026	(0.081)	0.474
181	15.08	0.80	0.480	0.026	(0.078)	0.454
182	15.17	0.80	0.480	0.026	(0.078)	0.454
183	15.25	0.80	0.480	0.025	(0.078)	0.455
184	15.33	0.77	0.460	0.025	(0.075)	0.435
185	15.42	0.77	0.460	0.025	(0.075)	0.435
186	15.50	0.77	0.460	0.025	(0.075)	0.435
187	15.58	0.63	0.380	0.025	(0.062)	0.355
188	15.67	0.63	0.380	0.025	(0.062)	0.355
189	15.75	0.63	0.380	0.025	(0.062)	0.355
190	15.83	0.63	0.380	0.024	(0.062)	0.356
191	15.92	0.63	0.380	0.024	(0.062)	0.356
192	16.00	0.63	0.380	0.024	(0.062)	0.356
193	16.08	0.13	0.080	(0.024)	0.013	0.067
194	16.17	0.13	0.080	(0.024)	0.013	0.067

195	16.25	0.13	0.080	(0.024)	0.013	0.067
196	16.33	0.13	0.080	(0.024)	0.013	0.067
197	16.42	0.13	0.080	(0.024)	0.013	0.067
198	16.50	0.13	0.080	(0.023)	0.013	0.067
199	16.58	0.10	0.060	(0.023)	0.010	0.050
200	16.67	0.10	0.060	(0.023)	0.010	0.050
201	16.75	0.10	0.060	(0.023)	0.010	0.050
202	16.83	0.10	0.060	(0.023)	0.010	0.050
203	16.92	0.10	0.060	(0.023)	0.010	0.050
204	17.00	0.10	0.060	(0.023)	0.010	0.050
205	17.08	0.17	0.100	(0.023)	0.016	0.084
206	17.17	0.17	0.100	(0.023)	0.016	0.084
207	17.25	0.17	0.100	(0.022)	0.016	0.084
208	17.33	0.17	0.100	(0.022)	0.016	0.084
209	17.42	0.17	0.100	(0.022)	0.016	0.084
210	17.50	0.17	0.100	(0.022)	0.016	0.084
211	17.58	0.17	0.100	(0.022)	0.016	0.084
212	17.67	0.17	0.100	(0.022)	0.016	0.084
213	17.75	0.17	0.100	(0.022)	0.016	0.084
214	17.83	0.13	0.080	(0.022)	0.013	0.067
215	17.92	0.13	0.080	(0.022)	0.013	0.067
216	18.00	0.13	0.080	(0.021)	0.013	0.067
217	18.08	0.13	0.080	(0.021)	0.013	0.067
218	18.17	0.13	0.080	(0.021)	0.013	0.067
219	18.25	0.13	0.080	(0.021)	0.013	0.067
220	18.33	0.13	0.080	(0.021)	0.013	0.067
221	18.42	0.13	0.080	(0.021)	0.013	0.067
222	18.50	0.13	0.080	(0.021)	0.013	0.067
223	18.58	0.10	0.060	(0.021)	0.010	0.050
224	18.67	0.10	0.060	(0.021)	0.010	0.050
225	18.75	0.10	0.060	(0.021)	0.010	0.050
226	18.83	0.07	0.040	(0.020)	0.006	0.034
227	18.92	0.07	0.040	(0.020)	0.006	0.034
228	19.00	0.07	0.040	(0.020)	0.006	0.034
229	19.08	0.10	0.060	(0.020)	0.010	0.050
230	19.17	0.10	0.060	(0.020)	0.010	0.050
231	19.25	0.10	0.060	(0.020)	0.010	0.050
232	19.33	0.13	0.080	(0.020)	0.013	0.067
233	19.42	0.13	0.080	(0.020)	0.013	0.067
234	19.50	0.13	0.080	(0.020)	0.013	0.067
235	19.58	0.10	0.060	(0.020)	0.010	0.050
236	19.67	0.10	0.060	(0.020)	0.010	0.050
237	19.75	0.10	0.060	(0.019)	0.010	0.050
238	19.83	0.07	0.040	(0.019)	0.006	0.034
239	19.92	0.07	0.040	(0.019)	0.006	0.034
240	20.00	0.07	0.040	(0.019)	0.006	0.034
241	20.08	0.10	0.060	(0.019)	0.010	0.050
242	20.17	0.10	0.060	(0.019)	0.010	0.050
243	20.25	0.10	0.060	(0.019)	0.010	0.050
244	20.33	0.10	0.060	(0.019)	0.010	0.050

245	20.42	0.10	0.060	(0.019)	0.010	0.050
246	20.50	0.10	0.060	(0.019)	0.010	0.050
247	20.58	0.10	0.060	(0.019)	0.010	0.050
248	20.67	0.10	0.060	(0.019)	0.010	0.050
249	20.75	0.10	0.060	(0.018)	0.010	0.050
250	20.83	0.07	0.040	(0.018)	0.006	0.034
251	20.92	0.07	0.040	(0.018)	0.006	0.034
252	21.00	0.07	0.040	(0.018)	0.006	0.034
253	21.08	0.10	0.060	(0.018)	0.010	0.050
254	21.17	0.10	0.060	(0.018)	0.010	0.050
255	21.25	0.10	0.060	(0.018)	0.010	0.050
256	21.33	0.07	0.040	(0.018)	0.006	0.034
257	21.42	0.07	0.040	(0.018)	0.006	0.034
258	21.50	0.07	0.040	(0.018)	0.006	0.034
259	21.58	0.10	0.060	(0.018)	0.010	0.050
260	21.67	0.10	0.060	(0.018)	0.010	0.050
261	21.75	0.10	0.060	(0.018)	0.010	0.050
262	21.83	0.07	0.040	(0.018)	0.006	0.034
263	21.92	0.07	0.040	(0.017)	0.006	0.034
264	22.00	0.07	0.040	(0.017)	0.006	0.034
265	22.08	0.10	0.060	(0.017)	0.010	0.050
266	22.17	0.10	0.060	(0.017)	0.010	0.050
267	22.25	0.10	0.060	(0.017)	0.010	0.050
268	22.33	0.07	0.040	(0.017)	0.006	0.034
269	22.42	0.07	0.040	(0.017)	0.006	0.034
270	22.50	0.07	0.040	(0.017)	0.006	0.034
271	22.58	0.07	0.040	(0.017)	0.006	0.034
272	22.67	0.07	0.040	(0.017)	0.006	0.034
273	22.75	0.07	0.040	(0.017)	0.006	0.034
274	22.83	0.07	0.040	(0.017)	0.006	0.034
275	22.92	0.07	0.040	(0.017)	0.006	0.034
276	23.00	0.07	0.040	(0.017)	0.006	0.034
277	23.08	0.07	0.040	(0.017)	0.006	0.034
278	23.17	0.07	0.040	(0.017)	0.006	0.034
279	23.25	0.07	0.040	(0.017)	0.006	0.034
280	23.33	0.07	0.040	(0.017)	0.006	0.034
281	23.42	0.07	0.040	(0.017)	0.006	0.034
282	23.50	0.07	0.040	(0.017)	0.006	0.034
283	23.58	0.07	0.040	(0.017)	0.006	0.034
284	23.67	0.07	0.040	(0.017)	0.006	0.034
285	23.75	0.07	0.040	(0.017)	0.006	0.034
286	23.83	0.07	0.040	(0.017)	0.006	0.034
287	23.92	0.07	0.040	(0.017)	0.006	0.034
288	24.00	0.07	0.040	(0.016)	0.006	0.034

(Loss Rate Not Used)

Sum = 100.0 Sum = 54.1

Flood volume = Effective rainfall 4.51(In)

times area 12.6(Ac.)/[(In)/(Ft.)] = 4.7(Ac.Ft)

Total soil loss = 0.49(In)

Total soil loss = 0.518(Ac.Ft)

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      Total rainfall =      5.00(In)
      Flood volume =     206807.8 Cubic Feet
      Total soil loss =      22566.2 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =      8.304(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         24 - H O U R   S T O R M
                    R u n o f f     H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
-----------------------------------------------------------------------
  0+ 5       0.0012      0.18  Q         |         |         |         |
  0+10       0.0037      0.36  VQ        |         |         |         |
  0+15       0.0065      0.40  VQ        |         |         |         |
  0+20       0.0100      0.51  V Q       |         |         |         |
  0+25       0.0142      0.61  V Q       |         |         |         |
  0+30       0.0185      0.63  V Q       |         |         |         |
  0+35       0.0229      0.64  V Q       |         |         |         |
  0+40       0.0273      0.64  V Q       |         |         |         |
  0+45       0.0318      0.64  V Q       |         |         |         |
  0+50       0.0368      0.73  V Q       |         |         |         |
  0+55       0.0424      0.82  V  Q      |         |         |         |
  1+ 0       0.0482      0.84  V  Q      |         |         |         |
  1+ 5       0.0535      0.76  V  Q      |         |         |         |
  1+10       0.0581      0.67  V Q       |         |         |         |
  1+15       0.0626      0.65  V Q       |         |         |         |
  1+20       0.0671      0.64  V Q       |         |         |         |
  1+25       0.0715      0.64  V Q       |         |         |         |
  1+30       0.0759      0.64  V Q       |         |         |         |
  1+35       0.0803      0.64  V Q       |         |         |         |
  1+40       0.0847      0.64  V Q       |         |         |         |
  1+45       0.0891      0.64  V Q       |         |         |         |
  1+50       0.0941      0.73  V Q       |         |         |         |
  1+55       0.0998      0.82  V  Q      |         |         |         |
  2+ 0       0.1056      0.84  V  Q      |         |         |         |
  2+ 5       0.1115      0.85  V  Q      |         |         |         |
  2+10       0.1174      0.85  V  Q      |         |         |         |
  2+15       0.1232      0.85   |V Q     |         |         |         |
  2+20       0.1291      0.85   |V Q     |         |         |         |
  2+25       0.1350      0.85   |V Q     |         |         |         |
  2+30       0.1409      0.85   |V Q     |         |         |         |
  2+35       0.1474      0.94   |V Q     |         |         |         |
  2+40       0.1545      1.04   |V  Q    |         |         |         |
  2+45       0.1618      1.06   |V  Q    |         |         |         |
  2+50       0.1691      1.06   |V  Q    |         |         |         |
  2+55       0.1765      1.07   |V  Q    |         |         |         |
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3+ 0       0.1838      1.07  |V  Q     |         |         |         |
3+ 5       0.1912      1.07  |V  Q     |         |         |         |
3+10       0.1985      1.07  |V  Q     |         |         |         |
3+15       0.2059      1.07  |V  Q     |         |         |         |
3+20       0.2133      1.07  |V  Q     |         |         |         |
3+25       0.2206      1.07  |V  Q     |         |         |         |
3+30       0.2280      1.07  |V  Q     |         |         |         |
3+35       0.2353      1.07  |V  Q     |         |         |         |
3+40       0.2427      1.07  | V Q     |         |         |         |
3+45       0.2500      1.07  | V Q     |         |         |         |
3+50       0.2580      1.16  | V Q     |         |         |         |
3+55       0.2666      1.25  | V  Q    |         |         |         |
4+ 0       0.2753      1.27  | V  Q    |         |         |         |
4+ 5       0.2841      1.28  | V  Q    |         |         |         |
4+10       0.2930      1.28  | V  Q    |         |         |         |
4+15       0.3018      1.28  | V  Q    |         |         |         |
4+20       0.3112      1.37  | V  Q    |         |         |         |
4+25       0.3213      1.46  | V  Q    |         |         |         |
4+30       0.3315      1.48  | V  Q    |         |         |         |
4+35       0.3418      1.49  | V  Q    |         |         |         |
4+40       0.3521      1.50  | V  Q    |         |         |         |
4+45       0.3624      1.50  |  V Q    |         |         |         |
4+50       0.3733      1.58  |  V  Q   |         |         |         |
4+55       0.3848      1.68  |  V  Q   |         |         |         |
5+ 0       0.3965      1.70  |  V  Q   |         |         |         |
5+ 5       0.4071      1.53  |  V  Q   |         |         |         |
5+10       0.4163      1.34  |  V Q    |         |         |         |
5+15       0.4253      1.30  |  V Q    |         |         |         |
5+20       0.4348      1.38  |  V Q    |         |         |         |
5+25       0.4449      1.46  |  V Q    |         |         |         |
5+30       0.4551      1.48  |  V Q    |         |         |         |
5+35       0.4660      1.58  |  V  Q   |         |         |         |
5+40       0.4775      1.68  |   V Q   |         |         |         |
5+45       0.4892      1.70  |   V Q   |         |         |         |
5+50       0.5009      1.71  |   V Q   |         |         |         |
5+55       0.5127      1.71  |   V Q   |         |         |         |
6+ 0       0.5245      1.71  |   V Q   |         |         |         |
6+ 5       0.5368      1.80  |   V  Q  |         |         |         |
6+10       0.5499      1.89  |   V  Q  |         |         |         |
6+15       0.5630      1.91  |   V  Q  |         |         |         |
6+20       0.5762      1.92  |   V  Q  |         |         |         |
6+25       0.5895      1.92  |   V  Q  |         |         |         |
6+30       0.6027      1.92  |    V Q  |         |         |         |
6+35       0.6166      2.01  |    V  Q |         |         |         |
6+40       0.6311      2.10  |    V  Q |         |         |         |
6+45       0.6457      2.12  |    V  Q |         |         |         |
6+50       0.6604      2.13  |    V  Q |         |         |         |
6+55       0.6751      2.14  |    V  Q |         |         |         |
7+ 0       0.6898      2.14  |    V  Q |         |         |         |
7+ 5       0.7045      2.14  |    V  Q |         |         |         |
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 7+10       0.7192      2.14  |     V Q |         |         |         |
 7+15       0.7339      2.14  |     V Q |         |         |         |
 7+20       0.7492      2.22  |     V Q |         |         |         |
 7+25       0.7652      2.32  |     V  Q|         |         |         |
 7+30       0.7813      2.34  |     V  Q|         |         |         |
 7+35       0.7981      2.43  |     V  Q|         |         |         |
 7+40       0.8155      2.53  |     V   Q         |         |         |
 7+45       0.8331      2.55  |      V  Q         |         |         |
 7+50       0.8514      2.66  |      V  Q         |         |         |
 7+55       0.8705      2.78  |      V  |Q        |         |         |
 8+ 0       0.8898      2.80  |      V  |Q        |         |         |
 8+ 5       0.9106      3.02  |      V  | Q       |         |         |
 8+10       0.9330      3.25  |      V  |  Q      |         |         |
 8+15       0.9558      3.30  |       V |  Q      |         |         |
 8+20       0.9787      3.32  |       V |  Q      |         |         |
 8+25       1.0016      3.33  |       V |  Q      |         |         |
 8+30       1.0246      3.34  |       V |  Q      |         |         |
 8+35       1.0483      3.44  |       V |  Q      |         |         |
 8+40       1.0729      3.56  |        V|   Q     |         |         |
 8+45       1.0976      3.59  |        V|   Q     |         |         |
 8+50       1.1231      3.70  |        V|   Q     |         |         |
 8+55       1.1494      3.82  |        V|    Q    |         |         |
 9+ 0       1.1759      3.85  |        V|    Q    |         |         |
 9+ 5       1.2039      4.07  |         V     Q   |         |         |
 9+10       1.2335      4.30  |         V      Q  |         |         |
 9+15       1.2635      4.35  |         V      Q  |         |         |
 9+20       1.2943      4.48  |         V      Q  |         |         |
 9+25       1.3260      4.60  |         |V      Q |         |         |
 9+30       1.3578      4.62  |         |V      Q |         |         |
 9+35       1.3905      4.74  |         |V      Q |         |         |
 9+40       1.4239      4.86  |         |V       Q|         |         |
 9+45       1.4576      4.89  |         | V      Q|         |         |
 9+50       1.4920      5.00  |         | V       Q         |         |
 9+55       1.5273      5.12  |         | V       Q         |         |
10+ 0       1.5628      5.15  |         |  V      Q         |         |
10+ 5       1.5933      4.43  |         |  V   Q  |         |         |
10+10       1.6183      3.64  |         |  VQ     |         |         |
10+15       1.6423      3.48  |         |  Q      |         |         |
10+20       1.6658      3.41  |         |  QV     |         |         |
10+25       1.6891      3.39  |         |  QV     |         |         |
10+30       1.7125      3.39  |         |  QV     |         |         |
10+35       1.7394      3.92  |         |   VQ    |         |         |
10+40       1.7703      4.48  |         |   V  Q  |         |         |
10+45       1.8020      4.60  |         |    V  Q |         |         |
10+50       1.8341      4.65  |         |    V  Q |         |         |
10+55       1.8663      4.67  |         |    V  Q |         |         |
11+ 0       1.8985      4.68  |         |    V  Q |         |         |
11+ 5       1.9300      4.57  |         |     V Q |         |         |
11+10       1.9607      4.46  |         |     VQ  |         |         |
11+15       1.9913      4.44  |         |     VQ  |         |         |
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11+20       2.0218      4.43  |         |      Q  |         |         |
11+25       2.0524      4.43  |         |      Q  |         |         |
11+30       2.0829      4.43  |         |      Q  |         |         |
11+35       2.1120      4.23  |         |     QV  |         |         |
11+40       2.1396      4.00  |         |     Q V |         |         |
11+45       2.1668      3.96  |         |    Q  V |         |         |
11+50       2.1947      4.05  |         |     Q V |         |         |
11+55       2.2233      4.15  |         |     Q V |         |         |
12+ 0       2.2521      4.18  |         |     Q V |         |         |
12+ 5       2.2860      4.92  |         |        Q|         |         |
12+10       2.3254      5.72  |         |        V| Q       |         |
12+15       2.3659      5.89  |         |        V|  Q      |         |
12+20       2.4076      6.06  |         |         V   Q     |         |
12+25       2.4504      6.20  |         |         V   Q     |         |
12+30       2.4933      6.23  |         |         |V  Q     |         |
12+35       2.5377      6.45  |         |         |V   Q    |         |
12+40       2.5837      6.68  |         |         |V    Q   |         |
12+45       2.6300      6.73  |         |         | V   Q   |         |
12+50       2.6773      6.86  |         |         | V    Q  |         |
12+55       2.7253      6.98  |         |         | V    Q  |         |
13+ 0       2.7736      7.00  |         |         |  V    Q |         |
13+ 5       2.8255      7.54  |         |         |  V      Q         |
13+10       2.8814      8.11  |         |         |   V     | Q       |
13+15       2.9380      8.23  |         |         |   V     | Q       |
13+20       2.9951      8.28  |         |         |    V    |  Q      |
13+25       3.0522      8.30  |         |         |    V    |  Q      |
13+30       3.1094      8.30  |         |         |     V   |  Q      |
13+35       3.1587      7.15  |         |         |     V Q |         |
13+40       3.1994      5.91  |         |         |  Q  V   |         |
13+45       3.2384      5.65  |         |         | Q    V  |         |
13+50       3.2766      5.55  |         |         | Q    V  |         |
13+55       3.3145      5.51  |         |         | Q    V  |         |
14+ 0       3.3525      5.51  |         |         | Q     V |         |
14+ 5       3.3933      5.93  |         |         |  Q    V |         |
14+10       3.4373      6.39  |         |         |    Q  V |         |
14+15       3.4820      6.48  |         |         |    Q   V|         |
14+20       3.5262      6.42  |         |         |    Q   V|         |
14+25       3.5697      6.32  |         |         |    Q    V         |
14+30       3.6131      6.30  |         |         |    Q    V         |
14+35       3.6564      6.29  |         |         |    Q    V         |
14+40       3.6997      6.29  |         |         |    Q    |V        |
14+45       3.7431      6.29  |         |         |    Q    |V        |
14+50       3.7857      6.19  |         |         |   Q     |V        |
14+55       3.8275      6.08  |         |         |   Q     | V       |
15+ 0       3.8692      6.06  |         |         |   Q     | V       |
15+ 5       3.9102      5.94  |         |         |  Q      | V       |
15+10       3.9503      5.83  |         |         |  Q      |  V      |
15+15       3.9903      5.81  |         |         |  Q      |  V      |
15+20       4.0295      5.69  |         |         | Q       |  V      |
15+25       4.0679      5.58  |         |         | Q       |   V     |
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15+30       4.1062      5.56  |         |         | Q       |   V     |
15+35       4.1415      5.13  |         |         Q         |   V     |
15+40       4.1737      4.67  |         |       Q |         |    V    |
15+45       4.2052      4.58  |         |       Q |         |    V    |
15+50       4.2365      4.54  |         |       Q |         |    V    |
15+55       4.2677      4.53  |         |       Q |         |    V    |
16+ 0       4.2990      4.53  |         |       Q |         |     V   |
16+ 5       4.3198      3.02  |         | Q       |         |     V   |
16+10       4.3293      1.39  |    Q    |         |         |     V   |
16+15       4.3366      1.05  |   Q     |         |         |     V   |
16+20       4.3428      0.91  |  Q      |         |         |     V   |
16+25       4.3487      0.85  |  Q      |         |         |     V   |
16+30       4.3546      0.85  |  Q      |         |         |     V   |
16+35       4.3599      0.77  |  Q      |         |         |     V   |
16+40       4.3645      0.67  | Q       |         |         |     V   |
16+45       4.3690      0.65  | Q       |         |         |     V   |
16+50       4.3734      0.64  | Q       |         |         |     V   |
16+55       4.3779      0.64  | Q       |         |         |     V   |
17+ 0       4.3823      0.64  | Q       |         |         |     V   |
17+ 5       4.3879      0.82  |  Q      |         |         |     V   |
17+10       4.3948      1.01  |   Q     |         |         |      V  |
17+15       4.4020      1.05  |   Q     |         |         |      V  |
17+20       4.4093      1.06  |   Q     |         |         |      V  |
17+25       4.4167      1.07  |   Q     |         |         |      V  |
17+30       4.4240      1.07  |   Q     |         |         |      V  |
17+35       4.4314      1.07  |   Q     |         |         |      V  |
17+40       4.4387      1.07  |   Q     |         |         |      V  |
17+45       4.4461      1.07  |   Q     |         |         |      V  |
17+50       4.4528      0.98  |  Q      |         |         |      V  |
17+55       4.4589      0.89  |  Q      |         |         |      V  |
18+ 0       4.4649      0.87  |  Q      |         |         |      V  |
18+ 5       4.4708      0.86  |  Q      |         |         |      V  |
18+10       4.4767      0.85  |  Q      |         |         |      V  |
18+15       4.4826      0.85  |  Q      |         |         |      V  |
18+20       4.4885      0.85  |  Q      |         |         |      V  |
18+25       4.4943      0.85  |  Q      |         |         |      V  |
18+30       4.5002      0.85  |  Q      |         |         |      V  |
18+35       4.5055      0.77  |  Q      |         |         |      V  |
18+40       4.5101      0.67  | Q       |         |         |      V  |
18+45       4.5146      0.65  | Q       |         |         |       V |
18+50       4.5185      0.56  | Q       |         |         |       V |
18+55       4.5216      0.46  |Q        |         |         |       V |
19+ 0       4.5246      0.44  |Q        |         |         |       V |
19+ 5       4.5282      0.52  | Q       |         |         |       V |
19+10       4.5324      0.61  | Q       |         |         |       V |
19+15       4.5367      0.63  | Q       |         |         |       V |
19+20       4.5417      0.73  | Q       |         |         |       V |
19+25       4.5474      0.82  |  Q      |         |         |       V |
19+30       4.5532      0.84  |  Q      |         |         |       V |
19+35       4.5585      0.76  |  Q      |         |         |       V |
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19+40         4.5631       0.67  | Q         |          |          |        V |
19+45         4.5676       0.65  | Q         |          |          |        V |
19+50         4.5714       0.56  | Q         |          |          |        V |
19+55         4.5746       0.46  |Q          |          |          |        V |
20+ 0         4.5776       0.44  |Q          |          |          |        V |
20+ 5         4.5812       0.52  | Q         |          |          |        V |
20+10         4.5854       0.61  | Q         |          |          |        V |
20+15         4.5897       0.63  | Q         |          |          |        V |
20+20         4.5941       0.64  | Q         |          |          |        V |
20+25         4.5985       0.64  | Q         |          |          |        V |
20+30         4.6029       0.64  | Q         |          |          |        V |
20+35         4.6073       0.64  | Q         |          |          |        V |
20+40         4.6117       0.64  | Q         |          |          |        V |
20+45         4.6161       0.64  | Q         |          |          |        V |
20+50         4.6199       0.55  | Q         |          |          |        V |
20+55         4.6231       0.46  |Q          |          |          |        V |
21+ 0         4.6261       0.44  |Q          |          |          |        V |
21+ 5         4.6297       0.52  | Q         |          |          |         V|
21+10         4.6339       0.61  | Q         |          |          |         V|
21+15         4.6382       0.63  | Q         |          |          |         V|
21+20         4.6420       0.55  | Q         |          |          |         V|
21+25         4.6452       0.46  |Q          |          |          |         V|
21+30         4.6482       0.44  |Q          |          |          |         V|
21+35         4.6518       0.52  | Q         |          |          |         V|
21+40         4.6560       0.61  | Q         |          |          |         V|
21+45         4.6603       0.63  | Q         |          |          |         V|
21+50         4.6641       0.55  | Q         |          |          |         V|
21+55         4.6672       0.46  |Q          |          |          |         V|
22+ 0         4.6703       0.44  |Q          |          |          |         V|
22+ 5         4.6738       0.52  | Q         |          |          |         V|
22+10         4.6780       0.61  | Q         |          |          |         V|
22+15         4.6824       0.63  | Q         |          |          |         V|
22+20         4.6861       0.55  | Q         |          |          |         V|
22+25         4.6893       0.46  |Q          |          |          |         V|
22+30         4.6923       0.44  |Q          |          |          |         V|
22+35         4.6953       0.43  |Q          |          |          |         V|
22+40         4.6982       0.43  |Q          |          |          |         V|
22+45         4.7012       0.43  |Q          |          |          |         V|
22+50         4.7041       0.43  |Q          |          |          |         V|
22+55         4.7070       0.43  |Q          |          |          |         V|
23+ 0         4.7100       0.43  |Q          |          |          |         V|
23+ 5         4.7129       0.43  |Q          |          |          |         V|
23+10         4.7159       0.43  |Q          |          |          |         V|
23+15         4.7188       0.43  |Q          |          |          |         V|
23+20         4.7218       0.43  |Q          |          |          |         V|
23+25         4.7247       0.43  |Q          |          |          |         V|
23+30         4.7276       0.43  |Q          |          |          |         V|
23+35         4.7306       0.43  |Q          |          |          |         V|
23+40         4.7335       0.43  |Q          |          |          |         V|
23+45         4.7365       0.43  |Q          |          |          |         V|
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   23+50       4.7394      0.43  |Q         |         |         |        V|
   23+55       4.7423      0.43  |Q         |         |         |        V|
   24+ 0       4.7453      0.43  |Q         |         |         |        V|
   24+ 5       4.7470      0.25  |Q         |         |         |        V|
   24+10       4.7475      0.06  Q          |         |         |        V|
   24+15       4.7476      0.02  Q          |         |         |        V|
   24+20       4.7477      0.01  Q          |         |         |         V
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NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-24HR
POST DEVELOPMENT
DMA B2

U n i t   H y d r o g r a p h   A n a l y s i s

Study date 10/17/23 File: NSPRUHB224100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6491

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA B2
UNIT HYDROGRAPH
100YR 24HR

Drainage Area = 5.74(Ac.) = 0.009 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 5.74(Ac.) = 0.009 Sq. Mi.
Length along longest watercourse = 816.00(Ft.)
Length along longest watercourse measured to centroid = 677.00(Ft.)
Length along longest watercourse = 0.155 Mi.
Length along longest watercourse measured to centroid = 0.128 Mi.
Difference in elevation = 9.30(Ft.)
Slope along watercourse = 60.1765 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.037 Hr.
Lag time = 2.23 Min.
25% of lag time = 0.56 Min.
40% of lag time = 0.89 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
5.74	2.13	12.22

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
5.74	5.59	32.06

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 2.130(In)
Area Averaged 100-Year Rainfall = 5.590(In)

Point rain (area averaged) = 5.590(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 5.590(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
5.736	69.00	0.948

Total Area Entered = 5.74(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	84.4	0.194	0.948	0.028	1.000	0.028
					Sum (F) =	0.028

Area averaged mean soil loss (F) (In/Hr) = 0.028
Minimum soil loss rate ((In/Hr)) = 0.014
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.141

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	223.740	47.223	2.730
2	0.167	447.480	41.744	2.413
3	0.250	671.219	7.908	0.457
4	0.333	894.959	3.124	0.181
			Sum = 100.000	Sum= 5.781

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.045	(0.050)	0.006	0.038
2	0.17	0.07	0.045	(0.050)	0.006	0.038
3	0.25	0.07	0.045	(0.050)	0.006	0.038
4	0.33	0.10	0.067	(0.050)	0.009	0.058
5	0.42	0.10	0.067	(0.050)	0.009	0.058
6	0.50	0.10	0.067	(0.049)	0.009	0.058
7	0.58	0.10	0.067	(0.049)	0.009	0.058
8	0.67	0.10	0.067	(0.049)	0.009	0.058
9	0.75	0.10	0.067	(0.049)	0.009	0.058
10	0.83	0.13	0.089	(0.049)	0.013	0.077
11	0.92	0.13	0.089	(0.049)	0.013	0.077
12	1.00	0.13	0.089	(0.048)	0.013	0.077
13	1.08	0.10	0.067	(0.048)	0.009	0.058
14	1.17	0.10	0.067	(0.048)	0.009	0.058
15	1.25	0.10	0.067	(0.048)	0.009	0.058
16	1.33	0.10	0.067	(0.048)	0.009	0.058
17	1.42	0.10	0.067	(0.047)	0.009	0.058
18	1.50	0.10	0.067	(0.047)	0.009	0.058
19	1.58	0.10	0.067	(0.047)	0.009	0.058
20	1.67	0.10	0.067	(0.047)	0.009	0.058
21	1.75	0.10	0.067	(0.047)	0.009	0.058
22	1.83	0.13	0.089	(0.046)	0.013	0.077
23	1.92	0.13	0.089	(0.046)	0.013	0.077
24	2.00	0.13	0.089	(0.046)	0.013	0.077
25	2.08	0.13	0.089	(0.046)	0.013	0.077
26	2.17	0.13	0.089	(0.046)	0.013	0.077
27	2.25	0.13	0.089	(0.045)	0.013	0.077
28	2.33	0.13	0.089	(0.045)	0.013	0.077
29	2.42	0.13	0.089	(0.045)	0.013	0.077
30	2.50	0.13	0.089	(0.045)	0.013	0.077
31	2.58	0.17	0.112	(0.045)	0.016	0.096
32	2.67	0.17	0.112	(0.045)	0.016	0.096
33	2.75	0.17	0.112	(0.044)	0.016	0.096
34	2.83	0.17	0.112	(0.044)	0.016	0.096
35	2.92	0.17	0.112	(0.044)	0.016	0.096
36	3.00	0.17	0.112	(0.044)	0.016	0.096
37	3.08	0.17	0.112	(0.044)	0.016	0.096
38	3.17	0.17	0.112	(0.043)	0.016	0.096
39	3.25	0.17	0.112	(0.043)	0.016	0.096
40	3.33	0.17	0.112	(0.043)	0.016	0.096
41	3.42	0.17	0.112	(0.043)	0.016	0.096
42	3.50	0.17	0.112	(0.043)	0.016	0.096
43	3.58	0.17	0.112	(0.043)	0.016	0.096
44	3.67	0.17	0.112	(0.042)	0.016	0.096
45	3.75	0.17	0.112	(0.042)	0.016	0.096

46	3.83	0.20	0.134	(0.042)	0.019	0.115
47	3.92	0.20	0.134	(0.042)	0.019	0.115
48	4.00	0.20	0.134	(0.042)	0.019	0.115
49	4.08	0.20	0.134	(0.042)	0.019	0.115
50	4.17	0.20	0.134	(0.041)	0.019	0.115
51	4.25	0.20	0.134	(0.041)	0.019	0.115
52	4.33	0.23	0.157	(0.041)	0.022	0.134
53	4.42	0.23	0.157	(0.041)	0.022	0.134
54	4.50	0.23	0.157	(0.041)	0.022	0.134
55	4.58	0.23	0.157	(0.040)	0.022	0.134
56	4.67	0.23	0.157	(0.040)	0.022	0.134
57	4.75	0.23	0.157	(0.040)	0.022	0.134
58	4.83	0.27	0.179	(0.040)	0.025	0.154
59	4.92	0.27	0.179	(0.040)	0.025	0.154
60	5.00	0.27	0.179	(0.040)	0.025	0.154
61	5.08	0.20	0.134	(0.039)	0.019	0.115
62	5.17	0.20	0.134	(0.039)	0.019	0.115
63	5.25	0.20	0.134	(0.039)	0.019	0.115
64	5.33	0.23	0.157	(0.039)	0.022	0.134
65	5.42	0.23	0.157	(0.039)	0.022	0.134
66	5.50	0.23	0.157	(0.039)	0.022	0.134
67	5.58	0.27	0.179	(0.038)	0.025	0.154
68	5.67	0.27	0.179	(0.038)	0.025	0.154
69	5.75	0.27	0.179	(0.038)	0.025	0.154
70	5.83	0.27	0.179	(0.038)	0.025	0.154
71	5.92	0.27	0.179	(0.038)	0.025	0.154
72	6.00	0.27	0.179	(0.038)	0.025	0.154
73	6.08	0.30	0.201	(0.037)	0.028	0.173
74	6.17	0.30	0.201	(0.037)	0.028	0.173
75	6.25	0.30	0.201	(0.037)	0.028	0.173
76	6.33	0.30	0.201	(0.037)	0.028	0.173
77	6.42	0.30	0.201	(0.037)	0.028	0.173
78	6.50	0.30	0.201	(0.037)	0.028	0.173
79	6.58	0.33	0.224	(0.036)	0.032	0.192
80	6.67	0.33	0.224	(0.036)	0.032	0.192
81	6.75	0.33	0.224	(0.036)	0.032	0.192
82	6.83	0.33	0.224	(0.036)	0.032	0.192
83	6.92	0.33	0.224	(0.036)	0.032	0.192
84	7.00	0.33	0.224	(0.036)	0.032	0.192
85	7.08	0.33	0.224	(0.035)	0.032	0.192
86	7.17	0.33	0.224	(0.035)	0.032	0.192
87	7.25	0.33	0.224	(0.035)	0.032	0.192
88	7.33	0.37	0.246	(0.035)	0.035	0.211
89	7.42	0.37	0.246	(0.035)	0.035	0.211
90	7.50	0.37	0.246	0.035	(0.035)	0.211
91	7.58	0.40	0.268	0.034	(0.038)	0.234
92	7.67	0.40	0.268	0.034	(0.038)	0.234
93	7.75	0.40	0.268	0.034	(0.038)	0.234
94	7.83	0.43	0.291	0.034	(0.041)	0.257
95	7.92	0.43	0.291	0.034	(0.041)	0.257

96	8.00	0.43	0.291	0.034	(0.041)	0.257
97	8.08	0.50	0.335	0.034	(0.047)	0.302
98	8.17	0.50	0.335	0.033	(0.047)	0.302
99	8.25	0.50	0.335	0.033	(0.047)	0.302
100	8.33	0.50	0.335	0.033	(0.047)	0.302
101	8.42	0.50	0.335	0.033	(0.047)	0.302
102	8.50	0.50	0.335	0.033	(0.047)	0.303
103	8.58	0.53	0.358	0.033	(0.050)	0.325
104	8.67	0.53	0.358	0.032	(0.050)	0.325
105	8.75	0.53	0.358	0.032	(0.050)	0.325
106	8.83	0.57	0.380	0.032	(0.054)	0.348
107	8.92	0.57	0.380	0.032	(0.054)	0.348
108	9.00	0.57	0.380	0.032	(0.054)	0.348
109	9.08	0.63	0.425	0.032	(0.060)	0.393
110	9.17	0.63	0.425	0.032	(0.060)	0.393
111	9.25	0.63	0.425	0.031	(0.060)	0.393
112	9.33	0.67	0.447	0.031	(0.063)	0.416
113	9.42	0.67	0.447	0.031	(0.063)	0.416
114	9.50	0.67	0.447	0.031	(0.063)	0.416
115	9.58	0.70	0.470	0.031	(0.066)	0.439
116	9.67	0.70	0.470	0.031	(0.066)	0.439
117	9.75	0.70	0.470	0.030	(0.066)	0.439
118	9.83	0.73	0.492	0.030	(0.069)	0.462
119	9.92	0.73	0.492	0.030	(0.069)	0.462
120	10.00	0.73	0.492	0.030	(0.069)	0.462
121	10.08	0.50	0.335	0.030	(0.047)	0.305
122	10.17	0.50	0.335	0.030	(0.047)	0.306
123	10.25	0.50	0.335	0.030	(0.047)	0.306
124	10.33	0.50	0.335	0.029	(0.047)	0.306
125	10.42	0.50	0.335	0.029	(0.047)	0.306
126	10.50	0.50	0.335	0.029	(0.047)	0.306
127	10.58	0.67	0.447	0.029	(0.063)	0.418
128	10.67	0.67	0.447	0.029	(0.063)	0.418
129	10.75	0.67	0.447	0.029	(0.063)	0.418
130	10.83	0.67	0.447	0.029	(0.063)	0.419
131	10.92	0.67	0.447	0.028	(0.063)	0.419
132	11.00	0.67	0.447	0.028	(0.063)	0.419
133	11.08	0.63	0.425	0.028	(0.060)	0.397
134	11.17	0.63	0.425	0.028	(0.060)	0.397
135	11.25	0.63	0.425	0.028	(0.060)	0.397
136	11.33	0.63	0.425	0.028	(0.060)	0.397
137	11.42	0.63	0.425	0.028	(0.060)	0.397
138	11.50	0.63	0.425	0.028	(0.060)	0.397
139	11.58	0.57	0.380	0.027	(0.054)	0.353
140	11.67	0.57	0.380	0.027	(0.054)	0.353
141	11.75	0.57	0.380	0.027	(0.054)	0.353
142	11.83	0.60	0.402	0.027	(0.057)	0.376
143	11.92	0.60	0.402	0.027	(0.057)	0.376
144	12.00	0.60	0.402	0.027	(0.057)	0.376
145	12.08	0.83	0.559	0.027	(0.079)	0.532

146	12.17	0.83	0.559	0.026	(0.079)	0.533
147	12.25	0.83	0.559	0.026	(0.079)	0.533
148	12.33	0.87	0.581	0.026	(0.082)	0.555
149	12.42	0.87	0.581	0.026	(0.082)	0.555
150	12.50	0.87	0.581	0.026	(0.082)	0.555
151	12.58	0.93	0.626	0.026	(0.088)	0.600
152	12.67	0.93	0.626	0.026	(0.088)	0.600
153	12.75	0.93	0.626	0.026	(0.088)	0.601
154	12.83	0.97	0.648	0.025	(0.091)	0.623
155	12.92	0.97	0.648	0.025	(0.091)	0.623
156	13.00	0.97	0.648	0.025	(0.091)	0.623
157	13.08	1.13	0.760	0.025	(0.107)	0.735
158	13.17	1.13	0.760	0.025	(0.107)	0.735
159	13.25	1.13	0.760	0.025	(0.107)	0.735
160	13.33	1.13	0.760	0.025	(0.107)	0.736
161	13.42	1.13	0.760	0.024	(0.107)	0.736
162	13.50	1.13	0.760	0.024	(0.107)	0.736
163	13.58	0.77	0.514	0.024	(0.073)	0.490
164	13.67	0.77	0.514	0.024	(0.073)	0.490
165	13.75	0.77	0.514	0.024	(0.073)	0.490
166	13.83	0.77	0.514	0.024	(0.073)	0.490
167	13.92	0.77	0.514	0.024	(0.073)	0.491
168	14.00	0.77	0.514	0.024	(0.073)	0.491
169	14.08	0.90	0.604	0.024	(0.085)	0.580
170	14.17	0.90	0.604	0.023	(0.085)	0.580
171	14.25	0.90	0.604	0.023	(0.085)	0.580
172	14.33	0.87	0.581	0.023	(0.082)	0.558
173	14.42	0.87	0.581	0.023	(0.082)	0.558
174	14.50	0.87	0.581	0.023	(0.082)	0.558
175	14.58	0.87	0.581	0.023	(0.082)	0.559
176	14.67	0.87	0.581	0.023	(0.082)	0.559
177	14.75	0.87	0.581	0.023	(0.082)	0.559
178	14.83	0.83	0.559	0.022	(0.079)	0.537
179	14.92	0.83	0.559	0.022	(0.079)	0.537
180	15.00	0.83	0.559	0.022	(0.079)	0.537
181	15.08	0.80	0.537	0.022	(0.076)	0.515
182	15.17	0.80	0.537	0.022	(0.076)	0.515
183	15.25	0.80	0.537	0.022	(0.076)	0.515
184	15.33	0.77	0.514	0.022	(0.073)	0.493
185	15.42	0.77	0.514	0.022	(0.073)	0.493
186	15.50	0.77	0.514	0.022	(0.073)	0.493
187	15.58	0.63	0.425	0.021	(0.060)	0.403
188	15.67	0.63	0.425	0.021	(0.060)	0.404
189	15.75	0.63	0.425	0.021	(0.060)	0.404
190	15.83	0.63	0.425	0.021	(0.060)	0.404
191	15.92	0.63	0.425	0.021	(0.060)	0.404
192	16.00	0.63	0.425	0.021	(0.060)	0.404
193	16.08	0.13	0.089	(0.021)	0.013	0.077
194	16.17	0.13	0.089	(0.021)	0.013	0.077
195	16.25	0.13	0.089	(0.021)	0.013	0.077

196	16.33	0.13	0.089	(0.020)	0.013	0.077
197	16.42	0.13	0.089	(0.020)	0.013	0.077
198	16.50	0.13	0.089	(0.020)	0.013	0.077
199	16.58	0.10	0.067	(0.020)	0.009	0.058
200	16.67	0.10	0.067	(0.020)	0.009	0.058
201	16.75	0.10	0.067	(0.020)	0.009	0.058
202	16.83	0.10	0.067	(0.020)	0.009	0.058
203	16.92	0.10	0.067	(0.020)	0.009	0.058
204	17.00	0.10	0.067	(0.020)	0.009	0.058
205	17.08	0.17	0.112	(0.020)	0.016	0.096
206	17.17	0.17	0.112	(0.019)	0.016	0.096
207	17.25	0.17	0.112	(0.019)	0.016	0.096
208	17.33	0.17	0.112	(0.019)	0.016	0.096
209	17.42	0.17	0.112	(0.019)	0.016	0.096
210	17.50	0.17	0.112	(0.019)	0.016	0.096
211	17.58	0.17	0.112	(0.019)	0.016	0.096
212	17.67	0.17	0.112	(0.019)	0.016	0.096
213	17.75	0.17	0.112	(0.019)	0.016	0.096
214	17.83	0.13	0.089	(0.019)	0.013	0.077
215	17.92	0.13	0.089	(0.019)	0.013	0.077
216	18.00	0.13	0.089	(0.019)	0.013	0.077
217	18.08	0.13	0.089	(0.018)	0.013	0.077
218	18.17	0.13	0.089	(0.018)	0.013	0.077
219	18.25	0.13	0.089	(0.018)	0.013	0.077
220	18.33	0.13	0.089	(0.018)	0.013	0.077
221	18.42	0.13	0.089	(0.018)	0.013	0.077
222	18.50	0.13	0.089	(0.018)	0.013	0.077
223	18.58	0.10	0.067	(0.018)	0.009	0.058
224	18.67	0.10	0.067	(0.018)	0.009	0.058
225	18.75	0.10	0.067	(0.018)	0.009	0.058
226	18.83	0.07	0.045	(0.018)	0.006	0.038
227	18.92	0.07	0.045	(0.018)	0.006	0.038
228	19.00	0.07	0.045	(0.017)	0.006	0.038
229	19.08	0.10	0.067	(0.017)	0.009	0.058
230	19.17	0.10	0.067	(0.017)	0.009	0.058
231	19.25	0.10	0.067	(0.017)	0.009	0.058
232	19.33	0.13	0.089	(0.017)	0.013	0.077
233	19.42	0.13	0.089	(0.017)	0.013	0.077
234	19.50	0.13	0.089	(0.017)	0.013	0.077
235	19.58	0.10	0.067	(0.017)	0.009	0.058
236	19.67	0.10	0.067	(0.017)	0.009	0.058
237	19.75	0.10	0.067	(0.017)	0.009	0.058
238	19.83	0.07	0.045	(0.017)	0.006	0.038
239	19.92	0.07	0.045	(0.017)	0.006	0.038
240	20.00	0.07	0.045	(0.017)	0.006	0.038
241	20.08	0.10	0.067	(0.016)	0.009	0.058
242	20.17	0.10	0.067	(0.016)	0.009	0.058
243	20.25	0.10	0.067	(0.016)	0.009	0.058
244	20.33	0.10	0.067	(0.016)	0.009	0.058
245	20.42	0.10	0.067	(0.016)	0.009	0.058

246	20.50	0.10	0.067	(0.016)	0.009	0.058
247	20.58	0.10	0.067	(0.016)	0.009	0.058
248	20.67	0.10	0.067	(0.016)	0.009	0.058
249	20.75	0.10	0.067	(0.016)	0.009	0.058
250	20.83	0.07	0.045	(0.016)	0.006	0.038
251	20.92	0.07	0.045	(0.016)	0.006	0.038
252	21.00	0.07	0.045	(0.016)	0.006	0.038
253	21.08	0.10	0.067	(0.016)	0.009	0.058
254	21.17	0.10	0.067	(0.016)	0.009	0.058
255	21.25	0.10	0.067	(0.016)	0.009	0.058
256	21.33	0.07	0.045	(0.015)	0.006	0.038
257	21.42	0.07	0.045	(0.015)	0.006	0.038
258	21.50	0.07	0.045	(0.015)	0.006	0.038
259	21.58	0.10	0.067	(0.015)	0.009	0.058
260	21.67	0.10	0.067	(0.015)	0.009	0.058
261	21.75	0.10	0.067	(0.015)	0.009	0.058
262	21.83	0.07	0.045	(0.015)	0.006	0.038
263	21.92	0.07	0.045	(0.015)	0.006	0.038
264	22.00	0.07	0.045	(0.015)	0.006	0.038
265	22.08	0.10	0.067	(0.015)	0.009	0.058
266	22.17	0.10	0.067	(0.015)	0.009	0.058
267	22.25	0.10	0.067	(0.015)	0.009	0.058
268	22.33	0.07	0.045	(0.015)	0.006	0.038
269	22.42	0.07	0.045	(0.015)	0.006	0.038
270	22.50	0.07	0.045	(0.015)	0.006	0.038
271	22.58	0.07	0.045	(0.015)	0.006	0.038
272	22.67	0.07	0.045	(0.015)	0.006	0.038
273	22.75	0.07	0.045	(0.015)	0.006	0.038
274	22.83	0.07	0.045	(0.015)	0.006	0.038
275	22.92	0.07	0.045	(0.015)	0.006	0.038
276	23.00	0.07	0.045	(0.015)	0.006	0.038
277	23.08	0.07	0.045	(0.014)	0.006	0.038
278	23.17	0.07	0.045	(0.014)	0.006	0.038
279	23.25	0.07	0.045	(0.014)	0.006	0.038
280	23.33	0.07	0.045	(0.014)	0.006	0.038
281	23.42	0.07	0.045	(0.014)	0.006	0.038
282	23.50	0.07	0.045	(0.014)	0.006	0.038
283	23.58	0.07	0.045	(0.014)	0.006	0.038
284	23.67	0.07	0.045	(0.014)	0.006	0.038
285	23.75	0.07	0.045	(0.014)	0.006	0.038
286	23.83	0.07	0.045	(0.014)	0.006	0.038
287	23.92	0.07	0.045	(0.014)	0.006	0.038
288	24.00	0.07	0.045	(0.014)	0.006	0.038

(Loss Rate Not Used)

Sum = 100.0 Sum = 61.7

Flood volume = Effective rainfall 5.14(In)
times area 5.7(Ac.)/[(In)/(Ft.)] = 2.5(Ac.Ft)

Total soil loss = 0.45(In)

Total soil loss = 0.215(Ac.Ft)

Total rainfall = 5.59(In)

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Flood volume =      107039.3 Cubic Feet
Total soil loss =        9352.6 Cubic Feet
--------------------------------------------------------------------
 Peak flow rate of this hydrograph =      4.256(CFS)
--------------------------------------------------------------------
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                   24 - H O U R   S T O R M
              R u n o f f     H y d r o g r a p h
--------------------------------------------------------------------
           Hydrograph in   5   Minute intervals ((CFS))

--------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
-----------------------------------------------------------------------
  0+ 5       0.0007      0.10  Q         |         |         |         |
  0+10       0.0021      0.20  Q         |         |         |         |
  0+15       0.0036      0.22  Q         |         |         |         |
  0+20       0.0055      0.27  VQ        |         |         |         |
  0+25       0.0077      0.32  VQ        |         |         |         |
  0+30       0.0099      0.33  VQ        |         |         |         |
  0+35       0.0122      0.33  VQ        |         |         |         |
  0+40       0.0145      0.33  VQ        |         |         |         |
  0+45       0.0168      0.33  VQ        |         |         |         |
  0+50       0.0195      0.39  VQ        |         |         |         |
  0+55       0.0225      0.43  VQ        |         |         |         |
  1+ 0       0.0255      0.44  VQ        |         |         |         |
  1+ 5       0.0282      0.39  VQ        |         |         |         |
  1+10       0.0306      0.35  VQ        |         |         |         |
  1+15       0.0329      0.34  VQ        |         |         |         |
  1+20       0.0352      0.33  VQ        |         |         |         |
  1+25       0.0375      0.33  VQ        |         |         |         |
  1+30       0.0398      0.33  VQ        |         |         |         |
  1+35       0.0421      0.33  VQ        |         |         |         |
  1+40       0.0444      0.33  VQ        |         |         |         |
  1+45       0.0467      0.33  VQ        |         |         |         |
  1+50       0.0493      0.39  VQ        |         |         |         |
  1+55       0.0523      0.43  VQ        |         |         |         |
  2+ 0       0.0553      0.44  VQ        |         |         |         |
  2+ 5       0.0584      0.44  VQ        |         |         |         |
  2+10       0.0615      0.44  |Q        |         |         |         |
  2+15       0.0645      0.44  |Q        |         |         |         |
  2+20       0.0676      0.44  |Q        |         |         |         |
  2+25       0.0706      0.44  |Q        |         |         |         |
  2+30       0.0737      0.44  |Q        |         |         |         |
  2+35       0.0771      0.50  |Q        |         |         |         |
  2+40       0.0809      0.54  |VQ       |         |         |         |
  2+45       0.0847      0.55  |VQ       |         |         |         |
  2+50       0.0885      0.56  |VQ       |         |         |         |
  2+55       0.0923      0.56  |VQ       |         |         |         |
  3+ 0       0.0961      0.56  |VQ       |         |         |         |
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3+ 5       0.1000      0.56  |VQ       |         |         |         |
3+10       0.1038      0.56  |VQ       |         |         |         |
3+15       0.1076      0.56  |VQ       |         |         |         |
3+20       0.1114      0.56  |VQ       |         |         |         |
3+25       0.1153      0.56  |VQ       |         |         |         |
3+30       0.1191      0.56  |VQ       |         |         |         |
3+35       0.1229      0.56  | Q       |         |         |         |
3+40       0.1267      0.56  | Q       |         |         |         |
3+45       0.1306      0.56  | Q       |         |         |         |
3+50       0.1348      0.61  | Q       |         |         |         |
3+55       0.1393      0.65  | Q       |         |         |         |
4+ 0       0.1438      0.66  | Q       |         |         |         |
4+ 5       0.1484      0.67  | Q       |         |         |         |
4+10       0.1530      0.67  | Q       |         |         |         |
4+15       0.1576      0.67  | Q       |         |         |         |
4+20       0.1625      0.72  | Q       |         |         |         |
4+25       0.1678      0.77  | VQ      |         |         |         |
4+30       0.1731      0.77  | VQ      |         |         |         |
4+35       0.1785      0.78  | VQ      |         |         |         |
4+40       0.1839      0.78  | VQ      |         |         |         |
4+45       0.1892      0.78  |  Q      |         |         |         |
4+50       0.1949      0.83  |  Q      |         |         |         |
4+55       0.2010      0.88  |  Q      |         |         |         |
5+ 0       0.2071      0.89  |  Q      |         |         |         |
5+ 5       0.2125      0.78  |  Q      |         |         |         |
5+10       0.2172      0.69  | QV      |         |         |         |
5+15       0.2219      0.67  | QV      |         |         |         |
5+20       0.2268      0.72  | QV      |         |         |         |
5+25       0.2321      0.77  |  Q      |         |         |         |
5+30       0.2374      0.77  |  Q      |         |         |         |
5+35       0.2431      0.83  |  Q      |         |         |         |
5+40       0.2492      0.88  |  QV     |         |         |         |
5+45       0.2553      0.89  |  QV     |         |         |         |
5+50       0.2614      0.89  |  QV     |         |         |         |
5+55       0.2675      0.89  |  QV     |         |         |         |
6+ 0       0.2736      0.89  |  QV     |         |         |         |
6+ 5       0.2801      0.94  |  QV     |         |         |         |
6+10       0.2869      0.99  |  QV     |         |         |         |
6+15       0.2938      1.00  |  QV     |         |         |         |
6+20       0.3007      1.00  |  QV     |         |         |         |
6+25       0.3075      1.00  |  Q V    |         |         |         |
6+30       0.3144      1.00  |  Q V    |         |         |         |
6+35       0.3217      1.05  |   QV    |         |         |         |
6+40       0.3292      1.10  |   QV    |         |         |         |
6+45       0.3369      1.11  |   QV    |         |         |         |
6+50       0.3445      1.11  |   QV    |         |         |         |
6+55       0.3522      1.11  |   QV    |         |         |         |
7+ 0       0.3598      1.11  |   QV    |         |         |         |
7+ 5       0.3675      1.11  |   QV    |         |         |         |
7+10       0.3751      1.11  |   Q V   |         |         |         |
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 7+15       0.3828      1.11  |   Q V   |         |         |         |
 7+20       0.3908      1.16  |   Q V   |         |         |         |
 7+25       0.3991      1.21  |   Q V   |         |         |         |
 7+30       0.4075      1.22  |   Q V   |         |         |         |
 7+35       0.4164      1.28  |    QV   |         |         |         |
 7+40       0.4256      1.34  |    QV   |         |         |         |
 7+45       0.4349      1.35  |    Q V  |         |         |         |
 7+50       0.4446      1.42  |    Q V  |         |         |         |
 7+55       0.4547      1.47  |    Q V  |         |         |         |
 8+ 0       0.4650      1.48  |    Q V  |         |         |         |
 8+ 5       0.4760      1.61  |     QV  |         |         |         |
 8+10       0.4879      1.72  |     QV  |         |         |         |
 8+15       0.4998      1.74  |     Q V |         |         |         |
 8+20       0.5119      1.75  |     Q V |         |         |         |
 8+25       0.5239      1.75  |     Q V |         |         |         |
 8+30       0.5360      1.75  |     Q V |         |         |         |
 8+35       0.5485      1.81  |      QV |         |         |         |
 8+40       0.5613      1.87  |      Q V|         |         |         |
 8+45       0.5742      1.88  |      Q V|         |         |         |
 8+50       0.5876      1.94  |      Q V|         |         |         |
 8+55       0.6014      2.00  |      Q V|         |         |         |
 9+ 0       0.6152      2.01  |       Q V         |         |         |
 9+ 5       0.6300      2.14  |       Q V         |         |         |
 9+10       0.6454      2.25  |       Q V         |         |         |
 9+15       0.6610      2.27  |        QV         |         |         |
 9+20       0.6771      2.34  |        Q|V        |         |         |
 9+25       0.6936      2.39  |        Q|V        |         |         |
 9+30       0.7101      2.40  |        Q|V        |         |         |
 9+35       0.7272      2.47  |        Q|V        |         |         |
 9+40       0.7445      2.52  |         Q V       |         |         |
 9+45       0.7620      2.53  |         Q V       |         |         |
 9+50       0.7799      2.60  |         Q V       |         |         |
 9+55       0.7982      2.66  |         Q V       |         |         |
10+ 0       0.8166      2.67  |         Q  V      |         |         |
10+ 5       0.8320      2.24  |       Q |  V      |         |         |
10+10       0.8449      1.87  |      Q  |  V      |         |         |
10+15       0.8572      1.80  |      Q  |  V      |         |         |
10+20       0.8694      1.77  |      Q  |   V     |         |         |
10+25       0.8816      1.77  |      Q  |   V     |         |         |
10+30       0.8938      1.77  |      Q  |   V     |         |         |
10+35       0.9081      2.08  |       Q |   V     |         |         |
10+40       0.9243      2.35  |        Q|    V    |         |         |
10+45       0.9408      2.40  |        Q|    V    |         |         |
10+50       0.9575      2.42  |        Q|    V    |         |         |
10+55       0.9741      2.42  |        Q|    V    |         |         |
11+ 0       0.9908      2.42  |        Q|     V   |         |         |
11+ 5       1.0071      2.36  |        Q|     V   |         |         |
11+10       1.0230      2.31  |        Q|     V   |         |         |
11+15       1.0388      2.30  |        Q|     V   |         |         |
11+20       1.0546      2.30  |        Q|      V  |         |         |
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11+25       1.0705      2.30  |        Q|      V  |         |         |
11+30       1.0863      2.30  |        Q|      V  |         |         |
11+35       1.1013      2.18  |       Q |      V  |         |         |
11+40       1.1155      2.07  |       Q |       V |         |         |
11+45       1.1296      2.05  |       Q |       V |         |         |
11+50       1.1441      2.10  |       Q |       V |         |         |
11+55       1.1590      2.16  |       Q |       V |         |         |
12+ 0       1.1739      2.17  |       Q |        V|         |         |
12+ 5       1.1918      2.60  |         Q        V|         |         |
12+10       1.2124      2.98  |         |Q       V|         |         |
12+15       1.2334      3.05  |         | Q       V         |         |
12+20       1.2550      3.14  |         | Q       V         |         |
12+25       1.2770      3.20  |         | Q       V         |         |
12+30       1.2991      3.21  |         | Q       |V        |         |
12+35       1.3221      3.34  |         |  Q      |V        |         |
12+40       1.3458      3.44  |         |  Q      |V        |         |
12+45       1.3697      3.46  |         |  Q      | V       |         |
12+50       1.3940      3.53  |         |   Q     | V       |         |
12+55       1.4187      3.59  |         |   Q     |  V      |         |
13+ 0       1.4435      3.60  |         |   Q     |  V      |         |
13+ 5       1.4705      3.91  |         |    Q    |  V      |         |
13+10       1.4993      4.18  |         |     Q   |   V     |         |
13+15       1.5284      4.23  |         |     Q   |   V     |         |
13+20       1.5577      4.25  |         |      Q  |    V    |         |
13+25       1.5870      4.25  |         |      Q  |    V    |         |
13+30       1.6163      4.26  |         |      Q  |     V   |         |
13+35       1.6410      3.58  |         |   Q     |     V   |         |
13+40       1.6616      2.99  |         |Q        |      V  |         |
13+45       1.6815      2.88  |         |Q        |      V  |         |
13+50       1.7010      2.84  |         |Q        |      V  |         |
13+55       1.7205      2.84  |         |Q        |       V |         |
14+ 0       1.7401      2.84  |         |Q        |       V |         |
14+ 5       1.7613      3.08  |         | Q       |       V |         |
14+10       1.7840      3.30  |         |  Q      |        V|         |
14+15       1.8070      3.34  |         |  Q      |        V|         |
14+20       1.8297      3.30  |         |  Q      |        V|         |
14+25       1.8521      3.24  |         | Q       |         V         |
14+30       1.8743      3.23  |         | Q       |         V         |
14+35       1.8966      3.23  |         | Q       |         V         |
14+40       1.9188      3.23  |         | Q       |         |V        |
14+45       1.9411      3.23  |         | Q       |         |V        |
14+50       1.9629      3.17  |         | Q       |         |V        |
14+55       1.9844      3.12  |         | Q       |         | V       |
15+ 0       2.0058      3.11  |         | Q       |         | V       |
15+ 5       2.0268      3.04  |         | Q       |         | V       |
15+10       2.0473      2.99  |         |Q        |         |  V      |
15+15       2.0679      2.98  |         |Q        |         |  V      |
15+20       2.0880      2.92  |         |Q        |         |  V      |
15+25       2.1077      2.86  |         |Q        |         |   V     |
15+30       2.1273      2.85  |         |Q        |         |   V     |
```

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15+35       2.1453      2.61  |         Q         |         |   V     |
15+40       2.1617      2.39  |        Q|         |         |    V    |
15+45       2.1779      2.35  |        Q|         |         |    V    |
15+50       2.1940      2.33  |        Q|         |         |    V    |
15+55       2.2101      2.34  |        Q|         |         |    V    |
16+ 0       2.2262      2.34  |        Q|         |         |     V   |
16+ 5       2.2361      1.44  |    Q    |         |         |     V   |
16+10       2.2406      0.65  | Q       |         |         |     V   |
16+15       2.2441      0.50  | Q       |         |         |     V   |
16+20       2.2471      0.44  |Q        |         |         |     V   |
16+25       2.2502      0.44  |Q        |         |         |     V   |
16+30       2.2533      0.44  |Q        |         |         |     V   |
16+35       2.2560      0.39  |Q        |         |         |     V   |
16+40       2.2583      0.35  |Q        |         |         |     V   |
16+45       2.2607      0.34  |Q        |         |         |     V   |
16+50       2.2629      0.33  |Q        |         |         |     V   |
16+55       2.2652      0.33  |Q        |         |         |     V   |
17+ 0       2.2675      0.33  |Q        |         |         |     V   |
17+ 5       2.2706      0.44  |Q        |         |         |     V   |
17+10       2.2742      0.53  | Q       |         |         |      V  |
17+15       2.2780      0.55  | Q       |         |         |      V  |
17+20       2.2818      0.56  | Q       |         |         |      V  |
17+25       2.2856      0.56  | Q       |         |         |      V  |
17+30       2.2895      0.56  | Q       |         |         |      V  |
17+35       2.2933      0.56  | Q       |         |         |      V  |
17+40       2.2971      0.56  | Q       |         |         |      V  |
17+45       2.3009      0.56  | Q       |         |         |      V  |
17+50       2.3044      0.50  | Q       |         |         |      V  |
17+55       2.3076      0.46  |Q        |         |         |      V  |
18+ 0       2.3106      0.45  |Q        |         |         |      V  |
18+ 5       2.3137      0.44  |Q        |         |         |      V  |
18+10       2.3168      0.44  |Q        |         |         |      V  |
18+15       2.3198      0.44  |Q        |         |         |      V  |
18+20       2.3229      0.44  |Q        |         |         |      V  |
18+25       2.3259      0.44  |Q        |         |         |      V  |
18+30       2.3290      0.44  |Q        |         |         |      V  |
18+35       2.3317      0.39  |Q        |         |         |      V  |
18+40       2.3341      0.35  |Q        |         |         |      V  |
18+45       2.3364      0.34  |Q        |         |         |       V |
18+50       2.3383      0.28  |Q        |         |         |       V |
18+55       2.3399      0.23  Q         |         |         |       V |
19+ 0       2.3415      0.23  Q         |         |         |       V |
19+ 5       2.3434      0.27  |Q        |         |         |       V |
19+10       2.3456      0.32  |Q        |         |         |       V |
19+15       2.3479      0.33  |Q        |         |         |       V |
19+20       2.3505      0.39  |Q        |         |         |       V |
19+25       2.3535      0.43  |Q        |         |         |       V |
19+30       2.3565      0.44  |Q        |         |         |       V |
19+35       2.3592      0.39  |Q        |         |         |       V |
19+40       2.3616      0.35  |Q        |         |         |       V |
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19+45         2.3639       0.34   |Q          |          |          |       V |
19+50         2.3659       0.28   |Q          |          |          |       V |
19+55         2.3675       0.23   Q           |          |          |       V |
20+ 0         2.3690       0.23   Q           |          |          |       V |
20+ 5         2.3709       0.27   |Q          |          |          |       V |
20+10         2.3731       0.32   |Q          |          |          |       V |
20+15         2.3754       0.33   |Q          |          |          |       V |
20+20         2.3777       0.33   |Q          |          |          |       V |
20+25         2.3800       0.33   |Q          |          |          |       V |
20+30         2.3823       0.33   |Q          |          |          |       V |
20+35         2.3846       0.33   |Q          |          |          |       V |
20+40         2.3869       0.33   |Q          |          |          |       V |
20+45         2.3892       0.33   |Q          |          |          |       V |
20+50         2.3911       0.28   |Q          |          |          |       V |
20+55         2.3927       0.23   Q           |          |          |       V |
21+ 0         2.3943       0.23   Q           |          |          |       V |
21+ 5         2.3962       0.27   |Q          |          |          |        V|
21+10         2.3984       0.32   |Q          |          |          |        V|
21+15         2.4007       0.33   |Q          |          |          |        V|
21+20         2.4026       0.28   |Q          |          |          |        V|
21+25         2.4042       0.23   Q           |          |          |        V|
21+30         2.4058       0.23   Q           |          |          |        V|
21+35         2.4077       0.27   |Q          |          |          |        V|
21+40         2.4099       0.32   |Q          |          |          |        V|
21+45         2.4121       0.33   |Q          |          |          |        V|
21+50         2.4141       0.28   |Q          |          |          |        V|
21+55         2.4157       0.23   Q           |          |          |        V|
22+ 0         2.4172       0.23   Q           |          |          |        V|
22+ 5         2.4191       0.27   |Q          |          |          |        V|
22+10         2.4213       0.32   |Q          |          |          |        V|
22+15         2.4236       0.33   |Q          |          |          |        V|
22+20         2.4255       0.28   |Q          |          |          |        V|
22+25         2.4272       0.23   Q           |          |          |        V|
22+30         2.4287       0.23   Q           |          |          |        V|
22+35         2.4302       0.22   Q           |          |          |        V|
22+40         2.4318       0.22   Q           |          |          |        V|
22+45         2.4333       0.22   Q           |          |          |        V|
22+50         2.4348       0.22   Q           |          |          |        V|
22+55         2.4364       0.22   Q           |          |          |        V|
23+ 0         2.4379       0.22   Q           |          |          |        V|
23+ 5         2.4394       0.22   Q           |          |          |        V|
23+10         2.4410       0.22   Q           |          |          |        V|
23+15         2.4425       0.22   Q           |          |          |        V|
23+20         2.4440       0.22   Q           |          |          |        V|
23+25         2.4455       0.22   Q           |          |          |        V|
23+30         2.4471       0.22   Q           |          |          |        V|
23+35         2.4486       0.22   Q           |          |          |        V|
23+40         2.4501       0.22   Q           |          |          |        V|
23+45         2.4517       0.22   Q           |          |          |        V|
23+50         2.4532       0.22   Q           |          |          |        V|
```

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   23+55       2.4547      0.22  Q         |         |         |       V|
   24+ 0       2.4563      0.22  Q         |         |         |       V|
   24+ 5       2.4571      0.12  Q         |         |         |       V|
   24+10       2.4572      0.02  Q         |         |         |       V|
   24+15       2.4573      0.01  Q         |         |         |        V
-----------------------------------------------------------------------
```

NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-24HR
POST DEVELOPMENT
DMA B3

```
          U n i t   H y d r o g r a p h   A n a l y s i s

          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018, Version 9.0
                  Study date  10/17/23 File: NSPRUHB324100.out

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

  Riverside County Synthetic Unit Hydrology Method
  RCFC & WCD Manual date - April 1978

  Program License Serial Number 6491

  ---------------------------------------------------------------------
   English (in-lb) Input Units Used
   English Rainfall Data (Inches) Input Values Used

   English Units used in output format

  ---------------------------------------------------------------------
  NEWLAND SIMPSON HEMET
  POST DEVELOPMENT - DMA B3
  UNIT HYDROGRAPH
  100YR 3HR
  --------------------------------------------------------------------
  Drainage Area =       7.08(Ac.)  =      0.011 Sq. Mi.
  Drainage Area for Depth-Area Areal Adjustment =       7.08(Ac.)  =
0.011 Sq. Mi.
  Length along longest watercourse =    1070.00(Ft.)
  Length along longest watercourse measured to centroid =     609.00(Ft.)
  Length along longest watercourse =      0.203 Mi.
  Length along longest watercourse measured to centroid =      0.115 Mi.
  Difference in elevation =       5.14(Ft.)
  Slope along watercourse =     25.3637 Ft./Mi.
  Average Manning's 'N' = 0.015
  Lag time =    0.047 Hr.
  Lag time =     2.80 Min.
  25% of lag time =     0.70 Min.
  40% of lag time =     1.12 Min.
  Unit time =     5.00 Min.
  Duration of storm = 24 Hour(s)
  User Entered Base Flow =     0.00(CFS)

  2 YEAR Area rainfall data:
```

```
Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        7.08            2.13                  15.09

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        7.08            5.59                  39.59

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    2.130(In)
Area Averaged 100-Year Rainfall =    5.590(In)

Point rain (area averaged) =    5.590(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    5.590(In)

Sub-Area Data:
Area(Ac.)          Runoff Index   Impervious %
     7.083            69.00         0.806
 Total Area Entered =      7.08(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  84.4      0.194     0.806        0.053       1.000      0.053
                                                  Sum (F) =   0.053
Area averaged mean soil loss (F) (In/Hr) =  0.053
Minimum soil loss rate ((In/Hr)) =  0.027
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.255
---------------------------------------------------------------------

                U n i t  H y d r o g r a p h
                        VALLEY S-Curve
--------------------------------------------------------------------
                Unit Hydrograph Data
---------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                           Graph %           (CFS)
---------------------------------------------------------------------
    1   0.083        178.319         39.390              2.812
    2   0.167        356.638         44.908              3.206
    3   0.250        534.958          9.737              0.695
    4   0.333        713.277          4.008              0.286
    5   0.417        891.596          1.957              0.140
                              Sum = 100.000   Sum=       7.138
-----------------------------------------------------------------------
```

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.045	(0.094)	0.011	0.033
2	0.17	0.07	0.045	(0.094)	0.011	0.033
3	0.25	0.07	0.045	(0.094)	0.011	0.033
4	0.33	0.10	0.067	(0.093)	0.017	0.050
5	0.42	0.10	0.067	(0.093)	0.017	0.050
6	0.50	0.10	0.067	(0.093)	0.017	0.050
7	0.58	0.10	0.067	(0.092)	0.017	0.050
8	0.67	0.10	0.067	(0.092)	0.017	0.050
9	0.75	0.10	0.067	(0.091)	0.017	0.050
10	0.83	0.13	0.089	(0.091)	0.023	0.067
11	0.92	0.13	0.089	(0.091)	0.023	0.067
12	1.00	0.13	0.089	(0.090)	0.023	0.067
13	1.08	0.10	0.067	(0.090)	0.017	0.050
14	1.17	0.10	0.067	(0.090)	0.017	0.050
15	1.25	0.10	0.067	(0.089)	0.017	0.050
16	1.33	0.10	0.067	(0.089)	0.017	0.050
17	1.42	0.10	0.067	(0.089)	0.017	0.050
18	1.50	0.10	0.067	(0.088)	0.017	0.050
19	1.58	0.10	0.067	(0.088)	0.017	0.050
20	1.67	0.10	0.067	(0.088)	0.017	0.050
21	1.75	0.10	0.067	(0.087)	0.017	0.050
22	1.83	0.13	0.089	(0.087)	0.023	0.067
23	1.92	0.13	0.089	(0.086)	0.023	0.067
24	2.00	0.13	0.089	(0.086)	0.023	0.067
25	2.08	0.13	0.089	(0.086)	0.023	0.067
26	2.17	0.13	0.089	(0.085)	0.023	0.067
27	2.25	0.13	0.089	(0.085)	0.023	0.067
28	2.33	0.13	0.089	(0.085)	0.023	0.067
29	2.42	0.13	0.089	(0.084)	0.023	0.067
30	2.50	0.13	0.089	(0.084)	0.023	0.067
31	2.58	0.17	0.112	(0.084)	0.029	0.083
32	2.67	0.17	0.112	(0.083)	0.029	0.083
33	2.75	0.17	0.112	(0.083)	0.029	0.083
34	2.83	0.17	0.112	(0.083)	0.029	0.083
35	2.92	0.17	0.112	(0.082)	0.029	0.083
36	3.00	0.17	0.112	(0.082)	0.029	0.083
37	3.08	0.17	0.112	(0.082)	0.029	0.083
38	3.17	0.17	0.112	(0.081)	0.029	0.083
39	3.25	0.17	0.112	(0.081)	0.029	0.083
40	3.33	0.17	0.112	(0.081)	0.029	0.083
41	3.42	0.17	0.112	(0.080)	0.029	0.083
42	3.50	0.17	0.112	(0.080)	0.029	0.083
43	3.58	0.17	0.112	(0.080)	0.029	0.083
44	3.67	0.17	0.112	(0.079)	0.029	0.083

45	3.75	0.17	0.112	(0.079)	0.029	0.083
46	3.83	0.20	0.134	(0.079)	0.034	0.100
47	3.92	0.20	0.134	(0.078)	0.034	0.100
48	4.00	0.20	0.134	(0.078)	0.034	0.100
49	4.08	0.20	0.134	(0.078)	0.034	0.100
50	4.17	0.20	0.134	(0.077)	0.034	0.100
51	4.25	0.20	0.134	(0.077)	0.034	0.100
52	4.33	0.23	0.157	(0.077)	0.040	0.117
53	4.42	0.23	0.157	(0.076)	0.040	0.117
54	4.50	0.23	0.157	(0.076)	0.040	0.117
55	4.58	0.23	0.157	(0.076)	0.040	0.117
56	4.67	0.23	0.157	(0.075)	0.040	0.117
57	4.75	0.23	0.157	(0.075)	0.040	0.117
58	4.83	0.27	0.179	(0.075)	0.046	0.133
59	4.92	0.27	0.179	(0.074)	0.046	0.133
60	5.00	0.27	0.179	(0.074)	0.046	0.133
61	5.08	0.20	0.134	(0.074)	0.034	0.100
62	5.17	0.20	0.134	(0.073)	0.034	0.100
63	5.25	0.20	0.134	(0.073)	0.034	0.100
64	5.33	0.23	0.157	(0.073)	0.040	0.117
65	5.42	0.23	0.157	(0.072)	0.040	0.117
66	5.50	0.23	0.157	(0.072)	0.040	0.117
67	5.58	0.27	0.179	(0.072)	0.046	0.133
68	5.67	0.27	0.179	(0.072)	0.046	0.133
69	5.75	0.27	0.179	(0.071)	0.046	0.133
70	5.83	0.27	0.179	(0.071)	0.046	0.133
71	5.92	0.27	0.179	(0.071)	0.046	0.133
72	6.00	0.27	0.179	(0.070)	0.046	0.133
73	6.08	0.30	0.201	(0.070)	0.051	0.150
74	6.17	0.30	0.201	(0.070)	0.051	0.150
75	6.25	0.30	0.201	(0.069)	0.051	0.150
76	6.33	0.30	0.201	(0.069)	0.051	0.150
77	6.42	0.30	0.201	(0.069)	0.051	0.150
78	6.50	0.30	0.201	(0.068)	0.051	0.150
79	6.58	0.33	0.224	(0.068)	0.057	0.167
80	6.67	0.33	0.224	(0.068)	0.057	0.167
81	6.75	0.33	0.224	(0.067)	0.057	0.167
82	6.83	0.33	0.224	(0.067)	0.057	0.167
83	6.92	0.33	0.224	(0.067)	0.057	0.167
84	7.00	0.33	0.224	(0.067)	0.057	0.167
85	7.08	0.33	0.224	(0.066)	0.057	0.167
86	7.17	0.33	0.224	(0.066)	0.057	0.167
87	7.25	0.33	0.224	(0.066)	0.057	0.167
88	7.33	0.37	0.246	(0.065)	0.063	0.183
89	7.42	0.37	0.246	(0.065)	0.063	0.183
90	7.50	0.37	0.246	(0.065)	0.063	0.183
91	7.58	0.40	0.268	0.064	(0.068)	0.204
92	7.67	0.40	0.268	0.064	(0.068)	0.204
93	7.75	0.40	0.268	0.064	(0.068)	0.204
94	7.83	0.43	0.291	0.064	(0.074)	0.227

95	7.92	0.43	0.291	0.063	(0.074)	0.227
96	8.00	0.43	0.291	0.063	(0.074)	0.228
97	8.08	0.50	0.335	0.063	(0.086)	0.273
98	8.17	0.50	0.335	0.062	(0.086)	0.273
99	8.25	0.50	0.335	0.062	(0.086)	0.273
100	8.33	0.50	0.335	0.062	(0.086)	0.274
101	8.42	0.50	0.335	0.062	(0.086)	0.274
102	8.50	0.50	0.335	0.061	(0.086)	0.274
103	8.58	0.53	0.358	0.061	(0.091)	0.297
104	8.67	0.53	0.358	0.061	(0.091)	0.297
105	8.75	0.53	0.358	0.060	(0.091)	0.297
106	8.83	0.57	0.380	0.060	(0.097)	0.320
107	8.92	0.57	0.380	0.060	(0.097)	0.320
108	9.00	0.57	0.380	0.060	(0.097)	0.321
109	9.08	0.63	0.425	0.059	(0.108)	0.366
110	9.17	0.63	0.425	0.059	(0.108)	0.366
111	9.25	0.63	0.425	0.059	(0.108)	0.366
112	9.33	0.67	0.447	0.058	(0.114)	0.389
113	9.42	0.67	0.447	0.058	(0.114)	0.389
114	9.50	0.67	0.447	0.058	(0.114)	0.389
115	9.58	0.70	0.470	0.058	(0.120)	0.412
116	9.67	0.70	0.470	0.057	(0.120)	0.412
117	9.75	0.70	0.470	0.057	(0.120)	0.413
118	9.83	0.73	0.492	0.057	(0.125)	0.435
119	9.92	0.73	0.492	0.056	(0.125)	0.435
120	10.00	0.73	0.492	0.056	(0.125)	0.436
121	10.08	0.50	0.335	0.056	(0.086)	0.279
122	10.17	0.50	0.335	0.056	(0.086)	0.280
123	10.25	0.50	0.335	0.055	(0.086)	0.280
124	10.33	0.50	0.335	0.055	(0.086)	0.280
125	10.42	0.50	0.335	0.055	(0.086)	0.281
126	10.50	0.50	0.335	0.055	(0.086)	0.281
127	10.58	0.67	0.447	0.054	(0.114)	0.393
128	10.67	0.67	0.447	0.054	(0.114)	0.393
129	10.75	0.67	0.447	0.054	(0.114)	0.393
130	10.83	0.67	0.447	0.054	(0.114)	0.394
131	10.92	0.67	0.447	0.053	(0.114)	0.394
132	11.00	0.67	0.447	0.053	(0.114)	0.394
133	11.08	0.63	0.425	0.053	(0.108)	0.372
134	11.17	0.63	0.425	0.052	(0.108)	0.372
135	11.25	0.63	0.425	0.052	(0.108)	0.373
136	11.33	0.63	0.425	0.052	(0.108)	0.373
137	11.42	0.63	0.425	0.052	(0.108)	0.373
138	11.50	0.63	0.425	0.051	(0.108)	0.373
139	11.58	0.57	0.380	0.051	(0.097)	0.329
140	11.67	0.57	0.380	0.051	(0.097)	0.329
141	11.75	0.57	0.380	0.051	(0.097)	0.329
142	11.83	0.60	0.402	0.050	(0.103)	0.352
143	11.92	0.60	0.402	0.050	(0.103)	0.352
144	12.00	0.60	0.402	0.050	(0.103)	0.353

145	12.08	0.83	0.559	0.050	(0.143)	0.509
146	12.17	0.83	0.559	0.049	(0.143)	0.510
147	12.25	0.83	0.559	0.049	(0.143)	0.510
148	12.33	0.87	0.581	0.049	(0.148)	0.532
149	12.42	0.87	0.581	0.049	(0.148)	0.533
150	12.50	0.87	0.581	0.048	(0.148)	0.533
151	12.58	0.93	0.626	0.048	(0.160)	0.578
152	12.67	0.93	0.626	0.048	(0.160)	0.578
153	12.75	0.93	0.626	0.048	(0.160)	0.578
154	12.83	0.97	0.648	0.047	(0.165)	0.601
155	12.92	0.97	0.648	0.047	(0.165)	0.601
156	13.00	0.97	0.648	0.047	(0.165)	0.601
157	13.08	1.13	0.760	0.047	(0.194)	0.713
158	13.17	1.13	0.760	0.047	(0.194)	0.714
159	13.25	1.13	0.760	0.046	(0.194)	0.714
160	13.33	1.13	0.760	0.046	(0.194)	0.714
161	13.42	1.13	0.760	0.046	(0.194)	0.714
162	13.50	1.13	0.760	0.046	(0.194)	0.715
163	13.58	0.77	0.514	0.045	(0.131)	0.469
164	13.67	0.77	0.514	0.045	(0.131)	0.469
165	13.75	0.77	0.514	0.045	(0.131)	0.469
166	13.83	0.77	0.514	0.045	(0.131)	0.470
167	13.92	0.77	0.514	0.044	(0.131)	0.470
168	14.00	0.77	0.514	0.044	(0.131)	0.470
169	14.08	0.90	0.604	0.044	(0.154)	0.560
170	14.17	0.90	0.604	0.044	(0.154)	0.560
171	14.25	0.90	0.604	0.044	(0.154)	0.560
172	14.33	0.87	0.581	0.043	(0.148)	0.538
173	14.42	0.87	0.581	0.043	(0.148)	0.538
174	14.50	0.87	0.581	0.043	(0.148)	0.538
175	14.58	0.87	0.581	0.043	(0.148)	0.539
176	14.67	0.87	0.581	0.042	(0.148)	0.539
177	14.75	0.87	0.581	0.042	(0.148)	0.539
178	14.83	0.83	0.559	0.042	(0.143)	0.517
179	14.92	0.83	0.559	0.042	(0.143)	0.517
180	15.00	0.83	0.559	0.042	(0.143)	0.517
181	15.08	0.80	0.537	0.041	(0.137)	0.495
182	15.17	0.80	0.537	0.041	(0.137)	0.495
183	15.25	0.80	0.537	0.041	(0.137)	0.496
184	15.33	0.77	0.514	0.041	(0.131)	0.474
185	15.42	0.77	0.514	0.041	(0.131)	0.474
186	15.50	0.77	0.514	0.040	(0.131)	0.474
187	15.58	0.63	0.425	0.040	(0.108)	0.385
188	15.67	0.63	0.425	0.040	(0.108)	0.385
189	15.75	0.63	0.425	0.040	(0.108)	0.385
190	15.83	0.63	0.425	0.039	(0.108)	0.385
191	15.92	0.63	0.425	0.039	(0.108)	0.386
192	16.00	0.63	0.425	0.039	(0.108)	0.386
193	16.08	0.13	0.089	(0.039)	0.023	0.067
194	16.17	0.13	0.089	(0.039)	0.023	0.067

195	16.25	0.13	0.089	(0.038)	0.023	0.067
196	16.33	0.13	0.089	(0.038)	0.023	0.067
197	16.42	0.13	0.089	(0.038)	0.023	0.067
198	16.50	0.13	0.089	(0.038)	0.023	0.067
199	16.58	0.10	0.067	(0.038)	0.017	0.050
200	16.67	0.10	0.067	(0.038)	0.017	0.050
201	16.75	0.10	0.067	(0.037)	0.017	0.050
202	16.83	0.10	0.067	(0.037)	0.017	0.050
203	16.92	0.10	0.067	(0.037)	0.017	0.050
204	17.00	0.10	0.067	(0.037)	0.017	0.050
205	17.08	0.17	0.112	(0.037)	0.029	0.083
206	17.17	0.17	0.112	(0.036)	0.029	0.083
207	17.25	0.17	0.112	(0.036)	0.029	0.083
208	17.33	0.17	0.112	(0.036)	0.029	0.083
209	17.42	0.17	0.112	(0.036)	0.029	0.083
210	17.50	0.17	0.112	(0.036)	0.029	0.083
211	17.58	0.17	0.112	(0.035)	0.029	0.083
212	17.67	0.17	0.112	(0.035)	0.029	0.083
213	17.75	0.17	0.112	(0.035)	0.029	0.083
214	17.83	0.13	0.089	(0.035)	0.023	0.067
215	17.92	0.13	0.089	(0.035)	0.023	0.067
216	18.00	0.13	0.089	(0.035)	0.023	0.067
217	18.08	0.13	0.089	(0.034)	0.023	0.067
218	18.17	0.13	0.089	(0.034)	0.023	0.067
219	18.25	0.13	0.089	(0.034)	0.023	0.067
220	18.33	0.13	0.089	(0.034)	0.023	0.067
221	18.42	0.13	0.089	(0.034)	0.023	0.067
222	18.50	0.13	0.089	(0.034)	0.023	0.067
223	18.58	0.10	0.067	(0.033)	0.017	0.050
224	18.67	0.10	0.067	(0.033)	0.017	0.050
225	18.75	0.10	0.067	(0.033)	0.017	0.050
226	18.83	0.07	0.045	(0.033)	0.011	0.033
227	18.92	0.07	0.045	(0.033)	0.011	0.033
228	19.00	0.07	0.045	(0.033)	0.011	0.033
229	19.08	0.10	0.067	(0.033)	0.017	0.050
230	19.17	0.10	0.067	(0.032)	0.017	0.050
231	19.25	0.10	0.067	(0.032)	0.017	0.050
232	19.33	0.13	0.089	(0.032)	0.023	0.067
233	19.42	0.13	0.089	(0.032)	0.023	0.067
234	19.50	0.13	0.089	(0.032)	0.023	0.067
235	19.58	0.10	0.067	(0.032)	0.017	0.050
236	19.67	0.10	0.067	(0.031)	0.017	0.050
237	19.75	0.10	0.067	(0.031)	0.017	0.050
238	19.83	0.07	0.045	(0.031)	0.011	0.033
239	19.92	0.07	0.045	(0.031)	0.011	0.033
240	20.00	0.07	0.045	(0.031)	0.011	0.033
241	20.08	0.10	0.067	(0.031)	0.017	0.050
242	20.17	0.10	0.067	(0.031)	0.017	0.050
243	20.25	0.10	0.067	(0.031)	0.017	0.050
244	20.33	0.10	0.067	(0.030)	0.017	0.050

245	20.42	0.10	0.067	(0.030)	0.017	0.050
246	20.50	0.10	0.067	(0.030)	0.017	0.050
247	20.58	0.10	0.067	(0.030)	0.017	0.050
248	20.67	0.10	0.067	(0.030)	0.017	0.050
249	20.75	0.10	0.067	(0.030)	0.017	0.050
250	20.83	0.07	0.045	(0.030)	0.011	0.033
251	20.92	0.07	0.045	(0.029)	0.011	0.033
252	21.00	0.07	0.045	(0.029)	0.011	0.033
253	21.08	0.10	0.067	(0.029)	0.017	0.050
254	21.17	0.10	0.067	(0.029)	0.017	0.050
255	21.25	0.10	0.067	(0.029)	0.017	0.050
256	21.33	0.07	0.045	(0.029)	0.011	0.033
257	21.42	0.07	0.045	(0.029)	0.011	0.033
258	21.50	0.07	0.045	(0.029)	0.011	0.033
259	21.58	0.10	0.067	(0.029)	0.017	0.050
260	21.67	0.10	0.067	(0.028)	0.017	0.050
261	21.75	0.10	0.067	(0.028)	0.017	0.050
262	21.83	0.07	0.045	(0.028)	0.011	0.033
263	21.92	0.07	0.045	(0.028)	0.011	0.033
264	22.00	0.07	0.045	(0.028)	0.011	0.033
265	22.08	0.10	0.067	(0.028)	0.017	0.050
266	22.17	0.10	0.067	(0.028)	0.017	0.050
267	22.25	0.10	0.067	(0.028)	0.017	0.050
268	22.33	0.07	0.045	(0.028)	0.011	0.033
269	22.42	0.07	0.045	(0.028)	0.011	0.033
270	22.50	0.07	0.045	(0.028)	0.011	0.033
271	22.58	0.07	0.045	(0.027)	0.011	0.033
272	22.67	0.07	0.045	(0.027)	0.011	0.033
273	22.75	0.07	0.045	(0.027)	0.011	0.033
274	22.83	0.07	0.045	(0.027)	0.011	0.033
275	22.92	0.07	0.045	(0.027)	0.011	0.033
276	23.00	0.07	0.045	(0.027)	0.011	0.033
277	23.08	0.07	0.045	(0.027)	0.011	0.033
278	23.17	0.07	0.045	(0.027)	0.011	0.033
279	23.25	0.07	0.045	(0.027)	0.011	0.033
280	23.33	0.07	0.045	(0.027)	0.011	0.033
281	23.42	0.07	0.045	(0.027)	0.011	0.033
282	23.50	0.07	0.045	(0.027)	0.011	0.033
283	23.58	0.07	0.045	(0.027)	0.011	0.033
284	23.67	0.07	0.045	(0.027)	0.011	0.033
285	23.75	0.07	0.045	(0.027)	0.011	0.033
286	23.83	0.07	0.045	(0.027)	0.011	0.033
287	23.92	0.07	0.045	(0.027)	0.011	0.033
288	24.00	0.07	0.045	(0.027)	0.011	0.033

(Loss Rate Not Used)

Sum = 100.0 Sum = 57.2

Flood volume = Effective rainfall 4.76(In)
times area 7.1(Ac.)/[(In)/(Ft.)] = 2.8(Ac.Ft)
Total soil loss = 0.83(In)
Total soil loss = 0.488(Ac.Ft)

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      Total rainfall =      5.59(In)
      Flood volume =     122468.0 Cubic Feet
      Total soil loss =      21256.1 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =      5.103(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                   R u n o f f     H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
-----------------------------------------------------------------------
  0+ 5       0.0006      0.09  Q         |         |         |         |
  0+10       0.0020      0.20  Q         |         |         |         |
  0+15       0.0036      0.22  Q         |         |         |         |
  0+20       0.0055      0.28  VQ        |         |         |         |
  0+25       0.0078      0.34  VQ        |         |         |         |
  0+30       0.0102      0.35  VQ        |         |         |         |
  0+35       0.0127      0.35  VQ        |         |         |         |
  0+40       0.0151      0.36  VQ        |         |         |         |
  0+45       0.0176      0.36  VQ        |         |         |         |
  0+50       0.0204      0.40  VQ        |         |         |         |
  0+55       0.0235      0.46  VQ        |         |         |         |
  1+ 0       0.0268      0.47  VQ        |         |         |         |
  1+ 5       0.0297      0.43  VQ        |         |         |         |
  1+10       0.0323      0.38  VQ        |         |         |         |
  1+15       0.0348      0.36  VQ        |         |         |         |
  1+20       0.0373      0.36  VQ        |         |         |         |
  1+25       0.0397      0.36  VQ        |         |         |         |
  1+30       0.0422      0.36  VQ        |         |         |         |
  1+35       0.0446      0.36  VQ        |         |         |         |
  1+40       0.0471      0.36  VQ        |         |         |         |
  1+45       0.0495      0.36  VQ        |         |         |         |
  1+50       0.0523      0.40  VQ        |         |         |         |
  1+55       0.0555      0.46  VQ        |         |         |         |
  2+ 0       0.0587      0.47  VQ        |         |         |         |
  2+ 5       0.0620      0.47  VQ        |         |         |         |
  2+10       0.0652      0.48  VQ        |         |         |         |
  2+15       0.0685      0.48  VQ        |         |         |         |
  2+20       0.0718      0.48  |Q        |         |         |         |
  2+25       0.0751      0.48  |Q        |         |         |         |
  2+30       0.0784      0.48  |Q        |         |         |         |
  2+35       0.0820      0.52  |VQ       |         |         |         |
  2+40       0.0859      0.58  |VQ       |         |         |         |
  2+45       0.0900      0.59  |VQ       |         |         |         |
  2+50       0.0941      0.59  |VQ       |         |         |         |
  2+55       0.0982      0.59  |VQ       |         |         |         |
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3+ 0	0.1022	0.59	VQ				
3+ 5	0.1063	0.59	VQ				
3+10	0.1104	0.59	VQ				
3+15	0.1145	0.59	VQ				
3+20	0.1186	0.59	VQ				
3+25	0.1227	0.59	VQ				
3+30	0.1268	0.59	VQ				
3+35	0.1309	0.59	VQ				
3+40	0.1350	0.59	VQ				
3+45	0.1391	0.59	VQ				
3+50	0.1435	0.64	Q				
3+55	0.1483	0.70	Q				
4+ 0	0.1532	0.71	Q				
4+ 5	0.1581	0.71	Q				
4+10	0.1630	0.71	Q				
4+15	0.1679	0.71	Q				
4+20	0.1732	0.76	VQ				
4+25	0.1788	0.81	VQ				
4+30	0.1845	0.83	VQ				
4+35	0.1902	0.83	VQ				
4+40	0.1959	0.83	VQ				
4+45	0.2016	0.83	VQ				
4+50	0.2077	0.88	VQ				
4+55	0.2141	0.93	Q				
5+ 0	0.2206	0.94	Q				
5+ 5	0.2265	0.86	Q				
5+10	0.2317	0.75	Q				
5+15	0.2367	0.73	QV				
5+20	0.2420	0.77	Q				
5+25	0.2476	0.81	Q				
5+30	0.2533	0.83	Q				
5+35	0.2593	0.88	Q				
5+40	0.2658	0.93	Q				
5+45	0.2723	0.94	Q				
5+50	0.2788	0.95	Q				
5+55	0.2854	0.95	QV				
6+ 0	0.2919	0.95	QV				
6+ 5	0.2988	1.00	QV				
6+10	0.3060	1.05	Q				
6+15	0.3134	1.06	Q				
6+20	0.3207	1.07	Q				
6+25	0.3281	1.07	Q				
6+30	0.3355	1.07	Q				
6+35	0.3432	1.12	Q				
6+40	0.3512	1.17	Q				
6+45	0.3594	1.18	QV				
6+50	0.3675	1.19	QV				
6+55	0.3757	1.19	QV				
7+ 0	0.3839	1.19	QV				
7+ 5	0.3921	1.19	QV				

```
 7+10       0.4003      1.19  |   QV    |         |         |         |
 7+15       0.4085      1.19  |   QV    |         |         |         |
 7+20       0.4170      1.24  |   QV    |         |         |         |
 7+25       0.4259      1.29  |    QV   |         |         |         |
 7+30       0.4349      1.30  |    QV   |         |         |         |
 7+35       0.4443      1.36  |    QV   |         |         |         |
 7+40       0.4541      1.43  |    QV   |         |         |         |
 7+45       0.4641      1.45  |    QV   |         |         |         |
 7+50       0.4746      1.52  |     Q   |         |         |         |
 7+55       0.4856      1.60  |     Q   |         |         |         |
 8+ 0       0.4967      1.61  |     QV  |         |         |         |
 8+ 5       0.5088      1.75  |     QV  |         |         |         |
 8+10       0.5218      1.90  |      Q  |         |         |         |
 8+15       0.5351      1.93  |      Q  |         |         |         |
 8+20       0.5485      1.95  |      Q  |         |         |         |
 8+25       0.5620      1.95  |      Q  |         |         |         |
 8+30       0.5755      1.96  |      QV |         |         |         |
 8+35       0.5894      2.02  |       Q |         |         |         |
 8+40       0.6038      2.09  |       Q |         |         |         |
 8+45       0.6184      2.11  |       Q |         |         |         |
 8+50       0.6334      2.18  |       QV|         |         |         |
 8+55       0.6490      2.26  |        Q|         |         |         |
 9+ 0       0.6647      2.28  |        Q|         |         |         |
 9+ 5       0.6813      2.41  |        Q|         |         |         |
 9+10       0.6989      2.56  |        VQ         |         |         |
 9+15       0.7168      2.59  |         Q         |         |         |
 9+20       0.7352      2.67  |         Q         |         |         |
 9+25       0.7541      2.75  |         VQ        |         |         |
 9+30       0.7732      2.77  |         |Q        |         |         |
 9+35       0.7928      2.84  |         |Q        |         |         |
 9+40       0.8129      2.92  |         |Q        |         |         |
 9+45       0.8331      2.94  |         |Q        |         |         |
 9+50       0.8538      3.01  |         | Q       |         |         |
 9+55       0.8750      3.08  |         | Q       |         |         |
10+ 0       0.8964      3.10  |         | Q       |         |         |
10+ 5       0.9148      2.67  |         Q  V      |         |         |
10+10       0.9297      2.17  |       Q |  V      |         |         |
10+15       0.9439      2.06  |       Q |  V      |         |         |
10+20       0.9579      2.02  |       Q |  V      |         |         |
10+25       0.9717      2.00  |       Q |  V      |         |         |
10+30       0.9855      2.00  |       Q |   V     |         |         |
10+35       1.0014      2.32  |        Q|   V     |         |         |
10+40       1.0199      2.68  |         Q   V     |         |         |
10+45       1.0389      2.76  |         |Q  V     |         |         |
10+50       1.0582      2.79  |         |Q   V    |         |         |
10+55       1.0775      2.81  |         |Q   V    |         |         |
11+ 0       1.0969      2.81  |         |Q   V    |         |         |
11+ 5       1.1159      2.75  |         |Q   V    |         |         |
11+10       1.1343      2.68  |         Q     V   |         |         |
11+15       1.1527      2.67  |         Q     V   |         |         |
```

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11+20       1.1711      2.66  |         Q     V   |         |         |
11+25       1.1894      2.66  |         Q     V   |         |         |
11+30       1.2078      2.67  |         Q      V  |         |         |
11+35       1.2253      2.54  |         Q      V  |         |         |
11+40       1.2418      2.40  |        Q|      V  |         |         |
11+45       1.2581      2.37  |        Q|      V  |         |         |
11+50       1.2748      2.42  |        Q|       V |         |         |
11+55       1.2919      2.49  |        Q|       V |         |         |
12+ 0       1.3092      2.51  |         Q       V |         |         |
12+ 5       1.3296      2.96  |         |Q      V |         |         |
12+10       1.3534      3.46  |         |  Q     V|         |         |
12+15       1.3780      3.57  |         |   Q    V|         |         |
12+20       1.4034      3.68  |         |   Q    V|         |         |
12+25       1.4294      3.78  |         |    Q    V         |         |
12+30       1.4555      3.79  |         |    Q    V         |         |
12+35       1.4826      3.93  |         |    Q    |V        |         |
12+40       1.5107      4.08  |         |     Q   |V        |         |
12+45       1.5390      4.11  |         |     Q   |V        |         |
12+50       1.5678      4.19  |         |     Q   | V       |         |
12+55       1.5972      4.27  |         |      Q  | V       |         |
13+ 0       1.6267      4.28  |         |      Q  |  V      |         |
13+ 5       1.6584      4.61  |         |       Q |  V      |         |
13+10       1.6927      4.97  |         |        Q|   V     |         |
13+15       1.7274      5.05  |         |         Q   V     |         |
13+20       1.7625      5.08  |         |         Q    V    |         |
13+25       1.7976      5.10  |         |         Q    V    |         |
13+30       1.8327      5.10  |         |         Q     V   |         |
13+35       1.8631      4.41  |         |      Q  |     V   |         |
13+40       1.8881      3.63  |         |   Q     |     V   |         |
13+45       1.9119      3.46  |         |  Q      |      V  |         |
13+50       1.9352      3.39  |         |  Q      |      V  |         |
13+55       1.9583      3.35  |         |  Q      |      V  |         |
14+ 0       1.9814      3.36  |         |  Q      |       V |         |
14+ 5       2.0063      3.61  |         |   Q     |       V |         |
14+10       2.0331      3.90  |         |    Q    |       V |         |
14+15       2.0604      3.96  |         |    Q    |        V|         |
14+20       2.0874      3.93  |         |    Q    |        V|         |
14+25       2.1141      3.87  |         |    Q    |         V         |
14+30       2.1406      3.85  |         |    Q    |         V         |
14+35       2.1671      3.85  |         |    Q    |         V         |
14+40       2.1936      3.85  |         |    Q    |         |V        |
14+45       2.2201      3.85  |         |    Q    |         |V        |
14+50       2.2462      3.79  |         |    Q    |         |V        |
14+55       2.2718      3.72  |         |   Q     |         | V       |
15+ 0       2.2973      3.70  |         |   Q     |         | V       |
15+ 5       2.3224      3.64  |         |   Q     |         |  V      |
15+10       2.3469      3.56  |         |   Q     |         |  V      |
15+15       2.3713      3.55  |         |   Q     |         |  V      |
15+20       2.3953      3.48  |         |  Q      |         |   V     |
15+25       2.4188      3.41  |         |  Q      |         |   V     |
```

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15+30       2.4422      3.39  |         |  Q      |         |   V     |
15+35       2.4638      3.14  |         | Q       |         |    V    |
15+40       2.4834      2.85  |         |Q        |         |    V    |
15+45       2.5026      2.79  |         |Q        |         |    V    |
15+50       2.5216      2.76  |         |Q        |         |    V    |
15+55       2.5406      2.75  |         |Q        |         |     V   |
16+ 0       2.5595      2.75  |         |Q        |         |     V   |
16+ 5       2.5723      1.86  |      Q  |         |         |     V   |
16+10       2.5781      0.83  |  Q      |         |         |     V   |
16+15       2.5823      0.61  | Q       |         |         |     V   |
16+20       2.5859      0.52  | Q       |         |         |     V   |
16+25       2.5891      0.48  |Q        |         |         |     V   |
16+30       2.5924      0.48  |Q        |         |         |     V   |
16+35       2.5954      0.43  |Q        |         |         |     V   |
16+40       2.5979      0.38  |Q        |         |         |     V   |
16+45       2.6005      0.36  |Q        |         |         |     V   |
16+50       2.6029      0.36  |Q        |         |         |      V  |
16+55       2.6054      0.36  |Q        |         |         |      V  |
17+ 0       2.6078      0.36  |Q        |         |         |      V  |
17+ 5       2.6109      0.45  |Q        |         |         |      V  |
17+10       2.6148      0.56  | Q       |         |         |      V  |
17+15       2.6188      0.58  | Q       |         |         |      V  |
17+20       2.6229      0.59  | Q       |         |         |      V  |
17+25       2.6269      0.59  | Q       |         |         |      V  |
17+30       2.6310      0.59  | Q       |         |         |      V  |
17+35       2.6351      0.59  | Q       |         |         |      V  |
17+40       2.6392      0.59  | Q       |         |         |      V  |
17+45       2.6433      0.59  | Q       |         |         |      V  |
17+50       2.6471      0.55  | Q       |         |         |      V  |
17+55       2.6505      0.49  |Q        |         |         |      V  |
18+ 0       2.6538      0.48  |Q        |         |         |      V  |
18+ 5       2.6571      0.48  |Q        |         |         |      V  |
18+10       2.6604      0.48  |Q        |         |         |      V  |
18+15       2.6637      0.48  |Q        |         |         |      V  |
18+20       2.6670      0.48  |Q        |         |         |      V  |
18+25       2.6702      0.48  |Q        |         |         |      V  |
18+30       2.6735      0.48  |Q        |         |         |       V |
18+35       2.6765      0.43  |Q        |         |         |       V |
18+40       2.6791      0.38  |Q        |         |         |       V |
18+45       2.6816      0.36  |Q        |         |         |       V |
18+50       2.6837      0.31  |Q        |         |         |       V |
18+55       2.6855      0.26  |Q        |         |         |       V |
19+ 0       2.6872      0.25  Q         |         |         |       V |
19+ 5       2.6892      0.29  |Q        |         |         |       V |
19+10       2.6915      0.34  |Q        |         |         |       V |
19+15       2.6939      0.35  |Q        |         |         |       V |
19+20       2.6967      0.40  |Q        |         |         |       V |
19+25       2.6998      0.46  |Q        |         |         |       V |
19+30       2.7030      0.47  |Q        |         |         |       V |
19+35       2.7060      0.43  |Q        |         |         |       V |
```

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19+40        2.7086      0.38   |Q         |         |         |       V |
19+45        2.7111      0.36   |Q         |         |         |       V |
19+50        2.7132      0.31   |Q         |         |         |       V |
19+55        2.7150      0.26   |Q         |         |         |       V |
20+ 0        2.7167      0.25   Q          |         |         |       V |
20+ 5        2.7187      0.29   |Q         |         |         |       V |
20+10        2.7210      0.34   |Q         |         |         |       V |
20+15        2.7234      0.35   |Q         |         |         |       V |
20+20        2.7258      0.35   |Q         |         |         |       V |
20+25        2.7283      0.36   |Q         |         |         |       V |
20+30        2.7307      0.36   |Q         |         |         |       V |
20+35        2.7332      0.36   |Q         |         |         |       V |
20+40        2.7357      0.36   |Q         |         |         |       V |
20+45        2.7381      0.36   |Q         |         |         |       V |
20+50        2.7403      0.31   |Q         |         |         |       V |
20+55        2.7420      0.26   |Q         |         |         |        V|
21+ 0        2.7437      0.25   Q          |         |         |        V|
21+ 5        2.7457      0.29   |Q         |         |         |        V|
21+10        2.7480      0.34   |Q         |         |         |        V|
21+15        2.7504      0.35   |Q         |         |         |        V|
21+20        2.7525      0.31   |Q         |         |         |        V|
21+25        2.7543      0.26   |Q         |         |         |        V|
21+30        2.7560      0.25   Q          |         |         |        V|
21+35        2.7580      0.29   |Q         |         |         |        V|
21+40        2.7603      0.34   |Q         |         |         |        V|
21+45        2.7627      0.35   |Q         |         |         |        V|
21+50        2.7648      0.31   |Q         |         |         |        V|
21+55        2.7666      0.26   |Q         |         |         |        V|
22+ 0        2.7683      0.25   Q          |         |         |        V|
22+ 5        2.7703      0.29   |Q         |         |         |        V|
22+10        2.7726      0.34   |Q         |         |         |        V|
22+15        2.7750      0.35   |Q         |         |         |        V|
22+20        2.7771      0.31   |Q         |         |         |        V|
22+25        2.7789      0.26   |Q         |         |         |        V|
22+30        2.7806      0.25   Q          |         |         |        V|
22+35        2.7822      0.24   Q          |         |         |        V|
22+40        2.7839      0.24   Q          |         |         |        V|
22+45        2.7855      0.24   Q          |         |         |        V|
22+50        2.7872      0.24   Q          |         |         |        V|
22+55        2.7888      0.24   Q          |         |         |        V|
23+ 0        2.7904      0.24   Q          |         |         |        V|
23+ 5        2.7921      0.24   Q          |         |         |        V|
23+10        2.7937      0.24   Q          |         |         |        V|
23+15        2.7954      0.24   Q          |         |         |        V|
23+20        2.7970      0.24   Q          |         |         |        V|
23+25        2.7986      0.24   Q          |         |         |        V|
23+30        2.8003      0.24   Q          |         |         |        V|
23+35        2.8019      0.24   Q          |         |         |        V|
23+40        2.8035      0.24   Q          |         |         |        V|
23+45        2.8052      0.24   Q          |         |         |        V|
```

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   23+50       2.8068      0.24  Q          |         |         |        V|
   23+55       2.8085      0.24  Q          |         |         |        V|
   24+ 0       2.8101      0.24  Q          |         |         |        V|
   24+ 5       2.8111      0.14  Q          |         |         |        V|
   24+10       2.8113      0.04  Q          |         |         |        V|
   24+15       2.8114      0.01  Q          |         |         |        V|
   24+20       2.8115      0.00  Q          |         |         |        V|
-----------------------------------------------------------------------
```

NEWLAND SIMPSON
HEMET
POST DEVELOPMENT
UNIT HYDROGRAPH
100YR-24HR
TOTAL B

```
                  FLOOD HYDROGRAPH ROUTING PROGRAM
         Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018
                      Study date: 10/17/23

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


NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA B
UNIT HYDROGRAPH - TOTAL B
100YR 24HR
--------------------------------------------------------------------


Program License Serial Number 6491

--------------------------------------------------------------------
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: NSPRUHB1B2.rte
****************************HYDROGRAPH DATA****************************
                Number of intervals =   292
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =       12.559 (CFS)
                Total volume =       7.205 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
***********************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       32.000 to Point/Station       32.000
**** ADD/COMBINE/RECOVER HYDROGRAPHS ****
______________________________________________________________________
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: NSPRUHB324100.rte
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                  P R I N T   O F   S T O R M
               R u n o f f     H y d r o g r a p h
--------------------------------------------------------------------
            Hydrograph in   5   Minute intervals (CFS)

--------------------------------------------------------------------
 Time(h+m) Add q(CFS)  Tot. Q   0        4.4       8.8      13.2      17.7
```

```
-----------------------------------------------------------------------
  0+ 5        0.0937       0.37  Q         |         |         |         |
  0+10        0.2006       0.76  qQ        |         |         |         |
  0+15        0.2237       0.84  qQ        |         |         |         |
  0+20        0.2801       1.06  q Q       |         |         |         |
  0+25        0.3382       1.27  q Q       |         |         |         |
  0+30        0.3498       1.31  q Q       |         |         |         |
  0+35        0.3546       1.33  q  Q      |         |         |         |
  0+40        0.3569       1.33  q  Q      |         |         |         |
  0+45        0.3569       1.33  q  Q      |         |         |         |
  0+50        0.4038       1.52  q  Q      |         |         |         |
  0+55        0.4572       1.71  |q Q      |         |         |         |
  1+ 0        0.4688       1.75  |q Q      |         |         |         |
  1+ 5        0.4267       1.58  q  Q      |         |         |         |
  1+10        0.3756       1.39  q  Q      |         |         |         |
  1+15        0.3640       1.35  q  Q      |         |         |         |
  1+20        0.3592       1.34  q  Q      |         |         |         |
  1+25        0.3569       1.33  q  Q      |         |         |         |
  1+30        0.3569       1.33  q  Q      |         |         |         |
  1+35        0.3569       1.33  q  Q      |         |         |         |
  1+40        0.3569       1.33  q  Q      |         |         |         |
  1+45        0.3569       1.33  q  Q      |         |         |         |
  1+50        0.4038       1.52  q  Q      |         |         |         |
  1+55        0.4572       1.71  |q Q      |         |         |         |
  2+ 0        0.4688       1.75  |q Q      |         |         |         |
  2+ 5        0.4736       1.77  |q  Q     |         |         |         |
  2+10        0.4759       1.77  |q  Q     |         |         |         |
  2+15        0.4759       1.77  |q  Q     |         |         |         |
  2+20        0.4759       1.77  |q  Q     |         |         |         |
  2+25        0.4759       1.77  |q  Q     |         |         |         |
  2+30        0.4759       1.77  |q  Q     |         |         |         |
  2+35        0.5227       1.96  |q  Q     |         |         |         |
  2+40        0.5762       2.16  |q  Q     |         |         |         |
  2+45        0.5878       2.20  |q  Q     |         |         |         |
  2+50        0.5925       2.21  |q   Q    |         |         |         |
  2+55        0.5949       2.22  |q   Q    |         |         |         |
  3+ 0        0.5949       2.22  |q   Q    |         |         |         |
  3+ 5        0.5949       2.22  |q   Q    |         |         |         |
  3+10        0.5949       2.22  |q   Q    |         |         |         |
  3+15        0.5949       2.22  |q   Q    |         |         |         |
  3+20        0.5949       2.22  |q   Q    |         |         |         |
  3+25        0.5949       2.22  |q   Q    |         |         |         |
  3+30        0.5949       2.22  |q   Q    |         |         |         |
  3+35        0.5949       2.22  |q   Q    |         |         |         |
  3+40        0.5949       2.22  |q   Q    |         |         |         |
  3+45        0.5949       2.22  |q   Q    |         |         |         |
  3+50        0.6417       2.41  |q   Q    |         |         |         |
  3+55        0.6951       2.60  |q   Q    |         |         |         |
  4+ 0        0.7067       2.64  |q   Q    |         |         |         |
  4+ 5        0.7115       2.66  |q    Q   |         |         |         |
```

```
4+10       0.7138      2.66  |q    Q   |         |         |         |
4+15       0.7138      2.66  |q    Q   |         |         |         |
4+20       0.7607      2.85  |q    Q   |         |         |         |
4+25       0.8141      3.04  |q    Q   |         |         |         |
4+30       0.8257      3.08  |q    Q   |         |         |         |
4+35       0.8305      3.10  |q     Q  |         |         |         |
4+40       0.8328      3.11  |q     Q  |         |         |         |
4+45       0.8328      3.11  |q     Q  |         |         |         |
4+50       0.8797      3.29  |q     Q  |         |         |         |
4+55       0.9331      3.49  | q    Q  |         |         |         |
5+ 0       0.9447      3.53  | q    Q  |         |         |         |
5+ 5       0.8557      3.17  |q     Q  |         |         |         |
5+10       0.7512      2.79  |q    Q   |         |         |         |
5+15       0.7280      2.71  |q    Q   |         |         |         |
5+20       0.7653      2.86  |q    Q   |         |         |         |
5+25       0.8141      3.04  |q    Q   |         |         |         |
5+30       0.8257      3.08  |q    Q   |         |         |         |
5+35       0.8773      3.29  |q     Q  |         |         |         |
5+40       0.9331      3.49  | q    Q  |         |         |         |
5+45       0.9447      3.53  | q    Q  |         |         |         |
5+50       0.9494      3.54  | q     Q |         |         |         |
5+55       0.9518      3.55  | q     Q |         |         |         |
6+ 0       0.9518      3.55  | q     Q |         |         |         |
6+ 5       0.9986      3.74  | q     Q |         |         |         |
6+10       1.0521      3.93  | q     Q |         |         |         |
6+15       1.0636      3.97  | q     Q |         |         |         |
6+20       1.0684      3.99  | q      Q|         |         |         |
6+25       1.0707      3.99  | q      Q|         |         |         |
6+30       1.0707      3.99  | q      Q|         |         |         |
6+35       1.1176      4.18  | q      Q|         |         |         |
6+40       1.1710      4.37  | q      Q|         |         |         |
6+45       1.1826      4.41  | q      Q|         |         |         |
6+50       1.1874      4.43  | q       Q         |         |         |
6+55       1.1897      4.44  | q       Q         |         |         |
7+ 0       1.1897      4.44  | q       Q         |         |         |
7+ 5       1.1897      4.44  | q       Q         |         |         |
7+10       1.1897      4.44  | q       Q         |         |         |
7+15       1.1897      4.44  | q       Q         |         |         |
7+20       1.2366      4.62  | q       Q         |         |         |
7+25       1.2900      4.82  | q       Q         |         |         |
7+30       1.3016      4.86  | q       |Q        |         |         |
7+35       1.3643      5.08  |  q      |Q        |         |         |
7+40       1.4336      5.30  |  q      | Q       |         |         |
7+45       1.4497      5.35  |  q      | Q       |         |         |
7+50       1.5205      5.60  |  q      | Q       |         |         |
7+55       1.5972      5.84  |  q      |  Q      |         |         |
8+ 0       1.6148      5.90  |  q      |  Q      |         |         |
8+ 5       1.7491      6.38  |  q      |   Q     |         |         |
8+10       1.8978      6.87  |   q     |    Q    |         |         |
8+15       1.9309      6.97  |   q     |    Q    |         |         |
```

```
 8+20       1.9458      7.02  |   q     |    Q    |         |         |
 8+25       1.9541      7.04  |   q     |    Q    |         |         |
 8+30       1.9562      7.04  |   q     |    Q    |         |         |
 8+35       2.0212      7.28  |   q     |     Q   |         |         |
 8+40       2.0949      7.52  |   q     |      Q  |         |         |
 8+45       2.1125      7.58  |   q     |      Q  |         |         |
 8+50       2.1839      7.83  |   q     |      Q  |         |         |
 8+55       2.2607      8.08  |    q    |       Q |         |         |
 9+ 0       2.2783      8.14  |    q    |       Q |         |         |
 9+ 5       2.4126      8.62  |    q    |        Q|         |         |
 9+10       2.5611      9.11  |    q    |         Q         |         |
 9+15       2.5942      9.21  |    q    |         Q         |         |
 9+20       2.6719      9.49  |     q   |         |Q        |         |
 9+25       2.7519      9.74  |     q   |         | Q       |         |
 9+30       2.7694      9.80  |     q   |         | Q       |         |
 9+35       2.8407     10.05  |     q   |         | Q       |         |
 9+40       2.9175     10.30  |     q   |         |  Q      |         |
 9+45       2.9351     10.36  |     q   |         |  Q      |         |
 9+50       3.0063     10.61  |     q   |         |   Q     |         |
 9+55       3.0831     10.86  |     q   |         |   Q     |         |
10+ 0       3.1006     10.92  |      q  |         |   Q     |         |
10+ 5       2.6687      9.34  |     q   |         |Q        |         |
10+10       2.1717      7.68  |   q     |      Q  |         |         |
10+15       2.0648      7.34  |   q     |     Q   |         |         |
10+20       2.0219      7.20  |   q     |     Q   |         |         |
10+25       2.0020      7.16  |   q     |     Q   |         |         |
10+30       2.0039      7.16  |   q     |     Q   |         |         |
10+35       2.3203      8.31  |    q    |       Q |         |         |
10+40       2.6808      9.51  |     q   |         |Q        |         |
10+45       2.7604      9.76  |     q   |         | Q       |         |
10+50       2.7943      9.87  |     q   |         | Q       |         |
10+55       2.8118      9.91  |     q   |         | Q       |         |
11+ 0       2.8137      9.91  |     q   |         | Q       |         |
11+ 5       2.7527      9.69  |     q   |         |Q        |         |
11+10       2.6828      9.45  |     q   |         |Q        |         |
11+15       2.6691      9.41  |     q   |         |Q        |         |
11+20       2.6646      9.39  |     q   |         |Q        |         |
11+25       2.6633      9.39  |     q   |         |Q        |         |
11+30       2.6651      9.40  |     q   |         |Q        |         |
11+35       2.5412      8.94  |    q    |         Q         |         |
11+40       2.3996      8.47  |    q    |        Q|         |         |
11+45       2.3703      8.38  |    q    |       Q |         |         |
11+50       2.4222      8.57  |    q    |        Q|         |         |
11+55       2.4894      8.80  |    q    |        Q|         |         |
12+ 0       2.5068      8.85  |    q    |         Q         |         |
12+ 5       2.9553     10.48  |     q   |         |  Q      |         |
12+10       3.4622     12.16  |      q  |         |      Q  |         |
12+15       3.5728     12.51  |       q |         |       Q |         |
12+20       3.6823     12.89  |       q |         |        Q|         |
12+25       3.7777     13.18  |       q |         |        Q|         |
```

```
12+30       3.7950     13.23  |       q |         |        Q|         |
12+35       3.9289     13.71  |       q |         |         |Q        |
12+40       4.0772     14.20  |        q|         |         | Q       |
12+45       4.1101     14.31  |        q|         |         | Q       |
12+50       4.1875     14.58  |        q|         |         |  Q      |
12+55       4.2672     14.84  |        q|         |         |  Q      |
13+ 0       4.2844     14.89  |        q|         |         |  Q      |
13+ 5       4.6071     16.06  |         q         |         |     Q   |
13+10       4.9705     17.26  |         |q        |         |        Q|
13+15       5.0499     17.51  |         |q        |         |        Q|
13+20       5.0836     17.62  |         |q        |         |        Q|
13+25       5.1009     17.66  |         |q        |         |        Q|
13+30       5.1026     17.66  |         |q        |         |         Q
13+35       4.4123     15.15  |        q|         |         |   Q     |
13+40       3.6251     12.53  |       q |         |       Q |         |
13+45       3.4557     11.99  |      q  |         |      Q  |         |
13+50       3.3869     11.77  |      q  |         |     Q   |         |
13+55       3.3542     11.70  |      q  |         |     Q   |         |
14+ 0       3.3558     11.70  |      q  |         |     Q   |         |
14+ 5       3.6090     12.62  |       q |         |       Q |         |
14+10       3.8975     13.58  |       q |         |         Q         |
14+15       3.9613     13.78  |       q |         |         |Q        |
14+20       3.9256     13.64  |       q |         |         Q         |
14+25       3.8680     13.43  |       q |         |         Q         |
14+30       3.8540     13.39  |       q |         |         Q         |
14+35       3.8492     13.37  |       q |         |         Q         |
14+40       3.8476     13.37  |       q |         |         Q         |
14+45       3.8492     13.37  |       q |         |         Q         |
14+50       3.7878     13.15  |       q |         |        Q|         |
14+55       3.7177     12.91  |       q |         |        Q|         |
15+ 0       3.7037     12.87  |       q |         |        Q|         |
15+ 5       3.6359     12.62  |       q |         |       Q |         |
15+10       3.5626     12.38  |       q |         |       Q |         |
15+15       3.5485     12.33  |       q |         |      Q  |         |
15+20       3.4807     12.09  |      q  |         |      Q  |         |
15+25       3.4074     11.85  |      q  |         |     Q   |         |
15+30       3.3933     11.80  |      q  |         |     Q   |         |
15+35       3.1368     10.87  |      q  |         |   Q     |         |
15+40       2.8483      9.91  |     q   |         | Q       |         |
15+45       2.7876      9.72  |     q   |         | Q       |         |
15+50       2.7634      9.64  |     q   |         |Q        |         |
15+55       2.7524      9.62  |     q   |         |Q        |         |
16+ 0       2.7538      9.62  |     q   |         |Q        |         |
16+ 5       1.8569      6.32  |   q     |   Q     |         |         |
16+10       0.8337      2.88  |q    Q   |         |         |         |
16+15       0.6118      2.16  |q  Q     |         |         |         |
16+20       0.5205      1.88  |q  Q     |         |         |         |
16+25       0.4759      1.77  |q  Q     |         |         |         |
16+30       0.4759      1.77  |q  Q     |         |         |         |
16+35       0.4290      1.59  q  Q      |         |         |         |
```

```
16+40       0.3756      1.39  q  Q      |         |         |         |
16+45       0.3640      1.35  q  Q      |         |         |         |
16+50       0.3592      1.34  q  Q      |         |         |         |
16+55       0.3569      1.33  q  Q      |         |         |         |
17+ 0       0.3569      1.33  q  Q      |         |         |         |
17+ 5       0.4506      1.71  |q Q      |         |         |         |
17+10       0.5575      2.09  |q  Q     |         |         |         |
17+15       0.5807      2.17  |q  Q     |         |         |         |
17+20       0.5902      2.21  |q  Q     |         |         |         |
17+25       0.5949      2.22  |q   Q    |         |         |         |
17+30       0.5949      2.22  |q   Q    |         |         |         |
17+35       0.5949      2.22  |q   Q    |         |         |         |
17+40       0.5949      2.22  |q   Q    |         |         |         |
17+45       0.5949      2.22  |q   Q    |         |         |         |
17+50       0.5480      2.03  |q  Q     |         |         |         |
17+55       0.4946      1.84  |q  Q     |         |         |         |
18+ 0       0.4830      1.80  |q  Q     |         |         |         |
18+ 5       0.4782      1.78  |q  Q     |         |         |         |
18+10       0.4759      1.77  |q  Q     |         |         |         |
18+15       0.4759      1.77  |q  Q     |         |         |         |
18+20       0.4759      1.77  |q  Q     |         |         |         |
18+25       0.4759      1.77  |q  Q     |         |         |         |
18+30       0.4759      1.77  |q  Q     |         |         |         |
18+35       0.4290      1.59  q  Q      |         |         |         |
18+40       0.3756      1.39  q  Q      |         |         |         |
18+45       0.3640      1.35  q  Q      |         |         |         |
18+50       0.3124      1.15  q Q       |         |         |         |
18+55       0.2566      0.95  q Q       |         |         |         |
19+ 0       0.2450      0.91  q Q       |         |         |         |
19+ 5       0.2871      1.08  q Q       |         |         |         |
19+10       0.3382      1.27  q Q       |         |         |         |
19+15       0.3498      1.31  q Q       |         |         |         |
19+20       0.4014      1.51  q  Q      |         |         |         |
19+25       0.4572      1.71  |q Q      |         |         |         |
19+30       0.4688      1.75  |q Q      |         |         |         |
19+35       0.4267      1.58  q  Q      |         |         |         |
19+40       0.3756      1.39  q  Q      |         |         |         |
19+45       0.3640      1.35  q  Q      |         |         |         |
19+50       0.3124      1.15  q Q       |         |         |         |
19+55       0.2566      0.95  q Q       |         |         |         |
20+ 0       0.2450      0.91  q Q       |         |         |         |
20+ 5       0.2871      1.08  q Q       |         |         |         |
20+10       0.3382      1.27  q Q       |         |         |         |
20+15       0.3498      1.31  q Q       |         |         |         |
20+20       0.3546      1.33  q  Q      |         |         |         |
20+25       0.3569      1.33  q  Q      |         |         |         |
20+30       0.3569      1.33  q  Q      |         |         |         |
20+35       0.3569      1.33  q  Q      |         |         |         |
20+40       0.3569      1.33  q  Q      |         |         |         |
20+45       0.3569      1.33  q  Q      |         |         |         |
```

```
    20+50       0.3101      1.14  q Q       |         |         |         |
    20+55       0.2566      0.95  q Q       |         |         |         |
    21+ 0       0.2450      0.91  q Q       |         |         |         |
    21+ 5       0.2871      1.08  q Q       |         |         |         |
    21+10       0.3382      1.27  q Q       |         |         |         |
    21+15       0.3498      1.31  q Q       |         |         |         |
    21+20       0.3077      1.14  q Q       |         |         |         |
    21+25       0.2566      0.95  q Q       |         |         |         |
    21+30       0.2450      0.91  q Q       |         |         |         |
    21+35       0.2871      1.08  q Q       |         |         |         |
    21+40       0.3382      1.27  q Q       |         |         |         |
    21+45       0.3498      1.31  q Q       |         |         |         |
    21+50       0.3077      1.14  q Q       |         |         |         |
    21+55       0.2566      0.95  q Q       |         |         |         |
    22+ 0       0.2450      0.91  q Q       |         |         |         |
    22+ 5       0.2871      1.08  q Q       |         |         |         |
    22+10       0.3382      1.27  q Q       |         |         |         |
    22+15       0.3498      1.31  q Q       |         |         |         |
    22+20       0.3077      1.14  q Q       |         |         |         |
    22+25       0.2566      0.95  q Q       |         |         |         |
    22+30       0.2450      0.91  q Q       |         |         |         |
    22+35       0.2403      0.89  q Q       |         |         |         |
    22+40       0.2379      0.89  q Q       |         |         |         |
    22+45       0.2379      0.89  q Q       |         |         |         |
    22+50       0.2379      0.89  q Q       |         |         |         |
    22+55       0.2379      0.89  q Q       |         |         |         |
    23+ 0       0.2379      0.89  q Q       |         |         |         |
    23+ 5       0.2379      0.89  q Q       |         |         |         |
    23+10       0.2379      0.89  q Q       |         |         |         |
    23+15       0.2379      0.89  q Q       |         |         |         |
    23+20       0.2379      0.89  q Q       |         |         |         |
    23+25       0.2379      0.89  q Q       |         |         |         |
    23+30       0.2379      0.89  q Q       |         |         |         |
    23+35       0.2379      0.89  q Q       |         |         |         |
    23+40       0.2379      0.89  q Q       |         |         |         |
    23+45       0.2379      0.89  q Q       |         |         |         |
    23+50       0.2379      0.89  q Q       |         |         |         |
    23+55       0.2379      0.89  q Q       |         |         |         |
    24+ 0       0.2379      0.89  q Q       |         |         |         |
    24+ 5       0.1442      0.51  qQ        |         |         |         |
    24+10       0.0374      0.12  Q         |         |         |         |
    24+15       0.0142      0.04  Q         |         |         |         |
    24+20       0.0047      0.01  Q         |         |         |         |
-----------------------------------------------------------------------
        ****************************HYDROGRAPH DATA****************************
                        Number of intervals =   292
                        Time interval =    5.0 (Min.)
                        Maximum/Peak flow rate =       17.662 (CFS)
                        Total volume =      10.016 (Ac.Ft)
                Status of hydrographs being held in storage
```

```
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
***********************************************************************

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


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       32.000 to Point/Station       32.000
**** STORE OR DELETE CURRENT HYDROGRAPH ****
______________________________________________________________________
Current stream hydrograph saved in file NSPRUHTOTALB.rte
***************************HYDROGRAPH DATA****************************
                Number of intervals =     0
                Time interval =    0.0 (Min.)
                Maximum/Peak flow rate =        0.000 (CFS)
                Total volume =       0.000 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
***********************************************************************

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

NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-24HR
POST DEVELOPMENT
DMA C1

```
        U n i t   H y d r o g r a p h   A n a l y s i s

        Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018, Version 9.0
                Study date  10/17/23 File: NSPRUHC124100.out


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

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6491

---------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



---------------------------------------------------------------------
NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA C1
UNIT HYDROGRAPH
100YR 24HR
--------------------------------------------------------------------
Drainage Area =       8.00(Ac.)  =      0.012 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =       8.00(Ac.)  =
0.012 Sq. Mi.
Length along longest watercourse =     983.00(Ft.)
Length along longest watercourse measured to centroid =     920.00(Ft.)
Length along longest watercourse =      0.186 Mi.
Length along longest watercourse measured to centroid =      0.174 Mi.
Difference in elevation =       7.60(Ft.)
Slope along watercourse =     40.8220 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =    0.048 Hr.
Lag time =     2.90 Min.
25% of lag time =     0.73 Min.
40% of lag time =     1.16 Min.
Unit time =     5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:
```

```
Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        8.00            2.13                  17.03

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        8.00            5.59                  44.70

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    2.130(In)
Area Averaged 100-Year Rainfall =    5.590(In)

Point rain (area averaged) =    5.590(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    5.590(In)

Sub-Area Data:
Area(Ac.)          Runoff Index   Impervious %
     7.996            69.00         0.891
 Total Area Entered =      8.00(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  84.4      0.194     0.891        0.038       1.000      0.038
                                                  Sum (F) =   0.038
Area averaged mean soil loss (F) (In/Hr) =  0.038
Minimum soil loss rate ((In/Hr)) =  0.019
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.187
---------------------------------------------------------------------

                U n i t  H y d r o g r a p h
                        VALLEY S-Curve
--------------------------------------------------------------------
                Unit Hydrograph Data
---------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                           Graph %          (CFS)
---------------------------------------------------------------------
    1   0.083        172.337          38.177              3.076
    2   0.167        344.674          45.344              3.654
    3   0.250        517.011          10.026              0.808
    4   0.333        689.347           4.188              0.337
    5   0.417        861.684           2.266              0.183
                              Sum = 100.000   Sum=       8.058
-----------------------------------------------------------------------
```

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.045	(0.068)	0.008	0.036
2	0.17	0.07	0.045	(0.068)	0.008	0.036
3	0.25	0.07	0.045	(0.068)	0.008	0.036
4	0.33	0.10	0.067	(0.067)	0.013	0.055
5	0.42	0.10	0.067	(0.067)	0.013	0.055
6	0.50	0.10	0.067	(0.067)	0.013	0.055
7	0.58	0.10	0.067	(0.067)	0.013	0.055
8	0.67	0.10	0.067	(0.066)	0.013	0.055
9	0.75	0.10	0.067	(0.066)	0.013	0.055
10	0.83	0.13	0.089	(0.066)	0.017	0.073
11	0.92	0.13	0.089	(0.065)	0.017	0.073
12	1.00	0.13	0.089	(0.065)	0.017	0.073
13	1.08	0.10	0.067	(0.065)	0.013	0.055
14	1.17	0.10	0.067	(0.065)	0.013	0.055
15	1.25	0.10	0.067	(0.064)	0.013	0.055
16	1.33	0.10	0.067	(0.064)	0.013	0.055
17	1.42	0.10	0.067	(0.064)	0.013	0.055
18	1.50	0.10	0.067	(0.064)	0.013	0.055
19	1.58	0.10	0.067	(0.063)	0.013	0.055
20	1.67	0.10	0.067	(0.063)	0.013	0.055
21	1.75	0.10	0.067	(0.063)	0.013	0.055
22	1.83	0.13	0.089	(0.063)	0.017	0.073
23	1.92	0.13	0.089	(0.062)	0.017	0.073
24	2.00	0.13	0.089	(0.062)	0.017	0.073
25	2.08	0.13	0.089	(0.062)	0.017	0.073
26	2.17	0.13	0.089	(0.062)	0.017	0.073
27	2.25	0.13	0.089	(0.061)	0.017	0.073
28	2.33	0.13	0.089	(0.061)	0.017	0.073
29	2.42	0.13	0.089	(0.061)	0.017	0.073
30	2.50	0.13	0.089	(0.061)	0.017	0.073
31	2.58	0.17	0.112	(0.060)	0.021	0.091
32	2.67	0.17	0.112	(0.060)	0.021	0.091
33	2.75	0.17	0.112	(0.060)	0.021	0.091
34	2.83	0.17	0.112	(0.060)	0.021	0.091
35	2.92	0.17	0.112	(0.059)	0.021	0.091
36	3.00	0.17	0.112	(0.059)	0.021	0.091
37	3.08	0.17	0.112	(0.059)	0.021	0.091
38	3.17	0.17	0.112	(0.059)	0.021	0.091
39	3.25	0.17	0.112	(0.058)	0.021	0.091
40	3.33	0.17	0.112	(0.058)	0.021	0.091
41	3.42	0.17	0.112	(0.058)	0.021	0.091
42	3.50	0.17	0.112	(0.058)	0.021	0.091
43	3.58	0.17	0.112	(0.057)	0.021	0.091
44	3.67	0.17	0.112	(0.057)	0.021	0.091

45	3.75	0.17	0.112	(0.057)	0.021	0.091
46	3.83	0.20	0.134	(0.057)	0.025	0.109
47	3.92	0.20	0.134	(0.056)	0.025	0.109
48	4.00	0.20	0.134	(0.056)	0.025	0.109
49	4.08	0.20	0.134	(0.056)	0.025	0.109
50	4.17	0.20	0.134	(0.056)	0.025	0.109
51	4.25	0.20	0.134	(0.056)	0.025	0.109
52	4.33	0.23	0.157	(0.055)	0.029	0.127
53	4.42	0.23	0.157	(0.055)	0.029	0.127
54	4.50	0.23	0.157	(0.055)	0.029	0.127
55	4.58	0.23	0.157	(0.055)	0.029	0.127
56	4.67	0.23	0.157	(0.054)	0.029	0.127
57	4.75	0.23	0.157	(0.054)	0.029	0.127
58	4.83	0.27	0.179	(0.054)	0.033	0.145
59	4.92	0.27	0.179	(0.054)	0.033	0.145
60	5.00	0.27	0.179	(0.053)	0.033	0.145
61	5.08	0.20	0.134	(0.053)	0.025	0.109
62	5.17	0.20	0.134	(0.053)	0.025	0.109
63	5.25	0.20	0.134	(0.053)	0.025	0.109
64	5.33	0.23	0.157	(0.053)	0.029	0.127
65	5.42	0.23	0.157	(0.052)	0.029	0.127
66	5.50	0.23	0.157	(0.052)	0.029	0.127
67	5.58	0.27	0.179	(0.052)	0.033	0.145
68	5.67	0.27	0.179	(0.052)	0.033	0.145
69	5.75	0.27	0.179	(0.051)	0.033	0.145
70	5.83	0.27	0.179	(0.051)	0.033	0.145
71	5.92	0.27	0.179	(0.051)	0.033	0.145
72	6.00	0.27	0.179	(0.051)	0.033	0.145
73	6.08	0.30	0.201	(0.050)	0.038	0.164
74	6.17	0.30	0.201	(0.050)	0.038	0.164
75	6.25	0.30	0.201	(0.050)	0.038	0.164
76	6.33	0.30	0.201	(0.050)	0.038	0.164
77	6.42	0.30	0.201	(0.050)	0.038	0.164
78	6.50	0.30	0.201	(0.049)	0.038	0.164
79	6.58	0.33	0.224	(0.049)	0.042	0.182
80	6.67	0.33	0.224	(0.049)	0.042	0.182
81	6.75	0.33	0.224	(0.049)	0.042	0.182
82	6.83	0.33	0.224	(0.048)	0.042	0.182
83	6.92	0.33	0.224	(0.048)	0.042	0.182
84	7.00	0.33	0.224	(0.048)	0.042	0.182
85	7.08	0.33	0.224	(0.048)	0.042	0.182
86	7.17	0.33	0.224	(0.048)	0.042	0.182
87	7.25	0.33	0.224	(0.047)	0.042	0.182
88	7.33	0.37	0.246	(0.047)	0.046	0.200
89	7.42	0.37	0.246	(0.047)	0.046	0.200
90	7.50	0.37	0.246	(0.047)	0.046	0.200
91	7.58	0.40	0.268	0.047	(0.050)	0.222
92	7.67	0.40	0.268	0.046	(0.050)	0.222
93	7.75	0.40	0.268	0.046	(0.050)	0.222
94	7.83	0.43	0.291	0.046	(0.054)	0.245

95	7.92	0.43	0.291	0.046	(0.054)	0.245
96	8.00	0.43	0.291	0.045	(0.054)	0.245
97	8.08	0.50	0.335	0.045	(0.063)	0.290
98	8.17	0.50	0.335	0.045	(0.063)	0.290
99	8.25	0.50	0.335	0.045	(0.063)	0.291
100	8.33	0.50	0.335	0.045	(0.063)	0.291
101	8.42	0.50	0.335	0.044	(0.063)	0.291
102	8.50	0.50	0.335	0.044	(0.063)	0.291
103	8.58	0.53	0.358	0.044	(0.067)	0.314
104	8.67	0.53	0.358	0.044	(0.067)	0.314
105	8.75	0.53	0.358	0.044	(0.067)	0.314
106	8.83	0.57	0.380	0.043	(0.071)	0.337
107	8.92	0.57	0.380	0.043	(0.071)	0.337
108	9.00	0.57	0.380	0.043	(0.071)	0.337
109	9.08	0.63	0.425	0.043	(0.079)	0.382
110	9.17	0.63	0.425	0.043	(0.079)	0.382
111	9.25	0.63	0.425	0.042	(0.079)	0.382
112	9.33	0.67	0.447	0.042	(0.084)	0.405
113	9.42	0.67	0.447	0.042	(0.084)	0.405
114	9.50	0.67	0.447	0.042	(0.084)	0.405
115	9.58	0.70	0.470	0.042	(0.088)	0.428
116	9.67	0.70	0.470	0.041	(0.088)	0.428
117	9.75	0.70	0.470	0.041	(0.088)	0.428
118	9.83	0.73	0.492	0.041	(0.092)	0.451
119	9.92	0.73	0.492	0.041	(0.092)	0.451
120	10.00	0.73	0.492	0.041	(0.092)	0.451
121	10.08	0.50	0.335	0.040	(0.063)	0.295
122	10.17	0.50	0.335	0.040	(0.063)	0.295
123	10.25	0.50	0.335	0.040	(0.063)	0.295
124	10.33	0.50	0.335	0.040	(0.063)	0.296
125	10.42	0.50	0.335	0.040	(0.063)	0.296
126	10.50	0.50	0.335	0.039	(0.063)	0.296
127	10.58	0.67	0.447	0.039	(0.084)	0.408
128	10.67	0.67	0.447	0.039	(0.084)	0.408
129	10.75	0.67	0.447	0.039	(0.084)	0.408
130	10.83	0.67	0.447	0.039	(0.084)	0.409
131	10.92	0.67	0.447	0.038	(0.084)	0.409
132	11.00	0.67	0.447	0.038	(0.084)	0.409
133	11.08	0.63	0.425	0.038	(0.079)	0.387
134	11.17	0.63	0.425	0.038	(0.079)	0.387
135	11.25	0.63	0.425	0.038	(0.079)	0.387
136	11.33	0.63	0.425	0.037	(0.079)	0.387
137	11.42	0.63	0.425	0.037	(0.079)	0.388
138	11.50	0.63	0.425	0.037	(0.079)	0.388
139	11.58	0.57	0.380	0.037	(0.071)	0.343
140	11.67	0.57	0.380	0.037	(0.071)	0.343
141	11.75	0.57	0.380	0.037	(0.071)	0.344
142	11.83	0.60	0.402	0.036	(0.075)	0.366
143	11.92	0.60	0.402	0.036	(0.075)	0.366
144	12.00	0.60	0.402	0.036	(0.075)	0.366

145	12.08	0.83	0.559	0.036	(0.105)	0.523
146	12.17	0.83	0.559	0.036	(0.105)	0.523
147	12.25	0.83	0.559	0.035	(0.105)	0.524
148	12.33	0.87	0.581	0.035	(0.109)	0.546
149	12.42	0.87	0.581	0.035	(0.109)	0.546
150	12.50	0.87	0.581	0.035	(0.109)	0.546
151	12.58	0.93	0.626	0.035	(0.117)	0.591
152	12.67	0.93	0.626	0.035	(0.117)	0.591
153	12.75	0.93	0.626	0.034	(0.117)	0.592
154	12.83	0.97	0.648	0.034	(0.121)	0.614
155	12.92	0.97	0.648	0.034	(0.121)	0.614
156	13.00	0.97	0.648	0.034	(0.121)	0.615
157	13.08	1.13	0.760	0.034	(0.142)	0.726
158	13.17	1.13	0.760	0.034	(0.142)	0.727
159	13.25	1.13	0.760	0.033	(0.142)	0.727
160	13.33	1.13	0.760	0.033	(0.142)	0.727
161	13.42	1.13	0.760	0.033	(0.142)	0.727
162	13.50	1.13	0.760	0.033	(0.142)	0.727
163	13.58	0.77	0.514	0.033	(0.096)	0.482
164	13.67	0.77	0.514	0.033	(0.096)	0.482
165	13.75	0.77	0.514	0.032	(0.096)	0.482
166	13.83	0.77	0.514	0.032	(0.096)	0.482
167	13.92	0.77	0.514	0.032	(0.096)	0.482
168	14.00	0.77	0.514	0.032	(0.096)	0.482
169	14.08	0.90	0.604	0.032	(0.113)	0.572
170	14.17	0.90	0.604	0.032	(0.113)	0.572
171	14.25	0.90	0.604	0.031	(0.113)	0.572
172	14.33	0.87	0.581	0.031	(0.109)	0.550
173	14.42	0.87	0.581	0.031	(0.109)	0.550
174	14.50	0.87	0.581	0.031	(0.109)	0.550
175	14.58	0.87	0.581	0.031	(0.109)	0.551
176	14.67	0.87	0.581	0.031	(0.109)	0.551
177	14.75	0.87	0.581	0.030	(0.109)	0.551
178	14.83	0.83	0.559	0.030	(0.105)	0.529
179	14.92	0.83	0.559	0.030	(0.105)	0.529
180	15.00	0.83	0.559	0.030	(0.105)	0.529
181	15.08	0.80	0.537	0.030	(0.100)	0.507
182	15.17	0.80	0.537	0.030	(0.100)	0.507
183	15.25	0.80	0.537	0.030	(0.100)	0.507
184	15.33	0.77	0.514	0.029	(0.096)	0.485
185	15.42	0.77	0.514	0.029	(0.096)	0.485
186	15.50	0.77	0.514	0.029	(0.096)	0.485
187	15.58	0.63	0.425	0.029	(0.079)	0.396
188	15.67	0.63	0.425	0.029	(0.079)	0.396
189	15.75	0.63	0.425	0.029	(0.079)	0.396
190	15.83	0.63	0.425	0.028	(0.079)	0.396
191	15.92	0.63	0.425	0.028	(0.079)	0.396
192	16.00	0.63	0.425	0.028	(0.079)	0.397
193	16.08	0.13	0.089	(0.028)	0.017	0.073
194	16.17	0.13	0.089	(0.028)	0.017	0.073

195	16.25	0.13	0.089	(0.028)	0.017	0.073
196	16.33	0.13	0.089	(0.028)	0.017	0.073
197	16.42	0.13	0.089	(0.027)	0.017	0.073
198	16.50	0.13	0.089	(0.027)	0.017	0.073
199	16.58	0.10	0.067	(0.027)	0.013	0.055
200	16.67	0.10	0.067	(0.027)	0.013	0.055
201	16.75	0.10	0.067	(0.027)	0.013	0.055
202	16.83	0.10	0.067	(0.027)	0.013	0.055
203	16.92	0.10	0.067	(0.027)	0.013	0.055
204	17.00	0.10	0.067	(0.027)	0.013	0.055
205	17.08	0.17	0.112	(0.026)	0.021	0.091
206	17.17	0.17	0.112	(0.026)	0.021	0.091
207	17.25	0.17	0.112	(0.026)	0.021	0.091
208	17.33	0.17	0.112	(0.026)	0.021	0.091
209	17.42	0.17	0.112	(0.026)	0.021	0.091
210	17.50	0.17	0.112	(0.026)	0.021	0.091
211	17.58	0.17	0.112	(0.026)	0.021	0.091
212	17.67	0.17	0.112	(0.025)	0.021	0.091
213	17.75	0.17	0.112	(0.025)	0.021	0.091
214	17.83	0.13	0.089	(0.025)	0.017	0.073
215	17.92	0.13	0.089	(0.025)	0.017	0.073
216	18.00	0.13	0.089	(0.025)	0.017	0.073
217	18.08	0.13	0.089	(0.025)	0.017	0.073
218	18.17	0.13	0.089	(0.025)	0.017	0.073
219	18.25	0.13	0.089	(0.025)	0.017	0.073
220	18.33	0.13	0.089	(0.024)	0.017	0.073
221	18.42	0.13	0.089	(0.024)	0.017	0.073
222	18.50	0.13	0.089	(0.024)	0.017	0.073
223	18.58	0.10	0.067	(0.024)	0.013	0.055
224	18.67	0.10	0.067	(0.024)	0.013	0.055
225	18.75	0.10	0.067	(0.024)	0.013	0.055
226	18.83	0.07	0.045	(0.024)	0.008	0.036
227	18.92	0.07	0.045	(0.024)	0.008	0.036
228	19.00	0.07	0.045	(0.024)	0.008	0.036
229	19.08	0.10	0.067	(0.023)	0.013	0.055
230	19.17	0.10	0.067	(0.023)	0.013	0.055
231	19.25	0.10	0.067	(0.023)	0.013	0.055
232	19.33	0.13	0.089	(0.023)	0.017	0.073
233	19.42	0.13	0.089	(0.023)	0.017	0.073
234	19.50	0.13	0.089	(0.023)	0.017	0.073
235	19.58	0.10	0.067	(0.023)	0.013	0.055
236	19.67	0.10	0.067	(0.023)	0.013	0.055
237	19.75	0.10	0.067	(0.023)	0.013	0.055
238	19.83	0.07	0.045	(0.022)	0.008	0.036
239	19.92	0.07	0.045	(0.022)	0.008	0.036
240	20.00	0.07	0.045	(0.022)	0.008	0.036
241	20.08	0.10	0.067	(0.022)	0.013	0.055
242	20.17	0.10	0.067	(0.022)	0.013	0.055
243	20.25	0.10	0.067	(0.022)	0.013	0.055
244	20.33	0.10	0.067	(0.022)	0.013	0.055

245	20.42	0.10	0.067	(0.022)	0.013	0.055
246	20.50	0.10	0.067	(0.022)	0.013	0.055
247	20.58	0.10	0.067	(0.022)	0.013	0.055
248	20.67	0.10	0.067	(0.022)	0.013	0.055
249	20.75	0.10	0.067	(0.021)	0.013	0.055
250	20.83	0.07	0.045	(0.021)	0.008	0.036
251	20.92	0.07	0.045	(0.021)	0.008	0.036
252	21.00	0.07	0.045	(0.021)	0.008	0.036
253	21.08	0.10	0.067	(0.021)	0.013	0.055
254	21.17	0.10	0.067	(0.021)	0.013	0.055
255	21.25	0.10	0.067	(0.021)	0.013	0.055
256	21.33	0.07	0.045	(0.021)	0.008	0.036
257	21.42	0.07	0.045	(0.021)	0.008	0.036
258	21.50	0.07	0.045	(0.021)	0.008	0.036
259	21.58	0.10	0.067	(0.021)	0.013	0.055
260	21.67	0.10	0.067	(0.021)	0.013	0.055
261	21.75	0.10	0.067	(0.020)	0.013	0.055
262	21.83	0.07	0.045	(0.020)	0.008	0.036
263	21.92	0.07	0.045	(0.020)	0.008	0.036
264	22.00	0.07	0.045	(0.020)	0.008	0.036
265	22.08	0.10	0.067	(0.020)	0.013	0.055
266	22.17	0.10	0.067	(0.020)	0.013	0.055
267	22.25	0.10	0.067	(0.020)	0.013	0.055
268	22.33	0.07	0.045	(0.020)	0.008	0.036
269	22.42	0.07	0.045	(0.020)	0.008	0.036
270	22.50	0.07	0.045	(0.020)	0.008	0.036
271	22.58	0.07	0.045	(0.020)	0.008	0.036
272	22.67	0.07	0.045	(0.020)	0.008	0.036
273	22.75	0.07	0.045	(0.020)	0.008	0.036
274	22.83	0.07	0.045	(0.020)	0.008	0.036
275	22.92	0.07	0.045	(0.020)	0.008	0.036
276	23.00	0.07	0.045	(0.020)	0.008	0.036
277	23.08	0.07	0.045	(0.020)	0.008	0.036
278	23.17	0.07	0.045	(0.019)	0.008	0.036
279	23.25	0.07	0.045	(0.019)	0.008	0.036
280	23.33	0.07	0.045	(0.019)	0.008	0.036
281	23.42	0.07	0.045	(0.019)	0.008	0.036
282	23.50	0.07	0.045	(0.019)	0.008	0.036
283	23.58	0.07	0.045	(0.019)	0.008	0.036
284	23.67	0.07	0.045	(0.019)	0.008	0.036
285	23.75	0.07	0.045	(0.019)	0.008	0.036
286	23.83	0.07	0.045	(0.019)	0.008	0.036
287	23.92	0.07	0.045	(0.019)	0.008	0.036
288	24.00	0.07	0.045	(0.019)	0.008	0.036

(Loss Rate Not Used)

Sum = 100.0 Sum = 59.9

Flood volume = Effective rainfall 4.99(In)

times area 8.0(Ac.)/[(In)/(Ft.)] = 3.3(Ac.Ft)

Total soil loss = 0.60(In)

Total soil loss = 0.401(Ac.Ft)

```
      Total rainfall =      5.59(In)
      Flood volume =      144802.8 Cubic Feet
      Total soil loss =       17447.1 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =      5.863(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         24 - H O U R    S T O R M
                    R u n o f f     H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
-----------------------------------------------------------------------
  0+ 5       0.0008      0.11  Q         |         |         |         |
  0+10       0.0025      0.24  Q         |         |         |         |
  0+15       0.0043      0.27  VQ        |         |         |         |
  0+20       0.0067      0.34  VQ        |         |         |         |
  0+25       0.0096      0.42  VQ        |         |         |         |
  0+30       0.0125      0.43  VQ        |         |         |         |
  0+35       0.0155      0.44  VQ        |         |         |         |
  0+40       0.0186      0.44  VQ        |         |         |         |
  0+45       0.0216      0.44  VQ        |         |         |         |
  0+50       0.0250      0.50  VQ        |         |         |         |
  0+55       0.0289      0.56  V Q       |         |         |         |
  1+ 0       0.0328      0.58  V Q       |         |         |         |
  1+ 5       0.0365      0.53  V Q       |         |         |         |
  1+10       0.0397      0.46  VQ        |         |         |         |
  1+15       0.0428      0.45  VQ        |         |         |         |
  1+20       0.0458      0.44  VQ        |         |         |         |
  1+25       0.0488      0.44  VQ        |         |         |         |
  1+30       0.0519      0.44  VQ        |         |         |         |
  1+35       0.0549      0.44  VQ        |         |         |         |
  1+40       0.0579      0.44  VQ        |         |         |         |
  1+45       0.0610      0.44  VQ        |         |         |         |
  1+50       0.0644      0.50  VQ        |         |         |         |
  1+55       0.0682      0.56  V Q       |         |         |         |
  2+ 0       0.0722      0.58  V Q       |         |         |         |
  2+ 5       0.0762      0.58  V Q       |         |         |         |
  2+10       0.0803      0.59  V Q       |         |         |         |
  2+15       0.0843      0.59   |VQ      |         |         |         |
  2+20       0.0883      0.59   |VQ      |         |         |         |
  2+25       0.0924      0.59   |VQ      |         |         |         |
  2+30       0.0964      0.59   |VQ      |         |         |         |
  2+35       0.1008      0.64   |VQ      |         |         |         |
  2+40       0.1057      0.71   |VQ      |         |         |         |
  2+45       0.1107      0.72   |VQ      |         |         |         |
  2+50       0.1157      0.73   |VQ      |         |         |         |
  2+55       0.1208      0.73   |VQ      |         |         |         |
```

```
3+ 0       0.1258      0.73   |VQ       |         |         |         |
3+ 5       0.1309      0.73   |VQ       |         |         |         |
3+10       0.1359      0.73   |VQ       |         |         |         |
3+15       0.1410      0.73   |VQ       |         |         |         |
3+20       0.1460      0.73   |VQ       |         |         |         |
3+25       0.1511      0.73   |VQ       |         |         |         |
3+30       0.1561      0.73   |VQ       |         |         |         |
3+35       0.1612      0.73   |VQ       |         |         |         |
3+40       0.1662      0.73   |VQ       |         |         |         |
3+45       0.1712      0.73   | Q       |         |         |         |
3+50       0.1767      0.79   | VQ      |         |         |         |
3+55       0.1826      0.86   | VQ      |         |         |         |
4+ 0       0.1886      0.87   | VQ      |         |         |         |
4+ 5       0.1946      0.88   | VQ      |         |         |         |
4+10       0.2006      0.88   | VQ      |         |         |         |
4+15       0.2067      0.88   | VQ      |         |         |         |
4+20       0.2131      0.94   | VQ      |         |         |         |
4+25       0.2200      1.00   | V Q     |         |         |         |
4+30       0.2270      1.02   | V Q     |         |         |         |
4+35       0.2341      1.02   | V Q     |         |         |         |
4+40       0.2412      1.03   | V Q     |         |         |         |
4+45       0.2482      1.03   | V Q     |         |         |         |
4+50       0.2557      1.08   |  VQ     |         |         |         |
4+55       0.2636      1.15   |  VQ     |         |         |         |
5+ 0       0.2716      1.16   |  VQ     |         |         |         |
5+ 5       0.2789      1.06   |  VQ     |         |         |         |
5+10       0.2853      0.93   |  Q      |         |         |         |
5+15       0.2914      0.90   |  Q      |         |         |         |
5+20       0.2979      0.94   |  Q      |         |         |         |
5+25       0.3048      1.00   |  VQ     |         |         |         |
5+30       0.3118      1.02   |  VQ     |         |         |         |
5+35       0.3193      1.08   |  VQ     |         |         |         |
5+40       0.3272      1.15   |  VQ     |         |         |         |
5+45       0.3352      1.16   |   Q     |         |         |         |
5+50       0.3432      1.17   |   Q     |         |         |         |
5+55       0.3513      1.17   |   Q     |         |         |         |
6+ 0       0.3594      1.17   |   Q     |         |         |         |
6+ 5       0.3678      1.23   |   Q     |         |         |         |
6+10       0.3768      1.29   |   VQ    |         |         |         |
6+15       0.3858      1.31   |   VQ    |         |         |         |
6+20       0.3948      1.32   |   VQ    |         |         |         |
6+25       0.4039      1.32   |   VQ    |         |         |         |
6+30       0.4130      1.32   |   VQ    |         |         |         |
6+35       0.4225      1.38   |    Q    |         |         |         |
6+40       0.4324      1.44   |    Q    |         |         |         |
6+45       0.4424      1.46   |    Q    |         |         |         |
6+50       0.4525      1.46   |    Q    |         |         |         |
6+55       0.4626      1.47   |    Q    |         |         |         |
7+ 0       0.4727      1.47   |    Q    |         |         |         |
7+ 5       0.4828      1.47   |    Q    |         |         |         |
```

```
 7+10       0.4929      1.47  |    Q    |         |         |         |
 7+15       0.5030      1.47  |    QV   |         |         |         |
 7+20       0.5135      1.52  |     Q   |         |         |         |
 7+25       0.5244      1.59  |     Q   |         |         |         |
 7+30       0.5354      1.60  |     Q   |         |         |         |
 7+35       0.5470      1.68  |     Q   |         |         |         |
 7+40       0.5591      1.76  |     VQ  |         |         |         |
 7+45       0.5714      1.78  |     VQ  |         |         |         |
 7+50       0.5841      1.86  |      Q  |         |         |         |
 7+55       0.5975      1.94  |      Q  |         |         |         |
 8+ 0       0.6111      1.96  |      Q  |         |         |         |
 8+ 5       0.6256      2.11  |      VQ |         |         |         |
 8+10       0.6413      2.28  |      V Q|         |         |         |
 8+15       0.6573      2.32  |      V Q|         |         |         |
 8+20       0.6734      2.33  |       VQ|         |         |         |
 8+25       0.6895      2.34  |       VQ|         |         |         |
 8+30       0.7057      2.35  |       VQ|         |         |         |
 8+35       0.7223      2.42  |       VQ|         |         |         |
 8+40       0.7395      2.50  |       V Q         |         |         |
 8+45       0.7569      2.52  |        VQ         |         |         |
 8+50       0.7748      2.60  |        VQ         |         |         |
 8+55       0.7933      2.69  |        VQ         |         |         |
 9+ 0       0.8119      2.71  |        VQ         |         |         |
 9+ 5       0.8315      2.85  |         VQ        |         |         |
 9+10       0.8524      3.02  |         V Q       |         |         |
 9+15       0.8734      3.06  |         V Q       |         |         |
 9+20       0.8951      3.14  |         V Q       |         |         |
 9+25       0.9174      3.24  |         |VQ       |         |         |
 9+30       0.9398      3.26  |         |V Q      |         |         |
 9+35       0.9628      3.33  |         |V Q      |         |         |
 9+40       0.9863      3.42  |         |V Q      |         |         |
 9+45       1.0100      3.44  |         | VQ      |         |         |
 9+50       1.0343      3.52  |         | V Q     |         |         |
 9+55       1.0591      3.61  |         | V Q     |         |         |
10+ 0       1.0841      3.63  |         |  VQ     |         |         |
10+ 5       1.1058      3.15  |         | QV      |         |         |
10+10       1.1236      2.59  |         Q  V      |         |         |
10+15       1.1406      2.46  |        Q|  V      |         |         |
10+20       1.1572      2.41  |        Q|  V      |         |         |
10+25       1.1736      2.38  |        Q|   V     |         |         |
10+30       1.1900      2.39  |        Q|   V     |         |         |
10+35       1.2088      2.73  |         Q   V     |         |         |
10+40       1.2304      3.14  |         | Q V     |         |         |
10+45       1.2527      3.23  |         | Q  V    |         |         |
10+50       1.2752      3.27  |         |  Q V    |         |         |
10+55       1.2979      3.29  |         |  Q V    |         |         |
11+ 0       1.3206      3.30  |         |  Q V    |         |         |
11+ 5       1.3429      3.23  |         | Q   V   |         |         |
11+10       1.3646      3.15  |         | Q   V   |         |         |
11+15       1.3861      3.13  |         | Q   V   |         |         |
```

```
11+20       1.4077      3.13  |         | Q   V   |         |         |
11+25       1.4292      3.12  |         | Q    V  |         |         |
11+30       1.4507      3.12  |         | Q    V  |         |         |
11+35       1.4713      2.99  |         |Q     V  |         |         |
11+40       1.4907      2.83  |         |Q     V  |         |         |
11+45       1.5100      2.79  |         |Q      V |         |         |
11+50       1.5296      2.85  |         |Q      V |         |         |
11+55       1.5497      2.92  |         |Q      V |         |         |
12+ 0       1.5699      2.94  |         |Q      V |         |         |
12+ 5       1.5936      3.43  |         |  Q     V|         |         |
12+10       1.6212      4.01  |         |     Q  V|         |         |
12+15       1.6497      4.14  |         |     Q  V|         |         |
12+20       1.6791      4.26  |         |      Q  V         |         |
12+25       1.7092      4.37  |         |      Q  V         |         |
12+30       1.7394      4.39  |         |      Q  V         |         |
12+35       1.7707      4.54  |         |       Q |V        |         |
12+40       1.8031      4.71  |         |       Q |V        |         |
12+45       1.8358      4.75  |         |       Q | V       |         |
12+50       1.8691      4.83  |         |        Q| V       |         |
12+55       1.9030      4.92  |         |        Q| V       |         |
13+ 0       1.9370      4.94  |         |        Q|  V      |         |
13+ 5       1.9735      5.29  |         |         |Q V      |         |
13+10       2.0128      5.71  |         |         | Q V     |         |
13+15       2.0527      5.80  |         |         |  QV     |         |
13+20       2.0930      5.84  |         |         |  Q V    |         |
13+25       2.1333      5.86  |         |         |  Q V    |         |
13+30       2.1737      5.86  |         |         |  Q  V   |         |
13+35       2.2089      5.11  |         |         Q     V   |         |
13+40       2.2379      4.21  |         |     Q   |     V   |         |
13+45       2.2655      4.01  |         |     Q   |      V  |         |
13+50       2.2926      3.93  |         |    Q    |      V  |         |
13+55       2.3193      3.89  |         |    Q    |      V  |         |
14+ 0       2.3461      3.89  |         |    Q    |       V |         |
14+ 5       2.3748      4.16  |         |     Q   |       V |         |
14+10       2.4057      4.49  |         |      Q  |       V |         |
14+15       2.4372      4.57  |         |       Q |        V|         |
14+20       2.4684      4.53  |         |       Q |        V|         |
14+25       2.4991      4.47  |         |      Q  |         V         |
14+30       2.5298      4.45  |         |      Q  |         V         |
14+35       2.5604      4.44  |         |      Q  |         V         |
14+40       2.5909      4.44  |         |      Q  |         |V        |
14+45       2.6215      4.44  |         |      Q  |         |V        |
14+50       2.6516      4.37  |         |      Q  |         |V        |
14+55       2.6812      4.29  |         |      Q  |         | V       |
15+ 0       2.7106      4.28  |         |      Q  |         | V       |
15+ 5       2.7396      4.20  |         |     Q   |         | V       |
15+10       2.7679      4.12  |         |     Q   |         |  V      |
15+15       2.7962      4.10  |         |     Q   |         |  V      |
15+20       2.8239      4.02  |         |     Q   |         |  V      |
15+25       2.8510      3.94  |         |    Q    |         |   V     |
```

```
15+30       2.8780      3.92  |         |    Q    |         |   V     |
15+35       2.9031      3.64  |         |   Q     |         |   V     |
15+40       2.9259      3.31  |         |  Q      |         |    V    |
15+45       2.9482      3.24  |         | Q       |         |    V    |
15+50       2.9703      3.21  |         | Q       |         |    V    |
15+55       2.9923      3.20  |         | Q       |         |     V   |
16+ 0       3.0143      3.20  |         | Q       |         |     V   |
16+ 5       3.0295      2.20  |       Q |         |         |     V   |
16+10       3.0365      1.02  |   Q     |         |         |     V   |
16+15       3.0417      0.75  |  Q      |         |         |     V   |
16+20       3.0461      0.65  | Q       |         |         |     V   |
16+25       3.0502      0.59  | Q       |         |         |     V   |
16+30       3.0542      0.59  | Q       |         |         |     V   |
16+35       3.0579      0.53  | Q       |         |         |     V   |
16+40       3.0611      0.46  |Q        |         |         |     V   |
16+45       3.0642      0.45  |Q        |         |         |     V   |
16+50       3.0672      0.44  |Q        |         |         |     V   |
16+55       3.0702      0.44  |Q        |         |         |     V   |
17+ 0       3.0733      0.44  |Q        |         |         |     V   |
17+ 5       3.0771      0.55  | Q       |         |         |      V  |
17+10       3.0818      0.68  | Q       |         |         |      V  |
17+15       3.0867      0.71  | Q       |         |         |      V  |
17+20       3.0917      0.73  | Q       |         |         |      V  |
17+25       3.0967      0.73  | Q       |         |         |      V  |
17+30       3.1018      0.73  | Q       |         |         |      V  |
17+35       3.1068      0.73  | Q       |         |         |      V  |
17+40       3.1119      0.73  | Q       |         |         |      V  |
17+45       3.1169      0.73  | Q       |         |         |      V  |
17+50       3.1216      0.68  | Q       |         |         |      V  |
17+55       3.1258      0.61  | Q       |         |         |      V  |
18+ 0       3.1299      0.60  | Q       |         |         |      V  |
18+ 5       3.1340      0.59  | Q       |         |         |      V  |
18+10       3.1380      0.59  | Q       |         |         |      V  |
18+15       3.1420      0.59  | Q       |         |         |      V  |
18+20       3.1461      0.59  | Q       |         |         |      V  |
18+25       3.1501      0.59  | Q       |         |         |      V  |
18+30       3.1541      0.59  | Q       |         |         |      V  |
18+35       3.1578      0.53  | Q       |         |         |      V  |
18+40       3.1610      0.46  |Q        |         |         |       V |
18+45       3.1641      0.45  |Q        |         |         |       V |
18+50       3.1668      0.39  |Q        |         |         |       V |
18+55       3.1689      0.32  |Q        |         |         |       V |
19+ 0       3.1710      0.30  |Q        |         |         |       V |
19+ 5       3.1735      0.35  |Q        |         |         |       V |
19+10       3.1763      0.42  |Q        |         |         |       V |
19+15       3.1793      0.43  |Q        |         |         |       V |
19+20       3.1827      0.49  |Q        |         |         |       V |
19+25       3.1865      0.56  | Q       |         |         |       V |
19+30       3.1905      0.58  | Q       |         |         |       V |
19+35       3.1941      0.53  | Q       |         |         |       V |
```

19+40	3.1973	0.46	Q			V
19+45	3.2004	0.45	Q			V
19+50	3.2031	0.39	Q			V
19+55	3.2053	0.32	Q			V
20+ 0	3.2074	0.30	Q			V
20+ 5	3.2098	0.35	Q			V
20+10	3.2127	0.42	Q			V
20+15	3.2156	0.43	Q			V
20+20	3.2186	0.44	Q			V
20+25	3.2216	0.44	Q			V
20+30	3.2247	0.44	Q			V
20+35	3.2277	0.44	Q			V
20+40	3.2307	0.44	Q			V
20+45	3.2338	0.44	Q			V
20+50	3.2364	0.38	Q			V
20+55	3.2386	0.32	Q			V
21+ 0	3.2407	0.30	Q			V
21+ 5	3.2431	0.35	Q			V
21+10	3.2460	0.42	Q			V
21+15	3.2489	0.43	Q			V
21+20	3.2515	0.38	Q			V
21+25	3.2537	0.32	Q			V
21+30	3.2558	0.30	Q			V
21+35	3.2582	0.35	Q			V
21+40	3.2611	0.42	Q			V
21+45	3.2641	0.43	Q			V
21+50	3.2667	0.38	Q			V
21+55	3.2689	0.32	Q			V
22+ 0	3.2710	0.30	Q			V
22+ 5	3.2734	0.35	Q			V
22+10	3.2762	0.42	Q			V
22+15	3.2792	0.43	Q			V
22+20	3.2818	0.38	Q			V
22+25	3.2840	0.32	Q			V
22+30	3.2861	0.30	Q			V
22+35	3.2881	0.30	Q			V
22+40	3.2902	0.29	Q			V
22+45	3.2922	0.29	Q			V
22+50	3.2942	0.29	Q			V
22+55	3.2962	0.29	Q			V
23+ 0	3.2982	0.29	Q			V
23+ 5	3.3003	0.29	Q			V
23+10	3.3023	0.29	Q			V
23+15	3.3043	0.29	Q			V
23+20	3.3063	0.29	Q			V
23+25	3.3083	0.29	Q			V
23+30	3.3103	0.29	Q			V
23+35	3.3124	0.29	Q			V
23+40	3.3144	0.29	Q			V
23+45	3.3164	0.29	Q			V

```
   23+50        3.3184       0.29  |Q         |         |         |        V|
   23+55        3.3204       0.29  |Q         |         |         |        V|
   24+ 0        3.3225       0.29  |Q         |         |         |        V|
   24+ 5        3.3237       0.18  Q          |         |         |        V|
   24+10        3.3240       0.05  Q          |         |         |        V|
   24+15        3.3242       0.02  Q          |         |         |        V|
   24+20        3.3242       0.01  Q          |         |         |         V
----------------------------------------------------------------------
```

NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-24HR
POST DEVELOPMENT
DMA C2

```
        U n i t   H y d r o g r a p h   A n a l y s i s

        Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018, Version 9.0
                Study date  10/17/23 File: NSPRUHC224100.out


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
------------------------------------------------------------------------

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6491

---------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



---------------------------------------------------------------------
NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA C2
UNIT HYDROGRAPH
100YR 24HR
--------------------------------------------------------------------
Drainage Area =       7.33(Ac.)  =      0.011 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =       7.33(Ac.)  =
0.011 Sq. Mi.
Length along longest watercourse =     692.00(Ft.)
Length along longest watercourse measured to centroid =     557.00(Ft.)
Length along longest watercourse =      0.131 Mi.
Length along longest watercourse measured to centroid =      0.105 Mi.
Difference in elevation =       4.16(Ft.)
Slope along watercourse =     31.7410 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =    0.037 Hr.
Lag time =     2.20 Min.
25% of lag time =     0.55 Min.
40% of lag time =     0.88 Min.
Unit time =     5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:
```

```
Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        7.33            2.13                  15.60

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        7.33            5.59                  40.95

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    2.130(In)
Area Averaged 100-Year Rainfall =    5.590(In)

Point rain (area averaged) =    5.590(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    5.590(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     7.326           69.00         0.806
 Total Area Entered =      7.33(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  84.4      0.194     0.806        0.053       1.000      0.053
                                                  Sum (F) =   0.053
Area averaged mean soil loss (F) (In/Hr) =  0.053
Minimum soil loss rate ((In/Hr)) =  0.027
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.255
---------------------------------------------------------------------

                U n i t  H y d r o g r a p h
                        VALLEY S-Curve
--------------------------------------------------------------------
                Unit Hydrograph Data
---------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                           Graph %           (CFS)
---------------------------------------------------------------------
    1   0.083        227.175         47.735              3.524
    2   0.167        454.350         41.515              3.065
    3   0.250        681.525          7.789              0.575
    4   0.333        908.700          2.962              0.219
                              Sum = 100.000   Sum=       7.383
-----------------------------------------------------------------------
```

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Loss rate(In./Hr) Low	Effective (In/Hr)
1	0.08	0.07	0.045	(0.094)	0.011	0.033
2	0.17	0.07	0.045	(0.094)	0.011	0.033
3	0.25	0.07	0.045	(0.094)	0.011	0.033
4	0.33	0.10	0.067	(0.093)	0.017	0.050
5	0.42	0.10	0.067	(0.093)	0.017	0.050
6	0.50	0.10	0.067	(0.093)	0.017	0.050
7	0.58	0.10	0.067	(0.092)	0.017	0.050
8	0.67	0.10	0.067	(0.092)	0.017	0.050
9	0.75	0.10	0.067	(0.091)	0.017	0.050
10	0.83	0.13	0.089	(0.091)	0.023	0.067
11	0.92	0.13	0.089	(0.091)	0.023	0.067
12	1.00	0.13	0.089	(0.090)	0.023	0.067
13	1.08	0.10	0.067	(0.090)	0.017	0.050
14	1.17	0.10	0.067	(0.090)	0.017	0.050
15	1.25	0.10	0.067	(0.089)	0.017	0.050
16	1.33	0.10	0.067	(0.089)	0.017	0.050
17	1.42	0.10	0.067	(0.089)	0.017	0.050
18	1.50	0.10	0.067	(0.088)	0.017	0.050
19	1.58	0.10	0.067	(0.088)	0.017	0.050
20	1.67	0.10	0.067	(0.088)	0.017	0.050
21	1.75	0.10	0.067	(0.087)	0.017	0.050
22	1.83	0.13	0.089	(0.087)	0.023	0.067
23	1.92	0.13	0.089	(0.086)	0.023	0.067
24	2.00	0.13	0.089	(0.086)	0.023	0.067
25	2.08	0.13	0.089	(0.086)	0.023	0.067
26	2.17	0.13	0.089	(0.085)	0.023	0.067
27	2.25	0.13	0.089	(0.085)	0.023	0.067
28	2.33	0.13	0.089	(0.085)	0.023	0.067
29	2.42	0.13	0.089	(0.084)	0.023	0.067
30	2.50	0.13	0.089	(0.084)	0.023	0.067
31	2.58	0.17	0.112	(0.084)	0.029	0.083
32	2.67	0.17	0.112	(0.083)	0.029	0.083
33	2.75	0.17	0.112	(0.083)	0.029	0.083
34	2.83	0.17	0.112	(0.083)	0.029	0.083
35	2.92	0.17	0.112	(0.082)	0.029	0.083
36	3.00	0.17	0.112	(0.082)	0.029	0.083
37	3.08	0.17	0.112	(0.082)	0.029	0.083
38	3.17	0.17	0.112	(0.081)	0.029	0.083
39	3.25	0.17	0.112	(0.081)	0.029	0.083
40	3.33	0.17	0.112	(0.081)	0.029	0.083
41	3.42	0.17	0.112	(0.080)	0.029	0.083
42	3.50	0.17	0.112	(0.080)	0.029	0.083
43	3.58	0.17	0.112	(0.080)	0.029	0.083
44	3.67	0.17	0.112	(0.079)	0.029	0.083
45	3.75	0.17	0.112	(0.079)	0.029	0.083

46	3.83	0.20	0.134	(0.079)	0.034	0.100
47	3.92	0.20	0.134	(0.078)	0.034	0.100
48	4.00	0.20	0.134	(0.078)	0.034	0.100
49	4.08	0.20	0.134	(0.078)	0.034	0.100
50	4.17	0.20	0.134	(0.077)	0.034	0.100
51	4.25	0.20	0.134	(0.077)	0.034	0.100
52	4.33	0.23	0.157	(0.077)	0.040	0.117
53	4.42	0.23	0.157	(0.076)	0.040	0.117
54	4.50	0.23	0.157	(0.076)	0.040	0.117
55	4.58	0.23	0.157	(0.076)	0.040	0.117
56	4.67	0.23	0.157	(0.075)	0.040	0.117
57	4.75	0.23	0.157	(0.075)	0.040	0.117
58	4.83	0.27	0.179	(0.075)	0.046	0.133
59	4.92	0.27	0.179	(0.074)	0.046	0.133
60	5.00	0.27	0.179	(0.074)	0.046	0.133
61	5.08	0.20	0.134	(0.074)	0.034	0.100
62	5.17	0.20	0.134	(0.073)	0.034	0.100
63	5.25	0.20	0.134	(0.073)	0.034	0.100
64	5.33	0.23	0.157	(0.073)	0.040	0.117
65	5.42	0.23	0.157	(0.072)	0.040	0.117
66	5.50	0.23	0.157	(0.072)	0.040	0.117
67	5.58	0.27	0.179	(0.072)	0.046	0.133
68	5.67	0.27	0.179	(0.072)	0.046	0.133
69	5.75	0.27	0.179	(0.071)	0.046	0.133
70	5.83	0.27	0.179	(0.071)	0.046	0.133
71	5.92	0.27	0.179	(0.071)	0.046	0.133
72	6.00	0.27	0.179	(0.070)	0.046	0.133
73	6.08	0.30	0.201	(0.070)	0.051	0.150
74	6.17	0.30	0.201	(0.070)	0.051	0.150
75	6.25	0.30	0.201	(0.069)	0.051	0.150
76	6.33	0.30	0.201	(0.069)	0.051	0.150
77	6.42	0.30	0.201	(0.069)	0.051	0.150
78	6.50	0.30	0.201	(0.068)	0.051	0.150
79	6.58	0.33	0.224	(0.068)	0.057	0.167
80	6.67	0.33	0.224	(0.068)	0.057	0.167
81	6.75	0.33	0.224	(0.067)	0.057	0.167
82	6.83	0.33	0.224	(0.067)	0.057	0.167
83	6.92	0.33	0.224	(0.067)	0.057	0.167
84	7.00	0.33	0.224	(0.067)	0.057	0.167
85	7.08	0.33	0.224	(0.066)	0.057	0.167
86	7.17	0.33	0.224	(0.066)	0.057	0.167
87	7.25	0.33	0.224	(0.066)	0.057	0.167
88	7.33	0.37	0.246	(0.065)	0.063	0.183
89	7.42	0.37	0.246	(0.065)	0.063	0.183
90	7.50	0.37	0.246	(0.065)	0.063	0.183
91	7.58	0.40	0.268	0.064	(0.068)	0.204
92	7.67	0.40	0.268	0.064	(0.068)	0.204
93	7.75	0.40	0.268	0.064	(0.068)	0.204
94	7.83	0.43	0.291	0.064	(0.074)	0.227
95	7.92	0.43	0.291	0.063	(0.074)	0.227

96	8.00	0.43	0.291	0.063	(0.074)	0.228
97	8.08	0.50	0.335	0.063	(0.086)	0.273
98	8.17	0.50	0.335	0.062	(0.086)	0.273
99	8.25	0.50	0.335	0.062	(0.086)	0.273
100	8.33	0.50	0.335	0.062	(0.086)	0.274
101	8.42	0.50	0.335	0.062	(0.086)	0.274
102	8.50	0.50	0.335	0.061	(0.086)	0.274
103	8.58	0.53	0.358	0.061	(0.091)	0.297
104	8.67	0.53	0.358	0.061	(0.091)	0.297
105	8.75	0.53	0.358	0.060	(0.091)	0.297
106	8.83	0.57	0.380	0.060	(0.097)	0.320
107	8.92	0.57	0.380	0.060	(0.097)	0.320
108	9.00	0.57	0.380	0.060	(0.097)	0.321
109	9.08	0.63	0.425	0.059	(0.108)	0.366
110	9.17	0.63	0.425	0.059	(0.108)	0.366
111	9.25	0.63	0.425	0.059	(0.108)	0.366
112	9.33	0.67	0.447	0.058	(0.114)	0.389
113	9.42	0.67	0.447	0.058	(0.114)	0.389
114	9.50	0.67	0.447	0.058	(0.114)	0.389
115	9.58	0.70	0.470	0.058	(0.120)	0.412
116	9.67	0.70	0.470	0.057	(0.120)	0.412
117	9.75	0.70	0.470	0.057	(0.120)	0.413
118	9.83	0.73	0.492	0.057	(0.125)	0.435
119	9.92	0.73	0.492	0.056	(0.125)	0.435
120	10.00	0.73	0.492	0.056	(0.125)	0.436
121	10.08	0.50	0.335	0.056	(0.086)	0.279
122	10.17	0.50	0.335	0.056	(0.086)	0.280
123	10.25	0.50	0.335	0.055	(0.086)	0.280
124	10.33	0.50	0.335	0.055	(0.086)	0.280
125	10.42	0.50	0.335	0.055	(0.086)	0.281
126	10.50	0.50	0.335	0.055	(0.086)	0.281
127	10.58	0.67	0.447	0.054	(0.114)	0.393
128	10.67	0.67	0.447	0.054	(0.114)	0.393
129	10.75	0.67	0.447	0.054	(0.114)	0.393
130	10.83	0.67	0.447	0.054	(0.114)	0.394
131	10.92	0.67	0.447	0.053	(0.114)	0.394
132	11.00	0.67	0.447	0.053	(0.114)	0.394
133	11.08	0.63	0.425	0.053	(0.108)	0.372
134	11.17	0.63	0.425	0.052	(0.108)	0.372
135	11.25	0.63	0.425	0.052	(0.108)	0.373
136	11.33	0.63	0.425	0.052	(0.108)	0.373
137	11.42	0.63	0.425	0.052	(0.108)	0.373
138	11.50	0.63	0.425	0.051	(0.108)	0.373
139	11.58	0.57	0.380	0.051	(0.097)	0.329
140	11.67	0.57	0.380	0.051	(0.097)	0.329
141	11.75	0.57	0.380	0.051	(0.097)	0.329
142	11.83	0.60	0.402	0.050	(0.103)	0.352
143	11.92	0.60	0.402	0.050	(0.103)	0.352
144	12.00	0.60	0.402	0.050	(0.103)	0.353
145	12.08	0.83	0.559	0.050	(0.143)	0.509

146	12.17	0.83	0.559	0.049	(0.143)	0.510
147	12.25	0.83	0.559	0.049	(0.143)	0.510
148	12.33	0.87	0.581	0.049	(0.148)	0.532
149	12.42	0.87	0.581	0.049	(0.148)	0.533
150	12.50	0.87	0.581	0.048	(0.148)	0.533
151	12.58	0.93	0.626	0.048	(0.160)	0.578
152	12.67	0.93	0.626	0.048	(0.160)	0.578
153	12.75	0.93	0.626	0.048	(0.160)	0.578
154	12.83	0.97	0.648	0.047	(0.165)	0.601
155	12.92	0.97	0.648	0.047	(0.165)	0.601
156	13.00	0.97	0.648	0.047	(0.165)	0.601
157	13.08	1.13	0.760	0.047	(0.194)	0.713
158	13.17	1.13	0.760	0.047	(0.194)	0.714
159	13.25	1.13	0.760	0.046	(0.194)	0.714
160	13.33	1.13	0.760	0.046	(0.194)	0.714
161	13.42	1.13	0.760	0.046	(0.194)	0.714
162	13.50	1.13	0.760	0.046	(0.194)	0.715
163	13.58	0.77	0.514	0.045	(0.131)	0.469
164	13.67	0.77	0.514	0.045	(0.131)	0.469
165	13.75	0.77	0.514	0.045	(0.131)	0.469
166	13.83	0.77	0.514	0.045	(0.131)	0.470
167	13.92	0.77	0.514	0.044	(0.131)	0.470
168	14.00	0.77	0.514	0.044	(0.131)	0.470
169	14.08	0.90	0.604	0.044	(0.154)	0.560
170	14.17	0.90	0.604	0.044	(0.154)	0.560
171	14.25	0.90	0.604	0.044	(0.154)	0.560
172	14.33	0.87	0.581	0.043	(0.148)	0.538
173	14.42	0.87	0.581	0.043	(0.148)	0.538
174	14.50	0.87	0.581	0.043	(0.148)	0.538
175	14.58	0.87	0.581	0.043	(0.148)	0.539
176	14.67	0.87	0.581	0.042	(0.148)	0.539
177	14.75	0.87	0.581	0.042	(0.148)	0.539
178	14.83	0.83	0.559	0.042	(0.143)	0.517
179	14.92	0.83	0.559	0.042	(0.143)	0.517
180	15.00	0.83	0.559	0.042	(0.143)	0.517
181	15.08	0.80	0.537	0.041	(0.137)	0.495
182	15.17	0.80	0.537	0.041	(0.137)	0.495
183	15.25	0.80	0.537	0.041	(0.137)	0.496
184	15.33	0.77	0.514	0.041	(0.131)	0.474
185	15.42	0.77	0.514	0.041	(0.131)	0.474
186	15.50	0.77	0.514	0.040	(0.131)	0.474
187	15.58	0.63	0.425	0.040	(0.108)	0.385
188	15.67	0.63	0.425	0.040	(0.108)	0.385
189	15.75	0.63	0.425	0.040	(0.108)	0.385
190	15.83	0.63	0.425	0.039	(0.108)	0.385
191	15.92	0.63	0.425	0.039	(0.108)	0.386
192	16.00	0.63	0.425	0.039	(0.108)	0.386
193	16.08	0.13	0.089	(0.039)	0.023	0.067
194	16.17	0.13	0.089	(0.039)	0.023	0.067
195	16.25	0.13	0.089	(0.038)	0.023	0.067

196	16.33	0.13	0.089	(0.038)	0.023	0.067
197	16.42	0.13	0.089	(0.038)	0.023	0.067
198	16.50	0.13	0.089	(0.038)	0.023	0.067
199	16.58	0.10	0.067	(0.038)	0.017	0.050
200	16.67	0.10	0.067	(0.038)	0.017	0.050
201	16.75	0.10	0.067	(0.037)	0.017	0.050
202	16.83	0.10	0.067	(0.037)	0.017	0.050
203	16.92	0.10	0.067	(0.037)	0.017	0.050
204	17.00	0.10	0.067	(0.037)	0.017	0.050
205	17.08	0.17	0.112	(0.037)	0.029	0.083
206	17.17	0.17	0.112	(0.036)	0.029	0.083
207	17.25	0.17	0.112	(0.036)	0.029	0.083
208	17.33	0.17	0.112	(0.036)	0.029	0.083
209	17.42	0.17	0.112	(0.036)	0.029	0.083
210	17.50	0.17	0.112	(0.036)	0.029	0.083
211	17.58	0.17	0.112	(0.035)	0.029	0.083
212	17.67	0.17	0.112	(0.035)	0.029	0.083
213	17.75	0.17	0.112	(0.035)	0.029	0.083
214	17.83	0.13	0.089	(0.035)	0.023	0.067
215	17.92	0.13	0.089	(0.035)	0.023	0.067
216	18.00	0.13	0.089	(0.035)	0.023	0.067
217	18.08	0.13	0.089	(0.034)	0.023	0.067
218	18.17	0.13	0.089	(0.034)	0.023	0.067
219	18.25	0.13	0.089	(0.034)	0.023	0.067
220	18.33	0.13	0.089	(0.034)	0.023	0.067
221	18.42	0.13	0.089	(0.034)	0.023	0.067
222	18.50	0.13	0.089	(0.034)	0.023	0.067
223	18.58	0.10	0.067	(0.033)	0.017	0.050
224	18.67	0.10	0.067	(0.033)	0.017	0.050
225	18.75	0.10	0.067	(0.033)	0.017	0.050
226	18.83	0.07	0.045	(0.033)	0.011	0.033
227	18.92	0.07	0.045	(0.033)	0.011	0.033
228	19.00	0.07	0.045	(0.033)	0.011	0.033
229	19.08	0.10	0.067	(0.033)	0.017	0.050
230	19.17	0.10	0.067	(0.032)	0.017	0.050
231	19.25	0.10	0.067	(0.032)	0.017	0.050
232	19.33	0.13	0.089	(0.032)	0.023	0.067
233	19.42	0.13	0.089	(0.032)	0.023	0.067
234	19.50	0.13	0.089	(0.032)	0.023	0.067
235	19.58	0.10	0.067	(0.032)	0.017	0.050
236	19.67	0.10	0.067	(0.031)	0.017	0.050
237	19.75	0.10	0.067	(0.031)	0.017	0.050
238	19.83	0.07	0.045	(0.031)	0.011	0.033
239	19.92	0.07	0.045	(0.031)	0.011	0.033
240	20.00	0.07	0.045	(0.031)	0.011	0.033
241	20.08	0.10	0.067	(0.031)	0.017	0.050
242	20.17	0.10	0.067	(0.031)	0.017	0.050
243	20.25	0.10	0.067	(0.031)	0.017	0.050
244	20.33	0.10	0.067	(0.030)	0.017	0.050
245	20.42	0.10	0.067	(0.030)	0.017	0.050

246	20.50	0.10	0.067	(0.030)	0.017	0.050
247	20.58	0.10	0.067	(0.030)	0.017	0.050
248	20.67	0.10	0.067	(0.030)	0.017	0.050
249	20.75	0.10	0.067	(0.030)	0.017	0.050
250	20.83	0.07	0.045	(0.030)	0.011	0.033
251	20.92	0.07	0.045	(0.029)	0.011	0.033
252	21.00	0.07	0.045	(0.029)	0.011	0.033
253	21.08	0.10	0.067	(0.029)	0.017	0.050
254	21.17	0.10	0.067	(0.029)	0.017	0.050
255	21.25	0.10	0.067	(0.029)	0.017	0.050
256	21.33	0.07	0.045	(0.029)	0.011	0.033
257	21.42	0.07	0.045	(0.029)	0.011	0.033
258	21.50	0.07	0.045	(0.029)	0.011	0.033
259	21.58	0.10	0.067	(0.029)	0.017	0.050
260	21.67	0.10	0.067	(0.028)	0.017	0.050
261	21.75	0.10	0.067	(0.028)	0.017	0.050
262	21.83	0.07	0.045	(0.028)	0.011	0.033
263	21.92	0.07	0.045	(0.028)	0.011	0.033
264	22.00	0.07	0.045	(0.028)	0.011	0.033
265	22.08	0.10	0.067	(0.028)	0.017	0.050
266	22.17	0.10	0.067	(0.028)	0.017	0.050
267	22.25	0.10	0.067	(0.028)	0.017	0.050
268	22.33	0.07	0.045	(0.028)	0.011	0.033
269	22.42	0.07	0.045	(0.028)	0.011	0.033
270	22.50	0.07	0.045	(0.028)	0.011	0.033
271	22.58	0.07	0.045	(0.027)	0.011	0.033
272	22.67	0.07	0.045	(0.027)	0.011	0.033
273	22.75	0.07	0.045	(0.027)	0.011	0.033
274	22.83	0.07	0.045	(0.027)	0.011	0.033
275	22.92	0.07	0.045	(0.027)	0.011	0.033
276	23.00	0.07	0.045	(0.027)	0.011	0.033
277	23.08	0.07	0.045	(0.027)	0.011	0.033
278	23.17	0.07	0.045	(0.027)	0.011	0.033
279	23.25	0.07	0.045	(0.027)	0.011	0.033
280	23.33	0.07	0.045	(0.027)	0.011	0.033
281	23.42	0.07	0.045	(0.027)	0.011	0.033
282	23.50	0.07	0.045	(0.027)	0.011	0.033
283	23.58	0.07	0.045	(0.027)	0.011	0.033
284	23.67	0.07	0.045	(0.027)	0.011	0.033
285	23.75	0.07	0.045	(0.027)	0.011	0.033
286	23.83	0.07	0.045	(0.027)	0.011	0.033
287	23.92	0.07	0.045	(0.027)	0.011	0.033
288	24.00	0.07	0.045	(0.027)	0.011	0.033

(Loss Rate Not Used)

Sum = 100.0 Sum = 57.2

Flood volume = Effective rainfall 4.76(In)
times area 7.3(Ac.)/[(In)/(Ft.)] = 2.9(Ac.Ft)
Total soil loss = 0.83(In)
Total soil loss = 0.505(Ac.Ft)
Total rainfall = 5.59(In)

```
      Flood volume =      126669.5 Cubic Feet
      Total soil loss =       21985.3 Cubic Feet

       Peak flow rate of this hydrograph =      5.278(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         24 - H O U R    S T O R M
                    R u n o f f     H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5        5.0        7.5       10.0
-----------------------------------------------------------------------
  0+ 5       0.0008      0.12  Q         |          |          |          |
  0+10       0.0023      0.22  Q         |          |          |          |
  0+15       0.0040      0.24  Q         |          |          |          |
  0+20       0.0061      0.30  VQ        |          |          |          |
  0+25       0.0085      0.36  VQ        |          |          |          |
  0+30       0.0110      0.37  VQ        |          |          |          |
  0+35       0.0136      0.37  VQ        |          |          |          |
  0+40       0.0161      0.37  VQ        |          |          |          |
  0+45       0.0187      0.37  VQ        |          |          |          |
  0+50       0.0216      0.43  VQ        |          |          |          |
  0+55       0.0249      0.48  VQ        |          |          |          |
  1+ 0       0.0283      0.49  VQ        |          |          |          |
  1+ 5       0.0313      0.43  VQ        |          |          |          |
  1+10       0.0339      0.38  VQ        |          |          |          |
  1+15       0.0365      0.37  VQ        |          |          |          |
  1+20       0.0390      0.37  VQ        |          |          |          |
  1+25       0.0415      0.37  VQ        |          |          |          |
  1+30       0.0441      0.37  VQ        |          |          |          |
  1+35       0.0466      0.37  VQ        |          |          |          |
  1+40       0.0492      0.37  VQ        |          |          |          |
  1+45       0.0517      0.37  VQ        |          |          |          |
  1+50       0.0547      0.43  VQ        |          |          |          |
  1+55       0.0580      0.48  VQ        |          |          |          |
  2+ 0       0.0613      0.49  VQ        |          |          |          |
  2+ 5       0.0647      0.49  VQ        |          |          |          |
  2+10       0.0681      0.49  VQ        |          |          |          |
  2+15       0.0715      0.49  VQ        |          |          |          |
  2+20       0.0749      0.49  |Q        |          |          |          |
  2+25       0.0783      0.49  |Q        |          |          |          |
  2+30       0.0817      0.49  |Q        |          |          |          |
  2+35       0.0855      0.55  |VQ       |          |          |          |
  2+40       0.0896      0.60  |VQ       |          |          |          |
  2+45       0.0938      0.61  |VQ       |          |          |          |
  2+50       0.0981      0.62  |VQ       |          |          |          |
  2+55       0.1023      0.62  |VQ       |          |          |          |
  3+ 0       0.1065      0.62  |VQ       |          |          |          |
```

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3+ 5       0.1108      0.62  |VQ       |         |         |         |
3+10       0.1150      0.62  |VQ       |         |         |         |
3+15       0.1192      0.62  |VQ       |         |         |         |
3+20       0.1235      0.62  |VQ       |         |         |         |
3+25       0.1277      0.62  |VQ       |         |         |         |
3+30       0.1320      0.62  |VQ       |         |         |         |
3+35       0.1362      0.62  |VQ       |         |         |         |
3+40       0.1404      0.62  |VQ       |         |         |         |
3+45       0.1447      0.62  |VQ       |         |         |         |
3+50       0.1493      0.67  | Q       |         |         |         |
3+55       0.1543      0.73  | Q       |         |         |         |
4+ 0       0.1594      0.73  | Q       |         |         |         |
4+ 5       0.1644      0.74  | Q       |         |         |         |
4+10       0.1695      0.74  | Q       |         |         |         |
4+15       0.1746      0.74  | Q       |         |         |         |
4+20       0.1801      0.80  | VQ      |         |         |         |
4+25       0.1859      0.85  | VQ      |         |         |         |
4+30       0.1919      0.86  | VQ      |         |         |         |
4+35       0.1978      0.86  | VQ      |         |         |         |
4+40       0.2037      0.86  | VQ      |         |         |         |
4+45       0.2096      0.86  | VQ      |         |         |         |
4+50       0.2160      0.92  | VQ      |         |         |         |
4+55       0.2227      0.97  |  Q      |         |         |         |
5+ 0       0.2294      0.98  |  Q      |         |         |         |
5+ 5       0.2354      0.87  |  Q      |         |         |         |
5+10       0.2407      0.76  |  Q      |         |         |         |
5+15       0.2458      0.75  | QV      |         |         |         |
5+20       0.2513      0.80  |  Q      |         |         |         |
5+25       0.2571      0.85  |  Q      |         |         |         |
5+30       0.2630      0.86  |  Q      |         |         |         |
5+35       0.2694      0.92  |  Q      |         |         |         |
5+40       0.2761      0.97  |  Q      |         |         |         |
5+45       0.2828      0.98  |  Q      |         |         |         |
5+50       0.2896      0.98  |  Q      |         |         |         |
5+55       0.2964      0.98  |  QV     |         |         |         |
6+ 0       0.3032      0.98  |  QV     |         |         |         |
6+ 5       0.3103      1.04  |   Q     |         |         |         |
6+10       0.3179      1.09  |   Q     |         |         |         |
6+15       0.3255      1.10  |   Q     |         |         |         |
6+20       0.3331      1.11  |   Q     |         |         |         |
6+25       0.3407      1.11  |   Q     |         |         |         |
6+30       0.3484      1.11  |   Q     |         |         |         |
6+35       0.3564      1.17  |   Q     |         |         |         |
6+40       0.3648      1.22  |   QV    |         |         |         |
6+45       0.3732      1.23  |   QV    |         |         |         |
6+50       0.3817      1.23  |   QV    |         |         |         |
6+55       0.3902      1.23  |   QV    |         |         |         |
7+ 0       0.3987      1.23  |   QV    |         |         |         |
7+ 5       0.4071      1.23  |   QV    |         |         |         |
7+10       0.4156      1.23  |   QV    |         |         |         |
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 7+15      0.4241      1.23  |   QV    |         |         |         |
 7+20      0.4330      1.29  |    Q    |         |         |         |
 7+25      0.4422      1.34  |    QV   |         |         |         |
 7+30      0.4515      1.35  |    QV   |         |         |         |
 7+35      0.4613      1.43  |    QV   |         |         |         |
 7+40      0.4716      1.49  |    QV   |         |         |         |
 7+45      0.4819      1.50  |     Q   |         |         |         |
 7+50      0.4929      1.59  |     Q   |         |         |         |
 7+55      0.5043      1.66  |     Q   |         |         |         |
 8+ 0      0.5159      1.68  |     QV  |         |         |         |
 8+ 5      0.5285      1.84  |      Q  |         |         |         |
 8+10      0.5422      1.98  |      Q  |         |         |         |
 8+15      0.5560      2.01  |      VQ |         |         |         |
 8+20      0.5699      2.02  |      VQ |         |         |         |
 8+25      0.5838      2.02  |       Q |         |         |         |
 8+30      0.5978      2.02  |       Q |         |         |         |
 8+35      0.6123      2.10  |       Q |         |         |         |
 8+40      0.6272      2.18  |       Q |         |         |         |
 8+45      0.6423      2.19  |       Q |         |         |         |
 8+50      0.6580      2.28  |        Q|         |         |         |
 8+55      0.6742      2.35  |        Q|         |         |         |
 9+ 0      0.6904      2.36  |        Q|         |         |         |
 9+ 5      0.7078      2.53  |        VQ         |         |         |
 9+10      0.7262      2.67  |        VQ         |         |         |
 9+15      0.7447      2.69  |         Q         |         |         |
 9+20      0.7639      2.78  |         VQ        |         |         |
 9+25      0.7836      2.85  |         VQ        |         |         |
 9+30      0.8033      2.87  |         |Q        |         |         |
 9+35      0.8237      2.96  |         |Q        |         |         |
 9+40      0.8445      3.03  |         |VQ       |         |         |
 9+45      0.8655      3.04  |         |VQ       |         |         |
 9+50      0.8870      3.13  |         | Q       |         |         |
 9+55      0.9090      3.20  |         | Q       |         |         |
10+ 0      0.9312      3.21  |         | Q       |         |         |
10+ 5      0.9495      2.67  |         Q  V      |         |         |
10+10      0.9646      2.19  |       Q |  V      |         |         |
10+15      0.9791      2.10  |       Q |  V      |         |         |
10+20      0.9933      2.07  |       Q |  V      |         |         |
10+25      1.0076      2.07  |       Q |  V      |         |         |
10+30      1.0219      2.07  |       Q |   V     |         |         |
10+35      1.0389      2.47  |        Q|   V     |         |         |
10+40      1.0583      2.81  |         |Q  V     |         |         |
10+45      1.0781      2.88  |         |Q  V     |         |         |
10+50      1.0981      2.91  |         |Q   V    |         |         |
10+55      1.1181      2.91  |         |Q   V    |         |         |
11+ 0      1.1382      2.91  |         |Q   V    |         |         |
11+ 5      1.1577      2.83  |         |Q   V    |         |         |
11+10      1.1768      2.77  |         |Q    V   |         |         |
11+15      1.1957      2.76  |         |Q    V   |         |         |
11+20      1.2147      2.75  |         |Q    V   |         |         |
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11+25       1.2337      2.76  |         |Q    V   |         |         |
11+30       1.2527      2.76  |         |Q     V  |         |         |
11+35       1.2706      2.60  |         Q      V  |         |         |
11+40       1.2876      2.47  |        Q|      V  |         |         |
11+45       1.3044      2.44  |        Q|      V  |         |         |
11+50       1.3217      2.51  |         Q       V |         |         |
11+55       1.3395      2.58  |         Q       V |         |         |
12+ 0       1.3574      2.60  |         Q       V |         |         |
12+ 5       1.3791      3.16  |         | Q     V |         |         |
12+10       1.4042      3.64  |         |   Q    V|         |         |
12+15       1.4299      3.73  |         |   Q    V|         |         |
12+20       1.4563      3.85  |         |    Q    V         |         |
12+25       1.4833      3.92  |         |    Q    V         |         |
12+30       1.5104      3.93  |         |    Q    V         |         |
12+35       1.5386      4.09  |         |     Q   |V        |         |
12+40       1.5677      4.23  |         |     Q   |V        |         |
12+45       1.5971      4.26  |         |      Q  |V        |         |
12+50       1.6271      4.35  |         |      Q  | V       |         |
12+55       1.6575      4.42  |         |      Q  | V       |         |
13+ 0       1.6881      4.44  |         |      Q  |  V      |         |
13+ 5       1.7214      4.84  |         |        Q|  V      |         |
13+10       1.7571      5.18  |         |         Q   V     |         |
13+15       1.7932      5.25  |         |         Q   V     |         |
13+20       1.8295      5.27  |         |         |Q   V    |         |
13+25       1.8659      5.28  |         |         |Q   V    |         |
13+30       1.9022      5.28  |         |         |Q    V   |         |
13+35       1.9326      4.41  |         |      Q  |     V   |         |
13+40       1.9578      3.66  |         |   Q     |     V   |         |
13+45       1.9821      3.52  |         |   Q     |      V  |         |
13+50       2.0060      3.47  |         |  Q      |      V  |         |
13+55       2.0298      3.47  |         |  Q      |      V  |         |
14+ 0       2.0538      3.47  |         |  Q      |       V |         |
14+ 5       2.0798      3.79  |         |    Q    |       V |         |
14+10       2.1078      4.06  |         |     Q   |       V |         |
14+15       2.1362      4.12  |         |     Q   |        V|         |
14+20       2.1642      4.06  |         |     Q   |        V|         |
14+25       2.1917      3.99  |         |    Q    |         V         |
14+30       2.2191      3.98  |         |    Q    |         V         |
14+35       2.2465      3.98  |         |    Q    |         V         |
14+40       2.2739      3.98  |         |    Q    |         |V        |
14+45       2.3013      3.98  |         |    Q    |         |V        |
14+50       2.3282      3.90  |         |    Q    |         | V       |
14+55       2.3546      3.84  |         |    Q    |         | V       |
15+ 0       2.3810      3.83  |         |    Q    |         | V       |
15+ 5       2.4068      3.74  |         |   Q     |         |  V      |
15+10       2.4321      3.68  |         |   Q     |         |  V      |
15+15       2.4573      3.67  |         |   Q     |         |  V      |
15+20       2.4820      3.58  |         |   Q     |         |   V     |
15+25       2.5062      3.52  |         |   Q     |         |   V     |
15+30       2.5304      3.51  |         |   Q     |         |   V     |
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15+35       2.5523      3.19  |         | Q       |         |    V    |
15+40       2.5724      2.91  |         |Q        |         |    V    |
15+45       2.5921      2.86  |         |Q        |         |    V    |
15+50       2.6117      2.85  |         |Q        |         |    V    |
15+55       2.6313      2.85  |         |Q        |         |     V   |
16+ 0       2.6509      2.85  |         |Q        |         |     V   |
16+ 5       2.6628      1.72  |     Q   |         |         |     V   |
16+10       2.6679      0.75  | Q       |         |         |     V   |
16+15       2.6718      0.56  | Q       |         |         |     V   |
16+20       2.6752      0.49  |Q        |         |         |     V   |
16+25       2.6786      0.49  |Q        |         |         |     V   |
16+30       2.6820      0.49  |Q        |         |         |     V   |
16+35       2.6849      0.43  |Q        |         |         |     V   |
16+40       2.6876      0.38  |Q        |         |         |     V   |
16+45       2.6901      0.37  |Q        |         |         |      V  |
16+50       2.6927      0.37  |Q        |         |         |      V  |
16+55       2.6952      0.37  |Q        |         |         |      V  |
17+ 0       2.6978      0.37  |Q        |         |         |      V  |
17+ 5       2.7011      0.49  |Q        |         |         |      V  |
17+10       2.7052      0.59  | Q       |         |         |      V  |
17+15       2.7094      0.61  | Q       |         |         |      V  |
17+20       2.7136      0.62  | Q       |         |         |      V  |
17+25       2.7178      0.62  | Q       |         |         |      V  |
17+30       2.7221      0.62  | Q       |         |         |      V  |
17+35       2.7263      0.62  | Q       |         |         |      V  |
17+40       2.7306      0.62  | Q       |         |         |      V  |
17+45       2.7348      0.62  | Q       |         |         |      V  |
17+50       2.7386      0.56  | Q       |         |         |      V  |
17+55       2.7421      0.51  | Q       |         |         |      V  |
18+ 0       2.7455      0.50  |Q        |         |         |      V  |
18+ 5       2.7489      0.49  |Q        |         |         |      V  |
18+10       2.7523      0.49  |Q        |         |         |      V  |
18+15       2.7557      0.49  |Q        |         |         |      V  |
18+20       2.7591      0.49  |Q        |         |         |      V  |
18+25       2.7625      0.49  |Q        |         |         |      V  |
18+30       2.7659      0.49  |Q        |         |         |       V |
18+35       2.7688      0.43  |Q        |         |         |       V |
18+40       2.7715      0.38  |Q        |         |         |       V |
18+45       2.7740      0.37  |Q        |         |         |       V |
18+50       2.7762      0.31  |Q        |         |         |       V |
18+55       2.7780      0.26  |Q        |         |         |       V |
19+ 0       2.7797      0.25  Q         |         |         |       V |
19+ 5       2.7818      0.30  |Q        |         |         |       V |
19+10       2.7842      0.36  |Q        |         |         |       V |
19+15       2.7868      0.37  |Q        |         |         |       V |
19+20       2.7897      0.43  |Q        |         |         |       V |
19+25       2.7930      0.48  |Q        |         |         |       V |
19+30       2.7964      0.49  |Q        |         |         |       V |
19+35       2.7994      0.43  |Q        |         |         |       V |
19+40       2.8020      0.38  |Q        |         |         |       V |
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19+45      2.8046      0.37  |Q        |         |         |       V |
19+50      2.8067      0.31  |Q        |         |         |       V |
19+55      2.8085      0.26  |Q        |         |         |       V |
20+ 0      2.8102      0.25  Q         |         |         |       V |
20+ 5      2.8123      0.30  |Q        |         |         |       V |
20+10      2.8148      0.36  |Q        |         |         |       V |
20+15      2.8173      0.37  |Q        |         |         |       V |
20+20      2.8198      0.37  |Q        |         |         |       V |
20+25      2.8224      0.37  |Q        |         |         |       V |
20+30      2.8249      0.37  |Q        |         |         |       V |
20+35      2.8274      0.37  |Q        |         |         |       V |
20+40      2.8300      0.37  |Q        |         |         |       V |
20+45      2.8325      0.37  |Q        |         |         |       V |
20+50      2.8347      0.31  |Q        |         |         |       V |
20+55      2.8364      0.26  |Q        |         |         |        V|
21+ 0      2.8382      0.25  Q         |         |         |        V|
21+ 5      2.8403      0.30  |Q        |         |         |        V|
21+10      2.8427      0.36  |Q        |         |         |        V|
21+15      2.8452      0.37  |Q        |         |         |        V|
21+20      2.8474      0.31  |Q        |         |         |        V|
21+25      2.8492      0.26  |Q        |         |         |        V|
21+30      2.8509      0.25  Q         |         |         |        V|
21+35      2.8530      0.30  |Q        |         |         |        V|
21+40      2.8554      0.36  |Q        |         |         |        V|
21+45      2.8579      0.37  |Q        |         |         |        V|
21+50      2.8601      0.31  |Q        |         |         |        V|
21+55      2.8619      0.26  |Q        |         |         |        V|
22+ 0      2.8636      0.25  Q         |         |         |        V|
22+ 5      2.8657      0.30  |Q        |         |         |        V|
22+10      2.8681      0.36  |Q        |         |         |        V|
22+15      2.8707      0.37  |Q        |         |         |        V|
22+20      2.8728      0.31  |Q        |         |         |        V|
22+25      2.8746      0.26  |Q        |         |         |        V|
22+30      2.8763      0.25  Q         |         |         |        V|
22+35      2.8780      0.25  Q         |         |         |        V|
22+40      2.8797      0.25  Q         |         |         |        V|
22+45      2.8814      0.25  Q         |         |         |        V|
22+50      2.8831      0.25  Q         |         |         |        V|
22+55      2.8848      0.25  Q         |         |         |        V|
23+ 0      2.8865      0.25  Q         |         |         |        V|
23+ 5      2.8882      0.25  Q         |         |         |        V|
23+10      2.8899      0.25  Q         |         |         |        V|
23+15      2.8916      0.25  Q         |         |         |        V|
23+20      2.8933      0.25  Q         |         |         |        V|
23+25      2.8949      0.25  Q         |         |         |        V|
23+30      2.8966      0.25  Q         |         |         |        V|
23+35      2.8983      0.25  Q         |         |         |        V|
23+40      2.9000      0.25  Q         |         |         |        V|
23+45      2.9017      0.25  Q         |         |         |        V|
23+50      2.9034      0.25  Q         |         |         |        V|
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   23+55        2.9051       0.25  Q          |          |          |        V|
   24+ 0        2.9068       0.25  Q          |          |          |        V|
   24+ 5        2.9077       0.13  Q          |          |          |        V|
   24+10        2.9079       0.03  Q          |          |          |        V|
   24+15        2.9079       0.01  Q          |          |          |        V|
-----------------------------------------------------------------------
```

NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-24HR
POST DEVELOPMENT
DMA C3

```
        U n i t   H y d r o g r a p h   A n a l y s i s

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                Study date  10/17/23 File: NSPRUHC324100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978


Program License Serial Number 6491

---------------------------------------------------------------------
 English (in-lb) Input Units Used
 English Rainfall Data (Inches) Input Values Used

 English Units used in output format



---------------------------------------------------------------------
NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA C3
UNIT HYDROGRAPH
100YR 24HR
--------------------------------------------------------------------
Drainage Area =       2.82(Ac.)  =      0.004 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =       2.82(Ac.)  =
0.004 Sq. Mi.
Length along longest watercourse =     635.00(Ft.)
Length along longest watercourse measured to centroid =     365.00(Ft.)
Length along longest watercourse =      0.120 Mi.
Length along longest watercourse measured to centroid =      0.069 Mi.
Difference in elevation =       6.77(Ft.)
Slope along watercourse =     56.2923 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time =    0.027 Hr.
Lag time =     1.63 Min.
25% of lag time =     0.41 Min.
40% of lag time =     0.65 Min.
Unit time =     5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow =     0.00(CFS)

2 YEAR Area rainfall data:
```

```
Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        2.82            2.13                    6.01

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
        2.82            5.59                   15.76

STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    2.130(In)
Area Averaged 100-Year Rainfall =    5.590(In)

Point rain (area averaged) =    5.590(In)
Areal adjustment factor =  100.00 %
Adjusted average point rain =    5.590(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     2.820           69.00          0.667
 Total Area Entered =      2.82(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
69.0  84.4      0.194     0.667        0.077       1.000      0.077
                                                  Sum (F) =   0.077
Area averaged mean soil loss (F) (In/Hr) =  0.077
Minimum soil loss rate ((In/Hr)) =  0.039
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.367
---------------------------------------------------------------------

                U n i t  H y d r o g r a p h
                        VALLEY S-Curve
--------------------------------------------------------------------
                Unit Hydrograph Data
---------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                           Graph %          (CFS)
---------------------------------------------------------------------
    1   0.083        307.311         57.418              1.632
    2   0.167        614.622         36.730              1.044
    3   0.250        921.933          5.852              0.166
                              Sum = 100.000   Sum=       2.842
---------------------------------------------------------------------
```

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.045	(0.137)	0.016	0.028
2	0.17	0.07	0.045	(0.137)	0.016	0.028
3	0.25	0.07	0.045	(0.136)	0.016	0.028
4	0.33	0.10	0.067	(0.136)	0.025	0.042
5	0.42	0.10	0.067	(0.135)	0.025	0.042
6	0.50	0.10	0.067	(0.135)	0.025	0.042
7	0.58	0.10	0.067	(0.134)	0.025	0.042
8	0.67	0.10	0.067	(0.134)	0.025	0.042
9	0.75	0.10	0.067	(0.133)	0.025	0.042
10	0.83	0.13	0.089	(0.133)	0.033	0.057
11	0.92	0.13	0.089	(0.132)	0.033	0.057
12	1.00	0.13	0.089	(0.132)	0.033	0.057
13	1.08	0.10	0.067	(0.131)	0.025	0.042
14	1.17	0.10	0.067	(0.131)	0.025	0.042
15	1.25	0.10	0.067	(0.130)	0.025	0.042
16	1.33	0.10	0.067	(0.129)	0.025	0.042
17	1.42	0.10	0.067	(0.129)	0.025	0.042
18	1.50	0.10	0.067	(0.128)	0.025	0.042
19	1.58	0.10	0.067	(0.128)	0.025	0.042
20	1.67	0.10	0.067	(0.127)	0.025	0.042
21	1.75	0.10	0.067	(0.127)	0.025	0.042
22	1.83	0.13	0.089	(0.126)	0.033	0.057
23	1.92	0.13	0.089	(0.126)	0.033	0.057
24	2.00	0.13	0.089	(0.125)	0.033	0.057
25	2.08	0.13	0.089	(0.125)	0.033	0.057
26	2.17	0.13	0.089	(0.124)	0.033	0.057
27	2.25	0.13	0.089	(0.124)	0.033	0.057
28	2.33	0.13	0.089	(0.123)	0.033	0.057
29	2.42	0.13	0.089	(0.123)	0.033	0.057
30	2.50	0.13	0.089	(0.122)	0.033	0.057
31	2.58	0.17	0.112	(0.122)	0.041	0.071
32	2.67	0.17	0.112	(0.121)	0.041	0.071
33	2.75	0.17	0.112	(0.121)	0.041	0.071
34	2.83	0.17	0.112	(0.120)	0.041	0.071
35	2.92	0.17	0.112	(0.120)	0.041	0.071
36	3.00	0.17	0.112	(0.119)	0.041	0.071
37	3.08	0.17	0.112	(0.119)	0.041	0.071
38	3.17	0.17	0.112	(0.118)	0.041	0.071
39	3.25	0.17	0.112	(0.118)	0.041	0.071
40	3.33	0.17	0.112	(0.117)	0.041	0.071
41	3.42	0.17	0.112	(0.117)	0.041	0.071
42	3.50	0.17	0.112	(0.116)	0.041	0.071
43	3.58	0.17	0.112	(0.116)	0.041	0.071
44	3.67	0.17	0.112	(0.115)	0.041	0.071
45	3.75	0.17	0.112	(0.115)	0.041	0.071
46	3.83	0.20	0.134	(0.114)	0.049	0.085

47	3.92	0.20	0.134	(0.114)	0.049	0.085
48	4.00	0.20	0.134	(0.114)	0.049	0.085
49	4.08	0.20	0.134	(0.113)	0.049	0.085
50	4.17	0.20	0.134	(0.113)	0.049	0.085
51	4.25	0.20	0.134	(0.112)	0.049	0.085
52	4.33	0.23	0.157	(0.112)	0.057	0.099
53	4.42	0.23	0.157	(0.111)	0.057	0.099
54	4.50	0.23	0.157	(0.111)	0.057	0.099
55	4.58	0.23	0.157	(0.110)	0.057	0.099
56	4.67	0.23	0.157	(0.110)	0.057	0.099
57	4.75	0.23	0.157	(0.109)	0.057	0.099
58	4.83	0.27	0.179	(0.109)	0.066	0.113
59	4.92	0.27	0.179	(0.108)	0.066	0.113
60	5.00	0.27	0.179	(0.108)	0.066	0.113
61	5.08	0.20	0.134	(0.107)	0.049	0.085
62	5.17	0.20	0.134	(0.107)	0.049	0.085
63	5.25	0.20	0.134	(0.106)	0.049	0.085
64	5.33	0.23	0.157	(0.106)	0.057	0.099
65	5.42	0.23	0.157	(0.105)	0.057	0.099
66	5.50	0.23	0.157	(0.105)	0.057	0.099
67	5.58	0.27	0.179	(0.105)	0.066	0.113
68	5.67	0.27	0.179	(0.104)	0.066	0.113
69	5.75	0.27	0.179	(0.104)	0.066	0.113
70	5.83	0.27	0.179	(0.103)	0.066	0.113
71	5.92	0.27	0.179	(0.103)	0.066	0.113
72	6.00	0.27	0.179	(0.102)	0.066	0.113
73	6.08	0.30	0.201	(0.102)	0.074	0.127
74	6.17	0.30	0.201	(0.101)	0.074	0.127
75	6.25	0.30	0.201	(0.101)	0.074	0.127
76	6.33	0.30	0.201	(0.100)	0.074	0.127
77	6.42	0.30	0.201	(0.100)	0.074	0.127
78	6.50	0.30	0.201	(0.100)	0.074	0.127
79	6.58	0.33	0.224	(0.099)	0.082	0.142
80	6.67	0.33	0.224	(0.099)	0.082	0.142
81	6.75	0.33	0.224	(0.098)	0.082	0.142
82	6.83	0.33	0.224	(0.098)	0.082	0.142
83	6.92	0.33	0.224	(0.097)	0.082	0.142
84	7.00	0.33	0.224	(0.097)	0.082	0.142
85	7.08	0.33	0.224	(0.096)	0.082	0.142
86	7.17	0.33	0.224	(0.096)	0.082	0.142
87	7.25	0.33	0.224	(0.096)	0.082	0.142
88	7.33	0.37	0.246	(0.095)	0.090	0.156
89	7.42	0.37	0.246	(0.095)	0.090	0.156
90	7.50	0.37	0.246	(0.094)	0.090	0.156
91	7.58	0.40	0.268	0.094	(0.098)	0.174
92	7.67	0.40	0.268	0.093	(0.098)	0.175
93	7.75	0.40	0.268	0.093	(0.098)	0.175
94	7.83	0.43	0.291	0.093	(0.107)	0.198
95	7.92	0.43	0.291	0.092	(0.107)	0.199
96	8.00	0.43	0.291	0.092	(0.107)	0.199

97	8.08	0.50	0.335	0.091	(0.123)	0.244
98	8.17	0.50	0.335	0.091	(0.123)	0.245
99	8.25	0.50	0.335	0.090	(0.123)	0.245
100	8.33	0.50	0.335	0.090	(0.123)	0.245
101	8.42	0.50	0.335	0.090	(0.123)	0.246
102	8.50	0.50	0.335	0.089	(0.123)	0.246
103	8.58	0.53	0.358	0.089	(0.131)	0.269
104	8.67	0.53	0.358	0.088	(0.131)	0.269
105	8.75	0.53	0.358	0.088	(0.131)	0.270
106	8.83	0.57	0.380	0.087	(0.140)	0.293
107	8.92	0.57	0.380	0.087	(0.140)	0.293
108	9.00	0.57	0.380	0.087	(0.140)	0.293
109	9.08	0.63	0.425	0.086	(0.156)	0.339
110	9.17	0.63	0.425	0.086	(0.156)	0.339
111	9.25	0.63	0.425	0.085	(0.156)	0.339
112	9.33	0.67	0.447	0.085	(0.164)	0.362
113	9.42	0.67	0.447	0.085	(0.164)	0.363
114	9.50	0.67	0.447	0.084	(0.164)	0.363
115	9.58	0.70	0.470	0.084	(0.172)	0.386
116	9.67	0.70	0.470	0.083	(0.172)	0.386
117	9.75	0.70	0.470	0.083	(0.172)	0.387
118	9.83	0.73	0.492	0.083	(0.181)	0.409
119	9.92	0.73	0.492	0.082	(0.181)	0.410
120	10.00	0.73	0.492	0.082	(0.181)	0.410
121	10.08	0.50	0.335	0.081	(0.123)	0.254
122	10.17	0.50	0.335	0.081	(0.123)	0.254
123	10.25	0.50	0.335	0.081	(0.123)	0.255
124	10.33	0.50	0.335	0.080	(0.123)	0.255
125	10.42	0.50	0.335	0.080	(0.123)	0.256
126	10.50	0.50	0.335	0.079	(0.123)	0.256
127	10.58	0.67	0.447	0.079	(0.164)	0.368
128	10.67	0.67	0.447	0.079	(0.164)	0.369
129	10.75	0.67	0.447	0.078	(0.164)	0.369
130	10.83	0.67	0.447	0.078	(0.164)	0.369
131	10.92	0.67	0.447	0.078	(0.164)	0.370
132	11.00	0.67	0.447	0.077	(0.164)	0.370
133	11.08	0.63	0.425	0.077	(0.156)	0.348
134	11.17	0.63	0.425	0.076	(0.156)	0.348
135	11.25	0.63	0.425	0.076	(0.156)	0.349
136	11.33	0.63	0.425	0.076	(0.156)	0.349
137	11.42	0.63	0.425	0.075	(0.156)	0.350
138	11.50	0.63	0.425	0.075	(0.156)	0.350
139	11.58	0.57	0.380	0.075	(0.140)	0.306
140	11.67	0.57	0.380	0.074	(0.140)	0.306
141	11.75	0.57	0.380	0.074	(0.140)	0.306
142	11.83	0.60	0.402	0.073	(0.148)	0.329
143	11.92	0.60	0.402	0.073	(0.148)	0.329
144	12.00	0.60	0.402	0.073	(0.148)	0.330
145	12.08	0.83	0.559	0.072	(0.205)	0.487
146	12.17	0.83	0.559	0.072	(0.205)	0.487

147	12.25	0.83	0.559	0.072	(0.205)	0.487
148	12.33	0.87	0.581	0.071	(0.213)	0.510
149	12.42	0.87	0.581	0.071	(0.213)	0.510
150	12.50	0.87	0.581	0.071	(0.213)	0.511
151	12.58	0.93	0.626	0.070	(0.230)	0.556
152	12.67	0.93	0.626	0.070	(0.230)	0.556
153	12.75	0.93	0.626	0.069	(0.230)	0.557
154	12.83	0.97	0.648	0.069	(0.238)	0.579
155	12.92	0.97	0.648	0.069	(0.238)	0.580
156	13.00	0.97	0.648	0.068	(0.238)	0.580
157	13.08	1.13	0.760	0.068	(0.279)	0.692
158	13.17	1.13	0.760	0.068	(0.279)	0.693
159	13.25	1.13	0.760	0.067	(0.279)	0.693
160	13.33	1.13	0.760	0.067	(0.279)	0.693
161	13.42	1.13	0.760	0.067	(0.279)	0.694
162	13.50	1.13	0.760	0.066	(0.279)	0.694
163	13.58	0.77	0.514	0.066	(0.189)	0.448
164	13.67	0.77	0.514	0.066	(0.189)	0.449
165	13.75	0.77	0.514	0.065	(0.189)	0.449
166	13.83	0.77	0.514	0.065	(0.189)	0.449
167	13.92	0.77	0.514	0.065	(0.189)	0.450
168	14.00	0.77	0.514	0.064	(0.189)	0.450
169	14.08	0.90	0.604	0.064	(0.222)	0.540
170	14.17	0.90	0.604	0.064	(0.222)	0.540
171	14.25	0.90	0.604	0.063	(0.222)	0.540
172	14.33	0.87	0.581	0.063	(0.213)	0.518
173	14.42	0.87	0.581	0.063	(0.213)	0.519
174	14.50	0.87	0.581	0.062	(0.213)	0.519
175	14.58	0.87	0.581	0.062	(0.213)	0.519
176	14.67	0.87	0.581	0.062	(0.213)	0.520
177	14.75	0.87	0.581	0.061	(0.213)	0.520
178	14.83	0.83	0.559	0.061	(0.205)	0.498
179	14.92	0.83	0.559	0.061	(0.205)	0.498
180	15.00	0.83	0.559	0.061	(0.205)	0.498
181	15.08	0.80	0.537	0.060	(0.197)	0.476
182	15.17	0.80	0.537	0.060	(0.197)	0.477
183	15.25	0.80	0.537	0.060	(0.197)	0.477
184	15.33	0.77	0.514	0.059	(0.189)	0.455
185	15.42	0.77	0.514	0.059	(0.189)	0.455
186	15.50	0.77	0.514	0.059	(0.189)	0.456
187	15.58	0.63	0.425	0.058	(0.156)	0.366
188	15.67	0.63	0.425	0.058	(0.156)	0.367
189	15.75	0.63	0.425	0.058	(0.156)	0.367
190	15.83	0.63	0.425	0.057	(0.156)	0.367
191	15.92	0.63	0.425	0.057	(0.156)	0.368
192	16.00	0.63	0.425	0.057	(0.156)	0.368
193	16.08	0.13	0.089	(0.057)	0.033	0.057
194	16.17	0.13	0.089	(0.056)	0.033	0.057
195	16.25	0.13	0.089	(0.056)	0.033	0.057
196	16.33	0.13	0.089	(0.056)	0.033	0.057

197	16.42	0.13	0.089	(0.055)	0.033	0.057
198	16.50	0.13	0.089	(0.055)	0.033	0.057
199	16.58	0.10	0.067	(0.055)	0.025	0.042
200	16.67	0.10	0.067	(0.055)	0.025	0.042
201	16.75	0.10	0.067	(0.054)	0.025	0.042
202	16.83	0.10	0.067	(0.054)	0.025	0.042
203	16.92	0.10	0.067	(0.054)	0.025	0.042
204	17.00	0.10	0.067	(0.054)	0.025	0.042
205	17.08	0.17	0.112	(0.053)	0.041	0.071
206	17.17	0.17	0.112	(0.053)	0.041	0.071
207	17.25	0.17	0.112	(0.053)	0.041	0.071
208	17.33	0.17	0.112	(0.052)	0.041	0.071
209	17.42	0.17	0.112	(0.052)	0.041	0.071
210	17.50	0.17	0.112	(0.052)	0.041	0.071
211	17.58	0.17	0.112	(0.052)	0.041	0.071
212	17.67	0.17	0.112	(0.051)	0.041	0.071
213	17.75	0.17	0.112	(0.051)	0.041	0.071
214	17.83	0.13	0.089	(0.051)	0.033	0.057
215	17.92	0.13	0.089	(0.051)	0.033	0.057
216	18.00	0.13	0.089	(0.050)	0.033	0.057
217	18.08	0.13	0.089	(0.050)	0.033	0.057
218	18.17	0.13	0.089	(0.050)	0.033	0.057
219	18.25	0.13	0.089	(0.050)	0.033	0.057
220	18.33	0.13	0.089	(0.049)	0.033	0.057
221	18.42	0.13	0.089	(0.049)	0.033	0.057
222	18.50	0.13	0.089	(0.049)	0.033	0.057
223	18.58	0.10	0.067	(0.049)	0.025	0.042
224	18.67	0.10	0.067	(0.048)	0.025	0.042
225	18.75	0.10	0.067	(0.048)	0.025	0.042
226	18.83	0.07	0.045	(0.048)	0.016	0.028
227	18.92	0.07	0.045	(0.048)	0.016	0.028
228	19.00	0.07	0.045	(0.048)	0.016	0.028
229	19.08	0.10	0.067	(0.047)	0.025	0.042
230	19.17	0.10	0.067	(0.047)	0.025	0.042
231	19.25	0.10	0.067	(0.047)	0.025	0.042
232	19.33	0.13	0.089	(0.047)	0.033	0.057
233	19.42	0.13	0.089	(0.046)	0.033	0.057
234	19.50	0.13	0.089	(0.046)	0.033	0.057
235	19.58	0.10	0.067	(0.046)	0.025	0.042
236	19.67	0.10	0.067	(0.046)	0.025	0.042
237	19.75	0.10	0.067	(0.046)	0.025	0.042
238	19.83	0.07	0.045	(0.045)	0.016	0.028
239	19.92	0.07	0.045	(0.045)	0.016	0.028
240	20.00	0.07	0.045	(0.045)	0.016	0.028
241	20.08	0.10	0.067	(0.045)	0.025	0.042
242	20.17	0.10	0.067	(0.045)	0.025	0.042
243	20.25	0.10	0.067	(0.044)	0.025	0.042
244	20.33	0.10	0.067	(0.044)	0.025	0.042
245	20.42	0.10	0.067	(0.044)	0.025	0.042
246	20.50	0.10	0.067	(0.044)	0.025	0.042

247	20.58	0.10	0.067	(0.044)	0.025	0.042
248	20.67	0.10	0.067	(0.043)	0.025	0.042
249	20.75	0.10	0.067	(0.043)	0.025	0.042
250	20.83	0.07	0.045	(0.043)	0.016	0.028
251	20.92	0.07	0.045	(0.043)	0.016	0.028
252	21.00	0.07	0.045	(0.043)	0.016	0.028
253	21.08	0.10	0.067	(0.043)	0.025	0.042
254	21.17	0.10	0.067	(0.042)	0.025	0.042
255	21.25	0.10	0.067	(0.042)	0.025	0.042
256	21.33	0.07	0.045	(0.042)	0.016	0.028
257	21.42	0.07	0.045	(0.042)	0.016	0.028
258	21.50	0.07	0.045	(0.042)	0.016	0.028
259	21.58	0.10	0.067	(0.042)	0.025	0.042
260	21.67	0.10	0.067	(0.041)	0.025	0.042
261	21.75	0.10	0.067	(0.041)	0.025	0.042
262	21.83	0.07	0.045	(0.041)	0.016	0.028
263	21.92	0.07	0.045	(0.041)	0.016	0.028
264	22.00	0.07	0.045	(0.041)	0.016	0.028
265	22.08	0.10	0.067	(0.041)	0.025	0.042
266	22.17	0.10	0.067	(0.041)	0.025	0.042
267	22.25	0.10	0.067	(0.041)	0.025	0.042
268	22.33	0.07	0.045	(0.040)	0.016	0.028
269	22.42	0.07	0.045	(0.040)	0.016	0.028
270	22.50	0.07	0.045	(0.040)	0.016	0.028
271	22.58	0.07	0.045	(0.040)	0.016	0.028
272	22.67	0.07	0.045	(0.040)	0.016	0.028
273	22.75	0.07	0.045	(0.040)	0.016	0.028
274	22.83	0.07	0.045	(0.040)	0.016	0.028
275	22.92	0.07	0.045	(0.040)	0.016	0.028
276	23.00	0.07	0.045	(0.040)	0.016	0.028
277	23.08	0.07	0.045	(0.039)	0.016	0.028
278	23.17	0.07	0.045	(0.039)	0.016	0.028
279	23.25	0.07	0.045	(0.039)	0.016	0.028
280	23.33	0.07	0.045	(0.039)	0.016	0.028
281	23.42	0.07	0.045	(0.039)	0.016	0.028
282	23.50	0.07	0.045	(0.039)	0.016	0.028
283	23.58	0.07	0.045	(0.039)	0.016	0.028
284	23.67	0.07	0.045	(0.039)	0.016	0.028
285	23.75	0.07	0.045	(0.039)	0.016	0.028
286	23.83	0.07	0.045	(0.039)	0.016	0.028
287	23.92	0.07	0.045	(0.039)	0.016	0.028
288	24.00	0.07	0.045	(0.039)	0.016	0.028

(Loss Rate Not Used)

Sum = 100.0 Sum = 52.7

Flood volume = Effective rainfall 4.39(In)
times area 2.8(Ac.)/[(In)/(Ft.)] = 1.0(Ac.Ft)
Total soil loss = 1.20(In)
Total soil loss = 0.281(Ac.Ft)
Total rainfall = 5.59(In)
Flood volume = 44969.9 Cubic Feet

```
Total soil loss =       12252.4 Cubic Feet
--------------------------------------------------------------------
 Peak flow rate of this hydrograph =      1.973(CFS)
--------------------------------------------------------------------
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                    24 - H O U R    S T O R M
               R u n o f f     H y d r o g r a p h
--------------------------------------------------------------------
            Hydrograph in   5   Minute intervals ((CFS))

--------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
----------------------------------------------------------------------
  0+ 5      0.0003      0.05   Q         |         |         |         |
  0+10      0.0008      0.08   Q         |         |         |         |
  0+15      0.0014      0.08   Q         |         |         |         |
  0+20      0.0021      0.10   Q         |         |         |         |
  0+25      0.0029      0.12   Q         |         |         |         |
  0+30      0.0038      0.12   Q         |         |         |         |
  0+35      0.0046      0.12   Q         |         |         |         |
  0+40      0.0054      0.12   Q         |         |         |         |
  0+45      0.0062      0.12   Q         |         |         |         |
  0+50      0.0072      0.14   Q         |         |         |         |
  0+55      0.0083      0.16   Q         |         |         |         |
  1+ 0      0.0094      0.16   Q         |         |         |         |
  1+ 5      0.0104      0.14   Q         |         |         |         |
  1+10      0.0112      0.12   Q         |         |         |         |
  1+15      0.0121      0.12   Q         |         |         |         |
  1+20      0.0129      0.12   Q         |         |         |         |
  1+25      0.0137      0.12   Q         |         |         |         |
  1+30      0.0146      0.12   Q         |         |         |         |
  1+35      0.0154      0.12   Q         |         |         |         |
  1+40      0.0162      0.12   Q         |         |         |         |
  1+45      0.0171      0.12   Q         |         |         |         |
  1+50      0.0181      0.14   Q         |         |         |         |
  1+55      0.0191      0.16   Q         |         |         |         |
  2+ 0      0.0203      0.16   Q         |         |         |         |
  2+ 5      0.0214      0.16   Q         |         |         |         |
  2+10      0.0225      0.16   Q         |         |         |         |
  2+15      0.0236      0.16   Q         |         |         |         |
  2+20      0.0247      0.16   Q         |         |         |         |
  2+25      0.0258      0.16   Q         |         |         |         |
  2+30      0.0269      0.16   QV        |         |         |         |
  2+35      0.0282      0.18   QV        |         |         |         |
  2+40      0.0295      0.20   QV        |         |         |         |
  2+45      0.0309      0.20   QV        |         |         |         |
  2+50      0.0323      0.20   QV        |         |         |         |
  2+55      0.0337      0.20   QV        |         |         |         |
  3+ 0      0.0351      0.20   QV        |         |         |         |
  3+ 5      0.0365      0.20   QV        |         |         |         |
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3+10       0.0379      0.20  QV         |         |         |         |
3+15       0.0392      0.20  QV         |         |         |         |
3+20       0.0406      0.20  QV         |         |         |         |
3+25       0.0420      0.20  QV         |         |         |         |
3+30       0.0434      0.20  QV         |         |         |         |
3+35       0.0448      0.20  QV         |         |         |         |
3+40       0.0462      0.20  QV         |         |         |         |
3+45       0.0476      0.20  QV         |         |         |         |
3+50       0.0491      0.22  QV         |         |         |         |
3+55       0.0507      0.24  QV         |         |         |         |
4+ 0       0.0524      0.24  Q V        |         |         |         |
4+ 5       0.0541      0.24  Q V        |         |         |         |
4+10       0.0557      0.24  Q V        |         |         |         |
4+15       0.0574      0.24  Q V        |         |         |         |
4+20       0.0592      0.26  |QV        |         |         |         |
4+25       0.0611      0.28  |QV        |         |         |         |
4+30       0.0631      0.28  |QV        |         |         |         |
4+35       0.0650      0.28  |QV        |         |         |         |
4+40       0.0670      0.28  |QV        |         |         |         |
4+45       0.0689      0.28  |QV        |         |         |         |
4+50       0.0710      0.30  |QV        |         |         |         |
4+55       0.0732      0.32  |QV        |         |         |         |
5+ 0       0.0754      0.32  |QV        |         |         |         |
5+ 5       0.0773      0.28  |QV        |         |         |         |
5+10       0.0790      0.25  Q  V       |         |         |         |
5+15       0.0807      0.24  Q  V       |         |         |         |
5+20       0.0825      0.26  |Q V       |         |         |         |
5+25       0.0844      0.28  |Q V       |         |         |         |
5+30       0.0864      0.28  |Q V       |         |         |         |
5+35       0.0885      0.30  |Q V       |         |         |         |
5+40       0.0907      0.32  |Q V       |         |         |         |
5+45       0.0929      0.32  |Q V       |         |         |         |
5+50       0.0951      0.32  |Q V       |         |         |         |
5+55       0.0973      0.32  |Q V       |         |         |         |
6+ 0       0.0995      0.32  |Q V       |         |         |         |
6+ 5       0.1019      0.35  |Q V       |         |         |         |
6+10       0.1044      0.36  |Q  V      |         |         |         |
6+15       0.1069      0.36  |Q  V      |         |         |         |
6+20       0.1094      0.36  |Q  V      |         |         |         |
6+25       0.1119      0.36  |Q  V      |         |         |         |
6+30       0.1144      0.36  |Q  V      |         |         |         |
6+35       0.1170      0.39  |Q  V      |         |         |         |
6+40       0.1198      0.40  |Q  V      |         |         |         |
6+45       0.1226      0.40  |Q  V      |         |         |         |
6+50       0.1253      0.40  |Q  V      |         |         |         |
6+55       0.1281      0.40  |Q  V      |         |         |         |
7+ 0       0.1309      0.40  |Q   V     |         |         |         |
7+ 5       0.1336      0.40  |Q   V     |         |         |         |
7+10       0.1364      0.40  |Q   V     |         |         |         |
7+15       0.1392      0.40  |Q   V     |         |         |         |
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 7+20       0.1421      0.43  |Q   V    |         |         |         |
 7+25       0.1452      0.44  |Q   V    |         |         |         |
 7+30       0.1482      0.44  |Q   V    |         |         |         |
 7+35       0.1515      0.47  |Q   V    |         |         |         |
 7+40       0.1549      0.49  |Q    V   |         |         |         |
 7+45       0.1583      0.50  |Q    V   |         |         |         |
 7+50       0.1620      0.54  | Q   V   |         |         |         |
 7+55       0.1658      0.56  | Q   V   |         |         |         |
 8+ 0       0.1697      0.57  | Q   V   |         |         |         |
 8+ 5       0.1741      0.64  | Q   V   |         |         |         |
 8+10       0.1789      0.69  | Q   V   |         |         |         |
 8+15       0.1837      0.70  | Q    V  |         |         |         |
 8+20       0.1885      0.70  | Q    V  |         |         |         |
 8+25       0.1933      0.70  | Q    V  |         |         |         |
 8+30       0.1981      0.70  | Q    V  |         |         |         |
 8+35       0.2032      0.74  | Q    V  |         |         |         |
 8+40       0.2084      0.76  |  Q    V |         |         |         |
 8+45       0.2137      0.77  |  Q    V |         |         |         |
 8+50       0.2192      0.80  |  Q    V |         |         |         |
 8+55       0.2249      0.83  |  Q    V |         |         |         |
 9+ 0       0.2307      0.83  |  Q    V |         |         |         |
 9+ 5       0.2369      0.91  |  Q     V|         |         |         |
 9+10       0.2435      0.96  |  Q     V|         |         |         |
 9+15       0.2502      0.96  |  Q     V|         |         |         |
 9+20       0.2571      1.00  |   Q    V|         |         |         |
 9+25       0.2641      1.03  |   Q     V         |         |         |
 9+30       0.2712      1.03  |   Q     V         |         |         |
 9+35       0.2786      1.07  |   Q     V         |         |         |
 9+40       0.2861      1.09  |   Q     |V        |         |         |
 9+45       0.2937      1.10  |   Q     |V        |         |         |
 9+50       0.3015      1.14  |   Q     |V        |         |         |
 9+55       0.3095      1.16  |   Q     |V        |         |         |
10+ 0       0.3176      1.17  |   Q     | V       |         |         |
10+ 5       0.3238      0.91  |  Q      | V       |         |         |
10+10       0.3290      0.75  | Q       | V       |         |         |
10+15       0.3340      0.72  | Q       | V       |         |         |
10+20       0.3390      0.72  | Q       |  V      |         |         |
10+25       0.3440      0.73  | Q       |  V      |         |         |
10+30       0.3490      0.73  | Q       |  V      |         |         |
10+35       0.3553      0.91  |  Q      |  V      |         |         |
10+40       0.3623      1.03  |   Q     |   V     |         |         |
10+45       0.3696      1.05  |   Q     |   V     |         |         |
10+50       0.3768      1.05  |   Q     |   V     |         |         |
10+55       0.3840      1.05  |   Q     |   V     |         |         |
11+ 0       0.3913      1.05  |   Q     |    V    |         |         |
11+ 5       0.3983      1.02  |   Q     |    V    |         |         |
11+10       0.4051      0.99  |  Q      |    V    |         |         |
11+15       0.4119      0.99  |  Q      |    V    |         |         |
11+20       0.4188      0.99  |  Q      |     V   |         |         |
11+25       0.4256      0.99  |  Q      |     V   |         |         |
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11+30       0.4325      0.99  |  Q      |     V   |         |         |
11+35       0.4388      0.92  |  Q      |      V  |         |         |
11+40       0.4449      0.88  |  Q      |      V  |         |         |
11+45       0.4508      0.87  |  Q      |      V  |         |         |
11+50       0.4571      0.91  |  Q      |      V  |         |         |
11+55       0.4635      0.93  |  Q      |      V  |         |         |
12+ 0       0.4700      0.94  |  Q      |       V |         |         |
12+ 5       0.4782      1.19  |   Q     |       V |         |         |
12+10       0.4876      1.36  |    Q    |       V |         |         |
12+15       0.4971      1.39  |    Q    |        V|         |         |
12+20       0.5069      1.42  |    Q    |        V|         |         |
12+25       0.5169      1.45  |    Q    |         V         |         |
12+30       0.5269      1.45  |    Q    |         V         |         |
12+35       0.5374      1.53  |     Q   |         V         |         |
12+40       0.5482      1.57  |     Q   |         |V        |         |
12+45       0.5591      1.58  |     Q   |         |V        |         |
12+50       0.5703      1.62  |     Q   |         | V       |         |
12+55       0.5816      1.64  |     Q   |         | V       |         |
13+ 0       0.5929      1.65  |     Q   |         | V       |         |
13+ 5       0.6056      1.83  |      Q  |         |  V      |         |
13+10       0.6190      1.95  |      Q  |         |  V      |         |
13+15       0.6326      1.97  |      Q  |         |   V     |         |
13+20       0.6461      1.97  |      Q  |         |    V    |         |
13+25       0.6597      1.97  |      Q  |         |    V    |         |
13+30       0.6733      1.97  |      Q  |         |     V   |         |
13+35       0.6841      1.57  |     Q   |         |     V   |         |
13+40       0.6932      1.32  |    Q    |         |     V   |         |
13+45       0.7020      1.28  |    Q    |         |      V  |         |
13+50       0.7108      1.28  |    Q    |         |      V  |         |
13+55       0.7196      1.28  |    Q    |         |      V  |         |
14+ 0       0.7284      1.28  |    Q    |         |       V |         |
14+ 5       0.7382      1.43  |    Q    |         |       V |         |
14+10       0.7487      1.52  |     Q   |         |        V|         |
14+15       0.7592      1.54  |     Q   |         |        V|         |
14+20       0.7696      1.50  |     Q   |         |        V|         |
14+25       0.7798      1.48  |    Q    |         |         V         |
14+30       0.7899      1.48  |    Q    |         |         V         |
14+35       0.8001      1.48  |    Q    |         |         |V        |
14+40       0.8103      1.48  |    Q    |         |         |V        |
14+45       0.8204      1.48  |    Q    |         |         |V        |
14+50       0.8304      1.44  |    Q    |         |         | V       |
14+55       0.8401      1.42  |    Q    |         |         | V       |
15+ 0       0.8499      1.42  |    Q    |         |         | V       |
15+ 5       0.8594      1.38  |    Q    |         |         |  V      |
15+10       0.8688      1.36  |    Q    |         |         |  V      |
15+15       0.8781      1.36  |    Q    |         |         |   V     |
15+20       0.8872      1.32  |    Q    |         |         |   V     |
15+25       0.8962      1.30  |    Q    |         |         |   V     |
15+30       0.9051      1.30  |    Q    |         |         |    V    |
15+35       0.9130      1.15  |   Q     |         |         |    V    |
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15+40       0.9203      1.06  |   Q     |         |         |    V    |
15+45       0.9275      1.04  |   Q     |         |         |    V    |
15+50       0.9346      1.04  |   Q     |         |         |     V   |
15+55       0.9418      1.05  |   Q     |         |         |     V   |
16+ 0       0.9490      1.05  |   Q     |         |         |     V   |
16+ 5       0.9528      0.54  | Q       |         |         |     V   |
16+10       0.9542      0.21  Q         |         |         |     V   |
16+15       0.9553      0.16  Q         |         |         |      V  |
16+20       0.9564      0.16  Q         |         |         |      V  |
16+25       0.9575      0.16  Q         |         |         |      V  |
16+30       0.9587      0.16  Q         |         |         |      V  |
16+35       0.9596      0.14  Q         |         |         |      V  |
16+40       0.9605      0.12  Q         |         |         |      V  |
16+45       0.9613      0.12  Q         |         |         |      V  |
16+50       0.9621      0.12  Q         |         |         |      V  |
16+55       0.9629      0.12  Q         |         |         |      V  |
17+ 0       0.9638      0.12  Q         |         |         |      V  |
17+ 5       0.9649      0.17  Q         |         |         |      V  |
17+10       0.9663      0.20  Q         |         |         |      V  |
17+15       0.9677      0.20  Q         |         |         |      V  |
17+20       0.9691      0.20  Q         |         |         |      V  |
17+25       0.9704      0.20  Q         |         |         |      V  |
17+30       0.9718      0.20  Q         |         |         |      V  |
17+35       0.9732      0.20  Q         |         |         |      V  |
17+40       0.9746      0.20  Q         |         |         |      V  |
17+45       0.9760      0.20  Q         |         |         |      V  |
17+50       0.9772      0.18  Q         |         |         |      V  |
17+55       0.9783      0.16  Q         |         |         |      V  |
18+ 0       0.9794      0.16  Q         |         |         |      V  |
18+ 5       0.9806      0.16  Q         |         |         |      V  |
18+10       0.9817      0.16  Q         |         |         |       V |
18+15       0.9828      0.16  Q         |         |         |       V |
18+20       0.9839      0.16  Q         |         |         |       V |
18+25       0.9850      0.16  Q         |         |         |       V |
18+30       0.9861      0.16  Q         |         |         |       V |
18+35       0.9870      0.14  Q         |         |         |       V |
18+40       0.9879      0.12  Q         |         |         |       V |
18+45       0.9887      0.12  Q         |         |         |       V |
18+50       0.9894      0.10  Q         |         |         |       V |
18+55       0.9900      0.08  Q         |         |         |       V |
19+ 0       0.9905      0.08  Q         |         |         |       V |
19+ 5       0.9912      0.10  Q         |         |         |       V |
19+10       0.9920      0.12  Q         |         |         |       V |
19+15       0.9929      0.12  Q         |         |         |       V |
19+20       0.9939      0.14  Q         |         |         |       V |
19+25       0.9950      0.16  Q         |         |         |       V |
19+30       0.9961      0.16  Q         |         |         |       V |
19+35       0.9970      0.14  Q         |         |         |       V |
19+40       0.9979      0.12  Q         |         |         |       V |
19+45       0.9987      0.12  Q         |         |         |       V |
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19+50        0.9994       0.10  Q          |          |          |       V |
19+55        0.9999       0.08  Q          |          |          |       V |
20+ 0        1.0005       0.08  Q          |          |          |       V |
20+ 5        1.0012       0.10  Q          |          |          |       V |
20+10        1.0020       0.12  Q          |          |          |       V |
20+15        1.0029       0.12  Q          |          |          |       V |
20+20        1.0037       0.12  Q          |          |          |       V |
20+25        1.0045       0.12  Q          |          |          |       V |
20+30        1.0054       0.12  Q          |          |          |       V |
20+35        1.0062       0.12  Q          |          |          |       V |
20+40        1.0070       0.12  Q          |          |          |        V|
20+45        1.0078       0.12  Q          |          |          |        V|
20+50        1.0085       0.10  Q          |          |          |        V|
20+55        1.0091       0.08  Q          |          |          |        V|
21+ 0        1.0096       0.08  Q          |          |          |        V|
21+ 5        1.0104       0.10  Q          |          |          |        V|
21+10        1.0112       0.12  Q          |          |          |        V|
21+15        1.0120       0.12  Q          |          |          |        V|
21+20        1.0127       0.10  Q          |          |          |        V|
21+25        1.0132       0.08  Q          |          |          |        V|
21+30        1.0138       0.08  Q          |          |          |        V|
21+35        1.0145       0.10  Q          |          |          |        V|
21+40        1.0153       0.12  Q          |          |          |        V|
21+45        1.0162       0.12  Q          |          |          |        V|
21+50        1.0168       0.10  Q          |          |          |        V|
21+55        1.0174       0.08  Q          |          |          |        V|
22+ 0        1.0180       0.08  Q          |          |          |        V|
22+ 5        1.0187       0.10  Q          |          |          |        V|
22+10        1.0195       0.12  Q          |          |          |        V|
22+15        1.0203       0.12  Q          |          |          |        V|
22+20        1.0210       0.10  Q          |          |          |        V|
22+25        1.0216       0.08  Q          |          |          |        V|
22+30        1.0221       0.08  Q          |          |          |        V|
22+35        1.0227       0.08  Q          |          |          |        V|
22+40        1.0232       0.08  Q          |          |          |        V|
22+45        1.0238       0.08  Q          |          |          |        V|
22+50        1.0243       0.08  Q          |          |          |        V|
22+55        1.0249       0.08  Q          |          |          |        V|
23+ 0        1.0254       0.08  Q          |          |          |        V|
23+ 5        1.0260       0.08  Q          |          |          |        V|
23+10        1.0266       0.08  Q          |          |          |        V|
23+15        1.0271       0.08  Q          |          |          |        V|
23+20        1.0277       0.08  Q          |          |          |        V|
23+25        1.0282       0.08  Q          |          |          |        V|
23+30        1.0288       0.08  Q          |          |          |        V|
23+35        1.0293       0.08  Q          |          |          |        V|
23+40        1.0299       0.08  Q          |          |          |        V|
23+45        1.0304       0.08  Q          |          |          |        V|
23+50        1.0310       0.08  Q          |          |          |        V|
23+55        1.0315       0.08  Q          |          |          |        V|
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   24+ 0        1.0321      0.08  Q         |         |         |       V|
   24+ 5        1.0323      0.03  Q         |         |         |       V|
   24+10        1.0324      0.00  Q         |         |         |        V
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NEWLAND SIMPSON
UNIT HYDROGRAPH
100YR-24HR
POST DEVELOPMENT
DMA D1

U n i t   H y d r o g r a p h   A n a l y s i s

Study date 10/17/23 File: NSPRUHD24100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6491

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA D1
UNIT HYDROGRAPH
100YR 24HR

Drainage Area = 9.56(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.56(Ac.) =
0.015 Sq. Mi.
Length along longest watercourse = 666.00(Ft.)
Length along longest watercourse measured to centroid = 393.00(Ft.)
Length along longest watercourse = 0.126 Mi.
Length along longest watercourse measured to centroid = 0.074 Mi.
Difference in elevation = 6.89(Ft.)
Slope along watercourse = 54.6234 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.029 Hr.
Lag time = 1.71 Min.
25% of lag time = 0.43 Min.
40% of lag time = 0.69 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
9.56	2.13	20.36

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
9.56	5.59	53.43

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 2.130(In)
Area Averaged 100-Year Rainfall = 5.590(In)

Point rain (area averaged) = 5.590(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 5.590(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
9.559	69.00	0.642

Total Area Entered = 9.56(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	84.4	0.194	0.642	0.082	1.000	0.082
					Sum (F) =	0.082

Area averaged mean soil loss (F) (In/Hr) = 0.082
Minimum soil loss rate ((In/Hr)) = 0.041
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.387

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	291.763	55.818	5.377
2	0.167	583.527	37.587	3.621
3	0.250	875.290	6.595	0.635
			Sum = 100.000	Sum= 9.634

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.045	(0.145)	0.017	0.027
2	0.17	0.07	0.045	(0.145)	0.017	0.027
3	0.25	0.07	0.045	(0.144)	0.017	0.027
4	0.33	0.10	0.067	(0.143)	0.026	0.041
5	0.42	0.10	0.067	(0.143)	0.026	0.041
6	0.50	0.10	0.067	(0.142)	0.026	0.041
7	0.58	0.10	0.067	(0.142)	0.026	0.041
8	0.67	0.10	0.067	(0.141)	0.026	0.041
9	0.75	0.10	0.067	(0.141)	0.026	0.041
10	0.83	0.13	0.089	(0.140)	0.035	0.055
11	0.92	0.13	0.089	(0.140)	0.035	0.055
12	1.00	0.13	0.089	(0.139)	0.035	0.055
13	1.08	0.10	0.067	(0.138)	0.026	0.041
14	1.17	0.10	0.067	(0.138)	0.026	0.041
15	1.25	0.10	0.067	(0.137)	0.026	0.041
16	1.33	0.10	0.067	(0.137)	0.026	0.041
17	1.42	0.10	0.067	(0.136)	0.026	0.041
18	1.50	0.10	0.067	(0.136)	0.026	0.041
19	1.58	0.10	0.067	(0.135)	0.026	0.041
20	1.67	0.10	0.067	(0.135)	0.026	0.041
21	1.75	0.10	0.067	(0.134)	0.026	0.041
22	1.83	0.13	0.089	(0.134)	0.035	0.055
23	1.92	0.13	0.089	(0.133)	0.035	0.055
24	2.00	0.13	0.089	(0.132)	0.035	0.055
25	2.08	0.13	0.089	(0.132)	0.035	0.055
26	2.17	0.13	0.089	(0.131)	0.035	0.055
27	2.25	0.13	0.089	(0.131)	0.035	0.055
28	2.33	0.13	0.089	(0.130)	0.035	0.055
29	2.42	0.13	0.089	(0.130)	0.035	0.055
30	2.50	0.13	0.089	(0.129)	0.035	0.055
31	2.58	0.17	0.112	(0.129)	0.043	0.069
32	2.67	0.17	0.112	(0.128)	0.043	0.069
33	2.75	0.17	0.112	(0.128)	0.043	0.069
34	2.83	0.17	0.112	(0.127)	0.043	0.069
35	2.92	0.17	0.112	(0.127)	0.043	0.069
36	3.00	0.17	0.112	(0.126)	0.043	0.069
37	3.08	0.17	0.112	(0.126)	0.043	0.069
38	3.17	0.17	0.112	(0.125)	0.043	0.069
39	3.25	0.17	0.112	(0.125)	0.043	0.069
40	3.33	0.17	0.112	(0.124)	0.043	0.069
41	3.42	0.17	0.112	(0.123)	0.043	0.069
42	3.50	0.17	0.112	(0.123)	0.043	0.069
43	3.58	0.17	0.112	(0.122)	0.043	0.069
44	3.67	0.17	0.112	(0.122)	0.043	0.069
45	3.75	0.17	0.112	(0.121)	0.043	0.069
46	3.83	0.20	0.134	(0.121)	0.052	0.082

47	3.92	0.20	0.134	(0.120)	0.052	0.082
48	4.00	0.20	0.134	(0.120)	0.052	0.082
49	4.08	0.20	0.134	(0.119)	0.052	0.082
50	4.17	0.20	0.134	(0.119)	0.052	0.082
51	4.25	0.20	0.134	(0.118)	0.052	0.082
52	4.33	0.23	0.157	(0.118)	0.061	0.096
53	4.42	0.23	0.157	(0.117)	0.061	0.096
54	4.50	0.23	0.157	(0.117)	0.061	0.096
55	4.58	0.23	0.157	(0.116)	0.061	0.096
56	4.67	0.23	0.157	(0.116)	0.061	0.096
57	4.75	0.23	0.157	(0.115)	0.061	0.096
58	4.83	0.27	0.179	(0.115)	0.069	0.110
59	4.92	0.27	0.179	(0.114)	0.069	0.110
60	5.00	0.27	0.179	(0.114)	0.069	0.110
61	5.08	0.20	0.134	(0.113)	0.052	0.082
62	5.17	0.20	0.134	(0.113)	0.052	0.082
63	5.25	0.20	0.134	(0.112)	0.052	0.082
64	5.33	0.23	0.157	(0.112)	0.061	0.096
65	5.42	0.23	0.157	(0.111)	0.061	0.096
66	5.50	0.23	0.157	(0.111)	0.061	0.096
67	5.58	0.27	0.179	(0.110)	0.069	0.110
68	5.67	0.27	0.179	(0.110)	0.069	0.110
69	5.75	0.27	0.179	(0.109)	0.069	0.110
70	5.83	0.27	0.179	(0.109)	0.069	0.110
71	5.92	0.27	0.179	(0.109)	0.069	0.110
72	6.00	0.27	0.179	(0.108)	0.069	0.110
73	6.08	0.30	0.201	(0.108)	0.078	0.123
74	6.17	0.30	0.201	(0.107)	0.078	0.123
75	6.25	0.30	0.201	(0.107)	0.078	0.123
76	6.33	0.30	0.201	(0.106)	0.078	0.123
77	6.42	0.30	0.201	(0.106)	0.078	0.123
78	6.50	0.30	0.201	(0.105)	0.078	0.123
79	6.58	0.33	0.224	(0.105)	0.087	0.137
80	6.67	0.33	0.224	(0.104)	0.087	0.137
81	6.75	0.33	0.224	(0.104)	0.087	0.137
82	6.83	0.33	0.224	(0.103)	0.087	0.137
83	6.92	0.33	0.224	(0.103)	0.087	0.137
84	7.00	0.33	0.224	(0.102)	0.087	0.137
85	7.08	0.33	0.224	(0.102)	0.087	0.137
86	7.17	0.33	0.224	(0.101)	0.087	0.137
87	7.25	0.33	0.224	(0.101)	0.087	0.137
88	7.33	0.37	0.246	(0.100)	0.095	0.151
89	7.42	0.37	0.246	(0.100)	0.095	0.151
90	7.50	0.37	0.246	(0.100)	0.095	0.151
91	7.58	0.40	0.268	0.099	(0.104)	0.169
92	7.67	0.40	0.268	0.099	(0.104)	0.170
93	7.75	0.40	0.268	0.098	(0.104)	0.170
94	7.83	0.43	0.291	0.098	(0.112)	0.193
95	7.92	0.43	0.291	0.097	(0.112)	0.193
96	8.00	0.43	0.291	0.097	(0.112)	0.194

97	8.08	0.50	0.335	0.096 (0.130)	0.239
98	8.17	0.50	0.335	0.096 (0.130)	0.239
99	8.25	0.50	0.335	0.096 (0.130)	0.240
100	8.33	0.50	0.335	0.095 (0.130)	0.240
101	8.42	0.50	0.335	0.095 (0.130)	0.241
102	8.50	0.50	0.335	0.094 (0.130)	0.241
103	8.58	0.53	0.358	0.094 (0.138)	0.264
104	8.67	0.53	0.358	0.093 (0.138)	0.264
105	8.75	0.53	0.358	0.093 (0.138)	0.265
106	8.83	0.57	0.380	0.092 (0.147)	0.288
107	8.92	0.57	0.380	0.092 (0.147)	0.288
108	9.00	0.57	0.380	0.092 (0.147)	0.289
109	9.08	0.63	0.425	0.091 (0.164)	0.334
110	9.17	0.63	0.425	0.091 (0.164)	0.334
111	9.25	0.63	0.425	0.090 (0.164)	0.335
112	9.33	0.67	0.447	0.090 (0.173)	0.357
113	9.42	0.67	0.447	0.089 (0.173)	0.358
114	9.50	0.67	0.447	0.089 (0.173)	0.358
115	9.58	0.70	0.470	0.089 (0.182)	0.381
116	9.67	0.70	0.470	0.088 (0.182)	0.381
117	9.75	0.70	0.470	0.088 (0.182)	0.382
118	9.83	0.73	0.492	0.087 (0.190)	0.405
119	9.92	0.73	0.492	0.087 (0.190)	0.405
120	10.00	0.73	0.492	0.086 (0.190)	0.405
121	10.08	0.50	0.335	0.086 (0.130)	0.249
122	10.17	0.50	0.335	0.086 (0.130)	0.250
123	10.25	0.50	0.335	0.085 (0.130)	0.250
124	10.33	0.50	0.335	0.085 (0.130)	0.251
125	10.42	0.50	0.335	0.084 (0.130)	0.251
126	10.50	0.50	0.335	0.084 (0.130)	0.251
127	10.58	0.67	0.447	0.084 (0.173)	0.364
128	10.67	0.67	0.447	0.083 (0.173)	0.364
129	10.75	0.67	0.447	0.083 (0.173)	0.364
130	10.83	0.67	0.447	0.082 (0.173)	0.365
131	10.92	0.67	0.447	0.082 (0.173)	0.365
132	11.00	0.67	0.447	0.081 (0.173)	0.366
133	11.08	0.63	0.425	0.081 (0.164)	0.344
134	11.17	0.63	0.425	0.081 (0.164)	0.344
135	11.25	0.63	0.425	0.080 (0.164)	0.345
136	11.33	0.63	0.425	0.080 (0.164)	0.345
137	11.42	0.63	0.425	0.080 (0.164)	0.345
138	11.50	0.63	0.425	0.079 (0.164)	0.346
139	11.58	0.57	0.380	0.079 (0.147)	0.301
140	11.67	0.57	0.380	0.078 (0.147)	0.302
141	11.75	0.57	0.380	0.078 (0.147)	0.302
142	11.83	0.60	0.402	0.078 (0.156)	0.325
143	11.92	0.60	0.402	0.077 (0.156)	0.325
144	12.00	0.60	0.402	0.077 (0.156)	0.326
145	12.08	0.83	0.559	0.076 (0.216)	0.483
146	12.17	0.83	0.559	0.076 (0.216)	0.483

147	12.25	0.83	0.559	0.076	(0.216)	0.483
148	12.33	0.87	0.581	0.075	(0.225)	0.506
149	12.42	0.87	0.581	0.075	(0.225)	0.506
150	12.50	0.87	0.581	0.074	(0.225)	0.507
151	12.58	0.93	0.626	0.074	(0.242)	0.552
152	12.67	0.93	0.626	0.074	(0.242)	0.552
153	12.75	0.93	0.626	0.073	(0.242)	0.553
154	12.83	0.97	0.648	0.073	(0.251)	0.575
155	12.92	0.97	0.648	0.073	(0.251)	0.576
156	13.00	0.97	0.648	0.072	(0.251)	0.576
157	13.08	1.13	0.760	0.072	(0.294)	0.688
158	13.17	1.13	0.760	0.072	(0.294)	0.689
159	13.25	1.13	0.760	0.071	(0.294)	0.689
160	13.33	1.13	0.760	0.071	(0.294)	0.689
161	13.42	1.13	0.760	0.070	(0.294)	0.690
162	13.50	1.13	0.760	0.070	(0.294)	0.690
163	13.58	0.77	0.514	0.070	(0.199)	0.445
164	13.67	0.77	0.514	0.069	(0.199)	0.445
165	13.75	0.77	0.514	0.069	(0.199)	0.445
166	13.83	0.77	0.514	0.069	(0.199)	0.446
167	13.92	0.77	0.514	0.068	(0.199)	0.446
168	14.00	0.77	0.514	0.068	(0.199)	0.446
169	14.08	0.90	0.604	0.068	(0.234)	0.536
170	14.17	0.90	0.604	0.067	(0.234)	0.536
171	14.25	0.90	0.604	0.067	(0.234)	0.537
172	14.33	0.87	0.581	0.067	(0.225)	0.515
173	14.42	0.87	0.581	0.066	(0.225)	0.515
174	14.50	0.87	0.581	0.066	(0.225)	0.515
175	14.58	0.87	0.581	0.066	(0.225)	0.516
176	14.67	0.87	0.581	0.065	(0.225)	0.516
177	14.75	0.87	0.581	0.065	(0.225)	0.516
178	14.83	0.83	0.559	0.065	(0.216)	0.494
179	14.92	0.83	0.559	0.064	(0.216)	0.495
180	15.00	0.83	0.559	0.064	(0.216)	0.495
181	15.08	0.80	0.537	0.064	(0.208)	0.473
182	15.17	0.80	0.537	0.063	(0.208)	0.473
183	15.25	0.80	0.537	0.063	(0.208)	0.474
184	15.33	0.77	0.514	0.063	(0.199)	0.452
185	15.42	0.77	0.514	0.062	(0.199)	0.452
186	15.50	0.77	0.514	0.062	(0.199)	0.452
187	15.58	0.63	0.425	0.062	(0.164)	0.363
188	15.67	0.63	0.425	0.061	(0.164)	0.363
189	15.75	0.63	0.425	0.061	(0.164)	0.364
190	15.83	0.63	0.425	0.061	(0.164)	0.364
191	15.92	0.63	0.425	0.060	(0.164)	0.364
192	16.00	0.63	0.425	0.060	(0.164)	0.365
193	16.08	0.13	0.089	(0.060)	0.035	0.055
194	16.17	0.13	0.089	(0.059)	0.035	0.055
195	16.25	0.13	0.089	(0.059)	0.035	0.055
196	16.33	0.13	0.089	(0.059)	0.035	0.055

197	16.42	0.13	0.089	(0.059)	0.035	0.055
198	16.50	0.13	0.089	(0.058)	0.035	0.055
199	16.58	0.10	0.067	(0.058)	0.026	0.041
200	16.67	0.10	0.067	(0.058)	0.026	0.041
201	16.75	0.10	0.067	(0.057)	0.026	0.041
202	16.83	0.10	0.067	(0.057)	0.026	0.041
203	16.92	0.10	0.067	(0.057)	0.026	0.041
204	17.00	0.10	0.067	(0.057)	0.026	0.041
205	17.08	0.17	0.112	(0.056)	0.043	0.069
206	17.17	0.17	0.112	(0.056)	0.043	0.069
207	17.25	0.17	0.112	(0.056)	0.043	0.069
208	17.33	0.17	0.112	(0.055)	0.043	0.069
209	17.42	0.17	0.112	(0.055)	0.043	0.069
210	17.50	0.17	0.112	(0.055)	0.043	0.069
211	17.58	0.17	0.112	(0.055)	0.043	0.069
212	17.67	0.17	0.112	(0.054)	0.043	0.069
213	17.75	0.17	0.112	(0.054)	0.043	0.069
214	17.83	0.13	0.089	(0.054)	0.035	0.055
215	17.92	0.13	0.089	(0.053)	0.035	0.055
216	18.00	0.13	0.089	(0.053)	0.035	0.055
217	18.08	0.13	0.089	(0.053)	0.035	0.055
218	18.17	0.13	0.089	(0.053)	0.035	0.055
219	18.25	0.13	0.089	(0.052)	0.035	0.055
220	18.33	0.13	0.089	(0.052)	0.035	0.055
221	18.42	0.13	0.089	(0.052)	0.035	0.055
222	18.50	0.13	0.089	(0.052)	0.035	0.055
223	18.58	0.10	0.067	(0.051)	0.026	0.041
224	18.67	0.10	0.067	(0.051)	0.026	0.041
225	18.75	0.10	0.067	(0.051)	0.026	0.041
226	18.83	0.07	0.045	(0.051)	0.017	0.027
227	18.92	0.07	0.045	(0.050)	0.017	0.027
228	19.00	0.07	0.045	(0.050)	0.017	0.027
229	19.08	0.10	0.067	(0.050)	0.026	0.041
230	19.17	0.10	0.067	(0.050)	0.026	0.041
231	19.25	0.10	0.067	(0.050)	0.026	0.041
232	19.33	0.13	0.089	(0.049)	0.035	0.055
233	19.42	0.13	0.089	(0.049)	0.035	0.055
234	19.50	0.13	0.089	(0.049)	0.035	0.055
235	19.58	0.10	0.067	(0.049)	0.026	0.041
236	19.67	0.10	0.067	(0.048)	0.026	0.041
237	19.75	0.10	0.067	(0.048)	0.026	0.041
238	19.83	0.07	0.045	(0.048)	0.017	0.027
239	19.92	0.07	0.045	(0.048)	0.017	0.027
240	20.00	0.07	0.045	(0.048)	0.017	0.027
241	20.08	0.10	0.067	(0.047)	0.026	0.041
242	20.17	0.10	0.067	(0.047)	0.026	0.041
243	20.25	0.10	0.067	(0.047)	0.026	0.041
244	20.33	0.10	0.067	(0.047)	0.026	0.041
245	20.42	0.10	0.067	(0.046)	0.026	0.041
246	20.50	0.10	0.067	(0.046)	0.026	0.041

247	20.58	0.10	0.067	(0.046)	0.026	0.041
248	20.67	0.10	0.067	(0.046)	0.026	0.041
249	20.75	0.10	0.067	(0.046)	0.026	0.041
250	20.83	0.07	0.045	(0.046)	0.017	0.027
251	20.92	0.07	0.045	(0.045)	0.017	0.027
252	21.00	0.07	0.045	(0.045)	0.017	0.027
253	21.08	0.10	0.067	(0.045)	0.026	0.041
254	21.17	0.10	0.067	(0.045)	0.026	0.041
255	21.25	0.10	0.067	(0.045)	0.026	0.041
256	21.33	0.07	0.045	(0.044)	0.017	0.027
257	21.42	0.07	0.045	(0.044)	0.017	0.027
258	21.50	0.07	0.045	(0.044)	0.017	0.027
259	21.58	0.10	0.067	(0.044)	0.026	0.041
260	21.67	0.10	0.067	(0.044)	0.026	0.041
261	21.75	0.10	0.067	(0.044)	0.026	0.041
262	21.83	0.07	0.045	(0.044)	0.017	0.027
263	21.92	0.07	0.045	(0.043)	0.017	0.027
264	22.00	0.07	0.045	(0.043)	0.017	0.027
265	22.08	0.10	0.067	(0.043)	0.026	0.041
266	22.17	0.10	0.067	(0.043)	0.026	0.041
267	22.25	0.10	0.067	(0.043)	0.026	0.041
268	22.33	0.07	0.045	(0.043)	0.017	0.027
269	22.42	0.07	0.045	(0.043)	0.017	0.027
270	22.50	0.07	0.045	(0.042)	0.017	0.027
271	22.58	0.07	0.045	(0.042)	0.017	0.027
272	22.67	0.07	0.045	(0.042)	0.017	0.027
273	22.75	0.07	0.045	(0.042)	0.017	0.027
274	22.83	0.07	0.045	(0.042)	0.017	0.027
275	22.92	0.07	0.045	(0.042)	0.017	0.027
276	23.00	0.07	0.045	(0.042)	0.017	0.027
277	23.08	0.07	0.045	(0.042)	0.017	0.027
278	23.17	0.07	0.045	(0.042)	0.017	0.027
279	23.25	0.07	0.045	(0.041)	0.017	0.027
280	23.33	0.07	0.045	(0.041)	0.017	0.027
281	23.42	0.07	0.045	(0.041)	0.017	0.027
282	23.50	0.07	0.045	(0.041)	0.017	0.027
283	23.58	0.07	0.045	(0.041)	0.017	0.027
284	23.67	0.07	0.045	(0.041)	0.017	0.027
285	23.75	0.07	0.045	(0.041)	0.017	0.027
286	23.83	0.07	0.045	(0.041)	0.017	0.027
287	23.92	0.07	0.045	(0.041)	0.017	0.027
288	24.00	0.07	0.045	(0.041)	0.017	0.027

(Loss Rate Not Used)

Sum = 100.0 Sum = 51.9

Flood volume = Effective rainfall 4.33(In)
times area 9.6(Ac.)/[(In)/(Ft.)] = 3.4(Ac.Ft)
Total soil loss = 1.26(In)
Total soil loss = 1.006(Ac.Ft)
Total rainfall = 5.59(In)
Flood volume = 150130.1 Cubic Feet

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Total soil loss =        43834.6 Cubic Feet
--------------------------------------------------------------------
 Peak flow rate of this hydrograph =      6.650(CFS)
--------------------------------------------------------------------
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                    24 - H O U R    S T O R M
               R u n o f f     H y d r o g r a p h
--------------------------------------------------------------------
            Hydrograph in   5   Minute intervals ((CFS))

--------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
-----------------------------------------------------------------------
  0+ 5       0.0010      0.15  Q         |         |         |         |
  0+10       0.0027      0.25  Q         |         |         |         |
  0+15       0.0045      0.26  VQ        |         |         |         |
  0+20       0.0069      0.34  VQ        |         |         |         |
  0+25       0.0095      0.39  VQ        |         |         |         |
  0+30       0.0123      0.40  VQ        |         |         |         |
  0+35       0.0150      0.40  VQ        |         |         |         |
  0+40       0.0177      0.40  VQ        |         |         |         |
  0+45       0.0205      0.40  VQ        |         |         |         |
  0+50       0.0237      0.47  VQ        |         |         |         |
  0+55       0.0273      0.52  V Q       |         |         |         |
  1+ 0       0.0309      0.53  V Q       |         |         |         |
  1+ 5       0.0340      0.45  VQ        |         |         |         |
  1+10       0.0368      0.41  VQ        |         |         |         |
  1+15       0.0396      0.40  VQ        |         |         |         |
  1+20       0.0423      0.40  VQ        |         |         |         |
  1+25       0.0450      0.40  VQ        |         |         |         |
  1+30       0.0477      0.40  VQ        |         |         |         |
  1+35       0.0505      0.40  VQ        |         |         |         |
  1+40       0.0532      0.40  VQ        |         |         |         |
  1+45       0.0559      0.40  VQ        |         |         |         |
  1+50       0.0592      0.47  VQ        |         |         |         |
  1+55       0.0628      0.52  V Q       |         |         |         |
  2+ 0       0.0664      0.53  V Q       |         |         |         |
  2+ 5       0.0700      0.53  V Q       |         |         |         |
  2+10       0.0737      0.53  V Q       |         |         |         |
  2+15       0.0773      0.53  V Q       |         |         |         |
  2+20       0.0809      0.53  V Q       |         |         |         |
  2+25       0.0846      0.53  V Q       |         |         |         |
  2+30       0.0882      0.53   |VQ      |         |         |         |
  2+35       0.0924      0.60   |VQ      |         |         |         |
  2+40       0.0969      0.65   |VQ      |         |         |         |
  2+45       0.1014      0.66   |VQ      |         |         |         |
  2+50       0.1060      0.66   |VQ      |         |         |         |
  2+55       0.1105      0.66   |VQ      |         |         |         |
  3+ 0       0.1151      0.66   |VQ      |         |         |         |
  3+ 5       0.1196      0.66   |VQ      |         |         |         |
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  3+10      0.1242      0.66   |VQ        |          |          |          |
  3+15      0.1287      0.66   |VQ        |          |          |          |
  3+20      0.1333      0.66   |VQ        |          |          |          |
  3+25      0.1378      0.66   |VQ        |          |          |          |
  3+30      0.1424      0.66   |VQ        |          |          |          |
  3+35      0.1469      0.66   |VQ        |          |          |          |
  3+40      0.1515      0.66   |VQ        |          |          |          |
  3+45      0.1560      0.66   |VQ        |          |          |          |
  3+50      0.1611      0.73   |VQ        |          |          |          |
  3+55      0.1665      0.78   |V Q       |          |          |          |
  4+ 0      0.1719      0.79   |V Q       |          |          |          |
  4+ 5      0.1774      0.79   | VQ       |          |          |          |
  4+10      0.1828      0.79   | VQ       |          |          |          |
  4+15      0.1883      0.79   | VQ       |          |          |          |
  4+20      0.1943      0.87   | VQ       |          |          |          |
  4+25      0.2006      0.92   | VQ       |          |          |          |
  4+30      0.2069      0.92   | VQ       |          |          |          |
  4+35      0.2133      0.92   | VQ       |          |          |          |
  4+40      0.2197      0.92   | VQ       |          |          |          |
  4+45      0.2261      0.92   | VQ       |          |          |          |
  4+50      0.2329      1.00   | VQ       |          |          |          |
  4+55      0.2401      1.05   | V Q      |          |          |          |
  5+ 0      0.2474      1.06   | V Q      |          |          |          |
  5+ 5      0.2537      0.91   | VQ       |          |          |          |
  5+10      0.2593      0.81   |  Q       |          |          |          |
  5+15      0.2647      0.79   |  Q       |          |          |          |
  5+20      0.2707      0.87   |  Q       |          |          |          |
  5+25      0.2770      0.92   |  Q       |          |          |          |
  5+30      0.2834      0.92   |  Q       |          |          |          |
  5+35      0.2902      1.00   |  Q       |          |          |          |
  5+40      0.2975      1.05   |  VQ      |          |          |          |
  5+45      0.3047      1.06   |  VQ      |          |          |          |
  5+50      0.3120      1.06   |  VQ      |          |          |          |
  5+55      0.3193      1.06   |  VQ      |          |          |          |
  6+ 0      0.3266      1.06   |  VQ      |          |          |          |
  6+ 5      0.3344      1.13   |  VQ      |          |          |          |
  6+10      0.3425      1.18   |  VQ      |          |          |          |
  6+15      0.3507      1.19   |   Q      |          |          |          |
  6+20      0.3589      1.19   |   Q      |          |          |          |
  6+25      0.3671      1.19   |   Q      |          |          |          |
  6+30      0.3753      1.19   |   Q      |          |          |          |
  6+35      0.3839      1.26   |   VQ     |          |          |          |
  6+40      0.3930      1.31   |   VQ     |          |          |          |
  6+45      0.4021      1.32   |   VQ     |          |          |          |
  6+50      0.4112      1.32   |   VQ     |          |          |          |
  6+55      0.4203      1.32   |   VQ     |          |          |          |
  7+ 0      0.4294      1.32   |   VQ     |          |          |          |
  7+ 5      0.4385      1.32   |    Q     |          |          |          |
  7+10      0.4476      1.32   |    Q     |          |          |          |
  7+15      0.4567      1.32   |    Q     |          |          |          |
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 7+20       0.4663      1.39  |    Q    |         |         |         |
 7+25       0.4762      1.44  |    Q    |         |         |         |
 7+30       0.4862      1.45  |    Q    |         |         |         |
 7+35       0.4969      1.55  |   VQ    |         |         |         |
 7+40       0.5081      1.62  |   VQ    |         |         |         |
 7+45       0.5194      1.64  |     Q   |         |         |         |
 7+50       0.5315      1.76  |     VQ  |         |         |         |
 7+55       0.5442      1.85  |     VQ  |         |         |         |
 8+ 0       0.5571      1.87  |     VQ  |         |         |         |
 8+ 5       0.5716      2.11  |     V Q |         |         |         |
 8+10       0.5873      2.28  |     V  Q|         |         |         |
 8+15       0.6032      2.31  |      V Q|         |         |         |
 8+20       0.6192      2.31  |      V Q|         |         |         |
 8+25       0.6351      2.32  |      V Q|         |         |         |
 8+30       0.6511      2.32  |      V Q|         |         |         |
 8+35       0.6680      2.45  |      V Q|         |         |         |
 8+40       0.6854      2.53  |      V  Q         |         |         |
 8+45       0.7030      2.55  |       V Q         |         |         |
 8+50       0.7214      2.68  |       V Q         |         |         |
 8+55       0.7404      2.76  |       V |Q        |         |         |
 9+ 0       0.7596      2.78  |       V |Q        |         |         |
 9+ 5       0.7804      3.02  |        V| Q       |         |         |
 9+10       0.8024      3.19  |        V| Q       |         |         |
 9+15       0.8246      3.22  |        V| Q       |         |         |
 9+20       0.8476      3.35  |        V|  Q      |         |         |
 9+25       0.8713      3.43  |         V  Q      |         |         |
 9+30       0.8950      3.45  |         V  Q      |         |         |
 9+35       0.9196      3.58  |         V   Q     |         |         |
 9+40       0.9449      3.66  |         V   Q     |         |         |
 9+45       0.9702      3.68  |         |V  Q     |         |         |
 9+50       0.9964      3.80  |         |V   Q    |         |         |
 9+55       1.0232      3.89  |         |V   Q    |         |         |
10+ 0       1.0501      3.91  |         | V  Q    |         |         |
10+ 5       1.0712      3.07  |         | Q       |         |         |
10+10       1.0884      2.51  |         Q V       |         |         |
10+15       1.1050      2.41  |        Q| V       |         |         |
10+20       1.1217      2.41  |        Q|  V      |         |         |
10+25       1.1383      2.42  |        Q|  V      |         |         |
10+30       1.1550      2.42  |        Q|  V      |         |         |
10+35       1.1758      3.03  |         | QV      |         |         |
10+40       1.1995      3.44  |         |  Q      |         |         |
10+45       1.2237      3.51  |         |   Q     |         |         |
10+50       1.2479      3.52  |         |   Q     |         |         |
10+55       1.2721      3.52  |         |   Q     |         |         |
11+ 0       1.2964      3.52  |         |   QV    |         |         |
11+ 5       1.3199      3.41  |         |  Q V    |         |         |
11+10       1.3428      3.33  |         |  Q V    |         |         |
11+15       1.3656      3.32  |         |  Q V    |         |         |
11+20       1.3885      3.32  |         |  Q  V   |         |         |
11+25       1.4114      3.33  |         |  Q  V   |         |         |
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11+30       1.4344      3.33  |         |  Q  V   |         |         |
11+35       1.4557      3.09  |         | Q   V   |         |         |
11+40       1.4759      2.94  |         |Q     V  |         |         |
11+45       1.4959      2.91  |         |Q     V  |         |         |
11+50       1.5168      3.03  |         | Q    V  |         |         |
11+55       1.5383      3.12  |         | Q    V  |         |         |
12+ 0       1.5599      3.14  |         | Q     V |         |         |
12+ 5       1.5874      3.98  |         |    Q  V |         |         |
12+10       1.6187      4.55  |         |       Q |         |         |
12+15       1.6508      4.66  |         |       QV|         |         |
12+20       1.6837      4.78  |         |        Q|         |         |
12+25       1.7172      4.87  |         |        Q|         |         |
12+30       1.7509      4.88  |         |        QV         |         |
12+35       1.7862      5.13  |         |         Q         |         |
12+40       1.8226      5.29  |         |         |Q        |         |
12+45       1.8593      5.33  |         |         |Q        |         |
12+50       1.8968      5.45  |         |         |QV       |         |
12+55       1.9350      5.53  |         |         | Q       |         |
13+ 0       1.9732      5.55  |         |         | Q       |         |
13+ 5       2.0156      6.16  |         |         |  VQ     |         |
13+10       2.0608      6.57  |         |         |  V  Q   |         |
13+15       2.1065      6.64  |         |         |   V Q   |         |
13+20       2.1523      6.64  |         |         |   V Q   |         |
13+25       2.1981      6.65  |         |         |    VQ   |         |
13+30       2.2439      6.65  |         |         |     Q   |         |
13+35       2.2806      5.33  |         |         |Q    V   |         |
13+40       2.3112      4.44  |         |      Q  |     V   |         |
13+45       2.3407      4.29  |         |      Q  |      V  |         |
13+50       2.3703      4.29  |         |      Q  |      V  |         |
13+55       2.3999      4.30  |         |      Q  |      V  |         |
14+ 0       2.4295      4.30  |         |      Q  |       V |         |
14+ 5       2.4624      4.78  |         |        Q|       V |         |
14+10       2.4976      5.11  |         |         Q       V |         |
14+15       2.5333      5.17  |         |         Q        V|         |
14+20       2.5681      5.06  |         |         Q        V|         |
14+25       2.6024      4.98  |         |        Q|         V         |
14+30       2.6366      4.97  |         |        Q|         V         |
14+35       2.6708      4.97  |         |        Q|         V         |
14+40       2.7050      4.97  |         |        Q|         |V        |
14+45       2.7393      4.98  |         |        Q|         |V        |
14+50       2.7728      4.86  |         |        Q|         | V       |
14+55       2.8057      4.78  |         |        Q|         | V       |
15+ 0       2.8386      4.77  |         |        Q|         | V       |
15+ 5       2.8706      4.65  |         |       Q |         |  V      |
15+10       2.9021      4.58  |         |       Q |         |  V      |
15+15       2.9335      4.56  |         |       Q |         |   V     |
15+20       2.9642      4.45  |         |      Q  |         |   V     |
15+25       2.9943      4.37  |         |      Q  |         |   V     |
15+30       3.0243      4.36  |         |      Q  |         |    V    |
15+35       3.0510      3.88  |         |    Q    |         |    V    |
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15+40       3.0755      3.56  |         |   Q     |         |    V    |
15+45       3.0996      3.51  |         |   Q     |         |    V    |
15+50       3.1238      3.51  |         |   Q     |         |     V   |
15+55       3.1480      3.51  |         |   Q     |         |     V   |
16+ 0       3.1722      3.51  |         |   Q     |         |     V   |
16+ 5       3.1849      1.85  |      Q  |         |         |     V   |
16+10       3.1899      0.73  | Q       |         |         |      V  |
16+15       3.1935      0.53  | Q       |         |         |      V  |
16+20       3.1972      0.53  | Q       |         |         |      V  |
16+25       3.2008      0.53  | Q       |         |         |      V  |
16+30       3.2045      0.53  | Q       |         |         |      V  |
16+35       3.2076      0.45  |Q        |         |         |      V  |
16+40       3.2104      0.41  |Q        |         |         |      V  |
16+45       3.2131      0.40  |Q        |         |         |      V  |
16+50       3.2158      0.40  |Q        |         |         |      V  |
16+55       3.2186      0.40  |Q        |         |         |      V  |
17+ 0       3.2213      0.40  |Q        |         |         |      V  |
17+ 5       3.2250      0.54  | Q       |         |         |      V  |
17+10       3.2295      0.64  | Q       |         |         |      V  |
17+15       3.2340      0.66  | Q       |         |         |      V  |
17+20       3.2386      0.66  | Q       |         |         |      V  |
17+25       3.2431      0.66  | Q       |         |         |      V  |
17+30       3.2477      0.66  | Q       |         |         |      V  |
17+35       3.2522      0.66  | Q       |         |         |      V  |
17+40       3.2568      0.66  | Q       |         |         |      V  |
17+45       3.2613      0.66  | Q       |         |         |      V  |
17+50       3.2654      0.59  | Q       |         |         |      V  |
17+55       3.2691      0.54  | Q       |         |         |      V  |
18+ 0       3.2727      0.53  | Q       |         |         |      V  |
18+ 5       3.2763      0.53  | Q       |         |         |       V |
18+10       3.2800      0.53  | Q       |         |         |       V |
18+15       3.2836      0.53  | Q       |         |         |       V |
18+20       3.2873      0.53  | Q       |         |         |       V |
18+25       3.2909      0.53  | Q       |         |         |       V |
18+30       3.2945      0.53  | Q       |         |         |       V |
18+35       3.2977      0.45  |Q        |         |         |       V |
18+40       3.3005      0.41  |Q        |         |         |       V |
18+45       3.3032      0.40  |Q        |         |         |       V |
18+50       3.3054      0.32  |Q        |         |         |       V |
18+55       3.3073      0.27  |Q        |         |         |       V |
19+ 0       3.3091      0.26  |Q        |         |         |       V |
19+ 5       3.3114      0.34  |Q        |         |         |       V |
19+10       3.3141      0.39  |Q        |         |         |       V |
19+15       3.3168      0.40  |Q        |         |         |       V |
19+20       3.3201      0.47  |Q        |         |         |       V |
19+25       3.3237      0.52  | Q       |         |         |       V |
19+30       3.3273      0.53  | Q       |         |         |       V |
19+35       3.3304      0.45  |Q        |         |         |       V |
19+40       3.3332      0.41  |Q        |         |         |       V |
19+45       3.3359      0.40  |Q        |         |         |       V |
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19+50       3.3382      0.32  |Q        |         |         |        V |
19+55       3.3400      0.27  |Q        |         |         |        V |
20+ 0       3.3419      0.26  |Q        |         |         |        V |
20+ 5       3.3442      0.34  |Q        |         |         |        V |
20+10       3.3469      0.39  |Q        |         |         |        V |
20+15       3.3496      0.40  |Q        |         |         |        V |
20+20       3.3523      0.40  |Q        |         |         |        V |
20+25       3.3551      0.40  |Q        |         |         |        V |
20+30       3.3578      0.40  |Q        |         |         |        V |
20+35       3.3605      0.40  |Q        |         |         |         V|
20+40       3.3632      0.40  |Q        |         |         |         V|
20+45       3.3660      0.40  |Q        |         |         |         V|
20+50       3.3682      0.32  |Q        |         |         |         V|
20+55       3.3701      0.27  |Q        |         |         |         V|
21+ 0       3.3719      0.26  |Q        |         |         |         V|
21+ 5       3.3742      0.34  |Q        |         |         |         V|
21+10       3.3769      0.39  |Q        |         |         |         V|
21+15       3.3796      0.40  |Q        |         |         |         V|
21+20       3.3818      0.32  |Q        |         |         |         V|
21+25       3.3837      0.27  |Q        |         |         |         V|
21+30       3.3855      0.26  |Q        |         |         |         V|
21+35       3.3879      0.34  |Q        |         |         |         V|
21+40       3.3905      0.39  |Q        |         |         |         V|
21+45       3.3933      0.40  |Q        |         |         |         V|
21+50       3.3955      0.32  |Q        |         |         |         V|
21+55       3.3974      0.27  |Q        |         |         |         V|
22+ 0       3.3992      0.26  |Q        |         |         |         V|
22+ 5       3.4015      0.34  |Q        |         |         |         V|
22+10       3.4042      0.39  |Q        |         |         |         V|
22+15       3.4069      0.40  |Q        |         |         |         V|
22+20       3.4091      0.32  |Q        |         |         |         V|
22+25       3.4110      0.27  |Q        |         |         |         V|
22+30       3.4128      0.26  |Q        |         |         |         V|
22+35       3.4147      0.26  |Q        |         |         |         V|
22+40       3.4165      0.26  |Q        |         |         |         V|
22+45       3.4183      0.26  |Q        |         |         |         V|
22+50       3.4201      0.26  |Q        |         |         |         V|
22+55       3.4219      0.26  |Q        |         |         |         V|
23+ 0       3.4238      0.26  |Q        |         |         |         V|
23+ 5       3.4256      0.26  |Q        |         |         |         V|
23+10       3.4274      0.26  |Q        |         |         |         V|
23+15       3.4292      0.26  |Q        |         |         |         V|
23+20       3.4310      0.26  |Q        |         |         |         V|
23+25       3.4329      0.26  |Q        |         |         |         V|
23+30       3.4347      0.26  |Q        |         |         |         V|
23+35       3.4365      0.26  |Q        |         |         |         V|
23+40       3.4383      0.26  |Q        |         |         |         V|
23+45       3.4401      0.26  |Q        |         |         |         V|
23+50       3.4419      0.26  |Q        |         |         |         V|
23+55       3.4438      0.26  |Q        |         |         |         V|
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   24+ 0       3.4456      0.26  |Q         |         |         |        V|
   24+ 5       3.4464      0.12  Q          |         |         |        V|
   24+10       3.4465      0.02  Q          |         |         |        V|
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Appendix H – Flood Routing Calculations

Newland Simpson Hemet
Simpson Road
City of Hemet, County of Riverside, CA
Dated: 10/13/23
Last Revised:

POST DEVELOPMENT - Basin Flood Routing (INPUT) - BASIN A1 (Double System)

Analysis	
Design Storm Event:	100yr 24hr

Basin Characteristics	
Type of Basin:	ADS DC-780*
Bottom Area (sf):	63102
Total Volume Provided (cf)	144622.78
Top of Stone (ft):	1488.17
Top of Chamber (ft):	1487.67
Bottom of Chamber (ft):	1485.17
Bottom of Stone (ft):	1484.42
Infiltration: (in/hr)	1.18
Constant Outflow (cfs):	1.72

**Double system basin, area & volume has been doubled.*

Stage Storage Calculation for CivilD

Entry Point*	Depth (ft)	Elevation (ft)	Volume (cf)	Volume (Ac-ft)	Orifice Outflow (cfs)***	Outflow Rate (cfs)****
1	0.00	1484.42	0.00	0.000		1.72
2	0.50	1484.92	12620.40	0.290		1.72
3	1.00	1485.42	32432.22	0.745		1.72
4	1.50	1485.92	58665.48	1.347		1.72
5	2.00	1486.42	83459.44	1.916		1.72
6	2.50	1486.92	106120.54	2.436		1.72
7	3.00	1487.42	125140.08	2.873		1.72
8	3.50	1487.92	138312.58	3.175		1.72
9**	3.75	1488.17	144622.78	3.320		1.72
10	5.75	1490.17	144622.78	3.320	24.830	26.55

**CivilD max 20 points in stage storage*
***Outlet Structure Invert*
****Calc'ed from CivilD*
*****Based on constant outflow from infiltration rate, and orifice outflow rate*

Outlet Pipe Configuration	
type of outlet structure:	circular pipe, gravity (under pressure)
outlet pipe size (in)	24.00
outlet pipe invert:*	1488.17
outlet pipe length (ft)	77.00
outlet pipe downstream invert:	1487.79
outlet pipe slope (ft/ft)	0.005
Elevation Change between inverts:	0.380
K (loss): **	1.50

**Set at top of stone to maximize infiltration*
***Per CivilD, entry & exit loss*

Newland Simpson Hemet
Simpson Road
City of Hemet, County of Riverside, CA
Dated: 10/13/23
Last Revised:

POST DEVELOPMENT - Basin Flood Routing (INPUT) - BASIN B3 (Double System)

Analysis	
Design Storm Event:	100yr 24hr

Basin Characteristics	
Type of Basin:	ADS MC-4500*
Bottom Area (sf):	45310
Total Volume Provided (cf)	197382.04
Top of Stone (ft):	1486.49
Top of Chamber (ft):	1485.49
Bottom of Chamber (ft):	1480.49
Bottom of Stone (ft):	1479.74
Infiltration: (in/hr)	1.18
Constant Outflow (cfs):	1.24

**Double system basin, area & volume has been doubled.*

Stage Storage Calculation for CivilD

Entry Point*	Depth (ft)	Elevation (ft)	Volume (cf)	Volume (Ac-ft)	Orifice Outflow (cfs)***	Outflow Rate (cfs)****
1	0.00	1479.74	0.00	0.000		1.24
2	0.50	1480.24	9062.02	0.208		1.24
3	1.00	1480.74	23455.02	0.538		1.24
4	1.50	1481.24	42990.24	0.987		1.24
5	2.00	1481.74	62204.98	1.428		1.24
6	2.50	1482.24	80992.42	1.859		1.24
7	3.00	1482.74	99231.80	2.278		1.24
8	3.50	1483.24	116783.06	2.681		1.24
9	4.00	1483.74	133469.58	3.064		1.24
10	4.50	1484.24	149050.64	3.422		1.24
11	5.00	1484.74	163124.92	3.745		1.24
12	5.50	1485.24	174500.80	4.006		1.24
13	6.00	1485.74	183789.00	4.219		1.24
14	6.50	1486.24	192851.02	4.427		1.24
15	6.75	1486.49	197382.04	4.531		1.24
16**	9.75	1489.49	197382.04	4.532	70.910	72.15

**CivilD max 20 points in stage storage*
***Outlet Structure Invert*
****Per CivilD Orifice Calc'ed flow rate*
*****Based on constant outflow from infiltration rate, and orifice outflow rate*

Outlet Pipe Configuration	
type of outlet structure:	circular pipe, gravity (under pressure)
outlet pipe size (in)	36.00
outlet pipe invert:*	1486.49
outlet pipe length (ft)	104.00
outlet pipe downstream invert:	1485.97
outlet pipe slope (ft/ft)	0.005
Elevation Change between inverts:	0.520
K (loss): **	1.50

**Set at top of stone to maximize infiltration*
***Per CivilD, entry & exit loss*

Newland Simpson Hemet
Simpson Road
City of Hemet, County of Riverside, CA
Dated: 10/13/23
Last Revised:

POST DEVELOPMENT - Basin Flood Routing (INPUT) - BASIN C1 (Double System)

Analysis	
Design Storm Event:	100yr 24hr

Basin Characteristics	
Type of Basin:	ADS DC-780*
Area (sf):	27228
Total Volume Provided (cf)	61883.9
Top of Stone (ft):	1490.93
Top of Chamber (ft):	1490.43
Bottom of Chamber (ft):	1487.93
Bottom of Stone (ft):	1487.18
Infiltration: (in/hr)	1.18
Constant Outflow (cfs):	0.74

**Double system basin, area & volume has been doubled.*

Stage Storage Calculation for CivilD

Entry Point*	Depth (ft)	Elevation (ft)	Volume (cf)	Volume (Ac-ft)	Orifice Outflow (cfs)***	Outflow Rate (cfs)****
1	0.00	1487.18	0.00	0.000		0.74
2	0.50	1487.68	5445.48	0.125		0.74
3	1.00	1488.18	13919.34	0.320		0.74
4	1.50	1488.68	25097.34	0.576		0.74
5	2.00	1489.18	35669.24	0.819		0.74
6	2.50	1489.68	45342.96	1.041		0.74
7	3.00	1490.18	53483.18	1.228		0.74
8	3.50	1490.68	59161.16	1.358		0.74
9**	3.75	1490.93	61883.90	1.421		0.74
10	5.75	1492.93	61883.90	1.421	18.750	19.49

**CivilD max 20 points in stage storage*
***Outlet Structure Invert*
****Per CivilD Orifice Calc'ed flow rate*
*****Based on constant outflow from infiltration rate, and orifice outflow rate*

Outlet Pipe Configuration	
type of outlet structure:	circular pipe, gravity (under pressure)
outlet pipe size (in)	24.00
outlet pipe invert:*	1490.93
outlet pipe length (ft)	240.00
outlet pipe downstream invert:	1490.45
outlet pipe slope (ft/ft)	0.002
Elevation Change between inverts:	0.480
K loss: **	1.50

**Set at top of stone to maximize infiltration*
***Per CivilD, entry & exit loss*

Newland Simpson Hemet
Simpson Road
City of Hemet, County of Riverside, CA
Dated: 10/13/23
Last Revised:

POST DEVELOPMENT - Basin Flood Routing (INPUT) - BASIN C2

Analysis	
Design Storm Event:	100yr 24hr

Basin Characteristics	
Type of Basin:	ADS DC-780
Area (sf):	24369
Total Volume Provided (cf)	55597.19
Top of Stone (ft):	1494.84
Top of Chamber (ft):	1494.34
Bottom of Chamber (ft):	1491.84
Bottom of Stone (ft):	1491.09
Infiltration: (in/hr)	1.18
Constant Outflow (cfs):	0.67

Stage Storage Calculation for CivilD*

Entry Point*	Depth (ft)	Elevation (ft)	Volume (cf)	Volume (Ac-ft)	Orifice Outflow (cfs)***	Outflow Rate (cfs)****
1	0.00	1491.09	0.00	0.000		0.67
2	0.50	1491.59	4873.75	0.112		0.67
3	1.00	1492.09	12488.24	0.287		0.67
4	1.50	1492.59	22550.00	0.518		0.67
5	2.00	1493.09	32063.23	0.736		0.67
6	2.50	1493.59	40763.61	0.936		0.67
7	3.00	1494.09	48076.14	1.104		0.67
8	3.50	1494.59	53160.31	1.220		0.67
9**	3.75	1494.84	55597.19	1.276		0.67
10	5.75	1496.84	55597.19	1.276	23.320	23.99

**CivilD max 20 points in stage storage*
***Outlet Structure Invert*
****Per CivilD Orifice Calc'ed flow rate*
*****Based on constant outflow from infiltration rate, and orifice outflow rate*

Outlet Pipe Configuration	
type of outlet structure:	circular pipe, gravity (under pressure)
outlet pipe size (in)	24.00
outlet pipe invert:*	1494.84
outlet pipe length (ft)	125.00
outlet pipe downstream invert:	1494.23
outlet pipe slope (ft/ft)	0.005
Elevation Change between inverts:	0.610
K loss: **	1.50

**Set at top of stone to maximize infiltration*
***Per CivilD, entry & exit loss*

Newland Simpson Hemet
Simpson Road
City of Hemet, County of Riverside, CA
Dated: 10/13/23
Last Revised:

POST DEVELOPMENT - Basin Flood Routing (INPUT) - BASIN C3

Analysis	
Design Storm Event:	100yr 24hr

Basin Characteristics	
Type of Basin:	Above Ground Basin
Bottom Area (sf):	8131
Total Volume Provided (cf)	46847.00
Top of Basin (ft):	1493.00
Bottom of Basin (ft):	1489.00
Infiltration: (in/hr)	1.18
Constant Outflow (cfs):	0.22

Stage Storage Calculation for CivilD

Entry Point*	**Depth (ft)**	**Elevation (ft)****	**Volume (cf)**	**Volume (Ac-ft)**	**Orifice Outflow (cfs)*****	**Total Outflow Rate (cfs)**
1	0.00	1489.00	0.00	0.000		0.22
2	0.50	1489.50	4491.00	0.103		0.22
3	1.00	1490.00	8982.00	0.206		0.22
4	1.50	1490.50	14349.50	0.329		0.22
5**	2.00	1491.00	19717.00	0.453		0.22
6	2.50	1491.50	26011.00	0.597	1.770	1.99
7	3.00	1492.00	32305.00	0.742	6.690	6.91
8	3.50	1492.50	39576.00	0.909	6.690	6.91
9	4.00	1493.00	46847.00	1.075	6.690	6.91

**CivilD max 20 points in stage storage*
***outlet structure invert, set above the 100yr 3hr depth*
****Per CivilD Orifice Calc'ed flow rate*

Outlet Pipe Configuration	
type of outlet structure:	circular pipe, gravity (under pressure)
outlet pipe size (in)	18.00
outlet pipe invert:*	1491.00
outlet pipe length (ft)	18.00
outlet pipe downstream invert:	1490.10
outlet pipe slope (ft/ft)	0.050
Elevation Change between inverts:	0.900
K loss: **	1.50

**Set at top of stone to maximize infiltration*
***Per CivilD, entry & exit loss*

Newland Simpson Hemet
Simpson Road
City of Hemet, County of Riverside, CA
Dated: 10/13/23
Last Revised:

POST DEVELOPMENT - Basin Flood Routing (INPUT) - BASIN D1

Analysis	
Design Storm Event:	100yr 24hr

Basin Characteristics	
Type of Basin:	Above Ground Basin
Bottom Area (sf):	24373
Total Volume Provided (cf)	92737
Top of Basin (ft):	1500.00
Bottom of Basin (ft):	1496.00
Infiltration: (in/hr)	1.18
Constant Outflow (cfs):	0.67

Stage Storage Calculation for CivilD

Entry Point*	Depth (ft)	Elevation (ft)**	Volume (cf)	Volume (Ac-ft)	Orifice Outflow (cfs)***	Total Outflow Rate (cfs)
1	0.00	1496.00	0.00	0.000		0.67
2	0.50	1496.50	13245.00	0.304		0.67
3	1.00	1497.00	26490.00	0.608		0.67
4	1.50	1497.50	41908.50	0.962		0.67
5	2.00	1498.00	57327.00	1.316		0.22
6**	2.50	1498.50	75032.00	1.722		0.67
7	3.00	1499.00	92737.00	2.129	1.770	2.44
8	3.50	1499.50	112262.00	2.577	6.690	7.36
9	4.00	1500.00	131787.00	3.025	6.690	7.36

**CivilD max 20 points in stage storage*
***outlet structure invert, set above the 100yr 3hr depth*

Outlet Pipe Configuration	
type of outlet structure:	circular pipe, gravity (under pressure)
outlet pipe size (in)	18.00
outlet pipe invert:*	1498.50
outlet pipe length (ft)	78.00
outlet pipe downstream invert:	1497.11
outlet pipe slope (ft/ft)	0.018
Elevation Change between inverts:	1.390
K loss: **	1.50

**Set at top of stone to maximize infiltration*
***Per CivilD, entry & exit loss*

Project: **Newland Simpson Basin 1 (A1)**

Chamber Model -	DC-780	
Units -	Imperial	
	-	
Number of Chambers -	900	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	1484.42	ft
Amount of Stone Above Chambers -	6	in
Amount of Stone Below Chambers -	9	in
Area of system -	31551	sf Min. Area - 30424 sf min. area

StormTech DC-780 Cumulative Storage Volumes

Height of System *(inches)*	Incremental Single Chamber *(cubic feet)*	Incremental Total Chamber *(cubic feet)*	Incremental Stone *(cubic feet)*	Incremental Ch & St *(cubic feet)*	Cumulative Chamber *(cubic feet)*	Elevation *(feet)*
45	0.00	0.00	1051.70	1051.70	72311.39	1488.17
44	0.00	0.00	1051.70	1051.70	71259.69	1488.09
43	0.00	0.00	1051.70	1051.70	70207.99	1488.00
42	0.00	0.00	1051.70	1051.70	69156.29	1487.92
41	0.00	0.00	1051.70	1051.70	68104.59	1487.84
40	0.00	0.00	1051.70	1051.70	67052.89	1487.75
39	0.06	52.10	1030.86	1082.96	66001.19	1487.67
38	0.17	150.03	991.69	1141.72	64918.23	1487.59
37	0.29	257.95	948.52	1206.47	63776.51	1487.50
36	0.61	549.94	831.72	1381.67	62570.04	1487.42
35	0.81	729.35	759.96	1489.31	61188.37	1487.34
34	0.96	863.15	706.44	1569.59	59699.06	1487.25
33	1.08	974.69	661.83	1636.51	58129.47	1487.17
32	1.19	1068.91	624.14	1693.05	56492.96	1487.09
31	1.27	1146.57	593.07	1739.64	54799.91	1487.00
30	1.36	1227.66	560.64	1788.30	53060.27	1486.92
29	1.45	1308.96	528.11	1837.08	51271.98	1486.84
28	1.53	1374.34	501.96	1876.31	49434.90	1486.75
27	1.59	1431.94	478.92	1910.87	47558.59	1486.67
26	1.65	1486.35	457.16	1943.51	45647.73	1486.59
25	1.71	1537.99	436.51	1974.49	43704.21	1486.50
24	1.76	1586.35	417.16	2003.51	41729.72	1486.42
23	1.81	1631.72	399.01	2030.73	39726.21	1486.34
22	1.86	1674.21	382.02	2056.22	37695.48	1486.25
21	1.90	1714.11	366.05	2080.17	35639.26	1486.17
20	1.95	1751.54	351.09	2102.62	33559.09	1486.09
19	1.99	1786.71	337.02	2123.73	31456.47	1486.00
18	2.02	1819.72	323.81	2143.53	29332.74	1485.92
17	2.06	1850.66	311.44	2162.09	27189.21	1485.84
16	2.09	1879.63	299.85	2179.48	25027.12	1485.75
15	2.12	1906.69	289.03	2195.71	22847.64	1485.67
14	2.15	1931.94	278.92	2210.86	20651.93	1485.59
13	2.17	1955.42	269.53	2224.95	18441.06	1485.50
12	2.20	1977.17	260.83	2238.00	16216.11	1485.42
11	2.22	1997.28	252.79	2250.07	13978.11	1485.34
10	2.24	2018.40	244.34	2262.74	11728.04	1485.25

Project: **Newland Simpson Basin 1 (A1)**

Chamber Model -	DC-780	
Units -	Imperial	
	-	
Number of Chambers -	900	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	1484.42	ft
Amount of Stone Above Chambers -	6	in
Amount of Stone Below Chambers -	9	in
Area of system -	31551	sf Min. Area - 30424 sf min. area

StormTech DC-780 Cumulative Storage Volumes

Height of System *(inches)*	Incremental Single Chamber *(cubic feet)*	Incremental Total Chamber *(cubic feet)*	Incremental Stone *(cubic feet)*	Incremental Ch & St *(cubic feet)*	Cumulative Chamber *(cubic feet)*	Elevation *(feet)*
9	0.00	0.00	1051.70	1051.70	9465.30	1485.17
8	0.00	0.00	1051.70	1051.70	8413.60	1485.09
7	0.00	0.00	1051.70	1051.70	7361.90	1485.00
6	0.00	0.00	1051.70	1051.70	6310.20	1484.92
5	0.00	0.00	1051.70	1051.70	5258.50	1484.84
4	0.00	0.00	1051.70	1051.70	4206.80	1484.75
3	0.00	0.00	1051.70	1051.70	3155.10	1484.67
2	0.00	0.00	1051.70	1051.70	2103.40	1484.59
1	0.00	0.00	1051.70	1051.70	1051.70	1484.50

Project:	**Newland Simpson - DMA 2 (B3)**

Chamber Model -	MC-4500	
Units -	Imperial	
Number of Chambers -	579	
Number of End Caps -	22	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	1479.74	ft
Amount of Stone Above Chambers -	12	in
Amount of Stone Below Chambers -	9	in
Area of system -	22655	sf Min. Area - 21915 sf min. area

StormTech MC-4500 Cumulative Storage Volumes

Height of System *(inches)*	Incremental Single Chamber *(cubic feet)*	Incremental Single End Cap *(cubic feet)*	Incremental Chambers *(cubic feet)*	Incremental End Cap *(cubic feet)*	Incremental Stone *(cubic feet)*	Incremental Ch, EC and Stone *(cubic feet)*	Cumulative System (cubic feet)	Elevation (feet)
81	0.00	0.00	0.00	0.00	755.17	755.17	98691.02	1486.49
80	0.00	0.00	0.00	0.00	755.17	755.17	97935.85	1486.41
79	0.00	0.00	0.00	0.00	755.17	755.17	97180.68	1486.32
78	0.00	0.00	0.00	0.00	755.17	755.17	96425.51	1486.24
77	0.00	0.00	0.00	0.00	755.17	755.17	95670.34	1486.16
76	0.00	0.00	0.00	0.00	755.17	755.17	94915.17	1486.07
75	0.00	0.00	0.00	0.00	755.17	755.17	94160.01	1485.99
74	0.00	0.00	0.00	0.00	755.17	755.17	93404.84	1485.91
73	0.00	0.00	0.00	0.00	755.17	755.17	92649.67	1485.82
72	0.00	0.00	0.00	0.00	755.17	755.17	91894.50	1485.74
71	0.00	0.00	0.00	0.00	755.17	755.17	91139.33	1485.66
70	0.00	0.00	0.00	0.00	755.17	755.17	90384.16	1485.57
69	0.04	0.01	23.72	0.29	745.57	769.57	89629.00	1485.49
68	0.12	0.03	67.22	0.75	727.98	795.95	88859.43	1485.41
67	0.16	0.05	95.38	1.14	716.56	813.08	88063.48	1485.32
66	0.21	0.07	120.85	1.45	706.25	828.55	87250.40	1485.24
65	0.27	0.08	155.37	1.83	692.29	849.49	86421.85	1485.16
64	0.45	0.11	262.17	2.32	649.38	913.86	85572.36	1485.07
63	0.67	0.13	385.19	2.91	599.93	988.03	84658.50	1484.99
62	0.80	0.16	462.63	3.54	568.70	1034.87	83670.47	1484.91
61	0.91	0.19	525.80	4.15	543.19	1073.14	82635.60	1484.82
60	1.00	0.22	580.68	4.81	520.97	1106.46	81562.46	1484.74
59	1.09	0.25	629.57	5.43	501.17	1136.17	80456.00	1484.66
58	1.16	0.28	673.66	6.06	483.28	1163.00	79319.83	1484.57
57	1.23	0.30	714.49	6.64	466.72	1187.85	78156.83	1484.49
56	1.30	0.33	752.51	7.21	451.28	1211.00	76968.99	1484.41
55	1.36	0.35	788.04	7.80	436.83	1232.67	75757.99	1484.32
54	1.42	0.38	821.44	8.44	423.22	1253.09	74525.32	1484.24
53	1.47	0.41	853.06	9.00	410.34	1272.40	73272.22	1484.16
52	1.53	0.44	883.06	9.70	398.06	1290.83	71999.82	1484.07
51	1.57	0.47	911.63	10.31	386.39	1308.33	70708.99	1483.99
50	1.62	0.50	938.78	10.90	375.30	1324.98	69400.66	1483.91
49	1.67	0.52	964.75	11.46	364.69	1340.89	68075.68	1483.82
48	1.71	0.54	989.57	11.98	354.55	1356.10	66734.79	1483.74
47	1.75	0.57	1013.30	12.47	344.86	1370.63	65378.69	1483.66
46	1.79	0.59	1036.00	12.95	335.59	1384.54	64008.06	1483.57
45	1.83	0.61	1057.95	13.42	326.62	1397.99	62623.53	1483.49
44	1.86	0.63	1078.93	13.91	318.03	1410.87	61225.54	1483.41
43	1.90	0.64	1099.13	14.15	309.86	1423.13	59814.67	1483.32
42	1.93	0.68	1118.53	14.90	301.79	1435.23	58391.53	1483.24
41	1.96	0.70	1137.20	15.40	294.13	1446.73	56956.30	1483.16
40	2.00	0.72	1155.17	15.89	286.74	1457.81	55509.57	1483.07
39	2.03	0.74	1172.48	16.36	279.63	1468.47	54051.77	1482.99
38	2.05	0.76	1189.14	16.82	272.78	1478.74	52583.29	1482.91
37	2.08	0.79	1205.19	17.28	266.18	1488.65	51104.55	1482.82
36	2.11	0.80	1220.58	17.66	259.87	1498.11	49615.90	1482.74
35	2.13	0.82	1235.50	18.04	253.75	1507.29	48117.79	1482.66
34	2.16	0.84	1249.87	18.45	247.84	1516.16	46610.50	1482.57
33	2.18	0.85	1263.69	18.73	242.20	1524.62	45094.34	1482.49
32	2.21	0.86	1277.00	18.91	236.81	1532.71	43569.72	1482.41

Project: Newland Simpson - DMA 2 (B3)

Chamber Model -	MC-4500	
Units -	Imperial	
Number of Chambers -	579	
Number of End Caps -	22	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	1479.74	ft
Amount of Stone Above Chambers -	12	in
Amount of Stone Below Chambers -	9	in
Area of system -	22655	sf Min. Area - 21915 sf min. area

StormTech MC-4500 Cumulative Storage Volumes

Height of System *(inches)*	Incremental Single Chamber *(cubic feet)*	Incremental Single End Cap *(cubic feet)*	Incremental Chambers *(cubic feet)*	Incremental End Cap *(cubic feet)*	Incremental Stone *(cubic feet)*	Incremental Ch, EC and Stone *(cubic feet)*	Cumulative System (cubic feet)	Elevation (feet)
31	2.23	0.89	1289.81	19.57	231.42	1540.80	42037.00	1482.32
30	2.25	0.90	1302.10	19.89	226.37	1548.36	40496.21	1482.24
29	2.27	0.92	1313.95	20.18	221.52	1555.65	38947.85	1482.16
28	2.29	0.92	1325.32	20.24	216.94	1562.50	37392.20	1482.07
27	2.31	0.94	1336.25	20.76	212.37	1569.37	35829.70	1481.99
26	2.33	0.96	1346.72	21.04	208.06	1575.83	34260.33	1481.91
25	2.34	0.97	1356.77	21.31	203.94	1582.02	32684.50	1481.82
24	2.36	0.98	1366.39	21.59	199.98	1587.95	31102.49	1481.74
23	2.38	0.97	1375.59	21.37	196.39	1593.34	29514.53	1481.66
22	2.39	1.00	1384.38	22.07	192.59	1599.04	27921.19	1481.57
21	2.41	1.01	1392.76	22.24	189.17	1604.17	26322.16	1481.49
20	2.42	1.02	1400.75	22.45	185.89	1609.09	24717.98	1481.41
19	2.43	1.03	1408.35	22.67	182.76	1613.78	23108.89	1481.32
18	2.44	1.04	1415.56	22.85	179.80	1618.22	21495.12	1481.24
17	2.46	1.05	1422.39	23.02	177.00	1622.42	19876.90	1481.16
16	2.47	1.05	1428.85	23.19	174.35	1626.39	18254.48	1481.07
15	2.48	1.05	1434.93	23.11	171.95	1629.99	16628.10	1480.99
14	2.49	1.06	1440.70	23.25	169.59	1633.54	14998.11	1480.91
13	2.50	1.08	1446.16	23.66	167.24	1637.06	13364.57	1480.82
12	2.51	1.08	1451.27	23.82	165.13	1640.22	11727.51	1480.74
11	2.51	1.09	1456.02	23.94	163.18	1643.14	10087.29	1480.66
10	2.53	1.11	1463.09	24.34	160.20	1647.63	8444.14	1480.57
9	0.00	0.00	0.00	0.00	755.17	755.17	6796.52	1480.49
8	0.00	0.00	0.00	0.00	755.17	755.17	6041.35	1480.41
7	0.00	0.00	0.00	0.00	755.17	755.17	5286.18	1480.32
6	0.00	0.00	0.00	0.00	755.17	755.17	4531.01	1480.24
5	0.00	0.00	0.00	0.00	755.17	755.17	3775.84	1480.16
4	0.00	0.00	0.00	0.00	755.17	755.17	3020.67	1480.07
3	0.00	0.00	0.00	0.00	755.17	755.17	2265.51	1479.99
2	0.00	0.00	0.00	0.00	755.17	755.17	1510.34	1479.91
1	0.00	0.00	0.00	0.00	755.17	755.17	755.17	1479.82

Project: **Newland Simpson - DMA 3 (C1)**

Chamber Model -	DC-780	
Units -	Imperial	
	-	
Number of Chambers -	379	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	1487.18	ft
Amount of Stone Above Chambers -	6	in
Amount of Stone Below Chambers -	9	in
Area of system -	13614	sf Min. Area - 12812 sf min. area

StormTech DC-780 Cumulative Storage Volumes

Height of System *(inches)*	Incremental Single Chamber *(cubic feet)*	Incremental Total Chamber *(cubic feet)*	Incremental Stone *(cubic feet)*	Incremental Ch & St *(cubic feet)*	Cumulative Chamber *(cubic feet)*	Elevation *(feet)*
45	0.00	0.00	453.79	453.79	30941.95	1490.93
44	0.00	0.00	453.79	453.79	30488.16	1490.85
43	0.00	0.00	453.79	453.79	30034.37	1490.76
42	0.00	0.00	453.79	453.79	29580.58	1490.68
41	0.00	0.00	453.79	453.79	29126.79	1490.60
40	0.00	0.00	453.79	453.79	28673.00	1490.51
39	0.06	21.94	445.01	466.95	28219.21	1490.43
38	0.17	63.18	428.52	491.70	27752.25	1490.35
37	0.29	108.63	410.34	518.97	27260.56	1490.26
36	0.61	231.59	361.15	592.74	26741.59	1490.18
35	0.81	307.14	330.93	638.07	26148.85	1490.10
34	0.96	363.48	308.40	671.88	25510.78	1490.01
33	1.08	410.45	289.61	700.06	24838.90	1489.93
32	1.19	450.13	273.74	723.87	24138.84	1489.85
31	1.27	482.83	260.66	743.49	23414.97	1489.76
30	1.36	516.98	247.00	763.98	22671.48	1489.68
29	1.45	551.22	233.30	784.52	21907.50	1489.60
28	1.53	578.75	222.29	801.04	21122.98	1489.51
27	1.59	603.01	212.59	815.59	20321.94	1489.43
26	1.65	625.92	203.42	829.34	19506.35	1489.35
25	1.71	647.66	194.72	842.39	18677.00	1489.26
24	1.76	668.03	186.58	854.61	17834.62	1489.18
23	1.81	687.13	178.94	866.07	16980.01	1489.10
22	1.86	705.03	171.78	876.81	16113.94	1489.01
21	1.90	721.83	165.06	886.89	15237.13	1488.93
20	1.95	737.59	158.75	896.34	14350.24	1488.85
19	1.99	752.40	152.83	905.23	13453.90	1488.76
18	2.02	766.30	147.27	913.57	12548.67	1488.68
17	2.06	779.33	142.06	921.39	11635.10	1488.60
16	2.09	791.53	137.18	928.71	10713.71	1488.51
15	2.12	802.93	132.62	935.55	9785.00	1488.43
14	2.15	813.56	128.36	941.93	8849.45	1488.35
13	2.17	823.45	124.41	947.86	7907.53	1488.26
12	2.20	832.61	120.75	953.36	6959.67	1488.18
11	2.22	841.08	117.36	958.43	6006.31	1488.10
10	2.24	849.97	113.80	963.77	5047.88	1488.01

Project: **Newland Simpson - DMA 3 (C1)**

Chamber Model -	DC-780	
Units -	Imperial	
	-	
Number of Chambers -	379	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	1487.18	ft
Amount of Stone Above Chambers -	6	in
Amount of Stone Below Chambers -	9	in
Area of system -	13614	sf Min. Area - 12812 sf min. area

StormTech DC-780 Cumulative Storage Volumes

Height of System *(inches)*	Incremental Single Chamber *(cubic feet)*	Incremental Total Chamber *(cubic feet)*	Incremental Stone *(cubic feet)*	Incremental Ch & St *(cubic feet)*	Cumulative Chamber *(cubic feet)*	Elevation *(feet)*
9	0.00	0.00	453.79	453.79	4084.11	1487.93
8	0.00	0.00	453.79	453.79	3630.32	1487.85
7	0.00	0.00	453.79	453.79	3176.53	1487.76
6	0.00	0.00	453.79	453.79	2722.74	1487.68
5	0.00	0.00	453.79	453.79	2268.95	1487.60
4	0.00	0.00	453.79	453.79	1815.16	1487.51
3	0.00	0.00	453.79	453.79	1361.37	1487.43
2	0.00	0.00	453.79	453.79	907.58	1487.35
1	0.00	0.00	453.79	453.79	453.79	1487.26

Project: Newland Simpson - DMA 3 (C2)

Chamber Model -	DC-780	
Units -	Imperial	
	-	
Number of Chambers -	686	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	1491.09	ft
Amount of Stone Above Chambers -	6	in
Amount of Stone Below Chambers -	9	in
Area of system -	24369	sf Min. Area - 23190 sf min. area

StormTech DC-780 Cumulative Storage Volumes

Height of System *(inches)*	Incremental Single Chamber *(cubic feet)*	Incremental Total Chamber *(cubic feet)*	Incremental Stone *(cubic feet)*	Incremental Ch & St *(cubic feet)*	Cumulative Chamber *(cubic feet)*	Elevation *(feet)*
45	0.00	0.00	812.29	812.29	55597.19	1494.84
44	0.00	0.00	812.29	812.29	54784.89	1494.76
43	0.00	0.00	812.29	812.29	53972.60	1494.67
42	0.00	0.00	812.29	812.29	53160.31	1494.59
41	0.00	0.00	812.29	812.29	52348.02	1494.51
40	0.00	0.00	812.29	812.29	51535.72	1494.42
39	0.06	39.71	796.41	836.12	50723.43	1494.34
38	0.17	114.36	766.55	880.91	49887.31	1494.26
37	0.29	196.62	733.65	930.26	49006.41	1494.17
36	0.61	419.18	644.62	1063.80	48076.14	1494.09
35	0.81	555.93	589.92	1145.85	47012.34	1494.01
34	0.96	657.91	549.13	1207.04	45866.49	1493.92
33	1.08	742.93	515.12	1258.05	44659.45	1493.84
32	1.19	814.75	486.39	1301.14	43401.40	1493.76
31	1.27	873.94	462.72	1336.66	42100.26	1493.67
30	1.36	935.75	437.99	1373.74	40763.61	1493.59
29	1.45	997.72	413.20	1410.93	39389.87	1493.51
28	1.53	1047.55	393.27	1440.82	37978.94	1493.42
27	1.59	1091.46	375.71	1467.17	36538.12	1493.34
26	1.65	1132.93	359.12	1492.05	35070.95	1493.26
25	1.71	1172.29	343.38	1515.66	33578.90	1493.17
24	1.76	1209.15	328.63	1537.78	32063.23	1493.09
23	1.81	1243.73	314.80	1558.53	30525.45	1493.01
22	1.86	1276.12	301.85	1577.96	28966.92	1492.92
21	1.90	1306.54	289.68	1596.21	27388.96	1492.84
20	1.95	1335.06	278.27	1613.33	25792.74	1492.76
19	1.99	1361.87	267.54	1629.41	24179.41	1492.67
18	2.02	1387.03	257.48	1644.51	22550.00	1492.59
17	2.06	1410.61	248.05	1658.66	20905.49	1492.51
16	2.09	1432.69	239.22	1671.91	19246.83	1492.42
15	2.12	1453.32	230.96	1684.28	17574.92	1492.34
14	2.15	1472.57	223.26	1695.83	15890.64	1492.26
13	2.17	1490.46	216.11	1706.57	14194.81	1492.17
12	2.20	1507.05	209.47	1716.52	12488.24	1492.09
11	2.22	1522.37	203.35	1725.71	10771.72	1492.01
10	2.24	1538.47	196.91	1735.37	9046.00	1491.92

Project: **Newland Simpson - DMA 3 (C2)**

Chamber Model -	DC-780	
Units -	Imperial	
	-	
Number of Chambers -	686	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	1491.09	ft
Amount of Stone Above Chambers -	6	in
Amount of Stone Below Chambers -	9	in
Area of system -	24369	sf Min. Area - 23190 sf min. area

StormTech DC-780 Cumulative Storage Volumes

Height of System *(inches)*	Incremental Single Chamber *(cubic feet)*	Incremental Total Chamber *(cubic feet)*	Incremental Stone *(cubic feet)*	Incremental Ch & St *(cubic feet)*	Cumulative Chamber *(cubic feet)*	Elevation *(feet)*
9	0.00	0.00	812.29	812.29	7310.63	1491.84
8	0.00	0.00	812.29	812.29	6498.34	1491.76
7	0.00	0.00	812.29	812.29	5686.05	1491.67
6	0.00	0.00	812.29	812.29	4873.75	1491.59
5	0.00	0.00	812.29	812.29	4061.46	1491.51
4	0.00	0.00	812.29	812.29	3249.17	1491.42
3	0.00	0.00	812.29	812.29	2436.88	1491.34
2	0.00	0.00	812.29	812.29	1624.58	1491.26
1	0.00	0.00	812.29	812.29	812.29	1491.17

		JOB NO.	IRV21-0204
		SHEET OF	DATE
PROJECT	Newland Simpson Hemet	BY: C. Patterson	7/28/2023
DESIGN	Stormwater Basin Stage - Storage	CHK'D:	

REQUIRED 100 YR, 3HR VOLUME (CF) =	20362
PROVIDED VOLUME (CF) =	46,847

Above Ground Infiltration Basin C3

	ELEV	AREA (SF)	AVG. AREA (SF)	DEPTH (FT)	VOL (CF)	SUM VOL (CF)	SUM VOL (Ac-FT)
	1489	8,131				0	0.0000
			8,982	1.00	8,982		
1.	1490	9,834				8,982	0.2062
			10,735	1.00	10,735		
2.	1491	11,636				19,717	0.4526
			12,588	1.00	12,588		
3.	1492	13,540				32,305	0.7416
			14,542	1.00	14,542		
4.	1493	15,544				46,847	1.0755

Required Volume Elevation= 1491.05

		JOB NO.	IRV21-0204
		SHEET OF	DATE
PROJECT	Newland Simpson Hemet	BY: C. Patterson	10/13/2023
DESIGN	Stormwater Basin Stage - Storage	CHK'D:	

REQUIRED 100 YR, 3HR VOLUME (CF) = 68,568

PROVIDED VOLUME (CF) = 92,737

Above Ground Infiltration Basin D1

	ELEV	AREA (SF)	AVG. AREA (SF)	DEPTH (FT)	VOL (CF)	SUM VOL (CF)	SUM VOL (Ac-FT)
1.	1496	24,373				0	0.0000
			26,490	1.00	26,490		
2.	1497	28,607				26,490	0.6081
			30,837	1.00	30,837		
3.	1498	33,067				57,327	1.3161
			35,410	1.00	35,410		
4.	1499	37,753				92,737	2.1290
			39,050	1.00	39,050		
3.	1500	40,346				131,787	3.0254

Required Volume Elevation= 1498.32

Newland Simpson Hemet
Simpson Road
City of Hemet, County of Riverside, CA
Dated: 10/13/23
Last Revised:

POST DEVELOPMENT - Basin Flood Routing (OUTPUT)

Analysis

Design Storm Event:	100yr 3hr

Outflow Data - 100YR 3HR*

Basin ID	max ponding depth (ft)	max volume (ac-ft)	Infiltration rate (cfs)	max outflow**
A1	3.06	2.91	1.720	0.000
B3	5.88	4.17	1.240	0.000
C1	3.02	1.23	0.740	0.000
C2	3.01	1.11	0.670	0.000
C3	1.89	0.43	0.220	0.000
D1	2.15	1.44	0.67	0.000

**Refer to CivilD Flood Hydrograph Routing for full Output Data*
***100yr, 3hr storm event is completely infiltrated, 0.00 is leaving the basin through the outlet structure*

Outflow Data - 100YR 24HR*

Basin ID	max ponding depth (ft)	max volume (ac-ft)	Infiltration rate (cfs)	max outflow
A1	5.22	3.32	1.720	20.010
B3	7.80	4.53	1.240	26.160
C1	4.75	1.42	0.740	10.090
C2	4.13	1.28	0.670	5.140
C3	2.31	0.54	0.220	1.320
D1	3.09	2.21	0.67	3.300

**Refer to CivilD Flood Hydrograph Routing for full Output Data*

NEWLAND SIMPSON
HEMET
POST DEVELOPMENT
FLOOD ROUTING
BASIN A1
100YR-3HR

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 10/16/23

NEWLAND SIMPSON HEMET
POST DEVELOPMENT DMA A
BASIN A1 - FLOOD ROUTING
100YR 3HR

Program License Serial Number 6491

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********************* HYDROGRAPH INFORMATION **********************

                From study/file name: NSPRUHA3100.rte
****************************HYDROGRAPH DATA****************************
                Number of intervals =    42
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =       35.278 (CFS)
                Total volume =       3.312 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
***********************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       13.000 to Point/Station      13.000
**** RETARDING BASIN ROUTING ****
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User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 42
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)

Initial basin depth =   0.00 (Ft.)
Initial basin storage =   0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.290	1.720	0.284	0.296
1.000	0.745	1.720	0.739	0.751
1.500	1.347	1.720	1.341	1.353
2.000	1.916	1.720	1.910	1.922
2.500	2.436	1.720	2.430	2.442
3.000	2.873	1.720	2.867	2.879
3.500	3.175	1.720	3.169	3.181
3.750	3.320	1.720	3.314	3.326
5.250	3.321	1.720	3.315	3.327

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

```
 Time    Inflow  Outflow     Storage                                         Depth
(Hours)  (CFS)    (CFS)     (Ac.Ft) .0       8.8   17.64   26.46   35.28 (Ft.)
 0.083    1.68    0.03      0.006  OI      |       |       |       |     0.01
 0.167    4.53    0.16      0.026  O   I   |       |       |       |     0.05
 0.250    4.98    0.34      0.057  O   I   |       |       |       |     0.10
 0.333    5.39    0.53      0.090  O   I   |       |       |       |     0.16
 0.417    6.42    0.75      0.126  O    I  |       |       |       |     0.22
 0.500    7.14    0.99      0.167  O     I |       |       |       |     0.29
 0.583    7.56    1.24      0.210  |O    I |       |       |       |     0.36
 0.667    7.49    1.50      0.252  |O    I |       |       |       |     0.44
 0.750    8.14    1.72      0.295  |O     I|       |       |       |     0.51
 0.833    7.88    1.72      0.338  |O     I|       |       |       |     0.55
 0.917    7.36    1.72      0.379  |O    I |       |       |       |     0.60
 1.000    7.73    1.72      0.419  |O     I|       |       |       |     0.64
 1.083    8.78    1.72      0.464  |O     I|       |       |       |     0.69
 1.167    9.87    1.72      0.517  |O      I       |       |       |     0.75
 1.250   10.17    1.72      0.574  |O      |I      |       |       |     0.81
 1.333   10.02    1.72      0.631  |O      |I      |       |       |     0.88
 1.417   10.47    1.72      0.690  |O      |I      |       |       |     0.94
 1.500   11.99    1.72      0.756  |O      | I     |       |       |     1.01
 1.583   12.14    1.72      0.827  |O      |  I    |       |       |     1.07
 1.667   12.04    1.72      0.898  |O      | I     |       |       |     1.13
 1.750   13.54    1.72      0.974  |O      |   I   |       |       |     1.19
 1.833   14.87    1.72      1.060  |O      |    I  |       |       |     1.26
 1.917   14.54    1.72      1.150  |O      |    I  |       |       |     1.34
 2.000   14.27    1.72      1.237  |O      |   I   |       |       |     1.41
 2.083   14.58    1.72      1.325  |O      |    I  |       |       |     1.48
 2.167   16.43    1.72      1.420  |O      |     I |       |       |     1.56
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2.250   20.31    1.72      1.534  |O      |       | I     |       |     1.66
2.333   20.82    1.72      1.664  |O      |       | I     |       |     1.78
2.417   22.71    1.72      1.802  |O      |       |   I   |       |     1.90
2.500   30.90    1.72      1.975  |O      |       |       |   I   |     2.06
2.583   35.26    1.72      2.191  |O      |       |       |      I|     2.26
2.667   35.28    1.72      2.422  |O      |       |       |       I     2.49
2.750   25.24    1.72      2.619  |O      |       |     I |       |     2.71
2.833   14.58    1.72      2.744  |O      |    I  |       |       |     2.85
2.917   11.33    1.72      2.821  |O      |  I    |       |       |     2.94
3.000    8.18    1.72      2.877  |O     I|       |       |       |     3.01
3.083    3.81    1.72      2.906  |O I    |       |       |       |     3.05
3.167    1.42    1.72      2.912  |O      |       |       |       |     3.06
3.250    0.61    1.72      2.907  IO      |       |       |       |     3.06
3.333    0.28    1.72      2.899  IO      |       |       |       |     3.04
3.417    0.11    1.72      2.888  IO      |       |       |       |     3.02
3.500    0.02    1.72      2.877  IO      |       |       |       |     3.01
3.583    0.00    1.72      2.865  IO      |       |       |       |     2.99
3.667    0.00    1.72      2.853  IO      |       |       |       |     2.98
3.750    0.00    1.72      2.841  IO      |       |       |       |     2.96
3.833    0.00    1.72      2.829  IO      |       |       |       |     2.95
3.917    0.00    1.72      2.818  IO      |       |       |       |     2.94
4.000    0.00    1.72      2.806  IO      |       |       |       |     2.92
4.083    0.00    1.72      2.794  IO      |       |       |       |     2.91
4.167    0.00    1.72      2.782  IO      |       |       |       |     2.90
4.250    0.00    1.72      2.770  IO      |       |       |       |     2.88
4.333    0.00    1.72      2.758  IO      |       |       |       |     2.87
4.417    0.00    1.72      2.746  IO      |       |       |       |     2.86
4.500    0.00    1.72      2.735  IO      |       |       |       |     2.84
4.583    0.00    1.72      2.723  IO      |       |       |       |     2.83
4.667    0.00    1.72      2.711  IO      |       |       |       |     2.81
4.750    0.00    1.72      2.699  IO      |       |       |       |     2.80
4.833    0.00    1.72      2.687  IO      |       |       |       |     2.79
4.917    0.00    1.72      2.675  IO      |       |       |       |     2.77
5.000    0.00    1.72      2.664  IO      |       |       |       |     2.76
5.083    0.00    1.72      2.652  IO      |       |       |       |     2.75
5.167    0.00    1.72      2.640  IO      |       |       |       |     2.73
5.250    0.00    1.72      2.628  IO      |       |       |       |     2.72
5.333    0.00    1.72      2.616  IO      |       |       |       |     2.71
5.417    0.00    1.72      2.604  IO      |       |       |       |     2.69
5.500    0.00    1.72      2.592  IO      |       |       |       |     2.68
5.583    0.00    1.72      2.581  IO      |       |       |       |     2.67
5.667    0.00    1.72      2.569  IO      |       |       |       |     2.65
5.750    0.00    1.72      2.557  IO      |       |       |       |     2.64
5.833    0.00    1.72      2.545  IO      |       |       |       |     2.62
5.917    0.00    1.72      2.533  IO      |       |       |       |     2.61
6.000    0.00    1.72      2.521  IO      |       |       |       |     2.60
6.083    0.00    1.72      2.510  IO      |       |       |       |     2.58
6.167    0.00    1.72      2.498  IO      |       |       |       |     2.57
6.250    0.00    1.72      2.486  IO      |       |       |       |     2.56
6.333    0.00    1.72      2.474  IO      |       |       |       |     2.54
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6.417	0.00	1.72	2.462	IO	2.53
6.500	0.00	1.72	2.450	IO	2.52
6.583	0.00	1.72	2.438	IO	2.50
6.667	0.00	1.72	2.427	IO	2.49
6.750	0.00	1.72	2.415	IO	2.48
6.833	0.00	1.72	2.403	IO	2.47
6.917	0.00	1.72	2.391	IO	2.46
7.000	0.00	1.72	2.379	IO	2.45
7.083	0.00	1.72	2.367	IO	2.43
7.167	0.00	1.72	2.356	IO	2.42
7.250	0.00	1.72	2.344	IO	2.41
7.333	0.00	1.72	2.332	IO	2.40
7.417	0.00	1.72	2.320	IO	2.39
7.500	0.00	1.72	2.308	IO	2.38
7.583	0.00	1.72	2.296	IO	2.37
7.667	0.00	1.72	2.284	IO	2.35
7.750	0.00	1.72	2.273	IO	2.34
7.833	0.00	1.72	2.261	IO	2.33
7.917	0.00	1.72	2.249	IO	2.32
8.000	0.00	1.72	2.237	IO	2.31
8.083	0.00	1.72	2.225	IO	2.30
8.167	0.00	1.72	2.213	IO	2.29
8.250	0.00	1.72	2.202	IO	2.27
8.333	0.00	1.72	2.190	IO	2.26
8.417	0.00	1.72	2.178	IO	2.25
8.500	0.00	1.72	2.166	IO	2.24
8.583	0.00	1.72	2.154	IO	2.23
8.667	0.00	1.72	2.142	IO	2.22
8.750	0.00	1.72	2.130	IO	2.21
8.833	0.00	1.72	2.119	IO	2.19
8.917	0.00	1.72	2.107	IO	2.18
9.000	0.00	1.72	2.095	IO	2.17
9.083	0.00	1.72	2.083	IO	2.16
9.167	0.00	1.72	2.071	IO	2.15
9.250	0.00	1.72	2.059	IO	2.14
9.333	0.00	1.72	2.048	IO	2.13
9.417	0.00	1.72	2.036	IO	2.12
9.500	0.00	1.72	2.024	IO	2.10
9.583	0.00	1.72	2.012	IO	2.09
9.667	0.00	1.72	2.000	IO	2.08
9.750	0.00	1.72	1.988	IO	2.07
9.833	0.00	1.72	1.976	IO	2.06
9.917	0.00	1.72	1.965	IO	2.05
10.000	0.00	1.72	1.953	IO	2.04
10.083	0.00	1.72	1.941	IO	2.02
10.167	0.00	1.72	1.929	IO	2.01
10.250	0.00	1.72	1.917	IO	2.00
10.333	0.00	1.72	1.905	IO	1.99
10.417	0.00	1.72	1.894	IO	1.98
10.500	0.00	1.72	1.882	IO	1.97

10.583	0.00	1.72	1.870	IO				1.96
10.667	0.00	1.72	1.858	IO				1.95
10.750	0.00	1.72	1.846	IO				1.94
10.833	0.00	1.72	1.834	IO				1.93
10.917	0.00	1.72	1.822	IO				1.92
11.000	0.00	1.72	1.811	IO				1.91
11.083	0.00	1.72	1.799	IO				1.90
11.167	0.00	1.72	1.787	IO				1.89
11.250	0.00	1.72	1.775	IO				1.88
11.333	0.00	1.72	1.763	IO				1.87
11.417	0.00	1.72	1.751	IO				1.86
11.500	0.00	1.72	1.740	IO				1.84
11.583	0.00	1.72	1.728	IO				1.83
11.667	0.00	1.72	1.716	IO				1.82
11.750	0.00	1.72	1.704	IO				1.81
11.833	0.00	1.72	1.692	IO				1.80
11.917	0.00	1.72	1.680	IO				1.79
12.000	0.00	1.72	1.668	IO				1.78
12.083	0.00	1.72	1.657	IO				1.77
12.167	0.00	1.72	1.645	IO				1.76
12.250	0.00	1.72	1.633	IO				1.75
12.333	0.00	1.72	1.621	IO				1.74
12.417	0.00	1.72	1.609	IO				1.73
12.500	0.00	1.72	1.597	IO				1.72
12.583	0.00	1.72	1.586	IO				1.71
12.667	0.00	1.72	1.574	IO				1.70
12.750	0.00	1.72	1.562	IO				1.69
12.833	0.00	1.72	1.550	IO				1.68
12.917	0.00	1.72	1.538	IO				1.67
13.000	0.00	1.72	1.526	IO				1.66
13.083	0.00	1.72	1.514	IO				1.65
13.167	0.00	1.72	1.503	IO				1.64
13.250	0.00	1.72	1.491	IO				1.63
13.333	0.00	1.72	1.479	IO				1.62
13.417	0.00	1.72	1.467	IO				1.61
13.500	0.00	1.72	1.455	IO				1.60
13.583	0.00	1.72	1.443	IO				1.58
13.667	0.00	1.72	1.432	IO				1.57
13.750	0.00	1.72	1.420	IO				1.56
13.833	0.00	1.72	1.408	IO				1.55
13.917	0.00	1.72	1.396	IO				1.54
14.000	0.00	1.72	1.384	IO				1.53
14.083	0.00	1.72	1.372	IO				1.52
14.167	0.00	1.72	1.360	IO				1.51
14.250	0.00	1.72	1.349	IO				1.50
14.333	0.00	1.72	1.337	IO				1.49
14.417	0.00	1.72	1.325	IO				1.48
14.500	0.00	1.72	1.313	IO				1.47
14.583	0.00	1.72	1.301	IO				1.46
14.667	0.00	1.72	1.289	IO				1.45

14.750	0.00	1.72	1.278	IO				1.44
14.833	0.00	1.72	1.266	IO				1.43
14.917	0.00	1.72	1.254	IO				1.42
15.000	0.00	1.72	1.242	IO				1.41
15.083	0.00	1.72	1.230	IO				1.40
15.167	0.00	1.72	1.218	IO				1.39
15.250	0.00	1.72	1.206	IO				1.38
15.333	0.00	1.72	1.195	IO				1.37
15.417	0.00	1.72	1.183	IO				1.36
15.500	0.00	1.72	1.171	IO				1.35
15.583	0.00	1.72	1.159	IO				1.34
15.667	0.00	1.72	1.147	IO				1.33
15.750	0.00	1.72	1.135	IO				1.32
15.833	0.00	1.72	1.124	IO				1.31
15.917	0.00	1.72	1.112	IO				1.30
16.000	0.00	1.72	1.100	IO				1.29
16.083	0.00	1.72	1.088	IO				1.28
16.167	0.00	1.72	1.076	IO				1.28
16.250	0.00	1.72	1.064	IO				1.27
16.333	0.00	1.72	1.052	IO				1.26
16.417	0.00	1.72	1.041	IO				1.25
16.500	0.00	1.72	1.029	IO				1.24
16.583	0.00	1.72	1.017	IO				1.23
16.667	0.00	1.72	1.005	IO				1.22
16.750	0.00	1.72	0.993	IO				1.21
16.833	0.00	1.72	0.981	IO				1.20
16.917	0.00	1.72	0.970	IO				1.19
17.000	0.00	1.72	0.958	IO				1.18
17.083	0.00	1.72	0.946	IO				1.17
17.167	0.00	1.72	0.934	IO				1.16
17.250	0.00	1.72	0.922	IO				1.15
17.333	0.00	1.72	0.910	IO				1.14
17.417	0.00	1.72	0.899	IO				1.13
17.500	0.00	1.72	0.887	IO				1.12
17.583	0.00	1.72	0.875	IO				1.11
17.667	0.00	1.72	0.863	IO				1.10
17.750	0.00	1.72	0.851	IO				1.09
17.833	0.00	1.72	0.839	IO				1.08
17.917	0.00	1.72	0.827	IO				1.07
18.000	0.00	1.72	0.816	IO				1.06
18.083	0.00	1.72	0.804	IO				1.05
18.167	0.00	1.72	0.792	IO				1.04
18.250	0.00	1.72	0.780	IO				1.03
18.333	0.00	1.72	0.768	IO				1.02
18.417	0.00	1.72	0.756	IO				1.01
18.500	0.00	1.72	0.745	IO				1.00
18.583	0.00	1.72	0.733	IO				0.99
18.667	0.00	1.72	0.721	IO				0.97
18.750	0.00	1.72	0.709	IO				0.96
18.833	0.00	1.72	0.697	IO				0.95

18.917	0.00	1.72	0.685	IO					0.93
19.000	0.00	1.72	0.673	IO					0.92
19.083	0.00	1.72	0.662	IO					0.91
19.167	0.00	1.72	0.650	IO					0.90
19.250	0.00	1.72	0.638	IO					0.88
19.333	0.00	1.72	0.626	IO					0.87
19.417	0.00	1.72	0.614	IO					0.86
19.500	0.00	1.72	0.602	IO					0.84
19.583	0.00	1.72	0.591	IO					0.83
19.667	0.00	1.72	0.579	IO					0.82
19.750	0.00	1.72	0.567	IO					0.80
19.833	0.00	1.72	0.555	IO					0.79
19.917	0.00	1.72	0.543	IO					0.78
20.000	0.00	1.72	0.531	IO					0.77
20.083	0.00	1.72	0.519	IO					0.75
20.167	0.00	1.72	0.508	IO					0.74
20.250	0.00	1.72	0.496	IO					0.73
20.333	0.00	1.72	0.484	IO					0.71
20.417	0.00	1.72	0.472	IO					0.70
20.500	0.00	1.72	0.460	IO					0.69
20.583	0.00	1.72	0.448	IO					0.67
20.667	0.00	1.72	0.437	IO					0.66
20.750	0.00	1.72	0.425	IO					0.65
20.833	0.00	1.72	0.413	IO					0.63
20.917	0.00	1.72	0.401	IO					0.62
21.000	0.00	1.72	0.389	IO					0.61
21.083	0.00	1.72	0.377	IO					0.60
21.167	0.00	1.72	0.365	IO					0.58
21.250	0.00	1.72	0.354	IO					0.57
21.333	0.00	1.72	0.342	IO					0.56
21.417	0.00	1.72	0.330	IO					0.54
21.500	0.00	1.72	0.318	IO					0.53
21.583	0.00	1.72	0.306	IO					0.52
21.667	0.00	1.72	0.294	IO					0.50
21.750	0.00	1.68	0.283	IO					0.49
21.833	0.00	1.61	0.271	IO					0.47
21.917	0.00	1.55	0.260	IO					0.45
22.000	0.00	1.48	0.250	IO					0.43
22.083	0.00	1.42	0.240	IO					0.41
22.167	0.00	1.37	0.230	IO					0.40
22.250	0.00	1.31	0.221	IO					0.38
22.333	0.00	1.26	0.212	IO					0.37
22.417	0.00	1.21	0.204	IO					0.35
22.500	0.00	1.16	0.196	IO					0.34
22.583	0.00	1.11	0.188	IO					0.32
22.667	0.00	1.07	0.180	O					0.31
22.750	0.00	1.03	0.173	O					0.30
22.833	0.00	0.99	0.166	O					0.29
22.917	0.00	0.95	0.160	O					0.28
23.000	0.00	0.91	0.153	O					0.26

```
23.083    0.00    0.87    0.147  O        |       |       |       |      0.25
23.167    0.00    0.84    0.141  O        |       |       |       |      0.24
23.250    0.00    0.80    0.135  O        |       |       |       |      0.23
23.333    0.00    0.77    0.130  O        |       |       |       |      0.22
23.417    0.00    0.74    0.125  O        |       |       |       |      0.22
23.500    0.00    0.71    0.120  O        |       |       |       |      0.21
23.583    0.00    0.68    0.115  O        |       |       |       |      0.20
23.667    0.00    0.66    0.110  O        |       |       |       |      0.19
23.750    0.00    0.63    0.106  O        |       |       |       |      0.18
23.833    0.00    0.60    0.102  O        |       |       |       |      0.18
23.917    0.00    0.58    0.098  O        |       |       |       |      0.17
24.000    0.00    0.56    0.094  O        |       |       |       |      0.16
24.083    0.00    0.53    0.090  O        |       |       |       |      0.16
24.167    0.00    0.51    0.086  O        |       |       |       |      0.15
24.250    0.00    0.49    0.083  O        |       |       |       |      0.14
24.333    0.00    0.47    0.080  O        |       |       |       |      0.14
24.417    0.00    0.45    0.076  O        |       |       |       |      0.13
24.500    0.00    0.44    0.073  O        |       |       |       |      0.13
24.583    0.00    0.42    0.070  O        |       |       |       |      0.12
24.667    0.00    0.40    0.068  O        |       |       |       |      0.12
24.750    0.00    0.39    0.065  O        |       |       |       |      0.11
24.833    0.00    0.37    0.062  O        |       |       |       |      0.11
24.917    0.00    0.35    0.060  O        |       |       |       |      0.10
25.000    0.00    0.34    0.057  O        |       |       |       |      0.10
25.083    0.00    0.33    0.055  O        |       |       |       |      0.10
25.167    0.00    0.31    0.053  O        |       |       |       |      0.09
25.250    0.00    0.30    0.051  O        |       |       |       |      0.09
25.333    0.00    0.29    0.049  O        |       |       |       |      0.08
25.417    0.00    0.28    0.047  O        |       |       |       |      0.08
25.500    0.00    0.27    0.045  O        |       |       |       |      0.08
25.583    0.00    0.26    0.043  O        |       |       |       |      0.07
25.667    0.00    0.25    0.041  O        |       |       |       |      0.07
25.750    0.00    0.24    0.040  O        |       |       |       |      0.07
25.833    0.00    0.23    0.038  O        |       |       |       |      0.07
25.917    0.00    0.22    0.037  O        |       |       |       |      0.06
26.000    0.00    0.21    0.035  O        |       |       |       |      0.06
26.083    0.00    0.20    0.034  O        |       |       |       |      0.06
26.167    0.00    0.19    0.032  O        |       |       |       |      0.06
26.250    0.00    0.18    0.031  O        |       |       |       |      0.05
26.333    0.00    0.18    0.030  O        |       |       |       |      0.05
26.417    0.00    0.17    0.029  O        |       |       |       |      0.05
26.500    0.00    0.16    0.028  O        |       |       |       |      0.05
26.583    0.00    0.16    0.026  O        |       |       |       |      0.05
26.667    0.00    0.15    0.025  O        |       |       |       |      0.04
26.750    0.00    0.14    0.024  O        |       |       |       |      0.04
26.833    0.00    0.14    0.023  O        |       |       |       |      0.04
26.917    0.00    0.13    0.022  O        |       |       |       |      0.04
27.000    0.00    0.13    0.022  O        |       |       |       |      0.04
27.083    0.00    0.12    0.021  O        |       |       |       |      0.04
27.167    0.00    0.12    0.020  O        |       |       |       |      0.03
```

27.250	0.00	0.11	0.019	O	|	|	|	|	0.03
27.333	0.00	0.11	0.018	O	|	|	|	|	0.03
27.417	0.00	0.10	0.018	O	|	|	|	|	0.03
27.500	0.00	0.10	0.017	O	|	|	|	|	0.03
27.583	0.00	0.10	0.016	O	|	|	|	|	0.03
27.667	0.00	0.09	0.016	O	|	|	|	|	0.03
27.750	0.00	0.09	0.015	O	|	|	|	|	0.03
27.833	0.00	0.08	0.014	O	|	|	|	|	0.02
27.917	0.00	0.08	0.014	O	|	|	|	|	0.02
28.000	0.00	0.08	0.013	O	|	|	|	|	0.02
28.083	0.00	0.08	0.013	O	|	|	|	|	0.02
28.167	0.00	0.07	0.012	O	|	|	|	|	0.02
28.250	0.00	0.07	0.012	O	|	|	|	|	0.02
28.333	0.00	0.07	0.011	O	|	|	|	|	0.02
28.417	0.00	0.06	0.011	O	|	|	|	|	0.02
28.500	0.00	0.06	0.010	O	|	|	|	|	0.02
28.583	0.00	0.06	0.010	O	|	|	|	|	0.02
28.667	0.00	0.06	0.010	O	|	|	|	|	0.02
28.750	0.00	0.05	0.009	O	|	|	|	|	0.02
28.833	0.00	0.05	0.009	O	|	|	|	|	0.02
28.917	0.00	0.05	0.008	O	|	|	|	|	0.01
29.000	0.00	0.05	0.008	O	|	|	|	|	0.01
29.083	0.00	0.05	0.008	O	|	|	|	|	0.01
29.167	0.00	0.04	0.007	O	|	|	|	|	0.01
29.250	0.00	0.04	0.007	O	|	|	|	|	0.01
29.333	0.00	0.04	0.007	O	|	|	|	|	0.01
29.417	0.00	0.04	0.007	O	|	|	|	|	0.01
29.500	0.00	0.04	0.006	O	|	|	|	|	0.01
29.583	0.00	0.04	0.006	O	|	|	|	|	0.01
29.667	0.00	0.03	0.006	O	|	|	|	|	0.01
29.750	0.00	0.03	0.006	O	|	|	|	|	0.01
29.833	0.00	0.03	0.005	O	|	|	|	|	0.01
29.917	0.00	0.03	0.005	O	|	|	|	|	0.01
30.000	0.00	0.03	0.005	O	|	|	|	|	0.01
30.083	0.00	0.03	0.005	O	|	|	|	|	0.01
30.167	0.00	0.03	0.005	O	|	|	|	|	0.01
30.250	0.00	0.03	0.004	O	|	|	|	|	0.01
30.333	0.00	0.02	0.004	O	|	|	|	|	0.01
30.417	0.00	0.02	0.004	O	|	|	|	|	0.01
30.500	0.00	0.02	0.004	O	|	|	|	|	0.01
30.583	0.00	0.02	0.004	O	|	|	|	|	0.01
30.667	0.00	0.02	0.004	O	|	|	|	|	0.01
30.750	0.00	0.02	0.003	O	|	|	|	|	0.01
30.833	0.00	0.02	0.003	O	|	|	|	|	0.01
30.917	0.00	0.02	0.003	O	|	|	|	|	0.01
31.000	0.00	0.02	0.003	O	|	|	|	|	0.01
31.083	0.00	0.02	0.003	O	|	|	|	|	0.01
31.167	0.00	0.02	0.003	O	|	|	|	|	0.00
31.250	0.00	0.02	0.003	O	|	|	|	|	0.00
31.333	0.00	0.02	0.003	O	|	|	|	|	0.00

```
31.417    0.00    0.01      0.002  O        |       |       |       |      0.00
31.500    0.00    0.01      0.002  O        |       |       |       |      0.00
31.583    0.00    0.01      0.002  O        |       |       |       |      0.00
31.667    0.00    0.01      0.002  O        |       |       |       |      0.00
31.750    0.00    0.01      0.002  O        |       |       |       |      0.00
31.833    0.00    0.01      0.002  O        |       |       |       |      0.00
31.917    0.00    0.01      0.002  O        |       |       |       |      0.00
32.000    0.00    0.01      0.002  O        |       |       |       |      0.00
32.083    0.00    0.01      0.002  O        |       |       |       |      0.00
32.167    0.00    0.01      0.002  O        |       |       |       |      0.00
32.250    0.00    0.01      0.002  O        |       |       |       |      0.00
32.333    0.00    0.01      0.002  O        |       |       |       |      0.00
32.417    0.00    0.01      0.002  O        |       |       |       |      0.00
32.500    0.00    0.01      0.001  O        |       |       |       |      0.00
32.583    0.00    0.01      0.001  O        |       |       |       |      0.00
32.667    0.00    0.01      0.001  O        |       |       |       |      0.00
32.750    0.00    0.01      0.001  O        |       |       |       |      0.00
32.833    0.00    0.01      0.001  O        |       |       |       |      0.00
32.917    0.00    0.01      0.001  O        |       |       |       |      0.00
33.000    0.00    0.01      0.001  O        |       |       |       |      0.00
33.083    0.00    0.01      0.001  O        |       |       |       |      0.00
33.167    0.00    0.01      0.001  O        |       |       |       |      0.00
33.250    0.00    0.01      0.001  O        |       |       |       |      0.00
33.333    0.00    0.01      0.001  O        |       |       |       |      0.00
33.417    0.00    0.01      0.001  O        |       |       |       |      0.00
33.500    0.00    0.01      0.001  O        |       |       |       |      0.00
33.583    0.00    0.01      0.001  O        |       |       |       |      0.00
33.667    0.00    0.00      0.001  O        |       |       |       |      0.00
33.750    0.00    0.00      0.001  O        |       |       |       |      0.00
33.833    0.00    0.00      0.001  O        |       |       |       |      0.00
33.917    0.00    0.00      0.001  O        |       |       |       |      0.00
34.000    0.00    0.00      0.001  O        |       |       |       |      0.00
34.083    0.00    0.00      0.001  O        |       |       |       |      0.00
34.167    0.00    0.00      0.001  O        |       |       |       |      0.00
34.250    0.00    0.00      0.001  O        |       |       |       |      0.00
34.333    0.00    0.00      0.001  O        |       |       |       |      0.00
34.417    0.00    0.00      0.001  O        |       |       |       |      0.00

       ****************************HYDROGRAPH DATA****************************
                       Number of intervals =   413
                       Time interval =    5.0 (Min.)
                       Maximum/Peak flow rate =       1.720 (CFS)
                       Total volume =       3.311 (Ac.Ft)
               Status of hydrographs being held in storage
                          Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
               Peak (CFS)      0.000     0.000     0.000     0.000     0.000
               Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ***********************************************************************

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

NEWLAND SIMPSON
HEMET
POST DEVELOPMENT
FLOOD ROUTING
BASIN B3
100YR-3HR

```
                    FLOOD HYDROGRAPH ROUTING PROGRAM
           Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018
                         Study date: 10/16/23

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


NEWLAND SIMPSON
POST DEVELOPMENT - DMA B
BASIN B3 FLOOD ROUTING
100YR 3HR
-------------------------------------------------------------------


Program License Serial Number 6491

-------------------------------------------------------------------
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: NSPRUHTOTALB3100.rte
****************************HYDROGRAPH DATA***************************
                Number of intervals =    40
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =       50.063 (CFS)
                Total volume =       4.472 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
**********************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       32.000 to Point/Station       32.000
**** RETARDING BASIN ROUTING ****
______________________________________________________________________

User entry of depth-outflow-storage data
-------------------------------------------------------------------
Total number of inflow hydrograph intervals = 40
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
-------------------------------------------------------------------
-------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
```

```
       ---------------------------------------------------------------------
       --------------------------------------------------------------------
       Depth vs. Storage and Depth vs. Discharge data:
        Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
            (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
       ---------------------------------------------------------------------
         0.000      0.000      0.000      0.000        0.000
         0.500      0.208      1.240      0.204        0.212
         1.000      0.538      1.240      0.534        0.542
         1.500      0.987      1.240      0.983        0.991
         2.000      1.428      1.240      1.424        1.432
         2.500      1.859      1.240      1.855        1.863
         3.000      2.278      1.240      2.274        2.282
         3.500      2.681      1.240      2.677        2.685
         4.000      3.064      1.240      3.060        3.068
         4.500      3.422      1.240      3.418        3.426
         5.000      3.745      1.240      3.741        3.749
         5.500      4.006      1.240      4.002        4.010
         6.000      4.219      1.240      4.215        4.223
         6.500      4.427      1.240      4.423        4.431
         6.750      4.531      1.240      4.527        4.535
         8.750      4.532      1.240      4.528        4.536
       --------------------------------------------------------------------
                       Hydrograph Detention Basin Routing
       ---------------------------------------------------------------------

       Graph values: 'I'= unit inflow; 'O'=outflow at time shown
       ---------------------------------------------------------------------
 Time   Inflow  Outflow    Storage                                     Depth
(Hours)  (CFS)   (CFS)     (Ac.Ft) .0      12.5   25.03   37.55   50.06 (Ft.)
 0.083    3.33    0.07     0.011  O I     |       |       |       |     0.03
 0.167    6.81    0.27     0.045  O   I   |       |       |       |     0.11
 0.250    6.96    0.53     0.090  O   I   |       |       |       |     0.22
 0.333    7.80    0.81     0.136  O   I   |       |       |       |     0.33
 0.417    8.97    1.11     0.187  O    I  |       |       |       |     0.45
 0.500   10.03    1.24     0.244  O     I |       |       |       |     0.55
 0.583   10.16    1.24     0.305  O     I |       |       |       |     0.65
 0.667   10.34    1.24     0.367  O     I |       |       |       |     0.74
 0.750   11.13    1.24     0.433  O      I|       |       |       |     0.84
 0.833   10.41    1.24     0.498  O     I |       |       |       |     0.94
 0.917    9.84    1.24     0.560  O     I |       |       |       |     1.02
 1.000   10.56    1.24     0.621  O     I |       |       |       |     1.09
 1.083   12.29    1.24     0.691  O      I|       |       |       |     1.17
 1.167   13.62    1.24     0.772  O       I       |       |       |     1.26
 1.250   13.92    1.24     0.858  O       I       |       |       |     1.36
 1.333   13.47    1.24     0.944  O       I       |       |       |     1.45
 1.417   14.63    1.24     1.032  O       |I      |       |       |     1.55
 1.500   16.59    1.24     1.131  O       | I     |       |       |     1.66
 1.583   16.35    1.24     1.236  O       | I     |       |       |     1.78
 1.667   16.51    1.24     1.341  O       | I     |       |       |     1.90
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1.750   19.02    1.24      1.455  O       |   I   |       |       |     2.03
1.833   20.37    1.24      1.582  O       |    I  |       |       |     2.18
1.917   19.62    1.24      1.711  O       |   I   |       |       |     2.33
2.000   19.36    1.24      1.837  O       |   I   |       |       |     2.47
2.083   19.83    1.24      1.963  O       |   I   |       |       |     2.62
2.167   23.28    1.24      2.103  O       |     I |       |       |     2.79
2.250   28.95    1.24      2.274  O       |       | I     |       |     3.00
2.333   27.76    1.24      2.461  O       |       |I      |       |     3.23
2.417   33.52    1.24      2.663  O       |       |    I  |       |     3.48
2.500   44.22    1.24      2.923  O       |       |       |   I   |     3.82
2.583   50.06    1.24      3.239  O       |       |       |      I|     4.24
2.667   47.16    1.24      3.565  O       |       |       |     I |     4.72
2.750   30.04    1.24      3.822  O       |       |  I    |       |     5.15
2.833   16.60    1.24      3.974  O       | I     |       |       |     5.44
2.917   13.07    1.24      4.068  O       I       |       |       |     5.65
3.000    8.40    1.24      4.133  O    I  |       |       |       |     5.80
3.083    3.08    1.24      4.165  OI      |       |       |       |     5.87
3.167    0.87    1.24      4.170  O       |       |       |       |     5.88
3.250    0.27    1.24      4.165  O       |       |       |       |     5.87
3.333    0.04    1.24      4.158  O       |       |       |       |     5.86
3.417    0.00    1.24      4.149  O       |       |       |       |     5.84
3.500    0.00    1.24      4.141  O       |       |       |       |     5.82
3.583    0.00    1.24      4.132  O       |       |       |       |     5.80
3.667    0.00    1.24      4.123  O       |       |       |       |     5.78
3.750    0.00    1.24      4.115  O       |       |       |       |     5.76
3.833    0.00    1.24      4.106  O       |       |       |       |     5.74
3.917    0.00    1.24      4.098  O       |       |       |       |     5.72
4.000    0.00    1.24      4.089  O       |       |       |       |     5.70
4.083    0.00    1.24      4.081  O       |       |       |       |     5.68
4.167    0.00    1.24      4.072  O       |       |       |       |     5.66
4.250    0.00    1.24      4.064  O       |       |       |       |     5.64
4.333    0.00    1.24      4.055  O       |       |       |       |     5.62
4.417    0.00    1.24      4.047  O       |       |       |       |     5.60
4.500    0.00    1.24      4.038  O       |       |       |       |     5.58
4.583    0.00    1.24      4.030  O       |       |       |       |     5.56
4.667    0.00    1.24      4.021  O       |       |       |       |     5.54
4.750    0.00    1.24      4.012  O       |       |       |       |     5.52
4.833    0.00    1.24      4.004  O       |       |       |       |     5.50
4.917    0.00    1.24      3.995  O       |       |       |       |     5.48
5.000    0.00    1.24      3.987  O       |       |       |       |     5.46
5.083    0.00    1.24      3.978  O       |       |       |       |     5.45
5.167    0.00    1.24      3.970  O       |       |       |       |     5.43
5.250    0.00    1.24      3.961  O       |       |       |       |     5.41
5.333    0.00    1.24      3.953  O       |       |       |       |     5.40
5.417    0.00    1.24      3.944  O       |       |       |       |     5.38
5.500    0.00    1.24      3.936  O       |       |       |       |     5.37
5.583    0.00    1.24      3.927  O       |       |       |       |     5.35
5.667    0.00    1.24      3.919  O       |       |       |       |     5.33
5.750    0.00    1.24      3.910  O       |       |       |       |     5.32
5.833    0.00    1.24      3.901  O       |       |       |       |     5.30
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 5.917    0.00    1.24      3.893  O        |        |        |        |      5.28
 6.000    0.00    1.24      3.884  O        |        |        |        |      5.27
 6.083    0.00    1.24      3.876  O        |        |        |        |      5.25
 6.167    0.00    1.24      3.867  O        |        |        |        |      5.23
 6.250    0.00    1.24      3.859  O        |        |        |        |      5.22
 6.333    0.00    1.24      3.850  O        |        |        |        |      5.20
 6.417    0.00    1.24      3.842  O        |        |        |        |      5.19
 6.500    0.00    1.24      3.833  O        |        |        |        |      5.17
 6.583    0.00    1.24      3.825  O        |        |        |        |      5.15
 6.667    0.00    1.24      3.816  O        |        |        |        |      5.14
 6.750    0.00    1.24      3.808  O        |        |        |        |      5.12
 6.833    0.00    1.24      3.799  O        |        |        |        |      5.10
 6.917    0.00    1.24      3.790  O        |        |        |        |      5.09
 7.000    0.00    1.24      3.782  O        |        |        |        |      5.07
 7.083    0.00    1.24      3.773  O        |        |        |        |      5.05
 7.167    0.00    1.24      3.765  O        |        |        |        |      5.04
 7.250    0.00    1.24      3.756  O        |        |        |        |      5.02
 7.333    0.00    1.24      3.748  O        |        |        |        |      5.01
 7.417    0.00    1.24      3.739  O        |        |        |        |      4.99
 7.500    0.00    1.24      3.731  O        |        |        |        |      4.98
 7.583    0.00    1.24      3.722  O        |        |        |        |      4.96
 7.667    0.00    1.24      3.714  O        |        |        |        |      4.95
 7.750    0.00    1.24      3.705  O        |        |        |        |      4.94
 7.833    0.00    1.24      3.696  O        |        |        |        |      4.92
 7.917    0.00    1.24      3.688  O        |        |        |        |      4.91
 8.000    0.00    1.24      3.679  O        |        |        |        |      4.90
 8.083    0.00    1.24      3.671  O        |        |        |        |      4.89
 8.167    0.00    1.24      3.662  O        |        |        |        |      4.87
 8.250    0.00    1.24      3.654  O        |        |        |        |      4.86
 8.333    0.00    1.24      3.645  O        |        |        |        |      4.85
 8.417    0.00    1.24      3.637  O        |        |        |        |      4.83
 8.500    0.00    1.24      3.628  O        |        |        |        |      4.82
 8.583    0.00    1.24      3.620  O        |        |        |        |      4.81
 8.667    0.00    1.24      3.611  O        |        |        |        |      4.79
 8.750    0.00    1.24      3.603  O        |        |        |        |      4.78
 8.833    0.00    1.24      3.594  O        |        |        |        |      4.77
 8.917    0.00    1.24      3.585  O        |        |        |        |      4.75
 9.000    0.00    1.24      3.577  O        |        |        |        |      4.74
 9.083    0.00    1.24      3.568  O        |        |        |        |      4.73
 9.167    0.00    1.24      3.560  O        |        |        |        |      4.71
 9.250    0.00    1.24      3.551  O        |        |        |        |      4.70
 9.333    0.00    1.24      3.543  O        |        |        |        |      4.69
 9.417    0.00    1.24      3.534  O        |        |        |        |      4.67
 9.500    0.00    1.24      3.526  O        |        |        |        |      4.66
 9.583    0.00    1.24      3.517  O        |        |        |        |      4.65
 9.667    0.00    1.24      3.509  O        |        |        |        |      4.63
 9.750    0.00    1.24      3.500  O        |        |        |        |      4.62
 9.833    0.00    1.24      3.492  O        |        |        |        |      4.61
 9.917    0.00    1.24      3.483  O        |        |        |        |      4.59
10.000    0.00    1.24      3.474  O        |        |        |        |      4.58
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10.083    0.00    1.24      3.466  O        |       |       |       |       4.57
10.167    0.00    1.24      3.457  O        |       |       |       |       4.55
10.250    0.00    1.24      3.449  O        |       |       |       |       4.54
10.333    0.00    1.24      3.440  O        |       |       |       |       4.53
10.417    0.00    1.24      3.432  O        |       |       |       |       4.52
10.500    0.00    1.24      3.423  O        |       |       |       |       4.50
10.583    0.00    1.24      3.415  O        |       |       |       |       4.49
10.667    0.00    1.24      3.406  O        |       |       |       |       4.48
10.750    0.00    1.24      3.398  O        |       |       |       |       4.47
10.833    0.00    1.24      3.389  O        |       |       |       |       4.45
10.917    0.00    1.24      3.381  O        |       |       |       |       4.44
11.000    0.00    1.24      3.372  O        |       |       |       |       4.43
11.083    0.00    1.24      3.363  O        |       |       |       |       4.42
11.167    0.00    1.24      3.355  O        |       |       |       |       4.41
11.250    0.00    1.24      3.346  O        |       |       |       |       4.39
11.333    0.00    1.24      3.338  O        |       |       |       |       4.38
11.417    0.00    1.24      3.329  O        |       |       |       |       4.37
11.500    0.00    1.24      3.321  O        |       |       |       |       4.36
11.583    0.00    1.24      3.312  O        |       |       |       |       4.35
11.667    0.00    1.24      3.304  O        |       |       |       |       4.33
11.750    0.00    1.24      3.295  O        |       |       |       |       4.32
11.833    0.00    1.24      3.287  O        |       |       |       |       4.31
11.917    0.00    1.24      3.278  O        |       |       |       |       4.30
12.000    0.00    1.24      3.269  O        |       |       |       |       4.29
12.083    0.00    1.24      3.261  O        |       |       |       |       4.28
12.167    0.00    1.24      3.252  O        |       |       |       |       4.26
12.250    0.00    1.24      3.244  O        |       |       |       |       4.25
12.333    0.00    1.24      3.235  O        |       |       |       |       4.24
12.417    0.00    1.24      3.227  O        |       |       |       |       4.23
12.500    0.00    1.24      3.218  O        |       |       |       |       4.22
12.583    0.00    1.24      3.210  O        |       |       |       |       4.20
12.667    0.00    1.24      3.201  O        |       |       |       |       4.19
12.750    0.00    1.24      3.193  O        |       |       |       |       4.18
12.833    0.00    1.24      3.184  O        |       |       |       |       4.17
12.917    0.00    1.24      3.176  O        |       |       |       |       4.16
13.000    0.00    1.24      3.167  O        |       |       |       |       4.14
13.083    0.00    1.24      3.158  O        |       |       |       |       4.13
13.167    0.00    1.24      3.150  O        |       |       |       |       4.12
13.250    0.00    1.24      3.141  O        |       |       |       |       4.11
13.333    0.00    1.24      3.133  O        |       |       |       |       4.10
13.417    0.00    1.24      3.124  O        |       |       |       |       4.08
13.500    0.00    1.24      3.116  O        |       |       |       |       4.07
13.583    0.00    1.24      3.107  O        |       |       |       |       4.06
13.667    0.00    1.24      3.099  O        |       |       |       |       4.05
13.750    0.00    1.24      3.090  O        |       |       |       |       4.04
13.833    0.00    1.24      3.082  O        |       |       |       |       4.02
13.917    0.00    1.24      3.073  O        |       |       |       |       4.01
14.000    0.00    1.24      3.065  O        |       |       |       |       4.00
14.083    0.00    1.24      3.056  O        |       |       |       |       3.99
14.167    0.00    1.24      3.047  O        |       |       |       |       3.98
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14.250     0.00     1.24      3.039  O        |        |        |        |        3.97
14.333     0.00     1.24      3.030  O        |        |        |        |        3.96
14.417     0.00     1.24      3.022  O        |        |        |        |        3.94
14.500     0.00     1.24      3.013  O        |        |        |        |        3.93
14.583     0.00     1.24      3.005  O        |        |        |        |        3.92
14.667     0.00     1.24      2.996  O        |        |        |        |        3.91
14.750     0.00     1.24      2.988  O        |        |        |        |        3.90
14.833     0.00     1.24      2.979  O        |        |        |        |        3.89
14.917     0.00     1.24      2.971  O        |        |        |        |        3.88
15.000     0.00     1.24      2.962  O        |        |        |        |        3.87
15.083     0.00     1.24      2.954  O        |        |        |        |        3.86
15.167     0.00     1.24      2.945  O        |        |        |        |        3.84
15.250     0.00     1.24      2.936  O        |        |        |        |        3.83
15.333     0.00     1.24      2.928  O        |        |        |        |        3.82
15.417     0.00     1.24      2.919  O        |        |        |        |        3.81
15.500     0.00     1.24      2.911  O        |        |        |        |        3.80
15.583     0.00     1.24      2.902  O        |        |        |        |        3.79
15.667     0.00     1.24      2.894  O        |        |        |        |        3.78
15.750     0.00     1.24      2.885  O        |        |        |        |        3.77
15.833     0.00     1.24      2.877  O        |        |        |        |        3.76
15.917     0.00     1.24      2.868  O        |        |        |        |        3.74
16.000     0.00     1.24      2.860  O        |        |        |        |        3.73
16.083     0.00     1.24      2.851  O        |        |        |        |        3.72
16.167     0.00     1.24      2.843  O        |        |        |        |        3.71
16.250     0.00     1.24      2.834  O        |        |        |        |        3.70
16.333     0.00     1.24      2.825  O        |        |        |        |        3.69
16.417     0.00     1.24      2.817  O        |        |        |        |        3.68
16.500     0.00     1.24      2.808  O        |        |        |        |        3.67
16.583     0.00     1.24      2.800  O        |        |        |        |        3.66
16.667     0.00     1.24      2.791  O        |        |        |        |        3.64
16.750     0.00     1.24      2.783  O        |        |        |        |        3.63
16.833     0.00     1.24      2.774  O        |        |        |        |        3.62
16.917     0.00     1.24      2.766  O        |        |        |        |        3.61
17.000     0.00     1.24      2.757  O        |        |        |        |        3.60
17.083     0.00     1.24      2.749  O        |        |        |        |        3.59
17.167     0.00     1.24      2.740  O        |        |        |        |        3.58
17.250     0.00     1.24      2.731  O        |        |        |        |        3.57
17.333     0.00     1.24      2.723  O        |        |        |        |        3.55
17.417     0.00     1.24      2.714  O        |        |        |        |        3.54
17.500     0.00     1.24      2.706  O        |        |        |        |        3.53
17.583     0.00     1.24      2.697  O        |        |        |        |        3.52
17.667     0.00     1.24      2.689  O        |        |        |        |        3.51
17.750     0.00     1.24      2.680  O        |        |        |        |        3.50
17.833     0.00     1.24      2.672  O        |        |        |        |        3.49
17.917     0.00     1.24      2.663  O        |        |        |        |        3.48
18.000     0.00     1.24      2.655  O        |        |        |        |        3.47
18.083     0.00     1.24      2.646  O        |        |        |        |        3.46
18.167     0.00     1.24      2.638  O        |        |        |        |        3.45
18.250     0.00     1.24      2.629  O        |        |        |        |        3.44
18.333     0.00     1.24      2.620  O        |        |        |        |        3.42
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18.417	0.00	1.24	2.612	O	3.41
18.500	0.00	1.24	2.603	O	3.40
18.583	0.00	1.24	2.595	O	3.39
18.667	0.00	1.24	2.586	O	3.38
18.750	0.00	1.24	2.578	O	3.37
18.833	0.00	1.24	2.569	O	3.36
18.917	0.00	1.24	2.561	O	3.35
19.000	0.00	1.24	2.552	O	3.34
19.083	0.00	1.24	2.544	O	3.33
19.167	0.00	1.24	2.535	O	3.32
19.250	0.00	1.24	2.527	O	3.31
19.333	0.00	1.24	2.518	O	3.30
19.417	0.00	1.24	2.509	O	3.29
19.500	0.00	1.24	2.501	O	3.28
19.583	0.00	1.24	2.492	O	3.27
19.667	0.00	1.24	2.484	O	3.26
19.750	0.00	1.24	2.475	O	3.24
19.833	0.00	1.24	2.467	O	3.23
19.917	0.00	1.24	2.458	O	3.22
20.000	0.00	1.24	2.450	O	3.21
20.083	0.00	1.24	2.441	O	3.20
20.167	0.00	1.24	2.433	O	3.19
20.250	0.00	1.24	2.424	O	3.18
20.333	0.00	1.24	2.416	O	3.17
20.417	0.00	1.24	2.407	O	3.16
20.500	0.00	1.24	2.398	O	3.15
20.583	0.00	1.24	2.390	O	3.14
20.667	0.00	1.24	2.381	O	3.13
20.750	0.00	1.24	2.373	O	3.12
20.833	0.00	1.24	2.364	O	3.11
20.917	0.00	1.24	2.356	O	3.10
21.000	0.00	1.24	2.347	O	3.09
21.083	0.00	1.24	2.339	O	3.08
21.167	0.00	1.24	2.330	O	3.06
21.250	0.00	1.24	2.322	O	3.05
21.333	0.00	1.24	2.313	O	3.04
21.417	0.00	1.24	2.304	O	3.03
21.500	0.00	1.24	2.296	O	3.02
21.583	0.00	1.24	2.287	O	3.01
21.667	0.00	1.24	2.279	O	3.00
21.750	0.00	1.24	2.270	O	2.99
21.833	0.00	1.24	2.262	O	2.98
21.917	0.00	1.24	2.253	O	2.97
22.000	0.00	1.24	2.245	O	2.96
22.083	0.00	1.24	2.236	O	2.95
22.167	0.00	1.24	2.228	O	2.94
22.250	0.00	1.24	2.219	O	2.93
22.333	0.00	1.24	2.211	O	2.92
22.417	0.00	1.24	2.202	O	2.91
22.500	0.00	1.24	2.193	O	2.90

22.583	0.00	1.24	2.185	O	2.89
22.667	0.00	1.24	2.176	O	2.88
22.750	0.00	1.24	2.168	O	2.87
22.833	0.00	1.24	2.159	O	2.86
22.917	0.00	1.24	2.151	O	2.85
23.000	0.00	1.24	2.142	O	2.84
23.083	0.00	1.24	2.134	O	2.83
23.167	0.00	1.24	2.125	O	2.82
23.250	0.00	1.24	2.117	O	2.81
23.333	0.00	1.24	2.108	O	2.80
23.417	0.00	1.24	2.100	O	2.79
23.500	0.00	1.24	2.091	O	2.78
23.583	0.00	1.24	2.082	O	2.77
23.667	0.00	1.24	2.074	O	2.76
23.750	0.00	1.24	2.065	O	2.75
23.833	0.00	1.24	2.057	O	2.74
23.917	0.00	1.24	2.048	O	2.73
24.000	0.00	1.24	2.040	O	2.72
24.083	0.00	1.24	2.031	O	2.71
24.167	0.00	1.24	2.023	O	2.70
24.250	0.00	1.24	2.014	O	2.69
24.333	0.00	1.24	2.006	O	2.67
24.417	0.00	1.24	1.997	O	2.66
24.500	0.00	1.24	1.989	O	2.65
24.583	0.00	1.24	1.980	O	2.64
24.667	0.00	1.24	1.971	O	2.63
24.750	0.00	1.24	1.963	O	2.62
24.833	0.00	1.24	1.954	O	2.61
24.917	0.00	1.24	1.946	O	2.60
25.000	0.00	1.24	1.937	O	2.59
25.083	0.00	1.24	1.929	O	2.58
25.167	0.00	1.24	1.920	O	2.57
25.250	0.00	1.24	1.912	O	2.56
25.333	0.00	1.24	1.903	O	2.55
25.417	0.00	1.24	1.895	O	2.54
25.500	0.00	1.24	1.886	O	2.53
25.583	0.00	1.24	1.877	O	2.52
25.667	0.00	1.24	1.869	O	2.51
25.750	0.00	1.24	1.860	O	2.50
25.833	0.00	1.24	1.852	O	2.49
25.917	0.00	1.24	1.843	O	2.48
26.000	0.00	1.24	1.835	O	2.47
26.083	0.00	1.24	1.826	O	2.46
26.167	0.00	1.24	1.818	O	2.45
26.250	0.00	1.24	1.809	O	2.44
26.333	0.00	1.24	1.801	O	2.43
26.417	0.00	1.24	1.792	O	2.42
26.500	0.00	1.24	1.784	O	2.41
26.583	0.00	1.24	1.775	O	2.40
26.667	0.00	1.24	1.766	O	2.39

26.750	0.00	1.24	1.758	O	2.38
26.833	0.00	1.24	1.749	O	2.37
26.917	0.00	1.24	1.741	O	2.36
27.000	0.00	1.24	1.732	O	2.35
27.083	0.00	1.24	1.724	O	2.34
27.167	0.00	1.24	1.715	O	2.33
27.250	0.00	1.24	1.707	O	2.32
27.333	0.00	1.24	1.698	O	2.31
27.417	0.00	1.24	1.690	O	2.30
27.500	0.00	1.24	1.681	O	2.29
27.583	0.00	1.24	1.673	O	2.28
27.667	0.00	1.24	1.664	O	2.27
27.750	0.00	1.24	1.655	O	2.26
27.833	0.00	1.24	1.647	O	2.25
27.917	0.00	1.24	1.638	O	2.24
28.000	0.00	1.24	1.630	O	2.23
28.083	0.00	1.24	1.621	O	2.22
28.167	0.00	1.24	1.613	O	2.21
28.250	0.00	1.24	1.604	O	2.20
28.333	0.00	1.24	1.596	O	2.19
28.417	0.00	1.24	1.587	O	2.18
28.500	0.00	1.24	1.579	O	2.17
28.583	0.00	1.24	1.570	O	2.16
28.667	0.00	1.24	1.562	O	2.15
28.750	0.00	1.24	1.553	O	2.14
28.833	0.00	1.24	1.544	O	2.14
28.917	0.00	1.24	1.536	O	2.13
29.000	0.00	1.24	1.527	O	2.12
29.083	0.00	1.24	1.519	O	2.11
29.167	0.00	1.24	1.510	O	2.10
29.250	0.00	1.24	1.502	O	2.09
29.333	0.00	1.24	1.493	O	2.08
29.417	0.00	1.24	1.485	O	2.07
29.500	0.00	1.24	1.476	O	2.06
29.583	0.00	1.24	1.468	O	2.05
29.667	0.00	1.24	1.459	O	2.04
29.750	0.00	1.24	1.450	O	2.03
29.833	0.00	1.24	1.442	O	2.02
29.917	0.00	1.24	1.433	O	2.01
30.000	0.00	1.24	1.425	O	2.00
30.083	0.00	1.24	1.416	O	1.99
30.167	0.00	1.24	1.408	O	1.98
30.250	0.00	1.24	1.399	O	1.97
30.333	0.00	1.24	1.391	O	1.96
30.417	0.00	1.24	1.382	O	1.95
30.500	0.00	1.24	1.374	O	1.94
30.583	0.00	1.24	1.365	O	1.93
30.667	0.00	1.24	1.357	O	1.92
30.750	0.00	1.24	1.348	O	1.91
30.833	0.00	1.24	1.339	O	1.90

30.917	0.00	1.24	1.331	O	|	|	|	|	1.89
31.000	0.00	1.24	1.322	O	|	|	|	|	1.88
31.083	0.00	1.24	1.314	O	|	|	|	|	1.87
31.167	0.00	1.24	1.305	O	|	|	|	|	1.86
31.250	0.00	1.24	1.297	O	|	|	|	|	1.85
31.333	0.00	1.24	1.288	O	|	|	|	|	1.84
31.417	0.00	1.24	1.280	O	|	|	|	|	1.83
31.500	0.00	1.24	1.271	O	|	|	|	|	1.82
31.583	0.00	1.24	1.263	O	|	|	|	|	1.81
31.667	0.00	1.24	1.254	O	|	|	|	|	1.80
31.750	0.00	1.24	1.246	O	|	|	|	|	1.79
31.833	0.00	1.24	1.237	O	|	|	|	|	1.78
31.917	0.00	1.24	1.228	O	|	|	|	|	1.77
32.000	0.00	1.24	1.220	O	|	|	|	|	1.76
32.083	0.00	1.24	1.211	O	|	|	|	|	1.75
32.167	0.00	1.24	1.203	O	|	|	|	|	1.74
32.250	0.00	1.24	1.194	O	|	|	|	|	1.74
32.333	0.00	1.24	1.186	O	|	|	|	|	1.73
32.417	0.00	1.24	1.177	O	|	|	|	|	1.72
32.500	0.00	1.24	1.169	O	|	|	|	|	1.71
32.583	0.00	1.24	1.160	O	|	|	|	|	1.70
32.667	0.00	1.24	1.152	O	|	|	|	|	1.69
32.750	0.00	1.24	1.143	O	|	|	|	|	1.68
32.833	0.00	1.24	1.135	O	|	|	|	|	1.67
32.917	0.00	1.24	1.126	O	|	|	|	|	1.66
33.000	0.00	1.24	1.117	O	|	|	|	|	1.65
33.083	0.00	1.24	1.109	O	|	|	|	|	1.64
33.167	0.00	1.24	1.100	O	|	|	|	|	1.63
33.250	0.00	1.24	1.092	O	|	|	|	|	1.62
33.333	0.00	1.24	1.083	O	|	|	|	|	1.61
33.417	0.00	1.24	1.075	O	|	|	|	|	1.60
33.500	0.00	1.24	1.066	O	|	|	|	|	1.59
33.583	0.00	1.24	1.058	O	|	|	|	|	1.58
33.667	0.00	1.24	1.049	O	|	|	|	|	1.57
33.750	0.00	1.24	1.041	O	|	|	|	|	1.56
33.833	0.00	1.24	1.032	O	|	|	|	|	1.55
33.917	0.00	1.24	1.023	O	|	|	|	|	1.54
34.000	0.00	1.24	1.015	O	|	|	|	|	1.53
34.083	0.00	1.24	1.006	O	|	|	|	|	1.52
34.167	0.00	1.24	0.998	O	|	|	|	|	1.51
34.250	0.00	1.24	0.989	O	|	|	|	|	1.50
34.333	0.00	1.24	0.981	O	|	|	|	|	1.49
34.417	0.00	1.24	0.972	O	|	|	|	|	1.48
34.500	0.00	1.24	0.964	O	|	|	|	|	1.47
34.583	0.00	1.24	0.955	O	|	|	|	|	1.46
34.667	0.00	1.24	0.947	O	|	|	|	|	1.46
34.750	0.00	1.24	0.938	O	|	|	|	|	1.45
34.833	0.00	1.24	0.930	O	|	|	|	|	1.44
34.917	0.00	1.24	0.921	O	|	|	|	|	1.43
35.000	0.00	1.24	0.912	O	|	|	|	|	1.42

35.083	0.00	1.24	0.904	O	|	|	|	|	1.41
35.167	0.00	1.24	0.895	O	|	|	|	|	1.40
35.250	0.00	1.24	0.887	O	|	|	|	|	1.39
35.333	0.00	1.24	0.878	O	|	|	|	|	1.38
35.417	0.00	1.24	0.870	O	|	|	|	|	1.37
35.500	0.00	1.24	0.861	O	|	|	|	|	1.36
35.583	0.00	1.24	0.853	O	|	|	|	|	1.35
35.667	0.00	1.24	0.844	O	|	|	|	|	1.34
35.750	0.00	1.24	0.836	O	|	|	|	|	1.33
35.833	0.00	1.24	0.827	O	|	|	|	|	1.32
35.917	0.00	1.24	0.819	O	|	|	|	|	1.31
36.000	0.00	1.24	0.810	O	|	|	|	|	1.30
36.083	0.00	1.24	0.801	O	|	|	|	|	1.29
36.167	0.00	1.24	0.793	O	|	|	|	|	1.28
36.250	0.00	1.24	0.784	O	|	|	|	|	1.27
36.333	0.00	1.24	0.776	O	|	|	|	|	1.26
36.417	0.00	1.24	0.767	O	|	|	|	|	1.26
36.500	0.00	1.24	0.759	O	|	|	|	|	1.25
36.583	0.00	1.24	0.750	O	|	|	|	|	1.24
36.667	0.00	1.24	0.742	O	|	|	|	|	1.23
36.750	0.00	1.24	0.733	O	|	|	|	|	1.22
36.833	0.00	1.24	0.725	O	|	|	|	|	1.21
36.917	0.00	1.24	0.716	O	|	|	|	|	1.20
37.000	0.00	1.24	0.708	O	|	|	|	|	1.19
37.083	0.00	1.24	0.699	O	|	|	|	|	1.18
37.167	0.00	1.24	0.690	O	|	|	|	|	1.17
37.250	0.00	1.24	0.682	O	|	|	|	|	1.16
37.333	0.00	1.24	0.673	O	|	|	|	|	1.15
37.417	0.00	1.24	0.665	O	|	|	|	|	1.14
37.500	0.00	1.24	0.656	O	|	|	|	|	1.13
37.583	0.00	1.24	0.648	O	|	|	|	|	1.12
37.667	0.00	1.24	0.639	O	|	|	|	|	1.11
37.750	0.00	1.24	0.631	O	|	|	|	|	1.10
37.833	0.00	1.24	0.622	O	|	|	|	|	1.09
37.917	0.00	1.24	0.614	O	|	|	|	|	1.08
38.000	0.00	1.24	0.605	O	|	|	|	|	1.07
38.083	0.00	1.24	0.596	O	|	|	|	|	1.07
38.167	0.00	1.24	0.588	O	|	|	|	|	1.06
38.250	0.00	1.24	0.579	O	|	|	|	|	1.05
38.333	0.00	1.24	0.571	O	|	|	|	|	1.04
38.417	0.00	1.24	0.562	O	|	|	|	|	1.03
38.500	0.00	1.24	0.554	O	|	|	|	|	1.02
38.583	0.00	1.24	0.545	O	|	|	|	|	1.01
38.667	0.00	1.24	0.537	O	|	|	|	|	1.00
38.750	0.00	1.24	0.528	O	|	|	|	|	0.99
38.833	0.00	1.24	0.520	O	|	|	|	|	0.97
38.917	0.00	1.24	0.511	O	|	|	|	|	0.96
39.000	0.00	1.24	0.503	O	|	|	|	|	0.95
39.083	0.00	1.24	0.494	O	|	|	|	|	0.93
39.167	0.00	1.24	0.485	O	|	|	|	|	0.92

39.250	0.00	1.24	0.477	O	|	|	|	|	0.91
39.333	0.00	1.24	0.468	O	|	|	|	|	0.89
39.417	0.00	1.24	0.460	O	|	|	|	|	0.88
39.500	0.00	1.24	0.451	O	|	|	|	|	0.87
39.583	0.00	1.24	0.443	O	|	|	|	|	0.86
39.667	0.00	1.24	0.434	O	|	|	|	|	0.84
39.750	0.00	1.24	0.426	O	|	|	|	|	0.83
39.833	0.00	1.24	0.417	O	|	|	|	|	0.82
39.917	0.00	1.24	0.409	O	|	|	|	|	0.80
40.000	0.00	1.24	0.400	O	|	|	|	|	0.79
40.083	0.00	1.24	0.392	O	|	|	|	|	0.78
40.167	0.00	1.24	0.383	O	|	|	|	|	0.77
40.250	0.00	1.24	0.374	O	|	|	|	|	0.75
40.333	0.00	1.24	0.366	O	|	|	|	|	0.74
40.417	0.00	1.24	0.357	O	|	|	|	|	0.73
40.500	0.00	1.24	0.349	O	|	|	|	|	0.71
40.583	0.00	1.24	0.340	O	|	|	|	|	0.70
40.667	0.00	1.24	0.332	O	|	|	|	|	0.69
40.750	0.00	1.24	0.323	O	|	|	|	|	0.67
40.833	0.00	1.24	0.315	O	|	|	|	|	0.66
40.917	0.00	1.24	0.306	O	|	|	|	|	0.65
41.000	0.00	1.24	0.298	O	|	|	|	|	0.64
41.083	0.00	1.24	0.289	O	|	|	|	|	0.62
41.167	0.00	1.24	0.281	O	|	|	|	|	0.61
41.250	0.00	1.24	0.272	O	|	|	|	|	0.60
41.333	0.00	1.24	0.263	O	|	|	|	|	0.58
41.417	0.00	1.24	0.255	O	|	|	|	|	0.57
41.500	0.00	1.24	0.246	O	|	|	|	|	0.56
41.583	0.00	1.24	0.238	O	|	|	|	|	0.55
41.667	0.00	1.24	0.229	O	|	|	|	|	0.53
41.750	0.00	1.24	0.221	O	|	|	|	|	0.52
41.833	0.00	1.24	0.212	O	|	|	|	|	0.51
41.917	0.00	1.21	0.204	O	|	|	|	|	0.49
42.000	0.00	1.17	0.196	O	|	|	|	|	0.47
42.083	0.00	1.12	0.188	O	|	|	|	|	0.45
42.167	0.00	1.07	0.180	O	|	|	|	|	0.43
42.250	0.00	1.03	0.173	O	|	|	|	|	0.42
42.333	0.00	0.99	0.166	O	|	|	|	|	0.40
42.417	0.00	0.95	0.159	O	|	|	|	|	0.38
42.500	0.00	0.91	0.153	O	|	|	|	|	0.37
42.583	0.00	0.87	0.147	O	|	|	|	|	0.35
42.667	0.00	0.84	0.141	O	|	|	|	|	0.34
42.750	0.00	0.81	0.135	O	|	|	|	|	0.32
42.833	0.00	0.77	0.130	O	|	|	|	|	0.31
42.917	0.00	0.74	0.124	O	|	|	|	|	0.30
43.000	0.00	0.71	0.119	O	|	|	|	|	0.29
43.083	0.00	0.68	0.115	O	|	|	|	|	0.28
43.167	0.00	0.66	0.110	O	|	|	|	|	0.26
43.250	0.00	0.63	0.106	O	|	|	|	|	0.25
43.333	0.00	0.60	0.101	O	|	|	|	|	0.24

43.417	0.00	0.58	0.097	O	|	|	|	|	0.23
43.500	0.00	0.56	0.093	O	|	|	|	|	0.22
43.583	0.00	0.53	0.090	O	|	|	|	|	0.22
43.667	0.00	0.51	0.086	O	|	|	|	|	0.21
43.750	0.00	0.49	0.083	O	|	|	|	|	0.20
43.833	0.00	0.47	0.079	O	|	|	|	|	0.19
43.917	0.00	0.45	0.076	O	|	|	|	|	0.18
44.000	0.00	0.44	0.073	O	|	|	|	|	0.18
44.083	0.00	0.42	0.070	O	|	|	|	|	0.17
44.167	0.00	0.40	0.067	O	|	|	|	|	0.16
44.250	0.00	0.38	0.065	O	|	|	|	|	0.16
44.333	0.00	0.37	0.062	O	|	|	|	|	0.15
44.417	0.00	0.35	0.059	O	|	|	|	|	0.14
44.500	0.00	0.34	0.057	O	|	|	|	|	0.14
44.583	0.00	0.33	0.055	O	|	|	|	|	0.13
44.667	0.00	0.31	0.053	O	|	|	|	|	0.13
44.750	0.00	0.30	0.050	O	|	|	|	|	0.12
44.833	0.00	0.29	0.048	O	|	|	|	|	0.12
44.917	0.00	0.28	0.046	O	|	|	|	|	0.11
45.000	0.00	0.27	0.045	O	|	|	|	|	0.11
45.083	0.00	0.26	0.043	O	|	|	|	|	0.10
45.167	0.00	0.24	0.041	O	|	|	|	|	0.10
45.250	0.00	0.24	0.039	O	|	|	|	|	0.09
45.333	0.00	0.23	0.038	O	|	|	|	|	0.09
45.417	0.00	0.22	0.036	O	|	|	|	|	0.09
45.500	0.00	0.21	0.035	O	|	|	|	|	0.08
45.583	0.00	0.20	0.033	O	|	|	|	|	0.08
45.667	0.00	0.19	0.032	O	|	|	|	|	0.08
45.750	0.00	0.18	0.031	O	|	|	|	|	0.07
45.833	0.00	0.18	0.030	O	|	|	|	|	0.07
45.917	0.00	0.17	0.028	O	|	|	|	|	0.07
46.000	0.00	0.16	0.027	O	|	|	|	|	0.07
46.083	0.00	0.16	0.026	O	|	|	|	|	0.06
46.167	0.00	0.15	0.025	O	|	|	|	|	0.06
46.250	0.00	0.14	0.024	O	|	|	|	|	0.06
46.333	0.00	0.14	0.023	O	|	|	|	|	0.06
46.417	0.00	0.13	0.022	O	|	|	|	|	0.05
46.500	0.00	0.13	0.021	O	|	|	|	|	0.05
46.583	0.00	0.12	0.020	O	|	|	|	|	0.05
46.667	0.00	0.12	0.020	O	|	|	|	|	0.05
46.750	0.00	0.11	0.019	O	|	|	|	|	0.05
46.833	0.00	0.11	0.018	O	|	|	|	|	0.04
46.917	0.00	0.10	0.017	O	|	|	|	|	0.04
47.000	0.00	0.10	0.017	O	|	|	|	|	0.04
47.083	0.00	0.10	0.016	O	|	|	|	|	0.04
47.167	0.00	0.09	0.015	O	|	|	|	|	0.04
47.250	0.00	0.09	0.015	O	|	|	|	|	0.04
47.333	0.00	0.08	0.014	O	|	|	|	|	0.03
47.417	0.00	0.08	0.014	O	|	|	|	|	0.03
47.500	0.00	0.08	0.013	O	|	|	|	|	0.03

47.583	0.00	0.07	0.012	O					0.03
47.667	0.00	0.07	0.012	O					0.03
47.750	0.00	0.07	0.012	O					0.03
47.833	0.00	0.07	0.011	O					0.03
47.917	0.00	0.06	0.011	O					0.03
48.000	0.00	0.06	0.010	O					0.02
48.083	0.00	0.06	0.010	O					0.02
48.167	0.00	0.06	0.009	O					0.02
48.250	0.00	0.05	0.009	O					0.02
48.333	0.00	0.05	0.009	O					0.02
48.417	0.00	0.05	0.008	O					0.02
48.500	0.00	0.05	0.008	O					0.02
48.583	0.00	0.05	0.008	O					0.02
48.667	0.00	0.04	0.007	O					0.02
48.750	0.00	0.04	0.007	O					0.02
48.833	0.00	0.04	0.007	O					0.02
48.917	0.00	0.04	0.006	O					0.02
49.000	0.00	0.04	0.006	O					0.01
49.083	0.00	0.04	0.006	O					0.01
49.167	0.00	0.03	0.006	O					0.01
49.250	0.00	0.03	0.005	O					0.01
49.333	0.00	0.03	0.005	O					0.01
49.417	0.00	0.03	0.005	O					0.01
49.500	0.00	0.03	0.005	O					0.01
49.583	0.00	0.03	0.005	O					0.01
49.667	0.00	0.03	0.004	O					0.01
49.750	0.00	0.03	0.004	O					0.01
49.833	0.00	0.02	0.004	O					0.01
49.917	0.00	0.02	0.004	O					0.01
50.000	0.00	0.02	0.004	O					0.01
50.083	0.00	0.02	0.004	O					0.01
50.167	0.00	0.02	0.003	O					0.01
50.250	0.00	0.02	0.003	O					0.01
50.333	0.00	0.02	0.003	O					0.01
50.417	0.00	0.02	0.003	O					0.01
50.500	0.00	0.02	0.003	O					0.01
50.583	0.00	0.02	0.003	O					0.01
50.667	0.00	0.02	0.003	O					0.01
50.750	0.00	0.02	0.003	O					0.01
50.833	0.00	0.02	0.003	O					0.01
50.917	0.00	0.01	0.002	O					0.01
51.000	0.00	0.01	0.002	O					0.01
51.083	0.00	0.01	0.002	O					0.01
51.167	0.00	0.01	0.002	O					0.01
51.250	0.00	0.01	0.002	O					0.00
51.333	0.00	0.01	0.002	O					0.00
51.417	0.00	0.01	0.002	O					0.00
51.500	0.00	0.01	0.002	O					0.00
51.583	0.00	0.01	0.002	O					0.00
51.667	0.00	0.01	0.002	O					0.00

```
51.750    0.00    0.01      0.002  O        |       |       |       |      0.00
51.833    0.00    0.01      0.002  O        |       |       |       |      0.00
51.917    0.00    0.01      0.001  O        |       |       |       |      0.00
52.000    0.00    0.01      0.001  O        |       |       |       |      0.00
52.083    0.00    0.01      0.001  O        |       |       |       |      0.00
52.167    0.00    0.01      0.001  O        |       |       |       |      0.00
52.250    0.00    0.01      0.001  O        |       |       |       |      0.00
52.333    0.00    0.01      0.001  O        |       |       |       |      0.00
52.417    0.00    0.01      0.001  O        |       |       |       |      0.00
52.500    0.00    0.01      0.001  O        |       |       |       |      0.00
52.583    0.00    0.01      0.001  O        |       |       |       |      0.00
52.667    0.00    0.01      0.001  O        |       |       |       |      0.00
52.750    0.00    0.01      0.001  O        |       |       |       |      0.00
52.833    0.00    0.01      0.001  O        |       |       |       |      0.00
52.917    0.00    0.01      0.001  O        |       |       |       |      0.00
53.000    0.00    0.01      0.001  O        |       |       |       |      0.00
53.083    0.00    0.00      0.001  O        |       |       |       |      0.00
53.167    0.00    0.00      0.001  O        |       |       |       |      0.00
53.250    0.00    0.00      0.001  O        |       |       |       |      0.00
53.333    0.00    0.00      0.001  O        |       |       |       |      0.00
53.417    0.00    0.00      0.001  O        |       |       |       |      0.00
53.500    0.00    0.00      0.001  O        |       |       |       |      0.00
53.583    0.00    0.00      0.001  O        |       |       |       |      0.00
53.667    0.00    0.00      0.001  O        |       |       |       |      0.00
53.750    0.00    0.00      0.001  O        |       |       |       |      0.00
53.833    0.00    0.00      0.001  O        |       |       |       |      0.00
53.917    0.00    0.00      0.001  O        |       |       |       |      0.00
54.000    0.00    0.00      0.001  O        |       |       |       |      0.00
54.083    0.00    0.00      0.001  O        |       |       |       |      0.00
54.167    0.00    0.00      0.000  O        |       |       |       |      0.00
54.250    0.00    0.00      0.000  O        |       |       |       |      0.00
54.333    0.00    0.00      0.000  O        |       |       |       |      0.00
54.417    0.00    0.00      0.000  O        |       |       |       |      0.00
54.500    0.00    0.00      0.000  O        |       |       |       |      0.00

       ****************************HYDROGRAPH DATA****************************
                       Number of intervals =   654
                       Time interval =    5.0 (Min.)
                       Maximum/Peak flow rate =       1.240 (CFS)
                       Total volume =       4.471 (Ac.Ft)
               Status of hydrographs being held in storage
                          Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
               Peak (CFS)      0.000     0.000     0.000     0.000     0.000
               Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ***********************************************************************

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

NEWLAND SIMPSON
HEMET
POST DEVELOPMENT
FLOOD ROUTING
BASIN C1
100YR-3HR

```
                  FLOOD HYDROGRAPH ROUTING PROGRAM
         Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018
                     Study date: 10/16/23

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


NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA C
FLOOD ROUTING - BASIN C1
100YR 3HR
--------------------------------------------------------------------


Program License Serial Number 6491

--------------------------------------------------------------------
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: NSPRUHC13100.rte
****************************HYDROGRAPH DATA**************************
                Number of intervals =    40
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =       15.546 (CFS)
                Total volume =       1.403 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
***********************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       62.000 to Point/Station       62.000
**** RETARDING BASIN ROUTING ****
______________________________________________________________________

User entry of depth-outflow-storage data
--------------------------------------------------------------------
Total number of inflow hydrograph intervals = 40
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
--------------------------------------------------------------------
--------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
```

```
       ---------------------------------------------------------------------
       --------------------------------------------------------------------
       Depth vs. Storage and Depth vs. Discharge data:
        Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
            (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
       ---------------------------------------------------------------------
         0.000      0.000      0.000      0.000        0.000
         0.500      0.125      0.740      0.122        0.128
         1.000      0.320      0.740      0.317        0.323
         1.500      0.576      0.740      0.573        0.579
         2.000      0.819      0.740      0.816        0.822
         2.500      1.041      0.740      1.038        1.044
         3.000      1.228      0.740      1.225        1.231
         3.500      1.358      0.740      1.355        1.361
         3.750      1.421      0.740      1.418        1.424
         4.750      1.422      0.740      1.419        1.425
       --------------------------------------------------------------------
                       Hydrograph Detention Basin Routing
       ---------------------------------------------------------------------

       Graph values: 'I'= unit inflow; 'O'=outflow at time shown
       ---------------------------------------------------------------------
 Time   Inflow  Outflow    Storage                                     Depth
(Hours)  (CFS)   (CFS)     (Ac.Ft) .0       3.9    7.77   11.66   15.55 (Ft.)
 0.083    0.95    0.02      0.003  OI      |       |       |       |     0.01
 0.167    2.07    0.08      0.013  O   I   |       |       |       |     0.05
 0.250    2.16    0.16      0.027  O   I   |       |       |       |     0.11
 0.333    2.40    0.24      0.041  O   I   |       |       |       |     0.17
 0.417    2.80    0.34      0.057  O    I  |       |       |       |     0.23
 0.500    3.11    0.44      0.075  O     I |       |       |       |     0.30
 0.583    3.18    0.55      0.093  |O    I |       |       |       |     0.37
 0.667    3.22    0.66      0.111  |O    I |       |       |       |     0.44
 0.750    3.48    0.74      0.129  |O     I|       |       |       |     0.51
 0.833    3.28    0.74      0.147  |O    I |       |       |       |     0.56
 0.917    3.09    0.74      0.164  |O    I |       |       |       |     0.60
 1.000    3.30    0.74      0.181  |O    I |       |       |       |     0.64
 1.083    3.81    0.74      0.201  |O     I|       |       |       |     0.69
 1.167    4.24    0.74      0.223  |O      I       |       |       |     0.75
 1.250    4.35    0.74      0.248  |O      I       |       |       |     0.81
 1.333    4.23    0.74      0.272  |O      I       |       |       |     0.88
 1.417    4.55    0.74      0.297  |O      |I      |       |       |     0.94
 1.500    5.17    0.74      0.326  |O      | I     |       |       |     1.01
 1.583    5.13    0.74      0.356  |O      | I     |       |       |     1.07
 1.667    5.15    0.74      0.386  |O      | I     |       |       |     1.13
 1.750    5.91    0.74      0.419  |O      |   I   |       |       |     1.19
 1.833    6.37    0.74      0.457  |O      |    I  |       |       |     1.27
 1.917    6.16    0.74      0.495  |O      |   I   |       |       |     1.34
 2.000    6.07    0.74      0.532  |O      |   I   |       |       |     1.41
 2.083    6.22    0.74      0.569  |O      |   I   |       |       |     1.49
 2.167    7.21    0.74      0.610  |O      |     I |       |       |     1.57
```

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2.250    8.96    0.74      0.661  |O      |       | I     |       |      1.67
2.333    8.76    0.74      0.717  |O      |       | I     |       |      1.79
2.417   10.28    0.74      0.777  |O      |       |    I  |       |      1.91
2.500   13.71    0.74      0.855  |O      |       |       |   I   |      2.08
2.583   15.55    0.74      0.950  |O      |       |       |       I      2.30
2.667   14.87    0.74      1.050  |O      |       |       |     I |      2.52
2.750    9.83    0.74      1.130  |O      |       |   I   |       |      2.74
2.833    5.48    0.74      1.177  |O      |  I    |       |       |      2.86
2.917    4.28    0.74      1.206  |O      I       |       |       |      2.94
3.000    2.82    0.74      1.225  |O   I  |       |       |       |      2.99
3.083    1.07    0.74      1.233  |OI     |       |       |       |      3.02
3.167    0.33    0.74      1.233  IO      |       |       |       |      3.02
3.250    0.12    0.74      1.230  IO      |       |       |       |      3.01
3.333    0.02    0.74      1.225  IO      |       |       |       |      2.99
3.417    0.00    0.74      1.220  IO      |       |       |       |      2.98
3.500    0.00    0.74      1.215  IO      |       |       |       |      2.97
3.583    0.00    0.74      1.210  IO      |       |       |       |      2.95
3.667    0.00    0.74      1.205  IO      |       |       |       |      2.94
3.750    0.00    0.74      1.200  IO      |       |       |       |      2.92
3.833    0.00    0.74      1.195  IO      |       |       |       |      2.91
3.917    0.00    0.74      1.190  IO      |       |       |       |      2.90
4.000    0.00    0.74      1.184  IO      |       |       |       |      2.88
4.083    0.00    0.74      1.179  IO      |       |       |       |      2.87
4.167    0.00    0.74      1.174  IO      |       |       |       |      2.86
4.250    0.00    0.74      1.169  IO      |       |       |       |      2.84
4.333    0.00    0.74      1.164  IO      |       |       |       |      2.83
4.417    0.00    0.74      1.159  IO      |       |       |       |      2.82
4.500    0.00    0.74      1.154  IO      |       |       |       |      2.80
4.583    0.00    0.74      1.149  IO      |       |       |       |      2.79
4.667    0.00    0.74      1.144  IO      |       |       |       |      2.77
4.750    0.00    0.74      1.139  IO      |       |       |       |      2.76
4.833    0.00    0.74      1.133  IO      |       |       |       |      2.75
4.917    0.00    0.74      1.128  IO      |       |       |       |      2.73
5.000    0.00    0.74      1.123  IO      |       |       |       |      2.72
5.083    0.00    0.74      1.118  IO      |       |       |       |      2.71
5.167    0.00    0.74      1.113  IO      |       |       |       |      2.69
5.250    0.00    0.74      1.108  IO      |       |       |       |      2.68
5.333    0.00    0.74      1.103  IO      |       |       |       |      2.67
5.417    0.00    0.74      1.098  IO      |       |       |       |      2.65
5.500    0.00    0.74      1.093  IO      |       |       |       |      2.64
5.583    0.00    0.74      1.088  IO      |       |       |       |      2.62
5.667    0.00    0.74      1.083  IO      |       |       |       |      2.61
5.750    0.00    0.74      1.077  IO      |       |       |       |      2.60
5.833    0.00    0.74      1.072  IO      |       |       |       |      2.58
5.917    0.00    0.74      1.067  IO      |       |       |       |      2.57
6.000    0.00    0.74      1.062  IO      |       |       |       |      2.56
6.083    0.00    0.74      1.057  IO      |       |       |       |      2.54
6.167    0.00    0.74      1.052  IO      |       |       |       |      2.53
6.250    0.00    0.74      1.047  IO      |       |       |       |      2.52
6.333    0.00    0.74      1.042  IO      |       |       |       |      2.50
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  6.417     0.00     0.74       1.037  IO         |         |         |         |      2.49
  6.500     0.00     0.74       1.032  IO         |         |         |         |      2.48
  6.583     0.00     0.74       1.026  IO         |         |         |         |      2.47
  6.667     0.00     0.74       1.021  IO         |         |         |         |      2.46
  6.750     0.00     0.74       1.016  IO         |         |         |         |      2.44
  6.833     0.00     0.74       1.011  IO         |         |         |         |      2.43
  6.917     0.00     0.74       1.006  IO         |         |         |         |      2.42
  7.000     0.00     0.74       1.001  IO         |         |         |         |      2.41
  7.083     0.00     0.74       0.996  IO         |         |         |         |      2.40
  7.167     0.00     0.74       0.991  IO         |         |         |         |      2.39
  7.250     0.00     0.74       0.986  IO         |         |         |         |      2.38
  7.333     0.00     0.74       0.981  IO         |         |         |         |      2.36
  7.417     0.00     0.74       0.975  IO         |         |         |         |      2.35
  7.500     0.00     0.74       0.970  IO         |         |         |         |      2.34
  7.583     0.00     0.74       0.965  IO         |         |         |         |      2.33
  7.667     0.00     0.74       0.960  IO         |         |         |         |      2.32
  7.750     0.00     0.74       0.955  IO         |         |         |         |      2.31
  7.833     0.00     0.74       0.950  IO         |         |         |         |      2.30
  7.917     0.00     0.74       0.945  IO         |         |         |         |      2.28
  8.000     0.00     0.74       0.940  IO         |         |         |         |      2.27
  8.083     0.00     0.74       0.935  IO         |         |         |         |      2.26
  8.167     0.00     0.74       0.930  IO         |         |         |         |      2.25
  8.250     0.00     0.74       0.925  IO         |         |         |         |      2.24
  8.333     0.00     0.74       0.919  IO         |         |         |         |      2.23
  8.417     0.00     0.74       0.914  IO         |         |         |         |      2.21
  8.500     0.00     0.74       0.909  IO         |         |         |         |      2.20
  8.583     0.00     0.74       0.904  IO         |         |         |         |      2.19
  8.667     0.00     0.74       0.899  IO         |         |         |         |      2.18
  8.750     0.00     0.74       0.894  IO         |         |         |         |      2.17
  8.833     0.00     0.74       0.889  IO         |         |         |         |      2.16
  8.917     0.00     0.74       0.884  IO         |         |         |         |      2.15
  9.000     0.00     0.74       0.879  IO         |         |         |         |      2.13
  9.083     0.00     0.74       0.874  IO         |         |         |         |      2.12
  9.167     0.00     0.74       0.868  IO         |         |         |         |      2.11
  9.250     0.00     0.74       0.863  IO         |         |         |         |      2.10
  9.333     0.00     0.74       0.858  IO         |         |         |         |      2.09
  9.417     0.00     0.74       0.853  IO         |         |         |         |      2.08
  9.500     0.00     0.74       0.848  IO         |         |         |         |      2.07
  9.583     0.00     0.74       0.843  IO         |         |         |         |      2.05
  9.667     0.00     0.74       0.838  IO         |         |         |         |      2.04
  9.750     0.00     0.74       0.833  IO         |         |         |         |      2.03
  9.833     0.00     0.74       0.828  IO         |         |         |         |      2.02
  9.917     0.00     0.74       0.823  IO         |         |         |         |      2.01
 10.000     0.00     0.74       0.818  IO         |         |         |         |      2.00
 10.083     0.00     0.74       0.812  IO         |         |         |         |      1.99
 10.167     0.00     0.74       0.807  IO         |         |         |         |      1.98
 10.250     0.00     0.74       0.802  IO         |         |         |         |      1.97
 10.333     0.00     0.74       0.797  IO         |         |         |         |      1.95
 10.417     0.00     0.74       0.792  IO         |         |         |         |      1.94
 10.500     0.00     0.74       0.787  IO         |         |         |         |      1.93
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10.583    0.00    0.74     0.782  IO      |       |       |       |     1.92
10.667    0.00    0.74     0.777  IO      |       |       |       |     1.91
10.750    0.00    0.74     0.772  IO      |       |       |       |     1.90
10.833    0.00    0.74     0.767  IO      |       |       |       |     1.89
10.917    0.00    0.74     0.761  IO      |       |       |       |     1.88
11.000    0.00    0.74     0.756  IO      |       |       |       |     1.87
11.083    0.00    0.74     0.751  IO      |       |       |       |     1.86
11.167    0.00    0.74     0.746  IO      |       |       |       |     1.85
11.250    0.00    0.74     0.741  IO      |       |       |       |     1.84
11.333    0.00    0.74     0.736  IO      |       |       |       |     1.83
11.417    0.00    0.74     0.731  IO      |       |       |       |     1.82
11.500    0.00    0.74     0.726  IO      |       |       |       |     1.81
11.583    0.00    0.74     0.721  IO      |       |       |       |     1.80
11.667    0.00    0.74     0.716  IO      |       |       |       |     1.79
11.750    0.00    0.74     0.710  IO      |       |       |       |     1.78
11.833    0.00    0.74     0.705  IO      |       |       |       |     1.77
11.917    0.00    0.74     0.700  IO      |       |       |       |     1.76
12.000    0.00    0.74     0.695  IO      |       |       |       |     1.75
12.083    0.00    0.74     0.690  IO      |       |       |       |     1.73
12.167    0.00    0.74     0.685  IO      |       |       |       |     1.72
12.250    0.00    0.74     0.680  IO      |       |       |       |     1.71
12.333    0.00    0.74     0.675  IO      |       |       |       |     1.70
12.417    0.00    0.74     0.670  IO      |       |       |       |     1.69
12.500    0.00    0.74     0.665  IO      |       |       |       |     1.68
12.583    0.00    0.74     0.660  IO      |       |       |       |     1.67
12.667    0.00    0.74     0.654  IO      |       |       |       |     1.66
12.750    0.00    0.74     0.649  IO      |       |       |       |     1.65
12.833    0.00    0.74     0.644  IO      |       |       |       |     1.64
12.917    0.00    0.74     0.639  IO      |       |       |       |     1.63
13.000    0.00    0.74     0.634  IO      |       |       |       |     1.62
13.083    0.00    0.74     0.629  IO      |       |       |       |     1.61
13.167    0.00    0.74     0.624  IO      |       |       |       |     1.60
13.250    0.00    0.74     0.619  IO      |       |       |       |     1.59
13.333    0.00    0.74     0.614  IO      |       |       |       |     1.58
13.417    0.00    0.74     0.609  IO      |       |       |       |     1.57
13.500    0.00    0.74     0.603  IO      |       |       |       |     1.56
13.583    0.00    0.74     0.598  IO      |       |       |       |     1.55
13.667    0.00    0.74     0.593  IO      |       |       |       |     1.54
13.750    0.00    0.74     0.588  IO      |       |       |       |     1.53
13.833    0.00    0.74     0.583  IO      |       |       |       |     1.51
13.917    0.00    0.74     0.578  IO      |       |       |       |     1.50
14.000    0.00    0.74     0.573  IO      |       |       |       |     1.49
14.083    0.00    0.74     0.568  IO      |       |       |       |     1.48
14.167    0.00    0.74     0.563  IO      |       |       |       |     1.47
14.250    0.00    0.74     0.558  IO      |       |       |       |     1.46
14.333    0.00    0.74     0.552  IO      |       |       |       |     1.45
14.417    0.00    0.74     0.547  IO      |       |       |       |     1.44
14.500    0.00    0.74     0.542  IO      |       |       |       |     1.43
14.583    0.00    0.74     0.537  IO      |       |       |       |     1.42
14.667    0.00    0.74     0.532  IO      |       |       |       |     1.41
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14.750	0.00	0.74	0.527	IO	1.40
14.833	0.00	0.74	0.522	IO	1.39
14.917	0.00	0.74	0.517	IO	1.38
15.000	0.00	0.74	0.512	IO	1.37
15.083	0.00	0.74	0.507	IO	1.36
15.167	0.00	0.74	0.502	IO	1.35
15.250	0.00	0.74	0.496	IO	1.34
15.333	0.00	0.74	0.491	IO	1.33
15.417	0.00	0.74	0.486	IO	1.32
15.500	0.00	0.74	0.481	IO	1.31
15.583	0.00	0.74	0.476	IO	1.30
15.667	0.00	0.74	0.471	IO	1.29
15.750	0.00	0.74	0.466	IO	1.28
15.833	0.00	0.74	0.461	IO	1.27
15.917	0.00	0.74	0.456	IO	1.26
16.000	0.00	0.74	0.451	IO	1.26
16.083	0.00	0.74	0.445	IO	1.25
16.167	0.00	0.74	0.440	IO	1.24
16.250	0.00	0.74	0.435	IO	1.23
16.333	0.00	0.74	0.430	IO	1.22
16.417	0.00	0.74	0.425	IO	1.21
16.500	0.00	0.74	0.420	IO	1.20
16.583	0.00	0.74	0.415	IO	1.19
16.667	0.00	0.74	0.410	IO	1.18
16.750	0.00	0.74	0.405	IO	1.17
16.833	0.00	0.74	0.400	IO	1.16
16.917	0.00	0.74	0.395	IO	1.15
17.000	0.00	0.74	0.389	IO	1.14
17.083	0.00	0.74	0.384	IO	1.13
17.167	0.00	0.74	0.379	IO	1.12
17.250	0.00	0.74	0.374	IO	1.11
17.333	0.00	0.74	0.369	IO	1.10
17.417	0.00	0.74	0.364	IO	1.09
17.500	0.00	0.74	0.359	IO	1.08
17.583	0.00	0.74	0.354	IO	1.07
17.667	0.00	0.74	0.349	IO	1.06
17.750	0.00	0.74	0.344	IO	1.05
17.833	0.00	0.74	0.338	IO	1.04
17.917	0.00	0.74	0.333	IO	1.03
18.000	0.00	0.74	0.328	IO	1.02
18.083	0.00	0.74	0.323	IO	1.01
18.167	0.00	0.74	0.318	IO	1.00
18.250	0.00	0.74	0.313	IO	0.98
18.333	0.00	0.74	0.308	IO	0.97
18.417	0.00	0.74	0.303	IO	0.96
18.500	0.00	0.74	0.298	IO	0.94
18.583	0.00	0.74	0.293	IO	0.93
18.667	0.00	0.74	0.287	IO	0.92
18.750	0.00	0.74	0.282	IO	0.90
18.833	0.00	0.74	0.277	IO	0.89

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18.917    0.00    0.74     0.272  IO      |       |       |       |      0.88
19.000    0.00    0.74     0.267  IO      |       |       |       |      0.86
19.083    0.00    0.74     0.262  IO      |       |       |       |      0.85
19.167    0.00    0.74     0.257  IO      |       |       |       |      0.84
19.250    0.00    0.74     0.252  IO      |       |       |       |      0.83
19.333    0.00    0.74     0.247  IO      |       |       |       |      0.81
19.417    0.00    0.74     0.242  IO      |       |       |       |      0.80
19.500    0.00    0.74     0.237  IO      |       |       |       |      0.79
19.583    0.00    0.74     0.231  IO      |       |       |       |      0.77
19.667    0.00    0.74     0.226  IO      |       |       |       |      0.76
19.750    0.00    0.74     0.221  IO      |       |       |       |      0.75
19.833    0.00    0.74     0.216  IO      |       |       |       |      0.73
19.917    0.00    0.74     0.211  IO      |       |       |       |      0.72
20.000    0.00    0.74     0.206  IO      |       |       |       |      0.71
20.083    0.00    0.74     0.201  IO      |       |       |       |      0.69
20.167    0.00    0.74     0.196  IO      |       |       |       |      0.68
20.250    0.00    0.74     0.191  IO      |       |       |       |      0.67
20.333    0.00    0.74     0.186  IO      |       |       |       |      0.66
20.417    0.00    0.74     0.180  IO      |       |       |       |      0.64
20.500    0.00    0.74     0.175  IO      |       |       |       |      0.63
20.583    0.00    0.74     0.170  IO      |       |       |       |      0.62
20.667    0.00    0.74     0.165  IO      |       |       |       |      0.60
20.750    0.00    0.74     0.160  IO      |       |       |       |      0.59
20.833    0.00    0.74     0.155  IO      |       |       |       |      0.58
20.917    0.00    0.74     0.150  IO      |       |       |       |      0.56
21.000    0.00    0.74     0.145  IO      |       |       |       |      0.55
21.083    0.00    0.74     0.140  IO      |       |       |       |      0.54
21.167    0.00    0.74     0.135  IO      |       |       |       |      0.52
21.250    0.00    0.74     0.129  IO      |       |       |       |      0.51
21.333    0.00    0.74     0.124  IO      |       |       |       |      0.50
21.417    0.00    0.71     0.119  IO      |       |       |       |      0.48
21.500    0.00    0.68     0.115  IO      |       |       |       |      0.46
21.583    0.00    0.65     0.110  IO      |       |       |       |      0.44
21.667    0.00    0.63     0.106  IO      |       |       |       |      0.42
21.750    0.00    0.60     0.101  IO      |       |       |       |      0.41
21.833    0.00    0.58     0.097  IO      |       |       |       |      0.39
21.917    0.00    0.55     0.094  IO      |       |       |       |      0.37
22.000    0.00    0.53     0.090  IO      |       |       |       |      0.36
22.083    0.00    0.51     0.086  IO      |       |       |       |      0.34
22.167    0.00    0.49     0.083  IO      |       |       |       |      0.33
22.250    0.00    0.47     0.079  O       |       |       |       |      0.32
22.333    0.00    0.45     0.076  O       |       |       |       |      0.31
22.417    0.00    0.43     0.073  O       |       |       |       |      0.29
22.500    0.00    0.42     0.070  O       |       |       |       |      0.28
22.583    0.00    0.40     0.067  O       |       |       |       |      0.27
22.667    0.00    0.38     0.065  O       |       |       |       |      0.26
22.750    0.00    0.37     0.062  O       |       |       |       |      0.25
22.833    0.00    0.35     0.060  O       |       |       |       |      0.24
22.917    0.00    0.34     0.057  O       |       |       |       |      0.23
23.000    0.00    0.33     0.055  O       |       |       |       |      0.22
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23.083	0.00	0.31	0.053	O	0.21
23.167	0.00	0.30	0.051	O	0.20
23.250	0.00	0.29	0.049	O	0.19
23.333	0.00	0.28	0.047	O	0.19
23.417	0.00	0.27	0.045	O	0.18
23.500	0.00	0.26	0.043	O	0.17
23.583	0.00	0.24	0.041	O	0.17
23.667	0.00	0.24	0.040	O	0.16
23.750	0.00	0.23	0.038	O	0.15
23.833	0.00	0.22	0.037	O	0.15
23.917	0.00	0.21	0.035	O	0.14
24.000	0.00	0.20	0.034	O	0.13
24.083	0.00	0.19	0.032	O	0.13
24.167	0.00	0.18	0.031	O	0.12
24.250	0.00	0.18	0.030	O	0.12
24.333	0.00	0.17	0.029	O	0.11
24.417	0.00	0.16	0.028	O	0.11
24.500	0.00	0.16	0.026	O	0.11
24.583	0.00	0.15	0.025	O	0.10
24.667	0.00	0.14	0.024	O	0.10
24.750	0.00	0.14	0.023	O	0.09
24.833	0.00	0.13	0.022	O	0.09
24.917	0.00	0.13	0.022	O	0.09
25.000	0.00	0.12	0.021	O	0.08
25.083	0.00	0.12	0.020	O	0.08
25.167	0.00	0.11	0.019	O	0.08
25.250	0.00	0.11	0.018	O	0.07
25.333	0.00	0.10	0.018	O	0.07
25.417	0.00	0.10	0.017	O	0.07
25.500	0.00	0.10	0.016	O	0.06
25.583	0.00	0.09	0.016	O	0.06
25.667	0.00	0.09	0.015	O	0.06
25.750	0.00	0.08	0.014	O	0.06
25.833	0.00	0.08	0.014	O	0.06
25.917	0.00	0.08	0.013	O	0.05
26.000	0.00	0.08	0.013	O	0.05
26.083	0.00	0.07	0.012	O	0.05
26.167	0.00	0.07	0.012	O	0.05
26.250	0.00	0.07	0.011	O	0.04
26.333	0.00	0.06	0.011	O	0.04
26.417	0.00	0.06	0.010	O	0.04
26.500	0.00	0.06	0.010	O	0.04
26.583	0.00	0.06	0.010	O	0.04
26.667	0.00	0.05	0.009	O	0.04
26.750	0.00	0.05	0.009	O	0.04
26.833	0.00	0.05	0.008	O	0.03
26.917	0.00	0.05	0.008	O	0.03
27.000	0.00	0.05	0.008	O	0.03
27.083	0.00	0.04	0.007	O	0.03
27.167	0.00	0.04	0.007	O	0.03

27.250	0.00	0.04	0.007	O	|	|	|	|	0.03
27.333	0.00	0.04	0.007	O	|	|	|	|	0.03
27.417	0.00	0.04	0.006	O	|	|	|	|	0.03
27.500	0.00	0.04	0.006	O	|	|	|	|	0.02
27.583	0.00	0.03	0.006	O	|	|	|	|	0.02
27.667	0.00	0.03	0.006	O	|	|	|	|	0.02
27.750	0.00	0.03	0.005	O	|	|	|	|	0.02
27.833	0.00	0.03	0.005	O	|	|	|	|	0.02
27.917	0.00	0.03	0.005	O	|	|	|	|	0.02
28.000	0.00	0.03	0.005	O	|	|	|	|	0.02
28.083	0.00	0.03	0.005	O	|	|	|	|	0.02
28.167	0.00	0.03	0.004	O	|	|	|	|	0.02
28.250	0.00	0.02	0.004	O	|	|	|	|	0.02
28.333	0.00	0.02	0.004	O	|	|	|	|	0.02
28.417	0.00	0.02	0.004	O	|	|	|	|	0.02
28.500	0.00	0.02	0.004	O	|	|	|	|	0.01
28.583	0.00	0.02	0.004	O	|	|	|	|	0.01
28.667	0.00	0.02	0.003	O	|	|	|	|	0.01
28.750	0.00	0.02	0.003	O	|	|	|	|	0.01
28.833	0.00	0.02	0.003	O	|	|	|	|	0.01
28.917	0.00	0.02	0.003	O	|	|	|	|	0.01
29.000	0.00	0.02	0.003	O	|	|	|	|	0.01
29.083	0.00	0.02	0.003	O	|	|	|	|	0.01
29.167	0.00	0.02	0.003	O	|	|	|	|	0.01
29.250	0.00	0.02	0.003	O	|	|	|	|	0.01
29.333	0.00	0.01	0.002	O	|	|	|	|	0.01
29.417	0.00	0.01	0.002	O	|	|	|	|	0.01
29.500	0.00	0.01	0.002	O	|	|	|	|	0.01
29.583	0.00	0.01	0.002	O	|	|	|	|	0.01
29.667	0.00	0.01	0.002	O	|	|	|	|	0.01
29.750	0.00	0.01	0.002	O	|	|	|	|	0.01
29.833	0.00	0.01	0.002	O	|	|	|	|	0.01
29.917	0.00	0.01	0.002	O	|	|	|	|	0.01
30.000	0.00	0.01	0.002	O	|	|	|	|	0.01
30.083	0.00	0.01	0.002	O	|	|	|	|	0.01
30.167	0.00	0.01	0.002	O	|	|	|	|	0.01
30.250	0.00	0.01	0.002	O	|	|	|	|	0.01
30.333	0.00	0.01	0.002	O	|	|	|	|	0.01
30.417	0.00	0.01	0.001	O	|	|	|	|	0.01
30.500	0.00	0.01	0.001	O	|	|	|	|	0.01
30.583	0.00	0.01	0.001	O	|	|	|	|	0.01
30.667	0.00	0.01	0.001	O	|	|	|	|	0.01
30.750	0.00	0.01	0.001	O	|	|	|	|	0.00
30.833	0.00	0.01	0.001	O	|	|	|	|	0.00
30.917	0.00	0.01	0.001	O	|	|	|	|	0.00
31.000	0.00	0.01	0.001	O	|	|	|	|	0.00
31.083	0.00	0.01	0.001	O	|	|	|	|	0.00
31.167	0.00	0.01	0.001	O	|	|	|	|	0.00
31.250	0.00	0.01	0.001	O	|	|	|	|	0.00
31.333	0.00	0.01	0.001	O	|	|	|	|	0.00

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31.417    0.00    0.01      0.001  O        |       |       |       |      0.00
31.500    0.00    0.01      0.001  O        |       |       |       |      0.00
31.583    0.00    0.00      0.001  O        |       |       |       |      0.00
31.667    0.00    0.00      0.001  O        |       |       |       |      0.00
31.750    0.00    0.00      0.001  O        |       |       |       |      0.00
31.833    0.00    0.00      0.001  O        |       |       |       |      0.00
31.917    0.00    0.00      0.001  O        |       |       |       |      0.00
32.000    0.00    0.00      0.001  O        |       |       |       |      0.00
32.083    0.00    0.00      0.001  O        |       |       |       |      0.00
32.167    0.00    0.00      0.001  O        |       |       |       |      0.00
32.250    0.00    0.00      0.001  O        |       |       |       |      0.00
32.333    0.00    0.00      0.001  O        |       |       |       |      0.00
32.417    0.00    0.00      0.001  O        |       |       |       |      0.00
32.500    0.00    0.00      0.001  O        |       |       |       |      0.00
32.583    0.00    0.00      0.001  O        |       |       |       |      0.00
32.667    0.00    0.00      0.000  O        |       |       |       |      0.00
32.750    0.00    0.00      0.000  O        |       |       |       |      0.00
32.833    0.00    0.00      0.000  O        |       |       |       |      0.00
32.917    0.00    0.00      0.000  O        |       |       |       |      0.00
33.000    0.00    0.00      0.000  O        |       |       |       |      0.00
33.083    0.00    0.00      0.000  O        |       |       |       |      0.00
33.167    0.00    0.00      0.000  O        |       |       |       |      0.00
33.250    0.00    0.00      0.000  O        |       |       |       |      0.00
33.333    0.00    0.00      0.000  O        |       |       |       |      0.00
33.417    0.00    0.00      0.000  O        |       |       |       |      0.00
33.500    0.00    0.00      0.000  O        |       |       |       |      0.00
33.583    0.00    0.00      0.000  O        |       |       |       |      0.00
33.667    0.00    0.00      0.000  O        |       |       |       |      0.00
33.750    0.00    0.00      0.000  O        |       |       |       |      0.00
33.833    0.00    0.00      0.000  O        |       |       |       |      0.00
33.917    0.00    0.00      0.000  O        |       |       |       |      0.00
34.000    0.00    0.00      0.000  O        |       |       |       |      0.00
34.083    0.00    0.00      0.000  O        |       |       |       |      0.00

       ****************************HYDROGRAPH DATA****************************
                       Number of intervals =   409
                       Time interval =    5.0 (Min.)
                       Maximum/Peak flow rate =        0.740 (CFS)
                       Total volume =       1.403 (Ac.Ft)
               Status of hydrographs being held in storage
                          Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
               Peak (CFS)      0.000     0.000     0.000     0.000     0.000
               Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ***********************************************************************

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NEWLAND SIMPSON
HEMET
POST DEVELOPMENT
FLOOD ROUTING
BASIN C2
100YR-3HR

FLOOD HYDROGRAPH ROUTING PROGRAM

Study date: 10/16/23

NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA C
FLOOD ROUTING - BASIN C2
100YR 3HR

Program License Serial Number 6491

********************* HYDROGRAPH INFORMATION **********************

From study/file name: NSPRUHC23100.rte
****************************HYDROGRAPH DATA****************************
Number of intervals = 39
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 14.519 (CFS)
Total volume = 1.258 (Ac.Ft)
Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

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Process from Point/Station 72.000 to Point/Station 72.000
**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 39
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.112	0.670	0.110	0.114
1.000	0.287	0.670	0.285	0.289
1.500	0.518	0.670	0.516	0.520
2.000	0.736	0.670	0.734	0.738
2.500	0.936	0.670	0.934	0.938
3.000	1.104	0.670	1.102	1.106
3.500	1.220	0.670	1.218	1.222
3.750	1.276	0.670	1.274	1.278
5.750	1.277	0.670	1.275	1.279

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

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 Time   Inflow  Outflow    Storage                                     Depth
(Hours)  (CFS)   (CFS)     (Ac.Ft) .0       3.6    7.26   10.89   14.52 (Ft.)
 0.083    1.03    0.02      0.003  O I     |       |       |       |     0.02
 0.167    1.93    0.08      0.013  O   I   |       |       |       |     0.06
 0.250    1.91    0.15      0.026  O   I   |       |       |       |     0.12
 0.333    2.19    0.23      0.039  O   I   |       |       |       |     0.17
 0.417    2.49    0.32      0.053  O    I  |       |       |       |     0.24
 0.500    2.82    0.41      0.069  O     I |       |       |       |     0.31
 0.583    2.80    0.51      0.085  |O    I |       |       |       |     0.38
 0.667    2.89    0.60      0.101  |O    I |       |       |       |     0.45
 0.750    3.10    0.67      0.117  |O    I |       |       |       |     0.51
 0.833    2.85    0.67      0.133  |O    I |       |       |       |     0.56
 0.917    2.72    0.67      0.147  |O   I  |       |       |       |     0.60
 1.000    2.94    0.67      0.162  |O    I |       |       |       |     0.64
 1.083    3.48    0.67      0.180  |O     I|       |       |       |     0.69
 1.167    3.84    0.67      0.200  |O      I       |       |       |     0.75
 1.250    3.91    0.67      0.222  |O      I       |       |       |     0.81
 1.333    3.75    0.67      0.244  |O      I       |       |       |     0.88
 1.417    4.15    0.67      0.267  |O      |I      |       |       |     0.94
 1.500    4.70    0.67      0.292  |O      | I     |       |       |     1.01
 1.583    4.58    0.67      0.320  |O      | I     |       |       |     1.07
 1.667    4.67    0.67      0.347  |O      | I     |       |       |     1.13
 1.750    5.44    0.67      0.377  |O      |  I    |       |       |     1.20
 1.833    5.77    0.67      0.411  |O      |   I   |       |       |     1.27
 1.917    5.53    0.67      0.445  |O      |   I   |       |       |     1.34
 2.000    5.46    0.67      0.479  |O      |   I   |       |       |     1.41
 2.083    5.59    0.67      0.512  |O      |   I   |       |       |     1.49
 2.167    6.71    0.67      0.550  |O      |     I |       |       |     1.57
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2.250    8.38    0.67      0.597  |O      |       | I     |       |     1.68
2.333    7.80    0.67      0.648  |O      |       |I      |       |     1.80
2.417    9.86    0.67      0.705  |O      |       |    I  |       |     1.93
2.500   12.85    0.67      0.778  |O      |       |       |   I   |     2.11
2.583   14.52    0.67      0.868  |O      |       |       |       I     2.33
2.667   13.36    0.67      0.959  |O      |       |       |    I  |     2.57
2.750    7.99    0.67      1.028  |O      |       |I      |       |     2.77
2.833    4.31    0.67      1.066  |O      |I      |       |       |     2.89
2.917    3.42    0.67      1.088  |O     I|       |       |       |     2.95
3.000    2.08    0.67      1.102  |O  I   |       |       |       |     2.99
3.083    0.70    0.67      1.107  |O      |       |       |       |     3.01
3.167    0.16    0.67      1.106  IO      |       |       |       |     3.01
3.250    0.03    0.67      1.102  IO      |       |       |       |     2.99
3.333    0.00    0.67      1.097  IO      |       |       |       |     2.98
3.417    0.00    0.67      1.092  IO      |       |       |       |     2.97
3.500    0.00    0.67      1.088  IO      |       |       |       |     2.95
3.583    0.00    0.67      1.083  IO      |       |       |       |     2.94
3.667    0.00    0.67      1.079  IO      |       |       |       |     2.92
3.750    0.00    0.67      1.074  IO      |       |       |       |     2.91
3.833    0.00    0.67      1.069  IO      |       |       |       |     2.90
3.917    0.00    0.67      1.065  IO      |       |       |       |     2.88
4.000    0.00    0.67      1.060  IO      |       |       |       |     2.87
4.083    0.00    0.67      1.056  IO      |       |       |       |     2.86
4.167    0.00    0.67      1.051  IO      |       |       |       |     2.84
4.250    0.00    0.67      1.046  IO      |       |       |       |     2.83
4.333    0.00    0.67      1.042  IO      |       |       |       |     2.81
4.417    0.00    0.67      1.037  IO      |       |       |       |     2.80
4.500    0.00    0.67      1.032  IO      |       |       |       |     2.79
4.583    0.00    0.67      1.028  IO      |       |       |       |     2.77
4.667    0.00    0.67      1.023  IO      |       |       |       |     2.76
4.750    0.00    0.67      1.019  IO      |       |       |       |     2.75
4.833    0.00    0.67      1.014  IO      |       |       |       |     2.73
4.917    0.00    0.67      1.009  IO      |       |       |       |     2.72
5.000    0.00    0.67      1.005  IO      |       |       |       |     2.70
5.083    0.00    0.67      1.000  IO      |       |       |       |     2.69
5.167    0.00    0.67      0.996  IO      |       |       |       |     2.68
5.250    0.00    0.67      0.991  IO      |       |       |       |     2.66
5.333    0.00    0.67      0.986  IO      |       |       |       |     2.65
5.417    0.00    0.67      0.982  IO      |       |       |       |     2.64
5.500    0.00    0.67      0.977  IO      |       |       |       |     2.62
5.583    0.00    0.67      0.972  IO      |       |       |       |     2.61
5.667    0.00    0.67      0.968  IO      |       |       |       |     2.59
5.750    0.00    0.67      0.963  IO      |       |       |       |     2.58
5.833    0.00    0.67      0.959  IO      |       |       |       |     2.57
5.917    0.00    0.67      0.954  IO      |       |       |       |     2.55
6.000    0.00    0.67      0.949  IO      |       |       |       |     2.54
6.083    0.00    0.67      0.945  IO      |       |       |       |     2.53
6.167    0.00    0.67      0.940  IO      |       |       |       |     2.51
6.250    0.00    0.67      0.936  IO      |       |       |       |     2.50
6.333    0.00    0.67      0.931  IO      |       |       |       |     2.49
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6.417	0.00	0.67	0.926	IO					2.48
6.500	0.00	0.67	0.922	IO					2.46
6.583	0.00	0.67	0.917	IO					2.45
6.667	0.00	0.67	0.913	IO					2.44
6.750	0.00	0.67	0.908	IO					2.43
6.833	0.00	0.67	0.903	IO					2.42
6.917	0.00	0.67	0.899	IO					2.41
7.000	0.00	0.67	0.894	IO					2.40
7.083	0.00	0.67	0.889	IO					2.38
7.167	0.00	0.67	0.885	IO					2.37
7.250	0.00	0.67	0.880	IO					2.36
7.333	0.00	0.67	0.876	IO					2.35
7.417	0.00	0.67	0.871	IO					2.34
7.500	0.00	0.67	0.866	IO					2.33
7.583	0.00	0.67	0.862	IO					2.31
7.667	0.00	0.67	0.857	IO					2.30
7.750	0.00	0.67	0.853	IO					2.29
7.833	0.00	0.67	0.848	IO					2.28
7.917	0.00	0.67	0.843	IO					2.27
8.000	0.00	0.67	0.839	IO					2.26
8.083	0.00	0.67	0.834	IO					2.25
8.167	0.00	0.67	0.829	IO					2.23
8.250	0.00	0.67	0.825	IO					2.22
8.333	0.00	0.67	0.820	IO					2.21
8.417	0.00	0.67	0.816	IO					2.20
8.500	0.00	0.67	0.811	IO					2.19
8.583	0.00	0.67	0.806	IO					2.18
8.667	0.00	0.67	0.802	IO					2.16
8.750	0.00	0.67	0.797	IO					2.15
8.833	0.00	0.67	0.793	IO					2.14
8.917	0.00	0.67	0.788	IO					2.13
9.000	0.00	0.67	0.783	IO					2.12
9.083	0.00	0.67	0.779	IO					2.11
9.167	0.00	0.67	0.774	IO					2.10
9.250	0.00	0.67	0.769	IO					2.08
9.333	0.00	0.67	0.765	IO					2.07
9.417	0.00	0.67	0.760	IO					2.06
9.500	0.00	0.67	0.756	IO					2.05
9.583	0.00	0.67	0.751	IO					2.04
9.667	0.00	0.67	0.746	IO					2.03
9.750	0.00	0.67	0.742	IO					2.01
9.833	0.00	0.67	0.737	IO					2.00
9.917	0.00	0.67	0.733	IO					1.99
10.000	0.00	0.67	0.728	IO					1.98
10.083	0.00	0.67	0.723	IO					1.97
10.167	0.00	0.67	0.719	IO					1.96
10.250	0.00	0.67	0.714	IO					1.95
10.333	0.00	0.67	0.709	IO					1.94
10.417	0.00	0.67	0.705	IO					1.93
10.500	0.00	0.67	0.700	IO					1.92

10.583	0.00	0.67	0.696	IO		1.91
10.667	0.00	0.67	0.691	IO		1.90
10.750	0.00	0.67	0.686	IO		1.89
10.833	0.00	0.67	0.682	IO		1.88
10.917	0.00	0.67	0.677	IO		1.87
11.000	0.00	0.67	0.673	IO		1.85
11.083	0.00	0.67	0.668	IO		1.84
11.167	0.00	0.67	0.663	IO		1.83
11.250	0.00	0.67	0.659	IO		1.82
11.333	0.00	0.67	0.654	IO		1.81
11.417	0.00	0.67	0.649	IO		1.80
11.500	0.00	0.67	0.645	IO		1.79
11.583	0.00	0.67	0.640	IO		1.78
11.667	0.00	0.67	0.636	IO		1.77
11.750	0.00	0.67	0.631	IO		1.76
11.833	0.00	0.67	0.626	IO		1.75
11.917	0.00	0.67	0.622	IO		1.74
12.000	0.00	0.67	0.617	IO		1.73
12.083	0.00	0.67	0.613	IO		1.72
12.167	0.00	0.67	0.608	IO		1.71
12.250	0.00	0.67	0.603	IO		1.70
12.333	0.00	0.67	0.599	IO		1.69
12.417	0.00	0.67	0.594	IO		1.67
12.500	0.00	0.67	0.590	IO		1.66
12.583	0.00	0.67	0.585	IO		1.65
12.667	0.00	0.67	0.580	IO		1.64
12.750	0.00	0.67	0.576	IO		1.63
12.833	0.00	0.67	0.571	IO		1.62
12.917	0.00	0.67	0.566	IO		1.61
13.000	0.00	0.67	0.562	IO		1.60
13.083	0.00	0.67	0.557	IO		1.59
13.167	0.00	0.67	0.553	IO		1.58
13.250	0.00	0.67	0.548	IO		1.57
13.333	0.00	0.67	0.543	IO		1.56
13.417	0.00	0.67	0.539	IO		1.55
13.500	0.00	0.67	0.534	IO		1.54
13.583	0.00	0.67	0.530	IO		1.53
13.667	0.00	0.67	0.525	IO		1.52
13.750	0.00	0.67	0.520	IO		1.51
13.833	0.00	0.67	0.516	IO		1.49
13.917	0.00	0.67	0.511	IO		1.48
14.000	0.00	0.67	0.506	IO		1.47
14.083	0.00	0.67	0.502	IO		1.47
14.167	0.00	0.67	0.497	IO		1.46
14.250	0.00	0.67	0.493	IO		1.45
14.333	0.00	0.67	0.488	IO		1.44
14.417	0.00	0.67	0.483	IO		1.43
14.500	0.00	0.67	0.479	IO		1.42
14.583	0.00	0.67	0.474	IO		1.41
14.667	0.00	0.67	0.470	IO		1.40

14.750	0.00	0.67	0.465	IO	|	|	|	|	1.39
14.833	0.00	0.67	0.460	IO	|	|	|	|	1.38
14.917	0.00	0.67	0.456	IO	|	|	|	|	1.37
15.000	0.00	0.67	0.451	IO	|	|	|	|	1.36
15.083	0.00	0.67	0.446	IO	|	|	|	|	1.35
15.167	0.00	0.67	0.442	IO	|	|	|	|	1.34
15.250	0.00	0.67	0.437	IO	|	|	|	|	1.33
15.333	0.00	0.67	0.433	IO	|	|	|	|	1.32
15.417	0.00	0.67	0.428	IO	|	|	|	|	1.31
15.500	0.00	0.67	0.423	IO	|	|	|	|	1.30
15.583	0.00	0.67	0.419	IO	|	|	|	|	1.29
15.667	0.00	0.67	0.414	IO	|	|	|	|	1.28
15.750	0.00	0.67	0.410	IO	|	|	|	|	1.27
15.833	0.00	0.67	0.405	IO	|	|	|	|	1.26
15.917	0.00	0.67	0.400	IO	|	|	|	|	1.25
16.000	0.00	0.67	0.396	IO	|	|	|	|	1.24
16.083	0.00	0.67	0.391	IO	|	|	|	|	1.23
16.167	0.00	0.67	0.386	IO	|	|	|	|	1.22
16.250	0.00	0.67	0.382	IO	|	|	|	|	1.21
16.333	0.00	0.67	0.377	IO	|	|	|	|	1.20
16.417	0.00	0.67	0.373	IO	|	|	|	|	1.19
16.500	0.00	0.67	0.368	IO	|	|	|	|	1.18
16.583	0.00	0.67	0.363	IO	|	|	|	|	1.17
16.667	0.00	0.67	0.359	IO	|	|	|	|	1.16
16.750	0.00	0.67	0.354	IO	|	|	|	|	1.15
16.833	0.00	0.67	0.350	IO	|	|	|	|	1.14
16.917	0.00	0.67	0.345	IO	|	|	|	|	1.13
17.000	0.00	0.67	0.340	IO	|	|	|	|	1.12
17.083	0.00	0.67	0.336	IO	|	|	|	|	1.11
17.167	0.00	0.67	0.331	IO	|	|	|	|	1.10
17.250	0.00	0.67	0.326	IO	|	|	|	|	1.09
17.333	0.00	0.67	0.322	IO	|	|	|	|	1.08
17.417	0.00	0.67	0.317	IO	|	|	|	|	1.07
17.500	0.00	0.67	0.313	IO	|	|	|	|	1.06
17.583	0.00	0.67	0.308	IO	|	|	|	|	1.05
17.667	0.00	0.67	0.303	IO	|	|	|	|	1.04
17.750	0.00	0.67	0.299	IO	|	|	|	|	1.03
17.833	0.00	0.67	0.294	IO	|	|	|	|	1.02
17.917	0.00	0.67	0.290	IO	|	|	|	|	1.01
18.000	0.00	0.67	0.285	IO	|	|	|	|	0.99
18.083	0.00	0.67	0.280	IO	|	|	|	|	0.98
18.167	0.00	0.67	0.276	IO	|	|	|	|	0.97
18.250	0.00	0.67	0.271	IO	|	|	|	|	0.95
18.333	0.00	0.67	0.267	IO	|	|	|	|	0.94
18.417	0.00	0.67	0.262	IO	|	|	|	|	0.93
18.500	0.00	0.67	0.257	IO	|	|	|	|	0.92
18.583	0.00	0.67	0.253	IO	|	|	|	|	0.90
18.667	0.00	0.67	0.248	IO	|	|	|	|	0.89
18.750	0.00	0.67	0.243	IO	|	|	|	|	0.88
18.833	0.00	0.67	0.239	IO	|	|	|	|	0.86

18.917	0.00	0.67	0.234	IO	0.85
19.000	0.00	0.67	0.230	IO	0.84
19.083	0.00	0.67	0.225	IO	0.82
19.167	0.00	0.67	0.220	IO	0.81
19.250	0.00	0.67	0.216	IO	0.80
19.333	0.00	0.67	0.211	IO	0.78
19.417	0.00	0.67	0.207	IO	0.77
19.500	0.00	0.67	0.202	IO	0.76
19.583	0.00	0.67	0.197	IO	0.74
19.667	0.00	0.67	0.193	IO	0.73
19.750	0.00	0.67	0.188	IO	0.72
19.833	0.00	0.67	0.183	IO	0.70
19.917	0.00	0.67	0.179	IO	0.69
20.000	0.00	0.67	0.174	IO	0.68
20.083	0.00	0.67	0.170	IO	0.66
20.167	0.00	0.67	0.165	IO	0.65
20.250	0.00	0.67	0.160	IO	0.64
20.333	0.00	0.67	0.156	IO	0.63
20.417	0.00	0.67	0.151	IO	0.61
20.500	0.00	0.67	0.147	IO	0.60
20.583	0.00	0.67	0.142	IO	0.59
20.667	0.00	0.67	0.137	IO	0.57
20.750	0.00	0.67	0.133	IO	0.56
20.833	0.00	0.67	0.128	IO	0.55
20.917	0.00	0.67	0.123	IO	0.53
21.000	0.00	0.67	0.119	IO	0.52
21.083	0.00	0.67	0.114	IO	0.51
21.167	0.00	0.66	0.110	IO	0.49
21.250	0.00	0.63	0.105	IO	0.47
21.333	0.00	0.60	0.101	IO	0.45
21.417	0.00	0.58	0.097	IO	0.43
21.500	0.00	0.56	0.093	IO	0.42
21.583	0.00	0.53	0.089	IO	0.40
21.667	0.00	0.51	0.086	IO	0.38
21.750	0.00	0.49	0.082	IO	0.37
21.833	0.00	0.47	0.079	IO	0.35
21.917	0.00	0.45	0.076	O	0.34
22.000	0.00	0.43	0.073	O	0.32
22.083	0.00	0.42	0.070	O	0.31
22.167	0.00	0.40	0.067	O	0.30
22.250	0.00	0.38	0.064	O	0.29
22.333	0.00	0.37	0.062	O	0.27
22.417	0.00	0.35	0.059	O	0.26
22.500	0.00	0.34	0.057	O	0.25
22.583	0.00	0.33	0.054	O	0.24
22.667	0.00	0.31	0.052	O	0.23
22.750	0.00	0.30	0.050	O	0.22
22.833	0.00	0.29	0.048	O	0.21
22.917	0.00	0.28	0.046	O	0.21
23.000	0.00	0.26	0.044	O	0.20

23.083	0.00	0.25	0.043	O					0.19
23.167	0.00	0.24	0.041	O					0.18
23.250	0.00	0.23	0.039	O					0.17
23.333	0.00	0.22	0.038	O					0.17
23.417	0.00	0.22	0.036	O					0.16
23.500	0.00	0.21	0.035	O					0.15
23.583	0.00	0.20	0.033	O					0.15
23.667	0.00	0.19	0.032	O					0.14
23.750	0.00	0.18	0.031	O					0.14
23.833	0.00	0.18	0.029	O					0.13
23.917	0.00	0.17	0.028	O					0.13
24.000	0.00	0.16	0.027	O					0.12
24.083	0.00	0.16	0.026	O					0.12
24.167	0.00	0.15	0.025	O					0.11
24.250	0.00	0.14	0.024	O					0.11
24.333	0.00	0.14	0.023	O					0.10
24.417	0.00	0.13	0.022	O					0.10
24.500	0.00	0.13	0.021	O					0.09
24.583	0.00	0.12	0.020	O					0.09
24.667	0.00	0.12	0.019	O					0.09
24.750	0.00	0.11	0.019	O					0.08
24.833	0.00	0.11	0.018	O					0.08
24.917	0.00	0.10	0.017	O					0.08
25.000	0.00	0.10	0.016	O					0.07
25.083	0.00	0.09	0.016	O					0.07
25.167	0.00	0.09	0.015	O					0.07
25.250	0.00	0.09	0.015	O					0.07
25.333	0.00	0.08	0.014	O					0.06
25.417	0.00	0.08	0.013	O					0.06
25.500	0.00	0.08	0.013	O					0.06
25.583	0.00	0.07	0.012	O					0.06
25.667	0.00	0.07	0.012	O					0.05
25.750	0.00	0.07	0.011	O					0.05
25.833	0.00	0.07	0.011	O					0.05
25.917	0.00	0.06	0.010	O					0.05
26.000	0.00	0.06	0.010	O					0.04
26.083	0.00	0.06	0.010	O					0.04
26.167	0.00	0.06	0.009	O					0.04
26.250	0.00	0.05	0.009	O					0.04
26.333	0.00	0.05	0.009	O					0.04
26.417	0.00	0.05	0.008	O					0.04
26.500	0.00	0.05	0.008	O					0.04
26.583	0.00	0.05	0.008	O					0.03
26.667	0.00	0.04	0.007	O					0.03
26.750	0.00	0.04	0.007	O					0.03
26.833	0.00	0.04	0.007	O					0.03
26.917	0.00	0.04	0.006	O					0.03
27.000	0.00	0.04	0.006	O					0.03
27.083	0.00	0.04	0.006	O					0.03
27.167	0.00	0.03	0.006	O					0.03

27.250	0.00	0.03	0.005	O	0.02
27.333	0.00	0.03	0.005	O	0.02
27.417	0.00	0.03	0.005	O	0.02
27.500	0.00	0.03	0.005	O	0.02
27.583	0.00	0.03	0.005	O	0.02
27.667	0.00	0.03	0.004	O	0.02
27.750	0.00	0.03	0.004	O	0.02
27.833	0.00	0.02	0.004	O	0.02
27.917	0.00	0.02	0.004	O	0.02
28.000	0.00	0.02	0.004	O	0.02
28.083	0.00	0.02	0.004	O	0.02
28.167	0.00	0.02	0.003	O	0.02
28.250	0.00	0.02	0.003	O	0.01
28.333	0.00	0.02	0.003	O	0.01
28.417	0.00	0.02	0.003	O	0.01
28.500	0.00	0.02	0.003	O	0.01
28.583	0.00	0.02	0.003	O	0.01
28.667	0.00	0.02	0.003	O	0.01
28.750	0.00	0.02	0.003	O	0.01
28.833	0.00	0.01	0.002	O	0.01
28.917	0.00	0.01	0.002	O	0.01
29.000	0.00	0.01	0.002	O	0.01
29.083	0.00	0.01	0.002	O	0.01
29.167	0.00	0.01	0.002	O	0.01
29.250	0.00	0.01	0.002	O	0.01
29.333	0.00	0.01	0.002	O	0.01
29.417	0.00	0.01	0.002	O	0.01
29.500	0.00	0.01	0.002	O	0.01
29.583	0.00	0.01	0.002	O	0.01
29.667	0.00	0.01	0.002	O	0.01
29.750	0.00	0.01	0.002	O	0.01
29.833	0.00	0.01	0.002	O	0.01
29.917	0.00	0.01	0.001	O	0.01
30.000	0.00	0.01	0.001	O	0.01
30.083	0.00	0.01	0.001	O	0.01
30.167	0.00	0.01	0.001	O	0.01
30.250	0.00	0.01	0.001	O	0.01
30.333	0.00	0.01	0.001	O	0.01
30.417	0.00	0.01	0.001	O	0.01
30.500	0.00	0.01	0.001	O	0.00
30.583	0.00	0.01	0.001	O	0.00
30.667	0.00	0.01	0.001	O	0.00
30.750	0.00	0.01	0.001	O	0.00
30.833	0.00	0.01	0.001	O	0.00
30.917	0.00	0.01	0.001	O	0.00
31.000	0.00	0.01	0.001	O	0.00
31.083	0.00	0.00	0.001	O	0.00
31.167	0.00	0.00	0.001	O	0.00
31.250	0.00	0.00	0.001	O	0.00
31.333	0.00	0.00	0.001	O	0.00

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31.417   0.00   0.00    0.001  O       |       |       |       |      0.00
31.500   0.00   0.00    0.001  O       |       |       |       |      0.00
31.583   0.00   0.00    0.001  O       |       |       |       |      0.00
31.667   0.00   0.00    0.001  O       |       |       |       |      0.00
31.750   0.00   0.00    0.001  O       |       |       |       |      0.00
31.833   0.00   0.00    0.001  O       |       |       |       |      0.00
31.917   0.00   0.00    0.001  O       |       |       |       |      0.00
32.000   0.00   0.00    0.001  O       |       |       |       |      0.00
32.083   0.00   0.00    0.000  O       |       |       |       |      0.00
32.167   0.00   0.00    0.000  O       |       |       |       |      0.00
32.250   0.00   0.00    0.000  O       |       |       |       |      0.00
32.333   0.00   0.00    0.000  O       |       |       |       |      0.00
32.417   0.00   0.00    0.000  O       |       |       |       |      0.00
32.500   0.00   0.00    0.000  O       |       |       |       |      0.00
32.583   0.00   0.00    0.000  O       |       |       |       |      0.00
32.667   0.00   0.00    0.000  O       |       |       |       |      0.00
32.750   0.00   0.00    0.000  O       |       |       |       |      0.00
32.833   0.00   0.00    0.000  O       |       |       |       |      0.00
32.917   0.00   0.00    0.000  O       |       |       |       |      0.00
33.000   0.00   0.00    0.000  O       |       |       |       |      0.00
33.083   0.00   0.00    0.000  O       |       |       |       |      0.00
33.167   0.00   0.00    0.000  O       |       |       |       |      0.00
33.250   0.00   0.00    0.000  O       |       |       |       |      0.00
33.333   0.00   0.00    0.000  O       |       |       |       |      0.00
33.417   0.00   0.00    0.000  O       |       |       |       |      0.00
33.500   0.00   0.00    0.000  O       |       |       |       |      0.00
33.583   0.00   0.00    0.000  O       |       |       |       |      0.00
33.667   0.00   0.00    0.000  O       |       |       |       |      0.00
33.750   0.00   0.00    0.000  O       |       |       |       |      0.00

       ****************************HYDROGRAPH DATA****************************
                       Number of intervals =   405
                       Time interval =    5.0 (Min.)
                       Maximum/Peak flow rate =       0.670 (CFS)
                       Total volume =       1.258 (Ac.Ft)
               Status of hydrographs being held in storage
                          Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
               Peak (CFS)      0.000     0.000     0.000     0.000     0.000
               Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ***********************************************************************

       --------------------------------------------------------------------
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NEWLAND SIMPSON
HEMET
POST DEVELOPMENT
FLOOD ROUTING
BASIN C3
100YR-3HR

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                FLOOD HYDROGRAPH ROUTING PROGRAM
         Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018
                     Study date: 10/16/23


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NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA C
FLOOD ROUTING - BASIN C3
100YR 3HR
--------------------------------------------------------------------


Program License Serial Number 6491

--------------------------------------------------------------------
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: NSPRUHC33100.rte
****************************HYDROGRAPH DATA***************************
                Number of intervals =    38
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        5.679 (CFS)
                Total volume =       0.467 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
**********************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       81.000 to Point/Station       81.000
**** RETARDING BASIN ROUTING ****
______________________________________________________________________

User entry of depth-outflow-storage data
--------------------------------------------------------------------
Total number of inflow hydrograph intervals = 38
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
--------------------------------------------------------------------
--------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
```

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       ---------------------------------------------------------------------
       --------------------------------------------------------------------
       Depth vs. Storage and Depth vs. Discharge data:
        Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
            (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
       ---------------------------------------------------------------------
         0.000      0.000      0.000      0.000        0.000
         0.500      0.103      0.220      0.102        0.104
         1.000      0.206      0.220      0.205        0.207
         1.500      0.329      0.220      0.328        0.330
         2.000      0.453      0.220      0.452        0.454
         2.500      0.597      0.220      0.596        0.598
         3.000      0.742      0.220      0.741        0.743
         3.500      0.909      0.220      0.908        0.910
         4.000      1.075      0.220      1.074        1.076
       --------------------------------------------------------------------
                       Hydrograph Detention Basin Routing
       ---------------------------------------------------------------------

       Graph values: 'I'= unit inflow; 'O'=outflow at time shown
       ---------------------------------------------------------------------
 Time   Inflow  Outflow    Storage                                     Depth
(Hours)  (CFS)   (CFS)     (Ac.Ft) .0       1.4    2.84     4.26    5.68 (Ft.)
 0.083    0.44    0.00      0.002  O I     |       |       |       |     0.01
 0.167    0.72    0.01      0.005  O   I   |       |       |       |     0.03
 0.250    0.68    0.02      0.010  O  I    |       |       |       |     0.05
 0.333    0.80    0.03      0.015  O   I   |       |       |       |     0.07
 0.417    0.90    0.04      0.021  O    I  |       |       |       |     0.10
 0.500    1.05    0.06      0.027  O    I  |       |       |       |     0.13
 0.583    1.00    0.07      0.034  O    I  |       |       |       |     0.16
 0.667    1.06    0.09      0.040  O    I  |       |       |       |     0.19
 0.750    1.13    0.10      0.047  O     I |       |       |       |     0.23
 0.833    1.01    0.11      0.054  O    I  |       |       |       |     0.26
 0.917    0.97    0.13      0.060  O    I  |       |       |       |     0.29
 1.000    1.07    0.14      0.066  O     I |       |       |       |     0.32
 1.083    1.31    0.16      0.073  O      I|       |       |       |     0.35
 1.167    1.43    0.17      0.081  O       I       |       |       |     0.39
 1.250    1.45    0.19      0.090  |O      I       |       |       |     0.44
 1.333    1.36    0.21      0.098  |O     I|       |       |       |     0.48
 1.417    1.56    0.22      0.107  |O      I       |       |       |     0.52
 1.500    1.77    0.22      0.117  |O      |I      |       |       |     0.57
 1.583    1.69    0.22      0.127  |O      |I      |       |       |     0.62
 1.667    1.74    0.22      0.137  |O      |I      |       |       |     0.67
 1.750    2.07    0.22      0.149  |O      |  I    |       |       |     0.72
 1.833    2.17    0.22      0.162  |O      |   I   |       |       |     0.79
 1.917    2.05    0.22      0.175  |O      |  I    |       |       |     0.85
 2.000    2.03    0.22      0.188  |O      |  I    |       |       |     0.91
 2.083    2.09    0.22      0.200  |O      |  I    |       |       |     0.97
 2.167    2.60    0.22      0.215  |O      |     I |       |       |     1.04
 2.250    3.26    0.22      0.234  |O      |       | I     |       |     1.11
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2.333    2.88    0.22      0.253  |O      |       I       |       |     1.19
2.417    3.93    0.22      0.275  |O      |       |     I |       |     1.28
2.500    5.00    0.22      0.304  |O      |       |       |   I   |     1.40
2.583    5.68    0.22      0.340  |O      |       |       |       I     1.54
2.667    4.95    0.22      0.375  |O      |       |       |  I    |     1.68
2.750    2.65    0.22      0.399  |O      |     I |       |       |     1.78
2.833    1.38    0.22      0.412  |O     I|       |       |       |     1.83
2.917    1.15    0.22      0.419  |O    I |       |       |       |     1.86
3.000    0.65    0.22      0.424  |O I    |       |       |       |     1.88
3.083    0.17    0.22      0.425  IO      |       |       |       |     1.89
3.167    0.02    0.22      0.424  IO      |       |       |       |     1.88
3.250    0.00    0.22      0.423  IO      |       |       |       |     1.88
3.333    0.00    0.22      0.421  IO      |       |       |       |     1.87
3.417    0.00    0.22      0.420  IO      |       |       |       |     1.87
3.500    0.00    0.22      0.418  IO      |       |       |       |     1.86
3.583    0.00    0.22      0.417  IO      |       |       |       |     1.85
3.667    0.00    0.22      0.415  IO      |       |       |       |     1.85
3.750    0.00    0.22      0.414  IO      |       |       |       |     1.84
3.833    0.00    0.22      0.412  IO      |       |       |       |     1.84
3.917    0.00    0.22      0.411  IO      |       |       |       |     1.83
4.000    0.00    0.22      0.409  IO      |       |       |       |     1.82
4.083    0.00    0.22      0.408  IO      |       |       |       |     1.82
4.167    0.00    0.22      0.406  IO      |       |       |       |     1.81
4.250    0.00    0.22      0.405  IO      |       |       |       |     1.80
4.333    0.00    0.22      0.403  IO      |       |       |       |     1.80
4.417    0.00    0.22      0.402  IO      |       |       |       |     1.79
4.500    0.00    0.22      0.400  IO      |       |       |       |     1.79
4.583    0.00    0.22      0.398  IO      |       |       |       |     1.78
4.667    0.00    0.22      0.397  IO      |       |       |       |     1.77
4.750    0.00    0.22      0.395  IO      |       |       |       |     1.77
4.833    0.00    0.22      0.394  IO      |       |       |       |     1.76
4.917    0.00    0.22      0.392  IO      |       |       |       |     1.76
5.000    0.00    0.22      0.391  IO      |       |       |       |     1.75
5.083    0.00    0.22      0.389  IO      |       |       |       |     1.74
5.167    0.00    0.22      0.388  IO      |       |       |       |     1.74
5.250    0.00    0.22      0.386  IO      |       |       |       |     1.73
5.333    0.00    0.22      0.385  IO      |       |       |       |     1.73
5.417    0.00    0.22      0.383  IO      |       |       |       |     1.72
5.500    0.00    0.22      0.382  IO      |       |       |       |     1.71
5.583    0.00    0.22      0.380  IO      |       |       |       |     1.71
5.667    0.00    0.22      0.379  IO      |       |       |       |     1.70
5.750    0.00    0.22      0.377  IO      |       |       |       |     1.69
5.833    0.00    0.22      0.376  IO      |       |       |       |     1.69
5.917    0.00    0.22      0.374  IO      |       |       |       |     1.68
6.000    0.00    0.22      0.373  IO      |       |       |       |     1.68
6.083    0.00    0.22      0.371  IO      |       |       |       |     1.67
6.167    0.00    0.22      0.370  IO      |       |       |       |     1.66
6.250    0.00    0.22      0.368  IO      |       |       |       |     1.66
6.333    0.00    0.22      0.367  IO      |       |       |       |     1.65
6.417    0.00    0.22      0.365  IO      |       |       |       |     1.65
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6.500	0.00	0.22	0.364	IO	1.64
6.583	0.00	0.22	0.362	IO	1.63
6.667	0.00	0.22	0.361	IO	1.63
6.750	0.00	0.22	0.359	IO	1.62
6.833	0.00	0.22	0.358	IO	1.62
6.917	0.00	0.22	0.356	IO	1.61
7.000	0.00	0.22	0.355	IO	1.60
7.083	0.00	0.22	0.353	IO	1.60
7.167	0.00	0.22	0.352	IO	1.59
7.250	0.00	0.22	0.350	IO	1.58
7.333	0.00	0.22	0.348	IO	1.58
7.417	0.00	0.22	0.347	IO	1.57
7.500	0.00	0.22	0.345	IO	1.57
7.583	0.00	0.22	0.344	IO	1.56
7.667	0.00	0.22	0.342	IO	1.55
7.750	0.00	0.22	0.341	IO	1.55
7.833	0.00	0.22	0.339	IO	1.54
7.917	0.00	0.22	0.338	IO	1.54
8.000	0.00	0.22	0.336	IO	1.53
8.083	0.00	0.22	0.335	IO	1.52
8.167	0.00	0.22	0.333	IO	1.52
8.250	0.00	0.22	0.332	IO	1.51
8.333	0.00	0.22	0.330	IO	1.51
8.417	0.00	0.22	0.329	IO	1.50
8.500	0.00	0.22	0.327	IO	1.49
8.583	0.00	0.22	0.326	IO	1.49
8.667	0.00	0.22	0.324	IO	1.48
8.750	0.00	0.22	0.323	IO	1.47
8.833	0.00	0.22	0.321	IO	1.47
8.917	0.00	0.22	0.320	IO	1.46
9.000	0.00	0.22	0.318	IO	1.46
9.083	0.00	0.22	0.317	IO	1.45
9.167	0.00	0.22	0.315	IO	1.44
9.250	0.00	0.22	0.314	IO	1.44
9.333	0.00	0.22	0.312	IO	1.43
9.417	0.00	0.22	0.311	IO	1.43
9.500	0.00	0.22	0.309	IO	1.42
9.583	0.00	0.22	0.308	IO	1.41
9.667	0.00	0.22	0.306	IO	1.41
9.750	0.00	0.22	0.305	IO	1.40
9.833	0.00	0.22	0.303	IO	1.39
9.917	0.00	0.22	0.302	IO	1.39
10.000	0.00	0.22	0.300	IO	1.38
10.083	0.00	0.22	0.298	IO	1.38
10.167	0.00	0.22	0.297	IO	1.37
10.250	0.00	0.22	0.295	IO	1.36
10.333	0.00	0.22	0.294	IO	1.36
10.417	0.00	0.22	0.292	IO	1.35
10.500	0.00	0.22	0.291	IO	1.35
10.583	0.00	0.22	0.289	IO	1.34

10.667	0.00	0.22	0.288	IO	1.33
10.750	0.00	0.22	0.286	IO	1.33
10.833	0.00	0.22	0.285	IO	1.32
10.917	0.00	0.22	0.283	IO	1.31
11.000	0.00	0.22	0.282	IO	1.31
11.083	0.00	0.22	0.280	IO	1.30
11.167	0.00	0.22	0.279	IO	1.30
11.250	0.00	0.22	0.277	IO	1.29
11.333	0.00	0.22	0.276	IO	1.28
11.417	0.00	0.22	0.274	IO	1.28
11.500	0.00	0.22	0.273	IO	1.27
11.583	0.00	0.22	0.271	IO	1.27
11.667	0.00	0.22	0.270	IO	1.26
11.750	0.00	0.22	0.268	IO	1.25
11.833	0.00	0.22	0.267	IO	1.25
11.917	0.00	0.22	0.265	IO	1.24
12.000	0.00	0.22	0.264	IO	1.23
12.083	0.00	0.22	0.262	IO	1.23
12.167	0.00	0.22	0.261	IO	1.22
12.250	0.00	0.22	0.259	IO	1.22
12.333	0.00	0.22	0.258	IO	1.21
12.417	0.00	0.22	0.256	IO	1.20
12.500	0.00	0.22	0.255	IO	1.20
12.583	0.00	0.22	0.253	IO	1.19
12.667	0.00	0.22	0.252	IO	1.19
12.750	0.00	0.22	0.250	IO	1.18
12.833	0.00	0.22	0.248	IO	1.17
12.917	0.00	0.22	0.247	IO	1.17
13.000	0.00	0.22	0.245	IO	1.16
13.083	0.00	0.22	0.244	IO	1.15
13.167	0.00	0.22	0.242	IO	1.15
13.250	0.00	0.22	0.241	IO	1.14
13.333	0.00	0.22	0.239	IO	1.14
13.417	0.00	0.22	0.238	IO	1.13
13.500	0.00	0.22	0.236	IO	1.12
13.583	0.00	0.22	0.235	IO	1.12
13.667	0.00	0.22	0.233	IO	1.11
13.750	0.00	0.22	0.232	IO	1.10
13.833	0.00	0.22	0.230	IO	1.10
13.917	0.00	0.22	0.229	IO	1.09
14.000	0.00	0.22	0.227	IO	1.09
14.083	0.00	0.22	0.226	IO	1.08
14.167	0.00	0.22	0.224	IO	1.07
14.250	0.00	0.22	0.223	IO	1.07
14.333	0.00	0.22	0.221	IO	1.06
14.417	0.00	0.22	0.220	IO	1.06
14.500	0.00	0.22	0.218	IO	1.05
14.583	0.00	0.22	0.217	IO	1.04
14.667	0.00	0.22	0.215	IO	1.04
14.750	0.00	0.22	0.214	IO	1.03

14.833	0.00	0.22	0.212	IO	|	|	|	|	1.02
14.917	0.00	0.22	0.211	IO	|	|	|	|	1.02
15.000	0.00	0.22	0.209	IO	|	|	|	|	1.01
15.083	0.00	0.22	0.208	IO	|	|	|	|	1.01
15.167	0.00	0.22	0.206	IO	|	|	|	|	1.00
15.250	0.00	0.22	0.205	IO	|	|	|	|	0.99
15.333	0.00	0.22	0.203	IO	|	|	|	|	0.99
15.417	0.00	0.22	0.202	IO	|	|	|	|	0.98
15.500	0.00	0.22	0.200	IO	|	|	|	|	0.97
15.583	0.00	0.22	0.198	IO	|	|	|	|	0.96
15.667	0.00	0.22	0.197	IO	|	|	|	|	0.96
15.750	0.00	0.22	0.195	IO	|	|	|	|	0.95
15.833	0.00	0.22	0.194	IO	|	|	|	|	0.94
15.917	0.00	0.22	0.192	IO	|	|	|	|	0.93
16.000	0.00	0.22	0.191	IO	|	|	|	|	0.93
16.083	0.00	0.22	0.189	IO	|	|	|	|	0.92
16.167	0.00	0.22	0.188	IO	|	|	|	|	0.91
16.250	0.00	0.22	0.186	IO	|	|	|	|	0.90
16.333	0.00	0.22	0.185	IO	|	|	|	|	0.90
16.417	0.00	0.22	0.183	IO	|	|	|	|	0.89
16.500	0.00	0.22	0.182	IO	|	|	|	|	0.88
16.583	0.00	0.22	0.180	IO	|	|	|	|	0.88
16.667	0.00	0.22	0.179	IO	|	|	|	|	0.87
16.750	0.00	0.22	0.177	IO	|	|	|	|	0.86
16.833	0.00	0.22	0.176	IO	|	|	|	|	0.85
16.917	0.00	0.22	0.174	IO	|	|	|	|	0.85
17.000	0.00	0.22	0.173	IO	|	|	|	|	0.84
17.083	0.00	0.22	0.171	IO	|	|	|	|	0.83
17.167	0.00	0.22	0.170	IO	|	|	|	|	0.82
17.250	0.00	0.22	0.168	IO	|	|	|	|	0.82
17.333	0.00	0.22	0.167	IO	|	|	|	|	0.81
17.417	0.00	0.22	0.165	IO	|	|	|	|	0.80
17.500	0.00	0.22	0.164	IO	|	|	|	|	0.79
17.583	0.00	0.22	0.162	IO	|	|	|	|	0.79
17.667	0.00	0.22	0.161	IO	|	|	|	|	0.78
17.750	0.00	0.22	0.159	IO	|	|	|	|	0.77
17.833	0.00	0.22	0.158	IO	|	|	|	|	0.76
17.917	0.00	0.22	0.156	IO	|	|	|	|	0.76
18.000	0.00	0.22	0.155	IO	|	|	|	|	0.75
18.083	0.00	0.22	0.153	IO	|	|	|	|	0.74
18.167	0.00	0.22	0.152	IO	|	|	|	|	0.74
18.250	0.00	0.22	0.150	IO	|	|	|	|	0.73
18.333	0.00	0.22	0.148	IO	|	|	|	|	0.72
18.417	0.00	0.22	0.147	IO	|	|	|	|	0.71
18.500	0.00	0.22	0.145	IO	|	|	|	|	0.71
18.583	0.00	0.22	0.144	IO	|	|	|	|	0.70
18.667	0.00	0.22	0.142	IO	|	|	|	|	0.69
18.750	0.00	0.22	0.141	IO	|	|	|	|	0.68
18.833	0.00	0.22	0.139	IO	|	|	|	|	0.68
18.917	0.00	0.22	0.138	IO	|	|	|	|	0.67

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19.000    0.00    0.22     0.136  IO       |       |       |       |      0.66
19.083    0.00    0.22     0.135  IO       |       |       |       |      0.65
19.167    0.00    0.22     0.133  IO       |       |       |       |      0.65
19.250    0.00    0.22     0.132  IO       |       |       |       |      0.64
19.333    0.00    0.22     0.130  IO       |       |       |       |      0.63
19.417    0.00    0.22     0.129  IO       |       |       |       |      0.63
19.500    0.00    0.22     0.127  IO       |       |       |       |      0.62
19.583    0.00    0.22     0.126  IO       |       |       |       |      0.61
19.667    0.00    0.22     0.124  IO       |       |       |       |      0.60
19.750    0.00    0.22     0.123  IO       |       |       |       |      0.60
19.833    0.00    0.22     0.121  IO       |       |       |       |      0.59
19.917    0.00    0.22     0.120  IO       |       |       |       |      0.58
20.000    0.00    0.22     0.118  IO       |       |       |       |      0.57
20.083    0.00    0.22     0.117  IO       |       |       |       |      0.57
20.167    0.00    0.22     0.115  IO       |       |       |       |      0.56
20.250    0.00    0.22     0.114  IO       |       |       |       |      0.55
20.333    0.00    0.22     0.112  IO       |       |       |       |      0.54
20.417    0.00    0.22     0.111  IO       |       |       |       |      0.54
20.500    0.00    0.22     0.109  IO       |       |       |       |      0.53
20.583    0.00    0.22     0.108  IO       |       |       |       |      0.52
20.667    0.00    0.22     0.106  IO       |       |       |       |      0.51
20.750    0.00    0.22     0.105  IO       |       |       |       |      0.51
20.833    0.00    0.22     0.103  IO       |       |       |       |      0.50
20.917    0.00    0.22     0.102  IO       |       |       |       |      0.49
21.000    0.00    0.21     0.100  IO       |       |       |       |      0.49
21.083    0.00    0.21     0.099  IO       |       |       |       |      0.48
21.167    0.00    0.21     0.097  IO       |       |       |       |      0.47
21.250    0.00    0.20     0.096  IO       |       |       |       |      0.46
21.333    0.00    0.20     0.094  IO       |       |       |       |      0.46
21.417    0.00    0.20     0.093  IO       |       |       |       |      0.45
21.500    0.00    0.20     0.092  IO       |       |       |       |      0.44
21.583    0.00    0.19     0.090  IO       |       |       |       |      0.44
21.667    0.00    0.19     0.089  IO       |       |       |       |      0.43
21.750    0.00    0.19     0.088  IO       |       |       |       |      0.43
21.833    0.00    0.18     0.086  IO       |       |       |       |      0.42
21.917    0.00    0.18     0.085  IO       |       |       |       |      0.41
22.000    0.00    0.18     0.084  IO       |       |       |       |      0.41
22.083    0.00    0.18     0.083  O        |       |       |       |      0.40
22.167    0.00    0.17     0.081  O        |       |       |       |      0.40
22.250    0.00    0.17     0.080  O        |       |       |       |      0.39
22.333    0.00    0.17     0.079  O        |       |       |       |      0.38
22.417    0.00    0.17     0.078  O        |       |       |       |      0.38
22.500    0.00    0.16     0.077  O        |       |       |       |      0.37
22.583    0.00    0.16     0.076  O        |       |       |       |      0.37
22.667    0.00    0.16     0.075  O        |       |       |       |      0.36
22.750    0.00    0.16     0.073  O        |       |       |       |      0.36
22.833    0.00    0.15     0.072  O        |       |       |       |      0.35
22.917    0.00    0.15     0.071  O        |       |       |       |      0.35
23.000    0.00    0.15     0.070  O        |       |       |       |      0.34
23.083    0.00    0.15     0.069  O        |       |       |       |      0.34
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23.167	0.00	0.15	0.068	O					0.33
23.250	0.00	0.14	0.067	O					0.33
23.333	0.00	0.14	0.066	O					0.32
23.417	0.00	0.14	0.065	O					0.32
23.500	0.00	0.14	0.064	O					0.31
23.583	0.00	0.14	0.063	O					0.31
23.667	0.00	0.13	0.062	O					0.30
23.750	0.00	0.13	0.062	O					0.30
23.833	0.00	0.13	0.061	O					0.29
23.917	0.00	0.13	0.060	O					0.29
24.000	0.00	0.13	0.059	O					0.29
24.083	0.00	0.12	0.058	O					0.28
24.167	0.00	0.12	0.057	O					0.28
24.250	0.00	0.12	0.056	O					0.27
24.333	0.00	0.12	0.056	O					0.27
24.417	0.00	0.12	0.055	O					0.27
24.500	0.00	0.12	0.054	O					0.26
24.583	0.00	0.11	0.053	O					0.26
24.667	0.00	0.11	0.052	O					0.25
24.750	0.00	0.11	0.052	O					0.25
24.833	0.00	0.11	0.051	O					0.25
24.917	0.00	0.11	0.050	O					0.24
25.000	0.00	0.11	0.049	O					0.24
25.083	0.00	0.10	0.049	O					0.24
25.167	0.00	0.10	0.048	O					0.23
25.250	0.00	0.10	0.047	O					0.23
25.333	0.00	0.10	0.047	O					0.23
25.417	0.00	0.10	0.046	O					0.22
25.500	0.00	0.10	0.045	O					0.22
25.583	0.00	0.10	0.045	O					0.22
25.667	0.00	0.09	0.044	O					0.21
25.750	0.00	0.09	0.043	O					0.21
25.833	0.00	0.09	0.043	O					0.21
25.917	0.00	0.09	0.042	O					0.20
26.000	0.00	0.09	0.041	O					0.20
26.083	0.00	0.09	0.041	O					0.20
26.167	0.00	0.09	0.040	O					0.20
26.250	0.00	0.08	0.040	O					0.19
26.333	0.00	0.08	0.039	O					0.19
26.417	0.00	0.08	0.038	O					0.19
26.500	0.00	0.08	0.038	O					0.18
26.583	0.00	0.08	0.037	O					0.18
26.667	0.00	0.08	0.037	O					0.18
26.750	0.00	0.08	0.036	O					0.18
26.833	0.00	0.08	0.036	O					0.17
26.917	0.00	0.08	0.035	O					0.17
27.000	0.00	0.07	0.035	O					0.17
27.083	0.00	0.07	0.034	O					0.17
27.167	0.00	0.07	0.034	O					0.16
27.250	0.00	0.07	0.033	O					0.16

27.333	0.00	0.07	0.033	O	|	|	|	|	0.16
27.417	0.00	0.07	0.032	O	|	|	|	|	0.16
27.500	0.00	0.07	0.032	O	|	|	|	|	0.15
27.583	0.00	0.07	0.031	O	|	|	|	|	0.15
27.667	0.00	0.07	0.031	O	|	|	|	|	0.15
27.750	0.00	0.06	0.030	O	|	|	|	|	0.15
27.833	0.00	0.06	0.030	O	|	|	|	|	0.15
27.917	0.00	0.06	0.030	O	|	|	|	|	0.14
28.000	0.00	0.06	0.029	O	|	|	|	|	0.14
28.083	0.00	0.06	0.029	O	|	|	|	|	0.14
28.167	0.00	0.06	0.028	O	|	|	|	|	0.14
28.250	0.00	0.06	0.028	O	|	|	|	|	0.14
28.333	0.00	0.06	0.027	O	|	|	|	|	0.13
28.417	0.00	0.06	0.027	O	|	|	|	|	0.13
28.500	0.00	0.06	0.027	O	|	|	|	|	0.13
28.583	0.00	0.06	0.026	O	|	|	|	|	0.13
28.667	0.00	0.06	0.026	O	|	|	|	|	0.13
28.750	0.00	0.05	0.025	O	|	|	|	|	0.12
28.833	0.00	0.05	0.025	O	|	|	|	|	0.12
28.917	0.00	0.05	0.025	O	|	|	|	|	0.12
29.000	0.00	0.05	0.024	O	|	|	|	|	0.12
29.083	0.00	0.05	0.024	O	|	|	|	|	0.12
29.167	0.00	0.05	0.024	O	|	|	|	|	0.11
29.250	0.00	0.05	0.023	O	|	|	|	|	0.11
29.333	0.00	0.05	0.023	O	|	|	|	|	0.11
29.417	0.00	0.05	0.023	O	|	|	|	|	0.11
29.500	0.00	0.05	0.022	O	|	|	|	|	0.11
29.583	0.00	0.05	0.022	O	|	|	|	|	0.11
29.667	0.00	0.05	0.022	O	|	|	|	|	0.11
29.750	0.00	0.05	0.021	O	|	|	|	|	0.10
29.833	0.00	0.04	0.021	O	|	|	|	|	0.10
29.917	0.00	0.04	0.021	O	|	|	|	|	0.10
30.000	0.00	0.04	0.020	O	|	|	|	|	0.10
30.083	0.00	0.04	0.020	O	|	|	|	|	0.10
30.167	0.00	0.04	0.020	O	|	|	|	|	0.10
30.250	0.00	0.04	0.020	O	|	|	|	|	0.09
30.333	0.00	0.04	0.019	O	|	|	|	|	0.09
30.417	0.00	0.04	0.019	O	|	|	|	|	0.09
30.500	0.00	0.04	0.019	O	|	|	|	|	0.09
30.583	0.00	0.04	0.018	O	|	|	|	|	0.09
30.667	0.00	0.04	0.018	O	|	|	|	|	0.09
30.750	0.00	0.04	0.018	O	|	|	|	|	0.09
30.833	0.00	0.04	0.018	O	|	|	|	|	0.09
30.917	0.00	0.04	0.017	O	|	|	|	|	0.08
31.000	0.00	0.04	0.017	O	|	|	|	|	0.08
31.083	0.00	0.04	0.017	O	|	|	|	|	0.08
31.167	0.00	0.04	0.017	O	|	|	|	|	0.08
31.250	0.00	0.03	0.016	O	|	|	|	|	0.08
31.333	0.00	0.03	0.016	O	|	|	|	|	0.08
31.417	0.00	0.03	0.016	O	|	|	|	|	0.08

31.500	0.00	0.03	0.016	O					0.08
31.583	0.00	0.03	0.015	O					0.07
31.667	0.00	0.03	0.015	O					0.07
31.750	0.00	0.03	0.015	O					0.07
31.833	0.00	0.03	0.015	O					0.07
31.917	0.00	0.03	0.015	O					0.07
32.000	0.00	0.03	0.014	O					0.07
32.083	0.00	0.03	0.014	O					0.07
32.167	0.00	0.03	0.014	O					0.07
32.250	0.00	0.03	0.014	O					0.07
32.333	0.00	0.03	0.014	O					0.07
32.417	0.00	0.03	0.013	O					0.06
32.500	0.00	0.03	0.013	O					0.06
32.583	0.00	0.03	0.013	O					0.06
32.667	0.00	0.03	0.013	O					0.06
32.750	0.00	0.03	0.013	O					0.06
32.833	0.00	0.03	0.012	O					0.06
32.917	0.00	0.03	0.012	O					0.06
33.000	0.00	0.03	0.012	O					0.06
33.083	0.00	0.03	0.012	O					0.06
33.167	0.00	0.02	0.012	O					0.06
33.250	0.00	0.02	0.012	O					0.06
33.333	0.00	0.02	0.011	O					0.06
33.417	0.00	0.02	0.011	O					0.05
33.500	0.00	0.02	0.011	O					0.05
33.583	0.00	0.02	0.011	O					0.05
33.667	0.00	0.02	0.011	O					0.05
33.750	0.00	0.02	0.011	O					0.05
33.833	0.00	0.02	0.010	O					0.05
33.917	0.00	0.02	0.010	O					0.05
34.000	0.00	0.02	0.010	O					0.05
34.083	0.00	0.02	0.010	O					0.05
34.167	0.00	0.02	0.010	O					0.05
34.250	0.00	0.02	0.010	O					0.05
34.333	0.00	0.02	0.010	O					0.05
34.417	0.00	0.02	0.009	O					0.05
34.500	0.00	0.02	0.009	O					0.04
34.583	0.00	0.02	0.009	O					0.04
34.667	0.00	0.02	0.009	O					0.04
34.750	0.00	0.02	0.009	O					0.04
34.833	0.00	0.02	0.009	O					0.04
34.917	0.00	0.02	0.009	O					0.04
35.000	0.00	0.02	0.008	O					0.04
35.083	0.00	0.02	0.008	O					0.04
35.167	0.00	0.02	0.008	O					0.04
35.250	0.00	0.02	0.008	O					0.04
35.333	0.00	0.02	0.008	O					0.04
35.417	0.00	0.02	0.008	O					0.04
35.500	0.00	0.02	0.008	O					0.04
35.583	0.00	0.02	0.008	O					0.04

35.667	0.00	0.02	0.008	O	|	|	|	|	0.04
35.750	0.00	0.02	0.007	O	|	|	|	|	0.04
35.833	0.00	0.02	0.007	O	|	|	|	|	0.04
35.917	0.00	0.02	0.007	O	|	|	|	|	0.03
36.000	0.00	0.02	0.007	O	|	|	|	|	0.03
36.083	0.00	0.01	0.007	O	|	|	|	|	0.03
36.167	0.00	0.01	0.007	O	|	|	|	|	0.03
36.250	0.00	0.01	0.007	O	|	|	|	|	0.03
36.333	0.00	0.01	0.007	O	|	|	|	|	0.03
36.417	0.00	0.01	0.007	O	|	|	|	|	0.03
36.500	0.00	0.01	0.006	O	|	|	|	|	0.03
36.583	0.00	0.01	0.006	O	|	|	|	|	0.03
36.667	0.00	0.01	0.006	O	|	|	|	|	0.03
36.750	0.00	0.01	0.006	O	|	|	|	|	0.03
36.833	0.00	0.01	0.006	O	|	|	|	|	0.03
36.917	0.00	0.01	0.006	O	|	|	|	|	0.03
37.000	0.00	0.01	0.006	O	|	|	|	|	0.03
37.083	0.00	0.01	0.006	O	|	|	|	|	0.03
37.167	0.00	0.01	0.006	O	|	|	|	|	0.03
37.250	0.00	0.01	0.006	O	|	|	|	|	0.03
37.333	0.00	0.01	0.006	O	|	|	|	|	0.03
37.417	0.00	0.01	0.006	O	|	|	|	|	0.03
37.500	0.00	0.01	0.005	O	|	|	|	|	0.03
37.583	0.00	0.01	0.005	O	|	|	|	|	0.03
37.667	0.00	0.01	0.005	O	|	|	|	|	0.03
37.750	0.00	0.01	0.005	O	|	|	|	|	0.03
37.833	0.00	0.01	0.005	O	|	|	|	|	0.02
37.917	0.00	0.01	0.005	O	|	|	|	|	0.02
38.000	0.00	0.01	0.005	O	|	|	|	|	0.02
38.083	0.00	0.01	0.005	O	|	|	|	|	0.02
38.167	0.00	0.01	0.005	O	|	|	|	|	0.02
38.250	0.00	0.01	0.005	O	|	|	|	|	0.02
38.333	0.00	0.01	0.005	O	|	|	|	|	0.02
38.417	0.00	0.01	0.005	O	|	|	|	|	0.02
38.500	0.00	0.01	0.005	O	|	|	|	|	0.02
38.583	0.00	0.01	0.004	O	|	|	|	|	0.02
38.667	0.00	0.01	0.004	O	|	|	|	|	0.02
38.750	0.00	0.01	0.004	O	|	|	|	|	0.02
38.833	0.00	0.01	0.004	O	|	|	|	|	0.02
38.917	0.00	0.01	0.004	O	|	|	|	|	0.02
39.000	0.00	0.01	0.004	O	|	|	|	|	0.02
39.083	0.00	0.01	0.004	O	|	|	|	|	0.02
39.167	0.00	0.01	0.004	O	|	|	|	|	0.02
39.250	0.00	0.01	0.004	O	|	|	|	|	0.02
39.333	0.00	0.01	0.004	O	|	|	|	|	0.02
39.417	0.00	0.01	0.004	O	|	|	|	|	0.02
39.500	0.00	0.01	0.004	O	|	|	|	|	0.02
39.583	0.00	0.01	0.004	O	|	|	|	|	0.02
39.667	0.00	0.01	0.004	O	|	|	|	|	0.02
39.750	0.00	0.01	0.004	O	|	|	|	|	0.02

39.833	0.00	0.01	0.004	O	|	|	|	|	0.02
39.917	0.00	0.01	0.004	O	|	|	|	|	0.02
40.000	0.00	0.01	0.003	O	|	|	|	|	0.02
40.083	0.00	0.01	0.003	O	|	|	|	|	0.02
40.167	0.00	0.01	0.003	O	|	|	|	|	0.02
40.250	0.00	0.01	0.003	O	|	|	|	|	0.02
40.333	0.00	0.01	0.003	O	|	|	|	|	0.02
40.417	0.00	0.01	0.003	O	|	|	|	|	0.02
40.500	0.00	0.01	0.003	O	|	|	|	|	0.02
40.583	0.00	0.01	0.003	O	|	|	|	|	0.02
40.667	0.00	0.01	0.003	O	|	|	|	|	0.02
40.750	0.00	0.01	0.003	O	|	|	|	|	0.01
40.833	0.00	0.01	0.003	O	|	|	|	|	0.01
40.917	0.00	0.01	0.003	O	|	|	|	|	0.01
41.000	0.00	0.01	0.003	O	|	|	|	|	0.01
41.083	0.00	0.01	0.003	O	|	|	|	|	0.01
41.167	0.00	0.01	0.003	O	|	|	|	|	0.01
41.250	0.00	0.01	0.003	O	|	|	|	|	0.01
41.333	0.00	0.01	0.003	O	|	|	|	|	0.01
41.417	0.00	0.01	0.003	O	|	|	|	|	0.01
41.500	0.00	0.01	0.003	O	|	|	|	|	0.01
41.583	0.00	0.01	0.003	O	|	|	|	|	0.01
41.667	0.00	0.01	0.003	O	|	|	|	|	0.01
41.750	0.00	0.01	0.003	O	|	|	|	|	0.01
41.833	0.00	0.01	0.003	O	|	|	|	|	0.01
41.917	0.00	0.01	0.002	O	|	|	|	|	0.01
42.000	0.00	0.01	0.002	O	|	|	|	|	0.01
42.083	0.00	0.01	0.002	O	|	|	|	|	0.01
42.167	0.00	0.01	0.002	O	|	|	|	|	0.01
42.250	0.00	0.01	0.002	O	|	|	|	|	0.01
42.333	0.00	0.00	0.002	O	|	|	|	|	0.01
42.417	0.00	0.00	0.002	O	|	|	|	|	0.01
42.500	0.00	0.00	0.002	O	|	|	|	|	0.01
42.583	0.00	0.00	0.002	O	|	|	|	|	0.01
42.667	0.00	0.00	0.002	O	|	|	|	|	0.01
42.750	0.00	0.00	0.002	O	|	|	|	|	0.01
42.833	0.00	0.00	0.002	O	|	|	|	|	0.01
42.917	0.00	0.00	0.002	O	|	|	|	|	0.01
43.000	0.00	0.00	0.002	O	|	|	|	|	0.01
43.083	0.00	0.00	0.002	O	|	|	|	|	0.01
43.167	0.00	0.00	0.002	O	|	|	|	|	0.01
43.250	0.00	0.00	0.002	O	|	|	|	|	0.01
43.333	0.00	0.00	0.002	O	|	|	|	|	0.01
43.417	0.00	0.00	0.002	O	|	|	|	|	0.01
43.500	0.00	0.00	0.002	O	|	|	|	|	0.01
43.583	0.00	0.00	0.002	O	|	|	|	|	0.01
43.667	0.00	0.00	0.002	O	|	|	|	|	0.01
43.750	0.00	0.00	0.002	O	|	|	|	|	0.01
43.833	0.00	0.00	0.002	O	|	|	|	|	0.01
43.917	0.00	0.00	0.002	O	|	|	|	|	0.01

```
44.000    0.00    0.00     0.002  O        |       |       |       |      0.01
44.083    0.00    0.00     0.002  O        |       |       |       |      0.01
44.167    0.00    0.00     0.002  O        |       |       |       |      0.01
44.250    0.00    0.00     0.002  O        |       |       |       |      0.01
44.333    0.00    0.00     0.002  O        |       |       |       |      0.01
44.417    0.00    0.00     0.002  O        |       |       |       |      0.01
44.500    0.00    0.00     0.002  O        |       |       |       |      0.01
44.583    0.00    0.00     0.002  O        |       |       |       |      0.01
44.667    0.00    0.00     0.002  O        |       |       |       |      0.01
44.750    0.00    0.00     0.002  O        |       |       |       |      0.01
44.833    0.00    0.00     0.001  O        |       |       |       |      0.01
44.917    0.00    0.00     0.001  O        |       |       |       |      0.01
45.000    0.00    0.00     0.001  O        |       |       |       |      0.01
45.083    0.00    0.00     0.001  O        |       |       |       |      0.01
45.167    0.00    0.00     0.001  O        |       |       |       |      0.01
45.250    0.00    0.00     0.001  O        |       |       |       |      0.01
45.333    0.00    0.00     0.001  O        |       |       |       |      0.01
45.417    0.00    0.00     0.001  O        |       |       |       |      0.01
45.500    0.00    0.00     0.001  O        |       |       |       |      0.01
45.583    0.00    0.00     0.001  O        |       |       |       |      0.01
45.667    0.00    0.00     0.001  O        |       |       |       |      0.01
45.750    0.00    0.00     0.001  O        |       |       |       |      0.01
45.833    0.00    0.00     0.001  O        |       |       |       |      0.01
45.917    0.00    0.00     0.001  O        |       |       |       |      0.01
46.000    0.00    0.00     0.001  O        |       |       |       |      0.01
46.083    0.00    0.00     0.001  O        |       |       |       |      0.01
46.167    0.00    0.00     0.001  O        |       |       |       |      0.01
46.250    0.00    0.00     0.001  O        |       |       |       |      0.01
46.333    0.00    0.00     0.001  O        |       |       |       |      0.01
46.417    0.00    0.00     0.001  O        |       |       |       |      0.01
46.500    0.00    0.00     0.001  O        |       |       |       |      0.01
46.583    0.00    0.00     0.001  O        |       |       |       |      0.01
46.667    0.00    0.00     0.001  O        |       |       |       |      0.01
46.750    0.00    0.00     0.001  O        |       |       |       |      0.01
46.833    0.00    0.00     0.001  O        |       |       |       |      0.01
46.917    0.00    0.00     0.001  O        |       |       |       |      0.01
47.000    0.00    0.00     0.001  O        |       |       |       |      0.00
47.083    0.00    0.00     0.001  O        |       |       |       |      0.00
47.167    0.00    0.00     0.001  O        |       |       |       |      0.00
47.250    0.00    0.00     0.001  O        |       |       |       |      0.00
47.333    0.00    0.00     0.001  O        |       |       |       |      0.00
47.417    0.00    0.00     0.001  O        |       |       |       |      0.00
47.500    0.00    0.00     0.001  O        |       |       |       |      0.00
47.583    0.00    0.00     0.001  O        |       |       |       |      0.00
47.667    0.00    0.00     0.001  O        |       |       |       |      0.00
47.750    0.00    0.00     0.001  O        |       |       |       |      0.00
47.833    0.00    0.00     0.001  O        |       |       |       |      0.00
47.917    0.00    0.00     0.001  O        |       |       |       |      0.00
48.000    0.00    0.00     0.001  O        |       |       |       |      0.00
48.083    0.00    0.00     0.001  O        |       |       |       |      0.00
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```
48.167    0.00    0.00      0.001  O       |       |       |       |      0.00
48.250    0.00    0.00      0.001  O       |       |       |       |      0.00
48.333    0.00    0.00      0.001  O       |       |       |       |      0.00
48.417    0.00    0.00      0.001  O       |       |       |       |      0.00
48.500    0.00    0.00      0.001  O       |       |       |       |      0.00
48.583    0.00    0.00      0.001  O       |       |       |       |      0.00
48.667    0.00    0.00      0.001  O       |       |       |       |      0.00
48.750    0.00    0.00      0.001  O       |       |       |       |      0.00
48.833    0.00    0.00      0.001  O       |       |       |       |      0.00
48.917    0.00    0.00      0.001  O       |       |       |       |      0.00
49.000    0.00    0.00      0.001  O       |       |       |       |      0.00
49.083    0.00    0.00      0.001  O       |       |       |       |      0.00
49.167    0.00    0.00      0.001  O       |       |       |       |      0.00
49.250    0.00    0.00      0.001  O       |       |       |       |      0.00
49.333    0.00    0.00      0.001  O       |       |       |       |      0.00
49.417    0.00    0.00      0.001  O       |       |       |       |      0.00
49.500    0.00    0.00      0.001  O       |       |       |       |      0.00
49.583    0.00    0.00      0.001  O       |       |       |       |      0.00
49.667    0.00    0.00      0.001  O       |       |       |       |      0.00
49.750    0.00    0.00      0.001  O       |       |       |       |      0.00
49.833    0.00    0.00      0.001  O       |       |       |       |      0.00
49.917    0.00    0.00      0.001  O       |       |       |       |      0.00
50.000    0.00    0.00      0.001  O       |       |       |       |      0.00
50.083    0.00    0.00      0.001  O       |       |       |       |      0.00
50.167    0.00    0.00      0.001  O       |       |       |       |      0.00
50.250    0.00    0.00      0.001  O       |       |       |       |      0.00
50.333    0.00    0.00      0.001  O       |       |       |       |      0.00
50.417    0.00    0.00      0.001  O       |       |       |       |      0.00
50.500    0.00    0.00      0.001  O       |       |       |       |      0.00
50.583    0.00    0.00      0.001  O       |       |       |       |      0.00
50.667    0.00    0.00      0.001  O       |       |       |       |      0.00
50.750    0.00    0.00      0.001  O       |       |       |       |      0.00
50.833    0.00    0.00      0.001  O       |       |       |       |      0.00
50.917    0.00    0.00      0.001  O       |       |       |       |      0.00
51.000    0.00    0.00      0.001  O       |       |       |       |      0.00
51.083    0.00    0.00      0.000  O       |       |       |       |      0.00
51.167    0.00    0.00      0.000  O       |       |       |       |      0.00
51.250    0.00    0.00      0.000  O       |       |       |       |      0.00
51.333    0.00    0.00      0.000  O       |       |       |       |      0.00
51.417    0.00    0.00      0.000  O       |       |       |       |      0.00

       ****************************HYDROGRAPH DATA****************************
                       Number of intervals =   617
                       Time interval =    5.0 (Min.)
                       Maximum/Peak flow rate =       0.220 (CFS)
                       Total volume =       0.467 (Ac.Ft)
               Status of hydrographs being held in storage
                          Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
               Peak (CFS)      0.000     0.000     0.000     0.000     0.000
               Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
```

****

NEWLAND SIMPSON
HEMET
POST DEVELOPMENT
FLOOD ROUTING
BASIN D1
100YR-3HR

```
                    FLOOD HYDROGRAPH ROUTING PROGRAM
           Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018
                          Study date: 10/16/23

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


NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA D
FLOOD ROUTING - BASIN D1
100YR 3HR
--------------------------------------------------------------------


Program License Serial Number 6491

--------------------------------------------------------------------
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: NSPRUHD3100.rte
****************************HYDROGRAPH DATA****************************
                Number of intervals =    38
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =      19.160 (CFS)
                Total volume =       1.574 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
***********************************************************************




++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       91.000 to Point/Station       91.000
**** RETARDING BASIN ROUTING ****
______________________________________________________________________

User entry of depth-outflow-storage data
--------------------------------------------------------------------
Total number of inflow hydrograph intervals = 38
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
--------------------------------------------------------------------
--------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
```

```
       ---------------------------------------------------------------------
       ---------------------------------------------------------------------
       Depth vs. Storage and Depth vs. Discharge data:
        Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
            (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)     (Ac.Ft)
       ---------------------------------------------------------------------
         0.000      0.000      0.000      0.000        0.000
         0.500      0.304      0.670      0.302        0.306
         1.000      0.608      0.670      0.606        0.610
         1.500      0.962      0.670      0.960        0.964
         2.000      1.316      0.670      1.314        1.318
         2.500      1.722      0.670      1.720        1.724
         3.000      2.129      0.670      2.127        2.131
         3.500      2.577      0.670      2.575        2.579
         4.000      3.025      0.670      3.023        3.027
       ---------------------------------------------------------------------
                       Hydrograph Detention Basin Routing
       ---------------------------------------------------------------------

       Graph values: 'I'= unit inflow; 'O'=outflow at time shown
       ---------------------------------------------------------------------
 Time   Inflow  Outflow    Storage                                       Depth
(Hours)  (CFS)   (CFS)     (Ac.Ft) .0       4.8    9.58   14.37   19.16 (Ft.)
 0.083    1.42    0.01     0.005  O I     |       |       |       |     0.01
 0.167    2.38    0.04     0.018  O  I    |       |       |       |     0.03
 0.250    2.26    0.07     0.033  O  I    |       |       |       |     0.05
 0.333    2.64    0.11     0.050  O   I   |       |       |       |     0.08
 0.417    2.99    0.15     0.068  O    I  |       |       |       |     0.11
 0.500    3.49    0.20     0.089  O    I  |       |       |       |     0.15
 0.583    3.35    0.25     0.111  O    I  |       |       |       |     0.18
 0.667    3.54    0.29     0.133  O    I  |       |       |       |     0.22
 0.750    3.78    0.34     0.156  O     I |       |       |       |     0.26
 0.833    3.40    0.39     0.178  O    I  |       |       |       |     0.29
 0.917    3.26    0.44     0.199  O    I  |       |       |       |     0.33
 1.000    3.59    0.48     0.219  O    I  |       |       |       |     0.36
 1.083    4.37    0.54     0.243  O      I|       |       |       |     0.40
 1.167    4.79    0.60     0.271  O       I       |       |       |     0.44
 1.250    4.86    0.66     0.299  |O      I       |       |       |     0.49
 1.333    4.57    0.67     0.327  |O     I|       |       |       |     0.54
 1.417    5.24    0.67     0.357  |O      I       |       |       |     0.59
 1.500    5.93    0.67     0.390  |O      |I      |       |       |     0.64
 1.583    5.70    0.67     0.426  |O      |I      |       |       |     0.70
 1.667    5.85    0.67     0.461  |O      |I      |       |       |     0.76
 1.750    6.95    0.67     0.500  |O      |  I    |       |       |     0.82
 1.833    7.30    0.67     0.545  |O      |   I   |       |       |     0.90
 1.917    6.92    0.67     0.589  |O      |  I    |       |       |     0.97
 2.000    6.83    0.67     0.632  |O      |  I    |       |       |     1.03
 2.083    7.04    0.67     0.675  |O      |  I    |       |       |     1.09
 2.167    8.73    0.67     0.725  |O      |     I |       |       |     1.17
 2.250   10.96    0.67     0.788  |O      |       | I     |       |     1.25
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2.333    9.76    0.67      0.855  |O      |       I       |       |     1.35
2.417   13.18    0.67      0.929  |O      |       |     I |       |     1.45
2.500   16.83    0.67      1.028  |O      |       |       |   I   |     1.59
2.583   19.16    0.67      1.147  |O      |       |       |      I|     1.76
2.667   16.82    0.67      1.266  |O      |       |       |   I   |     1.93
2.750    9.16    0.67      1.351  |O      |      I|       |       |     2.04
2.833    4.72    0.67      1.394  |O     I|       |       |       |     2.10
2.917    3.87    0.67      1.419  |O    I |       |       |       |     2.13
3.000    2.22    0.67      1.436  |O I    |       |       |       |     2.15
3.083    0.61    0.67      1.441  |O      |       |       |       |     2.15
3.167    0.06    0.67      1.439  IO      |       |       |       |     2.15
3.250    0.00    0.67      1.434  IO      |       |       |       |     2.15
3.333    0.00    0.67      1.430  IO      |       |       |       |     2.14
3.417    0.00    0.67      1.425  IO      |       |       |       |     2.13
3.500    0.00    0.67      1.420  IO      |       |       |       |     2.13
3.583    0.00    0.67      1.416  IO      |       |       |       |     2.12
3.667    0.00    0.67      1.411  IO      |       |       |       |     2.12
3.750    0.00    0.67      1.407  IO      |       |       |       |     2.11
3.833    0.00    0.67      1.402  IO      |       |       |       |     2.11
3.917    0.00    0.67      1.397  IO      |       |       |       |     2.10
4.000    0.00    0.67      1.393  IO      |       |       |       |     2.09
4.083    0.00    0.67      1.388  IO      |       |       |       |     2.09
4.167    0.00    0.67      1.383  IO      |       |       |       |     2.08
4.250    0.00    0.67      1.379  IO      |       |       |       |     2.08
4.333    0.00    0.67      1.374  IO      |       |       |       |     2.07
4.417    0.00    0.67      1.370  IO      |       |       |       |     2.07
4.500    0.00    0.67      1.365  IO      |       |       |       |     2.06
4.583    0.00    0.67      1.360  IO      |       |       |       |     2.05
4.667    0.00    0.67      1.356  IO      |       |       |       |     2.05
4.750    0.00    0.67      1.351  IO      |       |       |       |     2.04
4.833    0.00    0.67      1.347  IO      |       |       |       |     2.04
4.917    0.00    0.67      1.342  IO      |       |       |       |     2.03
5.000    0.00    0.67      1.337  IO      |       |       |       |     2.03
5.083    0.00    0.67      1.333  IO      |       |       |       |     2.02
5.167    0.00    0.67      1.328  IO      |       |       |       |     2.01
5.250    0.00    0.67      1.323  IO      |       |       |       |     2.01
5.333    0.00    0.67      1.319  IO      |       |       |       |     2.00
5.417    0.00    0.67      1.314  IO      |       |       |       |     2.00
5.500    0.00    0.67      1.310  IO      |       |       |       |     1.99
5.583    0.00    0.67      1.305  IO      |       |       |       |     1.98
5.667    0.00    0.67      1.300  IO      |       |       |       |     1.98
5.750    0.00    0.67      1.296  IO      |       |       |       |     1.97
5.833    0.00    0.67      1.291  IO      |       |       |       |     1.96
5.917    0.00    0.67      1.287  IO      |       |       |       |     1.96
6.000    0.00    0.67      1.282  IO      |       |       |       |     1.95
6.083    0.00    0.67      1.277  IO      |       |       |       |     1.95
6.167    0.00    0.67      1.273  IO      |       |       |       |     1.94
6.250    0.00    0.67      1.268  IO      |       |       |       |     1.93
6.333    0.00    0.67      1.263  IO      |       |       |       |     1.93
6.417    0.00    0.67      1.259  IO      |       |       |       |     1.92
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6.500	0.00	0.67	1.254	IO					1.91
6.583	0.00	0.67	1.250	IO					1.91
6.667	0.00	0.67	1.245	IO					1.90
6.750	0.00	0.67	1.240	IO					1.89
6.833	0.00	0.67	1.236	IO					1.89
6.917	0.00	0.67	1.231	IO					1.88
7.000	0.00	0.67	1.227	IO					1.87
7.083	0.00	0.67	1.222	IO					1.87
7.167	0.00	0.67	1.217	IO					1.86
7.250	0.00	0.67	1.213	IO					1.85
7.333	0.00	0.67	1.208	IO					1.85
7.417	0.00	0.67	1.203	IO					1.84
7.500	0.00	0.67	1.199	IO					1.83
7.583	0.00	0.67	1.194	IO					1.83
7.667	0.00	0.67	1.190	IO					1.82
7.750	0.00	0.67	1.185	IO					1.81
7.833	0.00	0.67	1.180	IO					1.81
7.917	0.00	0.67	1.176	IO					1.80
8.000	0.00	0.67	1.171	IO					1.80
8.083	0.00	0.67	1.167	IO					1.79
8.167	0.00	0.67	1.162	IO					1.78
8.250	0.00	0.67	1.157	IO					1.78
8.333	0.00	0.67	1.153	IO					1.77
8.417	0.00	0.67	1.148	IO					1.76
8.500	0.00	0.67	1.143	IO					1.76
8.583	0.00	0.67	1.139	IO					1.75
8.667	0.00	0.67	1.134	IO					1.74
8.750	0.00	0.67	1.130	IO					1.74
8.833	0.00	0.67	1.125	IO					1.73
8.917	0.00	0.67	1.120	IO					1.72
9.000	0.00	0.67	1.116	IO					1.72
9.083	0.00	0.67	1.111	IO					1.71
9.167	0.00	0.67	1.107	IO					1.70
9.250	0.00	0.67	1.102	IO					1.70
9.333	0.00	0.67	1.097	IO					1.69
9.417	0.00	0.67	1.093	IO					1.68
9.500	0.00	0.67	1.088	IO					1.68
9.583	0.00	0.67	1.084	IO					1.67
9.667	0.00	0.67	1.079	IO					1.67
9.750	0.00	0.67	1.074	IO					1.66
9.833	0.00	0.67	1.070	IO					1.65
9.917	0.00	0.67	1.065	IO					1.65
10.000	0.00	0.67	1.060	IO					1.64
10.083	0.00	0.67	1.056	IO					1.63
10.167	0.00	0.67	1.051	IO					1.63
10.250	0.00	0.67	1.047	IO					1.62
10.333	0.00	0.67	1.042	IO					1.61
10.417	0.00	0.67	1.037	IO					1.61
10.500	0.00	0.67	1.033	IO					1.60
10.583	0.00	0.67	1.028	IO					1.59

10.667	0.00	0.67	1.024	IO					1.59
10.750	0.00	0.67	1.019	IO					1.58
10.833	0.00	0.67	1.014	IO					1.57
10.917	0.00	0.67	1.010	IO					1.57
11.000	0.00	0.67	1.005	IO					1.56
11.083	0.00	0.67	1.000	IO					1.55
11.167	0.00	0.67	0.996	IO					1.55
11.250	0.00	0.67	0.991	IO					1.54
11.333	0.00	0.67	0.987	IO					1.53
11.417	0.00	0.67	0.982	IO					1.53
11.500	0.00	0.67	0.977	IO					1.52
11.583	0.00	0.67	0.973	IO					1.52
11.667	0.00	0.67	0.968	IO					1.51
11.750	0.00	0.67	0.964	IO					1.50
11.833	0.00	0.67	0.959	IO					1.50
11.917	0.00	0.67	0.954	IO					1.49
12.000	0.00	0.67	0.950	IO					1.48
12.083	0.00	0.67	0.945	IO					1.48
12.167	0.00	0.67	0.940	IO					1.47
12.250	0.00	0.67	0.936	IO					1.46
12.333	0.00	0.67	0.931	IO					1.46
12.417	0.00	0.67	0.927	IO					1.45
12.500	0.00	0.67	0.922	IO					1.44
12.583	0.00	0.67	0.917	IO					1.44
12.667	0.00	0.67	0.913	IO					1.43
12.750	0.00	0.67	0.908	IO					1.42
12.833	0.00	0.67	0.904	IO					1.42
12.917	0.00	0.67	0.899	IO					1.41
13.000	0.00	0.67	0.894	IO					1.40
13.083	0.00	0.67	0.890	IO					1.40
13.167	0.00	0.67	0.885	IO					1.39
13.250	0.00	0.67	0.880	IO					1.38
13.333	0.00	0.67	0.876	IO					1.38
13.417	0.00	0.67	0.871	IO					1.37
13.500	0.00	0.67	0.867	IO					1.37
13.583	0.00	0.67	0.862	IO					1.36
13.667	0.00	0.67	0.857	IO					1.35
13.750	0.00	0.67	0.853	IO					1.35
13.833	0.00	0.67	0.848	IO					1.34
13.917	0.00	0.67	0.844	IO					1.33
14.000	0.00	0.67	0.839	IO					1.33
14.083	0.00	0.67	0.834	IO					1.32
14.167	0.00	0.67	0.830	IO					1.31
14.250	0.00	0.67	0.825	IO					1.31
14.333	0.00	0.67	0.820	IO					1.30
14.417	0.00	0.67	0.816	IO					1.29
14.500	0.00	0.67	0.811	IO					1.29
14.583	0.00	0.67	0.807	IO					1.28
14.667	0.00	0.67	0.802	IO					1.27
14.750	0.00	0.67	0.797	IO					1.27

14.833	0.00	0.67	0.793	IO	1.26
14.917	0.00	0.67	0.788	IO	1.25
15.000	0.00	0.67	0.784	IO	1.25
15.083	0.00	0.67	0.779	IO	1.24
15.167	0.00	0.67	0.774	IO	1.23
15.250	0.00	0.67	0.770	IO	1.23
15.333	0.00	0.67	0.765	IO	1.22
15.417	0.00	0.67	0.761	IO	1.22
15.500	0.00	0.67	0.756	IO	1.21
15.583	0.00	0.67	0.751	IO	1.20
15.667	0.00	0.67	0.747	IO	1.20
15.750	0.00	0.67	0.742	IO	1.19
15.833	0.00	0.67	0.737	IO	1.18
15.917	0.00	0.67	0.733	IO	1.18
16.000	0.00	0.67	0.728	IO	1.17
16.083	0.00	0.67	0.724	IO	1.16
16.167	0.00	0.67	0.719	IO	1.16
16.250	0.00	0.67	0.714	IO	1.15
16.333	0.00	0.67	0.710	IO	1.14
16.417	0.00	0.67	0.705	IO	1.14
16.500	0.00	0.67	0.701	IO	1.13
16.583	0.00	0.67	0.696	IO	1.12
16.667	0.00	0.67	0.691	IO	1.12
16.750	0.00	0.67	0.687	IO	1.11
16.833	0.00	0.67	0.682	IO	1.10
16.917	0.00	0.67	0.677	IO	1.10
17.000	0.00	0.67	0.673	IO	1.09
17.083	0.00	0.67	0.668	IO	1.09
17.167	0.00	0.67	0.664	IO	1.08
17.250	0.00	0.67	0.659	IO	1.07
17.333	0.00	0.67	0.654	IO	1.07
17.417	0.00	0.67	0.650	IO	1.06
17.500	0.00	0.67	0.645	IO	1.05
17.583	0.00	0.67	0.641	IO	1.05
17.667	0.00	0.67	0.636	IO	1.04
17.750	0.00	0.67	0.631	IO	1.03
17.833	0.00	0.67	0.627	IO	1.03
17.917	0.00	0.67	0.622	IO	1.02
18.000	0.00	0.67	0.617	IO	1.01
18.083	0.00	0.67	0.613	IO	1.01
18.167	0.00	0.67	0.608	IO	1.00
18.250	0.00	0.67	0.604	IO	0.99
18.333	0.00	0.67	0.599	IO	0.99
18.417	0.00	0.67	0.594	IO	0.98
18.500	0.00	0.67	0.590	IO	0.97
18.583	0.00	0.67	0.585	IO	0.96
18.667	0.00	0.67	0.581	IO	0.95
18.750	0.00	0.67	0.576	IO	0.95
18.833	0.00	0.67	0.571	IO	0.94
18.917	0.00	0.67	0.567	IO	0.93

19.000	0.00	0.67	0.562	IO				0.92
19.083	0.00	0.67	0.557	IO				0.92
19.167	0.00	0.67	0.553	IO				0.91
19.250	0.00	0.67	0.548	IO				0.90
19.333	0.00	0.67	0.544	IO				0.89
19.417	0.00	0.67	0.539	IO				0.89
19.500	0.00	0.67	0.534	IO				0.88
19.583	0.00	0.67	0.530	IO				0.87
19.667	0.00	0.67	0.525	IO				0.86
19.750	0.00	0.67	0.521	IO				0.86
19.833	0.00	0.67	0.516	IO				0.85
19.917	0.00	0.67	0.511	IO				0.84
20.000	0.00	0.67	0.507	IO				0.83
20.083	0.00	0.67	0.502	IO				0.83
20.167	0.00	0.67	0.497	IO				0.82
20.250	0.00	0.67	0.493	IO				0.81
20.333	0.00	0.67	0.488	IO				0.80
20.417	0.00	0.67	0.484	IO				0.80
20.500	0.00	0.67	0.479	IO				0.79
20.583	0.00	0.67	0.474	IO				0.78
20.667	0.00	0.67	0.470	IO				0.77
20.750	0.00	0.67	0.465	IO				0.77
20.833	0.00	0.67	0.461	IO				0.76
20.917	0.00	0.67	0.456	IO				0.75
21.000	0.00	0.67	0.451	IO				0.74
21.083	0.00	0.67	0.447	IO				0.73
21.167	0.00	0.67	0.442	IO				0.73
21.250	0.00	0.67	0.437	IO				0.72
21.333	0.00	0.67	0.433	IO				0.71
21.417	0.00	0.67	0.428	IO				0.70
21.500	0.00	0.67	0.424	IO				0.70
21.583	0.00	0.67	0.419	IO				0.69
21.667	0.00	0.67	0.414	IO				0.68
21.750	0.00	0.67	0.410	IO				0.67
21.833	0.00	0.67	0.405	IO				0.67
21.917	0.00	0.67	0.401	IO				0.66
22.000	0.00	0.67	0.396	IO				0.65
22.083	0.00	0.67	0.391	IO				0.64
22.167	0.00	0.67	0.387	IO				0.64
22.250	0.00	0.67	0.382	IO				0.63
22.333	0.00	0.67	0.378	IO				0.62
22.417	0.00	0.67	0.373	IO				0.61
22.500	0.00	0.67	0.368	IO				0.61
22.583	0.00	0.67	0.364	IO				0.60
22.667	0.00	0.67	0.359	IO				0.59
22.750	0.00	0.67	0.354	IO				0.58
22.833	0.00	0.67	0.350	IO				0.58
22.917	0.00	0.67	0.345	IO				0.57
23.000	0.00	0.67	0.341	IO				0.56
23.083	0.00	0.67	0.336	IO				0.55

23.167	0.00	0.67	0.331	IO	0.55
23.250	0.00	0.67	0.327	IO	0.54
23.333	0.00	0.67	0.322	IO	0.53
23.417	0.00	0.67	0.318	IO	0.52
23.500	0.00	0.67	0.313	IO	0.51
23.583	0.00	0.67	0.308	IO	0.51
23.667	0.00	0.67	0.304	IO	0.50
23.750	0.00	0.66	0.299	IO	0.49
23.833	0.00	0.65	0.295	IO	0.48
23.917	0.00	0.64	0.290	IO	0.48
24.000	0.00	0.63	0.286	IO	0.47
24.083	0.00	0.62	0.281	IO	0.46
24.167	0.00	0.61	0.277	IO	0.46
24.250	0.00	0.60	0.273	IO	0.45
24.333	0.00	0.59	0.269	O	0.44
24.417	0.00	0.58	0.265	O	0.44
24.500	0.00	0.58	0.261	O	0.43
24.583	0.00	0.57	0.257	O	0.42
24.667	0.00	0.56	0.253	O	0.42
24.750	0.00	0.55	0.249	O	0.41
24.833	0.00	0.54	0.246	O	0.40
24.917	0.00	0.53	0.242	O	0.40
25.000	0.00	0.52	0.238	O	0.39
25.083	0.00	0.52	0.235	O	0.39
25.167	0.00	0.51	0.231	O	0.38
25.250	0.00	0.50	0.228	O	0.37
25.333	0.00	0.49	0.224	O	0.37
25.417	0.00	0.49	0.221	O	0.36
25.500	0.00	0.48	0.217	O	0.36
25.583	0.00	0.47	0.214	O	0.35
25.667	0.00	0.46	0.211	O	0.35
25.750	0.00	0.46	0.208	O	0.34
25.833	0.00	0.45	0.205	O	0.34
25.917	0.00	0.44	0.202	O	0.33
26.000	0.00	0.44	0.199	O	0.33
26.083	0.00	0.43	0.196	O	0.32
26.167	0.00	0.42	0.193	O	0.32
26.250	0.00	0.42	0.190	O	0.31
26.333	0.00	0.41	0.187	O	0.31
26.417	0.00	0.41	0.184	O	0.30
26.500	0.00	0.40	0.181	O	0.30
26.583	0.00	0.39	0.179	O	0.29
26.667	0.00	0.39	0.176	O	0.29
26.750	0.00	0.38	0.173	O	0.28
26.833	0.00	0.38	0.171	O	0.28
26.917	0.00	0.37	0.168	O	0.28
27.000	0.00	0.36	0.165	O	0.27
27.083	0.00	0.36	0.163	O	0.27
27.167	0.00	0.35	0.161	O	0.26
27.250	0.00	0.35	0.158	O	0.26

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27.333    0.00    0.34    0.156  O       |       |       |       |     0.26
27.417    0.00    0.34    0.153  O       |       |       |       |     0.25
27.500    0.00    0.33    0.151  O       |       |       |       |     0.25
27.583    0.00    0.33    0.149  O       |       |       |       |     0.24
27.667    0.00    0.32    0.147  O       |       |       |       |     0.24
27.750    0.00    0.32    0.144  O       |       |       |       |     0.24
27.833    0.00    0.31    0.142  O       |       |       |       |     0.23
27.917    0.00    0.31    0.140  O       |       |       |       |     0.23
28.000    0.00    0.30    0.138  O       |       |       |       |     0.23
28.083    0.00    0.30    0.136  O       |       |       |       |     0.22
28.167    0.00    0.29    0.134  O       |       |       |       |     0.22
28.250    0.00    0.29    0.132  O       |       |       |       |     0.22
28.333    0.00    0.29    0.130  O       |       |       |       |     0.21
28.417    0.00    0.28    0.128  O       |       |       |       |     0.21
28.500    0.00    0.28    0.126  O       |       |       |       |     0.21
28.583    0.00    0.27    0.124  O       |       |       |       |     0.20
28.667    0.00    0.27    0.122  O       |       |       |       |     0.20
28.750    0.00    0.27    0.120  O       |       |       |       |     0.20
28.833    0.00    0.26    0.118  O       |       |       |       |     0.19
28.917    0.00    0.26    0.117  O       |       |       |       |     0.19
29.000    0.00    0.25    0.115  O       |       |       |       |     0.19
29.083    0.00    0.25    0.113  O       |       |       |       |     0.19
29.167    0.00    0.25    0.112  O       |       |       |       |     0.18
29.250    0.00    0.24    0.110  O       |       |       |       |     0.18
29.333    0.00    0.24    0.108  O       |       |       |       |     0.18
29.417    0.00    0.23    0.107  O       |       |       |       |     0.18
29.500    0.00    0.23    0.105  O       |       |       |       |     0.17
29.583    0.00    0.23    0.103  O       |       |       |       |     0.17
29.667    0.00    0.22    0.102  O       |       |       |       |     0.17
29.750    0.00    0.22    0.100  O       |       |       |       |     0.16
29.833    0.00    0.22    0.099  O       |       |       |       |     0.16
29.917    0.00    0.21    0.097  O       |       |       |       |     0.16
30.000    0.00    0.21    0.096  O       |       |       |       |     0.16
30.083    0.00    0.21    0.094  O       |       |       |       |     0.16
30.167    0.00    0.20    0.093  O       |       |       |       |     0.15
30.250    0.00    0.20    0.092  O       |       |       |       |     0.15
30.333    0.00    0.20    0.090  O       |       |       |       |     0.15
30.417    0.00    0.20    0.089  O       |       |       |       |     0.15
30.500    0.00    0.19    0.087  O       |       |       |       |     0.14
30.583    0.00    0.19    0.086  O       |       |       |       |     0.14
30.667    0.00    0.19    0.085  O       |       |       |       |     0.14
30.750    0.00    0.18    0.084  O       |       |       |       |     0.14
30.833    0.00    0.18    0.082  O       |       |       |       |     0.14
30.917    0.00    0.18    0.081  O       |       |       |       |     0.13
31.000    0.00    0.18    0.080  O       |       |       |       |     0.13
31.083    0.00    0.17    0.079  O       |       |       |       |     0.13
31.167    0.00    0.17    0.077  O       |       |       |       |     0.13
31.250    0.00    0.17    0.076  O       |       |       |       |     0.13
31.333    0.00    0.17    0.075  O       |       |       |       |     0.12
31.417    0.00    0.16    0.074  O       |       |       |       |     0.12
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31.500	0.00	0.16	0.073	O	|	|	|	|	0.12
31.583	0.00	0.16	0.072	O	|	|	|	|	0.12
31.667	0.00	0.16	0.071	O	|	|	|	|	0.12
31.750	0.00	0.15	0.070	O	|	|	|	|	0.11
31.833	0.00	0.15	0.069	O	|	|	|	|	0.11
31.917	0.00	0.15	0.068	O	|	|	|	|	0.11
32.000	0.00	0.15	0.067	O	|	|	|	|	0.11
32.083	0.00	0.14	0.066	O	|	|	|	|	0.11
32.167	0.00	0.14	0.065	O	|	|	|	|	0.11
32.250	0.00	0.14	0.064	O	|	|	|	|	0.10
32.333	0.00	0.14	0.063	O	|	|	|	|	0.10
32.417	0.00	0.14	0.062	O	|	|	|	|	0.10
32.500	0.00	0.13	0.061	O	|	|	|	|	0.10
32.583	0.00	0.13	0.060	O	|	|	|	|	0.10
32.667	0.00	0.13	0.059	O	|	|	|	|	0.10
32.750	0.00	0.13	0.058	O	|	|	|	|	0.10
32.833	0.00	0.13	0.057	O	|	|	|	|	0.09
32.917	0.00	0.12	0.056	O	|	|	|	|	0.09
33.000	0.00	0.12	0.055	O	|	|	|	|	0.09
33.083	0.00	0.12	0.055	O	|	|	|	|	0.09
33.167	0.00	0.12	0.054	O	|	|	|	|	0.09
33.250	0.00	0.12	0.053	O	|	|	|	|	0.09
33.333	0.00	0.12	0.052	O	|	|	|	|	0.09
33.417	0.00	0.11	0.051	O	|	|	|	|	0.08
33.500	0.00	0.11	0.051	O	|	|	|	|	0.08
33.583	0.00	0.11	0.050	O	|	|	|	|	0.08
33.667	0.00	0.11	0.049	O	|	|	|	|	0.08
33.750	0.00	0.11	0.048	O	|	|	|	|	0.08
33.833	0.00	0.11	0.048	O	|	|	|	|	0.08
33.917	0.00	0.10	0.047	O	|	|	|	|	0.08
34.000	0.00	0.10	0.046	O	|	|	|	|	0.08
34.083	0.00	0.10	0.046	O	|	|	|	|	0.07
34.167	0.00	0.10	0.045	O	|	|	|	|	0.07
34.250	0.00	0.10	0.044	O	|	|	|	|	0.07
34.333	0.00	0.10	0.044	O	|	|	|	|	0.07
34.417	0.00	0.09	0.043	O	|	|	|	|	0.07
34.500	0.00	0.09	0.042	O	|	|	|	|	0.07
34.583	0.00	0.09	0.042	O	|	|	|	|	0.07
34.667	0.00	0.09	0.041	O	|	|	|	|	0.07
34.750	0.00	0.09	0.040	O	|	|	|	|	0.07
34.833	0.00	0.09	0.040	O	|	|	|	|	0.07
34.917	0.00	0.09	0.039	O	|	|	|	|	0.06
35.000	0.00	0.08	0.039	O	|	|	|	|	0.06
35.083	0.00	0.08	0.038	O	|	|	|	|	0.06
35.167	0.00	0.08	0.037	O	|	|	|	|	0.06
35.250	0.00	0.08	0.037	O	|	|	|	|	0.06
35.333	0.00	0.08	0.036	O	|	|	|	|	0.06
35.417	0.00	0.08	0.036	O	|	|	|	|	0.06
35.500	0.00	0.08	0.035	O	|	|	|	|	0.06
35.583	0.00	0.08	0.035	O	|	|	|	|	0.06

35.667	0.00	0.08	0.034	O	0.06
35.750	0.00	0.07	0.034	O	0.06
35.833	0.00	0.07	0.033	O	0.05
35.917	0.00	0.07	0.033	O	0.05
36.000	0.00	0.07	0.032	O	0.05
36.083	0.00	0.07	0.032	O	0.05
36.167	0.00	0.07	0.031	O	0.05
36.250	0.00	0.07	0.031	O	0.05
36.333	0.00	0.07	0.030	O	0.05
36.417	0.00	0.07	0.030	O	0.05
36.500	0.00	0.06	0.029	O	0.05
36.583	0.00	0.06	0.029	O	0.05
36.667	0.00	0.06	0.028	O	0.05
36.750	0.00	0.06	0.028	O	0.05
36.833	0.00	0.06	0.028	O	0.05
36.917	0.00	0.06	0.027	O	0.04
37.000	0.00	0.06	0.027	O	0.04
37.083	0.00	0.06	0.026	O	0.04
37.167	0.00	0.06	0.026	O	0.04
37.250	0.00	0.06	0.026	O	0.04
37.333	0.00	0.06	0.025	O	0.04
37.417	0.00	0.05	0.025	O	0.04
37.500	0.00	0.05	0.024	O	0.04
37.583	0.00	0.05	0.024	O	0.04
37.667	0.00	0.05	0.024	O	0.04
37.750	0.00	0.05	0.023	O	0.04
37.833	0.00	0.05	0.023	O	0.04
37.917	0.00	0.05	0.023	O	0.04
38.000	0.00	0.05	0.022	O	0.04
38.083	0.00	0.05	0.022	O	0.04
38.167	0.00	0.05	0.022	O	0.04
38.250	0.00	0.05	0.021	O	0.04
38.333	0.00	0.05	0.021	O	0.03
38.417	0.00	0.05	0.021	O	0.03
38.500	0.00	0.04	0.020	O	0.03
38.583	0.00	0.04	0.020	O	0.03
38.667	0.00	0.04	0.020	O	0.03
38.750	0.00	0.04	0.019	O	0.03
38.833	0.00	0.04	0.019	O	0.03
38.917	0.00	0.04	0.019	O	0.03
39.000	0.00	0.04	0.019	O	0.03
39.083	0.00	0.04	0.018	O	0.03
39.167	0.00	0.04	0.018	O	0.03
39.250	0.00	0.04	0.018	O	0.03
39.333	0.00	0.04	0.018	O	0.03
39.417	0.00	0.04	0.017	O	0.03
39.500	0.00	0.04	0.017	O	0.03
39.583	0.00	0.04	0.017	O	0.03
39.667	0.00	0.04	0.016	O	0.03
39.750	0.00	0.04	0.016	O	0.03

39.833	0.00	0.04	0.016	O					0.03
39.917	0.00	0.03	0.016	O					0.03
40.000	0.00	0.03	0.016	O					0.03
40.083	0.00	0.03	0.015	O					0.03
40.167	0.00	0.03	0.015	O					0.02
40.250	0.00	0.03	0.015	O					0.02
40.333	0.00	0.03	0.015	O					0.02
40.417	0.00	0.03	0.014	O					0.02
40.500	0.00	0.03	0.014	O					0.02
40.583	0.00	0.03	0.014	O					0.02
40.667	0.00	0.03	0.014	O					0.02
40.750	0.00	0.03	0.014	O					0.02
40.833	0.00	0.03	0.013	O					0.02
40.917	0.00	0.03	0.013	O					0.02
41.000	0.00	0.03	0.013	O					0.02
41.083	0.00	0.03	0.013	O					0.02
41.167	0.00	0.03	0.013	O					0.02
41.250	0.00	0.03	0.012	O					0.02
41.333	0.00	0.03	0.012	O					0.02
41.417	0.00	0.03	0.012	O					0.02
41.500	0.00	0.03	0.012	O					0.02
41.583	0.00	0.03	0.012	O					0.02
41.667	0.00	0.03	0.011	O					0.02
41.750	0.00	0.02	0.011	O					0.02
41.833	0.00	0.02	0.011	O					0.02
41.917	0.00	0.02	0.011	O					0.02
42.000	0.00	0.02	0.011	O					0.02
42.083	0.00	0.02	0.011	O					0.02
42.167	0.00	0.02	0.010	O					0.02
42.250	0.00	0.02	0.010	O					0.02
42.333	0.00	0.02	0.010	O					0.02
42.417	0.00	0.02	0.010	O					0.02
42.500	0.00	0.02	0.010	O					0.02
42.583	0.00	0.02	0.010	O					0.02
42.667	0.00	0.02	0.010	O					0.02
42.750	0.00	0.02	0.009	O					0.02
42.833	0.00	0.02	0.009	O					0.02
42.917	0.00	0.02	0.009	O					0.01
43.000	0.00	0.02	0.009	O					0.01
43.083	0.00	0.02	0.009	O					0.01
43.167	0.00	0.02	0.009	O					0.01
43.250	0.00	0.02	0.009	O					0.01
43.333	0.00	0.02	0.008	O					0.01
43.417	0.00	0.02	0.008	O					0.01
43.500	0.00	0.02	0.008	O					0.01
43.583	0.00	0.02	0.008	O					0.01
43.667	0.00	0.02	0.008	O					0.01
43.750	0.00	0.02	0.008	O					0.01
43.833	0.00	0.02	0.008	O					0.01
43.917	0.00	0.02	0.008	O					0.01

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44.000    0.00    0.02     0.007  O         |         |         |         |       0.01
44.083    0.00    0.02     0.007  O         |         |         |         |       0.01
44.167    0.00    0.02     0.007  O         |         |         |         |       0.01
44.250    0.00    0.02     0.007  O         |         |         |         |       0.01
44.333    0.00    0.02     0.007  O         |         |         |         |       0.01
44.417    0.00    0.02     0.007  O         |         |         |         |       0.01
44.500    0.00    0.02     0.007  O         |         |         |         |       0.01
44.583    0.00    0.01     0.007  O         |         |         |         |       0.01
44.667    0.00    0.01     0.007  O         |         |         |         |       0.01
44.750    0.00    0.01     0.007  O         |         |         |         |       0.01
44.833    0.00    0.01     0.006  O         |         |         |         |       0.01
44.917    0.00    0.01     0.006  O         |         |         |         |       0.01
45.000    0.00    0.01     0.006  O         |         |         |         |       0.01
45.083    0.00    0.01     0.006  O         |         |         |         |       0.01
45.167    0.00    0.01     0.006  O         |         |         |         |       0.01
45.250    0.00    0.01     0.006  O         |         |         |         |       0.01
45.333    0.00    0.01     0.006  O         |         |         |         |       0.01
45.417    0.00    0.01     0.006  O         |         |         |         |       0.01
45.500    0.00    0.01     0.006  O         |         |         |         |       0.01
45.583    0.00    0.01     0.006  O         |         |         |         |       0.01
45.667    0.00    0.01     0.006  O         |         |         |         |       0.01
45.750    0.00    0.01     0.005  O         |         |         |         |       0.01
45.833    0.00    0.01     0.005  O         |         |         |         |       0.01
45.917    0.00    0.01     0.005  O         |         |         |         |       0.01
46.000    0.00    0.01     0.005  O         |         |         |         |       0.01
46.083    0.00    0.01     0.005  O         |         |         |         |       0.01
46.167    0.00    0.01     0.005  O         |         |         |         |       0.01
46.250    0.00    0.01     0.005  O         |         |         |         |       0.01
46.333    0.00    0.01     0.005  O         |         |         |         |       0.01
46.417    0.00    0.01     0.005  O         |         |         |         |       0.01
46.500    0.00    0.01     0.005  O         |         |         |         |       0.01
46.583    0.00    0.01     0.005  O         |         |         |         |       0.01
46.667    0.00    0.01     0.005  O         |         |         |         |       0.01
46.750    0.00    0.01     0.005  O         |         |         |         |       0.01
46.833    0.00    0.01     0.004  O         |         |         |         |       0.01
46.917    0.00    0.01     0.004  O         |         |         |         |       0.01
47.000    0.00    0.01     0.004  O         |         |         |         |       0.01
47.083    0.00    0.01     0.004  O         |         |         |         |       0.01
47.167    0.00    0.01     0.004  O         |         |         |         |       0.01
47.250    0.00    0.01     0.004  O         |         |         |         |       0.01
47.333    0.00    0.01     0.004  O         |         |         |         |       0.01
47.417    0.00    0.01     0.004  O         |         |         |         |       0.01
47.500    0.00    0.01     0.004  O         |         |         |         |       0.01
47.583    0.00    0.01     0.004  O         |         |         |         |       0.01
47.667    0.00    0.01     0.004  O         |         |         |         |       0.01
47.750    0.00    0.01     0.004  O         |         |         |         |       0.01
47.833    0.00    0.01     0.004  O         |         |         |         |       0.01
47.917    0.00    0.01     0.004  O         |         |         |         |       0.01
48.000    0.00    0.01     0.004  O         |         |         |         |       0.01
48.083    0.00    0.01     0.004  O         |         |         |         |       0.01
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48.167	0.00	0.01	0.004	O	|	|	|	|	0.01
48.250	0.00	0.01	0.003	O	|	|	|	|	0.01
48.333	0.00	0.01	0.003	O	|	|	|	|	0.01
48.417	0.00	0.01	0.003	O	|	|	|	|	0.01
48.500	0.00	0.01	0.003	O	|	|	|	|	0.01
48.583	0.00	0.01	0.003	O	|	|	|	|	0.01
48.667	0.00	0.01	0.003	O	|	|	|	|	0.01
48.750	0.00	0.01	0.003	O	|	|	|	|	0.01
48.833	0.00	0.01	0.003	O	|	|	|	|	0.01
48.917	0.00	0.01	0.003	O	|	|	|	|	0.01
49.000	0.00	0.01	0.003	O	|	|	|	|	0.00
49.083	0.00	0.01	0.003	O	|	|	|	|	0.00
49.167	0.00	0.01	0.003	O	|	|	|	|	0.00
49.250	0.00	0.01	0.003	O	|	|	|	|	0.00
49.333	0.00	0.01	0.003	O	|	|	|	|	0.00
49.417	0.00	0.01	0.003	O	|	|	|	|	0.00
49.500	0.00	0.01	0.003	O	|	|	|	|	0.00
49.583	0.00	0.01	0.003	O	|	|	|	|	0.00
49.667	0.00	0.01	0.003	O	|	|	|	|	0.00
49.750	0.00	0.01	0.003	O	|	|	|	|	0.00
49.833	0.00	0.01	0.003	O	|	|	|	|	0.00
49.917	0.00	0.01	0.003	O	|	|	|	|	0.00
50.000	0.00	0.01	0.003	O	|	|	|	|	0.00
50.083	0.00	0.01	0.002	O	|	|	|	|	0.00
50.167	0.00	0.01	0.002	O	|	|	|	|	0.00
50.250	0.00	0.01	0.002	O	|	|	|	|	0.00
50.333	0.00	0.01	0.002	O	|	|	|	|	0.00
50.417	0.00	0.01	0.002	O	|	|	|	|	0.00
50.500	0.00	0.01	0.002	O	|	|	|	|	0.00
50.583	0.00	0.00	0.002	O	|	|	|	|	0.00
50.667	0.00	0.00	0.002	O	|	|	|	|	0.00
50.750	0.00	0.00	0.002	O	|	|	|	|	0.00
50.833	0.00	0.00	0.002	O	|	|	|	|	0.00
50.917	0.00	0.00	0.002	O	|	|	|	|	0.00
51.000	0.00	0.00	0.002	O	|	|	|	|	0.00
51.083	0.00	0.00	0.002	O	|	|	|	|	0.00
51.167	0.00	0.00	0.002	O	|	|	|	|	0.00
51.250	0.00	0.00	0.002	O	|	|	|	|	0.00
51.333	0.00	0.00	0.002	O	|	|	|	|	0.00
51.417	0.00	0.00	0.002	O	|	|	|	|	0.00
51.500	0.00	0.00	0.002	O	|	|	|	|	0.00
51.583	0.00	0.00	0.002	O	|	|	|	|	0.00
51.667	0.00	0.00	0.002	O	|	|	|	|	0.00
51.750	0.00	0.00	0.002	O	|	|	|	|	0.00
51.833	0.00	0.00	0.002	O	|	|	|	|	0.00
51.917	0.00	0.00	0.002	O	|	|	|	|	0.00
52.000	0.00	0.00	0.002	O	|	|	|	|	0.00
52.083	0.00	0.00	0.002	O	|	|	|	|	0.00
52.167	0.00	0.00	0.002	O	|	|	|	|	0.00
52.250	0.00	0.00	0.002	O	|	|	|	|	0.00

52.333	0.00	0.00	0.002	O	0.00
52.417	0.00	0.00	0.002	O	0.00
52.500	0.00	0.00	0.002	O	0.00
52.583	0.00	0.00	0.002	O	0.00
52.667	0.00	0.00	0.002	O	0.00
52.750	0.00	0.00	0.002	O	0.00
52.833	0.00	0.00	0.001	O	0.00
52.917	0.00	0.00	0.001	O	0.00
53.000	0.00	0.00	0.001	O	0.00
53.083	0.00	0.00	0.001	O	0.00
53.167	0.00	0.00	0.001	O	0.00
53.250	0.00	0.00	0.001	O	0.00
53.333	0.00	0.00	0.001	O	0.00
53.417	0.00	0.00	0.001	O	0.00
53.500	0.00	0.00	0.001	O	0.00
53.583	0.00	0.00	0.001	O	0.00
53.667	0.00	0.00	0.001	O	0.00
53.750	0.00	0.00	0.001	O	0.00
53.833	0.00	0.00	0.001	O	0.00
53.917	0.00	0.00	0.001	O	0.00
54.000	0.00	0.00	0.001	O	0.00
54.083	0.00	0.00	0.001	O	0.00
54.167	0.00	0.00	0.001	O	0.00
54.250	0.00	0.00	0.001	O	0.00
54.333	0.00	0.00	0.001	O	0.00
54.417	0.00	0.00	0.001	O	0.00
54.500	0.00	0.00	0.001	O	0.00
54.583	0.00	0.00	0.001	O	0.00
54.667	0.00	0.00	0.001	O	0.00
54.750	0.00	0.00	0.001	O	0.00
54.833	0.00	0.00	0.001	O	0.00
54.917	0.00	0.00	0.001	O	0.00
55.000	0.00	0.00	0.001	O	0.00
55.083	0.00	0.00	0.001	O	0.00
55.167	0.00	0.00	0.001	O	0.00
55.250	0.00	0.00	0.001	O	0.00
55.333	0.00	0.00	0.001	O	0.00
55.417	0.00	0.00	0.001	O	0.00
55.500	0.00	0.00	0.001	O	0.00
55.583	0.00	0.00	0.001	O	0.00
55.667	0.00	0.00	0.001	O	0.00
55.750	0.00	0.00	0.001	O	0.00
55.833	0.00	0.00	0.001	O	0.00
55.917	0.00	0.00	0.001	O	0.00
56.000	0.00	0.00	0.001	O	0.00
56.083	0.00	0.00	0.001	O	0.00
56.167	0.00	0.00	0.001	O	0.00
56.250	0.00	0.00	0.001	O	0.00
56.333	0.00	0.00	0.001	O	0.00
56.417	0.00	0.00	0.001	O	0.00

```
56.500    0.00    0.00     0.001  O       |       |       |       |      0.00
56.583    0.00    0.00     0.001  O       |       |       |       |      0.00
56.667    0.00    0.00     0.001  O       |       |       |       |      0.00
56.750    0.00    0.00     0.001  O       |       |       |       |      0.00
56.833    0.00    0.00     0.001  O       |       |       |       |      0.00
56.917    0.00    0.00     0.001  O       |       |       |       |      0.00
57.000    0.00    0.00     0.001  O       |       |       |       |      0.00
57.083    0.00    0.00     0.001  O       |       |       |       |      0.00
57.167    0.00    0.00     0.001  O       |       |       |       |      0.00
57.250    0.00    0.00     0.001  O       |       |       |       |      0.00
57.333    0.00    0.00     0.001  O       |       |       |       |      0.00
57.417    0.00    0.00     0.001  O       |       |       |       |      0.00
57.500    0.00    0.00     0.001  O       |       |       |       |      0.00
57.583    0.00    0.00     0.001  O       |       |       |       |      0.00
57.667    0.00    0.00     0.001  O       |       |       |       |      0.00
57.750    0.00    0.00     0.001  O       |       |       |       |      0.00
57.833    0.00    0.00     0.001  O       |       |       |       |      0.00

       ***************************HYDROGRAPH DATA***************************
                      Number of intervals =   694
                      Time interval =    5.0 (Min.)
                      Maximum/Peak flow rate =       0.670 (CFS)
                      Total volume =       1.573 (Ac.Ft)
               Status of hydrographs being held in storage
                         Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
               Peak (CFS)      0.000     0.000     0.000     0.000     0.000
               Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       *********************************************************************

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

NEWLAND SIMPSON
HEMET
POST DEVELOPMENT
FLOOD ROUTING
BASIN A1
100YR-24HR

```
                    FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018
                         Study date: 10/17/23

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

NEWLAND SIMPSON HEMET
POST DEVELOPMENT DMA A
FLOOD ROUTING - BASIN A1
100YR 24HR
-------------------------------------------------------------------

Program License Serial Number 6491

-------------------------------------------------------------------
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: NSPRUHA24100.rte
****************************HYDROGRAPH DATA****************************
                Number of intervals =   294
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =       13.808 (CFS)
                Total volume =       7.909 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
***********************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       13.000 to Point/Station       13.000
**** RETARDING BASIN ROUTING ****
______________________________________________________________________

User entry of depth-outflow-storage data
-------------------------------------------------------------------
Total number of inflow hydrograph intervals = 294
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
-------------------------------------------------------------------
-------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
```

```
       --------------------------------------------------------------------
       -------------------------------------------------------------------
       Depth vs. Storage and Depth vs. Discharge data:
        Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
            (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
       --------------------------------------------------------------------
         0.000      0.000      0.000      0.000        0.000
         0.500      0.290      1.720      0.284        0.296
         1.000      0.745      1.720      0.739        0.751
         1.500      1.347      1.720      1.341        1.353
         2.000      1.916      1.720      1.910        1.922
         2.500      2.436      1.720      2.430        2.442
         3.000      2.873      1.720      2.867        2.879
         3.500      3.175      1.720      3.169        3.181
         3.750      3.320      1.720      3.314        3.326
         5.750      3.321     26.550      3.230        3.412
       -------------------------------------------------------------------
                       Hydrograph Detention Basin Routing
       --------------------------------------------------------------------

       Graph values: 'I'= unit inflow; 'O'=outflow at time shown
       --------------------------------------------------------------------
  Time   Inflow  Outflow    Storage                                      Depth
 (Hours)  (CFS)   (CFS)      (Ac.Ft) .0       3.5    6.90   10.36   13.81 (Ft.)
  0.083    0.20    0.00      0.001  O        |       |       |       |      0.00
  0.167    0.54    0.02      0.003  OI       |       |       |       |      0.01
  0.250    0.63    0.04      0.007  OI       |       |       |       |      0.01
  0.333    0.77    0.07      0.011  OI       |       |       |       |      0.02
  0.417    0.96    0.10      0.017  O I      |       |       |       |      0.03
  0.500    1.01    0.13      0.023  O I      |       |       |       |      0.04
  0.583    1.04    0.17      0.029  O I      |       |       |       |      0.05
  0.667    1.05    0.21      0.035  O I      |       |       |       |      0.06
  0.750    1.06    0.24      0.040  O I      |       |       |       |      0.07
  0.833    1.16    0.27      0.046  O I      |       |       |       |      0.08
  0.917    1.33    0.31      0.053  O  I     |       |       |       |      0.09
  1.000    1.37    0.35      0.060  O  I     |       |       |       |      0.10
  1.083    1.29    0.39      0.066  O I      |       |       |       |      0.11
  1.167    1.13    0.43      0.072  O I      |       |       |       |      0.12
  1.250    1.09    0.45      0.077  |OI      |       |       |       |      0.13
  1.333    1.08    0.48      0.081  |OI      |       |       |       |      0.14
  1.417    1.07    0.50      0.085  |OI      |       |       |       |      0.15
  1.500    1.06    0.53      0.089  |OI      |       |       |       |      0.15
  1.583    1.06    0.55      0.092  |OI      |       |       |       |      0.16
  1.667    1.06    0.57      0.096  |OI      |       |       |       |      0.16
  1.750    1.06    0.59      0.099  |OI      |       |       |       |      0.17
  1.833    1.16    0.61      0.103  |OI      |       |       |       |      0.18
  1.917    1.33    0.63      0.107  |O I     |       |       |       |      0.18
  2.000    1.37    0.66      0.112  |O I     |       |       |       |      0.19
  2.083    1.39    0.69      0.117  |O I     |       |       |       |      0.20
  2.167    1.40    0.72      0.121  |O I     |       |       |       |      0.21
```

```
2.250    1.41    0.75      0.126   |O I    |       |       |       |     0.22
2.333    1.41    0.77      0.130   |O I    |       |       |       |     0.22
2.417    1.41    0.80      0.135   |O I    |       |       |       |     0.23
2.500    1.41    0.82      0.139   |O I    |       |       |       |     0.24
2.583    1.51    0.85      0.143   |O I    |       |       |       |     0.25
2.667    1.68    0.88      0.148   | OI    |       |       |       |     0.26
2.750    1.73    0.91      0.154   | OI    |       |       |       |     0.27
2.833    1.75    0.94      0.159   | O I   |       |       |       |     0.27
2.917    1.76    0.98      0.165   | O I   |       |       |       |     0.28
3.000    1.76    1.01      0.170   | O I   |       |       |       |     0.29
3.083    1.76    1.04      0.175   | O I   |       |       |       |     0.30
3.167    1.76    1.07      0.180   | O I   |       |       |       |     0.31
3.250    1.76    1.10      0.185   | O I   |       |       |       |     0.32
3.333    1.76    1.12      0.189   | O I   |       |       |       |     0.33
3.417    1.76    1.15      0.194   | O I   |       |       |       |     0.33
3.500    1.76    1.17      0.198   | O I   |       |       |       |     0.34
3.583    1.76    1.20      0.202   | O I   |       |       |       |     0.35
3.667    1.76    1.22      0.206   | O I   |       |       |       |     0.35
3.750    1.76    1.24      0.209   | O I   |       |       |       |     0.36
3.833    1.86    1.26      0.213   | O I   |       |       |       |     0.37
3.917    2.03    1.29      0.218   | O I   |       |       |       |     0.38
4.000    2.08    1.32      0.223   |  OI   |       |       |       |     0.38
4.083    2.10    1.35      0.228   |  OI   |       |       |       |     0.39
4.167    2.11    1.38      0.233   |  OI   |       |       |       |     0.40
4.250    2.11    1.41      0.238   |  OI   |       |       |       |     0.41
4.333    2.22    1.44      0.243   |  O I  |       |       |       |     0.42
4.417    2.39    1.48      0.249   |  O I  |       |       |       |     0.43
4.500    2.43    1.51      0.255   |  O I  |       |       |       |     0.44
4.583    2.45    1.55      0.262   |  O I  |       |       |       |     0.45
4.667    2.46    1.59      0.268   |  O I  |       |       |       |     0.46
4.750    2.47    1.62      0.274   |  O I  |       |       |       |     0.47
4.833    2.57    1.66      0.280   |  O I  |       |       |       |     0.48
4.917    2.74    1.70      0.286   |  O  I |       |       |       |     0.49
5.000    2.78    1.72      0.294   |  O  I |       |       |       |     0.50
5.083    2.60    1.72      0.300   |  O  I |       |       |       |     0.51
5.167    2.27    1.72      0.305   |  O I  |       |       |       |     0.52
5.250    2.19    1.72      0.309   |  O I  |       |       |       |     0.52
5.333    2.26    1.72      0.312   |  O I  |       |       |       |     0.52
5.417    2.40    1.72      0.316   |  O I  |       |       |       |     0.53
5.500    2.44    1.72      0.321   |  O I  |       |       |       |     0.53
5.583    2.55    1.72      0.327   |  O I  |       |       |       |     0.54
5.667    2.73    1.72      0.333   |  O  I |       |       |       |     0.55
5.750    2.78    1.72      0.340   |  O  I |       |       |       |     0.56
5.833    2.80    1.72      0.348   |  O  I |       |       |       |     0.56
5.917    2.81    1.72      0.355   |  O  I |       |       |       |     0.57
6.000    2.82    1.72      0.363   |  O  I |       |       |       |     0.58
6.083    2.92    1.72      0.371   |  O  I |       |       |       |     0.59
6.167    3.09    1.72      0.379   |  O   I|       |       |       |     0.60
6.250    3.14    1.72      0.389   |  O   I|       |       |       |     0.61
6.333    3.16    1.72      0.399   |  O   I|       |       |       |     0.62
```

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 6.417    3.17    1.72      0.409  |  O   I|       |       |       |     0.63
 6.500    3.17    1.72      0.419  |  O   I|       |       |       |     0.64
 6.583    3.28    1.72      0.429  |  O   I|       |       |       |     0.65
 6.667    3.45    1.72      0.440  |  O   I|       |       |       |     0.67
 6.750    3.49    1.72      0.452  |  O    I       |       |       |     0.68
 6.833    3.51    1.72      0.465  |  O    I       |       |       |     0.69
 6.917    3.52    1.72      0.477  |  O    I       |       |       |     0.71
 7.000    3.53    1.72      0.490  |  O    I       |       |       |     0.72
 7.083    3.53    1.72      0.502  |  O    I       |       |       |     0.73
 7.167    3.53    1.72      0.514  |  O    I       |       |       |     0.75
 7.250    3.53    1.72      0.527  |  O    I       |       |       |     0.76
 7.333    3.63    1.72      0.540  |  O    I       |       |       |     0.77
 7.417    3.80    1.72      0.553  |  O    I       |       |       |     0.79
 7.500    3.84    1.72      0.568  |  O    I       |       |       |     0.81
 7.583    3.98    1.72      0.583  |  O    |I      |       |       |     0.82
 7.667    4.20    1.72      0.599  |  O    |I      |       |       |     0.84
 7.750    4.26    1.72      0.617  |  O    |I      |       |       |     0.86
 7.833    4.41    1.72      0.635  |  O    | I     |       |       |     0.88
 7.917    4.63    1.72      0.654  |  O    | I     |       |       |     0.90
 8.000    4.69    1.72      0.674  |  O    | I     |       |       |     0.92
 8.083    4.96    1.72      0.696  |  O    |  I    |       |       |     0.95
 8.167    5.38    1.72      0.719  |  O    |   I   |       |       |     0.97
 8.250    5.50    1.72      0.745  |  O    |   I   |       |       |     1.00
 8.333    5.55    1.72      0.771  |  O    |   I   |       |       |     1.02
 8.417    5.58    1.72      0.798  |  O    |   I   |       |       |     1.04
 8.500    5.60    1.72      0.824  |  O    |   I   |       |       |     1.07
 8.583    5.73    1.72      0.851  |  O    |    I  |       |       |     1.09
 8.667    5.94    1.72      0.880  |  O    |    I  |       |       |     1.11
 8.750    5.99    1.72      0.909  |  O    |    I  |       |       |     1.14
 8.833    6.14    1.72      0.939  |  O    |     I |       |       |     1.16
 8.917    6.36    1.72      0.970  |  O    |     I |       |       |     1.19
 9.000    6.42    1.72      1.002  |  O    |     I |       |       |     1.21
 9.083    6.69    1.72      1.036  |  O    |      I|       |       |     1.24
 9.167    7.12    1.72      1.071  |  O    |       I       |       |     1.27
 9.250    7.23    1.72      1.109  |  O    |       I       |       |     1.30
 9.333    7.41    1.72      1.148  |  O    |       |I      |       |     1.33
 9.417    7.64    1.72      1.187  |  O    |       |I      |       |     1.37
 9.500    7.71    1.72      1.228  |  O    |       |I      |       |     1.40
 9.583    7.86    1.72      1.270  |  O    |       | I     |       |     1.44
 9.667    8.08    1.72      1.313  |  O    |       | I     |       |     1.47
 9.750    8.14    1.72      1.357  |  O    |       | I     |       |     1.51
 9.833    8.29    1.72      1.402  |  O    |       |  I    |       |     1.55
 9.917    8.51    1.72      1.448  |  O    |       |  I    |       |     1.59
10.000    8.58    1.72      1.495  |  O    |       |  I    |       |     1.63
10.083    7.77    1.72      1.540  |  O    |       |I      |       |     1.67
10.167    6.36    1.72      1.576  |  O    |     I |       |       |     1.70
10.250    6.00    1.72      1.607  |  O    |    I  |       |       |     1.73
10.333    5.84    1.72      1.636  |  O    |    I  |       |       |     1.75
10.417    5.76    1.72      1.664  |  O    |    I  |       |       |     1.78
10.500    5.71    1.72      1.692  |  O    |    I  |       |       |     1.80
```

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10.583    6.29    1.72      1.721  |  O    |     I |       |       |     1.83
10.667    7.31    1.72      1.756  |  O    |       I       |       |     1.86
10.750    7.58    1.72      1.796  |  O    |       |I      |       |     1.89
10.833    7.70    1.72      1.836  |  O    |       |I      |       |     1.93
10.917    7.76    1.72      1.878  |  O    |       |I      |       |     1.97
11.000    7.80    1.72      1.919  |  O    |       | I     |       |     2.00
11.083    7.70    1.72      1.961  |  O    |       |I      |       |     2.04
11.167    7.50    1.72      2.001  |  O    |       |I      |       |     2.08
11.250    7.45    1.72      2.041  |  O    |       |I      |       |     2.12
11.333    7.43    1.72      2.081  |  O    |       |I      |       |     2.16
11.417    7.42    1.72      2.120  |  O    |       |I      |       |     2.20
11.500    7.42    1.72      2.159  |  O    |       |I      |       |     2.23
11.583    7.18    1.72      2.198  |  O    |       I       |       |     2.27
11.667    6.77    1.72      2.234  |  O    |      I|       |       |     2.31
11.750    6.67    1.72      2.268  |  O    |      I|       |       |     2.34
11.833    6.75    1.72      2.303  |  O    |      I|       |       |     2.37
11.917    6.93    1.72      2.338  |  O    |       I       |       |     2.41
12.000    6.97    1.72      2.374  |  O    |       I       |       |     2.44
12.083    7.83    1.72      2.413  |  O    |       | I     |       |     2.48
12.167    9.27    1.72      2.460  |  O    |       |    I  |       |     2.53
12.250    9.65    1.72      2.513  |  O    |       |     I |       |     2.59
12.333    9.94    1.72      2.569  |  O    |       |      I|       |     2.65
12.417   10.24    1.72      2.626  |  O    |       |      I|       |     2.72
12.500   10.34    1.72      2.685  |  O    |       |      I|       |     2.79
12.583   10.63    1.72      2.746  |  O    |       |       I       |     2.85
12.667   11.05    1.72      2.809  |  O    |       |       |I      |     2.93
12.750   11.17    1.72      2.873  |  O    |       |       |I      |     3.00
12.833   11.34    1.72      2.939  |  O    |       |       | I     |     3.11
12.917   11.57    1.72      3.006  |  O    |       |       | I     |     3.22
13.000   11.64    1.72      3.074  |  O    |       |       | I     |     3.33
13.083   12.27    1.72      3.145  |  O    |       |       |   I   |     3.45
13.167   13.31    1.72      3.221  |  O    |       |       |     I |     3.58
13.250   13.58    1.72      3.302  |  O    |       |       |      I|     3.72
13.333   13.70   20.01      3.321  |       |       |       |      IO     5.22
13.417   13.77    7.61      3.320  |       |       |O      |      I|     4.22
13.500   13.81   19.83      3.321  |       |       |       |       O     5.21
13.583   12.51    6.64      3.320  |       |      O|       |   I   |     4.15
13.667   10.27   16.03      3.321  |       |       |      I|       O     4.90
13.750    9.70    4.08      3.320  |       |O      |     I |       |     3.94
13.833    9.44   14.93      3.321  |       |       |    I  |       O     4.81
13.917    9.30    3.94      3.320  |       |O      |    I  |       |     3.93
14.000    9.23   14.47      3.321  |       |       |    I  |       O     4.78
14.083    9.67    4.55      3.320  |       | O     |     I |       |     3.98
14.167   10.49   15.49      3.321  |       |       |       I       O     4.86
14.250   10.70    5.82      3.320  |       |    O  |       I       |     4.08
14.333   10.68   15.45      3.321  |       |       |       I       O     4.86
14.417   10.53    5.87      3.320  |       |    O  |       I       |     4.08
14.500   10.51   15.06      3.321  |       |       |       I       O     4.82
14.583   10.50    6.06      3.320  |       |     O |       I       |     4.10
14.667   10.49   14.83      3.321  |       |       |       I       O     4.81
```

```
14.750   10.49    6.25      3.320  |       |     O |       I       |     4.11
14.833   10.37   14.51      3.321  |       |       |       I       O     4.78
14.917   10.17    6.12      3.320  |       |     O |      I|       |     4.10
15.000   10.12   14.07      3.320  |       |       |      I|       O     4.74
15.083    9.97    6.11      3.320  |       |     O |      I|       |     4.10
15.167    9.76   13.53      3.320  |       |       |     I |      O|     4.70
15.250    9.70    6.02      3.320  |       |    O  |     I |       |     4.10
15.333    9.56   13.16      3.320  |       |       |     I |     O |     4.67
15.417    9.35    5.83      3.320  |       |    O  |    I  |       |     4.08
15.500    9.29   12.72      3.320  |       |       |    I  |    O  |     4.64
15.583    8.78    5.43      3.320  |       |   O   |   I   |       |     4.05
15.667    7.96   11.24      3.320  |       |       | I     | O     |     4.52
15.750    7.74    4.54      3.320  |       | O     |I      |       |     3.98
15.833    7.65   10.78      3.320  |       |       |I      O       |     4.48
15.917    7.60    4.54      3.320  |       | O     |I      |       |     3.98
16.000    7.58   10.56      3.320  |       |       |I      O       |     4.46
16.083    5.82    2.92      3.320  |      O|    I  |       |       |     3.85
16.167    2.85    5.72      3.320  |      I|    O  |       |       |     4.07
16.250    2.09    1.72      3.312  |  OI   |       |       |       |     3.74
16.333    1.75    1.72      3.313  |  OI   |       |       |       |     3.74
16.417    1.56    1.72      3.312  |  O    |       |       |       |     3.74
16.500    1.46    1.72      3.311  |  O    |       |       |       |     3.73
16.583    1.31    1.72      3.309  |  O    |       |       |       |     3.73
16.667    1.14    1.72      3.305  | IO    |       |       |       |     3.72
16.750    1.10    1.72      3.301  | IO    |       |       |       |     3.72
16.833    1.08    1.72      3.297  | IO    |       |       |       |     3.71
16.917    1.07    1.72      3.292  | IO    |       |       |       |     3.70
17.000    1.06    1.72      3.288  | IO    |       |       |       |     3.69
17.083    1.26    1.72      3.284  | IO    |       |       |       |     3.69
17.167    1.60    1.72      3.282  |  O    |       |       |       |     3.68
17.250    1.69    1.72      3.281  |  O    |       |       |       |     3.68
17.333    1.73    1.72      3.281  |  OI   |       |       |       |     3.68
17.417    1.75    1.72      3.282  |  OI   |       |       |       |     3.68
17.500    1.76    1.72      3.282  |  OI   |       |       |       |     3.68
17.583    1.76    1.72      3.282  |  OI   |       |       |       |     3.68
17.667    1.76    1.72      3.282  |  OI   |       |       |       |     3.69
17.750    1.76    1.72      3.283  |  OI   |       |       |       |     3.69
17.833    1.66    1.72      3.283  |  O    |       |       |       |     3.69
17.917    1.49    1.72      3.282  |  O    |       |       |       |     3.68
18.000    1.45    1.72      3.280  |  O    |       |       |       |     3.68
18.083    1.43    1.72      3.278  |  O    |       |       |       |     3.68
18.167    1.42    1.72      3.276  |  O    |       |       |       |     3.67
18.250    1.41    1.72      3.274  |  O    |       |       |       |     3.67
18.333    1.41    1.72      3.272  |  O    |       |       |       |     3.67
18.417    1.41    1.72      3.270  |  O    |       |       |       |     3.66
18.500    1.41    1.72      3.268  |  O    |       |       |       |     3.66
18.583    1.31    1.72      3.265  |  O    |       |       |       |     3.66
18.667    1.14    1.72      3.262  | IO    |       |       |       |     3.65
18.750    1.10    1.72      3.258  | IO    |       |       |       |     3.64
18.833    0.98    1.72      3.253  | IO    |       |       |       |     3.63
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18.917	0.80	1.72	3.247	I O				3.62
19.000	0.75	1.72	3.241	I O				3.61
19.083	0.83	1.72	3.234	I O				3.60
19.167	0.98	1.72	3.229	IO				3.59
19.250	1.02	1.72	3.224	IO				3.58
19.333	1.14	1.72	3.219	IO				3.58
19.417	1.32	1.72	3.216	O				3.57
19.500	1.37	1.72	3.213	O				3.57
19.583	1.29	1.72	3.211	IO				3.56
19.667	1.13	1.72	3.207	IO				3.56
19.750	1.09	1.72	3.203	IO				3.55
19.833	0.98	1.72	3.198	IO				3.54
19.917	0.80	1.72	3.192	I O				3.53
20.000	0.75	1.72	3.186	I O				3.52
20.083	0.83	1.72	3.179	I O				3.51
20.167	0.98	1.72	3.174	IO				3.50
20.250	1.02	1.72	3.169	IO				3.49
20.333	1.04	1.72	3.164	IO				3.48
20.417	1.05	1.72	3.160	IO				3.47
20.500	1.06	1.72	3.155	IO				3.47
20.583	1.06	1.72	3.150	IO				3.46
20.667	1.06	1.72	3.146	IO				3.45
20.750	1.06	1.72	3.141	IO				3.44
20.833	0.96	1.72	3.136	IO				3.44
20.917	0.79	1.72	3.131	I O				3.43
21.000	0.74	1.72	3.124	I O				3.42
21.083	0.83	1.72	3.118	I O				3.40
21.167	0.98	1.72	3.112	IO				3.40
21.250	1.02	1.72	3.107	IO				3.39
21.333	0.94	1.72	3.102	IO				3.38
21.417	0.78	1.72	3.096	I O				3.37
21.500	0.74	1.72	3.089	I O				3.36
21.583	0.83	1.72	3.083	I O				3.35
21.667	0.98	1.72	3.077	IO				3.34
21.750	1.02	1.72	3.072	IO				3.33
21.833	0.94	1.72	3.067	IO				3.32
21.917	0.78	1.72	3.061	I O				3.31
22.000	0.74	1.72	3.055	I O				3.30
22.083	0.83	1.72	3.048	I O				3.29
22.167	0.98	1.72	3.043	IO				3.28
22.250	1.02	1.72	3.038	IO				3.27
22.333	0.94	1.72	3.033	IO				3.26
22.417	0.78	1.72	3.027	I O				3.25
22.500	0.74	1.72	3.020	I O				3.24
22.583	0.73	1.72	3.013	I O				3.23
22.667	0.71	1.72	3.006	I O				3.22
22.750	0.71	1.72	3.000	I O				3.21
22.833	0.71	1.72	2.993	I O				3.20
22.917	0.71	1.72	2.986	I O				3.19
23.000	0.71	1.72	2.979	I O				3.17

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23.083     0.71     1.72       2.972   |I  O     |         |         |         |        3.16
23.167     0.71     1.72       2.965   |I  O     |         |         |         |        3.15
23.250     0.71     1.72       2.958   |I  O     |         |         |         |        3.14
23.333     0.71     1.72       2.951   |I  O     |         |         |         |        3.13
23.417     0.71     1.72       2.944   |I  O     |         |         |         |        3.12
23.500     0.71     1.72       2.937   |I  O     |         |         |         |        3.11
23.583     0.71     1.72       2.930   |I  O     |         |         |         |        3.09
23.667     0.71     1.72       2.923   |I  O     |         |         |         |        3.08
23.750     0.71     1.72       2.916   |I  O     |         |         |         |        3.07
23.833     0.71     1.72       2.909   |I  O     |         |         |         |        3.06
23.917     0.71     1.72       2.902   |I  O     |         |         |         |        3.05
24.000     0.71     1.72       2.895   |I  O     |         |         |         |        3.04
24.083     0.51     1.72       2.887   |I  O     |         |         |         |        3.02
24.167     0.17     1.72       2.878   I   O     |         |         |         |        3.01
24.250     0.08     1.72       2.867   I   O     |         |         |         |        2.99
24.333     0.04     1.72       2.855   I   O     |         |         |         |        2.98
24.417     0.02     1.72       2.843   I   O     |         |         |         |        2.97
24.500     0.01     1.72       2.832   I   O     |         |         |         |        2.95
24.583     0.00     1.72       2.820   I   O     |         |         |         |        2.94
24.667     0.00     1.72       2.808   I   O     |         |         |         |        2.93
24.750     0.00     1.72       2.796   I   O     |         |         |         |        2.91
24.833     0.00     1.72       2.784   I   O     |         |         |         |        2.90
24.917     0.00     1.72       2.772   I   O     |         |         |         |        2.88
25.000     0.00     1.72       2.761   I   O     |         |         |         |        2.87
25.083     0.00     1.72       2.749   I   O     |         |         |         |        2.86
25.167     0.00     1.72       2.737   I   O     |         |         |         |        2.84
25.250     0.00     1.72       2.725   I   O     |         |         |         |        2.83
25.333     0.00     1.72       2.713   I   O     |         |         |         |        2.82
25.417     0.00     1.72       2.701   I   O     |         |         |         |        2.80
25.500     0.00     1.72       2.690   I   O     |         |         |         |        2.79
25.583     0.00     1.72       2.678   I   O     |         |         |         |        2.78
25.667     0.00     1.72       2.666   I   O     |         |         |         |        2.76
25.750     0.00     1.72       2.654   I   O     |         |         |         |        2.75
25.833     0.00     1.72       2.642   I   O     |         |         |         |        2.74
25.917     0.00     1.72       2.630   I   O     |         |         |         |        2.72
26.000     0.00     1.72       2.618   I   O     |         |         |         |        2.71
26.083     0.00     1.72       2.607   I   O     |         |         |         |        2.70
26.167     0.00     1.72       2.595   I   O     |         |         |         |        2.68
26.250     0.00     1.72       2.583   I   O     |         |         |         |        2.67
26.333     0.00     1.72       2.571   I   O     |         |         |         |        2.65
26.417     0.00     1.72       2.559   I   O     |         |         |         |        2.64
26.500     0.00     1.72       2.547   I   O     |         |         |         |        2.63
26.583     0.00     1.72       2.536   I   O     |         |         |         |        2.61
26.667     0.00     1.72       2.524   I   O     |         |         |         |        2.60
26.750     0.00     1.72       2.512   I   O     |         |         |         |        2.59
26.833     0.00     1.72       2.500   I   O     |         |         |         |        2.57
26.917     0.00     1.72       2.488   I   O     |         |         |         |        2.56
27.000     0.00     1.72       2.476   I   O     |         |         |         |        2.55
27.083     0.00     1.72       2.464   I   O     |         |         |         |        2.53
27.167     0.00     1.72       2.453   I   O     |         |         |         |        2.52
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27.250	0.00	1.72	2.441	I	O	2.51
27.333	0.00	1.72	2.429	I	O	2.49
27.417	0.00	1.72	2.417	I	O	2.48
27.500	0.00	1.72	2.405	I	O	2.47
27.583	0.00	1.72	2.393	I	O	2.46
27.667	0.00	1.72	2.382	I	O	2.45
27.750	0.00	1.72	2.370	I	O	2.44
27.833	0.00	1.72	2.358	I	O	2.42
27.917	0.00	1.72	2.346	I	O	2.41
28.000	0.00	1.72	2.334	I	O	2.40
28.083	0.00	1.72	2.322	I	O	2.39
28.167	0.00	1.72	2.310	I	O	2.38
28.250	0.00	1.72	2.299	I	O	2.37
28.333	0.00	1.72	2.287	I	O	2.36
28.417	0.00	1.72	2.275	I	O	2.35
28.500	0.00	1.72	2.263	I	O	2.33
28.583	0.00	1.72	2.251	I	O	2.32
28.667	0.00	1.72	2.239	I	O	2.31
28.750	0.00	1.72	2.228	I	O	2.30
28.833	0.00	1.72	2.216	I	O	2.29
28.917	0.00	1.72	2.204	I	O	2.28
29.000	0.00	1.72	2.192	I	O	2.27
29.083	0.00	1.72	2.180	I	O	2.25
29.167	0.00	1.72	2.168	I	O	2.24
29.250	0.00	1.72	2.156	I	O	2.23
29.333	0.00	1.72	2.145	I	O	2.22
29.417	0.00	1.72	2.133	I	O	2.21
29.500	0.00	1.72	2.121	I	O	2.20
29.583	0.00	1.72	2.109	I	O	2.19
29.667	0.00	1.72	2.097	I	O	2.17
29.750	0.00	1.72	2.085	I	O	2.16
29.833	0.00	1.72	2.074	I	O	2.15
29.917	0.00	1.72	2.062	I	O	2.14
30.000	0.00	1.72	2.050	I	O	2.13
30.083	0.00	1.72	2.038	I	O	2.12
30.167	0.00	1.72	2.026	I	O	2.11
30.250	0.00	1.72	2.014	I	O	2.09
30.333	0.00	1.72	2.002	I	O	2.08
30.417	0.00	1.72	1.991	I	O	2.07
30.500	0.00	1.72	1.979	I	O	2.06
30.583	0.00	1.72	1.967	I	O	2.05
30.667	0.00	1.72	1.955	I	O	2.04
30.750	0.00	1.72	1.943	I	O	2.03
30.833	0.00	1.72	1.931	I	O	2.01
30.917	0.00	1.72	1.920	I	O	2.00
31.000	0.00	1.72	1.908	I	O	1.99
31.083	0.00	1.72	1.896	I	O	1.98
31.167	0.00	1.72	1.884	I	O	1.97
31.250	0.00	1.72	1.872	I	O	1.96
31.333	0.00	1.72	1.860	I	O	1.95

31.417	0.00	1.72	1.848	I	O					1.94
31.500	0.00	1.72	1.837	I	O					1.93
31.583	0.00	1.72	1.825	I	O					1.92
31.667	0.00	1.72	1.813	I	O					1.91
31.750	0.00	1.72	1.801	I	O					1.90
31.833	0.00	1.72	1.789	I	O					1.89
31.917	0.00	1.72	1.777	I	O					1.88
32.000	0.00	1.72	1.766	I	O					1.87
32.083	0.00	1.72	1.754	I	O					1.86
32.167	0.00	1.72	1.742	I	O					1.85
32.250	0.00	1.72	1.730	I	O					1.84
32.333	0.00	1.72	1.718	I	O					1.83
32.417	0.00	1.72	1.706	I	O					1.82
32.500	0.00	1.72	1.695	I	O					1.81
32.583	0.00	1.72	1.683	I	O					1.79
32.667	0.00	1.72	1.671	I	O					1.78
32.750	0.00	1.72	1.659	I	O					1.77
32.833	0.00	1.72	1.647	I	O					1.76
32.917	0.00	1.72	1.635	I	O					1.75
33.000	0.00	1.72	1.623	I	O					1.74
33.083	0.00	1.72	1.612	I	O					1.73
33.167	0.00	1.72	1.600	I	O					1.72
33.250	0.00	1.72	1.588	I	O					1.71
33.333	0.00	1.72	1.576	I	O					1.70
33.417	0.00	1.72	1.564	I	O					1.69
33.500	0.00	1.72	1.552	I	O					1.68
33.583	0.00	1.72	1.541	I	O					1.67
33.667	0.00	1.72	1.529	I	O					1.66
33.750	0.00	1.72	1.517	I	O					1.65
33.833	0.00	1.72	1.505	I	O					1.64
33.917	0.00	1.72	1.493	I	O					1.63
34.000	0.00	1.72	1.481	I	O					1.62
34.083	0.00	1.72	1.469	I	O					1.61
34.167	0.00	1.72	1.458	I	O					1.60
34.250	0.00	1.72	1.446	I	O					1.59
34.333	0.00	1.72	1.434	I	O					1.58
34.417	0.00	1.72	1.422	I	O					1.57
34.500	0.00	1.72	1.410	I	O					1.56
34.583	0.00	1.72	1.398	I	O					1.55
34.667	0.00	1.72	1.387	I	O					1.53
34.750	0.00	1.72	1.375	I	O					1.52
34.833	0.00	1.72	1.363	I	O					1.51
34.917	0.00	1.72	1.351	I	O					1.50
35.000	0.00	1.72	1.339	I	O					1.49
35.083	0.00	1.72	1.327	I	O					1.48
35.167	0.00	1.72	1.315	I	O					1.47
35.250	0.00	1.72	1.304	I	O					1.46
35.333	0.00	1.72	1.292	I	O					1.45
35.417	0.00	1.72	1.280	I	O					1.44
35.500	0.00	1.72	1.268	I	O					1.43

35.583	0.00	1.72	1.256	I	O	|	|	|	|	1.42
35.667	0.00	1.72	1.244	I	O	|	|	|	|	1.41
35.750	0.00	1.72	1.233	I	O	|	|	|	|	1.40
35.833	0.00	1.72	1.221	I	O	|	|	|	|	1.40
35.917	0.00	1.72	1.209	I	O	|	|	|	|	1.39
36.000	0.00	1.72	1.197	I	O	|	|	|	|	1.38
36.083	0.00	1.72	1.185	I	O	|	|	|	|	1.37
36.167	0.00	1.72	1.173	I	O	|	|	|	|	1.36
36.250	0.00	1.72	1.161	I	O	|	|	|	|	1.35
36.333	0.00	1.72	1.150	I	O	|	|	|	|	1.34
36.417	0.00	1.72	1.138	I	O	|	|	|	|	1.33
36.500	0.00	1.72	1.126	I	O	|	|	|	|	1.32
36.583	0.00	1.72	1.114	I	O	|	|	|	|	1.31
36.667	0.00	1.72	1.102	I	O	|	|	|	|	1.30
36.750	0.00	1.72	1.090	I	O	|	|	|	|	1.29
36.833	0.00	1.72	1.079	I	O	|	|	|	|	1.28
36.917	0.00	1.72	1.067	I	O	|	|	|	|	1.27
37.000	0.00	1.72	1.055	I	O	|	|	|	|	1.26
37.083	0.00	1.72	1.043	I	O	|	|	|	|	1.25
37.167	0.00	1.72	1.031	I	O	|	|	|	|	1.24
37.250	0.00	1.72	1.019	I	O	|	|	|	|	1.23
37.333	0.00	1.72	1.007	I	O	|	|	|	|	1.22
37.417	0.00	1.72	0.996	I	O	|	|	|	|	1.21
37.500	0.00	1.72	0.984	I	O	|	|	|	|	1.20
37.583	0.00	1.72	0.972	I	O	|	|	|	|	1.19
37.667	0.00	1.72	0.960	I	O	|	|	|	|	1.18
37.750	0.00	1.72	0.948	I	O	|	|	|	|	1.17
37.833	0.00	1.72	0.936	I	O	|	|	|	|	1.16
37.917	0.00	1.72	0.925	I	O	|	|	|	|	1.15
38.000	0.00	1.72	0.913	I	O	|	|	|	|	1.14
38.083	0.00	1.72	0.901	I	O	|	|	|	|	1.13
38.167	0.00	1.72	0.889	I	O	|	|	|	|	1.12
38.250	0.00	1.72	0.877	I	O	|	|	|	|	1.11
38.333	0.00	1.72	0.865	I	O	|	|	|	|	1.10
38.417	0.00	1.72	0.853	I	O	|	|	|	|	1.09
38.500	0.00	1.72	0.842	I	O	|	|	|	|	1.08
38.583	0.00	1.72	0.830	I	O	|	|	|	|	1.07
38.667	0.00	1.72	0.818	I	O	|	|	|	|	1.06
38.750	0.00	1.72	0.806	I	O	|	|	|	|	1.05
38.833	0.00	1.72	0.794	I	O	|	|	|	|	1.04
38.917	0.00	1.72	0.782	I	O	|	|	|	|	1.03
39.000	0.00	1.72	0.771	I	O	|	|	|	|	1.02
39.083	0.00	1.72	0.759	I	O	|	|	|	|	1.01
39.167	0.00	1.72	0.747	I	O	|	|	|	|	1.00
39.250	0.00	1.72	0.735	I	O	|	|	|	|	0.99
39.333	0.00	1.72	0.723	I	O	|	|	|	|	0.98
39.417	0.00	1.72	0.711	I	O	|	|	|	|	0.96
39.500	0.00	1.72	0.699	I	O	|	|	|	|	0.95
39.583	0.00	1.72	0.688	I	O	|	|	|	|	0.94
39.667	0.00	1.72	0.676	I	O	|	|	|	|	0.92

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39.750     0.00     1.72      0.664   I   O      |        |        |        |      0.91
39.833     0.00     1.72      0.652   I   O      |        |        |        |      0.90
39.917     0.00     1.72      0.640   I   O      |        |        |        |      0.88
40.000     0.00     1.72      0.628   I   O      |        |        |        |      0.87
40.083     0.00     1.72      0.617   I   O      |        |        |        |      0.86
40.167     0.00     1.72      0.605   I   O      |        |        |        |      0.85
40.250     0.00     1.72      0.593   I   O      |        |        |        |      0.83
40.333     0.00     1.72      0.581   I   O      |        |        |        |      0.82
40.417     0.00     1.72      0.569   I   O      |        |        |        |      0.81
40.500     0.00     1.72      0.557   I   O      |        |        |        |      0.79
40.583     0.00     1.72      0.545   I   O      |        |        |        |      0.78
40.667     0.00     1.72      0.534   I   O      |        |        |        |      0.77
40.750     0.00     1.72      0.522   I   O      |        |        |        |      0.75
40.833     0.00     1.72      0.510   I   O      |        |        |        |      0.74
40.917     0.00     1.72      0.498   I   O      |        |        |        |      0.73
41.000     0.00     1.72      0.486   I   O      |        |        |        |      0.72
41.083     0.00     1.72      0.474   I   O      |        |        |        |      0.70
41.167     0.00     1.72      0.463   I   O      |        |        |        |      0.69
41.250     0.00     1.72      0.451   I   O      |        |        |        |      0.68
41.333     0.00     1.72      0.439   I   O      |        |        |        |      0.66
41.417     0.00     1.72      0.427   I   O      |        |        |        |      0.65
41.500     0.00     1.72      0.415   I   O      |        |        |        |      0.64
41.583     0.00     1.72      0.403   I   O      |        |        |        |      0.62
41.667     0.00     1.72      0.391   I   O      |        |        |        |      0.61
41.750     0.00     1.72      0.380   I   O      |        |        |        |      0.60
41.833     0.00     1.72      0.368   I   O      |        |        |        |      0.59
41.917     0.00     1.72      0.356   I   O      |        |        |        |      0.57
42.000     0.00     1.72      0.344   I   O      |        |        |        |      0.56
42.083     0.00     1.72      0.332   I   O      |        |        |        |      0.55
42.167     0.00     1.72      0.320   I   O      |        |        |        |      0.53
42.250     0.00     1.72      0.309   I   O      |        |        |        |      0.52
42.333     0.00     1.72      0.297   I   O      |        |        |        |      0.51
42.417     0.00     1.69      0.285   I   O      |        |        |        |      0.49
42.500     0.00     1.62      0.274   I   O      |        |        |        |      0.47
42.583     0.00     1.56      0.263   I   O      |        |        |        |      0.45
42.667     0.00     1.50      0.252   I   O      |        |        |        |      0.43
42.750     0.00     1.44      0.242   I   O      |        |        |        |      0.42
42.833     0.00     1.38      0.232   I   O      |        |        |        |      0.40
42.917     0.00     1.32      0.223   I   O      |        |        |        |      0.38
43.000     0.00     1.27      0.214   I O        |        |        |        |      0.37
43.083     0.00     1.22      0.206   I O        |        |        |        |      0.35
43.167     0.00     1.17      0.197   I O        |        |        |        |      0.34
43.250     0.00     1.12      0.189   I O        |        |        |        |      0.33
43.333     0.00     1.08      0.182   I O        |        |        |        |      0.31
43.417     0.00     1.04      0.175   I O        |        |        |        |      0.30
43.500     0.00     0.99      0.168   I O        |        |        |        |      0.29
43.583     0.00     0.95      0.161   I O        |        |        |        |      0.28
43.667     0.00     0.92      0.154   I O        |        |        |        |      0.27
43.750     0.00     0.88      0.148   I O        |        |        |        |      0.26
43.833     0.00     0.84      0.142   IO         |        |        |        |      0.25
```

43.917	0.00	0.81	0.137	IO					0.24
44.000	0.00	0.78	0.131	IO					0.23
44.083	0.00	0.75	0.126	IO					0.22
44.167	0.00	0.72	0.121	IO					0.21
44.250	0.00	0.69	0.116	IO					0.20
44.333	0.00	0.66	0.111	IO					0.19
44.417	0.00	0.63	0.107	IO					0.18
44.500	0.00	0.61	0.103	IO					0.18
44.583	0.00	0.58	0.099	IO					0.17
44.667	0.00	0.56	0.095	IO					0.16
44.750	0.00	0.54	0.091	IO					0.16
44.833	0.00	0.52	0.087	IO					0.15
44.917	0.00	0.50	0.084	IO					0.14
45.000	0.00	0.48	0.080	IO					0.14
45.083	0.00	0.46	0.077	IO					0.13
45.167	0.00	0.44	0.074	IO					0.13
45.250	0.00	0.42	0.071	O					0.12
45.333	0.00	0.40	0.068	O					0.12
45.417	0.00	0.39	0.065	O					0.11
45.500	0.00	0.37	0.063	O					0.11
45.583	0.00	0.36	0.060	O					0.10
45.667	0.00	0.34	0.058	O					0.10
45.750	0.00	0.33	0.056	O					0.10
45.833	0.00	0.32	0.053	O					0.09
45.917	0.00	0.30	0.051	O					0.09
46.000	0.00	0.29	0.049	O					0.08
46.083	0.00	0.28	0.047	O					0.08
46.167	0.00	0.27	0.045	O					0.08
46.250	0.00	0.26	0.044	O					0.08
46.333	0.00	0.25	0.042	O					0.07
46.417	0.00	0.24	0.040	O					0.07
46.500	0.00	0.23	0.038	O					0.07
46.583	0.00	0.22	0.037	O					0.06
46.667	0.00	0.21	0.035	O					0.06
46.750	0.00	0.20	0.034	O					0.06
46.833	0.00	0.19	0.033	O					0.06
46.917	0.00	0.19	0.031	O					0.05
47.000	0.00	0.18	0.030	O					0.05
47.083	0.00	0.17	0.029	O					0.05
47.167	0.00	0.16	0.028	O					0.05
47.250	0.00	0.16	0.027	O					0.05
47.333	0.00	0.15	0.026	O					0.04
47.417	0.00	0.15	0.025	O					0.04
47.500	0.00	0.14	0.024	O					0.04
47.583	0.00	0.13	0.023	O					0.04
47.667	0.00	0.13	0.022	O					0.04
47.750	0.00	0.12	0.021	O					0.04
47.833	0.00	0.12	0.020	O					0.03
47.917	0.00	0.11	0.019	O					0.03
48.000	0.00	0.11	0.018	O					0.03

```
48.083    0.00    0.11    0.018  O        |       |       |       |     0.03
48.167    0.00    0.10    0.017  O        |       |       |       |     0.03
48.250    0.00    0.10    0.016  O        |       |       |       |     0.03
48.333    0.00    0.09    0.016  O        |       |       |       |     0.03
48.417    0.00    0.09    0.015  O        |       |       |       |     0.03
48.500    0.00    0.09    0.014  O        |       |       |       |     0.02
48.583    0.00    0.08    0.014  O        |       |       |       |     0.02
48.667    0.00    0.08    0.013  O        |       |       |       |     0.02
48.750    0.00    0.08    0.013  O        |       |       |       |     0.02
48.833    0.00    0.07    0.012  O        |       |       |       |     0.02
48.917    0.00    0.07    0.012  O        |       |       |       |     0.02
49.000    0.00    0.07    0.011  O        |       |       |       |     0.02
49.083    0.00    0.06    0.011  O        |       |       |       |     0.02
49.167    0.00    0.06    0.010  O        |       |       |       |     0.02
49.250    0.00    0.06    0.010  O        |       |       |       |     0.02
49.333    0.00    0.06    0.010  O        |       |       |       |     0.02
49.417    0.00    0.05    0.009  O        |       |       |       |     0.02
49.500    0.00    0.05    0.009  O        |       |       |       |     0.02
49.583    0.00    0.05    0.008  O        |       |       |       |     0.01
49.667    0.00    0.05    0.008  O        |       |       |       |     0.01
49.750    0.00    0.05    0.008  O        |       |       |       |     0.01
49.833    0.00    0.04    0.008  O        |       |       |       |     0.01
49.917    0.00    0.04    0.007  O        |       |       |       |     0.01
50.000    0.00    0.04    0.007  O        |       |       |       |     0.01
50.083    0.00    0.04    0.007  O        |       |       |       |     0.01
50.167    0.00    0.04    0.006  O        |       |       |       |     0.01
50.250    0.00    0.04    0.006  O        |       |       |       |     0.01
50.333    0.00    0.03    0.006  O        |       |       |       |     0.01
50.417    0.00    0.03    0.006  O        |       |       |       |     0.01
50.500    0.00    0.03    0.005  O        |       |       |       |     0.01
50.583    0.00    0.03    0.005  O        |       |       |       |     0.01
50.667    0.00    0.03    0.005  O        |       |       |       |     0.01
50.750    0.00    0.03    0.005  O        |       |       |       |     0.01
50.833    0.00    0.03    0.005  O        |       |       |       |     0.01
50.917    0.00    0.03    0.004  O        |       |       |       |     0.01
51.000    0.00    0.03    0.004  O        |       |       |       |     0.01
51.083    0.00    0.02    0.004  O        |       |       |       |     0.01
51.167    0.00    0.02    0.004  O        |       |       |       |     0.01
51.250    0.00    0.02    0.004  O        |       |       |       |     0.01
51.333    0.00    0.02    0.004  O        |       |       |       |     0.01
51.417    0.00    0.02    0.003  O        |       |       |       |     0.01
51.500    0.00    0.02    0.003  O        |       |       |       |     0.01
51.583    0.00    0.02    0.003  O        |       |       |       |     0.01
51.667    0.00    0.02    0.003  O        |       |       |       |     0.01
51.750    0.00    0.02    0.003  O        |       |       |       |     0.01
51.833    0.00    0.02    0.003  O        |       |       |       |     0.00
51.917    0.00    0.02    0.003  O        |       |       |       |     0.00
52.000    0.00    0.02    0.003  O        |       |       |       |     0.00
52.083    0.00    0.01    0.002  O        |       |       |       |     0.00
52.167    0.00    0.01    0.002  O        |       |       |       |     0.00
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52.250    0.00    0.01      0.002  O        |       |       |       |      0.00
52.333    0.00    0.01      0.002  O        |       |       |       |      0.00
52.417    0.00    0.01      0.002  O        |       |       |       |      0.00
52.500    0.00    0.01      0.002  O        |       |       |       |      0.00
52.583    0.00    0.01      0.002  O        |       |       |       |      0.00
52.667    0.00    0.01      0.002  O        |       |       |       |      0.00
52.750    0.00    0.01      0.002  O        |       |       |       |      0.00
52.833    0.00    0.01      0.002  O        |       |       |       |      0.00
52.917    0.00    0.01      0.002  O        |       |       |       |      0.00
53.000    0.00    0.01      0.002  O        |       |       |       |      0.00
53.083    0.00    0.01      0.002  O        |       |       |       |      0.00
53.167    0.00    0.01      0.001  O        |       |       |       |      0.00
53.250    0.00    0.01      0.001  O        |       |       |       |      0.00
53.333    0.00    0.01      0.001  O        |       |       |       |      0.00
53.417    0.00    0.01      0.001  O        |       |       |       |      0.00
53.500    0.00    0.01      0.001  O        |       |       |       |      0.00
53.583    0.00    0.01      0.001  O        |       |       |       |      0.00
53.667    0.00    0.01      0.001  O        |       |       |       |      0.00
53.750    0.00    0.01      0.001  O        |       |       |       |      0.00
53.833    0.00    0.01      0.001  O        |       |       |       |      0.00
53.917    0.00    0.01      0.001  O        |       |       |       |      0.00
54.000    0.00    0.01      0.001  O        |       |       |       |      0.00
54.083    0.00    0.01      0.001  O        |       |       |       |      0.00
54.167    0.00    0.01      0.001  O        |       |       |       |      0.00
54.250    0.00    0.01      0.001  O        |       |       |       |      0.00
54.333    0.00    0.00      0.001  O        |       |       |       |      0.00
54.417    0.00    0.00      0.001  O        |       |       |       |      0.00
54.500    0.00    0.00      0.001  O        |       |       |       |      0.00
54.583    0.00    0.00      0.001  O        |       |       |       |      0.00
54.667    0.00    0.00      0.001  O        |       |       |       |      0.00
54.750    0.00    0.00      0.001  O        |       |       |       |      0.00
54.833    0.00    0.00      0.001  O        |       |       |       |      0.00
54.917    0.00    0.00      0.001  O        |       |       |       |      0.00
55.000    0.00    0.00      0.001  O        |       |       |       |      0.00
55.083    0.00    0.00      0.001  O        |       |       |       |      0.00

       ***************************HYDROGRAPH DATA****************************
                      Number of intervals =   661
                      Time interval =    5.0 (Min.)
                      Maximum/Peak flow rate =       20.013 (CFS)
                      Total volume =       7.908 (Ac.Ft)
              Status of hydrographs being held in storage
                         Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ***********************************************************************

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

NEWLAND SIMPSON
HEMET
POST DEVELOPMENT
FLOOD ROUTING
BASIN B3
100YR-24HR

```
                    FLOOD HYDROGRAPH ROUTING PROGRAM
           Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2023
                          Study date: 10/17/23

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


NEWLAND SIMPSON
POST DEVELOPMENT - DMA B
BASIN B3 FLOOD ROUTING
100YR 24HR
--------------------------------------------------------------------


Program License Serial Number 6491

--------------------------------------------------------------------
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: NSPRUHTOTALB24100.rte
****************************HYDROGRAPH DATA****************************
                Number of intervals =   292
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =       17.662 (CFS)
                Total volume =      10.016 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
***********************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       32.000 to Point/Station       32.000
**** RETARDING BASIN ROUTING ****
______________________________________________________________________

User entry of depth-outflow-storage data
--------------------------------------------------------------------
Total number of inflow hydrograph intervals = 292
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
--------------------------------------------------------------------
--------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
```

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.208	1.240	0.204	0.212
1.000	0.538	1.240	0.534	0.542
1.500	0.987	1.240	0.983	0.991
2.000	1.428	1.240	1.424	1.432
2.500	1.859	1.240	1.855	1.863
3.000	2.278	1.240	2.274	2.282
3.500	2.681	1.240	2.677	2.685
4.000	3.064	1.240	3.060	3.068
4.500	3.422	1.240	3.418	3.426
5.000	3.745	1.240	3.741	3.749
5.500	4.006	1.240	4.002	4.010
6.000	4.219	1.240	4.215	4.223
6.500	4.427	1.240	4.423	4.431
6.750	4.531	1.240	4.527	4.535
9.750	4.532	72.150	4.284	4.780

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

```
 Time   Inflow  Outflow    Storage                                        Depth
(Hours)  (CFS)   (CFS)     (Ac.Ft) .0       4.4     8.83    13.25   17.66 (Ft.)
 0.083    0.37    0.01      0.001  O       |       |       |       |      0.00
 0.167    0.76    0.03      0.005  OI      |       |       |       |      0.01
 0.250    0.84    0.06      0.010  OI      |       |       |       |      0.02
 0.333    1.06    0.10      0.016  OI      |       |       |       |      0.04
 0.417    1.27    0.14      0.024  O I     |       |       |       |      0.06
 0.500    1.31    0.19      0.031  O I     |       |       |       |      0.08
 0.583    1.33    0.23      0.039  O I     |       |       |       |      0.09
 0.667    1.33    0.28      0.046  O I     |       |       |       |      0.11
 0.750    1.33    0.32      0.053  O I     |       |       |       |      0.13
 0.833    1.52    0.36      0.061  O I     |       |       |       |      0.15
 0.917    1.71    0.41      0.069  O  I    |       |       |       |      0.17
 1.000    1.75    0.47      0.078  O  I    |       |       |       |      0.19
 1.083    1.58    0.51      0.086  O I     |       |       |       |      0.21
 1.167    1.39    0.55      0.093  |OI     |       |       |       |      0.22
 1.250    1.35    0.59      0.098  |OI     |       |       |       |      0.24
 1.333    1.34    0.62      0.104  |OI     |       |       |       |      0.25
 1.417    1.33    0.65      0.108  |OI     |       |       |       |      0.26
 1.500    1.33    0.67      0.113  |OI     |       |       |       |      0.27
 1.583    1.33    0.70      0.117  |OI     |       |       |       |      0.28
 1.667    1.33    0.73      0.122  |OI     |       |       |       |      0.29
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1.750    1.33    0.75      0.126  |OI      |       |       |       |     0.30
1.833    1.52    0.78      0.130  |OI      |       |       |       |     0.31
1.917    1.71    0.81      0.136  |O I     |       |       |       |     0.33
2.000    1.75    0.85      0.142  |O I     |       |       |       |     0.34
2.083    1.77    0.88      0.148  |O I     |       |       |       |     0.36
2.167    1.77    0.92      0.154  |O I     |       |       |       |     0.37
2.250    1.77    0.95      0.160  |O I     |       |       |       |     0.38
2.333    1.77    0.99      0.166  |O I     |       |       |       |     0.40
2.417    1.77    1.02      0.171  |O I     |       |       |       |     0.41
2.500    1.77    1.05      0.176  |O I     |       |       |       |     0.42
2.583    1.96    1.08      0.182  |O I     |       |       |       |     0.44
2.667    2.16    1.12      0.188  | OI     |       |       |       |     0.45
2.750    2.20    1.16      0.195  | OI     |       |       |       |     0.47
2.833    2.21    1.21      0.202  | O I    |       |       |       |     0.49
2.917    2.22    1.24      0.209  | O I    |       |       |       |     0.50
3.000    2.22    1.24      0.216  | O I    |       |       |       |     0.51
3.083    2.22    1.24      0.223  | O I    |       |       |       |     0.52
3.167    2.22    1.24      0.229  | O I    |       |       |       |     0.53
3.250    2.22    1.24      0.236  | O I    |       |       |       |     0.54
3.333    2.22    1.24      0.243  | O I    |       |       |       |     0.55
3.417    2.22    1.24      0.250  | O I    |       |       |       |     0.56
3.500    2.22    1.24      0.256  | O I    |       |       |       |     0.57
3.583    2.22    1.24      0.263  | O I    |       |       |       |     0.58
3.667    2.22    1.24      0.270  | O I    |       |       |       |     0.59
3.750    2.22    1.24      0.277  | O I    |       |       |       |     0.60
3.833    2.41    1.24      0.284  | O I    |       |       |       |     0.61
3.917    2.60    1.24      0.293  | O I    |       |       |       |     0.63
4.000    2.64    1.24      0.302  | O I    |       |       |       |     0.64
4.083    2.66    1.24      0.312  | O I    |       |       |       |     0.66
4.167    2.66    1.24      0.322  | O I    |       |       |       |     0.67
4.250    2.66    1.24      0.331  | O I    |       |       |       |     0.69
4.333    2.85    1.24      0.342  | O  I   |       |       |       |     0.70
4.417    3.04    1.24      0.354  | O  I   |       |       |       |     0.72
4.500    3.08    1.24      0.366  | O  I   |       |       |       |     0.74
4.583    3.10    1.24      0.379  | O  I   |       |       |       |     0.76
4.667    3.11    1.24      0.392  | O  I   |       |       |       |     0.78
4.750    3.11    1.24      0.405  | O  I   |       |       |       |     0.80
4.833    3.29    1.24      0.418  | O  I   |       |       |       |     0.82
4.917    3.49    1.24      0.433  | O   I  |       |       |       |     0.84
5.000    3.53    1.24      0.448  | O   I  |       |       |       |     0.86
5.083    3.17    1.24      0.463  | O  I   |       |       |       |     0.89
5.167    2.79    1.24      0.475  | O  I   |       |       |       |     0.90
5.250    2.71    1.24      0.485  | O I    |       |       |       |     0.92
5.333    2.86    1.24      0.496  | O  I   |       |       |       |     0.94
5.417    3.04    1.24      0.508  | O  I   |       |       |       |     0.95
5.500    3.08    1.24      0.520  | O  I   |       |       |       |     0.97
5.583    3.29    1.24      0.534  | O  I   |       |       |       |     0.99
5.667    3.49    1.24      0.548  | O   I  |       |       |       |     1.01
5.750    3.53    1.24      0.564  | O   I  |       |       |       |     1.03
5.833    3.54    1.24      0.580  | O   I  |       |       |       |     1.05
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 5.917    3.55    1.24      0.596  | O   I |       |       |       |     1.06
 6.000    3.55    1.24      0.612  | O   I |       |       |       |     1.08
 6.083    3.74    1.24      0.628  | O   I |       |       |       |     1.10
 6.167    3.93    1.24      0.646  | O    I|       |       |       |     1.12
 6.250    3.97    1.24      0.665  | O    I|       |       |       |     1.14
 6.333    3.99    1.24      0.684  | O    I|       |       |       |     1.16
 6.417    3.99    1.24      0.703  | O    I|       |       |       |     1.18
 6.500    3.99    1.24      0.721  | O    I|       |       |       |     1.20
 6.583    4.18    1.24      0.741  | O    I|       |       |       |     1.23
 6.667    4.37    1.24      0.762  | O    I|       |       |       |     1.25
 6.750    4.41    1.24      0.784  | O    I|       |       |       |     1.27
 6.833    4.43    1.24      0.806  | O     I       |       |       |     1.30
 6.917    4.44    1.24      0.828  | O     I       |       |       |     1.32
 7.000    4.44    1.24      0.850  | O     I       |       |       |     1.35
 7.083    4.44    1.24      0.872  | O     I       |       |       |     1.37
 7.167    4.44    1.24      0.894  | O     I       |       |       |     1.40
 7.250    4.44    1.24      0.916  | O     I       |       |       |     1.42
 7.333    4.62    1.24      0.938  | O     I       |       |       |     1.45
 7.417    4.82    1.24      0.962  | O     I       |       |       |     1.47
 7.500    4.86    1.24      0.987  | O     I       |       |       |     1.50
 7.583    5.08    1.24      1.013  | O     |I      |       |       |     1.53
 7.667    5.30    1.24      1.040  | O     |I      |       |       |     1.56
 7.750    5.35    1.24      1.068  | O     |I      |       |       |     1.59
 7.833    5.60    1.24      1.097  | O     | I     |       |       |     1.63
 7.917    5.84    1.24      1.128  | O     | I     |       |       |     1.66
 8.000    5.90    1.24      1.160  | O     | I     |       |       |     1.70
 8.083    6.38    1.24      1.194  | O     |  I    |       |       |     1.73
 8.167    6.87    1.24      1.231  | O     |   I   |       |       |     1.78
 8.250    6.97    1.24      1.270  | O     |   I   |       |       |     1.82
 8.333    7.02    1.24      1.310  | O     |   I   |       |       |     1.87
 8.417    7.04    1.24      1.350  | O     |   I   |       |       |     1.91
 8.500    7.04    1.24      1.389  | O     |   I   |       |       |     1.96
 8.583    7.28    1.24      1.430  | O     |    I  |       |       |     2.00
 8.667    7.52    1.24      1.473  | O     |    I  |       |       |     2.05
 8.750    7.58    1.24      1.516  | O     |    I  |       |       |     2.10
 8.833    7.83    1.24      1.561  | O     |     I |       |       |     2.15
 8.917    8.08    1.24      1.607  | O     |     I |       |       |     2.21
 9.000    8.14    1.24      1.654  | O     |     I |       |       |     2.26
 9.083    8.62    1.24      1.703  | O     |      I|       |       |     2.32
 9.167    9.11    1.24      1.756  | O     |       I       |       |     2.38
 9.250    9.21    1.24      1.810  | O     |       I       |       |     2.44
 9.333    9.49    1.24      1.866  | O     |       |I      |       |     2.51
 9.417    9.74    1.24      1.924  | O     |       |I      |       |     2.58
 9.500    9.80    1.24      1.983  | O     |       |I      |       |     2.65
 9.583   10.05    1.24      2.042  | O     |       | I     |       |     2.72
 9.667   10.30    1.24      2.104  | O     |       | I     |       |     2.79
 9.750   10.36    1.24      2.167  | O     |       | I     |       |     2.87
 9.833   10.61    1.24      2.230  | O     |       |  I    |       |     2.94
 9.917   10.86    1.24      2.296  | O     |       |  I    |       |     3.02
10.000   10.92    1.24      2.362  | O     |       |  I    |       |     3.10
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10.083    9.34    1.24      2.423  | O     |       I       |       |     3.18
10.167    7.68    1.24      2.473  | O     |    I  |       |       |     3.24
10.250    7.34    1.24      2.517  | O     |    I  |       |       |     3.30
10.333    7.20    1.24      2.558  | O     |    I  |       |       |     3.35
10.417    7.16    1.24      2.599  | O     |   I   |       |       |     3.40
10.500    7.16    1.24      2.640  | O     |   I   |       |       |     3.45
10.583    8.31    1.24      2.685  | O     |      I|       |       |     3.50
10.667    9.51    1.24      2.737  | O     |       |I      |       |     3.57
10.750    9.76    1.24      2.795  | O     |       |I      |       |     3.65
10.833    9.87    1.24      2.854  | O     |       |I      |       |     3.73
10.917    9.91    1.24      2.914  | O     |       |I      |       |     3.80
11.000    9.91    1.24      2.974  | O     |       |I      |       |     3.88
11.083    9.69    1.24      3.032  | O     |       |I      |       |     3.96
11.167    9.45    1.24      3.090  | O     |       |I      |       |     4.04
11.250    9.41    1.24      3.146  | O     |       |I      |       |     4.11
11.333    9.39    1.24      3.203  | O     |       |I      |       |     4.19
11.417    9.39    1.24      3.259  | O     |       |I      |       |     4.27
11.500    9.40    1.24      3.315  | O     |       |I      |       |     4.35
11.583    8.94    1.24      3.369  | O     |       I       |       |     4.43
11.667    8.47    1.24      3.421  | O     |      I|       |       |     4.50
11.750    8.38    1.24      3.470  | O     |      I|       |       |     4.57
11.833    8.57    1.24      3.520  | O     |      I|       |       |     4.65
11.917    8.80    1.24      3.571  | O     |      I|       |       |     4.73
12.000    8.85    1.24      3.624  | O     |       I       |       |     4.81
12.083   10.48    1.24      3.682  | O     |       | I     |       |     4.90
12.167   12.16    1.24      3.751  | O     |       |     I |       |     5.01
12.250   12.51    1.24      3.828  | O     |       |     I |       |     5.16
12.333   12.89    1.24      3.906  | O     |       |      I|       |     5.31
12.417   13.18    1.24      3.988  | O     |       |      I|       |     5.46
12.500   13.23    1.24      4.070  | O     |       |      I|       |     5.65
12.583   13.71    1.24      4.154  | O     |       |       I       |     5.85
12.667   14.20    1.24      4.242  | O     |       |       |I      |     6.06
12.750   14.31    1.24      4.332  | O     |       |       |I      |     6.27
12.833   14.58    1.24      4.422  | O     |       |       | I     |     6.49
12.917   14.84    1.24      4.515  | O     |       |       | I     |     6.71
13.000   14.89   23.81      4.531  |       |       |       | I     O     7.70
13.083   16.06    7.20      4.531  |       |    O  |       |    I  |     7.00
13.167   17.26   26.04      4.531  |       |       |       |      IO     7.80
13.250   17.51    8.81      4.531  |       |      O|       |      I|     7.07
13.333   17.62   26.25      4.531  |       |       |       |      IO     7.81
13.417   17.66    9.09      4.531  |       |       O       |      I|     7.08
13.500   17.66   26.16      4.531  |       |       |       |       O     7.80
13.583   15.15    6.73      4.531  |       |   O   |       |  I    |     6.98
13.667   12.53   20.89      4.531  |       |       |     I |       O     7.58
13.750   11.99    3.70      4.531  |     O |       |    I  |       |     6.85
13.833   11.77   19.99      4.531  |       |       |    I  |       O     7.54
13.917   11.70    3.55      4.531  |     O |       |    I  |       |     6.85
14.000   11.70   19.79      4.531  |       |       |    I  |       O     7.53
14.083   12.62    4.60      4.531  |       O       |     I |       |     6.89
14.167   13.58   21.54      4.531  |       |       |       I       O     7.61
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14.250   13.78    5.89       4.531  |       | O     |       I       |     6.95
14.333   13.64   21.47       4.531  |       |       |       I       O     7.61
14.417   13.43    5.67       4.531  |       | O     |       I       |     6.94
14.500   13.39   21.09       4.531  |       |       |       I       O     7.59
14.583   13.37    5.73       4.531  |       | O     |       I       |     6.94
14.667   13.37   20.94       4.531  |       |       |       I       O     7.58
14.750   13.37    5.86       4.531  |       | O     |       I       |     6.95
14.833   13.15   20.60       4.531  |       |       |      I|       O     7.57
14.917   12.91    5.52       4.531  |       | O     |      I|       |     6.93
15.000   12.87   20.20       4.531  |       |       |      I|       O     7.55
15.083   12.62    5.35       4.531  |       |O      |     I |       |     6.92
15.167   12.38   19.59       4.531  |       |       |     I |       O     7.53
15.250   12.33    5.18       4.531  |       |O      |     I |       |     6.92
15.333   12.09   19.19       4.531  |       |       |    I  |       O     7.51
15.417   11.85    4.81       4.531  |       O       |    I  |       |     6.90
15.500   11.80   18.78       4.531  |       |       |    I  |       O     7.49
15.583   10.87    3.95       4.531  |      O|       |  I    |       |     6.86
15.667    9.91   16.78       4.531  |       |       |I      |     O |     7.41
15.750    9.72    2.91       4.531  |    O  |       |I      |       |     6.82
15.833    9.64   16.40       4.531  |       |       |I      |    O  |     7.39
15.917    9.62    2.92       4.531  |    O  |       |I      |       |     6.82
16.000    9.62   16.27       4.531  |       |       |I      |    O  |     7.39
16.083    6.32    1.24       4.526  | O     |  I    |       |       |     6.74
16.167    2.88    6.44       4.531  |    I  |  O    |       |       |     6.97
16.250    2.16    1.24       4.522  | OI    |       |       |       |     6.73
16.333    1.88    1.24       4.527  | OI    |       |       |       |     6.74
16.417    1.77    1.36       4.531  | OI    |       |       |       |     6.76
16.500    1.77    2.19       4.531  |  O    |       |       |       |     6.79
16.583    1.59    1.24       4.531  | O     |       |       |       |     6.75
16.667    1.39    1.68       4.531  | IO    |       |       |       |     6.77
16.750    1.35    1.24       4.530  | O     |       |       |       |     6.75
16.833    1.34    1.28       4.531  | O     |       |       |       |     6.75
16.917    1.33    1.39       4.531  | O     |       |       |       |     6.76
17.000    1.33    1.27       4.531  | O     |       |       |       |     6.75
17.083    1.71    1.76       4.531  |  O    |       |       |       |     6.77
17.167    2.09    2.04       4.531  |  O    |       |       |       |     6.78
17.250    2.17    2.23       4.531  |  IO   |       |       |       |     6.79
17.333    2.21    2.15       4.531  |  O    |       |       |       |     6.79
17.417    2.22    2.27       4.531  |   O   |       |       |       |     6.79
17.500    2.22    2.16       4.531  |  OI   |       |       |       |     6.79
17.583    2.22    2.27       4.531  |   O   |       |       |       |     6.79
17.667    2.22    2.17       4.531  |  OI   |       |       |       |     6.79
17.750    2.22    2.27       4.531  |   O   |       |       |       |     6.79
17.833    2.03    1.98       4.531  |  O    |       |       |       |     6.78
17.917    1.84    1.89       4.531  |  O    |       |       |       |     6.78
18.000    1.80    1.75       4.531  |  O    |       |       |       |     6.77
18.083    1.78    1.83       4.531  |  O    |       |       |       |     6.77
18.167    1.77    1.72       4.531  |  O    |       |       |       |     6.77
18.250    1.77    1.82       4.531  |  O    |       |       |       |     6.77
18.333    1.77    1.73       4.531  |  O    |       |       |       |     6.77
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18.417	1.77	1.82	4.531	O	6.77
18.500	1.77	1.73	4.531	O	6.77
18.583	1.59	1.64	4.531	O	6.77
18.667	1.39	1.35	4.531	O	6.75
18.750	1.35	1.40	4.531	O	6.76
18.833	1.15	1.24	4.531	O	6.75
18.917	0.95	1.24	4.529	IO	6.75
19.000	0.91	1.24	4.527	IO	6.74
19.083	1.08	1.24	4.525	IO	6.74
19.167	1.27	1.24	4.525	O	6.74
19.250	1.31	1.24	4.525	O	6.74
19.333	1.51	1.24	4.526	O	6.74
19.417	1.71	1.24	4.529	OI	6.75
19.500	1.75	1.65	4.531	OI	6.77
19.583	1.58	1.69	4.531	IO	6.77
19.667	1.39	1.29	4.531	O	6.75
19.750	1.35	1.46	4.531	O	6.76
19.833	1.15	1.24	4.530	O	6.75
19.917	0.95	1.24	4.529	IO	6.75
20.000	0.91	1.24	4.527	IO	6.74
20.083	1.08	1.24	4.525	IO	6.74
20.167	1.27	1.24	4.525	O	6.73
20.250	1.31	1.24	4.525	O	6.74
20.333	1.33	1.24	4.526	O	6.74
20.417	1.33	1.24	4.526	O	6.74
20.500	1.33	1.24	4.527	O	6.74
20.583	1.33	1.24	4.527	O	6.74
20.667	1.33	1.24	4.528	O	6.74
20.750	1.33	1.24	4.529	O	6.74
20.833	1.14	1.24	4.529	O	6.74
20.917	0.95	1.24	4.527	IO	6.74
21.000	0.91	1.24	4.525	IO	6.74
21.083	1.08	1.24	4.524	IO	6.73
21.167	1.27	1.24	4.523	O	6.73
21.250	1.31	1.24	4.523	O	6.73
21.333	1.14	1.24	4.523	O	6.73
21.417	0.95	1.24	4.522	IO	6.73
21.500	0.91	1.24	4.520	IO	6.72
21.583	1.08	1.24	4.518	IO	6.72
21.667	1.27	1.24	4.518	O	6.72
21.750	1.31	1.24	4.518	O	6.72
21.833	1.14	1.24	4.518	O	6.72
21.917	0.95	1.24	4.517	IO	6.72
22.000	0.91	1.24	4.514	IO	6.71
22.083	1.08	1.24	4.513	IO	6.71
22.167	1.27	1.24	4.512	O	6.70
22.250	1.31	1.24	4.513	O	6.71
22.333	1.14	1.24	4.512	O	6.71
22.417	0.95	1.24	4.511	IO	6.70
22.500	0.91	1.24	4.509	IO	6.70

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22.583    0.89    1.24      4.507  |IO      |       |       |       6.69
22.667    0.89    1.24      4.504  |IO      |       |       |       6.69
22.750    0.89    1.24      4.502  |IO      |       |       |       6.68
22.833    0.89    1.24      4.499  |IO      |       |       |       6.67
22.917    0.89    1.24      4.497  |IO      |       |       |       6.67
23.000    0.89    1.24      4.495  |IO      |       |       |       6.66
23.083    0.89    1.24      4.492  |IO      |       |       |       6.66
23.167    0.89    1.24      4.490  |IO      |       |       |       6.65
23.250    0.89    1.24      4.487  |IO      |       |       |       6.64
23.333    0.89    1.24      4.485  |IO      |       |       |       6.64
23.417    0.89    1.24      4.482  |IO      |       |       |       6.63
23.500    0.89    1.24      4.480  |IO      |       |       |       6.63
23.583    0.89    1.24      4.478  |IO      |       |       |       6.62
23.667    0.89    1.24      4.475  |IO      |       |       |       6.62
23.750    0.89    1.24      4.473  |IO      |       |       |       6.61
23.833    0.89    1.24      4.470  |IO      |       |       |       6.60
23.917    0.89    1.24      4.468  |IO      |       |       |       6.60
24.000    0.89    1.24      4.465  |IO      |       |       |       6.59
24.083    0.51    1.24      4.462  I O      |       |       |       6.58
24.167    0.12    1.24      4.455  I O      |       |       |       6.57
24.250    0.04    1.24      4.447  I O      |       |       |       6.55
24.333    0.01    1.24      4.439  I O      |       |       |       6.53
24.417    0.00    1.24      4.431  I O      |       |       |       6.51
24.500    0.00    1.24      4.422  I O      |       |       |       6.49
24.583    0.00    1.24      4.413  I O      |       |       |       6.47
24.667    0.00    1.24      4.405  I O      |       |       |       6.45
24.750    0.00    1.24      4.396  I O      |       |       |       6.43
24.833    0.00    1.24      4.388  I O      |       |       |       6.41
24.917    0.00    1.24      4.379  I O      |       |       |       6.39
25.000    0.00    1.24      4.371  I O      |       |       |       6.36
25.083    0.00    1.24      4.362  I O      |       |       |       6.34
25.167    0.00    1.24      4.354  I O      |       |       |       6.32
25.250    0.00    1.24      4.345  I O      |       |       |       6.30
25.333    0.00    1.24      4.337  I O      |       |       |       6.28
25.417    0.00    1.24      4.328  I O      |       |       |       6.26
25.500    0.00    1.24      4.319  I O      |       |       |       6.24
25.583    0.00    1.24      4.311  I O      |       |       |       6.22
25.667    0.00    1.24      4.302  I O      |       |       |       6.20
25.750    0.00    1.24      4.294  I O      |       |       |       6.18
25.833    0.00    1.24      4.285  I O      |       |       |       6.16
25.917    0.00    1.24      4.277  I O      |       |       |       6.14
26.000    0.00    1.24      4.268  I O      |       |       |       6.12
26.083    0.00    1.24      4.260  I O      |       |       |       6.10
26.167    0.00    1.24      4.251  I O      |       |       |       6.08
26.250    0.00    1.24      4.243  I O      |       |       |       6.06
26.333    0.00    1.24      4.234  I O      |       |       |       6.04
26.417    0.00    1.24      4.226  I O      |       |       |       6.02
26.500    0.00    1.24      4.217  I O      |       |       |       6.00
26.583    0.00    1.24      4.208  I O      |       |       |       5.98
26.667    0.00    1.24      4.200  I O      |       |       |       5.96
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26.750	0.00	1.24	4.191	I O	5.94
26.833	0.00	1.24	4.183	I O	5.92
26.917	0.00	1.24	4.174	I O	5.90
27.000	0.00	1.24	4.166	I O	5.88
27.083	0.00	1.24	4.157	I O	5.85
27.167	0.00	1.24	4.149	I O	5.83
27.250	0.00	1.24	4.140	I O	5.81
27.333	0.00	1.24	4.132	I O	5.79
27.417	0.00	1.24	4.123	I O	5.77
27.500	0.00	1.24	4.115	I O	5.75
27.583	0.00	1.24	4.106	I O	5.73
27.667	0.00	1.24	4.097	I O	5.71
27.750	0.00	1.24	4.089	I O	5.69
27.833	0.00	1.24	4.080	I O	5.67
27.917	0.00	1.24	4.072	I O	5.65
28.000	0.00	1.24	4.063	I O	5.63
28.083	0.00	1.24	4.055	I O	5.61
28.167	0.00	1.24	4.046	I O	5.59
28.250	0.00	1.24	4.038	I O	5.57
28.333	0.00	1.24	4.029	I O	5.55
28.417	0.00	1.24	4.021	I O	5.53
28.500	0.00	1.24	4.012	I O	5.51
28.583	0.00	1.24	4.004	I O	5.50
28.667	0.00	1.24	3.995	I O	5.48
28.750	0.00	1.24	3.986	I O	5.46
28.833	0.00	1.24	3.978	I O	5.45
28.917	0.00	1.24	3.969	I O	5.43
29.000	0.00	1.24	3.961	I O	5.41
29.083	0.00	1.24	3.952	I O	5.40
29.167	0.00	1.24	3.944	I O	5.38
29.250	0.00	1.24	3.935	I O	5.36
29.333	0.00	1.24	3.927	I O	5.35
29.417	0.00	1.24	3.918	I O	5.33
29.500	0.00	1.24	3.910	I O	5.32
29.583	0.00	1.24	3.901	I O	5.30
29.667	0.00	1.24	3.892	I O	5.28
29.750	0.00	1.24	3.884	I O	5.27
29.833	0.00	1.24	3.875	I O	5.25
29.917	0.00	1.24	3.867	I O	5.23
30.000	0.00	1.24	3.858	I O	5.22
30.083	0.00	1.24	3.850	I O	5.20
30.167	0.00	1.24	3.841	I O	5.18
30.250	0.00	1.24	3.833	I O	5.17
30.333	0.00	1.24	3.824	I O	5.15
30.417	0.00	1.24	3.816	I O	5.14
30.500	0.00	1.24	3.807	I O	5.12
30.583	0.00	1.24	3.799	I O	5.10
30.667	0.00	1.24	3.790	I O	5.09
30.750	0.00	1.24	3.781	I O	5.07
30.833	0.00	1.24	3.773	I O	5.05

30.917	0.00	1.24	3.764	I O	5.04
31.000	0.00	1.24	3.756	I O	5.02
31.083	0.00	1.24	3.747	I O	5.00
31.167	0.00	1.24	3.739	I O	4.99
31.250	0.00	1.24	3.730	I O	4.98
31.333	0.00	1.24	3.722	I O	4.96
31.417	0.00	1.24	3.713	I O	4.95
31.500	0.00	1.24	3.705	I O	4.94
31.583	0.00	1.24	3.696	I O	4.92
31.667	0.00	1.24	3.688	I O	4.91
31.750	0.00	1.24	3.679	I O	4.90
31.833	0.00	1.24	3.670	I O	4.88
31.917	0.00	1.24	3.662	I O	4.87
32.000	0.00	1.24	3.653	I O	4.86
32.083	0.00	1.24	3.645	I O	4.84
32.167	0.00	1.24	3.636	I O	4.83
32.250	0.00	1.24	3.628	I O	4.82
32.333	0.00	1.24	3.619	I O	4.81
32.417	0.00	1.24	3.611	I O	4.79
32.500	0.00	1.24	3.602	I O	4.78
32.583	0.00	1.24	3.594	I O	4.77
32.667	0.00	1.24	3.585	I O	4.75
32.750	0.00	1.24	3.577	I O	4.74
32.833	0.00	1.24	3.568	I O	4.73
32.917	0.00	1.24	3.559	I O	4.71
33.000	0.00	1.24	3.551	I O	4.70
33.083	0.00	1.24	3.542	I O	4.69
33.167	0.00	1.24	3.534	I O	4.67
33.250	0.00	1.24	3.525	I O	4.66
33.333	0.00	1.24	3.517	I O	4.65
33.417	0.00	1.24	3.508	I O	4.63
33.500	0.00	1.24	3.500	I O	4.62
33.583	0.00	1.24	3.491	I O	4.61
33.667	0.00	1.24	3.483	I O	4.59
33.750	0.00	1.24	3.474	I O	4.58
33.833	0.00	1.24	3.465	I O	4.57
33.917	0.00	1.24	3.457	I O	4.55
34.000	0.00	1.24	3.448	I O	4.54
34.083	0.00	1.24	3.440	I O	4.53
34.167	0.00	1.24	3.431	I O	4.51
34.250	0.00	1.24	3.423	I O	4.50
34.333	0.00	1.24	3.414	I O	4.49
34.417	0.00	1.24	3.406	I O	4.48
34.500	0.00	1.24	3.397	I O	4.47
34.583	0.00	1.24	3.389	I O	4.45
34.667	0.00	1.24	3.380	I O	4.44
34.750	0.00	1.24	3.372	I O	4.43
34.833	0.00	1.24	3.363	I O	4.42
34.917	0.00	1.24	3.354	I O	4.41
35.000	0.00	1.24	3.346	I O	4.39

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35.083     0.00     1.24      3.337  I O      |       |       |       |      4.38
35.167     0.00     1.24      3.329  I O      |       |       |       |      4.37
35.250     0.00     1.24      3.320  I O      |       |       |       |      4.36
35.333     0.00     1.24      3.312  I O      |       |       |       |      4.35
35.417     0.00     1.24      3.303  I O      |       |       |       |      4.33
35.500     0.00     1.24      3.295  I O      |       |       |       |      4.32
35.583     0.00     1.24      3.286  I O      |       |       |       |      4.31
35.667     0.00     1.24      3.278  I O      |       |       |       |      4.30
35.750     0.00     1.24      3.269  I O      |       |       |       |      4.29
35.833     0.00     1.24      3.261  I O      |       |       |       |      4.27
35.917     0.00     1.24      3.252  I O      |       |       |       |      4.26
36.000     0.00     1.24      3.243  I O      |       |       |       |      4.25
36.083     0.00     1.24      3.235  I O      |       |       |       |      4.24
36.167     0.00     1.24      3.226  I O      |       |       |       |      4.23
36.250     0.00     1.24      3.218  I O      |       |       |       |      4.21
36.333     0.00     1.24      3.209  I O      |       |       |       |      4.20
36.417     0.00     1.24      3.201  I O      |       |       |       |      4.19
36.500     0.00     1.24      3.192  I O      |       |       |       |      4.18
36.583     0.00     1.24      3.184  I O      |       |       |       |      4.17
36.667     0.00     1.24      3.175  I O      |       |       |       |      4.16
36.750     0.00     1.24      3.167  I O      |       |       |       |      4.14
36.833     0.00     1.24      3.158  I O      |       |       |       |      4.13
36.917     0.00     1.24      3.150  I O      |       |       |       |      4.12
37.000     0.00     1.24      3.141  I O      |       |       |       |      4.11
37.083     0.00     1.24      3.132  I O      |       |       |       |      4.10
37.167     0.00     1.24      3.124  I O      |       |       |       |      4.08
37.250     0.00     1.24      3.115  I O      |       |       |       |      4.07
37.333     0.00     1.24      3.107  I O      |       |       |       |      4.06
37.417     0.00     1.24      3.098  I O      |       |       |       |      4.05
37.500     0.00     1.24      3.090  I O      |       |       |       |      4.04
37.583     0.00     1.24      3.081  I O      |       |       |       |      4.02
37.667     0.00     1.24      3.073  I O      |       |       |       |      4.01
37.750     0.00     1.24      3.064  I O      |       |       |       |      4.00
37.833     0.00     1.24      3.056  I O      |       |       |       |      3.99
37.917     0.00     1.24      3.047  I O      |       |       |       |      3.98
38.000     0.00     1.24      3.038  I O      |       |       |       |      3.97
38.083     0.00     1.24      3.030  I O      |       |       |       |      3.96
38.167     0.00     1.24      3.021  I O      |       |       |       |      3.94
38.250     0.00     1.24      3.013  I O      |       |       |       |      3.93
38.333     0.00     1.24      3.004  I O      |       |       |       |      3.92
38.417     0.00     1.24      2.996  I O      |       |       |       |      3.91
38.500     0.00     1.24      2.987  I O      |       |       |       |      3.90
38.583     0.00     1.24      2.979  I O      |       |       |       |      3.89
38.667     0.00     1.24      2.970  I O      |       |       |       |      3.88
38.750     0.00     1.24      2.962  I O      |       |       |       |      3.87
38.833     0.00     1.24      2.953  I O      |       |       |       |      3.86
38.917     0.00     1.24      2.945  I O      |       |       |       |      3.84
39.000     0.00     1.24      2.936  I O      |       |       |       |      3.83
39.083     0.00     1.24      2.927  I O      |       |       |       |      3.82
39.167     0.00     1.24      2.919  I O      |       |       |       |      3.81
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39.250	0.00	1.24	2.910	I O					3.80
39.333	0.00	1.24	2.902	I O					3.79
39.417	0.00	1.24	2.893	I O					3.78
39.500	0.00	1.24	2.885	I O					3.77
39.583	0.00	1.24	2.876	I O					3.75
39.667	0.00	1.24	2.868	I O					3.74
39.750	0.00	1.24	2.859	I O					3.73
39.833	0.00	1.24	2.851	I O					3.72
39.917	0.00	1.24	2.842	I O					3.71
40.000	0.00	1.24	2.834	I O					3.70
40.083	0.00	1.24	2.825	I O					3.69
40.167	0.00	1.24	2.816	I O					3.68
40.250	0.00	1.24	2.808	I O					3.67
40.333	0.00	1.24	2.799	I O					3.65
40.417	0.00	1.24	2.791	I O					3.64
40.500	0.00	1.24	2.782	I O					3.63
40.583	0.00	1.24	2.774	I O					3.62
40.667	0.00	1.24	2.765	I O					3.61
40.750	0.00	1.24	2.757	I O					3.60
40.833	0.00	1.24	2.748	I O					3.59
40.917	0.00	1.24	2.740	I O					3.58
41.000	0.00	1.24	2.731	I O					3.57
41.083	0.00	1.24	2.723	I O					3.55
41.167	0.00	1.24	2.714	I O					3.54
41.250	0.00	1.24	2.705	I O					3.53
41.333	0.00	1.24	2.697	I O					3.52
41.417	0.00	1.24	2.688	I O					3.51
41.500	0.00	1.24	2.680	I O					3.50
41.583	0.00	1.24	2.671	I O					3.49
41.667	0.00	1.24	2.663	I O					3.48
41.750	0.00	1.24	2.654	I O					3.47
41.833	0.00	1.24	2.646	I O					3.46
41.917	0.00	1.24	2.637	I O					3.45
42.000	0.00	1.24	2.629	I O					3.43
42.083	0.00	1.24	2.620	I O					3.42
42.167	0.00	1.24	2.611	I O					3.41
42.250	0.00	1.24	2.603	I O					3.40
42.333	0.00	1.24	2.594	I O					3.39
42.417	0.00	1.24	2.586	I O					3.38
42.500	0.00	1.24	2.577	I O					3.37
42.583	0.00	1.24	2.569	I O					3.36
42.667	0.00	1.24	2.560	I O					3.35
42.750	0.00	1.24	2.552	I O					3.34
42.833	0.00	1.24	2.543	I O					3.33
42.917	0.00	1.24	2.535	I O					3.32
43.000	0.00	1.24	2.526	I O					3.31
43.083	0.00	1.24	2.518	I O					3.30
43.167	0.00	1.24	2.509	I O					3.29
43.250	0.00	1.24	2.500	I O					3.28
43.333	0.00	1.24	2.492	I O					3.27

43.417	0.00	1.24	2.483	I O					3.25
43.500	0.00	1.24	2.475	I O					3.24
43.583	0.00	1.24	2.466	I O					3.23
43.667	0.00	1.24	2.458	I O					3.22
43.750	0.00	1.24	2.449	I O					3.21
43.833	0.00	1.24	2.441	I O					3.20
43.917	0.00	1.24	2.432	I O					3.19
44.000	0.00	1.24	2.424	I O					3.18
44.083	0.00	1.24	2.415	I O					3.17
44.167	0.00	1.24	2.407	I O					3.16
44.250	0.00	1.24	2.398	I O					3.15
44.333	0.00	1.24	2.389	I O					3.14
44.417	0.00	1.24	2.381	I O					3.13
44.500	0.00	1.24	2.372	I O					3.12
44.583	0.00	1.24	2.364	I O					3.11
44.667	0.00	1.24	2.355	I O					3.10
44.750	0.00	1.24	2.347	I O					3.09
44.833	0.00	1.24	2.338	I O					3.07
44.917	0.00	1.24	2.330	I O					3.06
45.000	0.00	1.24	2.321	I O					3.05
45.083	0.00	1.24	2.313	I O					3.04
45.167	0.00	1.24	2.304	I O					3.03
45.250	0.00	1.24	2.296	I O					3.02
45.333	0.00	1.24	2.287	I O					3.01
45.417	0.00	1.24	2.278	I O					3.00
45.500	0.00	1.24	2.270	I O					2.99
45.583	0.00	1.24	2.261	I O					2.98
45.667	0.00	1.24	2.253	I O					2.97
45.750	0.00	1.24	2.244	I O					2.96
45.833	0.00	1.24	2.236	I O					2.95
45.917	0.00	1.24	2.227	I O					2.94
46.000	0.00	1.24	2.219	I O					2.93
46.083	0.00	1.24	2.210	I O					2.92
46.167	0.00	1.24	2.202	I O					2.91
46.250	0.00	1.24	2.193	I O					2.90
46.333	0.00	1.24	2.185	I O					2.89
46.417	0.00	1.24	2.176	I O					2.88
46.500	0.00	1.24	2.167	I O					2.87
46.583	0.00	1.24	2.159	I O					2.86
46.667	0.00	1.24	2.150	I O					2.85
46.750	0.00	1.24	2.142	I O					2.84
46.833	0.00	1.24	2.133	I O					2.83
46.917	0.00	1.24	2.125	I O					2.82
47.000	0.00	1.24	2.116	I O					2.81
47.083	0.00	1.24	2.108	I O					2.80
47.167	0.00	1.24	2.099	I O					2.79
47.250	0.00	1.24	2.091	I O					2.78
47.333	0.00	1.24	2.082	I O					2.77
47.417	0.00	1.24	2.073	I O					2.76
47.500	0.00	1.24	2.065	I O					2.75

47.583	0.00	1.24	2.056	I O	2.74
47.667	0.00	1.24	2.048	I O	2.73
47.750	0.00	1.24	2.039	I O	2.72
47.833	0.00	1.24	2.031	I O	2.70
47.917	0.00	1.24	2.022	I O	2.69
48.000	0.00	1.24	2.014	I O	2.68
48.083	0.00	1.24	2.005	I O	2.67
48.167	0.00	1.24	1.997	I O	2.66
48.250	0.00	1.24	1.988	I O	2.65
48.333	0.00	1.24	1.980	I O	2.64
48.417	0.00	1.24	1.971	I O	2.63
48.500	0.00	1.24	1.962	I O	2.62
48.583	0.00	1.24	1.954	I O	2.61
48.667	0.00	1.24	1.945	I O	2.60
48.750	0.00	1.24	1.937	I O	2.59
48.833	0.00	1.24	1.928	I O	2.58
48.917	0.00	1.24	1.920	I O	2.57
49.000	0.00	1.24	1.911	I O	2.56
49.083	0.00	1.24	1.903	I O	2.55
49.167	0.00	1.24	1.894	I O	2.54
49.250	0.00	1.24	1.886	I O	2.53
49.333	0.00	1.24	1.877	I O	2.52
49.417	0.00	1.24	1.869	I O	2.51
49.500	0.00	1.24	1.860	I O	2.50
49.583	0.00	1.24	1.851	I O	2.49
49.667	0.00	1.24	1.843	I O	2.48
49.750	0.00	1.24	1.834	I O	2.47
49.833	0.00	1.24	1.826	I O	2.46
49.917	0.00	1.24	1.817	I O	2.45
50.000	0.00	1.24	1.809	I O	2.44
50.083	0.00	1.24	1.800	I O	2.43
50.167	0.00	1.24	1.792	I O	2.42
50.250	0.00	1.24	1.783	I O	2.41
50.333	0.00	1.24	1.775	I O	2.40
50.417	0.00	1.24	1.766	I O	2.39
50.500	0.00	1.24	1.758	I O	2.38
50.583	0.00	1.24	1.749	I O	2.37
50.667	0.00	1.24	1.740	I O	2.36
50.750	0.00	1.24	1.732	I O	2.35
50.833	0.00	1.24	1.723	I O	2.34
50.917	0.00	1.24	1.715	I O	2.33
51.000	0.00	1.24	1.706	I O	2.32
51.083	0.00	1.24	1.698	I O	2.31
51.167	0.00	1.24	1.689	I O	2.30
51.250	0.00	1.24	1.681	I O	2.29
51.333	0.00	1.24	1.672	I O	2.28
51.417	0.00	1.24	1.664	I O	2.27
51.500	0.00	1.24	1.655	I O	2.26
51.583	0.00	1.24	1.646	I O	2.25
51.667	0.00	1.24	1.638	I O	2.24

51.750	0.00	1.24	1.629	I O					2.23
51.833	0.00	1.24	1.621	I O					2.22
51.917	0.00	1.24	1.612	I O					2.21
52.000	0.00	1.24	1.604	I O					2.20
52.083	0.00	1.24	1.595	I O					2.19
52.167	0.00	1.24	1.587	I O					2.18
52.250	0.00	1.24	1.578	I O					2.17
52.333	0.00	1.24	1.570	I O					2.16
52.417	0.00	1.24	1.561	I O					2.15
52.500	0.00	1.24	1.553	I O					2.14
52.583	0.00	1.24	1.544	I O					2.13
52.667	0.00	1.24	1.535	I O					2.12
52.750	0.00	1.24	1.527	I O					2.11
52.833	0.00	1.24	1.518	I O					2.10
52.917	0.00	1.24	1.510	I O					2.09
53.000	0.00	1.24	1.501	I O					2.09
53.083	0.00	1.24	1.493	I O					2.08
53.167	0.00	1.24	1.484	I O					2.07
53.250	0.00	1.24	1.476	I O					2.06
53.333	0.00	1.24	1.467	I O					2.05
53.417	0.00	1.24	1.459	I O					2.04
53.500	0.00	1.24	1.450	I O					2.03
53.583	0.00	1.24	1.442	I O					2.02
53.667	0.00	1.24	1.433	I O					2.01
53.750	0.00	1.24	1.424	I O					2.00
53.833	0.00	1.24	1.416	I O					1.99
53.917	0.00	1.24	1.407	I O					1.98
54.000	0.00	1.24	1.399	I O					1.97
54.083	0.00	1.24	1.390	I O					1.96
54.167	0.00	1.24	1.382	I O					1.95
54.250	0.00	1.24	1.373	I O					1.94
54.333	0.00	1.24	1.365	I O					1.93
54.417	0.00	1.24	1.356	I O					1.92
54.500	0.00	1.24	1.348	I O					1.91
54.583	0.00	1.24	1.339	I O					1.90
54.667	0.00	1.24	1.331	I O					1.89
54.750	0.00	1.24	1.322	I O					1.88
54.833	0.00	1.24	1.313	I O					1.87
54.917	0.00	1.24	1.305	I O					1.86
55.000	0.00	1.24	1.296	I O					1.85
55.083	0.00	1.24	1.288	I O					1.84
55.167	0.00	1.24	1.279	I O					1.83
55.250	0.00	1.24	1.271	I O					1.82
55.333	0.00	1.24	1.262	I O					1.81
55.417	0.00	1.24	1.254	I O					1.80
55.500	0.00	1.24	1.245	I O					1.79
55.583	0.00	1.24	1.237	I O					1.78
55.667	0.00	1.24	1.228	I O					1.77
55.750	0.00	1.24	1.219	I O					1.76
55.833	0.00	1.24	1.211	I O					1.75

55.917	0.00	1.24	1.202	I O	|	|	|	|	1.74
56.000	0.00	1.24	1.194	I O	|	|	|	|	1.73
56.083	0.00	1.24	1.185	I O	|	|	|	|	1.72
56.167	0.00	1.24	1.177	I O	|	|	|	|	1.72
56.250	0.00	1.24	1.168	I O	|	|	|	|	1.71
56.333	0.00	1.24	1.160	I O	|	|	|	|	1.70
56.417	0.00	1.24	1.151	I O	|	|	|	|	1.69
56.500	0.00	1.24	1.143	I O	|	|	|	|	1.68
56.583	0.00	1.24	1.134	I O	|	|	|	|	1.67
56.667	0.00	1.24	1.126	I O	|	|	|	|	1.66
56.750	0.00	1.24	1.117	I O	|	|	|	|	1.65
56.833	0.00	1.24	1.108	I O	|	|	|	|	1.64
56.917	0.00	1.24	1.100	I O	|	|	|	|	1.63
57.000	0.00	1.24	1.091	I O	|	|	|	|	1.62
57.083	0.00	1.24	1.083	I O	|	|	|	|	1.61
57.167	0.00	1.24	1.074	I O	|	|	|	|	1.60
57.250	0.00	1.24	1.066	I O	|	|	|	|	1.59
57.333	0.00	1.24	1.057	I O	|	|	|	|	1.58
57.417	0.00	1.24	1.049	I O	|	|	|	|	1.57
57.500	0.00	1.24	1.040	I O	|	|	|	|	1.56
57.583	0.00	1.24	1.032	I O	|	|	|	|	1.55
57.667	0.00	1.24	1.023	I O	|	|	|	|	1.54
57.750	0.00	1.24	1.015	I O	|	|	|	|	1.53
57.833	0.00	1.24	1.006	I O	|	|	|	|	1.52
57.917	0.00	1.24	0.997	I O	|	|	|	|	1.51
58.000	0.00	1.24	0.989	I O	|	|	|	|	1.50
58.083	0.00	1.24	0.980	I O	|	|	|	|	1.49
58.167	0.00	1.24	0.972	I O	|	|	|	|	1.48
58.250	0.00	1.24	0.963	I O	|	|	|	|	1.47
58.333	0.00	1.24	0.955	I O	|	|	|	|	1.46
58.417	0.00	1.24	0.946	I O	|	|	|	|	1.45
58.500	0.00	1.24	0.938	I O	|	|	|	|	1.45
58.583	0.00	1.24	0.929	I O	|	|	|	|	1.44
58.667	0.00	1.24	0.921	I O	|	|	|	|	1.43
58.750	0.00	1.24	0.912	I O	|	|	|	|	1.42
58.833	0.00	1.24	0.904	I O	|	|	|	|	1.41
58.917	0.00	1.24	0.895	I O	|	|	|	|	1.40
59.000	0.00	1.24	0.886	I O	|	|	|	|	1.39
59.083	0.00	1.24	0.878	I O	|	|	|	|	1.38
59.167	0.00	1.24	0.869	I O	|	|	|	|	1.37
59.250	0.00	1.24	0.861	I O	|	|	|	|	1.36
59.333	0.00	1.24	0.852	I O	|	|	|	|	1.35
59.417	0.00	1.24	0.844	I O	|	|	|	|	1.34
59.500	0.00	1.24	0.835	I O	|	|	|	|	1.33
59.583	0.00	1.24	0.827	I O	|	|	|	|	1.32
59.667	0.00	1.24	0.818	I O	|	|	|	|	1.31
59.750	0.00	1.24	0.810	I O	|	|	|	|	1.30
59.833	0.00	1.24	0.801	I O	|	|	|	|	1.29
59.917	0.00	1.24	0.792	I O	|	|	|	|	1.28
60.000	0.00	1.24	0.784	I O	|	|	|	|	1.27

60.083	0.00	1.24	0.775	I O	1.26
60.167	0.00	1.24	0.767	I O	1.25
60.250	0.00	1.24	0.758	I O	1.25
60.333	0.00	1.24	0.750	I O	1.24
60.417	0.00	1.24	0.741	I O	1.23
60.500	0.00	1.24	0.733	I O	1.22
60.583	0.00	1.24	0.724	I O	1.21
60.667	0.00	1.24	0.716	I O	1.20
60.750	0.00	1.24	0.707	I O	1.19
60.833	0.00	1.24	0.699	I O	1.18
60.917	0.00	1.24	0.690	I O	1.17
61.000	0.00	1.24	0.681	I O	1.16
61.083	0.00	1.24	0.673	I O	1.15
61.167	0.00	1.24	0.664	I O	1.14
61.250	0.00	1.24	0.656	I O	1.13
61.333	0.00	1.24	0.647	I O	1.12
61.417	0.00	1.24	0.639	I O	1.11
61.500	0.00	1.24	0.630	I O	1.10
61.583	0.00	1.24	0.622	I O	1.09
61.667	0.00	1.24	0.613	I O	1.08
61.750	0.00	1.24	0.605	I O	1.07
61.833	0.00	1.24	0.596	I O	1.06
61.917	0.00	1.24	0.588	I O	1.06
62.000	0.00	1.24	0.579	I O	1.05
62.083	0.00	1.24	0.570	I O	1.04
62.167	0.00	1.24	0.562	I O	1.03
62.250	0.00	1.24	0.553	I O	1.02
62.333	0.00	1.24	0.545	I O	1.01
62.417	0.00	1.24	0.536	I O	1.00
62.500	0.00	1.24	0.528	I O	0.98
62.583	0.00	1.24	0.519	I O	0.97
62.667	0.00	1.24	0.511	I O	0.96
62.750	0.00	1.24	0.502	I O	0.95
62.833	0.00	1.24	0.494	I O	0.93
62.917	0.00	1.24	0.485	I O	0.92
63.000	0.00	1.24	0.477	I O	0.91
63.083	0.00	1.24	0.468	I O	0.89
63.167	0.00	1.24	0.459	I O	0.88
63.250	0.00	1.24	0.451	I O	0.87
63.333	0.00	1.24	0.442	I O	0.86
63.417	0.00	1.24	0.434	I O	0.84
63.500	0.00	1.24	0.425	I O	0.83
63.583	0.00	1.24	0.417	I O	0.82
63.667	0.00	1.24	0.408	I O	0.80
63.750	0.00	1.24	0.400	I O	0.79
63.833	0.00	1.24	0.391	I O	0.78
63.917	0.00	1.24	0.383	I O	0.76
64.000	0.00	1.24	0.374	I O	0.75
64.083	0.00	1.24	0.365	I O	0.74
64.167	0.00	1.24	0.357	I O	0.73

64.250	0.00	1.24	0.348	I O	0.71
64.333	0.00	1.24	0.340	I O	0.70
64.417	0.00	1.24	0.331	I O	0.69
64.500	0.00	1.24	0.323	I O	0.67
64.583	0.00	1.24	0.314	I O	0.66
64.667	0.00	1.24	0.306	I O	0.65
64.750	0.00	1.24	0.297	I O	0.64
64.833	0.00	1.24	0.289	I O	0.62
64.917	0.00	1.24	0.280	I O	0.61
65.000	0.00	1.24	0.272	I O	0.60
65.083	0.00	1.24	0.263	I O	0.58
65.167	0.00	1.24	0.254	I O	0.57
65.250	0.00	1.24	0.246	I O	0.56
65.333	0.00	1.24	0.237	I O	0.54
65.417	0.00	1.24	0.229	I O	0.53
65.500	0.00	1.24	0.220	I O	0.52
65.583	0.00	1.24	0.212	I O	0.51
65.667	0.00	1.21	0.203	I O	0.49
65.750	0.00	1.16	0.195	I O	0.47
65.833	0.00	1.12	0.187	I O	0.45
65.917	0.00	1.07	0.180	IO	0.43
66.000	0.00	1.03	0.173	IO	0.41
66.083	0.00	0.99	0.166	IO	0.40
66.167	0.00	0.95	0.159	IO	0.38
66.250	0.00	0.91	0.153	IO	0.37
66.333	0.00	0.87	0.146	IO	0.35
66.417	0.00	0.84	0.141	IO	0.34
66.500	0.00	0.80	0.135	IO	0.32
66.583	0.00	0.77	0.129	IO	0.31
66.667	0.00	0.74	0.124	IO	0.30
66.750	0.00	0.71	0.119	IO	0.29
66.833	0.00	0.68	0.114	IO	0.28
66.917	0.00	0.65	0.110	IO	0.26
67.000	0.00	0.63	0.105	IO	0.25
67.083	0.00	0.60	0.101	IO	0.24
67.167	0.00	0.58	0.097	IO	0.23
67.250	0.00	0.56	0.093	IO	0.22
67.333	0.00	0.53	0.089	O	0.21
67.417	0.00	0.51	0.086	O	0.21
67.500	0.00	0.49	0.082	O	0.20
67.583	0.00	0.47	0.079	O	0.19
67.667	0.00	0.45	0.076	O	0.18
67.750	0.00	0.43	0.073	O	0.18
67.833	0.00	0.42	0.070	O	0.17
67.917	0.00	0.40	0.067	O	0.16
68.000	0.00	0.38	0.064	O	0.15
68.083	0.00	0.37	0.062	O	0.15
68.167	0.00	0.35	0.059	O	0.14
68.250	0.00	0.34	0.057	O	0.14
68.333	0.00	0.33	0.055	O	0.13

68.417	0.00	0.31	0.052	O	|	|	|	|	0.13
68.500	0.00	0.30	0.050	O	|	|	|	|	0.12
68.583	0.00	0.29	0.048	O	|	|	|	|	0.12
68.667	0.00	0.28	0.046	O	|	|	|	|	0.11
68.750	0.00	0.27	0.045	O	|	|	|	|	0.11
68.833	0.00	0.25	0.043	O	|	|	|	|	0.10
68.917	0.00	0.24	0.041	O	|	|	|	|	0.10
69.000	0.00	0.23	0.039	O	|	|	|	|	0.09
69.083	0.00	0.23	0.038	O	|	|	|	|	0.09
69.167	0.00	0.22	0.036	O	|	|	|	|	0.09
69.250	0.00	0.21	0.035	O	|	|	|	|	0.08
69.333	0.00	0.20	0.033	O	|	|	|	|	0.08
69.417	0.00	0.19	0.032	O	|	|	|	|	0.08
69.500	0.00	0.18	0.031	O	|	|	|	|	0.07
69.583	0.00	0.18	0.030	O	|	|	|	|	0.07
69.667	0.00	0.17	0.028	O	|	|	|	|	0.07
69.750	0.00	0.16	0.027	O	|	|	|	|	0.07
69.833	0.00	0.16	0.026	O	|	|	|	|	0.06
69.917	0.00	0.15	0.025	O	|	|	|	|	0.06
70.000	0.00	0.14	0.024	O	|	|	|	|	0.06
70.083	0.00	0.14	0.023	O	|	|	|	|	0.06
70.167	0.00	0.13	0.022	O	|	|	|	|	0.05
70.250	0.00	0.13	0.021	O	|	|	|	|	0.05
70.333	0.00	0.12	0.020	O	|	|	|	|	0.05
70.417	0.00	0.12	0.020	O	|	|	|	|	0.05
70.500	0.00	0.11	0.019	O	|	|	|	|	0.05
70.583	0.00	0.11	0.018	O	|	|	|	|	0.04
70.667	0.00	0.10	0.017	O	|	|	|	|	0.04
70.750	0.00	0.10	0.017	O	|	|	|	|	0.04
70.833	0.00	0.10	0.016	O	|	|	|	|	0.04
70.917	0.00	0.09	0.015	O	|	|	|	|	0.04
71.000	0.00	0.09	0.015	O	|	|	|	|	0.04
71.083	0.00	0.08	0.014	O	|	|	|	|	0.03
71.167	0.00	0.08	0.014	O	|	|	|	|	0.03
71.250	0.00	0.08	0.013	O	|	|	|	|	0.03
71.333	0.00	0.07	0.012	O	|	|	|	|	0.03
71.417	0.00	0.07	0.012	O	|	|	|	|	0.03
71.500	0.00	0.07	0.011	O	|	|	|	|	0.03
71.583	0.00	0.07	0.011	O	|	|	|	|	0.03
71.667	0.00	0.06	0.011	O	|	|	|	|	0.03
71.750	0.00	0.06	0.010	O	|	|	|	|	0.02
71.833	0.00	0.06	0.010	O	|	|	|	|	0.02
71.917	0.00	0.06	0.009	O	|	|	|	|	0.02
72.000	0.00	0.05	0.009	O	|	|	|	|	0.02
72.083	0.00	0.05	0.009	O	|	|	|	|	0.02
72.167	0.00	0.05	0.008	O	|	|	|	|	0.02
72.250	0.00	0.05	0.008	O	|	|	|	|	0.02
72.333	0.00	0.05	0.008	O	|	|	|	|	0.02
72.417	0.00	0.04	0.007	O	|	|	|	|	0.02
72.500	0.00	0.04	0.007	O	|	|	|	|	0.02

72.583	0.00	0.04	0.007	O					0.02
72.667	0.00	0.04	0.006	O					0.02
72.750	0.00	0.04	0.006	O					0.01
72.833	0.00	0.04	0.006	O					0.01
72.917	0.00	0.03	0.006	O					0.01
73.000	0.00	0.03	0.005	O					0.01
73.083	0.00	0.03	0.005	O					0.01
73.167	0.00	0.03	0.005	O					0.01
73.250	0.00	0.03	0.005	O					0.01
73.333	0.00	0.03	0.005	O					0.01
73.417	0.00	0.03	0.004	O					0.01
73.500	0.00	0.03	0.004	O					0.01
73.583	0.00	0.02	0.004	O					0.01
73.667	0.00	0.02	0.004	O					0.01
73.750	0.00	0.02	0.004	O					0.01
73.833	0.00	0.02	0.004	O					0.01
73.917	0.00	0.02	0.003	O					0.01
74.000	0.00	0.02	0.003	O					0.01
74.083	0.00	0.02	0.003	O					0.01
74.167	0.00	0.02	0.003	O					0.01
74.250	0.00	0.02	0.003	O					0.01
74.333	0.00	0.02	0.003	O					0.01
74.417	0.00	0.02	0.003	O					0.01
74.500	0.00	0.02	0.003	O					0.01
74.583	0.00	0.01	0.003	O					0.01
74.667	0.00	0.01	0.002	O					0.01
74.750	0.00	0.01	0.002	O					0.01
74.833	0.00	0.01	0.002	O					0.01
74.917	0.00	0.01	0.002	O					0.01
75.000	0.00	0.01	0.002	O					0.00
75.083	0.00	0.01	0.002	O					0.00
75.167	0.00	0.01	0.002	O					0.00
75.250	0.00	0.01	0.002	O					0.00
75.333	0.00	0.01	0.002	O					0.00
75.417	0.00	0.01	0.002	O					0.00
75.500	0.00	0.01	0.002	O					0.00
75.583	0.00	0.01	0.002	O					0.00
75.667	0.00	0.01	0.001	O					0.00
75.750	0.00	0.01	0.001	O					0.00
75.833	0.00	0.01	0.001	O					0.00
75.917	0.00	0.01	0.001	O					0.00
76.000	0.00	0.01	0.001	O					0.00
76.083	0.00	0.01	0.001	O					0.00
76.167	0.00	0.01	0.001	O					0.00
76.250	0.00	0.01	0.001	O					0.00
76.333	0.00	0.01	0.001	O					0.00
76.417	0.00	0.01	0.001	O					0.00
76.500	0.00	0.01	0.001	O					0.00
76.583	0.00	0.01	0.001	O					0.00
76.667	0.00	0.01	0.001	O					0.00

```
76.750    0.00    0.01     0.001  O       |       |       |       |      0.00
76.833    0.00    0.00     0.001  O       |       |       |       |      0.00
76.917    0.00    0.00     0.001  O       |       |       |       |      0.00
77.000    0.00    0.00     0.001  O       |       |       |       |      0.00
77.083    0.00    0.00     0.001  O       |       |       |       |      0.00
77.167    0.00    0.00     0.001  O       |       |       |       |      0.00
77.250    0.00    0.00     0.001  O       |       |       |       |      0.00
77.333    0.00    0.00     0.001  O       |       |       |       |      0.00
77.417    0.00    0.00     0.001  O       |       |       |       |      0.00
77.500    0.00    0.00     0.001  O       |       |       |       |      0.00
77.583    0.00    0.00     0.001  O       |       |       |       |      0.00
77.667    0.00    0.00     0.001  O       |       |       |       |      0.00
77.750    0.00    0.00     0.001  O       |       |       |       |      0.00
77.833    0.00    0.00     0.001  O       |       |       |       |      0.00
77.917    0.00    0.00     0.000  O       |       |       |       |      0.00
78.000    0.00    0.00     0.000  O       |       |       |       |      0.00
78.083    0.00    0.00     0.000  O       |       |       |       |      0.00
78.167    0.00    0.00     0.000  O       |       |       |       |      0.00
78.250    0.00    0.00     0.000  O       |       |       |       |      0.00

       ****************************HYDROGRAPH DATA****************************
                       Number of intervals =   939
                       Time interval =    5.0 (Min.)
                       Maximum/Peak flow rate =      26.254 (CFS)
                       Total volume =      10.016 (Ac.Ft)
               Status of hydrographs being held in storage
                          Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
               Peak (CFS)      0.000     0.000     0.000     0.000     0.000
               Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ***********************************************************************

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

```
              FLOOD HYDROGRAPH ROUTING PROGRAM
     Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018
                   Study date: 10/17/23

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


NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA C
FLOOD ROUTING - BASIN C1
100YR 24HR
--------------------------------------------------------------------


Program License Serial Number 6491

--------------------------------------------------------------------
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: NSPRUHC124100.rte
****************************HYDROGRAPH DATA****************************
                Number of intervals =   292
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        5.863 (CFS)
                Total volume =       3.324 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)     0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
***********************************************************************




++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      62.000 to Point/Station      62.000
**** RETARDING BASIN ROUTING ****
______________________________________________________________________

User entry of depth-outflow-storage data
--------------------------------------------------------------------
Total number of inflow hydrograph intervals = 292
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
--------------------------------------------------------------------
--------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =     0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
```

```
       --------------------------------------------------------------------
       -------------------------------------------------------------------
       Depth vs. Storage and Depth vs. Discharge data:
        Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
            (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
       --------------------------------------------------------------------
         0.000      0.000      0.000      0.000        0.000
         0.500      0.125      0.740      0.122        0.128
         1.000      0.320      0.740      0.317        0.323
         1.500      0.576      0.740      0.573        0.579
         2.000      0.819      0.740      0.816        0.822
         2.500      1.041      0.740      1.038        1.044
         3.000      1.228      0.740      1.225        1.231
         3.500      1.358      0.740      1.355        1.361
         3.750      1.421      0.740      1.418        1.424
         5.750      1.422     19.490      1.355        1.489
       -------------------------------------------------------------------
                       Hydrograph Detention Basin Routing
       --------------------------------------------------------------------

       Graph values: 'I'= unit inflow; 'O'=outflow at time shown
       --------------------------------------------------------------------
 Time   Inflow  Outflow    Storage                                    Depth
(Hours)  (CFS)   (CFS)      (Ac.Ft) .0       1.5     2.93     4.40    5.86 (Ft.)
 0.083    0.11    0.00       0.000  O       |       |       |       |     0.00
 0.167    0.24    0.01       0.002  OI      |       |       |       |     0.01
 0.250    0.27    0.02       0.003  OI      |       |       |       |     0.01
 0.333    0.34    0.03       0.005  OI      |       |       |       |     0.02
 0.417    0.42    0.04       0.008  O I     |       |       |       |     0.03
 0.500    0.43    0.06       0.010  O I     |       |       |       |     0.04
 0.583    0.44    0.07       0.013  O I     |       |       |       |     0.05
 0.667    0.44    0.09       0.015  O I     |       |       |       |     0.06
 0.750    0.44    0.10       0.017  O I     |       |       |       |     0.07
 0.833    0.50    0.12       0.020  O I     |       |       |       |     0.08
 0.917    0.56    0.13       0.023  O  I    |       |       |       |     0.09
 1.000    0.58    0.15       0.026  O  I    |       |       |       |     0.10
 1.083    0.53    0.17       0.028  O I     |       |       |       |     0.11
 1.167    0.46    0.18       0.031  O I     |       |       |       |     0.12
 1.250    0.45    0.19       0.032  |OI     |       |       |       |     0.13
 1.333    0.44    0.20       0.034  |OI     |       |       |       |     0.14
 1.417    0.44    0.21       0.036  |OI     |       |       |       |     0.14
 1.500    0.44    0.22       0.037  |OI     |       |       |       |     0.15
 1.583    0.44    0.23       0.039  |OI     |       |       |       |     0.15
 1.667    0.44    0.24       0.040  |OI     |       |       |       |     0.16
 1.750    0.44    0.25       0.042  |OI     |       |       |       |     0.17
 1.833    0.50    0.25       0.043  |OI     |       |       |       |     0.17
 1.917    0.56    0.27       0.045  |O I    |       |       |       |     0.18
 2.000    0.58    0.28       0.047  |O I    |       |       |       |     0.19
 2.083    0.58    0.29       0.049  |O I    |       |       |       |     0.20
 2.167    0.59    0.30       0.051  |O I    |       |       |       |     0.20
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2.250    0.59    0.31      0.053  |O I    |       |       |       |     0.21
2.333    0.59    0.32      0.055  |O I    |       |       |       |     0.22
2.417    0.59    0.33      0.056  |O I    |       |       |       |     0.23
2.500    0.59    0.34      0.058  |O I    |       |       |       |     0.23
2.583    0.64    0.36      0.060  |O I    |       |       |       |     0.24
2.667    0.71    0.37      0.062  | OI    |       |       |       |     0.25
2.750    0.72    0.38      0.065  | OI    |       |       |       |     0.26
2.833    0.73    0.40      0.067  | OI    |       |       |       |     0.27
2.917    0.73    0.41      0.069  | OI    |       |       |       |     0.28
3.000    0.73    0.42      0.071  | OI    |       |       |       |     0.29
3.083    0.73    0.43      0.073  | OI    |       |       |       |     0.29
3.167    0.73    0.45      0.075  | OI    |       |       |       |     0.30
3.250    0.73    0.46      0.077  | OI    |       |       |       |     0.31
3.333    0.73    0.47      0.079  | OI    |       |       |       |     0.32
3.417    0.73    0.48      0.081  | OI    |       |       |       |     0.32
3.500    0.73    0.49      0.083  | OI    |       |       |       |     0.33
3.583    0.73    0.50      0.084  | OI    |       |       |       |     0.34
3.667    0.73    0.51      0.086  | OI    |       |       |       |     0.34
3.750    0.73    0.52      0.087  | OI    |       |       |       |     0.35
3.833    0.79    0.53      0.089  | O I   |       |       |       |     0.36
3.917    0.86    0.54      0.091  | O I   |       |       |       |     0.36
4.000    0.87    0.55      0.093  |  OI   |       |       |       |     0.37
4.083    0.88    0.56      0.095  |  OI   |       |       |       |     0.38
4.167    0.88    0.58      0.098  |  OI   |       |       |       |     0.39
4.250    0.88    0.59      0.100  |  OI   |       |       |       |     0.40
4.333    0.94    0.60      0.102  |  O I  |       |       |       |     0.41
4.417    1.00    0.62      0.104  |  O I  |       |       |       |     0.42
4.500    1.02    0.63      0.107  |  O I  |       |       |       |     0.43
4.583    1.02    0.65      0.109  |  O I  |       |       |       |     0.44
4.667    1.03    0.66      0.112  |  O I  |       |       |       |     0.45
4.750    1.03    0.68      0.114  |  O I  |       |       |       |     0.46
4.833    1.08    0.69      0.117  |  O I  |       |       |       |     0.47
4.917    1.15    0.71      0.120  |  O  I |       |       |       |     0.48
5.000    1.16    0.73      0.123  |  O  I |       |       |       |     0.49
5.083    1.06    0.74      0.125  |   OI  |       |       |       |     0.50
5.167    0.93    0.74      0.127  |   OI  |       |       |       |     0.51
5.250    0.90    0.74      0.128  |   O   |       |       |       |     0.51
5.333    0.94    0.74      0.130  |   OI  |       |       |       |     0.51
5.417    1.00    0.74      0.131  |   OI  |       |       |       |     0.52
5.500    1.02    0.74      0.133  |   OI  |       |       |       |     0.52
5.583    1.08    0.74      0.135  |   OI  |       |       |       |     0.53
5.667    1.15    0.74      0.138  |   O I |       |       |       |     0.53
5.750    1.16    0.74      0.141  |   O I |       |       |       |     0.54
5.833    1.17    0.74      0.144  |   O I |       |       |       |     0.55
5.917    1.17    0.74      0.147  |   O I |       |       |       |     0.56
6.000    1.17    0.74      0.149  |   O I |       |       |       |     0.56
6.083    1.23    0.74      0.153  |   O I |       |       |       |     0.57
6.167    1.29    0.74      0.156  |   O  I|       |       |       |     0.58
6.250    1.31    0.74      0.160  |   O  I|       |       |       |     0.59
6.333    1.32    0.74      0.164  |   O  I|       |       |       |     0.60
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 6.417    1.32    0.74      0.168  |   O  I|       |       |       |     0.61
 6.500    1.32    0.74      0.172  |   O  I|       |       |       |     0.62
 6.583    1.38    0.74      0.176  |   O  I|       |       |       |     0.63
 6.667    1.44    0.74      0.181  |   O  I|       |       |       |     0.64
 6.750    1.46    0.74      0.186  |   O  I|       |       |       |     0.66
 6.833    1.46    0.74      0.191  |   O  I|       |       |       |     0.67
 6.917    1.47    0.74      0.196  |   O  I|       |       |       |     0.68
 7.000    1.47    0.74      0.201  |   O  I|       |       |       |     0.69
 7.083    1.47    0.74      0.206  |   O  I|       |       |       |     0.71
 7.167    1.47    0.74      0.211  |   O  I|       |       |       |     0.72
 7.250    1.47    0.74      0.216  |   O  I|       |       |       |     0.73
 7.333    1.52    0.74      0.221  |   O   I       |       |       |     0.75
 7.417    1.59    0.74      0.226  |   O   I       |       |       |     0.76
 7.500    1.60    0.74      0.232  |   O   I       |       |       |     0.78
 7.583    1.68    0.74      0.239  |   O   |I      |       |       |     0.79
 7.667    1.76    0.74      0.245  |   O   |I      |       |       |     0.81
 7.750    1.78    0.74      0.252  |   O   |I      |       |       |     0.83
 7.833    1.86    0.74      0.260  |   O   | I     |       |       |     0.85
 7.917    1.94    0.74      0.268  |   O   | I     |       |       |     0.87
 8.000    1.96    0.74      0.276  |   O   | I     |       |       |     0.89
 8.083    2.11    0.74      0.285  |   O   |  I    |       |       |     0.91
 8.167    2.28    0.74      0.295  |   O   |   I   |       |       |     0.94
 8.250    2.32    0.74      0.306  |   O   |   I   |       |       |     0.96
 8.333    2.33    0.74      0.317  |   O   |   I   |       |       |     0.99
 8.417    2.34    0.74      0.328  |   O   |   I   |       |       |     1.02
 8.500    2.35    0.74      0.339  |   O   |   I   |       |       |     1.04
 8.583    2.42    0.74      0.350  |   O   |    I  |       |       |     1.06
 8.667    2.50    0.74      0.362  |   O   |    I  |       |       |     1.08
 8.750    2.52    0.74      0.374  |   O   |    I  |       |       |     1.11
 8.833    2.60    0.74      0.387  |   O   |     I |       |       |     1.13
 8.917    2.69    0.74      0.400  |   O   |     I |       |       |     1.16
 9.000    2.71    0.74      0.413  |   O   |     I |       |       |     1.18
 9.083    2.85    0.74      0.427  |   O   |      I|       |       |     1.21
 9.167    3.02    0.74      0.442  |   O   |       I       |       |     1.24
 9.250    3.06    0.74      0.458  |   O   |       I       |       |     1.27
 9.333    3.14    0.74      0.475  |   O   |       |I      |       |     1.30
 9.417    3.24    0.74      0.491  |   O   |       |I      |       |     1.33
 9.500    3.26    0.74      0.509  |   O   |       |I      |       |     1.37
 9.583    3.33    0.74      0.526  |   O   |       | I     |       |     1.40
 9.667    3.42    0.74      0.544  |   O   |       | I     |       |     1.44
 9.750    3.44    0.74      0.563  |   O   |       | I     |       |     1.47
 9.833    3.52    0.74      0.582  |   O   |       |  I    |       |     1.51
 9.917    3.61    0.74      0.601  |   O   |       |  I    |       |     1.55
10.000    3.63    0.74      0.621  |   O   |       |  I    |       |     1.59
10.083    3.15    0.74      0.639  |   O   |       |I      |       |     1.63
10.167    2.59    0.74      0.654  |   O   |     I |       |       |     1.66
10.250    2.46    0.74      0.666  |   O   |    I  |       |       |     1.69
10.333    2.41    0.74      0.678  |   O   |    I  |       |       |     1.71
10.417    2.38    0.74      0.689  |   O   |    I  |       |       |     1.73
10.500    2.39    0.74      0.701  |   O   |    I  |       |       |     1.76
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10.583    2.73    0.74      0.713  |   O   |     I |       |       |     1.78
10.667    3.14    0.74      0.728  |   O   |       |I      |       |     1.81
10.750    3.23    0.74      0.745  |   O   |       |I      |       |     1.85
10.833    3.27    0.74      0.763  |   O   |       |I      |       |     1.88
10.917    3.29    0.74      0.780  |   O   |       |I      |       |     1.92
11.000    3.30    0.74      0.798  |   O   |       |I      |       |     1.96
11.083    3.23    0.74      0.815  |   O   |       |I      |       |     1.99
11.167    3.15    0.74      0.832  |   O   |       |I      |       |     2.03
11.250    3.13    0.74      0.848  |   O   |       |I      |       |     2.07
11.333    3.13    0.74      0.865  |   O   |       |I      |       |     2.10
11.417    3.12    0.74      0.881  |   O   |       |I      |       |     2.14
11.500    3.12    0.74      0.898  |   O   |       |I      |       |     2.18
11.583    2.99    0.74      0.914  |   O   |       I       |       |     2.21
11.667    2.83    0.74      0.929  |   O   |      I|       |       |     2.25
11.750    2.79    0.74      0.943  |   O   |      I|       |       |     2.28
11.833    2.85    0.74      0.957  |   O   |      I|       |       |     2.31
11.917    2.92    0.74      0.972  |   O   |      I|       |       |     2.34
12.000    2.94    0.74      0.987  |   O   |       I       |       |     2.38
12.083    3.43    0.74      1.004  |   O   |       | I     |       |     2.42
12.167    4.01    0.74      1.024  |   O   |       |    I  |       |     2.46
12.250    4.14    0.74      1.047  |   O   |       |     I |       |     2.52
12.333    4.26    0.74      1.071  |   O   |       |      I|       |     2.58
12.417    4.37    0.74      1.096  |   O   |       |      I|       |     2.65
12.500    4.39    0.74      1.121  |   O   |       |      I|       |     2.71
12.583    4.54    0.74      1.147  |   O   |       |       I       |     2.78
12.667    4.71    0.74      1.173  |   O   |       |       |I      |     2.85
12.750    4.75    0.74      1.201  |   O   |       |       |I      |     2.93
12.833    4.83    0.74      1.229  |   O   |       |       | I     |     3.00
12.917    4.92    0.74      1.257  |   O   |       |       | I     |     3.11
13.000    4.94    0.74      1.286  |   O   |       |       | I     |     3.22
13.083    5.29    0.74      1.316  |   O   |       |       |   I   |     3.34
13.167    5.71    0.74      1.349  |   O   |       |       |      I|     3.47
13.250    5.80    0.74      1.384  |   O   |       |       |      I|     3.60
13.333    5.84    0.74      1.418  |   O   |       |       |      I|     3.74
13.417    5.86   10.09      1.421  |       |       |       |      IO     4.75
13.500    5.86    1.77      1.421  |       |O      |       |      I|     3.86
13.583    5.11    9.09      1.421  |       |       |       |  I    O     4.64
13.667    4.21    0.74      1.420  |   O   |       |     I |       |     3.74
13.750    4.01    7.00      1.421  |       |       |    I  |       O     4.42
13.833    3.93    1.04      1.421  |    O  |       |    I  |       |     3.78
13.917    3.89    6.69      1.421  |       |       |    I  |       O     4.39
14.000    3.89    1.17      1.421  |     O |       |    I  |       |     3.80
14.083    4.16    6.80      1.421  |       |       |     I |       O     4.40
14.167    4.49    1.93      1.421  |       | O     |       I       |     3.88
14.250    4.57    7.05      1.421  |       |       |       I       O     4.42
14.333    4.53    2.13      1.421  |       |  O    |       I       |     3.90
14.417    4.47    6.80      1.421  |       |       |       I       O     4.40
14.500    4.45    2.19      1.421  |       |  O    |       I       |     3.90
14.583    4.44    6.63      1.421  |       |       |       I       O     4.38
14.667    4.44    2.32      1.421  |       |   O   |       I       |     3.92
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14.750    4.44    6.50      1.421  |       |       |       I       O     4.36
14.833    4.37    2.38      1.421  |       |   O   |      I|       |     3.92
14.917    4.29    6.23      1.421  |       |       |      I|       O     4.34
15.000    4.28    2.40      1.421  |       |    O  |      I|       |     3.93
15.083    4.20    6.02      1.421  |       |       |     I |       O     4.31
15.167    4.12    2.35      1.421  |       |   O   |     I |       |     3.92
15.250    4.10    5.81      1.421  |       |       |     I |      O|     4.29
15.333    4.02    2.37      1.421  |       |   O   |    I  |       |     3.92
15.417    3.94    5.55      1.421  |       |       |    I  |     O |     4.26
15.500    3.92    2.36      1.421  |       |   O   |    I  |       |     3.92
15.583    3.64    5.16      1.421  |       |       |  I    |    O  |     4.22
15.667    3.31    1.85      1.421  |       | O     | I     |       |     3.87
15.750    3.24    4.66      1.421  |       |       |I      |O      |     4.17
15.833    3.21    1.83      1.421  |       | O     |I      |       |     3.87
15.917    3.20    4.53      1.421  |       |       |I      O       |     4.15
16.000    3.20    1.90      1.421  |       | O     |I      |       |     3.87
16.083    2.20    3.47      1.421  |       |   I   | O     |       |     4.04
16.167    1.02    0.74      1.418  |   OI  |       |       |       |     3.74
16.250    0.75    0.74      1.419  |   O   |       |       |       |     3.74
16.333    0.65    0.74      1.418  |  IO   |       |       |       |     3.74
16.417    0.59    0.74      1.418  |  IO   |       |       |       |     3.74
16.500    0.59    0.74      1.417  |  IO   |       |       |       |     3.73
16.583    0.53    0.74      1.415  | I O   |       |       |       |     3.73
16.667    0.46    0.74      1.414  | I O   |       |       |       |     3.72
16.750    0.45    0.74      1.412  | I O   |       |       |       |     3.71
16.833    0.44    0.74      1.410  | I O   |       |       |       |     3.70
16.917    0.44    0.74      1.408  | I O   |       |       |       |     3.70
17.000    0.44    0.74      1.406  | I O   |       |       |       |     3.69
17.083    0.55    0.74      1.404  |  IO   |       |       |       |     3.68
17.167    0.68    0.74      1.403  |  IO   |       |       |       |     3.68
17.250    0.71    0.74      1.403  |  IO   |       |       |       |     3.68
17.333    0.73    0.74      1.403  |  IO   |       |       |       |     3.68
17.417    0.73    0.74      1.403  |  IO   |       |       |       |     3.68
17.500    0.73    0.74      1.402  |  IO   |       |       |       |     3.68
17.583    0.73    0.74      1.402  |  IO   |       |       |       |     3.68
17.667    0.73    0.74      1.402  |  IO   |       |       |       |     3.68
17.750    0.73    0.74      1.402  |  IO   |       |       |       |     3.68
17.833    0.68    0.74      1.402  |  IO   |       |       |       |     3.67
17.917    0.61    0.74      1.401  |  IO   |       |       |       |     3.67
18.000    0.60    0.74      1.400  |  IO   |       |       |       |     3.67
18.083    0.59    0.74      1.399  |  IO   |       |       |       |     3.66
18.167    0.59    0.74      1.398  |  IO   |       |       |       |     3.66
18.250    0.59    0.74      1.397  |  IO   |       |       |       |     3.66
18.333    0.59    0.74      1.396  |  IO   |       |       |       |     3.65
18.417    0.59    0.74      1.395  |  IO   |       |       |       |     3.65
18.500    0.59    0.74      1.394  |  IO   |       |       |       |     3.64
18.583    0.53    0.74      1.393  | I O   |       |       |       |     3.64
18.667    0.46    0.74      1.391  | I O   |       |       |       |     3.63
18.750    0.45    0.74      1.389  | I O   |       |       |       |     3.62
18.833    0.39    0.74      1.387  | I O   |       |       |       |     3.62
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18.917	0.32	0.74	1.384	I O	3.60
19.000	0.30	0.74	1.381	I O	3.59
19.083	0.35	0.74	1.379	I O	3.58
19.167	0.42	0.74	1.376	I O	3.57
19.250	0.43	0.74	1.374	I O	3.56
19.333	0.49	0.74	1.372	I O	3.56
19.417	0.56	0.74	1.371	IO	3.55
19.500	0.58	0.74	1.369	IO	3.55
19.583	0.53	0.74	1.368	I O	3.54
19.667	0.46	0.74	1.366	I O	3.53
19.750	0.45	0.74	1.364	I O	3.53
19.833	0.39	0.74	1.362	I O	3.52
19.917	0.32	0.74	1.360	I O	3.51
20.000	0.30	0.74	1.357	I O	3.49
20.083	0.35	0.74	1.354	I O	3.48
20.167	0.42	0.74	1.351	I O	3.47
20.250	0.43	0.74	1.349	I O	3.47
20.333	0.44	0.74	1.347	I O	3.46
20.417	0.44	0.74	1.345	I O	3.45
20.500	0.44	0.74	1.343	I O	3.44
20.583	0.44	0.74	1.341	I O	3.43
20.667	0.44	0.74	1.339	I O	3.43
20.750	0.44	0.74	1.337	I O	3.42
20.833	0.38	0.74	1.334	I O	3.41
20.917	0.32	0.74	1.332	I O	3.40
21.000	0.30	0.74	1.329	I O	3.39
21.083	0.35	0.74	1.326	I O	3.38
21.167	0.42	0.74	1.323	I O	3.37
21.250	0.43	0.74	1.321	I O	3.36
21.333	0.38	0.74	1.319	I O	3.35
21.417	0.32	0.74	1.316	I O	3.34
21.500	0.30	0.74	1.313	I O	3.33
21.583	0.35	0.74	1.310	I O	3.32
21.667	0.42	0.74	1.308	I O	3.31
21.750	0.43	0.74	1.306	I O	3.30
21.833	0.38	0.74	1.304	I O	3.29
21.917	0.32	0.74	1.301	I O	3.28
22.000	0.30	0.74	1.298	I O	3.27
22.083	0.35	0.74	1.295	I O	3.26
22.167	0.42	0.74	1.293	I O	3.25
22.250	0.43	0.74	1.290	I O	3.24
22.333	0.38	0.74	1.288	I O	3.23
22.417	0.32	0.74	1.285	I O	3.22
22.500	0.30	0.74	1.282	I O	3.21
22.583	0.30	0.74	1.279	I O	3.20
22.667	0.29	0.74	1.276	I O	3.19
22.750	0.29	0.74	1.273	I O	3.17
22.833	0.29	0.74	1.270	I O	3.16
22.917	0.29	0.74	1.267	I O	3.15
23.000	0.29	0.74	1.264	I O	3.14

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23.083     0.29     0.74       1.261  |I   O   |       |       |       |      3.13
23.167     0.29     0.74       1.258  |I   O   |       |       |       |      3.11
23.250     0.29     0.74       1.255  |I   O   |       |       |       |      3.10
23.333     0.29     0.74       1.252  |I   O   |       |       |       |      3.09
23.417     0.29     0.74       1.249  |I   O   |       |       |       |      3.08
23.500     0.29     0.74       1.246  |I   O   |       |       |       |      3.07
23.583     0.29     0.74       1.243  |I   O   |       |       |       |      3.06
23.667     0.29     0.74       1.239  |I   O   |       |       |       |      3.04
23.750     0.29     0.74       1.236  |I   O   |       |       |       |      3.03
23.833     0.29     0.74       1.233  |I   O   |       |       |       |      3.02
23.917     0.29     0.74       1.230  |I   O   |       |       |       |      3.01
24.000     0.29     0.74       1.227  |I   O   |       |       |       |      3.00
24.083     0.18     0.74       1.224  I    O   |       |       |       |      2.99
24.167     0.05     0.74       1.219  I    O   |       |       |       |      2.98
24.250     0.02     0.74       1.214  I    O   |       |       |       |      2.96
24.333     0.01     0.74       1.209  I    O   |       |       |       |      2.95
24.417     0.00     0.74       1.204  I    O   |       |       |       |      2.94
24.500     0.00     0.74       1.199  I    O   |       |       |       |      2.92
24.583     0.00     0.74       1.194  I    O   |       |       |       |      2.91
24.667     0.00     0.74       1.189  I    O   |       |       |       |      2.90
24.750     0.00     0.74       1.184  I    O   |       |       |       |      2.88
24.833     0.00     0.74       1.179  I    O   |       |       |       |      2.87
24.917     0.00     0.74       1.174  I    O   |       |       |       |      2.86
25.000     0.00     0.74       1.169  I    O   |       |       |       |      2.84
25.083     0.00     0.74       1.164  I    O   |       |       |       |      2.83
25.167     0.00     0.74       1.159  I    O   |       |       |       |      2.81
25.250     0.00     0.74       1.153  I    O   |       |       |       |      2.80
25.333     0.00     0.74       1.148  I    O   |       |       |       |      2.79
25.417     0.00     0.74       1.143  I    O   |       |       |       |      2.77
25.500     0.00     0.74       1.138  I    O   |       |       |       |      2.76
25.583     0.00     0.74       1.133  I    O   |       |       |       |      2.75
25.667     0.00     0.74       1.128  I    O   |       |       |       |      2.73
25.750     0.00     0.74       1.123  I    O   |       |       |       |      2.72
25.833     0.00     0.74       1.118  I    O   |       |       |       |      2.71
25.917     0.00     0.74       1.113  I    O   |       |       |       |      2.69
26.000     0.00     0.74       1.108  I    O   |       |       |       |      2.68
26.083     0.00     0.74       1.102  I    O   |       |       |       |      2.66
26.167     0.00     0.74       1.097  I    O   |       |       |       |      2.65
26.250     0.00     0.74       1.092  I    O   |       |       |       |      2.64
26.333     0.00     0.74       1.087  I    O   |       |       |       |      2.62
26.417     0.00     0.74       1.082  I    O   |       |       |       |      2.61
26.500     0.00     0.74       1.077  I    O   |       |       |       |      2.60
26.583     0.00     0.74       1.072  I    O   |       |       |       |      2.58
26.667     0.00     0.74       1.067  I    O   |       |       |       |      2.57
26.750     0.00     0.74       1.062  I    O   |       |       |       |      2.56
26.833     0.00     0.74       1.057  I    O   |       |       |       |      2.54
26.917     0.00     0.74       1.052  I    O   |       |       |       |      2.53
27.000     0.00     0.74       1.046  I    O   |       |       |       |      2.51
27.083     0.00     0.74       1.041  I    O   |       |       |       |      2.50
27.167     0.00     0.74       1.036  I    O   |       |       |       |      2.49
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27.250	0.00	0.74	1.031	I	O				2.48
27.333	0.00	0.74	1.026	I	O				2.47
27.417	0.00	0.74	1.021	I	O				2.45
27.500	0.00	0.74	1.016	I	O				2.44
27.583	0.00	0.74	1.011	I	O				2.43
27.667	0.00	0.74	1.006	I	O				2.42
27.750	0.00	0.74	1.001	I	O				2.41
27.833	0.00	0.74	0.995	I	O				2.40
27.917	0.00	0.74	0.990	I	O				2.39
28.000	0.00	0.74	0.985	I	O				2.37
28.083	0.00	0.74	0.980	I	O				2.36
28.167	0.00	0.74	0.975	I	O				2.35
28.250	0.00	0.74	0.970	I	O				2.34
28.333	0.00	0.74	0.965	I	O				2.33
28.417	0.00	0.74	0.960	I	O				2.32
28.500	0.00	0.74	0.955	I	O				2.31
28.583	0.00	0.74	0.950	I	O				2.29
28.667	0.00	0.74	0.944	I	O				2.28
28.750	0.00	0.74	0.939	I	O				2.27
28.833	0.00	0.74	0.934	I	O				2.26
28.917	0.00	0.74	0.929	I	O				2.25
29.000	0.00	0.74	0.924	I	O				2.24
29.083	0.00	0.74	0.919	I	O				2.23
29.167	0.00	0.74	0.914	I	O				2.21
29.250	0.00	0.74	0.909	I	O				2.20
29.333	0.00	0.74	0.904	I	O				2.19
29.417	0.00	0.74	0.899	I	O				2.18
29.500	0.00	0.74	0.894	I	O				2.17
29.583	0.00	0.74	0.888	I	O				2.16
29.667	0.00	0.74	0.883	I	O				2.14
29.750	0.00	0.74	0.878	I	O				2.13
29.833	0.00	0.74	0.873	I	O				2.12
29.917	0.00	0.74	0.868	I	O				2.11
30.000	0.00	0.74	0.863	I	O				2.10
30.083	0.00	0.74	0.858	I	O				2.09
30.167	0.00	0.74	0.853	I	O				2.08
30.250	0.00	0.74	0.848	I	O				2.06
30.333	0.00	0.74	0.843	I	O				2.05
30.417	0.00	0.74	0.837	I	O				2.04
30.500	0.00	0.74	0.832	I	O				2.03
30.583	0.00	0.74	0.827	I	O				2.02
30.667	0.00	0.74	0.822	I	O				2.01
30.750	0.00	0.74	0.817	I	O				2.00
30.833	0.00	0.74	0.812	I	O				1.99
30.917	0.00	0.74	0.807	I	O				1.98
31.000	0.00	0.74	0.802	I	O				1.96
31.083	0.00	0.74	0.797	I	O				1.95
31.167	0.00	0.74	0.792	I	O				1.94
31.250	0.00	0.74	0.786	I	O				1.93
31.333	0.00	0.74	0.781	I	O				1.92

31.417	0.00	0.74	0.776	I	O	1.91
31.500	0.00	0.74	0.771	I	O	1.90
31.583	0.00	0.74	0.766	I	O	1.89
31.667	0.00	0.74	0.761	I	O	1.88
31.750	0.00	0.74	0.756	I	O	1.87
31.833	0.00	0.74	0.751	I	O	1.86
31.917	0.00	0.74	0.746	I	O	1.85
32.000	0.00	0.74	0.741	I	O	1.84
32.083	0.00	0.74	0.736	I	O	1.83
32.167	0.00	0.74	0.730	I	O	1.82
32.250	0.00	0.74	0.725	I	O	1.81
32.333	0.00	0.74	0.720	I	O	1.80
32.417	0.00	0.74	0.715	I	O	1.79
32.500	0.00	0.74	0.710	I	O	1.78
32.583	0.00	0.74	0.705	I	O	1.77
32.667	0.00	0.74	0.700	I	O	1.75
32.750	0.00	0.74	0.695	I	O	1.74
32.833	0.00	0.74	0.690	I	O	1.73
32.917	0.00	0.74	0.685	I	O	1.72
33.000	0.00	0.74	0.679	I	O	1.71
33.083	0.00	0.74	0.674	I	O	1.70
33.167	0.00	0.74	0.669	I	O	1.69
33.250	0.00	0.74	0.664	I	O	1.68
33.333	0.00	0.74	0.659	I	O	1.67
33.417	0.00	0.74	0.654	I	O	1.66
33.500	0.00	0.74	0.649	I	O	1.65
33.583	0.00	0.74	0.644	I	O	1.64
33.667	0.00	0.74	0.639	I	O	1.63
33.750	0.00	0.74	0.634	I	O	1.62
33.833	0.00	0.74	0.629	I	O	1.61
33.917	0.00	0.74	0.623	I	O	1.60
34.000	0.00	0.74	0.618	I	O	1.59
34.083	0.00	0.74	0.613	I	O	1.58
34.167	0.00	0.74	0.608	I	O	1.57
34.250	0.00	0.74	0.603	I	O	1.56
34.333	0.00	0.74	0.598	I	O	1.55
34.417	0.00	0.74	0.593	I	O	1.53
34.500	0.00	0.74	0.588	I	O	1.52
34.583	0.00	0.74	0.583	I	O	1.51
34.667	0.00	0.74	0.578	I	O	1.50
34.750	0.00	0.74	0.572	I	O	1.49
34.833	0.00	0.74	0.567	I	O	1.48
34.917	0.00	0.74	0.562	I	O	1.47
35.000	0.00	0.74	0.557	I	O	1.46
35.083	0.00	0.74	0.552	I	O	1.45
35.167	0.00	0.74	0.547	I	O	1.44
35.250	0.00	0.74	0.542	I	O	1.43
35.333	0.00	0.74	0.537	I	O	1.42
35.417	0.00	0.74	0.532	I	O	1.41
35.500	0.00	0.74	0.527	I	O	1.40

35.583	0.00	0.74	0.521	I	O	1.39
35.667	0.00	0.74	0.516	I	O	1.38
35.750	0.00	0.74	0.511	I	O	1.37
35.833	0.00	0.74	0.506	I	O	1.36
35.917	0.00	0.74	0.501	I	O	1.35
36.000	0.00	0.74	0.496	I	O	1.34
36.083	0.00	0.74	0.491	I	O	1.33
36.167	0.00	0.74	0.486	I	O	1.32
36.250	0.00	0.74	0.481	I	O	1.31
36.333	0.00	0.74	0.476	I	O	1.30
36.417	0.00	0.74	0.471	I	O	1.29
36.500	0.00	0.74	0.465	I	O	1.28
36.583	0.00	0.74	0.460	I	O	1.27
36.667	0.00	0.74	0.455	I	O	1.26
36.750	0.00	0.74	0.450	I	O	1.25
36.833	0.00	0.74	0.445	I	O	1.24
36.917	0.00	0.74	0.440	I	O	1.23
37.000	0.00	0.74	0.435	I	O	1.22
37.083	0.00	0.74	0.430	I	O	1.21
37.167	0.00	0.74	0.425	I	O	1.20
37.250	0.00	0.74	0.420	I	O	1.19
37.333	0.00	0.74	0.414	I	O	1.18
37.417	0.00	0.74	0.409	I	O	1.17
37.500	0.00	0.74	0.404	I	O	1.16
37.583	0.00	0.74	0.399	I	O	1.15
37.667	0.00	0.74	0.394	I	O	1.14
37.750	0.00	0.74	0.389	I	O	1.13
37.833	0.00	0.74	0.384	I	O	1.12
37.917	0.00	0.74	0.379	I	O	1.11
38.000	0.00	0.74	0.374	I	O	1.10
38.083	0.00	0.74	0.369	I	O	1.09
38.167	0.00	0.74	0.363	I	O	1.08
38.250	0.00	0.74	0.358	I	O	1.07
38.333	0.00	0.74	0.353	I	O	1.07
38.417	0.00	0.74	0.348	I	O	1.06
38.500	0.00	0.74	0.343	I	O	1.05
38.583	0.00	0.74	0.338	I	O	1.04
38.667	0.00	0.74	0.333	I	O	1.03
38.750	0.00	0.74	0.328	I	O	1.02
38.833	0.00	0.74	0.323	I	O	1.01
38.917	0.00	0.74	0.318	I	O	0.99
39.000	0.00	0.74	0.313	I	O	0.98
39.083	0.00	0.74	0.307	I	O	0.97
39.167	0.00	0.74	0.302	I	O	0.95
39.250	0.00	0.74	0.297	I	O	0.94
39.333	0.00	0.74	0.292	I	O	0.93
39.417	0.00	0.74	0.287	I	O	0.92
39.500	0.00	0.74	0.282	I	O	0.90
39.583	0.00	0.74	0.277	I	O	0.89
39.667	0.00	0.74	0.272	I	O	0.88

39.750	0.00	0.74	0.267	I O					0.86
39.833	0.00	0.74	0.262	I O					0.85
39.917	0.00	0.74	0.256	I O					0.84
40.000	0.00	0.74	0.251	I O					0.82
40.083	0.00	0.74	0.246	I O					0.81
40.167	0.00	0.74	0.241	I O					0.80
40.250	0.00	0.74	0.236	I O					0.78
40.333	0.00	0.74	0.231	I O					0.77
40.417	0.00	0.74	0.226	I O					0.76
40.500	0.00	0.74	0.221	I O					0.75
40.583	0.00	0.74	0.216	I O					0.73
40.667	0.00	0.74	0.211	I O					0.72
40.750	0.00	0.74	0.205	I O					0.71
40.833	0.00	0.74	0.200	I O					0.69
40.917	0.00	0.74	0.195	I O					0.68
41.000	0.00	0.74	0.190	I O					0.67
41.083	0.00	0.74	0.185	I O					0.65
41.167	0.00	0.74	0.180	I O					0.64
41.250	0.00	0.74	0.175	I O					0.63
41.333	0.00	0.74	0.170	I O					0.61
41.417	0.00	0.74	0.165	I O					0.60
41.500	0.00	0.74	0.160	I O					0.59
41.583	0.00	0.74	0.155	I O					0.58
41.667	0.00	0.74	0.149	I O					0.56
41.750	0.00	0.74	0.144	I O					0.55
41.833	0.00	0.74	0.139	I O					0.54
41.917	0.00	0.74	0.134	I O					0.52
42.000	0.00	0.74	0.129	I O					0.51
42.083	0.00	0.73	0.124	I O					0.50
42.167	0.00	0.70	0.119	I O					0.48
42.250	0.00	0.68	0.114	I O					0.46
42.333	0.00	0.65	0.110	I O					0.44
42.417	0.00	0.62	0.105	I O					0.42
42.500	0.00	0.60	0.101	I O					0.40
42.583	0.00	0.57	0.097	I O					0.39
42.667	0.00	0.55	0.093	I O					0.37
42.750	0.00	0.53	0.089	I O					0.36
42.833	0.00	0.51	0.086	I O					0.34
42.917	0.00	0.49	0.082	I O					0.33
43.000	0.00	0.47	0.079	I O					0.32
43.083	0.00	0.45	0.076	I O					0.30
43.167	0.00	0.43	0.073	I O					0.29
43.250	0.00	0.41	0.070	I O					0.28
43.333	0.00	0.40	0.067	I O					0.27
43.417	0.00	0.38	0.065	I O					0.26
43.500	0.00	0.37	0.062	I O					0.25
43.583	0.00	0.35	0.060	IO					0.24
43.667	0.00	0.34	0.057	IO					0.23
43.750	0.00	0.32	0.055	IO					0.22
43.833	0.00	0.31	0.053	IO					0.21

43.917	0.00	0.30	0.051	IO	0.20
44.000	0.00	0.29	0.049	IO	0.19
44.083	0.00	0.28	0.047	IO	0.19
44.167	0.00	0.26	0.045	IO	0.18
44.250	0.00	0.25	0.043	IO	0.17
44.333	0.00	0.24	0.041	IO	0.16
44.417	0.00	0.23	0.040	IO	0.16
44.500	0.00	0.22	0.038	IO	0.15
44.583	0.00	0.22	0.036	IO	0.15
44.667	0.00	0.21	0.035	IO	0.14
44.750	0.00	0.20	0.034	IO	0.13
44.833	0.00	0.19	0.032	IO	0.13
44.917	0.00	0.18	0.031	IO	0.12
45.000	0.00	0.18	0.030	O	0.12
45.083	0.00	0.17	0.029	O	0.11
45.167	0.00	0.16	0.027	O	0.11
45.250	0.00	0.16	0.026	O	0.11
45.333	0.00	0.15	0.025	O	0.10
45.417	0.00	0.14	0.024	O	0.10
45.500	0.00	0.14	0.023	O	0.09
45.583	0.00	0.13	0.022	O	0.09
45.667	0.00	0.13	0.021	O	0.09
45.750	0.00	0.12	0.021	O	0.08
45.833	0.00	0.12	0.020	O	0.08
45.917	0.00	0.11	0.019	O	0.08
46.000	0.00	0.11	0.018	O	0.07
46.083	0.00	0.10	0.018	O	0.07
46.167	0.00	0.10	0.017	O	0.07
46.250	0.00	0.10	0.016	O	0.06
46.333	0.00	0.09	0.015	O	0.06
46.417	0.00	0.09	0.015	O	0.06
46.500	0.00	0.08	0.014	O	0.06
46.583	0.00	0.08	0.014	O	0.05
46.667	0.00	0.08	0.013	O	0.05
46.750	0.00	0.07	0.013	O	0.05
46.833	0.00	0.07	0.012	O	0.05
46.917	0.00	0.07	0.012	O	0.05
47.000	0.00	0.07	0.011	O	0.04
47.083	0.00	0.06	0.011	O	0.04
47.167	0.00	0.06	0.010	O	0.04
47.250	0.00	0.06	0.010	O	0.04
47.333	0.00	0.06	0.009	O	0.04
47.417	0.00	0.05	0.009	O	0.04
47.500	0.00	0.05	0.009	O	0.04
47.583	0.00	0.05	0.008	O	0.03
47.667	0.00	0.05	0.008	O	0.03
47.750	0.00	0.05	0.008	O	0.03
47.833	0.00	0.04	0.007	O	0.03
47.917	0.00	0.04	0.007	O	0.03
48.000	0.00	0.04	0.007	O	0.03

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48.083    0.00    0.04     0.007  O       |       |       |       |     0.03
48.167    0.00    0.04     0.006  O       |       |       |       |     0.03
48.250    0.00    0.04     0.006  O       |       |       |       |     0.02
48.333    0.00    0.03     0.006  O       |       |       |       |     0.02
48.417    0.00    0.03     0.006  O       |       |       |       |     0.02
48.500    0.00    0.03     0.005  O       |       |       |       |     0.02
48.583    0.00    0.03     0.005  O       |       |       |       |     0.02
48.667    0.00    0.03     0.005  O       |       |       |       |     0.02
48.750    0.00    0.03     0.005  O       |       |       |       |     0.02
48.833    0.00    0.03     0.005  O       |       |       |       |     0.02
48.917    0.00    0.03     0.004  O       |       |       |       |     0.02
49.000    0.00    0.02     0.004  O       |       |       |       |     0.02
49.083    0.00    0.02     0.004  O       |       |       |       |     0.02
49.167    0.00    0.02     0.004  O       |       |       |       |     0.02
49.250    0.00    0.02     0.004  O       |       |       |       |     0.01
49.333    0.00    0.02     0.004  O       |       |       |       |     0.01
49.417    0.00    0.02     0.003  O       |       |       |       |     0.01
49.500    0.00    0.02     0.003  O       |       |       |       |     0.01
49.583    0.00    0.02     0.003  O       |       |       |       |     0.01
49.667    0.00    0.02     0.003  O       |       |       |       |     0.01
49.750    0.00    0.02     0.003  O       |       |       |       |     0.01
49.833    0.00    0.02     0.003  O       |       |       |       |     0.01
49.917    0.00    0.02     0.003  O       |       |       |       |     0.01
50.000    0.00    0.02     0.003  O       |       |       |       |     0.01
50.083    0.00    0.01     0.002  O       |       |       |       |     0.01
50.167    0.00    0.01     0.002  O       |       |       |       |     0.01
50.250    0.00    0.01     0.002  O       |       |       |       |     0.01
50.333    0.00    0.01     0.002  O       |       |       |       |     0.01
50.417    0.00    0.01     0.002  O       |       |       |       |     0.01
50.500    0.00    0.01     0.002  O       |       |       |       |     0.01
50.583    0.00    0.01     0.002  O       |       |       |       |     0.01
50.667    0.00    0.01     0.002  O       |       |       |       |     0.01
50.750    0.00    0.01     0.002  O       |       |       |       |     0.01
50.833    0.00    0.01     0.002  O       |       |       |       |     0.01
50.917    0.00    0.01     0.002  O       |       |       |       |     0.01
51.000    0.00    0.01     0.002  O       |       |       |       |     0.01
51.083    0.00    0.01     0.002  O       |       |       |       |     0.01
51.167    0.00    0.01     0.001  O       |       |       |       |     0.01
51.250    0.00    0.01     0.001  O       |       |       |       |     0.01
51.333    0.00    0.01     0.001  O       |       |       |       |     0.01
51.417    0.00    0.01     0.001  O       |       |       |       |     0.01
51.500    0.00    0.01     0.001  O       |       |       |       |     0.00
51.583    0.00    0.01     0.001  O       |       |       |       |     0.00
51.667    0.00    0.01     0.001  O       |       |       |       |     0.00
51.750    0.00    0.01     0.001  O       |       |       |       |     0.00
51.833    0.00    0.01     0.001  O       |       |       |       |     0.00
51.917    0.00    0.01     0.001  O       |       |       |       |     0.00
52.000    0.00    0.01     0.001  O       |       |       |       |     0.00
52.083    0.00    0.01     0.001  O       |       |       |       |     0.00
52.167    0.00    0.01     0.001  O       |       |       |       |     0.00
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52.250    0.00    0.01      0.001  O       |       |       |       |      0.00
52.333    0.00    0.00      0.001  O       |       |       |       |      0.00
52.417    0.00    0.00      0.001  O       |       |       |       |      0.00
52.500    0.00    0.00      0.001  O       |       |       |       |      0.00
52.583    0.00    0.00      0.001  O       |       |       |       |      0.00
52.667    0.00    0.00      0.001  O       |       |       |       |      0.00
52.750    0.00    0.00      0.001  O       |       |       |       |      0.00
52.833    0.00    0.00      0.001  O       |       |       |       |      0.00
52.917    0.00    0.00      0.001  O       |       |       |       |      0.00
53.000    0.00    0.00      0.001  O       |       |       |       |      0.00
53.083    0.00    0.00      0.001  O       |       |       |       |      0.00
53.167    0.00    0.00      0.001  O       |       |       |       |      0.00
53.250    0.00    0.00      0.001  O       |       |       |       |      0.00
53.333    0.00    0.00      0.001  O       |       |       |       |      0.00
53.417    0.00    0.00      0.000  O       |       |       |       |      0.00
53.500    0.00    0.00      0.000  O       |       |       |       |      0.00
53.583    0.00    0.00      0.000  O       |       |       |       |      0.00
53.667    0.00    0.00      0.000  O       |       |       |       |      0.00
53.750    0.00    0.00      0.000  O       |       |       |       |      0.00
53.833    0.00    0.00      0.000  O       |       |       |       |      0.00
53.917    0.00    0.00      0.000  O       |       |       |       |      0.00
54.000    0.00    0.00      0.000  O       |       |       |       |      0.00
54.083    0.00    0.00      0.000  O       |       |       |       |      0.00
54.167    0.00    0.00      0.000  O       |       |       |       |      0.00
54.250    0.00    0.00      0.000  O       |       |       |       |      0.00
54.333    0.00    0.00      0.000  O       |       |       |       |      0.00
54.417    0.00    0.00      0.000  O       |       |       |       |      0.00
54.500    0.00    0.00      0.000  O       |       |       |       |      0.00
54.583    0.00    0.00      0.000  O       |       |       |       |      0.00
54.667    0.00    0.00      0.000  O       |       |       |       |      0.00
54.750    0.00    0.00      0.000  O       |       |       |       |      0.00
54.833    0.00    0.00      0.000  O       |       |       |       |      0.00

       ****************************HYDROGRAPH DATA****************************
                       Number of intervals =   658
                       Time interval =    5.0 (Min.)
                       Maximum/Peak flow rate =      10.089 (CFS)
                       Total volume =       3.324 (Ac.Ft)
               Status of hydrographs being held in storage
                          Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
               Peak (CFS)      0.000     0.000     0.000     0.000     0.000
               Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ***********************************************************************

       --------------------------------------------------------------------
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NEWLAND SIMPSON
HEMET
POST DEVELOPMENT
FLOOD ROUTING
BASIN C2
100YR-24HR

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                    FLOOD HYDROGRAPH ROUTING PROGRAM
           Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2
                        Study date: 10/17/23

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


NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA C
FLOOD ROUTING - BASIN C2
100YR 24HR
--------------------------------------------------------------------


Program License Serial Number 6491

--------------------------------------------------------------------
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: NSPRUHC224100.rte
****************************HYDROGRAPH DATA***************************
                Number of intervals =   291
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        5.278 (CFS)
                Total volume =       2.908 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
**********************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       72.000 to Point/Station       72.000
**** RETARDING BASIN ROUTING ****
______________________________________________________________________

User entry of depth-outflow-storage data
--------------------------------------------------------------------
Total number of inflow hydrograph intervals = 291
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
--------------------------------------------------------------------
--------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
```

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.112	0.670	0.110	0.114
1.000	0.287	0.670	0.285	0.289
1.500	0.518	0.670	0.516	0.520
2.000	0.736	0.670	0.734	0.738
2.500	0.936	0.670	0.934	0.938
3.000	1.104	0.670	1.102	1.106
3.500	1.220	0.670	1.218	1.222
3.750	1.276	0.670	1.274	1.278
5.750	1.277	23.990	1.194	1.360

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

```
 Time   Inflow  Outflow    Storage                                     Depth
(Hours)  (CFS)   (CFS)     (Ac.Ft) .0       1.3     2.64    3.96    5.28 (Ft.)
 0.083    0.12    0.00      0.000  O        |       |       |       |     0.00
 0.167    0.22    0.01      0.002  OI       |       |       |       |     0.01
 0.250    0.24    0.02      0.003  OI       |       |       |       |     0.01
 0.333    0.30    0.03      0.005  OI       |       |       |       |     0.02
 0.417    0.36    0.04      0.007  O I      |       |       |       |     0.03
 0.500    0.37    0.05      0.009  O I      |       |       |       |     0.04
 0.583    0.37    0.07      0.011  O I      |       |       |       |     0.05
 0.667    0.37    0.08      0.013  O I      |       |       |       |     0.06
 0.750    0.37    0.09      0.015  O I      |       |       |       |     0.07
 0.833    0.43    0.10      0.017  O I      |       |       |       |     0.08
 0.917    0.48    0.12      0.019  O I      |       |       |       |     0.09
 1.000    0.49    0.13      0.022  O I      |       |       |       |     0.10
 1.083    0.43    0.14      0.024  O I      |       |       |       |     0.11
 1.167    0.38    0.16      0.026  O I      |       |       |       |     0.12
 1.250    0.37    0.16      0.027  O I      |       |       |       |     0.12
 1.333    0.37    0.17      0.029  |OI      |       |       |       |     0.13
 1.417    0.37    0.18      0.030  |OI      |       |       |       |     0.13
 1.500    0.37    0.19      0.031  |OI      |       |       |       |     0.14
 1.583    0.37    0.20      0.033  |OI      |       |       |       |     0.15
 1.667    0.37    0.20      0.034  |OI      |       |       |       |     0.15
 1.750    0.37    0.21      0.035  |OI      |       |       |       |     0.16
 1.833    0.43    0.22      0.036  |OI      |       |       |       |     0.16
 1.917    0.48    0.23      0.038  |OI      |       |       |       |     0.17
 2.000    0.49    0.24      0.040  |OI      |       |       |       |     0.18
 2.083    0.49    0.25      0.041  |OI      |       |       |       |     0.18
 2.167    0.49    0.26      0.043  |OI      |       |       |       |     0.19
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2.250    0.49    0.27     0.045   |OI     |       |       |       |    0.20
2.333    0.49    0.28     0.046   |OI     |       |       |       |    0.21
2.417    0.49    0.28     0.048   |OI     |       |       |       |    0.21
2.500    0.49    0.29     0.049   |OI     |       |       |       |    0.22
2.583    0.55    0.30     0.050   |O I    |       |       |       |    0.23
2.667    0.60    0.31     0.052   |O I    |       |       |       |    0.23
2.750    0.61    0.32     0.054   |O I    |       |       |       |    0.24
2.833    0.62    0.34     0.056   | OI    |       |       |       |    0.25
2.917    0.62    0.35     0.058   | OI    |       |       |       |    0.26
3.000    0.62    0.36     0.060   | OI    |       |       |       |    0.27
3.083    0.62    0.37     0.062   | OI    |       |       |       |    0.28
3.167    0.62    0.38     0.063   | OI    |       |       |       |    0.28
3.250    0.62    0.39     0.065   | OI    |       |       |       |    0.29
3.333    0.62    0.40     0.066   | OI    |       |       |       |    0.30
3.417    0.62    0.41     0.068   | OI    |       |       |       |    0.30
3.500    0.62    0.41     0.069   | OI    |       |       |       |    0.31
3.583    0.62    0.42     0.071   | OI    |       |       |       |    0.32
3.667    0.62    0.43     0.072   | OI    |       |       |       |    0.32
3.750    0.62    0.44     0.073   | OI    |       |       |       |    0.33
3.833    0.67    0.45     0.075   | O I   |       |       |       |    0.33
3.917    0.73    0.46     0.076   | O I   |       |       |       |    0.34
4.000    0.73    0.47     0.078   | O I   |       |       |       |    0.35
4.083    0.74    0.48     0.080   | O I   |       |       |       |    0.36
4.167    0.74    0.49     0.082   | O I   |       |       |       |    0.36
4.250    0.74    0.50     0.083   |  OI   |       |       |       |    0.37
4.333    0.80    0.51     0.085   |  OI   |       |       |       |    0.38
4.417    0.85    0.52     0.087   |  O I  |       |       |       |    0.39
4.500    0.86    0.54     0.090   |  O I  |       |       |       |    0.40
4.583    0.86    0.55     0.092   |  O I  |       |       |       |    0.41
4.667    0.86    0.56     0.094   |  O I  |       |       |       |    0.42
4.750    0.86    0.57     0.096   |  O I  |       |       |       |    0.43
4.833    0.92    0.59     0.098   |  O I  |       |       |       |    0.44
4.917    0.97    0.60     0.100   |  O I  |       |       |       |    0.45
5.000    0.98    0.62     0.103   |  O I  |       |       |       |    0.46
5.083    0.87    0.63     0.105   |  O I  |       |       |       |    0.47
5.167    0.76    0.64     0.106   |  OI   |       |       |       |    0.47
5.250    0.75    0.64     0.107   |  OI   |       |       |       |    0.48
5.333    0.80    0.65     0.108   |  OI   |       |       |       |    0.48
5.417    0.85    0.65     0.109   |  O I  |       |       |       |    0.49
5.500    0.86    0.66     0.111   |   OI  |       |       |       |    0.49
5.583    0.92    0.67     0.112   |   OI  |       |       |       |    0.50
5.667    0.97    0.67     0.114   |   OI  |       |       |       |    0.51
5.750    0.98    0.67     0.116   |   OI  |       |       |       |    0.51
5.833    0.98    0.67     0.118   |   OI  |       |       |       |    0.52
5.917    0.98    0.67     0.120   |   OI  |       |       |       |    0.52
6.000    0.98    0.67     0.123   |   OI  |       |       |       |    0.53
6.083    1.04    0.67     0.125   |   O I |       |       |       |    0.54
6.167    1.09    0.67     0.128   |   O I |       |       |       |    0.54
6.250    1.10    0.67     0.131   |   O I |       |       |       |    0.55
6.333    1.11    0.67     0.134   |   O I |       |       |       |    0.56
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 6.417    1.11    0.67      0.137  |   O I |       |       |       |     0.57
 6.500    1.11    0.67      0.140  |   O I |       |       |       |     0.58
 6.583    1.17    0.67      0.143  |   O  I|       |       |       |     0.59
 6.667    1.22    0.67      0.146  |   O  I|       |       |       |     0.60
 6.750    1.23    0.67      0.150  |   O  I|       |       |       |     0.61
 6.833    1.23    0.67      0.154  |   O  I|       |       |       |     0.62
 6.917    1.23    0.67      0.158  |   O  I|       |       |       |     0.63
 7.000    1.23    0.67      0.162  |   O  I|       |       |       |     0.64
 7.083    1.23    0.67      0.166  |   O  I|       |       |       |     0.65
 7.167    1.23    0.67      0.170  |   O  I|       |       |       |     0.66
 7.250    1.23    0.67      0.173  |   O  I|       |       |       |     0.68
 7.333    1.29    0.67      0.178  |   O  I|       |       |       |     0.69
 7.417    1.34    0.67      0.182  |   O   I       |       |       |     0.70
 7.500    1.35    0.67      0.187  |   O   I       |       |       |     0.71
 7.583    1.43    0.67      0.192  |   O   I       |       |       |     0.73
 7.667    1.49    0.67      0.197  |   O   |I      |       |       |     0.74
 7.750    1.50    0.67      0.203  |   O   |I      |       |       |     0.76
 7.833    1.59    0.67      0.209  |   O   |I      |       |       |     0.78
 7.917    1.66    0.67      0.215  |   O   | I     |       |       |     0.80
 8.000    1.68    0.67      0.222  |   O   | I     |       |       |     0.81
 8.083    1.84    0.67      0.230  |   O   |  I    |       |       |     0.84
 8.167    1.98    0.67      0.238  |   O   |   I   |       |       |     0.86
 8.250    2.01    0.67      0.247  |   O   |   I   |       |       |     0.89
 8.333    2.02    0.67      0.257  |   O   |   I   |       |       |     0.91
 8.417    2.02    0.67      0.266  |   O   |   I   |       |       |     0.94
 8.500    2.02    0.67      0.275  |   O   |   I   |       |       |     0.97
 8.583    2.10    0.67      0.285  |   O   |   I   |       |       |     0.99
 8.667    2.18    0.67      0.295  |   O   |    I  |       |       |     1.02
 8.750    2.19    0.67      0.305  |   O   |    I  |       |       |     1.04
 8.833    2.28    0.67      0.316  |   O   |    I  |       |       |     1.06
 8.917    2.35    0.67      0.327  |   O   |     I |       |       |     1.09
 9.000    2.36    0.67      0.339  |   O   |     I |       |       |     1.11
 9.083    2.53    0.67      0.351  |   O   |      I|       |       |     1.14
 9.167    2.67    0.67      0.364  |   O   |       I       |       |     1.17
 9.250    2.69    0.67      0.378  |   O   |       I       |       |     1.20
 9.333    2.78    0.67      0.393  |   O   |       I       |       |     1.23
 9.417    2.85    0.67      0.407  |   O   |       |I      |       |     1.26
 9.500    2.87    0.67      0.422  |   O   |       |I      |       |     1.29
 9.583    2.96    0.67      0.438  |   O   |       |I      |       |     1.33
 9.667    3.03    0.67      0.454  |   O   |       | I     |       |     1.36
 9.750    3.04    0.67      0.470  |   O   |       | I     |       |     1.40
 9.833    3.13    0.67      0.487  |   O   |       | I     |       |     1.43
 9.917    3.20    0.67      0.504  |   O   |       |  I    |       |     1.47
10.000    3.21    0.67      0.521  |   O   |       |  I    |       |     1.51
10.083    2.67    0.67      0.537  |   O   |       I       |       |     1.54
10.167    2.19    0.67      0.549  |   O   |    I  |       |       |     1.57
10.250    2.10    0.67      0.559  |   O   |   I   |       |       |     1.59
10.333    2.07    0.67      0.569  |   O   |   I   |       |       |     1.62
10.417    2.07    0.67      0.579  |   O   |   I   |       |       |     1.64
10.500    2.07    0.67      0.588  |   O   |   I   |       |       |     1.66
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10.583    2.47    0.67      0.599  |   O   |     I |       |       |     1.69
10.667    2.81    0.67      0.613  |   O   |       |I      |       |     1.72
10.750    2.88    0.67      0.628  |   O   |       |I      |       |     1.75
10.833    2.91    0.67      0.643  |   O   |       |I      |       |     1.79
10.917    2.91    0.67      0.659  |   O   |       |I      |       |     1.82
11.000    2.91    0.67      0.674  |   O   |       |I      |       |     1.86
11.083    2.83    0.67      0.689  |   O   |       |I      |       |     1.89
11.167    2.77    0.67      0.704  |   O   |       I       |       |     1.93
11.250    2.76    0.67      0.718  |   O   |       I       |       |     1.96
11.333    2.75    0.67      0.733  |   O   |       I       |       |     1.99
11.417    2.76    0.67      0.747  |   O   |       I       |       |     2.03
11.500    2.76    0.67      0.761  |   O   |       I       |       |     2.06
11.583    2.60    0.67      0.775  |   O   |      I|       |       |     2.10
11.667    2.47    0.67      0.788  |   O   |     I |       |       |     2.13
11.750    2.44    0.67      0.800  |   O   |     I |       |       |     2.16
11.833    2.51    0.67      0.813  |   O   |      I|       |       |     2.19
11.917    2.58    0.67      0.826  |   O   |      I|       |       |     2.22
12.000    2.60    0.67      0.839  |   O   |      I|       |       |     2.26
12.083    3.16    0.67      0.854  |   O   |       |  I    |       |     2.30
12.167    3.64    0.67      0.873  |   O   |       |     I |       |     2.34
12.250    3.73    0.67      0.894  |   O   |       |     I |       |     2.39
12.333    3.85    0.67      0.915  |   O   |       |      I|       |     2.45
12.417    3.92    0.67      0.937  |   O   |       |      I|       |     2.50
12.500    3.93    0.67      0.960  |   O   |       |      I|       |     2.57
12.583    4.09    0.67      0.983  |   O   |       |       I       |     2.64
12.667    4.23    0.67      1.007  |   O   |       |       |I      |     2.71
12.750    4.26    0.67      1.031  |   O   |       |       |I      |     2.78
12.833    4.35    0.67      1.057  |   O   |       |       | I     |     2.86
12.917    4.42    0.67      1.082  |   O   |       |       | I     |     2.93
13.000    4.44    0.67      1.108  |   O   |       |       | I     |     3.02
13.083    4.84    0.67      1.135  |   O   |       |       |    I  |     3.14
13.167    5.18    0.67      1.165  |   O   |       |       |      I|     3.26
13.250    5.25    0.67      1.197  |   O   |       |       |      I|     3.40
13.333    5.27    0.67      1.228  |   O   |       |       |      I|     3.54
13.417    5.28    0.67      1.260  |   O   |       |       |      I|     3.68
13.500    5.28    5.14      1.276  |       |       |       |      OI     4.13
13.583    4.41    4.56      1.276  |       |       |       | IO    |     4.08
13.667    3.66    3.53      1.276  |       |       |    OI |       |     4.00
13.750    3.52    3.65      1.276  |       |       |    IO |       |     4.01
13.833    3.47    3.34      1.276  |       |       |   OI  |       |     3.98
13.917    3.47    3.59      1.276  |       |       |    O  |       |     4.00
14.000    3.47    3.35      1.276  |       |       |   OI  |       |     3.98
14.083    3.79    3.90      1.276  |       |       |     IO|       |     4.03
14.167    4.06    3.95      1.276  |       |       |      OI       |     4.03
14.250    4.12    4.23      1.276  |       |       |       IO      |     4.06
14.333    4.06    3.95      1.276  |       |       |      OI       |     4.03
14.417    3.99    4.10      1.276  |       |       |       O       |     4.04
14.500    3.98    3.88      1.276  |       |       |      OI       |     4.03
14.583    3.98    4.08      1.276  |       |       |       O       |     4.04
14.667    3.98    3.88      1.276  |       |       |      OI       |     4.03
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14.750    3.98    4.08      1.276  |       |       |       O       |     4.04
14.833    3.90    3.81      1.276  |       |       |      O|       |     4.02
14.917    3.84    3.93      1.276  |       |       |      O|       |     4.03
15.000    3.83    3.74      1.276  |       |       |     OI|       |     4.01
15.083    3.74    3.83      1.276  |       |       |     IO|       |     4.02
15.167    3.68    3.59      1.276  |       |       |    OI |       |     4.00
15.250    3.67    3.75      1.276  |       |       |     O |       |     4.01
15.333    3.58    3.50      1.276  |       |       |    O  |       |     3.99
15.417    3.52    3.59      1.276  |       |       |    O  |       |     4.00
15.500    3.51    3.43      1.276  |       |       |   OI  |       |     3.99
15.583    3.19    3.26      1.276  |       |       |  O    |       |     3.97
15.667    2.91    2.84      1.276  |       |       |O      |       |     3.94
15.750    2.86    2.94      1.276  |       |       |O      |       |     3.94
15.833    2.85    2.78      1.276  |       |      OI       |       |     3.93
15.917    2.85    2.92      1.276  |       |       |O      |       |     3.94
16.000    2.85    2.78      1.276  |       |      OI       |       |     3.93
16.083    1.72    1.80      1.276  |       | O     |       |       |     3.85
16.167    0.75    0.68      1.276  |   O   |       |       |       |     3.75
16.250    0.56    0.67      1.276  |  IO   |       |       |       |     3.75
16.333    0.49    0.67      1.275  | I O   |       |       |       |     3.74
16.417    0.49    0.67      1.274  | I O   |       |       |       |     3.74
16.500    0.49    0.67      1.272  | I O   |       |       |       |     3.73
16.583    0.43    0.67      1.271  | I O   |       |       |       |     3.73
16.667    0.38    0.67      1.269  | I O   |       |       |       |     3.72
16.750    0.37    0.67      1.267  | I O   |       |       |       |     3.71
16.833    0.37    0.67      1.265  | I O   |       |       |       |     3.70
16.917    0.37    0.67      1.263  | I O   |       |       |       |     3.69
17.000    0.37    0.67      1.261  | I O   |       |       |       |     3.68
17.083    0.49    0.67      1.259  | I O   |       |       |       |     3.68
17.167    0.59    0.67      1.258  |  IO   |       |       |       |     3.67
17.250    0.61    0.67      1.258  |  IO   |       |       |       |     3.67
17.333    0.62    0.67      1.257  |  IO   |       |       |       |     3.67
17.417    0.62    0.67      1.257  |  IO   |       |       |       |     3.67
17.500    0.62    0.67      1.257  |  IO   |       |       |       |     3.66
17.583    0.62    0.67      1.256  |  IO   |       |       |       |     3.66
17.667    0.62    0.67      1.256  |  IO   |       |       |       |     3.66
17.750    0.62    0.67      1.256  |  IO   |       |       |       |     3.66
17.833    0.56    0.67      1.255  |  IO   |       |       |       |     3.66
17.917    0.51    0.67      1.254  |  IO   |       |       |       |     3.65
18.000    0.50    0.67      1.253  |  IO   |       |       |       |     3.65
18.083    0.49    0.67      1.252  | I O   |       |       |       |     3.64
18.167    0.49    0.67      1.250  | I O   |       |       |       |     3.64
18.250    0.49    0.67      1.249  | I O   |       |       |       |     3.63
18.333    0.49    0.67      1.248  | I O   |       |       |       |     3.63
18.417    0.49    0.67      1.247  | I O   |       |       |       |     3.62
18.500    0.49    0.67      1.246  | I O   |       |       |       |     3.61
18.583    0.43    0.67      1.244  | I O   |       |       |       |     3.61
18.667    0.38    0.67      1.242  | I O   |       |       |       |     3.60
18.750    0.37    0.67      1.240  | I O   |       |       |       |     3.59
18.833    0.31    0.67      1.238  |I  O   |       |       |       |     3.58
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18.917    0.26    0.67     1.235  |I   O   |       |       |       |      3.57
19.000    0.25    0.67     1.233  |I   O   |       |       |       |      3.56
19.083    0.30    0.67     1.230  |I   O   |       |       |       |      3.54
19.167    0.36    0.67     1.228  | I O    |       |       |       |      3.53
19.250    0.37    0.67     1.225  | I O    |       |       |       |      3.52
19.333    0.43    0.67     1.223  | I O    |       |       |       |      3.52
19.417    0.48    0.67     1.222  | I O    |       |       |       |      3.51
19.500    0.49    0.67     1.221  | I O    |       |       |       |      3.50
19.583    0.43    0.67     1.219  | I O    |       |       |       |      3.50
19.667    0.38    0.67     1.217  | I O    |       |       |       |      3.49
19.750    0.37    0.67     1.215  | I O    |       |       |       |      3.48
19.833    0.31    0.67     1.213  |I   O   |       |       |       |      3.47
19.917    0.26    0.67     1.211  |I   O   |       |       |       |      3.46
20.000    0.25    0.67     1.208  |I   O   |       |       |       |      3.45
20.083    0.30    0.67     1.205  |I   O   |       |       |       |      3.44
20.167    0.36    0.67     1.203  | I O    |       |       |       |      3.43
20.250    0.37    0.67     1.201  | I O    |       |       |       |      3.42
20.333    0.37    0.67     1.198  | I O    |       |       |       |      3.41
20.417    0.37    0.67     1.196  | I O    |       |       |       |      3.40
20.500    0.37    0.67     1.194  | I O    |       |       |       |      3.39
20.583    0.37    0.67     1.192  | I O    |       |       |       |      3.38
20.667    0.37    0.67     1.190  | I O    |       |       |       |      3.37
20.750    0.37    0.67     1.188  | I O    |       |       |       |      3.36
20.833    0.31    0.67     1.186  |I   O   |       |       |       |      3.35
20.917    0.26    0.67     1.183  |I   O   |       |       |       |      3.34
21.000    0.25    0.67     1.180  |I   O   |       |       |       |      3.33
21.083    0.30    0.67     1.178  |I   O   |       |       |       |      3.32
21.167    0.36    0.67     1.175  | I O    |       |       |       |      3.31
21.250    0.37    0.67     1.173  | I O    |       |       |       |      3.30
21.333    0.31    0.67     1.171  |I   O   |       |       |       |      3.29
21.417    0.26    0.67     1.168  |I   O   |       |       |       |      3.28
21.500    0.25    0.67     1.165  |I   O   |       |       |       |      3.26
21.583    0.30    0.67     1.163  |I   O   |       |       |       |      3.25
21.667    0.36    0.67     1.160  | I O    |       |       |       |      3.24
21.750    0.37    0.67     1.158  | I O    |       |       |       |      3.23
21.833    0.31    0.67     1.156  |I   O   |       |       |       |      3.22
21.917    0.26    0.67     1.153  |I   O   |       |       |       |      3.21
22.000    0.25    0.67     1.150  |I   O   |       |       |       |      3.20
22.083    0.30    0.67     1.148  |I   O   |       |       |       |      3.19
22.167    0.36    0.67     1.145  | I O    |       |       |       |      3.18
22.250    0.37    0.67     1.143  | I O    |       |       |       |      3.17
22.333    0.31    0.67     1.141  |I   O   |       |       |       |      3.16
22.417    0.26    0.67     1.138  |I   O   |       |       |       |      3.15
22.500    0.25    0.67     1.135  |I   O   |       |       |       |      3.14
22.583    0.25    0.67     1.132  |I   O   |       |       |       |      3.12
22.667    0.25    0.67     1.130  |I   O   |       |       |       |      3.11
22.750    0.25    0.67     1.127  |I   O   |       |       |       |      3.10
22.833    0.25    0.67     1.124  |I   O   |       |       |       |      3.08
22.917    0.25    0.67     1.121  |I   O   |       |       |       |      3.07
23.000    0.25    0.67     1.118  |I   O   |       |       |       |      3.06
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23.083     0.25     0.67       1.115   |I   O    |         |         |         |      3.05
23.167     0.25     0.67       1.112   |I   O    |         |         |         |      3.03
23.250     0.25     0.67       1.109   |I   O    |         |         |         |      3.02
23.333     0.25     0.67       1.106   |I   O    |         |         |         |      3.01
23.417     0.25     0.67       1.103   |I   O    |         |         |         |      3.00
23.500     0.25     0.67       1.100   |I   O    |         |         |         |      2.99
23.583     0.25     0.67       1.097   |I   O    |         |         |         |      2.98
23.667     0.25     0.67       1.095   |I   O    |         |         |         |      2.97
23.750     0.25     0.67       1.092   |I   O    |         |         |         |      2.96
23.833     0.25     0.67       1.089   |I   O    |         |         |         |      2.95
23.917     0.25     0.67       1.086   |I   O    |         |         |         |      2.95
24.000     0.25     0.67       1.083   |I   O    |         |         |         |      2.94
24.083     0.13     0.67       1.080    I   O    |         |         |         |      2.93
24.167     0.03     0.67       1.075    I   O    |         |         |         |      2.91
24.250     0.01     0.67       1.071    I   O    |         |         |         |      2.90
24.333     0.00     0.67       1.066    I   O    |         |         |         |      2.89
24.417     0.00     0.67       1.062    I   O    |         |         |         |      2.87
24.500     0.00     0.67       1.057    I   O    |         |         |         |      2.86
24.583     0.00     0.67       1.052    I   O    |         |         |         |      2.85
24.667     0.00     0.67       1.048    I   O    |         |         |         |      2.83
24.750     0.00     0.67       1.043    I   O    |         |         |         |      2.82
24.833     0.00     0.67       1.039    I   O    |         |         |         |      2.81
24.917     0.00     0.67       1.034    I   O    |         |         |         |      2.79
25.000     0.00     0.67       1.029    I   O    |         |         |         |      2.78
25.083     0.00     0.67       1.025    I   O    |         |         |         |      2.76
25.167     0.00     0.67       1.020    I   O    |         |         |         |      2.75
25.250     0.00     0.67       1.016    I   O    |         |         |         |      2.74
25.333     0.00     0.67       1.011    I   O    |         |         |         |      2.72
25.417     0.00     0.67       1.006    I   O    |         |         |         |      2.71
25.500     0.00     0.67       1.002    I   O    |         |         |         |      2.70
25.583     0.00     0.67       0.997    I   O    |         |         |         |      2.68
25.667     0.00     0.67       0.993    I   O    |         |         |         |      2.67
25.750     0.00     0.67       0.988    I   O    |         |         |         |      2.65
25.833     0.00     0.67       0.983    I   O    |         |         |         |      2.64
25.917     0.00     0.67       0.979    I   O    |         |         |         |      2.63
26.000     0.00     0.67       0.974    I   O    |         |         |         |      2.61
26.083     0.00     0.67       0.969    I   O    |         |         |         |      2.60
26.167     0.00     0.67       0.965    I   O    |         |         |         |      2.59
26.250     0.00     0.67       0.960    I   O    |         |         |         |      2.57
26.333     0.00     0.67       0.956    I   O    |         |         |         |      2.56
26.417     0.00     0.67       0.951    I   O    |         |         |         |      2.54
26.500     0.00     0.67       0.946    I   O    |         |         |         |      2.53
26.583     0.00     0.67       0.942    I   O    |         |         |         |      2.52
26.667     0.00     0.67       0.937    I   O    |         |         |         |      2.50
26.750     0.00     0.67       0.933    I   O    |         |         |         |      2.49
26.833     0.00     0.67       0.928    I   O    |         |         |         |      2.48
26.917     0.00     0.67       0.923    I   O    |         |         |         |      2.47
27.000     0.00     0.67       0.919    I   O    |         |         |         |      2.46
27.083     0.00     0.67       0.914    I   O    |         |         |         |      2.45
27.167     0.00     0.67       0.909    I   O    |         |         |         |      2.43
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27.250	0.00	0.67	0.905	I	O					2.42
27.333	0.00	0.67	0.900	I	O					2.41
27.417	0.00	0.67	0.896	I	O					2.40
27.500	0.00	0.67	0.891	I	O					2.39
27.583	0.00	0.67	0.886	I	O					2.38
27.667	0.00	0.67	0.882	I	O					2.36
27.750	0.00	0.67	0.877	I	O					2.35
27.833	0.00	0.67	0.873	I	O					2.34
27.917	0.00	0.67	0.868	I	O					2.33
28.000	0.00	0.67	0.863	I	O					2.32
28.083	0.00	0.67	0.859	I	O					2.31
28.167	0.00	0.67	0.854	I	O					2.30
28.250	0.00	0.67	0.849	I	O					2.28
28.333	0.00	0.67	0.845	I	O					2.27
28.417	0.00	0.67	0.840	I	O					2.26
28.500	0.00	0.67	0.836	I	O					2.25
28.583	0.00	0.67	0.831	I	O					2.24
28.667	0.00	0.67	0.826	I	O					2.23
28.750	0.00	0.67	0.822	I	O					2.21
28.833	0.00	0.67	0.817	I	O					2.20
28.917	0.00	0.67	0.813	I	O					2.19
29.000	0.00	0.67	0.808	I	O					2.18
29.083	0.00	0.67	0.803	I	O					2.17
29.167	0.00	0.67	0.799	I	O					2.16
29.250	0.00	0.67	0.794	I	O					2.15
29.333	0.00	0.67	0.789	I	O					2.13
29.417	0.00	0.67	0.785	I	O					2.12
29.500	0.00	0.67	0.780	I	O					2.11
29.583	0.00	0.67	0.776	I	O					2.10
29.667	0.00	0.67	0.771	I	O					2.09
29.750	0.00	0.67	0.766	I	O					2.08
29.833	0.00	0.67	0.762	I	O					2.06
29.917	0.00	0.67	0.757	I	O					2.05
30.000	0.00	0.67	0.753	I	O					2.04
30.083	0.00	0.67	0.748	I	O					2.03
30.167	0.00	0.67	0.743	I	O					2.02
30.250	0.00	0.67	0.739	I	O					2.01
30.333	0.00	0.67	0.734	I	O					2.00
30.417	0.00	0.67	0.729	I	O					1.99
30.500	0.00	0.67	0.725	I	O					1.97
30.583	0.00	0.67	0.720	I	O					1.96
30.667	0.00	0.67	0.716	I	O					1.95
30.750	0.00	0.67	0.711	I	O					1.94
30.833	0.00	0.67	0.706	I	O					1.93
30.917	0.00	0.67	0.702	I	O					1.92
31.000	0.00	0.67	0.697	I	O					1.91
31.083	0.00	0.67	0.693	I	O					1.90
31.167	0.00	0.67	0.688	I	O					1.89
31.250	0.00	0.67	0.683	I	O					1.88
31.333	0.00	0.67	0.679	I	O					1.87

31.417	0.00	0.67	0.674	I	O				1.86
31.500	0.00	0.67	0.670	I	O				1.85
31.583	0.00	0.67	0.665	I	O				1.84
31.667	0.00	0.67	0.660	I	O				1.83
31.750	0.00	0.67	0.656	I	O				1.82
31.833	0.00	0.67	0.651	I	O				1.81
31.917	0.00	0.67	0.646	I	O				1.79
32.000	0.00	0.67	0.642	I	O				1.78
32.083	0.00	0.67	0.637	I	O				1.77
32.167	0.00	0.67	0.633	I	O				1.76
32.250	0.00	0.67	0.628	I	O				1.75
32.333	0.00	0.67	0.623	I	O				1.74
32.417	0.00	0.67	0.619	I	O				1.73
32.500	0.00	0.67	0.614	I	O				1.72
32.583	0.00	0.67	0.610	I	O				1.71
32.667	0.00	0.67	0.605	I	O				1.70
32.750	0.00	0.67	0.600	I	O				1.69
32.833	0.00	0.67	0.596	I	O				1.68
32.917	0.00	0.67	0.591	I	O				1.67
33.000	0.00	0.67	0.586	I	O				1.66
33.083	0.00	0.67	0.582	I	O				1.65
33.167	0.00	0.67	0.577	I	O				1.64
33.250	0.00	0.67	0.573	I	O				1.63
33.333	0.00	0.67	0.568	I	O				1.61
33.417	0.00	0.67	0.563	I	O				1.60
33.500	0.00	0.67	0.559	I	O				1.59
33.583	0.00	0.67	0.554	I	O				1.58
33.667	0.00	0.67	0.550	I	O				1.57
33.750	0.00	0.67	0.545	I	O				1.56
33.833	0.00	0.67	0.540	I	O				1.55
33.917	0.00	0.67	0.536	I	O				1.54
34.000	0.00	0.67	0.531	I	O				1.53
34.083	0.00	0.67	0.526	I	O				1.52
34.167	0.00	0.67	0.522	I	O				1.51
34.250	0.00	0.67	0.517	I	O				1.50
34.333	0.00	0.67	0.513	I	O				1.49
34.417	0.00	0.67	0.508	I	O				1.48
34.500	0.00	0.67	0.503	I	O				1.47
34.583	0.00	0.67	0.499	I	O				1.46
34.667	0.00	0.67	0.494	I	O				1.45
34.750	0.00	0.67	0.490	I	O				1.44
34.833	0.00	0.67	0.485	I	O				1.43
34.917	0.00	0.67	0.480	I	O				1.42
35.000	0.00	0.67	0.476	I	O				1.41
35.083	0.00	0.67	0.471	I	O				1.40
35.167	0.00	0.67	0.466	I	O				1.39
35.250	0.00	0.67	0.462	I	O				1.38
35.333	0.00	0.67	0.457	I	O				1.37
35.417	0.00	0.67	0.453	I	O				1.36
35.500	0.00	0.67	0.448	I	O				1.35

35.583	0.00	0.67	0.443	I	O	|	|	|	|	1.34
35.667	0.00	0.67	0.439	I	O	|	|	|	|	1.33
35.750	0.00	0.67	0.434	I	O	|	|	|	|	1.32
35.833	0.00	0.67	0.430	I	O	|	|	|	|	1.31
35.917	0.00	0.67	0.425	I	O	|	|	|	|	1.30
36.000	0.00	0.67	0.420	I	O	|	|	|	|	1.29
36.083	0.00	0.67	0.416	I	O	|	|	|	|	1.28
36.167	0.00	0.67	0.411	I	O	|	|	|	|	1.27
36.250	0.00	0.67	0.406	I	O	|	|	|	|	1.26
36.333	0.00	0.67	0.402	I	O	|	|	|	|	1.25
36.417	0.00	0.67	0.397	I	O	|	|	|	|	1.24
36.500	0.00	0.67	0.393	I	O	|	|	|	|	1.23
36.583	0.00	0.67	0.388	I	O	|	|	|	|	1.22
36.667	0.00	0.67	0.383	I	O	|	|	|	|	1.21
36.750	0.00	0.67	0.379	I	O	|	|	|	|	1.20
36.833	0.00	0.67	0.374	I	O	|	|	|	|	1.19
36.917	0.00	0.67	0.370	I	O	|	|	|	|	1.18
37.000	0.00	0.67	0.365	I	O	|	|	|	|	1.17
37.083	0.00	0.67	0.360	I	O	|	|	|	|	1.16
37.167	0.00	0.67	0.356	I	O	|	|	|	|	1.15
37.250	0.00	0.67	0.351	I	O	|	|	|	|	1.14
37.333	0.00	0.67	0.347	I	O	|	|	|	|	1.13
37.417	0.00	0.67	0.342	I	O	|	|	|	|	1.12
37.500	0.00	0.67	0.337	I	O	|	|	|	|	1.11
37.583	0.00	0.67	0.333	I	O	|	|	|	|	1.10
37.667	0.00	0.67	0.328	I	O	|	|	|	|	1.09
37.750	0.00	0.67	0.323	I	O	|	|	|	|	1.08
37.833	0.00	0.67	0.319	I	O	|	|	|	|	1.07
37.917	0.00	0.67	0.314	I	O	|	|	|	|	1.06
38.000	0.00	0.67	0.310	I	O	|	|	|	|	1.05
38.083	0.00	0.67	0.305	I	O	|	|	|	|	1.04
38.167	0.00	0.67	0.300	I	O	|	|	|	|	1.03
38.250	0.00	0.67	0.296	I	O	|	|	|	|	1.02
38.333	0.00	0.67	0.291	I	O	|	|	|	|	1.01
38.417	0.00	0.67	0.287	I	O	|	|	|	|	1.00
38.500	0.00	0.67	0.282	I	O	|	|	|	|	0.99
38.583	0.00	0.67	0.277	I	O	|	|	|	|	0.97
38.667	0.00	0.67	0.273	I	O	|	|	|	|	0.96
38.750	0.00	0.67	0.268	I	O	|	|	|	|	0.95
38.833	0.00	0.67	0.263	I	O	|	|	|	|	0.93
38.917	0.00	0.67	0.259	I	O	|	|	|	|	0.92
39.000	0.00	0.67	0.254	I	O	|	|	|	|	0.91
39.083	0.00	0.67	0.250	I	O	|	|	|	|	0.89
39.167	0.00	0.67	0.245	I	O	|	|	|	|	0.88
39.250	0.00	0.67	0.240	I	O	|	|	|	|	0.87
39.333	0.00	0.67	0.236	I	O	|	|	|	|	0.85
39.417	0.00	0.67	0.231	I	O	|	|	|	|	0.84
39.500	0.00	0.67	0.227	I	O	|	|	|	|	0.83
39.583	0.00	0.67	0.222	I	O	|	|	|	|	0.81
39.667	0.00	0.67	0.217	I	O	|	|	|	|	0.80

39.750	0.00	0.67	0.213	I O					0.79
39.833	0.00	0.67	0.208	I O					0.77
39.917	0.00	0.67	0.203	I O					0.76
40.000	0.00	0.67	0.199	I O					0.75
40.083	0.00	0.67	0.194	I O					0.73
40.167	0.00	0.67	0.190	I O					0.72
40.250	0.00	0.67	0.185	I O					0.71
40.333	0.00	0.67	0.180	I O					0.70
40.417	0.00	0.67	0.176	I O					0.68
40.500	0.00	0.67	0.171	I O					0.67
40.583	0.00	0.67	0.167	I O					0.66
40.667	0.00	0.67	0.162	I O					0.64
40.750	0.00	0.67	0.157	I O					0.63
40.833	0.00	0.67	0.153	I O					0.62
40.917	0.00	0.67	0.148	I O					0.60
41.000	0.00	0.67	0.143	I O					0.59
41.083	0.00	0.67	0.139	I O					0.58
41.167	0.00	0.67	0.134	I O					0.56
41.250	0.00	0.67	0.130	I O					0.55
41.333	0.00	0.67	0.125	I O					0.54
41.417	0.00	0.67	0.120	I O					0.52
41.500	0.00	0.67	0.116	I O					0.51
41.583	0.00	0.67	0.111	I O					0.50
41.667	0.00	0.64	0.107	I O					0.48
41.750	0.00	0.61	0.102	I O					0.46
41.833	0.00	0.59	0.098	I O					0.44
41.917	0.00	0.56	0.094	I O					0.42
42.000	0.00	0.54	0.090	I O					0.40
42.083	0.00	0.52	0.087	I O					0.39
42.167	0.00	0.50	0.083	I O					0.37
42.250	0.00	0.48	0.080	I O					0.36
42.333	0.00	0.46	0.077	I O					0.34
42.417	0.00	0.44	0.074	I O					0.33
42.500	0.00	0.42	0.071	I O					0.32
42.583	0.00	0.41	0.068	I O					0.30
42.667	0.00	0.39	0.065	I O					0.29
42.750	0.00	0.37	0.062	I O					0.28
42.833	0.00	0.36	0.060	I O					0.27
42.917	0.00	0.34	0.058	I O					0.26
43.000	0.00	0.33	0.055	I O					0.25
43.083	0.00	0.32	0.053	IO					0.24
43.167	0.00	0.30	0.051	IO					0.23
43.250	0.00	0.29	0.049	IO					0.22
43.333	0.00	0.28	0.047	IO					0.21
43.417	0.00	0.27	0.045	IO					0.20
43.500	0.00	0.26	0.043	IO					0.19
43.583	0.00	0.25	0.041	IO					0.18
43.667	0.00	0.24	0.040	IO					0.18
43.750	0.00	0.23	0.038	IO					0.17
43.833	0.00	0.22	0.037	IO					0.16

43.917	0.00	0.21	0.035	IO	0.16
44.000	0.00	0.20	0.034	IO	0.15
44.083	0.00	0.19	0.032	IO	0.14
44.167	0.00	0.19	0.031	IO	0.14
44.250	0.00	0.18	0.030	IO	0.13
44.333	0.00	0.17	0.029	IO	0.13
44.417	0.00	0.16	0.027	O	0.12
44.500	0.00	0.16	0.026	O	0.12
44.583	0.00	0.15	0.025	O	0.11
44.667	0.00	0.14	0.024	O	0.11
44.750	0.00	0.14	0.023	O	0.10
44.833	0.00	0.13	0.022	O	0.10
44.917	0.00	0.13	0.021	O	0.10
45.000	0.00	0.12	0.021	O	0.09
45.083	0.00	0.12	0.020	O	0.09
45.167	0.00	0.11	0.019	O	0.08
45.250	0.00	0.11	0.018	O	0.08
45.333	0.00	0.10	0.017	O	0.08
45.417	0.00	0.10	0.017	O	0.07
45.500	0.00	0.10	0.016	O	0.07
45.583	0.00	0.09	0.015	O	0.07
45.667	0.00	0.09	0.015	O	0.07
45.750	0.00	0.08	0.014	O	0.06
45.833	0.00	0.08	0.014	O	0.06
45.917	0.00	0.08	0.013	O	0.06
46.000	0.00	0.07	0.013	O	0.06
46.083	0.00	0.07	0.012	O	0.05
46.167	0.00	0.07	0.012	O	0.05
46.250	0.00	0.07	0.011	O	0.05
46.333	0.00	0.06	0.011	O	0.05
46.417	0.00	0.06	0.010	O	0.05
46.500	0.00	0.06	0.010	O	0.04
46.583	0.00	0.06	0.009	O	0.04
46.667	0.00	0.05	0.009	O	0.04
46.750	0.00	0.05	0.009	O	0.04
46.833	0.00	0.05	0.008	O	0.04
46.917	0.00	0.05	0.008	O	0.04
47.000	0.00	0.05	0.008	O	0.03
47.083	0.00	0.04	0.007	O	0.03
47.167	0.00	0.04	0.007	O	0.03
47.250	0.00	0.04	0.007	O	0.03
47.333	0.00	0.04	0.006	O	0.03
47.417	0.00	0.04	0.006	O	0.03
47.500	0.00	0.04	0.006	O	0.03
47.583	0.00	0.03	0.006	O	0.03
47.667	0.00	0.03	0.005	O	0.02
47.750	0.00	0.03	0.005	O	0.02
47.833	0.00	0.03	0.005	O	0.02
47.917	0.00	0.03	0.005	O	0.02
48.000	0.00	0.03	0.005	O	0.02

48.083	0.00	0.03	0.004	O	|	|	|	|	0.02
48.167	0.00	0.03	0.004	O	|	|	|	|	0.02
48.250	0.00	0.02	0.004	O	|	|	|	|	0.02
48.333	0.00	0.02	0.004	O	|	|	|	|	0.02
48.417	0.00	0.02	0.004	O	|	|	|	|	0.02
48.500	0.00	0.02	0.004	O	|	|	|	|	0.02
48.583	0.00	0.02	0.003	O	|	|	|	|	0.02
48.667	0.00	0.02	0.003	O	|	|	|	|	0.01
48.750	0.00	0.02	0.003	O	|	|	|	|	0.01
48.833	0.00	0.02	0.003	O	|	|	|	|	0.01
48.917	0.00	0.02	0.003	O	|	|	|	|	0.01
49.000	0.00	0.02	0.003	O	|	|	|	|	0.01
49.083	0.00	0.02	0.003	O	|	|	|	|	0.01
49.167	0.00	0.02	0.003	O	|	|	|	|	0.01
49.250	0.00	0.02	0.003	O	|	|	|	|	0.01
49.333	0.00	0.01	0.002	O	|	|	|	|	0.01
49.417	0.00	0.01	0.002	O	|	|	|	|	0.01
49.500	0.00	0.01	0.002	O	|	|	|	|	0.01
49.583	0.00	0.01	0.002	O	|	|	|	|	0.01
49.667	0.00	0.01	0.002	O	|	|	|	|	0.01
49.750	0.00	0.01	0.002	O	|	|	|	|	0.01
49.833	0.00	0.01	0.002	O	|	|	|	|	0.01
49.917	0.00	0.01	0.002	O	|	|	|	|	0.01
50.000	0.00	0.01	0.002	O	|	|	|	|	0.01
50.083	0.00	0.01	0.002	O	|	|	|	|	0.01
50.167	0.00	0.01	0.002	O	|	|	|	|	0.01
50.250	0.00	0.01	0.002	O	|	|	|	|	0.01
50.333	0.00	0.01	0.001	O	|	|	|	|	0.01
50.417	0.00	0.01	0.001	O	|	|	|	|	0.01
50.500	0.00	0.01	0.001	O	|	|	|	|	0.01
50.583	0.00	0.01	0.001	O	|	|	|	|	0.01
50.667	0.00	0.01	0.001	O	|	|	|	|	0.01
50.750	0.00	0.01	0.001	O	|	|	|	|	0.01
50.833	0.00	0.01	0.001	O	|	|	|	|	0.01
50.917	0.00	0.01	0.001	O	|	|	|	|	0.00
51.000	0.00	0.01	0.001	O	|	|	|	|	0.00
51.083	0.00	0.01	0.001	O	|	|	|	|	0.00
51.167	0.00	0.01	0.001	O	|	|	|	|	0.00
51.250	0.00	0.01	0.001	O	|	|	|	|	0.00
51.333	0.00	0.01	0.001	O	|	|	|	|	0.00
51.417	0.00	0.01	0.001	O	|	|	|	|	0.00
51.500	0.00	0.00	0.001	O	|	|	|	|	0.00
51.583	0.00	0.00	0.001	O	|	|	|	|	0.00
51.667	0.00	0.00	0.001	O	|	|	|	|	0.00
51.750	0.00	0.00	0.001	O	|	|	|	|	0.00
51.833	0.00	0.00	0.001	O	|	|	|	|	0.00
51.917	0.00	0.00	0.001	O	|	|	|	|	0.00
52.000	0.00	0.00	0.001	O	|	|	|	|	0.00
52.083	0.00	0.00	0.001	O	|	|	|	|	0.00
52.167	0.00	0.00	0.001	O	|	|	|	|	0.00

```
52.250    0.00    0.00      0.001  O       |       |       |       |      0.00
52.333    0.00    0.00      0.001  O       |       |       |       |      0.00
52.417    0.00    0.00      0.001  O       |       |       |       |      0.00
52.500    0.00    0.00      0.001  O       |       |       |       |      0.00
52.583    0.00    0.00      0.000  O       |       |       |       |      0.00
52.667    0.00    0.00      0.000  O       |       |       |       |      0.00
52.750    0.00    0.00      0.000  O       |       |       |       |      0.00
52.833    0.00    0.00      0.000  O       |       |       |       |      0.00
52.917    0.00    0.00      0.000  O       |       |       |       |      0.00
53.000    0.00    0.00      0.000  O       |       |       |       |      0.00
53.083    0.00    0.00      0.000  O       |       |       |       |      0.00
53.167    0.00    0.00      0.000  O       |       |       |       |      0.00
53.250    0.00    0.00      0.000  O       |       |       |       |      0.00
53.333    0.00    0.00      0.000  O       |       |       |       |      0.00
53.417    0.00    0.00      0.000  O       |       |       |       |      0.00
53.500    0.00    0.00      0.000  O       |       |       |       |      0.00
53.583    0.00    0.00      0.000  O       |       |       |       |      0.00
53.667    0.00    0.00      0.000  O       |       |       |       |      0.00
53.750    0.00    0.00      0.000  O       |       |       |       |      0.00
53.833    0.00    0.00      0.000  O       |       |       |       |      0.00
53.917    0.00    0.00      0.000  O       |       |       |       |      0.00
54.000    0.00    0.00      0.000  O       |       |       |       |      0.00
54.083    0.00    0.00      0.000  O       |       |       |       |      0.00
54.167    0.00    0.00      0.000  O       |       |       |       |      0.00

       ***************************HYDROGRAPH DATA****************************
                      Number of intervals =   650
                      Time interval =    5.0 (Min.)
                      Maximum/Peak flow rate =        5.140 (CFS)
                      Total volume =       2.908 (Ac.Ft)
              Status of hydrographs being held in storage
                         Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
              Peak (CFS)      0.000     0.000     0.000     0.000     0.000
              Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ***********************************************************************

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

NEWLAND SIMPSON
HEMET
POST DEVELOPMENT
FLOOD ROUTING
BASIN C3
100YR-24HR

```
               FLOOD HYDROGRAPH ROUTING PROGRAM
      Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018
                   Study date: 10/17/23

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


NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA C
FLOOD ROUTING - BASIN C3
100YR 24HR
--------------------------------------------------------------------


Program License Serial Number 6491

--------------------------------------------------------------------
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: nspruhc324100.rte
****************************HYDROGRAPH DATA***************************
                Number of intervals =   290
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        1.973 (CFS)
                Total volume =       1.032 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)     0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
**********************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      81.000 to Point/Station      81.000
**** RETARDING BASIN ROUTING ****
______________________________________________________________________

User entry of depth-outflow-storage data
--------------------------------------------------------------------
Total number of inflow hydrograph intervals = 290
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
--------------------------------------------------------------------
--------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =     0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
```

```
--------------------------------------------------------------------
-------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
--------------------------------------------------------------------
  0.000      0.000      0.000      0.000        0.000
  0.500      0.103      0.220      0.102        0.104
  1.000      0.206      0.220      0.205        0.207
  1.500      0.329      0.220      0.328        0.330
  2.000      0.453      0.220      0.452        0.454
  2.500      0.597      1.990      0.590        0.604
  3.000      0.742      6.910      0.718        0.766
  3.500      0.909      6.910      0.885        0.933
  4.000      1.075      6.910      1.051        1.099
-------------------------------------------------------------------
                Hydrograph Detention Basin Routing
--------------------------------------------------------------------

Graph values: 'I'= unit inflow; 'O'=outflow at time shown
--------------------------------------------------------------------
 Time   Inflow  Outflow    Storage                               Depth
(Hours)  (CFS)   (CFS)     (Ac.Ft) .0       0.5    0.99    1.48    1.97 (Ft.)
 0.083    0.05    0.00      0.000  O       |       |       |       |      0.00
 0.167    0.08    0.00      0.001  OI      |       |       |       |      0.00
 0.250    0.08    0.00      0.001  OI      |       |       |       |      0.01
 0.333    0.10    0.00      0.002  OI      |       |       |       |      0.01
 0.417    0.12    0.01      0.002  OI      |       |       |       |      0.01
 0.500    0.12    0.01      0.003  OI      |       |       |       |      0.02
 0.583    0.12    0.01      0.004  OI      |       |       |       |      0.02
 0.667    0.12    0.01      0.005  OI      |       |       |       |      0.02
 0.750    0.12    0.01      0.006  OI      |       |       |       |      0.03
 0.833    0.14    0.01      0.006  O I     |       |       |       |      0.03
 0.917    0.16    0.02      0.007  O I     |       |       |       |      0.04
 1.000    0.16    0.02      0.008  O I     |       |       |       |      0.04
 1.083    0.14    0.02      0.009  O I     |       |       |       |      0.04
 1.167    0.12    0.02      0.010  OI      |       |       |       |      0.05
 1.250    0.12    0.02      0.011  OI      |       |       |       |      0.05
 1.333    0.12    0.02      0.011  OI      |       |       |       |      0.05
 1.417    0.12    0.03      0.012  OI      |       |       |       |      0.06
 1.500    0.12    0.03      0.013  OI      |       |       |       |      0.06
 1.583    0.12    0.03      0.013  OI      |       |       |       |      0.06
 1.667    0.12    0.03      0.014  OI      |       |       |       |      0.07
 1.750    0.12    0.03      0.015  OI      |       |       |       |      0.07
 1.833    0.14    0.03      0.015  O I     |       |       |       |      0.07
 1.917    0.16    0.03      0.016  O I     |       |       |       |      0.08
 2.000    0.16    0.04      0.017  O I     |       |       |       |      0.08
 2.083    0.16    0.04      0.018  O I     |       |       |       |      0.09
 2.167    0.16    0.04      0.019  O I     |       |       |       |      0.09
 2.250    0.16    0.04      0.019  O I     |       |       |       |      0.09
```

```
2.333    0.16    0.04      0.020  O I     |       |       |       |     0.10
2.417    0.16    0.04      0.021  O I     |       |       |       |     0.10
2.500    0.16    0.05      0.022  O I     |       |       |       |     0.11
2.583    0.18    0.05      0.023  O I     |       |       |       |     0.11
2.667    0.20    0.05      0.024  O  I    |       |       |       |     0.11
2.750    0.20    0.05      0.025  O  I    |       |       |       |     0.12
2.833    0.20    0.05      0.026  O  I    |       |       |       |     0.12
2.917    0.20    0.06      0.027  O  I    |       |       |       |     0.13
3.000    0.20    0.06      0.028  O  I    |       |       |       |     0.13
3.083    0.20    0.06      0.029  O  I    |       |       |       |     0.14
3.167    0.20    0.06      0.030  |O I    |       |       |       |     0.14
3.250    0.20    0.07      0.031  |O I    |       |       |       |     0.15
3.333    0.20    0.07      0.031  |O I    |       |       |       |     0.15
3.417    0.20    0.07      0.032  |O I    |       |       |       |     0.16
3.500    0.20    0.07      0.033  |O I    |       |       |       |     0.16
3.583    0.20    0.07      0.034  |O I    |       |       |       |     0.17
3.667    0.20    0.07      0.035  |O I    |       |       |       |     0.17
3.750    0.20    0.08      0.036  |O I    |       |       |       |     0.17
3.833    0.22    0.08      0.037  |O I    |       |       |       |     0.18
3.917    0.24    0.08      0.038  |O I    |       |       |       |     0.18
4.000    0.24    0.08      0.039  |O I    |       |       |       |     0.19
4.083    0.24    0.09      0.040  |O I    |       |       |       |     0.19
4.167    0.24    0.09      0.041  |O I    |       |       |       |     0.20
4.250    0.24    0.09      0.042  |O I    |       |       |       |     0.20
4.333    0.26    0.09      0.043  |O  I   |       |       |       |     0.21
4.417    0.28    0.10      0.045  |O  I   |       |       |       |     0.22
4.500    0.28    0.10      0.046  |O  I   |       |       |       |     0.22
4.583    0.28    0.10      0.047  |O  I   |       |       |       |     0.23
4.667    0.28    0.10      0.048  |O  I   |       |       |       |     0.23
4.750    0.28    0.11      0.050  |O  I   |       |       |       |     0.24
4.833    0.30    0.11      0.051  |O  I   |       |       |       |     0.25
4.917    0.32    0.11      0.052  |O   I  |       |       |       |     0.25
5.000    0.32    0.11      0.054  |O   I  |       |       |       |     0.26
5.083    0.28    0.12      0.055  |O  I   |       |       |       |     0.27
5.167    0.25    0.12      0.056  |O I    |       |       |       |     0.27
5.250    0.24    0.12      0.057  |O I    |       |       |       |     0.28
5.333    0.26    0.12      0.058  |O  I   |       |       |       |     0.28
5.417    0.28    0.13      0.059  | O I   |       |       |       |     0.28
5.500    0.28    0.13      0.060  | O I   |       |       |       |     0.29
5.583    0.30    0.13      0.061  | O I   |       |       |       |     0.30
5.667    0.32    0.13      0.062  | O  I  |       |       |       |     0.30
5.750    0.32    0.14      0.063  | O  I  |       |       |       |     0.31
5.833    0.32    0.14      0.065  | O  I  |       |       |       |     0.31
5.917    0.32    0.14      0.066  | O  I  |       |       |       |     0.32
6.000    0.32    0.14      0.067  | O  I  |       |       |       |     0.33
6.083    0.35    0.15      0.068  | O  I  |       |       |       |     0.33
6.167    0.36    0.15      0.070  | O  I  |       |       |       |     0.34
6.250    0.36    0.15      0.071  | O  I  |       |       |       |     0.35
6.333    0.36    0.16      0.073  | O  I  |       |       |       |     0.35
6.417    0.36    0.16      0.074  | O  I  |       |       |       |     0.36
```

```
 6.500    0.36    0.16      0.076  | O  I  |       |       |       |     0.37
 6.583    0.39    0.16      0.077  | O   I |       |       |       |     0.37
 6.667    0.40    0.17      0.079  | O   I |       |       |       |     0.38
 6.750    0.40    0.17      0.080  | O   I |       |       |       |     0.39
 6.833    0.40    0.17      0.082  | O   I |       |       |       |     0.40
 6.917    0.40    0.18      0.083  | O   I |       |       |       |     0.40
 7.000    0.40    0.18      0.085  | O   I |       |       |       |     0.41
 7.083    0.40    0.18      0.086  | O   I |       |       |       |     0.42
 7.167    0.40    0.19      0.088  |  O  I |       |       |       |     0.43
 7.250    0.40    0.19      0.089  |  O  I |       |       |       |     0.43
 7.333    0.43    0.19      0.091  |  O  I |       |       |       |     0.44
 7.417    0.44    0.20      0.092  |  O   I|       |       |       |     0.45
 7.500    0.44    0.20      0.094  |  O   I|       |       |       |     0.46
 7.583    0.47    0.20      0.096  |  O   I|       |       |       |     0.47
 7.667    0.49    0.21      0.098  |  O    I       |       |       |     0.47
 7.750    0.50    0.21      0.100  |  O    I       |       |       |     0.48
 7.833    0.54    0.22      0.102  |  O    I       |       |       |     0.49
 7.917    0.56    0.22      0.104  |  O    |I      |       |       |     0.51
 8.000    0.57    0.22      0.106  |  O    |I      |       |       |     0.52
 8.083    0.64    0.22      0.109  |  O    | I     |       |       |     0.53
 8.167    0.69    0.22      0.112  |  O    |  I    |       |       |     0.54
 8.250    0.70    0.22      0.115  |  O    |  I    |       |       |     0.56
 8.333    0.70    0.22      0.119  |  O    |  I    |       |       |     0.58
 8.417    0.70    0.22      0.122  |  O    |  I    |       |       |     0.59
 8.500    0.70    0.22      0.125  |  O    |  I    |       |       |     0.61
 8.583    0.74    0.22      0.129  |  O    |  I    |       |       |     0.62
 8.667    0.76    0.22      0.132  |  O    |   I   |       |       |     0.64
 8.750    0.77    0.22      0.136  |  O    |   I   |       |       |     0.66
 8.833    0.80    0.22      0.140  |  O    |    I  |       |       |     0.68
 8.917    0.83    0.22      0.144  |  O    |    I  |       |       |     0.70
 9.000    0.83    0.22      0.148  |  O    |    I  |       |       |     0.72
 9.083    0.91    0.22      0.153  |  O    |     I |       |       |     0.74
 9.167    0.96    0.22      0.158  |  O    |      I|       |       |     0.77
 9.250    0.96    0.22      0.163  |  O    |      I|       |       |     0.79
 9.333    1.00    0.22      0.168  |  O    |       I       |       |     0.82
 9.417    1.03    0.22      0.174  |  O    |       I       |       |     0.84
 9.500    1.03    0.22      0.179  |  O    |       I       |       |     0.87
 9.583    1.07    0.22      0.185  |  O    |       |I      |       |     0.90
 9.667    1.09    0.22      0.191  |  O    |       |I      |       |     0.93
 9.750    1.10    0.22      0.197  |  O    |       |I      |       |     0.96
 9.833    1.14    0.22      0.203  |  O    |       | I     |       |     0.99
 9.917    1.16    0.22      0.209  |  O    |       | I     |       |     1.01
10.000    1.17    0.22      0.216  |  O    |       | I     |       |     1.04
10.083    0.91    0.22      0.221  |  O    |     I |       |       |     1.06
10.167    0.75    0.22      0.226  |  O    |   I   |       |       |     1.08
10.250    0.72    0.22      0.229  |  O    |  I    |       |       |     1.09
10.333    0.72    0.22      0.233  |  O    |  I    |       |       |     1.11
10.417    0.73    0.22      0.236  |  O    |  I    |       |       |     1.12
10.500    0.73    0.22      0.240  |  O    |  I    |       |       |     1.14
10.583    0.91    0.22      0.244  |  O    |     I |       |       |     1.15
```

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10.667    1.03    0.22      0.249  |  O    |       I       |       |     1.17
10.750    1.05    0.22      0.255  |  O    |       |I      |       |     1.20
10.833    1.05    0.22      0.260  |  O    |       |I      |       |     1.22
10.917    1.05    0.22      0.266  |  O    |       |I      |       |     1.24
11.000    1.05    0.22      0.272  |  O    |       |I      |       |     1.27
11.083    1.02    0.22      0.277  |  O    |       I       |       |     1.29
11.167    0.99    0.22      0.283  |  O    |       I       |       |     1.31
11.250    0.99    0.22      0.288  |  O    |       I       |       |     1.33
11.333    0.99    0.22      0.293  |  O    |       I       |       |     1.36
11.417    0.99    0.22      0.299  |  O    |       I       |       |     1.38
11.500    0.99    0.22      0.304  |  O    |       I       |       |     1.40
11.583    0.92    0.22      0.309  |  O    |     I |       |       |     1.42
11.667    0.88    0.22      0.314  |  O    |     I |       |       |     1.44
11.750    0.87    0.22      0.318  |  O    |     I |       |       |     1.46
11.833    0.91    0.22      0.323  |  O    |     I |       |       |     1.48
11.917    0.93    0.22      0.328  |  O    |      I|       |       |     1.50
12.000    0.94    0.22      0.333  |  O    |      I|       |       |     1.51
12.083    1.19    0.22      0.339  |  O    |       |  I    |       |     1.54
12.167    1.36    0.22      0.346  |  O    |       |     I |       |     1.57
12.250    1.39    0.22      0.354  |  O    |       |     I |       |     1.60
12.333    1.42    0.22      0.362  |  O    |       |      I|       |     1.63
12.417    1.45    0.22      0.370  |  O    |       |      I|       |     1.67
12.500    1.45    0.22      0.379  |  O    |       |      I|       |     1.70
12.583    1.53    0.22      0.387  |  O    |       |       I       |     1.74
12.667    1.57    0.22      0.397  |  O    |       |       |I      |     1.77
12.750    1.58    0.22      0.406  |  O    |       |       |I      |     1.81
12.833    1.62    0.22      0.415  |  O    |       |       | I     |     1.85
12.917    1.64    0.22      0.425  |  O    |       |       | I     |     1.89
13.000    1.65    0.22      0.435  |  O    |       |       | I     |     1.93
13.083    1.83    0.22      0.446  |  O    |       |       |    I  |     1.97
13.167    1.95    0.27      0.457  |   O   |       |       |      I|     2.01
13.250    1.97    0.40      0.468  |     O |       |       |      I|     2.05
13.333    1.97    0.53      0.478  |       O       |       |      I|     2.09
13.417    1.97    0.65      0.488  |       | O     |       |      I|     2.12
13.500    1.97    0.76      0.497  |       |   O   |       |      I|     2.15
13.583    1.57    0.84      0.503  |       |    O  |       |I      |     2.17
13.667    1.32    0.89      0.507  |       |     O |    I  |       |     2.19
13.750    1.28    0.92      0.510  |       |     O |   I   |       |     2.20
13.833    1.28    0.95      0.512  |       |      O|   I   |       |     2.21
13.917    1.28    0.98      0.515  |       |      O|   I   |       |     2.21
14.000    1.28    1.00      0.517  |       |       O   I   |       |     2.22
14.083    1.43    1.03      0.519  |       |       O      I|       |     2.23
14.167    1.52    1.07      0.522  |       |       |O      I       |     2.24
14.250    1.54    1.10      0.525  |       |       |O      I       |     2.25
14.333    1.50    1.14      0.528  |       |       | O     I       |     2.26
14.417    1.48    1.17      0.530  |       |       | O    I|       |     2.27
14.500    1.48    1.19      0.532  |       |       |  O   I|       |     2.27
14.583    1.48    1.21      0.534  |       |       |  O   I|       |     2.28
14.667    1.48    1.24      0.536  |       |       |   O  I|       |     2.29
14.750    1.48    1.25      0.537  |       |       |   O  I|       |     2.29
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14.833    1.44    1.27      0.539  |       |       |   O  I|       |     2.30
14.917    1.42    1.28      0.540  |       |       |   O  I|       |     2.30
15.000    1.42    1.30      0.540  |       |       |    OI |       |     2.30
15.083    1.38    1.30      0.541  |       |       |    OI |       |     2.31
15.167    1.36    1.31      0.542  |       |       |    OI |       |     2.31
15.250    1.36    1.31      0.542  |       |       |    O  |       |     2.31
15.333    1.32    1.32      0.542  |       |       |    O  |       |     2.31
15.417    1.30    1.31      0.542  |       |       |    O  |       |     2.31
15.500    1.30    1.31      0.542  |       |       |    O  |       |     2.31
15.583    1.15    1.31      0.541  |       |       | I  O  |       |     2.31
15.667    1.06    1.29      0.540  |       |       |I  O   |       |     2.30
15.750    1.04    1.27      0.538  |       |       I   O   |       |     2.30
15.833    1.04    1.25      0.537  |       |       I   O   |       |     2.29
15.917    1.05    1.23      0.536  |       |       I   O   |       |     2.29
16.000    1.05    1.22      0.534  |       |       I  O    |       |     2.28
16.083    0.54    1.18      0.531  |       I       |  O    |       |     2.27
16.167    0.21    1.12      0.526  |  I    |       | O     |       |     2.25
16.250    0.16    1.04      0.520  | I     |       O       |       |     2.23
16.333    0.16    0.97      0.514  | I     |      O|       |       |     2.21
16.417    0.16    0.91      0.509  | I     |     O |       |       |     2.19
16.500    0.16    0.85      0.504  | I     |    O  |       |       |     2.18
16.583    0.14    0.79      0.499  | I     |   O   |       |       |     2.16
16.667    0.12    0.74      0.495  |I      |  O    |       |       |     2.15
16.750    0.12    0.69      0.491  |I      |  O    |       |       |     2.13
16.833    0.12    0.64      0.487  |I      | O     |       |       |     2.12
16.917    0.12    0.60      0.484  |I      |O      |       |       |     2.11
17.000    0.12    0.56      0.481  |I      |O      |       |       |     2.10
17.083    0.17    0.53      0.478  | I     O       |       |       |     2.09
17.167    0.20    0.50      0.476  |  I    O       |       |       |     2.08
17.250    0.20    0.47      0.474  |  I   O|       |       |       |     2.07
17.333    0.20    0.45      0.472  |  I   O|       |       |       |     2.07
17.417    0.20    0.43      0.470  |  I  O |       |       |       |     2.06
17.500    0.20    0.41      0.469  |  I  O |       |       |       |     2.05
17.583    0.20    0.39      0.467  |  I  O |       |       |       |     2.05
17.667    0.20    0.38      0.466  |  I  O |       |       |       |     2.04
17.750    0.20    0.36      0.465  |  I O  |       |       |       |     2.04
17.833    0.18    0.35      0.464  | I  O  |       |       |       |     2.04
17.917    0.16    0.34      0.462  | I  O  |       |       |       |     2.03
18.000    0.16    0.32      0.461  | I  O  |       |       |       |     2.03
18.083    0.16    0.31      0.460  | I  O  |       |       |       |     2.03
18.167    0.16    0.30      0.459  | I O   |       |       |       |     2.02
18.250    0.16    0.29      0.458  | I O   |       |       |       |     2.02
18.333    0.16    0.28      0.458  | I O   |       |       |       |     2.02
18.417    0.16    0.27      0.457  | I O   |       |       |       |     2.01
18.500    0.16    0.26      0.456  | I O   |       |       |       |     2.01
18.583    0.14    0.25      0.455  | I O   |       |       |       |     2.01
18.667    0.12    0.24      0.455  |I O    |       |       |       |     2.01
18.750    0.12    0.23      0.454  |I O    |       |       |       |     2.00
18.833    0.10    0.22      0.453  |I O    |       |       |       |     2.00
18.917    0.08    0.22      0.452  |I O    |       |       |       |     2.00
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19.000	0.08	0.22	0.451	I O				1.99
19.083	0.10	0.22	0.450	I O				1.99
19.167	0.12	0.22	0.450	I O				1.99
19.250	0.12	0.22	0.449	I O				1.98
19.333	0.14	0.22	0.448	IO				1.98
19.417	0.16	0.22	0.448	IO				1.98
19.500	0.16	0.22	0.447	IO				1.98
19.583	0.14	0.22	0.447	IO				1.98
19.667	0.12	0.22	0.446	I O				1.97
19.750	0.12	0.22	0.446	I O				1.97
19.833	0.10	0.22	0.445	I O				1.97
19.917	0.08	0.22	0.444	I O				1.96
20.000	0.08	0.22	0.443	I O				1.96
20.083	0.10	0.22	0.442	I O				1.96
20.167	0.12	0.22	0.441	I O				1.95
20.250	0.12	0.22	0.441	I O				1.95
20.333	0.12	0.22	0.440	I O				1.95
20.417	0.12	0.22	0.439	I O				1.94
20.500	0.12	0.22	0.439	I O				1.94
20.583	0.12	0.22	0.438	I O				1.94
20.667	0.12	0.22	0.437	I O				1.94
20.750	0.12	0.22	0.437	I O				1.93
20.833	0.10	0.22	0.436	I O				1.93
20.917	0.08	0.22	0.435	I O				1.93
21.000	0.08	0.22	0.434	I O				1.92
21.083	0.10	0.22	0.433	I O				1.92
21.167	0.12	0.22	0.432	I O				1.92
21.250	0.12	0.22	0.432	I O				1.91
21.333	0.10	0.22	0.431	I O				1.91
21.417	0.08	0.22	0.430	I O				1.91
21.500	0.08	0.22	0.429	I O				1.90
21.583	0.10	0.22	0.428	I O				1.90
21.667	0.12	0.22	0.427	I O				1.90
21.750	0.12	0.22	0.427	I O				1.89
21.833	0.10	0.22	0.426	I O				1.89
21.917	0.08	0.22	0.425	I O				1.89
22.000	0.08	0.22	0.424	I O				1.88
22.083	0.10	0.22	0.423	I O				1.88
22.167	0.12	0.22	0.422	I O				1.88
22.250	0.12	0.22	0.422	I O				1.87
22.333	0.10	0.22	0.421	I O				1.87
22.417	0.08	0.22	0.420	I O				1.87
22.500	0.08	0.22	0.419	I O				1.86
22.583	0.08	0.22	0.418	I O				1.86
22.667	0.08	0.22	0.417	I O				1.86
22.750	0.08	0.22	0.416	I O				1.85
22.833	0.08	0.22	0.415	I O				1.85
22.917	0.08	0.22	0.414	I O				1.84
23.000	0.08	0.22	0.413	I O				1.84
23.083	0.08	0.22	0.412	I O				1.84

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23.167    0.08    0.22     0.411  |I O     |       |       |       |     1.83
23.250    0.08    0.22     0.410  |I O     |       |       |       |     1.83
23.333    0.08    0.22     0.410  |I O     |       |       |       |     1.82
23.417    0.08    0.22     0.409  |I O     |       |       |       |     1.82
23.500    0.08    0.22     0.408  |I O     |       |       |       |     1.82
23.583    0.08    0.22     0.407  |I O     |       |       |       |     1.81
23.667    0.08    0.22     0.406  |I O     |       |       |       |     1.81
23.750    0.08    0.22     0.405  |I O     |       |       |       |     1.81
23.833    0.08    0.22     0.404  |I O     |       |       |       |     1.80
23.917    0.08    0.22     0.403  |I O     |       |       |       |     1.80
24.000    0.08    0.22     0.402  |I O     |       |       |       |     1.79
24.083    0.03    0.22     0.401  I  O     |       |       |       |     1.79
24.167    0.00    0.22     0.399  I  O     |       |       |       |     1.78
24.250    0.00    0.22     0.398  I  O     |       |       |       |     1.78
24.333    0.00    0.22     0.396  I  O     |       |       |       |     1.77
24.417    0.00    0.22     0.395  I  O     |       |       |       |     1.77
24.500    0.00    0.22     0.393  I  O     |       |       |       |     1.76
24.583    0.00    0.22     0.392  I  O     |       |       |       |     1.75
24.667    0.00    0.22     0.390  I  O     |       |       |       |     1.75
24.750    0.00    0.22     0.389  I  O     |       |       |       |     1.74
24.833    0.00    0.22     0.387  I  O     |       |       |       |     1.73
24.917    0.00    0.22     0.386  I  O     |       |       |       |     1.73
25.000    0.00    0.22     0.384  I  O     |       |       |       |     1.72
25.083    0.00    0.22     0.383  I  O     |       |       |       |     1.72
25.167    0.00    0.22     0.381  I  O     |       |       |       |     1.71
25.250    0.00    0.22     0.380  I  O     |       |       |       |     1.70
25.333    0.00    0.22     0.378  I  O     |       |       |       |     1.70
25.417    0.00    0.22     0.377  I  O     |       |       |       |     1.69
25.500    0.00    0.22     0.375  I  O     |       |       |       |     1.69
25.583    0.00    0.22     0.374  I  O     |       |       |       |     1.68
25.667    0.00    0.22     0.372  I  O     |       |       |       |     1.67
25.750    0.00    0.22     0.371  I  O     |       |       |       |     1.67
25.833    0.00    0.22     0.369  I  O     |       |       |       |     1.66
25.917    0.00    0.22     0.368  I  O     |       |       |       |     1.66
26.000    0.00    0.22     0.366  I  O     |       |       |       |     1.65
26.083    0.00    0.22     0.364  I  O     |       |       |       |     1.64
26.167    0.00    0.22     0.363  I  O     |       |       |       |     1.64
26.250    0.00    0.22     0.361  I  O     |       |       |       |     1.63
26.333    0.00    0.22     0.360  I  O     |       |       |       |     1.62
26.417    0.00    0.22     0.358  I  O     |       |       |       |     1.62
26.500    0.00    0.22     0.357  I  O     |       |       |       |     1.61
26.583    0.00    0.22     0.355  I  O     |       |       |       |     1.61
26.667    0.00    0.22     0.354  I  O     |       |       |       |     1.60
26.750    0.00    0.22     0.352  I  O     |       |       |       |     1.59
26.833    0.00    0.22     0.351  I  O     |       |       |       |     1.59
26.917    0.00    0.22     0.349  I  O     |       |       |       |     1.58
27.000    0.00    0.22     0.348  I  O     |       |       |       |     1.58
27.083    0.00    0.22     0.346  I  O     |       |       |       |     1.57
27.167    0.00    0.22     0.345  I  O     |       |       |       |     1.56
27.250    0.00    0.22     0.343  I  O     |       |       |       |     1.56
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27.333    0.00    0.22     0.342  I  O    |       |       |       |      1.55
27.417    0.00    0.22     0.340  I  O    |       |       |       |      1.55
27.500    0.00    0.22     0.339  I  O    |       |       |       |      1.54
27.583    0.00    0.22     0.337  I  O    |       |       |       |      1.53
27.667    0.00    0.22     0.336  I  O    |       |       |       |      1.53
27.750    0.00    0.22     0.334  I  O    |       |       |       |      1.52
27.833    0.00    0.22     0.333  I  O    |       |       |       |      1.51
27.917    0.00    0.22     0.331  I  O    |       |       |       |      1.51
28.000    0.00    0.22     0.330  I  O    |       |       |       |      1.50
28.083    0.00    0.22     0.328  I  O    |       |       |       |      1.50
28.167    0.00    0.22     0.327  I  O    |       |       |       |      1.49
28.250    0.00    0.22     0.325  I  O    |       |       |       |      1.48
28.333    0.00    0.22     0.324  I  O    |       |       |       |      1.48
28.417    0.00    0.22     0.322  I  O    |       |       |       |      1.47
28.500    0.00    0.22     0.321  I  O    |       |       |       |      1.47
28.583    0.00    0.22     0.319  I  O    |       |       |       |      1.46
28.667    0.00    0.22     0.318  I  O    |       |       |       |      1.45
28.750    0.00    0.22     0.316  I  O    |       |       |       |      1.45
28.833    0.00    0.22     0.314  I  O    |       |       |       |      1.44
28.917    0.00    0.22     0.313  I  O    |       |       |       |      1.43
29.000    0.00    0.22     0.311  I  O    |       |       |       |      1.43
29.083    0.00    0.22     0.310  I  O    |       |       |       |      1.42
29.167    0.00    0.22     0.308  I  O    |       |       |       |      1.42
29.250    0.00    0.22     0.307  I  O    |       |       |       |      1.41
29.333    0.00    0.22     0.305  I  O    |       |       |       |      1.40
29.417    0.00    0.22     0.304  I  O    |       |       |       |      1.40
29.500    0.00    0.22     0.302  I  O    |       |       |       |      1.39
29.583    0.00    0.22     0.301  I  O    |       |       |       |      1.39
29.667    0.00    0.22     0.299  I  O    |       |       |       |      1.38
29.750    0.00    0.22     0.298  I  O    |       |       |       |      1.37
29.833    0.00    0.22     0.296  I  O    |       |       |       |      1.37
29.917    0.00    0.22     0.295  I  O    |       |       |       |      1.36
30.000    0.00    0.22     0.293  I  O    |       |       |       |      1.35
30.083    0.00    0.22     0.292  I  O    |       |       |       |      1.35
30.167    0.00    0.22     0.290  I  O    |       |       |       |      1.34
30.250    0.00    0.22     0.289  I  O    |       |       |       |      1.34
30.333    0.00    0.22     0.287  I  O    |       |       |       |      1.33
30.417    0.00    0.22     0.286  I  O    |       |       |       |      1.32
30.500    0.00    0.22     0.284  I  O    |       |       |       |      1.32
30.583    0.00    0.22     0.283  I  O    |       |       |       |      1.31
30.667    0.00    0.22     0.281  I  O    |       |       |       |      1.31
30.750    0.00    0.22     0.280  I  O    |       |       |       |      1.30
30.833    0.00    0.22     0.278  I  O    |       |       |       |      1.29
30.917    0.00    0.22     0.277  I  O    |       |       |       |      1.29
31.000    0.00    0.22     0.275  I  O    |       |       |       |      1.28
31.083    0.00    0.22     0.274  I  O    |       |       |       |      1.27
31.167    0.00    0.22     0.272  I  O    |       |       |       |      1.27
31.250    0.00    0.22     0.271  I  O    |       |       |       |      1.26
31.333    0.00    0.22     0.269  I  O    |       |       |       |      1.26
31.417    0.00    0.22     0.268  I  O    |       |       |       |      1.25
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31.500    0.00    0.22      0.266  I  O    |       |       |       |      1.24
31.583    0.00    0.22      0.264  I  O    |       |       |       |      1.24
31.667    0.00    0.22      0.263  I  O    |       |       |       |      1.23
31.750    0.00    0.22      0.261  I  O    |       |       |       |      1.23
31.833    0.00    0.22      0.260  I  O    |       |       |       |      1.22
31.917    0.00    0.22      0.258  I  O    |       |       |       |      1.21
32.000    0.00    0.22      0.257  I  O    |       |       |       |      1.21
32.083    0.00    0.22      0.255  I  O    |       |       |       |      1.20
32.167    0.00    0.22      0.254  I  O    |       |       |       |      1.19
32.250    0.00    0.22      0.252  I  O    |       |       |       |      1.19
32.333    0.00    0.22      0.251  I  O    |       |       |       |      1.18
32.417    0.00    0.22      0.249  I  O    |       |       |       |      1.18
32.500    0.00    0.22      0.248  I  O    |       |       |       |      1.17
32.583    0.00    0.22      0.246  I  O    |       |       |       |      1.16
32.667    0.00    0.22      0.245  I  O    |       |       |       |      1.16
32.750    0.00    0.22      0.243  I  O    |       |       |       |      1.15
32.833    0.00    0.22      0.242  I  O    |       |       |       |      1.15
32.917    0.00    0.22      0.240  I  O    |       |       |       |      1.14
33.000    0.00    0.22      0.239  I  O    |       |       |       |      1.13
33.083    0.00    0.22      0.237  I  O    |       |       |       |      1.13
33.167    0.00    0.22      0.236  I  O    |       |       |       |      1.12
33.250    0.00    0.22      0.234  I  O    |       |       |       |      1.11
33.333    0.00    0.22      0.233  I  O    |       |       |       |      1.11
33.417    0.00    0.22      0.231  I  O    |       |       |       |      1.10
33.500    0.00    0.22      0.230  I  O    |       |       |       |      1.10
33.583    0.00    0.22      0.228  I  O    |       |       |       |      1.09
33.667    0.00    0.22      0.227  I  O    |       |       |       |      1.08
33.750    0.00    0.22      0.225  I  O    |       |       |       |      1.08
33.833    0.00    0.22      0.224  I  O    |       |       |       |      1.07
33.917    0.00    0.22      0.222  I  O    |       |       |       |      1.07
34.000    0.00    0.22      0.221  I  O    |       |       |       |      1.06
34.083    0.00    0.22      0.219  I  O    |       |       |       |      1.05
34.167    0.00    0.22      0.218  I  O    |       |       |       |      1.05
34.250    0.00    0.22      0.216  I  O    |       |       |       |      1.04
34.333    0.00    0.22      0.214  I  O    |       |       |       |      1.03
34.417    0.00    0.22      0.213  I  O    |       |       |       |      1.03
34.500    0.00    0.22      0.211  I  O    |       |       |       |      1.02
34.583    0.00    0.22      0.210  I  O    |       |       |       |      1.02
34.667    0.00    0.22      0.208  I  O    |       |       |       |      1.01
34.750    0.00    0.22      0.207  I  O    |       |       |       |      1.00
34.833    0.00    0.22      0.205  I  O    |       |       |       |      1.00
34.917    0.00    0.22      0.204  I  O    |       |       |       |      0.99
35.000    0.00    0.22      0.202  I  O    |       |       |       |      0.98
35.083    0.00    0.22      0.201  I  O    |       |       |       |      0.97
35.167    0.00    0.22      0.199  I  O    |       |       |       |      0.97
35.250    0.00    0.22      0.198  I  O    |       |       |       |      0.96
35.333    0.00    0.22      0.196  I  O    |       |       |       |      0.95
35.417    0.00    0.22      0.195  I  O    |       |       |       |      0.95
35.500    0.00    0.22      0.193  I  O    |       |       |       |      0.94
35.583    0.00    0.22      0.192  I  O    |       |       |       |      0.93
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35.667    0.00    0.22      0.190  I   O     |        |        |        |        0.92
35.750    0.00    0.22      0.189  I   O     |        |        |        |        0.92
35.833    0.00    0.22      0.187  I   O     |        |        |        |        0.91
35.917    0.00    0.22      0.186  I   O     |        |        |        |        0.90
36.000    0.00    0.22      0.184  I   O     |        |        |        |        0.89
36.083    0.00    0.22      0.183  I   O     |        |        |        |        0.89
36.167    0.00    0.22      0.181  I   O     |        |        |        |        0.88
36.250    0.00    0.22      0.180  I   O     |        |        |        |        0.87
36.333    0.00    0.22      0.178  I   O     |        |        |        |        0.86
36.417    0.00    0.22      0.177  I   O     |        |        |        |        0.86
36.500    0.00    0.22      0.175  I   O     |        |        |        |        0.85
36.583    0.00    0.22      0.174  I   O     |        |        |        |        0.84
36.667    0.00    0.22      0.172  I   O     |        |        |        |        0.84
36.750    0.00    0.22      0.171  I   O     |        |        |        |        0.83
36.833    0.00    0.22      0.169  I   O     |        |        |        |        0.82
36.917    0.00    0.22      0.168  I   O     |        |        |        |        0.81
37.000    0.00    0.22      0.166  I   O     |        |        |        |        0.81
37.083    0.00    0.22      0.164  I   O     |        |        |        |        0.80
37.167    0.00    0.22      0.163  I   O     |        |        |        |        0.79
37.250    0.00    0.22      0.161  I   O     |        |        |        |        0.78
37.333    0.00    0.22      0.160  I   O     |        |        |        |        0.78
37.417    0.00    0.22      0.158  I   O     |        |        |        |        0.77
37.500    0.00    0.22      0.157  I   O     |        |        |        |        0.76
37.583    0.00    0.22      0.155  I   O     |        |        |        |        0.75
37.667    0.00    0.22      0.154  I   O     |        |        |        |        0.75
37.750    0.00    0.22      0.152  I   O     |        |        |        |        0.74
37.833    0.00    0.22      0.151  I   O     |        |        |        |        0.73
37.917    0.00    0.22      0.149  I   O     |        |        |        |        0.72
38.000    0.00    0.22      0.148  I   O     |        |        |        |        0.72
38.083    0.00    0.22      0.146  I   O     |        |        |        |        0.71
38.167    0.00    0.22      0.145  I   O     |        |        |        |        0.70
38.250    0.00    0.22      0.143  I   O     |        |        |        |        0.70
38.333    0.00    0.22      0.142  I   O     |        |        |        |        0.69
38.417    0.00    0.22      0.140  I   O     |        |        |        |        0.68
38.500    0.00    0.22      0.139  I   O     |        |        |        |        0.67
38.583    0.00    0.22      0.137  I   O     |        |        |        |        0.67
38.667    0.00    0.22      0.136  I   O     |        |        |        |        0.66
38.750    0.00    0.22      0.134  I   O     |        |        |        |        0.65
38.833    0.00    0.22      0.133  I   O     |        |        |        |        0.64
38.917    0.00    0.22      0.131  I   O     |        |        |        |        0.64
39.000    0.00    0.22      0.130  I   O     |        |        |        |        0.63
39.083    0.00    0.22      0.128  I   O     |        |        |        |        0.62
39.167    0.00    0.22      0.127  I   O     |        |        |        |        0.61
39.250    0.00    0.22      0.125  I   O     |        |        |        |        0.61
39.333    0.00    0.22      0.124  I   O     |        |        |        |        0.60
39.417    0.00    0.22      0.122  I   O     |        |        |        |        0.59
39.500    0.00    0.22      0.121  I   O     |        |        |        |        0.59
39.583    0.00    0.22      0.119  I   O     |        |        |        |        0.58
39.667    0.00    0.22      0.118  I   O     |        |        |        |        0.57
39.750    0.00    0.22      0.116  I   O     |        |        |        |        0.56
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39.833   0.00   0.22   0.114  I   O   |      |      |      |      0.56
39.917   0.00   0.22   0.113  I   O   |      |      |      |      0.55
40.000   0.00   0.22   0.111  I   O   |      |      |      |      0.54
40.083   0.00   0.22   0.110  I   O   |      |      |      |      0.53
40.167   0.00   0.22   0.108  I   O   |      |      |      |      0.53
40.250   0.00   0.22   0.107  I   O   |      |      |      |      0.52
40.333   0.00   0.22   0.105  I   O   |      |      |      |      0.51
40.417   0.00   0.22   0.104  I   O   |      |      |      |      0.50
40.500   0.00   0.22   0.102  I   O   |      |      |      |      0.50
40.583   0.00   0.22   0.101  I   O   |      |      |      |      0.49
40.667   0.00   0.21   0.099  I   O   |      |      |      |      0.48
40.750   0.00   0.21   0.098  I   O   |      |      |      |      0.48
40.833   0.00   0.21   0.097  I   O   |      |      |      |      0.47
40.917   0.00   0.20   0.095  I   O   |      |      |      |      0.46
41.000   0.00   0.20   0.094  I   O   |      |      |      |      0.45
41.083   0.00   0.20   0.092  I   O   |      |      |      |      0.45
41.167   0.00   0.19   0.091  I   O   |      |      |      |      0.44
41.250   0.00   0.19   0.090  I   O   |      |      |      |      0.44
41.333   0.00   0.19   0.088  I   O   |      |      |      |      0.43
41.417   0.00   0.19   0.087  I   O   |      |      |      |      0.42
41.500   0.00   0.18   0.086  I O     |      |      |      |      0.42
41.583   0.00   0.18   0.085  I O     |      |      |      |      0.41
41.667   0.00   0.18   0.083  I O     |      |      |      |      0.40
41.750   0.00   0.18   0.082  I O     |      |      |      |      0.40
41.833   0.00   0.17   0.081  I O     |      |      |      |      0.39
41.917   0.00   0.17   0.080  I O     |      |      |      |      0.39
42.000   0.00   0.17   0.079  I O     |      |      |      |      0.38
42.083   0.00   0.17   0.077  I O     |      |      |      |      0.38
42.167   0.00   0.16   0.076  I O     |      |      |      |      0.37
42.250   0.00   0.16   0.075  I O     |      |      |      |      0.36
42.333   0.00   0.16   0.074  I O     |      |      |      |      0.36
42.417   0.00   0.16   0.073  I O     |      |      |      |      0.35
42.500   0.00   0.15   0.072  I O     |      |      |      |      0.35
42.583   0.00   0.15   0.071  I O     |      |      |      |      0.34
42.667   0.00   0.15   0.070  I O     |      |      |      |      0.34
42.750   0.00   0.15   0.069  I O     |      |      |      |      0.33
42.833   0.00   0.14   0.068  I O     |      |      |      |      0.33
42.917   0.00   0.14   0.067  I O     |      |      |      |      0.32
43.000   0.00   0.14   0.066  I O     |      |      |      |      0.32
43.083   0.00   0.14   0.065  I O     |      |      |      |      0.31
43.167   0.00   0.14   0.064  I O     |      |      |      |      0.31
43.250   0.00   0.13   0.063  I O     |      |      |      |      0.31
43.333   0.00   0.13   0.062  I O     |      |      |      |      0.30
43.417   0.00   0.13   0.061  I O     |      |      |      |      0.30
43.500   0.00   0.13   0.060  I O     |      |      |      |      0.29
43.583   0.00   0.13   0.059  I O     |      |      |      |      0.29
43.667   0.00   0.13   0.059  I O     |      |      |      |      0.28
43.750   0.00   0.12   0.058  IO      |      |      |      |      0.28
43.833   0.00   0.12   0.057  IO      |      |      |      |      0.28
43.917   0.00   0.12   0.056  IO      |      |      |      |      0.27
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44.000     0.00     0.12      0.055  IO       |       |       |       |      0.27
44.083     0.00     0.12      0.054  IO       |       |       |       |      0.26
44.167     0.00     0.11      0.054  IO       |       |       |       |      0.26
44.250     0.00     0.11      0.053  IO       |       |       |       |      0.26
44.333     0.00     0.11      0.052  IO       |       |       |       |      0.25
44.417     0.00     0.11      0.051  IO       |       |       |       |      0.25
44.500     0.00     0.11      0.051  IO       |       |       |       |      0.25
44.583     0.00     0.11      0.050  IO       |       |       |       |      0.24
44.667     0.00     0.10      0.049  IO       |       |       |       |      0.24
44.750     0.00     0.10      0.048  IO       |       |       |       |      0.23
44.833     0.00     0.10      0.048  IO       |       |       |       |      0.23
44.917     0.00     0.10      0.047  IO       |       |       |       |      0.23
45.000     0.00     0.10      0.046  IO       |       |       |       |      0.22
45.083     0.00     0.10      0.046  IO       |       |       |       |      0.22
45.167     0.00     0.10      0.045  IO       |       |       |       |      0.22
45.250     0.00     0.09      0.044  IO       |       |       |       |      0.21
45.333     0.00     0.09      0.044  IO       |       |       |       |      0.21
45.417     0.00     0.09      0.043  IO       |       |       |       |      0.21
45.500     0.00     0.09      0.042  IO       |       |       |       |      0.21
45.583     0.00     0.09      0.042  IO       |       |       |       |      0.20
45.667     0.00     0.09      0.041  IO       |       |       |       |      0.20
45.750     0.00     0.09      0.041  IO       |       |       |       |      0.20
45.833     0.00     0.09      0.040  IO       |       |       |       |      0.19
45.917     0.00     0.08      0.039  IO       |       |       |       |      0.19
46.000     0.00     0.08      0.039  IO       |       |       |       |      0.19
46.083     0.00     0.08      0.038  IO       |       |       |       |      0.19
46.167     0.00     0.08      0.038  IO       |       |       |       |      0.18
46.250     0.00     0.08      0.037  IO       |       |       |       |      0.18
46.333     0.00     0.08      0.037  IO       |       |       |       |      0.18
46.417     0.00     0.08      0.036  IO       |       |       |       |      0.17
46.500     0.00     0.08      0.035  IO       |       |       |       |      0.17
46.583     0.00     0.07      0.035  IO       |       |       |       |      0.17
46.667     0.00     0.07      0.034  IO       |       |       |       |      0.17
46.750     0.00     0.07      0.034  IO       |       |       |       |      0.16
46.833     0.00     0.07      0.033  IO       |       |       |       |      0.16
46.917     0.00     0.07      0.033  IO       |       |       |       |      0.16
47.000     0.00     0.07      0.032  IO       |       |       |       |      0.16
47.083     0.00     0.07      0.032  IO       |       |       |       |      0.16
47.167     0.00     0.07      0.032  IO       |       |       |       |      0.15
47.250     0.00     0.07      0.031  IO       |       |       |       |      0.15
47.333     0.00     0.07      0.031  IO       |       |       |       |      0.15
47.417     0.00     0.06      0.030  IO       |       |       |       |      0.15
47.500     0.00     0.06      0.030  IO       |       |       |       |      0.14
47.583     0.00     0.06      0.029  IO       |       |       |       |      0.14
47.667     0.00     0.06      0.029  IO       |       |       |       |      0.14
47.750     0.00     0.06      0.028  O        |       |       |       |      0.14
47.833     0.00     0.06      0.028  O        |       |       |       |      0.14
47.917     0.00     0.06      0.028  O        |       |       |       |      0.13
48.000     0.00     0.06      0.027  O        |       |       |       |      0.13
48.083     0.00     0.06      0.027  O        |       |       |       |      0.13
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48.167	0.00	0.06	0.026	O					0.13
48.250	0.00	0.06	0.026	O					0.13
48.333	0.00	0.05	0.026	O					0.12
48.417	0.00	0.05	0.025	O					0.12
48.500	0.00	0.05	0.025	O					0.12
48.583	0.00	0.05	0.025	O					0.12
48.667	0.00	0.05	0.024	O					0.12
48.750	0.00	0.05	0.024	O					0.12
48.833	0.00	0.05	0.024	O					0.11
48.917	0.00	0.05	0.023	O					0.11
49.000	0.00	0.05	0.023	O					0.11
49.083	0.00	0.05	0.022	O					0.11
49.167	0.00	0.05	0.022	O					0.11
49.250	0.00	0.05	0.022	O					0.11
49.333	0.00	0.05	0.022	O					0.10
49.417	0.00	0.05	0.021	O					0.10
49.500	0.00	0.04	0.021	O					0.10
49.583	0.00	0.04	0.021	O					0.10
49.667	0.00	0.04	0.020	O					0.10
49.750	0.00	0.04	0.020	O					0.10
49.833	0.00	0.04	0.020	O					0.10
49.917	0.00	0.04	0.019	O					0.09
50.000	0.00	0.04	0.019	O					0.09
50.083	0.00	0.04	0.019	O					0.09
50.167	0.00	0.04	0.019	O					0.09
50.250	0.00	0.04	0.018	O					0.09
50.333	0.00	0.04	0.018	O					0.09
50.417	0.00	0.04	0.018	O					0.09
50.500	0.00	0.04	0.018	O					0.09
50.583	0.00	0.04	0.017	O					0.08
50.667	0.00	0.04	0.017	O					0.08
50.750	0.00	0.04	0.017	O					0.08
50.833	0.00	0.04	0.017	O					0.08
50.917	0.00	0.03	0.016	O					0.08
51.000	0.00	0.03	0.016	O					0.08
51.083	0.00	0.03	0.016	O					0.08
51.167	0.00	0.03	0.016	O					0.08
51.250	0.00	0.03	0.015	O					0.07
51.333	0.00	0.03	0.015	O					0.07
51.417	0.00	0.03	0.015	O					0.07
51.500	0.00	0.03	0.015	O					0.07
51.583	0.00	0.03	0.014	O					0.07
51.667	0.00	0.03	0.014	O					0.07
51.750	0.00	0.03	0.014	O					0.07
51.833	0.00	0.03	0.014	O					0.07
51.917	0.00	0.03	0.014	O					0.07
52.000	0.00	0.03	0.013	O					0.07
52.083	0.00	0.03	0.013	O					0.06
52.167	0.00	0.03	0.013	O					0.06
52.250	0.00	0.03	0.013	O					0.06

52.333	0.00	0.03	0.013	O	|	|	|	|	0.06
52.417	0.00	0.03	0.012	O	|	|	|	|	0.06
52.500	0.00	0.03	0.012	O	|	|	|	|	0.06
52.583	0.00	0.03	0.012	O	|	|	|	|	0.06
52.667	0.00	0.03	0.012	O	|	|	|	|	0.06
52.750	0.00	0.03	0.012	O	|	|	|	|	0.06
52.833	0.00	0.02	0.012	O	|	|	|	|	0.06
52.917	0.00	0.02	0.011	O	|	|	|	|	0.06
53.000	0.00	0.02	0.011	O	|	|	|	|	0.05
53.083	0.00	0.02	0.011	O	|	|	|	|	0.05
53.167	0.00	0.02	0.011	O	|	|	|	|	0.05
53.250	0.00	0.02	0.011	O	|	|	|	|	0.05
53.333	0.00	0.02	0.011	O	|	|	|	|	0.05
53.417	0.00	0.02	0.010	O	|	|	|	|	0.05
53.500	0.00	0.02	0.010	O	|	|	|	|	0.05
53.583	0.00	0.02	0.010	O	|	|	|	|	0.05
53.667	0.00	0.02	0.010	O	|	|	|	|	0.05
53.750	0.00	0.02	0.010	O	|	|	|	|	0.05
53.833	0.00	0.02	0.010	O	|	|	|	|	0.05
53.917	0.00	0.02	0.010	O	|	|	|	|	0.05
54.000	0.00	0.02	0.009	O	|	|	|	|	0.05
54.083	0.00	0.02	0.009	O	|	|	|	|	0.05
54.167	0.00	0.02	0.009	O	|	|	|	|	0.04
54.250	0.00	0.02	0.009	O	|	|	|	|	0.04
54.333	0.00	0.02	0.009	O	|	|	|	|	0.04
54.417	0.00	0.02	0.009	O	|	|	|	|	0.04
54.500	0.00	0.02	0.009	O	|	|	|	|	0.04
54.583	0.00	0.02	0.009	O	|	|	|	|	0.04
54.667	0.00	0.02	0.008	O	|	|	|	|	0.04
54.750	0.00	0.02	0.008	O	|	|	|	|	0.04
54.833	0.00	0.02	0.008	O	|	|	|	|	0.04
54.917	0.00	0.02	0.008	O	|	|	|	|	0.04
55.000	0.00	0.02	0.008	O	|	|	|	|	0.04
55.083	0.00	0.02	0.008	O	|	|	|	|	0.04
55.167	0.00	0.02	0.008	O	|	|	|	|	0.04
55.250	0.00	0.02	0.008	O	|	|	|	|	0.04
55.333	0.00	0.02	0.007	O	|	|	|	|	0.04
55.417	0.00	0.02	0.007	O	|	|	|	|	0.04
55.500	0.00	0.02	0.007	O	|	|	|	|	0.04
55.583	0.00	0.02	0.007	O	|	|	|	|	0.03
55.667	0.00	0.02	0.007	O	|	|	|	|	0.03
55.750	0.00	0.01	0.007	O	|	|	|	|	0.03
55.833	0.00	0.01	0.007	O	|	|	|	|	0.03
55.917	0.00	0.01	0.007	O	|	|	|	|	0.03
56.000	0.00	0.01	0.007	O	|	|	|	|	0.03
56.083	0.00	0.01	0.007	O	|	|	|	|	0.03
56.167	0.00	0.01	0.006	O	|	|	|	|	0.03
56.250	0.00	0.01	0.006	O	|	|	|	|	0.03
56.333	0.00	0.01	0.006	O	|	|	|	|	0.03
56.417	0.00	0.01	0.006	O	|	|	|	|	0.03

56.500	0.00	0.01	0.006	O					0.03
56.583	0.00	0.01	0.006	O					0.03
56.667	0.00	0.01	0.006	O					0.03
56.750	0.00	0.01	0.006	O					0.03
56.833	0.00	0.01	0.006	O					0.03
56.917	0.00	0.01	0.006	O					0.03
57.000	0.00	0.01	0.006	O					0.03
57.083	0.00	0.01	0.005	O					0.03
57.167	0.00	0.01	0.005	O					0.03
57.250	0.00	0.01	0.005	O					0.03
57.333	0.00	0.01	0.005	O					0.03
57.417	0.00	0.01	0.005	O					0.03
57.500	0.00	0.01	0.005	O					0.02
57.583	0.00	0.01	0.005	O					0.02
57.667	0.00	0.01	0.005	O					0.02
57.750	0.00	0.01	0.005	O					0.02
57.833	0.00	0.01	0.005	O					0.02
57.917	0.00	0.01	0.005	O					0.02
58.000	0.00	0.01	0.005	O					0.02
58.083	0.00	0.01	0.005	O					0.02
58.167	0.00	0.01	0.005	O					0.02
58.250	0.00	0.01	0.004	O					0.02
58.333	0.00	0.01	0.004	O					0.02
58.417	0.00	0.01	0.004	O					0.02
58.500	0.00	0.01	0.004	O					0.02
58.583	0.00	0.01	0.004	O					0.02
58.667	0.00	0.01	0.004	O					0.02
58.750	0.00	0.01	0.004	O					0.02
58.833	0.00	0.01	0.004	O					0.02
58.917	0.00	0.01	0.004	O					0.02
59.000	0.00	0.01	0.004	O					0.02
59.083	0.00	0.01	0.004	O					0.02
59.167	0.00	0.01	0.004	O					0.02
59.250	0.00	0.01	0.004	O					0.02
59.333	0.00	0.01	0.004	O					0.02
59.417	0.00	0.01	0.004	O					0.02
59.500	0.00	0.01	0.004	O					0.02
59.583	0.00	0.01	0.004	O					0.02
59.667	0.00	0.01	0.003	O					0.02
59.750	0.00	0.01	0.003	O					0.02
59.833	0.00	0.01	0.003	O					0.02
59.917	0.00	0.01	0.003	O					0.02
60.000	0.00	0.01	0.003	O					0.02
60.083	0.00	0.01	0.003	O					0.02
60.167	0.00	0.01	0.003	O					0.02
60.250	0.00	0.01	0.003	O					0.02
60.333	0.00	0.01	0.003	O					0.01
60.417	0.00	0.01	0.003	O					0.01
60.500	0.00	0.01	0.003	O					0.01
60.583	0.00	0.01	0.003	O					0.01

```
60.667    0.00    0.01    0.003  O        |       |       |       |      0.01
60.750    0.00    0.01    0.003  O        |       |       |       |      0.01
60.833    0.00    0.01    0.003  O        |       |       |       |      0.01
60.917    0.00    0.01    0.003  O        |       |       |       |      0.01
61.000    0.00    0.01    0.003  O        |       |       |       |      0.01
61.083    0.00    0.01    0.003  O        |       |       |       |      0.01
61.167    0.00    0.01    0.003  O        |       |       |       |      0.01
61.250    0.00    0.01    0.003  O        |       |       |       |      0.01
61.333    0.00    0.01    0.003  O        |       |       |       |      0.01
61.417    0.00    0.01    0.003  O        |       |       |       |      0.01
61.500    0.00    0.01    0.003  O        |       |       |       |      0.01
61.583    0.00    0.01    0.002  O        |       |       |       |      0.01
61.667    0.00    0.01    0.002  O        |       |       |       |      0.01
61.750    0.00    0.01    0.002  O        |       |       |       |      0.01
61.833    0.00    0.01    0.002  O        |       |       |       |      0.01
61.917    0.00    0.00    0.002  O        |       |       |       |      0.01
62.000    0.00    0.00    0.002  O        |       |       |       |      0.01
62.083    0.00    0.00    0.002  O        |       |       |       |      0.01
62.167    0.00    0.00    0.002  O        |       |       |       |      0.01
62.250    0.00    0.00    0.002  O        |       |       |       |      0.01
62.333    0.00    0.00    0.002  O        |       |       |       |      0.01
62.417    0.00    0.00    0.002  O        |       |       |       |      0.01
62.500    0.00    0.00    0.002  O        |       |       |       |      0.01
62.583    0.00    0.00    0.002  O        |       |       |       |      0.01
62.667    0.00    0.00    0.002  O        |       |       |       |      0.01
62.750    0.00    0.00    0.002  O        |       |       |       |      0.01
62.833    0.00    0.00    0.002  O        |       |       |       |      0.01
62.917    0.00    0.00    0.002  O        |       |       |       |      0.01
63.000    0.00    0.00    0.002  O        |       |       |       |      0.01
63.083    0.00    0.00    0.002  O        |       |       |       |      0.01
63.167    0.00    0.00    0.002  O        |       |       |       |      0.01
63.250    0.00    0.00    0.002  O        |       |       |       |      0.01
63.333    0.00    0.00    0.002  O        |       |       |       |      0.01
63.417    0.00    0.00    0.002  O        |       |       |       |      0.01
63.500    0.00    0.00    0.002  O        |       |       |       |      0.01
63.583    0.00    0.00    0.002  O        |       |       |       |      0.01
63.667    0.00    0.00    0.002  O        |       |       |       |      0.01
63.750    0.00    0.00    0.002  O        |       |       |       |      0.01
63.833    0.00    0.00    0.002  O        |       |       |       |      0.01
63.917    0.00    0.00    0.002  O        |       |       |       |      0.01
64.000    0.00    0.00    0.002  O        |       |       |       |      0.01
64.083    0.00    0.00    0.002  O        |       |       |       |      0.01
64.167    0.00    0.00    0.002  O        |       |       |       |      0.01
64.250    0.00    0.00    0.002  O        |       |       |       |      0.01
64.333    0.00    0.00    0.002  O        |       |       |       |      0.01
64.417    0.00    0.00    0.002  O        |       |       |       |      0.01
64.500    0.00    0.00    0.001  O        |       |       |       |      0.01
64.583    0.00    0.00    0.001  O        |       |       |       |      0.01
64.667    0.00    0.00    0.001  O        |       |       |       |      0.01
64.750    0.00    0.00    0.001  O        |       |       |       |      0.01
```

64.833	0.00	0.00	0.001	O	0.01
64.917	0.00	0.00	0.001	O	0.01
65.000	0.00	0.00	0.001	O	0.01
65.083	0.00	0.00	0.001	O	0.01
65.167	0.00	0.00	0.001	O	0.01
65.250	0.00	0.00	0.001	O	0.01
65.333	0.00	0.00	0.001	O	0.01
65.417	0.00	0.00	0.001	O	0.01
65.500	0.00	0.00	0.001	O	0.01
65.583	0.00	0.00	0.001	O	0.01
65.667	0.00	0.00	0.001	O	0.01
65.750	0.00	0.00	0.001	O	0.01
65.833	0.00	0.00	0.001	O	0.01
65.917	0.00	0.00	0.001	O	0.01
66.000	0.00	0.00	0.001	O	0.01
66.083	0.00	0.00	0.001	O	0.01
66.167	0.00	0.00	0.001	O	0.01
66.250	0.00	0.00	0.001	O	0.01
66.333	0.00	0.00	0.001	O	0.01
66.417	0.00	0.00	0.001	O	0.01
66.500	0.00	0.00	0.001	O	0.01
66.583	0.00	0.00	0.001	O	0.00
66.667	0.00	0.00	0.001	O	0.00
66.750	0.00	0.00	0.001	O	0.00
66.833	0.00	0.00	0.001	O	0.00
66.917	0.00	0.00	0.001	O	0.00
67.000	0.00	0.00	0.001	O	0.00
67.083	0.00	0.00	0.001	O	0.00
67.167	0.00	0.00	0.001	O	0.00
67.250	0.00	0.00	0.001	O	0.00
67.333	0.00	0.00	0.001	O	0.00
67.417	0.00	0.00	0.001	O	0.00
67.500	0.00	0.00	0.001	O	0.00
67.583	0.00	0.00	0.001	O	0.00
67.667	0.00	0.00	0.001	O	0.00
67.750	0.00	0.00	0.001	O	0.00
67.833	0.00	0.00	0.001	O	0.00
67.917	0.00	0.00	0.001	O	0.00
68.000	0.00	0.00	0.001	O	0.00
68.083	0.00	0.00	0.001	O	0.00
68.167	0.00	0.00	0.001	O	0.00
68.250	0.00	0.00	0.001	O	0.00
68.333	0.00	0.00	0.001	O	0.00
68.417	0.00	0.00	0.001	O	0.00
68.500	0.00	0.00	0.001	O	0.00
68.583	0.00	0.00	0.001	O	0.00
68.667	0.00	0.00	0.001	O	0.00
68.750	0.00	0.00	0.001	O	0.00
68.833	0.00	0.00	0.001	O	0.00
68.917	0.00	0.00	0.001	O	0.00

```
69.000    0.00    0.00     0.001  O        |       |       |       |     0.00
69.083    0.00    0.00     0.001  O        |       |       |       |     0.00
69.167    0.00    0.00     0.001  O        |       |       |       |     0.00
69.250    0.00    0.00     0.001  O        |       |       |       |     0.00
69.333    0.00    0.00     0.001  O        |       |       |       |     0.00
69.417    0.00    0.00     0.001  O        |       |       |       |     0.00
69.500    0.00    0.00     0.001  O        |       |       |       |     0.00
69.583    0.00    0.00     0.001  O        |       |       |       |     0.00
69.667    0.00    0.00     0.001  O        |       |       |       |     0.00
69.750    0.00    0.00     0.001  O        |       |       |       |     0.00
69.833    0.00    0.00     0.001  O        |       |       |       |     0.00
69.917    0.00    0.00     0.001  O        |       |       |       |     0.00
70.000    0.00    0.00     0.001  O        |       |       |       |     0.00
70.083    0.00    0.00     0.001  O        |       |       |       |     0.00
70.167    0.00    0.00     0.001  O        |       |       |       |     0.00
70.250    0.00    0.00     0.001  O        |       |       |       |     0.00
70.333    0.00    0.00     0.001  O        |       |       |       |     0.00
70.417    0.00    0.00     0.001  O        |       |       |       |     0.00
70.500    0.00    0.00     0.001  O        |       |       |       |     0.00
70.583    0.00    0.00     0.001  O        |       |       |       |     0.00
70.667    0.00    0.00     0.000  O        |       |       |       |     0.00
70.750    0.00    0.00     0.000  O        |       |       |       |     0.00
70.833    0.00    0.00     0.000  O        |       |       |       |     0.00
70.917    0.00    0.00     0.000  O        |       |       |       |     0.00
71.000    0.00    0.00     0.000  O        |       |       |       |     0.00
71.083    0.00    0.00     0.000  O        |       |       |       |     0.00

       ****************************HYDROGRAPH DATA****************************
                       Number of intervals =   853
                       Time interval =    5.0 (Min.)
                       Maximum/Peak flow rate =        1.315 (CFS)
                       Total volume =       1.032 (Ac.Ft)
               Status of hydrographs being held in storage
                          Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
               Peak (CFS)      0.000     0.000     0.000     0.000     0.000
               Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ***********************************************************************

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

NEWLAND SIMPSON
HEMET
POST DEVELOPMENT
FLOOD ROUTING
BASIN D1
100YR-24HR

```
                    FLOOD HYDROGRAPH ROUTING PROGRAM
           Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2018
                         Study date: 10/17/23

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


NEWLAND SIMPSON HEMET
POST DEVELOPMENT - DMA D
FLOOD ROUTING - BASIN D1
100YR 24HR
--------------------------------------------------------------------


Program License Serial Number 6491

--------------------------------------------------------------------
********************* HYDROGRAPH INFORMATION **********************

                From study/file name: NSPRUHD24100.rte
****************************HYDROGRAPH DATA***********************
                Number of intervals =   290
                Time interval =    5.0 (Min.)
                Maximum/Peak flow rate =        6.650 (CFS)
                Total volume =       3.447 (Ac.Ft)
        Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
*********************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       91.000 to Point/Station       91.000
**** RETARDING BASIN ROUTING ****
______________________________________________________________________

User entry of depth-outflow-storage data
--------------------------------------------------------------------
Total number of inflow hydrograph intervals = 290
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
--------------------------------------------------------------------
--------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
```

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.304	0.670	0.302	0.306
1.000	0.608	0.670	0.606	0.610
1.500	0.962	0.670	0.960	0.964
2.000	1.316	0.670	1.314	1.318
2.500	1.722	0.670	1.720	1.724
3.000	2.129	2.440	2.121	2.137
3.500	2.577	7.360	2.552	2.602
4.000	3.025	7.360	3.000	3.050

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	1.7	3.33	4.99	6.65	Depth (Ft.)
0.083	0.15	0.00	0.001	O	|	|	|	|	0.00
0.167	0.25	0.00	0.002	OI	|	|	|	|	0.00
0.250	0.26	0.01	0.004	OI	|	|	|	|	0.01
0.333	0.34	0.01	0.006	OI	|	|	|	|	0.01
0.417	0.39	0.02	0.008	OI	|	|	|	|	0.01
0.500	0.40	0.02	0.011	OI	|	|	|	|	0.02
0.583	0.40	0.03	0.013	OI	|	|	|	|	0.02
0.667	0.40	0.03	0.016	OI	|	|	|	|	0.03
0.750	0.40	0.04	0.018	OI	|	|	|	|	0.03
0.833	0.47	0.05	0.021	O I	|	|	|	|	0.03
0.917	0.52	0.05	0.024	O I	|	|	|	|	0.04
1.000	0.53	0.06	0.027	O I	|	|	|	|	0.04
1.083	0.45	0.07	0.030	O I	|	|	|	|	0.05
1.167	0.41	0.07	0.032	OI	|	|	|	|	0.05
1.250	0.40	0.08	0.035	OI	|	|	|	|	0.06
1.333	0.40	0.08	0.037	OI	|	|	|	|	0.06
1.417	0.40	0.09	0.039	OI	|	|	|	|	0.06
1.500	0.40	0.09	0.041	OI	|	|	|	|	0.07
1.583	0.40	0.10	0.043	OI	|	|	|	|	0.07
1.667	0.40	0.10	0.045	OI	|	|	|	|	0.07
1.750	0.40	0.10	0.047	OI	|	|	|	|	0.08
1.833	0.47	0.11	0.050	O I	|	|	|	|	0.08
1.917	0.52	0.12	0.052	O I	|	|	|	|	0.09
2.000	0.53	0.12	0.055	O I	|	|	|	|	0.09
2.083	0.53	0.13	0.058	O I	|	|	|	|	0.10
2.167	0.53	0.13	0.061	O I	|	|	|	|	0.10
2.250	0.53	0.14	0.063	O I	|	|	|	|	0.10

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2.333    0.53    0.15      0.066  O I     |       |       |       |     0.11
2.417    0.53    0.15      0.069  O I     |       |       |       |     0.11
2.500    0.53    0.16      0.071  O I     |       |       |       |     0.12
2.583    0.60    0.16      0.074  O I     |       |       |       |     0.12
2.667    0.65    0.17      0.077  O  I    |       |       |       |     0.13
2.750    0.66    0.18      0.080  O  I    |       |       |       |     0.13
2.833    0.66    0.18      0.084  O  I    |       |       |       |     0.14
2.917    0.66    0.19      0.087  O  I    |       |       |       |     0.14
3.000    0.66    0.20      0.090  O  I    |       |       |       |     0.15
3.083    0.66    0.21      0.093  O  I    |       |       |       |     0.15
3.167    0.66    0.21      0.096  |O I    |       |       |       |     0.16
3.250    0.66    0.22      0.099  |O I    |       |       |       |     0.16
3.333    0.66    0.23      0.103  |O I    |       |       |       |     0.17
3.417    0.66    0.23      0.105  |O I    |       |       |       |     0.17
3.500    0.66    0.24      0.108  |O I    |       |       |       |     0.18
3.583    0.66    0.25      0.111  |O I    |       |       |       |     0.18
3.667    0.66    0.25      0.114  |O I    |       |       |       |     0.19
3.750    0.66    0.26      0.117  |O I    |       |       |       |     0.19
3.833    0.73    0.26      0.120  |O I    |       |       |       |     0.20
3.917    0.78    0.27      0.123  |O I    |       |       |       |     0.20
4.000    0.79    0.28      0.127  |O I    |       |       |       |     0.21
4.083    0.79    0.29      0.130  |O I    |       |       |       |     0.21
4.167    0.79    0.29      0.134  |O I    |       |       |       |     0.22
4.250    0.79    0.30      0.137  |O I    |       |       |       |     0.23
4.333    0.87    0.31      0.141  |O  I   |       |       |       |     0.23
4.417    0.92    0.32      0.145  |O  I   |       |       |       |     0.24
4.500    0.92    0.33      0.149  |O  I   |       |       |       |     0.24
4.583    0.92    0.34      0.153  |O  I   |       |       |       |     0.25
4.667    0.92    0.35      0.157  |O  I   |       |       |       |     0.26
4.750    0.92    0.35      0.161  |O  I   |       |       |       |     0.26
4.833    1.00    0.36      0.165  |O  I   |       |       |       |     0.27
4.917    1.05    0.37      0.170  |O   I  |       |       |       |     0.28
5.000    1.06    0.38      0.174  |O   I  |       |       |       |     0.29
5.083    0.91    0.39      0.178  |O  I   |       |       |       |     0.29
5.167    0.81    0.40      0.182  |O I    |       |       |       |     0.30
5.250    0.79    0.41      0.184  |O I    |       |       |       |     0.30
5.333    0.87    0.41      0.187  |O  I   |       |       |       |     0.31
5.417    0.92    0.42      0.190  | O I   |       |       |       |     0.31
5.500    0.92    0.43      0.194  | O I   |       |       |       |     0.32
5.583    1.00    0.44      0.198  | O I   |       |       |       |     0.32
5.667    1.05    0.44      0.202  | O  I  |       |       |       |     0.33
5.750    1.06    0.45      0.206  | O  I  |       |       |       |     0.34
5.833    1.06    0.46      0.210  | O  I  |       |       |       |     0.35
5.917    1.06    0.47      0.214  | O  I  |       |       |       |     0.35
6.000    1.06    0.48      0.218  | O  I  |       |       |       |     0.36
6.083    1.13    0.49      0.222  | O  I  |       |       |       |     0.37
6.167    1.18    0.50      0.227  | O  I  |       |       |       |     0.37
6.250    1.19    0.51      0.231  | O  I  |       |       |       |     0.38
6.333    1.19    0.52      0.236  | O  I  |       |       |       |     0.39
6.417    1.19    0.53      0.241  | O  I  |       |       |       |     0.40
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 6.500    1.19    0.54      0.245  | O  I  |       |       |       |     0.40
 6.583    1.26    0.55      0.250  | O   I |       |       |       |     0.41
 6.667    1.31    0.56      0.255  | O   I |       |       |       |     0.42
 6.750    1.32    0.57      0.260  | O   I |       |       |       |     0.43
 6.833    1.32    0.58      0.265  | O   I |       |       |       |     0.44
 6.917    1.32    0.60      0.270  | O   I |       |       |       |     0.44
 7.000    1.32    0.61      0.275  | O   I |       |       |       |     0.45
 7.083    1.32    0.62      0.280  | O   I |       |       |       |     0.46
 7.167    1.32    0.63      0.285  |  O  I |       |       |       |     0.47
 7.250    1.32    0.64      0.289  |  O  I |       |       |       |     0.48
 7.333    1.39    0.65      0.294  |  O  I |       |       |       |     0.48
 7.417    1.44    0.66      0.300  |  O  I |       |       |       |     0.49
 7.500    1.45    0.67      0.305  |  O  I |       |       |       |     0.50
 7.583    1.55    0.67      0.311  |  O   I|       |       |       |     0.51
 7.667    1.62    0.67      0.317  |  O   I|       |       |       |     0.52
 7.750    1.64    0.67      0.324  |  O   I|       |       |       |     0.53
 7.833    1.76    0.67      0.331  |  O    I       |       |       |     0.54
 7.917    1.85    0.67      0.339  |  O    I       |       |       |     0.56
 8.000    1.87    0.67      0.347  |  O    I       |       |       |     0.57
 8.083    2.11    0.67      0.356  |  O    | I     |       |       |     0.59
 8.167    2.28    0.67      0.366  |  O    | I     |       |       |     0.60
 8.250    2.31    0.67      0.378  |  O    |  I    |       |       |     0.62
 8.333    2.31    0.67      0.389  |  O    |  I    |       |       |     0.64
 8.417    2.32    0.67      0.400  |  O    |  I    |       |       |     0.66
 8.500    2.32    0.67      0.412  |  O    |  I    |       |       |     0.68
 8.583    2.45    0.67      0.423  |  O    |  I    |       |       |     0.70
 8.667    2.53    0.67      0.436  |  O    |   I   |       |       |     0.72
 8.750    2.55    0.67      0.449  |  O    |   I   |       |       |     0.74
 8.833    2.68    0.67      0.462  |  O    |   I   |       |       |     0.76
 8.917    2.76    0.67      0.476  |  O    |    I  |       |       |     0.78
 9.000    2.78    0.67      0.491  |  O    |    I  |       |       |     0.81
 9.083    3.02    0.67      0.506  |  O    |     I |       |       |     0.83
 9.167    3.19    0.67      0.523  |  O    |      I|       |       |     0.86
 9.250    3.22    0.67      0.540  |  O    |      I|       |       |     0.89
 9.333    3.35    0.67      0.558  |  O    |       I       |       |     0.92
 9.417    3.43    0.67      0.577  |  O    |       I       |       |     0.95
 9.500    3.45    0.67      0.596  |  O    |       I       |       |     0.98
 9.583    3.58    0.67      0.616  |  O    |       |I      |       |     1.01
 9.667    3.66    0.67      0.636  |  O    |       |I      |       |     1.04
 9.750    3.68    0.67      0.657  |  O    |       |I      |       |     1.07
 9.833    3.80    0.67      0.678  |  O    |       | I     |       |     1.10
 9.917    3.89    0.67      0.700  |  O    |       | I     |       |     1.13
10.000    3.91    0.67      0.722  |  O    |       | I     |       |     1.16
10.083    3.07    0.67      0.741  |  O    |     I |       |       |     1.19
10.167    2.51    0.67      0.756  |  O    |   I   |       |       |     1.21
10.250    2.41    0.67      0.768  |  O    |  I    |       |       |     1.23
10.333    2.41    0.67      0.780  |  O    |  I    |       |       |     1.24
10.417    2.42    0.67      0.792  |  O    |  I    |       |       |     1.26
10.500    2.42    0.67      0.804  |  O    |  I    |       |       |     1.28
10.583    3.03    0.67      0.819  |  O    |     I |       |       |     1.30
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10.667    3.44    0.67      0.836  |  O    |       I       |       |     1.32
10.750    3.51    0.67      0.855  |  O    |       I       |       |     1.35
10.833    3.52    0.67      0.875  |  O    |       I       |       |     1.38
10.917    3.52    0.67      0.895  |  O    |       I       |       |     1.40
11.000    3.52    0.67      0.914  |  O    |       I       |       |     1.43
11.083    3.41    0.67      0.934  |  O    |       I       |       |     1.46
11.167    3.33    0.67      0.952  |  O    |       I       |       |     1.49
11.250    3.32    0.67      0.970  |  O    |      I|       |       |     1.51
11.333    3.32    0.67      0.989  |  O    |      I|       |       |     1.54
11.417    3.33    0.67      1.007  |  O    |       I       |       |     1.56
11.500    3.33    0.67      1.025  |  O    |       I       |       |     1.59
11.583    3.09    0.67      1.043  |  O    |     I |       |       |     1.61
11.667    2.94    0.67      1.059  |  O    |     I |       |       |     1.64
11.750    2.91    0.67      1.074  |  O    |     I |       |       |     1.66
11.833    3.03    0.67      1.090  |  O    |     I |       |       |     1.68
11.917    3.12    0.67      1.107  |  O    |      I|       |       |     1.70
12.000    3.14    0.67      1.124  |  O    |      I|       |       |     1.73
12.083    3.98    0.67      1.144  |  O    |       |  I    |       |     1.76
12.167    4.55    0.67      1.168  |  O    |       |    I  |       |     1.79
12.250    4.66    0.67      1.196  |  O    |       |     I |       |     1.83
12.333    4.78    0.67      1.223  |  O    |       |      I|       |     1.87
12.417    4.87    0.67      1.252  |  O    |       |      I|       |     1.91
12.500    4.88    0.67      1.281  |  O    |       |      I|       |     1.95
12.583    5.13    0.67      1.311  |  O    |       |       I       |     1.99
12.667    5.29    0.67      1.342  |  O    |       |       |I      |     2.03
12.750    5.33    0.67      1.374  |  O    |       |       |I      |     2.07
12.833    5.45    0.67      1.407  |  O    |       |       | I     |     2.11
12.917    5.53    0.67      1.440  |  O    |       |       | I     |     2.15
13.000    5.55    0.67      1.473  |  O    |       |       | I     |     2.19
13.083    6.16    0.67      1.509  |  O    |       |       |    I  |     2.24
13.167    6.57    0.67      1.548  |  O    |       |       |      I|     2.29
13.250    6.64    0.67      1.589  |  O    |       |       |      I|     2.34
13.333    6.64    0.67      1.630  |  O    |       |       |      I|     2.39
13.417    6.65    0.67      1.671  |  O    |       |       |      I|     2.44
13.500    6.65    0.67      1.713  |  O    |       |       |      I|     2.49
13.583    5.33    0.79      1.749  |  O    |       |       |I      |     2.53
13.667    4.44    0.91      1.777  |   O   |       |    I  |       |     2.57
13.750    4.29    1.01      1.800  |   O   |       |   I   |       |     2.60
13.833    4.29    1.11      1.822  |    O  |       |   I   |       |     2.62
13.917    4.30    1.20      1.844  |    O  |       |   I   |       |     2.65
14.000    4.30    1.29      1.865  |     O |       |   I   |       |     2.68
14.083    4.78    1.39      1.887  |     O |       |      I|       |     2.70
14.167    5.11    1.49      1.911  |      O|       |       I       |     2.73
14.250    5.17    1.60      1.936  |      O|       |       I       |     2.76
14.333    5.06    1.70      1.960  |       O       |       I       |     2.79
14.417    4.98    1.80      1.982  |       O       |      I|       |     2.82
14.500    4.97    1.90      2.004  |       |O      |      I|       |     2.85
14.583    4.97    1.99      2.025  |       |O      |      I|       |     2.87
14.667    4.97    2.07      2.045  |       |O      |      I|       |     2.90
14.750    4.98    2.16      2.065  |       | O     |      I|       |     2.92
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14.833    4.86    2.24      2.083  |       | O     |      I|       |     2.94
14.917    4.78    2.32      2.101  |       |  O    |      I|       |     2.97
15.000    4.77    2.39      2.117  |       |  O    |     I |       |     2.99
15.083    4.65    2.49      2.133  |       |  O    |     I |       |     3.00
15.167    4.58    2.64      2.147  |       |   O   |     I |       |     3.02
15.250    4.56    2.78      2.160  |       |    O  |    I  |       |     3.03
15.333    4.45    2.91      2.172  |       |    O  |    I  |       |     3.05
15.417    4.37    3.02      2.181  |       |     O |    I  |       |     3.06
15.500    4.36    3.11      2.190  |       |     O |   I   |       |     3.07
15.583    3.88    3.19      2.197  |       |      O| I     |       |     3.08
15.667    3.56    3.23      2.201  |       |      O|I      |       |     3.08
15.750    3.51    3.25      2.203  |       |      OI       |       |     3.08
15.833    3.51    3.27      2.204  |       |      OI       |       |     3.08
15.917    3.51    3.29      2.206  |       |      OI       |       |     3.09
16.000    3.51    3.30      2.207  |       |      OI       |       |     3.09
16.083    1.85    3.26      2.203  |       I      O|       |       |     3.08
16.167    0.73    3.11      2.190  |  I    |     O |       |       |     3.07
16.250    0.53    2.93      2.174  | I     |     O |       |       |     3.05
16.333    0.53    2.76      2.158  | I     |    O  |       |       |     3.03
16.417    0.53    2.59      2.143  | I     |   O   |       |       |     3.02
16.500    0.53    2.44      2.129  | I     |  O    |       |       |     3.00
16.583    0.45    2.38      2.116  | I     |  O    |       |       |     2.98
16.667    0.41    2.33      2.103  |I      |  O    |       |       |     2.97
16.750    0.40    2.27      2.090  |I      | O     |       |       |     2.95
16.833    0.40    2.21      2.077  |I      | O     |       |       |     2.94
16.917    0.40    2.16      2.065  |I      | O     |       |       |     2.92
17.000    0.40    2.11      2.053  |I      | O     |       |       |     2.91
17.083    0.54    2.06      2.042  | I     |O      |       |       |     2.89
17.167    0.64    2.02      2.032  |  I    |O      |       |       |     2.88
17.250    0.66    1.98      2.022  |  I    |O      |       |       |     2.87
17.333    0.66    1.94      2.013  |  I    |O      |       |       |     2.86
17.417    0.66    1.90      2.005  |  I    |O      |       |       |     2.85
17.500    0.66    1.86      1.996  |  I    O       |       |       |     2.84
17.583    0.66    1.83      1.988  |  I    O       |       |       |     2.83
17.667    0.66    1.79      1.980  |  I    O       |       |       |     2.82
17.750    0.66    1.76      1.973  |  I    O       |       |       |     2.81
17.833    0.59    1.73      1.965  | I     O       |       |       |     2.80
17.917    0.54    1.69      1.957  | I     O       |       |       |     2.79
18.000    0.53    1.66      1.949  | I    O|       |       |       |     2.78
18.083    0.53    1.62      1.942  | I    O|       |       |       |     2.77
18.167    0.53    1.59      1.934  | I    O|       |       |       |     2.76
18.250    0.53    1.56      1.927  | I    O|       |       |       |     2.75
18.333    0.53    1.53      1.920  | I    O|       |       |       |     2.74
18.417    0.53    1.50      1.913  | I    O|       |       |       |     2.73
18.500    0.53    1.47      1.906  | I    O|       |       |       |     2.73
18.583    0.45    1.44      1.900  | I   O |       |       |       |     2.72
18.667    0.41    1.41      1.893  |I    O |       |       |       |     2.71
18.750    0.40    1.38      1.886  |I    O |       |       |       |     2.70
18.833    0.32    1.35      1.879  |I    O |       |       |       |     2.69
18.917    0.27    1.32      1.872  |I    O |       |       |       |     2.68
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19.000    0.26    1.29      1.865  |I    O |       |       |       |     2.68
19.083    0.34    1.26      1.858  |I    O |       |       |       |     2.67
19.167    0.39    1.24      1.852  |I   O  |       |       |       |     2.66
19.250    0.40    1.21      1.846  |I   O  |       |       |       |     2.65
19.333    0.47    1.19      1.841  | I  O  |       |       |       |     2.65
19.417    0.52    1.17      1.836  | I  O  |       |       |       |     2.64
19.500    0.53    1.15      1.832  | I  O  |       |       |       |     2.64
19.583    0.45    1.13      1.827  | I  O  |       |       |       |     2.63
19.667    0.41    1.11      1.823  |I   O  |       |       |       |     2.62
19.750    0.40    1.09      1.818  |I   O  |       |       |       |     2.62
19.833    0.32    1.07      1.813  |I   O  |       |       |       |     2.61
19.917    0.27    1.04      1.808  |I   O  |       |       |       |     2.61
20.000    0.26    1.02      1.803  |I  O   |       |       |       |     2.60
20.083    0.34    1.00      1.798  |I  O   |       |       |       |     2.59
20.167    0.39    0.98      1.793  |I  O   |       |       |       |     2.59
20.250    0.40    0.96      1.789  |I  O   |       |       |       |     2.58
20.333    0.40    0.95      1.785  |I  O   |       |       |       |     2.58
20.417    0.40    0.93      1.782  |I  O   |       |       |       |     2.57
20.500    0.40    0.91      1.778  |I  O   |       |       |       |     2.57
20.583    0.40    0.90      1.775  |I  O   |       |       |       |     2.56
20.667    0.40    0.88      1.771  |I  O   |       |       |       |     2.56
20.750    0.40    0.87      1.768  |I  O   |       |       |       |     2.56
20.833    0.32    0.85      1.764  |I  O   |       |       |       |     2.55
20.917    0.27    0.84      1.761  |I  O   |       |       |       |     2.55
21.000    0.26    0.82      1.757  |I O    |       |       |       |     2.54
21.083    0.34    0.81      1.753  |I O    |       |       |       |     2.54
21.167    0.39    0.79      1.750  |I O    |       |       |       |     2.53
21.250    0.40    0.78      1.748  |I O    |       |       |       |     2.53
21.333    0.32    0.77      1.745  |I O    |       |       |       |     2.53
21.417    0.27    0.75      1.741  |I O    |       |       |       |     2.52
21.500    0.26    0.74      1.738  |I O    |       |       |       |     2.52
21.583    0.34    0.73      1.735  |I O    |       |       |       |     2.52
21.667    0.39    0.72      1.733  |I O    |       |       |       |     2.51
21.750    0.40    0.71      1.731  |I O    |       |       |       |     2.51
21.833    0.32    0.70      1.728  |I O    |       |       |       |     2.51
21.917    0.27    0.69      1.725  |I O    |       |       |       |     2.50
22.000    0.26    0.67      1.723  |I O    |       |       |       |     2.50
22.083    0.34    0.67      1.720  |I O    |       |       |       |     2.50
22.167    0.39    0.67      1.718  |I O    |       |       |       |     2.50
22.250    0.40    0.67      1.716  |I O    |       |       |       |     2.49
22.333    0.32    0.67      1.714  |I O    |       |       |       |     2.49
22.417    0.27    0.67      1.711  |I O    |       |       |       |     2.49
22.500    0.26    0.67      1.709  |I O    |       |       |       |     2.48
22.583    0.26    0.67      1.706  |I O    |       |       |       |     2.48
22.667    0.26    0.67      1.703  |I O    |       |       |       |     2.48
22.750    0.26    0.67      1.700  |I O    |       |       |       |     2.47
22.833    0.26    0.67      1.697  |I O    |       |       |       |     2.47
22.917    0.26    0.67      1.695  |I O    |       |       |       |     2.47
23.000    0.26    0.67      1.692  |I O    |       |       |       |     2.46
23.083    0.26    0.67      1.689  |I O    |       |       |       |     2.46
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23.167     0.26     0.67       1.686   |I O    |       |       |       |     2.46
23.250     0.26     0.67       1.683   |I O    |       |       |       |     2.45
23.333     0.26     0.67       1.681   |I O    |       |       |       |     2.45
23.417     0.26     0.67       1.678   |I O    |       |       |       |     2.45
23.500     0.26     0.67       1.675   |I O    |       |       |       |     2.44
23.583     0.26     0.67       1.672   |I O    |       |       |       |     2.44
23.667     0.26     0.67       1.669   |I O    |       |       |       |     2.44
23.750     0.26     0.67       1.667   |I O    |       |       |       |     2.43
23.833     0.26     0.67       1.664   |I O    |       |       |       |     2.43
23.917     0.26     0.67       1.661   |I O    |       |       |       |     2.42
24.000     0.26     0.67       1.658   |I O    |       |       |       |     2.42
24.083     0.12     0.67       1.655   I  O    |       |       |       |     2.42
24.167     0.02     0.67       1.651   I  O    |       |       |       |     2.41
24.250     0.00     0.67       1.646   I  O    |       |       |       |     2.41
24.333     0.00     0.67       1.642   I  O    |       |       |       |     2.40
24.417     0.00     0.67       1.637   I  O    |       |       |       |     2.40
24.500     0.00     0.67       1.632   I  O    |       |       |       |     2.39
24.583     0.00     0.67       1.628   I  O    |       |       |       |     2.38
24.667     0.00     0.67       1.623   I  O    |       |       |       |     2.38
24.750     0.00     0.67       1.619   I  O    |       |       |       |     2.37
24.833     0.00     0.67       1.614   I  O    |       |       |       |     2.37
24.917     0.00     0.67       1.609   I  O    |       |       |       |     2.36
25.000     0.00     0.67       1.605   I  O    |       |       |       |     2.36
25.083     0.00     0.67       1.600   I  O    |       |       |       |     2.35
25.167     0.00     0.67       1.596   I  O    |       |       |       |     2.34
25.250     0.00     0.67       1.591   I  O    |       |       |       |     2.34
25.333     0.00     0.67       1.586   I  O    |       |       |       |     2.33
25.417     0.00     0.67       1.582   I  O    |       |       |       |     2.33
25.500     0.00     0.67       1.577   I  O    |       |       |       |     2.32
25.583     0.00     0.67       1.572   I  O    |       |       |       |     2.32
25.667     0.00     0.67       1.568   I  O    |       |       |       |     2.31
25.750     0.00     0.67       1.563   I  O    |       |       |       |     2.30
25.833     0.00     0.67       1.559   I  O    |       |       |       |     2.30
25.917     0.00     0.67       1.554   I  O    |       |       |       |     2.29
26.000     0.00     0.67       1.549   I  O    |       |       |       |     2.29
26.083     0.00     0.67       1.545   I  O    |       |       |       |     2.28
26.167     0.00     0.67       1.540   I  O    |       |       |       |     2.28
26.250     0.00     0.67       1.536   I  O    |       |       |       |     2.27
26.333     0.00     0.67       1.531   I  O    |       |       |       |     2.26
26.417     0.00     0.67       1.526   I  O    |       |       |       |     2.26
26.500     0.00     0.67       1.522   I  O    |       |       |       |     2.25
26.583     0.00     0.67       1.517   I  O    |       |       |       |     2.25
26.667     0.00     0.67       1.512   I  O    |       |       |       |     2.24
26.750     0.00     0.67       1.508   I  O    |       |       |       |     2.24
26.833     0.00     0.67       1.503   I  O    |       |       |       |     2.23
26.917     0.00     0.67       1.499   I  O    |       |       |       |     2.22
27.000     0.00     0.67       1.494   I  O    |       |       |       |     2.22
27.083     0.00     0.67       1.489   I  O    |       |       |       |     2.21
27.167     0.00     0.67       1.485   I  O    |       |       |       |     2.21
27.250     0.00     0.67       1.480   I  O    |       |       |       |     2.20
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27.333    0.00    0.67    1.476  I  O   |       |       |       |     2.20
27.417    0.00    0.67    1.471  I  O   |       |       |       |     2.19
27.500    0.00    0.67    1.466  I  O   |       |       |       |     2.19
27.583    0.00    0.67    1.462  I  O   |       |       |       |     2.18
27.667    0.00    0.67    1.457  I  O   |       |       |       |     2.17
27.750    0.00    0.67    1.452  I  O   |       |       |       |     2.17
27.833    0.00    0.67    1.448  I  O   |       |       |       |     2.16
27.917    0.00    0.67    1.443  I  O   |       |       |       |     2.16
28.000    0.00    0.67    1.439  I  O   |       |       |       |     2.15
28.083    0.00    0.67    1.434  I  O   |       |       |       |     2.15
28.167    0.00    0.67    1.429  I  O   |       |       |       |     2.14
28.250    0.00    0.67    1.425  I  O   |       |       |       |     2.13
28.333    0.00    0.67    1.420  I  O   |       |       |       |     2.13
28.417    0.00    0.67    1.416  I  O   |       |       |       |     2.12
28.500    0.00    0.67    1.411  I  O   |       |       |       |     2.12
28.583    0.00    0.67    1.406  I  O   |       |       |       |     2.11
28.667    0.00    0.67    1.402  I  O   |       |       |       |     2.11
28.750    0.00    0.67    1.397  I  O   |       |       |       |     2.10
28.833    0.00    0.67    1.392  I  O   |       |       |       |     2.09
28.917    0.00    0.67    1.388  I  O   |       |       |       |     2.09
29.000    0.00    0.67    1.383  I  O   |       |       |       |     2.08
29.083    0.00    0.67    1.379  I  O   |       |       |       |     2.08
29.167    0.00    0.67    1.374  I  O   |       |       |       |     2.07
29.250    0.00    0.67    1.369  I  O   |       |       |       |     2.07
29.333    0.00    0.67    1.365  I  O   |       |       |       |     2.06
29.417    0.00    0.67    1.360  I  O   |       |       |       |     2.05
29.500    0.00    0.67    1.356  I  O   |       |       |       |     2.05
29.583    0.00    0.67    1.351  I  O   |       |       |       |     2.04
29.667    0.00    0.67    1.346  I  O   |       |       |       |     2.04
29.750    0.00    0.67    1.342  I  O   |       |       |       |     2.03
29.833    0.00    0.67    1.337  I  O   |       |       |       |     2.03
29.917    0.00    0.67    1.333  I  O   |       |       |       |     2.02
30.000    0.00    0.67    1.328  I  O   |       |       |       |     2.01
30.083    0.00    0.67    1.323  I  O   |       |       |       |     2.01
30.167    0.00    0.67    1.319  I  O   |       |       |       |     2.00
30.250    0.00    0.67    1.314  I  O   |       |       |       |     2.00
30.333    0.00    0.67    1.309  I  O   |       |       |       |     1.99
30.417    0.00    0.67    1.305  I  O   |       |       |       |     1.98
30.500    0.00    0.67    1.300  I  O   |       |       |       |     1.98
30.583    0.00    0.67    1.296  I  O   |       |       |       |     1.97
30.667    0.00    0.67    1.291  I  O   |       |       |       |     1.96
30.750    0.00    0.67    1.286  I  O   |       |       |       |     1.96
30.833    0.00    0.67    1.282  I  O   |       |       |       |     1.95
30.917    0.00    0.67    1.277  I  O   |       |       |       |     1.95
31.000    0.00    0.67    1.273  I  O   |       |       |       |     1.94
31.083    0.00    0.67    1.268  I  O   |       |       |       |     1.93
31.167    0.00    0.67    1.263  I  O   |       |       |       |     1.93
31.250    0.00    0.67    1.259  I  O   |       |       |       |     1.92
31.333    0.00    0.67    1.254  I  O   |       |       |       |     1.91
31.417    0.00    0.67    1.249  I  O   |       |       |       |     1.91
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31.500	0.00	0.67	1.245	I	O					1.90
31.583	0.00	0.67	1.240	I	O					1.89
31.667	0.00	0.67	1.236	I	O					1.89
31.750	0.00	0.67	1.231	I	O					1.88
31.833	0.00	0.67	1.226	I	O					1.87
31.917	0.00	0.67	1.222	I	O					1.87
32.000	0.00	0.67	1.217	I	O					1.86
32.083	0.00	0.67	1.213	I	O					1.85
32.167	0.00	0.67	1.208	I	O					1.85
32.250	0.00	0.67	1.203	I	O					1.84
32.333	0.00	0.67	1.199	I	O					1.83
32.417	0.00	0.67	1.194	I	O					1.83
32.500	0.00	0.67	1.189	I	O					1.82
32.583	0.00	0.67	1.185	I	O					1.81
32.667	0.00	0.67	1.180	I	O					1.81
32.750	0.00	0.67	1.176	I	O					1.80
32.833	0.00	0.67	1.171	I	O					1.80
32.917	0.00	0.67	1.166	I	O					1.79
33.000	0.00	0.67	1.162	I	O					1.78
33.083	0.00	0.67	1.157	I	O					1.78
33.167	0.00	0.67	1.153	I	O					1.77
33.250	0.00	0.67	1.148	I	O					1.76
33.333	0.00	0.67	1.143	I	O					1.76
33.417	0.00	0.67	1.139	I	O					1.75
33.500	0.00	0.67	1.134	I	O					1.74
33.583	0.00	0.67	1.129	I	O					1.74
33.667	0.00	0.67	1.125	I	O					1.73
33.750	0.00	0.67	1.120	I	O					1.72
33.833	0.00	0.67	1.116	I	O					1.72
33.917	0.00	0.67	1.111	I	O					1.71
34.000	0.00	0.67	1.106	I	O					1.70
34.083	0.00	0.67	1.102	I	O					1.70
34.167	0.00	0.67	1.097	I	O					1.69
34.250	0.00	0.67	1.093	I	O					1.68
34.333	0.00	0.67	1.088	I	O					1.68
34.417	0.00	0.67	1.083	I	O					1.67
34.500	0.00	0.67	1.079	I	O					1.66
34.583	0.00	0.67	1.074	I	O					1.66
34.667	0.00	0.67	1.069	I	O					1.65
34.750	0.00	0.67	1.065	I	O					1.65
34.833	0.00	0.67	1.060	I	O					1.64
34.917	0.00	0.67	1.056	I	O					1.63
35.000	0.00	0.67	1.051	I	O					1.63
35.083	0.00	0.67	1.046	I	O					1.62
35.167	0.00	0.67	1.042	I	O					1.61
35.250	0.00	0.67	1.037	I	O					1.61
35.333	0.00	0.67	1.033	I	O					1.60
35.417	0.00	0.67	1.028	I	O					1.59
35.500	0.00	0.67	1.023	I	O					1.59
35.583	0.00	0.67	1.019	I	O					1.58

35.667	0.00	0.67	1.014	I	O	1.57
35.750	0.00	0.67	1.009	I	O	1.57
35.833	0.00	0.67	1.005	I	O	1.56
35.917	0.00	0.67	1.000	I	O	1.55
36.000	0.00	0.67	0.996	I	O	1.55
36.083	0.00	0.67	0.991	I	O	1.54
36.167	0.00	0.67	0.986	I	O	1.53
36.250	0.00	0.67	0.982	I	O	1.53
36.333	0.00	0.67	0.977	I	O	1.52
36.417	0.00	0.67	0.973	I	O	1.51
36.500	0.00	0.67	0.968	I	O	1.51
36.583	0.00	0.67	0.963	I	O	1.50
36.667	0.00	0.67	0.959	I	O	1.50
36.750	0.00	0.67	0.954	I	O	1.49
36.833	0.00	0.67	0.950	I	O	1.48
36.917	0.00	0.67	0.945	I	O	1.48
37.000	0.00	0.67	0.940	I	O	1.47
37.083	0.00	0.67	0.936	I	O	1.46
37.167	0.00	0.67	0.931	I	O	1.46
37.250	0.00	0.67	0.926	I	O	1.45
37.333	0.00	0.67	0.922	I	O	1.44
37.417	0.00	0.67	0.917	I	O	1.44
37.500	0.00	0.67	0.913	I	O	1.43
37.583	0.00	0.67	0.908	I	O	1.42
37.667	0.00	0.67	0.903	I	O	1.42
37.750	0.00	0.67	0.899	I	O	1.41
37.833	0.00	0.67	0.894	I	O	1.40
37.917	0.00	0.67	0.890	I	O	1.40
38.000	0.00	0.67	0.885	I	O	1.39
38.083	0.00	0.67	0.880	I	O	1.38
38.167	0.00	0.67	0.876	I	O	1.38
38.250	0.00	0.67	0.871	I	O	1.37
38.333	0.00	0.67	0.866	I	O	1.37
38.417	0.00	0.67	0.862	I	O	1.36
38.500	0.00	0.67	0.857	I	O	1.35
38.583	0.00	0.67	0.853	I	O	1.35
38.667	0.00	0.67	0.848	I	O	1.34
38.750	0.00	0.67	0.843	I	O	1.33
38.833	0.00	0.67	0.839	I	O	1.33
38.917	0.00	0.67	0.834	I	O	1.32
39.000	0.00	0.67	0.830	I	O	1.31
39.083	0.00	0.67	0.825	I	O	1.31
39.167	0.00	0.67	0.820	I	O	1.30
39.250	0.00	0.67	0.816	I	O	1.29
39.333	0.00	0.67	0.811	I	O	1.29
39.417	0.00	0.67	0.806	I	O	1.28
39.500	0.00	0.67	0.802	I	O	1.27
39.583	0.00	0.67	0.797	I	O	1.27
39.667	0.00	0.67	0.793	I	O	1.26
39.750	0.00	0.67	0.788	I	O	1.25

39.833	0.00	0.67	0.783	I	O	|	|	|	|	1.25
39.917	0.00	0.67	0.779	I	O	|	|	|	|	1.24
40.000	0.00	0.67	0.774	I	O	|	|	|	|	1.23
40.083	0.00	0.67	0.770	I	O	|	|	|	|	1.23
40.167	0.00	0.67	0.765	I	O	|	|	|	|	1.22
40.250	0.00	0.67	0.760	I	O	|	|	|	|	1.22
40.333	0.00	0.67	0.756	I	O	|	|	|	|	1.21
40.417	0.00	0.67	0.751	I	O	|	|	|	|	1.20
40.500	0.00	0.67	0.746	I	O	|	|	|	|	1.20
40.583	0.00	0.67	0.742	I	O	|	|	|	|	1.19
40.667	0.00	0.67	0.737	I	O	|	|	|	|	1.18
40.750	0.00	0.67	0.733	I	O	|	|	|	|	1.18
40.833	0.00	0.67	0.728	I	O	|	|	|	|	1.17
40.917	0.00	0.67	0.723	I	O	|	|	|	|	1.16
41.000	0.00	0.67	0.719	I	O	|	|	|	|	1.16
41.083	0.00	0.67	0.714	I	O	|	|	|	|	1.15
41.167	0.00	0.67	0.710	I	O	|	|	|	|	1.14
41.250	0.00	0.67	0.705	I	O	|	|	|	|	1.14
41.333	0.00	0.67	0.700	I	O	|	|	|	|	1.13
41.417	0.00	0.67	0.696	I	O	|	|	|	|	1.12
41.500	0.00	0.67	0.691	I	O	|	|	|	|	1.12
41.583	0.00	0.67	0.686	I	O	|	|	|	|	1.11
41.667	0.00	0.67	0.682	I	O	|	|	|	|	1.10
41.750	0.00	0.67	0.677	I	O	|	|	|	|	1.10
41.833	0.00	0.67	0.673	I	O	|	|	|	|	1.09
41.917	0.00	0.67	0.668	I	O	|	|	|	|	1.08
42.000	0.00	0.67	0.663	I	O	|	|	|	|	1.08
42.083	0.00	0.67	0.659	I	O	|	|	|	|	1.07
42.167	0.00	0.67	0.654	I	O	|	|	|	|	1.07
42.250	0.00	0.67	0.650	I	O	|	|	|	|	1.06
42.333	0.00	0.67	0.645	I	O	|	|	|	|	1.05
42.417	0.00	0.67	0.640	I	O	|	|	|	|	1.05
42.500	0.00	0.67	0.636	I	O	|	|	|	|	1.04
42.583	0.00	0.67	0.631	I	O	|	|	|	|	1.03
42.667	0.00	0.67	0.627	I	O	|	|	|	|	1.03
42.750	0.00	0.67	0.622	I	O	|	|	|	|	1.02
42.833	0.00	0.67	0.617	I	O	|	|	|	|	1.01
42.917	0.00	0.67	0.613	I	O	|	|	|	|	1.01
43.000	0.00	0.67	0.608	I	O	|	|	|	|	1.00
43.083	0.00	0.67	0.603	I	O	|	|	|	|	0.99
43.167	0.00	0.67	0.599	I	O	|	|	|	|	0.98
43.250	0.00	0.67	0.594	I	O	|	|	|	|	0.98
43.333	0.00	0.67	0.590	I	O	|	|	|	|	0.97
43.417	0.00	0.67	0.585	I	O	|	|	|	|	0.96
43.500	0.00	0.67	0.580	I	O	|	|	|	|	0.95
43.583	0.00	0.67	0.576	I	O	|	|	|	|	0.95
43.667	0.00	0.67	0.571	I	O	|	|	|	|	0.94
43.750	0.00	0.67	0.567	I	O	|	|	|	|	0.93
43.833	0.00	0.67	0.562	I	O	|	|	|	|	0.92
43.917	0.00	0.67	0.557	I	O	|	|	|	|	0.92

44.000	0.00	0.67	0.553	I	O	0.91
44.083	0.00	0.67	0.548	I	O	0.90
44.167	0.00	0.67	0.543	I	O	0.89
44.250	0.00	0.67	0.539	I	O	0.89
44.333	0.00	0.67	0.534	I	O	0.88
44.417	0.00	0.67	0.530	I	O	0.87
44.500	0.00	0.67	0.525	I	O	0.86
44.583	0.00	0.67	0.520	I	O	0.86
44.667	0.00	0.67	0.516	I	O	0.85
44.750	0.00	0.67	0.511	I	O	0.84
44.833	0.00	0.67	0.507	I	O	0.83
44.917	0.00	0.67	0.502	I	O	0.83
45.000	0.00	0.67	0.497	I	O	0.82
45.083	0.00	0.67	0.493	I	O	0.81
45.167	0.00	0.67	0.488	I	O	0.80
45.250	0.00	0.67	0.483	I	O	0.80
45.333	0.00	0.67	0.479	I	O	0.79
45.417	0.00	0.67	0.474	I	O	0.78
45.500	0.00	0.67	0.470	I	O	0.77
45.583	0.00	0.67	0.465	I	O	0.76
45.667	0.00	0.67	0.460	I	O	0.76
45.750	0.00	0.67	0.456	I	O	0.75
45.833	0.00	0.67	0.451	I	O	0.74
45.917	0.00	0.67	0.447	I	O	0.73
46.000	0.00	0.67	0.442	I	O	0.73
46.083	0.00	0.67	0.437	I	O	0.72
46.167	0.00	0.67	0.433	I	O	0.71
46.250	0.00	0.67	0.428	I	O	0.70
46.333	0.00	0.67	0.423	I	O	0.70
46.417	0.00	0.67	0.419	I	O	0.69
46.500	0.00	0.67	0.414	I	O	0.68
46.583	0.00	0.67	0.410	I	O	0.67
46.667	0.00	0.67	0.405	I	O	0.67
46.750	0.00	0.67	0.400	I	O	0.66
46.833	0.00	0.67	0.396	I	O	0.65
46.917	0.00	0.67	0.391	I	O	0.64
47.000	0.00	0.67	0.387	I	O	0.64
47.083	0.00	0.67	0.382	I	O	0.63
47.167	0.00	0.67	0.377	I	O	0.62
47.250	0.00	0.67	0.373	I	O	0.61
47.333	0.00	0.67	0.368	I	O	0.61
47.417	0.00	0.67	0.363	I	O	0.60
47.500	0.00	0.67	0.359	I	O	0.59
47.583	0.00	0.67	0.354	I	O	0.58
47.667	0.00	0.67	0.350	I	O	0.58
47.750	0.00	0.67	0.345	I	O	0.57
47.833	0.00	0.67	0.340	I	O	0.56
47.917	0.00	0.67	0.336	I	O	0.55
48.000	0.00	0.67	0.331	I	O	0.54
48.083	0.00	0.67	0.327	I	O	0.54

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48.167     0.00     0.67      0.322  I   O    |       |       |       |     0.53
48.250     0.00     0.67      0.317  I   O    |       |       |       |     0.52
48.333     0.00     0.67      0.313  I   O    |       |       |       |     0.51
48.417     0.00     0.67      0.308  I   O    |       |       |       |     0.51
48.500     0.00     0.67      0.304  I   O    |       |       |       |     0.50
48.583     0.00     0.66      0.299  I   O    |       |       |       |     0.49
48.667     0.00     0.65      0.294  I   O    |       |       |       |     0.48
48.750     0.00     0.64      0.290  I   O    |       |       |       |     0.48
48.833     0.00     0.63      0.286  I   O    |       |       |       |     0.47
48.917     0.00     0.62      0.281  I O      |       |       |       |     0.46
49.000     0.00     0.61      0.277  I O      |       |       |       |     0.46
49.083     0.00     0.60      0.273  I O      |       |       |       |     0.45
49.167     0.00     0.59      0.269  I O      |       |       |       |     0.44
49.250     0.00     0.58      0.265  I O      |       |       |       |     0.44
49.333     0.00     0.57      0.261  I O      |       |       |       |     0.43
49.417     0.00     0.57      0.257  I O      |       |       |       |     0.42
49.500     0.00     0.56      0.253  I O      |       |       |       |     0.42
49.583     0.00     0.55      0.249  I O      |       |       |       |     0.41
49.667     0.00     0.54      0.245  I O      |       |       |       |     0.40
49.750     0.00     0.53      0.242  I O      |       |       |       |     0.40
49.833     0.00     0.52      0.238  I O      |       |       |       |     0.39
49.917     0.00     0.52      0.234  I O      |       |       |       |     0.39
50.000     0.00     0.51      0.231  I O      |       |       |       |     0.38
50.083     0.00     0.50      0.227  I O      |       |       |       |     0.37
50.167     0.00     0.49      0.224  I O      |       |       |       |     0.37
50.250     0.00     0.49      0.221  I O      |       |       |       |     0.36
50.333     0.00     0.48      0.217  I O      |       |       |       |     0.36
50.417     0.00     0.47      0.214  I O      |       |       |       |     0.35
50.500     0.00     0.46      0.211  I O      |       |       |       |     0.35
50.583     0.00     0.46      0.208  I O      |       |       |       |     0.34
50.667     0.00     0.45      0.205  I O      |       |       |       |     0.34
50.750     0.00     0.44      0.201  I O      |       |       |       |     0.33
50.833     0.00     0.44      0.198  I O      |       |       |       |     0.33
50.917     0.00     0.43      0.195  I O      |       |       |       |     0.32
51.000     0.00     0.42      0.192  I O      |       |       |       |     0.32
51.083     0.00     0.42      0.190  I O      |       |       |       |     0.31
51.167     0.00     0.41      0.187  IO       |       |       |       |     0.31
51.250     0.00     0.41      0.184  IO       |       |       |       |     0.30
51.333     0.00     0.40      0.181  IO       |       |       |       |     0.30
51.417     0.00     0.39      0.178  IO       |       |       |       |     0.29
51.500     0.00     0.39      0.176  IO       |       |       |       |     0.29
51.583     0.00     0.38      0.173  IO       |       |       |       |     0.28
51.667     0.00     0.38      0.170  IO       |       |       |       |     0.28
51.750     0.00     0.37      0.168  IO       |       |       |       |     0.28
51.833     0.00     0.36      0.165  IO       |       |       |       |     0.27
51.917     0.00     0.36      0.163  IO       |       |       |       |     0.27
52.000     0.00     0.35      0.160  IO       |       |       |       |     0.26
52.083     0.00     0.35      0.158  IO       |       |       |       |     0.26
52.167     0.00     0.34      0.156  IO       |       |       |       |     0.26
52.250     0.00     0.34      0.153  IO       |       |       |       |     0.25
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52.333	0.00	0.33	0.151	IO	0.25
52.417	0.00	0.33	0.149	IO	0.24
52.500	0.00	0.32	0.146	IO	0.24
52.583	0.00	0.32	0.144	IO	0.24
52.667	0.00	0.31	0.142	IO	0.23
52.750	0.00	0.31	0.140	IO	0.23
52.833	0.00	0.30	0.138	IO	0.23
52.917	0.00	0.30	0.136	IO	0.22
53.000	0.00	0.29	0.134	IO	0.22
53.083	0.00	0.29	0.132	IO	0.22
53.167	0.00	0.29	0.130	IO	0.21
53.250	0.00	0.28	0.128	IO	0.21
53.333	0.00	0.28	0.126	IO	0.21
53.417	0.00	0.27	0.124	IO	0.20
53.500	0.00	0.27	0.122	IO	0.20
53.583	0.00	0.27	0.120	IO	0.20
53.667	0.00	0.26	0.118	IO	0.19
53.750	0.00	0.26	0.117	IO	0.19
53.833	0.00	0.25	0.115	IO	0.19
53.917	0.00	0.25	0.113	IO	0.19
54.000	0.00	0.25	0.111	IO	0.18
54.083	0.00	0.24	0.110	IO	0.18
54.167	0.00	0.24	0.108	IO	0.18
54.250	0.00	0.23	0.106	IO	0.18
54.333	0.00	0.23	0.105	IO	0.17
54.417	0.00	0.23	0.103	IO	0.17
54.500	0.00	0.22	0.102	IO	0.17
54.583	0.00	0.22	0.100	IO	0.16
54.667	0.00	0.22	0.099	IO	0.16
54.750	0.00	0.21	0.097	IO	0.16
54.833	0.00	0.21	0.096	IO	0.16
54.917	0.00	0.21	0.094	IO	0.16
55.000	0.00	0.20	0.093	O	0.15
55.083	0.00	0.20	0.091	O	0.15
55.167	0.00	0.20	0.090	O	0.15
55.250	0.00	0.20	0.089	O	0.15
55.333	0.00	0.19	0.087	O	0.14
55.417	0.00	0.19	0.086	O	0.14
55.500	0.00	0.19	0.085	O	0.14
55.583	0.00	0.18	0.084	O	0.14
55.667	0.00	0.18	0.082	O	0.14
55.750	0.00	0.18	0.081	O	0.13
55.833	0.00	0.18	0.080	O	0.13
55.917	0.00	0.17	0.079	O	0.13
56.000	0.00	0.17	0.077	O	0.13
56.083	0.00	0.17	0.076	O	0.13
56.167	0.00	0.17	0.075	O	0.12
56.250	0.00	0.16	0.074	O	0.12
56.333	0.00	0.16	0.073	O	0.12
56.417	0.00	0.16	0.072	O	0.12

56.500	0.00	0.16	0.071	O	0.12
56.583	0.00	0.15	0.070	O	0.11
56.667	0.00	0.15	0.069	O	0.11
56.750	0.00	0.15	0.068	O	0.11
56.833	0.00	0.15	0.067	O	0.11
56.917	0.00	0.14	0.066	O	0.11
57.000	0.00	0.14	0.065	O	0.11
57.083	0.00	0.14	0.064	O	0.10
57.167	0.00	0.14	0.063	O	0.10
57.250	0.00	0.14	0.062	O	0.10
57.333	0.00	0.13	0.061	O	0.10
57.417	0.00	0.13	0.060	O	0.10
57.500	0.00	0.13	0.059	O	0.10
57.583	0.00	0.13	0.058	O	0.10
57.667	0.00	0.13	0.057	O	0.09
57.750	0.00	0.12	0.056	O	0.09
57.833	0.00	0.12	0.055	O	0.09
57.917	0.00	0.12	0.055	O	0.09
58.000	0.00	0.12	0.054	O	0.09
58.083	0.00	0.12	0.053	O	0.09
58.167	0.00	0.11	0.052	O	0.09
58.250	0.00	0.11	0.051	O	0.08
58.333	0.00	0.11	0.051	O	0.08
58.417	0.00	0.11	0.050	O	0.08
58.500	0.00	0.11	0.049	O	0.08
58.583	0.00	0.11	0.048	O	0.08
58.667	0.00	0.10	0.048	O	0.08
58.750	0.00	0.10	0.047	O	0.08
58.833	0.00	0.10	0.046	O	0.08
58.917	0.00	0.10	0.046	O	0.07
59.000	0.00	0.10	0.045	O	0.07
59.083	0.00	0.10	0.044	O	0.07
59.167	0.00	0.10	0.043	O	0.07
59.250	0.00	0.09	0.043	O	0.07
59.333	0.00	0.09	0.042	O	0.07
59.417	0.00	0.09	0.042	O	0.07
59.500	0.00	0.09	0.041	O	0.07
59.583	0.00	0.09	0.040	O	0.07
59.667	0.00	0.09	0.040	O	0.07
59.750	0.00	0.09	0.039	O	0.06
59.833	0.00	0.08	0.039	O	0.06
59.917	0.00	0.08	0.038	O	0.06
60.000	0.00	0.08	0.037	O	0.06
60.083	0.00	0.08	0.037	O	0.06
60.167	0.00	0.08	0.036	O	0.06
60.250	0.00	0.08	0.036	O	0.06
60.333	0.00	0.08	0.035	O	0.06
60.417	0.00	0.08	0.035	O	0.06
60.500	0.00	0.08	0.034	O	0.06
60.583	0.00	0.07	0.034	O	0.06

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60.667    0.00    0.07    0.033  O        |       |       |       |     0.05
60.750    0.00    0.07    0.033  O        |       |       |       |     0.05
60.833    0.00    0.07    0.032  O        |       |       |       |     0.05
60.917    0.00    0.07    0.032  O        |       |       |       |     0.05
61.000    0.00    0.07    0.031  O        |       |       |       |     0.05
61.083    0.00    0.07    0.031  O        |       |       |       |     0.05
61.167    0.00    0.07    0.030  O        |       |       |       |     0.05
61.250    0.00    0.07    0.030  O        |       |       |       |     0.05
61.333    0.00    0.06    0.029  O        |       |       |       |     0.05
61.417    0.00    0.06    0.029  O        |       |       |       |     0.05
61.500    0.00    0.06    0.028  O        |       |       |       |     0.05
61.583    0.00    0.06    0.028  O        |       |       |       |     0.05
61.667    0.00    0.06    0.028  O        |       |       |       |     0.05
61.750    0.00    0.06    0.027  O        |       |       |       |     0.04
61.833    0.00    0.06    0.027  O        |       |       |       |     0.04
61.917    0.00    0.06    0.026  O        |       |       |       |     0.04
62.000    0.00    0.06    0.026  O        |       |       |       |     0.04
62.083    0.00    0.06    0.026  O        |       |       |       |     0.04
62.167    0.00    0.06    0.025  O        |       |       |       |     0.04
62.250    0.00    0.05    0.025  O        |       |       |       |     0.04
62.333    0.00    0.05    0.024  O        |       |       |       |     0.04
62.417    0.00    0.05    0.024  O        |       |       |       |     0.04
62.500    0.00    0.05    0.024  O        |       |       |       |     0.04
62.583    0.00    0.05    0.023  O        |       |       |       |     0.04
62.667    0.00    0.05    0.023  O        |       |       |       |     0.04
62.750    0.00    0.05    0.023  O        |       |       |       |     0.04
62.833    0.00    0.05    0.022  O        |       |       |       |     0.04
62.917    0.00    0.05    0.022  O        |       |       |       |     0.04
63.000    0.00    0.05    0.022  O        |       |       |       |     0.04
63.083    0.00    0.05    0.021  O        |       |       |       |     0.04
63.167    0.00    0.05    0.021  O        |       |       |       |     0.03
63.250    0.00    0.05    0.021  O        |       |       |       |     0.03
63.333    0.00    0.04    0.020  O        |       |       |       |     0.03
63.417    0.00    0.04    0.020  O        |       |       |       |     0.03
63.500    0.00    0.04    0.020  O        |       |       |       |     0.03
63.583    0.00    0.04    0.019  O        |       |       |       |     0.03
63.667    0.00    0.04    0.019  O        |       |       |       |     0.03
63.750    0.00    0.04    0.019  O        |       |       |       |     0.03
63.833    0.00    0.04    0.019  O        |       |       |       |     0.03
63.917    0.00    0.04    0.018  O        |       |       |       |     0.03
64.000    0.00    0.04    0.018  O        |       |       |       |     0.03
64.083    0.00    0.04    0.018  O        |       |       |       |     0.03
64.167    0.00    0.04    0.017  O        |       |       |       |     0.03
64.250    0.00    0.04    0.017  O        |       |       |       |     0.03
64.333    0.00    0.04    0.017  O        |       |       |       |     0.03
64.417    0.00    0.04    0.017  O        |       |       |       |     0.03
64.500    0.00    0.04    0.016  O        |       |       |       |     0.03
64.583    0.00    0.04    0.016  O        |       |       |       |     0.03
64.667    0.00    0.04    0.016  O        |       |       |       |     0.03
64.750    0.00    0.03    0.016  O        |       |       |       |     0.03
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64.833	0.00	0.03	0.015	O	|	|	|	|	0.03
64.917	0.00	0.03	0.015	O	|	|	|	|	0.03
65.000	0.00	0.03	0.015	O	|	|	|	|	0.02
65.083	0.00	0.03	0.015	O	|	|	|	|	0.02
65.167	0.00	0.03	0.015	O	|	|	|	|	0.02
65.250	0.00	0.03	0.014	O	|	|	|	|	0.02
65.333	0.00	0.03	0.014	O	|	|	|	|	0.02
65.417	0.00	0.03	0.014	O	|	|	|	|	0.02
65.500	0.00	0.03	0.014	O	|	|	|	|	0.02
65.583	0.00	0.03	0.014	O	|	|	|	|	0.02
65.667	0.00	0.03	0.013	O	|	|	|	|	0.02
65.750	0.00	0.03	0.013	O	|	|	|	|	0.02
65.833	0.00	0.03	0.013	O	|	|	|	|	0.02
65.917	0.00	0.03	0.013	O	|	|	|	|	0.02
66.000	0.00	0.03	0.013	O	|	|	|	|	0.02
66.083	0.00	0.03	0.012	O	|	|	|	|	0.02
66.167	0.00	0.03	0.012	O	|	|	|	|	0.02
66.250	0.00	0.03	0.012	O	|	|	|	|	0.02
66.333	0.00	0.03	0.012	O	|	|	|	|	0.02
66.417	0.00	0.03	0.012	O	|	|	|	|	0.02
66.500	0.00	0.03	0.011	O	|	|	|	|	0.02
66.583	0.00	0.02	0.011	O	|	|	|	|	0.02
66.667	0.00	0.02	0.011	O	|	|	|	|	0.02
66.750	0.00	0.02	0.011	O	|	|	|	|	0.02
66.833	0.00	0.02	0.011	O	|	|	|	|	0.02
66.917	0.00	0.02	0.011	O	|	|	|	|	0.02
67.000	0.00	0.02	0.010	O	|	|	|	|	0.02
67.083	0.00	0.02	0.010	O	|	|	|	|	0.02
67.167	0.00	0.02	0.010	O	|	|	|	|	0.02
67.250	0.00	0.02	0.010	O	|	|	|	|	0.02
67.333	0.00	0.02	0.010	O	|	|	|	|	0.02
67.417	0.00	0.02	0.010	O	|	|	|	|	0.02
67.500	0.00	0.02	0.010	O	|	|	|	|	0.02
67.583	0.00	0.02	0.009	O	|	|	|	|	0.02
67.667	0.00	0.02	0.009	O	|	|	|	|	0.02
67.750	0.00	0.02	0.009	O	|	|	|	|	0.01
67.833	0.00	0.02	0.009	O	|	|	|	|	0.01
67.917	0.00	0.02	0.009	O	|	|	|	|	0.01
68.000	0.00	0.02	0.009	O	|	|	|	|	0.01
68.083	0.00	0.02	0.009	O	|	|	|	|	0.01
68.167	0.00	0.02	0.008	O	|	|	|	|	0.01
68.250	0.00	0.02	0.008	O	|	|	|	|	0.01
68.333	0.00	0.02	0.008	O	|	|	|	|	0.01
68.417	0.00	0.02	0.008	O	|	|	|	|	0.01
68.500	0.00	0.02	0.008	O	|	|	|	|	0.01
68.583	0.00	0.02	0.008	O	|	|	|	|	0.01
68.667	0.00	0.02	0.008	O	|	|	|	|	0.01
68.750	0.00	0.02	0.008	O	|	|	|	|	0.01
68.833	0.00	0.02	0.007	O	|	|	|	|	0.01
68.917	0.00	0.02	0.007	O	|	|	|	|	0.01

69.000	0.00	0.02	0.007	O					0.01
69.083	0.00	0.02	0.007	O					0.01
69.167	0.00	0.02	0.007	O					0.01
69.250	0.00	0.02	0.007	O					0.01
69.333	0.00	0.02	0.007	O					0.01
69.417	0.00	0.01	0.007	O					0.01
69.500	0.00	0.01	0.007	O					0.01
69.583	0.00	0.01	0.007	O					0.01
69.667	0.00	0.01	0.006	O					0.01
69.750	0.00	0.01	0.006	O					0.01
69.833	0.00	0.01	0.006	O					0.01
69.917	0.00	0.01	0.006	O					0.01
70.000	0.00	0.01	0.006	O					0.01
70.083	0.00	0.01	0.006	O					0.01
70.167	0.00	0.01	0.006	O					0.01
70.250	0.00	0.01	0.006	O					0.01
70.333	0.00	0.01	0.006	O					0.01
70.417	0.00	0.01	0.006	O					0.01
70.500	0.00	0.01	0.006	O					0.01
70.583	0.00	0.01	0.005	O					0.01
70.667	0.00	0.01	0.005	O					0.01
70.750	0.00	0.01	0.005	O					0.01
70.833	0.00	0.01	0.005	O					0.01
70.917	0.00	0.01	0.005	O					0.01
71.000	0.00	0.01	0.005	O					0.01
71.083	0.00	0.01	0.005	O					0.01
71.167	0.00	0.01	0.005	O					0.01
71.250	0.00	0.01	0.005	O					0.01
71.333	0.00	0.01	0.005	O					0.01
71.417	0.00	0.01	0.005	O					0.01
71.500	0.00	0.01	0.005	O					0.01
71.583	0.00	0.01	0.005	O					0.01
71.667	0.00	0.01	0.004	O					0.01
71.750	0.00	0.01	0.004	O					0.01
71.833	0.00	0.01	0.004	O					0.01
71.917	0.00	0.01	0.004	O					0.01
72.000	0.00	0.01	0.004	O					0.01
72.083	0.00	0.01	0.004	O					0.01
72.167	0.00	0.01	0.004	O					0.01
72.250	0.00	0.01	0.004	O					0.01
72.333	0.00	0.01	0.004	O					0.01
72.417	0.00	0.01	0.004	O					0.01
72.500	0.00	0.01	0.004	O					0.01
72.583	0.00	0.01	0.004	O					0.01
72.667	0.00	0.01	0.004	O					0.01
72.750	0.00	0.01	0.004	O					0.01
72.833	0.00	0.01	0.004	O					0.01
72.917	0.00	0.01	0.004	O					0.01
73.000	0.00	0.01	0.004	O					0.01
73.083	0.00	0.01	0.003	O					0.01

73.167	0.00	0.01	0.003	O					0.01
73.250	0.00	0.01	0.003	O					0.01
73.333	0.00	0.01	0.003	O					0.01
73.417	0.00	0.01	0.003	O					0.01
73.500	0.00	0.01	0.003	O					0.01
73.583	0.00	0.01	0.003	O					0.01
73.667	0.00	0.01	0.003	O					0.01
73.750	0.00	0.01	0.003	O					0.01
73.833	0.00	0.01	0.003	O					0.00
73.917	0.00	0.01	0.003	O					0.00
74.000	0.00	0.01	0.003	O					0.00
74.083	0.00	0.01	0.003	O					0.00
74.167	0.00	0.01	0.003	O					0.00
74.250	0.00	0.01	0.003	O					0.00
74.333	0.00	0.01	0.003	O					0.00
74.417	0.00	0.01	0.003	O					0.00
74.500	0.00	0.01	0.003	O					0.00
74.583	0.00	0.01	0.003	O					0.00
74.667	0.00	0.01	0.003	O					0.00
74.750	0.00	0.01	0.003	O					0.00
74.833	0.00	0.01	0.003	O					0.00
74.917	0.00	0.01	0.002	O					0.00
75.000	0.00	0.01	0.002	O					0.00
75.083	0.00	0.01	0.002	O					0.00
75.167	0.00	0.01	0.002	O					0.00
75.250	0.00	0.01	0.002	O					0.00
75.333	0.00	0.01	0.002	O					0.00
75.417	0.00	0.00	0.002	O					0.00
75.500	0.00	0.00	0.002	O					0.00
75.583	0.00	0.00	0.002	O					0.00
75.667	0.00	0.00	0.002	O					0.00
75.750	0.00	0.00	0.002	O					0.00
75.833	0.00	0.00	0.002	O					0.00
75.917	0.00	0.00	0.002	O					0.00
76.000	0.00	0.00	0.002	O					0.00
76.083	0.00	0.00	0.002	O					0.00
76.167	0.00	0.00	0.002	O					0.00
76.250	0.00	0.00	0.002	O					0.00
76.333	0.00	0.00	0.002	O					0.00
76.417	0.00	0.00	0.002	O					0.00
76.500	0.00	0.00	0.002	O					0.00
76.583	0.00	0.00	0.002	O					0.00
76.667	0.00	0.00	0.002	O					0.00
76.750	0.00	0.00	0.002	O					0.00
76.833	0.00	0.00	0.002	O					0.00
76.917	0.00	0.00	0.002	O					0.00
77.000	0.00	0.00	0.002	O					0.00
77.083	0.00	0.00	0.002	O					0.00
77.167	0.00	0.00	0.002	O					0.00
77.250	0.00	0.00	0.002	O					0.00

77.333	0.00	0.00	0.002	O					0.00
77.417	0.00	0.00	0.002	O					0.00
77.500	0.00	0.00	0.002	O					0.00
77.583	0.00	0.00	0.002	O					0.00
77.667	0.00	0.00	0.001	O					0.00
77.750	0.00	0.00	0.001	O					0.00
77.833	0.00	0.00	0.001	O					0.00
77.917	0.00	0.00	0.001	O					0.00
78.000	0.00	0.00	0.001	O					0.00
78.083	0.00	0.00	0.001	O					0.00
78.167	0.00	0.00	0.001	O					0.00
78.250	0.00	0.00	0.001	O					0.00
78.333	0.00	0.00	0.001	O					0.00
78.417	0.00	0.00	0.001	O					0.00
78.500	0.00	0.00	0.001	O					0.00
78.583	0.00	0.00	0.001	O					0.00
78.667	0.00	0.00	0.001	O					0.00
78.750	0.00	0.00	0.001	O					0.00
78.833	0.00	0.00	0.001	O					0.00
78.917	0.00	0.00	0.001	O					0.00
79.000	0.00	0.00	0.001	O					0.00
79.083	0.00	0.00	0.001	O					0.00
79.167	0.00	0.00	0.001	O					0.00
79.250	0.00	0.00	0.001	O					0.00
79.333	0.00	0.00	0.001	O					0.00
79.417	0.00	0.00	0.001	O					0.00
79.500	0.00	0.00	0.001	O					0.00
79.583	0.00	0.00	0.001	O					0.00
79.667	0.00	0.00	0.001	O					0.00
79.750	0.00	0.00	0.001	O					0.00
79.833	0.00	0.00	0.001	O					0.00
79.917	0.00	0.00	0.001	O					0.00
80.000	0.00	0.00	0.001	O					0.00
80.083	0.00	0.00	0.001	O					0.00
80.167	0.00	0.00	0.001	O					0.00
80.250	0.00	0.00	0.001	O					0.00
80.333	0.00	0.00	0.001	O					0.00
80.417	0.00	0.00	0.001	O					0.00
80.500	0.00	0.00	0.001	O					0.00
80.583	0.00	0.00	0.001	O					0.00
80.667	0.00	0.00	0.001	O					0.00
80.750	0.00	0.00	0.001	O					0.00
80.833	0.00	0.00	0.001	O					0.00
80.917	0.00	0.00	0.001	O					0.00
81.000	0.00	0.00	0.001	O					0.00
81.083	0.00	0.00	0.001	O					0.00
81.167	0.00	0.00	0.001	O					0.00
81.250	0.00	0.00	0.001	O					0.00
81.333	0.00	0.00	0.001	O					0.00
81.417	0.00	0.00	0.001	O					0.00

```
81.500    0.00    0.00      0.001  O       |       |       |       |     0.00
81.583    0.00    0.00      0.001  O       |       |       |       |     0.00
81.667    0.00    0.00      0.001  O       |       |       |       |     0.00
81.750    0.00    0.00      0.001  O       |       |       |       |     0.00
81.833    0.00    0.00      0.001  O       |       |       |       |     0.00
81.917    0.00    0.00      0.001  O       |       |       |       |     0.00
82.000    0.00    0.00      0.001  O       |       |       |       |     0.00
82.083    0.00    0.00      0.001  O       |       |       |       |     0.00
82.167    0.00    0.00      0.001  O       |       |       |       |     0.00
82.250    0.00    0.00      0.001  O       |       |       |       |     0.00
82.333    0.00    0.00      0.001  O       |       |       |       |     0.00
82.417    0.00    0.00      0.001  O       |       |       |       |     0.00
82.500    0.00    0.00      0.001  O       |       |       |       |     0.00
82.583    0.00    0.00      0.001  O       |       |       |       |     0.00
82.667    0.00    0.00      0.001  O       |       |       |       |     0.00

       ****************************HYDROGRAPH DATA****************************
                       Number of intervals =   992
                       Time interval =    5.0 (Min.)
                       Maximum/Peak flow rate =       3.302 (CFS)
                       Total volume =       3.446 (Ac.Ft)
               Status of hydrographs being held in storage
                          Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
               Peak (CFS)      0.000     0.000     0.000     0.000     0.000
               Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
       ***********************************************************************

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

Appendix I – Hydraulic Analysis Calculations

Newland Simpson Hemet
Simpson Road
City of Hemet, County of Riverside, CA
Dated: 10/17/23
Last Revised:

LEVEL SPREADER CALCULATIONS

Orifice Flow Design Per Perforation Size

Area per Perforation — A=π*(D/2)2

D - Perforation Diameter:	1	in
A - Pipe Perforation Area:	0.79	in^2

Outflow per Perforation — Qo=Cd*A*(2*g*H)0.5

Pump invert in:	1484.79	ft
Level Spreader Grade Elevation:	1492.92	ft
H - Head*:	2	ft
C_d - Orifice Coefficient (60%):	0.6	
g - Gravity:	32.2	ft/s^2
Q_o - Outflow/Perforation:	0.037	cfs

Outflow per LF — QL = Qo*No./LF

No. of Perforations/LF:	18	holes/LF
Q_L - Outflow/LF:	0.67	cfs/ft

Miniumum Level Spreader length — $L=(Q/Q_L)*F_S$

Q - 100yr 24hr Design Storm:**	62.72	cfs
Fs - factor of safety:	1.1	
L - min level spreader length:	103.20	ft
Proposed Level Spreader Length:	105	ft

**Head from pump station*
***Per CivilD Flood Routing for 100yr 24hr storm outflows from basins A1, B3, C1, C2, & C3*

Appendix J – Geotechnical Investigation Report

GEOTECHNICAL INVESTIGATION
PROPOSED WAREHOUSE DEVELOPMENT

SEC Simpson Road and Fuego Road
Riverside County (Winchester Area), California
for
Newland Capital Group

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL
A California Corporation

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

May 2, 2022

Newland Capital Group
200 Spectrum Center Drive, Suite 300
Irvine, California 92618

Attention: Ms. Rocio Budetta
Managing Director

Project No.: **22G127-1**

Subject: **Geotechnical Investigation**
Proposed Warehouse Development
SEC Simpson Road and Fuego Road
Riverside County (Winchester Area), California

Dear Ms. Budetta:

In accordance with your request, we have conducted a geotechnical investigation at the subject site. We are pleased to present this report summarizing the conclusions and recommendations developed from our investigation.

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

Robert G. Trazo, GE 2655
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER ROBERT TRAZO No. 2655 GEOTECHNICAL STATE OF CALIFORNIA

Daniel W. Nielsen
Senior Engineer

REGISTERED PROFESSIONAL ENGINEER DANIEL W. NIELSEN No. 3166 GEOTECHNICAL STATE OF CALIFORNIA

Distribution: (1) Addressee

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY

Presented below is a brief summary of the conclusions and recommendations of this investigation. Since this summary is not all inclusive, it should be read in complete context with the entire report.

Geotechnical Design Considerations

- The Riverside County GIS website indicates that the subject site is located within a zone of moderate to high liquefaction susceptibility.
- Our site-specific liquefaction evaluation included six (6) borings extended to a depth of 50± feet. Potentially liquefiable soil strata were encountered at Boring No. B-1 between depths of 30 and 32± feet, 37 to 42± feet, and 47 and 50± feet. Potentially liquefiable soil strata were also encountered at Boring No. B-3 between depths of 30 and 47± feet. Potentially liquefiable soil strata were encountered at Boring No. B-9 between depths of 42 and 47± feet. Potentially liquefiable soil strata were also encountered at Boring No. B-13 between depths of 30 and 37± feet.
- The potential total dynamic settlements at these boring locations are estimated to be between 0.53 and 3.00± inches.
- Based on the estimated magnitude of the differential settlements, the proposed structures may be supported on shallow foundations. Additional design considerations related to the potentially liquefiable soils are presented within this report.
- Most of the borings encountered artificial fill materials, extending to depths of 3 to 8± feet below the existing site grades. The fill soils possess varying strengths and densities, and are considered to represent undocumented fill. These soils, in their present condition, are not considered suitable for support of the foundation loads of the new structures.
- These fill soils are underlain by native alluvium which possesses varying strengths and densities. Furthermore, the results of laboratory testing indicate that the near-surface soils within the upper 4 to 5± feet possess a severe potential for consolidation when exposed to load increases in the range of those that will be exerted by the new foundations. It should be noted that Boring Nos. B-1, B-4, B-5, B-7, B-12, B-17 and B-18 encountered loose native soils, extending to a depth of up to 10± feet.
- Based on the results of corrosivity testing, the on-site soils are considered to be corrosive to ductile iron pipe and to copper pipe.

Site Preparation

- Initial site preparation should include stripping of any surficial vegetation and surficial topsoil associated with the farming activities. The surficial vegetation, and any organic soils should be properly disposed of off-site.
- Remedial grading is recommended to be performed within the proposed building areas in order to remove all of the undocumented fill soils in their entirety, the upper portion of the near-surface native alluvial soils, and any soils disturbed during the demolition process. The proposed building area should be overexcavated to a depth of at least 4 feet below existing grade and to a depth of 3 feet below proposed building pad subgrade elevation, whichever is greater. Within the foundation influence zones, the overexcavation should extend to a depth

of at least 3 feet below proposed foundation bearing grade. The overexcavation should extend horizontally at least 5 feet beyond the building and foundation perimeters.

- After overexcavation has been completed, the resulting subgrade soils should be evaluated by the geotechnical engineer to identify any additional soils that should be overexcavated. The resulting soils should be scarified and moisture conditioned to achieve a moisture content of 0 to 4 percent above optimum moisture, to a depth of at least 12 inches. The overexcavation subgrade soils should then be recompacted under the observation of the geotechnical engineer. The previously excavated soils may then be replaced as compacted structural fill.
- The new pavement and flatwork subgrade soils are recommended to be scarified to a depth of 12± inches, moisture conditioned and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Building Foundations

- Conventional shallow foundations, supported in newly placed compacted fill.
- 2,500 lbs/ft^2 maximum allowable soil bearing pressure.
- Reinforcement consisting of at least six (6) No. 5 rebars (3 top and 3 bottom) in strip footings, due to the presence of potentially liquefiable soils.
- Additional reinforcement may be necessary for structural considerations.

Building Floor Slabs

- Conventional Slab-on-Grade, 6 inches thick.
- Modulus of Subgrade Reaction: k = 150 psi/in.
- Minimum slab reinforcement: Reinforcement of the floor slab should consist of No. 3 bars at 16-inches on center in both directions due to the presence of potentially liquefiable soils.
- The actual floor slab reinforcement should be determined by the structural engineer, based upon the imposed loading.

Pavements

ASPHALT PAVEMENTS (R = 40)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	4	6	7	8	10
Compacted Subgrade	12	12	12	12	12

PORTLAND CEMENT CONCRETE PAVEMENTS (R = 40)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 6.0)	Truck Traffic		
		TI =7.0	TI = 8.0	TI = 9.0
PCC	5	5½	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

2.0 SCOPE OF SERVICES

The scope of services performed for this project was in accordance with our Proposal No. 22P137, dated January 28, 2022. The scope of services included a visual site reconnaissance, subsurface exploration, field and laboratory testing, and geotechnical engineering analysis to provide criteria for preparing the design of the building foundations, building floor slabs, and parking lot pavements along with site preparation recommendations and construction considerations for the proposed development. Based on the location of this site, the geotechnical investigation also included a site-specific liquefaction evaluation. The evaluation of the environmental aspects of this site was beyond the scope of services for this geotechnical investigation.

3.0 SITE AND PROJECT DESCRIPTION

3.1 Site Conditions

The subject site is located on the southwest and southeast corner of Warren Road and Simpson Road in the unincorporated Winchester area of Riverside County, California. The site is bounded to the north by Simpson Road, to the west by El Fuego Road and to the southeast by Olive Avenue. The general location of the site is illustrated on the Site Location Map, included as Plate 1 of this report.

The site consists of several irregular-shaped parcels, which total 63.60± acres in size. The site is presently being utilized for agricultural purposes. The majority of the site is planted with row crops consisting of green onions and bok choy. Several un-paved access roads are located throughout the site. Farming equipment, mobile trailers and cars are present in the northeast area of the site. Warren Road transects the northeastern portion of the site, separating approximately 8.81 acres from the rest of the site.

Detailed topographic information was not available at the time of this report. Based on elevations obtained from Google Earth and visual observations made at the time of the subsurface investigation, the overall site slopes downward to the south at a gradient of 0.6± percent. The maximum site elevation differential is approximately 9 feet.

3.2 Proposed Development

Based on the site plan, Scheme 02a, prepared by Ware Malcomb, the site will be developed with two warehouses identified as Building 1 and Building 2. Building 1 will be located in the western area of the site and will have a footprint of 1,020,8800± ft². Building 2 will be located in the eastern area of the site and will have a footprint of 269,360± ft². Building 1 will be constructed with dock-high doors along the east and west building walls. Building 2 will be constructed with dock-high doors along the east building wall. The buildings will be surrounded by asphaltic concrete pavements in the parking and drive lanes, Portland cement concrete pavements in the loading dock areas, and concrete flatwork with limited areas of landscape planters throughout.

Detailed structural information has not been provided. It is assumed the buildings will be of tilt-up concrete construction, typically supported on conventional shallow foundations with concrete slab-on-grade floors. Based on the assumed construction, maximum column and wall loads are expected to be on the order of 100 kips and 4 to 7 kips per linear foot, respectively.

No significant amounts of below grade construction, such as crawl spaces or new basements, are expected to be included in the proposed development. Based on the assumed topography, cuts and fills of up to 4 to 5± feet are expected to be necessary to achieve the proposed site grades.

4.0 SUBSURFACE EXPLORATION

4.1 Scope of Exploration/Sampling Methods

The subsurface exploration for this project consisted of eighteen (18) borings (identified as Boring Nos. B-1 through B-18) advanced to depths of 10 to 50± feet below the existing site grades. Six (6) of the borings were advanced to a depth of 50± feet as a part of the liquefaction analysis. All of the borings were logged during drilling by a member of our staff.

Boring Nos. B-3, B-6, B-9, B-11, B-12, B-13 and B-18 were advanced with hollow-stem augers, by a conventional truck-mounted drilling rig. The remaining borings were advanced with hollow-stem augers, by a limited-access, track-mounted drilling rig. Representative bulk and relatively undisturbed soil samples were taken during drilling. Relatively undisturbed soil samples were taken with a split barrel "California Sampler" containing a series of one inch long, 2.416± inch diameter brass rings. This sampling method is described in ASTM Test Method D-3550. Samples were also taken using a 1.4± inch inside diameter split spoon sampler, in general accordance with ASTM D-1586. Both of these samplers are driven into the ground with successive blows of a 140-pound weight falling 30 inches. The blow counts obtained during driving are recorded for further analysis. Bulk samples were collected in plastic bags to retain their original moisture content. The relatively undisturbed ring samples were placed in molded plastic sleeves that were then sealed and transported to our laboratory.

The approximate locations of the borings are indicated on the Boring Location Plan, included as Plate 2 in Appendix A of this report. The Boring Logs, which illustrate the conditions encountered at the boring locations, as well as the results of some of the laboratory testing, are included in Appendix B.

4.2 Geotechnical Conditions

Artificial Fill

Artificial fill soils were encountered at the ground surface at all of the borings, extending to depths of 3 to 8± feet below the existing site grades. The fill soils generally consist of very loose to medium dense silty sands and sandy silts as well as stiff to very stiff silty clays. The fill soils possess a disturbed and mottled appearance, resulting in their classification as artificial fill.

Alluvium

Native alluvial soils were encountered beneath the fill soils at all of the boring locations, extending to at least the maximum depth explored of 50± feet below the existing site grades. The alluvial soils generally consist of loose to medium dense silty sands, sandy silts, sands with varying amounts of silt with varying clay content. Boring No. B-13 encountered a stratum of very stiff clayey silts at a depth of 32 to 37± feet.

<u>Groundwater</u>

Free water was encountered during drilling at Boring Nos. B-1, B-3, B-6, B-8, B-9, and B-13 at depths ranging from 34 to 41± feet below the ground surface, respectively. Based on these observations, the static groundwater table is considered to have been present at a depth of 34 to 41± feet below the existing site grades at the time of the subsurface exploration.

As part of our research, we reviewed available groundwater data in order to determine the historic high groundwater level for the site. The primary reference used to determine the groundwater depths in this area is the California Department of Water Resources website, http://www.water.ca.gov/waterdatalibrary/. The nearest monitoring well is located near the central portion of the site. Water level readings within this monitoring well indicate a high groundwater level of 31± feet below the ground surface in March 2012.

5.0 LABORATORY TESTING

The soil samples recovered from the subsurface exploration were returned to our laboratory for further testing to determine selected physical and engineering properties of the soils. The tests are briefly discussed below. It should be noted that the test results are specific to the actual samples tested, and variations could be expected at other locations and depths.

Classification

All recovered soil samples were classified using the Unified Soil Classification System (USCS), in accordance with ASTM D-2488. The field identifications were then supplemented with additional visual classifications and/or by laboratory testing. The USCS classifications are shown on the Boring Logs and are periodically referenced throughout this report.

Dry Density and Moisture Content

The density has been determined for selected relatively undisturbed ring samples. These densities were determined in general accordance with the method presented in ASTM D-2937. The results are recorded as dry unit weight in pounds per cubic foot. The moisture contents are determined in accordance with ASTM D-2216, and are expressed as a percentage of the dry weight. These test results are presented on the Boring Logs.

Consolidation

Selected soil samples have been tested to determine their consolidation potential, in accordance with ASTM D-2435. The testing apparatus is designed to accept either natural or remolded samples in a one-inch high ring, approximately 2.416 inches in diameter. Each sample is then loaded incrementally in a geometric progression and the resulting deflection is recorded at selected time intervals. Porous stones are in contact with the top and bottom of the sample to permit the addition or release of pore water. The samples are typically inundated with water at an intermediate load to determine their potential for collapse or heave. The results of the consolidation testing are plotted on Plates C-1 through C-8 in Appendix C of this report.

Maximum Dry Density and Optimum Moisture Content

Three (3) representative bulk samples have been tested for their maximum dry density and optimum moisture content. The results have been obtained using the Modified Proctor procedure, per ASTM D-1557 and are presented on Plates C-9 through C-11 in Appendix C of this report. This test is generally used to compare the in-situ densities of undisturbed field samples, and for later compaction testing. Additional testing of other soil types or soil mixes may be necessary at a later date.

Soluble Sulfates

Representative samples of the near-surface soil were submitted to a subcontracted analytical laboratory for determination of soluble sulfate content. Soluble sulfates are naturally present in soils, and if the concentration is high enough, can result in degradation of concrete which comes into contact with these soils. The results of the soluble sulfate testing are presented below, and are discussed further in a subsequent section of this report.

Sample Identification	Soluble Sulfates (%)	Sulfate Classification
B-4 @ 0 to 5 feet	0.0238	Not Applicable (S0)
B-8 @ 0 to 5 feet	0.0189	Not Applicable (S0)
B-9 @ 0 to 5 feet	0.0178	Not Applicable (S0)

Corrosivity Testing

Representative samples of the near-surface soils were submitted to a subcontracted corrosion engineering laboratory to identify potentially corrosive characteristics with respect to common construction materials. The corrosivity testing included a determination of the electrical resistivity, pH, and chloride and nitrate concentrations of the soils, as well as other tests. The results of some of these tests are presented below.

Sample Identification	Saturated Resistivity (ohm-cm)	pH	Chlorides (mg/kg)	Nitrates (mg/kg)
B-4 @ 0 to 5 feet	1,072	7.8	197.7	200.3
B-8 @ 0 to 5 feet	1,072	8.1	56.7	69.8
B-9 @ 0 to 5 feet	2,814	8.7	67.1	67.9

Grain Size Analysis

Limited grain size analyses have been performed on several selected samples, in accordance with ASTM D-1140. These samples were washed over a #200 sieve to determine the percentage of fine-grained material in each sample, which is defined as the material which passes the #200 sieve. The weight of the portion of the sample retained on each screen is recorded and the percentage finer or coarser of the total weight is calculated. The results of these laboratory tests are shown on the enclosed boring logs.

Atterberg Limits

Atterberg Limits testing (ASTM D-4318) was performed on selected samples of various soil strata encountered at the site. This test is used to determine the Liquid Limit and Plastic Limit of the soil. The Plasticity Index (PI) is the difference between the two limits. Plasticity Index is a general indicator of the expansive potential of the soil, with higher numbers indicating higher expansive potential. Soils with a PI greater than 25 are considered to have a high plasticity, and a high expansion potential. Soils with a PI greater than 18 are not considered to be susceptible to liquefaction. Soils with a PI between 12 and 18 may possess a moderate susceptibility to liquefaction. The results of the Atterberg Limits testing are presented on the Boring Logs.

Organic Content Testing

Selected soil samples have been tested to determine their organic content, in accordance with ASTM Test Method 2974. The results of the testing are as follows:

Sample Identification	**Organic Content (%)**
B-4 @ 1 to 1½ feet	3.1
B-4 @ 3 to 3½ feet	1.1
B-10 @ 1 to 1½ feet	15.3
B-10 @ 3 to 3½ feet	1.4
B-12 @ 1 to 1½ feet	13.8
B-12 @ 3 to 3½ feet	3.8
B-12 @ 5 to 5½ feet	0.6
B-12 @ 7 to 7½ feet	10.1

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our review, field exploration, laboratory testing and geotechnical analysis, the proposed development is considered feasible from a geotechnical standpoint. The recommendations contained in this report should be taken into the design, construction, and grading considerations.

The recommendations are contingent upon all grading and foundation construction activities being monitored by the geotechnical engineer of record. The recommendations are provided with the assumption that an adequate program of client consultation, construction monitoring, and testing will be performed during the final design and construction phases to verify compliance with these recommendations. Maintaining Southern California Geotechnical, Inc., (SCG) as the geotechnical consultant from the beginning to the end of the project will provide continuity of services. The geotechnical engineering firm providing testing and observation services shall assume the responsibility of Geotechnical Engineer of Record.

The Grading Guide Specifications, included as Appendix D, should be considered part of this report, and should be incorporated into the project specifications. The contractor and/or owner of the development should bring to the attention of the geotechnical engineer any conditions that differ from those stated in this report, or which may be detrimental for the development.

6.1 Seismic Design Considerations

The subject site is located in an area which is subject to strong ground motions due to earthquakes. The performance of a site-specific seismic hazards analysis was beyond the scope of this investigation. However, numerous faults capable of producing significant ground motions are located near the subject site. Due to economic considerations, it is not generally considered reasonable to design a structure that is not susceptible to earthquake damage. Therefore, significant damage to structures may be unavoidable during large earthquakes. The proposed structure should, however, be designed to resist structural collapse and thereby provide reasonable protection from serious injury, catastrophic property damage and loss of life.

Faulting and Seismicity

Research of available maps indicates that the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. In addition, our review of the Riverside County RCIT GIS website indicates that the site is not located within a Riverside County fault zone. Furthermore, SCG did not identify any evidence of faulting during the geotechnical investigation. Therefore, the possibility of significant fault rupture on the site is considered to be low Therefore, the possibility of significant fault rupture on the site is considered to be low.

The potential for other geologic hazards such as seismically induced settlement, lateral spreading, tsunamis, inundation, seiches, flooding, and subsidence affecting the site is considered low.

Seismic Design Parameters

The 2019 California Building Code (CBC) provides procedures for earthquake resistant structural design that include considerations for on-site soil conditions, occupancy, and the configuration of the structure including the structural system and height. The seismic design parameters presented below are based on the soil profile and the proximity of known faults with respect to the subject site.

Based on standards in place at the time of this report, the proposed development is expected to be designed in accordance with the requirements of the 2019 edition of the California Building Code (CBC), which was adopted on January 1, 2020.

The 2019 CBC Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool, a web-based software application available at the website www.seismicmaps.org. This software application calculates seismic design parameters in accordance with several building code reference documents, including ASCE 7-16, upon which the 2019 CBC is based. The application utilizes a database of risk-targeted maximum considered earthquake (MCE_R) site accelerations at 0.01-degree intervals for each of the code documents. The table below was created using data obtained from the application. The output generated from this program is included as Plate E-1 in Appendix E of this report.

The 2019 CBC requires that a site-specific ground motion study be performed in accordance with Section 11.4.8 of ASCE 7-16 for Site Class D sites with a mapped S_1 value greater than 0.2. However, Section 11.4.8 of ASCE 7-16 also indicates an exception to the requirement for a site-specific ground motion hazard analysis for certain structures on Site Class D sites. The commentary for Section 11 of ASCE 7-16 (Page 534 of Section C11 of ASCE 7-16) indicates that "In general, this exception effectively limits the requirements for site-specific hazard analysis to very tall and or flexible structures at Site Class D sites." **Based on our understanding of the proposed development, the seismic design parameters presented below were calculated assuming that the exception in Section 11.4.8 applies to the proposed structures at this site. However, the structural engineer should verify that this exception is applicable to the proposed structure.** Based on the exception, the spectral response accelerations presented below were calculated using the site coefficients (F_a and F_v) from Tables 1613.2.3(1) and 1613.2.3(2) presented in Section 16.4.4 of the 2019 CBC.

2019 CBC SEISMIC DESIGN PARAMETERS

Parameter		Value
Mapped Spectral Acceleration at 0.2 sec Period	S_S	1.500
Mapped Spectral Acceleration at 1.0 sec Period	S_1	0.600
Site Class	---	D*
Site Modified Spectral Acceleration at 0.2 sec Period	S_{MS}	1.500
Site Modified Spectral Acceleration at 1.0 sec Period	S_{M1}	1.020
Design Spectral Acceleration at 0.2 sec Period	S_{DS}	1.000
Design Spectral Acceleration at 1.0 sec Period	S_{D1}	0.680

*The 2019 CBC requires that Site Class F be assigned to any profile containing soils vulnerable to potential failure or collapse under seismic loading, such as liquefiable soils. For Site Class F, the site *coefficients* are to be determined in accordance with Section 11.4.7 of ASCE 7-16. However, Section 20.3.1 of ASCE 7-16 indicates that for sites with structures having a fundamental period of vibration equal to or less than 0.5 seconds, the site coefficient factors (F_a and F_v) may be determined using the standard procedures. The seismic design parameters tabulated above were calculated using the site coefficient factors for Site Class D, assuming that the fundamental period of the structures is less than 0.5 seconds. However, the results of the liquefaction evaluation indicate that the subject site is underlain by potentially liquefiable soils. Therefore, if the proposed structures have a fundamental period greater than 0.5 seconds, a site-specific seismic hazards analysis will be required and additional subsurface exploration will be necessary.

It should be noted that the site coefficient F_v and the parameters S_{M1} and S_{D1} were not included in the SEAOC/OSHPD Seismic Design Maps Tool output for the 2019 CBC. We calculated these parameters-based on Table 1613.2.3(2) in Section 16.4.4 of the 2019 CBC using the value of S_1 obtained from the Seismic Design Maps Tool, assuming that a site-specific ground motion hazards analysis is not required for the proposed building at this site.

Ground Motion Parameters

For the purposes of the liquefaction analysis performed for this study, we utilized a site acceleration consistent with maximum considered earthquake ground motions, as required by the 2019 CBC. The peak ground acceleration (PGA) was determined in accordance with Section 11.8.3 of ASCE 7-16. The parameter PGA_M is the maximum considered earthquake geometric mean (MCE_G) PGA, multiplied by the appropriate site coefficient from Table 11.8-1 of ASCE 7-16. The web-based software application SEAOC/OSHPD Seismic Design Maps Tool (described in the previous section) was used to determine PGA_M, which is 0.571g. A portion of the program output is included as Plate E-1 of this report. An associated earthquake magnitude was obtained from the USGS Unified Hazard Tool, Interactive Deaggregation application available on the USGS website. The deaggregated mean magnitude is 7.06, based on the peak ground acceleration and soil classification D.

Liquefaction

The Riverside County GIS website indicates that the subject site is located within a zone of moderate to high liquefaction susceptibility. Based on this mapping, the scope of this investigation included additional subsurface exploration, laboratory testing, and engineering analysis in order to determine the site-specific liquefaction potential.

Liquefaction is the loss of strength in generally cohesionless, saturated soils when the pore-water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. The primary factors which influence the potential for liquefaction include groundwater table elevation, soil type and plasticity characteristics, relative density of the soil, initial confining pressure, and intensity and duration of ground shaking. The depth within which the occurrence of liquefaction may impact surface improvements is generally identified as the upper 50 feet below the existing ground surface. Liquefaction potential is greater in saturated, loose, poorly graded fine sands with a mean (d_{50}) grain size in the range of 0.075 to 0.2 mm (Seed and Idriss, 1971). Non-sensitive clayey (cohesive) soils which possess a plasticity index of at least 18 (Bray and Sancio, 2006) are generally not considered to be susceptible to liquefaction, nor are those soils which are above the historic static groundwater table.

The liquefaction analysis was conducted in accordance with the requirements of Special Publication 117A (CDMG, 2008), and currently accepted practice (SCEC, 1997). The liquefaction potential of the subject site was evaluated using the empirical method developed by Boulanger and Idriss (Boulanger and Idriss, 2008, 2014). This method predicts the earthquake-induced liquefaction potential of the site based on a given design earthquake magnitude and peak ground acceleration at the subject site. This procedure essentially compares the cyclic resistance ratio (CRR) [the cyclic stress ratio required to induce liquefaction for a cohesionless soil stratum at a given depth] with the earthquake-induced cyclic stress ratio (CSR) at that depth from a specified design earthquake (defined by a peak ground surface acceleration and an associated earthquake moment magnitude). CRR is determined as a function of the corrected SPT N-value $(N_1)_{60\text{-}cs}$, adjusted for fines content. The factor of safety against liquefaction is defined as CRR/CSR. Based on Special Publication 117A, a factor of safety of at least 1.3 is required in order to demonstrate that a given soil stratum is non-liquefiable. Additionally, in accordance with Special Publication 117A, clayey soils which do not meet the criteria for liquefiable soils defined by Bray and Sancio (2006), loose soils with a plasticity index (PI) less than 12 and moisture content greater than 85% of the liquid limit, are considered to be insusceptible to liquefaction. Non-sensitive soils with a PI greater than 18 are also considered non-liquefiable.

As part of the liquefaction evaluation, Boring Nos. B-1, B-3, B-6, B-8, B-9 and B-13 were extended to a depth of 50± feet. The liquefaction analysis procedure is tabulated on the spreadsheet forms included in Appendix F of this report, using the data obtained from these borings. The liquefaction potential of the site was analyzed utilizing a PGA_M of 0.571g for a magnitude 7.06 seismic event. The liquefaction evaluation was performed using the reported historic high groundwater depth of 30 feet.

If liquefiable soils are identified, the potential settlements that could occur as a result of liquefaction are determined using the equation for volumetric strain due to post-cyclic reconsolidation (Yoshimine et. al, 2006). This procedure uses an empirical relationship between the induced cyclic shear strain and the corrected N-value to determine the expected volumetric strain of saturated sands subjected to earthquake shaking. This analysis is also documented on the spreadsheets included in Appendix F.

Conclusions and Recommendations

Potentially liquefiable soils were encountered at most of the 50±-foot deep boring locations. Potentially liquefiable soil strata were encountered at Boring No. B-1 between depths of 30 and 32± feet, 37 to 42± feet, and 47 and 50± feet. Potentially liquefiable soil strata were also encountered at Boring No. B-3 between depths of 30 and 47± feet. Potentially liquefiable soil strata were also encountered at Boring No. B-9 between depths of 42 and 47± feet. Potentially liquefiable soil strata were also encountered at Boring No. B-13 between depths of 30 and 37± feet. The remaining soil strata encountered below the historic high groundwater table either possess factors of safety in excess of 1.3 or are considered non-liquefiable due to their cohesive characteristics and the results of the Atterberg limits testing with respect to the requirements of Special Publication 117A. Settlement analyses were performed for the potentially liquefiable strata. The results of the settlement analyses indicate the following total deformations:

- Boring No. B-1: 1.58 inches
- Boring No. B-3: 3.00 inches
- Boring No. B-6: 0.00 inches
- Boring No. B-8: 0.00 inches
- Boring No. B-9: 0.53 inches
- Boring No. B-13: 0.73 inches

Based on the results of the settlement analyses, differential settlements are expected to be on the order of 2± inches or less. The estimated differential settlement can be assumed to occur across a distance of 100 feet, indicating a maximum angular distortion of less than 0.002 inches per inch.

Based on our understanding of the proposed development, it is considered feasible to support the proposed structures on shallow foundations. Such a foundation system can be designed to resist the effects of the anticipated differential settlements, to the extent that the structures would not catastrophically fail. Designing the proposed structures to remain completely undamaged during a major seismic event is not considered to be economically feasible. Based on this understanding, the use of shallow foundation systems is considered to be the most economical means of supporting the proposed structures.

In order to support the proposed structures on shallow foundations (such as spread footings) the structural engineer should verify that the structures would not catastrophically fail due to the predicted dynamic differential settlements. Any utility connections to the structures should be designed to withstand the estimated differential settlements. It should also be noted that minor to moderate repairs, including re-leveling, restoration of utility connections, repair of damaged drywall and stucco, etc., would likely be required after occurrence of the liquefaction-induced settlements.

The use of a shallow foundation system, as described in this report, is typical for buildings of these types, where they are underlain by the extent of liquefiable soils encountered at this site. The post-liquefaction damage that could occur within the buildings proposed for this site will also be typical of similar buildings in the vicinity of this project. However, if the owner determines that this level of potential damage is not acceptable, other geotechnical and structural options are available, including the use of ground improvement techniques or mat foundations.

6.2 Geotechnical Design Considerations

General

Most of the borings encountered artificial fill materials, extending to depths of 3 to 8± feet below the existing site grades. Based on a lack of documentation regarding the placement and compaction of the existing fill materials, these soils are considered to consist of undocumented fill, and are not suitable for the support of the foundation loads of the proposed buildings. These fill soils are underlain by native alluvium which possesses varying strengths and densities. Furthermore, the results of laboratory testing indicate that the near-surface soils within the upper 4 to 5± feet possess a minor to moderate potential for consolidation when exposed to load increases in the range of those that will be exerted by the new foundations. It should be noted that Boring Nos. B-1, B-4, B-5, B-7, B-12, B-17 and B-18 encountered loose native soils, extending to a depth of up to 10± feet. Based on these conditions, remedial grading will be necessary within the proposed building areas to provide a subgrade suitable for support of the new foundations and floor slabs of the proposed buildings. The remedial grading will also serve to create more uniform support characteristics across the proposed building pad areas.

As discussed in the previous section of this report, potentially liquefiable soils were identified at this site. The presence of the recommended layer of newly placed compacted structural fill above these liquefiable soils will help to reduce any surface manifestations that could occur as a result of liquefaction. The foundation design recommendations presented in the subsequent sections of this report also contain recommendations to provide additional rigidity in order to reduce the potential effects of differential settlement that could occur as a result of liquefaction.

Settlement

The recommended remedial grading will remove the existing undocumented fill soils and a portion of the near-surface native alluvial soils and replace these materials as compacted structural fill. The native soils that will remain in place below the recommended depth of overexcavation will not be subject to significant stress increases from the foundations of the new structures. Therefore, following completion of the recommended grading, post-construction settlements are expected to be within tolerable limits.

Expansion

The near surface soils at this site generally consist of silty sands, sands and sandy silts. These materials have been visually classified as non-expansive. Therefore, no design considerations related to expansive soils are considered warranted for this site.

Organic Content

Laboratory testing indicates that the tested samples of near-surface soils possess organic contents ranging from 0.6 to 15.3 percent by weight. Based on the results of the organic content testing, the near-surface soils are considered to possess low to moderate organic contents. Soils possessing the highest organic contents were encountered within the upper 1½ feet at some of the borings and at 7 to 7½± feet at Boring No. B-12. Soils possessing low to moderate organic content (less than approximately 5 percent organics), with no appreciable organic fibers, may be blended with the underlying relatively non-organic soils, such that the final mixture contains less than 3 percent organics, by dry weight. However, any remaining soils containing appreciable organic fibers that cannot practically be segregated or any other organic materials, including topsoils, if present) or any vegetation that may develop before construction be removed from the site in its entirety or disposed of in nonstructural areas, such as landscape planters. We would highly recommend that all soils possessing appreciable organic fibers or soils containing greater than 5 percent organics be stripped and removed from the site. Any additional organic materials encountered during site grading should also be segregated and removed from the site during grading.

Soluble Sulfates

The results of the soluble sulfate testing indicate that the tested soil samples possess levels of soluble sulfates that are considered to be "not applicable" (S0) with respect to the American Concrete Institute (ACI) Publication 318-14 Building Code Requirements for Structural Concrete and Commentary, Section 4.3. Therefore, specialized concrete mix designs are not considered to be necessary, with regard to sulfate protection purposes. It is, however, recommended that additional soluble sulfate testing be conducted at the completion of rough grading to verify the soluble sulfate concentrations of the soils which are present at pad grade within the building area.

Corrosion Potential

The results of laboratory testing indicate that the tested sample of the on-site soils possesses a saturated resistivity values ranging from 1,072 to 2,814 ohm-cm, and pH values ranging from 7.8 to 8.7. These test results have been evaluated in accordance with guidelines published by the Ductile Iron Pipe Research Association (DIPRA). The DIPRA guidelines consist of a point system by which characteristics of the soils are used to quantify the corrosivity characteristics of the site. Resistivity and pH are two of the five factors that enter into the evaluation procedure. Redox potential, relative soil moisture content and sulfides are also included. Although sulfide testing was not part of the scope of services for this project, we have evaluated the corrosivity characteristics of the on-site soils using resistivity, pH and moisture content. **Based on these factors, and utilizing the DIPRA procedure, the on-site soils are considered to be moderately to severely corrosive to ductile iron pipe. Therefore, polyethylene protection is expected to be required for cast iron or ductile iron pipes.** It should be noted that SCG does not practice in the field of corrosion engineering. **Therefore, the client may also wish to contact a corrosion engineer to provide a more thorough evaluation.**

Based on American Concrete Institute (ACI) Publication 318 Building Code Requirements for Structural Concrete and Commentary, reinforced concrete that is exposed to external sources of chlorides requires corrosion protection for the steel reinforcement contained within the concrete.

ACI 318 defines concrete exposed to moisture and an external source of chlorides as "severe" or exposure category C2. ACI 318 does not clearly define a specific chloride concentration at which contact with the adjacent soil will constitute a "C2" or severe exposure. However, the Caltrans Memo to Designers 10-5, Protection of Reinforcement Against Corrosion Due to Chlorides, Acids and Sulfates, dated June 2010, indicates that soils possessing chloride concentrations greater than 500 mg/kg are considered to be corrosive to reinforced concrete. The results of the laboratory testing indicate chloride concentrations ranging from 56.7 to 197.7 mg/kg. Although the soils contain some chlorides, we do not expect that the chloride concentrations of the tested soils are high enough to constitute a "severe" or C2 chloride exposure. Therefore, a chloride exposure category of C1 is considered appropriate for this site.

Nitrates

Nitrates present in soil can be corrosive to copper tubing at concentrations greater than 50 mg/kg. The tested sample possesses nitrate concentrations ranging from 67.9 to 200.3 mg/kg. **Based on this test result, the on-site soils are considered to be corrosive to copper pipe. Since SCG does not practice in the area of corrosion engineering, we recommend that the client contact a corrosion engineer to provide recommendations for the protection of copper tubing/pipe in contact with the on-site soils.**

Shrinkage/Subsidence

Removal and recompaction of the existing fill soils and near-surface alluvium is estimated to result in an average shrinkage of 3 to 13 percent. However, potential shrinkage for individual samples ranged locally between 1 and 16 percent. The potential shrinkage estimate is based on dry density testing performed on small-diameter samples taken at the boring locations. If a more accurate and precise shrinkage estimate is desired, SCG can perform a shrinkage study involving several excavated test-pits where in-place densities are determined using in-situ testing methods instead of laboratory density testing on small-diameter samples. Please contact SCG for details and a cost estimate regarding a shrinkage study, if desired.

Minor ground subsidence is expected to occur in the soils below the zone of removal, due to settlement and machinery working. The subsidence is estimated to be 0.1 feet.

These estimates are based on previous experience and the subsurface conditions encountered at the boring locations. The actual amount of subsidence is expected to be variable and will be dependent on the type of machinery used, repetitions of use, and dynamic effects, all of which are difficult to assess precisely.

Grading and Foundation Plan Review

Grading and foundation plans were not available at the time of this report. It is therefore recommended that we be provided with copies of the preliminary grading and foundation plans, when they become available, for review with regard to the conclusions, recommendations, and assumptions contained within this report.

6.3 Site Grading Recommendations

The grading recommendations presented below are based on the subsurface conditions encountered at the boring locations, and our understanding of the proposed development. We recommend that all grading activities be completed in accordance with the Grading Guide Specifications included as Appendix D of this report, unless superseded by site-specific recommendations presented below.

Site Stripping and Demolition

Demolition of the existing utilities and any associated improvements will be necessary to facilitate the construction of the proposed development. Debris resultant from demolition should be disposed of off-site. All applicable federal, state and local specifications and regulations should be followed in demolition, abandonment, and disposal of the existing utilities and resulting debris.

Initial site stripping should include removal of the surficial vegetation from the site. Stripping should include existing crops. These materials should be properly disposed of off-site. The actual extent of site stripping should be determined in the field by the geotechnical engineer, based on the organic content and stability of the materials encountered.

Treatment of Existing Soils: Building Pads

Remedial grading should be performed within the proposed building areas in order to remove the existing undocumented fill soils, any soils disturbed during demolition, and the upper portion of the near-surface native alluvium. Based on conditions encountered at the boring locations, the existing soils within the proposed building areas are recommended to be overexcavated to a depth of at least 4 feet below existing grades and to a depth of at least 3 feet below proposed building pad subgrade elevation, whichever is greater. Within the influence zones of the new foundations, the overexcavation should extend to a depth of at least 3 feet below proposed foundation bearing grade.

The overexcavation areas should extend at least 5 feet beyond the building and foundation perimeters, and to an extent equal to the depth of fill placed below the foundation bearing grade, whichever is greater. If the proposed structure incorporates any exterior columns (such as for a canopy or overhang) the area of overexcavation should also encompass these areas.

Following completion of the overexcavation, the subgrade soils within the overexcavation areas should be evaluated by the geotechnical engineer to verify their suitability to serve as the structural fill subgrade, as well as to support the foundation loads of the new structure. This evaluation should include proofrolling and probing to identify any soft, loose, or otherwise unstable soils that must be removed. **Some localized areas of deeper excavation may be required if any artificial fill or loose, porous, or low-density native soils are encountered at the base of the overexcavation.** It should be noted that Boring Nos. B-1, B-4, B-5, B-7, B-12, B-17, and B-18 encountered loose native soils, extending to a depth of up to 10± feet.

After a suitable overexcavation subgrade has been achieved, the exposed soils should be scarified to a depth of at least 12 inches and moisture conditioned or air dried to achieve a moisture content of 0 to 4 percent above optimum moisture content. The subgrade soils should then be recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

The building pad areas may then be raised to grade with previously excavated soils or imported, very low expansive structural fill. All structural fill soils present within the proposed building areas should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Treatment of Existing Soils: Retaining Walls and Site Walls

The existing soils within the areas of any proposed retaining walls and site walls should be overexcavated to a depth of 3 feet below foundation bearing grade and replaced as compacted structural fill as discussed above for the proposed building pads. Any undocumented fill soils or disturbed native alluvium within any of these foundation areas should be removed in their entirety. The overexcavation areas should extend at least 3 feet beyond the foundation perimeters, and to an extent equal to the depth of fill below the new foundations. Any erection pads for tilt-up concrete walls are considered to be part of the foundation system. Therefore, these overexcavation recommendations are applicable to erection pads. The overexcavation subgrade soils should be evaluated by the geotechnical engineer prior to scarifying, moisture conditioning to within 0 to 4 percent above the optimum moisture content, and recompacting the upper 12 inches of exposed subgrade soils. The previously excavated soils may then be replaced as compacted structural fill.

If the full lateral recommended remedial grading cannot be completed for the proposed retaining walls and site walls located along property lines, the foundations for those walls should be designed using a reduced allowable bearing pressure. Furthermore, the contractor should take necessary precautions to protect the adjacent improvements during rough grading. Specialized grading techniques, such as A-B-C slot cuts, will likely be required during remedial grading. The geotechnical engineer of record should be contacted if additional recommendations, such as shoring design recommendations, are required during grading.

Treatment of Existing Soils: Flatwork, Parking and Drive Areas

Based on economic considerations, overexcavation of the existing near-surface existing soils in the new flatwork, parking and drive areas is not considered warranted, with the exception of areas where lower strength or unstable soils are identified by the geotechnical engineer during grading. Subgrade preparation in the new flatwork, parking and drive areas should initially consist of removal of all soils disturbed during stripping and demolition operations.

The geotechnical engineer should then evaluate the subgrade to identify any areas of additional unsuitable soils. Any such materials should be removed to a level of firm and unyielding soil. The exposed subgrade soils should then be scarified to a depth of 12± inches, moisture conditioned to 0 to 4 percent above the optimum moisture content, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. Based on the presence of variable strength surficial soils throughout the site, it is expected that some isolated areas of additional overexcavation may be required to remove zones of lower strength, unsuitable soils.

The grading recommendations presented above for the proposed flatwork, parking and drive areas assume that the owner and/or developer can tolerate minor amounts of settlement within these areas. The grading recommendations presented above do not mitigate the extent of undocumented fill or compressible/collapsible native alluvium in the flatwork, parking and drive areas. As such, some settlement and associated pavement distress could occur. Typically, repair of such distressed areas involves significantly lower costs than completely mitigating these soils at the time of construction. If the owner cannot tolerate the risk of such settlements, the flatwork.

Fill Placement

- Fill soils should be placed in thin (6± inches), near-horizontal lifts, moisture conditioned to 0 to 4 percent above the optimum moisture content, and compacted.
- On-site soils may be used for fill provided they are cleaned of any debris to the satisfaction of the geotechnical engineer.
- All grading and fill placement activities should be completed in accordance with the requirements of the 2019 CBC and the grading code of the County of Riverside.
- All fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density.
- Compaction tests should be performed periodically by the geotechnical engineer as random verification of compaction and moisture content. These tests are intended to aid the contractor. Since the tests are taken at discrete locations and depths, they may not be indicative of the entire fill and therefore should not relieve the contractor of his responsibility to meet the job specifications.

Imported Structural Fill

All imported structural fill should consist of very low expansive (EI < 20), well graded soils possessing at least 10 percent fines (that portion of the sample passing the No. 200 sieve). Additional specifications for structural fill are presented in the Grading Guide Specifications, included as Appendix D.

Utility Trench Backfill

In general, all utility trench backfill should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. As an alternative, a clean sand (minimum Sand Equivalent of 30) may be placed within trenches and compacted in place (jetting or flooding is not recommended). Compacted trench backfill should conform to the requirements of the local grading code, and more restrictive requirements may be indicated by the County of Riverside. All utility trench backfills should be witnessed by the geotechnical engineer. The trench backfill soils should be compaction tested where possible; probed and visually evaluated elsewhere.

Utility trenches which parallel a footing, and extending below a 1h:1v (horizontal to vertical) plane projected from the outside edge of the footing should be backfilled with structural fill soils, compacted to at least 90 percent of the ASTM D-1557 standard. Pea gravel backfill should not be used for these trenches.

Any soils used to backfill voids around subsurface utility structures, such as manholes or vaults, should be placed as compacted structural fill. If it is not practical to place compacted fill in these areas, then such void spaces may be backfilled with lean concrete slurry. Uncompacted pea gravel or sand is not recommended for backfilling these voids since these materials have a potential to settle and thereby cause distress of pavements placed around these subterranean structures.

6.4 Construction Considerations

Excavation Considerations

The near-surface soils generally consist of moderate strength silty sands, sandy silts, and sands. These materials may be subject to minor to moderate caving within shallow excavations. Where caving does occur, flattened excavation slopes may be sufficient to provide excavation stability. On a preliminary basis, the inclination of temporary slopes should not exceed 2h:1v within sandy soils. Deeper excavations may require some form of external stabilization such as shoring or bracing. Maintaining adequate moisture content within the near-surface soils will improve excavation stability. All excavation activities on this site should be conducted in accordance with Cal-OSHA regulations.

Moisture Sensitive Subgrade Soils

The near-surface soils possess appreciable silt content and may become unstable if exposed to significant moisture infiltration or disturbance by construction traffic. If grading occurs during a period of relatively wet weather, an increase in subgrade instability should also be expected. The site should, therefore, be graded to prevent ponding of surface water and to prevent water from running into excavations.

If the construction schedule dictates that site grading will occur during a period of wet weather, allowances should be made for costs and delays associated with drying the on-site soils or import of a drier, less moisture sensitive fill material. Grading during wet or cool weather may also increase the depth of overexcavation in the pad area as well as the need for a crushed stone stabilization layer.

Groundwater

The groundwater table is considered to exist at a depth of 34 to 41± feet below the existing grades at the time of drilling. Therefore, groundwater is not expected to impact the grading or foundation construction activities.

6.5 Foundation Design and Construction

Based on the preceding grading recommendations, it is assumed that the new building pads will be underlain by structural fill soils extending to depths of at least 3 feet below foundation bearing grade, underlain by 1± foot of additional soil that has been densified and moisture conditioned in place. Based on this subsurface profile, the proposed structures may be supported on conventional shallow foundations.

Foundation Design Parameters

New square and rectangular footings may be designed as follows:

- Maximum, net allowable soil bearing pressure: 2,500 lbs/ft^2.
- Maximum, net allowable soil bearing pressure: 1,500 lbs/ft^2 if the full recommended lateral extent of remedial grading cannot be achieved.
- Minimum wall/column footing width: 14 inches/24 inches.
- Minimum longitudinal steel reinforcement within strip footings: Six (6) No. 5 rebars (3 top and 3 bottom) due to the presence of liquefiable soils.
- Minimum foundation embedment: 12 inches into suitable structural fill soils, and at least 18 inches below adjacent exterior grade. Interior column footings may be placed immediately beneath the floor slab.
- It is recommended that the perimeter building foundations be continuous across all exterior doorways. Any flatwork adjacent to the exterior doors should be doweled into the perimeter foundations in a manner determined by the structural engineer.

The allowable bearing pressures presented above may be increased by 1/3 when considering short duration wind loads. The minimum steel reinforcement recommended above is based on standard geotechnical practice. Additional rigidity may be necessary for structural considerations, or to resist the effects of the liquefaction-induced differential settlements, as discussed in Section 6.1. The actual design of the foundations should be determined by the structural engineer.

Foundation Construction

The foundation subgrade soils should be evaluated at the time of overexcavation, as discussed in Section 6.3 of this report. It is further recommended that the foundation subgrade soils be evaluated by the geotechnical engineer immediately prior to steel or concrete placement. Soils suitable for direct foundation support should consist of newly placed structural fill, compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Any unsuitable materials should be removed to a depth of suitable bearing compacted structural fill or suitable native alluvium (where reduced bearing pressures are utilized), with the resulting excavations backfilled with compacted fill soils. As an alternative, lean concrete slurry (500 to 1,500 psi) may be used to backfill such isolated overexcavations.

The foundation subgrade soils should also be properly moisture conditioned to 0 to 4 percent above the Modified Proctor optimum, to a depth of at least 12 inches below bearing grade. Since it is typically not feasible to increase the moisture content of the floor slab and foundation subgrade soils once rough grading has been completed, care should be taken to maintain the moisture content of the building pad subgrade soils throughout the construction process.

Estimated Foundation Settlements

Post-construction total and differential static settlements of shallow foundations designed and constructed in accordance with the previously presented recommendations are estimated to be less than 1.0 and 0.5 inches, respectively, under static conditions. Differential movements are expected to occur over a 30-foot span, thereby resulting in an angular distortion of less than 0.002 inches per inch. These settlements are in addition to the liquefaction-induced settlements previously discussed in Section 6.1 of this report. However, the likelihood of these two settlements combining is considered remote. The static settlements are expected to occur in a relatively short period of time after the building loads are applied to the foundations, during and immediately subsequent to construction. It should be noted that the projected potential dynamic settlement is related to a major seismic event and a conservative historic high groundwater level.

Lateral Load Resistance

Lateral load resistance will be developed by a combination of friction acting at the base of foundations and slab and the passive earth pressure developed by footings below grade. The following friction and passive pressure may be used to resist lateral forces:

- Passive Earth Pressure: 300 lbs/ft^3
- Friction Coefficient: 0.30

These are allowable values, and include a factor of safety. When combining friction and passive resistance, the passive pressure component should be reduced by one-third. These values assume that footings will be poured directly against compacted structural fill. The maximum allowable passive pressure is 2,500 lbs/ft^2.

6.6 Floor Slab Design and Construction

Subgrades which will support the new floor slabs should be prepared in accordance with the recommendations contained in the ***Site Grading Recommendations*** section of this report. Based on the anticipated grading which will occur at this site, and based on the design considerations presented in Section 6.1 of this report, the floors of the proposed structures may be constructed as conventional slabs-on-grade supported on newly placed structural fill, extending to a depth of at least 3 feet below finished pad grade. Based on geotechnical considerations, the floor slabs may be designed as follows:

- Minimum slab thickness: 6 inches.

- Modulus of Subgrade Reaction: k = 150 psi/in.

- Minimum slab reinforcement: Minimum slab reinforcement: No. 3 bars at 16 inches on-center, in both directions, due to the presence of potentially liquefiable soils. The actual floor slab reinforcement should be determined by the structural engineer, based on the imposed loading, and the liquefaction-induced settlements.

- Slab underlayment: If moisture sensitive floor coverings will be used then minimum slab underlayment should consist of a moisture vapor barrier constructed below the entire slab area where such moisture sensitive floor coverings are expected. The moisture vapor barrier should meet or exceed the Class A rating as defined by ASTM E 1745-97 and have a permeance rating less than 0.01 perms as described in ASTM E 96-95 and ASTM E 154-88. A polyolefin material such as Stego® Wrap Vapor Barrier or equivalent will meet these specifications. The moisture vapor barrier should be properly constructed in accordance with all applicable manufacturer specifications. Given that a rock free subgrade is anticipated and that a capillary break is not required, sand below the barrier is not required. The need for sand and/or the amount of sand above the moisture vapor barrier should be specified by the structural engineer or concrete contractor. The selection of sand above the barrier is not a geotechnical engineering issue and hence outside our purview. Where moisture sensitive floor coverings are not anticipated, the vapor barrier may be eliminated.

- Moisture condition the floor slab subgrade soils to 0 to 4 percent above the Modified Proctor optimum moisture content, to a depth of 12 inches. The moisture content of the floor slab subgrade soils should be verified by the geotechnical engineer within 24 hours prior to concrete placement.

- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.

The actual design of the floor slabs should be completed by the structural engineer to verify adequate thickness and reinforcement. The steel reinforcement recommendations presented above are based on standard geotechnical practice, given the magnitude of predicted liquefaction-induced settlements, and the structure type proposed for the site. Additional rigidity may be necessary for structural considerations, or to resist the effects of the liquefaction-induced differential settlements discussed in Section 6.1.

6.7 Retaining Wall Design and Construction

Although not indicated on the site plan, some small (less than 6 feet in height) retaining walls may be required to facilitate the new site grades. The parameters recommended for use in the design of these walls are presented below.

Retaining Wall Design Parameters

Based on the soil conditions encountered at the boring locations, the following parameters may be used in the design of new retaining walls for this site. We have provided parameters assuming the use of on-site soils for retaining wall backfill. The near-surface soils generally consist of silty sands, sandy silts, and sands. Based on their classification, the sandy materials are expected to possess a friction angle of at least 30 degrees when compacted to at least 90 percent of the ASTM D-1557 maximum dry density.

If desired, SCG could provide design parameters for an alternative select backfill material behind the retaining walls. The use of select backfill material could result in lower lateral earth pressures.

In order to use the design parameters for the imported select fill, this material must be placed within the entire active failure wedge. This wedge is defined as extending from the heel of the retaining wall upwards at an angle of approximately 60° from horizontal. If select backfill material behind the retaining wall is desired, SCG should be contacted for supplementary recommendations.

RETAINING WALL DESIGN PARAMETERS

Design Parameter		Soil Type
		On-site Silty Sands and Sandy Silts
Internal Friction Angle (ϕ)		30°
Unit Weight		125 lbs/ft^3
Equivalent Fluid Pressure:	Active Condition (level backfill)	42 lbs/ft^3
	Active Condition (2h:1v backfill)	67 lbs/ft^3
	At-Rest Condition (level backfill)	63 lbs/ft^3

The walls should be designed using a soil-footing coefficient of friction of 0.30 and an equivalent passive pressure of 300 lbs/ft^3. The structural engineer should incorporate appropriate factors of safety in the design of the retaining walls.

The active earth pressure may be used for the design of retaining walls that do not directly support structures or support soils that in turn support structures and which will be allowed to deflect. The at-rest earth pressure should be used for walls that will not be allowed to deflect such as those which will support foundation bearing soils, or which will support foundation loads directly.

Where the soils on the toe side of the retaining wall are not covered by a "hard" surface such as a structure or pavement, the upper 1 foot of soil should be neglected when calculating passive resistance due to the potential for the material to become disturbed or degraded during the life of the structure.

Retaining Wall Foundation Design

The retaining wall foundations should be underlain by at least 3 feet of newly placed structural fill. Foundations to support new retaining walls should be designed in accordance with the general Foundation Design Parameters presented in a previous section of this report.

Seismic Lateral Earth Pressures

In accordance with the 2019 CBC, any retaining walls more than 6 feet in height must be designed for seismic lateral earth pressures. If walls 6 feet or more are required for this site, the geotechnical engineer should be contacted for supplementary seismic lateral earth pressure recommendations.

Backfill Material

On-site soils may be used to backfill the retaining walls, provided that they are very low expansive (EI < 20). All backfill material placed within 3 feet of the back wall-face should have a particle size no greater than 3 inches. The retaining wall backfill materials should be well graded.

It is recommended that a minimum 1-foot thick layer of free-draining granular material (less than 5 percent passing the No. 200 sieve) be placed against the face of the retaining walls. This material should extend from the top of the retaining wall footing to within 1 foot of the ground surface on the back side of the retaining wall. This material should be approved by the geotechnical engineer. In lieu of the 1-foot thick layer of free-draining material, a properly installed prefabricated drainage composite such as the MiraDRAIN 6000XL (or approved equivalent), which is specifically designed for use behind retaining walls, may be used. If the layer of free-draining material is not covered by an impermeable surface, such as a structure or pavement, a 12-inch thick layer of a low permeability soil should be placed over the backfill to reduce surface water migration to the underlying soils. The layer of free draining granular material should be separated from the backfill soils by a suitable geotextile, approved by the geotechnical engineer.

All retaining wall backfill should be placed and compacted under engineering controlled conditions in the necessary layer thicknesses to ensure an in-place density between 90 and 93 percent of the maximum dry density as determined by the Modified Proctor test (ASTM D1557). Care should be taken to avoid over-compaction of the soils behind the retaining walls, and the use of heavy compaction equipment should be avoided.

Subsurface Drainage

As previously indicated, the retaining wall design parameters are based upon drained backfill conditions. Consequently, some form of permanent drainage system will be necessary in conjunction with the appropriate backfill material. Subsurface drainage may consist of either:

- A weep hole drainage system typically consisting of a series of 2-inch diameter holes in the wall situated slightly above the ground surface elevation on the exposed side of the wall and at an approximate 10-foot on-center spacing. Alternatively, 4-inch diameter holes at an approximate 20-foot on-center spacing can be used for this type of drainage system. In addition, the weep holes should include a 2 cubic foot pocket of open graded gravel, surrounded by an approved geotextile fabric, at each weep hole location.

- A 4-inch diameter perforated pipe surrounded by 2 cubic feet of gravel per linear foot of drain placed behind the wall, above the retaining wall footing. The gravel layer should be wrapped in a suitable geotextile fabric to reduce the potential for migration of fines. The footing drain should be extended to daylight or tied into a storm drainage system. The actual design of this type of system should be determined by the civil engineer to verify that the drainage system possesses the adequate capacity and slope for its intended use.

Weep holes or a footing drain will not be required for building stem walls.

6.8 Pavement Design Parameters

Site preparation in the pavement area should be completed as previously recommended in the ***Site Grading Recommendations*** section of this report. The subsequent pavement recommendations assume proper drainage and construction monitoring, and are based on either PCA or CALTRANS design parameters for a twenty (20) year design period. However, these designs also assume a routine pavement maintenance program to obtain the anticipated 20-year pavement service life.

Pavement Subgrades

It is anticipated that the new pavements will be primarily supported on a layer of compacted structural fill, consisting of scarified, thoroughly moisture conditioned and recompacted existing soils. The near-surface soils generally consist of silty sands, sandy silts, and sands. These soils are generally considered to possess poor to fair pavement support characteristics with estimated R-values ranging from 40 to 50. The subsequent pavement design is therefore based upon an assumed R-value of 40. Any fill material imported to the site should have support characteristics equal to or greater than that of the on-site soils and be placed and compacted under engineering controlled conditions. It is recommended that R-value testing be performed after completion of rough grading. Depending upon the results of the R-value testing, it may be feasible to use thinner pavement sections in some areas of the site.

Asphaltic Concrete

Presented below are the recommended thicknesses for new flexible pavement structures consisting of asphaltic concrete over a granular base. The pavement designs are based on the traffic indices (TI's) indicated. The client and/or civil engineer should verify that these TI's are representative of the anticipated traffic volumes. If the client and/or civil engineer determine that the expected traffic volume will exceed the applicable traffic index, we should be contacted for supplementary recommendations. The design traffic indices equate to the following approximate daily traffic volumes over a 20-year design life, assuming six operational traffic days per week.

Traffic Index	No. of Heavy Trucks per Day
4.0	0
5.0	1
6.0	3
7.0	11
8.0	35
9.0	93

For the purpose of the traffic volumes indicated above, a truck is defined as a 5-axle tractor trailer unit with one 8-kip axle and two 32-kip tandem axles. All of the traffic indices allow for 1,000 automobiles per day.

ASPHALT PAVEMENTS (R = 40)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	4	6	7	8	10
Compacted Subgrade	12	12	12	12	12

The aggregate base course should be compacted to at least 95 percent of the ASTM D-1557 maximum dry density. The asphaltic concrete should be compacted to at least 95 percent of the batch plant-reported maximum density. The aggregate base course may consist of crushed aggregate base (CAB) or crushed miscellaneous base (CMB), which is a recycled gravel, asphalt and concrete material. The gradation, R-Value, Sand Equivalent, and Percentage Wear of the CAB or CMB should comply with appropriate specifications contained in the current edition of the "Greenbook" Standard Specifications for Public Works Construction.

Portland Cement Concrete

The preparation of the subgrade soils within concrete pavement areas should be performed as previously described for proposed asphalt pavement areas. The minimum recommended thicknesses for the Portland Cement Concrete pavement sections are as follows:

PORTLAND CEMENT CONCRETE PAVEMENTS (R = 40)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 6.0)	Truck Traffic		
		TI =7.0	TI = 8.0	TI = 9.0
PCC	5	5½	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

The concrete should have a 28-day compressive strength of at least 3,000 psi. Any reinforcement within the PCC pavements should be determined by the project structural engineer. The maximum joint spacing within all of the PCC pavements is recommended to be equal to or less than 30 times the pavement thickness.

7.0 GENERAL COMMENTS

This report has been prepared as an instrument of service for use by the client, in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, civil engineer, and/or structural engineer. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur. The client(s)' reliance upon this report is subject to the Engineering Services Agreement, incorporated into our proposal for this project.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and sample depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted.

The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

8.0 REFERENCES

California Division of Mines and Geology (CDMG), "Guidelines for Evaluating and Mitigating Seismic Hazards in California," State of California, Department of Conservation, Division of Mines and Geology, Special Publication 117A, 2008.

Idriss, I. M. and Boulanger, R.W., "Soil Liquefaction During Earthquakes", Earthquake Engineering Research Institute, 2008.

National Research Council (NRC), "Liquefaction of Soils During Earthquakes," Committee on Earthquake Engineering, National Research Council, Washington D. C., Report No. CETS-EE-001, 1985.

Seed, H. B., and Idriss, I. M., "Simplified Procedure for Evaluating Soil Liquefaction Potential using field Performance Data," Journal of the Soil Mechanics and Foundations Division, American Society of Civil Engineers, September 1971, pp. 1249-1273.

Sadigh, K., Chang, C. –Y., Egan, J. A., Makdisi. F., Youngs, R. R., "*Attenuation Relationships for Shallow Crustal Earthquakes Based on California Strong Motion Data*", Seismological Research Letters, Seismological Society of America, Volume 68, Number 1, January/ February 1997, pp. 180-189.

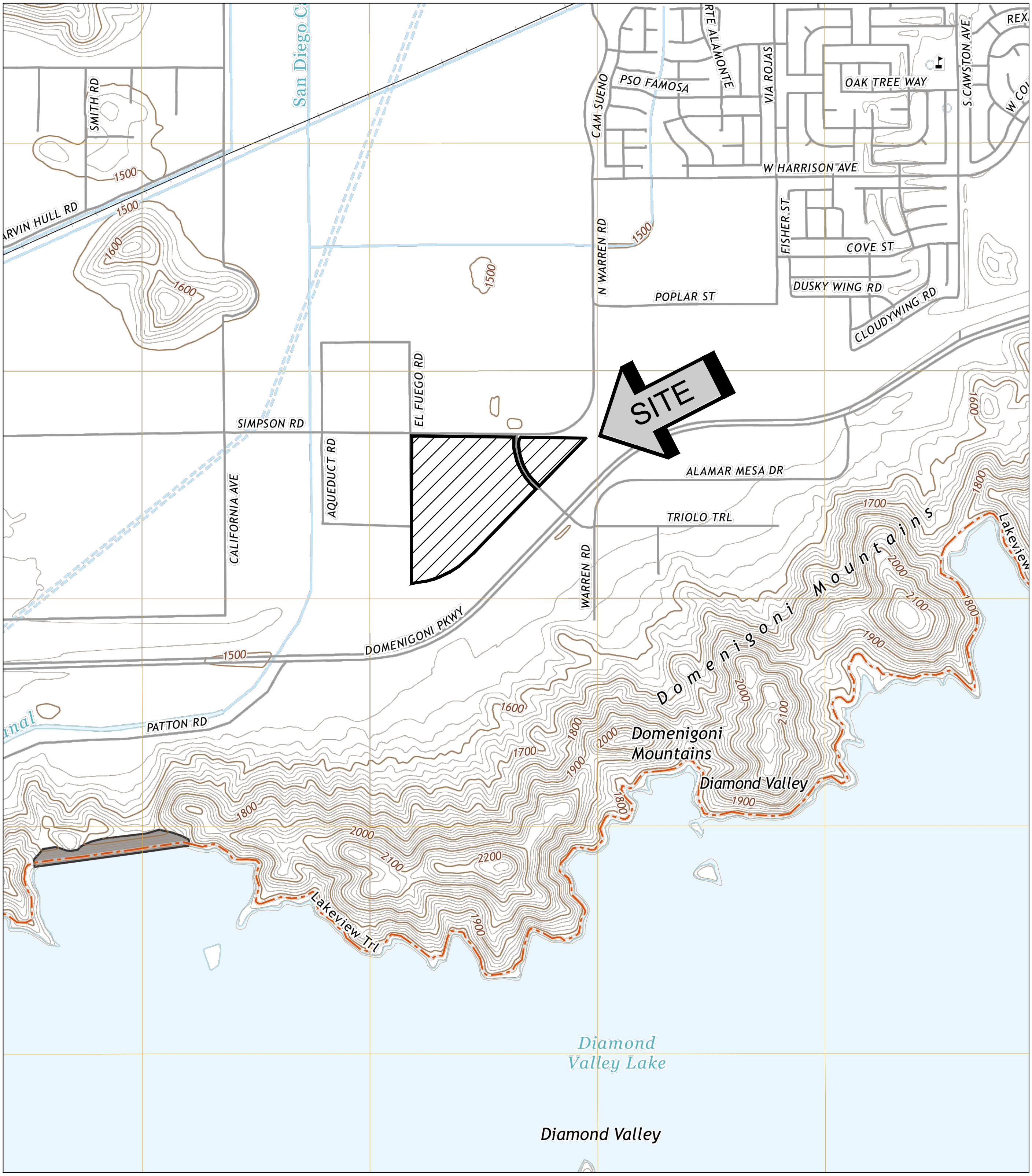
Southern California Earthquake Center (SCEC), University of Southern California, "Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction in California," Committee formed 1997.

Tokimatsu K., and Seed, H. B., "Evaluation of Settlements in Sands Due to Earthquake Shaking," Journal of the Geotechnical Engineering Division, American society of Civil Engineers, Volume 113, No. 8, August 1987, pp. 861-878.

Tokimatsu, K. and Yoshimi, Y., "*Empirical Correlations of Soil Liquefaction Based on SPT N-value and Fines Content,"* Seismological Research Letters, Eastern Section Seismological Society Of America, Volume 63, Number 1, p. 73.

Youd, T. L. and Idriss, I. M. (Editors), "Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils," Salt Lake City, UT, January 5-6 1996, NCEER Technical Report NCEER-97-0022, Buffalo, NY.

APPENDIX A



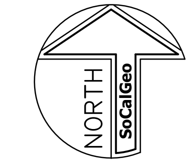
SOURCE: USGS TOPOGRAPHIC MAPS OF THE WINCHESTER QUADRANGLE, RIVERSIDE COUNTY, CALIFORNIA, 2018.

SITE LOCATION MAP

PROPOSED WAREHOUSE DEVELOPMENT

WINCHESTER, CALIFORNIA

SCALE: 1" = 2000'	SOUTHERN CALIFORNIA GEOTECHNICAL
DRAWN: MD CHKD: DN	
SCG PROJECT 22G127-1	
PLATE 1	



GEOTECHNICAL LEGEND

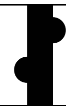
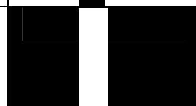
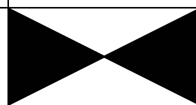
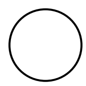
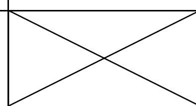
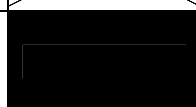
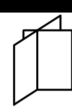
APPROXIMATE BORING LOCATION

NOTE: AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH. CONCEPTUAL SITE PLAN PREPARED BY WARE MALCOMB.

BORING LOCATION PLAN	
PROPOSED WAREHOUSE DEVELOPMENT	
WINCHESTER, CALIFORNIA	
SCALE: 1" = 250'	SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL
DRAWN: MD CHKD: DN	
SCG PROJECT 22G127-1	
PLATE 2	

APPENDIX B

BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

DEPTH: Distance in feet below the ground surface.

SAMPLE: Sample Type as depicted above.

BLOW COUNT: Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

POCKET PEN.: Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

GRAPHIC LOG: Graphic Soil Symbol as depicted on the following page.

DRY DENSITY: Dry density of an undisturbed or relatively undisturbed sample in lbs/ft^3.

MOISTURE CONTENT: Moisture content of a soil sample, expressed as a percentage of the dry weight.

LIQUID LIMIT: The moisture content above which a soil behaves as a liquid.

PLASTIC LIMIT: The moisture content above which a soil behaves as a plastic.

PASSING #200 SIEVE: The percentage of the sample finer than the #200 standard sieve.

UNCONFINED SHEAR: The shear strength of a cohesive soil sample, as measured in the unconfined state.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-1

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/7/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Esparza

WATER DEPTH: 40 feet
CAVE DEPTH: 20 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
	X	4			FILL: Gray Brown Silty fine to medium Sand, trace coarse Sand, trace fine Root Fibers, very loose to loose-moist		10					
	X	7			FILL: Brown Silty fine to coarse Sand, trace fine Root Fibers, loose-damp to moist		9					
5	X	10			ALLUVIUM: Brown fine to coarse Sand, little Silt, loose to medium dense-damp to moist		6					
	X	9			Gray Brown fine Sandy Silt, trace medium Sand, loose-very moist		18					
10												
	X	21			Gray fine to coarse Sandy Silt, medium dense-moist		10					
15												
	X	24			Light Gray Brown fine to coarse Sand, medium dense-damp		3					
20												
	X	21			Gray Brown fine Silty Sand, trace medium Sand, medium dense-very moist		15					
25												
	X	14			Gray Brown to Brown Silty fine Sand, trace coarse Sand, medium dense-very moist		15			32		
30												
	X	20			Gray Brown Silty fine to medium Sand, little coarse Sand, medium dense-very moist		15			24		

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-1

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/7/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Esparza

WATER DEPTH: 40 feet
CAVE DEPTH: 20 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION (Continued)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					Gray Brown Silty fine to medium Sand, little coarse Sand, medium dense-very moist							
					Gray Brown Silty fine Sand, medium dense-wet							
	X	19					24			34		
40												
					Gray Brown Silty fine Sand to fine Sandy Silt, trace Calcareous veining, medium dense-wet							
	X	20					28			51		
45												
					Gray Brown fine Sandy Silt, medium dense-wet							
	X	14					28			72		
50												

Boring Terminated at 50'

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-2

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/9/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Esparza

WATER DEPTH: Dry
CAVE DEPTH: 22 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Dark Brown Silty fine Sand, little medium Sand, trace to little fine Root Fibers, medium dense-moist to very moist							
	X	15				107	19				13.8	
	X	12			@ 3', mottled	107	8				3.8	
					ALLUVIUM: Light Brown fine to medium Sand, little coarse Sand, trace fine Root Fibers, medium dense-damp							
5	X	18				107	4				0.6	
	X	14				100	3				10.1	
					Dark Brown fine Sandy Silt, trace Clay, medium dense-very moist							
10	X	23				116	17					
					Gray Brown Silty fine to medium Sand, trace coarse Sand, medium dense-damp to moist							
15	X	13					8					
					Dark Brown fine Sandy Silt, trace to little medium Sand, medium dense-moist							
20	X	16					13					
25	X	28					10					
					Boring Terminated at 25'							

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-3

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/7/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: 36 feet
CAVE DEPTH: 46 feet
READING TAKEN: 4½ Hours After Completion

DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION — SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Gray Brown Silty fine Sand, trace medium Sand, loose-moist							
	X	6					8					
	X	41			@ 3½ feet, weakly cemented, dense		11					
5					ALLUVIUM: Gray Brown fine Sandy Silt, trace to little medium to coarse Sand, slightly cemented, little to some Calcareous nodules/veining, medium dense-moist to very moist							
	X	19					17					
	X	12					18					
10												
	X	20					21					
15												
	X	30					12					
20					Gray Brown Silty fine to medium Sand, medium dense-moist to very moist							
	X	24					13					
25												
	X	12			@ 28½ feet, little Calcareous nodules.veining		23			40		
30					Gray Brown Silty fine Sand to fine Sandy Silt, trace Calcareous nodules/veining, medium dense-very moist to wet							
	X	13					23			56		

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

TEST BORING LOG

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/7/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: 36 feet
CAVE DEPTH: 46 feet
READING TAKEN: 4½ Hours After Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION (Continued)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		16					24			58		
40												
		19			@ 43½ feet, trace to little Clay		18			49		
45												
		20					21			47		
50					Boring Terminated at 50'							

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-4

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/7/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Esparza

WATER DEPTH: Dry
CAVE DEPTH: 17 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
		12			FILL: Dark Brown Silty fine to medium Sand, trace fine Root Fibers, trace fine Root Fibers, trace coarse Sand, slightly mottled, loose-moist to very moist	112	14				3.1	
		5			FILL: Brown Silty fine to coarse Sand, trace fine Root Fibers, loose-damp	109	8				1.1	
5		12			ALLUVIUM: Brown fine to medium Sand, little coarse Sand, little Silt, loose-damp	108	3					
		13			Light Gray Brown fine to coarse Sand, trace fine Gravel, loose-damp	97	4					
10		35			Gray Brown Silty fine to coarse Sand, trace Clay, medium dense-damp	119	4					
15		16			Gray Brown fine Sandy Silt, trace medium Sand, medium dense-moist to very moist		14					
20		21			Gray Brown fine to medium Sandy Silt, trace coarse Sand, medium dense-moist to very moist		14					
					Boring Terminated at 20'							

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

BORING NO. B-5

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/8/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Esparza

WATER DEPTH: Dry
CAVE DEPTH: 14 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Dark Brown Silty fine Sand, trace medium Sand, trace fine Root Fibers, mottled, medium dense-moist to very moist							
		25				119	12					
		16				98	18					
5		15				92	13					
					ALLUVIUM: Brown fine Sandy Silt, trace to little medium to coarse Sand, loose to medium dense-moist							
		12				114	11					
10		16				115	9					
					Gray Brown Silty fine to medium Sand to fine to medium Sandy Silt, medium dense-moist to very moist							
15		16					12					
20		18					10					
					Boring Terminated at 20'							

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-6

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/7/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: 40 feet
CAVE DEPTH: 48 feet
READING TAKEN: At Completion

SURFACE ELEVATION: --- MSL

FIELD RESULTS: DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS: DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					<u>FILL:</u> Gray Brown Silty fine Sand, trace to little Clay, mottled, slightly cemented, loose to medium dense-very moist							
		10					13					
		8					14					
5												
					<u>ALLUVIUM:</u> Gray Brown fine Sandy Silt, trace medium Sand, trace to little Calcareous veining, medium dense-moist to very moist							
		11					13					
					Light Gray Brown fine to medium Sand, trace coarse Sand, medium dense-damp							
		17					3					
10												
					Light Gray Brown fine to coarse Sand, 1-inch fine Sandy Silt lense, medium dense-damp							
		22					3					
15												
					Gray Brown fine Sandy Silt, little medium Sand, medium dense-very moist							
		29					16					
					Light Gray fine to coarse Sand, medium dense-damp		3					
					Gray Brown fine Sandy Silt, little to some Clay, medium dense-moist to very moist		14					
20												
		20			@ 23½ feet, little medium Sand		13					
25												
					Gray Brown Silty fine Sand, medium dense-very moist							
		25					13			35		
30												
		22					13			36		

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-6

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/7/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: 40 feet
CAVE DEPTH: 48 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION (Continued)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					Gray Brown Silty fine Sand, medium dense-moist							
	X	34			@ 38½ feet, trace to little Clay, dense		10					
40												
					Brown to Red Brown Silty fine to medium Sand, medium dense-wet							
	X	23					14			31		
45												
	X	37					13					
50												
					Boring Terminated at 50'							

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-7

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/7/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Esparza

WATER DEPTH: Dry
CAVE DEPTH: 15 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Gray Brown Silty fine to medium Sand, trace fine Root Fibers, medium dense-moist to very moist							
		16				108	19					
					FILL: Brown Silty fine to coarse Sand, trace Clay, medium dense-moist							
		33				113	10					
5		22				119	10					
					ALLUVIUM: Brown fine to coarse Sand, loose to medium dense-damp							
		13				106	3					
10		24				110	4					
					Brown fine to medium Sand, trace coarse Sand, trace Silt, medium dense-damp							
15		23					5					
					Dark Brown fine to medium Sandy Silt, trace coarse Sand, medium dense-moist							
20		29					10					
					Dark Brown fine Sandy Silt, trace coarse Sand-very moist							
25		15					22					

Boring Terminated at 25'

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-8

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/8/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Esparza

WATER DEPTH: 34 feet
CAVE DEPTH: ---
READING TAKEN: 4 Hours After Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
	X	15	3.5		FILL: Dark Gray Brown fine Sandy Clay, trace medium Sand, trace fine Root Fibers, stiff-very moist		17					
	X	10			FILL: Gray Brown Silty fine Sand to fine Sandy Silt to fine Sandy Silt, loose to medium dense-very moist		14					
5	X	14			FILL: Brown Silty fine to medium Sand, trace coarse Sand, medium dense-very moist		13					
	X	26			ALLUVIUM: Brown Silty fine to medium Sand, trace Gravelly Sand, trace coarse Sand, medium dense-moist		11					
10												
	X	31			Light Brown fine to medium Sand, trace coarse Sand, dense-damp		4					
15												
	X	15			Dark Brown fine Sandy Silt, trace to little Clay, medium dense-very moist		21					
20												
	X	21			Brown to Red Brown Silty fine Sand, trace to little medium to coarse Sand, medium dense to dense-very moist to wet		12					
25												
	X	24					13			35		
30												
	X	33			▽		13					

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-8

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/8/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Esparza

WATER DEPTH: 34 feet
CAVE DEPTH: ---
READING TAKEN: 4 Hours After Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION (Continued)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					Brown to Red Brown Silty fine Sand, trace to little medium to coarse Sand, medium dense to dense-moist to wet							
	X	19					13			26		
40												
	X	29					15					
45												
	X	30					21					
50												
					Boring Terminated at 50'							

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

TEST BORING LOG

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-9

JOB NO.: 22G127-1	DRILLING DATE: 3/8/22	WATER DEPTH: 40 feet
PROJECT: Proposed Warehouse Development	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 47 feet
LOCATION: Winchester, California	LOGGED BY: Jamie Hayward	READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Gray Brown Silty fine Sand, trace medium Sand, slightly cemented, slightly mottled, medium dense-very moist							
	X	25					14					
					ALLUVIUM: Gray Brown Silty fine Sand to fine Sandy Silt, little Calcareous nodules/veining, medium dense-damp to very moist							
	X	16					21					
5												
	X	15					7					
					Gray Brown fine to medium Sand, 3-inch fine Sandy Silt lense, medium dense-damp to moist							
	X	13					7					
10												
					Gray Brown Silty fine to medium Sand, medium dense-damp to very moist							
	X	15					12					
15												
	X	18					9					
20												
	X	30			@ 23½ feet, dense		7					
25												
	X	21					11			23		
30												
	X	23					13			25		

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

TEST BORING LOG **PLATE B-9a**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-9

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/8/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: 40 feet
CAVE DEPTH: 47 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION (Continued)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
	X	43			@ 38½ feet, dense-wet		16					
40												
					Gray Brown Silty fine Sand to fine Sandy Silt, medium dense-wet							
	X	18					19			53		
45												
					Brown Silty fine Sand, medium dense-wet							
	X	25					22			44		
50												
					Boring Terminated at 50'							

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

BORING NO. B-10

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/9/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Esparza

WATER DEPTH: Dry
CAVE DEPTH: 17½
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Dark Gray Brown Silty fine Sand, little fine Root Fibers, medium dense-very moist		18				15.3	
		17			FILL: Gray Brown fine Sandy Silt, little Clay, trace medium Sand, trace fine Root Fibers, mottled, medium dense-moist	115	11				1.4	
5		16			ALLUVIUM: Brown fine Sandy Silt, medium dense-moist	110	12					
		22			Brown Silty fine to medium Sand, trace coarse Sand, medium dense-moist	112	11					
10		18			Gray Brown fine Sandy Silt, trace medium Sand, slightly porous, trace Calcareous nodules, medium dense-moist to very moist	113	14					
15		16			Brown Silty fine to medium Sand to fine to medium Sandy Silt, trace coarse Sand, medium dense-very moist		19					
20		18			Dark Brown fine Sandy Silt, trace medium Sand, medium dense-moist to very moist		14					

Boring Terminated at 20'

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-11

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/8/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: Dry
CAVE DEPTH: 12 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Gray to Brown to Brown Silty fine Sand, little medium Sand, slightly cemented, mottled, medium dense-moist							
	X	43				119	8					
	X	18				109	18					
					ALLUVIUM: Gray Brown Silty fine Sand to fine Sandy Silt, little Clay, trace medium Sand, medium dense-very moist							
					Gray Brown Silty fine Sand, trace medium Sand, medium dense-moist							
5	X	28				114	10					
	X	33				116	9					
					Light Gray fine to coarse Sand, medium dense-damp							
	X	40				114	4					
10												
					Gray Brown Silty fine Sand,trace medium Sand, medium dense-moist							
	X	40				121	11					
15												

Boring Terminated at 15'

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

TEST BORING LOG

PLATE B-11

BORING NO. B-12

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/8/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: Dry
CAVE DEPTH: 16 feet
READING TAKEN: At Completion

DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION (SURFACE ELEVATION: --- MSL)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Brown Silty fine to coarse Sand, mottled, medium dense-damp to moist							
	X	16				112	6					
	X	16				113	8					
5	X	15			ALLUVIUM: Gray Brown fine to coarse Sand, trace Silt, medium dense-damp to moist	116	4					
	X	8			@ 7 feet, loose	105	6					
	X	19				113	6					
10					Gray Brown Silty fine Sand to fine Sandy Silt, medium dense-damp							
					Light Gray Brown fine to medium Sand, little coarse Sand, medium dense-damp							
	X	29					4					
15												
	X	34			@ 18½ feet, dense		3					
20												
					Gray Brown Silty fine to medium Sand, trace coarse Sand, dense-damp to moist							
	X	32					7					
25												
					Boring Terminated at 25'							

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-13

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/7/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: 41 feet
CAVE DEPTH: 46 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Gray Brown Silty fine Sand, trace medium Sand, weakly cemented, slightly mottled, dense-damp to moist							
	X	42					9					
	X	20					7					
5												
					ALLUVIUM: Light Gray Brown Silty fine Sand, medium dense-damp							
	X	16					6					
					Gray Brown Silty fine Sand to fine Sandy Silt, trace medium Sand, medium dense-moist							
	X	16					9					
10												
					Gray Brown Silty fine to medium Sand, medium dense-moist							
	X	23					8					
15												
	X	37			@ 18½ feet, dense		8					
20												
					Gray Brown Silty fine Sand, dense-damp to very moist							
	X	42					6					
25												
	X	15			@ 28½', trace Clay		17			46		
30												
					Brown to Red Brown Silty fine Sand, trace Clay, trace medium Sand, very stiff-moist							
	X	17					16	23	15	49		

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/7/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: 41 feet
CAVE DEPTH: 46 feet
READING TAKEN: At Completion

DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION (Continued)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					Brown to Red Brown Clayey Silt, little fine Sand, trace medium Sand, medium dense-moist							
					Gray Brown to Brown Silty fine to medium Sand, trace fine to coarse Gravel, medium dense-moist							
	X	27					13			31		
40												
					Brown to Red Brown Silty fine Sand to fine Sandy Silt, trace to little Clay, medium dense-very moist to wet							
	X	27					16			47		
45												
					Brown fine Sandy Silt, trace medium sand, dense-medium dense to wet							
	X	35					18					
50												
					Boring Terminated at 50'							

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-14

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/9/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Esparza

WATER DEPTH: Dry
CAVE DEPTH: 8½
READING TAKEN: At Completion

SURFACE ELEVATION: --- MSL

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Dark Brown fine Sandy Silt, trace medium Sand, trace fine Root Fibers, loose-moist							
	X	4					12					
					FILL: Brown Silty fine to medium Sand, trace coarse Sand, medium dense-very moist							
	X	13					21					
5												
	X	8					17					
					ALLUVIUM: Dark Brown Clayey Silt to Silty Clay, loose to medium dense-very moist							
	X	10	2.5				30					
10												

Boring Terminated at 10'

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

TEST BORING LOG

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-15

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/7/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Esparza

WATER DEPTH: Dry
CAVE DEPTH: 7 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Gray Brown to Brown Silty fine Sand to fine Sandy Silt, trace coarse Sand, trace fine Root Fibers, loose to medium dense-damp to very moist							
	X	5					16					
	X	8					8					
5												
	X	18					10					
					ALLUVIUM: Brown fine to medium Sand, trace coarse Sand, trace Silt, dense-damp							
	X	30					3					
10												
					Boring Terminated at 10'							

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-16

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/8/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Esparza

WATER DEPTH: Dry
CAVE DEPTH: 8 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Gray Brown fine Sandy Clay, little Silt, trace medium Sand, stiff-moist to very moist							
	X	9	3.5				13					
					FILL: Light Gray Brown fine to medium Sandy Silt, trace Clay, loose-very moist							
	X	7					18					
5												
					ALLUVIUM: Light Gray Brown Silty fine to medium Sand to fine to medium Sandy Silt, trace coarse Sand, medium dense-moist to very moist							
	X	13					12					
	X	18					10					
10												
					Boring Terminated at 10'							

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

TEST BORING LOG

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-17

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/9/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Esparza

WATER DEPTH: Dry
CAVE DEPTH: 9 feet
READING TAKEN: At Completion

DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Dark Brown Silty fine Sand, trace medium Sand, trace coarse Sand, trace fine Root Fibers, loose-moist							
	X	9					8					
					FILL: Brown Silty fine to medium Sand, trace coarse Sand, loose-damp							
	X	8					7					
5												
					ALLUVIUM: Light Brown fine to coarse Sand, trace fine Silt, trace Gravelly Sand, loose-damp							
	X	9					7					
	X	15					4					
10					Boring Terminated at 10'							

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-18

JOB NO.: 22G127-1
PROJECT: Proposed Warehouse Development
LOCATION: Winchester, California

DRILLING DATE: 3/8/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

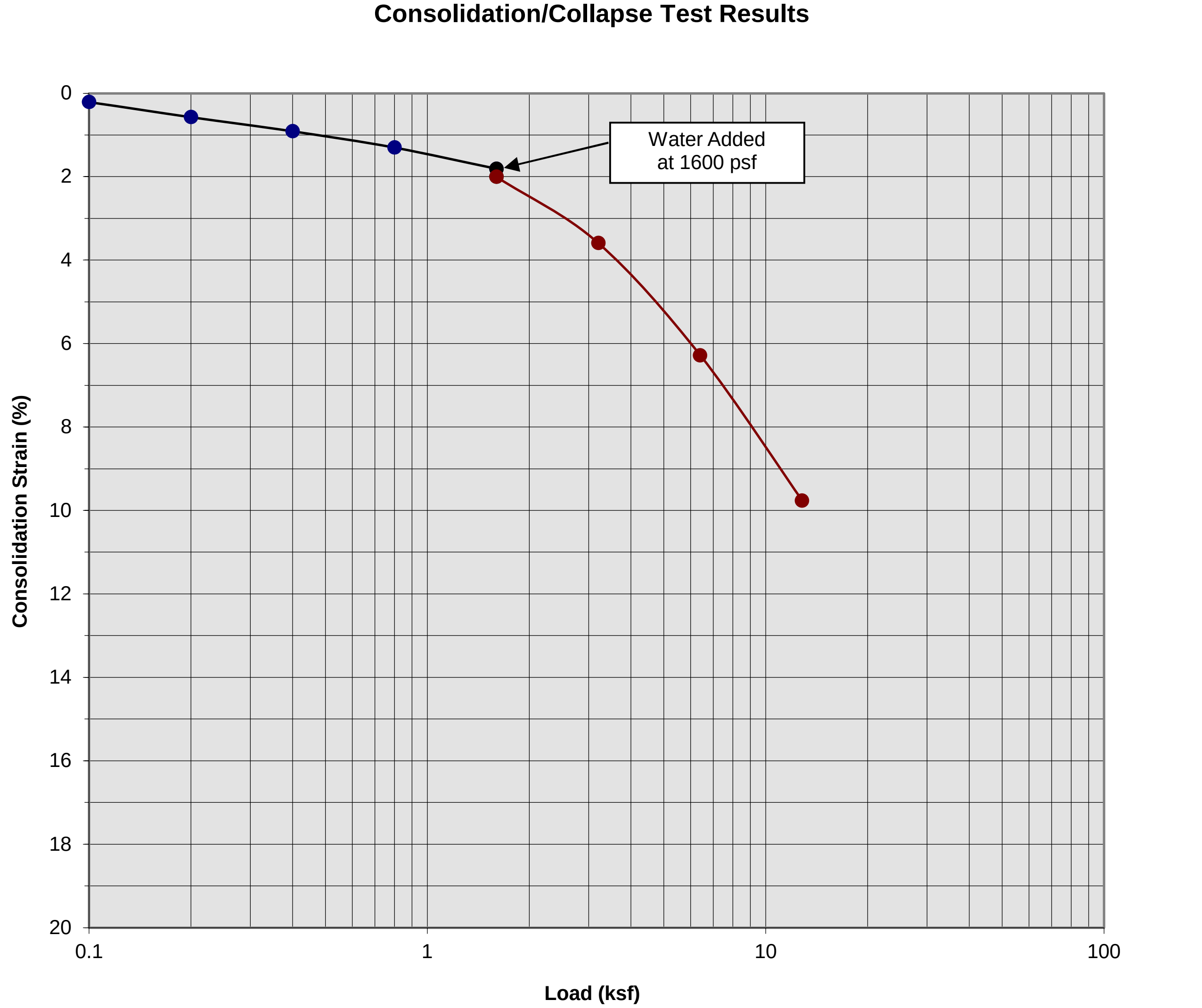
WATER DEPTH: Dry
CAVE DEPTH: 9 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Brown Silty fine Sand, trace medium Sand, loose-damp							
	X	7					5					
					FILL: Brown fine Sandy Silt, slightly mottled, medium dense-moist							
	X	22					15					
5												
					ALLUVIUM: Gray Brown fine Sandy Silt, trace Iron Oxide staining, trace Calcareous nodules/veining, loose to medium dense-moist to very moist							
	X	10					22					
	X	8					15					
10												

Boring Terminated at 10'

TBL 22G127-1.GPJ SOCALGEO.GDT 5/2/22

APPENDIX C



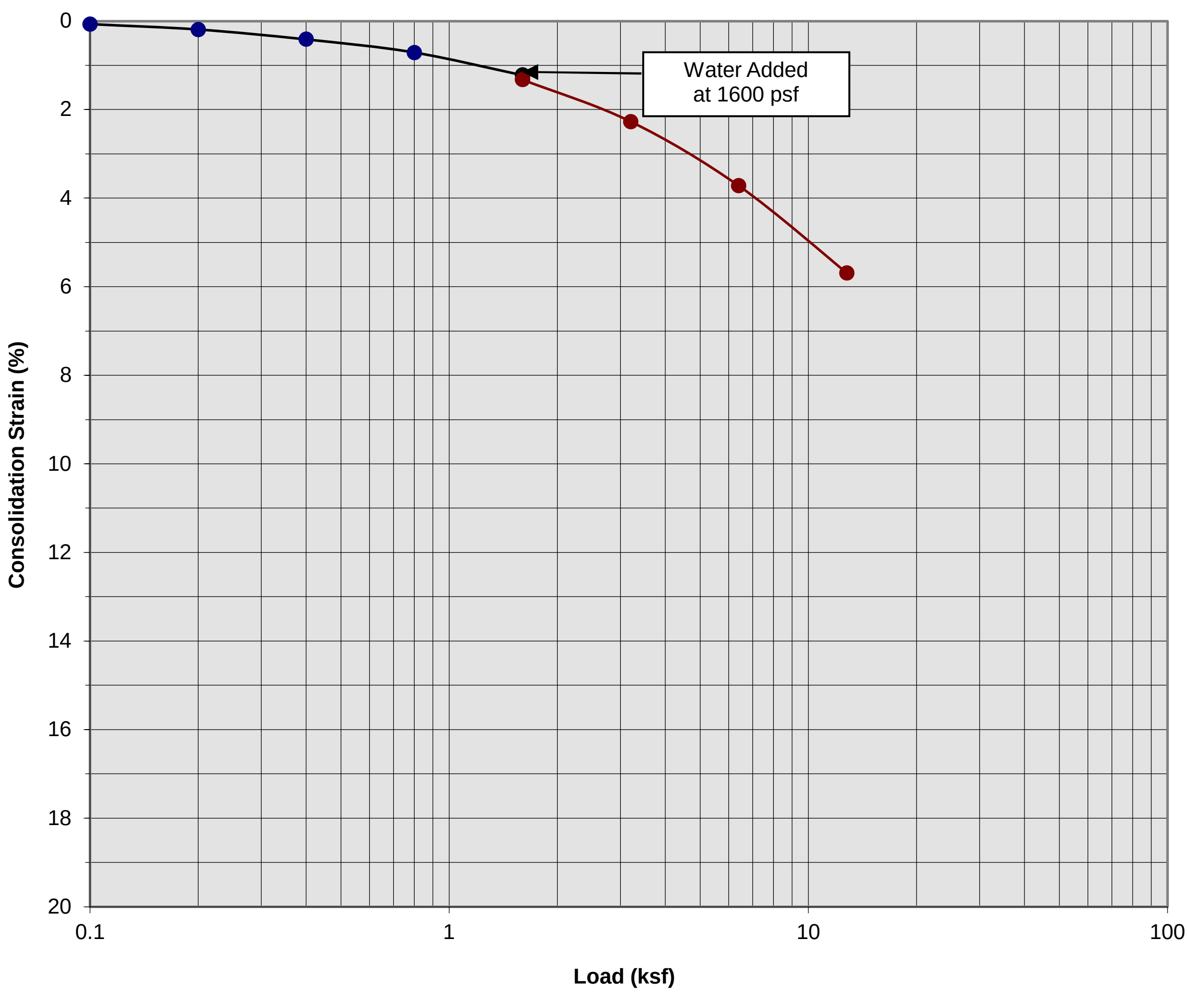
Classification: FILL: Dark Brown Silty fine Sand, trace medium Sand

Boring Number:	B-5	Initial Moisture Content (%)	18
Sample Number:	---	Final Moisture Content (%)	24
Depth (ft)	3 to 4	Initial Dry Density (pcf)	97.9
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	108.0
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.19

Proposed Warehouse Development
Winchester, California
Project No. 22G127-1
PLATE C- 1

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



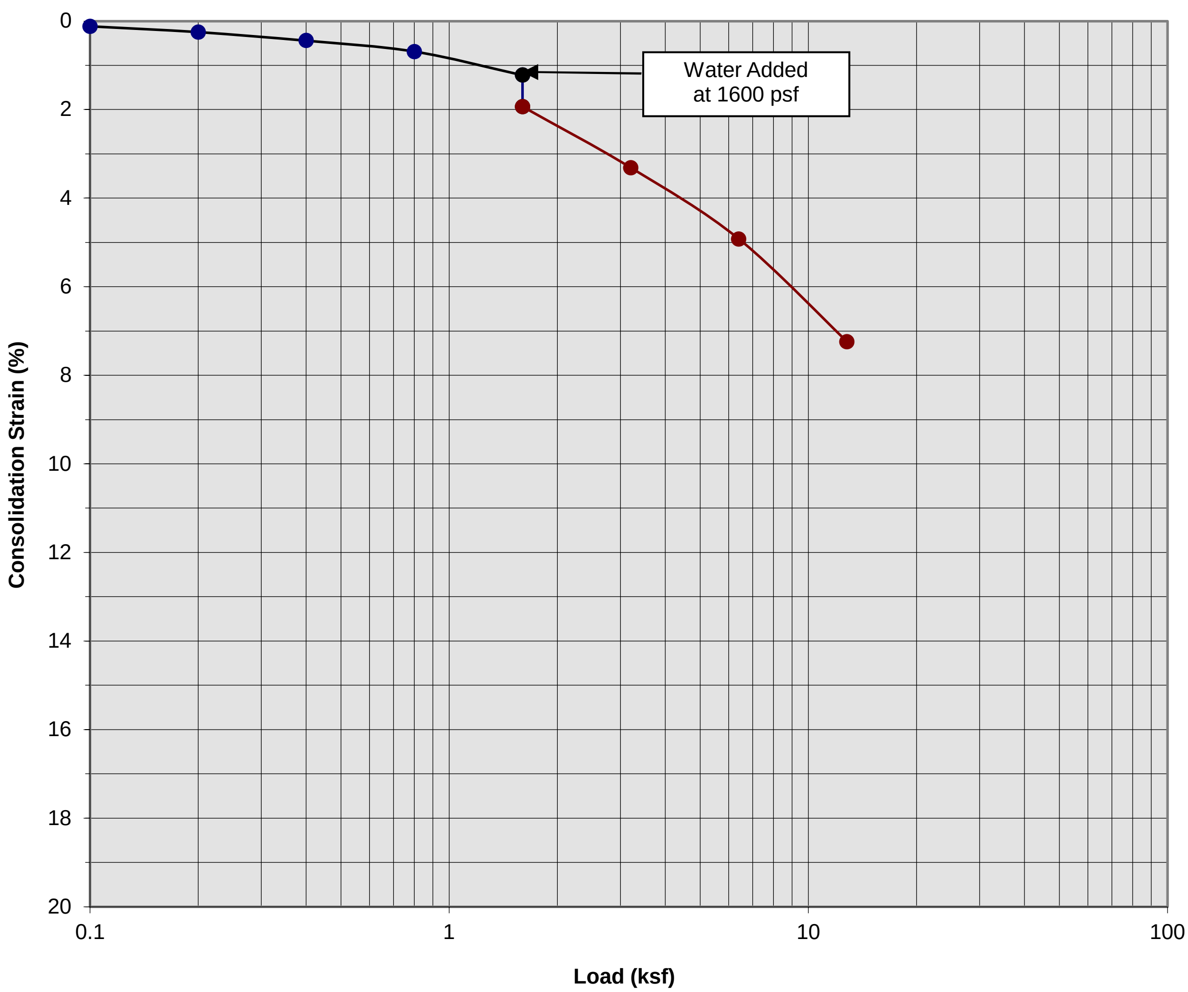
Classification: FILL: Dark Brown Silty fine Sand, trace medium Sand

Boring Number:	B-5	Initial Moisture Content (%)	13
Sample Number:	---	Final Moisture Content (%)	15
Depth (ft)	5 to 6	Initial Dry Density (pcf)	92.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	98.0
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.10

Proposed Warehouse Development
Winchester, California
Project No. 22G127-1
PLATE C- 2

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results

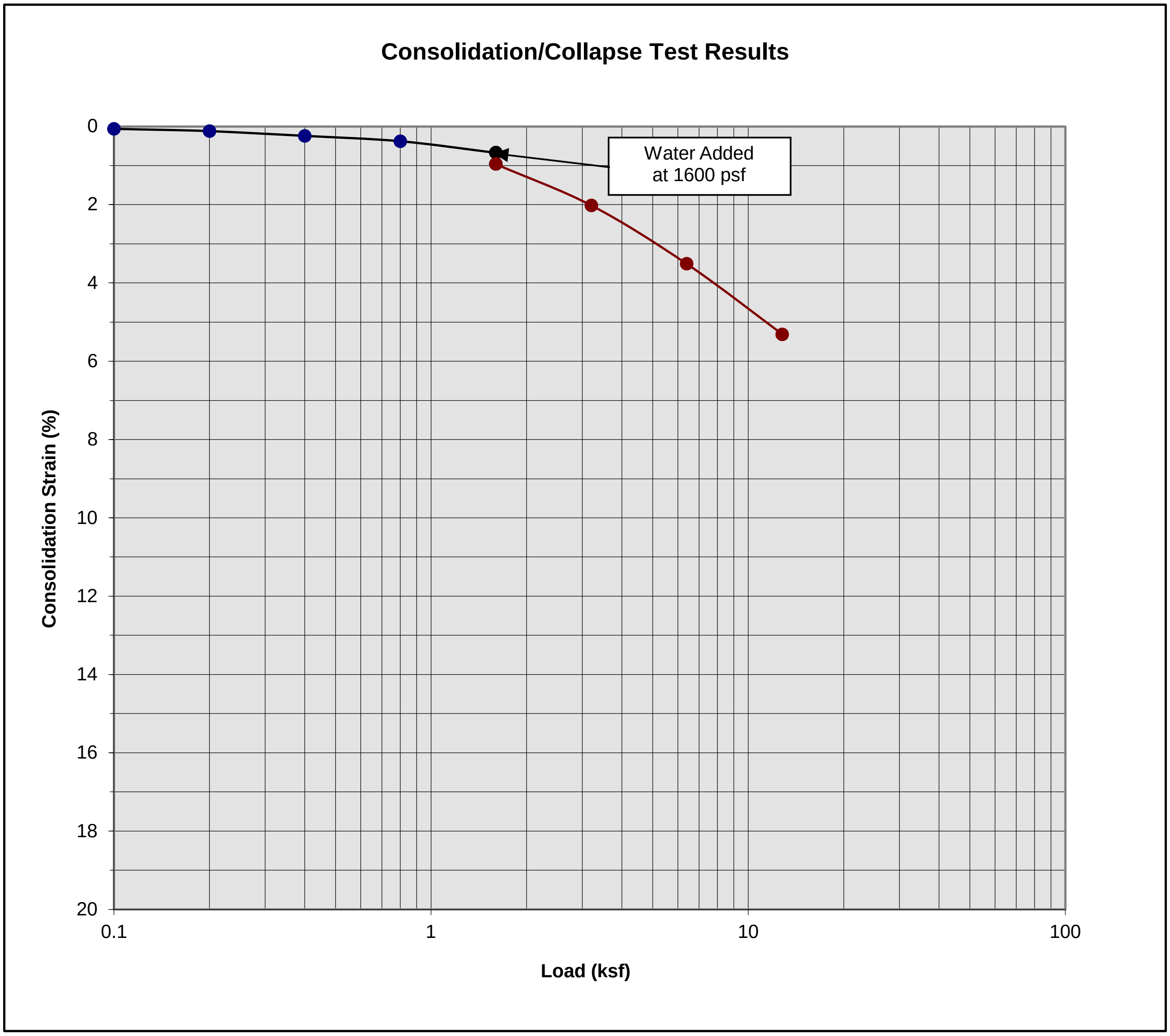


Classification: Brown fine Sandy Silt, trace to little medium to coarse Sand

Boring Number:	B-5	Initial Moisture Content (%)	11
Sample Number:	---	Final Moisture Content (%)	15
Depth (ft)	7 to 8	Initial Dry Density (pcf)	113.8
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	122.5
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.71

Proposed Warehouse Development
Winchester, California
Project No. 22G127-1
PLATE C- 3

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

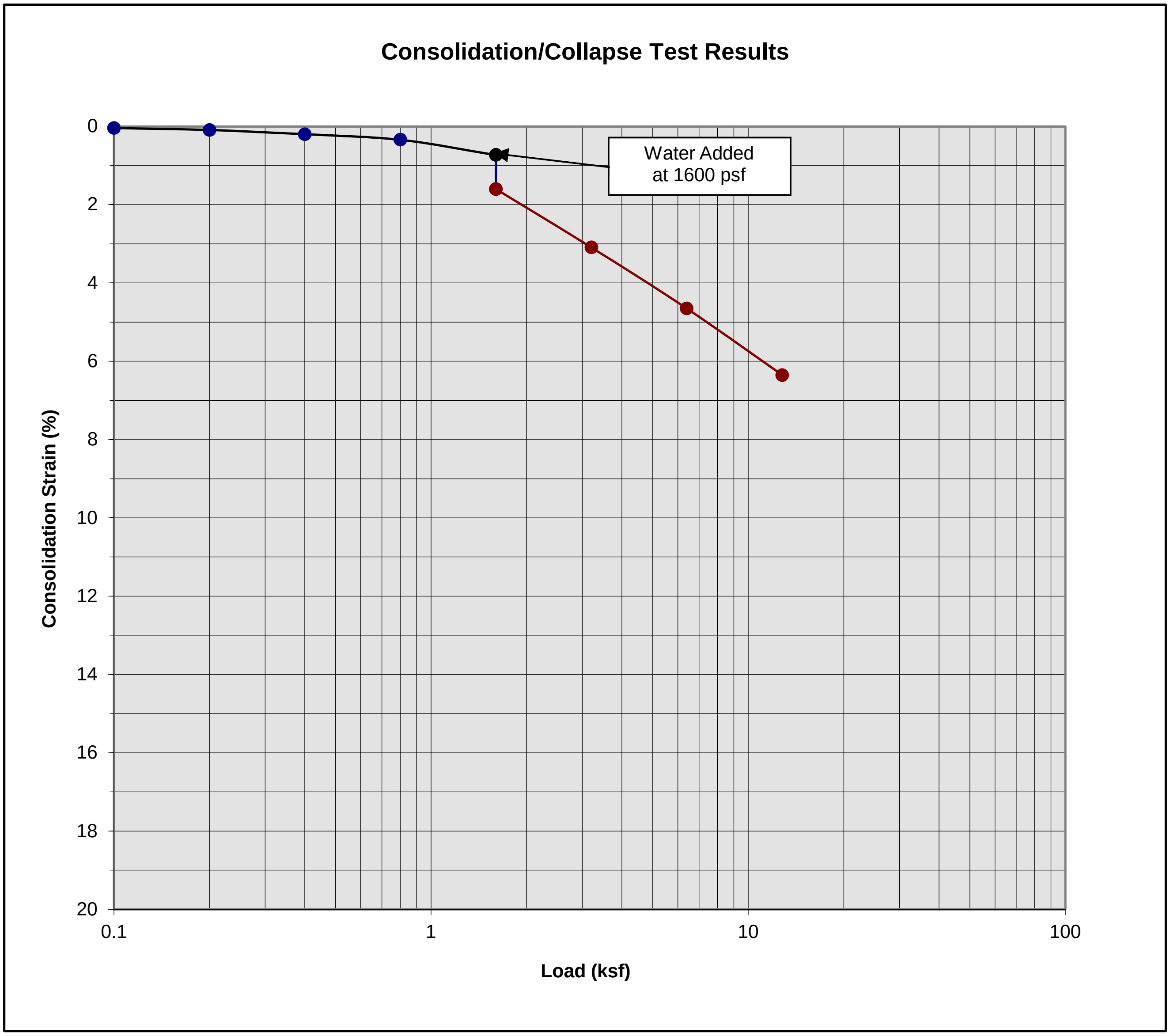


Classification: Brown fine Sandy Silt, trace to little medium to coarse Sand

Boring Number:	B-5	Initial Moisture Content (%)	9
Sample Number:	---	Final Moisture Content (%)	15
Depth (ft)	9 to 10	Initial Dry Density (pcf)	114.9
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	121.5
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.29

Proposed Warehouse Development
Winchester, California
Project No. 22G127-1
PLATE C- 4

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation



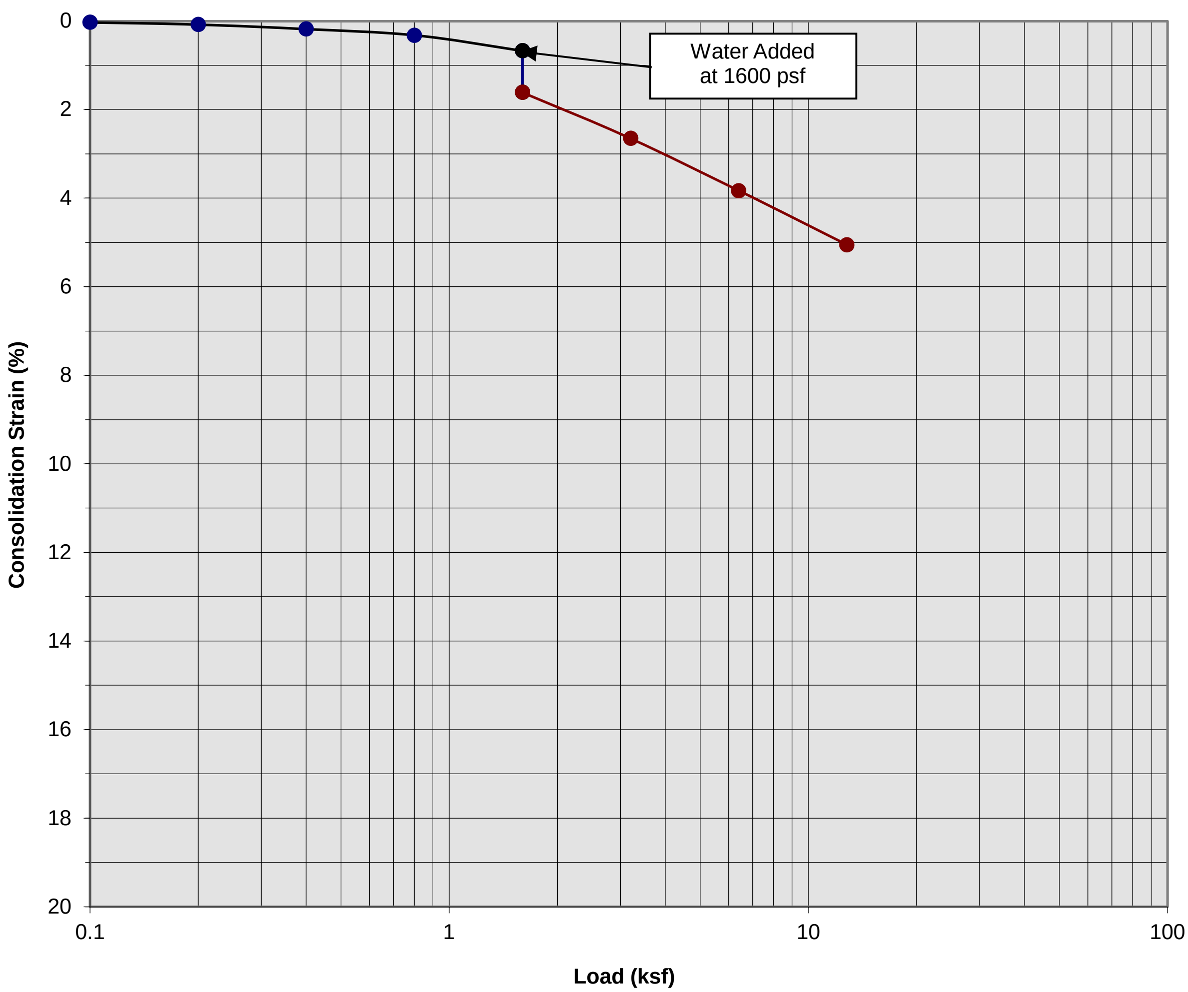
Classification: FILL: Brown Silty fine Sand

Boring Number:	B-12	Initial Moisture Content (%)	8
Sample Number:	---	Final Moisture Content (%)	15
Depth (ft)	3 to 4	Initial Dry Density (pcf)	113.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	120.9
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.87

Proposed Warehouse Development
Winchester, California
Project No. 22G127-1
PLATE C- 5

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results

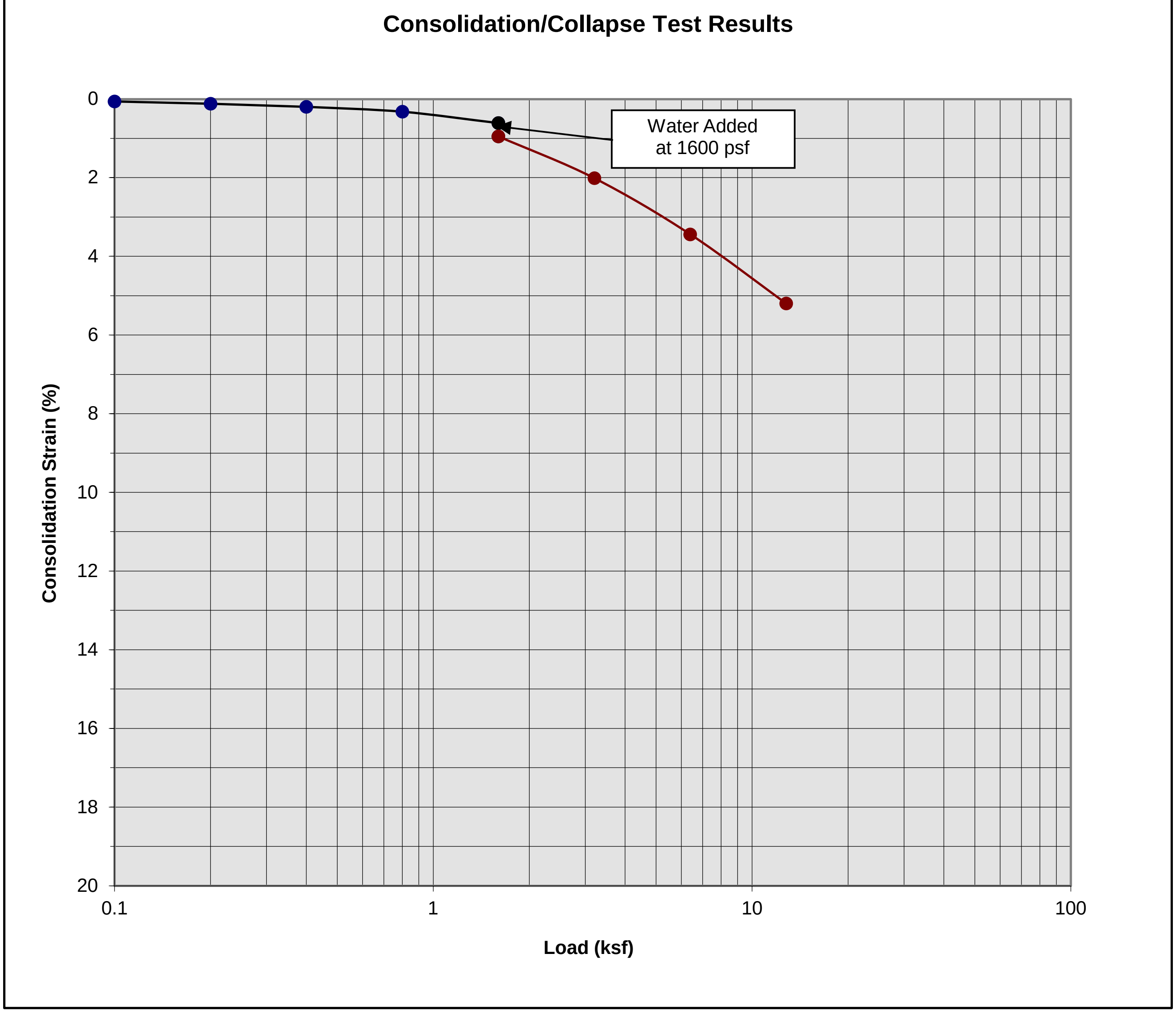


Classification: Gray Brown fine to coarse Sand, trace Silt

Boring Number:	B-12	Initial Moisture Content (%)	4
Sample Number:	---	Final Moisture Content (%)	12
Depth (ft)	5 to 6	Initial Dry Density (pcf)	116.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	122.4
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.94

Proposed Warehouse Development
Winchester, California
Project No. 22G127-1
PLATE C- 6

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL A California Corporation



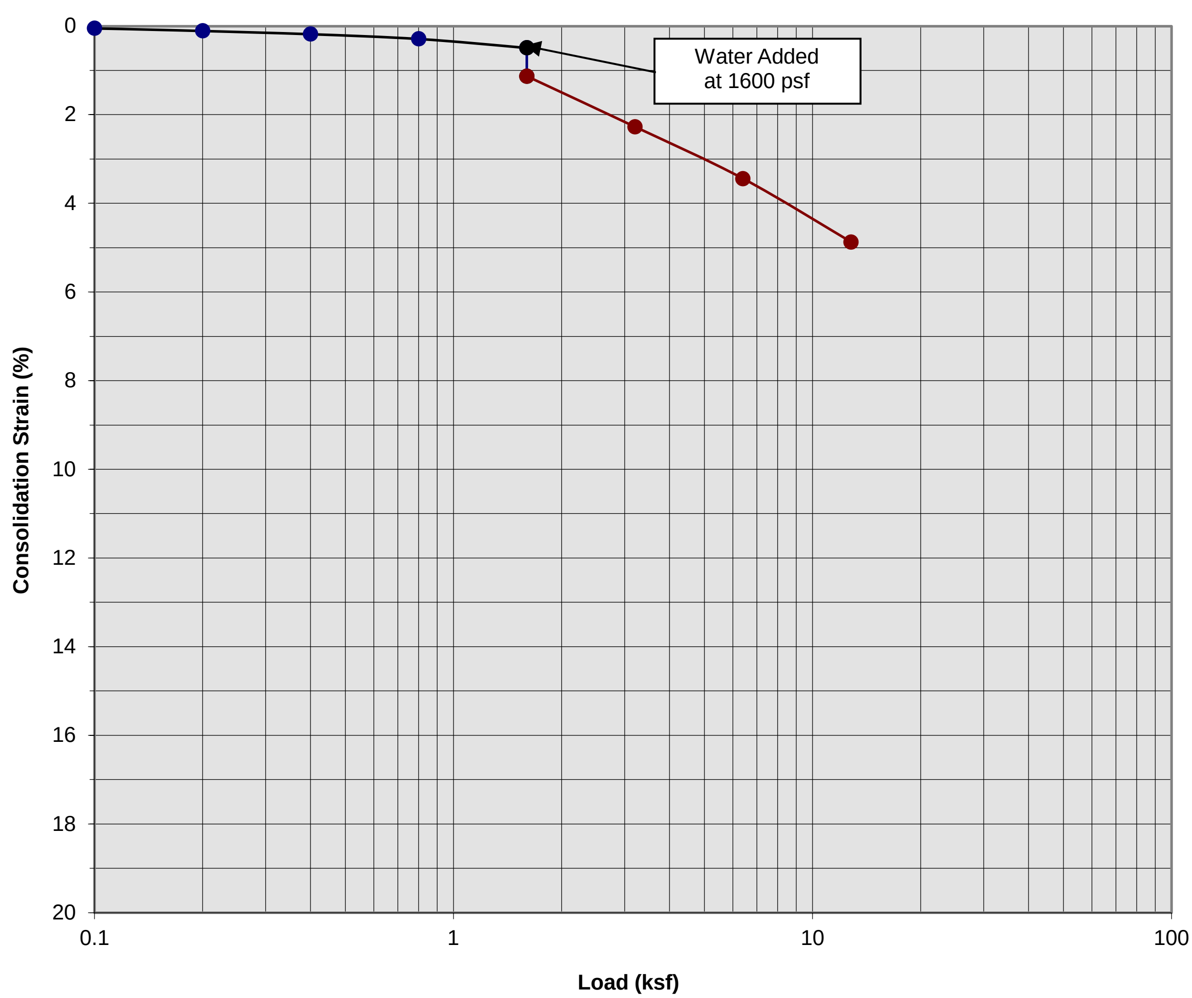
Classification: Gray Brown fine to coarse Sand, trace Silt

Boring Number:	B-12	Initial Moisture Content (%)	6
Sample Number:	---	Final Moisture Content (%)	16
Depth (ft)	7 to 8	Initial Dry Density (pcf)	105.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	110.5
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.34

Proposed Warehouse Development
Winchester, California
Project No. 22G127-1
PLATE C- 7

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



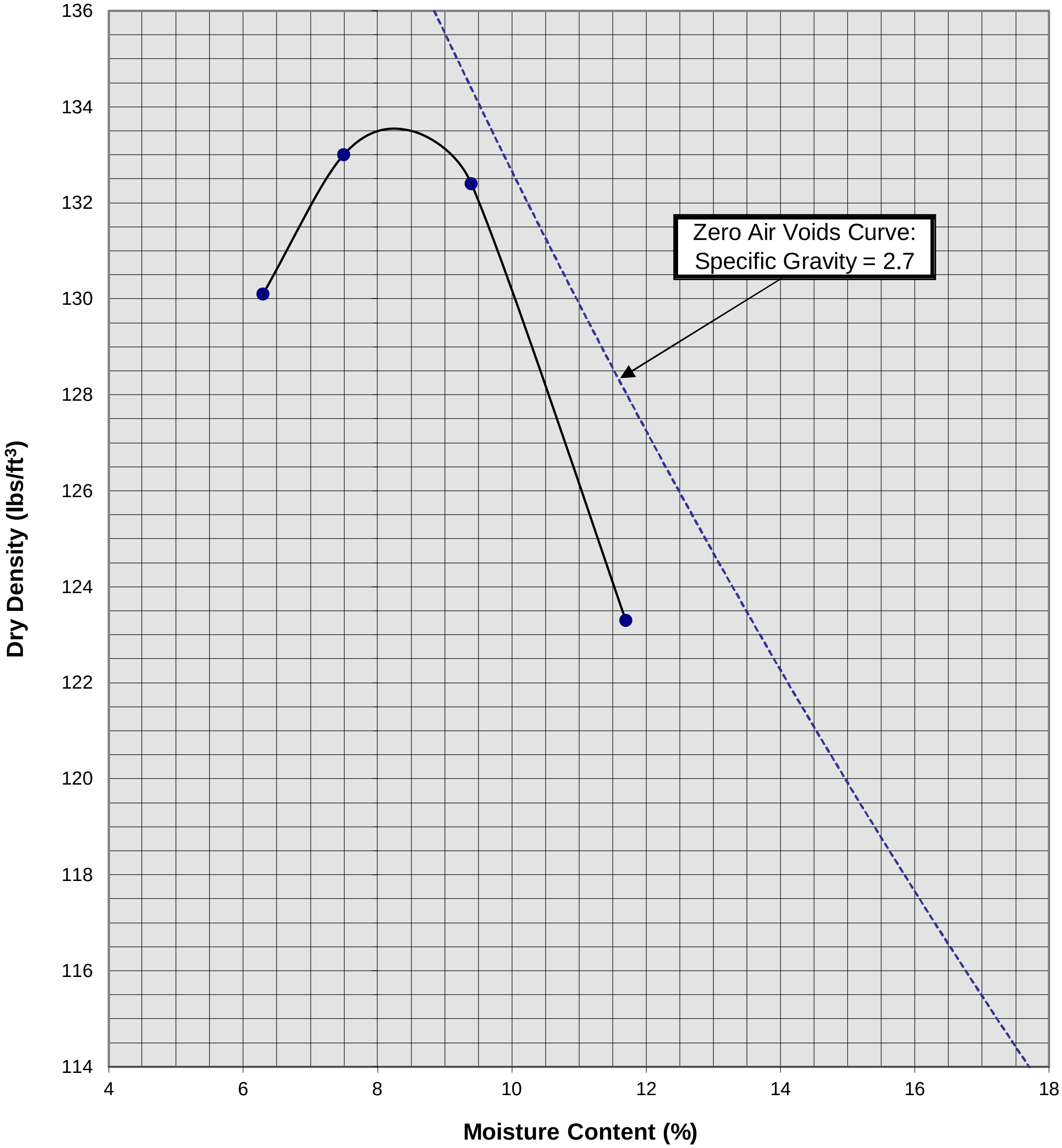
Classification: Gray Brown Silty fine Sand to fine Sandy Silt

Boring Number:	B-12	Initial Moisture Content (%)	6
Sample Number:	---	Final Moisture Content (%)	18
Depth (ft)	9 to 10	Initial Dry Density (pcf)	113.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	119.0
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.64

Proposed Warehouse Development
Winchester, California
Project No. 22G127-1
PLATE C- 8

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

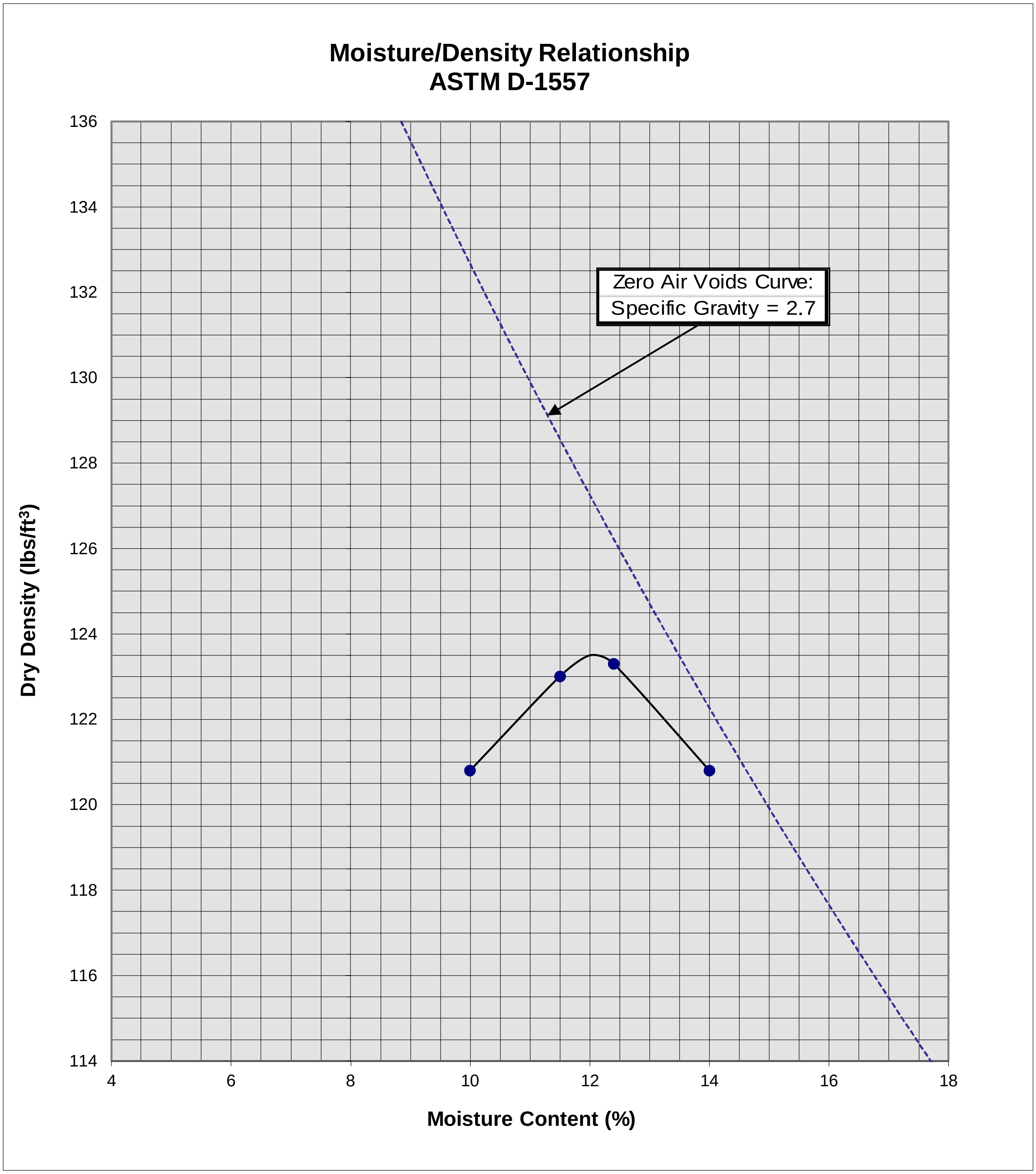
Moisture/Density Relationship
ASTM D-1557



Soil ID Number	B-4 @ 0-5'
Optimum Moisture (%)	8.5
Maximum Dry Density (pcf)	133.5
Soil Classification	Brown Silty fine to medium Sand

Proposed Warehouse Development
Winchester, California
Project No. 22G127-1
PLATE C-9

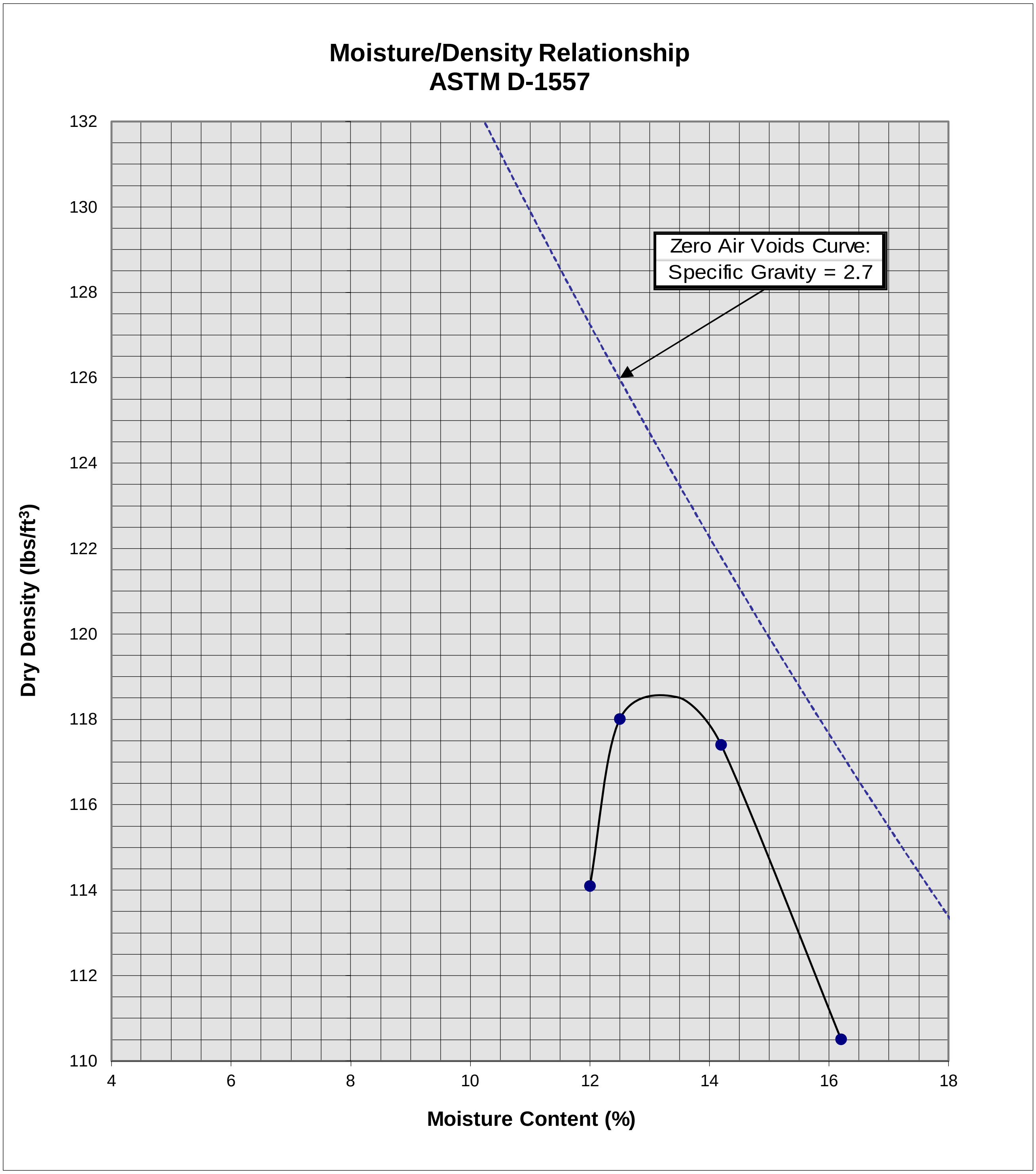
SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation



Soil ID Number		B-8 @ 0-5'
Optimum Moisture (%)		12
Maximum Dry Density (pcf)		123.5
Soil Classification	Dark Gray to Gray Brown Silty fine Sand, little Clay, trace medium Sand	

Proposed Warehouse Development
Winchester, California
Project No. 22G127-1
PLATE C-10

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation



Soil ID Number	B-9 @ 0-5'
Optimum Moisture (%)	13.5
Maximum Dry Density (pcf)	118.5
Soil Classification	Gray Brown Silty fine Sand to fine Sandy Silt, trace medium Sand

Proposed Warehouse Development
Winchester, California
Project No. 22G127-1
PLATE C-11

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

APPENDIX D

GRADING GUIDE SPECIFICATIONS

These grading guide specifications are intended to provide typical procedures for grading operations. They are intended to supplement the recommendations contained in the geotechnical investigation report for this project. Should the recommendations in the geotechnical investigation report conflict with the grading guide specifications, the more site specific recommendations in the geotechnical investigation report will govern.

General

- The Earthwork Contractor is responsible for the satisfactory completion of all earthwork in accordance with the plans and geotechnical reports, and in accordance with city, county, and applicable building codes.

- The Geotechnical Engineer is the representative of the Owner/Builder for the purpose of implementing the report recommendations and guidelines. These duties are not intended to relieve the Earthwork Contractor of any responsibility to perform in a workman-like manner, nor is the Geotechnical Engineer to direct the grading equipment or personnel employed by the Contractor.

- The Earthwork Contractor is required to notify the Geotechnical Engineer of the anticipated work and schedule so that testing and inspections can be provided. If necessary, work may be stopped and redone if personnel have not been scheduled in advance.

- The Earthwork Contractor is required to have suitable and sufficient equipment on the job-site to process, moisture condition, mix and compact the amount of fill being placed to the approved compaction. In addition, suitable support equipment should be available to conform with recommendations and guidelines in this report.

- Canyon cleanouts, overexcavation areas, processed ground to receive fill, key excavations, subdrains and benches should be observed by the Geotechnical Engineer prior to placement of any fill. It is the Earthwork Contractor's responsibility to notify the Geotechnical Engineer of areas that are ready for inspection.

- Excavation, filling, and subgrade preparation should be performed in a manner and sequence that will provide drainage at all times and proper control of erosion. Precipitation, springs, and seepage water encountered shall be pumped or drained to provide a suitable working surface. The Geotechnical Engineer must be informed of springs or water seepage encountered during grading or foundation construction for possible revision to the recommended construction procedures and/or installation of subdrains.

Site Preparation

- The Earthwork Contractor is responsible for all clearing, grubbing, stripping and site preparation for the project in accordance with the recommendations of the Geotechnical Engineer.

- If any materials or areas are encountered by the Earthwork Contractor which are suspected of having toxic or environmentally sensitive contamination, the Geotechnical Engineer and Owner/Builder should be notified immediately.

- Major vegetation should be stripped and disposed of off-site. This includes trees, brush, heavy grasses and any materials considered unsuitable by the Geotechnical Engineer.

- Underground structures such as basements, cesspools or septic disposal systems, mining shafts, tunnels, wells and pipelines should be removed under the inspection of the Geotechnical Engineer and recommendations provided by the Geotechnical Engineer and/or city, county or state agencies. If such structures are known or found, the Geotechnical Engineer should be notified as soon as possible so that recommendations can be formulated.

- Any topsoil, slopewash, colluvium, alluvium and rock materials which are considered unsuitable by the Geotechnical Engineer should be removed prior to fill placement.

- Remaining voids created during site clearing caused by removal of trees, foundations basements, irrigation facilities, etc., should be excavated and filled with compacted fill.

- Subsequent to clearing and removals, areas to receive fill should be scarified to a depth of 10 to 12 inches, moisture conditioned and compacted

- The moisture condition of the processed ground should be at or slightly above the optimum moisture content as determined by the Geotechnical Engineer. Depending upon field conditions, this may require air drying or watering together with mixing and/or discing.

<u>Compacted Fills</u>

- Soil materials imported to or excavated on the property may be utilized in the fill, provided each material has been determined to be suitable in the opinion of the Geotechnical Engineer. Unless otherwise approved by the Geotechnical Engineer, all fill materials shall be free of deleterious, organic, or frozen matter, shall contain no chemicals that may result in the material being classified as “contaminated,” and shall be very low to non-expansive with a maximum expansion index (EI) of 50. The top 12 inches of the compacted fill should have a maximum particle size of 3 inches, and all underlying compacted fill material a maximum 6-inch particle size, except as noted below.

- All soils should be evaluated and tested by the Geotechnical Engineer. Materials with high expansion potential, low strength, poor gradation or containing organic materials may require removal from the site or selective placement and/or mixing to the satisfaction of the Geotechnical Engineer.

- Rock fragments or rocks less than 6 inches in their largest dimensions, or as otherwise determined by the Geotechnical Engineer, may be used in compacted fill, provided the distribution and placement is satisfactory in the opinion of the Geotechnical Engineer.

- Rock fragments or rocks greater than 12 inches should be taken off-site or placed in accordance with recommendations and in areas designated as suitable by the Geotechnical Engineer. These materials should be placed in accordance with Plate D-8 of these Grading Guide Specifications and in accordance with the following recommendations:

  - Rocks 12 inches or more in diameter should be placed in rows at least 15 feet apart, 15 feet from the edge of the fill, and 10 feet or more below subgrade. Spaces should be left between each rock fragment to provide for placement and compaction of soil around the fragments.

  - Fill materials consisting of soil meeting the minimum moisture content requirements and free of oversize material should be placed between and over the rows of rock or concrete. Ample water and compactive effort should be applied to the fill materials as they are placed in order that all of the voids between each of the fragments are filled and compacted to the specified density.

- Subsequent rows of rocks should be placed such that they are not directly above a row placed in the previous lift of fill. A minimum 5-foot offset between rows is recommended.

- To facilitate future trenching, oversized material should not be placed within the range of foundation excavations, future utilities or other underground construction unless specifically approved by the soil engineer and the developer/owner representative.

- Fill materials approved by the Geotechnical Engineer should be placed in areas previously prepared to receive fill and in evenly placed, near horizontal layers at about 6 to 8 inches in loose thickness, or as otherwise determined by the Geotechnical Engineer for the project.

- Each layer should be moisture conditioned to optimum moisture content, or slightly above, as directed by the Geotechnical Engineer. After proper mixing and/or drying, to evenly distribute the moisture, the layers should be compacted to at least 90 percent of the maximum dry density in compliance with ASTM D-1557-78 unless otherwise indicated.

- Density and moisture content testing should be performed by the Geotechnical Engineer at random intervals and locations as determined by the Geotechnical Engineer. These tests are intended as an aid to the Earthwork Contractor, so he can evaluate his workmanship, equipment effectiveness and site conditions. The Earthwork Contractor is responsible for compaction as required by the Geotechnical Report(s) and governmental agencies.

- Fill areas unused for a period of time may require moisture conditioning, processing and recompaction prior to the start of additional filling. The Earthwork Contractor should notify the Geotechnical Engineer of his intent so that an evaluation can be made.

- Fill placed on ground sloping at a 5-to-1 inclination (horizontal-to-vertical) or steeper should be benched into bedrock or other suitable materials, as directed by the Geotechnical Engineer. Typical details of benching are illustrated on Plates D-2, D-4, and D-5.

- Cut/fill transition lots should have the cut portion overexcavated to a depth of at least 3 feet and rebuilt with fill (see Plate D-1), as determined by the Geotechnical Engineer.

- All cut lots should be inspected by the Geotechnical Engineer for fracturing and other bedrock conditions. If necessary, the pads should be overexcavated to a depth of 3 feet and rebuilt with a uniform, more cohesive soil type to impede moisture penetration.

- Cut portions of pad areas above buttresses or stabilizations should be overexcavated to a depth of 3 feet and rebuilt with uniform, more cohesive compacted fill to impede moisture penetration.

- Non-structural fill adjacent to structural fill should typically be placed in unison to provide lateral support. Backfill along walls must be placed and compacted with care to ensure that excessive unbalanced lateral pressures do not develop. The type of fill material placed adjacent to below grade walls must be properly tested and approved by the Geotechnical Engineer with consideration of the lateral earth pressure used in the design.

Foundations

- The foundation influence zone is defined as extending one foot horizontally from the outside edge of a footing, and proceeding downward at a ½ horizontal to 1 vertical (0.5:1) inclination.

- Where overexcavation beneath a footing subgrade is necessary, it should be conducted so as to encompass the entire foundation influence zone, as described above.

- Compacted fill adjacent to exterior footings should extend at least 12 inches above foundation bearing grade. Compacted fill within the interior of structures should extend to the floor subgrade elevation.

Fill Slopes

- The placement and compaction of fill described above applies to all fill slopes. Slope compaction should be accomplished by overfilling the slope, adequately compacting the fill in even layers, including the overfilled zone and cutting the slope back to expose the compacted core

- Slope compaction may also be achieved by backrolling the slope adequately every 2 to 4 vertical feet during the filling process as well as requiring the earth moving and compaction equipment to work close to the top of the slope. Upon completion of slope construction, the slope face should be compacted with a sheepsfoot connected to a sideboom and then grid rolled. This method of slope compaction should only be used if approved by the Geotechnical Engineer.

- Sandy soils lacking in adequate cohesion may be unstable for a finished slope condition and therefore should not be placed within 15 horizontal feet of the slope face.

- All fill slopes should be keyed into bedrock or other suitable material. Fill keys should be at least 15 feet wide and inclined at 2 percent into the slope. For slopes higher than 30 feet, the fill key width should be equal to one-half the height of the slope (see Plate D-5).

- All fill keys should be cleared of loose slough material prior to geotechnical inspection and should be approved by the Geotechnical Engineer and governmental agencies prior to filling.

- The cut portion of fill over cut slopes should be made first and inspected by the Geotechnical Engineer for possible stabilization requirements. The fill portion should be adequately keyed through all surficial soils and into bedrock or suitable material. Soils should be removed from the transition zone between the cut and fill portions (see Plate D-2).

Cut Slopes

- All cut slopes should be inspected by the Geotechnical Engineer to determine the need for stabilization. The Earthwork Contractor should notify the Geotechnical Engineer when slope cutting is in progress at intervals of 10 vertical feet. Failure to notify may result in a delay in recommendations.

- Cut slopes exposing loose, cohesionless sands should be reported to the Geotechnical Engineer for possible stabilization recommendations.

- All stabilization excavations should be cleared of loose slough material prior to geotechnical inspection. Stakes should be provided by the Civil Engineer to verify the location and dimensions of the key. A typical stabilization fill detail is shown on Plate D-5.

- Stabilization key excavations should be provided with subdrains. Typical subdrain details are shown on Plates D-6.

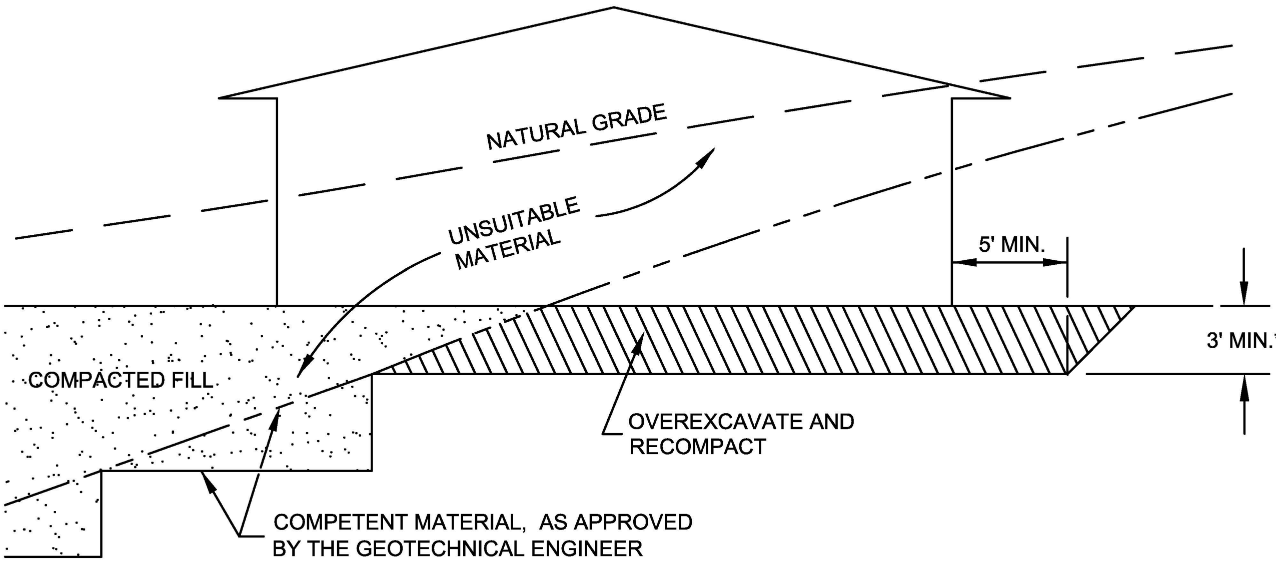
Subdrains

- Subdrains may be required in canyons and swales where fill placement is proposed. Typical subdrain details for canyons are shown on Plate D-3. Subdrains should be installed after approval of removals and before filling, as determined by the Soils Engineer.

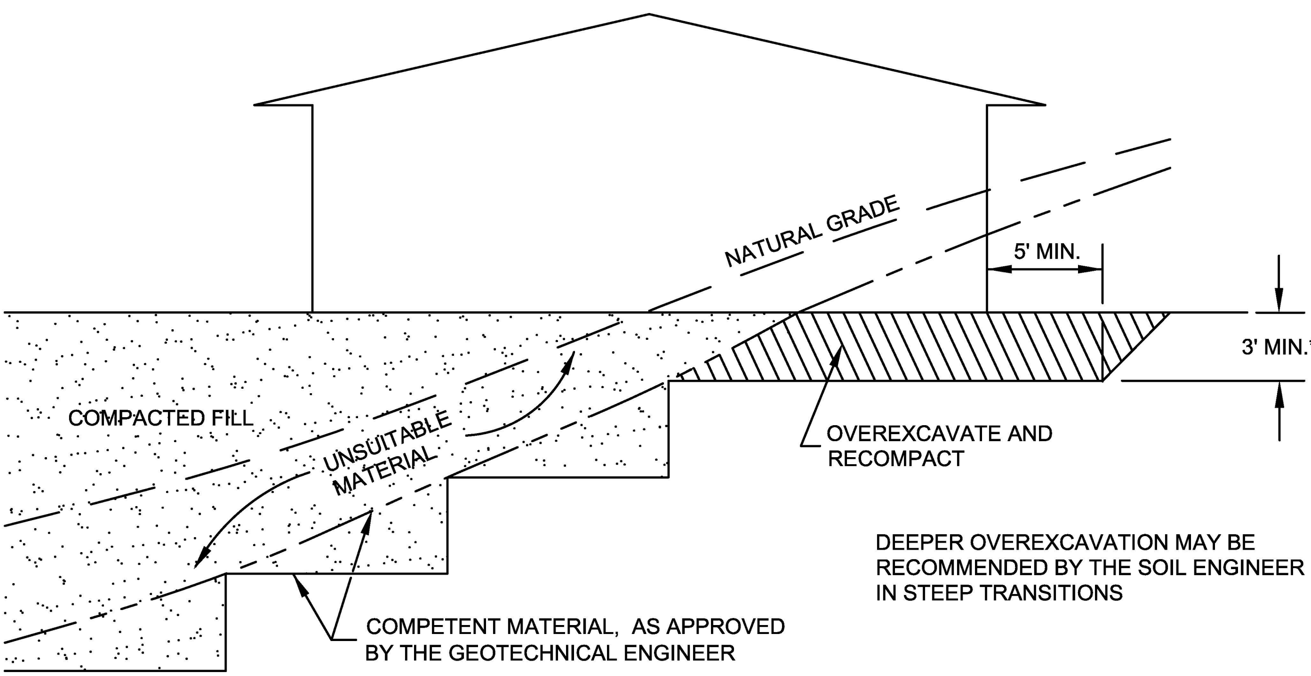
- Plastic pipe may be used for subdrains provided it is Schedule 40 or SDR 35 or equivalent. Pipe should be protected against breakage, typically by placement in a square-cut (backhoe) trench or as recommended by the manufacturer.

- Filter material for subdrains should conform to CALTRANS Specification 68-1.025 or as approved by the Geotechnical Engineer for the specific site conditions. Clean ¾-inch crushed rock may be used provided it is wrapped in an acceptable filter cloth and approved by the Geotechnical Engineer. Pipe diameters should be 6 inches for runs up to 500 feet and 8 inches for the downstream continuations of longer runs. Four-inch diameter pipe may be used in buttress and stabilization fills.

CUT LOT



CUT/FILL LOT (TRANSITION)



*SEE TEXT OF REPORT FOR SPECIFIC RECOMMENDATION.
ACTUAL DEPTH OF OVEREXCAVATION MAY BE GREATER.

TRANSITION LOT DETAIL

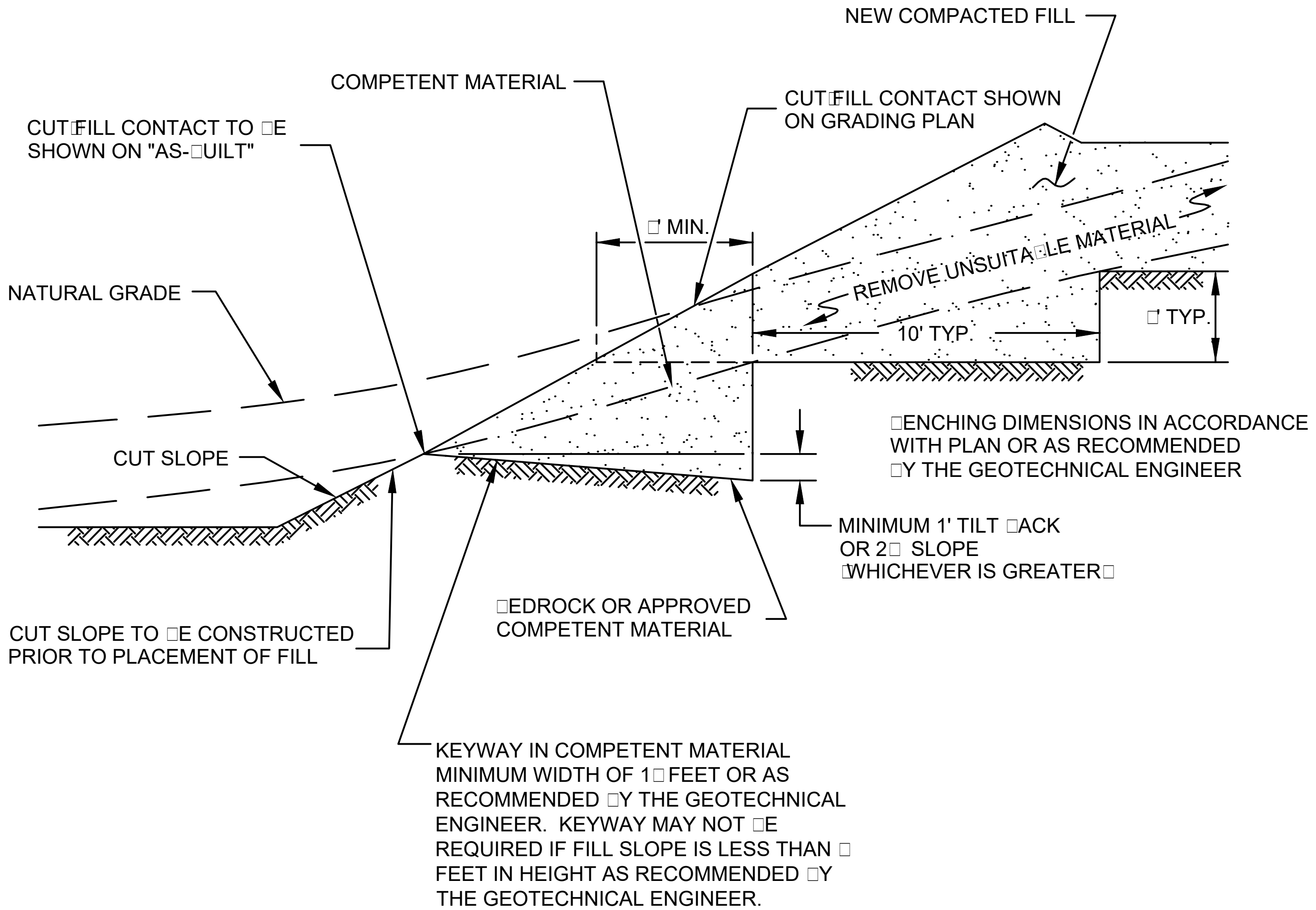
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



FILL ABOVE CUT SLOPE DETAIL

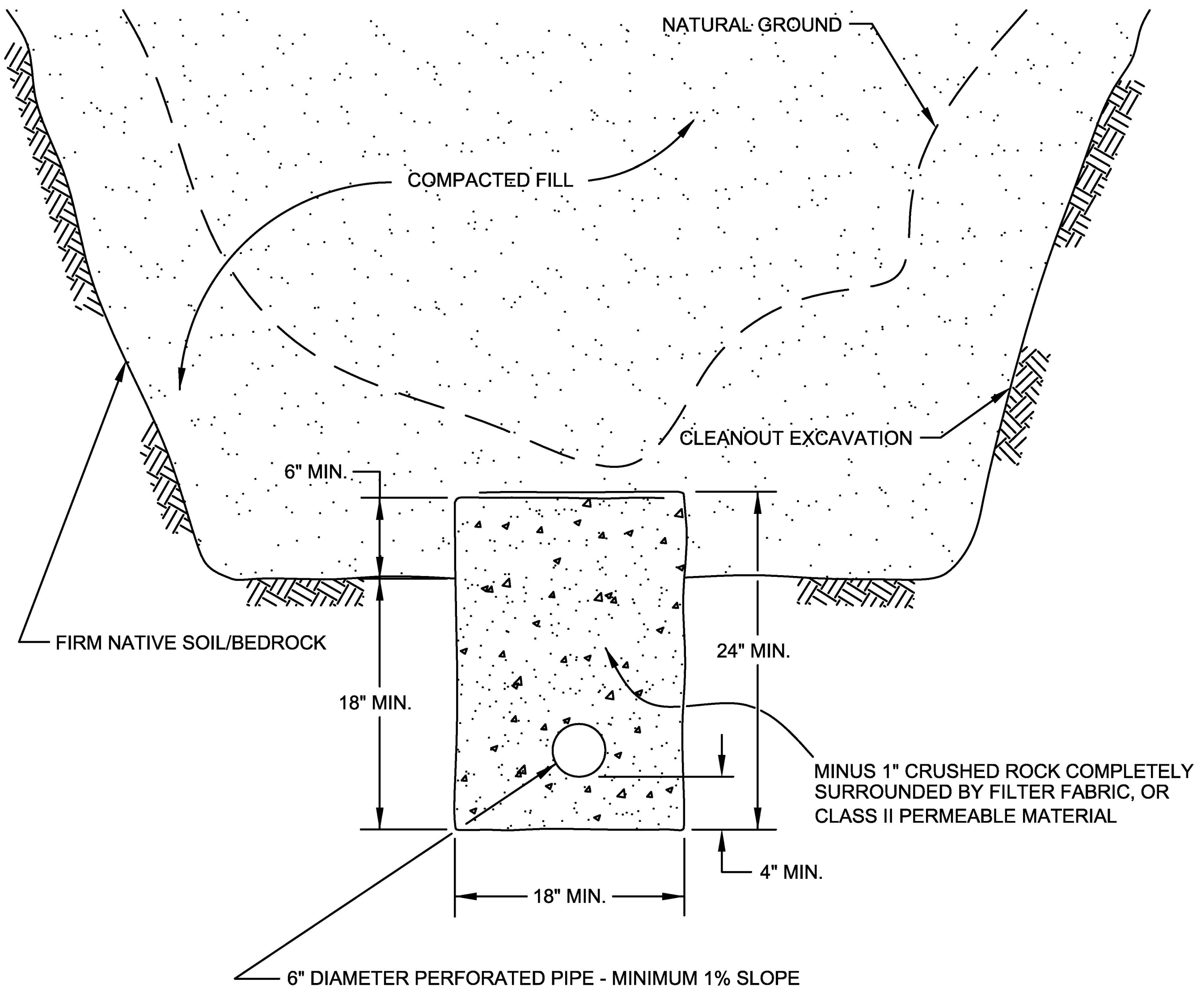
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-2

SOUTHERN CALIFORNIA GEOTECHNICAL



PIPE MATERIAL	DEPTH OF FILL OVER SUBDRAIN
ADS (CORRUGATED POLETHYLENE)	8
TRANSITE UNDERDRAIN	20
PVC OR ABS: SDR 35	35
SDR 21	100

SCHEMATIC ONLY
NOT TO SCALE

CANYON SUBDRAIN DETAIL

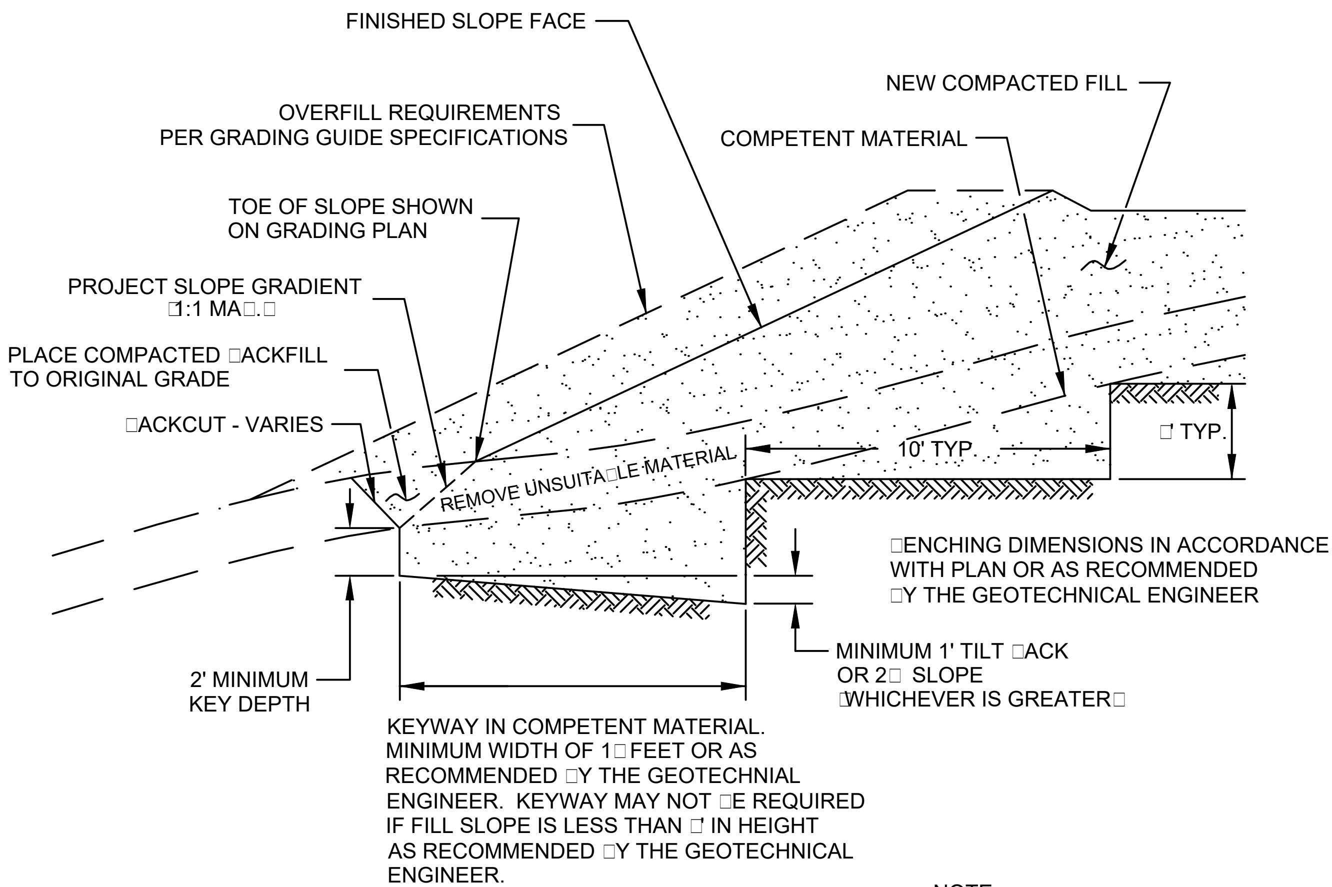
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



NOTE:
□ENCHING SHALL □E REQUIRED
WHEN NATURAL SLOPES ARE
EQUAL TO OR STEEPER THAN □:1
OR WHEN RECOMMENDED □Y
THE GEOTECHNICAL ENGINEER.

FILL ABOVE NATURAL SLOPE DETAIL

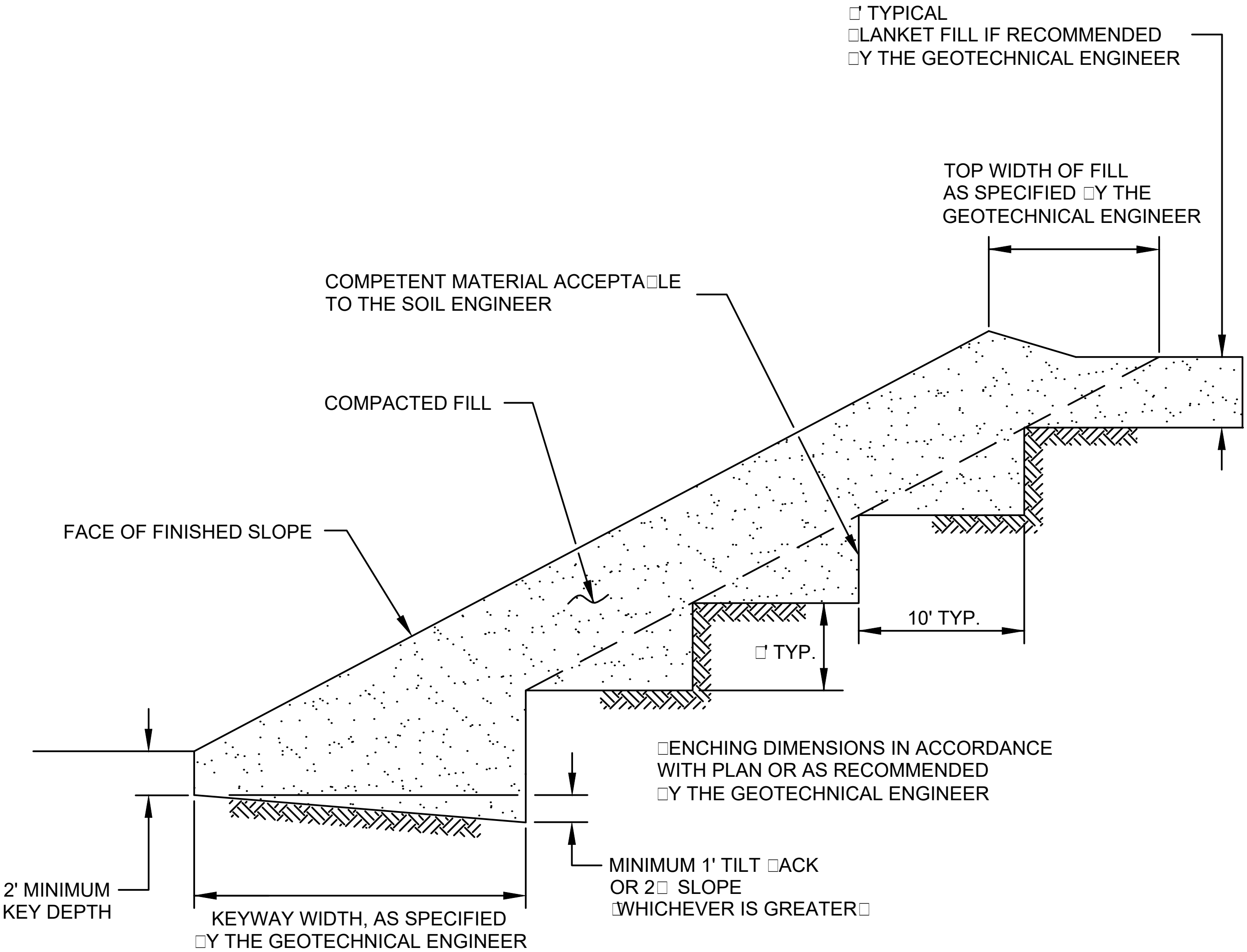
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-4

SOUTHERN CALIFORNIA GEOTECHNICAL



STABILIZATION FILL DETAIL

GRADING GUIDE SPECIFICATIONS

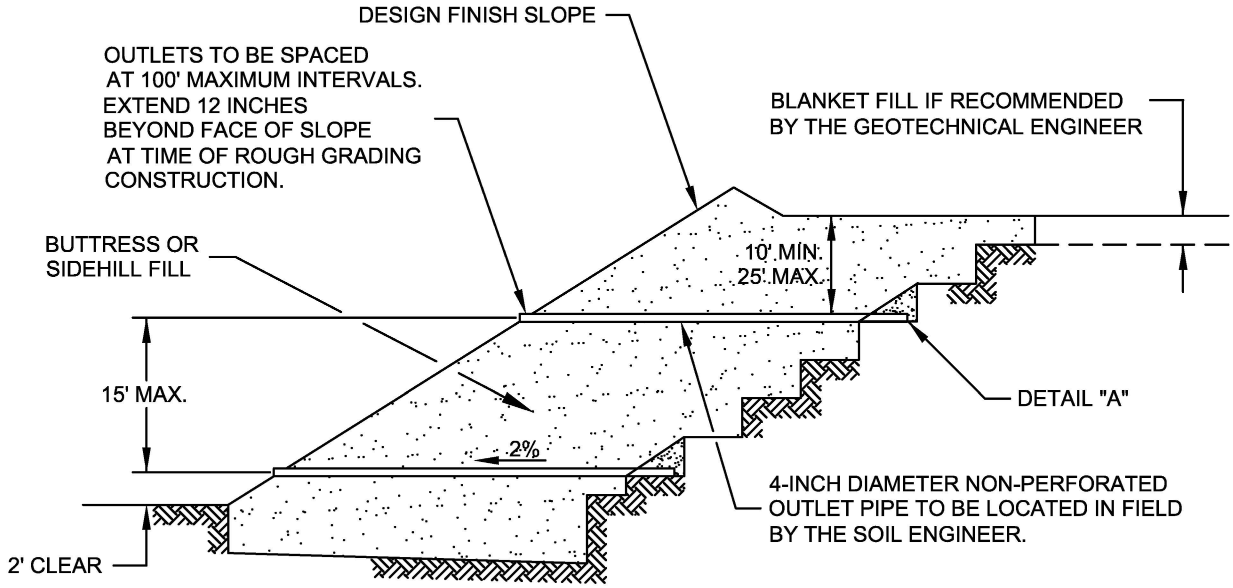
NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-5

SoCalGeo

SOUTHERN
CALIFORNIA
GEOTECHNICAL



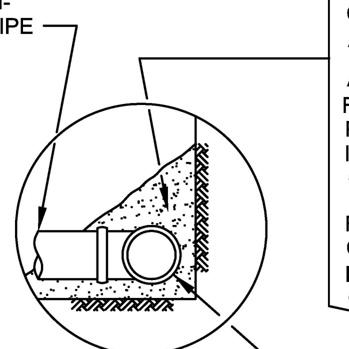
"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50



DETAIL "A"

NOTES:
1. TRENCH FOR OUTLET PIPES TO BE BACKFILLED WITH ON-SITE SOIL.

SLOPE FILL SUBDRAINS

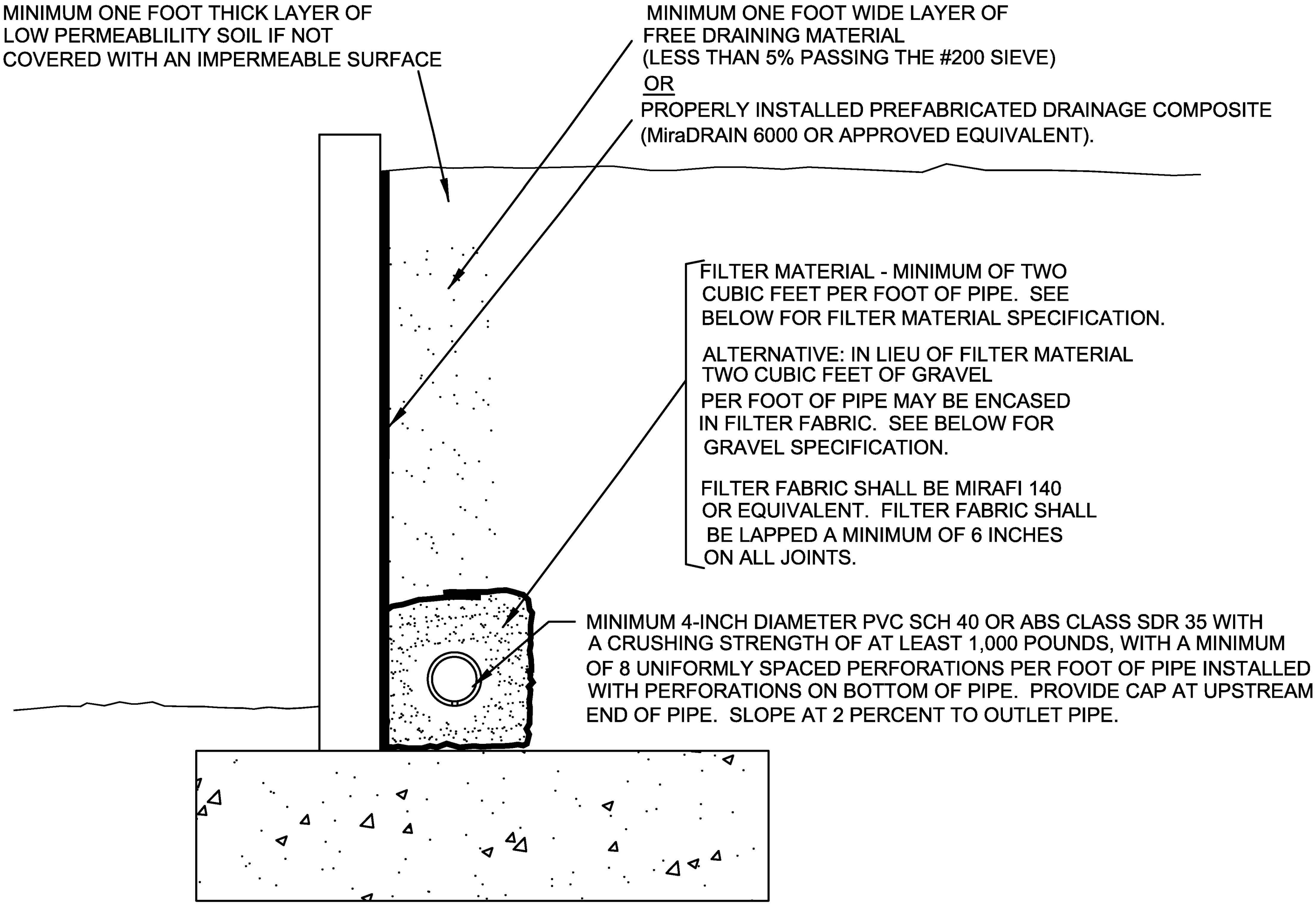
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-6

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL



"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50

RETAINING WALL BACKDRAINS

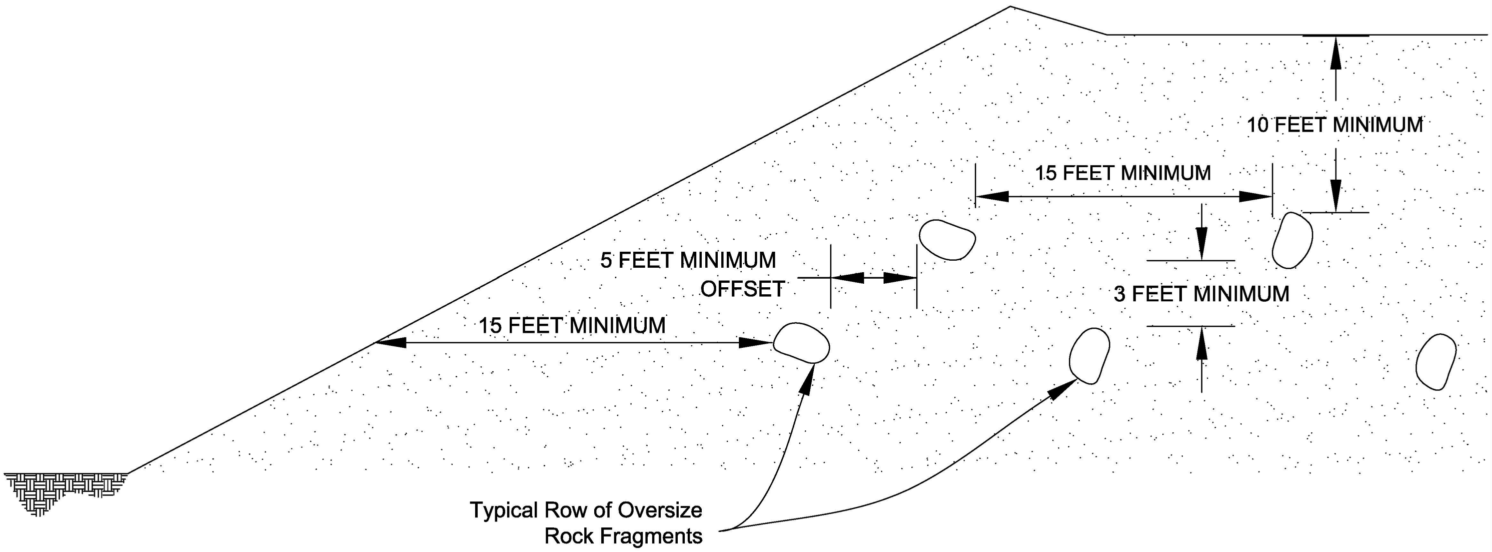
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

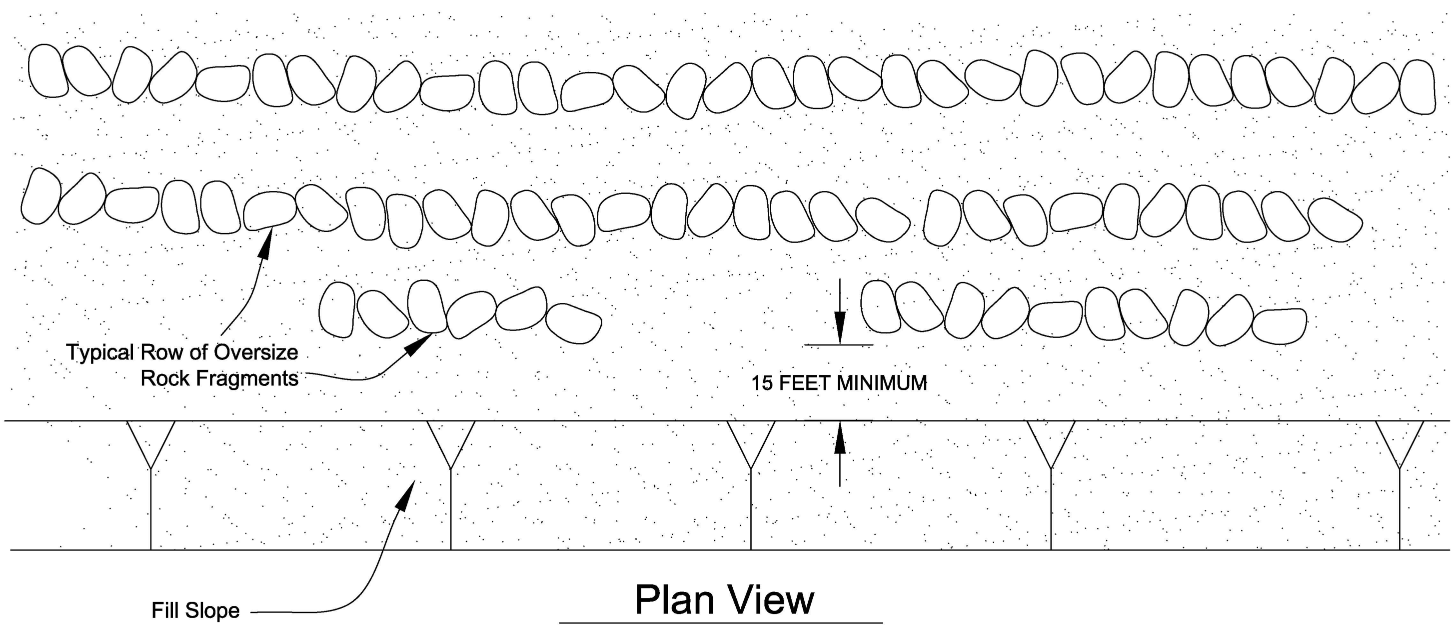
DRAWN: JAS
CHKD: GKM

PLATE D-7

SOUTHERN CALIFORNIA GEOTECHNICAL



Section View



Plan View

PLACEMENT OF OVERSIZED MATERIAL

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: PM
CHKD: GKM

PLATE D-8

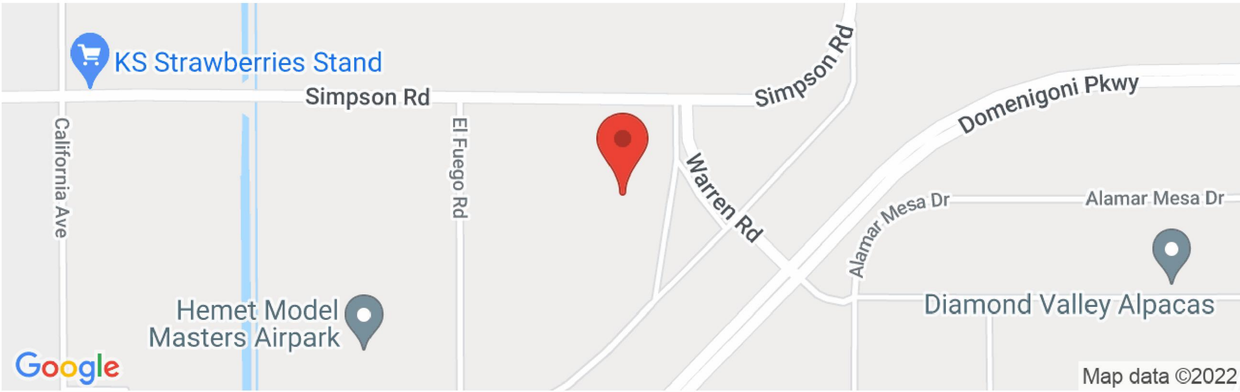
SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX E

OSHPD

Latitude, Longitude: 33.705684, -117.037642



Date	4/5/2022, 3:28:01 PM
Design Code Reference Document	ASCE7-16
Risk Category	III
Site Class	D - Stiff Soil

Type	Value	Description
S_S	1.5	MCE_R ground motion. (for 0.2 second period)
S_1	0.6	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.5	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.571	MCE_G peak ground acceleration
F_{PGA}	1.1	Site amplification factor at PGA
PGA_M	0.628	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	1.592	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.739	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.605	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.674	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.571	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.916	Mapped value of the risk coefficient at short periods
C_{R1}	0.897	Mapped value of the risk coefficient at a period of 1 s

SOURCE: SEAOC/OSHPD Seismic Design Maps Tool
<https://seismicmaps.org/>

SEISMIC DESIGN PARAMETERS - 2019 CBC

PROPOSED WAREHOUSE DEVELOPMENT

WINCHESTER, CALIFORNIA

DRAWN: MD
CHKD: DN

SCG PROJECT
22G127-1

PLATE E-1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX F

LIQUEFACTION EVALUATION

Project Name	Warehouse Development	MCE_G Design Acceleration	0.571 (g)
Project Location	Winchester, California	Design Magnitude	7.06
Project Number	22G127-1	Historic High Depth to Groundwater	30 (ft)
Engineer	DWN	Depth to Groundwater at Time of Drilling	40 (ft)
		Borehole Diameter	6 (in)
Boring No.	B-1		

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	Uncorrected SPT N-Value	Unit Weight of Soil (pcf)	Fines Content (%)	Energy Correction	C_B	C_S	C_N	Rod Length Correction	$(N_1)_{60}$	$(N_1)_{60CS}$	Overburden Stress (σ_o) (psf)	Eff. Overburden Stress (Hist. Water) (σ_o') (psf)	Eff. Overburden Stress (Curr. Water) (σ_o') (psf)	Stress Reduction Coefficient (r_d)	MSF	Ks	Cyclic Resistance Ratio (M=7.5)	Cyclic Resistance Ratio (M=7.06)	Cyclic Stress Ratio Induced by Design Earthquake	Factor of Safety	Comments
							(1)	(2)	(3)	(4)	(5)	(6)	(7)				(8)	(9)	(10)	(11)	(12)	(13)		
7	0	30	15		120		1.3	1.05	1.1	1.14	0.75	0.0	0.0	1800	1800	1800	0.95	1.01	1.01	0.06	0.06	N/A	N/A	Above Water Table
29.5	30	32	31	14	120	32	1.3	1.05	1.167	0.79	0.95	16.7	22.1	3720	3658	3720	0.88	1.09	0.92	0.23	0.24	0.33	0.71	**Liquefiable**
34.5	32	37	34.5	20	120	24	1.3	1.05	1.276	0.79	1	27.6	32.6	4140	3859	4140	0.86	1.18	0.86	0.71	0.72	0.34	2.11	Nonliquefiable
39.5	37	42	39.5	19	120	34	1.3	1.05	1.239	0.74	1	23.9	29.4	4740	4147	4740	0.83	1.15	0.87	0.45	0.45	0.35	1.26	**Liquefiable**
44.5	42	47	44.5	20	120	51	1.3	1.05	1.249	0.73	1	24.9	30.5	5340	4435	5059	0.80	1.16	0.84	0.52	0.51	0.36	1.42	Nonliquefiable
49.5	47	50	48.5	14	120	72	1.3	1.05	1.147	0.67	1	14.7	20.2	5820	4666	5290	0.78	1.08	0.89	0.21	0.20	0.36	0.55	**Liquefiable**

Notes:

(1) Energy Correction for N_{90} of automatic hammer to standard N_{60}
(2) Borehole Diameter Correction (Skempton, 1986)
(3) Correction for split-spoon sampler with room for liners, but liners are absent, (Seed et al., 1984, 2001)
(4) Overburden Correction, Caluclated by Eq. 39 (Boulanger and Idriss, 2008)
(5) Rod Length Correction for Samples <10 m in depth
(6) N-value corrected for energy, borehole diameter, sampler with absent liners, rod length, and overburden
(7) N-value corrected for fines content per Eqs. 75 and 76 (Boulanger and Idriss, 2008)
(8) Stress Reduction Coefficient calculated by Eq. 22 (Boulanger and Idriss, 2008)
(9) Magnitude Scaling Factor calculated by Eqns. A.8 & A.10 (Boulanger and Idriss, 2014)
(10) Overburden Correction Factor calcuated by Eq. 54 (Boulanger and Idriss, 2008)
(11) Calcuated by Eq. 70 (Boulanger and Idriss, 2008)
(12) Calcuated by Eq. 72 (Boulanger and Idriss, 2008)
(13) Calcuated by Eq. 25 (Boulanger and Idriss, 2008)

LIQUEFACTION INDUCED SETTLEMENTS

Project Name	Warehouse Development
Project Location	Winchester, California
Project Number	22G127-1
Engineer	DWN

Boring No. B-1

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	$(N_1)_{60}$	DN for fines content	$(N_1)_{60\text{-}CS}$	Liquefaction Factor of Safety	Limiting Shear Strain γ_{min}	Parameter $F\alpha$	Maximum Shear Strain γ_{max}	Height of Layer		Vertical Reconsolidation Strain ε_v		Total Deformation of Layer (in)	Comments
				(1)	(2)	(3)	(4)	(5)	(6)	(7)			(8)			
7	0	30	15	0.0	0.0	0.0	N/A	0.50	0.95	0.00	30.00		0.000		0.00	Above Water Table
29.5	30	32	31	16.7	5.4	22.1	0.71	0.12	0.40	0.09	2.00		0.021		0.51	**Liquefiable**
34.5	32	37	34.5	27.6	5.0	32.6	2.11	0.03	-0.27	0.00	5.00		0.000		0.00	Nonliquefiable
39.5	37	42	39.5	23.9	5.5	29.4	1.26	0.05	-0.05	0.02	5.00		0.004		0.25	**Liquefiable**
44.5	42	47	44.5	24.9	5.6	30.5	1.42	0.04	-0.13	0.01	5.00		0.000		0.00	Nonliquefiable
49.5	47	50	48.5	14.7	5.6	20.2	0.55	0.15	0.51	0.15	3.00		0.023		0.82	**Liquefiable**

Total Deformation (in)	1.58

Notes:

(1) $(N_1)_{60}$ calculated previously for the individual layer
(2) Correction for fines content per Equation 76 (Boulanger and Idriss, 2008)
(3) Corrected $(N_1)_{60}$ for fines content
(4) Factor of Safety against Liquefaction, calculated previously for the individual layer
(5) Calcuated by Eq. 86 (Boulanger and Idriss, 2008)
(6) Calcuated by Eq. 89 (Boulanger and Idriss, 2008)
(7) Calcuated by Eqs. 90, 91, and 92 (Boulanger and Idriss, 2008)
(8) Volumetric Strain Induced in a Liquefiable Layer, Calcuated by Eq. 96 (Boulanger and Idriss, 2008)
(Strain N/A if Factor of Safety against Liquefaction > 1.3)

LIQUEFACTION EVALUATION

Project Name	Warehouse Development	MCE_G Design Acceleration	0.571 (g)
Project Location	Winchester, California	Design Magnitude	7.06
Project Number	22G127-1	Historic High Depth to Groundwater	30 (ft)
Engineer	DWN	Depth to Groundwater at Time of Drilling	36 (ft)
		Borehole Diameter	6 (in)
Boring No.	B-3		

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	Uncorrected SPT N-Value	Unit Weight of Soil (pcf)	Fines Content (%)	Energy Correction	C_B	C_S	C_N	Rod Length Correction	$(N_1)_{60}$	$(N_1)_{60CS}$	Overburden Stress (σ_o) (psf)	Eff. Overburden Stress (Hist. Water) (σ_o') (psf)	Eff. Overburden Stress (Curr. Water) (σ_o') (psf)	Stress Reduction Coefficient (r_d)	MSF	Ks	Cyclic Resistance Ratio (M=7.5)	Cyclic Resistance Ratio (M=7.06)	Cyclic Stress Ratio Induced by Design Earthquake	Factor of Safety	Comments
							(1)	(2)	(3)	(4)	(5)	(6)	(7)				(8)	(9)	(10)	(11)	(12)	(13)		
7	0	30	15		120		1.3	1.05	1.1	1.14	0.75	0.0	0.0	1800	1800	1800	0.95	1.01	1.01	0.06	0.06	N/A	N/A	Above Water Table
29.5	30	32	31	12	120	40	1.3	1.05	1.138	0.78	0.95	13.8	19.3	3720	3658	3720	0.88	1.07	0.93	0.20	0.20	0.33	0.60	**Liquefiable**
34.5	32	37	34.5	13	120	56	1.3	1.05	1.153	0.75	1	15.3	20.9	4140	3859	4140	0.86	1.08	0.92	0.22	0.22	0.34	0.63	**Liquefiable**
39.5	37	42	39.5	16	120	58	1.3	1.05	1.192	0.74	1	19.2	24.8	4740	4147	4522	0.83	1.11	0.89	0.29	0.28	0.35	0.80	**Liquefiable**
44.5	42	47	44.5	19	120	49	1.3	1.05	1.237	0.74	1	23.7	29.3	5340	4435	4810	0.80	1.15	0.85	0.45	0.44	0.36	1.22	**Liquefiable**
49.5	47	50	48.5	20	120	47	1.3	1.05	1.25	0.73	1	25.0	30.6	5820	4666	5040	0.78	1.16	0.83	0.52	0.51	0.36	1.40	Nonliquefiable

Notes:

(1) Energy Correction for N_{90} of automatic hammer to standard N_{60}

(2) Borehole Diameter Correction (Skempton, 1986)

(3) Correction for split-spoon sampler with room for liners, but liners are absent, (Seed et al., 1984, 2001)

(4) Overburden Correction, Caluclated by Eq. 39 (Boulanger and Idriss, 2008)

(5) Rod Length Correction for Samples <10 m in depth

(6) N-value corrected for energy, borehole diameter, sampler with absent liners, rod length, and overburden

(7) N-value corrected for fines content per Eqs. 75 and 76 (Boulanger and Idriss, 2008)

(8) Stress Reduction Coefficient calculated by Eq. 22 (Boulanger and Idriss, 2008)

(9) Magnitude Scaling Factor calculated by Eqns. A.8 & A.10 (Boulanger and Idriss, 2014)

(10) Overburden Correction Factor calcuated by Eq. 54 (Boulanger and Idriss, 2008)

(11) Calcuated by Eq. 70 (Boulanger and Idriss, 2008)

(12) Calcuated by Eq. 72 (Boulanger and Idriss, 2008)

(13) Calcuated by Eq. 25 (Boulanger and Idriss, 2008)

LIQUEFACTION INDUCED SETTLEMENTS

Project Name	Warehouse Development
Project Location	Winchester, California
Project Number	22G127-1
Engineer	DWN

Boring No. B-3

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	$(N_1)_{60}$	DN for fines content	$(N_1)_{60\text{-}CS}$	Liquefaction Factor of Safety	Limiting Shear Strain γ_{min}	Parameter Fα	Maximum Shear Strain γ_{max}	Height of Layer		Vertical Reconsolidation Strain ε_v		Total Deformation of Layer (in)	Comments
				(1)	(2)	(3)	(4)	(5)	(6)	(7)			(8)			
7	0	30	15	0.0	0.0	0.0	N/A	0.50	0.95	0.00	30.00		0.000		0.00	Above Water Table
29.5	30	32	31	13.8	5.6	19.3	0.60	0.17	0.55	0.17	2.00		0.024		0.57	**Liquefiable**
34.5	32	37	34.5	15.3	5.6	20.9	0.63	0.14	0.47	0.14	5.00		0.022		1.33	**Liquefiable**
39.5	37	42	39.5	19.2	5.6	24.8	0.80	0.09	0.24	0.06	5.00		0.014		0.82	**Liquefiable**
44.5	42	47	44.5	23.7	5.6	29.3	1.22	0.05	-0.04	0.02	5.00		0.005		0.28	**Liquefiable**
49.5	47	50	48.5	25.0	5.6	30.6	1.40	0.04	-0.13	0.02	3.00		0.000		0.00	Nonliquefiable
											Total Deformation (in)				3.00	

Notes:

(1) $(N_1)_{60}$ calculated previously for the individual layer

(2) Correction for fines content per Equation 76 (Boulanger and Idriss, 2008)

(3) Corrected $(N_1)_{60}$ for fines content

(4) Factor of Safety against Liquefaction, calculated previously for the individual layer

(5) Calcuated by Eq. 86 (Boulanger and Idriss, 2008)

(6) Calcuated by Eq. 89 (Boulanger and Idriss, 2008)

(7) Calcuated by Eqs. 90, 91, and 92 (Boulanger and Idriss, 2008)

(8) Volumetric Strain Induced in a Liquefiable Layer, Calcuated by Eq. 96 (Boulanger and Idriss, 2008)
(Strain N/A if Factor of Safety against Liquefaction > 1.3)

LIQUEFACTION EVALUATION

Project Name	Warehouse Development	MCE$_G$ Design Acceleration	0.571 (g)
Project Location	Winchester, California	Design Magnitude	7.06
Project Number	22G127-1	Historic High Depth to Groundwater	30 (ft)
Engineer	DWN	Depth to Groundwater at Time of Drilling	40 (ft)
		Borehole Diameter	6 (in)
Boring No.	B-6		

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	Uncorrected SPT N-Value	Unit Weight of Soil (pcf)	Fines Content (%)	Energy Correction	C_B	C_S	C_N	Rod Length Correction	$(N_1)_{60}$	$(N_1)_{60CS}$	Overburden Stress (σ_o) (psf)	Eff. Overburden Stress (Hist. Water) (σ_o') (psf)	Eff. Overburden Stress (Curr. Water) (σ_o') (psf)	Stress Reduction Coefficient (r_d)	MSF	Ks	Cyclic Resistance Ratio (M=7.5)	Cyclic Resistance Ratio (M=7.06)	Cyclic Stress Ratio Induced by Design Earthquake	Factor of Safety	Comments
							(1)	(2)	(3)	(4)	(5)	(6)	(7)				(8)	(9)	(10)	(11)	(12)	(13)		
7	0	30	15		120		1.3	1.05	1.1	1.14	0.75	0.0	0.0	1800	1800	1800	0.95	1.01	1.01	0.06	0.06	N/A	N/A	Above Water Table
29.5	30	32	31	25	120	35	1.3	1.05	1.3	0.85	0.95	35.8	41.3	3720	3658	3720	0.88	1.18	0.84	2.00	1.98	0.33	5.99	Nonliquefiable
34.5	32	37	34.5	22	120	36	1.3	1.05	1.3	0.81	1	31.6	37.1	4140	3859	4140	0.86	1.18	0.82	1.79	1.74	0.34	5.10	Nonliquefiable
39.5	37	42	39.5	34	120		1.3	1.05	1.3	0.82	1	49.6	49.6	4740	4147	4740	0.83	1.18	0.8	2.00	1.89	0.35	5.37	Nonliquefiable
44.5	42	47	44.5	23	120	31	1.3	1.05	1.3	0.76	1	30.8	36.2	5340	4435	5059	0.80	1.18	0.79	1.45	1.36	0.36	3.79	Nonliquefiable
49.5	47	50	48.5	37	120		1.3	1.05	1.3	0.82	1	53.6	53.6	5820	4666	5290	0.78	1.18	0.76	2.00	1.81	0.36	5.00	Nonliquefiable

Notes:

(1) Energy Correction for N_{90} of automatic hammer to standard N_{60}
(2) Borehole Diameter Correction (Skempton, 1986)
(3) Correction for split-spoon sampler with room for liners, but liners are absent, (Seed et al., 1984, 2001)
(4) Overburden Correction, Caluclated by Eq. 39 (Boulanger and Idriss, 2008)
(5) Rod Length Correction for Samples <10 m in depth
(6) N-value corrected for energy, borehole diameter, sampler with absent liners, rod length, and overburden
(7) N-value corrected for fines content per Eqs. 75 and 76 (Boulanger and Idriss, 2008)
(8) Stress Reduction Coefficient calculated by Eq. 22 (Boulanger and Idriss, 2008)
(9) Magnitude Scaling Factor calculated by Eqns. A.8 & A.10 (Boulanger and Idriss, 2014)
(10) Overburden Correction Factor calcuated by Eq. 54 (Boulanger and Idriss, 2008)
(11) Calcuated by Eq. 70 (Boulanger and Idriss, 2008)
(12) Calcuated by Eq. 72 (Boulanger and Idriss, 2008)
(13) Calcuated by Eq. 25 (Boulanger and Idriss, 2008)

LIQUEFACTION INDUCED SETTLEMENTS

Project Name	Warehouse Development
Project Location	Winchester, California
Project Number	22G127-1
Engineer	DWN

Boring No. B-6

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	$(N_1)_{60}$	DN for fines content	$(N_1)_{60\text{-}CS}$	Liquefaction Factor of Safety	Limiting Shear Strain γ_{min}	Parameter Fα	Maximum Shear Strain γ_{max}	Height of Layer		Vertical Reconsolidation Strain ε_v		Total Deformation of Layer (in)	Comments
				(1)	(2)	(3)	(4)	(5)	(6)	(7)			(8)			
7	0	30	15	0.0	0.0	0.0	N/A	0.50	0.95	0.00	30.00		0.000		0.00	Above Water Table
29.5	30	32	31	35.8	5.5	41.3	5.99	0.01	-0.90	0.00	2.00		0.000		0.00	Nonliquefiable
34.5	32	37	34.5	31.6	5.5	37.1	5.10	0.02	-0.59	0.00	5.00		0.000		0.00	Nonliquefiable
39.5	37	42	39.5	49.6	0.0	49.6	5.37	0.00	-1.56	0.00	5.00		0.000		0.00	Nonliquefiable
44.5	42	47	44.5	30.8	5.4	36.2	3.79	0.02	-0.52	0.00	5.00		0.000		0.00	Nonliquefiable
49.5	47	50	48.5	53.6	0.0	53.6	5.00	0.00	-1.88	0.00	3.00		0.000		0.00	Nonliquefiable
											Total Deformation (in)				0.00	

Notes:

(1) $(N_1)_{60}$ calculated previously for the individual layer

(2) Correction for fines content per Equation 76 (Boulanger and Idriss, 2008)

(3) Corrected $(N_1)_{60}$ for fines content

(4) Factor of Safety against Liquefaction, calculated previously for the individual layer

(5) Calcuated by Eq. 86 (Boulanger and Idriss, 2008)

(6) Calcuated by Eq. 89 (Boulanger and Idriss, 2008)

(7) Calcuated by Eqs. 90, 91, and 92 (Boulanger and Idriss, 2008)

(8) Volumetric Strain Induced in a Liquefiable Layer, Calcuated by Eq. 96 (Boulanger and Idriss, 2008)
(Strain N/A if Factor of Safety against Liquefaction > 1.3)

LIQUEFACTION EVALUATION

Project Name	Warehouse Development	MCE_G Design Acceleration	0.571 (g)
Project Location	Winchester, California	Design Magnitude	7.06
Project Number	22G127-1	Historic High Depth to Groundwater	30 (ft)
Engineer	DWN	Depth to Groundwater at Time of Drilling	34 (ft)
		Borehole Diameter	6 (in)
Boring No.	B-8		

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	Uncorrected SPT N-Value	Unit Weight of Soil (pcf)	Fines Content (%)	Energy Correction	C_B	C_S	C_N	Rod Length Correction	$(N_1)_{60}$	$(N_1)_{60CS}$	Overburden Stress (σ_o) (psf)	Eff. Overburden Stress (Hist. Water) (σ_o') (psf)	Eff. Overburden Stress (Curr. Water) (σ_o') (psf)	Stress Reduction Coefficient (r_d)	MSF	Ks	Cyclic Resistance Ratio (M=7.5)	Cyclic Resistance Ratio (M=7.06)	Cyclic Stress Ratio Induced by Design Earthquake	Factor of Safety	Comments
							(1)	(2)	(3)	(4)	(5)	(6)	(7)				(8)	(9)	(10)	(11)	(12)	(13)		
7	0	30	15		120		1.3	1.05	1.1	1.14	0.75	0.0	0.0	1800	1800	1800	0.95	1.01	1.01	0.06	0.06	N/A	N/A	Above Water Table
29.5	30	32	31	24	120	35	1.3	1.05	1.3	0.84	0.95	34.2	39.7	3720	3658	3720	0.88	1.18	0.84	2.00	1.98	0.33	5.99	Nonliquefiable
34.5	32	37	34.5	33	120		1.3	1.05	1.3	0.85	1	49.9	49.9	4140	3859	4109	0.86	1.18	0.82	2.00	1.94	0.34	5.69	Nonliquefiable
39.5	37	42	39.5	19	120	26	1.3	1.05	1.248	0.77	1	24.8	30.0	4740	4147	4397	0.83	1.15	0.86	0.48	0.48	0.35	1.36	Nonliquefiable
44.5	42	47	44.5	29	120		1.3	1.05	1.3	0.79	1	40.7	40.7	5340	4435	4685	0.80	1.18	0.78	2.00	1.85	0.36	5.14	Nonliquefiable
49.5	47	50	48.5	30	120		1.3	1.05	1.3	0.78	1	41.8	41.8	5820	4666	4915	0.78	1.18	0.76	2.00	1.81	0.36	5.00	Nonliquefiable

Notes:

(1) Energy Correction for N_{90} of automatic hammer to standard N_{60}

(2) Borehole Diameter Correction (Skempton, 1986)

(3) Correction for split-spoon sampler with room for liners, but liners are absent, (Seed et al., 1984, 2001)

(4) Overburden Correction, Caluclated by Eq. 39 (Boulanger and Idriss, 2008)

(5) Rod Length Correction for Samples <10 m in depth

(6) N-value corrected for energy, borehole diameter, sampler with absent liners, rod length, and overburden

(7) N-value corrected for fines content per Eqs. 75 and 76 (Boulanger and Idriss, 2008)

(8) Stress Reduction Coefficient calculated by Eq. 22 (Boulanger and Idriss, 2008)

(9) Magnitude Scaling Factor calculated by Eqns. A.8 & A.10 (Boulanger and Idriss, 2014)

(10) Overburden Correction Factor calcuated by Eq. 54 (Boulanger and Idriss, 2008)

(11) Calcuated by Eq. 70 (Boulanger and Idriss, 2008)

(12) Calcuated by Eq. 72 (Boulanger and Idriss, 2008)

(13) Calcuated by Eq. 25 (Boulanger and Idriss, 2008)

LIQUEFACTION INDUCED SETTLEMENTS

Project Name	Warehouse Development
Project Location	Winchester, California
Project Number	22G127-1
Engineer	DWN

Boring No. B-8

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	$(N_1)_{60}$	DN for fines content	$(N_1)_{60\text{-}CS}$	Liquefaction Factor of Safety	Limiting Shear Strain γ_{min}	Parameter $F\alpha$	Maximum Shear Strain γ_{max}	Height of Layer		Vertical Reconsolidation Strain ε_v		Total Deformation of Layer (in)	Comments
				(1)	(2)	(3)	(4)	(5)	(6)	(7)			(8)			
7	0	30	15	0.0	0.0	0.0	N/A	0.50	0.95	0.00	30.00		0.000		0.00	Above Water Table
29.5	30	32	31	34.2	5.5	39.7	5.99	0.01	-0.78	0.00	2.00		0.000		0.00	Nonliquefiable
34.5	32	37	34.5	49.9	0.0	49.9	5.69	0.00	-1.58	0.00	5.00		0.000		0.00	Nonliquefiable
39.5	37	42	39.5	24.8	5.1	30.0	1.36	0.05	-0.09	0.02	5.00		0.000		0.00	Nonliquefiable
44.5	42	47	44.5	40.7	0.0	40.7	5.14	0.01	-0.86	0.00	5.00		0.000		0.00	Nonliquefiable
49.5	47	50	48.5	41.8	0.0	41.8	5.00	0.01	-0.94	0.00	3.00		0.000		0.00	Nonliquefiable
											Total Deformation (in)			0.00	

Notes:

(1) $(N_1)_{60}$ calculated previously for the individual layer

(2) Correction for fines content per Equation 76 (Boulanger and Idriss, 2008)

(3) Corrected $(N_1)_{60}$ for fines content

(4) Factor of Safety against Liquefaction, calculated previously for the individual layer

(5) Calcuated by Eq. 86 (Boulanger and Idriss, 2008)

(6) Calcuated by Eq. 89 (Boulanger and Idriss, 2008)

(7) Calcuated by Eqs. 90, 91, and 92 (Boulanger and Idriss, 2008)

(8) Volumetric Strain Induced in a Liquefiable Layer, Calcuated by Eq. 96 (Boulanger and Idriss, 2008)
(Strain N/A if Factor of Safety against Liquefaction > 1.3)

LIQUEFACTION EVALUATION

Project Name	Warehouse Development	MCE_G Design Acceleration	0.571 (g)
Project Location	Winchester, California	Design Magnitude	7.06
Project Number	22G127-1	Historic High Depth to Groundwater	30 (ft)
Engineer	DWN	Depth to Groundwater at Time of Drilling	40 (ft)
		Borehole Diameter	6 (in)
Boring No.	B-9		

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	Uncorrected SPT N-Value	Unit Weight of Soil (pcf)	Fines Content (%)	Energy Correction	C_B	C_S	C_N	Rod Length Correction	$(N_1)_{60}$	$(N_1)_{60CS}$	Overburden Stress (σ_o) (psf)	Eff. Overburden Stress (Hist. Water) (σ_o') (psf)	Eff. Overburden Stress (Curr. Water) (σ_o') (psf)	Stress Reduction Coefficient (r_d)	MSF	Ks	Cyclic Resistance Ratio (M=7.5)	Cyclic Resistance Ratio (M=7.06)	Cyclic Stress Ratio Induced by Design Earthquake	Factor of Safety	Comments
							(1)	(2)	(3)	(4)	(5)	(6)	(7)				(8)	(9)	(10)	(11)	(12)	(13)		
7	0	30	15		120		1.3	1.05	1.1	1.14	0.75	0.0	0.0	1800	1800	1800	0.95	1.01	1.01	0.06	0.06	N/A	N/A	Above Water Table
29.5	30	32	31	21	120	23	1.3	1.05	1.291	0.83	0.95	29.1	34.0	3720	3658	3720	0.88	1.18	0.86	0.90	0.92	0.33	2.78	Nonliquefiable
34.5	32	37	34.5	23	120	25	1.3	1.05	1.3	0.81	1	33.2	38.2	4140	3859	4140	0.86	1.18	0.82	2.00	1.94	0.34	5.69	Nonliquefiable
39.5	37	42	39.5	43	120		1.3	1.05	1.3	0.88	1	67.4	67.4	4740	4147	4740	0.83	1.18	0.8	2.00	1.89	0.35	5.37	Nonliquefiable
44.5	42	47	44.5	18	120	53	1.3	1.05	1.213	0.71	1	21.3	26.9	5340	4435	5059	0.80	1.13	0.87	0.34	0.34	0.36	0.94	**Liquefiable**
49.5	47	50	48.5	25	120	44	1.3	1.05	1.3	0.76	1	33.6	39.2	5820	4666	5290	0.78	1.18	0.76	2.00	1.81	0.36	5.00	Nonliquefiable

Notes:

(1) Energy Correction for N_{90} of automatic hammer to standard N_{60}

(2) Borehole Diameter Correction (Skempton, 1986)

(3) Correction for split-spoon sampler with room for liners, but liners are absent, (Seed et al., 1984, 2001)

(4) Overburden Correction, Caluclated by Eq. 39 (Boulanger and Idriss, 2008)

(5) Rod Length Correction for Samples <10 m in depth

(6) N-value corrected for energy, borehole diameter, sampler with absent liners, rod length, and overburden

(7) N-value corrected for fines content per Eqs. 75 and 76 (Boulanger and Idriss, 2008)

(8) Stress Reduction Coefficient calculated by Eq. 22 (Boulanger and Idriss, 2008)

(9) Magnitude Scaling Factor calculated by Eqns. A.8 & A.10 (Boulanger and Idriss, 2014)

(10) Overburden Correction Factor calcuated by Eq. 54 (Boulanger and Idriss, 2008)

(11) Calcuated by Eq. 70 (Boulanger and Idriss, 2008)

(12) Calcuated by Eq. 72 (Boulanger and Idriss, 2008)

(13) Calcuated by Eq. 25 (Boulanger and Idriss, 2008)

LIQUEFACTION INDUCED SETTLEMENTS

Project Name	Warehouse Development
Project Location	Winchester, California
Project Number	22G127-1
Engineer	DWN

Boring No. B-9

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	$(N_1)_{60}$	DN for fines content	$(N_1)_{60\text{-}CS}$	Liquefaction Factor of Safety	Limiting Shear Strain γ_{min}	Parameter Fα	Maximum Shear Strain γ_{max}	Height of Layer		Vertical Reconsolidation Strain ε_v		Total Deformation of Layer (in)	Comments
				(1)	(2)	(3)	(4)	(5)	(6)	(7)			(8)			
7	0	30	15	0.0	0.0	0.0	N/A	0.50	0.95	0.00	30.00		0.000		0.00	Above Water Table
29.5	30	32	31	29.1	4.9	34.0	2.78	0.03	-0.36	0.00	2.00		0.000		0.00	Nonliquefiable
34.5	32	37	34.5	33.2	5.1	38.2	5.69	0.01	-0.67	0.00	5.00		0.000		0.00	**Nonliquefiable**
39.5	37	42	39.5	67.4	0.0	67.4	5.37	0.00	-3.07	0.00	5.00		0.000		0.00	Nonliquefiable
44.5	42	47	44.5	21.3	5.6	26.9	0.94	0.07	0.11	0.04	5.00		0.009		0.53	Liquefiable
49.5	47	50	48.5	33.6	5.6	39.2	5.00	0.01	-0.74	0.00	3.00		0.000		0.00	Nonliquefiable
										Total Deformation (in)					0.53	

Notes:

(1) $(N_1)_{60}$ calculated previously for the individual layer

(2) Correction for fines content per Equation 76 (Boulanger and Idriss, 2008)

(3) Corrected $(N_1)_{60}$ for fines content

(4) Factor of Safety against Liquefaction, calculated previously for the individual layer

(5) Calcuated by Eq. 86 (Boulanger and Idriss, 2008)

(6) Calcuated by Eq. 89 (Boulanger and Idriss, 2008)

(7) Calcuated by Eqs. 90, 91, and 92 (Boulanger and Idriss, 2008)

(8) Volumetric Strain Induced in a Liquefiable Layer, Calcuated by Eq. 96 (Boulanger and Idriss, 2008)
(Strain N/A if Factor of Safety against Liquefaction > 1.3)

LIQUEFACTION EVALUATION

Project Name	Warehouse Development	MCE_G Design Acceleration	0.571	(g)
Project Location	Winchester, California	Design Magnitude	7.06	
Project Number	22G127-1	Historic High Depth to Groundwater	30	(ft)
Engineer	DWN	Depth to Groundwater at Time of Drilling	41	(ft)
		Borehole Diameter	6	(in)
Boring No.	B-13			

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	Uncorrected SPT N-Value	Unit Weight of Soil (pcf)	Fines Content (%)	Energy Correction	C_B	C_S	C_N	Rod Length Correction	$(N_1)_{60}$	$(N_1)_{60CS}$	Overburden Stress (σ_o) (psf)	Eff. Overburden Stress (Hist. Water) (σ_o') (psf)	Eff. Overburden Stress (Curr. Water) (σ_o') (psf)	Stress Reduction Coefficient (r_d)	MSF	Ks	Cyclic Resistance Ratio (M=7.5)	Cyclic Resistance Ratio (M=7.06)	Cyclic Stress Ratio Induced by Design Earthquake	Factor of Safety	Comments
							(1)	(2)	(3)	(4)	(5)	(6)	(7)				(8)	(9)	(10)	(11)	(12)	(13)		
7	0	30	15		120		1.3	1.05	1.1	1.14	0.75	0.0	0.0	1800	1800	1800	0.95	1.01	1.01	0.06	0.06	N/A	N/A	Above Water Table
29.5	30	32	31	15	120	46	1.3	1.05	1.183	0.79	0.95	18.3	23.9	3720	3658	3720	0.88	1.10	0.91	0.27	0.27	0.33	0.81	**Liquefiable**
34.5	32	37	34.5	17	120	49	1.3	1.05	1.219	0.77	1	21.9	27.5	4140	3859	4140	0.86	1.13	0.89	0.36	0.37	0.34	1.08	**Liquefiable**
39.5	37	42	39.5	27	120	31	1.3	1.05	1.3	0.80	1	38.3	43.8	4740	4147	4740	0.83	1.18	0.8	2.00	1.89	0.35	5.37	Nonliquefiable
44.5	42	47	44.5	27	120	47	1.3	1.05	1.3	0.78	1	37.4	43.0	5340	4435	5122	0.80	1.18	0.78	2.00	1.85	0.36	5.14	Nonliquefiable
49.5	47	50	48.5	35	120		1.3	1.05	1.3	0.80	1	49.6	49.6	5820	4666	5352	0.78	1.18	0.76	2.00	1.81	0.36	5.00	Nonliquefiable

Notes:

(1) Energy Correction for N_{90} of automatic hammer to standard N_{60}
(2) Borehole Diameter Correction (Skempton, 1986)
(3) Correction for split-spoon sampler with room for liners, but liners are absent, (Seed et al., 1984, 2001)
(4) Overburden Correction, Caluclated by Eq. 39 (Boulanger and Idriss, 2008)
(5) Rod Length Correction for Samples <10 m in depth
(6) N-value corrected for energy, borehole diameter, sampler with absent liners, rod length, and overburden
(7) N-value corrected for fines content per Eqs. 75 and 76 (Boulanger and Idriss, 2008)
(8) Stress Reduction Coefficient calculated by Eq. 22 (Boulanger and Idriss, 2008)
(9) Magnitude Scaling Factor calculated by Eqns. A.8 & A.10 (Boulanger and Idriss, 2014)
(10) Overburden Correction Factor calcuated by Eq. 54 (Boulanger and Idriss, 2008)
(11) Calcuated by Eq. 70 (Boulanger and Idriss, 2008)
(12) Calcuated by Eq. 72 (Boulanger and Idriss, 2008)
(13) Calcuated by Eq. 25 (Boulanger and Idriss, 2008)

LIQUEFACTION INDUCED SETTLEMENTS

Project Name	Warehouse Development
Project Location	Winchester, California
Project Number	22G127-1
Engineer	DWN

Boring No. B-13

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	$(N_1)_{60}$	DN for fines content	$(N_1)_{60\text{-}CS}$	Liquefaction Factor of Safety	Limiting Shear Strain γ_{min}	Parameter Fα	Maximum Shear Strain γ_{max}	Height of Layer		Vertical Reconsolidation Strain ε_v		Total Deformation of Layer (in)	Comments
				(1)	(2)	(3)	(4)	(5)	(6)	(7)			(8)			
7	0	30	15	0.0	0.0	0.0	N/A	0.50	0.95	0.00	30.00		0.000		0.00	Above Water Table
29.5	30	32	31	18.3	5.6	23.9	0.81	0.10	0.30	0.06	2.00		0.014		0.34	**Liquefiable**
34.5	32	37	34.5	21.9	5.6	27.5	1.08	0.06	0.07	0.03	5.00		0.006		0.39	**Liquefiable**
39.5	37	42	39.5	38.3	5.4	43.8	5.37	0.00	-1.09	0.00	5.00		0.000		0.00	Nonliquefiable
44.5	42	47	44.5	37.4	5.6	43.0	5.14	0.00	-1.03	0.00	5.00		0.000		0.00	Nonliquefiable
49.5	47	50	48.5	49.6	0.0	49.6	5.00	0.00	-1.55	0.00	3.00		0.000		0.00	Nonliquefiable

Total Deformation (in) 0.73

Notes:

(1) $(N_1)_{60}$ calculated previously for the individual layer

(2) Correction for fines content per Equation 76 (Boulanger and Idriss, 2008)

(3) Corrected $(N_1)_{60}$ for fines content

(4) Factor of Safety against Liquefaction, calculated previously for the individual layer

(5) Calcuated by Eq. 86 (Boulanger and Idriss, 2008)

(6) Calcuated by Eq. 89 (Boulanger and Idriss, 2008)

(7) Calcuated by Eqs. 90, 91, and 92 (Boulanger and Idriss, 2008)

(8) Volumetric Strain Induced in a Liquefiable Layer, Calcuated by Eq. 96 (Boulanger and Idriss, 2008)
(Strain N/A if Factor of Safety against Liquefaction > 1.3)