

HYDROLOGY REPORT EVANS ROAD AND RIDER STREET

Located in the City of Perris
County of Riverside

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Table of Contents

1. Purpose.....	1
2. Project Description	1
A. Vicinity Map.....	1
3. Pre-Development Hydrology.....	2
4. Post-Development Hydrology	2
5. Method of Analysis.....	2
6. Conclusion	2
Pre-Development Hydrology 10 & 100 year (Rational Method) / Map	Section 1
Post-Development Hydrology 10 & 100 year (Rational Method) / Map	Section 2
Pre-Development Unit Hydrograph 100 year / Map	Section 3
Post-Development Unit Hydrograph 100 year / Routing / Map	Section 4
Riverside County Plates	Section 5

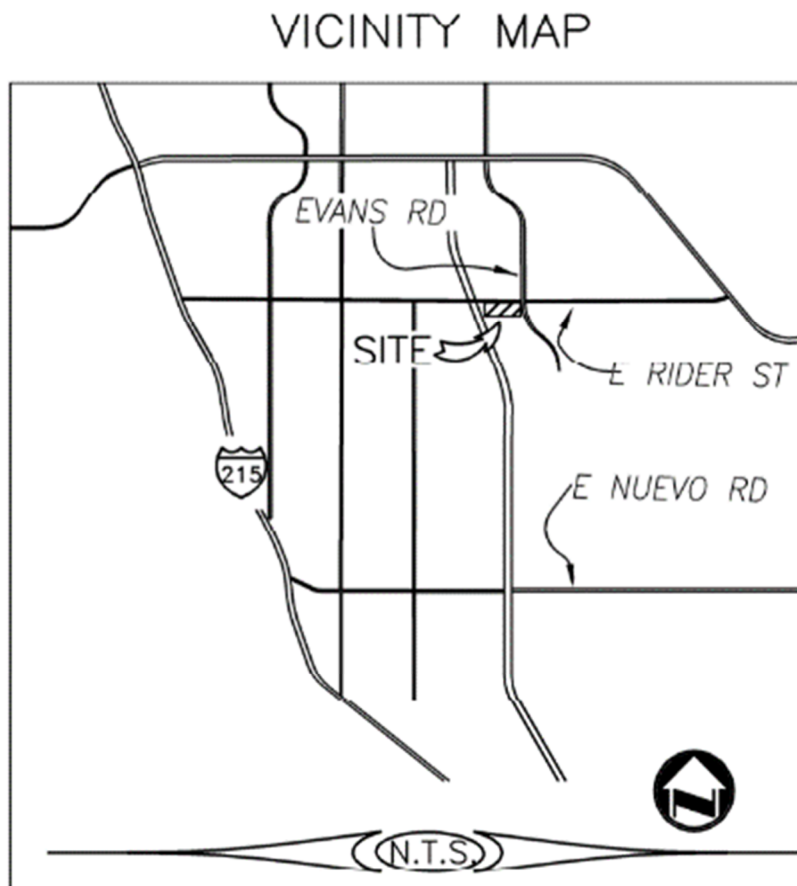
1. Purpose

This Hydrology Report has been prepared to ensure that adequate size and proper operation of drainage facilities are incorporated into the Post-Development project site.

2. Project Description

The proposed development of the site will include construction of a 324-unit apartment complex. The Proposed Multi-Family Development will include (4) 8 Unit 2-Story Buildings, (6) 12 Units 2-Story Buildings, (5) 16 Units 3-Story Buildings, (3) 18 Units 3-Story Buildings, (4) 24 Unit 3-Story Buildings, 3,500 square-foot Clubhouse, 2,500 square-foot Recreation Room, Pool, and associated parking and landscaping. The proposed Multi-Family Development is to be located at the southwest corner of the intersection of Evans Road and Rider Street in the City of Perris, California,

A. Vicinity Map



3. Pre-Development Hydrology

Site is vacant with no existing structures or roads on the site. All flows from the site flow towards the west to the Perris Valley Channel.

4. Post-Development Hydrology

The runoff from the site will keep the same drainage path as the existing condition. The site will have a proposed storm drain system to collect the onsite runoff from the proposed development. The site will use a Extended Detention basin at the south west corner to treat and mitigate the runoff prior to draining the runoff to the Perris Valley Channel. The existing storm drain line is limited to a Q100 of 21.3 cfs. The basin has been sized to outlet less than the existing condition and a max of the existing connection storm drain line.

Basin Storm Event Summary							
Storm Event	Existing		Proposed		Routed		
	Volume (ac.ft.)	cfs	Volume (ac.ft.)	cfs	Volume (ac.ft.)	cfs	Depth (ft)
100yr1hr	1.4000	37.744	1.3328	36.740	0.877	21.079	4.07
100yr3hr	2.0104	21.611	1.8907	21.492	0.789	17.246	3.75
100yr6hr	2.6826	19.109	2.5855	19.856	0.768	16.369	3.67
100yr24hr	3.5414	7.320	3.9950	6.685	0.645	6.647	3.19

5. Method of Analysis

The site hydrology was based upon Riverside County Flood Control and Water Conversation District Hydrology Manual, from which pertinent soil and rainfall information was obtained.

Storm flows were determined by the “RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM”, Riverside County Flood Control & Water Conservation District 1978 Hydrology Manual, produced by Bondamin Engineering.

The site was also analyzed by the “SYNTHETIC UNIT HYDROLOGY METHOD COMPUTER PROGRAM”, Riverside County Flood Control & Water Conservation District 1978 Hydrology Manual, produced by Bondamin Engineering.

6. Conclusion

The hydrologic calculations provided herein substantiate the design of the Post-Development project and indicate the following:

- The Post-Development facilities demonstrate the ability to convey the 100 year storm event emanating from the project site to the Perris Valley Channel.
- The water quality basin will adequately treat the required water quality volume associated with the project site.

Based on the Hydrology and Hydraulic analysis conducted and results shown herein and part thereof, it is our conclusion this project **does not** negatively impact the local community or watershed goals.

Section 1

Pre-Development Hydrology 10 & 100 year (Rational Method)

Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2014 Version 9.0
Rational Hydrology Study Date: 10/04/22 File:ex10.out

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

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

Program License Serial Number 5006

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 = 0.450(In.)
100 year, 1 hour precipitation = 1.200(In.)
Storm event year = 10.0
Calculated rainfall intensity data:
1 hour intensity = 0.759(In/Hr)
Slope of intensity duration curve = 0.5000

+++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 779.000(Ft.)
Top (of initial area) elevation = 1450.000(Ft.)
Bottom (of initial area) elevation = 1442.000(Ft.)
Difference in elevation = 8.000(Ft.)
Slope = 0.01027 s(percent)= 1.03
TC = $k(0.530)*[(\text{length}^3)/(\text{elevation change})]^{0.2}$
Initial area time of concentration = 18.992 min.
Rainfall intensity = 1.348(In/Hr) for a 10.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.775
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 = 8.414(CFS)
Total initial stream area = 8.050(Ac.)
Pervious area fraction = 1.000

+++++
Process from Point/Station 2.000 to Point/Station 3.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****

Top of natural channel elevation = 1443.000(Ft.)
End of natural channel elevation = 1440.000(Ft.)
Length of natural channel = 574.000(Ft.)
Estimated mean flow rate at midpoint of channel = 11.837(CFS)
Natural valley channel type used
L.A. County flood control district formula for channel velocity:
Velocity(ft/s) = $(7 + 8(q(\text{English Units})^{.352})(\text{slope}^{0.5}))$
Velocity using mean channel flow = 1.89(Ft/s)
Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
Normal channel slope = 0.0052
Corrected/adjusted channel slope = 0.0052
Travel time = 5.07 min. TC = 24.06 min.
Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.762
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 = 1.198(In/Hr) for a 10.0 year storm
Subarea runoff = 5.978(CFS) for 6.550(Ac.)
Total runoff = 14.391(CFS) Total area = 14.600(Ac.)
End of computations, total study area = 14.60 (Ac.)
The following figures maybe 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 - 2014 Version 9.0
Rational Hydrology Study Date: 10/04/22 File:EX100.out

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

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

Program License Serial Number 5006

Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District 1978 hydrology manual
Storm event (year) = 100.00 Antecedent Moisture Condition = 2
2 year, 1 hour precipitation = 0.450(In.)
100 year, 1 hour precipitation = 1.200(In.)
Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity = 1.200(In/Hr)
Slope of intensity duration curve = 0.5000

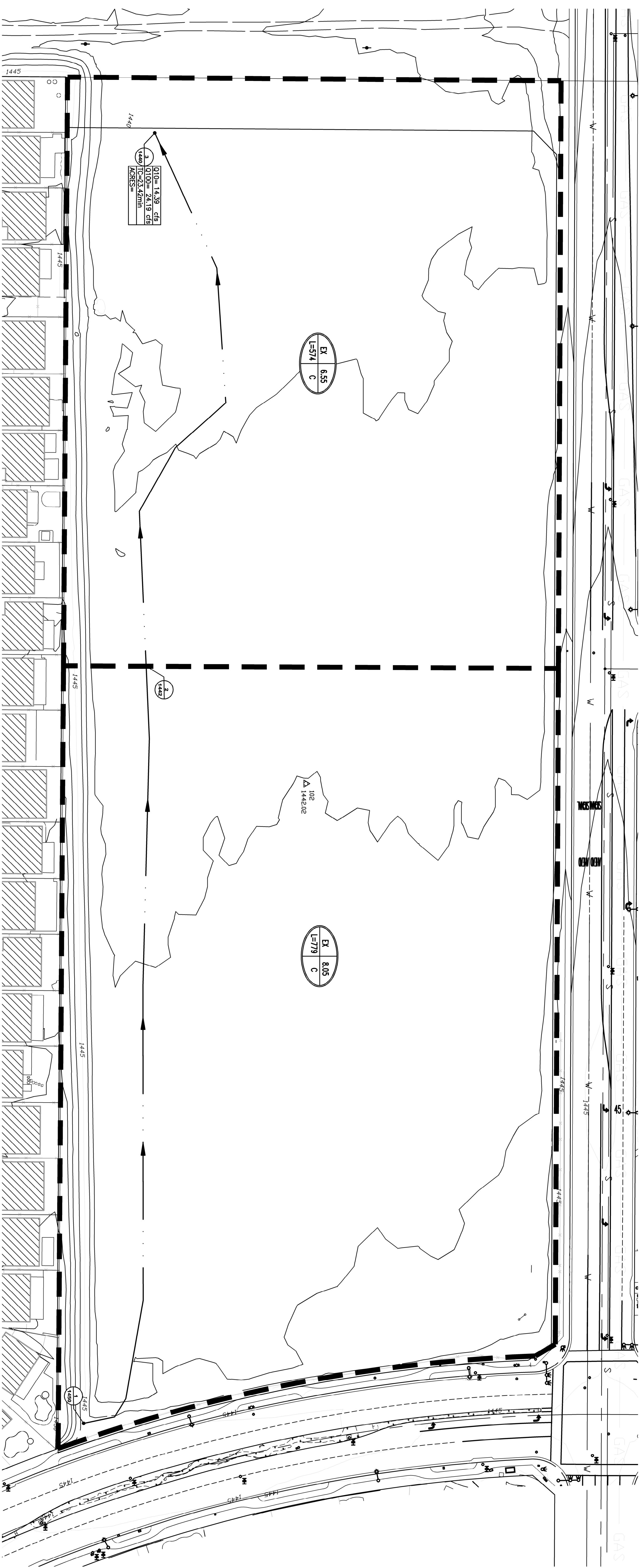
+++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 779.000(Ft.)
Top (of initial area) elevation = 1450.000(Ft.)
Bottom (of initial area) elevation = 1442.000(Ft.)
Difference in elevation = 8.000(Ft.)
Slope = 0.01027 s(percent)= 1.03
TC = $k(0.530)*[(length^3)/(elevation\ change)]^{0.2}$
Initial area time of concentration = 18.992 min.
Rainfall intensity = 2.133(In/Hr) for a 100.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.817
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 = 14.025(CFS)
Total initial stream area = 8.050(Ac.)
Pervious area fraction = 1.000

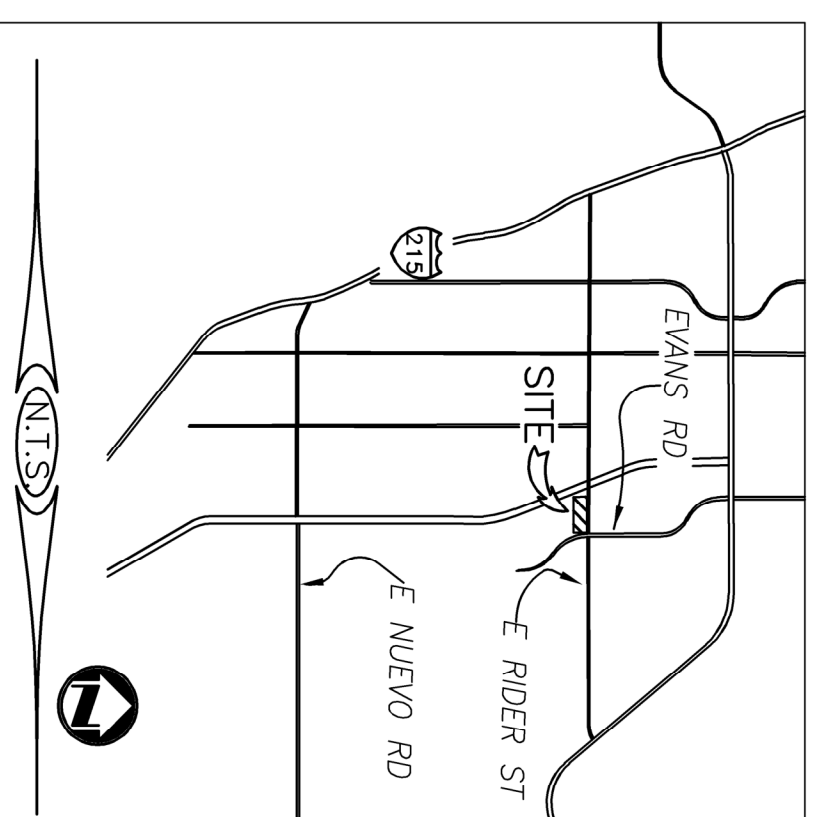
+++++
Process from Point/Station 2.000 to Point/Station 3.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****

Top of natural channel elevation = 1443.000(Ft.)
End of natural channel elevation = 1440.000(Ft.)
Length of natural channel = 574.000(Ft.)
Estimated mean flow rate at midpoint of channel = 19.731(CFS)
Natural valley channel type used
L.A. County flood control district formula for channel velocity:
Velocity(ft/s) = $(7 + 8(q(\text{English Units})^{.352})(\text{slope}^{.5}))$
Velocity using mean channel flow = 2.16(Ft/s)
Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
Normal channel slope = 0.0052
Corrected/adjusted channel slope = 0.0052
Travel time = 4.43 min. TC = 23.42 min.
Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.809
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 = 1.921(In/Hr) for a 100.0 year storm
Subarea runoff = 10.172(CFS) for 6.550(Ac.)
Total runoff = 24.197(CFS) Total area = 14.600(Ac.)
End of computations, total study area = 14.60 (Ac.)
The following figures maybe 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

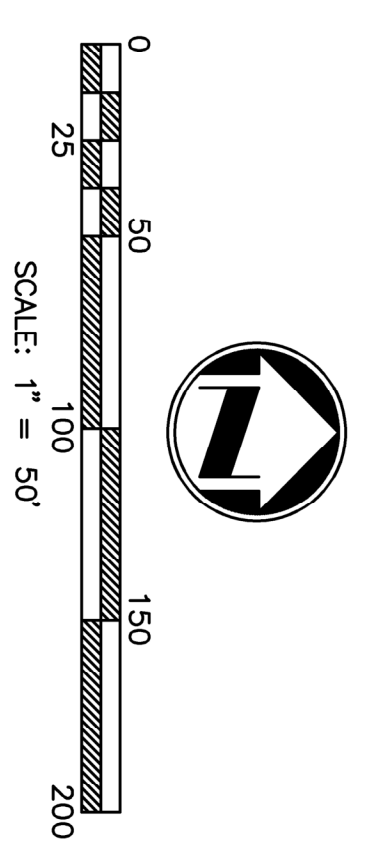
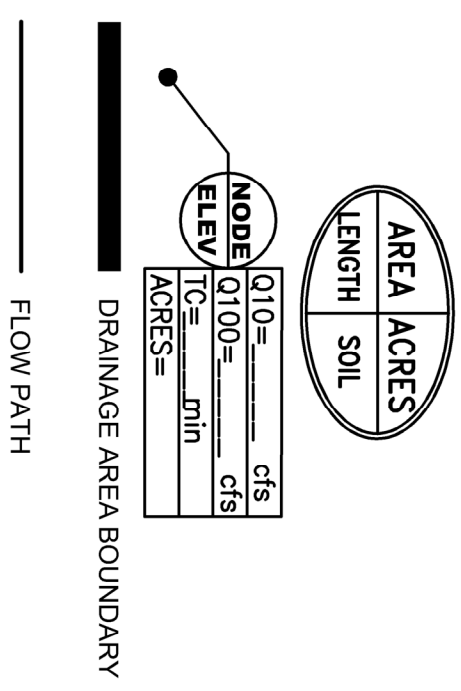
IN THE CITY OF PERRIS, STATE OF CALIFORNIA
EXISTING HYDROLOGY MAP
RIDER ST AND EVANS RD



VICINITY MAP



LEGEND



EXISTING HYDROLOGY MAP
 PREPARATION DATE: OCTOBER 2022
 JOB NUMBER: 10001
 PLANS PREPARED BY:
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Section 2

Post-Development Hydrology 10 & 100 year (Rational Method)

Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2014 Version 9.0
Rational Hydrology Study Date: 10/04/22 File:PRO10.out

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

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

Program License Serial Number 5006

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 = 0.450(In.)
100 year, 1 hour precipitation = 1.200(In.)

Storm event year = 10.0
Calculated rainfall intensity data:
1 hour intensity = 0.759(In/Hr)
Slope of intensity duration curve = 0.5000

Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 913.000(Ft.)
Top (of initial area) elevation = 1450.000(Ft.)
Bottom (of initial area) elevation = 1442.000(Ft.)
Difference in elevation = 8.000(Ft.)
Slope = 0.00876 s(percent)= 0.88
TC = $k(0.323)*[(length^3)/(elevation\ change)]^{0.2}$
Initial area time of concentration = 12.731 min.
Rainfall intensity = 1.647(In/Hr) for a 10.0 year storm
APARTMENT subarea type
Runoff Coefficient = 0.852
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 = 0.200; Impervious fraction = 0.800
Initial subarea runoff = 11.294(CFS)
Total initial stream area = 8.050(Ac.)
Pervious area fraction = 0.200

Process from Point/Station 2.000 to Point/Station 3.000
**** SUBAREA FLOW ADDITION ****

APARTMENT subarea type
Runoff Coefficient = 0.852
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 = 0.200; Impervious fraction = 0.800
Time of concentration = 12.73 min.
Rainfall intensity = 1.647(In/Hr) for a 10.0 year storm
Subarea runoff = 9.190(CFS) for 6.550(Ac.)
Total runoff = 20.484(CFS) Total area = 14.600(Ac.)
End of computations, total study area = 14.60 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.200
Area averaged RI index number = 69.0

Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2014 Version 9.0
Rational Hydrology Study Date: 10/04/22 File:PRO100.out

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

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

Program License Serial Number 5006

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

Storm event (year) = 100.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation = 0.450(In.)
100 year, 1 hour precipitation = 1.200(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity = 1.200(In/Hr)
Slope of intensity duration curve = 0.5000

++++
Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

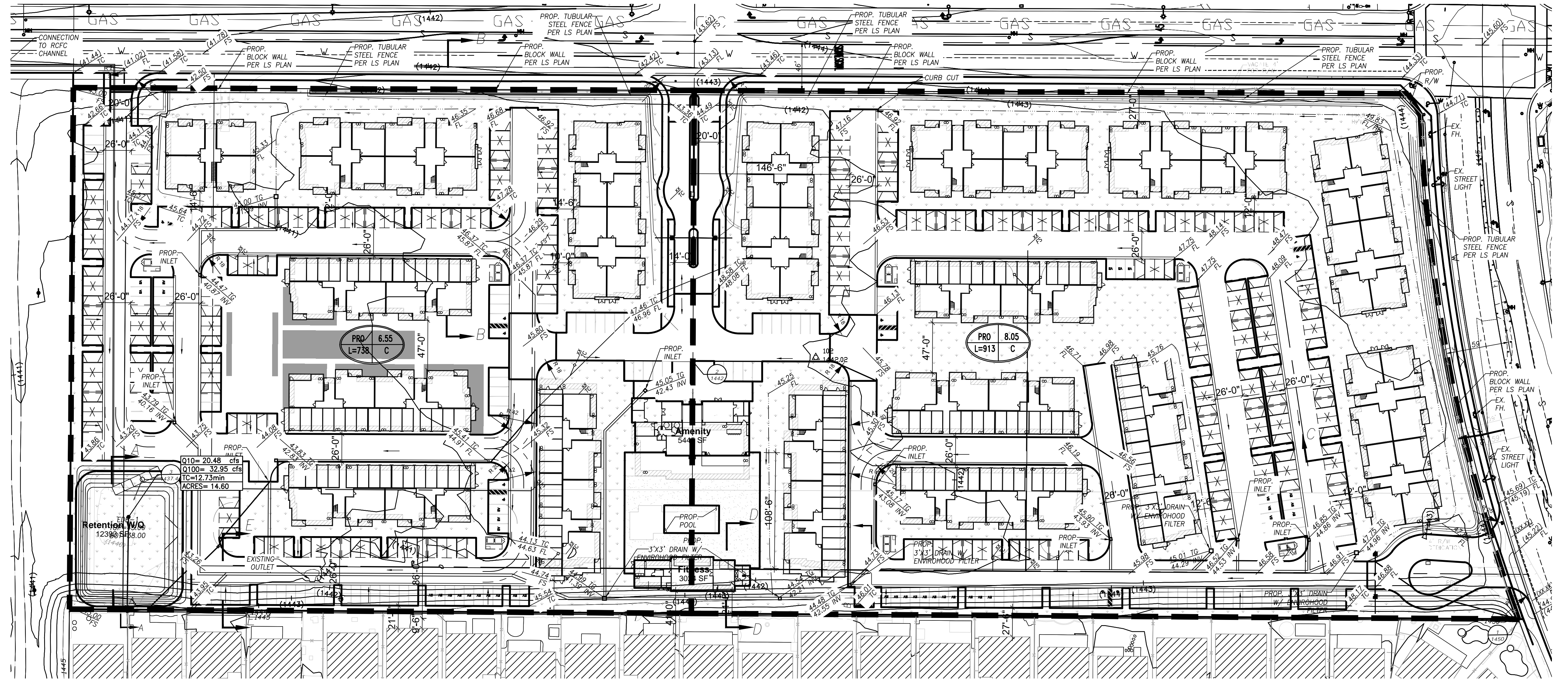
Initial area flow distance = 913.000(Ft.)
Top (of initial area) elevation = 1450.000(Ft.)
Bottom (of initial area) elevation = 1442.000(Ft.)
Difference in elevation = 8.000(Ft.)
Slope = 0.00876 s(percent)= 0.88
TC = $k(0.323)*[(length^3)/(elevation\ change)]^{0.2}$
Initial area time of concentration = 12.731 min.
Rainfall intensity = 2.605(In/Hr) for a 100.0 year storm
APARTMENT subarea type
Runoff Coefficient = 0.866
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 = 0.200; Impervious fraction = 0.800
Initial subarea runoff = 18.168(CFS)
Total initial stream area = 8.050(Ac.)
Pervious area fraction = 0.200

++++
Process from Point/Station 2.000 to Point/Station 3.000
**** SUBAREA FLOW ADDITION ****

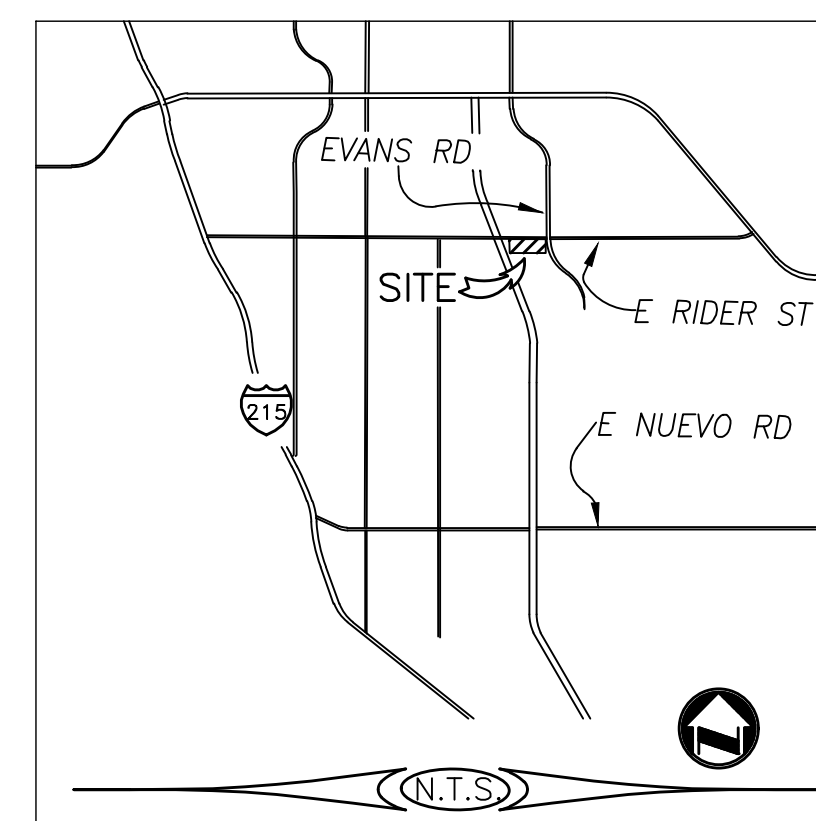
APARTMENT subarea type
Runoff Coefficient = 0.866
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.200; Impervious fraction = 0.800
Time of concentration = 12.73 min.
Rainfall intensity = 2.605(In/Hr) for a 100.0 year storm
Subarea runoff = 14.783(CFS) for 6.550(Ac.)
Total runoff = 32.951(CFS) Total area = 14.600(Ac.)
End of computations, total study area = 14.60 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.200
Area averaged RI index number = 69.0

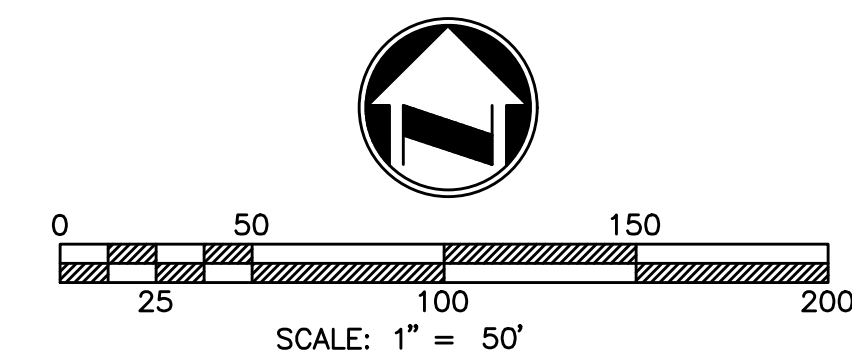
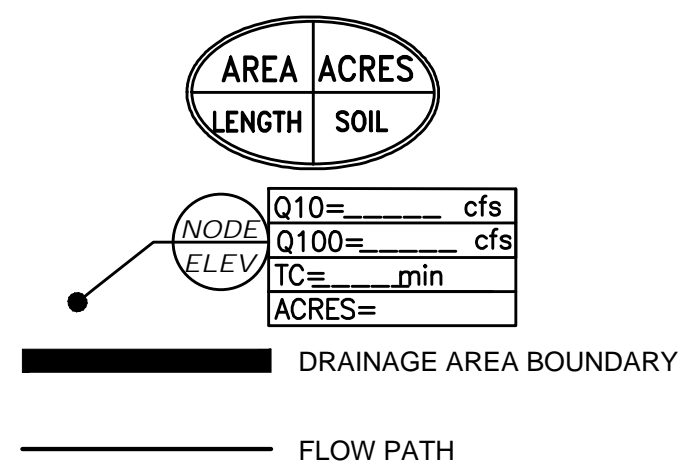
IN THE CITY OF PERRIS, STATE OF CALIFORNIA
PROPOSED HYDROLOGY MAP
 RIDER ST AND EVANS RD



VICINITY MAP



LEGEND



PROPOSED HYDROLOGY MAP
 PREPARATION DATE: OCTOBER 2022
 REVISION DATE: FEBRUARY 2023
 JOB NUMBER: 10001
 PLANS PREPARED BY:

adkan ENGINEERS
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 6879 Airport Drive, Riverside, CA 92504
 Tel:(951) 688-0241 • Fax:(951) 688-0599

Section 3

Pre-Development Unit Hydrograph 100 year / Map

Unit Hydrograph Analysis

Copyright (C) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 10/06/22 File: ex1001100.out

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

Program License Serial Number 5006

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

English Units used in output format

Drainage Area = 14.60(Ac.) = 0.023 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 14.60(Ac.) = 0.023 Sq. Mi.
Length along longest watercourse = 1353.00(Ft.)
Length along longest watercourse measured to centroid = 677.00(Ft.)
Length along longest watercourse = 0.256 Mi.
Length along longest watercourse measured to centroid = 0.128 Mi.
Difference in elevation = 10.00(Ft.)
Slope along watercourse = 39.0244 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.098 Hr.
Lag time = 5.88 Min.
25% of lag time = 1.47 Min.
40% of lag time = 2.35 Min.
Unit time = 5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1] Rainfall(In)[2] weighting[1*2]
14.60 0.45 6.57

100 YEAR Area rainfall data:

Area(Ac.)[1] Rainfall(In)[2] weighting[1*2]
14.60 1.20 17.52

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 0.450(In)
Area Averaged 100-Year Rainfall = 1.200(In)

Point rain (area averaged) = 1.200(In)
Areal adjustment factor = 99.99 %
Adjusted average point rain = 1.200(In)

Sub-Area Data:
Area(Ac.) Runoff Index Impervious %
14.600 86.00 0.800
Total Area Entered = 14.60(Ac.)

RI RI Infil. Rate Impervious Adj. Infil. Rate Area% F
AMC2 AMC-2 (In/Hr) (Dec.%) (In/Hr) (Dec.) (In/Hr)
86.0 86.0 0.176 0.800 0.049 1.000 0.049
Sum (F) = 0.049

Area averaged mean soil loss (F) (In/Hr) = 0.049
Minimum soil loss rate ((In/Hr)) = 0.025
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

Slope of intensity-duration curve for a 1 hour storm =0.5000

Unit Hydrograph
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	85.021	14.724
2	0.167	170.042	45.948
3	0.250	255.062	18.575
4	0.333	340.083	7.927
5	0.417	425.104	4.706
6	0.500	510.125	2.936
7	0.583	595.145	2.094
8	0.667	680.166	1.395
9	0.750	765.187	0.922
10	0.833	850.208	0.773
Sum = 100.000			Sum= 14.714

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	4.20	0.605 (0.544)	0.556
2	0.17	4.30	0.619 (0.557)	0.570
3	0.25	5.00	0.720 (0.648)	0.671
4	0.33	5.00	0.720 (0.648)	0.671
5	0.42	5.80	0.835 (0.752)	0.786
6	0.50	6.50	0.936 (0.842)	0.887
7	0.58	7.40	1.065 (0.959)	1.016
8	0.67	8.60	1.238 (1.114)	1.189
9	0.75	12.30	1.771 (1.594)	1.722
10	0.83	29.10	4.190 (3.771)	4.141
11	0.92	6.80	0.979 (0.881)	0.930
12	1.00	5.00	0.720 (0.648)	0.671

(Loss Rate Not Used)
Sum = 100.0 Sum = 13.8

Flood volume = Effective rainfall times area = $1.15(\text{In}) \times 14.6(\text{Ac.}) / [(\text{In}) / (\text{Ft.})] = 1.4(\text{Ac. Ft})$
 Total soil loss = 0.05(In)
 Total soil loss = 0.060(Ac.Ft)
 Total rainfall = 1.20(In)
 Flood volume = 60983.4 Cubic Feet
 Total soil loss = 2605.8 Cubic Feet

Peak flow rate of this hydrograph = 37.744(CFS)

1 - 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	0.0083	1.20	V				
0+10	0.0427	4.99	V	Q			
0+15	0.0897	6.83	V	Q			
0+20	0.1462	8.20	V	Q			
0+25	0.2090	9.12	V	Q			
0+30	0.2813	10.49	V	Q			
0+35	0.3640	12.02	V	Q			
0+40	0.4593	13.84	V	Q			
0+45	0.5752	16.82	V	Q			
0+50	0.7577	26.50	V	Q	V	Q	
0+55	1.0176	37.74	V	Q	V	Q	
1+ 0	1.1756	22.94	V	Q	V	Q	
1+ 5	1.2741	14.30	V	Q	V	Q	
1+10	1.3245	7.32	V	Q	V	Q	
1+15	1.3536	4.23	V	Q	V	Q	
1+20	1.3727	2.77	V	Q	V	Q	
1+25	1.3851	1.80	V	Q	V	Q	
1+30	1.3930	1.16	V	Q	V	Q	
1+35	1.3981	0.74	V	Q	V	Q	
1+40	1.3995	0.20	V	Q	V	Q	
1+45	1.4000	0.08	V	Q	V	Q	

Unit Hydrograph Analysis

Copyright (C) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 10/06/22 File: ex1003100.out

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

Program License Serial Number 5006

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

English Units used in output format

Drainage Area = 14.60(Ac.) = 0.023 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 14.60(Ac.) = 0.023 Sq. Mi.
Length along longest watercourse = 1353.00(Ft.)
Length along longest watercourse measured to centroid = 677.00(Ft.)
Length along longest watercourse = 0.256 Mi.
Length along longest watercourse measured to centroid = 0.128 Mi.
Difference in elevation = 10.00(Ft.)
Slope along watercourse = 39.0244 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.098 Hr.
Lag time = 5.88 Min.
25% of lag time = 1.47 Min.
40% of lag time = 2.35 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]
14.60 0.80 11.68

100 YEAR Area rainfall data:

Area(Ac.)[1] Rainfall(In)[2] weighting[1*2]
14.60 1.80 26.28

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 0.800(In)
Area Averaged 100-Year Rainfall = 1.800(In)

Point rain (area averaged) = 1.800(In)
Areal adjustment factor = 99.99 %
Adjusted average point rain = 1.800(In)

Sub-Area Data:
Area(Ac.) Runoff Index Impervious %
14.600 86.00 0.800
Total Area Entered = 14.60(Ac.)

RI RI Infil. Rate Impervious Adj. Infil. Rate Area% F
AMC2 AMC-2 (In/Hr) (Dec.%) (In/Hr) (Dec.) (In/Hr)
86.0 86.0 0.176 0.800 0.049 1.000 0.049
Sum (F) = 0.049

Area averaged mean soil loss (F) (In/Hr) = 0.049
Minimum soil loss rate ((In/Hr)) = 0.025
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

Unit Hydrograph
VALLEY S-Curve

Unit Hydrograph Data

Unit time period Time % of lag Distribution Unit Hydrograph
(hrs) Graph % (CFS)

1	0.083	85.021	14.724	2.166
2	0.167	170.042	45.948	6.761
3	0.250	255.062	18.575	2.733
4	0.333	340.083	7.927	1.166
5	0.417	425.104	4.706	0.692
6	0.500	510.125	2.936	0.432
7	0.583	595.145	2.094	0.308
8	0.667	680.166	1.395	0.205
9	0.750	765.187	0.922	0.136
10	0.833	850.208	0.773	0.114
			Sum = 100.000	Sum= 14.714

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)		Effective (In/Hr)
				Max	Low	
1	0.08	1.30	0.281	0.049	(0.253)	0.232
2	0.17	1.30	0.281	0.049	(0.253)	0.232
3	0.25	1.10	0.238	0.049	(0.214)	0.188
4	0.33	1.50	0.324	0.049	(0.292)	0.275
5	0.42	1.50	0.324	0.049	(0.292)	0.275
6	0.50	1.80	0.389	0.049	(0.350)	0.340
7	0.58	1.50	0.324	0.049	(0.292)	0.275
8	0.67	1.80	0.389	0.049	(0.350)	0.340
9	0.75	1.80	0.389	0.049	(0.350)	0.340
10	0.83	1.50	0.324	0.049	(0.292)	0.275
11	0.92	1.60	0.346	0.049	(0.311)	0.296
12	1.00	1.80	0.389	0.049	(0.350)	0.340
13	1.08	2.20	0.475	0.049	(0.428)	0.426
14	1.17	2.20	0.475	0.049	(0.428)	0.426
15	1.25	2.20	0.475	0.049	(0.428)	0.426
16	1.33	2.00	0.432	0.049	(0.389)	0.383
17	1.42	2.60	0.562	0.049	(0.505)	0.512
18	1.50	2.70	0.583	0.049	(0.525)	0.534
19	1.58	2.40	0.518	0.049	(0.467)	0.469
20	1.67	2.70	0.583	0.049	(0.525)	0.534
21	1.75	3.30	0.713	0.049	(0.641)	0.664
22	1.83	3.10	0.670	0.049	(0.603)	0.620
23	1.92	2.90	0.626	0.049	(0.564)	0.577
24	2.00	3.00	0.648	0.049	(0.583)	0.599
25	2.08	3.10	0.670	0.049	(0.603)	0.620
26	2.17	4.20	0.907	0.049	(0.816)	0.858
27	2.25	5.00	1.080	0.049	(0.972)	1.031
28	2.33	3.50	0.756	0.049	(0.680)	0.707
29	2.42	6.80	1.469	0.049	(1.322)	1.420
30	2.50	7.30	1.577	0.049	(1.419)	1.528
31	2.58	8.20	1.771	0.049	(1.594)	1.722
32	2.67	5.90	1.274	0.049	(1.147)	1.225
33	2.75	2.00	0.432	0.049	(0.389)	0.383
34	2.83	1.80	0.389	0.049	(0.350)	0.340
35	2.92	1.80	0.389	0.049	(0.350)	0.340
36	3.00	0.60	0.130	0.049	(0.117)	0.080

Sum = 100.0 (Loss Rate Not Used) Sum = 19.8

Flood volume = Effective rainfall 1.65(In)
times area 14.6(Ac.)/[(In)/(Ft.)] = 2.0(Ac.Ft)
Total soil loss = 0.15(In)
Total soil loss = 0.179(Ac.Ft)
Total rainfall = 1.80(In)
Flood volume = 87572.9 Cubic Feet
Total soil loss = 7817.4 Cubic Feet

Peak flow rate of this hydrograph = 21.611(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	0.0035	0.50	Q				
0+10	0.0177	2.07	V Q				
0+15	0.0357	2.61	V Q				
0+20	0.0548	2.77	V Q				
0+25	0.0782	3.40	V Q				
0+30	0.1046	3.83	V Q				
0+35	0.1339	4.27	V Q				
0+40	0.1631	4.24	V Q				
0+45	0.1950	4.63	V Q				

0+50	0.2272	4.68					
0+55	0.2572	4.36					
1+ 0	0.2879	4.46					
1+ 5	0.3221	4.96					
1+10	0.3610	5.66					
1+15	0.4019	5.94					
1+20	0.4430	5.97					
1+25	0.4846	6.04					
1+30	0.5321	6.89					
1+35	0.5818	7.23					
1+40	0.6310	7.14					
1+45	0.6847	7.79					
1+50	0.7449	8.74					
1+55	0.8054	8.78					
2+ 0	0.8647	8.62					
2+ 5	0.9250	8.76					
2+10	0.9903	9.48					
2+15	1.0698	11.54					
2+20	1.1572	12.69					
2+25	1.2455	12.82					
2+30	1.3651	17.37					
2+35	1.5051	20.32					
2+40	1.6539	21.61					
2+45	1.7747	17.54					
2+50	1.8503	10.97					
2+55	1.9067	8.18					
3+ 0	1.9509	6.42					
3+ 5	1.9769	3.78					
3+10	1.9915	2.12					
3+15	2.0001	1.25					
3+20	2.0053	0.75					
3+25	2.0080	0.40					
3+30	2.0093	0.18					
3+35	2.0100	0.10					
3+40	2.0103	0.05					
3+45	2.0104	0.01					

Unit Hydrograph Analysis

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Study date 10/06/22 File: ex1006100.out

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

Program License Serial Number 5006

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

Drainage Area = 14.60(Ac.) = 0.023 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 14.60(Ac.) = 0.023 Sq. Mi.
Length along longest watercourse = 1353.00(Ft.)
Length along longest watercourse measured to centroid = 677.00(Ft.)
Length along longest watercourse = 0.256 Mi.
Length along longest watercourse measured to centroid = 0.128 Mi.
Difference in elevation = 10.00(Ft.)
Slope along watercourse = 39.0244 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.098 Hr.
Lag time = 5.88 Min.
25% of lag time = 1.47 Min.
40% of lag time = 2.35 Min.
Unit time = 5.00 Min.
Duration of storm = 6 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1] Rainfall(In)[2] weighting[1*2]
14.60 1.10 16.06

100 YEAR Area rainfall data:

Area(Ac.)[1] Rainfall(In)[2] weighting[1*2]
14.60 2.50 36.50

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 1.100(In)
Area Averaged 100-Year Rainfall = 2.500(In)

Point rain (area averaged) = 2.500(In)
Areal adjustment factor = 99.99 %
Adjusted average point rain = 2.500(In)

Sub-Area Data:
Area(Ac.) Runoff Index Impervious %
14.600 86.00 0.800
Total Area Entered = 14.60(Ac.)

RI RI Infil. Rate Impervious Adj. Infil. Rate Area% F
AMC2 AMC-2 (In/Hr) (Dec.%) (In/Hr) (Dec.) (In/Hr)
86.0 86.0 0.176 0.800 0.049 1.000 0.049
Sum (F) = 0.049

Area averaged mean soil loss (F) (In/Hr) = 0.049
Minimum soil loss rate ((In/Hr)) = 0.025
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

Unit Hydrograph
VALLEY S-Curve

Unit Hydrograph Data

Unit time period Time % of lag Distribution Unit Hydrograph
(hrs) Graph % (CFS)

1	0.083	85.021	14.724	2.166
2	0.167	170.042	45.948	6.761
3	0.250	255.062	18.575	2.733
4	0.333	340.083	7.927	1.166
5	0.417	425.104	4.706	0.692
6	0.500	510.125	2.936	0.432
7	0.583	595.145	2.094	0.308
8	0.667	680.166	1.395	0.205
9	0.750	765.187	0.922	0.136
10	0.833	850.208	0.773	0.114
			Sum = 100.000	Sum= 14.714

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)		Effective (In/Hr)
				Max	Low	
1	0.08	0.50	0.150	0.049	(0.135)	0.101
2	0.17	0.60	0.180	0.049	(0.162)	0.131
3	0.25	0.60	0.180	0.049	(0.162)	0.131
4	0.33	0.60	0.180	0.049	(0.162)	0.131
5	0.42	0.60	0.180	0.049	(0.162)	0.131
6	0.50	0.70	0.210	0.049	(0.189)	0.161
7	0.58	0.70	0.210	0.049	(0.189)	0.161
8	0.67	0.70	0.210	0.049	(0.189)	0.161
9	0.75	0.70	0.210	0.049	(0.189)	0.161
10	0.83	0.70	0.210	0.049	(0.189)	0.161
11	0.92	0.70	0.210	0.049	(0.189)	0.161
12	1.00	0.80	0.240	0.049	(0.216)	0.191
13	1.08	0.80	0.240	0.049	(0.216)	0.191
14	1.17	0.80	0.240	0.049	(0.216)	0.191
15	1.25	0.80	0.240	0.049	(0.216)	0.191
16	1.33	0.80	0.240	0.049	(0.216)	0.191
17	1.42	0.80	0.240	0.049	(0.216)	0.191
18	1.50	0.80	0.240	0.049	(0.216)	0.191
19	1.58	0.80	0.240	0.049	(0.216)	0.191
20	1.67	0.80	0.240	0.049	(0.216)	0.191
21	1.75	0.80	0.240	0.049	(0.216)	0.191
22	1.83	0.80	0.240	0.049	(0.216)	0.191
23	1.92	0.80	0.240	0.049	(0.216)	0.191
24	2.00	0.90	0.270	0.049	(0.243)	0.221
25	2.08	0.80	0.240	0.049	(0.216)	0.191
26	2.17	0.90	0.270	0.049	(0.243)	0.221
27	2.25	0.90	0.270	0.049	(0.243)	0.221
28	2.33	0.90	0.270	0.049	(0.243)	0.221
29	2.42	0.90	0.270	0.049	(0.243)	0.221
30	2.50	0.90	0.270	0.049	(0.243)	0.221
31	2.58	0.90	0.270	0.049	(0.243)	0.221
32	2.67	0.90	0.270	0.049	(0.243)	0.221
33	2.75	1.00	0.300	0.049	(0.270)	0.251
34	2.83	1.00	0.300	0.049	(0.270)	0.251
35	2.92	1.00	0.300	0.049	(0.270)	0.251
36	3.00	1.00	0.300	0.049	(0.270)	0.251
37	3.08	1.00	0.300	0.049	(0.270)	0.251
38	3.17	1.10	0.330	0.049	(0.297)	0.281
39	3.25	1.10	0.330	0.049	(0.297)	0.281
40	3.33	1.10	0.330	0.049	(0.297)	0.281
41	3.42	1.20	0.360	0.049	(0.324)	0.311
42	3.50	1.30	0.390	0.049	(0.351)	0.341
43	3.58	1.40	0.420	0.049	(0.378)	0.371
44	3.67	1.40	0.420	0.049	(0.378)	0.371
45	3.75	1.50	0.450	0.049	(0.405)	0.401
46	3.83	1.50	0.450	0.049	(0.405)	0.401
47	3.92	1.60	0.480	0.049	(0.432)	0.431
48	4.00	1.60	0.480	0.049	(0.432)	0.431
49	4.08	1.70	0.510	0.049	(0.459)	0.461
50	4.17	1.80	0.540	0.049	(0.486)	0.491
51	4.25	1.90	0.570	0.049	(0.513)	0.521
52	4.33	2.00	0.600	0.049	(0.540)	0.551
53	4.42	2.10	0.630	0.049	(0.567)	0.581
54	4.50	2.10	0.630	0.049	(0.567)	0.581
55	4.58	2.20	0.660	0.049	(0.594)	0.611
56	4.67	2.30	0.690	0.049	(0.621)	0.641
57	4.75	2.40	0.720	0.049	(0.648)	0.671
58	4.83	2.40	0.720	0.049	(0.648)	0.671
59	4.92	2.50	0.750	0.049	(0.675)	0.701
60	5.00	2.60	0.780	0.049	(0.702)	0.731
61	5.08	3.10	0.930	0.049	(0.837)	0.881
62	5.17	3.60	1.080	0.049	(0.972)	1.031
63	5.25	3.90	1.170	0.049	(1.053)	1.121
64	5.33	4.20	1.260	0.049	(1.134)	1.211
65	5.42	4.70	1.410	0.049	(1.269)	1.361
66	5.50	5.60	1.680	0.049	(1.512)	1.631

67	5.58	1.90	0.570	0.049	(0.513)	0.521
68	5.67	0.90	0.270	0.049	(0.243)	0.221
69	5.75	0.60	0.180	0.049	(0.162)	0.131
70	5.83	0.50	0.150	0.049	(0.135)	0.101
71	5.92	0.30	0.090	0.049	(0.081)	0.041
72	6.00	0.20	0.060	0.049	(0.054)	0.011

(Loss Rate Not Used)

Sum = 100.0 Sum = 26.5

Flood volume = Effective rainfall 2.20(In)
times area 14.6(Ac.)/[(In)/(Ft.)] = 2.7(Ac.Ft)
Total soil loss = 0.30(In)
Total soil loss = 0.359(Ac.Ft)
Total rainfall = 2.50(In)
Flood volume = 116853.5 Cubic Feet
Total soil loss = 15634.8 Cubic Feet

Peak flow rate of this hydrograph = 19.109(CFS)

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6 - 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	0.0015	0.22	Q				
0+10	0.0082	0.97	VQ				
0+15	0.0181	1.44	V Q				
0+20	0.0294	1.64	V Q				
0+25	0.0415	1.75	V Q				
0+30	0.0544	1.88	V Q				
0+35	0.0690	2.13	V Q				
0+40	0.0844	2.24	V Q				
0+45	0.1002	2.29	V Q				
0+50	0.1163	2.33	V Q				
0+55	0.1324	2.34	V Q				
1+ 0	0.1491	2.42	V Q				
1+ 5	0.1672	2.63	V Q				
1+10	0.1859	2.71	V Q				
1+15	0.2048	2.75	V Q				
1+20	0.2239	2.77	V Q				
1+25	0.2431	2.79	V Q				
1+30	0.2624	2.80	V Q				
1+35	0.2817	2.80	VQ				
1+40	0.3010	2.81	VQ				
1+45	0.3203	2.81	VQ				
1+50	0.3397	2.81	Q				
1+55	0.3590	2.81	Q				
2+ 0	0.3788	2.87	Q				
2+ 5	0.3996	3.01	VQ				
2+10	0.4199	2.96	QV				
2+15	0.4414	3.11	Q				
2+20	0.4633	3.18	Q				
2+25	0.4853	3.21	QV				
2+30	0.5075	3.22	QV				
2+35	0.5298	3.23	QV				
2+40	0.5521	3.24	Q V				
2+45	0.5750	3.31	Q V				
2+50	0.5992	3.52	QV				
2+55	0.6240	3.60	Q V				
3+ 0	0.6490	3.64	Q V				
3+ 5	0.6742	3.66	Q V				
3+10	0.6999	3.73	Q V				
3+15	0.7271	3.95	Q V				
3+20	0.7549	4.03	Q Q	V			
3+25	0.7834	4.14	Q Q	V			
3+30	0.8139	4.43	Q Q	V			
3+35	0.8469	4.79	Q Q	V			
3+40	0.8822	5.12	Q Q	V			
3+45	0.9189	5.33	Q Q	V			
3+50	0.9575	5.61	Q Q	V			
3+55	0.9975	5.80	Q Q	V			
4+ 0	1.0393	6.07	Q Q	V			
4+ 5	1.0824	6.26	Q Q	V			
4+10	1.1277	6.58	Q Q	V			
4+15	1.1757	6.97	Q Q	V			
4+20	1.2266	7.38	Q Q	V			
4+25	1.2803	7.80	Q Q	V			
4+30	1.3365	8.16	Q Q	V			
4+35	1.3943	8.39	Q Q	V			
4+40	1.4545	8.75	Q Q	V			
4+45	1.5175	9.15	Q Q	V			
4+50	1.5830	9.51	Q Q	V			
4+55	1.6500	9.73	Q Q	V			

5+ 0	1.7195	10.08			Q			
5+ 5	1.7934	10.74			Q	V		
5+10	1.8777	12.23			Q	V		
5+15	1.9736	13.93			Q	V		
5+20	2.0794	15.36			Q	V		
5+25	2.1954	16.85				QV		
5+30	2.3262	18.99				VQ		
5+35	2.4578	19.11				V		
5+40	2.5408	12.05			Q		V	
5+45	2.5913	7.33					V	
5+50	2.6249	4.88		Q			V	
5+55	2.6482	3.39					V	
6+ 0	2.6632	2.18					V	
6+ 5	2.6722	1.31					V	
6+10	2.6774	0.75	Q				V	
6+15	2.6804	0.43	Q				V	
6+20	2.6816	0.17	Q				V	
6+25	2.6821	0.08	Q				V	
6+30	2.6824	0.04	Q				V	
6+35	2.6825	0.02	Q				V	
6+40	2.6826	0.01	Q				V	
6+45	2.6826	0.00	Q				V	

Unit Hydrograph Analysis

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 Study date 10/06/22 File: ex10024100.out

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

Program License Serial Number 5006

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

English Units used in output format

 Drainage Area = 14.60(Ac.) = 0.023 Sq. Mi.
 Drainage Area for Depth-Area Areal Adjustment = 14.60(Ac.) = 0.023 Sq. Mi.
 Length along longest watercourse = 1353.00(Ft.)
 Length along longest watercourse measured to centroid = 677.00(Ft.)
 Length along longest watercourse = 0.256 Mi.
 Length along longest watercourse measured to centroid = 0.128 Mi.
 Difference in elevation = 10.00(Ft.)
 Slope along watercourse = 39.0244 Ft./Mi.
 Average Manning's 'N' = 0.030
 Lag time = 0.098 Hr.
 Lag time = 5.88 Min.
 25% of lag time = 1.47 Min.
 40% of lag time = 2.35 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]
14.60	1.60	23.36

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
14.60	4.00	58.40

STORM EVENT (YEAR) = 100.00
 Area Averaged 2-Year Rainfall = 1.600(In)
 Area Averaged 100-Year Rainfall = 4.000(In)

Point rain (area averaged) = 4.000(In)
 Areal adjustment factor = 100.00 %
 Adjusted average point rain = 4.000(In)

Sub-Area Data:
 Area(Ac.) Runoff Index Impervious %
 14.600 86.00 0.800
 Total Area Entered = 14.60(Ac.)

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-2	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)
86.0	86.0	0.176	0.800	0.049	1.000	0.049
						Sum (F) = 0.049

Area averaged mean soil loss (F) (In/Hr) = 0.049
 Minimum soil loss rate ((In/Hr)) = 0.025
 (for 24 hour storm duration)
 Soil loss rate (decimal) = 0.900

 Unit Hydrograph
 VALLEY S-Curve

 Unit Hydrograph Data

Unit time period	Time % of lag	Distribution	Unit Hydrograph
(hrs)		Graph %	(CFS)

1	0.083	85.021	14.724	2.166
2	0.167	170.042	45.948	6.761
3	0.250	255.062	18.575	2.733
4	0.333	340.083	7.927	1.166
5	0.417	425.104	4.706	0.692
6	0.500	510.125	2.936	0.432
7	0.583	595.145	2.094	0.308
8	0.667	680.166	1.395	0.205
9	0.750	765.187	0.922	0.136
10	0.833	850.208	0.773	0.114
			Sum = 100.000	Sum= 14.714

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)		Effective (In/Hr)
				Max	Low	
1	0.08	0.07	0.032	(0.087)	0.029	0.003
2	0.17	0.07	0.032	(0.087)	0.029	0.003
3	0.25	0.07	0.032	(0.086)	0.029	0.003
4	0.33	0.10	0.048	(0.086)	0.043	0.005
5	0.42	0.10	0.048	(0.086)	0.043	0.005
6	0.50	0.10	0.048	(0.085)	0.043	0.005
7	0.58	0.10	0.048	(0.085)	0.043	0.005
8	0.67	0.10	0.048	(0.085)	0.043	0.005
9	0.75	0.10	0.048	(0.084)	0.043	0.005
10	0.83	0.13	0.064	(0.084)	0.058	0.006
11	0.92	0.13	0.064	(0.084)	0.058	0.006
12	1.00	0.13	0.064	(0.083)	0.058	0.006
13	1.08	0.10	0.048	(0.083)	0.043	0.005
14	1.17	0.10	0.048	(0.083)	0.043	0.005
15	1.25	0.10	0.048	(0.083)	0.043	0.005
16	1.33	0.10	0.048	(0.082)	0.043	0.005
17	1.42	0.10	0.048	(0.082)	0.043	0.005
18	1.50	0.10	0.048	(0.082)	0.043	0.005
19	1.58	0.10	0.048	(0.081)	0.043	0.005
20	1.67	0.10	0.048	(0.081)	0.043	0.005
21	1.75	0.10	0.048	(0.081)	0.043	0.005
22	1.83	0.13	0.064	(0.080)	0.058	0.006
23	1.92	0.13	0.064	(0.080)	0.058	0.006
24	2.00	0.13	0.064	(0.080)	0.058	0.006
25	2.08	0.13	0.064	(0.079)	0.058	0.006
26	2.17	0.13	0.064	(0.079)	0.058	0.006
27	2.25	0.13	0.064	(0.079)	0.058	0.006
28	2.33	0.13	0.064	(0.078)	0.058	0.006
29	2.42	0.13	0.064	(0.078)	0.058	0.006
30	2.50	0.13	0.064	(0.078)	0.058	0.006
31	2.58	0.17	0.080	(0.077)	0.072	0.008
32	2.67	0.17	0.080	(0.077)	0.072	0.008
33	2.75	0.17	0.080	(0.077)	0.072	0.008
34	2.83	0.17	0.080	(0.076)	0.072	0.008
35	2.92	0.17	0.080	(0.076)	0.072	0.008
36	3.00	0.17	0.080	(0.076)	0.072	0.008
37	3.08	0.17	0.080	(0.075)	0.072	0.008
38	3.17	0.17	0.080	(0.075)	0.072	0.008
39	3.25	0.17	0.080	(0.075)	0.072	0.008
40	3.33	0.17	0.080	(0.075)	0.072	0.008
41	3.42	0.17	0.080	(0.074)	0.072	0.008
42	3.50	0.17	0.080	(0.074)	0.072	0.008
43	3.58	0.17	0.080	(0.074)	0.072	0.008
44	3.67	0.17	0.080	(0.073)	0.072	0.008
45	3.75	0.17	0.080	(0.073)	0.072	0.008
46	3.83	0.20	0.096	0.073	(0.086)	0.023
47	3.92	0.20	0.096	0.072	(0.086)	0.024
48	4.00	0.20	0.096	0.072	(0.086)	0.024
49	4.08	0.20	0.096	0.072	(0.086)	0.024
50	4.17	0.20	0.096	0.071	(0.086)	0.025
51	4.25	0.20	0.096	0.071	(0.086)	0.025
52	4.33	0.23	0.112	0.071	(0.101)	0.041
53	4.42	0.23	0.112	0.071	(0.101)	0.041
54	4.50	0.23	0.112	0.070	(0.101)	0.042
55	4.58	0.23	0.112	0.070	(0.101)	0.042
56	4.67	0.23	0.112	0.070	(0.101)	0.042
57	4.75	0.23	0.112	0.069	(0.101)	0.043
58	4.83	0.27	0.128	0.069	(0.115)	0.059
59	4.92	0.27	0.128	0.069	(0.115)	0.059
60	5.00	0.27	0.128	0.068	(0.115)	0.060
61	5.08	0.20	0.096	0.068	(0.086)	0.028
62	5.17	0.20	0.096	0.068	(0.086)	0.028
63	5.25	0.20	0.096	0.068	(0.086)	0.028
64	5.33	0.23	0.112	0.067	(0.101)	0.045
65	5.42	0.23	0.112	0.067	(0.101)	0.045
66	5.50	0.23	0.112	0.067	(0.101)	0.045

67	5.58	0.27	0.128	0.066	(0.115)	0.062
68	5.67	0.27	0.128	0.066	(0.115)	0.062
69	5.75	0.27	0.128	0.066	(0.115)	0.062
70	5.83	0.27	0.128	0.065	(0.115)	0.063
71	5.92	0.27	0.128	0.065	(0.115)	0.063
72	6.00	0.27	0.128	0.065	(0.115)	0.063
73	6.08	0.30	0.144	0.065	(0.130)	0.079
74	6.17	0.30	0.144	0.064	(0.130)	0.080
75	6.25	0.30	0.144	0.064	(0.130)	0.080
76	6.33	0.30	0.144	0.064	(0.130)	0.080
77	6.42	0.30	0.144	0.063	(0.130)	0.081
78	6.50	0.30	0.144	0.063	(0.130)	0.081
79	6.58	0.33	0.160	0.063	(0.144)	0.097
80	6.67	0.33	0.160	0.063	(0.144)	0.097
81	6.75	0.33	0.160	0.062	(0.144)	0.098
82	6.83	0.33	0.160	0.062	(0.144)	0.098
83	6.92	0.33	0.160	0.062	(0.144)	0.098
84	7.00	0.33	0.160	0.061	(0.144)	0.099
85	7.08	0.33	0.160	0.061	(0.144)	0.099
86	7.17	0.33	0.160	0.061	(0.144)	0.099
87	7.25	0.33	0.160	0.061	(0.144)	0.099
88	7.33	0.37	0.176	0.060	(0.158)	0.116
89	7.42	0.37	0.176	0.060	(0.158)	0.116
90	7.50	0.37	0.176	0.060	(0.158)	0.116
91	7.58	0.40	0.192	0.060	(0.173)	0.132
92	7.67	0.40	0.192	0.059	(0.173)	0.133
93	7.75	0.40	0.192	0.059	(0.173)	0.133
94	7.83	0.43	0.208	0.059	(0.187)	0.149
95	7.92	0.43	0.208	0.058	(0.187)	0.150
96	8.00	0.43	0.208	0.058	(0.187)	0.150
97	8.08	0.50	0.240	0.058	(0.216)	0.182
98	8.17	0.50	0.240	0.058	(0.216)	0.182
99	8.25	0.50	0.240	0.057	(0.216)	0.183
100	8.33	0.50	0.240	0.057	(0.216)	0.183
101	8.42	0.50	0.240	0.057	(0.216)	0.183
102	8.50	0.50	0.240	0.057	(0.216)	0.183
103	8.58	0.53	0.256	0.056	(0.230)	0.200
104	8.67	0.53	0.256	0.056	(0.230)	0.200
105	8.75	0.53	0.256	0.056	(0.230)	0.200
106	8.83	0.57	0.272	0.056	(0.245)	0.216
107	8.92	0.57	0.272	0.055	(0.245)	0.217
108	9.00	0.57	0.272	0.055	(0.245)	0.217
109	9.08	0.63	0.304	0.055	(0.274)	0.249
110	9.17	0.63	0.304	0.054	(0.274)	0.250
111	9.25	0.63	0.304	0.054	(0.274)	0.250
112	9.33	0.67	0.320	0.054	(0.288)	0.266
113	9.42	0.67	0.320	0.054	(0.288)	0.266
114	9.50	0.67	0.320	0.053	(0.288)	0.267
115	9.58	0.70	0.336	0.053	(0.302)	0.283
116	9.67	0.70	0.336	0.053	(0.302)	0.283
117	9.75	0.70	0.336	0.053	(0.302)	0.283
118	9.83	0.73	0.352	0.052	(0.317)	0.300
119	9.92	0.73	0.352	0.052	(0.317)	0.300
120	10.00	0.73	0.352	0.052	(0.317)	0.300
121	10.08	0.50	0.240	0.052	(0.216)	0.188
122	10.17	0.50	0.240	0.051	(0.216)	0.189
123	10.25	0.50	0.240	0.051	(0.216)	0.189
124	10.33	0.50	0.240	0.051	(0.216)	0.189
125	10.42	0.50	0.240	0.051	(0.216)	0.189
126	10.50	0.50	0.240	0.050	(0.216)	0.190
127	10.58	0.67	0.320	0.050	(0.288)	0.270
128	10.67	0.67	0.320	0.050	(0.288)	0.270
129	10.75	0.67	0.320	0.050	(0.288)	0.270
130	10.83	0.67	0.320	0.049	(0.288)	0.271
131	10.92	0.67	0.320	0.049	(0.288)	0.271
132	11.00	0.67	0.320	0.049	(0.288)	0.271
133	11.08	0.63	0.304	0.049	(0.274)	0.255
134	11.17	0.63	0.304	0.048	(0.274)	0.256
135	11.25	0.63	0.304	0.048	(0.274)	0.256
136	11.33	0.63	0.304	0.048	(0.274)	0.256
137	11.42	0.63	0.304	0.048	(0.274)	0.256
138	11.50	0.63	0.304	0.048	(0.274)	0.256
139	11.58	0.57	0.272	0.047	(0.245)	0.225
140	11.67	0.57	0.272	0.047	(0.245)	0.225
141	11.75	0.57	0.272	0.047	(0.245)	0.225
142	11.83	0.60	0.288	0.047	(0.259)	0.241
143	11.92	0.60	0.288	0.046	(0.259)	0.242
144	12.00	0.60	0.288	0.046	(0.259)	0.242
145	12.08	0.83	0.400	0.046	(0.360)	0.354
146	12.17	0.83	0.400	0.046	(0.360)	0.354
147	12.25	0.83	0.400	0.045	(0.360)	0.355
148	12.33	0.87	0.416	0.045	(0.374)	0.371
149	12.42	0.87	0.416	0.045	(0.374)	0.371
150	12.50	0.87	0.416	0.045	(0.374)	0.371
151	12.58	0.93	0.448	0.045	(0.403)	0.403
152	12.67	0.93	0.448	0.044	(0.403)	0.404

153	12.75	0.93	0.448	0.044	(0.403)	0.404
154	12.83	0.97	0.464	0.044	(0.418)	0.420
155	12.92	0.97	0.464	0.044	(0.418)	0.420
156	13.00	0.97	0.464	0.043	(0.418)	0.421
157	13.08	1.13	0.544	0.043	(0.490)	0.501
158	13.17	1.13	0.544	0.043	(0.490)	0.501
159	13.25	1.13	0.544	0.043	(0.490)	0.501
160	13.33	1.13	0.544	0.043	(0.490)	0.501
161	13.42	1.13	0.544	0.042	(0.490)	0.502
162	13.50	1.13	0.544	0.042	(0.490)	0.502
163	13.58	0.77	0.368	0.042	(0.331)	0.326
164	13.67	0.77	0.368	0.042	(0.331)	0.326
165	13.75	0.77	0.368	0.041	(0.331)	0.327
166	13.83	0.77	0.368	0.041	(0.331)	0.327
167	13.92	0.77	0.368	0.041	(0.331)	0.327
168	14.00	0.77	0.368	0.041	(0.331)	0.327
169	14.08	0.90	0.432	0.041	(0.389)	0.391
170	14.17	0.90	0.432	0.040	(0.389)	0.392
171	14.25	0.90	0.432	0.040	(0.389)	0.392
172	14.33	0.87	0.416	0.040	(0.374)	0.376
173	14.42	0.87	0.416	0.040	(0.374)	0.376
174	14.50	0.87	0.416	0.040	(0.374)	0.376
175	14.58	0.87	0.416	0.039	(0.374)	0.377
176	14.67	0.87	0.416	0.039	(0.374)	0.377
177	14.75	0.87	0.416	0.039	(0.374)	0.377
178	14.83	0.83	0.400	0.039	(0.360)	0.361
179	14.92	0.83	0.400	0.039	(0.360)	0.361
180	15.00	0.83	0.400	0.038	(0.360)	0.362
181	15.08	0.80	0.384	0.038	(0.346)	0.346
182	15.17	0.80	0.384	0.038	(0.346)	0.346
183	15.25	0.80	0.384	0.038	(0.346)	0.346
184	15.33	0.77	0.368	0.038	(0.331)	0.330
185	15.42	0.77	0.368	0.037	(0.331)	0.331
186	15.50	0.77	0.368	0.037	(0.331)	0.331
187	15.58	0.63	0.304	0.037	(0.274)	0.267
188	15.67	0.63	0.304	0.037	(0.274)	0.267
189	15.75	0.63	0.304	0.037	(0.274)	0.267
190	15.83	0.63	0.304	0.036	(0.274)	0.268
191	15.92	0.63	0.304	0.036	(0.274)	0.268
192	16.00	0.63	0.304	0.036	(0.274)	0.268
193	16.08	0.13	0.064	0.036	(0.058)	0.028
194	16.17	0.13	0.064	0.036	(0.058)	0.028
195	16.25	0.13	0.064	0.036	(0.058)	0.028
196	16.33	0.13	0.064	0.035	(0.058)	0.029
197	16.42	0.13	0.064	0.035	(0.058)	0.029
198	16.50	0.13	0.064	0.035	(0.058)	0.029
199	16.58	0.10	0.048	0.035	(0.043)	0.013
200	16.67	0.10	0.048	0.035	(0.043)	0.013
201	16.75	0.10	0.048	0.034	(0.043)	0.014
202	16.83	0.10	0.048	0.034	(0.043)	0.014
203	16.92	0.10	0.048	0.034	(0.043)	0.014
204	17.00	0.10	0.048	0.034	(0.043)	0.014
205	17.08	0.17	0.080	0.034	(0.072)	0.046
206	17.17	0.17	0.080	0.034	(0.072)	0.046
207	17.25	0.17	0.080	0.033	(0.072)	0.047
208	17.33	0.17	0.080	0.033	(0.072)	0.047
209	17.42	0.17	0.080	0.033	(0.072)	0.047
210	17.50	0.17	0.080	0.033	(0.072)	0.047
211	17.58	0.17	0.080	0.033	(0.072)	0.047
212	17.67	0.17	0.080	0.033	(0.072)	0.047
213	17.75	0.17	0.080	0.032	(0.072)	0.048
214	17.83	0.13	0.064	0.032	(0.058)	0.032
215	17.92	0.13	0.064	0.032	(0.058)	0.032
216	18.00	0.13	0.064	0.032	(0.058)	0.032
217	18.08	0.13	0.064	0.032	(0.058)	0.032
218	18.17	0.13	0.064	0.032	(0.058)	0.032
219	18.25	0.13	0.064	0.032	(0.058)	0.032
220	18.33	0.13	0.064	0.031	(0.058)	0.033
221	18.42	0.13	0.064	0.031	(0.058)	0.033
222	18.50	0.13	0.064	0.031	(0.058)	0.033
223	18.58	0.10	0.048	0.031	(0.043)	0.017
224	18.67	0.10	0.048	0.031	(0.043)	0.017
225	18.75	0.10	0.048	0.031	(0.043)	0.017
226	18.83	0.07	0.032	(0.030)	0.029	0.003
227	18.92	0.07	0.032	(0.030)	0.029	0.003
228	19.00	0.07	0.032	(0.030)	0.029	0.003
229	19.08	0.10	0.048	0.030	(0.043)	0.018
230	19.17	0.10	0.048	0.030	(0.043)	0.018
231	19.25	0.10	0.048	0.030	(0.043)	0.018
232	19.33	0.13	0.064	0.030	(0.058)	0.034
233	19.42	0.13	0.064	0.029	(0.058)	0.035
234	19.50	0.13	0.064	0.029	(0.058)	0.035
235	19.58	0.10	0.048	0.029	(0.043)	0.019
236	19.67	0.10	0.048	0.029	(0.043)	0.019
237	19.75	0.10	0.048	0.029	(0.043)	0.019
238	19.83	0.07	0.032	(0.029)	0.029	0.003

239	19.92	0.07	0.032	0.029	(0.029)	0.003
240	20.00	0.07	0.032	0.029	(0.029)	0.003
241	20.08	0.10	0.048	0.028	(0.043)	0.020
242	20.17	0.10	0.048	0.028	(0.043)	0.020
243	20.25	0.10	0.048	0.028	(0.043)	0.020
244	20.33	0.10	0.048	0.028	(0.043)	0.020
245	20.42	0.10	0.048	0.028	(0.043)	0.020
246	20.50	0.10	0.048	0.028	(0.043)	0.020
247	20.58	0.10	0.048	0.028	(0.043)	0.020
248	20.67	0.10	0.048	0.028	(0.043)	0.020
249	20.75	0.10	0.048	0.027	(0.043)	0.021
250	20.83	0.07	0.032	0.027	(0.029)	0.005
251	20.92	0.07	0.032	0.027	(0.029)	0.005
252	21.00	0.07	0.032	0.027	(0.029)	0.005
253	21.08	0.10	0.048	0.027	(0.043)	0.021
254	21.17	0.10	0.048	0.027	(0.043)	0.021
255	21.25	0.10	0.048	0.027	(0.043)	0.021
256	21.33	0.07	0.032	0.027	(0.029)	0.005
257	21.42	0.07	0.032	0.027	(0.029)	0.005
258	21.50	0.07	0.032	0.027	(0.029)	0.005
259	21.58	0.10	0.048	0.026	(0.043)	0.022
260	21.67	0.10	0.048	0.026	(0.043)	0.022
261	21.75	0.10	0.048	0.026	(0.043)	0.022
262	21.83	0.07	0.032	0.026	(0.029)	0.006
263	21.92	0.07	0.032	0.026	(0.029)	0.006
264	22.00	0.07	0.032	0.026	(0.029)	0.006
265	22.08	0.10	0.048	0.026	(0.043)	0.022
266	22.17	0.10	0.048	0.026	(0.043)	0.022
267	22.25	0.10	0.048	0.026	(0.043)	0.022
268	22.33	0.07	0.032	0.026	(0.029)	0.006
269	22.42	0.07	0.032	0.026	(0.029)	0.006
270	22.50	0.07	0.032	0.025	(0.029)	0.007
271	22.58	0.07	0.032	0.025	(0.029)	0.007
272	22.67	0.07	0.032	0.025	(0.029)	0.007
273	22.75	0.07	0.032	0.025	(0.029)	0.007
274	22.83	0.07	0.032	0.025	(0.029)	0.007
275	22.92	0.07	0.032	0.025	(0.029)	0.007
276	23.00	0.07	0.032	0.025	(0.029)	0.007
277	23.08	0.07	0.032	0.025	(0.029)	0.007
278	23.17	0.07	0.032	0.025	(0.029)	0.007
279	23.25	0.07	0.032	0.025	(0.029)	0.007
280	23.33	0.07	0.032	0.025	(0.029)	0.007
281	23.42	0.07	0.032	0.025	(0.029)	0.007
282	23.50	0.07	0.032	0.025	(0.029)	0.007
283	23.58	0.07	0.032	0.025	(0.029)	0.007
284	23.67	0.07	0.032	0.025	(0.029)	0.007
285	23.75	0.07	0.032	0.025	(0.029)	0.007
286	23.83	0.07	0.032	0.025	(0.029)	0.007
287	23.92	0.07	0.032	0.025	(0.029)	0.007
288	24.00	0.07	0.032	0.025	(0.029)	0.007

(Loss Rate Not Used)

Sum = 100.0
Sum = 34.9

Flood volume = Effective rainfall 2.91(In)
times area 14.6(Ac.)/[(In)/(Ft.)] = 3.5(Ac.Ft)
Total soil loss = 1.09(In)
Total soil loss = 1.325(Ac.Ft)
Total rainfall = 4.00(In)
Flood volume = 154263.0 Cubic Feet
Total soil loss = 57723.0 Cubic Feet

Peak flow rate of this hydrograph = 7.320(CFS)

+++++

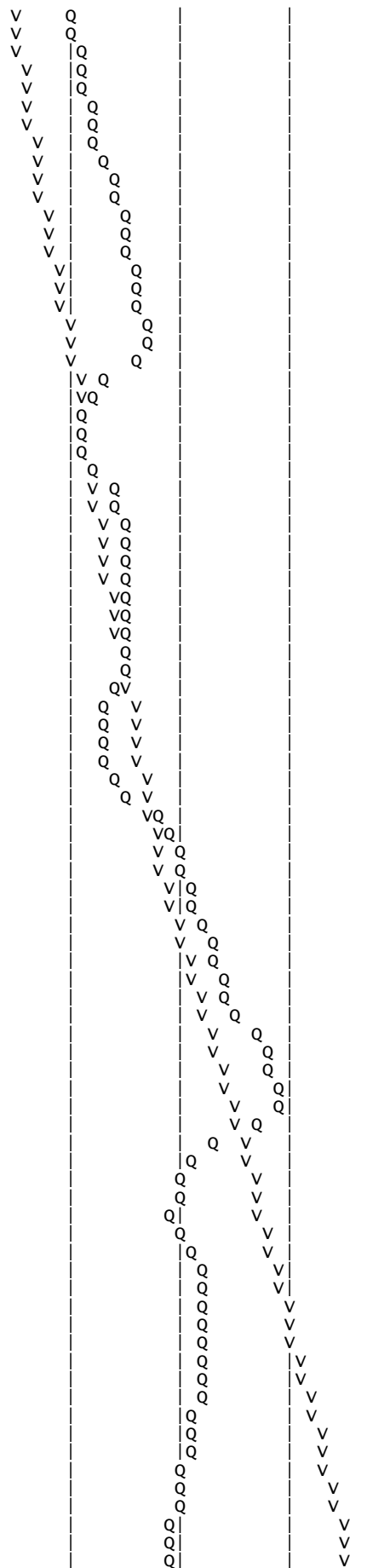
24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

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	0.0000	0.01	Q				
0+10	0.0002	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	0.07	Q				
0+40	0.0026	0.07	Q				
0+45	0.0030	0.07	Q				
0+50	0.0035	0.07	Q				
0+55	0.0041	0.08	Q				
1+ 0	0.0047	0.09	Q				
1+ 5	0.0053	0.09	Q				
1+10	0.0059	0.08	Q				
1+15	0.0064	0.07	Q				

1+20	0.0069	0.07	Q
1+25	0.0074	0.07	Q
1+30	0.0079	0.07	Q
1+35	0.0084	0.07	Q
1+40	0.0089	0.07	Q
1+45	0.0094	0.07	Q
1+50	0.0099	0.07	Q
1+55	0.0105	0.08	Q
2+ 0	0.0111	0.09	Q
2+ 5	0.0117	0.09	Q
2+10	0.0123	0.09	Q
2+15	0.0130	0.09	Q
2+20	0.0136	0.09	Q
2+25	0.0143	0.09	Q
2+30	0.0149	0.09	Q
2+35	0.0156	0.10	Q
2+40	0.0163	0.11	Q
2+45	0.0171	0.11	Q
2+50	0.0179	0.11	Q
2+55	0.0187	0.12	Q
3+ 0	0.0195	0.12	Q
3+ 5	0.0203	0.12	Q
3+10	0.0211	0.12	Q
3+15	0.0219	0.12	Q
3+20	0.0227	0.12	Q
3+25	0.0235	0.12	Q
3+30	0.0244	0.12	Q
3+35	0.0252	0.12	Q
3+40	0.0260	0.12	Q
3+45	0.0268	0.12	Q
3+50	0.0278	0.15	Q
3+55	0.0296	0.26	VQ
4+ 0	0.0317	0.30	VQ
4+ 5	0.0339	0.32	VQ
4+10	0.0362	0.34	VQ
4+15	0.0386	0.35	VQ
4+20	0.0413	0.39	VQ
4+25	0.0448	0.51	V Q
4+30	0.0486	0.56	V Q
4+35	0.0526	0.58	V Q
4+40	0.0567	0.60	V Q
4+45	0.0609	0.61	V Q
4+50	0.0654	0.65	V Q
4+55	0.0707	0.77	V Q
5+ 0	0.0763	0.82	V Q
5+ 5	0.0817	0.77	V Q
5+10	0.0856	0.57	V Q
5+15	0.0890	0.50	V Q
5+20	0.0925	0.50	VQ
5+25	0.0966	0.60	VQ
5+30	0.1010	0.63	VQ
5+35	0.1057	0.68	VQ
5+40	0.1112	0.80	V Q
5+45	0.1170	0.85	V Q
5+50	0.1231	0.88	V Q
5+55	0.1292	0.89	V Q
6+ 0	0.1355	0.91	V Q
6+ 5	0.1420	0.95	V Q
6+10	0.1494	1.07	V Q
6+15	0.1571	1.12	V Q
6+20	0.1650	1.14	V Q
6+25	0.1730	1.16	V Q
6+30	0.1810	1.17	V Q
6+35	0.1894	1.21	V Q
6+40	0.1985	1.33	V Q
6+45	0.2080	1.38	V Q
6+50	0.2177	1.40	V Q
6+55	0.2275	1.42	V Q
7+ 0	0.2373	1.43	V Q
7+ 5	0.2473	1.44	V Q
7+10	0.2572	1.45	V Q
7+15	0.2672	1.45	V Q
7+20	0.2775	1.49	V Q
7+25	0.2886	1.61	V Q
7+30	0.3000	1.65	V Q
7+35	0.3118	1.71	V Q
7+40	0.3244	1.83	V Q
7+45	0.3374	1.89	V Q
7+50	0.3509	1.95	V Q
7+55	0.3652	2.08	V Q
8+ 0	0.3799	2.14	V Q
8+ 5	0.3953	2.23	V Q
8+10	0.4123	2.47	V Q
8+15	0.4300	2.57	V Q
8+20	0.4480	2.62	V Q
8+25	0.4662	2.65	V Q

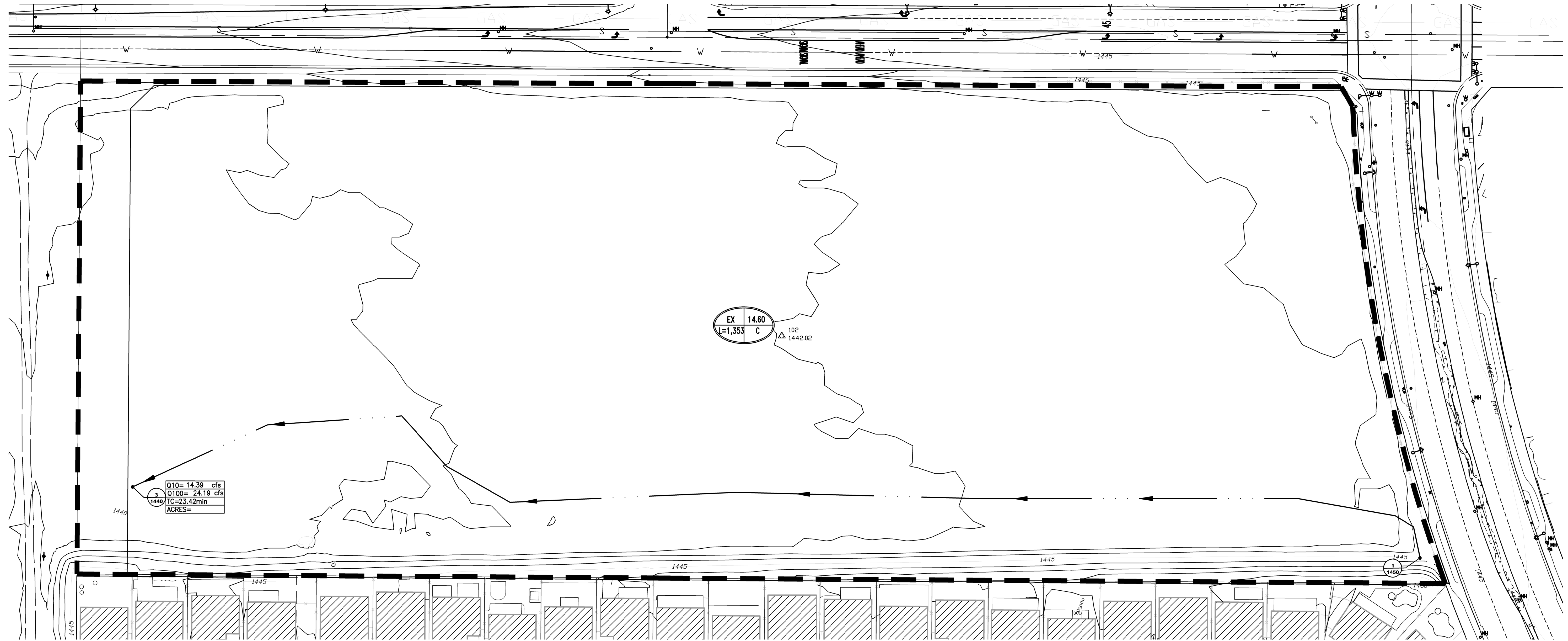
8+30	0.4846	2.67
8+35	0.5033	2.72
8+40	0.5228	2.84
8+45	0.5427	2.89
8+50	0.5630	2.95
8+55	0.5842	3.07
9+ 0	0.6057	3.13
9+ 5	0.6279	3.22
9+10	0.6517	3.46
9+15	0.6763	3.56
9+20	0.7013	3.64
9+25	0.7274	3.78
9+30	0.7538	3.84
9+35	0.7807	3.91
9+40	0.8086	4.04
9+45	0.8368	4.10
9+50	0.8655	4.17
9+55	0.8951	4.29
10+ 0	0.9250	4.35
10+ 5	0.9535	4.13
10+10	0.9768	3.39
10+15	0.9982	3.10
10+20	1.0187	2.98
10+25	1.0388	2.91
10+30	1.0585	2.87
10+35	1.0793	3.01
10+40	1.1036	3.53
10+45	1.1294	3.74
10+50	1.1557	3.83
10+55	1.1825	3.88
11+ 0	1.2095	3.92
11+ 5	1.2365	3.92
11+10	1.2628	3.83
11+15	1.2890	3.80
11+20	1.3151	3.79
11+25	1.3412	3.78
11+30	1.3672	3.78
11+35	1.3928	3.71
11+40	1.4168	3.49
11+45	1.4403	3.41
11+50	1.4638	3.41
11+55	1.4879	3.50
12+ 0	1.5122	3.53
12+ 5	1.5382	3.79
12+10	1.5696	4.55
12+15	1.6031	4.86
12+20	1.6377	5.03
12+25	1.6737	5.23
12+30	1.7104	5.32
12+35	1.7479	5.45
12+40	1.7872	5.70
12+45	1.8273	5.82
12+50	1.8680	5.91
12+55	1.9096	6.05
13+ 0	1.9517	6.11
13+ 5	1.9952	6.32
13+10	2.0426	6.88
13+15	2.0916	7.11
13+20	2.1413	7.22
13+25	2.1914	7.28
13+30	2.2419	7.32
13+35	2.2898	6.97
13+40	2.3298	5.80
13+45	2.3665	5.33
13+50	2.4019	5.14
13+55	2.4364	5.02
14+ 0	2.4705	4.94
14+ 5	2.5051	5.03
14+10	2.5425	5.43
14+15	2.5810	5.59
14+20	2.6197	5.61
14+25	2.6579	5.55
14+30	2.6960	5.54
14+35	2.7341	5.54
14+40	2.7723	5.54
14+45	2.8106	5.55
14+50	2.8486	5.52
14+55	2.8858	5.41
15+ 0	2.9228	5.37
15+ 5	2.9594	5.32
15+10	2.9952	5.20
15+15	3.0307	5.15
15+20	3.0658	5.10
15+25	3.1001	4.98
15+30	3.1340	4.93
15+35	3.1669	4.77



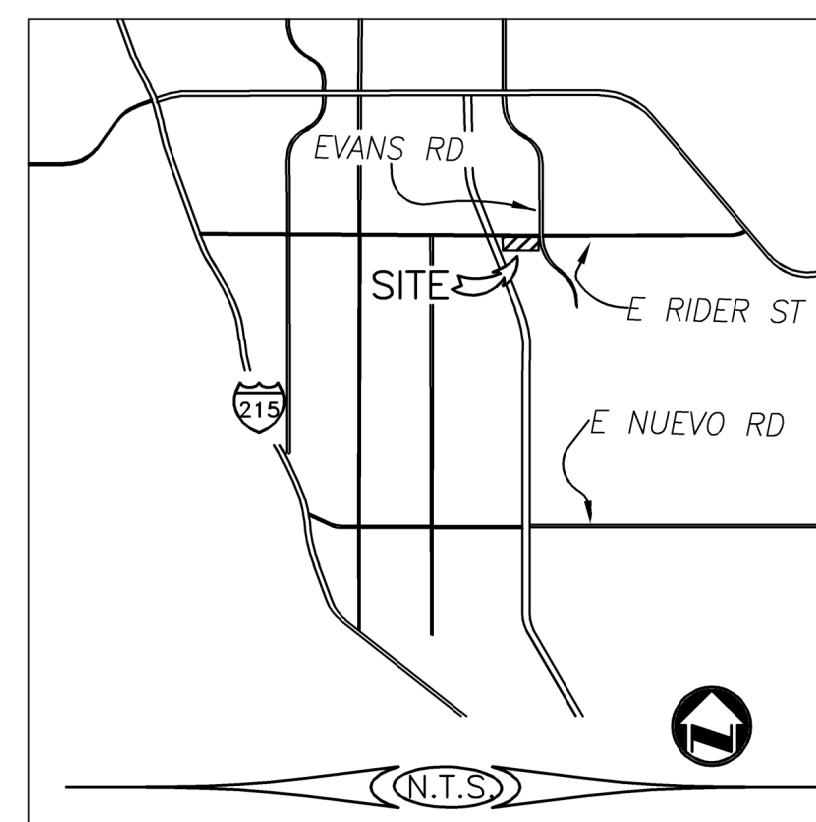
15+40	3.1966	4.32				V
15+45	3.2251	4.14				V
15+50	3.2531	4.06				V
15+55	3.2808	4.02				V
16+ 0	3.3082	3.99				V
16+ 5	3.3320	3.45				V
16+10	3.3445	1.82				V
16+15	3.3525	1.15				V
16+20	3.3585	0.87				V
16+25	3.3633	0.71				V
16+30	3.3675	0.61				V
16+35	3.3709	0.50				V
16+40	3.3733	0.34				V
16+45	3.3752	0.27				V
16+50	3.3767	0.23				V
16+55	3.3782	0.22				V
17+ 0	3.3797	0.21				V
17+ 5	3.3816	0.28				V
17+10	3.3851	0.50				V
17+15	3.3891	0.58				V
17+20	3.3934	0.62				V
17+25	3.3978	0.65				V
17+30	3.4024	0.66				V
17+35	3.4071	0.68				V
17+40	3.4118	0.69				V
17+45	3.4166	0.69				V
17+50	3.4211	0.66				V
17+55	3.4250	0.56				V
18+ 0	3.4285	0.52				V
18+ 5	3.4320	0.50				V
18+10	3.4353	0.49				V
18+15	3.4387	0.49				V
18+20	3.4420	0.48				V
18+25	3.4454	0.48				V
18+30	3.4487	0.48				V
18+35	3.4518	0.45				V
18+40	3.4541	0.34				V
18+45	3.4562	0.30				V
18+50	3.4579	0.25				V
18+55	3.4590	0.15				V
19+ 0	3.4597	0.10				V
19+ 5	3.4604	0.11				V
19+10	3.4618	0.20				V
19+15	3.4634	0.23				V
19+20	3.4654	0.28				V
19+25	3.4681	0.40				V
19+30	3.4712	0.45				V
19+35	3.4742	0.44				V
19+40	3.4766	0.35				V
19+45	3.4787	0.31				V
19+50	3.4806	0.27				V
19+55	3.4816	0.15				V
20+ 0	3.4824	0.11				V
20+ 5	3.4832	0.12				V
20+10	3.4847	0.22				V
20+15	3.4864	0.25				V
20+20	3.4883	0.27				V
20+25	3.4902	0.28				V
20+30	3.4921	0.28				V
20+35	3.4941	0.29				V
20+40	3.4961	0.29				V
20+45	3.4982	0.30				V
20+50	3.5000	0.27				V
20+55	3.5011	0.16				V
21+ 0	3.5019	0.12				V
21+ 5	3.5029	0.14				V
21+10	3.5045	0.23				V
21+15	3.5064	0.27				V
21+20	3.5081	0.25				V
21+25	3.5092	0.15				V
21+30	3.5100	0.12				V
21+35	3.5109	0.14				V
21+40	3.5126	0.24				V
21+45	3.5145	0.28				V
21+50	3.5163	0.26				V
21+55	3.5174	0.16				V
22+ 0	3.5183	0.13				V
22+ 5	3.5193	0.15				V
22+10	3.5210	0.25				V
22+15	3.5229	0.29				V
22+20	3.5248	0.27				V
22+25	3.5260	0.17				V
22+30	3.5269	0.13				V
22+35	3.5277	0.12				V
22+40	3.5285	0.11				V
22+45	3.5292	0.11				V

22+50	3.5299	0.11	Q				V
22+55	3.5307	0.10	Q				V
23+ 0	3.5314	0.10	Q				V
23+ 5	3.5321	0.10	Q				V
23+10	3.5328	0.10	Q				V
23+15	3.5335	0.10	Q				V
23+20	3.5342	0.10	Q				V
23+25	3.5349	0.10	Q				V
23+30	3.5356	0.11	Q				V
23+35	3.5364	0.11	Q				V
23+40	3.5371	0.11	Q				V
23+45	3.5378	0.11	Q				V
23+50	3.5386	0.11	Q				V
23+55	3.5393	0.11	Q				V
24+ 0	3.5401	0.11	Q				V
24+ 5	3.5407	0.09	Q				V
24+10	3.5410	0.04	Q				V
24+15	3.5412	0.02	Q				V
24+20	3.5412	0.01	Q				V
24+25	3.5413	0.01	Q				V
24+30	3.5413	0.01	Q				V
24+35	3.5414	0.00	Q				V
24+40	3.5414	0.00	Q				V
24+45	3.5414	0.00	Q				V

IN THE CITY OF PERRIS, STATE OF CALIFORNIA
EXISTING UNIT HYDROGRAPH MAP
 RIDER ST AND EVANS RD

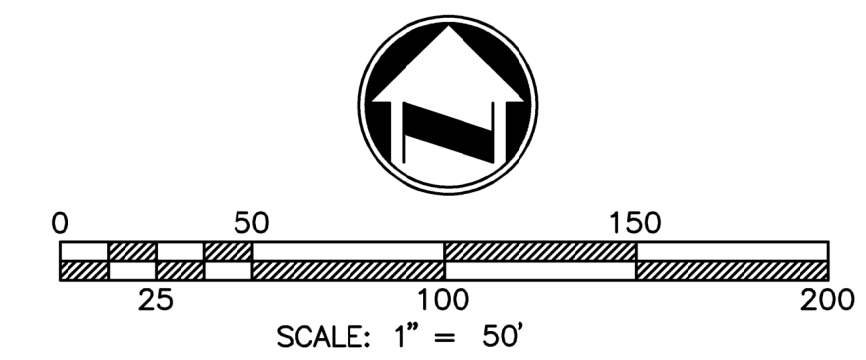


VICINITY MAP



LEGEND

- AREA ACRES
LENGTH SOIL
- NODE ELEV
- DRAINAGE AREA BOUNDARY
- FLOW PATH



EXISTING UNIT HYDROGRAPH MAP
 PREPARATION DATE: OCTOBER 2022
 JOB NUMBER: 10001
 PLANS PREPARED BY:
adkan ENGINEERS
 Civil Engineering · Surveying · Planning
 6879 Airport Drive, Riverside, CA 92504
 Tel:(951) 688-0241 · Fax:(951) 688-0599

U:\Projects\Brook Hill Corporation\10001\Engineering\Hydrology\Existing Unit Hydrograph Map.dwg 11:03 AM

Section 4

Post-Development Unit Hydrograph 100 year / Basin Routing / Map

Unit Hydrograph Analysis

Copyright (C) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 10/06/22 File: PRO1001100.out

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

Program License Serial Number 5006

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

English Units used in output format

Drainage Area = 14.60(Ac.) = 0.023 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 14.60(Ac.) = 0.023 Sq. Mi.
Length along longest watercourse = 1651.00(Ft.)
Length along longest watercourse measured to centroid = 826.00(Ft.)
Length along longest watercourse = 0.313 Mi.
Length along longest watercourse measured to centroid = 0.156 Mi.
Difference in elevation = 12.54(Ft.)
Slope along watercourse = 40.1037 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.057 Hr.
Lag time = 3.40 Min.
25% of lag time = 0.85 Min.
40% of lag time = 1.36 Min.
Unit time = 5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1] Rainfall(In)[2] weighting[1*2]
14.60 0.45 6.57

100 YEAR Area rainfall data:

Area(Ac.)[1] Rainfall(In)[2] weighting[1*2]
14.60 1.20 17.52

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 0.450(In)
Area Averaged 100-Year Rainfall = 1.200(In)

Point rain (area averaged) = 1.200(In)
Areal adjustment factor = 99.99 %
Adjusted average point rain = 1.200(In)

Sub-Area Data:
Area(Ac.) Runoff Index Impervious %
14.600 69.00 0.800
Total Area Entered = 14.60(Ac.)

RI RI Infil. Rate Impervious Adj. Infil. Rate Area% F
AMC2 AMC-2 (In/Hr) (Dec.%) (In/Hr) (Dec.) (In/Hr)
69.0 69.0 0.373 0.800 0.104 1.000 0.104
Sum (F) = 0.104

Area averaged mean soil loss (F) (In/Hr) = 0.104
Minimum soil loss rate ((In/Hr)) = 0.052
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.180

Slope of intensity-duration curve for a 1 hour storm =0.5000

Unit Hydrograph
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	146.936	32.426
2	0.167	293.871	47.232
3	0.250	440.807	11.364
4	0.333	587.742	4.977
5	0.417	734.678	2.559
6	0.500	881.613	1.443
Sum = 100.000			Sum= 14.714

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	4.20	0.605	(0.104)	0.500
2	0.17	4.30	0.619	(0.111)	0.515
3	0.25	5.00	0.720	(0.130)	0.616
4	0.33	5.00	0.720	(0.130)	0.616
5	0.42	5.80	0.835	(0.150)	0.731
6	0.50	6.50	0.936	(0.168)	0.831
7	0.58	7.40	1.065	(0.192)	0.961
8	0.67	8.60	1.238	(0.223)	1.134
9	0.75	12.30	1.771	(0.319)	1.667
10	0.83	29.10	4.190	(0.754)	4.085
11	0.92	6.80	0.979	(0.176)	0.875
12	1.00	5.00	0.720	(0.130)	0.616

Sum = 100.0 (Loss Rate Not Used) Sum = 13.1

Flood volume = Effective rainfall 1.10(In)
times area 14.6(Ac.)/[In]/(Ft.) = 1.3(Ac.Ft)
Total soil loss = 0.10(In)
Total soil loss = 0.127(Ac.Ft)
Total rainfall = 1.20(In)
Flood volume = 58057.0 Cubic Feet
Total soil loss = 5532.1 Cubic Feet

Peak flow rate of this hydrograph = 36.740(CFS)

1 - 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	0.0164	2.39	V	Q			
0+10	0.0573	5.94	V	Q			
0+15	0.1080	7.35	V	Q			
0+20	0.1661	8.45	V	Q			
0+25	0.2306	9.36	V	Q			
0+30	0.3052	10.83	V	Q			
0+35	0.3905	12.38	V	Q			
0+40	0.4896	14.38	V	Q			
0+45	0.6167	18.46	V	Q			
0+50	0.8520	34.16	V	Q			
0+55	1.1050	36.74	V	Q			
1+ 0	1.2270	17.71	V	Q			
1+ 5	1.2931	9.61	V	Q			
1+10	1.3177	3.56	V	Q			
1+15	1.3290	1.65	V	Q			
1+20	1.3319	0.42	V	Q			
1+25	1.3328	0.13	V	Q			

Unit Hydrograph Analysis

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 Study date 10/06/22 File: PRO1003100.out

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

Program License Serial Number 5006

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

English Units used in output format

 Drainage Area = 14.60(Ac.) = 0.023 Sq. Mi.
 Drainage Area for Depth-Area Areal Adjustment = 14.60(Ac.) = 0.023 Sq. Mi.
 Length along longest watercourse = 1651.00(Ft.)
 Length along longest watercourse measured to centroid = 826.00(Ft.)
 Length along longest watercourse = 0.313 Mi.
 Length along longest watercourse measured to centroid = 0.156 Mi.
 Difference in elevation = 12.54(Ft.)
 Slope along watercourse = 40.1037 Ft./Mi.
 Average Manning's 'N' = 0.015
 Lag time = 0.057 Hr.
 Lag time = 3.40 Min.
 25% of lag time = 0.85 Min.
 40% of lag time = 1.36 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]
14.60	0.80	11.68

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
14.60	1.80	26.28

STORM EVENT (YEAR) = 100.00
 Area Averaged 2-Year Rainfall = 0.800(In)
 Area Averaged 100-Year Rainfall = 1.800(In)

Point rain (area averaged) = 1.800(In)
 Areal adjustment factor = 99.99 %
 Adjusted average point rain = 1.800(In)

Sub-Area Data:
 Area(Ac.) Runoff Index Impervious %
 14.600 69.00 0.800
 Total Area Entered = 14.60(Ac.)

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-2	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)
69.0	69.0	0.373	0.800	0.104	1.000	0.104
						Sum (F) = 0.104

Area averaged mean soil loss (F) (In/Hr) = 0.104
 Minimum soil loss rate ((In/Hr)) = 0.052
 (for 24 hour storm duration)
 Soil loss rate (decimal) = 0.180

 Unit Hydrograph
 VALLEY S-Curve

 Unit Hydrograph Data

Unit time period	Time % of lag	Distribution	Unit Hydrograph
(hrs)		Graph %	(CFS)

1	0.083	146.936	32.426	4.771
2	0.167	293.871	47.232	6.950
3	0.250	440.807	11.364	1.672
4	0.333	587.742	4.977	0.732
5	0.417	734.678	2.559	0.376
6	0.500	881.613	1.443	0.212
			Sum = 100.000	Sum= 14.714

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)		Effective (In/Hr)
			Max	Low	
1	0.08	1.30	(0.104)	0.051	0.230
2	0.17	1.30	(0.104)	0.051	0.230
3	0.25	1.10	(0.104)	0.043	0.195
4	0.33	1.50	(0.104)	0.058	0.266
5	0.42	1.50	(0.104)	0.058	0.266
6	0.50	1.80	(0.104)	0.070	0.319
7	0.58	1.50	(0.104)	0.058	0.266
8	0.67	1.80	(0.104)	0.070	0.319
9	0.75	1.80	(0.104)	0.070	0.319
10	0.83	1.50	(0.104)	0.058	0.266
11	0.92	1.60	(0.104)	0.062	0.283
12	1.00	1.80	(0.104)	0.070	0.319
13	1.08	2.20	(0.104)	0.086	0.390
14	1.17	2.20	(0.104)	0.086	0.390
15	1.25	2.20	(0.104)	0.086	0.390
16	1.33	2.00	(0.104)	0.078	0.354
17	1.42	2.60	(0.104)	0.101	0.460
18	1.50	2.70	0.104	(0.105)	0.479
19	1.58	2.40	(0.104)	0.093	0.425
20	1.67	2.70	0.104	(0.105)	0.479
21	1.75	3.30	0.104	(0.128)	0.608
22	1.83	3.10	0.104	(0.121)	0.565
23	1.92	2.90	0.104	(0.113)	0.522
24	2.00	3.00	0.104	(0.117)	0.544
25	2.08	3.10	0.104	(0.121)	0.565
26	2.17	4.20	0.104	(0.163)	0.803
27	2.25	5.00	0.104	(0.194)	0.976
28	2.33	3.50	0.104	(0.136)	0.652
29	2.42	6.80	0.104	(0.264)	1.364
30	2.50	7.30	0.104	(0.284)	1.472
31	2.58	8.20	0.104	(0.319)	1.667
32	2.67	5.90	0.104	(0.229)	1.170
33	2.75	2.00	(0.104)	0.078	0.354
34	2.83	1.80	(0.104)	0.070	0.319
35	2.92	1.80	(0.104)	0.070	0.319
36	3.00	0.60	(0.104)	0.023	0.106

Sum = 100.0 (Loss Rate Not Used) Sum = 18.6

Flood volume = Effective rainfall times area = $1.55(\text{In}) \times 14.6(\text{Ac.}) / [(\text{In}) / (\text{Ft.})] = 1.9(\text{Ac. Ft})$
 Total soil loss = 0.25(In)
 Total soil loss = 0.299(Ac.Ft)
 Total rainfall = 1.80(In)
 Flood volume = 82359.9 Cubic Feet
 Total soil loss = 13030.4 Cubic Feet

Peak flow rate of this hydrograph = 21.492(CFS)

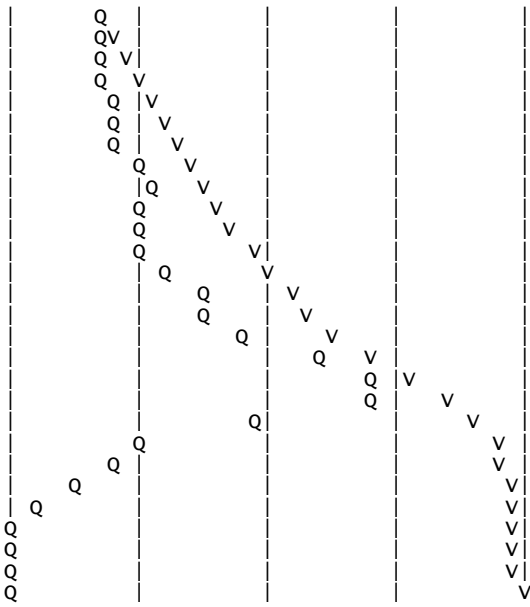
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3 - H O U R S T O R M
 R u n o f f H y d r o g r a p h

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	0.0076	1.10	VQ				
0+10	0.0262	2.70	V Q				
0+15	0.0462	2.92	V Q				
0+20	0.0681	3.18	V Q				
0+25	0.0936	3.70	V Q				
0+30	0.1218	4.09	V Q				
0+35	0.1510	4.25	V Q				
0+40	0.1802	4.24	V Q				
0+45	0.2117	4.57	V Q				
0+50	0.2419	4.39	Q				
0+55	0.2704	4.13	Q				
1+ 0	0.3003	4.35	QV				
1+ 5	0.3343	4.93	QV				

1+10	0.3720	5.48
1+15	0.4107	5.62
1+20	0.4487	5.52
1+25	0.4888	5.81
1+30	0.5342	6.59
1+35	0.5798	6.62
1+40	0.6252	6.60
1+45	0.6771	7.54
1+50	0.7344	8.32
1+55	0.7899	8.05
2+ 0	0.8442	7.89
2+ 5	0.9000	8.10
2+10	0.9647	9.40
2+15	1.0466	11.90
2+20	1.1290	11.97
2+25	1.2226	13.59
2+30	1.3517	18.74
2+35	1.4997	21.49
2+40	1.6450	21.09
2+45	1.7438	14.35
2+50	1.7989	8.01
2+55	1.8411	6.13
3+ 0	1.8708	4.31
3+ 5	1.8838	1.89
3+10	1.8880	0.61
3+15	1.8898	0.27
3+20	1.8906	0.11
3+25	1.8907	0.02



Unit Hydrograph Analysis

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 Study date 10/06/22 File: PRO1006100.out

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

Program License Serial Number 5006

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

 Drainage Area = 14.60(Ac.) = 0.023 Sq. Mi.
 Drainage Area for Depth-Area Areal Adjustment = 14.60(Ac.) = 0.023 Sq. Mi.
 Length along longest watercourse = 1651.00(Ft.)
 Length along longest watercourse measured to centroid = 826.00(Ft.)
 Length along longest watercourse = 0.313 Mi.
 Length along longest watercourse measured to centroid = 0.156 Mi.
 Difference in elevation = 12.54(Ft.)
 Slope along watercourse = 40.1037 Ft./Mi.
 Average Manning's 'N' = 0.015
 Lag time = 0.057 Hr.
 Lag time = 3.40 Min.
 25% of lag time = 0.85 Min.
 40% of lag time = 1.36 Min.
 Unit time = 5.00 Min.
 Duration of storm = 6 Hour(s)
 User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
14.60	1.10	16.06

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
14.60	2.50	36.50

STORM EVENT (YEAR) = 100.00
 Area Averaged 2-Year Rainfall = 1.100(In)
 Area Averaged 100-Year Rainfall = 2.500(In)

Point rain (area averaged) = 2.500(In)
 Areal adjustment factor = 99.99 %
 Adjusted average point rain = 2.500(In)

Sub-Area Data:
 Area(Ac.) Runoff Index Impervious %
 14.600 69.00 0.800
 Total Area Entered = 14.60(Ac.)

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-2	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)
69.0	69.0	0.373	0.800	0.104	1.000	0.104
						Sum (F) = 0.104

Area averaged mean soil loss (F) (In/Hr) = 0.104
 Minimum soil loss rate ((In/Hr)) = 0.052
 (for 24 hour storm duration)
 Soil loss rate (decimal) = 0.180

 Unit Hydrograph
 VALLEY S-Curve

 Unit Hydrograph Data

Unit time period	Time % of lag	Distribution	Unit Hydrograph
(hrs)		Graph %	(CFS)

1	0.083	146.936	32.426	4.771
2	0.167	293.871	47.232	6.950
3	0.250	440.807	11.364	1.672
4	0.333	587.742	4.977	0.732
5	0.417	734.678	2.559	0.376
6	0.500	881.613	1.443	0.212
			Sum = 100.000	Sum= 14.714

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)		Effective (In/Hr)
				Max	Low	
1	0.08	0.50	0.150	(0.104)	0.027	0.123
2	0.17	0.60	0.180	(0.104)	0.032	0.148
3	0.25	0.60	0.180	(0.104)	0.032	0.148
4	0.33	0.60	0.180	(0.104)	0.032	0.148
5	0.42	0.60	0.180	(0.104)	0.032	0.148
6	0.50	0.70	0.210	(0.104)	0.038	0.172
7	0.58	0.70	0.210	(0.104)	0.038	0.172
8	0.67	0.70	0.210	(0.104)	0.038	0.172
9	0.75	0.70	0.210	(0.104)	0.038	0.172
10	0.83	0.70	0.210	(0.104)	0.038	0.172
11	0.92	0.70	0.210	(0.104)	0.038	0.172
12	1.00	0.80	0.240	(0.104)	0.043	0.197
13	1.08	0.80	0.240	(0.104)	0.043	0.197
14	1.17	0.80	0.240	(0.104)	0.043	0.197
15	1.25	0.80	0.240	(0.104)	0.043	0.197
16	1.33	0.80	0.240	(0.104)	0.043	0.197
17	1.42	0.80	0.240	(0.104)	0.043	0.197
18	1.50	0.80	0.240	(0.104)	0.043	0.197
19	1.58	0.80	0.240	(0.104)	0.043	0.197
20	1.67	0.80	0.240	(0.104)	0.043	0.197
21	1.75	0.80	0.240	(0.104)	0.043	0.197
22	1.83	0.80	0.240	(0.104)	0.043	0.197
23	1.92	0.80	0.240	(0.104)	0.043	0.197
24	2.00	0.90	0.270	(0.104)	0.049	0.221
25	2.08	0.80	0.240	(0.104)	0.043	0.197
26	2.17	0.90	0.270	(0.104)	0.049	0.221
27	2.25	0.90	0.270	(0.104)	0.049	0.221
28	2.33	0.90	0.270	(0.104)	0.049	0.221
29	2.42	0.90	0.270	(0.104)	0.049	0.221
30	2.50	0.90	0.270	(0.104)	0.049	0.221
31	2.58	0.90	0.270	(0.104)	0.049	0.221
32	2.67	0.90	0.270	(0.104)	0.049	0.221
33	2.75	1.00	0.300	(0.104)	0.054	0.246
34	2.83	1.00	0.300	(0.104)	0.054	0.246
35	2.92	1.00	0.300	(0.104)	0.054	0.246
36	3.00	1.00	0.300	(0.104)	0.054	0.246
37	3.08	1.00	0.300	(0.104)	0.054	0.246
38	3.17	1.10	0.330	(0.104)	0.059	0.271
39	3.25	1.10	0.330	(0.104)	0.059	0.271
40	3.33	1.10	0.330	(0.104)	0.059	0.271
41	3.42	1.20	0.360	(0.104)	0.065	0.295
42	3.50	1.30	0.390	(0.104)	0.070	0.320
43	3.58	1.40	0.420	(0.104)	0.076	0.344
44	3.67	1.40	0.420	(0.104)	0.076	0.344
45	3.75	1.50	0.450	(0.104)	0.081	0.369
46	3.83	1.50	0.450	(0.104)	0.081	0.369
47	3.92	1.60	0.480	(0.104)	0.086	0.394
48	4.00	1.60	0.480	(0.104)	0.086	0.394
49	4.08	1.70	0.510	(0.104)	0.092	0.418
50	4.17	1.80	0.540	(0.104)	0.097	0.443
51	4.25	1.90	0.570	(0.104)	0.103	0.467
52	4.33	2.00	0.600	0.104	(0.108)	0.496
53	4.42	2.10	0.630	0.104	(0.113)	0.526
54	4.50	2.10	0.630	0.104	(0.113)	0.526
55	4.58	2.20	0.660	0.104	(0.119)	0.556
56	4.67	2.30	0.690	0.104	(0.124)	0.586
57	4.75	2.40	0.720	0.104	(0.130)	0.616
58	4.83	2.40	0.720	0.104	(0.130)	0.616
59	4.92	2.50	0.750	0.104	(0.135)	0.646
60	5.00	2.60	0.780	0.104	(0.140)	0.676
61	5.08	3.10	0.930	0.104	(0.167)	0.826
62	5.17	3.60	1.080	0.104	(0.194)	0.976
63	5.25	3.90	1.170	0.104	(0.211)	1.066
64	5.33	4.20	1.260	0.104	(0.227)	1.156
65	5.42	4.70	1.410	0.104	(0.254)	1.306
66	5.50	5.60	1.680	0.104	(0.302)	1.576
67	5.58	1.90	0.570	(0.104)	0.103	0.467
68	5.67	0.90	0.270	(0.104)	0.049	0.221
69	5.75	0.60	0.180	(0.104)	0.032	0.148
70	5.83	0.50	0.150	(0.104)	0.027	0.123

71 5.92 0.30 0.090 (0.104) 0.016 0.074
 72 6.00 0.20 0.060 (0.104) 0.011 0.049

(Loss Rate Not Used)
 Sum = 100.0 Sum = 25.5
 Flood volume = Effective rainfall 2.13(In)
 times area 14.6(Ac.)/[(In)/(Ft.)] = 2.6(Ac.Ft)
 Total soil loss = 0.37(In)
 Total soil loss = 0.456(Ac.Ft)
 Total rainfall = 2.50(In)
 Flood volume = 112623.8 Cubic Feet
 Total soil loss = 19864.6 Cubic Feet

 Peak flow rate of this hydrograph = 19.856(CFS)

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 6 - 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	0.0040	0.59	VQ				
0+10	0.0148	1.56	V Q				
0+15	0.0281	1.94	V Q				
0+20	0.0424	2.07	V Q				
0+25	0.0570	2.13	V Q				
0+30	0.0728	2.29	V Q				
0+35	0.0897	2.46	V Q				
0+40	0.1070	2.50	V Q				
0+45	0.1243	2.52	V Q				
0+50	0.1418	2.53	V Q				
0+55	0.1592	2.53	V Q				
1+ 0	0.1775	2.65	V Q				
1+ 5	0.1969	2.82	V Q				
1+10	0.2167	2.86	V Q				
1+15	0.2365	2.88	V Q				
1+20	0.2564	2.89	V Q				
1+25	0.2764	2.90	VQ				
1+30	0.2963	2.90	VQ				
1+35	0.3163	2.90	VQ				
1+40	0.3362	2.90	VQ				
1+45	0.3562	2.90	VQ				
1+50	0.3761	2.90	VQ				
1+55	0.3961	2.90	VQ				
2+ 0	0.4168	3.01	VQ				
2+ 5	0.4380	3.07	VQ				
2+10	0.4590	3.06	VQ				
2+15	0.4811	3.20	VQ				
2+20	0.5034	3.24	VQ				
2+25	0.5258	3.25	VQ				
2+30	0.5482	3.25	VQ				
2+35	0.5706	3.26	VQ				
2+40	0.5931	3.26	VQ				
2+45	0.6163	3.38	VQ				
2+50	0.6407	3.55	VQ				
2+55	0.6655	3.59	VQ				
3+ 0	0.6903	3.61	VQ				
3+ 5	0.7152	3.62	VQ				
3+10	0.7410	3.74	VQ				
3+15	0.7679	3.91	VQ				
3+20	0.7951	3.95	VQ				
3+25	0.8232	4.09	VQ				
3+30	0.8534	4.38	VQ				
3+35	0.8859	4.72	VQ				
3+40	0.9200	4.95	VQ				
3+45	0.9554	5.14	VQ				
3+50	0.9921	5.34	VQ				
3+55	1.0301	5.51	VQ				
4+ 0	1.0694	5.71	VQ				
4+ 5	1.1099	5.87	VQ				
4+10	1.1525	6.19	VQ				
4+15	1.1974	6.52	VQ				
4+20	1.2449	6.89	VQ				
4+25	1.2952	7.30	VQ				
4+30	1.3474	7.59	VQ				
4+35	1.4013	7.82	VQ				
4+40	1.4578	8.21	VQ				
4+45	1.5173	8.63	VQ				
4+50	1.5787	8.92	VQ				
4+55	1.6416	9.14	VQ				
5+ 0	1.7073	9.53	VQ				
5+ 5	1.7798	10.53	VQ				
5+10	1.8649	12.36	VQ				
5+15	1.9622	14.12	VQ				

5+20	2.0693	15.55				QV
5+25	2.1879	17.22				VQ
5+30	2.3246	19.86				V
5+35	2.4405	16.83				Q
5+40	2.4994	8.56			Q	V
5+45	2.5333	4.92		Q		V
5+50	2.5553	3.20		Q		V
5+55	2.5700	2.13		Q		V
6+ 0	2.5786	1.24	Q			V
6+ 5	2.5831	0.66	Q			V
6+10	2.5846	0.21	Q			V
6+15	2.5852	0.09	Q			V
6+20	2.5854	0.03	Q			V
6+25	2.5855	0.01	Q			V

Unit Hydrograph Analysis

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Study date 10/06/22 File: PRO10024100.out

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

Program License Serial Number 5006

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

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Length along longest watercourse = 0.313 Mi.
Length along longest watercourse measured to centroid = 0.156 Mi.
Difference in elevation = 12.54(Ft.)
Slope along watercourse = 40.1037 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.057 Hr.
Lag time = 3.40 Min.
25% of lag time = 0.85 Min.
40% of lag time = 1.36 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]
14.60 1.60 23.36

100 YEAR Area rainfall data:

Area(Ac.)[1] Rainfall(In)[2] weighting[1*2]
14.60 4.00 58.40

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 1.600(In)
Area Averaged 100-Year Rainfall = 4.000(In)

Point rain (area averaged) = 4.000(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 4.000(In)

Sub-Area Data:
Area(Ac.) Runoff Index Impervious %
14.600 69.00 0.800
Total Area Entered = 14.60(Ac.)

RI RI Infil. Rate Impervious Adj. Infil. Rate Area% F
AMC2 AMC-2 (In/Hr) (Dec.%) (In/Hr) (Dec.) (In/Hr)
69.0 69.0 0.373 0.800 0.104 1.000 0.104
Sum (F) = 0.104

Area averaged mean soil loss (F) (In/Hr) = 0.104
Minimum soil loss rate ((In/Hr)) = 0.052
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.180

Unit Hydrograph
VALLEY S-Curve

Unit Hydrograph Data

Unit time period Time % of lag Distribution Unit Hydrograph
(hrs) Graph % (CFS)

1	0.083	146.936	32.426	4.771
2	0.167	293.871	47.232	6.950
3	0.250	440.807	11.364	1.672
4	0.333	587.742	4.977	0.732
5	0.417	734.678	2.559	0.376
6	0.500	881.613	1.443	0.212
			Sum = 100.000	Sum= 14.714

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)		Effective (In/Hr)
				Max	Low	
1	0.08	0.07	0.032	(0.185)	0.006	0.026
2	0.17	0.07	0.032	(0.184)	0.006	0.026
3	0.25	0.07	0.032	(0.184)	0.006	0.026
4	0.33	0.10	0.048	(0.183)	0.009	0.039
5	0.42	0.10	0.048	(0.182)	0.009	0.039
6	0.50	0.10	0.048	(0.181)	0.009	0.039
7	0.58	0.10	0.048	(0.181)	0.009	0.039
8	0.67	0.10	0.048	(0.180)	0.009	0.039
9	0.75	0.10	0.048	(0.179)	0.009	0.039
10	0.83	0.13	0.064	(0.179)	0.012	0.052
11	0.92	0.13	0.064	(0.178)	0.012	0.052
12	1.00	0.13	0.064	(0.177)	0.012	0.052
13	1.08	0.10	0.048	(0.177)	0.009	0.039
14	1.17	0.10	0.048	(0.176)	0.009	0.039
15	1.25	0.10	0.048	(0.175)	0.009	0.039
16	1.33	0.10	0.048	(0.174)	0.009	0.039
17	1.42	0.10	0.048	(0.174)	0.009	0.039
18	1.50	0.10	0.048	(0.173)	0.009	0.039
19	1.58	0.10	0.048	(0.172)	0.009	0.039
20	1.67	0.10	0.048	(0.172)	0.009	0.039
21	1.75	0.10	0.048	(0.171)	0.009	0.039
22	1.83	0.13	0.064	(0.170)	0.012	0.052
23	1.92	0.13	0.064	(0.170)	0.012	0.052
24	2.00	0.13	0.064	(0.169)	0.012	0.052
25	2.08	0.13	0.064	(0.168)	0.012	0.052
26	2.17	0.13	0.064	(0.168)	0.012	0.052
27	2.25	0.13	0.064	(0.167)	0.012	0.052
28	2.33	0.13	0.064	(0.166)	0.012	0.052
29	2.42	0.13	0.064	(0.166)	0.012	0.052
30	2.50	0.13	0.064	(0.165)	0.012	0.052
31	2.58	0.17	0.080	(0.164)	0.014	0.066
32	2.67	0.17	0.080	(0.164)	0.014	0.066
33	2.75	0.17	0.080	(0.163)	0.014	0.066
34	2.83	0.17	0.080	(0.162)	0.014	0.066
35	2.92	0.17	0.080	(0.161)	0.014	0.066
36	3.00	0.17	0.080	(0.161)	0.014	0.066
37	3.08	0.17	0.080	(0.160)	0.014	0.066
38	3.17	0.17	0.080	(0.159)	0.014	0.066
39	3.25	0.17	0.080	(0.159)	0.014	0.066
40	3.33	0.17	0.080	(0.158)	0.014	0.066
41	3.42	0.17	0.080	(0.158)	0.014	0.066
42	3.50	0.17	0.080	(0.157)	0.014	0.066
43	3.58	0.17	0.080	(0.156)	0.014	0.066
44	3.67	0.17	0.080	(0.156)	0.014	0.066
45	3.75	0.17	0.080	(0.155)	0.014	0.066
46	3.83	0.20	0.096	(0.154)	0.017	0.079
47	3.92	0.20	0.096	(0.154)	0.017	0.079
48	4.00	0.20	0.096	(0.153)	0.017	0.079
49	4.08	0.20	0.096	(0.152)	0.017	0.079
50	4.17	0.20	0.096	(0.152)	0.017	0.079
51	4.25	0.20	0.096	(0.151)	0.017	0.079
52	4.33	0.23	0.112	(0.150)	0.020	0.092
53	4.42	0.23	0.112	(0.150)	0.020	0.092
54	4.50	0.23	0.112	(0.149)	0.020	0.092
55	4.58	0.23	0.112	(0.148)	0.020	0.092
56	4.67	0.23	0.112	(0.148)	0.020	0.092
57	4.75	0.23	0.112	(0.147)	0.020	0.092
58	4.83	0.27	0.128	(0.147)	0.023	0.105
59	4.92	0.27	0.128	(0.146)	0.023	0.105
60	5.00	0.27	0.128	(0.145)	0.023	0.105
61	5.08	0.20	0.096	(0.145)	0.017	0.079
62	5.17	0.20	0.096	(0.144)	0.017	0.079
63	5.25	0.20	0.096	(0.143)	0.017	0.079
64	5.33	0.23	0.112	(0.143)	0.020	0.092
65	5.42	0.23	0.112	(0.142)	0.020	0.092
66	5.50	0.23	0.112	(0.141)	0.020	0.092
67	5.58	0.27	0.128	(0.141)	0.023	0.105
68	5.67	0.27	0.128	(0.140)	0.023	0.105
69	5.75	0.27	0.128	(0.140)	0.023	0.105
70	5.83	0.27	0.128	(0.139)	0.023	0.105

71	5.92	0.27	0.128	(0.138)	0.023	0.105
72	6.00	0.27	0.128	(0.138)	0.023	0.105
73	6.08	0.30	0.144	(0.137)	0.026	0.118
74	6.17	0.30	0.144	(0.137)	0.026	0.118
75	6.25	0.30	0.144	(0.136)	0.026	0.118
76	6.33	0.30	0.144	(0.135)	0.026	0.118
77	6.42	0.30	0.144	(0.135)	0.026	0.118
78	6.50	0.30	0.144	(0.134)	0.026	0.118
79	6.58	0.33	0.160	(0.134)	0.029	0.131
80	6.67	0.33	0.160	(0.133)	0.029	0.131
81	6.75	0.33	0.160	(0.132)	0.029	0.131
82	6.83	0.33	0.160	(0.132)	0.029	0.131
83	6.92	0.33	0.160	(0.131)	0.029	0.131
84	7.00	0.33	0.160	(0.131)	0.029	0.131
85	7.08	0.33	0.160	(0.130)	0.029	0.131
86	7.17	0.33	0.160	(0.129)	0.029	0.131
87	7.25	0.33	0.160	(0.129)	0.029	0.131
88	7.33	0.37	0.176	(0.128)	0.032	0.144
89	7.42	0.37	0.176	(0.128)	0.032	0.144
90	7.50	0.37	0.176	(0.127)	0.032	0.144
91	7.58	0.40	0.192	(0.126)	0.035	0.157
92	7.67	0.40	0.192	(0.126)	0.035	0.157
93	7.75	0.40	0.192	(0.125)	0.035	0.157
94	7.83	0.43	0.208	(0.125)	0.037	0.171
95	7.92	0.43	0.208	(0.124)	0.037	0.171
96	8.00	0.43	0.208	(0.124)	0.037	0.171
97	8.08	0.50	0.240	(0.123)	0.043	0.197
98	8.17	0.50	0.240	(0.122)	0.043	0.197
99	8.25	0.50	0.240	(0.122)	0.043	0.197
100	8.33	0.50	0.240	(0.121)	0.043	0.197
101	8.42	0.50	0.240	(0.121)	0.043	0.197
102	8.50	0.50	0.240	(0.120)	0.043	0.197
103	8.58	0.53	0.256	(0.120)	0.046	0.210
104	8.67	0.53	0.256	(0.119)	0.046	0.210
105	8.75	0.53	0.256	(0.118)	0.046	0.210
106	8.83	0.57	0.272	(0.118)	0.049	0.223
107	8.92	0.57	0.272	(0.117)	0.049	0.223
108	9.00	0.57	0.272	(0.117)	0.049	0.223
109	9.08	0.63	0.304	(0.116)	0.055	0.249
110	9.17	0.63	0.304	(0.116)	0.055	0.249
111	9.25	0.63	0.304	(0.115)	0.055	0.249
112	9.33	0.67	0.320	(0.115)	0.058	0.262
113	9.42	0.67	0.320	(0.114)	0.058	0.262
114	9.50	0.67	0.320	(0.113)	0.058	0.262
115	9.58	0.70	0.336	(0.113)	0.060	0.276
116	9.67	0.70	0.336	(0.112)	0.060	0.276
117	9.75	0.70	0.336	(0.112)	0.060	0.276
118	9.83	0.73	0.352	(0.111)	0.063	0.289
119	9.92	0.73	0.352	(0.111)	0.063	0.289
120	10.00	0.73	0.352	(0.110)	0.063	0.289
121	10.08	0.50	0.240	(0.110)	0.043	0.197
122	10.17	0.50	0.240	(0.109)	0.043	0.197
123	10.25	0.50	0.240	(0.109)	0.043	0.197
124	10.33	0.50	0.240	(0.108)	0.043	0.197
125	10.42	0.50	0.240	(0.108)	0.043	0.197
126	10.50	0.50	0.240	(0.107)	0.043	0.197
127	10.58	0.67	0.320	(0.107)	0.058	0.262
128	10.67	0.67	0.320	(0.106)	0.058	0.262
129	10.75	0.67	0.320	(0.105)	0.058	0.262
130	10.83	0.67	0.320	(0.105)	0.058	0.262
131	10.92	0.67	0.320	(0.104)	0.058	0.262
132	11.00	0.67	0.320	(0.104)	0.058	0.262
133	11.08	0.63	0.304	(0.103)	0.055	0.249
134	11.17	0.63	0.304	(0.103)	0.055	0.249
135	11.25	0.63	0.304	(0.102)	0.055	0.249
136	11.33	0.63	0.304	(0.102)	0.055	0.249
137	11.42	0.63	0.304	(0.101)	0.055	0.249
138	11.50	0.63	0.304	(0.101)	0.055	0.249
139	11.58	0.57	0.272	(0.100)	0.049	0.223
140	11.67	0.57	0.272	(0.100)	0.049	0.223
141	11.75	0.57	0.272	(0.099)	0.049	0.223
142	11.83	0.60	0.288	(0.099)	0.052	0.236
143	11.92	0.60	0.288	(0.098)	0.052	0.236
144	12.00	0.60	0.288	(0.098)	0.052	0.236
145	12.08	0.83	0.400	(0.097)	0.072	0.328
146	12.17	0.83	0.400	(0.097)	0.072	0.328
147	12.25	0.83	0.400	(0.096)	0.072	0.328
148	12.33	0.87	0.416	(0.096)	0.075	0.341
149	12.42	0.87	0.416	(0.096)	0.075	0.341
150	12.50	0.87	0.416	(0.095)	0.075	0.341
151	12.58	0.93	0.448	(0.095)	0.081	0.367
152	12.67	0.93	0.448	(0.094)	0.081	0.367
153	12.75	0.93	0.448	(0.094)	0.081	0.367
154	12.83	0.97	0.464	(0.093)	0.084	0.380
155	12.92	0.97	0.464	(0.093)	0.084	0.380
156	13.00	0.97	0.464	(0.092)	0.084	0.380

157	13.08	1.13	0.544	0.092	(0.098)	0.452
158	13.17	1.13	0.544	0.091	(0.098)	0.453
159	13.25	1.13	0.544	0.091	(0.098)	0.453
160	13.33	1.13	0.544	0.090	(0.098)	0.454
161	13.42	1.13	0.544	0.090	(0.098)	0.454
162	13.50	1.13	0.544	0.089	(0.098)	0.455
163	13.58	0.77	0.368	(0.089)	0.066	0.302
164	13.67	0.77	0.368	(0.088)	0.066	0.302
165	13.75	0.77	0.368	(0.088)	0.066	0.302
166	13.83	0.77	0.368	(0.088)	0.066	0.302
167	13.92	0.77	0.368	(0.087)	0.066	0.302
168	14.00	0.77	0.368	(0.087)	0.066	0.302
169	14.08	0.90	0.432	(0.086)	0.078	0.354
170	14.17	0.90	0.432	(0.086)	0.078	0.354
171	14.25	0.90	0.432	(0.085)	0.078	0.354
172	14.33	0.87	0.416	(0.085)	0.075	0.341
173	14.42	0.87	0.416	(0.085)	0.075	0.341
174	14.50	0.87	0.416	(0.084)	0.075	0.341
175	14.58	0.87	0.416	(0.084)	0.075	0.341
176	14.67	0.87	0.416	(0.083)	0.075	0.341
177	14.75	0.87	0.416	(0.083)	0.075	0.341
178	14.83	0.83	0.400	(0.082)	0.072	0.328
179	14.92	0.83	0.400	(0.082)	0.072	0.328
180	15.00	0.83	0.400	(0.082)	0.072	0.328
181	15.08	0.80	0.384	(0.081)	0.069	0.315
182	15.17	0.80	0.384	(0.081)	0.069	0.315
183	15.25	0.80	0.384	(0.080)	0.069	0.315
184	15.33	0.77	0.368	(0.080)	0.066	0.302
185	15.42	0.77	0.368	(0.079)	0.066	0.302
186	15.50	0.77	0.368	(0.079)	0.066	0.302
187	15.58	0.63	0.304	(0.078)	0.055	0.249
188	15.67	0.63	0.304	(0.078)	0.055	0.249
189	15.75	0.63	0.304	(0.077)	0.055	0.249
190	15.83	0.63	0.304	(0.077)	0.055	0.249
191	15.92	0.63	0.304	(0.077)	0.055	0.249
192	16.00	0.63	0.304	(0.076)	0.055	0.249
193	16.08	0.13	0.064	(0.076)	0.012	0.052
194	16.17	0.13	0.064	(0.075)	0.012	0.052
195	16.25	0.13	0.064	(0.075)	0.012	0.052
196	16.33	0.13	0.064	(0.075)	0.012	0.052
197	16.42	0.13	0.064	(0.075)	0.012	0.052
198	16.50	0.13	0.064	(0.074)	0.012	0.052
199	16.58	0.10	0.048	(0.074)	0.009	0.039
200	16.67	0.10	0.048	(0.074)	0.009	0.039
201	16.75	0.10	0.048	(0.073)	0.009	0.039
202	16.83	0.10	0.048	(0.073)	0.009	0.039
203	16.92	0.10	0.048	(0.072)	0.009	0.039
204	17.00	0.10	0.048	(0.072)	0.009	0.039
205	17.08	0.17	0.080	(0.072)	0.014	0.066
206	17.17	0.17	0.080	(0.071)	0.014	0.066
207	17.25	0.17	0.080	(0.071)	0.014	0.066
208	17.33	0.17	0.080	(0.071)	0.014	0.066
209	17.42	0.17	0.080	(0.070)	0.014	0.066
210	17.50	0.17	0.080	(0.070)	0.014	0.066
211	17.58	0.17	0.080	(0.070)	0.014	0.066
212	17.67	0.17	0.080	(0.069)	0.014	0.066
213	17.75	0.17	0.080	(0.069)	0.014	0.066
214	17.83	0.13	0.064	(0.069)	0.012	0.052
215	17.92	0.13	0.064	(0.068)	0.012	0.052
216	18.00	0.13	0.064	(0.068)	0.012	0.052
217	18.08	0.13	0.064	(0.068)	0.012	0.052
218	18.17	0.13	0.064	(0.067)	0.012	0.052
219	18.25	0.13	0.064	(0.067)	0.012	0.052
220	18.33	0.13	0.064	(0.067)	0.012	0.052
221	18.42	0.13	0.064	(0.066)	0.012	0.052
222	18.50	0.13	0.064	(0.066)	0.012	0.052
223	18.58	0.10	0.048	(0.066)	0.009	0.039
224	18.67	0.10	0.048	(0.065)	0.009	0.039
225	18.75	0.10	0.048	(0.065)	0.009	0.039
226	18.83	0.07	0.032	(0.065)	0.006	0.026
227	18.92	0.07	0.032	(0.064)	0.006	0.026
228	19.00	0.07	0.032	(0.064)	0.006	0.026
229	19.08	0.10	0.048	(0.064)	0.009	0.039
230	19.17	0.10	0.048	(0.063)	0.009	0.039
231	19.25	0.10	0.048	(0.063)	0.009	0.039
232	19.33	0.13	0.064	(0.063)	0.012	0.052
233	19.42	0.13	0.064	(0.063)	0.012	0.052
234	19.50	0.13	0.064	(0.062)	0.012	0.052
235	19.58	0.10	0.048	(0.062)	0.009	0.039
236	19.67	0.10	0.048	(0.062)	0.009	0.039
237	19.75	0.10	0.048	(0.061)	0.009	0.039
238	19.83	0.07	0.032	(0.061)	0.006	0.026
239	19.92	0.07	0.032	(0.061)	0.006	0.026
240	20.00	0.07	0.032	(0.061)	0.006	0.026
241	20.08	0.10	0.048	(0.060)	0.009	0.039
242	20.17	0.10	0.048	(0.060)	0.009	0.039

243	20.25	0.10	0.048	(0.060)	0.009	0.039
244	20.33	0.10	0.048	(0.060)	0.009	0.039
245	20.42	0.10	0.048	(0.059)	0.009	0.039
246	20.50	0.10	0.048	(0.059)	0.009	0.039
247	20.58	0.10	0.048	(0.059)	0.009	0.039
248	20.67	0.10	0.048	(0.059)	0.009	0.039
249	20.75	0.10	0.048	(0.058)	0.009	0.039
250	20.83	0.07	0.032	(0.058)	0.006	0.026
251	20.92	0.07	0.032	(0.058)	0.006	0.026
252	21.00	0.07	0.032	(0.058)	0.006	0.026
253	21.08	0.10	0.048	(0.057)	0.009	0.039
254	21.17	0.10	0.048	(0.057)	0.009	0.039
255	21.25	0.10	0.048	(0.057)	0.009	0.039
256	21.33	0.07	0.032	(0.057)	0.006	0.026
257	21.42	0.07	0.032	(0.057)	0.006	0.026
258	21.50	0.07	0.032	(0.056)	0.006	0.026
259	21.58	0.10	0.048	(0.056)	0.009	0.039
260	21.67	0.10	0.048	(0.056)	0.009	0.039
261	21.75	0.10	0.048	(0.056)	0.009	0.039
262	21.83	0.07	0.032	(0.055)	0.006	0.026
263	21.92	0.07	0.032	(0.055)	0.006	0.026
264	22.00	0.07	0.032	(0.055)	0.006	0.026
265	22.08	0.10	0.048	(0.055)	0.009	0.039
266	22.17	0.10	0.048	(0.055)	0.009	0.039
267	22.25	0.10	0.048	(0.055)	0.009	0.039
268	22.33	0.07	0.032	(0.054)	0.006	0.026
269	22.42	0.07	0.032	(0.054)	0.006	0.026
270	22.50	0.07	0.032	(0.054)	0.006	0.026
271	22.58	0.07	0.032	(0.054)	0.006	0.026
272	22.67	0.07	0.032	(0.054)	0.006	0.026
273	22.75	0.07	0.032	(0.054)	0.006	0.026
274	22.83	0.07	0.032	(0.053)	0.006	0.026
275	22.92	0.07	0.032	(0.053)	0.006	0.026
276	23.00	0.07	0.032	(0.053)	0.006	0.026
277	23.08	0.07	0.032	(0.053)	0.006	0.026
278	23.17	0.07	0.032	(0.053)	0.006	0.026
279	23.25	0.07	0.032	(0.053)	0.006	0.026
280	23.33	0.07	0.032	(0.053)	0.006	0.026
281	23.42	0.07	0.032	(0.053)	0.006	0.026
282	23.50	0.07	0.032	(0.053)	0.006	0.026
283	23.58	0.07	0.032	(0.052)	0.006	0.026
284	23.67	0.07	0.032	(0.052)	0.006	0.026
285	23.75	0.07	0.032	(0.052)	0.006	0.026
286	23.83	0.07	0.032	(0.052)	0.006	0.026
287	23.92	0.07	0.032	(0.052)	0.006	0.026
288	24.00	0.07	0.032	(0.052)	0.006	0.026

(Loss Rate Not Used)

Sum = 100.0 Sum = 39.4

Flood volume = Effective rainfall times area = $\frac{3.28(\text{In}) \times 14.6(\text{Ac.})}{[(\text{In})/(\text{Ft.})]} = 4.0(\text{Ac.Ft})$

Total soil loss = 0.72(In)

Total soil loss = 0.871(Ac.Ft)

Total rainfall = 4.00(In)

Flood volume = 174023.5 Cubic Feet

Total soil loss = 37962.4 Cubic Feet

Peak flow rate of this hydrograph = 6.685(CFS)

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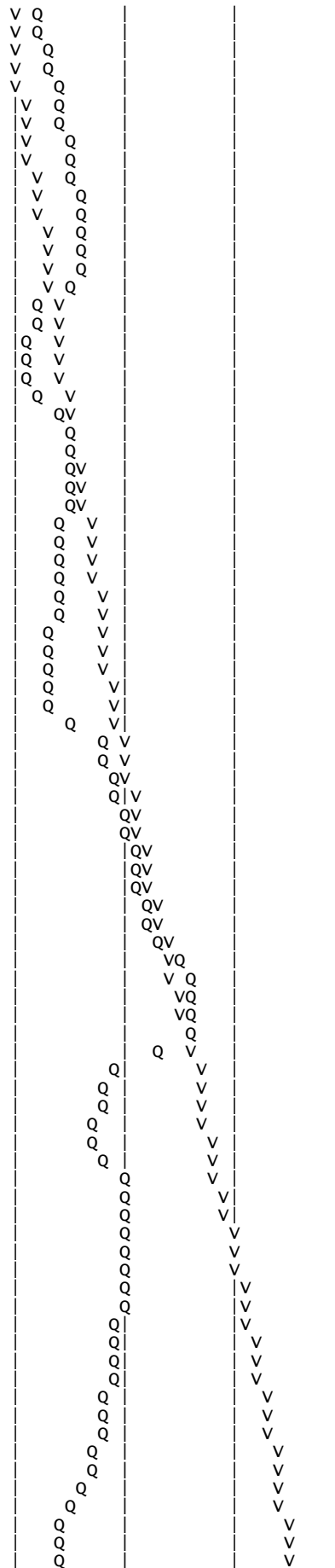
24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

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	0.0009	0.13	Q				
0+10	0.0030	0.31	VQ				
0+15	0.0054	0.35	VQ				
0+20	0.0084	0.43	VQ				
0+25	0.0121	0.53	V Q				
0+30	0.0159	0.56	V Q				
0+35	0.0199	0.57	V Q				
0+40	0.0238	0.58	V Q				
0+45	0.0278	0.58	V Q				
0+50	0.0323	0.64	V Q				
0+55	0.0373	0.73	V Q				
1+ 0	0.0425	0.76	V Q				
1+ 5	0.0474	0.70	V Q				
1+10	0.0516	0.62	V Q				
1+15	0.0557	0.60	V Q				
1+20	0.0597	0.59	V Q				
1+25	0.0638	0.58	V Q				
1+30	0.0677	0.58	V Q				
1+35	0.0717	0.58	V Q				

1+40	0.0757	0.58	V Q
1+45	0.0797	0.58	V Q
1+50	0.0841	0.64	V Q
1+55	0.0892	0.73	V Q
2+ 0	0.0944	0.76	V Q
2+ 5	0.0997	0.76	V Q
2+10	0.1050	0.77	V Q
2+15	0.1103	0.77	V Q
2+20	0.1156	0.77	V Q
2+25	0.1209	0.77	V Q
2+30	0.1262	0.77	V Q
2+35	0.1320	0.84	V Q
2+40	0.1384	0.93	V Q
2+45	0.1449	0.95	V Q
2+50	0.1515	0.96	V Q
2+55	0.1581	0.96	V Q
3+ 0	0.1648	0.97	V Q
3+ 5	0.1714	0.97	V Q
3+10	0.1781	0.97	V Q
3+15	0.1847	0.97	V Q
3+20	0.1914	0.97	V Q
3+25	0.1980	0.97	V Q
3+30	0.2047	0.97	VQ
3+35	0.2113	0.97	VQ
3+40	0.2180	0.97	VQ
3+45	0.2246	0.97	VQ
3+50	0.2317	1.03	V Q
3+55	0.2394	1.12	V Q
4+ 0	0.2473	1.14	V Q
4+ 5	0.2552	1.15	V Q
4+10	0.2632	1.16	V Q
4+15	0.2712	1.16	V Q
4+20	0.2796	1.22	V Q
4+25	0.2886	1.31	V Q
4+30	0.2978	1.33	V Q
4+35	0.3071	1.34	V Q
4+40	0.3164	1.35	V Q
4+45	0.3257	1.35	V Q
4+50	0.3354	1.41	V Q
4+55	0.3458	1.51	V Q
5+ 0	0.3563	1.53	V Q
5+ 5	0.3660	1.41	V Q
5+10	0.3745	1.23	VQ
5+15	0.3828	1.19	VQ
5+20	0.3913	1.24	VQ
5+25	0.4004	1.32	VQ
5+30	0.4096	1.33	VQ
5+35	0.4192	1.41	VQ
5+40	0.4296	1.50	V Q
5+45	0.4401	1.53	V Q
5+50	0.4507	1.54	V Q
5+55	0.4613	1.54	V Q
6+ 0	0.4720	1.55	V Q
6+ 5	0.4830	1.61	V Q
6+10	0.4947	1.70	V Q
6+15	0.5066	1.72	VQ
6+20	0.5185	1.73	VQ
6+25	0.5305	1.74	VQ
6+30	0.5424	1.74	VQ
6+35	0.5548	1.80	V Q
6+40	0.5679	1.89	V Q
6+45	0.5811	1.91	V Q
6+50	0.5943	1.92	V Q
6+55	0.6076	1.93	VQ
7+ 0	0.6209	1.93	VQ
7+ 5	0.6342	1.93	VQ
7+10	0.6475	1.93	VQ
7+15	0.6608	1.93	VQ
7+20	0.6745	1.99	VQ
7+25	0.6889	2.09	V Q
7+30	0.7034	2.11	VQ
7+35	0.7184	2.18	VQ
7+40	0.7341	2.28	V Q
7+45	0.7499	2.30	V Q
7+50	0.7663	2.37	V Q
7+55	0.7833	2.47	V Q
8+ 0	0.8004	2.49	VQ
8+ 5	0.8185	2.63	V Q
8+10	0.8379	2.82	V Q
8+15	0.8576	2.86	V Q
8+20	0.8775	2.88	V Q
8+25	0.8974	2.89	V Q
8+30	0.9174	2.90	V Q
8+35	0.9377	2.96	V Q
8+40	0.9588	3.05	V Q
8+45	0.9799	3.07	V Q

8+50	1.0016	3.15
8+55	1.0239	3.24
9+ 0	1.0464	3.27
9+ 5	1.0698	3.40
9+10	1.0945	3.59
9+15	1.1196	3.64
9+20	1.1452	3.72
9+25	1.1715	3.82
9+30	1.1979	3.85
9+35	1.2249	3.92
9+40	1.2526	4.01
9+45	1.2804	4.04
9+50	1.3087	4.11
9+55	1.3377	4.21
10+ 0	1.3668	4.23
10+ 5	1.3930	3.80
10+10	1.4148	3.17
10+15	1.4356	3.02
10+20	1.4560	2.95
10+25	1.4760	2.92
10+30	1.4960	2.90
10+35	1.5181	3.21
10+40	1.5434	3.67
10+45	1.5694	3.78
10+50	1.5957	3.82
10+55	1.6222	3.85
11+ 0	1.6488	3.86
11+ 5	1.6750	3.80
11+10	1.7005	3.71
11+15	1.7259	3.69
11+20	1.7512	3.68
11+25	1.7765	3.67
11+30	1.8018	3.67
11+35	1.8262	3.54
11+40	1.8494	3.36
11+45	1.8722	3.32
11+50	1.8954	3.36
11+55	1.9191	3.44
12+ 0	1.9429	3.46
12+ 5	1.9698	3.91
12+10	2.0012	4.55
12+15	2.0336	4.71
12+20	2.0669	4.84
12+25	2.1011	4.96
12+30	2.1355	5.00
12+35	2.1709	5.14
12+40	2.2076	5.33
12+45	2.2446	5.37
12+50	2.2822	5.46
12+55	2.3205	5.56
13+ 0	2.3589	5.58
13+ 5	2.3998	5.94
13+10	2.4442	6.44
13+15	2.4894	6.57
13+20	2.5351	6.63
13+25	2.5810	6.66
13+30	2.6270	6.69
13+35	2.6681	5.96
13+40	2.7018	4.90
13+45	2.7338	4.64
13+50	2.7650	4.53
13+55	2.7958	4.47
14+ 0	2.8264	4.44
14+ 5	2.8587	4.69
14+10	2.8936	5.06
14+15	2.9290	5.15
14+20	2.9643	5.12
14+25	2.9991	5.05
14+30	3.0338	5.04
14+35	3.0684	5.03
14+40	3.1030	5.02
14+45	3.1376	5.02
14+50	3.1717	4.96
14+55	3.2053	4.87
15+ 0	3.2386	4.85
15+ 5	3.2715	4.77
15+10	3.3037	4.68
15+15	3.3358	4.65
15+20	3.3673	4.58
15+25	3.3982	4.48
15+30	3.4289	4.46
15+35	3.4578	4.20
15+40	3.4842	3.83
15+45	3.5100	3.74
15+50	3.5354	3.70
15+55	3.5608	3.68



16+ 0	3.5861	3.67				V
16+ 5	3.6049	2.73				V
16+10	3.6143	1.36				V
16+15	3.6214	1.03				V
16+20	3.6275	0.89				V
16+25	3.6331	0.81				V
16+30	3.6384	0.77				V
16+35	3.6433	0.71				V
16+40	3.6476	0.62				V
16+45	3.6517	0.60				V
16+50	3.6557	0.59				V
16+55	3.6597	0.58				V
17+ 0	3.6637	0.58				V
17+ 5	3.6686	0.70				V
17+10	3.6747	0.89				V
17+15	3.6811	0.93				V
17+20	3.6876	0.95				V
17+25	3.6943	0.96				V
17+30	3.7009	0.97				V
17+35	3.7076	0.97				V
17+40	3.7142	0.97				V
17+45	3.7209	0.97				V
17+50	3.7271	0.90				V
17+55	3.7327	0.81				V
18+ 0	3.7381	0.79				V
18+ 5	3.7435	0.78				V
18+10	3.7488	0.78				V
18+15	3.7541	0.77				V
18+20	3.7595	0.77				V
18+25	3.7648	0.77				V
18+30	3.7701	0.77				V
18+35	3.7750	0.71				V
18+40	3.7793	0.62				V
18+45	3.7834	0.60				V
18+50	3.7870	0.52				V
18+55	3.7899	0.43				V
19+ 0	3.7927	0.40				V
19+ 5	3.7959	0.46				V
19+10	3.7996	0.54				V
19+15	3.8035	0.56				V
19+20	3.8078	0.63				V
19+25	3.8129	0.73				V
19+30	3.8181	0.76				V
19+35	3.8229	0.70				V
19+40	3.8271	0.62				V
19+45	3.8313	0.60				V
19+50	3.8349	0.52				V
19+55	3.8378	0.43				V
20+ 0	3.8406	0.40				V
20+ 5	3.8437	0.46				V
20+10	3.8475	0.54				V
20+15	3.8514	0.56				V
20+20	3.8553	0.57				V
20+25	3.8593	0.58				V
20+30	3.8632	0.58				V
20+35	3.8672	0.58				V
20+40	3.8712	0.58				V
20+45	3.8752	0.58				V
20+50	3.8788	0.52				V
20+55	3.8817	0.43				V
21+ 0	3.8845	0.40				V
21+ 5	3.8876	0.46				V
21+10	3.8914	0.54				V
21+15	3.8952	0.56				V
21+20	3.8988	0.51				V
21+25	3.9017	0.42				V
21+30	3.9044	0.40				V
21+35	3.9076	0.46				V
21+40	3.9113	0.54				V
21+45	3.9152	0.56				V
21+50	3.9187	0.51				V
21+55	3.9216	0.42				V
22+ 0	3.9244	0.40				V
22+ 5	3.9275	0.46				V
22+10	3.9313	0.54				V
22+15	3.9352	0.56				V
22+20	3.9387	0.51				V
22+25	3.9416	0.42				V
22+30	3.9443	0.40				V
22+35	3.9471	0.39				V
22+40	3.9497	0.39				V
22+45	3.9524	0.39				V
22+50	3.9551	0.39				V
22+55	3.9577	0.39				V
23+ 0	3.9604	0.39				V
23+ 5	3.9630	0.39				V

23+10	3.9657	0.39	Q				V
23+15	3.9684	0.39	Q				V
23+20	3.9710	0.39	Q				V
23+25	3.9737	0.39	Q				V
23+30	3.9763	0.39	Q				V
23+35	3.9790	0.39	Q				V
23+40	3.9817	0.39	Q				V
23+45	3.9843	0.39	Q				V
23+50	3.9870	0.39	Q				V
23+55	3.9896	0.39	Q				V
24+ 0	3.9923	0.39	Q				V
24+ 5	3.9941	0.26	Q				V
24+10	3.9946	0.08	Q				V
24+15	3.9949	0.03	Q				V
24+20	3.9950	0.02	Q				V
24+25	3.9950	0.01	Q				V

 Program License Serial Number 5006

***** HYDROGRAPH INFORMATION *****

From study/file name: pro1001100.rte
 *****HYDROGRAPH DATA*****
 Number of intervals = 17
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 36.740 (CFS)
 Total volume = 1.333 (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 1.000 to Point/Station 2.000
 **** RETARDING BASIN ROUTING ****

 User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 17
 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
0.330	0.032	0.294	0.031	0.033
0.670	0.067	0.674	0.065	0.069
1.000	0.104	0.901	0.101	0.107
1.330	0.144	1.129	0.140	0.148
1.670	0.188	1.308	0.183	0.193
2.000	0.234	1.459	0.229	0.239
2.330	0.283	1.596	0.278	0.288
2.670	0.338	1.726	0.332	0.344
3.000	0.394	8.991	0.363	0.425
3.330	0.454	32.789	0.341	0.567
3.670	0.519	66.913	0.289	0.749
4.000	0.587	107.216	0.218	0.956

 Hydrograph Detention Basin Routing

 Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	Depth (Ft.)
0.083	2.39	0.07	0.008	0.08
0.167	5.94	0.33	0.035	0.36
0.250	7.35	0.74	0.077	0.76
0.333	8.45	1.02	0.126	1.18
0.417	9.36	1.27	0.179	1.60
0.500	10.83	1.47	0.239	2.03
0.583	12.38	1.66	0.308	2.49
0.667	14.38	6.29	0.373	2.88
0.750	18.46	15.64	0.411	3.09

0.833	34.16	27.96	0.442				0	I		3.26
0.917	36.74	37.05	0.462							3.37
1.000	17.71	25.26	0.435			I	0			3.23
1.083	9.61	11.86	0.401		I	O				3.04
1.167	3.56	7.27	0.381		I	O				2.92
1.250	1.65	4.39	0.359		I	O				2.79
1.333	0.42	2.32	0.343		I	O				2.70
1.417	0.13	1.71	0.331		IO					2.62
1.500	0.00	1.68	0.319		IO					2.55
1.583	0.00	1.65	0.308		IO					2.48
1.667	0.00	1.63	0.297		IO					2.41
1.750	0.00	1.60	0.285		IO					2.35
1.833	0.00	1.57	0.275		IO					2.27
1.917	0.00	1.54	0.264		IO					2.20
2.000	0.00	1.51	0.253		IO					2.13
2.083	0.00	1.48	0.243		IO					2.06
2.167	0.00	1.46	0.233		IO					1.99
2.250	0.00	1.42	0.223		IO					1.92
2.333	0.00	1.39	0.213		IO					1.85
2.417	0.00	1.36	0.204		IO					1.78
2.500	0.00	1.33	0.194		IO					1.72
2.583	0.00	1.30	0.185		IO					1.65
2.667	0.00	1.26	0.177		IO					1.58
2.750	0.00	1.23	0.168		IO					1.52
2.833	0.00	1.19	0.160		IO					1.45
2.917	0.00	1.16	0.152		IO					1.39
3.000	0.00	1.13	0.144		O					1.33
3.083	0.00	1.08	0.136		O					1.27
3.167	0.00	1.04	0.129		O					1.20
3.250	0.00	1.00	0.122		O					1.15
3.333	0.00	0.96	0.115		O					1.09
3.417	0.00	0.93	0.108		O					1.04
3.500	0.00	0.89	0.102		O					0.98
3.583	0.00	0.85	0.096		O					0.93
3.667	0.00	0.82	0.090		O					0.88
3.750	0.00	0.78	0.085		O					0.83
3.833	0.00	0.75	0.080		O					0.78
3.917	0.00	0.72	0.075		O					0.74
4.000	0.00	0.69	0.070		O					0.69
4.083	0.00	0.65	0.065		O					0.65
4.167	0.00	0.61	0.061		O					0.61
4.250	0.00	0.56	0.057		O					0.57
4.333	0.00	0.52	0.053		O					0.53
4.417	0.00	0.48	0.050		O					0.50
4.500	0.00	0.45	0.046		O					0.47
4.583	0.00	0.42	0.043		O					0.44
4.667	0.00	0.39	0.041		O					0.41
4.750	0.00	0.36	0.038		O					0.39
4.833	0.00	0.33	0.036		O					0.37
4.917	0.00	0.31	0.033		O					0.34
5.000	0.00	0.29	0.031		O					0.32
5.083	0.00	0.27	0.029		O					0.30
5.167	0.00	0.25	0.028		O					0.28
5.250	0.00	0.24	0.026		O					0.27
5.333	0.00	0.22	0.024		O					0.25
5.417	0.00	0.21	0.023		O					0.24
5.500	0.00	0.20	0.021		O					0.22
5.583	0.00	0.18	0.020		O					0.21
5.667	0.00	0.17	0.019		O					0.19
5.750	0.00	0.16	0.018		O					0.18
5.833	0.00	0.15	0.017		O					0.17
5.917	0.00	0.14	0.016		O					0.16
6.000	0.00	0.13	0.015		O					0.15
6.083	0.00	0.13	0.014		O					0.14
6.167	0.00	0.12	0.013		O					0.13
6.250	0.00	0.11	0.012		O					0.13
6.333	0.00	0.10	0.011		O					0.12
6.417	0.00	0.10	0.011		O					0.11

Remaining water in basin = 0.01 (Ac.Ft)
 *****HYDROGRAPH DATA*****
 Number of intervals = 77
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 37.048 (CFS)
 Total volume = 1.322 (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

 Program License Serial Number 5006

***** HYDROGRAPH INFORMATION *****

From study/file name: pro1003100.rte
 *****HYDROGRAPH DATA*****
 Number of intervals = 41
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 21.492 (CFS)
 Total volume = 1.891 (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 1.000 to Point/Station 2.000
 **** RETARDING BASIN ROUTING ****

 User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 41
 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
0.330	0.032	0.294	0.031	0.033
0.670	0.067	0.674	0.065	0.069
1.000	0.104	0.901	0.101	0.107
1.330	0.144	1.129	0.140	0.148
1.670	0.188	1.308	0.183	0.193
2.000	0.234	1.459	0.229	0.239
2.330	0.283	1.596	0.278	0.288
2.670	0.338	1.726	0.332	0.344
3.000	0.394	8.991	0.363	0.425
3.330	0.454	32.789	0.341	0.567
3.670	0.519	66.913	0.289	0.749
4.000	0.587	107.216	0.218	0.956

 Hydrograph Detention Basin Routing

 Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	Depth (Ft.)
			.0	5.4
0.083	1.10	0.03	0.004	10.75
0.167	2.70	0.15	0.016	16.12
0.250	2.92	0.31	0.034	21.49
0.333	3.18	0.51	0.052	
0.417	3.70	0.70	0.072	
0.500	4.09	0.83	0.093	
0.583	4.25	0.97	0.116	
0.667	4.24	1.09	0.138	
0.750	4.57	1.19	0.160	

0.833	4.39	1.29	0.182	O	I					1.63	
0.917	4.13	1.36	0.203		I					1.78	
1.000	4.35	1.42	0.222	O	I					1.92	
1.083	4.93	1.49	0.244	O	I					2.07	
1.167	5.48	1.56	0.270	O	O	I				2.24	
1.250	5.62	1.63	0.297	O	O	I				2.42	
1.333	5.52	1.69	0.324	O	O	I				2.58	
1.417	5.81	2.90	0.347		O	O	I			2.72	
1.500	6.59	4.94	0.363		O	O	I			2.82	
1.583	6.62	5.97	0.371		O	O	I			2.86	
1.667	6.60	6.36	0.374			O	O	I		2.88	
1.750	7.54	6.80	0.377				O	O	I	2.90	
1.833	8.32	7.50	0.382			O	I	O	I	2.93	
1.917	8.05	7.92	0.386			O	O	O	I	2.95	
2.000	7.89	7.95	0.386			O	O	O	O	2.95	
2.083	8.10	7.98	0.386			O	O	O	O	2.95	
2.167	9.40	8.45	0.390			O	I	O	O	2.98	
2.250	11.90	10.52	0.398			O	I	O	O	3.02	
2.333	11.97	12.15	0.402				O	I	O	3.04	
2.417	13.59	12.88	0.404				O	O	I	3.05	
2.500	18.74	16.68	0.413					O	I	3.11	
2.583	21.49	20.65	0.423						O	I	3.16
2.667	21.09	21.39	0.425							O	3.17
2.750	14.35	17.15	0.415				I	O			3.11
2.833	8.01	10.25	0.397					O			3.02
2.917	6.13	7.70	0.384				O	O			2.94
3.000	4.31	6.17	0.372				I	O			2.87
3.083	1.89	4.27	0.358		I		O				2.79
3.167	0.61	2.40	0.343	I	O						2.70
3.250	0.27	1.71	0.332	I	O						2.63
3.333	0.11	1.69	0.322	I	O						2.57
3.417	0.02	1.66	0.311	I	O						2.50
3.500	0.00	1.63	0.299	I	O						2.43
3.583	0.00	1.61	0.288	I	O						2.36
3.667	0.00	1.58	0.277	I	O						2.29
3.750	0.00	1.55	0.266	I	O						2.22
3.833	0.00	1.52	0.256	I	O						2.15
3.917	0.00	1.49	0.245	I	O						2.08
4.000	0.00	1.46	0.235	I	O						2.01
4.083	0.00	1.43	0.225	I	O						1.94
4.167	0.00	1.40	0.216	I	O						1.87
4.250	0.00	1.37	0.206	I	O						1.80
4.333	0.00	1.34	0.197	I	O						1.73
4.417	0.00	1.31	0.188	I	O						1.67
4.500	0.00	1.27	0.179	I	O						1.60
4.583	0.00	1.24	0.170	I	O						1.53
4.667	0.00	1.20	0.162	I	O						1.47
4.750	0.00	1.17	0.154	I	O						1.40
4.833	0.00	1.14	0.146	I	O						1.34
4.917	0.00	1.09	0.138	I	O						1.28
5.000	0.00	1.05	0.131	I	O						1.22
5.083	0.00	1.01	0.123	I	O						1.16
5.167	0.00	0.97	0.117	I	O						1.10
5.250	0.00	0.94	0.110	I	O						1.05
5.333	0.00	0.90	0.104	I	O						1.00
5.417	0.00	0.86	0.098	I	O						0.94
5.500	0.00	0.83	0.092	I	O						0.89
5.583	0.00	0.79	0.086	I	O						0.84
5.667	0.00	0.76	0.081	I	O						0.79
5.750	0.00	0.73	0.076	I	O						0.75
5.833	0.00	0.70	0.071	I	O						0.70
5.917	0.00	0.67	0.066	O							0.66
6.000	0.00	0.62	0.062	O							0.62
6.083	0.00	0.57	0.058	O							0.58
6.167	0.00	0.53	0.054	O							0.54
6.250	0.00	0.49	0.050	O							0.51
6.333	0.00	0.46	0.047	O							0.48
6.417	0.00	0.42	0.044	O							0.45
6.500	0.00	0.39	0.041	O							0.42
6.583	0.00	0.37	0.039	O							0.39
6.667	0.00	0.34	0.036	O							0.37
6.750	0.00	0.31	0.034	O							0.35
6.833	0.00	0.29	0.032	O							0.33
6.917	0.00	0.27	0.030	O							0.31
7.000	0.00	0.26	0.028	O							0.29
7.083	0.00	0.24	0.026	O							0.27
7.167	0.00	0.23	0.025	O							0.25
7.250	0.00	0.21	0.023	O							0.24
7.333	0.00	0.20	0.022	O							0.22
7.417	0.00	0.19	0.020	O							0.21
7.500	0.00	0.18	0.019	O							0.20

7.583	0.00	0.17	0.018	0					0.19
7.667	0.00	0.16	0.017	0					0.17
7.750	0.00	0.15	0.016	0					0.16
7.833	0.00	0.14	0.015	0					0.15
7.917	0.00	0.13	0.014	0					0.14
8.000	0.00	0.12	0.013	0					0.14
8.083	0.00	0.11	0.012	0					0.13
8.167	0.00	0.11	0.012	0					0.12
8.250	0.00	0.10	0.011	0					0.11

Remaining water in basin = 0.01 (Ac.Ft)

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*****HYDROGRAPH DATA*****
      Number of intervals = 99
      Time interval = 5.0 (Min.)
      Maximum/Peak flow rate = 21.390 (CFS)
      Total volume = 1.880 (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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 Program License Serial Number 5006

***** HYDROGRAPH INFORMATION *****

From study/file name: pro1006100.rte
 *****HYDROGRAPH DATA*****
 Number of intervals = 77
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 19.856 (CFS)
 Total volume = 2.585 (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 1.000 to Point/Station 2.000
 **** RETARDING BASIN ROUTING ****

 User entry of depth-outflow-storage data

 Total number of inflow hydrograph intervals = 77
 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
0.330	0.032	0.294	0.031	0.033
0.670	0.067	0.674	0.065	0.069
1.000	0.104	0.901	0.101	0.107
1.330	0.144	1.129	0.140	0.148
1.670	0.188	1.308	0.183	0.193
2.000	0.234	1.459	0.229	0.239
2.330	0.283	1.596	0.278	0.288
2.670	0.338	1.726	0.332	0.344
3.000	0.394	8.991	0.363	0.425
3.330	0.454	32.789	0.341	0.567
3.670	0.519	66.913	0.289	0.749
4.000	0.587	107.216	0.218	0.956

 Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	5.0	9.93	14.89	19.86	Depth (Ft.)
0.083	0.59	0.02	0.002	0					0.02
0.167	1.56	0.08	0.009	0 I					0.09
0.250	1.94	0.18	0.020	0 I					0.21
0.333	2.07	0.30	0.032	0 I					0.33
0.417	2.13	0.43	0.044	0 I					0.45
0.500	2.29	0.56	0.056	0 I					0.56
0.583	2.46	0.68	0.068	0 I					0.68
0.667	2.50	0.76	0.080	0 I					0.79
0.750	2.52	0.83	0.092	0 I					0.89
0.833	2.53	0.90	0.104	0 I					1.00
0.917	2.53	0.96	0.115	0 I					1.09
1.000	2.65	1.02	0.126	0 I					1.18
1.083	2.82	1.09	0.137	0 I					1.27
1.167	2.86	1.15	0.149	0 I					1.37

1.250	2.88	1.20	0.161	O	I						1.46
1.333	2.89	1.24	0.172	O	I						1.55
1.417	2.90	1.29	0.183	O	I						1.64
1.500	2.90	1.33	0.194	O	I						1.72
1.583	2.90	1.36	0.205	O	I						1.79
1.667	2.90	1.40	0.216	O	I						1.87
1.750	2.90	1.43	0.226	O	I						1.94
1.833	2.90	1.46	0.236	O	I						2.01
1.917	2.90	1.49	0.245	O	I						2.08
2.000	3.01	1.52	0.255	O	I						2.14
2.083	3.07	1.55	0.266	O	I						2.21
2.167	3.06	1.58	0.276	O	I						2.28
2.250	3.20	1.60	0.287	O	I						2.35
2.333	3.24	1.63	0.298	O	I						2.42
2.417	3.25	1.66	0.309	O	I						2.49
2.500	3.25	1.68	0.320	O	I						2.56
2.583	3.26	1.71	0.330	O	I						2.62
2.667	3.26	2.00	0.340	O	I						2.68
2.750	3.38	2.82	0.346	O	I						2.72
2.833	3.55	3.21	0.349	O	I						2.74
2.917	3.59	3.43	0.351	O	I						2.75
3.000	3.61	3.53	0.352	O	I						2.75
3.083	3.62	3.58	0.352	O	I						2.75
3.167	3.74	3.64	0.353	O	I						2.76
3.250	3.91	3.75	0.354	O	I						2.76
3.333	3.95	3.86	0.354	O	I						2.77
3.417	4.09	3.96	0.355	O	I						2.77
3.500	4.38	4.13	0.357	O	I						2.78
3.583	4.72	4.39	0.359	O	I						2.79
3.667	4.95	4.66	0.361	O	I						2.80
3.750	5.14	4.90	0.362	O	I						2.81
3.833	5.34	5.11	0.364	O	I						2.82
3.917	5.51	5.30	0.366	O	I						2.83
4.000	5.71	5.49	0.367	O	I						2.84
4.083	5.87	5.68	0.368	O	I						2.85
4.167	6.19	5.89	0.370	O	I						2.86
4.250	6.52	6.18	0.372	O	I						2.87
4.333	6.89	6.51	0.375	O	I						2.89
4.417	7.30	6.87	0.378	O	I						2.90
4.500	7.59	7.23	0.380	O	I						2.92
4.583	7.82	7.52	0.383	O	I						2.93
4.667	8.21	7.83	0.385	O	I						2.95
4.750	8.63	8.19	0.388	O	I						2.96
4.833	8.92	8.55	0.391	O	I						2.98
4.917	9.14	8.85	0.393	O	I						2.99
5.000	9.53	9.29	0.395	O	I						3.00
5.083	10.53	10.14	0.397	O	I						3.02
5.167	12.36	11.65	0.401	O	I		O	O	O		3.04
5.250	14.12	13.49	0.405	O	I		O	O	O		3.06
5.333	15.55	15.05	0.409	O	I		O	O	O		3.08
5.417	17.22	16.59	0.413	O	I		O	O	O		3.11
5.500	19.86	18.84	0.419	O	I		O	O	O		3.14
5.583	16.83	18.26	0.417	O	I		O	O	O		3.13
5.667	8.56	11.83	0.401	O	I		O	O	O		3.04
5.750	4.92	7.37	0.381	O	I		O	O	O		2.93
5.833	3.20	5.32	0.366	O	I		O	O	O		2.83
5.917	2.13	3.68	0.353	O	I		O	O	O		2.76
6.000	1.24	2.45	0.344	O	I		O	O	O		2.70
6.083	0.66	1.72	0.336	O	I		O	O	O		2.66
6.167	0.21	1.70	0.327	O	I		O	O	O		2.60
6.250	0.09	1.67	0.316	O	I		O	O	O		2.54
6.333	0.03	1.65	0.305	O	I		O	O	O		2.47
6.417	0.01	1.62	0.294	O	I		O	O	O		2.40
6.500	0.00	1.60	0.283	O	I		O	O	O		2.33
6.583	0.00	1.57	0.272	O	I		O	O	O		2.26
6.667	0.00	1.54	0.262	O	I		O	O	O		2.19
6.750	0.00	1.51	0.251	O	I		O	O	O		2.12
6.833	0.00	1.48	0.241	O	I		O	O	O		2.05
6.917	0.00	1.45	0.231	O	I		O	O	O		1.98
7.000	0.00	1.42	0.221	O	I		O	O	O		1.91
7.083	0.00	1.38	0.211	O	I		O	O	O		1.84
7.167	0.00	1.35	0.202	O	I		O	O	O		1.77
7.250	0.00	1.32	0.193	O	I		O	O	O		1.70
7.333	0.00	1.29	0.184	O	I		O	O	O		1.64
7.417	0.00	1.25	0.175	O	I		O	O	O		1.57
7.500	0.00	1.22	0.166	O	I		O	O	O		1.50
7.583	0.00	1.19	0.158	O	I		O	O	O		1.44
7.667	0.00	1.15	0.150	O	I		O	O	O		1.38
7.750	0.00	1.12	0.142	O	I		O	O	O		1.32
7.833	0.00	1.08	0.135	O	I		O	O	O		1.25
7.917	0.00	1.03	0.127	O	I		O	O	O		1.19
8.000	0.00	0.99	0.120	O	I		O	O	O		1.14
8.083	0.00	0.96	0.114	O	I		O	O	O		1.08
8.167	0.00	0.92	0.107	O	I		O	O	O		1.03
8.250	0.00	0.88	0.101	O	I		O	O	O		0.97
8.333	0.00	0.85	0.095	O	I		O	O	O		0.92

8.417	0.00	0.81	0.089	IO					0.87
8.500	0.00	0.78	0.084	IO					0.82
8.583	0.00	0.75	0.079	IO					0.77
8.667	0.00	0.71	0.074	IO					0.73
8.750	0.00	0.69	0.069	IO					0.69
8.833	0.00	0.64	0.064	IO					0.64
8.917	0.00	0.60	0.060	O					0.60
9.000	0.00	0.55	0.056	O					0.56
9.083	0.00	0.51	0.052	O					0.53
9.167	0.00	0.48	0.049	O					0.49
9.250	0.00	0.44	0.046	O					0.46
9.333	0.00	0.41	0.043	O					0.43
9.417	0.00	0.38	0.040	O					0.41
9.500	0.00	0.35	0.038	O					0.38
9.583	0.00	0.33	0.035	O					0.36
9.667	0.00	0.30	0.033	O					0.34
9.750	0.00	0.28	0.031	O					0.32
9.833	0.00	0.27	0.029	O					0.30
9.917	0.00	0.25	0.027	O					0.28
10.000	0.00	0.24	0.026	O					0.26
10.083	0.00	0.22	0.024	O					0.25
10.167	0.00	0.21	0.023	O					0.23
10.250	0.00	0.19	0.021	O					0.22
10.333	0.00	0.18	0.020	O					0.20
10.417	0.00	0.17	0.019	O					0.19
10.500	0.00	0.16	0.018	O					0.18
10.583	0.00	0.15	0.016	O					0.17
10.667	0.00	0.14	0.015	O					0.16
10.750	0.00	0.13	0.014	O					0.15
10.833	0.00	0.12	0.014	O					0.14
10.917	0.00	0.12	0.013	O					0.13
11.000	0.00	0.11	0.012	O					0.12
11.083	0.00	0.10	0.011	O					0.12
11.167	0.00	0.10	0.011	O					0.11

Remaining water in basin = 0.01 (Ac.Ft)

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*****HYDROGRAPH DATA*****
      Number of intervals = 134
      Time interval = 5.0 (Min.)
      Maximum/Peak flow rate = 18.838 (CFS)
      Total volume = 2.575 (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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 Program License Serial Number 5006

***** HYDROGRAPH INFORMATION *****

From study/file name: pro10024100.rte
 *****HYDROGRAPH DATA*****
 Number of intervals = 293
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 6.685 (CFS)
 Total volume = 3.995 (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 1.000 to Point/Station 2.000
 **** RETARDING BASIN ROUTING ****

 User entry of depth-outflow-storage data

 Total number of inflow hydrograph intervals = 293
 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
0.330	0.032	0.294	0.031	0.033
0.670	0.067	0.674	0.065	0.069
1.000	0.104	0.901	0.101	0.107
1.330	0.144	1.129	0.140	0.148
1.670	0.188	1.308	0.183	0.193
2.000	0.234	1.459	0.229	0.239
2.330	0.283	1.596	0.278	0.288
2.670	0.338	1.726	0.332	0.344
3.000	0.394	8.991	0.363	0.425
3.330	0.454	32.789	0.341	0.567
3.670	0.519	66.913	0.289	0.749
4.000	0.587	107.216	0.218	0.956

 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	3.34	5.01	6.69	Depth (Ft.)
0.083	0.13	0.00	0.000	O					0.00
0.167	0.31	0.02	0.002	OI					0.02
0.250	0.35	0.04	0.004	OI					0.04
0.333	0.43	0.06	0.006	O I					0.07
0.417	0.53	0.08	0.009	O I					0.09
0.500	0.56	0.11	0.012	O I					0.13
0.583	0.57	0.14	0.015	O I					0.16
0.667	0.58	0.17	0.018	O I					0.19
0.750	0.58	0.19	0.021	O I					0.22
0.833	0.64	0.22	0.024	O I					0.24
0.917	0.73	0.25	0.027	O I					0.28
1.000	0.76	0.28	0.030	O I					0.31
1.083	0.70	0.31	0.033	O I					0.34
1.167	0.62	0.33	0.036	OI					0.36

1.250	0.60	0.35	0.037	OI				0.38
1.333	0.59	0.37	0.039	OI				0.40
1.417	0.58	0.38	0.040	OI				0.41
1.500	0.58	0.40	0.042	OI				0.42
1.583	0.58	0.41	0.043	OI				0.44
1.667	0.58	0.42	0.044	O				0.45
1.750	0.58	0.44	0.045	O				0.46
1.833	0.64	0.45	0.046	OI				0.47
1.917	0.73	0.47	0.048	OI				0.48
2.000	0.76	0.49	0.050	OI				0.50
2.083	0.76	0.51	0.051	OI				0.52
2.167	0.77	0.52	0.053	OI				0.54
2.250	0.77	0.54	0.055	OI				0.55
2.333	0.77	0.56	0.056	OI				0.57
2.417	0.77	0.57	0.058	OI				0.58
2.500	0.77	0.59	0.059	OI				0.59
2.583	0.84	0.60	0.061	OI				0.61
2.667	0.93	0.62	0.062	O I				0.62
2.750	0.95	0.65	0.064	OI				0.65
2.833	0.96	0.67	0.066	OI				0.67
2.917	0.96	0.68	0.068	OI				0.68
3.000	0.97	0.69	0.070	OI				0.70
3.083	0.97	0.71	0.072	OI				0.72
3.167	0.97	0.72	0.074	OI				0.73
3.250	0.97	0.73	0.076	OI				0.75
3.333	0.97	0.74	0.077	OI				0.76
3.417	0.97	0.75	0.079	OI				0.77
3.500	0.97	0.76	0.080	OI				0.79
3.583	0.97	0.76	0.082	OI				0.80
3.667	0.97	0.77	0.083	OI				0.81
3.750	0.97	0.78	0.084	OI				0.82
3.833	1.03	0.79	0.086	OI				0.84
3.917	1.12	0.80	0.088	O I				0.85
4.000	1.14	0.81	0.090	O I				0.87
4.083	1.15	0.83	0.092	O I				0.89
4.167	1.16	0.84	0.094	OI				0.91
4.250	1.16	0.85	0.096	OI				0.93
4.333	1.22	0.87	0.099	OI				0.95
4.417	1.31	0.89	0.101	O I				0.98
4.500	1.33	0.90	0.104	O I				1.00
4.583	1.34	0.92	0.107	O I				1.03
4.667	1.35	0.94	0.110	O I				1.05
4.750	1.35	0.95	0.113	O I				1.07
4.833	1.41	0.97	0.116	O I				1.10
4.917	1.51	0.99	0.119	O I				1.13
5.000	1.53	1.01	0.123	O I				1.16
5.083	1.41	1.03	0.126	O I				1.18
5.167	1.23	1.04	0.128	OI				1.20
5.250	1.19	1.04	0.129	OI				1.21
5.333	1.24	1.05	0.130	O				1.22
5.417	1.32	1.06	0.132	OI				1.23
5.500	1.33	1.07	0.134	OI				1.24
5.583	1.41	1.08	0.136	OI				1.26
5.667	1.50	1.10	0.138	O I				1.28
5.750	1.53	1.11	0.141	O I				1.31
5.833	1.54	1.13	0.144	O I				1.33
5.917	1.54	1.14	0.147	O I				1.35
6.000	1.55	1.15	0.149	O I				1.37
6.083	1.61	1.16	0.152	O I				1.39
6.167	1.70	1.18	0.156	O I				1.42
6.250	1.72	1.19	0.159	O I				1.45
6.333	1.73	1.21	0.163	O I				1.48
6.417	1.74	1.22	0.166	O I				1.50
6.500	1.74	1.23	0.170	O I				1.53
6.583	1.80	1.25	0.174	O I				1.56
6.667	1.89	1.27	0.178	O I				1.59
6.750	1.91	1.28	0.182	O I				1.62
6.833	1.92	1.30	0.186	O I				1.66
6.917	1.93	1.32	0.191	O I				1.69
7.000	1.93	1.33	0.195	O I				1.72
7.083	1.93	1.34	0.199	O I				1.75
7.167	1.93	1.36	0.203	O I				1.78
7.250	1.93	1.37	0.207	O I				1.80
7.333	1.99	1.38	0.211	O I				1.83
7.417	2.09	1.40	0.215	O I				1.87
7.500	2.11	1.41	0.220	O I				1.90
7.583	2.18	1.43	0.225	O I				1.94
7.667	2.28	1.45	0.230	O I				1.97
7.750	2.30	1.47	0.236	O I				2.01
7.833	2.37	1.48	0.242	O I				2.05
7.917	2.47	1.50	0.249	O I				2.10
8.000	2.49	1.52	0.255	O I				2.14
8.083	2.63	1.54	0.262	O I				2.19
8.167	2.82	1.56	0.270	O I				2.25
8.250	2.86	1.59	0.279	O I				2.30
8.333	2.88	1.61	0.288	O I				2.36

8.417	2.89	1.63	0.297	O	I			2.41
8.500	2.90	1.65	0.305	O	I			2.47
8.583	2.96	1.67	0.314	O	I			2.52
8.667	3.05	1.69	0.323	O	I			2.58
8.750	3.07	1.71	0.333	O	I			2.64
8.833	3.15	2.09	0.341	O	I			2.69
8.917	3.24	2.77	0.346	O	O	I		2.72
9.000	3.27	3.07	0.348	O	O	O	I	2.73
9.083	3.40	3.23	0.350	O	O	O	O	2.74
9.167	3.59	3.39	0.351	O	O	O	O	2.75
9.250	3.64	3.53	0.352	O	O	O	O	2.75
9.333	3.72	3.62	0.353	O	O	O	O	2.76
9.417	3.82	3.71	0.353	O	O	O	O	2.76
9.500	3.85	3.79	0.354	O	O	O	O	2.76
9.583	3.92	3.84	0.354	O	O	O	O	2.77
9.667	4.01	3.92	0.355	O	O	O	O	2.77
9.750	4.04	3.99	0.355	O	O	O	O	2.77
9.833	4.11	4.04	0.356	O	O	O	O	2.78
9.917	4.21	4.11	0.356	O	O	O	O	2.78
10.000	4.23	4.18	0.357	O	O	O	O	2.78
10.083	3.80	4.08	0.356	O	O	O	O	2.78
10.167	3.17	3.71	0.353	O	O	O	O	2.76
10.250	3.02	3.33	0.350	O	O	O	O	2.74
10.333	2.95	3.12	0.349	O	O	O	O	2.73
10.417	2.92	3.00	0.348	O	O	O	O	2.73
10.500	2.90	2.94	0.347	O	O	O	O	2.73
10.583	3.21	3.01	0.348	O	O	O	O	2.73
10.667	3.67	3.28	0.350	O	O	O	O	2.74
10.750	3.78	3.55	0.352	O	O	O	O	2.75
10.833	3.82	3.70	0.353	O	O	O	O	2.76
10.917	3.85	3.79	0.354	O	O	O	O	2.76
11.000	3.86	3.83	0.354	O	O	O	O	2.77
11.083	3.80	3.83	0.354	O	O	O	O	2.77
11.167	3.71	3.78	0.354	O	O	O	O	2.76
11.250	3.69	3.73	0.353	O	O	O	O	2.76
11.333	3.68	3.70	0.353	O	O	O	O	2.76
11.417	3.67	3.68	0.353	O	O	O	O	2.76
11.500	3.67	3.68	0.353	O	O	O	O	2.76
11.583	3.54	3.63	0.353	O	O	O	O	2.76
11.667	3.36	3.52	0.352	O	O	O	O	2.75
11.750	3.32	3.41	0.351	O	O	O	O	2.75
11.833	3.36	3.37	0.351	O	O	O	O	2.74
11.917	3.44	3.39	0.351	O	O	O	O	2.75
12.000	3.46	3.43	0.351	O	O	O	O	2.75
12.083	3.91	3.59	0.352	O	O	O	O	2.75
12.167	4.55	3.98	0.355	O	O	O	O	2.77
12.250	4.71	4.38	0.358	O	O	O	O	2.79
12.333	4.84	4.62	0.360	O	O	O	O	2.80
12.417	4.96	4.79	0.362	O	O	O	O	2.81
12.500	5.00	4.91	0.363	O	O	O	O	2.81
12.583	5.14	5.01	0.363	O	O	O	O	2.82
12.667	5.33	5.15	0.364	O	O	O	O	2.83
12.750	5.37	5.27	0.365	O	O	O	O	2.83
12.833	5.46	5.36	0.366	O	O	O	O	2.84
12.917	5.56	5.45	0.367	O	O	O	O	2.84
13.000	5.58	5.52	0.367	O	O	O	O	2.84
13.083	5.94	5.67	0.368	O	O	O	O	2.85
13.167	6.44	5.99	0.371	O	O	O	O	2.86
13.250	6.57	6.31	0.373	O	O	O	O	2.88
13.333	6.63	6.49	0.375	O	O	O	O	2.89
13.417	6.66	6.59	0.375	O	O	O	O	2.89
13.500	6.69	6.64	0.376	O	O	O	O	2.89
13.583	5.96	6.44	0.374	O	O	O	O	2.88
13.667	4.90	5.82	0.370	O	O	O	O	2.86
13.750	4.64	5.17	0.365	O	O	O	O	2.83
13.833	4.53	4.81	0.362	O	O	O	O	2.81
13.917	4.47	4.62	0.360	O	O	O	O	2.80
14.000	4.44	4.52	0.360	O	O	O	O	2.80
14.083	4.69	4.55	0.360	O	O	O	O	2.80
14.167	5.06	4.75	0.361	O	O	O	O	2.81
14.250	5.15	4.97	0.363	O	O	O	O	2.82
14.333	5.12	5.07	0.364	O	O	O	O	2.82
14.417	5.05	5.08	0.364	O	O	O	O	2.82
14.500	5.04	5.06	0.364	O	O	O	O	2.82
14.583	5.03	5.04	0.364	O	O	O	O	2.82
14.667	5.02	5.03	0.363	O	O	O	O	2.82
14.750	5.02	5.03	0.363	O	O	O	O	2.82
14.833	4.96	5.00	0.363	O	O	O	O	2.82
14.917	4.87	4.95	0.363	O	O	O	O	2.82
15.000	4.85	4.89	0.362	O	O	O	O	2.81
15.083	4.77	4.84	0.362	O	O	O	O	2.81
15.167	4.68	4.77	0.361	O	O	O	O	2.81
15.250	4.65	4.71	0.361	O	O	O	O	2.81
15.333	4.58	4.65	0.361	O	O	O	O	2.80
15.417	4.48	4.58	0.360	O	O	O	O	2.80
15.500	4.46	4.51	0.359	O	O	O	O	2.80

15.583	4.20	4.40	0.359					IO		2.79
15.667	3.83	4.16	0.357					IO		2.78
15.750	3.74	3.93	0.355					IO		2.77
15.833	3.70	3.80	0.354					IO		2.76
15.917	3.68	3.73	0.353					O		2.76
16.000	3.67	3.70	0.353					O		2.76
16.083	2.73	3.39	0.351					O		2.75
16.167	1.36	2.56	0.344					I		2.71
16.250	1.03	1.73	0.338					I		2.67
16.333	0.89	1.71	0.333					I		2.64
16.417	0.81	1.70	0.327					I		2.60
16.500	0.77	1.68	0.321					I		2.56
16.583	0.71	1.67	0.314					I		2.52
16.667	0.62	1.65	0.307					I		2.48
16.750	0.60	1.64	0.300					I		2.44
16.833	0.59	1.62	0.293					I		2.39
16.917	0.58	1.60	0.286					I		2.35
17.000	0.58	1.58	0.279					I		2.30
17.083	0.70	1.57	0.273					I		2.26
17.167	0.89	1.55	0.267					I		2.22
17.250	0.93	1.54	0.263					I		2.19
17.333	0.95	1.53	0.259					I		2.17
17.417	0.96	1.52	0.255					I		2.14
17.500	0.97	1.51	0.251					I		2.12
17.583	0.97	1.50	0.247					I		2.09
17.667	0.97	1.49	0.244					I		2.07
17.750	0.97	1.48	0.240					I		2.04
17.833	0.90	1.47	0.237					I		2.02
17.917	0.81	1.45	0.232					I		1.99
18.000	0.79	1.44	0.228					I		1.96
18.083	0.78	1.42	0.224					I		1.92
18.167	0.78	1.41	0.219					I		1.89
18.250	0.77	1.40	0.215					I		1.86
18.333	0.77	1.38	0.211					I		1.83
18.417	0.77	1.37	0.206					I		1.80
18.500	0.77	1.35	0.202					I		1.77
18.583	0.71	1.34	0.198					I		1.74
18.667	0.62	1.33	0.194					I		1.71
18.750	0.60	1.31	0.189					I		1.67
18.833	0.52	1.29	0.184					I		1.64
18.917	0.43	1.27	0.178					I		1.59
19.000	0.40	1.24	0.172					I		1.55
19.083	0.46	1.22	0.167					I		1.51
19.167	0.54	1.20	0.162					I		1.47
19.250	0.56	1.18	0.157					I		1.43
19.333	0.63	1.17	0.153					I		1.40
19.417	0.73	1.15	0.150					I		1.38
19.500	0.76	1.14	0.147					I		1.36
19.583	0.70	1.13	0.145					I		1.33
19.667	0.62	1.11	0.141					I		1.31
19.750	0.60	1.09	0.138					I		1.28
19.833	0.52	1.07	0.134					I		1.25
19.917	0.43	1.05	0.130					I		1.22
20.000	0.40	1.03	0.126					I		1.18
20.083	0.46	1.00	0.122					I		1.15
20.167	0.54	0.98	0.119					I		1.12
20.250	0.56	0.97	0.116					I		1.10
20.333	0.57	0.95	0.113					I		1.07
20.417	0.58	0.94	0.110					I		1.05
20.500	0.58	0.92	0.108					I		1.03
20.583	0.58	0.91	0.106					I		1.01
20.667	0.58	0.90	0.103					I		0.99
20.750	0.58	0.88	0.101					I		0.98
20.833	0.52	0.87	0.099					I		0.96
20.917	0.43	0.85	0.096					I		0.93
21.000	0.40	0.84	0.093					I		0.90
21.083	0.46	0.82	0.091					IO		0.88
21.167	0.54	0.81	0.088					IO		0.86
21.250	0.56	0.80	0.087					IO		0.85
21.333	0.51	0.78	0.085					IO		0.83
21.417	0.42	0.77	0.083					IO		0.81
21.500	0.40	0.76	0.080					I		0.79
21.583	0.46	0.74	0.078					IO		0.77
21.667	0.54	0.73	0.077					IO		0.76
21.750	0.56	0.73	0.075					IO		0.74
21.833	0.51	0.72	0.074					IO		0.73
21.917	0.42	0.71	0.072					IO		0.72
22.000	0.40	0.69	0.070					I		0.70
22.083	0.46	0.68	0.069					IO		0.68
22.167	0.54	0.68	0.067					IO		0.67
22.250	0.56	0.67	0.067					IO		0.67
22.333	0.51	0.66	0.066					IO		0.66
22.417	0.42	0.65	0.064					IO		0.64
22.500	0.40	0.63	0.063					I		0.63
22.583	0.39	0.61	0.061					IO		0.61
22.667	0.39	0.60	0.060					IO		0.60

22.750	0.39	0.58	0.058	IO					0.59
22.833	0.39	0.57	0.057	IO					0.57
22.917	0.39	0.55	0.056	IO					0.56
23.000	0.39	0.54	0.055	IO					0.55
23.083	0.39	0.53	0.054	IO					0.54
23.167	0.39	0.52	0.053	IO					0.53
23.250	0.39	0.51	0.052	IO					0.52
23.333	0.39	0.50	0.051	IO					0.52
23.417	0.39	0.49	0.050	IO					0.51
23.500	0.39	0.49	0.050	IO					0.50
23.583	0.39	0.48	0.049	IO					0.50
23.667	0.39	0.47	0.048	IO					0.49
23.750	0.39	0.47	0.048	IO					0.48
23.833	0.39	0.46	0.047	IO					0.48
23.917	0.39	0.45	0.047	IO					0.47
24.000	0.39	0.45	0.046	IO					0.47
24.083	0.26	0.44	0.046	IO					0.46
24.167	0.08	0.42	0.044	I O					0.44
24.250	0.03	0.39	0.041	IO					0.42
24.333	0.02	0.37	0.039	IO					0.40
24.417	0.01	0.34	0.036	IO					0.37
24.500	0.00	0.32	0.034	IO					0.35
24.583	0.00	0.30	0.032	IO					0.33
24.667	0.00	0.28	0.030	IO					0.31
24.750	0.00	0.26	0.028	IO					0.29
24.833	0.00	0.24	0.027	IO					0.27
24.917	0.00	0.23	0.025	IO					0.26
25.000	0.00	0.21	0.023	IO					0.24
25.083	0.00	0.20	0.022	O					0.23
25.167	0.00	0.19	0.021	O					0.21
25.250	0.00	0.18	0.019	O					0.20
25.333	0.00	0.17	0.018	O					0.19
25.417	0.00	0.16	0.017	O					0.18
25.500	0.00	0.15	0.016	O					0.16
25.583	0.00	0.14	0.015	O					0.15
25.667	0.00	0.13	0.014	O					0.15
25.750	0.00	0.12	0.013	O					0.14
25.833	0.00	0.11	0.012	O					0.13
25.917	0.00	0.11	0.012	O					0.12
26.000	0.00	0.10	0.011	O					0.11
26.083	0.00	0.09	0.010	O					0.11

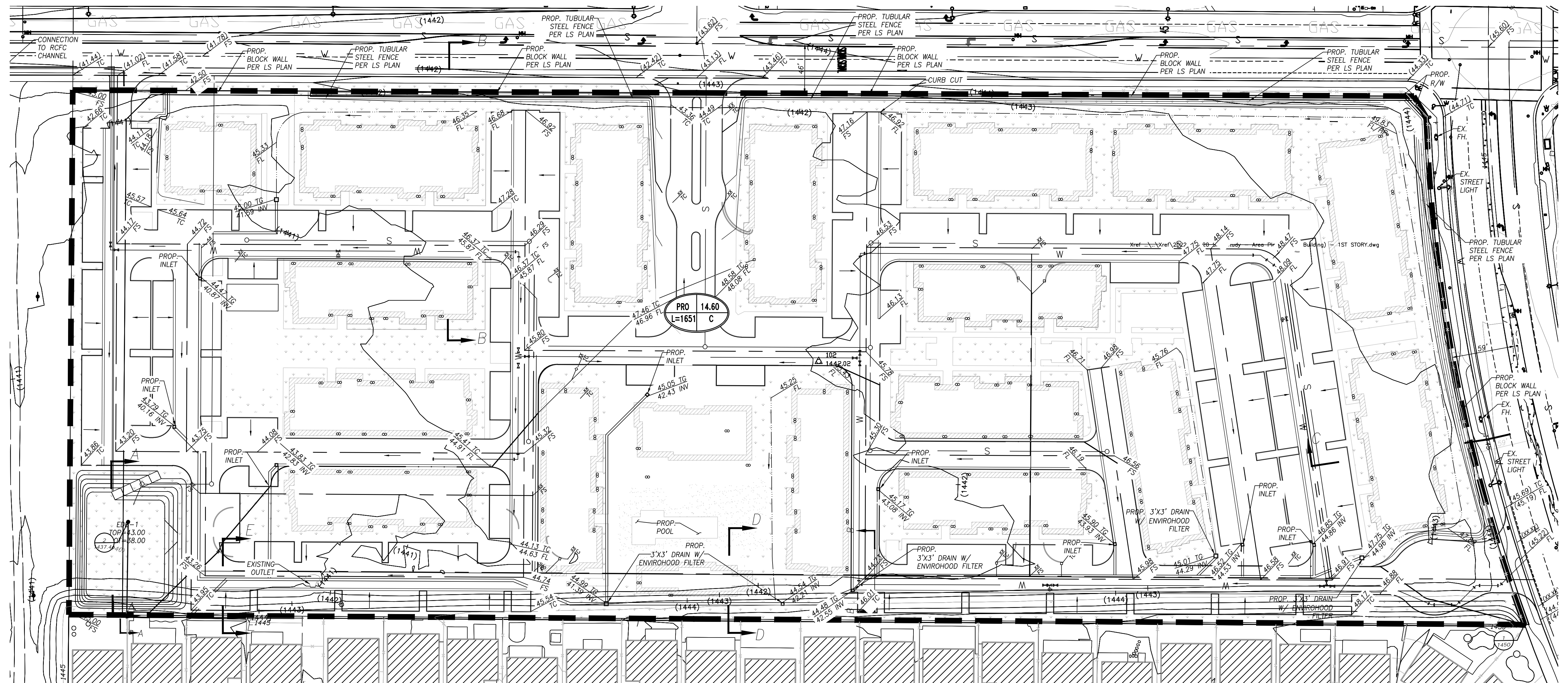
Remaining water in basin = 0.01 (Ac.Ft)

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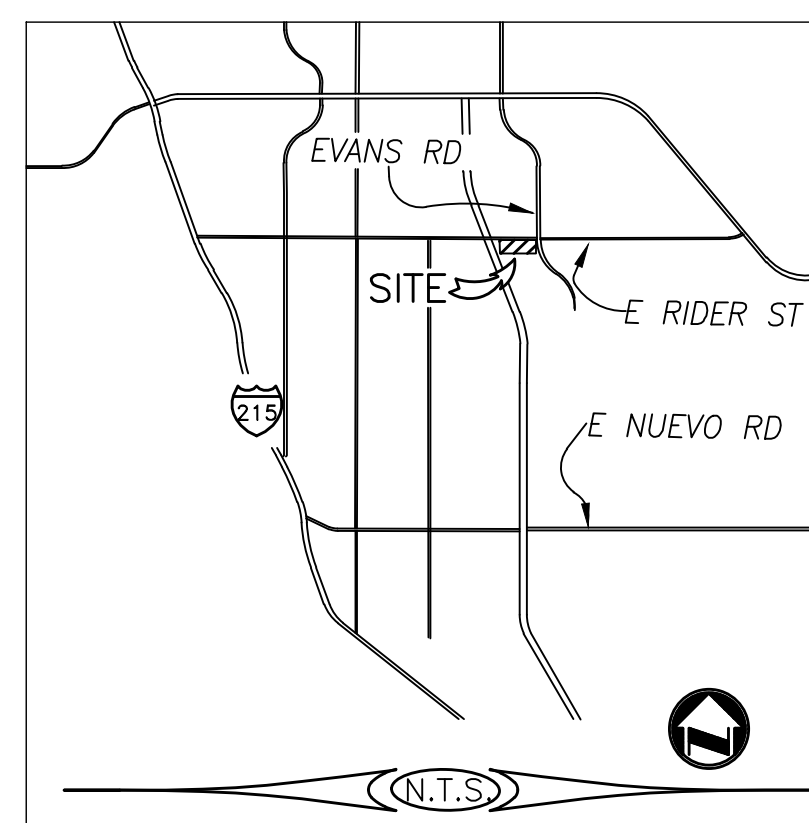
*****HYDROGRAPH DATA*****
      Number of intervals = 313
      Time interval = 5.0 (Min.)
      Maximum/Peak flow rate = 6.641 (CFS)
      Total volume = 3.985 (Ac.Ft)
      Status of hydrographs being held in storage
      Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
      Peak (CFS) 0.000 0.000 0.000 0.000 0.000
      Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000
*****

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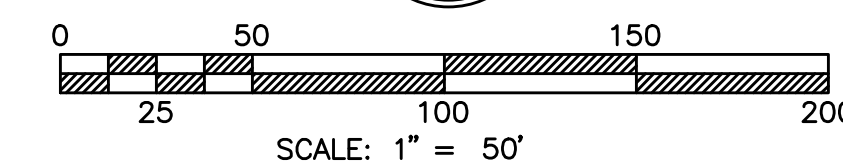
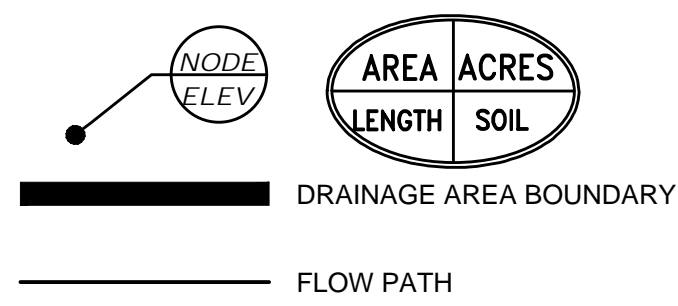

IN THE CITY OF PERRIS, STATE OF CALIFORNIA
PROPOSED UNIT HYDROGRAPH MAP
 RIDER ST AND EVANS RD



VICINITY MAP



LEGEND



PROPOSED UNIT HYDROGRAPH MAP
 PREPARATION DATE: OCTOBER 2022
 REVISION DATE: FEBRUARY 2023
 JOB NUMBER: 1001

PLANS PREPARED BY:

adkan ENGINEERS

Civil Engineering • Surveying • Planning
 6879 Airport Drive, Riverside, CA 92504
 Tel: (951) 688-0241 • Fax: (951) 688-0599

Basin Size and Flow Calculations

Extended Detention Basin Size and Flow Calculations

BASIN PARAMETERS					OUTLET									
Basin Elevation	Depth	Area S.F.	Volume C.F.	Volume AC-FT	Q ₁ Orifice Plate (cfs)	Q ₂ Orifice Plate (cfs)	Q ₃ Orifice Plate (cfs)	Q ₄ Orifice Plate (cfs)	Q ₅ Orifice Plate (cfs)	Q ₆ Orifice Plate (cfs)	Q ₇ Orifice Plate (cfs)	Q ₈ Orifice Plate (cfs)	Q Weir 1 (cfs)	Q Total (cfs)
1438.00	0.00	7,046.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1438.33	0.33	7,375.00	2,379.46	0.055	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.032
1438.67	0.67	7,704.00	4,941.25	0.113	0.061	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.061
1439.00	1.00	8,033.00	7,539.50	0.173	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.080
1439.33	1.33	8,396.33	10,269.15	0.236	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.095
1439.67	1.67	8,759.67	13,197.73	0.303	0.108	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.108
1440.00	2.00	9,123.00	16,169.00	0.371	0.120	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.120
1440.33	2.33	9,520.67	19,300.17	0.443	0.131	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.131
1440.67	2.67	9,918.33	22,647.39	0.520	0.141	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.141
1441.00	3.00	10,316.00	26,043.00	0.598	0.150	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.150
1441.33	3.33	10,754.00	29,637.00	0.680	0.158	2.390	2.390	2.390	2.390	1.830	0.000	0.000	0.000	11.546
1441.67	3.67	11,192.00	33,466.73	0.768	0.167	3.405	3.405	3.405	3.405	2.607	0.000	0.000	0.000	16.394
1442.00	4.00	11,630.00	37,352.00	0.857	0.174	4.160	4.160	4.160	4.160	3.185	0.000	0.000	0.000	19.999
1442.33	4.33	12,092.00	41,433.77	0.951	0.182	4.797	4.797	4.797	4.797	3.673	0.000	0.000	2.110	25.154
1442.67	4.67	12,554.00	45,766.00	1.051	0.189	5.376	5.376	5.376	5.376	4.116	0.000	0.000	25.379	51.187
1443.00	5.00	13,016.00	50,155.00	1.151	0.196	5.883	5.883	5.883	5.883	4.504	0.000	0.000	60.561	88.793

SUPPORTING DESIGN PARAMETERS

Orifice Coefficient	0.66	1.7600	12.00	12.00	12.00	12.00	10.50	0.00
Gravimetric Constant	32.2 ft/s ²	0.1467	1.0000	1.0000	1.0000	1.0000	0.8750	0.0000
Number of Rows	1	0.0169	0.7854	0.7854	0.7854	0.7854	0.6013	0.0000
Minimum Orifice Plate Height		1	1	1	1	1	1	1
Minimum Orifice Plate Width		1438.2	1441	1441	1441	1441	1441	1441

Weir

Sharp Crest Weir Coefficient

Length of Weir

Elev. at Crest of Weir

3.33

28.00

1442.25

Orifice Equation

$$Q = Cd(1/4\pi D^2)\sqrt{2gh}$$

Weir Equation

$$(Q/(Weir\ Length * Weir\ Coefficient))^{2/3}$$

Q100 Elevation Weir Calc	
Box Inlet Weir Calc	
Crest Wier Elev.	1442.25
Q100	32.95 cfs
Weir Length	28
Weir Coeff.	3.33
H Weir	0.499845097
Q100 Elevation	1442.75

Basin Storm Event Summary							
Storm Event	Existing		Proposed		Routed		
	Volume (ac.ft.)	cfs	Volume (ac.ft.)	cfs	Volume (ac.ft.)	cfs	Depth (ft)
100yr1hr	1.4000	37.744	1.3328	36.740	0.877	21.079	4.07
100yr3hr	2.0104	21.611	1.8907	21.492	0.789	17.246	3.75
100yr6hr	2.6826	19.109	2.5855	19.856	0.768	16.369	3.67
100yr24hr	3.5414	7.320	3.9950	6.685	0.645	6.647	3.19

 Program License Serial Number 5006

***** HYDROGRAPH INFORMATION *****

From study/file name: pro1001100.rte
 *****HYDROGRAPH DATA*****
 Number of intervals = 17
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 36.740 (CFS)
 Total volume = 1.333 (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 1.000 to Point/Station 2.000
 **** RETARDING BASIN ROUTING ****

 User entry of depth-outflow-storage data

 Total number of inflow hydrograph intervals = 17
 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)

Time (Hours)	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	0.000
0.330	0.055	0.032	0.055	0.055	0.055
0.670	0.113	0.061	0.113	0.113	0.113
1.000	0.173	0.080	0.173	0.173	0.173
1.330	0.236	0.095	0.236	0.236	0.236
1.670	0.303	0.108	0.303	0.303	0.303
2.000	0.371	0.120	0.371	0.371	0.371
2.330	0.443	0.131	0.443	0.443	0.443
2.670	0.520	0.141	0.520	0.520	0.520
3.000	0.598	0.150	0.597	0.599	0.599
3.330	0.680	11.546	0.640	0.640	0.720
3.670	0.768	16.394	0.712	0.712	0.824
4.000	0.857	19.999	0.788	0.788	0.926
4.330	0.951	25.154	0.864	0.864	1.038
4.670	1.051	51.187	0.875	0.875	1.227
5.000	1.151	88.793	0.845	0.845	1.457

Hydrograph Detention Basin Routing

 Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	0	9.2	18.37	27.56	36.74	Depth (Ft.)
0.083	2.39	0.00	0.008	0	I				0.05
0.167	5.94	0.02	0.037	0	I				0.22
0.250	7.35	0.05	0.082	0	I				0.49
0.333	8.45	0.07	0.136	0	I				0.80
0.417	9.36	0.09	0.197	0	I				1.13
0.500	10.83	0.10	0.266	0	I				1.48
0.583	12.38	0.12	0.345	0	I				1.87
0.667	14.38	0.13	0.437	0	I				2.30
0.750	18.46	0.14	0.549	0	I				2.79
0.833	34.16	11.99	0.688		O			I	3.36
0.917	36.74	18.76	0.826			O		I	3.89

1.000	17.71	21.08	0.877			I		0		4.07
1.083	9.61	19.01	0.833		I					3.91
1.167	3.56	15.84	0.758		I					3.63
1.250	1.65	11.62	0.681		I					3.34
1.333	0.42	4.84	0.632		I					3.14
1.417	0.13	1.89	0.610		IO					3.05
1.500	0.00	0.71	0.602		O					3.02
1.583	0.00	0.25	0.599		O					3.00
1.667	0.00	0.15	0.597		O					3.00
1.750	0.00	0.15	0.596		O					2.99
1.833	0.00	0.15	0.595		O					2.99
1.917	0.00	0.15	0.594		O					2.98
2.000	0.00	0.15	0.593		O					2.98
2.083	0.00	0.15	0.592		O					2.98
2.167	0.00	0.15	0.591		O					2.97
2.250	0.00	0.15	0.590		O					2.97
2.333	0.00	0.15	0.589		O					2.96
2.417	0.00	0.15	0.588		O					2.96
2.500	0.00	0.15	0.587		O					2.95
2.583	0.00	0.15	0.586		O					2.95
2.667	0.00	0.15	0.585		O					2.95
2.750	0.00	0.15	0.584		O					2.94
2.833	0.00	0.15	0.583		O					2.94
2.917	0.00	0.15	0.582		O					2.93
3.000	0.00	0.15	0.581		O					2.93
3.083	0.00	0.15	0.580		O					2.92
3.167	0.00	0.15	0.579		O					2.92
3.250	0.00	0.15	0.578		O					2.91
3.333	0.00	0.15	0.577		O					2.91
3.417	0.00	0.15	0.576		O					2.91
3.500	0.00	0.15	0.575		O					2.90
3.583	0.00	0.15	0.574		O					2.90
3.667	0.00	0.15	0.573		O					2.89
3.750	0.00	0.15	0.572		O					2.89
3.833	0.00	0.15	0.571		O					2.88
3.917	0.00	0.15	0.570		O					2.88
4.000	0.00	0.15	0.569		O					2.88
4.083	0.00	0.15	0.568		O					2.87
4.167	0.00	0.15	0.567		O					2.87
4.250	0.00	0.15	0.566		O					2.86
4.333	0.00	0.15	0.565		O					2.86
4.417	0.00	0.15	0.564		O					2.85
4.500	0.00	0.15	0.563		O					2.85
4.583	0.00	0.15	0.562		O					2.85
4.667	0.00	0.15	0.561		O					2.84
4.750	0.00	0.15	0.560		O					2.84
4.833	0.00	0.15	0.559		O					2.83
4.917	0.00	0.15	0.558		O					2.83
5.000	0.00	0.15	0.557		O					2.83
5.083	0.00	0.15	0.556		O					2.82
5.167	0.00	0.15	0.555		O					2.82
5.250	0.00	0.14	0.554		O					2.81
5.333	0.00	0.14	0.553		O					2.81
5.417	0.00	0.14	0.552		O					2.80
5.500	0.00	0.14	0.551		O					2.80
5.583	0.00	0.14	0.550		O					2.80
5.667	0.00	0.14	0.549		O					2.79
5.750	0.00	0.14	0.548		O					2.79
5.833	0.00	0.14	0.547		O					2.78
5.917	0.00	0.14	0.546		O					2.78
6.000	0.00	0.14	0.545		O					2.77
6.083	0.00	0.14	0.544		O					2.77
6.167	0.00	0.14	0.543		O					2.77
6.250	0.00	0.14	0.542		O					2.76
6.333	0.00	0.14	0.541		O					2.76
6.417	0.00	0.14	0.540		O					2.75
6.500	0.00	0.14	0.539		O					2.75
6.583	0.00	0.14	0.538		O					2.75
6.667	0.00	0.14	0.537		O					2.74
6.750	0.00	0.14	0.536		O					2.74
6.833	0.00	0.14	0.535		O					2.73
6.917	0.00	0.14	0.534		O					2.73
7.000	0.00	0.14	0.533		O					2.72
7.083	0.00	0.14	0.532		O					2.72
7.167	0.00	0.14	0.531		O					2.72
7.250	0.00	0.14	0.530		O					2.71
7.333	0.00	0.14	0.529		O					2.71
7.417	0.00	0.14	0.528		O					2.70
7.500	0.00	0.14	0.527		O					2.70
7.583	0.00	0.14	0.526		O					2.70
7.667	0.00	0.14	0.525		O					2.69
7.750	0.00	0.14	0.524		O					2.69
7.833	0.00	0.14	0.523		O					2.68
7.917	0.00	0.14	0.522		O					2.68
8.000	0.00	0.14	0.521		O					2.68
8.083	0.00	0.14	0.520		O					2.67

8.167	0.00	0.14	0.519	0	2.67
8.250	0.00	0.14	0.518	0	2.66
8.333	0.00	0.14	0.517	0	2.66
8.417	0.00	0.14	0.516	0	2.65
8.500	0.00	0.14	0.515	0	2.65
8.583	0.00	0.14	0.514	0	2.65
8.667	0.00	0.14	0.513	0	2.64
8.750	0.00	0.14	0.512	0	2.64
8.833	0.00	0.14	0.512	0	2.63
8.917	0.00	0.14	0.511	0	2.63
9.000	0.00	0.14	0.510	0	2.62
9.083	0.00	0.14	0.509	0	2.62
9.167	0.00	0.14	0.508	0	2.62
9.250	0.00	0.14	0.507	0	2.61
9.333	0.00	0.14	0.506	0	2.61
9.417	0.00	0.14	0.505	0	2.60
9.500	0.00	0.14	0.504	0	2.60
9.583	0.00	0.14	0.503	0	2.59
9.667	0.00	0.14	0.502	0	2.59
9.750	0.00	0.14	0.501	0	2.59
9.833	0.00	0.14	0.500	0	2.58
9.917	0.00	0.14	0.499	0	2.58
10.000	0.00	0.14	0.498	0	2.57
10.083	0.00	0.14	0.497	0	2.57
10.167	0.00	0.14	0.496	0	2.56
10.250	0.00	0.14	0.495	0	2.56
10.333	0.00	0.14	0.494	0	2.56
10.417	0.00	0.14	0.493	0	2.55
10.500	0.00	0.14	0.492	0	2.55
10.583	0.00	0.14	0.491	0	2.54
10.667	0.00	0.14	0.491	0	2.54
10.750	0.00	0.14	0.490	0	2.54
10.833	0.00	0.14	0.489	0	2.53
10.917	0.00	0.14	0.488	0	2.53
11.000	0.00	0.14	0.487	0	2.52
11.083	0.00	0.14	0.486	0	2.52
11.167	0.00	0.14	0.485	0	2.51
11.250	0.00	0.14	0.484	0	2.51
11.333	0.00	0.14	0.483	0	2.51
11.417	0.00	0.14	0.482	0	2.50
11.500	0.00	0.14	0.481	0	2.50
11.583	0.00	0.14	0.480	0	2.49
11.667	0.00	0.14	0.479	0	2.49
11.750	0.00	0.14	0.478	0	2.49
11.833	0.00	0.14	0.477	0	2.48
11.917	0.00	0.14	0.476	0	2.48
12.000	0.00	0.14	0.476	0	2.47
12.083	0.00	0.14	0.475	0	2.47
12.167	0.00	0.13	0.474	0	2.47
12.250	0.00	0.13	0.473	0	2.46
12.333	0.00	0.13	0.472	0	2.46
12.417	0.00	0.13	0.471	0	2.45
12.500	0.00	0.13	0.470	0	2.45
12.583	0.00	0.13	0.469	0	2.44
12.667	0.00	0.13	0.468	0	2.44
12.750	0.00	0.13	0.467	0	2.44
12.833	0.00	0.13	0.466	0	2.43
12.917	0.00	0.13	0.465	0	2.43
13.000	0.00	0.13	0.464	0	2.42
13.083	0.00	0.13	0.463	0	2.42
13.167	0.00	0.13	0.463	0	2.42
13.250	0.00	0.13	0.462	0	2.41
13.333	0.00	0.13	0.461	0	2.41
13.417	0.00	0.13	0.460	0	2.40
13.500	0.00	0.13	0.459	0	2.40
13.583	0.00	0.13	0.458	0	2.40
13.667	0.00	0.13	0.457	0	2.39
13.750	0.00	0.13	0.456	0	2.39
13.833	0.00	0.13	0.455	0	2.38
13.917	0.00	0.13	0.454	0	2.38
14.000	0.00	0.13	0.453	0	2.38
14.083	0.00	0.13	0.452	0	2.37
14.167	0.00	0.13	0.452	0	2.37
14.250	0.00	0.13	0.451	0	2.36
14.333	0.00	0.13	0.450	0	2.36
14.417	0.00	0.13	0.449	0	2.36
14.500	0.00	0.13	0.448	0	2.35
14.583	0.00	0.13	0.447	0	2.35
14.667	0.00	0.13	0.446	0	2.34
14.750	0.00	0.13	0.445	0	2.34
14.833	0.00	0.13	0.444	0	2.34
14.917	0.00	0.13	0.443	0	2.33
15.000	0.00	0.13	0.443	0	2.33
15.083	0.00	0.13	0.442	0	2.32
15.167	0.00	0.13	0.441	0	2.32
15.250	0.00	0.13	0.440	0	2.32

15.333	0.00	0.13	0.439	0	2.31
15.417	0.00	0.13	0.438	0	2.31
15.500	0.00	0.13	0.437	0	2.30
15.583	0.00	0.13	0.436	0	2.30
15.667	0.00	0.13	0.435	0	2.29
15.750	0.00	0.13	0.434	0	2.29
15.833	0.00	0.13	0.434	0	2.29
15.917	0.00	0.13	0.433	0	2.28
16.000	0.00	0.13	0.432	0	2.28
16.083	0.00	0.13	0.431	0	2.27
16.167	0.00	0.13	0.430	0	2.27
16.250	0.00	0.13	0.429	0	2.27
16.333	0.00	0.13	0.428	0	2.26
16.417	0.00	0.13	0.427	0	2.26
16.500	0.00	0.13	0.426	0	2.25
16.583	0.00	0.13	0.426	0	2.25
16.667	0.00	0.13	0.425	0	2.25
16.750	0.00	0.13	0.424	0	2.24
16.833	0.00	0.13	0.423	0	2.24
16.917	0.00	0.13	0.422	0	2.23
17.000	0.00	0.13	0.421	0	2.23
17.083	0.00	0.13	0.420	0	2.23
17.167	0.00	0.13	0.419	0	2.22
17.250	0.00	0.13	0.419	0	2.22
17.333	0.00	0.13	0.418	0	2.21
17.417	0.00	0.13	0.417	0	2.21
17.500	0.00	0.13	0.416	0	2.21
17.583	0.00	0.13	0.415	0	2.20
17.667	0.00	0.13	0.414	0	2.20
17.750	0.00	0.13	0.413	0	2.19
17.833	0.00	0.13	0.412	0	2.19
17.917	0.00	0.13	0.412	0	2.19
18.000	0.00	0.13	0.411	0	2.18
18.083	0.00	0.13	0.410	0	2.18
18.167	0.00	0.13	0.409	0	2.17
18.250	0.00	0.13	0.408	0	2.17
18.333	0.00	0.13	0.407	0	2.17
18.417	0.00	0.13	0.406	0	2.16
18.500	0.00	0.13	0.405	0	2.16
18.583	0.00	0.13	0.405	0	2.15
18.667	0.00	0.13	0.404	0	2.15
18.750	0.00	0.12	0.403	0	2.15
18.833	0.00	0.12	0.402	0	2.14
18.917	0.00	0.12	0.401	0	2.14
19.000	0.00	0.12	0.400	0	2.13
19.083	0.00	0.12	0.399	0	2.13
19.167	0.00	0.12	0.399	0	2.13
19.250	0.00	0.12	0.398	0	2.12
19.333	0.00	0.12	0.397	0	2.12
19.417	0.00	0.12	0.396	0	2.11
19.500	0.00	0.12	0.395	0	2.11
19.583	0.00	0.12	0.394	0	2.11
19.667	0.00	0.12	0.393	0	2.10
19.750	0.00	0.12	0.393	0	2.10
19.833	0.00	0.12	0.392	0	2.10
19.917	0.00	0.12	0.391	0	2.09
20.000	0.00	0.12	0.390	0	2.09
20.083	0.00	0.12	0.389	0	2.08
20.167	0.00	0.12	0.388	0	2.08
20.250	0.00	0.12	0.388	0	2.08
20.333	0.00	0.12	0.387	0	2.07
20.417	0.00	0.12	0.386	0	2.07
20.500	0.00	0.12	0.385	0	2.06
20.583	0.00	0.12	0.384	0	2.06
20.667	0.00	0.12	0.383	0	2.06
20.750	0.00	0.12	0.383	0	2.05
20.833	0.00	0.12	0.382	0	2.05
20.917	0.00	0.12	0.381	0	2.05
21.000	0.00	0.12	0.380	0	2.04
21.083	0.00	0.12	0.379	0	2.04
21.167	0.00	0.12	0.378	0	2.03
21.250	0.00	0.12	0.377	0	2.03
21.333	0.00	0.12	0.377	0	2.03
21.417	0.00	0.12	0.376	0	2.02
21.500	0.00	0.12	0.375	0	2.02
21.583	0.00	0.12	0.374	0	2.01
21.667	0.00	0.12	0.373	0	2.01
21.750	0.00	0.12	0.373	0	2.01
21.833	0.00	0.12	0.372	0	2.00
21.917	0.00	0.12	0.371	0	2.00
22.000	0.00	0.12	0.370	0	2.00
22.083	0.00	0.12	0.369	0	1.99
22.167	0.00	0.12	0.368	0	1.99
22.250	0.00	0.12	0.368	0	1.98
22.333	0.00	0.12	0.367	0	1.98
22.417	0.00	0.12	0.366	0	1.98

22.500	0.00	0.12	0.365	0	1.97
22.583	0.00	0.12	0.364	0	1.97
22.667	0.00	0.12	0.363	0	1.96
22.750	0.00	0.12	0.363	0	1.96
22.833	0.00	0.12	0.362	0	1.96
22.917	0.00	0.12	0.361	0	1.95
23.000	0.00	0.12	0.360	0	1.95
23.083	0.00	0.12	0.359	0	1.94
23.167	0.00	0.12	0.359	0	1.94
23.250	0.00	0.12	0.358	0	1.94
23.333	0.00	0.12	0.357	0	1.93
23.417	0.00	0.12	0.356	0	1.93
23.500	0.00	0.12	0.355	0	1.92
23.583	0.00	0.12	0.355	0	1.92
23.667	0.00	0.12	0.354	0	1.92
23.750	0.00	0.12	0.353	0	1.91
23.833	0.00	0.12	0.352	0	1.91
23.917	0.00	0.12	0.351	0	1.90
24.000	0.00	0.12	0.351	0	1.90
24.083	0.00	0.12	0.350	0	1.90
24.167	0.00	0.12	0.349	0	1.89
24.250	0.00	0.12	0.348	0	1.89
24.333	0.00	0.12	0.347	0	1.89
24.417	0.00	0.12	0.347	0	1.88
24.500	0.00	0.12	0.346	0	1.88
24.583	0.00	0.12	0.345	0	1.87
24.667	0.00	0.12	0.344	0	1.87
24.750	0.00	0.12	0.343	0	1.87
24.833	0.00	0.11	0.343	0	1.86
24.917	0.00	0.11	0.342	0	1.86
25.000	0.00	0.11	0.341	0	1.85
25.083	0.00	0.11	0.340	0	1.85
25.167	0.00	0.11	0.339	0	1.85
25.250	0.00	0.11	0.339	0	1.84
25.333	0.00	0.11	0.338	0	1.84
25.417	0.00	0.11	0.337	0	1.84
25.500	0.00	0.11	0.336	0	1.83
25.583	0.00	0.11	0.335	0	1.83
25.667	0.00	0.11	0.335	0	1.82
25.750	0.00	0.11	0.334	0	1.82
25.833	0.00	0.11	0.333	0	1.82
25.917	0.00	0.11	0.332	0	1.81
26.000	0.00	0.11	0.332	0	1.81
26.083	0.00	0.11	0.331	0	1.80
26.167	0.00	0.11	0.330	0	1.80
26.250	0.00	0.11	0.329	0	1.80
26.333	0.00	0.11	0.328	0	1.79
26.417	0.00	0.11	0.328	0	1.79
26.500	0.00	0.11	0.327	0	1.79
26.583	0.00	0.11	0.326	0	1.78
26.667	0.00	0.11	0.325	0	1.78
26.750	0.00	0.11	0.325	0	1.77
26.833	0.00	0.11	0.324	0	1.77
26.917	0.00	0.11	0.323	0	1.77
27.000	0.00	0.11	0.322	0	1.76
27.083	0.00	0.11	0.322	0	1.76
27.167	0.00	0.11	0.321	0	1.76
27.250	0.00	0.11	0.320	0	1.75
27.333	0.00	0.11	0.319	0	1.75
27.417	0.00	0.11	0.318	0	1.74
27.500	0.00	0.11	0.318	0	1.74
27.583	0.00	0.11	0.317	0	1.74
27.667	0.00	0.11	0.316	0	1.73
27.750	0.00	0.11	0.315	0	1.73
27.833	0.00	0.11	0.315	0	1.73
27.917	0.00	0.11	0.314	0	1.72
28.000	0.00	0.11	0.313	0	1.72
28.083	0.00	0.11	0.312	0	1.72
28.167	0.00	0.11	0.312	0	1.71
28.250	0.00	0.11	0.311	0	1.71
28.333	0.00	0.11	0.310	0	1.70
28.417	0.00	0.11	0.309	0	1.70
28.500	0.00	0.11	0.309	0	1.70
28.583	0.00	0.11	0.308	0	1.69
28.667	0.00	0.11	0.307	0	1.69
28.750	0.00	0.11	0.306	0	1.69
28.833	0.00	0.11	0.306	0	1.68
28.917	0.00	0.11	0.305	0	1.68
29.000	0.00	0.11	0.304	0	1.68
29.083	0.00	0.11	0.303	0	1.67
29.167	0.00	0.11	0.303	0	1.67
29.250	0.00	0.11	0.302	0	1.66
29.333	0.00	0.11	0.301	0	1.66
29.417	0.00	0.11	0.300	0	1.66
29.500	0.00	0.11	0.300	0	1.65
29.583	0.00	0.11	0.299	0	1.65

29.667	0.00	0.11	0.298	0					1.65
29.750	0.00	0.11	0.297	0					1.64
29.833	0.00	0.11	0.297	0					1.64
29.917	0.00	0.11	0.296	0					1.63
30.000	0.00	0.11	0.295	0					1.63
30.083	0.00	0.11	0.295	0					1.63
30.167	0.00	0.11	0.294	0					1.62
30.250	0.00	0.11	0.293	0					1.62
30.333	0.00	0.11	0.292	0					1.62
30.417	0.00	0.11	0.292	0					1.61
30.500	0.00	0.11	0.291	0					1.61
30.583	0.00	0.11	0.290	0					1.60
30.667	0.00	0.11	0.289	0					1.60
30.750	0.00	0.11	0.289	0					1.60
30.833	0.00	0.11	0.288	0					1.59
30.917	0.00	0.10	0.287	0					1.59
31.000	0.00	0.10	0.287	0					1.59
31.083	0.00	0.10	0.286	0					1.58
31.167	0.00	0.10	0.285	0					1.58
31.250	0.00	0.10	0.284	0					1.58
31.333	0.00	0.10	0.284	0					1.57
31.417	0.00	0.10	0.283	0					1.57
31.500	0.00	0.10	0.282	0					1.56
31.583	0.00	0.10	0.281	0					1.56
31.667	0.00	0.10	0.281	0					1.56
31.750	0.00	0.10	0.280	0					1.55
31.833	0.00	0.10	0.279	0					1.55
31.917	0.00	0.10	0.279	0					1.55
32.000	0.00	0.10	0.278	0					1.54
32.083	0.00	0.10	0.277	0					1.54
32.167	0.00	0.10	0.277	0					1.54
32.250	0.00	0.10	0.276	0					1.53
32.333	0.00	0.10	0.275	0					1.53
32.417	0.00	0.10	0.274	0					1.52
32.500	0.00	0.10	0.274	0					1.52
32.583	0.00	0.10	0.273	0					1.52
32.667	0.00	0.10	0.272	0					1.51
32.750	0.00	0.10	0.272	0					1.51
32.833	0.00	0.10	0.271	0					1.51
32.917	0.00	0.10	0.270	0					1.50
33.000	0.00	0.10	0.269	0					1.50
33.083	0.00	0.10	0.269	0					1.50
33.167	0.00	0.10	0.268	0					1.49
33.250	0.00	0.10	0.267	0					1.49
33.333	0.00	0.10	0.267	0					1.49
33.417	0.00	0.10	0.266	0					1.48
33.500	0.00	0.10	0.265	0					1.48
33.583	0.00	0.10	0.265	0					1.48
33.667	0.00	0.10	0.264	0					1.47
33.750	0.00	0.10	0.263	0					1.47
33.833	0.00	0.10	0.263	0					1.46
33.917	0.00	0.10	0.262	0					1.46
34.000	0.00	0.10	0.261	0					1.46

Remaining water in basin = 0.26 (Ac.Ft)

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*****HYDROGRAPH DATA*****
      Number of intervals = 408
      Time interval = 5.0 (Min.)
      Maximum/Peak flow rate = 21.079 (CFS)
      Total volume = 1.072 (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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 Program License Serial Number 5006

***** HYDROGRAPH INFORMATION *****
 From study/file name: PRO1003100.rte
 *****HYDROGRAPH DATA*****
 Number of intervals = 41
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 21.492 (CFS)
 Total volume = 1.891 (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 1.000 to Point/Station 2.000
 **** RETARDING BASIN ROUTING ****

 User entry of depth-outflow-storage data

 Total number of inflow hydrograph intervals = 41
 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
0.330	0.055	0.032	0.055	0.055
0.670	0.113	0.061	0.113	0.113
1.000	0.173	0.080	0.173	0.173
1.330	0.236	0.095	0.236	0.236
1.670	0.303	0.108	0.303	0.303
2.000	0.371	0.120	0.371	0.371
2.330	0.443	0.131	0.443	0.443
2.670	0.520	0.141	0.520	0.520
3.000	0.598	0.150	0.597	0.599
3.330	0.680	11.546	0.640	0.720
3.670	0.768	16.394	0.712	0.824
4.000	0.857	19.999	0.788	0.926
4.330	0.951	25.154	0.864	1.038
4.670	1.051	51.187	0.875	1.227
5.000	1.151	88.793	0.845	1.457

 Hydrograph Detention Basin Routing

 Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	0	5.4	10.75	16.12	21.49	Depth (Ft.)
0.083	1.10	0.00	0.004	OI					0.02
0.167	2.70	0.01	0.017	O	I				0.10
0.250	2.92	0.02	0.036	O	I				0.22
0.333	3.18	0.03	0.057	O	I				0.34
0.417	3.70	0.04	0.080	O	I				0.48
0.500	4.09	0.06	0.107	O	I				0.63
0.583	4.25	0.07	0.135	O	I				0.79
0.667	4.24	0.08	0.164	O	I				0.95
0.750	4.57	0.08	0.193	O	I				1.11
0.833	4.39	0.09	0.224	O	I				1.27
0.917	4.13	0.10	0.252	O	I				1.41
1.000	4.35	0.10	0.281	O	I				1.56
1.083	4.93	0.11	0.312	O	I				1.71
1.167	5.48	0.12	0.347	O	I				1.88
1.250	5.62	0.12	0.385	O	I				2.06
1.333	5.52	0.13	0.422	O	I				2.23
1.417	5.81	0.13	0.460	O	I				2.41
1.500	6.59	0.14	0.502	O	I				2.59
1.583	6.62	0.14	0.547	O	I				2.78

1.667	6.60	0.15	0.591	O	I					2.97
1.750	7.54	3.98	0.626			O	I			3.11
1.833	8.32	6.54	0.644			O	I			3.18
1.917	8.05	7.60	0.652			O	O			3.22
2.000	7.89	7.84	0.653			O	O			3.22
2.083	8.10	7.94	0.654			O	O			3.23
2.167	9.40	8.46	0.658			O	O			3.24
2.250	11.90	9.88	0.668			O	O			3.28
2.333	11.97	11.21	0.678			O	O			3.32
2.417	13.59	11.88	0.686			O	O			3.35
2.500	18.74	13.25	0.711			O	O			3.45
2.583	21.49	15.44	0.751			O	O			3.60
2.667	21.09	17.09	0.785			O	O			3.73
2.750	14.35	17.25	0.789			O	O			3.75
2.833	8.01	15.57	0.753			O	O			3.61
2.917	6.13	12.86	0.704			O	O			3.42
3.000	4.31	9.26	0.664			O	O			3.26
3.083	1.89	5.27	0.635	I	I	O				3.15
3.167	0.61	2.67	0.616	I	O					3.07
3.250	0.27	1.22	0.606	I	O					3.03
3.333	0.11	0.55	0.601	O						3.01
3.417	0.02	0.24	0.599	O						3.00
3.500	0.00	0.15	0.597	O						3.00
3.583	0.00	0.15	0.596	O						2.99
3.667	0.00	0.15	0.595	O						2.99
3.750	0.00	0.15	0.594	O						2.98
3.833	0.00	0.15	0.593	O						2.98
3.917	0.00	0.15	0.592	O						2.98
4.000	0.00	0.15	0.591	O						2.97
4.083	0.00	0.15	0.590	O						2.97
4.167	0.00	0.15	0.589	O						2.96
4.250	0.00	0.15	0.588	O						2.96
4.333	0.00	0.15	0.587	O						2.95
4.417	0.00	0.15	0.586	O						2.95
4.500	0.00	0.15	0.585	O						2.95
4.583	0.00	0.15	0.584	O						2.94
4.667	0.00	0.15	0.583	O						2.94
4.750	0.00	0.15	0.582	O						2.93
4.833	0.00	0.15	0.581	O						2.93
4.917	0.00	0.15	0.580	O						2.92
5.000	0.00	0.15	0.579	O						2.92
5.083	0.00	0.15	0.578	O						2.91
5.167	0.00	0.15	0.577	O						2.91
5.250	0.00	0.15	0.576	O						2.91
5.333	0.00	0.15	0.575	O						2.90
5.417	0.00	0.15	0.574	O						2.90
5.500	0.00	0.15	0.573	O						2.89
5.583	0.00	0.15	0.572	O						2.89
5.667	0.00	0.15	0.571	O						2.88
5.750	0.00	0.15	0.570	O						2.88
5.833	0.00	0.15	0.569	O						2.88
5.917	0.00	0.15	0.568	O						2.87
6.000	0.00	0.15	0.567	O						2.87
6.083	0.00	0.15	0.566	O						2.86
6.167	0.00	0.15	0.565	O						2.86
6.250	0.00	0.15	0.564	O						2.86
6.333	0.00	0.15	0.563	O						2.85
6.417	0.00	0.15	0.562	O						2.85
6.500	0.00	0.15	0.561	O						2.84
6.583	0.00	0.15	0.560	O						2.84
6.667	0.00	0.15	0.559	O						2.83
6.750	0.00	0.15	0.558	O						2.83
6.833	0.00	0.15	0.557	O						2.83
6.917	0.00	0.15	0.556	O						2.82
7.000	0.00	0.15	0.555	O						2.82
7.083	0.00	0.14	0.554	O						2.81
7.167	0.00	0.14	0.553	O						2.81
7.250	0.00	0.14	0.552	O						2.80
7.333	0.00	0.14	0.551	O						2.80
7.417	0.00	0.14	0.550	O						2.80
7.500	0.00	0.14	0.549	O						2.79
7.583	0.00	0.14	0.548	O						2.79
7.667	0.00	0.14	0.547	O						2.78
7.750	0.00	0.14	0.546	O						2.78
7.833	0.00	0.14	0.545	O						2.77
7.917	0.00	0.14	0.544	O						2.77
8.000	0.00	0.14	0.543	O						2.77
8.083	0.00	0.14	0.542	O						2.76
8.167	0.00	0.14	0.541	O						2.76
8.250	0.00	0.14	0.540	O						2.75
8.333	0.00	0.14	0.539	O						2.75
8.417	0.00	0.14	0.538	O						2.75
8.500	0.00	0.14	0.537	O						2.74
8.583	0.00	0.14	0.536	O						2.74
8.667	0.00	0.14	0.535	O						2.73
8.750	0.00	0.14	0.534	O						2.73

8.833	0.00	0.14	0.533	0	2.72
8.917	0.00	0.14	0.532	0	2.72
9.000	0.00	0.14	0.531	0	2.72
9.083	0.00	0.14	0.530	0	2.71
9.167	0.00	0.14	0.529	0	2.71
9.250	0.00	0.14	0.528	0	2.70
9.333	0.00	0.14	0.527	0	2.70
9.417	0.00	0.14	0.526	0	2.70
9.500	0.00	0.14	0.525	0	2.69
9.583	0.00	0.14	0.524	0	2.69
9.667	0.00	0.14	0.523	0	2.68
9.750	0.00	0.14	0.522	0	2.68
9.833	0.00	0.14	0.521	0	2.68
9.917	0.00	0.14	0.520	0	2.67
10.000	0.00	0.14	0.519	0	2.67
10.083	0.00	0.14	0.518	0	2.66
10.167	0.00	0.14	0.517	0	2.66
10.250	0.00	0.14	0.516	0	2.65
10.333	0.00	0.14	0.515	0	2.65
10.417	0.00	0.14	0.514	0	2.65
10.500	0.00	0.14	0.513	0	2.64
10.583	0.00	0.14	0.513	0	2.64
10.667	0.00	0.14	0.512	0	2.63
10.750	0.00	0.14	0.511	0	2.63
10.833	0.00	0.14	0.510	0	2.62
10.917	0.00	0.14	0.509	0	2.62
11.000	0.00	0.14	0.508	0	2.62
11.083	0.00	0.14	0.507	0	2.61
11.167	0.00	0.14	0.506	0	2.61
11.250	0.00	0.14	0.505	0	2.60
11.333	0.00	0.14	0.504	0	2.60
11.417	0.00	0.14	0.503	0	2.59
11.500	0.00	0.14	0.502	0	2.59
11.583	0.00	0.14	0.501	0	2.59
11.667	0.00	0.14	0.500	0	2.58
11.750	0.00	0.14	0.499	0	2.58
11.833	0.00	0.14	0.498	0	2.57
11.917	0.00	0.14	0.497	0	2.57
12.000	0.00	0.14	0.496	0	2.57
12.083	0.00	0.14	0.495	0	2.56
12.167	0.00	0.14	0.494	0	2.56
12.250	0.00	0.14	0.493	0	2.55
12.333	0.00	0.14	0.492	0	2.55
12.417	0.00	0.14	0.491	0	2.54
12.500	0.00	0.14	0.491	0	2.54
12.583	0.00	0.14	0.490	0	2.54
12.667	0.00	0.14	0.489	0	2.53
12.750	0.00	0.14	0.488	0	2.53
12.833	0.00	0.14	0.487	0	2.52
12.917	0.00	0.14	0.486	0	2.52
13.000	0.00	0.14	0.485	0	2.52
13.083	0.00	0.14	0.484	0	2.51
13.167	0.00	0.14	0.483	0	2.51
13.250	0.00	0.14	0.482	0	2.50
13.333	0.00	0.14	0.481	0	2.50
13.417	0.00	0.14	0.480	0	2.49
13.500	0.00	0.14	0.479	0	2.49
13.583	0.00	0.14	0.478	0	2.49
13.667	0.00	0.14	0.477	0	2.48
13.750	0.00	0.14	0.476	0	2.48
13.833	0.00	0.14	0.476	0	2.47
13.917	0.00	0.14	0.475	0	2.47
14.000	0.00	0.13	0.474	0	2.47
14.083	0.00	0.13	0.473	0	2.46
14.167	0.00	0.13	0.472	0	2.46
14.250	0.00	0.13	0.471	0	2.45
14.333	0.00	0.13	0.470	0	2.45
14.417	0.00	0.13	0.469	0	2.44
14.500	0.00	0.13	0.468	0	2.44
14.583	0.00	0.13	0.467	0	2.44
14.667	0.00	0.13	0.466	0	2.43
14.750	0.00	0.13	0.465	0	2.43
14.833	0.00	0.13	0.464	0	2.42
14.917	0.00	0.13	0.464	0	2.42
15.000	0.00	0.13	0.463	0	2.42
15.083	0.00	0.13	0.462	0	2.41
15.167	0.00	0.13	0.461	0	2.41
15.250	0.00	0.13	0.460	0	2.40
15.333	0.00	0.13	0.459	0	2.40
15.417	0.00	0.13	0.458	0	2.40
15.500	0.00	0.13	0.457	0	2.39
15.583	0.00	0.13	0.456	0	2.39
15.667	0.00	0.13	0.455	0	2.38
15.750	0.00	0.13	0.454	0	2.38
15.833	0.00	0.13	0.453	0	2.38
15.917	0.00	0.13	0.453	0	2.37

16.000	0.00	0.13	0.452	0	2.37
16.083	0.00	0.13	0.451	0	2.36
16.167	0.00	0.13	0.450	0	2.36
16.250	0.00	0.13	0.449	0	2.36
16.333	0.00	0.13	0.448	0	2.35
16.417	0.00	0.13	0.447	0	2.35
16.500	0.00	0.13	0.446	0	2.34
16.583	0.00	0.13	0.445	0	2.34
16.667	0.00	0.13	0.444	0	2.34
16.750	0.00	0.13	0.443	0	2.33
16.833	0.00	0.13	0.443	0	2.33
16.917	0.00	0.13	0.442	0	2.32
17.000	0.00	0.13	0.441	0	2.32
17.083	0.00	0.13	0.440	0	2.32
17.167	0.00	0.13	0.439	0	2.31
17.250	0.00	0.13	0.438	0	2.31
17.333	0.00	0.13	0.437	0	2.30
17.417	0.00	0.13	0.436	0	2.30
17.500	0.00	0.13	0.435	0	2.30
17.583	0.00	0.13	0.434	0	2.29
17.667	0.00	0.13	0.434	0	2.29
17.750	0.00	0.13	0.433	0	2.28
17.833	0.00	0.13	0.432	0	2.28
17.917	0.00	0.13	0.431	0	2.27
18.000	0.00	0.13	0.430	0	2.27
18.083	0.00	0.13	0.429	0	2.27
18.167	0.00	0.13	0.428	0	2.26
18.250	0.00	0.13	0.427	0	2.26
18.333	0.00	0.13	0.426	0	2.25
18.417	0.00	0.13	0.426	0	2.25
18.500	0.00	0.13	0.425	0	2.25
18.583	0.00	0.13	0.424	0	2.24
18.667	0.00	0.13	0.423	0	2.24
18.750	0.00	0.13	0.422	0	2.23
18.833	0.00	0.13	0.421	0	2.23
18.917	0.00	0.13	0.420	0	2.23
19.000	0.00	0.13	0.419	0	2.22
19.083	0.00	0.13	0.419	0	2.22
19.167	0.00	0.13	0.418	0	2.21
19.250	0.00	0.13	0.417	0	2.21
19.333	0.00	0.13	0.416	0	2.21
19.417	0.00	0.13	0.415	0	2.20
19.500	0.00	0.13	0.414	0	2.20
19.583	0.00	0.13	0.413	0	2.19
19.667	0.00	0.13	0.412	0	2.19
19.750	0.00	0.13	0.412	0	2.19
19.833	0.00	0.13	0.411	0	2.18
19.917	0.00	0.13	0.410	0	2.18
20.000	0.00	0.13	0.409	0	2.17
20.083	0.00	0.13	0.408	0	2.17
20.167	0.00	0.13	0.407	0	2.17
20.250	0.00	0.13	0.406	0	2.16
20.333	0.00	0.13	0.406	0	2.16
20.417	0.00	0.13	0.405	0	2.15
20.500	0.00	0.13	0.404	0	2.15
20.583	0.00	0.12	0.403	0	2.15
20.667	0.00	0.12	0.402	0	2.14
20.750	0.00	0.12	0.401	0	2.14
20.833	0.00	0.12	0.400	0	2.13
20.917	0.00	0.12	0.399	0	2.13
21.000	0.00	0.12	0.399	0	2.13
21.083	0.00	0.12	0.398	0	2.12
21.167	0.00	0.12	0.397	0	2.12
21.250	0.00	0.12	0.396	0	2.11
21.333	0.00	0.12	0.395	0	2.11
21.417	0.00	0.12	0.394	0	2.11
21.500	0.00	0.12	0.394	0	2.10
21.583	0.00	0.12	0.393	0	2.10
21.667	0.00	0.12	0.392	0	2.10
21.750	0.00	0.12	0.391	0	2.09
21.833	0.00	0.12	0.390	0	2.09
21.917	0.00	0.12	0.389	0	2.08
22.000	0.00	0.12	0.388	0	2.08
22.083	0.00	0.12	0.388	0	2.08
22.167	0.00	0.12	0.387	0	2.07
22.250	0.00	0.12	0.386	0	2.07
22.333	0.00	0.12	0.385	0	2.06
22.417	0.00	0.12	0.384	0	2.06
22.500	0.00	0.12	0.383	0	2.06
22.583	0.00	0.12	0.383	0	2.05
22.667	0.00	0.12	0.382	0	2.05
22.750	0.00	0.12	0.381	0	2.05
22.833	0.00	0.12	0.380	0	2.04
22.917	0.00	0.12	0.379	0	2.04
23.000	0.00	0.12	0.378	0	2.03
23.083	0.00	0.12	0.378	0	2.03

23.167	0.00	0.12	0.377	0	2.03
23.250	0.00	0.12	0.376	0	2.02
23.333	0.00	0.12	0.375	0	2.02
23.417	0.00	0.12	0.374	0	2.01
23.500	0.00	0.12	0.373	0	2.01
23.583	0.00	0.12	0.373	0	2.01
23.667	0.00	0.12	0.372	0	2.00
23.750	0.00	0.12	0.371	0	2.00
23.833	0.00	0.12	0.370	0	2.00
23.917	0.00	0.12	0.369	0	1.99
24.000	0.00	0.12	0.368	0	1.99
24.083	0.00	0.12	0.368	0	1.98
24.167	0.00	0.12	0.367	0	1.98
24.250	0.00	0.12	0.366	0	1.98
24.333	0.00	0.12	0.365	0	1.97
24.417	0.00	0.12	0.364	0	1.97
24.500	0.00	0.12	0.363	0	1.96
24.583	0.00	0.12	0.363	0	1.96
24.667	0.00	0.12	0.362	0	1.96
24.750	0.00	0.12	0.361	0	1.95
24.833	0.00	0.12	0.360	0	1.95
24.917	0.00	0.12	0.359	0	1.94
25.000	0.00	0.12	0.359	0	1.94
25.083	0.00	0.12	0.358	0	1.94
25.167	0.00	0.12	0.357	0	1.93
25.250	0.00	0.12	0.356	0	1.93
25.333	0.00	0.12	0.355	0	1.92
25.417	0.00	0.12	0.355	0	1.92
25.500	0.00	0.12	0.354	0	1.92
25.583	0.00	0.12	0.353	0	1.91
25.667	0.00	0.12	0.352	0	1.91
25.750	0.00	0.12	0.351	0	1.90
25.833	0.00	0.12	0.351	0	1.90
25.917	0.00	0.12	0.350	0	1.90
26.000	0.00	0.12	0.349	0	1.89
26.083	0.00	0.12	0.348	0	1.89
26.167	0.00	0.12	0.347	0	1.89
26.250	0.00	0.12	0.347	0	1.88
26.333	0.00	0.12	0.346	0	1.88
26.417	0.00	0.12	0.345	0	1.87
26.500	0.00	0.12	0.344	0	1.87
26.583	0.00	0.12	0.343	0	1.87
26.667	0.00	0.11	0.343	0	1.86
26.750	0.00	0.11	0.342	0	1.86
26.833	0.00	0.11	0.341	0	1.85
26.917	0.00	0.11	0.340	0	1.85
27.000	0.00	0.11	0.339	0	1.85
27.083	0.00	0.11	0.339	0	1.84
27.167	0.00	0.11	0.338	0	1.84
27.250	0.00	0.11	0.337	0	1.84
27.333	0.00	0.11	0.336	0	1.83
27.417	0.00	0.11	0.335	0	1.83
27.500	0.00	0.11	0.335	0	1.82
27.583	0.00	0.11	0.334	0	1.82
27.667	0.00	0.11	0.333	0	1.82
27.750	0.00	0.11	0.332	0	1.81
27.833	0.00	0.11	0.332	0	1.81
27.917	0.00	0.11	0.331	0	1.80
28.000	0.00	0.11	0.330	0	1.80
28.083	0.00	0.11	0.329	0	1.80
28.167	0.00	0.11	0.328	0	1.79
28.250	0.00	0.11	0.328	0	1.79
28.333	0.00	0.11	0.327	0	1.79
28.417	0.00	0.11	0.326	0	1.78
28.500	0.00	0.11	0.325	0	1.78
28.583	0.00	0.11	0.325	0	1.77
28.667	0.00	0.11	0.324	0	1.77
28.750	0.00	0.11	0.323	0	1.77
28.833	0.00	0.11	0.322	0	1.76
28.917	0.00	0.11	0.322	0	1.76
29.000	0.00	0.11	0.321	0	1.76
29.083	0.00	0.11	0.320	0	1.75
29.167	0.00	0.11	0.319	0	1.75
29.250	0.00	0.11	0.318	0	1.75
29.333	0.00	0.11	0.318	0	1.74
29.417	0.00	0.11	0.317	0	1.74
29.500	0.00	0.11	0.316	0	1.73
29.583	0.00	0.11	0.315	0	1.73
29.667	0.00	0.11	0.315	0	1.73
29.750	0.00	0.11	0.314	0	1.72
29.833	0.00	0.11	0.313	0	1.72
29.917	0.00	0.11	0.312	0	1.72
30.000	0.00	0.11	0.312	0	1.71
30.083	0.00	0.11	0.311	0	1.71
30.167	0.00	0.11	0.310	0	1.70
30.250	0.00	0.11	0.309	0	1.70

30.333	0.00	0.11	0.309	0					1.70
30.417	0.00	0.11	0.308	0					1.69
30.500	0.00	0.11	0.307	0					1.69
30.583	0.00	0.11	0.306	0					1.69
30.667	0.00	0.11	0.306	0					1.68
30.750	0.00	0.11	0.305	0					1.68
30.833	0.00	0.11	0.304	0					1.68
30.917	0.00	0.11	0.303	0					1.67
31.000	0.00	0.11	0.303	0					1.67
31.083	0.00	0.11	0.302	0					1.66
31.167	0.00	0.11	0.301	0					1.66
31.250	0.00	0.11	0.300	0					1.66
31.333	0.00	0.11	0.300	0					1.65
31.417	0.00	0.11	0.299	0					1.65
31.500	0.00	0.11	0.298	0					1.65
31.583	0.00	0.11	0.297	0					1.64
31.667	0.00	0.11	0.297	0					1.64
31.750	0.00	0.11	0.296	0					1.63
31.833	0.00	0.11	0.295	0					1.63
31.917	0.00	0.11	0.295	0					1.63
32.000	0.00	0.11	0.294	0					1.62
32.083	0.00	0.11	0.293	0					1.62
32.167	0.00	0.11	0.292	0					1.62
32.250	0.00	0.11	0.292	0					1.61
32.333	0.00	0.11	0.291	0					1.61
32.417	0.00	0.11	0.290	0					1.60
32.500	0.00	0.11	0.289	0					1.60
32.583	0.00	0.11	0.289	0					1.60
32.667	0.00	0.11	0.288	0					1.59
32.750	0.00	0.10	0.287	0					1.59
32.833	0.00	0.10	0.287	0					1.59
32.917	0.00	0.10	0.286	0					1.58
33.000	0.00	0.10	0.285	0					1.58
33.083	0.00	0.10	0.284	0					1.58
33.167	0.00	0.10	0.284	0					1.57
33.250	0.00	0.10	0.283	0					1.57
33.333	0.00	0.10	0.282	0					1.56
33.417	0.00	0.10	0.282	0					1.56
33.500	0.00	0.10	0.281	0					1.56
33.583	0.00	0.10	0.280	0					1.55
33.667	0.00	0.10	0.279	0					1.55
33.750	0.00	0.10	0.279	0					1.55
33.833	0.00	0.10	0.278	0					1.54
33.917	0.00	0.10	0.277	0					1.54
34.000	0.00	0.10	0.277	0					1.54
34.083	0.00	0.10	0.276	0					1.53
34.167	0.00	0.10	0.275	0					1.53
34.250	0.00	0.10	0.274	0					1.52
34.333	0.00	0.10	0.274	0					1.52
34.417	0.00	0.10	0.273	0					1.52
34.500	0.00	0.10	0.272	0					1.51
34.583	0.00	0.10	0.272	0					1.51
34.667	0.00	0.10	0.271	0					1.51
34.750	0.00	0.10	0.270	0					1.50
34.833	0.00	0.10	0.269	0					1.50
34.917	0.00	0.10	0.269	0					1.50
35.000	0.00	0.10	0.268	0					1.49
35.083	0.00	0.10	0.267	0					1.49
35.167	0.00	0.10	0.267	0					1.49
35.250	0.00	0.10	0.266	0					1.48
35.333	0.00	0.10	0.265	0					1.48
35.417	0.00	0.10	0.265	0					1.48
35.500	0.00	0.10	0.264	0					1.47
35.583	0.00	0.10	0.263	0					1.47
35.667	0.00	0.10	0.263	0					1.46
35.750	0.00	0.10	0.262	0					1.46
35.833	0.00	0.10	0.261	0					1.46

Remaining water in basin = 0.26 (Ac.Ft)
 *****HYDROGRAPH DATA*****
 Number of intervals = 430
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 17.246 (CFS)
 Total volume = 1.630 (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

 Program License Serial Number 5006

***** HYDROGRAPH INFORMATION *****

From study/file name: PRO1006100.rte
 *****HYDROGRAPH DATA*****
 Number of intervals = 77
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 19.856 (CFS)
 Total volume = 2.585 (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 1.000 to Point/Station 2.000
 **** RETARDING BASIN ROUTING ****

 User entry of depth-outflow-storage data

 Total number of inflow hydrograph intervals = 77
 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
0.330	0.055	0.032	0.055	0.055
0.670	0.113	0.061	0.113	0.113
1.000	0.173	0.080	0.173	0.173
1.330	0.236	0.095	0.236	0.236
1.670	0.303	0.108	0.303	0.303
2.000	0.371	0.120	0.371	0.371
2.330	0.443	0.131	0.443	0.443
2.670	0.520	0.141	0.520	0.520
3.000	0.598	0.150	0.597	0.599
3.330	0.680	11.546	0.640	0.720
3.670	0.768	16.394	0.712	0.824
4.000	0.857	19.999	0.788	0.926
4.330	0.951	25.154	0.864	1.038
4.670	1.051	51.187	0.875	1.227
5.000	1.151	88.793	0.845	1.457

 Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	5.0	9.93	14.89	19.86	Depth (Ft.)
0.083	0.59	0.00	0.002	0					0.01
0.167	1.56	0.01	0.009	0 I					0.06
0.250	1.94	0.01	0.021	0 I					0.13
0.333	2.07	0.02	0.035	0 I					0.21
0.417	2.13	0.03	0.049	0 I					0.30
0.500	2.29	0.04	0.064	0 I					0.38
0.583	2.46	0.04	0.080	0 I					0.48
0.667	2.50	0.05	0.097	0 I					0.58
0.750	2.52	0.06	0.114	0 I					0.68
0.833	2.53	0.07	0.131	0 I					0.77
0.917	2.53	0.07	0.148	0 I					0.86

1.000	2.65	0.08	0.165	0	I							0.96
1.083	2.82	0.08	0.184	0	I							1.06
1.167	2.86	0.09	0.203	0	I							1.16
1.250	2.88	0.09	0.222	0	I							1.26
1.333	2.89	0.10	0.241	0	I							1.36
1.417	2.90	0.10	0.260	0	I							1.45
1.500	2.90	0.10	0.280	0	I							1.55
1.583	2.90	0.11	0.299	0	I							1.65
1.667	2.90	0.11	0.318	0	I							1.74
1.750	2.90	0.11	0.337	0	I							1.84
1.833	2.90	0.12	0.356	0	I							1.93
1.917	2.90	0.12	0.375	0	I							2.02
2.000	3.01	0.12	0.395	0	I							2.11
2.083	3.07	0.13	0.415	0	I							2.20
2.167	3.06	0.13	0.435	0	I							2.29
2.250	3.20	0.13	0.456	0	I							2.39
2.333	3.24	0.14	0.477	0	I							2.48
2.417	3.25	0.14	0.499	0	I							2.58
2.500	3.25	0.14	0.520	0	I							2.67
2.583	3.26	0.14	0.541	0	I							2.76
2.667	3.26	0.15	0.563	0	I							2.85
2.750	3.38	0.15	0.585	0	I							2.94
2.833	3.55	1.04	0.604	0	I							3.03
2.917	3.59	2.68	0.616		O							3.07
3.000	3.61	3.27	0.620		O							3.09
3.083	3.62	3.49	0.622		O							3.10
3.167	3.74	3.61	0.623		O							3.10
3.250	3.91	3.75	0.624		O							3.10
3.333	3.95	3.87	0.625		O							3.11
3.417	4.09	3.97	0.625		O							3.11
3.500	4.38	4.14	0.627		O							3.12
3.583	4.72	4.41	0.629		O							3.12
3.667	4.95	4.68	0.631		O							3.13
3.750	5.14	4.92	0.632		O							3.14
3.833	5.34	5.12	0.634		O							3.14
3.917	5.51	5.32	0.635		O							3.15
4.000	5.71	5.51	0.637		O							3.16
4.083	5.87	5.69	0.638		O							3.16
4.167	6.19	5.91	0.639		O							3.17
4.250	6.52	6.20	0.642		O							3.18
4.333	6.89	6.53	0.644		O							3.18
4.417	7.30	6.90	0.647		O							3.20
4.500	7.59	7.25	0.649		O							3.21
4.583	7.82	7.55	0.651		O							3.21
4.667	8.21	7.85	0.653		O							3.22
4.750	8.63	8.22	0.656		O							3.23
4.833	8.92	8.58	0.659		O							3.24
4.917	9.14	8.87	0.661		O							3.25
5.000	9.53	9.17	0.663		O							3.26
5.083	10.53	9.73	0.667		O							3.28
5.167	12.36	10.84	0.675		O							3.31
5.250	14.12	11.96	0.688		O							3.36
5.333	15.55	12.88	0.704		O							3.42
5.417	17.22	14.00	0.725		O							3.50
5.500	19.86	15.45	0.751		O							3.60
5.583	16.83	16.37	0.768		O							3.67
5.667	8.56	15.20	0.746		O							3.59
5.750	4.92	12.50	0.697		O							3.40
5.833	3.20	8.02	0.655		O							3.23
5.917	2.13	4.55	0.630		O							3.13
6.000	1.24	2.70	0.616		O							3.07
6.083	0.66	1.57	0.608		O							3.04
6.167	0.21	0.83	0.603		O							3.02
6.250	0.09	0.39	0.600		O							3.01
6.333	0.03	0.18	0.598		O							3.00
6.417	0.01	0.15	0.597		O							3.00
6.500	0.00	0.15	0.596		O							2.99
6.583	0.00	0.15	0.595		O							2.99
6.667	0.00	0.15	0.594		O							2.98
6.750	0.00	0.15	0.593		O							2.98
6.833	0.00	0.15	0.592		O							2.98
6.917	0.00	0.15	0.591		O							2.97
7.000	0.00	0.15	0.590		O							2.97
7.083	0.00	0.15	0.589		O							2.96
7.167	0.00	0.15	0.588		O							2.96
7.250	0.00	0.15	0.587		O							2.95
7.333	0.00	0.15	0.586		O							2.95
7.417	0.00	0.15	0.585		O							2.94
7.500	0.00	0.15	0.584		O							2.94
7.583	0.00	0.15	0.583		O							2.94
7.667	0.00	0.15	0.582		O							2.93
7.750	0.00	0.15	0.581		O							2.93
7.833	0.00	0.15	0.580		O							2.92
7.917	0.00	0.15	0.579		O							2.92
8.000	0.00	0.15	0.578		O							2.91
8.083	0.00	0.15	0.577		O							2.91

8.167	0.00	0.15	0.576	0	2.91
8.250	0.00	0.15	0.575	0	2.90
8.333	0.00	0.15	0.574	0	2.90
8.417	0.00	0.15	0.573	0	2.89
8.500	0.00	0.15	0.572	0	2.89
8.583	0.00	0.15	0.571	0	2.88
8.667	0.00	0.15	0.570	0	2.88
8.750	0.00	0.15	0.569	0	2.88
8.833	0.00	0.15	0.568	0	2.87
8.917	0.00	0.15	0.567	0	2.87
9.000	0.00	0.15	0.566	0	2.86
9.083	0.00	0.15	0.565	0	2.86
9.167	0.00	0.15	0.564	0	2.85
9.250	0.00	0.15	0.563	0	2.85
9.333	0.00	0.15	0.562	0	2.85
9.417	0.00	0.15	0.561	0	2.84
9.500	0.00	0.15	0.560	0	2.84
9.583	0.00	0.15	0.559	0	2.83
9.667	0.00	0.15	0.558	0	2.83
9.750	0.00	0.15	0.557	0	2.82
9.833	0.00	0.15	0.556	0	2.82
9.917	0.00	0.14	0.555	0	2.82
10.000	0.00	0.14	0.554	0	2.81
10.083	0.00	0.14	0.553	0	2.81
10.167	0.00	0.14	0.552	0	2.80
10.250	0.00	0.14	0.551	0	2.80
10.333	0.00	0.14	0.550	0	2.80
10.417	0.00	0.14	0.549	0	2.79
10.500	0.00	0.14	0.548	0	2.79
10.583	0.00	0.14	0.547	0	2.78
10.667	0.00	0.14	0.546	0	2.78
10.750	0.00	0.14	0.545	0	2.77
10.833	0.00	0.14	0.544	0	2.77
10.917	0.00	0.14	0.543	0	2.77
11.000	0.00	0.14	0.542	0	2.76
11.083	0.00	0.14	0.541	0	2.76
11.167	0.00	0.14	0.540	0	2.75
11.250	0.00	0.14	0.539	0	2.75
11.333	0.00	0.14	0.538	0	2.75
11.417	0.00	0.14	0.537	0	2.74
11.500	0.00	0.14	0.536	0	2.74
11.583	0.00	0.14	0.535	0	2.73
11.667	0.00	0.14	0.534	0	2.73
11.750	0.00	0.14	0.533	0	2.72
11.833	0.00	0.14	0.532	0	2.72
11.917	0.00	0.14	0.531	0	2.72
12.000	0.00	0.14	0.530	0	2.71
12.083	0.00	0.14	0.529	0	2.71
12.167	0.00	0.14	0.528	0	2.70
12.250	0.00	0.14	0.527	0	2.70
12.333	0.00	0.14	0.526	0	2.70
12.417	0.00	0.14	0.525	0	2.69
12.500	0.00	0.14	0.524	0	2.69
12.583	0.00	0.14	0.523	0	2.68
12.667	0.00	0.14	0.522	0	2.68
12.750	0.00	0.14	0.521	0	2.67
12.833	0.00	0.14	0.520	0	2.67
12.917	0.00	0.14	0.519	0	2.67
13.000	0.00	0.14	0.518	0	2.66
13.083	0.00	0.14	0.517	0	2.66
13.167	0.00	0.14	0.516	0	2.65
13.250	0.00	0.14	0.515	0	2.65
13.333	0.00	0.14	0.514	0	2.64
13.417	0.00	0.14	0.513	0	2.64
13.500	0.00	0.14	0.512	0	2.64
13.583	0.00	0.14	0.511	0	2.63
13.667	0.00	0.14	0.510	0	2.63
13.750	0.00	0.14	0.510	0	2.62
13.833	0.00	0.14	0.509	0	2.62
13.917	0.00	0.14	0.508	0	2.62
14.000	0.00	0.14	0.507	0	2.61
14.083	0.00	0.14	0.506	0	2.61
14.167	0.00	0.14	0.505	0	2.60
14.250	0.00	0.14	0.504	0	2.60
14.333	0.00	0.14	0.503	0	2.59
14.417	0.00	0.14	0.502	0	2.59
14.500	0.00	0.14	0.501	0	2.59
14.583	0.00	0.14	0.500	0	2.58
14.667	0.00	0.14	0.499	0	2.58
14.750	0.00	0.14	0.498	0	2.57
14.833	0.00	0.14	0.497	0	2.57
14.917	0.00	0.14	0.496	0	2.56
15.000	0.00	0.14	0.495	0	2.56
15.083	0.00	0.14	0.494	0	2.56
15.167	0.00	0.14	0.493	0	2.55
15.250	0.00	0.14	0.492	0	2.55

15.333	0.00	0.14	0.491	0	2.54
15.417	0.00	0.14	0.490	0	2.54
15.500	0.00	0.14	0.490	0	2.54
15.583	0.00	0.14	0.489	0	2.53
15.667	0.00	0.14	0.488	0	2.53
15.750	0.00	0.14	0.487	0	2.52
15.833	0.00	0.14	0.486	0	2.52
15.917	0.00	0.14	0.485	0	2.51
16.000	0.00	0.14	0.484	0	2.51
16.083	0.00	0.14	0.483	0	2.51
16.167	0.00	0.14	0.482	0	2.50
16.250	0.00	0.14	0.481	0	2.50
16.333	0.00	0.14	0.480	0	2.49
16.417	0.00	0.14	0.479	0	2.49
16.500	0.00	0.14	0.478	0	2.49
16.583	0.00	0.14	0.477	0	2.48
16.667	0.00	0.14	0.476	0	2.48
16.750	0.00	0.14	0.475	0	2.47
16.833	0.00	0.14	0.475	0	2.47
16.917	0.00	0.13	0.474	0	2.47
17.000	0.00	0.13	0.473	0	2.46
17.083	0.00	0.13	0.472	0	2.46
17.167	0.00	0.13	0.471	0	2.45
17.250	0.00	0.13	0.470	0	2.45
17.333	0.00	0.13	0.469	0	2.44
17.417	0.00	0.13	0.468	0	2.44
17.500	0.00	0.13	0.467	0	2.44
17.583	0.00	0.13	0.466	0	2.43
17.667	0.00	0.13	0.465	0	2.43
17.750	0.00	0.13	0.464	0	2.42
17.833	0.00	0.13	0.463	0	2.42
17.917	0.00	0.13	0.462	0	2.42
18.000	0.00	0.13	0.462	0	2.41
18.083	0.00	0.13	0.461	0	2.41
18.167	0.00	0.13	0.460	0	2.40
18.250	0.00	0.13	0.459	0	2.40
18.333	0.00	0.13	0.458	0	2.40
18.417	0.00	0.13	0.457	0	2.39
18.500	0.00	0.13	0.456	0	2.39
18.583	0.00	0.13	0.455	0	2.38
18.667	0.00	0.13	0.454	0	2.38
18.750	0.00	0.13	0.453	0	2.38
18.833	0.00	0.13	0.452	0	2.37
18.917	0.00	0.13	0.452	0	2.37
19.000	0.00	0.13	0.451	0	2.36
19.083	0.00	0.13	0.450	0	2.36
19.167	0.00	0.13	0.449	0	2.36
19.250	0.00	0.13	0.448	0	2.35
19.333	0.00	0.13	0.447	0	2.35
19.417	0.00	0.13	0.446	0	2.34
19.500	0.00	0.13	0.445	0	2.34
19.583	0.00	0.13	0.444	0	2.34
19.667	0.00	0.13	0.443	0	2.33
19.750	0.00	0.13	0.442	0	2.33
19.833	0.00	0.13	0.442	0	2.32
19.917	0.00	0.13	0.441	0	2.32
20.000	0.00	0.13	0.440	0	2.32
20.083	0.00	0.13	0.439	0	2.31
20.167	0.00	0.13	0.438	0	2.31
20.250	0.00	0.13	0.437	0	2.30
20.333	0.00	0.13	0.436	0	2.30
20.417	0.00	0.13	0.435	0	2.29
20.500	0.00	0.13	0.434	0	2.29
20.583	0.00	0.13	0.433	0	2.29
20.667	0.00	0.13	0.433	0	2.28
20.750	0.00	0.13	0.432	0	2.28
20.833	0.00	0.13	0.431	0	2.27
20.917	0.00	0.13	0.430	0	2.27
21.000	0.00	0.13	0.429	0	2.27
21.083	0.00	0.13	0.428	0	2.26
21.167	0.00	0.13	0.427	0	2.26
21.250	0.00	0.13	0.426	0	2.25
21.333	0.00	0.13	0.425	0	2.25
21.417	0.00	0.13	0.425	0	2.25
21.500	0.00	0.13	0.424	0	2.24
21.583	0.00	0.13	0.423	0	2.24
21.667	0.00	0.13	0.422	0	2.23
21.750	0.00	0.13	0.421	0	2.23
21.833	0.00	0.13	0.420	0	2.23
21.917	0.00	0.13	0.419	0	2.22
22.000	0.00	0.13	0.418	0	2.22
22.083	0.00	0.13	0.418	0	2.21
22.167	0.00	0.13	0.417	0	2.21
22.250	0.00	0.13	0.416	0	2.21
22.333	0.00	0.13	0.415	0	2.20
22.417	0.00	0.13	0.414	0	2.20

22.500	0.00	0.13	0.413	0	2.19
22.583	0.00	0.13	0.412	0	2.19
22.667	0.00	0.13	0.411	0	2.19
22.750	0.00	0.13	0.411	0	2.18
22.833	0.00	0.13	0.410	0	2.18
22.917	0.00	0.13	0.409	0	2.17
23.000	0.00	0.13	0.408	0	2.17
23.083	0.00	0.13	0.407	0	2.17
23.167	0.00	0.13	0.406	0	2.16
23.250	0.00	0.13	0.405	0	2.16
23.333	0.00	0.13	0.405	0	2.15
23.417	0.00	0.12	0.404	0	2.15
23.500	0.00	0.12	0.403	0	2.15
23.583	0.00	0.12	0.402	0	2.14
23.667	0.00	0.12	0.401	0	2.14
23.750	0.00	0.12	0.400	0	2.13
23.833	0.00	0.12	0.399	0	2.13
23.917	0.00	0.12	0.399	0	2.13
24.000	0.00	0.12	0.398	0	2.12
24.083	0.00	0.12	0.397	0	2.12
24.167	0.00	0.12	0.396	0	2.11
24.250	0.00	0.12	0.395	0	2.11
24.333	0.00	0.12	0.394	0	2.11
24.417	0.00	0.12	0.393	0	2.10
24.500	0.00	0.12	0.393	0	2.10
24.583	0.00	0.12	0.392	0	2.09
24.667	0.00	0.12	0.391	0	2.09
24.750	0.00	0.12	0.390	0	2.09
24.833	0.00	0.12	0.389	0	2.08
24.917	0.00	0.12	0.388	0	2.08
25.000	0.00	0.12	0.387	0	2.08
25.083	0.00	0.12	0.387	0	2.07
25.167	0.00	0.12	0.386	0	2.07
25.250	0.00	0.12	0.385	0	2.06
25.333	0.00	0.12	0.384	0	2.06
25.417	0.00	0.12	0.383	0	2.06
25.500	0.00	0.12	0.382	0	2.05
25.583	0.00	0.12	0.382	0	2.05
25.667	0.00	0.12	0.381	0	2.04
25.750	0.00	0.12	0.380	0	2.04
25.833	0.00	0.12	0.379	0	2.04
25.917	0.00	0.12	0.378	0	2.03
26.000	0.00	0.12	0.377	0	2.03
26.083	0.00	0.12	0.377	0	2.03
26.167	0.00	0.12	0.376	0	2.02
26.250	0.00	0.12	0.375	0	2.02
26.333	0.00	0.12	0.374	0	2.01
26.417	0.00	0.12	0.373	0	2.01
26.500	0.00	0.12	0.372	0	2.01
26.583	0.00	0.12	0.372	0	2.00
26.667	0.00	0.12	0.371	0	2.00
26.750	0.00	0.12	0.370	0	2.00
26.833	0.00	0.12	0.369	0	1.99
26.917	0.00	0.12	0.368	0	1.99
27.000	0.00	0.12	0.367	0	1.98
27.083	0.00	0.12	0.367	0	1.98
27.167	0.00	0.12	0.366	0	1.98
27.250	0.00	0.12	0.365	0	1.97
27.333	0.00	0.12	0.364	0	1.97
27.417	0.00	0.12	0.363	0	1.96
27.500	0.00	0.12	0.363	0	1.96
27.583	0.00	0.12	0.362	0	1.96
27.667	0.00	0.12	0.361	0	1.95
27.750	0.00	0.12	0.360	0	1.95
27.833	0.00	0.12	0.359	0	1.94
27.917	0.00	0.12	0.359	0	1.94
28.000	0.00	0.12	0.358	0	1.94
28.083	0.00	0.12	0.357	0	1.93
28.167	0.00	0.12	0.356	0	1.93
28.250	0.00	0.12	0.355	0	1.92
28.333	0.00	0.12	0.354	0	1.92
28.417	0.00	0.12	0.354	0	1.92
28.500	0.00	0.12	0.353	0	1.91
28.583	0.00	0.12	0.352	0	1.91
28.667	0.00	0.12	0.351	0	1.90
28.750	0.00	0.12	0.350	0	1.90
28.833	0.00	0.12	0.350	0	1.90
28.917	0.00	0.12	0.349	0	1.89
29.000	0.00	0.12	0.348	0	1.89
29.083	0.00	0.12	0.347	0	1.88
29.167	0.00	0.12	0.346	0	1.88
29.250	0.00	0.12	0.346	0	1.88
29.333	0.00	0.12	0.345	0	1.87
29.417	0.00	0.12	0.344	0	1.87
29.500	0.00	0.12	0.343	0	1.87
29.583	0.00	0.11	0.342	0	1.86

29.667	0.00	0.11	0.342	0	1.86
29.750	0.00	0.11	0.341	0	1.85
29.833	0.00	0.11	0.340	0	1.85
29.917	0.00	0.11	0.339	0	1.85
30.000	0.00	0.11	0.339	0	1.84
30.083	0.00	0.11	0.338	0	1.84
30.167	0.00	0.11	0.337	0	1.83
30.250	0.00	0.11	0.336	0	1.83
30.333	0.00	0.11	0.335	0	1.83
30.417	0.00	0.11	0.335	0	1.82
30.500	0.00	0.11	0.334	0	1.82
30.583	0.00	0.11	0.333	0	1.82
30.667	0.00	0.11	0.332	0	1.81
30.750	0.00	0.11	0.331	0	1.81
30.833	0.00	0.11	0.331	0	1.80
30.917	0.00	0.11	0.330	0	1.80
31.000	0.00	0.11	0.329	0	1.80
31.083	0.00	0.11	0.328	0	1.79
31.167	0.00	0.11	0.328	0	1.79
31.250	0.00	0.11	0.327	0	1.79
31.333	0.00	0.11	0.326	0	1.78
31.417	0.00	0.11	0.325	0	1.78
31.500	0.00	0.11	0.325	0	1.77
31.583	0.00	0.11	0.324	0	1.77
31.667	0.00	0.11	0.323	0	1.77
31.750	0.00	0.11	0.322	0	1.76
31.833	0.00	0.11	0.321	0	1.76
31.917	0.00	0.11	0.321	0	1.76
32.000	0.00	0.11	0.320	0	1.75
32.083	0.00	0.11	0.319	0	1.75
32.167	0.00	0.11	0.318	0	1.74
32.250	0.00	0.11	0.318	0	1.74
32.333	0.00	0.11	0.317	0	1.74
32.417	0.00	0.11	0.316	0	1.73
32.500	0.00	0.11	0.315	0	1.73
32.583	0.00	0.11	0.315	0	1.73
32.667	0.00	0.11	0.314	0	1.72
32.750	0.00	0.11	0.313	0	1.72
32.833	0.00	0.11	0.312	0	1.72
32.917	0.00	0.11	0.312	0	1.71
33.000	0.00	0.11	0.311	0	1.71
33.083	0.00	0.11	0.310	0	1.70
33.167	0.00	0.11	0.309	0	1.70
33.250	0.00	0.11	0.309	0	1.70
33.333	0.00	0.11	0.308	0	1.69
33.417	0.00	0.11	0.307	0	1.69
33.500	0.00	0.11	0.306	0	1.69
33.583	0.00	0.11	0.306	0	1.68
33.667	0.00	0.11	0.305	0	1.68
33.750	0.00	0.11	0.304	0	1.68
33.833	0.00	0.11	0.303	0	1.67
33.917	0.00	0.11	0.303	0	1.67
34.000	0.00	0.11	0.302	0	1.66
34.083	0.00	0.11	0.301	0	1.66
34.167	0.00	0.11	0.300	0	1.66
34.250	0.00	0.11	0.300	0	1.65
34.333	0.00	0.11	0.299	0	1.65
34.417	0.00	0.11	0.298	0	1.65
34.500	0.00	0.11	0.297	0	1.64
34.583	0.00	0.11	0.297	0	1.64
34.667	0.00	0.11	0.296	0	1.63
34.750	0.00	0.11	0.295	0	1.63
34.833	0.00	0.11	0.294	0	1.63
34.917	0.00	0.11	0.294	0	1.62
35.000	0.00	0.11	0.293	0	1.62
35.083	0.00	0.11	0.292	0	1.62
35.167	0.00	0.11	0.292	0	1.61
35.250	0.00	0.11	0.291	0	1.61
35.333	0.00	0.11	0.290	0	1.60
35.417	0.00	0.11	0.289	0	1.60
35.500	0.00	0.11	0.289	0	1.60
35.583	0.00	0.11	0.288	0	1.59
35.667	0.00	0.10	0.287	0	1.59
35.750	0.00	0.10	0.286	0	1.59
35.833	0.00	0.10	0.286	0	1.58
35.917	0.00	0.10	0.285	0	1.58
36.000	0.00	0.10	0.284	0	1.58
36.083	0.00	0.10	0.284	0	1.57
36.167	0.00	0.10	0.283	0	1.57
36.250	0.00	0.10	0.282	0	1.56
36.333	0.00	0.10	0.281	0	1.56
36.417	0.00	0.10	0.281	0	1.56
36.500	0.00	0.10	0.280	0	1.55
36.583	0.00	0.10	0.279	0	1.55
36.667	0.00	0.10	0.279	0	1.55
36.750	0.00	0.10	0.278	0	1.54

36.833	0.00	0.10	0.277	0					1.54
36.917	0.00	0.10	0.276	0					1.54
37.000	0.00	0.10	0.276	0					1.53
37.083	0.00	0.10	0.275	0					1.53
37.167	0.00	0.10	0.274	0					1.52
37.250	0.00	0.10	0.274	0					1.52
37.333	0.00	0.10	0.273	0					1.52
37.417	0.00	0.10	0.272	0					1.51
37.500	0.00	0.10	0.272	0					1.51
37.583	0.00	0.10	0.271	0					1.51
37.667	0.00	0.10	0.270	0					1.50
37.750	0.00	0.10	0.269	0					1.50
37.833	0.00	0.10	0.269	0					1.50
37.917	0.00	0.10	0.268	0					1.49
38.000	0.00	0.10	0.267	0					1.49
38.083	0.00	0.10	0.267	0					1.49
38.167	0.00	0.10	0.266	0					1.48
38.250	0.00	0.10	0.265	0					1.48
38.333	0.00	0.10	0.265	0					1.47
38.417	0.00	0.10	0.264	0					1.47
38.500	0.00	0.10	0.263	0					1.47
38.583	0.00	0.10	0.262	0					1.46
38.667	0.00	0.10	0.262	0					1.46
38.750	0.00	0.10	0.261	0					1.46

Remaining water in basin = 0.26 (Ac.Ft)

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*****HYDROGRAPH DATA*****
      Number of intervals = 465
      Time interval = 5.0 (Min.)
      Maximum/Peak flow rate = 16.369 (CFS)
      Total volume = 2.325 (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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 Program License Serial Number 5006

***** HYDROGRAPH INFORMATION *****

From study/file name: pro10024100.rte
 *****HYDROGRAPH DATA*****
 Number of intervals = 293
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 6.685 (CFS)
 Total volume = 3.995 (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 1.000 to Point/Station 2.000
 **** RETARDING BASIN ROUTING ****

 User entry of depth-outflow-storage data

 Total number of inflow hydrograph intervals = 293
 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
0.330	0.055	0.032	0.055	0.055
0.670	0.113	0.061	0.113	0.113
1.000	0.173	0.080	0.173	0.173
1.330	0.236	0.095	0.236	0.236
1.670	0.303	0.108	0.303	0.303
2.000	0.371	0.120	0.371	0.371
2.330	0.443	0.131	0.443	0.443
2.670	0.520	0.141	0.520	0.520
3.000	0.598	0.150	0.597	0.599
3.330	0.680	11.546	0.640	0.720
3.670	0.768	16.394	0.712	0.824
4.000	0.857	19.999	0.788	0.926
4.330	0.951	25.154	0.864	1.038
4.670	1.051	51.187	0.875	1.227
5.000	1.151	88.793	0.845	1.457

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	3.34	5.01	6.69	Depth (Ft.)
0.083	0.13	0.00	0.000	O					0.00
0.167	0.31	0.00	0.002	O I					0.01
0.250	0.35	0.00	0.004	O I					0.03
0.333	0.43	0.00	0.007	O I					0.04
0.417	0.53	0.01	0.010	O I					0.06
0.500	0.56	0.01	0.014	O I					0.08
0.583	0.57	0.01	0.018	O I					0.11
0.667	0.58	0.01	0.022	O I					0.13
0.750	0.58	0.01	0.025	O I					0.15
0.833	0.64	0.02	0.030	O I					0.18
0.917	0.73	0.02	0.034	O I					0.21

1.000	0.76	0.02	0.039	0	I					0.24
1.083	0.70	0.03	0.044	0	I					0.26
1.167	0.62	0.03	0.048	0	I					0.29
1.250	0.60	0.03	0.052	0	I					0.31
1.333	0.59	0.03	0.056	0	I					0.34
1.417	0.58	0.03	0.060	0	I					0.36
1.500	0.58	0.04	0.064	0	I					0.38
1.583	0.58	0.04	0.067	0	I					0.40
1.667	0.58	0.04	0.071	0	I					0.43
1.750	0.58	0.04	0.075	0	I					0.45
1.833	0.64	0.04	0.079	0	I					0.47
1.917	0.73	0.05	0.083	0	I					0.50
2.000	0.76	0.05	0.088	0	I					0.52
2.083	0.76	0.05	0.093	0	I					0.55
2.167	0.77	0.05	0.098	0	I					0.58
2.250	0.77	0.06	0.103	0	I					0.61
2.333	0.77	0.06	0.108	0	I					0.64
2.417	0.77	0.06	0.113	0	I					0.67
2.500	0.77	0.06	0.118	0	I					0.69
2.583	0.84	0.06	0.123	0	I					0.72
2.667	0.93	0.07	0.128	0	I					0.75
2.750	0.95	0.07	0.134	0	I					0.79
2.833	0.96	0.07	0.140	0	I					0.82
2.917	0.96	0.07	0.146	0	I					0.85
3.000	0.97	0.07	0.153	0	I					0.89
3.083	0.97	0.08	0.159	0	I					0.92
3.167	0.97	0.08	0.165	0	I					0.96
3.250	0.97	0.08	0.171	0	I					0.99
3.333	0.97	0.08	0.177	0	I					1.02
3.417	0.97	0.08	0.183	0	I					1.05
3.500	0.97	0.08	0.189	0	I					1.09
3.583	0.97	0.09	0.195	0	I					1.12
3.667	0.97	0.09	0.201	0	I					1.15
3.750	0.97	0.09	0.207	0	I					1.18
3.833	1.03	0.09	0.214	0	I					1.21
3.917	1.12	0.09	0.220	0	I					1.25
4.000	1.14	0.09	0.228	0	I					1.29
4.083	1.15	0.09	0.235	0	I					1.32
4.167	1.16	0.10	0.242	0	I					1.36
4.250	1.16	0.10	0.249	0	I					1.40
4.333	1.22	0.10	0.257	0	I					1.44
4.417	1.31	0.10	0.265	0	I					1.48
4.500	1.33	0.10	0.273	0	I					1.52
4.583	1.34	0.10	0.282	0	I					1.56
4.667	1.35	0.11	0.290	0	I					1.61
4.750	1.35	0.11	0.299	0	I					1.65
4.833	1.41	0.11	0.308	0	I					1.69
4.917	1.51	0.11	0.317	0	I					1.74
5.000	1.53	0.11	0.327	0	I					1.79
5.083	1.41	0.11	0.336	0	I					1.83
5.167	1.23	0.12	0.345	0	I					1.87
5.250	1.19	0.12	0.352	0	I					1.91
5.333	1.24	0.12	0.360	0	I					1.94
5.417	1.32	0.12	0.368	0	I					1.98
5.500	1.33	0.12	0.376	0	I					2.02
5.583	1.41	0.12	0.385	0	I					2.06
5.667	1.50	0.12	0.394	0	I					2.10
5.750	1.53	0.12	0.403	0	I					2.15
5.833	1.54	0.13	0.413	0	I					2.19
5.917	1.54	0.13	0.423	0	I					2.24
6.000	1.55	0.13	0.432	0	I					2.28
6.083	1.61	0.13	0.442	0	I					2.33
6.167	1.70	0.13	0.453	0	I					2.37
6.250	1.72	0.13	0.464	0	I					2.42
6.333	1.73	0.14	0.475	0	I					2.47
6.417	1.74	0.14	0.486	0	I					2.52
6.500	1.74	0.14	0.497	0	I					2.57
6.583	1.80	0.14	0.508	0	I					2.62
6.667	1.89	0.14	0.520	0	I					2.67
6.750	1.91	0.14	0.532	0	I					2.72
6.833	1.92	0.14	0.544	0	I					2.77
6.917	1.93	0.15	0.556	0	I					2.82
7.000	1.93	0.15	0.569	0	I					2.88
7.083	1.93	0.15	0.581	0	I					2.93
7.167	1.93	0.15	0.593	0	I					2.98
7.250	1.93	0.85	0.603	0	I					3.02
7.333	1.99	1.57	0.608	0	I					3.04
7.417	2.09	1.87	0.610	0	OI					3.05
7.500	2.11	2.02	0.611	0	OI					3.05
7.583	2.18	2.10	0.612	0	O					3.06
7.667	2.28	2.18	0.613	0	O					3.06
7.750	2.30	2.25	0.613	0	O					3.06
7.833	2.37	2.31	0.614	0	O					3.06
7.917	2.47	2.38	0.614	0	O					3.06
8.000	2.49	2.45	0.615	0	O					3.07
8.083	2.63	2.52	0.615	0	O					3.07

8.167	2.82	2.65	0.616	OI			3.07
8.250	2.86	2.77	0.617	O			3.08
8.333	2.88	2.84	0.617	O			3.08
8.417	2.89	2.87	0.618	O			3.08
8.500	2.90	2.89	0.618	O			3.08
8.583	2.96	2.91	0.618	OI			3.08
8.667	3.05	2.97	0.618	O			3.08
8.750	3.07	3.03	0.619	O			3.08
8.833	3.15	3.08	0.619	OI			3.08
8.917	3.24	3.15	0.620	O			3.09
9.000	3.27	3.22	0.620	O			3.09
9.083	3.40	3.29	0.621	OI			3.09
9.167	3.59	3.42	0.622	O			3.09
9.250	3.64	3.55	0.622	OI			3.10
9.333	3.72	3.63	0.623	O			3.10
9.417	3.82	3.72	0.624	O			3.10
9.500	3.85	3.79	0.624	OI			3.11
9.583	3.92	3.85	0.625	O			3.11
9.667	4.01	3.92	0.625	O			3.11
9.750	4.04	3.99	0.626	OI			3.11
9.833	4.11	4.05	0.626	O			3.11
9.917	4.21	4.12	0.627	O			3.11
10.000	4.23	4.18	0.627	O			3.12
10.083	3.80	4.08	0.626	O			3.11
10.167	3.17	3.69	0.624	O			3.10
10.250	3.02	3.31	0.621	O			3.09
10.333	2.95	3.10	0.619	O			3.09
10.417	2.92	2.99	0.618	O			3.08
10.500	2.90	2.94	0.618	O			3.08
10.583	3.21	3.01	0.619	O			3.08
10.667	3.67	3.29	0.621	O			3.09
10.750	3.78	3.57	0.623	O			3.10
10.833	3.82	3.72	0.624	O			3.10
10.917	3.85	3.79	0.624	O			3.11
11.000	3.86	3.83	0.625	O			3.11
11.083	3.80	3.83	0.624	O			3.11
11.167	3.71	3.78	0.624	O			3.11
11.250	3.69	3.73	0.624	O			3.10
11.333	3.68	3.70	0.624	O			3.10
11.417	3.67	3.68	0.623	O			3.10
11.500	3.67	3.68	0.623	O			3.10
11.583	3.54	3.63	0.623	O			3.10
11.667	3.36	3.52	0.622	O			3.10
11.750	3.32	3.40	0.621	O			3.09
11.833	3.36	3.36	0.621	O			3.09
11.917	3.44	3.39	0.621	O			3.09
12.000	3.46	3.43	0.622	O			3.09
12.083	3.91	3.59	0.623	O			3.10
12.167	4.55	4.00	0.626	O			3.11
12.250	4.71	4.41	0.629	O			3.12
12.333	4.84	4.64	0.630	O			3.13
12.417	4.96	4.81	0.632	O			3.13
12.500	5.00	4.92	0.632	O			3.14
12.583	5.14	5.02	0.633	O			3.14
12.667	5.33	5.16	0.634	O			3.15
12.750	5.37	5.28	0.635	O			3.15
12.833	5.46	5.37	0.636	O			3.15
12.917	5.56	5.46	0.636	O			3.15
13.000	5.58	5.53	0.637	O			3.16
13.083	5.94	5.68	0.638	O			3.16
13.167	6.44	6.01	0.640	O			3.17
13.250	6.57	6.33	0.642	O			3.18
13.333	6.63	6.51	0.644	O			3.18
13.417	6.66	6.60	0.644	O			3.19
13.500	6.69	6.65	0.645	O			3.19
13.583	5.96	6.44	0.643	O			3.18
13.667	4.90	5.78	0.639	O			3.16
13.750	4.64	5.13	0.634	O			3.14
13.833	4.53	4.78	0.631	O			3.13
13.917	4.47	4.60	0.630	O			3.13
14.000	4.44	4.51	0.629	O			3.13
14.083	4.69	4.55	0.630	O			3.13
14.167	5.06	4.76	0.631	O			3.13
14.250	5.15	4.98	0.633	O			3.14
14.333	5.12	5.08	0.633	O			3.14
14.417	5.05	5.08	0.633	O			3.14
14.500	5.04	5.06	0.633	O			3.14
14.583	5.03	5.04	0.633	O			3.14
14.667	5.02	5.03	0.633	O			3.14
14.750	5.02	5.03	0.633	O			3.14
14.833	4.96	5.00	0.633	O			3.14
14.917	4.87	4.95	0.633	O			3.14
15.000	4.85	4.89	0.632	O			3.14
15.083	4.77	4.84	0.632	O			3.14
15.167	4.68	4.77	0.631	O			3.13
15.250	4.65	4.70	0.631	O			3.13

15.333	4.58	4.65	0.630											3.13
15.417	4.48	4.57	0.630											3.13
15.500	4.46	4.51	0.629											3.13
15.583	4.20	4.39	0.629											3.12
15.667	3.83	4.15	0.627											3.12
15.750	3.74	3.91	0.625											3.11
15.833	3.70	3.79	0.624											3.11
15.917	3.68	3.72	0.624											3.10
16.000	3.67	3.69	0.623											3.10
16.083	2.73	3.37	0.621											3.09
16.167	1.36	2.51	0.615											3.07
16.250	1.03	1.66	0.609											3.04
16.333	0.89	1.21	0.606											3.03
16.417	0.81	0.98	0.604											3.02
16.500	0.77	0.86	0.603											3.02
16.583	0.71	0.78	0.603											3.02
16.667	0.62	0.71	0.602											3.02
16.750	0.60	0.64	0.602											3.01
16.833	0.59	0.61	0.601											3.01
16.917	0.58	0.59	0.601											3.01
17.000	0.58	0.59	0.601											3.01
17.083	0.70	0.62	0.601											3.01
17.167	0.89	0.73	0.602											3.02
17.250	0.93	0.85	0.603											3.02
17.333	0.95	0.91	0.603											3.02
17.417	0.96	0.94	0.604											3.02
17.500	0.97	0.95	0.604											3.02
17.583	0.97	0.96	0.604											3.02
17.667	0.97	0.96	0.604											3.02
17.750	0.97	0.97	0.604											3.02
17.833	0.90	0.95	0.604											3.02
17.917	0.81	0.89	0.603											3.02
18.000	0.79	0.83	0.603											3.02
18.083	0.78	0.80	0.603											3.02
18.167	0.78	0.79	0.603											3.02
18.250	0.77	0.78	0.603											3.02
18.333	0.77	0.77	0.602											3.02
18.417	0.77	0.77	0.602											3.02
18.500	0.77	0.77	0.602											3.02
18.583	0.71	0.75	0.602											3.02
18.667	0.62	0.70	0.602											3.02
18.750	0.60	0.64	0.602											3.01
18.833	0.52	0.59	0.601											3.01
18.917	0.43	0.52	0.601											3.01
19.000	0.40	0.45	0.600											3.01
19.083	0.46	0.44	0.600											3.01
19.167	0.54	0.48	0.600											3.01
19.250	0.56	0.53	0.601											3.01
19.333	0.63	0.57	0.601											3.01
19.417	0.73	0.64	0.602											3.01
19.500	0.76	0.71	0.602											3.02
19.583	0.70	0.72	0.602											3.02
19.667	0.62	0.68	0.602											3.02
19.750	0.60	0.63	0.601											3.01
19.833	0.52	0.59	0.601											3.01
19.917	0.43	0.52	0.601											3.01
20.000	0.40	0.45	0.600											3.01
20.083	0.46	0.44	0.600											3.01
20.167	0.54	0.48	0.600											3.01
20.250	0.56	0.53	0.601											3.01
20.333	0.57	0.55	0.601											3.01
20.417	0.58	0.57	0.601											3.01
20.500	0.58	0.57	0.601											3.01
20.583	0.58	0.58	0.601											3.01
20.667	0.58	0.58	0.601											3.01
20.750	0.58	0.58	0.601											3.01
20.833	0.52	0.56	0.601											3.01
20.917	0.43	0.50	0.601											3.01
21.000	0.40	0.45	0.600											3.01
21.083	0.46	0.44	0.600											3.01
21.167	0.54	0.48	0.600											3.01
21.250	0.56	0.53	0.601											3.01
21.333	0.51	0.53	0.601											3.01
21.417	0.42	0.49	0.600											3.01
21.500	0.40	0.44	0.600											3.01
21.583	0.46	0.43	0.600											3.01
21.667	0.54	0.48	0.600											3.01
21.750	0.56	0.53	0.601											3.01
21.833	0.51	0.53	0.601											3.01
21.917	0.42	0.49	0.600											3.01
22.000	0.40	0.44	0.600											3.01
22.083	0.46	0.43	0.600											3.01
22.167	0.54	0.48	0.600											3.01
22.250	0.56	0.53	0.601											3.01
22.333	0.51	0.53	0.601											3.01
22.417	0.42	0.49	0.600											3.01

22.500	0.40	0.44	0.600	IO					3.01
22.583	0.39	0.41	0.600	O					3.01
22.667	0.39	0.40	0.600	O					3.01
22.750	0.39	0.39	0.600	O					3.01
22.833	0.39	0.39	0.600	O					3.01
22.917	0.39	0.39	0.600	O					3.01
23.000	0.39	0.39	0.600	O					3.01
23.083	0.39	0.39	0.600	O					3.01
23.167	0.39	0.39	0.600	O					3.01
23.250	0.39	0.39	0.600	O					3.01
23.333	0.39	0.39	0.600	O					3.01
23.417	0.39	0.39	0.600	O					3.01
23.500	0.39	0.39	0.600	O					3.01
23.583	0.39	0.39	0.600	O					3.01
23.667	0.39	0.39	0.600	O					3.01
23.750	0.39	0.39	0.600	O					3.01
23.833	0.39	0.39	0.600	O					3.01
23.917	0.39	0.39	0.600	O					3.01
24.000	0.39	0.39	0.600	O					3.01
24.083	0.26	0.35	0.599	O					3.01
24.167	0.08	0.23	0.599	IO					3.00
24.250	0.03	0.15	0.598	O					3.00
24.333	0.02	0.15	0.597	O					2.99
24.417	0.01	0.15	0.596	O					2.99
24.500	0.00	0.15	0.595	O					2.99
24.583	0.00	0.15	0.594	O					2.98
24.667	0.00	0.15	0.593	O					2.98
24.750	0.00	0.15	0.592	O					2.97
24.833	0.00	0.15	0.591	O					2.97
24.917	0.00	0.15	0.590	O					2.96
25.000	0.00	0.15	0.589	O					2.96
25.083	0.00	0.15	0.588	O					2.96
25.167	0.00	0.15	0.587	O					2.95
25.250	0.00	0.15	0.586	O					2.95
25.333	0.00	0.15	0.585	O					2.94
25.417	0.00	0.15	0.584	O					2.94
25.500	0.00	0.15	0.583	O					2.93
25.583	0.00	0.15	0.582	O					2.93
25.667	0.00	0.15	0.580	O					2.93
25.750	0.00	0.15	0.579	O					2.92
25.833	0.00	0.15	0.578	O					2.92
25.917	0.00	0.15	0.577	O					2.91
26.000	0.00	0.15	0.576	O					2.91
26.083	0.00	0.15	0.575	O					2.90
26.167	0.00	0.15	0.574	O					2.90
26.250	0.00	0.15	0.573	O					2.90
26.333	0.00	0.15	0.572	O					2.89
26.417	0.00	0.15	0.571	O					2.89
26.500	0.00	0.15	0.570	O					2.88
26.583	0.00	0.15	0.569	O					2.88
26.667	0.00	0.15	0.568	O					2.87
26.750	0.00	0.15	0.567	O					2.87
26.833	0.00	0.15	0.566	O					2.87
26.917	0.00	0.15	0.565	O					2.86
27.000	0.00	0.15	0.564	O					2.86
27.083	0.00	0.15	0.563	O					2.85
27.167	0.00	0.15	0.562	O					2.85
27.250	0.00	0.15	0.561	O					2.84
27.333	0.00	0.15	0.560	O					2.84
27.417	0.00	0.15	0.559	O					2.84
27.500	0.00	0.15	0.558	O					2.83
27.583	0.00	0.15	0.557	O					2.83
27.667	0.00	0.15	0.556	O					2.82
27.750	0.00	0.15	0.555	O					2.82
27.833	0.00	0.14	0.554	O					2.81
27.917	0.00	0.14	0.553	O					2.81
28.000	0.00	0.14	0.552	O					2.81
28.083	0.00	0.14	0.551	O					2.80
28.167	0.00	0.14	0.550	O					2.80
28.250	0.00	0.14	0.549	O					2.79
28.333	0.00	0.14	0.548	O					2.79
28.417	0.00	0.14	0.547	O					2.79
28.500	0.00	0.14	0.546	O					2.78
28.583	0.00	0.14	0.545	O					2.78
28.667	0.00	0.14	0.544	O					2.77
28.750	0.00	0.14	0.543	O					2.77
28.833	0.00	0.14	0.542	O					2.76
28.917	0.00	0.14	0.541	O					2.76
29.000	0.00	0.14	0.540	O					2.76
29.083	0.00	0.14	0.539	O					2.75
29.167	0.00	0.14	0.538	O					2.75
29.250	0.00	0.14	0.537	O					2.74
29.333	0.00	0.14	0.536	O					2.74
29.417	0.00	0.14	0.535	O					2.74
29.500	0.00	0.14	0.534	O					2.73
29.583	0.00	0.14	0.533	O					2.73

29.667	0.00	0.14	0.532	0	2.72
29.750	0.00	0.14	0.532	0	2.72
29.833	0.00	0.14	0.531	0	2.71
29.917	0.00	0.14	0.530	0	2.71
30.000	0.00	0.14	0.529	0	2.71
30.083	0.00	0.14	0.528	0	2.70
30.167	0.00	0.14	0.527	0	2.70
30.250	0.00	0.14	0.526	0	2.69
30.333	0.00	0.14	0.525	0	2.69
30.417	0.00	0.14	0.524	0	2.69
30.500	0.00	0.14	0.523	0	2.68
30.583	0.00	0.14	0.522	0	2.68
30.667	0.00	0.14	0.521	0	2.67
30.750	0.00	0.14	0.520	0	2.67
30.833	0.00	0.14	0.519	0	2.66
30.917	0.00	0.14	0.518	0	2.66
31.000	0.00	0.14	0.517	0	2.66
31.083	0.00	0.14	0.516	0	2.65
31.167	0.00	0.14	0.515	0	2.65
31.250	0.00	0.14	0.514	0	2.64
31.333	0.00	0.14	0.513	0	2.64
31.417	0.00	0.14	0.512	0	2.63
31.500	0.00	0.14	0.511	0	2.63
31.583	0.00	0.14	0.510	0	2.63
31.667	0.00	0.14	0.509	0	2.62
31.750	0.00	0.14	0.508	0	2.62
31.833	0.00	0.14	0.507	0	2.61
31.917	0.00	0.14	0.506	0	2.61
32.000	0.00	0.14	0.505	0	2.61
32.083	0.00	0.14	0.504	0	2.60
32.167	0.00	0.14	0.503	0	2.60
32.250	0.00	0.14	0.502	0	2.59
32.333	0.00	0.14	0.502	0	2.59
32.417	0.00	0.14	0.501	0	2.58
32.500	0.00	0.14	0.500	0	2.58
32.583	0.00	0.14	0.499	0	2.58
32.667	0.00	0.14	0.498	0	2.57
32.750	0.00	0.14	0.497	0	2.57
32.833	0.00	0.14	0.496	0	2.56
32.917	0.00	0.14	0.495	0	2.56
33.000	0.00	0.14	0.494	0	2.55
33.083	0.00	0.14	0.493	0	2.55
33.167	0.00	0.14	0.492	0	2.55
33.250	0.00	0.14	0.491	0	2.54
33.333	0.00	0.14	0.490	0	2.54
33.417	0.00	0.14	0.489	0	2.53
33.500	0.00	0.14	0.488	0	2.53
33.583	0.00	0.14	0.487	0	2.53
33.667	0.00	0.14	0.486	0	2.52
33.750	0.00	0.14	0.485	0	2.52
33.833	0.00	0.14	0.484	0	2.51
33.917	0.00	0.14	0.484	0	2.51
34.000	0.00	0.14	0.483	0	2.50
34.083	0.00	0.14	0.482	0	2.50
34.167	0.00	0.14	0.481	0	2.50
34.250	0.00	0.14	0.480	0	2.49
34.333	0.00	0.14	0.479	0	2.49
34.417	0.00	0.14	0.478	0	2.48
34.500	0.00	0.14	0.477	0	2.48
34.583	0.00	0.14	0.476	0	2.48
34.667	0.00	0.14	0.475	0	2.47
34.750	0.00	0.14	0.474	0	2.47
34.833	0.00	0.13	0.473	0	2.46
34.917	0.00	0.13	0.472	0	2.46
35.000	0.00	0.13	0.471	0	2.46
35.083	0.00	0.13	0.470	0	2.45
35.167	0.00	0.13	0.470	0	2.45
35.250	0.00	0.13	0.469	0	2.44
35.333	0.00	0.13	0.468	0	2.44
35.417	0.00	0.13	0.467	0	2.43
35.500	0.00	0.13	0.466	0	2.43
35.583	0.00	0.13	0.465	0	2.43
35.667	0.00	0.13	0.464	0	2.42
35.750	0.00	0.13	0.463	0	2.42
35.833	0.00	0.13	0.462	0	2.41
35.917	0.00	0.13	0.461	0	2.41
36.000	0.00	0.13	0.460	0	2.41
36.083	0.00	0.13	0.459	0	2.40
36.167	0.00	0.13	0.458	0	2.40
36.250	0.00	0.13	0.458	0	2.39
36.333	0.00	0.13	0.457	0	2.39
36.417	0.00	0.13	0.456	0	2.39
36.500	0.00	0.13	0.455	0	2.38
36.583	0.00	0.13	0.454	0	2.38
36.667	0.00	0.13	0.453	0	2.37
36.750	0.00	0.13	0.452	0	2.37

36.833	0.00	0.13	0.451	0	2.37
36.917	0.00	0.13	0.450	0	2.36
37.000	0.00	0.13	0.449	0	2.36
37.083	0.00	0.13	0.448	0	2.35
37.167	0.00	0.13	0.448	0	2.35
37.250	0.00	0.13	0.447	0	2.35
37.333	0.00	0.13	0.446	0	2.34
37.417	0.00	0.13	0.445	0	2.34
37.500	0.00	0.13	0.444	0	2.33
37.583	0.00	0.13	0.443	0	2.33
37.667	0.00	0.13	0.442	0	2.33
37.750	0.00	0.13	0.441	0	2.32
37.833	0.00	0.13	0.440	0	2.32
37.917	0.00	0.13	0.439	0	2.31
38.000	0.00	0.13	0.439	0	2.31
38.083	0.00	0.13	0.438	0	2.31
38.167	0.00	0.13	0.437	0	2.30
38.250	0.00	0.13	0.436	0	2.30
38.333	0.00	0.13	0.435	0	2.29
38.417	0.00	0.13	0.434	0	2.29
38.500	0.00	0.13	0.433	0	2.28
38.583	0.00	0.13	0.432	0	2.28
38.667	0.00	0.13	0.431	0	2.28
38.750	0.00	0.13	0.430	0	2.27
38.833	0.00	0.13	0.430	0	2.27
38.917	0.00	0.13	0.429	0	2.26
39.000	0.00	0.13	0.428	0	2.26
39.083	0.00	0.13	0.427	0	2.26
39.167	0.00	0.13	0.426	0	2.25
39.250	0.00	0.13	0.425	0	2.25
39.333	0.00	0.13	0.424	0	2.24
39.417	0.00	0.13	0.423	0	2.24
39.500	0.00	0.13	0.423	0	2.24
39.583	0.00	0.13	0.422	0	2.23
39.667	0.00	0.13	0.421	0	2.23
39.750	0.00	0.13	0.420	0	2.22
39.833	0.00	0.13	0.419	0	2.22
39.917	0.00	0.13	0.418	0	2.22
40.000	0.00	0.13	0.417	0	2.21
40.083	0.00	0.13	0.416	0	2.21
40.167	0.00	0.13	0.416	0	2.20
40.250	0.00	0.13	0.415	0	2.20
40.333	0.00	0.13	0.414	0	2.20
40.417	0.00	0.13	0.413	0	2.19
40.500	0.00	0.13	0.412	0	2.19
40.583	0.00	0.13	0.411	0	2.18
40.667	0.00	0.13	0.410	0	2.18
40.750	0.00	0.13	0.409	0	2.18
40.833	0.00	0.13	0.409	0	2.17
40.917	0.00	0.13	0.408	0	2.17
41.000	0.00	0.13	0.407	0	2.16
41.083	0.00	0.13	0.406	0	2.16
41.167	0.00	0.13	0.405	0	2.16
41.250	0.00	0.13	0.404	0	2.15
41.333	0.00	0.12	0.403	0	2.15
41.417	0.00	0.12	0.403	0	2.14
41.500	0.00	0.12	0.402	0	2.14
41.583	0.00	0.12	0.401	0	2.14
41.667	0.00	0.12	0.400	0	2.13
41.750	0.00	0.12	0.399	0	2.13
41.833	0.00	0.12	0.398	0	2.12
41.917	0.00	0.12	0.397	0	2.12
42.000	0.00	0.12	0.397	0	2.12
42.083	0.00	0.12	0.396	0	2.11
42.167	0.00	0.12	0.395	0	2.11
42.250	0.00	0.12	0.394	0	2.11
42.333	0.00	0.12	0.393	0	2.10
42.417	0.00	0.12	0.392	0	2.10
42.500	0.00	0.12	0.391	0	2.09
42.583	0.00	0.12	0.391	0	2.09
42.667	0.00	0.12	0.390	0	2.09
42.750	0.00	0.12	0.389	0	2.08
42.833	0.00	0.12	0.388	0	2.08
42.917	0.00	0.12	0.387	0	2.07
43.000	0.00	0.12	0.386	0	2.07
43.083	0.00	0.12	0.386	0	2.07
43.167	0.00	0.12	0.385	0	2.06
43.250	0.00	0.12	0.384	0	2.06
43.333	0.00	0.12	0.383	0	2.05
43.417	0.00	0.12	0.382	0	2.05
43.500	0.00	0.12	0.381	0	2.05
43.583	0.00	0.12	0.380	0	2.04
43.667	0.00	0.12	0.380	0	2.04
43.750	0.00	0.12	0.379	0	2.04
43.833	0.00	0.12	0.378	0	2.03
43.917	0.00	0.12	0.377	0	2.03

44.000	0.00	0.12	0.376	0	2.02
44.083	0.00	0.12	0.375	0	2.02
44.167	0.00	0.12	0.375	0	2.02
44.250	0.00	0.12	0.374	0	2.01
44.333	0.00	0.12	0.373	0	2.01
44.417	0.00	0.12	0.372	0	2.01
44.500	0.00	0.12	0.371	0	2.00
44.583	0.00	0.12	0.371	0	2.00
44.667	0.00	0.12	0.370	0	1.99
44.750	0.00	0.12	0.369	0	1.99
44.833	0.00	0.12	0.368	0	1.99
44.917	0.00	0.12	0.367	0	1.98
45.000	0.00	0.12	0.366	0	1.98
45.083	0.00	0.12	0.366	0	1.97
45.167	0.00	0.12	0.365	0	1.97
45.250	0.00	0.12	0.364	0	1.97
45.333	0.00	0.12	0.363	0	1.96
45.417	0.00	0.12	0.362	0	1.96
45.500	0.00	0.12	0.361	0	1.95
45.583	0.00	0.12	0.361	0	1.95
45.667	0.00	0.12	0.360	0	1.95
45.750	0.00	0.12	0.359	0	1.94
45.833	0.00	0.12	0.358	0	1.94
45.917	0.00	0.12	0.357	0	1.93
46.000	0.00	0.12	0.357	0	1.93
46.083	0.00	0.12	0.356	0	1.93
46.167	0.00	0.12	0.355	0	1.92
46.250	0.00	0.12	0.354	0	1.92
46.333	0.00	0.12	0.353	0	1.91
46.417	0.00	0.12	0.353	0	1.91
46.500	0.00	0.12	0.352	0	1.91
46.583	0.00	0.12	0.351	0	1.90
46.667	0.00	0.12	0.350	0	1.90
46.750	0.00	0.12	0.349	0	1.90
46.833	0.00	0.12	0.349	0	1.89
46.917	0.00	0.12	0.348	0	1.89
47.000	0.00	0.12	0.347	0	1.88
47.083	0.00	0.12	0.346	0	1.88
47.167	0.00	0.12	0.345	0	1.88
47.250	0.00	0.12	0.345	0	1.87
47.333	0.00	0.12	0.344	0	1.87
47.417	0.00	0.12	0.343	0	1.86
47.500	0.00	0.11	0.342	0	1.86
47.583	0.00	0.11	0.341	0	1.86
47.667	0.00	0.11	0.341	0	1.85
47.750	0.00	0.11	0.340	0	1.85
47.833	0.00	0.11	0.339	0	1.84
47.917	0.00	0.11	0.338	0	1.84
48.000	0.00	0.11	0.337	0	1.84
48.083	0.00	0.11	0.337	0	1.83
48.167	0.00	0.11	0.336	0	1.83
48.250	0.00	0.11	0.335	0	1.83
48.333	0.00	0.11	0.334	0	1.82
48.417	0.00	0.11	0.334	0	1.82
48.500	0.00	0.11	0.333	0	1.81
48.583	0.00	0.11	0.332	0	1.81
48.667	0.00	0.11	0.331	0	1.81
48.750	0.00	0.11	0.330	0	1.80
48.833	0.00	0.11	0.330	0	1.80
48.917	0.00	0.11	0.329	0	1.80
49.000	0.00	0.11	0.328	0	1.79
49.083	0.00	0.11	0.327	0	1.79
49.167	0.00	0.11	0.327	0	1.78
49.250	0.00	0.11	0.326	0	1.78
49.333	0.00	0.11	0.325	0	1.78
49.417	0.00	0.11	0.324	0	1.77
49.500	0.00	0.11	0.323	0	1.77
49.583	0.00	0.11	0.323	0	1.77
49.667	0.00	0.11	0.322	0	1.76
49.750	0.00	0.11	0.321	0	1.76
49.833	0.00	0.11	0.320	0	1.75
49.917	0.00	0.11	0.320	0	1.75
50.000	0.00	0.11	0.319	0	1.75
50.083	0.00	0.11	0.318	0	1.74
50.167	0.00	0.11	0.317	0	1.74
50.250	0.00	0.11	0.317	0	1.74
50.333	0.00	0.11	0.316	0	1.73
50.417	0.00	0.11	0.315	0	1.73
50.500	0.00	0.11	0.314	0	1.72
50.583	0.00	0.11	0.314	0	1.72
50.667	0.00	0.11	0.313	0	1.72
50.750	0.00	0.11	0.312	0	1.71
50.833	0.00	0.11	0.311	0	1.71
50.917	0.00	0.11	0.311	0	1.71
51.000	0.00	0.11	0.310	0	1.70
51.083	0.00	0.11	0.309	0	1.70

51.167	0.00	0.11	0.308	0					1.70
51.250	0.00	0.11	0.308	0					1.69
51.333	0.00	0.11	0.307	0					1.69
51.417	0.00	0.11	0.306	0					1.68
51.500	0.00	0.11	0.305	0					1.68
51.583	0.00	0.11	0.305	0					1.68
51.667	0.00	0.11	0.304	0					1.67
51.750	0.00	0.11	0.303	0					1.67
51.833	0.00	0.11	0.302	0					1.67
51.917	0.00	0.11	0.302	0					1.66
52.000	0.00	0.11	0.301	0					1.66
52.083	0.00	0.11	0.300	0					1.66
52.167	0.00	0.11	0.299	0					1.65
52.250	0.00	0.11	0.299	0					1.65
52.333	0.00	0.11	0.298	0					1.64
52.417	0.00	0.11	0.297	0					1.64
52.500	0.00	0.11	0.296	0					1.64
52.583	0.00	0.11	0.296	0					1.63
52.667	0.00	0.11	0.295	0					1.63
52.750	0.00	0.11	0.294	0					1.63
52.833	0.00	0.11	0.293	0					1.62
52.917	0.00	0.11	0.293	0					1.62
53.000	0.00	0.11	0.292	0					1.61
53.083	0.00	0.11	0.291	0					1.61
53.167	0.00	0.11	0.291	0					1.61
53.250	0.00	0.11	0.290	0					1.60
53.333	0.00	0.11	0.289	0					1.60
53.417	0.00	0.11	0.288	0					1.60
53.500	0.00	0.11	0.288	0					1.59
53.583	0.00	0.10	0.287	0					1.59
53.667	0.00	0.10	0.286	0					1.58
53.750	0.00	0.10	0.285	0					1.58
53.833	0.00	0.10	0.285	0					1.58
53.917	0.00	0.10	0.284	0					1.57
54.000	0.00	0.10	0.283	0					1.57
54.083	0.00	0.10	0.283	0					1.57
54.167	0.00	0.10	0.282	0					1.56
54.250	0.00	0.10	0.281	0					1.56
54.333	0.00	0.10	0.280	0					1.56
54.417	0.00	0.10	0.280	0					1.55
54.500	0.00	0.10	0.279	0					1.55
54.583	0.00	0.10	0.278	0					1.54
54.667	0.00	0.10	0.278	0					1.54
54.750	0.00	0.10	0.277	0					1.54
54.833	0.00	0.10	0.276	0					1.53
54.917	0.00	0.10	0.276	0					1.53
55.000	0.00	0.10	0.275	0					1.53
55.083	0.00	0.10	0.274	0					1.52
55.167	0.00	0.10	0.273	0					1.52
55.250	0.00	0.10	0.273	0					1.52
55.333	0.00	0.10	0.272	0					1.51
55.417	0.00	0.10	0.271	0					1.51
55.500	0.00	0.10	0.271	0					1.51
55.583	0.00	0.10	0.270	0					1.50
55.667	0.00	0.10	0.269	0					1.50
55.750	0.00	0.10	0.268	0					1.49
55.833	0.00	0.10	0.268	0					1.49
55.917	0.00	0.10	0.267	0					1.49
56.000	0.00	0.10	0.266	0					1.48
56.083	0.00	0.10	0.266	0					1.48
56.167	0.00	0.10	0.265	0					1.48
56.250	0.00	0.10	0.264	0					1.47
56.333	0.00	0.10	0.264	0					1.47
56.417	0.00	0.10	0.263	0					1.47
56.500	0.00	0.10	0.262	0					1.46
56.583	0.00	0.10	0.262	0					1.46

Remaining water in basin = 0.26 (Ac.Ft)

*****HYDROGRAPH DATA*****
Number of intervals = 679
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 6.647 (CFS)
Total volume = 3.734 (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

Section 5

Riverside County Plates

RUNOFF INDEX NUMBERS OF HYDROLOGIC SOIL-COVER COMPLEXES FOR PERVIOUS AREAS-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group			
		A	B	C	D
<u>NATURAL COVERS -</u>					
Barren (Rockland, eroded and graded land)		78	86	91	93
Chaparrel, Broadleaf (Manzonita, ceanothus and scrub oak)	Poor	53	70	80	85
	Fair	40	63	75	81
	Good	31	57	71	78
Chaparrel, Narrowleaf (Chamise and redshank)	Poor	71	82	88	91
	Fair	55	72	81	86
Grass, Annual or Perennial	Poor	67	78	86	89
	Fair	50	69	79	84
	Good	38	61	74	80
Meadows or Cienegas (Areas with seasonally high water table, principal vegetation is sod forming grass)	Poor	63	77	85	88
	Fair	51	70	80	84
	Good	30	58	72	78
Open Brush (Soft wood shrubs - buckwheat, sage, etc.)	Poor	62	76	84	88
	Fair	46	66	77	83
	Good	41	63	75	81
Woodland (Coniferous or broadleaf trees predominate. Canopy density is at least 50 percent)	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	28	55	70	77
Woodland, Grass (Coniferous or broadleaf trees with canopy density from 20 to 50 percent)	Poor	57	73	82	86
	Fair	44	65	77	82
	Good	33	58	72	79
<u>URBAN COVERS -</u>					
Residential or Commercial Landscaping (Lawn, shrubs, etc.)	Good	32	56	69	75
Turf (Irrigated and mowed grass)	Poor	58	74	83	87
	Fair	44	65	77	82
	Good	33	58	72	79
<u>AGRICULTURAL COVERS -</u>					
Fallow (Land plowed but not tilled or seeded)		76	85	90	92

RCFC & WCD
HYDROLOGY MANUAL

RUNOFF INDEX NUMBERS
FOR
PERVIOUS AREA

ACTUAL IMPERVIOUS COVER

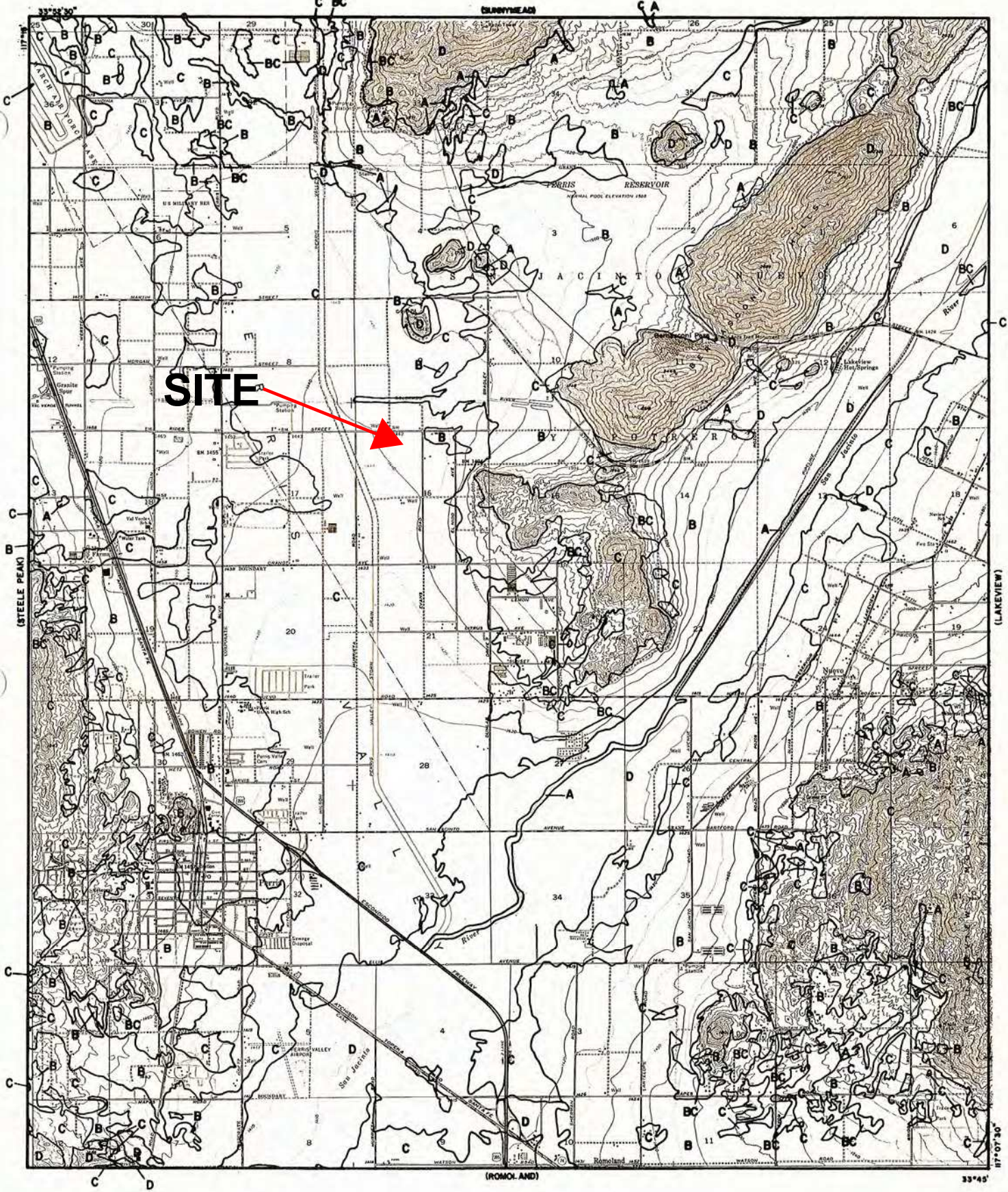
Land Use (1)	Range-Percent	Recommended Value For Average Conditions-Percent (2)
Natural or Agriculture	0 - 10	0
Single Family Residential: (3)		
40,000 S. F. (1 Acre) Lots	10 - 25	20
20,000 S. F. (½ Acre) Lots	30 - 45	40
7,200 - 10,000 S. F. Lots	45 - 55	50
Multiple Family Residential:		
Condominiums	45 - 70	65
Apartments	65 - 90	80
Mobile Home Park	60 - 85	75
Commercial, Downtown Business or Industrial	80 -100	90

Notes:

1. Land use should be based on ultimate development of the watershed. Long range master plans for the County and incorporated cities should be reviewed to insure reasonable land use assumptions.
2. Recommended values are based on average conditions which may not apply to a particular study area. The percentage impervious may vary greatly even on comparable sized lots due to differences in dwelling size, improvements, etc. Landscape practices should also be considered as it is common in some areas to use ornamental gravels underlain by impervious plastic materials in place of lawns and shrubs. A field investigation of a study area should always be made, and a review of aerial photos, where available may assist in estimating the percentage of impervious cover in developed areas.
3. For typical horse ranch subdivisions increase impervious area 5 percent over the values recommended in the table above.

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HYDROLOGY MANUAL

**IMPERVIOUS COVER
FOR
DEVELOPED AREAS**



SITE



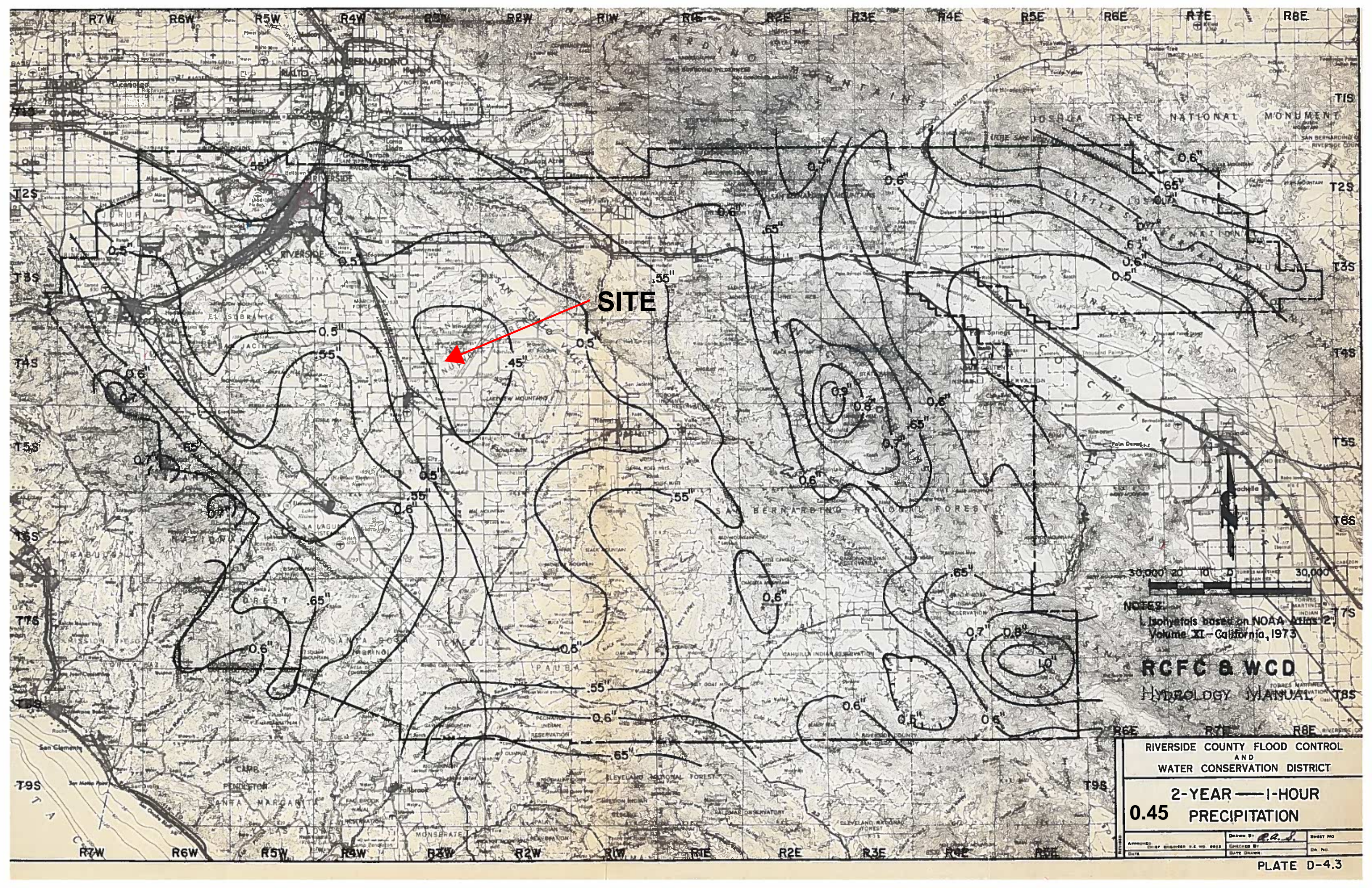
LEGEND

- SOILS GROUP BOUNDARY
- A SOILS GROUP DESIGNATION

RCFC & WCD
HYDROLOGY MANUAL



HYDROLOGIC SOILS GROUP MAP
FOR
C
TYPE
PERRIS



SITE

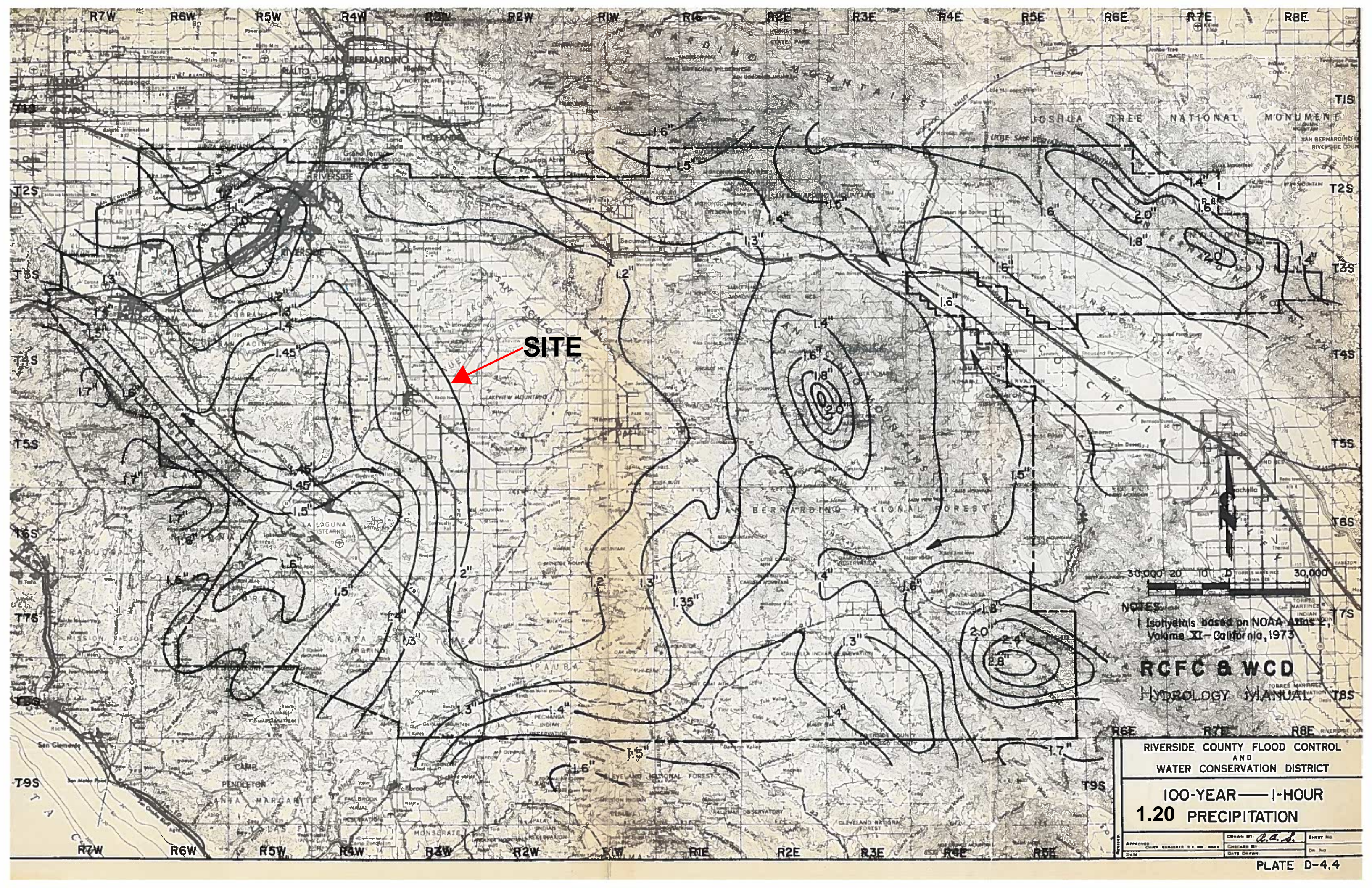
NOTES:
 Isohyets based on NOAA Atlas 2,
 Volume XI - California, 1973

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 HYDROLOGY MANUAL

RIVERSIDE COUNTY FLOOD CONTROL
 AND
 WATER CONSERVATION DISTRICT

**2-YEAR — 1-HOUR
 0.45 PRECIPITATION**

APPROVED	DATE	ENGINEER	NO. 0022	DRAWN BY	DATE	SHEET NO.



SITE

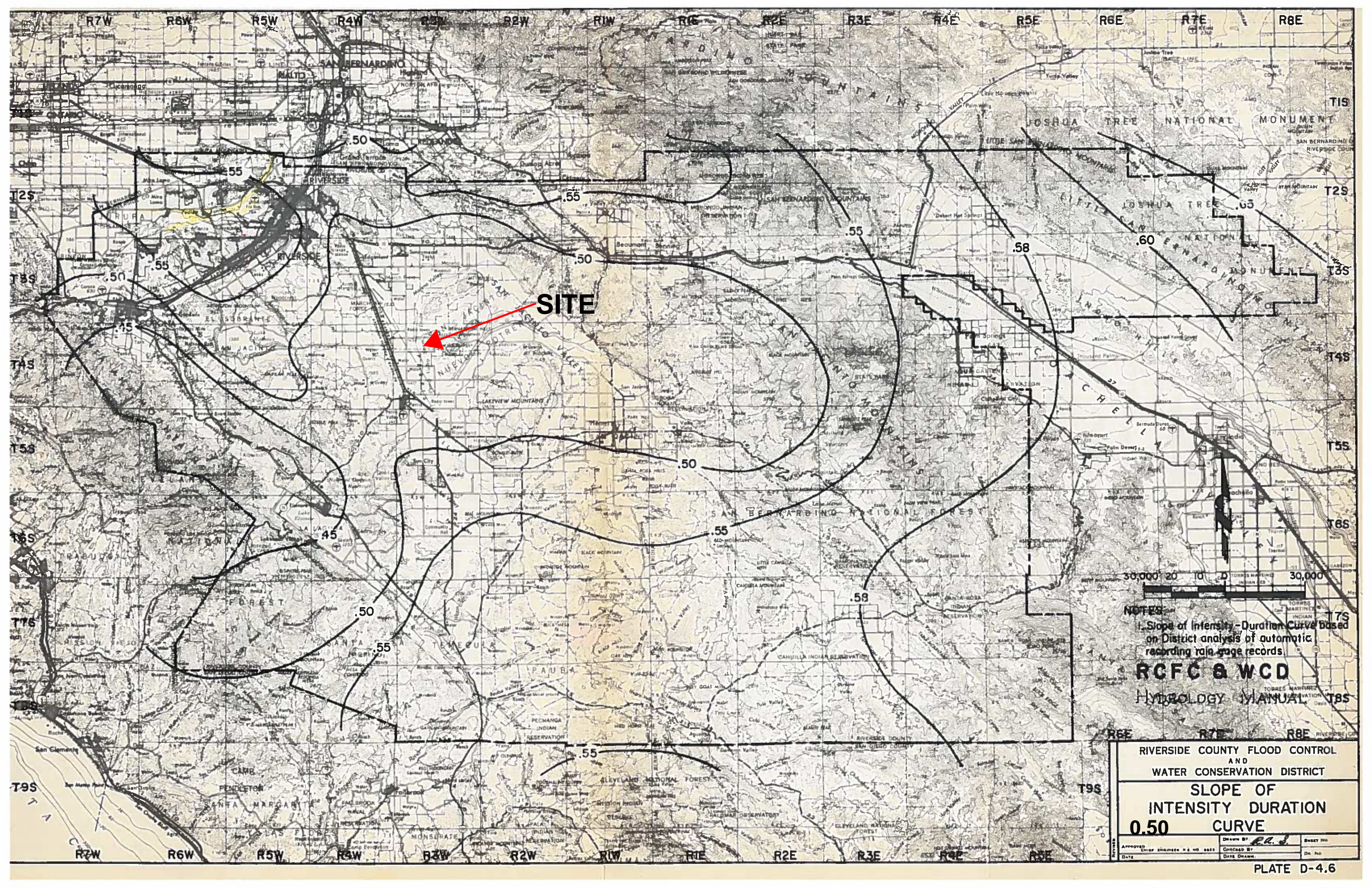
NOTES:
 1 Isohyets based on NOAA Atlas 14, Volume XI - California, 1973

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 HYDROLOGY MANUAL

RIVERSIDE COUNTY FLOOD CONTROL
 AND
 WATER CONSERVATION DISTRICT

**100-YEAR — 1-HOUR
 1.20 PRECIPITATION**

APPROVED	CHIEF ENGINEER	DATE	DRAWN BY	SHEET NO.
			<i>R.A.S.</i>	
			CHECKED BY	DATE



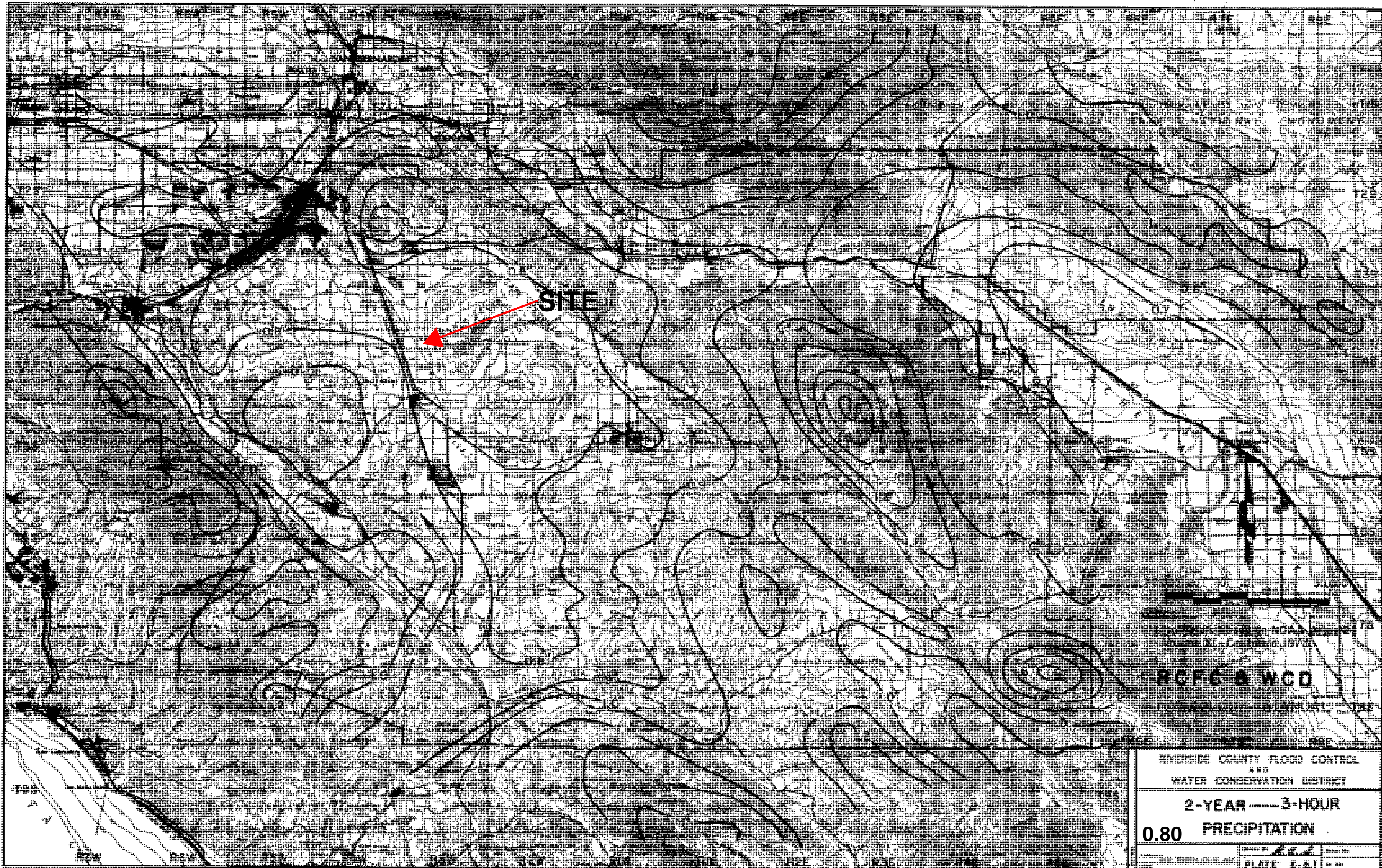
SITE



NOTES
 1. Slope of Intensity-Duration Curve Based on District analysis of automatic recording rain gage records.

RCFC & WCD
 HYDROLOGY MANUAL

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		
SLOPE OF INTENSITY DURATION CURVE		
0.50		
APPROVED	DRAWN BY	SHEET NO.
CHIEF ENGINEER R. E. NO. 6663	<i>R. E. J.</i>	
DATE	CHECKED BY	DR. NO.
	DATE DRAWN	



SITE



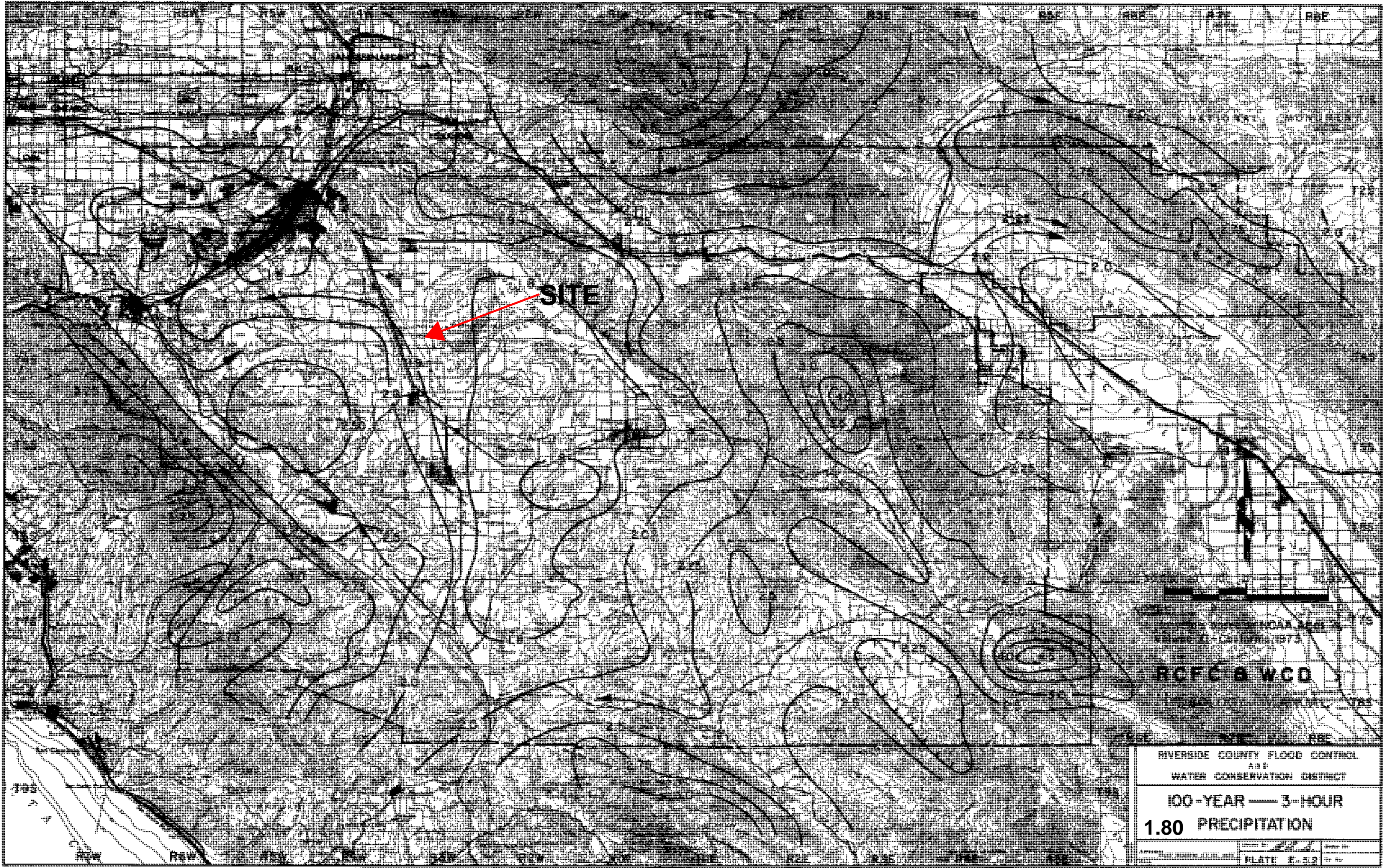
Map data based on NOAA NAD 83 datum
and UTM projection, 1983

RCFC & WCD

RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

**2-YEAR — 3-HOUR
0.80 PRECIPITATION**

PLATE E-1



SITE

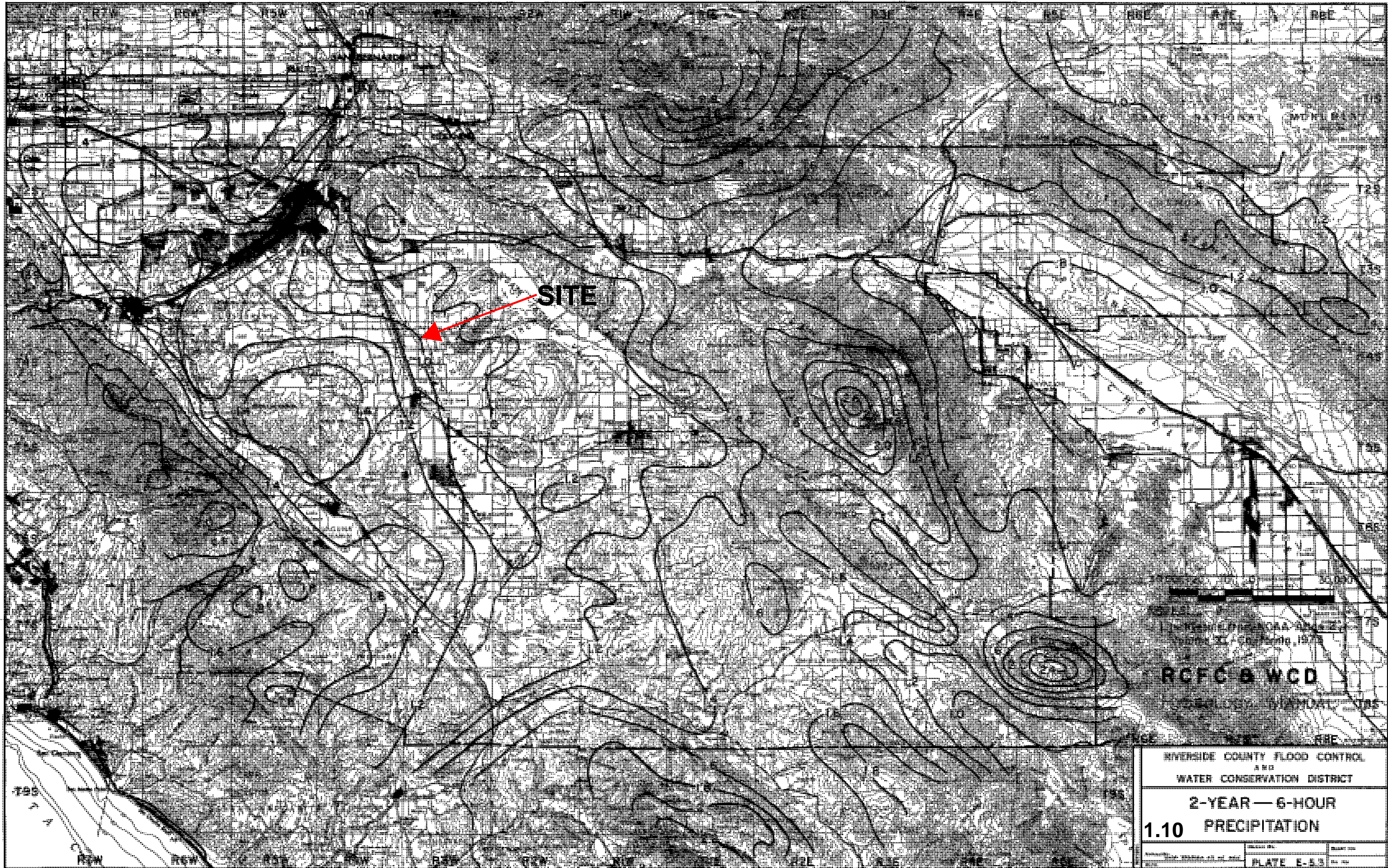
U.S. GEOLOGICAL SURVEY
WASHINGTON, D.C. 20506
1975

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RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

**100-YEAR — 3-HOUR
1.80 PRECIPITATION**

PLATE E-52



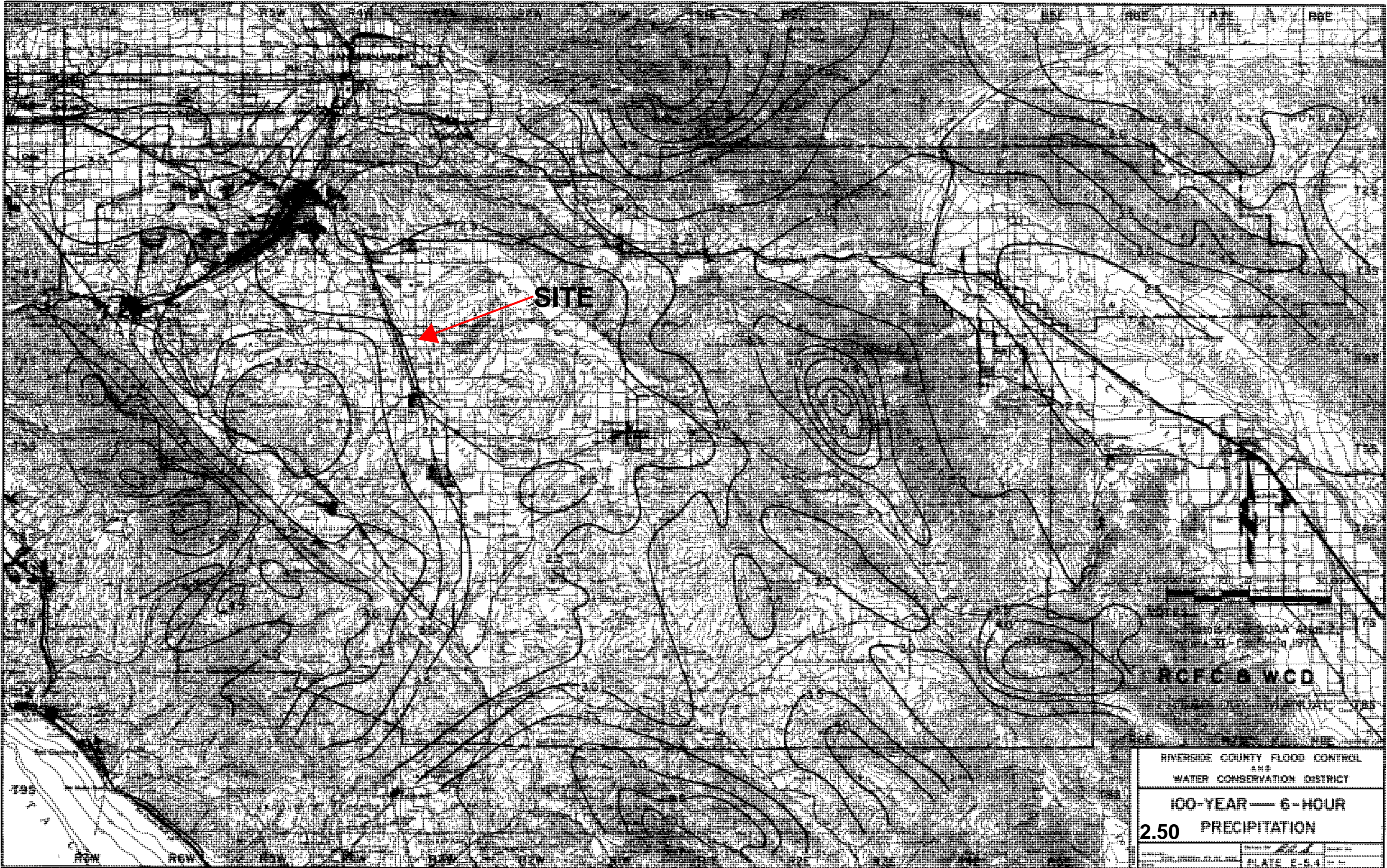
SITE

RCFC & WCD

RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

2-YEAR — 6-HOUR
1.10 PRECIPITATION

PLATE E-53



SITE



Scale: 1 inch = 1000 feet
Vertical Datum: Mean Sea Level
Horizontal Datum: NAD 83

RCFC & WCD

RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

100-YEAR — 6-HOUR
2.50 PRECIPITATION

PLATE E-5.4

SITE



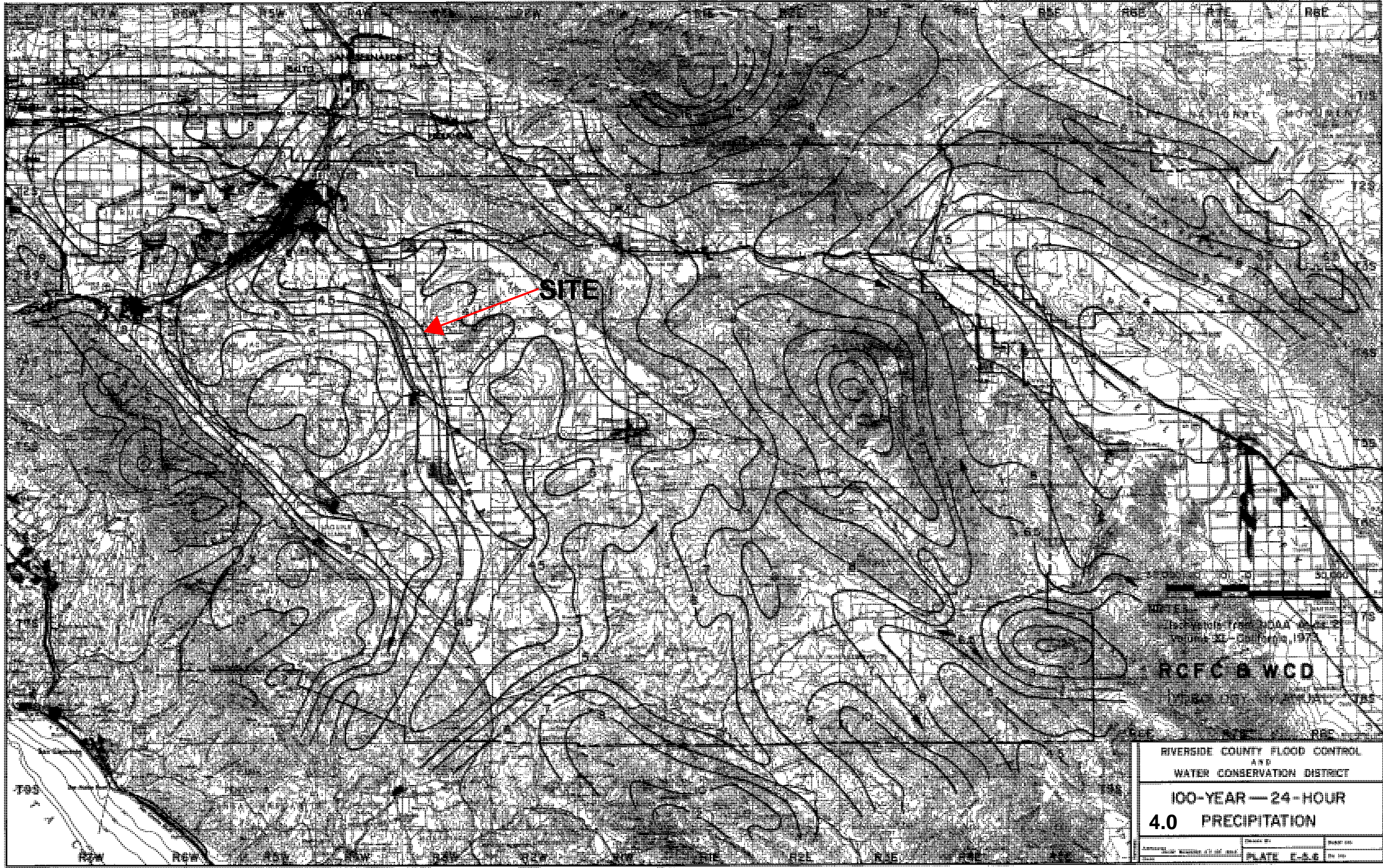
Map of Riverside County, California, 1973
Volume XI, California, 1973

RCFC & WCD

RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

**2-YEAR — 24-HOUR
1.60 PRECIPITATION**

PLATE E-22



SITE

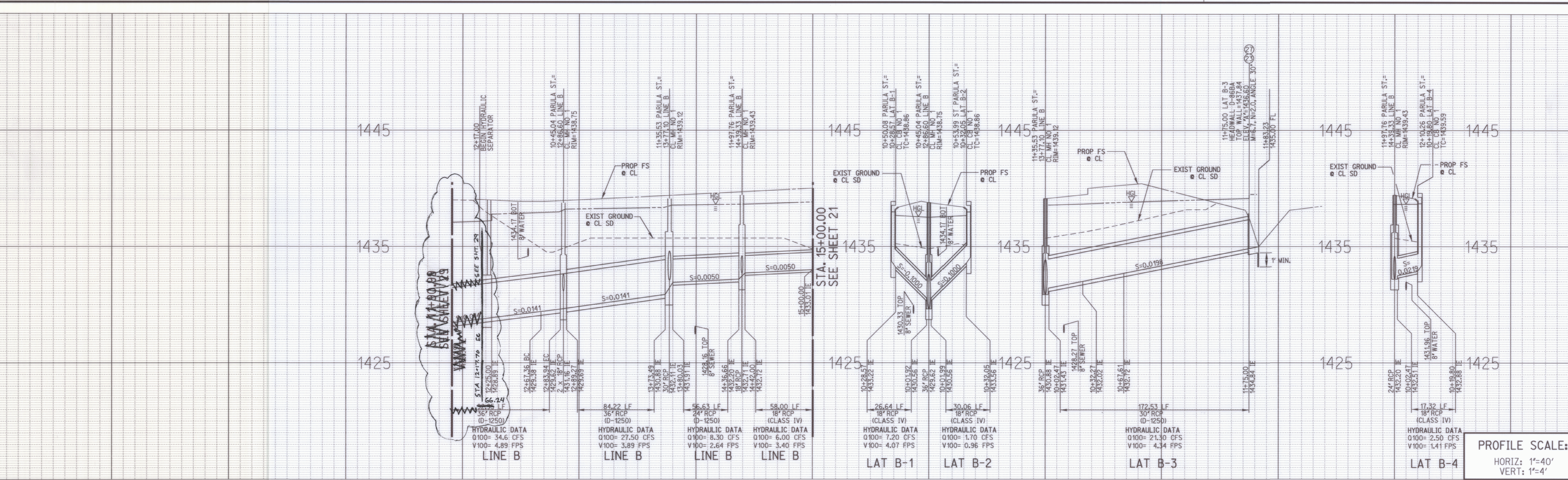
U.S. GEOLOGICAL SURVEY
Topographic Maps
Scale 1:25,000

RCFC & WCD

RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

**100-YEAR — 24-HOUR
4.0 PRECIPITATION**

PLATE E-5-B

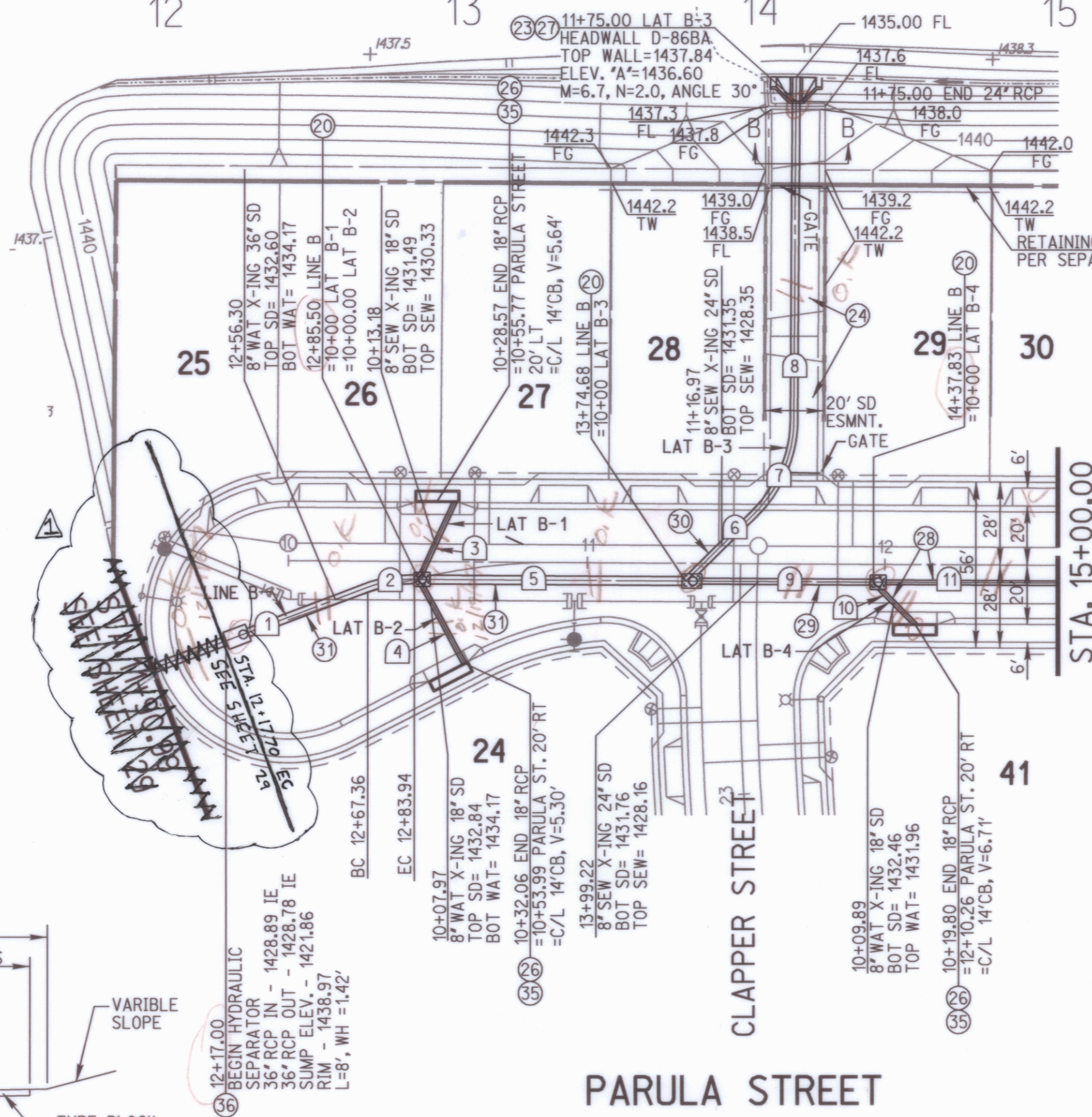


PROFILE SCALE:
 HORIZ: 1"=40'
 VERT: 1"=4'

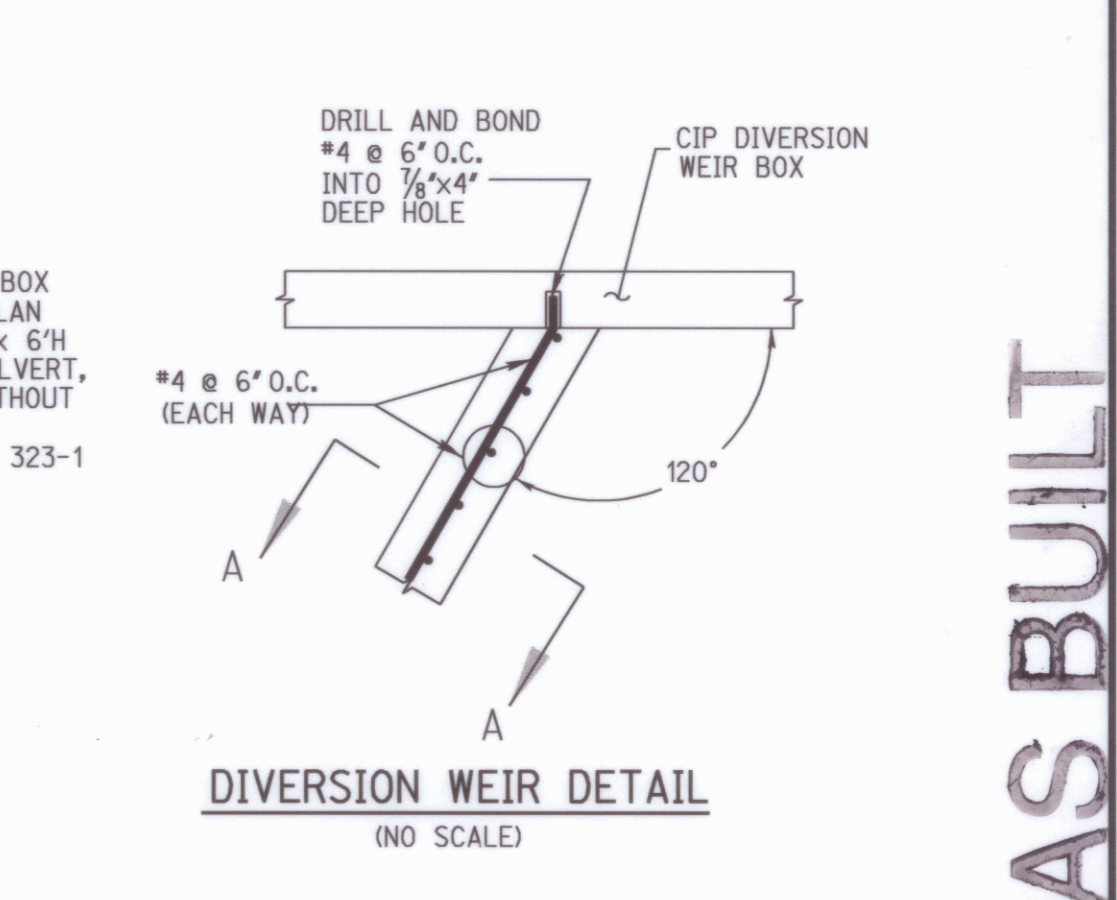
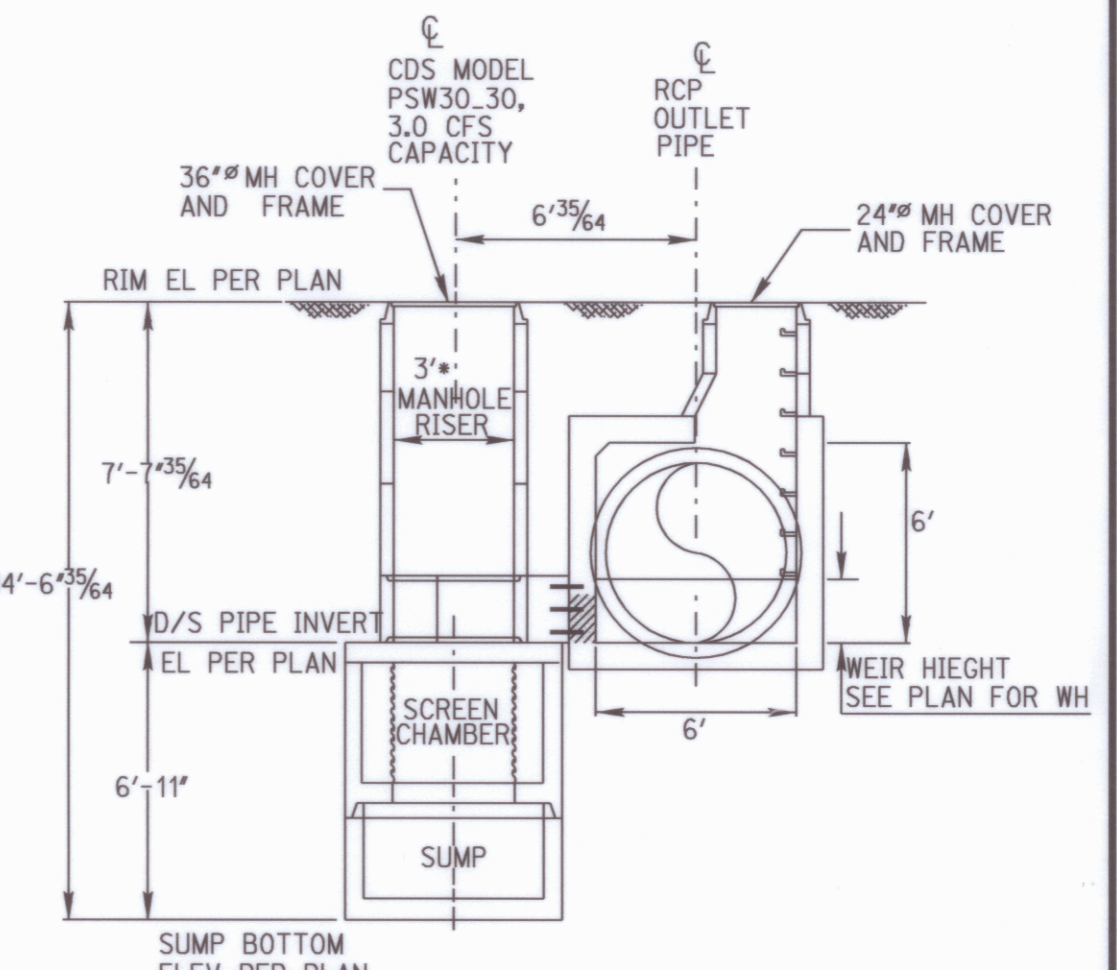
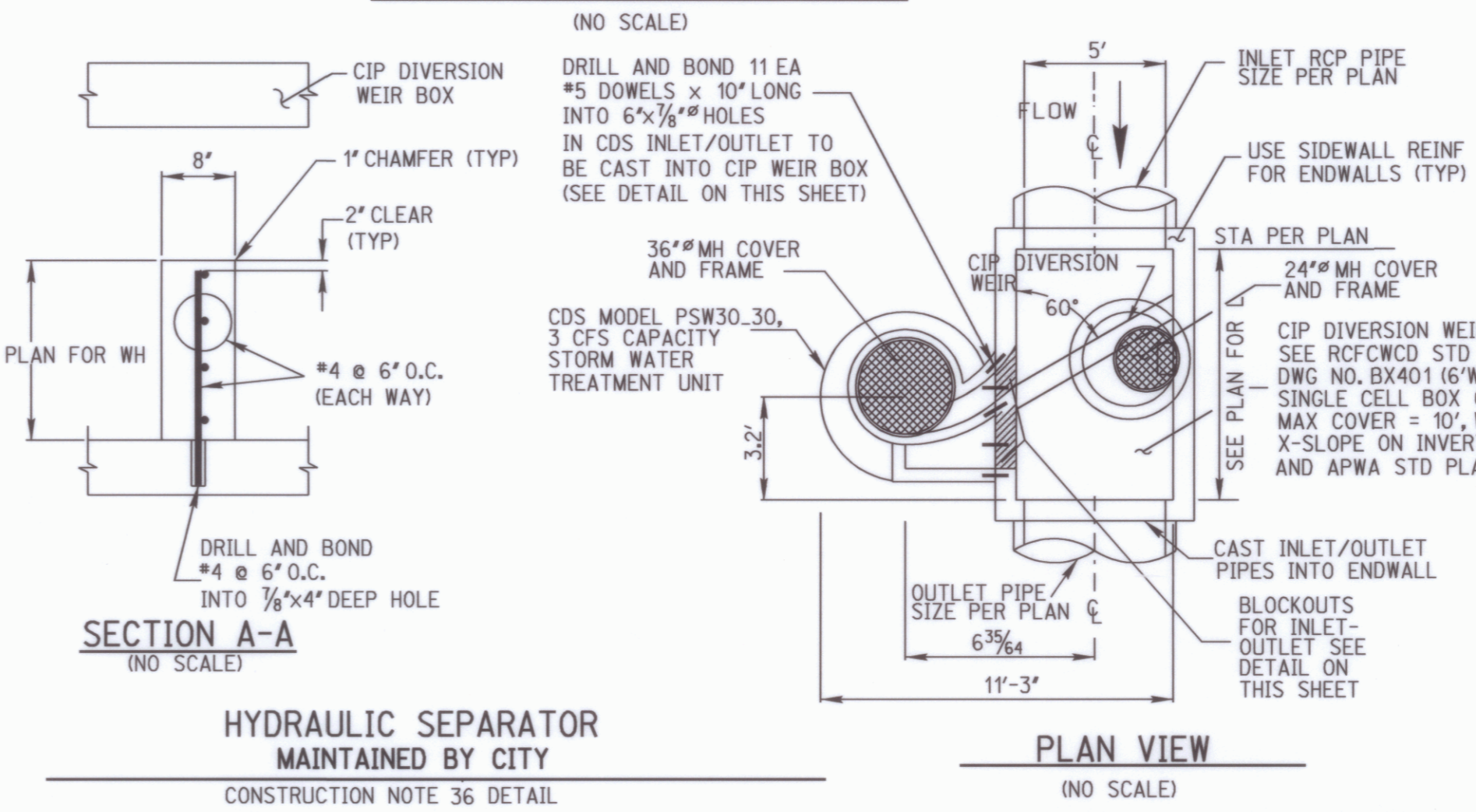
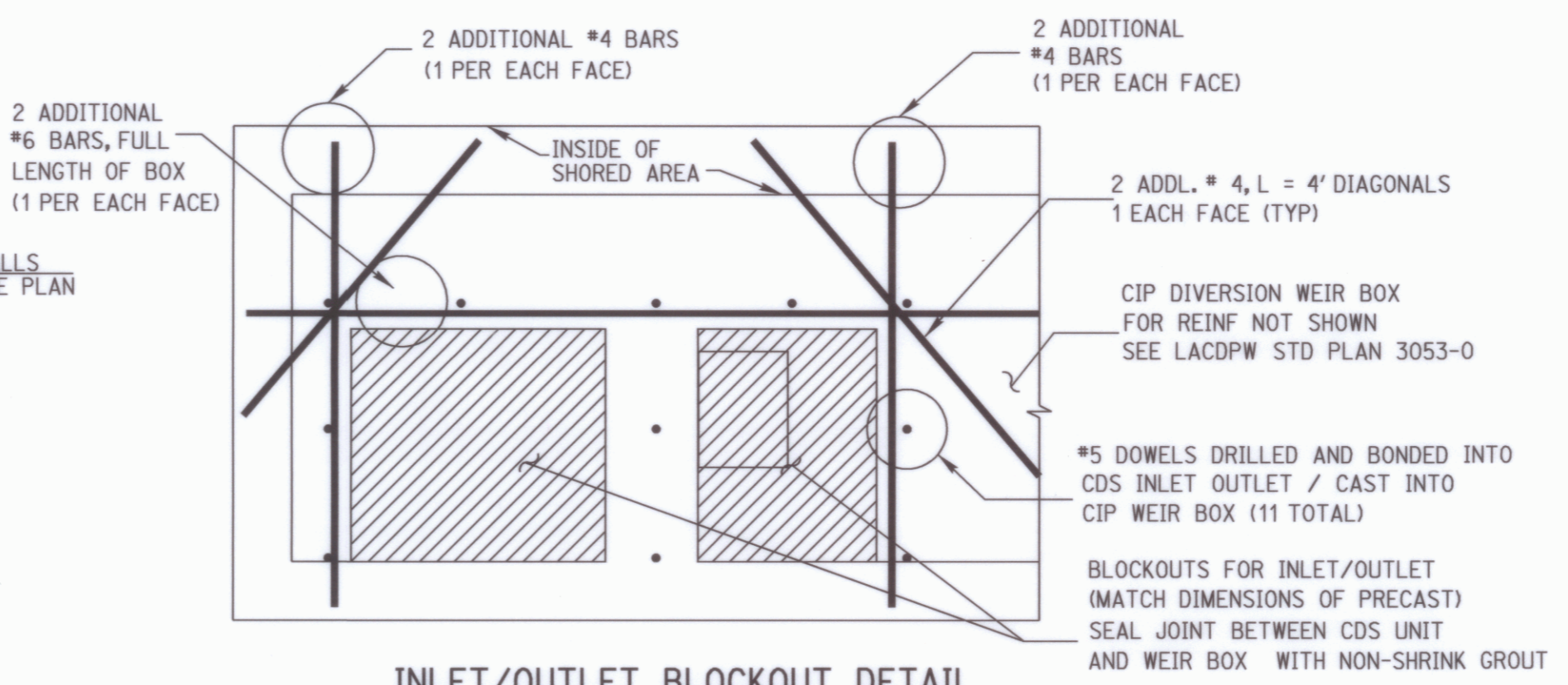
CONSTRUCTION NOTES

- 20 CONSTRUCT MANHOLE NO. 1 PER RCFC & WCD STD DWG. NO MH251.
- 23 INSTALL TRASH RACK PER APWA STD. 361-0.
- 24 INSTALL TURFBLOCK.
- 26 CONSTRUCT GUTTER DEPRESSION PER RIV CO STD NO. 311, CASE B.
- 27 CONSTRUCT HEADWALL CAL-TRANS D-86BA
- 28 PLACE 18" RCP (CL-IV).
- 29 PLACE 24" RCP (CL-IV).
- 30 PLACE 30" RCP (D-LOAD) PER PLAN.
- 31 PLACE 36" RCP (D-LOAD) PER PLAN.
- 35 CONSTRUCT CATCH BASIN NO. 1 PER RCFC & WCD STD CB100.
- 36 INSTALL HYDRAULIC SEPARATOR PER CDS UNIT PSW 30 OR EQUIVALENT SEE DETAIL THIS SHEET

STORM DRAIN DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	TANGENT
1	N 69°16'50" E		42.36'	
2	Δ=21°06'24"	45.00'	16.58'	
3	N 24°51'36" E		29.12'	
4	N 28°13'14" W		32.06'	
5	N 89°36'50" W		89.18'	
6	N 45°23'10" E		32.27'	
7	Δ=45°00'00"	45.00'	35.34'	
8	N 00°23'10" E		110.02'	
9	N 89°36'50" W		63.15'	
10	N 44°36'50" W		19.80'	
11	N 89°36'50" W		62.19'	



SECTION B-B
(NO SCALE)



DIG ALERT

CALL BEFORE YOU DIG!

1-800-227-2600
 UNDERGROUND SERVICE ALERT
 Call at least 2 working days prior to excavating.

REGISTERED PROFESSIONAL ENGINEER
 EDWARD MICHEL RATCANO
 No. 46804
 Exp. 6-30-07
 CIVIL
 STATE OF CALIFORNIA

RELOCATE LINE B

DESIGNED BY: MN & RS
 DRAWN BY: MN
 CHECKED BY: EMR

DATE: 6/2/05

RICK ENGINEERING COMPANY

San Diego Riverside Orange Phoenix Tucson
 1223 University Ave., Ste. 240 - Riverside, CA 92507-3418 - (951)782-0707 - FAX (951)782-0723 - www.rickeng.com

PREPARED UNDER THE DIRECTION OF:
 EDWARD MICHEL RATCANO, P.E., 46804
 REGISTRATION EXPIRES 6-30-07

CITY OF PERRIS

APPROVED BY: [Signature]

CITY ENGINEER, THE CITY OF PERRIS

BENCH MARK:
 SEE SHEET 1

SCALE:
 H: 1"=40'
 V: 1"=4'

CITY OF PERRIS

STREET IMPROVEMENT PLANS
 TRACT 31416
 STORM DRAIN LINE B,
 LAT B-1, B-2, B-3, B-4, B-5

20 OF 33 SHEETS
 FILE NO. P8-674

W.O. 14399 FOR: KB HOME COASTAL INC F.B.

PLOT DATE: 21-JUN-2005 JN 14399

AS BUILT