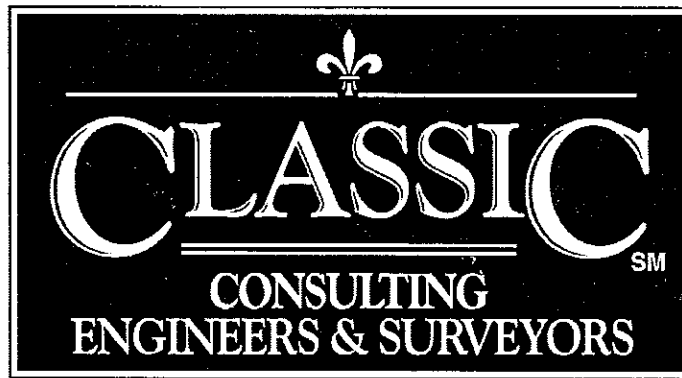


FILE IN MDDP'S



**DRAINAGE REPORT
FOR
CHAPEL HILLS NO. 1
FACILITY MODIFICATIONS**

DECEMBER 2002

PREPARED FOR:

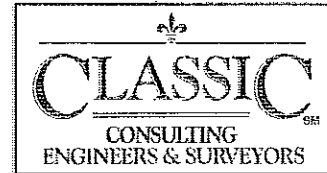
**LP47, LLC DBA LAPLATA INVESTMENTS
2315 BRIARGATE PARKWAY, SUITE 100
COLORADO SPRINGS, CO 80920**

PREPARED BY:

**CLASSIC CONSULTING ENGINEERS & SURVEYORS, LLC
6385 CORPORATE DRIVE, SUITE 304
COLORADO SPRINGS, CO 80919**

2041.00

**RETURN WITHIN 2 WEEKS TO:
CITY OF COLORADO SPRINGS
SUBDIVISION ENGINEERING
1500 SOUTH NEVADA AVE., SUITE 702
COLORADO SPRINGS, CO 80903
(303) 585-5979**




**DRAINAGE REPORT FOR
CHAPEL HILLS NO. 1 DETENTION FACILITY**

DRAINAGE REPORT STATEMENT

ENGINEER'S STATEMENT:

The attached drainage plan and report were prepared under my direction and supervision and are correct to the best of my knowledge and belief. Said drainage report has been prepared according to the criteria established by the City for drainage reports and said report is in conformity with the master plan of the drainage basin. I accept responsibility for any liability caused by any negligent acts, errors, or omissions on my part in preparing this report.



Kyle K. Campbell, Colorado P.E. #29794

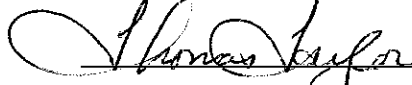
4/26/03

Date

DEVELOPER'S STATEMENT:

I, the developer, have read and will comply with all of the requirements specified in this drainage report and plan.

Business Name: LP47, LLC dba La Plata Investments

By: 

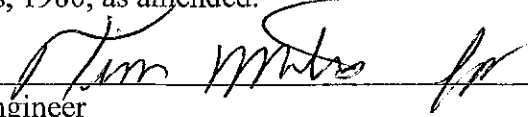
Title: Dir. of Dev.

Address: 2315 Briargate Parkway, Suite 100

Colorado Springs, CO 80920

CITY OF COLORADO SPRINGS ONLY:

Filed in accordance with Section 15-3-906 of the Code of the City of Colorado Springs, 1980, as amended.



City Engineer

MAY 9, 2003

Date

Conditions:

STATE OF COLORADO

OFFICE OF THE STATE ENGINEER

Division of Water Resources
Department of Natural Resources

1313 Sherman Street, Room 818
Denver, Colorado 80203
Phone (303) 866-3581
FAX (303) 866-3589
www.water.state.co.us

March 14, 2003



Bill Owens
Governor
Greg E. Walcher
Executive Director
Hal D. Simpson, P.E.
State Engineer

Mr. Kyle R. Campbell, P.E.
Classic Consulting Engineers and Surveyors
6385 Corporate Drive, Suite 304
Colorado Springs, CO 80919

When replying, please refer to:
CHAPEL HILLS NO. 1 DAM
Construction File Number: C-1613A
Water Division 2, DAMID: 100406

SUBJECT: Approval of Plans and Specifications for Construction

Dear Mr. Campbell:

Thank you for submitting the construction plans and the Notice of Intent for conversion of the existing Chapel Hills No. 1 flood control dam in Colorado Springs to a non-jurisdictional structure. We have completed our review of the documents and have found them to be acceptable for construction. Our acceptance and approval of these documents is effective as of the date of this letter. The existing dam has a hazard classification of Class III, but, as noted in your report, the classification was in question due to development immediately downstream of the dam. Conversion of the existing dam to non-jurisdictional size will maintain the Class III status of the structure.

Please submit a full set of "As-Constructed" drawings on mylar, signed and stamped by the engineer of record, and one set of signed and stamped blue-line drawings, upon completion of construction. Final acceptance of the construction will be contingent upon our receipt and acceptance of the "As-Constructed" drawings, as described in Rule 6.A.(3)(a) of the *Colorado Rules and Regulations for Dam Safety and Dam Construction*. This project has been assigned a construction file number of C-1613A. This number should be added to the lower right-hand corner of each sheet of the "As-Constructed" drawings and should be referenced in all correspondence pertaining to this project.

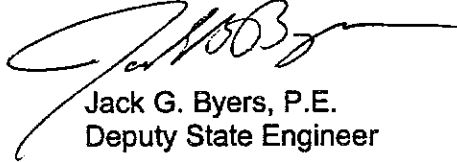
Please keep Mr. Garrett Jackson of our Pueblo office (719) 542-3368 Ext. 118 informed of your construction schedule and progress. If you have any questions concerning the filing of "As-Constructed" drawings or any other matter pertaining to dam safety, please contact Mr. Jackson.

Mr. Kyle R. Campbell, P.E.
March 14, 2003

Page 2

We look forward to working with you on this construction project and to achieving a successful completion of the proposed modifications to the dam and appurtenant structures.

Sincerely,



Jack G. Byers, P.E.
Deputy State Engineer

xc: Steve Witte, Division Engineer, Pueblo
Garrett Jackson, Dam Safety Engineer
Eddie Taylor, District 10 Water Commissioner
Gary R. Haynes, City of Colorado Springs

JGB/DB/G.J/gld:c:word/damsafety/Chapel Hills Approval of Plans 3-02.doc



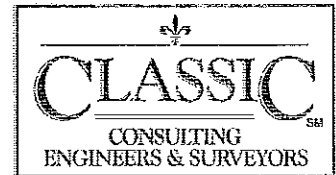
DRAINAGE REPORT FOR CHAPEL HILLS NO. 1 DETENTION FACILITY

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EXISTING DRAINAGE CONDITIONS	Page 1
CURRENT DRAINAGE CHARACTERISTICS	Page 2
PROPOSED DRAINAGE CHARACTERISTICS	Page 5
FLOODPLAIN STATEMENT	Page 6
CONSTRUCTION COST OPINION	Page 6
SUMMARY	Page 7
REFERENCES	Page 8

APPENDICES

VICINITY MAP
SOILS MAP (S.C.S. SURVEY)
F.E.M.A. MAP
HYDRAULIC CALCULATIONS
HYDROLOGIC CALCULATIONS
DRAINAGE MAP



PURPOSE

This document is the Drainage Report for Chapel Hills No. 1 Detention Facility Modifications. The purpose of this report is to reanalyze the developed drainage basins tributary to the Chapel Hills No. 1 Detention Facility, to verify existing drainage facilities, and to provide a design alternative for the existing detention facility.

GENERAL DESCRIPTION

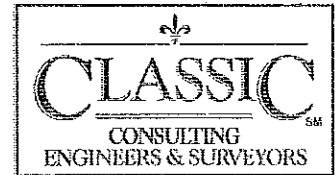
The Chapel Hills Detention Pond is a 9.3 acre site located in the north half of Section 4, Township 13 South, Range 66 West of the Sixth Principal Meridian in the City of Colorado Springs, County of El Paso, State of Colorado. The site is bounded on the north by Wedgewood at Briargate Filing No. 5, to the south by Trafalger Drive, to the east by Trafalger Point Filing No. 1, and to the west by Briargate Subdivision Filing No 43.

The average soil condition reflects Hydrologic Group "A" (Blakeland) as determined by the "Soil Survey of El Paso County Area," prepared by the Soil Conservation Service (see map in Appendix).

EXISTING DRAINAGE CONDITIONS

The site is located within the Cottonwood Creek Drainage Basin. This site was studied by URS Greiner in the "Cottonwood Creek Drainage Basin Planning Study" dated June 1994. According to this study, an area of approximately 319 acres is tributary to the detention pond. The DBPS accounts for approximately 797 cfs inflow to the pond, with a 100 year release rate of 138 cfs, resulting in a 32 ac-ft required storage volume.

The detention facility was designed to have a volume capacity of 47.7 ac-ft, with a maximum water surface elevation at 6608.30 for the 100 year event. The existing embankment of the pond is at an approximate elevation of 6614, with an emergency

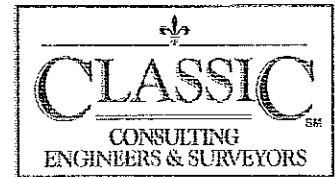


spillway located at the northwest side of the pond. An existing drop inlet structure with a 36" RCP storm pipe at approximately 1.38% conveys flows westerly from the pond to an existing outlet structure, and then southerly by way of an existing 48" RCP storm pipe at approximately 4.88%. Flows in the 48" RCP storm pipe are conveyed southerly across Trafalger Drive into the existing Briargate Subdivision Filing No. 20. The emergency overflow from the existing Chapel Hills No.1 Pond was designed to be conveyed over the spillway and along the Briargate Subdivision Filing No. 43 easterly boundary to ultimately cross Trafalger Drive into Briargate Subdivision Filing No. 20.

Chapel Hills No. 1 Detention Facility, as constructed, is currently classified as a "Jurisdictional Dam" as defined by the Colorado State Department of Natural Resources in "The Rules and Regulations for Dam Safety and Dam Construction." The definition states that a "jurisdictional dam is a dam.... which exceeds 10 feet in height measured vertically from the elevation of the lowest point of the natural surface of the ground water that point occurs along the longitudinal centerline of the dam up to the flowline crest of the emergency spillway of the dam. This is the only criteria that requires its classification as a jurisdictional facility. The current classification is being questioned by the State and intent of this report is to be able to substantiate its reclassification as a non-jurisdictional facility.

CURRENT DRAINAGE CHARACTERISTICS

Currently, developed flows from Gatehouse Village at Briargate Filing No. 11, Gatehouse Village at Briargate Filing No. 4, Union Town Center West, Briargate Subdivision Filing No. 50, Windjammer at Briargate Filing No. 4, Briargate Subdivision No. 39, Cypress Ridge Filing Nos. 1, Wedgewood at Briargate Filing No. 5, as well as a portion of undeveloped open space to the north east of the pond site are all tributary to the Chapel Hills No. 1 Pond and collectively account for approximately 254 acres (See enclosed Drainage Map). The total acreage within the reach of the Trafalger Detention Pond differs from the acreage presented in the



DBPS due to deviations in the actual final design and construction of the aforementioned sites. Final Drainage Reports and constructed storm systems were researched and analyzed to determine actual conditions as presented in the following:

Union Town Center Subdivision No. 1 is an existing commercial site, currently under construction. A portion of the developed runoff from this site, as well as developed runoff from Union Boulevard, is conveyed to an existing on-site 3 ac-ft detention facility. An equivalent area tributary to this pond is approximately 25.1 acres. Outflow from this pond is conveyed by way of an existing 30" RCP storm pipe through the Union Town Center site and into an existing storm system in Research Parkway. Developed flows from the westerly portion of Union Town Center are conveyed southerly into existing onsite storm systems and are routed into the existing storm system in Research Parkway.

Gatehouse Village at Briargate Filing No. 11 and Filing No. 4 are developed single family residential areas. A portion of Gatehouse Village at Briargate Filing No. 4, approximately 24.80 acres, drains northwesterly into an existing 48" RCP storm system in Union Boulevard. The majority of Gatehouse Village at Briargate Filing No. 11, 11.20 acres, drains southwesterly into the existing 42" storm system in Union Boulevard. Flows from Gatehouse Village at Briargate Filing Nos. 11 and 4, as well as the discharge from Union Town Center combine with existing flows in the storm system in Research Parkway and are conveyed westerly along Research Parkway to the intersection at Lexington Drive. An existing 36" RCP storm pipe at approximately 7.0% routes the flows southerly along Lexington Drive.

Briargate Subdivision Filing No. 50 is an existing apartment site. The east half of the site, approximately 8.70 acres, drains southerly to an existing storm system in Parliament Drive. Flows are then routed into the existing 48" RCP storm pipe in Lexington Drive. In addition to Briargate Subdivision Filing No. 50, a large portion (approximately 47.71 acres) of Windjammer at Briargate Filing No. 4, a single-family residential site, drains westerly into the existing storm system at the



intersection of Parliament Drive and Lexington Drive. The combination of flows from Briargate Subdivision Filing No. 50 and Windjammer at Briargate Filing No. 4 are routed southerly in the existing 48" RCP storm outfall in Lexington Drive.

The west half of Briargate Subdivision Filing No. 50 drains to an outfall point in the southwesterly corner of the site, along with street flows from London Fog Drive. Flows are intercepted at the intersection of London Fog Drive and Parliament Drive and are routed southerly via an existing natural drainage channel.

The southerly portion of Windjammer at Briargate Filing No. 4, approximately 7.0 acres, outfalls westerly into the existing 48" RCP storm system in Lexington Drive. Flows in the existing 48" RCP storm system are conveyed into an existing concrete lined trapezoidal channel.

Briargate Subdivision Filing No. 39 is approximately 8.30 acres and is an existing church site. Developed flows from this site are conveyed southerly and ultimately outfall into the existing concrete channel.

Cypress Ridge Filing No. 1, 28.89 acres, is a single family residential subdivision. Developed flows from this site, along with approximately 47.78 acres of existing undeveloped flows in the open space/park area, are collected and conveyed into the existing natural drainage channel and are ultimately conveyed into the Chapel Hills No. 1 Detention Pond.

Wedgewood at Briargate Filing No. 5, 33.60 acres, is a single family residential subdivision. Developed runoff from this subdivision is collected and conveyed southerly to an outfall point in the existing Chapel Hills No. 1 Detention Pond.

The amount of developed flows from the previously mentioned sites actually within the reach of the Chapel Hills No. 1 Detention Pond is $Q_{100} = 480$ cfs. There is a significant variation in pond inflow compared to what was presented in the DBPS



(total inflow $Q_{100} = 797$ cfs). An important factor in this variation is the configuration of the existing storm system at the intersection of Summerset Drive and Parliament Drive. The capacity of the existing inlets located at that intersection will only allow the 5 year event from the existing Wedgewood Subdivision to be collected and conveyed to the existing Trafalger Pond, while the 100 year storm event is forced by the high point in Summerset Drive to be conveyed westerly along Parliament Drive to downstream facilities. This 100-year "overflow" condition is acknowledged in numerous drainage reports and downstream facilities were sized to accept the flows. The DBPS failed to address the field conditions. Another significant reduction in flows tributary to the Chapel Hills No. 1 Detention Pond is due to the capacity of the existing storm system in Research Boulevard. Because of these storm pipe capacity issues, the previously mentioned detention facility in Union Town Center Subdivision No.1 was constructed, but was not accounted for in the DBPS.

PROPOSED DETENTION FACILITIES

In accordance with the findings of this report, a new configuration for the Chapel Hills No. 1 Detention Pond is being proposed. Regrading of the existing pond site will lower the existing pond embankment elevation from approximately 6614 to elevation 6578. A proposed rip-rap channel will route the flows from the existing pond which is proposed to become a water quality detention facility forebay into the proposed pond. The proposed 15' wide pond embankment will be at elevation 6578, with a 34' emergency overflow weir at elevation 6576. The required storage volume of the pond is 12.015 ac-ft for the 100 year event. The actual design storage volume of the proposed detention pond is 16.007 ac-ft (maximum 100 year event water surface elevation 6576.00), which can accommodate the 5 year, 100 year, and the majority of the 100 year emergency event.

The existing pond outfall structures and storm pipes will be removed from the existing pond to the existing manhole, and replaced with a new outfall storm system. The allowable outflow for the Chapel Hills No. 1 Detention Pond, as given by the



DBPS, is $Q_{100} = 138$ cfs. A proposed 42" RCP outfall pipe, in conjunction with a proposed CMP standpipe, will maintain the allowable 100 year event outfall, and will not exceed the capacity of the downstream facilities. The majority 100 year emergency event will be contained within the pond, allowing approximately 46 cfs to overtop the pond across the emergency spillway. The emergency overflow will be routed southerly into Trafalger Drive which has the capacity to handle the 100 year emergency flows. (See enclosed drainage map for proposed pond configuration.)

HYDROLOGIC CALCULATIONS

Hydrologic calculations were performed using the City of Colorado Springs/El Paso County Drainage Criteria Manual, as revised in November 1991 and October 1994. The Soil Conservation Service (SCS) method was used to estimate storm water runoff anticipated from design storms with 100-year recurrence interval.

FLOODPLAIN STATEMENT

No portion of this site is located within a floodplain as determined by the Flood Insurance Rate Maps (F.I.R.M.) Map Number 08041C 0508F and effective date, March 17, 1997 (See Appendix).

CONSTRUCTION COST OPINION

Public Drainage Facilities (Non-reimbursable)

ITEM	DESCRIPTION	QUANTITY	UNIT COST	COST
1.	Earthwork	180,000 CY	\$1.20/CY	\$ 216,000.00
2.	Outlet reconstruction	1 EACH	\$20,000/EA	\$ 20,000.00
3.	Emergency Spillway	1 EACH	\$15,000/EA	\$ 15,000.00
4.	Erosion/Reseeding	1 EACH	\$10,000/EA	\$ 10,000.00
SUB-TOTAL				\$ 261,000.00
10% ENGINEERING				\$ 26,000.00
5% CONTINGENCIES				\$ 13,000.00
TOTAL				<u>\$ 300,000.00</u>



Classic Consulting Engineers & Surveyors cannot and does not guarantee that the construction cost will not vary from these opinions of probable construction costs. These opinions represent our best judgment as design professionals familiar with the construction industry and this development in particular. The required review fee is \$600.00 based upon the \$2 per every \$1000.00 of construction, so the maximum \$200.00 review applies.

SUMMARY

Reconstruction of the Chapel Hills No. 1 Detention Facility will not adversely affect surrounding development. In fact, the proposed reconstruction based upon the corrected hydrology results in a much lower embankment and therefore safer downstream condition less susceptible to failure. With the discharge being held to the previously approved rates, no downstream issues are anticipated.

PREPARED BY:

Classic Consulting, Engineers & Surveyors, LLC

A handwritten signature in black ink, appearing to read "Kyle R. Campbell".

Kyle R. Campbell, P.E.
Division Manager

A handwritten signature in black ink, appearing to read "Cathy M. Cordova".

Cathy M. Cordova, E.I.
Design Engineer

cmc/2041.00/Drainage Report.doc



REFERENCES

1. City of Colorado Springs/County of El Paso Drainage Criteria Manual dated October 1991.
2. "Cottonwood Creek Drainage Basin Planning Study," URS Consultants, March 1999.
3. "Wedgewood at Briargate, Filing No. 5," JR Engineering, Ltd, July 1991.
4. "Final Drainage Report for Union Town Center Filing No. 1," JR Engineering, Ltd., May 2000.
5. "Drainage Plan for Briargate Subdivision Filing No. 39," Leigh Whitehead and Associates, November 1985.
6. "Trafalger Point Offsite Drainage Plan," JR Engineering, Ltd., June 1992.
7. "Briargate Subdivision Filing No. 50 (Alta Vista Village)," JR Engineering, Ltd., February 1987.
8. "Gatehouse Village at Briargate Filings 9 and 11, Outfall System Plan," JR Engineering, Ltd., August 1992.
9. "Drainage Plan for Briargate Subdivision Filing No. 10," Donell Jeffries, May 1980.
10. "Windjammer at Briargate Drainage Plan," Donell Jeffries., January 1982.
11. "Windjammer Outfall Channel," Donell Jeffries, April 1982.
12. "Drainage Map for Briargate East," Donell Jeffries, March 1980
13. "Lexington Storm Sewer Outfall," JR Engineering, Ltd., October 1992.
14. "As-Built Plans for the Construction of Chapel Hills East Detention Pond No. 1," by R. Keith Hook & Associates Inc., June 1982.
15. "Department of Natural Resources, Rules and Regulations for Dam Safety and Dam Construction," State of Colorado Department of Natural Resources, September 1988.

APPENDIX

VICINITY MAP

KM
4556

KN
4556

KO
4556

Colorado Springs

© Mapsco, Inc.

Academy International
Elementary School

8092

Briargate

Columbine Estates

8091

Norwood

Ridge

Focus
on the
Family

SITE

Aspen Valley
High
School

CHAPEL HILLS MALL

Rampart
High School

High Plain
Elementary School

Fire
Station

Frontier
Elem.

Woodland
Park
Elementary School

Martinez
Elem.
School

KM

KN

KO

144

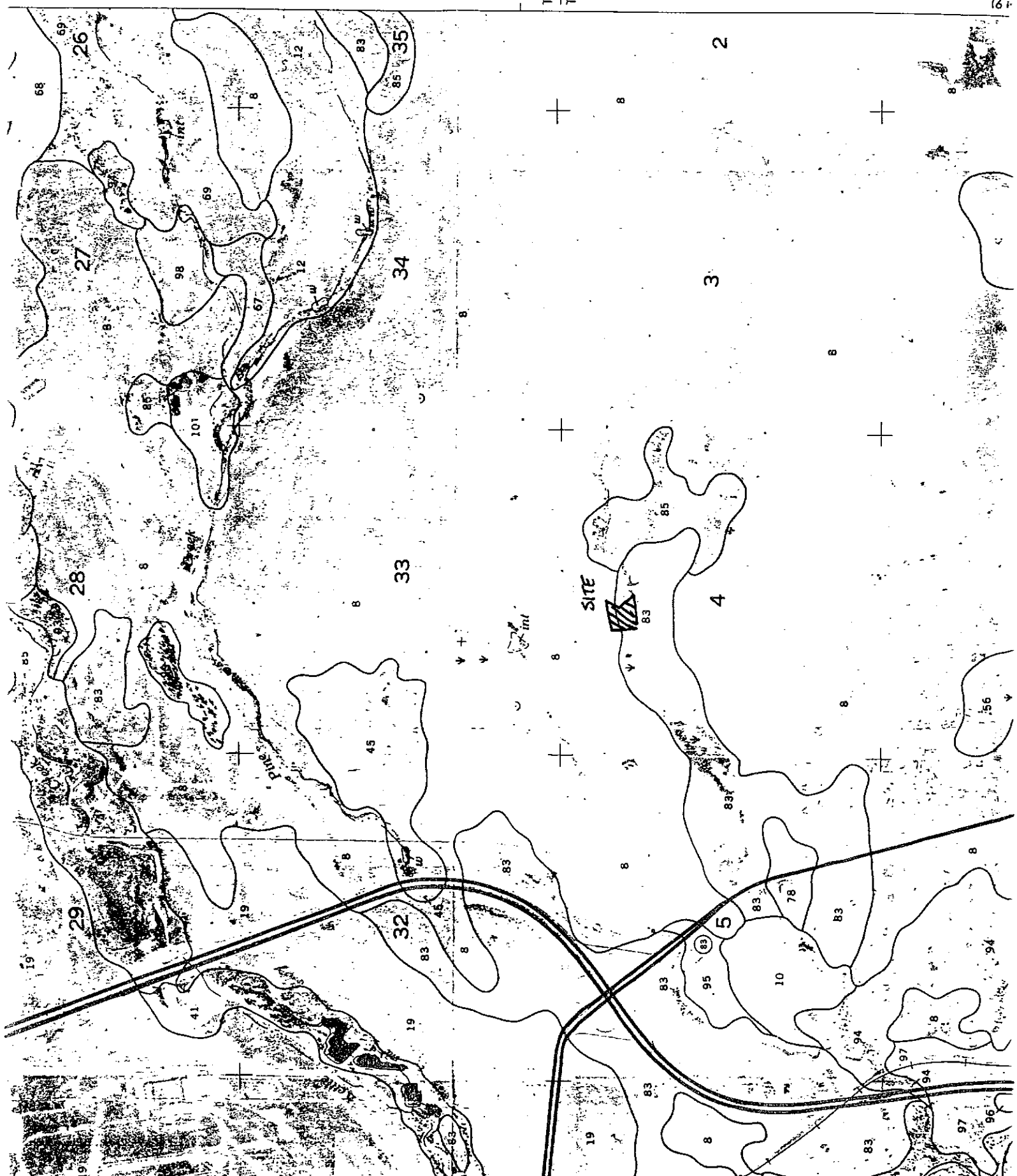
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147

SOILS MAP (S.C.S SURVEY)



T. 12 S.
T. 13 S.

TABLE 16.--SOIL AND WATER FEATURES

[Absence of an entry indicates the feature is not a concern. See "flooding" in Glossary for definition of terms as "rare," "brief," and "very brief." The symbol > means greater than]

Soil name and map symbol	Hydro-logic group	Flooding			Bedrock		Potential frost action
		Frequency	Duration	Months	Depth	Hardness	
Alamosa: 1-----	C	Frequent-----	Brief-----	May-Jun	In	---	High.
Ascalon: 2, 3-----	B	None-----	---	---	>60	---	Moderate.
Badland: 4-----	D	---	---	---	---	---	---
Bijou: 5, 6, 7-----	B	None-----	---	---	>60	---	Low.
Blakeland: 8-----	A	None-----	---	---	>60	---	Low.
19: Blakeland part-	A	None-----	---	---	>60	---	Low.
Fluvaquentic Haplaquolls part-----	D	Common-----	Very brief----	Mar-Aug	>60	---	High.
Blendon: 10-----	B	None-----	---	---	>60	---	Moderate.
Bresser: 11, 12, 13-----	B	None-----	---	---	>60	---	Low.
Brussett: 14, 15-----	B	None-----	---	---	>60	---	Moderate.
Chaseville: 16, 17-----	A	None-----	---	---	>60	---	Low.
118: Chaseville part	A	None-----	---	---	>60	---	Low.
Midway part----	D	None-----	---	---	10-20	Rippable	Moderate.
Columbine: 19-----	A	None to rare	---	---	>60	---	Low.
Connerton: 120: Connerton part-	B	None-----	---	---	>60	---	High.
Rock outcrop part-----	D	---	---	---	---	---	---
Cruckton: 21-----	B	None-----	---	---	>60	---	Moderate.
Cushman: 22, 23-----	C	None-----	---	---	20-40	Rippable	Moderate.
124: Cushman part----	C	None-----	---	---	20-40	Rippable	Moderate.
Kutch part----	C	None-----	---	---	20-40	Rippable	Moderate.
Elbeth: 25, 26-----	B	None-----	---	---	>60	---	Moderate.
127: Elbeth part----	B	None-----	---	---	>60	---	Moderate.

See footnote at end of table.

SOIL SURVEY

TABLE 16.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro- logic group	Flooding			Bedrock		Potential frost action
		Frequency	Duration	Months	Depth	Hardness	
					In		
Razor: 75:							
Razor part-----	C	None-----	---	---	20-40	Rippable	Moderate.
Midway part-----	D	None-----	---	---	10-20	Rippable	Moderate.
Rizozo: 176:							
Rizozo part-----	D	None-----	---	---	4-20	Hard	Low.
Neville part-----	B	None-----	---	---	>60	---	High.
Rock outcrop: 177:							
Rock outcrop part-----	D	---	---	---	---	---	---
Coldcreek part-----	B	None-----	---	---	40-60	Rippable	Moderate.
Tolman part-----	D	None-----	---	---	10-20	Hard	Moderate.
Sampson: 78-----	B	None-----	---	---	>60	---	Moderate.
Satanta: 79, 80-----	B	None-----	---	---	>60	---	Moderate.
181:							
Satanta part-----	B	None-----	---	---	>60	---	Moderate.
Neville part-----	B	None-----	---	---	>60	---	High.
Schamber: 182:							
Schamber part--	A	None-----	---	---	>60	---	Moderate.
Razor part-----	C	None-----	---	---	20-40	Rippable	Moderate.
Stapleton: 83, 84-----	B	None-----	---	---	>60	---	Moderate.
185:							
Stapleton part--	B	None-----	---	---	>60	---	Moderate.
Bernal part-----	D	None-----	---	---	8-20	Hard	Moderate.
Stoneham: 86, 87-----	B	None-----	---	---	>60	---	Moderate.
Stroupe: 188:							
Stroupe part-----	C	None-----	---	---	20-40	Hard	Moderate.
Travessilla part-----	D	None-----	---	---	6-20	Hard	Low.
Rock outcrop part-----	D	---	---	---	---	---	---
Tassel: 89-----	D	None-----	---	---	10-20	Rippable	Low.
Terry: 90-----	B	None-----	---	---	20-40	Rippable	Moderate.
191:							
Terry part-----	B	None-----	---	---	20-40	Rippable	Moderate.
Razor part-----	C	None-----	---	---	20-40	Rippable	Moderate.

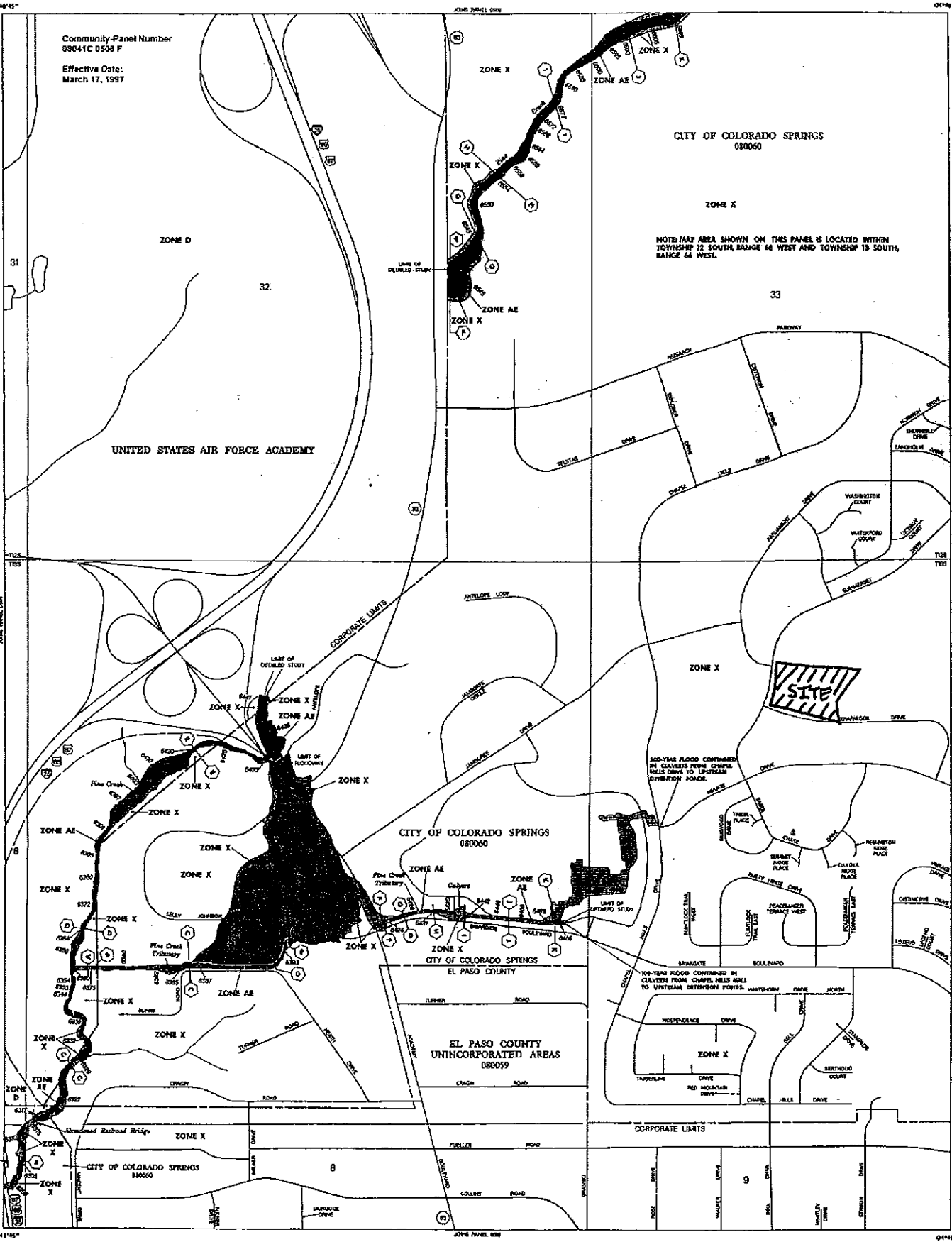
See footnote at end of table.

F.E.M.A. MAP

39154'01"

104°48'51"

Community-Panel Number
98041C 0508 F
Effective Date:
March 17, 1987



CITY OF COLORADO SPRINGS
080060

ZONE X

NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN
TOWNSHIP 12 SOUTH, RANGE 66 WEST AND TOWNSHIP 13 SOUTH,
RANGE 64 WEST.

UNITED STATES AIR FORCE ACADEMY

LIMIT OF DETAILED STUDY

ANTHONY LOOP

CORPORATE LIMITS

CITY OF COLORADO SPRINGS
080060

CITY OF COLORADO SPRINGS
EL PASO COUNTY

EL PASO COUNTY
UNINCORPORATED AREAS
080059

CITY OF COLORADO SPRINGS
080060

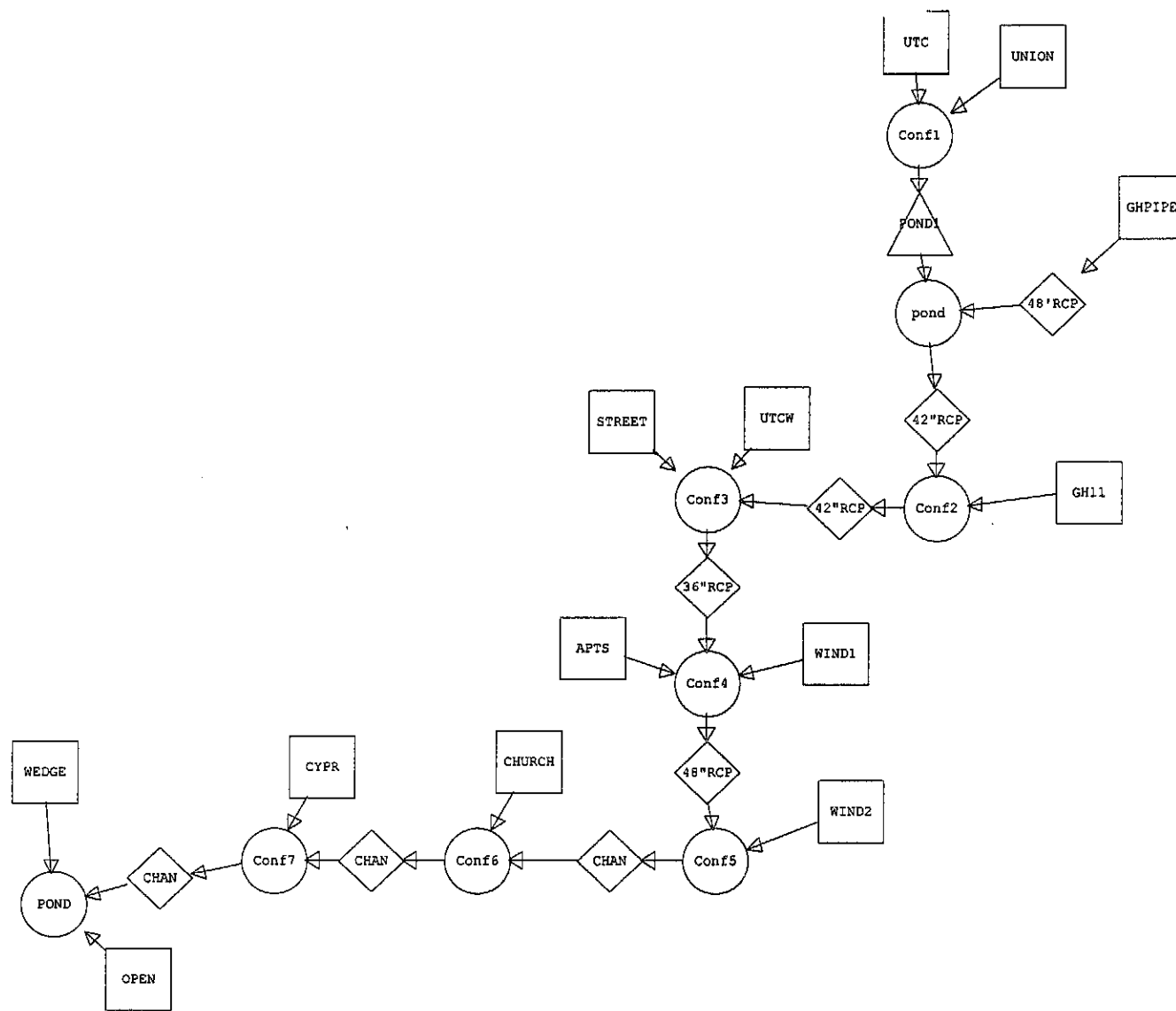
39154'01"

104°48'51"

HYDROLOGIC CALCULATIONS

TRAFALGER DETENTION FACILITY SUMMARY

Drainage Basin Planning Study			Basins Reanalysis		
Basin ID	CN	Acreage	Basin ID	CN	Acreage
N1	88.7	98.1	Street/GHII/UTCW/UTC/Union/GHPipe	84.72	86.98
N2	75.2	58.4	Apts/Wind1/Wind2	76.25	62.41
N3	76.2	162.4	Church/Cyp/Wedge	74.04	140.79
AVE	79.86	318.9	AVE	77.72	290.18



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* MAY 1991 *
* VERSION 4.0.1E *
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* RUN DATE 01/04/2002 TIME 14:27:12 *
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*
* U.S. ARMY CORPS OF ENGINEERS *
* HYDROLOGIC ENGINEERING CENTER *
* 609 SECOND STREET *
* DAVIS, CALIFORNIA 95616 *
* (916) 756-1104 *
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X X X X X
X X X X X
X X XXXXXXX XXXXX XXX

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::
:: Full Microcomputer Implementation ::
:: by ::
:: Haestad Methods, Inc. ::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE. THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
 NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
 DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
 KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

HEC-1 INPUT

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1 ID Trafalger Analysis
2 IT 15
3 IO 0 0
4 KK UNION
5 KM FLOWS FROM UNION STORM W/ GATEHOUSE
6 KO 22
7 BA .021

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8	PB	4.4									
9	IN	15									
10	PC	0.0000	0.0005	0.0015	0.0030	0.0045	0.0060	0.0080	0.0100	0.0120	0.0143
11	PC	0.0165	0.0188	0.0210	0.0233	0.0255	0.0278	0.0320	0.0390	0.0460	0.0530
12	PC	0.0600	0.0750	0.1000	0.4000	0.7000	0.7250	0.7500	0.7650	0.7800	0.7900
13	PC	0.8000	0.8100	0.8200	0.8250	0.8300	0.8350	0.8400	0.8450	0.8500	0.8550
14	PC	0.8600	0.8638	0.8675	0.8713	0.8750	0.8788	0.8825	0.8863	0.8900	0.8938
15	PC	0.8975	0.9013	0.9050	0.9083	0.9115	0.9148	0.9180	0.9210	0.9240	0.9270
16	PC	0.9300	0.9325	0.9350	0.9375	0.9400	0.9425	0.9450	0.9475	0.9500	0.9525
17	PC	0.9550	0.9575	0.9600	0.9625	0.9650	0.9675	0.9700	0.9725	0.9750	0.9775
18	PC	0.9800	0.9813	0.9825	0.9838	0.9850	0.9863	0.9875	0.9888	0.9900	0.9913
19	PC	0.9925	0.9938	0.9950	0.9963	0.9975	0.9988	1.0000	1.0000	1.0000	1.0000
20	PC	1.0000									
21	LS		80								
22	UD	0.18									
23	KK	UTC									
24	KM	ON-SITE UNION TOWN CENTER FLOWS									
25	KO										22
26	BA	.0290									
27	PB	4.4									
28	IN	15									
29	PC	0.0000	0.0005	0.0015	0.0030	0.0045	0.0060	0.0080	0.0100	0.0120	0.0143
30	PC	0.0165	0.0188	0.0210	0.0233	0.0255	0.0278	0.0320	0.0390	0.0460	0.0530
31	PC	0.0600	0.0750	0.1000	0.4000	0.7000	0.7250	0.7500	0.7650	0.7800	0.7900
32	PC	0.8000	0.8100	0.8200	0.8250	0.8300	0.8350	0.8400	0.8450	0.8500	0.8550
33	PC	0.8600	0.8638	0.8675	0.8713	0.8750	0.8788	0.8825	0.8863	0.8900	0.8938
34	PC	0.8975	0.9013	0.9050	0.9083	0.9115	0.9148	0.9180	0.9210	0.9240	0.9270
35	PC	0.9300	0.9325	0.9350	0.9375	0.9400	0.9425	0.9450	0.9475	0.9500	0.9525
36	PC	0.9550	0.9575	0.9600	0.9625	0.9650	0.9675	0.9700	0.9725	0.9750	0.9775
37	PC	0.9800	0.9813	0.9825	0.9838	0.9850	0.9863	0.9875	0.9888	0.9900	0.9913
38	PC	0.9925	0.9938	0.9950	0.9963	0.9975	0.9988	1.0000	1.0000	1.0000	1.0000
39	PC	1.0000									
40	LS		92								
41	UD	0.08									
42	KK	Conf1									
43	KM	OUTLET STORM SYSTEM TO EXISTING POND									
44	KO										22
45	HC	2									
46	KK	POND1									
47	KM	EXIST. UNION TOWN CENTER POND									
48	KO										22
49	RS	1	ELEV	6876							
50	SV	0	.796	1.758	2.903	4.239					
51	SE	6876.0	6878.00	6880.00	6882.00	6884.000					

LINE	ID	1	2	3	4	5	6	7	8	9	10	
149	KK	Conf3										
150	KM											
151	KO	22										
152	HC	3										
153	KK	36"RCP										
154	KM	36 " RCP IN LEXINGTON										
155	KO	22										
156	RK	950	.07	0.013			CIRC	3	1			
157	KK	APTS										
158	KM	WESTERLY APARTMENTS										
159	KO	22										
160	BA	.0140										
161	PB	4.4										
162	IN	15										
163	PC	0.0000	0.0005	0.0015	0.0030	0.0045	0.0060	0.0080	0.0100	0.0120	0.0143	
164	PC	0.0165	0.0188	0.0210	0.0233	0.0255	0.0278	0.0320	0.0390	0.0460	0.0530	
165	PC	0.0600	0.0750	0.1000	0.4000	0.7000	0.7250	0.7500	0.7650	0.7800	0.7900	
166	PC	0.8000	0.8100	0.8200	0.8250	0.8300	0.8350	0.8400	0.8450	0.8500	0.8550	
167	PC	0.8600	0.8638	0.8675	0.8713	0.8750	0.8788	0.8825	0.8863	0.8900	0.8938	
168	PC	0.8975	0.9013	0.9050	0.9083	0.9115	0.9148	0.9180	0.9210	0.9240	0.9270	
169	PC	0.9300	0.9325	0.9350	0.9375	0.9400	0.9425	0.9450	0.9475	0.9500	0.9525	
170	PC	0.9550	0.9575	0.9600	0.9625	0.9650	0.9675	0.9700	0.9725	0.9750	0.9775	
171	PC	0.9800	0.9813	0.9825	0.9838	0.9850	0.9863	0.9875	0.9888	0.9900	0.9913	
172	PC	0.9925	0.9938	0.9950	0.9963	0.9975	0.9988	1.0000	1.0000	1.0000	1.0000	
173	PC	1.0000										
174	LS	80										
175	UD	0.05										
176	KK	WIND1										
177	KM	NORTHERLY WINDJAMMER FLOWS										
178	KO	22										
179	BA	.075										
180	PB	4.4										
181	IN	15										
182	PC	0.0000	0.0005	0.0015	0.0030	0.0045	0.0060	0.0080	0.0100	0.0120	0.0143	
183	PC	0.0165	0.0188	0.0210	0.0233	0.0255	0.0278	0.0320	0.0390	0.0460	0.0530	
184	PC	0.0600	0.0750	0.1000	0.4000	0.7000	0.7250	0.7500	0.7650	0.7800	0.7900	
185	PC	0.8000	0.8100	0.8200	0.8250	0.8300	0.8350	0.8400	0.8450	0.8500	0.8550	
186	PC	0.8600	0.8638	0.8675	0.8713	0.8750	0.8788	0.8825	0.8863	0.8900	0.8938	
187	PC	0.8975	0.9013	0.9050	0.9083	0.9115	0.9148	0.9180	0.9210	0.9240	0.9270	
188	PC	0.9300	0.9325	0.9350	0.9375	0.9400	0.9425	0.9450	0.9475	0.9500	0.9525	
189	PC	0.9550	0.9575	0.9600	0.9625	0.9650	0.9675	0.9700	0.9725	0.9750	0.9775	
190	PC	0.9800	0.9813	0.9825	0.9838	0.9850	0.9863	0.9875	0.9888	0.9900	0.9913	
191	PC	0.9925	0.9938	0.9950	0.9963	0.9975	0.9988	1.0000	1.0000	1.0000	1.0000	
192	PC	1.0000										
193	LS	75										
194	UD	0.30										

LINE	ID	1	2	3	4	5	6	7	8	9	10
195	KK	Conf4									
196	KM										
197	KO	22									
198	HC	3									
199	KK	48"RCP									
200	KM	48" RCP IN LEXINGTON									
201	KO	22									
202	RK	450	0.04	0.013		CIRC	4	1			
203	KK	WIND2									
204	KM	OUTFALL FROM SOUTHERLY WINDJAMMER									
205	KO	22									
206	BA	0.011									
207	PB	4.4									
208	IN	15									
209	PC	0.0000	0.0005	0.0015	0.0030	0.0045	0.0060	0.0080	0.0100	0.0120	0.0143
210	PC	0.0165	0.0188	0.0210	0.0233	0.0255	0.0278	0.0320	0.0390	0.0460	0.0530
211	PC	0.0600	0.0750	0.1000	0.4000	0.7000	0.7250	0.7500	0.7650	0.7800	0.7900
212	PC	0.8000	0.8100	0.8200	0.8250	0.8300	0.8350	0.8400	0.8450	0.8500	0.8550
213	PC	0.8600	0.8638	0.8675	0.8713	0.8750	0.8788	0.8825	0.8863	0.8900	0.8938
214	PC	0.8975	0.9013	0.9050	0.9083	0.9115	0.9148	0.9180	0.9210	0.9240	0.9270
215	PC	0.9300	0.9325	0.9350	0.9375	0.9400	0.9425	0.9450	0.9475	0.9500	0.9525
216	PC	0.9550	0.9575	0.9600	0.9625	0.9650	0.9675	0.9700	0.9725	0.9750	0.9775
217	PC	0.9800	0.9813	0.9825	0.9838	0.9850	0.9863	0.9875	0.9888	0.9900	0.9913
218	PC	0.9925	0.9938	0.9950	0.9963	0.9975	0.9988	1.0000	1.0000	1.0000	1.0000
219	PC	1.0000									
220	LS	80									
221	UD	0.24									
222	KK	Conf5									
223	KM										
224	KO	22									
225	HC	2									
226	KK	CHAN									
227	KM	CONCRETE CHANNEL OUTFALL FROM LEXINGTON									
228	KO	22									
229	RK	450	0.085	0.015		TRAP	4	1.5			
230	KK	CHURCH									
231	KM	OUTFALL FROM CHURCH									
232	KO	22									
233	BA	0.033									
234	PB	4.4									
235	IN	15									
236	PC	0.0000	0.0005	0.0015	0.0030	0.0045	0.0060	0.0080	0.0100	0.0120	0.0143
237	PC	0.0165	0.0188	0.0210	0.0233	0.0255	0.0278	0.0320	0.0390	0.0460	0.0530
238	PC	0.0600	0.0750	0.1000	0.4000	0.7000	0.7250	0.7500	0.7650	0.7800	0.7900
239	PC	0.8000	0.8100	0.8200	0.8250	0.8300	0.8350	0.8400	0.8450	0.8500	0.8550
240	PC	0.8600	0.8638	0.8675	0.8713	0.8750	0.8788	0.8825	0.8863	0.8900	0.8938
241	PC	0.8975	0.9013	0.9050	0.9083	0.9115	0.9148	0.9180	0.9210	0.9240	0.9270
242	PC	0.9300	0.9325	0.9350	0.9375	0.9400	0.9425	0.9450	0.9475	0.9500	0.9525
243	PC	0.9550	0.9575	0.9600	0.9625	0.9650	0.9675	0.9700	0.9725	0.9750	0.9775

LINE	ID	1	2	3	4	5	6	7	8	9	10
244	PC	0.9800	0.9813	0.9825	0.9838	0.9850	0.9863	0.9875	0.9888	0.9900	0.9913
245	PC	0.9925	0.9938	0.9950	0.9963	0.9975	0.9988	1.0000	1.0000	1.0000	1.0000
246	PC	1.0000									
247	LS		75								
248	UD	0.20									
249	KK	Conf6									
250	KM										
251	KO					22					
252	HC	2									
253	KK	CHAN									
254	KM	NATURAL CHANNEL									
255	KO					22					
256	RK	820	.10	.050		TRAP	1	1			
257	KK	CYPR									
258	KM	CYPRESS RIDGE OUTFALL									
259	KO					22					
260	BA	0.045									
261	PB	4.4									
262	IN	15									
263	PC	0.0000	0.0005	0.0015	0.0030	0.0045	0.0060	0.0080	0.0100	0.0120	0.0143
264	PC	0.0165	0.0188	0.0210	0.0233	0.0255	0.0278	0.0320	0.0390	0.0460	0.0530
265	PC	0.0600	0.0750	0.1000	0.4000	0.7000	0.7250	0.7500	0.7650	0.7800	0.7900
266	PC	0.8000	0.8100	0.8200	0.8250	0.8300	0.8350	0.8400	0.8450	0.8500	0.8550
267	PC	0.8600	0.8638	0.8675	0.8713	0.8750	0.8788	0.8825	0.8863	0.8900	0.8938
268	PC	0.8975	0.9013	0.9050	0.9083	0.9115	0.9148	0.9180	0.9210	0.9240	0.9270
269	PC	0.9300	0.9325	0.9350	0.9375	0.9400	0.9425	0.9450	0.9475	0.9500	0.9525
270	PC	0.9550	0.9575	0.9600	0.9625	0.9650	0.9675	0.9700	0.9725	0.9750	0.9775
271	PC	0.9800	0.9813	0.9825	0.9838	0.9850	0.9863	0.9875	0.9888	0.9900	0.9913
272	PC	0.9925	0.9938	0.9950	0.9963	0.9975	0.9988	1.0000	1.0000	1.0000	1.0000
273	PC	1.0000									
274	LS		85								
275	UD	0.25									
276	KK	Conf7									
277	KM										
278	KO					22					
279	HC	2									
280	KK	CHAN									
281	KM										
282	KO					22					
283	RK	750	.10	.05		TRAP	1	1			
284	KK	WEDGE									
285	KM	WEDGEWOOD FLOWS WITH INT. INTERCEPTION									
286	KO					22					
287	BA	0.073									
288	PB	4.4									
289	IN	15									
290	PC	0.0000	0.0005	0.0015	0.0030	0.0045	0.0060	0.0080	0.0100	0.0120	0.0143
291	PC	0.0165	0.0188	0.0210	0.0233	0.0255	0.0278	0.0320	0.0390	0.0460	0.0530
292	PC	0.0600	0.0750	0.1000	0.4000	0.7000	0.7250	0.7500	0.7650	0.7800	0.7900

*
* FLOOD HYDROGRAPH PACKAGE (HEC-1) *
* MAY 1991 *
* VERSION 4.0.1E *
*
* RUN DATE 01/04/2002 TIME 14:27:12 *
*

*
* U.S. ARMY CORPS OF ENGINEERS *
* HYDROLOGIC ENGINEERING CENTER *
* 609 SECOND STREET *
* DAVIS, CALIFORNIA 95616 *
* (916) 756-1104 *
*

Trafalger Analysis

3 IO OUTPUT CONTROL VARIABLES
 IPRNT 0 PRINT CONTROL
 IPLOT 0 PLOT CONTROL
 QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA
 NMIN 15 MINUTES IN COMPUTATION INTERVAL
 IDATE 1 0 STARTING DATE
 ITIME 0000 STARTING TIME
 NQ 101 NUMBER OF HYDROGRAPH ORDINATES
 NDDATE 2 0 ENDING DATE
 NDTIME 0100 ENDING TIME
 ICENT 19 CENTURY MARK

 COMPUTATION INTERVAL 0.25 HOURS
 TOTAL TIME BASE 25.00 HOURS

ENGLISH UNITS
DRAINAGE AREA SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION FEET
FLOW CUBIC FEET PER SECOND
STORAGE VOLUME ACRE-FEET
SURFACE AREA ACRES
TEMPERATURE DEGREES FAHRENHEIT

*** **

*
4 KK * UNION *
* *

 FLOWS FROM UNION STORM W/ GATEHOUSE

6 KO OUTPUT CONTROL VARIABLES
 IPRNT 0 PRINT CONTROL
 IPLOT 0 PLOT CONTROL
 QSCAL 0. HYDROGRAPH PLOT SCALE
 IPNCH 0 PUNCH COMPUTED HYDROGRAPH
 IOUT 22 SAVE HYDROGRAPH ON THIS UNIT
 ISAV1 1 FIRST ORDINATE PUNCHED OR SAVED

ISAV2 101 LAST ORDINATE PUNCHED OR SAVED
 TIMINT 0.250 TIME INTERVAL IN HOURS

9 IN TIME DATA FOR INPUT TIME SERIES
 JXMIN 15 TIME INTERVAL IN MINUTES
 JXDATE 1 0 STARTING DATE
 JXTIME 0 STARTING TIME

SUBBASIN RUNOFF DATA

7 BA SUBBASIN CHARACTERISTICS
 TAREA 0.02 SUBBASIN AREA

PRECIPITATION DATA

8 PB STORM 4.40 BASIN TOTAL PRECIPITATION

10 PI INCREMENTAL PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
0.02	0.02	0.30	0.30	0.03	0.02	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

21 LS SCS LOSS RATE
 STRTL 0.50 INITIAL ABSTRACTION
 CRVNR 80.00 CURVE NUMBER
 RTIMP 0.00 PERCENT IMPERVIOUS AREA

22 UD SCS DIMENSIONLESS UNITGRAPH
 TLAG 0.18 LAG

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
 6 END-OF-PERIOD ORDINATES

31. 17. 4. 1. 0. 0.

HYDROGRAPH AT STATION UNION

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q		DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	0.00	0.00	0.00	0.	*	1	1245	52	0.02	0.00	0.01	1.	
1		0015	2	0.00	0.00	0.00	0.	*	1	1300	53	0.02	0.00	0.01	1.	
1		0030	3	0.00	0.00	0.00	0.	*	1	1315	54	0.01	0.00	0.01	1.	
1		0045	4	0.01	0.01	0.00	0.	*	1	1330	55	0.01	0.00	0.01	1.	
1		0100	5	0.01	0.01	0.00	0.	*	1	1345	56	0.01	0.00	0.01	1.	
1		0115	6	0.01	0.01	0.00	0.	*	1	1400	57	0.01	0.00	0.01	1.	
1		0130	7	0.01	0.01	0.00	0.	*	1	1415	58	0.01	0.00	0.01	1.	
1		0145	8	0.01	0.01	0.00	0.	*	1	1430	59	0.01	0.00	0.01	1.	
1		0200	9	0.01	0.01	0.00	0.	*	1	1445	60	0.01	0.00	0.01	1.	
1		0215	10	0.01	0.01	0.00	0.	*	1	1500	61	0.01	0.00	0.01	1.	

1	0230	11	0.01	0.01	0.00	0.	*	1	1515	62	0.01	0.00	0.01	1.
1	0245	12	0.01	0.01	0.00	0.	*	1	1530	63	0.01	0.00	0.01	1.
1	0300	13	0.01	0.01	0.00	0.	*	1	1545	64	0.01	0.00	0.01	0.
1	0315	14	0.01	0.01	0.00	0.	*	1	1600	65	0.01	0.00	0.01	0.
1	0330	15	0.01	0.01	0.00	0.	*	1	1615	66	0.01	0.00	0.01	0.
1	0345	16	0.01	0.01	0.00	0.	*	1	1630	67	0.01	0.00	0.01	0.
1	0400	17	0.02	0.02	0.00	0.	*	1	1645	68	0.01	0.00	0.01	0.
1	0415	18	0.03	0.03	0.00	0.	*	1	1700	69	0.01	0.00	0.01	0.
1	0430	19	0.03	0.03	0.00	0.	*	1	1715	70	0.01	0.00	0.01	0.
1	0445	20	0.03	0.03	0.00	0.	*	1	1730	71	0.01	0.00	0.01	0.
1	0500	21	0.03	0.03	0.00	0.	*	1	1745	72	0.01	0.00	0.01	0.
1	0515	22	0.07	0.07	0.00	0.	*	1	1800	73	0.01	0.00	0.01	0.
1	0530	23	0.11	0.11	0.00	0.	*	1	1815	74	0.01	0.00	0.01	1.
1	0545	24	1.32	0.90	0.42	13.	*	1	1830	75	0.01	0.00	0.01	1.
1	0600	25	1.32	0.43	0.89	35.	*	1	1845	76	0.01	0.00	0.01	1.
1	0615	26	0.11	0.03	0.08	20.	*	1	1900	77	0.01	0.00	0.01	1.
1	0630	27	0.11	0.02	0.09	9.	*	1	1915	78	0.01	0.00	0.01	1.
1	0645	28	0.07	0.01	0.05	5.	*	1	1930	79	0.01	0.00	0.01	1.
1	0700	29	0.07	0.01	0.05	3.	*	1	1945	80	0.01	0.00	0.01	1.
1	0715	30	0.04	0.01	0.03	2.	*	1	2000	81	0.01	0.00	0.01	1.
1	0730	31	0.04	0.01	0.03	2.	*	1	2015	82	0.01	0.00	0.00	0.
1	0745	32	0.04	0.01	0.04	2.	*	1	2030	83	0.01	0.00	0.00	0.
1	0800	33	0.04	0.01	0.04	2.	*	1	2045	84	0.01	0.00	0.00	0.
1	0815	34	0.02	0.00	0.02	1.	*	1	2100	85	0.01	0.00	0.00	0.
1	0830	35	0.02	0.00	0.02	1.	*	1	2115	86	0.01	0.00	0.00	0.
1	0845	36	0.02	0.00	0.02	1.	*	1	2130	87	0.01	0.00	0.00	0.
1	0900	37	0.02	0.00	0.02	1.	*	1	2145	88	0.01	0.00	0.00	0.
1	0915	38	0.02	0.00	0.02	1.	*	1	2200	89	0.01	0.00	0.00	0.
1	0930	39	0.02	0.00	0.02	1.	*	1	2215	90	0.01	0.00	0.00	0.
1	0945	40	0.02	0.00	0.02	1.	*	1	2230	91	0.01	0.00	0.00	0.
1	1000	41	0.02	0.00	0.02	1.	*	1	2245	92	0.01	0.00	0.00	0.
1	1015	42	0.02	0.00	0.01	1.	*	1	2300	93	0.01	0.00	0.00	0.
1	1030	43	0.02	0.00	0.01	1.	*	1	2315	94	0.01	0.00	0.00	0.
1	1045	44	0.02	0.00	0.01	1.	*	1	2330	95	0.01	0.00	0.00	0.
1	1100	45	0.02	0.00	0.01	1.	*	1	2345	96	0.01	0.00	0.00	0.
1	1115	46	0.02	0.00	0.01	1.	*	2	0000	97	0.01	0.00	0.00	0.
1	1130	47	0.02	0.00	0.01	1.	*	2	0015	98	0.00	0.00	0.00	0.
1	1145	48	0.02	0.00	0.01	1.	*	2	0030	99	0.00	0.00	0.00	0.
1	1200	49	0.02	0.00	0.01	1.	*	2	0045	100	0.00	0.00	0.00	0.
1	1215	50	0.02	0.00	0.01	1.	*	2	0100	101	0.00	0.00	0.00	0.
1	1230	51	0.02	0.00	0.01	1.	*							

TOTAL RAINFALL = 4.40, TOTAL LOSS = 2.02, TOTAL EXCESS = 2.38

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				25.00-HR (CFS)	(HR)	1.
		6-HR (CFS)	24-HR	72-HR				
		35.	6.00		4.	1.		
	(INCHES)	1.931	2.377	2.377	2.377			
	(AC-FT)	2.	3.	3.	3.			

CUMULATIVE AREA = 0.02 SQ MI

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 23 KK * UTC *
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PEAK FLOW	TIME	(CFS)	(AC-FT)	MAXIMUM AVERAGE FLOW	(CFS)	(HR)	TOTAL RAINFALL =	0.90, TOTAL LOSS =	0.90, TOTAL EXCESS =	CUMULATIVE AREA =
			(INCHES)		(CFS)	(HR)				0.03 SQ MI
1	0000	1	0.00	0.00	0.00	1	0.02	0.00	0.00	0.00
1	0015	2	0.00	0.00	0.00	1	0.00	0.00	0.00	0.00
1	0030	3	0.00	0.00	0.00	1	0.00	0.00	0.00	0.00
1	0045	4	0.01	0.01	0.00	1	0.01	0.00	0.00	0.01
1	0100	5	0.01	0.01	0.00	1	0.01	0.00	0.00	0.01
1	0130	6	0.01	0.01	0.00	1	0.01	0.00	0.00	0.01
1	0145	7	0.01	0.01	0.00	1	0.01	0.00	0.00	0.01
1	0200	9	0.01	0.01	0.00	1	0.01	0.00	0.00	0.01
1	0215	10	0.01	0.01	0.00	1	0.01	0.00	0.00	0.01
1	0230	11	0.01	0.01	0.00	1	0.01	0.00	0.00	0.01
1	0245	12	0.01	0.01	0.00	1	0.01	0.00	0.00	0.01
1	0300	13	0.01	0.01	0.00	1	0.01	0.00	0.00	0.01
1	0315	14	0.01	0.01	0.00	1	0.01	0.00	0.00	0.01
1	0330	15	0.01	0.01	0.00	1	0.01	0.00	0.00	0.01
1	0345	16	0.01	0.01	0.00	1	0.01	0.00	0.00	0.01
1	0400	17	0.02	0.02	0.00	1	0.02	0.00	0.00	0.02
1	0415	18	0.03	0.03	0.00	1	0.03	0.00	0.00	0.03
1	0430	19	0.03	0.03	0.00	1	0.03	0.00	0.00	0.03
1	0445	20	0.03	0.03	0.00	1	0.03	0.00	0.00	0.03
1	0500	21	0.03	0.03	0.00	1	0.03	0.00	0.00	0.03
1	0515	22	0.07	0.07	0.00	1	0.07	0.00	0.00	0.07
1	0530	23	0.11	0.11	0.00	1	0.11	0.00	0.00	0.11
1	0545	24	1.32	1.32	0.36	1	0.96	0.36	0.00	1.32
1	0600	25	1.32	1.21	0.83	1	1.21	0.11	0.00	1.32
1	0615	26	0.11	0.10	0.28	1	0.10	0.01	0.00	0.11
1	0630	27	0.11	0.10	12.28	1	0.10	0.01	0.00	0.11
1	0645	28	0.07	0.06	6.06	1	0.06	0.00	0.00	0.07
1	0700	29	0.07	0.06	5.06	1	0.06	0.00	0.00	0.07
1	0715	30	0.04	0.04	4.04	1	0.04	0.00	0.00	0.04
1	0730	31	0.04	0.04	3.04	1	0.04	0.00	0.00	0.04
1	0745	32	0.04	0.04	3.04	1	0.04	0.00	0.00	0.04
1	0800	33	0.04	0.04	3.04	1	0.04	0.00	0.00	0.04
1	0815	34	0.02	0.02	2.02	1	0.02	0.00	0.00	0.02
1	0830	35	0.02	0.02	2.02	1	0.02	0.00	0.00	0.02
1	0845	36	0.02	0.02	2.02	1	0.02	0.00	0.00	0.02
1	0900	37	0.02	0.02	2.02	1	0.02	0.00	0.00	0.02
1	0915	38	0.02	0.02	2.02	1	0.02	0.00	0.00	0.02
1	0930	39	0.02	0.02	2.02	1	0.02	0.00	0.00	0.02
1	0945	40	0.02	0.02	2.02	1	0.02	0.00	0.00	0.02
1	1000	41	0.02	0.02	2.02	1	0.02	0.00	0.00	0.02
1	1015	42	0.02	0.02	1.02	1	0.02	0.00	0.00	0.02
1	1030	43	0.02	0.02	1.02	1	0.02	0.00	0.00	0.02
1	1045	44	0.02	0.02	1.02	1	0.02	0.00	0.00	0.02
1	1100	45	0.02	0.02	1.02	1	0.02	0.00	0.00	0.02
1	1115	46	0.02	0.02	1.02	1	0.02	0.00	0.00	0.02
1	1130	47	0.02	0.02	1.02	1	0.02	0.00	0.00	0.02
1	1145	48	0.02	0.02	1.02	1	0.02	0.00	0.00	0.02
1	1200	49	0.02	0.02	1.02	1	0.02	0.00	0.00	0.02
1	1215	50	0.02	0.02	1.02	1	0.02	0.00	0.00	0.02
1	1230	51	0.02	0.02	1.02	1	0.02	0.00	0.00	0.02

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW					(CFS)	(HR)	4.
		6-HR	24-HR	72-HR	25.00-HR				
		117.	6.00	3.031	14.	3.031	4.	4.	
		(INCHES)	2.526	3.031	3.031	3.031	4.	4.	
		(AC-FT)	7.	8.	8.	8.			

CUMULATIVE AREA = 0.05 SQ MI

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 46 KK * POND1 *
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EXIST. UNION TOWN CENTER POND

48 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

HYDROGRAPH ROUTING DATA

49 RS STORAGE ROUTING

NSTPS	1	NUMBER OF SUBREACHES
ITYP	ELEV	TYPE OF INITIAL CONDITION
RSVRIC	6876.00	INITIAL CONDITION
X	0.00	WORKING R AND D COEFFICIENT

50 SV	STORAGE	0.0	0.8	1.8	2.9	4.2
51 SE	ELEVATION	6876.00	6878.00	6880.00	6882.00	6884.00
52 SQ	DISCHARGE	0.	11.	23.	25.	28.

HYDROGRAPH AT STATION POND1

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1	0000	1	0.	0.0	6876.0	*	1	0830	35	14.	1.0	6878.4	*	1	1700	69	1.	0.1	6876.2			
1	0015	2	0.	0.0	6876.0	*	1	0845	36	11.	0.8	6878.0	*	1	1715	70	1.	0.1	6876.2			
1	0030	3	0.	0.0	6876.0	*	1	0900	37	9.	0.6	6877.6	*	1	1730	71	1.	0.1	6876.2			
1	0045	4	0.	0.0	6876.0	*	1	0915	38	7.	0.5	6877.3	*	1	1745	72	1.	0.1	6876.2			
1	0100	5	0.	0.0	6876.0	*	1	0930	39	6.	0.4	6877.1	*	1	1800	73	1.	0.1	6876.2			

1	0115	6	0.	0.0	6876.0	*	1	0945	40	5.	0.4	6876.9	*	1	1815	74	1.	0.1	6876.2
1	0130	7	0.	0.0	6876.0	*	1	1000	41	5.	0.3	6876.8	*	1	1830	75	1.	0.1	6876.2
1	0145	8	0.	0.0	6876.0	*	1	1015	42	4.	0.3	6876.7	*	1	1845	76	1.	0.1	6876.2
1	0200	9	0.	0.0	6876.0	*	1	1030	43	3.	0.2	6876.6	*	1	1900	77	1.	0.1	6876.2
1	0215	10	0.	0.0	6876.0	*	1	1045	44	3.	0.2	6876.5	*	1	1915	78	1.	0.1	6876.2
1	0230	11	0.	0.0	6876.0	*	1	1100	45	3.	0.2	6876.5	*	1	1930	79	1.	0.1	6876.2
1	0245	12	0.	0.0	6876.0	*	1	1115	46	3.	0.2	6876.4	*	1	1945	80	1.	0.1	6876.2
1	0300	13	0.	0.0	6876.0	*	1	1130	47	2.	0.2	6876.4	*	1	2000	81	1.	0.1	6876.2
1	0315	14	0.	0.0	6876.0	*	1	1145	48	2.	0.2	6876.4	*	1	2015	82	1.	0.1	6876.2
1	0330	15	0.	0.0	6876.0	*	1	1200	49	2.	0.2	6876.4	*	1	2030	83	1.	0.1	6876.2
1	0345	16	0.	0.0	6876.0	*	1	1215	50	2.	0.1	6876.4	*	1	2045	84	1.	0.1	6876.2
1	0400	17	0.	0.0	6876.0	*	1	1230	51	2.	0.1	6876.4	*	1	2100	85	1.	0.1	6876.2
1	0415	18	0.	0.0	6876.0	*	1	1245	52	2.	0.1	6876.4	*	1	2115	86	1.	0.1	6876.1
1	0430	19	0.	0.0	6876.0	*	1	1300	53	2.	0.1	6876.4	*	1	2130	87	1.	0.1	6876.1
1	0445	20	0.	0.0	6876.0	*	1	1315	54	2.	0.1	6876.3	*	1	2145	88	1.	0.1	6876.1
1	0500	21	0.	0.0	6876.0	*	1	1330	55	2.	0.1	6876.3	*	1	2200	89	1.	0.1	6876.1
1	0515	22	0.	0.0	6876.0	*	1	1345	56	2.	0.1	6876.3	*	1	2215	90	1.	0.0	6876.1
1	0530	23	1.	0.0	6876.1	*	1	1400	57	2.	0.1	6876.3	*	1	2230	91	1.	0.0	6876.1
1	0545	24	9.	0.7	6877.7	*	1	1415	58	2.	0.1	6876.3	*	1	2245	92	1.	0.0	6876.1
1	0600	25	24.	2.2	6880.8	*	1	1430	59	2.	0.1	6876.3	*	1	2300	93	1.	0.0	6876.1
1	0615	26	26.	3.4	6882.8	*	1	1445	60	2.	0.1	6876.3	*	1	2315	94	1.	0.0	6876.1
1	0630	27	26.	3.6	6883.0	*	1	1500	61	2.	0.1	6876.3	*	1	2330	95	1.	0.0	6876.1
1	0645	28	26.	3.3	6882.7	*	1	1515	62	2.	0.1	6876.3	*	1	2345	96	1.	0.0	6876.1
1	0700	29	25.	3.0	6882.2	*	1	1530	63	2.	0.1	6876.3	*	2	0000	97	1.	0.0	6876.1
1	0715	30	25.	2.6	6881.5	*	1	1545	64	1.	0.1	6876.3	*	2	0015	98	1.	0.0	6876.1
1	0730	31	24.	2.3	6880.9	*	1	1600	65	1.	0.1	6876.2	*	2	0030	99	0.	0.0	6876.1
1	0745	32	23.	1.9	6880.2	*	1	1615	66	1.	0.1	6876.2	*	2	0045	100	0.	0.0	6876.1
1	0800	33	20.	1.5	6879.5	*	1	1630	67	1.	0.1	6876.2	*	2	0100	101	0.	0.0	6876.0
1	0815	34	17.	1.2	6878.9	*	1	1645	68	1.	0.1	6876.2	*						

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW						
		6-HR	24-HR	72-HR	25.00-HR	(CFS)	(HR)	
		26.	6.50		13.	4.	4.	4.
		(INCHES)	2.479	3.024	3.024			
		(AC-FT)	7.	8.	8.			

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE					
		6-HR	24-HR	72-HR	25.00-HR	(AC-FT)	(HR)
4.	6.50	1.	0.	0.	0.		

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE					
		6-HR	24-HR	72-HR	25.00-HR	(FEET)	(HR)
6882.99	6.50	6878.80	6876.83	6876.79	6876.79		

CUMULATIVE AREA = 0.05 SQ MI

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53 KK GHPIPE *
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GATEHOUSE INTERCEPTED FLOWS IN UNION

55 KO OUTPUT CONTROL VARIABLES
 IPRNT 0 PRINT CONTROL
 IPLLOT 0 PLOT CONTROL

QSCAL 0. HYDROGRAPH PLOT SCALE
 IPNCH 0 PUNCH COMPUTED HYDROGRAPH
 IOUT 22 SAVE HYDROGRAPH ON THIS UNIT
 ISAV1 1 FIRST ORDINATE PUNCHED OR SAVED
 ISAV2 101 LAST ORDINATE PUNCHED OR SAVED
 TIMINT 0.250 TIME INTERVAL IN HOURS

58 IN TIME DATA FOR INPUT TIME SERIES
 JXMIN 15 TIME INTERVAL IN MINUTES
 JXDATE 1 0 STARTING DATE
 JXTIME 0 STARTING TIME

SUBBASIN RUNOFF DATA

56 BA SUBBASIN CHARACTERISTICS
 TAREA 0.04 SUBBASIN AREA

PRECIPITATION DATA

57 PB STORM 4.40 BASIN TOTAL PRECIPITATION

59 PI INCREMENTAL PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
0.02	0.02	0.30	0.30	0.03	0.02	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

70 LS SCS LOSS RATE
 STRTL 0.50 INITIAL ABSTRACTION
 CRVNR 80.00 CURVE NUMBER
 RTIMP 0.00 PERCENT IMPERVIOUS AREA

71 UD SCS DIMENSIONLESS UNITGRAPH
 TLAG 0.18 LAG

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
 6 END-OF-PERIOD ORDINATES

58. 32. 8. 2. 1. 0.

HYDROGRAPH AT STATION GHPIPE

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q		DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1	0000	1	0.00	0.00	0.00	0.00	0.	*	1	1245	52	0.02	0.00	0.01	1.	
1	0015	2	0.00	0.00	0.00	0.00	0.	*	1	1300	53	0.02	0.00	0.01	1.	
1	0030	3	0.00	0.00	0.00	0.00	0.	*	1	1315	54	0.01	0.00	0.01	1.	
1	0045	4	0.01	0.01	0.00	0.00	0.	*	1	1330	55	0.01	0.00	0.01	1.	
1	0100	5	0.01	0.01	0.00	0.00	0.	*	1	1345	56	0.01	0.00	0.01	1.	
1	0115	6	0.01	0.01	0.00	0.00	0.	.*	1	1400	57	0.01	0.00	0.01	1.	

1	0130	7	0.01	0.01	0.00	0.	*	1	1415	58	0.01	0.00	0.01	1.
1	0145	8	0.01	0.01	0.00	0.	*	1	1430	59	0.01	0.00	0.01	1.
1	0200	9	0.01	0.01	0.00	0.	*	1	1445	60	0.01	0.00	0.01	1.
1	0215	10	0.01	0.01	0.00	0.	*	1	1500	61	0.01	0.00	0.01	1.
1	0230	11	0.01	0.01	0.00	0.	*	1	1515	62	0.01	0.00	0.01	1.
1	0245	12	0.01	0.01	0.00	0.	*	1	1530	63	0.01	0.00	0.01	1.
1	0300	13	0.01	0.01	0.00	0.	*	1	1545	64	0.01	0.00	0.01	1.
1	0315	14	0.01	0.01	0.00	0.	*	1	1600	65	0.01	0.00	0.01	1.
1	0330	15	0.01	0.01	0.00	0.	*	1	1615	66	0.01	0.00	0.01	1.
1	0345	16	0.01	0.01	0.00	0.	*	1	1630	67	0.01	0.00	0.01	1.
1	0400	17	0.02	0.02	0.00	0.	*	1	1645	68	0.01	0.00	0.01	1.
1	0415	18	0.03	0.03	0.00	0.	*	1	1700	69	0.01	0.00	0.01	1.
1	0430	19	0.03	0.03	0.00	0.	*	1	1715	70	0.01	0.00	0.01	1.
1	0445	20	0.03	0.03	0.00	0.	*	1	1730	71	0.01	0.00	0.01	1.
1	0500	21	0.03	0.03	0.00	0.	*	1	1745	72	0.01	0.00	0.01	1.
1	0515	22	0.07	0.07	0.00	0.	*	1	1800	73	0.01	0.00	0.01	1.
1	0530	23	0.11	0.11	0.00	0.	*	1	1815	74	0.01	0.00	0.01	1.
1	0545	24	1.32	0.90	0.42	24.	*	1	1830	75	0.01	0.00	0.01	1.
1	0600	25	1.32	0.43	0.89	65.	*	1	1845	76	0.01	0.00	0.01	1.
1	0615	26	0.11	0.03	0.08	37.	*	1	1900	77	0.01	0.00	0.01	1.
1	0630	27	0.11	0.02	0.09	16.	*	1	1915	78	0.01	0.00	0.01	1.
1	0645	28	0.07	0.01	0.05	9.	*	1	1930	79	0.01	0.00	0.01	1.
1	0700	29	0.07	0.01	0.05	6.	*	1	1945	80	0.01	0.00	0.01	1.
1	0715	30	0.04	0.01	0.03	4.	*	1	2000	81	0.01	0.00	0.01	1.
1	0730	31	0.04	0.01	0.03	4.	*	1	2015	82	0.01	0.00	0.00	1.
1	0745	32	0.04	0.01	0.04	4.	*	1	2030	83	0.01	0.00	0.00	1.
1	0800	33	0.04	0.01	0.04	4.	*	1	2045	84	0.01	0.00	0.00	0.
1	0815	34	0.02	0.00	0.02	3.	*	1	2100	85	0.01	0.00	0.00	0.
1	0830	35	0.02	0.00	0.02	2.	*	1	2115	86	0.01	0.00	0.00	0.
1	0845	36	0.02	0.00	0.02	2.	*	1	2130	87	0.01	0.00	0.00	0.
1	0900	37	0.02	0.00	0.02	2.	*	1	2145	88	0.01	0.00	0.00	0.
1	0915	38	0.02	0.00	0.02	2.	*	1	2200	89	0.01	0.00	0.00	0.
1	0930	39	0.02	0.00	0.02	2.	*	1	2215	90	0.01	0.00	0.00	0.
1	0945	40	0.02	0.00	0.02	2.	*	1	2230	91	0.01	0.00	0.00	0.
1	1000	41	0.02	0.00	0.02	2.	*	1	2245	92	0.01	0.00	0.00	0.
1	1015	42	0.02	0.00	0.01	2.	*	1	2300	93	0.01	0.00	0.00	0.
1	1030	43	0.02	0.00	0.01	1.	*	1	2315	94	0.01	0.00	0.00	0.
1	1045	44	0.02	0.00	0.01	1.	*	1	2330	95	0.01	0.00	0.00	0.
1	1100	45	0.02	0.00	0.01	1.	*	1	2345	96	0.01	0.00	0.00	0.
1	1115	46	0.02	0.00	0.01	1.	*	2	0000	97	0.01	0.00	0.00	0.
1	1130	47	0.02	0.00	0.01	1.	*	2	0015	98	0.00	0.00	0.00	0.
1	1145	48	0.02	0.00	0.01	1.	*	2	0030	99	0.00	0.00	0.00	0.
1	1200	49	0.02	0.00	0.01	1.	*	2	0045	100	0.00	0.00	0.00	0.
1	1215	50	0.02	0.00	0.01	1.	*	2	0100	101	0.00	0.00	0.00	0.
1	1230	51	0.02	0.00	0.01	1.	*							

TOTAL RAINFALL = 4.40, TOTAL LOSS = 2.02, TOTAL EXCESS = 2.38

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				(CFS)	(HR)	
		6-HR	24-HR	72-HR	25.00-HR			
		65.	6.00		8.	2.	2.	
	(CFS)							
	(INCHES)	1.931	2.377	2.377	2.377			
	(AC-FT)	4.	5.	5.	5.			

CUMULATIVE AREA = 0.04 SQ MI

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 * *
 72 KK * 48'RCP *
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48" RCP OUTFALL FROM GH INTERCEPTED FLOWS

74 KO OUTPUT CONTROL VARIABLES
 IPRNT 0 PRINT CONTROL
 IPLOT 0 PLOT CONTROL
 QSCAL 0. HYDROGRAPH PLOT SCALE
 IPNCH 0 PUNCH COMPUTED HYDROGRAPH
 IOUT 22 SAVE HYDROGRAPH ON THIS UNIT
 ISAV1 1 FIRST ORDINATE PUNCHED OR SAVED
 ISAV2 101 LAST ORDINATE PUNCHED OR SAVED
 TIMINT 0.250 TIME INTERVAL IN HOURS

HYDROGRAPH ROUTING DATA

75 RK KINEMATIC WAVE STREAM ROUTING
 L 500. CHANNEL LENGTH
 S 0.0100 SLOPE
 N 0.013 CHANNEL ROUGHNESS COEFFICIENT
 CA 0.00 CONTRIBUTING AREA
 SHAPE CIRC CHANNEL SHAPE
 WD 4.00 BOTTOM WIDTH OR DIAMETER
 Z 1.00 SIDE SLOPE
 NDXMIN 2 MINIMUM NUMBER OF DX INTERVALS

 COMPUTED KINEMATIC PARAMETERS
 VARIABLE TIME STEP
 (DT SHOWN IS A MINIMUM)

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	7.79	1.25	0.24	166.67	64.43	360.42	2.38	14.87

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4943E+01 EXCESS=0.0000E+00 OUTFLOW=0.4943E+01 BASIN STORAGE=0.1584E-04 PERCENT ERROR= 0.0

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	7.79	1.25	15.00	63.66	360.00	2.38
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 HYDROGRAPH AT STATION 48'RCP

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW		
1	0000	1	0.	*	1	0630	27	17.	*	1	1300	53	1.	*	1	1930	79	1.
1	0015	2	0.	*	1	0645	28	9.	*	1	1315	54	1.	*	1	1945	80	1.
1	0030	3	0.	*	1	0700	29	6.	*	1	1330	55	1.	*	1	2000	81	1.
1	0045	4	0.	*	1	0715	30	4.	*	1	1345	56	1.	*	1	2015	82	1.
1	0100	5	0.	*	1	0730	31	4.	*	1	1400	57	1.	*	1	2030	83	1.
1	0115	6	0.	*	1	0745	32	4.	*	1	1415	58	1.	*	1	2045	84	0.

1	0130	7	0.	*	1	0800	33	4.	*	1	1430	59	1.	*	1	2100	85	0.
1	0145	8	0.	*	1	0815	34	3.	*	1	1445	60	1.	*	1	2115	86	0.
1	0200	9	0.	*	1	0830	35	2.	*	1	1500	61	1.	*	1	2130	87	0.
1	0215	10	0.	*	1	0845	36	2.	*	1	1515	62	1.	*	1	2145	88	0.
1	0230	11	0.	*	1	0900	37	2.	*	1	1530	63	1.	*	1	2200	89	0.
1	0245	12	0.	*	1	0915	38	2.	*	1	1545	64	1.	*	1	2215	90	0.
1	0300	13	0.	*	1	0930	39	2.	*	1	1600	65	1.	*	1	2230	91	0.
1	0315	14	0.	*	1	0945	40	2.	*	1	1615	66	1.	*	1	2245	92	0.
1	0330	15	0.	*	1	1000	41	2.	*	1	1630	67	1.	*	1	2300	93	0.
1	0345	16	0.	*	1	1015	42	2.	*	1	1645	68	1.	*	1	2315	94	0.
1	0400	17	0.	*	1	1030	43	1.	*	1	1700	69	1.	*	1	2330	95	0.
1	0415	18	0.	*	1	1045	44	1.	*	1	1715	70	1.	*	1	2345	96	0.
1	0430	19	0.	*	1	1100	45	1.	*	1	1730	71	1.	*	2	0000	97	0.
1	0445	20	0.	*	1	1115	46	1.	*	1	1745	72	1.	*	2	0015	98	0.
1	0500	21	0.	*	1	1130	47	1.	*	1	1800	73	1.	*	2	0030	99	0.
1	0515	22	0.	*	1	1145	48	1.	*	1	1815	74	1.	*	2	0045	100	0.
1	0530	23	0.	*	1	1200	49	1.	*	1	1830	75	1.	*	2	0100	101	0.
1	0545	24	24.	*	1	1215	50	1.	*	1	1845	76	1.	*				
1	0600	25	64.	*	1	1230	51	1.	*	1	1900	77	1.	*				
1	0615	26	37.	*	1	1245	52	1.	*	1	1915	78	1.	*				

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW					
		6-HR	24-HR	72-HR	25.00-HR	(CFS)	(HR)
		64.	6.00		8.	2.	2.
		(CFS)					
		1.934	2.380	2.380	2.380		
		(INCHES)					
		4.	5.	5.	5.		
		(AC-FT)					

CUMULATIVE AREA = 0.04 SQ MI

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 * *
 76 KK pond *
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78 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

79 HC HYDROGRAPH COMBINATION

ICOMP	2	NUMBER OF HYDROGRAPHS TO COMBINE
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HYDROGRAPH AT STATION pond
 SUM OF 2 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	
1		0000	1	0.	*	1		0630	27	43.	*	1		1300	53	3.	*	1		1930	79	2.	*	
1		0015	2	0.	*	1		0645	28	35.	*	1		1315	54	3.	*	1		1945	80	2.	*	
1		0030	3	0.	*	1		0700	29	32.	*	1		1330	55	3.	*	1		2000	81	2.	*	
1		0045	4	0.	*	1		0715	30	29.	*	1		1345	56	3.	*	1		2015	82	2.	*	
1		0100	5	0.	*	1		0730	31	28.	*	1		1400	57	3.	*	1		2030	83	2.	*	
1		0115	6	0.	*	1		0745	32	27.	*	1		1415	58	3.	*	1		2045	84	1.	*	
1		0130	7	0.	*	1		0800	33	24.	*	1		1430	59	3.	*	1		2100	85	1.	*	
1		0145	8	0.	*	1		0815	34	19.	*	1		1445	60	3.	*	1		2115	86	1.	*	
1		0200	9	0.	*	1		0830	35	16.	*	1		1500	61	3.	*	1		2130	87	1.	*	
1		0215	10	0.	*	1		0845	36	13.	*	1		1515	62	3.	*	1		2145	88	1.	*	
1		0230	11	0.	*	1		0900	37	11.	*	1		1530	63	2.	*	1		2200	89	1.	*	
1		0245	12	0.	*	1		0915	38	9.	*	1		1545	64	2.	*	1		2215	90	1.	*	
1		0300	13	0.	*	1		0930	39	8.	*	1		1600	65	2.	*	1		2230	91	1.	*	
1		0315	14	0.	*	1		0945	40	7.	*	1		1615	66	2.	*	1		2245	92	1.	*	
1		0330	15	0.	*	1		1000	41	6.	*	1		1630	67	2.	*	1		2300	93	1.	*	
1		0345	16	0.	*	1		1015	42	6.	*	1		1645	68	2.	*	1		2315	94	1.	*	
1		0400	17	0.	*	1		1030	43	5.	*	1		1700	69	2.	*	1		2330	95	1.	*	
1		0415	18	0.	*	1		1045	44	4.	*	1		1715	70	2.	*	1		2345	96	1.	*	
1		0430	19	0.	*	1		1100	45	4.	*	1		1730	71	2.	*	2		0000	97	1.	*	
1		0445	20	0.	*	1		1115	46	4.	*	1		1745	72	2.	*	2		0015	98	1.	*	
1		0500	21	0.	*	1		1130	47	4.	*	1		1800	73	2.	*	2		0030	99	1.	*	
1		0515	22	0.	*	1		1145	48	4.	*	1		1815	74	2.	*	2		0045	100	0.	*	
1		0530	23	1.	*	1		1200	49	4.	*	1		1830	75	2.	*	2		0100	101	0.	*	
1		0545	24	33.	*	1		1215	50	3.	*	1		1845	76	2.	*							*
1		0600	25	87.	*	1		1230	51	3.	*	1		1900	77	2.	*							*
1		0615	26	64.	*	1		1245	52	3.	*	1		1915	78	2.	*							*

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW						
		6-HR	24-HR	72-HR	25.00-HR	(CFS)	(HR)	
		87.	6.00		21.	7.	6.	6.
		(INCHES) 2.240	2.742	2.742	2.742			
		(AC-FT) 11.	13.	13.	13.			

CUMULATIVE AREA = 0.09 SQ MI

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80 KK *****
 * *
 * 42"RCP *
 * *

 42" RCP IN RESEARCH

82 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

HYDROGRAPH ROUTING DATA

83 RK

KINEMATIC WAVE STREAM ROUTING

L 700. CHANNEL LENGTH
 S 0.0130 SLOPE
 N 0.013 CHANNEL ROUGHNESS COEFFICIENT
 CA 0.00 CONTRIBUTING AREA
 SHAPE CIRC CHANNEL SHAPE
 WD 3.50 BOTTOM WIDTH OR DIAMETER
 Z 1.00 SIDE SLOPE
 NDXMIN 2 MINIMUM NUMBER OF DX INTERVALS

COMPUTED KINEMATIC PARAMETERS
 VARIABLE TIME STEP
 (DT SHOWN IS A MINIMUM)

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	8.69	1.25	0.33	233.33	86.86	360.46	2.74	17.23

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1302E+02 EXCESS=0.0000E+00 OUTFLOW=0.1301E+02 BASIN STORAGE=0.5792E-03 PERCENT ERROR= 0.0

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	8.69	1.25	15.00	85.69	360.00	2.74
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HYDROGRAPH AT STATION 42"RCP

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*
1	0000	1	0.	*	1	0630	27	44.	*	1	1300	53	3.	*	1	1930	79	2.					
1	0015	2	0.	*	1	0645	28	35.	*	1	1315	54	3.	*	1	1945	80	2.					
1	0030	3	0.	*	1	0700	29	32.	*	1	1330	55	3.	*	1	2000	81	2.					
1	0045	4	0.	*	1	0715	30	29.	*	1	1345	56	3.	*	1	2015	82	2.					
1	0100	5	0.	*	1	0730	31	28.	*	1	1400	57	3.	*	1	2030	83	2.					
1	0115	6	0.	*	1	0745	32	27.	*	1	1415	58	3.	*	1	2045	84	2.					
1	0130	7	0.	*	1	0800	33	24.	*	1	1430	59	3.	*	1	2100	85	1.					
1	0145	8	0.	*	1	0815	34	19.	*	1	1445	60	3.	*	1	2115	86	1.					
1	0200	9	0.	*	1	0830	35	16.	*	1	1500	61	3.	*	1	2130	87	1.					
1	0215	10	0.	*	1	0845	36	13.	*	1	1515	62	3.	*	1	2145	88	1.					
1	0230	11	0.	*	1	0900	37	11.	*	1	1530	63	2.	*	1	2200	89	1.					
1	0245	12	0.	*	1	0915	38	9.	*	1	1545	64	2.	*	1	2215	90	1.					
1	0300	13	0.	*	1	0930	39	8.	*	1	1600	65	2.	*	1	2230	91	1.					
1	0315	14	0.	*	1	0945	40	7.	*	1	1615	66	2.	*	1	2245	92	1.					
1	0330	15	0.	*	1	1000	41	6.	*	1	1630	67	2.	*	1	2300	93	1.					
1	0345	16	0.	*	1	1015	42	6.	*	1	1645	68	2.	*	1	2315	94	1.					
1	0400	17	0.	*	1	1030	43	5.	*	1	1700	69	2.	*	1	2330	95	1.					
1	0415	18	0.	*	1	1045	44	4.	*	1	1715	70	2.	*	1	2345	96	1.					
1	0430	19	0.	*	1	1100	45	4.	*	1	1730	71	2.	*	2	0000	97	1.					
1	0445	20	0.	*	1	1115	46	4.	*	1	1745	72	2.	*	2	0015	98	1.					
1	0500	21	0.	*	1	1130	47	4.	*	1	1800	73	2.	*	2	0030	99	1.					
1	0515	22	0.	*	1	1145	48	4.	*	1	1815	74	2.	*	2	0045	100	0.					

101 LS SCS LOSS RATE
 STRTL 0.47 INITIAL ABSTRACTION
 CRVNBR 81.00 CURVE NUMBER
 RTIMP 0.00 PERCENT IMPERVIOUS AREA

102 UD SCS DIMENSIONLESS UNITGRAPH
 TLAG 0.22 LAG

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
 6 END-OF-PERIOD ORDINATES

21. 18. 5. 2. 0. 0.

HYDROGRAPH AT STATION GH11

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	0.00	0.00	0.00	0.	*	1		1245	52	0.02	0.00	0.01	1.
1		0015	2	0.00	0.00	0.00	0.	*	1		1300	53	0.02	0.00	0.01	1.
1		0030	3	0.00	0.00	0.00	0.	*	1		1315	54	0.01	0.00	0.01	1.
1		0045	4	0.01	0.01	0.00	0.	*	1		1330	55	0.01	0.00	0.01	1.
1		0100	5	0.01	0.01	0.00	0.	*	1		1345	56	0.01	0.00	0.01	1.
1		0115	6	0.01	0.01	0.00	0.	*	1		1400	57	0.01	0.00	0.01	1.
1		0130	7	0.01	0.01	0.00	0.	*	1		1415	58	0.01	0.00	0.01	1.
1		0145	8	0.01	0.01	0.00	0.	*	1		1430	59	0.01	0.00	0.01	1.
1		0200	9	0.01	0.01	0.00	0.	*	1		1445	60	0.01	0.00	0.01	1.
1		0215	10	0.01	0.01	0.00	0.	*	1		1500	61	0.01	0.00	0.01	1.
1		0230	11	0.01	0.01	0.00	0.	*	1		1515	62	0.01	0.00	0.01	0.
1		0245	12	0.01	0.01	0.00	0.	*	1		1530	63	0.01	0.00	0.01	0.
1		0300	13	0.01	0.01	0.00	0.	*	1		1545	64	0.01	0.00	0.01	0.
1		0315	14	0.01	0.01	0.00	0.	*	1		1600	65	0.01	0.00	0.01	0.
1		0330	15	0.01	0.01	0.00	0.	*	1		1615	66	0.01	0.00	0.01	0.
1		0345	16	0.01	0.01	0.00	0.	*	1		1630	67	0.01	0.00	0.01	0.
1		0400	17	0.02	0.02	0.00	0.	*	1		1645	68	0.01	0.00	0.01	0.
1		0415	18	0.03	0.03	0.00	0.	*	1		1700	69	0.01	0.00	0.01	0.
1		0430	19	0.03	0.03	0.00	0.	*	1		1715	70	0.01	0.00	0.01	0.
1		0445	20	0.03	0.03	0.00	0.	*	1		1730	71	0.01	0.00	0.01	0.
1		0500	21	0.03	0.03	0.00	0.	*	1		1745	72	0.01	0.00	0.01	0.
1		0515	22	0.07	0.07	0.00	0.	*	1		1800	73	0.01	0.00	0.01	0.
1		0530	23	0.11	0.11	0.00	0.	*	1		1815	74	0.01	0.00	0.01	0.
1		0545	24	1.32	0.86	0.46	10.	*	1		1830	75	0.01	0.00	0.01	0.
1		0600	25	1.32	0.40	0.92	27.	*	1		1845	76	0.01	0.00	0.01	0.
1		0615	26	0.11	0.02	0.09	21.	*	1		1900	77	0.01	0.00	0.01	0.
1		0630	27	0.11	0.02	0.09	9.	*	1		1915	78	0.01	0.00	0.01	0.
1		0645	28	0.07	0.01	0.05	5.	*	1		1930	79	0.01	0.00	0.01	0.
1		0700	29	0.07	0.01	0.05	3.	*	1		1945	80	0.01	0.00	0.01	0.
1		0715	30	0.04	0.01	0.04	2.	*	1		2000	81	0.01	0.00	0.01	0.
1		0730	31	0.04	0.01	0.04	2.	*	1		2015	82	0.01	0.00	0.00	0.
1		0745	32	0.04	0.01	0.04	2.	*	1		2030	83	0.01	0.00	0.00	0.
1		0800	33	0.04	0.01	0.04	2.	*	1		2045	84	0.01	0.00	0.00	0.
1		0815	34	0.02	0.00	0.02	1.	*	1		2100	85	0.01	0.00	0.00	0.
1		0830	35	0.02	0.00	0.02	1.	*	1		2115	86	0.01	0.00	0.00	0.
1		0845	36	0.02	0.00	0.02	1.	*	1		2130	87	0.01	0.00	0.00	0.
1		0900	37	0.02	0.00	0.02	1.	*	1		2145	88	0.01	0.00	0.00	0.
1		0915	38	0.02	0.00	0.02	1.	*	1		2200	89	0.01	0.00	0.00	0.
1		0930	39	0.02	0.00	0.02	1.	*	1		2215	90	0.01	0.00	0.00	0.

1	0945	40	0.02	0.00	0.02	1.	*	1	2230	91	0.01	0.00	0.00	0.
1	1000	41	0.02	0.00	0.02	1.	*	1	2245	92	0.01	0.00	0.00	0.
1	1015	42	0.02	0.00	0.01	1.	*	1	2300	93	0.01	0.00	0.00	0.
1	1030	43	0.02	0.00	0.01	1.	*	1	2315	94	0.01	0.00	0.00	0.
1	1045	44	0.02	0.00	0.01	1.	*	1	2330	95	0.01	0.00	0.00	0.
1	1100	45	0.02	0.00	0.01	1.	*	1	2345	96	0.01	0.00	0.00	0.
1	1115	46	0.02	0.00	0.01	1.	*	2	0000	97	0.01	0.00	0.00	0.
1	1130	47	0.02	0.00	0.01	1.	*	2	0015	98	0.00	0.00	0.00	0.
1	1145	48	0.02	0.00	0.01	1.	*	2	0030	99	0.00	0.00	0.00	0.
1	1200	49	0.02	0.00	0.01	1.	*	2	0045	100	0.00	0.00	0.00	0.
1	1215	50	0.02	0.00	0.01	1.	*	2	0100	101	0.00	0.00	0.00	0.
1	1230	51	0.02	0.00	0.01	1.	*							

TOTAL RAINFALL = 4.40, TOTAL LOSS = 1.94, TOTAL EXCESS = 2.46

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				(CFS)	(HR)
		6-HR	24-HR	72-HR	25.00-HR		
		(CFS)	27.	6.00	4.	1.	1.
		(INCHES)	2.006	2.462	2.462		1.
		(AC-FT)	2.	2.	2.		

CUMULATIVE AREA = 0.02 SQ MI

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103 KK

 * Conf2 *

UTC OUTLET/ GH FLOWS

105 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

106 HC HYDROGRAPH COMBINATION

ICOMP	2	NUMBER OF HYDROGRAPHS TO COMBINE
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HYDROGRAPH AT STATION Conf2
 SUM OF 2 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	
1	0000	1	0.	1	0630	27	53.	1	1300	53	4.	1	1930	79	3.

1	0015	2	0.	*	1	0645	28	40.	*	1	1315	54	4.	*	1	1945	80	3.
1	0030	3	0.	*	1	0700	29	35.	*	1	1330	55	4.	*	1	2000	81	3.
1	0045	4	0.	*	1	0715	30	31.	*	1	1345	56	4.	*	1	2015	82	2.
1	0100	5	0.	*	1	0730	31	29.	*	1	1400	57	4.	*	1	2030	83	2.
1	0115	6	0.	*	1	0745	32	28.	*	1	1415	58	3.	*	1	2045	84	2.
1	0130	7	0.	*	1	0800	33	25.	*	1	1430	59	3.	*	1	2100	85	2.
1	0145	8	0.	*	1	0815	34	21.	*	1	1445	60	3.	*	1	2115	86	2.
1	0200	9	0.	*	1	0830	35	17.	*	1	1500	61	3.	*	1	2130	87	1.
1	0215	10	0.	*	1	0845	36	14.	*	1	1515	62	3.	*	1	2145	88	1.
1	0230	11	0.	*	1	0900	37	12.	*	1	1530	63	3.	*	1	2200	89	1.
1	0245	12	0.	*	1	0915	38	10.	*	1	1545	64	3.	*	1	2215	90	1.
1	0300	13	0.	*	1	0930	39	9.	*	1	1600	65	3.	*	1	2230	91	1.
1	0315	14	0.	*	1	0945	40	8.	*	1	1615	66	3.	*	1	2245	92	1.
1	0330	15	0.	*	1	1000	41	7.	*	1	1630	67	3.	*	1	2300	93	1.
1	0345	16	0.	*	1	1015	42	6.	*	1	1645	68	3.	*	1	2315	94	1.
1	0400	17	0.	*	1	1030	43	6.	*	1	1700	69	3.	*	1	2330	95	1.
1	0415	18	0.	*	1	1045	44	5.	*	1	1715	70	3.	*	1	2345	96	1.
1	0430	19	0.	*	1	1100	45	5.	*	1	1730	71	3.	*	2	0000	97	1.
1	0445	20	0.	*	1	1115	46	5.	*	1	1745	72	3.	*	2	0015	98	1.
1	0500	21	0.	*	1	1130	47	4.	*	1	1800	73	3.	*	2	0030	99	1.
1	0515	22	0.	*	1	1145	48	4.	*	1	1815	74	3.	*	2	0045	100	0.
1	0530	23	1.	*	1	1200	49	4.	*	1	1830	75	3.	*	2	0100	101	0.
1	0545	24	41.	*	1	1215	50	4.	*	1	1845	76	3.	*				
1	0600	25	113.	*	1	1230	51	4.	*	1	1900	77	3.	*				
1	0615	26	85.	*	1	1245	52	4.	*	1	1915	78	3.	*				

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW						
		(CFS)	6-HR	24-HR	72-HR	25.00-HR	(CFS)	(HR)
		113.	6.00	2.696	2.696	25.	8.	7.
		(INCHES)	2.201	2.696	2.696	2.696		
		(AC-FT)	13.	15.	15.	15.		

CUMULATIVE AREA = 0.11 SQ MI

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* *
107 KK * 42"RCP *
* *

42" RCP IN RESEARCH

109 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

HYDROGRAPH ROUTING DATA

110 RK KINEMATIC WAVE STREAM ROUTING
L 900. CHANNEL LENGTH

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW					(CFS)	(HR)	7.
		6-HR	24-HR	72-HR	25.00-HR				
	(CFS)	111.	6.00		25.	8.			
	(INCHES)	2.203	2.698	2.698	2.698				
	(AC-FT)	13.	15.	15.	15.				

CUMULATIVE AREA = 0.11 SQ MI

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 * *
 111 KK * STREET *
 * *

STREET FLOWS FROM RESEARCH

113 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

116 IN TIME DATA FOR INPUT TIME SERIES

JXMIN	15	TIME INTERVAL IN MINUTES
JXDATE	1 0	STARTING DATE
JXTIME	0	STARTING TIME

SUBBASIN RUNOFF DATA

114 BA SUBBASIN CHARACTERISTICS

TAREA	0.02	SUBBASIN AREA
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PRECIPITATION DATA

115 PB STORM 4.40 BASIN TOTAL PRECIPITATION

117 PI INCREMENTAL PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
0.02	0.02	0.30	0.30	0.03	0.02	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

128 LS SCS LOSS RATE

STRTL	0.11	INITIAL ABSTRACTION
CRVNBR	95.00	CURVE NUMBER
RTIMP	0.00	PERCENT IMPERVIOUS AREA

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
6 END-OF-PERIOD ORDINATES
0. 0.

28. 16. 4. 1.

HYDROGRAPH AT STATION STREET

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	0.00	0.00	0.00	0.	*	1		1245	52	0.02	0.00	0.02	1.
1		0015	2	0.00	0.00	0.00	0.	*	1		1300	53	0.02	0.00	0.02	1.
1		0030	3	0.00	0.00	0.00	0.	*	1		1315	54	0.01	0.00	0.01	1.
1		0045	4	0.01	0.01	0.00	0.	*	1		1330	55	0.01	0.00	0.01	1.
1		0100	5	0.01	0.01	0.00	0.	*	1		1345	56	0.01	0.00	0.01	1.
1		0115	6	0.01	0.01	0.00	0.	*	1		1400	57	0.01	0.00	0.01	1.
1		0130	7	0.01	0.01	0.00	0.	*	1		1415	58	0.01	0.00	0.01	1.
1		0145	8	0.01	0.01	0.00	0.	*	1		1430	59	0.01	0.00	0.01	1.
1		0200	9	0.01	0.01	0.00	0.	*	1		1445	60	0.01	0.00	0.01	1.
1		0215	10	0.01	0.01	0.00	0.	*	1		1500	61	0.01	0.00	0.01	1.
1		0230	11	0.01	0.01	0.00	0.	*	1		1515	62	0.01	0.00	0.01	1.
1		0245	12	0.01	0.01	0.00	0.	*	1		1530	63	0.01	0.00	0.01	1.
1		0300	13	0.01	0.01	0.00	0.	*	1		1545	64	0.01	0.00	0.01	1.
1		0315	14	0.01	0.01	0.00	0.	*	1		1600	65	0.01	0.00	0.01	1.
1		0330	15	0.01	0.01	0.00	0.	*	1		1615	66	0.01	0.00	0.01	1.
1		0345	16	0.01	0.01	0.00	0.	*	1		1630	67	0.01	0.00	0.01	1.
1		0400	17	0.02	0.02	0.00	0.	*	1		1645	68	0.01	0.00	0.01	1.
1		0415	18	0.03	0.03	0.01	0.	*	1		1700	69	0.01	0.00	0.01	1.
1		0430	19	0.03	0.02	0.01	0.	*	1		1715	70	0.01	0.00	0.01	1.
1		0445	20	0.03	0.02	0.01	0.	*	1		1730	71	0.01	0.00	0.01	1.
1		0500	21	0.03	0.02	0.01	1.	*	1		1745	72	0.01	0.00	0.01	1.
1		0515	22	0.07	0.04	0.03	1.	*	1		1800	73	0.01	0.00	0.01	1.
1		0530	23	0.11	0.05	0.06	2.	*	1		1815	74	0.01	0.00	0.01	1.
1		0545	24	1.32	0.19	1.13	33.	*	1		1830	75	0.01	0.00	0.01	1.
1		0600	25	1.32	0.05	1.27	54.	*	1		1845	76	0.01	0.00	0.01	1.
1		0615	26	0.11	0.00	0.11	27.	*	1		1900	77	0.01	0.00	0.01	1.
1		0630	27	0.11	0.00	0.11	11.	*	1		1915	78	0.01	0.00	0.01	1.
1		0645	28	0.07	0.00	0.06	6.	*	1		1930	79	0.01	0.00	0.01	1.
1		0700	29	0.07	0.00	0.06	4.	*	1		1945	80	0.01	0.00	0.01	1.
1		0715	30	0.04	0.00	0.04	3.	*	1		2000	81	0.01	0.00	0.01	1.
1		0730	31	0.04	0.00	0.04	2.	*	1		2015	82	0.01	0.00	0.01	0.
1		0745	32	0.04	0.00	0.04	2.	*	1		2030	83	0.01	0.00	0.01	0.
1		0800	33	0.04	0.00	0.04	2.	*	1		2045	84	0.01	0.00	0.01	0.
1		0815	34	0.02	0.00	0.02	2.	*	1		2100	85	0.01	0.00	0.01	0.
1		0830	35	0.02	0.00	0.02	1.	*	1		2115	86	0.01	0.00	0.01	0.
1		0845	36	0.02	0.00	0.02	1.	*	1		2130	87	0.01	0.00	0.01	0.
1		0900	37	0.02	0.00	0.02	1.	*	1		2145	88	0.01	0.00	0.01	0.
1		0915	38	0.02	0.00	0.02	1.	*	1		2200	89	0.01	0.00	0.01	0.
1		0930	39	0.02	0.00	0.02	1.	*	1		2215	90	0.01	0.00	0.01	0.
1		0945	40	0.02	0.00	0.02	1.	*	1		2230	91	0.01	0.00	0.01	0.
1		1000	41	0.02	0.00	0.02	1.	*	1		2245	92	0.01	0.00	0.01	0.
1		1015	42	0.02	0.00	0.02	1.	*	1		2300	93	0.01	0.00	0.01	0.
1		1030	43	0.02	0.00	0.02	1.	*	1		2315	94	0.01	0.00	0.01	0.
1		1045	44	0.02	0.00	0.02	1.	*	1		2330	95	0.01	0.00	0.01	0.
1		1100	45	0.02	0.00	0.02	1.	*	1		2345	96	0.01	0.00	0.01	0.

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

147 LS SCS LOSS RATE
 STRTL 0.50 INITIAL ABSTRACTION
 CRVNR 80.00 CURVE NUMBER
 RTIMP 0.00 PERCENT IMPERVIOUS AREA

148 UD SCS DIMENSIONLESS UNITGRAPH
 TLAG 0.08 LAG

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
 5 END-OF-PERIOD ORDINATES
 23. 6. 1. 0. 0.

HYDROGRAPH AT STATION UTCW

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	0.00	0.00	0.00	0.	*	1		1245	52	0.02	0.00	0.01	0.
1		0015	2	0.00	0.00	0.00	0.	*	1		1300	53	0.02	0.00	0.01	0.
1		0030	3	0.00	0.00	0.00	0.	*	1		1315	54	0.01	0.00	0.01	0.
1		0045	4	0.01	0.01	0.00	0.	*	1		1330	55	0.01	0.00	0.01	0.
1		0100	5	0.01	0.01	0.00	0.	*	1		1345	56	0.01	0.00	0.01	0.
1		0115	6	0.01	0.01	0.00	0.	*	1		1400	57	0.01	0.00	0.01	0.
1		0130	7	0.01	0.01	0.00	0.	*	1		1415	58	0.01	0.00	0.01	0.
1		0145	8	0.01	0.01	0.00	0.	*	1		1430	59	0.01	0.00	0.01	0.
1		0200	9	0.01	0.01	0.00	0.	*	1		1445	60	0.01	0.00	0.01	0.
1		0215	10	0.01	0.01	0.00	0.	*	1		1500	61	0.01	0.00	0.01	0.
1		0230	11	0.01	0.01	0.00	0.	*	1		1515	62	0.01	0.00	0.01	0.
1		0245	12	0.01	0.01	0.00	0.	*	1		1530	63	0.01	0.00	0.01	0.
1		0300	13	0.01	0.01	0.00	0.	*	1		1545	64	0.01	0.00	0.01	0.
1		0315	14	0.01	0.01	0.00	0.	*	1		1600	65	0.01	0.00	0.01	0.
1		0330	15	0.01	0.01	0.00	0.	*	1		1615	66	0.01	0.00	0.01	0.
1		0345	16	0.01	0.01	0.00	0.	*	1		1630	67	0.01	0.00	0.01	0.
1		0400	17	0.02	0.02	0.00	0.	*	1		1645	68	0.01	0.00	0.01	0.
1		0415	18	0.03	0.03	0.00	0.	*	1		1700	69	0.01	0.00	0.01	0.
1		0430	19	0.03	0.03	0.00	0.	*	1		1715	70	0.01	0.00	0.01	0.
1		0445	20	0.03	0.03	0.00	0.	*	1		1730	71	0.01	0.00	0.01	0.
1		0500	21	0.03	0.03	0.00	0.	*	1		1745	72	0.01	0.00	0.01	0.
1		0515	22	0.07	0.07	0.00	0.	*	1		1800	73	0.01	0.00	0.01	0.
1		0530	23	0.11	0.11	0.00	0.	*	1		1815	74	0.01	0.00	0.01	0.
1		0545	24	1.32	0.90	0.42	10.	*	1		1830	75	0.01	0.00	0.01	0.
1		0600	25	1.32	0.43	0.89	23.	*	1		1845	76	0.01	0.00	0.01	0.
1		0615	26	0.11	0.03	0.08	8.	*	1		1900	77	0.01	0.00	0.01	0.
1		0630	27	0.11	0.02	0.09	4.	*	1		1915	78	0.01	0.00	0.01	0.
1		0645	28	0.07	0.01	0.05	2.	*	1		1930	79	0.01	0.00	0.01	0.
1		0700	29	0.07	0.01	0.05	2.	*	1		1945	80	0.01	0.00	0.01	0.
1		0715	30	0.04	0.01	0.03	1.	*	1		2000	81	0.01	0.00	0.01	0.
1		0730	31	0.04	0.01	0.03	1.	*	1		2015	82	0.01	0.00	0.00	0.
1		0745	32	0.04	0.01	0.04	1.	*	1		2030	83	0.01	0.00	0.00	0.
1		0800	33	0.04	0.01	0.04	1.	*	1		2045	84	0.01	0.00	0.00	0.
1		0815	34	0.02	0.00	0.02	1.	*	1		2100	85	0.01	0.00	0.00	0.
1		0830	35	0.02	0.00	0.02	1.	*	1		2115	86	0.01	0.00	0.00	0.

1	0845	35	0.02	0.00	0.02	1.	*	1	2130	87	0.01	0.00	0.00	0.
1	0900	37	0.02	0.00	0.02	1.	*	1	2145	88	0.01	0.00	0.00	0.
1	0915	38	0.02	0.00	0.02	1.	*	1	2200	89	0.01	0.00	0.00	0.
1	0930	39	0.02	0.00	0.02	1.	*	1	2215	90	0.01	0.00	0.00	0.
1	0945	40	0.02	0.00	0.02	1.	*	1	2230	91	0.01	0.00	0.00	0.
1	1000	41	0.02	0.00	0.02	1.	*	1	2245	92	0.01	0.00	0.00	0.
1	1015	42	0.02	0.00	0.01	0.	*	1	2300	93	0.01	0.00	0.00	0.
1	1030	43	0.02	0.00	0.01	0.	*	1	2315	94	0.01	0.00	0.00	0.
1	1045	44	0.02	0.00	0.01	0.	*	1	2330	95	0.01	0.00	0.00	0.
1	1100	45	0.02	0.00	0.01	0.	*	1	2345	96	0.01	0.00	0.00	0.
1	1115	46	0.02	0.00	0.01	0.	*	2	0000	97	0.01	0.00	0.00	0.
1	1130	47	0.02	0.00	0.01	0.	*	2	0015	98	0.00	0.00	0.00	0.
1	1145	48	0.02	0.00	0.01	0.	*	2	0030	99	0.00	0.00	0.00	0.
1	1200	49	0.02	0.00	0.01	0.	*	2	0045	100	0.00	0.00	0.00	0.
1	1215	50	0.02	0.00	0.01	0.	*	2	0100	101	0.00	0.00	0.00	0.
1	1230	51	0.02	0.00	0.01	0.	*							

TOTAL RAINFALL = 4.40, TOTAL LOSS = 2.02, TOTAL EXCESS = 2.38

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				(CFS)	(HR)		
		6-HR	24-HR	72-HR	25.00-HR				
		(CFS)	23.	6.00		2.	1.	1.	1.
		(INCHES)	1.934	2.377	2.377	2.377			
		(AC-FT)	1.	2.	2.	2.			

CUMULATIVE AREA = 0.01 SQ MI

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*          *
149 KK   * Conf3 *
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151 KO      OUTPUT CONTROL VARIABLES
            IPRNT      0  PRINT CONTROL
            IPLOT      0  PLOT CONTROL
            QSCAL      0. HYDROGRAPH PLOT SCALE
            IPNCH      0  PUNCH COMPUTED HYDROGRAPH
            IOUT       22  SAVE HYDROGRAPH ON THIS UNIT
            ISAV1      1  FIRST ORDINATE PUNCHED OR SAVED
            ISAV2     101  LAST ORDINATE PUNCHED OR SAVED
            TIMINT     0.250 TIME INTERVAL IN HOURS

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152 HC      HYDROGRAPH COMBINATION
            ICOMP      3  NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION Conf3
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	
1		0000	1	0.	*	1		0630	27	69.	*	1		1300	53	5.	*	1		1930	79	3.	*	
1		0015	2	0.	*	1		0645	28	48.	*	1		1315	54	5.	*	1		1945	80	3.	*	
1		0030	3	0.	*	1		0700	29	41.	*	1		1330	55	5.	*	1		2000	81	3.	*	
1		0045	4	0.	*	1		0715	30	35.	*	1		1345	56	5.	*	1		2015	82	3.	*	
1		0100	5	0.	*	1		0730	31	33.	*	1		1400	57	5.	*	1		2030	83	2.	*	
1		0115	6	0.	*	1		0745	32	32.	*	1		1415	58	4.	*	1		2045	84	2.	*	
1		0130	7	0.	*	1		0800	33	29.	*	1		1430	59	4.	*	1		2100	85	2.	*	
1		0145	8	0.	*	1		0815	34	23.	*	1		1445	60	4.	*	1		2115	86	2.	*	
1		0200	9	0.	*	1		0830	35	19.	*	1		1500	61	4.	*	1		2130	87	2.	*	
1		0215	10	0.	*	1		0845	36	16.	*	1		1515	62	4.	*	1		2145	88	2.	*	
1		0230	11	0.	*	1		0900	37	14.	*	1		1530	63	4.	*	1		2200	89	2.	*	
1		0245	12	0.	*	1		0915	38	12.	*	1		1545	64	4.	*	1		2215	90	2.	*	
1		0300	13	0.	*	1		0930	39	10.	*	1		1600	65	4.	*	1		2230	91	2.	*	
1		0315	14	0.	*	1		0945	40	10.	*	1		1615	66	4.	*	1		2245	92	2.	*	
1		0330	15	0.	*	1		1000	41	9.	*	1		1630	67	4.	*	1		2300	93	2.	*	
1		0345	16	0.	*	1		1015	42	8.	*	1		1645	68	4.	*	1		2315	94	2.	*	
1		0400	17	0.	*	1		1030	43	7.	*	1		1700	69	4.	*	1		2330	95	2.	*	
1		0415	18	0.	*	1		1045	44	6.	*	1		1715	70	4.	*	1		2345	96	2.	*	
1		0430	19	0.	*	1		1100	45	6.	*	1		1730	71	3.	*	2		0000	97	2.	*	
1		0445	20	0.	*	1		1115	46	6.	*	1		1745	72	3.	*	2		0015	98	1.	*	
1		0500	21	1.	*	1		1130	47	6.	*	1		1800	73	3.	*	2		0030	99	1.	*	
1		0515	22	1.	*	1		1145	48	6.	*	1		1815	74	3.	*	2		0045	100	0.	*	
1		0530	23	3.	*	1		1200	49	5.	*	1		1830	75	3.	*	2		0100	101	0.	*	
1		0545	24	82.	*	1		1215	50	5.	*	1		1845	76	3.	*							*
1		0600	25	187.	*	1		1230	51	5.	*	1		1900	77	3.	*							*
1		0615	26	122.	*	1		1245	52	5.	*	1		1915	78	3.	*							*

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW							
		(CFS)	6-HR	24-HR	72-HR	25.00-HR	(CFS)	(HR)	10.
		187.	187.	6.00	2.826	2.826	34.	10.	10.
		(INCHES)	2.320	2.826	2.826	2.826			
		(AC-FT)	17.	21.	21.	21.			

CUMULATIVE AREA = 0.14 SQ MI

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153 KK * 36"RCP *
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36 " RCP IN LEXINGTON

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155 KO OUTPUT CONTROL VARIABLES
IPRNT 0 PRINT CONTROL
IPLOT 0 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE
IPNCH 0 PUNCH COMPUTED HYDROGRAPH
IOUT 22 SAVE HYDROGRAPH ON THIS UNIT
ISAV1 1 FIRST ORDINATE PUNCHED OR SAVED
ISAV2 101 LAST ORDINATE PUNCHED OR SAVED
TIMINT 0.250 TIME INTERVAL IN HOURS

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1	0600	25	186.	*	1	1230	51	5.	*	1	1900	77	3.	*
1	0615	26	123.	*	1	1245	52	5.	*	1	1915	78	3.	*
				*					*					*

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW						
			6-HR	24-HR	72-HR	25.00-HR	(CFS)	(HR)	
		(CFS)	186.	6.00		34.	10.	10.	10.
		(INCHES)	2.321	2.827	2.827	2.827			
		(AC-FT)	17.	21.	21.	21.			

CUMULATIVE AREA = 0.14 SQ MI

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157 KK * APTS *
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WESTERLY APARTMENTS

159 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

162 IN TIME DATA FOR INPUT TIME SERIES

JXMIN	15	TIME INTERVAL IN MINUTES
JXDATE	1 0	STARTING DATE
JXTIME	0	STARTING TIME

SUBBASIN RUNOFF DATA

160 BA SUBBASIN CHARACTERISTICS

TAREA	0.01	SUBBASIN AREA
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PRECIPITATION DATA

161 PB STORM 4.40 BASIN TOTAL PRECIPITATION

163 PI INCREMENTAL PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
0.02	0.02	0.30	0.30	0.03	0.02	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

174 LS SCS LOSS RATE

STRIL 0.00 INITIAL ABSTRACTION
 CRVNBR 80.00 CURVE NUMBER
 RTIMP 0.00 PERCENT IMPERVIOUS AREA

175 UD SCS DIMENSIONLESS UNITGRAPH
 TLAG 0.05 LAG

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
 5 END-OF-PERIOD ORDINATES
 0.

27. 8. 1. 0.

HYDROGRAPH AT STATION APTS

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	0.00	0.00	0.00	0.	*	1		1245	52	0.02	0.00	0.01	0.
1		0015	2	0.00	0.00	0.00	0.	*	1		1300	53	0.02	0.00	0.01	0.
1		0030	3	0.00	0.00	0.00	0.	*	1		1315	54	0.01	0.00	0.01	0.
1		0045	4	0.01	0.01	0.00	0.	*	1		1330	55	0.01	0.00	0.01	0.
1		0100	5	0.01	0.01	0.00	0.	*	1		1345	56	0.01	0.00	0.01	0.
1		0115	6	0.01	0.01	0.00	0.	*	1		1400	57	0.01	0.00	0.01	0.
1		0130	7	0.01	0.01	0.00	0.	*	1		1415	58	0.01	0.00	0.01	0.
1		0145	8	0.01	0.01	0.00	0.	*	1		1430	59	0.01	0.00	0.01	0.
1		0200	9	0.01	0.01	0.00	0.	*	1		1445	60	0.01	0.00	0.01	0.
1		0215	10	0.01	0.01	0.00	0.	*	1		1500	61	0.01	0.00	0.01	0.
1		0230	11	0.01	0.01	0.00	0.	*	1		1515	62	0.01	0.00	0.01	0.
1		0245	12	0.01	0.01	0.00	0.	*	1		1530	63	0.01	0.00	0.01	0.
1		0300	13	0.01	0.01	0.00	0.	*	1		1545	64	0.01	0.00	0.01	0.
1		0315	14	0.01	0.01	0.00	0.	*	1		1600	65	0.01	0.00	0.01	0.
1		0330	15	0.01	0.01	0.00	0.	*	1		1615	66	0.01	0.00	0.01	0.
1		0345	16	0.01	0.01	0.00	0.	*	1		1630	67	0.01	0.00	0.01	0.
1		0400	17	0.02	0.02	0.00	0.	*	1		1645	68	0.01	0.00	0.01	0.
1		0415	18	0.03	0.03	0.00	0.	*	1		1700	69	0.01	0.00	0.01	0.
1		0430	19	0.03	0.03	0.00	0.	*	1		1715	70	0.01	0.00	0.01	0.
1		0445	20	0.03	0.03	0.00	0.	*	1		1730	71	0.01	0.00	0.01	0.
1		0500	21	0.03	0.03	0.00	0.	*	1		1745	72	0.01	0.00	0.01	0.
1		0515	22	0.07	0.07	0.00	0.	*	1		1800	73	0.01	0.00	0.01	0.
1		0530	23	0.11	0.11	0.00	0.	*	1		1815	74	0.01	0.00	0.01	0.
1		0545	24	1.32	0.90	0.42	11.	*	1		1830	75	0.01	0.00	0.01	0.
1		0600	25	1.32	0.43	0.89	27.	*	1		1845	76	0.01	0.00	0.01	0.
1		0615	26	0.11	0.03	0.08	10.	*	1		1900	77	0.01	0.00	0.01	0.
1		0630	27	0.11	0.02	0.09	4.	*	1		1915	78	0.01	0.00	0.01	0.
1		0645	28	0.07	0.01	0.05	2.	*	1		1930	79	0.01	0.00	0.01	0.
1		0700	29	0.07	0.01	0.05	2.	*	1		1945	80	0.01	0.00	0.01	0.
1		0715	30	0.04	0.01	0.03	1.	*	1		2000	81	0.01	0.00	0.01	0.
1		0730	31	0.04	0.01	0.03	1.	*	1		2015	82	0.01	0.00	0.00	0.
1		0745	32	0.04	0.01	0.04	1.	*	1		2030	83	0.01	0.00	0.00	0.
1		0800	33	0.04	0.01	0.04	1.	*	1		2045	84	0.01	0.00	0.00	0.
1		0815	34	0.02	0.00	0.02	1.	*	1		2100	85	0.01	0.00	0.00	0.
1		0830	35	0.02	0.00	0.02	1.	*	1		2115	86	0.01	0.00	0.00	0.
1		0845	36	0.02	0.00	0.02	1.	*	1		2130	87	0.01	0.00	0.00	0.
1		0900	37	0.02	0.00	0.02	1.	*	1		2145	88	0.01	0.00	0.00	0.
1		0915	38	0.02	0.00	0.02	1.	*	1		2200	89	0.01	0.00	0.00	0.
1		0930	39	0.02	0.00	0.02	1.	*	1		2215	90	0.01	0.00	0.00	0.
1		0945	40	0.02	0.00	0.02	1.	*	1		2230	91	0.01	0.00	0.00	0.
1		1000	41	0.02	0.00	0.02	1.	*	1		2245	92	0.01	0.00	0.00	0.

1	1015	42	0.02	0.00	0.01	1.	*	1	2300	93	0.01	0.00	0.00	0.
1	1030	43	0.02	0.00	0.01	0.	*	1	2315	94	0.01	0.00	0.00	0.
1	1045	44	0.02	0.00	0.01	0.	*	1	2330	95	0.01	0.00	0.00	0.
1	1100	45	0.02	0.00	0.01	0.	*	1	2345	96	0.01	0.00	0.00	0.
1	1115	46	0.02	0.00	0.01	0.	*	2	0000	97	0.01	0.00	0.00	0.
1	1130	47	0.02	0.00	0.01	0.	*	2	0015	98	0.00	0.00	0.00	0.
1	1145	48	0.02	0.00	0.01	0.	*	2	0030	99	0.00	0.00	0.00	0.
1	1200	49	0.02	0.00	0.01	0.	*	2	0045	100	0.00	0.00	0.00	0.
1	1215	50	0.02	0.00	0.01	0.	*	2	0100	101	0.00	0.00	0.00	0.
1	1230	51	0.02	0.00	0.01	0.	*							

TOTAL RAINFALL = 4.40, TOTAL LOSS = 2.02, TOTAL EXCESS = 2.38

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW					
		6-HR	24-HR	72-HR	25.00-HR	(CFS)	(HR)
		(CFS)	27.	6.00	3.	1.	1.
		(INCHES)	1.934	2.377	2.377		
		(AC-FT)	1.	2.	2.		

CUMULATIVE AREA = 0.01 SQ MI

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 * *
 176 KK * WINDL *
 * *

NORTHERLY WINDJAMMER FLOWS

178 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

181 IN TIME DATA FOR INPUT TIME SERIES

JXMIN	15	TIME INTERVAL IN MINUTES
JXDATE	1 0	STARTING DATE
JXTIME	0	STARTING TIME

SUBBASIN RUNOFF DATA

179 BA SUBBASIN CHARACTERISTICS

TAREA	0.08	SUBBASIN AREA
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PRECIPITATION DATA

180 PB STORM 4.40 BASIN TOTAL PRECIPITATION

182 PI INCREMENTAL PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01

0.02	0.02	0.30	0.30	0.03	0.02	0.01	0.01	0.01	0.01
0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

193 LS SCS LOSS RATE
 STRTL 0.67 INITIAL ABSTRACTION
 CRVNR 75.00 CURVE NUMBER
 RTIMP 0.00 PERCENT IMPERVIOUS AREA

194 UD SCS DIMENSIONLESS UNITGRAPH
 TLAG 0.30 LAG

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
 8 END-OF-PERIOD ORDINATES

55. 81. 36. 14. 5. 2. 1. 0.

HYDROGRAPH AT STATION WINDI

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1	0000	1	0.00	0.00	0.00	0.	*	1	1245	52	0.02	0.00	0.01	2.		
1	0015	2	0.00	0.00	0.00	0.	*	1	1300	53	0.02	0.00	0.01	2.		
1	0030	3	0.00	0.00	0.00	0.	*	1	1315	54	0.01	0.00	0.01	2.		
1	0045	4	0.01	0.01	0.00	0.	*	1	1330	55	0.01	0.00	0.01	2.		
1	0100	5	0.01	0.01	0.00	0.	*	1	1345	56	0.01	0.00	0.01	2.		
1	0115	6	0.01	0.01	0.00	0.	*	1	1400	57	0.01	0.00	0.01	2.		
1	0130	7	0.01	0.01	0.00	0.	*	1	1415	58	0.01	0.00	0.01	2.		
1	0145	8	0.01	0.01	0.00	0.	*	1	1430	59	0.01	0.00	0.01	2.		
1	0200	9	0.01	0.01	0.00	0.	*	1	1445	60	0.01	0.00	0.01	2.		
1	0215	10	0.01	0.01	0.00	0.	*	1	1500	61	0.01	0.00	0.01	2.		
1	0230	11	0.01	0.01	0.00	0.	*	1	1515	62	0.01	0.00	0.01	2.		
1	0245	12	0.01	0.01	0.00	0.	*	1	1530	63	0.01	0.00	0.01	2.		
1	0300	13	0.01	0.01	0.00	0.	*	1	1545	64	0.01	0.00	0.01	2.		
1	0315	14	0.01	0.01	0.00	0.	*	1	1600	65	0.01	0.00	0.01	2.		
1	0330	15	0.01	0.01	0.00	0.	*	1	1615	66	0.01	0.00	0.01	2.		
1	0345	16	0.01	0.01	0.00	0.	*	1	1630	67	0.01	0.00	0.01	2.		
1	0400	17	0.02	0.02	0.00	0.	*	1	1645	68	0.01	0.00	0.01	2.		
1	0415	18	0.03	0.03	0.00	0.	*	1	1700	69	0.01	0.00	0.01	2.		
1	0430	19	0.03	0.03	0.00	0.	*	1	1715	70	0.01	0.00	0.01	2.		
1	0445	20	0.03	0.03	0.00	0.	*	1	1730	71	0.01	0.00	0.01	2.		
1	0500	21	0.03	0.03	0.00	0.	*	1	1745	72	0.01	0.00	0.01	2.		
1	0515	22	0.07	0.07	0.00	0.	*	1	1800	73	0.01	0.00	0.01	2.		
1	0530	23	0.11	0.11	0.00	0.	*	1	1815	74	0.01	0.00	0.01	2.		
1	0545	24	1.32	1.05	0.27	15.	*	1	1830	75	0.01	0.00	0.01	2.		
1	0600	25	1.32	0.58	0.74	63.	*	1	1845	76	0.01	0.00	0.01	2.		
1	0615	26	0.11	0.04	0.07	74.	*	1	1900	77	0.01	0.00	0.01	2.		
1	0630	27	0.11	0.03	0.08	40.	*	1	1915	78	0.01	0.00	0.01	2.		
1	0645	28	0.07	0.02	0.05	23.	*	1	1930	79	0.01	0.00	0.01	2.		
1	0700	29	0.07	0.02	0.05	14.	*	1	1945	80	0.01	0.00	0.01	2.		
1	0715	30	0.04	0.01	0.03	10.	*	1	2000	81	0.01	0.00	0.01	2.		
1	0730	31	0.04	0.01	0.03	8.	*	1	2015	82	0.01	0.00	0.00	1.		

1	0745	32	0.04	0.01	0.03	7.	*	1	2030	83	0.01	0.00	0.00	1.
1	0800	33	0.04	0.01	0.03	6.	*	1	2045	84	0.01	0.00	0.00	1.
1	0815	34	0.02	0.01	0.02	5.	*	1	2100	85	0.01	0.00	0.00	1.
1	0830	35	0.02	0.01	0.02	4.	*	1	2115	86	0.01	0.00	0.00	1.
1	0845	36	0.02	0.01	0.02	3.	*	1	2130	87	0.01	0.00	0.00	1.
1	0900	37	0.02	0.01	0.02	3.	*	1	2145	88	0.01	0.00	0.00	1.
1	0915	38	0.02	0.01	0.02	3.	*	1	2200	89	0.01	0.00	0.00	1.
1	0930	39	0.02	0.01	0.02	3.	*	1	2215	90	0.01	0.00	0.00	1.
1	0945	40	0.02	0.01	0.02	3.	*	1	2230	91	0.01	0.00	0.00	1.
1	1000	41	0.02	0.01	0.02	3.	*	1	2245	92	0.01	0.00	0.00	1.
1	1015	42	0.02	0.00	0.01	3.	*	1	2300	93	0.01	0.00	0.00	1.
1	1030	43	0.02	0.00	0.01	3.	*	1	2315	94	0.01	0.00	0.00	1.
1	1045	44	0.02	0.00	0.01	2.	*	1	2330	95	0.01	0.00	0.00	1.
1	1100	45	0.02	0.00	0.01	2.	*	1	2345	96	0.01	0.00	0.00	1.
1	1115	46	0.02	0.00	0.01	2.	*	2	0000	97	0.01	0.00	0.00	1.
1	1130	47	0.02	0.00	0.01	2.	*	2	0015	98	0.00	0.00	0.00	1.
1	1145	48	0.02	0.00	0.01	2.	*	2	0030	99	0.00	0.00	0.00	0.
1	1200	49	0.02	0.00	0.01	2.	*	2	0045	100	0.00	0.00	0.00	0.
1	1215	50	0.02	0.00	0.01	2.	*	2	0100	101	0.00	0.00	0.00	0.
1	1230	51	0.02	0.00	0.01	2.	*							

TOTAL RAINFALL = 4.40, TOTAL LOSS = 2.43, TOTAL EXCESS = 1.97

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				(CFS)	(HR)	
		6-HR	24-HR	72-HR	25.00-HR			
		74.	6.25		13.	4.	4.	4.
	(INCHES)	1.559	1.972	1.972	1.972			
	(AC-FT)	6.	8.	8.	8.			

CUMULATIVE AREA = 0.08 SQ MI

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 * *
 195 KK * Conf4 *
 * *

197 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

198 HC HYDROGRAPH COMBINATION

ICOMP	3	NUMBER OF HYDROGRAPHS TO COMBINE
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HYDROGRAPH AT STATION Conf4
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*
1		0000	1	0.	*	1		0630	27	114.	*	1		1300	53	8.	*	1		1930	79	5.	*
1		0015	2	0.	*	1		0645	28	74.	*	1		1315	54	8.	*	1		1945	80	5.	*
1		0030	3	0.	*	1		0700	29	57.	*	1		1330	55	7.	*	1		2000	81	5.	*
1		0045	4	0.	*	1		0715	30	47.	*	1		1345	56	7.	*	1		2015	82	5.	*
1		0100	5	0.	*	1		0730	31	42.	*	1		1400	57	7.	*	1		2030	83	4.	*
1		0115	6	0.	*	1		0745	32	39.	*	1		1415	58	7.	*	1		2045	84	3.	*
1		0130	7	0.	*	1		0800	33	36.	*	1		1430	59	7.	*	1		2100	85	3.	*
1		0145	8	0.	*	1		0815	34	29.	*	1		1445	60	7.	*	1		2115	86	3.	*
1		0200	9	0.	*	1		0830	35	24.	*	1		1500	61	7.	*	1		2130	87	3.	*
1		0215	10	0.	*	1		0845	36	20.	*	1		1515	62	6.	*	1		2145	88	3.	*
1		0230	11	0.	*	1		0900	37	17.	*	1		1530	63	6.	*	1		2200	89	3.	*
1		0245	12	0.	*	1		0915	38	16.	*	1		1545	64	6.	*	1		2215	90	3.	*
1		0300	13	0.	*	1		0930	39	14.	*	1		1600	65	6.	*	1		2230	91	3.	*
1		0315	14	0.	*	1		0945	40	13.	*	1		1615	66	6.	*	1		2245	92	3.	*
1		0330	15	0.	*	1		1000	41	13.	*	1		1630	67	5.	*	1		2300	93	3.	*
1		0345	16	0.	*	1		1015	42	11.	*	1		1645	68	5.	*	1		2315	94	3.	*
1		0400	17	0.	*	1		1030	43	10.	*	1		1700	69	5.	*	1		2330	95	3.	*
1		0415	18	0.	*	1		1045	44	9.	*	1		1715	70	5.	*	1		2345	96	3.	*
1		0430	19	0.	*	1		1100	45	9.	*	1		1730	71	5.	*	2		0000	97	3.	*
1		0445	20	0.	*	1		1115	46	9.	*	1		1745	72	5.	*	2		0015	98	2.	*
1		0500	21	1.	*	1		1130	47	8.	*	1		1800	73	5.	*	2		0030	99	1.	*
1		0515	22	1.	*	1		1145	48	8.	*	1		1815	74	5.	*	2		0045	100	1.	*
1		0530	23	3.	*	1		1200	49	8.	*	1		1830	75	5.	*	2		0100	101	0.	*
1		0545	24	107.	*	1		1215	50	8.	*	1		1845	76	5.	*						*
1		0600	25	275.	*	1		1230	51	8.	*	1		1900	77	5.	*						*
1		0615	26	206.	*	1		1245	52	8.	*	1		1915	78	5.	*						*

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				(CFS)	(HR)	15.
		6-HR	24-HR	72-HR	25.00-HR			
		(CFS)	275.	6.00	50.	15.		
		(INCHES)	2.045	2.517	2.517	2.517		
		(AC-FT)	25.	30.	30.	30.		

CUMULATIVE AREA = 0.23 SQ MI

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*
199 KK 48"RCP *
*

 48" RCP IN LEXINGTON

201 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED

ISAVE 101 LAST ORDINATE PUNCHED OR SAVED
 TIMINT 0.250 TIME INTERVAL IN HOURS

HYDROGRAPH ROUTING DATA

202 RK KINEMATIC WAVE STREAM ROUTING
 L 450. CHANNEL LENGTH
 S 0.0400 SLOPE
 N 0.013 CHANNEL ROUGHNESS COEFFICIENT
 CA 0.00 CONTRIBUTING AREA
 SHAPE CIRC CHANNEL SHAPE
 WD 4.00 BOTTOM WIDTH OR DIAMETER
 Z 1.00 SIDE SLOPE
 NDXMIN 2 MINIMUM NUMBER OF DX INTERVALS

 COMPUTED KINEMATIC PARAMETERS
 VARIABLE TIME STEP
 (DT SHOWN IS A MINIMUM)

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	15.58	1.25	0.14	150.00	274.52	360.22	2.52	34.59

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3047E+02 EXCESS=0.0000E+00 OUTFLOW=0.3047E+02 BASIN STORAGE=0.2783E-03 PERCENT ERROR= 0.0

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	15.58	1.25	15.00	273.32	360.00	2.52
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 HYDROGRAPH AT STATION 48"RCP

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	0000	1	0.	*	1	0630	27	116.	*	1	1300	53	8.	*	1	1930	79	5.	
1	0015	2	0.	*	1	0645	28	75.	*	1	1315	54	8.	*	1	1945	80	5.	
1	0030	3	0.	*	1	0700	29	57.	*	1	1330	55	7.	*	1	2000	81	5.	
1	0045	4	0.	*	1	0715	30	47.	*	1	1345	56	7.	*	1	2015	82	5.	
1	0100	5	0.	*	1	0730	31	42.	*	1	1400	57	7.	*	1	2030	83	4.	
1	0115	6	0.	*	1	0745	32	40.	*	1	1415	58	7.	*	1	2045	84	3.	
1	0130	7	0.	*	1	0800	33	36.	*	1	1430	59	7.	*	1	2100	85	3.	
1	0145	8	0.	*	1	0815	34	29.	*	1	1445	60	7.	*	1	2115	86	3.	
1	0200	9	0.	*	1	0830	35	24.	*	1	1500	61	7.	*	1	2130	87	3.	
1	0215	10	0.	*	1	0845	36	20.	*	1	1515	62	6.	*	1	2145	88	3.	
1	0230	11	0.	*	1	0900	37	18.	*	1	1530	63	6.	*	1	2200	89	3.	
1	0245	12	0.	*	1	0915	38	16.	*	1	1545	64	6.	*	1	2215	90	3.	
1	0300	13	0.	*	1	0930	39	14.	*	1	1600	65	6.	*	1	2230	91	3.	
1	0315	14	0.	*	1	0945	40	13.	*	1	1615	66	6.	*	1	2245	92	3.	
1	0330	15	0.	*	1	1000	41	13.	*	1	1630	67	5.	*	1	2300	93	3.	
1	0345	16	0.	*	1	1015	42	11.	*	1	1645	68	5.	*	1	2315	94	3.	
1	0400	17	0.	*	1	1030	43	10.	*	1	1700	69	5.	*	1	2330	95	3.	
1	0415	18	0.	*	1	1045	44	9.	*	1	1715	70	5.	*	1	2345	96	3.	
1	0430	19	0.	*	1	1100	45	9.	*	1	1730	71	5.	*	2	0000	97	3.	
1	0445	20	0.	*	1	1115	46	9.	*	1	1745	72	5.	*	2	0015	98	2.	

1	0500	21	1.	*	1	1130	47	8.	*	1	1800	73	5.	*	2	0030	99	1.
1	0515	22	1.	*	1	1145	48	8.	*	1	1815	74	5.	*	2	0045	100	1.
1	0530	23	3.	*	1	1200	49	8.	*	1	1830	75	5.	*	2	0100	101	0.
1	0545	24	105.	*	1	1215	50	8.	*	1	1845	76	5.	*				
1	0600	25	273.	*	1	1230	51	8.	*	1	1900	77	5.	*				
1	0615	26	207.	*	1	1245	52	8.	*	1	1915	78	5.	*				

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW							
			6-HR	24-HR	72-HR	25.00-HR	(CFS)	(HR)	
		(CFS)	273.	6.00		50.	15.	15.	15.
		(INCHES)	2.046	2.518	2.518	2.518			
(AC-FT)	25.	30.	30.	30.					

CUMULATIVE AREA = 0.23 SQ MI

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*****
*          *
203 KK * WIND2 *
*          *
*****
OUTFALL FROM SOUTHERLY WINDJAMMER

205 KO OUTPUT CONTROL VARIABLES
IPRNT      0 PRINT CONTROL
IPLOT      0 PLOT CONTROL
QSCAL     0. HYDROGRAPH PLOT SCALE
IPNCH      0 PUNCH COMPUTED HYDROGRAPH
IOUT      22 SAVE HYDROGRAPH ON THIS UNIT
ISAV1      1 FIRST ORDINATE PUNCHED OR SAVED
ISAV2     101 LAST ORDINATE PUNCHED OR SAVED
TIMINT    0.250 TIME INTERVAL IN HOURS

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208 IN TIME DATA FOR INPUT TIME SERIES
JXMIN      15 TIME INTERVAL IN MINUTES
JXDATE     1 0 STARTING DATE
JXTIME     0 STARTING TIME

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SUBBASIN RUNOFF DATA

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206 BA SUBBASIN CHARACTERISTICS
TAREA     0.01 SUBBASIN AREA

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PRECIPITATION DATA

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207 PB STORM 4.40 BASIN TOTAL PRECIPITATION

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209 PI INCREMENTAL PRECIPITATION PATTERN
0.00 0.00 0.00 -0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00 0.00 0.00 0.00 0.00 0.01 0.01 0.01 0.01
0.02 0.02 0.30 0.30 0.03 0.02 0.01 0.01 0.01 0.01
0.01 0.01 0.00 0.00 0.00 0.00 0.01 0.00 0.00 0.00
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

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0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 0.00 0.00 0.00 0.00 0.00 0.00

220 LS SCS LOSS RATE
 STRTL 0.50 INITIAL ABSTRACTION
 CRVNR 80.00 CURVE NUMBER
 RTIMP 0.00 PERCENT IMPERVIOUS AREA

221 UD SCS DIMENSIONLESS UNITGRAPH
 TLAG 0.24 LAG

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
 7 END-OF-PERIOD ORDINATES
 11. 11. 4. 1. 0. 0. 0.

HYDROGRAPH AT STATION WIND2

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	0.00	0.00	0.00	0.	*	1		1245	52	0.02	0.00	0.01	0.
1		0015	2	0.00	0.00	0.00	0.	*	1		1300	53	0.02	0.00	0.01	0.
1		0030	3	0.00	0.00	0.00	0.	*	1		1315	54	0.01	0.00	0.01	0.
1		0045	4	0.01	0.01	0.00	0.	*	1		1330	55	0.01	0.00	0.01	0.
1		0100	5	0.01	0.01	0.00	0.	*	1		1345	56	0.01	0.00	0.01	0.
1		0115	6	0.01	0.01	0.00	0.	*	1		1400	57	0.01	0.00	0.01	0.
1		0130	7	0.01	0.01	0.00	0.	*	1		1415	58	0.01	0.00	0.01	0.
1		0145	8	0.01	0.01	0.00	0.	*	1		1430	59	0.01	0.00	0.01	0.
1		0200	9	0.01	0.01	0.00	0.	*	1		1445	60	0.01	0.00	0.01	0.
1		0215	10	0.01	0.01	0.00	0.	*	1		1500	61	0.01	0.00	0.01	0.
1		0230	11	0.01	0.01	0.00	0.	*	1		1515	62	0.01	0.00	0.01	0.
1		0245	12	0.01	0.01	0.00	0.	*	1		1530	63	0.01	0.00	0.01	0.
1		0300	13	0.01	0.01	0.00	0.	*	1		1545	64	0.01	0.00	0.01	0.
1		0315	14	0.01	0.01	0.00	0.	*	1		1600	65	0.01	0.00	0.01	0.
1		0330	15	0.01	0.01	0.00	0.	*	1		1615	66	0.01	0.00	0.01	0.
1		0345	16	0.01	0.01	0.00	0.	*	1		1630	67	0.01	0.00	0.01	0.
1		0400	17	0.02	0.02	0.00	0.	*	1		1645	68	0.01	0.00	0.01	0.
1		0415	18	0.03	0.03	0.00	0.	*	1		1700	69	0.01	0.00	0.01	0.
1		0430	19	0.03	0.03	0.00	0.	*	1		1715	70	0.01	0.00	0.01	0.
1		0445	20	0.03	0.03	0.00	0.	*	1		1730	71	0.01	0.00	0.01	0.
1		0500	21	0.03	0.03	0.00	0.	*	1		1745	72	0.01	0.00	0.01	0.
1		0515	22	0.07	0.07	0.00	0.	*	1		1800	73	0.01	0.00	0.01	0.
1		0530	23	0.11	0.11	0.00	0.	*	1		1815	74	0.01	0.00	0.01	0.
1		0545	24	1.32	0.90	0.42	5.	*	1		1830	75	0.01	0.00	0.01	0.
1		0600	25	1.32	0.43	0.89	15.	*	1		1845	76	0.01	0.00	0.01	0.
1		0615	26	0.11	0.03	0.08	13.	*	1		1900	77	0.01	0.00	0.01	0.
1		0630	27	0.11	0.02	0.09	6.	*	1		1915	78	0.01	0.00	0.01	0.
1		0645	28	0.07	0.01	0.05	3.	*	1		1930	79	0.01	0.00	0.01	0.
1		0700	29	0.07	0.01	0.05	2.	*	1		1945	80	0.01	0.00	0.01	0.
1		0715	30	0.04	0.01	0.03	1.	*	1		2000	81	0.01	0.00	0.01	0.
1		0730	31	0.04	0.01	0.03	1.	*	1		2015	82	0.01	0.00	0.00	0.
1		0745	32	0.04	0.01	0.04	1.	*	1		2030	83	0.01	0.00	0.00	0.
1		0800	33	0.04	0.01	0.04	1.	*	1		2045	84	0.01	0.00	0.00	0.
1		0815	34	0.02	0.00	0.02	1.	*	1		2100	85	0.01	0.00	0.00	0.
1		0830	35	0.02	0.00	0.02	1.	*	1		2115	86	0.01	0.00	0.00	0.
1		0845	36	0.02	0.00	0.02	1.	*	1		2130	87	0.01	0.00	0.00	0.
1		0900	37	0.02	0.00	0.02	1.	*	1		2145	88	0.01	0.00	0.00	0.

1	0915	38	0.02	0.00	0.02	1.	*	1	2200	89	0.01	0.00	0.00	0.
1	0930	39	0.02	0.00	0.02	1.	*	1	2215	90	0.01	0.00	0.00	0.
1	0945	40	0.02	0.00	0.02	1.	*	1	2230	91	0.01	0.00	0.00	0.
1	1000	41	0.02	0.00	0.02	1.	*	1	2245	92	0.01	0.00	0.00	0.
1	1015	42	0.02	0.00	0.01	0.	*	1	2300	93	0.01	0.00	0.00	0.
1	1030	43	0.02	0.00	0.01	0.	*	1	2315	94	0.01	0.00	0.00	0.
1	1045	44	0.02	0.00	0.01	0.	*	1	2330	95	0.01	0.00	0.00	0.
1	1100	45	0.02	0.00	0.01	0.	*	1	2345	96	0.01	0.00	0.00	0.
1	1115	46	0.02	0.00	0.01	0.	*	2	0000	97	0.01	0.00	0.00	0.
1	1130	47	0.02	0.00	0.01	0.	*	2	0015	98	0.00	0.00	0.00	0.
1	1145	48	0.02	0.00	0.01	0.	*	2	0030	99	0.00	0.00	0.00	0.
1	1200	49	0.02	0.00	0.01	0.	*	2	0045	100	0.00	0.00	0.00	0.
1	1215	50	0.02	0.00	0.01	0.	*	2	0100	101	0.00	0.00	0.00	0.
1	1230	51	0.02	0.00	0.01	0.	*							

TOTAL RAINFALL = 4.40, TOTAL LOSS = 2.02, TOTAL EXCESS = 2.38

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW					(CFS)	(HR)	1.
		6-HR	24-HR	72-HR	25.00-HR	(CFS)			
		(CFS)	15.	6.00		2.	1.	1.	
		(INCHES)	1.927	2.376	2.376	2.376			
		(AC-FT)	1.	1.	1.	1.			

CUMULATIVE AREA = 0.01 SQ MI

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 222 KK * Conf5 *
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224 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLDT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

225 HC HYDROGRAPH COMBINATION

ICOMP	2	NUMBER OF HYDROGRAPHS TO COMBINE
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HYDROGRAPH AT STATION Conf5
 SUM OF 2 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
----	-----	------	-----	------	---	----	-----	------	-----	------	---	----	-----	------	-----	------

1	0000	1	0.	*	1	0630	27	121.	*	1	1300	53	8.	*	1	1930	79	6.
1	0015	2	0.	*	1	0645	28	78.	*	1	1315	54	8.	*	1	1945	80	6.
1	0030	3	0.	*	1	0700	29	59.	*	1	1330	55	8.	*	1	2000	81	6.
1	0045	4	0.	*	1	0715	30	49.	*	1	1345	56	8.	*	1	2015	82	5.
1	0100	5	0.	*	1	0730	31	43.	*	1	1400	57	7.	*	1	2030	83	4.
1	0115	6	0.	*	1	0745	32	41.	*	1	1415	58	7.	*	1	2045	84	3.
1	0130	7	0.	*	1	0800	33	37.	*	1	1430	59	7.	*	1	2100	85	3.
1	0145	8	0.	*	1	0815	34	30.	*	1	1445	60	7.	*	1	2115	86	3.
1	0200	9	0.	*	1	0830	35	24.	*	1	1500	61	7.	*	1	2130	87	3.
1	0215	10	0.	*	1	0845	36	21.	*	1	1515	62	6.	*	1	2145	88	3.
1	0230	11	0.	*	1	0900	37	18.	*	1	1530	63	6.	*	1	2200	89	3.
1	0245	12	0.	*	1	0915	38	16.	*	1	1545	64	6.	*	1	2215	90	3.
1	0300	13	0.	*	1	0930	39	15.	*	1	1600	65	6.	*	1	2230	91	3.
1	0315	14	0.	*	1	0945	40	14.	*	1	1615	66	6.	*	1	2245	92	3.
1	0330	15	0.	*	1	1000	41	13.	*	1	1630	67	6.	*	1	2300	93	3.
1	0345	16	0.	*	1	1015	42	12.	*	1	1645	68	6.	*	1	2315	94	3.
1	0400	17	0.	*	1	1030	43	10.	*	1	1700	69	6.	*	1	2330	95	3.
1	0415	18	0.	*	1	1045	44	10.	*	1	1715	70	6.	*	1	2345	96	3.
1	0430	19	0.	*	1	1100	45	9.	*	1	1730	71	6.	*	2	0000	97	3.
1	0445	20	0.	*	1	1115	46	9.	*	1	1745	72	6.	*	2	0015	98	2.
1	0500	21	1.	*	1	1130	47	9.	*	1	1800	73	6.	*	2	0030	99	1.
1	0515	22	1.	*	1	1145	48	9.	*	1	1815	74	6.	*	2	0045	100	1.
1	0530	23	3.	*	1	1200	49	9.	*	1	1830	75	6.	*	2	0100	101	0.
1	0545	24	110.	*	1	1215	50	9.	*	1	1845	76	6.	*				
1	0600	25	288.	*	1	1230	51	9.	*	1	1900	77	6.	*				
1	0615	26	220.	*	1	1245	52	9.	*	1	1915	78	6.	*				

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW					(CFS)	(HR)	15.
		6-HR	24-HR	72-HR	25.00-HR				
		288.	6.00		52.	16.			
		(INCHES) 2.041	2.511	2.511	2.511				
		(AC-FT) 26.	32.	32.	32.				

CUMULATIVE AREA = 0.24 SQ MI

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 226 KK * CHAN *
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 CONCRETE CHANNEL OUTFALL FROM LEXINGTON

228 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW					(CFS)	(HR)	15.
		6-HR	24-HR	72-HR	25.00-HR				
	(CFS)	287.	6.00		52.	16.			
	(INCHES)	2.041	2.513	2.513	2.513				
	(AC-FT)	26.	32.	32.	32.				

CUMULATIVE AREA = 0.24 SQ MI

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 230 KK * CHURCH *
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OUTFALL FROM CHURCH

232 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

235 IN TIME DATA FOR INPUT TIME SERIES

JXMIN	15	TIME INTERVAL IN MINUTES
JXDATE	1 0	STARTING DATE
JXTIME	0	STARTING TIME

SUBBASIN RUNOFF DATA

233 BA SUBBASIN CHARACTERISTICS

TAREA	0.03	SUBBASIN AREA
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PRECIPITATION DATA

234 PB STORM 4.40 BASIN TOTAL PRECIPITATION

236 PI INCREMENTAL PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
0.02	0.02	0.30	0.30	0.03	0.02	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

247 LS SCS LOSS RATE

STREL	0.67	INITIAL ABSTRACTION
CRVNBR	75.00	CURVE NUMBER

RTIMP 0.00 PERCENT IMPERVIOUS AREA

248 UD

SCS DIMENSIONLESS UNITGRAPH
TLAG 0.20 LAG

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
6 END-OF-PERIOD ORDINATES

43. 30. 8. 2. 1. 0.

HYDROGRAPH AT STATION CHURCH

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	0.00	0.00	0.00	0.	*	1		1245	52	0.02	0.00	0.01	1.
1		0015	2	0.00	0.00	0.00	0.	*	1		1300	53	0.02	0.00	0.01	1.
1		0030	3	0.00	0.00	0.00	0.	*	1		1315	54	0.01	0.00	0.01	1.
1		0045	4	0.01	0.01	0.00	0.	*	1		1330	55	0.01	0.00	0.01	1.
1		0100	5	0.01	0.01	0.00	0.	*	1		1345	56	0.01	0.00	0.01	1.
1		0115	6	0.01	0.01	0.00	0.	*	1		1400	57	0.01	0.00	0.01	1.
1		0130	7	0.01	0.01	0.00	0.	*	1		1415	58	0.01	0.00	0.01	1.
1		0145	8	0.01	0.01	0.00	0.	*	1		1430	59	0.01	0.00	0.01	1.
1		0200	9	0.01	0.01	0.00	0.	*	1		1445	60	0.01	0.00	0.01	1.
1		0215	10	0.01	0.01	0.00	0.	*	1		1500	61	0.01	0.00	0.01	1.
1		0230	11	0.01	0.01	0.00	0.	*	1		1515	62	0.01	0.00	0.01	1.
1		0245	12	0.01	0.01	0.00	0.	*	1		1530	63	0.01	0.00	0.01	1.
1		0300	13	0.01	0.01	0.00	0.	*	1		1545	64	0.01	0.00	0.01	1.
1		0315	14	0.01	0.01	0.00	0.	*	1		1600	65	0.01	0.00	0.01	1.
1		0330	15	0.01	0.01	0.00	0.	*	1		1615	66	0.01	0.00	0.01	1.
1		0345	16	0.01	0.01	0.00	0.	*	1		1630	67	0.01	0.00	0.01	1.
1		0400	17	0.02	0.02	0.00	0.	*	1		1645	68	0.01	0.00	0.01	1.
1		0415	18	0.03	0.03	0.00	0.	*	1		1700	69	0.01	0.00	0.01	1.
1		0430	19	0.03	0.03	0.00	0.	*	1		1715	70	0.01	0.00	0.01	1.
1		0445	20	0.03	0.03	0.00	0.	*	1		1730	71	0.01	0.00	0.01	1.
1		0500	21	0.03	0.03	0.00	0.	*	1		1745	72	0.01	0.00	0.01	1.
1		0515	22	0.07	0.07	0.00	0.	*	1		1800	73	0.01	0.00	0.01	1.
1		0530	23	0.11	0.11	0.00	0.	*	1		1815	74	0.01	0.00	0.01	1.
1		0545	24	1.32	1.05	0.27	12.	*	1		1830	75	0.01	0.00	0.01	1.
1		0600	25	1.32	0.58	0.74	40.	*	1		1845	76	0.01	0.00	0.01	1.
1		0615	26	0.11	0.04	0.07	28.	*	1		1900	77	0.01	0.00	0.01	1.
1		0630	27	0.11	0.03	0.08	12.	*	1		1915	78	0.01	0.00	0.01	1.
1		0645	28	0.07	0.02	0.05	7.	*	1		1930	79	0.01	0.00	0.01	1.
1		0700	29	0.07	0.02	0.05	5.	*	1		1945	80	0.01	0.00	0.01	1.
1		0715	30	0.04	0.01	0.03	3.	*	1		2000	81	0.01	0.00	0.01	1.
1		0730	31	0.04	0.01	0.03	3.	*	1		2015	82	0.01	0.00	0.00	1.
1		0745	32	0.04	0.01	0.03	3.	*	1		2030	83	0.01	0.00	0.00	0.
1		0800	33	0.04	0.01	0.03	3.	*	1		2045	84	0.01	0.00	0.00	0.
1		0815	34	0.02	0.01	0.02	2.	*	1		2100	85	0.01	0.00	0.00	0.
1		0830	35	0.02	0.01	0.02	2.	*	1		2115	86	0.01	0.00	0.00	0.
1		0845	36	0.02	0.01	0.02	1.	*	1		2130	87	0.01	0.00	0.00	0.
1		0900	37	0.02	0.01	0.02	1.	*	1		2145	88	0.01	0.00	0.00	0.
1		0915	38	0.02	0.01	0.02	1.	*	1		2200	89	0.01	0.00	0.00	0.
1		0930	39	0.02	0.01	0.02	1.	*	1		2215	90	0.01	0.00	0.00	0.
1		0945	40	0.02	0.01	0.02	1.	*	1		2230	91	0.01	0.00	0.00	0.
1		1000	41	0.02	0.01	0.02	1.	*	1		2245	92	0.01	0.00	0.00	0.
1		1015	42	0.02	0.00	0.01	1.	*	1		2300	93	0.01	0.00	0.00	0.
1		1030	43	0.02	0.00	0.01	1.	*	1		2315	94	0.01	0.00	0.00	0.

1	1045	44	0.02	0.00	0.01	1.	*	1	2330	95	0.01	0.00	0.00	0.
1	1100	45	0.02	0.00	0.01	1.	*	1	2345	96	0.01	0.00	0.00	0.
1	1115	46	0.02	0.00	0.01	1.	*	2	0000	97	0.01	0.00	0.00	0.
1	1130	47	0.02	0.00	0.01	1.	*	2	0015	98	0.00	0.00	0.00	0.
1	1145	48	0.02	0.00	0.01	1.	*	2	0030	99	0.00	0.00	0.00	0.
1	1200	49	0.02	0.00	0.01	1.	*	2	0045	100	0.00	0.00	0.00	0.
1	1215	50	0.02	0.00	0.01	1.	*	2	0100	101	0.00	0.00	0.00	0.
1	1230	51	0.02	0.00	0.01	1.	*							

TOTAL RAINFALL = 4.40, TOTAL LOSS = 2.43, TOTAL EXCESS = 1.97

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				(CFS)	(HR)
		6-HR	24-HR	72-HR	25.00-HR		
		40.	6.00		6.	2.	2.
		(INCHES) 1.565	1.972	1.972	1.972		2.
		(AC-FT) 3.	3.	3.	3.		

CUMULATIVE AREA = 0.03 SQ MI

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 249 KK * Conf6 *
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251 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

252 HC HYDROGRAPH COMBINATION

ICOMP	2	NUMBER OF HYDROGRAPHS TO COMBINE
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HYDROGRAPH AT STATION Conf6
 SUM OF 2 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1	0000	1		0.	*	1	0630	27		135.	*	1	1300	53		10.
1	0015	2		0.	*	1	0645	28		85.	*	1	1315	54		9.
1	0030	3		0.	*	1	0700	29		64.	*	1	1330	55		9.
1	0045	4		0.	*	1	0715	30		52.	*	1	1345	56		9.
1	0100	5		0.	*	1	0730	31		46.	*	1	1400	57		8.

1	0115	6	0.	*	1	0745	32	43.	*	1	1415	58	8.	*	1	2045	84	4.
1	0130	7	0.	*	1	0800	33	40.	*	1	1430	59	8.	*	1	2100	85	4.
1	0145	8	0.	*	1	0815	34	32.	*	1	1445	60	8.	*	1	2115	86	3.
1	0200	9	0.	*	1	0830	35	26.	*	1	1500	61	8.	*	1	2130	87	3.
1	0215	10	0.	*	1	0845	36	22.	*	1	1515	62	7.	*	1	2145	88	3.
1	0230	11	0.	*	1	0900	37	19.	*	1	1530	63	7.	*	1	2200	89	3.
1	0245	12	0.	*	1	0915	38	18.	*	1	1545	64	7.	*	1	2215	90	3.
1	0300	13	0.	*	1	0930	39	16.	*	1	1600	65	7.	*	1	2230	91	3.
1	0315	14	0.	*	1	0945	40	15.	*	1	1615	66	7.	*	1	2245	92	3.
1	0330	15	0.	*	1	1000	41	15.	*	1	1630	67	6.	*	1	2300	93	3.
1	0345	16	0.	*	1	1015	42	13.	*	1	1645	68	6.	*	1	2315	94	3.
1	0400	17	0.	*	1	1030	43	11.	*	1	1700	69	6.	*	1	2330	95	3.
1	0415	18	0.	*	1	1045	44	11.	*	1	1715	70	6.	*	1	2345	96	3.
1	0430	19	0.	*	1	1100	45	10.	*	1	1730	71	6.	*	2	0000	97	3.
1	0445	20	0.	*	1	1115	46	10.	*	1	1745	72	6.	*	2	0015	98	2.
1	0500	21	1.	*	1	1130	47	10.	*	1	1800	73	6.	*	2	0030	99	1.
1	0515	22	1.	*	1	1145	48	10.	*	1	1815	74	6.	*	2	0045	100	1.
1	0530	23	3.	*	1	1200	49	10.	*	1	1830	75	6.	*	2	0100	101	0.
1	0545	24	121.	*	1	1215	50	10.	*	1	1845	76	6.	*				
1	0600	25	327.	*	1	1230	51	10.	*	1	1900	77	6.	*				
1	0615	26	249.	*	1	1245	52	10.	*	1	1915	78	6.	*				

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				(CFS)	(HR)	17.
		6-HR	24-HR	72-HR	25.00-HR			
		(CFS)	327.	6.00		58.	18.	
		(INCHES)	1.983	2.447	2.447	2.447		
		(AC-FT)	29.	35.	35.	35.		

CUMULATIVE AREA = 0.27 SQ MI

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 253 KK * CHAN *
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NATURAL CHANNEL

255 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

HYDROGRAPH ROUTING DATA

256 RK KINEMATIC WAVE STREAM ROUTING

L	820.	CHANNEL LENGTH
S	0.1000	SLOPE
N	0.050	CHANNEL ROUGHNESS COEFFICIENT
CA	0.00	CONTRIBUTING AREA
SHAPE	TRAP	CHANNEL SHAPE

WD 1.00 BOTTOM WIDTH OR DIAMETER
 Z 1.00 SIDE SLOPE
 NDXMIN 2 MINIMUM NUMBER OF DX INTERVALS

 COMPUTED KINEMATIC PARAMETERS
 VARIABLE TIME STEP
 (DT SHOWN IS A MINIMUM)

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	4.76	1.33	0.29	273.33	325.76	360.73	2.45	18.36

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3536E+02 EXCESS=0.0000E+00 OUTFLOW=0.3536E+02 BASIN STORAGE=0.1661E-02 PERCENT ERROR= 0.0

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	4.76	1.33	15.00	320.08	360.00	2.45
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HYDROGRAPH AT STATION CHAN

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*
1	0000	1	0.	*	1	0630	27	139.	*	1	1300	53	10.	*	1	1930	79	6.					
1	0015	2	0.	*	1	0645	28	87.	*	1	1315	54	9.	*	1	1945	80	6.					
1	0030	3	0.	*	1	0700	29	65.	*	1	1330	55	9.	*	1	2000	81	6.					
1	0045	4	0.	*	1	0715	30	53.	*	1	1345	56	9.	*	1	2015	82	5.					
1	0100	5	0.	*	1	0730	31	46.	*	1	1400	57	8.	*	1	2030	83	4.					
1	0115	6	0.	*	1	0745	32	43.	*	1	1415	58	8.	*	1	2045	84	4.					
1	0130	7	0.	*	1	0800	33	40.	*	1	1430	59	8.	*	1	2100	85	4.					
1	0145	8	0.	*	1	0815	34	33.	*	1	1445	60	8.	*	1	2115	86	3.					
1	0200	9	0.	*	1	0830	35	26.	*	1	1500	61	8.	*	1	2130	87	3.					
1	0215	10	0.	*	1	0845	36	22.	*	1	1515	62	7.	*	1	2145	88	3.					
1	0230	11	0.	*	1	0900	37	20.	*	1	1530	63	7.	*	1	2200	89	3.					
1	0245	12	0.	*	1	0915	38	18.	*	1	1545	64	7.	*	1	2215	90	3.					
1	0300	13	0.	*	1	0930	39	16.	*	1	1600	65	7.	*	1	2230	91	3.					
1	0315	14	0.	*	1	0945	40	15.	*	1	1615	66	7.	*	1	2245	92	3.					
1	0330	15	0.	*	1	1000	41	15.	*	1	1630	67	6.	*	1	2300	93	3.					
1	0345	16	0.	*	1	1015	42	13.	*	1	1645	68	6.	*	1	2315	94	3.					
1	0400	17	0.	*	1	1030	43	12.	*	1	1700	69	6.	*	1	2330	95	3.					
1	0415	18	0.	*	1	1045	44	11.	*	1	1715	70	6.	*	1	2345	96	3.					
1	0430	19	0.	*	1	1100	45	10.	*	1	1730	71	6.	*	2	0000	97	3.					
1	0445	20	0.	*	1	1115	46	10.	*	1	1745	72	6.	*	2	0015	98	2.					
1	0500	21	1.	*	1	1130	47	10.	*	1	1800	73	6.	*	2	0030	99	1.					
1	0515	22	1.	*	1	1145	48	10.	*	1	1815	74	6.	*	2	0045	100	1.					
1	0530	23	3.	*	1	1200	49	10.	*	1	1830	75	6.	*	2	0100	101	0.					
1	0545	24	116.	*	1	1215	50	10.	*	1	1845	76	6.	*									
1	0600	25	320.	*	1	1230	51	10.	*	1	1900	77	6.	*									
1	0615	26	251.	*	1	1245	52	10.	*	1	1915	78	6.	*									

PEAK FLOW	TIME	6-HR (CFS)	24-HR 6.00	72-HR 58.	25.00-HR (CFS)	(HR)	17.	17.
		320.	6.00	58.	18.	17.	17.	17.

(INCHES) 1.986 2.451 2.451 2.451
 (AC-FT) 29. 35. 35. 35.

CUMULATIVE AREA = 0.27 SQ MI

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 * CYPR *
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257 KK

CYPRESS RIDGE OUTFALL

259 KO

OUTPUT CONTROL VARIABLES

IPRNT 0 PRINT CONTROL
 IPLOT 0 PLOT CONTROL
 QSCAL 0. HYDROGRAPH PLOT SCALE
 IPNCH 0 PUNCH COMPUTED HYDROGRAPH
 IOUPT 22 SAVE HYDROGRAPH ON THIS UNIT
 ISAV1 1 FIRST ORDINATE PUNCHED OR SAVED
 ISAV2 101 LAST ORDINATE PUNCHED OR SAVED
 TIMINT 0.250 TIME INTERVAL IN HOURS

262 IN

TIME DATA FOR INPUT TIME SERIES

JXMIN 15 TIME INTERVAL IN MINUTES
 JXDATE 1 0 STARTING DATE
 JXTIME 0 STARTING TIME

SUBBASIN RUNOFF DATA

260 BA

SUBBASIN CHARACTERISTICS

TAREA 0.05 SUBBASIN AREA

PRECIPITATION DATA

261 PB

STORM 4.40 BASIN TOTAL PRECIPITATION

263 PI

INCREMENTAL PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
0.02	0.02	0.30	0.30	0.03	0.02	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

274 LS

SCS LOSS RATE

STRTL 0.35 INITIAL ABSTRACTION
 CRVNBR 85.00 CURVE NUMBER
 RTIMP 0.00 PERCENT IMPERVIOUS AREA

275 UD

SCS DIMENSIONLESS UNITGRAPH

TLAG 0.25 LAG

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
7 END-OF-PERIOD ORDINATES

44. 48. 16. 6. 2. 1. 0.

HYDROGRAPH AT STATION CYPR

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	0.00	0.00	0.00	0.	*	1		1245	52	0.02	0.00	0.01	2.
1		0015	2	0.00	0.00	0.00	0.	*	1		1300	53	0.02	0.00	0.01	2.
1		0030	3	0.00	0.00	0.00	0.	*	1		1315	54	0.01	0.00	0.01	2.
1		0045	4	0.01	0.01	0.00	0.	*	1		1330	55	0.01	0.00	0.01	2.
1		0100	5	0.01	0.01	0.00	0.	*	1		1345	56	0.01	0.00	0.01	2.
1		0115	6	0.01	0.01	0.00	0.	*	1		1400	57	0.01	0.00	0.01	1.
1		0130	7	0.01	0.01	0.00	0.	*	1		1415	58	0.01	0.00	0.01	1.
1		0145	8	0.01	0.01	0.00	0.	*	1		1430	59	0.01	0.00	0.01	1.
1		0200	9	0.01	0.01	0.00	0.	*	1		1445	60	0.01	0.00	0.01	1.
1		0215	10	0.01	0.01	0.00	0.	*	1		1500	61	0.01	0.00	0.01	1.
1		0230	11	0.01	0.01	0.00	0.	*	1		1515	62	0.01	0.00	0.01	1.
1		0245	12	0.01	0.01	0.00	0.	*	1		1530	63	0.01	0.00	0.01	1.
1		0300	13	0.01	0.01	0.00	0.	*	1		1545	64	0.01	0.00	0.01	1.
1		0315	14	0.01	0.01	0.00	0.	*	1		1600	65	0.01	0.00	0.01	1.
1		0330	15	0.01	0.01	0.00	0.	*	1		1615	66	0.01	0.00	0.01	1.
1		0345	16	0.01	0.01	0.00	0.	*	1		1630	67	0.01	0.00	0.01	1.
1		0400	17	0.02	0.02	0.00	0.	*	1		1645	68	0.01	0.00	0.01	1.
1		0415	18	0.03	0.03	0.00	0.	*	1		1700	69	0.01	0.00	0.01	1.
1		0430	19	0.03	0.03	0.00	0.	*	1		1715	70	0.01	0.00	0.01	1.
1		0445	20	0.03	0.03	0.00	0.	*	1		1730	71	0.01	0.00	0.01	1.
1		0500	21	0.03	0.03	0.00	0.	*	1		1745	72	0.01	0.00	0.01	1.
1		0515	22	0.07	0.07	0.00	0.	*	1		1800	73	0.01	0.00	0.01	1.
1		0530	23	0.11	0.11	0.00	0.	*	1		1815	74	0.01	0.00	0.01	1.
1		0545	24	1.32	0.70	0.62	27.	*	1		1830	75	0.01	0.00	0.01	1.
1		0600	25	1.32	0.29	1.03	75.	*	1		1845	76	0.01	0.00	0.01	1.
1		0615	26	0.11	0.02	0.09	63.	*	1		1900	77	0.01	0.00	0.01	1.
1		0630	27	0.11	0.02	0.09	29.	*	1		1915	78	0.01	0.00	0.01	1.
1		0645	28	0.07	0.01	0.06	15.	*	1		1930	79	0.01	0.00	0.01	1.
1		0700	29	0.07	0.01	0.06	10.	*	1		1945	80	0.01	0.00	0.01	1.
1		0715	30	0.04	0.01	0.04	7.	*	1		2000	81	0.01	0.00	0.01	1.
1		0730	31	0.04	0.01	0.04	5.	*	1		2015	82	0.01	0.00	0.01	1.
1		0745	32	0.04	0.01	0.04	5.	*	1		2030	83	0.01	0.00	0.00	1.
1		0800	33	0.04	0.01	0.04	5.	*	1		2045	84	0.01	0.00	0.01	1.
1		0815	34	0.02	0.00	0.02	4.	*	1		2100	85	0.01	0.00	0.00	1.
1		0830	35	0.02	0.00	0.02	3.	*	1		2115	86	0.01	0.00	0.01	1.
1		0845	36	0.02	0.00	0.02	2.	*	1		2130	87	0.01	0.00	0.00	1.
1		0900	37	0.02	0.00	0.02	2.	*	1		2145	88	0.01	0.00	0.01	1.
1		0915	38	0.02	0.00	0.02	2.	*	1		2200	89	0.01	0.00	0.00	1.
1		0930	39	0.02	0.00	0.02	2.	*	1		2215	90	0.01	0.00	0.01	1.
1		0945	40	0.02	0.00	0.02	2.	*	1		2230	91	0.01	0.00	0.00	1.
1		1000	41	0.02	0.00	0.02	2.	*	1		2245	92	0.01	0.00	0.01	1.
1		1015	42	0.02	0.00	0.01	2.	*	1		2300	93	0.01	0.00	0.00	1.
1		1030	43	0.02	0.00	0.01	2.	*	1		2315	94	0.01	0.00	0.01	1.
1		1045	44	0.02	0.00	0.01	2.	*	1		2330	95	0.01	0.00	0.00	1.
1		1100	45	0.02	0.00	0.01	2.	*	1		2345	96	0.01	0.00	0.01	1.
1		1115	46	0.02	0.00	0.01	2.	*	2		0000	97	0.01	0.00	0.00	1.
1		1130	47	0.02	0.00	0.01	2.	*	2		0015	98	0.00	0.00	0.00	0.
1		1145	48	0.02	0.00	0.01	2.	*	2		0030	99	0.00	0.00	0.00	0.
1		1200	49	0.02	0.00	0.01	2.	*	2		0045	100	0.00	0.00	0.00	0.

1 1215 50 0.02 0.00 0.01 2. * 2 0100 101 0.00 0.00 0.00 0.
 1 1230 51 0.02 0.00 0.01 2. *
 *

TOTAL RAINFALL = 4.40, TOTAL LOSS = 1.58, TOTAL EXCESS = 2.82

PEAK FLOW TIME MAXIMUM AVERAGE FLOW
 (CFS) 6-HR 24-HR 72-HR 25.00-HR (CFS) (HR) 3.
 (INCHES) 2.332 6.00 2.818 2.818 2.818 3. 3.
 (AC-FT) 6. 7. 7. 7.

CUMULATIVE AREA = 0.05 SQ MI

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 276 KK * Conf7 *
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278 KO OUTPUT CONTROL VARIABLES
 IPRNT 0 PRINT CONTROL
 IPLOT 0 PLOT CONTROL
 QSCAL 0. HYDROGRAPH PLOT SCALE
 IPNCH 0 PUNCH COMPUTED HYDROGRAPH
 IOUT 22 SAVE HYDROGRAPH ON THIS UNIT
 ISAV1 1 FIRST ORDINATE PUNCHED OR SAVED
 ISAV2 101 LAST ORDINATE PUNCHED OR SAVED
 TIMINT 0.250 TIME INTERVAL IN HOURS

279 HC HYDROGRAPH COMBINATION
 ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

HYDROGRAPH AT STATION Conf7
 SUM OF 2 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	
1	0000	1	0.	*	1	0630	27	168.	*	1	1300	53	11.	*	1	1930	79	8.					
1	0015	2	0.	*	1	0645	28	103.	*	1	1315	54	11.	*	1	1945	80	8.					
1	0030	3	0.	*	1	0700	29	75.	*	1	1330	55	10.	*	1	2000	81	8.					
1	0045	4	0.	*	1	0715	30	60.	*	1	1345	56	10.	*	1	2015	82	6.					
1	0100	5	0.	*	1	0730	31	52.	*	1	1400	57	10.	*	1	2030	83	5.					
1	0115	6	0.	*	1	0745	32	48.	*	1	1415	58	10.	*	1	2045	84	4.					
1	0130	7	0.	*	1	0800	33	45.	*	1	1430	59	9.	*	1	2100	85	4.					
1	0145	8	0.	*	1	0815	34	36.	*	1	1445	60	9.	*	1	2115	86	4.					
1	0200	9	0.	*	1	0830	35	29.	*	1	1500	61	9.	*	1	2130	87	4.					
1	0215	10	0.	*	1	0845	36	25.	*	1	1515	62	9.	*	1	2145	88	4.					
1	0230	11	0.	*	1	0900	37	22.	*	1	1530	63	8.	*	1	2200	89	4.					

1	0245	12	0.	*	1	0915	38	20.	*	1	1545	64	8.	*	1	2215	90	4.
1	0300	13	0.	*	1	0930	39	19.	*	1	1600	65	8.	*	1	2230	91	4.
1	0315	14	0.	*	1	0945	40	18.	*	1	1615	66	8.	*	1	2245	92	4.
1	0330	15	0.	*	1	1000	41	17.	*	1	1630	67	8.	*	1	2300	93	4.
1	0345	16	0.	*	1	1015	42	15.	*	1	1645	68	8.	*	1	2315	94	4.
1	0400	17	0.	*	1	1030	43	13.	*	1	1700	69	8.	*	1	2330	95	4.
1	0415	18	0.	*	1	1045	44	13.	*	1	1715	70	8.	*	1	2345	96	4.
1	0430	19	0.	*	1	1100	45	12.	*	1	1730	71	8.	*	2	0000	97	4.
1	0445	20	0.	*	1	1115	46	12.	*	1	1745	72	8.	*	2	0015	98	3.
1	0500	21	1.	*	1	1130	47	12.	*	1	1800	73	8.	*	2	0030	99	1.
1	0515	22	1.	*	1	1145	48	12.	*	1	1815	74	8.	*	2	0045	100	1.
1	0530	23	3.	*	1	1200	49	11.	*	1	1830	75	8.	*	2	0100	101	0.
1	0545	24	143.	*	1	1215	50	11.	*	1	1845	76	8.	*				
1	0600	25	395.	*	1	1230	51	11.	*	1	1900	77	8.	*				
1	0615	26	315.	*	1	1245	52	11.	*	1	1915	78	8.	*				

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				(CFS)	(HR)	20.
		6-HR	24-HR	72-HR	25.00-HR			
		(CFS)	395.	6.00		69.	21.	
		(INCHES)	2.036	2.503	2.503	2.503		
		(AC-FT)	34.	42.	42.	42.		

CUMULATIVE AREA = 0.32 SQ MI

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 280 KK * CHAN *
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282 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

HYDROGRAPH ROUTING DATA

283 RK KINEMATIC WAVE STREAM ROUTING

L	750.	CHANNEL LENGTH
S	0.1000	SLOPE
N	0.050	CHANNEL ROUGHNESS COEFFICIENT
CA	0.00	CONTRIBUTING AREA
SHAPE	TRAP	CHANNEL SHAPE
WD	1.00	BOTTOM WIDTH OR DIAMETER
Z	1.00	SIDE SLOPE
NDXMIN	2	MINIMUM NUMBER OF DX INTERVALS

 COMPUTED KINEMATIC PARAMETERS

VARIABLE TIME STEP
(DT SHOWN IS A MINIMUM)

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	4.76	1.33	0.24	250.00	394.66	360.53	2.50	19.25

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4219E+02 EXCESS=0.0000E+00 OUTFLOW=0.4218E+02 BASIN STORAGE=0.1698E-02 PERCENT ERROR= 0.0

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	4.76	1.33	15.00	387.86	360.00	2.51
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HYDROGRAPH AT STATION CHAN

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*
1	0000	1	0.	*	1	0630	27	173.	*	1	1300	53	11.	*	1	1930	79	8.					
1	0015	2	0.	*	1	0645	28	105.	*	1	1315	54	11.	*	1	1945	80	8.					
1	0030	3	0.	*	1	0700	29	76.	*	1	1330	55	10.	*	1	2000	81	8.					
1	0045	4	0.	*	1	0715	30	61.	*	1	1345	56	10.	*	1	2015	82	7.					
1	0100	5	0.	*	1	0730	31	52.	*	1	1400	57	10.	*	1	2030	83	5.					
1	0115	6	0.	*	1	0745	32	48.	*	1	1415	58	10.	*	1	2045	84	5.					
1	0130	7	0.	*	1	0800	33	45.	*	1	1430	59	9.	*	1	2100	85	4.					
1	0145	8	0.	*	1	0815	34	37.	*	1	1445	60	9.	*	1	2115	86	4.					
1	0200	9	0.	*	1	0830	35	29.	*	1	1500	61	9.	*	1	2130	87	4.					
1	0215	10	0.	*	1	0845	36	25.	*	1	1515	62	9.	*	1	2145	88	4.					
1	0230	11	0.	*	1	0900	37	22.	*	1	1530	63	8.	*	1	2200	89	4.					
1	0245	12	0.	*	1	0915	38	20.	*	1	1545	64	8.	*	1	2215	90	4.					
1	0300	13	0.	*	1	0930	39	19.	*	1	1600	65	8.	*	1	2230	91	4.					
1	0315	14	0.	*	1	0945	40	18.	*	1	1615	66	8.	*	1	2245	92	4.					
1	0330	15	0.	*	1	1000	41	17.	*	1	1630	67	8.	*	1	2300	93	4.					
1	0345	16	0.	*	1	1015	42	15.	*	1	1645	68	8.	*	1	2315	94	4.					
1	0400	17	0.	*	1	1030	43	14.	*	1	1700	69	8.	*	1	2330	95	4.					
1	0415	18	0.	*	1	1045	44	13.	*	1	1715	70	8.	*	1	2345	96	4.					
1	0430	19	0.	*	1	1100	45	12.	*	1	1730	71	8.	*	2	0000	97	4.					
1	0445	20	0.	*	1	1115	46	12.	*	1	1745	72	8.	*	2	0015	98	3.					
1	0500	21	1.	*	1	1130	47	12.	*	1	1800	73	8.	*	2	0030	99	1.					
1	0515	22	1.	*	1	1145	48	12.	*	1	1815	74	8.	*	2	0045	100	1.					
1	0530	23	3.	*	1	1200	49	11.	*	1	1830	75	8.	*	2	0100	101	0.					
1	0545	24	138.	*	1	1215	50	11.	*	1	1845	76	8.	*									
1	0600	25	388.	*	1	1230	51	11.	*	1	1900	77	8.	*									
1	0615	26	317.	*	1	1245	52	11.	*	1	1915	78	8.	*									

PEAK FLOW	TIME	6-HR	24-HR	72-HR	25.00-HR	(CFS)	(HR)	
		388.	6.00		69.	21.	20.	20.
		(CFS)						
		2.038	2.507	2.507	2.507			
		(INCHES)						
		34.	42.	42.	42.			
		(AC-FT)						
CUMULATIVE AREA =		0.32 SQ MI						

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* *
* WEDGE *
* *

WEDGEWOOD FLOWS WITH INT. INTERCEPTION

286 KO OUTPUT CONTROL VARIABLES
IPRNT 0 PRINT CONTROL
IPLOT 0 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE
IPNCH 0 PUNCH COMPUTED HYDROGRAPH
IOUT 22 SAVE HYDROGRAPH ON THIS UNIT
ISAV1 1 FIRST ORDINATE PUNCHED OR SAVED
ISAV2 101 LAST ORDINATE PUNCHED OR SAVED
TIMINT 0.250 TIME INTERVAL IN HOURS

289 IN TIME DATA FOR INPUT TIME SERIES
JXMIN 15 TIME INTERVAL IN MINUTES
JXDATE 1 0 STARTING DATE
JXTIME 0 STARTING TIME

SUBBASIN RUNOFF DATA

287 BA SUBBASIN CHARACTERISTICS
TAREA 0.07 SUBBASIN AREA

PRECIPITATION DATA

288 PB STORM 4.40 BASIN TOTAL PRECIPITATION

290 PI INCREMENTAL PRECIPITATION PATTERN
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00 0.00 0.00 0.00 0.00 0.01 0.01 0.01 0.01
0.02 0.02 0.30 0.30 0.03 0.02 0.01 0.01 0.01 0.01
0.01 0.01 0.00 0.00 0.00 0.00 0.01 0.00 0.00 0.00
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

301 LS SCS LOSS RATE
STRTL 0.56 INITIAL ABSTRACTION
CRVNBR 78.00 CURVE NUMBER
RTIME 0.00 PERCENT IMPERVIOUS AREA

302 UD SCS DIMENSIONLESS UNITGRAPH
TLAG 0.30 LAG

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
8 END-OF-PERIOD ORDINATES

53. 79. 35. 13. 5. 2. 1. 0.

HYDROGRAPH AT STATION WEDGE

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	0.00	0.00	0.00	0.	*	1		1245	52	0.02	0.00	0.01	2.
1		0015	2	0.00	0.00	0.00	0.	*	1		1300	53	0.02	0.00	0.01	2.
1		0030	3	0.00	0.00	0.00	0.	*	1		1315	54	0.01	0.00	0.01	2.
1		0045	4	0.01	0.01	0.00	0.	*	1		1330	55	0.01	0.00	0.01	2.
1		0100	5	0.01	0.01	0.00	0.	*	1		1345	56	0.01	0.00	0.01	2.
1		0115	6	0.01	0.01	0.00	0.	*	1		1400	57	0.01	0.00	0.01	2.
1		0130	7	0.01	0.01	0.00	0.	*	1		1415	58	0.01	0.00	0.01	2.
1		0145	8	0.01	0.01	0.00	0.	*	1		1430	59	0.01	0.00	0.01	2.
1		0200	9	0.01	0.01	0.00	0.	*	1		1445	60	0.01	0.00	0.01	2.
1		0215	10	0.01	0.01	0.00	0.	*	1		1500	61	0.01	0.00	0.01	2.
1		0230	11	0.01	0.01	0.00	0.	*	1		1515	62	0.01	0.00	0.01	2.
1		0245	12	0.01	0.01	0.00	0.	*	1		1530	63	0.01	0.00	0.01	2.
1		0300	13	0.01	0.01	0.00	0.	*	1		1545	64	0.01	0.00	0.01	2.
1		0315	14	0.01	0.01	0.00	0.	*	1		1600	65	0.01	0.00	0.01	2.
1		0330	15	0.01	0.01	0.00	0.	*	1		1615	66	0.01	0.00	0.01	2.
1		0345	16	0.01	0.01	0.00	0.	*	1		1630	67	0.01	0.00	0.01	2.
1		0400	17	0.02	0.02	0.00	0.	*	1		1645	68	0.01	0.00	0.01	2.
1		0415	18	0.03	0.03	0.00	0.	*	1		1700	69	0.01	0.00	0.01	2.
1		0430	19	0.03	0.03	0.00	0.	*	1		1715	70	0.01	0.00	0.01	2.
1		0445	20	0.03	0.03	0.00	0.	*	1		1730	71	0.01	0.00	0.01	2.
1		0500	21	0.03	0.03	0.00	0.	*	1		1745	72	0.01	0.00	0.01	2.
1		0515	22	0.07	0.07	0.00	0.	*	1		1800	73	0.01	0.00	0.01	2.
1		0530	23	0.11	0.11	0.00	0.	*	1		1815	74	0.01	0.00	0.01	2.
1		0545	24	1.32	0.96	0.36	19.	*	1		1830	75	0.01	0.00	0.01	2.
1		0600	25	1.32	0.49	0.83	72.	*	1		1845	76	0.01	0.00	0.01	2.
1		0615	26	0.11	0.03	0.08	82.	*	1		1900	77	0.01	0.00	0.01	2.
1		0630	27	0.11	0.03	0.08	44.	*	1		1915	78	0.01	0.00	0.01	2.
1		0645	28	0.07	0.02	0.05	25.	*	1		1930	79	0.01	0.00	0.01	2.
1		0700	29	0.07	0.02	0.05	15.	*	1		1945	80	0.01	0.00	0.01	2.
1		0715	30	0.04	0.01	0.03	11.	*	1		2000	81	0.01	0.00	0.01	2.
1		0730	31	0.04	0.01	0.03	8.	*	1		2015	82	0.01	0.00	0.00	1.
1		0745	32	0.04	0.01	0.03	7.	*	1		2030	83	0.01	0.00	0.00	1.
1		0800	33	0.04	0.01	0.03	6.	*	1		2045	84	0.01	0.00	0.00	1.
1		0815	34	0.02	0.01	0.02	6.	*	1		2100	85	0.01	0.00	0.00	1.
1		0830	35	0.02	0.01	0.02	4.	*	1		2115	86	0.01	0.00	0.00	1.
1		0845	36	0.02	0.00	0.02	4.	*	1		2130	87	0.01	0.00	0.00	1.
1		0900	37	0.02	0.00	0.02	3.	*	1		2145	88	0.01	0.00	0.00	1.
1		0915	38	0.02	0.00	0.02	3.	*	1		2200	89	0.01	0.00	0.00	1.
1		0930	39	0.02	0.00	0.02	3.	*	1		2215	90	0.01	0.00	0.00	1.
1		0945	40	0.02	0.00	0.02	3.	*	1		2230	91	0.01	0.00	0.00	1.
1		1000	41	0.02	0.00	0.02	3.	*	1		2245	92	0.01	0.00	0.00	1.
1		1015	42	0.02	0.00	0.01	3.	*	1		2300	93	0.01	0.00	0.00	1.
1		1030	43	0.02	0.00	0.01	3.	*	1		2315	94	0.01	0.00	0.00	1.
1		1045	44	0.02	0.00	0.01	3.	*	1		2330	95	0.01	0.00	0.00	1.
1		1100	45	0.02	0.00	0.01	2.	*	1		2345	96	0.01	0.00	0.00	1.
1		1115	46	0.02	0.00	0.01	2.	*	2		0000	97	0.01	0.00	0.00	1.
1		1130	47	0.02	0.00	0.01	2.	*	2		0015	98	0.00	0.00	0.00	1.
1		1145	48	0.02	0.00	0.01	2.	*	2		0030	99	0.00	0.00	0.00	0.
1		1200	49	0.02	0.00	0.01	2.	*	2		0045	100	0.00	0.00	0.00	0.
1		1215	50	0.02	0.00	0.01	2.	*	2		0100	101	0.00	0.00	0.00	0.
1		1230	51	0.02	0.00	0.01	2.	*								

TOTAL RAINFALL = 4.40, TOTAL LOSS = 2.19, TOTAL EXCESS = 2.21

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				(CFS)	(HR)	4.
		6-HR	24-HR	72-HR	25.00-HR			
	(CFS)	82.	6.25		14.	4.		
	(INCHES)	1.772	2.210	2.210	2.210			
	(AC-FT)	7.	9.	9.	9.			

CUMULATIVE AREA = 0.07 SQ MI

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303 KK *****
 * *
 * OPEN *
 * *

 OPEN SPACE / PARK

305 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

308 IN TIME DATA FOR INPUT TIME SERIES

JXMIN	15	TIME INTERVAL IN MINUTES
JXDATE	1 0	STARTING DATE
JXTIME	0	STARTING TIME

SUBBASIN RUNOFF DATA

306 BA SUBBASIN CHARACTERISTICS

TAREA	0.08	SUBBASIN AREA
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PRECIPITATION DATA

307 PB STORM 4.40 BASIN TOTAL PRECIPITATION

309 PI INCREMENTAL PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
0.02	0.02	0.30	0.30	0.03	0.02	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

320 LS SCS LOSS RATE

STRIL	1.28	INITIAL ABSTRACTION
CRVNR	61.00	CURVE NUMBER
RTIMP	0.00	PERCENT IMPERVIOUS AREA

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
10 END-OF-PERIOD ORDINATES

30. 69. 52. 23. 11. 5. 2. 1. 1. 0.

HYDROGRAPH AT STATION OPEN

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1	0000	1	0.00	0.00	0.00	0.	0.	*	1	1245	52	0.02	0.01	0.01	2.	
1	0015	2	0.00	0.00	0.00	0.	0.	*	1	1300	53	0.02	0.01	0.01	2.	
1	0030	3	0.00	0.00	0.00	0.	0.	*	1	1315	54	0.01	0.01	0.01	2.	
1	0045	4	0.01	0.01	0.00	0.	0.	*	1	1330	55	0.01	0.01	0.01	2.	
1	0100	5	0.01	0.01	0.00	0.	0.	*	1	1345	56	0.01	0.01	0.01	1.	
1	0115	6	0.01	0.01	0.00	0.	0.	*	1	1400	57	0.01	0.01	0.01	1.	
1	0130	7	0.01	0.01	0.00	0.	0.	*	1	1415	58	0.01	0.01	0.01	1.	
1	0145	8	0.01	0.01	0.00	0.	0.	*	1	1430	59	0.01	0.01	0.01	1.	
1	0200	9	0.01	0.01	0.00	0.	0.	*	1	1445	60	0.01	0.01	0.01	1.	
1	0215	10	0.01	0.01	0.00	0.	0.	*	1	1500	61	0.01	0.01	0.01	1.	
1	0230	11	0.01	0.01	0.00	0.	0.	*	1	1515	62	0.01	0.01	0.01	1.	
1	0245	12	0.01	0.01	0.00	0.	0.	*	1	1530	63	0.01	0.01	0.01	1.	
1	0300	13	0.01	0.01	0.00	0.	0.	*	1	1545	64	0.01	0.01	0.01	1.	
1	0315	14	0.01	0.01	0.00	0.	0.	*	1	1600	65	0.01	0.01	0.01	1.	
1	0330	15	0.01	0.01	0.00	0.	0.	*	1	1615	66	0.01	0.01	0.01	1.	
1	0345	16	0.01	0.01	0.00	0.	0.	*	1	1630	67	0.01	0.01	0.01	1.	
1	0400	17	0.02	0.02	0.00	0.	0.	*	1	1645	68	0.01	0.01	0.01	1.	
1	0415	18	0.03	0.03	0.00	0.	0.	*	1	1700	69	0.01	0.01	0.01	1.	
1	0430	19	0.03	0.03	0.00	0.	0.	*	1	1715	70	0.01	0.01	0.01	1.	
1	0445	20	0.03	0.03	0.00	0.	0.	*	1	1730	71	0.01	0.01	0.01	1.	
1	0500	21	0.03	0.03	0.00	0.	0.	*	1	1745	72	0.01	0.01	0.01	1.	
1	0515	22	0.07	0.07	0.00	0.	0.	*	1	1800	73	0.01	0.01	0.01	1.	
1	0530	23	0.11	0.11	0.00	0.	0.	*	1	1815	74	0.01	0.01	0.01	1.	
1	0545	24	1.32	1.29	0.03	1.	0.	*	1	1830	75	0.01	0.01	0.01	1.	
1	0600	25	1.32	0.96	0.36	13.	0.	*	1	1845	76	0.01	0.01	0.01	1.	
1	0615	26	0.11	0.07	0.04	28.	0.	*	1	1900	77	0.01	0.01	0.01	1.	
1	0630	27	0.11	0.06	0.05	24.	0.	*	1	1915	78	0.01	0.01	0.01	1.	
1	0645	28	0.07	0.04	0.03	15.	0.	*	1	1930	79	0.01	0.01	0.01	1.	
1	0700	29	0.07	0.04	0.03	10.	0.	*	1	1945	80	0.01	0.01	0.01	1.	
1	0715	30	0.04	0.02	0.02	7.	0.	*	1	2000	81	0.01	0.01	0.01	1.	
1	0730	31	0.04	0.02	0.02	6.	0.	*	1	2015	82	0.01	0.00	0.00	1.	
1	0745	32	0.04	0.02	0.02	5.	0.	*	1	2030	83	0.01	0.00	0.00	1.	
1	0800	33	0.04	0.02	0.02	4.	0.	*	1	2045	84	0.01	0.00	0.00	1.	
1	0815	34	0.02	0.01	0.01	4.	0.	*	1	2100	85	0.01	0.00	0.00	1.	
1	0830	35	0.02	0.01	0.01	3.	0.	*	1	2115	86	0.01	0.00	0.00	1.	
1	0845	36	0.02	0.01	0.01	2.	0.	*	1	2130	87	0.01	0.00	0.00	1.	
1	0900	37	0.02	0.01	0.01	2.	0.	*	1	2145	88	0.01	0.00	0.00	1.	
1	0915	38	0.02	0.01	0.01	2.	0.	*	1	2200	89	0.01	0.00	0.00	1.	
1	0930	39	0.02	0.01	0.01	2.	0.	*	1	2215	90	0.01	0.00	0.00	1.	
1	0945	40	0.02	0.01	0.01	2.	0.	*	1	2230	91	0.01	0.00	0.00	1.	
1	1000	41	0.02	0.01	0.01	2.	0.	*	1	2245	92	0.01	0.00	0.00	1.	
1	1015	42	0.02	0.01	0.01	2.	0.	*	1	2300	93	0.01	0.00	0.00	1.	
1	1030	43	0.02	0.01	0.01	2.	0.	*	1	2315	94	0.01	0.00	0.00	1.	
1	1045	44	0.02	0.01	0.01	2.	0.	*	1	2330	95	0.01	0.00	0.00	1.	
1	1100	45	0.02	0.01	0.01	2.	0.	*	1	2345	96	0.01	0.00	0.00	1.	

1	1115	46	0.02	0.01	0.01	2.	*	2	0000	97	0.01	0.00	0.00	1.
1	1130	47	0.02	0.01	0.01	2.	*	2	0015	98	0.00	0.00	0.00	0.
1	1145	48	0.02	0.01	0.01	2.	*	2	0030	99	0.00	0.00	0.00	0.
1	1200	49	0.02	0.01	0.01	2.	*	2	0045	100	0.00	0.00	0.00	0.
1	1215	50	0.02	0.01	0.01	2.	*	2	0100	101	0.00	0.00	0.00	0.
1	1230	51	0.02	0.01	0.01	2.	*							

TOTAL RAINFALL = 4.40, TOTAL LOSS = 3.38, TOTAL EXCESS = 1.02

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				(CFS)	(HR)	2.
		6-HR	24-HR	72-HR	25.00-HR			
		(CFS)	28.	6.25	6.	2.		
		(INCHES)	0.741	1.024	1.024	1.024		
		(AC-FT)	3.	4.	4.	4.		

CUMULATIVE AREA = 0.08 SQ MI

*** **

*
*
* POND *
*

TRAFALGER POND

324 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	22	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	101	LAST ORDINATE PUNCHED OR SAVED
TIMINT	0.250	TIME INTERVAL IN HOURS

325 HC HYDROGRAPH COMBINATION

ICOMP	3	NUMBER OF HYDROGRAPHS TO COMBINE
-------	---	----------------------------------

HYDROGRAPH AT STATION POND
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW		
1	0000	1	0.	*	1	0630	27	242.	*	1	1300	53	15.	*	1	1930	79	10.
1	0015	2	0.	*	1	0645	28	145.	*	1	1315	54	15.	*	1	1945	80	10.
1	0030	3	0.	*	1	0700	29	102.	*	1	1330	55	14.	*	1	2000	81	10.
1	0045	4	0.	*	1	0715	30	79.	*	1	1345	56	14.	*	1	2015	82	9.
1	0100	5	0.	*	1	0730	31	66.	*	1	1400	57	13.	*	1	2030	83	7.
1	0115	6	0.	*	1	0745	32	60.	*	1	1415	58	13.	*	1	2045	84	6.
1	0130	7	0.	*	1	0800	33	56.	*	1	1430	59	13.	*	1	2100	85	6.

1	0145	8	0.	*	1	0815	34	46.	*	1	1445	60	13.	*	1	2115	86	6.
1	0200	9	0.	*	1	0830	35	37.	*	1	1500	61	12.	*	1	2130	87	5.
1	0215	10	0.	*	1	0845	36	31.	*	1	1515	62	12.	*	1	2145	88	5.
1	0230	11	0.	*	1	0900	37	28.	*	1	1530	63	11.	*	1	2200	89	5.
1	0245	12	0.	*	1	0915	38	25.	*	1	1545	64	11.	*	1	2215	90	5.
1	0300	13	0.	*	1	0930	39	24.	*	1	1600	65	11.	*	1	2230	91	5.
1	0315	14	0.	*	1	0945	40	23.	*	1	1615	66	10.	*	1	2245	92	5.
1	0330	15	0.	*	1	1000	41	22.	*	1	1630	67	10.	*	1	2300	93	5.
1	0345	16	0.	*	1	1015	42	20.	*	1	1645	68	10.	*	1	2315	94	5.
1	0400	17	0.	*	1	1030	43	18.	*	1	1700	69	10.	*	1	2330	95	5.
1	0415	18	0.	*	1	1045	44	17.	*	1	1715	70	10.	*	1	2345	96	5.
1	0430	19	0.	*	1	1100	45	16.	*	1	1730	71	10.	*	2	0000	97	5.
1	0445	20	0.	*	1	1115	46	16.	*	1	1745	72	10.	*	2	0015	98	4.
1	0500	21	1.	*	1	1130	47	16.	*	1	1800	73	10.	*	2	0030	99	2.
1	0515	22	1.	*	1	1145	48	16.	*	1	1815	74	10.	*	2	0045	100	1.
1	0530	23	3.	*	1	1200	49	15.	*	1	1830	75	10.	*	2	0100	101	1.
1	0545	24	158.	*	1	1215	50	15.	*	1	1845	76	10.	*				
1	0600	25	473.	*	1	1230	51	15.	*	1	1900	77	10.	*				
1	0615	26	427.	*	1	1245	52	15.	*	1	1915	78	10.	*				

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				(CFS)	(HR)	27.
		6-HR	24-HR	72-HR	25.00-HR			
(CFS)		473.	6.00		89.	28.		
(INCHES)		1.786	2.220	2.220	2.220			
(AC-FT)		44.	55.	55.	55.			
CUMULATIVE AREA =		0.46 SQ MI						

RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

6-HOUR	OPERATION		STATION	FLOW	PEAK PEAK	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD		BASIN STAGE	MAXIMUM MAX STAGE	TIME OF MAX STAGE
	24-HOUR	72-HOUR					AREA	PERIOD			
	HYDROGRAPH AT		UNION	35.	6.00	4.	1.	1.	0.02		
	HYDROGRAPH AT		UTC	83.	6.00	9.	3.	3.	0.03		
	2 COMBINED AT		Conf1	117.	6.00	14.	4.	4.	0.05		
6882.99	ROUTED TO	6.50	POND1	26.	6.50	13.	4.	4.	0.05		
	HYDROGRAPH AT		GHPIPE	65.	6.00	8.	2.	2.	0.04		
	ROUTED TO		48"RCP	64.	6.00	8.	2.	2.	0.04		
	2 COMBINED AT		pond	87.	6.00	21.	7.	6.	0.09		
	ROUTED TO		42"RCP	86.	6.00	21.	7.	6.	0.09		
	HYDROGRAPH AT		GH11	27.	6.00	4.	1.	1.	0.02		
	2 COMBINED AT		Conf2	113.	6.00	25.	8.	7.	0.11		
	ROUTED TO		42"RCP	111.	6.00	25.	8.	7.	0.11		
	HYDROGRAPH AT		STREET	54.	6.00	7.	2.	2.	0.02		
	HYDROGRAPH AT		UTCW	23.	6.00	2.	1.	1.	0.01		
	3 COMBINED AT		Conf3	187.	6.00	34.	10.	10.	0.14		
	ROUTED TO		36"RCP	186.	6.00	34.	10.	10.	0.14		
	HYDROGRAPH AT		APTS	27.	6.00	3.	1.	1.	0.01		
	HYDROGRAPH AT		WIND1	74.	6.25	13.	4.	4.	0.08		
	3 COMBINED AT		Conf4	275.	6.00	50.	15.	15.	0.23		
	ROUTED TO		48"RCP	273.	6.00	50.	15.	15.	0.23		
	HYDROGRAPH AT		WIND2	15.	6.00	2.	1.	1.	0.01		
	2 COMBINED AT		Conf5	288.	6.00	52.	16.	15.	0.24		
	ROUTED TO		CHAN	287.	6.00	52.	16.	15.	0.24		
	HYDROGRAPH AT		CHURCH	40.	6.00	6.	2.	2.	0.03		
	2 COMBINED AT		Conf6	327.	6.00	58.	18.	17.	0.27		
	ROUTED TO		CHAN	320.	6.00	58.	18.	17.	0.27		
	HYDROGRAPH AT		CYPR	75.	6.00	11.	3.	3.	0.05		
	2 COMBINED AT		Conf7	395.	6.00	69.	21.	20.	0.32		

ROUTED TO	CHAN	388.	6.00	69.	21.	20.	0.32
HYDROGRAPH AT	WEDGE	82.	6.25	14.	4.	4.	0.07
HYDROGRAPH AT	OPEN	28.	6.25	6.	2.	2.	0.08
3 COMBINED AT	POND	473.	6.00	89.	28.	27.	0.46

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

INTERPOLATED TO
COMPUTATION INTERVAL
PEAK TIME TO
PEAK

ISTAQ	ELEMENT	DT (MIN)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	DT (MIN)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)
48'RCP	MANE	0.24	64.43	360.42	2.38	15.00	63.66	360.00	2.38

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4943E+01 EXCESS=0.0000E+00 OUTFLOW=0.4943E+01 BASIN STORAGE=0.1584E-04 PERCENT ERROR= 0.0

42"RCP	MANE	0.33	86.86	360.46	2.74	15.00	85.69	360.00	2.74
--------	------	------	-------	--------	------	-------	-------	--------	------

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1302E+02 EXCESS=0.0000E+00 OUTFLOW=0.1301E+02 BASIN STORAGE=0.5792E-03 PERCENT ERROR= 0.0

42"RCP	MANE	0.30	112.60	360.71	2.70	15.00	110.81	360.00	2.70
--------	------	------	--------	--------	------	-------	--------	--------	------

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1539E+02 EXCESS=0.0000E+00 OUTFLOW=0.1539E+02 BASIN STORAGE=0.6493E-03 PERCENT ERROR= 0.0

36"RCP	MANE	0.17	186.92	360.40	2.83	15.00	185.53	360.00	2.83
--------	------	------	--------	--------	------	-------	--------	--------	------

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2080E+02 EXCESS=0.0000E+00 OUTFLOW=0.2080E+02 BASIN STORAGE=0.4406E-03 PERCENT ERROR= 0.0

48"RCP	MANE	0.14	274.52	360.22	2.52	15.00	273.32	360.00	2.52
--------	------	------	--------	--------	------	-------	--------	--------	------

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3047E+02 EXCESS=0.0000E+00 OUTFLOW=0.3047E+02 BASIN STORAGE=0.2783E-03 PERCENT ERROR= 0.0

CHAN	MANE	0.13	287.67	360.25	2.51	15.00	286.70	360.00	2.51
------	------	------	--------	--------	------	-------	--------	--------	------

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3188E+02 EXCESS=0.0000E+00 OUTFLOW=0.3188E+02 BASIN STORAGE=0.5047E-03 PERCENT ERROR= 0.0

CHAN	MANE	0.29	325.76	360.73	2.45	15.00	320.08	360.00	2.45
------	------	------	--------	--------	------	-------	--------	--------	------

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3536E+02 EXCESS=0.0000E+00 OUTFLOW=0.3536E+02 BASIN STORAGE=0.1661E-02 PERCENT ERROR= 0.0

CHAN	MANE	0.24	394.66	360.53	2.50	15.00	387.86	360.00	2.51
------	------	------	--------	--------	------	-------	--------	--------	------

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4219E+02 EXCESS=0.0000E+00 OUTFLOW=0.4218E+02 BASIN STORAGE=0.1698E-02 PERCENT ERROR= 0.0

*** NORMAL END OF HEC-1 ***

HYDRAULIC CALCULATIONS

**Worksheet
Worksheet for Irregular Channel**

TRAFALGER DRIVE CAPACITY

Project Description	
Worksheet	Irregular Channel - 1
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Discharge

Input Data	
Slope	0.043000 ft/ft
Water Surface Elevation	2.00 ft

Options	
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results	
Mannings Coefficient	0.018
Elevation Range	1.13 to 2.00
Discharge	298.90 cfs ←
Flow Area	28.8 ft ²
Wetted Perimeter	61.17 ft
Top Width	60.00 ft
Actual Depth	0.87 ft
Critical Elevation	2.44 ft
Critical Slope	0.005081 ft/ft
Velocity	10.37 ft/s
Velocity Head	1.67 ft
Specific Energy	3.67 ft
Froude Number	2.64
Flow Type	Supercritical

Roughness Segments		
Start Station	End Station	Mannings Coefficient
0+00	0+60	0.018

Natural Channel Points	
Station (ft)	Elevation (ft)
0+00	2.00
0+10	1.80
0+10	1.13
0+30	1.53
0+50	1.13
0+50	1.80
0+60	2.00

Worksheet
Worksheet for Circular Channel

OUTLET SYSTEM CAPACITY

Project Description	
Worksheet	TRAFALGER OUTFALL
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Full Flow Capacity

Input Data	
Mannings Coefficient	0.013
Slope	0.050000 ft/ft
Diameter	42 in

Results	
Depth	3.50 ft
Discharge	224.96 cfs ←
Flow Area	9.6 ft ²
Wetted Perimeter	11.00 ft
Top Width	0.00 ft
Critical Depth	3.48 ft
Percent Full	100.0 %
Critical Slope	0.046742 ft/ft
Velocity	23.38 ft/s
Velocity Head	8.50 ft
Specific Energy	12.00 ft
Froude Number	0.00
Maximum Discharg	241.99 cfs
Discharge Full	224.96 cfs
Slope Full	0.050000 ft/ft
Flow Type	N/A

**DETENTION CALCULATIONS
SUMMARY WITH 100 YEAR FLOWS**



6385 Corporate Drive, Suite 304
Colorado Springs, CO 80919

Project TRAFALGER DETENTION POND
 Date 09/09/02
 Contact _____
 Phone _____
 By CMC

NOTES

- Telephone Record
- Note to the File
- Job Information.
- Meeting Minutes
- _____

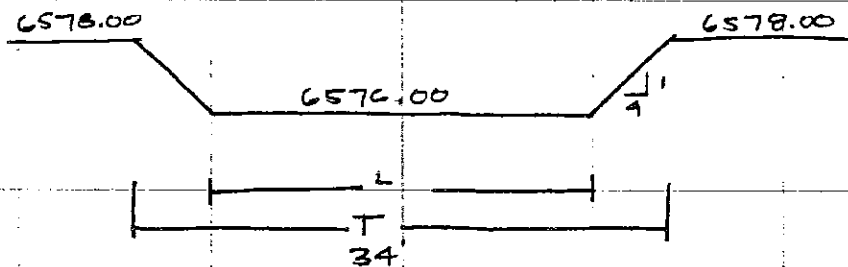
DETENTION FACILITY SUMMARY

* PROPOSED DESIGN CRITERIA

- Q_{100} INFLOW (FROM SCG METHOD) : 480 CFS
- Q_{100} ALLOWABLE OUTFLOW (EXISTING CONDITIONS) : 138 CFS
- MIN. REQUIRED STORAGE VOLUME : 12.015 AC-FT

* POND DESIGN

- POND EMBANKMENT ELEVATION : 6578.00
- EMERGENCY SPILLWAY ELEVATION : 6576.00
- APPROX. TOTAL SPILLWAY LENGTH : 34' TOTAL



- TOTAL DESIGN STORAGE VOLUME : 16.007 AC-FT @ EL 6576.00
- POND OUTLET DESIGN
 - Q_{100} OUT : 137.96 CFS USING A 30" CMP STAND PIPE W/ 42" RCP OUTLET @ 1.0%.
 - APPROX. OUTLET INV ELEV : 6566.50
 - MAX W.S.E : 6574.50
- TOTAL OUTLET FAILURE:
 - MAX W.S.E. 6576.00, ~ 46.08 CFS INTO TRAFALGER DR.

Job File: X:\204100\DRAINAGE\OPTION C POND.PPW
Rain Dir: C:\HAESTAD\PPKW\RAINFALL\

=====
JOB TITLE
=====

TRAFALGER DETENTION POND ANALYSIS
POND OPTION C

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```

*****
*****
*
*
*          MODIFIED RATIONAL METHOD
*      ---- Grand Summary For All Storm Frequencies ----
*
*
*****
*****

```

$Q = CiA * \text{Units Conversion}; \text{ Where Conversion} = 43560 / (12 * 3600)$

Area = 253.870 acres

Tc = .3000 hrs

::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::

VOLUMES

Freq. years	Adjusted 'C'	Duration hrs	I in/hr	Qpeak cfs	Allowable cfs	Inflow ac-ft	Storage ac-ft
100	.345	.9500	2.7550	243.31	137.21	19.103	12.015

Type.... Executive Summary (Nodes)
 Name.... Watershed
 File.... X:\204100\DRAINAGE\OPTION C POND.PPW
 Storm... 100YRCS Tag: 100

Page 2.01
 Event: 100 yr

NETWORK SUMMARY -- NODES
 (Trun.= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left & Rt)

DEFAULT Design Storm File, ID =

Storm Tag Name =

 Data Type, File, ID =
 Total Rainfall Depth= .0000 in
 Duration Multiplier = 0
 Resulting Duration = .0000 hrs
 Resulting Start Time= .0000 hrs Step= .0000 hrs End= .0000 hrs

	Node ID	Type	HYG Vol ac-ft	Trun.	Qpeak hrs	Qpeak cfs	Max WSEL ft
⇒	100 YEAR	AREA	19.103		.3000	243.31	
Outfall	OUT 10	JCT	19.102		1.1000	137.96	
	POND OPTION CIN	POND	19.103		.3000	243.31	
	POND OPTION COUT	POND	19.102		1.1000	137.96	6574.50 ←

Type... Executive Summary (Links)
 Name... Watershed
 File... X:\204100\DRAINAGE\OPTION C POND.PPW
 Storm... 100YRCS Tag: 100

Page 2.02
 Event: 100 yr

NETWORK SUMMARY -- LINKS

(UN=Upstream Node; DL=DNstream End of Link; DN=DNstream Node)
 (Trun.= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left & Rt)

DEFAULT Design Storm File, ID =

Storm Tag Name =

 Data Type, File, ID =
 Total Rainfall Depth= .0000 in
 Duration Multiplier = 0
 Resulting Duration = .0000 hrs
 Resulting Start Time= .0000 hrs Step= .0000 hrs End= .0000 hrs

Link ID	Type		HYG Vol ac-ft	Peak Time Trun. hrs	Peak Q cfs	End Points
A 10	ADD	UN	19.103	.3000	243.31	100 YEAR
		DL	19.103	.3000	243.31	
		DN	19.103	.3000	243.31	POND OPTION CIN
PR 10	PONDrt	UN	19.103	.3000	243.31	POND OPTION CIN
PR 10			19.102	1.1000	137.96	POND OPTION COUT
		DL	19.102	1.1000	137.96	
		DN	19.102	1.1000	137.96	OUT 10

Type.... Node: Addition Summary
 Name.... OUT 10
 File.... X:\204100\DRAINAGE\OPTION C POND.PPW
 Storm... 100YRCS Tag: 100

Page 3.01
 Event: 100 yr

SUMMARY FOR HYDROGRAPH ADDITION
 at Node: OUT 10

HYG Directory: X:\204100\DRAINAGE\

```

=====
Upstream Link ID  Upstream Node ID  HYG file      HYG ID        HYG tag
-----
PR 10             POND OPTION CIN                PR 10         100
=====
  
```

INFLOWS TO: OUT 10

```

----- Volume      Peak Time      Peak Flow
HYG file   HYG ID        HYG tag        ac-ft         hrs           cfs
-----
          PR 10           100           19.102        1.1000        137.96
  
```

TOTAL FLOW INTO: OUT 10

```

----- Volume      Peak Time      Peak Flow
HYG file   HYG ID        HYG tag        ac-ft         hrs           cfs
-----
          OUT 10           100           19.102        1.1000        137.96
  
```

Type.... Node: Addition Summary
 Name.... OUT 10
 File.... X:\204100\DRAINAGE\OPTION C POND.PPW
 Storm... 100YRCS Tag: 100

Page 3.02
 Event: 100 yr

TOTAL NODE INFLOW...

HYG file =
 HYG ID = OUT 10
 HYG Tag = 100

 Peak Discharge = 137.96 cfs
 Time to Peak = 1.1000 hrs
 HYG Volume = 19.102 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
.0000	.00	.32	1.28	4.28	8.92
.2500	14.83	22.08	30.25	38.65	47.03
.5000	55.22	62.94	70.95	82.68	94.16
.7500	105.40	113.82	120.16	126.07	131.44
1.0000	135.63	137.77	137.96	136.29	132.83
1.2500	127.68	121.66	115.71	109.97	101.69
1.5000	94.03	87.09	81.17	75.64	70.50
1.7500	67.13	64.40	61.78	59.27	56.83
2.0000	54.46	52.18	50.01	47.92	45.94
2.2500	44.06	42.26	40.53	38.87	37.28
2.5000	35.79	34.40	33.06	31.77	30.54
2.7500	29.35	28.20	27.11	26.09	25.17
3.0000	24.28	23.41	22.58	21.78	21.01
3.2500	20.27	19.55	18.85	18.18	17.55
3.5000	16.95	16.38	15.82	15.29	14.77
3.7500	14.27	13.78	13.32	12.86	12.43
4.0000	12.01	11.60	11.21	10.83	10.46
4.2500	10.10	9.75	9.42	9.10	8.79
4.5000	8.49	8.19	7.91	7.64	7.38
4.7500	7.13	6.88	6.65	6.42	6.20
5.0000	5.99	5.78	5.58	5.39	5.21
5.2500	5.03	4.86	4.70	4.56	4.43
5.5000	4.29	4.16	4.04	3.92	3.80
5.7500	3.69	3.58	3.47	3.36	3.26
6.0000	3.17	3.07	2.98	2.89	2.80
6.2500	2.72	2.64	2.56	2.48	2.41
6.5000	2.33	2.26	2.20	2.13	2.07
6.7500	2.00	1.94	1.89	1.83	1.77
7.0000	1.72	1.67	1.62	1.57	1.52
7.2500	1.48	1.43	1.39	1.35	1.31
7.5000	1.27	1.24	1.22	1.20	1.18
7.7500	1.16	1.15	1.13	1.11	1.09
8.0000	1.08	1.06	1.04	1.03	1.01

HYDROGRAPH ORDINATES (cfs)
 Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
8.2500	.99	.98	.96	.95	.93
8.5000	.92	.90	.89	.88	.86
8.7500	.85	.84	.82	.81	.80
9.0000	.78	.77	.76	.75	.74
9.2500	.73	.71	.70	.69	.68
9.5000	.67	.66	.65	.64	.63
9.7500	.62	.61	.60	.59	.58
10.0000	.57	.56	.55	.55	.54
10.2500	.53	.52	.51	.50	.50
10.5000	.49	.48	.47	.47	.46
10.7500	.45	.44	.44	.43	.42
11.0000	.42	.41	.40	.40	.39
11.2500	.39	.38	.37	.37	.36
11.5000	.36	.35	.35	.34	.33
11.7500	.33	.32	.32	.31	.31
12.0000	.30	.30	.30	.29	.29
12.2500	.28	.28	.27	.27	.26
12.5000	.26	.26	.25	.25	.24
12.7500	.24	.24	.23	.23	.23
13.0000	.22	.22	.22	.21	.21
13.2500	.21	.20	.20	.20	.19
13.5000	.19	.19	.18	.18	.18
13.7500	.18	.17	.17	.17	.16
14.0000	.16	.16	.16	.15	.15
14.2500	.15	.15	.15	.14	.14
14.5000	.14	.14	.13	.13	.13
14.7500	.13	.13	.12	.12	.12
15.0000	.12	.12	.11	.11	.11
15.2500	.11	.11	.11	.10	.10
15.5000	.10	.10	.10	.10	.09
15.7500	.09	.09	.09	.09	.09
16.0000	.09	.09	.08	.08	.08
16.2500	.08	.08	.08	.08	.07
16.5000	.07	.07	.07	.07	.07
16.7500	.07	.07	.07	.07	.06
17.0000	.06	.06	.06	.06	.06
17.2500	.06	.06	.06	.06	.05
17.5000	.05	.05	.05	.05	.05
17.7500	.05	.05	.05	.05	.05
18.0000	.05	.05	.04	.04	.04
18.2500	.04	.04	.04	.04	.04
18.5000	.04	.04	.04	.04	.04
18.7500	.04	.04	.04	.03	.03
19.0000	.03	.03	.03	.03	.03
19.2500	.03	.03	.03	.03	.03
19.5000	.03	.03	.03	.03	.03
19.7500	.03	.03	.03	.03	.02

HYDROGRAPH ORDINATES (cfs)
 Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
20.0000	.02	.02	.02	.02	.02
20.2500	.02	.02	.02	.02	.02
20.5000	.02	.02	.02	.02	.02
20.7500	.02	.02	.02	.02	.02
21.0000	.02	.02	.02	.02	.02
21.2500	.02	.02	.02	.02	.02
21.5000	.02	.02	.01	.01	.01
21.7500	.01	.01	.01	.01	.01
22.0000	.01	.01	.01	.01	.01
22.2500	.01	.01	.01	.01	.01
22.5000	.01	.01	.01	.01	.01
22.7500	.01	.01	.01	.01	.01
23.0000	.01	.01	.01	.01	.01
23.2500	.01	.01	.01	.01	.01
23.5000	.01	.01	.01	.01	.01
23.7500	.01	.01	.01	.01	.01
24.0000	.01	.01	.01	.01	.01
24.2500	.01	.01	.01	.01	.01
24.5000	.01	.01	.01	.01	.01
24.7500	.01	.01	.01	.01	.01
25.0000	.01	.00	.00	.00	.00
25.2500	.00	.00	.00	.00	.00
25.5000	.00	.00	.00	.00	.00
25.7500	.00	.00	.00	.00	.00
26.0000	.00	.00	.00	.00	.00
26.2500	.00	.00	.00	.00	.00
26.5000	.00	.00	.00	.00	.00

Type.... Vol: Elev-Area
Name.... POND OPTION C

File.... X:\204100\DRAINAGE\OPTION C POND.PPW
Title... POND OPTION C

Elevation (ft)	Planimeter (sq.in)	Area (acres)	A1+A2+sqrt(A1*A2) (acres)	Volume (ac-ft)	Volume Sum (ac-ft)
6568.00	-----	.5200	.0000	.000	.000
6570.00	-----	1.9900	3.5273	2.352	2.352
6572.00	-----	2.1800	6.2528	4.169	6.520
6574.00	-----	2.3700	6.8230	4.549	11.069
6576.00	-----	2.5700	7.4080	4.939	16.007 ←
6578.00	-----	2.7100	7.9191	5.279	21.287

POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

$$\text{Volume} = (1/3) * (\text{EL2}-\text{EL1}) * (\text{Area1} + \text{Area2} + \text{sq.rt.}(\text{Area1}*\text{Area2}))$$

where: EL1, EL2 = Lower and upper elevations of the increment
Area1,Area2 = Areas computed for EL1, EL2, respectively
Volume = Incremental volume between EL1 and EL2

Type.... Outlet Input Data
Name.... OUTFALL

File.... X:\204100\DRAINAGE\OPTION C POND.PPW
Title... 36" OUTLET

REQUESTED POND WS ELEVATIONS:

Min. Elev.= 6568.00 ft
Increment = .50 ft
Max. Elev.= 6578.00 ft

OUTLET CONNECTIVITY

---> Forward Flow Only (UpStream to DnStream)
<--- Reverse Flow Only (DnStream to UpStream)
<---> Forward and Reverse Both Allowed

Structure	No.		Outfall	E1, ft	E2, ft
Stand Pipe	SP	--->	TW	6572.500	6578.000
Culvert-Circular	CV	--->	TW	6568.000	6578.000
TW SETUP, DS Channel					

Type.... Outlet Input Data
Name.... OUTFALL

File.... X:\204100\DRAINAGE\OPTION C POND.PPW
Title... 36" OUTLET

OUTLET STRUCTURE INPUT DATA

Structure ID	=	SP
Structure Type	=	Stand Pipe

# of Openings	=	1
Invert Elev.	=	6572.50 ft
Diameter	=	2.5000 ft
Orifice Area	=	4.9087 sq.ft
Orifice Coeff.	=	.500
Weir Length	=	7.85 ft
Weir Coeff.	=	3.000
K, Submerged	=	.000
K, Reverse	=	1.000
Kb, Barrel	=	.000000 (per ft of full flow)
Barrel Length	=	.00 ft
Mannings n	=	.0000

Type.... Outlet Input Data
Name.... OUTFALL

File.... X:\204100\DRAINAGE\OPTION C POND.PPW
Title... 36" OUTLET

OUTLET STRUCTURE INPUT DATA

Structure ID = CV
Structure Type = Culvert-Circular

No. Barrels = 1
Barrel Diameter = 3.5000 ft ←
Upstream Invert = 6568.00 ft
Dnstream Invert = 6567.50 ft
Horiz. Length = 50.00 ft
Barrel Length = 50.00 ft
Barrel Slope = .01000 ft/ft

OUTLET CONTROL DATA...

Mannings n = .0130
Ke = .5000 (forward entrance loss)
Kb = .005885 (per ft of full flow)
Kr = .5000 (reverse entrance loss)
HW Convergence = .001 +/- ft

INLET CONTROL DATA...

Equation form = 1
Inlet Control K = .0078
Inlet Control M = 2.0000
Inlet Control c = .02920
Inlet Control Y = .7400
T1 ratio (HW/D) = 1.131
T2 ratio (HW/D) = 1.202
Slope Factor = -.500

Use unsubmerged inlet control Form 1 equ. below T1 elev.
Use submerged inlet control Form 1 equ. above T2 elev.

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...

At T1 Elev = 6571.96 ft ---> Flow = 63.00 cfs
At T2 Elev = 6572.21 ft ---> Flow = 72.00 cfs

Structure ID = TW
Structure Type = TW SETUP, DS Channel

FREE OUTFALL CONDITIONS SPECIFIED

CONVERGENCE TOLERANCES...

Maximum Iterations= 30
Min. TW tolerance = .01 ft
Max. TW tolerance = .01 ft
Min. HW tolerance = .01 ft
Max. HW tolerance = .01 ft
Min. Q tolerance = .10 cfs
Max. Q tolerance = .10 cfs

LEVEL POOL ROUTING DATA

HYG Dir = X:\204100\DRAINAGE\
 Inflow HYG file = NONE STORED - POND OPTION CIN 100
 Outflow HYG file = NONE STORED - POND OPTION COUT 100

Pond Node Data = POND OPTION C
 Pond Volume Data = POND OPTION C
 Pond Outlet Data = OUTFALL

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 6568.00 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0500 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + 0 cfs
6568.00	.00	.000	.5200	.00	.00	.00
6568.50	1.25	.327	.7983	.00	1.25	159.57
6569.00	4.79	.808	1.1361	.00	4.79	395.99
6569.50	10.40	1.473	1.5333	.00	10.40	723.40
6570.00	17.74	2.352	1.9900	.00	17.74	1155.86
6570.50	26.53	3.358	2.0367	.00	26.53	1651.88
6571.00	36.43	4.388	2.0839	.00	36.43	2160.36
6571.50	47.08	5.442	2.1317	.00	47.08	2681.09
6572.00	58.20	6.520	2.1800	.00	58.20	3213.90
6572.50	69.26	7.622	2.2268	.00	69.26	3758.18
6573.00	88.44	8.747	2.2740	.00	88.44	4321.94
6573.50	110.20	9.896	2.3218	.00	110.20	4899.78
6574.00	124.43	11.069	2.3700	.00	124.43	5481.70
6574.50	138.01	12.266	2.4192	.00	138.01	6074.76
6575.00	148.59	13.488	2.4690	.00	148.59	6676.81
6575.50	157.80	14.735	2.5192	.00	157.80	7289.58
6576.00	166.76	16.007	2.5700	.00	166.76	7914.34
6576.50	175.33	17.301	2.6047	.00	175.33	8549.03
6577.00	183.57	18.612	2.6395	.00	183.57	9191.81
6577.50	191.45	19.941	2.6747	.00	191.45	9842.70
6578.00	199.06	21.287	2.7100	.00	199.06	10501.85

Type.... Diverted Hydrograph
 Name.... PR 10
 File.... X:\204100\DRAINAGE\
 Storm... 100YRCS Tag: 100

Page 6.02
 Event: 100 yr

DIVERTED HYDROGRAPH...

HYG file =
 HYG ID = PR 10
 HYG Tag = 100

 Peak Discharge = 137.96 cfs
 Time to Peak = 1.1000 hrs
 HYG Volume = 19.102 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs	Output Time increment = .0500 hrs				
	Time on left represents time for first value in each row.				
.0000	.00	.32	1.28	4.28	8.92
.2500	14.83	22.08	30.25	38.65	47.03
.5000	55.22	62.94	70.95	82.68	94.16
.7500	105.40	113.82	120.16	126.07	131.44
1.0000	135.63	137.77	137.96	136.29	132.83
1.2500	127.68	121.66	115.71	109.97	101.69
1.5000	94.03	87.09	81.17	75.64	70.50
1.7500	67.13	64.40	61.78	59.27	56.83
2.0000	54.46	52.18	50.01	47.92	45.94
2.2500	44.06	42.26	40.53	38.87	37.28
2.5000	35.79	34.40	33.06	31.77	30.54
2.7500	29.35	28.20	27.11	26.09	25.17
3.0000	24.28	23.41	22.58	21.78	21.01
3.2500	20.27	19.55	18.85	18.18	17.55
3.5000	16.95	16.38	15.82	15.29	14.77
3.7500	14.27	13.78	13.32	12.86	12.43
4.0000	12.01	11.60	11.21	10.83	10.46
4.2500	10.10	9.75	9.42	9.10	8.79
4.5000	8.49	8.19	7.91	7.64	7.38
4.7500	7.13	6.88	6.65	6.42	6.20
5.0000	5.99	5.78	5.58	5.39	5.21
5.2500	5.03	4.86	4.70	4.56	4.43
5.5000	4.29	4.16	4.04	3.92	3.80
5.7500	3.69	3.58	3.47	3.36	3.26
6.0000	3.17	3.07	2.98	2.89	2.80
6.2500	2.72	2.64	2.56	2.48	2.41
6.5000	2.33	2.26	2.20	2.13	2.07
6.7500	2.00	1.94	1.89	1.83	1.77
7.0000	1.72	1.67	1.62	1.57	1.52
7.2500	1.48	1.43	1.39	1.35	1.31
7.5000	1.27	1.24	1.22	1.20	1.18
7.7500	1.16	1.15	1.13	1.11	1.09
8.0000	1.08	1.06	1.04	1.03	1.01

Type.... Diverted Hydrograph
 Name.... PR 10
 File.... X:\204100\DRAINAGE\
 Storm... 100YRCS Tag: 100

Page 6.03
 Event: 100 yr

HYDROGRAPH ORDINATES (cfs)
 Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
8.2500	.99	.98	.96	.95	.93
8.5000	.92	.90	.89	.88	.86
8.7500	.85	.84	.82	.81	.80
9.0000	.78	.77	.76	.75	.74
9.2500	.73	.71	.70	.69	.68
9.5000	.67	.66	.65	.64	.63
9.7500	.62	.61	.60	.59	.58
10.0000	.57	.56	.55	.55	.54
10.2500	.53	.52	.51	.50	.50
10.5000	.49	.48	.47	.47	.46
10.7500	.45	.44	.44	.43	.42
11.0000	.42	.41	.40	.40	.39
11.2500	.39	.38	.37	.37	.36
11.5000	.36	.35	.35	.34	.33
11.7500	.33	.32	.32	.31	.31
12.0000	.30	.30	.30	.29	.29
12.2500	.28	.28	.27	.27	.26
12.5000	.26	.26	.25	.25	.24
12.7500	.24	.24	.23	.23	.23
13.0000	.22	.22	.22	.21	.21
13.2500	.21	.20	.20	.20	.19
13.5000	.19	.19	.18	.18	.18
13.7500	.18	.17	.17	.17	.16
14.0000	.16	.16	.16	.15	.15
14.2500	.15	.15	.15	.14	.14
14.5000	.14	.14	.13	.13	.13
14.7500	.13	.13	.12	.12	.12
15.0000	.12	.12	.11	.11	.11
15.2500	.11	.11	.11	.10	.10
15.5000	.10	.10	.10	.10	.09
15.7500	.09	.09	.09	.09	.09
16.0000	.09	.09	.08	.08	.08
16.2500	.08	.08	.08	.08	.07
16.5000	.07	.07	.07	.07	.07
16.7500	.07	.07	.07	.07	.06
17.0000	.06	.06	.06	.06	.06
17.2500	.06	.06	.06	.06	.05
17.5000	.05	.05	.05	.05	.05
17.7500	.05	.05	.05	.05	.05
18.0000	.05	.05	.04	.04	.04
18.2500	.04	.04	.04	.04	.04
18.5000	.04	.04	.04	.04	.04
18.7500	.04	.04	.04	.03	.03
19.0000	.03	.03	.03	.03	.03
19.2500	.03	.03	.03	.03	.03
19.5000	.03	.03	.03	.03	.03
19.7500	.03	.03	.03	.03	.02

Type.... Diverted Hydrograph
 Name.... PR 10
 File.... X:\204100\DRAINAGE\
 Storm... 100YRCS Tag: 100

Page 6.04
 Event: 100 yr

HYDROGRAPH ORDINATES (cfs)
 Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
20.0000	.02	.02	.02	.02	.02
20.2500	.02	.02	.02	.02	.02
20.5000	.02	.02	.02	.02	.02
20.7500	.02	.02	.02	.02	.02
21.0000	.02	.02	.02	.02	.02
21.2500	.02	.02	.02	.02	.02
21.5000	.02	.02	.01	.01	.01
21.7500	.01	.01	.01	.01	.01
22.0000	.01	.01	.01	.01	.01
22.2500	.01	.01	.01	.01	.01
22.5000	.01	.01	.01	.01	.01
22.7500	.01	.01	.01	.01	.01
23.0000	.01	.01	.01	.01	.01
23.2500	.01	.01	.01	.01	.01
23.5000	.01	.01	.01	.01	.01
23.7500	.01	.01	.01	.01	.01
24.0000	.01	.01	.01	.01	.01
24.2500	.01	.01	.01	.01	.01
24.5000	.01	.01	.01	.01	.01
24.7500	.01	.01	.01	.01	.01
25.0000	.01	.00	.00	.00	.00
25.2500	.00	.00	.00	.00	.00
25.5000	.00	.00	.00	.00	.00
25.7500	.00	.00	.00	.00	.00
26.0000	.00	.00	.00	.00	.00
26.2500	.00	.00	.00	.00	.00
26.5000	.00	.00	.00	.00	.00

Type.... Rational Predev. Peak Q
 Name.... 100 YEAR
 File.... X:\204100\DRAINAGE\OPTION C POND.PPW
 Storm... 100YRCS Tag: 100

Page 7.01
 Event: 100 yr

SUMMARY OF RATIONAL METHOD PEAK DISCHARGES
 --- PREDEVELOPED CONDITIONS ---

$Q = CiA * \text{Units Conversion}; \text{ Where Conversion} = 43560 / (12 * 3600)$

```

:
Tag      Freq      File      IDF Curve
-----
100      100      100YRCS.IDF  100YRCS
  
```

Tc = .3000 hrs

Tag	Freq (years)	C	C adj factor	C final	I in/hr	Area acres	Peak Q cfs
100	100	.100	1.000	.100	5.3602	253.870	137.21

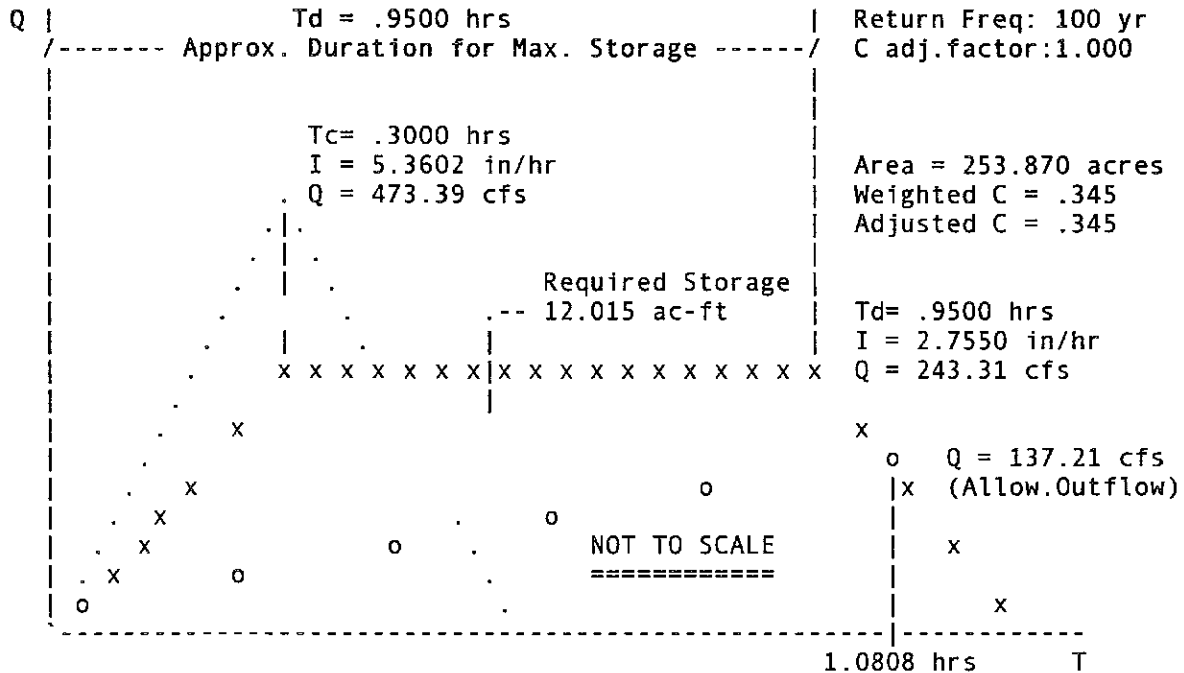
Type.... Mod. Rational Graph
 Name.... 100 YEAR Tag: 100
 File.... X:\204100\DRAINAGE\OPTION C POND.PPW
 Storm... 100YRCS Tag: 100

Page 7.02
 Event: 100 yr

MODIFIED RATIONAL METHOD
 ---- Graphical Summary for Maximum Required Storage ----
 Method I

Q = CiA * Units Conversion; Where Conversion = 43560 / (12 * 3600)

```
*****
* RETURN FREQUENCY: 100 yr | Allowable Outflow: 137.21 cfs *
* 'C' Adjustment: 1.000 | Required Storage: 12.015 ac-ft *
*-----*
* Peak Inflow: 243.31 cfs *
* .HYG File: 100 *
*****
```



Type.... Mod. Rational Storm Calcs
 Name.... 100 YEAR Tag: 100
 File.... X:\204100\DRAINAGE\OPTION C POND.PPW
 Storm... 100YRCS Tag: 100

Page 7.03
 Event: 100 yr

MODIFIED RATIONAL METHOD
 ---- Summary for Single Storm Frequency ----

$Q = CiA * \text{Units Conversion}; \text{ Where Conversion} = 43560 / (12 * 3600)$

RETURN FREQUENCY: 100 yr 'C' Adjustment = 1.000 Allowable Q = 137.21 cfs

Hydrograph Storm Duration, Td = .9500 hrs Tc = .3000 hrs
 Hydrograph File: 100

.....

VOLUMES							
Wtd. 'C'	Adjusted 'C'	Duration hrs	Intens. in/hr	Area acres	Qpeak cfs	Inflow ac-ft	Storage ac-ft
.345	.345	.3000	5.3602	253.870	473.39	11.737	8.335
.345	.345	.3333	5.0859	253.870	449.16	12.374	8.783
.345	.345	.5000	4.1000	253.870	362.09	14.962	10.427
.345	.345	.6667	3.5001	253.870	309.11	17.031	11.550
.345	.345	.8333	2.9999	253.870	264.94	18.246	11.821

***** Storage Maximum
 .345 .345 .9500 2.7550 253.870 243.31 | 19.103 12.015

.345 .345 1.0000 2.6500 253.870 234.03 | 19.342 11.971

Type.... Mod. Rational Hyg
 Name.... 100 YEAR Tag: 100
 File.... X:\204100\DRAINAGE\
 Storm... 100YRCS Tag: 100

Page 7.04
 Event: 100 yr

MODIFIED RATIONAL METHOD HYDROGRAPH

Q = CiA * Units Conversion; Where Conversion = 43560 / (12 * 3600)

```

:
Tag      Freq      File      IDF Curve
-----
100      100      100YRCS.IDF  100YRCS
  
```

Td = .9500 hrs

Tag	Freq (years)	C	C adj factor	C final	I in/hr	Area acres	Peak Q cfs
100	100	.345	1.000	.345	2.7550	253.870	243.31

HYG file =
 HYG ID = 100 YEAR
 HYG Tag = 100

 Peak Discharge = 243.31 cfs
 Time to Peak = .3000 hrs
 HYG Volume = 19.103 ac-ft

HYDROGRAPH ORDINATES (cfs)
 Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs	1	2	3	4	5
.0000	.00	40.55	81.10	121.65	162.20
.2500	202.76	243.31	243.31	243.31	243.31
.5000	243.31	243.31	243.31	243.31	243.31
.7500	243.31	243.31	243.31	243.31	243.31
1.0000	202.75	162.20	121.65	81.10	40.55
1.2500	.00				

Type.... C and Area
Name.... 100YR-RELEASE

File.... X:\204100\DRAINAGE\OPTION C POND.PPW
Title... RELEASE

RATIONAL C COEFFICIENT DATA

.....

RELEASE

Soil/Surface Description	C	Area acres	C x Area acres
RELEASE	.1000	253.870	25.387
WEIGHTED C & TOTAL AREA --->	.1000	253.870	25.387

.....

Index of Starting Page Numbers for ID Names

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100YR-RELEASE... 7.05

----- 0 -----

OUT 10 100... 3.01

OUTFALL... 5.01

----- P -----

POND OPTION C... 4.01, 6.01

PR 10 100... 6.02

----- W -----

Watershed... 1.01, 2.01, 2.02

DETENTION CALCULATIONS
EMERGENCY SPILLWAY

Job File: X:\204100\DRAINAGE\OPTION C POND-EMERGENCY.PPW
Rain Dir: C:\HAESTAD\PPKW\RAINFALL\

=====
JOB TITLE
=====

TRAFALGER DETENTION POND ANALYSIS
POND OPTION C
EMERGENCY 100 YEAR EVENT

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***** POND ROUTING *****

POND IN 100
 Node: Pond Inflow Summary 4.01

POND OUT 100
 Pond Routing Summary 4.03

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 Mod. Rational Graph 5.02
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100YR-RELEASE... C and Area 5.05

Type.... Executive Summary (Nodes)
 Name.... Watershed
 File.... X:\204100\DRAINAGE\OPTION C POND-EMERGENCY.PPW
 Storm... 100YRCS Tag: 100

Page 1.01
 Event: 100 yr

NETWORK SUMMARY -- NODES
 (Trun.= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left & Rt)

DEFAULT Design Storm File, ID =

Storm Tag Name =

 Data Type, File, ID =
 Total Rainfall Depth= .0000 in
 Duration Multiplier = 0
 Resulting Duration = .0000 hrs
 Resulting Start Time= .0000 hrs Step= .0000 hrs End= .0000 hrs

Node ID	Type	HYG Vol ac-ft	Qpeak Trun. hrs	Qpeak cfs	Max WSEL ft
100 YEAR	AREA	19.103	.3000	243.31	
Outfall OUT 10	JCT	19.101	1.2000	46.08	
POND	IN POND	19.103	.3000	243.31	
POND	OUT POND	19.101	1.2000	46.08	6576.08

TIME vs. VOLUME (ac-ft)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
.0000	.000	.070	.331	.733	1.292
.2500	2.004	2.899	3.837	4.757	5.662
.5000	6.555	7.434	8.303	9.166	10.024
.7500	10.872	11.715	12.554	13.388	14.214
1.0000	14.956	15.524	15.925	16.153	16.215
1.2500	16.108	15.918	15.729	15.541	15.354
1.5000	15.170	14.985	14.804	14.621	14.438
1.7500	14.257	14.078	13.901	13.724	13.548
2.0000	13.372	13.197	13.023	12.851	12.681
2.2500	12.511	12.344	12.175	12.008	11.841
2.5000	11.676	11.513	11.351	11.190	11.031
2.7500	10.870	10.711	10.553	10.397	10.242
3.0000	10.089	9.937	9.785	9.632	9.482
3.2500	9.334	9.187	9.041	8.897	8.755
3.5000	8.612	8.470	8.330	8.191	8.054
3.7500	7.918	7.785	7.652	7.520	7.388
4.0000	7.258	7.130	7.003	6.879	6.756
4.2500	6.634	6.515	6.394	6.275	6.158
4.5000	6.043	5.931	5.820	5.711	5.604
4.7500	5.498	5.394	5.290	5.188	5.088
5.0000	4.989	4.893	4.798	4.706	4.615
5.2500	4.525	4.437	4.350	4.263	4.179
5.5000	4.096	4.014	3.935	3.857	3.781
5.7500	3.706	3.632	3.560	3.491	3.421
6.0000	3.353	3.286	3.219	3.154	3.090
6.2500	3.028	2.967	2.908	2.849	2.792
6.5000	2.736	2.680	2.627	2.575	2.523
6.7500	2.472	2.422	2.374	2.323	2.271
7.0000	2.220	2.171	2.123	2.078	2.033
7.2500	1.990	1.949	1.908	1.869	1.832
7.5000	1.795	1.760	1.726	1.692	1.660
7.7500	1.629	1.599	1.570	1.542	1.515
8.0000	1.488	1.458	1.426	1.393	1.363
8.2500	1.333	1.305	1.277	1.250	1.224
8.5000	1.199	1.175	1.152	1.130	1.107
8.7500	1.086	1.066	1.046	1.026	1.008
9.0000	.990	.972	.955	.939	.923
9.2500	.908	.893	.879	.865	.851
9.5000	.838	.825	.813	.798	.782
9.7500	.766	.751	.736	.722	.708
10.0000	.695	.682	.669	.657	.645
10.2500	.633	.622	.611	.600	.590
10.5000	.580	.570	.561	.551	.542
10.7500	.534	.525	.517	.509	.501
11.0000	.494	.486	.479	.472	.465

TIME vs. VOLUME (ac-ft)

Time hrs	Output Time increment = .0500 hrs				
	Time on left represents time for first value in each row.				
11.2500	.459	.452	.446	.440	.434
11.5000	.428	.422	.417	.411	.406
11.7500	.401	.396	.391	.387	.382
12.0000	.378	.373	.369	.365	.361
12.2500	.357	.353	.350	.346	.342
12.5000	.339	.335	.332	.329	.325
12.7500	.321	.316	.312	.307	.303
13.0000	.299	.295	.291	.287	.283
13.2500	.279	.275	.271	.268	.264
13.5000	.260	.257	.253	.250	.247
13.7500	.243	.240	.237	.233	.230
14.0000	.227	.224	.221	.218	.215
14.2500	.212	.210	.207	.204	.202
14.5000	.199	.196	.194	.191	.189
14.7500	.186	.184	.181	.179	.177
15.0000	.174	.172	.170	.167	.165
15.2500	.163	.161	.159	.157	.155
15.5000	.153	.151	.149	.147	.145
15.7500	.143	.142	.140	.138	.136
16.0000	.134	.133	.131	.129	.128
16.2500	.126	.125	.123	.121	.120
16.5000	.118	.117	.116	.114	.113
16.7500	.111	.110	.108	.107	.106
17.0000	.104	.103	.102	.100	.099
17.2500	.098	.097	.096	.095	.093
17.5000	.092	.091	.090	.089	.088
17.7500	.087	.085	.085	.083	.083
18.0000	.081	.080	.079	.078	.078
18.2500	.076	.076	.075	.074	.073
18.5000	.072	.071	.070	.069	.068
18.7500	.068	.067	.066	.065	.064
19.0000	.064	.063	.062	.061	.061
19.2500	.060	.059	.058	.058	.057
19.5000	.056	.056	.055	.054	.054
19.7500	.053	.052	.052	.051	.051
20.0000	.050	.049	.049	.048	.048
20.2500	.047	.047	.046	.045	.045
20.5000	.044	.044	.043	.043	.042
20.7500	.042	.041	.041	.040	.040
21.0000	.039	.039	.038	.038	.038
21.2500	.037	.036	.036	.036	.035
21.5000	.035	.035	.034	.034	.033
21.7500	.033	.032	.032	.032	.031
22.0000	.031	.031	.030	.030	.029
22.2500	.029	.029	.028	.028	.028
22.5000	.028	.027	.027	.027	.026

Type.... Time vs. Volume
 Name.... POND OUT Tag: 100
 File.... X:\204100\DRAINAGE\OPTION C POND-EMERGENCY.PPW
 Storm... 100YRCS Tag: 100

Page 2.03
 Event: 100 yr

TIME vs. VOLUME (ac-ft)

Time hrs	Output Time increment = .0500 hrs				
	Time on left represents time for first value in each row.				
22.7500	.026	.026	.025	.025	.025
23.0000	.024	.024	.024	.024	.023
23.2500	.023	.023	.023	.022	.022
23.5000	.022	.021	.021	.021	.021
23.7500	.020	.020	.020	.020	.020
24.0000	.019	.019	.019	.019	.018
24.2500	.018	.018	.018	.018	.017
24.5000	.017	.017	.017	.016	.016
24.7500	.016	.016	.016	.016	.015
25.0000	.015	.015	.015	.015	.015
25.2500	.014	.014	.014	.014	.014
25.5000	.014	.013	.013	.013	.013
25.7500	.013	.013	.013	.012	.012
26.0000	.012	.012	.012	.012	.012
26.2500	.011	.011	.011	.011	.011
26.5000	.011	.011	.011	.010	.010
26.7500	.010	.010	.010	.010	.010
27.0000	.009	.009	.009	.009	.009
27.2500	.009	.009	.009	.009	.009
27.5000	.008	.008	.008	.008	.008
27.7500	.008	.008	.008	.008	.008
28.0000	.008	.007	.007	.007	.007
28.2500	.007	.007	.007	.007	.007
28.5000	.007	.007	.007	.006	.006
28.7500	.006	.006	.006	.006	.006
29.0000	.006	.006	.006	.006	.006
29.2500	.006	.006	.006	.005	.005
29.5000	.005	.005	.005	.005	.005
29.7500	.005	.005	.005	.005	.005
30.0000	.005	.005	.005	.005	.005
30.2500	.005	.004	.004	.004	.004
30.5000	.004	.004	.004	.004	.004
30.7500	.004	.004	.004	.004	.004
31.0000	.004	.004	.004	.004	.004
31.2500	.004	.004	.004	.003	.003
31.5000	.003	.003	.003	.003	.003
31.7500	.003	.003	.003	.003	.003
32.0000	.003	.003	.003	.003	.003
32.2500	.003	.003	.003	.003	.003
32.5000	.003	.003	.003	.003	.003
32.7500	.003	.003	.003	.003	.002
33.0000	.002	.002	.002	.002	.002
33.2500	.002	.002	.002	.002	.002
33.5000	.002	.002	.002	.002	.002
33.7500	.002	.002	.002	.002	.002
34.0000	.002	.002	.002	.002	.002

Type.... Time vs. Volume
 Name.... POND OUT Tag: 100
 File.... X:\204100\DRAINAGE\OPTION C POND-EMERGENCY.PPW
 Storm... 100YRCS Tag: 100

TIME vs. VOLUME (ac-ft)

Time hrs	Output Time increment = .0500 hrs				
	Time on left represents time for first value in each row.				
34.2500	.002	.002	.002	.002	.002
34.5000	.002	.002	.002	.002	.002
34.7500	.002	.002	.002	.002	.002
35.0000	.002	.002	.002	.002	.002
35.2500	.002	.001	.001	.001	.001
35.5000	.001	.001	.001	.001	.001
35.7500	.001	.001	.001	.001	.001
36.0000	.001	.001	.001	.001	.001
36.2500	.001	.001	.001	.001	.001
36.5000	.001	.001	.001	.001	.001
36.7500	.001	.001	.001	.001	.001
37.0000	.001	.001	.001	.001	.001
37.2500	.001	.001	.001	.001	.001

Type.... Vol: Elev-Area
Name.... POND OPTION C

Page 3.01

File.... X:\204100\DRAINAGE\OPTION C POND-EMERGENCY.PPW
Title... POND OPTION C

Elevation (ft)	Planimeter (sq.in)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ac-ft)	Volume Sum (ac-ft)
6568.00	-----	.5200	.0000	.000	.000
6570.00	-----	1.9900	3.5273	2.352	2.352
6572.00	-----	2.1800	6.2528	4.169	6.520
6574.00	-----	2.3700	6.8230	4.549	11.069
6576.00	-----	2.5700	7.4080	4.939	16.007
6578.00	-----	2.7100	7.9191	5.279	21.287

POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

$$\text{Volume} = (1/3) * (\text{EL2} - \text{EL1}) * (\text{Area1} + \text{Area2} + \text{sq.rt.}(\text{Area1} * \text{Area2}))$$

where: EL1, EL2 = Lower and upper elevations of the increment
Area1, Area2 = Areas computed for EL1, EL2, respectively
Volume = Incremental volume between EL1 and EL2

Type.... Node: Pond Inflow Summary
 Name.... POND IN
 File.... X:\204100\DRAINAGE\OPTION C POND-EMERGENCY.PPW
 Storm... 100YRCS Tag: 100

Page 4.01
 Event: 100 yr

SUMMARY FOR HYDROGRAPH ADDITION
 at Node: POND IN

HYG Directory: X:\204100\DRAINAGE\

```

=====
Upstream Link ID  Upstream Node ID  HYG file      HYG ID      HYG tag
-----
A 10              100 YEAR              100 YEAR      100
=====
  
```

```

INFLOWS TO:  POND          IN
-----
HYG file      HYG ID      HYG tag      Volume      Peak Time      Peak Flow
              ac-ft       hrs          cfs
-----
              100 YEAR    100          19.103      .3000          243.31
  
```

```

TOTAL FLOW INTO:  POND          IN
-----
HYG file      HYG ID      HYG tag      Volume      Peak Time      Peak Flow
              ac-ft       hrs          cfs
-----
              POND        IN  100          19.103      .3000          243.31
  
```

Type.... Node: Pond Inflow Summary
 Name.... POND IN
 File.... X:\204100\DRAINAGE\OPTION C POND-EMERGENCY.PPW
 Storm... 100YRCS Tag: 100

Page 4.02
 Event: 100 yr

TOTAL NODE INFLOW...
 HYG file =
 HYG ID = POND IN
 HYG Tag = 100

 Peak Discharge = 243.31 cfs
 Time to Peak = .3000 hrs
 HYG Volume = 19.103 ac-ft

HYDROGRAPH ORDINATES (cfs)
 Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
.0000	.00	40.55	81.10	121.65	162.20
.2500	202.76	243.31	243.31	243.31	243.31
.5000	243.31	243.31	243.31	243.31	243.31
.7500	243.31	243.31	243.31	243.31	243.31
1.0000	202.75	162.20	121.65	81.10	40.55
1.2500	.00				

Type.... Pond Routing Summary
Name.... POND OUT Tag: 100
File.... X:\204100\DRAINAGE\OPTION C POND-EMERGENCY.PPW
Storm... 100YRCS Tag: 100

Page 4.03
Event: 100 yr

LEVEL POOL ROUTING SUMMARY

HYG Dir = X:\204100\DRAINAGE\
Inflow HYG file = NONE STORED - POND IN 100
Outflow HYG file = NONE STORED - POND OUT 100

Pond Node Data = POND
Pond Volume Data = POND OPTION C
Pond Outlet Data = OUTFALL

No Infiltration

INITIAL CONDITIONS

Starting WS Elev = 6568.00 ft
Starting Volume = .000 ac-ft
Starting Outflow = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout= .00 cfs
Time Increment = .0500 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

=====
Peak Inflow = 243.31 cfs at .3000 hrs
Peak Outflow = 46.08 cfs at 1.2000 hrs

Peak Elevation = 6576.08 ft
Peak Storage = 16.215 ac-ft
=====

MASS BALANCE (ac-ft)

+ Initial Vol = .000
+ HYG Vol IN = 19.103
- Infiltration = .000
- HYG Vol OUT = 19.101
- Retained Vol = .001

Unrouted Vol = -.000 ac-ft (.002% of Inflow Volume)

Type.... Rational Predev. Peak Q
 Name.... 100 YEAR
 File.... X:\204100\DRAINAGE\OPTION C POND-EMERGENCY.PPW
 Storm... 100YRCS Tag: 100

Page 5.01
 Event: 100 yr

SUMMARY OF RATIONAL METHOD PEAK DISCHARGES
 --- PREDEVELOPED CONDITIONS ---

$Q = CiA * \text{Units Conversion}; \text{ Where Conversion} = 43560 / (12 * 3600)$

Tag	Freq	File	IDF Curve
100	100	100YRCS.IDF	100YRCS

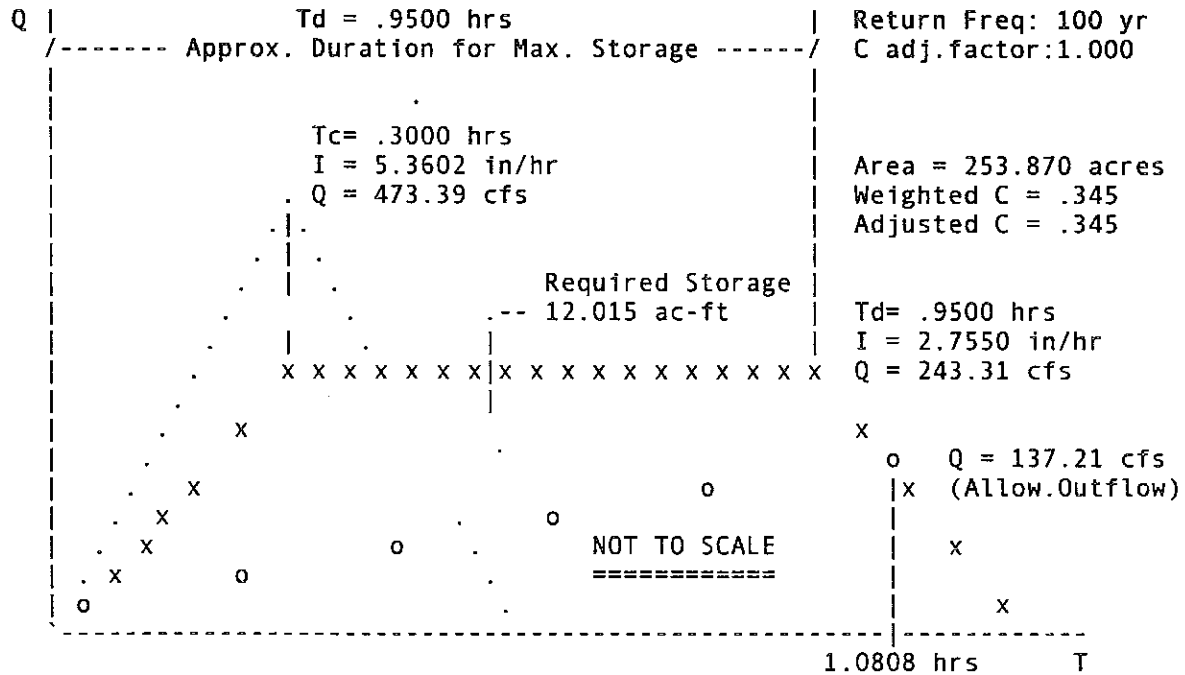
Tc = .3000 hrs

Tag	Freq (years)	C	C adj factor	C final	I in/hr	Area acres	Peak Q cfs
100	100	.100	1.000	.100	5.3602	253.870	137.21

MODIFIED RATIONAL METHOD
 ---- Graphical Summary for Maximum Required Storage ----
 Method I

Q = CiA * Units Conversion; Where Conversion = 43560 / (12 * 3600)

```
*****
* RETURN FREQUENCY: 100 yr | Allowable Outflow: 137.21 cfs *
* 'C' Adjustment: 1.000 | Required Storage: 12.015 ac-ft *
*-----*
* Peak Inflow: 243.31 cfs *
* .HYG File: 100 *
*****
```



Type.... Mod. Rational Storm Calcs
 Name.... 100 YEAR Tag: 100
 File.... X:\204100\DRAINAGE\OPTION C POND-EMERGENCY.PPW
 Storm... 100YRCS Tag: 100

Page 5.03
 Event: 100 yr

MODIFIED RATIONAL METHOD
 ---- Summary for Single Storm Frequency ----

$Q = CiA * \text{Units Conversion}; \text{ Where Conversion} = 43560 / (12 * 3600)$

RETURN FREQUENCY: 100 yr 'C' Adjustment = 1.000 Allowable Q = 137.21 cfs

Hydrograph Storm Duration, Td = .9500 hrs Tc = .3000 hrs
 Hydrograph File: 100

.....

VOLUMES							
Wtd. 'C'	Adjusted 'C'	Duration hrs	Intens. in/hr	Area acres	Qpeak cfs	Inflow ac-ft	Storage ac-ft
.345	.345	.3000	5.3602	253.870	473.39	11.737	8.335
.345	.345	.3333	5.0859	253.870	449.16	12.374	8.783
.345	.345	.5000	4.1000	253.870	362.09	14.962	10.427
.345	.345	.6667	3.5001	253.870	309.11	17.031	11.550
.345	.345	.8333	2.9999	253.870	264.94	18.246	11.821

***** Storage Maximum
 .345 .345 .9500 2.7550 253.870 243.31 | 19.103 12.015

.345 .345 1.0000 2.6500 253.870 234.03 | 19.342 11.971

Type.... Mod. Rational Hyg
 Name.... 100 YEAR Tag: 100
 File.... X:\204100\DRAINAGE\
 Storm... 100YRCS Tag: 100

Page 5.04
 Event: 100 yr

MODIFIED RATIONAL METHOD HYDROGRAPH

$Q = CiA * \text{Units Conversion}; \text{ Where Conversion} = 43560 / (12 * 3600)$

```

:
Tag      Freq      File          IDF Curve
-----
100      100      100YRCS.IDF  100YRCS
  
```

Td = .9500 hrs

Tag	Freq (years)	C	C adj factor	C final	I in/hr	Area acres	Peak Q cfs
100	100	.345	1.000	.345	2.7550	253.870	243.31

HYG file =
 HYG ID = 100 YEAR
 HYG Tag = 100

 Peak Discharge = 243.31 cfs
 Time to Peak = .3000 hrs
 HYG Volume = 19.103 ac-ft

HYDROGRAPH ORDINATES (cfs)
 Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs	1	2	3	4	5
.0000	.00	40.55	81.10	121.65	162.20
.2500	202.76	243.31	243.31	243.31	243.31
.5000	243.31	243.31	243.31	243.31	243.31
.7500	243.31	243.31	243.31	243.31	243.31
1.0000	202.75	162.20	121.65	81.10	40.55
1.2500	.00				

Type.... C and Area
Name.... 100YR-RELEASE

File.... X:\204100\DRAINAGE\OPTION C POND-EMERGENCY.PPW
Title... RELEASE

RATIONAL C COEFFICIENT DATA

.....

RELEASE

Soil/Surface Description	C	Area acres	C x Area acres
RELEASE	.1000	253.870	25.387
WEIGHTED C & TOTAL AREA --->	.1000	253.870	25.387

.....

Index of Starting Page Numbers for ID Names

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100YR-RELEASE... 5.05

----- P -----

POND IN 100... 4.01, 2.01,
4.03

POND OPTION C... 3.01, 1.01

DRAINAGE MAPS

STATEMENTS:

THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN; THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY. RESUBMITTAL IS REQUIRED IF CONSTRUCTION HAS NOT COMMENCED WITHIN 180 DAYS OF REVIEW DATE.

GENERAL NOTES

- ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN COMPLIANCE WITH THE CITY OF COLORADO SPRINGS, DEPARTMENT OF PUBLIC WORKS, SUBDIVISION POLICY MANUAL AND STANDARD SPECIFICATIONS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- THE CONTRACTOR WILL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
- UNLESS OTHERWISE NOTED, STORM SEWER PIPE SHALL BE CLASS II REINFORCED CONCRETE PIPE WITH 6000 PSI CONCRETE AND CLASS-C BEDDING. UNLESS OTHERWISE NOTED, ALL STORM SEWER BENDS, WYES AND TEES SHOWN ON PLANS SHALL BE PREFABRICATED.
- ALL BACKFILL, SUB-BASE, AND/OR BASE COURSE (CLASS 6) MATERIAL SHALL BE COMPACTED PER CITY SPECIFICATIONS.
- ALL STATIONING IS CENTERLINE OF STORM SEWER UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE AT FLOW LINE OF PIPE UNLESS OTHERWISE INDICATED.
- IF A DISCREPANCY OCCURS BETWEEN THE CONSTRUCTION DOCUMENTS AND THE CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS, THE ENGINEER WILL BE NOTIFIED IMMEDIATELY FOR RESOLUTION.
- THE CONTRACTOR SHALL SECURE ALL APPLICABLE LICENSES AND PERMITS TO COMPLETE THE CONSTRUCTION IN COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- CONTRACTOR TO OBTAIN COPIES OF THE SOILS REPORT FROM THE GEOTECHNICAL ENGINEER AND TO BE KEPT ON-SITE DURING ALL EARTHWORK OPERATIONS.

EROSION CONTROL CRITERIA:

EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IN A MANNER THAT WILL PROTECT PROPERTIES AND PUBLIC FACILITIES FROM THE ADVERSE EFFECTS OF EROSION AND SEDIMENTATION AS A RESULT OF CONSTRUCTION AND EARTHWORK ACTIVITIES WITHIN THE PROJECT SITE.

- THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- ALL 3:1 OR FLATTER SLOPES TO BE SEEDED UPON COMPLETION OF GRADING. ANY SLOPES STEEPER THAN 3:1 TO REQUIRE INSTALLATION OF NORTH AMERICAN GREEN SC 1-50 (OR EQUIVALENT) EROSION CONTROL BLANKET.
- THE GRADING PLAN SHALL MEET ALL THE REQUIREMENTS OF SECTION 1503, ARTICLE 3, CHAPTER 15 OF THE CITY CODE.
- UPON COMPLETION OF GRADING OPERATIONS, LOCATE AND SET THE STRAW BALE CHECK DAMS AND SILT FENCES AS SHOWN ON THE EROSION CONTROL PLAN. AT THIS TIME RESEED ALL DISTURBED AREAS WITH AN APPROVED SEED MIX. SEE PRELIMINARY SEEDING GUIDELINES BELOW.
- THE STRAW BALE CHECK DAMS AND SILT FENCES SHALL BE KEPT IN PLACE AND MAINTAINED UNTIL EROSION AND SEDIMENTATION POTENTIAL IS MITIGATED. REMOVAL OF SILT AND SEDIMENT COLLECTED BY THE STRAW BALES IS REQUIRED ONCE IT REACHES HALF THE HEIGHT OF THE STRAW BALES OR SILT FENCE.
- DISTURBED SOIL SHALL BE VEGETATED AS SOON AS PRACTICAL AFTER FINAL GRADING IS COMPLETE. PROVIDE TEMPORARY VEGETATION TO DISTURBED AREAS THAT WILL HAVE A PERIOD OF EXPOSURE OF 6 MONTHS OR LONGER PRIOR TO FINAL STABILIZATION.
- TEMPORARY EROSION CONTROL SWALES SHALL BE INSTALLED AFTER GRADING AND REMOVED DURING HOUSE CONSTRUCTION. STRAW BALE CHECK DAMS WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE INSTALLED AFTER GRADING AND REMOVED DURING ASPHALT STREET CONSTRUCTION.
- ALL FACILITIES, VEGETATION AND OTHER ITEMS REQUIRED BY THE APPROVED FINAL GRADING, EROSION CONTROL AND RECLAMATION PLAN SHALL BE PROPERLY MAINTAINED BY THE OWNERS OF THE PROPERTY. SUCH MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO KEEPING ALL EROSION CONTROL FACILITIES IN GOOD ORDER AND FUNCTIONAL, REPAIRING ANY EROSION DAMAGE THAT OCCURS, KEEPING ALL VEGETATION HEALTHY AND IN GROWING CONDITION AND REPLACING ANY DEAD VEGETATION AS SOON AS PRACTICABLE.
- ALL SILT FENCES ARE TO BE REGULARLY INSPECTED AND REPAIRED AS NEEDED.
- THE CONTRACTOR SHALL PROVIDE VEHICLE TRACKING CONTROL FACILITIES FOR EACH ENTRANCE/EXIT TO THE SITE. THE CONTRACTOR SHALL SUBMIT A PLAN WHICH WILL ASSURE USAGE OF THIS FACILITY BY ALL VEHICLES LEAVING THE SITE.
- EXISTING DOWNSTREAM DRAINAGE FACILITIES TO BE INSPECTED AND CLEANED AT THE CONCLUSION OF ALL CONSTRUCTION ACTIVITY.
- EROSION CONTROL MEASURES SHALL BE CHECKED AFTER EACH STORM EVENT AND REPAIRED WHEN NECESSARY.
- CONTRACTOR SHALL MAINTAIN ALL TEMPORARY EROSION CONTROL FACILITIES IN GOOD WORKING ORDER UNTIL SUCH TIME AS PERMANENT FACILITIES ARE IN PLACE AND THE CONSTRUCTION MANAGER HAS APPROVED THEIR REMOVAL.
- THE STORM SEWER SYSTEM SHALL BE CONSTRUCTED AS SOON AS POSSIBLE AFTER ROUGH GRADING WITH INLETS BEING IMMEDIATELY PROTECTED BY HAY BALE FILTERS.

EROSION CONTROL COST ESTIMATE:

1. 750 LF - MIRAFI 100X SILT FENCE OR EQUIV. @ \$2.00/LF.	\$ 1,500.00
2. 1 EA. VEHICLE TRACKING DEVICE @ \$750.00/EACH	\$ 750.00
3. 1 EA. INLET PROTECTION @ \$20/EACH	\$ 20.00
4. 25% MAINTENANCE AND REPLACEMENT.	\$ 567.50
	\$ 2,837.50

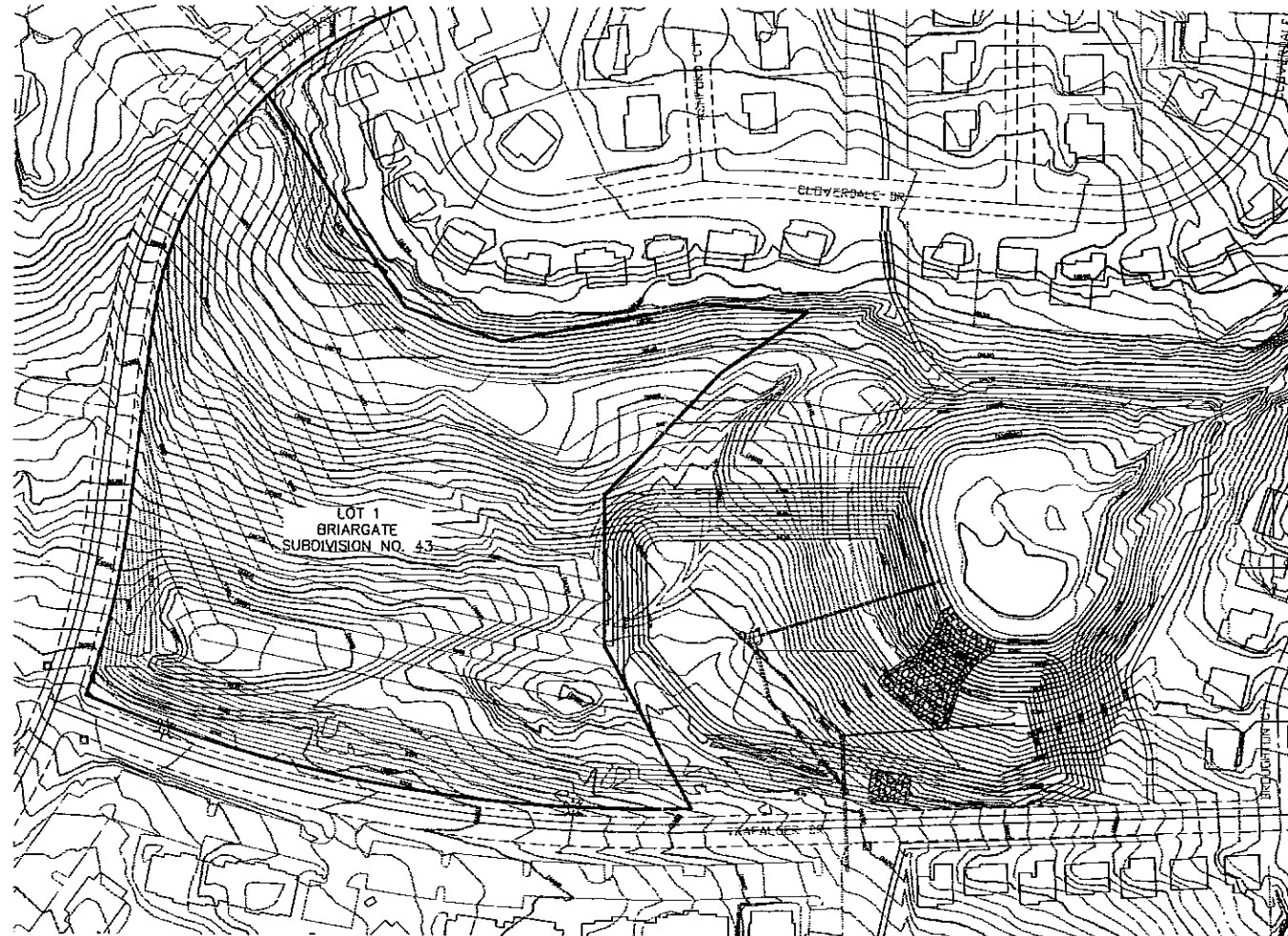
CLASSIC CONSULTING ENGINEERS & SURVEYORS L.L.C. CANNOT AND DOES NOT GUARANTEE THAT THE CONSTRUCTION COSTS WILL NOT VARY FROM THESE OPINIONS OR PROBABLE CONSTRUCTION COSTS. THESE OPINIONS REPRESENT OUR BEST JUDGMENT AS A DESIGN PROFESSIONAL FAMILIAR WITH THE CONSTRUCTION INDUSTRY AND IN THIS DEVELOPMENT.

CHAPEL HILLS DETENTION NO. 1

CITY OF COLORADO SPRINGS, COUNTY OF EL PASO, STATE OF COLORADO

CIVIL CONSTRUCTION DRAWINGS

DECEMBER 2002



AGENCIES:

- OWNER:** LP47, LLC dba LA PLATA INVESTMENTS
2315 BRIARGATE PARKWAY, SUITE 100
COLORADO SPRINGS, CO 80920
MR. TOM TAYLOR (719) 260-7477
- CIVIL ENGINEER:** CLASSIC CONSULTING ENGINEERS & SURVEYORS, LLC
6385 CORPORATE DRIVE, SUITE 304
COLORADO SPRINGS, CO 80919
MR. KYLE CAMPBELL (719) 785-2800
- ENGINEERING DIVISION:** CITY OF COLORADO SPRINGS
101 W. COSTILLA STREET
COLORADO SPRINGS, COLORADO 80903
MR. TIM MITROS (719) 385-5061
- DEVELOPMENT SERVICES:** WATER/WASTEWATER DIVISION:
CITY OF COLORADO SPRINGS
111 S. CASCADE, SUITE 105
COLORADO SPRINGS, COLORADO 80903
- GAS DEPT:** CITY OF COLORADO SPRINGS
101 S. CONEJOS STREET
COLORADO SPRINGS, COLORADO 80903
MR. DAVE DEUTSCH (719) 688-3520
- ELECTRIC DEPT:** CITY OF COLORADO SPRINGS
7710 DURANT DRIVE
COLORADO SPRINGS, COLORADO 80920
MR. DAN GIECK (719) 668-4962
- TELEPHONE COMPANY:** U.S. WEST COMMUNICATIONS
(LOCATORS) (800) 922-1987
A.T.&T.
(LOCATORS) (719) 635-3674

SWMP PERMIT ACCEPTANCE:

I ACKNOWLEDGE THE RESPONSIBILITY TO DETERMINE WHETHER THE CONSTRUCTION ACTIVITIES ON THESE PLANS REQUIRE CDPS PERMITTING FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

BUSINESS NAME: _____

BY: _____

TITLE: _____

ADDRESS: _____

GRADING AND EROSION CONTROL REVIEW

IF SUCH WORK IS PERFORMED IN ACCORDANCE WITH THE GRADING AND EROSION CONTROL PLAN, THE WORK WILL NOT BECOME A HAZARD TO LIFE AND LIMB, ENDANGER PROPERTY, OR ADVERSELY AFFECT THE SAFETY, USE, OR STABILITY OF A PUBLIC WAY, DRAINAGE CHANNEL, OR OTHER PROPERTY. PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS & SURVEYORS, LLC.

KYLE R. CAMPBELL, COLORADO P.E. #29794 DATE _____

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THIS GRADING EROSION CONTROL PLAN.

DEVELOPER _____ DATE _____

THIS GRADING PLAN IS FILED IN ACCORDANCE WITH SECTION 15-3-1503 (ENACTED AS ORD. 82-56) OF THE CODE OF THE CITY OF COLORADO SPRINGS, 1980, AS AMENDED. EROSION CONTROL IS REVIEWED IN ACCORDANCE WITH SECTION 4.8 OF THE DRAINAGE CRITERIA MANUAL, OCTOBER 1987, LATEST REVISION.

FOR CITY ENGINEER, CITY OF COLORADO SPRINGS DATE _____

SHEET INDEX

SHEET 1 OF 3	TITLE SHEET
SHEET 2 OF 3	PROPOSED GRADING PLAN
SHEET 3 OF 3	PROPOSED STORM SEWER SYSTEM

**48 HOURS BEFORE YOU DIG,
CALL UTILITY LOCATORS
1-800-922-1987**

CITY OF COLORADO SPRINGS DEPT. OF UTILITIES
GAS, ELECTRIC, WATER AND WASTEWATER

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NO.	REVISION	DATE
1	PER REVIEW COMMENTS	02/13/03
2	PER REVIEW COMMENTS	04/21/03

REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

KYLE R. CAMPBELL, COLORADO P.E. #29794 DATE _____

CLASSIC
CONSULTING
ENGINEERS & SURVEYORS

6385 Corporate Drive, Suite 304
Colorado Springs, Colorado 80919
(719) 785-0790
(719) 785-0799(Fax)

**CHAPEL HILLS NO. 1 DETENTION POND -
TRAFALGER DETENTION FACILITY**

PROPOSED DETENTION POND IMPROVEMENTS
LOT 1, BRIARGATE SUBDIVISION NO. 43

DESIGNED BY	CWC	SCALE	DATE	04/21/03
DRAWN BY	CWC	(H) 1"=VARIES	SHEET	1 OF 4
CHECKED BY	(V) 1"= N/A	JOB NO.	2041.00	



50 25 0 50 100

SCALE: 1" = 50'

LEGEND

- (9604) EXISTING 2' CONTOURS
- (6610) EXISTING 10' CONTOURS
- 6504 PROPOSED 2' CONTOURS
- 6610 PROPOSED 10' CONTOURS
- BOUNDARY LINE
- PROPOSED FLOW DIRECTION
- PROPOSED FLOW SLOPE
- TEMP. DIVERSION SWALE
- SF SILT FENCE
- VTC VEHICLE TRACING CONTROL
- P INLET PROTECTION

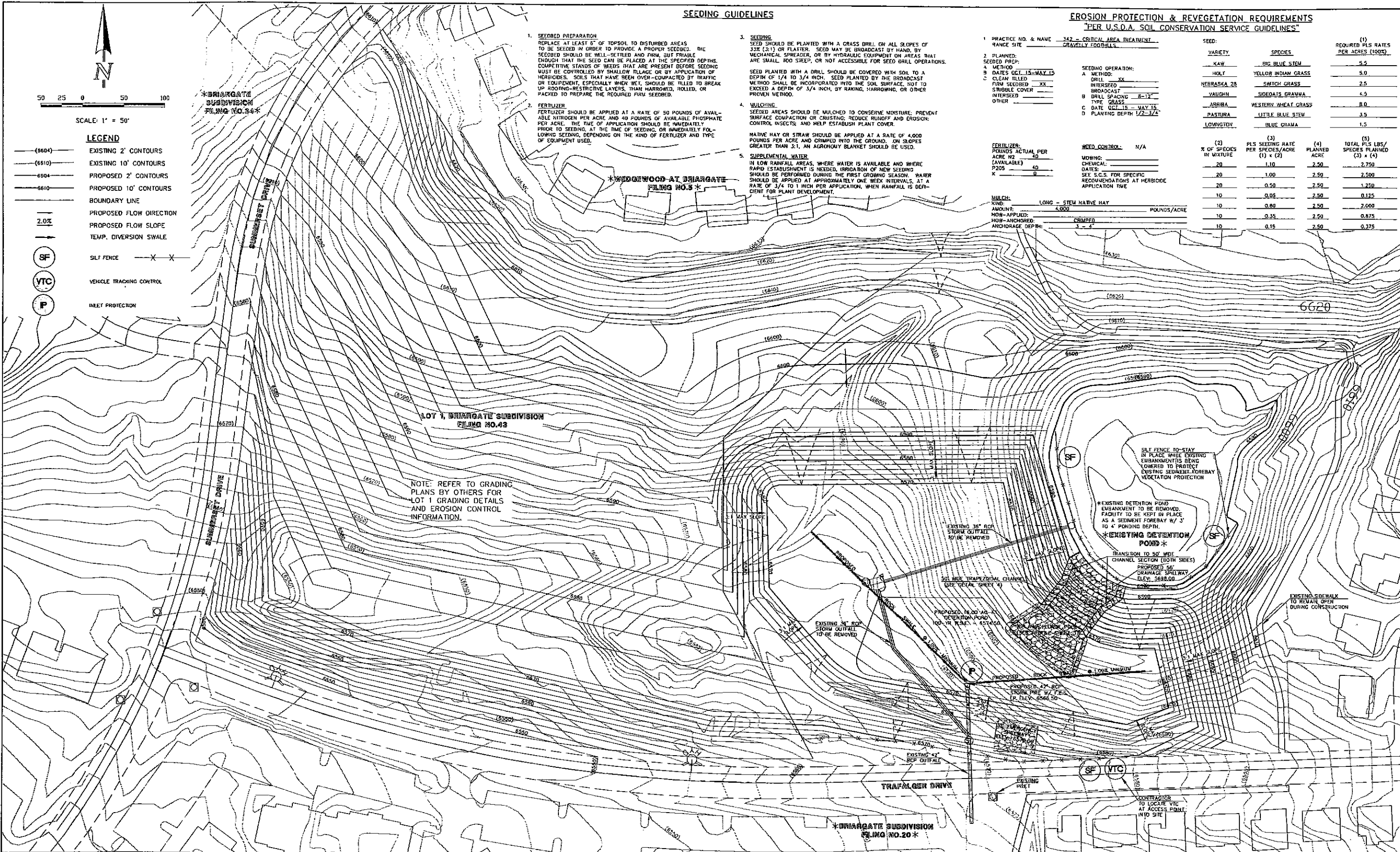
SEEDING GUIDELINES

1. SEEDBED PREPARATION
REPLACE AT LEAST 6" OF TOPSOIL TO DISTURBED AREAS TO BE SEED IN ORDER TO PROVIDE A PROPER SEEDBED. THE SEEDBED SHOULD BE WELL SETTLED AND FIRM, BUT FRABLE ENOUGH THAT THE SEED CAN BE PLACED AT THE SPECIFIED DEPTHS. COMPETITIVE STANDS OF WEEDS THAT ARE PRESENT BEFORE SEEDING MUST BE CONTROLLED BY SHALLOW PLAGE OR BY APPLICATION OF HERBICIDES. SOILS THAT HAVE BEEN OVER-COMPACTED BY TRAFFIC OR EQUIPMENT, ESPECIALLY WHEN WET, SHOULD BE TILLED TO BREAK UP ROOTING-RESTRICTIVE LAYERS, THAN HARROWED, ROLLED, OR PACKED TO PREPARE THE REQUIRED FIRM SEEDBED.
2. FERTILIZER
FERTILIZER SHOULD BE APPLIED AT A RATE OF 50 POUNDS OF AVAILABLE NITROGEN PER ACRE AND 40 POUNDS OF AVAILABLE PHOSPHATE PER ACRE. THE TIME OF APPLICATION SHOULD BE IMMEDIATELY PRIOR TO SEEDING, AT THE TIME OF SEEDING, OR IMMEDIATELY FOLLOWING SEEDING, DEPENDING ON THE KIND OF FERTILIZER AND TYPE OF EQUIPMENT USED.
3. SEEDING
SEED SHOULD BE PLANTED WITH A GRASS DRILL ON ALL SLOPES OF 3% (3:1) OR FLATTER. SEED MAY BE BROADCAST BY HAND, BY MECHANICAL SPREADER, OR BY HYDRAULIC EQUIPMENT ON AREAS THAT ARE SMALL, TOO SLEEP, OR NOT ACCESSIBLE FOR SEED DRILL OPERATIONS.
SEED PLANTED WITH A DRILL SHOULD BE COVERED WITH SOIL TO A DEPTH OF 1/4 TO 3/4 INCH. SEED PLANTED BY THE BROADCAST METHOD SHALL BE INCORPORATED INTO THE SOIL SURFACE, NOT TO EXCEED A DEPTH OF 3/4 INCH, BY RAKING, HARROWING, OR OTHER PROVEN METHOD.
4. MULCHING
SEEDING AREAS SHOULD BE MULCHED TO CONSERVE MOISTURE, PREVENT SURFACE COMPACTION OR CRUSTING, REDUCE RUNOFF AND EROSION, CONTROL INSECTS, AND HELP ESTABLISH PLANT COVER.
HAY OR STRAW SHOULD BE APPLIED AT A RATE OF 4,000 POUNDS PER ACRE AND CRIMPED INTO THE GROUND. ON SLOPES GREATER THAN 3:1, AN AGRONOMY BLANKET SHOULD BE USED.
5. SUPPLEMENTAL WATER
IN LOW RAINFALL AREAS, WHERE WATER IS AVAILABLE AND WHERE RAPID ESTABLISHMENT IS NEEDED, IRRIGATION OF NEW SEEDING SHOULD BE PERFORMED DURING THE FIRST GROWING SEASON. WATER SHOULD BE APPLIED AT APPROXIMATELY ONE WEEK INTERVALS, AT A RATE OF 3/4 TO 1 INCH PER APPLICATION, WHEN RAINFALL IS DEFICIENT FOR PLANT DEVELOPMENT.

EROSION PROTECTION & REVEGETATION REQUIREMENTS
"PER U.S.D.A. SOIL CONSERVATION SERVICE GUIDELINES"

PRACTICE NO. & NAME	RANGE SITE	SEED:	VARIETY		SPECIES	(1) REQUIRED PLS RATES PER ACRES (100%)
			VARIETY	SPECIES		
342 - CRITICAL AREA TREATMENT	GRAVELLY FOOHBILLS		KAW	ORG. BLUE STEM		5.5
			HOLT	YELLOW INDIAN GRASS		5.0
			NEBRASKA 28	SWITCH GRASS		2.5
			VAUGHN	SIDONIA'S GRAMMA		4.5
			ARRIBA	WESTERN WHEAT GRASS		8.0
			PASTURA	LITTLE BLUE STEM		3.5
			LOVINGTON	BLUE GRAMA		1.5

FERTILIZER:	WEED CONTROL:	(2) % OF SPECIES IN MIXTURE	(3) PLS SEEDING RATE PER SPECIES/ACRE (1) x (2)	(4) PLANNED ACRE	(5) TOTAL PLS LBS./SPECIES PLANNED (3) x (4)
ACRE N2: 40	N/A	20	1.10	2.50	2.750
(AVAILABLE) P205: 40		20	1.00	2.50	2.500
K: 0		20	0.50	2.50	1.250
		10	0.05	2.50	0.125
		10	0.80	2.50	2.000
		10	0.35	2.50	0.875
		10	0.15	2.50	0.375



REVIEW:

STREET DESIGN	DATE
CURB & GUTTER REVIEW	DATE
FINAL DESIGN REVIEW	DATE

DRAINAGE DESIGN:
DRAINAGE BASIN FILED IN ACCORDANCE WITH SECTION 18-3-908 OF COLORADO SPRINGS 1980, AS AMENDED

DESIGN DATA:

SIDEWALKS: WIDTH	ASPHALT THICKNESS:
LOCATION: <input type="checkbox"/> Attached <input type="checkbox"/> Detached	AC Surface
	AC Base
CURB TYPE: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> J	AGG. BASE THICKNESS:
R/W WIDTH: F/C-F/C	Class 6
STREET TYPE: HVEEM	Class 5
	Class 2

48 HOURS BEFORE YOU DIG,
CALL UTILITY LOCATORS
1-800-922-1987
CITY OF COLORADO SPRINGS DEPT. OF UTILITIES
GAS, ELECTRIC, WATER AND WASTEWATER

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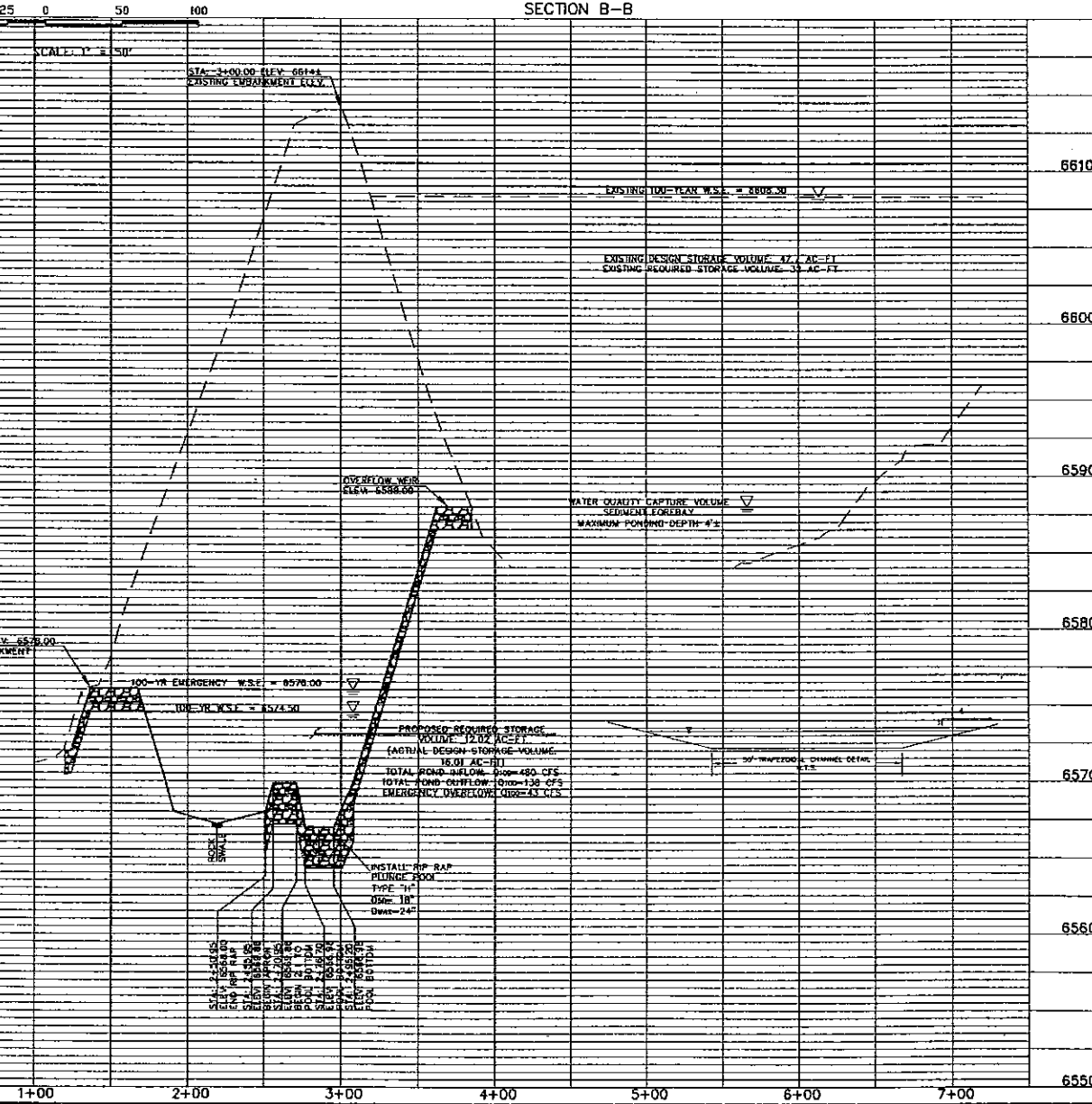
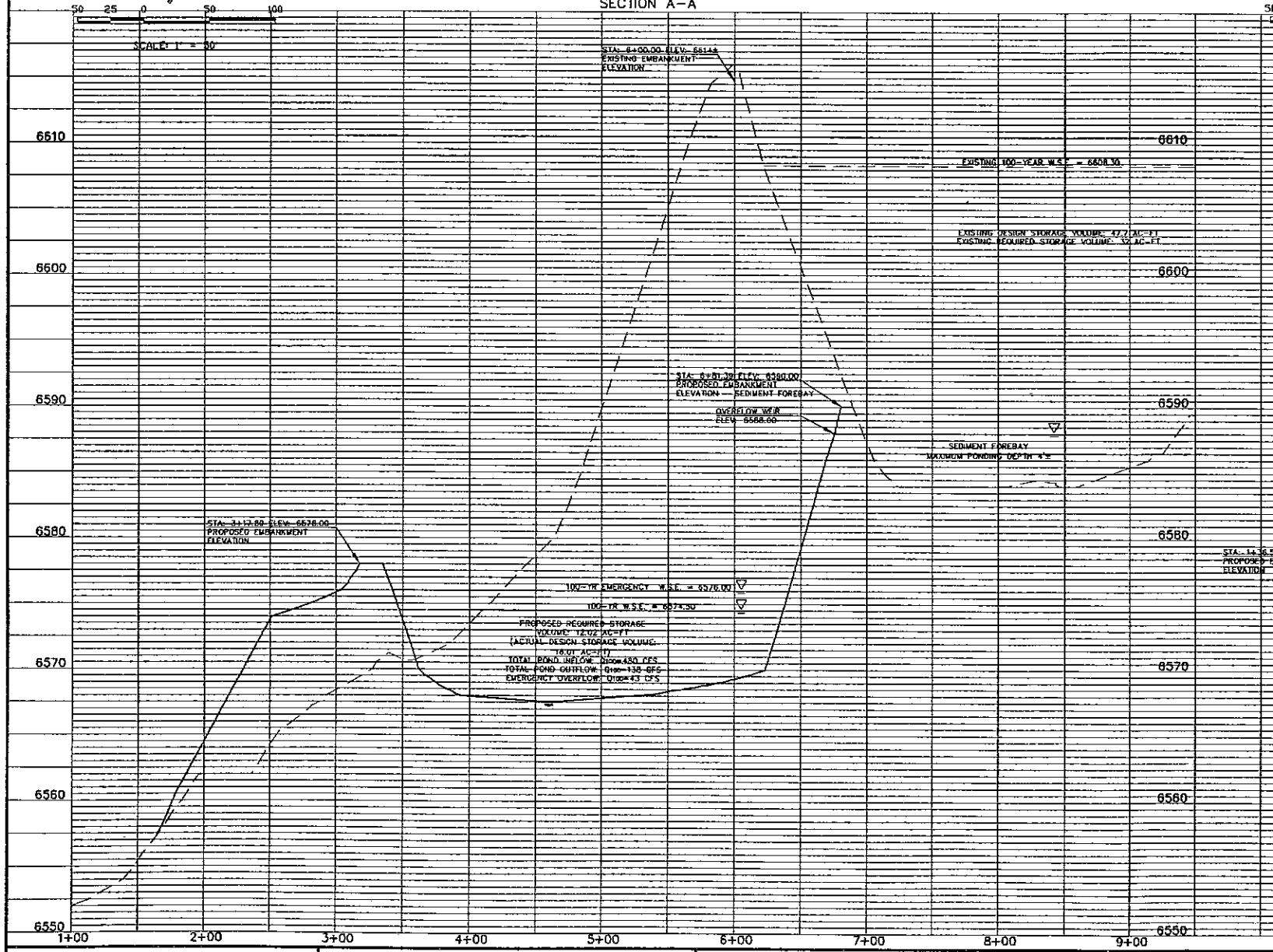
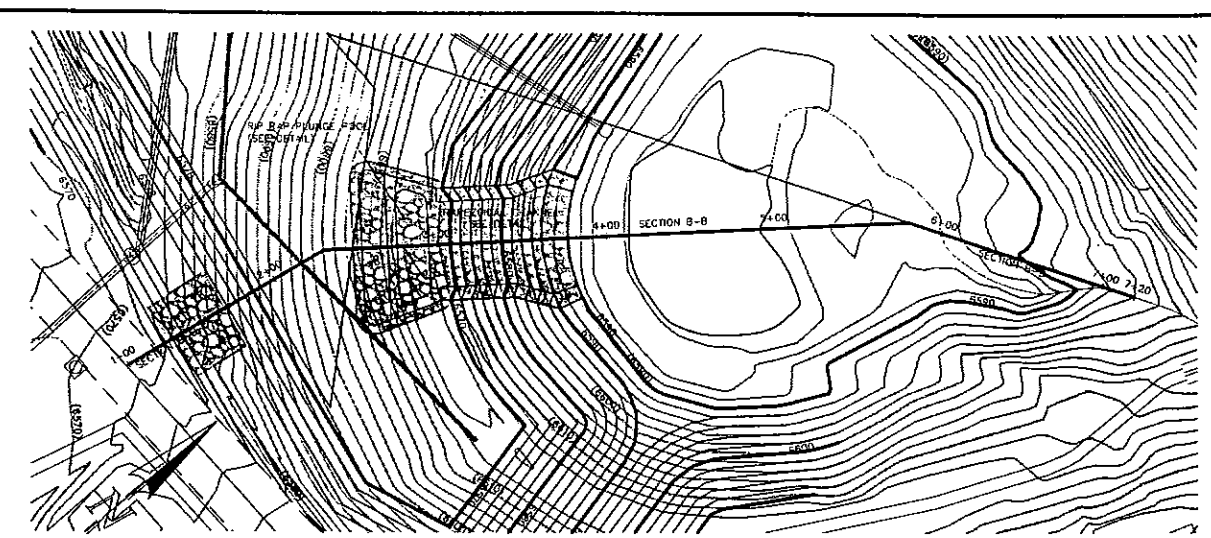
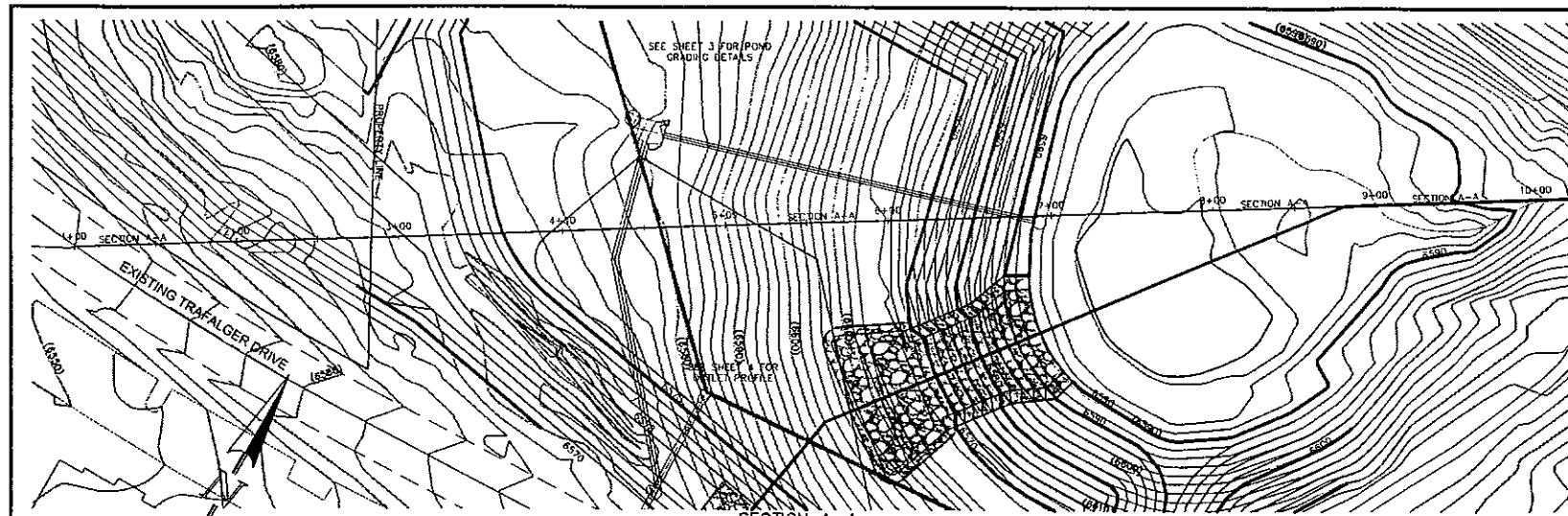
NO.	REVISION	DATE
1	REVISED PER REVIEW COMMENTS	02/13/03
1	REVISED PER REVIEW COMMENTS	04/21/03

REVIEW:
PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

RYLE R. CAMPBELL, COLORADO P.E. #29794

6385 Corporate Drive, Suite 304
Colorado Springs, Colorado 80919
(719) 785-0790
(719) 785-0799 (Fax)

CHAPEL HILLS NO. 1 DETENTION POND TRAFALGER DETENTION FACILITY CIVIL CONSTRUCTION DRAWINGS PROPOSED DETENTION POND GRADING			
DESIGNED BY	CMC	SCALE	DATE 04/21/03
DRAWN BY	CMC	(H) 1" = 50'	SHEET 2 OF 4
CHECKED BY		(V) 1" = N/A	JOB NO. 2041.00



REVIEW:

STREET DESIGN:	DATE
TRAFFIC ENGINEERING	
CURB & GUTTER REVIEW	DATE
FINAL DESIGN REVIEW	
DRAINAGE DESIGN:	DATE
DRAINAGE BASIN FILED IN ACCORDANCE WITH SECTION 15-3-906 OF COLORADO SPRINGS 1980, AS AMENDED	

DESIGN DATA:

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CURB TYPE <input type="checkbox"/> 1 <input type="checkbox"/> 5 <input type="checkbox"/> 3	R/W WIDTH	AC Surface
STREET TYPE	HVEEM	AC Base
		AGG. BASE THICKNESS:
		Class 6
		Class 5
		Class 2

48 HOURS BEFORE YOU DIG,
CALL UTILITY LOCATORS
1-800-922-1987
CITY OF COLORADO SPRINGS DEPT. OF UTILITIES
GAS, ELECTRIC, WATER AND WASTEWATER

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NO. REVISION	DATE
1 REVISED PER REVIEW COMMENTS	02/13/03
2 REVISED PER REVIEW COMMENTS	04/21/03

REVIEW:

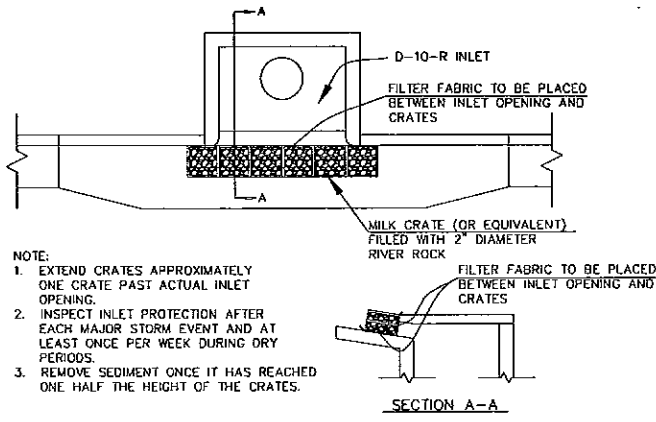
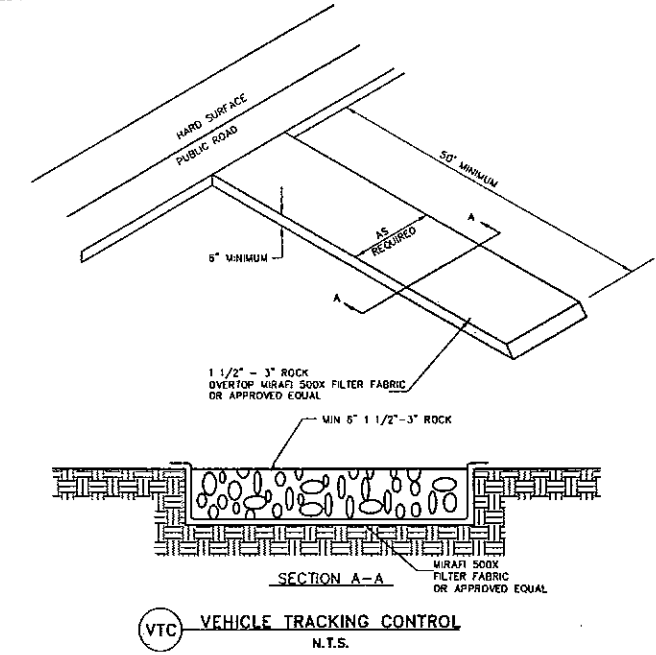
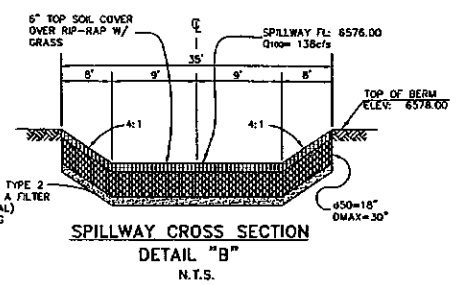
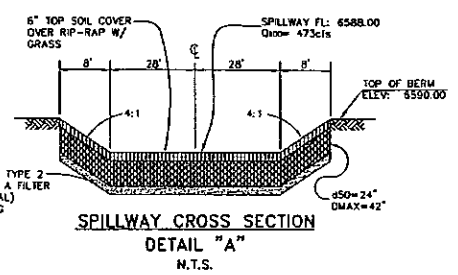
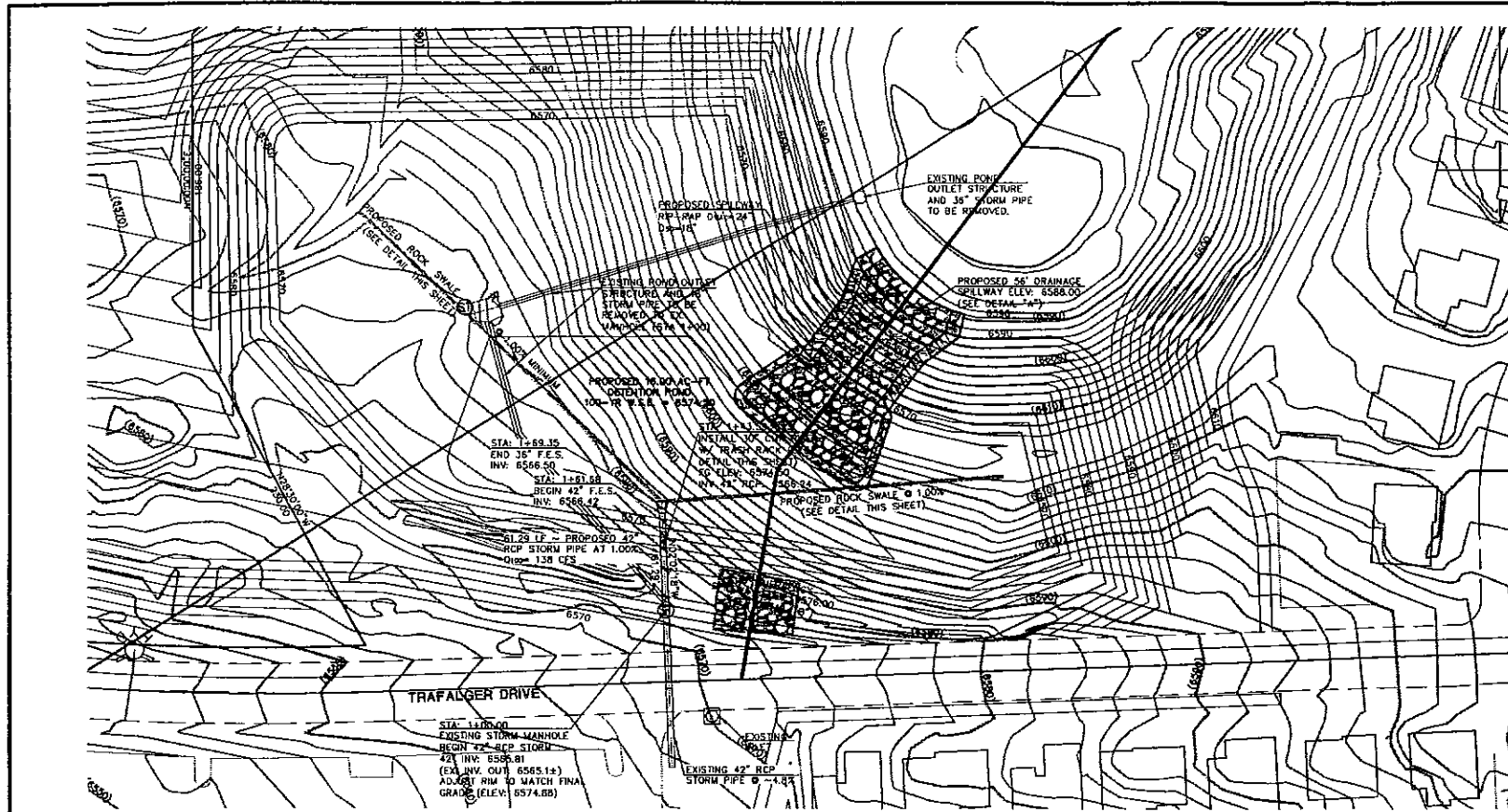
PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

KYLE R. CAMPBELL, COLORADO P.E. #23794 DATE

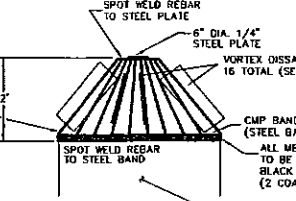
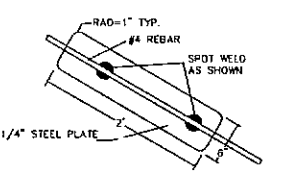
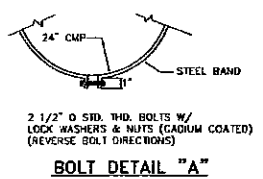
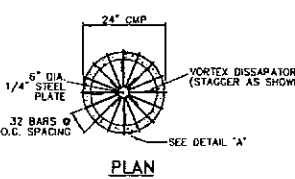
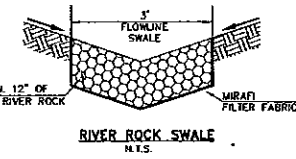
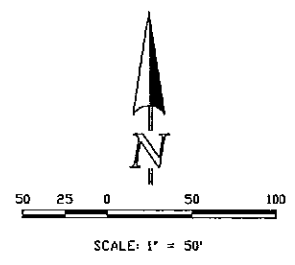
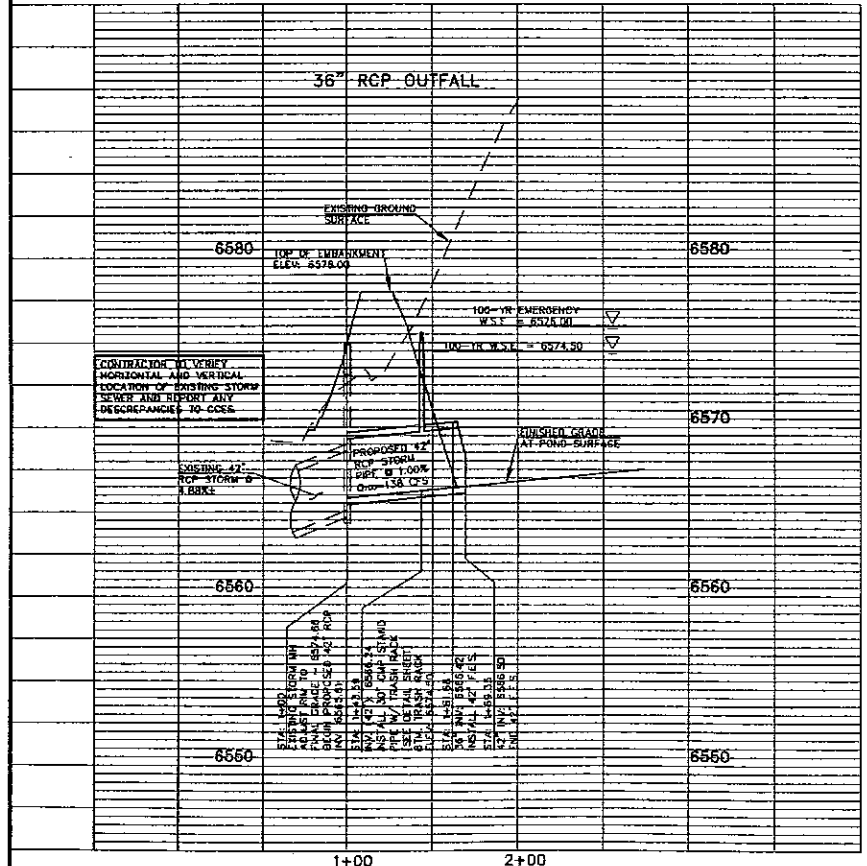


CHAPEL HILLS NO. 1 DETENTION POND
TRAFALGER POND
PROPOSED DETENTION POND IMPROVEMENTS
POND CROSS SECTIONS

DESIGNED BY	CMC	SCALE	DATE	04/21/03
DRAWN BY	CMC	(H) 1" = 50'	SHEET	3 OF 4
CHECKED BY	(V) 1" = 5'	JOB NO.	2041.00	

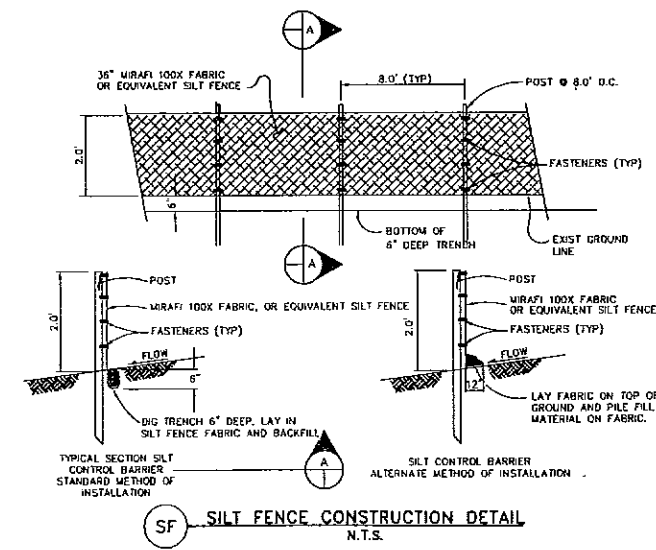


- NOTE:
1. EXTEND CRATES APPROXIMATELY ONE CRATE PAST ACTUAL INLET OPENING.
 2. INSPECT INLET PROTECTION AFTER EACH MAJOR STORM EVENT AND AT LEAST ONCE PER WEEK DURING DRY PERIODS.
 3. REMOVE SEDIMENT ONCE IT HAS REACHED ONE HALF THE HEIGHT OF THE CRATES.



STAND PIPE TRASH RACK DETAILS
NOT TO SCALE

STATEMENTS:
THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN; THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY. RESUBMITTAL IS REQUIRED IF CONSTRUCTION HAS NOT COMMENCED WITHIN 180 DAYS OF REVIEW DATE.



REVIEW: STREET DESIGN: TRAFFIC ENGINEERING _____ DATE _____ CURB & GUTTER REVIEW _____ DATE _____ FINAL DESIGN REVIEW _____ DATE _____ DRAINAGE DESIGN: DRAINAGE BASIN FILED IN ACCORDANCE WITH SECTION 15-3-905 OF COLORADO SPRINGS 1980, AS AMENDED _____ DATE _____	DESIGN DATA: SIDEWALKS: WIDTH: _____ LOCATION: <input type="checkbox"/> Attached <input type="checkbox"/> Detached CURB TYPE: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 R/W WIDTH: _____ F/C-F/C _____ STREET TYPE: _____ HVEEM _____	ASPHALT THICKNESS: AC Surface: _____ AC Base: _____ AGG. BASE THICKNESS: Class 6: _____ Class 5: _____ Class 2: _____
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48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS
1-800-922-1987
CITY OF COLORADO SPRINGS DEPT. OF UTILITIES GAS, ELECTRIC, WATER AND WASTEWATER

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NO.	REVISION	DATE
1	REVISED PER REVIEW COMMENTS	02/13/03
2	REVISED PER REVIEW COMMENTS	04/21/03

REVIEW:
PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

KYLE R. CAMPBELL, COLORADO P.E. #29754 DATE _____

3385 Corporate Drive, Suite 304
Colorado Springs, Colorado 80919
(719)785-9790
(719)785-0799(fax)

CHAPEL HILLS NO. 1 DETENTION POND TRAFALGER DETENTION FACILITY - CIVIL CONSTRUCTION DRAWINGS PROPOSED STORM SYSTEM			
DESIGNED BY	CMC	SCALE	DATE 04/21/03
DRAWN BY	CMC	(H) 1" = 50'	SHEET 4 OF 4
CHECKED BY	(V) 1" = 5'	JOB NO.	2041.00