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Upper East Fork Cave Creek Channel
Cave Creek Wash to Detention Basin #3
FEMA CLOMR Submittal

Project ST-896829

NBS LOWRY

ENGINEERS & PLANNERS

Upper East Fork Cave Creek Channel
Cave Creek Wash to Detention Basin #3
FEMA CLOMR Submittal

Project ST-896829

Prepared For:

City of Phoenix, Arizona

Prepared By:

NBS/Lowry, Engineers & Planners
2600 North 44th Street
Phoenix, Arizona 85008

March, 1993

Upper East Fork Cave Creek Channel
Cave Creek Wash to Detention Basin #3
FEMA CLOMR Submittal

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I. INTRODUCTION

A. Project Location and Scope of Work

The Upper East Fork Cave Creek Wash is located in northeast Phoenix, Arizona and extends from the confluence with Cave Creek Wash at 19th Avenue and Greenway Road to the headwaters at Beardsley Road and 26th Street. The channel is within the East Fork Cave Creek watershed and drains an area of about 15 square miles. The project location is shown on **Figure 1**.

The hydrology for the East Fork Cave Creek watershed was originally prepared as part of the Drainage Master Plan for the Upper East Fork Cave Creek watershed adopted by the City of Phoenix and the Flood Control District of Maricopa County and presented in the Upper East Fork Cave Creek Area Drainage Master Study, October 1987.

This report is intended to meet the requirements of 44CFR Ch. 1 Section 65.8 and Section 65.6(c) for a Conditional Letter of Map Revision (CLOMR) for the East Fork Cave Creek Channel from The confluence at Cave Creek Wash and 19th Avenue to Detention Basin #3 at Cave Creek Road and Grovers Avenue.

B. Previous Submittals to FEMA

Upon completion of the Upper East Fork Cave Creek Area Drainage Master Study in October 1987, the City of Phoenix submitted the hydrology from the study to FEMA for review with a request that the floodway designation for East Fork Cave Creek, east of 7th Street, be eliminated, and that the entire area be designated as Zone B. In a letter dated June 1, 1988 from John L. Matticks, Chief, Risk Studies Division, Federal Insurance Administration, the hydrology was accepted as representative of existing flow conditions and the floodplain was redesignated as Zone A. The letter is enclosed as **Figure 2**.

On March 18, 1992 a request for a CLOMR entitled Upper East Fork Cave Creek Drainage Channel, Union Hills Drive to Beardsley Road, FEMA CLOMR Submittal was submitted. The CLOMR was issued in a letter dated April 29, 1992 from William Locke, Chief, Risk Studies Division, Federal Insurance Administration. The letter is enclosed as **Figure 3**.

The regulatory floodplain currently in effect is the Zone A designation referred to in the June 1, 1988 letter (**Figure 2**) from the headwaters at Beardsley Road to approximately 1000 feet east of Seventh Street. The floodplain delineation from the confluence with Cave Creek Wash to Central Avenue was updated in a detailed study as part of the Cave Creek Floodplain Delineation - Cave Buttes Dam to the Arizona Canal Diversion Channel, January, 1990 prepared by Burgess & Niple, Inc. for the Flood Control District of Maricopa County.

Two Letters of Map Revision (LOMR) have been submitted and approved modifying the above mentioned regulatory floodplain. On July 13, 1992 a request for a LOMR entitled Upper East Fork Cave Creek Channel, Central Avenue to 7th Street, FEMA LOMR Submittal, was submitted revising the flood plain from Central Avenue to about 1000 feet east of Seventh Street based on channel improvements. The LOMR was issued in a letter dated October 1, 1992 from William Locke, Chief, Risk Studies Division, Federal Insurance Administration. The letter is enclosed as **Figure 4**.

On April 6, 1992 a request for a LOMR for Coral Manor Units I and II, was submitted revising the flood plain on the northwest corner of 7th Avenue and the Greenway Road alignment. The LOMR was issued in a letter dated May 19, 1992 from Fay L. Davis, Acting Chief, Technical Operations Division, Federal Insurance Administration. The letter is enclosed as **Figure 5**.

The areas affected by these submittals are shown on **Figure 1**.

C. Revision Requestor and Community Official Form

The attached "Revision Requestor and Community Official Form" is provided per FEMA requirements for submittals after October 1, 1992. Responses to questions in the following section require further explanation:

Floodway Information

There is an existing floodway extending from the confluence at Cave Creek Wash to 7th Street. East of 7th Street is designated as Zone A on the current FIRM. The existing floodway is not changed as part of this submittal and a new floodway is developed for the area east of 7th Street. The new floodway is contained in the channel.

D. Certification by Registered Professional Engineer and/or Land Surveyor

The attached "Certification by Registered Professional Engineer and/or Land Surveyor" is provided per FEMA requirements for submittals after October 1, 1992.

In reference to items 5 and 6, the engineer that prepared this submittal has visited and viewed those projects that are built and has used construction plans for the analysis of the proposed projects. As-built plans have been prepared by others or will be provided at a later date. Due to the fact that this is a CLOMR submittal, this engineer cannot certify that as-built plans are correct, those certifications will be made upon application for the final LOMR.

FEMA USE ONLY

FORM 1

REVISION REQUESTOR AND COMMUNITY OFFICIAL FORM

1. The basis for this revision request is (are): (check all that apply)

   [XX] Physical change
   - [X] Existing
   - [X] Proposed

   [ ] Improved methodology
   [ ] Improved data
   [XX] Floodway revision
   [ ] Other _____

   Explain _____

2. Flooding Source: East Fork Cave Creek
3. Project Name/Identifier: Upper East Fork Flood Control Improvements
4. FEMA zone designations affected: A, AE, X
   (example: A, AH, AO, A1-A30, A99, AE, V, V1-V30, VE, B, C, D, X)
5. The NFIP map panel(s) affected for all impacted communities is (are):

	Community No.	Community Name	County	State	Map No.	Panel No.	Effective Date
EX:	~~480301~~	~~Katy, City~~	~~Harris, Fort Bend~~	~~TX~~	~~480301~~	~~0005D~~	~~02/08/83~~
	~~480287~~	~~Harris County~~	~~Harris~~	~~TX~~	~~48201C~~	~~0220G~~	~~09/28/90~~
	040051	Phoenix City	Maricopa	AZ	04013C	1215G	
	040051	Phoenix CIty	Maricopa	AZ	04013C	1220F	
	040051	Phoenix City	Maricopa	AZ	04013C	1655G	

6. The submitted request encompasses the following types of flooding, structures, and associated disciplines: (check all that apply)

Types of Flooding	Structures	Disciplines*
[XX] Riverine	[XX] Channelization	[ ] Water Resources
[ ] Coastal	[ ] Levee/Floodwall	[XX] Hydrology
[ ] Alluvial Fan	[XX] Bridge/Culvert	[XX] Hydraulics
[XX] Shallow Flooding	[ ] Dam	[ ] Sediment Transport
[ ] Lakes	[ ] Coastal	[ ] Interior Drainage
Affected by wind/wave action	[ ] Fill	[ ] Structural
[ ] Yes	[ ] Pump Station	[ ] Geotechnical
[ ] No	[ ] None	[ ] Land Surveying
[ ] Other (describe) _____	[XX] Other (describe) Detention Basin Stormdrain	[ ] Other (describe) _____

* Attach completed "Certification by Registered Professional and/or Land Surveyor" Form for each discipline checked. (Form 2)

Floodway Information

- Does the affected flooding source have a floodway designated on the effective FIRM or FBFM?
  [XX] Yes [ ] No
- Does the revised floodway delineation differ from that shown on the effective FIRM or FBFM?
  [XX] Yes [ ] No

If yes, give reason: New floodway delineation is provided east of 7th Street.

Attach request to revise the floodway from community CEO or designated official.

Attach copy of either a public notice distributed by the community stating the community's intent to revise the floodway or a statement by the community that it has notified all affected property owners and affected adjacent jurisdictions.

Does the State have jurisdiction over the floodway or it's adoption by communities participating in the NFIP? [ ] Yes [X] No

If yes, attach a copy of a letter notifying the appropriate State agency of the floodway revision and documentation of the approval of the revised floodway by the appropriate State agency.

Proposed Encroachments

With floodways:

1A. Does the revision request involve fill, new construction, substantial improvement, or other development in the floodway? [XX] Yes [ ] No

1B. If yes, does the development cause the 100-year water surface elevation increase at any location by more than 0.000 feet? [ ] Yes [XX] No

Without floodways:

2A. Does the revision request involve fill, new construction, substantial improvement, or other development in the 100-year floodplain? [XX] Yes [ ] No

2B. If yes, does the cumulative effect of all development that has occured since the effective SFHA was originaly identified cause the 100-year water surface elevation increase at any location by more than one foot (or other surcharge limit if community or state has adopted more stringent criteria)? [ ] Yes [XX] No

If answer to either Items 1B or 2B is yes, please provide documentation that all requirements of Section 65.12 of the NFIP regulations have been met.

Revision Requestor Acknowledgement

- Having read NFIP Regulations, 44 CFR Ch. I, parts 59, 60, 61, 65, and 72, I believe that the proposed revision [XX] is [ ] is not in compliance with the requirements of the aforementioned NFIP Regulations.

Community Official Acknowledgement

- Was this revision request reviewed by the community for compliance with the community's adopted floodplain management ordinances? [XX] Yes [ ] No
- Does this revision request have the endorsement of the community? [XX] Yes [ ] No

If no to either of the above questions, please explain: _____

Please note that community acknowledgement and/or notification is required for all requests as outlined in Section 65.4 (b) of the NFIP Regulations.

Operation and Maintenance

- Does the physical change involve a flood control structure (e.g., levees, floodwalls, channelization, basins, dams)? [XX] Yes [ ] No

If yes, please provide the following information for each of the new flood control structures:

A. Inspection of the flood control project will be conducted periodically by City of Phoenix (entity) Street Maint Div with a maximum interval of 1 months between inspections.

B. Based on the results of scheduled periodic inspections, appropriate maintenance of the flood control facilities will be conducted by same (entity) to ensure the integrity and degree of flood protection of the structure.

C. A formal plan of operation, including documentation of the flood warning system, specific actions and assignments of responsibility by individual name or title, and provisions for testing the plan at intervals not less than one year, [ ] has [XX] has not been prepared for the flood control structure.

D. The community is willing to assume responsibility for [XX] performing [ ] overseeing compliance with the maintenance and operation plans of the (Name) _____ flood control structure. If not performed promptly by an owner other than the community, the community will provide the necessary services without cost to the Federal government.

Attach operation and maintenance plans

Requested Response from FEMA

- After examining the pertinent NFIP regulations and reviewing the document entitled "Appeals, Revisions, and Amendments to Flood Insurance Maps: A Guide for Community Officials," dated January 1990, this request is for a:

XX a.	CLOMR	A letter from FEMA commenting on whether a proposed project, if built as proposed, would justify a map revision (LOMR or PMR), or proposed hydrology changes (see 44 CFR Ch. I, Parts 60, 65, and 72).
___ b.	LOMR	A letter from FEMA officially revising the current NFIP map to show changes to floodplains, floodways, or flood elevations. LOMRs typically depict decreased flood hazards. (See 44 CFR Ch. I, Parts 60 and 65.)
___ c.	PMR	A reprinted NFIP map incorporating changes to floodplains, floodways, or flood elevations. Because of the time and cost involved to change, reprint, and redistribute an NFIP map, a PMR is usually processed when a revision reflects increased flood hazards or large-scope changes. (See 44 CFR Ch. I, Parts 60 and 65.)
___ d.	Other:	Describe _____

Forms Included

Form 2 entitled "Certification By Registered Professional Engineer And/Or Land Surveyor" must be submitted.

The following forms should be included with this request if (check the included forms):

• Hydrologic analysis for riverine flooding differs from that used to develop FIRM	[X] Hydrologic Analysis Form (Form 3)
• Hydraulic analysis for riverine flooding differs from that used to develop FIRM	[X] Riverine Hydraulic Analysis (Form 4)
• The request is based solely on updated topographic information	[ ] Riverine Mapping (Form 5)
• The request involves any type of channel modification	[X] Channelization (Form 6)
• The request involves new bridge or culvert or revised analysis of an existing bridge or culvert	[X] Bridge/Culvert Form (Form 7)

Initial Review Fee

- The minimum initial review fee for the appropriate request category has been included.

  [ ] Yes [XX] No

  If yes, the amount submitted is $ _____.

  or

- This request is for a project that is for public benefit and is intended to reduce the flood hazard to existing development in identified flood hazard areas as opposed to planned floodplain development.

  [X] Yes [ ] No

Note: I understand that my signature indicates that all information submitted in support of this request is correct.

Signature of Revision Requestor

Brian Fry, P.E., Senior Engineer
Printed Name and Title of Revision Requestor

NBS/Lowry Engineers & Planners
Company Name

Date 3-23-93

Note: Signature indicates that the community understands, from the revision requestor, the impacts of the revision on flooding conditions in the community.

Signature of Community Official

Paul Kienow, P.E., Floodplain Manager
Printed Name and Title of Community Official

City of Phoenix, Arizona
Community Name

Date 3-26-93

Attach letters from all affected jurisdictions acknowledging revision request and approving changes to floodway, if applicable. NONE

Note: Although a photograph of physical changes is not required, it may be helpful for FEMA's review.

FEMA USE ONLY

FORM 2

CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER AND/OR LAND SURVEYOR

1. This certification is in accordance with 44 CFR Ch. I, Section 65.2.

2. I am licensed with an expertise in hydrology, hydraulics
[example: water resources (hydrology, hydraulics, sediment transport, interior drainage)* structural, geotechnical, land surveying.]

3. I have 9 years experience in the expertise listed above.

4. I have [X] prepared [ ] reviewed the attached supporting data and analyses related to my expertise.

5. I [XX] have [ ] have not visited and physically viewed the project. (Those that are built)

6. In my opinion, the following analyses and/or design, were performed in accordance with sound engineering practices:

7. Based upon the following review, the modifications in place have been constructed in general accordance with plans and specifications.

Basis for above statement: (check all that apply)

a. [ ] Viewed all phases of actual construction.
b. [ ] Compared plans and specifications with as-built survey information.
c. [ ] Examined plans and specifications and compared with completed projects.
d. [X] Other This is a CLOMR

8. All information submitted in support of this request is correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Name: Brian Fry, P.E.
(please print or type)

Title: Senior Engineer
(please print or type)

Registration No. 21684 Expiration Date:

State Arizona

Type of License Professional Engineer (Civil)

Brian J. Fry
Signature

3-23-93
Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 21684 BRIAN J. FRY Date Signed 3-23-93 ARIZONA, U.S.A.

Seal
(Optional)

*Specify Subdiscipline

Note: Insert not applicable (N/A) when statement does not apply.

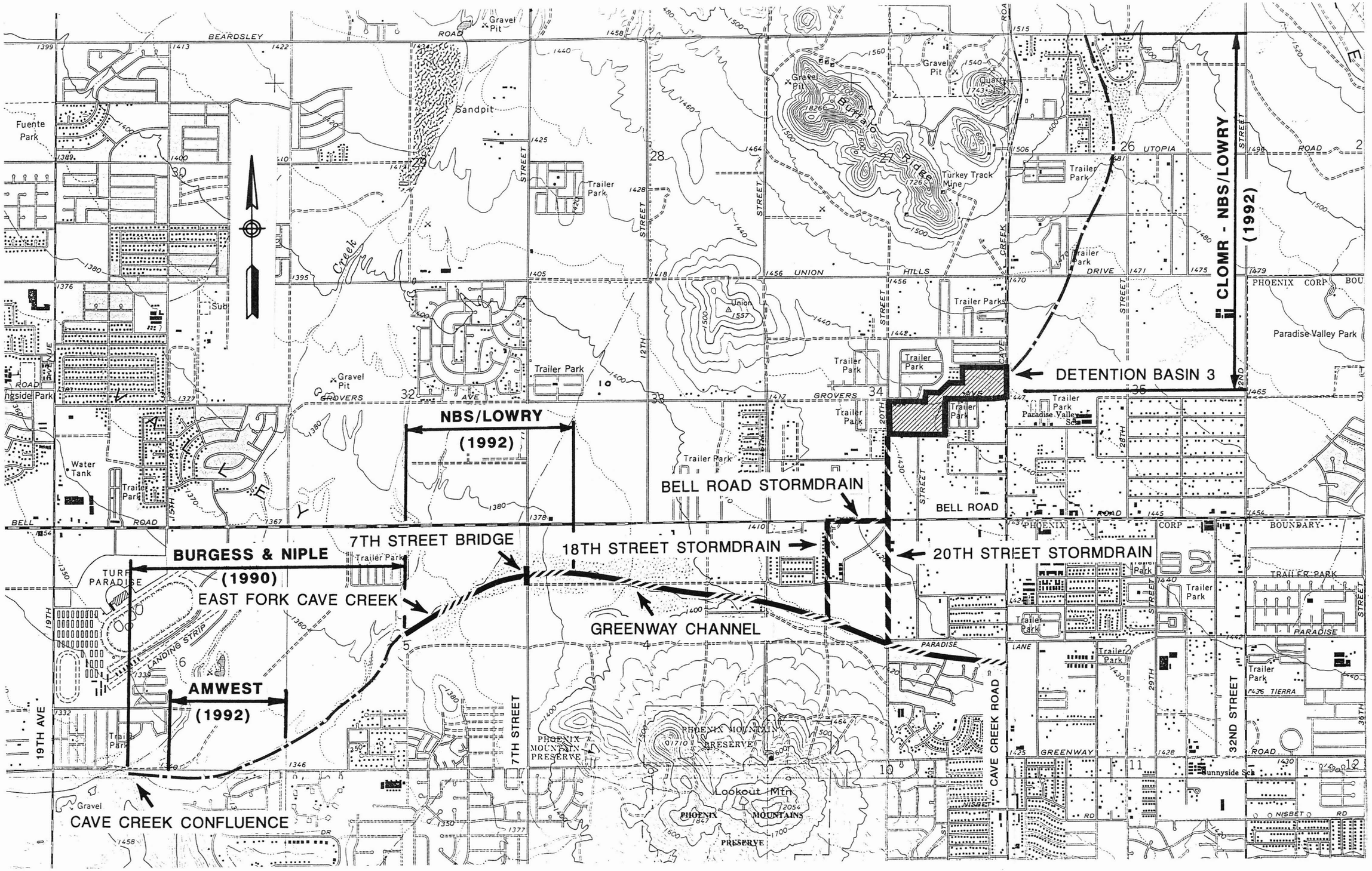

CLOMR - NBS/LOWRY
(1992)
DETENTION BASIN 3
NBS/LOWRY
(1992)
BELL ROAD STORMDRAIN
7TH STREET BRIDGE
18TH STREET STORMDRAIN
20TH STREET STORMDRAIN
BURGESS & NIPLE
(1990)
EAST FORK CAVE CREEK
GREENWAY CHANNEL
AMWEST
(1992)
CAVE CREEK CONFLUENCE
BEARDSLEY ROAD
UTOPIA
UNION HILLS DRIVE
GROVERS AVE
BELL ROAD
PARADISE LANE
GREENWAY ROAD
NISBET RD
PHOENIX CORP BOUNDARY
Buffalo Ridge
Turkey Track Mine
Paradise Valley Park
Fuente Park
Sandpit
Gravel Pit
Quarry
Trailer Park
Trailer Parks
Water Tank
TURF PARADISE
LANDING STRIP
PHOENIX MOUNTAIN PRESERVE
Lookout Mtn
PHOENIX MOUNTAINS PRESERVE
Sunnyside Sch
Paradise Valley Sch
7TH STREET
19TH AVE
32ND STREET
CAVE CREEK ROAD
12TH STREET
20TH STREET
28TH STREET
29TH STREET
36TH STREET
Creek

FIGURE 1

d Emergency Management Agency

Washington, D.C. 20472

JUN 1 1988

FLD 0803

IED MAIL
RN RECEIPT REQUESTED

The Honorable Terry Goddard
Mayor, City of Phoenix
City Hall
251 West Washington Street
Phoenix, Arizona 85003

Dear Mayor Goddard:

This is in response to a letter dated October 13, 1987, from Mr. J.E. Attebery, P.E., City Engineer, concerning the then-effective Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (FBFM) for the City of Phoenix, dated June 1, 1984, and the FIRM and FBFM for Maricopa County and Incorporated Areas, which became effective on April 15, 1988. Mr. Attebery requested that the floodway designation for East Fork Cave Creek, east of 7th Street, be eliminated, and that a restudy be initiated to redelineate the flooding in this area. He also requested that, if we are unable to restudy the stream, the entire area be designated as Zone B.

Mr. Attebery's requests were based on a hydrologic analysis of the 100-year flood for East Fork Cave Creek, performed by NBS/Lowry Engineers and Planners (NBS/Lowry) and presented in a report entitled "Upper East Fork Cave Creek, Area Drainage Master Study, Technical Submittals," submittal number 4 (90 percent completion), dated June 30, 1987. A copy of this report was submitted with Mr. Attebery's letter along with two undated reports, also prepared by NBS/Lowry, entitled "Upper East Fork Cave Creek, Area Drainage Master Study, Technical Submittals (Executive Summary)," and "Upper East Fork Cave Creek, Area Drainage Master Study, Technical Submittals."

We have completed our review of the hydrology reports submitted by Mr. Attebery and have determined that the NBS/Lowry hydrologic analysis is more detailed than the analysis used in the preparation of the effective FIRM and FBFM for Maricopa County, Arizona and Incorporated Areas. The routing used in the NBS/Lowry analysis represents the existing flow conditions in the Upper East Fork Cave Creek drainage basin more accurately than does the routing used in the preparation of the effective FIRM and FBFM. Therefore, we agree that the effective FIRM, FBFM, and Flood Insurance Study report should be revised.

As Mr. Attebery requested, we will remove the floodway shown for the reach of East Fork Cave Creek east of 7th Street. We will also eliminate the base (100-year) flood elevations shown for that reach and designate the 100-year floodplain as Zone A. In addition, the area between Cave Creek and East Fork Cave Creek, which is designated as Zone C on the effective FIRM, will be designated as Zone B. All of these changes will be made as part of the ongoing revision to the FIRM and FBFM for Maricopa County and Incorporated Areas. Preliminary copies of the revised FIRM and FBFM are scheduled to be sent to the affected communities by November 1988.

FIGURE 2

The previously described changes are those warranted by the data submitted by Mr. Attebery. If the City wishes, it may provide revised delineations of the 100-year floodplain boundaries for the reach of East Fork Cave Creek east of 7th Street. Such delineations, if based on revised hydrologic and hydraulic computations, must be accompanied by all appropriate technical supporting data as required by Sections 65.6(c), (d), and (e) of the National Flood Insurance Program regulations (copy enclosed). The revised delineations should be submitted on a topographic map whose scale and contour interval are sufficient to provide reasonable accuracy. All data submitted must be certified by a registered professional engineer. If the required data are submitted by June 30, 1988, we will review them and include all warranted revisions to the East Fork Cave Creek floodplain boundary delineations in the revised FIRM and FBFM now being processed.

Should the City wish to request a restudy of the flood hazards associated with East Fork Cave Creek, the City should call our Regional Office staff in San Francisco, California, at (415) 923-7175. The Regional Office can provide information about the restudy process, including the earliest date by which a restudy could be initiated.

If you have any questions concerning this matter, please call our Regional Office staff at the telephone number shown previously or Mr. William Judkins of my staff in Washington, D.C., at (202) 646-3458.

Sincerely,

John L. Matticks
Chief, Risk Studies Division
Federal Insurance Administration

Enclosure

cc: Mr. Paul Kienow, P.E.
Floodplain Management Engineer, City of Phoenix

Mr. William H. Leimkuehler, P.E., R.L.S.
Amwest Engineering Company, Inc.

Mr. J.E. Attebery, P.E.
City Engineer

Mr. D.E. Sagramoso, P.E.
Flood Control District of Maricopa County

Mr. Greg Rodzenko
Flood Control District of Maricopa County

Federal Emergency Management Agency

Washington, D.C. 20472

APR 29 1992

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The Honorable Paul Johnson
Mayor, City of Phoenix
251 West Washington Street
Phoenix, Arizona 85003

Case No.: 92-09-036R
Re: East Fork Cave Creek
Community: City of Phoenix, Arizona

Dear Mayor Johnson:

This is in response to a letter dated March 18, 1992, from Mr. Paul E. Kienow, P.E., City of Phoenix, regarding a request for a conditional Letter of Map Revision (LOMR) for an area shown on the effective Flood Insurance Rate Map (FIRM) for Maricopa County, Arizona and Incorporated Areas. The request is based on the proposed detention basin, channelization of East Fork Cave Creek (EFCC) from Beardsley Road to Union Hill Drive, and the existing EFCC channel from Union Hill Drive to Cave Creek Road. All data required to evaluate this request were submitted by Mr. Kienow with his March 18 letter. In addition, Mr. Kienow's letter indicated that this proposed project is for public benefit and primarily intended for flood loss reduction to existing development in identified flood hazard areas. Therefore, in accordance with Section 72.5 of the National Flood Insurance Program (NFIP) regulations, the fees associated with our review for a conditional LOMR have been waived.

We have reviewed the data submitted with respect to the data used to prepare the effective FIRM for Maricopa County, Arizona and Incorporated Areas. The U.S. Soil Conservation Service TR-20 computer model was utilized to determine the 100-year peak discharge. This is a part of the upper EFCC master drainage study approved in our previous letter dated June 1, 1988. In addition, the U.S. Army Corps of Engineers HEC-2 computer model was used for the hydraulic analysis of the EFCC. We believe that if the proposed project is constructed in accordance with the plans listed below, the 100-year flow will be contained within the EFCC channel from Beardsley Road to Cave Creek Road:

- Sheets CD-1, CD-2, C-0 through C-20, L-0 through L-8, I-0 through I-9, and E-0 through E-7 of 8 plans entitled "Detention Basin No. 1," prepared by the City of Phoenix, dated March 1992.

- Sheets C-1 through C-11, D-1 through D-8, E-1, E-2, G-1 through G-4, P-1 through P-18, SS-1A through SS-4A, SS-5, SS-6, W-1, W-2, W-3A through W-5A, and W-6 of construction plans entitled "Upper East Fork Drainage Channel," prepared by NBS/Lowry Engineers and Planners, dated June 26, 1991.

Upon completion of the project and receipt of "as-built" plans, certified by a registered professional engineer, for proposed Detention Basin No. 1 and the channelization of EFCC between Beardsley Road and Union Hill Drive,

FIGURE 3

including all hydraulic structures, we will make a final determination on revising the FIRM.

The basis of this conditional LOMR is the proposed construction of a detention basin, as well as a channel modification project. The NFIP regulations, as cited in Paragraph 60.3(b)(7), require that communities ensure the flood-carrying capacity of an altered or relocated watercourse. This provision is incorporated into your community's floodplain management regulations. Consequently, upon completion of the proposed project, the ultimate responsibility for maintenance of the channel modification will rest with your community.

Should you have any questions regarding this matter, please contact the Chief, Natural and Technological Hazards Division, Federal Emergency Management Agency, in San Francisco, California, at (415) 923-7177, or Mr. Karl Mohr of my staff in Washington, D.C., at (202) 646-2770.

Sincerely,

William R. Locke
Chief, Risk Studies Division
Federal Insurance Administration

cc: Mr. Paul E. Kienow, P.E.
City of Phoenix

Mr. James H. Matteson, P.E.
City of Phoenix

Mr. Ron Nevitt
Flood Control District of
Maricopa County

RECEIVED OCT 0 5 1992

Federal Emergency Management Agency

Washington, D.C. 20472

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

IN REPLY REFER TO:
102

The Honorable Paul Johnson
Mayor, City of Phoenix
251 West Washington
Phoenix, Arizona 85003

Case No.: 92-09-161P
Community: Maricopa County, Arizona and Incorporated Areas
Map Panel Numbers: 04013C1220 E
04013C1215 F
Effective Date of This Revision: OCT 1 1992

Dear Mayor Johnson:

This is in response to a letter dated July 13, 1992, from Mr. Paul E. Kienow, P.E., Floodplain Management Engineer, regarding the effective Flood Insurance Rate Map (FIRM) for Maricopa County, Arizona and Incorporated Areas. Mr. Kienow requested that we revise the effective FIRM to show the effects of channel improvements along East Fork Cave Creek from Central Avenue to Seventh Street; construction of a six-barrel 12' X 12' reinforced concrete box culvert at Seventh Street; and the Greenway Channel improvements approximately 1,000 feet upstream of Seventh Street.

All data required to evaluate this request were submitted with Mr. Kienow's letters dated June 16 and July 13, 1992, and with a letter of transmittal dated August 17, 1992, from Mr. Brian Fry, NBS/Lowry, Engineers & Planners.

We have completed our review of the submitted data with regard to the data used to produce the effective FIRM, and have revised the FIRM to modify the floodplain boundary delineations, floodway boundary delineations, and zone designations of a flood having a 1-percent probability of being equaled or exceeded in any given year (base flood) along a reach of East Fork Cave Creek from a point located approximately 1,000 feet downstream of Central Avenue to Seventh Street and approximately 1,000 feet along Greenway Channel, just upstream of Seventh Street along Greenway Parkway. As a result of this project, the 100-year flood and floodway are now contained in the channel from Central Avenue to a point approximately 1,000 feet upstream of Seventh Street.

The modifications are shown on the enclosed annotated copies of FIRM Panels 04013C1215 F and 04013C1220 E, Flood Profile Panel 133 P, and the Floodway Data Table for East Fork Cave Creek. This Letter of Map Revision (LOMR) hereby revises these panels of the effective FIRM dated September 4, 1991, and September 29, 1989, respectively, and the Floodway Data Table for East Fork Cave Creek. The Flood Profiles from Central Avenue to Seventh Street and the Floodway Data information for Cross Sections M and N have been deleted. Downstream of Central Avenue between Cross Sections J and M, Flood Profiles and the Floodway Data Table were revised to match the previously approved analysis, performed by Burgess and Niple, in our February 4, 1991,

FIGURE 4

letter. The following table is a partial listing of former and modified base (100-year) flood elevations (BFEs).

Location	Existing BFE *(feet)	Modified BFE *(feet)
Approximately 1,400 feet downstream of Central Avenue	*1,355	*1,355
At Central Avenue	*1,361	*1,359

New detailed flood hazard information for East Fork Cave Creek were incorporated into FIRM Panels 04013C1215 F as a physical map revision. A preliminary copy of this panel was issued on September 4, 1992, for review by your community. We will incorporate the modifications described in this LOMR into the revised map before it becomes effective.

The floodway is provided to your community as a tool to regulate floodplain development. Therefore, the floodway modifications described in this letter, while acceptable to the Federal Emergency Management Agency (FEMA), must also be acceptable to your community and adopted by appropriate community action, as specified in Paragraph 60.3(d) of the National Flood Insurance Program (NFIP) regulations.

These modifications have been made pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and are in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR, Part 65. Public notification of modifications to the BFEs along East Fork Cave Creek will be given in the Arizona Republic on or about October 22, 1992, and October 29, 1992. In addition, a Notice of Changes will be published in the Federal Register.

As required by the legislation, a community must adopt and enforce floodplain management measures to ensure continued eligibility to participate in the NFIP. Therefore, your community must enforce these regulations using, at a minimum, the BFEs, zone designations, and floodways in the Special Flood Hazard Areas shown on the FIRM and Flood Boundary and Floodway Map for your community, including the previously described modifications.

This response to your request is based on minimum floodplain management criteria established under the NFIP. Your community is responsible for approving all proposed floodplain developments, including this request, and for ensuring that necessary permits required by Federal or State law have been received. With knowledge of local conditions and in the interest of safety, State and community officials may set higher standards for construction, or may limit development in floodplain areas. If the State of Arizona or the City of Phoenix has adopted more restrictive or comprehensive floodplain management criteria, these criteria take precedence over the minimum NFIP requirements.

The basis of this LOMR is a channel-modification project. NFIP regulations, as cited in Section 60.3(b)(7), require that communities assure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained. This provision is incorporated into your community's existing floodplain management regulations. Consequently, the

ultimate responsibility for maintenance of the channel modification rests with your community.

The community number and suffix code listed above will be used for all flood insurance policies and renewals issued for your community on and after the effective date listed above.

The modifications described herein are effective as of the date of this letter. However, within 90 days of the second publication in the Arizona Republic, your community may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. All interested parties are hereby notified that, until the 90-day period elapses, the determination may be modified.

Please note that FEMA is currently developing detailed application and certification forms for use in requesting revisions or amendments to NFIP maps. These forms are mandatory for all requests received by FEMA on or after October 1, 1992. The forms will facilitate an efficient review by highlighting relevant technical considerations; therefore, use of these forms prior to that date, while voluntary, is strongly recommended. Application forms are presently available for Letter of Map Amendment and LOMR Based on Fill requests, and should be available October 1 for all other revision requests.

If you have any questions regarding the modifications described herein, please call the Chief, Natural and Technological Hazards Division, FEMA, in San Francisco, California, at (415) 923-7175, or Mr. Karl F. Mohr of my staff in Washington, D.C., at (202) 646-2770.

Sincerely,

William R. Locke

William R. Locke
Chief, Risk Studies Division
Federal Insurance Administration

Enclosures

cc: The Honorable Betsey Bayless
Chairperson, Maricopa County
Board of Supervisors

Mr. Stanley L. Smith, Jr., P.E.
Acting Floodplain Administrator
Maricopa County Flood Control District

Mr. Brian Fry
NBS/Lowry, Engineers and Planners

Mr. Paul E. Kienow, P.E.
Floodplain Management Engineer

Federal Emergency Management Agency

Washington, D.C. 20472

MAY 19 1992

The Honorable Paul Johnson
Mayor, City of Phoenix
251 West Washington Street
Phoenix, Arizona 85003

IN REPLY REFER TO:
Case No.: 92-09-107G

T-218-65-R (REI)

Dear Mayor Johnson:

This is in reference to a letter dated April 6, 1992, from Mr. Paul Kienow, Floodplain Management Engineer for the City of Phoenix, requesting that the Federal Emergency Management Agency (FEMA) reissue two Letters of Map Revision (LOMRs) dated May 10, 1991, and July 16, 1991, for the following property:

Property Description: Portions of Coral Manor Units I and II, as described in the Special Warranty Deed, recorded as Instrument No. 87 105633, in the Office of the Recorder, Maricopa County, Arizona

Community: City of Phoenix

State: Arizona

The portion of Coral Manor Unit 1 mentioned above is contained in the following:

That part of the Southeast quarter of Section Six (6), Township Three (3) North, Range Three (3) East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona, described as follows:

Beginning at the Southeast corner of Section 6, thence N89°59'38"W along the South line of said Section 6 a distance of 2,633.00 feet to the South quarter corner Section 6;

Thence N00°16'18"E along the midsection line a distance of 297.33 feet to the monument line of Greenway Parkway as recorded in Document Nos. 87-557692, 87-557694 and 87-557695;

Thence continuing N79°22'05"E along said monument line a distance of 150.79 feet to a point of curvature of a circular curve having a radius of 1,300.00 feet and a radius point which bears N10°37'55"W from the point of curvature;

Thence continuing northwesterly along said monument line 1,341.42 feet along the arc of said curve through 59°07'17" of central angle to a point of intersection with Tierra Buena Lane and Greenway Parkway (public streets) as shown and delineated on Tierra Buena Map of Dedication recorded in Book 319 of Maps, Page 36, MCR;

FIGURE 5

Thence S69°45'12"E along the southerly line of an easement for waterline recorded in No. 89-536044 and No. 89-536046 a distance of 200.00 feet to a point of curvature of a circular curve having a radius of 700.00 feet and a radius point which bears N20°14'48"E from the point of curvature;

Thence continuing easterly along said southerly line 589.31 feet along the arc of said curve through 48°14'08" of central angle to a point of tangency;

Thence continuing along said southerly line N62°00'40"E a distance of 248.38 feet to a point of curvature of a circular curve having a radius of 700.00 feet and a radius point which bears S27°59'20"E from the point of curvature;

Thence continuing easterly along said southerly line 344.97 feet along the arc of said curve through 28°14'09" of central angle to a point of tangency;

Thence continuing S89°45'11"E along said southerly line a distance of 200.00 feet to the Northeast corner of the Southeast quarter Southeast quarter, Section 6;

Thence S00°14'49"W along the east line of the Southeast quarter, Section 6 a distance of 1,320.22 to the True Point of Beginning.

EXCEPT:

Beginning at the Southeast Corner, Section 6;

Thence N89°59'38"W along the South line of Section 6, a distance of 1,207.73 feet;

Thence N58°50'34"E a distance of 368.64 feet;

Thence N69°21'27"E a distance of 432.09 feet;

Thence N62°23'26"E a distance of 195.75 feet;

Thence N58°18'59"E a distance of 372.71 feet to the East line of Section 6;

Thence S00°14'49"W along said East line a distance of 245.08 feet;

Thence S58°18'59"W a distance of 250.49 feet;

Thence S62°23'26"W a distance of 217.66 feet;

Thence S00°00'22"W a distance of 112.10 feet;

Thence S89°59'38"E a distance of 404.56 feet to the East line of Section 6;

Thence S00°14'49"W along said East line a distance of 40.00 feet to the Point of Beginning.

The portion of Coral Manor Unit II mentioned above is as follows:

That part of the Southeast quarter of Section Six (6), Township Three (3) North, Range Three (3) East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona, described as follows:

Beginning at the Southeast corner of Section 6, thence N89°59'38"W along the South line of said Section 6 a distance of 2,633.00 feet to the South quarter corner Section 65;

Thence N00°16'18"E along the midsection line a distance of 297.33 feet to the monument line of Greenway Parkway as recorded in Document Nos. 87-557692, 87-557694 and 87-557695;

Thence continuing N79°22'05"E along said monument line a distance of 150.79 feet to a point of curvature of a circular curve having a radius of 1,300.00 feet and a radius point which bears N10°37'55"W from the point of curvature;

Thence continuing northwesterly along said monument line 1,341.42 feet along the arc of said curve through 59°07'17" of central angle to a point of intersection with Tierra Buena Lane and Greenway Parkway (public streets) as shown and delineated on Tierra Buena Map of Dedication recorded in Book 319 of Maps, Page 36, MCR;

Thence S69°45'12"E along the southerly line of an easement for waterline recorded in No. 89-536044 and 89-536046 a distance of 200.00 feet to a point of curvature of a circular curve having a radius of 700.00 feet and a radius point which bears N20°14'48"E from the point of curvature;

Thence continuing easterly along said southerly line 589.31 feet along the arc of said curve through 48°14'08" of central angle to a point of tangency;

Thence continuing along said southerly line N62°00'40"E a distance of 248.38 feet to a point of curvature of a circular curve having a radius of 700.00 feet and a radius point which bears S27°59'20"E from the point of curvature;

Thence continuing easterly along said southerly line 344.97 feet along the arc of said curve through 28°14'09" of central angle to a point of tangency;

Thence continuing S89°45'11"E along said southerly line a distance of 200.00 feet to the Northeast corner of the Southeast quarter Southeast quarter, Section 6;

Thence S00°14'49"W along the east line of the Southeast quarter, Section 6 a distance of 1,320.22 feet to the True Point of Beginning.

EXCEPT:

Beginning at the Southeast Corner, Section 6;

Thence N89°59'38"W along the South line of Section 6, a distance of 1,316.50 feet to the southwest corner of the southeast quarter of the southeast quarter, Section 6;

Thence N00°14'28"E along the west line of the Southeast quarter of the Southeast quarter a distance of 160.00 feet;

Thence S89°59'38"E a distance of 160.00 feet;

Thence S00°14'28"W a distance of 128.94 feet;

Thence N58°50'34"E a distance of 308.62 feet;

Thence N69°21'27"E a distance of 432.09 feet;

Thence N62°23'26"E a distance of 195.75 feet;

Thence N58°18'59"E a distance of 372.71 feet to the East line of Section 6;

Thence S00°14'49"W along said East line a distance of 245.08 feet;

Thence S58°18'59"W a distance of 250.49 feet;

Thence S62°23'26"W a distance of 217.66 feet;

Thence S00°00'22"W a distance of 112.10 feet;

Thence S89°59'38"E a distance of 404.56 feet to the East line of Section 6;

Thence S00°14'49"W along said East line a distance of 40.00 feet to the Point of Beginning.

The May 10 and July 16, 1991, LOMRs that revised the Maricopa County, Arizona, National Flood Insurance Program (NFIP) map have since been superseded by a new NFIP map dated September 4, 1991, for Maricopa County, Arizona. Therefore, this letter issues a new determination for the property based on the new September 4, 1991, NFIP map.

On April 21, 1992, we received all of the information necessary to process this request. After comparing this information to the NFIP map for your community, we determined that the above-mentioned portions of Coral Manor Units I and II would not be inundated by a 100-year flood. Therefore, this letter revises the map for Maricopa County, Arizona, NFIP Map Number 04013 C, dated September 4, 1991, to remove this property from the Special Flood Hazard Area (SFHA).

Please note that this property could be inundated by a flood greater than the 100-year flood or by local flooding conditions not shown on the NFIP map.

Flood insurance is obtainable, at reduced costs, for properties located outside the SFHA. Also, although we have based our determination on the flood information presently available, flood conditions may change or new information may be generated which would supersede this determination.

Although the criteria for removal of a parcel of land based on fill have been met for this request, we encourage you to require that the lowest adjacent grades and lowest floors (including basements) of any structures placed on the above parcels be elevated to a level at or above the base flood elevation.

This LOMR will not be printed and distributed to primary map users such as local insurance agents and mortgage lenders; therefore, the community will serve as a repository for these new data.

A copy of this LOMR is being sent to your community's official NFIP map repository where, in accordance with regulations adopted by your community when it made application to join the NFIP, it should be attached to the community's official record copy of the NFIP map which is available for public inspection.

We encourage you to disseminate the information reflected by this LOMR widely throughout the community in order that interested persons such as property owners, insurance agents, and mortgage lenders may benefit from this information. We also encourage you to consider preparing an article for publication in the community's local newspaper that would describe the changes that have been made and the assistance the community will provide in serving as a clearinghouse for these data and interpreting NFIP maps.

In order to ensure continued eli ibility to participate in the NFIP, your community must enforce its floodplain management regulations using, at a minimum, the flood elevations and zone designations shown on your community's NFIP map, including the revision effected by this letter. This response to your request is based on the minimum criteria established by the NFIP. State and community officials, based on knowledge of local conditions and in the interest of public safety, may set higher standards for construction in the floodplain. If the State of Arizona or your community have adopted more restrictive or comprehensive floodplain management criteria, these criteria take precedence over the minimum Federal criteria.

This revision has been made pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and is in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448) 42 U.S.C. 4001-4128, and 44 CFR Part 65.

This revision is effective as of the date of this letter. However, a request for reconsideration may be made within 30 days. Any requests for reconsideration must be based on scientific or technical data.

Please note that FEMA is currently developing detailed application and certification forms for use in requesting revisions or amendments to NFIP maps. These forms will be available this summer and will be mandatory for all requests received by FEMA on or after October 1, 1992. These forms will

highlight technical considerations in a fashion that facilitates an efficient review; therefore, use of these forms prior to October 1, while voluntary, is strongly recommended. Application forms should be available after July 1 for Letter of Map Amendment and LOMR Based on Fill requests, and after August 1 for all other revision requests.

If you have any questions or if we can be of further assistance, please call Ms. Cecelia Lynch at (202) 646-2747.

Sincerely,

Fay L. Davis, Acting Chief
Technical Operations Division
Federal Insurance Administration

cc: Mr. Paul Kienow
City of Phoenix Street
Transportation Department

II. GENERAL DESCRIPTION OF CHANGED PHYSICAL CONDITIONS

As part of the Upper East Fork Cave Creek Area Drainage Master Study, drainage improvements were recommended throughout the watershed to safely convey runoff away from the area and thus, remove a significant number of structures from the regulatory floodplain. Since completion of the master plan in October 1987, the City of Phoenix and the Flood Control District of Maricopa County have worked to implement the recommendations contained in the master plan. The improvements include channels, detention basins, and stormdrains. Construction of the following projects constitutes the changed physical conditions that effect the hydrology for the Upper East Fork Cave Creek watershed. The projects are shown on **Figure 6**.

Description	Project No.
1. Moonlight Cove II	Clouse Engr.
2. East Fork Cave Creek - Central Ave to 7th St.	PRC Engr
3. 7th St. Bridge over Greenway Channel	BR-860395
4. 7th Street - Greenway Parkway to Bell Road	"Bell Town Center"
5. Union Hills Drive - 7th St. to 12th St.	ST-883223
6. Detention Basin #2	ST-896803
7. Rosemont Lateral	ST-896803
8. Detention Basin #5	ST-896837
9. 9th Street - Greenway Road to Bell Road	P-861013
10. 9th Street - Bell Road Crossing	ST-880807
11. 9th Street - Bell Road to Union Hills	ST-887299
12. Greenway Channel - 7th St. to Cave Creek Road	P-861013
13. 16th Street - Greenway Parkway to Bell Road	P-861013
14. 16th Street - Bell Road Crossing	ST-880807
15. 16th Street - Bell Road to Grovers Ave	ST-885152
16. 18th Street - Greenway Parkway to Bell Road	ST-880781
17. 20th Street - Greenway Parkway to Bell Road	ST-880781
18. Bell Road - 18th Street to 20th Street	ST-880807
19. 20th Street - Bell Road to Detention Basin #3	ST-887422
20. Detention Basin #3	ST-896829
21. Grovers Ave Lateral	FCD 86-4
22. East Fork Channel - Union Hills Dr. to Beardsley Rd	FCD 90-54
23. Detention Basin #1	ST-896811
24. Greenway Parkway - Cave Creek Road to 32nd Street	P-861005
25. Cave Creek Road - Cactus Road to Greenway Road	P-855932
26. Cave Creek Road - Greenway Road to Bell Road	P-855999
27. 32nd Street - Thunderbird Road to Greenway Road	ST-783746
28. 32nd Street - Greenway Road to Bell Road	ST-791871
29. 32nd Street - Bell Road to Union Hills Drive	ST-894436
30. Detention Basin #4	FCD 90-55

The effect of these projects is reflected in the new hydrologic analysis.

The changed physical conditions effecting the hydraulics are the Greenway Channel from 7th Street to Cave Creek Road, the stormdrain system in 18th and 20th Streets that conveys the discharge from Detention Basin #3 to the Greenway Channel and Detention Basin #3.

Greenway Channel

The Greenway Channel is constructed adjacent to the Greenway Parkway from 7th Street to Cave Creek Road. Stormdrain laterals enter the channel from the north at the side streets. The lateral inverts are typically lower than the channel invert to allow for adequate cover over the pipes, therefore, a 36-inch low flow pipe has been constructed to drain the laterals following storm events. The Greenway Channel is earth lined from 7th Street to 12th Street. From 12th Street to Cave Creek Road, gabion baskets are used for bank protection. Each layer is offset about one foot to provide a shelf for establishment of vegetation. The channel bottom is concrete lined in this reach.

18th and 20th Street Stormdrain

The 18th and 20th Street laterals discharge into the Greenway channel. The 18th Street lateral is an 84-inch concrete pipe and extends from the Greenway Channel to Bell Road and in Bell Road to 20th Street where it ties in with the 20th Street lateral. The 20th Street lateral is a 96-inch concrete pipe from the Greenway Channel to Aire Libre Drive and a 78-inch concrete pipe from Aire Libre to Bell Road. A 108-inch pipe is under construction from north of Bell Road to Detention Basin #3. Flow is metered out of basin #3 into the 108-inch pipe which conveys it to Bell Road where a splitter structure splits the flow between the 18th and 20th Street laterals.

Detention Basin #3

Detention Basin #3 is actually two detention basins in series covering a 35 acre parcel divided by Grovers Avenue. The flow from the Pepperidge Channel east of Cave Creek Road enters the basin through a double barrel 10'x10'box culvert at John Cabot Road. Low flows, up to about the 2-year flow is conveyed under the basin in concrete pipes to the 20th Street lateral. When the capacity of the low flow pipe is exceeded, the flow backs up into basin #3A north of Grovers. The basin #3A outfall discharges under Grovers Avenue into basin #3b. Basin #3b outlets into the 20th Street lateral. The basins reduce the 100 year peak discharge from 1300 cfs at Cave Creek Road and John Cabot to 500 cfs at 20th Street, including side inflows from Grovers Avenue east. Detention Basin #3 is planned as a City of Phoenix park including softball fields, a soccer field, basketball and volleyball courts, ramadas, and pedestrian and equestrian trails. Desert landscaping and turf areas are planned.

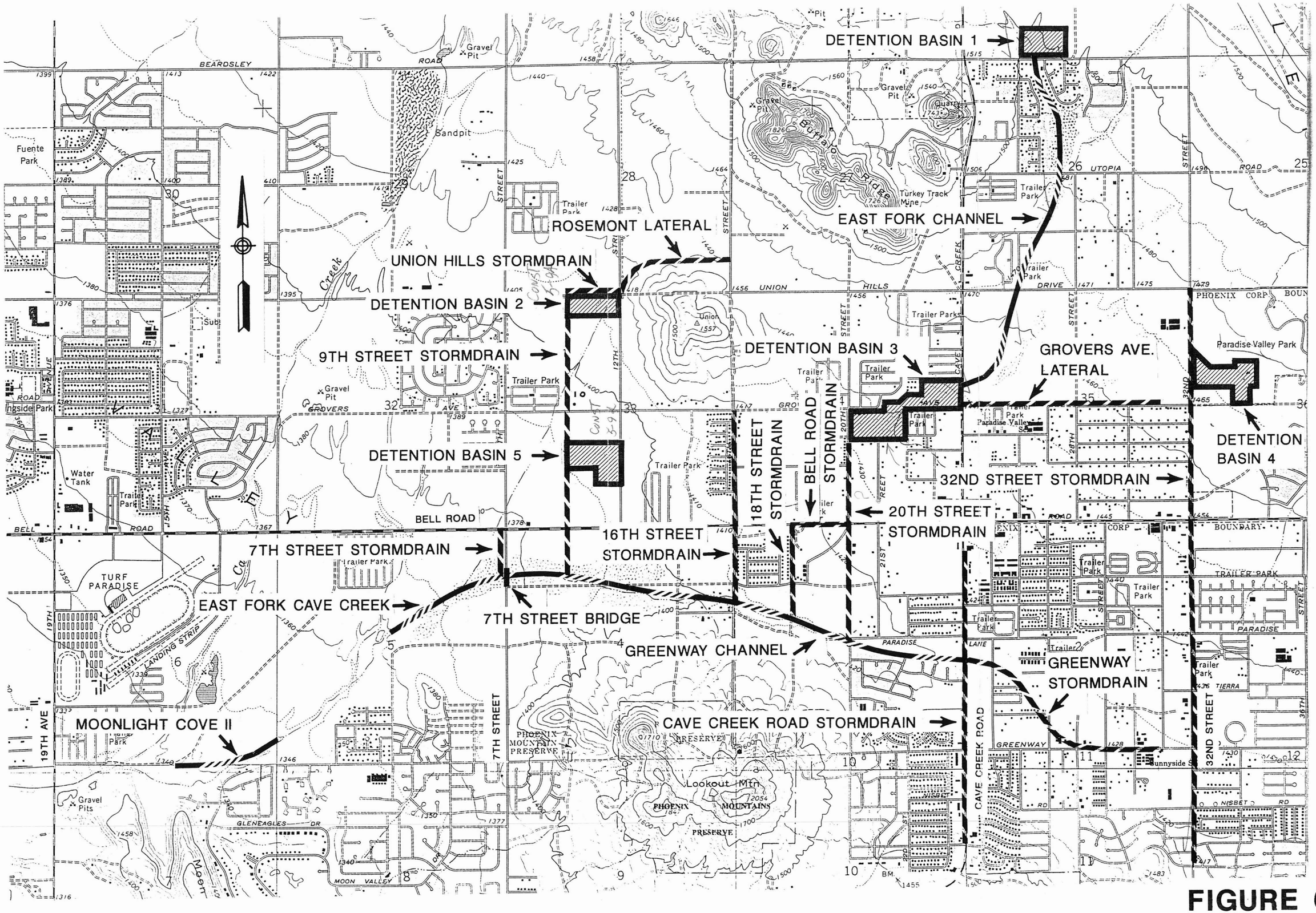

DETENTION BASIN 1
EAST FORK CHANNEL
ROSEMONT LATERAL
UNION HILLS STORMDRAIN
DETENTION BASIN 2
9TH STREET STORMDRAIN
DETENTION BASIN 3
GROVERS AVE. LATERAL
DETENTION BASIN 5
DETENTION BASIN 4
32ND STREET STORMDRAIN
20TH STREET STORMDRAIN
16TH STREET STORMDRAIN
18TH STREET STORMDRAIN
BELL ROAD STORMDRAIN
7TH STREET STORMDRAIN
EAST FORK CAVE CREEK
7TH STREET BRIDGE
GREENWAY CHANNEL
GREENWAY STORMDRAIN
MOONLIGHT COVE II
CAVE CREEK ROAD STORMDRAIN
BEARDSLEY ROAD
UTOPIA
UNION HILLS DRIVE
PHOENIX CORP BOUNDARY
BELL ROAD
PARADISE LANE
GREENWAY
NISBET RD
GLENEAGLES DR
MOON VALLEY
19TH AVE
7TH STREET
32ND STREET
CAVE CREEK ROAD
Paradise Valley Park
Lookout Mtn
PHOENIX MOUNTAINS PRESERVE
Burro Ridge
Turkey Track Mine
Fuente Park
Sandpit
Gravel Pit
Trailer Park
Trailer Parks
Water Tank
TURF PARADISE
LANDING STRIP
Gravel Pits
Sunnyside Park
Sunnyside St
TRAILER PARK
PARADISE
TIERRA

FIGURE 6

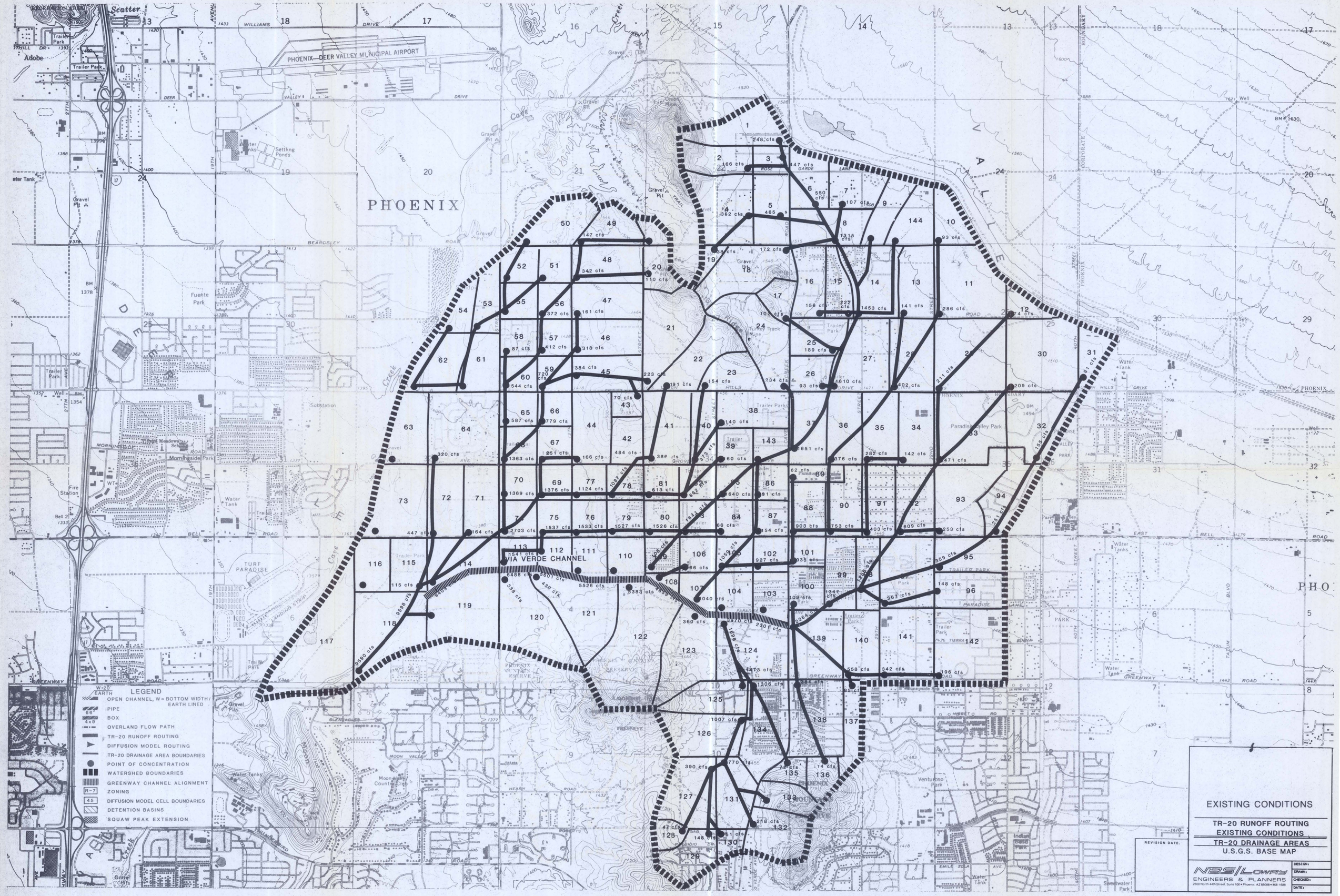
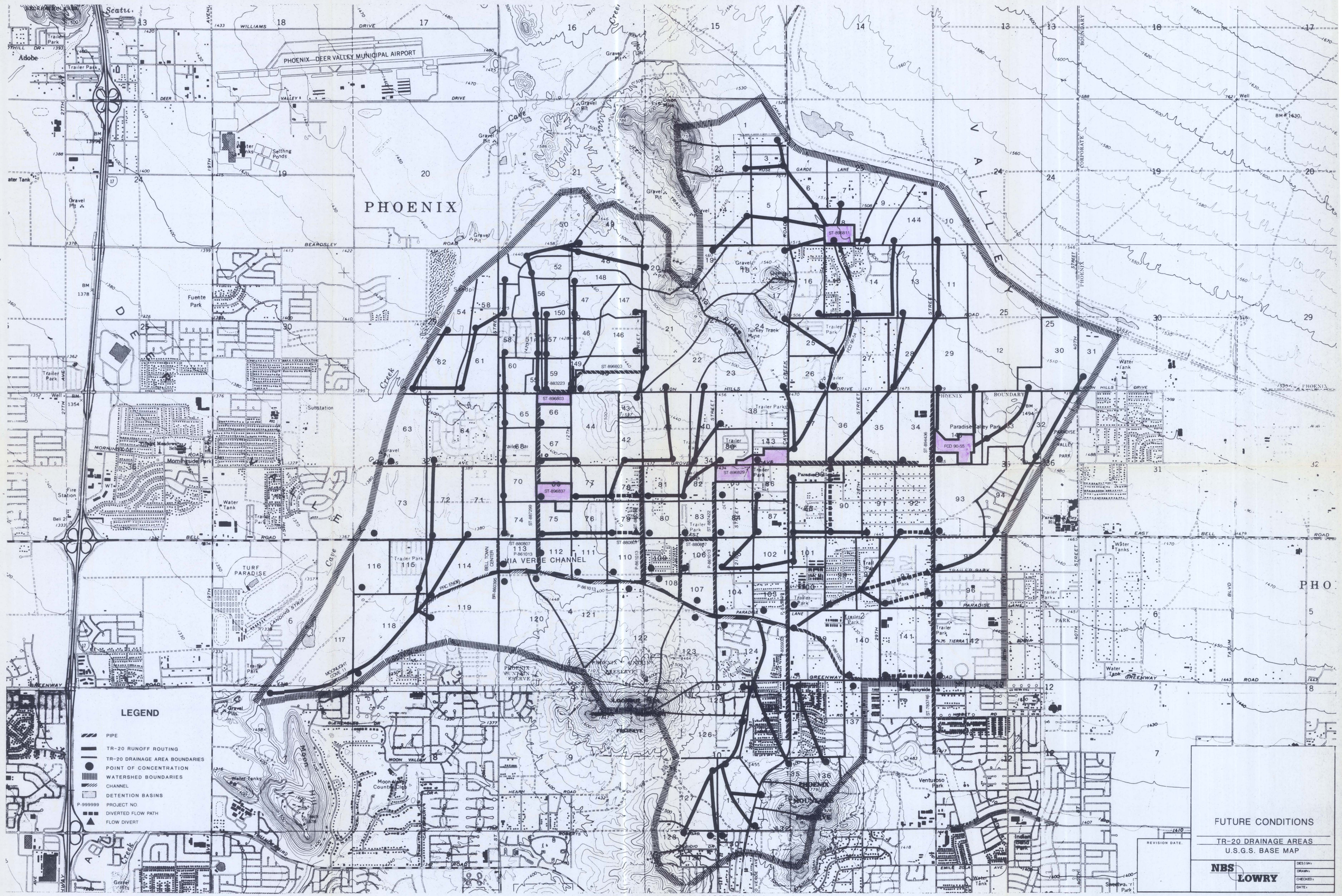

PHOENIX
PHOENIX—DEER VALLEY MUNICIPAL AIRPORT
VIA VERDE CHANNEL
LEGEND
W-20' EARTH
OPEN CHANNEL, W = BOTTOM WIDTH / EARTH LINED
66"
PIPE
4x9
BOX
OVERLAND FLOW PATH
TR-20 RUNOFF ROUTING
DIFFUSION MODEL ROUTING
TR-20 DRAINAGE AREA BOUNDARIES
POINT OF CONCENTRATION
WATERSHED BOUNDARIES
GREENWAY CHANNEL ALIGNMENT
R-7
ZONING
45
DIFFUSION MODEL CELL BOUNDARIES
DETENTION BASINS
SQUAW PEAK EXTENSION
EXISTING CONDITIONS
TR-20 RUNOFF ROUTING
EXISTING CONDITIONS
TR-20 DRAINAGE AREAS
U.S.G.S. BASE MAP
REVISION DATE.
NBS/LOWRY
ENGINEERS & PLANNERS
2600 North 44th Street, Suite 100 • Phoenix, AZ 85008 • 468-1688
DESIGN:
DRAWN:
CHECKED:
DATE:

FIGURE 7



UPPER EAST FORK CAVE CREEK
FEMA CLOMR SUBMITTAL

FIGURE 7

V. NEW HYDRAULIC ANALYSIS

A. General

Improvements to the floodplain include channels, pipes, and detention basins. The U.S. Army Corps of Engineers HEC-2 Water Surface Profile computer program was used for the water surface profile analysis for channels. The Los Angeles County Flood Control District F0515P computer program as enhanced by CivilSoft and renamed Storm Plus was used for hydraulic grade line calculations for pipes. The water surface elevation and outlet discharge from the detention basins is computed as part of the revised hydrologic analysis.

The area modeled is shown on **Figure 8** "Flood Boundary and Floodway Map." The cross-section stationing corresponds to the construction stationing shown on the channel plans.

B. HEC-2 Analysis

Existing Models

The original HEC-2 model developed by Burgess & Niple (B&N) is used from the confluence with Cave Creek Wash to Central Avenue, except that the model has been modified by Clouse Engineering, Inc. to reflect the changes in grading associated with Moonlight Cove Two.

The B&N model was extended from Central Avenue to 1000 feet east of 7th Street by NBS/Lowry as part of the LOMR request for the channel improvements in that reach (see **Figure 4**).

The model is extended to Cave Creek Road as part of this submittal based on the as-built plans and aerial mapping.

Downstream Conditions

The model starting conditions at the confluence with Cave Creek Wash are from the B&N run for Cave Creek Wash. The starting WSEL is taken from the Cave Creek Wash and tributary backwater analysis included in Cave Creek Floodplain Delineation - Cave Buttes Dam to the Arizona Canal Diversion Channel

Floodway Analysis

The floodway is unchanged from the Confluence with Cave Creek Wash to 7th Street. A new floodway is developed east of 7th Street as part of this submittal. The floodway east of 7th Street is contained in the channel.

Results

The HEC-2 input and output listings are contained in **Appendix B**. Included is the 10-, 50-, and 100- year water surface profile runs for the duplicate effective and revised model and the floodway analysis run. A printer plot of the computed water surface profile is shown on **Figure 9**. Cross section designations in the output listing correspond to the channel stationing on the plans. The new 100-year floodplain and floodway boundaries are shown on **Figure 8**.

C. Riverine Hydraulic Analysis Form

The attached "Riverine Hydraulic Analysis Form" is provided per FEMA requirements for submittals after October 1, 1992.

The East Fork of Cave Creek has been studied by detailed methods from the confluence with Cave Creek Wash to 1,000 feet east of 7th Street. The floodplain is designated Zone AE and a floodway is delineated. The East Fork is designated Zone A from 1,000 feet east of 7th Street to the upstream limit at Beardsley Road, with no floodway delineated. The Greenway Channel alignment is different than the alignment from the effective FIS. Therefore discharges and water surface elevations cannot be reasonably compared in this area. The Water Surface Elevation Check table contains information from cross-sections up to the Zone A area only.

D. Channelization Form

The attached "Channelization Form" is provided per FEMA requirements for submittals after October 1, 1992. A Channelization form is provided for the Greenway Channel improvements from 7th Street to Cave Creek Road. All other channelization is unchanged from the effective FIS. Typical cross-sections are included in the plans. Profiles of the channel banks and invert were not included in the construction plans and are not provided as part of this submittal.

E. Bridge/Culvert Forms

The attached "Bridge/Culvert Forms" are provided per FEMA requirements for submittals after October 1, 1992.

Bridge/Culvert Forms are provided for the box culverts at 16th Street and 20th Street. All other bridges or culverts are included in the effective FIS. The HEC-2 normal bridge routine has been used for both culverts to account for friction losses in the box culverts.

F. Hydraulic Grade Line Analysis

The effective FIRM shows the floodplain extending from 12th Street and Aire Libre Avenue northeasterly to

FEMA USE ONLY

FORM 4

RIVERINE HYDRAULIC ANALYSIS FORM

Community Name: Phoenix, City of

Flooding Source: East Fork Cave Creek

Project Name/Identifier: Upper East Fork Flood Control Improvements

Reach to be Revised

Downstream limit Confluence with Cave Creek Wash

Upstream limit Cave Creek Road at John Cabot Road

Effective FIS

☐ Not studied

☒ Studied by approximate methods (Zone A)

Downstream limit of study 1000' East of 7th Street

Upstream limit of study Cave Creek Road at John Cabot Road

☒ Studied by detailed methods

Downstream limit of study Confluence with Cave Creek Wash

Upstream limit of study 1000' East of 7th Street

☒ Floodway delineated

Downstream limit of floodway Confluencewith Cave Creek Wash

Upstream limit of floodway 7th Street

Hydraulic Analysis

Why is the hydraulic analysis different from that used to develop the FIRM.
(Check all that apply)

☐ Not studied in FIS

☐ Improved hydrologic data/analysis. Explain:

☐ Improved hydraulic analysis. Explain:

☒ Flood control structure. Explain: Structures are described in the Text.

☐ Other. Explain:

Models Submitted

Full input and output listings along with files on diskette (if available) for each of the models listed below and a summary of the source of input parameters used in the models must be provided. The summary must include a complete description of any changes made from model to model (e.g. duplicate effective model to corrected effective model). Only the Duplicate Effective and the Revised or Post-Project Conditions models must be submitted. See instructions for directions on when other models may be required. Only the 100-year flood profile is required for SFHAs with a Zone A designation.

	Natural	Floodway
[X] Duplicate Effective Model	[XX]	[XX]
[ ] Corrected Effective Model	[ ]	[ ]
[ ] Existing or Pre-Project Conditions Model	[ ]	[ ]
[X] Revised or Post-Project Conditions Model	[X]	[X]
[ ] Other: Please attach a sheet describing all other models submitted.	[ ]	[ ]

Duplicate Effective Model

Copies of the hydraulic analysis used in the effective FIS, referred to as the effective models (10-, 50-, 100-, and 500-year multi-profile runs and the floodway run) must be obtained and then reproduced on the requestor's equipment to produce the duplicate effective model. This is required to assure that the effective model input data has been transferred correctly to the requestor's equipment and to assure that the revised data will be integrated into the effective data to provide a continuous FIS model upstream and downstream of the revised reach.

Corrected Effective Model

The corrected effective model is the model that corrects any errors that occur in the duplicate effective model, adds any additional cross sections to the duplicate effective model, or incorporates more detailed topographic information than that used in the currently effective model. The corrected effective model must not reflect any man-made physical changes since the date of the effective model. An error could be a technical error in the modeling procedures, or any construction in the floodplain that occurred prior to the date of the effective model but was not incorporated into the effective model.

Existing or Pre-Project Conditions Model

The duplicate effective or corrected effective model is modified to produce the existing or pre-project conditions model to reflect any modifications that have occurred within the floodplain since the date of the effective model but prior to the construction of the project for which the revision is being requested. If no modification has occurred since the date of the effective model, then this model would be identical to the corrected effective or duplicate effective model.

Revised or Post-Project Conditions Model

The existing or pre-project conditions model (or duplicate effective or corrected effective model, as appropriate) is revised to reflect revised or post-project conditions. This model must incorporate any physical changes to the floodplain since the effective model was produced as well as the effects of the project.

Other: Please attach a sheet describing all other models submitted.

Model Parameters
(from model used to revise 100-year water surface elevations)

1. Discharges:

	Upstream Limit	Downstream Limit
10-year	898 cfs	4070 cfs
50-year	1668 cfs	7126 cfs
100-year	2056 cfs	8468 cfs
500-year		

Attach diagram showing changes in 100-year discharge

2. Explain how the starting water surface elevations were determined Cave Creek FIS (B&N) from Cave Creek W.S. Elevations computed for the tributary backwater analysis.

	Starting Water Surface Elevation
10-year	1325.37
50-year	1327.42
100-year	1328.21
Floodway	1328.21
500-year	n/a

3. Give range of friction loss coefficients .012 -.045

If friction loss coefficients are different anywhere along the revised reach from those used to develop the FIRM, give location, value used in the effective FIS, and revised values and an explanation as to how the revised values were determined.

Location	FIS	Revised

Explain:

4. Describe how the cross section geometry data were determined (e.g., field survey, topographic map, taken from previous study) and list cross sections that were added.

As-built plans and topographic map.

Model Parameters (Cont'd)

5. Explain how reach lengths for channel and overbanks were determined:

_____

_____

_____

_____

Results
(from model used to revise 100-year water surface elevations)

1. Do the results indicate:

a. Water surface elevations higher than end points of cross sections? ☐ Yes ☒ No

b. Supercritical depth? no supercritical run performed ☐ Yes ☐ No

c. Critical depth? ☒ Yes ☐ No

d. Other unique situations? ☐ Yes ☐ No

If yes to any of the above, attach an explanation that discusses the situation and how it is presented on the profiles, tables, and maps.

2. What is the maximum head loss between cross-sections? 2.61'

3. What is the distance between the cross-sections in 2 above? 734'

4. What is the maximum distance between cross-sections? 734'

5. Floodway determination

a. What is the maximum surcharge allowed by the community or State? 1 foot

b. What is the maximum surcharge for the revised conditions? 1 foot

c. What is the maximum velocity? 16.5 fps

d. What type of erosion protection is provided? Gabions and Concrete

Explain: Gabion sideslope protection with a concrete channel invert

_____

_____

Results (Cont'd)

6. Is the discharge value used to determine the floodway anywhere different from that used to determine the natural 100-year flood elevations? ☐ Yes ☒ No

If yes, explain:

_____

_____

_____

Attach a Floodway Data Table showing data for each cross section listed in the published floodway data table in the FIS report.

7. Do 100-year water surface elevations increase at any location? ☐ Yes ☒ No

If yes, please attach a list of the locations where the increases occur, state whether or not the increases are located on the requestor's property, and provide an explanation of the reason for the increases.

_____

_____

_____

Please attach a completed comparison table entitled: Water Surface Elevation Check.

Revised FIRM/FBFM and Flood Profiles

A. The revised water surface elevations tie into those computed by the effective FIS Model (10-, 50-, 100-, and 500-year), downstream of the project at cross-section 19.56 within 0 feet and upstream of the project at cross section N/A within _____ feet.

B. The revised floodway elevations tie into those computed by the effective FIS model, downstream of the project at cross section 19.56 within 0 feet and upstream of the project at cross section N/A within _____ feet.

C. Attach profiles, at the same vertical and horizontal scale as the profiles in the effective FIS report, showing stream bed and profiles of all floods studied (without encroachment). Also, label all cross sections, road crossings (including low chord and top-of-road data), culverts, tributaries, corporate limits, and study limits.

Proceed to Riverine Mapping Form.

Water Surface Elevation Check

Community Name: Phoenix, City of

Flooding Source: East Fork Cave Creek

Project name/Identifier: Upper East Fork Flood Control Improvements

	Effective			Duplicate Effective			Corrected Effective			Existing/Pre-Project			Revised/Project		
SECNO	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL	FCWSEL	SURC.	NCWSEL	FCWSEL	SURC.	NCWSEL	FCWSEL	SURC.	NCWSEL	FCWSEL	SURC.
.029	1329.4	1329.4	.0	1329.4	1329.4	.0							1328.8	1328.8	.0
.112	1332.9	1332.9	.0	1332.9	1332.9	.0							1332.3	1332.3	.0
.198	1333.3	1333.3	.0	1333.3	1333.3	.0							1332.7	1332.7	.0
.288	1333.3	1333.3	.0	1333.3	1333.3	.0							1333.1	1333.1	.0
.398	1337.3	1337.3	.0	1337.3	1337.3	.0							1336.2	1336.2	.0
.482	1342.4	1342.4	.0	1342.4	1342.4	.0							1340.1	1340.1	.0
.575	1343.8	1344.8	1.0	1343.8	1344.8	1.0							1342.8	1343.4	.6
.697	1345.1	1346.0	.9	1345.1	1346.0	.9							1346.1	1346.2	.1
.826	1348.3	1348.3	.0	1348.3	1348.3	.0							1348.0	1348.0	.0
.945	1352.1	1352.5	.4	1352.1	1352.4	.3							1351.7	1352.0	.3
1.035	1352.9	1353.6	.7	1352.9	1353.6	.7							1352.6	1353.2	.6
1.121	1354.2	1355.2	1.0	1354.2	1355.2	1.0							1353.9	1354.7	.8
1.204	1355.4	1355.7	.3	1355.4	1355.7	.3							1355.0	1355.3	.3
1.315	1359.3	1359.8	.5	1359.3	1359.8	.5							1359.0	1359.4	.4
1100.	1359.5	1360.6	1.1	1359.5	1360.6	1.1							1359.2	1360.2	1.0

Comments:

1 - 100-year (natural) Water Surface Elevation 2 - Encroachment (floodway) Water Surface Elevation 3 - Surcharge Value

Water Surface Elevation Check

Community Name: Phoenix, City of

Flooding Source: East Fork Cave Creek

Project name/Identifier: Upper East Fork Flood Control Improvements

	Effective			Duplicate Effective			Corrected Effective			Existing/Pre-Project			Revised/Project		
SECNO	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL	FCWSEL	SURC.	NCWSEL	FCWSEL	SURC.	NCWSEL	FCWSEL	SURC.	NCWSEL	FCWSEL	SURC.
5112.	1376.9	1376.9	.0	1376.9	1376.9	.0							1376.3	1376.3	.0

Comments:

1 - 100-year (natural) Water Surface Elevation 2 - Encroachment (floodway) Water Surface Elevation 3 - Surcharge Value

Water Surface Elevation Check

Community Name: Phoenix, City of

Flooding Source: East Fork Cave Creek

Project name/Identifier: Upper East Fork Flood Control Improvements

	Effective			Duplicate Effective			Corrected Effective			Existing/Pre-Project			Revised/Project		
SECNO	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL	FCWSEL	SURC.	NCWSEL	FCWSEL	SURC.	NCWSEL	FCWSEL	SURC.	NCWSEL	FCWSEL	SURC.
1600.	1361.9	1362.1	.2	1361.9	1362.1	.2							1361.6	1361.7	.1
2075.	1362.5	1362.6	.1	1362.5	1362.6	.1							1362.3	1362.4	.1
2600.	1363.7	1363.7	.0	1363.7	1363.7	.0							1363.4	1363.4	.0
3100.	1364.5	1364.5	.0	1364.5	1364.5	.0							1364.2	1364.2	.0
3650.	1365.6	1365.6	.0	1365.6	1365.6	.0							1365.3	1365.3	.0
3882.	1366.4	1366.4	.0	1366.4	1366.4	.0							1366.1	1366.1	.0
3974.	1365.3	1365.3	.0	1365.3	1365.3	.0							1365.2	1365.2	.0
3975.	1368.2	1368.2	.0	1368.2	1368.2	.0							1367.7	1367.7	.0
4082.6	1370.3	1370.3	.0	1370.3	1370.3	.0							1369.7	1369.7	.0
4083.6	1371.1	1371.1	.0	1371.1	1371.1	.0							1370.5	1370.5	.0
4098.6	1372.0	1372.0	.0	1372.0	1372.0	.0							1371.3	1371.3	.0
4099.	1372.7	1372.7	.0	1372.7	1372.7	.0							1372.4	1372.4	.0
4169.	1376.1	1376.1	.0	1376.1	1376.1	.0							1375.5	1375.5	.0
4370.	1376.3	1376.3	.0	1376.3	1376.3	.0							1375.7	1375.7	.0
4730.	1376.5	1376.5	.0	1376.5	1376.5	.0							1376.0	1376.0	.0

Comments:

1 - 100-year (natural) Water Surface Elevation 2 - Encroachment (floodway) Water Surface Elevation 3 - Surcharge Value

FEMA USE ONLY

FORM 6

CHANNELIZATION FORM

Community Name: Phoenix, City of

Flooding source: East Fork Cave Creek

Project Name/Identifier: Upper East Fork Flood Control Improvements

Extent of Channelization

Downstream limit: 7th Street

Upstream limit: Cave Creek Road

Channel Description

1. Describe the inlet to the channel Storm drain inlets at 9th Street, 12th Street 16th Street, 18th Street, 20th Street, and Cave Creek Road. Culvert and overland inflow at other points.

2. Briefly describe the shape of the channel (both cross sectional and planimetric configuration) and its lining (channel bottom and sides) See attached typical section.

3. Describe the outlet from the channel Channel discharges through 7th Street box culverts to existing downstream channel reach.

4. The channelization includes:

   - [ ] Levees
   - [ ] Drop structures
   - [ ] Superelevated sections
   - [x] Transitions in cross sectional geometry
   - [ ] Debris basin/detention basin
   - [ ] Energy dissipater
   - [ ] Other _____

5. Attach the following:

   a. Certified engineering drawings showing channel alignment and locations of inlet, outlet, and items checked in Item 4

   b. Typical cross sections and profiles of channel banks and invert

Hydraulic Considerations

1. What is the 100-year discharge? varies cfs

2. Do the cross sections in the hydraulic model match the typical cross sections in the plans? [X] Yes [ ] No

3. Are the channel banks higher than the 100-year flood elevations everywhere? [ ] Yes [X] No

4. Are the channel banks higher than the 100-year flood energy grade lines everywhere? [ ] Yes [X] No

5. Is the land on both sides of the channel above the adjacent 100-year flood elevation at all points along the channel? [ ] Yes [X] No

6. What is the range of freeboard? - feet

7. What is the range of the 100-year flood velocities? 4 - 16 ft/sec

8. What is the lining type? (both bottom and sides) Gabions & Concrete

   Explain how the channel lining prevents erosion and maintains channel stability (attach documentation) _____

9. What is the design elevation in the channel based on?:

   [X] Subcritical flow
   [X] Critical flow
   [ ] Supercritical flow
   [ ] Energy grade line

   Is 100-year flood profile based on the above type of flow? [X] Yes [ ] No

   If no, explain: _____

10. Is there the potential for a hydraulic jump at the following locations?

Inlet to channel	[ ] Yes	[X] No
Outlet of channel	[X] Yes	[ ] No
At Drop Structures (outlet)	[X] Yes	[ ] No
At Transitions	[ ] Yes	[X] No

Other location. Explain: _____

If the answer to any of the above is yes, please explain how the hydraulic jump is controlled and the effects of the hydraulic jump on the stability of the channel.

Explain: Channel outlet at 7th Street has two drops. One upstream of culvert and one downstream of culvert. Both are protected with concrete.

Sediment Transport Considerations

1. A. Is there any indication from historical records that sediment transport (including scour and deposition) can affect the 100-year water-surface elevations and/or the capacity of the channel?

   ☐ Yes ☒ No

   B. Based on the conditions of the watershed and stream bed, is there a potential for sediment transport (including scour and deposition) to affect the 100-year water-surface elevations and/or the capacity of the channel?

   ☐ Yes ☒ No

2. If the answer to either 1A or 1B is yes:

   A. What is the estimated sediment (bed) load?

   _____ cfs (attach gradation curve)

   Explain method used to estimate load _____

   _____

   _____

   _____

   _____

   B. Is the 100-year flood velocity anywhere within the channel less than the 100-year flood velocity of the inlet? ☐ Yes ☐ No

   C. Will sediment accumulate anywhere within the channel? ☐ Yes ☐ No

   D. Will deposition or scour occur at or near the inlet? ☐ Yes ☐ No

   E. Will deposition or scour occur at or near the outlet? ☐ Yes ☐ No

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FORM 7

BRIDGE/CULVERT FORM*

Community Name: Phoenix, City of
Flooding Source: East Fork Cave Creek
Project Name/Identifier: Upper East Fork Flood Control Improvements

Identifier

1. Name of roadway, railroad, etc.: 16th Street
2. Location of bridge/culvert along flooding source (in terms of stream distance or cross-section identifier): 183.96
3. This revision reflects (check one of the following):

   [X] New bridge/culvert not modeled in the FIS

   [ ] Modified bridge/culvert previously modeled in the FIS

   [ ] New bridge/culvert previously modeled in the FIS
   (Explain why new analysis was performed.) _____

Background

Provide the following information about the structure:

1. Dimension, material, and shape (e.g. two 10 x 5 feet reinforced concrete box culvert; three 30-foot span bridge with 2 rows of two 3-foot diameter circular piers; 40-foot wide ogee shape spillway)
   5 - 12' x 8' x 93.5' Box Culvert
2. Entrance geometry of culvert/ type of bridge opening (e.g. 30° - 75° wing walls with square top edge, sloping embankments and vertical abutments) 30° - 75° level wingwalls
3. Hydraulic model used to analyze the structure (e.g., HEC-2 with special bridge routine, WSPRO,HY8) HEC-2 normal bridge routine.

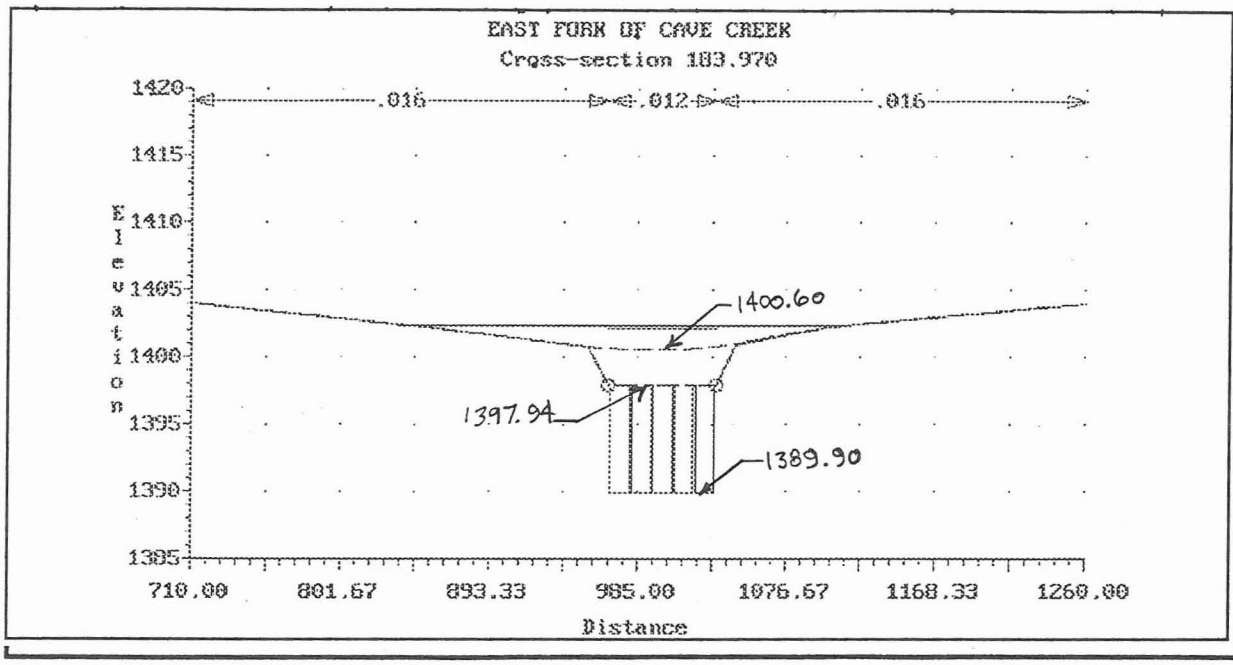
   If different than hydraulic analysis for the flooding source, justify why the hydraulic analysis used for the flooding source could not analyze the structure(s). (Attach explanation)

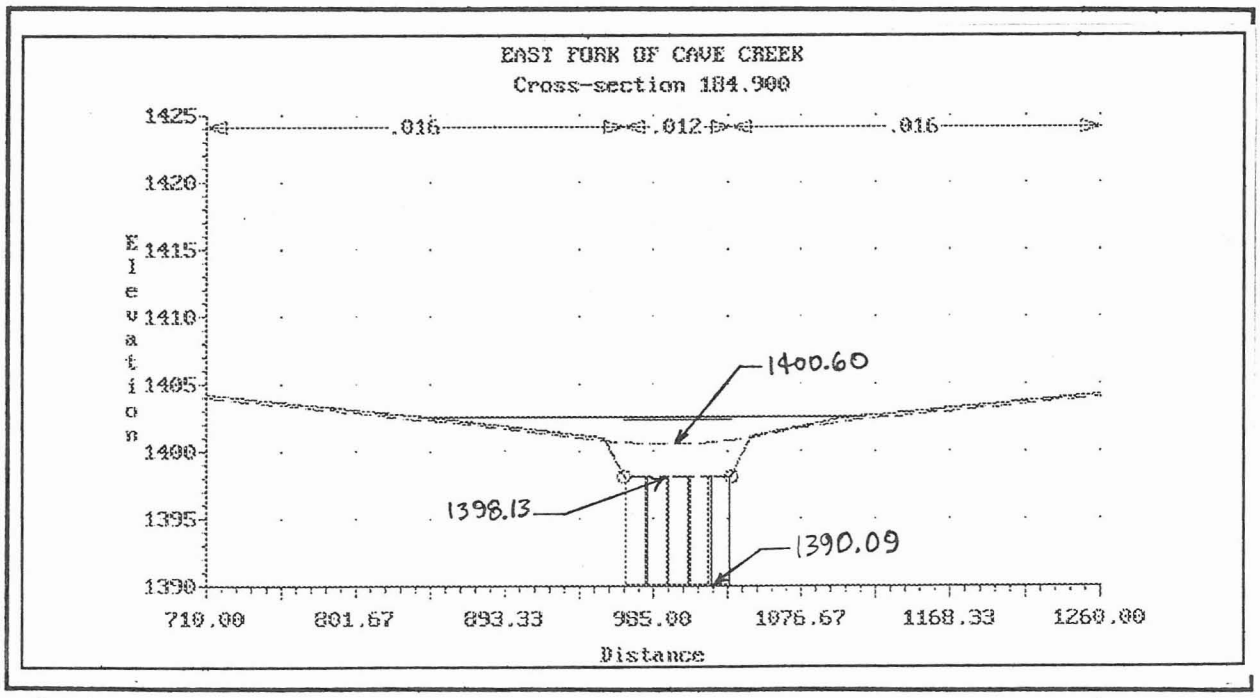
Note: If any items do not apply to submitted hydraulic analysis, indicate by N/A.

*One form per new/revised bridge/culvert

Analysis

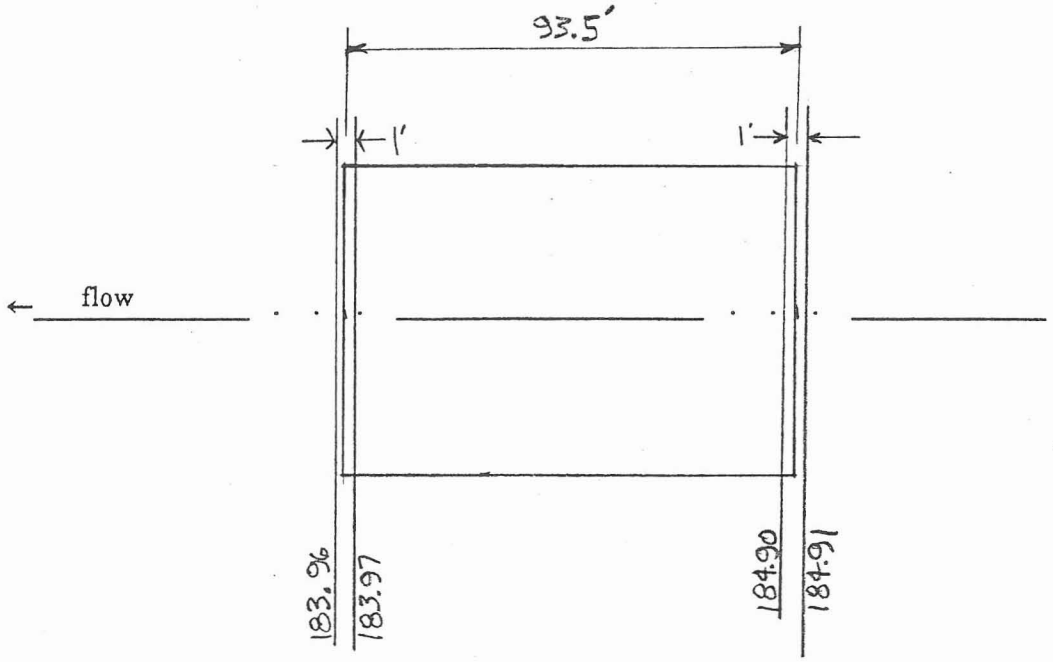
Sketch the downstream face of the structure together with the road profile. Show, at a minimum, the maximum low chord elevation, invert elevation, and minimum top of road elevation.





Analysis (Cont'd)

Sketch the plan view of the structure(s). Show, at a minimum, the skew angle, cross-section locations, distances between cross sections, and length of structure(s).



Attach plans of the structure(s) certified by a registered Professional Engineer.

Culvert length or bridge width (ft.)	93.5'
Calculated culvert/bridge area (ft^2) by the hydraulic model, if applicable	N/A
Total culvert/bridge area (ft^2)	480 ft^2

Analysis (Cont'd)

Elevations Above Which Flow is Effective for Overbanks

	ELLEA (X3.8) Left Overbank	ELREA (X3.9) Right Overbank
Upstream face	1400.7	1400.7
Downstream face	1400.7	1400.7

Minimum Top of Road Elevation

	Left Overbank	Right Overbank
Upstream face	1400.6	1400.6
Downstream face	1400.6	1400.6

100-Year Elevations

	Water-Surface Elevations	Energy Gradient Elevations
Upstream face	1403.0	1403.6
Downstream face	1402.5	1403.1

Discharge	Low Flow	Pressure Flow	Weir Flow	Total Flow
Amount of flow through/over the structure(s) (cfs)	N/A			
The maximum depth of flow over the roadway/ railroad (ft.)			2.4'	
Weir length (ft.)			N/A	

Top Widths

	Floodplain	Floodway
Upstream face	271	66.5
Downstream face	273	66.5

Top Widths

	Effective Flow	Effective and Ineffective Flow
Upstream face		
Downstream face		

Analysis (Cont'd)

Loss Coefficients

Entrance loss coefficient ENTLC (SC.2)	
Manning's "n" value assigned to the structure(s)	.012
Friction loss coefficient through structure(s)	
Other loss coefficients (e.g., bend, manhole, etc.)	
Total loss coefficient XKOR(SB.2)	
Weir coefficient COFQ (SB.3)	
Pier coefficient XK (SB.1)	
Contraction loss coefficient	0.3
Expansion loss coefficient	0.5

Sediment Transport Considerations

1. A. Is there any indication from historical records that sediment transport (including scour and deposition) can affect the 100-year water-surface elevations?

   ☐ Yes ☒ No

   B. Based on the conditions (such as geomorphology, vegetative cover and development of the watershed and stream bed, and bank conditions), is there a potential for debris and sediment transport (including scour and deposition) to affect the 100-year water-surface elevations and/or conveyance capacity through the bridge/culvert?

   ☐ Yes ☒ No

2. If the answer to either 1A or 1B is yes:

   A. What is the estimated sediment (bed material) load?

   _____ cfs (attach gradation curve)

   Explain method used to estimate the sediment transport and the depth of scour and/or deposition _____

   B. Will sediment accumulate anywhere through the bridge/culvert?

   ☐ Yes ☐ No

   If yes, explain what is the impact on the conveyance capacity through the bridge/culvert? _____

Analysis (Cont'd)

Floodway Analysis

Explain method of bridge encroachment
(floodway run) Encroachment stations set at ends of box culvert using method 1.

Comments (explain any unusual situations):

Attach analysis

FEMA USE ONLY

FORM 7

BRIDGE/CULVERT FORM*

Community Name: Phoenix, City of
Flooding Source: East Fork Cave Creek
Project Name/Identifier: Upper East Fork Flood Control Improvements

Identifier

1. Name of roadway, railroad, etc.: 20th Street
2. Location of bridge/culvert along flooding source (in terms of stream distance or cross-section identifier): 213.91
3. This revision reflects (check one of the following):

   ☒ New bridge/culvert not modeled in the FIS

   ☐ Modified bridge/culvert previously modeled in the FIS

   ☐ New bridge/culvert previously modeled in the FIS
   (Explain why new analysis was performed.) _____

Background

Provide the following information about the structure:

1. Dimension, material, and shape (e.g. two 10 x 5 feet reinforced concrete box culvert; three 30-foot span bridge with 2 rows of two 3-foot diameter circular piers; 40-foot wide ogee shape spillway)
   4 - 12' x 9' x 70' Box Culvert
2. Entrance geometry of culvert/ type of bridge opening (e.g. 30° - 75° wing walls with square top edge, sloping embankments and vertical abutments) 30° - 75° level wingwalls
3. Hydraulic model used to analyze the structure (e.g., HEC-2 with special bridge routine, WSPRO,HY8) HEC-2 normal bridge routine

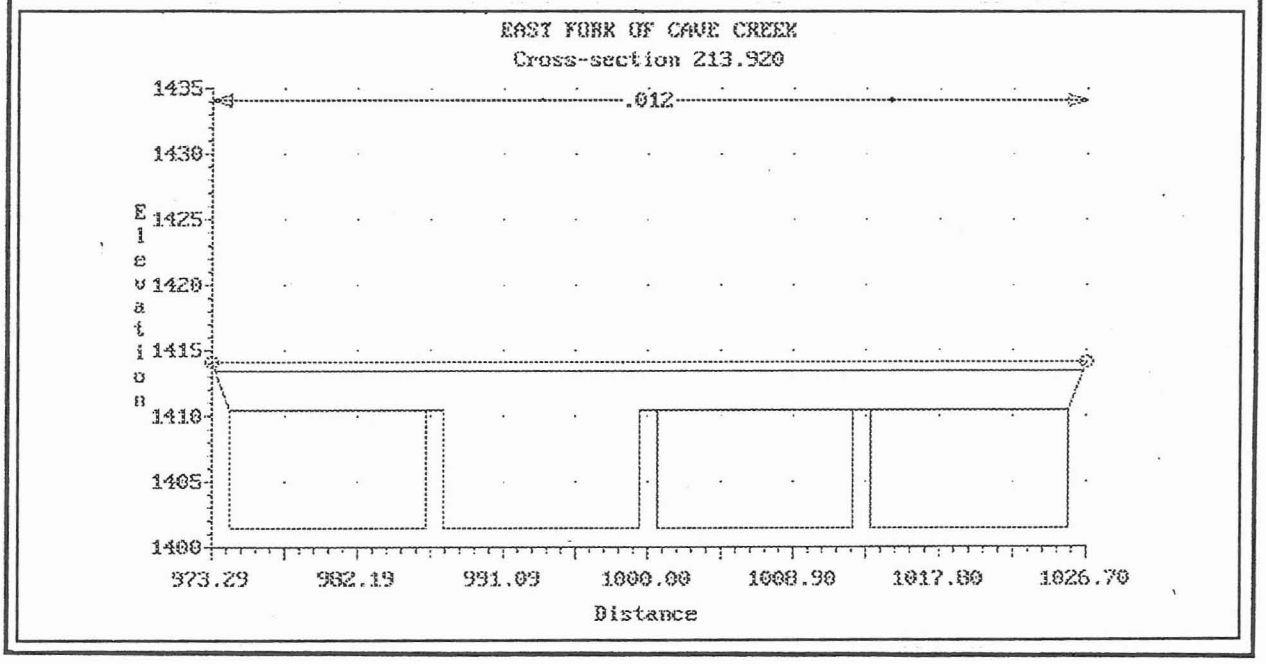
   If different than hydraulic analysis for the flooding source, justify why the hydraulic analysis used for the flooding source could not analyze the structure(s). (Attach explanation)

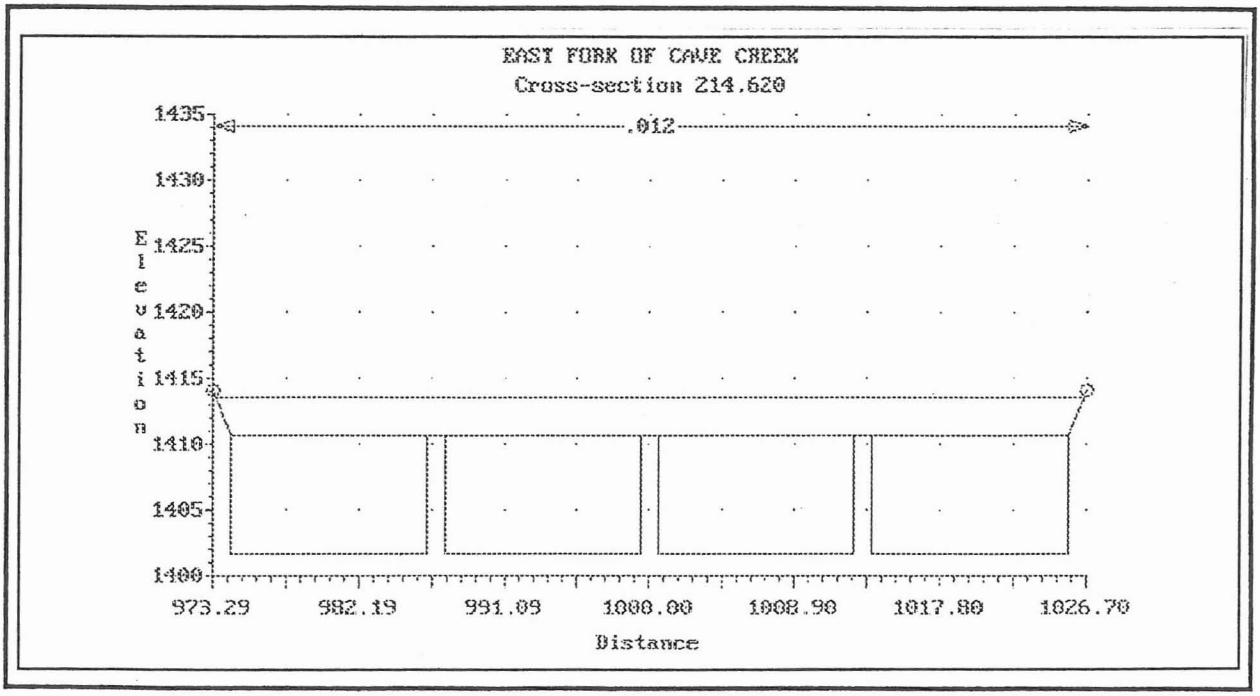
Note: If any items do not apply to submitted hydraulic analysis, indicate by N/A

*One form per new/revised bridge/culvert

Analysis

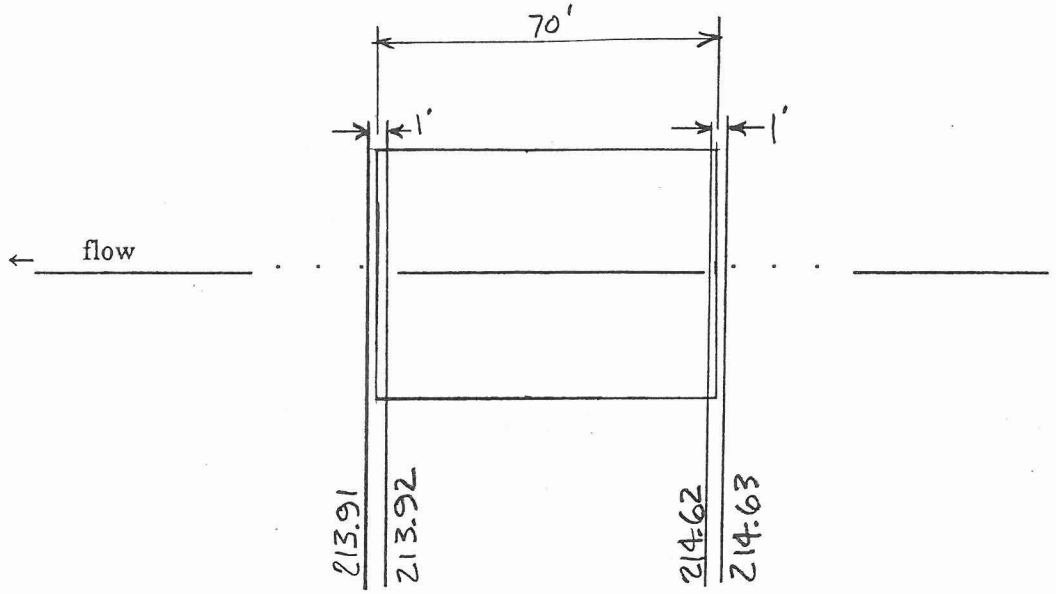
Sketch the downstream face of the structure together with the road profile. Show, at a minimum, the maximum low chord elevation, invert elevation, and minimum top of road elevation.





Analysis (Cont'd)

Sketch the plan view of the structure(s). Show, at a minimum, the skew angle, cross-section locations, distances between cross sections, and length of structure(s).



Attach plans of the structure(s) certified by a registered Professional Engineer.

Culvert length or bridge width (ft.)	70'
Calculated culvert/bridge area (ft^2) by the hydraulic model, if applicable	N/A
Total culvert/bridge area (ft^2)	432 ft^2

Analysis (Cont'd)

Elevations Above Which Flow is Effective for Overbanks

	Left Overbank	Right Overbank
Upstream face	1414.1	1414.1
Downstream face	1414.1	1414.1

Minimum Top of Road Elevation

	Left Overbank	Right Overbank
Upstream face	1414.1	1414.1
Downstream face	1414.1	1414.1

100-Year Elevations

	Water-Surface Elevations	Energy Gradient Elevations
Upstream face	1414.6	1415.1
Downstream face	1413.8	1414.4

Discharge	Low Flow	Pressure Flow	Weir Flow	Total Flow
Amount of flow through/over the structure(s) (cfs)	N/A			
The maximum depth of flow over the roadway/ railroad (ft.)			0.5'	
Weir length (ft.)			N/A	

Top Widths

	Floodplain	Floodway
Upstream face	53	53
Downstream face	53	53

Top Widths

	Effective Flow	Effective and Ineffective Flow
Upstream face		
Downstream face		

Analysis (Cont'd)

Loss Coefficients

Entrance loss coefficient	
Manning's "n" value assigned to the structure(s)	.012
Friction loss coefficient through structure(s)	
Other loss coefficients (e.g., bend, manhole, etc.)	
Total loss coefficient	
Weir coefficient	
Pier coefficient	
Contraction loss coefficient	0.3
Expansion loss coefficient	0.5

Sediment Transport Considerations

1. A. Is there any indication from historical records that sediment transport (including scour and deposition) can affect the 100-year water-surface elevations?

   ☐ Yes ☒ No

   B. Based on the conditions (such as geomorphology, vegetative cover and development of the watershed and stream bed, and bank conditions), is there a potential for debris and sediment transport (including scour and deposition) to affect the 100-year water-surface elevations and/or conveyance capacity through the bridge/culvert?

   ☐ Yes ☒ No

2. If the answer to either 1A or 1B is yes:

   A. What is the estimated sediment (bed material) load?

   _____ cfs (attach gradation curve)

   Explain method used to estimate the sediment transport and the depth of scour and/or deposition _____

   B. Will sediment accumulate anywhere through the bridge/culvert?

   ☐ Yes ☐ No

   If yes, explain what is the impact on the conveyance capacity through the bridge/culvert? _____

BRIDGE/CULVERT FORM

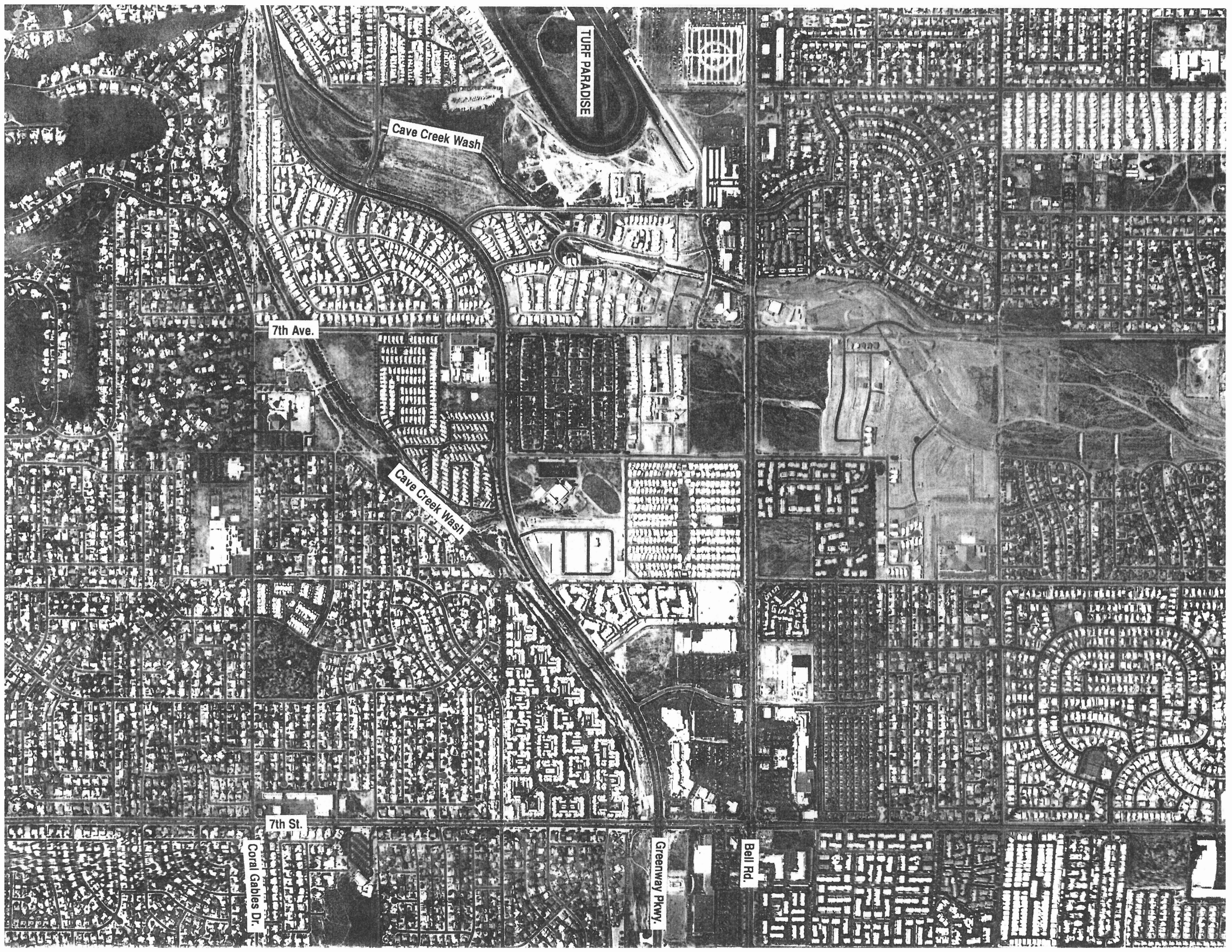
Analysis (Cont'd)

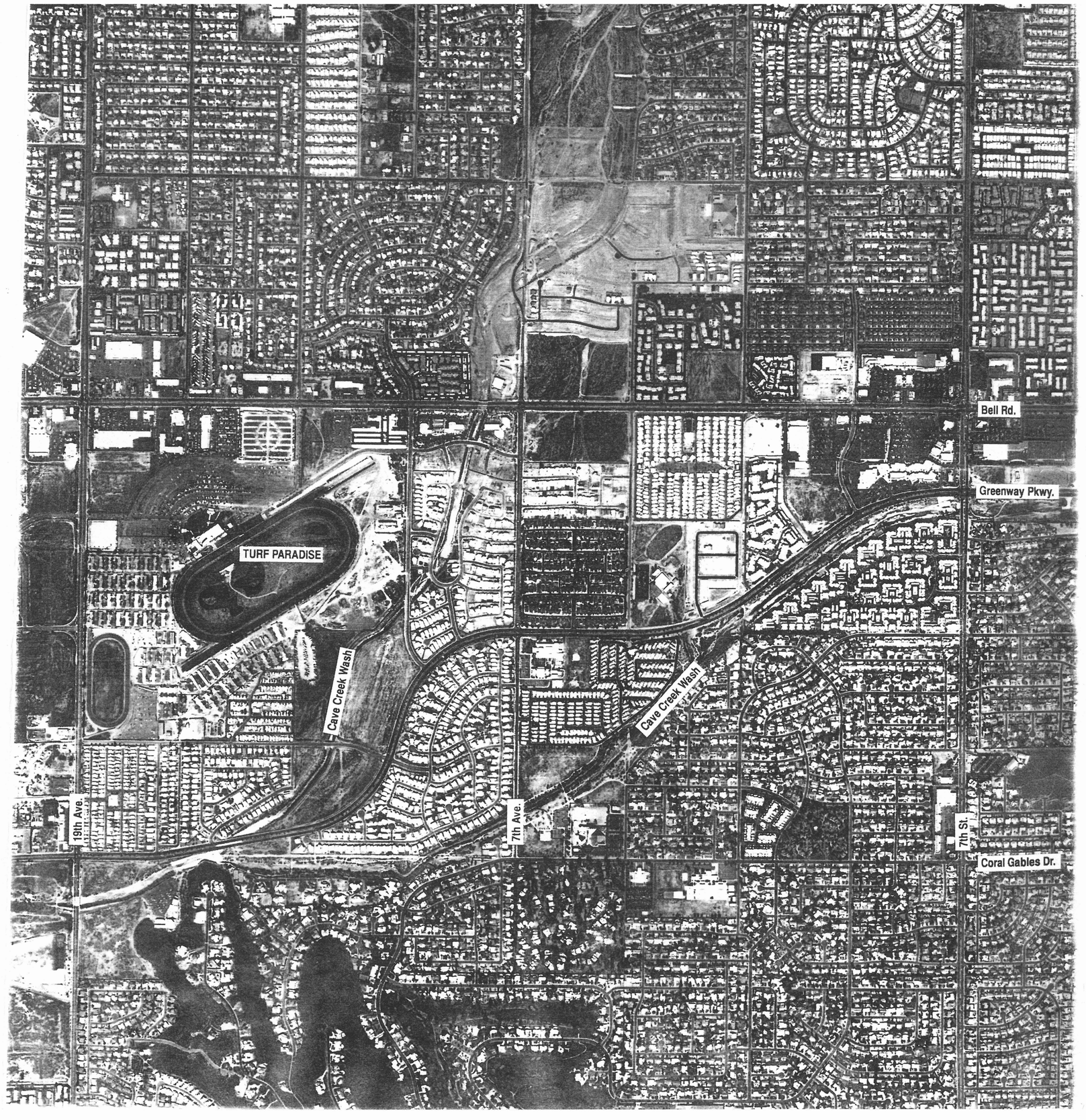
Floodway Analysis

Explain method of bridge encroachment
(floodway run) Encroachment stations set at ends of box culvert using method 1.

Comments (explain any unusual situations):

Attach analysis

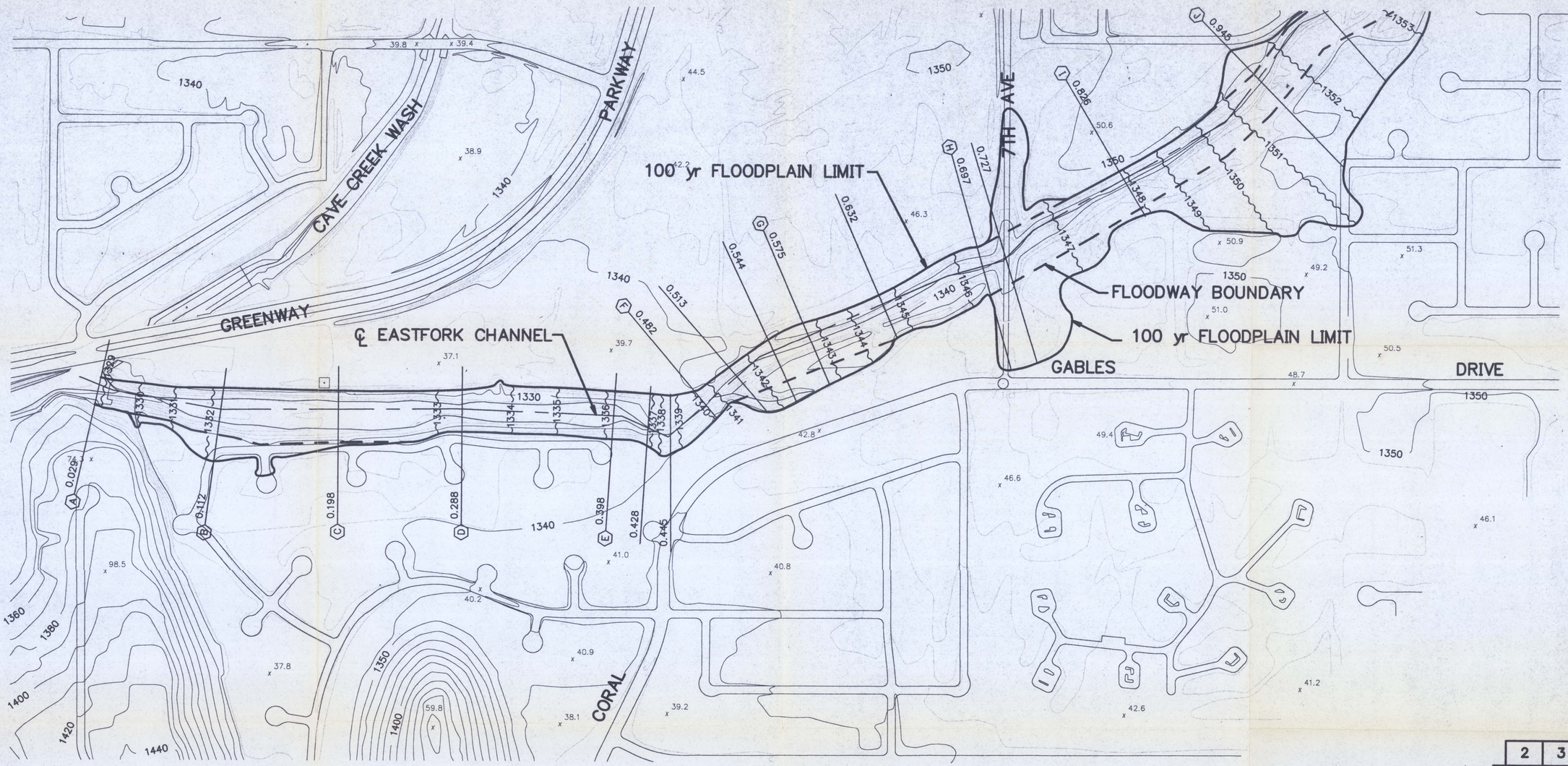

TURF PARADISE
Cave Creek Wash
7th Ave.
Cave Creek Wash
7th St.
Coral Gables Dr.
Greenway Pkwy.
Bell Rd.



J·16

K·15 K·16 K·17

L·16



2	3	4
1		

0 200 400 600
SCALE FEET

LEGEND

———	100 yr FLOODPLAIN LIMIT
— — —	FLOODWAY BOUNDARY
~1234~	BASE FLOOD ELEVATION
1234	CROSS SECTION

Registered Professional Engineer (Civil) 24684 BRIAN J. FRY Date Signed 3-23-93 ARIZONA, U.S.A.

PREPARED FOR
CITY OF PHOENIX
ARIZONA
ENGINEERING DEPARTMENT

NBS/LOWRY
ENGINEERS & PLANNERS
2600 North 44th Street, Ste. 100
Phoenix, Arizona 85008-1599
(602) 468-1688 FAX 956-4538

UPPER EAST FORK CAVE CREEK
FEMA CLOMR SUBMITTAL
CAVE CREEK WASH TO CAVE CREEK ROAD

FIGURE 8
FLOOD BOUNDARY AND FLOODWAY MAP

DES. SAY	DR SAY	CK.	SHEET NO.	TOTAL SHEETS
DATE 12/92	DATE 12/92	DATE	1	4
SCALE: 1"=	200'	HORIZONTAL		
	N/A	VERTICAL		

NBS/LOWRY PROJECT NO. P79-086-016 REV. 12/18/92

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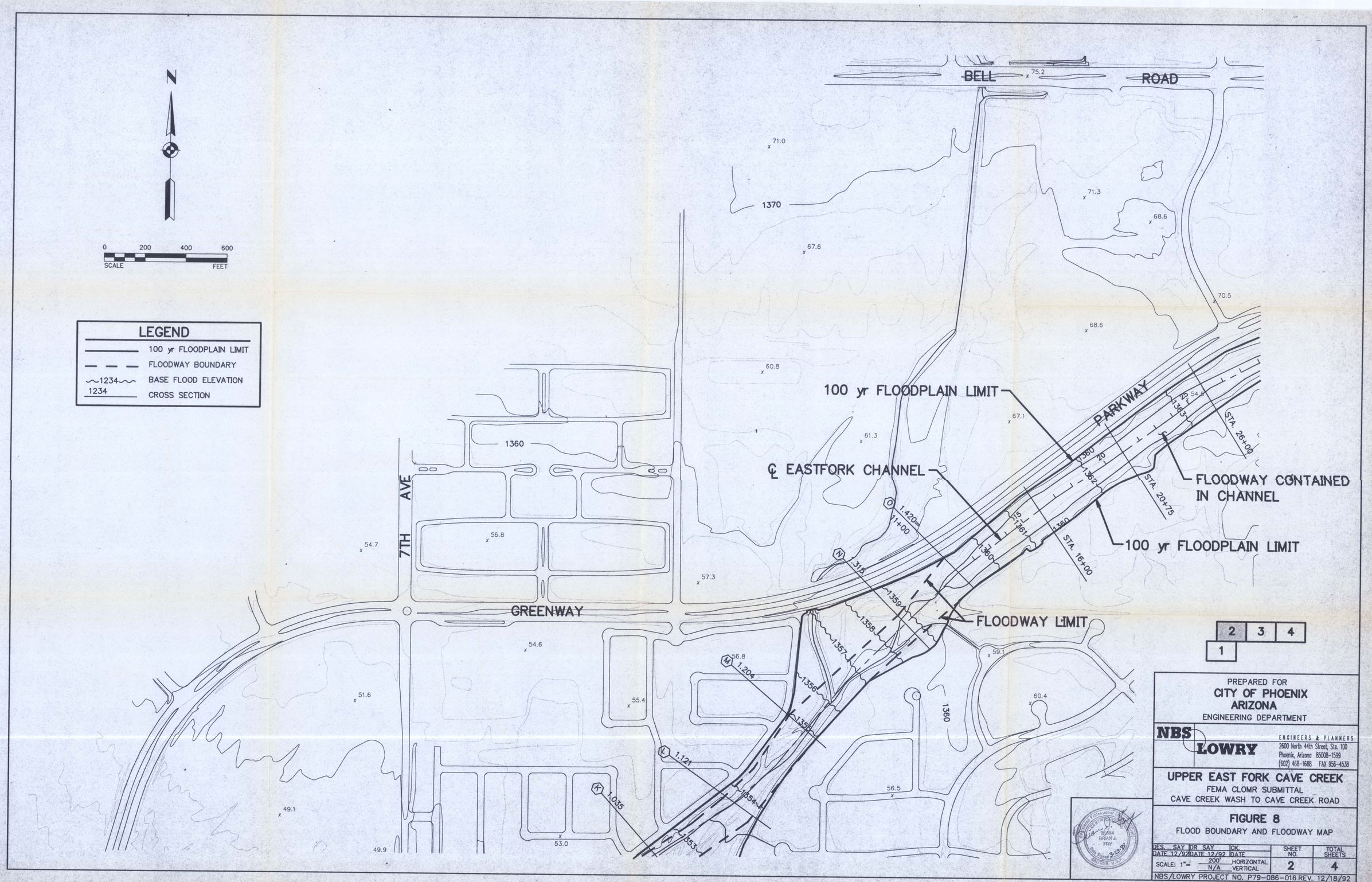

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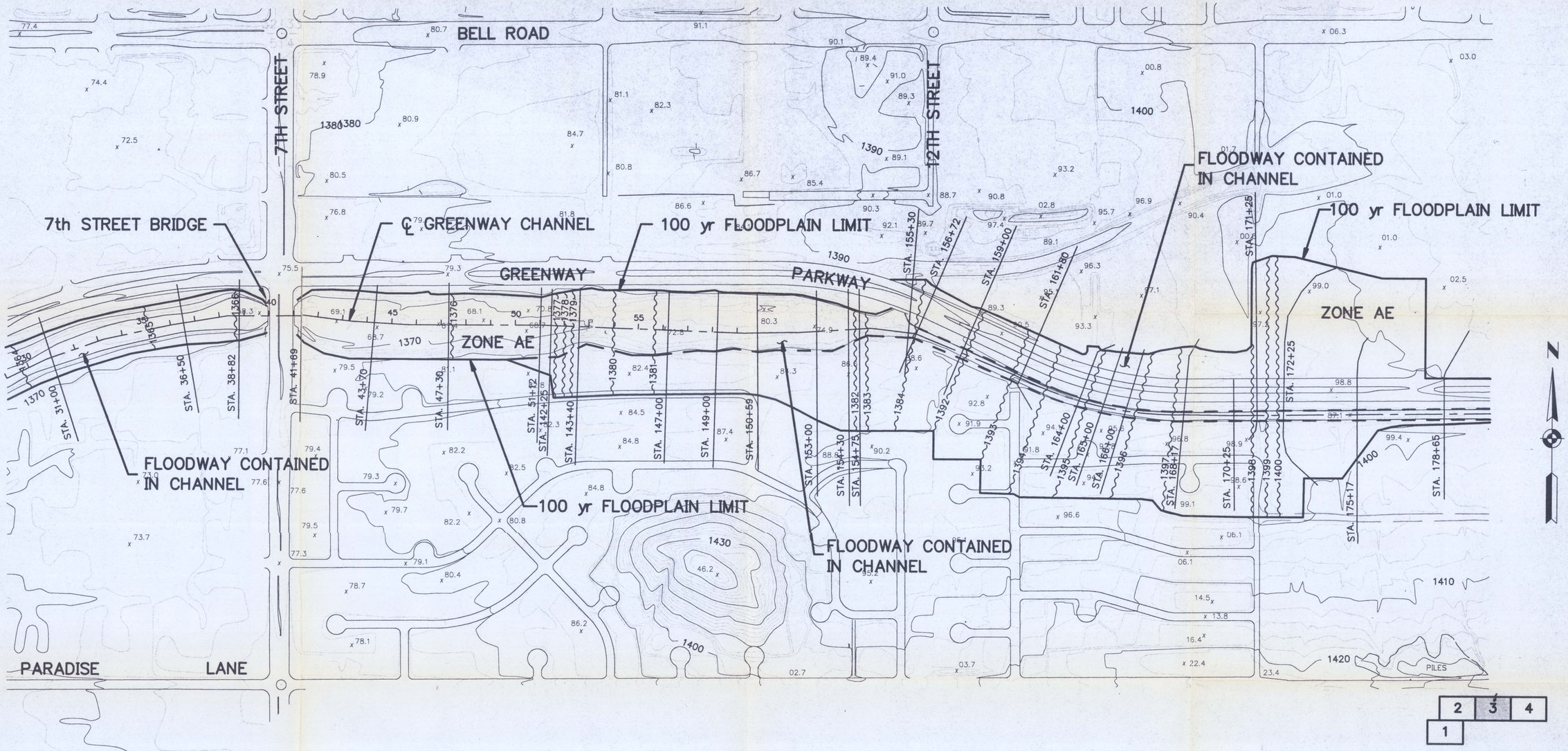

2	3	4
1		

0 200 400 600
SCALE FEET

LEGEND

- 100 yr FLOODPLAIN LIMIT
- FLOODWAY BOUNDARY
- 1234 BASE FLOOD ELEVATION
- 1234 CROSS SECTION

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UPPER EAST FORK CAVE CREEK

FEMA CLOMR SUBMITTAL
CAVE CREEK WASH TO CAVE CREEK ROAD

FIGURE 8

FLOOD BOUNDARY AND FLOODWAY MAP

DES. SAY	DR SAY	CK.	SHEET NO.	TOTAL SHEETS
DATE 12/92	DATE 12/92	DATE	3	4
SCALE: 1"= 200' HORIZONTAL				
N/A VERTICAL				

NBS/LOWRY PROJECT NO. P79-086-016 REV. 12/18/92

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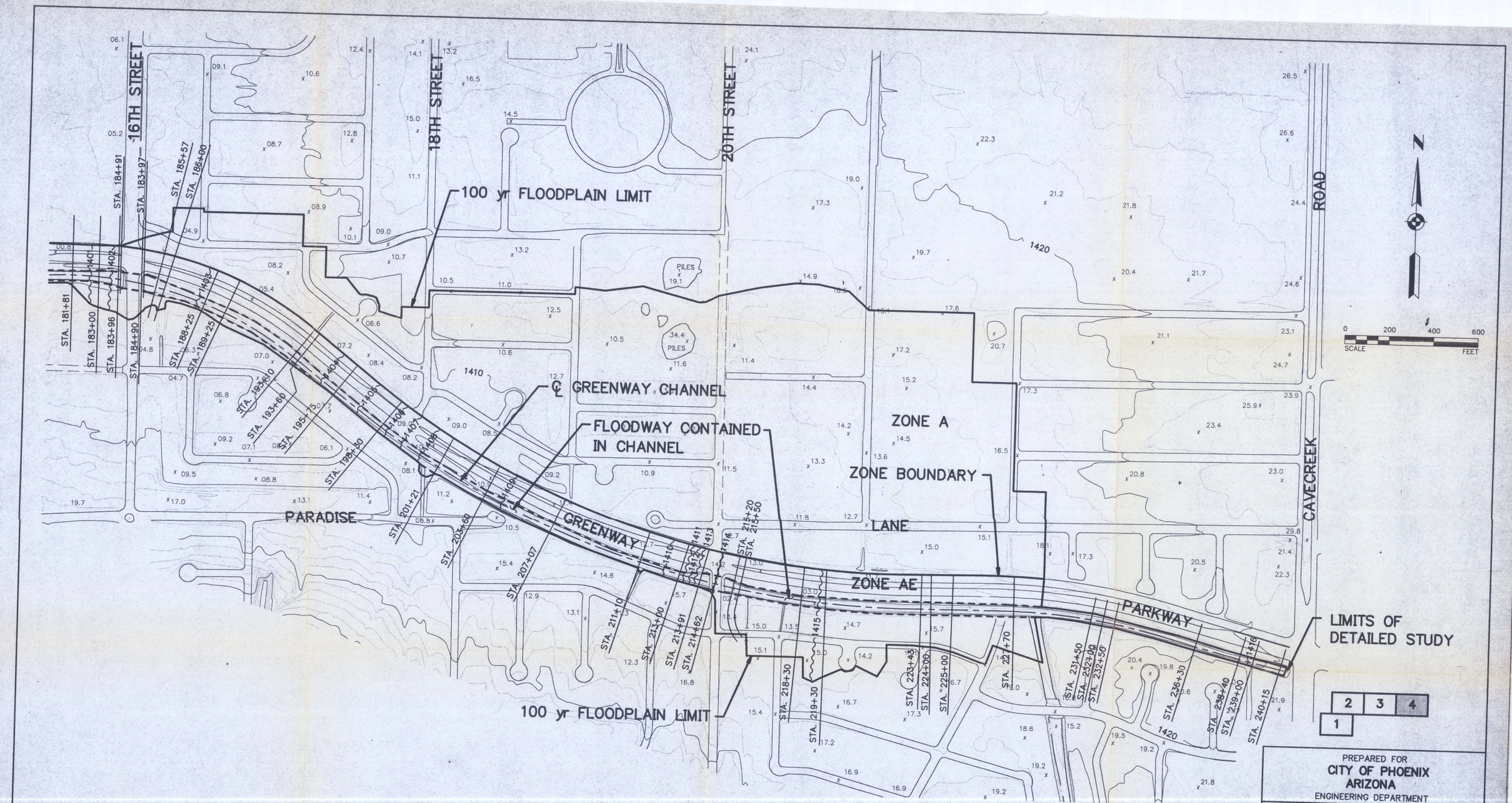

2	3	4
1		

LEGEND

- 100 yr FLOODPLAIN LIMIT
- FLOODWAY BOUNDARY
- 1234 BASE FLOOD ELEVATION
- 1234 CROSS SECTION

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UPPER EAST FORK CAVE CREEK
FEMA CLOMR SUBMITTAL
CAVE CREEK WASH TO CAVE CREEK ROAD

FIGURE 8
FLOOD BOUNDARY AND FLOODWAY MAP

DES. SAY	DR SAY	CK.	SHEET NO.	TOTAL SHEETS
DATE 12/92	DATE 12/92	DATE	4	4
SCALE: 1"= 200'		HORIZONTAL		
N/A		VERTICAL		

E:\PROJECTS\FEMA\FEMA4.dwg 03/16/93 09:27 SAY

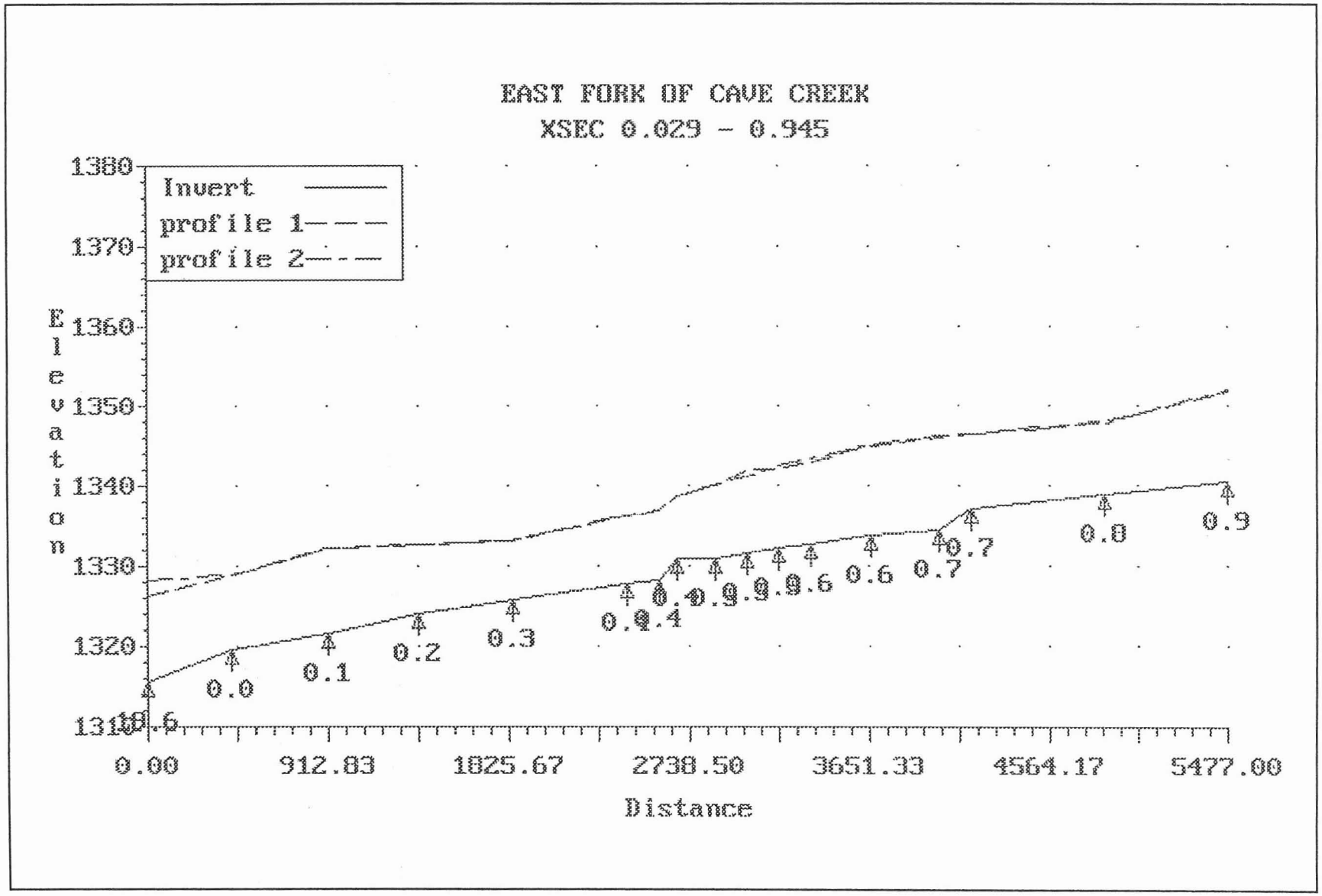
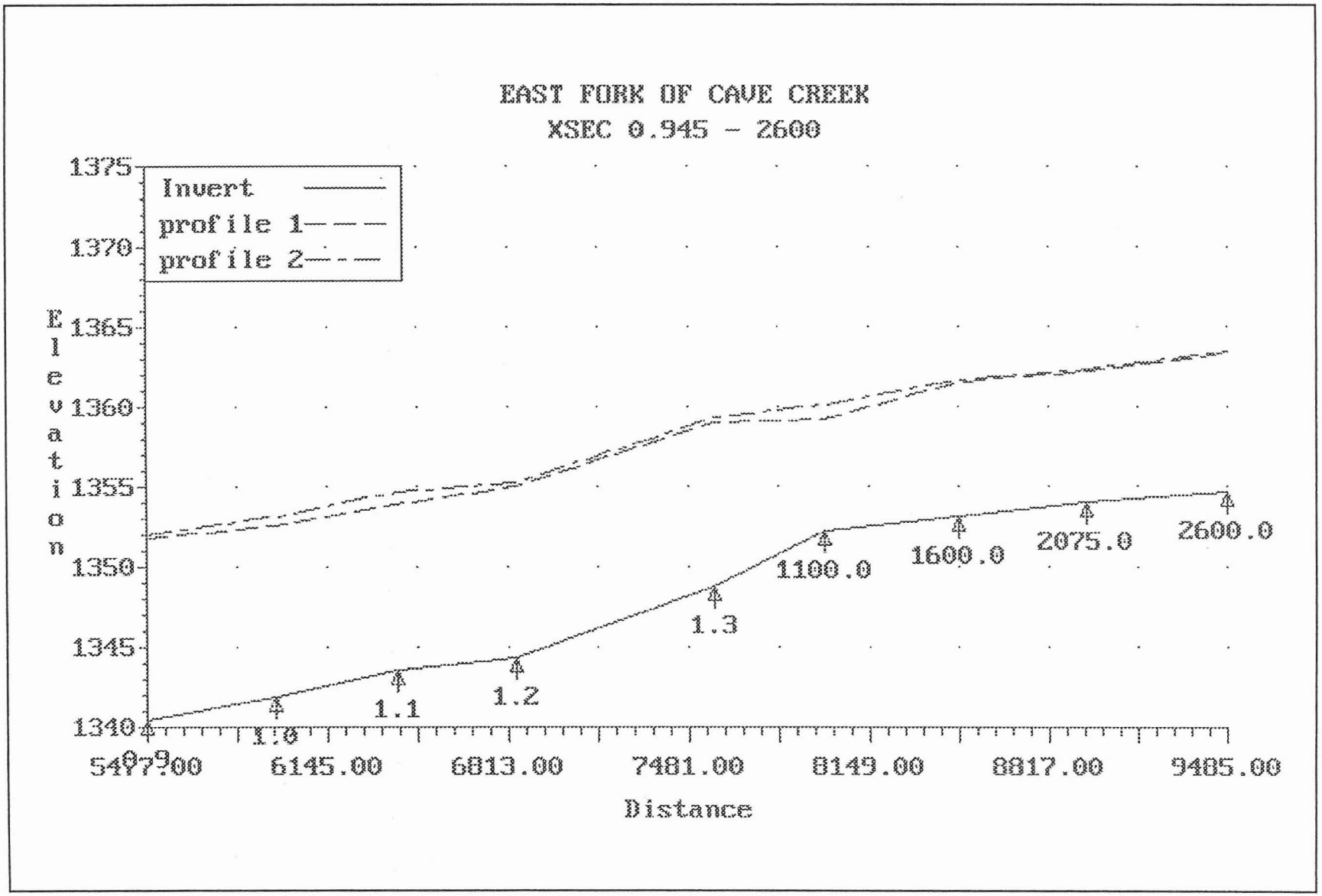
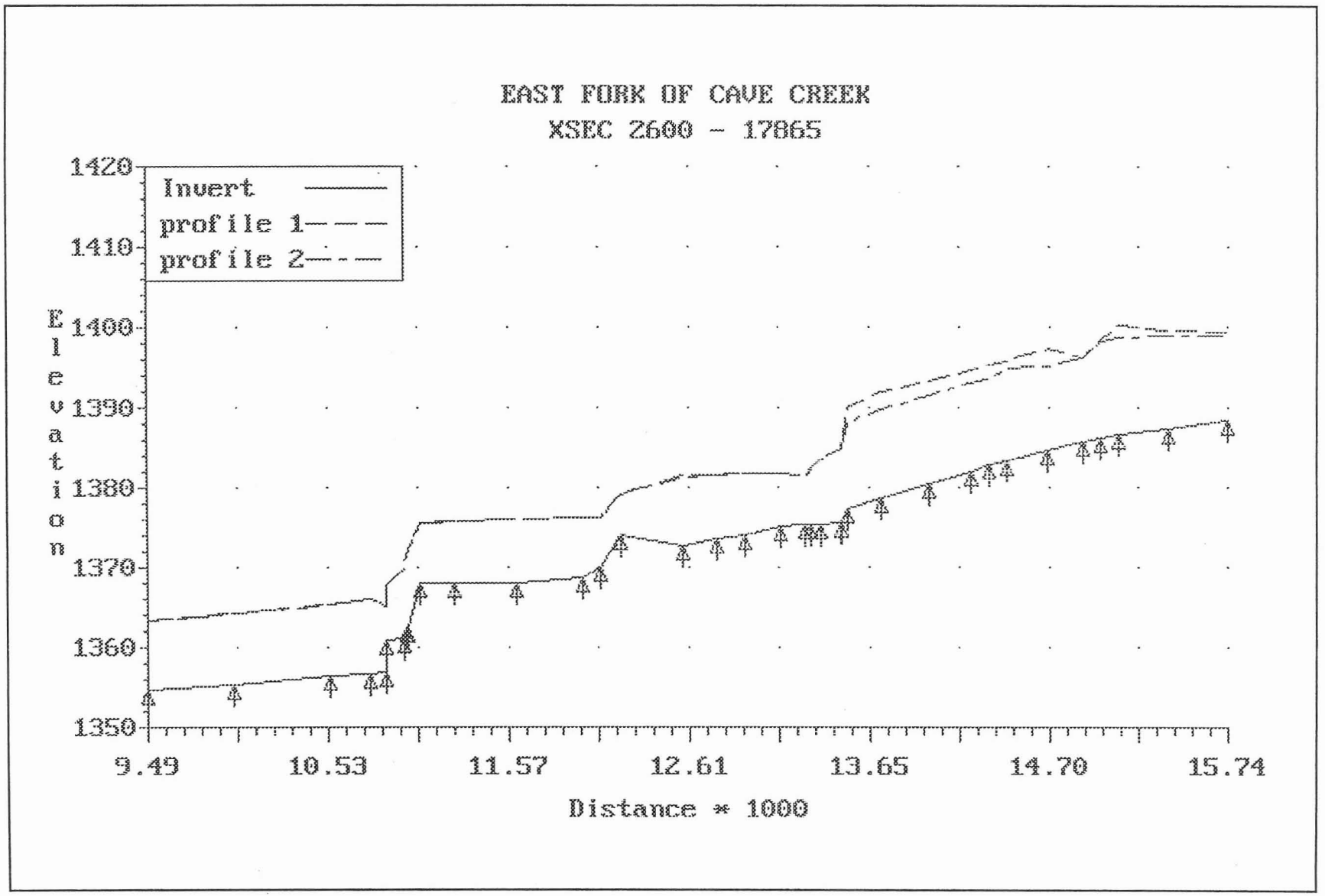
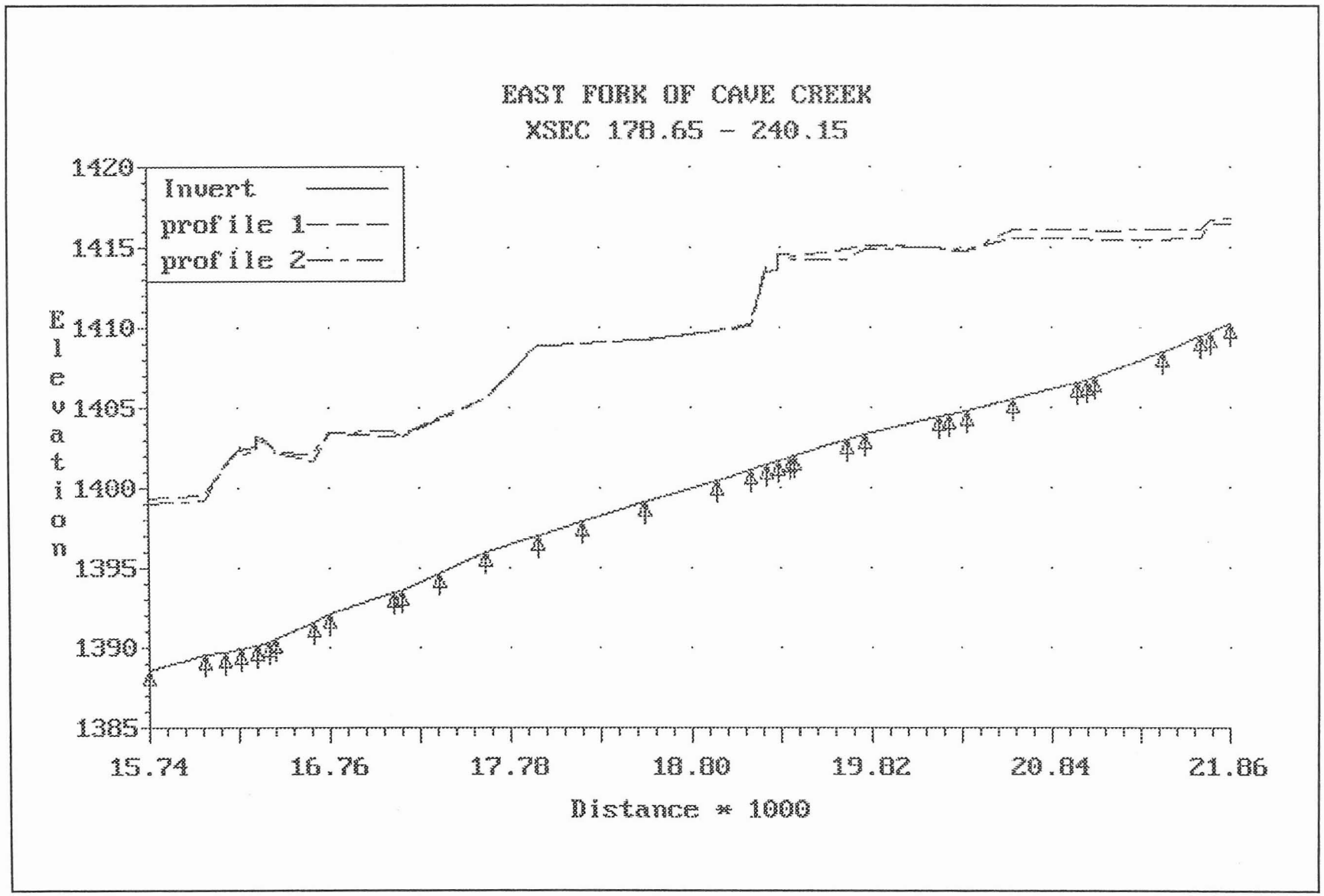

EAST FORK OF CAVE CREEK
XSEC 0.029 - 0.945
Invert
profile 1
profile 2
Elevation
1380
1370
1360
1350
1340
1330
1320
1310
0.0
0.1
0.2
0.3
0.4
0.6
0.7
0.8
0.9
0.00
912.83
1825.67
2738.50
3651.33
4564.17
5477.00
Distance

FIGURE 9


EAST FORK OF CAVE CREEK
XSEC 0.945 - 2600
Invert
profile 1
profile 2
Elevation
1375
1370
1365
1360
1355
1350
1345
1340
1.0
1.1
1.2
1.3
1100.0
1600.0
2075.0
2600.0
5497.00
6145.00
6813.00
7481.00
8149.00
8817.00
9485.00
Distance


EAST FORK OF CAVE CREEK
XSEC 2600 - 17865
Invert
profile 1
profile 2
Elevation
1420
1410
1400
1390
1380
1370
1360
1350
9.49
10.53
11.57
12.61
13.65
14.70
15.74
Distance * 1000


EAST FORK OF CAVE CREEK
XSEC 178.65 - 240.15
Invert
profile 1
profile 2
Elevation
1420
1415
1410
1405
1400
1395
1390
1385
15.74
16.76
17.78
18.80
19.82
20.84
21.86
Distance * 1000

Cave Creek Road and John Cabot Road. With the improvements reported in this submittal the flow is diverted from Cave Creek Road and John Cabot Road. Detention Basin 3 collects the runoff and effects peak discharge attenuation. Detention Basin 3 discharges into a stormdrain system flowing south in 20th Street to Bell Road. The flow is split at Bell Road. A portion is diverted west along Bell Road to 18th Street and down 18th Street to the Greenway Channel. The remainder of the flow continues south in 20th Street to the Greenway Channel. Because the flow conveyed in the stormdrain system is the flow which makes up the effective FIS, hydraulic calculations are included to substantiate the elimination of the Zone A designation and to show that the flow can be safely conveyed and discharged into the Greenway Channel.

Storm Plus Model

Storm Plus is a hydraulic analysis system developed by the Design Systems and Standards Group of the Design Division and the Data Processing Section of the Business and Fiscal Division of the Los Angeles County Flood Control District.

The program computes and plots uniform and nonuniform steady flow water surface profiles and pressure gradients in open channels or closed conduits with irregular or regular sections. The flow in a system may alternate between super critical, subcritical or pressure flow in any sequence. The program will also analyze natural river channels although the principle use of the program is intended for determining profiles in improved flood control systems.

The 18th and 20th Street stormdrains are input based on the construction plans and analyzed for the 100 year peak discharge only. The stormdrain was sized to convey the Detention Basin 3 outlet discharge to the Greenway Channel. Additional capacity was not added downstream to allow runoff generated downstream of the basin to enter the system. The design discharge for the hydraulic grade line analysis is from the hydrologic analysis discussed in Section IV.

Downstream Conditions

The starting hydraulic grade line elevation for the stormdrain analysis is taken as the 100 year water surface elevation from the HEC-2 runs for the Greenway Channel. The 100-year peak discharge was used for the starting grade line elevation regardless of hydrograph timing.

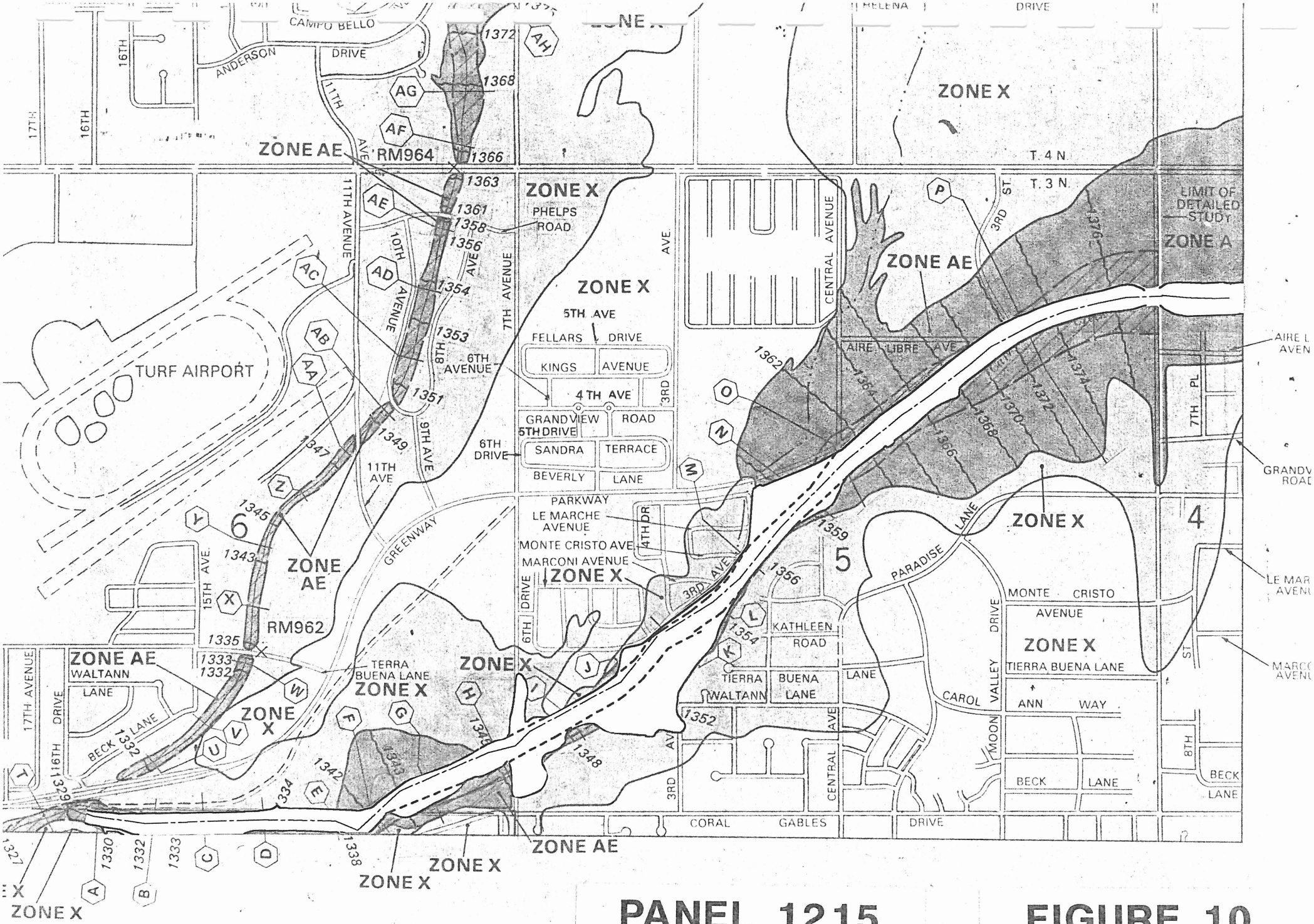
Results

The Storm Plus input and output listings are contained in **Appendix B** for the 100 year peak discharges. The Detention basin discharge is conveyed to the Greenway Channel within the stormdrain system.

VI. REVISED FLOODPLAIN BOUNDARIES AND FLOODWAY DELINEATION

The revised floodplain delineation resulting from the discharges generated in the new hydrologic analysis and from the new hydraulic analysis are shown on **Figure 10**, plotted on the current Flood Insurance Rate Map (FIRM).

There is an area of shallow overland flow between 16th Street and 22nd Street north of the Greenway Channel. The natural ground elevation is lower than the 100 year water surface elevation in the channel and is blocked from entering the channel by the elevated Greenway Parkway and block fences along the right-of-way line. The affected area is delineated on the FIRM and designated as Zone A.

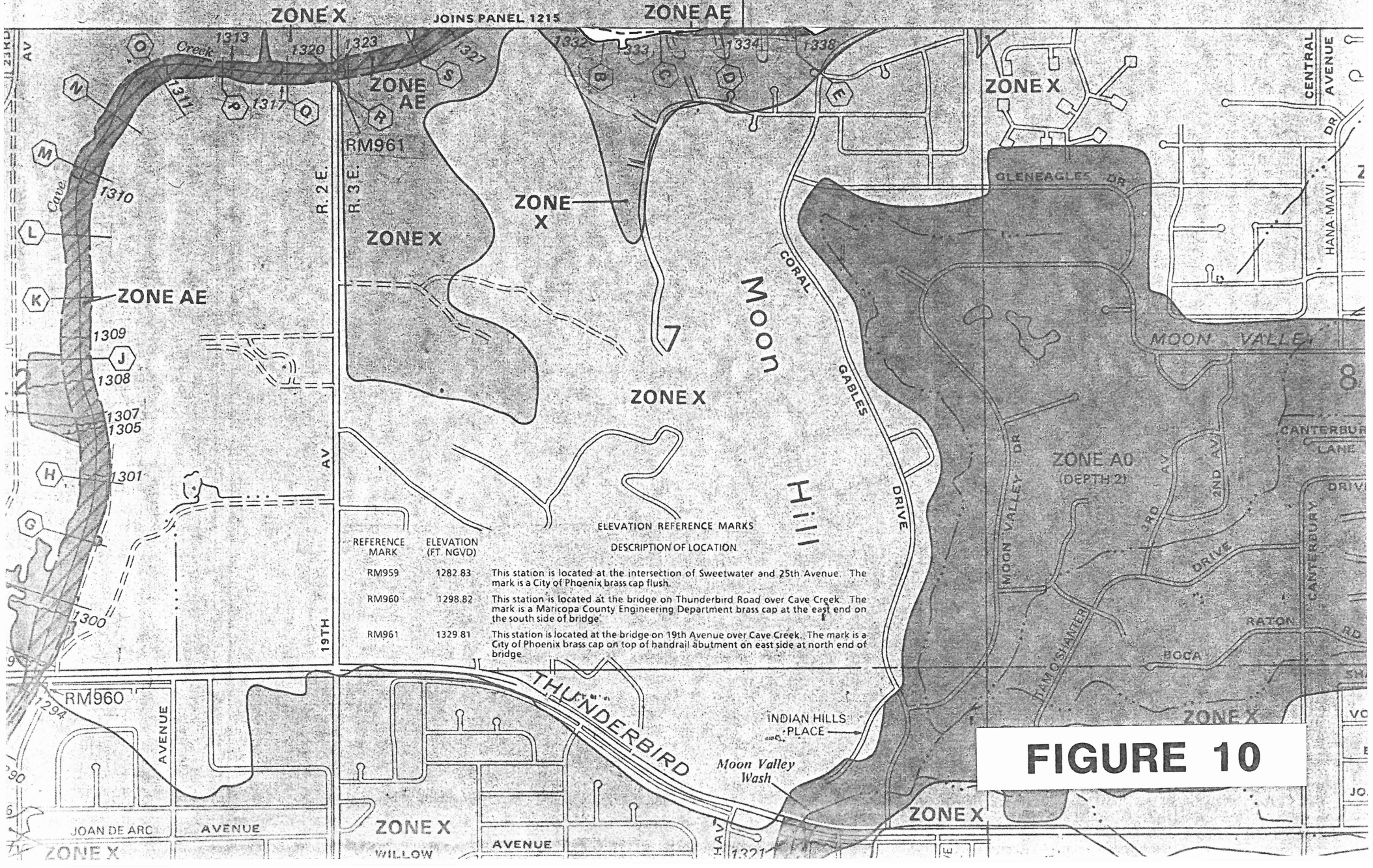


PANEL 1215

FIGURE 10

PANEL 1655

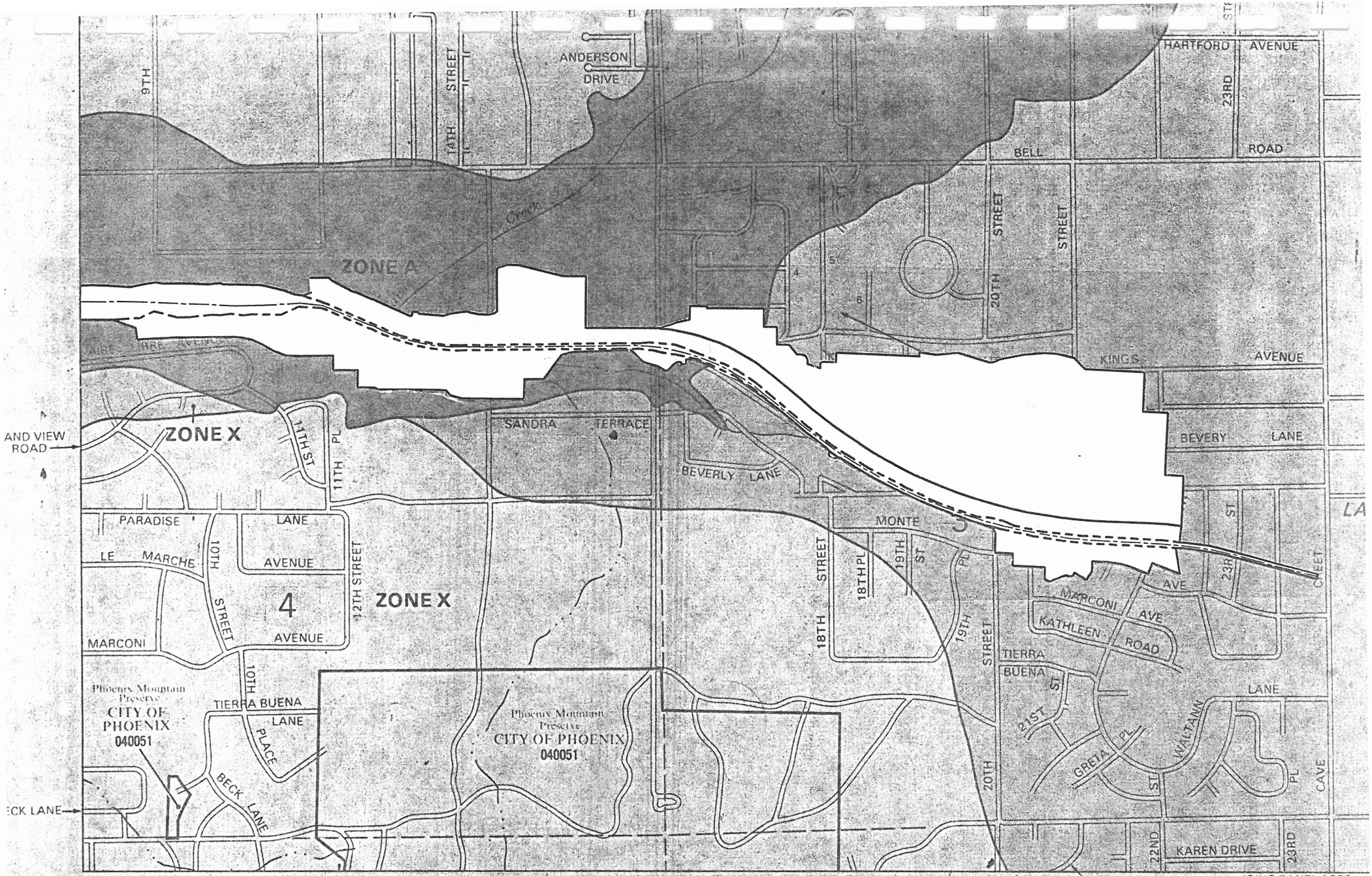
FLOODING EFFECTS FROM EAST FORK CAVE CREEK



ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FT. NGVD)	DESCRIPTION OF LOCATION
RM959	1282.83	This station is located at the intersection of Sweetwater and 25th Avenue. The mark is a City of Phoenix brass cap flush.
RM960	1298.82	This station is located at the bridge on Thunderbird Road over Cave Creek. The mark is a Maricopa County Engineering Department brass cap at the east end on the south side of bridge.
RM961	1329.81	This station is located at the bridge on 19th Avenue over Cave Creek. The mark is a City of Phoenix brass cap on top of handrail abutment on east side at north end of bridge.

FIGURE 10



ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FT. NGVD)	DESCRIPTION OF LOCATION
RM971	1481.53	This station is located mark is a City of Phoe 21, T4N, R3E.

PANEL 1220

FIGURE 10

ON THIS PANEL IS AND TOWNSHIP 4

```
******************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY******************

JOB TR-20                                          SUMMARY   NOPLOTS
TITLE 000 CAVE CREEK - ADMS HYDROLOGY
TITLE 000 EXISTING CONDITIONS
 5 RAINFL 1            .0208
 8         0.          .004       .008       .0130      .018
 8         .022        .026       .031       .035       .04
 8         .044        .048       .053       .057       .062
 8         .066        .071       .075       .080       .093
 8         .107        .120       .140       .170       .500
 8         .830        .860       .880       .893       .907
 8         .920        .924       .928       .933       .937
 8         .942        .947       .951       .956       .960
 8         .964        .969       .973       .978       .982
 8         .987        .991       .995       1.00       1.00
 9 ENDTBL
 2 XSECTN   006        1.0
 8                     1502.      0.0        0.0
 8                     1502.4     3.7        2.1
 8                     1502.8     13.3       5.1
 8                     1503.2     29.5       9.1
 8                     1503.6     53.4       14.1
 8                     1504.0     85.8       20.0
 8                     1504.4     100.7      30.8
 8                     1504.8     169.0      50.3
 8                     1505.2     289.0      78.5
 8                     1505.6     469.8      115.4
 8                     1506.0     470.9      161.1
 8                     1506.4     952.6      295.5
 8                     1506.8     1764.7     462.7
 8                     1507.2     2878.8     662.8
 8                     1507.6     4328.4     895.6
 8                     1508.0     6145.9     1161.3
 8                     1508.4     8331.5     1460.9
 8                     1508.8     10956.2    1795.8
 9 ENDTBL
 2 XSECTN   008        1.0
 8                     1494.0     0.0        0.0
 8                     1494.3     7.4        5.7
 8                     1494.6     23.9       12.0
 8                     1494.9     47.8       18.8
 8                     1495.2     78.9       26.3
 8                     1495.5     117.0      34.3
 8                     1495.8     162.2      42.9
 8                     1496.1     165.4      53.5
 8                     1496.4     175.4      84.2
 8                     1496.7     302.7      140.5
```

```
8                    1497.0     527.8      222.4
8                    1497.3     868.5      329.9
8                    1497.6     1343.8     463.0
8                    1497.9     1972.3     621.8
8                    1498.2     2837.4     803.3
8                    1498.5     3901.4     998.3
8                    1498.8     5131.8     1206.2
8                    1499.1     6532.4     1426.8
8                    1499.4     8107.5     1660.4
8                    1499.7     9861.7     1906.7
9 ENDTBL
2 XSECTN   014       1.0
8                    1484.0     0.0        0.0
8                    1484.3     4.5        3.5
8                    1484.6     14.6       7.4
8                    1484.9     29.3       11.7
8                    1485.2     48.4       16.4
8                    1485.5     72.0       21.6
8                    1485.8     100.0      27.1
8                    1486.1     132.3      33.0
8                    1486.4     168.7      39.4
8                    1486.7     210.3      46.4
8                    1487.0     257.3      53.8
8                    1487.3     309.9      61.7
8                    1487.6     368.3      70.1
8                    1487.9     432.9      78.9
8                    1488.2     460.0      95.4
8                    1488.5     490.0      142.0
8                    1488.8     520.2      220.5
8                    1489.1     843.7      330.9
8                    1489.4     1318.9     473.3
8                    1489.7     1968.4     647.5
9 ENDTBL
2 XSECTN   027       1.0
8                    1468.0     0.0        0.0
8                    1468.3     3.7        3.3
8                    1468.6     12.4       7.4
8                    1468.9     25.6       12.0
8                    1469.2     43.5       17.4
8                    1469.5     66.2       23.4
8                    1469.8     94.1       30.2
8                    1470.1     127.2      37.5
8                    1470.4     165.8      45.7
8                    1470.7     210.8      54.5
8                    1471.0     262.3      64.1
8                    1471.3     320.8      74.5
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
8                    1471.6     386.5      85.5
8                    1471.9     453.1      97.3
8                    1472.2     540.0     173.1
8                    1472.5     625.0     286.2
8                    1472.8    1078.1     406.7
8                    1473.1    1636.5     534.4
8                    1473.4    2298.0     669.3
8                    1473.7    3062.4     811.5
9 ENDTBL
2 XSECTN   037       1.0
8                    1452.0      0.0       0.0
8                    1452.2      8.1       6.5
8                    1452.6     50.6      19.9
8                    1453.0    119.3      34.0
8                    1453.2    162.1      41.3
8                    1453.4    210.4      48.7
8                    1453.6    263.8      56.3
8                    1453.8    322.2      64.1
8                    1454.0    385.5      72.0
8                    1454.2    420.0      86.0
8                    1454.4    456.8     100.3
8                    1454.6    566.6     114.7
8                    1454.8    685.9     129.2
8                    1455.0    814.4     143.9
8                    1455.2    952.0     158.8
8                    1455.4   1098.3     173.9
8                    1455.6   1183.6     189.8
8                    1455.8   1357.3     206.7
8                    1456.0   1540.3     223.7
8                    1456.2   1740.2     240.7
9 ENDTBL
2 XSECTN   080       1.
8                    1416.5      0.0       0.0
8                    1416.7      3.1       4.0
8                    1416.9     19.4      16.0
8                    1417.1     57.3      36.0
8                    1417.3    123.3      64.
8                    1417.5    223.6     100.
8                    1417.7    363.6     143.9
8                    1417.9    548.5     195.9
8                    1418.1    755.7     256.9
8                    1418.3   1009.8     333.3
8                    1418.5   1351.1     426.1
8                    1418.7   1787.6     535.4
8                    1418.9   2328.1     661.1
8                    1419.1   3071.3     799.
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
8                       1419.3      4033.2      941.0
9 ENDTBL
2 XSECTN    083         1.0
8                       1428.8      0.0         0.0
8                       1428.9      20.4        26.6
8                       1429.1      129.4       106.5
8                       1429.3      403.3       234.6
8                       1429.5      852.0       380.0
8                       1429.7      1442.6      537.5
8                       1429.9      2172.7      707.3
8                       1430.1      3101.4      887.7
9 ENDTBL
2 XSECTN    085         1.0
8                       1428.8      0.0         0.0
8                       1428.9      20.4        26.6
8                       1429.1      129.4       106.5
8                       1429.3      403.3       234.6
8                       1429.5      852.0       380.0
8                       1429.7      1442.6      537.5
8                       1429.9      2172.7      707.3
8                       1430.1      3101.4      887.7
9 ENDTBL
2 XSECTN    086         1.0
8                       1429.8      0.0         0.0
8                       1429.9      32.7        48.5
8                       1430.       115.8       116.0
8                       1430.1      268.3       193.9
8                       1430.2      469.2       273.6
8                       1430.4      1000.2      438.7
8                       1430.6      1689.0      611.1
8                       1430.8      2526.0      791.0
8                       1431.0      3505.8      978.2
8                       1431.2      4625.3      1172.9
8                       1431.4      5882.7      1374.9
9 ENDTBL
2 XSECTN    087         1.0
8                       1429.8      0.0         0.0
8                       1429.9      32.7        48.5
8                       1430.       115.8       116.0
8                       1430.1      268.3       193.9
8                       1430.2      469.2       273.6
8                       1430.4      1000.2      438.7
8                       1430.6      1689.0      611.1
8                       1430.8      2526.0      791.0
8                       1431.0      3505.8      978.2
8                       1431.2      4625.3      1172.9
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
8                    1431.4     5882.7     1374.9
9 ENDTBL
2 XSECTN   105       1.0
8                    1417.1     0.0        0.0
8                    1417.3     9.7        14.0
8                    1417.5     61.9       56.0
8                    1417.7     182.4      125.9
8                    1417.9     392.9      223.9
8                    1418.1     737.3      347.5
8                    1418.3     1217.8     483.0
8                    1418.5     1805.5     628.1
8                    1418.7     2500.2     782.6
8                    1418.9     3303.3     946.7
9 ENDTBL
2 XSECTN   107       1.0
8                    1417.1     0.0        0.0
8                    1417.3     9.7        14.0
8                    1417.5     61.9       56.0
8                    1417.7     182.4      125.9
8                    1417.9     392.9      223.9
8                    1418.1     737.3      347.5
8                    1418.3     1217.8     483.0
8                    1418.5     1805.5     628.1
8                    1418.7     2500.2     782.6
8                    1418.9     3303.3     946.7
9 ENDTBL
2 XSECTN   109       1.0
8                    1418.0     0.0        0.0
8                    1418.1     1.9        3.3
8                    1418.2     8.6        10.1
8                    1418.3     22.3       20.6
8                    1418.4     44.6       34.6
8                    1418.5     77.2       52.1
8                    1418.6     121.6      73.2
8                    1418.7     179.2      97.9
8                    1418.8     251.4      126.2
8                    1418.9     339.3      158.0
8                    1419.0     449.8      193.0
8                    1419.1     577.3      230.6
8                    1419.2     748.9      269.6
9 ENDTBL
3 STRUCT      37
8                    1446.0     0.0        0.0
8                    1448.0     0.1        2.58
8                    1448.5     110.       3.52
8                    1449.0     320.       4.45
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
8                    1449.5      580.        5.38
8                    1450.0      900.        6.32
9 ENDTBL
6 RUNOFF 1 001       5 .148      95.         .3
6 RUNOFF 1 002       6 .097      95.         .19
6 REACH  3 003   5   7 1000.     .04         1.66
6 REACH  3 003   6   5 1400.     .04         1.66
6 ADDHYD 4 003   5 7 6
6 RUNOFF 1 003       5 .047      77.         .36
6 ADDHYD 4 003   5 6 7
6 RUNOFF 1 006       5 .109      81.         .82
6 REACH  3 006   7   6 1600.
6 ADDHYD 4 006   5 6 7
6 REACH  3 008   7   1 1600.
6 RUNOFF 1 007       5 .117      77.         .69
6 REACH  3 008   5   2 1400.
6 RUNOFF 1 019       5 .022      95.         .167
6 RUNOFF 1 004       6 .195      95.         .22
6 REACH  3 004   5   7 1800.     .05         1.66
6 ADDHYD 4 004   6 7 5
6 RUNOFF 1 005       6 .125      77.         .56
6 REACH  3 005   5   7 1400.     .05         1.66
6 ADDHYD 4 005   6 7 5
6 REACH  3 008   5   3 2100.
6 ADDHYD 4 008   1 2 4
6 ADDHYD 4 008   3 4 1
6 RUNOFF 1 018       5 .184      78.         .72
6 REACH  3 008   5   2 1900.     .04         1.66
6 ADDHYD 4 008   1 2 3
6 RUNOFF 1 008       5 .131      78.         .75
6 ADDHYD 4 008   3 5 1
6 REACH  3 014   1   2 3000.
6 RUNOFF 1 009       5 .198      77.         .93
6 REACH  3 014   5   6 2600.
6 ADDHYD 4 014   2 6 3
6 RUNOFF 1 016       5 .119      86.         .54
6 REACH  3 015   5   6 1100.     .54         1.66
6 RUNOFF 1 015       7 .073      82.         .89
6 ADDHYD 4 015   6 7 2
6 ADDHYD 4 014   3 2 1
6 RUNOFF 1 014       3 .177      83.         .39
6 ADDHYD 4 014   1 3 4
6 REACH  3 027   4   2 3000.
6 RUNOFF 1 017       5 .059      95.         .167
6 REACH  3 025   5   6 2200.     .05         1.66
6 RUNOFF 1 025       7 .089      83.         .43
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 ADDHYD 4 025   6 7 5
6 REACH  3 027   5   1 1700.
6 ADDHYD 4 027   1 2 3
6 RUNOFF 1 026       2 .067        85.         .31
6 ADDHYD 4 027   2 3 1
6 RUNOFF 1 027       5 .188        80.         1.2
6 ADDHYD 4 027   1 5 3
6 REACH  3 037   3   2 3000.
6 RUNOFF 1 037       5 .125        83.         .25
6 ADDHYD 4 037   2 5 1
6 RESVOR 2    37 1   3 1446.0
6 RUNOFF 1 024       5 .198        81.         .46
6 REACH  3 037   5   6 2100.       .41         1.66
6 ADDHYD 4 037   3 6 2
6 REACH  3 143   2   1 1400.       .09         1.66
6 DIVERT 6 086   1 2 3             .5          85.
6 REACH  3 086   2   4 1250.
6 RUNOFF 1 086       6 .063        86.         .27
6 ADDHYD 4 086   4 6 5
6 REACH  3 087   5   4 1320.
6 RUNOFF 1 087       6 .063        83.         .52
6 ADDHYD 4 087   4 6 5
6 REACH  3 105   5   2 2000.
6 RUNOFF 1 010       5 .095        77.         .56
6 REACH  3 011   5   6 2700.       .44         1.66
6 RUNOFF 1 011       7 .234        77.         .84
6 ADDHYD 4 011   6 7 5
6 REACH  3 028   5   4 3300.       .03         1.66
6 RUNOFF 1 013       5 .125        82.         .61
6 REACH  3 028   5   6 2800.       .03         1.66
6 ADDHYD 4 028   4 6 7
6 RUNOFF 1 028       5 .156        79.         .93
6 ADDHYD 4 028   7 5 6
6 REACH  3 036   6   7 3500.       .06         1.66
6 RUNOFF 1 036       5 .125        83.         .48
6 ADDHYD 4 036   5 7 6
6 REACH  3 090   6   4 2600.       .22         1.54
6 RUNOFF 1 034       5 .125        84.         .73
6 REACH  3 035   5   6 1320.       .31         1.54
6 RUNOFF 1 035       5 .125        83.         .49
6 ADDHYD 4 035   5 6 7
6 REACH  3 091   7   6 2640.       .22         1.54
6 RUNOFF 1 091       5 .125        86.         .47
6 ADDHYD 4 091   5 6 7
6 REACH  3 090   7   5 1320.       .22         1.54
6 RUNOFF 1 090       6 .109        85.         .63
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 ADDHYD 4 090   5 6 7
6 ADDHYD 4 090   4 7 5
6 REACH  3 088   5   6 1320.      .22        1.54
6 RUNOFF 1 088       5 .094       87.        .75
6 ADDHYD 4 088   5 6 7
6 RUNOFF 1 089       5 .047       84.        .39
6 REACH  3 088   5   6 2000.      .22        1.54
6 ADDHYD 4 088   6 7 5
6 REACH  3 101   5   6 1050.      .22        1.54
6 RUNOFF 1 101       5 .047       89.        .52
6 ADDHYD 4 101   5 6 7
6 REACH  3 102   7   6 1320.      .02        1.66
6 RUNOFF 1 102       5 .063       82.        .63
6 ADDHYD 4 102   5 6 7
6 REACH  3 105   7   5 1320.
6 RUNOFF 1 105       6 .063       78.        .63
6 ADDHYD 4 105   5 6 7
6 ADDHYD 4 105   2 7 4
6 REACH  3 107   4   5 1400.
6 RUNOFF 1 107       6 .059       82.        .42
6 ADDHYD 4 107   5 6 1
6 REACH  3 085   3   4 2000.
6 RUNOFF 1 085       5 .063       80.        .52
6 ADDHYD 4 085   4 5 6
6 REACH  3 083   6   5 2000.
6 RUNOFF 1 083       6 .063       81.        .52
6 ADDHYD 4 083   5 6 7
6 RUNOFF 1 084       5 .063       78.        .52
6 REACH  3 083   5   6 1320.      .2         1.54
6 ADDHYD 4 083   6 7 5
6 DIVERT 6 109   5 6 3            .5         80.
6 REACH  3 109   6   5 2000.
6 RUNOFF 1 109       6 .063       84.        .29
6 ADDHYD 4 109   5 6 2
6 REACH  3 080   3   5 1320.
6 RUNOFF 1 080       3 .063       83.        .45
6 ADDHYD 4 080   5 3 4
6 REACH  3 079   4   5 1320.      .23        1.54
6 RUNOFF 1 079       6 .063       88.        .25
6 ADDHYD 4 079   5 6 7
6 REACH  3 076   7   6 1320.      .23        1.54
6 RUNOFF 1 076       5 .063       86.        .25
6 ADDHYD 4 076   5 6 7
6 REACH  3 075   7   6 1320.      .23        1.54
6 RUNOFF 1 075       5 .063       95.        .52
6 ADDHYD 4 075   5 6 7
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 REACH  3 113   7   6 1800.       .08         1.66
6 RUNOFF 1 112       5 .061        77.         .46
6 REACH  3 113   5   4 1320.       .08         1.66
6 ADDHYD 4 113   4 6 5
6 RUNOFF 1 113       6 .053        86.         .52
6 ADDHYD 4 113   5 6 3
6 RUNOFF 1 012       5 .07         77.         .42
6 REACH  3 029   5   6 3800.       .04         1.66
6 RUNOFF 1 029       7 .25         78.         1.03
6 ADDHYD 4 029   6 7 5
6 REACH  3 033   5   7 2600.       .38         1.54
6 RUNOFF 1 030       5 .25         79.         .97
6 REACH  3 033   5   6 3800.       .03         1.66
6 ADDHYD 4 033   7 6 5
6 RUNOFF 1 033       7 .234        77.         1.14
6 ADDHYD 4 033   5 7 6
6 REACH  3 092   6   5 3000.       .08         1.66
6 RUNOFF 1 092       6 .125        86.         .47
6 ADDHYD 4 092   5 6 7
6 RUNOFF 1 093       5 .195        84.         .45
6 REACH  3 092   5   6 1320.       .08         1.66
6 ADDHYD 4 092   6 7 5
6 REACH  3 098   5   4 2500.       .08         1.66
6 RUNOFF 1 031       5 .084        77.         .58
6 REACH  3 032   5   6 3400.       .03         1.66
6 RUNOFF 1 032       5 .18         77.         .93
6 ADDHYD 4 032   5 6 7
6 REACH  3 094   7   6 3200.       .09         1.66
6 RUNOFF 1 094       5 .139        84.         .34
6 ADDHYD 4 094   5 6 7
6 REACH  3 095   7   6 2400.       .09         1.66
6 RUNOFF 1 095       5 .125        86.         .98
6 ADDHYD 4 095   5 6 7
6 REACH  3 098   7   6 3000.       .08         1.66
6 ADDHYD 4 098   4 6 5
6 RUNOFF 1 096       6 .125        82.         .51
6 REACH  3 097   6   7 2100.       .08         1.66
6 RUNOFF 1 097       4 .188        87.         .53
6 ADDHYD 4 097   4 7 6
6 REACH  3 098   6   7 1000.       .08         1.66
6 ADDHYD 4 098   5 7 4
6 RUNOFF 1 098       5 .094        86.         .37
6 ADDHYD 4 098   4 5 6
6 REACH  3 099   6   7 1250.       .08         1.66
6 RUNOFF 1 099       6 .094        86.         .49
6 ADDHYD 4 099   7 6 5
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 REACH  3 139   5   6 1600.       .05         1.66
6 RUNOFF 1 100       4 .078        86.         .39
6 REACH  3 139   4   5 600.        .05         1.66
6 ADDHYD 4 139   5 6 7
6 RUNOFF 1 142       4 .25         83.         1.39
6 REACH  3 141   4   5 2100.       .08         1.66
6 RUNOFF 1 141       6 .188        87.         .53
6 ADDHYD 4 141   5 6 4
6 REACH  3 140   4   5 1320.       .08         1.66
6 RUNOFF 1 140       6 .125        86.         .44
6 ADDHYD 4 140   5 6 4
6 RUNOFF 1 137       6 .078        79.         .49
6 ADDHYD 4 140   4 6 5
6 REACH  3 139   5   6 2800.       .05         1.66
6 ADDHYD 4 139   6 7 4
6 RUNOFF 1 136       5 .066        95.         .167
6 REACH  3 138   5   6 3000.       .17         1.66
6 RUNOFF 1 138       5 .203        84.         .24
6 ADDHYD 4 138   5 6 7
6 REACH  3 139   7   6 2000.       .05         1.66
6 ADDHYD 4 139   4 6 7
6 RUNOFF 1 139       5 .188        87.         .43
6 ADDHYD 4 139   7 5 4
6 RUNOFF 1 129       5 .108        82.         .167
6 RUNOFF 1 130       6 .031        91.         .167
6 ADDHYD 4 129   5 6 7
6 REACH  3 127   7   6 2500.       .08         1.66
6 RUNOFF 1 128       5 .036        80.         .167
6 REACH  3 127   5   7 2300.       .08         1.66
6 ADDHYD 4 127   7 6 5
6 RUNOFF 1 127       7 .159        82.         .21
6 ADDHYD 4 127   5 7 6
6 RUNOFF 1 132       5 .145        88.         .27
6 REACH  3 131   5   7 2000.       .17         1.66
6 ADDHYD 4 131   6 7 5
6 RUNOFF 1 131       6 .119        86.         .27
6 ADDHYD 4 131   5 6 7
6 REACH  3 126   7   6 1500.       .11         1.66
6 RUNOFF 1 126       5 .158        95.         .28
6 ADDHYD 4 126   5 6 7
6 REACH  3 134   7   6 1500.       .13         1.66
6 RUNOFF 1 135       7 .042        95.         .167
6 REACH  3 134   7   5 3200.       .13         1.66
6 ADDHYD 4 134   5 6 7
6 RUNOFF 1 134       6 .197        85.         .31
6 ADDHYD 4 134   6 7 5
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 RUNOFF 1 125       7 .117        95.         .167
6 ADDHYD 4 125   7 5 6
6 REACH  3 124   6   7 2500.       .09         1.66
6 RUNOFF 1 124       6 .219        84.         .25
6 ADDHYD 4 124   6 7 5
6 REACH  3 103   4   6 1400.       .96         1.51
6 RUNOFF 1 103       4 .081        84.         .26
6 ADDHYD 4 103   4 6 7
6 REACH  3 104   7   6 1320.       .96         1.51
6 ADDHYD 4 104   5 6 7
6 RUNOFF 1 104       5 .069        78.         .67
6 ADDHYD 4 104   5 7 6
6 REACH  3 107   6   5 1000.       .85         1.53
6 ADDHYD 4 107   1 5 6
6 RUNOFF 1 123       5 .213        95.         .25
6 ADDHYD 4 107   5 6 7
6 REACH  3 108   7   6 1700.       .85         1.53
6 RUNOFF 1 106       4 .063        79.         .56
6 REACH  3 108   4   5 700.        .08         1.66
6 RUNOFF 1 108       4 .025        79.         .28
6 ADDHYD 4 108   4 5 7
6 ADDHYD 4 108   6 7 5
6 ADDHYD 4 109   2 5 6
6 REACH  3 110   6   7 1320.       .85         1.53
6 RUNOFF 1 122       6 .355        85.         .29
6 ADDHYD 4 122   6 7 5
6 RUNOFF 1 110       6 .073        78.         .56
6 ADDHYD 4 110   5 6 7
6 REACH  3 111   7   5 1320.       1.07        1.53
6 RUNOFF 1 111       6 .07         77.         .56
6 ADDHYD 4 111   5 6 7
6 REACH  3 112   7   6 1320.       .04         1.63
6 RUNOFF 1 121       5 .25         95.         .17
6 ADDHYD 4 112   5 6 7
6 REACH  3 113   7   6 1320.       .04         1.63
6 ADDHYD 4 113   3 6 5
6 RUNOFF 1 120       6 .231        87.         .3
6 ADDHYD 4 113   5 6 7
6 REACH  3 114   7   1 3000.       .04         1.63
6 RUNOFF 1 049       5 .086        95.         .19
6 REACH  3 048   5   6 1320.       .04         1.66
6 RUNOFF 1 048       5 .125        79.         .60
6 ADDHYD 4 048   5 6 7
6 RUNOFF 1 020       5 .064        95.         .167
6 REACH  3 048   5   6 2640.       .04         1.66
6 ADDHYD 4 048   6 7 5
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 REACH  3 056   5   6 1866.      .12        1.66
6 RUNOFF 1 056       5 .063       82.        .25
6 ADDHYD 4 056   5 6 7
6 REACH  3 057   7   6 1320.      .2         1.54
6 RUNOFF 1 057       5 .063       82.        .25
6 ADDHYD 4 057   5 6 7
6 REACH  3 060   7   6 1867.      .12        1.66
6 RUNOFF 1 060       5 .063       81.        .49
6 ADDHYD 4 060   5 6 7
6 RUNOFF 1 058       5 .063       84.        .25
6 REACH  3 060   5   6 1320.      .25        1.54
6 ADDHYD 4 060   6 7 5
6 REACH  3 065   5   6 1320.      .28        1.54
6 RUNOFF 1 065       5 .063       77.        .49
6 ADDHYD 4 065   5 6 7
6 REACH  3 068   7   6 1320.      .25        1.54
6 RUNOFF 1 068       5 .063       85.        .25
6 ADDHYD 4 068   5 6 7
6 RUNOFF 1 047       4 .125       82.        .31
6 REACH  3 046   4   5 1320.      .51        1.54
6 RUNOFF 1 046       4 .125       82.        .29
6 ADDHYD 4 046   4 5 6
6 REACH  3 059   6   5 1867.      .11        1.66
6 RUNOFF 1 059       4 .063       82.        .25
6 ADDHYD 4 059   4 5 6
6 RUNOFF 1 021       3 .189       83.        .58
6 RUNOFF 1 043       4 .047       86.        .167
6 ADDHYD 4 021   3 4 5
6 REACH  3 045   5   4 2700.      .05        1.66
6 RUNOFF 1 045       3 .125       86.        .51
6 ADDHYD 4 045   3 4 5
6 REACH  3 059   5   4 1400.      .11        1.66
6 ADDHYD 4 059   4 6 5
6 REACH  3 066   5   4 1320.      .11        1.66
6 RUNOFF 1 066       5 .063       83.        .46
6 ADDHYD 4 066   4 5 6
6 REACH  3 068   6   5 1877.      .25        1.54
6 ADDHYD 4 068   5 7 6
6 REACH  3 070   6   5 1320.      .18        1.54
6 RUNOFF 1 070       6 .063       86.        .25
6 ADDHYD 4 070   5 6 7
6 REACH  3 074   7   6 1320.      .09        1.66
6 RUNOFF 1 074       5 .063       90.        .24
6 ADDHYD 4 074   5 6 2
6 RUNOFF 1 023       4 .091       95.        .23
6 REACH  3 040   4   5 2650.      .08        1.66
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 RUNOFF 1 038       7 .125        79.        .44
6 REACH  3 040   7   6 1800.       .08        1.66
6 ADDHYD 4 040   5 6 7
6 RUNOFF 1 040       5 .094        82.        .51
6 ADDHYD 4 040   5 7 6
6 REACH  3 082   6   5 1400.       .1         1.66
6 RUNOFF 1 082       6 .063        84.        .27
6 ADDHYD 4 082   5 6 7
6 RUNOFF 1 039       5 .125        85.        .53
6 REACH  3 082   5   6 1867.       .1         1.66
6 ADDHYD 4 082   6 7 5
6 REACH  3 081   5   6 1320.       .22        1.54
6 RUNOFF 1 081       5 .063        77.        .52
6 ADDHYD 4 081   5 6 7
6 REACH  3 078   7   6 1320.       .09        1.66
6 RUNOFF 1 078       5 .063        86.        .27
6 ADDHYD 4 078   5 6 4
6 RUNOFF 1 022       5 .153        83.        .47
6 REACH  3 041   5   6 3100.       .24        1.66
6 RUNOFF 1 041       5 .172        84.        .38
6 ADDHYD 4 041   5 6 7
6 RUNOFF 1 042       5 .078        83.        .22
6 ADDHYD 4 042   5 7 6
6 REACH  3 078   6   5 1600.       .09        1.66
6 ADDHYD 4 078   4 5 6
6 REACH  3 077   6   5 1320.       .23        1.54
6 RUNOFF 1 077       6 .063        77.        .38
6 ADDHYD 4 077   5 6 7
6 REACH  3 069   7   6 1320.       .2         1.54
6 RUNOFF 1 069       5 .063        81.        .62
6 ADDHYD 4 069   5 6 7
6 RUNOFF 1 044       4 .125        83.        .30
6 REACH  3 067   4   5 1320.       .25        1.54
6 RUNOFF 1 067       4 .063        88.        .25
6 ADDHYD 4 067   4 5 6
6 REACH  3 069   6   5 1320.       .2         1.54
6 ADDHYD 4 069   5 7 6
6 REACH  3 074   6   5 1867.       .09        1.66
6 ADDHYD 4 074   2 5 3
6 REACH  3 114   3   4 3300.       .05        1.66
6 RUNOFF 1 114       5 .128        77.        1.19
6 ADDHYD 4 114   4 5 6
6 RUNOFF 1 071       4 .125        85.        .49
6 REACH  3 114   4   5 2200.       .05        1.66
6 ADDHYD 4 114   5 6 7
6 RUNOFF 1 064       4 .25         82.        .33
```

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**********************80-80 LIST OF INPUT DATA (CONTINUED)**********************

 6 REACH  3 072   4   5 2650.       .18         1.54
 6 RUNOFF 1 072       4 .125        83.         .49
 6 ADDHYD 4 072   4 5 6
 6 REACH  3 114   6   5 2000.0      .05         1.66
 6 ADDHYD 4 114   5 7 6
 6 RUNOFF 1 115       5 .094        82.         .45
 6 ADDHYD 4 114   5 6 7
 6 ADDHYD 4 114   1 7 5
 6 RUNOFF 1 119       6 .231        81.         1.05
 6 ADDHYD 4 119   5 6 7
 6 REACH  3 118   7   6 4000.       .05         1.66
 6 RUNOFF 1 118       5 .231        81.         1.59
 6 ADDHYD 4 118   5 6 7
   ENDATA
 7 INCREM 6             .08
 7 COMPUT 7 001   118              2.53        24.         1 2  01  01
   ENDCMP 1
 7 COMPUT 7 001   118              3.57        24.         1 2  01  02
   ENDCMP 1
 7 COMPUT 7 001   118              4.04        24.         1 2  01  03
   ENDCMP 1
   ENDJOB 2

*******************************END OF 80-80 LIST*********************************


EXECUTIVE CONTROL OPERATION INCREM     MAIN TIME INCREMENT =   .08 HOURS                                        RECORD ID


EXECUTIVE CONTROL OPERATION COMPUT     FROM XSECTION   1  TO XSECTION 118                                       RECORD ID
        STARTING TIME =   .00    RAIN DEPTH =  2.53    RAIN DURATION= 24.00    RAIN TABLE NO.= 1    ANT. MOIST. COND= 2
        ALTERNATE NO.= 1         STORM NO.= 1    MAIN TIME INCREMENT =   .08 HOURS

    ***  WARNING  REACH  15 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH 143 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH 101 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING-NO PEAK FOUND, MAXIMUM DISCHARGE =         .74 CFS.

***WARNING - LACK OF LOW FLOW DEFINITION FOR XSECT TABLE109. MAX.FLOW LESS THAN 2ND TABLE VALUE.

    ***  WARNING  REACH 109 LENGTH FACTOR (K*) GREATER THAN 1.0, CONSIDER DIVIDING REACH LENGTH  ***

*** WARNING-NO PEAK FOUND, MAXIMUM DISCHARGE =         .15 CFS.

    ***  WARNING  REACH  79 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH  76 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH  75 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH  29 LENGTH FACTOR (K*) GREATER THAN 1.0, CONSIDER DIVIDING REACH LENGTH  ***

    ***  WARNING  REACH  32 LENGTH FACTOR (K*) GREATER THAN 1.0, CONSIDER DIVIDING REACH LENGTH  ***

    ***  WARNING  REACH  99 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
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*** WARNING  REACH 134 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 103 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 104 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 107 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 108 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
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*** WARNING  REACH 110 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 111 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  46 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  70 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  74 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  77 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  69 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

EXECUTIVE CONTROL OPERATION ENDCMP     COMPUTATIONS COMPLETED FOR PASS   1                          RECORD ID


EXECUTIVE CONTROL OPERATION COMPUT     FROM XSECTION   1  TO XSECTION 118                           RECORD ID
       STARTING TIME =   .00    RAIN DEPTH =  3.57    RAIN DURATION= 24.00    RAIN TABLE NO.= 1    ANT. MOIST. COND= 2
       ALTERNATE NO.= 1         STORM NO.= 2    MAIN TIME INCREMENT =   .08 HOURS

*** WARNING  REACH  15 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  37 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 143 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  88 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 101 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  79 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  76 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  75 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  29 LENGTH FACTOR (K*) GREATER THAN 1.0, CONSIDER DIVIDING REACH LENGTH  ***

*** WARNING  REACH  32 LENGTH FACTOR (K*) GREATER THAN 1.0, CONSIDER DIVIDING REACH LENGTH  ***
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*** WARNING  REACH  98 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH  99 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH 126 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH 134 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH 103 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH 104 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH 107 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH 108 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH 110 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH 111 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH 112 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH 113 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH  65 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH  68 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH  46 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH  66 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH  70 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH  74 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH  81 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH  77 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
*** WARNING  REACH  69 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
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EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 2 RECORD ID

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EXECUTIVE CONTROL OPERATION COMPUT     FROM XSECTION   1  TO XSECTION 118                                    RECORD ID
        STARTING TIME =   .00    RAIN DEPTH =  4.04    RAIN DURATION= 24.00    RAIN TABLE NO.= 1    ANT. MOIST. COND= 2
        ALTERNATE NO.= 1         STORM NO.= 3    MAIN TIME INCREMENT =   .08 HOURS

    ***  WARNING  REACH   8 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH  15 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH  37 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH  37 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH 143 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH  90 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH  88 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH 101 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH  79 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH  76 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH  75 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH 113 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH  29 LENGTH FACTOR (K*) GREATER THAN 1.0, CONSIDER DIVIDING REACH LENGTH  ***

    ***  WARNING  REACH  32 LENGTH FACTOR (K*) GREATER THAN 1.0, CONSIDER DIVIDING REACH LENGTH  ***

    ***  WARNING  REACH  98 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH  99 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH 126 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH 134 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH 103 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    ***  WARNING  REACH 104 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
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*** WARNING  REACH 107 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 108 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 110 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 111 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 112 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 113 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  65 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  68 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  46 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  66 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  70 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  74 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  81 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  78 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  77 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  69 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  74 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

EXECUTIVE CONTROL OPERATION ENDCMP   COMPUTATIONS COMPLETED FOR PASS   3                    RECORD ID


EXECUTIVE CONTROL OPERATION ENDJOB                                                           RECORD ID
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SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 1	RUNOFF	.15	1	2	.08	.0	2.53	24.00	1.98	---	12.45	149.82	1012.3
XSECTION 2	RUNOFF	.10	1	2	.08	.0	2.53	24.00	1.99	---	12.44	100.45	1035.5
XSECTION 3	REACH	.15	1	2	.08	.0	2.53	24.00	1.98	---	12.66	145.14	980.7
XSECTION 3	REACH	.10	1	2	.08	.0	2.53	24.00	1.97	---	12.72	92.53	954.0
XSECTION 3	ADDHYD	.25	1	2	.08	.0	2.53	24.00	1.98	---	12.68	238.07	971.7
XSECTION 3	RUNOFF	.05	1	2	.08	.0	2.53	24.00	.75	---	12.54	22.94	488.1
XSECTION 3	ADDHYD	.29	1	2	.08	.0	2.53	24.00	1.78	---	12.63	255.59	875.3
XSECTION 6	RUNOFF	.11	1	2	.08	.0	2.53	24.00	.95	---	12.74	48.43	444.3
XSECTION 6	REACH	.29	1	2	.08	.0	2.53	24.00	1.78	1505.08	12.76	252.12	863.4
XSECTION 6	ADDHYD	.40	1	2	.08	.0	2.53	24.00	1.55	1505.23	12.76	300.45	749.2
XSECTION 8	REACH	.40	1	2	.08	.0	2.53	24.00	1.55	1496.66	12.92	285.81	712.7
XSECTION 7	RUNOFF	.12	1	2	.08	.0	2.53	24.00	.75	---	12.69	44.80	382.9
XSECTION 8	REACH	.12	1	2	.08	.0	2.53	24.00	.75	1494.84	12.82	43.28	369.9
XSECTION 19	RUNOFF	.02	1	2	.08	.0	2.53	24.00	1.99	---	12.44	22.96	1043.8
XSECTION 4	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.99	---	12.44	200.22	1026.8
XSECTION 4	REACH	.02	1	2	.08	.0	2.53	24.00	1.96	---	13.00	17.70	804.5
XSECTION 4	ADDHYD	.22	1	2	.08	.0	2.53	24.00	1.98	---	12.45	210.49	970.0
XSECTION 5	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.75	---	12.62	52.47	419.7
XSECTION 5	REACH	.22	1	2	.08	.0	2.53	24.00	1.98	---	12.64	201.41	928.2
XSECTION 5	ADDHYD	.34	1	2	.08	.0	2.53	24.00	1.53	---	12.63	253.80	742.1
XSECTION 8	REACH	.34	1	2	.08	.0	2.53	24.00	1.52	1496.54	12.87	234.64	686.1
XSECTION 8	ADDHYD	.52	1	2	.08	.0	2.53	24.00	1.37	1496.73	12.90	327.15	631.6
XSECTION 8	ADDHYD	.86	1	2	.08	.0	2.53	24.00	1.43	1497.03	12.88	561.34	652.7
XSECTION 18	RUNOFF	.18	1	2	.08	.0	2.53	24.00	.80	---	12.70	73.81	401.1
XSECTION 8	REACH	.18	1	2	.08	.0	2.53	24.00	.79	1494.97	13.16	55.14	299.7
XSECTION 8	ADDHYD	1.04	1	2	.08	.0	2.53	24.00	1.32	1497.07	12.90	606.28	580.7
XSECTION 8	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.80	---	12.71	50.85	388.2
XSECTION 8	ADDHYD	1.18	1	2	.08	.0	2.53	24.00	1.26	1497.11	12.89	650.56	553.7
XSECTION 14	REACH	1.18	1	2	.08	.0	2.53	24.00	1.25	1488.84	13.21	565.27	481.1
XSECTION 9	RUNOFF	.20	1	2	.08	.0	2.53	24.00	.75	---	12.83	64.48	325.6
XSECTION 14	REACH	.20	1	2	.08	.0	2.53	24.00	.74	1485.36	13.00	60.75	306.8
XSECTION 14	ADDHYD	1.37	1	2	.08	.0	2.53	24.00	1.18	1488.89	13.20	620.07	451.6

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 16	RUNOFF	.12	1	2	.08	.0	2.53	24.00	1.26	---	12.57	79.99	672.2
XSECTION 15	REACH	.12	1	2	.08	.0	2.53	24.00	1.26	---	12.65	79.78	670.5
XSECTION 15	RUNOFF	.07	1	2	.08	.0	2.53	24.00	1.01	---	12.77	32.88	450.4
XSECTION 15	ADDHYD	.19	1	2	.08	.0	2.53	24.00	1.16	---	12.68	111.65	581.5
XSECTION 14	ADDHYD	1.57	1	2	.08	.0	2.53	24.00	1.18	1488.93	13.15	664.81	424.8
XSECTION 14	RUNOFF	.18	1	2	.08	.0	2.53	24.00	1.07	---	12.53	113.69	642.3
XSECTION 14	ADDHYD	1.74	1	2	.08	.0	2.53	24.00	1.17	1488.95	13.14	681.16	391.0
XSECTION 27	REACH	1.74	1	2	.08	.0	2.53	24.00	1.16	1472.45	13.43	609.86	350.1
XSECTION 17	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.99	---	12.44	61.59	1043.8
XSECTION 25	REACH	.06	1	2	.08	.0	2.53	24.00	1.97	---	12.98	50.43	854.7
XSECTION 25	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.07	---	12.54	55.78	626.8
XSECTION 25	ADDHYD	.15	1	2	.08	.0	2.53	24.00	1.43	---	12.59	93.03	628.6
XSECTION 27	REACH	.15	1	2	.08	.0	2.53	24.00	1.42	1469.75	12.73	89.64	605.7
XSECTION 27	ADDHYD	1.89	1	2	.08	.0	2.53	24.00	1.18	1472.52	13.38	652.69	345.3
XSECTION 26	RUNOFF	.07	1	2	.08	.0	2.53	24.00	1.20	---	12.49	48.39	722.3
XSECTION 27	ADDHYD	1.96	1	2	.08	.0	2.53	24.00	1.18	1472.52	13.38	656.28	335.4
XSECTION 27	RUNOFF	.19	1	2	.08	.0	2.53	24.00	.89	---	12.97	63.08	335.5
XSECTION 27	ADDHYD	2.15	1	2	.08	.0	2.53	24.00	1.16	1472.55	13.34	704.39	328.4
XSECTION 37	REACH	2.15	1	2	.08	.0	2.53	24.00	1.15	1454.82	13.48	698.00	325.4
XSECTION 37	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	---	12.47	85.28	682.3
XSECTION 37	ADDHYD	2.27	1	2	.08	.0	2.53	24.00	1.15	1454.83	13.48	703.89	310.1
STRUCTURE 37	RESVOR	2.27	1	2	.08	.0	2.53	24.00	1.13	1449.69	13.51	703.04	309.7
XSECTION 24	RUNOFF	.20	1	2	.08	.0	2.53	24.00	.96	---	12.56	110.32	557.2
XSECTION 37	REACH	.20	1	2	.08	.0	2.53	24.00	.95	1452.93	12.68	106.86	539.7
XSECTION 37	ADDHYD	2.47	1	2	.08	.0	2.53	24.00	1.11	1454.85	13.49	716.55	290.3
XSECTION 143	REACH	2.47	1	2	.08	.0	2.53	24.00	1.11	---	13.60	714.31	289.4
XSECTION 86	DIVERT	1.23	1	2	.08	.0	2.53	24.00	.00	---	.00	.00	.0
XSECTION 85	DIVERT	1.23	1	2	.08	.0	2.53	24.00	2.22	1429.44	13.60	714.31	578.9
XSECTION 86	REACH	1.23	1	2	.08	.0	2.53	24.00	.00	---	.00	.00	.0
XSECTION 86	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.26	---	12.47	48.06	762.9
XSECTION 86	ADDHYD	1.30	1	2	.08	.0	2.53	24.00	.06	1429.92	12.47	48.06	37.1
XSECTION 87	REACH	1.30	1	2	.08	.0	2.53	24.00	.06	1429.91	12.81	39.30	30.3
XSECTION 87	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.07	---	12.57	37.47	594.8
XSECTION 87	ADDHYD	1.36	1	2	.08	.0	2.53	24.00	.11	1429.95	12.66	71.43	52.5
XSECTION 105	REACH	1.36	1	2	.08	.0	2.53	24.00	.11	1417.48	13.02	57.14	42.0
XSECTION 10	RUNOFF	.09	1	2	.08	.0	2.53	24.00	.75	---	12.62	39.88	419.7

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 11	REACH	.09	1	2	.08	.0	2.53	24.00	.75	---	12.79	36.00	378.9
XSECTION 11	RUNOFF	.23	1	2	.08	.0	2.53	24.00	.75	---	12.77	81.19	347.0
XSECTION 11	ADDHYD	.33	1	2	.08	.0	2.53	24.00	.75	---	12.78	117.15	356.1
XSECTION 28	REACH	.33	1	2	.08	.0	2.53	24.00	.73	---	13.52	71.35	216.9
XSECTION 13	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.01	---	12.62	66.41	531.3
XSECTION 28	REACH	.13	1	2	.08	.0	2.53	24.00	.99	---	13.47	38.97	311.8
XSECTION 28	ADDHYD	.45	1	2	.08	.0	2.53	24.00	.80	---	13.50	110.19	242.7
XSECTION 28	RUNOFF	.16	1	2	.08	.0	2.53	24.00	.84	---	12.81	57.59	369.2
XSECTION 28	ADDHYD	.61	1	2	.08	.0	2.53	24.00	.81	---	13.37	134.67	220.8
XSECTION 36	REACH	.61	1	2	.08	.0	2.53	24.00	.81	---	13.80	115.32	189.1
XSECTION 36	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	---	12.56	76.12	608.9
XSECTION 36	ADDHYD	.74	1	2	.08	.0	2.53	24.00	.85	---	13.76	120.71	164.2
XSECTION 90	REACH	.74	1	2	.08	.0	2.53	24.00	.85	---	14.03	117.02	159.2
XSECTION 34	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.13	---	12.67	68.82	550.6
XSECTION 35	REACH	.13	1	2	.08	.0	2.53	24.00	1.12	---	12.81	66.44	531.5
XSECTION 35	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	---	12.56	75.62	605.0
XSECTION 35	ADDHYD	.25	1	2	.08	.0	2.53	24.00	1.10	---	12.63	133.11	532.4
XSECTION 91	REACH	.25	1	2	.08	.0	2.53	24.00	1.09	---	12.85	116.91	467.7
XSECTION 91	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.26	---	12.54	87.51	700.1
XSECTION 91	ADDHYD	.38	1	2	.08	.0	2.53	24.00	1.15	---	12.66	184.82	492.9
XSECTION 90	REACH	.38	1	2	.08	.0	2.53	24.00	1.14	---	12.80	179.34	478.2
XSECTION 90	RUNOFF	.11	1	2	.08	.0	2.53	24.00	1.19	---	12.61	66.45	609.6
XSECTION 90	ADDHYD	.48	1	2	.08	.0	2.53	24.00	1.16	---	12.74	239.13	494.1
XSECTION 90	ADDHYD	1.22	1	2	.08	.0	2.53	24.00	.97	---	12.77	322.55	264.6
XSECTION 88	REACH	1.22	1	2	.08	.0	2.53	24.00	.97	---	12.89	317.37	260.4
XSECTION 88	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.32	---	12.66	59.09	628.7
XSECTION 88	ADDHYD	1.31	1	2	.08	.0	2.53	24.00	.99	---	12.85	368.03	280.3
XSECTION 89	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.13	---	12.53	31.57	671.6
XSECTION 88	REACH	.05	1	2	.08	.0	2.53	24.00	1.12	---	12.87	26.20	557.4
XSECTION 88	ADDHYD	1.36	1	2	.08	.0	2.53	24.00	1.00	---	12.86	394.19	289.8
XSECTION 101	REACH	1.36	1	2	.08	.0	2.53	24.00	1.00	---	12.96	391.58	287.9
XSECTION 101	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.47	---	12.55	36.53	777.3
XSECTION 101	ADDHYD	1.41	1	2	.08	.0	2.53	24.00	1.01	---	12.93	407.17	289.4
XSECTION 102	REACH	1.41	1	2	.08	.0	2.53	24.00	1.01	---	13.24	375.31	266.7
XSECTION 102	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.01	---	12.63	33.03	524.3
XSECTION 102	ADDHYD	1.47	1	2	.08	.0	2.53	24.00	1.01	---	13.22	384.82	261.8

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 105	REACH	1.47	1	2	.08	.0	2.53	24.00	1.00	1417.88	13.41	370.71	252.2
XSECTION 105	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.80	---	12.64	26.47	420.2
XSECTION 105	ADDHYD	1.53	1	2	.08	.0	2.53	24.00	.99	1417.88	13.40	376.08	245.3
XSECTION 105	ADDHYD	2.89	1	2	.08	.0	2.53	24.00	.58	1417.92	13.36	420.38	145.3
XSECTION 107	REACH	2.89	1	2	.08	.0	2.53	24.00	.58	1417.91	13.55	407.41	140.8
XSECTION 107	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.01	---	12.54	35.46	601.0
XSECTION 107	ADDHYD	2.95	1	2	.08	.0	2.53	24.00	.58	1417.91	13.55	410.34	139.0
XSECTION 85	REACH	1.23	1	2	.08	.0	2.53	24.00	2.21	1429.43	13.80	699.46	566.8
XSECTION 85	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.90	---	12.59	32.19	510.9
XSECTION 85	ADDHYD	1.30	1	2	.08	.0	2.53	24.00	2.15	1429.43	13.80	701.97	541.2
XSECTION 83	REACH	1.30	1	2	.08	.0	2.53	24.00	2.14	1429.43	14.00	688.10	530.5
XSECTION 83	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.95	---	12.58	33.91	538.2
XSECTION 83	ADDHYD	1.36	1	2	.08	.0	2.53	24.00	2.09	1429.43	14.00	690.21	507.5
XSECTION 84	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.80	---	12.60	28.86	458.1
XSECTION 83	REACH	.06	1	2	.08	.0	2.53	24.00	.80	1428.91	12.78	25.18	399.7
XSECTION 83	ADDHYD	1.42	1	2	.08	.0	2.53	24.00	2.03	1429.43	13.99	693.00	487.0
XSECTION 109	DIVERT	.71	1	2	.08	.0	2.53	24.00	.00	1418.04	14.00?	.74?	1.0
XSECTION 80	DIVERT	.71	1	2	.08	.0	2.53	24.00	4.06	1418.04	13.99	692.27	973.0
XSECTION 109	REACH	.71	1	2	.08	.0	2.53	24.00	.00	1418.01	15.04?	.15?	.2
XSECTION 109	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.13	---	12.49	43.97	697.9
XSECTION 109	ADDHYD	.77	1	2	.08	.0	2.53	24.00	.09	1418.40	12.49	43.97	56.8
XSECTION 80	REACH	.71	1	2	.08	.0	2.53	24.00	4.05	1418.04	14.13	688.85	968.2
XSECTION 80	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.07	---	12.55	39.05	619.9
XSECTION 80	ADDHYD	.77	1	2	.08	.0	2.53	24.00	3.81	1418.04	14.13	690.89	892.1
XSECTION 79	REACH	.77	1	2	.08	.0	2.53	24.00	3.80	---	14.23	689.88	890.7
XSECTION 79	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.40	---	12.46	52.20	828.6
XSECTION 79	ADDHYD	.84	1	2	.08	.0	2.53	24.00	3.62	---	14.23	692.24	826.6
XSECTION 76	REACH	.84	1	2	.08	.0	2.53	24.00	3.61	---	14.33	691.23	825.3
XSECTION 76	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.26	---	12.47	48.49	769.7
XSECTION 76	ADDHYD	.90	1	2	.08	.0	2.53	24.00	3.45	---	14.33	693.49	770.1
XSECTION 75	REACH	.90	1	2	.08	.0	2.53	24.00	3.44	---	14.43	692.49	769.0
XSECTION 75	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.98	---	12.52	60.48	960.1
XSECTION 75	ADDHYD	.96	1	2	.08	.0	2.53	24.00	3.35	---	14.43	695.24	721.6
XSECTION 113	REACH	.96	1	2	.08	.0	2.53	24.00	3.34	---	14.57	691.60	717.8
XSECTION 112	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.75	---	12.57	27.47	450.4
XSECTION 113	REACH	.06	1	2	.08	.0	2.53	24.00	.75	---	12.85	22.27	365.1

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 113	ADDHYD	1.02	1	2	.08	.0	2.53	24.00	3.19	---	14.57	693.40	676.8
XSECTION 113	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.26	---	12.56	36.25	684.0
XSECTION 113	ADDHYD	1.08	1	2	.08	.0	2.53	24.00	3.09	---	14.57	695.31	645.3
XSECTION 12	RUNOFF	.07	1	2	.08	.0	2.53	24.00	.75	---	12.56	32.53	464.7
XSECTION 29	REACH	.07	1	2	.08	.0	2.53	24.00	.71	---	13.92	8.75	125.0
XSECTION 29	RUNOFF	.25	1	2	.08	.0	2.53	24.00	.79	---	12.88	81.24	325.0
XSECTION 29	ADDHYD	.32	1	2	.08	.0	2.53	24.00	.77	---	12.89	81.61	255.0
XSECTION 33	REACH	.32	1	2	.08	.0	2.53	24.00	.77	---	13.11	75.77	236.8
XSECTION 30	RUNOFF	.25	1	2	.08	.0	2.53	24.00	.84	---	12.84	89.50	358.0
XSECTION 33	REACH	.25	1	2	.08	.0	2.53	24.00	.82	---	13.77	51.61	206.4
XSECTION 33	ADDHYD	.57	1	2	.08	.0	2.53	24.00	.79	---	13.35	108.47	190.3
XSECTION 33	RUNOFF	.23	1	2	.08	.0	2.53	24.00	.74	---	12.96	66.54	284.3
XSECTION 33	ADDHYD	.80	1	2	.08	.0	2.53	24.00	.78	---	13.16	164.68	204.8
XSECTION 92	REACH	.80	1	2	.08	.0	2.53	24.00	.78	---	13.51	148.56	184.8
XSECTION 92	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.26	---	12.54	87.51	700.1
XSECTION 92	ADDHYD	.93	1	2	.08	.0	2.53	24.00	.84	---	13.47	156.86	168.9
XSECTION 93	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.13	---	12.54	126.61	649.3
XSECTION 92	REACH	.19	1	2	.08	.0	2.53	24.00	1.13	---	12.69	118.72	608.8
XSECTION 92	ADDHYD	1.12	1	2	.08	.0	2.53	24.00	.89	---	12.69	245.66	218.6
XSECTION 98	REACH	1.12	1	2	.08	.0	2.53	24.00	.88	---	13.00	222.43	197.9
XSECTION 31	RUNOFF	.08	1	2	.08	.0	2.53	24.00	.75	---	12.63	34.54	411.2
XSECTION 32	REACH	.08	1	2	.08	.0	2.53	24.00	.71	---	14.09	10.41	124.0
XSECTION 32	RUNOFF	.18	1	2	.08	.0	2.53	24.00	.75	---	12.83	58.61	325.6
XSECTION 32	ADDHYD	.26	1	2	.08	.0	2.53	24.00	.73	---	12.83	58.74	222.5
XSECTION 94	REACH	.26	1	2	.08	.0	2.53	24.00	.73	---	13.29	44.11	167.1
XSECTION 94	RUNOFF	.14	1	2	.08	.0	2.53	24.00	1.13	---	12.51	94.72	681.5
XSECTION 94	ADDHYD	.40	1	2	.08	.0	2.53	24.00	.87	---	12.54	106.76	264.9
XSECTION 95	REACH	.40	1	2	.08	.0	2.53	24.00	.86	---	12.80	89.00	220.8
XSECTION 95	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.25	---	12.80	66.12	529.0
XSECTION 95	ADDHYD	.53	1	2	.08	.0	2.53	24.00	.95	---	12.80	155.12	293.8
XSECTION 98	REACH	.53	1	2	.08	.0	2.53	24.00	.95	---	13.08	130.71	247.6
XSECTION 98	ADDHYD	1.65	1	2	.08	.0	2.53	24.00	.90	---	13.03	351.89	213.0
XSECTION 96	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.01	---	12.58	70.81	566.5
XSECTION 97	REACH	.13	1	2	.08	.0	2.53	24.00	1.00	---	12.87	58.19	465.5
XSECTION 97	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.33	---	12.56	132.96	707.3
XSECTION 97	ADDHYD	.31	1	2	.08	.0	2.53	24.00	1.20	---	12.62	177.34	566.6

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 98	REACH	.31	1	2	.08	.0	2.53	24.00	1.20	---	12.74	172.59	551.4
XSECTION 98	ADDHYD	1.97	1	2	.08	.0	2.53	24.00	.95	---	12.91	496.63	252.7
XSECTION 98	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.26	---	12.51	68.89	732.8
XSECTION 98	ADDHYD	2.06	1	2	.08	.0	2.53	24.00	.96	---	12.87	516.29	250.7
XSECTION 99	REACH	2.06	1	2	.08	.0	2.53	24.00	.96	---	12.99	512.01	248.7
XSECTION 99	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.26	---	12.55	65.28	694.5
XSECTION 99	ADDHYD	2.15	1	2	.08	.0	2.53	24.00	.98	---	12.93	536.08	249.0
XSECTION 139	REACH	2.15	1	2	.08	.0	2.53	24.00	.97	---	13.11	524.05	243.4
XSECTION 100	RUNOFF	.08	1	2	.08	.0	2.53	24.00	1.26	---	12.52	57.05	731.4
XSECTION 139	REACH	.08	1	2	.08	.0	2.53	24.00	1.25	---	12.72	54.55	699.3
XSECTION 139	ADDHYD	2.23	1	2	.08	.0	2.53	24.00	.98	---	13.04	548.53	245.9
XSECTION 142	RUNOFF	.25	1	2	.08	.0	2.53	24.00	1.06	---	13.08	90.23	360.9
XSECTION 141	REACH	.25	1	2	.08	.0	2.53	24.00	1.05	---	13.37	81.96	327.8
XSECTION 141	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.33	---	12.56	132.96	707.3
XSECTION 141	ADDHYD	.44	1	2	.08	.0	2.53	24.00	1.17	---	12.63	162.39	370.8
XSECTION 140	REACH	.44	1	2	.08	.0	2.53	24.00	1.17	---	12.78	154.86	353.6
XSECTION 140	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.26	---	12.53	89.04	712.3
XSECTION 140	ADDHYD	.56	1	2	.08	.0	2.53	24.00	1.19	---	12.64	227.37	403.8
XSECTION 137	RUNOFF	.08	1	2	.08	.0	2.53	24.00	.85	---	12.58	38.50	493.7
XSECTION 140	ADDHYD	.64	1	2	.08	.0	2.53	24.00	1.15	---	12.62	265.24	413.8
XSECTION 139	REACH	.64	1	2	.08	.0	2.53	24.00	1.14	---	12.96	220.75	344.4
XSECTION 139	ADDHYD	2.87	1	2	.08	.0	2.53	24.00	1.02	---	13.01	767.33	267.2
XSECTION 136	RUNOFF	.07	1	2	.08	.0	2.53	24.00	1.99	---	12.44	68.89	1043.8
XSECTION 138	REACH	.07	1	2	.08	.0	2.53	24.00	1.97	---	12.71	62.93	953.5
XSECTION 138	RUNOFF	.20	1	2	.08	.0	2.53	24.00	1.13	---	12.47	145.60	717.3
XSECTION 138	ADDHYD	.27	1	2	.08	.0	2.53	24.00	1.34	---	12.48	202.72	753.6
XSECTION 139	REACH	.27	1	2	.08	.0	2.53	24.00	1.33	---	12.72	175.88	653.8
XSECTION 139	ADDHYD	3.14	1	2	.08	.0	2.53	24.00	1.04	---	12.92	903.61	287.7
XSECTION 139	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.33	---	12.53	140.34	746.5
XSECTION 139	ADDHYD	3.33	1	2	.08	.0	2.53	24.00	1.06	---	12.84	960.91	288.6
XSECTION 129	RUNOFF	.11	1	2	.08	.0	2.53	24.00	1.02	---	12.45	74.46	689.5
XSECTION 130	RUNOFF	.03	1	2	.08	.0	2.53	24.00	1.63	---	12.45	29.32	945.9
XSECTION 129	ADDHYD	.14	1	2	.08	.0	2.53	24.00	1.15	---	12.45	103.76	746.5
XSECTION 127	REACH	.14	1	2	.08	.0	2.53	24.00	1.14	---	12.83	84.24	606.0
XSECTION 128	RUNOFF	.04	1	2	.08	.0	2.53	24.00	.91	---	12.46	22.79	633.1
XSECTION 127	REACH	.04	1	2	.08	.0	2.53	24.00	.89	---	13.03	14.55	404.3

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 127	ADDHYD	.17	1	2	.08	.0	2.53	24.00	1.09	---	12.85	96.52	551.5
XSECTION 127	RUNOFF	.16	1	2	.08	.0	2.53	24.00	1.02	---	12.46	106.50	669.8
XSECTION 127	ADDHYD	.33	1	2	.08	.0	2.53	24.00	1.06	---	12.51	169.41	507.2
XSECTION 132	RUNOFF	.14	1	2	.08	.0	2.53	24.00	1.40	---	12.47	119.20	822.1
XSECTION 131	REACH	.14	1	2	.08	.0	2.53	24.00	1.40	---	12.68	113.33	781.6
XSECTION 131	ADDHYD	.48	1	2	.08	.0	2.53	24.00	1.16	---	12.53	276.01	576.2
XSECTION 131	RUNOFF	.12	1	2	.08	.0	2.53	24.00	1.26	---	12.47	90.78	762.9
XSECTION 131	ADDHYD	.60	1	2	.08	.0	2.53	24.00	1.18	---	12.52	363.93	608.6
XSECTION 126	REACH	.60	1	2	.08	.0	2.53	24.00	1.18	---	12.62	354.92	593.5
XSECTION 126	RUNOFF	.16	1	2	.08	.0	2.53	24.00	1.98	---	12.45	160.33	1014.8
XSECTION 126	ADDHYD	.76	1	2	.08	.0	2.53	24.00	1.34	---	12.55	493.32	652.5
XSECTION 134	REACH	.76	1	2	.08	.0	2.53	24.00	1.34	---	12.65	484.67	641.1
XSECTION 135	RUNOFF	.04	1	2	.08	.0	2.53	24.00	1.99	---	12.44	43.84	1043.8
XSECTION 134	REACH	.04	1	2	.08	.0	2.53	24.00	1.97	---	12.90	36.60	871.4
XSECTION 134	ADDHYD	.80	1	2	.08	.0	2.53	24.00	1.38	---	12.65	516.71	647.5
XSECTION 134	RUNOFF	.20	1	2	.08	.0	2.53	24.00	1.20	---	12.49	142.29	722.3
XSECTION 134	ADDHYD	1.00	1	2	.08	.0	2.53	24.00	1.34	---	12.59	635.36	638.6
XSECTION 125	RUNOFF	.12	1	2	.08	.0	2.53	24.00	1.99	---	12.44	122.13	1043.8
XSECTION 125	ADDHYD	1.11	1	2	.08	.0	2.53	24.00	1.41	---	12.53	731.59	657.9
XSECTION 124	REACH	1.11	1	2	.08	.0	2.53	24.00	1.40	---	12.74	694.61	624.6
XSECTION 124	RUNOFF	.22	1	2	.08	.0	2.53	24.00	1.13	---	12.47	155.75	711.2
XSECTION 124	ADDHYD	1.33	1	2	.08	.0	2.53	24.00	1.36	---	12.62	766.53	575.9
XSECTION 103	REACH	3.33	1	2	.08	.0	2.53	24.00	1.06	---	12.84	960.91	288.6
XSECTION 103	RUNOFF	.08	1	2	.08	.0	2.53	24.00	1.13	---	12.48	57.51	710.1
XSECTION 103	ADDHYD	3.41	1	2	.08	.0	2.53	24.00	1.06	---	12.82	972.38	285.2
XSECTION 104	REACH	3.41	1	2	.08	.0	2.53	24.00	1.06	---	12.82	972.38	285.2
XSECTION 104	ADDHYD	4.74	1	2	.08	.0	2.53	24.00	1.15	---	12.73	1706.17	359.9
XSECTION 104	RUNOFF	.07	1	2	.08	.0	2.53	24.00	.80	---	12.67	28.35	410.9
XSECTION 104	ADDHYD	4.81	1	2	.08	.0	2.53	24.00	1.14	---	12.73	1734.16	360.5
XSECTION 107	REACH	4.81	1	2	.08	.0	2.53	24.00	1.14	1418.48	12.73	1734.16	360.5
XSECTION 107	ADDHYD	7.76	1	2	.08	.0	2.53	24.00	.93	1418.53	12.78	1919.64	247.3
XSECTION 123	RUNOFF	.21	1	2	.08	.0	2.53	24.00	1.99	---	12.44	217.28	1020.1
XSECTION 107	ADDHYD	7.97	1	2	.08	.0	2.53	24.00	.96	1418.56	12.66	1997.36	250.5
XSECTION 108	REACH	7.97	1	2	.08	.0	2.53	24.00	.96	---	12.66	1997.36	250.5
XSECTION 106	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.85	---	12.61	29.64	470.5
XSECTION 108	REACH	.06	1	2	.08	.0	2.53	24.00	.84	---	12.84	27.67	439.2

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 108	RUNOFF	.03	1	2	.08	.0	2.53	24.00	.85	---	12.50	14.00	559.8
XSECTION 108	ADDHYD	.09	1	2	.08	.0	2.53	24.00	.85	---	12.60	34.05	387.0
XSECTION 108	ADDHYD	8.06	1	2	.08	.0	2.53	24.00	.96	---	12.66	2030.75	251.9
XSECTION 109	ADDHYD	8.84	1	2	.08	.0	2.53	24.00	.88	1419.96	12.64	2061.92	233.3
XSECTION 110	REACH	8.84	1	2	.08	.0	2.53	24.00	.88	---	12.64	2061.92	233.3
XSECTION 122	RUNOFF	.35	1	2	.08	.0	2.53	24.00	1.20	---	12.48	258.14	727.2
XSECTION 122	ADDHYD	9.19	1	2	.08	.0	2.53	24.00	.89	---	12.59	2293.75	249.5
XSECTION 110	RUNOFF	.07	1	2	.08	.0	2.53	24.00	.80	---	12.61	32.47	444.8
XSECTION 110	ADDHYD	9.27	1	2	.08	.0	2.53	24.00	.89	---	12.59	2325.98	251.0
XSECTION 111	REACH	9.27	1	2	.08	.0	2.53	24.00	.89	---	12.59	2325.98	251.0
XSECTION 111	RUNOFF	.07	1	2	.08	.0	2.53	24.00	.75	---	12.62	29.38	419.7
XSECTION 111	ADDHYD	9.34	1	2	.08	.0	2.53	24.00	.89	---	12.59	2355.11	252.3
XSECTION 112	REACH	9.34	1	2	.08	.0	2.53	24.00	.89	---	12.71	2298.02	246.2
XSECTION 121	RUNOFF	.25	1	2	.08	.0	2.53	24.00	1.99	---	12.44	260.66	1042.6
XSECTION 112	ADDHYD	9.59	1	2	.08	.0	2.53	24.00	.92	---	12.67	2357.41	245.9
XSECTION 113	REACH	9.59	1	2	.08	.0	2.53	24.00	.92	---	12.79	2329.36	243.0
XSECTION 113	ADDHYD	10.66	1	2	.08	.0	2.53	24.00	1.14	---	12.79	2602.73	244.1
XSECTION 120	RUNOFF	.23	1	2	.08	.0	2.53	24.00	1.33	---	12.49	181.43	785.4
XSECTION 113	ADDHYD	10.89	1	2	.08	.0	2.53	24.00	1.14	---	12.75	2668.12	244.9
XSECTION 114	REACH	10.89	1	2	.08	.0	2.53	24.00	1.14	---	12.99	2537.55	232.9
XSECTION 49	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.99	---	12.44	89.06	1035.5
XSECTION 48	REACH	.09	1	2	.08	.0	2.53	24.00	1.97	---	12.72	82.18	955.5
XSECTION 48	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.85	---	12.63	57.85	462.8
XSECTION 48	ADDHYD	.21	1	2	.08	.0	2.53	24.00	1.31	---	12.67	138.33	655.6
XSECTION 20	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.99	---	12.44	66.80	1043.8
XSECTION 48	REACH	.06	1	2	.08	.0	2.53	24.00	1.96	---	13.09	49.69	776.4
XSECTION 48	ADDHYD	.28	1	2	.08	.0	2.53	24.00	1.46	---	12.71	175.03	636.5
XSECTION 56	REACH	.28	1	2	.08	.0	2.53	24.00	1.46	---	12.86	167.00	607.3
XSECTION 56	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.02	---	12.48	41.18	653.7
XSECTION 56	ADDHYD	.34	1	2	.08	.0	2.53	24.00	1.37	---	12.81	174.07	515.0
XSECTION 57	REACH	.34	1	2	.08	.0	2.53	24.00	1.37	---	12.94	172.62	510.7
XSECTION 57	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.02	---	12.48	41.18	653.7
XSECTION 57	ADDHYD	.40	1	2	.08	.0	2.53	24.00	1.32	---	12.65	182.71	455.6
XSECTION 60	REACH	.40	1	2	.08	.0	2.53	24.00	1.31	---	13.02	176.95	441.3
XSECTION 60	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.96	---	12.57	34.53	548.1
XSECTION 60	ADDHYD	.46	1	2	.08	.0	2.53	24.00	1.26	---	12.76	196.64	423.8

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 58	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.13	---	12.47	44.80	711.2
XSECTION 60	REACH	.06	1	2	.08	.0	2.53	24.00	1.13	---	12.60	42.12	668.6
XSECTION 60	ADDHYD	.53	1	2	.08	.0	2.53	24.00	1.25	---	12.70	232.93	442.0
XSECTION 65	REACH	.53	1	2	.08	.0	2.53	24.00	1.25	---	12.82	228.57	433.7
XSECTION 65	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.75	---	12.59	27.83	441.7
XSECTION 65	ADDHYD	.59	1	2	.08	.0	2.53	24.00	1.19	---	12.79	247.73	419.9
XSECTION 68	REACH	.59	1	2	.08	.0	2.53	24.00	1.19	---	12.91	242.98	411.8
XSECTION 68	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.20	---	12.47	46.64	740.3
XSECTION 68	ADDHYD	.65	1	2	.08	.0	2.53	24.00	1.19	---	12.90	249.53	382.1
XSECTION 47	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.01	---	12.51	79.43	635.5
XSECTION 46	REACH	.13	1	2	.08	.0	2.53	24.00	1.01	---	12.61	78.59	628.7
XSECTION 46	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.01	---	12.49	80.04	640.3
XSECTION 46	ADDHYD	.25	1	2	.08	.0	2.53	24.00	1.01	---	12.53	155.77	623.1
XSECTION 59	REACH	.25	1	2	.08	.0	2.53	24.00	1.01	---	12.75	142.80	571.2
XSECTION 59	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.02	---	12.48	41.18	653.7
XSECTION 59	ADDHYD	.31	1	2	.08	.0	2.53	24.00	1.01	---	12.60	161.39	515.6
XSECTION 21	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.07	---	12.60	107.73	570.0
XSECTION 43	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.26	---	12.45	37.81	804.5
XSECTION 21	ADDHYD	.24	1	2	.08	.0	2.53	24.00	1.11	---	12.51	139.00	589.0
XSECTION 45	REACH	.24	1	2	.08	.0	2.53	24.00	1.10	---	12.86	103.99	440.6
XSECTION 45	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.26	---	12.56	85.49	683.9
XSECTION 45	ADDHYD	.36	1	2	.08	.0	2.53	24.00	1.15	---	12.67	174.40	483.1
XSECTION 59	REACH	.36	1	2	.08	.0	2.53	24.00	1.15	---	12.81	168.18	465.9
XSECTION 59	ADDHYD	.67	1	2	.08	.0	2.53	24.00	1.09	---	12.74	320.90	476.1
XSECTION 66	REACH	.67	1	2	.08	.0	2.53	24.00	1.08	---	12.86	317.04	470.4
XSECTION 66	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.07	---	12.55	38.69	614.1
XSECTION 66	ADDHYD	.74	1	2	.08	.0	2.53	24.00	1.08	---	12.81	338.11	458.8
XSECTION 68	REACH	.74	1	2	.08	.0	2.53	24.00	1.08	---	12.95	330.85	448.9
XSECTION 68	ADDHYD	1.39	1	2	.08	.0	2.53	24.00	1.13	---	12.93	579.02	416.6
XSECTION 70	REACH	1.39	1	2	.08	.0	2.53	24.00	1.13	---	13.05	573.10	412.3
XSECTION 70	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.26	---	12.47	48.49	769.7
XSECTION 70	ADDHYD	1.45	1	2	.08	.0	2.53	24.00	1.14	---	13.04	578.28	398.0
XSECTION 74	REACH	1.45	1	2	.08	.0	2.53	24.00	1.13	---	13.16	573.21	394.5
XSECTION 74	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.55	---	12.46	56.24	892.6
XSECTION 74	ADDHYD	1.52	1	2	.08	.0	2.53	24.00	1.15	---	13.15	577.78	381.1
XSECTION 23	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.99	---	12.45	93.41	1026.5

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 40	REACH	.09	1	2	.08	.0	2.53	24.00	1.97	---	12.76	82.68	908.6
XSECTION 38	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.85	---	12.56	63.86	510.9
XSECTION 40	REACH	.13	1	2	.08	.0	2.53	24.00	.84	---	12.83	52.54	420.4
XSECTION 40	ADDHYD	.22	1	2	.08	.0	2.53	24.00	1.32	---	12.79	134.43	622.3
XSECTION 40	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.01	---	12.58	53.25	566.5
XSECTION 40	ADDHYD	.31	1	2	.08	.0	2.53	24.00	1.23	---	12.71	177.94	574.0
XSECTION 82	REACH	.31	1	2	.08	.0	2.53	24.00	1.22	---	12.85	172.33	555.9
XSECTION 82	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.13	---	12.48	44.37	704.3
XSECTION 82	ADDHYD	.37	1	2	.08	.0	2.53	24.00	1.21	---	12.66	183.88	493.0
XSECTION 39	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.19	---	12.57	80.82	646.6
XSECTION 82	REACH	.13	1	2	.08	.0	2.53	24.00	1.19	---	12.84	72.20	577.6
XSECTION 82	ADDHYD	.50	1	2	.08	.0	2.53	24.00	1.20	---	12.80	254.04	510.1
XSECTION 81	REACH	.50	1	2	.08	.0	2.53	24.00	1.20	---	12.92	251.89	505.8
XSECTION 81	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.75	---	12.60	27.34	433.9
XSECTION 81	ADDHYD	.56	1	2	.08	.0	2.53	24.00	1.15	---	12.85	267.02	476.0
XSECTION 78	REACH	.56	1	2	.08	.0	2.53	24.00	1.15	---	13.00	263.62	469.9
XSECTION 78	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.26	---	12.47	48.06	762.9
XSECTION 78	ADDHYD	.62	1	2	.08	.0	2.53	24.00	1.16	---	12.98	269.44	431.8
XSECTION 22	RUNOFF	.15	1	2	.08	.0	2.53	24.00	1.07	---	12.55	93.43	610.7
XSECTION 41	REACH	.15	1	2	.08	.0	2.53	24.00	1.06	---	12.81	83.64	546.7
XSECTION 41	RUNOFF	.17	1	2	.08	.0	2.53	24.00	1.13	---	12.53	116.10	675.0
XSECTION 41	ADDHYD	.32	1	2	.08	.0	2.53	24.00	1.10	---	12.57	181.67	559.0
XSECTION 42	RUNOFF	.08	1	2	.08	.0	2.53	24.00	1.07	---	12.46	54.11	693.7
XSECTION 42	ADDHYD	.40	1	2	.08	.0	2.53	24.00	1.09	---	12.53	232.12	576.0
XSECTION 78	REACH	.40	1	2	.08	.0	2.53	24.00	1.09	---	12.74	216.84	538.1
XSECTION 78	ADDHYD	1.03	1	2	.08	.0	2.53	24.00	1.13	---	12.79	470.94	458.6
XSECTION 77	REACH	1.03	1	2	.08	.0	2.53	24.00	1.13	---	12.90	466.43	454.2
XSECTION 77	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.75	---	12.54	30.25	480.1
XSECTION 77	ADDHYD	1.09	1	2	.08	.0	2.53	24.00	1.11	---	12.88	476.05	436.7
XSECTION 69	REACH	1.09	1	2	.08	.0	2.53	24.00	1.11	---	13.00	470.68	431.8
XSECTION 69	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.95	---	12.63	31.97	507.4
XSECTION 69	ADDHYD	1.15	1	2	.08	.0	2.53	24.00	1.10	---	12.98	488.08	423.3
XSECTION 44	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	---	12.50	83.51	668.1
XSECTION 67	REACH	.13	1	2	.08	.0	2.53	24.00	1.07	---	12.62	80.24	641.9
XSECTION 67	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.40	---	12.46	52.20	828.6
XSECTION 67	ADDHYD	.19	1	2	.08	.0	2.53	24.00	1.18	---	12.53	127.33	677.3

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 69	REACH	.19	1	2	.08	.0	2.53	24.00	1.18	---	12.73	120.93	643.2
XSECTION 69	ADDHYD	1.34	1	2	.08	.0	2.53	24.00	1.11	---	12.89	582.09	434.1
XSECTION 74	REACH	1.34	1	2	.08	.0	2.53	24.00	1.11	---	13.04	568.49	423.9
XSECTION 74	ADDHYD	2.86	1	2	.08	.0	2.53	24.00	1.13	---	13.10	1137.72	398.2
XSECTION 114	REACH	2.86	1	2	.08	.0	2.53	24.00	1.13	---	13.33	1069.33	374.3
XSECTION 114	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.74	---	12.99	35.43	276.8
XSECTION 114	ADDHYD	2.98	1	2	.08	.0	2.53	24.00	1.11	---	13.32	1098.29	367.9
XSECTION 71	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.19	---	12.55	83.02	664.1
XSECTION 114	REACH	.13	1	2	.08	.0	2.53	24.00	1.18	---	12.96	63.95	511.6
XSECTION 114	ADDHYD	3.11	1	2	.08	.0	2.53	24.00	1.11	---	13.30	1144.20	367.9
XSECTION 64	RUNOFF	.25	1	2	.08	.0	2.53	24.00	1.01	---	12.51	156.50	626.0
XSECTION 72	REACH	.25	1	2	.08	.0	2.53	24.00	1.01	---	12.75	133.87	535.5
XSECTION 72	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	---	12.56	75.62	605.0
XSECTION 72	ADDHYD	.38	1	2	.08	.0	2.53	24.00	1.03	---	12.67	198.79	530.1
XSECTION 114	REACH	.38	1	2	.08	.0	2.53	24.00	1.02	---	12.88	172.33	459.5
XSECTION 114	ADDHYD	3.48	1	2	.08	.0	2.53	24.00	1.10	---	13.24	1259.13	361.3
XSECTION 115	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.01	---	12.55	55.56	591.0
XSECTION 114	ADDHYD	3.58	1	2	.08	.0	2.53	24.00	1.10	---	13.23	1267.53	354.2
XSECTION 114	ADDHYD	14.47	1	2	.08	.0	2.53	24.00	1.13	---	13.10	3741.38	258.5
XSECTION 119	RUNOFF	.23	1	2	.08	.0	2.53	24.00	.95	---	12.88	88.98	385.2
XSECTION 119	ADDHYD	14.70	1	2	.08	.0	2.53	24.00	1.12	---	13.09	3820.33	259.8
XSECTION 118	REACH	14.70	1	2	.08	.0	2.53	24.00	1.12	---	13.31	3736.20	254.1
XSECTION 118	RUNOFF	.23	1	2	.08	.0	2.53	24.00	.94	---	13.22	66.98	290.0
XSECTION 118	ADDHYD	14.93	1	2	.08	.0	2.53	24.00	1.12	---	13.30	3802.54	254.6
ALTERNATE 1 STORM 2													
XSECTION 1	RUNOFF	.15	1	2	.08	.0	3.57	24.00	3.00	---	12.45	217.93	1472.5
XSECTION 2	RUNOFF	.10	1	2	.08	.0	3.57	24.00	3.00	---	12.44	145.51	1500.1
XSECTION 3	REACH	.15	1	2	.08	.0	3.57	24.00	2.99	---	12.63	213.83	1444.8
XSECTION 3	REACH	.10	1	2	.08	.0	3.57	24.00	2.98	---	12.70	138.09	1423.6
XSECTION 3	ADDHYD	.25	1	2	.08	.0	3.57	24.00	2.99	---	12.66	349.90	1428.2
XSECTION 3	RUNOFF	.05	1	2	.08	.0	3.57	24.00	1.47	---	12.52	42.49	903.9
XSECTION 3	ADDHYD	.29	1	2	.08	.0	3.57	24.00	2.74	---	12.60	387.57	1327.3
XSECTION 6	RUNOFF	.11	1	2	.08	.0	3.57	24.00	1.75	---	12.71	87.96	807.0
XSECTION 6	REACH	.29	1	2	.08	.0	3.57	24.00	2.74	1505.41	12.72	383.09	1312.0
XSECTION 6	ADDHYD	.40	1	2	.08	.0	3.57	24.00	2.47	1506.00	12.72	471.05	1174.7
XSECTION 8	REACH	.40	1	2	.08	.0	3.57	24.00	2.46	1496.90	12.88	453.71	1131.4

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 7	RUNOFF	.12	1	2	.08	.0	3.57	24.00	1.47	---	12.66	86.33	737.8
XSECTION 8	REACH	.12	1	2	.08	.0	3.57	24.00	1.46	1495.25	12.78	84.82	724.9
XSECTION 19	RUNOFF	.02	1	2	.08	.0	3.57	24.00	3.00	---	12.44	33.24	1510.9
XSECTION 4	RUNOFF	.19	1	2	.08	.0	3.57	24.00	3.00	---	12.44	290.36	1489.0
XSECTION 4	REACH	.02	1	2	.08	.0	3.57	24.00	2.97	---	12.98	27.33	1242.2
XSECTION 4	ADDHYD	.22	1	2	.08	.0	3.57	24.00	3.00	---	12.45	307.71	1418.0
XSECTION 5	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.47	---	12.60	99.67	797.4
XSECTION 5	REACH	.22	1	2	.08	.0	3.57	24.00	2.99	---	12.62	298.64	1376.2
XSECTION 5	ADDHYD	.34	1	2	.08	.0	3.57	24.00	2.43	---	12.62	398.25	1164.5
XSECTION 8	REACH	.34	1	2	.08	.0	3.57	24.00	2.42	1496.79	12.85	371.68	1086.8
XSECTION 8	ADDHYD	.52	1	2	.08	.0	3.57	24.00	2.24	1497.01	12.86	535.72	1034.2
XSECTION 8	ADDHYD	.86	1	2	.08	.0	3.57	24.00	2.31	1497.32	12.85	907.39	1055.1
XSECTION 18	RUNOFF	.18	1	2	.08	.0	3.57	24.00	1.53	---	12.67	139.85	760.1
XSECTION 8	REACH	.18	1	2	.08	.0	3.57	24.00	1.53	1495.49	12.93	115.81	629.4
XSECTION 8	ADDHYD	1.04	1	2	.08	.0	3.57	24.00	2.17	1497.40	12.86	1021.80	978.7
XSECTION 8	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.53	---	12.69	96.88	739.6
XSECTION 8	ADDHYD	1.18	1	2	.08	.0	3.57	24.00	2.10	1497.45	12.85	1108.39	943.3
XSECTION 14	REACH	1.18	1	2	.08	.0	3.57	24.00	2.09	1489.19	13.15	989.23	841.9
XSECTION 9	RUNOFF	.20	1	2	.08	.0	3.57	24.00	1.46	---	12.79	126.67	639.8
XSECTION 14	REACH	.20	1	2	.08	.0	3.57	24.00	1.46	1486.00	12.95	122.01	616.2
XSECTION 14	ADDHYD	1.37	1	2	.08	.0	3.57	24.00	2.00	1489.26	13.13	1100.17	801.3
XSECTION 16	RUNOFF	.12	1	2	.08	.0	3.57	24.00	2.14	---	12.55	132.00	1109.3
XSECTION 15	REACH	.12	1	2	.08	.0	3.57	24.00	2.14	---	12.55	132.00	1109.3
XSECTION 15	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.82	---	12.75	58.92	807.2
XSECTION 15	ADDHYD	.19	1	2	.08	.0	3.57	24.00	2.02	---	12.59	186.03	968.9
XSECTION 14	ADDHYD	1.57	1	2	.08	.0	3.57	24.00	2.00	1489.31	13.10	1176.14	751.5
XSECTION 14	RUNOFF	.18	1	2	.08	.0	3.57	24.00	1.91	---	12.52	191.46	1081.7
XSECTION 14	ADDHYD	1.74	1	2	.08	.0	3.57	24.00	1.99	1489.33	13.08	1206.43	692.6
XSECTION 27	REACH	1.74	1	2	.08	.0	3.57	24.00	1.99	1472.83	13.29	1139.34	654.0
XSECTION 17	RUNOFF	.06	1	2	.08	.0	3.57	24.00	3.00	---	12.44	89.14	1510.9
XSECTION 25	REACH	.06	1	2	.08	.0	3.57	24.00	2.97	---	12.88	77.30	1310.2
XSECTION 25	RUNOFF	.09	1	2	.08	.0	3.57	24.00	1.90	---	12.53	95.00	1067.4
XSECTION 25	ADDHYD	.15	1	2	.08	.0	3.57	24.00	2.33	---	12.57	159.42	1077.2
XSECTION 27	REACH	.15	1	2	.08	.0	3.57	24.00	2.33	1470.32	12.69	155.58	1051.2
XSECTION 27	ADDHYD	1.89	1	2	.08	.0	3.57	24.00	2.01	1472.87	13.24	1211.11	640.8
XSECTION 26	RUNOFF	.07	1	2	.08	.0	3.57	24.00	2.07	---	12.48	79.23	1182.6

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 27	ADDHYD	1.96	1	2	.08	.0	3.57	24.00	2.01	1472.88	13.24	1217.75	622.3
XSECTION 27	RUNOFF	.19	1	2	.08	.0	3.57	24.00	1.67	---	12.94	118.69	631.3
XSECTION 27	ADDHYD	2.15	1	2	.08	.0	3.57	24.00	1.98	1472.93	13.20	1319.07	614.9
XSECTION 37	REACH	2.15	1	2	.08	.0	3.57	24.00	1.98	1455.75	13.33	1311.76	611.5
XSECTION 37	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.91	---	12.46	142.64	1141.2
XSECTION 37	ADDHYD	2.27	1	2	.08	.0	3.57	24.00	1.98	1455.76	13.32	1321.59	582.2
STRUCTURE 37	RESVOR	2.27	1	2	.08	.0	3.57	24.00	1.95	1450.66	13.36	1319.75	581.4
XSECTION 24	RUNOFF	.20	1	2	.08	.0	3.57	24.00	1.75	---	12.54	194.33	981.5
XSECTION 37	REACH	.20	1	2	.08	.0	3.57	24.00	1.75	1453.32	12.64	191.29	966.1
XSECTION 37	ADDHYD	2.47	1	2	.08	.0	3.57	24.00	1.94	1455.79	13.33	1349.81	546.9
XSECTION 143	REACH	2.47	1	2	.08	.0	3.57	24.00	1.93	---	13.42	1348.13	546.2
XSECTION 86	DIVERT	1.23	1	2	.08	.0	3.57	24.00	.00	---	.00	.00	.0
XSECTION 85	DIVERT	1.23	1	2	.08	.0	3.57	24.00	3.87	1429.67	13.42	1348.13	1092.5
XSECTION 86	REACH	1.23	1	2	.08	.0	3.57	24.00	.00	---	.00	.00	.0
XSECTION 86	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.15	---	12.46	77.42	1228.9
XSECTION 86	ADDHYD	1.30	1	2	.08	.0	3.57	24.00	.10	1429.95	12.46	77.42	59.7
XSECTION 87	REACH	1.30	1	2	.08	.0	3.57	24.00	.10	1429.94	12.79	67.78	52.3
XSECTION 87	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.90	---	12.56	64.43	1022.8
XSECTION 87	ADDHYD	1.36	1	2	.08	.0	3.57	24.00	.19	1430.01	12.63	124.77	91.7
XSECTION 105	REACH	1.36	1	2	.08	.0	3.57	24.00	.19	1417.57	12.97	105.37	77.5
XSECTION 10	RUNOFF	.09	1	2	.08	.0	3.57	24.00	1.47	---	12.60	75.75	797.4
XSECTION 11	REACH	.09	1	2	.08	.0	3.57	24.00	1.47	---	12.74	71.85	756.3
XSECTION 11	RUNOFF	.23	1	2	.08	.0	3.57	24.00	1.46	---	12.74	158.54	677.5
XSECTION 11	ADDHYD	.33	1	2	.08	.0	3.57	24.00	1.46	---	12.74	230.38	700.2
XSECTION 28	REACH	.33	1	2	.08	.0	3.57	24.00	1.45	---	13.26	161.81	491.8
XSECTION 13	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.82	---	12.60	116.76	934.0
XSECTION 28	REACH	.13	1	2	.08	.0	3.57	24.00	1.80	---	13.17	79.01	632.1
XSECTION 28	ADDHYD	.45	1	2	.08	.0	3.57	24.00	1.54	---	13.23	240.08	528.8
XSECTION 28	RUNOFF	.16	1	2	.08	.0	3.57	24.00	1.60	---	12.79	109.01	698.8
XSECTION 28	ADDHYD	.61	1	2	.08	.0	3.57	24.00	1.56	---	13.10	315.19	516.7
XSECTION 36	REACH	.61	1	2	.08	.0	3.57	24.00	1.55	---	13.43	277.99	455.7
XSECTION 36	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.90	---	12.54	130.39	1043.1
XSECTION 36	ADDHYD	.74	1	2	.08	.0	3.57	24.00	1.61	---	13.39	292.02	397.3
XSECTION 90	REACH	.74	1	2	.08	.0	3.57	24.00	1.60	---	13.59	285.48	388.4
XSECTION 34	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.98	---	12.65	118.43	947.4
XSECTION 35	REACH	.13	1	2	.08	.0	3.57	24.00	1.97	---	12.78	116.06	928.5

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 35	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.90	---	12.54	129.69	1037.5
XSECTION 35	ADDHYD	.25	1	2	.08	.0	3.57	24.00	1.94	---	12.61	234.08	936.3
XSECTION 91	REACH	.25	1	2	.08	.0	3.57	24.00	1.93	---	12.80	214.92	859.7
XSECTION 91	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.15	---	12.53	143.49	1147.9
XSECTION 91	ADDHYD	.38	1	2	.08	.0	3.57	24.00	2.00	---	12.64	333.10	888.3
XSECTION 90	REACH	.38	1	2	.08	.0	3.57	24.00	2.00	---	12.76	327.26	872.7
XSECTION 90	RUNOFF	.11	1	2	.08	.0	3.57	24.00	2.06	---	12.59	111.80	1025.7
XSECTION 90	ADDHYD	.48	1	2	.08	.0	3.57	24.00	2.01	---	12.71	430.30	889.1
XSECTION 90	ADDHYD	1.22	1	2	.08	.0	3.57	24.00	1.77	---	12.77	627.92	515.1
XSECTION 88	REACH	1.22	1	2	.08	.0	3.57	24.00	1.76	---	12.88	623.19	511.2
XSECTION 88	RUNOFF	.09	1	2	.08	.0	3.57	24.00	2.22	---	12.64	97.37	1035.8
XSECTION 88	ADDHYD	1.31	1	2	.08	.0	3.57	24.00	1.80	---	12.84	706.44	538.0
XSECTION 89	RUNOFF	.05	1	2	.08	.0	3.57	24.00	1.98	---	12.51	52.42	1115.3
XSECTION 88	REACH	.05	1	2	.08	.0	3.57	24.00	1.98	---	12.68	46.80	995.6
XSECTION 88	ADDHYD	1.36	1	2	.08	.0	3.57	24.00	1.80	---	12.83	748.21	550.2
XSECTION 101	REACH	1.36	1	2	.08	.0	3.57	24.00	1.80	---	12.92	746.32	548.8
XSECTION 101	RUNOFF	.05	1	2	.08	.0	3.57	24.00	2.41	---	12.53	57.73	1228.4
XSECTION 101	ADDHYD	1.41	1	2	.08	.0	3.57	24.00	1.82	---	12.89	774.38	550.4
XSECTION 102	REACH	1.41	1	2	.08	.0	3.57	24.00	1.82	---	13.08	736.74	523.6
XSECTION 102	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.82	---	12.60	58.28	925.0
XSECTION 102	ADDHYD	1.47	1	2	.08	.0	3.57	24.00	1.82	---	13.06	761.56	518.1
XSECTION 105	REACH	1.47	1	2	.08	.0	3.57	24.00	1.81	1418.10	13.22	744.20	506.3
XSECTION 105	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.53	---	12.62	49.94	792.7
XSECTION 105	ADDHYD	1.53	1	2	.08	.0	3.57	24.00	1.80	1418.11	13.20	759.08	495.2
XSECTION 105	ADDHYD	2.89	1	2	.08	.0	3.57	24.00	1.04	1418.15	13.16	852.86	294.8
XSECTION 107	REACH	2.89	1	2	.08	.0	3.57	24.00	1.04	1418.14	13.33	835.49	288.8
XSECTION 107	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.83	---	12.53	61.23	1037.7
XSECTION 107	ADDHYD	2.95	1	2	.08	.0	3.57	24.00	1.05	1418.14	13.32	841.90	285.2
XSECTION 85	REACH	1.23	1	2	.08	.0	3.57	24.00	3.86	1429.66	13.58	1332.32	1079.7
XSECTION 85	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.68	---	12.57	57.98	920.3
XSECTION 85	ADDHYD	1.30	1	2	.08	.0	3.57	24.00	3.75	1429.66	13.58	1337.96	1031.6
XSECTION 83	REACH	1.30	1	2	.08	.0	3.57	24.00	3.74	1429.66	13.74	1322.47	1019.6
XSECTION 83	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.75	---	12.56	60.12	954.3
XSECTION 83	ADDHYD	1.36	1	2	.08	.0	3.57	24.00	3.65	1429.66	13.74	1327.15	975.8
XSECTION 84	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.54	---	12.57	53.75	853.3
XSECTION 83	REACH	.06	1	2	.08	.0	3.57	24.00	1.53	1428.95	12.73	49.63	787.8

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SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 83	ADDHYD	1.42	1	2	.08	.0	3.57	24.00	3.56	1429.66	13.74	1333.54	937.1
XSECTION 109	DIVERT	.71	1	2	.08	.0	3.57	24.00	.14	1418.45	13.74	62.00	87.1
XSECTION 80	DIVERT	.71	1	2	.08	.0	3.57	24.00	6.97	1418.45	13.74	1271.54	1787.1
XSECTION 109	REACH	.71	1	2	.08	.0	3.57	24.00	.14	1418.43	14.07	54.41	76.5
XSECTION 109	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.99	---	12.47	72.84	1156.2
XSECTION 109	ADDHYD	.77	1	2	.08	.0	3.57	24.00	.29	1418.49	12.47	72.84	94.1
XSECTION 80	REACH	.71	1	2	.08	.0	3.57	24.00	6.96	1418.45	13.86	1266.28	1779.7
XSECTION 80	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.90	---	12.53	66.68	1058.4
XSECTION 80	ADDHYD	.77	1	2	.08	.0	3.57	24.00	6.55	1418.45	13.86	1270.05	1639.8
XSECTION 79	REACH	.77	1	2	.08	.0	3.57	24.00	6.54	---	13.95	1269.34	1638.9
XSECTION 79	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.32	---	12.45	81.87	1299.5
XSECTION 79	ADDHYD	.84	1	2	.08	.0	3.57	24.00	6.22	---	13.95	1272.78	1519.7
XSECTION 76	REACH	.84	1	2	.08	.0	3.57	24.00	6.21	---	14.04	1272.24	1519.1
XSECTION 76	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.15	---	12.46	77.97	1237.6
XSECTION 76	ADDHYD	.90	1	2	.08	.0	3.57	24.00	5.93	---	14.04	1275.56	1416.5
XSECTION 75	REACH	.90	1	2	.08	.0	3.57	24.00	5.92	---	14.13	1274.88	1415.7
XSECTION 75	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.99	---	12.50	88.70	1407.9
XSECTION 75	ADDHYD	.96	1	2	.08	.0	3.57	24.00	5.73	---	14.13	1278.91	1327.4
XSECTION 113	REACH	.96	1	2	.08	.0	3.57	24.00	5.72	---	14.24	1275.58	1323.9
XSECTION 112	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.47	---	12.55	51.69	847.3
XSECTION 113	REACH	.06	1	2	.08	.0	3.57	24.00	1.46	---	12.81	45.80	750.9
XSECTION 113	ADDHYD	1.02	1	2	.08	.0	3.57	24.00	5.47	---	14.24	1278.98	1248.4
XSECTION 113	RUNOFF	.05	1	2	.08	.0	3.57	24.00	2.14	---	12.54	59.69	1126.2
XSECTION 113	ADDHYD	1.08	1	2	.08	.0	3.57	24.00	5.30	---	14.24	1281.93	1189.7
XSECTION 12	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.47	---	12.54	60.86	869.5
XSECTION 29	REACH	.07	1	2	.08	.0	3.57	24.00	1.42	---	13.62	26.04	372.0
XSECTION 29	RUNOFF	.25	1	2	.08	.0	3.57	24.00	1.53	---	12.85	157.42	629.7
XSECTION 29	ADDHYD	.32	1	2	.08	.0	3.57	24.00	1.51	---	12.88	163.07	509.6
XSECTION 33	REACH	.32	1	2	.08	.0	3.57	24.00	1.50	---	13.06	156.39	488.7
XSECTION 30	RUNOFF	.25	1	2	.08	.0	3.57	24.00	1.60	---	12.81	169.84	679.4
XSECTION 33	REACH	.25	1	2	.08	.0	3.57	24.00	1.57	---	13.51	112.76	451.1
XSECTION 33	ADDHYD	.57	1	2	.08	.0	3.57	24.00	1.53	---	13.24	249.84	438.3
XSECTION 33	RUNOFF	.23	1	2	.08	.0	3.57	24.00	1.46	---	12.92	132.17	564.8
XSECTION 33	ADDHYD	.80	1	2	.08	.0	3.57	24.00	1.51	---	13.11	366.04	455.3
XSECTION 92	REACH	.80	1	2	.08	.0	3.57	24.00	1.51	---	13.37	343.57	427.3
XSECTION 92	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.15	---	12.53	143.49	1147.9

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 92	ADDHYD	.93	1	2	.08	.0	3.57	24.00	1.59	---	13.33	359.85	387.3
XSECTION 93	RUNOFF	.19	1	2	.08	.0	3.57	24.00	1.98	---	12.53	213.06	1092.6
XSECTION 92	REACH	.19	1	2	.08	.0	3.57	24.00	1.98	---	12.73	205.00	1051.3
XSECTION 92	ADDHYD	1.12	1	2	.08	.0	3.57	24.00	1.66	---	12.79	493.48	439.0
XSECTION 98	REACH	1.12	1	2	.08	.0	3.57	24.00	1.65	---	12.99	471.88	419.8
XSECTION 31	RUNOFF	.08	1	2	.08	.0	3.57	24.00	1.47	---	12.60	65.99	785.6
XSECTION 32	REACH	.08	1	2	.08	.0	3.57	24.00	1.42	---	13.69	30.42	362.2
XSECTION 32	RUNOFF	.18	1	2	.08	.0	3.57	24.00	1.46	---	12.79	115.16	639.8
XSECTION 32	ADDHYD	.26	1	2	.08	.0	3.57	24.00	1.45	---	12.83	120.32	455.8
XSECTION 94	REACH	.26	1	2	.08	.0	3.57	24.00	1.44	---	13.16	101.29	383.7
XSECTION 94	RUNOFF	.14	1	2	.08	.0	3.57	24.00	1.99	---	12.49	157.60	1133.8
XSECTION 94	ADDHYD	.40	1	2	.08	.0	3.57	24.00	1.63	---	12.55	203.78	505.7
XSECTION 95	REACH	.40	1	2	.08	.0	3.57	24.00	1.62	---	12.79	181.30	449.9
XSECTION 95	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.13	---	12.78	111.65	893.2
XSECTION 95	ADDHYD	.53	1	2	.08	.0	3.57	24.00	1.74	---	12.79	292.91	554.8
XSECTION 98	REACH	.53	1	2	.08	.0	3.57	24.00	1.74	---	13.02	261.85	495.9
XSECTION 98	ADDHYD	1.65	1	2	.08	.0	3.57	24.00	1.68	---	13.01	733.03	443.7
XSECTION 96	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.83	---	12.56	123.52	988.2
XSECTION 97	REACH	.13	1	2	.08	.0	3.57	24.00	1.82	---	12.83	109.31	874.5
XSECTION 97	RUNOFF	.19	1	2	.08	.0	3.57	24.00	2.23	---	12.54	216.11	1149.5
XSECTION 97	ADDHYD	.31	1	2	.08	.0	3.57	24.00	2.07	---	12.61	306.67	979.8
XSECTION 98	REACH	.31	1	2	.08	.0	3.57	24.00	2.06	---	12.72	302.28	965.7
XSECTION 98	ADDHYD	1.97	1	2	.08	.0	3.57	24.00	1.74	---	12.89	985.45	501.5
XSECTION 98	RUNOFF	.09	1	2	.08	.0	3.57	24.00	2.15	---	12.49	111.92	1190.6
XSECTION 98	ADDHYD	2.06	1	2	.08	.0	3.57	24.00	1.76	---	12.84	1021.27	496.0
XSECTION 99	REACH	2.06	1	2	.08	.0	3.57	24.00	1.76	---	12.94	1017.38	494.1
XSECTION 99	RUNOFF	.09	1	2	.08	.0	3.57	24.00	2.14	---	12.53	107.22	1140.6
XSECTION 99	ADDHYD	2.15	1	2	.08	.0	3.57	24.00	1.77	---	12.88	1063.85	494.1
XSECTION 139	REACH	2.15	1	2	.08	.0	3.57	24.00	1.77	---	13.03	1049.82	487.6
XSECTION 100	RUNOFF	.08	1	2	.08	.0	3.57	24.00	2.15	---	12.50	92.22	1182.3
XSECTION 139	REACH	.08	1	2	.08	.0	3.57	24.00	2.14	---	12.61	90.55	1160.9
XSECTION 139	ADDHYD	2.23	1	2	.08	.0	3.57	24.00	1.78	---	12.98	1084.29	486.0
XSECTION 142	RUNOFF	.25	1	2	.08	.0	3.57	24.00	1.89	---	13.04	162.01	648.0
XSECTION 141	REACH	.25	1	2	.08	.0	3.57	24.00	1.88	---	13.29	152.12	608.5
XSECTION 141	RUNOFF	.19	1	2	.08	.0	3.57	24.00	2.23	---	12.54	216.11	1149.5
XSECTION 141	ADDHYD	.44	1	2	.08	.0	3.57	24.00	2.03	---	12.63	283.56	647.4

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 140	REACH	.44	1	2	.08	.0	3.57	24.00	2.03	---	12.76	275.57	629.1
XSECTION 140	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.15	---	12.52	145.51	1164.0
XSECTION 140	ADDHYD	.56	1	2	.08	.0	3.57	24.00	2.05	---	12.63	395.34	702.2
XSECTION 137	RUNOFF	.08	1	2	.08	.0	3.57	24.00	1.61	---	12.56	70.30	901.2
XSECTION 140	ADDHYD	.64	1	2	.08	.0	3.57	24.00	2.00	---	12.61	464.15	724.1
XSECTION 139	REACH	.64	1	2	.08	.0	3.57	24.00	1.99	---	12.91	411.17	641.4
XSECTION 139	ADDHYD	2.87	1	2	.08	.0	3.57	24.00	1.83	---	12.95	1492.37	519.6
XSECTION 136	RUNOFF	.07	1	2	.08	.0	3.57	24.00	3.00	---	12.44	99.72	1510.9
XSECTION 138	REACH	.07	1	2	.08	.0	3.57	24.00	2.98	---	12.70	94.02	1424.5
XSECTION 138	RUNOFF	.20	1	2	.08	.0	3.57	24.00	1.99	---	12.46	239.93	1181.9
XSECTION 138	ADDHYD	.27	1	2	.08	.0	3.57	24.00	2.23	---	12.47	327.43	1217.2
XSECTION 139	REACH	.27	1	2	.08	.0	3.57	24.00	2.22	---	12.70	300.58	1117.4
XSECTION 139	ADDHYD	3.14	1	2	.08	.0	3.57	24.00	1.86	---	12.87	1725.71	549.4
XSECTION 139	RUNOFF	.19	1	2	.08	.0	3.57	24.00	2.23	---	12.52	224.54	1194.4
XSECTION 139	ADDHYD	3.33	1	2	.08	.0	3.57	24.00	1.88	---	12.80	1837.77	552.0
XSECTION 129	RUNOFF	.11	1	2	.08	.0	3.57	24.00	1.84	---	12.45	124.97	1157.2
XSECTION 130	RUNOFF	.03	1	2	.08	.0	3.57	24.00	2.60	---	12.44	44.13	1423.4
XSECTION 129	ADDHYD	.14	1	2	.08	.0	3.57	24.00	2.01	---	12.45	169.08	1216.4
XSECTION 127	REACH	.14	1	2	.08	.0	3.57	24.00	1.99	---	12.73	148.30	1066.9
XSECTION 128	RUNOFF	.04	1	2	.08	.0	3.57	24.00	1.69	---	12.45	39.33	1092.4
XSECTION 127	REACH	.04	1	2	.08	.0	3.57	24.00	1.67	---	12.85	29.29	813.5
XSECTION 127	ADDHYD	.17	1	2	.08	.0	3.57	24.00	1.92	---	12.74	175.25	1001.4
XSECTION 127	RUNOFF	.16	1	2	.08	.0	3.57	24.00	1.83	---	12.46	179.72	1130.3
XSECTION 127	ADDHYD	.33	1	2	.08	.0	3.57	24.00	1.88	---	12.49	322.49	965.5
XSECTION 132	RUNOFF	.14	1	2	.08	.0	3.57	24.00	2.32	---	12.46	187.27	1291.5
XSECTION 131	REACH	.14	1	2	.08	.0	3.57	24.00	2.32	---	12.65	181.83	1254.0
XSECTION 131	ADDHYD	.48	1	2	.08	.0	3.57	24.00	2.01	---	12.51	495.19	1033.8
XSECTION 131	RUNOFF	.12	1	2	.08	.0	3.57	24.00	2.15	---	12.46	146.24	1228.9
XSECTION 131	ADDHYD	.60	1	2	.08	.0	3.57	24.00	2.04	---	12.50	639.83	1069.9
XSECTION 126	REACH	.60	1	2	.08	.0	3.57	24.00	2.04	---	12.60	634.08	1060.3
XSECTION 126	RUNOFF	.16	1	2	.08	.0	3.57	24.00	3.00	---	12.44	233.08	1475.2
XSECTION 126	ADDHYD	.76	1	2	.08	.0	3.57	24.00	2.24	---	12.54	843.30	1115.5
XSECTION 134	REACH	.76	1	2	.08	.0	3.57	24.00	2.23	---	12.63	836.61	1106.6
XSECTION 135	RUNOFF	.04	1	2	.08	.0	3.57	24.00	3.00	---	12.44	63.46	1510.9
XSECTION 134	REACH	.04	1	2	.08	.0	3.57	24.00	2.97	---	12.88	55.89	1330.8
XSECTION 134	ADDHYD	.80	1	2	.08	.0	3.57	24.00	2.27	---	12.63	886.54	1110.9

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 134	RUNOFF	.20	1	2	.08	.0	3.57	24.00	2.07	---	12.48	232.96	1182.6
XSECTION 134	ADDHYD	1.00	1	2	.08	.0	3.57	24.00	2.23	---	12.57	1088.78	1094.2
XSECTION 125	RUNOFF	.12	1	2	.08	.0	3.57	24.00	3.00	---	12.44	176.78	1510.9
XSECTION 125	ADDHYD	1.11	1	2	.08	.0	3.57	24.00	2.31	---	12.52	1231.35	1107.3
XSECTION 124	REACH	1.11	1	2	.08	.0	3.57	24.00	2.31	---	12.63	1198.82	1078.1
XSECTION 124	RUNOFF	.22	1	2	.08	.0	3.57	24.00	1.99	---	12.46	257.03	1173.7
XSECTION 124	ADDHYD	1.33	1	2	.08	.0	3.57	24.00	2.26	---	12.56	1406.48	1056.7
XSECTION 103	REACH	3.33	1	2	.08	.0	3.57	24.00	1.88	---	12.80	1837.77	552.0
XSECTION 103	RUNOFF	.08	1	2	.08	.0	3.57	24.00	1.99	---	12.47	94.97	1172.5
XSECTION 103	ADDHYD	3.41	1	2	.08	.0	3.57	24.00	1.89	---	12.78	1861.21	545.8
XSECTION 104	REACH	3.41	1	2	.08	.0	3.57	24.00	1.89	---	12.78	1861.21	545.8
XSECTION 104	ADDHYD	4.74	1	2	.08	.0	3.57	24.00	1.99	---	12.64	3155.54	665.6
XSECTION 104	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.53	---	12.65	53.63	777.2
XSECTION 104	ADDHYD	4.81	1	2	.08	.0	3.57	24.00	1.98	---	12.64	3209.17	667.2
XSECTION 107	REACH	4.81	1	2	.08	.0	3.57	24.00	1.98	1418.88	12.64	3209.17	667.2
XSECTION 107	ADDHYD	7.76	1	2	.08	.0	3.57	24.00	1.63	1418.99	12.70	3666.94	472.4
XSECTION 123	RUNOFF	.21	1	2	.08	.0	3.57	24.00	3.00	---	12.44	315.47	1481.1
XSECTION 107	ADDHYD	7.97	1	2	.08	.0	3.57	24.00	1.67	1419.04	12.63	3846.29	482.3
XSECTION 108	REACH	7.97	1	2	.08	.0	3.57	24.00	1.67	---	12.63	3846.29	482.3
XSECTION 106	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.61	---	12.59	54.38	863.2
XSECTION 108	REACH	.06	1	2	.08	.0	3.57	24.00	1.60	---	12.71	52.58	834.5
XSECTION 108	RUNOFF	.03	1	2	.08	.0	3.57	24.00	1.61	---	12.48	24.88	995.1
XSECTION 108	ADDHYD	.09	1	2	.08	.0	3.57	24.00	1.61	---	12.57	71.68	814.6
XSECTION 108	ADDHYD	8.06	1	2	.08	.0	3.57	24.00	1.67	---	12.63	3916.10	485.7
XSECTION 109	ADDHYD	8.84	1	2	.08	.0	3.57	24.00	1.55	1421.08	12.62	3973.60	449.6
XSECTION 110	REACH	8.84	1	2	.08	.0	3.57	24.00	1.55	---	12.62	3973.60	449.6
XSECTION 122	RUNOFF	.35	1	2	.08	.0	3.57	24.00	2.07	---	12.47	422.06	1188.9
XSECTION 122	ADDHYD	9.19	1	2	.08	.0	3.57	24.00	1.57	---	12.58	4356.26	473.9
XSECTION 110	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.54	---	12.59	60.60	830.1
XSECTION 110	ADDHYD	9.27	1	2	.08	.0	3.57	24.00	1.57	---	12.58	4416.84	476.7
XSECTION 111	REACH	9.27	1	2	.08	.0	3.57	24.00	1.57	---	12.58	4416.84	476.7
XSECTION 111	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.47	---	12.60	55.82	797.4
XSECTION 111	ADDHYD	9.34	1	2	.08	.0	3.57	24.00	1.56	---	12.58	4472.61	479.1
XSECTION 112	REACH	9.34	1	2	.08	.0	3.57	24.00	1.56	---	12.68	4410.79	472.5
XSECTION 121	RUNOFF	.25	1	2	.08	.0	3.57	24.00	3.00	---	12.44	377.34	1509.4
XSECTION 112	ADDHYD	9.59	1	2	.08	.0	3.57	24.00	1.60	---	12.65	4519.85	471.5

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 113	REACH	9.59	1	2	.08	.0	3.57	24.00	1.60	---	12.75	4489.69	468.4
XSECTION 113	ADDHYD	10.66	1	2	.08	.0	3.57	24.00	1.97	---	12.77	5092.02	477.5
XSECTION 120	RUNOFF	.23	1	2	.08	.0	3.57	24.00	2.24	---	12.47	289.16	1251.8
XSECTION 113	ADDHYD	10.89	1	2	.08	.0	3.57	24.00	1.98	---	12.74	5207.40	478.0
XSECTION 114	REACH	10.89	1	2	.08	.0	3.57	24.00	1.97	---	12.92	5033.18	462.0
XSECTION 49	RUNOFF	.09	1	2	.08	.0	3.57	24.00	3.00	---	12.44	129.01	1500.1
XSECTION 48	REACH	.09	1	2	.08	.0	3.57	24.00	2.98	---	12.70	122.57	1425.3
XSECTION 48	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.61	---	12.61	106.64	853.1
XSECTION 48	ADDHYD	.21	1	2	.08	.0	3.57	24.00	2.17	---	12.63	226.75	1074.6
XSECTION 20	RUNOFF	.06	1	2	.08	.0	3.57	24.00	3.00	---	12.44	96.70	1510.9
XSECTION 48	REACH	.06	1	2	.08	.0	3.57	24.00	2.97	---	13.07	77.15	1205.5
XSECTION 48	ADDHYD	.28	1	2	.08	.0	3.57	24.00	2.35	---	12.68	285.32	1037.5
XSECTION 56	REACH	.28	1	2	.08	.0	3.57	24.00	2.35	---	12.82	276.84	1006.7
XSECTION 56	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.83	---	12.47	69.83	1108.4
XSECTION 56	ADDHYD	.34	1	2	.08	.0	3.57	24.00	2.25	---	12.60	302.53	895.1
XSECTION 57	REACH	.34	1	2	.08	.0	3.57	24.00	2.25	---	12.77	294.77	872.1
XSECTION 57	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.83	---	12.47	69.83	1108.4
XSECTION 57	ADDHYD	.40	1	2	.08	.0	3.57	24.00	2.18	---	12.62	331.55	826.8
XSECTION 60	REACH	.40	1	2	.08	.0	3.57	24.00	2.18	---	12.78	318.98	795.5
XSECTION 60	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.75	---	12.55	61.05	969.0
XSECTION 60	ADDHYD	.46	1	2	.08	.0	3.57	24.00	2.12	---	12.72	368.37	793.9
XSECTION 58	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.99	---	12.46	73.94	1173.7
XSECTION 60	REACH	.06	1	2	.08	.0	3.57	24.00	1.98	---	12.66	70.83	1124.3
XSECTION 60	ADDHYD	.53	1	2	.08	.0	3.57	24.00	2.10	---	12.70	438.82	832.7
XSECTION 65	REACH	.53	1	2	.08	.0	3.57	24.00	2.10	---	12.80	434.24	824.0
XSECTION 65	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.47	---	12.56	52.57	834.5
XSECTION 65	ADDHYD	.59	1	2	.08	.0	3.57	24.00	2.03	---	12.77	471.52	799.2
XSECTION 68	REACH	.59	1	2	.08	.0	3.57	24.00	2.03	---	12.87	466.57	790.8
XSECTION 68	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.07	---	12.46	75.97	1205.8
XSECTION 68	ADDHYD	.65	1	2	.08	.0	3.57	24.00	2.03	---	12.86	478.57	732.9
XSECTION 47	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.83	---	12.49	135.44	1083.5
XSECTION 46	REACH	.13	1	2	.08	.0	3.57	24.00	1.83	---	12.59	133.89	1071.1
XSECTION 46	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.83	---	12.48	136.28	1090.3
XSECTION 46	ADDHYD	.25	1	2	.08	.0	3.57	24.00	1.83	---	12.52	268.27	1073.1
XSECTION 59	REACH	.25	1	2	.08	.0	3.57	24.00	1.82	---	12.71	255.96	1023.8
XSECTION 59	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.83	---	12.47	69.83	1108.4

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 59	ADDHYD	.31	1	2	.08	.0	3.57	24.00	1.82	---	12.58	298.86	954.8
XSECTION 21	RUNOFF	.19	1	2	.08	.0	3.57	24.00	1.90	---	12.58	186.00	984.1
XSECTION 43	RUNOFF	.05	1	2	.08	.0	3.57	24.00	2.16	---	12.45	60.28	1282.6
XSECTION 21	ADDHYD	.24	1	2	.08	.0	3.57	24.00	1.95	---	12.49	238.75	1011.7
XSECTION 45	REACH	.24	1	2	.08	.0	3.57	24.00	1.94	---	12.79	195.40	828.0
XSECTION 45	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.15	---	12.54	140.66	1125.3
XSECTION 45	ADDHYD	.36	1	2	.08	.0	3.57	24.00	2.01	---	12.66	316.02	875.4
XSECTION 59	REACH	.36	1	2	.08	.0	3.57	24.00	2.01	---	12.78	309.74	858.0
XSECTION 59	ADDHYD	.67	1	2	.08	.0	3.57	24.00	1.92	---	12.69	588.44	873.1
XSECTION 66	REACH	.67	1	2	.08	.0	3.57	24.00	1.92	---	12.79	584.55	867.3
XSECTION 66	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.90	---	12.54	66.12	1049.6
XSECTION 66	ADDHYD	.74	1	2	.08	.0	3.57	24.00	1.92	---	12.74	629.12	853.6
XSECTION 68	REACH	.74	1	2	.08	.0	3.57	24.00	1.91	---	12.87	621.01	842.6
XSECTION 68	ADDHYD	1.39	1	2	.08	.0	3.57	24.00	1.97	---	12.87	1099.49	791.0
XSECTION 70	REACH	1.39	1	2	.08	.0	3.57	24.00	1.97	---	12.96	1093.31	786.6
XSECTION 70	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.15	---	12.46	77.97	1237.6
XSECTION 70	ADDHYD	1.45	1	2	.08	.0	3.57	24.00	1.98	---	12.96	1102.61	758.9
XSECTION 74	REACH	1.45	1	2	.08	.0	3.57	24.00	1.97	---	13.06	1098.04	755.7
XSECTION 74	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.50	---	12.45	86.02	1365.4
XSECTION 74	ADDHYD	1.52	1	2	.08	.0	3.57	24.00	2.00	---	13.05	1106.34	729.8
XSECTION 23	RUNOFF	.09	1	2	.08	.0	3.57	24.00	3.00	---	12.44	135.51	1489.1
XSECTION 40	REACH	.09	1	2	.08	.0	3.57	24.00	2.98	---	12.82	124.25	1365.4
XSECTION 38	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.61	---	12.54	115.83	926.7
XSECTION 40	REACH	.13	1	2	.08	.0	3.57	24.00	1.60	---	12.79	103.23	825.9
XSECTION 40	ADDHYD	.22	1	2	.08	.0	3.57	24.00	2.18	---	12.80	227.28	1052.2
XSECTION 40	RUNOFF	.09	1	2	.08	.0	3.57	24.00	1.83	---	12.56	92.89	988.2
XSECTION 40	ADDHYD	.31	1	2	.08	.0	3.57	24.00	2.07	---	12.68	302.51	975.8
XSECTION 82	REACH	.31	1	2	.08	.0	3.57	24.00	2.07	---	12.82	297.00	958.1
XSECTION 82	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.99	---	12.47	73.36	1164.5
XSECTION 82	ADDHYD	.37	1	2	.08	.0	3.57	24.00	2.06	---	12.63	325.75	873.3
XSECTION 39	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.06	---	12.55	135.10	1080.8
XSECTION 82	REACH	.13	1	2	.08	.0	3.57	24.00	2.06	---	12.72	126.14	1009.1
XSECTION 82	ADDHYD	.50	1	2	.08	.0	3.57	24.00	2.06	---	12.66	449.67	903.0
XSECTION 81	REACH	.50	1	2	.08	.0	3.57	24.00	2.05	---	12.79	445.17	893.9
XSECTION 81	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.47	---	12.58	51.67	820.2
XSECTION 81	ADDHYD	.56	1	2	.08	.0	3.57	24.00	1.99	---	12.74	487.43	868.9

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 78	REACH	.56	1	2	.08	.0	3.57	24.00	1.98	---	12.87	480.67	856.8
XSECTION 78	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.15	---	12.46	77.42	1228.9
XSECTION 78	ADDHYD	.62	1	2	.08	.0	3.57	24.00	2.00	---	12.82	496.05	794.9
XSECTION 22	RUNOFF	.15	1	2	.08	.0	3.57	24.00	1.90	---	12.54	159.92	1045.3
XSECTION 41	REACH	.15	1	2	.08	.0	3.57	24.00	1.90	---	12.69	149.88	979.6
XSECTION 41	RUNOFF	.17	1	2	.08	.0	3.57	24.00	1.98	---	12.51	191.99	1116.2
XSECTION 41	ADDHYD	.32	1	2	.08	.0	3.57	24.00	1.94	---	12.55	331.49	1020.0
XSECTION 42	RUNOFF	.08	1	2	.08	.0	3.57	24.00	1.91	---	12.46	90.19	1156.3
XSECTION 42	ADDHYD	.40	1	2	.08	.0	3.57	24.00	1.94	---	12.52	417.50	1036.0
XSECTION 78	REACH	.40	1	2	.08	.0	3.57	24.00	1.93	---	12.63	403.13	1000.3
XSECTION 78	ADDHYD	1.03	1	2	.08	.0	3.57	24.00	1.97	---	12.67	876.99	853.9
XSECTION 77	REACH	1.03	1	2	.08	.0	3.57	24.00	1.97	---	12.77	870.34	847.5
XSECTION 77	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.47	---	12.53	56.20	892.0
XSECTION 77	ADDHYD	1.09	1	2	.08	.0	3.57	24.00	1.94	---	12.75	904.01	829.4
XSECTION 69	REACH	1.09	1	2	.08	.0	3.57	24.00	1.94	---	12.85	896.07	822.1
XSECTION 69	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.75	---	12.61	57.16	907.3
XSECTION 69	ADDHYD	1.15	1	2	.08	.0	3.57	24.00	1.93	---	12.83	940.49	815.7
XSECTION 44	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.91	---	12.48	140.24	1121.9
XSECTION 67	REACH	.13	1	2	.08	.0	3.57	24.00	1.90	---	12.60	137.74	1101.9
XSECTION 67	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.32	---	12.45	81.87	1299.5
XSECTION 67	ADDHYD	.19	1	2	.08	.0	3.57	24.00	2.04	---	12.52	211.86	1126.9
XSECTION 69	REACH	.19	1	2	.08	.0	3.57	24.00	2.04	---	12.62	207.61	1104.3
XSECTION 69	ADDHYD	1.34	1	2	.08	.0	3.57	24.00	1.95	---	12.78	1108.89	826.9
XSECTION 74	REACH	1.34	1	2	.08	.0	3.57	24.00	1.94	---	12.89	1091.37	813.9
XSECTION 74	ADDHYD	2.86	1	2	.08	.0	3.57	24.00	1.97	---	12.96	2160.57	756.2
XSECTION 114	REACH	2.86	1	2	.08	.0	3.57	24.00	1.97	---	13.15	2073.90	725.9
XSECTION 114	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.46	---	12.95	70.49	550.7
XSECTION 114	ADDHYD	2.98	1	2	.08	.0	3.57	24.00	1.94	---	13.14	2139.16	716.6
XSECTION 71	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.06	---	12.54	138.29	1106.3
XSECTION 114	REACH	.13	1	2	.08	.0	3.57	24.00	2.05	---	12.91	115.96	927.7
XSECTION 114	ADDHYD	3.11	1	2	.08	.0	3.57	24.00	1.95	---	13.12	2237.71	719.5
XSECTION 64	RUNOFF	.25	1	2	.08	.0	3.57	24.00	1.83	---	12.49	267.71	1070.8
XSECTION 72	REACH	.25	1	2	.08	.0	3.57	24.00	1.82	---	12.72	244.17	976.7
XSECTION 72	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.90	---	12.54	129.69	1037.5
XSECTION 72	ADDHYD	.38	1	2	.08	.0	3.57	24.00	1.85	---	12.64	359.31	958.2
XSECTION 114	REACH	.38	1	2	.08	.0	3.57	24.00	1.84	---	12.82	329.76	879.4

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 114	ADDHYD	3.48	1	2	.08	.0	3.57	24.00	1.94	---	13.07	2491.25	714.9
XSECTION 115	RUNOFF	.09	1	2	.08	.0	3.57	24.00	1.83	---	12.53	96.28	1024.2
XSECTION 114	ADDHYD	3.58	1	2	.08	.0	3.57	24.00	1.93	---	13.06	2512.48	702.0
XSECTION 114	ADDHYD	14.47	1	2	.08	.0	3.57	24.00	1.96	---	12.97	7480.18	516.8
XSECTION 119	RUNOFF	.23	1	2	.08	.0	3.57	24.00	1.74	---	12.84	163.59	708.2
XSECTION 119	ADDHYD	14.70	1	2	.08	.0	3.57	24.00	1.96	---	12.97	7637.48	519.4
XSECTION 118	REACH	14.70	1	2	.08	.0	3.57	24.00	1.96	---	13.14	7498.92	510.0
XSECTION 118	RUNOFF	.23	1	2	.08	.0	3.57	24.00	1.73	---	13.18	125.08	541.5
XSECTION 118	ADDHYD	14.93	1	2	.08	.0	3.57	24.00	1.95	---	13.14	7623.72	510.5
ALTERNATE 1 STORM 3													
XSECTION 1	RUNOFF	.15	1	2	.08	.0	4.04	24.00	3.46	---	12.45	248.49	1679.0
XSECTION 2	RUNOFF	.10	1	2	.08	.0	4.04	24.00	3.46	---	12.44	165.73	1708.6
XSECTION 3	REACH	.15	1	2	.08	.0	4.04	24.00	3.45	---	12.63	244.59	1652.7
XSECTION 3	REACH	.10	1	2	.08	.0	4.04	24.00	3.44	---	12.70	158.51	1634.1
XSECTION 3	ADDHYD	.25	1	2	.08	.0	4.04	24.00	3.45	---	12.65	400.78	1635.9
XSECTION 3	RUNOFF	.05	1	2	.08	.0	4.04	24.00	1.83	---	12.52	51.36	1092.7
XSECTION 3	ADDHYD	.29	1	2	.08	.0	4.04	24.00	3.19	---	12.59	446.92	1530.5
XSECTION 6	RUNOFF	.11	1	2	.08	.0	4.04	24.00	2.13	---	12.71	106.85	980.3
XSECTION 6	REACH	.29	1	2	.08	.0	4.04	24.00	3.18	1505.54	12.71	443.03	1517.2
XSECTION 6	ADDHYD	.40	1	2	.08	.0	4.04	24.00	2.90	1506.07	12.71	549.88	1371.3
XSECTION 8	REACH	.40	1	2	.08	.0	4.04	24.00	2.89	1497.00	12.86	531.54	1325.5
XSECTION 7	RUNOFF	.12	1	2	.08	.0	4.04	24.00	1.83	---	12.65	106.65	911.5
XSECTION 8	REACH	.12	1	2	.08	.0	4.04	24.00	1.82	1495.41	12.77	105.14	898.7
XSECTION 19	RUNOFF	.02	1	2	.08	.0	4.04	24.00	3.47	---	12.44	37.85	1720.5
XSECTION 4	RUNOFF	.19	1	2	.08	.0	4.04	24.00	3.46	---	12.44	330.80	1696.4
XSECTION 4	REACH	.02	1	2	.08	.0	4.04	24.00	3.43	---	12.97	31.76	1443.6
XSECTION 4	ADDHYD	.22	1	2	.08	.0	4.04	24.00	3.46	---	12.45	351.51	1619.9
XSECTION 5	RUNOFF	.13	1	2	.08	.0	4.04	24.00	1.83	---	12.59	122.65	981.2
XSECTION 5	REACH	.22	1	2	.08	.0	4.04	24.00	3.45	---	12.62	342.38	1577.8
XSECTION 5	ADDHYD	.34	1	2	.08	.0	4.04	24.00	2.85	---	12.61	464.83	1359.2
XSECTION 8	REACH	.34	1	2	.08	.0	4.04	24.00	2.84	1496.88	12.85	436.28	1275.7
XSECTION 8	ADDHYD	.52	1	2	.08	.0	4.04	24.00	2.65	1497.09	12.84	633.31	1222.6
XSECTION 8	ADDHYD	.86	1	2	.08	.0	4.04	24.00	2.73	1497.43	12.85	1069.56	1243.7
XSECTION 18	RUNOFF	.18	1	2	.08	.0	4.04	24.00	1.90	---	12.67	171.98	934.7
XSECTION 8	REACH	.18	1	2	.08	.0	4.04	24.00	1.89	1495.70	12.98	146.42	795.7
XSECTION 8	ADDHYD	1.04	1	2	.08	.0	4.04	24.00	2.58	1497.51	12.86	1208.88	1157.9

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 8	RUNOFF	.13	1	2	.08	.0	4.04	24.00	1.90	---	12.68	119.20	909.9
XSECTION 8	ADDHYD	1.18	1	2	.08	.0	4.04	24.00	2.50	1497.58	12.84	1315.07	1119.2
XSECTION 14	REACH	1.18	1	2	.08	.0	4.04	24.00	2.49	1489.32	13.14	1185.18	1008.7
XSECTION 9	RUNOFF	.20	1	2	.08	.0	4.04	24.00	1.82	---	12.78	157.37	794.8
XSECTION 14	REACH	.20	1	2	.08	.0	4.04	24.00	1.82	1486.26	12.93	152.29	769.1
XSECTION 14	ADDHYD	1.37	1	2	.08	.0	4.04	24.00	2.39	1489.40	13.12	1323.24	963.8
XSECTION 16	RUNOFF	.12	1	2	.08	.0	4.04	24.00	2.56	---	12.54	155.97	1310.7
XSECTION 15	REACH	.12	1	2	.08	.0	4.04	24.00	2.56	---	12.54	155.97	1310.7
XSECTION 15	RUNOFF	.07	1	2	.08	.0	4.04	24.00	2.21	---	12.74	71.32	977.0
XSECTION 15	ADDHYD	.19	1	2	.08	.0	4.04	24.00	2.43	---	12.59	221.76	1155.0
XSECTION 14	ADDHYD	1.57	1	2	.08	.0	4.04	24.00	2.40	1489.44	13.08	1415.93	904.7
XSECTION 14	RUNOFF	.18	1	2	.08	.0	4.04	24.00	2.31	---	12.51	227.94	1287.8
XSECTION 14	ADDHYD	1.74	1	2	.08	.0	4.04	24.00	2.39	1489.46	13.06	1453.15	834.2
XSECTION 27	REACH	1.74	1	2	.08	.0	4.04	24.00	2.38	1472.97	13.26	1387.16	796.3
XSECTION 17	RUNOFF	.06	1	2	.08	.0	4.04	24.00	3.47	---	12.44	101.51	1720.5
XSECTION 25	REACH	.06	1	2	.08	.0	4.04	24.00	3.43	---	12.88	89.50	1517.0
XSECTION 25	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.31	---	12.52	113.22	1272.2
XSECTION 25	ADDHYD	.15	1	2	.08	.0	4.04	24.00	2.76	---	12.56	188.68	1274.9
XSECTION 27	REACH	.15	1	2	.08	.0	4.04	24.00	2.75	1470.53	12.68	184.64	1247.6
XSECTION 27	ADDHYD	1.89	1	2	.08	.0	4.04	24.00	2.41	1473.01	13.21	1474.05	779.9
XSECTION 26	RUNOFF	.07	1	2	.08	.0	4.04	24.00	2.48	---	12.47	93.38	1393.7
XSECTION 27	ADDHYD	1.96	1	2	.08	.0	4.04	24.00	2.41	1473.02	13.21	1482.29	757.4
XSECTION 27	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.04	---	12.93	145.70	775.0
XSECTION 27	ADDHYD	2.15	1	2	.08	.0	4.04	24.00	2.38	1473.09	13.17	1609.84	750.5
XSECTION 37	REACH	2.15	1	2	.08	.0	4.04	24.00	2.38	1456.06	13.29	1602.60	747.1
XSECTION 37	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.31	---	12.46	169.10	1352.8
XSECTION 37	ADDHYD	2.27	1	2	.08	.0	4.04	24.00	2.37	1456.07	13.28	1614.38	711.2
STRUCTURE 37	RESVOR	2.27	1	2	.08	.0	4.04	24.00	2.35	1451.11	13.32	1612.18	710.2
XSECTION 24	RUNOFF	.20	1	2	.08	.0	4.04	24.00	2.14	---	12.54	233.88	1181.2
XSECTION 37	REACH	.20	1	2	.08	.0	4.04	24.00	2.14	1453.48	12.63	231.07	1167.0
XSECTION 37	ADDHYD	2.47	1	2	.08	.0	4.04	24.00	2.33	1456.11	13.28	1651.19	669.0
XSECTION 143	REACH	2.47	1	2	.08	.0	4.04	24.00	2.33	---	13.37	1649.80	668.5
XSECTION 86	DIVERT	1.23	1	2	.08	.0	4.04	24.00	.00	---	.00	.00	.0
XSECTION 85	DIVERT	1.23	1	2	.08	.0	4.04	24.00	4.66	1429.76	13.37	1649.80	1337.0
XSECTION 86	REACH	1.23	1	2	.08	.0	4.04	24.00	.00	---	.00	.00	.0
XSECTION 86	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.57	---	12.46	90.81	1441.4

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 86	ADDHYD	1.30	1	2	.08	.0	4.04	24.00	.12	1429.97	12.46	90.81	70.0
XSECTION 87	REACH	1.30	1	2	.08	.0	4.04	24.00	.12	1429.96	12.70	80.99	62.4
XSECTION 87	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.30	---	12.55	77.03	1222.7
XSECTION 87	ADDHYD	1.36	1	2	.08	.0	4.04	24.00	.23	1430.03	12.61	154.05	113.3
XSECTION 105	REACH	1.36	1	2	.08	.0	4.04	24.00	.22	1417.62	12.99	131.77	96.9
XSECTION 10	RUNOFF	.09	1	2	.08	.0	4.04	24.00	1.83	---	12.59	93.22	981.2
XSECTION 11	REACH	.09	1	2	.08	.0	4.04	24.00	1.82	---	12.72	89.38	940.9
XSECTION 11	RUNOFF	.23	1	2	.08	.0	4.04	24.00	1.82	---	12.73	196.56	840.0
XSECTION 11	ADDHYD	.33	1	2	.08	.0	4.04	24.00	1.82	---	12.73	285.92	869.1
XSECTION 28	REACH	.33	1	2	.08	.0	4.04	24.00	1.80	---	13.23	209.26	636.0
XSECTION 13	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.22	---	12.59	140.57	1124.5
XSECTION 28	REACH	.13	1	2	.08	.0	4.04	24.00	2.19	---	13.15	99.15	793.2
XSECTION 28	ADDHYD	.45	1	2	.08	.0	4.04	24.00	1.91	---	13.20	307.52	677.3
XSECTION 28	RUNOFF	.16	1	2	.08	.0	4.04	24.00	1.97	---	12.78	134.01	859.0
XSECTION 28	ADDHYD	.61	1	2	.08	.0	4.04	24.00	1.93	---	13.08	402.24	659.4
XSECTION 36	REACH	.61	1	2	.08	.0	4.04	24.00	1.91	---	13.46	360.51	591.0
XSECTION 36	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.30	---	12.54	155.70	1245.6
XSECTION 36	ADDHYD	.74	1	2	.08	.0	4.04	24.00	1.98	---	13.44	375.82	511.3
XSECTION 90	REACH	.74	1	2	.08	.0	4.04	24.00	1.97	---	13.62	367.45	499.9
XSECTION 34	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.38	---	12.64	141.66	1133.3
XSECTION 35	REACH	.13	1	2	.08	.0	4.04	24.00	2.38	---	12.76	139.31	1114.5
XSECTION 35	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.30	---	12.54	154.91	1239.3
XSECTION 35	ADDHYD	.25	1	2	.08	.0	4.04	24.00	2.34	---	12.61	281.50	1126.0
XSECTION 91	REACH	.25	1	2	.08	.0	4.04	24.00	2.33	---	12.78	261.44	1045.7
XSECTION 91	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.57	---	12.52	169.21	1353.7
XSECTION 91	ADDHYD	.38	1	2	.08	.0	4.04	24.00	2.41	---	12.64	403.27	1075.4
XSECTION 90	REACH	.38	1	2	.08	.0	4.04	24.00	2.41	---	12.75	397.45	1059.9
XSECTION 90	RUNOFF	.11	1	2	.08	.0	4.04	24.00	2.47	---	12.58	132.92	1219.5
XSECTION 90	ADDHYD	.48	1	2	.08	.0	4.04	24.00	2.42	---	12.70	520.74	1075.9
XSECTION 90	ADDHYD	1.22	1	2	.08	.0	4.04	24.00	2.15	---	12.76	753.15	617.8
XSECTION 88	REACH	1.22	1	2	.08	.0	4.04	24.00	2.15	---	12.86	748.02	613.6
XSECTION 88	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.65	---	12.64	115.03	1223.7
XSECTION 88	ADDHYD	1.31	1	2	.08	.0	4.04	24.00	2.18	---	12.83	848.05	645.9
XSECTION 89	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.39	---	12.50	62.16	1322.6
XSECTION 88	REACH	.05	1	2	.08	.0	4.04	24.00	2.38	---	12.75	56.34	1198.7
XSECTION 88	ADDHYD	1.36	1	2	.08	.0	4.04	24.00	2.19	---	12.82	902.96	663.9

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 101	REACH	1.36	1	2	.08	.0	4.04	24.00	2.19	---	12.91	901.43	662.8
XSECTION 101	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.84	---	12.53	67.37	1433.4
XSECTION 101	ADDHYD	1.41	1	2	.08	.0	4.04	24.00	2.21	---	12.88	934.88	664.4
XSECTION 102	REACH	1.41	1	2	.08	.0	4.04	24.00	2.21	---	13.06	895.28	636.3
XSECTION 102	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.22	---	12.60	70.08	1112.4
XSECTION 102	ADDHYD	1.47	1	2	.08	.0	4.04	24.00	2.21	---	13.03	926.60	630.3
XSECTION 105	REACH	1.47	1	2	.08	.0	4.04	24.00	2.20	1418.17	13.18	908.37	617.9
XSECTION 105	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.90	---	12.61	61.30	973.0
XSECTION 105	ADDHYD	1.53	1	2	.08	.0	4.04	24.00	2.19	1418.18	13.17	927.93	605.3
XSECTION 105	ADDHYD	2.89	1	2	.08	.0	4.04	24.00	1.26	1418.23	13.13	1050.46	363.1
XSECTION 107	REACH	2.89	1	2	.08	.0	4.04	24.00	1.26	1418.22	13.29	1031.59	356.6
XSECTION 107	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.22	---	12.52	73.26	1241.7
XSECTION 107	ADDHYD	2.95	1	2	.08	.0	4.04	24.00	1.28	1418.23	13.28	1039.75	352.2
XSECTION 85	REACH	1.23	1	2	.08	.0	4.04	24.00	4.65	1429.75	13.53	1634.03	1324.2
XSECTION 85	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.06	---	12.56	70.24	1114.9
XSECTION 85	ADDHYD	1.30	1	2	.08	.0	4.04	24.00	4.52	1429.75	13.52	1641.24	1265.4
XSECTION 83	REACH	1.30	1	2	.08	.0	4.04	24.00	4.51	1429.75	13.68	1625.53	1253.3
XSECTION 83	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.14	---	12.56	72.50	1150.8
XSECTION 83	ADDHYD	1.36	1	2	.08	.0	4.04	24.00	4.40	1429.75	13.67	1631.56	1199.7
XSECTION 84	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.90	---	12.57	65.73	1043.3
XSECTION 83	REACH	.06	1	2	.08	.0	4.04	24.00	1.90	1428.98	12.72	61.53	976.6
XSECTION 83	ADDHYD	1.42	1	2	.08	.0	4.04	24.00	4.29	1429.75	13.67	1639.85	1152.4
XSECTION 109	DIVERT	.71	1	2	.08	.0	4.04	24.00	.29	1418.58	13.67	112.96	158.8
XSECTION 80	DIVERT	.71	1	2	.08	.0	4.04	24.00	8.29	1418.58	13.67	1526.89	2146.0
XSECTION 109	REACH	.71	1	2	.08	.0	4.04	24.00	.29	1418.56	13.91	104.47	146.8
XSECTION 109	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.39	---	12.47	86.13	1367.2
XSECTION 109	ADDHYD	.77	1	2	.08	.0	4.04	24.00	.46	1418.57	13.91	108.29	139.8
XSECTION 80	REACH	.71	1	2	.08	.0	4.04	24.00	8.28	1418.58	13.79	1521.17	2138.0
XSECTION 80	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.30	---	12.53	79.54	1262.5
XSECTION 80	ADDHYD	.77	1	2	.08	.0	4.04	24.00	7.79	1418.58	13.79	1525.97	1970.3
XSECTION 79	REACH	.77	1	2	.08	.0	4.04	24.00	7.78	---	13.88	1525.41	1969.5
XSECTION 79	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.76	---	12.45	95.29	1512.5
XSECTION 79	ADDHYD	.84	1	2	.08	.0	4.04	24.00	7.40	---	13.88	1529.44	1826.2
XSECTION 76	REACH	.84	1	2	.08	.0	4.04	24.00	7.40	---	13.96	1529.13	1825.8
XSECTION 76	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.57	---	12.46	91.40	1450.7
XSECTION 76	ADDHYD	.90	1	2	.08	.0	4.04	24.00	7.06	---	13.96	1532.97	1702.4

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 75	REACH	.90	1	2	.08	.0	4.04	24.00	7.05	---	14.05	1532.44	1701.8
XSECTION 75	RUNOFF	.06	1	2	.08	.0	4.04	24.00	3.45	---	12.50	101.37	1609.0
XSECTION 75	ADDHYD	.96	1	2	.08	.0	4.04	24.00	6.81	---	14.05	1537.20	1595.4
XSECTION 113	REACH	.96	1	2	.08	.0	4.04	24.00	6.80	---	14.16	1534.00	1592.1
XSECTION 112	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.83	---	12.55	63.36	1038.7
XSECTION 113	REACH	.06	1	2	.08	.0	4.04	24.00	1.82	---	12.71	57.37	940.5
XSECTION 113	ADDHYD	1.02	1	2	.08	.0	4.04	24.00	6.51	---	14.15	1537.94	1501.2
XSECTION 113	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.56	---	12.54	70.47	1329.7
XSECTION 113	ADDHYD	1.08	1	2	.08	.0	4.04	24.00	6.31	---	14.15	1541.40	1430.5
XSECTION 12	RUNOFF	.07	1	2	.08	.0	4.04	24.00	1.83	---	12.53	74.48	1064.0
XSECTION 29	REACH	.07	1	2	.08	.0	4.04	24.00	1.78	---	13.43	36.59	522.7
XSECTION 29	RUNOFF	.25	1	2	.08	.0	4.04	24.00	1.89	---	12.84	194.89	779.6
XSECTION 29	ADDHYD	.32	1	2	.08	.0	4.04	24.00	1.87	---	12.88	210.66	658.3
XSECTION 33	REACH	.32	1	2	.08	.0	4.04	24.00	1.86	---	13.06	203.67	636.5
XSECTION 30	RUNOFF	.25	1	2	.08	.0	4.04	24.00	1.97	---	12.80	208.97	835.9
XSECTION 33	REACH	.25	1	2	.08	.0	4.04	24.00	1.94	---	13.47	144.54	578.2
XSECTION 33	ADDHYD	.57	1	2	.08	.0	4.04	24.00	1.90	---	13.22	325.85	571.7
XSECTION 33	RUNOFF	.23	1	2	.08	.0	4.04	24.00	1.81	---	12.91	164.77	704.2
XSECTION 33	ADDHYD	.80	1	2	.08	.0	4.04	24.00	1.87	---	13.10	470.68	585.4
XSECTION 92	REACH	.80	1	2	.08	.0	4.04	24.00	1.87	---	13.34	446.66	555.5
XSECTION 92	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.57	---	12.52	169.21	1353.7
XSECTION 92	ADDHYD	.93	1	2	.08	.0	4.04	24.00	1.96	---	13.30	466.87	502.5
XSECTION 93	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.39	---	12.52	253.10	1297.9
XSECTION 92	REACH	.19	1	2	.08	.0	4.04	24.00	2.39	---	12.64	245.25	1257.7
XSECTION 92	ADDHYD	1.12	1	2	.08	.0	4.04	24.00	2.04	---	12.72	609.23	542.0
XSECTION 98	REACH	1.12	1	2	.08	.0	4.04	24.00	2.03	---	12.91	582.07	517.9
XSECTION 31	RUNOFF	.08	1	2	.08	.0	4.04	24.00	1.82	---	12.59	81.11	965.6
XSECTION 32	REACH	.08	1	2	.08	.0	4.04	24.00	1.78	---	13.56	42.52	506.2
XSECTION 32	RUNOFF	.18	1	2	.08	.0	4.04	24.00	1.82	---	12.78	143.06	794.8
XSECTION 32	ADDHYD	.26	1	2	.08	.0	4.04	24.00	1.81	---	12.84	154.88	586.7
XSECTION 94	REACH	.26	1	2	.08	.0	4.04	24.00	1.80	---	13.15	134.41	509.1
XSECTION 94	RUNOFF	.14	1	2	.08	.0	4.04	24.00	2.39	---	12.49	186.62	1342.6
XSECTION 94	ADDHYD	.40	1	2	.08	.0	4.04	24.00	2.00	---	12.55	251.01	622.9
XSECTION 95	REACH	.40	1	2	.08	.0	4.04	24.00	2.00	---	12.71	226.94	563.1
XSECTION 95	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.55	---	12.77	132.85	1062.8
XSECTION 95	ADDHYD	.53	1	2	.08	.0	4.04	24.00	2.13	---	12.72	358.85	679.6

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 98	REACH	.53	1	2	.08	.0	4.04	24.00	2.12	---	12.96	325.77	617.0
XSECTION 98	ADDHYD	1.65	1	2	.08	.0	4.04	24.00	2.06	---	12.93	906.38	548.7
XSECTION 96	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.22	---	12.55	148.27	1186.2
XSECTION 97	REACH	.13	1	2	.08	.0	4.04	24.00	2.21	---	12.81	133.74	1069.9
XSECTION 97	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.66	---	12.54	254.23	1352.3
XSECTION 97	ADDHYD	.31	1	2	.08	.0	4.04	24.00	2.48	---	12.60	367.44	1173.9
XSECTION 98	REACH	.31	1	2	.08	.0	4.04	24.00	2.47	---	12.71	363.27	1160.6
XSECTION 98	ADDHYD	1.97	1	2	.08	.0	4.04	24.00	2.12	---	12.84	1233.46	627.7
XSECTION 98	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.57	---	12.49	131.63	1400.3
XSECTION 98	ADDHYD	2.06	1	2	.08	.0	4.04	24.00	2.15	---	12.79	1286.14	624.6
XSECTION 99	REACH	2.06	1	2	.08	.0	4.04	24.00	2.14	---	12.89	1282.17	622.7
XSECTION 99	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.56	---	12.53	126.50	1345.7
XSECTION 99	ADDHYD	2.15	1	2	.08	.0	4.04	24.00	2.16	---	12.84	1346.99	625.6
XSECTION 139	REACH	2.15	1	2	.08	.0	4.04	24.00	2.16	---	12.98	1329.94	617.7
XSECTION 100	RUNOFF	.08	1	2	.08	.0	4.04	24.00	2.57	---	12.50	108.52	1391.3
XSECTION 139	REACH	.08	1	2	.08	.0	4.04	24.00	2.56	---	12.61	107.03	1372.2
XSECTION 139	ADDHYD	2.23	1	2	.08	.0	4.04	24.00	2.17	---	12.93	1378.08	617.7
XSECTION 142	RUNOFF	.25	1	2	.08	.0	4.04	24.00	2.28	---	13.03	196.23	784.9
XSECTION 141	REACH	.25	1	2	.08	.0	4.04	24.00	2.28	---	13.26	185.81	743.2
XSECTION 141	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.66	---	12.54	254.23	1352.3
XSECTION 141	ADDHYD	.44	1	2	.08	.0	4.04	24.00	2.44	---	12.63	341.50	779.7
XSECTION 140	REACH	.44	1	2	.08	.0	4.04	24.00	2.43	---	12.76	333.45	761.3
XSECTION 140	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.57	---	12.52	170.38	1363.0
XSECTION 140	ADDHYD	.56	1	2	.08	.0	4.04	24.00	2.46	---	12.63	474.94	843.6
XSECTION 137	RUNOFF	.08	1	2	.08	.0	4.04	24.00	1.98	---	12.55	85.47	1095.7
XSECTION 140	ADDHYD	.64	1	2	.08	.0	4.04	24.00	2.40	---	12.61	558.48	871.3
XSECTION 139	REACH	.64	1	2	.08	.0	4.04	24.00	2.39	---	12.90	502.94	784.6
XSECTION 139	ADDHYD	2.87	1	2	.08	.0	4.04	24.00	2.22	---	12.92	1880.56	654.8
XSECTION 136	RUNOFF	.07	1	2	.08	.0	4.04	24.00	3.47	---	12.44	113.55	1720.5
XSECTION 138	REACH	.07	1	2	.08	.0	4.04	24.00	3.44	---	12.69	107.95	1635.6
XSECTION 138	RUNOFF	.20	1	2	.08	.0	4.04	24.00	2.40	---	12.46	283.21	1395.1
XSECTION 138	ADDHYD	.27	1	2	.08	.0	4.04	24.00	2.65	---	12.47	384.43	1429.1
XSECTION 139	REACH	.27	1	2	.08	.0	4.04	24.00	2.65	---	12.61	358.05	1331.0
XSECTION 139	ADDHYD	3.14	1	2	.08	.0	4.04	24.00	2.26	---	12.84	2120.29	675.0
XSECTION 139	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.66	---	12.51	263.45	1401.3
XSECTION 139	ADDHYD	3.33	1	2	.08	.0	4.04	24.00	2.28	---	12.76	2263.56	680.0

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 129	RUNOFF	.11	1	2	.08	.0	4.04	24.00	2.23	---	12.45	148.26	1372.8
XSECTION 130	RUNOFF	.03	1	2	.08	.0	4.04	24.00	3.05	---	12.44	50.77	1637.7
XSECTION 129	ADDHYD	.14	1	2	.08	.0	4.04	24.00	2.41	---	12.45	199.00	1431.7
XSECTION 127	REACH	.14	1	2	.08	.0	4.04	24.00	2.40	---	12.72	178.16	1281.8
XSECTION 128	RUNOFF	.04	1	2	.08	.0	4.04	24.00	2.07	---	12.45	47.02	1306.1
XSECTION 127	REACH	.04	1	2	.08	.0	4.04	24.00	2.05	---	12.84	36.51	1014.1
XSECTION 127	ADDHYD	.17	1	2	.08	.0	4.04	24.00	2.32	---	12.73	211.94	1211.1
XSECTION 127	RUNOFF	.16	1	2	.08	.0	4.04	24.00	2.23	---	12.45	213.56	1343.1
XSECTION 127	ADDHYD	.33	1	2	.08	.0	4.04	24.00	2.28	---	12.49	390.23	1168.4
XSECTION 132	RUNOFF	.14	1	2	.08	.0	4.04	24.00	2.76	---	12.46	218.08	1504.0
XSECTION 131	REACH	.14	1	2	.08	.0	4.04	24.00	2.75	---	12.56	212.88	1468.2
XSECTION 131	ADDHYD	.48	1	2	.08	.0	4.04	24.00	2.42	---	12.50	599.46	1251.5
XSECTION 131	RUNOFF	.12	1	2	.08	.0	4.04	24.00	2.57	---	12.46	171.53	1441.4
XSECTION 131	ADDHYD	.60	1	2	.08	.0	4.04	24.00	2.45	---	12.49	769.62	1287.0
XSECTION 126	REACH	.60	1	2	.08	.0	4.04	24.00	2.45	---	12.59	760.64	1272.0
XSECTION 126	RUNOFF	.16	1	2	.08	.0	4.04	24.00	3.46	---	12.44	265.71	1681.7
XSECTION 126	ADDHYD	.76	1	2	.08	.0	4.04	24.00	2.66	---	12.53	1007.74	1333.0
XSECTION 134	REACH	.76	1	2	.08	.0	4.04	24.00	2.66	---	12.62	1002.24	1325.7
XSECTION 135	RUNOFF	.04	1	2	.08	.0	4.04	24.00	3.47	---	12.44	72.26	1720.5
XSECTION 134	REACH	.04	1	2	.08	.0	4.04	24.00	3.44	---	12.79	64.63	1538.8
XSECTION 134	ADDHYD	.80	1	2	.08	.0	4.04	24.00	2.70	---	12.62	1062.83	1331.9
XSECTION 134	RUNOFF	.20	1	2	.08	.0	4.04	24.00	2.48	---	12.47	274.55	1393.7
XSECTION 134	ADDHYD	1.00	1	2	.08	.0	4.04	24.00	2.65	---	12.56	1305.95	1312.5
XSECTION 125	RUNOFF	.12	1	2	.08	.0	4.04	24.00	3.47	---	12.44	201.30	1720.5
XSECTION 125	ADDHYD	1.11	1	2	.08	.0	4.04	24.00	2.74	---	12.51	1473.03	1324.7
XSECTION 124	REACH	1.11	1	2	.08	.0	4.04	24.00	2.73	---	12.62	1443.89	1298.5
XSECTION 124	RUNOFF	.22	1	2	.08	.0	4.04	24.00	2.40	---	12.46	303.53	1386.0
XSECTION 124	ADDHYD	1.33	1	2	.08	.0	4.04	24.00	2.68	---	12.55	1698.17	1275.9
XSECTION 103	REACH	3.33	1	2	.08	.0	4.04	24.00	2.28	---	12.76	2263.56	680.0
XSECTION 103	RUNOFF	.08	1	2	.08	.0	4.04	24.00	2.40	---	12.46	112.17	1384.9
XSECTION 103	ADDHYD	3.41	1	2	.08	.0	4.04	24.00	2.28	---	12.73	2301.12	674.8
XSECTION 104	REACH	3.41	1	2	.08	.0	4.04	24.00	2.28	---	12.73	2301.12	674.8
XSECTION 104	ADDHYD	4.74	1	2	.08	.0	4.04	24.00	2.39	---	12.62	3904.53	823.6
XSECTION 104	RUNOFF	.07	1	2	.08	.0	4.04	24.00	1.90	---	12.64	65.89	954.9
XSECTION 104	ADDHYD	4.81	1	2	.08	.0	4.04	24.00	2.39	---	12.62	3970.35	825.4
XSECTION 107	REACH	4.81	1	2	.08	.0	4.04	24.00	2.39	1419.07	12.62	3970.35	825.4

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 107	ADDHYD	7.76	1	2	.08	.0	4.04	24.00	1.97	1419.21	12.67	4553.36	586.6
XSECTION 123	RUNOFF	.21	1	2	.08	.0	4.04	24.00	3.46	---	12.44	359.53	1687.9
XSECTION 107	ADDHYD	7.97	1	2	.08	.0	4.04	24.00	2.01	1419.27	12.62	4772.16	598.4
XSECTION 108	REACH	7.97	1	2	.08	.0	4.04	24.00	2.01	---	12.62	4772.16	598.4
XSECTION 106	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.98	---	12.58	66.28	1052.0
XSECTION 108	REACH	.06	1	2	.08	.0	4.04	24.00	1.98	---	12.70	64.54	1024.4
XSECTION 108	RUNOFF	.03	1	2	.08	.0	4.04	24.00	1.99	---	12.48	30.01	1200.4
XSECTION 108	ADDHYD	.09	1	2	.08	.0	4.04	24.00	1.98	---	12.56	88.40	1004.5
XSECTION 108	ADDHYD	8.06	1	2	.08	.0	4.04	24.00	2.01	---	12.62	4858.58	602.6
XSECTION 109	ADDHYD	8.84	1	2	.08	.0	4.04	24.00	1.87	1421.64	12.61	4929.12	557.8
XSECTION 110	REACH	8.84	1	2	.08	.0	4.04	24.00	1.87	---	12.61	4929.12	557.8
XSECTION 122	RUNOFF	.35	1	2	.08	.0	4.04	24.00	2.48	---	12.47	497.17	1400.5
XSECTION 122	ADDHYD	9.19	1	2	.08	.0	4.04	24.00	1.89	---	12.58	5383.30	585.6
XSECTION 110	RUNOFF	.07	1	2	.08	.0	4.04	24.00	1.90	---	12.58	74.20	1016.5
XSECTION 110	ADDHYD	9.27	1	2	.08	.0	4.04	24.00	1.89	---	12.58	5457.50	589.0
XSECTION 111	REACH	9.27	1	2	.08	.0	4.04	24.00	1.89	---	12.58	5457.50	589.0
XSECTION 111	RUNOFF	.07	1	2	.08	.0	4.04	24.00	1.83	---	12.59	68.69	981.2
XSECTION 111	ADDHYD	9.34	1	2	.08	.0	4.04	24.00	1.89	---	12.58	5526.17	592.0
XSECTION 112	REACH	9.34	1	2	.08	.0	4.04	24.00	1.89	---	12.67	5478.13	586.8
XSECTION 121	RUNOFF	.25	1	2	.08	.0	4.04	24.00	3.47	---	12.44	429.70	1718.8
XSECTION 112	ADDHYD	9.59	1	2	.08	.0	4.04	24.00	1.93	---	12.64	5601.27	584.3
XSECTION 113	REACH	9.59	1	2	.08	.0	4.04	24.00	1.93	---	12.74	5572.27	581.3
XSECTION 113	ADDHYD	10.66	1	2	.08	.0	4.04	24.00	2.37	---	12.76	6347.93	595.3
XSECTION 120	RUNOFF	.23	1	2	.08	.0	4.04	24.00	2.66	---	12.47	338.15	1463.9
XSECTION 113	ADDHYD	10.89	1	2	.08	.0	4.04	24.00	2.38	---	12.73	6487.66	595.5
XSECTION 114	REACH	10.89	1	2	.08	.0	4.04	24.00	2.37	---	12.89	6297.11	578.0
XSECTION 49	RUNOFF	.09	1	2	.08	.0	4.04	24.00	3.46	---	12.44	146.94	1708.6
XSECTION 48	REACH	.09	1	2	.08	.0	4.04	24.00	3.44	---	12.70	140.68	1635.8
XSECTION 48	RUNOFF	.13	1	2	.08	.0	4.04	24.00	1.98	---	12.60	130.02	1040.2
XSECTION 48	ADDHYD	.21	1	2	.08	.0	4.04	24.00	2.57	---	12.62	267.97	1270.0
XSECTION 20	RUNOFF	.06	1	2	.08	.0	4.04	24.00	3.47	---	12.44	110.11	1720.5
XSECTION 48	REACH	.06	1	2	.08	.0	4.04	24.00	3.43	---	12.98	89.83	1403.5
XSECTION 48	ADDHYD	.28	1	2	.08	.0	4.04	24.00	2.77	---	12.67	341.58	1242.1
XSECTION 56	REACH	.28	1	2	.08	.0	4.04	24.00	2.77	---	12.80	334.25	1215.5
XSECTION 56	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.23	---	12.46	83.11	1319.1
XSECTION 56	ADDHYD	.34	1	2	.08	.0	4.04	24.00	2.67	---	12.59	372.21	1101.2

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 57	REACH	.34	1	2	.08	.0	4.04	24.00	2.66	---	12.73	363.95	1076.8
XSECTION 57	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.23	---	12.46	83.11	1319.1
XSECTION 57	ADDHYD	.40	1	2	.08	.0	4.04	24.00	2.60	---	12.60	412.30	1028.2
XSECTION 60	REACH	.40	1	2	.08	.0	4.04	24.00	2.59	---	12.75	399.85	997.1
XSECTION 60	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.14	---	12.54	73.55	1167.5
XSECTION 60	ADDHYD	.46	1	2	.08	.0	4.04	24.00	2.53	---	12.70	460.21	991.8
XSECTION 58	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.40	---	12.46	87.32	1386.0
XSECTION 60	REACH	.06	1	2	.08	.0	4.04	24.00	2.39	---	12.65	84.26	1337.4
XSECTION 60	ADDHYD	.53	1	2	.08	.0	4.04	24.00	2.51	---	12.69	544.37	1033.0
XSECTION 65	REACH	.53	1	2	.08	.0	4.04	24.00	2.51	---	12.79	539.99	1024.7
XSECTION 65	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.83	---	12.56	64.53	1024.3
XSECTION 65	ADDHYD	.59	1	2	.08	.0	4.04	24.00	2.44	---	12.76	586.84	994.6
XSECTION 68	REACH	.59	1	2	.08	.0	4.04	24.00	2.43	---	12.86	582.24	986.9
XSECTION 68	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.48	---	12.46	89.38	1418.7
XSECTION 68	ADDHYD	.65	1	2	.08	.0	4.04	24.00	2.44	---	12.84	597.35	914.8
XSECTION 47	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.23	---	12.48	161.49	1291.9
XSECTION 46	REACH	.13	1	2	.08	.0	4.04	24.00	2.22	---	12.58	160.03	1280.2
XSECTION 46	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.23	---	12.47	162.41	1299.3
XSECTION 46	ADDHYD	.25	1	2	.08	.0	4.04	24.00	2.22	---	12.51	317.51	1270.0
XSECTION 59	REACH	.25	1	2	.08	.0	4.04	24.00	2.22	---	12.62	308.76	1235.1
XSECTION 59	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.23	---	12.46	83.11	1319.1
XSECTION 59	ADDHYD	.31	1	2	.08	.0	4.04	24.00	2.22	---	12.55	378.51	1209.3
XSECTION 21	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.30	---	12.57	222.80	1178.8
XSECTION 43	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.58	---	12.45	70.48	1499.6
XSECTION 21	ADDHYD	.24	1	2	.08	.0	4.04	24.00	2.36	---	12.49	285.36	1209.2
XSECTION 45	REACH	.24	1	2	.08	.0	4.04	24.00	2.34	---	12.77	239.44	1014.6
XSECTION 45	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.57	---	12.54	166.06	1328.5
XSECTION 45	ADDHYD	.36	1	2	.08	.0	4.04	24.00	2.42	---	12.65	383.54	1062.4
XSECTION 59	REACH	.36	1	2	.08	.0	4.04	24.00	2.42	---	12.77	377.35	1045.3
XSECTION 59	ADDHYD	.67	1	2	.08	.0	4.04	24.00	2.32	---	12.62	720.00	1068.3
XSECTION 66	REACH	.67	1	2	.08	.0	4.04	24.00	2.32	---	12.72	715.12	1061.0
XSECTION 66	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.30	---	12.53	78.90	1252.4
XSECTION 66	ADDHYD	.74	1	2	.08	.0	4.04	24.00	2.32	---	12.69	779.36	1057.5
XSECTION 68	REACH	.74	1	2	.08	.0	4.04	24.00	2.32	---	12.81	768.12	1042.2
XSECTION 68	ADDHYD	1.39	1	2	.08	.0	4.04	24.00	2.37	---	12.82	1363.25	980.8
XSECTION 70	REACH	1.39	1	2	.08	.0	4.04	24.00	2.37	---	12.92	1356.82	976.1

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 70	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.57	---	12.46	91.40	1450.7
XSECTION 70	ADDHYD	1.45	1	2	.08	.0	4.04	24.00	2.38	---	12.91	1368.88	942.1
XSECTION 74	REACH	1.45	1	2	.08	.0	4.04	24.00	2.38	---	13.00	1366.25	940.3
XSECTION 74	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.95	---	12.45	99.42	1578.1
XSECTION 74	ADDHYD	1.52	1	2	.08	.0	4.04	24.00	2.40	---	13.00	1376.66	908.1
XSECTION 23	RUNOFF	.09	1	2	.08	.0	4.04	24.00	3.46	---	12.44	154.39	1696.6
XSECTION 40	REACH	.09	1	2	.08	.0	4.04	24.00	3.44	---	12.73	143.22	1573.8
XSECTION 38	RUNOFF	.13	1	2	.08	.0	4.04	24.00	1.98	---	12.54	140.54	1124.3
XSECTION 40	REACH	.13	1	2	.08	.0	4.04	24.00	1.97	---	12.69	127.74	1021.9
XSECTION 40	ADDHYD	.22	1	2	.08	.0	4.04	24.00	2.59	---	12.71	270.63	1252.9
XSECTION 40	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.22	---	12.55	111.50	1186.2
XSECTION 40	ADDHYD	.31	1	2	.08	.0	4.04	24.00	2.48	---	12.64	373.29	1204.2
XSECTION 82	REACH	.31	1	2	.08	.0	4.04	24.00	2.48	---	12.76	367.15	1184.4
XSECTION 82	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.40	---	12.46	86.69	1376.0
XSECTION 82	ADDHYD	.37	1	2	.08	.0	4.04	24.00	2.46	---	12.60	416.33	1116.2
XSECTION 39	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.48	---	12.55	160.23	1281.8
XSECTION 82	REACH	.13	1	2	.08	.0	4.04	24.00	2.47	---	12.70	151.27	1210.2
XSECTION 82	ADDHYD	.50	1	2	.08	.0	4.04	24.00	2.46	---	12.63	562.06	1128.6
XSECTION 81	REACH	.50	1	2	.08	.0	4.04	24.00	2.46	---	12.74	557.78	1120.0
XSECTION 81	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.83	---	12.57	63.49	1007.8
XSECTION 81	ADDHYD	.56	1	2	.08	.0	4.04	24.00	2.39	---	12.71	612.52	1091.8
XSECTION 78	REACH	.56	1	2	.08	.0	4.04	24.00	2.39	---	12.82	606.32	1080.8
XSECTION 78	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.57	---	12.46	90.81	1441.4
XSECTION 78	ADDHYD	.62	1	2	.08	.0	4.04	24.00	2.40	---	12.77	628.69	1007.5
XSECTION 22	RUNOFF	.15	1	2	.08	.0	4.04	24.00	2.30	---	12.53	190.91	1247.8
XSECTION 41	REACH	.15	1	2	.08	.0	4.04	24.00	2.30	---	12.76	180.52	1179.9
XSECTION 41	RUNOFF	.17	1	2	.08	.0	4.04	24.00	2.39	---	12.50	227.58	1323.2
XSECTION 41	ADDHYD	.32	1	2	.08	.0	4.04	24.00	2.35	---	12.55	386.12	1188.1
XSECTION 42	RUNOFF	.08	1	2	.08	.0	4.04	24.00	2.31	---	12.45	106.80	1369.2
XSECTION 42	ADDHYD	.40	1	2	.08	.0	4.04	24.00	2.34	---	12.52	484.05	1201.1
XSECTION 78	REACH	.40	1	2	.08	.0	4.04	24.00	2.34	---	12.63	472.90	1173.5
XSECTION 78	ADDHYD	1.03	1	2	.08	.0	4.04	24.00	2.38	---	12.66	1086.75	1058.2
XSECTION 77	REACH	1.03	1	2	.08	.0	4.04	24.00	2.37	---	12.75	1081.64	1053.2
XSECTION 77	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.83	---	12.53	68.62	1089.2
XSECTION 77	ADDHYD	1.09	1	2	.08	.0	4.04	24.00	2.34	---	12.73	1123.92	1031.1
XSECTION 69	REACH	1.09	1	2	.08	.0	4.04	24.00	2.34	---	12.83	1117.24	1025.0

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 69	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.14	---	12.60	69.10	1096.8
XSECTION 69	ADDHYD	1.15	1	2	.08	.0	4.04	24.00	2.33	---	12.81	1171.70	1016.2
XSECTION 44	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.31	---	12.48	166.48	1331.8
XSECTION 67	REACH	.13	1	2	.08	.0	4.04	24.00	2.30	---	12.59	162.62	1301.0
XSECTION 67	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.76	---	12.45	95.29	1512.5
XSECTION 67	ADDHYD	.19	1	2	.08	.0	4.04	24.00	2.46	---	12.51	251.26	1336.5
XSECTION 69	REACH	.19	1	2	.08	.0	4.04	24.00	2.45	---	12.61	247.57	1316.9
XSECTION 69	ADDHYD	1.34	1	2	.08	.0	4.04	24.00	2.35	---	12.76	1376.45	1026.4
XSECTION 74	REACH	1.34	1	2	.08	.0	4.04	24.00	2.34	---	12.87	1358.77	1013.3
XSECTION 74	ADDHYD	2.86	1	2	.08	.0	4.04	24.00	2.37	---	12.93	2703.09	946.1
XSECTION 114	REACH	2.86	1	2	.08	.0	4.04	24.00	2.37	---	13.10	2607.02	912.5
XSECTION 114	RUNOFF	.13	1	2	.08	.0	4.04	24.00	1.81	---	12.94	87.92	686.9
XSECTION 114	ADDHYD	2.98	1	2	.08	.0	4.04	24.00	2.34	---	13.09	2690.58	901.4
XSECTION 71	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.48	---	12.53	163.81	1310.5
XSECTION 114	REACH	.13	1	2	.08	.0	4.04	24.00	2.46	---	12.90	140.59	1124.7
XSECTION 114	ADDHYD	3.11	1	2	.08	.0	4.04	24.00	2.35	---	13.08	2815.25	905.2
XSECTION 64	RUNOFF	.25	1	2	.08	.0	4.04	24.00	2.22	---	12.48	319.51	1278.1
XSECTION 72	REACH	.25	1	2	.08	.0	4.04	24.00	2.22	---	12.63	296.13	1184.5
XSECTION 72	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.30	---	12.54	154.91	1239.3
XSECTION 72	ADDHYD	.38	1	2	.08	.0	4.04	24.00	2.25	---	12.60	446.87	1191.7
XSECTION 114	REACH	.38	1	2	.08	.0	4.04	24.00	2.24	---	12.84	413.53	1102.8
XSECTION 114	ADDHYD	3.48	1	2	.08	.0	4.04	24.00	2.34	---	13.03	3156.76	905.8
XSECTION 115	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.22	---	12.53	115.33	1226.9
XSECTION 114	ADDHYD	3.58	1	2	.08	.0	4.04	24.00	2.33	---	13.02	3185.39	890.0
XSECTION 114	ADDHYD	14.47	1	2	.08	.0	4.04	24.00	2.36	---	12.94	9403.36	649.7
XSECTION 119	RUNOFF	.23	1	2	.08	.0	4.04	24.00	2.13	---	12.83	199.50	863.6
XSECTION 119	ADDHYD	14.70	1	2	.08	.0	4.04	24.00	2.36	---	12.93	9597.77	652.7
XSECTION 118	REACH	14.70	1	2	.08	.0	4.04	24.00	2.36	---	13.09	9438.37	641.9
XSECTION 118	RUNOFF	.23	1	2	.08	.0	4.04	24.00	2.11	---	13.17	153.26	663.5
XSECTION 118	ADDHYD	14.93	1	2	.08	.0	4.04	24.00	2.35	---	13.09	9590.35	642.1

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	1															
3	1000	149	12.5	145	12.6	---	---	0	1.98	.08	1	.040	1.66	.074	.971	572	.40	.08	.16
3	1400	99	12.5	93	12.7	---	---	0	1.99	.08	1	.040	1.66	.171	.939	945	.26	.08	.27
6	1600	256	12.6	251	12.8	---	---	0	1.78	.08	1	1.73	1.17	.063	.982	379	.55	.16	.11
8	1600	299	12.8	284	13.0	---	---	0	1.55	.08	1	.594	1.26	.094	.952	589	.39	.16	.16
8	1400	45	12.7	43	12.8	---	---	0	.75	.08	1	.491	1.56	.038	.969	361	.57	.08	.10
4	1800	22	12.5	18	13.0	209	12.5	0	1.99	.08	1	.050	1.66	.553	.783	1915	.14	.16	.56
5	1400	209	12.5	201	12.6	---	---	0	1.98	.08	1	.050	1.66	.076	.966	613	.38	.08	.17
8	2100	254	12.6	235	12.9	---	---	0	1.53	.08	2	.486	1.31	.125	.924	746	.32	.16	.21
8	1900	74	12.7	55	13.1	---	---	0	.80	.08	1	.040	1.66	.334	.746	1440	.18	.24	.42
14	3000	650	12.9	565	13.2	---	---	0	1.26	.08	1	.835	1.19	.175	.869	1029	.25	.24	.29
14	2600	64	12.8	61	13.0	620	13.2	0	.75	.08	1	.713	1.50	.058	.941	537	.42	.24	.15
15	1100	80	12.6	80	12.6	111	12.7	0	1.26	.08	1	.540	1.66	.011	.997	168	.92?	.08	.05
27	3000	681	13.1	610	13.4	---	---	0	1.17	.08	1	1.34	1.09	.165	.896	1221	.21	.32	.34
25	2200	60	12.5	50	13.0	93	12.6	0	1.99	.08	1	.050	1.66	.402	.838	1581	.17	.08	.45
27	1700	93	12.6	90	12.7	---	---	0	1.43	.08	1	.718	1.43	.039	.969	383	.55	.16	.11
37	3000	704	13.4	697	13.4	703	13.4	0	1.16	.08	1	.519	1.48	.019	.990	378	.55	.08	.11
37	2100	110	12.6	106	12.6	---	---	0	.96	.08	1	.410	1.66	.038	.962	334	.60	.08	.09
143	1400	716	13.5	714	13.6	---	---	0	1.11	.08	1	.090	1.66	.007	.998	264	.71?	.08	.07
86	1250	0	.0	0	.0	48	12.5	0	.00	.08	0	.000	.00	.000	.000	0	.00	.00	.00
87	1320	48	12.5	39	12.8	71	12.6	0	.06	.08	1	.118	1.45	.316	.818	1198	.21	.16	.34
105	2000	71	12.6	57	13.0	---	---	0	.11	.08	1	.285	1.34	.262	.800	1306	.20	.32	.37
11	2700	40	12.6	36	12.8	117	12.8	0	.75	.08	1	.440	1.66	.097	.905	617	.38	.16	.17
28	3300	117	12.8	71	13.5	---	---	0	.75	.08	1	.030	1.66	.749	.610	2476	.11	.40	.75
28	2800	66	12.6	39	13.4	110	13.5	0	1.01	.08	1	.030	1.66	.979	.587	2632	.10	.32	.81
36	3500	135	13.4	115	13.8	121	13.8	0	.81	.08	1	.060	1.66	.148	.856	1635	.16	.48	.47
90	2600	121	13.8	117	14.0	---	---	0	.85	.08	1	.220	1.54	.032	.969	840	.29	.24	.23
35	1320	69	12.6	66	12.8	133	12.6	0	1.13	.08	1	.310	1.54	.045	.969	416	.51	.16	.12
91	2640	133	12.6	117	12.9	185	12.6	0	1.10	.08	1	.220	1.54	.130	.876	825	.30	.24	.23
90	1320	185	12.6	179	12.8	239	12.7	0	1.15	.08	1	.220	1.54	.031	.972	368	.56	.16	.10
88	1320	321	12.8	317	12.9	367	12.9	0	.97	.08	1	.220	1.54	.011	.987	303	.64	.08	.08
88	2000	31	12.6	26	12.9	---	---	0	1.13	.08	1	.220	1.54	.248	.837	1038	.24	.16	.30
101	1050	393	12.9	392	13.0	406	13.0	0	1.00	.08	1	.220	1.54	.008	.995	224	.78?	.08	.06

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	1															
102	1320	406	13.0	374	13.2	385	13.2	0	1.01	.08	1	.020	1.66	.046	.921	770	.31	.16	.22
105	1320	385	13.2	370	13.4	375	13.4	0	1.01	.08	1	.288	1.33	.037	.963	567	.41	.24	.16
107	1400	420	13.4	407	13.5	410	13.5	0	.58	.08	1	.282	1.34	.037	.968	584	.40	.16	.16
85	2000	714	13.6	699	13.8	701	13.8	0	2.22	.08	1	.142	1.46	.038	.978	649	.36	.24	.18
83	2000	701	13.8	688	14.0	690	14.0	0	2.15	.08	1	.143	1.46	.036	.981	654	.36	.24	.18
83	1320	29	12.6	25	12.8	---	---	0	.80	.08	1	.200	1.54	.144	.877	752	.32	.24	.21
109	2000	1	14.0	0	15.0	44	12.5	0	.00	.08	1	.379	1.35	4.691	.202	5836	.05?	.32	1.07
80	1320	692	14.0	688	14.2	690	14.2	0	4.06	.08	1	.552	1.30	.019	.994	349	.58	.16	.10
79	1320	690	14.2	690	14.2	692	14.2	0	3.81	.08	1	.230	1.54	.006	.999	225	.78?	.08	.06
76	1320	692	14.2	691	14.3	693	14.3	0	3.62	.08	1	.230	1.54	.005	.999	225	.78?	.08	.06
75	1320	693	14.3	692	14.4	695	14.4	0	3.45	.08	1	.230	1.54	.005	.998	225	.78?	.08	.06
113	1800	695	14.4	692	14.6	---	---	0	3.35	.08	1	.080	1.66	.009	.995	368	.56	.16	.10
113	1320	27	12.6	22	12.9	693	14.6	0	.75	.08	1	.080	1.66	.234	.809	976	.26	.24	.28
29	3800	33	12.6	9	13.9	82	12.9	0	.75	.08	1	.040	1.66	2.554	.269	7217	.04?	.48	1.37
33	2600	82	12.9	76	13.1	---	---	0	.77	.08	1	.380	1.54	.052	.929	676	.35	.24	.19
33	3800	89	12.8	52	13.8	108	13.4	0	.84	.08	1	.030	1.66	.931	.579	3176	.09	.56	.98
92	3000	164	13.1	149	13.5	157	13.4	0	.78	.08	1	.080	1.66	.071	.904	1088	.23	.40	.31
92	1320	126	12.6	118	12.7	---	---	0	1.13	.08	1	.080	1.66	.080	.934	532	.43	.16	.15
98	2500	245	12.7	222	13.0	---	---	0	.89	.08	1	.080	1.66	.036	.905	774	.31	.16	.22
32	3400	35	12.6	10	14.1	59	12.8	0	.75	.08	1	.030	1.66	2.229	.302	6940	.04?	.56	1.41
94	3200	59	12.8	44	13.3	106	12.6	0	.73	.08	1	.090	1.66	.177	.753	1630	.16	.40	.48
95	2400	106	12.6	89	12.8	155	12.8	0	.87	.08	1	.090	1.66	.075	.837	965	.26	.16	.28
98	3000	155	12.8	130	13.1	---	---	0	.95	.08	1	.080	1.66	.097	.841	1114	.23	.32	.32
97	2100	71	12.6	58	12.9	177	12.6	0	1.01	.08	1	.080	1.66	.242	.823	1065	.24	.24	.31
98	1000	177	12.6	172	12.7	---	---	0	1.20	.08	1	.080	1.66	.029	.973	352	.58	.08	.10
99	1250	516	12.9	511	13.0	536	13.0	0	.96	.08	1	.080	1.66	.008	.991	288	.67?	.08	.08
139	1600	536	13.0	524	13.1	---	---	0	.98	.08	1	.050	1.66	.018	.978	482	.46	.16	.13
139	600	56	12.6	55	12.7	549	13.0	0	1.26	.08	1	.050	1.66	.059	.968	442	.49	.08	.12
141	2100	90	13.0	82	13.4	162	12.6	0	1.06	.08	1	.080	1.66	.091	.910	968	.26	.32	.27
140	1320	162	12.6	155	12.8	227	12.6	0	1.17	.08	1	.080	1.66	.025	.953	481	.46	.16	.13
139	2800	265	12.6	221	13.0	---	---	0	1.15	.08	1	.050	1.66	.126	.833	1115	.23	.24	.32
138	3000	67	12.5	63	12.7	203	12.5	0	1.99	.08	1	.170	1.66	.184	.936	987	.25	.08	.28

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	1															
139	2000	203	12.5	176	12.7	---	---	0	1.34	.08	1	.050	1.66	.180	.868	886	.28	.16	.25
127	2500	102	12.5	84	12.8	---	---	0	1.15	.08	1	.080	1.66	.315	.818	1095	.23	.08	.32
127	2300	23	12.5	15	13.0	96	12.9	0	.91	.08	1	.080	1.66	.851	.645	1838	.15	.16	.55
131	2000	119	12.5	113	12.6	---	---	0	1.40	.08	1	.170	1.66	.081	.947	524	.43	.08	.15
126	1500	361	12.5	354	12.6	493	12.6	0	1.18	.08	1	.110	1.66	.030	.980	328	.61	.16	.09
134	1500	493	12.6	485	12.6	---	---	0	1.34	.08	1	.130	1.66	.019	.983	263	.71?	.08	.07
134	3200	43	12.5	37	12.9	516	12.6	0	1.99	.08	1	.130	1.66	.361	.855	1480	.18	.08	.42
124	2500	726	12.6	694	12.7	766	12.6	0	1.41	.08	1	.090	1.66	.045	.955	468	.47	.08	.13
103	1400	958	12.8	958	12.8	972	12.8	0	1.06	.08	0	.960	1.51	.002	1.000	94	1.00?	.00	.00
104	1320	972	12.8	972	12.8	---	---	0	1.06	.08	0	.960	1.51	.002	1.000	88	1.00?	.00	.00
107	1000	1734	12.7	1734	12.7	---	---	0	1.14	.08	0	.850	1.53	.001	1.000	55	1.00?	.00	.00
108	1700	1995	12.6	1995	12.6	---	---	0	.96	.08	0	.850	1.53	.002	1.000	89	1.00?	.00	.00
108	700	29	12.6	27	12.8	34	12.6	0	.85	.08	1	.080	1.66	.068	.932	503	.45	.08	.14
110	1320	2062	12.6	2062	12.6	---	---	0	.88	.08	0	.850	1.53	.001	1.000	68	1.00?	.00	.00
111	1320	2317	12.6	2317	12.6	2346	12.6	0	.89	.08	0	1.07	1.53	.001	1.000	56	1.00?	.00	.00
112	1320	2346	12.6	2298	12.7	2353	12.6	0	.89	.08	1	.040	1.63	.010	.979	291	.66	.16	.08
113	1320	2353	12.6	2329	12.8	---	---	0	.92	.08	1	.040	1.63	.009	.990	290	.66	.16	.08
114	3000	2662	12.7	2535	13.0	---	---	0	1.14	.08	1	.040	1.63	.021	.952	629	.37	.24	.18
48	1320	87	12.5	82	12.7	138	12.6	0	1.99	.08	1	.040	1.66	.168	.940	935	.27	.08	.26
48	2640	65	12.5	49	13.1	---	---	0	1.99	.08	1	.040	1.66	.645	.758	2101	.13	.16	.62
56	1866	175	12.7	167	12.9	174	12.8	0	1.46	.08	1	.120	1.66	.048	.953	517	.44	.16	.15
57	1320	174	12.8	172	13.0	183	12.6	0	1.37	.08	1	.200	1.54	.028	.991	399	.53	.16	.11
60	1867	183	12.6	177	13.0	196	12.8	0	1.32	.08	1	.120	1.66	.032	.969	509	.44	.40	.14
60	1320	45	12.5	42	12.6	---	---	0	1.13	.08	1	.250	1.54	.105	.929	556	.41	.16	.16
65	1320	233	12.7	228	12.8	248	12.8	0	1.25	.08	1	.280	1.54	.016	.980	290	.66	.08	.08
68	1320	248	12.8	242	12.9	249	12.9	0	1.19	.08	1	.250	1.54	.017	.977	305	.64	.08	.09
46	1320	79	12.5	78	12.6	155	12.6	0	1.01	.08	1	.510	1.54	.037	.982	287	.67?	.16	.08
59	1867	155	12.6	142	12.7	161	12.6	0	1.01	.08	1	.110	1.66	.100	.920	573	.40	.08	.16
45	2700	138	12.5	104	12.9	174	12.6	0	1.11	.08	1	.050	1.66	.345	.751	1393	.19	.32	.41
59	1400	174	12.6	168	12.8	---	---	0	1.15	.08	1	.110	1.66	.031	.968	410	.52	.16	.11
66	1320	321	12.7	316	12.9	338	12.8	0	1.09	.08	1	.110	1.66	.020	.987	303	.64	.16	.08
68	1877	338	12.8	331	13.0	---	---	0	1.08	.08	1	.250	1.54	.033	.978	389	.54	.16	.11

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK TRAVEL TIME	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION							
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	1															
70	1320	578	13.0	573	13.0	578	13.0	0	1.13	.08	1	.180	1.54	.016	.992	281	.68?	.08	.08
74	1320	578	13.0	572	13.1	577	13.1	0	1.14	.08	1	.090	1.66	.011	.989	271	.69?	.08	.08
40	2650	92	12.5	82	12.8	---	---	0	1.99	.08	1	.080	1.66	.258	.887	1209	.21	.16	.34
40	1800	64	12.6	52	12.8	134	12.8	0	.85	.08	1	.080	1.66	.226	.819	951	.26	.16	.27
82	1400	178	12.7	172	12.9	184	12.6	0	1.23	.08	1	.100	1.66	.040	.966	430	.50	.16	.12
82	1867	81	12.6	72	12.8	---	---	0	1.19	.08	1	.100	1.66	.139	.889	785	.31	.16	.22
81	1320	254	12.8	251	13.0	267	12.9	0	1.20	.08	1	.220	1.54	.026	.988	329	.61	.16	.09
78	1320	267	12.9	263	13.0	269	13.0	0	1.15	.08	1	.090	1.66	.025	.986	368	.56	.16	.10
41	3100	93	12.6	84	12.8	182	12.6	0	1.07	.08	1	.240	1.66	.133	.895	726	.33	.16	.21
78	1600	230	12.6	216	12.7	---	---	0	1.09	.08	1	.090	1.66	.056	.939	473	.47	.08	.13
77	1320	471	12.8	466	12.9	476	12.9	0	1.13	.08	1	.230	1.54	.016	.989	257	.72?	.08	.07
69	1320	476	12.9	469	13.0	488	13.0	0	1.11	.08	1	.200	1.54	.018	.986	281	.68?	.16	.08
67	1320	83	12.5	80	12.6	126	12.6	0	1.07	.08	1	.250	1.54	.074	.958	447	.49	.16	.13
69	1320	126	12.6	121	12.7	---	---	0	1.18	.08	1	.200	1.54	.064	.958	447	.49	.08	.13
74	1867	582	12.9	568	13.0	---	---	0	1.11	.08	1	.090	1.66	.024	.977	382	.55	.16	.11
114	3300	1137	13.1	1068	13.4	1096	13.3	0	1.13	.08	1	.050	1.66	.061	.939	737	.33	.24	.21
114	2200	83	12.6	64	13.0	---	---	0	1.19	.08	1	.050	1.66	.374	.770	1390	.19	.24	.41
72	2650	156	12.5	133	12.7	198	12.6	0	1.01	.08	1	.180	1.54	.211	.855	892	.28	.16	.25
114	2000	198	12.6	172	12.9	---	---	0	1.03	.08	1	.050	1.66	.157	.871	895	.28	.24	.26
118	4000	3818	13.1	3734	13.3	3801	13.3	0	1.12	.08	1	.050	1.66	.019	.978	552	.41	.16	.15
ALTERNATE		1	STORM	2															
3	1000	217	12.5	214	12.6	---	---	0	3.00	.08	1	.040	1.66	.054	.985	493	.45	.08	.14
3	1400	143	12.5	138	12.7	---	---	0	3.00	.08	1	.040	1.66	.125	.967	816	.30	.08	.23
6	1600	386	12.6	383	12.7	---	---	0	2.74	.08	1	1.59	1.20	.052	.992	342	.59	.08	.10
8	1600	471	12.7	454	12.9	---	---	0	2.47	.08	1	.644	1.24	.088	.963	554	.41	.16	.15
8	1400	86	12.6	85	12.8	---	---	0	1.47	.08	1	.530	1.53	.029	.983	296	.65	.16	.08
4	1800	32	12.5	27	13.0	305	12.5	0	3.00	.08	1	.050	1.66	.403	.843	1654	.16	.08	.47
5	1400	305	12.5	298	12.6	---	---	0	3.00	.08	1	.050	1.66	.056	.979	528	.43	.08	.15
8	2100	397	12.6	371	12.9	---	---	0	2.43	.08	1	.627	1.25	.127	.933	745	.32	.16	.21
8	1900	139	12.6	115	13.0	---	---	0	1.53	.08	1	.040	1.66	.213	.829	1118	.23	.32	.32
14	3000	1104	12.9	987	13.1	---	---	0	2.10	.08	1	.787	1.20	.157	.894	926	.27	.16	.26
14	2600	127	12.8	122	13.0	1100	13.1	0	1.46	.08	1	.776	1.47	.046	.963	447	.49	.16	.12

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK TRAVEL TIME	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION							
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	2															
15	1100	132	12.6	132	12.6	185	12.6	0	2.14	.08	0	.540	1.66	.007	1.000	138	1.00?	.00	.00
27	3000	1204	13.0	1139	13.3	---	---	0	1.99	.08	1	.471	1.29	.096	.946	844	.29	.24	.24
25	2200	87	12.5	77	12.9	159	12.6	0	3.00	.08	1	.050	1.66	.294	.890	1366	.19	.08	.39
27	1700	159	12.6	155	12.7	---	---	0	2.33	.08	1	.776	1.40	.036	.973	337	.60	.16	.09
37	3000	1319	13.2	1310	13.4	1320	13.4	0	1.98	.08	1	.500	1.48	.016	.993	312	.63	.16	.09
37	2100	194	12.6	191	12.6	---	---	0	1.75	.08	1	.410	1.66	.024	.986	267	.70?	.08	.07
143	1400	1349	13.4	1348	13.4	---	---	0	1.94	.08	1	.090	1.66	.005	.999	205	.83?	.08	.06
86	1250	0	.0	0	.0	77	12.5	0	.00	.08	0	.000	.00	.000	.000	0	.00	.00	.00
87	1320	77	12.5	68	12.8	125	12.6	0	.10	.08	1	.118	1.45	.235	.876	1034	.24	.16	.29
105	2000	125	12.6	105	13.0	---	---	0	.19	.08	1	.286	1.34	.219	.845	1137	.22	.24	.32
11	2700	75	12.6	72	12.7	230	12.7	0	1.47	.08	1	.440	1.66	.060	.952	478	.46	.16	.13
28	3300	230	12.7	162	13.3	---	---	0	1.46	.08	1	.030	1.66	.483	.703	1891	.14	.40	.56
28	2800	116	12.6	79	13.2	240	13.2	0	1.82	.08	1	.030	1.66	.644	.678	2105	.13	.40	.63
36	3500	315	13.1	278	13.4	292	13.4	0	1.56	.08	1	.060	1.66	.118	.882	1166	.22	.32	.33
90	2600	292	13.4	285	13.6	---	---	0	1.61	.08	1	.220	1.54	.029	.978	617	.38	.24	.17
35	1320	118	12.6	116	12.8	233	12.6	0	1.98	.08	1	.310	1.54	.033	.978	344	.59	.16	.10
91	2640	233	12.6	215	12.8	333	12.6	0	1.94	.08	1	.220	1.54	.095	.921	677	.35	.16	.19
90	1320	333	12.6	326	12.7	430	12.7	0	2.00	.08	1	.220	1.54	.024	.977	299	.65	.08	.08
88	1320	626	12.8	623	12.9	704	12.9	0	1.77	.08	1	.220	1.54	.009	.995	240	.75?	.08	.07
88	2000	52	12.5	46	12.7	---	---	0	1.98	.08	1	.220	1.54	.175	.889	867	.28	.24	.25
101	1050	747	12.8	744	12.9	774	12.9	0	1.80	.08	1	.220	1.54	.006	.996	179	.89?	.08	.05
102	1320	774	12.9	734	13.0	761	13.0	0	1.82	.08	1	.020	1.66	.033	.949	596	.39	.16	.17
105	1320	761	13.0	744	13.2	759	13.2	0	1.82	.08	1	.226	1.38	.028	.977	445	.49	.16	.12
107	1400	851	13.2	834	13.4	840	13.4	0	1.04	.08	1	.212	1.40	.028	.980	450	.48	.16	.13
85	2000	1348	13.4	1332	13.6	1338	13.6	0	3.87	.08	1	.119	1.49	.029	.988	510	.44	.16	.14
83	2000	1338	13.6	1322	13.8	1327	13.8	0	3.75	.08	1	.120	1.49	.028	.989	512	.44	.16	.14
83	1320	54	12.6	50	12.7	---	---	0	1.54	.08	1	.200	1.54	.098	.923	603	.39	.16	.17
109	2000	62	13.8	54	14.1	73	12.5	0	.14	.08	1	.387	1.34	.273	.879	1066	.24	.24	.30
80	1320	1271	13.8	1266	13.8	1270	13.8	0	6.97	.08	1	.768	1.23	.023	.996	340	.59	.08	.09
79	1320	1270	13.8	1269	13.9	1272	13.9	0	6.55	.08	1	.230	1.54	.005	.999	182	.88?	.08	.05
76	1320	1272	13.9	1271	14.1	1274	14.1	0	6.22	.08	1	.230	1.54	.004	.999	182	.88?	.16	.05
75	1320	1274	14.1	1274	14.2	1278	14.2	0	5.93	.08	1	.230	1.54	.004	1.000	181	.89?	.08	.05

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS										PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION							TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	2															
113	1800	1278	14.2	1276	14.2	---	---	0	5.73	.08	1	.080	1.66	.006	.998	289	.67	.08	.08
113	1320	52	12.6	46	12.8	1279	14.2	0	1.47	.08	1	.080	1.66	.145	.886	759	.32	.16	.22
29	3800	61	12.6	26	13.6	163	12.9	0	1.47	.08	1	.040	1.66	1.565	.429	4210	.07?	.32	1.00
33	2600	163	12.9	156	13.0	---	---	0	1.51	.08	1	.380	1.54	.038	.958	530	.43	.16	.15
33	3800	170	12.8	113	13.5	249	13.2	0	1.60	.08	1	.030	1.66	.615	.664	2457	.11	.48	.74
92	3000	366	13.1	344	13.4	359	13.4	0	1.51	.08	1	.080	1.66	.053	.939	792	.31	.24	.22
92	1320	212	12.6	205	12.7	---	---	0	1.98	.08	1	.080	1.66	.053	.967	433	.50	.08	.12
98	2500	493	12.8	471	13.0	---	---	0	1.66	.08	1	.080	1.66	.026	.955	586	.39	.16	.16
32	3400	66	12.6	30	13.7	120	12.8	0	1.47	.08	1	.030	1.66	1.390	.464	4026	.07?	.40	1.02
94	3200	120	12.8	101	13.2	203	12.6	0	1.45	.08	1	.090	1.66	.117	.843	1226	.21	.40	.35
95	2400	203	12.6	181	12.8	293	12.8	0	1.63	.08	1	.090	1.66	.050	.891	745	.32	.16	.21
98	3000	293	12.8	262	13.0	---	---	0	1.74	.08	1	.080	1.66	.067	.894	865	.29	.24	.25
97	2100	124	12.6	109	12.8	305	12.6	0	1.83	.08	1	.080	1.66	.159	.883	854	.29	.16	.24
98	1000	305	12.6	302	12.7	---	---	0	2.07	.08	1	.080	1.66	.020	.990	284	.67?	.08	.08
99	1250	1019	12.8	1017	13.0	1064	12.9	0	1.76	.08	1	.080	1.66	.006	.998	220	.79?	.16	.06
139	1600	1064	12.9	1050	13.0	---	---	0	1.77	.08	1	.050	1.66	.013	.987	367	.56	.16	.10
139	600	92	12.5	90	12.6	1084	13.0	0	2.15	.08	1	.050	1.66	.040	.980	364	.57	.16	.10
141	2100	162	13.0	152	13.3	283	12.6	0	1.89	.08	1	.080	1.66	.062	.939	766	.32	.24	.22
140	1320	283	12.6	275	12.8	395	12.6	0	2.03	.08	1	.080	1.66	.018	.968	386	.54	.16	.11
139	2800	463	12.6	410	12.9	---	---	0	2.00	.08	1	.050	1.66	.088	.886	893	.28	.16	.25
138	3000	97	12.5	94	12.7	327	12.5	0	3.00	.08	1	.170	1.66	.134	.965	852	.29	.08	.24
139	2000	327	12.5	299	12.7	---	---	0	2.23	.08	1	.050	1.66	.125	.915	732	.33	.16	.21
127	2500	166	12.5	148	12.7	---	---	0	2.01	.08	1	.080	1.66	.204	.893	903	.27	.08	.26
127	2300	39	12.5	29	12.9	175	12.7	0	1.69	.08	1	.080	1.66	.521	.751	1482	.18	.16	.44
131	2000	187	12.5	182	12.6	---	---	0	2.32	.08	1	.170	1.66	.055	.974	438	.49	.08	.12
126	1500	639	12.5	627	12.6	841	12.6	0	2.04	.08	1	.110	1.66	.021	.981	262	.71?	.16	.07
134	1500	841	12.6	836	12.6	---	---	0	2.24	.08	1	.130	1.66	.014	.994	212	.81?	.08	.06
134	3200	62	12.5	56	12.9	886	12.6	0	3.00	.08	1	.130	1.66	.263	.904	1279	.20	.08	.36
124	2500	1224	12.5	1199	12.6	1406	12.6	0	2.31	.08	1	.090	1.66	.034	.979	380	.55	.16	.11
103	1400	1838	12.8	1838	12.8	1860	12.8	0	1.88	.08	0	.960	1.51	.002	1.000	75	1.00?	.00	.00
104	1320	1860	12.8	1860	12.8	---	---	0	1.89	.08	0	.960	1.51	.001	1.000	71	1.00?	.00	.00
107	1000	3209	12.6	3209	12.6	---	---	0	1.98	.08	0	.850	1.53	.001	1.000	44	1.00?	.00	.00

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	2															
108	1700	3845	12.6	3845	12.6	---	---	0	1.67	.08	0	.850	1.53	.001	1.000	71	1.00?	.00	.00
108	700	54	12.6	53	12.7	72	12.6	0	1.61	.08	1	.080	1.66	.043	.970	395	.53	.16	.11
110	1320	3968	12.6	3968	12.6	---	---	0	1.55	.08	0	.850	1.53	.001	1.000	54	1.00?	.00	.00
111	1320	4405	12.6	4405	12.6	4461	12.6	0	1.57	.08	0	1.07	1.53	.001	1.000	45	1.00?	.00	.00
112	1320	4461	12.6	4392	12.7	4518	12.6	0	1.56	.08	1	.040	1.63	.007	.984	227	.78?	.16	.06
113	1320	4518	12.6	4476	12.7	---	---	0	1.60	.08	1	.040	1.63	.007	.991	226	.78?	.08	.06
114	3000	5201	12.7	5020	12.9	---	---	0	1.98	.08	1	.040	1.63	.017	.965	486	.46	.16	.14
48	1320	126	12.5	122	12.7	227	12.6	0	3.00	.08	1	.040	1.66	.123	.968	807	.30	.08	.23
48	2640	94	12.5	77	13.0	---	---	0	3.00	.08	1	.040	1.66	.471	.817	1815	.15	.08	.52
56	1866	284	12.7	277	12.8	300	12.6	0	2.35	.08	1	.120	1.66	.035	.975	427	.50	.08	.12
57	1320	300	12.6	295	12.8	331	12.6	0	2.25	.08	1	.200	1.54	.023	.981	330	.61	.24	.09
60	1867	331	12.6	319	12.8	368	12.7	0	2.18	.08	1	.120	1.66	.025	.963	402	.53	.16	.11
60	1320	74	12.5	71	12.6	---	---	0	1.99	.08	1	.250	1.54	.073	.959	467	.47	.08	.13
65	1320	438	12.7	434	12.8	470	12.8	0	2.10	.08	1	.280	1.54	.013	.991	232	.77?	.08	.06
68	1320	470	12.8	467	12.9	478	12.9	0	2.03	.08	1	.250	1.54	.014	.993	244	.74?	.08	.07
46	1320	135	12.5	134	12.6	265	12.6	0	1.83	.08	1	.510	1.54	.026	.986	237	.76?	.08	.07
59	1867	265	12.6	256	12.7	299	12.6	0	1.83	.08	1	.110	1.66	.064	.967	463	.47	.08	.13
45	2700	238	12.5	195	12.8	316	12.6	0	1.95	.08	1	.050	1.66	.232	.819	1121	.23	.24	.32
59	1400	316	12.6	309	12.8	---	---	0	2.01	.08	1	.110	1.66	.022	.980	323	.62	.16	.09
66	1320	587	12.7	585	12.8	628	12.7	0	1.92	.08	1	.110	1.66	.014	.995	238	.75?	.08	.07
68	1877	628	12.7	621	12.9	---	---	0	1.92	.08	1	.250	1.54	.025	.988	313	.63	.16	.09
70	1320	1099	12.9	1093	13.0	1103	13.0	0	1.97	.08	1	.180	1.54	.013	.995	224	.78?	.08	.06
74	1320	1103	13.0	1097	13.0	1106	13.0	0	1.98	.08	1	.090	1.66	.009	.995	209	.82?	.08	.06
40	2650	134	12.5	124	12.8	---	---	0	3.00	.08	1	.080	1.66	.188	.927	1043	.24	.08	.29
40	1800	116	12.6	103	12.8	227	12.8	0	1.61	.08	1	.080	1.66	.142	.893	751	.32	.16	.21
82	1400	302	12.7	297	12.8	326	12.6	0	2.07	.08	1	.100	1.66	.028	.984	349	.58	.08	.10
82	1867	135	12.6	126	12.7	---	---	0	2.06	.08	1	.100	1.66	.093	.934	640	.37	.16	.18
81	1320	449	12.6	445	12.8	487	12.7	0	2.06	.08	1	.220	1.54	.020	.991	269	.70?	.16	.07
78	1320	487	12.7	481	12.9	496	12.8	0	1.99	.08	1	.090	1.66	.019	.987	290	.66	.16	.08
41	3100	159	12.6	149	12.7	331	12.6	0	1.90	.08	1	.240	1.66	.087	.936	587	.39	.16	.17
78	1600	412	12.6	403	12.6	---	---	0	1.94	.08	1	.090	1.66	.039	.978	375	.55	.08	.10
77	1320	873	12.6	868	12.8	902	12.7	0	1.97	.08	1	.230	1.54	.013	.994	207	.82?	.16	.06

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK TRAVEL TIME	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION							
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE	1	STORM	2																
69	1320	902	12.7	894	12.9	937	12.8	0	1.94	.08	1	.200	1.54	.014	.991	224	.78?	.16	.06
67	1320	140	12.5	136	12.6	211	12.5	0	1.91	.08	1	.250	1.54	.051	.968	373	.56	.16	.10
69	1320	211	12.5	207	12.6	---	---	0	2.04	.08	1	.200	1.54	.046	.982	373	.56	.16	.10
74	1867	1107	12.8	1091	12.9	---	---	0	1.95	.08	1	.090	1.66	.018	.985	296	.66	.08	.08
114	3300	2161	13.0	2071	13.1	2137	13.1	0	1.97	.08	1	.050	1.66	.046	.959	571	.40	.16	.16
114	2200	138	12.6	116	12.9	---	---	0	2.06	.08	1	.050	1.66	.250	.838	1136	.23	.16	.33
72	2650	268	12.5	244	12.7	359	12.6	0	1.83	.08	1	.180	1.54	.146	.913	738	.33	.16	.21
114	2000	359	12.6	329	12.8	---	---	0	1.85	.08	1	.050	1.66	.108	.916	706	.34	.16	.20
118	4000	7637	13.0	7496	13.1	7621	13.1	0	1.96	.08	1	.050	1.66	.015	.982	419	.51	.16	.12
ALTERNATE	1	STORM	3																
3	1000	247	12.5	244	12.6	---	---	0	3.46	.08	1	.040	1.66	.049	.989	468	.47	.08	.13
3	1400	162	12.5	158	12.7	---	---	0	3.46	.08	1	.040	1.66	.112	.974	775	.31	.08	.22
6	1600	446	12.6	443	12.7	---	---	0	3.19	.08	1	1.53	1.21	.049	.992	329	.61	.16	.09
8	1600	550	12.7	531	12.9	---	---	0	2.90	.08	1	.655	1.24	.085	.967	540	.42	.16	.15
8	1400	107	12.6	105	12.8	---	---	0	1.83	.08	1	.542	1.52	.026	.982	278	.68?	.16	.08
4	1800	37	12.5	32	13.0	348	12.5	0	3.47	.08	1	.050	1.66	.362	.861	1571	.17	.08	.45
5	1400	348	12.5	342	12.6	---	---	0	3.46	.08	1	.050	1.66	.051	.983	500	.45	.08	.14
8	2100	463	12.6	434	12.9	---	---	0	2.85	.08	1	.643	1.24	.123	.938	729	.33	.16	.20
8	1900	172	12.6	146	13.0	---	---	0	1.90	.08	1	.040	1.66	.184	.852	1029	.25	.24	.29
14	3000	1309	12.9	1184	13.1	---	---	0	2.50	.08	1	.755	1.21	.148	.905	890	.28	.16	.25
14	2600	157	12.8	152	13.0	1323	13.1	0	1.82	.08	1	.815	1.45	.044	.967	426	.51	.16	.12
15	1100	156	12.6	156	12.6	221	12.6	0	2.56	.08	0	.540	1.66	.006	1.000	129	1.00?	.00	.00
27	3000	1452	13.0	1387	13.3	---	---	0	2.39	.08	1	.379	1.33	.083	.955	767	.32	.24	.21
25	2200	99	12.5	90	12.9	189	12.6	0	3.47	.08	1	.050	1.66	.263	.906	1297	.20	.08	.37
27	1700	189	12.6	183	12.7	---	---	0	2.76	.08	1	.793	1.40	.035	.973	324	.62	.16	.09
37	3000	1608	13.2	1603	13.3	1614	13.3	0	2.38	.08	1	.447	1.51	.014	.996	284	.67?	.08	.08
37	2100	233	12.6	231	12.6	---	---	0	2.14	.08	1	.410	1.66	.021	.991	248	.74?	.08	.07
143	1400	1651	13.3	1650	13.4	---	---	0	2.33	.08	1	.090	1.66	.005	.999	189	.86?	.08	.05
86	1250	0	.0	0	.0	91	12.5	0	.00	.08	0	.000	.00	.000	.000	0	.00	.00	.00
87	1320	91	12.5	81	12.7	153	12.6	0	.12	.08	1	.118	1.45	.212	.892	984	.26	.16	.28
105	2000	153	12.6	131	13.0	---	---	0	.23	.08	1	.286	1.34	.210	.855	1079	.24	.16	.31
11	2700	93	12.6	89	12.7	286	12.7	0	1.83	.08	1	.440	1.66	.052	.962	440	.49	.16	.12

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK TRAVEL TIME	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION							
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	3															
28	3300	286	12.7	209	13.2	---	---	0	1.82	.08	1	.030	1.66	.418	.731	1735	.15	.32	.51
28	2800	140	12.6	99	13.1	308	13.2	0	2.22	.08	1	.030	1.66	.561	.706	1954	.14	.32	.58
36	3500	401	13.1	360	13.4	376	13.4	0	1.93	.08	1	.060	1.66	.106	.898	1059	.24	.24	.30
90	2600	376	13.4	367	13.6	---	---	0	1.98	.08	1	.220	1.54	.027	.977	564	.41	.16	.16
35	1320	142	12.6	139	12.8	280	12.6	0	2.38	.08	1	.310	1.54	.030	.979	323	.62	.16	.09
91	2640	280	12.6	261	12.8	403	12.6	0	2.34	.08	1	.220	1.54	.085	.932	635	.37	.16	.18
90	1320	403	12.6	396	12.7	520	12.7	0	2.41	.08	1	.220	1.54	.021	.983	280	.68?	.08	.08
88	1320	750	12.7	747	12.9	846	12.8	0	2.15	.08	1	.220	1.54	.008	.997	225	.78?	.16	.06
88	2000	62	12.5	56	12.7	---	---	0	2.39	.08	1	.220	1.54	.156	.906	816	.30	.16	.23
101	1050	902	12.8	900	12.9	935	12.9	0	2.19	.08	1	.220	1.54	.005	.997	168	.92?	.08	.05
102	1320	935	12.9	895	13.0	927	13.0	0	2.21	.08	1	.020	1.66	.029	.957	553	.41	.16	.15
105	1320	927	13.0	908	13.2	926	13.2	0	2.21	.08	1	.202	1.41	.024	.980	409	.52	.16	.11
107	1400	1050	13.1	1032	13.3	1040	13.3	0	1.26	.08	1	.187	1.42	.024	.982	412	.52	.16	.11
85	2000	1650	13.4	1634	13.5	1641	13.5	0	4.66	.08	1	.118	1.50	.026	.991	476	.46	.16	.13
83	2000	1641	13.5	1626	13.7	1632	13.7	0	4.52	.08	1	.118	1.50	.025	.990	477	.46	.16	.13
83	1320	66	12.6	62	12.7	---	---	0	1.90	.08	1	.200	1.54	.087	.936	562	.41	.16	.16
109	2000	113	13.7	104	13.9	108	13.9	0	.29	.08	1	.388	1.34	.191	.925	916	.27	.24	.26
80	1320	1527	13.7	1520	13.8	1525	13.8	0	8.29	.08	1	.783	1.23	.022	.996	331	.61	.08	.09
79	1320	1525	13.8	1524	13.8	1528	13.8	0	7.79	.08	1	.230	1.54	.004	.999	170	.92?	.08	.05
76	1320	1528	13.8	1528	14.0	1532	14.0	0	7.40	.08	1	.230	1.54	.004	1.000	170	.92?	.16	.05
75	1320	1532	14.0	1532	14.1	1536	14.1	0	7.06	.08	1	.230	1.54	.004	1.000	170	.92?	.08	.05
113	1800	1536	14.1	1534	14.2	---	---	0	6.81	.08	1	.080	1.66	.006	.999	269	.70?	.08	.07
113	1320	63	12.6	57	12.7	1538	14.2	0	1.83	.08	1	.080	1.66	.124	.906	700	.34	.16	.20
29	3800	74	12.6	37	13.4	211	12.9	0	1.83	.08	1	.040	1.66	1.331	.494	3503	.08?	.32	.91
33	2600	211	12.9	204	13.0	---	---	0	1.87	.08	1	.380	1.54	.035	.966	485	.46	.16	.14
33	3800	209	12.8	144	13.4	326	13.2	0	1.97	.08	1	.030	1.66	.535	.691	2263	.12	.40	.67
92	3000	470	13.1	446	13.4	467	13.3	0	1.87	.08	1	.080	1.66	.048	.949	717	.33	.24	.20
92	1320	251	12.6	245	12.6	---	---	0	2.39	.08	1	.080	1.66	.046	.976	405	.53	.08	.11
98	2500	609	12.7	581	12.9	---	---	0	2.04	.08	1	.080	1.66	.023	.953	539	.42	.16	.15
32	3400	81	12.6	42	13.5	154	12.8	0	1.82	.08	1	.030	1.66	1.193	.525	3346	.08?	.40	.92
94	3200	154	12.8	134	13.1	251	12.6	0	1.81	.08	1	.090	1.66	.104	.869	1109	.23	.32	.32
95	2400	251	12.6	227	12.7	359	12.7	0	2.00	.08	1	.090	1.66	.044	.904	686	.35	.16	.19

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS										PEAK TRAVEL TIME	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION								
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	3															
98	3000	359	12.7	326	13.0	---	---	0	2.13	.08	1	.080	1.66	.059	.908	798	.31	.24	.23
97	2100	148	12.6	134	12.8	365	12.6	0	2.22	.08	1	.080	1.66	.138	.902	794	.31	.16	.23
98	1000	365	12.6	363	12.7	---	---	0	2.48	.08	1	.080	1.66	.018	.994	264	.71?	.08	.07
99	1250	1286	12.8	1282	12.9	1343	12.9	0	2.15	.08	1	.080	1.66	.005	.997	200	.84?	.08	.06
139	1600	1343	12.9	1329	13.0	---	---	0	2.16	.08	1	.050	1.66	.012	.990	334	.60	.08	.09
139	600	108	12.5	106	12.6	1376	13.0	0	2.57	.08	1	.050	1.66	.035	.982	341	.59	.16	.10
141	2100	196	13.0	186	13.3	341	12.6	0	2.28	.08	1	.080	1.66	.055	.947	710	.34	.24	.20
140	1320	341	12.6	332	12.7	475	12.6	0	2.44	.08	1	.080	1.66	.016	.972	358	.57	.08	.10
139	2800	557	12.6	503	12.9	---	---	0	2.40	.08	1	.050	1.66	.077	.903	830	.30	.16	.24
138	3000	111	12.5	108	12.7	384	12.5	0	3.47	.08	1	.170	1.66	.120	.973	809	.30	.08	.23
139	2000	384	12.5	356	12.6	---	---	0	2.65	.08	1	.050	1.66	.110	.927	687	.35	.16	.19
127	2500	195	12.5	178	12.7	---	---	0	2.41	.08	1	.080	1.66	.177	.913	847	.29	.08	.24
127	2300	46	12.5	36	12.9	212	12.7	0	2.07	.08	1	.080	1.66	.443	.781	1382	.19	.16	.40
131	2000	217	12.5	213	12.6	---	---	0	2.76	.08	1	.170	1.66	.048	.980	412	.52	.08	.12
126	1500	769	12.5	758	12.6	1003	12.6	0	2.45	.08	1	.110	1.66	.019	.986	243	.74?	.08	.07
134	1500	1003	12.6	1000	12.6	---	---	0	2.66	.08	1	.130	1.66	.012	.997	198	.84?	.08	.06
134	3200	70	12.5	65	12.8	1061	12.6	0	3.47	.08	1	.130	1.66	.236	.919	1214	.21	.08	.34
124	2500	1468	12.5	1442	12.6	1698	12.6	0	2.74	.08	1	.090	1.66	.030	.982	354	.58	.16	.10
103	1400	2259	12.8	2259	12.8	2300	12.7	0	2.28	.08	0	.960	1.51	.002	1.000	70	1.00?	.00	.00
104	1320	2300	12.7	2300	12.7	---	---	0	2.28	.08	0	.960	1.51	.001	1.000	66	1.00?	.00	.00
107	1000	3967	12.6	3967	12.6	---	---	0	2.39	.08	0	.850	1.53	.001	1.000	41	1.00?	.00	.00
108	1700	4766	12.6	4766	12.6	---	---	0	2.01	.08	0	.850	1.53	.001	1.000	66	1.00?	.00	.00
108	700	66	12.6	64	12.7	88	12.6	0	1.98	.08	1	.080	1.66	.037	.974	365	.57	.16	.10
110	1320	4915	12.6	4915	12.6	---	---	0	1.87	.08	0	.850	1.53	.001	1.000	50	1.00?	.00	.00
111	1320	5448	12.6	5448	12.6	5516	12.6	0	1.89	.08	0	1.07	1.53	.001	1.000	42	1.00?	.00	.00
112	1320	5516	12.6	5450	12.6	5601	12.6	0	1.89	.08	1	.040	1.63	.007	.988	209	.82?	.08	.06
113	1320	5601	12.6	5566	12.7	---	---	0	1.93	.08	1	.040	1.63	.006	.994	208	.82?	.08	.06
114	3000	6486	12.7	6295	12.9	---	---	0	2.38	.08	1	.040	1.63	.016	.971	446	.49	.16	.12
48	1320	144	12.5	140	12.7	268	12.6	0	3.46	.08	1	.040	1.66	.110	.975	766	.32	.08	.21
48	2640	107	12.5	90	13.0	---	---	0	3.47	.08	1	.040	1.66	.422	.836	1724	.15	.08	.50
56	1866	341	12.6	334	12.8	371	12.6	0	2.77	.08	1	.120	1.66	.032	.980	397	.53	.16	.11
57	1320	371	12.6	364	12.7	410	12.6	0	2.67	.08	1	.200	1.54	.022	.981	306	.64	.16	.09

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK TRAVEL TIME	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION							
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	3															
60	1867	410	12.6	399	12.7	460	12.7	0	2.60	.08	1	.120	1.66	.023	.972	369	.56	.08	.10
60	1320	87	12.5	84	12.6	---	---	0	2.40	.08	1	.250	1.54	.064	.968	440	.49	.08	.12
65	1320	542	12.7	540	12.8	584	12.7	0	2.51	.08	1	.280	1.54	.013	.995	215	.80?	.08	.06
68	1320	584	12.7	581	12.9	594	12.9	0	2.44	.08	1	.250	1.54	.013	.996	226	.78?	.16	.06
46	1320	161	12.5	160	12.6	316	12.5	0	2.23	.08	1	.510	1.54	.023	.990	223	.78?	.08	.06
59	1867	316	12.5	308	12.6	378	12.6	0	2.22	.08	1	.110	1.66	.055	.975	431	.50	.16	.12
45	2700	285	12.5	239	12.8	383	12.6	0	2.36	.08	1	.050	1.66	.203	.838	1044	.24	.24	.30
59	1400	383	12.6	376	12.8	---	---	0	2.42	.08	1	.110	1.66	.020	.981	299	.65	.16	.08
66	1320	719	12.6	715	12.7	777	12.7	0	2.32	.08	1	.110	1.66	.013	.994	220	.79?	.08	.06
68	1877	777	12.7	768	12.8	---	---	0	2.32	.08	1	.250	1.54	.024	.988	291	.66	.08	.08
70	1320	1362	12.8	1352	12.9	1366	12.9	0	2.37	.08	1	.180	1.54	.012	.993	208	.82?	.08	.06
74	1320	1366	12.9	1361	13.0	1371	13.0	0	2.38	.08	1	.090	1.66	.008	.996	192	.86?	.16	.05
40	2650	153	12.5	143	12.7	---	---	0	3.46	.08	1	.080	1.66	.169	.939	991	.25	.08	.28
40	1800	140	12.6	127	12.7	270	12.7	0	1.98	.08	1	.080	1.66	.122	.910	696	.34	.16	.20
82	1400	373	12.6	366	12.7	414	12.6	0	2.48	.08	1	.100	1.66	.026	.980	320	.62	.08	.09
82	1867	160	12.6	151	12.7	---	---	0	2.48	.08	1	.100	1.66	.082	.944	598	.39	.16	.17
81	1320	562	12.6	557	12.7	612	12.7	0	2.46	.08	1	.220	1.54	.019	.991	249	.73?	.08	.07
78	1320	612	12.7	605	12.8	628	12.8	0	2.39	.08	1	.090	1.66	.017	.989	264	.71?	.08	.07
41	3100	190	12.6	180	12.7	386	12.6	0	2.30	.08	1	.240	1.66	.076	.945	548	.42	.08	.15
78	1600	481	12.5	472	12.6	---	---	0	2.34	.08	1	.090	1.66	.033	.982	353	.58	.16	.10
77	1320	1085	12.6	1077	12.7	1123	12.7	0	2.38	.08	1	.230	1.54	.012	.993	192	.86?	.08	.05
69	1320	1123	12.7	1114	12.8	1171	12.8	0	2.34	.08	1	.200	1.54	.013	.992	208	.82?	.08	.06
67	1320	166	12.5	162	12.6	251	12.5	0	2.31	.08	1	.250	1.54	.045	.974	351	.58	.08	.10
69	1320	251	12.5	247	12.6	---	---	0	2.46	.08	1	.200	1.54	.041	.984	351	.58	.16	.10
74	1867	1369	12.8	1359	12.9	---	---	0	2.35	.08	1	.090	1.66	.017	.992	272	.69?	.08	.08
114	3300	2696	13.0	2604	13.1	2686	13.1	0	2.37	.08	1	.050	1.66	.042	.966	523	.43	.16	.15
114	2200	163	12.6	140	12.9	---	---	0	2.48	.08	1	.050	1.66	.219	.860	1062	.24	.16	.30
72	2650	319	12.5	296	12.6	443	12.6	0	2.22	.08	1	.180	1.54	.129	.926	694	.34	.16	.20
114	2000	443	12.6	411	12.8	---	---	0	2.25	.08	1	.050	1.66	.096	.929	649	.36	.08	.18
118	4000	9589	13.0	9427	13.1	9580	13.1	0	2.36	.08	1	.050	1.66	.014	.983	382	.55	.16	.11

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
STRUCTURE 37	2.27			
ALTERNATE 1		703.04	1319.75	1612.18
XSECTION 1	.15			
ALTERNATE 1		149.82	217.93	248.49
XSECTION 2	.10			
ALTERNATE 1		100.45	145.51	165.73
XSECTION 3	.29			
ALTERNATE 1		255.59	387.57	446.92
XSECTION 4	.22			
ALTERNATE 1		210.49	307.71	351.51
XSECTION 5	.34			
ALTERNATE 1		253.80	398.25	464.83
XSECTION 6	.40			
ALTERNATE 1		300.45	471.05	549.88
XSECTION 7	.12			
ALTERNATE 1		44.80	86.33	106.65
XSECTION 8	1.18			
ALTERNATE 1		650.56	1108.39	1315.07
XSECTION 9	.20			
ALTERNATE 1		64.48	126.67	157.37
XSECTION 10	.09			
ALTERNATE 1		39.88	75.75	93.22
XSECTION 11	.33			
ALTERNATE 1		117.15	230.38	285.92
XSECTION 12	.07			
ALTERNATE 1		32.53	60.86	74.48
XSECTION 13	.13			
ALTERNATE 1		66.41	116.76	140.57

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 14	1.74			
ALTERNATE 1		681.16	1206.43	1453.15
XSECTION 15	.19			
ALTERNATE 1		111.65	186.03	221.76
XSECTION 16	.12			
ALTERNATE 1		79.99	132.00	155.97
XSECTION 17	.06			
ALTERNATE 1		61.59	89.14	101.51
XSECTION 18	.18			
ALTERNATE 1		73.81	139.85	171.98
XSECTION 19	.02			
ALTERNATE 1		22.96	33.24	37.85
XSECTION 20	.06			
ALTERNATE 1		66.80	96.70	110.11
XSECTION 21	.24			
ALTERNATE 1		139.00	238.75	285.36
XSECTION 22	.15			
ALTERNATE 1		93.43	159.92	190.91
XSECTION 23	.09			
ALTERNATE 1		93.41	135.51	154.39
XSECTION 24	.20			
ALTERNATE 1		110.32	194.33	233.88
XSECTION 25	.15			
ALTERNATE 1		93.03	159.42	188.68
XSECTION 26	.07			
ALTERNATE 1		48.39	79.23	93.38
XSECTION 27	2.15			
ALTERNATE 1		704.39	1319.07	1609.84

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 28	.61			
ALTERNATE 1		134.67	315.19	402.24
XSECTION 29	.32			
ALTERNATE 1		81.61	163.07	210.66
XSECTION 30	.25			
ALTERNATE 1		89.50	169.84	208.97
XSECTION 31	.08			
ALTERNATE 1		34.54	65.99	81.11
XSECTION 32	.26			
ALTERNATE 1		58.74	120.32	154.88
XSECTION 33	.80			
ALTERNATE 1		164.68	366.04	470.68
XSECTION 34	.13			
ALTERNATE 1		68.82	118.43	141.66
XSECTION 35	.25			
ALTERNATE 1		133.11	234.08	281.50
XSECTION 36	.74			
ALTERNATE 1		120.71	292.02	375.82
XSECTION 37	2.47			
ALTERNATE 1		716.55	1349.81	1651.19
XSECTION 38	.13			
ALTERNATE 1		63.86	115.83	140.54
XSECTION 39	.13			
ALTERNATE 1		80.82	135.10	160.23
XSECTION 40	.31			
ALTERNATE 1		177.94	302.51	373.29
XSECTION 41	.32			
ALTERNATE 1		181.67	331.49	386.12

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 42	.40			
ALTERNATE 1		232.12	417.50	484.05
XSECTION 43	.05			
ALTERNATE 1		37.81	60.28	70.48
XSECTION 44	.13			
ALTERNATE 1		83.51	140.24	166.48
XSECTION 45	.36			
ALTERNATE 1		174.40	316.02	383.54
XSECTION 46	.25			
ALTERNATE 1		155.77	268.27	317.51
XSECTION 47	.13			
ALTERNATE 1		79.43	135.44	161.49
XSECTION 48	.28			
ALTERNATE 1		175.03	285.32	341.58
XSECTION 49	.09			
ALTERNATE 1		89.06	129.01	146.94
XSECTION 56	.34			
ALTERNATE 1		174.07	302.53	372.21
XSECTION 57	.40			
ALTERNATE 1		182.71	331.55	412.30
XSECTION 58	.06			
ALTERNATE 1		44.80	73.94	87.32
XSECTION 59	.67			
ALTERNATE 1		320.90	588.44	720.00
XSECTION 60	.53			
ALTERNATE 1		232.93	438.82	544.37
XSECTION 64	.25			
ALTERNATE 1		156.50	267.71	319.51

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 65	.59			
ALTERNATE 1		247.73	471.52	586.84
XSECTION 66	.74			
ALTERNATE 1		338.11	629.12	779.36
XSECTION 67	.19			
ALTERNATE 1		127.33	211.86	251.26
XSECTION 68	1.39			
ALTERNATE 1		579.02	1099.49	1363.25
XSECTION 69	1.34			
ALTERNATE 1		582.09	1108.89	1376.45
XSECTION 70	1.45			
ALTERNATE 1		578.28	1102.61	1368.88
XSECTION 71	.13			
ALTERNATE 1		83.02	138.29	163.81
XSECTION 72	.38			
ALTERNATE 1		198.79	359.31	446.87
XSECTION 74	2.86			
ALTERNATE 1		1137.72	2160.57	2703.09
XSECTION 75	.96			
ALTERNATE 1		695.24	1278.91	1537.20
XSECTION 76	.90			
ALTERNATE 1		693.49	1275.56	1532.97
XSECTION 77	1.09			
ALTERNATE 1		476.05	904.01	1123.92
XSECTION 78	1.03			
ALTERNATE 1		470.94	876.99	1086.75
XSECTION 79	.84			
ALTERNATE 1		692.24	1272.78	1529.44

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 80	.77			
ALTERNATE 1		690.89	1270.05	1525.97
XSECTION 81	.56			
ALTERNATE 1		267.02	487.43	612.52
XSECTION 82	.50			
ALTERNATE 1		254.04	449.67	562.06
XSECTION 83	1.42			
ALTERNATE 1		693.00	1333.54	1639.85
XSECTION 84	.06			
ALTERNATE 1		28.86	53.75	65.73
XSECTION 85	1.30			
ALTERNATE 1		701.97	1337.96	1641.24
XSECTION 86	1.30			
ALTERNATE 1		48.06	77.42	90.81
XSECTION 87	1.36			
ALTERNATE 1		71.43	124.77	154.05
XSECTION 88	1.36			
ALTERNATE 1		394.19	748.21	902.96
XSECTION 89	.05			
ALTERNATE 1		31.57	52.42	62.16
XSECTION 90	1.22			
ALTERNATE 1		322.55	627.92	753.15
XSECTION 91	.38			
ALTERNATE 1		184.82	333.10	403.27
XSECTION 92	1.12			
ALTERNATE 1		245.66	493.48	609.23
XSECTION 93	.19			
ALTERNATE 1		126.61	213.06	253.10

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 94	.40			
ALTERNATE 1		106.76	203.78	251.01
XSECTION 95	.53			
ALTERNATE 1		155.12	292.91	358.85
XSECTION 96	.13			
ALTERNATE 1		70.81	123.52	148.27
XSECTION 97	.31			
ALTERNATE 1		177.34	306.67	367.44
XSECTION 98	2.06			
ALTERNATE 1		516.29	1021.27	1286.14
XSECTION 99	2.15			
ALTERNATE 1		536.08	1063.85	1346.99
XSECTION 100	.08			
ALTERNATE 1		57.05	92.22	108.52
XSECTION 101	1.41			
ALTERNATE 1		407.17	774.38	934.88
XSECTION 102	1.47			
ALTERNATE 1		384.82	761.56	926.60
XSECTION 103	3.41			
ALTERNATE 1		972.38	1861.21	2301.12
XSECTION 104	4.81			
ALTERNATE 1		1734.16	3209.17	3970.35
XSECTION 105	2.89			
ALTERNATE 1		420.38	852.86	1050.46
XSECTION 106	.06			
ALTERNATE 1		29.64	54.38	66.28
XSECTION 107	7.97			
ALTERNATE 1		1997.36	3846.29	4772.16

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 108	8.06			
ALTERNATE 1		2030.75	3916.10	4858.58
XSECTION 109	8.84			
ALTERNATE 1		2061.92	3973.60	4929.12
XSECTION 110	9.27			
ALTERNATE 1		2325.98	4416.84	5457.50
XSECTION 111	9.34			
ALTERNATE 1		2355.11	4472.61	5526.17
XSECTION 112	9.59			
ALTERNATE 1		2357.41	4519.85	5601.27
XSECTION 113	10.89			
ALTERNATE 1		2668.12	5207.40	6487.66
XSECTION 114	14.47			
ALTERNATE 1		3741.38	7480.18	9403.36
XSECTION 115	.09			
ALTERNATE 1		55.56	96.28	115.33
XSECTION 118	14.93			
ALTERNATE 1		3802.54	7623.72	9590.35
XSECTION 119	14.70			
ALTERNATE 1		3820.33	7637.48	9597.77
XSECTION 120	.23			
ALTERNATE 1		181.43	289.16	338.15
XSECTION 121	.25			
ALTERNATE 1		260.66	377.34	429.70
XSECTION 122	9.19			
ALTERNATE 1		2293.75	4356.26	5383.30
XSECTION 123	.21			
ALTERNATE 1		217.28	315.47	359.53

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 124	1.33			
ALTERNATE 1		766.53	1406.48	1698.17
XSECTION 125	1.11			
ALTERNATE 1		731.59	1231.35	1473.03
XSECTION 126	.76			
ALTERNATE 1		493.32	843.30	1007.74
XSECTION 127	.33			
ALTERNATE 1		169.41	322.49	390.23
XSECTION 128	.04			
ALTERNATE 1		22.79	39.33	47.02
XSECTION 129	.14			
ALTERNATE 1		103.76	169.08	199.00
XSECTION 130	.03			
ALTERNATE 1		29.32	44.13	50.77
XSECTION 131	.60			
ALTERNATE 1		363.93	639.83	769.62
XSECTION 132	.14			
ALTERNATE 1		119.20	187.27	218.08
XSECTION 134	1.00			
ALTERNATE 1		635.36	1088.78	1305.95
XSECTION 135	.04			
ALTERNATE 1		43.84	63.46	72.26
XSECTION 136	.07			
ALTERNATE 1		68.89	99.72	113.55
XSECTION 137	.08			
ALTERNATE 1		38.50	70.30	85.47
XSECTION 138	.27			
ALTERNATE 1		202.72	327.43	384.43

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 139	3.33			
ALTERNATE 1		960.91	1837.77	2263.56
XSECTION 140	.64			
ALTERNATE 1		265.24	464.15	558.48
XSECTION 141	.44			
ALTERNATE 1		162.39	283.56	341.50
XSECTION 142	.25			
ALTERNATE 1		90.23	162.01	196.23
XSECTION 143	2.47			
ALTERNATE 1		714.31	1348.13	1649.80

END OF 1 JOBS IN THIS RUN

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******************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY******************

JOB TR-20                                          SUMMARY   NOPLOTS
TITLE 000 EAST FORK CAVE CREEK - FEMA CLOMR - CAVE CREEK WASH TO DET. BASIN #3
TITLE 000 JOB NUMBER:  P79-086-016            FILENAME: GWCLOMR.DAT
 5 RAINFL 1            .0208
 8         0.          .004        .008        .0130       .018
 8         .022        .026        .031        .035        .04
 8         .044        .048        .053        .057        .062
 8         .066        .071        .075        .080        .093
 8         .107        .120        .140        .170        .500
 8         .830        .860        .880        .893        .907
 8         .920        .924        .928        .933        .937
 8         .942        .947        .951        .956        .960
 8         .964        .969        .973        .978        .982
 8         .987        .991        .995        1.00        1.00
 9 ENDTBL
 2 XSECTN  006         1.0
 8                     1502.       0.0         0.0
 8                     1502.4      3.7         2.1
 8                     1502.8      13.3        5.1
 8                     1503.2      29.5        9.1
 8                     1503.6      53.4        14.1
 8                     1504.0      85.8        20.0
 8                     1504.4      100.7       30.8
 8                     1504.8      169.0       50.3
 8                     1505.2      289.0       78.5
 8                     1505.6      469.8       115.4
 8                     1506.0      470.9       161.1
 8                     1506.4      952.6       295.5
 8                     1506.8      1764.7      462.7
 8                     1507.2      2878.8      662.8
 8                     1507.6      4328.4      895.6
 8                     1508.0      6145.9      1161.3
 8                     1508.4      8331.5      1460.9
 8                     1508.8      10956.2     1795.8
 9 ENDTBL
 2 XSECTN  008         1.0
 8                     1494.0      0.0         0.0
 8                     1494.3      7.4         5.7
 8                     1494.6      23.9        12.0
 8                     1494.9      47.8        18.8
 8                     1495.2      78.9        26.3
 8                     1495.5      117.0       34.3
 8                     1495.8      162.2       42.9
 8                     1496.1      165.4       53.5
 8                     1496.4      175.4       84.2
 8                     1496.7      302.7       140.5
```

```
8                    1497.0     527.8      222.4
8                    1497.3     868.5      329.9
8                    1497.6     1343.8     463.0
8                    1497.9     1972.3     621.8
8                    1498.2     2837.4     803.3
8                    1498.5     3901.4     998.3
8                    1498.8     5131.8     1206.2
8                    1499.1     6532.4     1426.8
8                    1499.4     8107.5     1660.4
8                    1499.7     9861.7     1906.7
9 ENDTBL
2 XSECTN   037       1.0
8                    1452.0     0.0        0.0
8                    1452.2     8.1        6.5
8                    1452.6     50.6       19.9
8                    1453.0     119.3      34.0
8                    1453.2     162.1      41.3
8                    1453.4     210.4      48.7
8                    1453.6     263.8      56.3
8                    1453.8     322.2      64.1
8                    1454.0     385.5      72.0
8                    1454.2     420.0      86.0
8                    1454.4     456.8      100.3
8                    1454.6     566.6      114.7
8                    1454.8     685.9      129.2
8                    1455.0     814.4      143.9
8                    1455.2     952.0      158.8
8                    1455.4     1098.3     173.9
8                    1455.6     1183.6     189.8
8                    1455.8     1357.3     206.7
8                    1456.0     1540.3     223.7
8                    1456.2     1740.2     240.7
9 ENDTBL
2 XSECTN   083       1.
8                    0.0        0.0        0.0
8                    .2         9.5        5.8
8                    .4         26.9       11.6
8                    .6         49.5       17.4
8                    .8         76.2       23.2
8                    1.0        106.4      29.
8                    1.2        139.9      34.8
8                    1.4        176.3      40.6
8                    1.6        215.4      46.4
8                    1.8        257.       52.2
8                    2.0        301.       58.
8                    2.2        347.3      63.8
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
8                    2.4        395.7      69.6
9 ENDTBL
2 XSECTN   084       1.
8                    0.0        0.0        0.0
8                    .2         5.3        3.2
8                    .4         14.9       6.4
8                    .6         27.3       9.6
8                    .8         42.0       12.8
8                    1.0        58.7       16.0
8                    1.2        77.2       19.2
8                    1.4        97.3       22.4
8                    1.6        118.8      25.6
8                    1.8        141.8      28.8
8                    2.0        166.1      32.0
8                    2.2        191.6      35.2
8                    2.4        218.3      38.4
9 ENDTBL
2 XSECTN   087       1.0
8                    1429.8     0.0        0.0
8                    1429.9     32.7       48.5
8                    1430.      115.8      116.0
8                    1430.1     268.3      193.9
8                    1430.2     469.2      273.6
8                    1430.4     1000.2     438.7
8                    1430.6     1689.0     611.1
8                    1430.8     2526.0     791.0
8                    1431.0     3505.8     978.2
8                    1431.2     4625.3     1172.9
8                    1431.4     5882.7     1374.9
9 ENDTBL
2 XSECTN   104       1.
8                    0.         0.         0.
8                    .5         52.        19.
8                    1.         167.       38.
8                    1.5        327.       57.
8                    2.         529.       76.
8                    2.5        767.       95.
8                    3.         1039.      114.
8                    3.5        1345.      135.
8                    4.         1684.      156.
8                    4.5        2053.      177.
8                    5.         2451.      198.
8                    5.5        2876.      219.
8                    6.         3328.      240.
8                    6.5        3802.      263.
8                    7.         4312.      286.
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
8                    7.5        4846.      309.
8                    8.         5406.      332.
8                    8.5        5990.      355.
8                    9.         6598.      378.
8                    9.5        7215.      403.
9 ENDTBL
2 XSECTN   105       1.0
8                    1417.1     0.0        0.0
8                    1417.3     9.7        14.0
8                    1417.5     61.9       56.0
8                    1417.7     182.4      125.9
8                    1417.9     392.9      223.9
8                    1418.1     737.3      347.5
8                    1418.3     1217.8     483.0
8                    1418.5     1805.5     628.1
8                    1418.7     2500.2     782.6
8                    1418.9     3303.3     946.7
9 ENDTBL
2 XSECTN   107       1.
8                    0.         0.         0.
8                    .6         62.        17.
8                    1.2        197.       34.
8                    1.8        387.       50.
8                    2.4        625.       67.
8                    3.         906.       84.
8                    3.6        1231.      103.
8                    4.2        1596.      123.
8                    4.8        2005.      145.
8                    5.4        2453.      166.
8                    6.         2938.      188.
8                    6.6        3457.      210.
8                    7.2        3990.      232.
8                    7.8        4583.      256.
8                    8.4        5209.      280.
8                    9.         5867.      304.
8                    9.6        6557.      328.
9 ENDTBL
2 XSECTN   108       1.
8                    0.         0.         0.
8                    .6         83.        20.
8                    1.2        263.       40.
8                    1.8        517.       59.
8                    2.4        835.       79.
8                    3.         1211.      99.
8                    3.6        1644.      121.
8                    4.2        2131.      144.
```

```
8                    4.8        2675.      169.
8                    5.4        3270.      193.
8                    6.         3913.      218.
8                    6.6        4602.      243.
8                    7.2        5314.      268.
8                    7.8        6099.      295.
8                    8.4        6927.      322.
8                    9.         7798.      349.
8                    9.6        8709.      376.
8                    10.2       9616.      404.
9 ENDTBL
2 XSECTN   110       1.
8                    0.         0.         0.
8                    .5         59.        20.
8                    1.         187.       39.
8                    1.5        368.       59.
8                    2.         594.       78.
8                    2.5        862.       98.
8                    3.         1168.      117.
8                    3.5        1513.      139.
8                    4.         1893.      160.
8                    4.5        2308.      182.
8                    5.         2755.      203.
8                    5.5        3233.      225.
8                    6.         3741.      246.
8                    6.5        4274.      270.
8                    7.         4846.      293.
8                    7.5        5447.      317.
8                    8.         6076.      340.
8                    8.5        6732.      364.
8                    9.         7415.      387.
8                    9.5        8109.      413.
9 ENDTBL
2 XSECTN   111       1.
8                    0.         0.         0.
8                    .5         70.        16.
8                    1.         223.       32.
8                    1.5        438.       48.
8                    2.         707.       64.
8                    2.5        1025.      80.
8                    3.         1389.      96.
8                    3.5        1799.      114.
8                    4.         2253.      132.
8                    4.5        2747.      150.
8                    5.         3280.      168.
8                    5.5        3850.      186.
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
8                    6.        4456.     204.
8                    6.5       5091.     224.
8                    7.        5775.     244.
8                    7.5       6494.     264.
8                    8.        7246.     284.
8                    8.5       8032.     304.
8                    9.        8849.     324.
8                    9.5       9675.     346.
9 ENDTBL
2 XSECTN   124       1.
8                    0.        0.        0.
8                    .5        54.       16.
8                    1.        171.      32.
8                    1.5       335.      48.
8                    2.        542.      64.
8                    2.5       786.      80.
8                    3.        1065.     96.
8                    3.5       1379.     114.
8                    4.        1726.     132.
8                    4.5       2105.     150.
8                    5.        2514.     168.
8                    5.5       2950.     186.
8                    6.        3415.     204.
8                    6.5       3902.     224.
8                    7.        4426.     244.
8                    7.5       4977.     264.
8                    8.        5553.     284.
8                    8.5       6155.     304.
8                    9.        6781.     324.
9 ENDTBL
3 STRUCT     08
8                    1487.84   0.0       0.000
8                    1488.0    1.0       0.021
8                    1489.0    7.00      1.189
8                    1490.0    26.0      5.893
8                    1491.0    80.0      14.491
8                    1492.0    125.0     25.114
8                    1493.0    162.0     36.539
8                    1494.0    191.0     49.18
8                    1495.0    216.0     61.83
8                    1496.0    241.0     74.474
8                    1497.0    265.0     90.000
9 ENDTBL
3 STRUCT     33
8                    1462.     0.        0.
8                    1464.     24.       0.86
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
8                    1465.      50.        3.82
8                    1466.      73.        10.79
8                    1467.      81.        22.49
8                    1468.      87.        37.97
8                    1469.      93.        55.54
8                    1470.      99.        73.83
9 ENDTBL
3 STRUCT      43
8                    1417.      0.         0.
8                    1418.0     30.        .29
8                    1418.3     80.        .77
8                    1419.0     240.       2.11
8                    1419.4     250.       6.7
8                    1419.8     270.       10.6
8                    1420.3     300.       22.1
8                    1420.8     320.       38.8
8                    1421.0     321.       48.9
8                    1421.3     340.       59.8
8                    1421.6     360.       71.0
8                    1422.2     390.       92.9
8                    1422.5     400.       103.1
8                    1423.5     430.       128.7
8                    1424.8     450.       149.7
8                    1426.0     460.       160.2
8                    1427.1     470.       165.5
8                    1428.1     480.       168.6
8                    1429.0     485.       170.6
8                    1429.9     490.       172.3
9 ENDTBL
3 STRUCT      59
8                    1389.0       0.0      0.00
8                    1391.0      30.0      0.03
8                    1393.0      90.0      0.12
8                    1395.0     180.0      3.02
8                    1397.0     225.0      10.16
8                    1399.0     263.0      18.48
8                    1401.0     296.0      27.69
8                    1403.0     326.0      37.82
8                    1405.0     353.0      48.87
8                    1407.0     378.0      60.86
8                    1407.5     385.0      63.02
9 ENDTBL
3 STRUCT      69
8                    1372.0     0.         0.
8                    1378.0     105.5      0.056
8                    1379.0     129.       0.713
```

```
**********************80-80 LIST OF INPUT DATA (CONTINUED)**********************

 8                      1381.0      167.        9.251
 8                      1382.0      205.        18.292
 8                      1384.0      264.5       43.852
 8                      1386.0      312.8       74.997
 8                      1387.0      334.5       91.715
 8                      1388.0      354.7       109.506
 8                      1389.0      373.5       128.395
 9 ENDTBL
 6 RUNOFF 1 001       5 .148        95.         .3
 6 RUNOFF 1 002       6 .097        95.         .19
 6 REACH  3 003   5   7 1000.       .04         1.66
 6 REACH  3 003   6   5 1400.       .04         1.66
 6 ADDHYD 4 003   5 7 6
 6 RUNOFF 1 003       5 .047        77.         .36
 6 ADDHYD 4 003   5 6 7
 6 RUNOFF 1 006       5 .109        81.         .82
 6 REACH  3 006   7   6 1600.
 6 ADDHYD 4 006   5 6 7
 6 REACH  3 008   7   1 1600.
 6 RUNOFF 1 007       5 .117        77.         .69
 6 REACH  3 008   5   2 1400.
 6 RUNOFF 1 019       5 .022        95.         .167
 6 RUNOFF 1 004       6 .195        95.         .22
 6 REACH  3 004   5   7 1800.       .05         1.66
 6 ADDHYD 4 004   6 7 5
 6 RUNOFF 1 005       6 .125        77.         .56
 6 REACH  3 005   5   7 1400.       .05         1.66
 6 ADDHYD 4 005   6 7 5
 6 REACH  3 008   5   3 2100.
 6 ADDHYD 4 008   1 2 4
 6 ADDHYD 4 008   3 4 1
 6 RUNOFF 1 018       5 .184        78.         .72
 6 REACH  3 008   5   2 1900.       .04         1.66
 6 ADDHYD 4 008   1 2 3
 6 RUNOFF 1 008       5 .131        78.         .75
 6 ADDHYD 4 008   3 5 2
 6 RUNOFF 1 009       6 .066        79.         .93
 6 REACH  3 008   6   7 1095.       3.60        1.25
 6 ADDHYD 4 008   2 7 1
 6 DIVERT 6 014   1 3 4 150.                    8.0
 6 RESVOR 2    08 4   5 1487.84                                    BASIN #1
 6 ADDHYD 4 014   5 3 4
 6 REACH  3 014   4   5 2630.       .181        1.51
 6 RUNOFF 1 014       4 .177        83.         .39
 6 ADDHYD 4 014   5 4 3
 6 RUNOFF 1 016       5 .119        86.         .54
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 REACH  3 015   5   7 1300.       .54         1.54
6 RUNOFF 1 015       6 .073        82.         .89
6 ADDHYD 4 015   6 7 4
6 ADDHYD 4 014   4 3 6
6 RUNOFF 1 144       5 .132        79.         .93
6 REACH  3 014   5   4 2640.       2.1         1.4
6 REACH  3 014   4   7 1320.       1.64        1.67
6 ADDHYD 4 014   6 7 5
6 REACH  3 027   5   7 2743.       .068        1.61
6 RUNOFF 1 027       5 .188        82.         1.2
6 ADDHYD 4 027   5 7 6
6 RUNOFF 1 017       5 .059        95.         .17
6 REACH  3 025   5   7 2200.       .05         1.66
6 RUNOFF 1 025       5 .089        83.         .43
6 ADDHYD 4 025   5 7 4
6 REACH  3 027   4   5 1343.       .068        1.61
6 ADDHYD 4 027   5 6 7
6 RUNOFF 1 026       6 .067        85.         .31
6 ADDHYD 4 027   6 7 5
6 REACH  3 037   5   4 3000.
6 RUNOFF 1 037       5 .125        83.         .25
6 ADDHYD 4 037   4 5 6
6 RUNOFF 1 024       5 .198        86.         .46
6 REACH  3 037   5   4 2100.       .41         1.66
6 ADDHYD 4 037   4 6 5
6 RUNOFF 1 143       4 .0625       85.         .53
6 ADDHYD 4 143   5 4 1
6 RUNOFF 1 034       5 .125        84.         .73
6 REACH  3 035   5   6 1320.       .31         1.54
6 RUNOFF 1 035       5 .125        83.         .49
6 ADDHYD 4 035   5 6 7
6 REACH  3 036   7   4 1320.       4.09        1.25
6 RUNOFF 1 010       5 .095        77.         .56
6 REACH  3 011   5   6 2700.       .44         1.66
6 RUNOFF 1 011       7 .125        79.         .73
6 ADDHYD 4 011   6 7 5
6 REACH  3 028   5   3 3300.       .03         1.66
6 RUNOFF 1 013       5 .125        82.         .61
6 REACH  3 028   5   6 2800.       .03         1.66
6 ADDHYD 4 028   3 6 7
6 RUNOFF 1 028       5 .156        82.         .93
6 ADDHYD 4 028   7 5 6
6 REACH  3 036   6   7 3500.       .06         1.66
6 RUNOFF 1 036       5 .125        83.         .48
6 ADDHYD 4 036   5 7 6
6 ADDHYD 4 036   6 4 7
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 DIVERT 6 036   7 5 3 466.                90.
6 REACH  3 037   5   6 1320.      3.00     1.25
6 ADDHYD 4 143   1 6 7
6 RESVOR 2    43 7   5 1417.0                                        BASIN #3
6 REACH  3 085   5   7 660.       3.21     1.25
6 RUNOFF 1 085       6 .063       84.      .52
6 ADDHYD 4 085   6 7 5
6 REACH  3 084   5   6 1320.      3.21     1.25
6 RUNOFF 1 084       5 .063       84.      .52
6 ADDHYD 4 084   5 6 1
6 RUNOFF 1 091       7 .125       86.      .47
6 REACH  3 090   7   5 1320.      .22      1.54
6 REACH  3 090   3   4 2600.      .22      1.54                FROM 36
6 ADDHYD 4 090   4 5 6
6 RUNOFF 1 090       5 .109       85.      .63
6 ADDHYD 4 090   5 6 7
6 REACH  3 088   7   6 1320.      .22      1.54
6 RUNOFF 1 088       5 .094       87.      .75
6 ADDHYD 4 088   5 6 7
6 RUNOFF 1 089       5 .047       84.      .39
6 REACH  3 088   5   6 2000.      .22      1.54
6 ADDHYD 4 088   6 7 5
6 REACH  3 101   5   6 1050.      .22      1.54
6 RUNOFF 1 101       5 .047       89.      .52
6 ADDHYD 4 101   5 6 7
6 REACH  3 102   7   6 1320.      .02      1.66
6 RUNOFF 1 102       5 .063       82.      .63
6 ADDHYD 4 102   5 6 7
6 REACH  3 104   7   4 1900.      .02      1.66
6 RUNOFF 1 086       5 .063       86.      .27
6 REACH  3 087   5   6 1320.
6 RUNOFF 1 087       5 .063       87.      .52
6 ADDHYD 4 087   5 6 7
6 REACH  3 105   7   6 2000.
6 RUNOFF 1 105       5 .063       78.      .63
6 ADDHYD 4 105   5 6 7
6 REACH  3 104   7   6 1320.      .15      1.54
6 RUNOFF 1 104       5 .069       78.      .67
6 ADDHYD 4 104   5 6 7
6 ADDHYD 4 104   4 7 2
6 DIVERT 6 084   1 5 3            .35      83.
6 REACH  3 105   5   7 1320.      3.07     1.25
6 REACH  3 104   7   4 1320.      1.85     1.25
6 ADDHYD 4 104   4 2 1
6 REACH  3 083   3   5 1320.      8.46     1.25
6 RUNOFF 1 083       6 .063       85.      .52
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 ADDHYD 4 083   5 6 7
6 REACH  3 106   7   6 1320.      5.48       1.25
6 RUNOFF 1 106       5 .063       79.        .56
6 ADDHYD 4 106   5 6 7
6 REACH  3 107   7   6 900.       3.59       1.25
6 RUNOFF 1 107       5 .059       82.        .42
6 ADDHYD 4 107   5 6 2
6 RUNOFF 1 029       5 .125       81.        .73
6 REACH  3 145   5   3 1500.      6.10       1.25
6 RUNOFF 1 012       5 .378       80.        .64
6 REACH  3 145   5   4 2350.      6.09       1.25
6 RUNOFF 1 030       5 .152       79.        .97
6 REACH  3 033   5   6 3500.      .145       1.66
6 RUNOFF 1 033       5 .154       61.        .81
6 ADDHYD 4 033   5 6 7
6 ADDHYD 4 145   4 7 5
6 RUNOFF 1 145       4 .160       81.        .76
6 ADDHYD 4 145   5 4 6
6 DIVERT 6 145   3 4 5 27.                   007.
6 ADDHYD 4 145   5 6 7
6 RESVOR 2    33 7   6 1462.                                    BASIN #4
6 ADDHYD 4 145   6 4 5
6 REACH  3 093   5   6 2640.      3.50       1.25
6 RUNOFF 1 093       5 .195       84.        .45
6 ADDHYD 4 093   5 6 7
6 DIVERT 6 093   7 5 4 265.                   92.
6 REACH  3 092   4   6 1320.      .08        1.66
6 RUNOFF 1 092       4 .125       86.        .47
6 ADDHYD 4 092   4 6 7
6 REACH  3 098   7   3 2500.      .08        1.66
6 REACH  3 095   5   4 1320.      4.72       1.25
6 RUNOFF 1 031       5 .084       83.        .58
6 REACH  3 032   5   6 3400.      .03        1.66
6 RUNOFF 1 032       5 .18        80.        .93
6 ADDHYD 4 032   5 6 7
6 REACH  3 094   7   6 3200.      .09        1.66
6 RUNOFF 1 094       7 .139       84.        .34
6 ADDHYD 4 094   6 7 5
6 REACH  3 095   5   6 2400.      .09        1.66
6 RUNOFF 1 095       5 .125       86.        .98
6 ADDHYD 4 095   5 6 7
6 ADDHYD 4 095   4 7 5
6 DIVERT 6 095   5 7 4 265.                   98.
6 REACH  3 098   4   5 3000.      .08        1.66
6 ADDHYD 4 098   3 5 4
6 REACH  3 096   7   6 1320.      4.72       1.25
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 RUNOFF 1 096       5 .125        82.         .51
6 ADDHYD 4 096   5 6 7
6 DIVERT 6 096   7 3 6 265.                    97.
6 REACH  3 097   6   5 2100.       .08         1.66
6 RUNOFF 1 097       6 .188        87.         .53
6 ADDHYD 4 097   5 6 7
6 REACH  3 098   7   5 1000.       .08         1.66
6 ADDHYD 4 098   4 5 7
6 RUNOFF 1 098       5 .094        86.         .37
6 ADDHYD 4 098   5 7 6
6 REACH  3 099   6   7 1250.       .08         1.66
6 RUNOFF 1 099       6 .094        86.         .49
6 ADDHYD 4 099   7 6 5
6 REACH  3 139   5   6 1600.       .05         1.66
6 RUNOFF 1 100       4 .078        86.         .39
6 REACH  3 139   4   5 600.        6.13        1.25
6 ADDHYD 4 139   5 6 7
6 REACH  3 142   3   5 2640.       5.68        1.25
6 RUNOFF 1 142       4 .25         83.         1.39
6 ADDHYD 4 142   4 5 6
6 DIVERT 6 142   6 5 4 265.                    141.
6 REACH  3 141   4   5 2100.       4.34        1.25
6 RUNOFF 1 141       6 .188        87.         .53
6 ADDHYD 4 141   5 6 4
6 REACH  3 140   4   5 1320.       4.21        1.25
6 RUNOFF 1 140       6 .125        86.         .44
6 ADDHYD 4 140   5 6 4
6 RUNOFF 1 137       6 .078        80.         .49
6 ADDHYD 4 140   4 6 5
6 REACH  3 139   5   6 2800.       3.78        1.25
6 ADDHYD 4 139   6 7 4
6 RUNOFF 1 136       5 .066        95.         .167
6 REACH  3 138   5   6 3000.       .17         1.66
6 RUNOFF 1 138       5 .203        84.         .24
6 ADDHYD 4 138   5 6 7
6 REACH  3 139   7   6 2000.       4.52        1.25
6 ADDHYD 4 139   4 6 7
6 RUNOFF 1 139       5 .188        87.         .43
6 ADDHYD 4 139   7 5 4
6 RUNOFF 1 129       5 .108        82.         .167
6 RUNOFF 1 130       6 .031        91.         .167
6 ADDHYD 4 129   5 6 7
6 REACH  3 127   7   6 2500.       .08         1.66
6 RUNOFF 1 128       5 .036        80.         .167
6 REACH  3 127   5   7 2300.       .08         1.66
6 ADDHYD 4 127   7 6 5
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 RUNOFF 1 127       7 .159        82.         .21
6 ADDHYD 4 127   5 7 6
6 RUNOFF 1 132       7 .145        89.         .27
6 RUNOFF 1 133       3 .08         95.         .167
6 ADDHYD 4 133   3 7 5
6 REACH  3 131   5   7 2000.       .17         1.66
6 ADDHYD 4 131   6 7 5
6 RUNOFF 1 131       6 .119        86.         .27
6 ADDHYD 4 131   5 6 7
6 REACH  3 126   7   6 1500.       .11         1.66
6 RUNOFF 1 126       5 .158        95.         .28
6 ADDHYD 4 126   5 6 7
6 REACH  3 134   7   6 1500.       .13         1.66
6 RUNOFF 1 135       7 .042        95.         .167
6 REACH  3 134   7   5 3200.       .13         1.66
6 ADDHYD 4 134   5 6 7
6 RUNOFF 1 134       6 .197        85.         .31
6 ADDHYD 4 134   6 7 5
6 RUNOFF 1 125       7 .117        95.         .167
6 ADDHYD 4 125   7 5 6
6 REACH  3 124   6   7 2500.       .09         1.66
6 RUNOFF 1 124       6 .219        84.         .25
6 ADDHYD 4 124   6 7 5
6 REACH  3 124   4   7 900.
6 ADDHYD 4 124   5 7 6
6 RUNOFF 1 103       5 .081        84.         .26
6 ADDHYD 4 124   5 6 7
6 REACH  3 104   7   6 1320.
6 ADDHYD 4 104   1 6 4
6 REACH  3 107   4   5 1000.
6 ADDHYD 4 107   5 2 7
6 RUNOFF 1 123       6 .213        95.         .25
6 ADDHYD 4 107   6 7 5
6 REACH  3 108   5   3 1700.
6 RUNOFF 1 108       5 .025        83.         .28
6 ADDHYD 4 108   5 3 1
6 RUNOFF 1 148       6 .033        82.         0.17
6 REACH  3  47   6   5 1101.       .04         1.66
6 RUNOFF 1  47       6 .073        82.         0.18
6 ADDHYD 4  47   5 6 7
6 REACH  3  46   7   5 1285.       .04         1.66
6 RUNOFF 1  46       6 .053        82.         0.17
6 ADDHYD 4  46   5 6 7
6 REACH  3 149   7   5 1331.       .04         1.66
6 RUNOFF 1 149       6 .009        90.         0.17
6 ADDHYD 4 149   5 6 4
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 RUNOFF 1 147       5 .052        82.         0.17
6 REACH  3 146   5   6 1240.       .04         1.66
6 RUNOFF 1 146       7 .072        82.         0.18
6 ADDHYD 4 146   6 7 5
6 REACH  3  45   5   6  413.       .04         1.66
6 RUNOFF 1  43       5 .047        90.         0.17
6 REACH  3  21   5   7 1377.       .04         1.66
6 ADDHYD 4  21   6 7 5
6 RUNOFF 1  21       6 .189        87.         0.58
6 ADDHYD 4  21   5 6 7
6 REACH  3  45   7   5 3213.       9.02        1.25
6 RUNOFF 1  45       6 .116        90.         0.51
6 ADDHYD 4  45   5 6 7
6 ADDHYD 4  45   4 7 3
6 RUNOFF 1 150       5 .016        82.         0.17
6 REACH  3  57   5   6 1350.       .04         1.66
6 RUNOFF 1  57       4 .050        82.         0.25
6 ADDHYD 4  57   4 6 5
6 REACH  3  59   5   7 1330.       .04         1.66
6 RUNOFF 1  59       6 .053        82.         0.25
6 ADDHYD 4  59   7 6 4
6 ADDHYD 4  59   4 3 2
6 RUNOFF 1  49       5 .086        95.         0.19
6 REACH  3  50   5   4 1928.       .04         1.66
6 RUNOFF 1  50       3 .092        95.         0.483
6 ADDHYD 4  50   4 3 7
6 RUNOFF 1  20       5 .064        95.         0.17
6 REACH  3  48   5   3 2570.       .04         1.66
6 RUNOFF 1  48       4 .092        82.         0.6
6 ADDHYD 4  48   3 4 5
6 REACH  3  50   5   4 1836.       .04         1.66
6 ADDHYD 4  50   7 4 3
6 REACH  3  52   3   4 550.        .04         1.66
6 RUNOFF 1  52       3 .055        82.         0.190
6 ADDHYD 4  52   4 3 5
6 REACH  3  56   5   3 1377.       .04         1.66
6 RUNOFF 1  56       4 .067        82.         0.25
6 ADDHYD 4  56   3 4 5
6 REACH  3  51   5   3 1377.       .04         1.66
6 RUNOFF 1  51       4 .031        82.         0.17
6 ADDHYD 4  51   3 4 5
6 REACH  3  55   5   3 1331.       .04         1.66
6 RUNOFF 1  55       4 .017        82.         0.17
6 ADDHYD 4  55   3 4 5
6 ADDHYD 4  55   5 2 6
6 RESVOR 2    59 6   7                                          BASIN #2
```

**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 REACH  3 066   7   6 660.       5.64       1.25
6 RUNOFF 1 066       5 .063       84.        .46
6 ADDHYD 4 066   5 6 7
6 REACH  3 067   7   6 1320.      7.18       1.25
6 RUNOFF 1 067       5 .063       88.        .25
6 ADDHYD 4 067   5 6 7
6 RUNOFF 1 044       5 .125       87.        .3
6 REACH  3 067   5   6 1320.      .25        1.54
6 ADDHYD 4 067   6 7 4
6 REACH  3 069   4   6 1320.      3.06       1.25
6 RUNOFF 1 069       5 .063       81.        .62
6 ADDHYD 4 069   5 6 4
6 RUNOFF 1 023       6 .091       95.        .23
6 REACH  3 040   6   5 2650.      .08        1.66
6 RUNOFF 1 038       7 .125       85.        .44
6 REACH  3 040   7   6 1800.      .08        1.66
6 ADDHYD 4 040   5 6 7
6 RUNOFF 1 040       5 .094       82.        .51
6 ADDHYD 4 040   5 7 6
6 REACH  3 082   6   5 1400.      .1         1.66
6 RUNOFF 1 082       6 .063       84.        .27
6 ADDHYD 4 082   5 6 7
6 RUNOFF 1 039       5 .0625      85.        .53
6 REACH  3 082   5   6 1867.      .1         1.66
6 ADDHYD 4 082   6 7 5
6 REACH  3 081   5   6 1320.      .22        1.54
6 RUNOFF 1 081       5 .063       84.        .52
6 ADDHYD 4 081   5 6 3
6 RUNOFF 1 022       5 .153       87.        .47
6 REACH  3 041   5   6 3100.      .24        1.66
6 RUNOFF 1 041       5 .172       84.        .38
6 ADDHYD 4 041   5 6 7
6 RUNOFF 1 042       5 .078       87.        .22
6 ADDHYD 4 042   5 7 6
6 REACH  3 078   6   5 1600.      .09        1.66
6 DIVERT 6 081   3 7 6 154.                  78.
6 REACH  3 078   6   3 1320.      .09        1.66
6 ADDHYD 4 078   5 3 6
6 RUNOFF 1 078       3 .063       86.        .27
6 ADDHYD 4 078   6 3 5
6 SAVMOV 5 081   7   3
6 REACH  3 077   5   6 1320.      .23        1.54
6 RUNOFF 1 077       5 .063       86.        .38
6 ADDHYD 4 077   5 6 7
6 ADDHYD 4 069   4 7 2
6 RESVOR 2    69 2   6 1372.0                                    BASIN #5
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**********80-80 LIST OF INPUT DATA (CONTINUED)**********

```
6 REACH  3 075   6   4 1320.       3.79        1.25
6 REACH  3 080   3   6 1320.       7.06        1.25
6 RUNOFF 1 080       5 .063        82.         .45
6 ADDHYD 4 080   6 5 2
6 DIVERT 6 080   2 3 5 166.                    79.
6 REACH  3 079   5   6 1320.       .23         1.54
6 RUNOFF 1 079       5 .063        88.         .25
6 ADDHYD 4 079   5 6 7
6 REACH  3 076   7   6 1320.       .23         1.54
6 RUNOFF 1 076       5 .063        86.         .25
6 ADDHYD 4 076   5 6 7
6 REACH  3 075   7   6 1320.       .23         1.54
6 ADDHYD 4 075   4 6 5
6 RUNOFF 1 075       6 .063        95.         .52
6 ADDHYD 4 075   5 6 7
6 REACH  3 112   7   4 1320.       3.79        1.25
6 REACH  3 109   3   7 2640.       4.04        1.25
6 RUNOFF 1 109       5 .063        84.         .29
6 ADDHYD 4 109   5 7 6
6 ADDHYD 4 108   1 6 7
6 REACH  3 110   7   6 1320.
6 RUNOFF 1 110       5 .073        78.         .56
6 ADDHYD 4 110   5 6 7
6 RUNOFF 1 122       6 .355        85.         .29
6 ADDHYD 4 110   6 7 5
6 REACH  3 111   5   6 1320.
6 RUNOFF 1 111       5 .07         77.         .56
6 ADDHYD 4 111   5 6 7
6 REACH  3 112   7   6 1320.       .06         1.63
6 RUNOFF 1 112       5 .061        77.         .46
6 ADDHYD 4 112   5 6 7
6 RUNOFF 1 121       5 .25         95.         .17
6 ADDHYD 4 112   5 7 1
6 ADDHYD 4 112   1 4 3
6 REACH  3 113   3   5 1320.       .06         1.63
6 RUNOFF 1 113       6 .053        91.         .52
6 ADDHYD 4 113   5 6 7
6 RUNOFF 1 120       5 .231        87.         .30
6 ADDHYD 4 113   5 7 1
6 RUNOFF 1 058       5 .032        84.         .17
6 REACH  3 060   5   6 1320.       .25         1.54
6 RUNOFF 1 060       5 .063        81.         .49
6 ADDHYD 4 060   5 6 7
6 REACH  3 065   7   6 1320.       .28         1.54
6 RUNOFF 1 065       5 .063        82.         .49
6 ADDHYD 4 065   5 6 7
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**********************80-80 LIST OF INPUT DATA (CONTINUED)**********************

 6 REACH  3 068   7   6 1320.       .25         1.54
 6 RUNOFF 1 068       5 .063        85.         .25
 6 ADDHYD 4 068   5 6 7
 6 REACH  3 070   7   6 1320.       .18         1.54
 6 RUNOFF 1 070       5 .063        86.         .25
 6 ADDHYD 4 070   5 6 7
 6 REACH  3 074   7   6 1320.       .09         1.66
 6 RUNOFF 1 074       5 .063        90.         .24
 6 ADDHYD 4 074   5 6 7
 6 REACH  3 113   7   6 1320.       6.62        1.25
 6 ADDHYD 4 113   1 6 3
 6 REACH  3 114   3   1 3000.       .05         1.64
 6 RUNOFF 1 064       5 .25         82.         .33
 6 REACH  3 072   5   6 2650.       .18         1.54
 6 RUNOFF 1 072       5 .125        83.         .49
 6 ADDHYD 4 072   5 6 7
 6 REACH  3 114   7   6 2000.       .05         1.66
 6 RUNOFF 1 115       5 .094        82.         .45
 6 ADDHYD 4 114   5 6 7
 6 RUNOFF 1 071       5 .125        83.         .49
 6 REACH  3 114   5   6 2200.       .05         1.66
 6 ADDHYD 4 114   6 7 5
 6 RUNOFF 1 114       6 .128        85.         1.19
 6 ADDHYD 4 114   5 6 7
 6 ADDHYD 4 114   1 7 5
 6 RUNOFF 1 119       6 .231        84.         1.05
 6 ADDHYD 4 114   5 6 7
 6 REACH  3 118   7   6 4000.       .05         1.66
 6 RUNOFF 1 118       5 .231        81.         1.59
 6 ADDHYD 4 118   5 6 7
 6 REACH  3 117   7   6 3527.       .05         1.66
 6 RUNOFF 1 117       5 .173        80.         1.9
 6 ADDHYD 4 117   5 6 7
   ENDATA
 7 INCREM 6             .08
 7 COMPUT 7 001   117              2.53        24.         1 2  01  01
   ENDCMP 1
 7 COMPUT 7 001   117              3.57        24.         1 2  01  02
   ENDCMP 1
 7 COMPUT 7 001   117              4.04        24.         1 2  01  03
   ENDCMP 1
   ENDJOB 2

*******************************END OF 80-80 LIST*********************************


EXECUTIVE CONTROL OPERATION INCREM     MAIN TIME INCREMENT =   .08 HOURS                                    RECORD ID


EXECUTIVE CONTROL OPERATION COMPUT     FROM XSECTION   1  TO XSECTION 117                                   RECORD ID
        STARTING TIME =   .00    RAIN DEPTH =  2.53    RAIN DURATION= 24.00    RAIN TABLE NO.= 1    ANT. MOIST. COND= 2
        ALTERNATE NO.= 1         STORM NO.= 1    MAIN TIME INCREMENT =   .08 HOURS

     ***  WARNING  REACH   8 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

     ***  WARNING  REACH  15 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

     ***  WARNING  REACH  14 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
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***  WARNING  REACH  36 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH  37 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH  85 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH  85 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      40.15 CFS,  11.58 % OF PEAK.

***  WARNING  REACH  84 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH  84 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      40.89 CFS,  11.72 % OF PEAK.

***  WARNING  REACH 101 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 105 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH 105 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      14.84 CFS,  11.53 % OF PEAK.

***  WARNING  REACH 104 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH 104 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      14.83 CFS,  11.52 % OF PEAK.

***  WARNING  REACH  83 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH  83 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      26.80 CFS,  11.48 % OF PEAK.

***  WARNING  REACH 106 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH 106 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      27.56 CFS,  10.11 % OF PEAK.
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*** WARNING  REACH 107 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 145 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 145 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  95 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  32 LENGTH FACTOR (K*) GREATER THAN 1.0, CONSIDER DIVIDING REACH LENGTH  ***

*** WARNING  REACH  98 LENGTH FACTOR (K*) GREATER THAN 1.0, CONSIDER DIVIDING REACH LENGTH  ***

*** WARNING  REACH  96 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 139 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 142 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 141 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 140 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 139 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 139 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 134 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 124 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 104 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 107 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 108 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  45 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  57 LENGTH FACTOR (K*) GREATER THAN 1.0, CONSIDER DIVIDING REACH LENGTH  ***

*** WARNING  REACH  52 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH  66 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
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*** WARNING REACH  67 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH  69 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH  77 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH  75 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH  80 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 112 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 109 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 110 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 111 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 112 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 113 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 113 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

EXECUTIVE CONTROL OPERATION ENDCMP     COMPUTATIONS COMPLETED FOR PASS   1                                RECORD ID


EXECUTIVE CONTROL OPERATION COMPUT     FROM XSECTION   1  TO XSECTION 117                                 RECORD ID
      STARTING TIME =   .00    RAIN DEPTH =  3.57    RAIN DURATION= 24.00    RAIN TABLE NO.= 1    ANT. MOIST. COND= 2
      ALTERNATE NO.= 1         STORM NO.= 2    MAIN TIME INCREMENT =   .08 HOURS

*** WARNING REACH   8 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH  15 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH  14 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH  37 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH  36 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH  37 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
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*** WARNING  REACH  85 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH  85 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      65.92 CFS,  14.84 % OF PEAK.

*** WARNING  REACH  84 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH  84 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      67.08 CFS,  15.00 % OF PEAK.

*** WARNING  REACH 101 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 105 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH 105 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      24.27 CFS,  15.10 % OF PEAK.

*** WARNING  REACH 104 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH 104 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      24.30 CFS,  15.13 % OF PEAK.

*** WARNING  REACH  83 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH  83 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      43.98 CFS,  15.10 % OF PEAK.

*** WARNING  REACH 106 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH 106 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      45.16 CFS,  12.54 % OF PEAK.

*** WARNING  REACH 107 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH 107 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      46.20 CFS,  11.15 % OF PEAK.

*** WARNING  REACH 145 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING  REACH 145 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH  93 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      22.71 CFS,  19.74 % OF PEAK.

*** WARNING  REACH  92 LENGTH FACTOR (K*) GREATER THAN 1.0, CONSIDER DIVIDING REACH LENGTH  ***

*** WARNING  REACH  95 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH  95 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      28.75 CFS,  10.85 % OF PEAK.

*** WARNING  REACH  32 LENGTH FACTOR (K*) GREATER THAN 1.0, CONSIDER DIVIDING REACH LENGTH  ***

*** WARNING  REACH  96 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
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*** WARNING - REACH  96 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      37.62 CFS,  14.20 % OF PEAK.

***  WARNING  REACH  98 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH  99 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 139 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 142 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH 142 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      39.86 CFS,  15.04 % OF PEAK.

***  WARNING  REACH 141 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 140 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 139 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 139 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 126 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 134 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 124 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 104 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 107 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 108 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH  45 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH  45 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH  52 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

    *** WARNING - STRUCTURE 59 DELTA T IS TOO LARGE.  O /2 >  S /DELTA T OCCURED  1 TIMES STARTING WITH POINT219

***  WARNING  REACH  66 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH  67 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH  69 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH  81 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***
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*** WARNING REACH 77 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING - STRUCTURE 69 DELTA T IS TOO LARGE. O /2 > S /DELTA T OCCURED 1 TIMES STARTING WITH POINT289

*** WARNING REACH 75 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING - REACH 75 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT 39.75 CFS, 11.26 % OF PEAK.

*** WARNING REACH 80 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 112 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 109 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 110 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 111 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 112 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 113 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 113 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 2 RECORD ID


EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 117 RECORD ID
STARTING TIME = .00 RAIN DEPTH = 4.04 RAIN DURATION= 24.00 RAIN TABLE NO.= 1 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 3 MAIN TIME INCREMENT = .08 HOURS

*** WARNING REACH 8 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 8 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 15 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 14 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 14 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 37 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 36 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
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*** WARNING REACH 37 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 85 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING - REACH 85 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT     279.60 CFS,  55.04 % OF PEAK.

*** WARNING REACH 84 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING - REACH 84 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT     280.95 CFS,  54.90 % OF PEAK.

*** WARNING REACH 90 LENGTH FACTOR (K*) GREATER THAN 1.0, CONSIDER DIVIDING REACH LENGTH ***

*** WARNING REACH 101 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 105 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING - REACH 105 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT     100.39 CFS,  54.78 % OF PEAK.

*** WARNING REACH 104 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING - REACH 104 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT     101.63 CFS,  55.46 % OF PEAK.

*** WARNING REACH 83 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING - REACH 83 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT     181.91 CFS,  54.77 % OF PEAK.

*** WARNING REACH 106 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING - REACH 106 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT     183.28 CFS,  46.31 % OF PEAK.

*** WARNING REACH 107 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING - REACH 107 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT     184.51 CFS,  40.02 % OF PEAK.

*** WARNING REACH 145 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING REACH 145 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING - REACH 93 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      61.53 CFS,  51.48 % OF PEAK.

*** WARNING REACH 95 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING - REACH 95 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      67.24 CFS,  25.37 % OF PEAK.

*** WARNING REACH 96 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

*** WARNING - REACH 96 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      77.67 CFS,  29.31 % OF PEAK.
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*** WARNING REACH  98 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH  99 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH 139 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH 142 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING - REACH 142 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT      80.28 CFS,  30.29 % OF PEAK.
*** WARNING REACH 141 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH 140 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH 139 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH 139 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH 126 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH 134 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH 124 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH 104 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH 107 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH 108 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH  45 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH  45 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH  52 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH  66 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH  67 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH  69 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH  81 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH  77 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
*** WARNING REACH  75 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***
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*** WARNING - REACH  75 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT     149.49 CFS,  39.25 % OF PEAK.

***  WARNING  REACH  80 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 112 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

*** WARNING - REACH 112 INFLOW HYDROGRAPH VOLUME TRUNCATED ABOVE BASEFLOW AT     153.82 CFS,  25.72 % OF PEAK.

***  WARNING  REACH 109 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 110 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 111 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 112 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 113 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

***  WARNING  REACH 113 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT  ***

EXECUTIVE CONTROL OPERATION ENDCMP     COMPUTATIONS COMPLETED FOR PASS   3                                RECORD ID


EXECUTIVE CONTROL OPERATION ENDJOB                                                                        RECORD ID
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SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 1	RUNOFF	.15	1	2	.08	.0	2.53	24.00	1.98	---	12.45	149.82	1012.3
XSECTION 2	RUNOFF	.10	1	2	.08	.0	2.53	24.00	1.99	---	12.44	100.45	1035.5
XSECTION 3	REACH	.15	1	2	.08	.0	2.53	24.00	1.98	---	12.66	145.14	980.7
XSECTION 3	REACH	.10	1	2	.08	.0	2.53	24.00	1.97	---	12.72	92.53	954.0
XSECTION 3	ADDHYD	.25	1	2	.08	.0	2.53	24.00	1.98	---	12.68	238.07	971.7
XSECTION 3	RUNOFF	.05	1	2	.08	.0	2.53	24.00	.75	---	12.54	22.94	488.1
XSECTION 3	ADDHYD	.29	1	2	.08	.0	2.53	24.00	1.78	---	12.63	255.59	875.3
XSECTION 6	RUNOFF	.11	1	2	.08	.0	2.53	24.00	.95	---	12.74	48.43	444.3
XSECTION 6	REACH	.29	1	2	.08	.0	2.53	24.00	1.78	1505.08	12.76	252.12	863.4
XSECTION 6	ADDHYD	.40	1	2	.08	.0	2.53	24.00	1.55	1505.23	12.76	300.45	749.2
XSECTION 8	REACH	.40	1	2	.08	.0	2.53	24.00	1.55	1496.66	12.92	285.81	712.7
XSECTION 7	RUNOFF	.12	1	2	.08	.0	2.53	24.00	.75	---	12.69	44.80	382.9
XSECTION 8	REACH	.12	1	2	.08	.0	2.53	24.00	.75	1494.84	12.82	43.28	369.9
XSECTION 19	RUNOFF	.02	1	2	.08	.0	2.53	24.00	1.99	---	12.44	22.96	1043.8
XSECTION 4	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.99	---	12.44	200.22	1026.8
XSECTION 4	REACH	.02	1	2	.08	.0	2.53	24.00	1.96	---	13.00	17.70	804.5
XSECTION 4	ADDHYD	.22	1	2	.08	.0	2.53	24.00	1.98	---	12.45	210.49	970.0
XSECTION 5	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.75	---	12.62	52.47	419.7
XSECTION 5	REACH	.22	1	2	.08	.0	2.53	24.00	1.98	---	12.64	201.41	928.2
XSECTION 5	ADDHYD	.34	1	2	.08	.0	2.53	24.00	1.53	---	12.63	253.80	742.1
XSECTION 8	REACH	.34	1	2	.08	.0	2.53	24.00	1.52	1496.54	12.87	234.64	686.1
XSECTION 8	ADDHYD	.52	1	2	.08	.0	2.53	24.00	1.37	1496.73	12.90	327.15	631.6
XSECTION 8	ADDHYD	.86	1	2	.08	.0	2.53	24.00	1.43	1497.03	12.88	561.34	652.7
XSECTION 18	RUNOFF	.18	1	2	.08	.0	2.53	24.00	.80	---	12.70	73.81	401.1
XSECTION 8	REACH	.18	1	2	.08	.0	2.53	24.00	.79	1494.97	13.16	55.14	299.7
XSECTION 8	ADDHYD	1.04	1	2	.08	.0	2.53	24.00	1.32	1497.07	12.90	606.28	580.7
XSECTION 8	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.80	---	12.71	50.85	388.2
XSECTION 8	ADDHYD	1.18	1	2	.08	.0	2.53	24.00	1.26	1497.11	12.89	650.56	553.7
XSECTION 9	RUNOFF	.07	1	2	.08	.0	2.53	24.00	.84	---	12.81	24.37	369.2
XSECTION 8	REACH	.07	1	2	.08	.0	2.53	24.00	.84	1494.61	12.90	24.32	368.5
XSECTION 8	ADDHYD	1.24	1	2	.08	.0	2.53	24.00	1.24	1497.13	12.89	674.86	543.8
XSECTION 14	DIVERT	.00	1	2	.08	.0	2.53	24.00	1.24	---	12.16*	150.00**********	

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 8	DIVERT	1.24	1	2	.08	.0	2.53	24.00	.57	1497.00	12.89	524.86	422.9
STRUCTURE 8	RESVOR	1.24	1	2	.08	.0	2.53	24.00	.57	1492.28	13.48	135.41	109.1
XSECTION 14	ADDHYD	1.24	1	2	.08	.0	2.53	24.00	1.23	---	13.48	285.41	230.0
XSECTION 14	REACH	1.24	1	2	.08	.0	2.53	24.00	1.23	---	13.79	280.73	226.2
XSECTION 14	RUNOFF	.18	1	2	.08	.0	2.53	24.00	1.07	---	12.53	113.69	642.3
XSECTION 14	ADDHYD	1.42	1	2	.08	.0	2.53	24.00	1.21	---	13.74	287.60	202.8
XSECTION 16	RUNOFF	.12	1	2	.08	.0	2.53	24.00	1.26	---	12.57	79.99	672.2
XSECTION 15	REACH	.12	1	2	.08	.0	2.53	24.00	1.25	---	12.68	78.79	662.1
XSECTION 15	RUNOFF	.07	1	2	.08	.0	2.53	24.00	1.01	---	12.77	32.88	450.4
XSECTION 15	ADDHYD	.19	1	2	.08	.0	2.53	24.00	1.16	---	12.70	111.06	578.4
XSECTION 14	ADDHYD	1.61	1	2	.08	.0	2.53	24.00	1.20	---	12.63	366.62	227.7
XSECTION 144	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.84	---	12.81	48.73	369.2
XSECTION 14	REACH	.13	1	2	.08	.0	2.53	24.00	.84	---	12.95	47.43	359.3
XSECTION 14	REACH	.13	1	2	.08	.0	2.53	24.00	.84	---	12.95	47.43	359.3
XSECTION 14	ADDHYD	1.74	1	2	.08	.0	2.53	24.00	1.17	---	12.66	401.52	230.5
XSECTION 27	REACH	1.74	1	2	.08	.0	2.53	24.00	1.17	---	13.04	360.97	207.2
XSECTION 27	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.00	---	12.96	71.15	378.4
XSECTION 27	ADDHYD	1.93	1	2	.08	.0	2.53	24.00	1.15	---	13.00	431.43	223.5
XSECTION 17	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.99	---	12.44	61.52	1042.6
XSECTION 25	REACH	.06	1	2	.08	.0	2.53	24.00	1.97	---	12.99	50.39	854.0
XSECTION 25	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.07	---	12.54	55.78	626.8
XSECTION 25	ADDHYD	.15	1	2	.08	.0	2.53	24.00	1.43	---	12.59	92.92	627.8
XSECTION 27	REACH	.15	1	2	.08	.0	2.53	24.00	1.42	---	12.81	81.78	552.6
XSECTION 27	ADDHYD	2.08	1	2	.08	.0	2.53	24.00	1.17	---	12.96	508.54	244.7
XSECTION 26	RUNOFF	.07	1	2	.08	.0	2.53	24.00	1.20	---	12.49	48.39	722.3
XSECTION 27	ADDHYD	2.14	1	2	.08	.0	2.53	24.00	1.17	---	12.93	516.89	241.0
XSECTION 37	REACH	2.14	1	2	.08	.0	2.53	24.00	1.17	1454.50	13.12	509.39	237.5
XSECTION 37	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	---	12.47	85.28	682.3
XSECTION 37	ADDHYD	2.27	1	2	.08	.0	2.53	24.00	1.16	1454.51	13.10	517.70	228.1
XSECTION 24	RUNOFF	.20	1	2	.08	.0	2.53	24.00	1.26	---	12.54	139.24	703.2
XSECTION 37	REACH	.20	1	2	.08	.0	2.53	24.00	1.26	1453.08	12.65	136.34	688.6
XSECTION 37	ADDHYD	2.47	1	2	.08	.0	2.53	24.00	1.17	1454.64	12.85	591.67	239.7
XSECTION 143	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.19	---	12.57	40.41	646.6
XSECTION 143	ADDHYD	2.53	1	2	.08	.0	2.53	24.00	1.17	---	12.80	619.95	245.0
XSECTION 34	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.13	---	12.67	68.82	550.6
XSECTION 35	REACH	.13	1	2	.08	.0	2.53	24.00	1.12	---	12.81	66.44	531.5

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 35	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	---	12.56	75.62	605.0
XSECTION 35	ADDHYD	.25	1	2	.08	.0	2.53	24.00	1.10	---	12.63	133.11	532.4
XSECTION 36	REACH	.25	1	2	.08	.0	2.53	24.00	1.10	---	12.63	133.11	532.4
XSECTION 10	RUNOFF	.09	1	2	.08	.0	2.53	24.00	.75	---	12.62	39.88	419.7
XSECTION 11	REACH	.09	1	2	.08	.0	2.53	24.00	.75	---	12.79	36.00	378.9
XSECTION 11	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.85	---	12.70	52.45	419.6
XSECTION 11	ADDHYD	.22	1	2	.08	.0	2.53	24.00	.80	---	12.73	87.66	398.4
XSECTION 28	REACH	.22	1	2	.08	.0	2.53	24.00	.79	---	13.56	50.09	227.7
XSECTION 13	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.01	---	12.62	66.41	531.3
XSECTION 28	REACH	.13	1	2	.08	.0	2.53	24.00	.99	---	13.47	38.97	311.8
XSECTION 28	ADDHYD	.34	1	2	.08	.0	2.53	24.00	.86	---	13.52	88.75	257.3
XSECTION 28	RUNOFF	.16	1	2	.08	.0	2.53	24.00	1.01	---	12.80	68.66	440.1
XSECTION 28	ADDHYD	.50	1	2	.08	.0	2.53	24.00	.91	---	13.32	117.59	234.7
XSECTION 36	REACH	.50	1	2	.08	.0	2.53	24.00	.90	---	13.76	101.73	203.0
XSECTION 36	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	---	12.56	76.12	608.9
XSECTION 36	ADDHYD	.63	1	2	.08	.0	2.53	24.00	.93	---	13.71	107.47	171.7
XSECTION 36	ADDHYD	.88	1	2	.08	.0	2.53	24.00	.98	---	12.64	236.76	270.3
XSECTION 36	DIVERT	.00	1	2	.08	.0	2.53	24.00	.98	---	12.64	236.76	**********
XSECTION 90	DIVERT	.88	1	2	.08	.0	2.53	24.00	.00	---	.00	.00	.0
XSECTION 37	REACH	.00	1	2	.08	.0	2.53	24.00	.00	1453.50	12.72	236.68	**********
XSECTION 143	ADDHYD	2.53	1	2	.08	.0	2.53	24.00	1.51	---	12.75	854.04	337.5
STRUCTURE 43	RESVOR	2.53	1	2	.08	.0	2.53	24.00	1.51	1421.40	14.82	346.76	137.0
XSECTION 85	REACH	2.53	1	2	.08	.0	2.53	24.00	1.51	---	14.82	346.76	137.0
XSECTION 85	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.13	---	12.57	39.31	624.0
XSECTION 85	ADDHYD	2.59	1	2	.08	.0	2.53	24.00	1.50	---	14.81	348.85	134.5
XSECTION 84	REACH	2.59	1	2	.08	.0	2.53	24.00	1.50	3.38	14.81	348.85	134.5
XSECTION 84	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.13	---	12.57	39.31	624.0
XSECTION 84	ADDHYD	2.66	1	2	.08	.0	2.53	24.00	1.49	3.48	12.70	362.44	136.4
XSECTION 91	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.26	---	12.54	87.51	700.1
XSECTION 90	REACH	.13	1	2	.08	.0	2.53	24.00	1.26	---	12.68	83.43	667.4
XSECTION 90	REACH	.88	1	2	.08	.0	2.53	24.00	.00	---	.00	.00	.0
XSECTION 90	ADDHYD	1.00	1	2	.08	.0	2.53	24.00	.16	---	12.68	83.43	83.3
XSECTION 90	RUNOFF	.11	1	2	.08	.0	2.53	24.00	1.19	---	12.61	66.45	609.6
XSECTION 90	ADDHYD	1.11	1	2	.08	.0	2.53	24.00	.26	---	12.65	148.96	134.2
XSECTION 88	REACH	1.11	1	2	.08	.0	2.53	24.00	.26	---	12.78	144.37	130.1
XSECTION 88	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.32	---	12.66	59.09	628.7

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 88	ADDHYD	1.20	1	2	.08	.0	2.53	24.00	.34	---	12.75	201.27	167.2
XSECTION 89	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.13	---	12.53	31.57	671.6
XSECTION 88	REACH	.05	1	2	.08	.0	2.53	24.00	1.12	---	12.87	26.20	557.4
XSECTION 88	ADDHYD	1.25	1	2	.08	.0	2.53	24.00	.37	---	12.76	226.07	180.7
XSECTION 101	REACH	1.25	1	2	.08	.0	2.53	24.00	.37	---	12.87	223.21	178.4
XSECTION 101	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.47	---	12.55	36.53	777.3
XSECTION 101	ADDHYD	1.30	1	2	.08	.0	2.53	24.00	.41	---	12.82	244.90	188.7
XSECTION 102	REACH	1.30	1	2	.08	.0	2.53	24.00	.41	---	13.07	217.57	167.6
XSECTION 102	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.01	---	12.63	33.03	524.3
XSECTION 102	ADDHYD	1.36	1	2	.08	.0	2.53	24.00	.44	---	13.02	233.28	171.4
XSECTION 104	REACH	1.36	1	2	.08	.0	2.53	24.00	.43	1.09	13.44	196.62	144.5
XSECTION 86	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.26	---	12.47	48.06	762.9
XSECTION 87	REACH	.06	1	2	.08	.0	2.53	24.00	1.25	1429.91	12.81	39.30	623.8
XSECTION 87	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.33	---	12.56	45.03	714.7
XSECTION 87	ADDHYD	.13	1	2	.08	.0	2.53	24.00	1.29	1429.95	12.64	78.26	621.1
XSECTION 105	REACH	.13	1	2	.08	.0	2.53	24.00	1.28	1417.50	13.07	63.64	505.0
XSECTION 105	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.80	---	12.64	26.47	420.2
XSECTION 105	ADDHYD	.19	1	2	.08	.0	2.53	24.00	1.12	1417.53	12.93	78.06	413.0
XSECTION 104	REACH	.19	1	2	.08	.0	2.53	24.00	1.11	.60	13.15	74.49	394.1
XSECTION 104	RUNOFF	.07	1	2	.08	.0	2.53	24.00	.80	---	12.67	28.35	410.9
XSECTION 104	ADDHYD	.26	1	2	.08	.0	2.53	24.00	1.03	.66	12.96	89.68	347.6
XSECTION 104	ADDHYD	1.62	1	2	.08	.0	2.53	24.00	.53	1.33	13.34	271.83	167.9
XSECTION 84	DIVERT	.93	1	2	.08	.0	2.53	24.00	1.51	1.69	12.70	128.86	138.6
XSECTION 83	DIVERT	1.73	1	2	.08	.0	2.53	24.00	1.48	1.69	12.70	233.59	135.3
XSECTION 105	REACH	.93	1	2	.08	.0	2.53	24.00	1.51	1417.61	12.78	128.78	138.5
XSECTION 104	REACH	.93	1	2	.08	.0	2.53	24.00	1.51	.83	12.89	128.31	138.0
XSECTION 104	ADDHYD	2.55	1	2	.08	.0	2.53	24.00	.89	1.66	13.33	391.68	153.7
XSECTION 83	REACH	1.73	1	2	.08	.0	2.53	24.00	1.48	1.69	12.70	233.59	135.3
XSECTION 83	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.19	---	12.57	41.19	653.7
XSECTION 83	ADDHYD	1.79	1	2	.08	.0	2.53	24.00	1.47	1.87	12.64	272.71	152.4
XSECTION 106	REACH	1.79	1	2	.08	.0	2.53	24.00	1.47	---	12.64	272.71	152.4
XSECTION 106	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.85	---	12.61	29.64	470.5
XSECTION 106	ADDHYD	1.85	1	2	.08	.0	2.53	24.00	1.45	---	12.63	302.22	163.1
XSECTION 107	REACH	1.85	1	2	.08	.0	2.53	24.00	1.45	1.53	12.63	302.22	163.1
XSECTION 107	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.01	---	12.54	35.46	601.0
XSECTION 107	ADDHYD	1.91	1	2	.08	.0	2.53	24.00	1.43	1.64	12.61	336.02	175.8

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 29	RUNOFF	.13	1	2	.08	.0	2.53	24.00	.95	---	12.69	58.75	470.0
XSECTION 145	REACH	.13	1	2	.08	.0	2.53	24.00	.95	---	12.69	58.75	470.0
XSECTION 12	RUNOFF	.38	1	2	.08	.0	2.53	24.00	.90	---	12.64	178.05	471.0
XSECTION 145	REACH	.38	1	2	.08	.0	2.53	24.00	.90	---	12.73	177.78	470.3
XSECTION 30	RUNOFF	.15	1	2	.08	.0	2.53	24.00	.84	---	12.84	54.41	358.0
XSECTION 33	REACH	.15	1	2	.08	.0	2.53	24.00	.84	---	13.17	43.43	285.7
XSECTION 33	RUNOFF	.15	1	2	.08	.0	2.53	24.00	.20	---	12.87	12.51	81.2
XSECTION 33	ADDHYD	.31	1	2	.08	.0	2.53	24.00	.52	---	13.08	53.15	173.7
XSECTION 145	ADDHYD	.68	1	2	.08	.0	2.53	24.00	.73	---	12.77	218.34	319.2
XSECTION 145	RUNOFF	.16	1	2	.08	.0	2.53	24.00	.95	---	12.70	73.45	459.1
XSECTION 145	ADDHYD	.84	1	2	.08	.0	2.53	24.00	.77	---	12.75	290.84	344.6
XSECTION 145	DIVERT	.00	1	2	.08	.0	2.53	24.00	.77	---	12.24*	27.00	**********
XSECTION 7	DIVERT	.13	1	2	.08	.0	2.53	24.00	.22	---	12.69	31.75	254.0
XSECTION 145	ADDHYD	.97	1	2	.08	.0	2.53	24.00	.70	---	12.74	321.76	332.0
STRUCTURE 33	RESVOR	.97	1	2	.08	.0	2.53	24.00	.69	1466.54	13.64	77.35	79.8
XSECTION 145	ADDHYD	.97	1	2	.08	.0	2.53	24.00	.79	---	13.10	103.16	106.5
XSECTION 93	REACH	.97	1	2	.08	.0	2.53	24.00	.79	---	13.20	102.64	105.9
XSECTION 93	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.13	---	12.54	126.61	649.3
XSECTION 93	ADDHYD	1.16	1	2	.08	.0	2.53	24.00	.84	---	12.59	201.23	172.9
XSECTION 93	DIVERT	.00	1	2	.08	.0	2.53	24.00	.84	---	12.59	201.23	**********
XSECTION 92	DIVERT	1.16	1	2	.08	.0	2.53	24.00	.00	---	.00	.00	.0
XSECTION 92	REACH	1.16	1	2	.08	.0	2.53	24.00	.00	---	.00	.00	.0
XSECTION 92	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.26	---	12.54	87.51	700.1
XSECTION 92	ADDHYD	1.29	1	2	.08	.0	2.53	24.00	.12	---	12.54	87.51	67.9
XSECTION 98	REACH	1.29	1	2	.08	.0	2.53	24.00	.12	---	12.92	71.60	55.5
XSECTION 95	REACH	.00	1	2	.08	.0	2.53	24.00	.12	---	12.59	201.23	**********
XSECTION 31	RUNOFF	.08	1	2	.08	.0	2.53	24.00	1.07	---	12.60	47.88	570.0
XSECTION 32	REACH	.08	1	2	.08	.0	2.53	24.00	1.03	---	13.81	18.81	223.9
XSECTION 32	RUNOFF	.18	1	2	.08	.0	2.53	24.00	.90	---	12.81	70.58	392.1
XSECTION 32	ADDHYD	.26	1	2	.08	.0	2.53	24.00	.94	---	12.83	72.72	275.5
XSECTION 94	REACH	.26	1	2	.08	.0	2.53	24.00	.93	---	13.22	57.60	218.2
XSECTION 94	RUNOFF	.14	1	2	.08	.0	2.53	24.00	1.13	---	12.51	94.72	681.5
XSECTION 94	ADDHYD	.40	1	2	.08	.0	2.53	24.00	1.00	---	12.55	118.06	293.0
XSECTION 95	REACH	.40	1	2	.08	.0	2.53	24.00	.99	---	12.82	99.01	245.7
XSECTION 95	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.25	---	12.80	66.12	529.0
XSECTION 95	ADDHYD	.53	1	2	.08	.0	2.53	24.00	1.05	---	12.81	165.10	312.7

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 95	ADDHYD	.53	1	2	.08	.0	2.53	24.00	2.92	---	12.67	348.22	659.5
XSECTION 95	DIVERT	.00	1	2	.08	.0	2.53	24.00	2.92	---	12.40*	265.00	**********
XSECTION 98	DIVERT	.53	1	2	.08	.0	2.53	24.00	.10	---	12.67	83.22	157.6
XSECTION 98	REACH	.53	1	2	.08	.0	2.53	24.00	.10	---	13.14	34.85	66.0
XSECTION 98	ADDHYD	1.82	1	2	.08	.0	2.53	24.00	.12	---	13.02	100.89	55.5
XSECTION 96	REACH	.00	1	2	.08	.0	2.53	24.00	.12	---	12.40*	265.00	**********
XSECTION 96	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.01	---	12.58	70.81	566.5
XSECTION 96	ADDHYD	.13	1	2	.08	.0	2.53	24.00	12.90	---	12.58	335.81	2686.5
XSECTION 96	DIVERT	.00	1	2	.08	.0	2.53	24.00	12.90	---	12.32*	265.00	**********
XSECTION 97	DIVERT	.13	1	2	.08	.0	2.53	24.00	.51	---	12.58	70.81	566.5
XSECTION 97	REACH	.13	1	2	.08	.0	2.53	24.00	.51	---	12.92	51.51	412.1
XSECTION 97	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.33	---	12.56	132.96	707.3
XSECTION 97	ADDHYD	.31	1	2	.08	.0	2.53	24.00	1.00	---	12.65	161.24	515.1
XSECTION 98	REACH	.31	1	2	.08	.0	2.53	24.00	1.00	---	12.78	155.45	496.6
XSECTION 98	ADDHYD	2.13	1	2	.08	.0	2.53	24.00	.25	---	12.88	241.58	113.4
XSECTION 98	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.26	---	12.51	68.89	732.8
XSECTION 98	ADDHYD	2.22	1	2	.08	.0	2.53	24.00	.29	---	12.78	267.54	120.3
XSECTION 99	REACH	2.22	1	2	.08	.0	2.53	24.00	.29	---	12.92	263.21	118.3
XSECTION 99	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.26	---	12.55	65.28	694.5
XSECTION 99	ADDHYD	2.32	1	2	.08	.0	2.53	24.00	.33	---	12.77	300.28	129.5
XSECTION 139	REACH	2.32	1	2	.08	.0	2.53	24.00	.33	---	13.00	287.47	124.0
XSECTION 100	RUNOFF	.08	1	2	.08	.0	2.53	24.00	1.26	---	12.52	57.05	731.4
XSECTION 139	REACH	.08	1	2	.08	.0	2.53	24.00	1.26	---	12.52	57.05	731.4
XSECTION 139	ADDHYD	2.40	1	2	.08	.0	2.53	24.00	.36	---	12.92	300.97	125.6
XSECTION 142	REACH	.00	1	2	.08	.0	2.53	24.00	.36	---	12.72*	265.00	**********
XSECTION 142	RUNOFF	.25	1	2	.08	.0	2.53	24.00	1.06	---	13.08	90.23	360.9
XSECTION 142	ADDHYD	.25	1	2	.08	.0	2.53	24.00	7.24	---	13.08	355.22	1420.9
XSECTION 142	DIVERT	.00	1	2	.08	.0	2.53	24.00	7.24	---	12.32*	265.00	**********
XSECTION 141	DIVERT	.25	1	2	.08	.0	2.53	24.00	.50	---	13.08	90.22	360.9
XSECTION 141	REACH	.25	1	2	.08	.0	2.53	24.00	.50	---	13.18	89.89	359.6
XSECTION 141	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.33	---	12.56	132.96	707.3
XSECTION 141	ADDHYD	.44	1	2	.08	.0	2.53	24.00	.85	---	12.65	179.77	410.4
XSECTION 140	REACH	.44	1	2	.08	.0	2.53	24.00	.85	---	12.65	179.77	410.4
XSECTION 140	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.26	---	12.53	89.04	712.3
XSECTION 140	ADDHYD	.56	1	2	.08	.0	2.53	24.00	.94	---	12.60	264.24	469.3
XSECTION 137	RUNOFF	.08	1	2	.08	.0	2.53	24.00	.90	---	12.57	40.60	520.6

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 140	ADDHYD	.64	1	2	.08	.0	2.53	24.00	.94	---	12.60	304.70	475.4
XSECTION 139	REACH	.64	1	2	.08	.0	2.53	24.00	.94	---	12.70	300.26	468.4
XSECTION 139	ADDHYD	3.04	1	2	.08	.0	2.53	24.00	.48	---	12.73	591.41	194.7
XSECTION 136	RUNOFF	.07	1	2	.08	.0	2.53	24.00	1.99	---	12.44	68.89	1043.8
XSECTION 138	REACH	.07	1	2	.08	.0	2.53	24.00	1.97	---	12.71	62.93	953.5
XSECTION 138	RUNOFF	.20	1	2	.08	.0	2.53	24.00	1.13	---	12.47	145.60	717.3
XSECTION 138	ADDHYD	.27	1	2	.08	.0	2.53	24.00	1.34	---	12.48	202.72	753.6
XSECTION 139	REACH	.27	1	2	.08	.0	2.53	24.00	1.34	---	12.57	202.06	751.1
XSECTION 139	ADDHYD	3.31	1	2	.08	.0	2.53	24.00	.55	---	12.65	769.50	232.8
XSECTION 139	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.33	---	12.53	140.34	746.5
XSECTION 139	ADDHYD	3.49	1	2	.08	.0	2.53	24.00	.59	---	12.63	898.00	257.0
XSECTION 129	RUNOFF	.11	1	2	.08	.0	2.53	24.00	1.02	---	12.45	74.46	689.5
XSECTION 130	RUNOFF	.03	1	2	.08	.0	2.53	24.00	1.63	---	12.45	29.32	945.9
XSECTION 129	ADDHYD	.14	1	2	.08	.0	2.53	24.00	1.15	---	12.45	103.76	746.5
XSECTION 127	REACH	.14	1	2	.08	.0	2.53	24.00	1.14	---	12.83	84.24	606.0
XSECTION 128	RUNOFF	.04	1	2	.08	.0	2.53	24.00	.91	---	12.46	22.79	633.1
XSECTION 127	REACH	.04	1	2	.08	.0	2.53	24.00	.89	---	13.03	14.55	404.3
XSECTION 127	ADDHYD	.17	1	2	.08	.0	2.53	24.00	1.09	---	12.85	96.52	551.5
XSECTION 127	RUNOFF	.16	1	2	.08	.0	2.53	24.00	1.02	---	12.46	106.50	669.8
XSECTION 127	ADDHYD	.33	1	2	.08	.0	2.53	24.00	1.06	---	12.51	169.41	507.2
XSECTION 132	RUNOFF	.14	1	2	.08	.0	2.53	24.00	1.47	---	12.46	123.49	851.6
XSECTION 133	RUNOFF	.08	1	2	.08	.0	2.53	24.00	1.99	---	12.44	83.51	1043.8
XSECTION 133	ADDHYD	.22	1	2	.08	.0	2.53	24.00	1.66	---	12.45	206.72	918.7
XSECTION 131	REACH	.22	1	2	.08	.0	2.53	24.00	1.65	---	12.55	200.38	890.6
XSECTION 131	ADDHYD	.56	1	2	.08	.0	2.53	24.00	1.30	---	12.52	370.32	662.5
XSECTION 131	RUNOFF	.12	1	2	.08	.0	2.53	24.00	1.26	---	12.47	90.78	762.9
XSECTION 131	ADDHYD	.68	1	2	.08	.0	2.53	24.00	1.29	---	12.51	456.74	673.7
XSECTION 126	REACH	.68	1	2	.08	.0	2.53	24.00	1.29	---	12.61	450.86	665.0
XSECTION 126	RUNOFF	.16	1	2	.08	.0	2.53	24.00	1.98	---	12.45	160.33	1014.8
XSECTION 126	ADDHYD	.84	1	2	.08	.0	2.53	24.00	1.42	---	12.55	589.91	705.6
XSECTION 134	REACH	.84	1	2	.08	.0	2.53	24.00	1.42	---	12.64	582.64	696.9
XSECTION 135	RUNOFF	.04	1	2	.08	.0	2.53	24.00	1.99	---	12.44	43.84	1043.8
XSECTION 134	REACH	.04	1	2	.08	.0	2.53	24.00	1.97	---	12.90	36.60	871.4
XSECTION 134	ADDHYD	.88	1	2	.08	.0	2.53	24.00	1.44	---	12.65	614.53	699.9
XSECTION 134	RUNOFF	.20	1	2	.08	.0	2.53	24.00	1.20	---	12.49	142.29	722.3
XSECTION 134	ADDHYD	1.08	1	2	.08	.0	2.53	24.00	1.40	---	12.59	734.45	683.2

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 125	RUNOFF	.12	1	2	.08	.0	2.53	24.00	1.99	---	12.44	122.13	1043.8
XSECTION 125	ADDHYD	1.19	1	2	.08	.0	2.53	24.00	1.46	---	12.53	831.39	697.5
XSECTION 124	REACH	1.19	1	2	.08	.0	2.53	24.00	1.45	2.52	12.73	796.12	667.9
XSECTION 124	RUNOFF	.22	1	2	.08	.0	2.53	24.00	1.13	---	12.47	155.75	711.2
XSECTION 124	ADDHYD	1.41	1	2	.08	.0	2.53	24.00	1.40	2.65	12.63	868.03	615.2
XSECTION 124	REACH	3.49	1	2	.08	.0	2.53	24.00	.59	2.70	12.63	898.00*	257.0
XSECTION 124	ADDHYD	4.91	1	2	.08	.0	2.53	24.00	.82	4.05	12.63	1766.03	360.0
XSECTION 103	RUNOFF	.08	1	2	.08	.0	2.53	24.00	1.13	---	12.48	57.51	710.1
XSECTION 124	ADDHYD	4.99	1	2	.08	.0	2.53	24.00	.83	4.11	12.62	1808.59	362.7
XSECTION 104	REACH	4.99	1	2	.08	.0	2.53	24.00	.83	4.17	12.62	1808.59*	362.7
XSECTION 104	ADDHYD	7.53	1	2	.08	.0	2.53	24.00	.85	4.51	12.64	2061.09	273.5
XSECTION 107	REACH	7.53	1	2	.08	.0	2.53	24.00	.85	4.88	12.64	2061.09*	273.5
XSECTION 107	ADDHYD	9.45	1	2	.08	.0	2.53	24.00	.97	5.32	12.64	2396.20	253.7
XSECTION 123	RUNOFF	.21	1	2	.08	.0	2.53	24.00	1.99	---	12.44	217.28	1020.1
XSECTION 107	ADDHYD	9.66	1	2	.08	.0	2.53	24.00	.99	5.53	12.59	2556.53	264.7
XSECTION 108	REACH	9.66	1	2	.08	.0	2.53	24.00	.99	4.67	12.59	2556.53	264.7
XSECTION 108	RUNOFF	.03	1	2	.08	.0	2.53	24.00	1.07	---	12.48	16.80	671.9
XSECTION 108	ADDHYD	9.68	1	2	.08	.0	2.53	24.00	.99	4.69	12.59	2571.48*	265.5
XSECTION 148	RUNOFF	.03	1	2	.08	.0	2.53	24.00	1.02	---	12.45	22.70	688.0
XSECTION 47	REACH	.03	1	2	.08	.0	2.53	24.00	1.00	---	12.85	16.99	515.0
XSECTION 47	RUNOFF	.07	1	2	.08	.0	2.53	24.00	1.02	---	12.46	50.00	684.9
XSECTION 47	ADDHYD	.11	1	2	.08	.0	2.53	24.00	1.01	---	12.47	59.93	565.3
XSECTION 46	REACH	.11	1	2	.08	.0	2.53	24.00	1.00	---	12.79	47.41	447.3
XSECTION 46	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.02	---	12.45	36.46	688.0
XSECTION 46	ADDHYD	.16	1	2	.08	.0	2.53	24.00	1.01	---	12.50	67.75	426.1
XSECTION 149	REACH	.16	1	2	.08	.0	2.53	24.00	1.00	---	12.82	52.88	332.6
XSECTION 149	RUNOFF	.01	1	2	.08	.0	2.53	24.00	1.55	---	12.45	8.25	917.1
XSECTION 149	ADDHYD	.17	1	2	.08	.0	2.53	24.00	1.03	---	12.77	53.87	320.6
XSECTION 147	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.02	---	12.45	35.77	688.0
XSECTION 146	REACH	.05	1	2	.08	.0	2.53	24.00	1.00	---	12.85	27.36	526.2
XSECTION 146	RUNOFF	.07	1	2	.08	.0	2.53	24.00	1.02	---	12.46	49.31	684.9
XSECTION 146	ADDHYD	.12	1	2	.08	.0	2.53	24.00	1.01	---	12.48	65.66	529.5
XSECTION 45	REACH	.12	1	2	.08	.0	2.53	24.00	1.01	---	12.59	62.62	505.0
XSECTION 43	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.55	---	12.45	43.11	917.1
XSECTION 21	REACH	.05	1	2	.08	.0	2.53	24.00	1.54	---	12.91	35.24	749.8
XSECTION 21	ADDHYD	.17	1	2	.08	.0	2.53	24.00	1.15	---	12.61	90.80	531.0

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 21	RUNOFF	.19	1	2	.08	.0	2.53	24.00	1.32	---	12.58	129.93	687.4
XSECTION 21	ADDHYD	.36	1	2	.08	.0	2.53	24.00	1.24	---	12.60	219.92	610.9
XSECTION 45	REACH	.36	1	2	.08	.0	2.53	24.00	1.24	---	12.68	220.48	612.4
XSECTION 45	RUNOFF	.12	1	2	.08	.0	2.53	24.00	1.55	---	12.54	93.77	808.3
XSECTION 45	ADDHYD	.48	1	2	.08	.0	2.53	24.00	1.32	---	12.64	307.75	646.5
XSECTION 45	ADDHYD	.64	1	2	.08	.0	2.53	24.00	1.24	---	12.65	358.93	557.4
XSECTION 150	RUNOFF	.02	1	2	.08	.0	2.53	24.00	1.02	---	12.45	11.01	688.0
XSECTION 57	REACH	.02	1	2	.08	.0	2.53	24.00	.99	---	13.12	6.45	403.3
XSECTION 57	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.02	---	12.48	32.68	653.7
XSECTION 57	ADDHYD	.07	1	2	.08	.0	2.53	24.00	1.01	---	12.49	34.29	519.6
XSECTION 59	REACH	.07	1	2	.08	.0	2.53	24.00	1.00	---	12.91	25.59	387.8
XSECTION 59	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.02	---	12.48	34.64	653.7
XSECTION 59	ADDHYD	.12	1	2	.08	.0	2.53	24.00	1.01	---	12.53	49.29	414.2
XSECTION 59	ADDHYD	.76	1	2	.08	.0	2.53	24.00	1.20	---	12.62	400.97	525.5
XSECTION 49	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.99	---	12.44	89.06	1035.5
XSECTION 50	REACH	.09	1	2	.08	.0	2.53	24.00	1.97	---	12.91	76.14	885.3
XSECTION 50	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.98	---	12.50	89.09	968.3
XSECTION 50	ADDHYD	.18	1	2	.08	.0	2.53	24.00	1.97	---	12.58	150.39	844.9
XSECTION 20	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.99	---	12.44	66.73	1042.6
XSECTION 48	REACH	.06	1	2	.08	.0	2.53	24.00	1.96	---	13.01	50.19	784.2
XSECTION 48	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.01	---	12.62	49.99	543.4
XSECTION 48	ADDHYD	.16	1	2	.08	.0	2.53	24.00	1.40	---	12.69	88.78	569.1
XSECTION 50	REACH	.16	1	2	.08	.0	2.53	24.00	1.39	---	13.14	72.89	467.2
XSECTION 50	ADDHYD	.33	1	2	.08	.0	2.53	24.00	1.70	---	12.67	193.94	580.7
XSECTION 52	REACH	.33	1	2	.08	.0	2.53	24.00	1.70	---	12.80	191.62	573.7
XSECTION 52	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.02	---	12.46	37.31	678.3
XSECTION 52	ADDHYD	.39	1	2	.08	.0	2.53	24.00	1.60	---	12.59	199.93	514.0
XSECTION 56	REACH	.39	1	2	.08	.0	2.53	24.00	1.60	---	12.97	190.76	490.4
XSECTION 56	RUNOFF	.07	1	2	.08	.0	2.53	24.00	1.02	---	12.48	43.80	653.7
XSECTION 56	ADDHYD	.46	1	2	.08	.0	2.53	24.00	1.51	---	12.64	198.29	434.8
XSECTION 51	REACH	.46	1	2	.08	.0	2.53	24.00	1.51	---	13.14	192.74	422.7
XSECTION 51	RUNOFF	.03	1	2	.08	.0	2.53	24.00	1.02	---	12.45	21.33	688.0
XSECTION 51	ADDHYD	.49	1	2	.08	.0	2.53	24.00	1.48	---	13.13	194.37	399.1
XSECTION 55	REACH	.49	1	2	.08	.0	2.53	24.00	1.47	---	13.35	190.31	390.8
XSECTION 55	RUNOFF	.02	1	2	.08	.0	2.53	24.00	1.02	---	12.45	11.70	688.0
XSECTION 55	ADDHYD	.50	1	2	.08	.0	2.53	24.00	1.46	---	13.35	191.08	379.1

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 55	ADDHYD	1.27	1	2	.08	.0	2.53	24.00	1.31	---	12.67	532.92	420.6
STRUCTURE 59	RESVOR	1.27	1	2	.08	.0	2.53	24.00	1.30	1399.76	13.62	275.56	217.5
XSECTION 66	REACH	1.27	1	2	.08	.0	2.53	24.00	1.30	---	13.62	275.56	217.5
XSECTION 66	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.13	---	12.55	40.53	643.3
XSECTION 66	ADDHYD	1.33	1	2	.08	.0	2.53	24.00	1.30	---	13.55	279.01	209.8
XSECTION 67	REACH	1.33	1	2	.08	.0	2.53	24.00	1.30	---	13.55	279.01	209.8
XSECTION 67	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.40	---	12.46	52.20	828.6
XSECTION 67	ADDHYD	1.39	1	2	.08	.0	2.53	24.00	1.30	---	12.57	305.37	219.2
XSECTION 44	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.33	---	12.49	98.18	785.4
XSECTION 67	REACH	.13	1	2	.08	.0	2.53	24.00	1.33	---	12.61	95.63	765.1
XSECTION 67	ADDHYD	1.52	1	2	.08	.0	2.53	24.00	1.30	---	12.58	399.67	263.3
XSECTION 69	REACH	1.52	1	2	.08	.0	2.53	24.00	1.30	---	12.58	399.67	263.3
XSECTION 69	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.95	---	12.63	31.97	507.4
XSECTION 69	ADDHYD	1.58	1	2	.08	.0	2.53	24.00	1.29	---	12.58	431.19	272.7
XSECTION 23	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.99	---	12.45	93.41	1026.5
XSECTION 40	REACH	.09	1	2	.08	.0	2.53	24.00	1.97	---	12.76	82.68	908.6
XSECTION 38	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.19	---	12.54	85.27	682.1
XSECTION 40	REACH	.13	1	2	.08	.0	2.53	24.00	1.19	---	12.79	74.57	596.5
XSECTION 40	ADDHYD	.22	1	2	.08	.0	2.53	24.00	1.52	---	12.78	157.04	727.0
XSECTION 40	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.01	---	12.58	53.25	566.5
XSECTION 40	ADDHYD	.31	1	2	.08	.0	2.53	24.00	1.36	---	12.70	201.34	649.5
XSECTION 82	REACH	.31	1	2	.08	.0	2.53	24.00	1.36	---	12.84	195.78	631.6
XSECTION 82	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.13	---	12.48	44.37	704.3
XSECTION 82	ADDHYD	.37	1	2	.08	.0	2.53	24.00	1.32	---	12.67	207.20	555.5
XSECTION 39	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.19	---	12.57	40.41	646.6
XSECTION 82	REACH	.06	1	2	.08	.0	2.53	24.00	1.19	---	12.87	34.08	545.3
XSECTION 82	ADDHYD	.44	1	2	.08	.0	2.53	24.00	1.30	---	12.79	239.53	550.0
XSECTION 81	REACH	.44	1	2	.08	.0	2.53	24.00	1.30	---	12.91	237.40	545.1
XSECTION 81	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.13	---	12.57	39.31	624.0
XSECTION 81	ADDHYD	.50	1	2	.08	.0	2.53	24.00	1.28	---	12.78	261.74	525.1
XSECTION 22	RUNOFF	.15	1	2	.08	.0	2.53	24.00	1.33	---	12.54	111.80	730.7
XSECTION 41	REACH	.15	1	2	.08	.0	2.53	24.00	1.32	---	12.70	102.80	671.9
XSECTION 41	RUNOFF	.17	1	2	.08	.0	2.53	24.00	1.13	---	12.53	116.10	675.0
XSECTION 41	ADDHYD	.32	1	2	.08	.0	2.53	24.00	1.22	---	12.56	210.27	647.0
XSECTION 42	RUNOFF	.08	1	2	.08	.0	2.53	24.00	1.33	---	12.46	63.18	810.0
XSECTION 42	ADDHYD	.40	1	2	.08	.0	2.53	24.00	1.24	---	12.53	269.56	668.9

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 78	REACH	.40	1	2	.08	.0	2.53	24.00	1.24	---	12.72	255.26	633.4
XSECTION 81	DIVERT	.00	1	2	.08	.0	2.53	24.00	1.24	---	12.40*	154.00	**********
XSECTION 78	DIVERT	.50	1	2	.08	.0	2.53	24.00	.22	---	12.78	107.74	216.1
XSECTION 78	REACH	.50	1	2	.08	.0	2.53	24.00	.22	---	13.00	99.75	200.1
XSECTION 78	ADDHYD	.90	1	2	.08	.0	2.53	24.00	.68	---	12.79	331.96	368.2
XSECTION 78	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.26	---	12.47	48.06	762.9
XSECTION 78	ADDHYD	.96	1	2	.08	.0	2.53	24.00	.71	---	12.76	346.46	359.2
XSECTION 77	REACH	.96	1	2	.08	.0	2.53	24.00	.71	---	12.88	340.26	352.8
XSECTION 77	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.26	---	12.52	46.27	734.4
XSECTION 77	ADDHYD	1.03	1	2	.08	.0	2.53	24.00	.75	---	12.84	356.40	346.9
XSECTION 69	ADDHYD	2.61	1	2	.08	.0	2.53	24.00	1.08	---	12.68	748.57	287.0
STRUCTURE 69	RESVOR	2.61	1	2	.08	.0	2.53	24.00	1.07	1384.51	14.65	276.79	106.1
XSECTION 75	REACH	2.61	1	2	.08	.0	2.53	24.00	1.07	---	14.65	276.79	106.1
XSECTION 80	REACH	.00	1	2	.08	.0	2.53	24.00	1.07	---	12.40*	154.00	**********
XSECTION 80	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.01	---	12.55	37.24	591.0
XSECTION 80	ADDHYD	.06	1	2	.08	.0	2.53	24.00	9.38	---	12.55	191.24	3035.5
XSECTION 80	DIVERT	.00	1	2	.08	.0	2.53	24.00	9.38	---	12.32*	166.00	**********
XSECTION 79	DIVERT	.06	1	2	.08	.0	2.53	24.00	.27	---	12.55	25.24	400.6
XSECTION 79	REACH	.06	1	2	.08	.0	2.53	24.00	.27	---	12.82	19.64	311.7
XSECTION 79	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.40	---	12.46	52.20	828.6
XSECTION 79	ADDHYD	.13	1	2	.08	.0	2.53	24.00	.83	---	12.54	57.67	457.7
XSECTION 76	REACH	.13	1	2	.08	.0	2.53	24.00	.83	---	12.72	53.23	422.5
XSECTION 76	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.26	---	12.47	48.49	769.7
XSECTION 76	ADDHYD	.19	1	2	.08	.0	2.53	24.00	.97	---	12.51	93.55	495.0
XSECTION 75	REACH	.19	1	2	.08	.0	2.53	24.00	.97	---	12.63	89.76	474.9
XSECTION 75	ADDHYD	2.80	1	2	.08	.0	2.53	24.00	1.07	---	12.79	307.23	109.8
XSECTION 75	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.98	---	12.52	60.48	960.1
XSECTION 75	ADDHYD	2.86	1	2	.08	.0	2.53	24.00	1.09	---	12.66	359.60	125.7
XSECTION 112	REACH	2.86	1	2	.08	.0	2.53	24.00	1.09	---	12.66	359.60	125.7
XSECTION 109	REACH	.00	1	2	.08	.0	2.53	24.00	1.09	---	13.00	166.25	**********
XSECTION 109	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.13	---	12.49	43.97	697.9
XSECTION 109	ADDHYD	.06	1	2	.08	.0	2.53	24.00	10.23	---	12.52	208.87	3315.4
XSECTION 108	ADDHYD	9.75	1	2	.08	.0	2.53	24.00	1.05	4.90	12.59	2777.09	284.9
XSECTION 110	REACH	9.75	1	2	.08	.0	2.53	24.00	1.05	5.02	12.59	2777.09	284.9
XSECTION 110	RUNOFF	.07	1	2	.08	.0	2.53	24.00	.80	---	12.61	32.47	444.8
XSECTION 110	ADDHYD	9.82	1	2	.08	.0	2.53	24.00	1.05	5.06	12.59	2809.35	286.1

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 122	RUNOFF	.35	1	2	.08	.0	2.53	24.00	1.20	---	12.48	258.14	727.2
XSECTION 110	ADDHYD	10.18	1	2	.08	.0	2.53	24.00	1.05	5.31	12.57	3049.74*	299.7
XSECTION 111	REACH	10.18	1	2	.08	.0	2.53	24.00	1.05	4.78	12.57	3049.74	299.7
XSECTION 111	RUNOFF	.07	1	2	.08	.0	2.53	24.00	.75	---	12.62	29.38	419.7
XSECTION 111	ADDHYD	10.25	1	2	.08	.0	2.53	24.00	1.05	4.81	12.57	3078.67*	300.5
XSECTION 112	REACH	10.25	1	2	.08	.0	2.53	24.00	1.05	---	12.66	3053.22	298.0
XSECTION 112	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.75	---	12.57	27.47	450.4
XSECTION 112	ADDHYD	10.31	1	2	.08	.0	2.53	24.00	1.05	---	12.66	3079.10	298.8
XSECTION 121	RUNOFF	.25	1	2	.08	.0	2.53	24.00	1.99	---	12.44	260.66	1042.6
XSECTION 112	ADDHYD	10.56	1	2	.08	.0	2.53	24.00	1.07	---	12.63	3166.19*	299.9
XSECTION 112	ADDHYD	13.42	1	2	.08	.0	2.53	24.00	1.07	---	12.63	3524.93	262.7
XSECTION 113	REACH	13.42	1	2	.08	.0	2.53	24.00	1.07	---	12.72	3510.54	261.6
XSECTION 113	RUNOFF	.05	1	2	.08	.0	2.53	24.00	1.63	---	12.54	44.56	840.7
XSECTION 113	ADDHYD	13.47	1	2	.08	.0	2.53	24.00	1.07	---	12.72	3548.08	263.4
XSECTION 120	RUNOFF	.23	1	2	.08	.0	2.53	24.00	1.33	---	12.49	181.43	785.4
XSECTION 113	ADDHYD	13.70	1	2	.08	.0	2.53	24.00	1.08	---	12.69	3644.72*	266.0
XSECTION 58	RUNOFF	.03	1	2	.08	.0	2.53	24.00	1.14	---	12.45	23.85	745.3
XSECTION 60	REACH	.03	1	2	.08	.0	2.53	24.00	1.13	---	12.65	21.27	664.7
XSECTION 60	RUNOFF	.06	1	2	.08	.0	2.53	24.00	.96	---	12.57	34.53	548.1
XSECTION 60	ADDHYD	.09	1	2	.08	.0	2.53	24.00	1.01	---	12.60	55.33	582.4
XSECTION 65	REACH	.09	1	2	.08	.0	2.53	24.00	1.01	---	12.82	52.21	549.6
XSECTION 65	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.01	---	12.57	36.30	576.2
XSECTION 65	ADDHYD	.16	1	2	.08	.0	2.53	24.00	1.01	---	12.67	81.41	515.3
XSECTION 68	REACH	.16	1	2	.08	.0	2.53	24.00	1.01	---	12.83	77.89	493.0
XSECTION 68	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.20	---	12.47	46.64	740.3
XSECTION 68	ADDHYD	.22	1	2	.08	.0	2.53	24.00	1.06	---	12.56	104.62	473.4
XSECTION 70	REACH	.22	1	2	.08	.0	2.53	24.00	1.06	---	12.72	96.15	435.1
XSECTION 70	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.26	---	12.47	48.49	769.7
XSECTION 70	ADDHYD	.28	1	2	.08	.0	2.53	24.00	1.10	---	12.57	130.46	459.4
XSECTION 74	REACH	.28	1	2	.08	.0	2.53	24.00	1.10	---	12.72	121.52	427.9
XSECTION 74	RUNOFF	.06	1	2	.08	.0	2.53	24.00	1.55	---	12.46	56.24	892.6
XSECTION 74	ADDHYD	.35	1	2	.08	.0	2.53	24.00	1.18	---	12.56	159.74	460.4
XSECTION 113	REACH	.35	1	2	.08	.0	2.53	24.00	1.18	---	12.56	159.74	460.4
XSECTION 113	ADDHYD	14.05	1	2	.08	.0	2.53	24.00	1.08	---	12.68	3789.41	269.7
XSECTION 114	REACH	14.05	1	2	.08	.0	2.53	24.00	1.08	---	12.85	3654.18	260.1
XSECTION 64	RUNOFF	.25	1	2	.08	.0	2.53	24.00	1.01	---	12.51	156.50	626.0

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 72	REACH	.25	1	2	.08	.0	2.53	24.00	1.01	---	12.75	133.87	535.5
XSECTION 72	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	---	12.56	75.62	605.0
XSECTION 72	ADDHYD	.38	1	2	.08	.0	2.53	24.00	1.03	---	12.67	198.79	530.1
XSECTION 114	REACH	.38	1	2	.08	.0	2.53	24.00	1.02	---	12.88	172.33	459.5
XSECTION 115	RUNOFF	.09	1	2	.08	.0	2.53	24.00	1.01	---	12.55	55.56	591.0
XSECTION 114	ADDHYD	.47	1	2	.08	.0	2.53	24.00	1.02	---	12.77	202.52	431.8
XSECTION 71	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.07	---	12.56	75.62	605.0
XSECTION 114	REACH	.13	1	2	.08	.0	2.53	24.00	1.06	---	12.97	56.66	453.3
XSECTION 114	ADDHYD	.59	1	2	.08	.0	2.53	24.00	1.03	---	12.83	253.59	426.9
XSECTION 114	RUNOFF	.13	1	2	.08	.0	2.53	24.00	1.18	---	12.93	57.41	448.6
XSECTION 114	ADDHYD	.72	1	2	.08	.0	2.53	24.00	1.06	---	12.85	309.93	429.3
XSECTION 114	ADDHYD	14.77	1	2	.08	.0	2.53	24.00	1.08	---	12.85	3964.11	268.4
XSECTION 119	RUNOFF	.23	1	2	.08	.0	2.53	24.00	1.12	---	12.86	105.55	456.9
XSECTION 114	ADDHYD	15.00	1	2	.08	.0	2.53	24.00	1.08	---	12.85	4069.63*	271.3
XSECTION 118	REACH	15.00	1	2	.08	.0	2.53	24.00	1.08	---	13.03	3893.78	259.6
XSECTION 118	RUNOFF	.23	1	2	.08	.0	2.53	24.00	.94	---	13.22	66.98	290.0
XSECTION 118	ADDHYD	15.23	1	2	.08	.0	2.53	24.00	1.07	---	13.03	3957.26	259.8
XSECTION 117	REACH	15.23	1	2	.08	.0	2.53	24.00	1.07	---	13.21	3839.38	252.1
XSECTION 117	RUNOFF	.17	1	2	.08	.0	2.53	24.00	.88	---	13.45	40.91	236.5
XSECTION 117	ADDHYD	15.41	1	2	.08	.0	2.53	24.00	1.07	---	13.21	3877.91	251.7
ALTERNATE 1 STORM 2													
XSECTION 1	RUNOFF	.15	1	2	.08	.0	3.57	24.00	3.00	---	12.45	217.93	1472.5
XSECTION 2	RUNOFF	.10	1	2	.08	.0	3.57	24.00	3.00	---	12.44	145.51	1500.1
XSECTION 3	REACH	.15	1	2	.08	.0	3.57	24.00	2.99	---	12.63	213.83	1444.8
XSECTION 3	REACH	.10	1	2	.08	.0	3.57	24.00	2.98	---	12.70	138.09	1423.6
XSECTION 3	ADDHYD	.25	1	2	.08	.0	3.57	24.00	2.99	---	12.66	349.90	1428.2
XSECTION 3	RUNOFF	.05	1	2	.08	.0	3.57	24.00	1.47	---	12.52	42.49	903.9
XSECTION 3	ADDHYD	.29	1	2	.08	.0	3.57	24.00	2.74	---	12.60	387.57	1327.3
XSECTION 6	RUNOFF	.11	1	2	.08	.0	3.57	24.00	1.75	---	12.71	87.96	807.0
XSECTION 6	REACH	.29	1	2	.08	.0	3.57	24.00	2.74	1505.41	12.72	383.09	1312.0
XSECTION 6	ADDHYD	.40	1	2	.08	.0	3.57	24.00	2.47	1506.00	12.72	471.05	1174.7
XSECTION 8	REACH	.40	1	2	.08	.0	3.57	24.00	2.46	1496.90	12.88	453.71	1131.4
XSECTION 7	RUNOFF	.12	1	2	.08	.0	3.57	24.00	1.47	---	12.66	86.33	737.8
XSECTION 8	REACH	.12	1	2	.08	.0	3.57	24.00	1.46	1495.25	12.78	84.82	724.9
XSECTION 19	RUNOFF	.02	1	2	.08	.0	3.57	24.00	3.00	---	12.44	33.24	1510.9
XSECTION 4	RUNOFF	.19	1	2	.08	.0	3.57	24.00	3.00	---	12.44	290.36	1489.0

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SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 4	REACH	.02	1	2	.08	.0	3.57	24.00	2.97	---	12.98	27.33	1242.2
XSECTION 4	ADDHYD	.22	1	2	.08	.0	3.57	24.00	3.00	---	12.45	307.71	1418.0
XSECTION 5	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.47	---	12.60	99.67	797.4
XSECTION 5	REACH	.22	1	2	.08	.0	3.57	24.00	2.99	---	12.62	298.64	1376.2
XSECTION 5	ADDHYD	.34	1	2	.08	.0	3.57	24.00	2.43	---	12.62	398.25	1164.5
XSECTION 8	REACH	.34	1	2	.08	.0	3.57	24.00	2.42	1496.79	12.85	371.68	1086.8
XSECTION 8	ADDHYD	.52	1	2	.08	.0	3.57	24.00	2.24	1497.01	12.86	535.72	1034.2
XSECTION 8	ADDHYD	.86	1	2	.08	.0	3.57	24.00	2.31	1497.32	12.85	907.39	1055.1
XSECTION 18	RUNOFF	.18	1	2	.08	.0	3.57	24.00	1.53	---	12.67	139.85	760.1
XSECTION 8	REACH	.18	1	2	.08	.0	3.57	24.00	1.53	1495.49	12.93	115.81	629.4
XSECTION 8	ADDHYD	1.04	1	2	.08	.0	3.57	24.00	2.17	1497.40	12.86	1021.80	978.7
XSECTION 8	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.53	---	12.69	96.88	739.6
XSECTION 8	ADDHYD	1.18	1	2	.08	.0	3.57	24.00	2.10	1497.45	12.85	1108.39	943.3
XSECTION 9	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.60	---	12.79	46.12	698.8
XSECTION 8	REACH	.07	1	2	.08	.0	3.57	24.00	1.60	1494.88	12.87	46.11	698.7
XSECTION 8	ADDHYD	1.24	1	2	.08	.0	3.57	24.00	2.07	1497.48	12.85	1154.46	930.3
XSECTION 14	DIVERT	.00	1	2	.08	.0	3.57	24.00	2.07	---	12.00*	150.00**********	
XSECTION 8	DIVERT	1.24	1	2	.08	.0	3.57	24.00	1.22	1497.39	12.85	1004.46	809.4
STRUCTURE 8	RESVOR	1.24	1	2	.08	.0	3.57	24.00	1.20	1494.96	13.54	215.01	173.3
XSECTION 14	ADDHYD	1.24	1	2	.08	.0	3.57	24.00	2.06	---	13.54	365.01	294.1
XSECTION 14	REACH	1.24	1	2	.08	.0	3.57	24.00	2.05	---	13.84	361.54	291.3
XSECTION 14	RUNOFF	.18	1	2	.08	.0	3.57	24.00	1.91	---	12.52	191.46	1081.7
XSECTION 14	ADDHYD	1.42	1	2	.08	.0	3.57	24.00	2.03	---	12.60	375.99	265.2
XSECTION 16	RUNOFF	.12	1	2	.08	.0	3.57	24.00	2.14	---	12.55	132.00	1109.3
XSECTION 15	REACH	.12	1	2	.08	.0	3.57	24.00	2.14	---	12.65	130.95	1100.4
XSECTION 15	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.82	---	12.75	58.92	807.2
XSECTION 15	ADDHYD	.19	1	2	.08	.0	3.57	24.00	2.02	---	12.67	188.55	982.0
XSECTION 14	ADDHYD	1.61	1	2	.08	.0	3.57	24.00	2.03	---	12.62	562.35	349.3
XSECTION 144	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.60	---	12.79	92.24	698.8
XSECTION 14	REACH	.13	1	2	.08	.0	3.57	24.00	1.60	---	12.91	90.79	687.8
XSECTION 14	REACH	.13	1	2	.08	.0	3.57	24.00	1.60	---	12.91	90.79	687.8
XSECTION 14	ADDHYD	1.74	1	2	.08	.0	3.57	24.00	2.00	---	12.65	635.99	365.1
XSECTION 27	REACH	1.74	1	2	.08	.0	3.57	24.00	1.99	---	12.90	582.57	334.4
XSECTION 27	RUNOFF	.19	1	2	.08	.0	3.57	24.00	1.81	---	12.92	129.26	687.6
XSECTION 27	ADDHYD	1.93	1	2	.08	.0	3.57	24.00	1.97	---	12.90	711.71	368.8
XSECTION 17	RUNOFF	.06	1	2	.08	.0	3.57	24.00	3.00	---	12.44	89.05	1509.4

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 25	REACH	.06	1	2	.08	.0	3.57	24.00	2.97	---	12.89	77.24	1309.2
XSECTION 25	RUNOFF	.09	1	2	.08	.0	3.57	24.00	1.90	---	12.53	95.00	1067.4
XSECTION 25	ADDHYD	.15	1	2	.08	.0	3.57	24.00	2.33	---	12.57	159.28	1076.2
XSECTION 27	REACH	.15	1	2	.08	.0	3.57	24.00	2.32	---	12.74	146.91	992.6
XSECTION 27	ADDHYD	2.08	1	2	.08	.0	3.57	24.00	2.00	---	12.87	850.50	409.3
XSECTION 26	RUNOFF	.07	1	2	.08	.0	3.57	24.00	2.07	---	12.48	79.23	1182.6
XSECTION 27	ADDHYD	2.14	1	2	.08	.0	3.57	24.00	2.00	---	12.83	870.82	406.0
XSECTION 37	REACH	2.14	1	2	.08	.0	3.57	24.00	2.00	1455.07	12.97	860.99	401.4
XSECTION 37	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.91	---	12.46	142.64	1141.2
XSECTION 37	ADDHYD	2.27	1	2	.08	.0	3.57	24.00	1.99	1455.09	12.95	878.40	387.0
XSECTION 24	RUNOFF	.20	1	2	.08	.0	3.57	24.00	2.15	---	12.53	228.04	1151.7
XSECTION 37	REACH	.20	1	2	.08	.0	3.57	24.00	2.14	1453.46	12.62	225.67	1139.7
XSECTION 37	ADDHYD	2.47	1	2	.08	.0	3.57	24.00	2.00	1455.33	12.74	1049.09	425.1
XSECTION 143	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.06	---	12.55	67.55	1080.8
XSECTION 143	ADDHYD	2.53	1	2	.08	.0	3.57	24.00	2.00	---	12.71	1107.05	437.5
XSECTION 34	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.98	---	12.65	118.43	947.4
XSECTION 35	REACH	.13	1	2	.08	.0	3.57	24.00	1.97	---	12.78	116.06	928.5
XSECTION 35	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.90	---	12.54	129.69	1037.5
XSECTION 35	ADDHYD	.25	1	2	.08	.0	3.57	24.00	1.94	---	12.61	234.08	936.3
XSECTION 36	REACH	.25	1	2	.08	.0	3.57	24.00	1.94	---	12.61	234.08	936.3
XSECTION 10	RUNOFF	.09	1	2	.08	.0	3.57	24.00	1.47	---	12.60	75.75	797.4
XSECTION 11	REACH	.09	1	2	.08	.0	3.57	24.00	1.47	---	12.74	71.85	756.3
XSECTION 11	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.60	---	12.67	97.84	782.7
XSECTION 11	ADDHYD	.22	1	2	.08	.0	3.57	24.00	1.54	---	12.70	169.07	768.5
XSECTION 28	REACH	.22	1	2	.08	.0	3.57	24.00	1.52	---	13.38	112.49	511.3
XSECTION 13	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.82	---	12.60	116.76	934.0
XSECTION 28	REACH	.13	1	2	.08	.0	3.57	24.00	1.80	---	13.17	79.01	632.1
XSECTION 28	ADDHYD	.34	1	2	.08	.0	3.57	24.00	1.62	---	13.30	187.28	542.8
XSECTION 28	RUNOFF	.16	1	2	.08	.0	3.57	24.00	1.82	---	12.77	123.38	790.9
XSECTION 28	ADDHYD	.50	1	2	.08	.0	3.57	24.00	1.68	---	13.11	264.65	528.2
XSECTION 36	REACH	.50	1	2	.08	.0	3.57	24.00	1.67	---	13.45	234.58	468.2
XSECTION 36	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.90	---	12.54	130.39	1043.1
XSECTION 36	ADDHYD	.63	1	2	.08	.0	3.57	24.00	1.72	---	13.40	248.11	396.3
XSECTION 36	ADDHYD	.88	1	2	.08	.0	3.57	24.00	1.78	---	12.65	451.65	515.6
XSECTION 36	DIVERT	.00	1	2	.08	.0	3.57	24.00	1.78	---	12.65	451.65	**********
XSECTION 90	DIVERT	.88	1	2	.08	.0	3.57	24.00	.00	---	.00	.00	.0

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 37	REACH	.00	1	2	.08	.0	3.57	24.00	.00	1454.37	12.65	451.65	**********
XSECTION 143	ADDHYD	2.53	1	2	.08	.0	3.57	24.00	2.62	---	12.68	1557.16	615.4
STRUCTURE 43	RESVOR	2.53	1	2	.08	.0	3.57	24.00	2.62	1424.42	15.08	444.11	175.5
XSECTION 85	REACH	2.53	1	2	.08	.0	3.57	24.00	2.62	---	15.08	444.11	175.5
XSECTION 85	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.98	---	12.55	66.60	1057.2
XSECTION 85	ADDHYD	2.59	1	2	.08	.0	3.57	24.00	2.60	---	15.02	447.29	172.5
XSECTION 84	REACH	2.59	1	2	.08	.0	3.57	24.00	2.60	4.12	15.02	447.29	172.5
XSECTION 84	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.98	---	12.55	66.60	1057.2
XSECTION 84	ADDHYD	2.66	1	2	.08	.0	3.57	24.00	2.59	4.16	12.58	452.73	170.4
XSECTION 91	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.15	---	12.53	143.49	1147.9
XSECTION 90	REACH	.13	1	2	.08	.0	3.57	24.00	2.14	---	12.65	139.22	1113.8
XSECTION 90	REACH	.88	1	2	.08	.0	3.57	24.00	.00	---	.00	.00	.0
XSECTION 90	ADDHYD	1.00	1	2	.08	.0	3.57	24.00	.27	---	12.65	139.22	139.1
XSECTION 90	RUNOFF	.11	1	2	.08	.0	3.57	24.00	2.06	---	12.59	111.80	1025.7
XSECTION 90	ADDHYD	1.11	1	2	.08	.0	3.57	24.00	.44	---	12.62	250.46	225.6
XSECTION 88	REACH	1.11	1	2	.08	.0	3.57	24.00	.44	---	12.74	245.63	221.3
XSECTION 88	RUNOFF	.09	1	2	.08	.0	3.57	24.00	2.22	---	12.64	97.37	1035.8
XSECTION 88	ADDHYD	1.20	1	2	.08	.0	3.57	24.00	.58	---	12.71	341.03	283.2
XSECTION 89	RUNOFF	.05	1	2	.08	.0	3.57	24.00	1.98	---	12.51	52.42	1115.3
XSECTION 88	REACH	.05	1	2	.08	.0	3.57	24.00	1.98	---	12.68	46.80	995.6
XSECTION 88	ADDHYD	1.25	1	2	.08	.0	3.57	24.00	.63	---	12.71	387.63	309.9
XSECTION 101	REACH	1.25	1	2	.08	.0	3.57	24.00	.63	---	12.80	384.92	307.7
XSECTION 101	RUNOFF	.05	1	2	.08	.0	3.57	24.00	2.41	---	12.53	57.73	1228.4
XSECTION 101	ADDHYD	1.30	1	2	.08	.0	3.57	24.00	.70	---	12.76	426.06	328.2
XSECTION 102	REACH	1.30	1	2	.08	.0	3.57	24.00	.69	---	12.97	393.09	302.8
XSECTION 102	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.82	---	12.60	58.28	925.0
XSECTION 102	ADDHYD	1.36	1	2	.08	.0	3.57	24.00	.75	---	12.92	428.55	314.9
XSECTION 104	REACH	1.36	1	2	.08	.0	3.57	24.00	.74	1.62	13.20	377.36	277.3
XSECTION 86	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.15	---	12.46	77.42	1228.9
XSECTION 87	REACH	.06	1	2	.08	.0	3.57	24.00	2.14	1429.94	12.79	67.78	1075.8
XSECTION 87	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.23	---	12.54	73.11	1160.5
XSECTION 87	ADDHYD	.13	1	2	.08	.0	3.57	24.00	2.18	1430.01	12.62	132.65	1052.8
XSECTION 105	REACH	.13	1	2	.08	.0	3.57	24.00	2.17	1417.59	12.95	113.19	898.3
XSECTION 105	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.53	---	12.62	49.94	792.7
XSECTION 105	ADDHYD	.19	1	2	.08	.0	3.57	24.00	1.96	1417.65	12.81	149.75	792.3
XSECTION 104	REACH	.19	1	2	.08	.0	3.57	24.00	1.95	.90	12.99	144.31	763.5

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 104	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.53	---	12.65	53.63	777.2
XSECTION 104	ADDHYD	.26	1	2	.08	.0	3.57	24.00	1.84	1.05	12.85	183.27	710.3
XSECTION 104	ADDHYD	1.62	1	2	.08	.0	3.57	24.00	.92	2.01	13.10	536.06	331.1
XSECTION 84	DIVERT	.93	1	2	.08	.0	3.57	24.00	2.63	1.96	12.58	160.99	173.1
XSECTION 83	DIVERT	1.73	1	2	.08	.0	3.57	24.00	2.56	1.96	12.58	291.74	169.0
XSECTION 105	REACH	.93	1	2	.08	.0	3.57	24.00	2.62	1417.66	12.67	160.86	173.0
XSECTION 104	REACH	.93	1	2	.08	.0	3.57	24.00	2.62	.97	15.18	160.18	172.3
XSECTION 104	ADDHYD	2.55	1	2	.08	.0	3.57	24.00	1.54	2.33	13.08	687.64	269.8
XSECTION 83	REACH	1.73	1	2	.08	.0	3.57	24.00	2.56	1.96	12.58	291.74	169.0
XSECTION 83	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.06	---	12.55	68.78	1091.7
XSECTION 83	ADDHYD	1.79	1	2	.08	.0	3.57	24.00	2.55	2.25	12.57	360.23	201.3
XSECTION 106	REACH	1.79	1	2	.08	.0	3.57	24.00	2.55	---	12.57	360.23	201.3
XSECTION 106	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.61	---	12.59	54.38	863.2
XSECTION 106	ADDHYD	1.85	1	2	.08	.0	3.57	24.00	2.51	---	12.58	414.58	223.8
XSECTION 107	REACH	1.85	1	2	.08	.0	3.57	24.00	2.51	1.87	12.58	414.58	223.8
XSECTION 107	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.83	---	12.53	61.23	1037.7
XSECTION 107	ADDHYD	1.91	1	2	.08	.0	3.57	24.00	2.49	2.02	12.56	475.00	248.5
XSECTION 29	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.75	---	12.66	105.95	847.6
XSECTION 145	REACH	.13	1	2	.08	.0	3.57	24.00	1.75	---	12.66	105.95	847.6
XSECTION 12	RUNOFF	.38	1	2	.08	.0	3.57	24.00	1.68	---	12.62	324.42	858.3
XSECTION 145	REACH	.38	1	2	.08	.0	3.57	24.00	1.68	---	12.62	324.42	858.3
XSECTION 30	RUNOFF	.15	1	2	.08	.0	3.57	24.00	1.60	---	12.81	103.27	679.4
XSECTION 33	REACH	.15	1	2	.08	.0	3.57	24.00	1.59	---	13.09	89.06	585.9
XSECTION 33	RUNOFF	.15	1	2	.08	.0	3.57	24.00	.59	---	12.80	41.95	272.4
XSECTION 33	ADDHYD	.31	1	2	.08	.0	3.57	24.00	1.09	---	12.96	123.94	405.0
XSECTION 145	ADDHYD	.68	1	2	.08	.0	3.57	24.00	1.41	---	12.68	419.76	613.7
XSECTION 145	RUNOFF	.16	1	2	.08	.0	3.57	24.00	1.75	---	12.68	132.86	830.4
XSECTION 145	ADDHYD	.84	1	2	.08	.0	3.57	24.00	1.48	---	12.68	552.62	654.8
XSECTION 145	DIVERT	.00	1	2	.08	.0	3.57	24.00	1.48	---	12.00*	27.00**********	
XSECTION 7	DIVERT	.13	1	2	.08	.0	3.57	24.00	.75	---	12.66	78.95	631.6
XSECTION 145	ADDHYD	.97	1	2	.08	.0	3.57	24.00	1.38	---	12.67	631.52	651.7
STRUCTURE 33	RESVOR	.97	1	2	.08	.0	3.57	24.00	1.37	1468.30	13.91	88.79	91.6
XSECTION 145	ADDHYD	.97	1	2	.08	.0	3.57	24.00	1.50	---	13.33	115.18	118.9
XSECTION 93	REACH	.97	1	2	.08	.0	3.57	24.00	1.49	---	13.42	114.88	118.6
XSECTION 93	RUNOFF	.19	1	2	.08	.0	3.57	24.00	1.98	---	12.53	213.06	1092.6
XSECTION 93	ADDHYD	1.16	1	2	.08	.0	3.57	24.00	1.57	---	12.55	311.28	267.4

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 93	DIVERT	.00	1	2	.08	.0	3.57	24.00	1.57	---	12.32*	265.00**********	
XSECTION 92	DIVERT	1.16	1	2	.08	.0	3.57	24.00	.02	---	12.55	46.28	39.8
XSECTION 92	REACH	1.16	1	2	.08	.0	3.57	24.00	.02	---	12.80	23.25	20.0
XSECTION 92	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.15	---	12.53	143.49	1147.9
XSECTION 92	ADDHYD	1.29	1	2	.08	.0	3.57	24.00	.22	---	12.59	148.13	114.9
XSECTION 98	REACH	1.29	1	2	.08	.0	3.57	24.00	.22	---	12.77	131.84	102.3
XSECTION 95	REACH	.00	1	2	.08	.0	3.57	24.00	.22	---	12.32*	265.00**********	
XSECTION 31	RUNOFF	.08	1	2	.08	.0	3.57	24.00	1.90	---	12.58	82.67	984.1
XSECTION 32	REACH	.08	1	2	.08	.0	3.57	24.00	1.86	---	13.45	45.66	543.6
XSECTION 32	RUNOFF	.18	1	2	.08	.0	3.57	24.00	1.67	---	12.78	131.23	729.1
XSECTION 32	ADDHYD	.26	1	2	.08	.0	3.57	24.00	1.73	---	12.85	150.43	569.8
XSECTION 94	REACH	.26	1	2	.08	.0	3.57	24.00	1.72	---	13.18	131.04	496.4
XSECTION 94	RUNOFF	.14	1	2	.08	.0	3.57	24.00	1.99	---	12.49	157.60	1133.8
XSECTION 94	ADDHYD	.40	1	2	.08	.0	3.57	24.00	1.81	---	12.56	219.89	545.6
XSECTION 95	REACH	.40	1	2	.08	.0	3.57	24.00	1.80	---	12.81	196.46	487.5
XSECTION 95	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.13	---	12.78	111.65	893.2
XSECTION 95	ADDHYD	.53	1	2	.08	.0	3.57	24.00	1.88	---	12.80	307.94	583.2
XSECTION 95	ADDHYD	.53	1	2	.08	.0	3.57	24.00	5.32	---	12.71	566.65	1073.2
XSECTION 95	DIVERT	.00	1	2	.08	.0	3.57	24.00	5.32	---	12.08*	265.00**********	
XSECTION 98	DIVERT	.53	1	2	.08	.0	3.57	24.00	.75	---	12.71	301.65	571.3
XSECTION 98	REACH	.53	1	2	.08	.0	3.57	24.00	.75	---	12.98	249.88	473.3
XSECTION 98	ADDHYD	1.82	1	2	.08	.0	3.57	24.00	.37	---	12.92	367.64	202.3
XSECTION 96	REACH	.00	1	2	.08	.0	3.57	24.00	.37	---	12.08*	265.00**********	
XSECTION 96	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.83	---	12.56	123.52	988.2
XSECTION 96	ADDHYD	.13	1	2	.08	.0	3.57	24.00	21.14	---	12.56	388.52	3108.2
XSECTION 96	DIVERT	.00	1	2	.08	.0	3.57	24.00	21.14	---	12.00*	265.00**********	
XSECTION 97	DIVERT	.13	1	2	.08	.0	3.57	24.00	1.34	---	12.56	123.52	988.2
XSECTION 97	REACH	.13	1	2	.08	.0	3.57	24.00	1.34	---	12.83	107.63	861.1
XSECTION 97	RUNOFF	.19	1	2	.08	.0	3.57	24.00	2.23	---	12.54	216.11	1149.5
XSECTION 97	ADDHYD	.31	1	2	.08	.0	3.57	24.00	1.87	---	12.61	302.40	966.1
XSECTION 98	REACH	.31	1	2	.08	.0	3.57	24.00	1.87	---	12.72	297.55	950.6
XSECTION 98	ADDHYD	2.13	1	2	.08	.0	3.57	24.00	.59	---	12.84	638.56	299.8
XSECTION 98	RUNOFF	.09	1	2	.08	.0	3.57	24.00	2.15	---	12.49	111.92	1190.6
XSECTION 98	ADDHYD	2.22	1	2	.08	.0	3.57	24.00	.66	---	12.76	687.23	309.0
XSECTION 99	REACH	2.22	1	2	.08	.0	3.57	24.00	.66	---	12.88	681.52	306.4
XSECTION 99	RUNOFF	.09	1	2	.08	.0	3.57	24.00	2.14	---	12.53	107.22	1140.6

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 99	ADDHYD	2.32	1	2	.08	.0	3.57	24.00	.72	---	12.80	743.20	320.6
XSECTION 139	REACH	2.32	1	2	.08	.0	3.57	24.00	.72	---	12.97	723.55	312.1
XSECTION 100	RUNOFF	.08	1	2	.08	.0	3.57	24.00	2.15	---	12.50	92.22	1182.3
XSECTION 139	REACH	.08	1	2	.08	.0	3.57	24.00	2.15	---	12.50	92.22	1182.3
XSECTION 139	ADDHYD	2.40	1	2	.08	.0	3.57	24.00	.77	---	12.93	745.85	311.3
XSECTION 142	REACH	.00	1	2	.08	.0	3.57	24.00	.77	---	12.40*	265.00	**********
XSECTION 142	RUNOFF	.25	1	2	.08	.0	3.57	24.00	1.89	---	13.04	162.01	648.0
XSECTION 142	ADDHYD	.25	1	2	.08	.0	3.57	24.00	11.77	---	13.04	427.01	1708.0
XSECTION 142	DIVERT	.00	1	2	.08	.0	3.57	24.00	11.77	---	12.08*	265.00	**********
XSECTION 141	DIVERT	.25	1	2	.08	.0	3.57	24.00	1.36	---	13.04	162.01	648.0
XSECTION 141	REACH	.25	1	2	.08	.0	3.57	24.00	1.36	---	13.14	161.69	646.8
XSECTION 141	RUNOFF	.19	1	2	.08	.0	3.57	24.00	2.23	---	12.54	216.11	1149.5
XSECTION 141	ADDHYD	.44	1	2	.08	.0	3.57	24.00	1.73	---	12.64	310.26	708.4
XSECTION 140	REACH	.44	1	2	.08	.0	3.57	24.00	1.73	---	12.64	310.26	708.4
XSECTION 140	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.15	---	12.52	145.51	1164.0
XSECTION 140	ADDHYD	.56	1	2	.08	.0	3.57	24.00	1.82	---	12.59	448.00	795.7
XSECTION 137	RUNOFF	.08	1	2	.08	.0	3.57	24.00	1.68	---	12.55	72.93	935.0
XSECTION 140	ADDHYD	.64	1	2	.08	.0	3.57	24.00	1.81	---	12.58	520.58	812.1
XSECTION 139	REACH	.64	1	2	.08	.0	3.57	24.00	1.80	---	12.68	516.12	805.2
XSECTION 139	ADDHYD	3.04	1	2	.08	.0	3.57	24.00	.98	---	12.77	1210.08	398.4
XSECTION 136	RUNOFF	.07	1	2	.08	.0	3.57	24.00	3.00	---	12.44	99.72	1510.9
XSECTION 138	REACH	.07	1	2	.08	.0	3.57	24.00	2.98	---	12.70	94.02	1424.5
XSECTION 138	RUNOFF	.20	1	2	.08	.0	3.57	24.00	1.99	---	12.46	239.93	1181.9
XSECTION 138	ADDHYD	.27	1	2	.08	.0	3.57	24.00	2.23	---	12.47	327.43	1217.2
XSECTION 139	REACH	.27	1	2	.08	.0	3.57	24.00	2.23	---	12.55	327.16	1216.2
XSECTION 139	ADDHYD	3.31	1	2	.08	.0	3.57	24.00	1.09	---	12.66	1467.66	443.9
XSECTION 139	RUNOFF	.19	1	2	.08	.0	3.57	24.00	2.23	---	12.52	224.54	1194.4
XSECTION 139	ADDHYD	3.49	1	2	.08	.0	3.57	24.00	1.15	---	12.64	1667.95	477.4
XSECTION 129	RUNOFF	.11	1	2	.08	.0	3.57	24.00	1.84	---	12.45	124.97	1157.2
XSECTION 130	RUNOFF	.03	1	2	.08	.0	3.57	24.00	2.60	---	12.44	44.13	1423.4
XSECTION 129	ADDHYD	.14	1	2	.08	.0	3.57	24.00	2.01	---	12.45	169.08	1216.4
XSECTION 127	REACH	.14	1	2	.08	.0	3.57	24.00	1.99	---	12.73	148.30	1066.9
XSECTION 128	RUNOFF	.04	1	2	.08	.0	3.57	24.00	1.69	---	12.45	39.33	1092.4
XSECTION 127	REACH	.04	1	2	.08	.0	3.57	24.00	1.67	---	12.85	29.29	813.5
XSECTION 127	ADDHYD	.17	1	2	.08	.0	3.57	24.00	1.92	---	12.74	175.25	1001.4
XSECTION 127	RUNOFF	.16	1	2	.08	.0	3.57	24.00	1.83	---	12.46	179.72	1130.3

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 127	ADDHYD	.33	1	2	.08	.0	3.57	24.00	1.88	---	12.49	322.49	965.5
XSECTION 132	RUNOFF	.14	1	2	.08	.0	3.57	24.00	2.41	---	12.46	191.65	1321.7
XSECTION 133	RUNOFF	.08	1	2	.08	.0	3.57	24.00	3.00	---	12.44	120.87	1510.9
XSECTION 133	ADDHYD	.22	1	2	.08	.0	3.57	24.00	2.62	---	12.45	312.35	1388.2
XSECTION 131	REACH	.22	1	2	.08	.0	3.57	24.00	2.61	---	12.53	306.66	1362.9
XSECTION 131	ADDHYD	.56	1	2	.08	.0	3.57	24.00	2.18	---	12.51	624.84	1117.8
XSECTION 131	RUNOFF	.12	1	2	.08	.0	3.57	24.00	2.15	---	12.46	146.24	1228.9
XSECTION 131	ADDHYD	.68	1	2	.08	.0	3.57	24.00	2.17	---	12.49	769.78	1135.4
XSECTION 126	REACH	.68	1	2	.08	.0	3.57	24.00	2.17	---	12.59	761.80	1123.6
XSECTION 126	RUNOFF	.16	1	2	.08	.0	3.57	24.00	3.00	---	12.44	233.08	1475.2
XSECTION 126	ADDHYD	.84	1	2	.08	.0	3.57	24.00	2.33	---	12.54	977.11	1168.8
XSECTION 134	REACH	.84	1	2	.08	.0	3.57	24.00	2.32	---	12.62	971.84	1162.5
XSECTION 135	RUNOFF	.04	1	2	.08	.0	3.57	24.00	3.00	---	12.44	63.46	1510.9
XSECTION 134	REACH	.04	1	2	.08	.0	3.57	24.00	2.97	---	12.88	55.89	1330.8
XSECTION 134	ADDHYD	.88	1	2	.08	.0	3.57	24.00	2.35	---	12.63	1021.61	1163.6
XSECTION 134	RUNOFF	.20	1	2	.08	.0	3.57	24.00	2.07	---	12.48	232.96	1182.6
XSECTION 134	ADDHYD	1.08	1	2	.08	.0	3.57	24.00	2.30	---	12.57	1225.88	1140.4
XSECTION 125	RUNOFF	.12	1	2	.08	.0	3.57	24.00	3.00	---	12.44	176.78	1510.9
XSECTION 125	ADDHYD	1.19	1	2	.08	.0	3.57	24.00	2.37	---	12.51	1370.14	1149.4
XSECTION 124	REACH	1.19	1	2	.08	.0	3.57	24.00	2.37	3.44	12.63	1341.03	1125.0
XSECTION 124	RUNOFF	.22	1	2	.08	.0	3.57	24.00	1.99	---	12.46	257.03	1173.7
XSECTION 124	ADDHYD	1.41	1	2	.08	.0	3.57	24.00	2.31	3.75	12.56	1551.78	1099.8
XSECTION 124	REACH	3.49	1	2	.08	.0	3.57	24.00	1.15	3.92	12.64	1667.95*	477.4
XSECTION 124	ADDHYD	4.91	1	2	.08	.0	3.57	24.00	1.48	5.76	12.60	3192.87	650.9
XSECTION 103	RUNOFF	.08	1	2	.08	.0	3.57	24.00	1.99	---	12.47	94.97	1172.5
XSECTION 124	ADDHYD	4.99	1	2	.08	.0	3.57	24.00	1.49	5.84	12.59	3269.38	655.7
XSECTION 104	REACH	4.99	1	2	.08	.0	3.57	24.00	1.49	5.94	12.59	3269.38*	655.7
XSECTION 104	ADDHYD	7.53	1	2	.08	.0	3.57	24.00	1.51	6.47	12.62	3773.47	500.8
XSECTION 107	REACH	7.53	1	2	.08	.0	3.57	24.00	1.51	6.96	12.62	3773.47*	500.8
XSECTION 107	ADDHYD	9.45	1	2	.08	.0	3.57	24.00	1.71	7.46	12.61	4243.65	449.2
XSECTION 123	RUNOFF	.21	1	2	.08	.0	3.57	24.00	3.00	---	12.44	315.47	1481.1
XSECTION 107	ADDHYD	9.66	1	2	.08	.0	3.57	24.00	1.73	7.71	12.58	4495.76	465.4
XSECTION 108	REACH	9.66	1	2	.08	.0	3.57	24.00	1.73	6.51	12.58	4495.76	465.4
XSECTION 108	RUNOFF	.03	1	2	.08	.0	3.57	24.00	1.91	---	12.47	28.19	1127.6
XSECTION 108	ADDHYD	9.68	1	2	.08	.0	3.57	24.00	1.73	6.53	12.58	4521.34*	466.9
XSECTION 148	RUNOFF	.03	1	2	.08	.0	3.57	24.00	1.84	---	12.45	38.12	1155.1

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 47	REACH	.03	1	2	.08	.0	3.57	24.00	1.82	---	12.83	31.57	956.8
XSECTION 47	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.84	---	12.45	84.03	1151.1
XSECTION 47	ADDHYD	.11	1	2	.08	.0	3.57	24.00	1.83	---	12.47	105.86	998.7
XSECTION 46	REACH	.11	1	2	.08	.0	3.57	24.00	1.82	---	12.69	91.34	861.7
XSECTION 46	RUNOFF	.05	1	2	.08	.0	3.57	24.00	1.84	---	12.45	61.22	1155.1
XSECTION 46	ADDHYD	.16	1	2	.08	.0	3.57	24.00	1.82	---	12.49	135.93	854.9
XSECTION 149	REACH	.16	1	2	.08	.0	3.57	24.00	1.81	---	12.74	118.28	743.9
XSECTION 149	RUNOFF	.01	1	2	.08	.0	3.57	24.00	2.51	---	12.44	12.56	1395.6
XSECTION 149	ADDHYD	.17	1	2	.08	.0	3.57	24.00	1.85	---	12.73	120.23	715.7
XSECTION 147	RUNOFF	.05	1	2	.08	.0	3.57	24.00	1.84	---	12.45	60.06	1155.1
XSECTION 146	REACH	.05	1	2	.08	.0	3.57	24.00	1.82	---	12.82	50.52	971.6
XSECTION 146	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.84	---	12.45	82.88	1151.1
XSECTION 146	ADDHYD	.12	1	2	.08	.0	3.57	24.00	1.83	---	12.47	118.44	955.1
XSECTION 45	REACH	.12	1	2	.08	.0	3.57	24.00	1.82	---	12.57	115.49	931.4
XSECTION 43	RUNOFF	.05	1	2	.08	.0	3.57	24.00	2.51	---	12.44	65.59	1395.6
XSECTION 21	REACH	.05	1	2	.08	.0	3.57	24.00	2.49	---	12.81	57.45	1222.3
XSECTION 21	ADDHYD	.17	1	2	.08	.0	3.57	24.00	2.01	---	12.59	166.23	972.1
XSECTION 21	RUNOFF	.19	1	2	.08	.0	3.57	24.00	2.23	---	12.56	212.04	1121.9
XSECTION 21	ADDHYD	.36	1	2	.08	.0	3.57	24.00	2.12	---	12.58	377.96	1049.9
XSECTION 45	REACH	.36	1	2	.08	.0	3.57	24.00	2.12	---	12.58	377.96	1049.9
XSECTION 45	RUNOFF	.12	1	2	.08	.0	3.57	24.00	2.50	---	12.53	146.17	1260.1
XSECTION 45	ADDHYD	.48	1	2	.08	.0	3.57	24.00	2.21	---	12.56	523.05	1098.8
XSECTION 45	ADDHYD	.64	1	2	.08	.0	3.57	24.00	2.12	---	12.58	635.43	986.7
XSECTION 150	RUNOFF	.02	1	2	.08	.0	3.57	24.00	1.84	---	12.45	18.48	1155.1
XSECTION 57	REACH	.02	1	2	.08	.0	3.57	24.00	1.81	---	13.02	13.07	816.6
XSECTION 57	RUNOFF	.05	1	2	.08	.0	3.57	24.00	1.83	---	12.47	55.42	1108.4
XSECTION 57	ADDHYD	.07	1	2	.08	.0	3.57	24.00	1.83	---	12.48	61.31	928.9
XSECTION 59	REACH	.07	1	2	.08	.0	3.57	24.00	1.81	---	12.81	50.85	770.4
XSECTION 59	RUNOFF	.05	1	2	.08	.0	3.57	24.00	1.83	---	12.47	58.75	1108.4
XSECTION 59	ADDHYD	.12	1	2	.08	.0	3.57	24.00	1.82	---	12.52	96.25	808.8
XSECTION 59	ADDHYD	.76	1	2	.08	.0	3.57	24.00	2.07	---	12.56	729.39	955.9
XSECTION 49	RUNOFF	.09	1	2	.08	.0	3.57	24.00	3.00	---	12.44	129.01	1500.1
XSECTION 50	REACH	.09	1	2	.08	.0	3.57	24.00	2.98	---	12.81	115.77	1346.2
XSECTION 50	RUNOFF	.09	1	2	.08	.0	3.57	24.00	2.99	---	12.49	130.50	1418.4
XSECTION 50	ADDHYD	.18	1	2	.08	.0	3.57	24.00	2.98	---	12.56	233.60	1312.4
XSECTION 20	RUNOFF	.06	1	2	.08	.0	3.57	24.00	3.00	---	12.44	96.60	1509.4

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 48	REACH	.06	1	2	.08	.0	3.57	24.00	2.97	---	12.99	77.79	1215.4
XSECTION 48	RUNOFF	.09	1	2	.08	.0	3.57	24.00	1.82	---	12.60	87.74	953.7
XSECTION 48	ADDHYD	.16	1	2	.08	.0	3.57	24.00	2.29	---	12.66	149.93	961.1
XSECTION 50	REACH	.16	1	2	.08	.0	3.57	24.00	2.28	---	12.96	129.04	827.2
XSECTION 50	ADDHYD	.33	1	2	.08	.0	3.57	24.00	2.66	---	12.66	333.88	999.6
XSECTION 52	REACH	.33	1	2	.08	.0	3.57	24.00	2.65	---	12.76	331.82	993.5
XSECTION 52	RUNOFF	.05	1	2	.08	.0	3.57	24.00	1.83	---	12.45	62.80	1141.8
XSECTION 52	ADDHYD	.39	1	2	.08	.0	3.57	24.00	2.54	---	12.58	354.42	911.1
XSECTION 56	REACH	.39	1	2	.08	.0	3.57	24.00	2.53	---	12.86	338.08	869.1
XSECTION 56	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.83	---	12.47	74.26	1108.4
XSECTION 56	ADDHYD	.46	1	2	.08	.0	3.57	24.00	2.43	---	12.61	369.51	810.3
XSECTION 51	REACH	.46	1	2	.08	.0	3.57	24.00	2.42	---	12.89	351.07	769.9
XSECTION 51	RUNOFF	.03	1	2	.08	.0	3.57	24.00	1.84	---	12.45	35.81	1155.1
XSECTION 51	ADDHYD	.49	1	2	.08	.0	3.57	24.00	2.39	---	12.88	354.69	728.3
XSECTION 55	REACH	.49	1	2	.08	.0	3.57	24.00	2.38	---	13.11	349.14	716.9
XSECTION 55	RUNOFF	.02	1	2	.08	.0	3.57	24.00	1.84	---	12.45	19.64	1155.1
XSECTION 55	ADDHYD	.50	1	2	.08	.0	3.57	24.00	2.36	---	13.10	350.67	695.8
XSECTION 55	ADDHYD	1.27	1	2	.08	.0	3.57	24.00	2.19	---	12.60	999.11	788.6
STRUCTURE 59	RESVOR	1.27	1	2	.08	.0	3.57	24.00	2.19	1406.35	13.70	369.87	291.9
XSECTION 66	REACH	1.27	1	2	.08	.0	3.57	24.00	2.19	---	13.70	369.87	291.9
XSECTION 66	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.98	---	12.53	68.27	1083.7
XSECTION 66	ADDHYD	1.33	1	2	.08	.0	3.57	24.00	2.18	---	13.62	374.91	281.9
XSECTION 67	REACH	1.33	1	2	.08	.0	3.57	24.00	2.18	---	13.62	374.91	281.9
XSECTION 67	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.32	---	12.45	81.87	1299.5
XSECTION 67	ADDHYD	1.39	1	2	.08	.0	3.57	24.00	2.19	---	12.56	432.81	310.7
XSECTION 44	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.24	---	12.47	156.47	1251.8
XSECTION 67	REACH	.13	1	2	.08	.0	3.57	24.00	2.23	---	12.58	153.12	1225.0
XSECTION 67	ADDHYD	1.52	1	2	.08	.0	3.57	24.00	2.19	---	12.56	585.69	385.8
XSECTION 69	REACH	1.52	1	2	.08	.0	3.57	24.00	2.19	---	12.56	585.69	385.8
XSECTION 69	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.75	---	12.61	57.16	907.3
XSECTION 69	ADDHYD	1.58	1	2	.08	.0	3.57	24.00	2.17	---	12.57	642.23	406.2
XSECTION 23	RUNOFF	.09	1	2	.08	.0	3.57	24.00	3.00	---	12.44	135.51	1489.1
XSECTION 40	REACH	.09	1	2	.08	.0	3.57	24.00	2.98	---	12.82	124.25	1365.4
XSECTION 38	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.06	---	12.53	141.28	1130.3
XSECTION 40	REACH	.13	1	2	.08	.0	3.57	24.00	2.06	---	12.68	130.15	1041.2
XSECTION 40	ADDHYD	.22	1	2	.08	.0	3.57	24.00	2.45	---	12.72	250.22	1158.4

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 40	RUNOFF	.09	1	2	.08	.0	3.57	24.00	1.83	---	12.56	92.89	988.2
XSECTION 40	ADDHYD	.31	1	2	.08	.0	3.57	24.00	2.26	---	12.64	336.12	1084.3
XSECTION 82	REACH	.31	1	2	.08	.0	3.57	24.00	2.25	---	12.77	329.94	1064.3
XSECTION 82	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.99	---	12.47	73.36	1164.5
XSECTION 82	ADDHYD	.37	1	2	.08	.0	3.57	24.00	2.21	---	12.62	366.29	982.0
XSECTION 39	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.06	---	12.55	67.55	1080.8
XSECTION 82	REACH	.06	1	2	.08	.0	3.57	24.00	2.05	---	12.82	60.55	968.7
XSECTION 82	ADDHYD	.44	1	2	.08	.0	3.57	24.00	2.19	---	12.65	420.57	965.7
XSECTION 81	REACH	.44	1	2	.08	.0	3.57	24.00	2.18	---	12.78	416.01	955.2
XSECTION 81	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.98	---	12.55	66.60	1057.2
XSECTION 81	ADDHYD	.50	1	2	.08	.0	3.57	24.00	2.16	---	12.72	471.00	944.8
XSECTION 22	RUNOFF	.15	1	2	.08	.0	3.57	24.00	2.23	---	12.52	180.83	1181.9
XSECTION 41	REACH	.15	1	2	.08	.0	3.57	24.00	2.22	---	12.75	171.52	1121.1
XSECTION 41	RUNOFF	.17	1	2	.08	.0	3.57	24.00	1.98	---	12.51	191.99	1116.2
XSECTION 41	ADDHYD	.32	1	2	.08	.0	3.57	24.00	2.10	---	12.55	346.09	1064.9
XSECTION 42	RUNOFF	.08	1	2	.08	.0	3.57	24.00	2.24	---	12.45	100.02	1282.3
XSECTION 42	ADDHYD	.40	1	2	.08	.0	3.57	24.00	2.12	---	12.52	437.49	1085.6
XSECTION 78	REACH	.40	1	2	.08	.0	3.57	24.00	2.12	---	12.63	426.42	1058.1
XSECTION 81	DIVERT	.00	1	2	.08	.0	3.57	24.00	2.12	---	12.16*	154.00	**********
XSECTION 78	DIVERT	.50	1	2	.08	.0	3.57	24.00	.81	---	12.72	317.00	635.9
XSECTION 78	REACH	.50	1	2	.08	.0	3.57	24.00	.81	---	12.86	307.18	616.2
XSECTION 78	ADDHYD	.90	1	2	.08	.0	3.57	24.00	1.40	---	12.71	690.47	765.9
XSECTION 78	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.15	---	12.46	77.42	1228.9
XSECTION 78	ADDHYD	.96	1	2	.08	.0	3.57	24.00	1.45	---	12.66	732.59	759.6
XSECTION 77	REACH	.96	1	2	.08	.0	3.57	24.00	1.44	---	12.77	724.18	750.8
XSECTION 77	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.15	---	12.50	74.51	1182.7
XSECTION 77	ADDHYD	1.03	1	2	.08	.0	3.57	24.00	1.49	---	12.73	769.21	748.6
XSECTION 69	ADDHYD	2.61	1	2	.08	.0	3.57	24.00	1.90	---	12.66	1371.45	525.8
STRUCTURE 69	RESVOR	2.61	1	2	.08	.0	3.57	24.00	1.90	1387.91	15.25	352.86	135.3
XSECTION 75	REACH	2.61	1	2	.08	.0	3.57	24.00	1.90	---	15.25	352.86	135.3
XSECTION 80	REACH	.00	1	2	.08	.0	3.57	24.00	1.90	---	12.16*	154.00	**********
XSECTION 80	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.83	---	12.53	64.53	1024.2
XSECTION 80	ADDHYD	.06	1	2	.08	.0	3.57	24.00	12.48	---	12.53	218.53	3468.7
XSECTION 80	DIVERT	.00	1	2	.08	.0	3.57	24.00	12.48	---	12.08*	166.00	**********
XSECTION 79	DIVERT	.06	1	2	.08	.0	3.57	24.00	.85	---	12.53	52.53	833.8
XSECTION 79	REACH	.06	1	2	.08	.0	3.57	24.00	.85	---	12.68	48.34	767.3

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 79	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.32	---	12.45	81.87	1299.5
XSECTION 79	ADDHYD	.13	1	2	.08	.0	3.57	24.00	1.58	---	12.50	121.63	965.3
XSECTION 76	REACH	.13	1	2	.08	.0	3.57	24.00	1.58	---	12.62	116.89	927.7
XSECTION 76	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.15	---	12.46	77.97	1237.6
XSECTION 76	ADDHYD	.19	1	2	.08	.0	3.57	24.00	1.77	---	12.53	186.75	988.1
XSECTION 75	REACH	.19	1	2	.08	.0	3.57	24.00	1.77	---	12.64	180.28	953.9
XSECTION 75	ADDHYD	2.80	1	2	.08	.0	3.57	24.00	1.90	---	12.70	454.43	162.4
XSECTION 75	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.99	---	12.50	88.70	1407.9
XSECTION 75	ADDHYD	2.86	1	2	.08	.0	3.57	24.00	1.92	---	12.65	534.40	186.8
XSECTION 112	REACH	2.86	1	2	.08	.0	3.57	24.00	1.92	---	12.65	534.40	186.8
XSECTION 109	REACH	.00	1	2	.08	.0	3.57	24.00	1.92	---	12.80*	166.00	**********
XSECTION 109	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.99	---	12.47	72.84	1156.2
XSECTION 109	ADDHYD	.06	1	2	.08	.0	3.57	24.00	13.58	---	12.47	238.79	3790.3
XSECTION 108	ADDHYD	9.75	1	2	.08	.0	3.57	24.00	1.81	6.73	12.58	4754.59	487.8
XSECTION 110	REACH	9.75	1	2	.08	.0	3.57	24.00	1.81	6.92	12.58	4754.59	487.8
XSECTION 110	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.54	---	12.59	60.60	830.1
XSECTION 110	ADDHYD	9.82	1	2	.08	.0	3.57	24.00	1.81	6.97	12.58	4815.13	490.3
XSECTION 122	RUNOFF	.35	1	2	.08	.0	3.57	24.00	2.07	---	12.47	422.06	1188.9
XSECTION 110	ADDHYD	10.18	1	2	.08	.0	3.57	24.00	1.82	7.30	12.56	5212.29 *	512.2
XSECTION 111	REACH	10.18	1	2	.08	.0	3.57	24.00	1.82	6.59	12.56	5212.29	512.2
XSECTION 111	RUNOFF	.07	1	2	.08	.0	3.57	24.00	1.47	---	12.60	55.82	797.4
XSECTION 111	ADDHYD	10.25	1	2	.08	.0	3.57	24.00	1.82	6.63	12.56	5267.82 *	514.2
XSECTION 112	REACH	10.25	1	2	.08	.0	3.57	24.00	1.81	---	12.64	5253.88	512.8
XSECTION 112	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.47	---	12.55	51.69	847.3
XSECTION 112	ADDHYD	10.31	1	2	.08	.0	3.57	24.00	1.81	---	12.64	5302.90	514.5
XSECTION 121	RUNOFF	.25	1	2	.08	.0	3.57	24.00	3.00	---	12.44	377.34	1509.4
XSECTION 112	ADDHYD	10.56	1	2	.08	.0	3.57	24.00	1.84	---	12.61	5454.17 *	516.7
XSECTION 112	ADDHYD	13.42	1	2	.08	.0	3.57	24.00	1.86	---	12.61	5985.43	446.1
XSECTION 113	REACH	13.42	1	2	.08	.0	3.57	24.00	1.85	---	12.70	5979.01	445.6
XSECTION 113	RUNOFF	.05	1	2	.08	.0	3.57	24.00	2.59	---	12.53	68.59	1294.1
XSECTION 113	ADDHYD	13.47	1	2	.08	.0	3.57	24.00	1.86	---	12.69	6038.71	448.3
XSECTION 120	RUNOFF	.23	1	2	.08	.0	3.57	24.00	2.24	---	12.47	289.16	1251.8
XSECTION 113	ADDHYD	13.70	1	2	.08	.0	3.57	24.00	1.86	---	12.67	6208.27 *	453.1
XSECTION 58	RUNOFF	.03	1	2	.08	.0	3.57	24.00	1.99	---	12.45	39.00	1218.8
XSECTION 60	REACH	.03	1	2	.08	.0	3.57	24.00	1.98	---	12.63	36.37	1136.5
XSECTION 60	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.75	---	12.55	61.05	969.0

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 60	ADDHYD	.09	1	2	.08	.0	3.57	24.00	1.83	---	12.58	96.16	1012.2
XSECTION 65	REACH	.09	1	2	.08	.0	3.57	24.00	1.82	---	12.70	93.68	986.1
XSECTION 65	RUNOFF	.06	1	2	.08	.0	3.57	24.00	1.83	---	12.55	63.20	1003.2
XSECTION 65	ADDHYD	.16	1	2	.08	.0	3.57	24.00	1.82	---	12.62	152.65	966.2
XSECTION 68	REACH	.16	1	2	.08	.0	3.57	24.00	1.82	---	12.74	148.66	940.9
XSECTION 68	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.07	---	12.46	75.97	1205.8
XSECTION 68	ADDHYD	.22	1	2	.08	.0	3.57	24.00	1.89	---	12.55	203.71	921.7
XSECTION 70	REACH	.22	1	2	.08	.0	3.57	24.00	1.89	---	12.67	194.34	879.4
XSECTION 70	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.15	---	12.46	77.97	1237.6
XSECTION 70	ADDHYD	.28	1	2	.08	.0	3.57	24.00	1.95	---	12.56	253.58	892.9
XSECTION 74	REACH	.28	1	2	.08	.0	3.57	24.00	1.94	---	12.69	243.32	856.8
XSECTION 74	RUNOFF	.06	1	2	.08	.0	3.57	24.00	2.50	---	12.45	86.02	1365.4
XSECTION 74	ADDHYD	.35	1	2	.08	.0	3.57	24.00	2.04	---	12.56	303.55	874.8
XSECTION 113	REACH	.35	1	2	.08	.0	3.57	24.00	2.04	---	12.56	303.55	874.8
XSECTION 113	ADDHYD	14.05	1	2	.08	.0	3.57	24.00	1.87	---	12.66	6494.42	462.3
XSECTION 114	REACH	14.05	1	2	.08	.0	3.57	24.00	1.86	---	12.80	6351.82	452.2
XSECTION 64	RUNOFF	.25	1	2	.08	.0	3.57	24.00	1.83	---	12.49	267.71	1070.8
XSECTION 72	REACH	.25	1	2	.08	.0	3.57	24.00	1.82	---	12.72	244.17	976.7
XSECTION 72	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.90	---	12.54	129.69	1037.5
XSECTION 72	ADDHYD	.38	1	2	.08	.0	3.57	24.00	1.85	---	12.64	359.31	958.2
XSECTION 114	REACH	.38	1	2	.08	.0	3.57	24.00	1.84	---	12.82	329.76	879.4
XSECTION 115	RUNOFF	.09	1	2	.08	.0	3.57	24.00	1.83	---	12.53	96.28	1024.2
XSECTION 114	ADDHYD	.47	1	2	.08	.0	3.57	24.00	1.84	---	12.72	392.93	837.8
XSECTION 71	RUNOFF	.13	1	2	.08	.0	3.57	24.00	1.90	---	12.54	129.69	1037.5
XSECTION 114	REACH	.13	1	2	.08	.0	3.57	24.00	1.89	---	12.84	107.00	856.0
XSECTION 114	ADDHYD	.59	1	2	.08	.0	3.57	24.00	1.85	---	12.75	495.69	834.5
XSECTION 114	RUNOFF	.13	1	2	.08	.0	3.57	24.00	2.05	---	12.90	99.23	775.2
XSECTION 114	ADDHYD	.72	1	2	.08	.0	3.57	24.00	1.89	---	12.77	590.82	818.3
XSECTION 114	ADDHYD	14.77	1	2	.08	.0	3.57	24.00	1.87	---	12.79	6941.93	470.0
XSECTION 119	RUNOFF	.23	1	2	.08	.0	3.57	24.00	1.97	---	12.83	184.55	798.9
XSECTION 114	ADDHYD	15.00	1	2	.08	.0	3.57	24.00	1.87	---	12.79	7125.98	475.0
XSECTION 118	REACH	15.00	1	2	.08	.0	3.57	24.00	1.86	---	12.94	6922.74	461.5
XSECTION 118	RUNOFF	.23	1	2	.08	.0	3.57	24.00	1.73	---	13.18	125.08	541.5
XSECTION 118	ADDHYD	15.23	1	2	.08	.0	3.57	24.00	1.86	---	12.95	7037.47	462.0
XSECTION 117	REACH	15.23	1	2	.08	.0	3.57	24.00	1.86	---	13.09	6888.25	452.2
XSECTION 117	RUNOFF	.17	1	2	.08	.0	3.57	24.00	1.65	---	13.40	78.06	451.2

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 2													
XSECTION 117	ADDHYD	15.41	1	2	.08	.0	3.57	24.00	1.85	---	13.09	6958.05	451.7
ALTERNATE 1 STORM 3													
XSECTION 1	RUNOFF	.15	1	2	.08	.0	4.04	24.00	3.46	---	12.45	248.49	1679.0
XSECTION 2	RUNOFF	.10	1	2	.08	.0	4.04	24.00	3.46	---	12.44	165.73	1708.6
XSECTION 3	REACH	.15	1	2	.08	.0	4.04	24.00	3.45	---	12.63	244.59	1652.7
XSECTION 3	REACH	.10	1	2	.08	.0	4.04	24.00	3.44	---	12.70	158.51	1634.1
XSECTION 3	ADDHYD	.25	1	2	.08	.0	4.04	24.00	3.45	---	12.65	400.78	1635.9
XSECTION 3	RUNOFF	.05	1	2	.08	.0	4.04	24.00	1.83	---	12.52	51.36	1092.7
XSECTION 3	ADDHYD	.29	1	2	.08	.0	4.04	24.00	3.19	---	12.59	446.92	1530.5
XSECTION 6	RUNOFF	.11	1	2	.08	.0	4.04	24.00	2.13	---	12.71	106.85	980.3
XSECTION 6	REACH	.29	1	2	.08	.0	4.04	24.00	3.18	1505.54	12.71	443.03	1517.2
XSECTION 6	ADDHYD	.40	1	2	.08	.0	4.04	24.00	2.90	1506.07	12.71	549.88	1371.3
XSECTION 8	REACH	.40	1	2	.08	.0	4.04	24.00	2.89	1497.00	12.86	531.54	1325.5
XSECTION 7	RUNOFF	.12	1	2	.08	.0	4.04	24.00	1.83	---	12.65	106.65	911.5
XSECTION 8	REACH	.12	1	2	.08	.0	4.04	24.00	1.82	1495.41	12.77	105.14	898.7
XSECTION 19	RUNOFF	.02	1	2	.08	.0	4.04	24.00	3.47	---	12.44	37.85	1720.5
XSECTION 4	RUNOFF	.19	1	2	.08	.0	4.04	24.00	3.46	---	12.44	330.80	1696.4
XSECTION 4	REACH	.02	1	2	.08	.0	4.04	24.00	3.43	---	12.97	31.76	1443.6
XSECTION 4	ADDHYD	.22	1	2	.08	.0	4.04	24.00	3.46	---	12.45	351.51	1619.9
XSECTION 5	RUNOFF	.13	1	2	.08	.0	4.04	24.00	1.83	---	12.59	122.65	981.2
XSECTION 5	REACH	.22	1	2	.08	.0	4.04	24.00	3.45	---	12.62	342.38	1577.8
XSECTION 5	ADDHYD	.34	1	2	.08	.0	4.04	24.00	2.85	---	12.61	464.83	1359.2
XSECTION 8	REACH	.34	1	2	.08	.0	4.04	24.00	2.84	1496.88	12.85	436.28	1275.7
XSECTION 8	ADDHYD	.52	1	2	.08	.0	4.04	24.00	2.65	1497.09	12.84	633.31	1222.6
XSECTION 8	ADDHYD	.86	1	2	.08	.0	4.04	24.00	2.73	1497.43	12.85	1069.56	1243.7
XSECTION 18	RUNOFF	.18	1	2	.08	.0	4.04	24.00	1.90	---	12.67	171.98	934.7
XSECTION 8	REACH	.18	1	2	.08	.0	4.04	24.00	1.89	1495.70	12.98	146.42	795.7
XSECTION 8	ADDHYD	1.04	1	2	.08	.0	4.04	24.00	2.58	1497.51	12.86	1208.88	1157.9
XSECTION 8	RUNOFF	.13	1	2	.08	.0	4.04	24.00	1.90	---	12.68	119.20	909.9
XSECTION 8	ADDHYD	1.18	1	2	.08	.0	4.04	24.00	2.50	1497.58	12.84	1315.07	1119.2
XSECTION 9	RUNOFF	.07	1	2	.08	.0	4.04	24.00	1.97	---	12.78	56.70	859.0
XSECTION 8	REACH	.07	1	2	.08	.0	4.04	24.00	1.97	1494.99	12.78	56.70	859.0
XSECTION 8	ADDHYD	1.24	1	2	.08	.0	4.04	24.00	2.47	1497.61	12.84	1370.97	1104.7
XSECTION 14	DIVERT	.00	1	2	.08	.0	4.04	24.00	2.47	---	12.00*	150.00**********	
XSECTION 8	DIVERT	1.24	1	2	.08	.0	4.04	24.00	1.53	1497.52	12.84	1220.97	983.9
STRUCTURE 8	RESVOR	1.24	1	2	.08	.0	4.04	24.00	1.51	1496.21	13.57	246.05	198.3

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 14	ADDHYD	1.24	1	2	.08	.0	4.04	24.00	2.45	---	13.57	396.05	319.1
XSECTION 14	REACH	1.24	1	2	.08	.0	4.04	24.00	2.44	---	13.88	393.02	316.7
XSECTION 14	RUNOFF	.18	1	2	.08	.0	4.04	24.00	2.31	---	12.51	227.94	1287.8
XSECTION 14	ADDHYD	1.42	1	2	.08	.0	4.04	24.00	2.42	---	12.59	430.00	303.2
XSECTION 16	RUNOFF	.12	1	2	.08	.0	4.04	24.00	2.56	---	12.54	155.97	1310.7
XSECTION 15	REACH	.12	1	2	.08	.0	4.04	24.00	2.56	---	12.64	155.01	1302.6
XSECTION 15	RUNOFF	.07	1	2	.08	.0	4.04	24.00	2.21	---	12.74	71.32	977.0
XSECTION 15	ADDHYD	.19	1	2	.08	.0	4.04	24.00	2.43	---	12.66	224.76	1170.6
XSECTION 14	ADDHYD	1.61	1	2	.08	.0	4.04	24.00	2.42	---	12.61	652.42	405.2
XSECTION 144	RUNOFF	.13	1	2	.08	.0	4.04	24.00	1.97	---	12.78	113.39	859.0
XSECTION 14	REACH	.13	1	2	.08	.0	4.04	24.00	1.97	---	12.89	111.92	847.9
XSECTION 14	REACH	.13	1	2	.08	.0	4.04	24.00	1.97	---	12.89	111.92	847.9
XSECTION 14	ADDHYD	1.74	1	2	.08	.0	4.04	24.00	2.39	---	12.64	744.85	427.6
XSECTION 27	REACH	1.74	1	2	.08	.0	4.04	24.00	2.38	---	12.86	686.27	394.0
XSECTION 27	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.20	---	12.91	157.15	835.9
XSECTION 27	ADDHYD	1.93	1	2	.08	.0	4.04	24.00	2.36	---	12.88	842.74	436.7
XSECTION 17	RUNOFF	.06	1	2	.08	.0	4.04	24.00	3.47	---	12.44	101.41	1718.8
XSECTION 25	REACH	.06	1	2	.08	.0	4.04	24.00	3.43	---	12.88	89.43	1515.7
XSECTION 25	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.31	---	12.52	113.22	1272.2
XSECTION 25	ADDHYD	.15	1	2	.08	.0	4.04	24.00	2.76	---	12.56	188.52	1273.8
XSECTION 27	REACH	.15	1	2	.08	.0	4.04	24.00	2.75	---	12.73	175.74	1187.4
XSECTION 27	ADDHYD	2.08	1	2	.08	.0	4.04	24.00	2.39	---	12.84	1010.56	486.3
XSECTION 26	RUNOFF	.07	1	2	.08	.0	4.04	24.00	2.48	---	12.47	93.38	1393.7
XSECTION 27	ADDHYD	2.14	1	2	.08	.0	4.04	24.00	2.39	---	12.80	1036.76	483.3
XSECTION 37	REACH	2.14	1	2	.08	.0	4.04	24.00	2.39	1455.30	12.93	1026.06	478.3
XSECTION 37	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.31	---	12.46	169.10	1352.8
XSECTION 37	ADDHYD	2.27	1	2	.08	.0	4.04	24.00	2.38	1455.33	12.91	1048.62	461.9
XSECTION 24	RUNOFF	.20	1	2	.08	.0	4.04	24.00	2.57	---	12.52	268.81	1357.6
XSECTION 37	REACH	.20	1	2	.08	.0	4.04	24.00	2.56	1453.61	12.61	266.68	1346.9
XSECTION 37	ADDHYD	2.47	1	2	.08	.0	4.04	24.00	2.40	1455.69	12.72	1265.08	512.6
XSECTION 143	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.48	---	12.55	80.11	1281.8
XSECTION 143	ADDHYD	2.53	1	2	.08	.0	4.04	24.00	2.40	---	12.69	1336.20	528.0
XSECTION 34	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.38	---	12.64	141.66	1133.3
XSECTION 35	REACH	.13	1	2	.08	.0	4.04	24.00	2.38	---	12.76	139.31	1114.5
XSECTION 35	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.30	---	12.54	154.91	1239.3
XSECTION 35	ADDHYD	.25	1	2	.08	.0	4.04	24.00	2.34	---	12.61	281.50	1126.0

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 36	REACH	.25	1	2	.08	.0	4.04	24.00	2.34	---	12.61	281.50	1126.0
XSECTION 10	RUNOFF	.09	1	2	.08	.0	4.04	24.00	1.83	---	12.59	93.22	981.2
XSECTION 11	REACH	.09	1	2	.08	.0	4.04	24.00	1.82	---	12.72	89.38	940.9
XSECTION 11	RUNOFF	.13	1	2	.08	.0	4.04	24.00	1.97	---	12.66	119.79	958.3
XSECTION 11	ADDHYD	.22	1	2	.08	.0	4.04	24.00	1.91	---	12.69	208.58	948.1
XSECTION 28	REACH	.22	1	2	.08	.0	4.04	24.00	1.89	---	13.27	144.98	659.0
XSECTION 13	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.22	---	12.59	140.57	1124.5
XSECTION 28	REACH	.13	1	2	.08	.0	4.04	24.00	2.19	---	13.15	99.15	793.2
XSECTION 28	ADDHYD	.34	1	2	.08	.0	4.04	24.00	2.00	---	13.22	242.20	702.0
XSECTION 28	RUNOFF	.16	1	2	.08	.0	4.04	24.00	2.21	---	12.76	149.43	957.9
XSECTION 28	ADDHYD	.50	1	2	.08	.0	4.04	24.00	2.06	---	13.06	346.06	690.7
XSECTION 36	REACH	.50	1	2	.08	.0	4.04	24.00	2.05	---	13.37	309.28	617.3
XSECTION 36	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.30	---	12.54	155.70	1245.6
XSECTION 36	ADDHYD	.63	1	2	.08	.0	4.04	24.00	2.10	---	13.32	327.91	523.8
XSECTION 36	ADDHYD	.88	1	2	.08	.0	4.04	24.00	2.17	---	12.66	564.23	644.1
XSECTION 36	DIVERT	.00	1	2	.08	.0	4.04	24.00	2.17	---	12.48*	466.00	**********
XSECTION 90	DIVERT	.88	1	2	.08	.0	4.04	24.00	.06	---	12.66	98.23	112.1
XSECTION 37	REACH	.00	1	2	.08	.0	4.04	24.00	.06	1454.42	12.48*	466.00	**********
XSECTION 143	ADDHYD	2.53	1	2	.08	.0	4.04	24.00	3.13	---	12.69	1802.20	712.2
STRUCTURE 43	RESVOR	2.53	1	2	.08	.0	4.04	24.00	3.03	1433.14	15.05	508.00	200.8
XSECTION 85	REACH	2.53	1	2	.08	.0	4.04	24.00	3.03	---	15.05	508.00	200.8
XSECTION 85	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.39	---	12.55	79.29	1258.6
XSECTION 85	ADDHYD	2.59	1	2	.08	.0	4.04	24.00	3.01	---	15.03	511.72	197.3
XSECTION 84	REACH	2.59	1	2	.08	.0	4.04	24.00	3.01	4.60	15.03	511.72	197.3
XSECTION 84	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.39	---	12.55	79.29	1258.6
XSECTION 84	ADDHYD	2.66	1	2	.08	.0	4.04	24.00	3.00	4.63	15.02	515.46	194.0
XSECTION 91	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.57	---	12.52	169.21	1353.7
XSECTION 90	REACH	.13	1	2	.08	.0	4.04	24.00	2.56	---	12.64	165.02	1320.2
XSECTION 90	REACH	.88	1	2	.08	.0	4.04	24.00	.06	---	12.86	58.16	66.4
XSECTION 90	ADDHYD	1.00	1	2	.08	.0	4.04	24.00	.37	---	12.74	206.21	206.0
XSECTION 90	RUNOFF	.11	1	2	.08	.0	4.04	24.00	2.47	---	12.58	132.92	1219.5
XSECTION 90	ADDHYD	1.11	1	2	.08	.0	4.04	24.00	.58	---	12.70	330.07	297.4
XSECTION 88	REACH	1.11	1	2	.08	.0	4.04	24.00	.58	---	12.81	323.59	291.5
XSECTION 88	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.65	---	12.64	115.03	1223.7
XSECTION 88	ADDHYD	1.20	1	2	.08	.0	4.04	24.00	.74	---	12.77	430.34	357.4
XSECTION 89	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.39	---	12.50	62.16	1322.6

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 88	REACH	.05	1	2	.08	.0	4.04	24.00	2.38	---	12.75	56.34	1198.7
XSECTION 88	ADDHYD	1.25	1	2	.08	.0	4.04	24.00	.80	---	12.77	486.69	389.0
XSECTION 101	REACH	1.25	1	2	.08	.0	4.04	24.00	.80	---	12.86	484.03	386.9
XSECTION 101	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.84	---	12.53	67.37	1433.4
XSECTION 101	ADDHYD	1.30	1	2	.08	.0	4.04	24.00	.87	---	12.82	523.21	403.1
XSECTION 102	REACH	1.30	1	2	.08	.0	4.04	24.00	.87	---	13.00	493.39	380.1
XSECTION 102	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.22	---	12.60	70.08	1112.4
XSECTION 102	ADDHYD	1.36	1	2	.08	.0	4.04	24.00	.93	---	12.95	531.52	390.5
XSECTION 104	REACH	1.36	1	2	.08	.0	4.04	24.00	.93	1.88	13.29	481.16	353.5
XSECTION 86	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.57	---	12.46	90.81	1441.4
XSECTION 87	REACH	.06	1	2	.08	.0	4.04	24.00	2.56	1429.96	12.70	80.99	1285.6
XSECTION 87	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.65	---	12.54	85.98	1364.8
XSECTION 87	ADDHYD	.13	1	2	.08	.0	4.04	24.00	2.61	1430.03	12.60	162.32	1288.3
XSECTION 105	REACH	.13	1	2	.08	.0	4.04	24.00	2.59	1417.63	12.98	140.33	1113.8
XSECTION 105	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.90	---	12.61	61.30	973.0
XSECTION 105	ADDHYD	.19	1	2	.08	.0	4.04	24.00	2.36	1417.70	12.84	180.83	956.8
XSECTION 104	REACH	.19	1	2	.08	.0	4.04	24.00	2.35	1.03	13.01	175.85	930.4
XSECTION 104	RUNOFF	.07	1	2	.08	.0	4.04	24.00	1.90	---	12.64	65.89	954.9
XSECTION 104	ADDHYD	.26	1	2	.08	.0	4.04	24.00	2.23	1.17	12.86	221.88	860.0
XSECTION 104	ADDHYD	1.62	1	2	.08	.0	4.04	24.00	1.14	2.28	13.18	661.39	408.5
XSECTION 84	DIVERT	.93	1	2	.08	.0	4.04	24.00	3.04	2.13	15.02	183.28	197.1
XSECTION 83	DIVERT	1.73	1	2	.08	.0	4.04	24.00	2.97	2.13	15.02	332.18	192.4
XSECTION 105	REACH	.93	1	2	.08	.0	4.04	24.00	3.03	1417.70	15.10	183.27	197.1
XSECTION 104	REACH	.93	1	2	.08	.0	4.04	24.00	3.01	1.05	15.20	183.24	197.1
XSECTION 104	ADDHYD	2.55	1	2	.08	.0	4.04	24.00	1.82	2.60	13.17	823.28	323.0
XSECTION 83	REACH	1.73	1	2	.08	.0	4.04	24.00	2.97	2.13	15.02	332.18	192.4
XSECTION 83	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.48	---	12.54	81.54	1294.3
XSECTION 83	ADDHYD	1.79	1	2	.08	.0	4.04	24.00	2.95	2.40	12.62	396.09	221.3
XSECTION 106	REACH	1.79	1	2	.08	.0	4.04	24.00	2.95	---	12.62	396.09	221.3
XSECTION 106	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.98	---	12.58	66.28	1052.0
XSECTION 106	ADDHYD	1.85	1	2	.08	.0	4.04	24.00	2.92	---	12.61	462.10	249.4
XSECTION 107	REACH	1.85	1	2	.08	.0	4.04	24.00	2.92	1.99	12.61	462.10	249.4
XSECTION 107	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.22	---	12.52	73.26	1241.7
XSECTION 107	ADDHYD	1.91	1	2	.08	.0	4.04	24.00	2.90	2.16	12.58	531.16	277.8
XSECTION 29	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.13	---	12.66	128.47	1027.8
XSECTION 145	REACH	.13	1	2	.08	.0	4.04	24.00	2.13	---	12.66	128.47	1027.8

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SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 12	RUNOFF	.38	1	2	.08	.0	4.04	24.00	2.06	---	12.61	394.33	1043.2
XSECTION 145	REACH	.38	1	2	.08	.0	4.04	24.00	2.06	---	12.61	394.33	1043.2
XSECTION 30	RUNOFF	.15	1	2	.08	.0	4.04	24.00	1.97	---	12.80	127.06	835.9
XSECTION 33	REACH	.15	1	2	.08	.0	4.04	24.00	1.96	---	13.14	111.86	735.9
XSECTION 33	RUNOFF	.15	1	2	.08	.0	4.04	24.00	.82	---	12.79	58.69	381.1
XSECTION 33	ADDHYD	.31	1	2	.08	.0	4.04	24.00	1.39	---	12.99	156.44	511.3
XSECTION 145	ADDHYD	.68	1	2	.08	.0	4.04	24.00	1.76	---	12.67	512.36	749.1
XSECTION 145	RUNOFF	.16	1	2	.08	.0	4.04	24.00	2.13	---	12.67	161.24	1007.8
XSECTION 145	ADDHYD	.84	1	2	.08	.0	4.04	24.00	1.83	---	12.67	673.60	798.1
XSECTION 145	DIVERT	.00	1	2	.08	.0	4.04	24.00	1.83	---	11.92*	27.00**********	
XSECTION 7	DIVERT	.13	1	2	.08	.0	4.04	24.00	1.04	---	12.66	101.47	811.8
XSECTION 145	ADDHYD	.97	1	2	.08	.0	4.04	24.00	1.73	---	12.67	774.98	799.8
STRUCTURE 33	RESVOR	.97	1	2	.08	.0	4.04	24.00	1.60	1469.07	14.04	93.45	96.4
XSECTION 145	ADDHYD	.97	1	2	.08	.0	4.04	24.00	1.74	---	13.42	119.61	123.4
XSECTION 93	REACH	.97	1	2	.08	.0	4.04	24.00	1.73	---	13.51	119.33	123.1
XSECTION 93	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.39	---	12.52	253.10	1297.9
XSECTION 93	ADDHYD	1.16	1	2	.08	.0	4.04	24.00	1.84	---	12.54	355.09	305.1
XSECTION 93	DIVERT	.00	1	2	.08	.0	4.04	24.00	1.84	---	12.24*	265.00**********	
XSECTION 92	DIVERT	1.16	1	2	.08	.0	4.04	24.00	.05	---	12.54	90.09	77.4
XSECTION 92	REACH	1.16	1	2	.08	.0	4.04	24.00	.05	---	12.69	72.95	62.7
XSECTION 92	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.57	---	12.52	169.21	1353.7
XSECTION 92	ADDHYD	1.29	1	2	.08	.0	4.04	24.00	.29	---	12.60	229.82	178.3
XSECTION 98	REACH	1.29	1	2	.08	.0	4.04	24.00	.29	---	12.86	200.37	155.4
XSECTION 95	REACH	.00	1	2	.08	.0	4.04	24.00	.29	---	12.24*	265.00**********	
XSECTION 31	RUNOFF	.08	1	2	.08	.0	4.04	24.00	2.30	---	12.57	99.02	1178.8
XSECTION 32	REACH	.08	1	2	.08	.0	4.04	24.00	2.26	---	13.34	60.30	717.9
XSECTION 32	RUNOFF	.18	1	2	.08	.0	4.04	24.00	2.05	---	12.77	160.51	891.7
XSECTION 32	ADDHYD	.26	1	2	.08	.0	4.04	24.00	2.12	---	12.85	193.67	733.6
XSECTION 94	REACH	.26	1	2	.08	.0	4.04	24.00	2.11	---	13.23	172.54	653.6
XSECTION 94	RUNOFF	.14	1	2	.08	.0	4.04	24.00	2.39	---	12.49	186.62	1342.6
XSECTION 94	ADDHYD	.40	1	2	.08	.0	4.04	24.00	2.21	---	12.56	256.69	637.0
XSECTION 95	REACH	.40	1	2	.08	.0	4.04	24.00	2.20	---	12.72	232.30	576.4
XSECTION 95	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.55	---	12.77	132.85	1062.8
XSECTION 95	ADDHYD	.53	1	2	.08	.0	4.04	24.00	2.28	---	12.73	364.57	690.5
XSECTION 95	ADDHYD	.53	1	2	.08	.0	4.04	24.00	6.23	---	12.72	629.37	1192.0
XSECTION 95	DIVERT	.00	1	2	.08	.0	4.04	24.00	6.23	---	12.00*	265.00**********	

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 98	DIVERT	.53	1	2	.08	.0	4.04	24.00	1.10	---	12.72	364.37	690.1
XSECTION 98	REACH	.53	1	2	.08	.0	4.04	24.00	1.10	---	12.97	323.87	613.4
XSECTION 98	ADDHYD	1.82	1	2	.08	.0	4.04	24.00	.53	---	12.92	515.53	283.7
XSECTION 96	REACH	.00	1	2	.08	.0	4.04	24.00	.53	---	12.00*	265.00	**********
XSECTION 96	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.22	---	12.55	148.27	1186.2
XSECTION 96	ADDHYD	.13	1	2	.08	.0	4.04	24.00	23.89	---	12.55	413.27	3306.2
XSECTION 96	DIVERT	.00	1	2	.08	.0	4.04	24.00	23.89	---	11.92*	265.00	**********
XSECTION 97	DIVERT	.13	1	2	.08	.0	4.04	24.00	1.71	---	12.55	148.27	1186.2
XSECTION 97	REACH	.13	1	2	.08	.0	4.04	24.00	1.71	---	12.81	132.85	1062.8
XSECTION 97	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.66	---	12.54	254.23	1352.3
XSECTION 97	ADDHYD	.31	1	2	.08	.0	4.04	24.00	2.28	---	12.61	365.12	1166.5
XSECTION 98	REACH	.31	1	2	.08	.0	4.04	24.00	2.28	---	12.71	360.71	1152.4
XSECTION 98	ADDHYD	2.13	1	2	.08	.0	4.04	24.00	.78	---	12.84	837.91	393.4
XSECTION 98	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.57	---	12.49	131.63	1400.3
XSECTION 98	ADDHYD	2.22	1	2	.08	.0	4.04	24.00	.86	---	12.78	891.96	401.1
XSECTION 99	REACH	2.22	1	2	.08	.0	4.04	24.00	.86	---	12.88	887.09	398.9
XSECTION 99	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.56	---	12.53	126.50	1345.7
XSECTION 99	ADDHYD	2.32	1	2	.08	.0	4.04	24.00	.93	---	12.81	956.00	412.4
XSECTION 139	REACH	2.32	1	2	.08	.0	4.04	24.00	.93	---	12.97	938.01	404.7
XSECTION 100	RUNOFF	.08	1	2	.08	.0	4.04	24.00	2.57	---	12.50	108.52	1391.3
XSECTION 139	REACH	.08	1	2	.08	.0	4.04	24.00	2.57	---	12.50	108.52	1391.3
XSECTION 139	ADDHYD	2.40	1	2	.08	.0	4.04	24.00	.98	---	12.93	964.37	402.5
XSECTION 142	REACH	.00	1	2	.08	.0	4.04	24.00	.98	---	12.32*	265.00	**********
XSECTION 142	RUNOFF	.25	1	2	.08	.0	4.04	24.00	2.28	---	13.03	196.23	784.9
XSECTION 142	ADDHYD	.25	1	2	.08	.0	4.04	24.00	13.32	---	13.03	461.23	1844.9
XSECTION 142	DIVERT	.00	1	2	.08	.0	4.04	24.00	13.32	---	12.00*	265.00	**********
XSECTION 141	DIVERT	.25	1	2	.08	.0	4.04	24.00	1.74	---	13.03	196.23	784.9
XSECTION 141	REACH	.25	1	2	.08	.0	4.04	24.00	1.74	---	13.12	195.92	783.7
XSECTION 141	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.66	---	12.54	254.23	1352.3
XSECTION 141	ADDHYD	.44	1	2	.08	.0	4.04	24.00	2.13	---	12.64	371.68	848.6
XSECTION 140	REACH	.44	1	2	.08	.0	4.04	24.00	2.13	---	12.64	371.68	848.6
XSECTION 140	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.57	---	12.52	170.38	1363.0
XSECTION 140	ADDHYD	.56	1	2	.08	.0	4.04	24.00	2.23	---	12.58	533.79	948.1
XSECTION 137	RUNOFF	.08	1	2	.08	.0	4.04	24.00	2.06	---	12.55	88.26	1131.6
XSECTION 140	ADDHYD	.64	1	2	.08	.0	4.04	24.00	2.21	---	12.58	621.55	969.7
XSECTION 139	REACH	.64	1	2	.08	.0	4.04	24.00	2.21	---	12.67	616.95	962.5

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 139	ADDHYD	3.04	1	2	.08	.0	4.04	24.00	1.24	---	12.76	1518.79	500.1
XSECTION 136	RUNOFF	.07	1	2	.08	.0	4.04	24.00	3.47	---	12.44	113.55	1720.5
XSECTION 138	REACH	.07	1	2	.08	.0	4.04	24.00	3.44	---	12.69	107.95	1635.6
XSECTION 138	RUNOFF	.20	1	2	.08	.0	4.04	24.00	2.40	---	12.46	283.21	1395.1
XSECTION 138	ADDHYD	.27	1	2	.08	.0	4.04	24.00	2.65	---	12.47	384.43	1429.1
XSECTION 139	REACH	.27	1	2	.08	.0	4.04	24.00	2.65	---	12.55	384.36	1428.8
XSECTION 139	ADDHYD	3.31	1	2	.08	.0	4.04	24.00	1.35	---	12.66	1821.65	551.0
XSECTION 139	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.66	---	12.51	263.45	1401.3
XSECTION 139	ADDHYD	3.49	1	2	.08	.0	4.04	24.00	1.42	---	12.64	2056.01	588.4
XSECTION 129	RUNOFF	.11	1	2	.08	.0	4.04	24.00	2.23	---	12.45	148.26	1372.8
XSECTION 130	RUNOFF	.03	1	2	.08	.0	4.04	24.00	3.05	---	12.44	50.77	1637.7
XSECTION 129	ADDHYD	.14	1	2	.08	.0	4.04	24.00	2.41	---	12.45	199.00	1431.7
XSECTION 127	REACH	.14	1	2	.08	.0	4.04	24.00	2.40	---	12.72	178.16	1281.8
XSECTION 128	RUNOFF	.04	1	2	.08	.0	4.04	24.00	2.07	---	12.45	47.02	1306.1
XSECTION 127	REACH	.04	1	2	.08	.0	4.04	24.00	2.05	---	12.84	36.51	1014.1
XSECTION 127	ADDHYD	.17	1	2	.08	.0	4.04	24.00	2.32	---	12.73	211.94	1211.1
XSECTION 127	RUNOFF	.16	1	2	.08	.0	4.04	24.00	2.23	---	12.45	213.56	1343.1
XSECTION 127	ADDHYD	.33	1	2	.08	.0	4.04	24.00	2.28	---	12.49	390.23	1168.4
XSECTION 132	RUNOFF	.14	1	2	.08	.0	4.04	24.00	2.85	---	12.45	222.42	1533.9
XSECTION 133	RUNOFF	.08	1	2	.08	.0	4.04	24.00	3.47	---	12.44	137.64	1720.5
XSECTION 133	ADDHYD	.22	1	2	.08	.0	4.04	24.00	3.07	---	12.44	359.92	1599.6
XSECTION 131	REACH	.22	1	2	.08	.0	4.04	24.00	3.06	---	12.53	354.47	1575.4
XSECTION 131	ADDHYD	.56	1	2	.08	.0	4.04	24.00	2.59	---	12.50	739.70	1323.3
XSECTION 131	RUNOFF	.12	1	2	.08	.0	4.04	24.00	2.57	---	12.46	171.53	1441.4
XSECTION 131	ADDHYD	.68	1	2	.08	.0	4.04	24.00	2.59	---	12.49	909.94	1342.1
XSECTION 126	REACH	.68	1	2	.08	.0	4.04	24.00	2.59	---	12.58	902.38	1331.0
XSECTION 126	RUNOFF	.16	1	2	.08	.0	4.04	24.00	3.46	---	12.44	265.71	1681.7
XSECTION 126	ADDHYD	.84	1	2	.08	.0	4.04	24.00	2.75	---	12.53	1150.40	1376.1
XSECTION 134	REACH	.84	1	2	.08	.0	4.04	24.00	2.75	---	12.62	1145.99	1370.8
XSECTION 135	RUNOFF	.04	1	2	.08	.0	4.04	24.00	3.47	---	12.44	72.26	1720.5
XSECTION 134	REACH	.04	1	2	.08	.0	4.04	24.00	3.44	---	12.79	64.63	1538.8
XSECTION 134	ADDHYD	.88	1	2	.08	.0	4.04	24.00	2.78	---	12.62	1206.51	1374.2
XSECTION 134	RUNOFF	.20	1	2	.08	.0	4.04	24.00	2.48	---	12.47	274.55	1393.7
XSECTION 134	ADDHYD	1.08	1	2	.08	.0	4.04	24.00	2.73	---	12.56	1450.39	1349.2
XSECTION 125	RUNOFF	.12	1	2	.08	.0	4.04	24.00	3.47	---	12.44	201.30	1720.5
XSECTION 125	ADDHYD	1.19	1	2	.08	.0	4.04	24.00	2.80	---	12.51	1617.99	1357.4

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 124	REACH	1.19	1	2	.08	.0	4.04	24.00	2.79	3.81	12.62	1591.14	1334.8
XSECTION 124	RUNOFF	.22	1	2	.08	.0	4.04	24.00	2.40	---	12.46	303.53	1386.0
XSECTION 124	ADDHYD	1.41	1	2	.08	.0	4.04	24.00	2.73	4.16	12.55	1846.66	1308.8
XSECTION 124	REACH	3.49	1	2	.08	.0	4.04	24.00	1.42	4.44	12.64	2056.01*	588.4
XSECTION 124	ADDHYD	4.91	1	2	.08	.0	4.04	24.00	1.80	6.46	12.60	3862.83	787.5
XSECTION 103	RUNOFF	.08	1	2	.08	.0	4.04	24.00	2.40	---	12.46	112.17	1384.9
XSECTION 124	ADDHYD	4.99	1	2	.08	.0	4.04	24.00	1.81	6.55	12.59	3957.48	793.7
XSECTION 104	REACH	4.99	1	2	.08	.0	4.04	24.00	1.81	6.65	12.59	3957.48*	793.7
XSECTION 104	ADDHYD	7.53	1	2	.08	.0	4.04	24.00	1.81	7.20	12.61	4524.72	600.5
XSECTION 107	REACH	7.53	1	2	.08	.0	4.04	24.00	1.81	7.74	12.61	4524.72	600.5
XSECTION 107	ADDHYD	9.45	1	2	.08	.0	4.04	24.00	2.03	8.25	12.61	5056.10	535.2
XSECTION 123	RUNOFF	.21	1	2	.08	.0	4.04	24.00	3.46	---	12.44	359.53	1687.9
XSECTION 107	ADDHYD	9.66	1	2	.08	.0	4.04	24.00	2.06	8.52	12.58	5340.81	552.9
XSECTION 108	REACH	9.66	1	2	.08	.0	4.04	24.00	2.06	7.22	12.58	5340.81	552.9
XSECTION 108	RUNOFF	.03	1	2	.08	.0	4.04	24.00	2.31	---	12.47	33.45	1338.1
XSECTION 108	ADDHYD	9.68	1	2	.08	.0	4.04	24.00	2.06	7.24	12.58	5371.01*	554.6
XSECTION 148	RUNOFF	.03	1	2	.08	.0	4.04	24.00	2.23	---	12.45	45.22	1370.4
XSECTION 47	REACH	.03	1	2	.08	.0	4.04	24.00	2.21	---	12.82	38.55	1168.1
XSECTION 47	RUNOFF	.07	1	2	.08	.0	4.04	24.00	2.23	---	12.45	99.73	1366.1
XSECTION 47	ADDHYD	.11	1	2	.08	.0	4.04	24.00	2.22	---	12.46	127.59	1203.6
XSECTION 46	REACH	.11	1	2	.08	.0	4.04	24.00	2.21	---	12.68	112.52	1061.5
XSECTION 46	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.23	---	12.45	72.63	1370.4
XSECTION 46	ADDHYD	.16	1	2	.08	.0	4.04	24.00	2.22	---	12.49	166.54	1047.4
XSECTION 149	REACH	.16	1	2	.08	.0	4.04	24.00	2.21	---	12.73	148.06	931.2
XSECTION 149	RUNOFF	.01	1	2	.08	.0	4.04	24.00	2.95	---	12.44	14.49	1610.6
XSECTION 149	ADDHYD	.17	1	2	.08	.0	4.04	24.00	2.25	---	12.72	150.51	895.9
XSECTION 147	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.23	---	12.45	71.26	1370.4
XSECTION 146	REACH	.05	1	2	.08	.0	4.04	24.00	2.21	---	12.74	61.57	1184.1
XSECTION 146	RUNOFF	.07	1	2	.08	.0	4.04	24.00	2.23	---	12.45	98.36	1366.1
XSECTION 146	ADDHYD	.12	1	2	.08	.0	4.04	24.00	2.22	---	12.47	148.20	1195.2
XSECTION 45	REACH	.12	1	2	.08	.0	4.04	24.00	2.22	---	12.56	145.58	1174.0
XSECTION 43	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.95	---	12.44	75.70	1610.6
XSECTION 21	REACH	.05	1	2	.08	.0	4.04	24.00	2.93	---	12.80	67.57	1437.6
XSECTION 21	ADDHYD	.17	1	2	.08	.0	4.04	24.00	2.41	---	12.58	205.80	1203.5
XSECTION 21	RUNOFF	.19	1	2	.08	.0	4.04	24.00	2.65	---	12.55	249.78	1321.6
XSECTION 21	ADDHYD	.36	1	2	.08	.0	4.04	24.00	2.54	---	12.57	455.32	1264.8

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 45	REACH	.36	1	2	.08	.0	4.04	24.00	2.54	---	12.57	455.32	1264.8
XSECTION 45	RUNOFF	.12	1	2	.08	.0	4.04	24.00	2.94	---	12.52	169.91	1464.8
XSECTION 45	ADDHYD	.48	1	2	.08	.0	4.04	24.00	2.64	---	12.56	624.18	1311.3
XSECTION 45	ADDHYD	.64	1	2	.08	.0	4.04	24.00	2.53	---	12.57	765.61	1188.8
XSECTION 150	RUNOFF	.02	1	2	.08	.0	4.04	24.00	2.23	---	12.45	21.93	1370.4
XSECTION 57	REACH	.02	1	2	.08	.0	4.04	24.00	2.20	---	12.93	16.21	1012.9
XSECTION 57	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.23	---	12.46	65.96	1319.1
XSECTION 57	ADDHYD	.07	1	2	.08	.0	4.04	24.00	2.22	---	12.48	75.32	1141.2
XSECTION 59	REACH	.07	1	2	.08	.0	4.04	24.00	2.20	---	12.80	64.33	974.7
XSECTION 59	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.23	---	12.46	69.91	1319.1
XSECTION 59	ADDHYD	.12	1	2	.08	.0	4.04	24.00	2.21	---	12.52	118.64	997.0
XSECTION 59	ADDHYD	.76	1	2	.08	.0	4.04	24.00	2.48	---	12.56	882.06	1156.0
XSECTION 49	RUNOFF	.09	1	2	.08	.0	4.04	24.00	3.46	---	12.44	146.94	1708.6
XSECTION 50	REACH	.09	1	2	.08	.0	4.04	24.00	3.44	---	12.80	133.69	1554.5
XSECTION 50	RUNOFF	.09	1	2	.08	.0	4.04	24.00	3.45	---	12.48	149.09	1620.6
XSECTION 50	ADDHYD	.18	1	2	.08	.0	4.04	24.00	3.44	---	12.55	269.33	1513.1
XSECTION 20	RUNOFF	.06	1	2	.08	.0	4.04	24.00	3.47	---	12.44	110.00	1718.8
XSECTION 48	REACH	.06	1	2	.08	.0	4.04	24.00	3.43	---	12.98	90.52	1414.4
XSECTION 48	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.22	---	12.59	105.20	1143.5
XSECTION 48	ADDHYD	.16	1	2	.08	.0	4.04	24.00	2.71	---	12.66	178.58	1144.7
XSECTION 50	REACH	.16	1	2	.08	.0	4.04	24.00	2.70	---	12.93	156.04	1000.2
XSECTION 50	ADDHYD	.33	1	2	.08	.0	4.04	24.00	3.10	---	12.65	394.21	1180.3
XSECTION 52	REACH	.33	1	2	.08	.0	4.04	24.00	3.10	---	12.75	392.30	1174.5
XSECTION 52	RUNOFF	.05	1	2	.08	.0	4.04	24.00	2.23	---	12.45	74.56	1355.7
XSECTION 52	ADDHYD	.39	1	2	.08	.0	4.04	24.00	2.97	---	12.57	421.29	1083.0
XSECTION 56	REACH	.39	1	2	.08	.0	4.04	24.00	2.97	---	12.83	402.41	1034.5
XSECTION 56	RUNOFF	.07	1	2	.08	.0	4.04	24.00	2.23	---	12.46	88.38	1319.1
XSECTION 56	ADDHYD	.46	1	2	.08	.0	4.04	24.00	2.86	---	12.60	445.07	976.0
XSECTION 51	REACH	.46	1	2	.08	.0	4.04	24.00	2.85	---	12.83	423.88	929.6
XSECTION 51	RUNOFF	.03	1	2	.08	.0	4.04	24.00	2.23	---	12.45	42.48	1370.4
XSECTION 51	ADDHYD	.49	1	2	.08	.0	4.04	24.00	2.81	---	12.81	428.63	880.1
XSECTION 55	REACH	.49	1	2	.08	.0	4.04	24.00	2.81	---	13.04	420.89	864.3
XSECTION 55	RUNOFF	.02	1	2	.08	.0	4.04	24.00	2.23	---	12.45	23.30	1370.4
XSECTION 55	ADDHYD	.50	1	2	.08	.0	4.04	24.00	2.79	---	13.04	422.99	839.3
XSECTION 55	ADDHYD	1.27	1	2	.08	.0	4.04	24.00	2.60	---	12.60	1221.81	964.3
STRUCTURE 59	RESVOR	1.27	1	2	.08	.0	4.04	24.00	2.60	1410.06	13.69	420.79	332.1

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 66	REACH	1.27	1	2	.08	.0	4.04	24.00	2.60	---	13.69	420.79	332.1
XSECTION 66	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.39	---	12.53	81.13	1287.7
XSECTION 66	ADDHYD	1.33	1	2	.08	.0	4.04	24.00	2.59	---	13.64	426.63	320.8
XSECTION 67	REACH	1.33	1	2	.08	.0	4.04	24.00	2.59	---	13.64	426.63	320.8
XSECTION 67	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.76	---	12.45	95.29	1512.5
XSECTION 67	ADDHYD	1.39	1	2	.08	.0	4.04	24.00	2.60	---	12.55	484.87	348.1
XSECTION 44	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.66	---	12.47	182.98	1463.9
XSECTION 67	REACH	.13	1	2	.08	.0	4.04	24.00	2.66	---	12.57	179.72	1437.8
XSECTION 67	ADDHYD	1.52	1	2	.08	.0	4.04	24.00	2.61	---	12.56	664.38	437.7
XSECTION 69	REACH	1.52	1	2	.08	.0	4.04	24.00	2.61	---	12.56	664.38	437.7
XSECTION 69	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.14	---	12.60	69.10	1096.8
XSECTION 69	ADDHYD	1.58	1	2	.08	.0	4.04	24.00	2.59	---	12.56	732.80	463.5
XSECTION 23	RUNOFF	.09	1	2	.08	.0	4.04	24.00	3.46	---	12.44	154.39	1696.6
XSECTION 40	REACH	.09	1	2	.08	.0	4.04	24.00	3.44	---	12.73	143.22	1573.8
XSECTION 38	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.48	---	12.52	167.08	1336.7
XSECTION 40	REACH	.13	1	2	.08	.0	4.04	24.00	2.47	---	12.75	155.72	1245.8
XSECTION 40	ADDHYD	.22	1	2	.08	.0	4.04	24.00	2.88	---	12.74	298.88	1383.7
XSECTION 40	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.22	---	12.55	111.50	1186.2
XSECTION 40	ADDHYD	.31	1	2	.08	.0	4.04	24.00	2.68	---	12.66	397.19	1281.3
XSECTION 82	REACH	.31	1	2	.08	.0	4.04	24.00	2.67	---	12.77	392.44	1265.9
XSECTION 82	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.40	---	12.46	86.69	1376.0
XSECTION 82	ADDHYD	.37	1	2	.08	.0	4.04	24.00	2.63	---	12.60	438.07	1174.5
XSECTION 39	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.48	---	12.55	80.11	1281.8
XSECTION 82	REACH	.06	1	2	.08	.0	4.04	24.00	2.47	---	12.81	72.97	1167.5
XSECTION 82	ADDHYD	.44	1	2	.08	.0	4.04	24.00	2.60	---	12.63	502.11	1153.0
XSECTION 81	REACH	.44	1	2	.08	.0	4.04	24.00	2.60	---	12.75	498.26	1144.1
XSECTION 81	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.39	---	12.55	79.29	1258.6
XSECTION 81	ADDHYD	.50	1	2	.08	.0	4.04	24.00	2.57	---	12.70	564.94	1133.3
XSECTION 22	RUNOFF	.15	1	2	.08	.0	4.04	24.00	2.66	---	12.52	212.40	1388.2
XSECTION 41	REACH	.15	1	2	.08	.0	4.04	24.00	2.65	---	12.74	203.21	1328.1
XSECTION 41	RUNOFF	.17	1	2	.08	.0	4.04	24.00	2.39	---	12.50	227.58	1323.2
XSECTION 41	ADDHYD	.32	1	2	.08	.0	4.04	24.00	2.51	---	12.55	412.55	1269.4
XSECTION 42	RUNOFF	.08	1	2	.08	.0	4.04	24.00	2.66	---	12.45	116.72	1496.4
XSECTION 42	ADDHYD	.40	1	2	.08	.0	4.04	24.00	2.54	---	12.51	519.87	1290.0
XSECTION 78	REACH	.40	1	2	.08	.0	4.04	24.00	2.54	---	12.62	509.79	1265.0
XSECTION 81	DIVERT	.00	1	2	.08	.0	4.04	24.00	2.54	---	12.08*	154.00**********	

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 78	DIVERT	.50	1	2	.08	.0	4.04	24.00	1.12	---	12.70	410.94	824.4
XSECTION 78	REACH	.50	1	2	.08	.0	4.04	24.00	1.12	---	12.83	402.38	807.2
XSECTION 78	ADDHYD	.90	1	2	.08	.0	4.04	24.00	1.75	---	12.69	866.54	961.2
XSECTION 78	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.57	---	12.46	90.81	1441.4
XSECTION 78	ADDHYD	.96	1	2	.08	.0	4.04	24.00	1.81	---	12.65	920.08	953.9
XSECTION 77	REACH	.96	1	2	.08	.0	4.04	24.00	1.80	---	12.75	913.56	947.2
XSECTION 77	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.57	---	12.49	87.65	1391.3
XSECTION 77	ADDHYD	1.03	1	2	.08	.0	4.04	24.00	1.85	---	12.72	968.33	942.4
XSECTION 69	ADDHYD	2.61	1	2	.08	.0	4.04	24.00	2.30	---	12.65	1658.27	635.7
STRUCTURE 69	RESVOR	2.61	1	2	.08	.0	4.04	24.00	2.26	1389.39	15.37	380.84	146.0
XSECTION 75	REACH	2.61	1	2	.08	.0	4.04	24.00	2.26	---	15.37	380.84	146.0
XSECTION 80	REACH	.00	1	2	.08	.0	4.04	24.00	2.26	---	12.08*	154.00	**********
XSECTION 80	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.22	---	12.53	77.30	1226.9
XSECTION 80	ADDHYD	.06	1	2	.08	.0	4.04	24.00	13.75	---	12.53	231.30	3671.4
XSECTION 80	DIVERT	.00	1	2	.08	.0	4.04	24.00	13.75	---	12.00*	166.00	**********
XSECTION 79	DIVERT	.06	1	2	.08	.0	4.04	24.00	1.14	---	12.53	65.30	1036.5
XSECTION 79	REACH	.06	1	2	.08	.0	4.04	24.00	1.15	---	12.75	61.14	970.4
XSECTION 79	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.76	---	12.45	95.29	1512.5
XSECTION 79	ADDHYD	.13	1	2	.08	.0	4.04	24.00	1.95	---	12.50	142.30	1129.4
XSECTION 76	REACH	.13	1	2	.08	.0	4.04	24.00	1.95	---	12.62	137.32	1089.8
XSECTION 76	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.57	---	12.46	91.40	1450.7
XSECTION 76	ADDHYD	.19	1	2	.08	.0	4.04	24.00	2.16	---	12.53	219.20	1159.8
XSECTION 75	REACH	.19	1	2	.08	.0	4.04	24.00	2.15	---	12.63	212.52	1124.5
XSECTION 75	ADDHYD	2.80	1	2	.08	.0	4.04	24.00	2.25	---	12.70	507.14	181.3
XSECTION 75	RUNOFF	.06	1	2	.08	.0	4.04	24.00	3.45	---	12.50	101.37	1609.0
XSECTION 75	ADDHYD	2.86	1	2	.08	.0	4.04	24.00	2.28	---	12.65	598.25	209.1
XSECTION 112	REACH	2.86	1	2	.08	.0	4.04	24.00	2.28	---	12.65	598.25	209.1
XSECTION 109	REACH	.00	1	2	.08	.0	4.04	24.00	2.28	---	12.72*	166.00	**********
XSECTION 109	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.39	---	12.47	86.13	1367.2
XSECTION 109	ADDHYD	.06	1	2	.08	.0	4.04	24.00	14.97	---	12.47	252.11	4001.8
XSECTION 108	ADDHYD	9.75	1	2	.08	.0	4.04	24.00	2.15	7.43	12.58	5616.20	576.2
XSECTION 110	REACH	9.75	1	2	.08	.0	4.04	24.00	2.15	7.63	12.58	5616.20	576.2
XSECTION 110	RUNOFF	.07	1	2	.08	.0	4.04	24.00	1.90	---	12.58	74.20	1016.5
XSECTION 110	ADDHYD	9.82	1	2	.08	.0	4.04	24.00	2.15	7.69	12.58	5690.39	579.4
XSECTION 122	RUNOFF	.35	1	2	.08	.0	4.04	24.00	2.48	---	12.47	497.17	1400.5
XSECTION 110	ADDHYD	10.18	1	2	.08	.0	4.04	24.00	2.16	8.06	12.56	6156.90	605.1

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A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 111	REACH	10.18	1	2	.08	.0	4.04	24.00	2.16	7.27	12.56	6156.90	605.1
XSECTION 111	RUNOFF	.07	1	2	.08	.0	4.04	24.00	1.83	---	12.59	68.69	981.2
XSECTION 111	ADDHYD	10.25	1	2	.08	.0	4.04	24.00	2.16	7.31	12.56	6225.37*	607.6
XSECTION 112	REACH	10.25	1	2	.08	.0	4.04	24.00	2.15	---	12.64	6217.13	606.8
XSECTION 112	RUNOFF	.06	1	2	.08	.0	4.04	24.00	1.83	---	12.55	63.36	1038.7
XSECTION 112	ADDHYD	10.31	1	2	.08	.0	4.04	24.00	2.15	---	12.64	6277.10	609.0
XSECTION 121	RUNOFF	.25	1	2	.08	.0	4.04	24.00	3.47	---	12.44	429.70	1718.8
XSECTION 112	ADDHYD	10.56	1	2	.08	.0	4.04	24.00	2.18	---	12.61	6454.14*	611.4
XSECTION 112	ADDHYD	13.42	1	2	.08	.0	4.04	24.00	2.20	---	12.61	7049.10	525.4
XSECTION 113	REACH	13.42	1	2	.08	.0	4.04	24.00	2.20	---	12.69	7046.84	525.2
XSECTION 113	RUNOFF	.05	1	2	.08	.0	4.04	24.00	3.04	---	12.52	79.44	1498.9
XSECTION 113	ADDHYD	13.47	1	2	.08	.0	4.04	24.00	2.20	---	12.69	7116.34	528.3
XSECTION 120	RUNOFF	.23	1	2	.08	.0	4.04	24.00	2.66	---	12.47	338.15	1463.9
XSECTION 113	ADDHYD	13.70	1	2	.08	.0	4.04	24.00	2.21	---	12.67	7320.26*	534.3
XSECTION 58	RUNOFF	.03	1	2	.08	.0	4.04	24.00	2.40	---	12.45	45.93	1435.2
XSECTION 60	REACH	.03	1	2	.08	.0	4.04	24.00	2.39	---	12.62	43.31	1353.6
XSECTION 60	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.14	---	12.54	73.55	1167.5
XSECTION 60	ADDHYD	.09	1	2	.08	.0	4.04	24.00	2.22	---	12.57	115.42	1215.0
XSECTION 65	REACH	.09	1	2	.08	.0	4.04	24.00	2.22	---	12.69	113.10	1190.5
XSECTION 65	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.22	---	12.54	75.82	1203.4
XSECTION 65	ADDHYD	.16	1	2	.08	.0	4.04	24.00	2.22	---	12.61	184.44	1167.3
XSECTION 68	REACH	.16	1	2	.08	.0	4.04	24.00	2.21	---	12.73	180.50	1142.4
XSECTION 68	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.48	---	12.46	89.38	1418.7
XSECTION 68	ADDHYD	.22	1	2	.08	.0	4.04	24.00	2.29	---	12.54	247.97	1122.0
XSECTION 70	REACH	.22	1	2	.08	.0	4.04	24.00	2.29	---	12.66	238.49	1079.1
XSECTION 70	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.57	---	12.46	91.40	1450.7
XSECTION 70	ADDHYD	.28	1	2	.08	.0	4.04	24.00	2.35	---	12.56	309.71	1090.5
XSECTION 74	REACH	.28	1	2	.08	.0	4.04	24.00	2.35	---	12.67	299.54	1054.7
XSECTION 74	RUNOFF	.06	1	2	.08	.0	4.04	24.00	2.95	---	12.45	99.42	1578.1
XSECTION 74	ADDHYD	.35	1	2	.08	.0	4.04	24.00	2.45	---	12.56	370.62	1068.1
XSECTION 113	REACH	.35	1	2	.08	.0	4.04	24.00	2.45	---	12.56	370.62	1068.1
XSECTION 113	ADDHYD	14.05	1	2	.08	.0	4.04	24.00	2.21	---	12.66	7670.89	546.0
XSECTION 114	REACH	14.05	1	2	.08	.0	4.04	24.00	2.20	---	12.79	7524.68	535.6
XSECTION 64	RUNOFF	.25	1	2	.08	.0	4.04	24.00	2.22	---	12.48	319.51	1278.1
XSECTION 72	REACH	.25	1	2	.08	.0	4.04	24.00	2.22	---	12.63	296.13	1184.5
XSECTION 72	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.30	---	12.54	154.91	1239.3

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
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SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 3													
XSECTION 72	ADDHYD	.38	1	2	.08	.0	4.04	24.00	2.25	---	12.60	446.87	1191.7
XSECTION 114	REACH	.38	1	2	.08	.0	4.04	24.00	2.24	---	12.84	413.53	1102.8
XSECTION 115	RUNOFF	.09	1	2	.08	.0	4.04	24.00	2.22	---	12.53	115.33	1226.9
XSECTION 114	ADDHYD	.47	1	2	.08	.0	4.04	24.00	2.23	---	12.74	483.50	1030.9
XSECTION 71	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.30	---	12.54	154.91	1239.3
XSECTION 114	REACH	.13	1	2	.08	.0	4.04	24.00	2.29	---	12.91	131.16	1049.3
XSECTION 114	ADDHYD	.59	1	2	.08	.0	4.04	24.00	2.25	---	12.78	606.03	1020.3
XSECTION 114	RUNOFF	.13	1	2	.08	.0	4.04	24.00	2.46	---	12.90	118.86	928.6
XSECTION 114	ADDHYD	.72	1	2	.08	.0	4.04	24.00	2.28	---	12.80	722.11	1000.1
XSECTION 114	ADDHYD	14.77	1	2	.08	.0	4.04	24.00	2.21	---	12.79	8246.55	558.3
XSECTION 119	RUNOFF	.23	1	2	.08	.0	4.04	24.00	2.38	---	12.82	221.79	960.2
XSECTION 114	ADDHYD	15.00	1	2	.08	.0	4.04	24.00	2.21	---	12.79	8467.79	564.5
XSECTION 118	REACH	15.00	1	2	.08	.0	4.04	24.00	2.20	---	12.93	8259.42	550.6
XSECTION 118	RUNOFF	.23	1	2	.08	.0	4.04	24.00	2.11	---	13.17	153.26	663.5
XSECTION 118	ADDHYD	15.23	1	2	.08	.0	4.04	24.00	2.20	---	12.93	8399.71	551.5
XSECTION 117	REACH	15.23	1	2	.08	.0	4.04	24.00	2.19	---	13.06	8249.34	541.6
XSECTION 117	RUNOFF	.17	1	2	.08	.0	4.04	24.00	2.03	---	13.39	96.28	556.5
XSECTION 117	ADDHYD	15.41	1	2	.08	.0	4.04	24.00	2.19	---	13.06	8334.77	541.0

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	1															
3	1000	149	12.5	145	12.6	---	---	0	1.98	.08	1	.040	1.66	.074	.971	572	.40	.08	.16
3	1400	99	12.5	93	12.7	---	---	0	1.99	.08	1	.040	1.66	.171	.939	945	.26	.08	.27
6	1600	256	12.6	251	12.8	---	---	0	1.78	.08	1	1.73	1.17	.063	.982	379	.55	.16	.11
8	1600	299	12.8	284	13.0	---	---	0	1.55	.08	1	.594	1.26	.094	.952	589	.39	.16	.16
8	1400	45	12.7	43	12.8	---	---	0	.75	.08	1	.491	1.56	.038	.969	361	.57	.08	.10
4	1800	22	12.5	18	13.0	209	12.5	0	1.99	.08	1	.050	1.66	.553	.783	1915	.14	.16	.56
5	1400	209	12.5	201	12.6	---	---	0	1.98	.08	1	.050	1.66	.076	.966	613	.38	.08	.17
8	2100	254	12.6	235	12.9	---	---	0	1.53	.08	2	.486	1.31	.125	.924	746	.32	.16	.21
8	1900	74	12.7	55	13.1	---	---	0	.80	.08	1	.040	1.66	.334	.746	1440	.18	.24	.42
8	1095	24	12.8	24	12.9	---	---	0	.84	.08	1	3.60	1.25	.017	.997	166	.93?	.08	.05
14	2630	285	13.4	281	13.8	288	13.8	0	1.23	.08	1	.181	1.51	.030	.984	800	.30	.32	.22
15	1300	80	12.6	78	12.6	111	12.7	0	1.26	.08	1	.540	1.54	.027	.981	271	.69?	.08	.08
14	2640	49	12.8	47	13.0	---	---	0	.84	.08	1	2.10	1.40	.038	.974	366	.56	.16	.10
14	1320	47	13.0	47	13.0	---	---	0	.84	.08	0	1.64	1.67	.004	1.000	125	1.00?	.00	.00
27	2743	401	12.6	361	13.0	431	13.0	0	1.17	.08	1	.068	1.61	.036	.900	934	.27	.40	.26
25	2200	60	12.5	50	13.0	92	12.6	0	1.99	.08	1	.050	1.66	.403	.837	1581	.17	.08	.45
27	1343	92	12.6	82	12.8	---	---	0	1.43	.08	1	.068	1.61	.102	.885	797	.31	.24	.23
37	3000	517	13.0	509	13.1	517	13.1	0	1.17	.08	1	.630	1.43	.016	.986	439	.49	.16	.12
37	2100	139	12.6	136	12.6	---	---	0	1.26	.08	1	.410	1.66	.030	.981	304	.64	.08	.08
35	1320	69	12.6	66	12.8	133	12.6	0	1.13	.08	1	.310	1.54	.045	.969	416	.51	.16	.12
36	1320	133	12.6	133	12.6	---	---	0	1.10	.08	0	4.09	1.25	.014	1.000	129	1.00?	.00	.00
11	2700	40	12.6	36	12.8	88	12.7	0	.75	.08	1	.440	1.66	.097	.905	617	.38	.16	.17
28	3300	88	12.7	50	13.6	---	---	0	.80	.08	1	.030	1.66	.971	.571	2777	.10	.48	.86
28	2800	66	12.6	39	13.4	89	13.5	0	1.01	.08	1	.030	1.66	.979	.587	2632	.10	.32	.81
36	3500	117	13.3	102	13.8	107	13.7	0	.91	.08	1	.060	1.66	.150	.867	1726	.15	.48	.49
37	1320	237	12.6	237	12.7	---	---	0	.00	.08	1	3.00	1.25	.008	1.000	147	.99?	.08	.04
85	660	347	14.8	347	14.8	349	14.8	0	1.51*	.08	0	3.21	1.25	.001	1.000	64	1.00?	.00	.00
84	1320	349	14.8	349	14.8	362	12.7	0	1.50*	.08	0	3.21	1.25	.002	1.000	129	1.00?	.00	.00
90	1320	87	12.6	83	12.7	---	---	0	1.26	.08	1	.220	1.54	.069	.948	478	.46	.16	.13
90	2600	0	.0	0	.0	---	---	0	.00	.08	0	.000	.00	.000	.000	0	.00	.00	.00
88	1320	149	12.6	144	12.8	201	12.7	0	.26	.08	1	.220	1.54	.047	.968	396	.53	.16	.11
88	2000	31	12.6	26	12.9	---	---	0	1.13	.08	1	.220	1.54	.248	.837	1038	.24	.16	.30

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	1															
101	1050	225	12.8	223	12.9	245	12.8	0	.37	.08	1	.220	1.54	.024	.992	273	.69?	.08	.08
102	1320	245	12.8	217	13.0	233	13.0	0	.41	.08	1	.020	1.66	.143	.888	943	.27	.24	.27
104	1900	233	13.0	197	13.4	---	---	0	.44	.08	1	.020	1.66	.208	.844	1383	.19	.32	.40
87	1320	48	12.5	39	12.8	78	12.6	0	1.26	.08	1	.118	1.45	.316	.818	1198	.21	.16	.34
105	2000	78	12.6	63	13.0	78	13.0	0	1.29	.08	1	.285	1.34	.250	.811	1277	.20	.24	.36
104	1320	78	13.0	74	13.1	90	13.0	0	1.12	.08	1	.150	1.54	.057	.954	638	.37	.16	.18
105	1320	129	12.7	129	12.8	---	---	0	1.51*	.08	1	3.07	1.25	.002	1.000	163	.94?	.08	.05
104	1320	129	12.8	128	12.9	---	---	0	1.51*	.08	1	1.85	1.25	.004	.996	244	.74?	.08	.07
83	1320	233	12.7	233	12.7	273	12.6	0	1.48*	.08	0	8.46	1.25	.001	1.000	64	1.00?	.00	.00
106	1320	273	12.6	273	12.6	302	12.6	0	1.47*	.08	0	5.48	1.25	.001	1.000	88	1.00?	.00	.00
107	900	302	12.6	302	12.6	335	12.6	0	1.45	.08	0	3.59	1.25	.001	1.000	83	1.00?	.00	.00
145	1500	58	12.7	58	12.7	---	---	0	.95	.08	0	6.10	1.25	.014	1.000	125	1.00?	.00	.00
145	2350	178	12.6	178	12.7	---	---	0	.90	.08	1	6.09	1.25	.020	.998	157	.96?	.08	.04
33	3500	54	12.8	43	13.2	53	13.0	0	.84	.08	1	.145	1.66	.233	.801	1380	.19	.40	.40
93	2640	103	13.1	103	13.2	200	12.6	0	.79	.08	1	3.50	1.25	.009	.996	307	.64	.08	.09
92	1320	0	.0	0	.0	87	12.6	0	.00	.08	0	.000	.00	.000	.000	0	.00	.00	.00
98	2500	87	12.6	71	12.9	---	---	0	.12	.08	1	.080	1.66	.278	.815	1166	.22	.16	.34
95	1320	200	12.6	200	12.6	---	---	0	.00	.08	0	4.72	1.25	.004	1.000	106	1.00?	.00	.00
32	3400	47	12.6	19	13.8	72	12.8	0	1.07	.08	1	.030	1.66	1.709	.396	5215	.05?	.48	1.19
94	3200	72	12.8	58	13.2	118	12.6	0	.94	.08	1	.090	1.66	.145	.795	1498	.18	.40	.43
95	2400	118	12.6	99	12.8	165	12.8	0	1.00	.08	1	.090	1.66	.065	.839	926	.27	.16	.27
98	3000	82	12.6	35	13.1	---	---	0	.10	.08	1	.080	1.66	2.075	.424	2304	.12?	.32	.46
96	1320	265	12.4	265	12.4	336	12.6	0	.00	.08	0	4.72	1.25	.003	1.000	100	1.00?	.00	.00
97	2100	71	12.6	51	12.9	161	12.6	0	.51	.08	1	.080	1.66	.749	.723	1065	.24	.24	.31
98	1000	161	12.6	155	12.8	---	---	0	1.00	.08	1	.080	1.66	.036	.964	366	.56	.16	.10
99	1250	267	12.8	263	12.9	300	12.8	0	.29	.08	1	.080	1.66	.026	.982	374	.56	.08	.10
139	1600	300	12.8	287	13.0	---	---	0	.33	.08	1	.050	1.66	.053	.956	607	.38	.16	.17
139	600	56	12.6	56	12.6	301	13.0	0	1.26	.08	0	6.13	1.25	.005	1.000	50	1.00?	.00	.00
142	2640	265	12.3	265	12.7	355	13.0	0	.00	.08	1	5.68	1.25	.006	1.000	172	.91?	.40	.05
141	2100	90	13.0	90	13.2	180	12.6	0	.50	.08	1	4.34	1.25	.044	.998	211	.81?	.16	.06
140	1320	180	12.6	180	12.6	262	12.6	0	.85	.08	0	4.21	1.25	.013	1.000	118	1.00?	.00	.00
139	2800	303	12.6	300	12.7	---	---	0	.94	.08	1	3.78	1.25	.034	.990	247	.74?	.16	.07

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	1															
138	3000	67	12.5	63	12.7	203	12.5	0	1.99	.08	1	.170	1.66	.184	.936	987	.25	.08	.28
139	2000	203	12.5	202	12.6	---	---	0	1.34	.08	1	4.52	1.25	.024	.997	165	.93?	.08	.05
127	2500	102	12.5	84	12.8	---	---	0	1.15	.08	1	.080	1.66	.315	.818	1095	.23	.08	.32
127	2300	23	12.5	15	13.0	96	12.9	0	.91	.08	1	.080	1.66	.851	.645	1838	.15	.16	.55
131	2000	205	12.5	200	12.6	---	---	0	1.66	.08	1	.170	1.66	.051	.978	422	.51	.08	.12
126	1500	454	12.5	448	12.6	589	12.6	0	1.29	.08	1	.110	1.66	.026	.986	300	.65	.16	.08
134	1500	589	12.6	583	12.6	---	---	0	1.42	.08	1	.130	1.66	.017	.989	245	.74?	.08	.07
134	3200	43	12.5	37	12.9	614	12.6	0	1.99	.08	1	.130	1.66	.361	.855	1480	.18	.08	.42
124	2500	826	12.6	795	12.7	868	12.6	0	1.46	.08	1	.090	1.66	.043	.963	445	.49	.08	.12
124	900	897	12.6	897	12.6	---	---	0	.59	.08	0	.532	1.67	.001	1.000	52	1.00?	.00	.00
104	1320	1804	12.6	1804	12.6	---	---	0	.83	.08	0	.479	1.62	.002	1.000	74	1.00?	.00	.00
107	1000	2061	12.6	2061	12.6	---	---	0	.85	.08	0	.913	1.55	.001	1.000	46	1.00?	.00	.00
108	1700	2543	12.6	2543	12.6	2559	12.6	0	.99	.08	0	.853	1.57	.001	1.000	69	1.00?	.00	.00
47	1101	22	12.5	17	12.9	60	12.5	0	1.02	.08	1	.040	1.66	.476	.752	1338	.19	.16	.39
46	1285	60	12.5	47	12.8	67	12.5	0	1.01	.08	1	.040	1.66	.238	.791	1058	.24	.16	.31
149	1331	67	12.5	53	12.8	54	12.8	0	1.01	.08	1	.040	1.66	.146	.784	1045	.24	.24	.30
146	1240	35	12.5	27	12.9	66	12.5	0	1.02	.08	1	.040	1.66	.430	.767	1258	.21	.16	.37
45	413	66	12.5	62	12.6	---	---	0	1.01	.08	1	.040	1.66	.031	.949	328	.61	.08	.09
21	1377	42	12.5	35	12.9	90	12.6	0	1.55	.08	1	.040	1.66	.358	.830	1301	.20	.08	.37
45	3213	218	12.6	218	12.7	308	12.6	0	1.24	.08	1	9.02	1.25	.018	.999	151	.98?	.16	.04
57	1350	11	12.5	6	13.1	34	12.5	0	1.02	.08	1	.040	1.66	1.077	.593	2308	.12?	.16	.67
59	1330	34	12.5	25	12.9	49	12.6	0	1.01	.08	1	.040	1.66	.319	.742	1367	.19	.16	.40
50	1928	87	12.5	76	12.9	150	12.6	0	1.99	.08	1	.040	1.66	.315	.869	1365	.19	.08	.39
48	2570	65	12.5	50	13.0	89	12.7	0	1.99	.08	1	.040	1.66	.617	.765	2046	.13	.16	.60
50	1836	89	12.7	73	13.1	---	---	0	1.40	.08	1	.040	1.66	.196	.823	1293	.20	.32	.37
52	550	193	12.6	192	12.8	199	12.6	0	1.70	.08	1	.040	1.66	.012	.991	284	.67?	.16	.08
56	1377	199	12.6	191	13.0	198	12.6	0	1.60	.08	1	.040	1.66	.048	.957	703	.34	.40	.20
51	1377	198	12.6	193	13.1	194	13.1	0	1.51	.08	1	.040	1.66	.040	.972	704	.34	.48	.20
55	1331	194	13.1	190	13.4	191	13.4	0	1.48	.08	1	.040	1.66	.035	.979	686	.35	.24	.19
66	660	276	13.6	276	13.6	279	13.5	0	1.30	.08	0	5.64	1.25	.001	1.000	43	1.00?	.00	.00
67	1320	279	13.5	279	13.5	305	12.6	0	1.30	.08	0	7.18	1.25	.002	1.000	71	1.00?	.00	.00
67	1320	98	12.5	95	12.6	---	---	0	1.33	.08	1	.250	1.54	.063	.964	422	.51	.16	.12

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	1															
69	1320	399	12.6	399	12.6	430	12.6	0	1.30	.08	0	3.06	1.25	.005	1.000	130	1.00?	.00	.00
40	2650	92	12.5	82	12.8	---	---	0	1.99	.08	1	.080	1.66	.258	.887	1209	.21	.16	.34
40	1800	85	12.6	75	12.8	157	12.8	0	1.19	.08	1	.080	1.66	.171	.877	849	.29	.16	.24
82	1400	201	12.7	195	12.9	207	12.6	0	1.36	.08	1	.100	1.66	.038	.968	410	.52	.16	.11
82	1867	40	12.6	34	12.9	---	---	0	1.19	.08	1	.100	1.66	.219	.843	1035	.24	.24	.30
81	1320	239	12.8	237	12.9	262	12.8	0	1.30	.08	1	.220	1.54	.026	.990	336	.60	.08	.09
41	3100	112	12.6	103	12.7	210	12.6	0	1.33	.08	1	.240	1.66	.111	.920	677	.35	.16	.19
78	1600	267	12.6	255	12.7	---	---	0	1.24	.08	1	.090	1.66	.053	.957	446	.49	.08	.12
78	1320	108	12.8	99	13.0	---	---	0	.22	.08	1	.090	1.66	.190	.921	528	.43	.24	.15
77	1320	344	12.7	340	12.9	355	12.9	0	.71	.08	1	.230	1.54	.027	.988	287	.67?	.16	.08
75	1320	277	14.6	277	14.6	---	---	0	1.07	.08	0	3.79	1.25	.002	1.000	118	1.00?	.00	.00
80	1320	154	12.4	154	12.4	191	12.6	0	.00	.08	0	7.06	1.25	.004	1.000	81	1.00?	.00	.00
79	1320	25	12.6	20	12.8	57	12.6	0	.27	.08	1	.230	1.54	.594	.776	718	.33	.16	.21
76	1320	57	12.6	53	12.7	93	12.5	0	.83	.08	1	.230	1.54	.080	.932	539	.42	.08	.15
75	1320	93	12.5	90	12.6	---	---	0	.97	.08	1	.230	1.54	.055	.962	454	.48	.16	.13
112	1320	359	12.6	359	12.6	---	---	0	1.09	.08	0	3.79	1.25	.002	1.000	112	1.00?	.00	.00
109	2640	166	12.3	166	13.0	208	12.6	0	.00	.08	1	4.04	1.25	.017	1.000	249	.73?	.72	.07
110	1320	2767	12.6	2767	12.6	2799	12.6	0	1.05	.08	0	.512	1.62	.001	1.000	60	1.00?	.00	.00
111	1320	3048	12.6	3048	12.6	3077	12.6	0	1.05	.08	0	.920	1.60	.000	1.000	43	1.00?	.00	.00
112	1320	3077	12.6	3045	12.6	3072	12.6	0	1.05	.08	1	.060	1.63	.005	.990	204	.83?	.08	.06
113	1320	3523	12.6	3511	12.7	3548	12.7	0	1.07	.08	1	.060	1.63	.004	.996	194	.85?	.08	.05
60	1320	24	12.5	21	12.6	55	12.6	0	1.14	.08	1	.250	1.54	.156	.903	697	.34	.08	.20
65	1320	55	12.6	52	12.8	81	12.6	0	1.01	.08	1	.280	1.54	.072	.952	481	.46	.08	.13
68	1320	81	12.6	78	12.8	105	12.6	0	1.01	.08	1	.250	1.54	.055	.958	452	.48	.16	.13
70	1320	105	12.6	96	12.7	130	12.6	0	1.06	.08	1	.180	1.54	.054	.919	511	.44	.16	.14
74	1320	130	12.6	122	12.7	160	12.6	0	1.10	.08	1	.090	1.66	.041	.932	489	.45	.16	.14
113	1320	160	12.6	160	12.6	---	---	0	1.18	.08	0	6.62	1.25	.006	1.000	84	1.00?	.00	.00
114	3000	3777	12.7	3645	12.9	---	---	0	1.08	.08	1	.050	1.64	.016	.965	457	.48	.16	.13
72	2650	156	12.5	133	12.7	198	12.6	0	1.01	.08	1	.180	1.54	.211	.855	892	.28	.16	.25
114	2000	198	12.6	172	12.9	202	12.8	0	1.03	.08	1	.050	1.66	.157	.871	895	.28	.24	.26
114	2200	76	12.6	57	13.0	---	---	0	1.07	.08	1	.050	1.66	.409	.749	1443	.18	.24	.42
118	4000	4059	12.9	3893	13.0	3957	13.0	0	1.08	.08	1	.050	1.66	.021	.959	538	.42	.16	.15

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE 1 STORM 1																			
117	3527	3957	13.0	3839	13.2	3877	13.2	0	1.07	.08	1	.050	1.66	.016	.970	479	.46	.16	.13
ALTERNATE 1 STORM 2																			
3	1000	217	12.5	214	12.6	---	---	0	3.00	.08	1	.040	1.66	.054	.985	493	.45	.08	.14
3	1400	143	12.5	138	12.7	---	---	0	3.00	.08	1	.040	1.66	.125	.967	816	.30	.08	.23
6	1600	386	12.6	383	12.7	---	---	0	2.74	.08	1	1.59	1.20	.052	.992	342	.59	.08	.10
8	1600	471	12.7	454	12.9	---	---	0	2.47	.08	1	.644	1.24	.088	.963	554	.41	.16	.15
8	1400	86	12.6	85	12.8	---	---	0	1.47	.08	1	.530	1.53	.029	.983	296	.65	.16	.08
4	1800	32	12.5	27	13.0	305	12.5	0	3.00	.08	1	.050	1.66	.403	.843	1654	.16	.08	.47
5	1400	305	12.5	298	12.6	---	---	0	3.00	.08	1	.050	1.66	.056	.979	528	.43	.08	.15
8	2100	397	12.6	371	12.9	---	---	0	2.43	.08	1	.627	1.25	.127	.933	745	.32	.16	.21
8	1900	139	12.6	115	13.0	---	---	0	1.53	.08	1	.040	1.66	.213	.829	1118	.23	.32	.32
8	1095	46	12.8	46	12.9	---	---	0	1.60	.08	1	3.60	1.25	.015	1.000	146	.99?	.08	.04
14	2630	365	13.5	362	13.8	374	12.6	0	2.06	.08	1	.181	1.51	.017	.991	737	.33	.32	.20
15	1300	132	12.6	131	12.6	188	12.6	0	2.14	.08	1	.540	1.54	.020	.992	227	.78?	.08	.06
14	2640	92	12.8	91	12.9	---	---	0	1.60	.08	1	2.10	1.40	.029	.983	305	.64	.08	.08
14	1320	91	12.9	91	12.9	---	---	0	1.60	.08	0	1.64	1.67	.003	1.000	96	1.00?	.00	.00
27	2743	636	12.6	582	12.9	711	12.9	0	2.00	.08	1	.068	1.61	.024	.916	784	.31	.24	.22
25	2200	87	12.5	77	12.9	159	12.6	0	3.00	.08	1	.050	1.66	.294	.890	1366	.19	.08	.39
27	1343	159	12.6	147	12.7	---	---	0	2.33	.08	1	.068	1.61	.080	.921	649	.36	.16	.18
37	3000	870	12.8	861	13.0	878	13.0	0	2.00	.08	1	.474	1.50	.010	.990	345	.59	.16	.10
37	2100	227	12.6	225	12.6	---	---	0	2.15	.08	1	.410	1.66	.020	.994	251	.73?	.08	.07
35	1320	118	12.6	116	12.8	233	12.6	0	1.98	.08	1	.310	1.54	.033	.978	344	.59	.16	.10
36	1320	233	12.6	233	12.6	---	---	0	1.94	.08	0	4.09	1.25	.012	1.000	115	1.00?	.00	.00
11	2700	75	12.6	72	12.7	169	12.7	0	1.47	.08	1	.440	1.66	.060	.952	478	.46	.16	.13
28	3300	169	12.7	112	13.4	---	---	0	1.54	.08	1	.030	1.66	.634	.666	2139	.13	.32	.64
28	2800	116	12.6	79	13.2	187	13.3	0	1.82	.08	1	.030	1.66	.644	.678	2105	.13	.40	.63
36	3500	265	13.1	235	13.4	248	13.4	0	1.68	.08	1	.060	1.66	.121	.886	1250	.21	.32	.36
37	1320	452	12.6	452	12.6	---	---	0	.00	.08	0	3.00	1.25	.008	1.000	129	1.00?	.00	.00
85	660	444	15.0	444	15.0	447	15.0	0	2.62*	.08	0	3.21	1.25	.000	1.000	61	1.00?	.00	.00
84	1320	447	15.0	447	15.0	452	12.6	0	2.60*	.08	0	3.21	1.25	.001	1.000	123	1.00?	.00	.00
90	1320	143	12.6	139	12.6	---	---	0	2.15	.08	1	.220	1.54	.049	.975	402	.53	.08	.11
90	2600	0	.0	0	.0	---	---	0	.00	.08	0	.000	.00	.000	.000	0	.00	.00	.00

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	2															
88	1320	250	12.6	245	12.7	341	12.7	0	.44	.08	1	.220	1.54	.034	.981	330	.61	.08	.09
88	2000	52	12.5	46	12.7	---	---	0	1.98	.08	1	.220	1.54	.175	.889	867	.28	.24	.25
101	1050	387	12.7	385	12.8	424	12.7	0	.63	.08	1	.220	1.54	.018	.994	225	.78?	.08	.06
102	1320	424	12.7	393	13.0	427	12.9	0	.70	.08	1	.020	1.66	.103	.926	757	.32	.24	.21
104	1900	427	12.9	377	13.2	---	---	0	.75	.08	1	.020	1.66	.156	.883	1087	.23	.32	.31
87	1320	77	12.5	68	12.8	132	12.6	0	2.15	.08	1	.118	1.45	.235	.876	1034	.24	.16	.29
105	2000	132	12.6	113	13.0	150	12.8	0	2.18	.08	1	.286	1.34	.209	.855	1120	.23	.24	.32
104	1320	150	12.8	144	13.0	183	12.9	0	1.96	.08	1	.150	1.54	.046	.962	507	.44	.16	.14
105	1320	161	12.6	161	12.6	---	---	0	2.63*	.08	1	3.07	1.25	.002	.999	156	.96?	.08	.04
104	1320	161	12.6	160	15.2	---	---	0	2.62*	.08	1	1.85	1.25	.002	.998	234	.76?	2.56	.06
83	1320	291	12.6	291	12.6	360	12.6	0	2.56*	.08	0	8.46	1.25	.000	1.000	62	1.00?	.00	.00
106	1320	360	12.6	360	12.6	414	12.6	0	2.55*	.08	0	5.48	1.25	.001	1.000	83	1.00?	.00	.00
107	900	414	12.6	414	12.6	475	12.6	0	2.51*	.08	0	3.59	1.25	.001	1.000	78	1.00?	.00	.00
145	1500	106	12.6	106	12.6	---	---	0	1.75	.08	0	6.10	1.25	.012	1.000	111	1.00?	.00	.00
145	2350	324	12.6	324	12.6	---	---	0	1.68	.08	0	6.09	1.25	.017	1.000	139	1.00?	.00	.00
33	3500	103	12.8	89	13.1	124	13.0	0	1.60	.08	1	.145	1.66	.154	.861	1068	.24	.32	.31
93	2640	115	13.4	115	13.4	311	12.6	0	1.50*	.08	1	3.50	1.25	.004	.998	300	.65	.08	.08
92	1320	46	12.6	23	12.8	148	12.6	0	.02	.08	1	.080	1.66	1.799	.504	1171	.22?	.16	.25
98	2500	148	12.6	131	12.8	---	---	0	.22	.08	1	.080	1.66	.174	.890	946	.26	.24	.27
95	1320	265	12.3	265	12.3	---	---	0	.00*	.08	0	4.72	1.25	.002	1.000	100	1.00?	.00	.00
32	3400	83	12.6	46	13.4	150	12.9	0	1.90	.08	1	.030	1.66	1.141	.553	3216	.09?	.40	.91
94	3200	150	12.9	131	13.2	220	12.6	0	1.73	.08	1	.090	1.66	.109	.872	1121	.23	.32	.32
95	2400	220	12.6	196	12.8	308	12.8	0	1.81	.08	1	.090	1.66	.045	.893	723	.33	.16	.21
98	3000	302	12.7	249	13.0	---	---	0	.75	.08	1	.080	1.66	.283	.827	855	.29	.16	.25
96	1320	265	12.1	265	12.1	389	12.6	0	.00*	.08	0	4.72	1.25	.002	1.000	100	1.00?	.00	.00
97	2100	124	12.6	107	12.8	302	12.6	0	1.34	.08	1	.080	1.66	.265	.867	854	.29	.16	.24
98	1000	302	12.6	298	12.7	---	---	0	1.87	.08	1	.080	1.66	.024	.987	285	.67?	.08	.08
99	1250	685	12.7	682	12.9	743	12.8	0	.66	.08	1	.080	1.66	.017	.995	257	.72?	.16	.07
139	1600	743	12.8	723	13.0	---	---	0	.72	.08	1	.050	1.66	.036	.973	423	.51	.16	.12
139	600	92	12.5	92	12.5	745	13.0	0	2.15	.08	0	6.13	1.25	.005	1.000	46	1.00?	.00	.00
142	2640	265	12.0	265	12.4	427	13.0	0	.00*	.08	1	5.68	1.25	.003	1.000	172	.91?	.40	.05
141	2100	162	13.0	162	13.1	310	12.6	0	1.36	.08	1	4.34	1.25	.023	.998	188	.87?	.08	.05

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	2															
140	1320	310	12.6	310	12.6	447	12.6	0	1.73	.08	0	4.21	1.25	.009	1.000	106	1.00?	.00	.00
139	2800	520	12.6	513	12.6	---	---	0	1.81	.08	1	3.78	1.25	.026	.988	221	.79?	.08	.06
138	3000	97	12.5	94	12.7	327	12.5	0	3.00	.08	1	.170	1.66	.134	.965	852	.29	.08	.24
139	2000	327	12.5	327	12.6	---	---	0	2.23	.08	1	4.52	1.25	.020	.999	150	.98?	.08	.04
127	2500	166	12.5	148	12.7	---	---	0	2.01	.08	1	.080	1.66	.204	.893	903	.27	.08	.26
127	2300	39	12.5	29	12.9	175	12.7	0	1.69	.08	1	.080	1.66	.521	.751	1482	.18	.16	.44
131	2000	309	12.5	305	12.6	---	---	0	2.62	.08	1	.170	1.66	.036	.989	359	.57	.08	.10
126	1500	769	12.5	759	12.6	974	12.6	0	2.17	.08	1	.110	1.66	.019	.987	243	.74?	.08	.07
134	1500	974	12.6	970	12.6	---	---	0	2.33	.08	1	.130	1.66	.013	.996	200	.84?	.08	.06
134	3200	62	12.5	56	12.9	1021	12.6	0	3.00	.08	1	.130	1.66	.263	.904	1279	.20	.08	.36
124	2500	1364	12.5	1340	12.6	1552	12.6	0	2.37	.08	1	.090	1.66	.032	.982	364	.57	.16	.10
124	900	1668	12.6	1668	12.6	---	---	0	1.15	.08	0	.660	1.61	.001	1.000	43	1.00?	.00	.00
104	1320	3256	12.6	3256	12.6	---	---	0	1.49	.08	0	.513	1.60	.002	1.000	60	1.00?	.00	.00
107	1000	3765	12.6	3765	12.6	---	---	0	1.51	.08	0	1.08	1.51	.001	1.000	39	1.00?	.00	.00
108	1700	4487	12.6	4487	12.6	4513	12.6	0	1.73	.08	0	1.01	1.53	.001	1.000	59	1.00?	.00	.00
47	1101	38	12.5	31	12.8	106	12.5	0	1.84	.08	1	.040	1.66	.299	.838	1091	.23	.08	.31
46	1285	106	12.5	91	12.7	136	12.5	0	1.83	.08	1	.040	1.66	.157	.859	844	.29	.16	.24
149	1331	136	12.5	118	12.7	120	12.7	0	1.82	.08	1	.040	1.66	.110	.870	791	.31	.16	.23
146	1240	59	12.5	50	12.8	118	12.5	0	1.84	.08	1	.040	1.66	.269	.852	1026	.25	.08	.29
45	413	118	12.5	115	12.6	---	---	0	1.83	.08	1	.040	1.66	.021	.975	259	.71?	.08	.07
21	1377	64	12.5	57	12.8	166	12.6	0	2.51	.08	1	.040	1.66	.245	.895	1102	.23	.08	.31
45	3213	378	12.6	378	12.6	523	12.6	0	2.12	.08	0	9.02	1.25	.016	1.000	135	1.00?	.00	.00
57	1350	18	12.5	13	13.0	61	12.5	0	1.84	.08	1	.040	1.66	.675	.716	1784	.15	.16	.53
59	1330	61	12.5	51	12.8	95	12.6	0	1.83	.08	1	.040	1.66	.213	.829	1084	.23	.16	.31
50	1928	126	12.5	116	12.8	234	12.6	0	3.00	.08	1	.040	1.66	.230	.915	1179	.22	.08	.33
48	2570	94	12.5	78	13.0	150	12.6	0	3.00	.08	1	.040	1.66	.450	.824	1767	.15	.08	.51
50	1836	150	12.6	129	13.0	---	---	0	2.29	.08	1	.040	1.66	.146	.862	1050	.24	.32	.30
52	550	334	12.6	331	12.7	354	12.6	0	2.66	.08	1	.040	1.66	.010	.991	229	.77?	.08	.06
56	1377	354	12.6	338	12.9	369	12.6	0	2.54	.08	1	.040	1.66	.040	.954	559	.41	.32	.16
51	1377	369	12.6	351	12.9	355	12.9	0	2.43	.08	1	.040	1.66	.034	.952	550	.41	.24	.15
55	1331	355	12.9	349	13.1	351	13.1	0	2.39	.08	1	.040	1.66	.029	.984	540	.42	.24	.15
66	660	370	13.7	370	13.7	375	13.6	0	2.19	.08	0	5.64	1.25	.001	1.000	41	1.00?	.00	.00

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK TRAVEL TIME	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION							
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	2															
67	1320	375	13.6	375	13.6	433	12.6	0	2.18	.08	0	7.18	1.25	.001	1.000	67	1.00?	.00	.00
67	1320	156	12.5	153	12.6	---	---	0	2.24	.08	1	.250	1.54	.045	.977	359	.57	.08	.10
69	1320	586	12.6	586	12.6	642	12.6	0	2.19	.08	0	3.06	1.25	.004	1.000	121	1.00?	.00	.00
40	2650	134	12.5	124	12.8	---	---	0	3.00	.08	1	.080	1.66	.188	.927	1043	.24	.08	.29
40	1800	140	12.6	129	12.7	250	12.7	0	2.06	.08	1	.080	1.66	.114	.922	696	.34	.16	.20
82	1400	336	12.6	329	12.8	366	12.6	0	2.26	.08	1	.100	1.66	.027	.979	334	.60	.16	.09
82	1867	68	12.6	60	12.8	---	---	0	2.06	.08	1	.100	1.66	.147	.895	843	.29	.16	.24
81	1320	420	12.6	416	12.8	471	12.7	0	2.19	.08	1	.220	1.54	.021	.989	275	.69?	.16	.08
41	3100	180	12.6	171	12.7	346	12.6	0	2.23	.08	1	.240	1.66	.075	.952	560	.41	.08	.16
78	1600	435	12.5	426	12.6	---	---	0	2.12	.08	1	.090	1.66	.035	.979	367	.56	.16	.10
78	1320	317	12.7	307	12.9	---	---	0	.81	.08	1	.090	1.66	.065	.968	344	.59	.16	.10
77	1320	731	12.6	721	12.8	769	12.7	0	1.45	.08	1	.230	1.54	.019	.987	220	.79?	.16	.06
75	1320	353	15.3	353	15.3	---	---	0	1.90*	.08	0	3.79	1.25	.001	1.000	113	1.00?	.00	.00
80	1320	154	12.2	154	12.2	218	12.6	0	.00	.08	0	7.06	1.25	.003	1.000	81	1.00?	.00	.00
79	1320	52	12.6	48	12.7	121	12.5	0	.85	.08	1	.230	1.54	.207	.917	556	.41	.16	.16
76	1320	121	12.5	117	12.6	185	12.6	0	1.58	.08	1	.230	1.54	.063	.961	414	.52	.16	.12
75	1320	185	12.6	180	12.6	---	---	0	1.77	.08	1	.230	1.54	.044	.974	357	.58	.08	.10
112	1320	534	12.6	534	12.6	---	---	0	1.92	.08	0	3.79	1.25	.001	1.000	104	1.00?	.00	.00
109	2640	166	12.1	166	12.8	239	12.5	0	.00	.08	1	4.04	1.25	.013	1.000	249	.73?	.72	.07
110	1320	4749	12.6	4749	12.6	4809	12.6	0	1.81	.08	0	.600	1.58	.001	1.000	51	1.00?	.00	.00
111	1320	5212	12.6	5212	12.6	5268	12.6	0	1.82	.08	0	1.05	1.57	.000	1.000	37	1.00?	.00	.00
112	1320	5268	12.6	5253	12.6	5303	12.6	0	1.82	.08	1	.060	1.63	.004	.997	166	.93?	.08	.05
113	1320	5970	12.6	5967	12.7	6024	12.7	0	1.86	.08	1	.060	1.63	.003	1.000	158	.95?	.08	.04
60	1320	38	12.5	36	12.6	96	12.6	0	1.99	.08	1	.250	1.54	.107	.948	587	.39	.08	.16
65	1320	96	12.6	93	12.7	152	12.6	0	1.83	.08	1	.280	1.54	.051	.973	395	.53	.16	.11
68	1320	152	12.6	148	12.7	204	12.6	0	1.82	.08	1	.250	1.54	.042	.974	362	.57	.08	.10
70	1320	204	12.6	193	12.6	254	12.6	0	1.89	.08	1	.180	1.54	.043	.949	405	.52	.08	.11
74	1320	254	12.6	242	12.7	304	12.6	0	1.95	.08	1	.090	1.66	.031	.955	375	.55	.16	.11
113	1320	304	12.6	304	12.6	---	---	0	2.04	.08	0	6.62	1.25	.006	1.000	74	1.00?	.00	.00
114	3000	6483	12.6	6352	12.8	---	---	0	1.87	.08	1	.050	1.64	.011	.980	370	.56	.16	.10
72	2650	268	12.5	244	12.7	359	12.6	0	1.83	.08	1	.180	1.54	.146	.913	738	.33	.16	.21
114	2000	359	12.6	329	12.8	393	12.7	0	1.85	.08	1	.050	1.66	.108	.916	706	.34	.16	.20

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	2															
114	2200	130	12.6	107	12.9	---	---	0	1.90	.08	1	.050	1.66	.269	.822	1165	.22	.24	.34
118	4000	7125	12.8	6918	13.0	7034	13.0	0	1.87	.08	1	.050	1.66	.015	.971	430	.50	.16	.12
117	3527	7034	13.0	6872	13.1	6943	13.1	0	1.86	.08	1	.050	1.66	.011	.977	381	.55	.16	.11
ALTERNATE		1	STORM	3															
3	1000	247	12.5	244	12.6	---	---	0	3.46	.08	1	.040	1.66	.049	.989	468	.47	.08	.13
3	1400	162	12.5	158	12.7	---	---	0	3.46	.08	1	.040	1.66	.112	.974	775	.31	.08	.22
6	1600	446	12.6	443	12.7	---	---	0	3.19	.08	1	1.53	1.21	.049	.992	329	.61	.16	.09
8	1600	550	12.7	531	12.9	---	---	0	2.90	.08	1	.655	1.24	.085	.967	540	.42	.16	.15
8	1400	107	12.6	105	12.8	---	---	0	1.83	.08	1	.542	1.52	.026	.982	278	.68?	.16	.08
4	1800	37	12.5	32	13.0	348	12.5	0	3.47	.08	1	.050	1.66	.362	.861	1571	.17	.08	.45
5	1400	348	12.5	342	12.6	---	---	0	3.46	.08	1	.050	1.66	.051	.983	500	.45	.08	.14
8	2100	463	12.6	434	12.9	---	---	0	2.85	.08	1	.643	1.24	.123	.938	729	.33	.16	.20
8	1900	172	12.6	146	13.0	---	---	0	1.90	.08	1	.040	1.66	.184	.852	1029	.25	.24	.29
8	1095	57	12.8	57	12.8	---	---	0	1.97	.08	0	3.60	1.25	.014	1.000	140	1.00?	.00	.00
14	2630	396	13.6	393	13.8	428	12.6	0	2.45	.08	1	.181	1.51	.015	.992	717	.33	.24	.20
15	1300	156	12.6	155	12.6	224	12.6	0	2.56	.08	1	.540	1.54	.018	.995	214	.80?	.08	.06
14	2640	113	12.8	112	12.9	---	---	0	1.97	.08	1	2.10	1.40	.027	.988	287	.67?	.08	.08
14	1320	112	12.9	112	12.9	---	---	0	1.97	.08	0	1.64	1.67	.002	1.000	89	1.00?	.00	.00
27	2743	745	12.6	686	12.9	843	12.9	0	2.39	.08	1	.068	1.61	.021	.921	739	.33	.24	.21
25	2200	99	12.5	89	12.9	189	12.6	0	3.47	.08	1	.050	1.66	.264	.905	1297	.20	.08	.37
27	1343	189	12.6	176	12.7	---	---	0	2.76	.08	1	.068	1.61	.072	.932	609	.38	.16	.17
37	3000	1037	12.8	1025	13.0	1048	12.9	0	2.39	.08	1	.448	1.51	.008	.989	321	.62	.16	.09
37	2100	267	12.6	266	12.6	---	---	0	2.57	.08	1	.410	1.66	.018	.997	235	.76?	.08	.07
35	1320	142	12.6	139	12.8	280	12.6	0	2.38	.08	1	.310	1.54	.030	.979	323	.62	.16	.09
36	1320	280	12.6	280	12.6	---	---	0	2.34	.08	0	4.09	1.25	.012	1.000	111	1.00?	.00	.00
11	2700	93	12.6	89	12.7	208	12.7	0	1.83	.08	1	.440	1.66	.052	.962	440	.49	.16	.12
28	3300	208	12.7	145	13.3	---	---	0	1.91	.08	1	.030	1.66	.548	.697	1969	.14	.32	.59
28	2800	140	12.6	99	13.1	242	13.2	0	2.22	.08	1	.030	1.66	.561	.706	1954	.14	.32	.58
36	3500	346	13.0	309	13.4	327	13.3	0	2.06	.08	1	.060	1.66	.113	.894	1124	.23	.32	.32
37	1320	466	12.5	466	12.5	---	---	0	.00	.08	0	3.00	1.25	.006	1.000	128	1.00?	.00	.00
85	660	508	15.0	508	15.0	512	15.0	0	3.03*	.08	0	3.21	1.25	.000	1.000	60	1.00?	.00	.00
84	1320	512	15.0	512	15.0	515	15.0	0	3.01*	.08	0	3.21	1.25	.001	1.000	119	1.00?	.00	.00

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	3															
90	1320	168	12.6	165	12.6	---	---	0	2.57	.08	1	.220	1.54	.044	.982	380	.55	.08	.11
90	2600	98	12.6	58	12.9	---	---	0	.06	.08	1	.220	1.54	1.223	.593	1021	.25?	.24	.27
88	1320	329	12.7	324	12.8	429	12.8	0	.58	.08	1	.220	1.54	.030	.983	300	.65	.08	.08
88	2000	62	12.5	56	12.7	---	---	0	2.39	.08	1	.220	1.54	.156	.906	816	.30	.16	.23
101	1050	485	12.8	483	12.9	523	12.8	0	.80	.08	1	.220	1.54	.016	.997	208	.82?	.08	.06
102	1320	523	12.8	492	13.0	531	13.0	0	.87	.08	1	.020	1.66	.087	.940	697	.34	.24	.20
104	1900	531	13.0	481	13.3	---	---	0	.93	.08	1	.020	1.66	.134	.905	997	.25	.24	.28
87	1320	91	12.5	81	12.7	161	12.6	0	2.57	.08	1	.118	1.45	.212	.892	984	.26	.16	.28
105	2000	161	12.6	140	13.0	180	12.8	0	2.61	.08	1	.287	1.34	.201	.869	1066	.24	.16	.30
104	1320	180	12.8	176	13.0	222	12.9	0	2.36	.08	1	.150	1.54	.042	.974	475	.47	.24	.13
105	1320	183	15.0	183	15.1	---	---	0	3.04*	.08	1	3.07	1.25	.001	1.000	152	.97?	.08	.04
104	1320	183	15.1	183	15.2	---	---	0	3.03*	.08	1	1.85	1.25	.002	1.000	228	.77?	.08	.06
83	1320	332	15.0	332	15.0	396	12.6	0	2.97*	.08	0	8.46	1.25	.000	1.000	60	1.00?	.00	.00
106	1320	396	12.6	396	12.6	461	12.6	0	2.95*	.08	0	5.48	1.25	.001	1.000	82	1.00?	.00	.00
107	900	461	12.6	461	12.6	531	12.6	0	2.92*	.08	0	3.59	1.25	.001	1.000	76	1.00?	.00	.00
145	1500	128	12.6	128	12.6	---	---	0	2.13	.08	0	6.10	1.25	.011	1.000	107	1.00?	.00	.00
145	2350	393	12.6	393	12.6	---	---	0	2.06	.08	0	6.09	1.25	.016	1.000	134	1.00?	.00	.00
33	3500	127	12.8	112	13.1	156	13.0	0	1.97	.08	1	.145	1.66	.134	.880	983	.26	.24	.28
93	2640	120	13.4	119	13.5	354	12.6	0	1.74*	.08	1	3.50	1.25	.004	.998	298	.65	.08	.08
92	1320	89	12.6	72	12.7	228	12.6	0	.05	.08	1	.080	1.66	.582	.804	610	.38	.16	.18
98	2500	228	12.6	200	12.9	---	---	0	.29	.08	1	.080	1.66	.172	.878	797	.31	.16	.23
95	1320	265	12.2	265	12.2	---	---	0	.00*	.08	0	4.72	1.25	.002	1.000	100	1.00?	.00	.00
32	3400	99	12.6	60	13.4	193	12.9	0	2.30	.08	1	.030	1.66	.996	.609	2725	.10	.40	.83
94	3200	193	12.9	172	13.2	257	12.6	0	2.12	.08	1	.090	1.66	.100	.891	1014	.25	.24	.29
95	2400	257	12.6	232	12.7	364	12.7	0	2.21	.08	1	.090	1.66	.038	.905	679	.35	.16	.19
98	3000	364	12.7	324	13.0	---	---	0	1.10	.08	1	.080	1.66	.179	.888	793	.31	.16	.23
96	1320	265	12.0	265	12.0	413	12.6	0	.00*	.08	0	4.72	1.25	.001	1.000	100	1.00?	.00	.00
97	2100	148	12.6	133	12.8	363	12.6	0	1.71	.08	1	.080	1.66	.213	.896	794	.31	.16	.23
98	1000	363	12.6	361	12.7	---	---	0	2.28	.08	1	.080	1.66	.021	.992	265	.70?	.08	.07
99	1250	891	12.8	887	12.9	956	12.8	0	.86	.08	1	.080	1.66	.014	.996	232	.77?	.08	.06
139	1600	956	12.8	938	13.0	---	---	0	.93	.08	1	.050	1.66	.030	.982	383	.55	.16	.11
139	600	108	12.5	108	12.5	963	13.0	0	2.57	.08	0	6.13	1.25	.004	1.000	44	1.00?	.00	.00

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(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	3															
142	2640	265	11.9	265	12.3	461	13.0	0	.00*	.08	1	5.68	1.25	.003	1.000	172	.91?	.40	.05
141	2100	196	13.0	196	13.1	372	12.6	0	1.74	.08	1	4.34	1.25	.020	.999	181	.89?	.08	.05
140	1320	372	12.6	372	12.6	533	12.6	0	2.13	.08	0	4.21	1.25	.008	1.000	102	1.00?	.00	.00
139	2800	621	12.6	614	12.6	---	---	0	2.21	.08	1	3.78	1.25	.024	.990	214	.81?	.08	.06
138	3000	111	12.5	108	12.7	384	12.5	0	3.47	.08	1	.170	1.66	.120	.973	809	.30	.08	.23
139	2000	384	12.5	384	12.6	---	---	0	2.65	.08	1	4.52	1.25	.019	1.000	146	.99?	.08	.04
127	2500	195	12.5	178	12.7	---	---	0	2.41	.08	1	.080	1.66	.177	.913	847	.29	.08	.24
127	2300	46	12.5	36	12.9	212	12.7	0	2.07	.08	1	.080	1.66	.443	.781	1382	.19	.16	.40
131	2000	355	12.5	353	12.6	---	---	0	3.07	.08	1	.170	1.66	.032	.992	339	.60	.08	.09
126	1500	910	12.5	901	12.6	1145	12.6	0	2.59	.08	1	.110	1.66	.016	.990	228	.78?	.08	.06
134	1500	1145	12.6	1143	12.6	---	---	0	2.75	.08	1	.130	1.66	.011	.998	188	.87?	.08	.05
134	3200	70	12.5	65	12.8	1204	12.6	0	3.47	.08	1	.130	1.66	.236	.919	1214	.21	.08	.34
124	2500	1614	12.5	1589	12.6	1846	12.6	0	2.80	.08	1	.090	1.66	.029	.985	341	.59	.16	.09
124	900	2056	12.6	2056	12.6	---	---	0	1.42	.08	0	.694	1.60	.001	1.000	40	1.00?	.00	.00
104	1320	3944	12.6	3944	12.6	---	---	0	1.81	.08	0	.568	1.58	.002	1.000	57	1.00?	.00	.00
107	1000	4512	12.6	4512	12.6	---	---	0	1.81	.08	0	1.16	1.49	.001	1.000	38	1.00?	.00	.00
108	1700	5330	12.6	5330	12.6	5362	12.6	0	2.06	.08	0	1.06	1.52	.001	1.000	56	1.00?	.00	.00
47	1101	44	12.5	38	12.8	127	12.5	0	2.23	.08	1	.040	1.66	.256	.865	1020	.25	.08	.29
46	1285	127	12.5	111	12.7	166	12.5	0	2.22	.08	1	.040	1.66	.137	.875	784	.31	.16	.22
149	1331	166	12.5	148	12.7	150	12.7	0	2.22	.08	1	.040	1.66	.097	.889	730	.33	.16	.21
146	1240	70	12.5	61	12.7	148	12.5	0	2.23	.08	1	.040	1.66	.231	.878	959	.26	.08	.27
45	413	148	12.5	146	12.6	---	---	0	2.22	.08	1	.040	1.66	.019	.984	237	.76?	.08	.07
21	1377	74	12.5	68	12.8	205	12.6	0	2.95	.08	1	.040	1.66	.216	.913	1042	.24	.08	.29
45	3213	455	12.6	455	12.6	624	12.6	0	2.54	.08	0	9.02	1.25	.015	1.000	130	1.00?	.00	.00
57	1350	22	12.5	16	13.0	75	12.5	0	2.23	.08	1	.040	1.66	.579	.747	1668	.16	.16	.49
59	1330	75	12.5	64	12.8	117	12.6	0	2.22	.08	1	.040	1.66	.189	.854	999	.25	.16	.29
50	1928	144	12.5	134	12.8	269	12.6	0	3.46	.08	1	.040	1.66	.206	.929	1119	.23	.08	.32
48	2570	107	12.5	90	13.0	178	12.6	0	3.47	.08	1	.040	1.66	.404	.843	1678	.16	.08	.48
50	1836	178	12.6	156	13.0	---	---	0	2.71	.08	1	.040	1.66	.132	.873	979	.26	.32	.28
52	550	394	12.6	391	12.7	421	12.6	0	3.10	.08	1	.040	1.66	.009	.993	214	.80?	.08	.06
56	1377	421	12.6	402	12.8	444	12.6	0	2.97	.08	1	.040	1.66	.036	.955	522	.43	.24	.15
51	1377	444	12.6	424	12.8	429	12.8	0	2.86	.08	1	.040	1.66	.031	.955	511	.44	.16	.14

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	3															
55	1331	429	12.8	421	13.0	423	13.0	0	2.81	.08	1	.040	1.66	.026	.982	501	.45	.24	.14
66	660	421	13.7	421	13.7	427	13.7	0	2.60	.08	0	5.64	1.25	.001	1.000	40	1.00?	.00	.00
67	1320	427	13.7	427	13.7	485	12.6	0	2.59	.08	0	7.18	1.25	.001	1.000	65	1.00?	.00	.00
67	1320	183	12.5	180	12.6	---	---	0	2.66	.08	1	.250	1.54	.040	.982	339	.60	.08	.09
69	1320	664	12.6	664	12.6	733	12.6	0	2.61	.08	0	3.06	1.25	.003	1.000	118	1.00?	.00	.00
40	2650	153	12.5	143	12.7	---	---	0	3.46	.08	1	.080	1.66	.169	.939	991	.25	.08	.28
40	1800	166	12.6	155	12.7	299	12.7	0	2.48	.08	1	.080	1.66	.099	.938	651	.36	.08	.18
82	1400	397	12.6	392	12.8	435	12.6	0	2.68	.08	1	.100	1.66	.024	.987	313	.63	.16	.09
82	1867	80	12.6	73	12.8	---	---	0	2.48	.08	1	.100	1.66	.129	.911	788	.31	.16	.22
81	1320	502	12.6	497	12.7	564	12.7	0	2.60	.08	1	.220	1.54	.019	.990	259	.71?	.08	.07
41	3100	211	12.6	203	12.7	412	12.6	0	2.66	.08	1	.240	1.66	.066	.964	526	.43	.08	.15
78	1600	518	12.5	508	12.6	---	---	0	2.54	.08	1	.090	1.66	.031	.982	343	.59	.16	.10
78	1320	410	12.7	401	12.8	---	---	0	1.12	.08	1	.090	1.66	.049	.978	310	.63	.08	.09
77	1320	919	12.6	911	12.7	968	12.7	0	1.81	.08	1	.230	1.54	.017	.990	203	.83?	.08	.06
75	1320	381	15.4	381	15.4	---	---	0	2.26*	.08	0	3.79	1.25	.001	1.000	111	1.00?	.00	.00
80	1320	154	12.1	154	12.1	231	12.6	0	.00	.08	0	7.06	1.25	.003	1.000	81	1.00?	.00	.00
79	1320	65	12.6	61	12.7	142	12.5	0	1.14	.08	1	.230	1.54	.163	.939	515	.44	.08	.14
76	1320	142	12.5	137	12.6	217	12.6	0	1.95	.08	1	.230	1.54	.054	.965	392	.54	.16	.11
75	1320	217	12.6	212	12.6	---	---	0	2.16	.08	1	.230	1.54	.038	.978	337	.60	.08	.09
112	1320	598	12.6	598	12.6	---	---	0	2.28*	.08	0	3.79	1.25	.001	1.000	101	1.00?	.00	.00
109	2640	166	12.0	166	12.7	252	12.5	0	.00	.08	1	4.04	1.25	.011	1.000	249	.73?	.72	.07
110	1320	5610	12.6	5610	12.6	5684	12.6	0	2.15	.08	0	.638	1.57	.001	1.000	48	1.00?	.00	.00
111	1320	6157	12.6	6157	12.6	6225	12.6	0	2.16	.08	0	1.12	1.55	.000	1.000	35	1.00?	.00	.00
112	1320	6225	12.6	6217	12.6	6277	12.6	0	2.16	.08	1	.060	1.63	.003	.999	155	.96?	.08	.04
113	1320	7027	12.6	7026	12.7	7092	12.7	0	2.20	.08	1	.060	1.63	.002	1.000	148	.99?	.08	.04
60	1320	45	12.5	43	12.6	115	12.6	0	2.40	.08	1	.250	1.54	.094	.959	555	.41	.08	.16
65	1320	115	12.6	113	12.7	184	12.6	0	2.22	.08	1	.280	1.54	.045	.976	371	.56	.16	.10
68	1320	184	12.6	180	12.7	248	12.6	0	2.22	.08	1	.250	1.54	.037	.982	339	.60	.08	.09
70	1320	248	12.6	238	12.6	310	12.6	0	2.29	.08	1	.180	1.54	.039	.961	378	.55	.08	.11
74	1320	310	12.6	298	12.6	371	12.6	0	2.35	.08	1	.090	1.66	.028	.962	347	.59	.08	.10
113	1320	371	12.6	371	12.6	---	---	0	2.45	.08	0	6.62	1.25	.006	1.000	71	1.00?	.00	.00
114	3000	7663	12.6	7520	12.8	---	---	0	2.21	.08	1	.050	1.64	.010	.981	347	.59	.16	.10

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

		HYDROGRAPH INFORMATION							ROUTING PARAMETERS									PEAK	
		INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA						Q AND A EQUATION						TRAVEL TIME	
XSEC ID	REACH LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	BASE-FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER-ATION #	COEFF (X)	POWER (M)	LENGTH FACTOR (K*)	PEAK RATIO O/I (Q*)	S/Q @PEAK (K) (SEC)	ATT-KIN COEFF (C)	STOR-AGE (HR)	KINE-MATIC (HR)
ALTERNATE		1	STORM	3															
72	2650	319	12.5	296	12.6	443	12.6	0	2.22	.08	1	.180	1.54	.129	.926	694	.34	.16	.20
114	2000	443	12.6	411	12.8	483	12.7	0	2.25	.08	1	.050	1.66	.096	.929	649	.36	.08	.18
114	2200	155	12.6	131	12.9	---	---	0	2.30	.08	1	.050	1.66	.234	.846	1086	.23	.16	.31
118	4000	8464	12.8	8237	13.0	8380	13.0	0	2.21	.08	1	.050	1.66	.013	.973	402	.53	.16	.11
117	3527	8380	13.0	8240	13.0	8324	13.0	0	2.20	.08	1	.050	1.66	.010	.983	356	.58	.08	.10

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
STRUCTURE 69	2.61			
ALTERNATE 1		276.79	352.86	380.84
STRUCTURE 59	1.27			
ALTERNATE 1		275.56	369.87	420.79
STRUCTURE 43	2.53			
ALTERNATE 1		346.76	444.11	508.00
STRUCTURE 33	.97			
ALTERNATE 1		77.35	88.79	93.45
STRUCTURE 8	1.24			
ALTERNATE 1		135.41	215.01	246.05
XSECTION 1	.15			
ALTERNATE 1		149.82	217.93	248.49
XSECTION 2	.10			
ALTERNATE 1		100.45	145.51	165.73
XSECTION 3	.29			
ALTERNATE 1		255.59	387.57	446.92
XSECTION 4	.22			
ALTERNATE 1		210.49	307.71	351.51
XSECTION 5	.34			
ALTERNATE 1		253.80	398.25	464.83
XSECTION 6	.40			
ALTERNATE 1		300.45	471.05	549.88
XSECTION 7	.13			
ALTERNATE 1		31.75	78.95	101.47
XSECTION 8	1.24			
ALTERNATE 1		524.86	1004.46	1220.97
XSECTION 9	.07			
ALTERNATE 1		24.37	46.12	56.70

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 10	.09			
ALTERNATE 1		39.88	75.75	93.22
XSECTION 11	.22			
ALTERNATE 1		87.66	169.07	208.58
XSECTION 12	.38			
ALTERNATE 1		178.05	324.42	394.33
XSECTION 13	.13			
ALTERNATE 1		66.41	116.76	140.57
XSECTION 14	1.74			
ALTERNATE 1		401.52	635.99	744.85
XSECTION 15	.19			
ALTERNATE 1		111.06	188.55	224.76
XSECTION 16	.12			
ALTERNATE 1		79.99	132.00	155.97
XSECTION 17	.06			
ALTERNATE 1		61.52	89.05	101.41
XSECTION 18	.18			
ALTERNATE 1		73.81	139.85	171.98
XSECTION 19	.02			
ALTERNATE 1		22.96	33.24	37.85
XSECTION 20	.06			
ALTERNATE 1		66.73	96.60	110.00
XSECTION 21	.36			
ALTERNATE 1		219.92	377.96	455.32
XSECTION 22	.15			
ALTERNATE 1		111.80	180.83	212.40
XSECTION 23	.09			
ALTERNATE 1		93.41	135.51	154.39

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 24	.20			
ALTERNATE 1		139.24	228.04	268.81
XSECTION 25	.15			
ALTERNATE 1		92.92	159.28	188.52
XSECTION 26	.07			
ALTERNATE 1		48.39	79.23	93.38
XSECTION 27	2.14			
ALTERNATE 1		516.89	870.82	1036.76
XSECTION 28	.50			
ALTERNATE 1		117.59	264.65	346.06
XSECTION 29	.13			
ALTERNATE 1		58.75	105.95	128.47
XSECTION 30	.15			
ALTERNATE 1		54.41	103.27	127.06
XSECTION 31	.08			
ALTERNATE 1		47.88	82.67	99.02
XSECTION 32	.26			
ALTERNATE 1		72.72	150.43	193.67
XSECTION 33	.31			
ALTERNATE 1		53.15	123.94	156.44
XSECTION 34	.13			
ALTERNATE 1		68.82	118.43	141.66
XSECTION 35	.25			
ALTERNATE 1		133.11	234.08	281.50
XSECTION 36	.00			
ALTERNATE 1		236.76	451.65	466.00
XSECTION 37	.00			
ALTERNATE 1		236.68	451.65	466.00

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 38	.13			
ALTERNATE 1		85.27	141.28	167.08
XSECTION 39	.06			
ALTERNATE 1		40.41	67.55	80.11
XSECTION 40	.31			
ALTERNATE 1		201.34	336.12	397.19
XSECTION 41	.32			
ALTERNATE 1		210.27	346.09	412.55
XSECTION 42	.40			
ALTERNATE 1		269.56	437.49	519.87
XSECTION 43	.05			
ALTERNATE 1		43.11	65.59	75.70
XSECTION 44	.13			
ALTERNATE 1		98.18	156.47	182.98
XSECTION 45	.64			
ALTERNATE 1		358.93	635.43	765.61
XSECTION 46	.16			
ALTERNATE 1		67.75	135.93	166.54
XSECTION 47	.11			
ALTERNATE 1		59.93	105.86	127.59
XSECTION 48	.16			
ALTERNATE 1		88.78	149.93	178.58
XSECTION 49	.09			
ALTERNATE 1		89.06	129.01	146.94
XSECTION 50	.33			
ALTERNATE 1		193.94	333.88	394.21
XSECTION 51	.49			
ALTERNATE 1		194.37	354.69	428.63

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 52	.39			
ALTERNATE 1		199.93	354.42	421.29
XSECTION 55	1.27			
ALTERNATE 1		532.92	999.11	1221.81
XSECTION 56	.46			
ALTERNATE 1		198.29	369.51	445.07
XSECTION 57	.07			
ALTERNATE 1		34.29	61.31	75.32
XSECTION 58	.03			
ALTERNATE 1		23.85	39.00	45.93
XSECTION 59	.76			
ALTERNATE 1		400.97	729.39	882.06
XSECTION 60	.09			
ALTERNATE 1		55.33	96.16	115.42
XSECTION 64	.25			
ALTERNATE 1		156.50	267.71	319.51
XSECTION 65	.16			
ALTERNATE 1		81.41	152.65	184.44
XSECTION 66	1.33			
ALTERNATE 1		279.01	374.91	426.63
XSECTION 67	1.52			
ALTERNATE 1		399.67	585.69	664.38
XSECTION 68	.22			
ALTERNATE 1		104.62	203.71	247.97
XSECTION 69	2.61			
ALTERNATE 1		748.57	1371.45	1658.27
XSECTION 70	.28			
ALTERNATE 1		130.46	253.58	309.71

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 71	.13			
ALTERNATE 1		75.62	129.69	154.91
XSECTION 72	.38			
ALTERNATE 1		198.79	359.31	446.87
XSECTION 74	.35			
ALTERNATE 1		159.74	303.55	370.62
XSECTION 75	2.86			
ALTERNATE 1		359.60	534.40	598.25
XSECTION 76	.19			
ALTERNATE 1		93.55	186.75	219.20
XSECTION 77	1.03			
ALTERNATE 1		356.40	769.21	968.33
XSECTION 78	.96			
ALTERNATE 1		346.46	732.59	920.08
XSECTION 79	.13			
ALTERNATE 1		57.67	121.63	142.30
XSECTION 80	.00			
ALTERNATE 1		166.00	166.00	166.00
XSECTION 81	.00			
ALTERNATE 1		154.00	154.00	154.00
XSECTION 82	.44			
ALTERNATE 1		239.53	420.57	502.11
XSECTION 83	1.79			
ALTERNATE 1		272.71	360.23	396.09
XSECTION 84	.93			
ALTERNATE 1		128.86	160.99	183.28
XSECTION 85	2.59			
ALTERNATE 1		348.85	447.29	511.72

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 86	.06			
ALTERNATE 1		48.06	77.42	90.81
XSECTION 87	.13			
ALTERNATE 1		78.26	132.65	162.32
XSECTION 88	1.25			
ALTERNATE 1		226.07	387.63	486.69
XSECTION 89	.05			
ALTERNATE 1		31.57	52.42	62.16
XSECTION 90	1.11			
ALTERNATE 1		148.96	250.46	330.07
XSECTION 91	.13			
ALTERNATE 1		87.51	143.49	169.21
XSECTION 92	1.29			
ALTERNATE 1		87.51	148.13	229.82
XSECTION 93	.00			
ALTERNATE 1		201.23	265.00	265.00
XSECTION 94	.40			
ALTERNATE 1		118.06	219.89	256.69
XSECTION 95	.00			
ALTERNATE 1		265.00	265.00	265.00
XSECTION 96	.00			
ALTERNATE 1		265.00	265.00	265.00
XSECTION 97	.31			
ALTERNATE 1		161.24	302.40	365.12
XSECTION 98	2.22			
ALTERNATE 1		267.54	687.23	891.96
XSECTION 99	2.32			
ALTERNATE 1		300.28	743.20	956.00

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 100	.08			
ALTERNATE 1		57.05	92.22	108.52
XSECTION 101	1.30			
ALTERNATE 1		244.90	426.06	523.21
XSECTION 102	1.36			
ALTERNATE 1		233.28	428.55	531.52
XSECTION 103	.08			
ALTERNATE 1		57.51	94.97	112.17
XSECTION 104	7.53			
ALTERNATE 1		2061.09	3773.47	4524.72
XSECTION 105	.93			
ALTERNATE 1		128.78	160.86	183.27
XSECTION 106	1.85			
ALTERNATE 1		302.22	414.58	462.10
XSECTION 107	9.66			
ALTERNATE 1		2556.53	4495.76	5340.81
XSECTION 108	9.75			
ALTERNATE 1		2777.09	4754.59	5616.20
XSECTION 109	.06			
ALTERNATE 1		208.87	238.79	252.11
XSECTION 110	10.18			
ALTERNATE 1		3049.74	5212.29	6156.90
XSECTION 111	10.25			
ALTERNATE 1		3078.67	5267.82	6225.37
XSECTION 112	13.42			
ALTERNATE 1		3524.93	5985.43	7049.10
XSECTION 113	14.05			
ALTERNATE 1		3789.41	6494.42	7670.89

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 114	15.00			
ALTERNATE 1		4069.63	7125.98	8467.79
XSECTION 115	.09			
ALTERNATE 1		55.56	96.28	115.33
XSECTION 117	15.41			
ALTERNATE 1		3877.91	6958.05	8334.77
XSECTION 118	15.23			
ALTERNATE 1		3957.26	7037.47	8399.71
XSECTION 119	.23			
ALTERNATE 1		105.55	184.55	221.79
XSECTION 120	.23			
ALTERNATE 1		181.43	289.16	338.15
XSECTION 121	.25			
ALTERNATE 1		260.66	377.34	429.70
XSECTION 122	.35			
ALTERNATE 1		258.14	422.06	497.17
XSECTION 123	.21			
ALTERNATE 1		217.28	315.47	359.53
XSECTION 124	4.99			
ALTERNATE 1		1808.59	3269.38	3957.48
XSECTION 125	1.19			
ALTERNATE 1		831.39	1370.14	1617.99
XSECTION 126	.84			
ALTERNATE 1		589.91	977.11	1150.40
XSECTION 127	.33			
ALTERNATE 1		169.41	322.49	390.23
XSECTION 128	.04			
ALTERNATE 1		22.79	39.33	47.02

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 129	.14			
ALTERNATE 1		103.76	169.08	199.00
XSECTION 130	.03			
ALTERNATE 1		29.32	44.13	50.77
XSECTION 131	.68			
ALTERNATE 1		456.74	769.78	909.94
XSECTION 132	.14			
ALTERNATE 1		123.49	191.65	222.42
XSECTION 133	.22			
ALTERNATE 1		206.72	312.35	359.92
XSECTION 134	1.08			
ALTERNATE 1		734.45	1225.88	1450.39
XSECTION 135	.04			
ALTERNATE 1		43.84	63.46	72.26
XSECTION 136	.07			
ALTERNATE 1		68.89	99.72	113.55
XSECTION 137	.08			
ALTERNATE 1		40.60	72.93	88.26
XSECTION 138	.27			
ALTERNATE 1		202.72	327.43	384.43
XSECTION 139	3.49			
ALTERNATE 1		898.00	1667.95	2056.01
XSECTION 140	.64			
ALTERNATE 1		304.70	520.58	621.55
XSECTION 141	.44			
ALTERNATE 1		179.77	310.26	371.68
XSECTION 142	.00			
ALTERNATE 1		265.00	265.00	265.00

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3
XSECTION 143	2.53			
ALTERNATE 1		854.04	1557.16	1802.20
XSECTION 144	.13			
ALTERNATE 1		48.73	92.24	113.39
XSECTION 145	.97			
ALTERNATE 1		103.16	115.18	119.61
XSECTION 146	.12			
ALTERNATE 1		65.66	118.44	148.20
XSECTION 147	.05			
ALTERNATE 1		35.77	60.06	71.26
XSECTION 148	.03			
ALTERNATE 1		22.70	38.12	45.22
XSECTION 149	.17			
ALTERNATE 1		53.87	120.23	150.51
XSECTION 150	.02			
ALTERNATE 1		11.01	18.48	21.93

END OF 1 JOBS IN THIS RUN