Flood Control District of Maricopa County
Contract FCD 89-79

WICKENBURG AREA DRAINAGE MASTER STUDY

TECHNICAL DOCUMENTATION REPORT

HYDROLOGIC ANALYSES

FLOODLAIN DELINEATION

Submitted to the
Federal Emergency Management Agency
on Behalf of the
Flood Control District of Maricopa County

BLACK & VEATCH
PROGRESS BY DESIGN

Project No. 17676

May 1994

COE & VAN LOO
PLANNING • ENGINEERING
LANDSCAPE ARCHITECTURE

CVL No. 1197-02

Flood Control District of Maricopa County
Contract FCD 89-79

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WICKENBURG AREA DRAINAGE MASTER STUDY

TECHNICAL DOCUMENTATION REPORT

Appendix 5.1: HEC-2 Models & Cross Section Plots for West Area Wash UNNAMED WASH #14 (Wash q)

Submitted to the
Federal Emergency Management Agency
on Behalf of the
Flood Control District of Maricopa County

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May 1994

FEDERAL EMERGENCY MANAGEMENT AGENCY **HYDROLOGIC ANALYSIS FORM**	*O.M.B. Burden No. 3067-0148* *Expires July 31, 1994*	*FEMA USE ONLY*

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 3.67 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

Community Name: Unincorporated Maricopa County/Town of Wickenburg

Flooding Source: Wash Q:
(One form for each flooding source)

Project Name /Identifier: Wickenburg ADMS FCD 89-79

1. HYDROLOGIC ANALYSIS IN FIS

☐ Approximate study stream (Zone A)
☒ Detailed study stream (briefly explain methodology) HEC-1 analysis based on Flood Control District of Maricopa County Methodologies.

2. REASON FOR NEW HYDROLOGIC ANALYSIS

☐ No existing analysis
☐ Improved data *(see data revision on page 3)*
☐ Changed physical conditions of watershed *(explain)* _____

☐ Alternative methodology *(justify why the revised model is better than model used in the effective FIS)*

☐ Evaluation of proposed conditions (CLOMRs only) (explain) _____

☒ Other No existing analysis or analysis being updated to reflect existing conditions.

If a computer program/model was used in revising the hydrologic analysis, please provide a diskette with the input files for the 10-, 50-, 100 - and 500-year recurrence intervals.

Only the 100-year recurrence interval need be included for SFHAs designated as Zone A.

3. APPROVAL OF ANALYSIS

☒ Approval of hydrologic analysis, including the resulting peak discharge value (s) has been provided by the appropriate local, state, or Federal Agency. (i.e., Flood Control District of Maricopa County)
Attach evidence of approval.

☐ Approval of the hydrologic analysis is not required by any local, State, or Federal Agency.

Stream: _____

Comparison of 100-year Discharges

Location:	Drainage area (Sq mi.)	FIS (cfs) :	Revised (cfs) :
Confluence with Hassayampa River	.37 Sq. Mi.	—	584 cfs

Note: When revised discharges are not significantly different than FIS discharges, FEMA may require a confidence limits analysis on attachment D at a later date to complete the review.

As is often the case with revision requests, only a portion of a stream may actually be revised or be affected by a revision. Therefore, transition to the unrevised portion is important to maintain the continuity of the study. NFIP regulations stipulate that such a transition must be assured. What is the transition from the proposed discharges to the effective discharges? Please explain how the transition was made *(attach separate sheet if necessary)*

No existing analysis or updated analysis to reflect existing conditions.

ATTACH A COMPLETED REVIEW OF RESULTS PAGE FOR EACH FLOODING SOURCE.

Is the new hydrologic analysis being developed solely to revise the flow values presented in the FIS *(i.e. no changed hydraulic conditions)*? ☐ Yes ☒ No

If yes, does the 100-year water surface elevation change by 1.0 foot or more? ☐ Yes ☐ No

FEMA does not normally revise NFIP maps solely due to insignificant flow changes where changes in 100-year water surface elevation are less than 1.0 foot.

5. HISTORICAL FLOODING INFORMATION

Is historical data available for the flooding source? ☐ Yes ☒ No

If yes, provide the following:

Location along flooding source: _____

Maximum peak discharge: _____ cfs

Second highest peak discharge: _____ cfs

Source of information: _____

6. GAGE RECORD INFORMATION

Location of nearest gage to project site *(along flooding source or similar watershed; specify)*

NA

Gaging Station: _____

Drainage area at gage: _____ mi^2

Number of years of data: _____

7. DATA REVISION

Please use the following table to list all the data and/or parameters affected by this request and identify them as new data (*New*) or as revising existing data (*Revised*). *(If necessary, attach a separate sheet.)*

Data Parameter	New	Revised	Data Source
NA	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

- Data source can be from a Federal, State, or local government agency, or from a private source. Some State and local governments may have less strict data requirements than Federal agencies, in which case the hydrologic data may not be accepted by FEMA unless it is demonstrated that the data give a better estimate of the flood discharge.
- Attach documentation corroborating each data source *(i.e., certified statement, report, bibliographical reference to a published document)*. In the case of a published document or a government report, providing copies of the cover and pertinent pages may be helpful.

8. METHODOLOGY FOR NEW ANALYSIS

☐ Statistical Analysis of Gage Records (*use Attachment A*)

☐ Regional Regression Equations *(use Attachment B)*

☒ Precipitation/Runoff Model *(use Attachment C)*

☐ Other *(specify; attach backup computations and supporting data)* _____

ATTACHMENT A: STATISTICAL ANALYSIS OF GAGE RECORDS

Gaging Station: NA

Gage Location (latitude and longitude): _____

	FIS:	Revised:
1. Number of years of data		
Systematic		
Historical		
2. Homogeneous data	☐ Yes ☐ No	☐ Yes ☐ No
3. Data adjustments	☐ Yes ☐ No	☐ Yes ☐ No
4. Number of high outliers		
Low outliers		
Zero events		
5. Generalized skew		
6. Station skew		
7. Adopted skew		
8. Probability distribution used (justify if log-Pearson III was not used)		
9. Transfer equations to ungaged sites		☐ Yes ☐ No

If yes, specify method

_____

_____

_____

10. Expected probability* ☐ Yes ☐ No

11. Comparison of results with other analyses ☐ Yes ☐ No

If yes, describe comparison

_____

_____

_____

*FEMA does not accept expected probability analyses for the purpose of reflecting flood hazard information in a FIS.

If any data is not available, indicate by N/A.

Attach analysis including plot of flood frequency curve.

1. Bibliographical Reference:
NA

(Attach a copy of title page, table of contents, and pertinent pages including equations.)

2. Gaged or ungaged stream: _____

3. Hydrologic region(s): _____
Attach backup map.

4. Provide parameters, values, and source of data used to define parameters.

		FIS:		Revised:	
5.	Urbanized conditions calculations	☐ Yes	☐ No	☐ Yes	☐ No
6	Percent of watershed urbanization	_____		_____	
7.	Is the watershed controlled?	☐ Yes	☐ No	☐ Yes	☐ No
	Comparison with other analyses	☐ Yes	☐ No	☐ Yes	☐ No

If the answer to 5, 7, or 8 is yes, explain methodology in Comments.

If data is not available, indicate by N/A.

Comments

Attach computation and supporting maps, delineating the watershed boundary and drainage area divides.

		FIS:	Revised
1.	Method or model used:		HEC-1
	Version:		Ver. 3.0
	Date:		02 AUG. 88
2.	Source of rainfall depth:		NOAA Atlas 2
3.	Source of rainfall distribution:		SCS TYPE II
4.	Rainfall duration:		24 hours
5.	Areal adjustment to precipitation (%):		NWS HYDRO-40
6.	Hydrograph development method:		S-Graph
7.	Loss rate method:		Green-AMPT
	Source of soils information:		SCS
	Source of land use information		Town of Wickenburg
8.	Channel routing method:		Normal Depth
9.	Reservoir routing:	☐ Yes ☐ No	☐ Yes ☒ No
10.	Baseflow considerations:	☐ Yes ☐ No	☐ Yes ☒ No

If yes, explain how baseflow was determined:

11. Snowmelt considerations: ☐ Yes ☐ No ☐ Yes ☒ No

12. Model calibration: ☐ Yes ☐ No ☒ Yes ☐ No

If yes, explain how calibration was performed Computed discharges were compared with DISCHARGE vs DRAINAGE AREA curves and envelopes prepared by the Flood Control District of Maricopa County.

13. Future land use condition: ☐ Yes ☒ No

If yes, explain why

NOTE: FEMA policy is to base flooding on existing conditions.
If data is not available, indicate by N/A.

Attach precipitation/runoff model, hydrologic model schematic, curve number calculations, time of concentration calculations, and supporting maps, delineating the watershed boundary and drainage area divides.

Stream: NA - No flow records

Select one location for Confidence Limits Evaluation (*describe location*): _____

_____

Discharges for selected location:

Exceedance Probability		FIS	Revised
10%	(10-year)	_____ cfs	_____ cfs
2%	(50-year)	_____ cfs	_____ cfs
1%	(100-year)	_____ cfs	_____ cfs
0.2%	(500-year)	_____ cfs	_____ cfs

1% (100-year) Flood Confidence Intervals

90% Confidence Interval: 5% limit _____ cfs

95% limit _____ cfs

50% Confidence Interval: 25% limit _____ cfs

75% limit _____ cfs

If the value of the 100-year frequency flood in the FIS is beyond the 50% confidence interval but within the 90% confidence interval, does the 100-year water surface elevation change by 1.0 foot or more? ☐ Yes ☐ No

An example of confidence limits analysis can be found in Appendix 9 of Bulletin 17B.

Attach Confidence Limits Analysis.

Appendix # 5.1

FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERINE HYDRAULIC ANALYSIS FORM	O.M.B. Burden No. 3067-0148 Expires July 31, 1994	FEMA USE ONLY

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 2.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

Community Name: Unincorporated Maricopa County/Town of Wickenburg

Flooding Source: Wash Q:
(One form for each flooding source)

Project Name/Identifier: Wickenburg ADMS - FCD 89-79

1. REACH TO BE REVISED

Downstream limit: Station 0.058

Upstream limit: Station 1.102

2. EFFECTIVE FIS

☐ Not studied

☐ Studied by approximate methods

Downstream limit of study _____

Upstream limit of study _____

☒ Studied by detailed methods

Downstream limit of study Confluence with Hassayampa River

Upstream limit of study Station 1.102

☐ Floodway delineated

Downstream limit of Floodway _____

Upstream limit of Floodway _____

3. 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: _____

☐ Other. Explain: _____

Full input and output listings along with files on diskette *(if available)* for each of the models listed below and 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. For areas which do not have detailed flooding, a hydraulic model is not required; however BFE's may not be added to the revised FIRM.

☐ Duplicate Effective Model — Natural ☐ Floodway ☐

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 — Natural ☐ Floodway ☐

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 — Natural ☐ Floodway ☐

The duplicate effective or corrected 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 — Natural ☐ Floodway ☐

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. When the request is for proposed project this model should reflect proposed conditions.

☒ Other: Please attach a sheet describing all other models or calculations submitted. — Natural ☒ Floodway ☒

New Model (Proposed Effective Model)

4. MODEL PARAMETERS *(from model used to revise 100-year water surface elevation)*

Discharges:	Upstream Limit	Downstream Limit
10-year	59 cfs	317 cfs
50-year	94 cfs	507 cfs
100-year	108 cfs	584 cfs
500-year	—	—

Attach diagram showing changes in 100-year discharge

2. Explain how the starting water surface elevations were determined Starting water surface elevations determined by the slope-area method.

3. Give range of friction loss coefficients (*Manning's "N"*) Channel ..... 0.015 ~ 0.045

Overbanks ..... 0.060 ~ 0.070

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.

Data points for cross-sections are based on photogrammetric models for the topographic maps.

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

All reach lengths were measured from floodplain work maps.

5. 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? ☐ Yes ☒ No

c. Critical depth? ☒ Yes ☐ No

d. Other unique situations ☐ Yes ☐ No

If yes, special problems report attached.

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 change in energy gradient between cross-sections? 0.0221 ft/ft

Specify location 0.276

3. What is the distance between the cross-sections in 2 above? 328 ft

Specify location 0.338

4. What is the maximum distance between cross-sections? 519 ft

Specify location 1.102

5. Floodway determination

a. What is the maximum surcharge allowed by the community or State? 1.0 foot

b. What is the maximum surcharge for the revised conditions? 0.0 foot

Specify location N/A

c. What is the maximum velocity? 8.88 fps

Specify location 0.276

Explain:

d. Are there any negeative surcharge values at any cross-section ☒ Yes ☐ No

If yes, the floodway may need to widen. If it is not widened, please explain and indicate the maximum negative surcharge. A surcharge of -0.2 ft occurs at station 0.064 due to culvert computations

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:

_____

_____

_____

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 (See page 6)

6. 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_____ within_____feet and upstream of the project at cross section_____within_____feet.

B. The revised floodway elevations tie into those computed by the effective FIS model, dowstream of the project at cross section_____within_____feet and upstream of the project at cross section_____ 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. If channel distance has changed, the stationing should be revised for all profile sheets.

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

Proceed to Riverine /Coastal Mapping Form

FEDERAL EMERGENCY MANAGMENT AGENCY

WATER SURFACE ELEVATION CHECK

COMMUNITY NAME	FLOODIND SOURCE	PROJECT NAME /IDENTIFIER
Unincorporated Maricopa County / Town of Wickenburg	Wash Q:	Wickenburg ADMS-FCD 89-79

	EFFECTIVE			DUPLICATE EFFECTIVE			CORRECTED EFFECTIVE			EXISTING/PRE-PROJECT			REVISED/PROJECT		
SECNO	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]

COMMENTS:

New Model- See following Floodway Data Table

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

Include all cross sections in the models between tie-in points. Any interpolated values should be indicated in parentheses.

FLOODWAY DATA, WASH Q:
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
49.800	881.	322.	1.8	1993.3	1993.3	.0
.058	111.	163.	3.6	2008.4	2008.5	-.1
.064	87.	425.	1.4	2013.5	2013.7	-.2
.089	54.	292.	2.0	2013.6	2013.7	-.1
.129	66.	257.	2.2	2013.7	2013.7	.0
.203	36.	70.	7.1	2022.1	2022.1	.0
.276	39.	71.	6.5	2030.6	2030.6	.0
.338	107.	84.	4.5	2039.4	2039.4	.0
.384	120.	92.	4.1	2048.0	2048.0	.0
.474	51.	68.	5.5	2060.3	2060.3	.0
.527	101.	82.	4.2	2068.4	2068.4	.0
.599	56.	54.	4.4	2077.3	2077.3	.0
.658	66.	54.	4.4	2088.1	2088.1	.0
.719	36.	43.	5.6	2100.5	2100.5	.0
.749	38.	46.	5.2	2107.5	2107.5	.0
.784	36.	45.	5.3	2110.3	2110.3	.0
.845	22.	32.	6.5	2121.1	2121.1	.0
.934	18.	30.	6.9	2141.3	2141.3	.0
1.004	27.	33.	5.4	2160.3	2160.3	.0
1.102	24.	22.	4.9	2179.9	2179.9	.0

FEDERAL EMERGENCY MANAGEMENT AGENCY BRIDGE/CULVERT FORM	O.M.B. Burden No. 3067-0148 Expires July 31, 1994	FEMA USE ONLY

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Community Name: Unincorporated Maricopa County / Town of Wickenburg

Flooding Source: Wash Q:

Project Name/Identifier: Wickenburg ADMS FCD 89-79

1. IDENTIFIER

1. Name of roadway, railroad, etc.: Atchison - Topeka and Santa Fe Railroad
2. Location of bridge/culvert along flooding source (in terms of stream distance or cross-section identifier): Station 0.058 to Station 0.064
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 analysis of bridge/culvert previously modeled in the FIS

   (Explain why new analysis was performed)

2. BACKGROUND

Provide the following information about the structure:

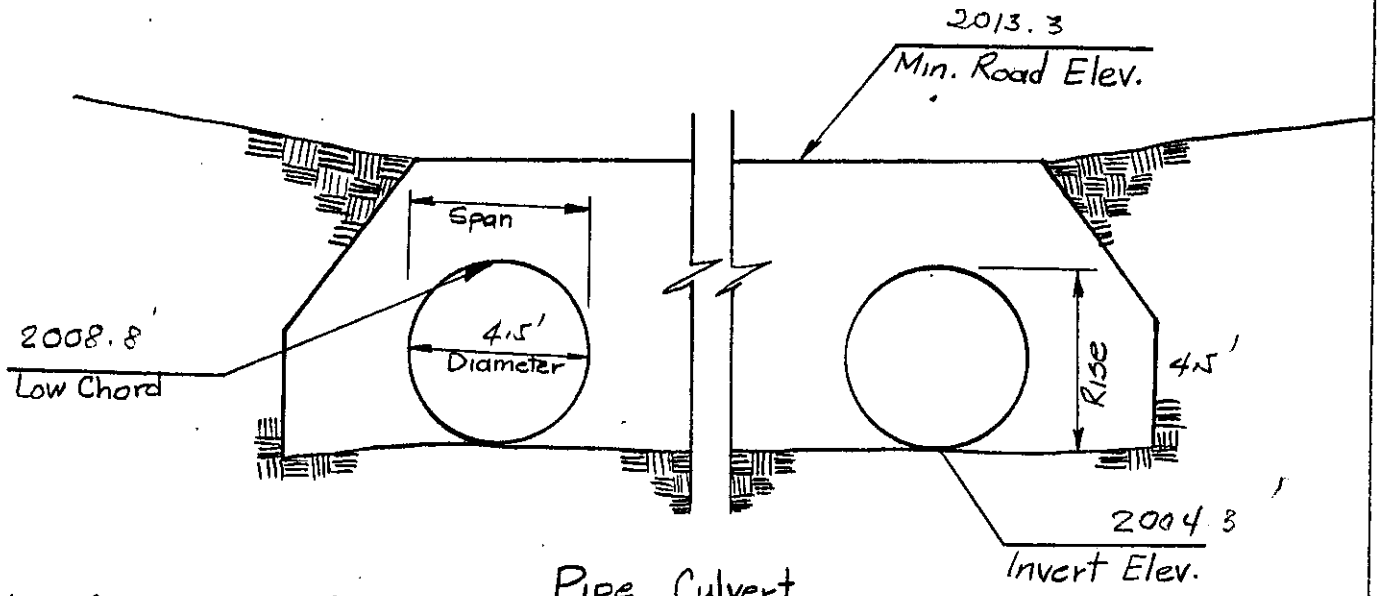
1. Dimension, material, and shape (e.g. two 10 x 5 feet reinforced concrete box culvert; three 30-foot span bridge with 2 rows of two 3- foot diameter circular piers; 40-foot wide ogee shape spillway) two 54" diameter x 32.5' concrete pipe culvert
2. Entrance geometry of culvert/type of bridge opening (e.g. 30° - 75° wing walls with square top edge, sloping embankments and vertical abutments) Groove end entrance with headwall.
3. Hydraulic model used to analyze the structure (*e.g., HEC-2 with special bridge routine, WSPRO, HY8*) HEC-2 with Special Culvert 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 justification)*

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

* One form per new/revised bridge/culvert

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



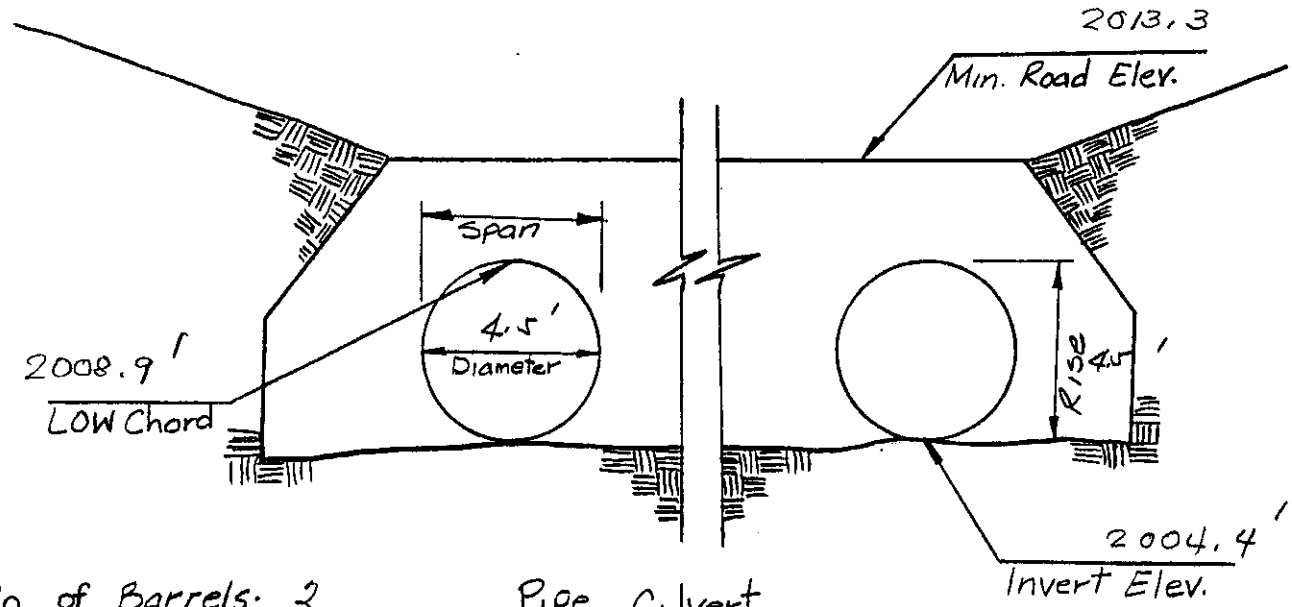
Pipe Culvert

No. of Barrels: 2

Culvert Size: 54"ϕ x 32.5' concrete pipe culvert

See Cross Section # 0.058

Sketch the upstream 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.



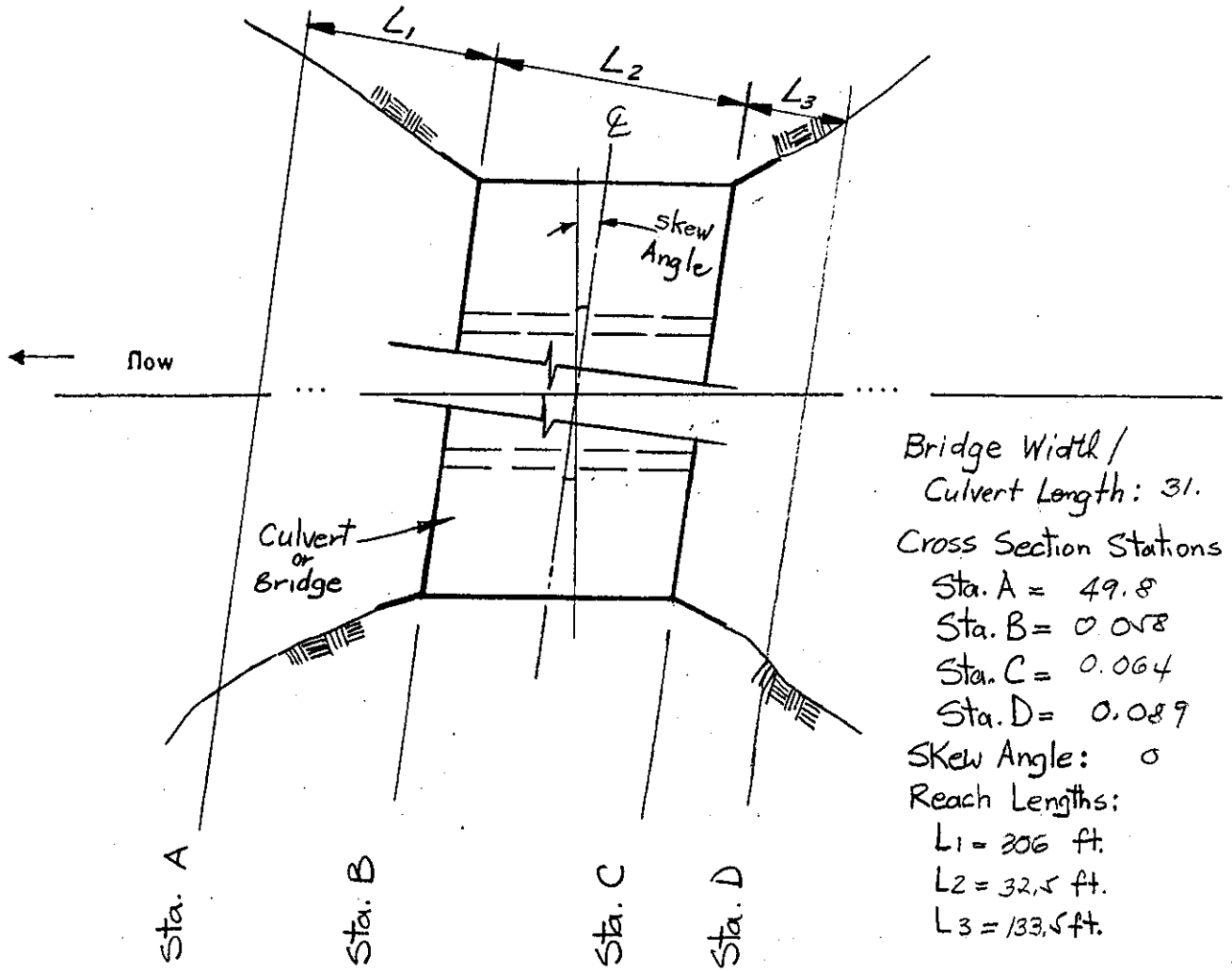
No of Barrels: 2

Pipe Culvert

Culvert Size: 54"ϕ x 32.5' Concrete pipe culvert

See Cross Section # 0.064

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)	32.5 '
Calculated culvert/bridge area (ft²) by the hydraulic model, if applicable	31.8 ft²
Total culvert/bridge area (ft²)	31.81 ft²

Elevations Above Which Flow is Effective for Overbanks

	Left Overbank	Right Overbank
Upstream face (STA 0.064)	2013.5'	2013.3'
Downstream face (STA 0.058)	2007.3	2007.3'

Minimum Top of Road Elevation

	Left Overbank	Right Overbank
Upstream face	2013.5	2013.3'
Downstream face	2013.5	2013.3'

100-Year Elevations	Water Surface Elevations	Energy Gradient Elevations
Upstream face	2013.68	2013.69
Downstream face	2008.52	2009.27

Discharge	Low Flow	Pressure Flow	Weir Flow	Total Flow
Amount of flow through/over the structure (s) (cfs)	—	455	193	584 (≈648)

The maximum depth of flow over the roadway/railroad (ft.) ..... 0.38'

Weir length (ft.) ..... 351'

Top Widths

	Floodplain	Floodway
Upstream face	410	110.3
Downstream face	400	111.0

Top Widths

	Effective Flow	Effective and Ineffective Flow
Upstream face	350.3	410
Downstream face	252.0	400

Loss Coefficients

Entrance loss coefficient	0.100
Manning's "n" value assigned to the structure(s)	0.015
Friction loss coefficient through structure (s)	–
Other loss coefficients (e.g., bend manhole, etc.)	–
Total loss coefficient	–
Weir coefficient	3.00
Pier coefficient	–
Contraction loss coefficient	0.5
Expansion loss coefficient	0.60

4. 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

.. 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 NA - Sediment transport not considered in analysis.

B. Will sediment accumulate anywhere through the bridge/culvert? ☐ Yes ☐ No

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

5. FLOODWAY ANALYSIS

Explain method of bridge encroachment (floodway run) Method I of bridge encroachment is used where encroachment stations are defined by ET (i.e., STENCL, STENCR) while effective elevations are defined by X3 (i.e., ELLEA, ELREA) for effective flow calculations.

Comments *(explain any unusual situations)*:

Attach analysis.

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*******************************************
*  HEC-2 WATER SURFACE PROFILES           *
*                                         *
*  Version   4.6.2;  May 1991             *
*                                         *
*  RUN DATE    14AUG92    TIME   15:17:31 *
*******************************************
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****************************************
*  U.S. ARMY CORPS OF ENGINEERS        *
*  HYDROLOGIC ENGINEERING CENTER       *
*  609 SECOND STREET, SUITE D          *
*  DAVIS, CALIFORNIA 95616-4687        *
*          (916) 756-1104              *
****************************************
```

```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                        X
XXXXXXX  XXXX     X         XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX             XXXXXXX
```

THIS RUN EXECUTED 14AUG92 15:17:31

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************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.2;  May 1991
************************************


T1      WICKENBURG ADMS - CONTRACT FCDMC 89-79
T2      BLACK & VEATCH PN 17676: COE & VAN LOO JN 1197-02
T3      WASH R: CEMETERY WASH          (WASHRC.O)

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2        0        0   0.00293        0        0        0   2020.26      0

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

      1        0       -1        0        0        0       -1        0        0       15


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150       200

QT       2      7251      7251
    0.045     0.045     0.035       .2        .4
          HASSAYAMPA RIVER CROSS SECTION 50.46 (CBA 1988, NO DATUM CHANGE)
          CONFLUENCE WITH WASH R - CEMETERY WASH, A WEST TRIBUTARY
          NON COINCIDENT WITH 100-YEAR DISCHARGE IN HASSAYAMPA
          THE METHOD USED TO START THIS HEC-2, WATER SURFACE PROFILE
          ANALYSIS IS THE SLOPE/AREA METHOD.  THE WATER SURFACE ELEVATION
          FOR CROSS SECTION 50.46, THE HASSAYAMPA RIVER, WAS USED AS AN
          APPROXIMATE STARTING WATER SURFACE ELEVATION FOR THE WASH R-
          CEMETERY WASH HEC-2 WATER SURFACE PROFILE ANALYSIS.
X1    50.46        27    1770.0    2111.8         0         0         0
GR   2045.3    1000.0    2040.0    1070.2    2016.0    1119.0    2012.0    1250.0    2012.6    1314.4
GR   2013.3    1460.2    2010.8    1506.2    2011.2    1575.0    2014.7    1646.6    2013.3    1770.0
GR   2010.5    1866.3    2009.7    1874.8    2009.7    1900.3    2009.7    1926.2    2009.7    1964.0
GR   2011.5    1986.3    2011.5    2053.5    2011.5    2111.8    2015.0    2133.8    2014.6    2463.2
GR   2015.6    2803.0    2019.6    2826.0    2022.2    2860.0    2036.0    2920.0    2039.3    3054.2
GR   2038.4    3082.1    2041.8    3153.8

NC    0.070     0.070     0.035       .1        .3
ET                7.1       9.1                                     260      1215       260      1215
          THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
          CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION, UNLESS
          OTHERWISE NOTED.
          FIRST SECTION OF WASH R - CEMETERY WASH
          DUE TO THE CONFIGURATION AND OTHER HYDROLOGIC CHARACTERISTICS
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                OF THE WATERSHED, THE PEAK DISCHARGE MAY INCREASE AND/OR DECREASE
                AT VARIOUS LOCATIONS ALONG THE WASH.
X1    0.174       40      970      1015      1100        50       917
GR     2028       65   2027.2        91    2026.4       117    2025.8       143    2025.5       169
GR   2025.2      195   2024.9     232.5    2024.6       270    2024.2       306    2023.6     353.8
GR   2023.7    389.4   2023.7       425    2023.7     462.5    2023.7       500    2023.7     536.7
GR     2024    571.7     2024     606.7      2024     641.3    2024.1       675    2024.2     708.8
GR   2024.1    742.9   2024.1     777.1    2023.6       811    2022.4       844    2021.3     881.7
GR   2021.5    917.5     2022       940      2025       950      2023       970      2021      1000
GR     2023     1015     2026      1030      2022      1065      2022      1100    2021.3    1126.7
GR   2021.3   1153.3     2022      1180    2023.8      1210    2026.9      1225    2030.0     1230.

NC    0.070    0.070    0.035        .2        .4
ET             7.1      9.1                                     413      1016       413      1016
                5 FOOT WIDE WOOD AND STEEL PEDESTRAIN BRIDGE
                200 FEET DOWNSTREAM OF A.T. & S.F. RAILROAD TRESTLE
                THIS BRIDGE IS NOT MODELLED DUE TO THE SHORT WIDTH.
X1    0.227       45      980      1010       235       200       279
GR    2034.      367    2032.       388     2030.      400.    2028.3       430    2028.2     447.5
GR     2028      465     2028       483      2028       501      2028       519      2028     537.1
GR     2028    555.4     2028     573.6      2028     591.8      2028       610    2027.8       628
GR   2027.6      646   2027.4       664    2027.2       682      2027       700    2026.8       719
GR   2026.6      738   2026.4       757    2026.2       776      2026       795    2025.8     813.5
GR   2025.5    831.9   2025.3     850.4    2025.1     868.8    2025.2     887.2    2025.6     905.6
GR   2025.9    923.9     2026       930      2028       935      2030       940      2031       950
GR     2030      965     2028       970      2026       975      2025       980      2024       985
GR     2023     1000     2024      1010      2030    1016.5      2036      1023    2036.4    1039.5

       0.070    0.070    0.035        .1        .3
                         9.1                                                        438      1108
X1    0.269       40      965    1037.5       145       242       222
GR    2034.     412.    2032.0      433.     2030       445    2029.7     474.2    2029.3     503.3
GR     2029    532.5    2028.7     561.7    2028.3     590.8      2028       620    2027.8     648.8
GR   2027.5    677.5    2027.3     706.3      2027       735    2026.8       765    2026.6       795
GR   2026.3      825    2026.1       855      2026     884.3      2026     912.9      2026       920
GR   2027.3    926.7    2028.7     933.3      2030       940      2032       950      2030     957.5
GR     2028      965    2027.6       993    2027.9    1022.5    2028.3    1037.5      2029      1060
GR   2029.8   1082.5    2030.5    1097.5    2031.5    1112.5      2032      1120    2033.4    1127.9
GR   2034.9   1135.7    2036.3    1143.6    2037.7    1151.4    2039.1    1159.3    2040.6    1167.1

NC    0.070    0.070    0.035        .3        .5
ET                      9.1                                                        421      1040
                DOWNSTREAM SECTION OF THE ATCHISON-TOPEKA AND
                SANTA FE RAILROAD TRESTLE.  SPECIAL BRIDGE DATA.
X1    0.274       43    960.7    1039.4      28.5      28.5      28.5
X3       10
GR    2036.0     381.    2034.       391.    2033.1      409.    2033.0       440    2032.9     466.7
GR    2032.8      487    2032.7     508.1    2032.6     529.3    2032.5     550.4    2032.4     571.5
GR    2032.3    592.6    2032.2     613.7    2032.1     634.8    2032.0     655.9    2031.9     676.9
GR    2031.5    697.5    2031.1     718.1      2031       740      2031     762.5    2030.8     783.8
GR    2030.6    804.6    2030.4     825.4    2030.2     846.2      2030     866.7      2030     893.3
GR      2030      915      2030     937.5    2030.7     960.7    2027.1     962.7      2027     991.7
GR    2027.0    1000.    2027.2    1016.7    2027.1    1029.3    2030.7    1039.3    2033.4    1039.4
GR      2034     1045    2035.3    1051.7    2036.7    1058.3      2038      1065    2038.8    1087.5
```

	2039.3	1109.3	2039.7	1130.7	2039.9	1137.9				
SB	1.05	1.56	3.0	0	72.19	6.39	400.23	1	2027.6	2027.1
ET			9.1						401	1059
X1	0.278	43	960.7	1039.4	19	19.	19			
X2	0	0	1	2033.4	2035.9	0	0	1.33	0	0
X3	10							2035.9	2035.9	
BT	43	381.	2040.	2040.	391.	2038.	2038.	409.	2036.	2036.
BT	440.	2035.9	2035.9	466.7	2035.9	2035.9	487.	2035.9	2035.9	508.1
BT	2035.9	2035.9	529.3	2035.9	2035.9	550.4	2035.9	2035.9	571.5	2035.9
BT	2035.9	592.6	2035.9	2035.9	613.7	2035.9	2035.9	634.8	2035.9	2035.9
BT	655.9	2035.9	2035.9	676.9	2035.9	2035.9	697.5	2035.9	2035.9	718.1
BT	2035.9	2035.9	740.	2035.9	2035.9	762.5	2035.9	2035.9	783.8	2035.9
BT	2035.9	804.6	2035.9	2035.9	825.4	2035.9	2035.9	846.2	2035.9	2035.9
BT	866.7	2035.9	2035.9	893.3	2035.9	2035.9	915.	2035.9	2035.9	937.5
BT	2035.9	2035.9	960.7	2035.9	2033.4	962.7	2035.9	2033.4	991.7	2035.9
BT	2033.4	1000.	2035.9	2033.4	1016.7	2035.9	2033.4	1029.3	2035.9	2033.4
BT	1039.3	2035.9	2033.4	1039.4	2035.9	2033.4	1045.0	2035.9	2034.0	1051.7
BT	2035.9	2035.3	1058.3	2036.7	2036.7	1065	2038.0	2038.0	1087.5	2038.8
BT	2038.8	1109.3	2039.3	2039.3	1130.7	2039.7	2039.7	1137.9	2039.9	2039.9
GR	2040.	381.	2038.	391.	2036.0	409.	2034	440	2034	466.7
GR	2033.9	487	2033.7	508.1	2033.5	529.3	2033.3	550.4	2033	571.5
GR	2032.8	592.6	2032.6	613.7	2032.4	634.8	2032.2	655.9	2031.9	676.9
GR	2031.5	697.5	2031.1	718.1	2031	740	2031	762.5	2030.8	783.8
GR	2030.6	804.6	2030.4	825.4	2030.2	846.2	2030	866.7	2030	893.3
GR	2030	915	2030	937.5	2030.7	960.7	2027.6	962.7	2027.6	991.7
GR	2027.6	1000.	2027.7	1016.7	2027.6	1029.3	2031.3	1039.3	2033.4	1039.4
GR	2034	1045	2035.3	1051.7	2036.7	1058.3	2038	1065	2038.8	1087.5
	2039.3	1109.3	2039.7	1130.7	2039.9	1137.9				
NC	0.070	0.070	0.035	.1	.3					
ET			9.1						398	1093
X1	0.311	53	980.0	1010.0	145.	178	178			
GR	2042	350	2040.	378.	2038.	393.	2036.	403.	2035	420
GR	2034	430	2033.7	451	2033.4	472	2033.1	493	2032.8	514
GR	2032.5	535	2032.2	556	2031.8	577	2031.2	598	2031.5	617.5
GR	2032	630	2033	637.5	2034	645	2034.4	666.3	2034	685
GR	2033.7	706.7	2033.3	728.3	2033	750	2032.7	771	2032.4	792
GR	2032.1	813	2031.7	834.3	2031.3	855.7	2031.1	876.9	2031.5	897.5
GR	2031.9	918.1	2032	925	2033	935	2034	945	2035	950
GR	2034	960	2032.7	966.7	2031.3	973.3	2030	980	2029.5	1000
GR	2030	1010	2032	1020	2034	1027.5	2036	1035	2034	1042.5
GR	2032	1050	2033	1065	2034	1080	2035.5	1086.3	2037	1092.5
GR	2038.5	1098.8	2040.	1103	2042	1118				
ET			9.1						346	1283
X1	0.415	53	980.0	1020.0	622.	580.	540.			
GR	2050	315	2047.5	323.8	2045	332.5	2042.5	341.3	2040	350
GR	2039	360	2038	370	2036	380	2035	385	2036	390
GR	2038	400	2040	408	2041	419	2042	430	2042	470
GR	2041.3	478.3	2040.7	486.7	2040	495	2039.6	525	2039.9	571
GR	2039.8	653.3	2039.5	690	2039.8	720	2040.2	760	2040.5	790
GR	2040.2	836.9	2039.8	892.9	2039.5	930	2038	940	2037.5	950
GR	2038	955	2040	960	2041	970	2040	980	2038	990

	2037.2	1000	2037.5	1010	2039	1015	2040	1020	2043.2	1030
	2040	1040	2039.7	1060	2039.3	1090	2039	1110	2038.8	1197.9
GR	2038.5	1235	2038.8	1244	2039.1	1253	2039.4	1262	2039.7	1271
GR	2040	1280	2043.3	1288.3	2046.7	1296.7				
QT	2	7267	7267							
ET			9.1						491	1099
X1	0.494	52	980.	1020	600.	400.	426.			
GR	2060.	355.	2051	480	2050.4	486	2049.8	492	2049.2	498
GR	2048.6	504	2048	510	2048	574.2	2048.6	618.6	2048	680
GR	2047	687.5	2046	695	2045	700	2044	705	2044	720
GR	2046	726.5	2048	733	2049	739	2050	745	2050	760
GR	2049	765	2048	770	2047.4	827.3	2047.5	890	2046.8	901.7
GR	2046.2	913.3	2045.5	925	2046.8	932.5	2048	940	2050	945
GR	2052	950	2051	955	2050	960	2048.7	966.7	2047.3	973.3
GR	2046	980	2045.3	985	2044.5	990	2044.1	1010	2045.1	1015
GR	2046	1020	2048	1025	2050	1030	2049	1037.5	2048	1045
GR	2047.3	1063.8	2048	1085	2049	1092.5	2050	1100	2052.5	1106.3
GR	2055	1112.5	2057.5	1118.8						
NC	0.060	0.060	0.035	.1	.3					
ET			9.1						792	1212
X1	0.593	54	980.	1020.	660.	510.	520.			
GR	2070	760	2068.3	765	2066.7	770	2065	775	2063.3	780
GR	2061.7	785	2060	790	2058	795	2056	800	2055.5	820
GR	2056	850	2056.6	870	2057.1	890	2057.6	910	2058.1	935
GR	2058	955	2057	960	2056	965	2055.3	970	2054.7	975
GR	2054	980	2053.4	990	2054	1020	2055	1025	2056	1030
	2056.5	1035	2057	1040	2057.5	1045	2058	1050	2058	1075
	2057	1080	2056	1085	2056.1	1145	2056	1150	2055.5	1155
GR	2055	1160	2055.5	1165	2056	1170	2056	1180	2055	1185
GR	2054	1190	2055.1	1195	2056.3	1200	2057.4	1205	2058.6	1210
GR	2059.7	1215	2060.9	1220	2062	1225	2063.1	1230	2064.3	1235
GR	2065.4	1240	2066.6	1245	2067.7	1250	2068.9	1255		
ET			9.1						933	1324
X1	0.671	21	945.	1010.	405	530	415			
GR	2070	925	2068.4	929	2066.8	933	2065.2	937	2063.6	941
GR	2062	945	2061.8	995.8	2062	1010	2062.8	1018	2063.6	1026
GR	2064.2	1046	2064	1099.6	2063.8	1150	2064.1	1200.8	2064.1	1252.5
GR	2064	1303.8	2064	1315	2065.2	1319	2066.4	1323	2067.6	1327
GR	2068.8	1331								
ET			9.1						760	1114
X1	0.765	37	970.	1020.	500	520	493.			
GR	2080	695	2079.3	700	2078.7	705	2078	710	2077.3	715
GR	2076.7	720	2076	725	2075.2	734.2	2074.4	743.4	2073.5	757.3
GR	2072.8	771.1	2072	785	2071.4	854.4	2070.5	935	2069.6	950
GR	2068.8	960	2068	970	2067	980	2066.4	990	2066	1010
GR	2067	1015	2068	1020	2068.8	1035	2069.5	1050	2070.3	1065
GR	2071	1080	2071.8	1095	2072.5	1105	2073.5	1115	2074.5	1125
GR	2075.5	1135	2076	1140	2076.7	1145	2077.3	1150	2078	1155
GR	2078.7	1160	2079.3	1165						

	0.060	0.060	0.035	.3	.5					
ET			9.1						961	1122
X1	0.860	37	985.	1020.	345	530	497			
GR	2090	945	2089.1	947.3	2088.2	949.5	2087.3	951.8	2086.4	954.1
GR	2085.4	956.4	2084.6	958.6	2083.6	960.9	2082.7	963.2	2081.8	965.5
GR	2080.9	967.7	2080	970	2078.9	974.3	2077.7	978.6	2076.6	982.9
GR	2076	985	2075.1	997.9	2076	1020	2077	1025	2078	1030
GR	2078.8	1060.6	2079.6	1093.5	2080.7	1112.3	2082	1117	2083.3	1121.7
GR	2084.7	1126.3	2086	1131	2087.3	1135.7	2088.7	1140.3	2090	1145
GR	2091.3	1149.7	2092.7	1154.3	2094	1159	2095.3	1163.7	2096.7	1168.3
GR	2098	1173	2099.3	1177.7						
QT	2	7283	7283							
ET			9.1						957	1039
X1	0.952	34	990.	1001.4	486	486	486			
GR	2100	950	2098.6	952.9	2097.1	955.7	2095.7	958.6	2094.3	961.4
GR	2092.9	964.3	2091.4	967.1	2090	970	2088.6	972.9	2087.1	975.7
GR	2085.7	978.6	2084.6	987.1	2084.5	990	2084.4	1001.4	2085.7	1005.7
GR	2087	1010	2088.3	1014.3	2089.6	1018.6	2090.9	1022.9	2092.4	1027.1
GR	2093.8	1031.4	2095.2	1035.7	2096.7	1040	2098.1	1044.3	2099.5	1048.6
GR	2100.6	1052.8	2101.9	1058.4	2103.1	1064.1	2104.4	1069.7	2105.6	1075.3
GR	2106.9	1080.9	2108.1	1086.6	2109.4	1092.2	2109.7	1093.6		
ET			9.1						951	1143
X1	1.003	48	978.3	1030.4	240	320	273			
GR	2110	935	2109	936.8	2108	938.5	2107	940.3	2106	942
GR	2105	943.8	2104	945.5	2103	947.3	2102	949	2101	950.8
	2100	952.5	2099	954.3	2098	956	2097	957.8	2096	959.5
	2095	961.3	2094	963	2093	964.8	2092	966.5	2091	968.3
GR	2090	970	2089.3	973.3	2088.7	976.7	2088.3	978.3	2087.7	985.5
GR	2087.1	998.2	2087.7	1017.9	2088.3	1028.6	2088.4	1030.4	2089	1037.5
GR	2089.6	1044.6	2090.2	1051.7	2090.8	1058.3	2091.5	1065	2092.3	1071.7
GR	2093.1	1076.9	2093.7	1080.3	2094.5	1085.5	2095.3	1090.7	2095.9	1094.1
GR	2096.7	1099.3	2097.5	1104.5	2098.1	1107.9	2098.9	1113.1	2099.7	1118.3
GR	2100.	1125.	2102.	1170.	2110.	1210.				
NC	.065	0.065	0.035	.1	.3					
ET			9.1						927	1262
X1	1.038	48	996.7	1058.3	115	220	182			
GR	2110.	910.	2100	930	2099.3	933.3	2098.7	936.7	2098	940
GR	2097.3	943.3	2096.7	946.7	2096	950	2095.3	953.3	2094.7	956.7
GR	2094	960	2093.6	966.7	2093.3	970	2092.9	976.7	2092.7	980
GR	2092.4	983.3	2092	990	2091.7	996.7	2091.7	1047.9	2091.7	1058.3
GR	2092	1103.1	2092	1150	2092.3	1153.8	2092.5	1157.5	2092.8	1161.3
GR	2093	1165	2093.3	1168.8	2093.5	1172.5	2093.8	1176.3	2094	1180
GR	2094.6	1183.5	2095.2	1187	2095.8	1190.5	2096.4	1194	2097	1197.5
GR	2097.6	1201	2098.2	1204.5	2098.8	1208	2099.4	1211.5	2100	1215
GR	2100.3	1225.7	2100.6	1236.4	2101.1	1254.3	2101.5	1272.1	2101.8	1282.9
GR	2101.9	1286.4	2104.	1328.	2110.	1362.				

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                          9.1                                                931      1088
X1    1.141        33    995.0     1055.      595       380       546
GR     2110       900   2109.2     904.7   2108.3     909.5    2107.5     914.2   2106.6       919
GR   2105.8     923.7   2104.9     928.4   2104.1     933.2    2103.3     937.9   2102.4     942.6
GR   2101.8     947.5     2101       955   2100.3     962.5    2099.5       970   2098.9     977.5
GR   2098.3     992.5   2098.2       995     2098      1055      2099    1057.5     2100      1060
GR     2101      1065     2102      1070   2102.7      1075    2103.3      1080     2104      1085
GR   2104.7      1090   2105.3      1095     2106      1100    2106.8      1107   2107.6      1114
GR   2108.4      1121   2109.2      1128   2109.7    1132.7

ET                        9.1                                                929      1066
          4 TO 5 FOOT DROP FROM CROSS SECTION 1.191 AND 1.199
X1    1.191        60     980.     1020.      280       240       262
GR     2120       900   2119.3       902   2118.7       904      2118       906   2117.3       908
GR   2116.7       910     2116       912   2115.3       914    2114.7       916     2114       918
GR   2113.3       920   2112.7       922     2112       924    2111.3       926   2110.7       928
GR     2110       930   2109.3     935.8   2108.7     941.7    2108.2     945.6   2107.6     951.4
GR   2107.1     955.3   2106.4     961.1     2106       965      2105     967.5     2104       970
GR   2103.2       974   2102.4       978     2102       980    2101.5      1010     2102      1020
GR   2102.7    1024.1   2103.4    1028.2   2104.2    1032.3    2104.9    1036.4   2105.6    1040.4
GR   2106.4    1044.6   2107.1    1048.6   2107.8    1052.7    2108.6    1056.8   2109.3    1060.9
GR     2110      1065   2110.5      1067     2111      1069    2111.5      1071     2112      1073
GR   2112.5      1075     2113      1077   2113.5      1079      2114      1081   2114.5      1083
GR     2115      1085   2115.5      1087     2116      1089    2116.5      1091     2117      1093
GR   2117.5      1095     2118      1097   2118.5      1099      2119      1101   2119.5      1103

ET                        9.1                                                914      1071
          DIRT ROAD DIP CROSSING
      1.199        64     970.     1020.       46        30        44
GR     2120       875   2119.7     877.4   2119.3     879.8      2119     882.2   2118.6     884.7
GR   2118.3     887.1   2117.9     889.5   2117.6     891.9    2117.2     894.3   2116.6     899.1
GR   2116.2     901.5   2115.9       904   2115.5     906.4    2115.2     908.8   2114.8     911.2
GR   2114.5     913.6   2114.1       916   2113.8     918.5    2113.4     920.9   2112.8     925.7
GR   2112.4     928.1   2112.1     930.5   2111.7     932.9    2111.4     935.3     2111     937.8
GR   2110.7     940.2   2110.3     942.6   2109.8     947.5    2109.4     952.5     2109     957.5
GR   2108.6     962.5   2108.2     967.5     2108       970    2107.5       985   2107.1       990
GR   2106.6       995   2106.2      1000   2106.6      1005      2107      1010   2107.5      1015
GR     2108      1020   2108.3    1022.5   2108.7      1025    2109.3      1030   2109.7    1032.5
GR   2110.3    1037.4   2110.9    1042.3   2111.5    1047.1    2112.1      1052   2112.7    1056.8
GR   2113.3    1061.7   2113.9    1066.5   2114.2    1068.9    2114.6    1071.4   2115.1    1076.2
GR   2115.4    1078.6   2115.8    1081.1   2116.4    1085.9      2117    1090.8   2117.6    1095.6
GR   2118.2    1100.4   2118.8    1105.3   2119.4    1110.2    2119.7    1112.6

ET                        9.1                                                913      1116
X1    1.233        58    1030.4    1071.5      150       220       178
GR     2120       903   2119.4     905.2   2118.8     907.3    2118.2     909.5   2117.6     911.7
GR   2117.1     913.9   2116.5     916.1   2115.9     918.2    2115.3     920.4   2114.7     922.6
GR   2114.1     924.8   2113.5     926.9   2112.9     929.1    2112.4     931.3   2111.8     933.5
GR   2111.2     935.7   2110.6     937.8     2110       940    2109.7     944.3   2109.6     946.4
GR   2109.4     948.6   2109.1     952.9   2108.9     957.1    2108.6     961.4   2108.4     963.6
GR   2108.1     967.9     2108     978.6     2108     989.3      2108      1000   2107.8    1010.9
GR   2107.7    1021.7   2107.5    1030.4   2107.3    1041.3    2107.2    1052.1     2107      1063
GR   2107.3    1067.3   2107.5    1071.5   2107.8    1075.8      2108      1080   2108.3    1082.1
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	2108.6	1084.3	2108.9	1086.4	2109.1	1088.6	2109.4	1090.7	2109.7	1092.9
	2110	1095	2110.8	1097.2	2111.5	1099.3	2112.3	1101.5	2113.1	1103.6
GR	2113.9	1105.8	2114.6	1107.9	2115.4	1110.1	2116.1	1112.2	2116.9	1114.4
GR	2117.7	1116.5	2118.5	1118.7	2119.2	1120.8				
NC	0.070	0.070	0	.1	.3					
ET			9.1						929	1206
X1	1.328	47	954.3	1010.0	480	528	504			
GR	2130	907	2128.6	910.3	2127.1	913.6	2125.7	916.9	2124.3	920.1
GR	2122.9	923.4	2121.4	926.7	2120	930	2118.7	933.3	2117.3	936.7
GR	2116	940	2115.7	947.1	2115.4	954.3	2115.1	961.4	2115	982.5
GR	2115.1	1003.3	2115.4	1010	2115.7	1020	2115.9	1040.2	2116	1063.5
GR	2116.2	1087	2116.5	1097.5	2116.8	1108	2117.1	1118.5	2117.4	1129
GR	2117.7	1139.5	2118	1150	2118.3	1156.9	2118.6	1167.2	2118.9	1174.1
GR	2119.3	1184.4	2119.6	1194.7	2119.9	1201.6	2120	1205	2120.7	1208.6
GR	2121.4	1212.1	2122.1	1215.7	2122.9	1219.3	2123.6	1222.9	2124.3	1226.4
GR	2125	1230	2125.7	1233.6	2126.4	1237.1	2127.1	1240.7	2127.9	1244.3
GR	2128.6	1247.9	2129.3	1251.4						
NC	0.065	0.065	0.035	.1	.3					
QT	2	7299	7299							
ET			9.1						852	1080
X1	1.401	49	997.5	1045	380	390	384			
GR	2130	840	2129	842.5	2128	845	2127	847.5	2126	850
GR	2125	852.5	2124	855	2123	857.5	2122	860	2121	862.5
GR	2120	865	2119.9	877.5	2120.1	887.5	2120.4	892.5	2120.6	897.5
GR	2120.9	902.5	2121.1	907.5	2121.4	912.5	2121.6	917.5	2121.9	922.5
GR	2122.1	927.5	2122.4	940	2122.5	952.5	2122.5	965	2122.1	977.5
	2121.8	982.5	2121.6	985	2121.4	987.5	2121.1	992.5	2120.9	995
	2120.7	997.5	2120.5	1010	2120.5	1022.5	2120.5	1035	2120.8	1045
GR	2121.1	1052.5	2121.4	1057.5	2121.6	1062.5	2121.9	1067.5	2122	1070
GR	2122.8	1072.5	2123.6	1075	2124.4	1077.5	2125.2	1080	2126	1082.5
GR	2126.8	1085	2127.6	1087.5	2128.4	1090	2129.2	1092.5		
ET			9.1						861	1156
X1	1.431	54	990.0	1010.7	165	190	157			
GR	2140	835	2138.4	838.5	2136.8	842	2135.2	845.5	2133.6	849
GR	2132	852.5	2130.4	856	2128.8	859.5	2127.2	863	2125.6	866.5
GR	2124	870	2123.4	873.3	2122.9	876.7	2122.3	880	2122.5	883.6
GR	2122.8	887.1	2123	890.7	2123.3	894.3	2123.5	897.9	2123.8	901.4
GR	2124.1	908.8	2124.4	916.3	2124.1	949.1	2123.8	963.3	2123.5	970
GR	2123.2	980	2123.1	983.3	2122.9	986.7	2122.8	990	2122.5	1000
GR	2122.8	1010.7	2123.1	1017.9	2123.5	1028.8	2123.8	1036.3	2124.1	1043.5
GR	2124.4	1064.5	2124.1	1099.5	2123.9	1113.3	2124	1130	2124.5	1133.8
GR	2125	1137.5	2125.5	1141.3	2126	1145	2126.7	1148.3	2127.3	1151.7
GR	2128	1155	2128.7	1158.3	2129.3	1161.7	2130	1165	2130.8	1168.3
GR	2131.7	1171.7	2132.5	1175	2133.3	1178.3	2134.2	1181.7		
NC	0.070	0.065	0.035	.1	.3					
ET			9.1						900	1099

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     1.508      49     965.0    1035.0     408     405     408
      2140     885      2139     887.5    2138     890    2137    892.5    2136     895
GR    2135   897.5      2134       900    2133   902.5    2132     905    2131   907.5
GR    2130     910    2129.8     922.5  2129.6     935  2129.4   947.5  2129.2     960
GR  2129.1     965      2129     977.5  2128.9     990  2128.8  1002.5  2128.8    1015
GR  2129.1  1027.5    2129.2      1035  2129.4  1047.5  2129.6    1060  2129.9  1072.5
GR    2130    1080    2130.5    1082.5    2131    1085  2131.5  1087.5    2132    1090
GR  2132.5  1092.5      2133      1095  2133.5  1097.5    2134    1100  2134.5  1102.5
GR    2135    1105    2135.5    1107.5    2136    1110  2136.3  1112.5  2136.7    1115
GR    2137  1117.5    2137.3      1120  2137.7  1122.5    2138    1125  2138.3  1127.5
GR  2138.7    1130      2139    1132.5  2139.3    1135  2139.7  1137.5

ET                      9.1                                           927    1126
          DIRT ROAD DIP CROSSING
X1    1.531      44     991.4    1030.9     113     105     111
GR    2140     905    2139.4     907.9  2138.9   910.7  2138.3   913.6  2137.7   916.4
GR  2137.1   919.3    2136.6     922.1    2136     925  2135.4   927.9  2134.9   930.7
GR  2134.3   933.6    2133.7     936.4  2133.1   939.3  2132.6   942.1    2132     945
GR  2131.6     954    2131.3     962.9    2131    971.4  2130.7     980  2130.4   988.6
GR  2130.3  991.4      2130      1000  2130.3  1022.5  2130.3  1030.9  2130.5    1051
GR  2130.8  1068.2    2131.1    1076.4  2131.4  1087.3  2131.7  1092.7  2131.9  1095.4
GR  2132.2  1098.2    2132.6    1103.6  2132.9  1106.4  2133.3  1111.8  2133.6  1114.6
GR    2134    1120    2134.7    1122.8  2135.4  1125.6  2136.2  1128.3  2136.9  1131.1
GR  2137.6  1133.9    2138.3    1136.7  2139.1  1139.4  2139.8  1142.2

ET                      9.1                                           967    1254
X1    1.566      43     980.0     1020.     205     243     216
GR    2150     955    2146.7     958.3  2143.3   961.7    2140     965  2138.7   968.3
      2137.3   971.7    2136       975    2134     980  2133.7   996.7    2134    1020
      2134.3  1027.5    2134.6    1038.8  2134.9  1046.3  2135.1  1155.6  2135.4    1174
GR  2135.6    1178    2135.9      1186  2136.2    1194  2136.4    1198  2136.6    1202
GR    2137    1210    2137.4      1218  2137.6    1222    2138    1230  2138.3  1237.5
GR  2138.7    1245      2139    1252.5  2139.3    1260  2139.7  1267.5    2140    1275
GR  2140.3  1278.9    2140.6    1282.9  2140.9  1286.8  2141.1  1290.7  2141.4  1294.6
GR  2141.7  1298.6      2142    1302.5  2142.3  1306.4  2142.6  1310.4  2142.9  1314.3
GR  2143.1  1318.2    2143.4    1322.1  2143.7  1326.1

NC    0.065   0.065     0.035      .3      .5
ET                      9.1                                           804    1043
          DIRT ROAD DIP CROSSING
X1    1.656      56      980.    1005.0     530     350     460
GR    2150     780    2149.7     782.7  2149.4   785.4  2149.1   788.1  2148.8   790.8
GR  2148.5   793.5    2148.1     796.2  2147.9   798.8  2147.5   801.5  2147.2   804.2
GR  2146.9   806.9    2146.6     809.6  2146.3   812.3    2146     815  2145.7   820.4
GR  2145.4   825.8    2145.1     831.2  2144.8   836.5  2144.5   841.9  2144.1   847.3
GR  2143.8     855    2143.5       860  2143.2   915.7  2142.9   923.7  2142.6   934.3
GR  2142.3     945      2142       955  2141.7   963.3  2141.4   968.9  2141.1   977.2
GR    2141     980    2140.7     985.7  2140.4   991.4  2140.1   997.1    2140    1000
GR  2140.5  1002.5      2141      1005  2141.5  1007.5    2142    1010  2142.4  1012.8
GR  2142.9  1015.6    2143.3    1018.3  2143.8  1021.1  2144.2  1023.9  2144.7  1026.7
GR  2145.1  1029.4    2145.6    1032.2    2146    1035  2146.4  1037.8  2146.9  1040.6
GR  2147.3  1043.3    2147.8    1046.1  2148.2  1048.9  2148.7  1051.7  2149.1  1054.4
GR  2149.6  1057.2
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                        9.1                                                   868      1101
X1    1.705       62    980.0    1019.1     210     280     252
GR     2160      805   2159.6     808.2  2159.1   811.4  2158.6     814.5  2158.2     817.7
GR   2157.7    820.9   2157.3     824.1  2156.8   827.3  2156.4     830.5  2155.9     833.6
GR   2155.4    836.8     2155       840  2154.4   843.3  2153.9     846.7  2153.3       850
GR   2152.8    853.3   2152.2     856.7  2151.7     860  2151.1     863.3  2150.6     866.7
GR     2150      870   2149.3     873.3  2148.7   876.7    2148       880  2147.6     889.4
GR   2147.4    895.6   2147.1     901.9  2146.8     908  2146.6       911  2146.4       914
GR     2146      920   2146.2     933.3  2146.2   946.7    2146       960  2145.7     973.3
GR   2145.5      980   2145.2     993.3  2145.2  1006.4  2145.5    1019.1  2145.8    1031.8
GR   2145.9     1045     2146    1058.3    2146  1071.7    2146      1075  2146.5    1078.1
GR     2147   1081.3   2147.5    1084.4    2148  1087.5  2148.5    1090.6    2149    1093.8
GR   2149.5   1096.9     2150      1100  2150.9  1103.2  2151.8    1106.4  2152.7    1109.6
GR   2153.6   1112.7   2154.6    1115.9  2155.4  1119.1  2156.4    1122.3  2157.3    1125.4
GR   2158.2   1128.6   2159.1    1131.8

NC    0.065    0.065    0.035        .1      .3
ET                      9.1                                                   934      1124
          DIRT ROAD DIP CROSSING
X1    1.751       49      991    1064.1     210.     270.     244.
GR     2160      850   2159.5     859.2  2158.9   871.5  2158.3     883.8  2157.8     893.2
GR   2157.3    899.7   2156.8     906.2  2156.4   912.7  2155.9     919.1  2155.4     925.6
GR   2154.9    932.1   2154.2     941.8  2153.6   948.1  2153.3     951.3  2152.9     954.4
GR   2152.1    960.6   2151.8     963.8  2151.4   966.9  2150.8       973  2150.3       982
GR   2149.8      991   2149.3      1000  2149.4    1012  2149.5      1024  2149.6    1036.2
GR   2149.6   1048.6   2149.7    1060.9  2149.8  1064.1  2149.9    1076.4  2149.9    1088.8
GR     2150     1095   2150.5    1098.2  2151.1  1101.3  2151.6    1104.5  2152.1    1107.6
     2152.6   1110.8   2153.2    1113.9  2153.7  1117.1  2154.2    1120.3  2154.7    1123.4
     2155.3   1126.6   2155.8    1129.7  2156.3  1132.9  2156.8    1136.1  2157.4    1139.2
GR   2157.9   1142.4   2158.4    1145.5  2158.9  1148.7  2159.5    1151.8

ET                      9.1                                                   843      1164
          DRAINAGE SUBAREA COMBINED FLOW
X1    1.813       52    967.5    1025.0     340     300     327
GR     2170      805   2168.9     808.9  2167.8   812.8  2166.7     816.7  2165.6     820.6
GR   2164.4    824.4   2163.3     828.3  2162.2   832.2  2161.1     836.1    2160       840
GR     2159      845     2158       850  2157.6     862  2157.3       874    2157       882
GR   2156.7      890   2156.4       898    2156     910  2156.3       941    2156       960
GR   2155.5    963.8     2155     967.5  2154.5   971.3    2154       975  2154.4     987.5
GR   2154.7     1000     2155      1025  2155.3  1045.8  2155.6    1062.5    2156      1075
GR   2156.3   1095.8   2156.1      1120  2156.5    1124  2156.9      1128  2157.2      1132
GR   2157.6     1136     2158      1140  2158.4  1147.8  2158.7    1151.7  2159.1    1159.4
GR   2159.3   1163.3   2159.6    1167.2    2160    1175  2160.7      1179  2161.4      1183
GR   2162.1     1187   2162.8      1191  2163.5    1195  2164.2      1199  2164.9      1203
GR   2165.6     1207   2166.3      1211

QT       2     7156     7156
ET                      9.1                                                   656      1082
X1    1.902       50     990.    1030.0     435     462     467
GR     2180      615   2178.3       620  2176.7     625    2175       630  2173.3       635
GR   2171.7      640     2170       645  2168.5     650    2167       655  2165.5       660
GR     2164      665   2163.4       670  2162.8     675  2162.7       685    2163       690
GR   2163.2      695   2163.5       700  2163.8     710  2164.1       720  2164.5       735
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	2164.8	750	2164.5	775	2164.2	805.5	2163.9	841.6	2163.6	850.8
	2163.4	855.4	2163.1	865	2163.4	890	2163.6	900	2163.9	910
GR	2164	975	2163.8	990	2163.5	1000	2163.8	1030	2164	1040
GR	2164.3	1045	2164.6	1050	2164.9	1055	2165.1	1060	2165.4	1065
GR	2165.7	1070	2166	1075	2166.4	1080	2166.9	1085	2167.3	1090
GR	2167.8	1095	2168.2	1100	2168.7	1105	2169.1	1110	2169.6	1115
NC	0.070	0.065	0.035	.1	.3					
ET			9.1						698	1025
X1	1.966	56	976.7	1015.0	380	315	338			
GR	2180	650	2179.4	654	2178.8	658	2178.2	662	2177.6	666
GR	2177	670	2176.4	674	2175.8	678	2175.2	682	2174.6	686
GR	2174	690	2173.6	694	2173.2	698	2172.8	702	2172.4	706
GR	2172	710	2171.6	714	2171.2	718	2170.8	722	2170.4	726
GR	2170	730	2169.5	735	2169	740	2169	754	2169.2	766
GR	2169.5	778	2169.8	786	2170	798	2170	810	2170	822
GR	2170	833.9	2170.1	845.6	2170.1	857.2	2170.2	868.9	2170.2	880.6
GR	2170.3	892.2	2170.3	904	2170.2	916	2170.2	928	2170.1	940
GR	2170	952	2169.9	964.2	2169.7	976.7	2169.4	988.8	2169.3	1000
GR	2169.6	1011.3	2169.7	1015	2171	1018.8	2172.4	1022.5	2173.7	1026.3
GR	2175	1030	2176.5	1034.2	2178	1038.3	2179.5	1042.5	2181	1046.7
GR	2182.5	1050.8								
ET			9.1						726	1349
X1	2.034	50	990.	1020.	340	380	359			
GR	2180	700	2179.7	706.7	2179.3	713.3	2179	720	2178.7	726.7
GR	2178.3	733.3	2178	740	2176	750	2175	760	2175.3	773.3
GR	2175.6	787.5	2175.9	802.5	2176.1	816.7	2176.3	836.7	2176.4	856.9
	2176.3	877.5	2176.1	898.1	2176.2	918.3	2176.4	938.3	2176.3	959
	2176	980	2175	990	2174.9	1006.7	2175	1020	2175.3	1026.7
GR	2175.7	1033.3	2176	1040	2176.3	1060	2176.1	1078.8	2176.1	1098.6
GR	2176.2	1118.9	2176.2	1139.3	2176.3	1159.6	2176.3	1180	2176.3	1200
GR	2176.2	1220	2176.2	1240	2176.3	1261.4	2176.5	1282.9	2176.8	1303.3
GR	2177	1310	2177.3	1316.3	2177.5	1322.5	2177.8	1328.8	2178	1335
GR	2178.3	1341.7	2178.7	1348.3	2179	1355	2179.3	1361.7	2179.7	1368.3
ET			9.1						721	1123
X1	2.093	50	990.	1015.0	330	350	313			
GR	2190	685	2189.4	689.4	2188.8	693.8	2188.1	698.1	2187.5	702.5
GR	2186.9	706.9	2186.3	711.3	2185.6	715.6	2185	720	2184.6	724.3
GR	2184.3	728.6	2183.9	732.9	2183.6	737.1	2183.2	741.4	2182.9	745.7
GR	2182.5	750	2182.4	765	2182.5	780	2182.7	795	2182.5	808.8
GR	2182.4	822.5	2182.2	836.3	2182	850	2181.8	855	2181.5	860
GR	2181.5	875	2181.7	887.9	2181.9	900.7	2182.1	913.6	2182.1	926.4
GR	2182.2	939.6	2182.1	953.3	2182.1	967.1	2182	980.8	2182	990
GR	2181.3	995	2180.5	1000	2181	1005	2181.5	1010	2182	1015
GR	2182.2	1028.1	2182.4	1041.3	2182.5	1050	2182	1080	2183	1110
GR	2183.5	1115	2184	1120	2185.5	1125	2187	1130	2188.5	1135

			9.1						844	1038
X1	2.188	42	975.	1010.	460	470	500			
GR	2200	825	2199.2	827.5	2198.3	830	2197.5	832.5	2196.7	835
GR	2195.8	837.5	2195	840	2194.2	842.5	2193.3	845	2192.5	847.5
GR	2191.7	850	2190.8	852.5	2190	855	2189.8	867.5	2189.5	880
GR	2189.3	892.5	2189.2	905	2189.2	917.5	2189.2	930	2189.2	942.5
GR	2189.1	955	2189	967.5	2188.9	975	2188.7	987.5	2188.6	1000
GR	2188.9	1007.5	2188.9	1010	2189.1	1015	2189.5	1022.5	2189.8	1027.5
GR	2190	1030	2191.3	1032.5	2192.5	1035	2193.8	1037.5	2195	1040
GR	2195.6	1042.5	2196.3	1045	2196.9	1047.5	2197.5	1050	2198.1	1052.5
GR	2198.8	1055	2199.4	1057.5						
QT	2	7013	7013							
NC	0.070	0.070	0.035	.1	.3					
ET			9.1						741	1043
X1	2.248	53	986.7	1022.5	320	305	318			
GR	2210	715	2208.3	718.3	2206.7	721.7	2205	725	2203.3	728.3
GR	2201.7	731.7	2200	735	2199	738.8	2198	742.5	2197	746.3
GR	2196	750	2195.7	760	2195.6	773.3	2195.4	783.3	2195.1	790
GR	2194.8	796.7	2194.6	807.3	2194.6	818.2	2194.5	829.1	2194.4	840
GR	2194.3	850.5	2194.2	861	2194	871.5	2193.8	881.7	2193.5	895
GR	2193.8	905	2194.1	918.3	2194.4	928.3	2194.6	935	2194.6	945.7
GR	2194.5	956.4	2194.3	966.7	2194	980	2193.8	983.3	2193.5	986.7
GR	2193.2	993.3	2193.1	1003.8	2193.1	1015	2193.3	1018.8	2193.6	1022.5
GR	2194	1030	2195.2	1033.5	2196.5	1036.9	2197.7	1040.4	2198.9	1043.8
GR	2200.1	1047.3	2201.4	1050.8	2202.6	1054.2	2203.9	1057.7	2205.1	1061.2
GR	2206.3	1064.6	2207.5	1068.1	2208.8	1071.5				
			9.1						826	1039
X1	2.295	49	980.	1010.	190.	262	248			
GR	2210	780	2209.5	782.8	2209	785.5	2208.5	788.3	2208	791
GR	2207.5	793.8	2207	796.5	2206.5	799.3	2206	802	2205.5	804.8
GR	2205	807.5	2204.5	810.3	2204	813	2203.5	815.8	2203	818.5
GR	2202.5	821.3	2202	824	2201.5	826.8	2201	829.5	2200.5	832.3
GR	2200	835	2199.7	840.8	2199.3	846.7	2199	852.5	2198.7	858.3
GR	2198.3	864.2	2198	870	2197.6	877.5	2197.4	882.5	2197.3	920
GR	2197.2	955.5	2196.9	971.8	2196.8	980	2196.8	1010	2197	1020
GR	2197.3	1022.5	2197.5	1025	2197.8	1027.5	2198	1030	2199.1	1032.7
GR	2200.2	1035.4	2201.3	1038.2	2202.4	1040.9	2203.4	1043.6	2204.6	1046.4
GR	2205.6	1049.1	2206.7	1051.8	2207.8	1054.6	2208.9	1057.3		
NC	0.065	0.065	0.035	.1	.3					
ET			9.1						921	1151
X1	2.338	54	980.	1020.	192	220	226			
GR	2220	855	2219.1	858.2	2218.2	861.4	2217.3	864.5	2216.4	867.7
GR	2215.4	870.9	2214.6	874.1	2213.6	877.3	2212.7	880.5	2211.8	883.6
GR	2210.9	886.8	2210	890	2209.5	893.1	2209	896.3	2208.5	899.4
GR	2208	902.5	2207.5	905.6	2207	908.8	2206.5	911.9	2206	915
GR	2205.5	918.1	2205	921.3	2204.5	924.4	2204	927.5	2203.5	930.6
GR	2203	933.8	2202.5	936.9	2202	940	2201.7	946.7	2201.3	953.3
GR	2201	960	2200.7	966.7	2200.3	973.3	2200	980	2200	1020
GR	2200.3	1032	2200	1055	2200	1097	2200.4	1109	2200.6	1115
GR	2201	1124	2201.2	1130	2201.7	1133.3	2202.1	1136.7	2202.6	1140

	2203.1	1143.3	2203.5	1146.7	2204	1150	2206.3	1153.3	2208.6	1156.6
	2210.9	1159.9	2213.1	1163.1	2215.4	1166.4	2217.7	1169.7		
ET			9.1						765	1183
X1	2.436	67	990.	1015.0	530.	460.	520.			
GR	2225	685	2224	690	2223	695	2222	700	2221	705
GR	2220	710	2219.4	715.5	2218.9	720.9	2218.4	726.4	2217.8	731.8
GR	2217.3	737.3	2216.7	742.7	2216.2	748.2	2215.6	753.6	2215.1	759.1
GR	2214.6	764.5	2214	770	2213.7	775	2213.3	780	2213	785
GR	2212.7	790	2212.3	795	2212	800	2211.7	810	2211.9	835
GR	2212	860	2212.2	881.7	2212.3	903.3	2212.5	925	2212.2	945
GR	2211.8	965	2211.5	970	2211.3	975	2211	980	2210.6	990
GR	2210.4	995	2210.6	1015	2210.8	1020	2211.1	1025	2211.5	1030
GR	2211.8	1035	2212	1040	2213	1045	2214	1050	2215	1055
GR	2216	1060	2216.3	1070	2216.1	1095	2216	1100	2214.5	1105
GR	2213	1110	2211.5	1115	2210	1120	2210	1145	2210.6	1150
GR	2211.1	1155	2211.7	1160	2212.3	1165	2212.9	1170	2213.4	1175
GR	2214	1180	2214.9	1185	2215.7	1190	2216.6	1195	2217.4	1200
GR	2218.3	1205	2219.1	1210						
NC	0.070	0.070	0.035	.1	.3					
ET			9.1						933	1205
X1	2.525	64	990.	1020.0	320.	620.	472.			
GR	2230	865	2229.7	868.4	2229.4	871.9	2229.1	875.3	2228.8	878.8
GR	2228.4	882.2	2228.1	885.6	2227.8	889.1	2227.5	892.5	2227.2	895.9
GR	2226.9	899.4	2226.6	902.8	2226.3	906.3	2225.9	909.7	2225.6	913.1
GR	2225.3	916.6	2225	920	2224.6	923.3	2224.2	926.7	2223.8	930
GR	2223.3	933.3	2222.9	936.7	2222.5	940	2222.1	943.3	2221.7	946.7
	2221.3	950	2220.8	953.3	2220.4	956.7	2220	960	2219.5	963.8
	2219	967.5	2218.5	971.3	2218	975	2217.7	982.5	2217.4	990
GR	2217.1	1000	2217.4	1013.3	2217.5	1020	2217.8	1027.5	2218.1	1038.5
GR	2218.4	1049	2218.7	1059.5	2219	1070	2219.3	1080	2219.6	1086.7
GR	2219.9	1096.7	2220.2	1110	2220.5	1123.3	2220.8	1140	2221.1	1153.3
GR	2221.4	1170	2221.7	1183.3	2222	1200	2222.9	1203.3	2223.8	1206.7
GR	2224.7	1210	2225.6	1213.3	2226.4	1216.7	2227.3	1220	2228.2	1223.3
GR	2229.1	1226.7	2230	1230	2233.7	1233.3	2237.3	1236.7		
QT	2	6870	6870							
NC	0.065	0.065	0.035	.1	.3					
ET			9.1						886	1034
X1	2.645	56	985.	1015.0	710	500.	634			
GR	2250	835	2249.3	837.5	2248.6	840	2247.9	842.5	2247.1	845
GR	2246.4	847.5	2245.7	850	2245	852.5	2244.3	855	2243.6	857.5
GR	2242.9	860	2242.1	862.5	2241.4	865	2240.7	867.5	2240	870
GR	2239	872.5	2238	875	2237	877.5	2236	880	2235	882.5
GR	2234	885	2233	887.5	2232	890	2231	892.5	2230	895
GR	2229.6	902.5	2229.4	907.5	2229.1	912.5	2228.9	919.8	2228.6	939.1
GR	2228.4	951.1	2228.1	970.4	2227.9	985	2227.9	1015	2228	1020
GR	2229	1022.5	2230	1025	2231	1027.5	2232	1030	2233	1032.5
GR	2234	1035	2235	1037.5	2236	1040	2237	1042.5	2238	1045
GR	2239	1047.5	2240	1050	2241	1052.5	2242	1055	2243	1057.5
GR	2244	1060	2245	1062.5	2246	1065	2247	1067.5	2248	1070
GR	2249	1072.5								

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                          9.1                                                905       1047
            DIRT ROAD DIP CROSSING
X1    2.760        60     994.     1016.      595      615      603
GR     2250       875   2249.7     876.8   2249.3    878.7     2249     880.5   2248.7     882.3
GR   2248.3     884.2     2248       886   2247.7    887.8   2247.3     889.7     2247     891.5
GR   2246.7     893.3   2246.3     895.2     2246      897   2245.7     898.8   2245.3     900.7
GR     2245     902.5   2244.7     904.3   2244.3    906.2     2244       908   2243.7     909.8
GR   2243.3     911.7     2243     913.5   2242.7    915.3   2242.3     917.2     2242       919
GR   2241.7     920.8   2241.3     922.7     2241    924.5   2240.7     926.3   2240.3     928.2
GR     2240       930   2239.7     945.6   2239.4      953   2239.1     960.4   2238.9     965.9
GR   2238.6     973.3   2238.4     978.9   2238.1    986.3   2237.9       994   2237.9      1016
GR     2238      1020   2238.3    1021.7   2238.7   1023.3     2239      1025   2239.4      1029
GR   2239.6      1031     2240      1035   2240.7   1036.8   2241.4    1038.6   2242.1    1040.4
GR   2242.9    1042.1   2243.6    1043.9   2244.3   1045.7     2245    1047.5   2245.7    1049.3
GR   2246.4    1051.1   2247.1    1052.9   2247.9   1054.6   2248.6    1056.4   2249.3    1058.2

NC    0.070     0.070    0.035       .1       .3
ET                          9.1                                                925       1038
            CONFLUENCE OF SUBAREA R38 - WASH R-1
X1    2.805        67     988.0    1014.6      240      240      239
GR     2270       890   2269.2     892.1   2268.3    894.2   2267.5     896.3   2266.7     898.3
GR   2265.8     900.4     2265     902.5   2264.2    904.6   2263.3     906.7   2262.5     908.8
GR   2261.7     910.8   2260.8     912.9     2260      915   2257.7     917.1   2255.4     919.3
GR   2253.1     921.4   2250.9     923.6   2248.6    925.7   2246.3     927.9     2244       930
GR   2243.7     936.4   2243.4     942.9   2243.1    947.5   2242.8       956   2242.5       964
GR   2242.2       974   2241.9       982   2241.7      988   2241.4       996   2241.7    1014.6
GR     2242      1025   2243.1    1027.1   2244.3   1029.3   2245.4    1031.4   2246.6    1033.6
     2247.7    1035.7   2248.9    1037.9     2250     1040     2251      1042     2252      1044
       2253      1046     2254      1048     2255     1050     2256      1052     2257      1054
GR     2258      1056     2259      1058     2260     1060   2260.5      1062     2261      1064
GR   2261.5      1066     2262      1068   2262.5     1070     2263      1072   2263.5      1074
GR     2264      1076   2264.5      1078     2265     1080   2265.5      1082     2266      1084
GR   2266.5      1086     2267      1088   2267.5     1090     2268      1092   2268.5      1094
GR     2269      1096   2269.5      1098

QT        2      6683     6683
ET                          9.1                                                975       1146
X1    2.850        58     991.0    1019.1      222      250      240
GR     2270       905   2269.6     907.7   2269.1    910.5   2268.6     913.2   2268.2     915.9
GR   2267.7     918.6   2267.3     921.4   2266.8    924.1   2266.4     926.8   2265.9     929.5
GR   2265.4     932.3   2264.6     937.7   2264.1    940.5   2263.6     943.2   2263.2     945.9
GR   2262.7     948.6   2262.3     951.4   2261.8    954.1   2261.4     956.8   2260.9     959.5
GR   2260.4     962.3     2260       965     2258    967.9     2256     970.7     2254     973.6
GR     2252     976.4     2250     979.3     2248    982.1     2246       985   2245.8       991
GR   2245.8    1019.1   2246.5    1037.9     2247   1043.6   2247.5    1049.3     2248      1055
GR   2248.5    1078.2     2249      1100   2249.6   1116.4   2250.4    1132.7   2250.9    1135.4
GR   2251.4    1138.2   2251.8    1140.9   2252.3   1143.6   2252.7    1146.4   2253.2    1149.1
GR   2253.6    1151.8   2254.1    1154.6   2254.6   1157.3   2255.4    1162.7   2255.9    1165.4
GR   2256.4    1168.2   2256.8    1170.9   2257.3   1173.6   2257.7    1176.4   2258.2    1179.1
GR   2258.6    1181.8   2259.1    1184.6   2259.6   1187.3
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                        9.1                                                   847      1032
X1    2.936       58    995.0    1012.5     465      418      450
GR     2270      815   2269.2     817.3  2268.4    819.7   2267.6      822  2266.8    824.3
GR     2266    826.7   2265.2       829  2264.4    831.3   2263.6    833.7  2262.8      836
GR     2262    838.3   2261.2     840.7  2260.4      843   2259.6    845.3  2258.8    847.7
GR     2258      850   2257.7     861.8  2257.4    873.5   2257.1    885.3  2256.9    892.3
GR   2256.6    899.1   2256.6     901.4  2256.4    903.6   2256.1    912.7  2255.9    917.3
GR   2255.6      924   2255.4     928.5  2255.1    935.3   2254.9    939.8  2254.6    946.5
GR   2254.4      951   2254.1     957.8  2253.8    962.2   2253.6    964.4  2253.3    966.7
GR   2253.1    968.9   2252.9     971.1  2252.7    973.3   2252.4    975.6   2252      980
GR   2251.5    982.5     2251       985  2250.5    987.5     2250      990  2249.8      995
GR   2249.5     1000   2249.8    1012.5   2250     1020   2251.8   1022.3  2253.6   1024.6
GR   2255.4   1026.8   2257.3    1029.1  2259.1   1031.4   2260.9   1033.6  2262.7   1035.9
GR   2264.6   1038.2   2266.4    1040.4  2268.2   1042.7

NC   0.065    0.065    0.035        .1      .3
ET                     9.1                                                   935      1181
          DIRT ROAD DIP CROSSING 110 FEET EAST OF THIS SECTION
X1   3.030       52    973.3    1016.7     410      520      500
GR     2275      845   2274.2     852.5  2273.8    856.3   2273.3      860  2272.5    867.5
GR   2271.7      875   2271.3     878.8  2270.8    882.5     2270      890  2269.5    893.7
GR   2268.9    897.4   2268.4       901  2267.9    904.7   2267.4    908.4  2266.8    912.1
GR   2266.3    915.8   2265.8     919.5  2265.3    923.2   2264.7    926.8  2264.2    930.5
GR   2263.7    934.2   2263.2     937.9  2262.6    941.6   2262.1    945.3  2261.6      949
GR   2261.1    952.6   2260.5     956.3   2260      960   2259.3    963.3  2258.6    966.7
GR   2257.9      970   2257.4     973.3   2257     976.7   2256.5      980   2257     1000
GR   2257.4   1016.7     2258      1030  2258.5   1051.6     2259   1073.2  2259.5   1098.4
     2260     1120   2260.5    1134.7  2261.1   1149.3   2261.6     1164   2262     1175
     2263     1178.8  2264      1182.5  2265     1186.3   2266       1190   2267     1193.8
GR   2268     1197.5  2269      1201.3

QT     2      6495    6495
ET                     9.1                                                   963      1133
X1   3.125       49    990.     1025.0     520      450      505
GR     2290      880   2288.6     885  2287.1      890   2285.7      895  2284.3      900
GR   2282.9      905   2281.4     910   2280      915     2280    925.8   2280    936.6
GR     2280      942   2277.5    947.8   2275    953.5   2272.5    959.3   2270      965
GR     2267      970   2266.3     975  2265.5      980   2265.3      985   2265      990
GR   2264.8      995   2264.5    1000  2264.7     1015     2265     1025  2265.3     1035
GR   2265.7     1045     2266    1055  2266.3   1065.8   2266.6   1076.5  2266.9   1087.3
GR   2267.1   1092.7   2267.4   1103.5  2267.7   1114.2     2268     1125  2269.7     1130
GR   2271.4     1135   2273.1     1140  2274.9     1145   2276.6     1150  2278.3     1155
GR     2280     1160   2281.2     1165  2282.3     1170   2283.5     1175  2284.7     1180
GR   2285.8     1185     2287     1190  2288.2     1195   2289.3     1200

NC   0.070    0.070    0.035        .1      .3
ET                     9.1                                                   844      1038
X1   3.220       60    990.     1010.     570      470      500
GR     2290      805   2289.2     807.9  2288.3    810.8   2287.5    813.8  2286.7    816.7
GR   2285.8    819.6   2285       822.5  2284.2    825.4   2283.3    828.3  2282.5    831.3
GR   2281.7    834.2   2280.8     837.1   2280      840     2279    842.8   2278      845.5
GR     2277    848.3   2276       851   2275.7    864.9   2275.4      876  2275.1    889.9
GR   2274.9    898.3   2274.6     912.2  2274.4    920.5   2274.1    934.4  2273.9    942.9
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    2273.6    948.6    2273.4    951.4    2273.1    957.1    2272.9    962.5    2272.6    967.5
    2272.4    972.9    2272.1    984.3    2272      990      2272      1010     2272.5    1012.5
GR  2273      1015     2273.6    1017.7   2274.3    1020.5   2274.9    1023.2   2275.6    1025.9
GR  2276.2    1028.6   2276.8    1031.4   2277.4    1034.1   2278.1    1036.8   2278.7    1039.6
GR  2279.4    1042.3   2280      1045     2280.7    1047.9   2281.4    1050.7   2282.1    1053.6
GR  2282.9    1056.4   2283.6    1059.3   2284.3    1062.1   2285      1065     2285.7    1067.9
GR  2286.4    1070.7   2287.1    1073.6   2287.9    1076.4   2288.6    1079.3   2289.3    1082.1

QT  2         6308     6308
ET                     9.1                                                      841       1024
            DIRT ROAD DIP CROSSING 240 FEET UPSTREAM OF THIS SECTION
X1  3.304     48       960.3     1005.0   450       436      438
GR  2300      800      2299.1    802.7    2298.2    805.5    2297.3    808.2    2296.4    810.9
GR  2295.4    813.6    2294.6    816.4    2293.6    819.1    2292.7    821.8    2291.8    824.5
GR  2290.9    827.3    2290      830      2288.9    832.9    2287.7    835.7    2286.6    838.6
GR  2285.4    841.4    2284.3    844.3    2283.1    847.1    2282      850      2281.9    892.5
GR  2281.6    902.5    2281.4    907.5    2281.1    912.5    2280.9    920.3    2280.6    944.3
GR  2280.5    960.3    2280.2    994.7    2280.5    1005     2280.9    1012.5   2281      1015
GR  2281.5    1017.5   2282      1020     2284      1022.5   2286      1025     2288      1027.5
GR  2290      1030     2290.8    1032.7   2291.5    1035.4   2292.3    1038.1   2293.1    1040.8
GR  2293.9    1043.5   2294.6    1046.2   2295.4    1048.8   2296.1    1051.5   2296.9    1054.2
GR  2297.7    1056.9   2298.5    1059.6   2299.2    1062.3

NC  0.065     0.070    0.035     .1       .3
ET                     9.1                                                      928       1090
            CONFLUENCE OF COMBINED FLOW NODE CR34 - WASH R-2
X1  3.409     76       989.6     1037.5   487       575      562
GR  2315      810      2314.6    813.5    2314.2    816.9    2313.9    820.4    2313.5    823.8
    2313.1    827.3    2312.7    830.8    2312.3    834.2    2311.9    837.7    2311.5    841.2
    2311.1    844.6    2310.8    848.1    2310.4    851.5    2310      855      2309.3    858.6
GR  2308.7    862.2    2308      865.8    2307.3    869.4    2306.7    873      2306      876.6
GR  2305.3    880.2    2304.7    883.8    2304      887.4    2303.3    891      2302.7    894.6
GR  2302      898.2    2301.3    901.8    2300.7    905.4    2300      909      2298.9    912.7
GR  2297.7    916.4    2296.6    920.1    2295.4    923.9    2294.3    927.6    2293.1    931.3
GR  2292      935      2291.7    938.3    2291.3    941.7    2291      945      2290.7    948.3
GR  2290.3    951.7    2290      955      2289.8    965.4    2289.6    972.3    2289.4    982.7
GR  2289.2    989.6    2289      1000     2289.2    1034     2289.2    1037.5   2289.4    1051.5
GR  2289.6    1065.3   2289.8    1068.5   2290      1075     2291      1078.5   2292      1082
GR  2293      1085.5   2294      1089     2295      1092.5   2296      1096     2297      1099.5
GR  2298      1103     2299      1106.5   2300      1110     2301      1113.5   2302      1117
GR  2303      1120.5   2304      1124     2305      1127.5   2306      1131     2307      1134.5
GR  2308      1138     2309      1141.5   2310      1145     2311.3    1148.8   2312.5    1152.5
GR  2313.8    1156.3

QT  2         5307     5307
ET                     9.1                                                      979       1511
X1  3.483     42       1452.0    1495.0   470       355      390
GR  2308      960      2305.3    966.7    2302.7    973.3    2300      980      2298.9    985
GR  2297.8    990      2298.1    1006.7   2298.4    1025     2298.5    1046.3   2298.5    1068.8
GR  2298.6    1091.3   2298.6    1113.8   2298.6    1136.9   2298.4    1160.6   2298.4    1184.4
GR  2298.3    1208.1   2298.4    1232.5   2298.6    1245     2298.4    1256.4   2298.1    1273.6
GR  2297.9    1285     2297.6    1307.9   2297.4    1319.3   2297.3    1342.1   2297.3    1364.9
GR  2297.3    1387.8   2297.3    1410.6   2297      1434     2296.6    1446     2296.5    1452
GR  2296.2    1464     2296      1470     2295.7    1476.7   2295.3    1483.3   2295      1490
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	2296.5	1495	2298	1500	2299	1505	2300	1510	2301.3	1516.3
	2302.5	1522.5	2303.8	1528.8						
NC	0.070	0.070	.035	.1	.3					
ET			9.1						785	1018
X1	3.564	42	940.	1005.0	450	425	438			
GR	2320	740	2318.7	745	2317.3	750	2316	755	2314	760.8
GR	2312	766.7	2310	772.5	2308	778.3	2306	784.2	2304	790
GR	2303.8	796	2303.6	802	2303.5	808	2303.3	814	2303.1	820
GR	2302.9	826	2302.7	832	2302.6	838	2302.4	844	2302.2	850
GR	2302.2	866.9	2302.3	872.5	2302.3	895	2302.4	917.5	2302.4	940
GR	2302.3	952	2302.2	958	2302.1	970	2302	976	2302	982
GR	2301.9	988	2301.8	1000	2302.9	1005	2304	1010	2305.3	1016.7
GR	2306.7	1023.3	2308	1030	2310	1035	2312	1040	2314	1046.3
GR	2316	1052.5	2318	1058.8						
NC	0.070	0.070	0.040	.1	.3					
ET			9.1						813	1078
X1	3.652	55	933.0	1016.	450	460	465			
GR	2320	785	2319	788.1	2318	791.3	2317	794.4	2316	797.5
GR	2315	800.6	2314	803.8	2313	806.9	2312	810	2311.7	813.1
GR	2311.4	816.2	2311.1	819.2	2310.8	822.3	2310.5	825.4	2310.1	828.5
GR	2309.9	831.5	2309.5	834.6	2309.2	837.7	2308.9	840.8	2308.6	843.8
GR	2308.3	846.9	2308	850	2308	871.5	2308	893.1	2308	914.6
GR	2308	933	2307.9	936	2307.8	948	2307.7	951	2307.6	972.3
GR	2307.6	981.5	2307.5	984.6	2307.5	1000	2307.7	1003.3	2307.8	1006.7
GR	2308	1010	2308	1016	2308.1	1019	2308.1	1037.5	2308	1040.6
GR	2308	1050	2308.4	1053	2308.8	1056	2309.2	1059	2309.6	1062
	2310	1065	2310.4	1068	2310.8	1071	2311.2	1074	2311.6	1077
	2312	1080	2313.6	1083	2315.2	1086	2316.8	1089	2318.4	1092
QT	2	4305	4305							
ET			9.1						763	1021
X1	3.706	51	982.5	1013.3	285	285	285			
GR	2332	690	2331	693.8	2330	697.5	2329	701.3	2328	705
GR	2327	708.8	2326	712.5	2325	716.3	2324	720	2323	723.8
GR	2322	727.5	2321	731.3	2320	735	2319.5	738.8	2319	742.5
GR	2318.5	746.3	2318	750	2317.5	753.8	2317	757.5	2316.5	761.3
GR	2316	765	2315.7	780	2315.4	795	2315.1	813.8	2314.9	825
GR	2314.6	840	2314.4	851.3	2314.1	866.3	2313.9	877.5	2313.6	896.3
GR	2313.4	907.5	2313.1	926.3	2312.9	937.5	2312.6	952.5	2312.4	963.8
GR	2312.1	982.5	2311.9	993.3	2312	1010	2313.3	1013.3	2314.7	1016.7
GR	2316	1020	2317.1	1023.6	2318.2	1027.3	2319.3	1030.9	2320.4	1034.6
GR	2321.4	1038.2	2322.6	1041.8	2323.6	1045.4	2324.7	1049.1	2325.8	1052.7
GR	2326.9	1056.4								
NC	0.070	0.070	0.045	.1	.3					
ET			9.1						858	1097
X1	3.762	68	993.0	1027.5	275	280	292			
GR	2340	710	2339.2	714	2338.5	718.1	2337.7	722.1	2336.9	726.2
GR	2336.2	730.2	2335.4	734.3	2334.7	738.3	2333.9	742.4	2333.1	746.4
GR	2332.4	750.5	2331.6	754.5	2330.9	758.6	2330.1	762.6	2329.3	766.7
GR	2328.6	770.7	2327.8	774.8	2327.1	778.8	2326.3	782.9	2325.5	786.9
GR	2324.8	791	2324	795	2323.6	803	2323.4	807	2323	815

	2322.6	823	2322.4	827	2322	835	2321.6	843	2321.4	847
	2321	855	2320.6	863	2320.4	867	2320	875	2319.6	887.2
GR	2319.4	895.3	2319	907.5	2318.7	919.8	2318.6	0 923.8	2318.4	927.9
GR	2318.1	940.1	2317.9	944.2	2317.6	956.4	2317.3	964.5	2317	976.7
GR	2316.7	984.9	2316.5	993	2316.1	996.5	2315.8	1000	2316.2	1019.2
GR	2316.5	1027.5	2316.8	1035.8	2317.2	1044.2	2317.5	1048.5	2317.9	1056.9
GR	2318.1	1061.2	2318.4	1065.4	2318.6	1069.6	2318.9	1073.8	2319.1	1078.1
GR	2319.5	1086.5	2319.8	1090.8	2320	1095	2323.3	1099.2	2326.7	1103.3
GR	2330	1107.5	2333.3	1111.7	2336.7	1115.8				
ET			9.1						946	1256
X1	3.823	48	988.5	1026.6	300	350	322			
GR	2340	920	2338	923.8	2336	927.5	2334	931.3	2332	935
GR	2330	938.8	2328	942.5	2326	946.3	2324	950	2323.8	957.7
GR	2323.6	961.5	2323.4	969.2	2323.2	976.9	2323	984.6	2322.9	988.5
GR	2322.7	992.3	2322.5	1000	2322.5	1022.8	2322.6	1026.6	2322.6	1049.3
GR	2322.6	1072.1	2322.7	1094.8	2322.7	1117.7	2322.6	1140.9	2322.5	1164.1
GR	2322.4	1187.3	2322.6	1202.9	2322.7	1206.8	2322.9	1210.7	2323.1	1218.6
GR	2323.3	1226.4	2323.5	1234.3	2323.7	1238.2	2323.9	1246.1	2324	1250
GR	2325.1	1253.6	2326.3	1257.1	2327.4	1260.7	2328.6	1264.3	2329.7	1267.9
GR	2330.9	1271.4	2332	1275	2333.1	1278.6	2334.3	1282.1	2335.4	1285.7
GR	2336.6	1289.3	2337.7	1292.9	2338.9	1296.4				
QT	2	3304	3304							
ET			9.1						956	1277
X1	3.897	60	995.0	1050.	390	390	392			
GR	2348	855	2346.9	860	2345.7	865	2344.6	870	2343.4	875
GR	2342.3	880	2341.1	885	2340	890	2339.3	895	2338.7	900
	2338	905	2337.3	910	2336.7	915	2336	920	2335.5	925
	2335	930	2334.5	935	2334	940	2333.5	945	2333	950
GR	2332.5	955	2332	960	2331.8	965	2331.5	970	2331.3	975
GR	2331	980	2330.8	985	2330.5	990	2330.3	995	2330	1000
GR	2330.1	1025	2330.3	1050	2330.4	1075	2330.5	1100	2330.6	1125
GR	2330.6	1150	2330.7	1175	2330.7	1200	2330.8	1225	2330.9	1235
GR	2331.1	1240	2331.3	1250	2331.5	1255	2331.7	1265	2331.9	1270
GR	2332	1275	2333.7	1280	2335.4	1285	2337.1	1290	2338.9	1295
GR	2340.6	1300	2342.3	1305	2344	1310	2345	1315	2346	1320
GR	2347	1325	2348	1330	2349	1335	2350	1340	2351	1345
ET			9.1						991	1268
X1	3.939	53	995.0	1020.	220	260	224			
GR	2352	915	2351.2	919	2350.4	923	2349.6	927	2348.8	931
GR	2348	935	2347.2	939	2346.4	943	2345.6	947	2344.8	951
GR	2344	955	2343.2	959	2342.4	963	2341.6	967	2340.8	971
GR	2340	975	2339.2	979	2338.4	983	2337.6	987	2336.8	991
GR	2336	995	2333	1000	2333.1	1020	2333.1	1044	2333.2	1068
GR	2333.3	1088.1	2333.5	1104.4	2333.7	1120.6	2333.9	1132.8	2334.1	1149.1
GR	2334.3	1165.3	2334.5	1185.6	2334.7	1201.9	2334.9	1213.9	2335.1	1221.8
GR	2335.3	1233.6	2335.5	1241.4	2335.7	1249.3	2335.9	1261.1	2336	1265
GR	2337.3	1269.2	2338.7	1273.3	2340	1277.5	2341.3	1281.7	2342.7	1285.8
GR	2344	1290	2345	1293.8	2346	1297.5	2347	1301.3	2348	1305
GR	2349	1308.8	2350	1312.5	2351	1316.3				

			9.1						856	1172
X1	4.014	57	990.8	1009.2	400	380	395			
GR	2360	780	2359	784.4	2358	788.8	2357	793.1	2356	797.5
GR	2355	801.9	2354	806.3	2353	810.6	2352	815	2351	820
GR	2350	825	2349	830	2348	835	2347.2	840	2346.4	845
GR	2345.6	850	2344.8	855	2344	860	2343.8	873.4	2343.6	886.8
GR	2343.4	900.3	2343.2	913.7	2343	931.6	2342.8	945	2342.6	954.2
GR	2342.4	963.3	2342.3	967.9	2342.1	972.5	2341.9	981.7	2341.7	990.8
GR	2341.5	1000	2341.7	1009.2	2341.9	1018.3	2342.1	1027.5	2342.3	1032.1
GR	2342.5	1041.3	2342.7	1050.4	2342.9	1068.8	2342.9	1091.7	2343.1	1114.6
GR	2343.3	1128.5	2343.5	1137.7	2343.7	1151.5	2343.9	1160.8	2344	1170
GR	2345.8	1174.4	2347.6	1178.9	2349.3	1183.3	2351.1	1187.8	2352.9	1192.2
GR	2354.7	1196.7	2356.4	1201.1	2358.2	1205.6	2360	1210	2361	1215
GR	2362	1220	2363	1225						
QT	2	2800	2800							
ET			9.1						767	1124
X1	4.108	60	994.4	1085.7	505	450	495			
GR	2364	635	2363.8	640.6	2363.5	646.2	2363.3	651.8	2363.1	657.3
GR	2362.8	662.9	2362.6	668.5	2362.4	674.1	2362.1	679.7	2361.9	685.3
GR	2361.6	690.9	2361.4	696.5	2361.2	702.1	2360.9	707.7	2360.7	713.2
GR	2360.5	718.8	2360.2	724.4	2360	730	2359	735	2358	740
GR	2357	745	2356	750	2355	755	2354	760	2353	765
GR	2352	770	2351.8	791.7	2351.6	813.3	2351.4	835	2351.3	856.7
GR	2351.1	872.9	2350.9	894.6	2350.7	916.7	2350.5	933.3	2350.3	955.6
GR	2350.1	972.2	2349.9	988.9	2349.9	994.4	2349.7	1016	2349.7	1037.3
GR	2349.6	1058.7	2349.5	1080	2349.9	1085.7	2350.2	1091.4	2350.6	1097.1
	2350.9	1102.9	2351.3	1108.6	2351.6	1114.3	2352	1120	2352.8	1125
	2353.6	1130	2354.4	1135	2355.2	1140	2356	1145	2357.3	1150
GR	2358.7	1155	2360	1160	2361	1165	2362	1170	2363	1175
NC	0.070	0.070	0.035	.1	.3					
ET			9.1						663	1174
X1	4.148	78	992.5	1035.7	200	220	210			
GR	2380	480	2378.9	487.1	2377.7	494.3	2376.6	501.4	2375.4	508.6
GR	2374.3	515.7	2373.1	522.9	2372	530	2370.4	538	2368.8	546
GR	2367.2	554	2365.6	562	2364	570	2363	577.5	2362	585
GR	2361	592.5	2360	600	2359.6	607.3	2359.3	614.5	2358.9	621.8
GR	2358.6	629.1	2358.2	636.4	2357.8	643.6	2357.4	650.9	2357.1	658.2
GR	2356.7	665.5	2356.4	672.7	2356	680	2356	710	2358	717.5
GR	2360	725	2362.4	733	2364.8	741	2367.2	749	2369.6	757
GR	2372	765	2372.3	771.7	2372.7	778.3	2373	785	2372.7	793.3
GR	2372.3	801.7	2372	810	2371	818.3	2370	826.5	2369	834.8
GR	2368	843	2367.6	857.4	2367.4	864.6	2367	879	2366.6	893.4
GR	2366.4	900.6	2366	915	2365.7	922.5	2365.3	930	2365	937.5
GR	2364.7	945	2364.3	952.5	2364	960	2362	966	2360	972
GR	2358	978.5	2356	985	2354.8	992.5	2353.5	1000	2353.8	1035.7
GR	2354.1	1078.6	2354.4	1107.8	2354.6	1115.6	2355	1131.1	2355.4	1146.7
GR	2355.6	1154.4	2356	1170	2357.6	1177	2359.2	1184	2360.8	1191
GR	2362.4	1198	2364	1205	2366	1212.5				

			9.1						742	1049
X1	4.242	71	995.	1015.	520	495	500			
GR	2380	555	2378	560	2376	565	2374	570	2372	575
GR	2371.7	580	2371.3	585	2371	590	2371.5	595	2372	600
GR	2373.3	605	2374.7	610	2376	615	2377.3	620	2378.7	625
GR	2380	630	2380	655	2380	665	2378	670	2376	675
GR	2374	680	2372.5	685	2371	690	2369.5	695	2368	700
GR	2367.8	705	2367.6	710	2367.3	715	2367.1	720	2366.9	725
GR	2366.7	730	2366.5	735	2366.3	740	2366	745	2365.8	750
GR	2365.6	755	2365.4	760	2365.2	765	2364.9	770	2364.7	775
GR	2364.5	780	2364.5	805	2364.5	830	2364.6	855	2364.8	865
GR	2365	890	2364.9	895	2364.7	900	2364.6	905	2364.4	910
GR	2364.3	915	2364.1	920	2363.9	930	2363.9	955	2364	980
GR	2364	985	2363.6	990	2363.2	995	2362.8	1000	2362.9	1005
GR	2363.1	1010	2363.2	1015	2363.3	1020	2363.5	1025	2363.7	1035
GR	2363.9	1040	2364	1045	2367.2	1050	2370.4	1055	2373.6	1060
GR	2376.8	1065								
ET		7.1	9.1				587	1025	587	1025
X1	4.335	52	982.5	1006.7	400	485	480			
GR	2388	455	2386.3	460.7	2384.6	466.4	2382.9	472.1	2381.1	477.9
GR	2379.4	483.6	2377.7	489.3	2376	495	2375.8	507.2	2375.6	519.4
GR	2375.4	525.6	2375.2	537.8	2375	550	2374.8	555.8	2374.6	561.7
GR	2374.4	567.5	2374.2	573.3	2374	579.2	2373.8	585	2373.5	590.8
GR	2373.3	596.7	2373.1	602.5	2372.9	608.3	2372.7	614.2	2372.5	620
GR	2372.3	644	2372.1	662	2372	686	2372	710	2372.2	733.3
GR	2372.3	756.7	2372.5	774.2	2372.4	797.5	2372.4	820.8	2372.3	844.2
	2372.4	868	2372.4	892	2372.5	910	2372.3	916.7	2372.2	923.3
	2372	930	2371.8	941.7	2371.6	959.2	2371.4	970.8	2371.3	982.5
GR	2371.1	994.2	2371	1000	2371.3	1006.7	2371.7	1013.3	2372	1020
GR	2374.7	1026.7	2377.3	1033.3						
NC	0.065	0.065	0.035	.1	.3					
ET		7.1	9.1				583	1031	583	1031
X1	4.394	66	985.0	1013.3	270	340	320			
GR	2392	260	2390.7	266.7	2389.3	273.3	2388	280	2386.7	288.3
GR	2385.3	296.7	2384	305	2383.6	312.8	2383.3	320.6	2382.9	328.3
GR	2382.6	336.1	2382.2	343.9	2381.9	351.7	2381.5	359.4	2381.2	367.2
GR	2380.8	375	2380.8	397.5	2380.8	420	2381.6	428.8	2382.4	437.5
GR	2383.2	446.3	2384	455	2386.7	463.3	2389.3	471.7	2392	480
GR	2396	490	2396.2	515	2394.1	522.5	2392	530	2388	540
GR	2386.7	546.7	2385.3	553.3	2384	560	2383.4	568	2382.8	576
GR	2382.2	584	2381.6	592	2381	600	2381	624	2381	648
GR	2381	672	2381	696	2381	720	2381	744	2381	767.8
GR	2381	791.1	2381	814.4	2381	837.8	2381	861.1	2381	884.4
GR	2380.9	907.8	2380.7	923.3	2380.6	931.1	2380.4	938.9	2380.2	954.4
GR	2380	970	2379.8	985	2379.6	992.5	2379.5	1000	2379.7	1006.7
GR	2379.8	1013.3	2380	1020	2381.6	1028	2383.2	1036	2384.8	1044
GR	2386.4	1052								

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                7.1       9.1                                680       1053       680       1053
        ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
        SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
        WSEL AND THE TOPOGRAPHY.
X1    4.461       48      990.6    1010.0       370       330       358
GR     2400      160       2400     188.4      2400     216.8      2400     245.3      2400     273.7
GR     2400    302.1       2400     330.5      2400       340    2398.7       350    2397.3       360
GR     2396      370       2394       380      2392       390    2390.7     398.3    2389.3     406.7
GR     2388      415     2387.8       445    2387.8     472.5    2387.8       500    2387.8       527
GR   2387.8      554     2387.8       581    2387.8     609.1    2387.9     637.7    2387.9     666.4
GR     2388      695     2388.2       725    2388.1     751.3      2388     778.3      2388     805.8
GR     2388    831.7     2387.8     858.8    2387.6     877.7    2387.4     905.9    2387.2     924.7
GR     2387    943.5     2386.8     971.8    2386.6     990.6    2386.5      1000    2386.8      1010
GR   2387.1     1020     2387.4      1030    2387.7      1040      2388      1050    2391.2      1060
GR   2394.4     1070     2397.6      1080    2400.8      1090

QT        2     2297       2297
ET                          9.1                                                        700      1078
X1    4.498       61       975.    1006.4       180       200       192
GR     2408      535       2407     541.3      2406     547.5      2405     553.8      2404       560
GR     2402      565       2400       570      2398       575      2396       580      2395     587.5
GR     2394      595     2393.8     607.3    2393.6     613.5    2393.4     625.9    2393.2     638.2
GR   2393.1    644.4     2392.9     650.6    2392.7     662.9    2392.5     675.3    2392.4     681.5
GR   2392.2    687.7       2392       700    2391.8     719.4    2391.6     738.8    2391.4     764.7
GR   2391.2    784.1       2391       810    2390.8     829.3    2390.6     842.1    2390.4     861.4
GR   2390.2    880.7       2390       900    2389.8     918.8    2389.6     937.5    2389.4     956.3
GR   2389.3      975     2389.1     987.5      2389      1000    2389.3    1006.4    2389.6    1012.9
     2389.9   1019.3     2390.1    1025.7    2390.4    1032.1    2390.7    1038.6      2391      1045
     2391.2   1051.6     2391.4    1058.2    2391.6    1064.8    2391.8    1071.4      2392      1078
GR   2392.8   1084.4     2393.6    1090.8    2394.4    1097.2    2395.2    1103.6      2396      1110
GR     2398   1117.5       2400      1125      2404      1131      2408      1137      2412      1143
GR     2416     1149

ET                7.1       9.1                                657      1342       657      1342
X1    4.602       77      988.0    1011.7       455       530       550
GR     2409      605     2407.3     611.7    2405.7     618.3      2404       625      2403     631.3
GR     2402    637.5       2401     643.8      2400       650      2399       655      2398       660
GR   2398.1    692.5     2398.3       705    2398.5       730    2398.3     748.5    2398.1     767.1
GR   2397.9    791.8     2397.7     810.3    2397.5       835    2397.4     867.1    2397.3     899.3
GR   2397.1    931.4       2397     963.6    2396.8       982    2396.7       988    2396.5      1000
GR   2396.7   1011.7     2396.9    1029.2      2397    1059.7      2397    1090.6      2397    1121.5
GR   2397.1     1146     2397.3      1152    2397.4      1158    2397.6      1164    2397.8      1170
GR   2397.9     1176     2398.1      1182    2398.2      1188    2398.4      1194    2398.4    1225.9
GR   2398.2   1258.2     2398.1    1290.6    2398.2      1322    2398.4      1334    2398.6      1346
GR   2398.8     1358       2399      1370    2399.2      1376    2399.4      1382    2399.6      1388
GR   2399.8     1394       2400      1400    2400.4    1406.5    2400.8      1413    2401.2    1419.5
GR   2401.6     1426       2402    1432.5    2402.4      1439    2402.8    1445.5    2403.2      1452
GR   2403.6   1458.5       2404      1465    2404.7    1470.8    2405.3    1476.7      2406    1482.5
GR   2406.7   1488.3     2407.3    1494.2      2408      1500    2409.6      1506    2411.2      1512
GR   2412.8     1518     2414.4      1524      2416      1530    2417.4      1536    2418.8      1542
GR   2420.2     1548     2421.6      1554
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                        9.1                                                   815      1302
X1    4.663      50     987.   1019.7     245     360     318
GR     2416     750   2414.7    756.7  2413.3   763.3    2412     770   2410.7    776.7
GR   2409.3   783.3    2408      790    2406   797.5    2404     805   2403.8      818
GR   2403.6   837.5   2403.4    850.5  2403.2     870    2403     883   2402.8      896
GR   2402.6   915.5   2402.4    928.5  2402.2     948    2402     961   2401.8      974
GR   2401.7     987   2401.5     1000  2401.7  1019.7  2401.9  1032.8   2402.1   1052.5
GR   2402.3  1065.6   2402.5   1085.3  2402.7    1105  2402.8  1124.2   2402.8   1143.3
GR   2402.9  1162.5   2402.9   1181.7  2402.9  1200.8    2403    1220   2403.2   1238.8
GR   2403.4  1257.5   2403.6   1276.3  2403.8    1295  2403.9  1313.8     2404     1320
GR     2406  1327.5     2408     1335    2409  1341.3    2410  1347.5     2411   1353.8
GR     2412    1360   2413.3   1366.7  2414.7  1373.3    2416    1380     2418   1387.5

NC    0.070   0.070    0.035       .1      .3
ET                      9.1                                                   758      1159
X1    4.725      60    935.0    1005.0     310     365     330
GR     2420     700   2419.2     705   2418.4     710  2417.6     715   2416.8      720
GR     2416     725   2414.7     730   2413.3     735    2412     740   2411.2      745
GR   2410.4     750   2409.6     755   2408.8     760    2408     765     2408      790
GR     2408     815     2408     830   2407.9     835  2407.8     855   2407.7      860
GR   2407.6     880   2407.5     885   2407.4     890  2407.3     910   2407.2      915
GR   2407.1     935     2407     940     2407     965    2407     990     2407     1000
GR   2407.1    1005   2407.3    1010   2407.4    1015  2407.5    1020   2407.6     1025
GR   2407.8    1030   2407.9    1035     2408    1040    2408    1060   2407.9     1065
GR   2407.8    1085   2407.7    1090   2407.6    1105  2407.5    1110   2407.6     1115
GR   2407.7    1130   2407.8    1135   2407.9    1150    2408    1155   2409.4     1160
GR   2410.8    1165   2412.3    1170   2413.7    1175  2415.1    1180   2416.5     1185
     2417.9    1190   2419.3    1195   2420.8    1200  2422.2    1205   2423.6     1210

ET              7.1      9.1                                    832    1152      832     1152
            ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
            SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
            WSEL AND THE TOPOGRAPHY.
X1    4.802      70    986.2    1020.5     385     420     407
GR     2428     755     2427     761.3    2426   767.5    2425   773.8     2424      780
GR     2423   786.3     2422     792.5    2421   798.8    2420     805     2416      815
GR   2415.9   822.3   2415.7    829.6  2415.5   836.9  2415.4   844.2   2415.2    851.5
GR   2415.1   858.8   2414.9    866.2  2414.8   873.5  2414.6   880.8   2414.5    888.1
GR   2414.3   895.4   2414.1    902.7  2413.9   923.8  2413.7   958.5   2413.6    986.2
GR   2413.6  1020.5   2413.8   1040.9    2414    1075  2414.1  1081.9   2414.3   1088.8
GR   2414.5  1095.8   2414.6   1102.7  2414.8  1109.6  2414.9  1116.5   2415.1   1123.5
GR   2415.2  1130.4   2415.4   1137.3  2415.5  1144.2  2415.7  1151.2   2415.9   1158.1
GR   2416.1    1172   2416.3     1200  2416.1  1213.3  2415.9  1226.9   2415.7   1233.8
GR   2415.6  1240.8   2415.4   1247.7  2415.2  1261.5    2415  1268.5   2414.8   1282.3
GR   2414.6  1289.2   2414.5   1296.2  2414.3  1303.1  2414.3  1316.9   2414.5   1323.8
GR   2414.6  1330.8   2414.8   1337.7    2415  1351.5  2415.2  1358.5   2415.4   1372.3
GR   2415.6  1379.2   2415.7   1386.2  2415.9  1393.1    2416    1400   2418.3   1407.1
GR   2420.6  1414.3   2422.9   1421.4  2425.1  1428.6  2427.4  1435.7   2429.7   1442.9
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                7.1       9.1                                983       1428       983       1428
          ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
          SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
          WSEL AND THE TOPOGRAPHY.
X1    4.890       80      990.     1040.      445      165      465
GR     2440      870    2438.2     878.6   2436.4    887.3   2434.6     895.9    2432.8     904.5
GR     2431    913.2    2429.2     921.8   2427.4    930.5   2425.6     939.1    2423.8     947.7
GR     2422    956.4    2420.2       965     2420.1    981.7     2420       990    2419.5      1000
GR   2419.6     1010    2419.8      1020   2419.9     1030     2420      1040    2420.2    1047.5
GR   2420.4     1055    2420.2    1062.5     2420     1070   2419.9      1080    2419.8      1090
GR   2419.7     1100    2419.8    1109.2   2419.9   1136.7   2419.9    1145.8      2420      1155
GR   2420.1   1164.3    2420.2    1192.1   2420.3   1201.4   2420.3    1229.2    2420.3    1238.3
GR   2420.2   1247.5    2420.1    1265.8     2420     1275     2420    1284.1    2420.1    1293.2
GR   2420.1   1320.6    2420.2    1347.9   2420.2   1366.2   2420.3    1375.3    2420.3    1402.7
GR   2420.4     1430    2420.3      1440   2420.2     1450   2420.1      1460      2420      1470
GR   2419.8   1478.8    2419.6    1487.6   2419.5   1496.4   2419.3    1505.2    2419.1    1514.1
GR   2418.9   1522.9    2418.8    1531.7   2418.6   1540.5   2418.4    1549.3    2418.2    1558.1
GR   2418.1   1566.9    2417.9    1575.7   2417.7   1584.5   2417.5    1593.3    2417.4    1602.1
GR   2417.2   1610.9      2417    1619.8   2416.8   1628.6   2416.6    1637.4    2416.5    1646.2
GR   2416.3     1655    2416.8    1664.3   2417.4   1673.6   2417.9    1682.9    2418.4    1692.1
GR   2418.9   1701.4    2419.5    1710.7     2420     1720   2422.7      1730    2425.3      1740

QT       2     1793      1793
NC   0.065    0.065     0.035        .1        .3
ET                       9.1                                                       737      1055
X1   4.968       70      990.     1010.      480      385      412
GR    2436      565    2435.8       570   2435.5      575   2435.3       580    2435.1       585
     2434.8     590    2434.6       595   2434.4      600   2434.1       605    2433.9       610
     2433.6     615    2433.4       620   2433.2      625   2432.9       630    2432.7       635
GR   2432.5     640    2432.2       645     2432      650   2431.8       655    2431.7       660
GR   2431.5     665    2431.3       670   2431.2      675     2431       680    2430.8       685
GR   2430.6     690    2430.5       695   2430.3      700   2430.1       705      2430       710
GR   2429.8     715    2429.6       720   2429.5      725   2429.3       730    2429.1       735
GR    2429     740    2428.8       745   2428.6      750   2428.5       755    2428.3       760
GR   2428.3     775    2428.2       780   2428.2      805   2428.1       825      2428       830
GR    2428     840    2427.9       845   2427.8      860   2427.7       865    2427.6       875
GR   2427.5     880    2427.5       905   2427.5      930   2427.5       955    2427.5       980
GR   2427.3     985    2427.1       990   2426.9      995   2426.7      1000    2426.9      1005
GR   2427.1    1010    2427.4      1015   2427.6     1020   2427.8      1025      2428      1030
GR   2428.2    1035    2428.3      1040   2432.0     1109   2436.0      1126     2440.      1138

ET                       9.1                                                       578      1038
X1   5.021       72      756.3     791.8      240      280      280
GR    2440      515    2439.5     520.6     2439    526.3   2438.5       531.9      2438     537.5
GR   2437.5   543.1      2437     548.8   2436.5    554.4     2436         560      2435     566.3
GR    2434   572.5      2433     578.8     2432      585     2432       608.3      2432     625.9
GR   2431.9   631.8    2431.8     655.6   2431.7    661.5   2431.6       685.2    2431.6     691.1
GR   2431.5     697    2431.5       703   2431.4    708.9   2431.3       732.6    2431.3     738.5
GR   2431.2   744.4    2431.1     756.3   2431.1    768.2     2431       774.1      2431       780
GR   2431.1   785.9    2431.1     791.8   2431.2    797.7   2431.3       803.6    2431.4     815.5
GR   2431.5   821.4    2431.6     827.3   2431.7    839.1   2431.8         845    2431.9     856.8
GR    2432   862.7    2432.1     868.6   2432.2    880.5   2432.3       886.4    2432.4     898.2
GR   2432.5   904.1    2432.6       910   2432.6    915.8   2432.5       921.5    2432.5     927.3
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     2432.4    933.1   2432.3    950.4   2432.2    956.2   2432.1    979.2    2432      985
     2431.9      990   2431.8      995   2431.7     1000   2431.8   1006.3  2431.9   1018.8
GR     2432     1025   2432.5   1031.3     2433   1037.5   2433.5   1043.8    2434     1050
GR   2434.5   1056.3     2435   1062.5   2435.5   1068.8     2436     1075  2436.3   1081.3
GR   2436.5   1087.5   2436.8   1093.8

NC    0.070    0.065    0.040       .1       .3
ET                      9.1                                                  623     1032
X1    5.110       59    989.5   1005.0      375      485      470
GR   2448.5      550   2448.1    555.5   2447.6      561   2447.1    566.5  2446.7      572
GR   2446.3    577.5   2445.8      583   2445.4    588.5   2444.9      594  2444.4    599.5
GR     2444      605     2443      610     2442      615     2441      620    2440      625
GR   2439.9    630.6   2439.8    647.5   2439.7    653.1   2439.6    664.4  2439.5      670
GR   2439.5      686   2439.4    691.3   2439.4    712.7   2439.3      734  2439.3    755.3
GR   2439.3    776.7   2439.3      798   2439.3    819.3   2439.3    840.8  2439.3    862.3
GR   2439.3    883.8   2439.3    905.3   2439.3    926.3   2439.3    947.4  2439.3    963.2
GR     2439    968.4   2438.6    973.7   2438.4      979   2438.3    984.2  2438.1    989.5
GR   2438.1    994.7     2438     1000   2438.1     1005   2438.2     1010  2438.4     1015
GR   2438.8     1020   2439.9     1025     2440     1030   2441.3     1035  2442.7     1040
GR     2444     1045   2445.3     1050   2446.7     1055     2448     1060    2450     1065
GR     2452     1070     2454     1075     2456     1080     2458     1085

NC    0.070    0.070    0.045       .1       .3
ET              7.1      9.1                                807     1178     807     1178
X1    5.184       75    820.0    855.6      340      405      392
GR     2456      700   2455.7    705.8   2455.4    711.5   2455.1    717.3  2454.8    723.1
GR   2454.5    728.8   2454.1    734.6   2453.9    740.4   2453.5    746.2  2453.2    751.9
GR   2452.9    757.7   2452.6    763.5   2452.3    769.2     2452      775  2450.7    781.7
     2449.3    788.3     2448      795     2447    801.3     2446    807.5    2445    813.8
      2444      820     2444    836.7     2444      850     2444    855.6  2444.1    861.3
GR   2444.1    872.5   2444.2    883.8   2444.2    889.4   2444.3      895  2444.3    906.3
GR   2444.4    917.5   2444.4    928.8   2444.5    934.4   2444.5      946  2444.5      958
GR   2444.5      970   2444.5      982   2444.5      994   2444.5   1005.9  2444.5   1017.7
GR   2444.5   1029.6   2444.5   1041.4   2444.5   1053.2   2444.5     1065  2444.5   1076.5
GR   2444.5   1088.1   2444.5   1099.6   2444.5   1111.2   2444.5   1122.7  2444.5   1134.2
GR   2444.5     1140   2444.7   1145.7     2445   1151.3   2445.2     1157  2445.4   1162.7
GR   2445.7   1168.3   2445.9     1174   2446.1   1179.7   2446.4   1185.3  2446.6     1191
GR   2446.8   1196.7   2447.1   1202.3   2447.3     1208   2447.5   1213.7  2447.8   1219.3
GR     2448     1225   2449.3   1231.7   2450.7   1238.3     2452     1245  2453.3     1250
GR   2454.7     1255     2456     1260     2457   1266.3     2458   1272.5    2459   1278.8

ET              7.1      9.1                                980     1100     980     1100
            ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
            SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
            WSEL AND THE TOPOGRAPHY.
            CONFLUENCE OF SUBAREA R18 - WASH R-3
            DIRT ROAD DIP CROSSING
X1    5.273       67    987.5   1056.7      440      470      469
GR     2468      505   2467.5    516.9     2467    528.8   2466.5    540.6    2466    552.5
GR   2465.5    564.4     2465    576.3   2464.5    588.1     2464      600    2462    612.5
GR     2460      625     2459    636.3     2458    647.5     2457    658.8    2456      670
GR   2455.8      695   2455.6    707.5   2455.4    732.5   2455.3      745  2455.1    757.5
GR     2455      770   2454.7    782.1   2454.4    794.3   2454.1    806.4  2453.9    818.6
GR   2453.6    830.7   2453.3    842.9     2453      855   2452.8      879  2452.6      903
```

	2452.4	927	2452.2	951	2452	975	2451.5	987.5	2450.5	1000
	2451	1015	2451	1056.7	2450.8	1094	2450.6	1118	2450.5	1156.7
GR	2450.5	1192.5	2450.5	1226.8	2450.5	1262.3	2450.5	1297.7	2450.5	1333.2
GR	2450.5	1370	2450.5	1403.8	2450.5	1440	2450.5	1477.5	2450	1490
GR	2450.5	1500	2450.8	1512.5	2451	1525	2451.3	1537.5	2451.5	1550
GR	2451.8	1562.5	2452	1575	2452.7	1586.7	2453.3	1598.3	2454	1610
GR	2454.7	1621.7	2455.3	1633.3	2456	1645	2457.3	1658.3	2458.7	1671.7
GR	2460	1685	2462	1695						
QT	2	958	958							
NC	0.070	0.070	0.035	.1	.3					
ET			9.1						854	1030
X1	5.330	64	966.	1008.	295	290	300			
GR	2472	615	2471.5	619.3	2471	623.6	2470.5	627.9	2470	632.1
GR	2469.5	636.4	2469	640.7	2468.5	645	2468	649.3	2467.5	653.6
GR	2467	657.9	2466.5	662.1	2466	666.4	2465.5	670.7	2465	675
GR	2464.7	679.2	2464.4	683.3	2464.2	687.5	2463.9	691.7	2463.6	695.8
GR	2463.3	700	2463.1	704.2	2462.8	708.3	2462.5	712.5	2462.2	716.7
GR	2461.9	720.8	2461.7	725	2461.4	729.2	2461.1	733.3	2460.8	737.5
GR	2460.6	741.7	2460.3	745.8	2460	750	2459.8	758.3	2459.6	770.8
GR	2459.4	779.2	2459.2	791.7	2459	800	2458.8	808.3	2458.6	820.8
GR	2458.4	829.2	2458.2	841.7	2458	850	2457.8	858.4	2457.6	866.8
GR	2457.4	875.3	2457.2	883.7	2457.1	887.9	2456.9	892.1	2456.7	900.5
GR	2456.5	909	2456.3	917.4	2456.1	925.8	2455.9	934	2455.7	954
GR	2455.6	966	2455.5	987.1	2455.7	1008	2455.9	1016	2456	1020
GR	2456.8	1024	2457.6	1028	2458.4	1032	2459.2	1036		
ET			9.1						845	1038
	5.459	71	994.5	1012.0	690	665	682			
	2486	640	2484.5	645	2483	650	2481.5	655	2480	660
GR	2478.7	665	2477.3	670	2476	675	2475.3	680.8	2474.7	686.7
GR	2474	692.5	2473.3	698.3	2472.7	704.2	2472	710	2471.8	720.9
GR	2471.6	726.4	2471.4	737.3	2471.3	742.7	2471.1	748.2	2470.9	759.1
GR	2470.7	770	2470.6	775.5	2470.4	780.9	2470.2	791.8	2470.1	797.3
GR	2469.9	802.7	2469.7	813.6	2469.6	819.1	2469.4	824.5	2469.2	835.5
GR	2469	846.4	2468.9	851.8	2468.7	857.3	2468.5	868.2	2468.4	873.6
GR	2468.2	879.1	2468	890	2467.9	912	2467.8	934	2467.7	956
GR	2467.6	978	2467.5	994.5	2467.7	1012	2467.9	1024	2468	1030
GR	2468.8	1036	2469.6	1042	2470.4	1048	2471.2	1054	2472	1060
GR	2472.7	1065.8	2473.3	1071.7	2474	1077.5	2474.7	1083.3	2475.3	1089.2
GR	2476	1095	2476.8	1101	2477.6	1107	2478.4	1113	2479.2	1119
GR	2480	1125	2480.2	1130.4	2480.4	1135.9	2480.6	1141.4	2480.7	1146.8
GR	2480.9	1152.3	2481.1	1157.7	2481.3	1163.2	2481.4	1168.6	2481.6	1174.1
GR	2481.8	1179.6								
ET			9.1						861	1026
X1	5.551	69	993.3	1003.3	500	435	497			
GR	2490	780	2488	783.3	2486	786.7	2484	790	2482.7	793.3
GR	2481.3	796.7	2480	800	2479.8	807.2	2479.6	814.4	2479.4	818
GR	2479.2	825.2	2479	832.3	2478.8	839.5	2478.6	846.7	2478.4	853.9
GR	2478.3	857.5	2478.1	861.1	2477.9	868.3	2477.7	875.5	2477.5	882.7
GR	2477.3	889.8	2477.1	897	2476.9	900.6	2476.7	907.8	2476.5	915
GR	2476.3	936.7	2476.2	958.3	2476	976.4	2475.8	986.7	2475.7	993.3
GR	2475.5	1000	2475.7	1003.3	2475.8	1006.7	2476	1010	2476.5	1013.8

	2477	1017.5	2477.5	1021.3	2478	1025	2478.5	1028.8	2479	1032.5
	2479.5	1036.3	2480	1040	2480.4	1043.5	2480.8	1047	2481.2	1050.5
GR	2481.6	1054	2482	1057.5	2482.4	1061	2482.8	1064.5	2483.2	1068
GR	2483.6	1071.5	2484	1075	2484.2	1078.6	2484.4	1082.2	2484.7	1085.8
GR	2484.9	1089.4	2485.1	1093.1	2485.3	1096.7	2485.6	1100.3	2485.8	1103.9
GR	2486	1107.5	2486.2	1111.1	2486.4	1114.7	2486.7	1118.3	2486.9	1121.9
GR	2487.1	1125.6	2487.3	1129.2	2487.6	1132.8	2487.8	1136.4		
ET			9.1						900	1024
X1	5.643	70	984.0	1008.6	505	483	496			
GR	2500	800	2499	802.5	2498	805	2497	807.5	2496	810
GR	2495.2	813	2494.4	816	2493.6	819	2492.8	822	2492	825
GR	2491.2	828	2490.4	831	2489.6	834	2488.8	837	2488	840
GR	2487.8	845.4	2487.6	850.9	2487.4	856.3	2487.2	859	2487	864.4
GR	2486.8	869.9	2486.6	875.3	2486.4	880.7	2486.3	883.4	2486.1	886.1
GR	2486.1	888.9	2485.9	891.6	2485.7	897	2485.5	902.4	2485.3	907.9
GR	2485.1	913.3	2484.9	918.7	2484.7	921.4	2484.5	926.9	2484.3	932.3
GR	2484.1	943.3	2484	957.2	2483.8	968	2483.6	976	2483.4	984
GR	2483.2	992	2483	1000	2483.1	1002.9	2483.3	1005.7	2483.4	1008.6
GR	2483.6	1011.4	2483.7	1014.3	2483.9	1017.1	2484	1020	2485	1022.5
GR	2486	1025	2487	1027.5	2488	1030	2489	1032.5	2490	1035
GR	2491	1037.5	2492	1040	2492.8	1043	2493.6	1046	2494.4	1049
GR	2495.2	1052	2496	1055	2496.4	1057.8	2496.9	1060.6	2497.3	1063.3
GR	2497.8	1066.1	2498.2	1068.9	2498.7	1071.7	2499.1	1074.4	2499.6	1077.2
NC	0.070	0.065	0.035	.1	.3					
ET		7.1	9.1				482	1009	482	1009
X1	5.738	72	976.7	1005.0	435	505	508			
	2504	430	2502	436.3	2500	442.5	2498	448.8	2496	455
	2494.7	461.7	2493.3	468.3	2492	475	2491.8	480.8	2491.7	486.7
GR	2491.5	492.5	2491.3	498.3	2491.2	504.2	2491	510	2491.2	523.2
GR	2491.4	536.4	2491.4	549.3	2491.3	561.9	2491.2	574.5	2491.1	587.1
GR	2491	599.7	2490.9	612.2	2490.7	624.8	2490.6	637.4	2490.5	650
GR	2490.3	656.7	2490.2	663.3	2490	670	2490.1	676.3	2490.3	682.5
GR	2490.5	695	2490.6	707.3	2490.6	719.7	2490.7	732.1	2490.7	744.4
GR	2490.8	756.8	2490.9	769.1	2490.9	781.5	2491	793.8	2491	800
GR	2491.2	806	2491.4	812	2491.6	818	2491.8	824	2492	830
GR	2491.8	842	2491.6	854	2491.4	866	2491.2	878	2491	890
GR	2491	902.3	2491	914.6	2491	926.9	2491	939.2	2491	951.5
GR	2491	963.8	2491	970	2490.8	976.7	2490.7	983.3	2490.5	990
GR	2490.3	995	2490	1000	2491	1005	2492	1010	2493	1016.3
GR	2494	1022.5	2495	1028.8	2496	1035	2496.4	1041	2496.8	1047
GR	2497.2	1053	2497.6	1059						
ET			9.1						755	1053
X1	5.793	76	990.	1010.	235	285	286			
GR	2508	675	2507.4	680.1	2506.9	685.3	2506.3	690.4	2505.7	695.6
GR	2505.1	700.7	2504.6	705.9	2504	711	2503.2	715.8	2502.4	720.6
GR	2501.6	725.4	2500.8	730.2	2500	735	2499.6	740	2499.2	745
GR	2498.8	750	2498.4	755	2498	760	2497.9	765	2497.8	780
GR	2497.8	785	2497.7	790	2497.6	805	2497.6	810	2497.5	815
GR	2497.5	829.4	2497.5	843.8	2497.5	858.3	2497.5	872.7	2497.5	887.1
GR	2497.5	901.5	2497.5	916	2497.5	930.4	2497.5	940	2497.4	945
GR	2497.3	960	2497.2	965	2497.1	975	2497	980	2496.9	985

	2496.8	990	2496.6	995	2496.5	1000	2496.6	1005	2496.8	1010
	2496.9	1015	2497	1020	2497.2	1025	2497.3	1030	2497.5	1035
GR	2497.7	1040	2497.8	1045	2498	1050	2498.7	1055	2499.3	1060
GR	2500	1065	2500.7	1070	2501.3	1075	2502	1080	2502.7	1085
GR	2503.3	1090	2504	1095	2505	1100	2506	1105	2507	1110
GR	2508	1115	2508.7	1119.8	2509.4	1124.6	2510.2	1129.4	2510.9	1134.3
GR	2511.6	1139.1	2512.4	1143.9	2513.1	1148.7	2513.8	1153.6	2514.6	1158.4
GR	2515.3	1163.2								
ET		7.1	9.1				858	1128	858	1128
X1	5.862	67	981.3	1015.6	340	356	0 351			
GR	2516	820	2514.7	823.3	2513.3	826.7	2512	830	2510.7	833.3
GR	2509.3	836.7	2508	840	2507.2	844	2506.4	848	2505.6	852
GR	2504.8	856	2504	860	2503.9	863.9	2503.8	867.8	2503.7	871.7
GR	2503.6	879.4	2503.5	883.3	2503.4	887.2	2503.3	891.1	2503.2	895
GR	2503.2	906.3	2503.1	917.5	2503.1	928.8	2503.1	940	2503.1	947.5
GR	2503	951.3	2503	962.5	2503	973.8	2503	977.5	2502.9	981.3
GR	2502.9	992.5	2502.9	1003.9	2502.9	1015.6	2503	1019.4	2503	1031.1
GR	2503	1042.1	2503	1045.7	2503.1	1049.3	2503.1	1060	2503.1	1070.7
GR	2503.2	1081.4	2503.2	1085	2503.3	1088.6	2503.4	1095.9	2503.5	1099.6
GR	2503.6	1103.2	2503.7	1110.4	2503.8	1114.1	2503.9	1121.4	2504	1125
GR	2504.4	1128.9	2504.9	1132.8	2505.3	1136.7	2505.8	1140.6	2506.2	1144.4
GR	2506.7	1148.3	2507.1	1152.2	2507.6	1156.1	2508	1160	2509.3	1163.3
GR	2510.7	1166.7	2512	1170	2512.8	1174	2513.6	1178	2514.4	1182
GR	2515.2	1186	2516	1190						
ET		7.1	9.1				882	1047	882	1047
X1	5.932	86	986.4	1006.8	400	320	366			
	2528	790	2526.7	796.7	2525.3	803.3	2524	810	2522.7	816.7
	2521.3	823.3	2520	830	2516	840	2512	850	2511.6	856.9
GR	2511.1	863.8	2510.7	870.6	2510.3	877.5	2509.8	884.4	2509.4	891.3
GR	2508.9	898.1	2508.5	905	2508.4	925.4	2508.4	945.7	2508.3	966.1
GR	2508.2	986.4	2508.2	1000	2508.5	1006.8	2508.7	1013.6	2509	1020.4
GR	2509.3	1027.1	2509.6	1033.9	2509.8	1040.7	2510.1	1047.5	2510.4	1054.3
GR	2510.6	1061.1	2510.9	1067.9	2511.2	1074.6	2511.5	1081.4	2511.7	1088.2
GR	2512	1095	2512.1	1101.9	2512.3	1108.8	2512.5	1122.5	2512.6	1129.4
GR	2512.8	1136.3	2513	1150	2512.9	1157.1	2512.7	1164.3	2512.6	1171.4
GR	2512.4	1178.6	2512.3	1185.7	2512.1	1192.9	2512	1200	2511.5	1206.4
GR	2511	1212.9	2510.5	1219.3	2510	1225.7	2509.5	1232.1	2509	1238.6
GR	2508.5	1245	2509	1251.4	2509.5	1257.9	2510	1264.3	2510.5	1270.7
GR	2511	1277.1	2511.5	1283.6	2512	1290	2512.1	1312.5	2512.2	1320
GR	2513.5	1326.7	2514.7	1333.3	2516	1340	2516.6	1347.1	2517.1	1354.3
GR	2517.7	1361.4	2518.3	1368.6	2518.9	1375.7	2519.4	1382.9	2520	1390
GR	2520.7	1396.7	2521.3	1403.3	2522	1410	2522.7	1416.7	2523.3	1423.3
GR	2524	1430	2524.8	1437	2525.6	1444	2526.4	1451	2527.2	1458
GR	2528	1465								
NC	0.070	0.070	0.040	.1	.3					
ET			9.1						826	1037
X1	6.002	69	985.0	1005.0	350	340	364			
GR	2519	700	2518.8	705.3	2518.7	710.6	2518.5	715.8	2518.3	721.1
GR	2518.2	726.4	2518	731.7	2517.8	736.9	2517.7	742.2	2517.5	747.5
GR	2517.3	752.8	2517.2	758.1	2517	763.3	2516.8	768.6	2516.7	773.9
GR	2516.5	779.2	2516.3	784.4	2516.2	789.7	2516	795	2515.8	805.4

	2515.6	820.9	2515.4	831.3	2515.2	841.7	2515	857.2	2514.8	867.6
	2514.6	878	2514.4	893.5	2514.2	903.9	2514	914.3	2513.8	929.8
GR	2513.7	945	2513.7	960	2513.6	975	2513.6	985	2513.5	1000
GR	2513.8	1005	2514.1	1010	2514.3	1015	2514.6	1020	2514.9	1025
GR	2515.2	1030	2515.4	1035	2515.7	1040	2516	1045	2516.8	1050
GR	2517.6	1055	2518.4	1060	2519.2	1065	2520	1070	2520.3	1075
GR	2520.7	1080	2521	1085	2521.3	1090	2521.7	1095	2522	1100
GR	2522.3	1105	2522.7	1110	2523	1115	2523.3	1120	2523.7	1125
GR	2524	1130	2524.2	1140.6	2524.4	1151.3	2524.6	1161.9	2524.8	1172.5
GR	2525	1188.4	2525.2	1199.1	2525.4	1209.7	2525.5	1215		
ET			9.1						827	1061
X1	6.056	75	985.0	1005.0	270	290	286			
GR	2534	620	2533.9	625	2533.7	630	2533.5	635	2533.4	640
GR	2533.2	645	2533.1	650	2532.9	655	2532.8	660	2532.6	665
GR	2532.5	670	2532.3	675	2532.1	680	2532	685	2531.6	690
GR	2531.1	695	2530.7	700	2530.2	705	2529.8	710	2529.3	715
GR	2528.9	720	2528.4	725	2528	730	2527	735	2526	740
GR	2525	745	2524	750	2523.7	755	2523.5	760	2523.2	765
GR	2522.9	770	2522.7	775	2522.4	780	2522.1	785	2521.9	790
GR	2521.6	795	2521.3	800	2521.1	805	2520.8	810	2520.5	815
GR	2520.3	820	2520	825	2519.8	830	2519.6	835	2519.4	840
GR	2519.2	845	2519	850	2518.9	870	2518.7	890	2518.6	910
GR	2518.5	930	2518.4	950	2518.3	970	2518.3	985	2518.3	1005
GR	2518.5	1010	2518.6	1015	2518.8	1020	2519	1030	2519.2	1035
GR	2519.4	1045	2519.6	1050	2519.7	1055	2519.9	1060	2520	1065
GR	2521	1070	2522	1075	2523	1080	2524	1085	2524.8	1090
GR	2525.6	1095	2526.4	1100	2527.2	1105	2528	1110	2530	1115
			9.1						887	1207
X1	6.139	63	983.8	1016.7	385	415	434			
GR	2540	565	2536	620	2532	699	2528	835	2525.3	897.7
GR	2525.2	903.8	2525.1	916.2	2525	922.3	2524.9	928.5	2524.8	934.6
GR	2524.7	940.8	2524.6	953.1	2524.5	959.2	2524.4	965.4	2524.3	971.5
GR	2524.2	977.7	2524.1	983.8	2524	990	2524	1005	2524.1	1010.8
GR	2524.2	1016.7	2524.3	1022.5	2524.4	1034.2	2524.5	1040	2524.5	1053.1
GR	2524.5	1066.2	2524.5	1072.7	2524.6	1079.2	2524.6	1092.3	2524.6	1105.4
GR	2524.6	1118.5	2524.7	1131.2	2524.8	1137.3	2524.9	1149.7	2525	1155.9
GR	2525.1	1162.1	2525.2	1168.2	2525.3	1174.4	2525.4	1186.8	2525.5	1192.9
GR	2525.6	1199.1	2525.7	1205.3	2525.8	1211.5	2525.9	1223.8	2526	1230
GR	2526	1242.5	2526	1255	2526	1267.5	2526	1280	2526.3	1286.7
GR	2526.7	1293.3	2527	1300	2527.3	1306.7	2527.7	1313.3	2528	1320
GR	2528.8	1326	2529.6	1332	2530.4	1338	2531.2	1344	2532	1350
GR	2532.7	1356.7	2533.3	1363.3	2534	1370				
ET		7.1	9.1				945	1371	945	1371
		END OF THIS DETAILED STUDY								
X1	6.224	76	985.7	1030.	460	440	452			
GR	2549	755	2548.7	761.7	2548.3	768.3	2548	775	2546.7	783.3
GR	2545.3	791.7	2544	800	2542	807.5	2540	815	2538.7	821.7
GR	2537.3	828.3	2536	835	2535.8	842.2	2535.5	849.4	2535.3	856.6
GR	2535	863.8	2534.8	870.9	2534.5	878.1	2534.3	885.3	2534	892.5
GR	2533.8	899.7	2533.5	906.9	2533.3	914.1	2533	921.3	2532.8	928.4
GR	2532.5	935.6	2532.3	942.8	2532	950	2531.9	957.1	2531.7	964.3

	2531.6	971.4	2531.4	978.6	2531.3	985.7	2531.1	992.9	2531	1000
	2531	1022.5	2531.1	1030	2531.1	1052.5	2531.1	1075	2531.2	1097.5
GR	2531.2	1120	2531.2	1127.5	2531.3	1135	2531.3	1157.5	2531.4	1179.6
GR	2531.4	1201.6	2531.4	1208.9	2531.5	1216.3	2531.5	1230.9	2531.6	1238.2
GR	2531.6	1260.2	2531.7	1282.1	2531.7	1289.5	2531.8	1296.8	2531.8	1318.8
GR	2531.9	1340.7	2531.9	1355.4	2532	1362.7	2532	1370	2534	1377.5
GR	2536	1385	2538	1392.5	2540	1400	2542.7	1406.7	2545.3	1413.3
GR	2548	1420	2550.7	1426.7	2553.3	1433.3	2556	1440	2557	1447.5
GR	2558	1455	2559	1462.5	2560	1470	2560.2	1476.7	2560.3	1483.3
GR	2560.5	1490								

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV= .200 CEHV= .400
*SECNO 50.460

3265 DIVIDED FLOW

HASSAYAMPA RIVER CROSS SECTION 50.46 (CBA 1988, NO DATUM CHANGE)
CONFLUENCE WITH WASH R - CEMETERY WASH, A WEST TRIBUTARY
NON COINCIDENT WITH 100-YEAR DISCHARGE IN HASSAYAMPA
THE METHOD USED TO START THIS HEC-2, WATER SURFACE PROFILE
ANALYSIS IS THE SLOPE/AREA METHOD. THE WATER SURFACE ELEVATION
FOR CROSS SECTION 50.46, THE HASSAYAMPA RIVER, WAS USED AS AN
APPROXIMATE STARTING WATER SURFACE ELEVATION FOR THE WASH R-
CEMETERY WASH HEC-2 WATER SURFACE PROFILE ANALYSIS.

50.460	4.42	2014.12	2013.16	2020.26	2014.41	.29	.00	.00	2013.30
7251.0	2112.7	5092.5	45.8	788.6	1049.9	21.6	.0	.0	2011.50
.00	2.68	4.85	2.12	.045	.035	.045	.000	2009.70	1180.54
.002925	0.	0.	0.	0	17	7	.00	884.86	2128.27

N DISTRIBUTION FOR SECNO= 50.46 CWSEL= 2014.12

STA=	1181.	1250.	1314.	1460.	1506.	1575.	1635.	1770.	2112.	2128.
PER Q=	1.9	4.3	4.7	3.8	11.3	2.8	.4	70.2	.6	
AREA=	73.7	117.3	170.7	95.3	214.7	87.3	29.7	1049.9	21.6	
VEL=	1.9	2.7	2.0	2.9	3.8	2.3	1.0	4.9	2.1	
DEPTH=	1.1	1.8	1.2	2.1	3.1	1.5	.2	3.1	1.3	

CCHV= .100 CEHV= .300
*SECNO .174

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 260.0 1215.0 TYPE= 1 TARGET= 955.000
THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION, UNLESS

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          OTHERWISE NOTED.
          FIRST SECTION OF WASH R - CEMETERY WASH
          DUE TO THE CONFIGURATION AND OTHER HYDROLOGIC CHARACTERISTICS
          OF THE WATERSHED, THE PEAK DISCHARGE MAY INCREASE AND/OR DECREASE
          AT VARIOUS LOCATIONS ALONG THE WASH.
     .174      3.67   2024.67   2024.67       .00   2025.41       .74      5.13       .13   2023.00
   7251.0    3251.1    1416.9    2582.9     776.9     120.3     438.0      32.3      19.7   2023.00
     .04      4.18     11.78      5.90      .070      .035      .070      .000   2021.00    260.89
  .020876     1100.      917.       50.         0        12         0       .00    930.73   1214.22


FLOW DISTRIBUTION FOR SECNO=       .17          CWSEL=   2024.67

STA=     261.     389.     500.     607.     811.     844.     882.     918.     940.     970.    1015.    1100.    1127.
  PER Q=      3.1      4.5      3.3      4.0      3.3      9.0     10.9      5.7      1.1     19.5      9.5      7.1
   AREA=     83.5    107.6     88.1    127.3     55.2    106.4    117.2     65.8     25.9    120.3    131.8     80.7
    VEL=      2.7      3.0      2.7      2.3      4.3      6.1      6.8      6.3      3.1     11.8      5.2      6.4
  DEPTH=       .6      1.0       .8       .6      1.7      2.8      3.3      2.9       .9      2.7      1.6      3.0

STA=    1127.    1153.    1180.    1210.    1214.
  PER Q=      8.5      7.1      3.3       .0
   AREA=     89.7     80.7     53.2      1.8
    VEL=      6.9      6.4      4.5      1.7
  DEPTH=      3.4      3.0      1.8       .4

CCHV=     .200 CEHV=     .400
*SECNO  .227

 5 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      413.0    1016.0  TYPE=      1  TARGET=      603.000
          5 FOOT WIDE WOOD AND STEEL PEDESTRAIN BRIDGE
          200 FEET DOWNSTREAM OF A.T. & S.F. RAILROAD TRESTLE
          THIS BRIDGE IS NOT MODELLED DUE TO THE SHORT WIDTH.
     .227      6.21   2029.21   2029.21       .00   2030.31      1.10      3.47       .14   2025.00
   7251.0    4927.9    2273.4      49.7    1175.7     166.4      14.7      39.6      23.8   2024.00
     .05      4.19     13.66      3.38      .070      .035      .070      .000   2023.00    413.87
  .010627      235.      279.      200.         0        17         0       .00    572.84   1015.65


FLOW DISTRIBUTION FOR SECNO=       .23          CWSEL=   2029.21
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	414.	519.	592.	664.	700.	738.	757.	776.	795.	814.	832.	850.	869.
PER Q=	3.5	3.0	4.0	3.5	5.0	3.0	3.4	3.8	4.1	4.6	5.2	5.6	
AREA=	109.3	88.4	103.8	72.5	91.7	51.6	55.4	59.2	61.3	65.6	70.6	73.9	
VEL=	2.3	2.5	2.8	3.5	3.9	4.3	4.5	4.7	4.9	5.1	5.3	5.5	
DEPTH=	1.0	1.2	1.4	2.0	2.4	2.7	2.9	3.1	3.3	3.6	3.8	4.0	

STA=	869.	887.	906.	924.	980.	1010.	1016.
PER Q=	5.7	5.2	4.4	3.8	31.4	.7	
AREA=	74.8	70.2	63.4	64.3	166.4	14.7	
VEL=	5.6	5.3	5.0	4.3	13.7	3.4	
DEPTH=	4.1	3.8	3.5	1.1	5.5	2.6	

CCHV= .100 CEHV= .300
*SECNO .269

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.68

.269	5.15	2031.15	2029.23	.00	2031.38	.22	.98	.09	2028.00
7251.0	5633.7	1386.4	230.9	1767.0	240.0	114.0	45.9	26.0	2028.30
.06	3.19	5.78	2.03	.070	.035	.070	.000	2026.00	438.09
.003751	145.	222.	242.	2	11	0	.00	661.79	1107.29

FLOW DISTRIBUTION FOR SECNO= .27 CWSEL= 2031.15

STA=	438.	533.	591.	620.	649.	678.	706.	735.	765.	795.	825.	855.	884.
PER Q=	3.7	4.8	3.3	3.7	4.2	4.7	5.2	6.0	6.5	7.1	7.7	7.9	
AREA=	148.6	144.4	87.7	93.7	100.5	108.1	114.9	127.6	133.6	141.1	148.6	149.5	
VEL=	1.8	2.4	2.7	2.9	3.0	3.1	3.3	3.4	3.5	3.6	3.8	3.9	
DEPTH=	1.6	2.5	3.0	3.3	3.5	3.8	4.0	4.3	4.5	4.7	5.0	5.1	

STA=	884.	913.	927.	965.	1038.	1098.	1107.
PER Q=	7.9	3.4	1.6	19.1	3.2	.0	
AREA=	147.4	66.7	54.8	240.0	110.8	3.2	
VEL=	3.9	3.7	2.2	5.8	2.1	.6	
DEPTH=	5.2	4.8	1.4	3.3	1.8	.3	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .300 CEHV= .500
*SECNO .274

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 2030.70 ELREA= 2033.40

DOWNSTREAM SECTION OF THE ATCHISON-TOPEKA AND
SANTA FE RAILROAD TRESTLE. SPECIAL BRIDGE DATA.

.274	6.06	2033.06	2033.06	.00	2034.26	1.20	.14	.49	2030.70
7251.0	2482.9	4768.1	.0	843.6	448.7	.0	47.0	26.4	2033.40
.06	2.94	10.63	.00	.070	.035	.000	.000	2027.00	421.11
.006678	29.	29.	29.	0	11	0	.00	618.28	1039.39

FLOW DISTRIBUTION FOR SECNO= .27 CWSEL= 2033.06

STA=	421.	698.	763.	805.	846.	893.	915.	938.	961.	1039.
PER Q=	3.6	4.7	3.9	5.1	7.1	3.4	3.5	2.9	65.8	
AREA=	170.8	126.7	95.1	110.7	142.1	66.4	68.9	62.9	448.7	
VEL=	1.5	2.7	3.0	3.3	3.6	3.7	3.7	3.4	10.6	
DEPTH=	.6	1.9	2.3	2.7	3.0	3.1	3.1	2.7	5.7	

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2032.44 , NOT 2033.06 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.05	1.56	3.00	.00	72.19	6.39	400.23	1.00	2027.60	2027.10

*SECNO .278

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.39

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
2041.01	2037.71	.00	2177.	5091.	400.	415.	2033.40	2035.90	660.

.278	9.24	2036.84	.00	.00	2036.98	.14	2.72	.00	2030.70
7251.0	4225.5	2991.2	34.2	2711.2	703.8	37.9	48.0	26.7	2033.40
.06	1.56	4.25	.90	.070	.035	.070	.000	2027.60	401.42
.000580	19.	19.	19.	2	0	4	.00	657.62	1059.03

FLOW DISTRIBUTION FOR SECNO= .28 CWSEL= 2036.84

STA=	401.	508.	572.	614.	656.	698.	740.	763.	805.	825.	846.	867.	893.
PER Q=	3.5	3.5	3.1	3.6	4.2	5.4	3.0	5.9	3.2	3.4	3.5	4.6	
AREA=	259.1	219.3	170.6	187.5	206.6	241.0	131.5	254.3	131.9	136.1	138.2	182.0	
VEL=	1.0	1.2	1.3	1.4	1.5	1.6	1.7	1.7	1.8	1.8	1.8	1.8	
DEPTH=	2.4	3.5	4.0	4.4	5.0	5.7	5.8	6.0	6.3	6.5	6.7	6.8	

=	893.	915.	938.	961.	1039.	1059.
ER Q=	3.8	3.9	3.7	41.3	.5	
AREA=	148.5	154.0	150.6	703.8	37.9	
VEL=	1.8	1.8	1.8	4.2	.9	
DEPTH=	6.8	6.8	6.5	8.9	1.9	

CCHV= .100 CEHV= .300
*SECNO .311

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .62

.311	7.46	2036.96	2034.74	.00	2037.13	.17	.14	.01	2030.00
7251.0	5351.2	1319.6	580.2	2424.1	216.2	285.3	59.1	29.0	2030.00
.08	2.21	6.10	2.03	.070	.035	.070	.000	2029.50	398.21
.001485	145.	178.	178.	2	11	0	.00	694.11	1092.32

FLOW DISTRIBUTION FOR SECNO= .31 CWSEL= 2036.96

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	398.	472.	514.	556.	577.	598.	618.	638.	685.	728.	771.	813.	834.
PER Q=	4.3	4.5	5.7	3.4	4.0	3.9	3.2	3.1	3.5	4.8	5.9	3.6	
AREA=	188.5	162.0	187.2	104.1	114.6	109.3	98.5	136.2	142.1	168.9	191.4	107.7	
VEL=	1.6	2.0	2.2	2.4	2.5	2.6	2.4	1.7	1.8	2.0	2.3	2.4	
DEPTH=	2.6	3.9	4.5	5.0	5.5	5.6	4.9	2.9	3.3	4.0	4.6	5.1	

STA=	834.	856.	877.	898.	918.	945.	980.	1010.	1035.	1065.	1092.
PER Q=	4.1	4.4	4.2	3.7	3.4	4.1	18.2	3.3	3.1	1.6	
AREA=	116.8	122.1	116.5	108.3	113.7	136.0	216.2	103.9	111.2	70.2	
VEL=	2.5	2.6	2.6	2.5	2.2	2.2	6.1	2.3	2.0	1.7	
DEPTH=	5.5	5.8	5.7	5.3	4.2	3.9	7.2	4.2	3.7	2.6	

*SECNO .415

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.415	6.00	2041.00	2041.00	.00	2041.74	.73	2.23	.17	2040.00
7251.0	3616.1	1379.3	2255.6	772.5	111.9	461.1	88.9	39.9	2040.00
.10	4.68	12.32	4.89	.070	.035	.070	.000	2035.00	346.50
.021751	622.	540.	580.	0	14	0	.00	858.92	1282.53

FLOW DISTRIBUTION FOR SECNO= .41 CWSEL= 2041.00

STA=	347.	380.	385.	390.	400.	525.	653.	720.	837.	930.	950.	980.	1020.
PER Q=	7.2	3.7	3.7	4.3	3.2	7.4	4.8	3.4	5.1	4.7	2.5	19.0	
AREA=	81.9	27.5	27.5	40.0	63.8	152.8	90.4	90.5	106.5	55.1	36.4	111.9	
VEL=	6.4	9.6	9.6	7.8	3.6	3.5	3.8	2.7	3.5	6.2	4.9	12.3	
DEPTH=	2.4	5.5	5.5	4.0	.5	1.2	1.4	.8	1.1	2.8	1.2	2.8	

STA=	1020.	1090.	1198.	1235.	1262.	1283.
PER Q=	3.7	15.5	6.7	3.9	1.3	
AREA=	71.4	222.1	87.4	55.5	24.8	
VEL=	3.8	5.1	5.5	5.1	3.7	
DEPTH=	1.0	2.1	2.4	2.1	1.2	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .494

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.494	5.86	2049.86	2049.86	.00	2050.90	1.04	7.36	.09	2046.00
7267.0	4241.2	2581.0	444.8	1028.7	204.7	132.6	105.6	48.8	2046.00
.12	4.12	12.61	3.35	.070	.035	.070	.000	2044.00	491.44
.010094	600.	426.	400.	0	8	0	.00	573.34	1098.92

FLOW DISTRIBUTION FOR SECNO= .49 CWSEL= 2049.86

STA=	491.	574.	680.	700.	720.	733.	827.	890.	913.	925.	945.	980.	1020.
PER Q=	5.8	6.5	4.2	10.8	3.6	6.6	7.9	4.4	3.5	3.0	2.0	35.5	
AREA=	136.3	164.6	64.6	114.6	50.1	142.5	150.8	70.6	46.9	50.5	37.2	204.7	
VEL=	3.1	2.9	4.8	6.8	5.3	3.4	3.8	4.5	5.4	4.4	3.8	12.6	
DEPTH=	1.6	1.6	3.2	5.7	3.9	1.5	2.4	3.0	4.0	2.6	1.1	5.1	

STA=	1020.	1064.	1099.
PER Q=	3.4	2.7	
AREA=	73.0	59.7	
VEL=	3.4	3.3	
DEPTH=	1.7	1.7	

CCHV= .100 CEHV= .300
*SECNO .593
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.593	5.56	2058.96	2058.96	.00	2060.15	1.19	5.81	.04	2054.00
7267.0	1999.6	2701.7	2565.7	423.6	210.3	503.5	122.8	55.8	2054.00
.14	4.72	12.85	5.10	.060	.035	.060	.000	2053.40	792.61
.010020	660.	520.	510.	0	12	0	.00	419.02	1211.63

FLOW DISTRIBUTION FOR SECNO= .59 CWSEL= 2058.96

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	793.	820.	850.	870.	910.	970.	980.	1020.	1030.	1080.	1145.	1160.	1180.
PER Q=	5.3	7.1	3.5	3.9	3.9	3.8	37.2	3.4	3.3	12.9	3.7	4.8	
AREA=	75.1	96.2	53.2	74.3	82.0	42.8	210.3	39.6	70.4	186.8	49.1	64.2	
VEL=	5.1	5.4	4.8	3.8	3.5	6.5	12.8	6.2	3.4	5.0	5.5	5.4	
DEPTH=	2.7	3.2	2.7	1.9	1.4	4.3	5.3	4.0	1.4	2.9	3.3	3.2	

STA=	1180.	1190.	1200.	1212.
PER Q=	3.4	3.2	.7	
AREA=	39.6	38.3	15.6	
VEL=	6.2	6.0	3.4	
DEPTH=	4.0	3.8	1.3	

*SECNO .671
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.671	4.64	2066.44	2066.44	.00	2067.70	1.25	4.75	.02	2062.00
7267.0	118.8	3531.3	3617.0	24.7	295.3	771.0	135.1	60.2	2062.00
.16	4.81	11.96	4.69	.060	.035	.060	.000	2061.80	933.89
.010537	405.	415.	530.	0	15	0	.00	389.26	1323.15

FLOW DISTRIBUTION FOR SECNO= .67 CWSEL= 2066.44

STA=	934.	945.	1010.	1026.	1046.	1100.	1150.	1201.	1253.	1304.	1323.
PER Q=	1.6	48.6	4.8	3.3	7.8	8.4	8.2	7.5	7.7	2.2	
AREA=	24.7	295.3	58.3	50.9	125.6	128.2	126.7	121.2	122.8	37.3	
VEL=	4.8	12.0	6.0	4.7	4.5	4.7	4.7	4.5	4.5	4.2	
DEPTH=	2.2	4.5	3.6	2.5	2.3	2.5	2.5	2.3	2.4	1.9	

*SECNO .765
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.765	7.34	2073.34	2073.34	.00	2074.85	1.51	4.29	.08	2068.00
7267.0	1813.7	4138.2	1315.0	461.8	330.8	273.1	147.6	64.6	2068.00
.18	3.93	12.51	4.81	.060	.035	.060	.000	2066.00	760.52
.007037	500.	493.	520.	0	14	0	.00	352.85	1113.37

FLOW DISTRIBUTION FOR SECNO= .76 CWSEL= 2073.34

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


STA=     761.      854.      935.      950.      960.      970.     1020.     1035.     1050.     1065.     1095.     1113.
  PER Q=     4.9       9.8       3.1       3.0       4.1      56.9       6.1       4.7       3.4       3.5        .4
   AREA=   129.4     192.4      49.3      41.4      49.4     330.8      74.0      62.8      51.5      69.3      15.4
    VEL=     2.8       3.7       4.6       5.3       6.0      12.5       6.0       5.4       4.7       3.7       2.1
  DEPTH=     1.4       2.4       3.3       4.1       4.9       6.6       4.9       4.2       3.4       2.3        .8

CCHV=     .300 CEHV=     .500
*SECNO  .860

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      .860      8.16   2083.26   2083.26       .00   2085.58      2.31      3.71       .40   2076.00
    7267.0     590.5    4122.8    2553.7      92.0     269.9     415.3     157.4      67.2   2076.00
      .19      6.42     15.28      6.15      .060      .035      .060      .000   2075.10    961.77
   .008513      345.      497.      530.         0         8         0       .00    159.79   1121.56


FLOW DISTRIBUTION FOR SECNO=       .86          CWSEL=   2083.26

STA=     962.      979.      985.     1020.     1025.     1061.     1094.     1112.     1122.
  PER Q=     3.8       4.3      56.7       3.8      16.3      10.7       3.9        .5
   AREA=    51.1      40.9     269.9      33.8     177.6     133.6      58.5      11.9
    VEL=     5.4       7.7      15.3       8.1       6.7       5.8       4.9       3.0
  DEPTH=     3.0       6.4       7.7       6.8       5.0       4.1       3.1       1.3

*SECNO  .952

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      .952     11.71   2096.11   2096.11       .00   2099.80      3.68      4.40       .69   2084.50
    7283.0    2399.7    2847.6    2035.7     235.1     132.9     221.7     165.1      68.5   2084.40
      .20     10.21     21.42      9.18      .060      .035      .060      .000   2084.40    957.75
   .009624      486.      486.      486.         0        11         0       .00     80.57   1038.31


FLOW DISTRIBUTION FOR SECNO=       .95          CWSEL=   2096.11
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	958.	973.	979.	987.	990.	1001.	1006.	1010.	1014.	1019.	1027.	1038.
PER Q=	5.1	6.9	15.3	5.7	39.1	7.7	6.2	4.9	3.7	4.3	1.2	
AREA=	57.1	51.3	93.2	33.5	132.9	47.6	42.0	36.4	30.8	43.9	21.1	
VEL=	6.5	9.8	11.9	12.4	21.4	11.7	10.8	9.8	8.8	7.1	4.2	
DEPTH=	3.8	9.0	11.0	11.6	11.7	11.1	9.8	8.5	7.2	5.2	1.9	

*SECNO 1.003

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.40

1.003	13.69	2100.79	2094.82	.00	2101.30	.51	.56	.95	2088.30
7283.0	591.2	4676.9	2014.9	198.1	685.1	672.6	172.1	69.4	2088.40
.21	2.98	6.83	3.00	.060	.035	.060	.000	2087.10	951.16
.000834	240.	273.	320.	3	14	0	.00	191.60	1142.75

FLOW DISTRIBUTION FOR SECNO= 1.00 CWSEL= 2100.79

STA=	951.	970.	977.	978.	1030.	1038.	1045.	1052.	1058.	1072.	1086.	1118.	1143.
PER Q=	3.3	3.8	1.0	64.2	4.4	4.1	3.7	3.1	5.4	3.8	3.1	.1	
AREA=	101.6	76.8	19.7	685.1	85.8	81.6	77.3	67.9	124.1	102.0	120.6	13.3	
VEL=	2.4	3.6	3.7	6.8	3.8	3.6	3.5	3.4	3.1	2.7	1.8	.5	
DEPTH=	5.4	11.5	12.3	13.2	12.1	11.5	10.9	10.3	9.3	7.4	3.7	.5	

CCHV= .100 CEHV= .300
*SECNO 1.038

1.038	9.55	2101.25	2095.85	.00	2101.48	.23	.15	.03	2091.70
7283.0	1019.6	3032.1	3231.3	439.7	588.4	1279.0	180.5	70.6	2091.70
.23	2.32	5.15	2.53	.065	.035	.065	.000	2091.70	927.50
.000727	115.	182.	220.	2	17	0	.00	333.59	1261.08

FLOW DISTRIBUTION FOR SECNO= 1.04 CWSEL= 2101.25

STA=	927.	960.	977.	990.	997.	1058.	1103.	1150.	1161.	1173.	1187.	1261.
PER Q=	3.1	4.3	4.2	2.4	41.6	15.9	16.2	3.6	3.1	3.2	2.4	
AREA=	129.1	130.3	117.3	63.0	588.4	421.2	433.9	100.0	90.7	102.7	130.4	
VEL=	1.7	2.4	2.6	2.7	5.2	2.7	2.7	2.6	2.5	2.3	1.3	
DEPTH=	4.0	7.8	8.8	9.4	9.6	9.4	9.3	8.9	8.1	7.1	1.8	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.141

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.141	6.39	2104.39	2104.39	.00	2106.82	2.43	.92	.66	2098.20
7283.0	1530.2	5342.1	410.7	247.0	377.2	82.1	197.2	73.3	2098.00
.24	6.19	14.16	5.00	.065	.035	.065	.000	2098.00	931.48
.009588	595.	546.	380.	0	14	0	.00	156.28	1087.76

FLOW DISTRIBUTION FOR SECNO= 1.14 CWSEL= 2104.39

STA=	931.	963.	978.	993.	995.	1055.	1065.	1088.
PER Q=	4.5	6.4	8.6	1.6	73.4	3.9	1.7	
AREA=	72.3	72.6	86.8	15.3	377.2	46.4	35.8	
VEL=	4.5	6.4	7.2	7.5	14.2	6.1	3.6	
DEPTH=	2.3	4.8	5.8	6.1	6.3	4.6	1.6	

*SECNO 1.191
7185 MINIMUM SPECIFIC ENERGY
[illegible]0 CRITICAL DEPTH ASSUMED
4 TO 5 FOOT DROP FROM CROSS SECTION 1.191 AND 1.199

1.191	8.62	2110.12	2110.12	.00	2112.93	2.82	2.28	.12	2102.00
7283.0	963.9	5191.8	1127.3	170.9	334.6	185.2	201.4	74.2	2102.00
.24	5.64	15.52	6.09	.065	.035	.065	.000	2101.50	929.67
.007868	280.	262.	240.	0	11	0	.00	135.79	1065.46

FLOW DISTRIBUTION FOR SECNO= 1.19 CWSEL= 2110.12

STA=	930.	965.	974.	978.	980.	1020.	1024.	1032.	1040.	1061.	1065.
PER Q=	4.0	4.5	3.0	1.7	71.3	3.4	5.4	3.5	3.1	.0	
AREA=	74.2	51.6	29.3	15.8	334.6	31.8	54.9	42.3	54.3	1.9	
VEL=	3.9	6.4	7.5	8.0	15.5	7.9	7.1	6.1	4.2	1.2	
DEPTH=	2.1	5.7	7.3	7.9	8.4	7.8	6.7	5.2	2.6	.4	

*SECNO 1.199
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

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          DIRT ROAD DIP CROSSING
   1.199      8.26   2114.46   2114.46       .00   2116.93      2.47       .34       .03   2108.00
  7283.0    1174.1    5244.8     864.1     205.9     362.8     162.0     202.1      74.3   2108.00
     .24      5.70     14.46      5.33      .065      .035      .065      .000   2106.20    913.87
 .008285       46.       44.       30.         0         8         0       .00    156.63   1070.50


FLOW DISTRIBUTION FOR SECNO=      1.20          CWSEL=   2114.46

STA=     914.     943.     953.     963.     970.    1020.    1030.    1042.    1070.
  PER Q=      3.2      3.6      4.8      4.4     72.0      5.3      4.0      2.5
   AREA=     59.3     45.9     54.6     46.2    362.8     57.9     53.1     50.9
    VEL=      4.0      5.8      6.4      7.0     14.5      6.7      5.5      3.6
  DEPTH=      2.1      4.6      5.5      6.2      7.3      5.8      4.3      1.8

*SECNO 1.233

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.35

   1.233     10.15   2117.15   2112.77       .00   2117.64       .49       .51       .20   2107.50
  7283.0    3287.1    3077.4     918.5     898.9     406.8     273.7     206.7      75.0   2107.50
     .25      3.66      7.56      3.36      .065      .035      .065      .000   2107.00    913.67
 .001495       150.      178.      220.         2        19         0       .00    201.40   1115.06


W DISTRIBUTION FOR SECNO=      1.23          CWSEL=   2117.15

STA=     914.     940.     953.     961.     979.     989.    1000.    1011.    1022.    1030.    1072.    1080.    1089.
  PER Q=      3.1      4.6      3.5      8.1      5.2      5.2      5.4      5.5      4.5     42.3      4.3      3.7
   AREA=     94.4     98.0     70.4    154.7     97.9     97.9    100.9    101.6     83.1    406.8     79.7     73.6
    VEL=      2.4      3.4      3.6      3.8      3.9      3.9      3.9      3.9      4.0      7.6      3.9      3.7
  DEPTH=      3.6      7.6      8.3      9.0      9.2      9.2      9.3      9.4      9.6      9.9      9.4      8.6

STA=    1089.    1099.    1115.
  PER Q=      3.4      1.2
   AREA=     76.1     44.2
    VEL=      3.2      2.0
  DEPTH=      7.1      2.8

CCHV=     .100 CEHV=     .300
*SECNO 1.328

3301 HV CHANGED MORE THAN HVINS
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    1.328      5.09   2120.09   2120.09       .00   2121.79      1.70      1.65       .36   2115.40
   7283.0     478.3    3770.9    3033.8      83.6     277.7     568.9     221.2      77.8   2115.40
      .27      5.72     13.58      5.33      .070      .035      .070      .000   2115.00    929.80
  .012011      480.      504.      528.         0         8         0       .00    275.64   1205.44


FLOW DISTRIBUTION FOR SECNO=      1.33          CWSEL=   2120.09

STA=     930.     947.     954.    1010.    1020.    1040.    1064.    1087.    1098.    1119.    1140.    1174.    1205.
  PER Q=     3.7      2.9     51.8      4.0      7.3      7.9      7.5      3.0      4.9      3.5      3.0       .5
   AREA=    50.9     32.7    277.7     45.4     86.6     96.4     93.7     39.2     69.0     56.4     62.9     19.5
    VEL=     5.3      6.4     13.6      6.4      6.1      6.0      5.8      5.6      5.1      4.5      3.5      1.9
  DEPTH=     2.9      4.5      5.0      4.5      4.3      4.1      4.0      3.7      3.3      2.7      1.8       .6

CCHV=     .100 CEHV=     .300
*SECNO 1.401
    1.401      5.24   2125.14   2125.06       .00   2126.85      1.70      5.06       .00   2120.70
   7299.0    3528.4    3075.3     695.3     523.2     217.9     109.6     229.0      80.0   2120.80
      .28      6.74     14.11      6.34      .065      .035      .065      .000   2119.90    852.14
  .014498      380.      384.      390.         2         5         0       .00    227.69   1079.83


FLOW DISTRIBUTION FOR SECNO=      1.40          CWSEL=   2125.14

STA=     852.     878.     888.     898.     908.     918.     940.     965.     983.     993.     998.    1045.    1053.
  PER Q=    10.0      5.8      5.1      4.2      3.4      5.5      4.8      4.0      3.4      2.1     42.1      3.1
   AREA=    98.0     51.5     47.7     42.7     37.7     68.9     66.8     51.5     37.2     21.2    217.9     31.5
    VEL=     7.4      8.2      7.8      7.2      6.7      5.8      5.3      5.7      6.6      7.2     14.1      7.2
  DEPTH=     3.9      5.1      4.8      4.3      3.8      3.1      2.7      2.9      3.7      4.2      4.6      4.2

STA=    1053.    1063.    1080.
  PER Q=     3.4      3.0
   AREA=    37.7     40.4
    VEL=     6.7      5.4
  DEPTH=     3.8      2.3

*SECNO 1.431
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

1.431	5.70	2128.00	2127.04	.00	2128.82	.82	1.88	.09	2122.80
7299.0	3062.1	1355.7	2881.2	537.4	110.9	538.0	233.0	81.1	2122.80
.29	5.70	12.23	5.36	.065	.035	.065	.000	2122.30	861.24
.008859	165.	157.	190.	2	15	0	.00	293.79	1155.03

FLOW DISTRIBUTION FOR SECNO= 1.43 CWSEL= 2128.00

STA=	861.	877.	884.	891.	901.	916.	949.	963.	980.	990.	1011.	1018.	1029.
PER Q=	3.4	3.5	3.3	4.0	4.3	8.8	4.3	6.1	4.3	18.6	3.2	4.2	
AREA=	48.3	38.0	37.1	49.3	58.2	123.2	57.6	75.7	50.1	110.9	36.4	51.3	
VEL=	5.1	6.7	6.5	6.0	5.3	5.2	5.5	5.9	6.3	12.2	6.3	6.0	
DEPTH=	3.1	5.5	5.2	4.6	3.9	3.8	4.1	4.5	5.0	5.4	5.1	4.7	

STA=	1029.	1044.	1065.	1100.	1113.	1130.	1148.	1155.
PER Q=	4.8	5.6	9.4	4.1	5.1	3.0	.1	
AREA=	61.9	78.9	131.4	55.3	67.7	50.6	4.6	
VEL=	5.6	5.2	5.2	5.4	5.5	4.4	1.9	
DEPTH=	4.2	3.8	3.8	4.0	4.1	2.8	.7	

V= .100 CEHV= .300
*SECNO 1.508

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.508	4.83	2133.63	2133.63	.00	2135.63	2.00	4.35	.36	2129.10
7299.0	1460.6	4474.8	1363.5	240.4	328.1	214.9	242.2	83.4	2129.20
.30	6.07	13.64	6.35	.070	.035	.065	.000	2128.80	900.92
.013162	408.	408.	405.	0	15	0	.00	197.23	1098.16

FLOW DISTRIBUTION FOR SECNO= 1.51 CWSEL= 2133.63

STA=	901.	923.	935.	948.	960.	965.	1035.	1048.	1060.	1073.	1083.	1098.
PER Q=	4.7	4.1	4.4	4.8	2.0	61.3	5.2	4.8	4.3	3.0	1.4	
AREA=	63.1	49.1	51.6	54.1	22.4	328.1	54.1	51.6	48.5	36.1	24.5	
VEL=	5.4	6.1	6.3	6.5	6.6	13.6	7.0	6.8	6.5	6.2	4.1	
DEPTH=	2.9	3.9	4.1	4.3	4.5	4.7	4.3	4.1	3.9	3.6	1.6	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.531
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
DIRT ROAD DIP CROSSING

1.531	5.49	2135.49	2135.49	.00	2137.49	2.00	1.49	.00	2130.30
7299.0	1498.3	3201.3	2599.4	233.2	209.6	366.3	244.2	83.9	2130.30
.30	6.43	15.27	7.10	.070	.035	.065	.000	2130.00	927.47
.013982	113.	111.	105.	0	8	0	.00	198.43	1125.90

FLOW DISTRIBUTION FOR SECNO= 1.53 CWSEL= 2135.49

STA=	927.	954.	963.	971.	980.	989.	991.	1031.	1051.	1068.	1076.	1087.	1098.
PER Q=	4.5	3.1	3.4	3.8	4.2	1.5	43.9	11.2	8.8	3.8	4.5	3.7	
AREA=	63.6	35.9	36.9	39.9	42.5	14.4	209.6	102.3	83.2	37.2	46.2	40.9	
VEL=	5.2	6.4	6.7	7.0	7.3	7.5	15.3	8.0	7.7	7.4	7.1	6.5	
DEPTH=	2.4	4.0	4.3	4.6	4.9	5.1	5.3	5.1	4.8	4.5	4.2	3.7	

STA=	1098.	1115.	1126.
PER Q=	3.1	.6	
AREA=	43.0	13.5	
VEL=	5.2	3.4	
DEPTH=	2.6	1.2	

*SECNO 1.566

3301 HV CHANGED MORE THAN HVINS

1.566	5.32	2139.02	2138.70	.00	2140.34	1.32	2.78	.07	2134.00
7299.0	143.1	2723.1	4432.8	31.5	206.8	773.7	249.1	85.2	2134.00
.31	4.54	13.17	5.73	.070	.035	.065	.000	2133.70	967.49
.010762	205.	216.	243.	2	11	0	.00	285.51	1252.99

FLOW DISTRIBUTION FOR SECNO= 1.57 CWSEL= 2139.02

STA=	967.	980.	1020.	1028.	1039.	1156.	1174.	1194.	1222.	1253.
PER Q=	2.0	37.3	3.4	4.6	38.8	5.5	4.5	3.2	.6	
AREA=	31.5	206.8	36.5	51.6	471.4	69.4	64.0	59.4	21.5	
VEL=	4.5	13.2	6.8	6.5	6.0	5.7	5.2	4.0	2.2	
DEPTH=	2.5	5.2	4.9	4.6	4.0	3.8	3.2	2.1	.7	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .300 CEHV= .500
*SECNO 1.656
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
DIRT ROAD DIP CROSSING

1.656	7.14	2147.14	2147.14	.00	2148.92	1.78	4.83	.23	2141.00
7299.0	4013.9	2630.4	654.7	645.4	166.4	110.9	258.7	87.7	2141.00
.32	6.22	15.81	5.91	.065	.035	.065	.000	2140.00	804.75
.011139	530.	460.	350.	0	11	0	.00	237.46	1042.21

FLOW DISTRIBUTION FOR SECNO= 1.66 CWSEL= 2147.14

STA=	805.	847.	860.	916.	934.	945.	955.	963.	969.	977.	980.	1005.	1013.
PER Q=	3.8	3.1	17.0	6.9	4.6	4.8	4.4	3.3	5.3	1.9	36.0	4.2	
AREA=	71.9	42.0	211.0	79.2	50.2	49.9	43.9	31.3	48.9	17.0	166.4	42.0	
VEL=	3.9	5.4	5.9	6.3	6.8	7.0	7.3	7.6	7.9	8.0	15.8	7.4	
DEPTH=	1.7	3.3	3.8	4.3	4.7	5.0	5.3	5.6	5.9	6.1	6.7	5.4	

STA=	1013.	1024.	1042.
PER Q=	3.4	1.3	
AREA=	42.3	26.5	
VEL=	5.9	3.6	
DEPTH=	3.8	1.4	

*SECNO 1.705

1.705	5.06	2150.26	2150.06	.00	2151.85	1.59	2.88	.06	2145.50
7299.0	2524.4	2754.1	2020.5	394.1	194.2	302.4	263.6	89.0	2145.50
.33	6.41	14.18	6.68	.065	.035	.065	.000	2145.20	868.54
.013171	210.	252.	280.	2	19	0	.00	232.41	1100.95

FLOW DISTRIBUTION FOR SECNO= 1.71 CWSEL= 2150.26

STA=	869.	896.	908.	920.	933.	947.	960.	973.	980.	1019.	1032.	1045.	1058.
PER Q=	3.3	3.0	4.1	5.2	5.0	5.2	5.7	3.1	37.7	5.8	5.6	5.5	
AREA=	53.2	39.2	46.4	55.4	54.5	55.4	58.7	31.3	194.2	58.6	58.3	57.4	
VEL=	4.5	5.7	6.5	6.8	6.7	6.8	7.1	7.3	14.2	7.3	7.1	7.0	
DEPTH=	2.0	3.2	3.9	4.2	4.1	4.2	4.4	4.7	5.0	4.6	4.4	4.3	

STA=	1058.	1072.	1081.	1101.
PER Q=	5.4	3.4	1.9	
AREA=	57.2	37.8	33.1	
VEL=	6.9	6.5	4.3	
DEPTH=	4.3	3.9	1.7	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO 1.751

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
DIRT ROAD DIP CROSSING

1.751	5.44	2154.74	2154.74	.00	2156.85	2.11	2.91	.16	2149.80
7299.0	835.3	5095.2	1368.5	151.2	380.4	217.1	268.1	90.1	2149.80
.33	5.53	13.39	6.30	.065	.035	.065	.000	2149.30	934.33
.011035	210.	244.	270.	0	8	0	.00	189.28	1123.61

FLOW DISTRIBUTION FOR SECNO= 1.75 CWSEL= 2154.74

STA=	934.	973.	982.	991.	1064.	1076.	1089.	1098.	1114.	1124.
PER Q=	4.3	3.2	3.9	69.8	5.7	5.6	4.1	3.1	.2	
AREA=	71.2	37.7	42.2	380.4	60.1	60.0	44.1	45.4	7.6	
VEL=	4.4	6.2	6.7	13.4	6.9	6.9	6.7	5.0	2.3	
DEPTH=	1.8	4.2	4.7	5.2	4.9	4.8	4.7	2.9	.8	

*SECNO 1.813

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
DRAINAGE SUBAREA COMBINED FLOW

1.813	5.31	2159.31	2159.31	.00	2160.77	1.47	3.67	.06	2155.00
7299.0	1628.1	3496.4	2174.5	327.3	270.8	395.9	274.5	92.0	2155.00
.34	4.97	12.91	5.49	.065	.035	.065	.000	2154.00	843.46
.011738	340.	327.	300.	0	8	0	.00	319.93	1163.40

FLOW DISTRIBUTION FOR SECNO= 1.81 CWSEL= 2159.31

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	843.	882.	910.	941.	960.	968.	1025.	1046.	1063.	1075.	1096.	1120.	1148.
PER Q=	3.0	5.4	7.1	4.4	2.4	47.9	7.6	5.4	3.4	4.8	5.4	3.0	
AREA=	61.9	79.0	97.9	60.0	28.5	270.8	86.5	64.4	43.8	65.7	75.2	53.8	
VEL=	3.6	5.0	5.3	5.3	6.0	12.9	6.4	6.1	5.7	5.3	5.3	4.1	
DEPTH=	1.6	2.8	3.2	3.2	3.8	4.7	4.2	3.9	3.5	3.2	3.1	1.9	

STA=	1148.	1163.
PER Q=	.1	
AREA=	6.5	
VEL=	1.6	
DEPTH=	.4	

*SECNO 1.902

3301 HV CHANGED MORE THAN HVINS

1.902	3.85	2166.55	2166.24	.00	2167.44	.88	6.60	.06	2163.80
7156.0	5368.1	1379.8	408.1	876.3	116.1	82.8	285.2	95.8	2163.80
.36	6.13	11.88	4.93	.065	.035	.065	.000	2162.70	656.49
.018922	435.	467.	462.	3	19	0	.00	425.04	1081.53

W DISTRIBUTION FOR SECNO= 1.90 CWSEL= 2166.55

STA=	656.	675.	685.	695.	710.	735.	775.	806.	842.	855.	865.	890.	910.
PER Q=	3.6	4.1	3.7	4.1	4.7	5.1	5.0	7.3	3.5	3.1	8.0	5.3	
AREA=	42.4	38.0	35.8	45.0	59.8	76.1	67.2	90.4	39.8	31.7	82.6	58.6	
VEL=	6.1	7.7	7.4	6.5	5.6	4.8	5.3	5.8	6.4	7.0	7.0	6.4	
DEPTH=	2.3	3.8	3.6	3.0	2.4	1.9	2.2	2.5	2.9	3.3	3.3	2.9	

STA=	910.	975.	990.	1030.	1045.	1082.
PER Q=	14.1	3.4	19.3	3.2	2.5	
AREA=	169.2	39.8	116.1	38.5	44.2	
VEL=	6.0	6.0	11.9	5.9	4.1	
DEPTH=	2.6	2.7	2.9	2.6	1.2	

CCHV= .100 CEHV= .300

*SECNO 1.966

1.966	4.13	2173.13	2172.88	.00	2174.30	1.17	6.78	.09	2169.70
7156.0	5188.9	1885.0	82.1	844.3	139.9	16.6	294.0	99.0	2169.70
.37	6.15	13.47	4.95	.070	.035	.065	.000	2169.00	698.75
.017902	380.	338.	315.	3	5	0	.00	325.87	1024.62

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 1.97 CWSEL= 2173.13

STA=	699.	730.	740.	754.	766.	778.	798.	810.	822.	834.	846.	869.	892.
PER Q=	3.1	3.4	5.9	4.9	4.4	5.9	3.2	3.2	3.2	3.0	5.8	5.5	
AREA=	48.8	36.2	57.7	48.3	45.3	66.5	37.5	37.5	37.2	36.0	69.9	67.6	
VEL=	4.5	6.7	7.3	7.2	6.9	6.3	6.1	6.1	6.1	6.0	5.9	5.8	
DEPTH=	1.6	3.6	4.1	4.0	3.8	3.3	3.1	3.1	3.1	3.1	3.0	2.9	

STA=	892.	916.	940.	952.	964.	977.	1015.	1025.
PER Q=	5.4	5.8	3.1	3.3	3.7	26.3	1.1	
AREA=	67.8	70.8	36.9	38.7	41.6	139.9	16.6	
VEL=	5.7	5.8	6.0	6.1	6.3	13.5	4.9	
DEPTH=	2.8	2.9	3.1	3.2	3.3	3.7	1.7	

*SECNO 2.034

3301 HV CHANGED MORE THAN HVINS

2.034	3.78	2178.68	2178.18	.00	2179.21	.53	4.85	.06	2175.00
7156.0	2769.4	1191.8	3194.8	656.3	112.0	746.2	304.2	102.9	2175.00
.39	4.22	10.64	4.28	.070	.035	.065	.000	2174.90	726.99
.010856	340.	359.	380.	4	15	0	.00	621.01	1348.01

FLOW DISTRIBUTION FOR SECNO= 2.03 CWSEL= 2178.68

STA=	727.	773.	788.	817.	857.	898.	938.	980.	990.	1020.	1033.	1060.	1099.
PER Q=	6.3	3.1	5.1	5.4	5.5	5.6	5.7	2.1	16.7	3.3	4.4	6.1	
AREA=	100.4	45.9	82.1	96.8	99.2	98.8	101.4	31.8	112.0	44.7	69.6	97.8	
VEL=	4.5	4.8	4.4	4.0	4.0	4.0	4.0	4.8	10.6	5.3	4.5	4.4	
DEPTH=	2.2	3.2	2.8	2.4	2.4	2.5	2.4	3.2	3.7	3.4	2.6	2.5	

STA=	1099.	1119.	1139.	1180.	1220.	1240.	1261.	1303.	1348.
PER Q=	3.2	3.1	5.9	5.8	3.0	3.1	5.0	1.8	
AREA=	51.4	50.6	98.0	96.3	49.6	52.0	90.5	45.7	
VEL=	4.4	4.4	4.3	4.3	4.4	4.3	4.0	2.8	
DEPTH=	2.5	2.5	2.4	2.4	2.5	2.4	2.2	1.0	

*SECNO 2.093

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.093	4.34	2184.84	2184.84	.00	2185.98	1.15	5.10	.19	2182.00
7156.0	4227.4	1343.2	1585.3	680.9	89.4	252.2	314.0	106.8	2182.00
.40	6.21	15.03	6.29	.070	.035	.065	.000	2180.50	721.77
.023141	330.	313.	350.	0	8	0	.00	401.02	1122.78

FLOW DISTRIBUTION FOR SECNO= 2.09 CWSEL= 2184.84

STA=	722.	765.	795.	823.	850.	875.	888.	901.	914.	926.	940.	953.	967.
PER Q=	4.8	5.5	5.0	6.2	8.0	4.1	3.7	3.3	3.1	3.1	3.2	3.3	
AREA=	68.5	69.3	63.5	72.5	80.6	41.7	38.9	36.6	35.0	35.4	36.8	37.7	
VEL=	5.0	5.6	5.6	6.2	7.1	7.1	6.8	6.5	6.3	6.2	6.2	6.3	
DEPTH=	1.6	2.3	2.3	2.6	3.2	3.2	3.0	2.8	2.7	2.7	2.7	2.7	

STA=	967.	981.	990.	1015.	1028.	1041.	1080.	1110.	1123.
PER Q=	3.4	2.4	18.8	3.4	3.0	8.9	6.0	.8	
AREA=	38.2	26.1	89.4	35.8	33.5	98.3	70.1	14.5	
VEL=	6.4	6.5	15.0	6.8	6.5	6.5	6.1	4.1	
DEPTH=	2.8	2.8	3.6	2.7	2.5	2.5	2.3	1.1	

*SECNO 2.188

3301 HV CHANGED MORE THAN HVINS

2.188	4.97	2193.57	2193.52	.00	2195.50	1.93	9.28	.24	2188.90
7156.0	3795.3	2656.8	703.9	530.0	168.8	96.1	323.8	110.0	2188.90
.41	7.16	15.74	7.32	.070	.035	.065	.000	2188.60	844.26
.016854	460.	500.	470.	1	8	0	.00	192.79	1037.05

FLOW DISTRIBUTION FOR SECNO= 2.19 CWSEL= 2193.57

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	844.	868.	880.	893.	905.	918.	930.	943.	955.	968.	975.	1010.	1023.
PER Q=	5.4	4.7	5.2	5.5	5.6	5.6	5.6	5.7	5.9	3.7	37.1	6.1	
AREA=	64.9	49.0	52.1	54.0	54.6	54.6	54.6	55.2	56.5	34.6	168.8	54.8	
VEL=	6.0	6.8	7.1	7.3	7.4	7.4	7.4	7.4	7.5	7.6	15.7	8.0	
DEPTH=	2.8	3.9	4.2	4.3	4.4	4.4	4.4	4.4	4.5	4.6	4.8	4.4	

STA=	1023.	1033.	1037.
PER Q=	3.5	.3	
AREA=	36.0	5.3	
VEL=	6.9	3.5	
DEPTH=	3.6	1.2	

CCHV= .100 CEHV= .300
*SECNO 2.248

3301 HV CHANGED MORE THAN HVINS

2.248	5.29	2198.39	2197.60	.00	2199.30	.91	3.70	.10	2193.50
7013.0	4557.2	2168.9	286.9	934.7	185.6	61.5	331.0	111.8	2193.60
.43	4.88	11.69	4.66	.070	.035	.070	.000	2193.10	741.05
.008455	320.	318.	305.	3	11	0	.00	301.31	1042.36

W DISTRIBUTION FOR SECNO= 2.25 CWSEL= 2198.39

STA=	741.	773.	797.	818.	840.	861.	872.	882.	895.	905.	918.	935.	956.
PER Q=	3.7	4.4	5.4	5.8	6.1	3.3	3.5	5.0	3.7	4.4	4.8	5.6	
AREA=	72.5	73.0	80.4	84.8	85.9	45.1	45.8	63.1	47.4	59.1	67.5	81.7	
VEL=	3.6	4.2	4.7	4.8	5.0	5.2	5.3	5.5	5.5	5.3	5.0	4.8	
DEPTH=	2.2	3.1	3.7	3.9	4.1	4.3	4.5	4.7	4.7	4.4	4.0	3.8	

STA=	956.	980.	987.	1023.	1034.	1042.
PER Q=	7.0	2.4	30.9	3.5	.6	
AREA=	97.5	30.9	185.6	47.7	13.8	
VEL=	5.0	5.4	11.7	5.2	2.9	
DEPTH=	4.1	4.6	5.2	4.3	1.6	

*SECNO 2.295

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.295	4.71	2201.51	2201.51	.00	2203.36	1.85	2.56	.28	2196.80
7013.0	4006.7	2281.4	725.0	560.2	141.3	101.2	335.7	113.0	2196.80
.43	7.15	16.14	7.17	.070	.035	.070	.000	2196.80	826.74
.018306	190.	248.	262.	0	11	0	.00	211.98	1038.72

FLOW DISTRIBUTION FOR SECNO= 2.30 CWSEL= 2201.51

STA=	827.	858.	870.	883.	920.	956.	972.	980.	1010.	1020.	1028.	1039.
PER Q=	3.8	3.3	4.8	16.5	16.3	8.1	4.4	32.5	5.2	3.2	1.9	
AREA=	56.9	37.3	47.9	156.0	151.3	72.7	38.2	141.3	46.1	30.8	24.2	
VEL=	4.7	6.2	7.0	7.4	7.5	7.8	8.0	16.1	8.0	7.4	5.4	
DEPTH=	1.8	3.2	3.8	4.2	4.3	4.5	4.7	4.7	4.6	4.1	2.2	

CCHV= .100 CEHV= .300
*SECNO 2.338

3301 HV CHANGED MORE THAN HVINS

2.338	5.01	2205.01	2204.23	.00	2206.18	1.17	2.74	.07	2200.00
7013.0	1012.7	2439.5	3560.8	188.2	200.1	574.6	340.0	114.1	2200.00
.44	5.38	12.19	6.20	.065	.035	.065	.000	2200.00	921.28
.009635	192.	226.	220.	2	11	0	.00	230.16	1151.44

FLOW DISTRIBUTION FOR SECNO= 2.34 CWSEL= 2205.01

STA=	921.	953.	967.	980.	1020.	1032.	1055.	1097.	1109.	1124.	1137.	1151.
PER Q=	4.5	4.3	5.6	34.8	5.3	10.2	19.7	5.2	5.5	3.4	1.3	
AREA=	72.4	53.6	62.2	200.1	58.2	111.6	210.1	57.6	64.8	45.7	26.5	
VEL=	4.4	5.7	6.3	12.2	6.4	6.4	6.6	6.4	6.0	5.3	3.5	
DEPTH=	2.3	4.0	4.7	5.0	4.9	4.9	5.0	4.8	4.3	3.6	1.8	

*SECNO 2.436

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.436	4.53	2214.53	2214.53	.00	2215.77	1.25	6.56	.02	2210.60
7013.0	3116.6	1497.2	2399.2	532.5	100.7	333.1	350.9	117.5	2210.60
.46	5.85	14.87	7.20	.065	.035	.065	.000	2210.00	765.18
.019167	530.	520.	460.	0	15	0	.00	365.46	1182.92

FLOW DISTRIBUTION FOR SECNO= 2.44 CWSEL= 2214.53

STA=	765.	810.	835.	860.	882.	903.	925.	945.	965.	980.	990.	1015.	1025.
PER Q=	5.3	6.0	5.5	4.3	3.8	3.4	3.3	4.2	4.5	4.0	21.3	4.0	
AREA=	73.8	68.2	64.4	52.6	49.2	46.1	43.5	50.5	46.9	37.3	100.7	37.0	
VEL=	5.0	6.2	5.9	5.7	5.5	5.2	5.3	5.9	6.8	7.6	14.9	7.6	
DEPTH=	1.6	2.7	2.6	2.4	2.3	2.1	2.2	2.5	3.1	3.7	4.0	3.7	

STA=	1025.	1040.	1120.	1145.	1155.	1170.	1183.
PER Q=	4.0	4.0	14.0	4.5	3.2	.6	
AREA=	43.6	50.1	113.2	39.5	37.9	11.8	
VEL=	6.5	5.6	8.7	7.9	6.0	3.3	
DEPTH=	2.9	.6	4.5	4.0	2.5	.9	

CCHV= .100 CEHV= .300
*SECNO 2.525
5 MINIMUM SPECIFIC ENERGY
0 CRITICAL DEPTH ASSUMED

2.525	6.13	2223.23	2223.23	.00	2224.89	1.66	7.17	.12	2217.40
7013.0	1136.8	2688.5	3187.7	188.2	178.2	584.1	361.6	121.0	2217.50
.47	6.04	15.09	5.46	.070	.035	.070	.000	2217.10	933.87
.011749	320.	472.	620.	0	11	0	.00	270.69	1204.56

FLOW DISTRIBUTION FOR SECNO= 2.53 CWSEL= 2223.23

STA=	934.	964.	975.	983.	990.	1020.	1028.	1039.	1049.	1060.	1070.	1080.	1097.
PER Q=	3.2	4.5	4.1	4.5	38.3	4.3	5.8	5.0	4.5	4.0	3.4	4.6	
AREA=	55.0	50.2	40.4	42.6	178.2	41.9	58.1	52.3	49.2	46.0	40.8	60.2	
VEL=	4.1	6.2	7.1	7.3	15.1	7.2	7.0	6.7	6.4	6.2	5.9	5.4	
DEPTH=	1.8	4.5	5.4	5.7	5.9	5.6	5.3	5.0	4.7	4.4	4.1	3.6	

STA=	1097.	1110.	1140.	1170.	1205.
PER Q=	3.0	5.2	3.4	2.1	
AREA=	42.3	81.5	63.5	48.3	
VEL=	5.0	4.5	3.8	3.0	
DEPTH=	3.2	2.7	2.1	1.4	

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO 2.645

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.645      5.60   2233.50   2233.50       .00   2235.80      2.31      8.33       .19   2227.90
    6870.0    3608.3    2779.8     481.9     450.1     167.9      65.5     373.1     123.8   2227.90
       .49      8.02     16.56      7.36      .065      .035      .065      .000   2227.90    886.26
   .015308      710.      634.      500.         0        11         0       .00    147.48   1033.74


FLOW DISTRIBUTION FOR SECNO=      2.64          CWSEL=   2233.50

STA=     886.     903.     913.     920.     939.     951.     970.     985.    1015.    1020.    1028.    1034.
  PER Q=      3.7      4.4      3.7     10.6      7.2     12.6     10.3     40.5      3.6      3.0       .4
   AREA=     43.0     41.2     32.8     91.6     60.0    101.2     80.2    167.9     27.7     30.0      7.8
    VEL=      6.0      7.3      7.7      8.0      8.3      8.5      8.8     16.6      8.9      6.9      3.6
  DEPTH=      2.6      4.1      4.5      4.7      5.0      5.2      5.5      5.6      5.5      4.0      1.2

*SECNO 2.760
[illegible]5 MINIMUM SPECIFIC ENERGY
[illegible]0 CRITICAL DEPTH ASSUMED
          DIRT ROAD DIP CROSSING
     2.760      6.62   2244.52   2244.52       .00   2246.93      2.41      8.72       .03   2237.90
    6870.0    3270.9    2559.4    1039.7     408.0     145.6     132.1     382.5     125.8   2237.90
       .50      8.02     17.58      7.87      .065      .035      .065      .000   2237.90    905.17
   .013797      595.      603.      615.         0        11         0       .00    141.09   1046.26


FLOW DISTRIBUTION FOR SECNO=      2.76          CWSEL=   2244.52

STA=     905.     928.     946.     953.     960.     966.     973.     979.     986.     994.    1016.    1020.    1025.
  PER Q=      3.6      8.8      4.2      4.6      3.7      5.4      4.4      6.2      6.8     37.3      3.6      3.8
   AREA=     48.3     80.7     36.8     39.0     30.3     42.7     33.7     46.4     50.2    145.6     26.3     30.1
    VEL=      5.2      7.5      7.8      8.1      8.4      8.6      8.9      9.1      9.4     17.6      9.4      8.8
  DEPTH=      2.1      4.6      5.0      5.3      5.5      5.8      6.0      6.3      6.5      6.6      6.6      6.0

STA=    1025.    1031.    1039.    1046.
  PER Q=      3.7      3.3       .7
   AREA=     31.3     32.6     11.8
    VEL=      8.1      7.0      4.0
  DEPTH=      5.2      4.3      1.5
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO 2.805
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
            CONFLUENCE OF SUBAREA R38 - WASH R-1
    2.805      7.17   2248.57   2248.57       .00   2251.43      2.86      3.22       .14   2241.70
   6870.0    2703.5    3324.9     841.6     347.1     186.7     110.4     386.1     126.5   2241.70
      .51      7.79     17.80      7.62      .070      .035      .070      .000   2241.40    925.73
  .013085      240.      239.      240.         0         8         0       .00    111.57   1037.30


FLOW DISTRIBUTION FOR SECNO=      2.81          CWSEL=   2248.57

STA=     926.     936.     943.     956.     964.     974.     982.     988.    1015.    1025.    1034.    1037.
  PER Q=     3.5      3.4      8.0      5.5      7.4      6.4      5.1     48.4      8.8      3.3       .1
   AREA=    39.9     32.6     72.2     47.4     62.2     52.2     40.6    186.7     69.9     36.8      3.7
    VEL=     6.1      7.1      7.6      7.9      8.2      8.5      8.7     17.8      8.6      6.2      2.5
  DEPTH=     3.7      5.0      5.5      5.9      6.2      6.5      6.8      7.0      6.7      4.3      1.0

*SECNO 2.850

3301 HV CHANGED MORE THAN HVINS

[illegible] MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    2.850      6.78   2252.58   2252.58       .00   2254.78      2.20      2.90       .07   2245.80
   6683.0     480.6    3082.1    3120.3      71.1     190.6     505.6     390.0     127.3   2245.80
      .51      6.76     16.17      6.17      .070      .035      .070      .000   2245.80    975.59
  .011304      222.      240.      250.         0        11         0       .00    169.99   1145.57


FLOW DISTRIBUTION FOR SECNO=      2.85          CWSEL=   2252.58

STA=     976.     991.    1019.    1038.    1044.    1049.    1078.    1100.    1116.    1138.    1146.
  PER Q=     7.2     46.1     14.1      3.6      3.1     11.7      6.9      4.0      3.1       .1
   AREA=    71.1    190.6    120.9     33.2     30.4    128.0     83.5     53.8     51.3      4.4
    VEL=     6.8     16.2      7.8      7.3      6.9      6.1      5.5      5.0      4.1      1.9
  DEPTH=     4.6      6.8      6.4      5.8      5.3      4.4      3.8      3.3      2.4       .6

*SECNO 2.936
7185 MINIMUM SPECIFIC ENERGY
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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3720 CRITICAL DEPTH ASSUMED
    2.936      9.51   2259.01   2259.01       .00   2261.23      2.22      4.26       .01   2249.80
   6683.0    3035.7    2802.2     845.1     551.8     163.8     119.4     398.2     129.1   2249.80
      .52      5.50     17.11      7.08      .070      .035      .070      .000   2249.50    847.07
  .008237      465.      450.      418.         0        11         0       .00    184.22   1031.29


FLOW DISTRIBUTION FOR SECNO=      2.94          CWSEL=   2259.01

STA=     847.     899.     924.     940.     951.     962.     969.     976.     980.     985.     990.     995.    1013.
  PER Q=      3.4      4.2      4.1      3.8      4.5      3.4      4.1      3.1      4.1      5.0      5.7     41.9
   AREA=     82.4     71.9     59.4     48.8     54.6     37.3     41.7     30.0     37.6     42.6     45.6    163.8
    VEL=      2.7      3.9      4.7      5.1      5.5      6.0      6.5      6.9      7.3      7.9      8.4     17.1
  DEPTH=      1.6      2.9      3.8      4.4      4.9      5.6      6.2      6.8      7.5      8.5      9.1      9.4

STA=    1013.    1020.    1025.    1031.
  PER Q=      8.6      3.1      1.0
   AREA=     68.3     33.2     17.9
    VEL=      8.4      6.2      3.7
  DEPTH=      9.1      7.2      2.7

CCHV=     .100 CEHV=     .300
 CNO 3.030

3301 HV CHANGED MORE THAN HVINS

          DIRT ROAD DIP CROSSING 110 FEET EAST OF THIS SECTION
    3.030      7.02   2263.52   2262.83       .00   2264.72      1.19      3.39       .10   2257.40
   6683.0     467.1    3299.8    2916.1     108.4     285.0     627.1     408.3     131.4   2257.40
      .54      4.31     11.58      4.65      .065      .035      .065      .000   2256.50    935.49
  .006060      410.      500.      520.         2        14         0       .00    245.25   1180.74


FLOW DISTRIBUTION FOR SECNO=      3.03          CWSEL=   2263.52

STA=     935.     967.     973.    1017.    1030.    1052.    1073.    1098.    1120.    1149.    1181.
  PER Q=      3.9      3.1     49.4      6.7      9.2      7.8      7.6      5.3      4.9      2.3
   AREA=     71.6     36.8    285.0     77.5    113.9    103.1    107.7     81.5     87.9     55.4
    VEL=      3.7      5.5     11.6      5.8      5.4      5.0      4.7      4.3      3.7      2.7
  DEPTH=      2.3      5.6      6.6      5.8      5.3      4.8      4.3      3.8      3.0      1.8
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 3.125

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.125	6.07	2270.57	2270.57	.00	2272.63	2.06	4.01	.26	2265.00
6495.0	728.9	3109.7	2656.4	106.6	204.6	411.5	417.8	133.7	2265.00
.55	6.84	15.20	6.46	.065	.035	.065	.000	2264.50	963.71
.012173	520.	505.	450.	0	15	0	.00	168.85	1132.55

FLOW DISTRIBUTION FOR SECNO= 3.13 CWSEL= 2270.57

STA=	964.	980.	990.	1025.	1035.	1045.	1055.	1066.	1077.	1087.	1104.	1125.	1133.
PER Q=	5.0	6.2	47.9	6.5	5.8	5.2	5.0	4.4	3.9	4.8	4.8	.5	
AREA=	53.6	52.9	204.6	54.2	50.7	47.2	47.7	44.1	41.2	55.1	61.6	9.7	
VEL=	6.0	7.7	15.2	7.8	7.4	7.1	6.8	6.5	6.2	5.7	5.1	3.2	
DEPTH=	3.3	5.3	5.8	5.4	5.1	4.7	4.4	4.1	3.8	3.4	2.9	1.3	

CCHV= .100 CEHV= .300
*SECNO 3.220
[illegible]5 MINIMUM SPECIFIC ENERGY
[illegible]0 CRITICAL DEPTH ASSUMED

3.220	6.29	2278.29	2278.29	.00	2280.21	1.92	6.69	.01	2272.00
6495.0	3797.2	2135.1	562.7	574.4	125.8	88.9	426.8	135.8	2272.00
.57	6.61	16.98	6.33	.070	.035	.070	.000	2272.00	844.72
.013775	570.	500.	470.	0	8	0	.00	192.96	1037.68

FLOW DISTRIBUTION FOR SECNO= 3.22 CWSEL= 2278.29

STA=	845.	876.	890.	912.	934.	943.	951.	957.	963.	968.	973.	984.	990.
PER Q=	5.0	3.4	6.7	8.4	3.7	4.2	3.2	3.3	3.3	3.9	8.8	4.6	
AREA=	71.4	42.2	76.8	87.6	36.4	39.3	28.7	28.6	27.7	31.3	68.8	35.6	
VEL=	4.5	5.2	5.7	6.2	6.6	6.9	7.3	7.6	7.8	8.0	8.3	8.4	
DEPTH=	2.3	3.0	3.4	3.9	4.3	4.6	5.0	5.3	5.5	5.8	6.0	6.2	

STA=	990.	1010.	1015.	1023.	1038.
PER Q=	32.9	3.5	3.6	1.5	
AREA=	125.8	28.9	35.6	24.4	
VEL=	17.0	7.9	6.6	4.1	
DEPTH=	6.3	5.8	4.3	1.7	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 3.304
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
DIRT ROAD DIP CROSSING 240 FEET UPSTREAM OF THIS SECTION

3.304	4.99	2285.19	2285.19	.00	2287.13	1.94	6.23	.01	2280.50
6308.0	2725.5	3147.0	435.5	436.8	216.4	69.1	434.6	137.7	2280.50
.58	6.24	14.54	6.30	.070	.035	.070	.000	2280.20	841.95
.014319	450.	438.	436.	0	15	0	.00	182.04	1023.99

FLOW DISTRIBUTION FOR SECNO= 3.30 CWSEL= 2285.19

STA=	842.	893.	903.	913.	920.	944.	960.	1005.	1013.	1023.	1024.
PER Q=	12.9	3.2	3.8	3.4	11.6	8.3	49.9	3.7	3.2	.0	
AREA=	150.7	34.4	38.2	32.7	106.6	74.3	216.4	33.7	34.5	.9	
VEL=	5.4	5.8	6.2	6.6	6.9	7.1	14.5	6.9	5.8	1.5	
DEPTH=	3.0	3.4	3.8	4.2	4.4	4.6	4.8	4.5	3.5	.6	

CCHV= .100 CEHV= .300
*SECNO 3.409
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CONFLUENCE OF COMBINED FLOW NODE CR34 - WASH R-2

3.409	5.12	2294.12	2294.12	.00	2296.22	2.09	7.49	.05	2289.20
6308.0	1513.5	3474.5	1320.0	225.7	240.3	202.7	443.0	139.8	2289.20
.59	6.71	14.46	6.51	.065	.035	.070	.000	2289.00	928.15
.013512	487.	562.	575.	0	8	0	.00	161.28	1089.43

FLOW DISTRIBUTION FOR SECNO= 3.41 CWSEL= 2294.12

STA=	928.	948.	965.	972.	983.	990.	1038.	1052.	1065.	1075.	1089.
PER Q=	3.5	7.4	3.5	5.6	4.0	55.1	7.5	6.9	4.3	2.2	
AREA=	44.5	69.3	30.5	48.1	33.3	240.3	67.5	63.8	41.6	29.7	
VEL=	4.9	6.8	7.2	7.4	7.6	14.5	7.0	6.8	6.5	4.6	
DEPTH=	2.2	4.1	4.4	4.6	4.8	5.0	4.8	4.6	4.3	2.1	

*SECNO 3.483

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3.483	5.10	2300.10	2299.91	.00	2300.75	.64	4.38	.15	2296.50
5307.0	3417.0	1812.4	77.6	985.4	183.2	25.4	452.4	143.4	2296.50
.61	3.47	9.89	3.05	.065	.035	.070	.000	2295.00	979.73
.007924	470.	390.	355.	2	10	0	.00	530.81	1510.53

FLOW DISTRIBUTION FOR SECNO= 3.48 CWSEL= 2300.10

STA=	980.	1025.	1069.	1114.	1161.	1208.	1245.	1285.	1308.	1342.	1365.	1388.	1411.
PER Q=	4.9	3.8	3.5	3.8	4.6	3.5	4.3	3.7	6.9	4.9	4.9	4.9	
AREA=	82.2	71.6	69.1	73.0	82.4	63.1	74.4	54.0	92.7	64.1	64.4	64.1	
VEL=	3.1	2.8	2.7	2.7	2.9	2.9	3.1	3.6	4.0	4.1	4.1	4.1	
DEPTH=	1.8	1.6	1.5	1.6	1.7	1.7	1.9	2.4	2.7	2.8	2.8	2.8	

STA=	1411.	1434.	1446.	1452.	1495.	1511.
PER Q=	5.5	3.4	1.9	34.2	1.5	
AREA=	69.3	39.7	21.4	183.2	25.4	
VEL=	4.2	4.5	4.7	9.9	3.1	
DEPTH=	3.0	3.3	3.6	4.3	1.6	

CCHV= .100 CEHV= .300
*SECNO 3.564

1 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.564	3.75	2305.55	2305.55	.00	2307.02	1.47	4.91	.25	2302.40
5307.0	2483.3	2762.6	61.1	440.9	223.0	16.6	462.0	147.3	2302.90
.63	5.63	12.39	3.68	.070	.035	.070	.000	2301.80	785.52
.016494	450.	438.	425.	0	19	0	.00	232.34	1017.86

FLOW DISTRIBUTION FOR SECNO= 3.56 CWSEL= 2305.55

STA=	786.	814.	832.	844.	867.	895.	918.	940.	1005.	1018.
PER Q=	3.8	4.4	3.8	8.7	10.3	8.0	7.8	52.1	1.2	
AREA=	49.3	45.8	35.6	76.0	91.5	71.9	70.8	223.0	16.6	
VEL=	4.1	5.1	5.6	6.1	6.0	5.9	5.9	12.4	3.7	
DEPTH=	1.7	2.5	3.0	3.3	3.3	3.2	3.1	3.4	1.3	

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO 3.652

3301 HV CHANGED MORE THAN HVINS

    3.652      4.17   2311.67   2310.86       .00   2312.45       .78      5.37       .07   2308.00
   5307.0    1678.3    2878.2     750.5     372.4     330.3     173.3     470.2     149.9   2308.00
      .65      4.51      8.71      4.33      .070      .040      .070      .000   2307.50    813.37
  .008725      450.      465.      460.         4        11         0       .00    264.17   1077.55


FLOW DISTRIBUTION FOR SECNO=      3.65          CWSEL=   2311.67

STA=     813.     847.     872.     893.     915.     933.    1016.    1038.    1050.    1068.    1078.
  PER Q=      3.6      8.0      7.1      7.0      6.0     54.2      6.7      4.1      3.2       .2
   AREA=     56.6     89.9     79.3     79.0     67.6    330.3     77.0     45.8     44.5      6.1
    VEL=      3.3      4.7      4.7      4.7      4.7      8.7      4.6      4.7      3.8      1.7
  DEPTH=      1.7      3.7      3.7      3.7      3.7      4.0      3.6      3.7      2.5       .6

*SECNO 3.706
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    3.706      4.35   2316.25   2316.25       .00   2317.46      1.20      3.26       .13   2312.10
   4305.0    2635.7    1627.4      41.9     487.8     129.7      10.7     475.1     151.6   2313.30
      .66      5.40     12.55      3.91      .070      .040      .070      .000   2311.90    763.13
  .016973      285.      285.      285.         0         8         0       .00    257.69   1020.83


FLOW DISTRIBUTION FOR SECNO=      3.71          CWSEL=   2316.25

STA=     763.     825.     851.     866.     896.     908.     926.     938.     953.     964.     983.    1013.    1021.
  PER Q=      3.0      3.7      3.1      8.4      3.9      7.5      5.1      7.8      6.6     12.1     37.8      1.0
   AREA=     49.7     42.3     30.0     72.3     30.8     56.4     36.4     52.5     42.4     74.8    129.7     10.7
    VEL=      2.6      3.8      4.4      5.0      5.4      5.8      6.1      6.4      6.7      7.0     12.6      3.9
  DEPTH=       .8      1.6      2.0      2.4      2.8      3.0      3.3      3.5      3.8      4.0      4.2      1.4

CCHV=     .100 CEHV=     .300
*SECNO 3.762
    3.762      5.02   2320.82   2320.57       .00   2321.84      1.02      4.37       .02   2316.50
   4305.0    1577.9    1790.3     936.7     310.9     162.4     178.9     479.2     153.2   2316.50
      .67      5.08     11.02      5.24      .070      .045      .070      .000   2315.80    858.65
  .014145      275.      292.      280.         2         8         0       .00    237.39   1096.04
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 3.76 CWSEL= 2320.82

STA=	859.	908.	924.	940.	956.	965.	977.	985.	993.	1028.	1036.	1044.	1057.
PER Q=	3.3	3.1	4.4	6.0	3.6	6.2	4.8	5.2	41.6	5.3	4.6	5.3	
AREA=	49.5	32.9	40.8	49.0	27.3	44.7	32.5	34.2	162.4	34.6	32.1	41.1	
VEL=	2.9	4.0	4.7	5.3	5.7	6.0	6.3	6.6	11.0	6.5	6.2	5.5	
DEPTH=	1.0	2.0	2.5	3.0	3.4	3.7	4.0	4.2	4.7	4.2	3.8	3.2	

STA=	1057.	1070.	1095.	1096.
PER Q=	3.6	3.0	.0	
AREA=	32.6	38.1	.4	
VEL=	4.7	3.4	1.2	
DEPTH=	2.6	1.5	.4	

*SECNO 3.823

3301 HV CHANGED MORE THAN HVINS

3.823	3.26	2325.66	2324.76	.00	2326.10	.44	4.21	.06	2322.90
4305.0	344.1	893.0	3067.8	88.7	118.3	656.0	484.9	155.2	2322.60
.68	3.88	7.55	4.68	.070	.045	.070	.000	2322.40	946.93
.011535	300.	322.	350.	3	14	0	.00	308.31	1255.23

FLOW DISTRIBUTION FOR SECNO= 3.82 CWSEL= 2325.66

STA=	947.	969.	985.	989.	1027.	1049.	1072.	1095.	1118.	1141.	1164.	1187.	1203.
PER Q=	3.2	3.7	1.1	20.7	7.8	7.8	7.5	7.4	7.7	8.1	8.6	5.6	
AREA=	40.2	37.9	10.6	118.3	69.5	69.8	68.3	67.8	69.8	72.2	74.5	49.3	
VEL=	3.5	4.2	4.4	7.5	4.8	4.8	4.8	4.7	4.8	4.9	5.0	4.9	
DEPTH=	1.8	2.5	2.7	3.1	3.1	3.1	3.0	3.0	3.0	3.1	3.2	3.2	

STA=	1203.	1219.	1234.	1255.
PER Q=	4.6	3.5	2.6	
AREA=	43.9	37.0	33.9	
VEL=	4.5	4.0	3.3	
DEPTH=	2.8	2.4	1.6	

*SECNO 3.897
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3.897	2.37	2332.37	2332.37	.00	2333.17	.80	6.46	.11	2330.30
3304.0	195.9	1204.7	1903.4	43.3	123.2	364.3	491.2	158.1	2330.30
.70	4.53	9.78	5.23	.070	.045	.070	.000	2330.00	956.33
.029942	390.	392.	390.	0	19	0	.00	319.75	1276.08

FLOW DISTRIBUTION FOR SECNO= 3.90 CWSEL= 2332.37

STA=	956.	990.	995.	1050.	1075.	1100.	1125.	1150.	1175.	1200.	1225.	1240.	1275.
PER Q=	4.2	1.7	36.5	8.9	8.2	7.5	7.2	6.8	6.5	6.2	3.2	3.0	
AREA=	33.4	9.8	123.2	50.4	47.9	45.4	44.2	42.9	41.7	40.4	22.0	29.1	
VEL=	4.2	5.8	9.8	5.9	5.7	5.5	5.4	5.3	5.2	5.1	4.7	3.4	
DEPTH=	1.0	2.0	2.2	2.0	1.9	1.8	1.8	1.7	1.7	1.6	1.5	.8	

STA=	1275.	1276.
PER Q=	.0	
AREA=	.2	
VEL=	1.1	
DEPTH=	.2	

*SECNO 3.939

*2 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.77

3.939	3.73	2336.73	2335.79	.00	2337.10	.37	3.89	.04	2336.00
3304.0	1.5	607.8	2694.7	1.4	85.0	643.1	494.8	159.8	2333.10
.72	1.06	7.15	4.19	.070	.045	.070	.000	2333.00	991.29
.009566	220.	224.	260.	3	11	0	.00	276.10	1267.40

FLOW DISTRIBUTION FOR SECNO= 3.94 CWSEL= 2336.73

STA=	991.	995.	1020.	1044.	1068.	1088.	1104.	1121.	1133.	1149.	1165.	1186.	1202.
PER Q=	.0	18.4	13.0	12.7	10.2	7.6	6.9	4.6	5.5	4.8	5.3	3.6	
AREA=	1.4	85.0	87.4	86.2	70.2	54.5	50.9	35.9	44.7	41.2	47.5	34.9	
VEL=	1.1	7.1	4.9	4.9	4.8	4.6	4.5	4.3	4.1	3.9	3.7	3.4	
DEPTH=	.4	3.4	3.6	3.6	3.5	3.3	3.1	2.9	2.7	2.5	2.3	2.1	

STA=	1202.	1222.	1261.	1267.
PER Q=	3.5	3.6	.2	
AREA=	37.1	48.8	4.0	
VEL=	3.1	2.4	1.6	
DEPTH=	1.9	1.2	.6	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 4.014
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

4.014	3.13	2344.63	2344.63	.00	2345.43	.80	5.99	.13	2341.70
3304.0	1173.5	658.6	1472.0	215.6	55.7	270.2	500.5	162.4	2341.70
.73	5.44	11.82	5.45	.070	.045	.070	.000	2341.50	856.08
.029265	400.	395.	380.	0	15	0	.00	315.46	1171.53

FLOW DISTRIBUTION FOR SECNO= 4.01 CWSEL= 2344.63

STA=	856.	900.	932.	945.	954.	963.	973.	982.	991.	1009.	1018.	1028.	1041.
PER Q=	4.0	6.3	3.7	3.0	3.5	4.2	5.1	5.7	19.9	5.7	5.1	6.1	
AREA=	38.6	45.1	23.2	17.7	19.4	21.6	24.2	25.7	55.7	25.7	24.2	31.7	
VEL=	3.5	4.6	5.2	5.6	6.0	6.4	6.9	7.3	11.8	7.3	6.9	6.3	
DEPTH=	.9	1.4	1.7	1.9	2.1	2.4	2.6	2.8	3.0	2.8	2.6	2.3	

STA=	1041.	1050.	1069.	1092.	1115.	1138.	1172.
PER Q=	3.2	5.5	6.3	5.7	4.2	2.9	
AREA=	18.5	33.6	39.6	37.3	31.1	28.6	
VEL=	5.8	5.4	5.2	5.0	4.4	3.3	
DEPTH=	2.0	1.8	1.7	1.6	1.3	.8	

*SECNO 4.108

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.55

4.108	3.04	2352.54	2352.05	.00	2352.94	.40	7.47	.04	2349.90
2800.0	1011.1	1625.5	163.4	350.4	261.4	56.3	507.2	166.2	2349.90
.76	2.89	6.22	2.90	.070	.045	.070	.000	2349.50	767.30
.008726	505.	495.	450.	6	15	0	.00	356.07	1123.37

FLOW DISTRIBUTION FOR SECNO= 4.11 CWSEL= 2352.54

STA=	767.	835.	873.	895.	917.	933.	956.	972.	989.	994.	1086.	1097.	1123.
PER Q=	3.5	3.9	3.2	3.9	3.5	5.6	4.8	5.6	2.0	58.1	3.3	2.6	
AREA=	55.3	47.5	33.4	38.5	32.2	47.7	38.8	42.4	14.5	261.4	26.4	29.9	
VEL=	1.8	2.3	2.6	2.9	3.1	3.3	3.5	3.7	3.8	6.2	3.5	2.4	
DEPTH=	.8	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.6	2.9	2.3	1.1	

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO 4.148

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     4.148      3.28   2356.78   2356.78       .00   2357.79      1.01      2.30       .18   2354.80
    2800.0      94.4    1391.8    1313.8      42.0     131.6     295.2     510.0     167.6   2353.80
       .77      2.25     10.58      4.45      .070      .035      .070      .000   2353.50    663.99
   .014106      200.      210.      220.         0         8         0       .00    239.91   1173.42


FLOW DISTRIBUTION FOR SECNO=      4.15          CWSEL=   2356.78

STA=     664.     993.    1036.    1079.    1108.    1131.    1147.    1173.
  PER Q=      3.4     49.7     21.9     12.4      7.1      3.0      2.5
   AREA=     41.9    131.6    121.5     74.0     48.5     24.7     26.5
    VEL=      2.3     10.6      5.0      4.7      4.1      3.4      2.6
  DEPTH=       .1      3.0      2.8      2.5      2.1      1.6      1.0

*SECNO 4.242
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     4.242      3.33   2366.13   2366.13       .00   2366.91       .78      7.77       .02   2363.20
    2800.0    1661.7     738.6     399.8     411.2      62.6      79.5     515.9     170.8   2363.20
       .79      4.04     11.79      5.03      .070      .035      .070      .000   2362.80    742.79
   .016848      520.      500.      495.         0         5         0       .00    305.54   1048.33


FLOW DISTRIBUTION FOR SECNO=      4.24          CWSEL=   2366.13
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	743.	780.	805.	830.	855.	890.	910.	930.	955.	980.	990.	995.	1015.
PER Q=	3.1	5.6	5.6	5.3	5.3	3.5	6.2	9.4	9.0	3.8	2.6	26.4	
AREA=	30.5	40.8	40.8	39.6	45.1	28.1	39.9	55.8	54.6	22.3	13.7	62.6	
VEL=	2.9	3.8	3.8	3.7	3.3	3.5	4.4	4.7	4.6	4.7	5.4	11.8	
DEPTH=	.8	1.6	1.6	1.6	1.3	1.4	2.0	2.2	2.2	2.2	2.7	3.1	

STA=	1015.	1025.	1035.	1045.	1048.
PER Q=	5.5	4.6	3.8	.3	
AREA=	28.1	25.3	22.6	3.6	
VEL=	5.5	5.1	4.7	2.6	
DEPTH=	2.8	2.5	2.3	1.1	

*SECNO 4.335

3470 ENCROACHMENT STATIONS= 587.0 1025.0 TYPE= 1 TARGET= 438.000

4.335	2.68	2373.68	2373.60	.00	2374.21	.54	7.28	.02	2371.30
2800.0	2041.8	631.9	126.3	559.2	61.1	30.1	521.7	174.3	2371.30
.81	3.65	10.33	4.20	.070	.035	.070	.000	2371.00	587.38
.017222	400.	480.	485.	3	19	0	.00	436.78	1024.16

FLOW DISTRIBUTION FOR SECNO= 4.34 CWSEL= 2373.68

STA=	587.	644.	662.	686.	710.	733.	757.	798.	821.	844.	868.	892.	917.
PER Q=	5.3	3.4	5.4	5.7	5.0	4.2	5.9	3.5	3.7	3.8	3.6	3.5	
AREA=	50.7	26.6	39.0	40.2	36.7	33.4	50.9	29.8	31.1	31.6	30.7	30.6	
VEL=	2.9	3.6	3.9	3.9	3.8	3.5	3.2	3.3	3.4	3.4	3.3	3.2	
DEPTH=	.9	1.5	1.6	1.7	1.6	1.4	1.2	1.3	1.3	1.3	1.3	1.2	

STA=	917.	942.	959.	971.	983.	1007.	1020.	1024.
PER Q=	5.6	5.4	4.2	4.8	22.6	4.2	.3	
AREA=	40.8	34.6	25.3	27.2	61.1	26.6	3.5	
VEL=	3.9	4.4	4.7	4.9	10.3	4.4	2.4	
DEPTH=	1.6	2.0	2.2	2.3	2.5	2.0	.8	

CCHV= .100 CEHV= .300
*SECNO 4.394
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 583.0 1031.0 TYPE= 1 TARGET= 448.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.394	2.72	2382.22	2382.22	.00	2382.80	.58	4.78	.01	2379.80
2800.0	1937.7	740.2	122.1	531.7	72.8	27.9	525.8	177.1	2379.80
.83	3.64	10.17	4.38	.065	.035	.065	.000	2379.50	583.74
.016301	270.	320.	340.	0	5	0	.00	447.26	1031.00

FLOW DISTRIBUTION FOR SECNO= 4.39 CWSEL= 2382.22

STA=	584.	624.	648.	672.	696.	720.	744.	768.	791.	814.	838.	861.	884.
PER Q=	4.3	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.4	3.4	3.4	3.4	
AREA=	39.2	29.3	29.3	29.3	29.3	29.3	29.0	28.4	28.4	28.5	28.4	28.4	
VEL=	3.1	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	
DEPTH=	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	

STA=	884.	908.	931.	954.	970.	985.	1013.	1028.	1031.
PER Q=	3.6	4.6	6.8	5.7	6.4	26.4	4.3	.0	
AREA=	29.7	34.2	43.2	33.1	34.8	72.8	26.9	1.0	
VEL=	3.4	3.8	4.4	4.8	5.1	10.2	4.5	1.3	
DEPTH=	1.3	1.5	1.9	2.1	2.3	2.6	1.8	.3	

*SECNO 4.461
7185 MINIMUM SPECIFIC ENERGY
[illegible]0 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 680.0 1053.0 TYPE= 1 TARGET= 373.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

4.461	2.56	2389.06	2389.06	.00	2389.72	.66	6.89	.02	2386.60
2800.0	1923.0	549.2	327.7	428.8	47.7	68.0	530.7	180.5	2386.80
.84	4.48	11.53	4.82	.065	.035	.065	.000	2386.50	680.00
.022243	370.	358.	330.	0	11	0	.00	373.00	1053.00

FLOW DISTRIBUTION FOR SECNO= 4.46 CWSEL= 2389.06

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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

STA=     680.      725.      778.      806.      832.      859.      878.      906.      925.      944.      972.      991.     1010.
  PER Q=     5.4       6.1       3.7       3.5       4.2       3.8       7.2       5.9       7.0      12.4       9.6      19.6
   AREA=    45.0      51.1      29.1      27.4      31.4      25.7      43.9      33.0      36.8      61.1      44.3      47.7
    VEL=     3.4       3.3       3.5       3.5       3.8       4.2       4.6       5.0       5.3       5.7       6.0      11.5
  DEPTH=     1.0       1.0       1.1       1.1       1.2       1.4       1.6       1.8       2.0       2.2       2.4       2.5

STA=    1010.     1020.     1030.     1050.     1053.
  PER Q=     4.2       3.3       4.1        .1
   AREA=    21.1      18.1      27.2       1.7
    VEL=     5.6       5.1       4.2       2.2
  DEPTH=     2.1       1.8       1.4        .6

*SECNO 4.498
    4.498      3.00   2392.00   2391.78       .00   2392.49       .49      2.75       .02   2389.30
   2297.0    1245.6     768.3     283.1     372.5      90.1      88.2     533.0     182.1   2389.30
      .85      3.34      8.53      3.21      .065      .035      .065      .000   2389.00    700.14
  .009908      180.      192.      200.         3         8         0       .00    377.81   1077.95


FLOW DISTRIBUTION FOR SECNO=      4.50          CWSEL=   2392.00

STA=     700.      810.      842.      861.      881.      900.      919.      938.      956.      975.     1006.     1013.     1026.
  PER Q=     4.3       4.2       3.8       4.6       5.6       6.4       7.4       8.6       9.4      33.4       3.1       4.5
   AREA=    57.4      37.8      28.9      32.8      36.6      39.5      43.0      47.0      49.5      90.1      16.6      27.2
    VEL=     1.7       2.5       3.0       3.2       3.5       3.7       4.0       4.2       4.4       8.5       4.2       3.8
  DEPTH=      .5       1.2       1.5       1.7       1.9       2.1       2.3       2.5       2.6       2.9       2.5       2.1

STA=    1026.     1045.     1078.
  PER Q=     3.6       1.2
   AREA=    28.0      16.5
    VEL=     3.0       1.7
  DEPTH=     1.4        .5

*SECNO 4.602

3470 ENCROACHMENT STATIONS=      657.0    1342.0  TYPE=      1  TARGET=      685.000
    4.602      2.02   2398.52   2398.44       .00   2398.86       .34      6.35       .02   2396.70
   2297.0     912.4     391.2     993.5     285.2      45.7     285.3     539.6     188.1   2396.70
      .89      3.20      8.55      3.48      .065      .035      .065      .000   2396.50    657.35
  .016906      455.      550.      530.         3        14         0       .00    684.40   1341.75
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.60 CWSEL= 2398.52

STA=	657.	792.	835.	867.	899.	931.	964.	982.	988.	1012.	1029.	1060.	1091.
PER Q=	3.2	4.2	4.7	5.5	6.7	8.0	5.4	2.0	17.0	5.6	8.5	8.1	
AREA=	45.2	36.4	34.6	38.0	42.7	47.6	30.0	10.7	45.7	30.3	48.2	47.3	
VEL=	1.6	2.7	3.1	3.3	3.6	3.9	4.1	4.4	8.6	4.3	4.0	3.9	
DEPTH=	.3	.8	1.1	1.2	1.3	1.5	1.6	1.8	1.9	1.7	1.6	1.5	

STA=	1091.	1122.	1146.	1164.	1322.	1342.
PER Q=	8.1	6.1	3.1	3.6	.1	
AREA=	47.3	36.2	21.2	51.6	3.3	
VEL=	3.9	3.9	3.3	1.6	1.0	
DEPTH=	1.5	1.5	1.2	.3	.2	

*SECNO 4.663
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

4.663	2.34	2403.84	2403.84	.00	2404.36	.53	5.15	.06	2401.70
2297.0	672.8	678.2	946.0	183.8	73.2	282.6	543.7	192.2	2401.70
.90	3.66	9.27	3.35	.065	.035	.065	.000	2401.50	815.57
.016291	245.	318.	360.	0	11	0	.00	486.46	1302.03

W DISTRIBUTION FOR SECNO= 4.66 CWSEL= 2403.84

STA=	816.	896.	916.	948.	961.	974.	987.	1020.	1033.	1053.	1066.	1085.	1105.
PER Q=	3.7	3.1	7.8	4.1	5.0	5.6	29.5	5.4	6.9	3.8	4.6	3.6	
AREA=	39.3	22.2	47.4	22.6	25.2	27.1	73.2	26.7	36.2	21.4	28.3	24.4	
VEL=	2.2	3.2	3.8	4.2	4.5	4.8	9.3	4.7	4.4	4.1	3.7	3.4	
DEPTH=	.5	1.1	1.5	1.7	1.9	2.1	2.2	2.0	1.8	1.6	1.4	1.2	

STA=	1105.	1143.	1182.	1220.	1302.
PER Q=	5.4	4.6	4.2	2.8	
AREA=	40.7	37.0	34.9	33.0	
VEL=	3.0	2.8	2.7	1.9	
DEPTH=	1.1	1.0	.9	.4	

CCHV= .100 CEHV= .300
*SECNO 4.725

4.725	1.96	2408.96	2408.91	.00	2409.51	.54	5.14	.01	2407.10
2297.0	663.2	1092.8	541.1	217.1	137.0	184.3	547.9	195.7	2407.10
.92	3.06	7.98	2.94	.070	.035	.070	.000	2407.00	758.97
.014422	310.	330.	365.	3	15	0	.00	399.47	1158.44

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 4.72 CWSEL= 2408.96

STA=	759.	815.	855.	880.	910.	935.	1005.	1020.	1040.	1085.	1105.	1130.	1155.
PER Q=	5.4	4.8	4.3	7.0	7.4	47.6	3.8	3.0	5.3	3.4	4.6	3.3	
AREA=	51.0	41.8	32.4	46.9	44.9	137.0	24.5	24.0	46.6	25.8	33.9	27.9	
VEL=	2.4	2.6	3.0	3.4	3.8	8.0	3.5	2.9	2.6	3.0	3.1	2.7	
DEPTH=	.9	1.0	1.3	1.6	1.8	2.0	1.6	1.2	1.0	1.3	1.4	1.1	

STA=	1155.	1158.
PER Q=	.1	
AREA=	1.7	
VEL=	1.5	
DEPTH=	.5	

*SECNO 4.802

3470 ENCROACHMENT STATIONS= 832.0 1152.0 TYPE= 1 TARGET= 320.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

4.802	2.10	2415.70	2415.66	.00	2416.35	.65	6.81	.03	2413.60
2297.0	906.3	711.4	679.3	215.7	72.1	167.7	552.4	199.0	2413.60
.94	4.20	9.87	4.05	.070	.035	.070	.000	2413.60	832.00
.020087	385.	407.	420.	2	8	0	.00	319.24	1151.24

FLOW DISTRIBUTION FOR SECNO= 4.80 CWSEL= 2415.70

STA=	832.	888.	903.	924.	959.	986.	1021.	1041.	1075.	1089.	1110.	1151.
PER Q=	4.1	3.4	6.7	13.3	12.0	31.0	8.5	11.9	3.9	3.5	1.8	
AREA=	36.6	20.5	35.9	66.0	56.8	72.1	40.8	61.4	21.8	24.0	19.8	
VEL=	2.6	3.8	4.3	4.6	4.9	9.9	4.8	4.5	4.1	3.3	2.1	
DEPTH=	.7	1.4	1.7	1.9	2.1	2.1	2.0	1.8	1.6	1.2	.5	

*SECNO 4.890

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=      983.0    1428.0  TYPE=      1  TARGET=      445.000
          ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
          SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
          WSEL AND THE TOPOGRAPHY.
    4.890      6.01   2422.31   2422.31       .00   2422.43       .12      1.97       .05   2420.00
   2297.0      27.1     566.4    1703.5      15.9     127.4     848.1     556.6     201.2   2420.00
      .97      1.71      4.45      2.01      .070      .035      .070      .000   2416.30    983.00
  .003151      445.      465.      165.         0        12         0       .00    445.00   1428.00


FLOW DISTRIBUTION FOR SECNO=      4.89         CWSEL=   2422.31

STA=     983.     990.    1040.    1063.    1080.    1100.    1137.    1155.    1192.    1229.    1248.    1266.    1284.
  PER Q=      1.2     24.7      3.9      3.6      4.8      8.7      4.0      7.1      6.2      3.1      3.4      3.8
   AREA=     15.9    127.4     46.7     40.1     50.2     91.1     43.6     81.0     75.0     37.2     39.5     41.8
    VEL=      1.7      4.4      1.9      2.1      2.2      2.2      2.1      2.0      1.9      1.9      2.0      2.1
  DEPTH=      2.3      2.5      2.1      2.3      2.5      2.5      2.4      2.2      2.0      2.0      2.2      2.3

STA=    1284.    1321.    1348.    1366.    1403.    1428.
  PER Q=      7.2      5.1      3.3      6.1      3.8
   AREA=     81.0     58.9     38.6     73.7     49.6
    VEL=      2.0      2.0      2.0      1.9      1.8
  DEPTH=      2.2      2.2      2.1      2.0      2.0

CCHV=     .100 CEHV=     .300
*SECNO 4.968
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    4.968      2.36   2429.06   2429.06       .00   2429.62       .56      2.48       .13   2427.10
   1793.0    1196.2     435.7     161.1     304.0      43.1      43.5     563.1     204.9   2427.10
      .99      3.93     10.10      3.70      .065      .035      .065      .000   2426.70    737.17
  .020333      480.      412.      385.         0        22         0       .00    316.94   1054.11


FLOW DISTRIBUTION FOR SECNO=      4.97         CWSEL=   2429.06
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


STA=     737.     780.     805.     825.     845.     860.     875.     905.     930.     955.     980.     990.    1010.
  PER Q=     3.3      3.5      3.1      4.0      3.7      4.6     11.3      9.5      9.5      9.5      4.7     24.3
   AREA=    23.8     21.4     18.1     21.1     18.1     20.6     46.4     38.9     38.9     38.9     17.6     43.1
    VEL=     2.5      2.9      3.1      3.4      3.7      4.0      4.4      4.4      4.4      4.4      4.8     10.1
  DEPTH=      .6       .9       .9      1.1      1.2      1.4      1.5      1.6      1.6      1.6      1.8      2.2

STA=    1010.    1020.    1035.    1054.
  PER Q=     4.3      3.5      1.1
   AREA=    16.8     17.3      9.4
    VEL=     4.6      3.6      2.2
  DEPTH=     1.7      1.2       .5

*SECNO 5.021

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.40

    5.021     2.03  2433.03  2432.78      .00  2433.30      .27     3.65      .03  2431.10
   1793.0    697.9    472.2    622.9    238.7     69.7    246.6    565.9    207.2  2431.10
     1.01     2.92     6.78     2.53     .065     .035     .065     .000  2431.00   578.61
  .010363     240.     280.     280.        5       19        0      .00   459.26  1037.88


W DISTRIBUTION FOR SECNO=      5.02          CWSEL=   2433.03

STA=     579.     608.     632.     656.     685.     703.     733.     744.     756.     792.     804.     816.     827.
  PER Q=     3.5      3.3      4.1      6.4      4.4      8.9      3.9      4.4     26.3      4.2      3.7      3.1
   AREA=    27.3     24.5     28.1     40.3     26.3     49.1     20.7     22.4     69.7     21.6     20.0     18.1
    VEL=     2.3      2.4      2.6      2.9      3.0      3.3      3.4      3.5      6.8      3.5      3.3      3.1
  DEPTH=      .9      1.0      1.2      1.4      1.5      1.7      1.8      1.9      2.0      1.8      1.7      1.5

STA=     827.     845.     869.     910.     979.    1000.    1019.    1038.
  PER Q=     3.8      3.6      3.1      5.1      3.3      3.4      1.5
   AREA=    23.8     26.1     29.3     48.2     23.4     22.8     13.3
    VEL=     2.8      2.5      1.9      1.9      2.5      2.6      2.1
  DEPTH=     1.3      1.1       .7       .7      1.1      1.2       .7

CCHV=     .100 CEHV=     .300
*SECNO 5.110
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    5.110     2.33  2440.33  2440.33      .00  2440.80      .47     6.35      .06  2438.10
   1793.0   1257.6    348.1    187.3    367.1     35.1     36.8    570.7    211.3  2438.10
     1.04     3.43     9.91     5.09     .070     .040     .065     .000  2438.00   623.34
  .023914     375.     470.     485.        0       11        0      .00   407.94  1031.28
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 5.11 CWSEL= 2440.33

STA=	623.	670.	713.	734.	755.	777.	798.	819.	841.	862.	884.	905.	926.
PER Q=	3.3	6.4	3.8	4.1	4.1	4.1	4.1	4.2	4.2	4.2	4.2	4.1	
AREA=	25.9	38.0	20.9	22.0	22.1	22.0	22.0	22.2	22.2	22.2	22.2	21.7	
VEL=	2.3	3.0	3.2	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	
DEPTH=	.6	.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	

STA=	926.	947.	963.	974.	984.	990.	1005.	1010.	1015.	1025.	1031.
PER Q=	4.1	3.1	3.2	5.6	3.4	19.4	3.6	3.2	3.4	.2	
AREA=	21.8	16.3	14.3	20.0	11.3	35.1	10.9	10.2	13.6	2.1	
VEL=	3.4	3.4	4.1	5.1	5.4	9.9	5.9	5.7	4.5	1.8	
DEPTH=	1.0	1.0	1.4	1.9	2.1	2.3	2.2	2.0	1.4	.3	

CCHV= .100 CEHV= .300
*SECNO 5.184

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.59

3470 ENCROACHMENT STATIONS= 807.0 1178.0 TYPE= 1 TARGET= 371.000

5.184	2.05	2446.05	2445.48	.00	2446.24	.19	5.41	.03	2444.00
1793.0	31.3	379.8	1381.9	13.1	73.1	490.7	575.1	214.7	2444.00
1.07	2.38	5.19	2.82	.070	.045	.070	.000	2444.00	807.17
.009476	340.	392.	405.	6	14	0	.00	370.83	1178.00

FLOW DISTRIBUTION FOR SECNO= 5.18 CWSEL= 2446.05

STA=	807.	820.	856.	873.	884.	895.	906.	918.	929.	946.	970.	994.	1018.
PER Q=	1.7	21.2	6.0	3.8	3.5	3.3	3.1	3.0	4.2	5.8	5.8	5.7	
AREA=	13.1	73.1	33.3	21.5	20.5	19.8	19.1	18.7	27.0	37.3	37.3	36.8	
VEL=	2.4	5.2	3.2	3.2	3.1	3.0	2.9	2.9	2.8	2.8	2.8	2.8	
DEPTH=	1.0	2.1	2.0	1.9	1.8	1.8	1.7	1.7	1.6	1.6	1.6	1.6	

STA=	1018.	1041.	1065.	1088.	1111.	1134.	1151.	1178.
PER Q=	5.7	5.7	5.6	5.6	5.5	3.5	1.3	
AREA=	36.8	36.7	35.9	35.9	35.7	24.0	14.3	
VEL=	2.8	2.8	2.8	2.8	2.8	2.6	1.6	
DEPTH=	1.6	1.6	1.6	1.6	1.6	1.4	.5	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 5.273

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 980.0 1100.0 TYPE= 1 TARGET= 120.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.
CONFLUENCE OF SUBAREA R18 - WASH R-3
DIRT ROAD DIP CROSSING

5.273	2.94	2452.94	2452.94	.00	2453.96	1.02	7.24	.25	2451.50
1793.0	38.2	1242.8	512.0	9.7	138.3	89.2	579.5	217.3	2451.00
1.09	3.93	8.99	5.74	.070	.045	.070	.000	2450.00	980.00
.029470	440.	469.	470.	0	14	0	.00	120.00	1100.00

FLOW DISTRIBUTION FOR SECNO= 5.27 CWSEL= 2452.94

STA=	980.	988.	1057.	1094.	1100.
PER Q=	2.1	69.3	25.0	3.6	
AREA=	9.7	138.3	76.2	13.0	
VEL=	3.9	9.0	5.9	5.0	
DEPTH=	1.3	2.0	2.0	2.2	

CCHV= .100 CEHV= .300
*SECNO 5.330

3301 HV CHANGED MORE THAN HVINS

5.330	2.40	2457.90	2457.33	.00	2458.21	.31	4.17	.07	2455.60
958.0	334.8	544.3	78.9	148.6	97.5	33.5	581.2	218.3	2455.70
1.11	2.25	5.58	2.35	.070	.035	.070	.000	2455.50	854.37
.005627	295.	300.	290.	5	14	0	.00	175.11	1029.48

FLOW DISTRIBUTION FOR SECNO= 5.33 CWSEL= 2457.90

STA=	854.	901.	917.	926.	934.	954.	966.	1008.	1016.	1024.	1029.
PER Q=	3.6	4.9	3.4	4.0	11.4	7.7	56.8	4.6	3.3	.4	
AREA=	26.3	23.6	14.2	15.5	41.9	27.0	97.5	16.8	13.8	3.0	
VEL=	1.3	2.0	2.3	2.4	2.6	2.7	5.6	2.6	2.3	1.2	
DEPTH=	.6	1.4	1.7	1.9	2.1	2.2	2.3	2.1	1.7	.5	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 5.459
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

5.459	1.51	2469.01	2469.01	.00	2469.53	.52	7.53	.06	2467.50
958.0	631.7	230.5	95.8	153.8	24.7	24.8	585.0	221.2	2467.70
1.14	4.11	9.32	3.87	.070	.035	.070	.000	2467.50	845.69
.030417	690.	682.	665.	0	14	0	.00	191.90	1037.60

FLOW DISTRIBUTION FOR SECNO= 5.46 CWSEL= 2469.01

STA=	846.	879.	890.	912.	934.	956.	978.	995.	1012.	1024.	1036.	1038.
PER Q=	3.2	3.6	9.4	10.9	12.5	14.2	12.0	24.1	6.4	3.6	.0	
AREA=	13.0	10.0	23.4	25.6	27.8	30.0	24.1	24.7	14.6	10.1	.2	
VEL=	2.3	3.5	3.9	4.1	4.3	4.6	4.8	9.3	4.2	3.4	.8	
DEPTH=	.4	.9	1.1	1.2	1.3	1.4	1.5	1.4	1.2	.8	.1	

*SECNO 5.551

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.59

5.551	2.58	2478.08	2477.76	.00	2478.47	.39	8.92	.01	2475.70
958.0	639.3	212.0	106.7	191.3	24.9	31.5	587.6	223.2	2475.70
1.17	3.34	8.53	3.39	.070	.035	.070	.000	2475.50	861.64
.012011	500.	497.	435.	6	14	0	.00	164.01	1025.65

FLOW DISTRIBUTION FOR SECNO= 5.55 CWSEL= 2478.08

STA=	862.	897.	908.	915.	937.	958.	976.	987.	993.	1003.	1007.	1014.	1026.
PER Q=	3.1	3.7	3.4	12.6	14.4	13.8	9.2	6.6	22.1	3.4	5.5	2.3	
AREA=	17.4	13.2	10.7	36.6	39.6	35.9	22.5	15.4	24.9	7.9	14.2	9.4	
VEL=	1.7	2.7	3.0	3.3	3.5	3.7	3.9	4.1	8.5	4.1	3.7	2.3	
DEPTH=	.5	1.2	1.5	1.7	1.8	2.0	2.2	2.3	2.5	2.3	2.0	.8	

*SECNO 5.643
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

5.643	2.56	2485.56	2485.56	.00	2486.33	.77	6.55	.12	2483.40
958.0	348.4	522.7	86.8	104.4	58.0	23.9	590.1	224.9	2483.40
1.19	3.34	9.02	3.63	.070	.035	.070	.000	2483.00	900.87
.014392	505.	496.	483.	0	5	0	.00	123.02	1023.89

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 5.64 CWSEL= 2485.56

STA=	901.	932.	943.	957.	968.	976.	984.	1009.	1014.	1020.	1024.
PER Q=	4.5	4.9	7.3	6.7	6.0	7.1	54.6	4.7	3.6	.7	
AREA=	19.4	14.9	20.9	17.9	14.9	16.5	58.0	11.3	9.6	3.0	
VEL=	2.2	3.1	3.3	3.6	3.8	4.1	9.0	4.0	3.6	2.3	
DEPTH=	.6	1.4	1.5	1.7	1.9	2.1	2.4	2.0	1.7	.8	

CCHV= .100 CEHV= .300
*SECNO 5.738

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 482.0 1009.0 TYPE= 1 TARGET= 527.000

5.738	1.77	2491.77	2491.47	.00	2491.90	.12	5.50	.06	2490.80
958.0	778.1	178.1	1.8	381.2	36.0	1.5	593.2	228.1	2491.00
1.24	2.04	4.95	1.19	.070	.035	.065	.000	2490.00	482.32
.009910	435.	508.	505.	5	14	0	.00	506.25	1008.87

FLOW DISTRIBUTION FOR SECNO= 5.74 CWSEL= 2491.77

STA=	482.	536.	587.	612.	637.	650.	663.	670.	676.	695.	707.	720.	732.
PER Q=	3.8	3.4	3.6	6.0	3.9	5.4	3.5	3.4	7.6	3.8	3.6	3.3	
AREA=	25.5	24.7	19.4	26.4	15.4	19.3	11.2	10.9	26.9	15.1	14.6	13.9	
VEL=	1.4	1.3	1.8	2.2	2.4	2.7	3.0	3.0	2.7	2.4	2.4	2.3	
DEPTH=	.5	.5	.8	1.0	1.2	1.4	1.7	1.7	1.4	1.2	1.2	1.1	

STA=	732.	744.	769.	794.	878.	902.	927.	952.	977.	1005.	1009.
PER Q=	3.1	5.2	4.2	3.2	3.1	3.5	3.5	3.8	18.6	.2	
AREA=	13.2	24.1	21.0	23.7	17.6	19.1	19.1	20.2	36.0	1.5	
VEL=	2.2	2.1	1.9	1.3	1.7	1.8	1.8	1.8	4.9	1.2	
DEPTH=	1.1	1.0	.8	.3	.7	.8	.8	.8	1.3	.4	

*SECNO 5.793
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
5.793	1.85	2498.35	2498.35	.00	2498.76	.41	3.31	.08	2496.80
958.0	537.2	286.7	134.1	199.6	34.6	40.6	595.1	230.3	2496.80
1.26	2.69	8.29	3.30	.070	.035	.065	.000	2496.50	755.56
.018361	235.	286.	285.	0	8	0	.00	296.97	1052.53

FLOW DISTRIBUTION FOR SECNO= 5.79 CWSEL= 2498.35

STA=	756.	790.	810.	829.	844.	858.	873.	887.	902.	916.	930.	945.	960.
PER Q=	3.1	3.5	4.4	3.3	3.4	3.3	3.3	3.3	3.4	3.3	3.5	4.5	
AREA=	16.2	14.3	16.3	12.3	12.4	12.3	12.3	12.3	12.4	12.3	12.7	15.1	
VEL=	1.8	2.3	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.9	
DEPTH=	.5	.7	.8	.9	.9	.9	.9	.9	.9	.9	.9	1.0	

STA=	960.	975.	985.	990.	1010.	1015.	1025.	1035.	1053.
PER Q=	5.9	5.0	3.0	29.9	3.2	5.2	3.4	2.2	
AREA=	17.6	13.5	7.5	34.6	7.5	13.3	10.3	9.5	
VEL=	3.2	3.5	3.8	8.3	4.1	3.8	3.2	2.2	
DEPTH=	1.2	1.4	1.5	1.7	1.5	1.3	1.0	.5	

*SECNO 5.862

TO ENCROACHMENT STATIONS= 858.0 1128.0 TYPE= 1 TARGET= 270.000

5.862	1.36	2504.26	2504.07	.00	2504.54	.28	5.77	.01	2502.90
958.0	341.8	296.6	319.5	124.1	46.4	108.9	597.3	232.5	2502.90
1.28	2.75	6.39	2.94	.070	.035	.065	.000	2502.90	858.73
.015108	340.	351.	356.	4	14	0	.00	268.75	1127.48

FLOW DISTRIBUTION FOR SECNO= 5.86 CWSEL= 2504.26

STA=	859.	891.	906.	918.	929.	940.	951.	963.	974.	981.	1016.	1031.	1042.
PER Q=	3.9	4.4	3.6	3.9	3.9	4.0	4.4	4.5	3.1	31.0	6.7	4.7	
AREA=	18.9	15.8	12.4	13.0	12.9	13.2	14.0	14.2	9.6	46.4	19.6	13.8	
VEL=	2.0	2.7	2.8	2.9	2.9	2.9	3.0	3.0	3.1	6.4	3.3	3.3	
DEPTH=	.6	1.0	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.4	1.3	1.3	

STA=	1042.	1060.	1071.	1081.	1096.	1121.	1127.
PER Q=	7.0	4.0	3.7	4.0	3.1	.2	
AREA=	21.2	12.3	11.8	14.0	14.7	1.4	
VEL=	3.1	3.1	3.0	2.8	2.0	1.1	
DEPTH=	1.2	1.2	1.1	1.0	.6	.2	

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 5.932

3470 ENCROACHMENT STATIONS=      882.0    1047.0  TYPE=      1  TARGET=      165.000
     5.932      1.83   2510.03   2509.84       .00   2510.47       .45      5.88       .05   2508.20
     958.0     574.7     292.5      90.9     154.7      36.4      30.6     599.5     234.3   2508.50
      1.30      3.71      8.03      2.97      .070      .035      .065      .000   2508.20    882.00
   .016535      400.      366.      320.         3        11         0       .00    164.02   1046.02


FLOW DISTRIBUTION FOR SECNO=      5.93          CWSEL=   2510.03

STA=     882.     905.     925.     946.     966.     986.    1007.    1014.    1027.    1046.
  PER Q=      5.3     12.5     13.1     13.9     15.2     30.5      3.8      4.4      1.2
   AREA=     18.6     32.3     33.2     34.4     36.2     36.4      9.8     14.0      6.9
    VEL=      2.7      3.7      3.8      3.9      4.0      8.0      3.7      3.0      1.7
  DEPTH=       .8      1.6      1.6      1.7      1.8      1.8      1.4      1.0       .4

CCHV=     .100 CEHV=     .300
*SECNO 6.002
     6.002      2.01   2515.51   2515.21       .00   2515.82       .31      5.33       .01   2513.60
     958.0     623.8     262.5      71.7     192.3      38.7      26.9     601.4     235.9   2513.80
      1.33      3.24      6.78      2.67      .070      .040      .070      .000   2513.50    825.59
   .013836      350.      364.      340.         3        11         0       .00    211.24   1036.83


FLOW DISTRIBUTION FOR SECNO=      6.00          CWSEL=   2515.51

STA=     826.     878.     894.     904.     914.     930.     945.     960.     975.     985.    1005.    1015.    1037.
  PER Q=      4.2      4.1      3.7      4.8      8.9     10.2     10.5     11.0      7.7     27.4      4.8      2.7
   AREA=     23.6     15.7     12.6     14.7     25.0     26.7     27.1     27.9     19.1     38.7     14.3     12.5
    VEL=      1.7      2.5      2.8      3.1      3.4      3.6      3.7      3.8      3.8      6.8      3.2      2.1
  DEPTH=       .5      1.0      1.2      1.4      1.6      1.8      1.8      1.9      1.9      1.9      1.4       .6

*SECNO 6.056
     6.056      1.59   2519.89   2519.66       .00   2520.18       .29      4.36       .00   2518.30
     958.0     620.6     214.9     122.5     184.2      31.6      43.0     603.0     237.3   2518.30
      1.35      3.37      6.80      2.85      .070      .040      .070      .000   2518.30    827.97
   .018168      270.      286.      290.         3        14         0       .00    231.56   1059.53
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 6.06 CWSEL= 2519.89

STA=	828.	870.	890.	910.	930.	950.	970.	985.	1005.	1015.	1030.	1060.
PER Q=	7.3	6.8	8.4	9.6	10.9	12.2	9.6	22.4	5.3	4.9	2.7	
AREA=	28.3	21.6	24.6	26.6	28.6	30.6	23.7	31.6	14.1	15.7	13.2	
VEL=	2.5	3.0	3.3	3.5	3.6	3.8	3.9	6.8	3.6	3.0	1.9	
DEPTH=	.7	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.4	1.0	.4	

*SECNO 6.139

6.139	1.74	2525.74	2525.49	.00	2525.96	.22	5.78	.01	2524.10
958.0	212.3	313.5	432.2	89.1	55.7	180.2	605.7	239.8	2524.20
1.38	2.38	5.63	2.40	.070	.040	.070	.000	2524.00	887.53
.011378	385.	434.	415.	5	11	0	.00	320.13	1207.66

FLOW DISTRIBUTION FOR SECNO= 6.14 CWSEL= 2525.74

STA=	888.	929.	953.	965.	978.	984.	1017.	1034.	1053.	1066.	1079.	1092.	1105.
PER Q=	3.6	6.0	4.2	5.3	3.1	32.7	7.4	6.5	4.4	4.2	3.8	3.8	
AREA=	21.6	24.9	15.2	17.7	9.7	55.7	24.9	23.7	16.2	15.8	14.9	14.9	
VEL=	1.6	2.3	2.6	2.9	3.1	5.6	2.9	2.6	2.6	2.6	2.5	2.5	
DEPTH=	.5	1.0	1.2	1.4	1.6	1.7	1.4	1.3	1.2	1.2	1.1	1.1	

STA=	1105.	1119.	1131.	1150.	1187.	1208.
PER Q=	3.8	3.5	3.8	3.4	.3	
AREA=	14.9	13.8	17.0	20.6	3.5	
VEL=	2.5	2.4	2.1	1.6	.8	
DEPTH=	1.1	1.1	.9	.6	.2	

*SECNO 6.224

3470 ENCROACHMENT STATIONS= 945.0 1371.0 TYPE= 1 TARGET= 426.000

END OF THIS DETAILED STUDY

6.224	1.19	2532.19	2532.07	.00	2532.41	.21	6.45	.00	2531.30
958.0	41.2	283.6	633.2	19.8	50.7	247.4	609.0	243.6	2531.10
1.42	2.08	5.59	2.56	.070	.040	.070	.000	2531.00	945.36
.018947	460.	452.	440.	4	14	0	.00	425.37	1370.72

FLOW DISTRIBUTION FOR SECNO= 6.22 CWSEL= 2532.19

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	945.	986.	1030.	1053.	1075.	1098.	1120.	1135.	1158.	1180.	1202.	1231.	1260.
PER Q=	4.3	29.6	8.0	8.0	7.4	6.8	4.3	5.7	5.1	4.6	5.3	3.9	
AREA=	19.8	50.7	24.6	24.6	23.5	22.4	14.5	20.1	18.6	17.5	21.4	17.7	
VEL=	2.1	5.6	3.1	3.1	3.0	2.9	2.9	2.7	2.6	2.5	2.4	2.1	
DEPTH=	.5	1.1	1.1	1.1	1.0	1.0	1.0	.9	.8	.8	.7	.6	

STA=	1260.	1290.	1341.	1371.
PER Q=	3.1	3.1	.9	
AREA=	15.6	19.4	7.6	
VEL=	1.9	1.5	1.2	
DEPTH=	.5	.4	.3	

FLOODWAY DETERMINATION

T3 WASH R:CEMETERY WASH

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	3	0	0	0.00293	0	0	0	2020.26	0
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15	0	-1	0	0	0	-1	0	0	0

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*PROF 2

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV=     .200 CEHV=     .400
*SECNO 50.460

3265 DIVIDED FLOW

          HASSAYAMPA RIVER CROSS SECTION 50.46 (CBA 1988, NO DATUM CHANGE)
          CONFLUENCE WITH WASH R - CEMETERY WASH, A WEST TRIBUTARY
          NON COINCIDENT WITH 100-YEAR DISCHARGE IN HASSAYAMPA
          THE METHOD USED TO START THIS HEC-2, WATER SURFACE PROFILE
          ANALYSIS IS THE SLOPE/AREA METHOD.  THE WATER SURFACE ELEVATION
          FOR CROSS SECTION 50.46, THE HASSAYAMPA RIVER, WAS USED AS AN
          APPROXIMATE STARTING WATER SURFACE ELEVATION FOR THE WASH R-
          CEMETERY WASH HEC-2 WATER SURFACE PROFILE ANALYSIS.
   50.460      4.42   2014.12   2013.16   2020.26   2014.41       .29       .00       .00   2013.30
   7251.0    2112.7    5092.5      45.8     788.6    1049.9      21.6        .0        .0   2011.50
      .00      2.68      4.85      2.12      .045      .035      .045      .000   2009.70   1180.54
  .002925        0.        0.        0.         0        17         7       .00    884.86   2128.27


CCHV=     .100 CEHV=     .300
*SECNO  .174

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      260.0    1215.0  TYPE=      1  TARGET=      955.000
          THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
          CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION, UNLESS
          OTHERWISE NOTED.
          FIRST SECTION OF WASH R - CEMETERY WASH
          DUE TO THE CONFIGURATION AND OTHER HYDROLOGIC CHARACTERISTICS
          OF THE WATERSHED, THE PEAK DISCHARGE MAY INCREASE AND/OR DECREASE
          AT VARIOUS LOCATIONS ALONG THE WASH.
     .174      3.67   2024.67   2024.67   2024.67   2025.41       .74      5.13       .13   2023.00
   7251.0    3251.1    1416.9    2582.9     776.9     120.3     438.0      32.3      19.7   2023.00
      .04      4.18     11.78      5.90      .070      .035      .070      .000   2021.00    260.89
  .020876     1100.      917.       50.         0        12         0       .00    930.73   1214.22
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .200 CEHV=     .400
*SECNO  .227

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      413.0    1016.0  TYPE=      1  TARGET=      603.000
           5 FOOT WIDE WOOD AND STEEL PEDESTRAIN BRIDGE
           200 FEET DOWNSTREAM OF A.T. & S.F. RAILROAD TRESTLE
           THIS BRIDGE IS NOT MODELLED DUE TO THE SHORT WIDTH.
     .227      6.21   2029.21   2029.21   2029.21   2030.31      1.10      3.47       .14   2025.00
   7251.0    4927.9    2273.4      49.7    1175.7     166.4      14.7      39.6      23.8   2024.00
     .05      4.19     13.66      3.38      .070      .035      .070      .000   2023.00    413.87
  .010627     235.      279.      200.         0        17         0       .00    572.84   1015.65


CCHV=     .100 CEHV=     .300
*SECNO  .269

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.68


3470 ENCROACHMENT STATIONS=      438.0    1108.0  TYPE=      1  TARGET=      670.000
     .269      5.15   2031.15   2029.23   2031.15   2031.38       .22       .98       .09   2028.00
   7251.0    5633.7    1386.4     230.9    1767.1     240.0     114.0      45.9      26.0   2028.30
     .06      3.19      5.78      2.03      .070      .035      .070      .000   2026.00    438.08
  .003751     145.      222.      242.         2        11         0       .00    661.79   1107.29


CCHV=     .300 CEHV=     .500
*SECNO  .274

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 421.0 1040.0 TYPE= 1 TARGET= 619.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 2030.70 ELREA= 2033.40

DOWNSTREAM SECTION OF THE ATCHISON-TOPEKA AND
SANTA FE RAILROAD TRESTLE. SPECIAL BRIDGE DATA.

.274	6.06	2033.06	2033.06	2033.06	2034.26	1.20	.14	.49	2030.70
7251.0	2479.4	4771.6	.0	841.3	448.3	.0	47.0	26.4	2033.40
.06	2.95	10.64	.00	.070	.035	.000	.000	2027.00	422.44
.006704	29.	29.	29.	0	11	0	.00	616.95	1039.39

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2032.44 , NOT 2033.06 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.05	1.56	3.00	.00	72.19	6.39	400.23	1.00	2027.60	2027.10

CNO .278

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.40

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
2041.01	2037.71	.00	2175.	5093.	400.	415.	2033.40	2035.90	660.

3470 ENCROACHMENT STATIONS= 401.0 1059.0 TYPE= 1 TARGET= 658.000

.278	9.24	2036.84	.00	2036.84	2036.98	.14	2.72	.00	2030.70
7251.0	4225.4	2991.4	34.2	2710.8	703.8	37.9	48.0	26.7	2033.40
.06	1.56	4.25	.90	.070	.035	.070	.000	2027.60	401.42
.000580	19.	19.	19.	2	0	4	.00	657.57	1059.00

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO  .311

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .62


3470 ENCROACHMENT STATIONS=      398.0    1093.0  TYPE=      1  TARGET=      695.000
      .311      7.46   2036.96   2034.74   2036.96   2037.13       .17       .14       .01   2030.00
    7251.0    5351.1    1319.7     580.2    2423.6     216.2     285.3      59.1      29.0   2030.00
       .08      2.21      6.10      2.03      .070      .035      .070      .000   2029.50    398.22
   .001486      145.      178.      178.         2        11         0       .00    694.11   1092.32


*SECNO  .415

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0 ENCROACHMENT STATIONS=      346.0    1283.0  TYPE=      1  TARGET=      937.000
      .415      6.01   2041.01   2041.01   2041.00   2041.74       .73      2.24       .17   2040.00
    7251.0    3616.3    1379.2    2255.6     772.7     112.0     461.2      88.9      39.9   2040.00
       .10      4.68     12.32      4.89      .070      .035      .070      .000   2035.00    346.50
   .021737      622.      540.      580.         0        14         0       .00    858.94   1282.53


*SECNO  .494

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      491.0    1099.0  TYPE=      1  TARGET=      608.000
      .494      5.86   2049.86   2049.86   2049.86   2050.90      1.04      7.36       .09   2046.00
    7267.0    4241.1    2581.2     444.8    1028.6     204.7     132.6     105.6      48.8   2046.00
       .12      4.12     12.61      3.35      .070      .035      .070      .000   2044.00    491.45
   .010097      600.      426.      400.         0         8         0       .00    573.33   1098.91
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO  .593
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      792.0    1212.0  TYPE=      1  TARGET=      420.000
      .593      5.51   2058.91   2058.91   2058.96   2060.15      1.24      5.95       .06   2054.00
    7267.0    1985.7    2724.5    2556.8     415.0     208.5     494.7     122.7      55.7   2054.00
      .14      4.78     13.07      5.17      .060      .035      .060      .000   2053.40    792.72
   .010492      660.      520.      510.         0        11         0       .00    418.70   1211.42


*SECNO  .671
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      933.0    1324.0  TYPE=      1  TARGET=      391.000
      .671      4.65   2066.45   2066.45   2066.44   2067.70      1.25      4.86       .00   2062.00
    7267.0     118.8    3530.6    3617.6      24.7     295.4     771.4     134.8      60.2   2062.00
      .16      4.81     11.95      4.69      .060      .035      .060      .000   2061.80    933.89
   .010523      405.      415.      530.         0        15         0       .00    389.26   1323.15


*SECNO  .765
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      760.0    1114.0  TYPE=      1  TARGET=      354.000
      .765      7.34   2073.34   2073.34   2073.34   2074.84      1.51      4.28       .08   2068.00
    7267.0    1814.4    4137.4    1315.2     462.2     330.9     273.3     147.4      64.6   2068.00
      .17      3.93     12.50      4.81      .060      .035      .060      .000   2066.00    760.49
   .007029      500.      493.      520.         0        14         0       .00    352.89   1113.38


CCHV=     .300 CEHV=     .500
*SECNO  .860

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      961.0    1122.0  TYPE=      1  TARGET=      161.000
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

    .860      8.16   2083.26   2083.26   2083.26   2085.58      2.31      3.71       .40   2076.00
  7267.0     590.6    4122.5    2554.0      92.0     269.9     415.4     157.2      67.2   2076.00
    .19      6.42     15.27      6.15      .060      .035      .060      .000   2075.10    961.76
 .008507      345.      497.      530.         0         8         0       .00    159.80   1121.56

*SECNO  .952

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      957.0    1039.0  TYPE=      1  TARGET=      82.000
    .952     11.71   2096.11   2096.11   2096.11   2099.80      3.68      4.39       .68   2084.50
  7283.0    2399.7    2847.4    2035.9     235.2     133.0     221.8     164.8      68.5   2084.40
    .20     10.20     21.41      9.18      .060      .035      .060      .000   2084.40    957.74
 .009615      486.      486.      486.         0        11         0       .00     80.58   1038.32

*SECNO 1.003

1 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.39

3470 ENCROACHMENT STATIONS=      951.0    1143.0  TYPE=      1  TARGET=     192.000
   1.003     13.69   2100.79   2094.82   2100.79   2101.30       .51       .56       .95   2088.30
  7283.0     591.1    4677.0    2014.8     198.1     685.1     672.5     171.9      69.4   2088.40
    .21      2.98      6.83      3.00      .060      .035      .060      .000   2087.10    951.16
 .000834      240.      273.      320.         3        14         0       .00    191.57   1142.73

CCHV=     .100 CEHV=     .300
*SECNO 1.038

3470 ENCROACHMENT STATIONS=      927.0    1262.0  TYPE=      1  TARGET=     335.000
   1.038      9.55   2101.25   2095.85   2101.25   2101.48       .23       .15       .03   2091.70
  7283.0    1019.6    3032.2    3231.2     439.6     588.3    1278.7     180.3      70.6   2091.70
    .22      2.32      5.15      2.53      .065      .035      .065      .000   2091.70    927.50
 .000727      115.      182.      220.         2        17         0       .00    333.51   1261.01
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.141

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 931.0 1088.0 TYPE= 1 TARGET= 157.000

1.141	6.39	2104.39	2104.39	2104.39	2106.82	2.43	.92	.66	2098.20
7283.0	1530.6	5341.4	411.0	247.3	377.4	82.3	197.0	73.3	2098.00
.24	6.19	14.15	5.00	.065	.035	.065	.000	2098.00	931.46
.009567	595.	546.	380.	0	14	0	.00	156.33	1087.79

*SECNO 1.191
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 929.0 1066.0 TYPE= 1 TARGET= 137.000
4 TO 5 FOOT DROP FROM CROSS SECTION 1.191 AND 1.199

1.191	8.62	2110.12	2110.12	2110.12	2112.93	2.81	2.27	.12	2102.00
7283.0	964.6	5190.5	1127.9	171.2	334.8	185.5	201.2	74.2	2102.00
.24	5.63	15.50	6.08	.065	.035	.065	.000	2101.50	929.65
.007847	280.	262.	240.	0	11	0	.00	135.83	1065.48

*SECNO 1.199
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 914.0 1071.0 TYPE= 1 TARGET= 157.000
DIRT ROAD DIP CROSSING

1.199	8.22	2114.42	2114.42	2114.46	2116.93	2.51	.35	.03	2108.00
7283.0	1169.3	5254.6	859.1	203.7	360.8	159.9	201.9	74.3	2108.00
.24	5.74	14.56	5.37	.065	.035	.065	.000	2106.20	914.11
.008472	46.	44.	30.	0	11	0	.00	156.14	1070.25

*SECNO 1.233

3301 HV CHANGED MORE THAN HVINS

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.38


3470 ENCROACHMENT STATIONS=      913.0    1116.0  TYPE=      1  TARGET=      203.000
    1.233     10.16   2117.16   2112.78   2117.15   2117.65       .49       .52       .20   2107.50
   7283.0    3287.3    3077.0     918.7     899.7     407.1     274.0     206.4      75.0   2107.50
      .25      3.65      7.56      3.35      .065      .035      .065      .000   2107.00    913.64
  .001490      150.      178.      220.         2        19         0       .00    201.45   1115.08


CCHV=     .100 CEHV=     .300
*SECNO 1.328

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      929.0    1206.0  TYPE=      1  TARGET=      277.000
    1.328      5.08   2120.08   2120.08   2120.09   2121.79      1.70      1.64       .36   2115.40
   7283.0     478.3    3771.4    3033.3      83.5     277.6     568.5     220.9      77.8   2115.40
      .27      5.72     13.59      5.34      .070      .035      .070      .000   2115.00    929.80
 .012030      480.      504.      528.         0         8         0       .00    275.63   1205.43


CCHV=     .100 CEHV=     .300
*SECNO 1.401

3470 ENCROACHMENT STATIONS=      852.0    1080.0  TYPE=      1  TARGET=      228.000
    1.401      5.25   2125.15   2125.06   2125.14   2126.85      1.70      5.06       .00   2120.70
   7299.0    3528.6    3075.0     695.3     523.5     218.0     109.7     228.8      80.0   2120.80
      .28      6.74     14.11      6.34      .065      .035      .065      .000   2119.90    852.13
  .014475      380.      384.      390.         2         5         0       .00    227.70   1079.83


*SECNO 1.431

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      861.0    1156.0  TYPE=      1  TARGET=      295.000
    1.431      5.70   2128.00   2127.04   2128.00   2128.82       .82      1.88       .09   2122.80
   7299.0    3062.1    1355.9    2881.0     537.2     110.8     537.8     232.8      81.1   2122.80
      .28      5.70     12.24      5.36      .065      .035      .065      .000   2122.30    861.24
  .008873      165.      157.      190.         2        15         0       .00    293.77   1155.02
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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO 1.508

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      900.0    1099.0  TYPE=      1  TARGET=      199.000
     1.508      4.83   2133.63   2133.63   2133.63   2135.63      2.00      4.36       .35   2129.10
    7299.0    1460.7    4474.7    1363.6     240.5     328.1     214.9     242.0      83.4   2129.20
       .30      6.07     13.64      6.34      .070      .035      .065      .000   2128.80    900.92
   .013152      408.      408.      405.         0        15         0       .00    197.24   1098.16


*SECNO 1.531
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      927.0    1126.0  TYPE=      1  TARGET=      199.000
            DIRT ROAD DIP CROSSING
     1.531      5.49   2135.49   2135.49   2135.49   2137.49      2.00      1.49       .00   2130.30
    7299.0    1498.4    3201.0    2599.6     233.3     209.7     366.5     244.0      83.9   2130.30
       .30      6.42     15.27      7.09      .070      .035      .065      .000   2130.00    927.46
   .013962      113.      111.      105.         0         8         0       .00    198.44   1125.91


*SECNO 1.566

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      967.0    1254.0  TYPE=      1  TARGET=      287.000
     1.566      5.32   2139.02   2138.70   2139.02   2140.34      1.32      2.78       .07   2134.00
    7299.0     143.1    2723.5    4432.5      31.5     206.7     773.4     248.8      85.1   2134.00
       .31      4.54     13.17      5.73      .070      .035      .065      .000   2133.70    967.49
   .010775      205.      216.      243.         2        11         0       .00    285.47   1252.96


CCHV=     .300 CEHV=     .500
*SECNO 1.656
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=      804.0    1043.0  TYPE=      1  TARGET=      239.000
            DIRT ROAD DIP CROSSING
     1.656      7.14   2147.14   2147.14   2147.14   2148.92      1.78      4.84       .23   2141.00
    7299.0    4014.0    2630.3     654.7     645.5     166.4     110.9     258.5      87.7   2141.00
       .32      6.22     15.80      5.90      .065      .035      .065      .000   2140.00    804.74
   .011135      530.      460.      350.         0        11         0       .00    237.47   1042.22


*SECNO 1.705

3470 ENCROACHMENT STATIONS=      868.0    1101.0  TYPE=      1  TARGET=      233.000
     1.705      5.06   2150.26   2150.06   2150.26   2151.85      1.59      2.88       .06   2145.50
    7299.0    2524.3    2754.2    2020.5     394.0     194.2     302.3     263.4      89.0   2145.50
       .33      6.41     14.19      6.68      .065      .035      .065      .000   2145.20    868.54
   .013178      210.      252.      280.         2        19         0       .00    232.40   1100.94


CCHV=     .100 CEHV=     .300
*SECNO 1.751

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      934.0    1124.0  TYPE=      1  TARGET=      190.000
            DIRT ROAD DIP CROSSING
     1.751      5.44   2154.74   2154.74   2154.74   2156.85      2.11      2.91       .16   2149.80
    7299.0     835.9    5094.3    1368.8     151.4     380.8     217.4     267.9      90.1   2149.80
       .33      5.52     13.38      6.30      .065      .035      .065      .000   2149.30    934.25
   .010995      210.      244.      270.         0         8         0       .00    189.38   1123.64


*SECNO 1.813

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      843.0    1164.0  TYPE=      1  TARGET=      321.000
            DRAINAGE SUBAREA COMBINED FLOW
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1.813	5.31	2159.31	2159.31	2159.31	2160.77	1.46	3.66	.06	2155.00
7299.0	1628.4	3495.9	2174.7	327.5	270.8	396.1	274.3	92.0	2155.00
.34	4.97	12.91	5.49	.065	.035	.065	.000	2154.00	843.46
.011725	340.	327.	300.	0	8	0	.00	319.95	1163.41

*SECNO 1.902

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 656.0 1082.0 TYPE= 1 TARGET= 426.000

1.902	3.85	2166.55	2166.24	2166.55	2167.44	.88	6.60	.06	2163.80
7156.0	5368.2	1379.8	408.0	875.9	116.1	82.7	284.9	95.8	2163.80
.36	6.13	11.89	4.93	.065	.035	.065	.000	2162.70	656.49
.018950	435.	467.	462.	3	19	0	.00	425.02	1081.52

CCHV= .100 CEHV= .300
*SECNO 1.966

3470 ENCROACHMENT STATIONS= 698.0 1025.0 TYPE= 1 TARGET= 327.000

1.966	4.13	2173.13	2172.88	2173.13	2174.30	1.17	6.78	.09	2169.70
7156.0	5189.0	1884.9	82.1	844.7	140.0	16.6	293.8	99.0	2169.70
.37	6.14	13.47	4.95	.070	.035	.065	.000	2169.00	698.74
.017880	380.	338.	315.	3	5	0	.00	325.88	1024.62

*SECNO 2.034

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 726.0 1349.0 TYPE= 1 TARGET= 623.000

2.034	3.78	2178.68	2178.18	2178.68	2179.21	.53	4.85	.06	2175.00
7156.0	2769.4	1191.9	3194.6	656.1	111.9	746.0	304.0	102.9	2175.00
.39	4.22	10.65	4.28	.070	.035	.065	.000	2174.90	727.01
.010866	340.	359.	380.	4	15	0	.00	620.99	1347.99

*SECNO 2.093

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      721.0    1123.0  TYPE=      1  TARGET=      402.000
     2.093      4.34   2184.84   2184.84   2184.84   2185.98      1.15      5.11       .19   2182.00
    7156.0    4227.5    1343.1    1585.4     681.0      89.4     252.3     313.8     106.8   2182.00
       .40      6.21     15.02      6.28      .070      .035      .065      .000   2180.50    721.76
   .023127      330.      313.      350.         0         8         0       .00    401.02   1122.79


*SECNO 2.188

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      844.0    1038.0  TYPE=      1  TARGET=      194.000
     2.188      4.97   2193.57   2193.52   2193.57   2195.50      1.93      9.28       .24   2188.90
    7156.0    3795.2    2657.0     703.9     529.8     168.8      96.1     323.6     110.0   2188.90
       .41      7.16     15.74      7.33      .070      .035      .065      .000   2188.60    844.26
    016883      460.      500.      470.         1         8         0       .00    192.78   1037.05


CCHV=     .100 CEHV=     .300
*SECNO 2.248

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      741.0    1043.0  TYPE=      1  TARGET=      302.000
     2.248      5.29   2198.40   2197.60   2198.39   2199.30       .91      3.70       .10   2193.50
    7013.0    4557.8    2168.3     287.0     935.8     185.7      61.6     330.8     111.8   2193.60
       .43      4.87     11.67      4.66      .070      .035      .070      .000   2193.10    741.04
   .008426      320.      318.      305.         3        11         0       .00    301.33   1042.37


*SECNO 2.295

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      826.0    1039.0  TYPE=      1  TARGET=      213.000
     2.295      4.71   2201.51   2201.51   2201.51   2203.36      1.85      2.56       .28   2196.80
    7013.0    4006.6    2281.4     725.0     560.1     141.3     101.2     335.5     113.0   2196.80
       .43      7.15     16.15      7.17      .070      .035      .070      .000   2196.80    826.74
   .018313      190.      248.      262.         0        11         0       .00    211.97   1038.72


CCHV=     .100 CEHV=     .300
*SECNO 2.338

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      921.0    1151.0  TYPE=      1  TARGET=      230.000
     2.338      5.01   2205.01   2204.23   2205.01   2206.18      1.17      2.74       .07   2200.00
    7013.0    1012.7    2439.5    3560.8     188.2     200.1     574.6     339.7     114.1   2200.00
       .44      5.38     12.19      6.20      .065      .035      .065      .000   2200.00    921.28
   .009634      192.      226.      220.         2        11         0       .00    229.72   1151.00


ECNO 2.436

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      765.0    1183.0  TYPE=      1  TARGET=      418.000
     2.436      4.53   2214.53   2214.53   2214.53   2215.77      1.25      6.57       .02   2210.60
    7013.0    3116.2    1497.4    2399.4     532.3     100.6     333.0     350.7     117.5   2210.60
       .46      5.85     14.88      7.21      .065      .035      .065      .000   2210.00    765.19
   .019188      530.      520.      460.         0        15         0       .00    365.44   1182.92


CCHV=     .100 CEHV=     .300
*SECNO 2.525
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      933.0    1205.0  TYPE=      1  TARGET=      272.000
     2.525      6.13   2223.23   2223.23   2223.23   2224.89      1.66      7.17       .12   2217.40
    7013.0    1136.8    2688.3    3187.9     188.2     178.2     584.3     361.4     121.0   2217.50
       .47      6.04     15.09      5.46      .070      .035      .070      .000   2217.10    933.86
   .011742      320.      472.      620.         0        11         0       .00    270.70   1204.56
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO 2.645

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      886.0    1034.0  TYPE=      1  TARGET=      148.000
    2.645      5.60   2233.50   2233.50   2233.50   2235.80      2.30      8.32       .19   2227.90
   6870.0    3608.6    2779.4     482.0     450.4     168.0      65.6     372.8     123.8   2227.90
      .49      8.01     16.55      7.35      .065      .035      .065      .000   2227.90    886.25
  .015271      710.      634.      500.         0        11         0       .00    147.50   1033.75


*SECNO 2.760
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      905.0    1047.0  TYPE=      1  TARGET=      142.000
           DIRT ROAD DIP CROSSING
    2.760      6.62   2244.52   2244.52   2244.52   2246.93      2.40      8.70       .03   2237.90
   6870.0    3271.3    2558.9    1039.8     408.4     145.7     132.2     382.3     125.8   2237.90
      .50      8.01     17.56      7.87      .065      .035      .065      .000   2237.90    905.15
  .013761      595.      603.      615.         0        11         0       .00    141.12   1046.27


CCHV=     .100 CEHV=     .300
*SECNO 2.805
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      925.0    1038.0  TYPE=      1  TARGET=      113.000
           CONFLUENCE OF SUBAREA R38 - WASH R-1
    2.805      7.17   2248.57   2248.57   2248.57   2251.43      2.86      3.21       .14   2241.70
   6870.0    2703.5    3324.9     841.6     347.1     186.8     110.4     385.9     126.5   2241.70
      .51      7.79     17.80      7.62      .070      .035      .070      .000   2241.40    925.73
  .013080      240.      239.      240.         0         8         0       .00    111.57   1037.30


*SECNO 2.850
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      975.0    1146.0  TYPE=      1  TARGET=      171.000
    2.850      6.78   2252.58   2252.58   2252.58   2254.78      2.20      2.90       .07   2245.80
   6683.0     480.6    3081.6    3120.8      71.2     190.6     505.9     389.8     127.3   2245.80
      .51      6.75     16.17      6.17      .070      .035      .070      .000   2245.80    975.58
  .011287      222.      240.      250.         0        11         0       .00    170.00   1145.59


*SECNO 2.936
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      847.0    1032.0  TYPE=      1  TARGET=      185.000
    2.936      9.51   2259.01   2259.01   2259.01   2261.23      2.22      4.26       .01   2249.80
   6683.0    3035.4    2802.5     845.1     551.7     163.8     119.4     398.0     129.1   2249.80
      .52      5.50     17.11      7.08      .070      .035      .070      .000   2249.50    847.07
  .008241      465.      450.      418.         0        11         0       .00    184.21   1031.28


CCHV=     .100 CEHV=     .300
*SECNO 3.030

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      935.0    1181.0  TYPE=      1  TARGET=      246.000
            DIRT ROAD DIP CROSSING 110 FEET EAST OF THIS SECTION
    3.030      7.02   2263.52   2262.83   2263.52   2264.72      1.19      3.39       .10   2257.40
   6683.0     467.1    3299.6    2916.3     108.4     285.0     627.2     408.1     131.4   2257.40
      .54      4.31     11.58      4.65      .065      .035      .065      .000   2256.50    935.49
  .006057      410.      500.      520.         2        14         0       .00    245.26   1180.75


*SECNO 3.125

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      963.0    1133.0  TYPE=      1  TARGET=      170.000
    3.125      6.07   2270.57   2270.57   2270.57   2272.63      2.06      4.00       .26   2265.00
   6495.0     728.9    3109.2    2656.9     106.6     204.7     411.7     417.6     133.6   2265.00
      .55      6.84     15.19      6.45      .065      .035      .065      .000   2264.50    963.70
  .012153      520.      505.      450.         0        15         0       .00    168.86   1132.56


CCHV=     .100 CEHV=     .300
*SECNO 3.220
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      844.0    1038.0  TYPE=      1  TARGET=      194.000
    3.220      6.29   2278.29   2278.29   2278.29   2280.21      1.92      6.68       .01   2272.00
   6495.0    3797.6    2134.5     562.8     574.8     125.8      89.0     426.6     135.8   2272.00
      .57      6.61     16.97      6.32      .070      .035      .070      .000   2272.00    844.71
  .013747      570.      500.      470.         0         8         0       .00    192.98   1037.69


*SECNO 3.304
[illegible]5 MINIMUM SPECIFIC ENERGY
[illegible]0 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      841.0    1024.0  TYPE=      1  TARGET=      183.000
            DIRT ROAD DIP CROSSING 240 FEET UPSTREAM OF THIS SECTION
    3.304      4.99   2285.19   2285.19   2285.19   2287.13      1.94      6.22       .01   2280.50
   6308.0    2725.6    3146.9     435.5     436.9     216.5      69.1     434.4     137.7   2280.50
      .58      6.24     14.54      6.30      .070      .035      .070      .000   2280.20    841.95
  .014314      450.      438.      436.         0        15         0       .00    182.04   1023.99


CCHV=     .100 CEHV=     .300
*SECNO 3.409
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      928.0    1090.0  TYPE=      1  TARGET=      162.000
            CONFLUENCE OF COMBINED FLOW NODE CR34 - WASH R-2
    3.409      5.13   2294.13   2294.13   2294.12   2296.22      2.09      7.48       .04   2289.20
   6308.0    1513.9    3473.9    1320.2     226.0     240.5     202.9     442.8     139.8   2289.20
      .59      6.70     14.45      6.51      .065      .035      .070      .000   2289.00    928.13
  .013464      487.      562.      575.         0         8         0       .00    161.32   1089.45
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 3.483

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 979.0 1511.0 TYPE= 1 TARGET= 532.000

3.483	5.10	2300.10	2299.91	2300.10	2300.75	.64	4.38	.14	2296.50
5307.0	3415.8	1813.6	77.6	984.1	183.1	25.4	452.2	143.4	2296.50
.61	3.47	9.91	3.06	.065	.035	.070	.000	2295.00	979.73
.007951	470.	390.	355.	2	10	0	.00	530.79	1510.52

CCHV= .100 CEHV= .300
*SECNO 3.564

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 785.0 1018.0 TYPE= 1 TARGET= 233.000

3.564	3.75	2305.55	2305.55	2305.55	2307.02	1.47	4.92	.25	2302.40
5307.0	2483.5	2762.2	61.3	441.4	223.2	16.7	461.8	147.3	2302.90
.63	5.63	12.38	3.68	.070	.035	.070	.000	2301.80	785.51
.016438	450.	438.	425.	0	19	0	.00	232.36	1017.87

CCHV= .100 CEHV= .300
*SECNO 3.652

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 813.0 1078.0 TYPE= 1 TARGET= 265.000

3.652	4.17	2311.67	2310.86	2311.67	2312.45	.78	5.37	.07	2308.00
5307.0	1678.2	2878.4	750.4	372.1	330.1	173.2	470.0	149.9	2308.00
.65	4.51	8.72	4.33	.070	.040	.070	.000	2307.50	813.40
.008744	450.	465.	460.	4	11	0	.00	264.13	1077.53

*SECNO 3.706
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=      763.0    1021.0  TYPE=      1  TARGET=      258.000
     3.706      4.35   2316.25   2316.25   2316.25   2317.46      1.20      3.26       .13   2312.10
    4305.0    2636.0    1627.0      42.0     488.1     129.7      10.8     474.9     151.6   2313.30
       .66      5.40     12.54      3.90      .070      .040      .070      .000   2311.90    763.12
   .016941      285.      285.      285.         0         8         0       .00    257.71   1020.83


CCHV=     .100 CEHV=     .300
*SECNO 3.762

3470 ENCROACHMENT STATIONS=      858.0    1097.0  TYPE=      1  TARGET=      239.000
     3.762      5.01   2320.81   2320.57   2320.82   2321.84      1.03      4.37       .02   2316.50
    4305.0    1577.6    1790.8     936.6     310.6     162.4     178.8     479.0     153.2   2316.50
       .67      5.08     11.03      5.24      .070      .045      .070      .000   2315.80    858.69
   .014169      275.      292.      280.         2         8         0       .00    237.35   1096.04


*SECNO 3.823

3301 HV CHANGED MORE THAN HVINS

70 ENCROACHMENT STATIONS=      946.0    1256.0  TYPE=      1  TARGET=      310.000
     3.823      3.26   2325.66   2324.76   2325.66   2326.11       .44      4.21       .06   2322.90
    4305.0     344.2     893.0    3067.8      88.7     118.3     656.1     484.8     155.2   2322.60
       .68      3.88      7.55      4.68      .070      .045      .070      .000   2322.40    946.93
   .011526      300.      322.      350.         3        14         0       .00    308.31   1255.24


*SECNO 3.897
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      956.0    1277.0  TYPE=      1  TARGET=      321.000
     3.897      2.37   2332.37   2332.37   2332.37   2333.17       .80      6.45       .11   2330.30
    3304.0     195.9    1204.6    1903.5      43.3     123.2     364.4     491.0     158.1   2330.30
       .70      4.53      9.78      5.22      .070      .045      .070      .000   2330.00    956.32
   .029902      390.      392.      390.         0        19         0       .00    319.76   1276.08


*SECNO 3.939
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.77


3470 ENCROACHMENT STATIONS=      991.0    1268.0  TYPE=      1  TARGET=      277.000
     3.939      3.73   2336.73   2335.79   2336.73   2337.10       .37      3.89       .04   2336.00
    3304.0       1.5     607.8    2694.7       1.4      85.0     642.9     494.7     159.8   2333.10
       .71      1.06      7.15      4.19      .070      .045      .070      .000   2333.00    991.30
   .009574      220.      224.      260.         3        11         0       .00    276.10   1267.39


*SECNO 4.014
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      856.0    1172.0  TYPE=      1  TARGET=      316.000
     4.014      3.13   2344.63   2344.63   2344.63   2345.43       .80      5.98       .13   2341.70
    3304.0    1173.7     658.1    1472.2     215.9      55.8     270.6     500.3     162.4   2341.70
       .73      5.44     11.81      5.44      .070      .045      .070      .000   2341.50    856.06
   .029156      400.      395.      380.         0        15         0       .00    315.47   1171.54


CNO 4.108

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.55


3470 ENCROACHMENT STATIONS=      767.0    1124.0  TYPE=      1  TARGET=      357.000
     4.108      3.04   2352.54   2352.05   2352.54   2352.94       .40      7.47       .04   2349.90
    2800.0    1010.8    1625.9     163.3     350.1     261.2      56.3     507.0     166.2   2349.90
       .76      2.89      6.22      2.90      .070      .045      .070      .000   2349.50    767.31
   .008745      505.      495.      450.         6        15         0       .00    356.05   1123.36


CCHV=     .100 CEHV=     .300
*SECNO 4.148

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      663.0    1174.0  TYPE=      1  TARGET=      511.000
    4.148      3.28   2356.78   2356.78   2356.78   2357.79      1.01      2.31       .18   2354.80
   2800.0      94.3    1392.0    1313.8      41.9     131.6     295.1     509.8     167.6   2353.80
      .77      2.25     10.58      4.45      .070      .035      .070      .000   2353.50    664.00
  .014120      200.      210.      220.         0         8         0       .00    239.89   1173.42


*SECNO 4.242
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      742.0    1049.0  TYPE=      1  TARGET=      307.000
    4.242      3.33   2366.13   2366.13   2366.13   2366.91       .78      7.77       .02   2363.20
   2800.0    1661.8     738.4     399.7     411.4      62.7      79.5     515.7     170.8   2363.20
      .79      4.04     11.78      5.03      .070      .035      .070      .000   2362.80    742.78
  .016828      520.      500.      495.         0         5         0       .00    305.55   1048.33


*SECNO 4.335

0 ENCROACHMENT STATIONS=      587.0    1025.0  TYPE=      1  TARGET=      438.000
    4.335      2.68   2373.68   2373.60   2373.68   2374.21       .54      7.28       .02   2371.30
   2800.0    2041.7     632.0     126.3     559.0      61.1      30.1     521.5     174.3   2371.30
      .81      3.65     10.34      4.20      .070      .035      .070      .000   2371.00    587.39
  .017239      400.      480.      485.         3        19         0       .00    436.77   1024.16


CCHV=     .100 CEHV=     .300
*SECNO 4.394
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      583.0    1031.0  TYPE=      1  TARGET=      448.000
    4.394      2.72   2382.22   2382.22   2382.22   2382.80       .58      4.78       .01   2379.80
   2800.0    1937.7     740.3     122.1     531.6      72.8      27.8     525.6     177.1   2379.80
      .83      3.64     10.17      4.38      .065      .035      .065      .000   2379.50    583.74
  .016309      270.      320.      340.         0         5         0       .00    447.26   1031.00


*SECNO 4.461
7185 MINIMUM SPECIFIC ENERGY
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      680.0    1053.0  TYPE=      1  TARGET=      373.000
           ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
           SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
           WSEL AND THE TOPOGRAPHY.
    4.461      2.56   2389.06   2389.06   2389.06   2389.72       .66      6.88       .02   2386.60
   2800.0    1923.3     548.9     327.7     429.3      47.7      68.1     530.5     180.5   2386.80
      .84      4.48     11.51      4.81      .065      .035      .065      .000   2386.50    680.00
  .022176      370.      358.      330.         0        11         0       .00    373.00   1053.00


*SECNO 4.498

3470 ENCROACHMENT STATIONS=      700.0    1078.0  TYPE=      1  TARGET=      378.000
    4.498      3.00   2392.00   2391.78   2392.00   2392.49       .49      2.75       .02   2389.30
   2297.0    1245.3     768.6     283.1     372.1      90.0      88.1     532.8     182.1   2389.30
      .85      3.35      8.54      3.21      .065      .035      .065      .000   2389.00    700.28
  .009933      180.      192.      200.         3         8         0       .00    377.62   1077.90


*SECNO 4.602

70 ENCROACHMENT STATIONS=      657.0    1342.0  TYPE=      1  TARGET=      685.000
    4.602      2.02   2398.52   2398.44   2398.52   2398.86       .34      6.35       .02   2396.70
   2297.0     912.6     390.9     993.5     285.6      45.8     285.7     539.4     188.1   2396.70
      .89      3.19      8.54      3.48      .065      .035      .065      .000   2396.50    657.35
  .016850      455.      550.      530.         3        14         0       .00    684.48   1341.82


*SECNO 4.663
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      815.0    1302.0  TYPE=      1  TARGET=      487.000
    4.663      2.33   2403.83   2403.83   2403.84   2404.36       .53      5.16       .06   2401.70
   2297.0     672.6     679.1     945.2     183.3      73.1     281.7     543.5     192.2   2401.70
      .90      3.67      9.30      3.36      .065      .035      .065      .000   2401.50    815.78
  .016412      245.      318.      360.         0        11         0       .00    485.67   1301.45


CCHV=     .100 CEHV=     .300
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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 4.725

3470 ENCROACHMENT STATIONS=      758.0    1159.0  TYPE=      1  TARGET=      401.000
    4.725      1.97   2408.97   2408.91   2408.96   2409.51       .54      5.14       .00   2407.10
   2297.0     663.5    1092.0     541.5     217.6     137.2     184.7     547.7     195.6   2407.10
      .92      3.05      7.96      2.93      .070      .035      .070      .000   2407.00    758.96
  .014330      310.      330.      365.         3        15         0       .00    399.50   1158.45


*SECNO 4.802

3470 ENCROACHMENT STATIONS=      832.0    1152.0  TYPE=      1  TARGET=      320.000
           ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
           SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
           WSEL AND THE TOPOGRAPHY.
    4.802      2.10   2415.70   2415.66   2415.70   2416.35       .66      6.81       .03   2413.60
   2297.0     906.1     711.9     679.0     215.1      71.9     167.3     552.3     199.0   2413.60
      .94      4.21      9.90      4.06      .070      .035      .070      .000   2413.60    832.00
  .020232      385.      407.      420.         2         8         0       .00    319.11   1151.11


*SECNO 4.890

[illegible]1 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      983.0    1428.0  TYPE=      1  TARGET=      445.000
           ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
           SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
           WSEL AND THE TOPOGRAPHY.
    4.890      6.01   2422.31   2422.31   2422.31   2422.43       .12      1.98       .05   2420.00
   2297.0      27.1     566.4    1703.5      15.9     127.4     848.1     556.4     201.2   2420.00
      .97      1.71      4.45      2.01      .070      .035      .070      .000   2416.30    983.00
  .003151      445.      465.      165.         0        12         0       .00    445.00   1428.00


CCHV=     .100 CEHV=     .300
*SECNO 4.968
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=      737.0    1055.0  TYPE=      1  TARGET=      318.000
     4.968      2.38   2429.08   2429.08   2429.06   2429.62       .55      2.45       .13   2427.10
    1793.0    1198.7     432.5     161.8     308.8      43.5      44.4     563.0     204.9   2427.10
       .99      3.88      9.94      3.65      .065      .035      .065      .000   2426.70    737.00
   .019456      480.      412.      385.         0        19         0       .00    317.46   1054.46


*SECNO 5.021

3470 ENCROACHMENT STATIONS=      578.0    1038.0  TYPE=      1  TARGET=      460.000
     5.021      2.02   2433.02   2432.78   2433.03   2433.30       .28      3.65       .03   2431.10
    1793.0     698.1     474.4     620.6     236.4      69.2     243.5     565.8     207.2   2431.10
      1.01      2.95      6.85      2.55      .065      .035      .065      .000   2431.00    578.69
   .010688      240.      280.      280.         5        19         0       .00    459.02   1037.71


CCHV=     .100 CEHV=     .300
*SECNO 5.110
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      623.0    1032.0  TYPE=      1  TARGET=      409.000
     5.110      2.33   2440.33   2440.33   2440.33   2440.80       .47      6.47       .06   2438.10
    1793.0    1257.8     347.9     187.3     367.4      35.1      36.8     570.5     211.3   2438.10
      1.04      3.42      9.90      5.09      .070      .040      .065      .000   2438.00    623.33
   .023867      375.      470.      485.         0        11         0       .00    407.95   1031.28


CCHV=     .100 CEHV=     .300
*SECNO 5.184

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.59


3470 ENCROACHMENT STATIONS=      807.0    1178.0  TYPE=      1  TARGET=      371.000
     5.184      2.05   2446.05   2445.48   2446.05   2446.24       .19      5.41       .03   2444.00
    1793.0      31.3     379.9    1381.8      13.1      73.1     490.5     574.9     214.7   2444.00
      1.07      2.38      5.20      2.82      .070      .045      .070      .000   2444.00    807.17
   .009490      340.      392.      405.         6        14         0       .00    370.83   1178.00
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO 5.273

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      980.0    1100.0  TYPE=      1  TARGET=      120.000
           ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
           SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
           WSEL AND THE TOPOGRAPHY.
           CONFLUENCE OF SUBAREA R18 - WASH R-3
           DIRT ROAD DIP CROSSING
    5.273      2.94   2452.94   2452.94   2452.94   2453.96      1.02      7.25       .25   2451.50
   1793.0      38.2    1242.8     512.0       9.7     138.1      89.2     579.3     217.3   2451.00
     1.09      3.94      9.00      5.74      .070      .045      .070      .000   2450.00    980.00
  .029554      440.      469.      470.         0        14         0       .00    120.00   1100.00


CCHV=     .100 CEHV=     .300
*SECNO 5.330

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      854.0    1030.0  TYPE=      1  TARGET=      176.000
    5.330      2.40   2457.90   2457.33   2457.90   2458.21       .31      4.18       .07   2455.60
    958.0     334.9     544.2      78.9     148.7      97.5      33.6     581.0     218.3   2455.70
     1.11      2.25      5.58      2.35      .070      .035      .070      .000   2455.50    854.33
  .005618      295.      300.      290.        .5        14         0       .00    175.16   1029.48


*SECNO 5.459
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      845.0    1038.0  TYPE=      1  TARGET=      193.000
    5.459      1.51   2469.01   2469.01   2469.01   2469.53       .52      7.53       .06   2467.50
    958.0     631.6     230.6      95.8     153.6      24.7      24.7     584.8     221.2   2467.70
     1.14      4.11      9.34      3.87      .070      .035      .070      .000   2467.50    845.77
  .030542      690.      682.      665.         0        14         0       .00    191.81   1037.59
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*SECNO 5.551

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.60

3470 ENCROACHMENT STATIONS=      861.0    1026.0  TYPE=      1  TARGET=      165.000
     5.551      2.59   2478.09   2477.77   2478.08   2478.47       .39      8.92       .01   2475.70
     958.0     639.4     212.0     106.7     191.5      24.9      31.5     587.4     223.2   2475.70
      1.17      3.34      8.53      3.38      .070      .035      .070      .000   2475.50    861.59
   .011984      500.      497.      435.         6        14         0       .00    164.06   1025.66

*SECNO 5.643
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      900.0    1024.0  TYPE=      1  TARGET=      124.000
     5.643      2.56   2485.56   2485.56   2485.56   2486.33       .77      6.54       .12   2483.40
     958.0     348.5     522.7      86.8     104.5      58.0      23.9     589.9     224.8   2483.40
      1.19      3.34      9.02      3.63      .070      .035      .070      .000   2483.00    900.86
   .014386      505.      496.      483.         0         5         0       .00    123.03   1023.89

HV=     .100 CEHV=     .300
*SECNO 5.738

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      482.0    1009.0  TYPE=      1  TARGET=      527.000
     5.738      1.77   2491.77   2491.47   2491.77   2491.89       .12      5.50       .06   2490.80
     958.0     778.1     178.1       1.8     381.2      36.0       1.5     593.0     228.0   2491.00
      1.24      2.04      4.95      1.19      .070      .035      .065      .000   2490.00    482.32
   .009910      435.      508.      505.         5        14         0       .00    506.25   1008.87

*SECNO 5.793
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=      755.0    1053.0  TYPE=      1  TARGET=      298.000
     5.793      1.86   2498.36   2498.36   2498.35   2498.76       .40      3.29       .08   2496.80
     958.0     537.6     286.3     134.1     200.2      34.6      40.7     594.9     230.3   2496.80
      1.26      2.69      8.26      3.29      .070      .035      .065      .000   2496.50    755.53
   .018223      235.      286.      285.         0         8         0       .00    297.02   1052.55


*SECNO 5.862

3470 ENCROACHMENT STATIONS=      858.0    1128.0  TYPE=      1  TARGET=      270.000
     5.862      1.36   2504.26   2504.07   2504.26   2504.54       .28      5.77       .01   2502.90
     958.0     341.8     296.8     319.4     123.9      46.4     108.6     597.1     232.5   2502.90
      1.28      2.76      6.40      2.94      .070      .035      .065      .000   2502.90    858.74
   .015205      340.      351.      356.         4        14         0       .00    268.71   1127.45


*SECNO 5.932

3470 ENCROACHMENT STATIONS=      882.0    1047.0  TYPE=      1  TARGET=      165.000
     5.932      1.84   2510.04   2509.84   2510.03   2510.48       .45      5.89       .05   2508.20
     958.0     574.6     292.4      90.9     154.8      36.4      30.7     599.3     234.3   2508.50
      1.30      3.71      8.02      2.97      .070      .035      .065      .000   2508.20    882.00
   .016491      400.      366.      320.         4        11         0       .00    164.05   1046.05


CCHV=     .100 CEHV=     .300
*SECNO 6.002

3470 ENCROACHMENT STATIONS=      826.0    1037.0  TYPE=      1  TARGET=      211.000
     6.002      2.01   2515.51   2515.21   2515.51   2515.82       .31      5.32       .01   2513.60
     958.0     623.8     262.4      71.7     192.5      38.7      26.9     601.2     235.8   2513.80
      1.33      3.24      6.78      2.67      .070      .040      .070      .000   2513.50    826.00
   .013814      350.      364.      340.         3        11         0       .00    210.84   1036.84


*SECNO 6.056

3470 ENCROACHMENT STATIONS=      827.0    1061.0  TYPE=      1  TARGET=      234.000
     6.056      1.59   2519.89   2519.66   2519.89   2520.18       .29      4.36       .00   2518.30
     958.0     620.6     215.0     122.5     183.9      31.6      42.9     602.8     237.2   2518.30
      1.35      3.37      6.80      2.86      .070      .040      .070      .000   2518.30    828.01
   .018238      270.      286.      290.         3        14         0       .00    231.49   1059.49
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 6.139

3470 ENCROACHMENT STATIONS= 887.0 1207.0 TYPE= 1 TARGET= 320.000

6.139	1.74	2525.74	2525.49	2525.74	2525.96	.22	5.77	.01	2524.10
958.0	212.4	313.3	432.3	89.2	55.7	180.4	605.5	239.8	2524.20
1.38	2.38	5.62	2.40	.070	.040	.070	.000	2524.00	887.50
.011340	385.	434.	415.	5	11	0	.00	319.50	1207.00

*SECNO 6.224

3470 ENCROACHMENT STATIONS= 945.0 1371.0 TYPE= 1 TARGET= 426.000

END OF THIS DETAILED STUDY

6.224	1.19	2532.19	2532.07	2532.19	2532.41	.21	6.45	.00	2531.30
958.0	41.2	283.7	633.1	19.8	50.7	247.1	608.8	243.6	2531.10
1.42	2.08	5.60	2.56	.070	.040	.070	.000	2531.00	945.38
.019018	460.	452.	440.	4	14	0	.00	425.34	1370.72

THIS RUN EXECUTED 14AUG92 15:18:43

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WASH R: CEMETERY WASH

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	50.460	.00	.00	.00	2009.70	7251.00	2014.12	2013.16	2014.41	29.25	4.85	1860.07	1340.74
	50.460	.00	.00	.00	2009.70	7251.00	2014.12	2013.16	2014.41	29.25	4.85	1860.07	1340.74
*	.174	917.00	.00	.00	2021.00	7251.00	2024.67	2024.67	2025.41	208.76	11.78	1335.13	501.85
*	.174	917.00	.00	.00	2021.00	7251.00	2024.67	2024.67	2025.41	208.76	11.78	1335.13	501.85
*	.227	279.00	.00	.00	2023.00	7251.00	2029.21	2029.21	2030.31	106.27	13.66	1356.88	703.39
*	.227	279.00	.00	.00	2023.00	7251.00	2029.21	2029.21	2030.31	106.27	13.66	1356.88	703.39
	.269	222.00	.00	.00	2026.00	7251.00	2031.15	2029.23	2031.38	37.51	5.78	2121.03	1183.90
*	.269	222.00	.00	.00	2026.00	7251.00	2031.15	2029.23	2031.38	37.51	5.78	2121.11	1183.97
*	.274	28.50	.00	.00	2027.00	7251.00	2033.06	2033.06	2034.26	66.78	10.63	1292.29	887.30
*	.274	28.50	.00	.00	2027.00	7251.00	2033.06	2033.06	2034.26	67.04	10.64	1289.65	885.57
*	.278	19.00	2035.90	2033.40	2027.60	7251.00	2036.84	.00	2036.98	5.80	4.25	3452.95	3011.30
*	.278	19.00	2035.90	2033.40	2027.60	7251.00	2036.84	.00	2036.98	5.80	4.25	3452.47	3010.71
*	.311	178.00	.00	.00	2029.50	7251.00	2036.96	2034.74	2037.13	14.85	6.10	2925.62	1881.58
*	.311	178.00	.00	.00	2029.50	7251.00	2036.96	2034.74	2037.13	14.86	6.10	2925.11	1881.09
*	.415	540.00	.00	.00	2035.00	7251.00	2041.00	2041.00	2041.74	217.51	12.32	1345.52	491.66
*	.415	540.00	.00	.00	2035.00	7251.00	2041.01	2041.01	2041.74	217.37	12.32	1345.83	491.81
*	.494	426.00	.00	.00	2044.00	7267.00	2049.86	2049.86	2050.90	100.94	12.61	1366.10	723.31
*	.494	426.00	.00	.00	2044.00	7267.00	2049.86	2049.86	2050.90	100.97	12.61	1365.96	723.22
*	.593	520.00	.00	.00	2053.40	7267.00	2058.96	2058.96	2060.15	100.20	12.85	1137.40	725.98
*	.593	520.00	.00	.00	2053.40	7267.00	2058.91	2058.91	2060.15	104.92	13.07	1118.17	709.46
*	.671	415.00	.00	.00	2061.80	7267.00	2066.44	2066.44	2067.70	105.37	11.96	1091.03	707.96
*	.671	415.00	.00	.00	2061.80	7267.00	2066.45	2066.45	2067.70	105.23	11.95	1091.51	708.40

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	.765	493.00	.00	.00	2066.00	7267.00	2073.34	2073.34	2074.85	70.37	12.51	1065.80	866.29
*	.765	493.00	.00	.00	2066.00	7267.00	2073.34	2073.34	2074.84	70.29	12.50	1066.31	866.79
*	.860	497.00	.00	.00	2075.10	7267.00	2083.26	2083.26	2085.58	85.13	15.28	777.20	787.61
*	.860	497.00	.00	.00	2075.10	7267.00	2083.26	2083.26	2085.58	85.07	15.27	777.39	787.89
*	.952	486.00	.00	.00	2084.40	7283.00	2096.11	2096.11	2099.80	96.24	21.42	589.78	742.40
*	.952	486.00	.00	.00	2084.40	7283.00	2096.11	2096.11	2099.80	96.15	21.41	589.98	742.73
*	1.003	273.00	.00	.00	2087.10	7283.00	2100.79	2094.82	2101.30	8.34	6.83	1555.84	2521.63
*	1.003	273.00	.00	.00	2087.10	7283.00	2100.79	2094.82	2101.30	8.34	6.83	1555.65	2521.25
	1.038	182.00	.00	.00	2091.70	7283.00	2101.25	2095.85	2101.48	7.27	5.15	2307.11	2701.81
	1.038	182.00	.00	.00	2091.70	7283.00	2101.25	2095.85	2101.48	7.27	5.15	2306.62	2701.04
*	1.141	546.00	.00	.00	2098.00	7283.00	2104.39	2104.39	2106.82	95.88	14.16	706.36	743.76
*	1.141	546.00	.00	.00	2098.00	7283.00	2104.39	2104.39	2106.82	95.67	14.15	706.93	744.58
*	1.191	262.00	.00	.00	2101.50	7283.00	2110.12	2110.12	2112.93	78.68	15.52	690.76	821.07
*	1.191	262.00	.00	.00	2101.50	7283.00	2110.12	2110.12	2112.93	78.47	15.50	691.52	822.19
*	1.199	44.00	.00	.00	2106.20	7283.00	2114.46	2114.46	2116.93	82.85	14.46	730.71	800.12
*	1.199	44.00	.00	.00	2106.20	7283.00	2114.42	2114.42	2116.93	84.72	14.56	724.41	791.26
*	1.233	178.00	.00	.00	2107.00	7283.00	2117.15	2112.77	2117.64	14.95	7.56	1579.38	1883.87
*	1.233	178.00	.00	.00	2107.00	7283.00	2117.16	2112.78	2117.65	14.90	7.56	1580.85	1886.49
	1.328	504.00	.00	.00	2115.00	7283.00	2120.09	2120.09	2121.79	120.11	13.58	930.23	664.54
*	1.328	504.00	.00	.00	2115.00	7283.00	2120.08	2120.08	2121.79	120.30	13.59	929.69	664.02
	1.401	384.00	.00	.00	2119.90	7299.00	2125.14	2125.06	2126.85	144.98	14.11	850.70	606.19
	1.401	384.00	.00	.00	2119.90	7299.00	2125.15	2125.06	2126.85	144.75	14.11	851.15	606.68
	1.431	157.00	.00	.00	2122.30	7299.00	2128.00	2127.04	2128.82	88.59	12.23	1186.32	775.47
	1.431	157.00	.00	.00	2122.30	7299.00	2128.00	2127.04	2128.82	88.73	12.24	1185.75	774.88
*	1.508	408.00	.00	.00	2128.80	7299.00	2133.63	2133.63	2135.63	131.62	13.64	783.36	636.22
*	1.508	408.00	.00	.00	2128.80	7299.00	2133.63	2133.63	2135.63	131.52	13.64	783.55	636.46
*	1.531	111.00	.00	.00	2130.00	7299.00	2135.49	2135.49	2137.49	139.82	15.27	809.05	617.28
*	1.531	111.00	.00	.00	2130.00	7299.00	2135.49	2135.49	2137.49	139.62	15.27	809.44	617.72
	1.566	216.00	.00	.00	2133.70	7299.00	2139.02	2138.70	2140.34	107.62	13.17	1012.03	703.59
	1.566	216.00	.00	.00	2133.70	7299.00	2139.02	2138.70	2140.34	107.75	13.17	1011.61	703.17
*	1.656	460.00	.00	.00	2140.00	7299.00	2147.14	2147.14	2148.92	111.39	15.81	922.69	691.57
*	1.656	460.00	.00	.00	2140.00	7299.00	2147.14	2147.14	2148.92	111.35	15.80	922.81	691.69
	1.705	252.00	.00	.00	2145.20	7299.00	2150.26	2150.06	2151.85	131.71	14.18	890.69	636.00
	1.705	252.00	.00	.00	2145.20	7299.00	2150.26	2150.06	2151.85	131.78	14.19	890.52	635.82

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	1.751	244.00	.00	.00	2149.30	7299.00	2154.74	2154.74	2156.85	110.35	13.39	748.72	694.83
*	1.751	244.00	.00	.00	2149.30	7299.00	2154.74	2154.74	2156.85	109.95	13.38	749.69	696.09
*	1.813	327.00	.00	.00	2154.00	7299.00	2159.31	2159.31	2160.77	117.38	12.91	993.98	673.70
*	1.813	327.00	.00	.00	2154.00	7299.00	2159.31	2159.31	2160.77	117.25	12.91	994.38	674.07
	1.902	467.00	.00	.00	2162.70	7156.00	2166.55	2166.24	2167.44	189.22	11.88	1075.19	520.23
	1.902	467.00	.00	.00	2162.70	7156.00	2166.55	2166.24	2167.44	189.50	11.89	1074.67	519.83
	1.966	338.00	.00	.00	2169.00	7156.00	2173.13	2172.88	2174.30	179.02	13.47	1000.82	534.83
	1.966	338.00	.00	.00	2169.00	7156.00	2173.13	2172.88	2174.30	178.80	13.47	1001.22	535.17
	2.034	359.00	.00	.00	2174.90	7156.00	2178.68	2178.18	2179.21	108.56	10.64	1514.54	686.80
	2.034	359.00	.00	.00	2174.90	7156.00	2178.68	2178.18	2179.21	108.66	10.65	1514.08	686.48
*	2.093	313.00	.00	.00	2180.50	7156.00	2184.84	2184.84	2185.98	231.41	15.03	1022.44	470.42
*	2.093	313.00	.00	.00	2180.50	7156.00	2184.84	2184.84	2185.98	231.27	15.02	1022.64	470.56
	2.188	500.00	.00	.00	2188.60	7156.00	2193.57	2193.52	2195.50	168.54	15.74	795.03	551.21
	2.188	500.00	.00	.00	2188.60	7156.00	2193.57	2193.52	2195.50	168.83	15.74	794.61	550.74
	2.248	318.00	.00	.00	2193.10	7013.00	2198.39	2197.60	2199.30	84.55	11.69	1181.84	762.70
	2.248	318.00	.00	.00	2193.10	7013.00	2198.40	2197.60	2199.30	84.26	11.67	1183.16	764.02
*	2.295	248.00	.00	.00	2196.80	7013.00	2201.51	2201.51	2203.36	183.06	16.14	802.70	518.34
*	2.295	248.00	.00	.00	2196.80	7013.00	2201.51	2201.51	2203.36	183.13	16.15	802.60	518.23
	2.338	226.00	.00	.00	2200.00	7013.00	2205.01	2204.23	2206.18	96.35	12.19	962.96	714.45
	2.338	226.00	.00	.00	2200.00	7013.00	2205.01	2204.23	2206.18	96.34	12.19	962.95	714.50
*	2.436	520.00	.00	.00	2210.00	7013.00	2214.53	2214.53	2215.77	191.67	14.87	966.26	506.55
*	2.436	520.00	.00	.00	2210.00	7013.00	2214.53	2214.53	2215.77	191.88	14.88	965.90	506.28
*	2.525	472.00	.00	.00	2217.10	7013.00	2223.23	2223.23	2224.89	117.49	15.09	950.50	647.00
*	2.525	472.00	.00	.00	2217.10	7013.00	2223.23	2223.23	2224.89	117.42	15.09	950.70	647.18
*	2.645	634.00	.00	.00	2227.90	6870.00	2233.50	2233.50	2235.80	153.08	16.56	683.42	555.27
*	2.645	634.00	.00	.00	2227.90	6870.00	2233.50	2233.50	2235.80	152.71	16.55	683.96	555.94
*	2.760	603.00	.00	.00	2237.90	6870.00	2244.52	2244.52	2246.93	137.97	17.58	685.65	584.87
*	2.760	603.00	.00	.00	2237.90	6870.00	2244.52	2244.52	2246.93	137.61	17.56	686.27	585.65
*	2.805	239.00	.00	.00	2241.40	6870.00	2248.57	2248.57	2251.43	130.85	17.80	644.25	600.58
*	2.805	239.00	.00	.00	2241.40	6870.00	2248.57	2248.57	2251.43	130.80	17.80	644.33	600.70
*	2.850	240.00	.00	.00	2245.80	6683.00	2252.58	2252.58	2254.78	113.04	16.17	767.27	628.57
*	2.850	240.00	.00	.00	2245.80	6683.00	2252.58	2252.58	2254.78	112.87	16.17	767.69	629.05
*	2.936	450.00	.00	.00	2249.50	6683.00	2259.01	2259.01	2261.23	82.37	17.11	835.04	736.36
*	2.936	450.00	.00	.00	2249.50	6683.00	2259.01	2259.01	2261.23	82.41	17.11	834.86	736.17

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	3.030	500.00	.00	.00	2256.50	6683.00	2263.52	2262.83	2264.72	60.60	11.58	1020.54	858.47
	3.030	500.00	.00	.00	2256.50	6683.00	2263.52	2262.83	2264.72	60.57	11.58	1020.72	858.68
*	3.125	505.00	.00	.00	2264.50	6495.00	2270.57	2270.57	2272.63	121.73	15.20	722.63	588.67
*	3.125	505.00	.00	.00	2264.50	6495.00	2270.57	2270.57	2272.63	121.53	15.19	723.04	589.17
*	3.220	500.00	.00	.00	2272.00	6495.00	2278.29	2278.29	2280.21	137.75	16.98	789.04	553.39
*	3.220	500.00	.00	.00	2272.00	6495.00	2278.29	2278.29	2280.21	137.47	16.97	789.60	553.97
*	3.304	438.00	.00	.00	2280.20	6308.00	2285.19	2285.19	2287.13	143.19	14.54	722.38	527.15
*	3.304	438.00	.00	.00	2280.20	6308.00	2285.19	2285.19	2287.13	143.14	14.54	722.47	527.25
*	3.409	562.00	.00	.00	2289.00	6308.00	2294.12	2294.12	2296.22	135.12	14.46	668.62	542.66
*	3.409	562.00	.00	.00	2289.00	6308.00	2294.13	2294.13	2296.22	134.64	14.45	669.41	543.63
	3.483	390.00	.00	.00	2295.00	5307.00	2300.10	2299.91	2300.75	79.24	9.89	1194.02	596.18
	3.483	390.00	.00	.00	2295.00	5307.00	2300.10	2299.91	2300.75	79.51	9.91	1192.59	595.16
*	3.564	438.00	.00	.00	2301.80	5307.00	2305.55	2305.55	2307.02	164.94	12.39	680.49	413.23
*	3.564	438.00	.00	.00	2301.80	5307.00	2305.55	2305.55	2307.02	164.38	12.38	681.23	413.92
	3.652	465.00	.00	.00	2307.50	5307.00	2311.67	2310.86	2312.45	87.25	8.71	876.02	568.16
	3.652	465.00	.00	.00	2307.50	5307.00	2311.67	2310.86	2312.45	87.44	8.72	875.38	567.53
*	3.706	285.00	.00	.00	2311.90	4305.00	2316.25	2316.25	2317.46	169.73	12.55	628.16	330.44
*	3.706	285.00	.00	.00	2311.90	4305.00	2316.25	2316.25	2317.46	169.41	12.54	628.60	330.75
	3.762	292.00	.00	.00	2315.80	4305.00	2320.82	2320.57	2321.84	141.45	11.02	652.21	361.97
	3.762	292.00	.00	.00	2315.80	4305.00	2320.81	2320.57	2321.84	141.69	11.03	651.81	361.67
	3.823	322.00	.00	.00	2322.40	4305.00	2325.66	2324.76	2326.10	115.35	7.55	862.94	400.83
	3.823	322.00	.00	.00	2322.40	4305.00	2325.66	2324.76	2326.11	115.26	7.55	863.17	401.00
*	3.897	392.00	.00	.00	2330.00	3304.00	2332.37	2332.37	2333.17	299.42	9.78	530.70	190.94
*	3.897	392.00	.00	.00	2330.00	3304.00	2332.37	2332.37	2333.17	299.02	9.78	530.94	191.07
*	3.939	224.00	.00	.00	2333.00	3304.00	2336.73	2335.79	2337.10	95.66	7.15	729.52	337.81
*	3.939	224.00	.00	.00	2333.00	3304.00	2336.73	2335.79	2337.10	95.74	7.15	729.32	337.66
*	4.014	395.00	.00	.00	2341.50	3304.00	2344.63	2344.63	2345.43	292.65	11.82	541.51	193.14
*	4.014	395.00	.00	.00	2341.50	3304.00	2344.63	2344.63	2345.43	291.56	11.81	542.20	193.50
*	4.108	495.00	.00	.00	2349.50	2800.00	2352.54	2352.05	2352.94	87.26	6.22	668.09	299.75
*	4.108	495.00	.00	.00	2349.50	2800.00	2352.54	2352.05	2352.94	87.45	6.22	667.56	299.42
*	4.148	210.00	.00	.00	2353.50	2800.00	2356.78	2356.78	2357.79	141.06	10.58	468.82	235.75
*	4.148	210.00	.00	.00	2353.50	2800.00	2356.78	2356.78	2357.79	141.20	10.58	468.64	235.64
*	4.242	500.00	.00	.00	2362.80	2800.00	2366.13	2366.13	2366.91	168.48	11.79	553.40	215.72
*	4.242	500.00	.00	.00	2362.80	2800.00	2366.13	2366.13	2366.91	168.28	11.78	553.62	215.84

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	4.335	480.00	.00	.00	2371.00	2800.00	2373.68	2373.60	2374.21	172.22	10.33	650.43	213.36
	4.335	480.00	.00	.00	2371.00	2800.00	2373.68	2373.60	2374.21	172.39	10.34	650.22	213.26
*	4.394	320.00	.00	.00	2379.50	2800.00	2382.22	2382.22	2382.80	163.01	10.17	632.33	219.31
*	4.394	320.00	.00	.00	2379.50	2800.00	2382.22	2382.22	2382.80	163.09	10.17	632.22	219.25
*	4.461	358.00	.00	.00	2386.50	2800.00	2389.06	2389.06	2389.72	222.43	11.53	544.50	187.74
*	4.461	358.00	.00	.00	2386.50	2800.00	2389.06	2389.06	2389.72	221.76	11.51	545.04	188.02
	4.498	192.00	.00	.00	2389.00	2297.00	2392.00	2391.78	2392.49	99.08	8.53	550.76	230.77
	4.498	192.00	.00	.00	2389.00	2297.00	2392.00	2391.78	2392.49	99.33	8.54	550.21	230.48
	4.602	550.00	.00	.00	2396.50	2297.00	2398.52	2398.44	2398.86	169.06	8.55	616.24	176.66
	4.602	550.00	.00	.00	2396.50	2297.00	2398.52	2398.44	2398.86	168.50	8.54	617.07	176.95
*	4.663	318.00	.00	.00	2401.50	2297.00	2403.84	2403.84	2404.36	162.91	9.27	539.56	179.96
*	4.663	318.00	.00	.00	2401.50	2297.00	2403.83	2403.83	2404.36	164.12	9.30	538.02	179.30
	4.725	330.00	.00	.00	2407.00	2297.00	2408.96	2408.91	2409.51	144.22	7.98	538.32	191.27
	4.725	330.00	.00	.00	2407.00	2297.00	2408.97	2408.91	2409.51	143.30	7.96	539.49	191.88
	4.802	407.00	.00	.00	2413.60	2297.00	2415.70	2415.66	2416.35	200.87	9.87	455.51	162.07
	4.802	407.00	.00	.00	2413.60	2297.00	2415.70	2415.66	2416.35	202.32	9.90	454.34	161.49
*	4.890	465.00	.00	.00	2416.30	2297.00	2422.31	2422.31	2422.43	31.51	4.45	991.36	409.18
*	4.890	465.00	.00	.00	2416.30	2297.00	2422.31	2422.31	2422.43	31.51	4.45	991.36	409.18
	4.968	412.00	.00	.00	2426.70	1793.00	2429.06	2429.06	2429.62	203.33	10.10	390.66	125.74
*	4.968	412.00	.00	.00	2426.70	1793.00	2429.08	2429.08	2429.62	194.56	9.94	396.70	128.54
*	5.021	280.00	.00	.00	2431.00	1793.00	2433.03	2432.78	2433.30	103.63	6.78	554.94	176.13
	5.021	280.00	.00	.00	2431.00	1793.00	2433.02	2432.78	2433.30	106.88	6.85	549.11	173.43
*	5.110	470.00	.00	.00	2438.00	1793.00	2440.33	2440.33	2440.80	239.14	9.91	439.04	115.95
*	5.110	470.00	.00	.00	2438.00	1793.00	2440.33	2440.33	2440.80	238.67	9.90	439.34	116.06
*	5.184	392.00	.00	.00	2444.00	1793.00	2446.05	2445.48	2446.24	94.76	5.19	577.00	184.19
*	5.184	392.00	.00	.00	2444.00	1793.00	2446.05	2445.48	2446.24	94.90	5.20	576.73	184.05
*	5.273	469.00	.00	.00	2450.00	1793.00	2452.94	2452.94	2453.96	294.70	8.99	237.21	104.45
*	5.273	469.00	.00	.00	2450.00	1793.00	2452.94	2452.94	2453.96	295.54	9.00	237.01	104.30
	5.330	300.00	.00	.00	2455.50	958.00	2457.90	2457.33	2458.21	56.27	5.58	279.59	127.71
	5.330	300.00	.00	.00	2455.50	958.00	2457.90	2457.33	2458.21	56.18	5.58	279.76	127.82
*	5.459	682.00	.00	.00	2467.50	958.00	2469.01	2469.01	2469.53	304.17	9.32	203.32	54.93
*	5.459	682.00	.00	.00	2467.50	958.00	2469.01	2469.01	2469.53	305.42	9.34	203.04	54.82
*	5.551	497.00	.00	.00	2475.50	958.00	2478.08	2477.76	2478.47	120.11	8.53	247.68	87.41
*	5.551	497.00	.00	.00	2475.50	958.00	2478.09	2477.77	2478.47	119.84	8.53	247.88	87.51

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	5.643	496.00	.00	.00	2483.00	958.00	2485.56	2485.56	2486.33	143.92	9.02	186.32	79.86
*	5.643	496.00	.00	.00	2483.00	958.00	2485.56	2485.56	2486.33	143.86	9.02	186.35	79.87
	5.738	508.00	.00	.00	2490.00	958.00	2491.77	2491.47	2491.90	99.10	4.95	418.70	96.24
	5.738	508.00	.00	.00	2490.00	958.00	2491.77	2491.47	2491.89	99.10	4.95	418.70	96.24
*	5.793	286.00	.00	.00	2496.50	958.00	2498.35	2498.35	2498.76	183.61	8.29	274.86	70.70
*	5.793	286.00	.00	.00	2496.50	958.00	2498.36	2498.36	2498.76	182.23	8.26	275.58	70.97
	5.862	351.00	.00	.00	2502.90	958.00	2504.26	2504.07	2504.54	151.08	6.39	279.42	77.94
	5.862	351.00	.00	.00	2502.90	958.00	2504.26	2504.07	2504.54	152.05	6.40	278.83	77.69
	5.932	366.00	.00	.00	2508.20	958.00	2510.03	2509.84	2510.47	165.35	8.03	221.75	74.50
	5.932	366.00	.00	.00	2508.20	958.00	2510.04	2509.84	2510.48	164.91	8.02	221.95	74.60
	6.002	364.00	.00	.00	2513.50	958.00	2515.51	2515.21	2515.82	138.36	6.78	257.93	81.44
	6.002	364.00	.00	.00	2513.50	958.00	2515.51	2515.21	2515.82	138.14	6.78	258.08	81.51
	6.056	286.00	.00	.00	2518.30	958.00	2519.89	2519.66	2520.18	181.68	6.80	258.74	71.07
	6.056	286.00	.00	.00	2518.30	958.00	2519.89	2519.66	2520.18	182.38	6.80	258.40	70.94
	6.139	434.00	.00	.00	2524.00	958.00	2525.74	2525.49	2525.96	113.78	5.63	325.03	89.81
	6.139	434.00	.00	.00	2524.00	958.00	2525.74	2525.49	2525.96	113.40	5.62	325.41	89.96
	6.224	452.00	.00	.00	2531.00	958.00	2532.19	2532.07	2532.41	189.47	5.59	317.98	69.60
	6.224	452.00	.00	.00	2531.00	958.00	2532.19	2532.07	2532.41	190.18	5.60	317.57	69.47

H R: CEMETERY WASH

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	50.460	7251.00	2014.12	.00	.00	-6.14	884.86	.00
	50.460	7251.00	2014.12	.00	.00	-6.14	884.86	.00
*	.174	7251.00	2024.67	.00	10.55	.00	930.73	917.00
*	.174	7251.00	2024.67	.00	10.55	.00	930.73	917.00
*	.227	7251.00	2029.21	.00	4.54	.00	572.84	279.00
*	.227	7251.00	2029.21	.00	4.54	.00	572.84	279.00
*	.269	7251.00	2031.15	.00	1.94	.00	661.79	222.00
*	.269	7251.00	2031.15	.00	1.94	.00	661.79	222.00
*	.274	7251.00	2033.06	.00	1.91	.00	618.28	28.50
*	.274	7251.00	2033.06	.00	1.90	.00	616.95	28.50
*	.278	7251.00	2036.84	.00	3.78	.00	657.62	19.00
*	.278	7251.00	2036.84	.00	3.78	.00	657.57	19.00
*	.311	7251.00	2036.96	.00	.12	.00	694.11	178.00
*	.311	7251.00	2036.96	.00	.12	.00	694.11	178.00
	.415	7251.00	2041.00	.00	4.05	.00	858.92	540.00
	.415	7251.00	2041.01	.00	4.05	.00	858.94	540.00
*	.494	7267.00	2049.86	.00	8.85	.00	573.34	426.00
*	.494	7267.00	2049.86	.00	8.85	.00	573.33	426.00
*	.593	7267.00	2058.96	.00	9.10	.00	419.02	520.00
*	.593	7267.00	2058.91	-.05	9.06	-.05	418.70	520.00
*	.671	7267.00	2066.44	.00	7.49	.00	389.26	415.00
*	.671	7267.00	2066.45	.00	7.53	.00	389.26	415.00
*	.765	7267.00	2073.34	.00	6.89	.00	352.85	493.00
*	.765	7267.00	2073.34	.00	6.89	.00	352.89	493.00
*	.860	7267.00	2083.26	.00	9.92	.00	159.79	497.00
*	.860	7267.00	2083.26	.00	9.92	.00	159.80	497.00
*	.952	7283.00	2096.11	.00	12.85	.00	80.57	486.00
*	.952	7283.00	2096.11	.00	12.85	.00	80.58	486.00
*	1.003	7283.00	2100.79	.00	4.68	.00	191.60	273.00
*	1.003	7283.00	2100.79	.00	4.67	.00	191.57	273.00
	1.038	7283.00	2101.25	.00	.46	.00	333.59	182.00
	1.038	7283.00	2101.25	.00	.46	.00	333.51	182.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	1.141	7283.00	2104.39	.00	3.14	.00	156.28	546.00
*	1.141	7283.00	2104.39	.00	3.14	.00	156.33	546.00
*	1.191	7283.00	2110.12	.00	5.73	.00	135.79	262.00
*	1.191	7283.00	2110.12	.01	5.73	.01	135.83	262.00
*	1.199	7283.00	2114.46	.00	4.34	.00	156.63	44.00
*	1.199	7283.00	2114.42	-.04	4.29	-.04	156.14	44.00
*	1.233	7283.00	2117.15	.00	2.69	.00	201.40	178.00
*	1.233	7283.00	2117.16	.01	2.74	.01	201.45	178.00
*	1.328	7283.00	2120.09	.00	2.94	.00	275.64	504.00
*	1.328	7283.00	2120.08	.00	2.93	.00	275.63	504.00
	1.401	7299.00	2125.14	.00	5.06	.00	227.69	384.00
	1.401	7299.00	2125.15	.00	5.06	.00	227.70	384.00
	1.431	7299.00	2128.00	.00	2.86	.00	293.79	157.00
	1.431	7299.00	2128.00	.00	2.85	.00	293.77	157.00
*	1.508	7299.00	2133.63	.00	5.63	.00	197.23	408.00
*	1.508	7299.00	2133.63	.00	5.63	.00	197.24	408.00
*	1.531	7299.00	2135.49	.00	1.86	.00	198.43	111.00
*	1.531	7299.00	2135.49	.00	1.86	.00	198.44	111.00
	1.566	7299.00	2139.02	.00	3.53	.00	285.51	216.00
	1.566	7299.00	2139.02	.00	3.52	.00	285.47	216.00
*	1.656	7299.00	2147.14	.00	8.12	.00	237.46	460.00
*	1.656	7299.00	2147.14	.00	8.12	.00	237.47	460.00
	1.705	7299.00	2150.26	.00	3.12	.00	232.41	252.00
	1.705	7299.00	2150.26	.00	3.12	.00	232.40	252.00
*	1.751	7299.00	2154.74	.00	4.48	.00	189.28	244.00
*	1.751	7299.00	2154.74	.01	4.48	.01	189.38	244.00
*	1.813	7299.00	2159.31	.00	4.57	.00	319.93	327.00
*	1.813	7299.00	2159.31	.00	4.56	.00	319.95	327.00
	1.902	7156.00	2166.55	.00	7.25	.00	425.04	467.00
	1.902	7156.00	2166.55	.00	7.24	.00	425.02	467.00
	1.966	7156.00	2173.13	.00	6.57	.00	325.87	338.00
	1.966	7156.00	2173.13	.00	6.57	.00	325.88	338.00
	2.034	7156.00	2178.68	.00	5.56	.00	621.01	359.00
	2.034	7156.00	2178.68	.00	5.56	.00	620.99	359.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	2.093	7156.00	2184.84	.00	6.15	.00	401.02	313.00
*	2.093	7156.00	2184.84	.00	6.15	.00	401.02	313.00
	2.188	7156.00	2193.57	.00	8.73	.00	192.79	500.00
	2.188	7156.00	2193.57	.00	8.73	.00	192.78	500.00
	2.248	7013.00	2198.39	.00	4.83	.00	301.31	318.00
	2.248	7013.00	2198.40	.00	4.83	.00	301.33	318.00
*	2.295	7013.00	2201.51	.00	3.12	.00	211.98	248.00
*	2.295	7013.00	2201.51	.00	3.12	.00	211.97	248.00
	2.338	7013.00	2205.01	.00	3.49	.00	230.16	226.00
	2.338	7013.00	2205.01	.00	3.50	.00	229.72	226.00
*	2.436	7013.00	2214.53	.00	9.52	.00	365.46	520.00
*	2.436	7013.00	2214.53	.00	9.52	.00	365.44	520.00
*	2.525	7013.00	2223.23	.00	8.71	.00	270.69	472.00
*	2.525	7013.00	2223.23	.00	8.71	.00	270.70	472.00
*	2.645	6870.00	2233.50	.00	10.26	.00	147.48	634.00
*	2.645	6870.00	2233.50	.00	10.27	.00	147.50	634.00
*	2.760	6870.00	2244.52	.00	11.02	.00	141.09	603.00
*	2.760	6870.00	2244.52	.00	11.02	.00	141.12	603.00
*	2.805	6870.00	2248.57	.00	4.05	.00	111.57	239.00
*	2.805	6870.00	2248.57	.00	4.05	.00	111.57	239.00
*	2.850	6683.00	2252.58	.00	4.01	.00	169.99	240.00
*	2.850	6683.00	2252.58	.00	4.01	.00	170.00	240.00
*	2.936	6683.00	2259.01	.00	6.43	.00	184.22	450.00
*	2.936	6683.00	2259.01	.00	6.43	.00	184.21	450.00
	3.030	6683.00	2263.52	.00	4.51	.00	245.25	500.00
	3.030	6683.00	2263.52	.00	4.51	.00	245.26	500.00
*	3.125	6495.00	2270.57	.00	7.05	.00	168.85	505.00
*	3.125	6495.00	2270.57	.00	7.05	.00	168.86	505.00
*	3.220	6495.00	2278.29	.00	7.72	.00	192.96	500.00
*	3.220	6495.00	2278.29	.00	7.72	.00	192.98	500.00
*	3.304	6308.00	2285.19	.00	6.90	.00	182.04	438.00
*	3.304	6308.00	2285.19	.00	6.90	.00	182.04	438.00
*	3.409	6308.00	2294.12	.00	8.93	.00	161.28	562.00
*	3.409	6308.00	2294.13	.00	8.94	.00	161.32	562.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	3.483	5307.00	2300.10	.00	5.98	.00	530.81	390.00
	3.483	5307.00	2300.10	.00	5.97	.00	530.79	390.00
*	3.564	5307.00	2305.55	.00	5.44	.00	232.34	438.00
*	3.564	5307.00	2305.55	.00	5.45	.00	232.36	438.00
	3.652	5307.00	2311.67	.00	6.13	.00	264.17	465.00
	3.652	5307.00	2311.67	.00	6.12	.00	264.13	465.00
*	3.706	4305.00	2316.25	.00	4.58	.00	257.69	285.00
*	3.706	4305.00	2316.25	.00	4.58	.00	257.71	285.00
	3.762	4305.00	2320.82	.00	4.56	.00	237.39	292.00
	3.762	4305.00	2320.81	.00	4.56	.00	237.35	292.00
	3.823	4305.00	2325.66	.00	4.84	.00	308.31	322.00
	3.823	4305.00	2325.66	.00	4.85	.00	308.31	322.00
*	3.897	3304.00	2332.37	.00	6.71	.00	319.75	392.00
*	3.897	3304.00	2332.37	.00	6.71	.00	319.76	392.00
*	3.939	3304.00	2336.73	.00	4.37	.00	276.10	224.00
*	3.939	3304.00	2336.73	.00	4.37	.00	276.10	224.00
*	4.014	3304.00	2344.63	.00	7.89	.00	315.46	395.00
*	4.014	3304.00	2344.63	.00	7.90	.00	315.47	395.00
*	4.108	2800.00	2352.54	.00	7.91	.00	356.07	495.00
*	4.108	2800.00	2352.54	.00	7.91	.00	356.05	495.00
*	4.148	2800.00	2356.78	.00	4.24	.00	239.91	210.00
*	4.148	2800.00	2356.78	.00	4.25	.00	239.89	210.00
*	4.242	2800.00	2366.13	.00	9.35	.00	305.54	500.00
*	4.242	2800.00	2366.13	.00	9.35	.00	305.55	500.00
	4.335	2800.00	2373.68	.00	7.54	.00	436.78	480.00
	4.335	2800.00	2373.68	.00	7.54	.00	436.77	480.00
*	4.394	2800.00	2382.22	.00	8.54	.00	447.26	320.00
*	4.394	2800.00	2382.22	.00	8.54	.00	447.26	320.00
*	4.461	2800.00	2389.06	.00	6.84	.00	373.00	358.00
*	4.461	2800.00	2389.06	.00	6.84	.00	373.00	358.00
	4.498	2297.00	2392.00	.00	2.94	.00	377.81	192.00
	4.498	2297.00	2392.00	.00	2.94	.00	377.62	192.00
	4.602	2297.00	2398.52	.00	6.52	.00	684.40	550.00
	4.602	2297.00	2398.52	.00	6.53	.00	684.48	550.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	4.663	2297.00	2403.84	.00	5.32	.00	486.46	318.00
*	4.663	2297.00	2403.83	.00	5.31	.00	485.67	318.00
	4.725	2297.00	2408.96	.00	5.13	.00	399.47	330.00
	4.725	2297.00	2408.97	.00	5.13	.00	399.50	330.00
	4.802	2297.00	2415.70	.00	6.74	.00	319.24	407.00
	4.802	2297.00	2415.70	.00	6.73	.00	319.11	407.00
*	4.890	2297.00	2422.31	.00	6.61	.00	445.00	465.00
*	4.890	2297.00	2422.31	.00	6.61	.00	445.00	465.00
*	4.968	1793.00	2429.06	.00	6.75	.00	316.94	412.00
*	4.968	1793.00	2429.08	.02	6.77	.02	317.46	412.00
*	5.021	1793.00	2433.03	.00	3.97	.00	459.26	280.00
	5.021	1793.00	2433.02	-.01	3.94	-.01	459.02	280.00
*	5.110	1793.00	2440.33	.00	7.30	.00	407.94	470.00
*	5.110	1793.00	2440.33	.00	7.32	.00	407.95	470.00
*	5.184	1793.00	2446.05	.00	5.72	.00	370.83	392.00
*	5.184	1793.00	2446.05	.00	5.72	.00	370.83	392.00
*	5.273	1793.00	2452.94	.00	6.89	.00	120.00	469.00
*	5.273	1793.00	2452.94	.00	6.89	.00	120.00	469.00
	5.330	958.00	2457.90	.00	4.96	.00	175.11	300.00
	5.330	958.00	2457.90	.00	4.96	.00	175.16	300.00
*	5.459	958.00	2469.01	.00	11.11	.00	191.90	682.00
*	5.459	958.00	2469.01	.00	11.11	.00	191.81	682.00
*	5.551	958.00	2478.08	.00	9.07	.00	164.01	497.00
*	5.551	958.00	2478.09	.00	9.07	.00	164.06	497.00
*	5.643	958.00	2485.56	.00	7.47	.00	123.02	496.00
*	5.643	958.00	2485.56	.00	7.47	.00	123.03	496.00
	5.738	958.00	2491.77	.00	6.22	.00	506.25	508.00
	5.738	958.00	2491.77	.00	6.21	.00	506.25	508.00
*	5.793	958.00	2498.35	.00	6.58	.00	296.97	286.00
*	5.793	958.00	2498.36	.00	6.59	.00	297.02	286.00
	5.862	958.00	2504.26	.00	5.90	.00	268.75	351.00
	5.862	958.00	2504.26	.00	5.90	.00	268.71	351.00
	5.932	958.00	2510.03	.00	5.77	.00	164.02	366.00
	5.932	958.00	2510.04	.01	5.78	.01	164.05	366.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
6.002	958.00	2515.51	.00	5.48	.00	211.24	364.00
6.002	958.00	2515.51	.00	5.47	.00	210.84	364.00
6.056	958.00	2519.89	.00	4.38	.00	231.56	286.00
6.056	958.00	2519.89	.00	4.38	.00	231.49	286.00
6.139	958.00	2525.74	.00	5.85	.00	320.13	434.00
6.139	958.00	2525.74	.00	5.85	.00	319.50	434.00
6.224	958.00	2532.19	.00	6.46	.00	425.37	452.00
6.224	958.00	2532.19	.00	6.45	.00	425.34	452.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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FLOODWAY DATA, WASH R: CEMETERY WASH
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
50.460	948.	1860.	3.9	2014.1	2014.1	.0
.174	953.	1335.	5.4	2024.7	2024.7	.0
.227	602.	1357.	5.3	2029.2	2029.2	.0
.269	669.	2121.	3.4	2031.2	2031.2	.0
.274	617.	1290.	5.6	2033.1	2033.1	.0
.278	658.	3452.	2.1	2036.8	2036.8	.0
.311	694.	2925.	2.5	2037.0	2037.0	.0
.415	936.	1346.	5.4	2041.0	2041.0	.0
.494	607.	1366.	5.3	2049.9	2049.9	.0
.593	419.	1118.	6.5	2059.0	2059.0	.0
.671	389.	1092.	6.7	2066.4	2066.4	.0
.765	353.	1066.	6.8	2073.3	2073.3	.0
.860	160.	777.	9.3	2083.3	2083.3	.0
.952	81.	590.	12.3	2096.1	2096.1	.0
1.003	192.	1556.	4.7	2100.8	2100.8	.0
1.038	334.	2307.	3.2	2101.3	2101.3	.0
1.141	156.	707.	10.3	2104.4	2104.4	.0
1.191	136.	692.	10.5	2110.1	2110.1	.0
1.199	156.	724.	10.1	2114.5	2114.5	.0
1.233	201.	1581.	4.6	2117.1	2117.1	.0
1.328	276.	930.	7.8	2120.1	2120.1	.0
1.401	228.	851.	8.6	2125.1	2125.1	.0
1.431	294.	1186.	6.2	2128.0	2128.0	.0
1.508	197.	784.	9.3	2133.6	2133.6	.0
1.531	198.	809.	9.0	2135.5	2135.5	.0
1.566	285.	1012.	7.2	2139.0	2139.0	.0
1.656	237.	923.	7.9	2147.1	2147.1	.0
1.705	232.	891.	8.2	2150.3	2150.3	.0
1.751	189.	750.	9.7	2154.7	2154.7	.0
1.813	320.	994.	7.3	2159.3	2159.3	.0
1.902	425.	1075.	6.7	2166.6	2166.6	.0
1.966	326.	1001.	7.1	2173.1	2173.1	.0
2.034	621.	1514.	4.7	2178.7	2178.7	.0
2.093	401.	1023.	7.0	2184.8	2184.8	.0
2.188	193.	795.	9.0	2193.6	2193.6	.0
2.248	301.	1183.	5.9	2198.4	2198.4	.0
2.295	212.	803.	8.7	2201.5	2201.5	.0
2.338	230.	963.	7.3	2205.0	2205.0	.0
2.436	418.	966.	7.3	2214.5	2214.5	.0
2.525	271.	951.	7.4	2223.2	2223.2	.0
2.645	147.	684.	10.0	2233.5	2233.5	.0
2.760	141.	686.	10.0	2244.5	2244.5	.0

FLOODWAY DATA, WASH R: CEMETERY WASH
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
50.460	948.	1860.	3.9	2014.1	2014.1	.0
.174	953.	1335.	5.4	2024.7	2024.7	.0
.227	602.	1357.	5.3	2029.2	2029.2	.0
.269	669.	2121.	3.4	2031.2	2031.2	.0
.274	617.	1290.	5.6	2033.1	2033.1	.0
.278	658.	3452.	2.1	2036.8	2036.8	.0
.311	694.	2925.	2.5	2037.0	2037.0	.0
.415	936.	1346.	5.4	2041.0	2041.0	.0
.494	607.	1366.	5.3	2049.9	2049.9	.0
.593	419.	1118.	6.5	2059.0	2059.0	.0
.671	389.	1092.	6.7	2066.4	2066.4	.0
.765	353.	1066.	6.8	2073.3	2073.3	.0
.860	160.	777.	9.3	2083.3	2083.3	.0
.952	81.	590.	12.3	2096.1	2096.1	.0
1.003	192.	1556.	4.7	2100.8	2100.8	.0
1.038	334.	2307.	3.2	2101.3	2101.3	.0
1.141	156.	707.	10.3	2104.4	2104.4	.0
1.191	136.	692.	10.5	2110.1	2110.1	.0
1.199	156.	724.	10.1	2114.5	2114.5	.0
1.233	201.	1581.	4.6	2117.1	2117.1	.0
1.328	276.	930.	7.8	2120.1	2120.1	.0
1.401	228.	851.	8.6	2125.1	2125.1	.0
1.431	294.	1186.	6.2	2128.0	2128.0	.0
1.508	197.	784.	9.3	2133.6	2133.6	.0
1.531	198.	809.	9.0	2135.5	2135.5	.0
1.566	285.	1012.	7.2	2139.0	2139.0	.0
1.656	237.	923.	7.9	2147.1	2147.1	.0
1.705	232.	891.	8.2	2150.3	2150.3	.0
1.751	189.	750.	9.7	2154.7	2154.7	.0
1.813	320.	994.	7.3	2159.3	2159.3	.0
1.902	425.	1075.	6.7	2166.6	2166.6	.0
1.966	326.	1001.	7.1	2173.1	2173.1	.0
2.034	621.	1514.	4.7	2178.7	2178.7	.0
2.093	401.	1023.	7.0	2184.8	2184.8	.0
2.188	193.	795.	9.0	2193.6	2193.6	.0
2.248	301.	1183.	5.9	2198.4	2198.4	.0
2.295	212.	803.	8.7	2201.5	2201.5	.0
2.338	230.	963.	7.3	2205.0	2205.0	.0
2.436	418.	966.	7.3	2214.5	2214.5	.0
2.525	271.	951.	7.4	2223.2	2223.2	.0
2.645	147.	684.	10.0	2233.5	2233.5	.0
2.760	141.	686.	10.0	2244.5	2244.5	.0

FLOODWAY DATA, WASH R: CEMETERY WASH
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
2.805	112.	644.	10.7	2248.6	2248.6	.0
2.850	170.	768.	8.7	2252.6	2252.6	.0
2.936	184.	835.	8.0	2259.0	2259.0	.0
3.030	245.	1021.	6.5	2263.5	2263.5	.0
3.125	169.	723.	9.0	2270.6	2270.6	.0
3.220	193.	790.	8.2	2278.3	2278.3	.0
3.304	182.	722.	8.7	2285.2	2285.2	.0
3.409	161.	669.	9.4	2294.1	2294.1	.0
3.483	531.	1193.	4.4	2300.1	2300.1	.0
3.564	232.	681.	7.8	2305.5	2305.5	.0
3.652	264.	875.	6.1	2311.7	2311.7	.0
3.706	258.	629.	6.8	2316.3	2316.3	.0
3.762	237.	652.	6.6	2320.8	2320.8	.0
3.823	308.	863.	5.0	2325.7	2325.7	.0
3.897	320.	531.	6.2	2332.4	2332.4	.0
3.939	276.	729.	4.5	2336.7	2336.7	.0
4.014	315.	542.	6.1	2344.6	2344.6	.0
4.108	356.	668.	4.2	2352.5	2352.5	.0
4.148	509.	469.	6.0	2356.8	2356.8	.0
4.242	306.	554.	5.1	2366.1	2366.1	.0
4.335	437.	650.	4.3	2373.7	2373.7	.0
4.394	447.	632.	4.4	2382.2	2382.2	.0
4.461	373.	545.	5.1	2389.1	2389.1	.0
4.498	378.	550.	4.2	2392.0	2392.0	.0
4.602	684.	617.	3.7	2398.5	2398.5	.0
4.663	486.	538.	4.3	2403.8	2403.8	.0
4.725	399.	539.	4.3	2409.0	2409.0	.0
4.802	319.	454.	5.1	2415.7	2415.7	.0
4.890	445.	991.	2.3	2422.3	2422.3	.0
4.968	317.	397.	4.5	2429.1	2429.1	.0
5.021	459.	549.	3.3	2433.0	2433.0	.0
5.110	408.	439.	4.1	2440.3	2440.3	.0
5.184	371.	577.	3.1	2446.1	2446.1	.0
5.273	120.	237.	7.6	2452.9	2452.9	.0
5.330	175.	280.	3.4	2457.9	2457.9	.0
5.459	192.	203.	4.7	2469.0	2469.0	.0
5.551	164.	248.	3.9	2478.1	2478.1	.0
5.643	123.	186.	5.1	2485.6	2485.6	.0
5.738	527.	419.	2.3	2491.8	2491.8	.0
5.793	297.	276.	3.5	2498.4	2498.4	.0
5.862	269.	279.	3.4	2504.3	2504.3	.0
5.932	164.	222.	4.3	2510.0	2510.0	.0

FLOODWAY DATA, WASH R: CEMETERY WASH
PROFILE NO. 2

STATION	------- FLOODWAY ------- WIDTH	SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
6.002	211.	258.	3.7	2515.5	2515.5	.0
6.056	231.	258.	3.7	2519.9	2519.9	.0
6.139	320.	325.	2.9	2525.7	2525.7	.0
6.224	425.	318.	3.0	2532.2	2532.2	.0

FEDERAL EMERGENCY MANAGEMENT AGENCY **RIVERINE/COASTAL MAPPING FORM**	*O.M.B. Burden No. 3067-0148* *Expires July 31, 1994*	*FEMA USE ONLY*

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 1.5 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

Community Name: Unincorporated Maricopa County/Town of Wickenburg

Flooding Source: Wash R: Cemetary Wash

Project Name/Identifier: Wickenburg ADMS FCD 89-79

1. MAPPING CHANGES

1. A topographic work map of suitable scale, contour interval, and planimetric definition must be submitted showing *(indicate N/A when not applicable)*:

		Included		
A.	Revised approximate 100-year floodplain boundaries (Zone A)	☐ Yes	☒ No	☐ N/A
B.	Revised detailed 100- and 500-year floodplain boundaries	☒ Yes	☐ No	☐ N/A
C.	Revised 100-year floodway boundaries	☒ Yes	☐ No	☐ N/A
D.	Location and alignment of all cross sections used in the revised hydraulic model with stationing control indicated	☒ Yes	☐ No	☐ N/A
E.	Stream alignments, road and dam alignments	☒ Yes	☐ No	☐ N/A
F.	Current community boundaries	☒ Yes	☐ No	☐ N/A
G.	Effective 100- and 500-year floodplain and 100-year floodway boundaries from the FIRM/FBFM reduced or enlarged to the scale of the topographic work map	☐ Yes	☐ No	☒ N/A
H.	Tie-ins between the effective and revised 100- and 500-year floodplains and 100-year floodway boundaries	☐ Yes	☐ No	☒ N/A
I.	The requestor's property boundaries and community easements	☐ Yes	☐ No	☒ N/A
J.	The signed certification of a registered professional engineer	☒ Yes	☐ No	☐ N/A
K.	Location and description of reference marks	☒ Yes	☐ No	☐ N/A
L.	Vertical datum (example: NGVD, NAVD etc.)	☒ Yes	☐ No	☐ N/A
M.	Coastal zone designations tie into adjacent areas not being revised	☐ Yes	☐ No	☒ N/A
N.	Location and alignment of all coastal transects used to revise the coastal analyses	☐ Yes	☐ No	☒ N/A

If any of the items above are marked no or N/A, please explain: No Zone A, 500-year or coastal zones revised or delineated. Revised 100-year floodplains tie into effective Hassayampa River floodplain.

2. What is the source and date of the updated topographic information *(example: orthophoto maps, July 1985; field survey, May 1979, beach profiles, June 1987, etc.)*? Photo: Jan. 1991 (E), Oct 1990 (W); Maps 1992

3. What is the scale and contour interval of the following workmaps?
   a. Effective FIS unknown scale unknown Contour interval
   b. Revision Request 1" = 200' scale 4' Contour interval

NOTE: Revised topographic information must be of equal or greater detail.

Attach an annotated FIRM and FBFM at the scale of the effective FIRM and FBFM showing the revised 100-year and 500-year floodplains and the 100-year floodway boundaries and how they tie into those shown on the effective FIRM and FBFM downstream and upstream of the revision or adjacent to the area of revision for coastal studies.

Attach additional pages if needed.

5. Flood Boundaries and 100-year water surface elevations:

Has the 100-year floodplain been shifted or increased or the 100-year water surface elevation increased at any location on property other than the requestor's or community's ? ☐ Yes ☒ No

If yes, please give the location of shift or increase and an explanation for the increase.

Revised detailed 100-year floodplain replaces effective Zone A floodplain.

a. Have the affected property owners been notified of this shift or increase and the effect it will have on their property? ..... ☐ Yes ☒ No

If yes, please attach letters from these property owners stating they have no objections to the revised flood boundaries if a LOMR is being requested.

b. What is the number of insurable structures that will be impacted by this shift or increase?_____

6. Have the floodway boundaries shifted or increased at any location compared to those shown on the effective FBFM or FIRM? ..... ☐ Yes ☒ No

If yes, explain:

7. If a V- zone has been designated, has it been delineated to extend landward to the heel of the primary frontal dune? ☐ Yes ☒ No

If no, explain:

NA

8. Manual or digital map submission:

☒ Manual

☐ Digital

Digital map submissions may be used to update digital FIRMs (DFIRMs). For updating DFIRMs, these submissions must be coordinated with FEMA Headquarters as far in advance of submission as possible.

2. EARTH FILL PLACEMENT

1. The fill is: ☐ Existing ☐ Proposed ☒ N/A

2. Has fill been/will be placed in the regulatory floodway? ..... ☐ Yes ☒ No
   If yes, please attach completed Riverine Hydraulic Analysis Form.

3. Has fill been/will be placed in floodway fringe *(area between the floodway and 100-year floodplain boundaries)*? ..... ☐ Yes ☒ No

   If yes, then complete A, B, C, and D below.

   A. Are fill slopes for granular materials steeper than one vertical on one-and-one-half horizontal? ..... ☐ Yes ☐ No

   If yes, justify steeper slopes_____

   B. Is adequate erosion protection provided for fill slopes exposed to moving flood waters? *(Slopes exposed to flows with velocities of up to 5 feet per second (fps) during the 100-year flood must, at a minimum, be protected by a cover of grass, vines, weeds, or similar vegetation; slopes exposed to flows with velocities greater than 5 fps during the 100-year flood must, at a minimum, be protected by stone or rock riprap.)* ..... ☐ Yes ☐ No

   If no, describe erosion protection provided_____

   C. Has all fill placed in revised 100-year floodplain been compacted to 95 percent of the maximum density obtainable with the Standard Proctor Test Method or acceptable equivalent method? ☐ Yes ☐ No

   D. Can structures conceivably be constructed on the fill at any time in the future? ☐ Yes ☐ No

   If yes, provide certification of fill compaction (item C. above) by the community's NFIP permit official, a registered professional engineer, or an accredited soils engineer.

4. Has fill been/will be placed in a V-zone? ☐ Yes ☒ No

   If yes, is the fill protected from erosion by a flood control structure such as a revetment or seawall? ☐ Yes ☐ No

   If yes, attach the coastal structures form.

FEDERAL EMERGENCY MANAGEMENT AGENCY BRIDGE/CULVERT FORM	O.M.B. Burden No. 3067-0148 Expires July 31, 1994	FEMA USE ONLY

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 2 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

Community Name: Unincorporated Maricopa County / Town of Wickenburg

Flooding Source: Wash R : Cemetary Wash

Project Name/Identifier: Wickenburg ADMS FCD 89-79

1. IDENTIFIER

1. Name of roadway, railroad, etc.: Atchison - Topeka and Santa Fe Railroad
2. Location of bridge/culvert along flooding source (in terms of stream distance or cross-section identifier): Station 0.274 to Station 0.278
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 analysis of bridge/culvert previously modeled in the FIS

   (Explain why new analysis was performed)

2. BACKGROUND

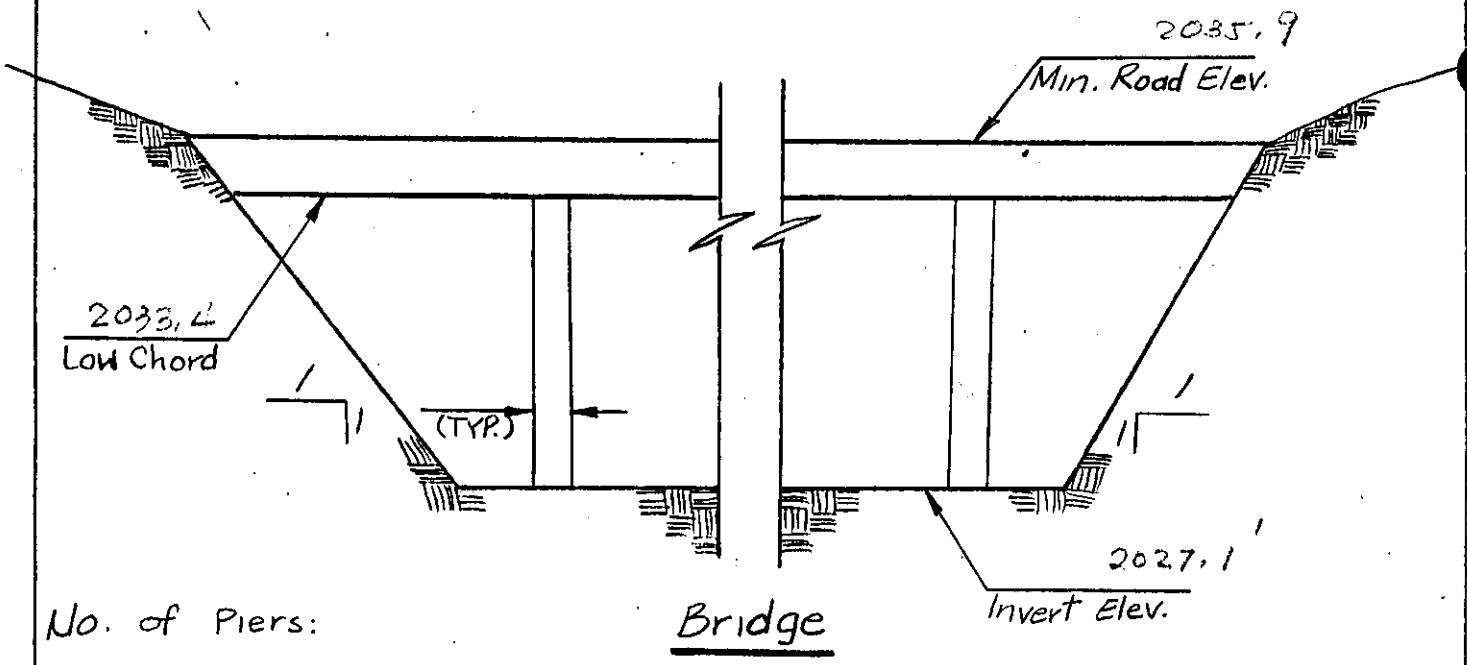
Provide the following information about the structure:

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) three span bridge with 2 rows of three 1.1± ft diameter piers.
2. Entrance geometry of culvert/type of bridge opening (e.g. 30° - 75° wing walls with square top edge, sloping embankments and vertical abutments) Trapezoidal entrance with side slope of 1:1 and bottom width of 72.19 ft.
3. Hydraulic model used to analyze the structure (*e.g., HEC-2 with special bridge routine, WSPRO, HY8*) HEC-2 with Special 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 justification)*

Note: If any items do not apply to submitted hydraulic analysis, indicate by N/A
* One form per new/revised bridge/culvert

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

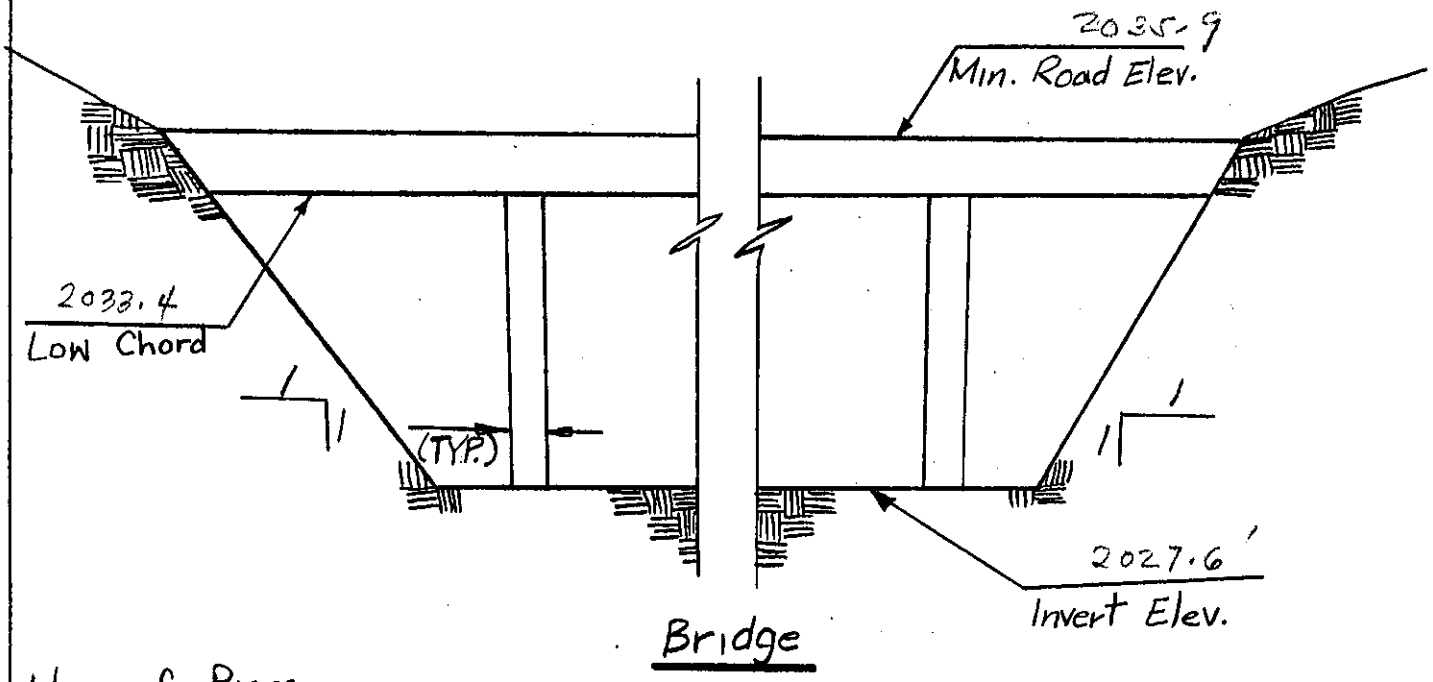


No. of Piers:

Total Width of Piers: 6.39'

See Cross Section #0.274

Sketch the upstream 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.

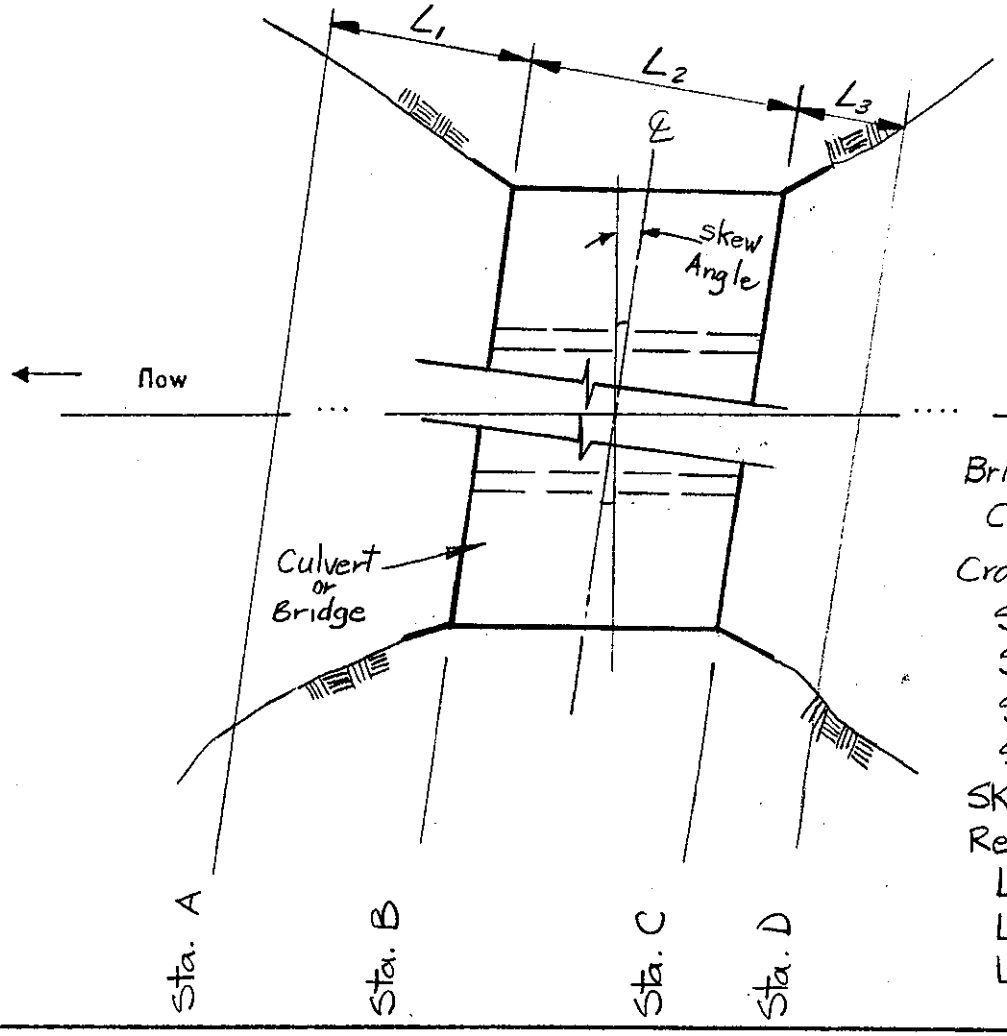


No. of Piers:

Total Width of Piers: 6.39'

See Cross Section # 0.278

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).



Bridge Width / Culvert Length: 19'
Cross Section Stations
Sta. A = 0.269
Sta. B = 0.274
Sta. C = 0.278
Sta. D = 0.311
Skew Angle: 0
Reach Lengths:
L1 = 28.5 ft.
L2 = 19 ft.
L3 = 178 ft.

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

Culvert length or bridge width (ft)	19.0'
Calculated culvert/bridge area (ft²) by the hydraulic model, if applicable	415 ft²
Total culvert/bridge area (ft²)	400 ft²

Elevations Above Which Flow is Effective for Overbanks

	Left Overbank	Right Overbank
Upstream face (STA 0.278)	2035.9	2035.9
Downstream face (STA 0.274)	2030.7	2033.4

Minimum Top of Road Elevation

	Left Overbank	Right Overbank
Upstream face	2035.9	2035.9
Downstream face	2035.9	2035.9

100-Year Elevations	Water Surface Elevations	Energy Gradient Elevations
Upstream face	2036.84	2036.98
Downstream face	2033.06	2034.26

Discharge	Low Flow	Pressure Flow	Weir Flow	Total Flow
Amount of flow through/over the structure (s) (cfs)	—	5091	2177	7251 (or 7268)

The maximum depth of flow over the roadway/railroad (ft.) ..... 0.94'

Weir length (ft.) ..... 660.

Top Widths

	Floodplain	Floodway
Upstream face	658	658
Downstream face	630	619

Top Widths

	Effective Flow	Effective and Ineffective Flow
Upstream face	658	658
Downstream face	630	630

Loss Coefficients

Entrance loss coefficient	0.45
Manning's "n" value assigned to the structure(s)	0.035
Friction loss coefficient through structure (s).	—
Other loss coefficients (e.g., bend manhole, etc.) for intermediate piers	0.05
Total loss coefficient	1.56
Weir coefficient	3.00
Pier coefficient	1.05
Contraction loss coefficient	0.300
Expansion loss coefficient	0.500

4. 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

.. 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 NA - Sediment transport not considered in analysis.

B. Will sediment accumulate anywhere through the bridge/culvert? ☐ Yes ☐ No

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

5. FLOODWAY ANALYSIS

Explain method of bridge encroachment (floodway run) Method I of bridge encroachment is used where encroachment stations are defined by ET (i.e., STENCL & STENCR) and effective elevations are defined by X3 (i.e., ELLEA & ELREA) for effective flow calculations.

Comments *(explain any unusual situations)*:

Attach analysis.

Flood Control District of Maricopa County
Contract FCD 89-79

WICKENBURG AREA DRAINAGE MASTER STUDY

TECHNICAL DOCUMENTATION REPORT

Appendix 5.2: HEC-2 Models & Cross Section Plots for West Area Wash
CEMETARY WASH & TRIBUTARIES (Wash r)

Submitted to the
Federal Emergency Management Agency
on Behalf of the
Flood Control District of Maricopa County

N:\1197\02\ADMIN\119702RP.063

May 1994

FEDERAL EMERGENCY MANAGEMENT AGENCY **HYDROLOGIC ANALYSIS FORM**	*O.M.B. Burden No. 3067-0148* *Expires July 31, 1994*	*FEMA USE ONLY*

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 3.67 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

Community Name: Unincorporated Maricopa County/Town of Wickenburg

Flooding Source: Wash R: Cemetary Wash
(One form for each flooding source)

Project Name/Identifier: Wickenburg ADMS FCD 89-79

1. HYDROLOGIC ANALYSIS IN FIS

☐ Approximate study stream (Zone A)
☒ Detailed study stream (briefly explain methodology) HEC-1 analysis based on Flood Control District of Maricopa County Methodologies.

2. REASON FOR NEW HYDROLOGIC ANALYSIS

☐ No existing analysis
☐ Improved data *(see data revision on page 3)*
☐ Changed physical conditions of watershed *(explain)* _____

☐ Alternative methodology *(justify why the revised model is better than model used in the effective FIS)*

☐ Evaluation of proposed conditions (CLOMRs only) (explain) _____

☒ Other No existing analysis or analysis being updated to reflect existing conditions.

If a computer program/model was used in revising the hydrologic analysis, please provide a diskette with the input files for the 10-, 50-, 100 - and 500-year recurrence intervals.

Only the 100-year recurrence interval need be included for SFHAs designated as Zone A.

3. APPROVAL OF ANALYSIS

☒ Approval of hydrologic analysis, including the resulting peak discharge value (s) has been provided by the appropriate local, state, or Federal Agency. (i.e., Flood Control District of Maricopa County)
Attach evidence of approval.

☐ Approval of the hydrologic analysis is not required by any local, State, or Federal Agency.

Stream: _____

Comparison of 100-year Discharges

Location:	Drainage area (Sq mi.)	FIS (cfs) :	Revised (cfs) :
Confluence with Hassayampa River	9.14 Sq. mi.	—	7251 cfs

Note: When revised discharges are not significantly different than FIS discharges, FEMA may require a confidence limits analysis on attachment D at a later date to complete the review.

As is often the case with revision requests, only a portion of a stream may actually be revised or be affected by a revision. Therefore, transition to the unrevised portion is important to maintain the continuity of the study. NFIP regulations stipulate that such a transition must be assured. What is the transition from the proposed discharges to the effective discharges? Please explain how the transition was made *(attach separate sheet if necessary)*

No existing analysis or updated analysis to reflect existing conditions.

ATTACH A COMPLETED REVIEW OF RESULTS PAGE FOR EACH FLOODING SOURCE.

Is the new hydrologic analysis being developed solely to revise the flow values presented in the FIS *(i.e. no changed hydraulic conditions)*? ☐ Yes ☒ No

If yes, does the 100-year water surface elevation change by 1.0 foot or more? ☐ Yes ☐ No

FEMA does not normally revise NFIP maps solely due to insignificant flow changes where changes in 100-year water surface elevation are less than 1.0 foot.

5. HISTORICAL FLOODING INFORMATION

Is historical data available for the flooding source? ☐ Yes ☒ No

If yes, provide the following:

Location along flooding source: _____

Maximum peak discharge: _____ cfs

Second highest peak discharge: _____ cfs

Source of information: _____

6. GAGE RECORD INFORMATION

Location of nearest gage to project site *(along flooding source or similar watershed; specify)*

NA

Gaging Station: _____

Drainage area at gage: _____ mi^2

Number of years of data: _____

7. DATA REVISION

Please use the following table to list all the data and/or parameters affected by this request and identify them as new data (*New*) or as revising existing data (*Revised*). *(If necessary, attach a separate sheet.)*

Data Parameter	New	Revised	Data Source
NA	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

- Data source can be from a Federal, State, or local government agency, or from a private source. Some State and local governments may have less strict data requirements than Federal agencies, in which case the hydrologic data may not be accepted by FEMA unless it is demonstrated that the data give a better estimate of the flood discharge.
- Attach documentation corroborating each data source *(i.e., certified statement, report, bibliographical reference to a published document)*. In the case of a published document or a government report, providing copies of the cover and pertinent pages may be helpful.

8. METHODOLOGY FOR NEW ANALYSIS

☐ Statistical Analysis of Gage Records (*use Attachment A*)

☐ Regional Regression Equations *(use Attachment B)*

☒ Precipitation/Runoff Model *(use Attachment C)*

☐ Other *(specify; attach backup computations and supporting data)* _____

ATTACHMENT A: STATISTICAL ANALYSIS OF GAGE RECORDS

Gaging Station: N/A

Gage Location (latitude and longitude): _____

	FIS:	Revised:
1. Number of years of data		
Systematic		
Historical		
2. Homogeneous data	☐ Yes ☐ No	☐ Yes ☐ No
3. Data adjustments	☐ Yes ☐ No	☐ Yes ☐ No
4. Number of high outliers		
Low outliers		
Zero events		
5. Generalized skew		
6. Station skew		
7. Adopted skew		
8. Probability distribution used (justify if log-Pearson III was not used)		
9. Transfer equations to ungaged sites		☐ Yes ☐ No

If yes, specify method

_____

_____

_____

10. Expected probability* ☐ Yes ☐ No

11. Comparison of results with other analyses ☐ Yes ☐ No

If yes, describe comparison

_____

_____

_____

*FEMA does not accept expected probability analyses for the purpose of reflecting flood hazard information in a FIS.

If any data is not available, indicate by N/A.

Attach analysis including plot of flood frequency curve.

1. Bibliographical Reference:
N/A

(Attach a copy of title page, table of contents, and pertinent pages including equations.)

2. Gaged or ungaged stream: _____

3. Hydrologic region(s): _____
Attach backup map.

4. Provide parameters, values, and source of data used to define parameters.

		FIS:		Revised:	
5.	Urbanized conditions calculations	☐ Yes	☐ No	☐ Yes	☐ No
6	Percent of watershed urbanization	_____		_____	
7.	Is the watershed controlled?	☐ Yes	☐ No	☐ Yes	☐ No
8.	Comparison with other analyses	☐ Yes	☐ No	☐ Yes	☐ No

If the answer to 5, 7, or 8 is yes, explain methodology in Comments.

If data is not available, indicate by N/A.

Comments

Attach computation and supporting maps, delineating the watershed boundary and drainage area divides.

		FIS:	Revised
1.	Method or model used:		HEC-1
	Version:		Ver. 3.0
	Date:		02 AUG. 88
2.	Source of rainfall depth:		NOAA Atlas 2
3.	Source of rainfall distribution:		SCS TYPE II
4.	Rainfall duration:		24 hours
5.	Areal adjustment to precipitation (%):		NWS HYDRO-40
6.	Hydrograph development method:		S-Graph
7.	Loss rate method:		Green-AMPT
	Source of soils information:		SCS
	Source of land use information		Town of Wickenburg
8.	Channel routing method:		Normal Depth
9.	Reservoir routing:	☐ Yes ☐ No	☐ Yes ☒ No
10.	Baseflow considerations:	☐ Yes ☐ No	☐ Yes ☒ No

If yes, explain how baseflow was determined:

11. Snowmelt considerations: ☐ Yes ☐ No ☐ Yes ☒ No

12. Model calibration: ☐ Yes ☐ No ☒ Yes ☐ No

If yes, explain how calibration was performed Computed discharges were compared with DISCHARGE vs DRAINAGE AREA curves and envelopes prepared by the Flood Control District of Maricopa County.

13. Future land use condition: ☐ Yes ☒ No

If yes, explain why

NOTE: FEMA policy is to base flooding on existing conditions.
If data is not available, indicate by N/A.

Attach precipitation/runoff model, hydrologic model schematic, curve number calculations, time of concentration calculations, and supporting maps, delineating the watershed boundary and drainage area divides.

Stream: NA - No flow records

Select one location for Confidence Limits Evaluation (*describe location*): _____

_____

Discharges for selected location:

Exceedance Probability		FIS	Revised
10%	(10-year)	_____ cfs	_____ cfs
2%	(50-year)	_____ cfs	_____ cfs
1%	(100-year)	_____ cfs	_____ cfs
0.2%	(500-year)	_____ cfs	_____ cfs

1% (100-year) Flood Confidence Intervals

90% Confidence Interval: 5% limit _____ cfs

95% limit _____ cfs

50% Confidence Interval: 25% limit _____ cfs

75% limit _____ cfs

If the value of the 100-year frequency flood in the FIS is beyond the 50% confidence interval but within the 90% confidence interval, does the 100-year water surface elevation change by 1.0 foot or more? ☐ Yes ☐ No

An example of confidence limits analysis can be found in Appendix 9 of Bulletin 17B.

Attach Confidence Limits Analysis.

Appendix # 5.2

FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERINE HYDRAULIC ANALYSIS FORM	O.M.B. Burden No. 3067-0148 Expires July 31, 1994	FEMA USE ONLY

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 2.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

Community Name: Unincorporated Maricopa County/Town of Wickenburg

Flooding Source: Wash R: Cemetary Wash
(One form for each flooding source)

Project Name/Identifier: Wickenburg ADMS - FCD 89-79

1. REACH TO BE REVISED

Downstream limit: Station 0.174

Upstream limit: Station 6.224

2. EFFECTIVE FIS

☐ Not studied

☐ Studied by approximate methods

Downstream limit of study _____

Upstream limit of study _____

☒ Studied by detailed methods

Downstream limit of study Confluence with Hassayampa River

Upstream limit of study Station 6.224

☐ Floodway delineated

Downstream limit of Floodway _____

Upstream limit of Floodway _____

3. 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: _____

☐ Other. Explain: _____

Full input and output listings along with files on diskette *(if available)* for each of the models listed below and 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. For areas which do not have detailed flooding, a hydraulic model is not required; however BFE's may not be added to the revised FIRM.

☐ Duplicate Effective Model — Natural ☐ Floodway ☐

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 — Natural ☐ Floodway ☐

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 — Natural ☐ Floodway ☐

The duplicate effective or corrected 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 — Natural ☐ Floodway ☐

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. When the request is for proposed project this model should reflect proposed conditions.

☒ Other: Please attach a sheet describing all other models or calculations submitted. — Natural ☒ Floodway ☒

New Model (Proposed Effective Model)

4. MODEL PARAMETERS *(from model used to revise 100-year water surface elevation)*

Discharges:	Upstream Limit	Downstream Limit
10-year	510 cfs	3250 cfs
50-year	828 cfs	5968 cfs
100-year	958. cfs	7251 cfs
500-year	—	—

Attach diagram showing changes in 100-year discharge

2. Explain how the starting water surface elevations were determined Starting water surface elevations determined by the slope-area method.

3. Give range of friction loss coefficients (*Manning's "N"*) Channel ..... 0.035 ~ 0.045

Overbanks ..... 0.060 ~ 0.070

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.

Data points for cross-sections are based on photogrammetric models for the topographic maps.

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

All reach lengths were measured from floodplain work maps.

5. 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? ..... ☐ Yes ☒ No

c. Critical depth? ..... ☒ Yes ☐ No

d. Other unique situations ..... ☐ Yes ☐ No

If yes, special problems report attached.

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 change in energy gradient between cross-sections? ..... 0.0248 ft/ft

Specify location 5.330

3. What is the distance between the cross-sections in 2 above? ..... 682 ft

Specify location 5.459

4. What is the maximum distance between cross-sections? ..... 682 ft

Specify location 5.459

5. Floodway determination

a. What is the maximum surcharge allowed by the community or State? ..... 1.0 foot

b. What is the maximum surcharge for the revised conditions? ..... 0.0 foot

Specify location ..... N/A

c. What is the maximum velocity? ..... 21.42 fps

Specify location 0.952

Explain:

d. Are there any negeative surcharge values at any cross-section ☐ Yes ☒ No

If yes, the floodway may need to widen. If it is not widened, please explain and indicate the maximum negative surcharge.

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:

_____

_____

_____

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 (See page 6)

6. 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_____ within_____feet and upstream of the project at cross section_____within_____feet.

B. The revised floodway elevations tie into those computed by the effective FIS model, dowstream of the project at cross section_____within_____feet and upstream of the project at cross section_____ 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. If channel distance has changed, the stationing should be revised for all profile sheets.

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

Proceed to Riverine /Coastal Mapping Form

FEDERAL EMERGENCY MANAGMENT AGENCY

WATER SURFACE ELEVATION CHECK

COMMUNITY NAME	FLOODIND SOURCE	PROJECT NAME /IDENTIFIER
Unincorporated Maricopa County / Town of Wickenburg	Wash R: Cemetary Wash	Wickenburg ADMS-FCD 89-79

	EFFECTIVE			DUPLICATE EFFECTIVE			CORRECTED EFFECTIVE			EXISTING/PRE-PROJECT			REVISED/PROJECT		
SECNO	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]

COMMENTS:

New Model- See following Floodway Data Table

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

Include all cross sections in the models between tie-in points. Any interpolated values should be indicated in parentheses.

```
*******************************************
*  HEC-2 WATER SURFACE PROFILES           *
*                                         *
*  Version   4.6.2;  May 1991             *
*                                         *
*  RUN DATE    21AUG92    TIME   09:09:38 *
*******************************************
```

```
****************************************
*  U.S. ARMY CORPS OF ENGINEERS        *
*  HYDROLOGIC ENGINEERING CENTER       *
*  609 SECOND STREET, SUITE D          *
*  DAVIS, CALIFORNIA 95616-4687        *
*          (916) 756-1104              *
****************************************
```

```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                        X
XXXXXXX  XXXX     X         XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX             XXXXXXX
```

THIS RUN EXECUTED 21AUG92 09:09:38

```
************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.2;  May 1991
************************************


T1      WICKENBURG ADMS - CONTRACT FCDMC 89-79
T2      BLACK & VEATCH PN 17676: COE & VAN LOO JN 1197-02
T3      WASH Q:                        ( WQ1C.O)

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2        0        0   0.00293       0        0        0    1994.0      0

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

      1        0       -1        0        0        0       -1        0        0        0


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150       200

QT        2       584       584
NC     .045      .045      .035        .1        .3
          HASSAYAMPA RIVER FIS CROSS SECTION 49.80 (CBA 1988, NO DATUM CHANGE)
          CONFLUENCE WITH WASH Q, A WEST TRIBUTARY
          NON COINCIDENT WITH 100-YEAR DISCHARGE IN HASSAYAMPA
X1    49.80        30    2417.1    2683.5     350.0     480.0     500.0
GR   2038.4    1000.0    2038.4    1027.8    2033.5    1046.6    2022.8    1123.6    2025.0    1170.5
GR   2019.2    1221.9    2012.8    1276.8    2012.8    1314.3    2006.1    1354.6    2005.1    1486.0
GR   2003.0    1505.3    2002.3    1543.5    1994.3    1597.0    1995.0    1800.7    1992.4    1815.4
GR   1995.9    1839.5    1995.6    2125.4    1992.0    2143.5    1993.4    2299.1    1996.3    2339.3
GR   1996.6    2384.4    1993.3    2417.1    1993.2    2559.7    1991.7    2568.9    1991.5    2620.4
GR   1991.5    2683.5    2016.3    2799.2    2020.9    3012.6    2020.9    3045.0    2031.9    3114.0

NC    0.070     0.070     0.015        .5        .6
ET                7.1       9.1                                   828.0    1081.0     970.0    1081.0
          THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
          CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION, UNLESS
          OTHERWISE NOTED.
          ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
          SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
          WSEL AND THE TOPOGRAPHY.
          FIRST CROSS SECTION OF WASH Q
          DOWNSTREAM SECTION OF (2) 54 INCH CONCRETE PIPES WITH HEADWALL
          EAST SIDE OF THE ATCHISON-TOPEKA & SANTA FE RAILROAD CROSSING
    0.058        28     993.5    1006.5       420        20       306
X3     10
GR   2014.3       700    2013.7     721.5    2012.6     742.9    2011.5     764.3    2010.4     785.8
GR   2009.3     807.5    2008.5     829.4    2008.0     851.3    2007.9     873.1    2007.8       895
GR   2007.7     916.9    2007.6     932.5    2007.5     954.2    2007.4     975.6    2007.3     990.8
```

GR	2004.3	993.5	2004.3	995.75	2004.3	1000.	2004.3	1004.25	2004.3	1006.5

```
     2007.3    1012.6    2007.4      1019    2007.5    1041.1    2007.6      1060    2007.7    1140.0
GR   2008.5    1190.0    2009.5      1200    2013.8    1270.0

NC   0.060     0.060     0.015        .5        .6
SC   2.015        .1       3.0         0       4.5         0      32.5       1.2    2004.4    2004.3
ET                7.1       9.1                                    730    1080.3       970    1080.3
          UPSTREAM SECTION OF (2) 54 INCH CONCRETE PIPES WITH HEADWALL
          WEST SIDE OF THE ATCHISON-TOPEKA & SANTA FE RIALROAD CROSSING
          FROM CROSS SECTION 0.066 TO 0.276 WASH Q FLOWS ALONG THE
          SOUTH BOUNDARY OF THE WICKENBURG WASTEWATER TREATMENT PLANT.
          ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
          SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
          WSEL AND THE TOPOGRAPHY.
X1   0.064       70     993.5    1006.5      32.5      32.5      32.5
X2       0        0         2    2008.9    2013.6         0         0         0         0         0
X3      10                                                             2013.6    2013.3
BT      -9    730.0    2014.0               818    2013.8               900    2013.5
BT            1000    2013.3              1060    2013.3              1070    2013.3
BT            1140    2013.3              1190    2013.3              1200    2013.3
GR   2014.0      730    2009.8     733.4    2009.6     736.8    2009.4     740.3    2009.2     743.7
GR   2008.9    747.1    2008.7     750.5    2008.5       754    2008.3     757.4    2008.1     760.8
GR   2007.9    764.2    2007.7     767.6    2007.5       771    2007.3     774.5    2007.1     777.9
GR   2006.8    781.3    2006.6     784.7    2006.4     788.2    2006.2     791.6      2006       795
GR   2005.9    805.6    2005.8     816.3    2005.7     819.8    2005.6     830.4    2005.5       841
GR   2005.3    851.7    2005.3     858.8    2005.2     862.3    2005.1     872.9    2005.1     883.5
     2005.2    894.1    2005.2     897.7    2005.3     901.2    2005.4     911.8    2005.6     922.3
     2005.7    932.9    2005.8     936.5    2005.8     947.1    2005.8     957.7    2005.8     968.2
GR   2005.8    978.8    2005.8     985.9    2004.4     993.5    2004.4    995.75    2004.4    1000.0
GR   2004.4  1004.25    2004.4    1006.5      2006      1010    2006.3    1013.3    2006.7    1016.7
GR     2007     1020    2007.3    1023.3    2007.7    1026.7      2008      1030    2008.3    1033.3
GR   2008.7   1036.7      2009      1040    2009.3    1043.3    2009.7    1046.7      2010      1050
GR   2010.3   1053.3    2010.7    1056.7      2011      1060    2011.3    1063.3    2011.7    1066.7
GR   2013.3   1080.3    2013.3    1140.0    2013.3      1190    2013.3    1200.0    2014.1    1265.0

NC   0.070     0.070     0.045        .1        .3
ET                7.1       9.1                                    701      1030       975      1030
X1   0.089       63     991.7    1010.0     133.5     147.0     133.5
GR     2016      685    2015.5     688.8      2015     692.5    2014.5     696.3      2014       700
GR     2013      705      2012       710    2011.8     713.5    2011.6       717    2011.4     720.5
GR   2011.2      724      2011     727.5    2010.8       731    2010.6     734.5    2010.4       738
GR   2010.2    741.5      2010       745    2009.7     748.3    2009.3     751.7      2009       755
GR   2008.7    758.3    2008.3     761.7      2008       765    2007.9     775.6    2007.8     786.1
GR   2007.7    789.6    2007.6     800.2    2007.5     810.7    2007.4     821.3    2007.3     831.8
GR   2007.3    835.4    2007.2     838.9    2007.1     849.4      2007       860    2007.1     870.3
GR   2007.2    880.7    2007.2     884.1    2007.3     887.6    2007.4     897.9    2007.5     908.3
GR   2007.6    918.6    2007.7       929    2007.7     932.4    2007.8     935.9    2007.9     946.2
GR     2008    956.5      2008     967.1      2008     977.9      2008       985    2007.3     988.3
GR   2006.7    991.7      2006       995    2005.8      1000      2006      1005      2008      1010
GR   2008.7   1013.3    2009.3    1016.7      2010      1020      2012      1025      2014      1030
GR   2014.7   1033.3    2015.3    1036.7      2016      1040
```

```
QT      2       570     570
ET              7.1     9.1                             666     1029    962     1029
X1      0.129   54      986.9   1005.0  200     190.1   210
GR      2020    620     2019    625     2018    630     2017.3  635     2016.7  640
GR      2016    645     2015.6  649     2015.2  653     2014.8  657     2014.4  661
GR      2014    665     2013.3  670     2012.7  675     2012    680     2011.8  692.9
GR      2011.7  705.8   2011.5  718.8   2011.3  731.7   2011.2  744.6   2011    757.5
GR      2010.8  770.4   2010.7  783.3   2010.5  796.3   2010.3  809.2   2010.2  822.1
GR      2010    835     2010    847.9   2010    860.7   2010    873.6   2010    886.4
GR      2010    899.3   2010    912.1   2010    925     2010    937.9   2010    950.7
GR      2010    965     2009.8  969.4   2009.6  973.8   2009.3  982.5   2009.1  986.9
GR      2008.9  991.3   2008.7  995.6   2008.5  1000    2009    1005    2009.5  1010
GR      2010    1015    2011.3  1019.4  2012.5  1023.8  2013.8  1028.1  2015    1032.5
GR      2016.3  1036.9  2017.5  1041.3  2018.8  1045.6  2020    1050

QT      2       496     496
NC      0.060   0.070   0.035   .1      .3
ET              9.1                                             984     1021
X1      0.203   15      990.    1010.0  400.    390.    390.1
GR      2030.0  615.0   2028.0  620.0   2026.0  635.0   2025.0  765.0   2025.0  875.0
GR      2026.0  935.0   2026.0  970.0   2024.0  980.0   2022.0  985.0   2020.0  990.0
GR      2019.0  1000.0  2020.0  1010.0  2022.0  1020.0  2026.0  1030.0  2030.0  1040.0

QT      2       457     457
                        9.1                                             973     1013
        WEST END OF THE WICKENBURG WASTEWATER TREATMENT PLANT.
X1      0.276   60      990.0   1005.0  700.0   400     384
GR      2040    680     2039.3  683.3   2038.7  686.7   2038    690     2037.9  701.1
GR      2037.8  712.3   2037.8  716     2037.7  719.7   2037.7  730.8   2037.6  741.9
GR      2037.4  753.1   2037.3  764.2   2037.3  775.3   2037.2  779     2037.1  790.2
GR      2037    801.3   2036.9  812.5   2036.9  823.8   2036.8  835     2036.8  838.8
GR      2036.7  842.5   2036.6  853.8   2036.6  865     2036.5  876.3   2036.4  887.5
GR      2036.3  898.8   2036.3  906.3   2036.2  910     2036.1  921.3   2036.1  932.5
GR      2036    940     2035.6  944     2035.2  948     2034.8  952     2034.4  956
GR      2034    960     2033.3  963.3   2032.7  966.7   2032    970     2030    975
GR      2029.5  978.8   2029    982.5   2028.5  986.3   2028    990     2028    1005
GR      2030    1010    2030.7  1013.3  2031.3  1016.7  2032    1020    2032.7  1023.3
GR      2033.3  1026.7  2034    1030    2034.8  1033.8  2035.5  1037.5  2036.3  1041.3
GR      2037    1045    2037.8  1048.8  2038.5  1052.5  2039.3  1056.3  2040    1060

QT      2       374     374
ET              7.1     9.1                             919     1026    919     1026
NC      0.070   0.070   0.045   .1      .3
X1      0.338   45      985.0   1005.   318     350     328
GR      2045    855     2044.7  860     2044.3  865     2044    870     2043    875
GR      2042    880     2041.3  885     2040.7  890     2040    895     2039.9  900
GR      2039.7  905     2039.4  915     2039.2  925     2038.9  935     2038.8  940
GR      2038.6  945     2038.3  955     2038.2  980     2038.2  985     2038.2  1000
GR      2038.4  1005    2038.7  1010    2038.9  1015    2039.1  1020    2039.3  1025
GR      2039.6  1030    2039.8  1035    2040    1040    2040.4  1045    2040.8  1050
GR      2041.2  1055    2041.6  1060    2042    1065    2042.3  1070    2042.6  1075
GR      2042.9  1080    2043.1  1085    2043.4  1090    2043.7  1095    2044    1100
GR      2044.4  1105    2044.8  1110    2045.2  1115    2045.6  1120    2046    1125
```

NC	0.070	0.070	0.045	.3	.5					
ET			9.1						904	1026
X1	0.384	49	989.1	1021.4	240	260	245			
GR	2060	870	2058.9	871.7	2057.8	873.3	2056.7	875	2055.6	876.7
GR	2054.4	878.3	2053.3	880	2052.2	881.7	2051.1	883.3	2050	885
GR	2049.8	886.8	2049.6	888.6	2049.4	890.5	2049.3	892.3	2049.1	894.1
GR	2048.9	895.9	2048.7	897.7	2048.6	899.5	2048.4	901.4	2048.2	903.2
GR	2048	905	2047.8	910.3	2047.6	919	2047.4	924.3	2047.2	933
GR	2047	940	2047	950.4	2047	960.9	2047	971.3	2047	981.8
GR	2047	989.1	2047	1000	2047.2	1005.4	2047.4	1008.9	2047.6	1014.3
GR	2047.8	1019.6	2047.9	1021.4	2048	1025	2048.2	1026.8	2048.4	1028.6
GR	2048.6	1030.4	2048.7	1032.3	2048.9	1034.1	2049.1	1035.9	2049.3	1037.7
GR	2049.4	1039.6	2049.6	1041.4	2049.8	1043.2	2050	1045		
ET			9.1						964	1016
X1	0.474	73	986.0	1006.0	365	455	486			
GR	2080	940	2079.3	941	2078.7	942	2078	943	2077.3	944
GR	2076.7	945	2076	946	2075.3	947	2074.7	948	2074	949
GR	2073.3	950	2072.7	951	2072	952	2071.3	953	2070.7	954
GR	2070	955	2069	956	2068	957	2067	958	2066	959
GR	2065	960	2064	961	2063	962	2062	963	2061	964
GR	2060	965	2059.8	968	2059.6	972	2059.4	975	2059.2	979
GR	2059	982	2058.8	986	2058.6	989	2058.4	993	2058.2	996
GR	2058	1000	2058.1	1001	2058.3	1002	2058.5	1004	2058.7	1005
	2058.8	1006	2058.9	1007	2059.1	1008	2059.3	1010	2059.5	1011
	2059.7	1013	2059.9	1014	2060	1015	2061	1016	2062	1017
GR	2063	1018	2064	1019	2065	1020	2066	1021	2067	1022
GR	2068	1023	2069	1024	2070	1025	2070.7	1026	2071.3	1027
GR	2072	1028	2072.7	1029	2073.3	1030	2074	1031	2074.7	1032
GR	2075.3	1033	2076	1034	2076.7	1035	2077.3	1036	2078	1037
GR	2078.7	1038	2079.3	1039	2080	1040				
QT	2	346	346							
NC	0.070	0.070	0.045	.1	.3					
ET			9.1						968	1069
X1	0.527	67	991.7	1020.5	247	258	267			
GR	2080	950	2078.3	951.7	2076.7	953.3	2075	955	2073.3	956.7
GR	2071.7	958.3	2070	960	2069.7	961.7	2069.3	963.3	2069	965
GR	2068.7	966.7	2068.3	968.3	2068	970	2067.9	971.7	2067.8	976.7
GR	2067.7	978.3	2067.6	983.3	2067.5	985	2067.4	986.7	2067.3	991.7
GR	2067.2	993.3	2067.1	998.3	2067	1000	2067	1001.7	2067.1	1003.4
GR	2067.2	1015.4	2067.3	1017.1	2067.3	1020.5	2067.4	1029.1	2067.5	1030.8
GR	2067.5	1034.2	2067.6	1035.9	2067.7	1047.9	2067.8	1049.6	2067.9	1061.6
GR	2068	1063.3	2068	1065	2068.2	1066.7	2068.3	1068.3	2068.5	1070
GR	2068.7	1071.7	2068.8	1073.3	2069	1075	2069.2	1076.7	2069.3	1078.3
GR	2069.5	1080	2069.7	1081.7	2069.8	1083.3	2070	1085	2070.2	1086.7
GR	2070.4	1088.3	2070.7	1090	2070.9	1091.7	2071.1	1093.3	2071.3	1095
GR	2071.6	1096.7	2071.8	1098.3	2072	1100	2072.7	1101.7	2073.3	1103.3
GR	2074	1105	2074.3	1106.7	2074.7	1108.3	2075	1110	2075.3	1111.7
GR	2075.7	1113.3	2076	1115						

QT	2	238	238							
ET			9.1						965	1022
X1	0.599	68	994.0	1016.2	435	218	371			
GR	2080	950	2079.8	951.3	2079.5	952.5	2079.3	953.8	2079	955
GR	2078.8	956.3	2078.5	957.5	2078.3	958.8	2078	960	2077.9	961.3
GR	2077.7	962.5	2077.6	963.8	2077.4	965	2077.3	966.3	2077.1	967.5
GR	2076.9	968.8	2076.7	972.4	2076.5	979.6	2076.3	988	2076.2	994
GR	2076	998.8	2076	1015	2076.2	1016.2	2076.5	1017.3	2076.7	1018.5
GR	2076.9	1019.7	2077.2	1020.9	2077.4	1022.1	2077.6	1023.2	2077.9	1024.4
GR	2078.1	1025.6	2078.4	1026.8	2078.6	1027.9	2078.8	1029.1	2079.1	1030.3
GR	2079.3	1031.5	2079.5	1032.7	2079.8	1033.8	2080	1035	2080.3	1036.2
GR	2080.7	1037.4	2081	1038.6	2081.4	1039.8	2081.7	1041	2082.1	1042.2
GR	2082.4	1043.4	2082.8	1044.7	2083.1	1045.9	2083.4	1047.1	2083.8	1048.3
GR	2084.1	1049.5	2084.5	1050.7	2084.8	1051.9	2085.2	1053.1	2085.5	1054.3
GR	2085.9	1055.5	2086.2	1056.7	2086.6	1057.9	2086.9	1059.1	2087.2	1060.3
GR	2087.6	1061.6	2087.9	1062.8	2088.3	1064	2088.6	1065.2	2089	1066.4
GR	2089.3	1067.6	2089.7	1068.8	2090	1070				
NC	0.070	0.070	0.040	.1	.3					
ET			9.1						984	1051
X1	0.658	59	990.6	1016.7	290	325	322			
GR	2100	960	2098.8	961.9	2097.5	963.8	2096.3	965.6	2095	967.5
GR	2093.8	969.4	2092.5	971.3	2091.3	973.1	2090	975	2089.6	977
GR	2089.2	979	2088.8	981	2088.4	983	2088	985	2087.8	986.9
[illegible]	2087.6	988.8	2087.4	990.6	2087.3	992.5	2087.1	994.4	2086.9	996.3
[illegible]	2086.7	998.1	2086.5	1000	2086.6	1001.8	2086.7	1007.4	2086.8	1009.3
GR	2086.9	1014.8	2087	1016.7	2087.1	1018.5	2087.2	1024.1	2087.3	1025.9
GR	2087.4	1031.5	2087.5	1033.3	2087.6	1035.2	2087.7	1040.7	2087.8	1042.6
GR	2087.9	1048.2	2088	1050	2088.3	1051.9	2088.5	1053.8	2088.8	1055.6
GR	2089	1057.5	2089.3	1059.4	2089.5	1061.3	2089.8	1063.1	2090	1065
GR	2090.7	1066.8	2091.4	1068.6	2092.1	1070.4	2092.9	1072.1	2093.6	1073.9
GR	2094.3	1075.7	2095	1077.5	2095.7	1079.3	2096.4	1081.1	2097.1	1082.9
GR	2097.9	1084.6	2098.6	1086.4	2099.3	1088.2	2100	1090		
ET			9.1						974	1011
X1	0.719	77	985.0	1006.0	180	320	320			
GR	2120	950	2119.3	951	2118.7	952	2118	953	2117.3	954
GR	2116.7	955	2116	956	2115.3	957	2114.7	958	2114	959
GR	2113.3	960	2112.7	961	2112	962	2111.3	963	2110.7	964
GR	2110	965	2109	966	2108	967	2107	968	2106	969
GR	2105	970	2104	971	2103	972	2102	973	2101	974
GR	2100	975	2099.7	980	2099.4	985	2099.1	990	2098.9	993
GR	2098.6	998	2098.9	1003	2099.1	1004	2099.4	1006	2099.6	1007
GR	2099.9	1009	2100	1010	2101	1011	2102	1012	2103	1013
GR	2104	1014	2105	1015	2106	1016	2107	1017	2108	1018
GR	2109	1019	2110	1020	2110.3	1021	2110.7	1022	2111	1023
GR	2111.3	1024	2111.7	1025	2112	1026	2112.3	1027	2112.7	1028
GR	2113	1029	2113.3	1030	2113.7	1031	2114	1032	2114.3	1033
GR	2114.7	1034	2115	1035	2115.3	1036	2115.7	1037	2116	1038
[illegible]	2116.3	1039	2116.7	1040	2117	1041	2117.3	1042	2117.7	1043
[illegible]	2118	1044	2118.3	1045	2118.7	1046	2119	1047	2119.3	1048
[illegible]	2119.7	1049	2120	1050						

ET			9.1						982	1021
X1	0.749	54	994.6	1006.7	142	162	160			
GR	2120	930	2119.2	932.7	2118.5	935.4	2117.7	938.1	2116.9	940.8
GR	2116.1	943.5	2115.4	946.2	2114.6	948.8	2113.9	951.5	2113.1	954.2
GR	2112.3	956.9	2111.5	959.6	2110.8	962.3	2110	965	2109.4	969
GR	2108.9	973.1	2108.3	977.1	2107.7	981.2	2107.1	985.2	2106.5	989.2
GR	2106	993.3	2105.8	994.6	2105.2	998.7	2105.7	1005.3	2105.8	1006.7
GR	2106.3	1010.7	2106.8	1014.7	2107.3	1018.7	2107.8	1022.7	2108.3	1026.7
GR	2108.8	1030.7	2109.3	1034.7	2109.8	1038.7	2110.4	1041.4	2110.9	1042.7
GR	2111.4	1044.1	2111.8	1045.4	2112.3	1046.8	2112.7	1048.2	2113.2	1049.6
GR	2113.6	1050.9	2114.1	1052.3	2114.6	1053.6	2115.4	1056.4	2115.9	1057.7
GR	2116.4	1059.1	2116.8	1060.4	2117.3	1061.8	2117.7	1063.2	2118.2	1064.6
GR	2118.6	1065.9	2119.1	1067.3	2119.6	1068.6	2120	1070		
ET			9.1						989	1026
X1	0.784	72	995.5	1009.8	167	169	167			
GR	2130	970	2129.1	970.9	2128.2	971.8	2127.3	972.7	2126.4	973.6
GR	2125.4	974.5	2124.6	975.5	2123.6	976.4	2122.7	977.3	2121.8	978.2
GR	2120.9	979.1	2120	980	2119.1	980.9	2118.2	981.8	2117.3	982.7
GR	2116.4	983.6	2115.4	984.5	2114.6	985.5	2113.6	986.4	2112.7	987.3
GR	2111.8	988.2	2110.9	989.1	2110	990	2109.6	991.8	2109.1	994.5
GR	2108.9	995.5	2108.4	998.2	2108	1000	2108.4	1004.5	2108.8	1009.8
GR	2109.2	1015.2	2109.6	1019.6	2110	1025	2110.4	1025.9	2110.9	1026.8
GR	2111.4	1027.7	2111.8	1028.6	2112.3	1029.6	2112.7	1030.4	2113.2	1031.4
	2113.6	1032.3	2114.1	1033.2	2114.6	1034.1	2115	1035	2115.4	1035.9
	2115.9	1036.8	2116.4	1037.7	2116.8	1038.6	2117.3	1039.6	2117.7	1040.4
GR	2118.2	1041.4	2118.6	1042.3	2119.1	1043.2	2119.6	1044.1	2120	1045
GR	2120.6	1045.9	2121.2	1046.8	2121.8	1047.7	2122.4	1048.5	2122.9	1049.4
GR	2123.5	1050.3	2124.1	1051.2	2124.7	1052.1	2125.3	1052.9	2125.9	1053.8
GR	2126.5	1054.7	2127.1	1055.6	2127.6	1056.5	2128.2	1057.3	2128.8	1058.2
GR	2129.4	1059.1	2130	1060						
QT	2	207	207							
ET			9.1						988	1012
X1	0.845	78	991.4	1008.6	294	339	338			
GR	2140	900	2139.7	901.5	2139.4	903	2139.1	904.4	2138.8	905.9
GR	2138.5	907.4	2138.2	908.9	2137.9	910.4	2137.6	911.8	2137.3	913.3
GR	2137	914.8	2136.7	916.3	2136.4	917.8	2136.1	919.3	2135.9	920.7
GR	2135.6	922.2	2135.3	923.7	2135	925.2	2134.7	926.7	2134.4	928.2
GR	2134.1	929.6	2133.8	931.1	2133.5	932.6	2133.2	934.1	2132.9	935.6
GR	2132.6	937	2132.3	938.5	2132	940	2131.7	945.9	2131.4	951.8
GR	2131.1	957.8	2130.9	962.2	2130.6	968.2	2130.4	971.1	2130.1	977
GR	2130	980	2128.6	981.4	2127.1	982.9	2125.7	984.3	2124.3	985.7
GR	2122.9	987.1	2121.4	988.6	2120	990	2119.9	991.4	2119.6	994.3
GR	2119.4	995.7	2119.1	998.6	2119.4	1004.3	2119.6	1005.7	2119.9	1008.6
GR	2120	1010	2121.4	1011.4	2122.9	1012.9	2124.3	1014.3	2125.7	1015.7
GR	2127.1	1017.1	2128.6	1018.6	2130	1020	2130.5	1021.5	2131	1023
GR	2131.5	1024.5	2132	1026	2132.5	1027.5	2133	1029	2133.5	1030.5
GR	2134	1032	2134.5	1033.5	2135	1035	2135.5	1036.5	2136	1038
	2136.5	1039.5	2137	1041	2137.5	1042.5	2138	1044	2138.5	1045.5
	2139	1047	2139.5	1048.5	2140	1050				

ET			9.1						994	1013
X1	0.934	66	995.8	1008.3	458	430	470			
GR	2170	960	2169.2	961.7	2168.3	963.3	2167.5	965	2166.7	966.7
GR	2165.8	968.3	2165	970	2164.2	971.7	2163.3	973.3	2162.5	975
GR	2161.7	976.7	2160.8	978.3	2160	980	2159.2	980.8	2158.3	981.7
GR	2157.5	982.5	2156.7	983.3	2155.8	984.2	2155	985	2154.2	985.8
GR	2153.3	986.7	2152.5	987.5	2151.7	988.3	2150.8	989.2	2150	990
GR	2148.3	990.8	2146.7	991.7	2145	992.5	2143.3	993.3	2141.7	994.2
GR	2140	995	2139.8	995.8	2139	998.3	2139.6	1007.5	2139.8	1008.3
GR	2140.4	1010.8	2141.3	1012.5	2142.1	1014.2	2142.9	1015.8	2143.8	1017.5
GR	2144.6	1019.2	2145.4	1020.8	2146.3	1022.5	2147.1	1024.2	2147.9	1025.8
GR	2148.8	1027.5	2149.6	1029.2	2150	1030	2150.6	1030.8	2151.1	1031.7
GR	2151.7	1032.5	2152.2	1033.3	2152.8	1034.2	2153.3	1035	2153.9	1035.8
GR	2154.4	1036.7	2155	1037.5	2155.6	1038.3	2156.1	1039.2	2156.7	1040
GR	2157.2	1040.8	2157.8	1041.7	2158.3	1042.5	2158.9	1043.3	2159.4	1044.2
GR	2160	1045								
QT	2	177	177							
NC	0.070	0.070	0.045	.1	.3					
ET			9.1						989	1016
X1	1.004	63	995.9	1006.0	365	372	369			
GR	2170	970	2169.7	970.6	2169.4	971.2	2169.1	971.8	2168.8	972.4
GR	2168.5	973	2168.2	973.6	2167.9	974.2	2167.6	974.8	2167.3	975.5
GR	2167	976.1	2166.7	976.7	2166.4	977.3	2166.1	977.9	2165.8	978.5
	2165.4	979.1	2165.1	979.7	2164.9	980.3	2164.6	980.9	2164.2	981.5
	2163.9	982.1	2163.6	982.7	2163.3	983.3	2163	983.9	2162.7	984.5
GR	2162.4	985.2	2162.1	985.8	2161.8	986.4	2161.5	987	2161.2	987.6
GR	2160.9	988.2	2160.6	988.8	2160.3	989.4	2160	990	2159.6	991.8
GR	2159.4	992.9	2159.1	994.7	2158.9	995.3	2158.8	995.9	2158.5	997.7
GR	2158.2	998.8	2158.5	1003.6	2158.8	1006	2159.1	1008.4	2159.4	1010.2
GR	2159.6	1012	2159.9	1014.4	2160.2	1015.6	2160.4	1016.2	2160.6	1016.8
GR	2161	1018	2161.4	1019.2	2161.6	1019.8	2162	1021	2162.4	1022.2
GR	2162.6	1022.8	2163	1024	2163.4	1025.2	2163.6	1025.8	2164	1027
GR	2164.4	1028.2	2164.6	1028.8	2165	1030				
QT	2	108	108							
ET			9.1						990	1015
	LIMITS OF DETAILED STUDY									
X1	1.102	61	996.2	1006.0	500	500	519			
GR	2210	960	2209.2	960.8	2208.5	961.5	2207.7	962.3	2206.9	963.1
GR	2206.1	963.8	2205.4	964.6	2204.6	965.4	2203.9	966.2	2203.1	966.9
GR	2202.3	967.7	2201.5	968.5	2200.8	969.2	2200	970	2199.2	970.8
GR	2198.5	971.5	2197.7	972.3	2196.9	973.1	2196.1	973.8	2195.4	974.6
GR	2194.6	975.4	2193.9	976.2	2193.1	976.9	2192.3	977.7	2191.5	978.5
GR	2190.8	979.2	2190	980	2189.2	980.8	2188.5	981.5	2187.7	982.3
GR	2186.9	983.1	2186.1	983.8	2185.4	984.6	2184.6	985.4	2183.9	986.2
GR	2183.1	986.9	2182.3	987.7	2181.5	988.5	2180.8	989.2	2180	990
GR	2179.4	993.1	2178.8	996.2	2178.1	999.2	2178.7	1005.3	2178.8	1006
GR	2179.4	1010.5	2180	1015	2180.7	1016.5	2181.5	1018	2182.2	1019.4
GR	2183	1020.9	2183.7	1022.4	2184.4	1023.9	2185.2	1025.4	2185.9	1026.8
	2186.7	1028.3	2187.4	1029.8	2188.1	1031.3	2188.9	1032.8	2189.6	1034.3
GR	2190	1035								

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV= .100 CEHV= .300
*SECNO 49.800

3265 DIVIDED FLOW

HASSAYAMPA RIVER FIS CROSS SECTION 49.80 (CBA 1988, NO DATUM CHANGE)
CONFLUENCE WITH WASH Q, A WEST TRIBUTARY
NON COINCIDENT WITH 100-YEAR DISCHARGE IN HASSAYAMPA

49.800	1.79	1993.29	1992.48	1994.00	1993.34	.06	.00	.00	1993.30
584.0	133.0	438.9	12.1	101.3	213.0	7.5	.0	.0	1991.50
.00	1.31	2.06	1.63	.045	.035	.045	.000	1991.50	1810.38
.002907	350.	500.	480.	0	18	6	.00	418.47*	2691.84

CCHV= .500 CEHV= .600
*SECNO .058

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 828.0 1081.0 TYPE= 1 TARGET= 253.000
THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION, UNLESS
OTHERWISE NOTED.
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.
FIRST CROSS SECTION OF WASH Q
DOWNSTREAM SECTION OF (2) 54 INCH CONCRETE PIPES WITH HEADWALL
EAST SIDE OF THE ATCHISON-TOPEKA & SANTA FE RAILROAD CROSSING

.058	4.22	2008.52	2008.52	.00	2009.27	.75	.48	.42	2004.30
584.0	81.0	438.6	64.4	132.0	54.8	84.9	2.1	2.5	2004.30
.01	.61	8.00	.76	.070	.015	.070	.000	2004.30	828.95
.000958	420.	306.	20.	0	24	0	.00	252.05	1081.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .500 CEHV= .600

SPECIAL CULVERT

SC	CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
	2	.015	.10	3.00	.00	4.50	.00	32.50	1	2	2004.40	2004.30

CHART 1 - CONCRETE PIPE CULVERT; NO BEVELED RING ENTRANCE
SCALE 2 - GROOVE END ENTRANCE WITH HEADWALL

5140, NORMAL DEPTH EXCEEDS CULVERT HEIGHT
*SECNO .064
5155, 20 TRIALS OF QWEIR NOT ENOUGH; POSSIBLY INVALID
FINAL QWEIR + QCULV = 648. DOES NOT EQUAL ACTUAL Q = 584.

SPECIAL CULVERT INLET CONTROL + WEIR FLOW, EG = 2013.69

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 14.22

SPECIAL CULVERT

EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN
2017.57	2010.24	4.42	193.	455.	.953	31.8	2013.60	351.

3470 ENCROACHMENT STATIONS= 730.0 1080.3 TYPE= 1 TARGET= 350.300
UPSTREAM SECTION OF (2) 54 INCH CONCRETE PIPES WITH HEADWALL
WEST SIDE OF THE ATCHISON-TOPEKA & SANTA FE RIALROAD CROSSING
FROM CROSS SECTION 0.066 TO 0.276 WASH Q FLOWS ALONG THE
SOUTH BOUNDARY OF THE WICKENBURG WASTEWATER TREATMENT PLANT.
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

.064	9.28	2013.68	.00	.00	2013.69	.00	4.42	.00	2004.40
584.0	416.7	115.0	52.2	1980.3	120.7	320.9	3.1	2.7	2004.40
.04	.21	.95	.16	.060	.015	.060	.000	2004.40	730.25
.000005	33.	33.	33.	0	0	0	.00	350.04	1080.30

CCHV= .100 CEHV= .300
*SECNO .089

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .48

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=      701.0    1030.0  TYPE=      1  TARGET=      329.000
      .089      7.88   2013.68   2008.17       .00   2013.69       .00       .00       .00   2006.70
     584.0     493.0      75.8      15.2    1584.8     135.5      63.8       9.6       3.8   2008.00
       .15       .31       .56       .24      .070      .045      .070      .000   2005.80    701.58
   .000021      134.      134.      147.         2        14         0       .00    327.63   1029.21


*SECNO  .129

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .46


3470 ENCROACHMENT STATIONS=      666.0    1029.0  TYPE=      1  TARGET=      363.000
      .129      5.19   2013.69   2010.69       .00   2013.69       .00       .01       .00   2009.10
     570.0     457.2      82.1      30.7     997.3      88.7      65.4      16.3       5.4   2009.00
       .25       .46       .93       .47      .070      .045      .070      .000   2008.50    667.23
   .000095      200.      210.      190.         0        14         0       .00    360.49   1027.73


HV=     .100 CEHV=     .300
*SECNO  .203

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      .203      3.14   2022.14   2022.14       .00   2023.19      1.06       .11       .32   2020.00
     496.0      15.5     452.9      27.6       5.7      52.7      11.4      21.9       7.2   2020.00
       .27      2.72      8.59      2.42      .060      .035      .070      .000   2019.00    984.66
   .011321      400.      390.      390.         0        14         0       .00     35.68   1020.34


*SECNO  .276
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
          WEST END OF THE WICKENBURG WASTEWATER TREATMENT PLANT.
      .276      2.55   2030.55   2030.55       .00   2031.52       .97      5.01       .01   2028.00
     457.0      92.5     340.2      24.3      23.6      38.3       8.5      22.7       7.6   2028.00
       .28      3.92      8.88      2.86      .060      .035      .070      .000   2028.00    973.62
   .012537      700.      384.      400.         0        15         0       .00     38.99   1012.61
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO .338

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 919.0 1026.0 TYPE= 1 TARGET= 107.000

.338	1.16	2039.36	2039.36	.00	2039.76	.41	6.06	.06	2038.20
374.0	197.5	150.9	25.6	51.9	22.6	9.4	23.2	8.1	2038.40
.30	3.80	6.67	2.73	.070	.045	.070	.000	2038.20	919.00
.034639	318.	328.	350.	0	14	0	.00	106.93	1025.93

CCHV= .300 CEHV= .500
*SECNO .384

.384	1.01	2048.01	2047.89	.00	2048.28	.27	8.48	.04	2047.00
374.0	257.7	116.1	.2	68.6	23.3	.2	23.7	8.8	2047.90
.32	3.76	4.99	.65	.070	.045	.070	.000	2047.00	904.86
.035311	240.	245.	260.	4	15	0	.00	120.29	1025.14

*SECNO .474
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.474	2.33	2060.33	2060.33	.00	2061.01	.67	11.44	.20	2058.80
374.0	62.5	285.4	26.1	20.0	38.9	8.5	24.5	9.6	2058.80
.34	3.13	7.34	3.09	.070	.045	.070	.000	2058.00	964.67
.020490	365.	486.	455.	0	20	0	.00	50.67	1015.33

CCHV= .100 CEHV= .300
*SECNO .527
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.527	1.35	2068.35	2068.35	.00	2068.75	.40	6.11	.03	2067.30
346.0	45.9	209.8	90.3	15.9	34.4	31.8	24.9	10.0	2067.30
.35	2.88	6.10	2.84	.070	.045	.070	.000	2067.00	968.09
.026993	247.	267.	258.	0	14	0	.00	100.65	1068.74

```
 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO  .599
     .599      1.32   2077.32   2077.27       .00   2077.73       .41      8.98       .00   2076.20
    238.0      62.5     168.3       7.2      21.9      28.8       2.9      25.5      10.6   2076.20
      .37      2.86      5.84      2.43      .070      .045      .070      .000   2076.00    965.98
  .022150      435.      371.      218.         3        11         0       .00     55.67   1021.65


CCHV=     .100 CEHV=     .300
*SECNO  .658
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     .658      1.57   2088.07   2088.07       .00   2088.52       .45      6.53       .01   2087.40
    238.0       3.5     190.7      43.9       2.1      32.3      19.1      25.9      11.1   2087.00
      .39      1.66      5.91      2.29      .070      .040      .070      .000   2086.50    984.63
  .019087      290.      322.      325.         0        11         0       .00     65.84   1050.47


*SECNO  .719
7185 MINIMUM SPECIFIC ENERGY
0 CRITICAL DEPTH ASSUMED
     .719      1.87   2100.47   2100.47       .00   2101.10       .62      5.91       .05   2099.40
    238.0      19.4     211.4       7.2       7.9      31.7       3.1      26.2      11.4   2099.40
      .40      2.47      6.67      2.35      .070      .040      .070      .000   2098.60    974.53
  .018673      180.      320.      320.         0        11         0       .00     35.95   1010.47


*SECNO  .749
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     .749      2.28   2107.48   2107.48       .00   2108.15       .67      2.74       .01   2105.80
    238.0      29.0     177.3      31.7      10.3      23.9      11.3      26.4      11.5   2105.80
      .41      2.82      7.41      2.81      .070      .040      .070      .000   2105.20    982.67
  .016121      142.      160.      162.         0        11         0       .00     37.47   1020.14


*SECNO  .784
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     .784      2.29   2110.29   2110.29       .00   2110.94       .65      2.71       .00   2108.90
    238.0      12.1     189.3      36.6       4.7      26.5      13.6      26.5      11.7   2108.80
      .42      2.54      7.13      2.69      .070      .040      .070      .000   2108.00    989.71
  .016338      167.      167.      169.         0         5         0       .00     35.94   1025.65
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .845
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.845	1.95	2121.05	2121.05	.00	2121.80	.75	6.01	.03	2119.90
207.0	5.8	195.4	5.8	2.1	27.4	2.1	26.8	11.9	2119.90
.43	2.76	7.13	2.76	.070	.040	.070	.000	2119.10	988.95
.019910	294.	338.	339.	0	15	0	.00	22.11	1011.05

*SECNO .934
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.934	2.32	2141.32	2141.32	.00	2142.19	.88	8.85	.04	2139.80
207.0	4.5	191.5	11.0	1.5	24.7	3.8	27.2	12.1	2139.80
.45	2.91	7.77	2.85	.070	.040	.070	.000	2139.00	994.38
.017979	458.	470.	430.	0	11	0	.00	18.16	1012.54

CCHV= .100 CEHV= .300
ECNO 1.004
85 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.004	2.12	2160.32	2160.32	.00	2160.97	.65	7.16	.02	2158.80
177.0	16.9	134.2	25.9	5.5	18.6	8.4	27.4	12.3	2158.80
.47	3.05	7.20	3.09	.070	.045	.070	.000	2158.20	989.36
.021286	365.	369.	372.	0	11	0	.00	26.60	1015.96

*SECNO 1.102
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
LIMITS OF DETAILED STUDY

1.102	1.80	2179.90	2179.90	.00	2180.42	.52	11.14	.01	2178.80
108.0	7.4	89.7	10.9	3.1	14.3	4.5	27.7	12.6	2178.80
.49	2.39	6.28	2.40	.070	.045	.070	.000	2178.10	990.52
.022189	500.	519.	500.	0	15	0	.00	23.71	1014.24

T1 FLOODWAY DETERMINATION
T2
T3 WASH Q:

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	3	0	0	0.00293	0	0	0	1994.0	0
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2	0	-1	0	0	0	-1	0	0	0

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV= .100 CEHV= .300
*SECNO 49.800

3265 DIVIDED FLOW

HASSAYAMPA RIVER FIS CROSS SECTION 49.80 (CBA 1988, NO DATUM CHANGE)
CONFLUENCE WITH WASH Q, A WEST TRIBUTARY
NON COINCIDENT WITH 100-YEAR DISCHARGE IN HASSAYAMPA

49.800	1.79	1993.29	1992.48	1994.00	1993.34	.06	.00	.00	1993.30
584.0	133.0	438.9	12.1	101.3	213.0	7.5	.0	.0	1991.50
.00	1.31	2.06	1.63	.045	.035	.045	.000	1991.50	1810.38
.002907	350.	500.	480.	0	18	6	.00	418.47*	2691.84

CCHV= .500 CEHV= .600
*SECNO .058

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 970.0 1081.0 TYPE= 1 TARGET= 111.000
THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION, UNLESS
OTHERWISE NOTED.
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.
FIRST CROSS SECTION OF WASH Q
DOWNSTREAM SECTION OF (2) 54 INCH CONCRETE PIPES WITH HEADWALL
EAST SIDE OF THE ATCHISON-TOPEKA & SANTA FE RAILROAD CROSSING

.058	4.14	2008.44	2008.44	2008.52	2009.53	1.09	.56	.62	2004.30
584.0	25.2	491.7	67.1	29.5	53.8	79.2	1.6	1.8	2004.30
.01	.86	9.13	.85	.070	.015	.070	.000	2004.30	970.00
.001278	420.	306.	20.	0	24	0	.00	111.00	1081.00

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .500 CEHV=     .600

SPECIAL CULVERT

SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    2         .015      .10       3.00      .00       4.50      .00       32.50     1         2         2004.40   2004.30

CHART  1 - CONCRETE PIPE CULVERT; NO BEVELED RING ENTRANCE
SCALE  2 - GROOVE END ENTRANCE WITH HEADWALL

5140, NORMAL DEPTH EXCEEDS CULVERT HEIGHT
*SECNO  .064
5155, 20 TRIALS OF QWEIR NOT ENOUGH; POSSIBLY INVALID
FINAL QWEIR + QCULV =       592. DOES NOT EQUAL ACTUAL Q =       584.


SPECIAL CULVERT INLET CONTROL + WEIR FLOW, EG =   2013.62

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  4.50

SPECIAL CULVERT

    EGIC      EGOC       H4      QWEIR     QCULV      VCH     ACULV     ELTRD    WEIRLN
  2017.57   2010.24     4.09      140.      452.     3.428      31.8   2013.60      333.



3470 ENCROACHMENT STATIONS=      970.0    1080.3  TYPE=      1  TARGET=      110.300

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      2013.60 ELREA=      2013.30

          UPSTREAM SECTION OF (2) 54 INCH CONCRETE PIPES WITH HEADWALL
          WEST SIDE OF THE ATCHISON-TOPEKA & SANTA FE RIALROAD CROSSING
          FROM CROSS SECTION 0.066 TO 0.276 WASH Q FLOWS ALONG THE
          SOUTH BOUNDARY OF THE WICKENBURG WASTEWATER TREATMENT PLANT.
          ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
          SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
          WSEL AND THE TOPOGRAPHY.
     .064      9.09   2013.49       .00   2013.68   2013.62       .13      4.09       .00   2004.40
    584.0        .0     405.1     178.9        .0     118.2     306.5       1.8       1.9   2004.40
      .01       .00      3.43       .58      .000      .015      .060      .000   2004.40    993.50
  .000063       33.       33.       33.         5         0         0       .00     86.80   1080.30


CCHV=     .100 CEHV=     .300
*SECNO  .089
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .35


3470 ENCROACHMENT STATIONS=      975.0    1030.0  TYPE=      1  TARGET=      55.000
      .089      7.76   2013.56   2009.22   2013.68   2013.64       .09       .02       .00   2006.70
     584.0     140.1     371.2      72.7      97.3     133.1      61.3       3.0       2.1   2008.00
       .03      1.44      2.79      1.18      .070      .045      .070      .000   2005.80    975.00
   .000523      134.      134.      147.         2        22         0       .00     53.89   1028.89


*SECNO  .129

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .66


3470 ENCROACHMENT STATIONS=      962.0    1029.0  TYPE=      1  TARGET=      67.000
      .129      5.20   2013.70   2011.04   2013.69   2013.80       .10       .15       .00   2009.10
     570.0     179.0     284.4     106.6     102.1      88.9      65.6       4.2       2.4   2009.00
       .05      1.75      3.20      1.62      .070      .045      .070      .000   2008.50    962.00
   .001129      200.      210.      190.         2        17         0       .00     65.75   1027.75


CCHV=     .100 CEHV=     .300
*SECNO  .203

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      984.0    1021.0  TYPE=      1  TARGET=      37.000
      .203      3.13   2022.13   2022.13   2022.14   2023.19      1.06       .95       .29   2020.00
     496.0      15.5     453.0      27.5       5.7      52.7      11.4       5.7       2.9   2020.00
       .07      2.72      8.60      2.42      .060      .035      .070      .000   2019.00    984.67
   .011362      400.      390.      390.         0        14         0       .00     35.67   1020.33


*SECNO  .276
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      973.0    1013.0  TYPE=      1  TARGET=      40.000
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        WEST END OF THE WICKENBURG WASTEWATER TREATMENT PLANT.
     .276      2.56   2030.56   2030.56   2030.55   2031.52      .96      5.00      .01   2028.00
    457.0      92.7     340.0      24.3      23.7      38.4      8.5       6.4      3.3   2028.00
      .08      3.91      8.86      2.85      .060      .035     .070      .000  2028.00    973.60
  .012447      700.      384.      400.         0        15        0       .00    39.03   1012.63


CCHV=     .100 CEHV=     .300
*SECNO  .338

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      919.0    1026.0  TYPE=      1  TARGET=      107.000
     .338      1.16   2039.36   2039.36   2039.36   2039.76      .41      6.04      .06   2038.20
    374.0     197.5     150.9      25.6      51.9      22.6      9.4       7.0      3.8   2038.40
      .10      3.81      6.68      2.73      .070      .045     .070      .000  2038.20    919.00
  .034729      318.      328.      350.         0        14        0       .00   106.92   1025.92


CCHV=     .300 CEHV=     .500
*SECNO  .384

70 ENCROACHMENT STATIONS=      904.0    1026.0  TYPE=      1  TARGET=      122.000
     .384      1.01   2048.01   2047.90   2048.01   2048.28      .27      8.48      .04   2047.00
    374.0     257.7     116.1        .2      68.7      23.3       .2       7.5      4.5   2047.90
      .12      3.75      4.98       .65      .070      .045     .070      .000  2047.00    904.85
  .035242      240.      245.      260.         4        15        0       .00   120.29   1025.15


*SECNO  .474
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      964.0    1016.0  TYPE=      1  TARGET=       52.000
     .474      2.34   2060.34   2060.34   2060.33   2061.01      .67     11.31      .20   2058.80
    374.0      62.8     284.9      26.2      20.1      39.0      8.5       8.3      5.3   2058.80
      .14      3.12      7.30      3.07      .070      .045     .070      .000  2058.00    964.66
  .020140      365.      486.      455.         0        17        0       .00    50.68   1015.34


CCHV=     .100 CEHV=     .300
*SECNO  .527
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      968.0    1069.0  TYPE=      1  TARGET=      101.000
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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

   .527      1.35   2068.35   2068.35   2068.35   2068.75       .40      6.06       .03   2067.30
  346.0      45.9     209.8      90.3      15.9      34.4      31.7       8.7       5.7   2067.30
    .15      2.88      6.11      2.85      .070      .045      .070      .000   2067.00    968.09
 .027039     247.      267.      258.         0        14         0       .00    100.64   1068.74


*SECNO  .599

3470 ENCROACHMENT STATIONS=      965.0    1022.0  TYPE=      1  TARGET=      57.000
   .599      1.32   2077.32   2077.27   2077.32   2077.73       .41      8.98       .00   2076.20
  238.0      62.6     168.3       7.2      21.9      28.8       3.0       9.3       6.3   2076.20
    .17      2.86      5.84      2.43      .070      .045      .070      .000   2076.00    965.97
 .022101     435.      371.      218.         3        11         0       .00     55.68   1021.65


CCHV=     .100 CEHV=     .300
*SECNO  .658
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

[illegible]0 ENCROACHMENT STATIONS=      984.0    1051.0  TYPE=      1  TARGET=      67.000
   .658      1.58   2088.08   2088.08   2088.07   2088.52       .45      6.50       .01   2087.40
  238.0       3.5     190.6      43.9       2.1      32.3      19.2       9.6       6.8   2087.00
    .19      1.66      5.89      2.29      .070      .040      .070      .000   2086.50    984.62
 .018969     290.      322.      325.         0        11         0       .00     65.87   1050.48


*SECNO  .719
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      974.0    1011.0  TYPE=      1  TARGET=      37.000
   .719      1.87   2100.47   2100.47   2100.47   2101.10       .62      5.89       .05   2099.40
  238.0      19.4     211.4       7.2       7.9      31.7       3.1      10.0       7.1   2099.40
    .20      2.47      6.66      2.35      .070      .040      .070      .000   2098.60    974.53
 .018662     180.      320.      320.         0        11         0       .00     35.95   1010.47


*SECNO  .749
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      982.0    1021.0  TYPE=      1  TARGET=      39.000
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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

   .749      2.28   2107.48   2107.48   2107.48   2108.15       .66      2.73       .01   2105.80
 238.0       29.1     177.2      31.7      10.3      24.0      11.3      10.1       7.2   2105.80
   .21       2.81      7.39      2.80      .070      .040      .070      .000   2105.20    982.65
.016016      142.      160.      162.         0        11         0       .00     37.52   1020.16


*SECNO  .784
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      989.0    1026.0  TYPE=      1  TARGET=      37.000
   .784      2.29   2110.29   2110.29   2110.29   2110.94       .65      2.71       .00   2108.90
 238.0       12.1     189.4      36.5       4.7      26.5      13.6      10.3       7.4   2108.80
   .22       2.55      7.14      2.69      .070      .040      .070      .000   2108.00    989.71
.016423      167.      167.      169.         0         5         0       .00     35.93   1025.65


*SECNO  .845
7185 MINIMUM SPECIFIC ENERGY
[illegible]0 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      988.0    1012.0  TYPE=      1  TARGET=      24.000
   .845      1.96   2121.06   2121.06   2121.05   2121.80       .75      5.99       .03   2119.90
 207.0        5.8     195.4       5.8       2.1      27.5       2.1      10.6       7.6   2119.90
   .23       2.75      7.10      2.75      .070      .040      .070      .000   2119.10    988.94
.019649      294.      338.      339.         0        11         0       .00     22.12   1011.06


*SECNO  .934
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      994.0    1013.0  TYPE=      1  TARGET=      19.000
   .934      2.32   2141.32   2141.32   2141.32   2142.19       .88      8.81       .04   2139.80
 207.0        4.5     191.5      11.0       1.5      24.6       3.8      10.9       7.8   2139.80
   .25       2.91      7.77      2.86      .070      .040      .070      .000   2139.00    994.38
.018035      458.      470.      430.         0        11         0       .00     18.16   1012.54


CCHV=     .100 CEHV=     .300
*SECNO 1.004
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 989.0 1016.0 TYPE= 1 TARGET= 27.000

1.004	2.12	2160.32	2160.32	2160.32	2160.97	.64	7.16	.02	2158.80
177.0	16.9	134.1	26.0	5.5	18.6	8.4	11.2	8.0	2158.80
.27	3.04	7.19	3.09	.070	.045	.070	.000	2158.20	989.36
.021218	365.	369.	372.	0	11	0	.00	26.60	1015.96

*SECNO 1.102
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 990.0 1015.0 TYPE= 1 TARGET= 25.000
LIMITS OF DETAILED STUDY

1.102	1.81	2179.91	2179.91	2179.90	2180.42	.51	10.96	.01	2178.80
108.0	7.6	89.4	11.0	3.2	14.4	4.6	11.5	8.3*	2178.80
.29	2.36	6.20	2.38	.070	.045	.070	.000	2178.10	990.45
.021367	500.	519.	500.	0	12	0	.00	23.89	1014.34

THIS RUN EXECUTED 21AUG92 09:09:50

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WASH Q:

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	49.800	.00	.00	.00	1991.50	584.00	1993.29	1992.48	1993.34	29.07	2.06	321.78	108.31
	49.800	.00	.00	.00	1991.50	584.00	1993.29	1992.48	1993.34	29.07	2.06	321.78	108.31
*	.058	306.00	.00	.00	2004.30	584.00	2008.52	2008.52	2009.27	9.58	8.00	271.63	188.71
*	.058	306.00	.00	.00	2004.30	584.00	2008.44	2008.44	2009.53	12.78	9.13	162.57	163.38
	.064	32.50	2013.60	2008.90	2004.40	584.00	2013.68	.00	2013.69	.05	.95	2421.90	2682.85
*	.064	32.50	2013.60	2008.90	2004.40	584.00	2013.49	.00	2013.62	.63	3.43	424.73	735.25
*	.089	133.50	.00	.00	2005.80	584.00	2013.68	2008.17	2013.69	.21	.56	1784.07	1287.30
*	.089	133.50	.00	.00	2005.80	584.00	2013.56	2009.22	2013.64	5.23	2.79	291.77	255.27
*	.129	210.00	.00	.00	2008.50	570.00	2013.69	2010.69	2013.69	.95	.93	1151.42	586.19
*	.129	210.00	.00	.00	2008.50	570.00	2013.70	2011.04	2013.80	11.29	3.20	256.55	169.63
*	.203	390.10	.00	.00	2019.00	496.00	2022.14	2022.14	2023.19	113.21	8.59	69.80	46.62
*	.203	390.10	.00	.00	2019.00	496.00	2022.13	2022.13	2023.19	113.62	8.60	69.71	46.53
*	.276	384.00	.00	.00	2028.00	457.00	2030.55	2030.55	2031.52	125.37	8.88	70.43	40.82
*	.276	384.00	.00	.00	2028.00	457.00	2030.56	2030.56	2031.52	124.47	8.86	70.61	40.96
*	.338	328.00	.00	.00	2038.20	374.00	2039.36	2039.36	2039.76	346.39	6.67	83.94	20.09
*	.338	328.00	.00	.00	2038.20	374.00	2039.36	2039.36	2039.76	347.29	6.68	83.86	20.07
	.384	245.00	.00	.00	2047.00	374.00	2048.01	2047.89	2048.28	353.11	4.99	92.14	19.90
	.384	245.00	.00	.00	2047.00	374.00	2048.01	2047.90	2048.28	352.42	4.98	92.20	19.92
*	.474	486.00	.00	.00	2058.00	374.00	2060.33	2060.33	2061.01	204.90	7.34	67.29	26.13
*	.474	486.00	.00	.00	2058.00	374.00	2060.34	2060.34	2061.01	201.40	7.30	67.71	26.35
	.527	267.00	.00	.00	2067.00	346.00	2068.35	2068.35	2068.75	269.93	6.10	82.07	21.06
	.527	267.00	.00	.00	2067.00	346.00	2068.35	2068.35	2068.75	270.39	6.11	82.02	21.04

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	.599	371.00	.00	.00	2076.00	238.00	2077.32	2077.27	2077.73	221.50	5.84	53.64	15.99
	.599	371.00	.00	.00	2076.00	238.00	2077.32	2077.27	2077.73	221.01	5.84	53.68	16.01
*	.658	322.00	.00	.00	2086.50	238.00	2088.07	2088.07	2088.52	190.87	5.91	53.51	17.23
*	.658	322.00	.00	.00	2086.50	238.00	2088.08	2088.08	2088.52	189.69	5.89	53.64	17.28
*	.719	320.00	.00	.00	2098.60	238.00	2100.47	2100.47	2101.10	186.73	6.67	42.63	17.42
*	.719	320.00	.00	.00	2098.60	238.00	2100.47	2100.47	2101.10	186.62	6.66	42.64	17.42
*	.749	160.00	.00	.00	2105.20	238.00	2107.48	2107.48	2108.15	161.21	7.41	45.52	18.74
*	.749	160.00	.00	.00	2105.20	238.00	2107.48	2107.48	2108.15	160.16	7.39	45.64	18.81
*	.784	167.00	.00	.00	2108.00	238.00	2110.29	2110.29	2110.94	163.38	7.13	44.91	18.62
*	.784	167.00	.00	.00	2108.00	238.00	2110.29	2110.29	2110.94	164.23	7.14	44.82	18.57
*	.845	338.00	.00	.00	2119.10	207.00	2121.05	2121.05	2121.80	199.10	7.13	31.61	14.67
*	.845	338.00	.00	.00	2119.10	207.00	2121.06	2121.06	2121.80	196.49	7.10	31.74	14.77
*	.934	470.00	.00	.00	2139.00	207.00	2141.32	2141.32	2142.19	179.79	7.77	30.05	15.44
*	.934	470.00	.00	.00	2139.00	207.00	2141.32	2141.32	2142.19	180.35	7.77	30.02	15.41
*	1.004	369.00	.00	.00	2158.20	177.00	2160.32	2160.32	2160.97	212.86	7.20	32.56	12.13
*	1.004	369.00	.00	.00	2158.20	177.00	2160.32	2160.32	2160.97	212.18	7.19	32.60	12.15
	1.102	519.00	.00	.00	2178.10	108.00	2179.90	2179.90	2180.42	221.89	6.28	21.93	7.25
*	1.102	519.00	.00	.00	2178.10	108.00	2179.91	2179.91	2180.42	213.67	6.20	22.26	7.39

H Q:

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	49.800	584.00	1993.29	.00	.00	-.71	418.47	.00
	49.800	584.00	1993.29	.00	.00	-.71	418.47	.00
*	.058	584.00	2008.52	.00	15.23	.00	252.05	306.00
*	.058	584.00	2008.44	-.08	15.15	-.08	111.00	306.00
*	.064	584.00	2013.68	.00	5.17	.00	350.04	32.50
*	.064	584.00	2013.49	-.19	5.05	-.19	86.80	32.50
*	.089	584.00	2013.68	.00	.00	.00	327.63	133.50
*	.089	584.00	2013.56	-.13	.06	-.13	53.89	133.50
*	.129	570.00	2013.69	.00	.01	.00	360.49	210.00
*	.129	570.00	2013.70	.01	.14	.01	65.75	210.00
*	.203	496.00	2022.14	.00	8.45	.00	35.68	390.10
*	.203	496.00	2022.13	.00	8.44	.00	35.67	390.10
	.276	457.00	2030.55	.00	8.42	.00	38.99	384.00
	.276	457.00	2030.56	.00	8.42	.00	39.03	384.00
*	.338	374.00	2039.36	.00	8.80	.00	106.93	328.00
*	.338	374.00	2039.36	.00	8.80	.00	106.92	328.00
	.384	374.00	2048.01	.00	8.65	.00	120.29	245.00
	.384	374.00	2048.01	.00	8.66	.00	120.29	245.00
*	.474	374.00	2060.33	.00	12.32	.00	50.67	486.00
*	.474	374.00	2060.34	.01	12.33	.01	50.68	486.00
*	.527	346.00	2068.35	.00	8.02	.00	100.65	267.00
*	.527	346.00	2068.35	.00	8.01	.00	100.64	267.00
	.599	238.00	2077.32	.00	8.97	.00	55.67	371.00
	.599	238.00	2077.32	.00	8.97	.00	55.68	371.00
*	.658	238.00	2088.07	.00	10.75	.00	65.84	322.00
*	.658	238.00	2088.08	.00	10.75	.00	65.87	322.00
*	.719	238.00	2100.47	.00	12.40	.00	35.95	320.00
*	.719	238.00	2100.47	.00	12.40	.00	35.95	320.00
*	.749	238.00	2107.48	.00	7.01	.00	37.47	160.00
*	.749	238.00	2107.48	.00	7.01	.00	37.52	160.00
*	.784	238.00	2110.29	.00	2.81	.00	35.94	167.00
*	.784	238.00	2110.29	.00	2.80	.00	35.93	167.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	.845	207.00	2121.05	.00	10.76	.00	22.11	338.00
*	.845	207.00	2121.06	.01	10.77	.01	22.12	338.00
*	.934	207.00	2141.32	.00	20.27	.00	18.16	470.00
*	.934	207.00	2141.32	.00	20.26	.00	18.16	470.00
*	1.004	177.00	2160.32	.00	19.00	.00	26.60	369.00
*	1.004	177.00	2160.32	.00	19.00	.00	26.60	369.00
*	1.102	108.00	2179.90	.00	19.58	.00	23.71	519.00
*	1.102	108.00	2179.91	.01	19.59	.01	23.89	519.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=      .058  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .058  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .058  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .058  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      .064  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .064  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .089  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .089  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .129  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .129  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .203  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .203  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .203  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .203  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .276  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .276  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .276  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .276  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .338  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .338  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .338  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .338  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .474  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .474  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .474  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .474  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .527  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .527  PROFILE=  1  MINIMUM SPECIFIC ENERGY
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CAUTION SECNO=      .527  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .658  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .658  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .658  PROFILE=  2  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=      .719  PROFILE=  1  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=      .749  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .749  PROFILE=  1  MINIMUM SPECIFIC ENERGY
```

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TION SECNO=      .749  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=   .749  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=   .784  PROFILE=  1  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=  1.102  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=  1.102  PROFILE=  1  MINIMUM SPECIFIC ENERGY
TION SECNO=     1.102  PROFILE=  2  CRITICAL DEPTH ASSUMED
TION SECNO=     1.102  PROFILE=  2  MINIMUM SPECIFIC ENERGY
```

FLOODWAY DATA, WASH Q:
PROFILE NO. 2

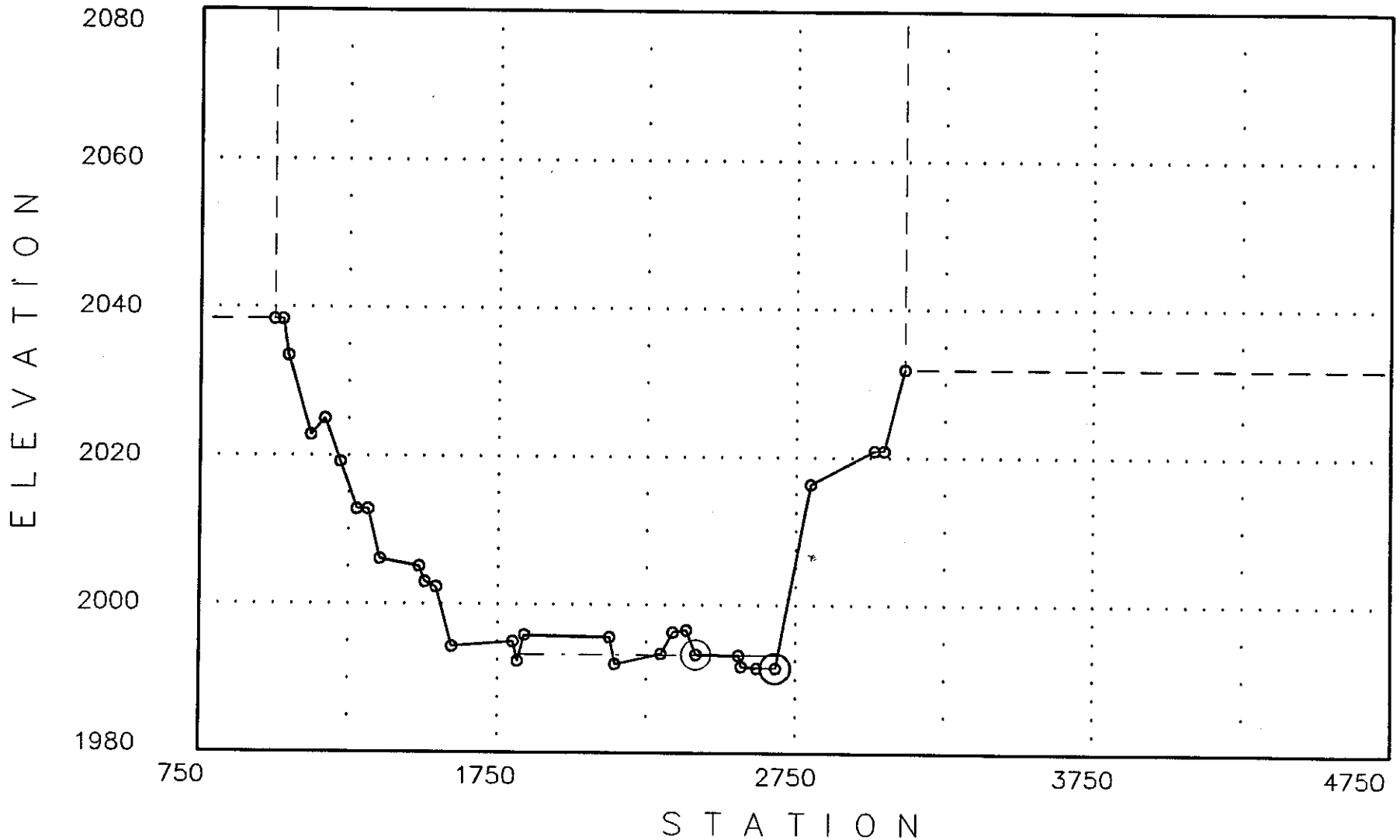
STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
49.800	881.	322.	1.8	1993.3	1993.3	.0
.058	111.	163.	3.6	2008.4	2008.5	-.1
.064	87.	425.	1.4	2013.5	2013.7	-.2
.089	54.	292.	2.0	2013.6	2013.7	-.1
.129	66.	257.	2.2	2013.7	2013.7	.0
.203	36.	70.	7.1	2022.1	2022.1	.0
.276	39.	71.	6.5	2030.6	2030.6	.0
.338	107.	84.	4.5	2039.4	2039.4	.0
.384	120.	92.	4.1	2048.0	2048.0	.0
.474	51.	68.	5.5	2060.3	2060.3	.0
.527	101.	82.	4.2	2068.4	2068.4	.0
.599	56.	54.	4.4	2077.3	2077.3	.0
.658	66.	54.	4.4	2088.1	2088.1	.0
.719	36.	43.	5.6	2100.5	2100.5	.0
.749	38.	46.	5.2	2107.5	2107.5	.0
.784	36.	45.	5.3	2110.3	2110.3	.0
.845	22.	32.	6.5	2121.1	2121.1	.0
.934	18.	30.	6.9	2141.3	2141.3	.0
1.004	27.	33.	5.4	2160.3	2160.3	.0
1.102	24.	22.	4.9	2179.9	2179.9	.0

<<<<<< Cross Section: 49.8: (FN = WASHQ.O) >>>>>>

Q1= 584 WS1= 1993.29

Q2= 584 WS2= 1993.29

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

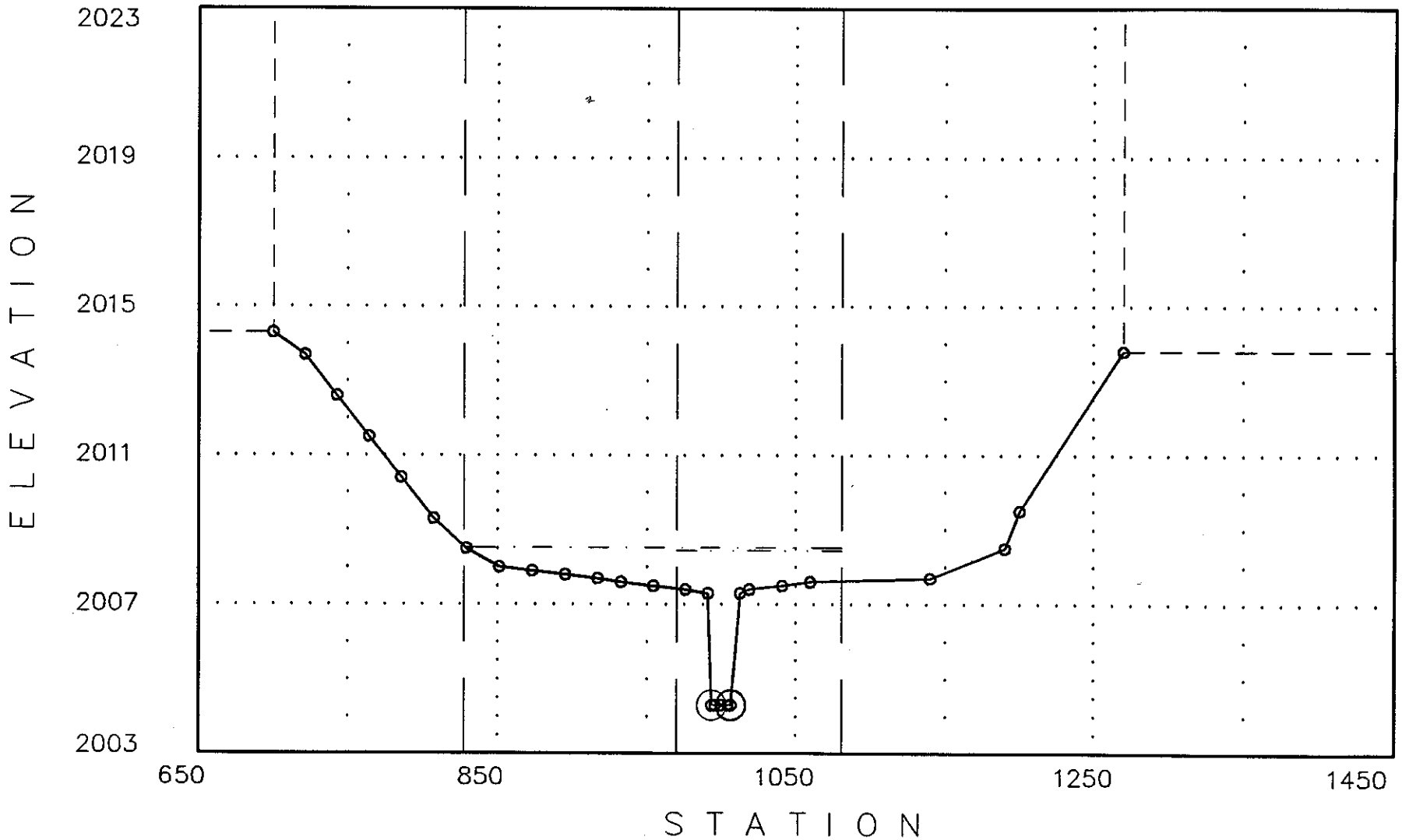


08-21-1992

<<<<<< Cross Section: .058: (FN = WASHQ.O) >>>>>>

Q1= 584 WS1= 2008.52
Q2= 584 WS2= 2008.44

Manning-n's: n-lob = .07 n-ch = .015 n-rob = .07



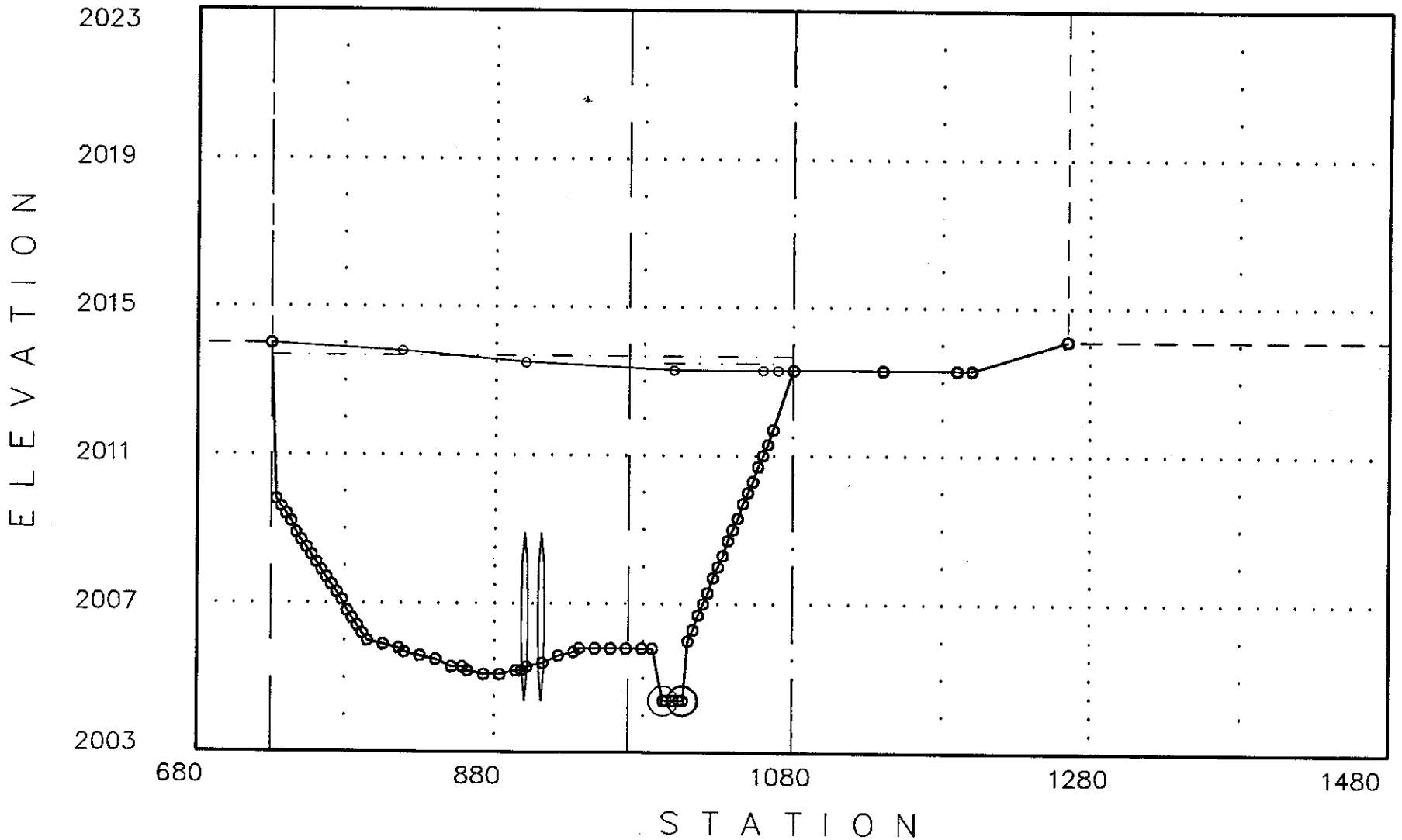
08-21-1992

<<<<<< Cross Section: .064: (FN = WASHQ.0) >>>>>>

Q1= 584 WS1= 2013.68

Q2= 584 WS2= 2013.49

Manning-n's: n-lob = .06 n-ch = .015 n-rob = .06

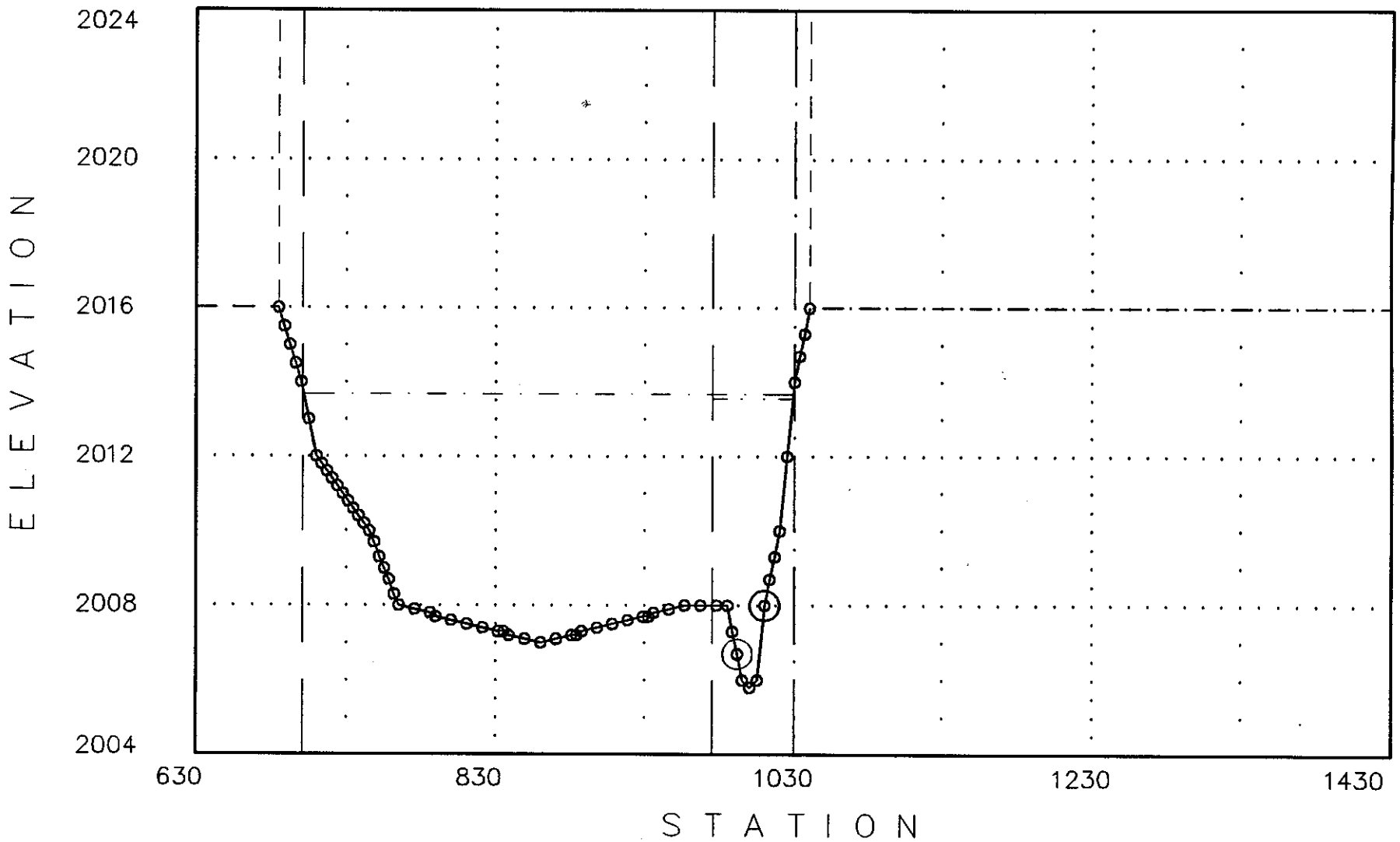


08-21-1992

<<<<<< Cross Section: .089: (FN = WASHQ.0) >>>>>>

Q1= 584 WS1= 2013.68
Q2= 584 WS2= 2013.56

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

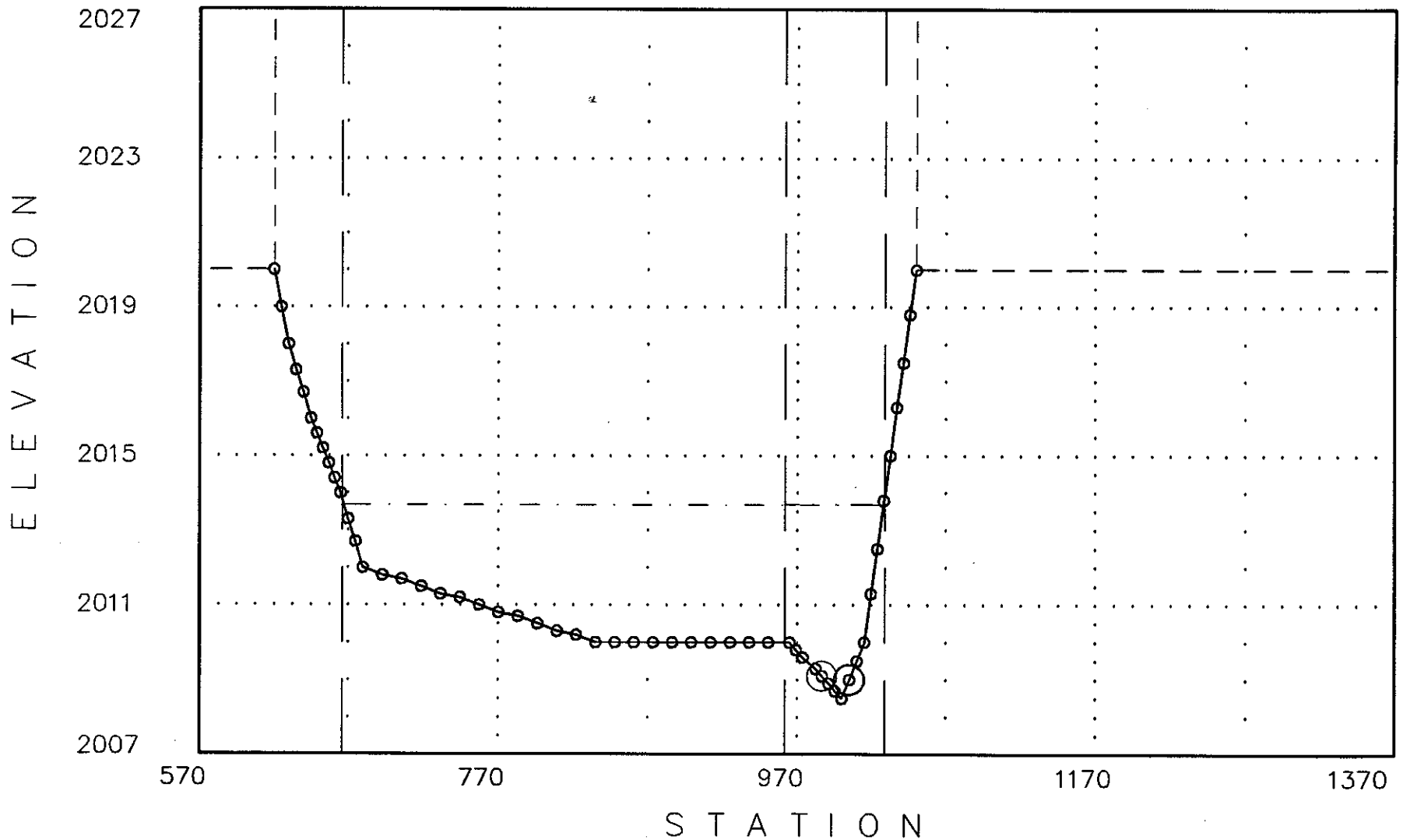


08-21-1992

<<<<<< Cross Section: .129: (FN = WASHQ.0) >>>>>>

Q1= 570 WS1= 2013.69
Q2= 570 WS2= 2013.7

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

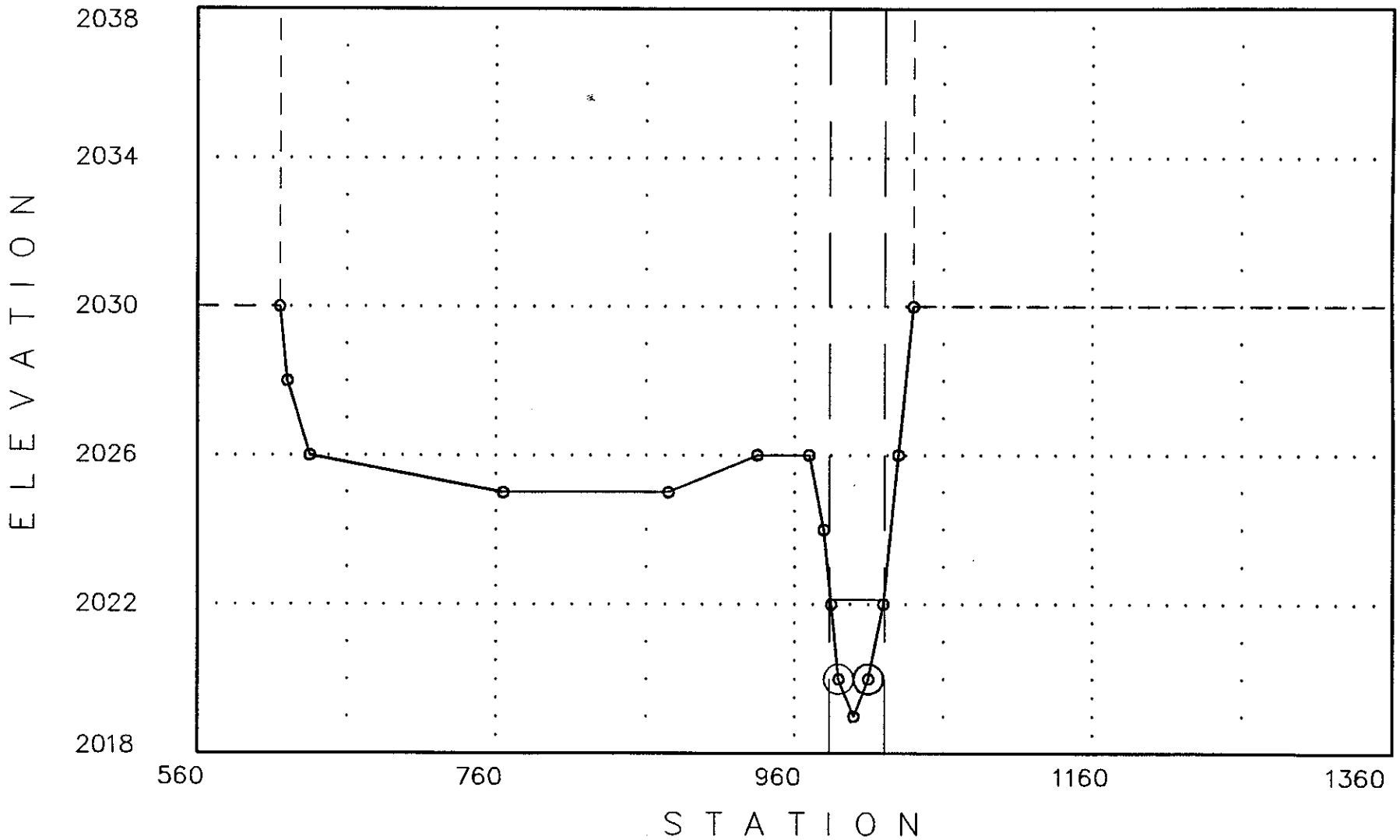


08-21-1992

<<<<<< Cross Section: .203: (FN = WASHQ.0) >>>>>>

Q1= 496 WS1= 2022.14
Q2= 496 WS2= 2022.13

Manning-n's: n-lob = .06 n-ch = .035 n-rob = .07

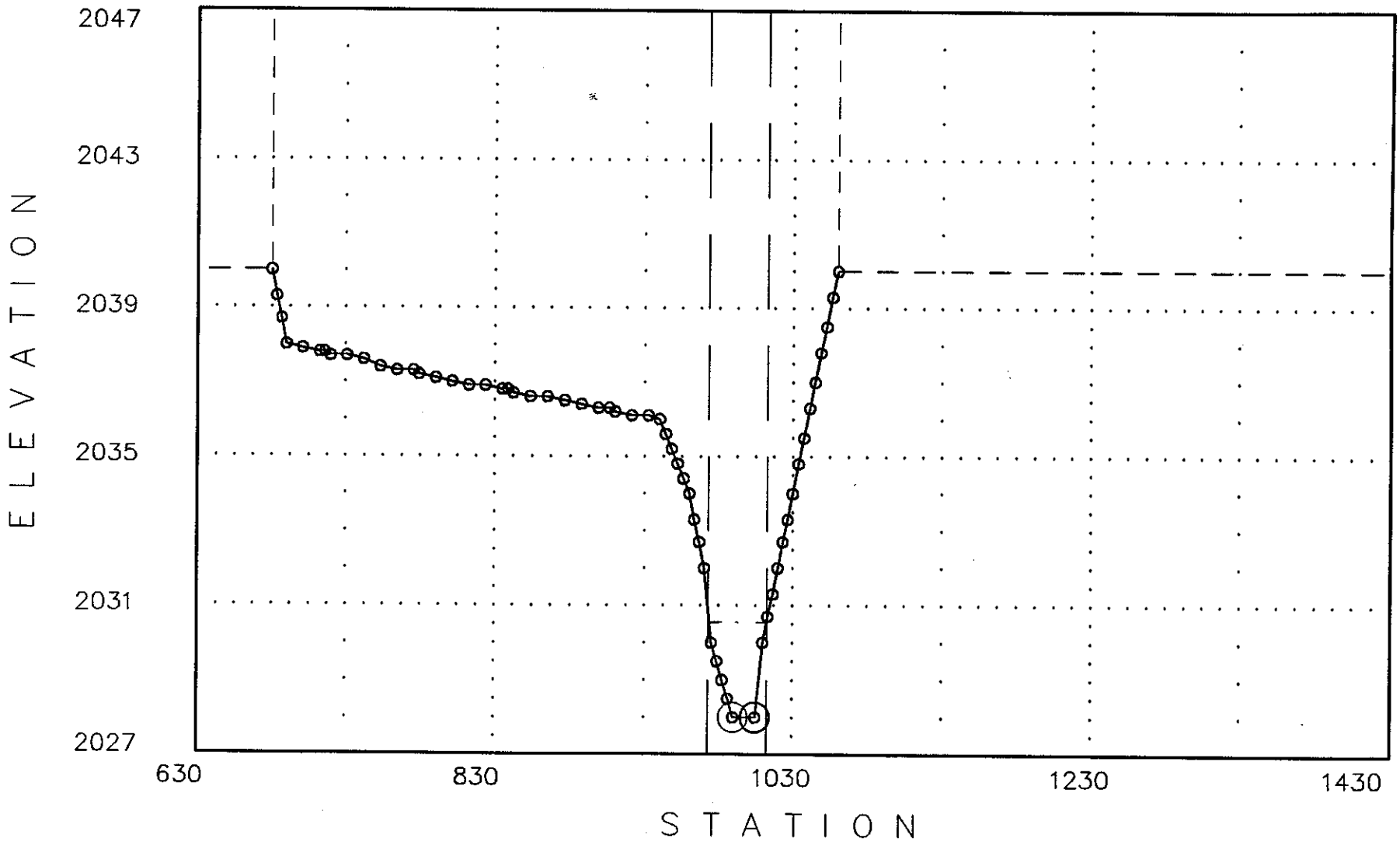


08-21-1992

<<<<<< Cross Section: .276: (FN = WASHQ.0) >>>>>>

Q1= 457 WS1= 2030.55
Q2= 457 WS2= 2030.56

Manning-n's: n-lob = .06 n-ch = .035 n-rob = .07

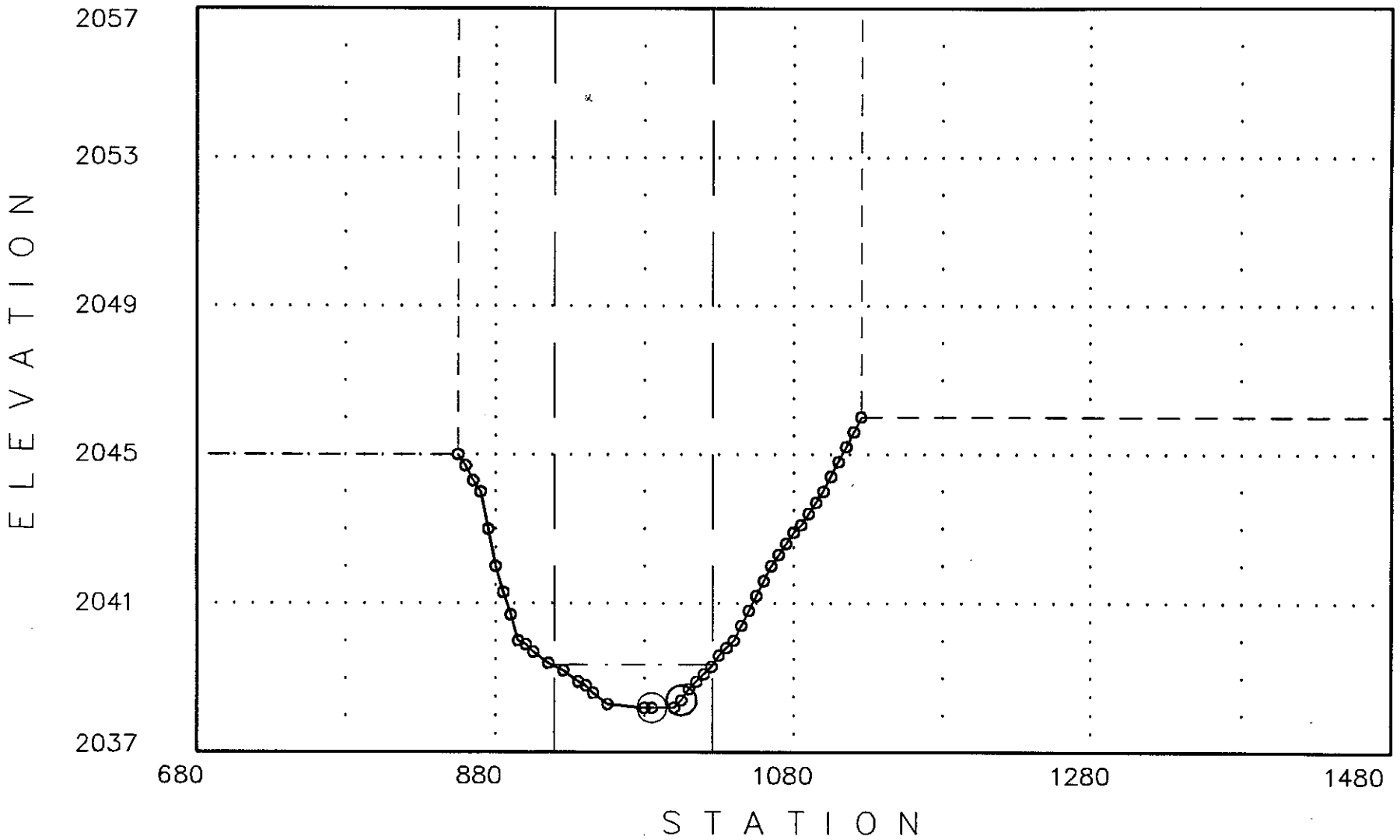


08-21-1992

<<<<<< Cross Section: .338: (FN = WASHQ.0) >>>>>>

Q1= 374 WS1= 2039.36
Q2= 374 WS2= 2039.36

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

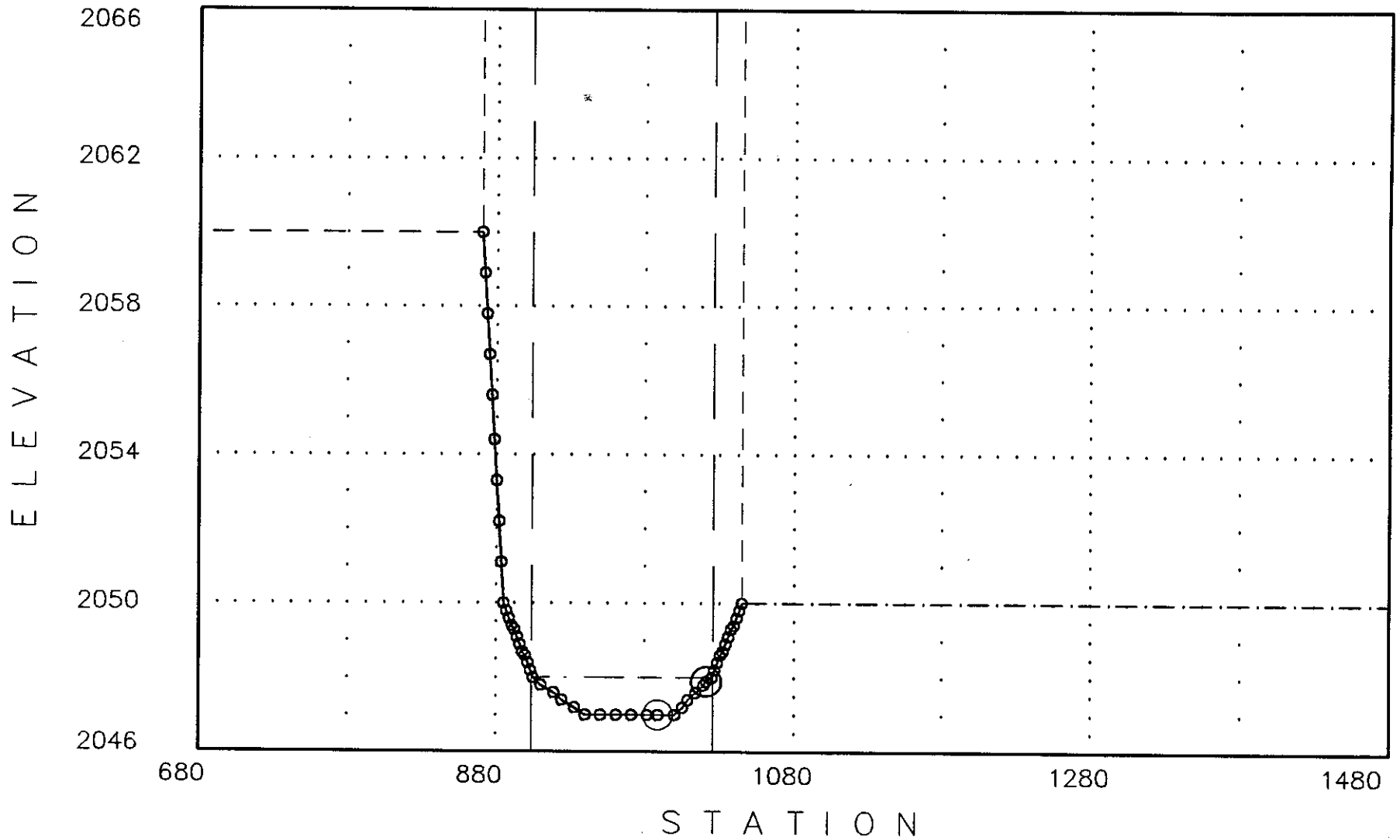


08-21-1992

<<<<<< Cross Section: .384: (FN = WASHQ.0) >>>>>>

Q1= 374 WS1= 2048.01
Q2= 374 WS2= 2048.01

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

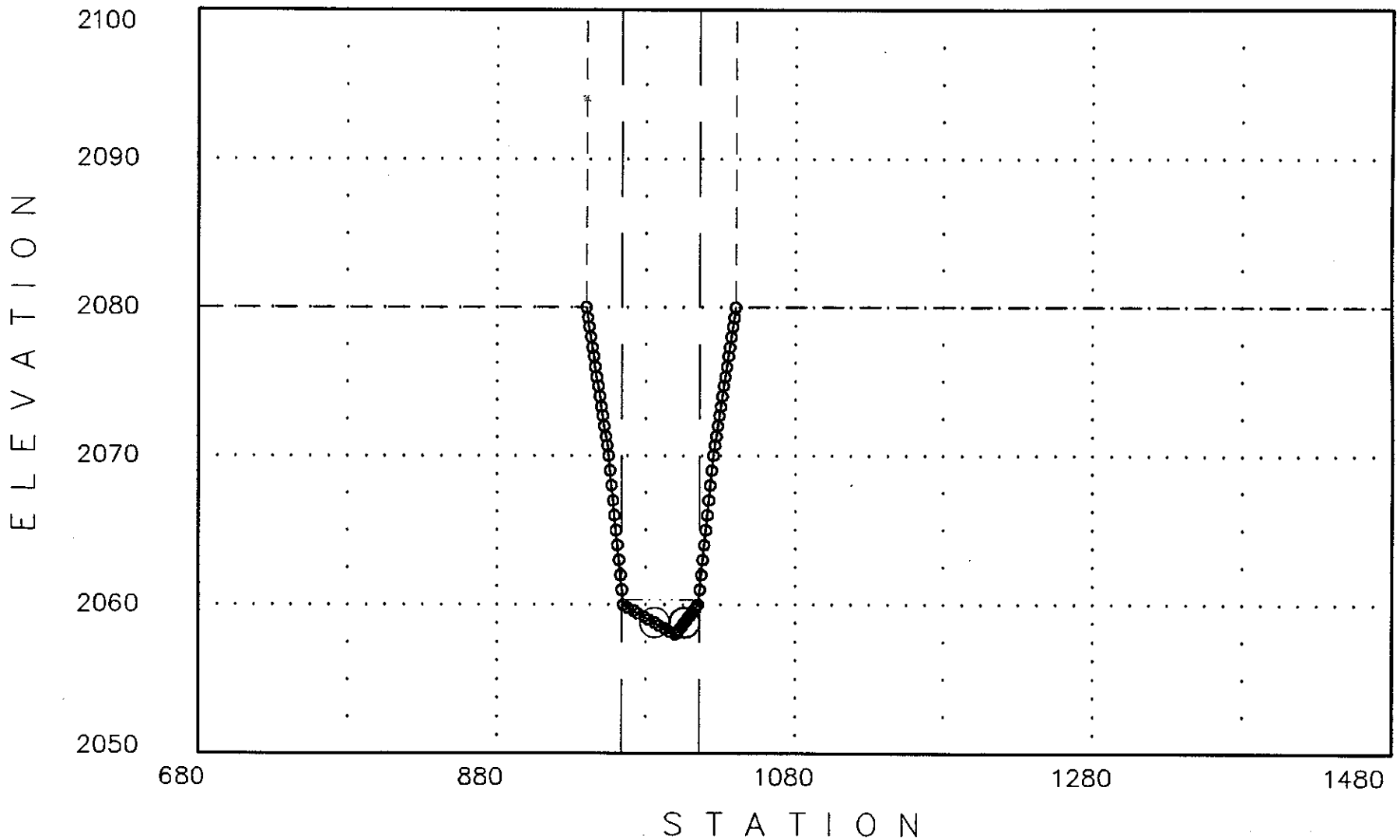


08-21-1992

<<<<<< Cross Section: .474: (FN = WASHQ.0) >>>>>>

Q1= 374 WS1= 2060.33
Q2= 374 WS2= 2060.34

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

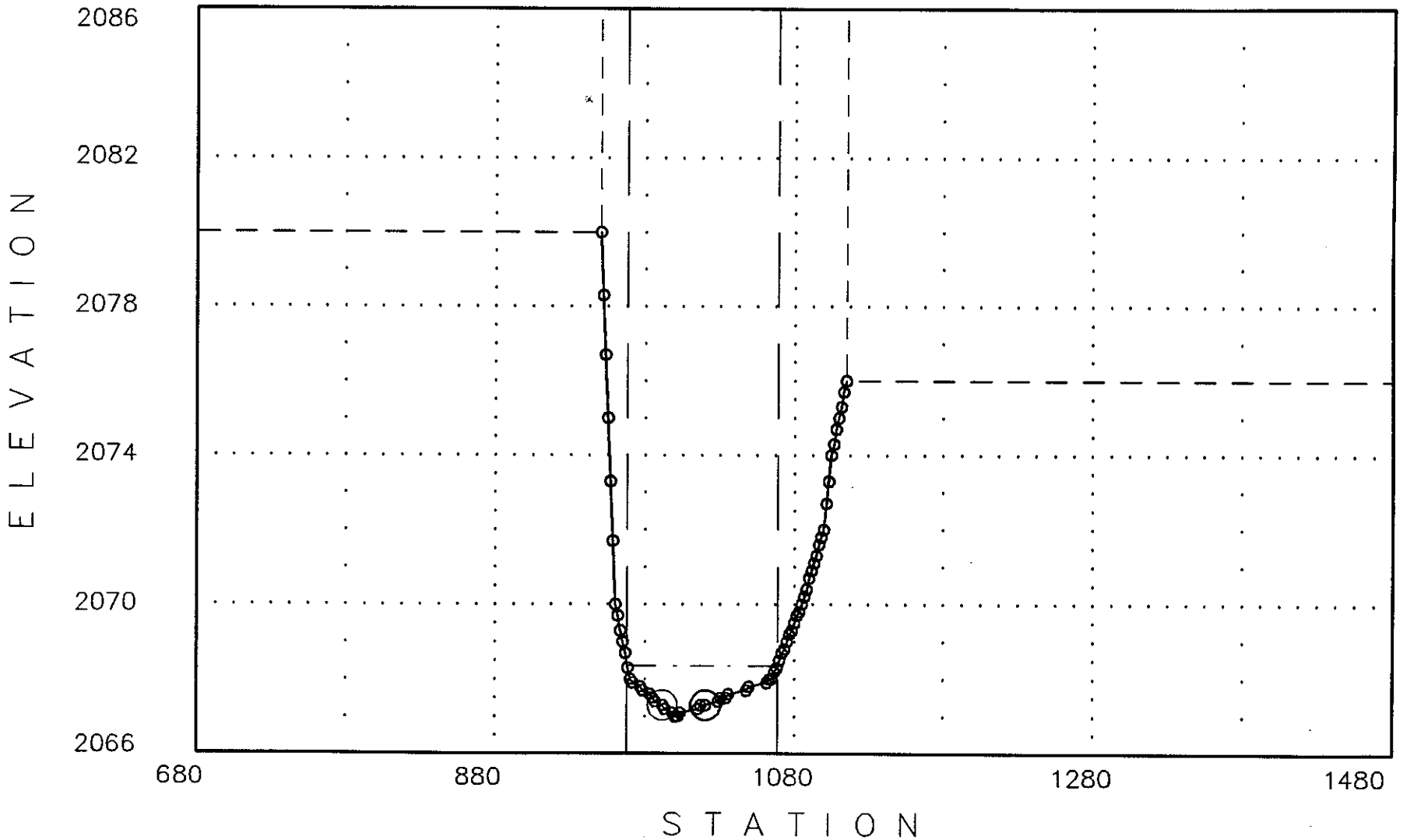


08-21-1992

<<<<<< Cross Section: .527: (FN = WASHQ.0) >>>>>>

Q1= 346 WS1= 2068.35
Q2= 346 WS2= 2068.35

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

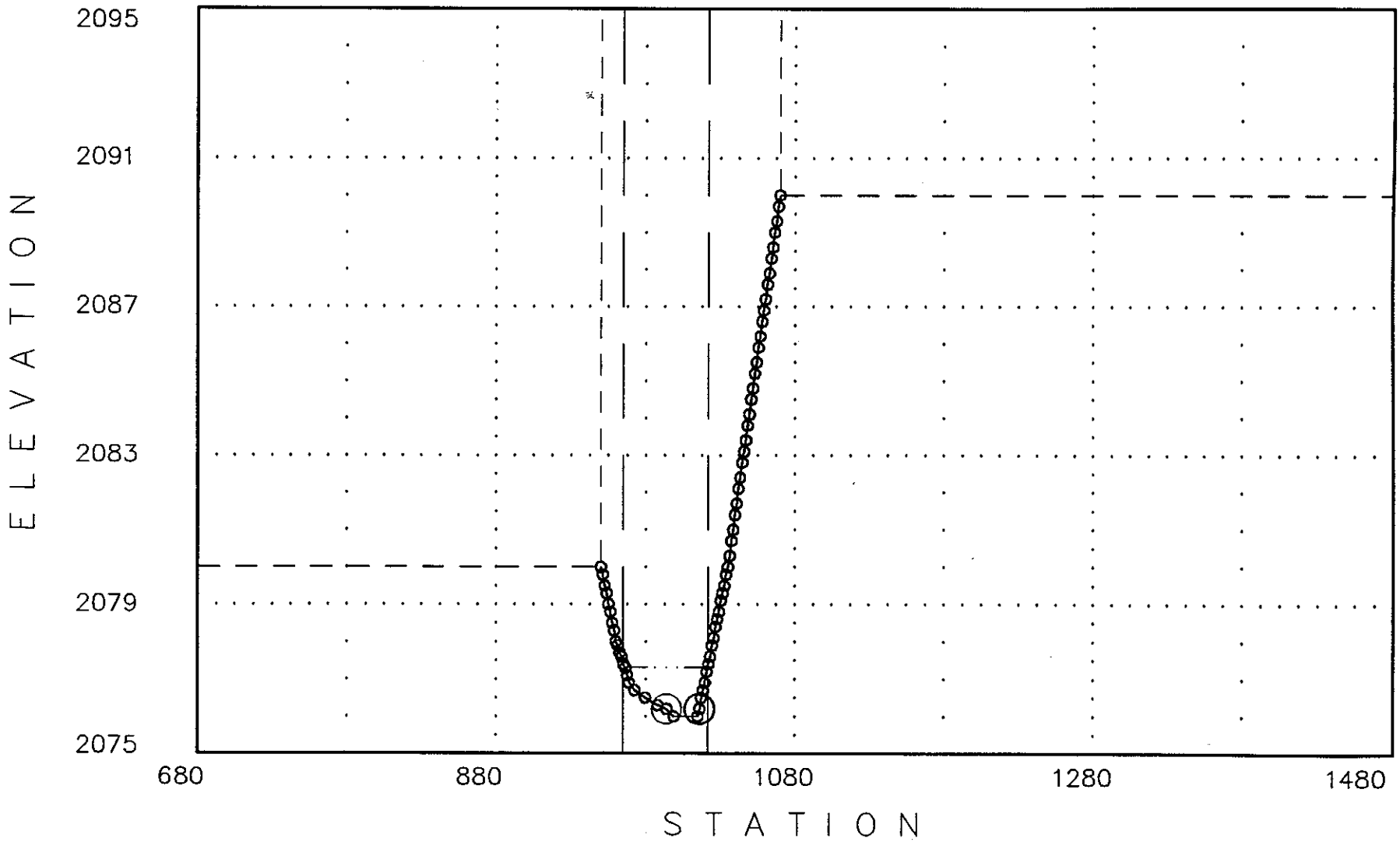


08-21-1992

<<<<<< Cross Section: .599: (FN = WASHQ.0) >>>>>>

Q1= 238 WS1= 2077.32
Q2= 238 WS2= 2077.32

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

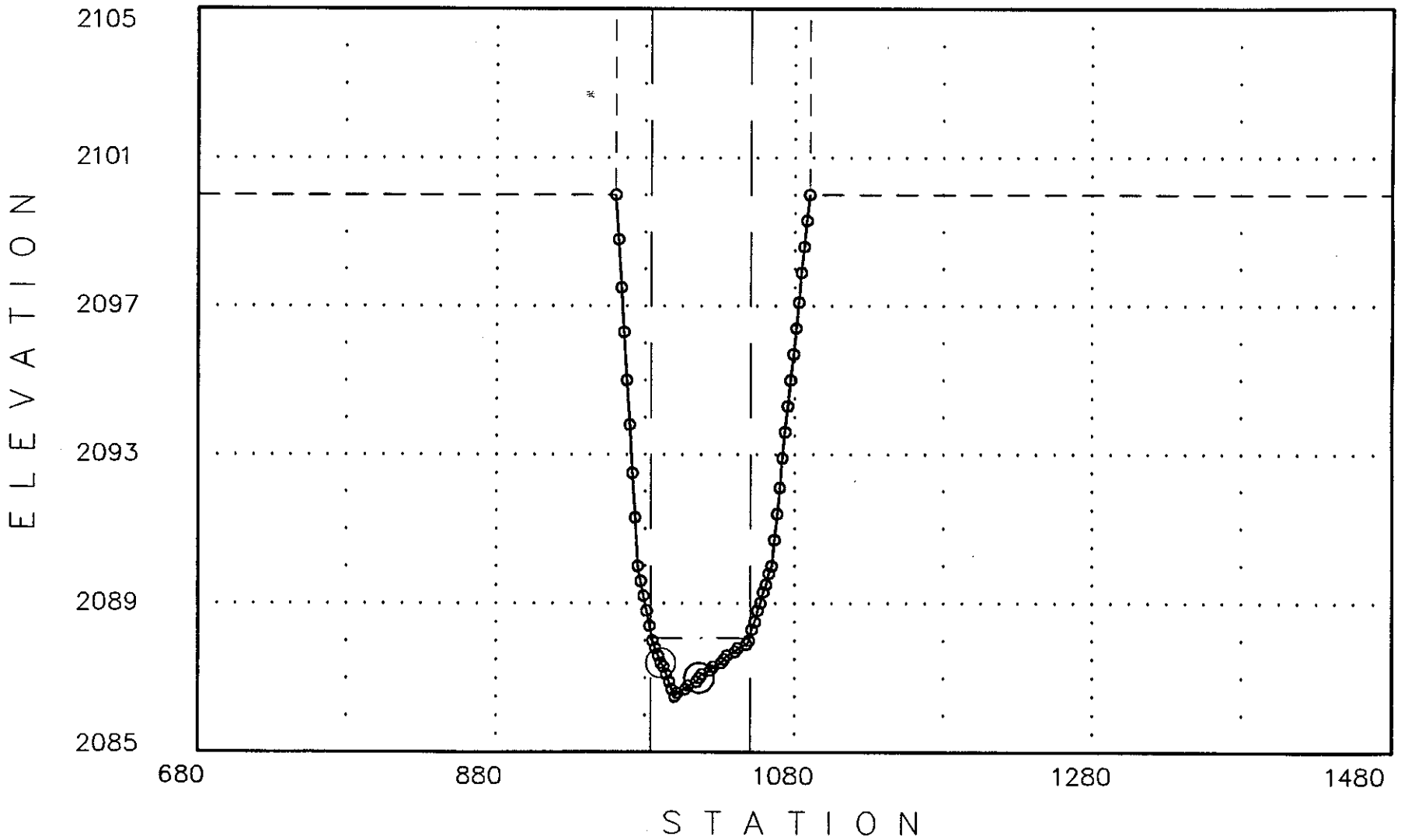


08-21-1992

<<<<<< Cross Section: .658: (FN = WASHQ.0) >>>>>>

Q1= 238 WS1= 2088.07
Q2= 238 WS2= 2088.08

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

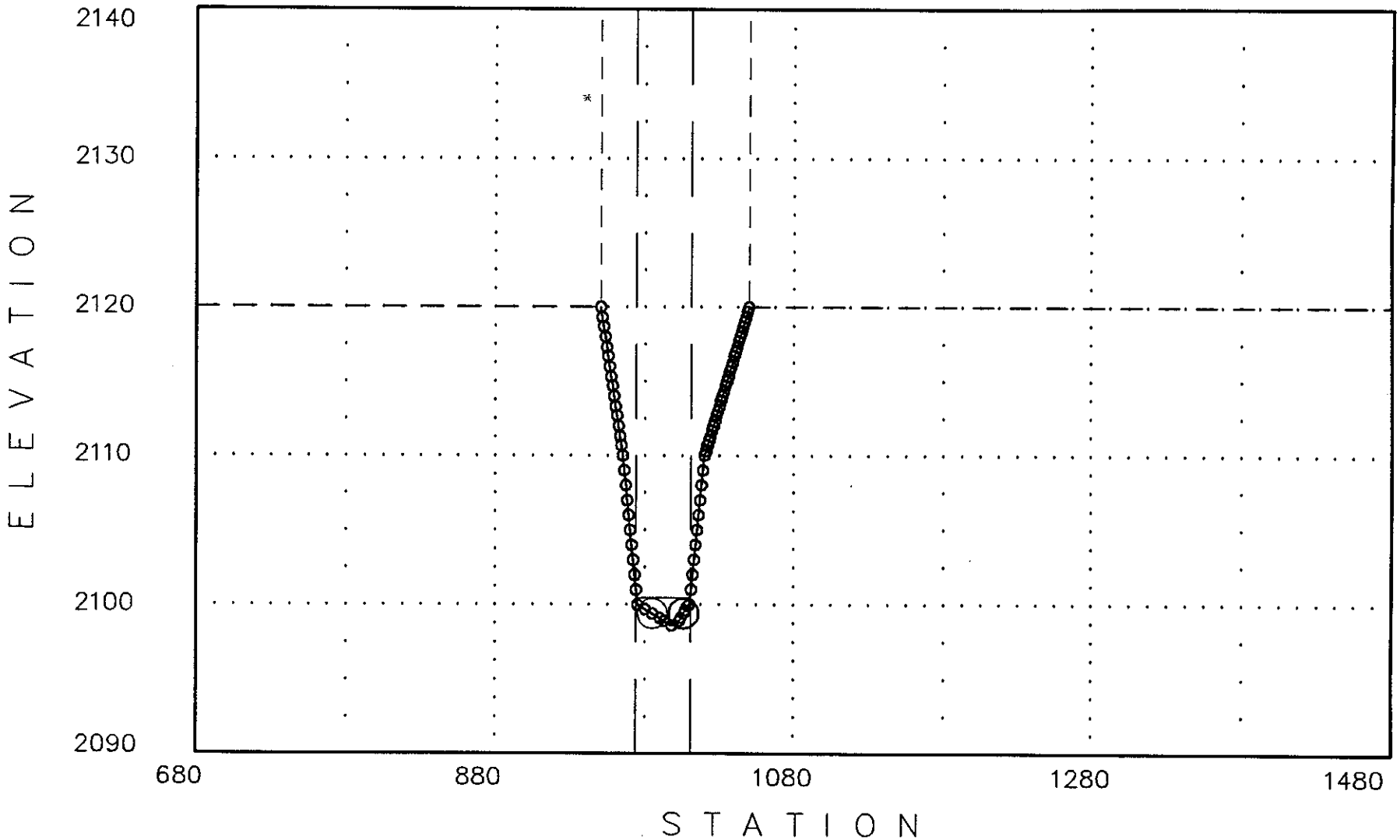


08-21-1992

<<<<<< Cross Section: .719: (FN = WASHQ.0) >>>>>>

Q1= 238 WS1= 2100.47
Q2= 238 WS2= 2100.47

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07



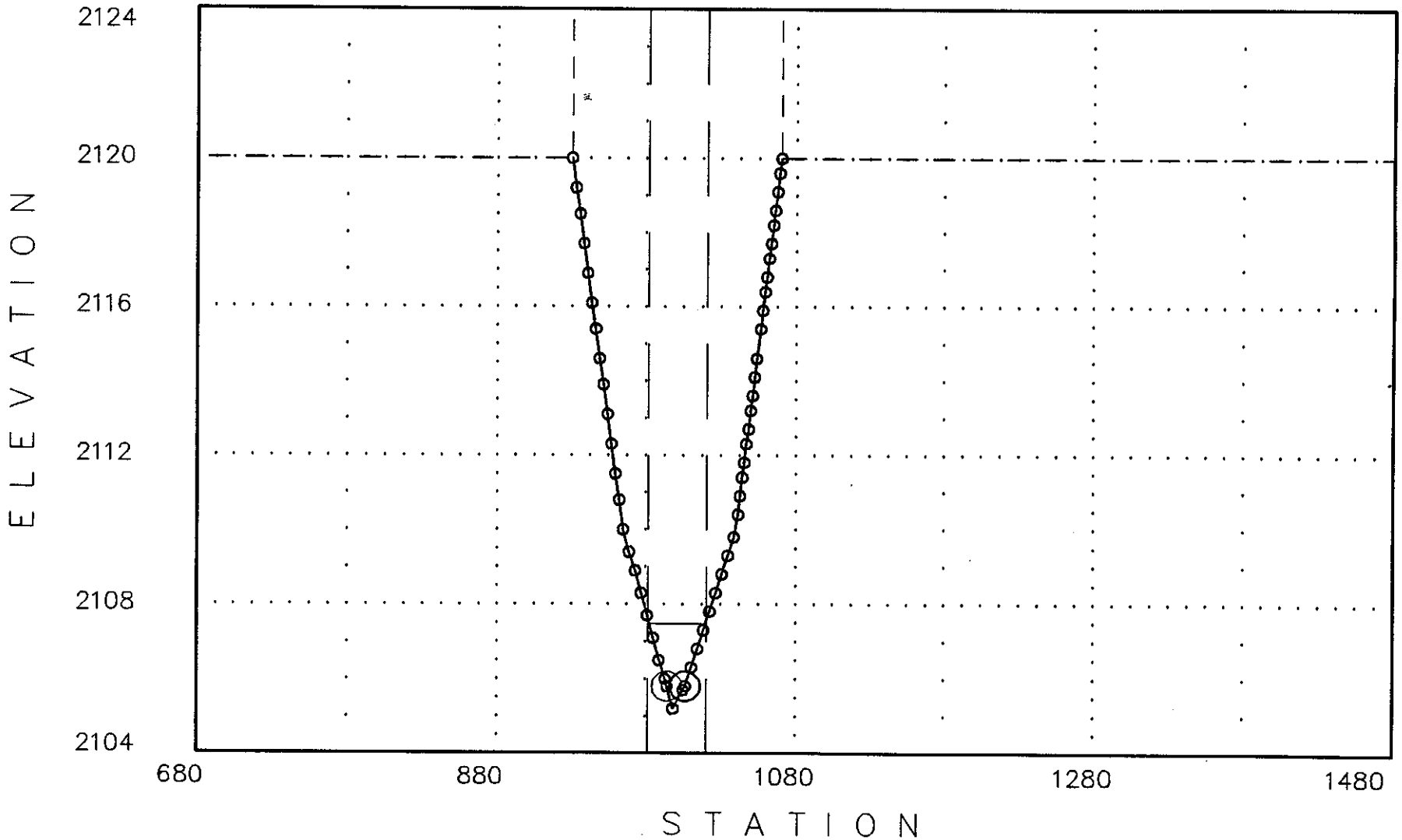
08-21-1992

<<<<<< Cross Section: .749: (FN = WASHQ.O) >>>>>>

Q1= 238 WS1= 2107.48

Q2= 238 WS2= 2107.48

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

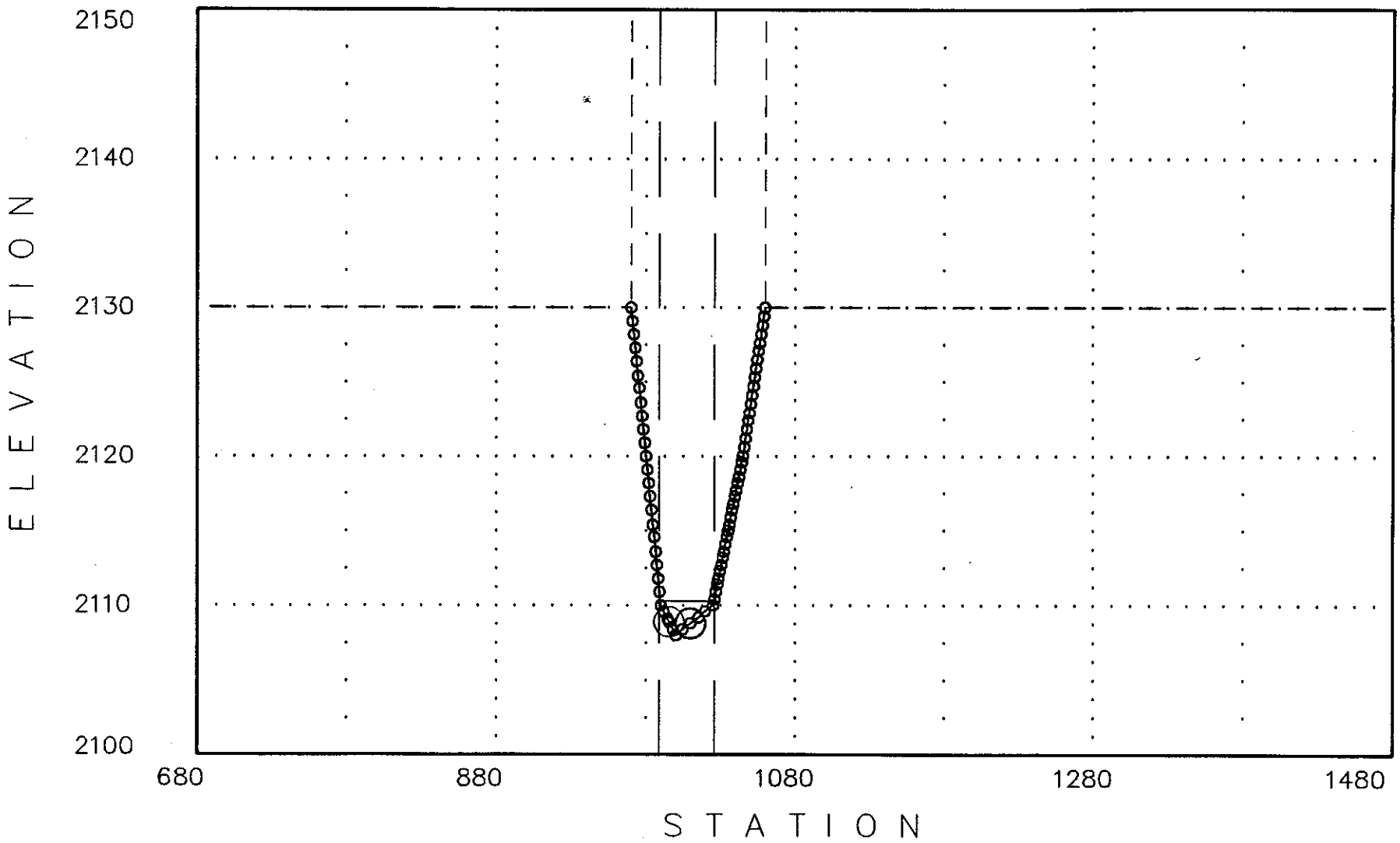


08-21-1992

<<<<<< Cross Section: .784: (FN = WASHQ.O) >>>>>>

Q1= 238 WS1= 2110.29
Q2= 238 WS2= 2110.29

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

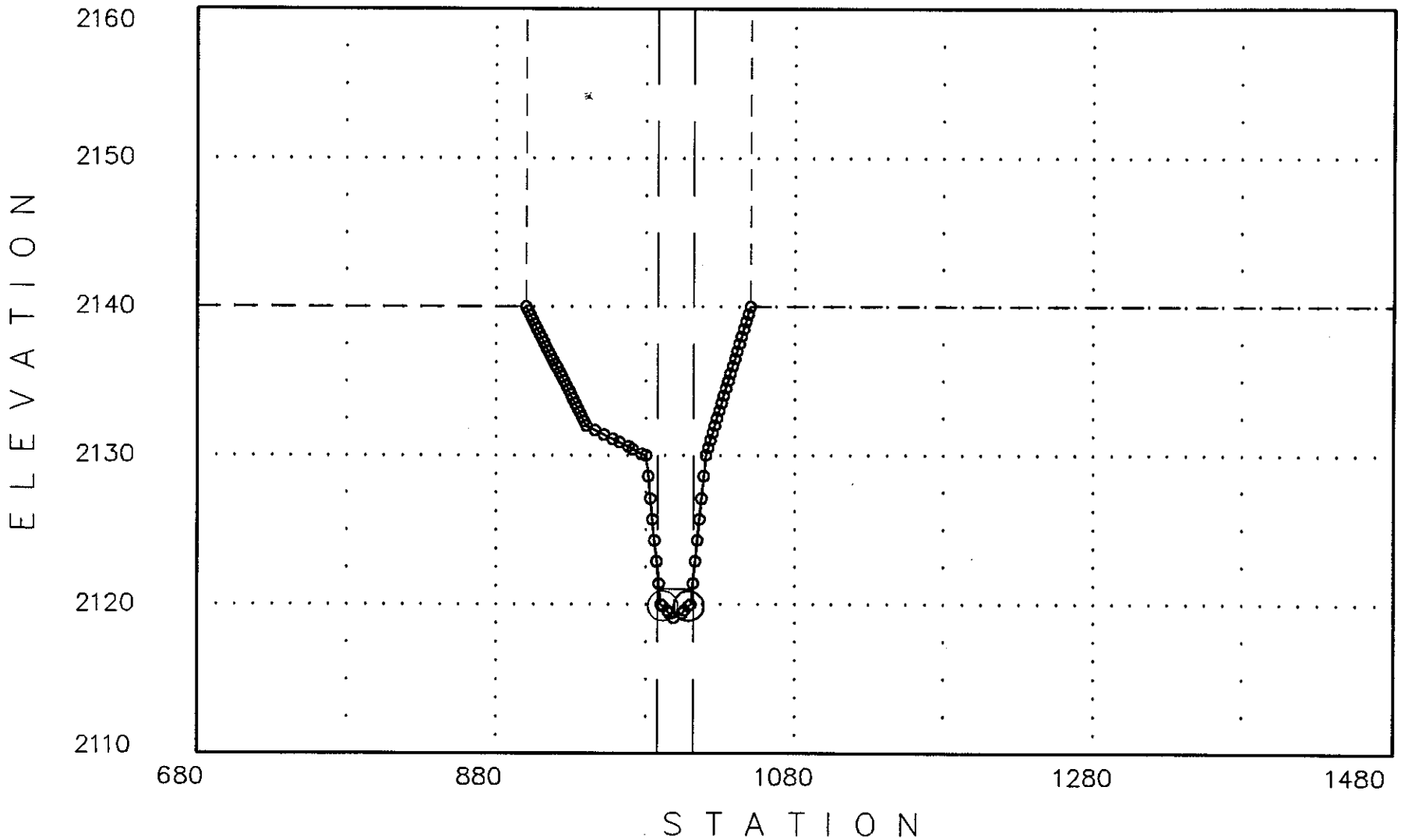


08-21-1992

<<<<<< Cross Section: .845: (FN = WASHQ.0) >>>>>>

Q1= 207 WS1= 2121.05
Q2= 207 WS2= 2121.06

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

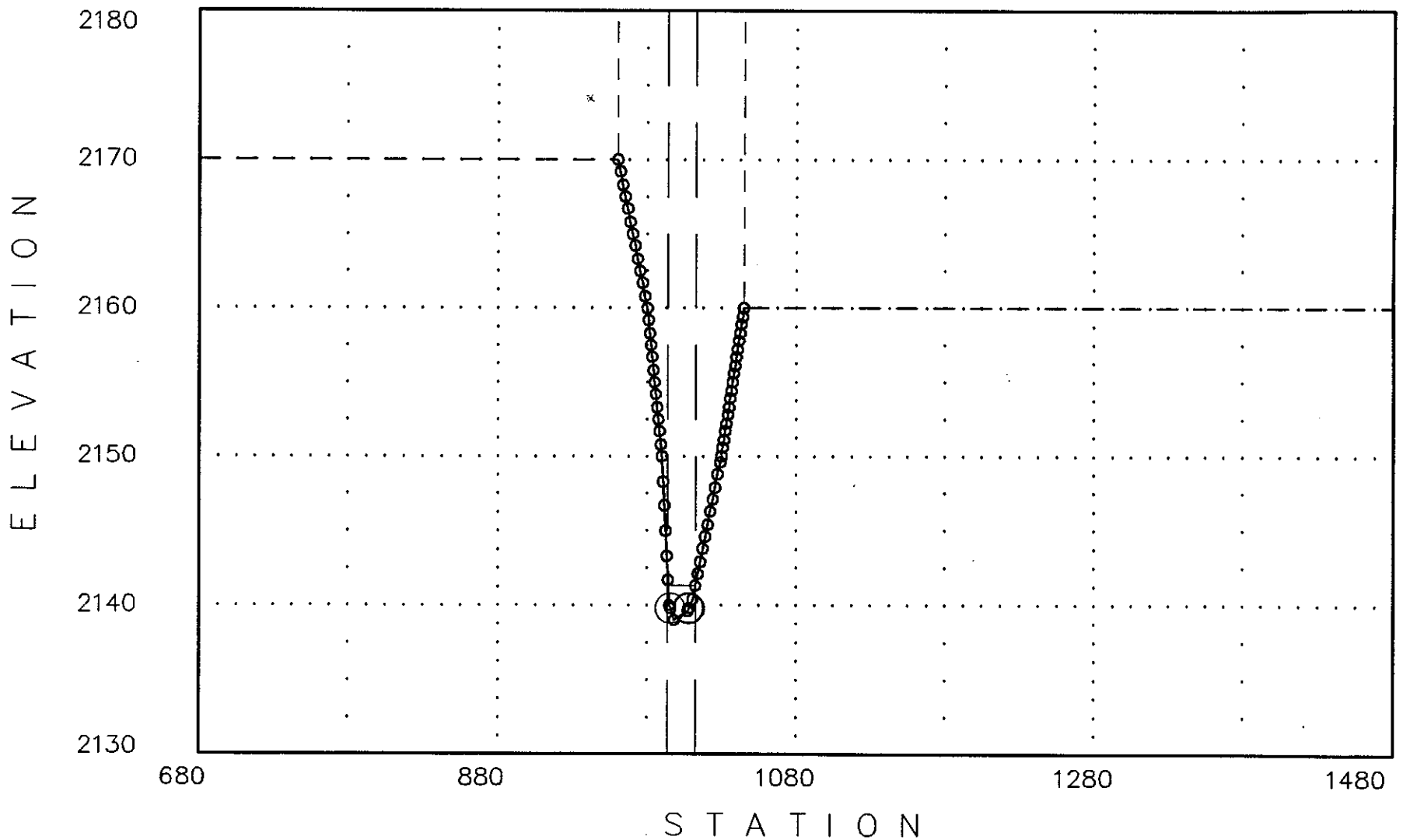


08-21-1992

<<<<<< Cross Section: .934: (FN = WASHQ.0) >>>>>>

Q1= 207 WS1= 2141.32
Q2= 207 WS2= 2141.32

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

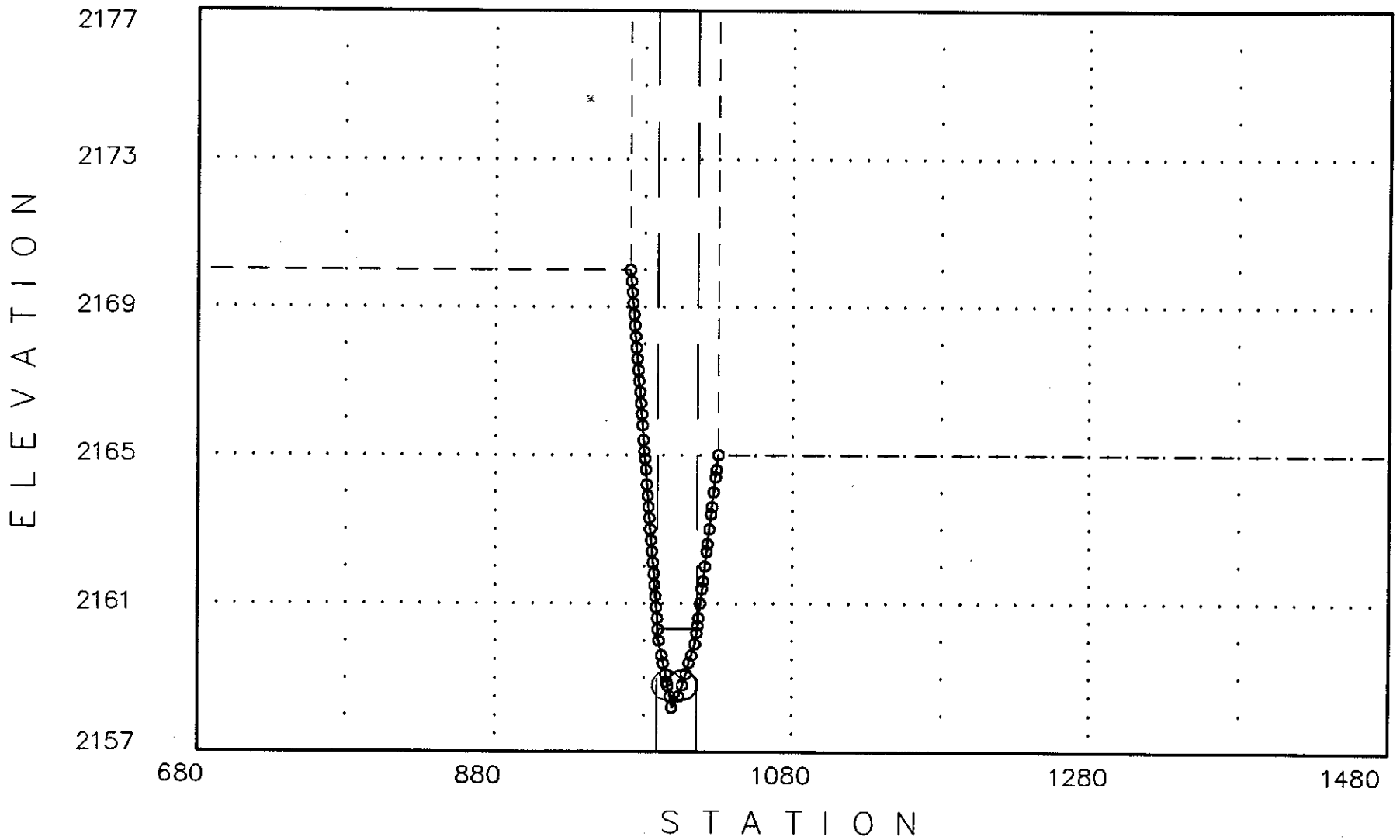


08-21-1992

<<<<<< Cross Section: 1.004: (FN = WASHQ.0) >>>>>>

Q1= 177 WS1= 2160.32
Q2= 177 WS2= 2160.32

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

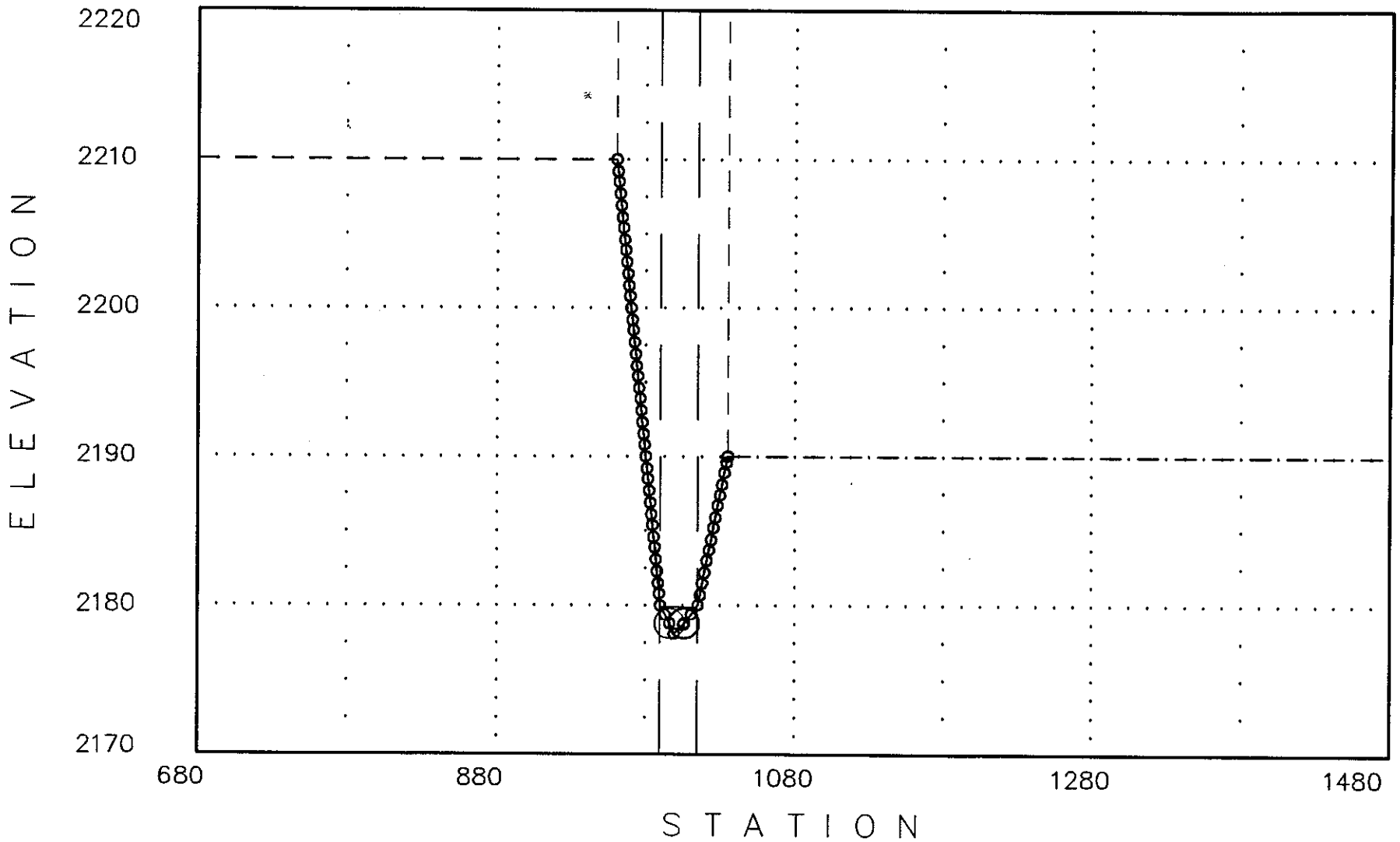


08-21-1992

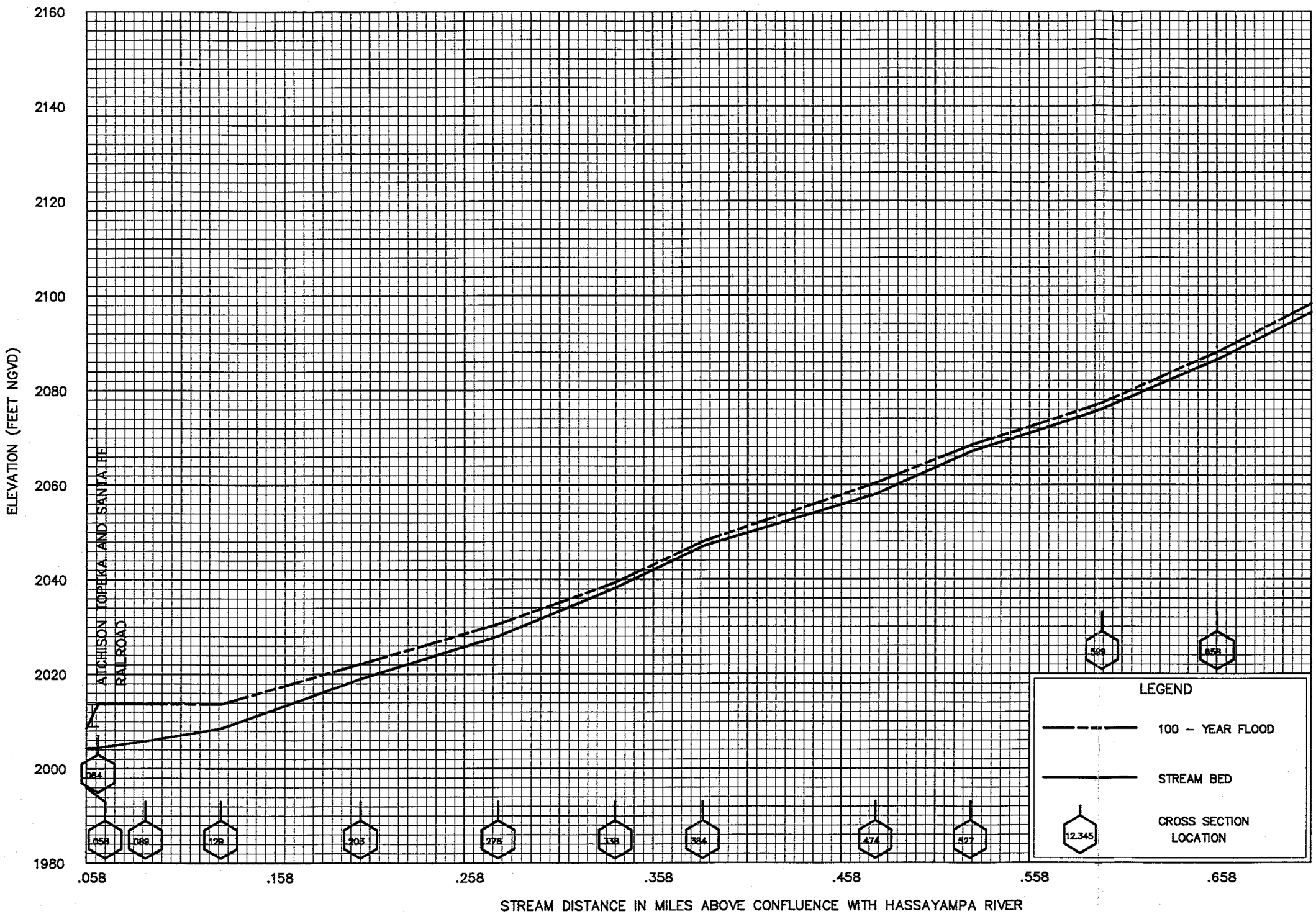
<<<<<< Cross Section: 1.102: (FN = WASHQ.0) >>>>>>

Q1= 108 WS1= 2179.9
Q2= 108 WS2= 2179.91

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07



08-21-1992

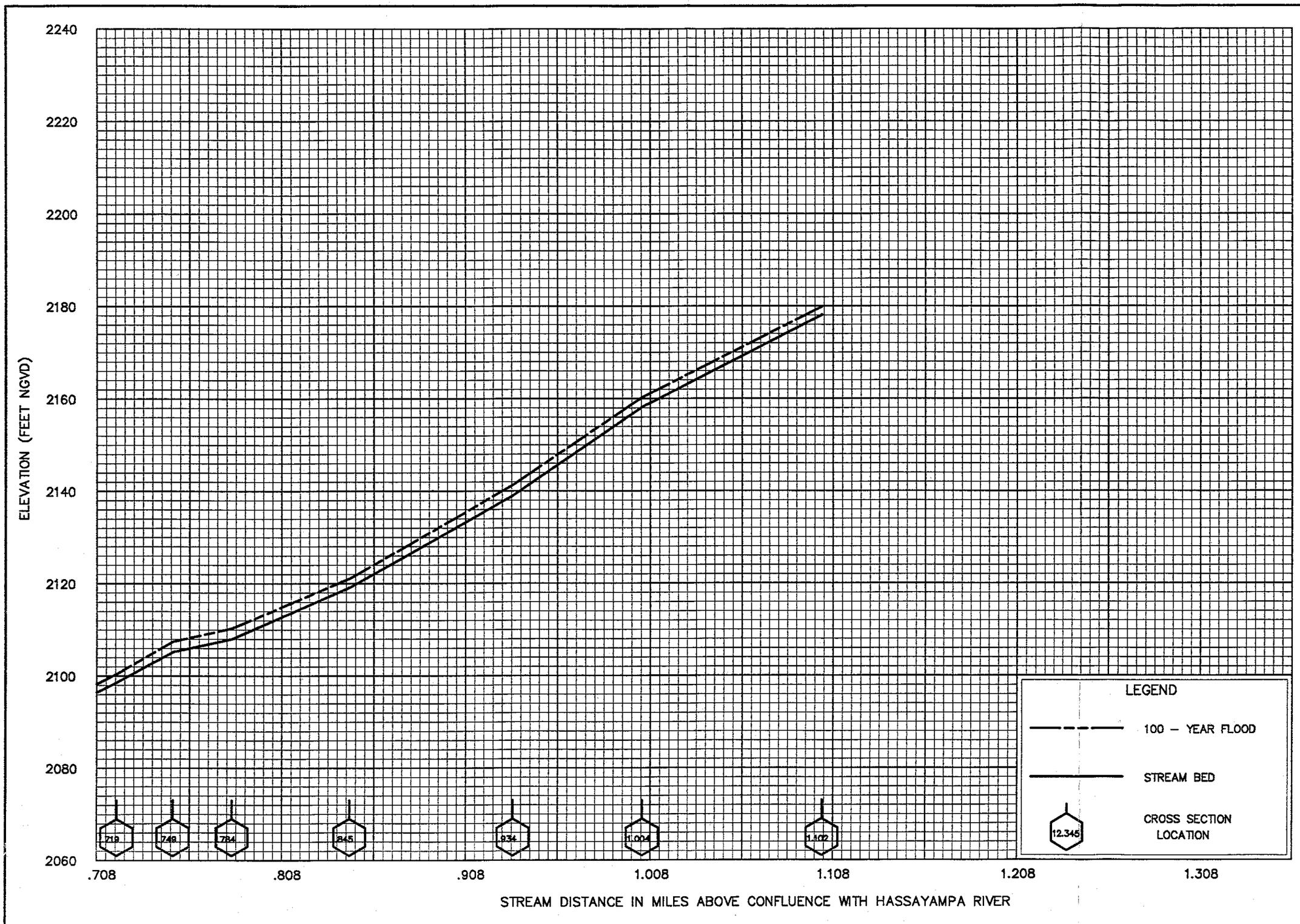


FLOOD PROFILES

UN–NAMED WASH #14 (WASH Q)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS



FLOOD PROFILES

UN–NAMED WASH #14 (WASH Q)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

FLOODWAY DATA, WASH R: CEMETERY WASH
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
2.805	112.	644.	10.7	2248.6	2248.6	.0
2.850	170.	768.	8.7	2252.6	2252.6	.0
2.936	184.	835.	8.0	2259.0	2259.0	.0
3.030	245.	1021.	6.5	2263.5	2263.5	.0
3.125	169.	723.	9.0	2270.6	2270.6	.0
3.220	193.	790.	8.2	2278.3	2278.3	.0
3.304	182.	722.	8.7	2285.2	2285.2	.0
3.409	161.	669.	9.4	2294.1	2294.1	.0
3.483	531.	1193.	4.4	2300.1	2300.1	.0
3.564	232.	681.	7.8	2305.5	2305.5	.0
3.652	264.	875.	6.1	2311.7	2311.7	.0
3.706	258.	629.	6.8	2316.3	2316.3	.0
3.762	237.	652.	6.6	2320.8	2320.8	.0
3.823	308.	863.	5.0	2325.7	2325.7	.0
3.897	320.	531.	6.2	2332.4	2332.4	.0
3.939	276.	729.	4.5	2336.7	2336.7	.0
4.014	315.	542.	6.1	2344.6	2344.6	.0
4.108	356.	668.	4.2	2352.5	2352.5	.0
4.148	509.	469.	6.0	2356.8	2356.8	.0
4.242	306.	554.	5.1	2366.1	2366.1	.0
4.335	437.	650.	4.3	2373.7	2373.7	.0
4.394	447.	632.	4.4	2382.2	2382.2	.0
4.461	373.	545.	5.1	2389.1	2389.1	.0
4.498	378.	550.	4.2	2392.0	2392.0	.0
4.602	684.	617.	3.7	2398.5	2398.5	.0
4.663	486.	538.	4.3	2403.8	2403.8	.0
4.725	399.	539.	4.3	2409.0	2409.0	.0
4.802	319.	454.	5.1	2415.7	2415.7	.0
4.890	445.	991.	2.3	2422.3	2422.3	.0
4.968	317.	397.	4.5	2429.1	2429.1	.0
5.021	459.	549.	3.3	2433.0	2433.0	.0
5.110	408.	439.	4.1	2440.3	2440.3	.0
5.184	371.	577.	3.1	2446.1	2446.1	.0
5.273	120.	237.	7.6	2452.9	2452.9	.0
5.330	175.	280.	3.4	2457.9	2457.9	.0
5.459	192.	203.	4.7	2469.0	2469.0	.0
5.551	164.	248.	3.9	2478.1	2478.1	.0
5.643	123.	186.	5.1	2485.6	2485.6	.0
5.738	527.	419.	2.3	2491.8	2491.8	.0
5.793	297.	276.	3.5	2498.4	2498.4	.0
5.862	269.	279.	3.4	2504.3	2504.3	.0
5.932	164.	222.	4.3	2510.0	2510.0	.0

FLOODWAY DATA, WASH R: CEMETERY WASH
PROFILE NO. 2

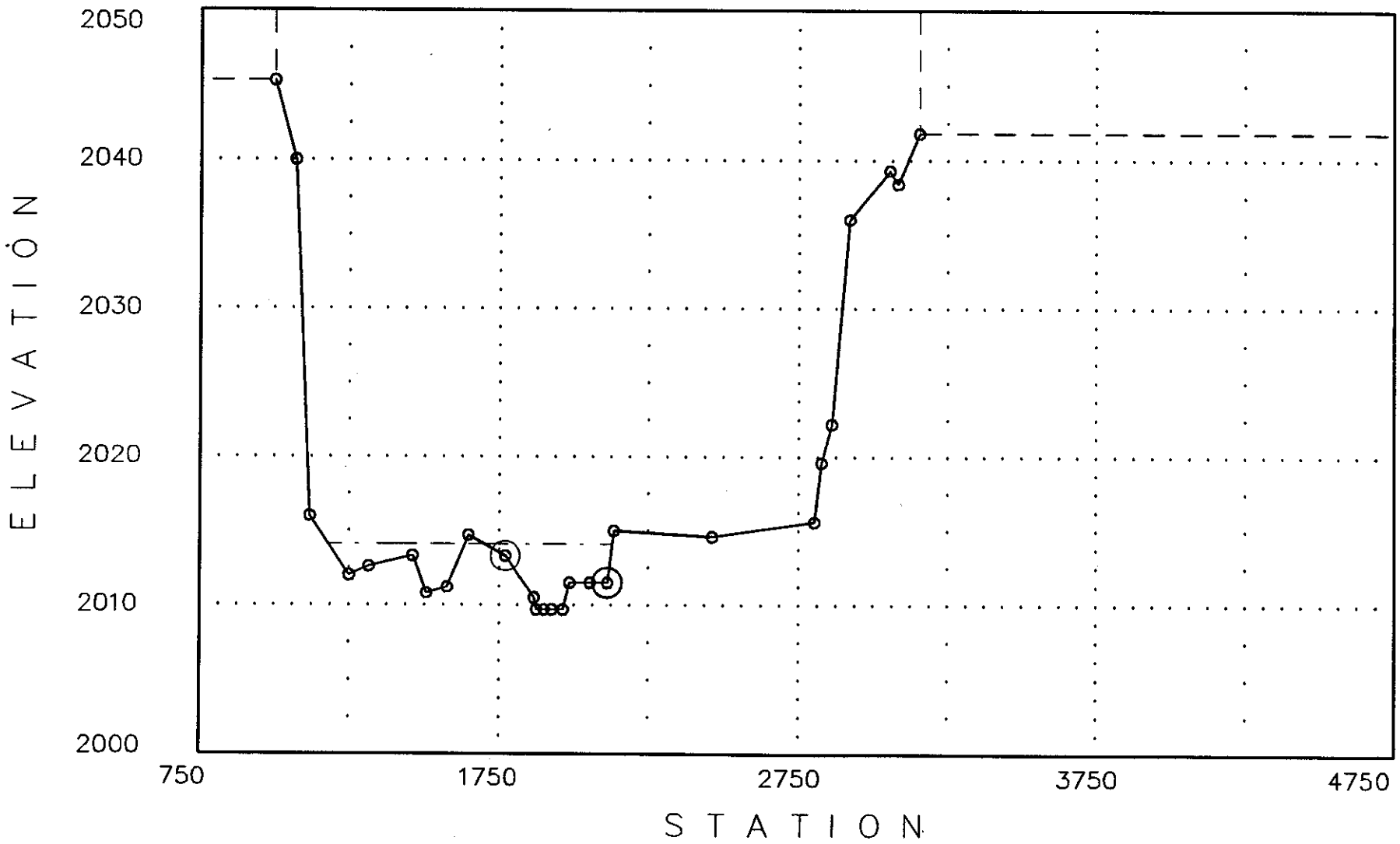
STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
6.002	211.	258.	3.7	2515.5	2515.5	.0
6.056	231.	258.	3.7	2519.9	2519.9	.0
6.139	320.	325.	2.9	2525.7	2525.7	.0
6.224	425.	318.	3.0	2532.2	2532.2	.0

<<<<<< Cross Section: 50.46: (FN = WASHR.O) >>>>>>

Q1= 7251 WS1= 2014.12

Q2= 7251 WS2= 2014.12

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

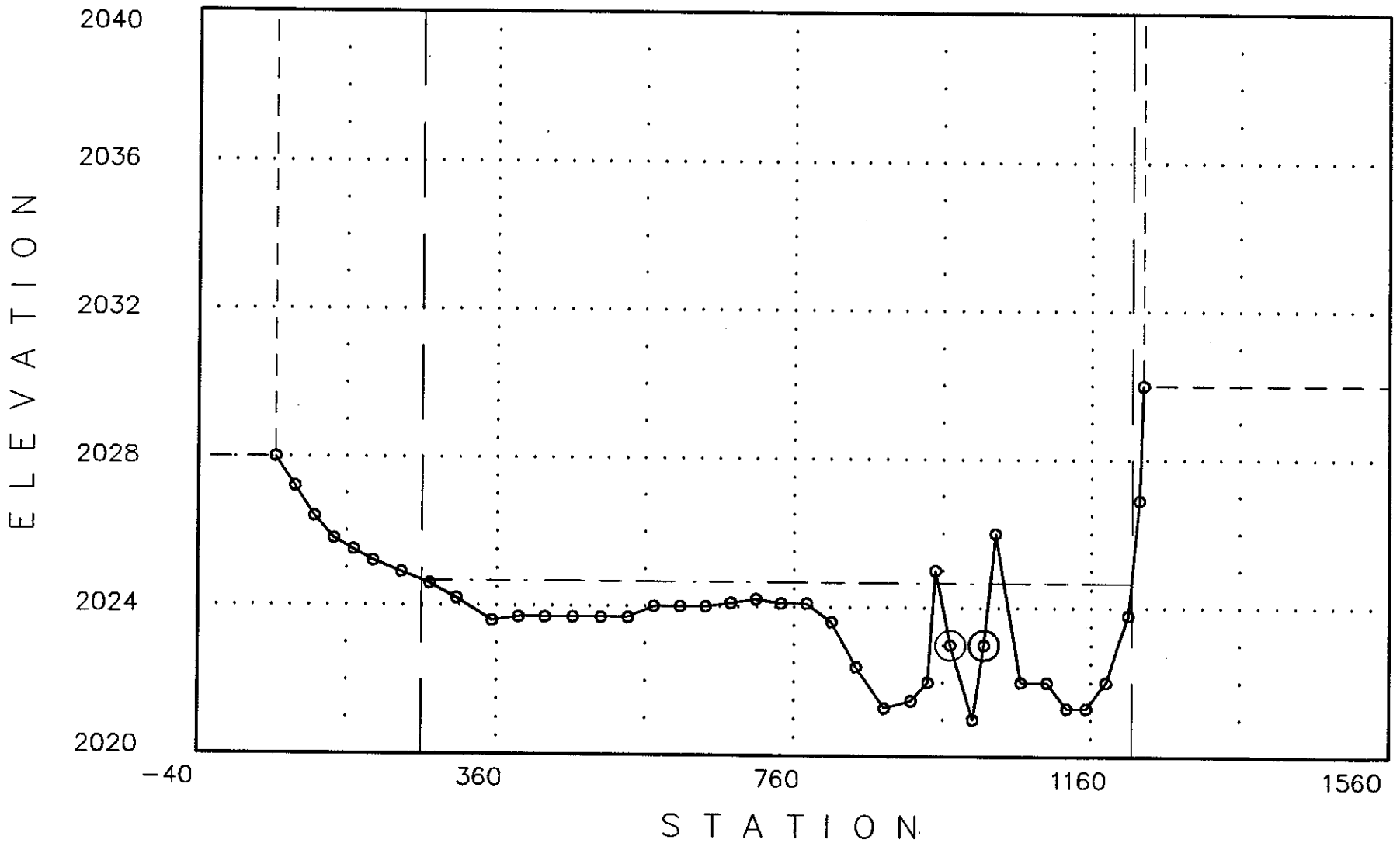


08-14-1992

<<<<<< Cross Section: .174: (FN = WASHR.O) >>>>>>

Q1= 7251 WS1= 2024.67
Q2= 7251 WS2= 2024.67

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07



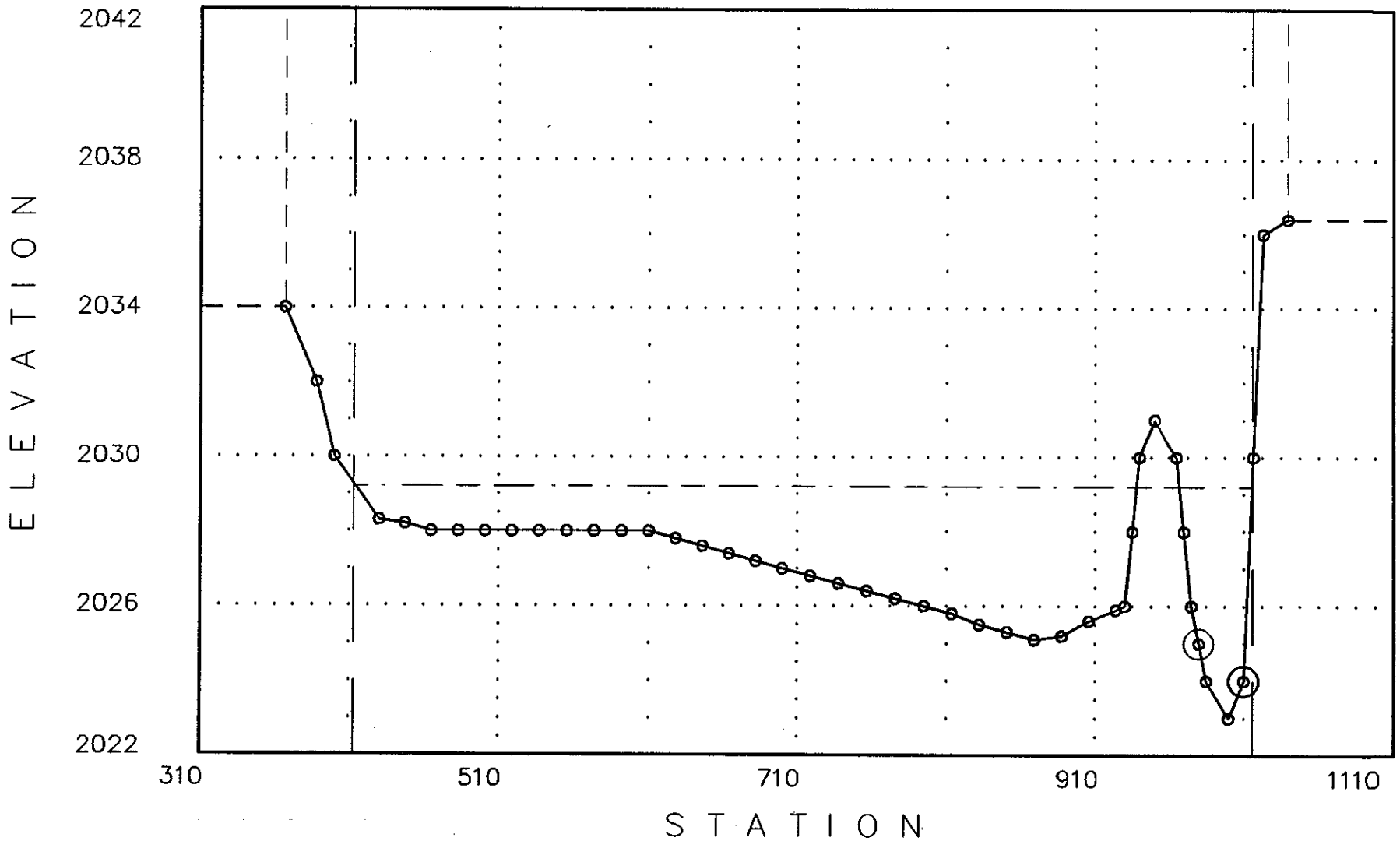
08-14-1992

<<<<<< Cross Section: .227: (FN = WASHR.O) >>>>>>

Q1= 7251 WS1= 2029.21

Q2= 7251 WS2= 2029.21

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

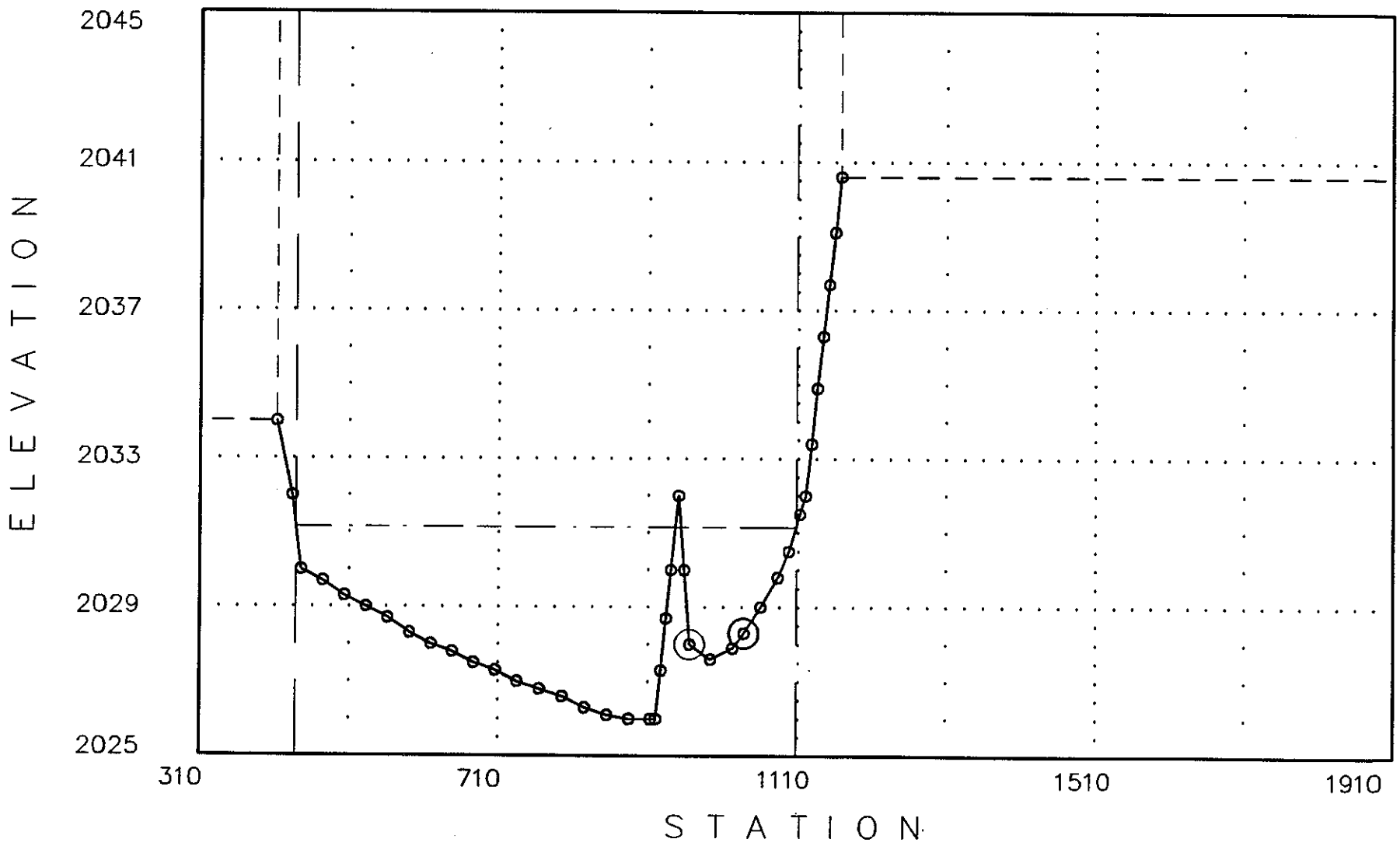


08-14-1992

<<<<<< Cross Section: .269: (FN = WASHR.O) >>>>>>

Q1= 7251 WS1= 2031.15
Q2= 7251 WS2= 2031.15

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07



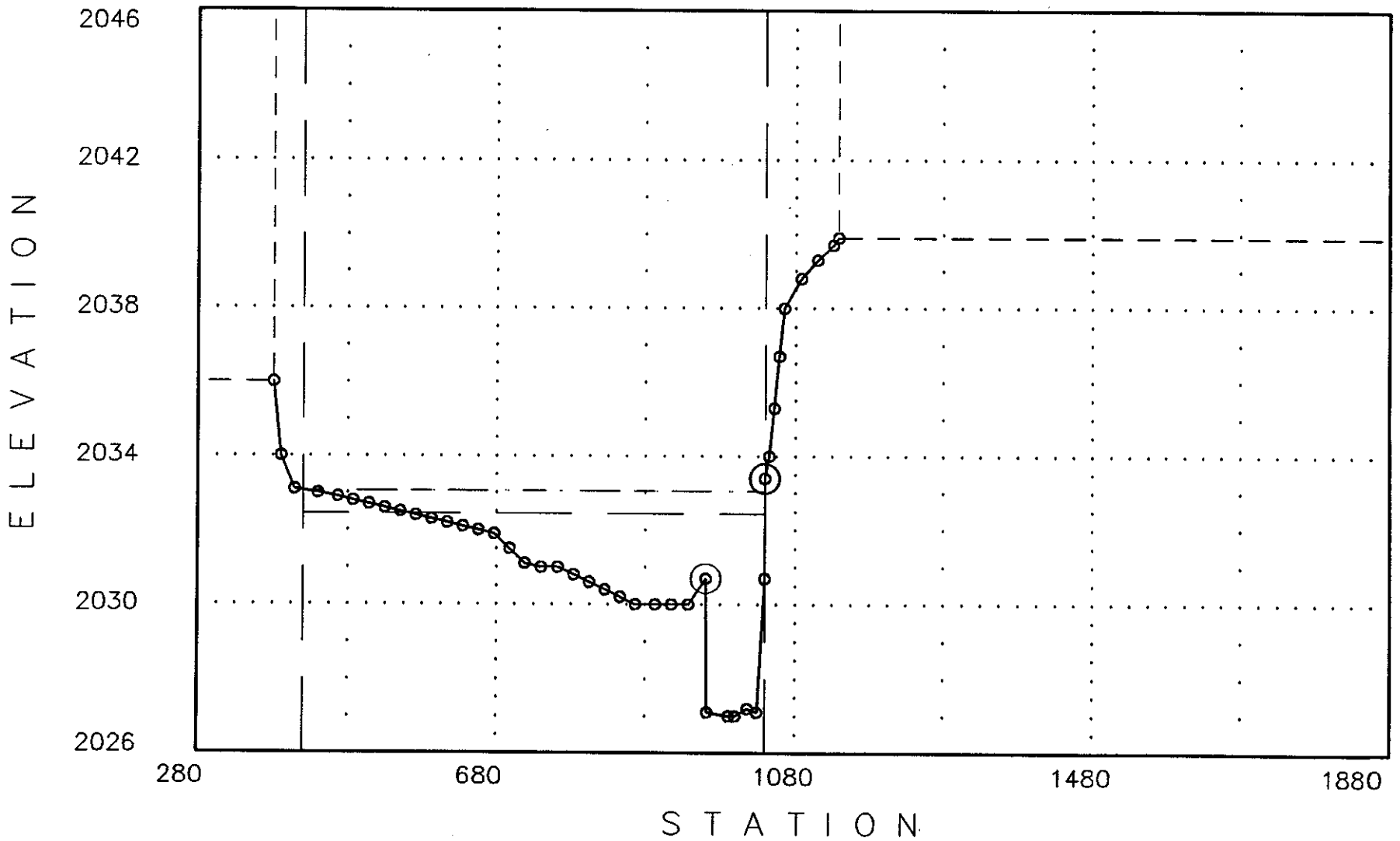
08-14-1992

<<<<<< Cross Section: .274: (FN = WASHR.O) >>>>>>

Q1= 7251 WS1= 2033.06
Q2= 7251 WS2= 2033.06

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

HYDRAULIC JUMP



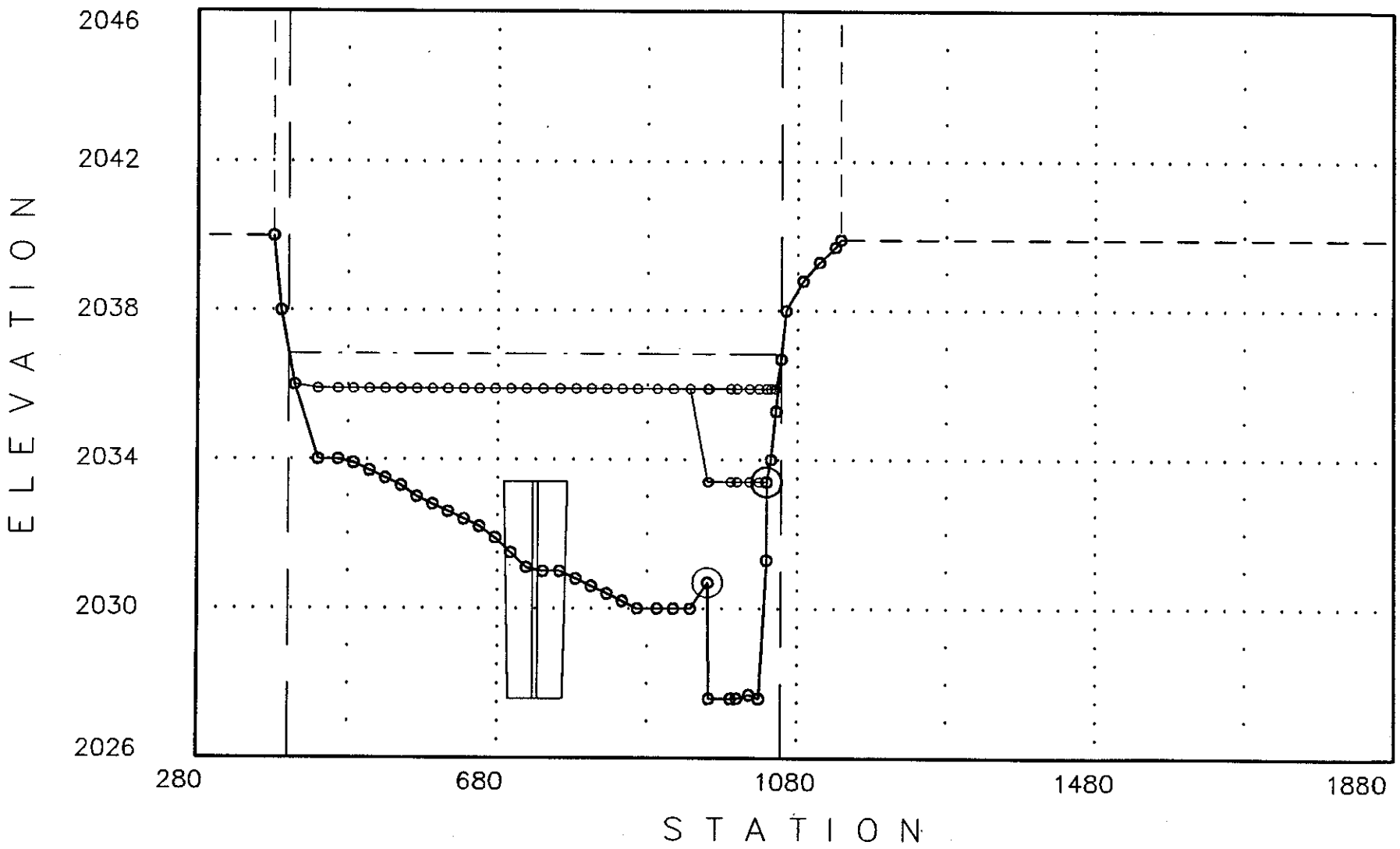
08-14-1992

<<<<<< Cross Section: .278: (FN = WASHR.0) >>>>>>

Q1= 7251 WS1= 2036.84
Q2= 7251 WS2= 2036.84

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

SPECIAL BRIDGE

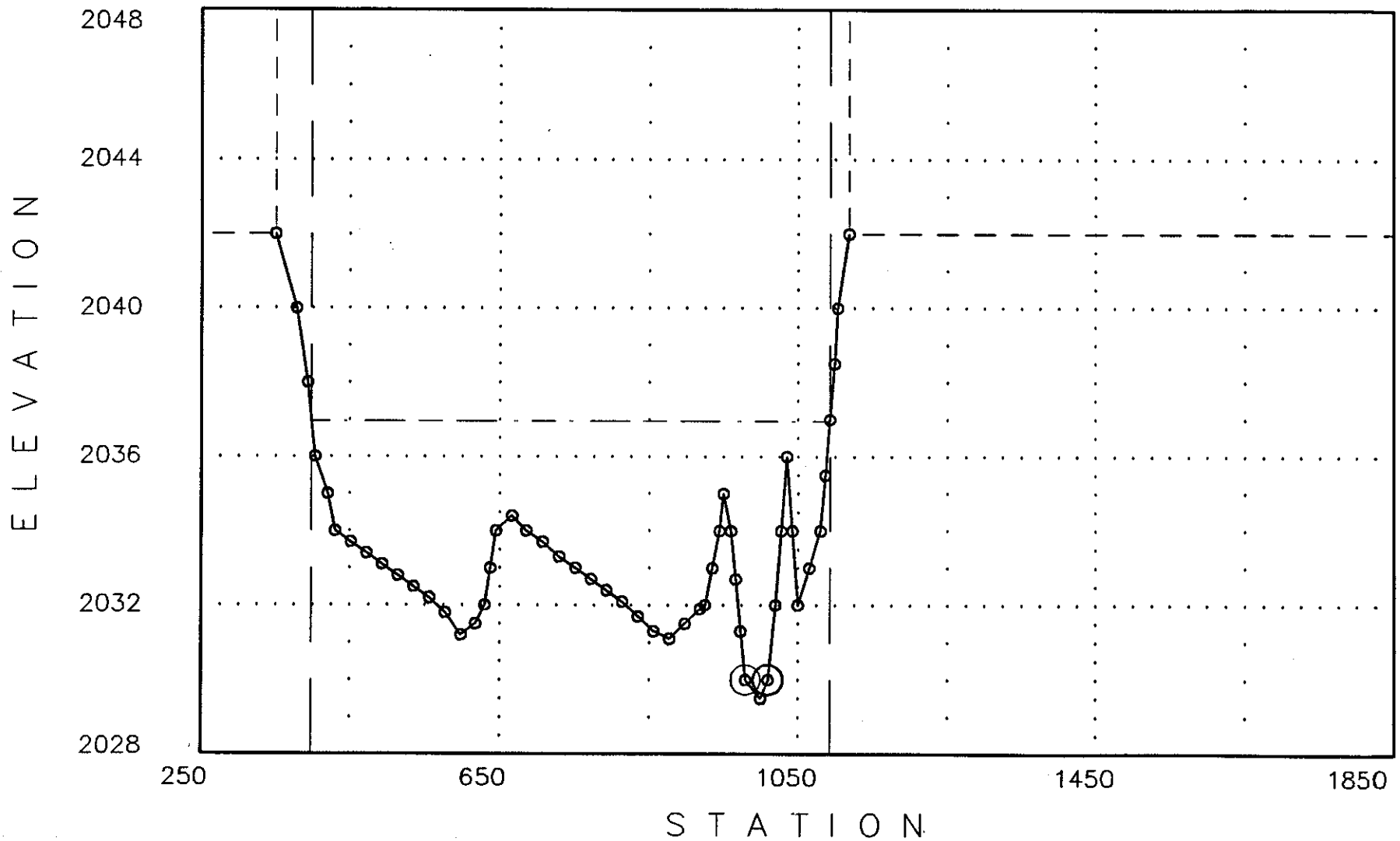


08-14-1992

<<<<<< Cross Section: .311: (FN = WASHR.O) >>>>>>

Q1= 7251 WS1= 2036.96
Q2= 7251 WS2= 2036.96

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07



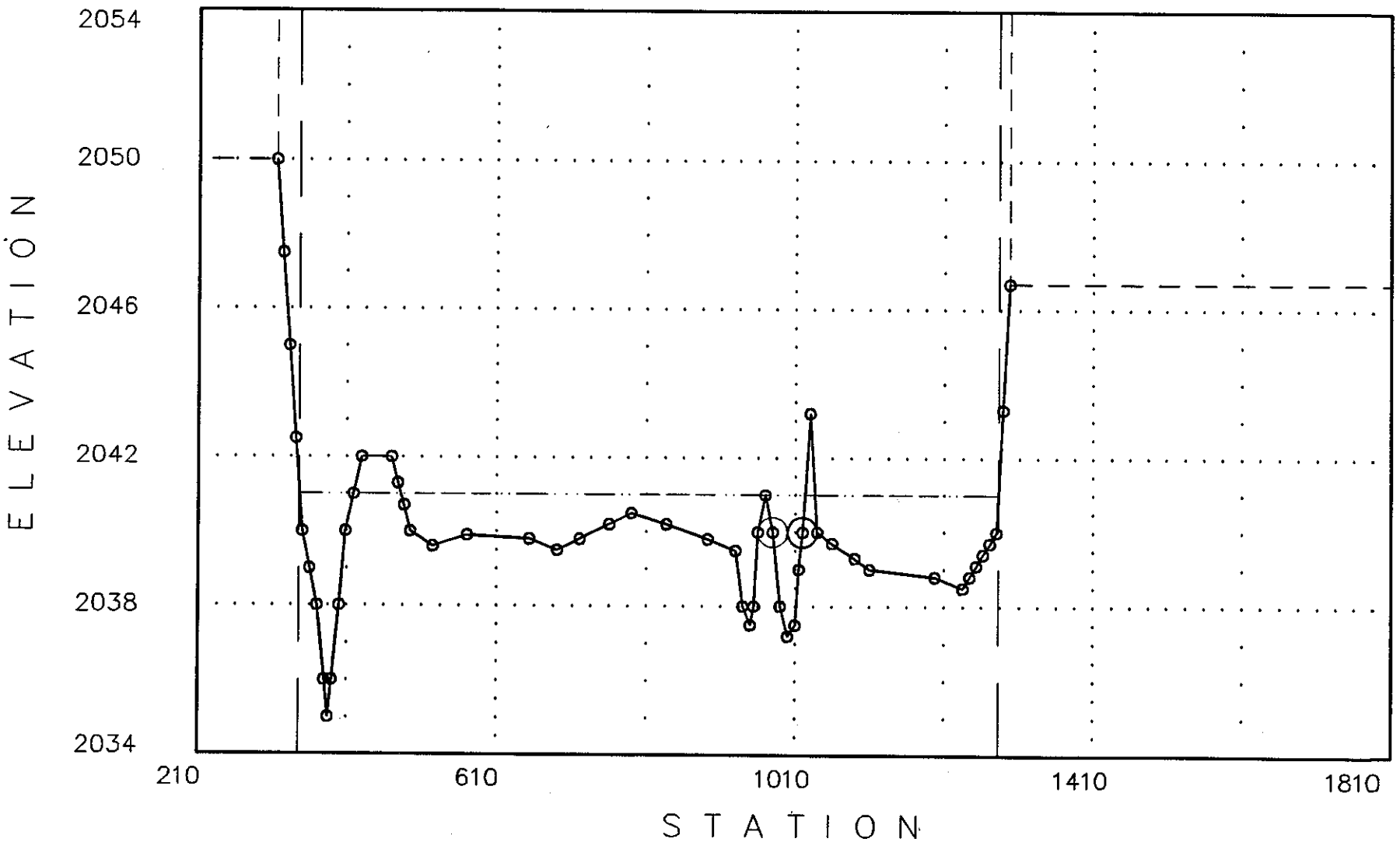
06-14-1992

<<<<<< Cross Section: .415: (FN = WASHR.O) >>>>>>

Q1= 7251 WS1= 2041

Q2= 7251 WS2= 2041.01

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

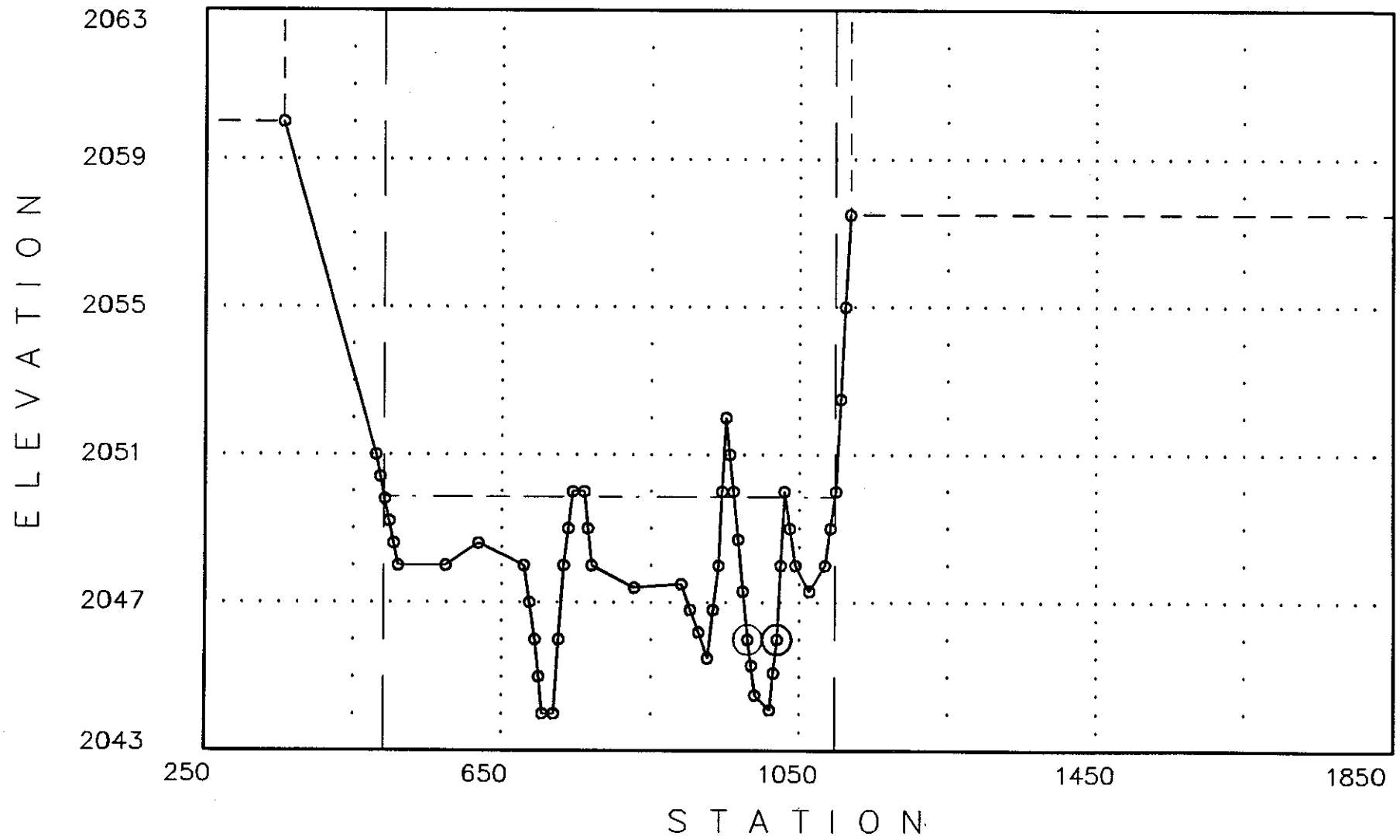


08-14-1992

<<<<<< Cross Section: .494: (FN = WASHR.O) >>>>>>

Q1= 7267 WS1= 2049.86
Q2= 7267 WS2= 2049.86

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

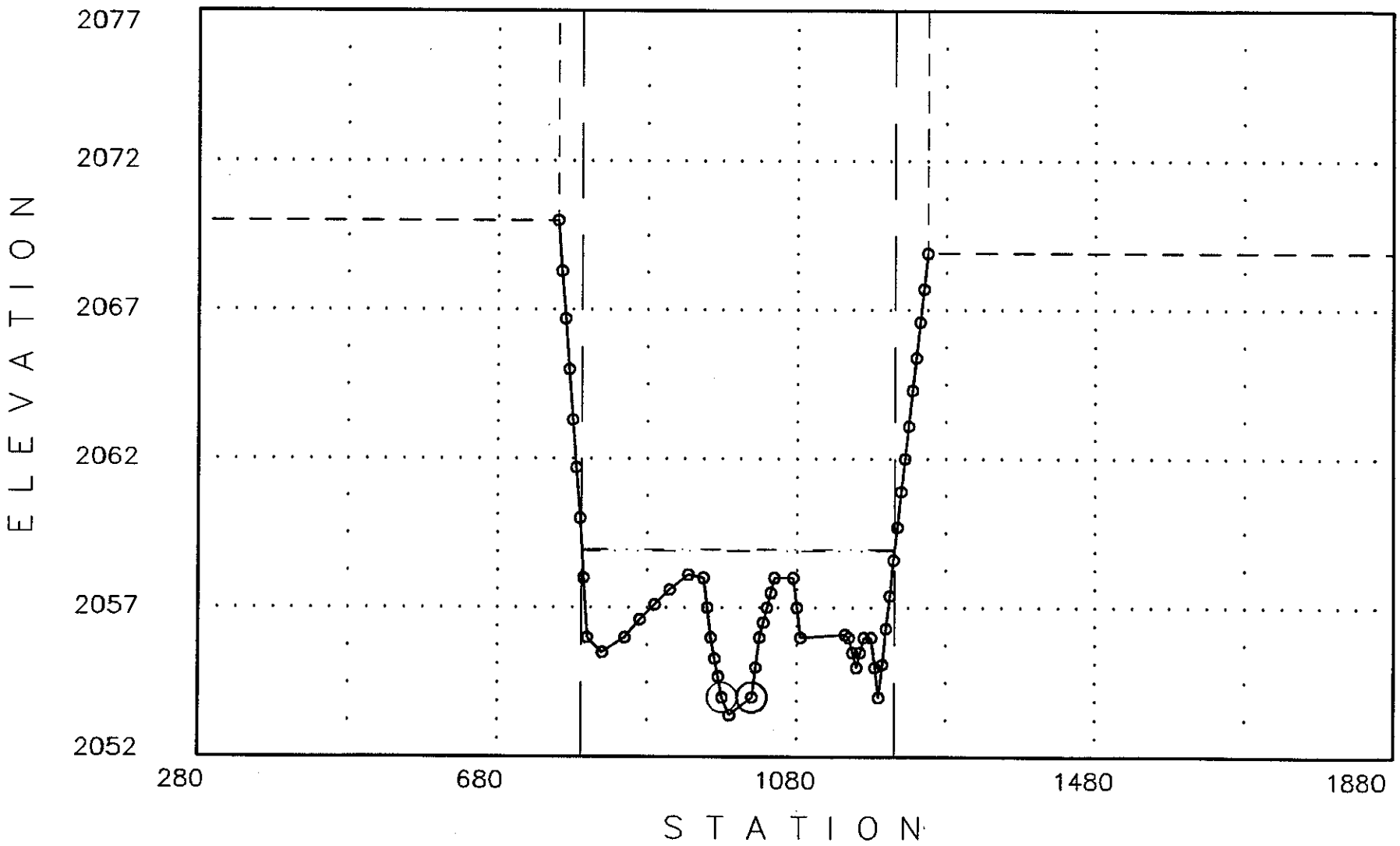


08-14-1992

<<<<<< Cross Section: .593: (FN = WASHR.O) >>>>>>

Q1= 7267 WS1= 2058.96
Q2= 7267 WS2= 2058.91

Manning-n's: n-lob = .06 n-ch = .035 n-rob = .06



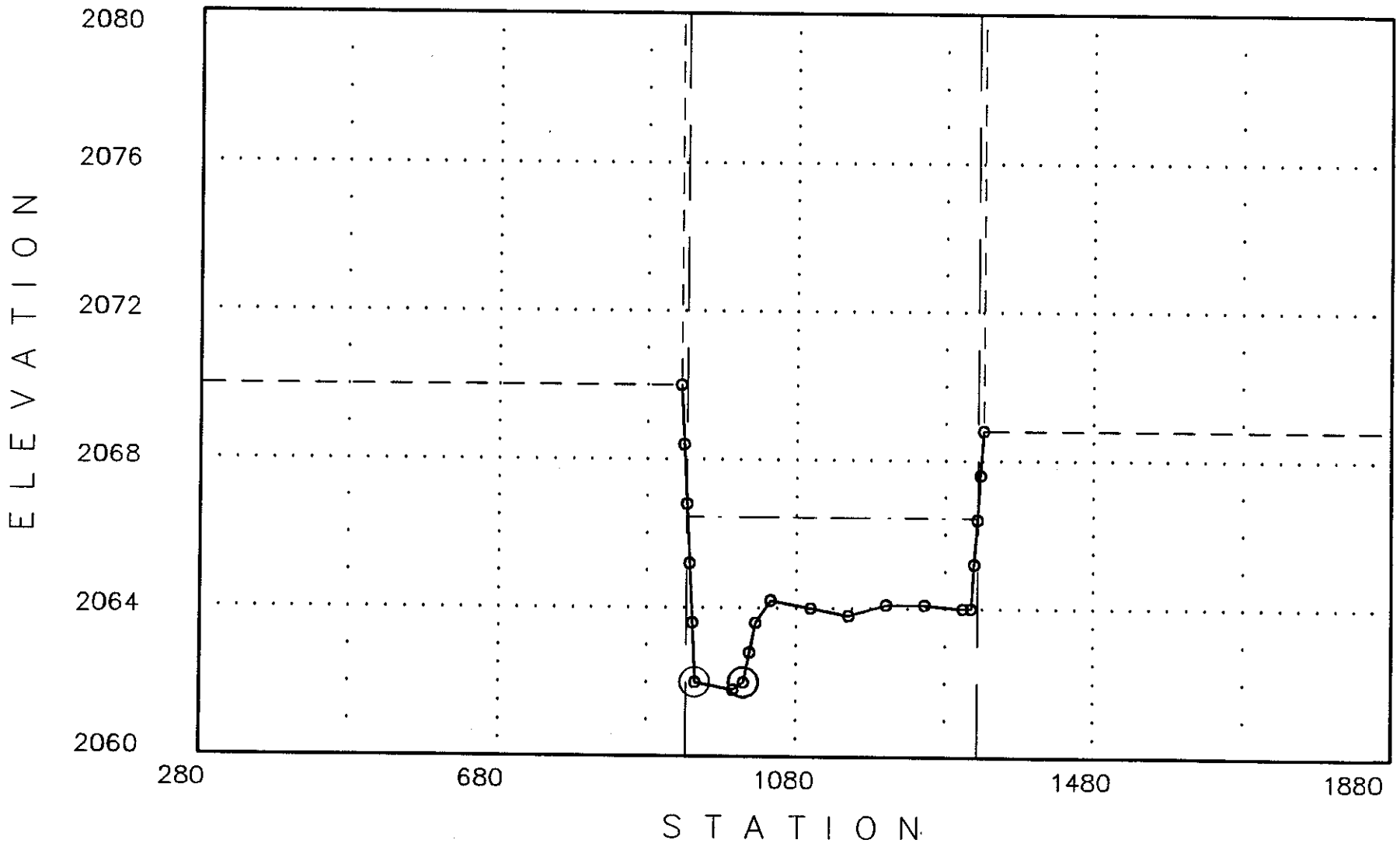
08-14-1992

<<<<<< Cross Section: .671: (FN = WASHR.O) >>>>>>

Q1= 7267 WS1= 2066.44

Q2= 7267 WS2= 2066.45

Manning-n's: n-lob = .06 n-ch = .035 n-rob = .06



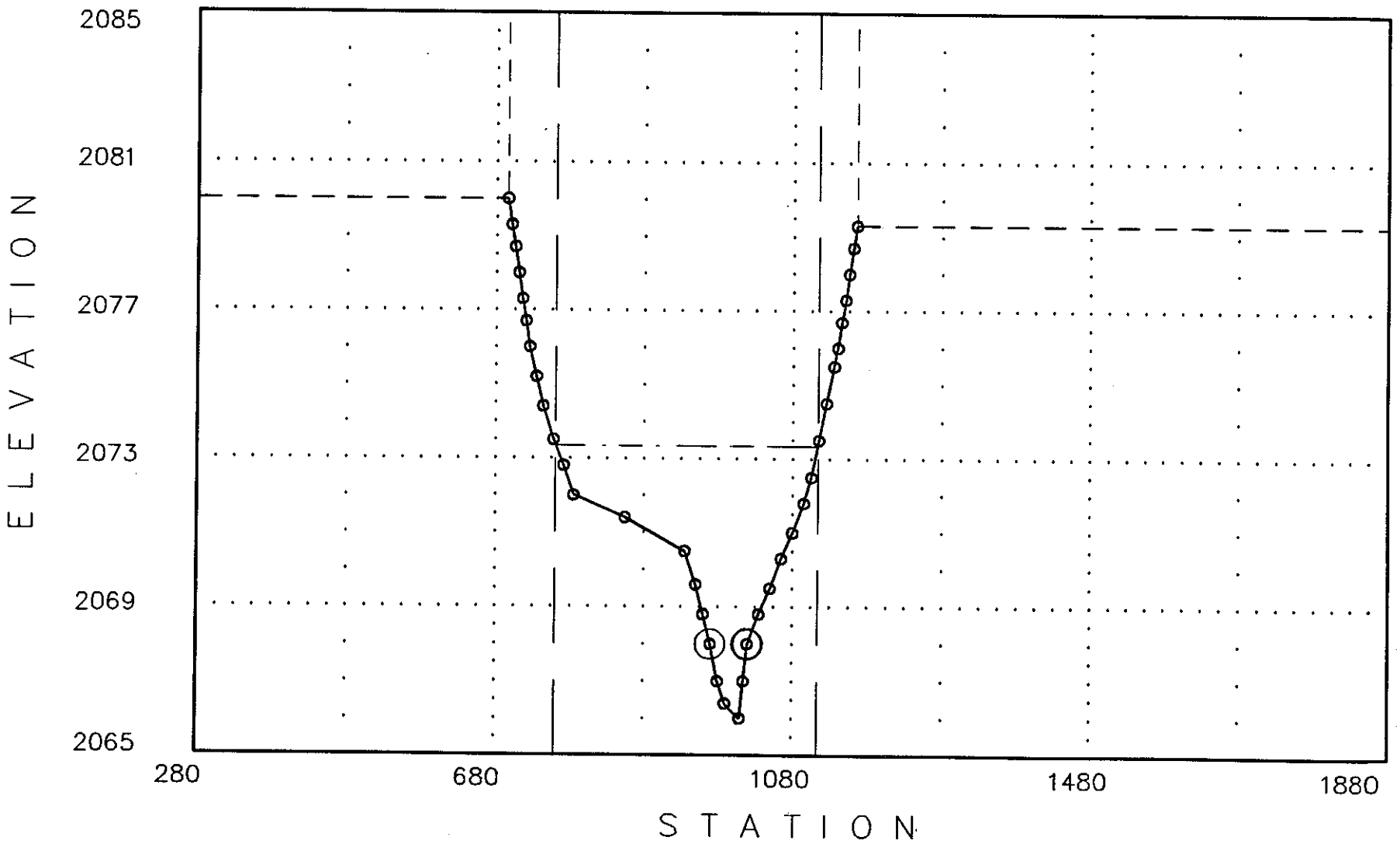
08-14-1992

<<<<<< Cross Section: .765: (FN = WASHR.O) >>>>>>

Q1= 7267 WS1= 2073.34

Q2= 7267 WS2= 2073.34

Manning-n's: n-lob = .06 n-ch = .035 n-rob = .06

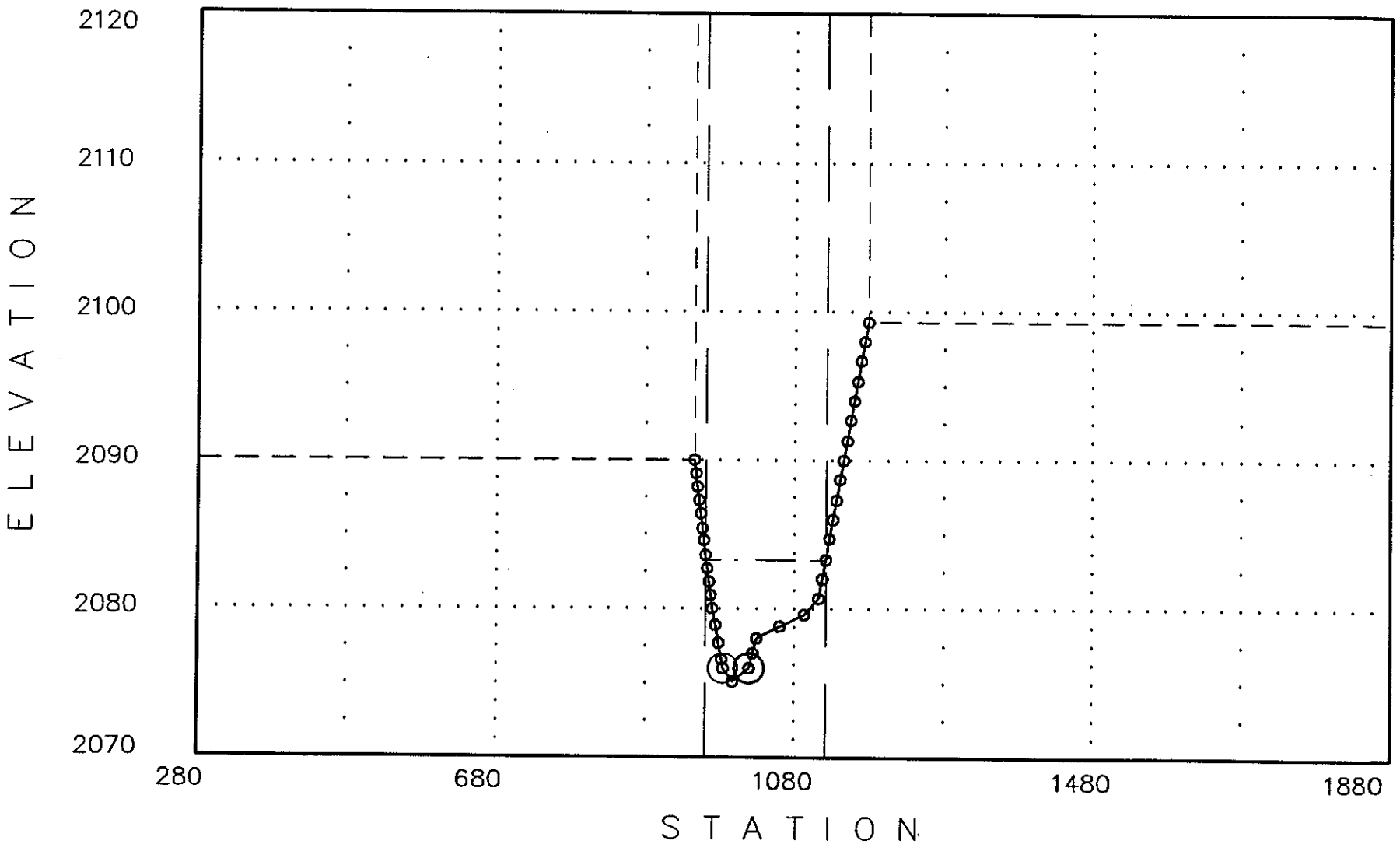


08-14-1992

<<<<<< Cross Section: .86: (FN = WASHR.O) >>>>>>

Q1= 7267 WS1= 2083.26
Q2= 7267 WS2= 2083.26

Manning-n's: n-lob = .06 n-ch = .035 n-rob = .06



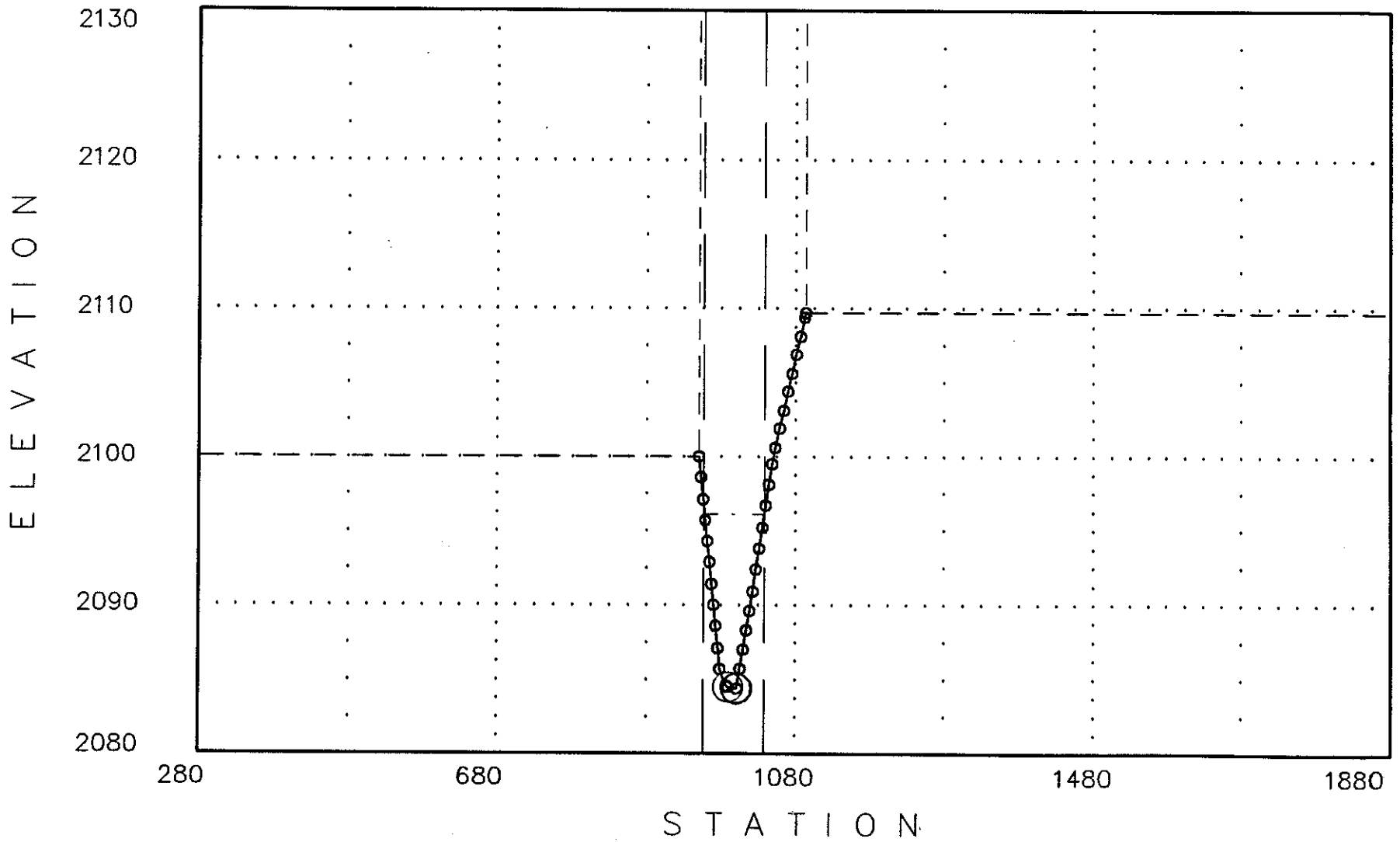
08-14-1992

<<<<<< Cross Section: .952: (FN = WASHR.O) >>>>>>

Q1= 7283 WS1= 2096.11

Q2= 7283 WS2= 2096.11

Manning-n's: n-lob = .06 n-ch = .035 n-rob = .06

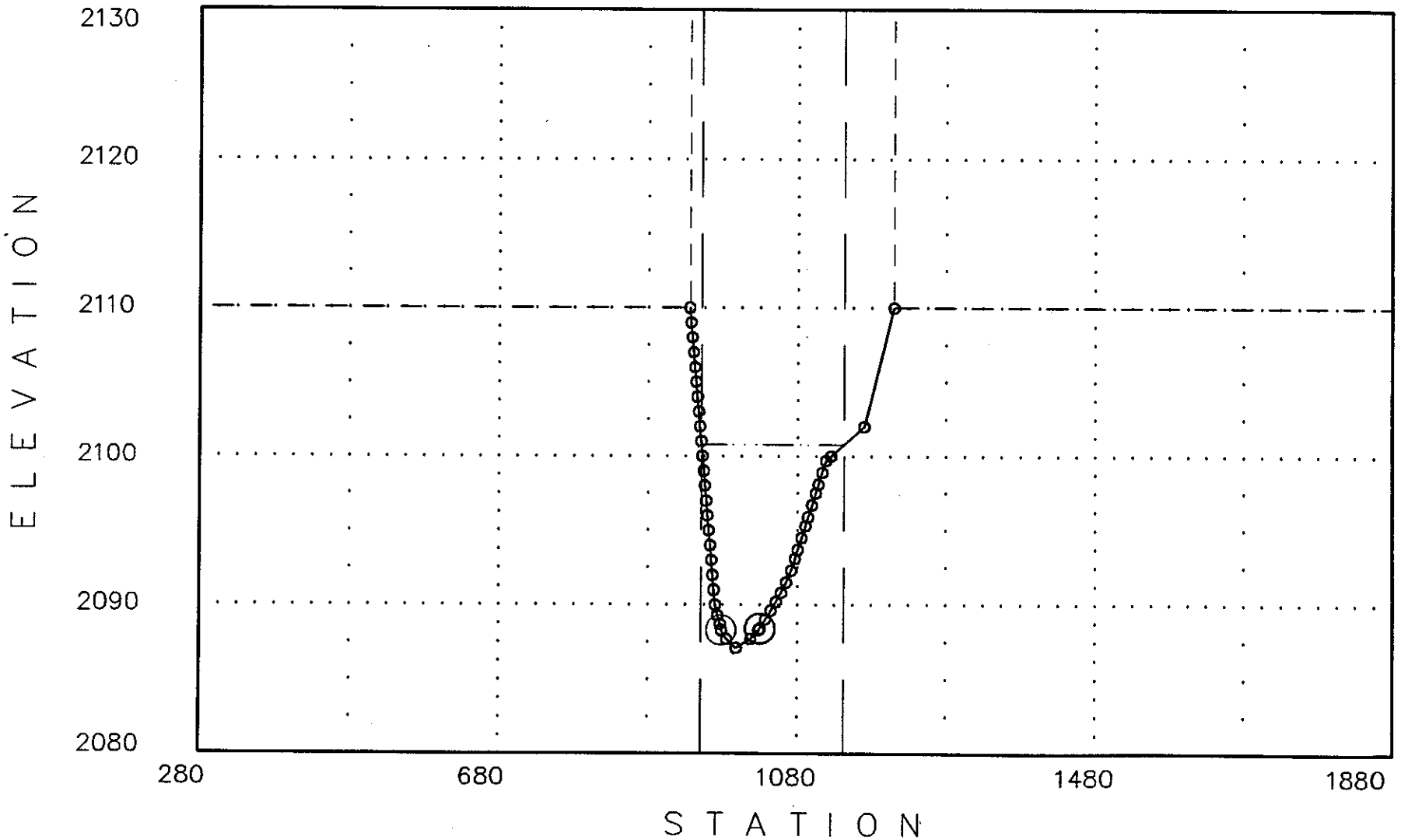


08-14-1992

<<<<<< Cross Section: 1.003: (FN = WASHR.O) >>>>>>

Q1= 7283 WS1= 2100.79
Q2= 7283 WS2= 2100.79

Manning-n's: n-lob = .06 n-ch = .035 n-rob = .06

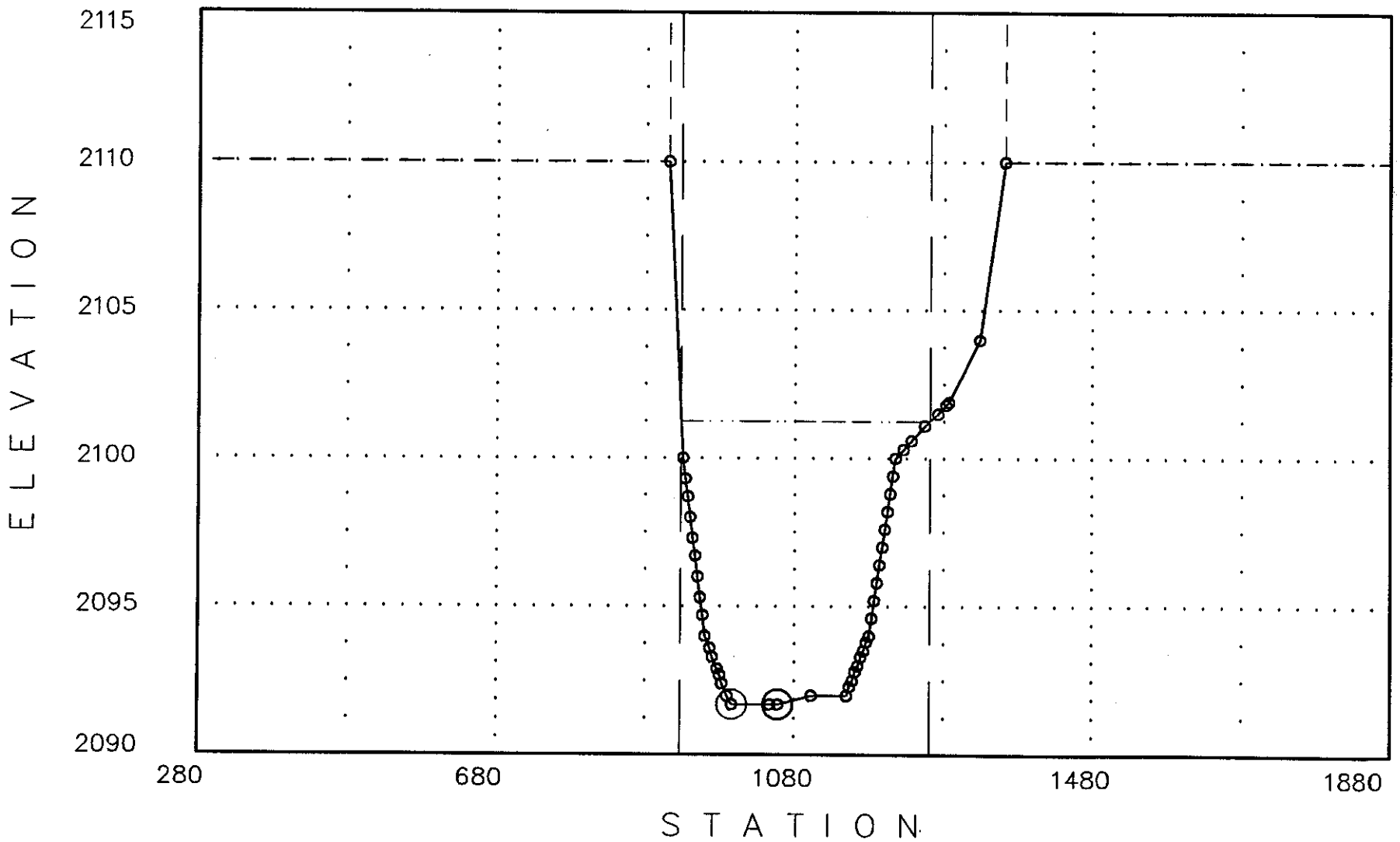


08-14-1992

<<<<<< Cross Section: 1.038: (FN = WASHR.O) >>>>>>

Q1= 7283 WS1= 2101.25
Q2= 7283 WS2= 2101.25

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

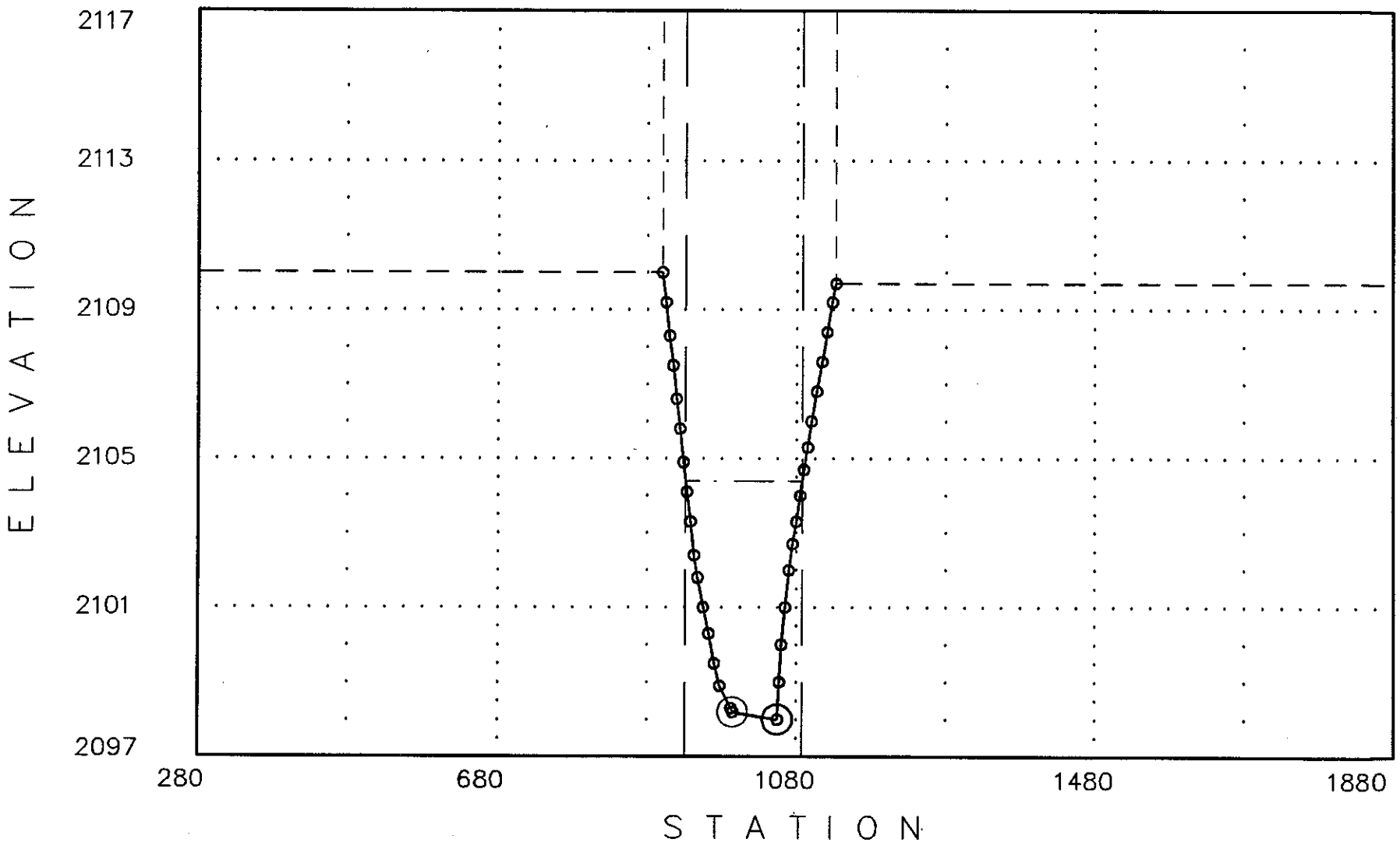


08-14-1992

<<<<<< Cross Section: 1.141: (FN = WASHR.O) >>>>>>

Q1= 7283 WS1= 2104.39
Q2= 7283 WS2= 2104.39

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

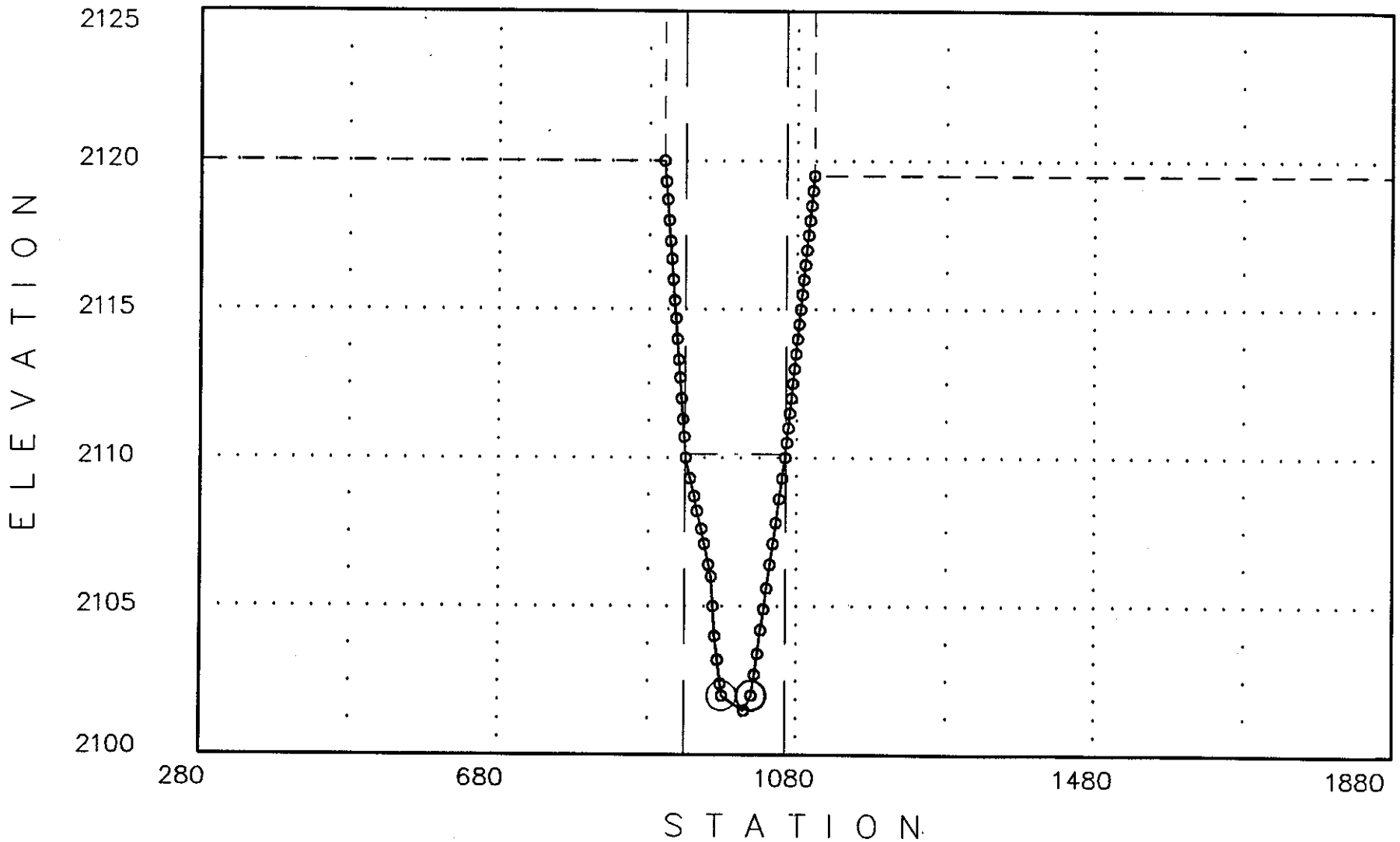


08-14-1992

<<<<<< Cross Section: 1.191: (FN = WASHR.O) >>>>>>

Q1= 7283 WS1= 2110.12
Q2= 7283 WS2= 2110.12

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

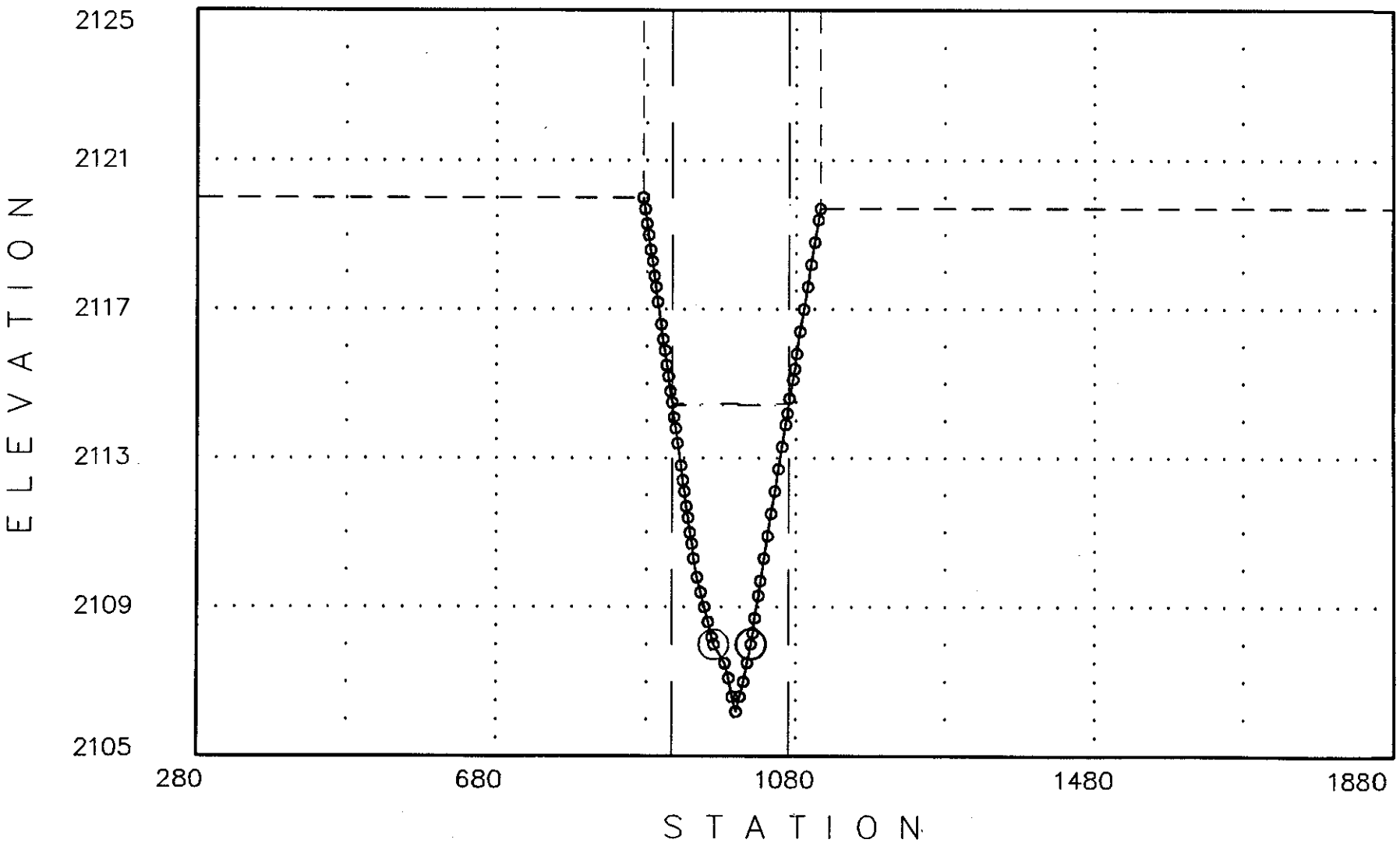


08-14-1992

<<<<<< Cross Section: 1.199: (FN = WASHR.O) >>>>>>

Q1= 7283 WS1= 2114.46
Q2= 7283 WS2= 2114.42

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

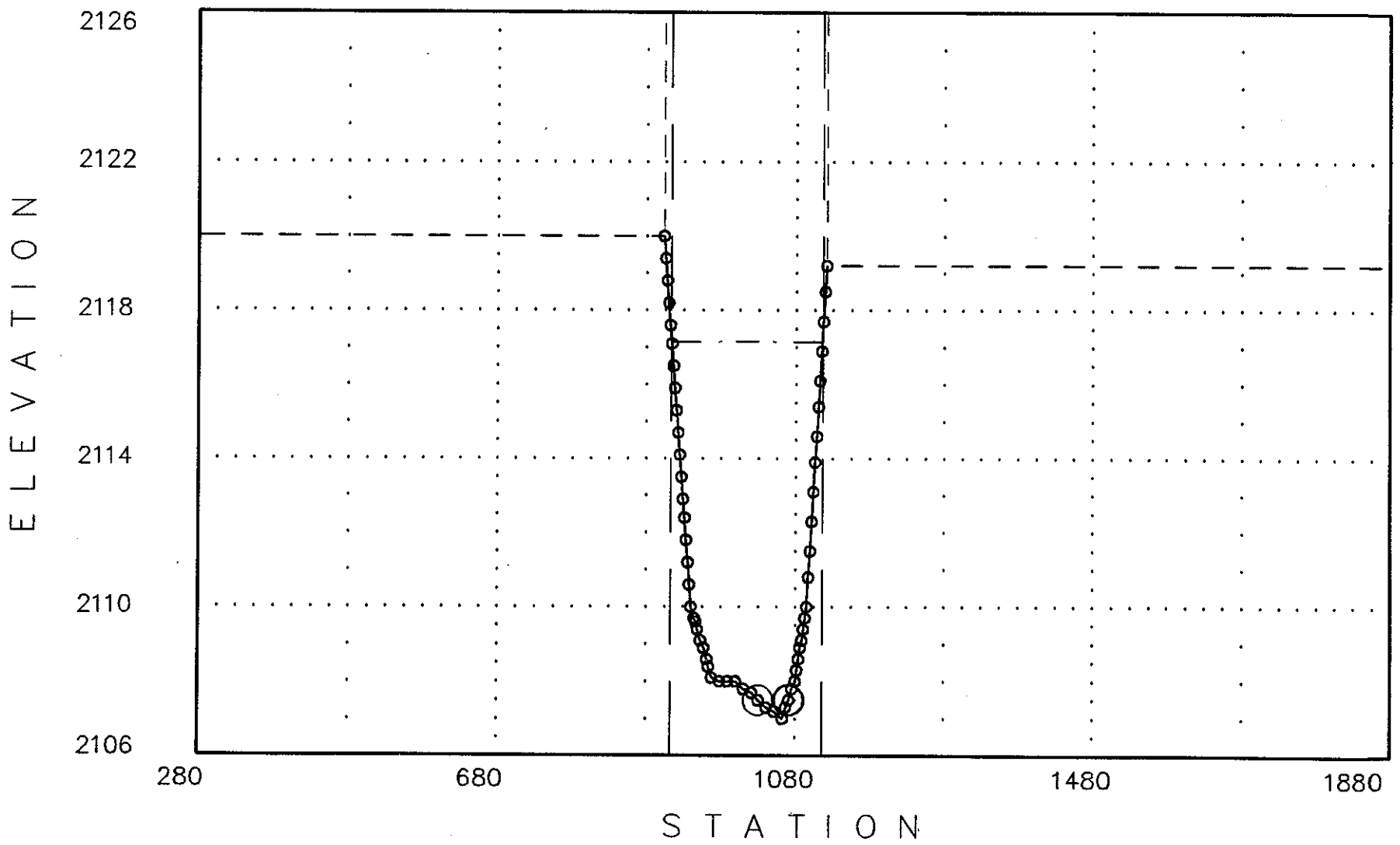


08-14-1992

<<<<<< Cross Section: 1.233: (FN = WASHR.O) >>>>>>

Q1= 7283 WS1= 2117.15
Q2= 7283 WS2= 2117.16

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065



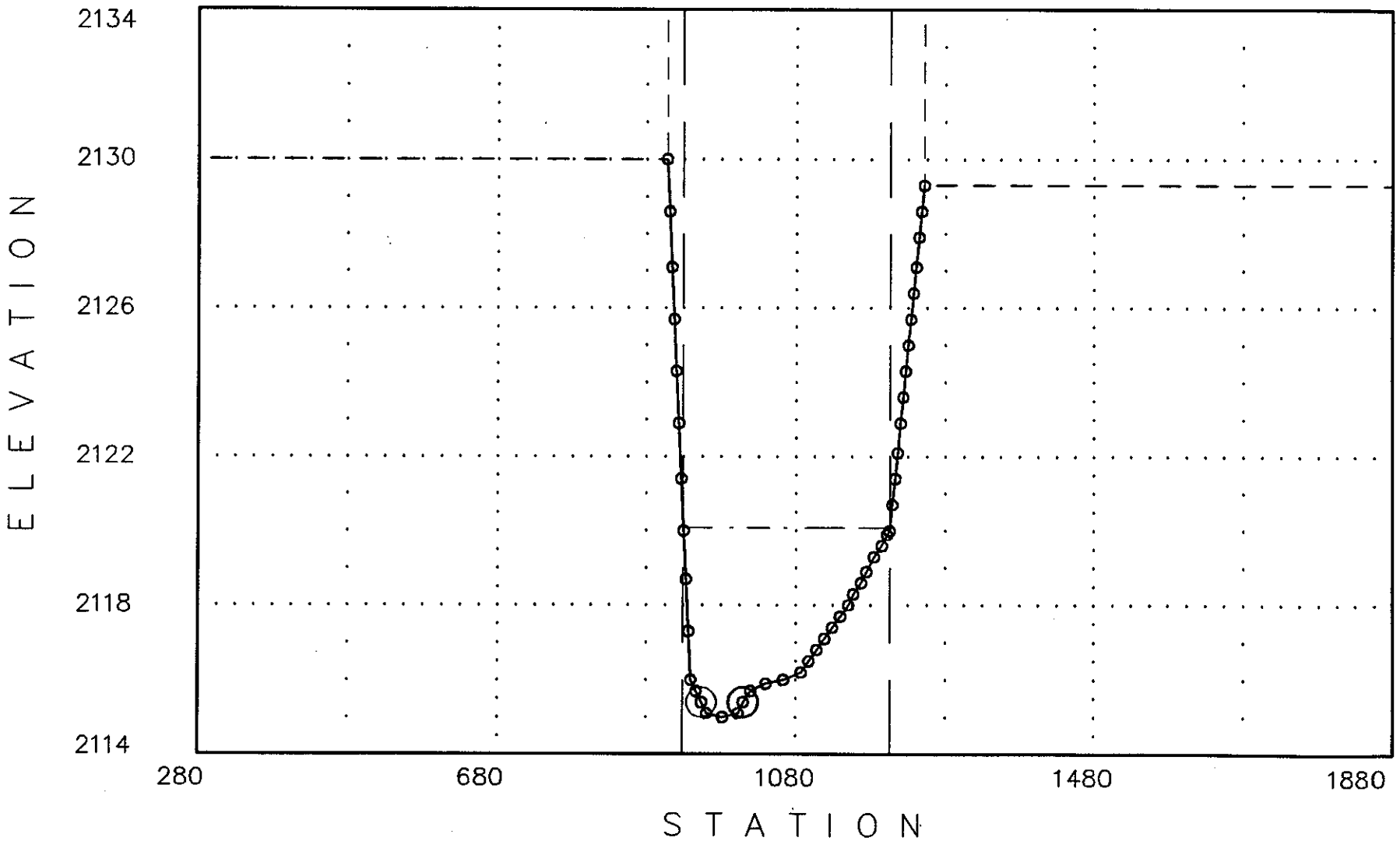
08-14-1992

<<<<<< Cross Section: 1.328: (FN = WASHR.O) >>>>>>

Q1= 7283 WS1= 2120.09

Q2= 7283 WS2= 2120.08

Manning-n's: n-lob = .07 n-ch = 0 n-rob = .07

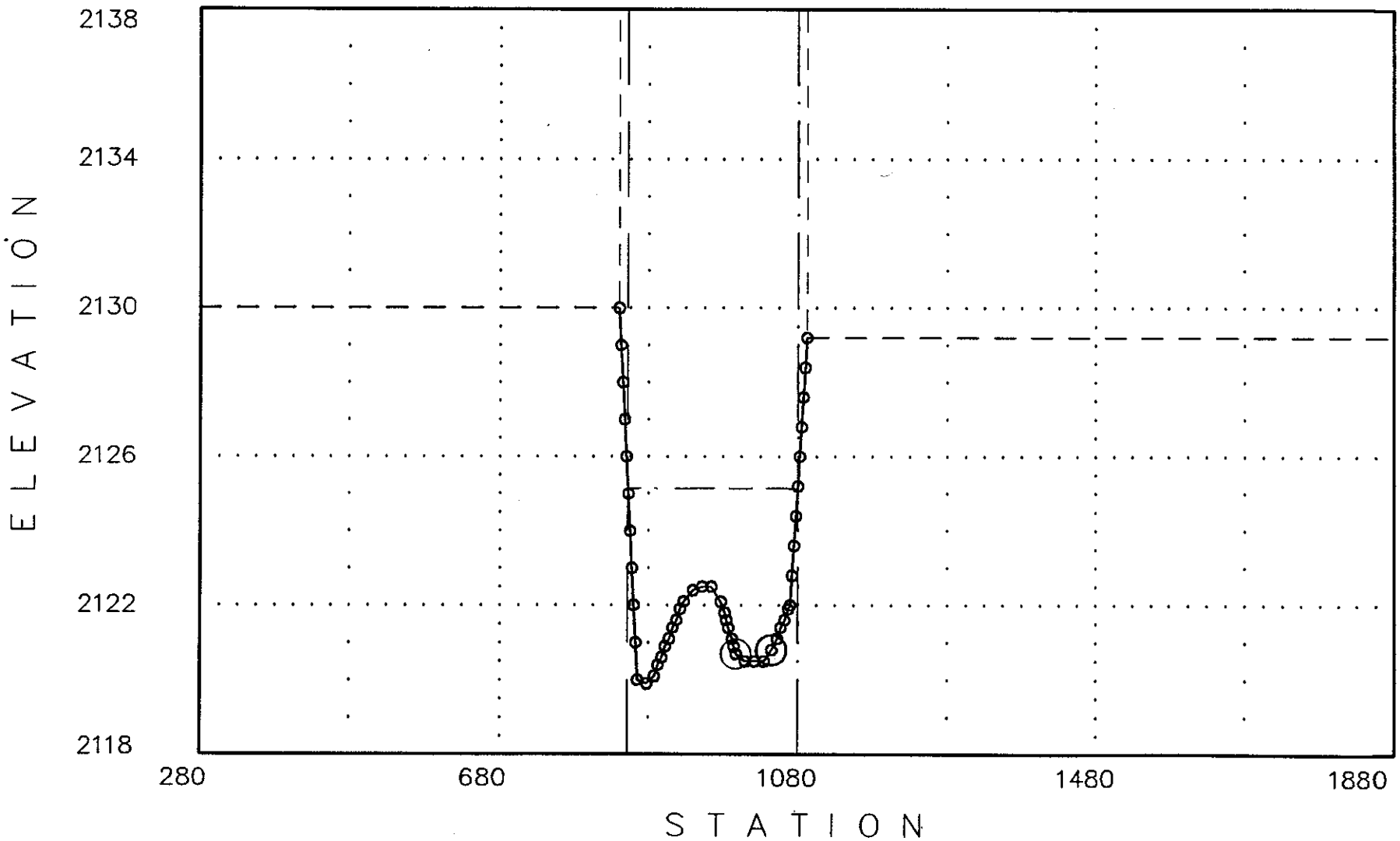


08-14-1992

<<<<<< Cross Section: 1.401: (FN = WASHR.O) >>>>>>

Q1= 7299 WS1= 2125.14
Q2= 7299 WS2= 2125.15

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

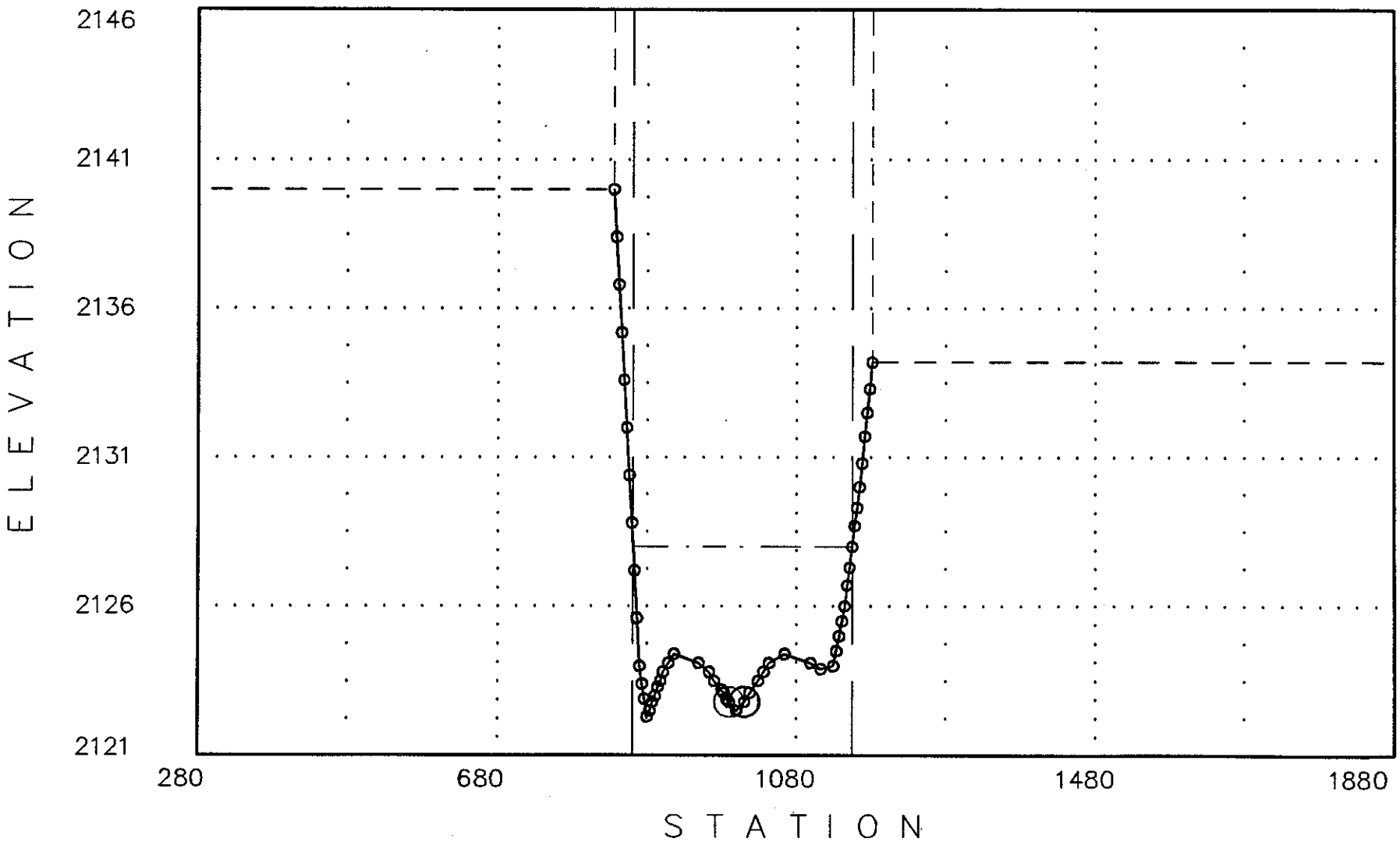


08-14-1992

<<<<<< Cross Section: 1.431: (FN = WASHR.O) >>>>>>

Q1= 7299 WS1= 2128
Q2= 7299 WS2= 2128

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065



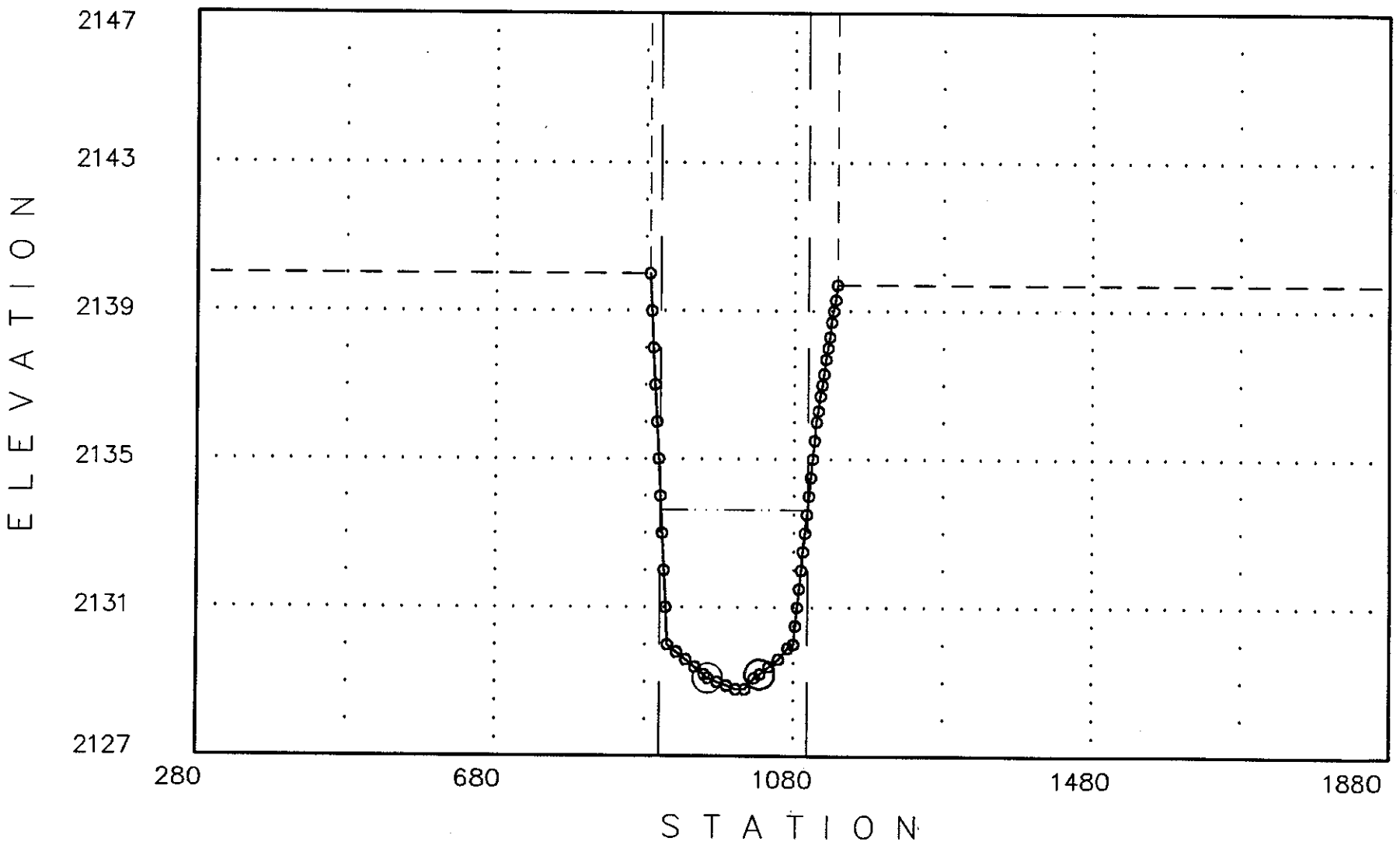
08-14-1992

<<<<<< Cross Section: 1.508: (FN = WASHR.O) >>>>>>

Q1= 7299 WS1= 2133.63

Q2= 7299 WS2= 2133.63

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .065

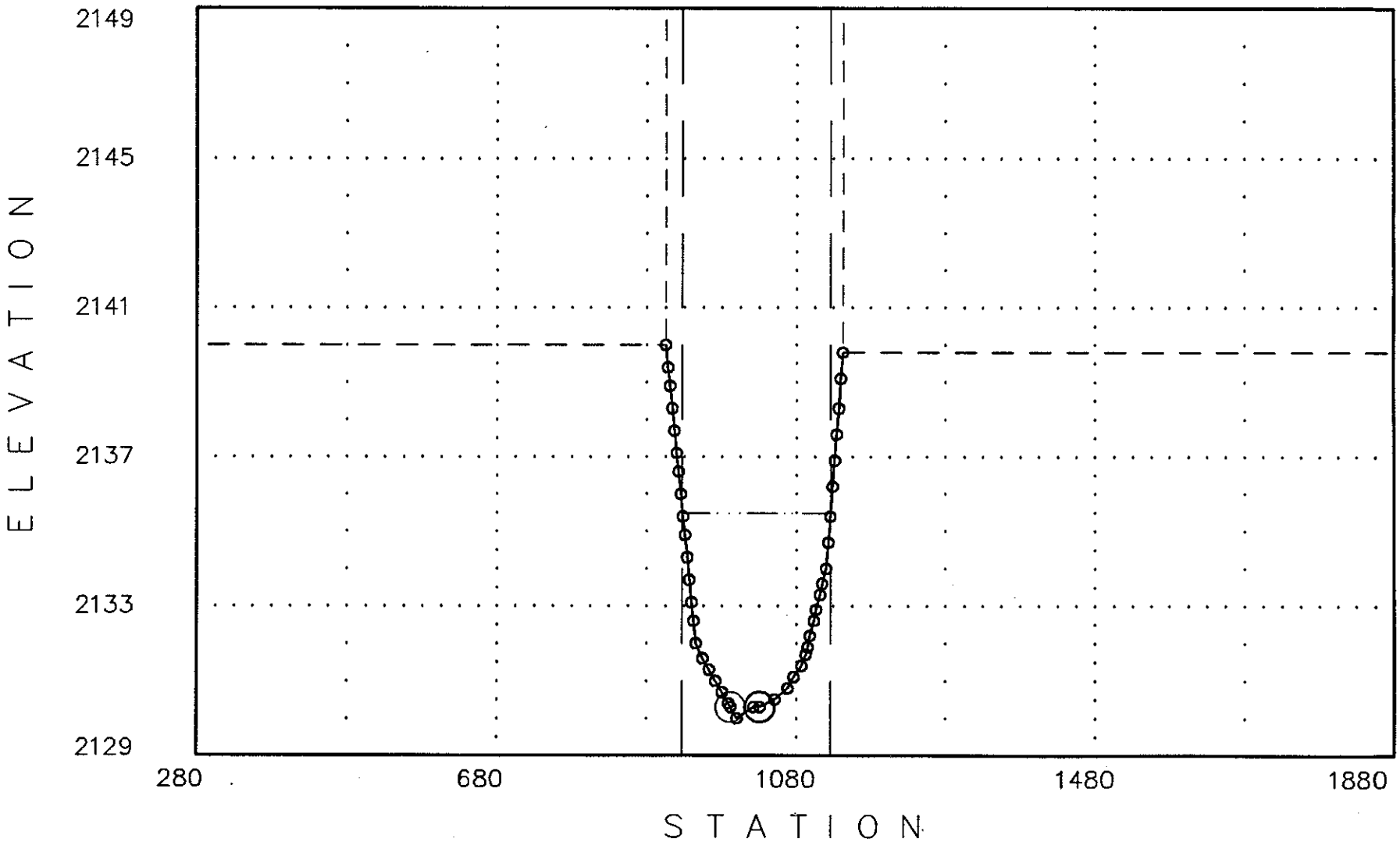


08-14-1992

<<<<<< Cross Section: 1.531: (FN = WASHR.O) >>>>>>

Q1= 7299 WS1= 2135.49
Q2= 7299 WS2= 2135.49

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .065

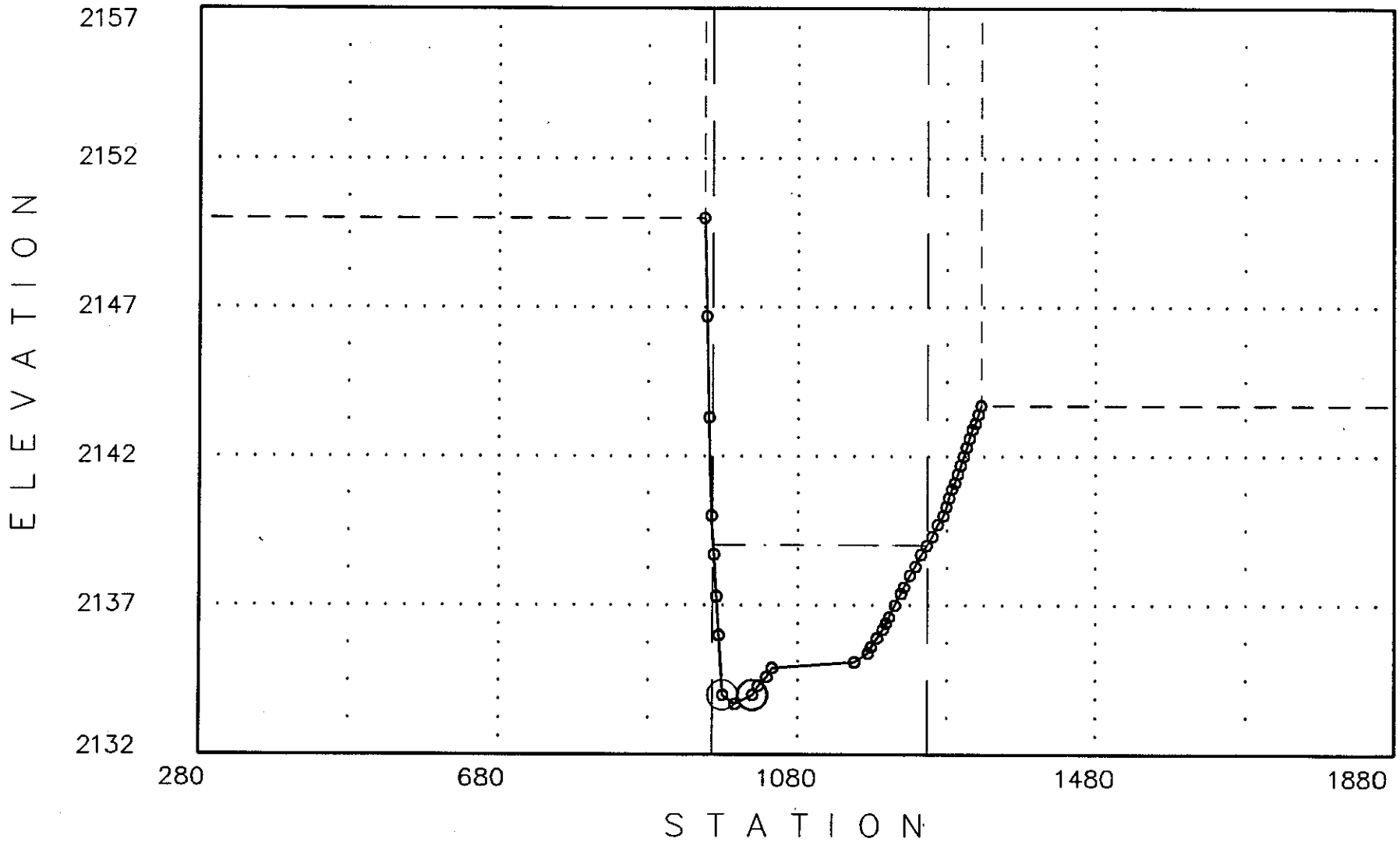


08-14-1992

<<<<<< Cross Section: 1.566: (FN = WASHR.O) >>>>>>

Q1= 7299 WS1= 2139.02
Q2= 7299 WS2= 2139.02

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .065

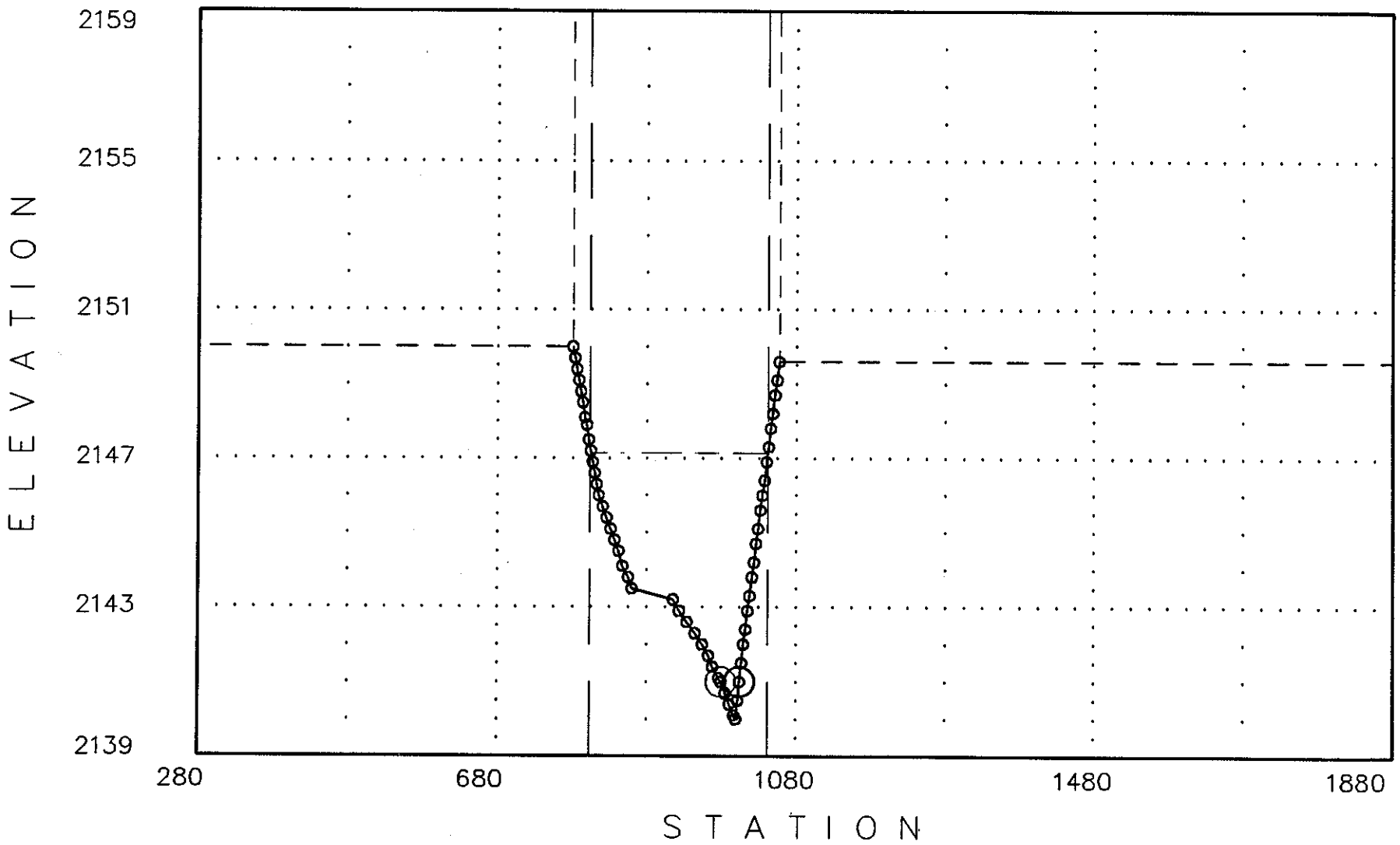


08-14-1992

<<<<<< Cross Section: 1.656: (FN = WASHR.O) >>>>>>

Q1= 7299 WS1= 2147.14
Q2= 7299 WS2= 2147.14

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

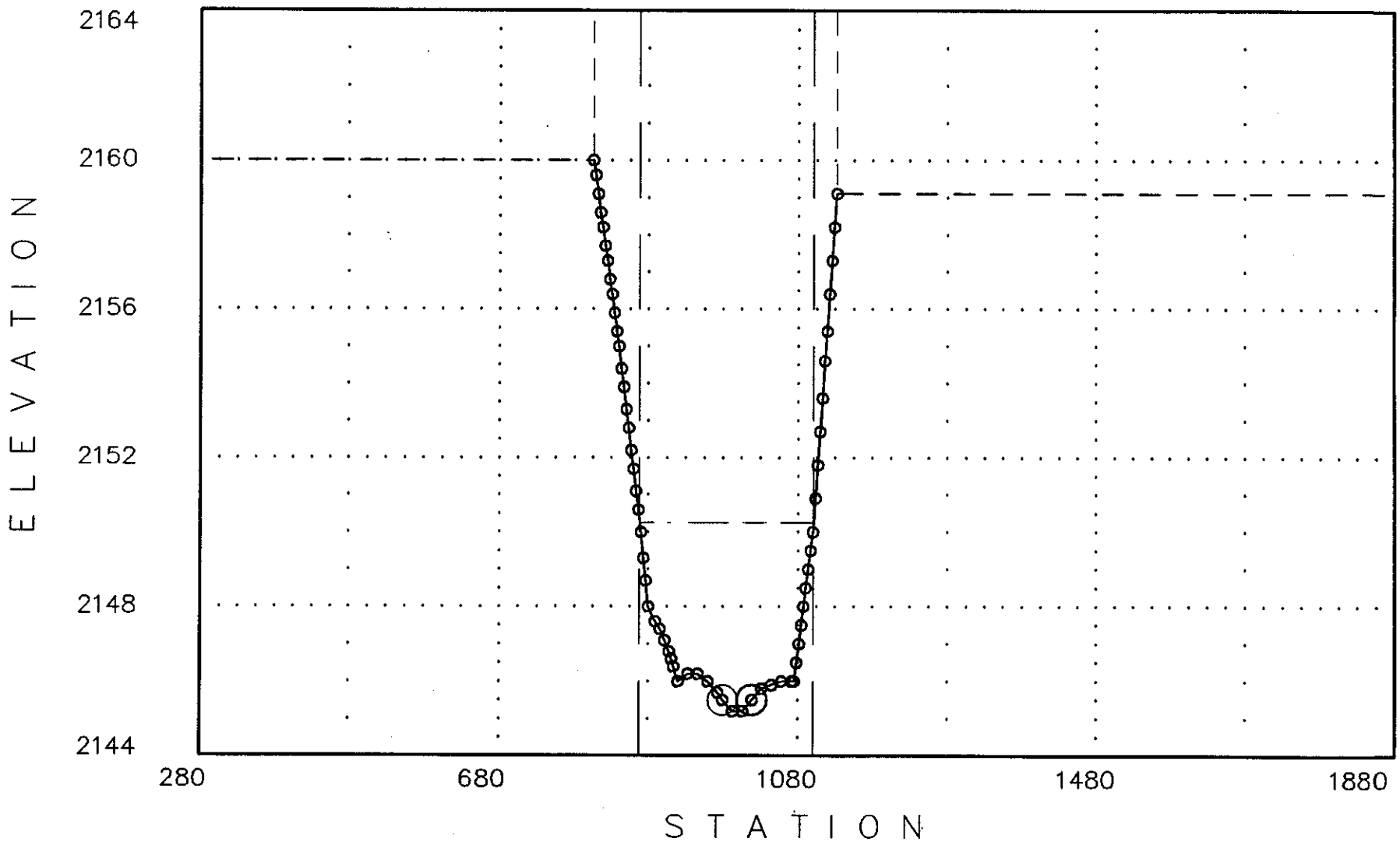


08-14-1992

<<<<<< Cross Section: 1.705: (FN = WASHR.O) >>>>>>

Q1= 7299 WS1= 2150.26
Q2= 7299 WS2= 2150.26

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

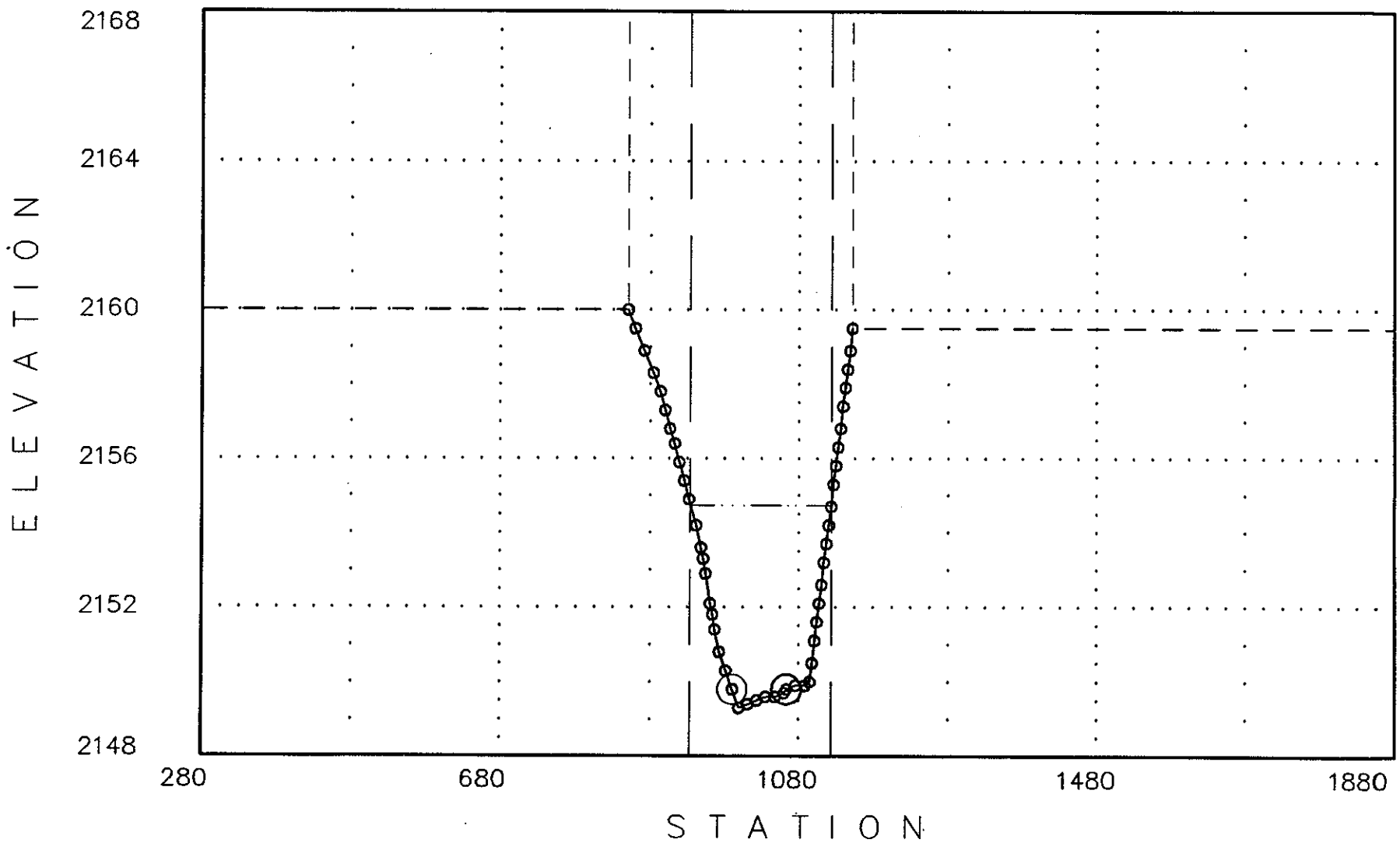


08-14-1992

<<<<<< Cross Section: 1.751: (FN = WASHR.O) >>>>>>

Q1= 7299 WS1= 2154.74
Q2= 7299 WS2= 2154.74

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

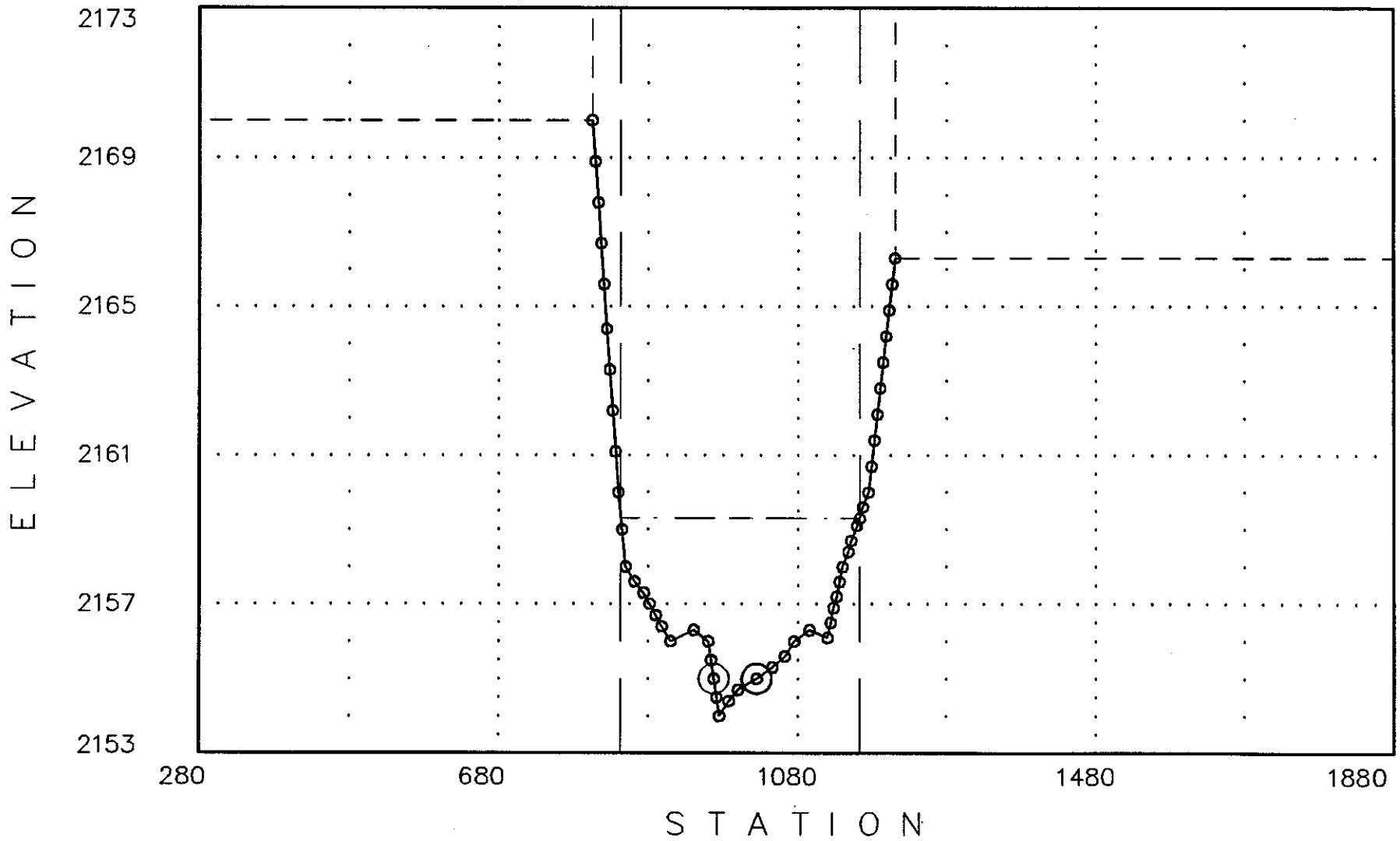


08-14-1992

<<<<<< Cross Section: 1.813: (FN = WASHR.O) >>>>>>

Q1= 7299 WS1= 2159.31
Q2= 7299 WS2= 2159.31

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

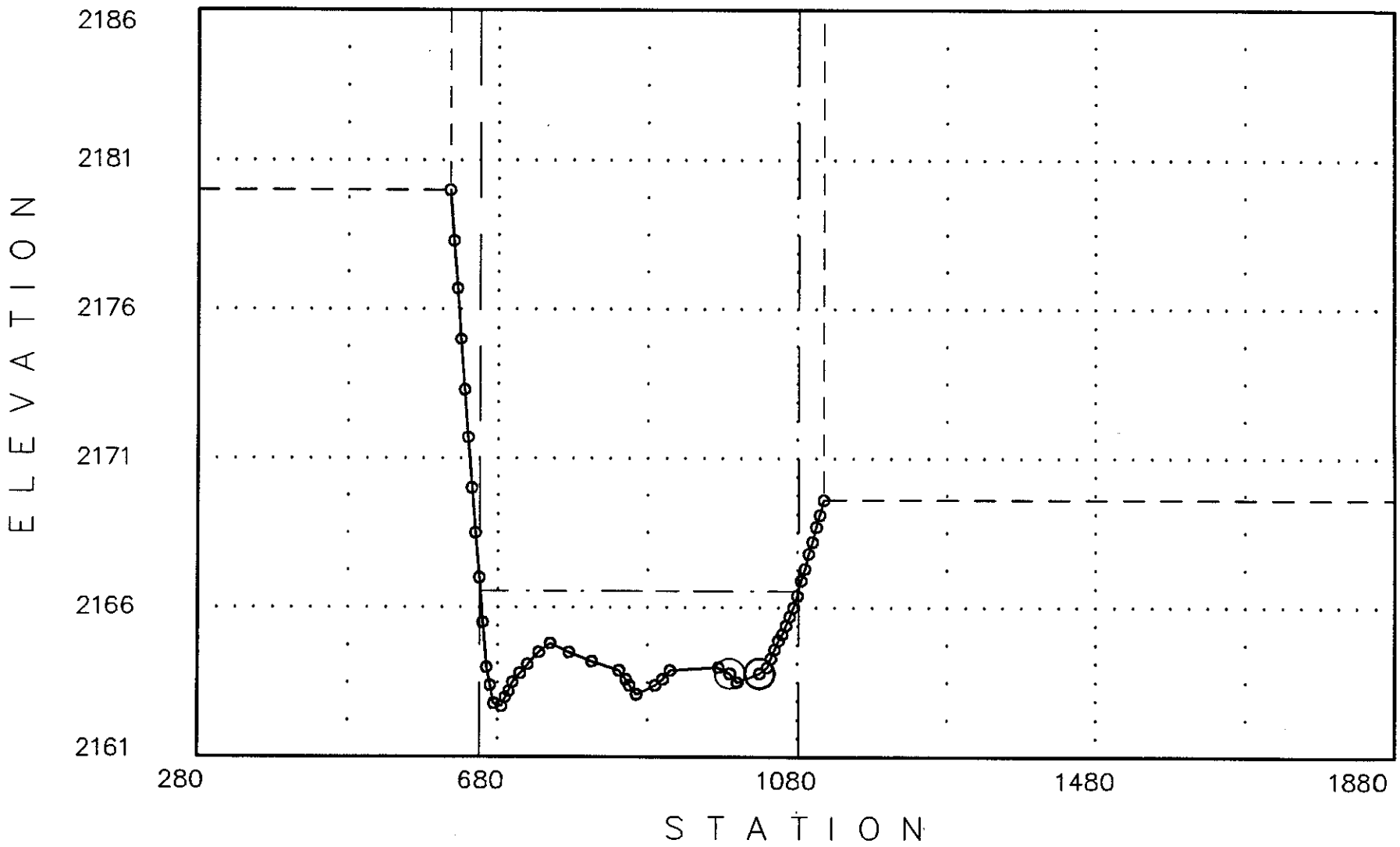


08-14-1992

<<<<<< Cross Section: 1.902: (FN = WASHR.O) >>>>>>

Q1= 7156 WS1= 2166.55
Q2= 7156 WS2= 2166.55

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

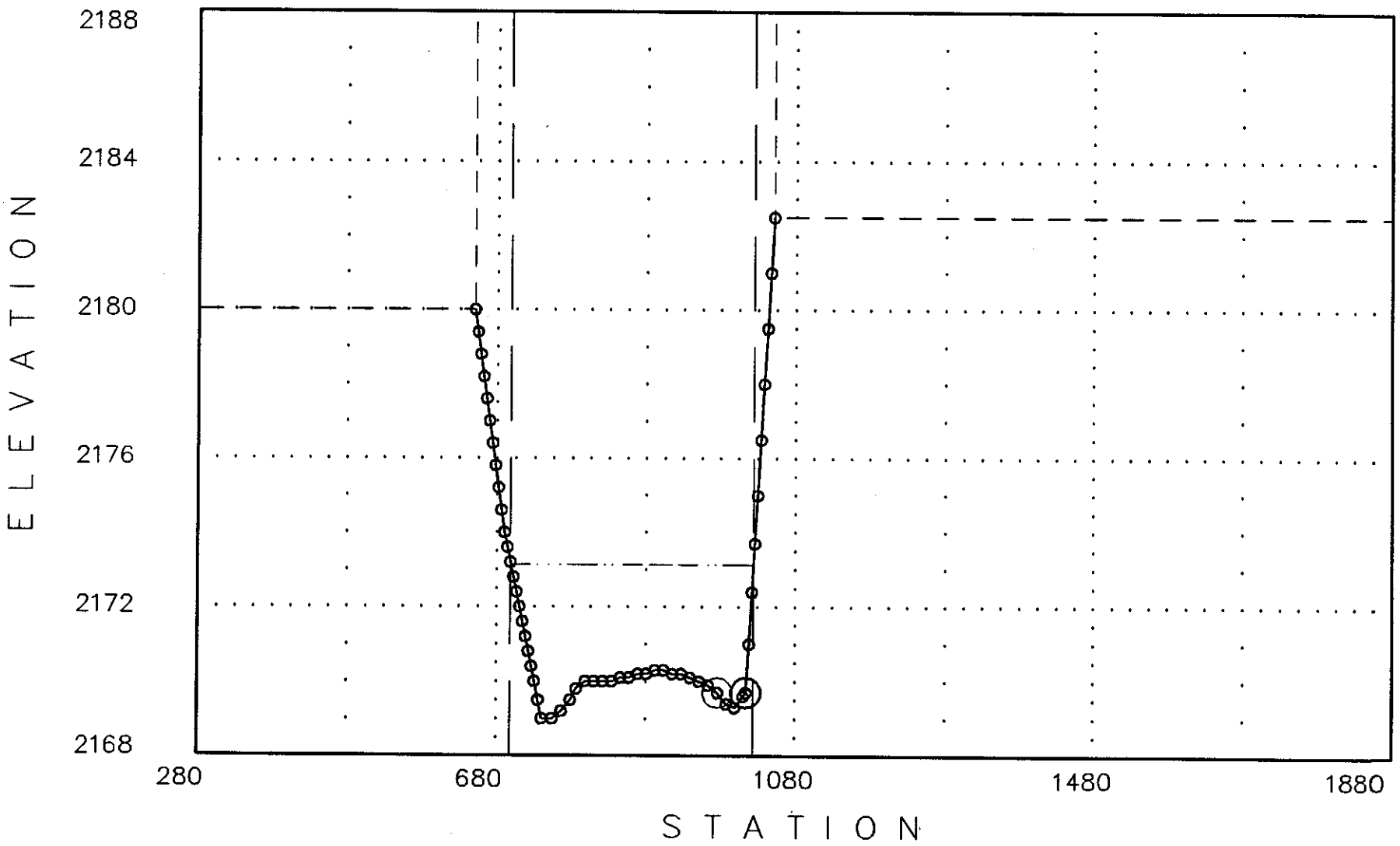


08-14-1992

<<<<<< Cross Section: 1.966: (FN = WASHR.O) >>>>>>

Q1= 7156 WS1= 2173.13
Q2= 7156 WS2= 2173.13

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .065

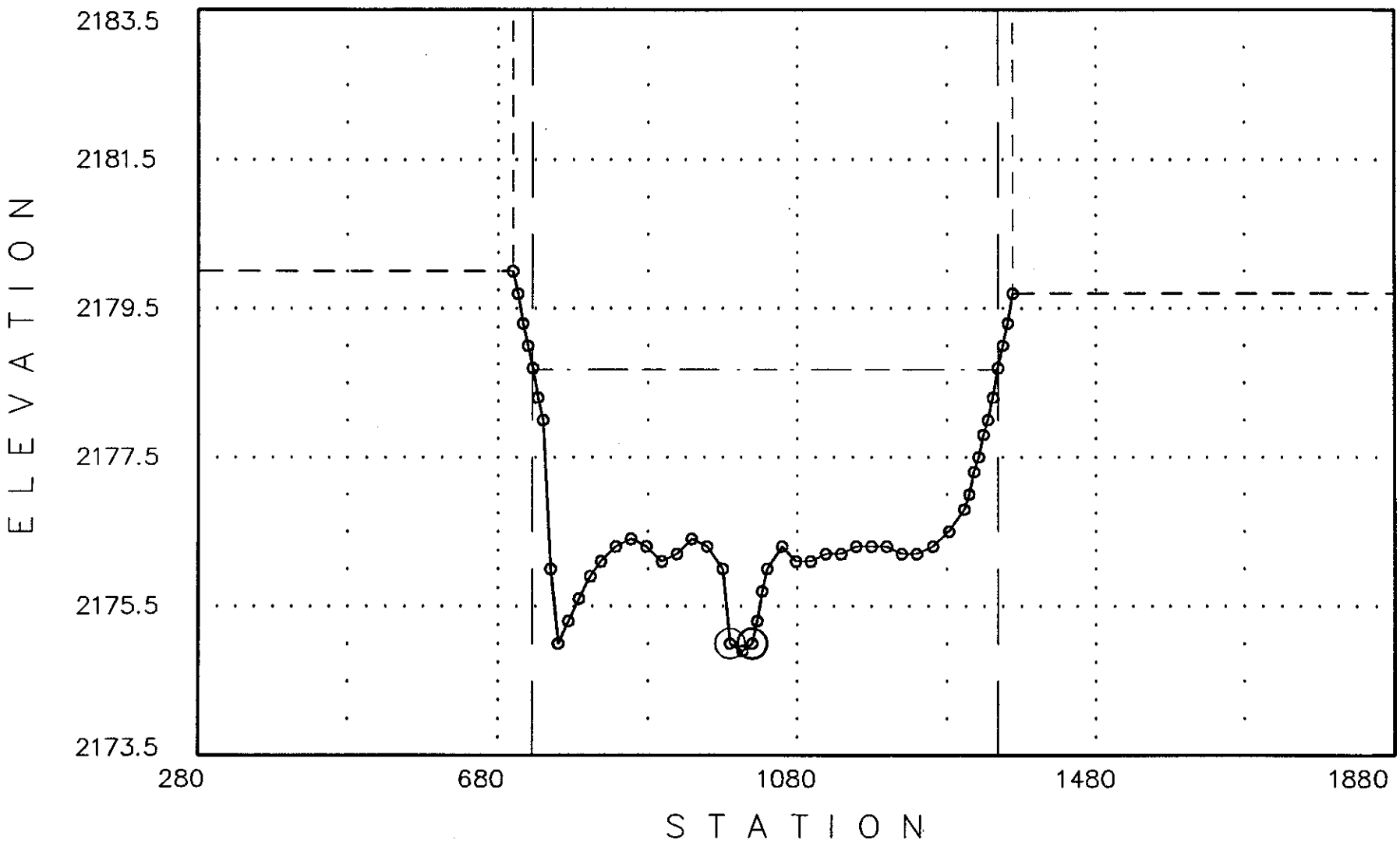


08-14-1992

<<<<<< Cross Section: 2.034: (FN = WASHR.O) >>>>>>

Q1= 7156 WS1= 2178.68
Q2= 7156 WS2= 2178.68

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .065

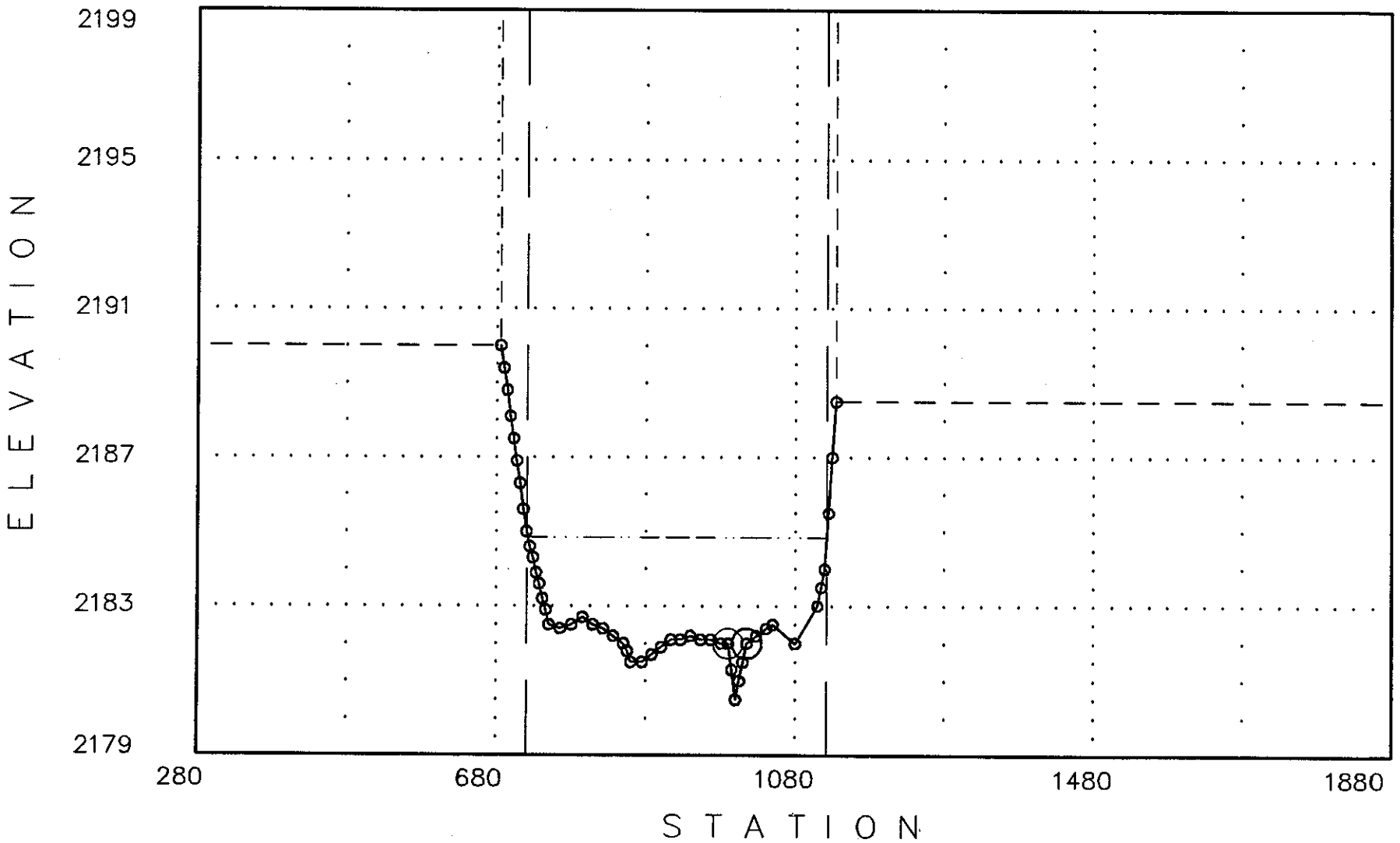


08-14-1992

<<<<<< Cross Section: 2.093: (FN = WASHR.O) >>>>>>

Q1= 7156 WS1= 2184.84
Q2= 7156 WS2= 2184.84

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .065

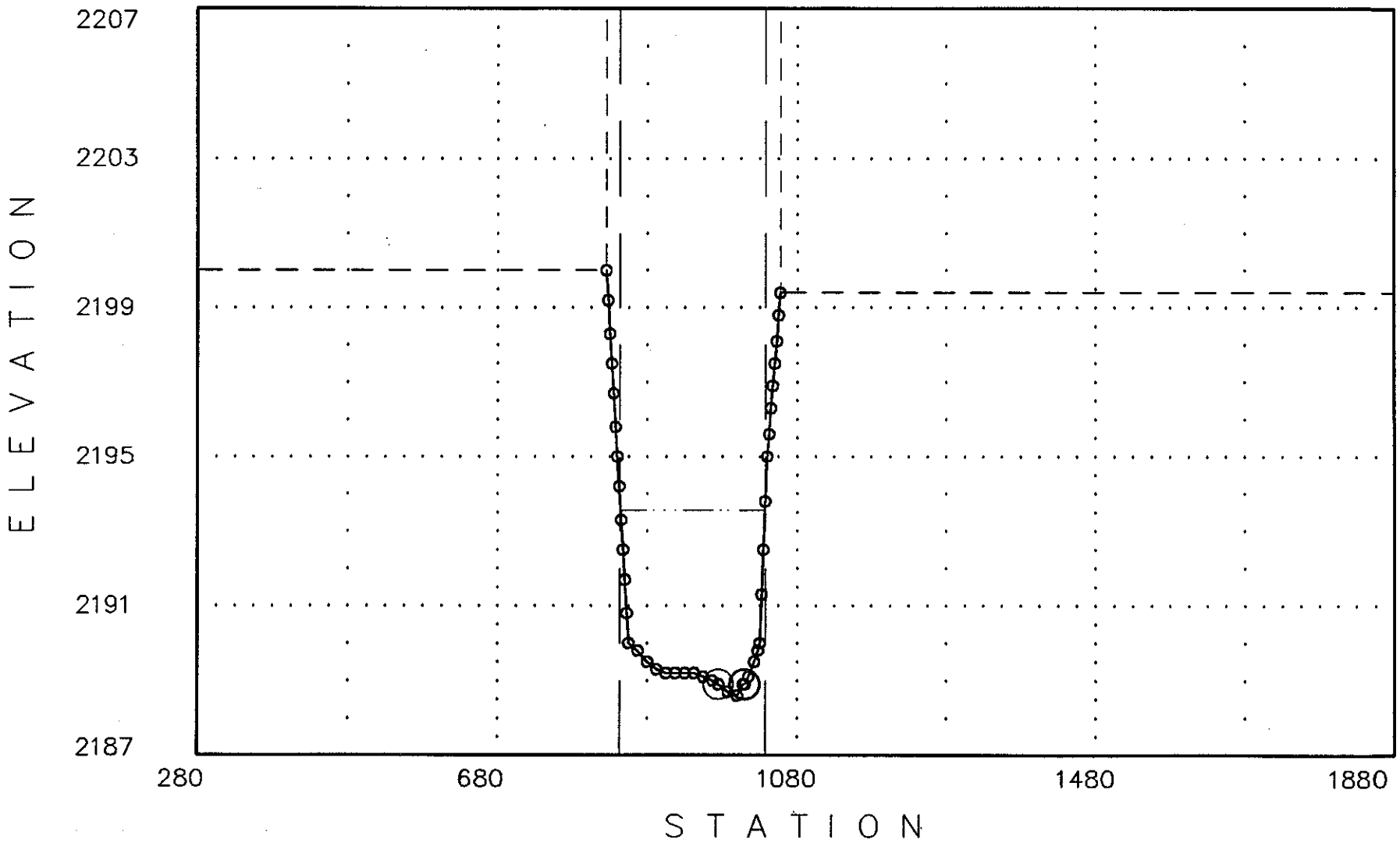


08-14-1992

<<<<<< Cross Section: 2.188: (FN = WASHR.0) >>>>>>

Q1= 7156 WS1= 2193.57
Q2= 7156 WS2= 2193.57

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .065

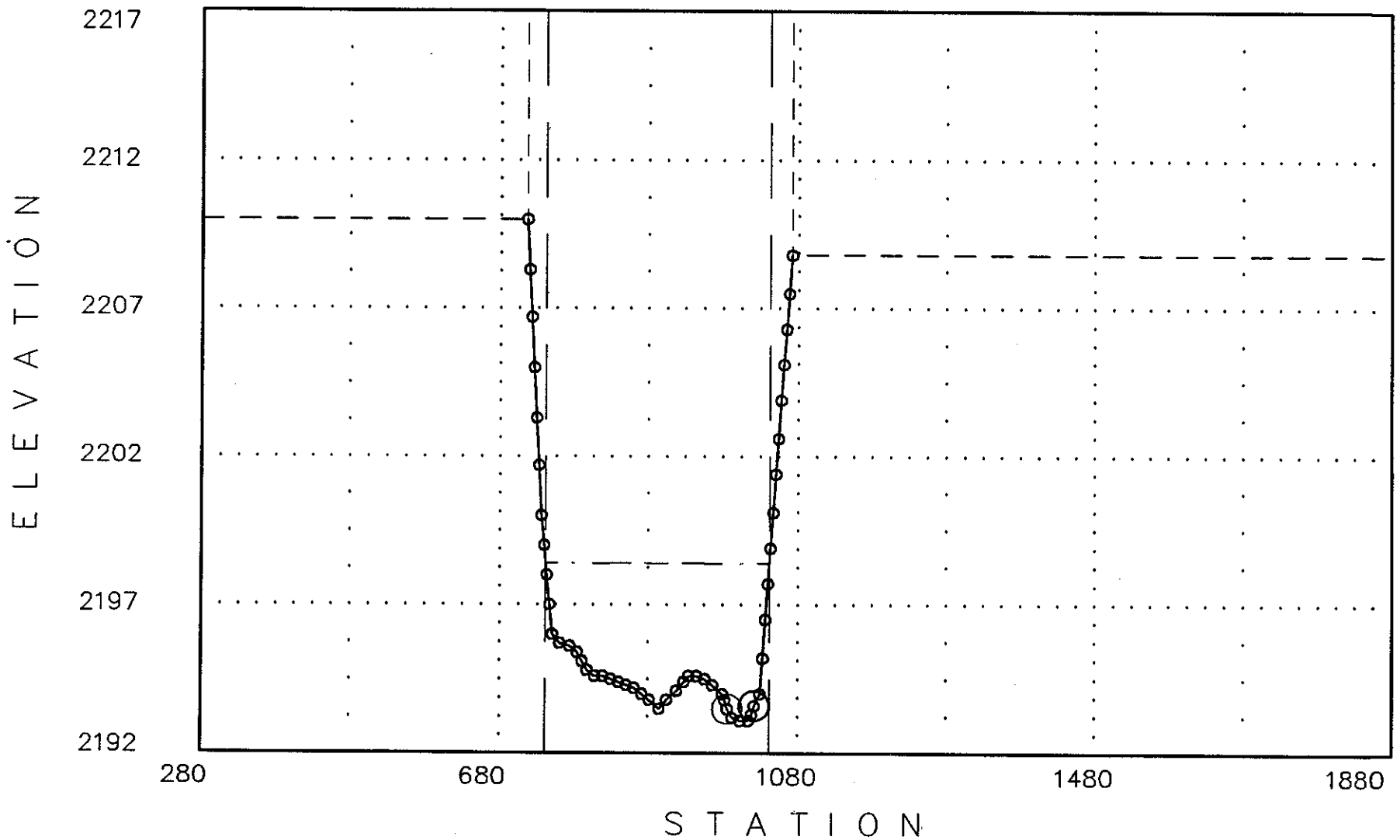


08-14-1992

<<<<<< Cross Section: 2.248: (FN = WASHR.O) >>>>>>

Q1= 7013 WS1= 2198.39
Q2= 7013 WS2= 2198.4

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

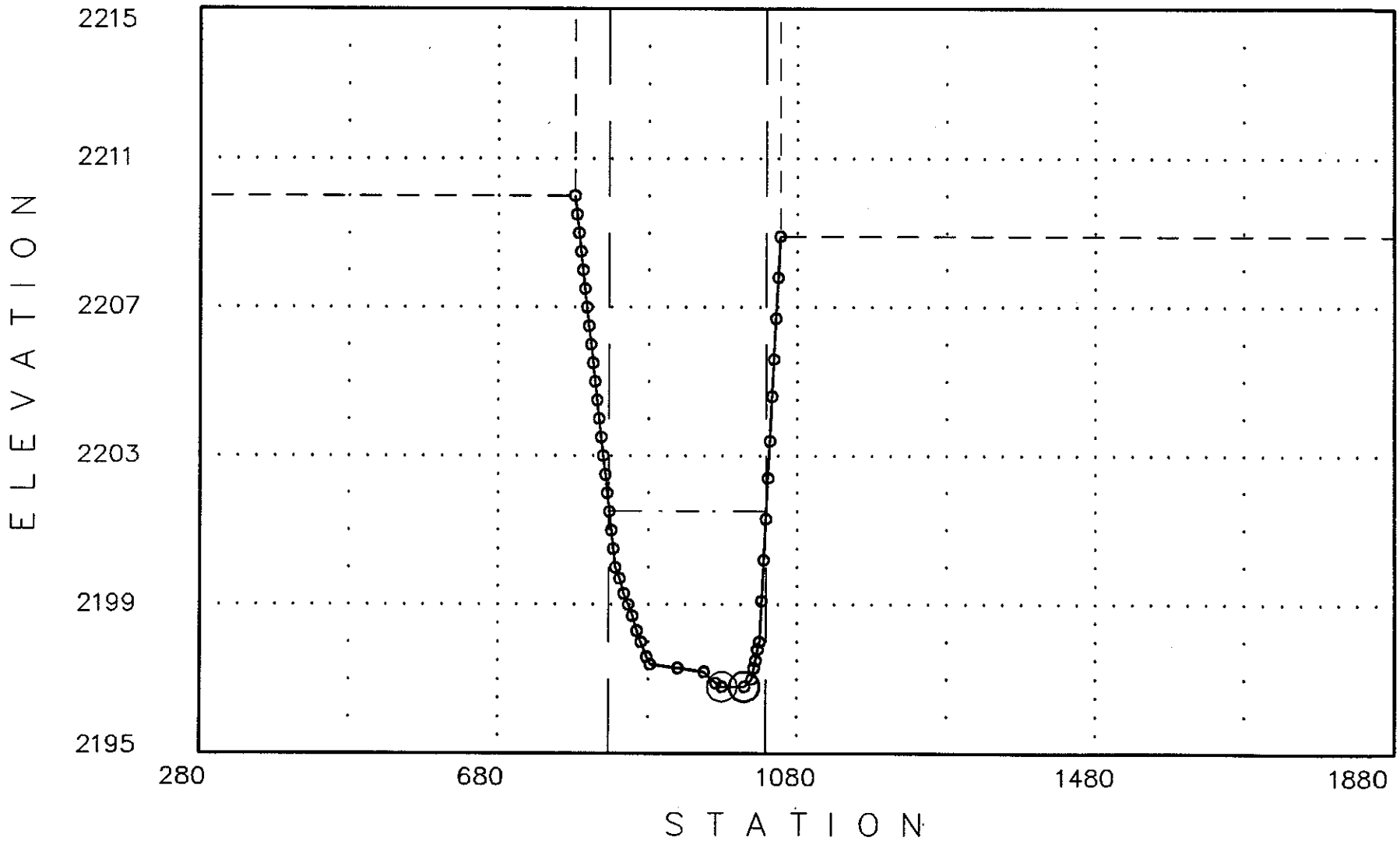


08-14-1992

<<<<<< Cross Section: 2.295: (FN = WASHR.O) >>>>>>

Q1= 7013 WS1= 2201.51
Q2= 7013 WS2= 2201.51

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

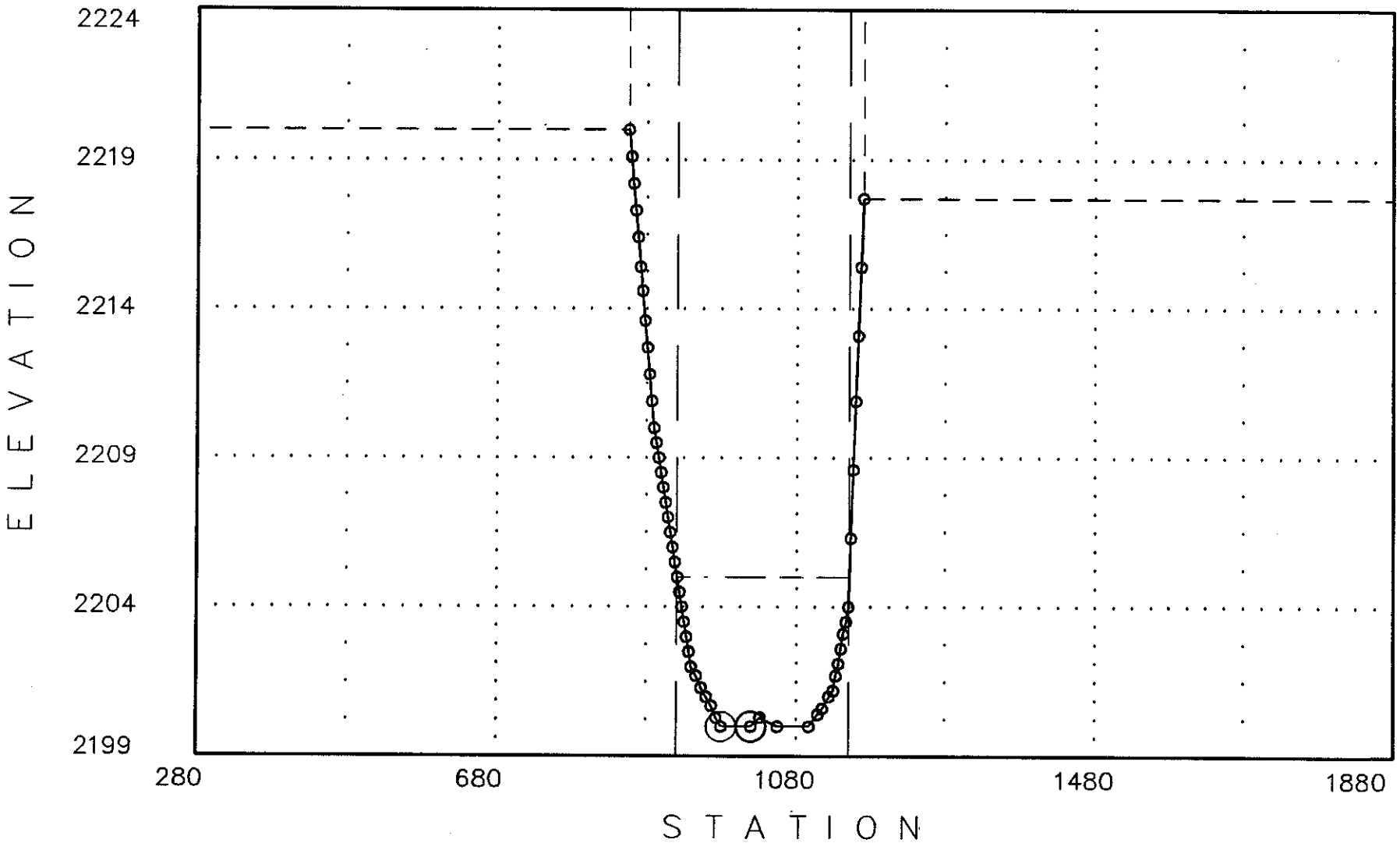


08-14-1992

<<<<<< Cross Section: 2.338: (FN = WASHR.O) >>>>>>

Q1= 7013 WS1= 2205.01
Q2= 7013 WS2= 2205.01

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065



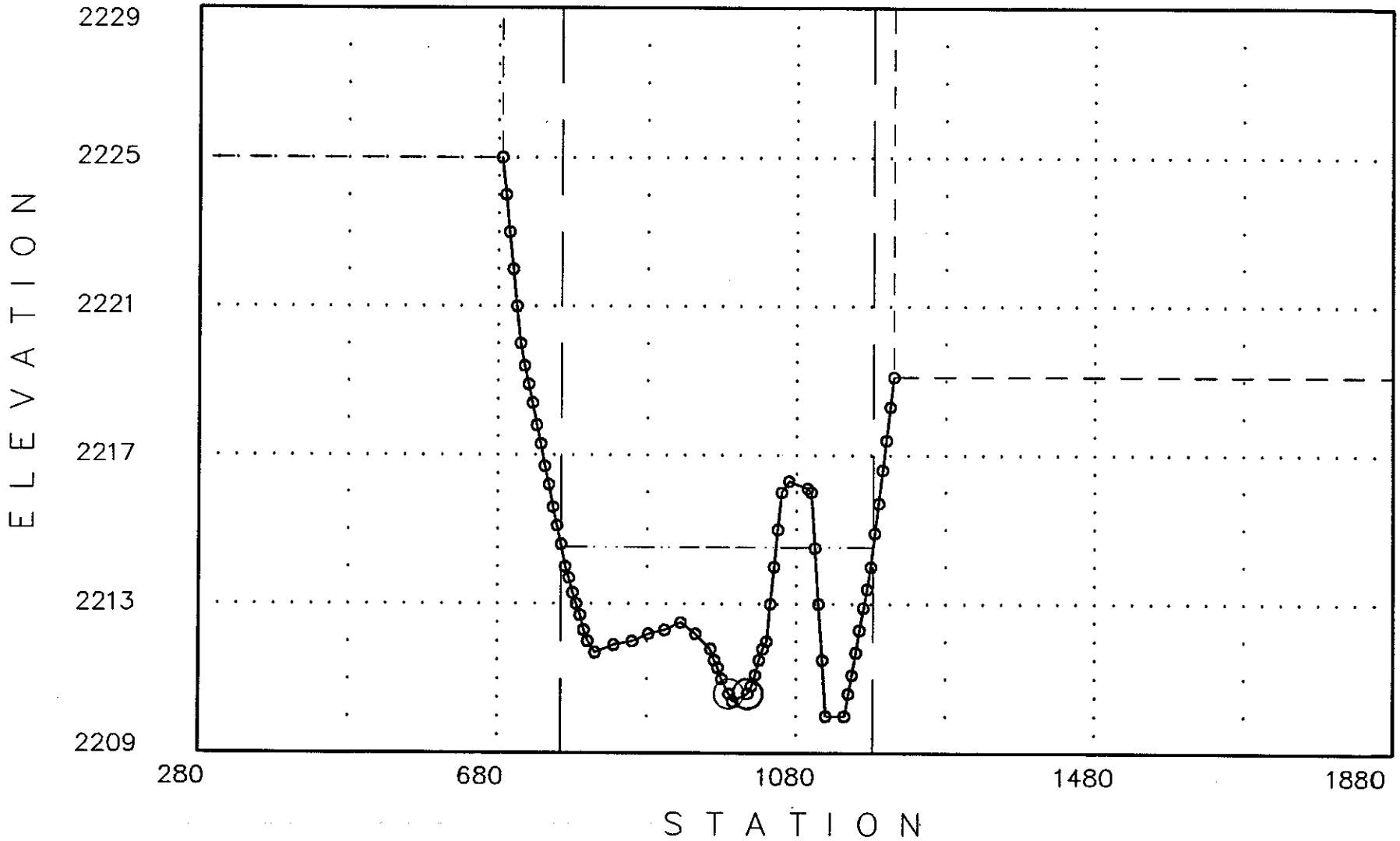
08-14-1992

<<<<<< Cross Section: 2.436: (FN = WASHR.O) >>>>>>

Q1= 7013 WS1= 2214.53

Q2= 7013 WS2= 2214.53

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

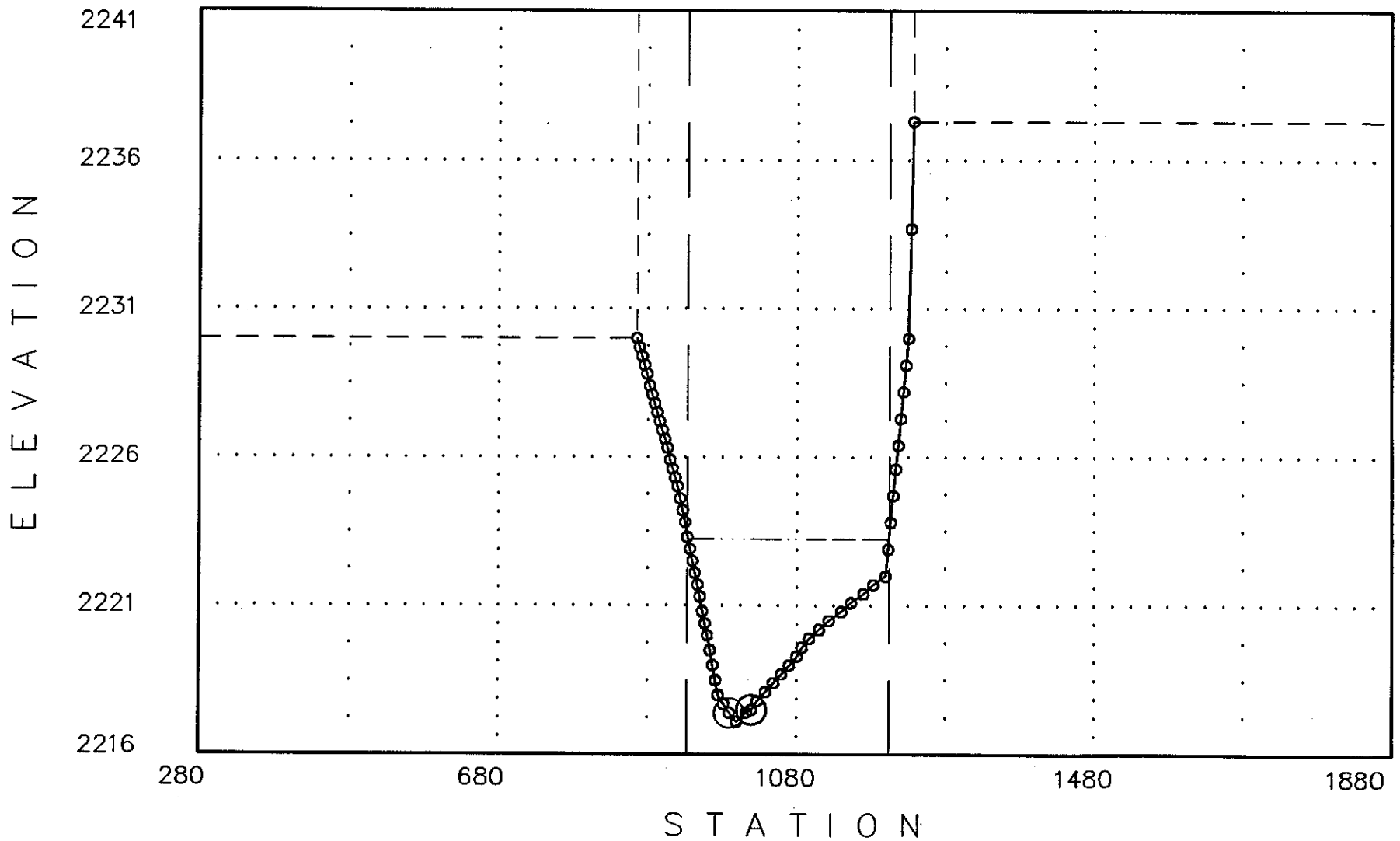


08-14-1992

<<<<<< Cross Section: 2.525: (FN = WASHR.O) >>>>>>

Q1= 7013 WS1= 2223.23
Q2= 7013 WS2= 2223.23

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

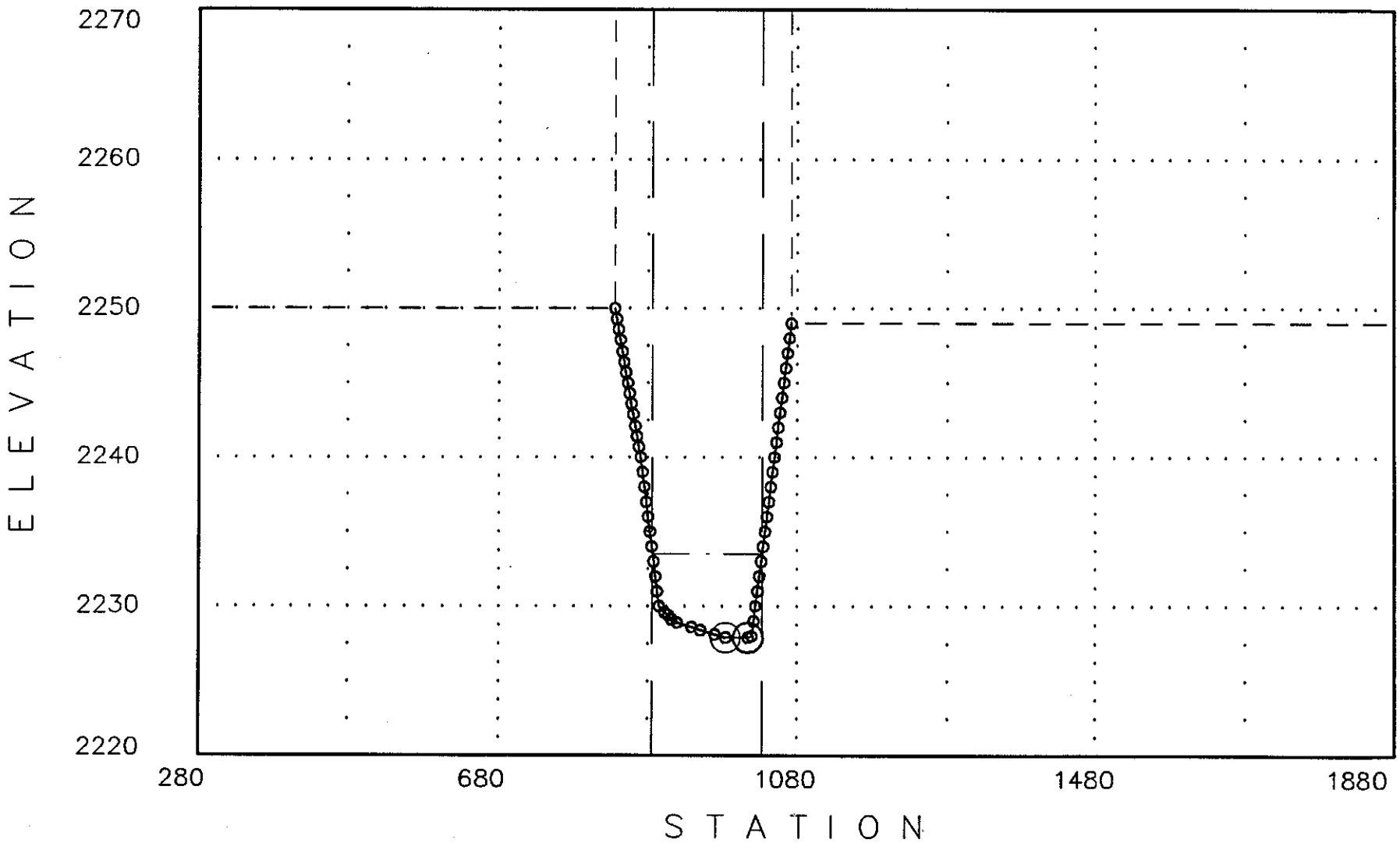


08-14-1992

<<<<<< Cross Section: 2.645: (FN = WASHR.O) >>>>>>

Q1= 6870 WS1= 2233.5
Q2= 6870 WS2= 2233.5

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065



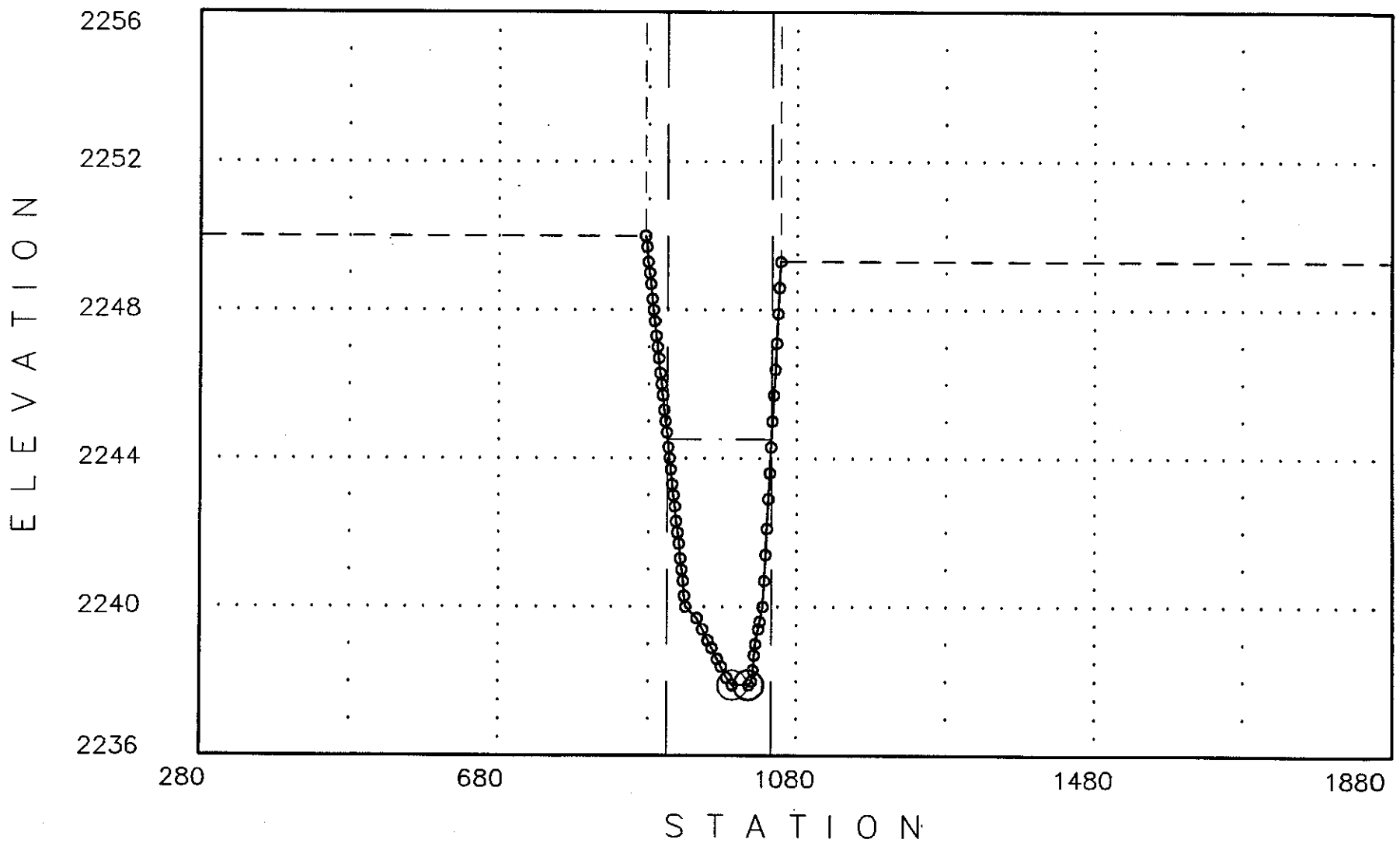
06-14-1992

<<<<<< Cross Section: 2.76: (FN = WASHR.O) >>>>>>

Q1= 6870 WS1= 2244.52

Q2= 6870 WS2= 2244.52

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065



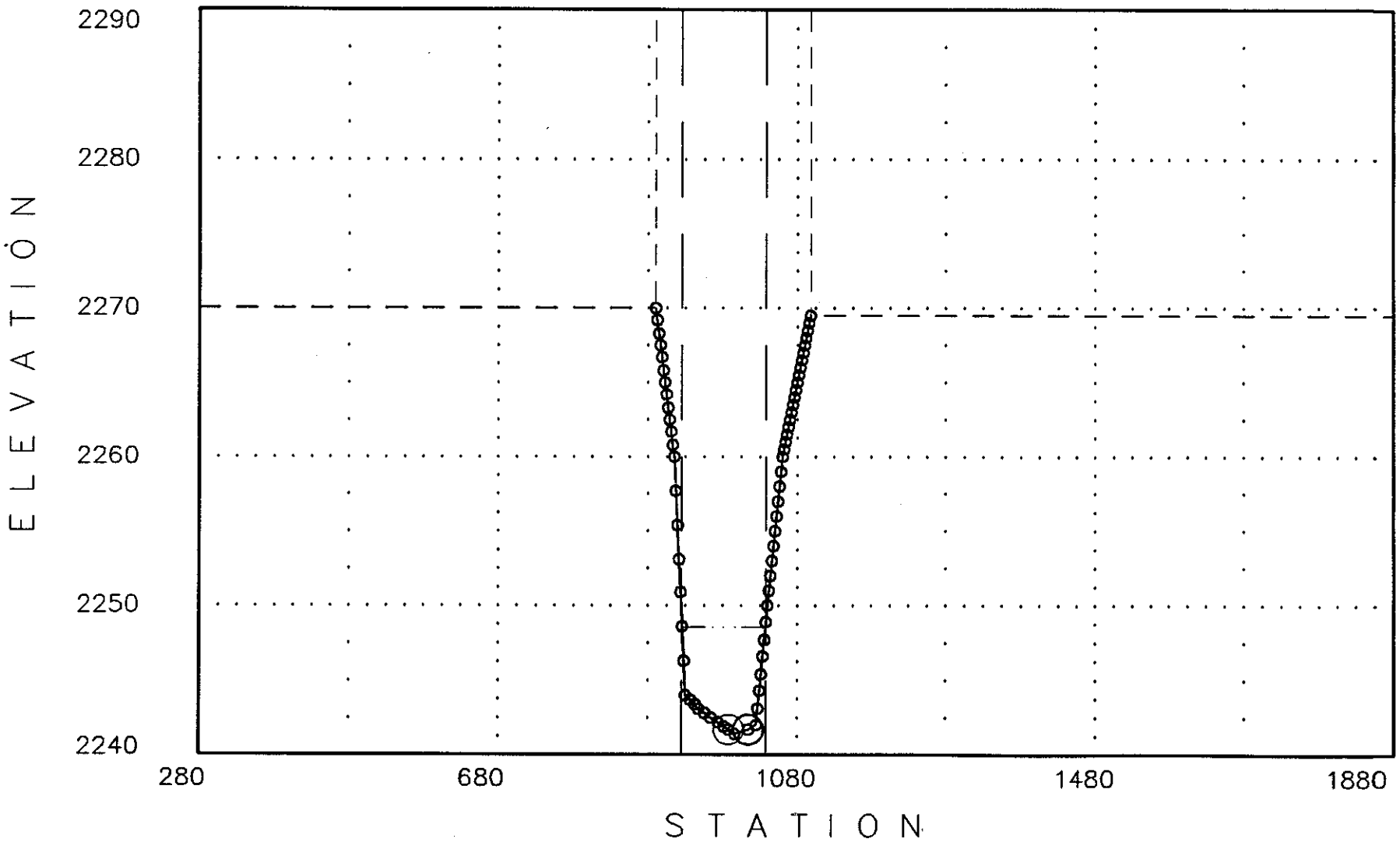
08-14-1992

<<<<<< Cross Section: 2.805: (FN = WASHR.O) >>>>>>

Q1= 6870 WS1= 2248.57

Q2= 6870 WS2= 2248.57

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

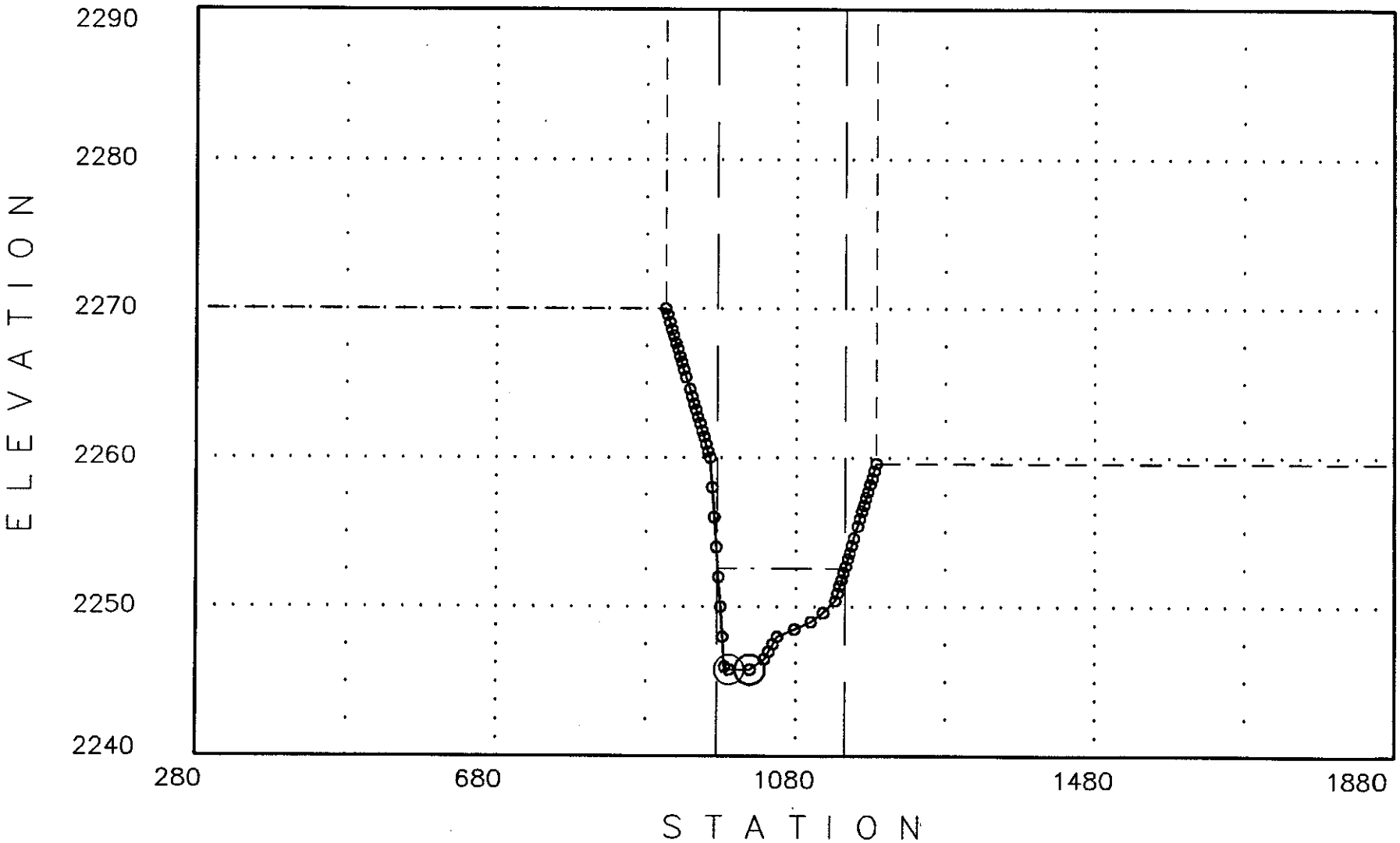


08-14-1992

<<<<<< Cross Section: 2.85: (FN = WASHR.O) >>>>>>

Q1= 6683 WS1= 2252.58
Q2= 6683 WS2= 2252.58

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

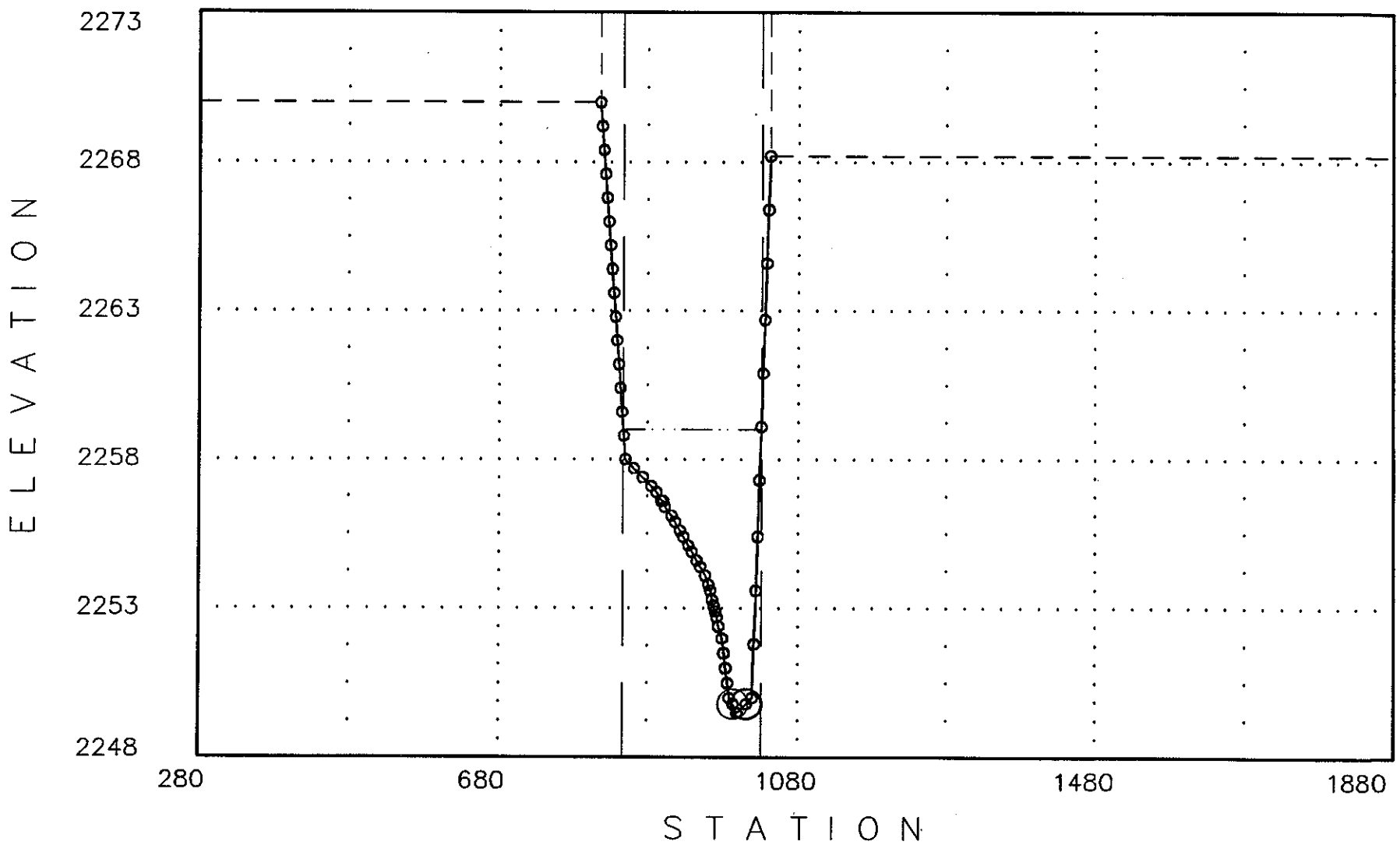


08-14-1992

<<<<<< Cross Section: 2.936: (FN = WASHR.O) >>>>>>

Q1= 6683 WS1= 2259.01
Q2= 6683 WS2= 2259.01

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

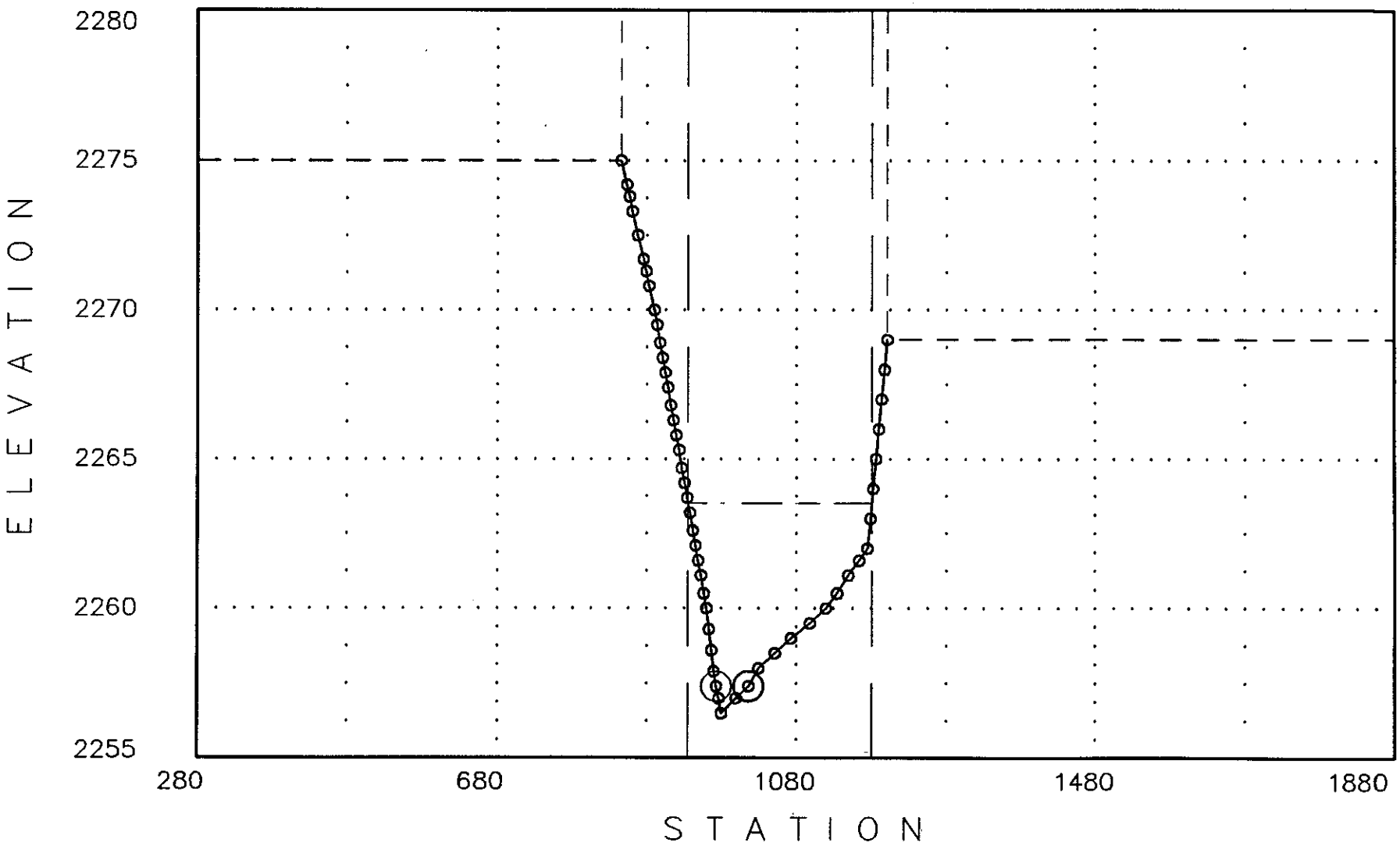


08-14-1992

<<<<<< Cross Section: 3.03: (FN = WASHR.O) >>>>>>

Q1= 6683 WS1= 2263.52
Q2= 6683 WS2= 2263.52

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

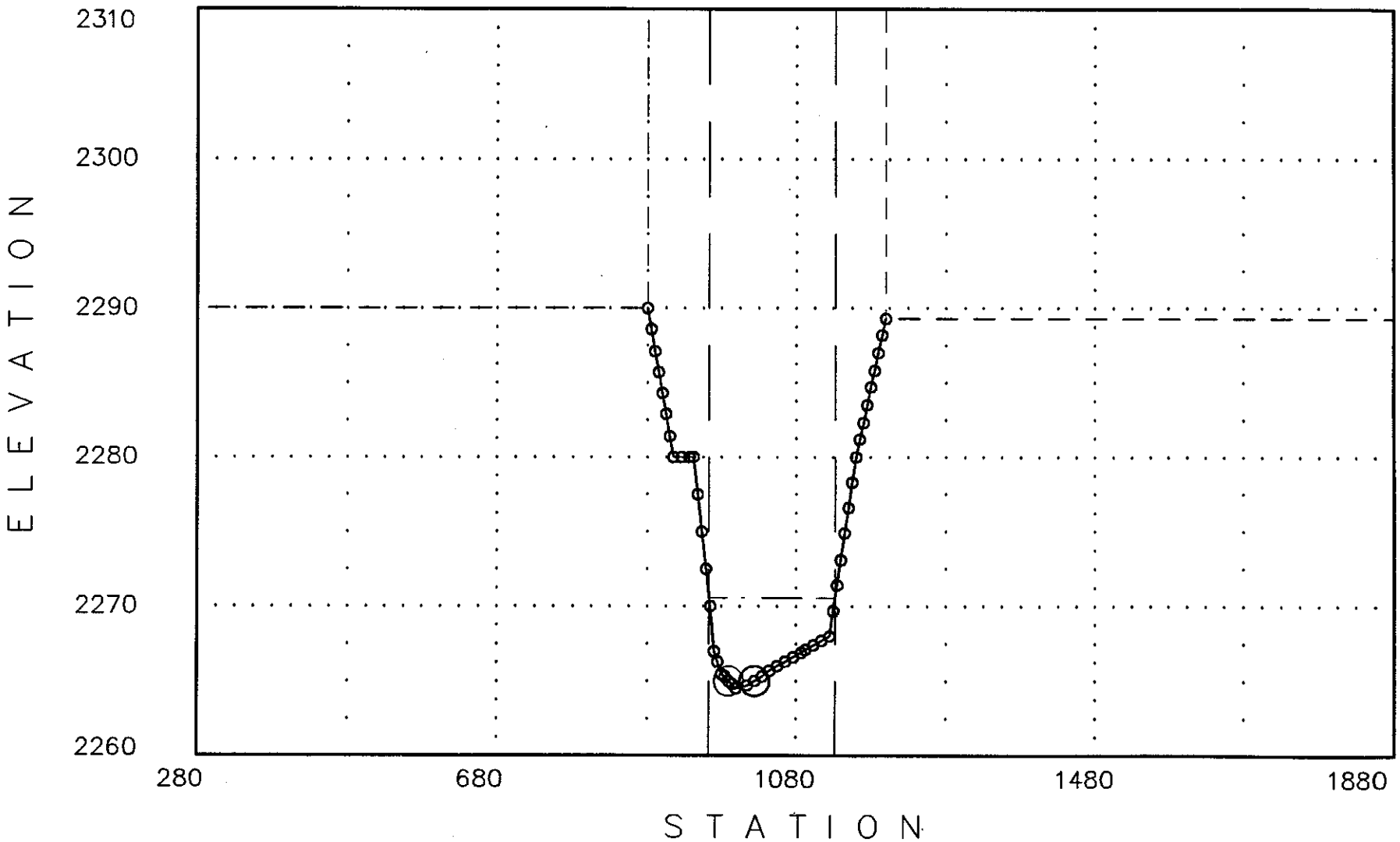


08-14-1992

<<<<<< Cross Section: 3.125: (FN = WASHR.O) >>>>>>

Q1= 6495 WS1= 2270.57
Q2= 6495 WS2= 2270.57

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

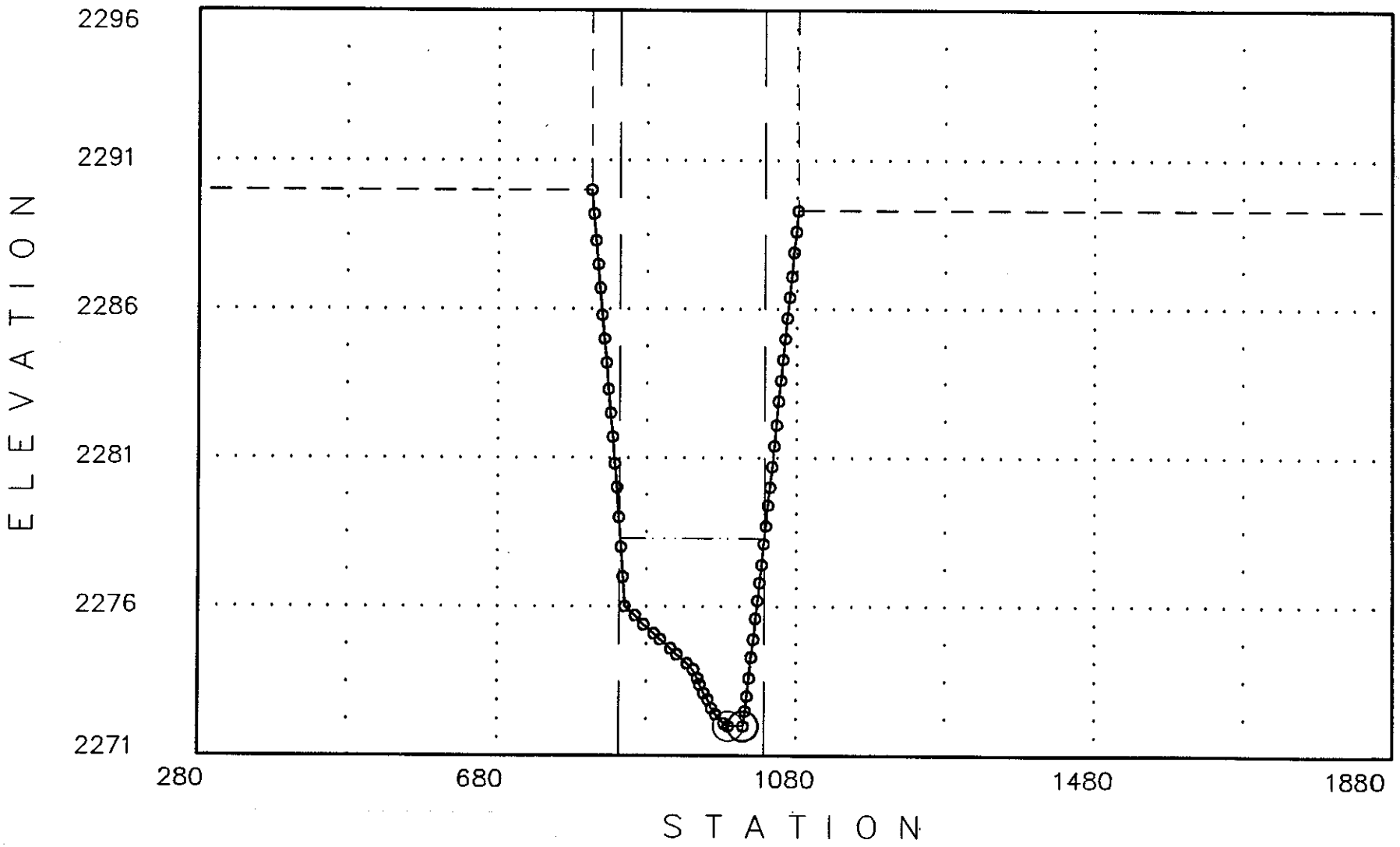


08-14-1992

<<<<<< Cross Section: 3.22: (FN = WASHR.O) >>>>>>

Q1= 6495 WS1= 2278.29
Q2= 6495 WS2= 2278.29

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

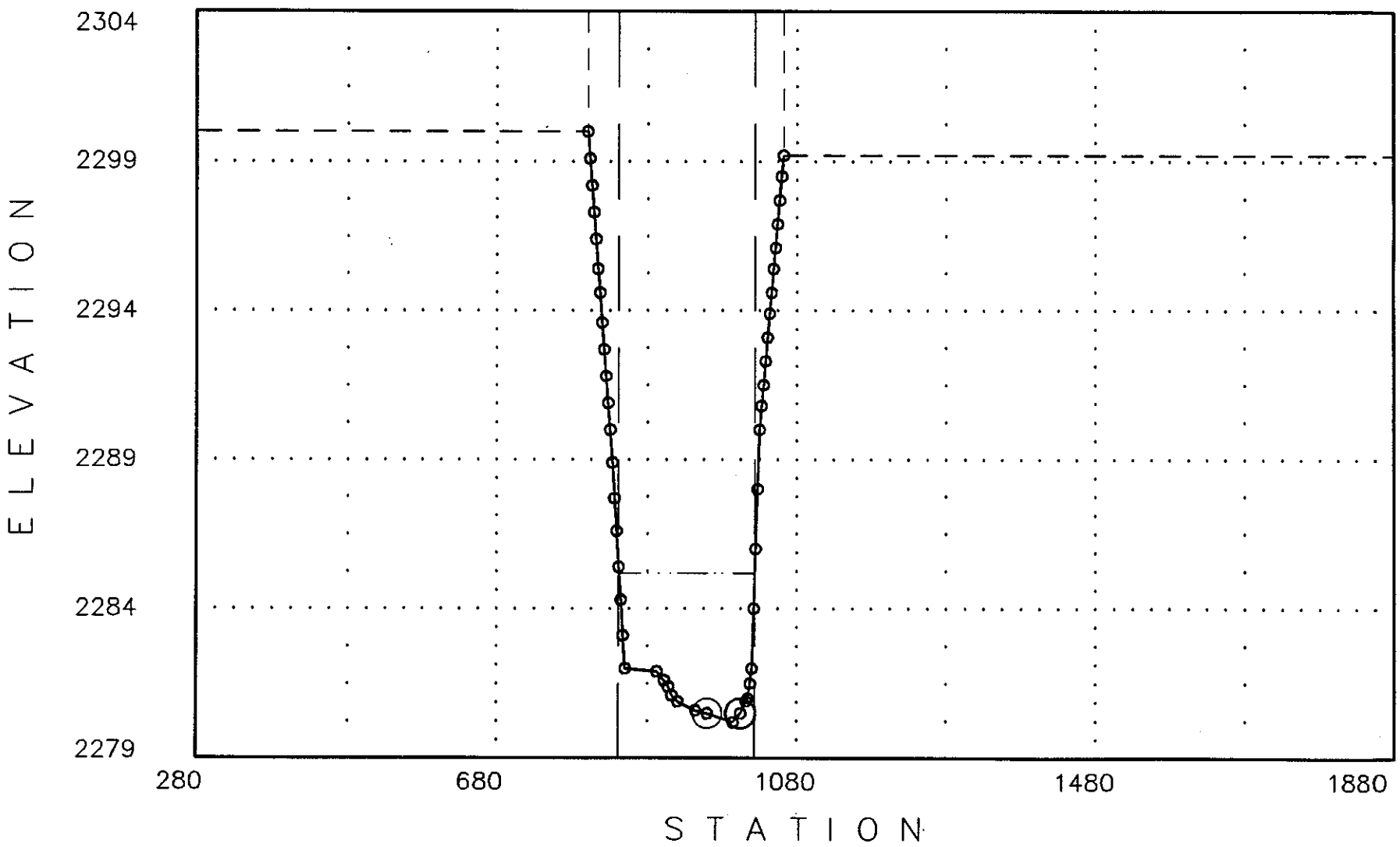


08-14-1992

<<<<<< Cross Section: 3.304: (FN = WASHR.O) >>>>>>

Q1= 6308 WS1= 2285.19
Q2= 6308 WS2= 2285.19

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

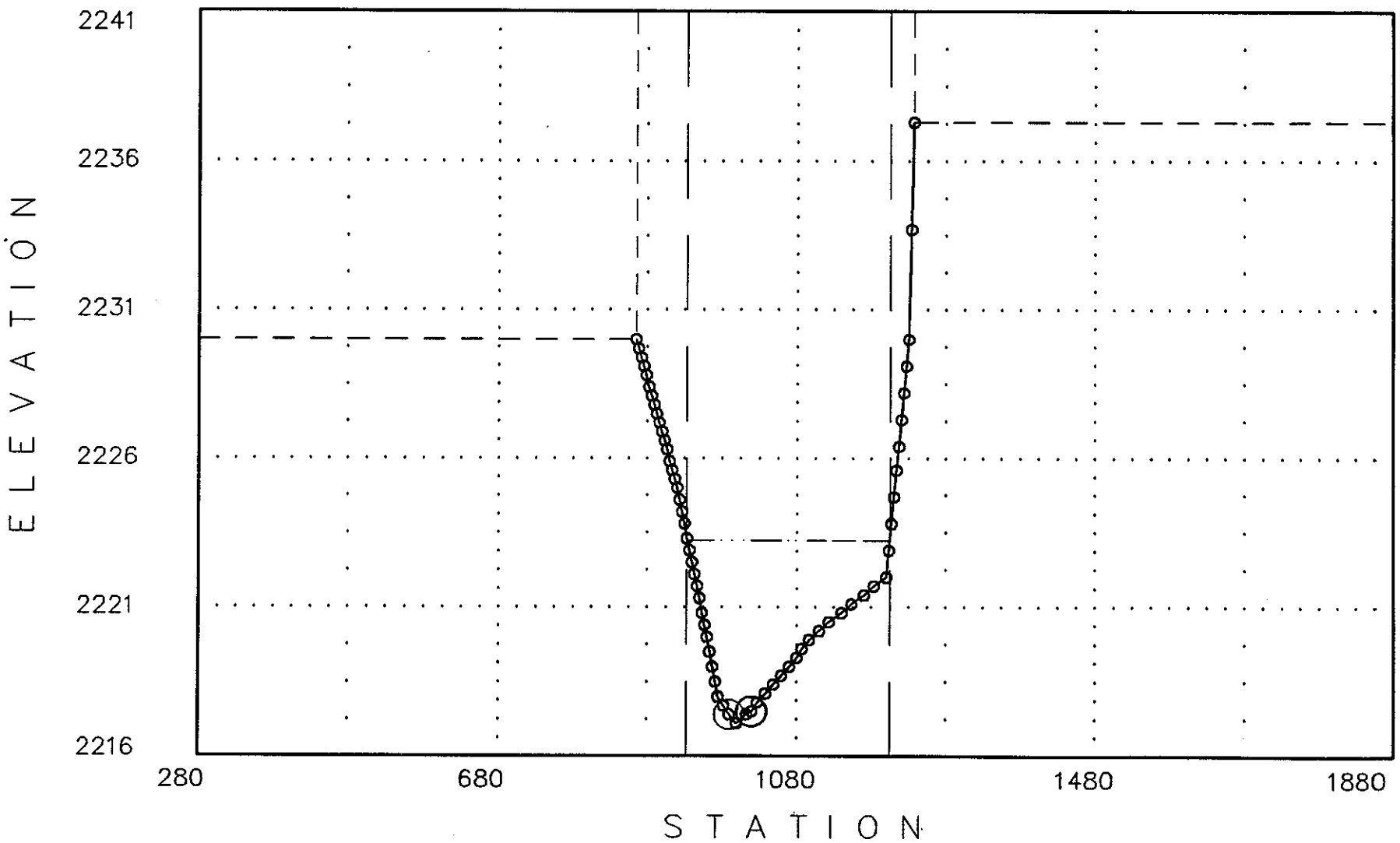


08-14-1992

<<<<<< Cross Section: 2.525: (FN = WASHR.O) >>>>>>

Q1= 7013 WS1= 2223.23
Q2= 7013 WS2= 2223.23

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

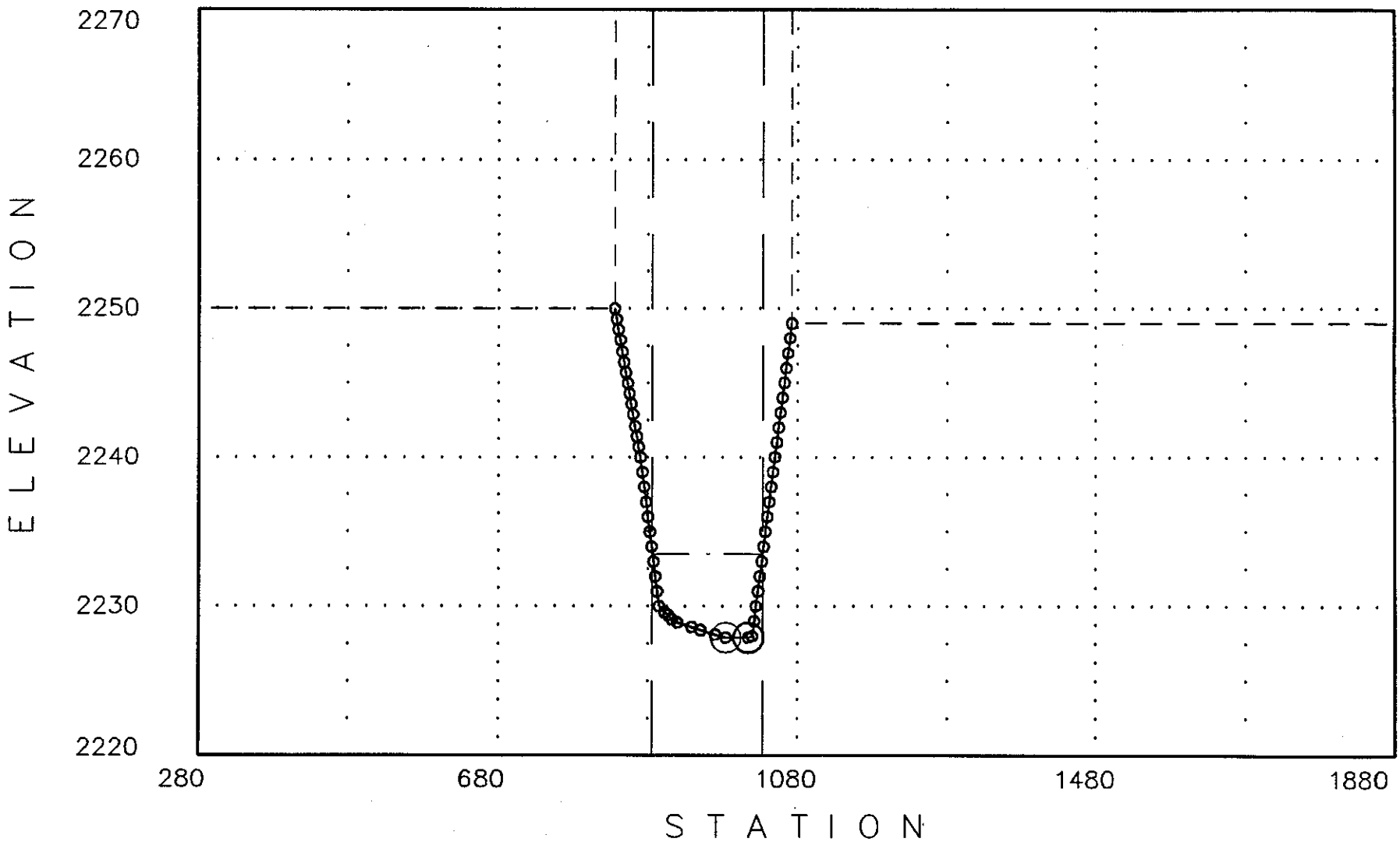


08-14-1992

<<<<<< Cross Section: 2.645: (FN = WASHR.O) >>>>>>

Q1= 6870 WS1= 2233.5
Q2= 6870 WS2= 2233.5

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

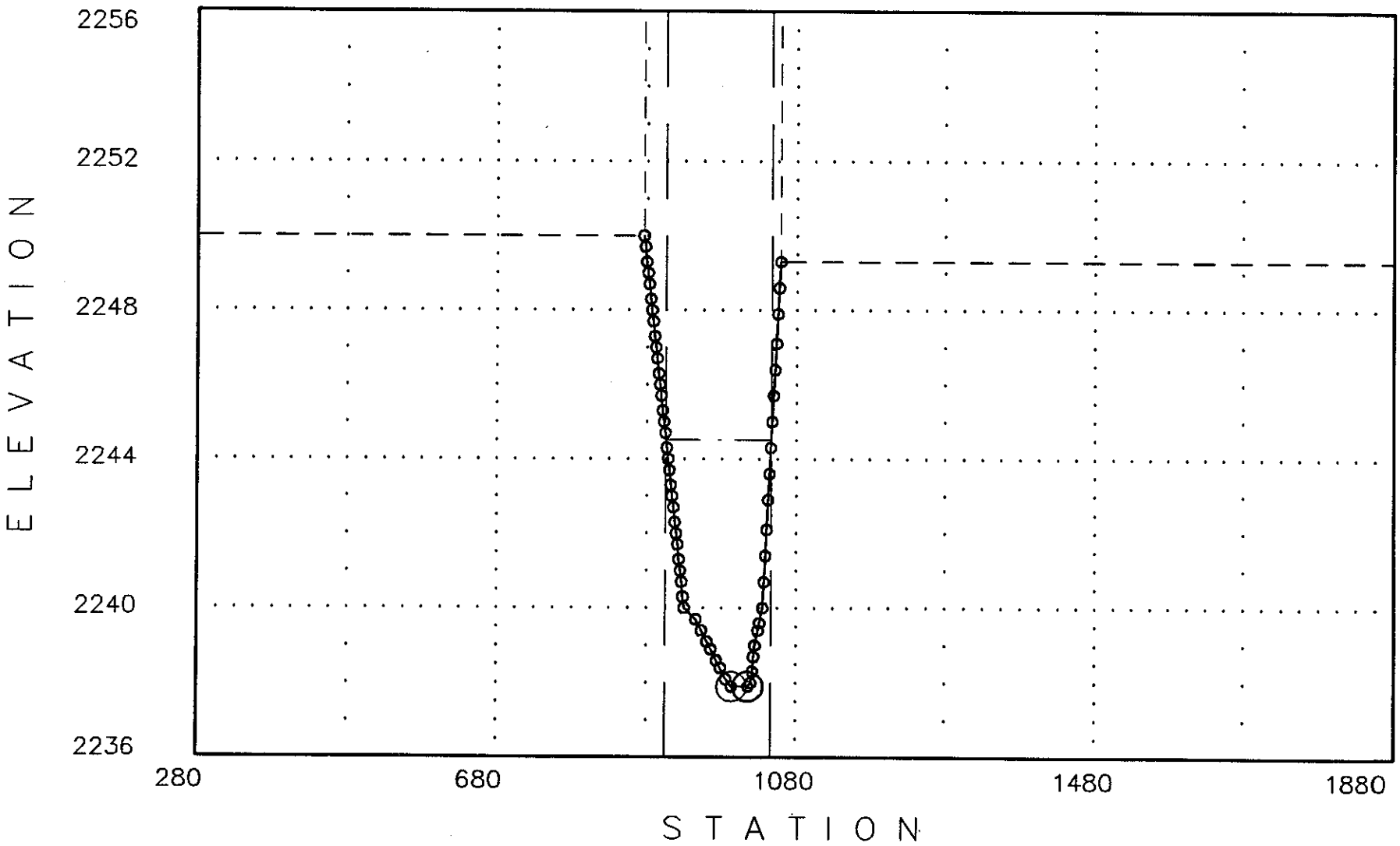


08-14-1992

<<<<<< Cross Section: 2.76: (FN = WASHR.O) >>>>>>

Q1= 6870 WS1= 2244.52
Q2= 6870 WS2= 2244.52

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

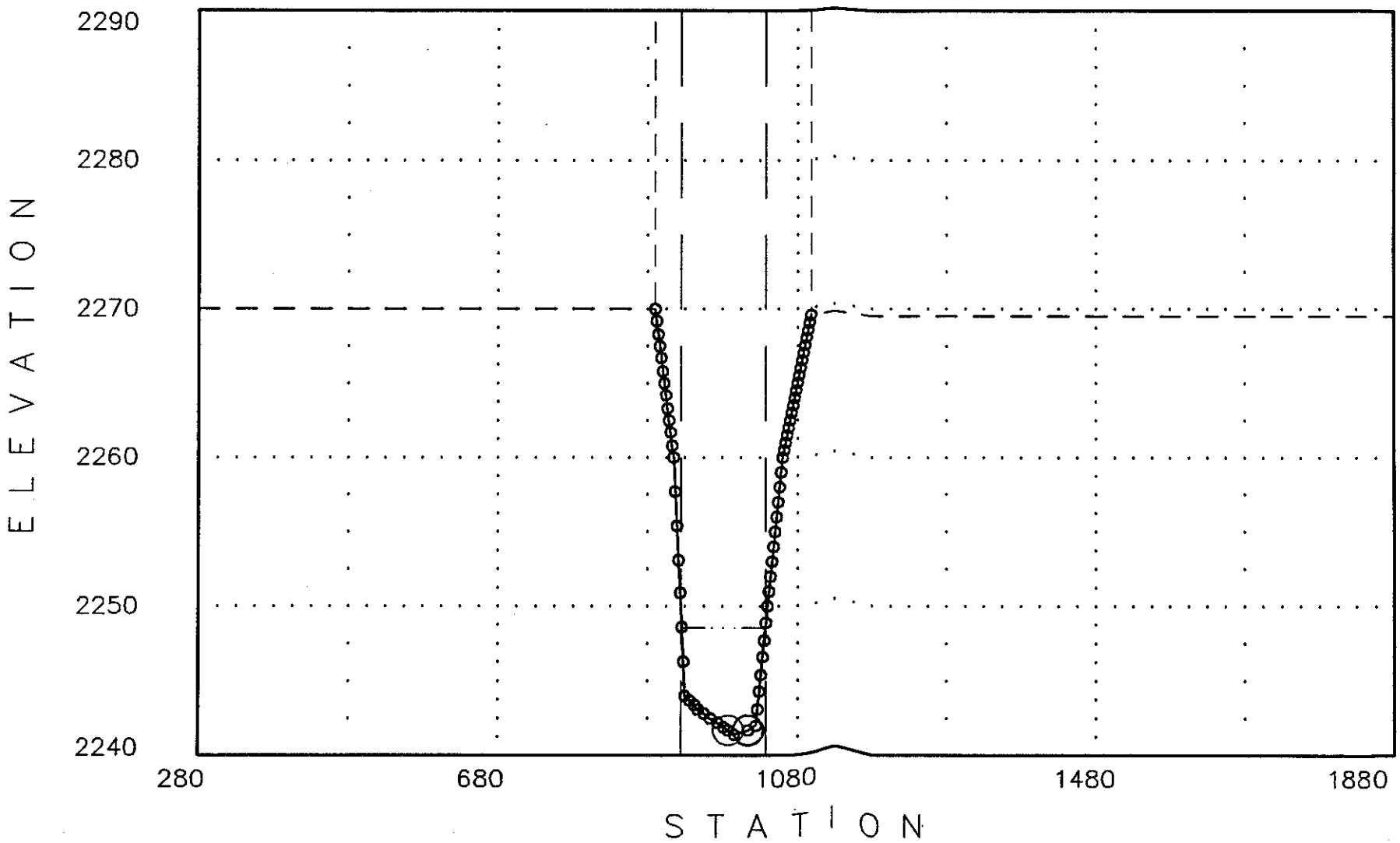


08-14-1992

<<<<<< Cross Section: 2.805: (FN = WASHR.0) >>>>>>

Q1= 6870 WS1= 2248.57
Q2= 6870 WS2= 2248.57

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

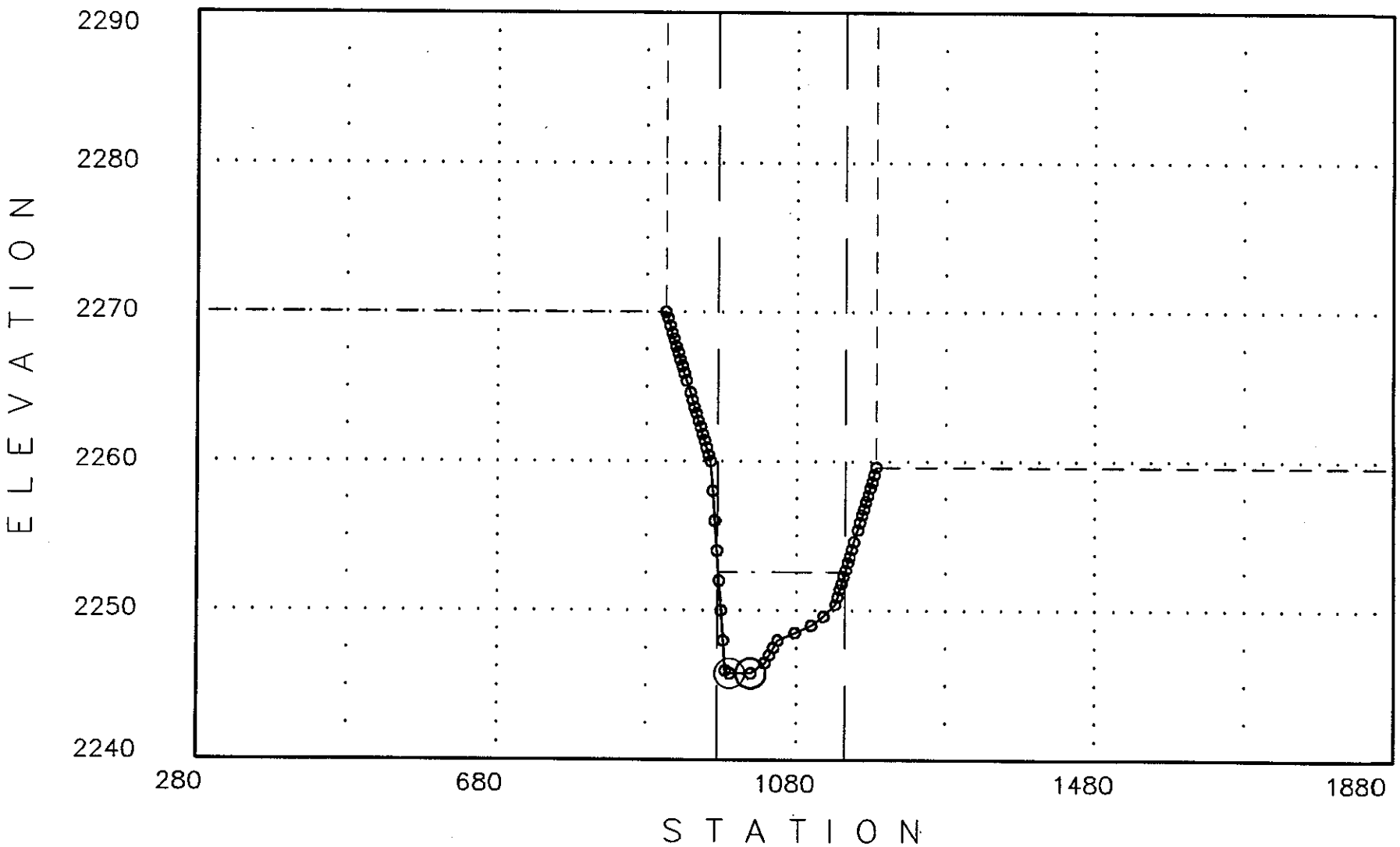


08-14-1992

<<<<<< Cross Section: 2.85: (FN = WASHR.O) >>>>>>

Q1= 6683 WS1= 2252.58
Q2= 6683 WS2= 2252.58

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

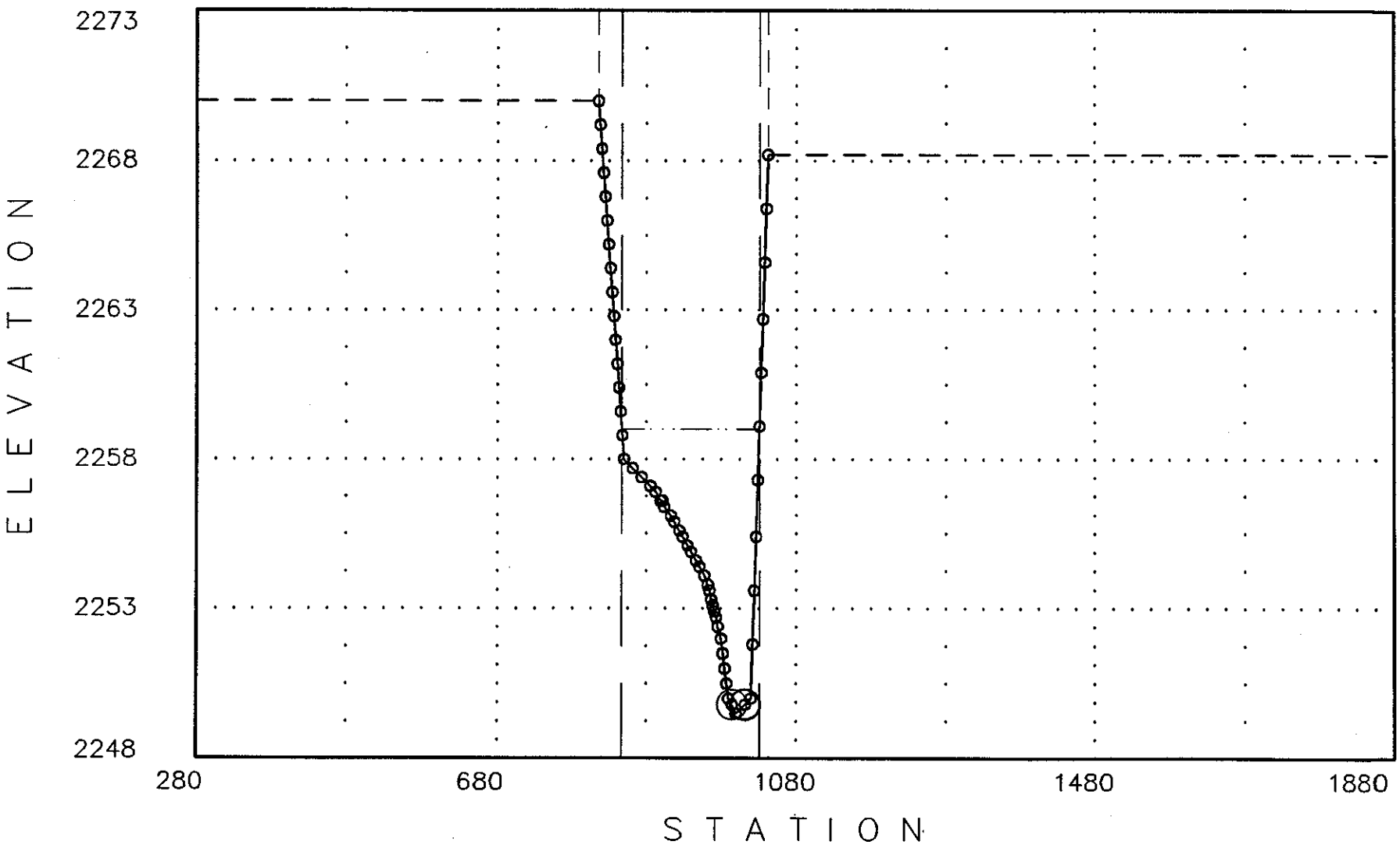


08-14-1992

<<<<<< Cross Section: 2.936: (FN = WASHR.O) >>>>>>

Q1= 6683 WS1= 2259.01
Q2= 6683 WS2= 2259.01

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

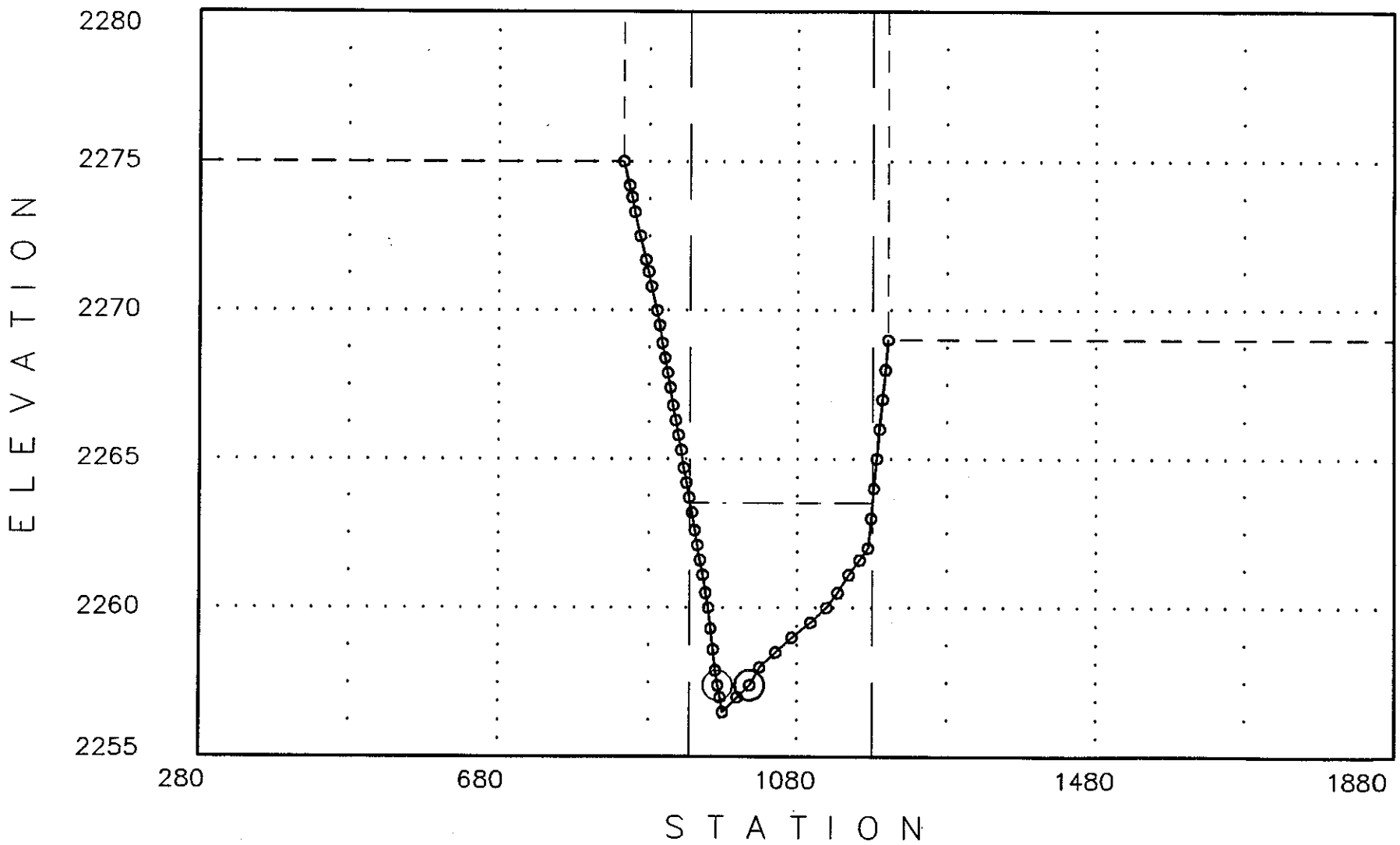


08-14-1992

<<<<<< Cross Section: 3.03: (FN = WASHR.O) >>>>>>

Q1= 6683 WS1= 2263.52
Q2= 6683 WS2= 2263.52

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

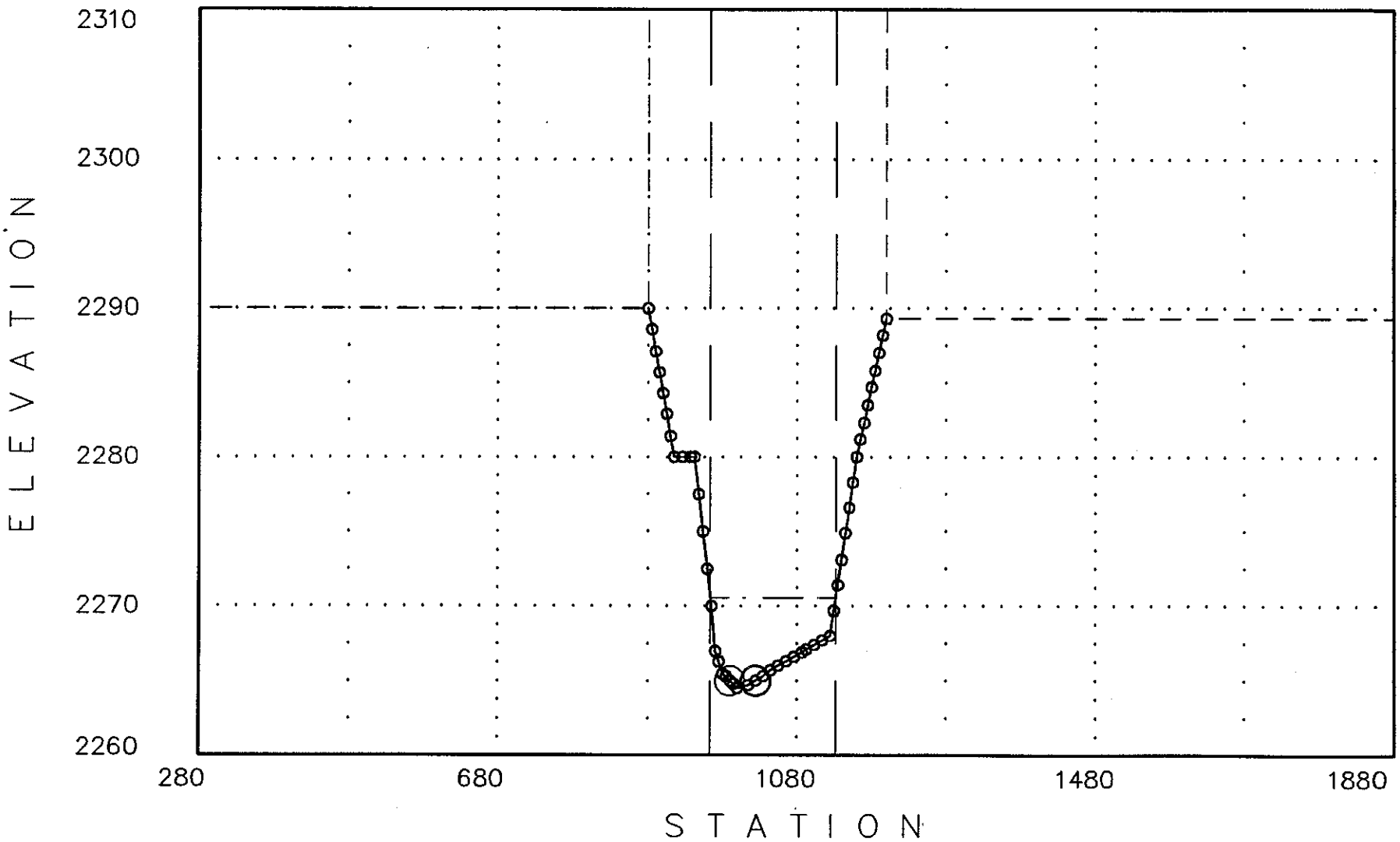


08-14-1992

<<<<<< Cross Section: 3.125: (FN = WASHR.O) >>>>>>

Q1= 6495 WS1= 2270.57
Q2= 6495 WS2= 2270.57

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065



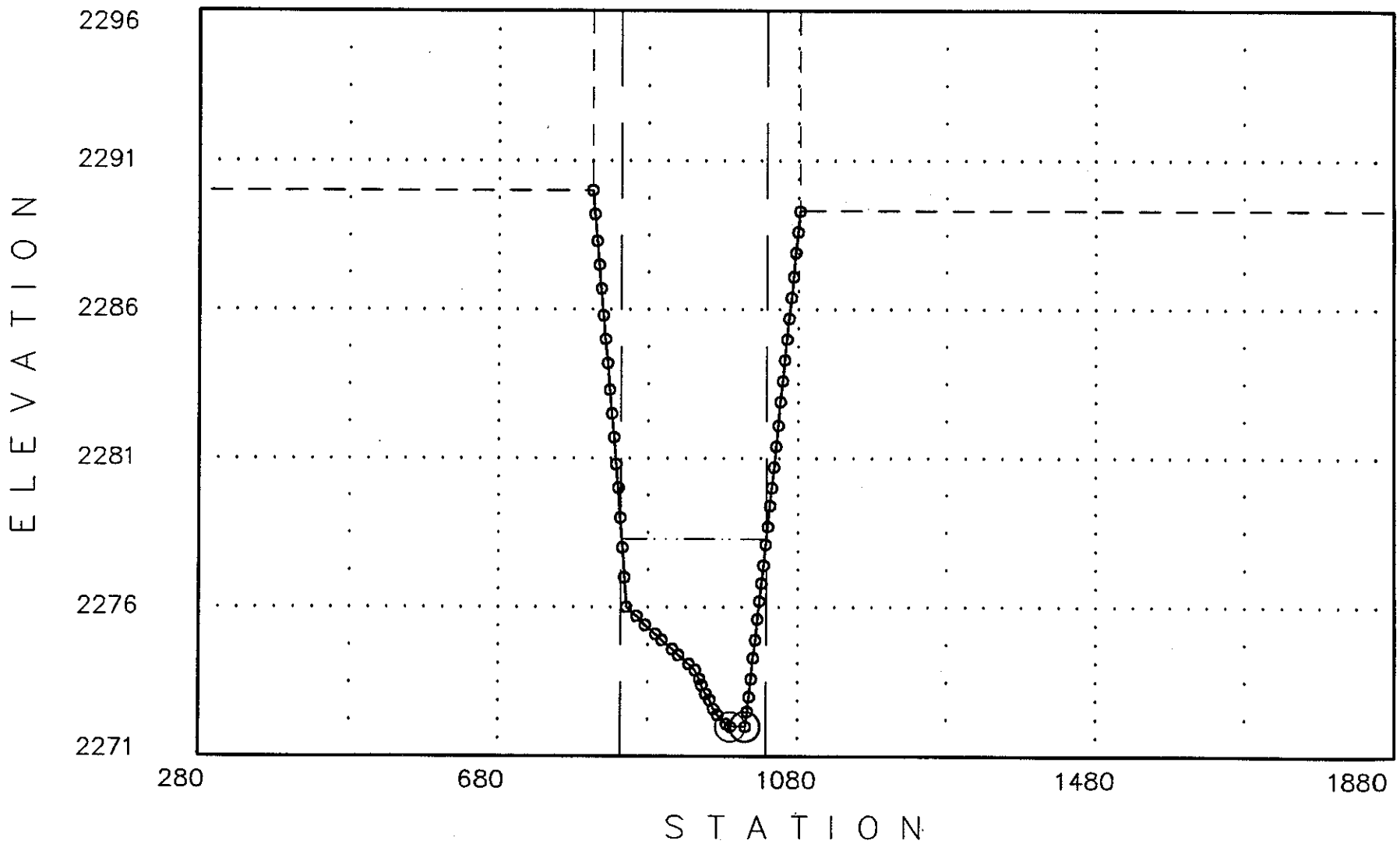
08-14-1992

<<<<<< Cross Section: 3.22: (FN = WASHR.O) >>>>>>

Q1= 6495 WS1= 2278.29

Q2= 6495 WS2= 2278.29

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

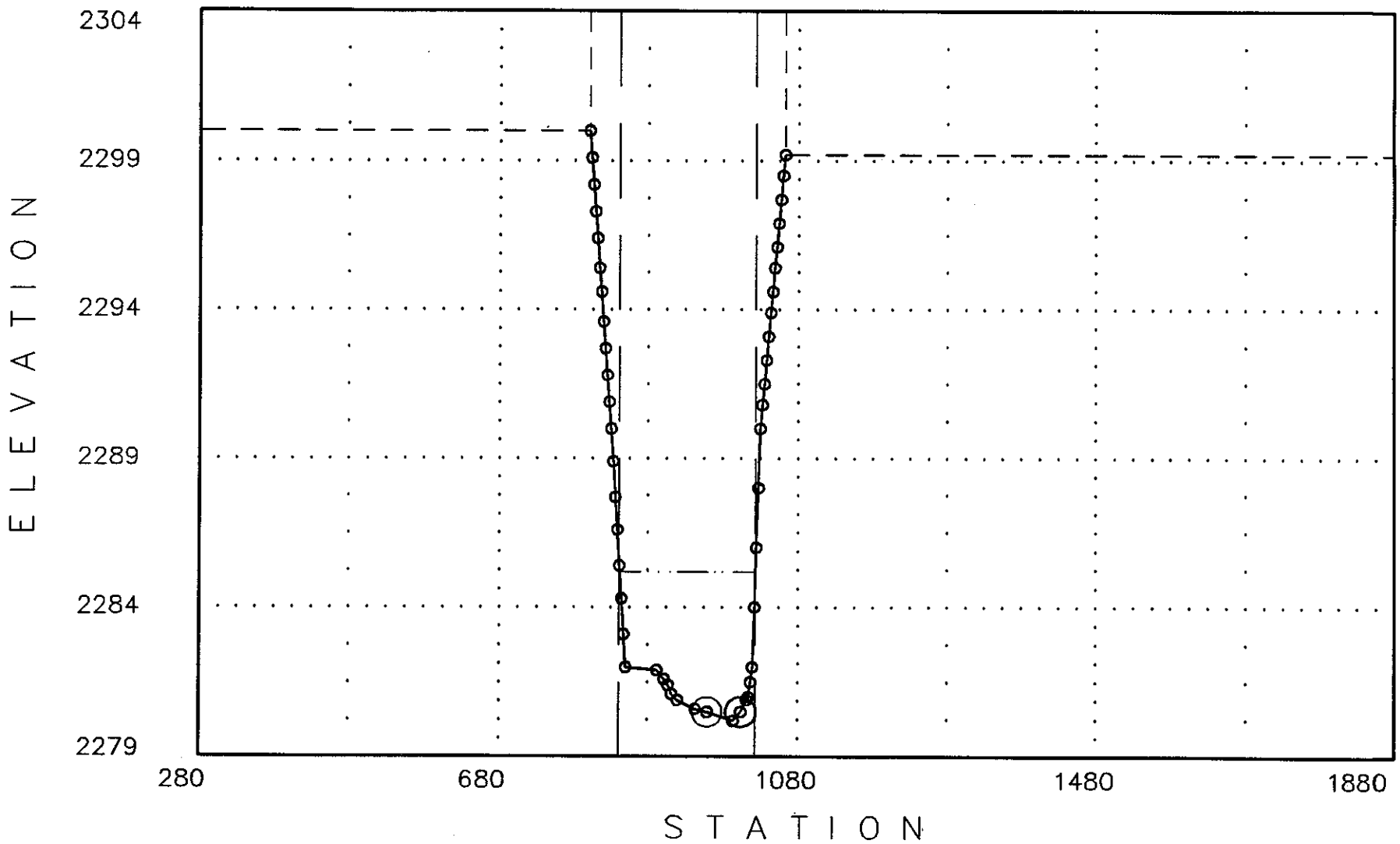


08-14-1992

<<<<<< Cross Section: 3.304: (FN = WASHR.O) >>>>>>

Q1= 6308 WS1= 2285.19
Q2= 6308 WS2= 2285.19

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

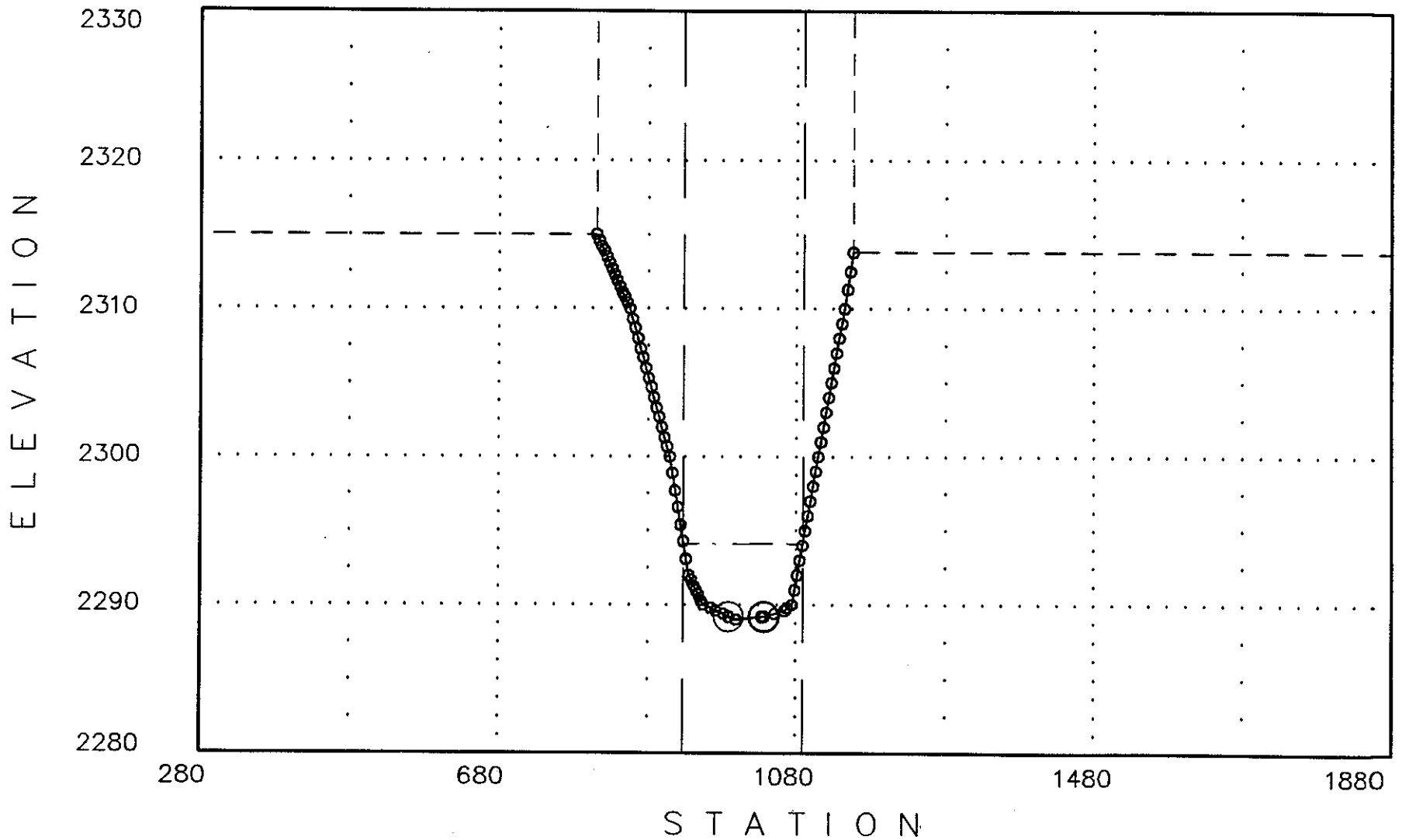


08-14-1992

<<<<<< Cross Section: 3.409: (FN = WASHR.O) >>>>>>

Q1= 6308 WS1= 2294.12
Q2= 6308 WS2= 2294.13

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .07

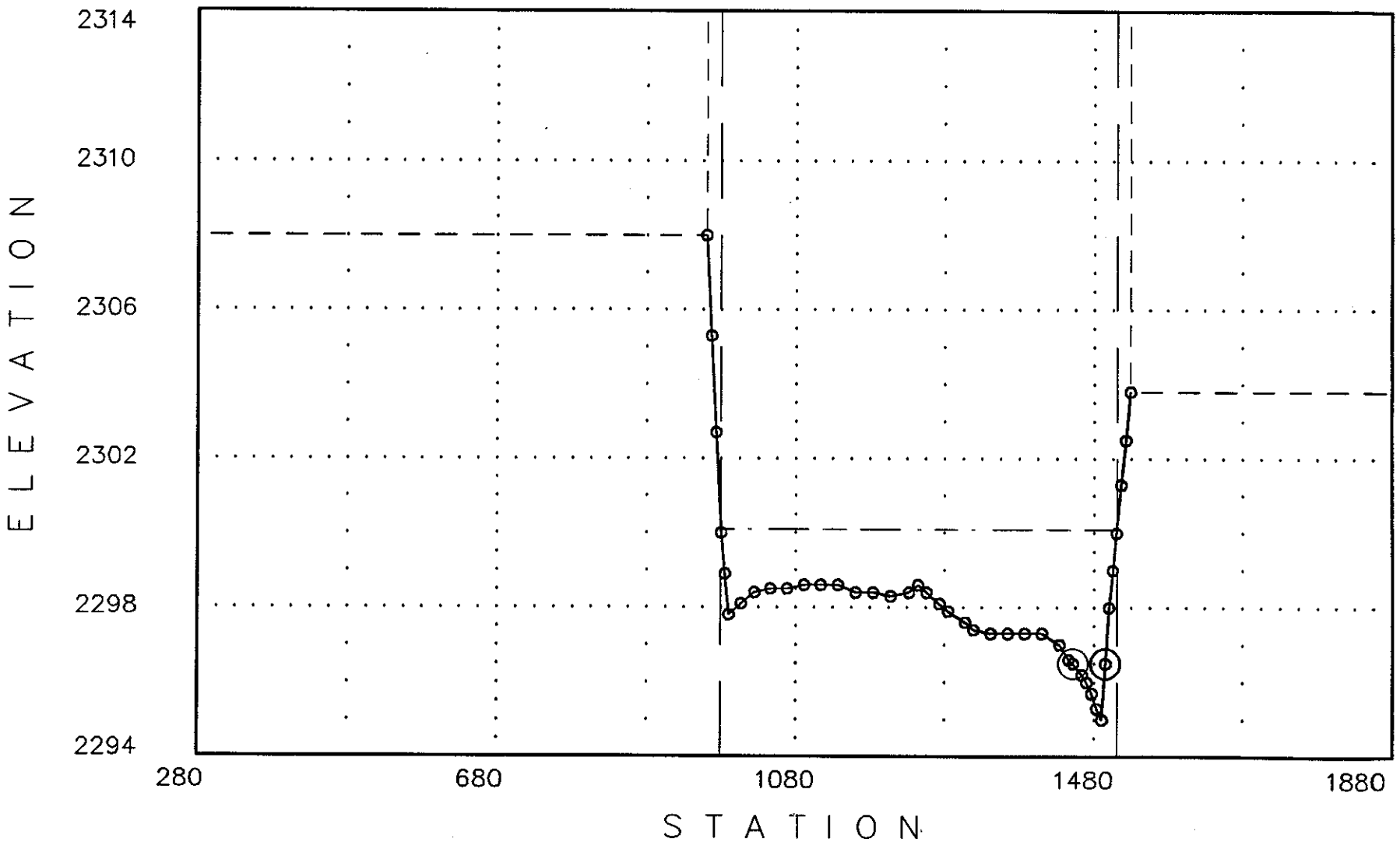


08-14-1992

<<<<<< Cross Section: 3.483: (FN = WASHR.O) >>>>>>

Q1= 5307 WS1= 2300.1
Q2= 5307 WS2= 2300.1

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .07

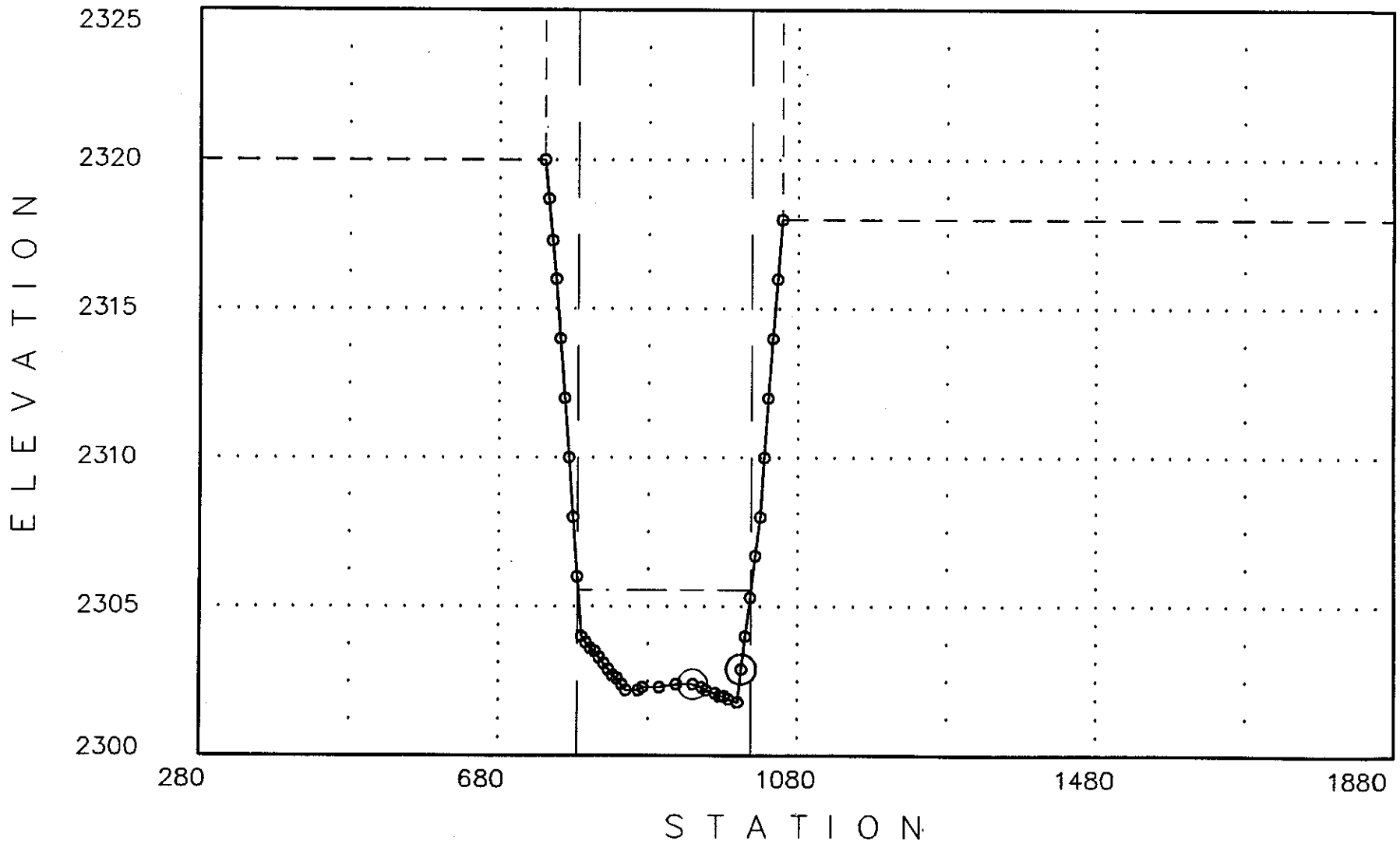


08-14-1992

<<<<<< Cross Section: 3.564: (FN = WASHR.O) >>>>>>

Q1= 5307 WS1= 2305.55
Q2= 5307 WS2= 2305.55

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

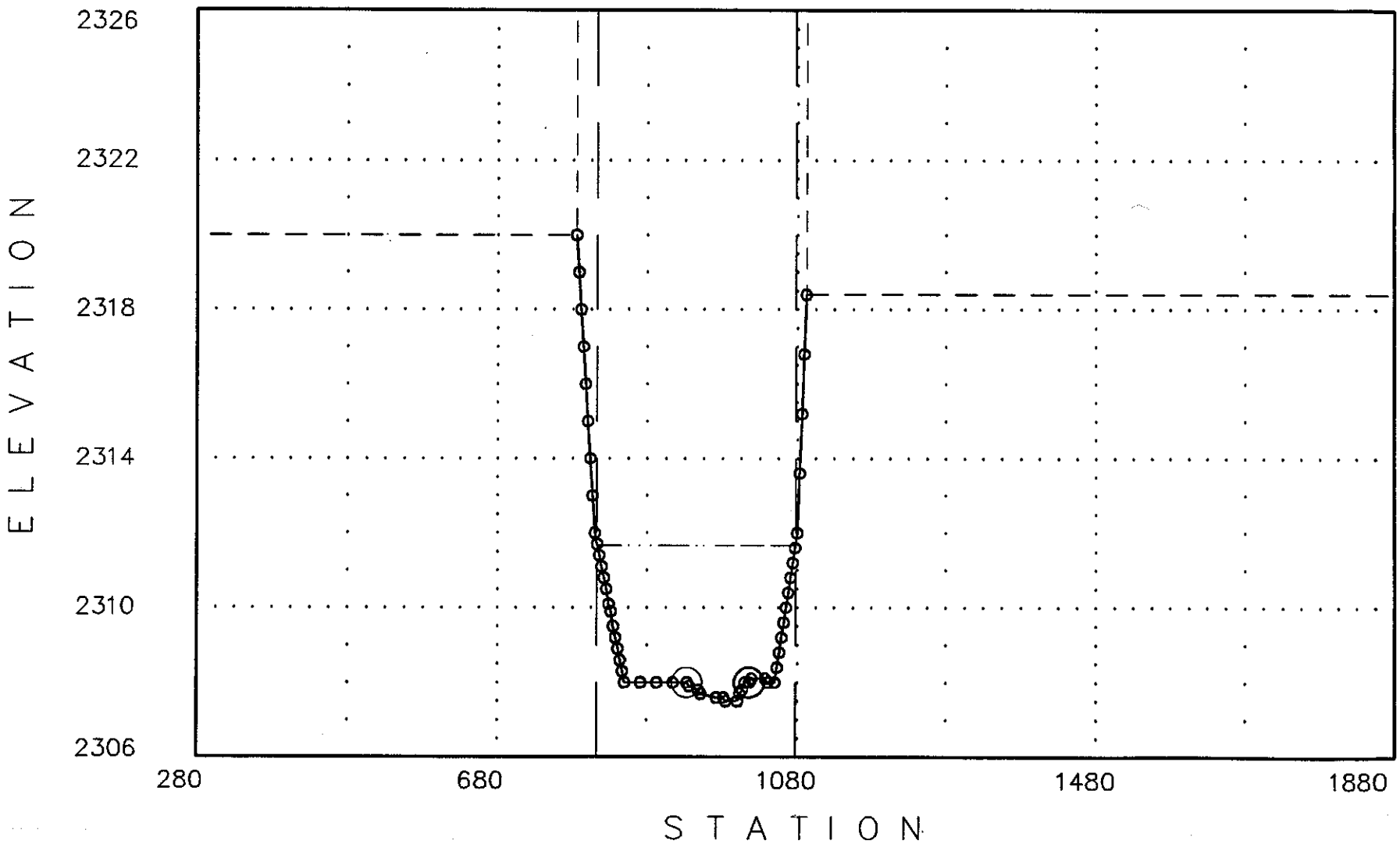


08-14-1992

<<<<<< Cross Section: 3.652: (FN = WASHR.O) >>>>>>

Q1= 5307 WS1= 2311.67
Q2= 5307 WS2= 2311.67

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

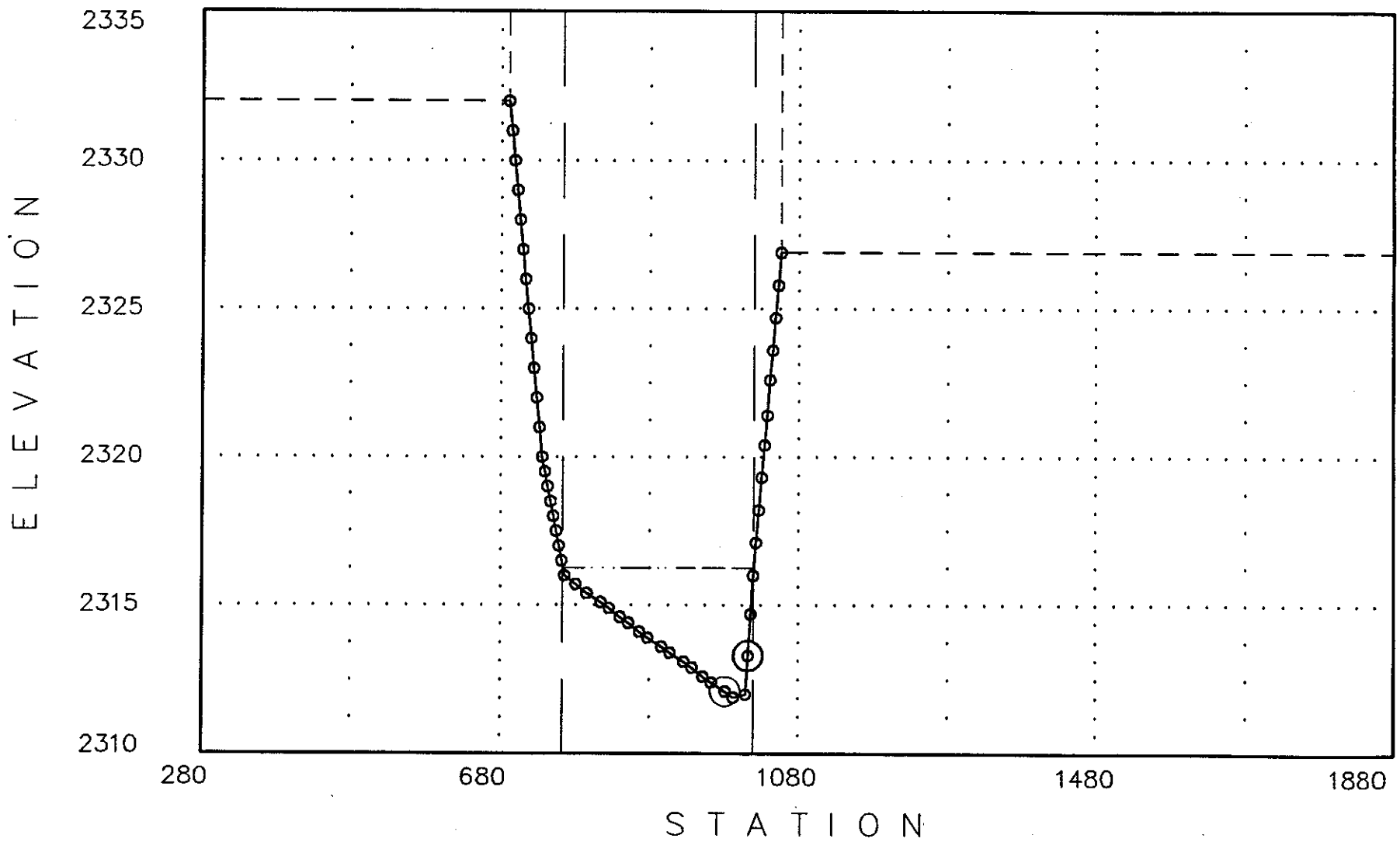


08-14-1992

<<<<<< Cross Section: 3.706: (FN = WASHR.O) >>>>>>

Q1= 4305 WS1= 2316.25
Q2= 4305 WS2= 2316.25

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

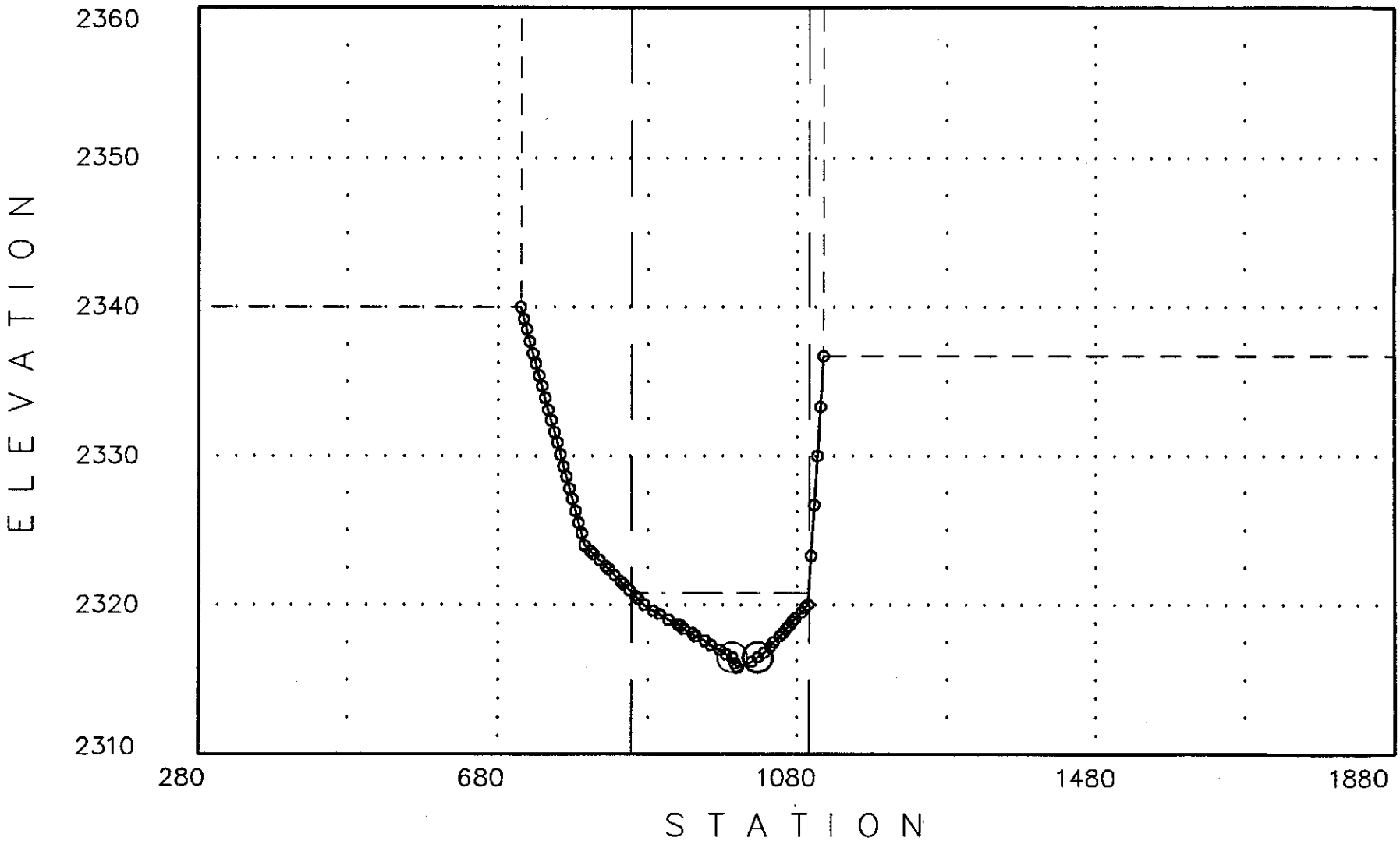


08-14-1992

<<<<<< Cross Section: 3.762: (FN = WASHR.O) >>>>>>

Q1= 4305 WS1= 2320.82
Q2= 4305 WS2= 2320.81

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

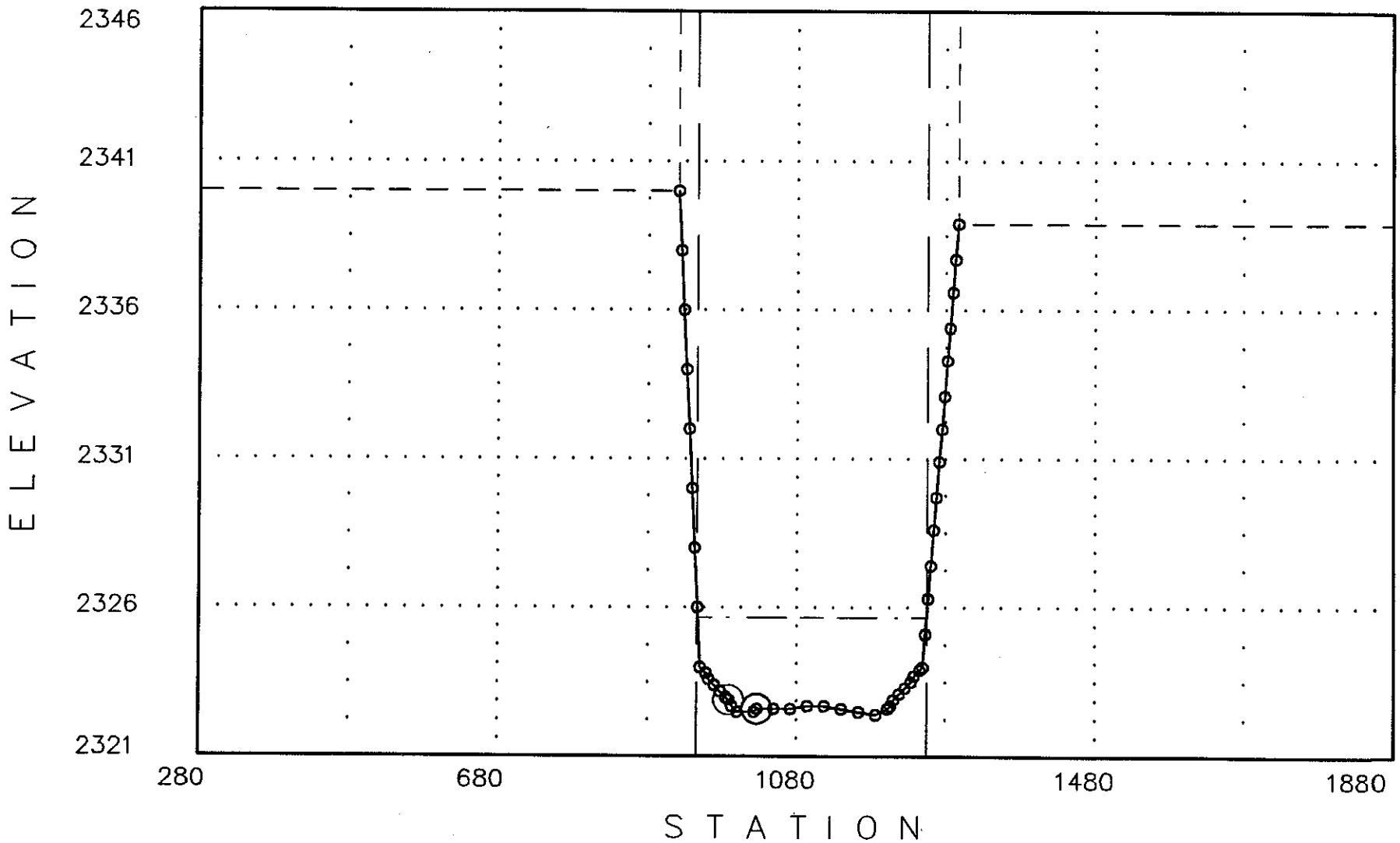


08-14-1992

<<<<<< Cross Section: 3.823: (FN = WASHR.O) >>>>>>

Q1= 4305 WS1= 2325.66
Q2= 4305 WS2= 2325.66

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

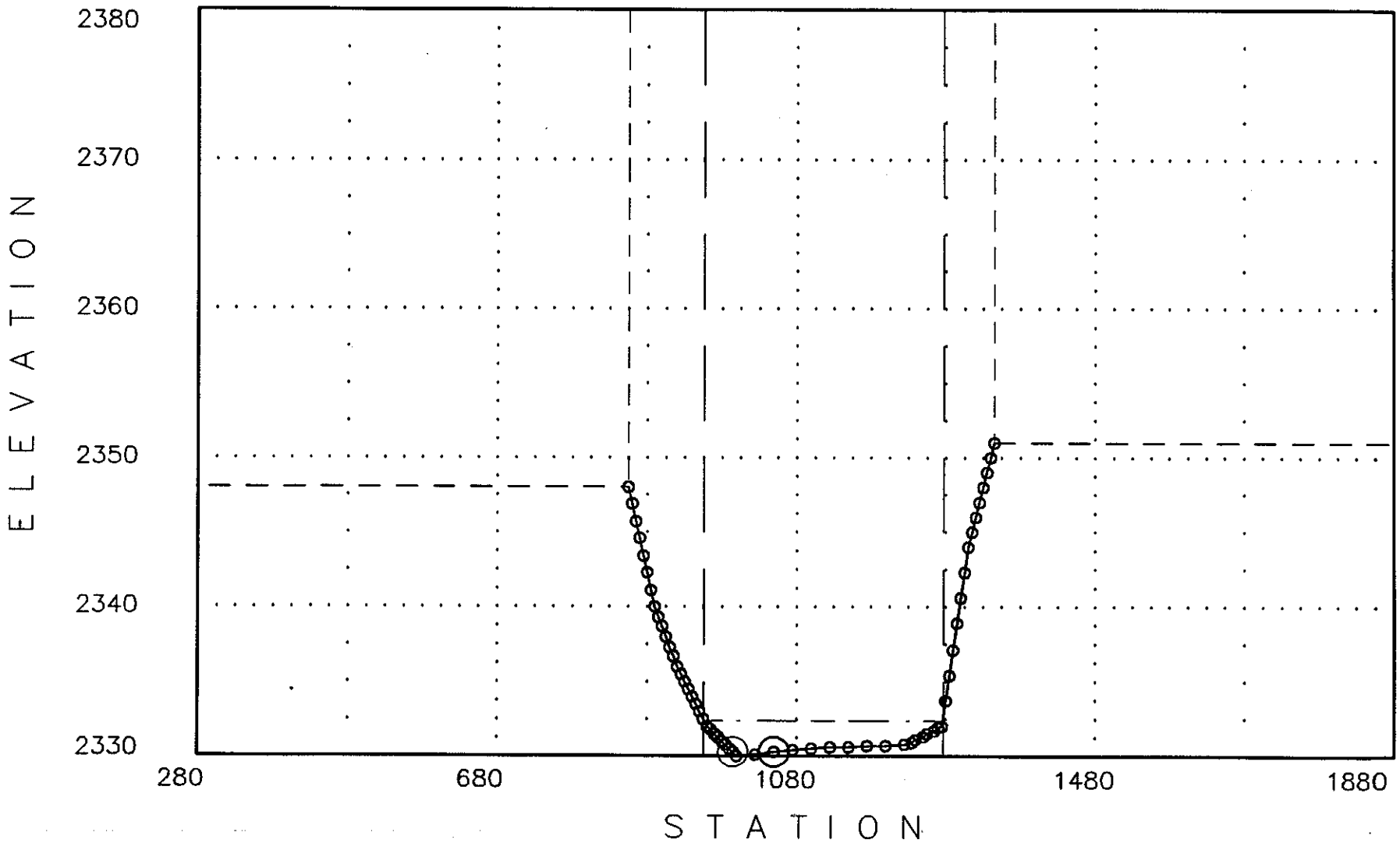


08-14-1992

<<<<<< Cross Section: 3.897: (FN = WASHR.0) >>>>>>

Q1= 3304 WS1= 2332.37
Q2= 3304 WS2= 2332.37

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07



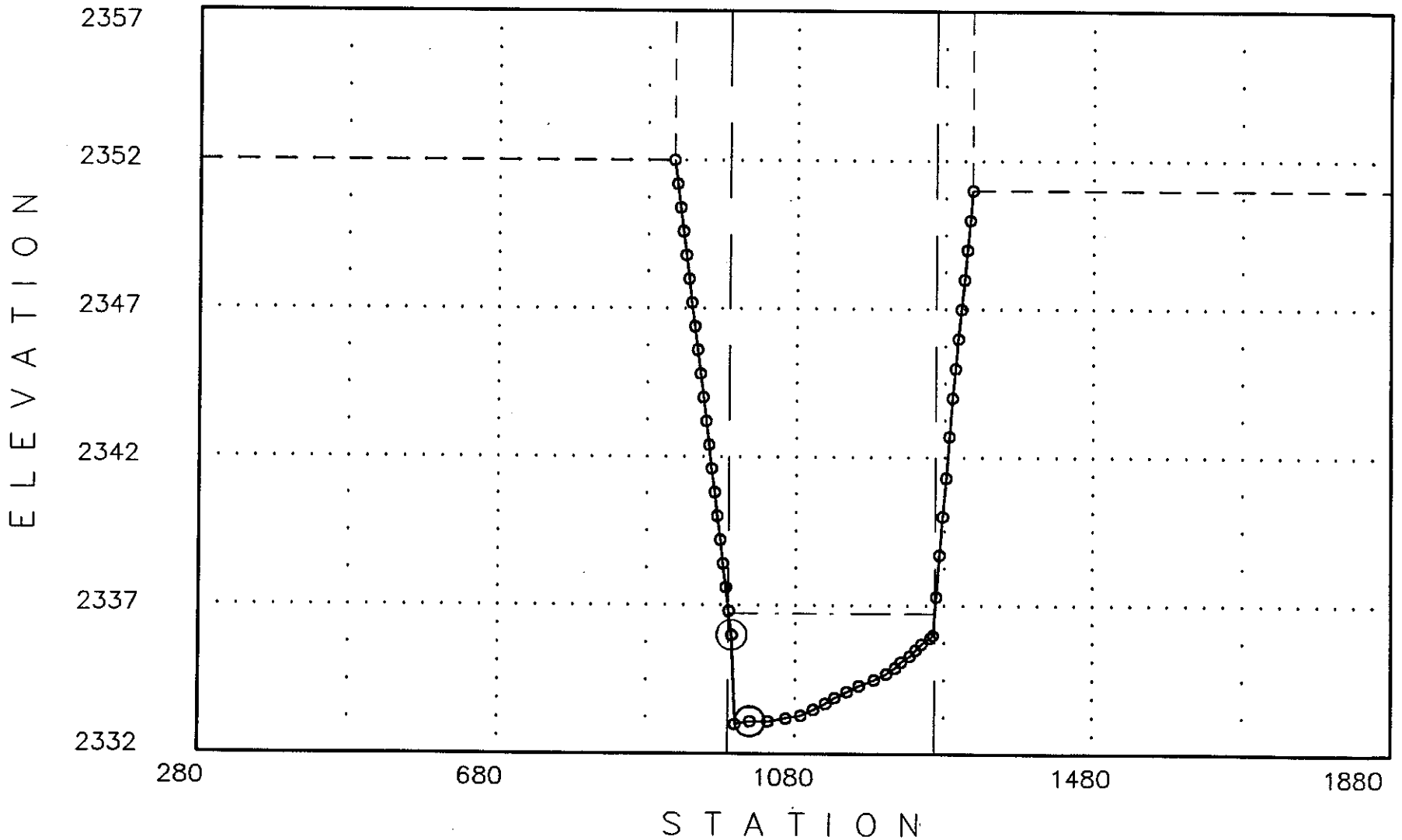
08-14-1992

<<<<<< Cross Section: 3.939: (FN = WASHR.O) >>>>>>

Q1= 3304 WS1= 2336.73

Q2= 3304 WS2= 2336.73

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

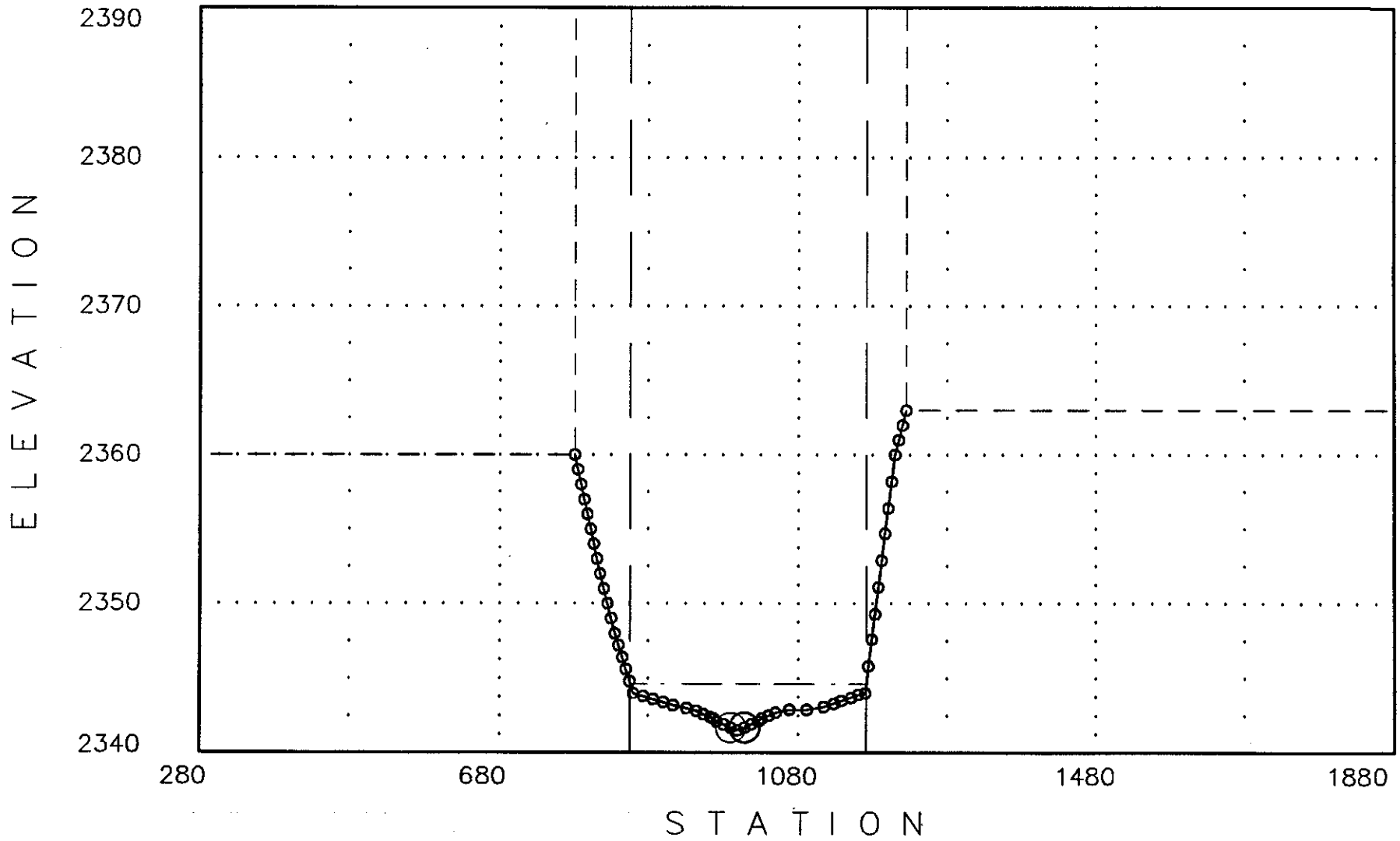


08-14-1992

<<<<<< Cross Section: 4.014: (FN = WASHR.O) >>>>>>

Q1= 3304 WS1= 2344.63
Q2= 3304 WS2= 2344.63

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07



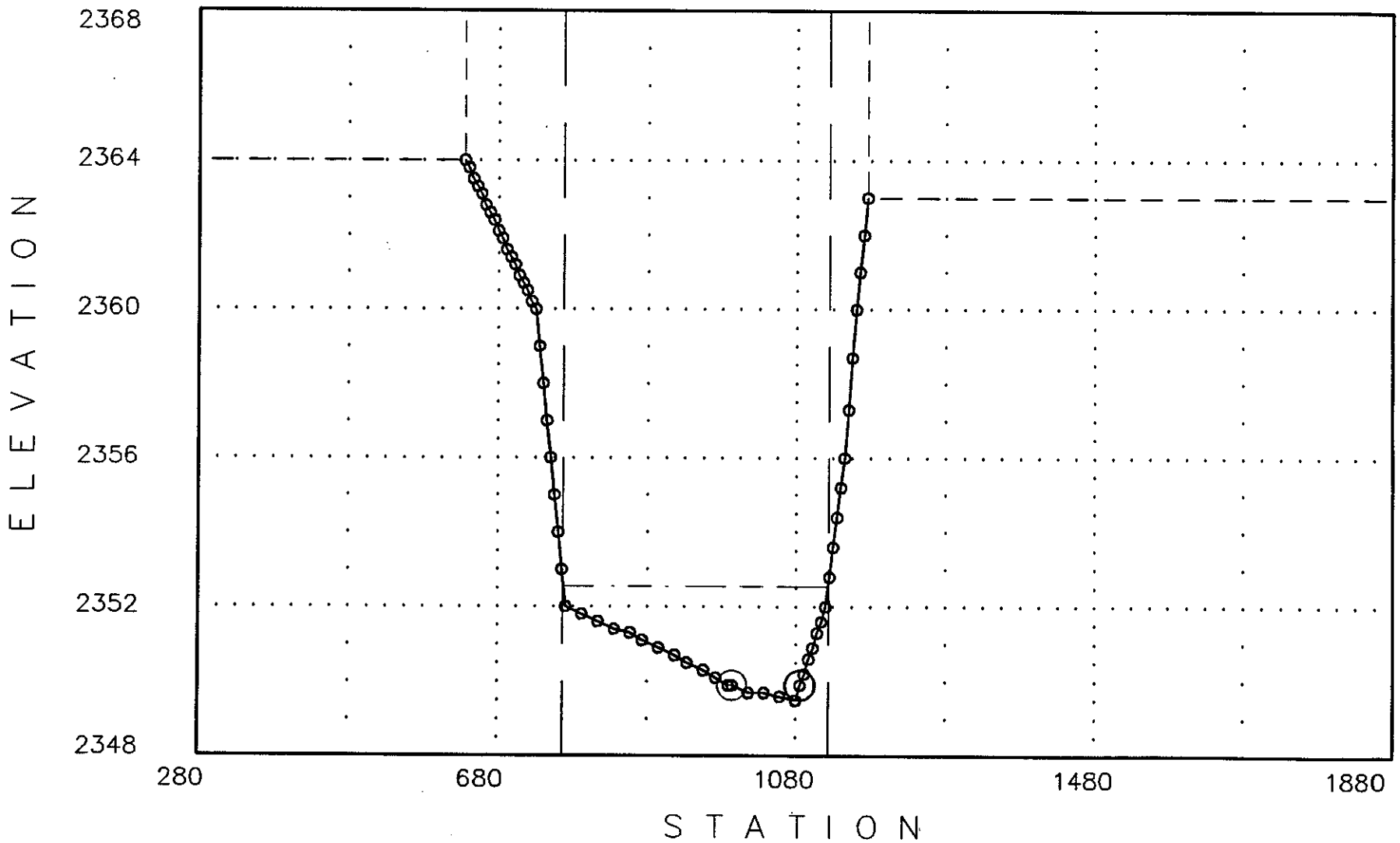
08-14-1992

<<<<<< Cross Section: 4.108: (FN = WASHR.O) >>>>>>

Q1= 2800 WS1= 2352.54

Q2= 2800 WS2= 2352.54

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

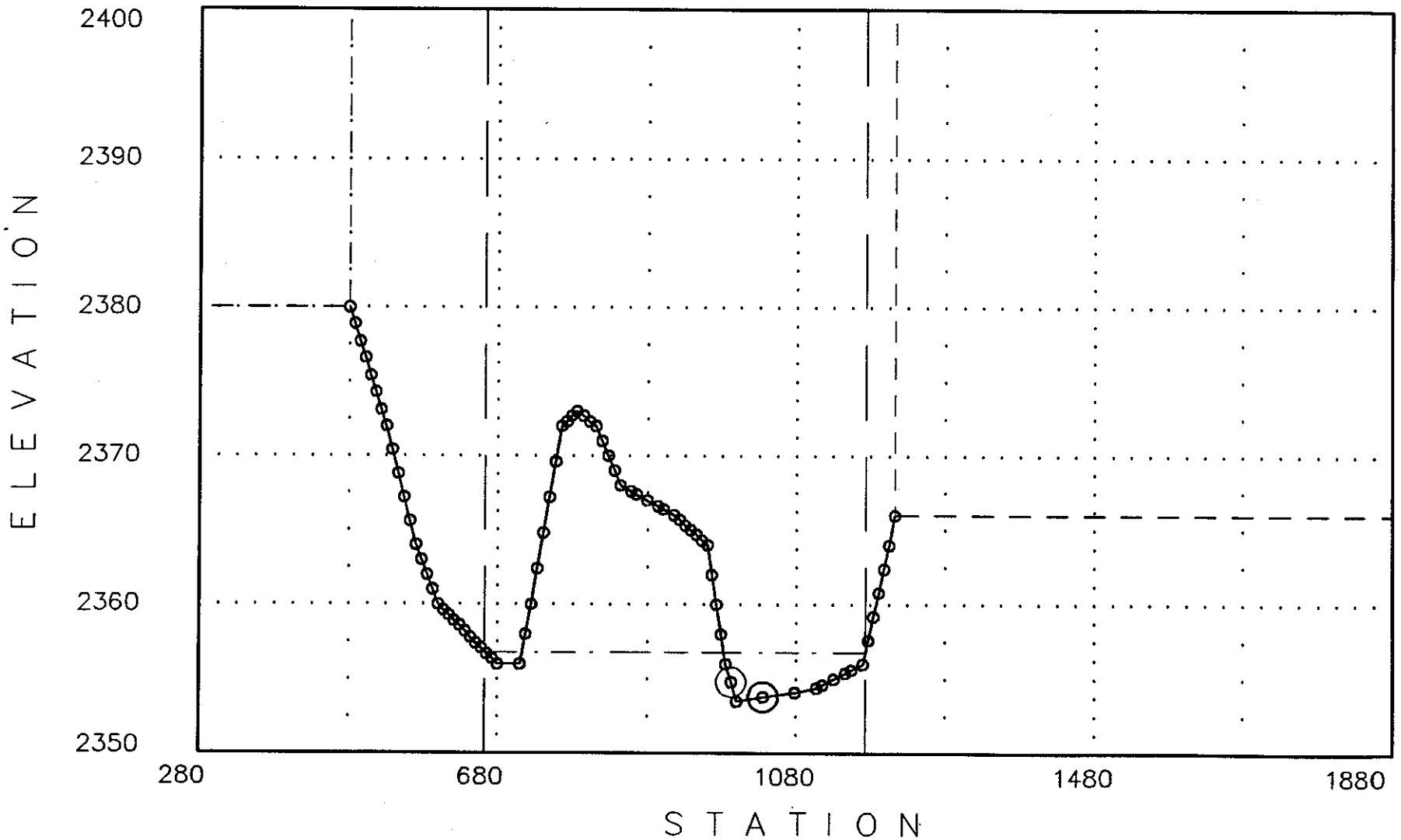


08-14-1992

<<<<<< Cross Section: 4.148: (FN = WASHR.O) >>>>>>

Q1= 2800 WS1= 2356.78
Q2= 2800 WS2= 2356.78

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07



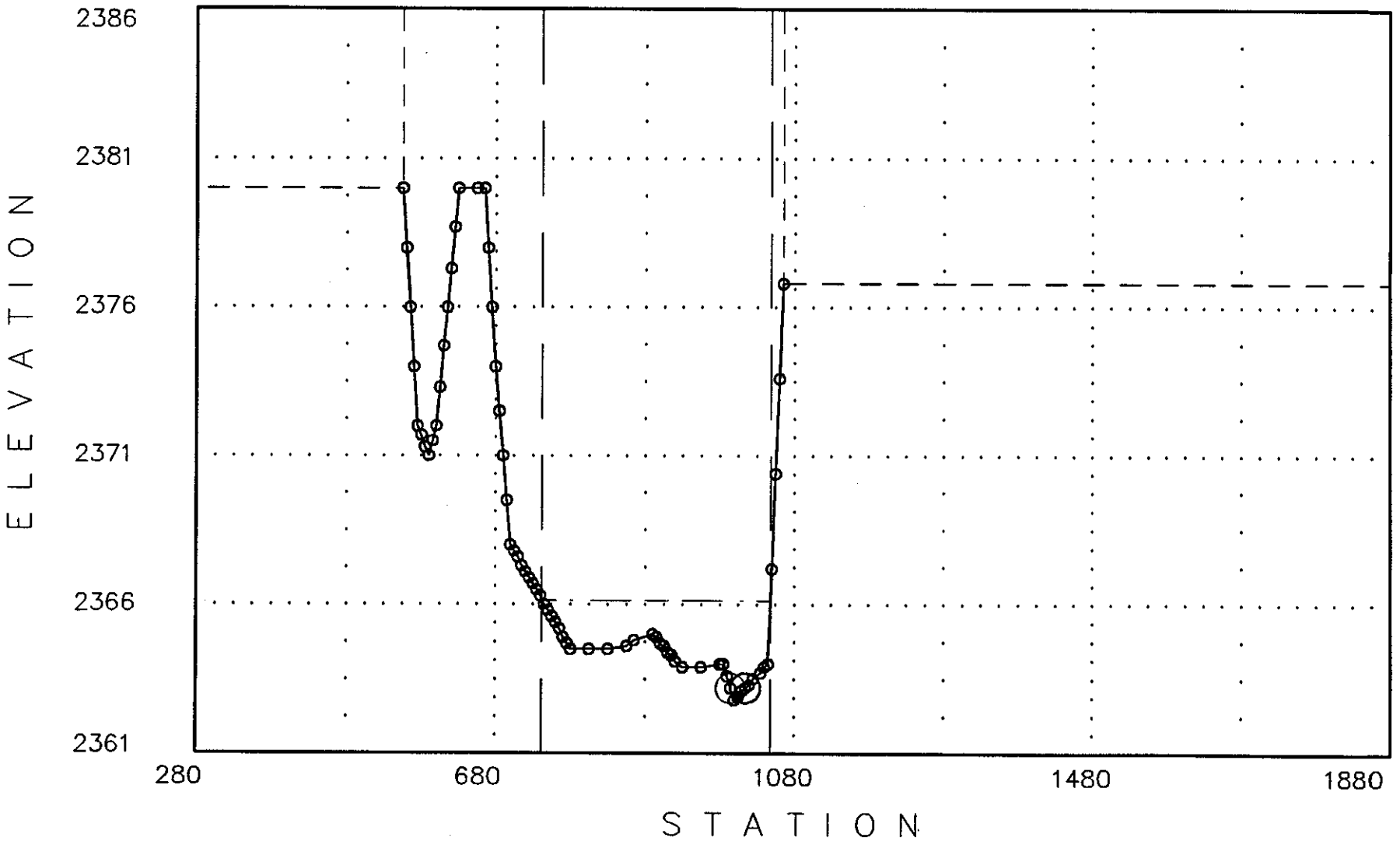
08-14-1992

<<<<<< Cross Section: 4.242: (FN = WASHR.O) >>>>>>

Q1= 2800 WS1= 2366.13

Q2= 2800 WS2= 2366.13

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

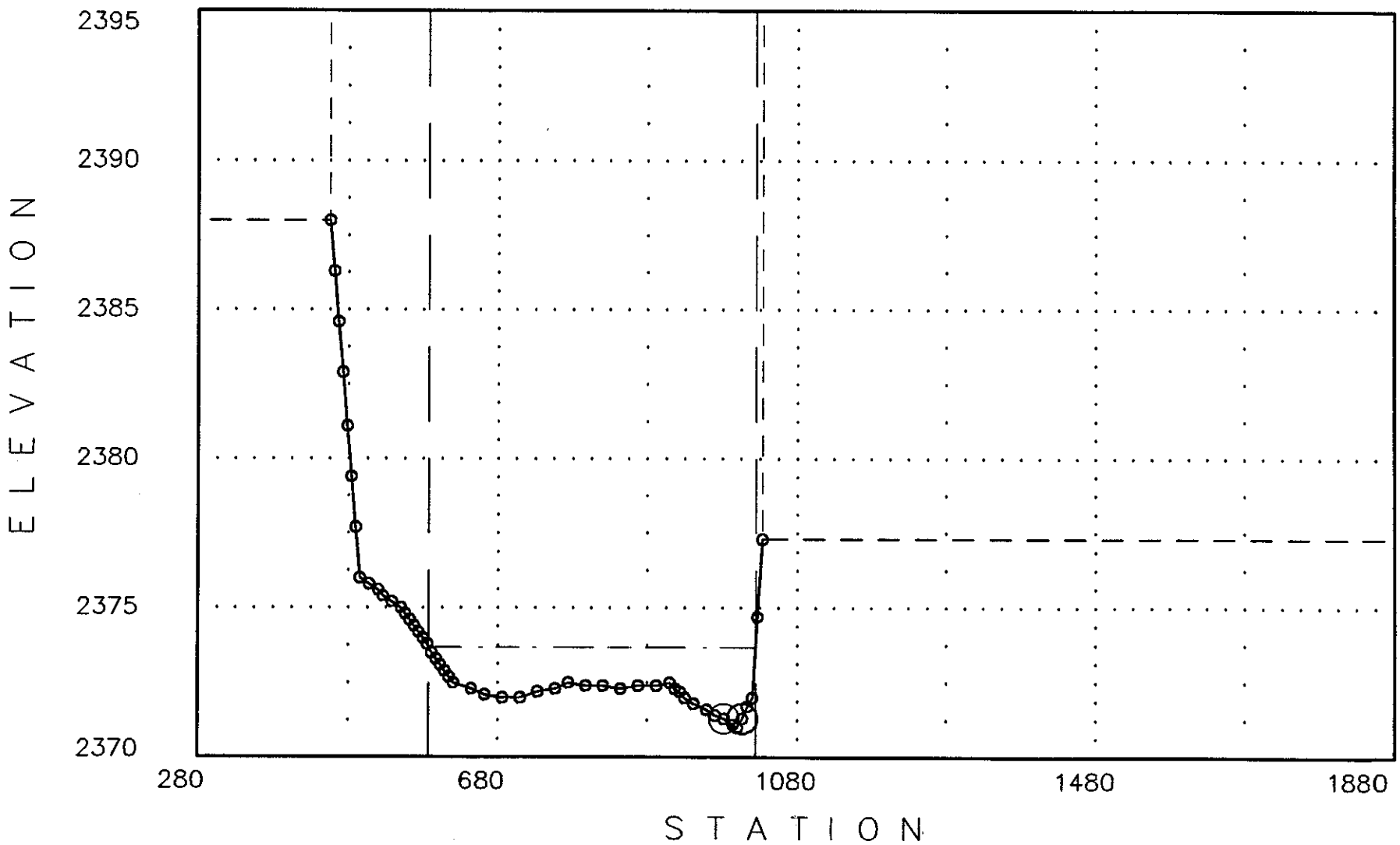


08-14-1992

<<<<<< Cross Section: 4.335: (FN = WASHR.O) >>>>>>

Q1= 2800 WS1= 2373.68
Q2= 2800 WS2= 2373.68

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

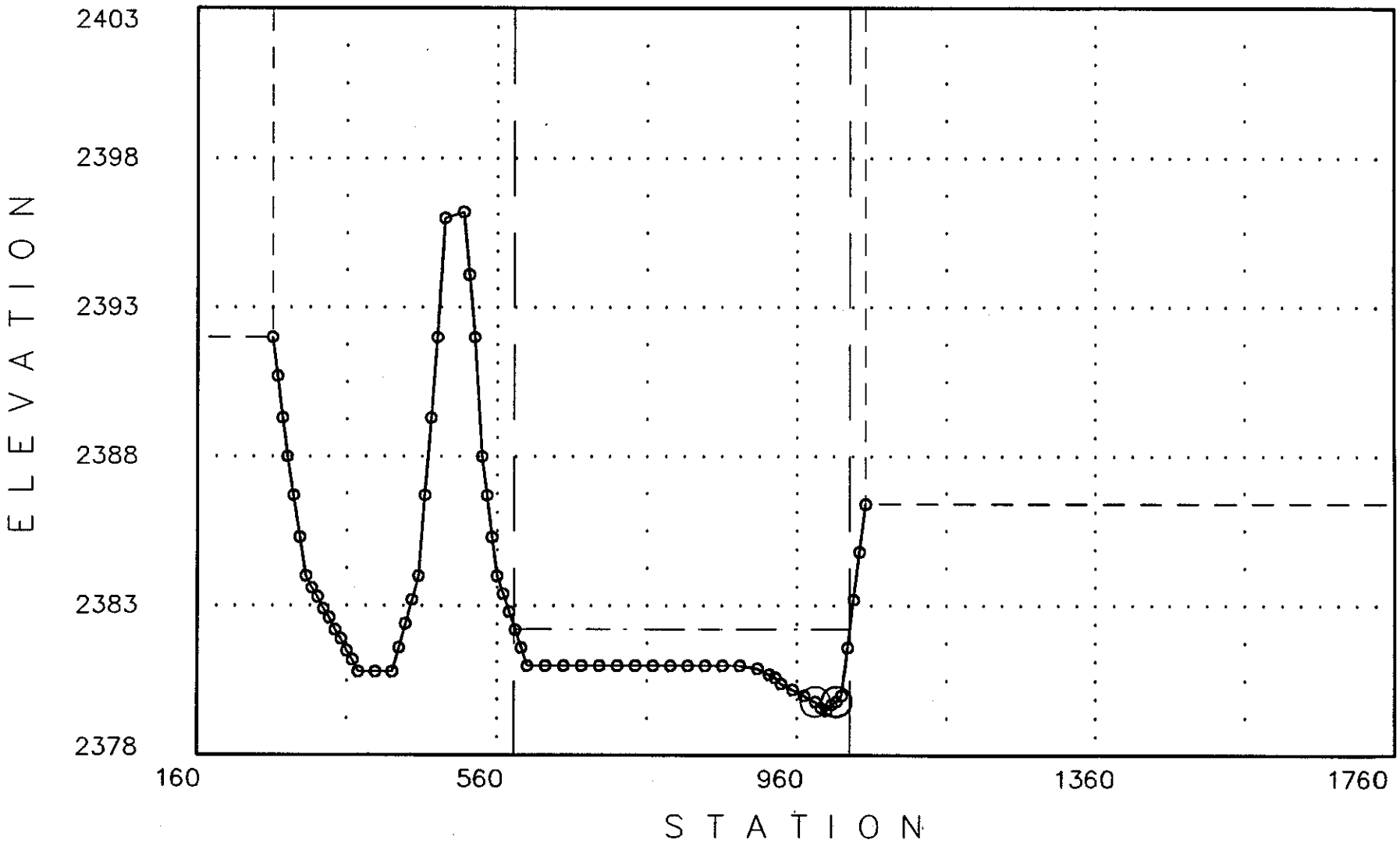


08-14-1992

<<<<<< Cross Section: 4.394: (FN = WASHR.O) >>>>>>

Q1= 2800 WS1= 2382.22
Q2= 2800 WS2= 2382.22

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

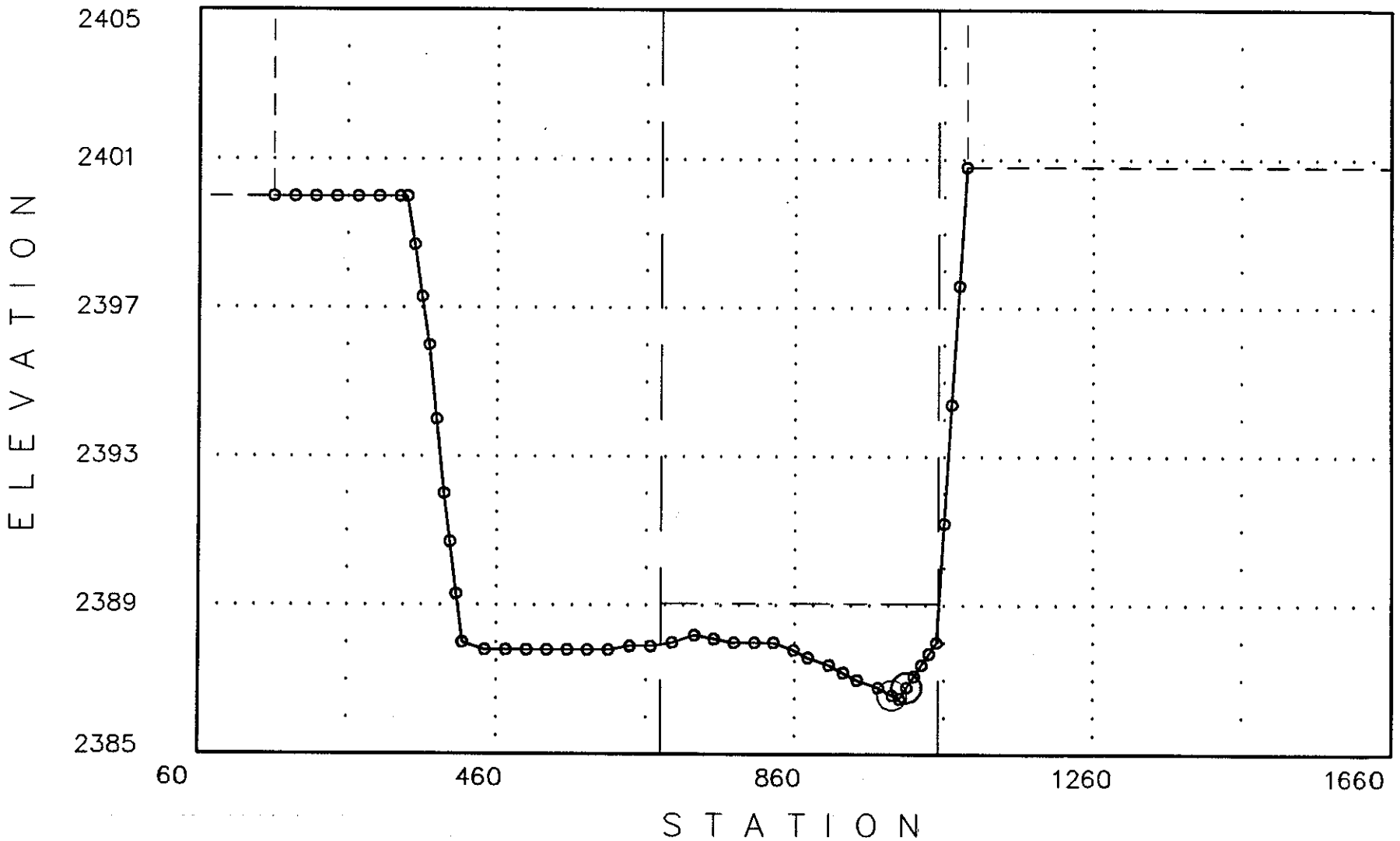


08-14-1992

<<<<<< Cross Section: 4.461: (FN = WASHR.O) >>>>>>

Q1= 2800 WS1= 2389.06
Q2= 2800 WS2= 2389.06

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

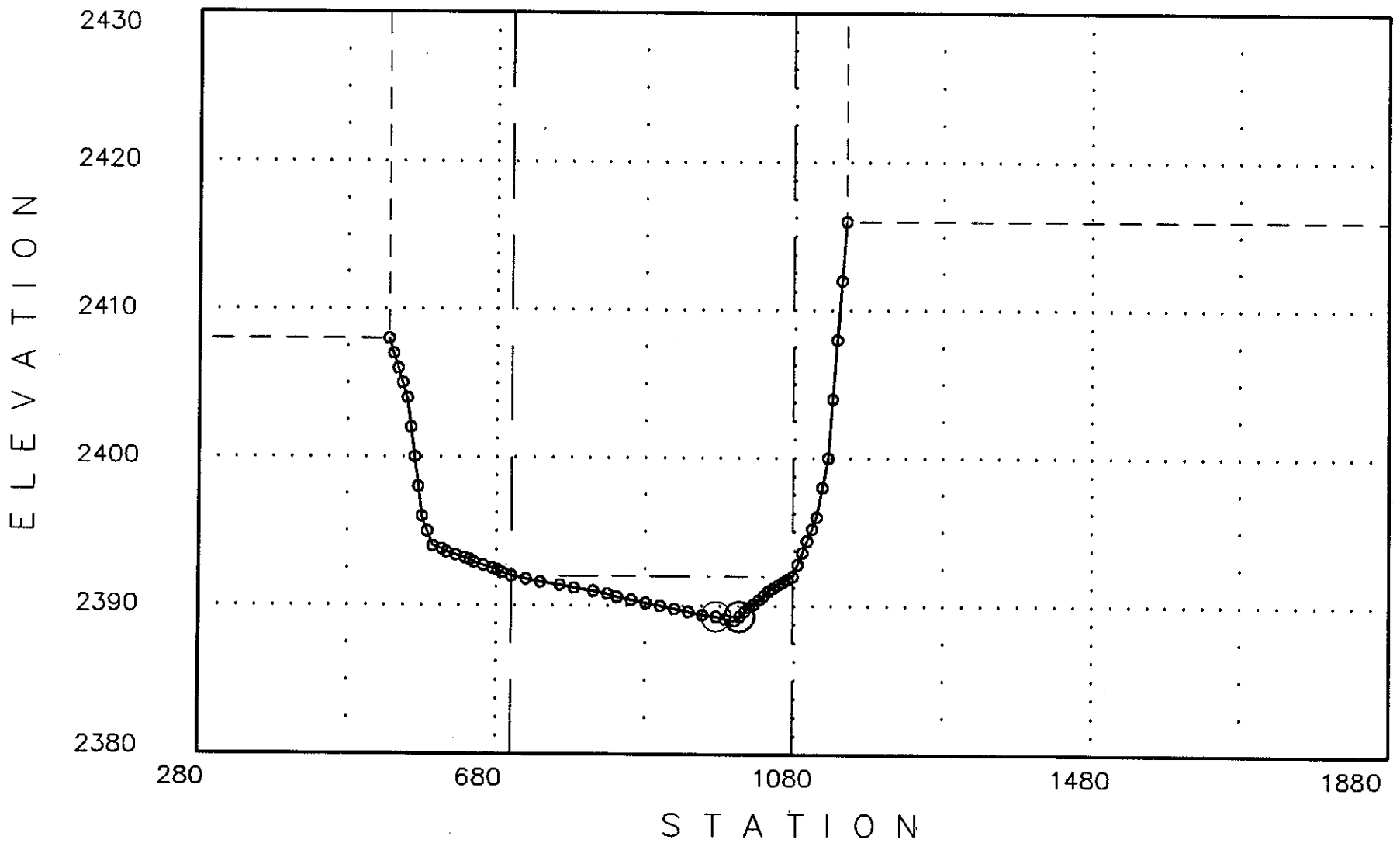


08-14-1992

<<<<<< Cross Section: 4.498: (FN = WASHR.O) >>>>>>

Q1= 2297 WS1= 2392
Q2= 2297 WS2= 2392

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

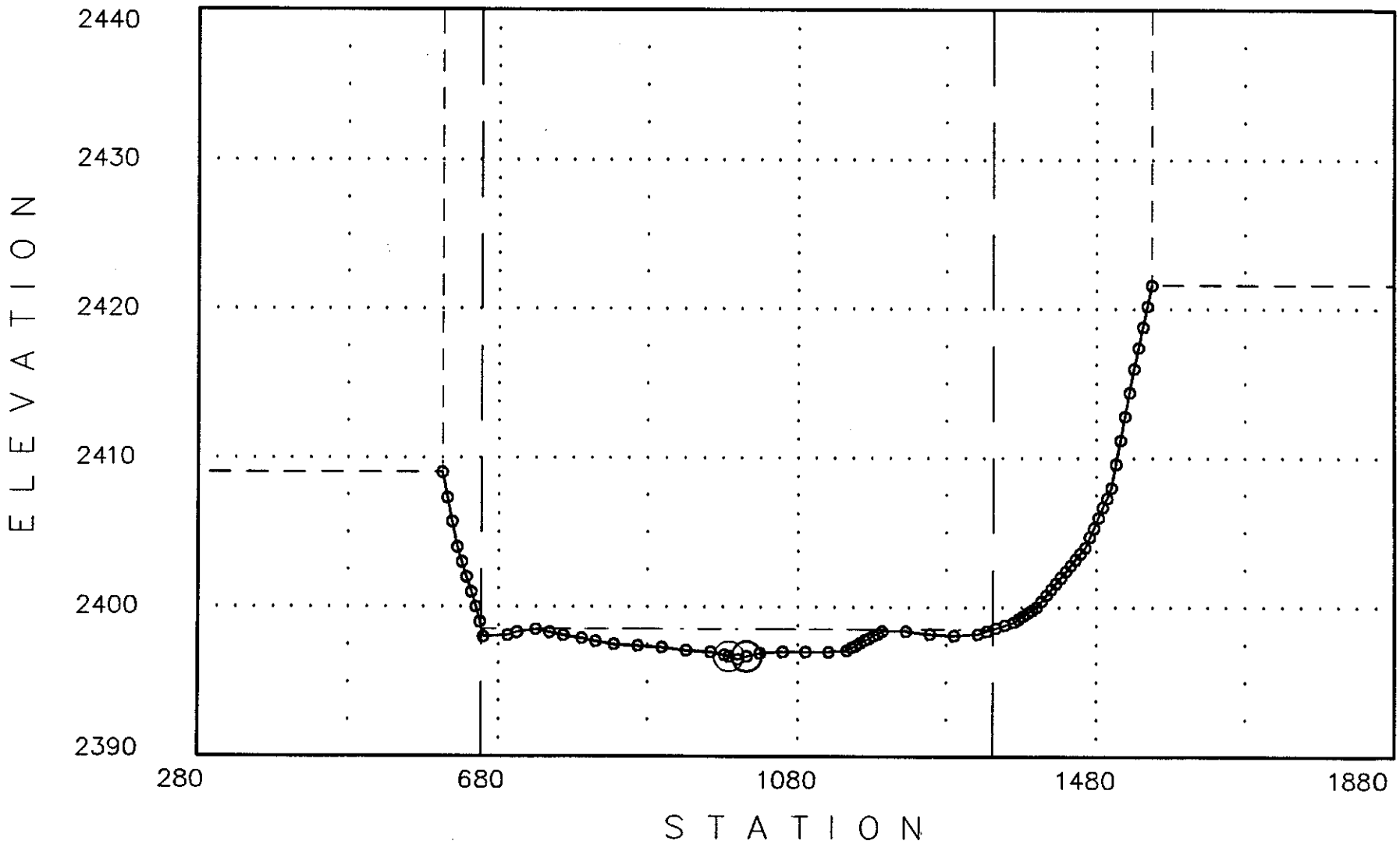


08-14-1992

<<<<<< Cross Section: 4.602: (FN = WASHR.O) >>>>>>

Q1= 2297 WS1= 2398.52
Q2= 2297 WS2= 2398.52

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

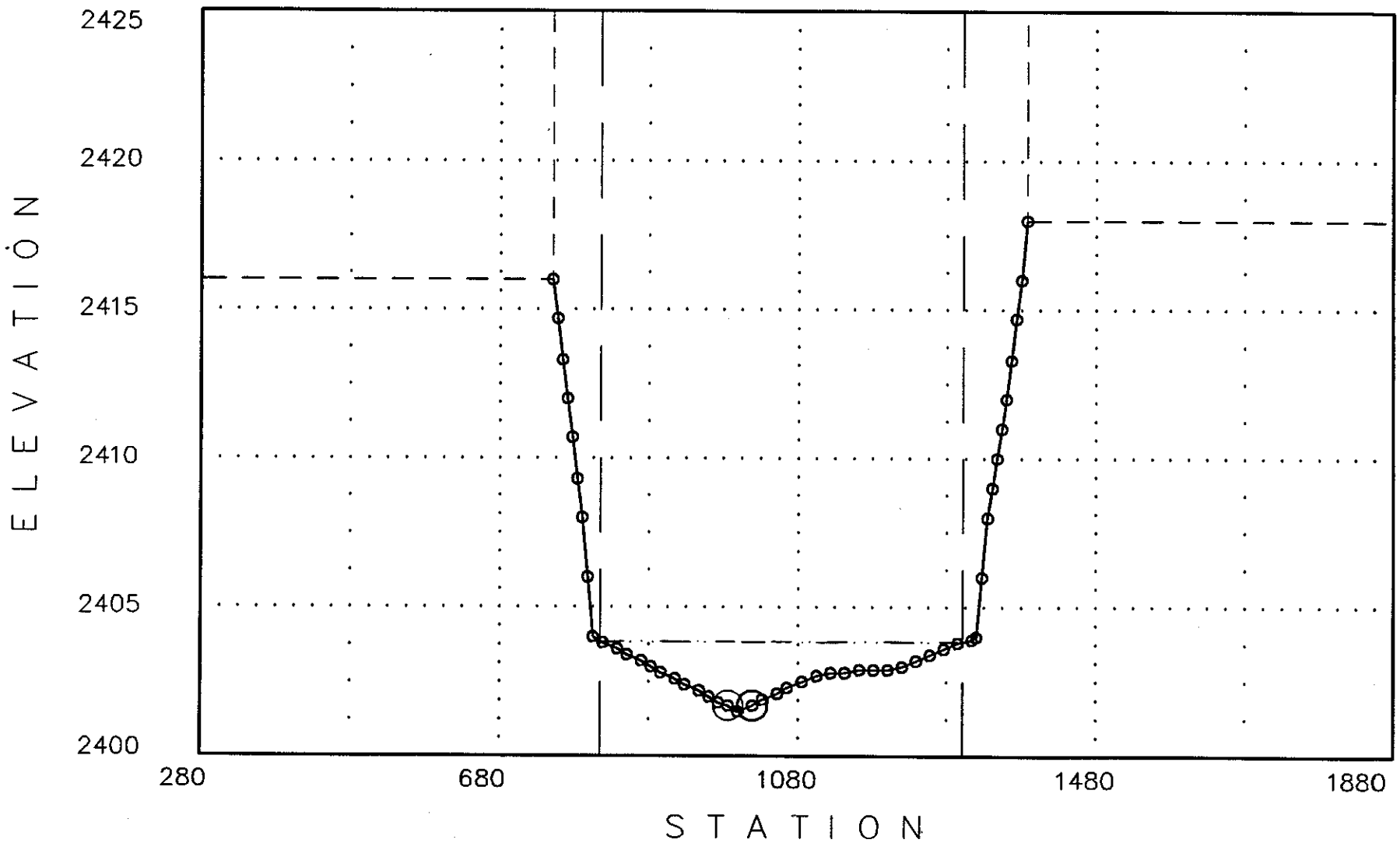


08-14-1992

<<<<<< Cross Section: 4.663: (FN = WASHR.O) >>>>>>

Q1= 2297 WS1= 2403.84
Q2= 2297 WS2= 2403.83

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

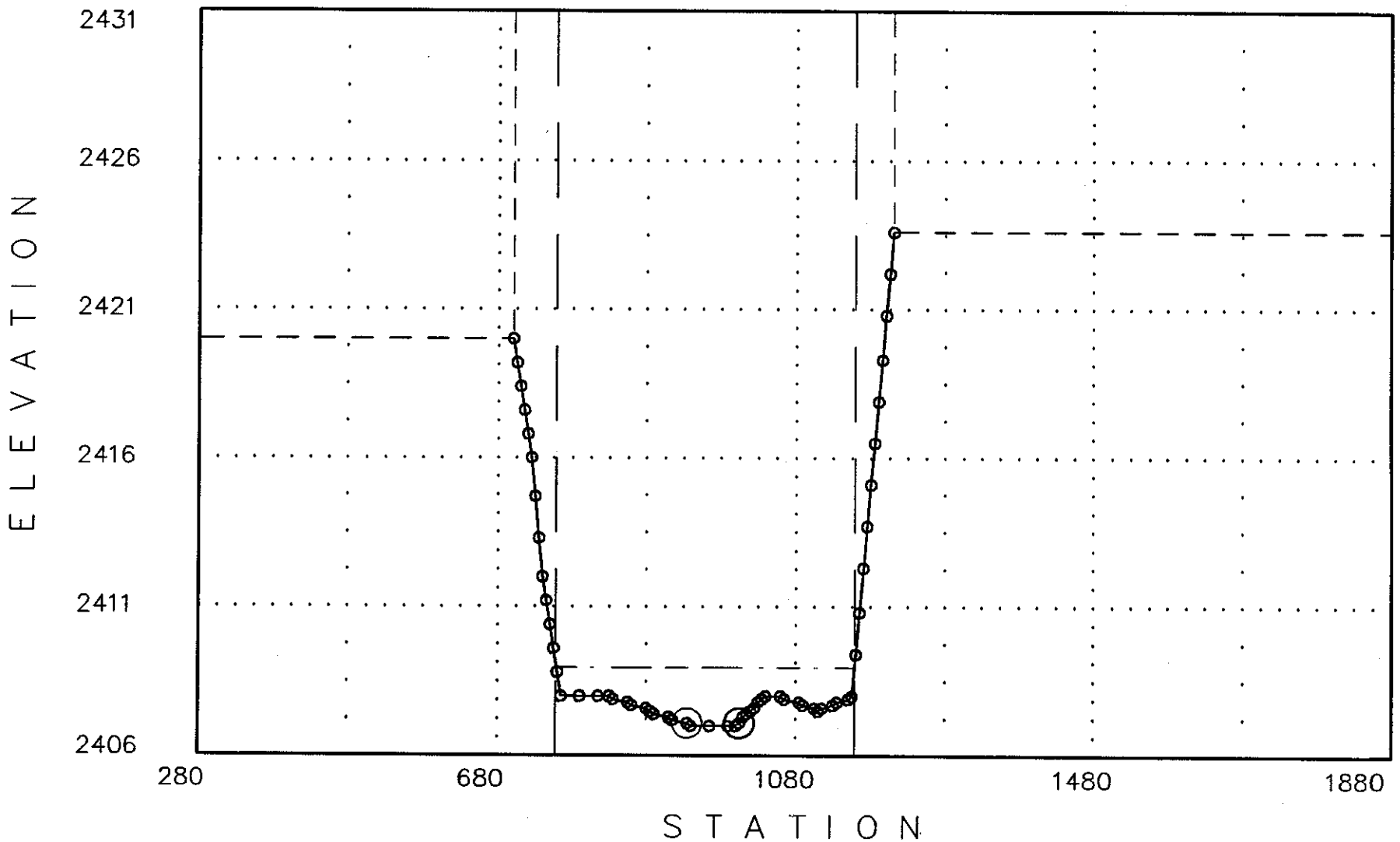


08-14-1992

<<<<<< Cross Section: 4.725: (FN = WASHR.O) >>>>>>

Q1= 2297 WS1= 2408.96
Q2= 2297 WS2= 2408.97

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

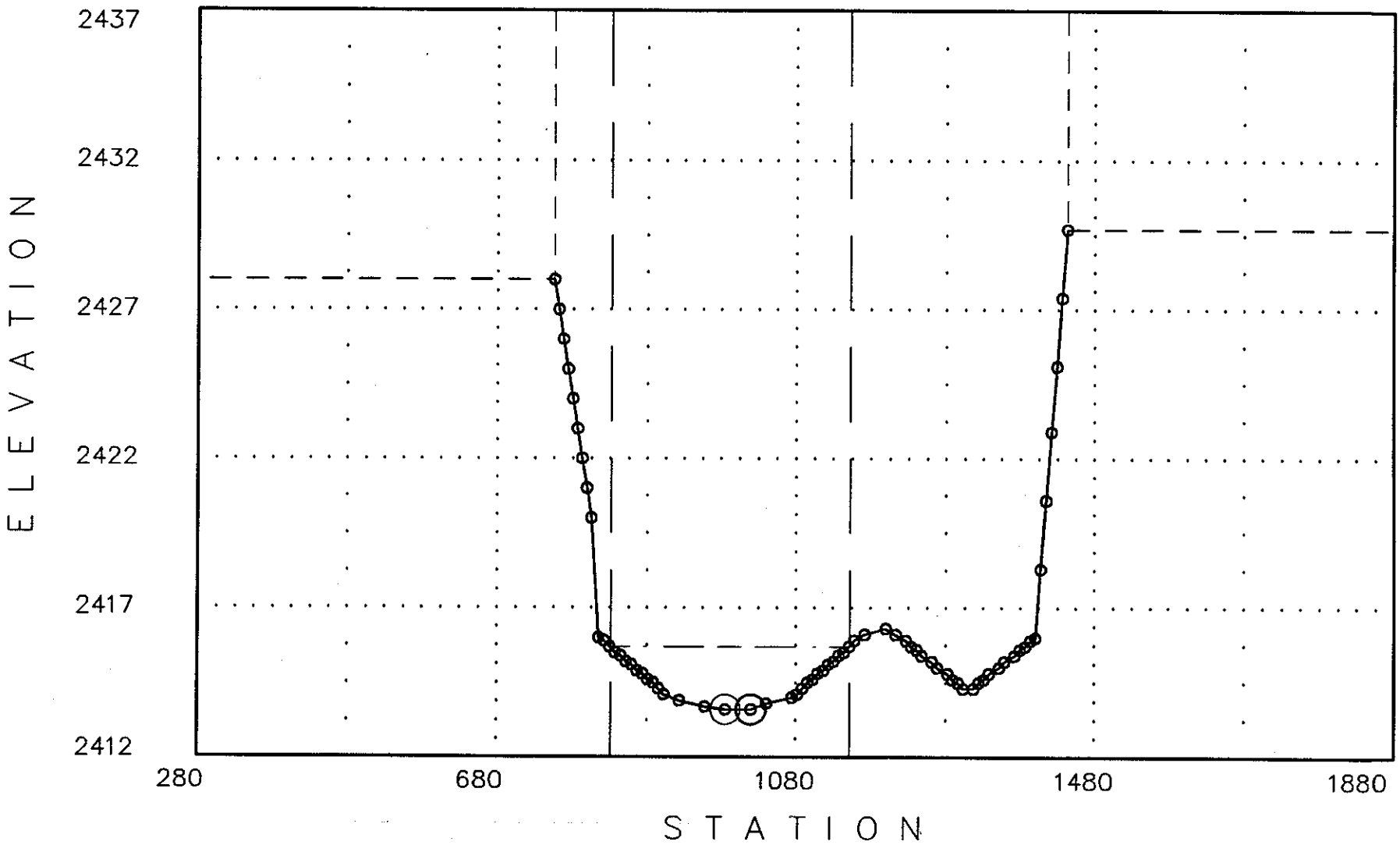


08-14-1992

<<<<<< Cross Section: 4.802: (FN = WASHR.O) >>>>>>

Q1= 2297 WS1= 2415.7
Q2= 2297 WS2= 2415.7

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

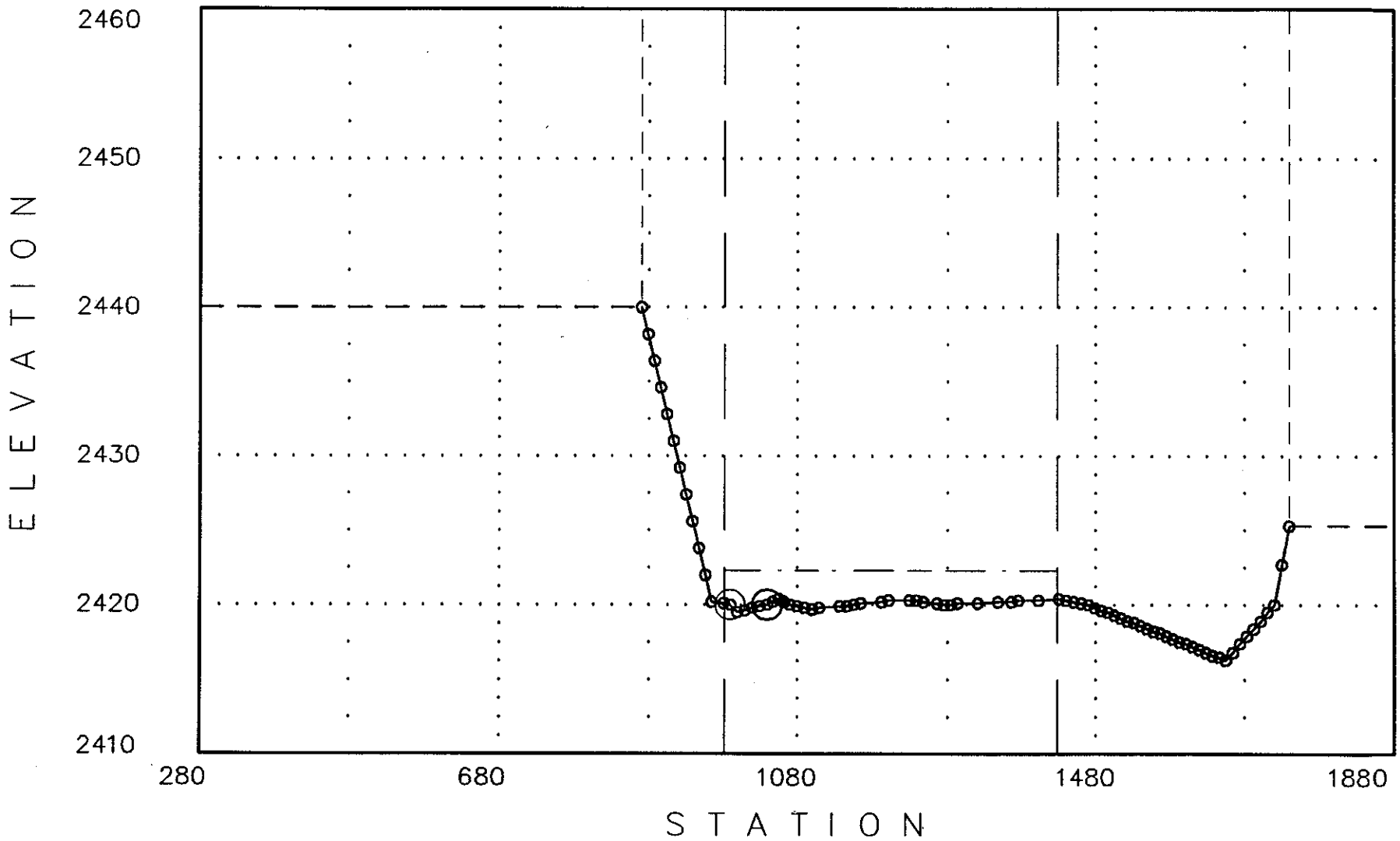


08-14-1992

<<<<<< Cross Section: 4.89: (FN = WASHR.O) >>>>>>

Q1= 2297 WS1= 2422.31
Q2= 2297 WS2= 2422.31

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

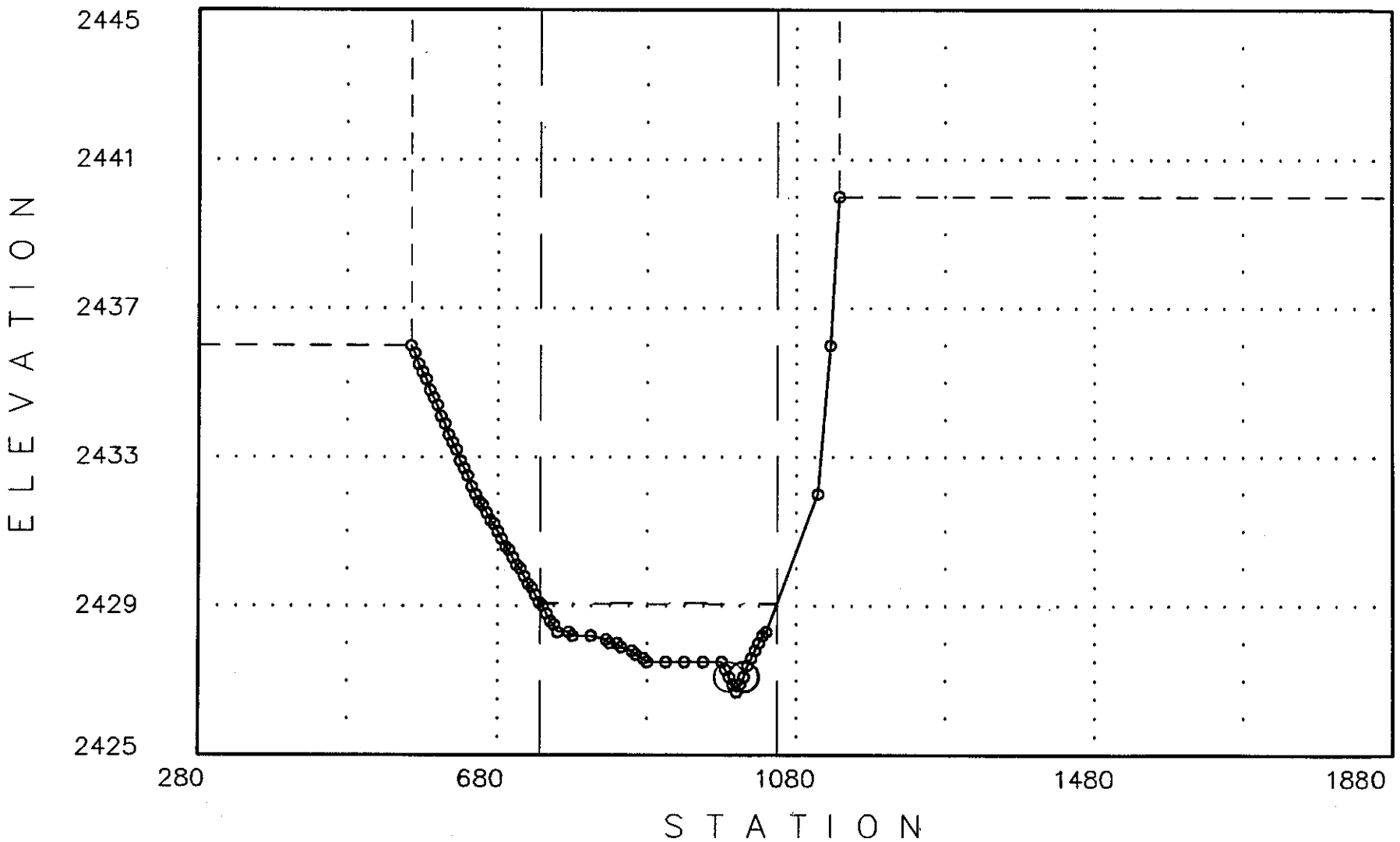


08-14-1992

<<<<<< Cross Section: 4.968: (FN = WASHR.O) >>>>>>

Q1= 1793 WS1= 2429.06
Q2= 1793 WS2= 2429.08

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

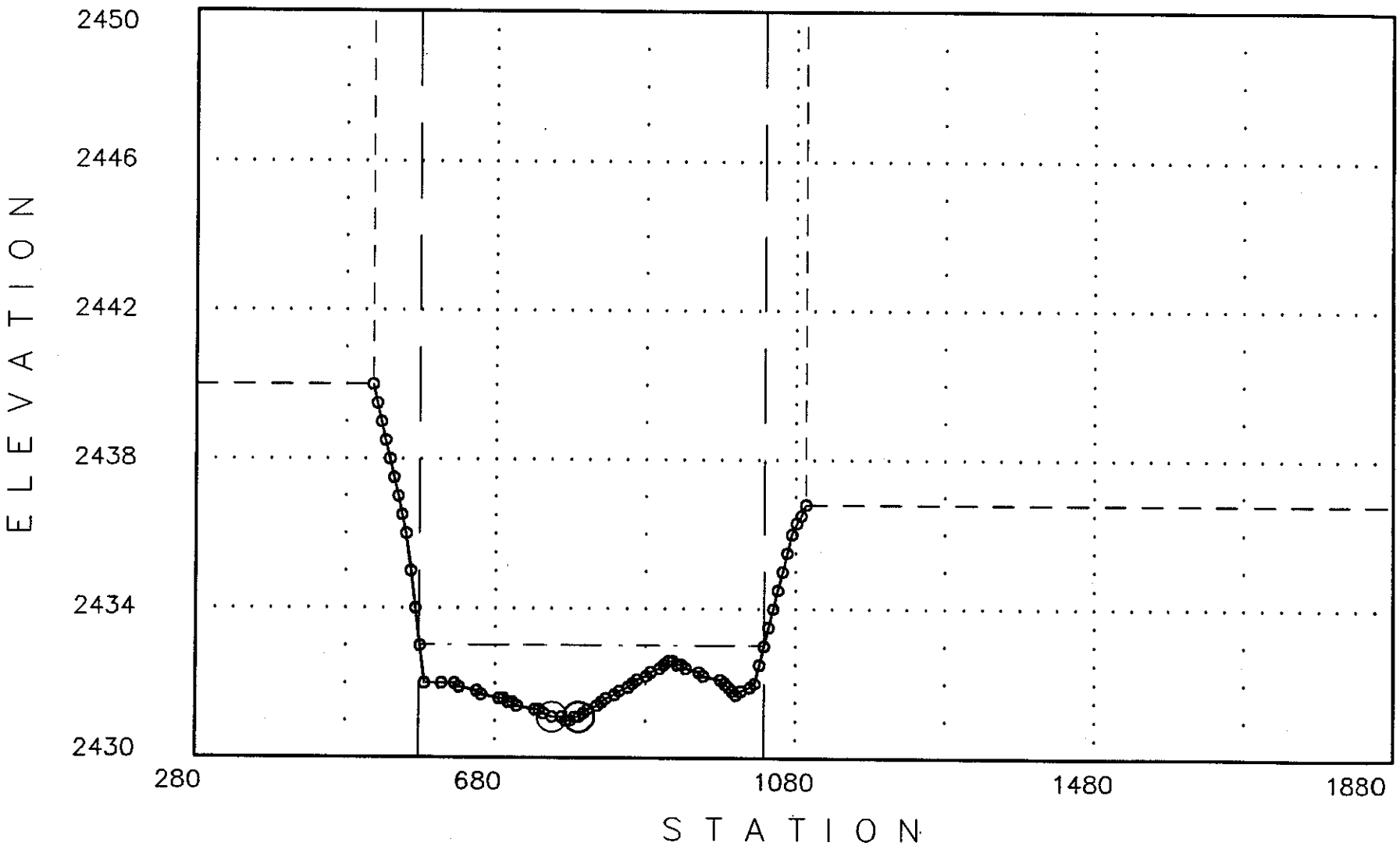


08-14-1992

<<<<<< Cross Section: 5.021: (FN = WASHR.O) >>>>>>

Q1= 1793 WS1= 2433.03
Q2= 1793 WS2= 2433.02

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

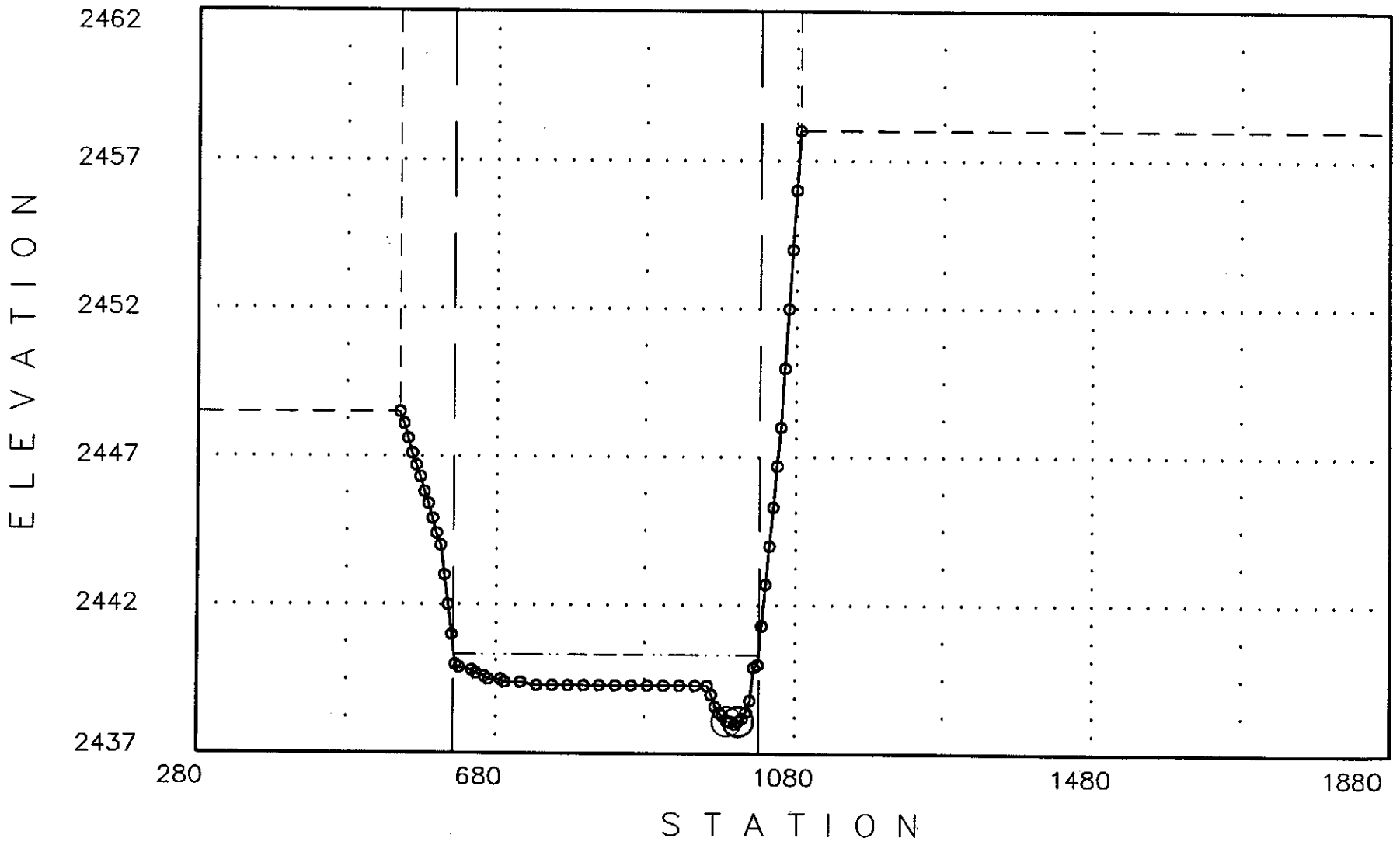


08-14-1992

<<<<<< Cross Section: 5.11: (FN = WASHR.0) >>>>>>

Q1= 1793 WS1= 2440.33
Q2= 1793 WS2= 2440.33

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .065

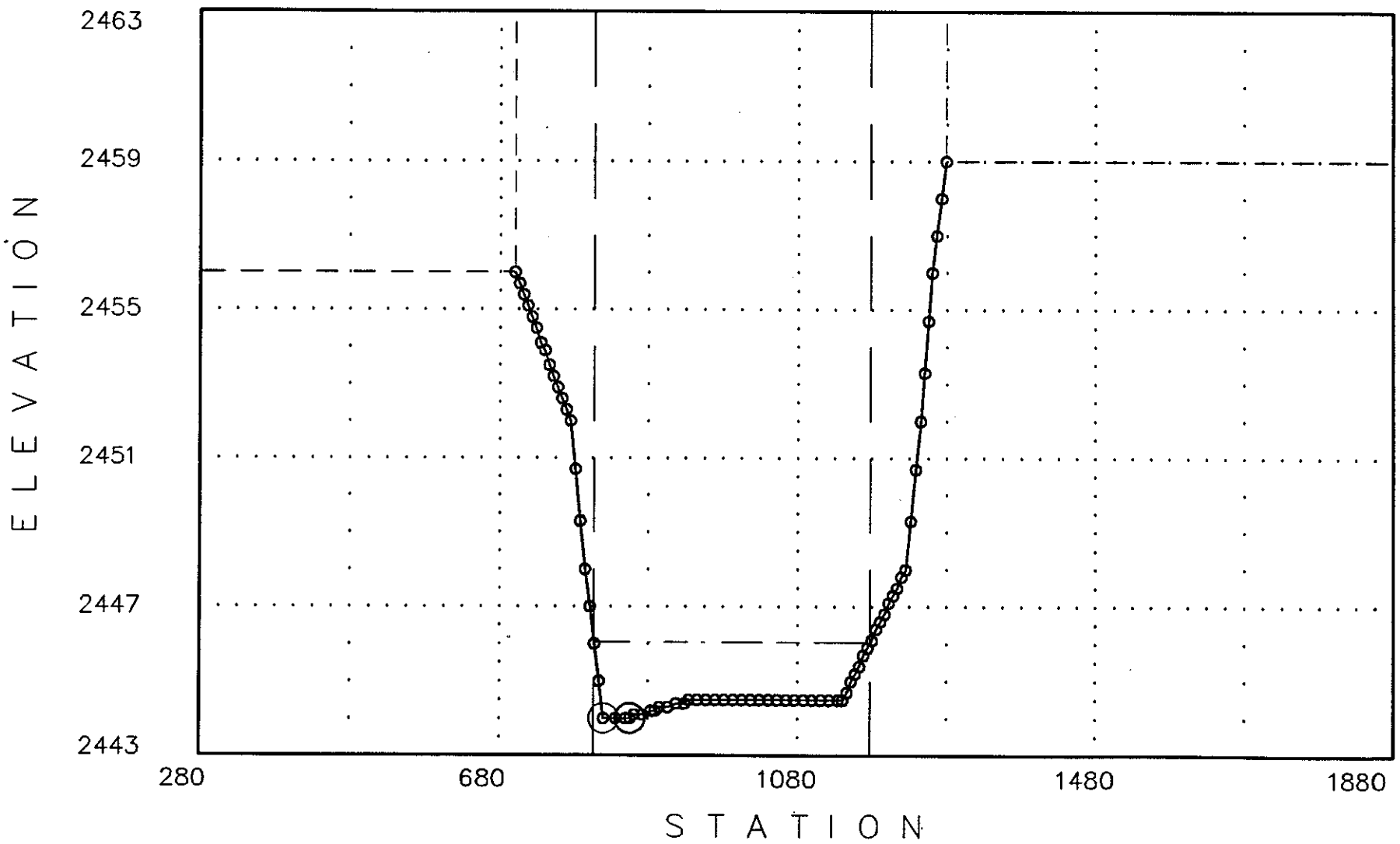


08-14-1992

<<<<<< Cross Section: 5.184: (FN = WASHR.O) >>>>>>

Q1= 1793 WS1= 2446.05
Q2= 1793 WS2= 2446.05

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

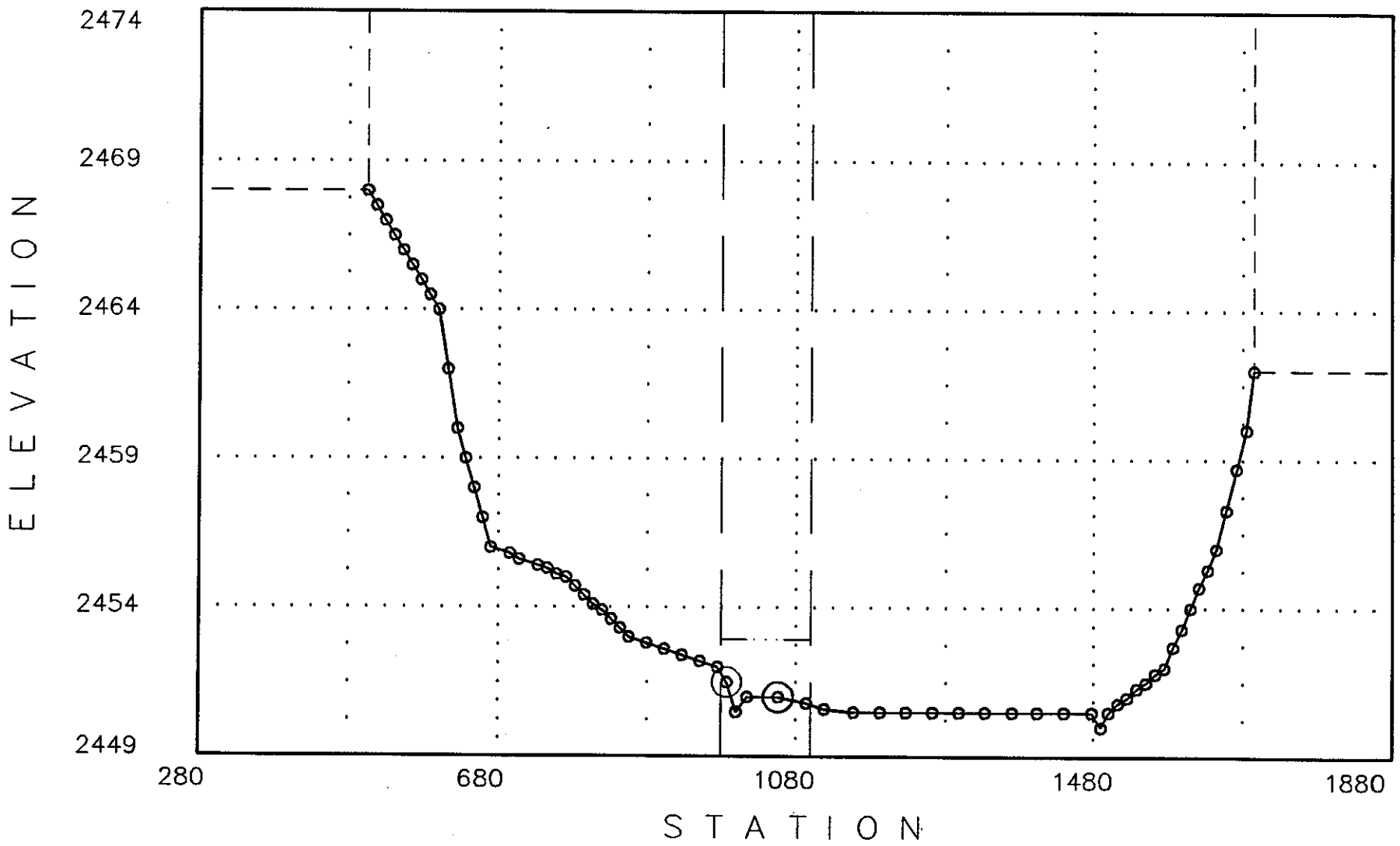


08-14-1992

<<<<<< Cross Section: 5.273: (FN = WASHR.O) >>>>>>

Q1= 1793 WS1= 2452.94
Q2= 1793 WS2= 2452.94

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

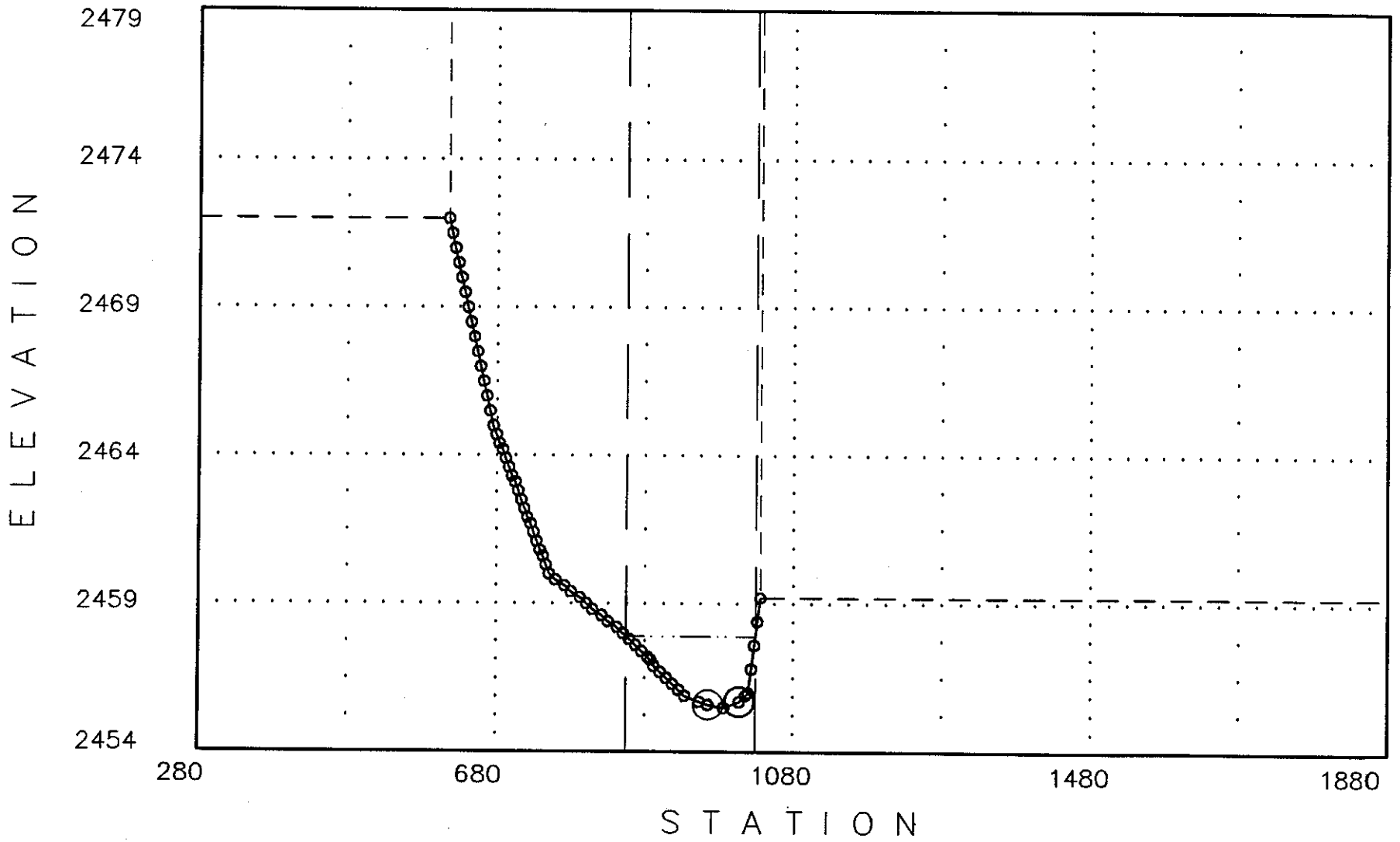


08-14-1992

<<<<<< Cross Section: 5.33: (FN = WASHR.O) >>>>>>

Q1= 958 WS1= 2457.9
Q2= 958 WS2= 2457.9

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

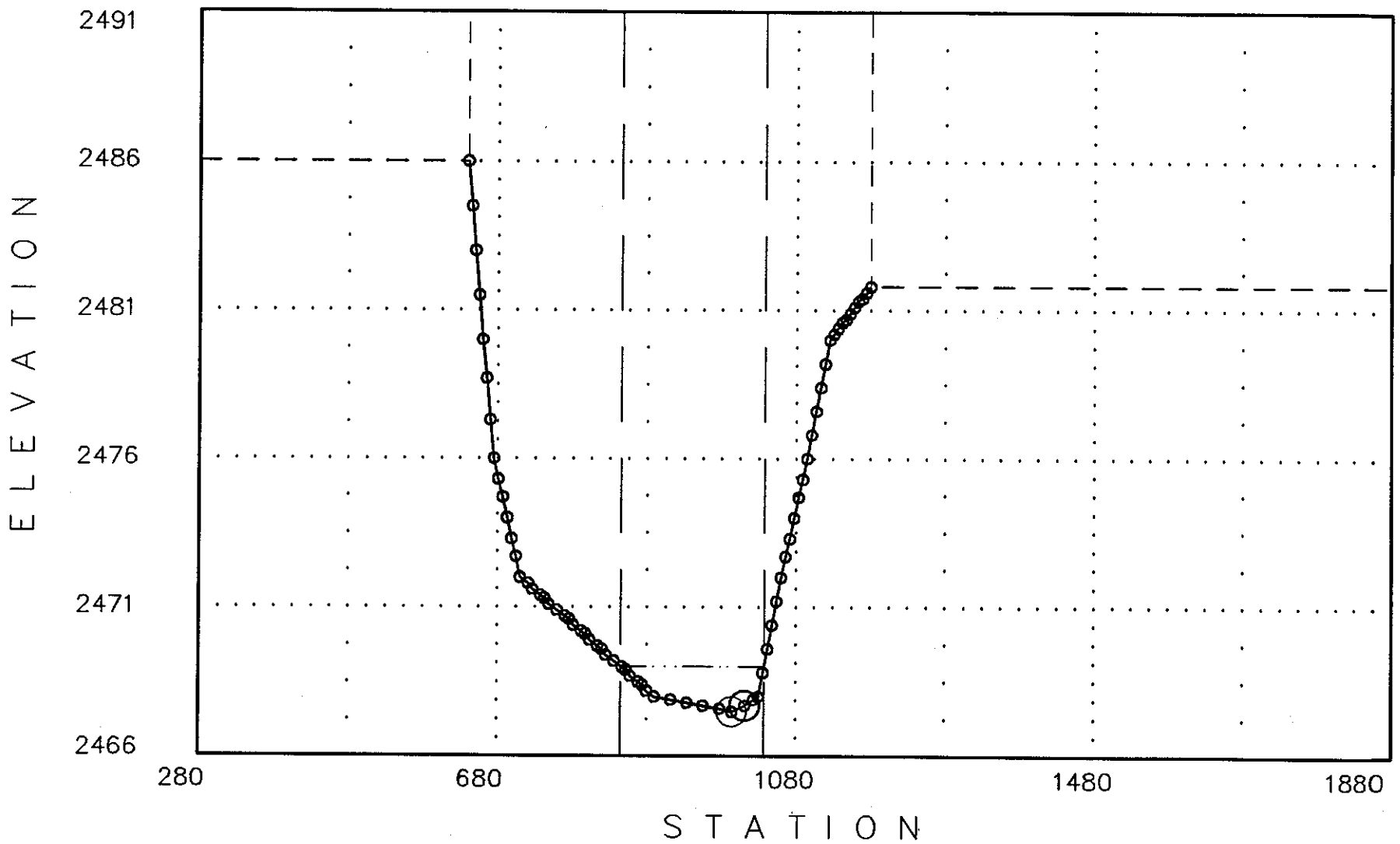


08-14-1992

<<<<<< Cross Section: 5.459: (FN = WASHR.O) >>>>>>

Q1= 958 WS1= 2469.01
Q2= 958 WS2= 2469.01

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

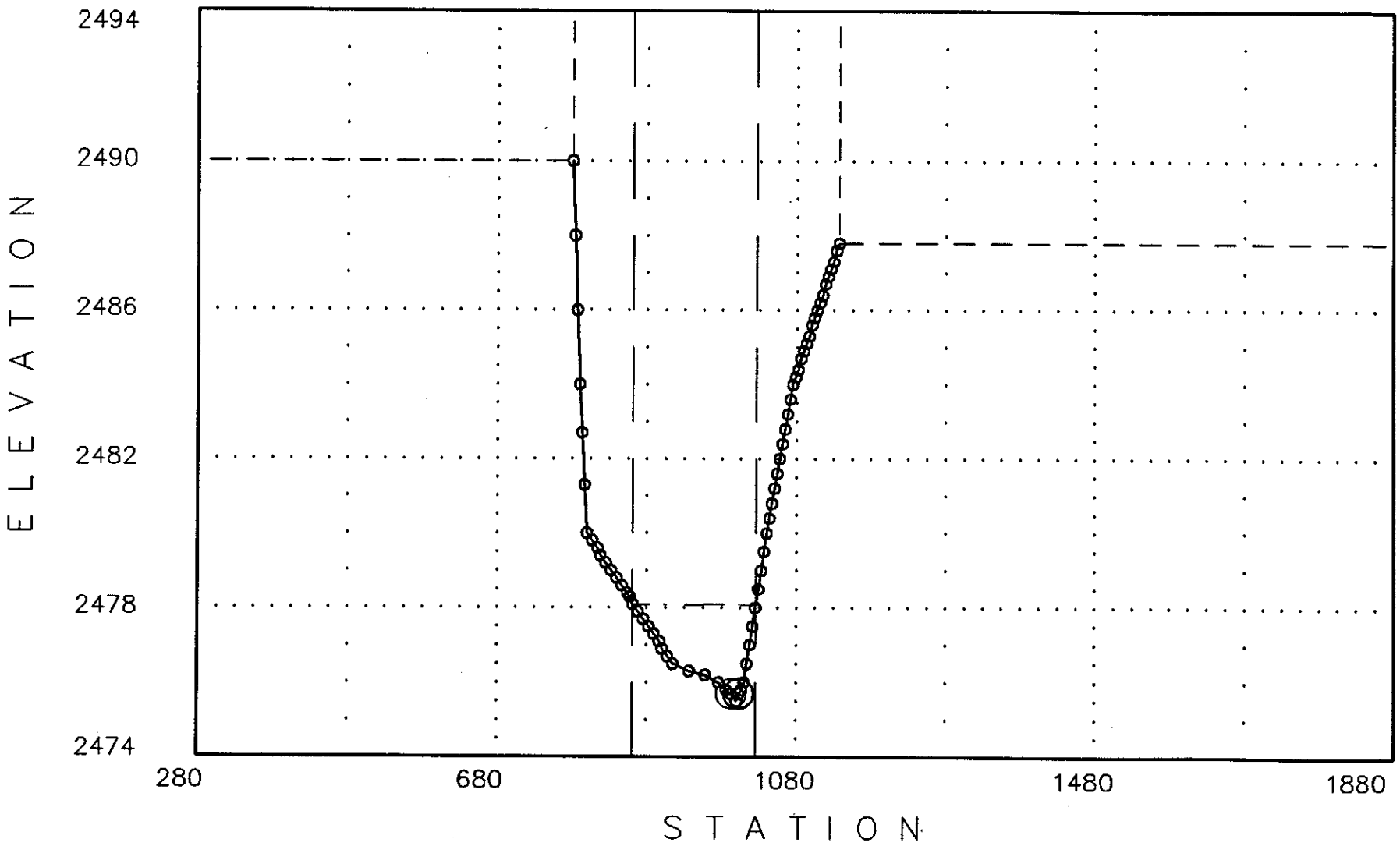


08-14-1992

<<<<<< Cross Section: 5.551: (FN = WASHR.O) >>>>>>

Q1= 958 WS1= 2478.08
Q2= 958 WS2= 2478.09

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07



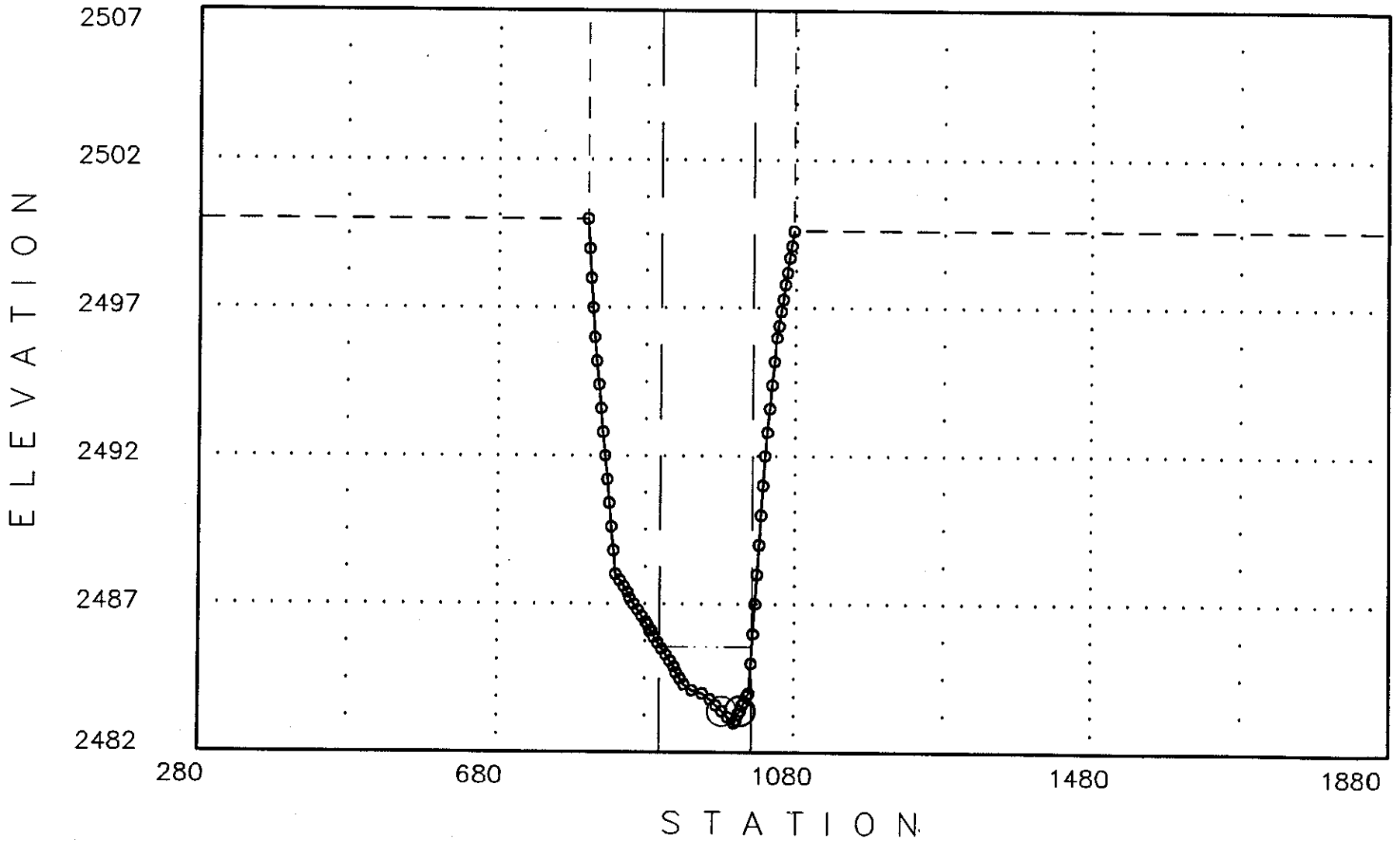
08-14-1992

<<<<<< Cross Section: 5.643: (FN = WASHR.0) >>>>>>

Q1= 958 WS1= 2485.56

Q2= 958 WS2= 2485.56

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

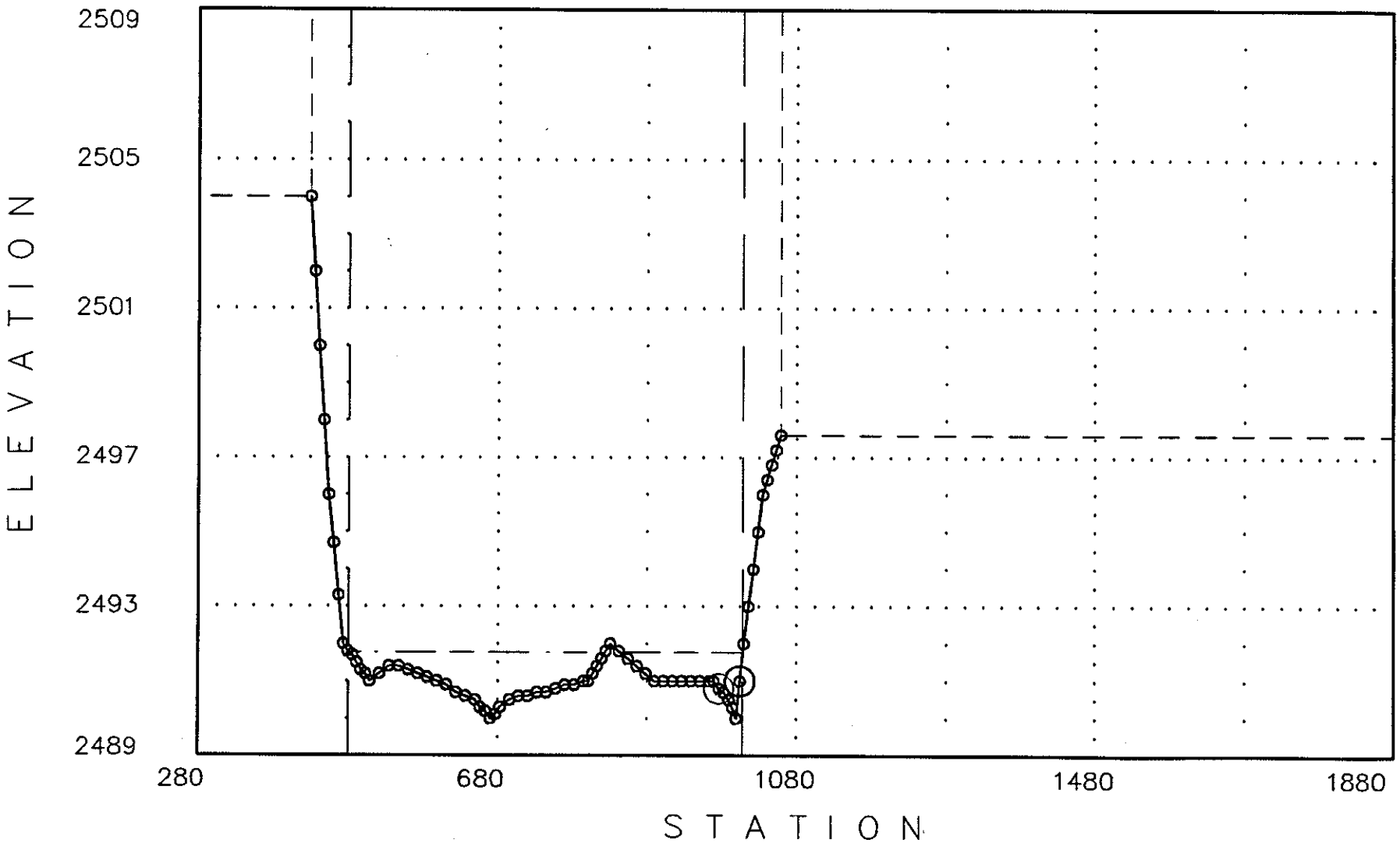


08-14-1992

<<<<<< Cross Section: 5.738: (FN = WASHR.O) >>>>>>

Q1= 958 WS1= 2491.77
Q2= 958 WS2= 2491.77

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .065

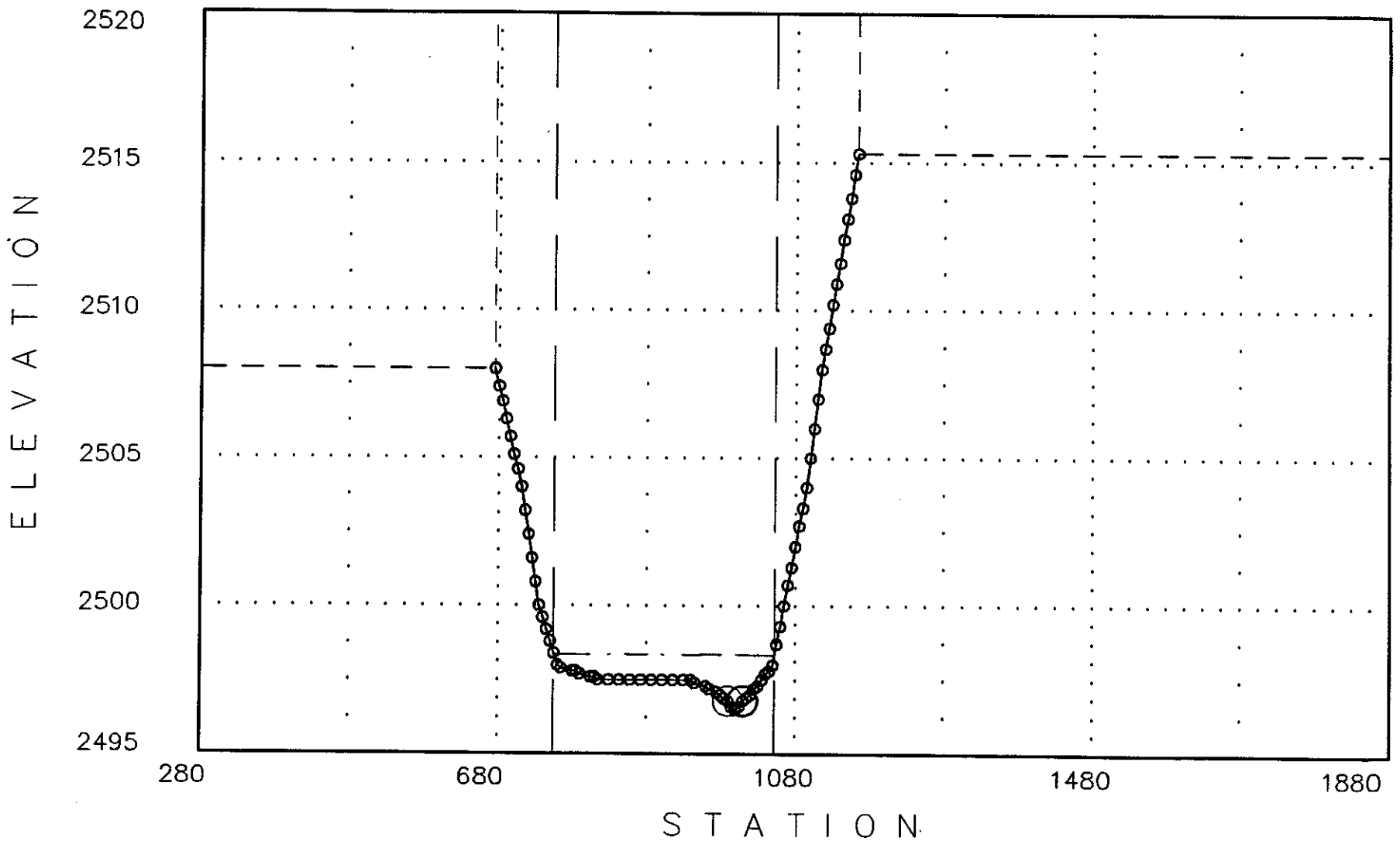


08-14-1992

<<<<<< Cross Section: 5.793: (FN = WASHR.O) >>>>>>

Q1= 958 WS1= 2498.35
Q2= 958 WS2= 2498.36

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .065

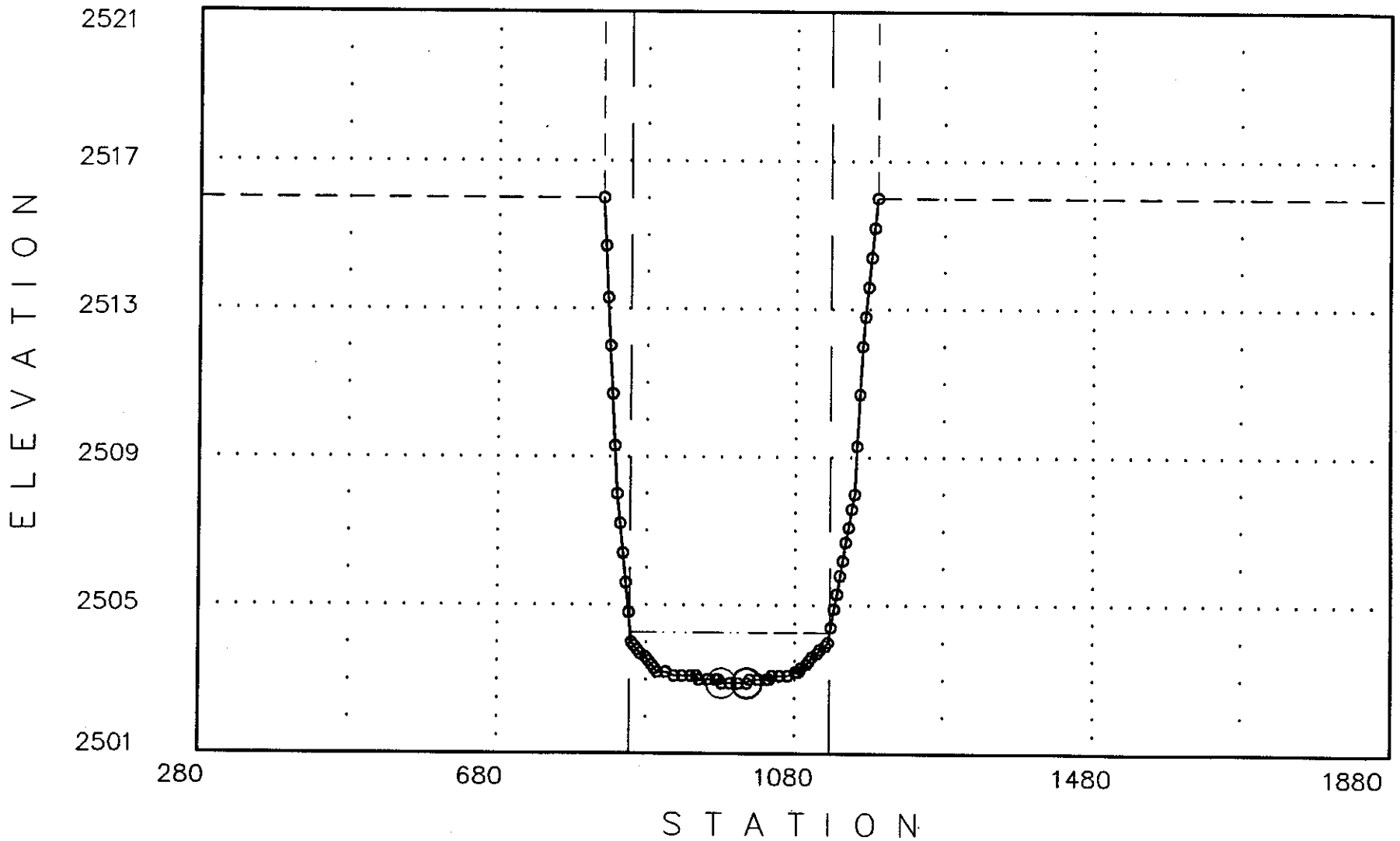


08-14-1992

<<<<<< Cross Section: 5.862: (FN = WASHR.O) >>>>>>

Q1= 958 WS1= 2504.26
Q2= 958 WS2= 2504.26

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .065



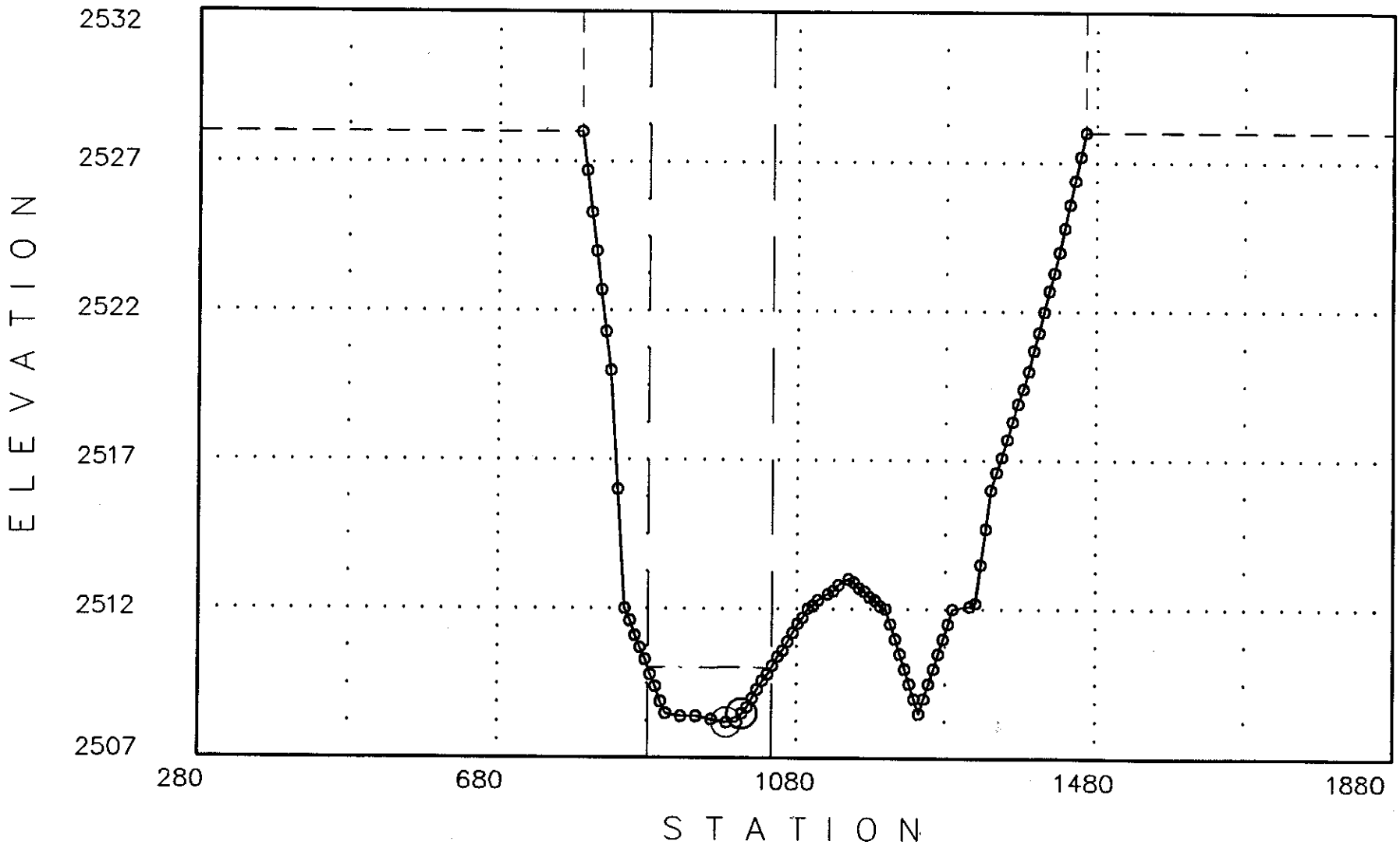
08-14-1992

<<<<<< Cross Section: 5.932: (FN = WASHR.0) >>>>>>

Q1= 958 WS1= 2510.03

Q2= 958 WS2= 2510.04

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .065

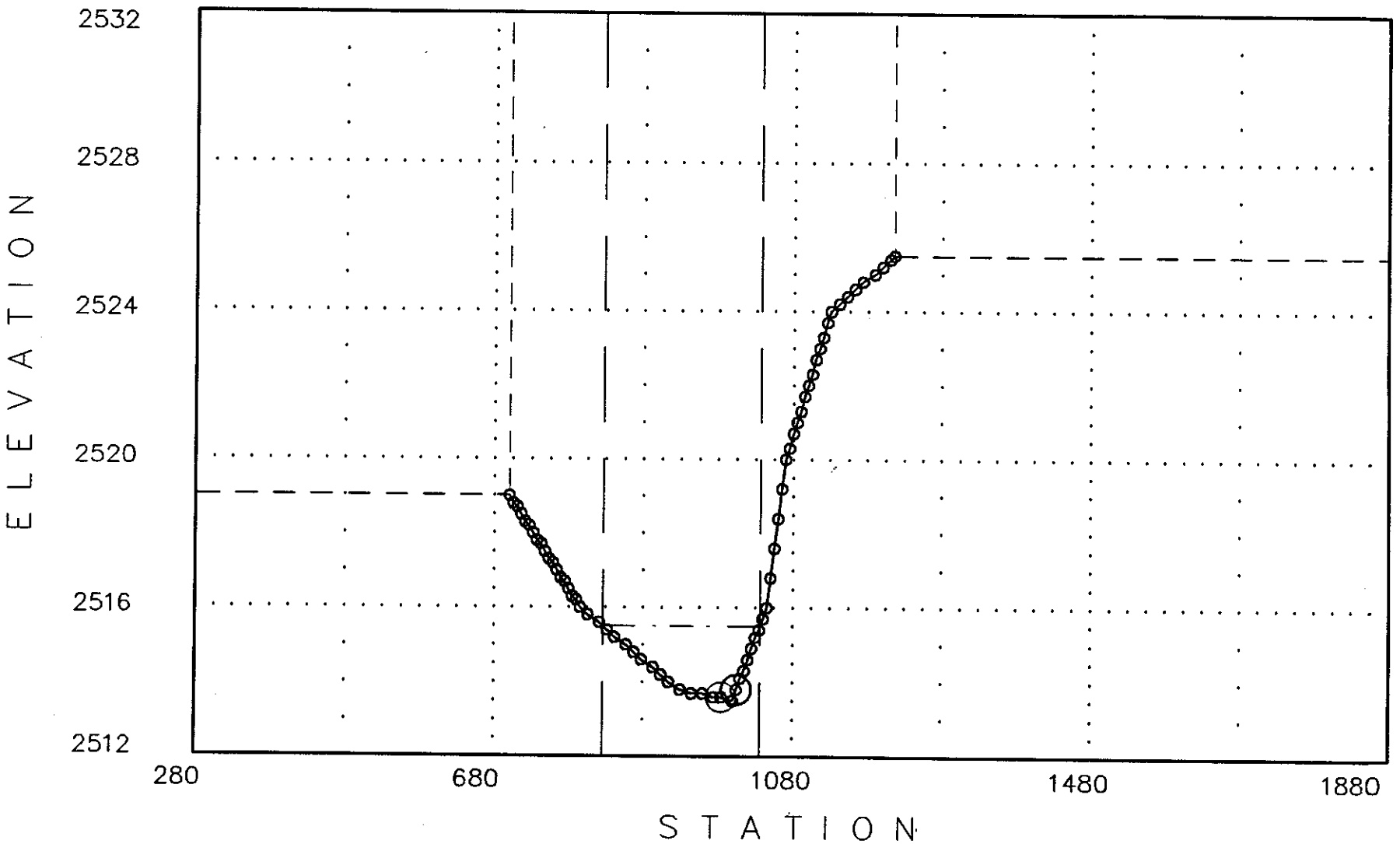


08-14-1992

<<<<<< Cross Section: 6.002: (FN = WASHR.O) >>>>>>

Q1= 958 WS1= 2515.51
Q2= 958 WS2= 2515.51

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07



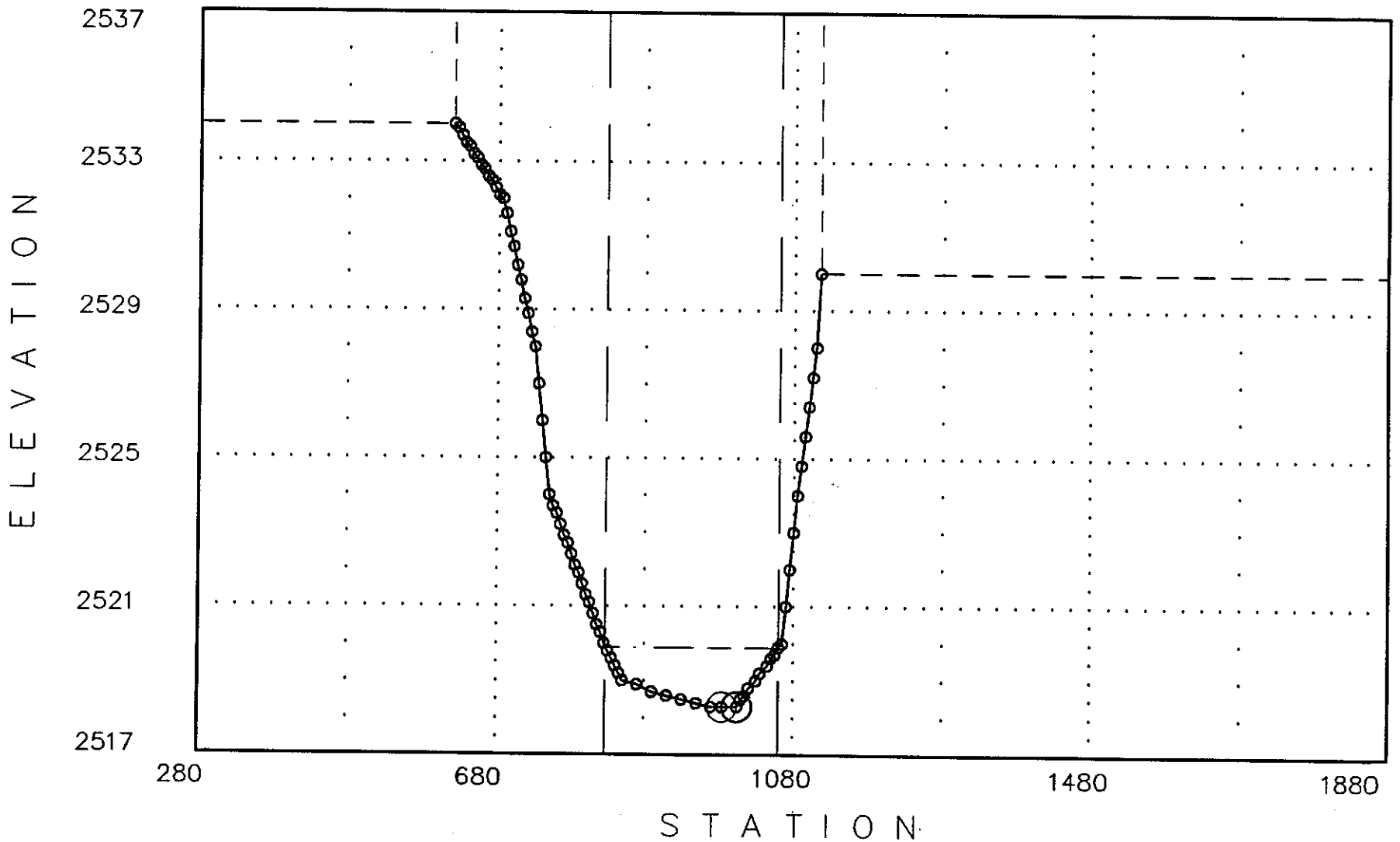
08-14-1992

<<<<<< Cross Section: 6.056: (FN = WASHR.O) >>>>>>

Q1= 958 WS1= 2519.89

Q2= 958 WS2= 2519.89

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

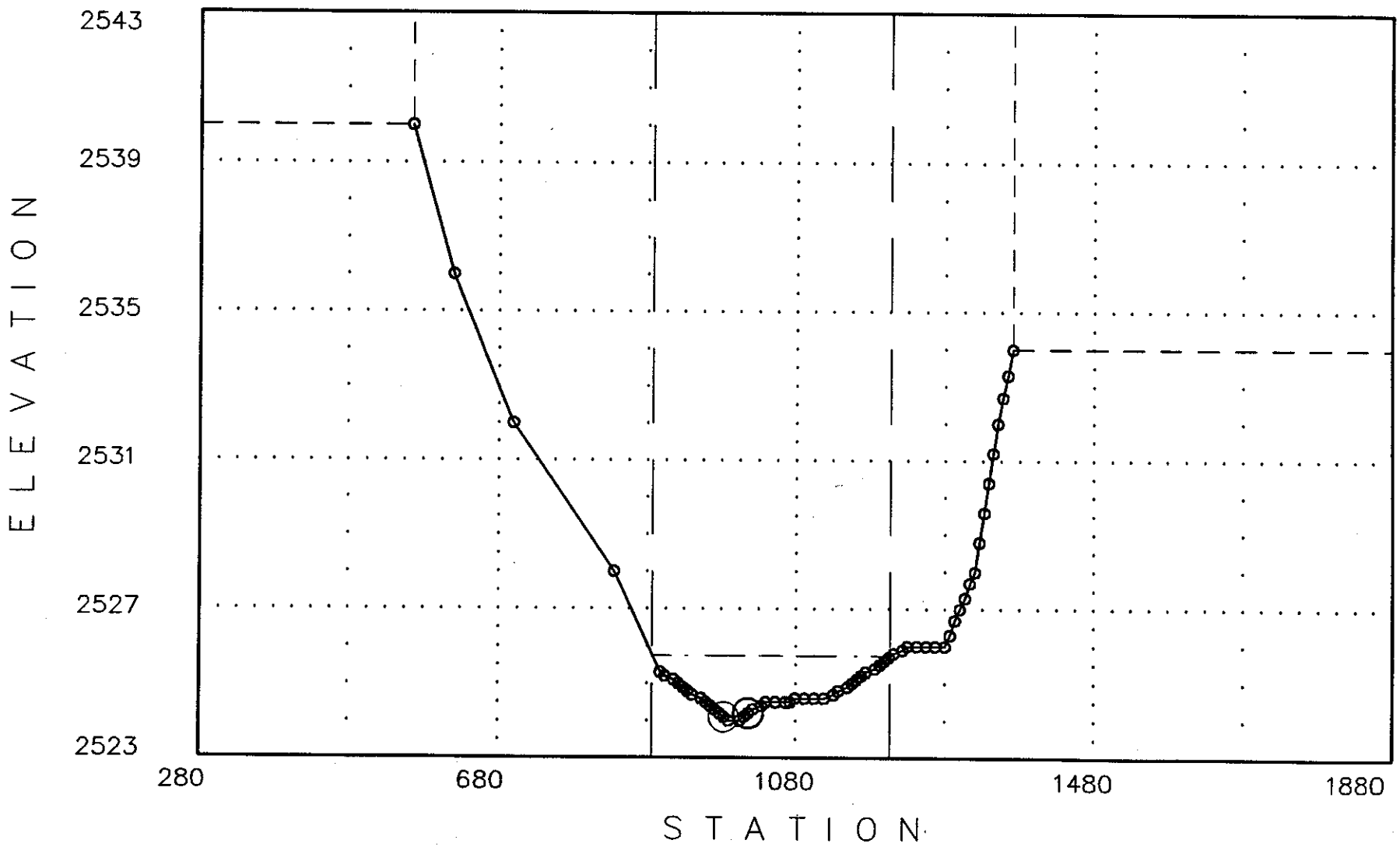


08-14-1992

<<<<<< Cross Section: 6.139: (FN = WASHR.O) >>>>>>

Q1= 958 WS1= 2525.74
Q2= 958 WS2= 2525.74

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

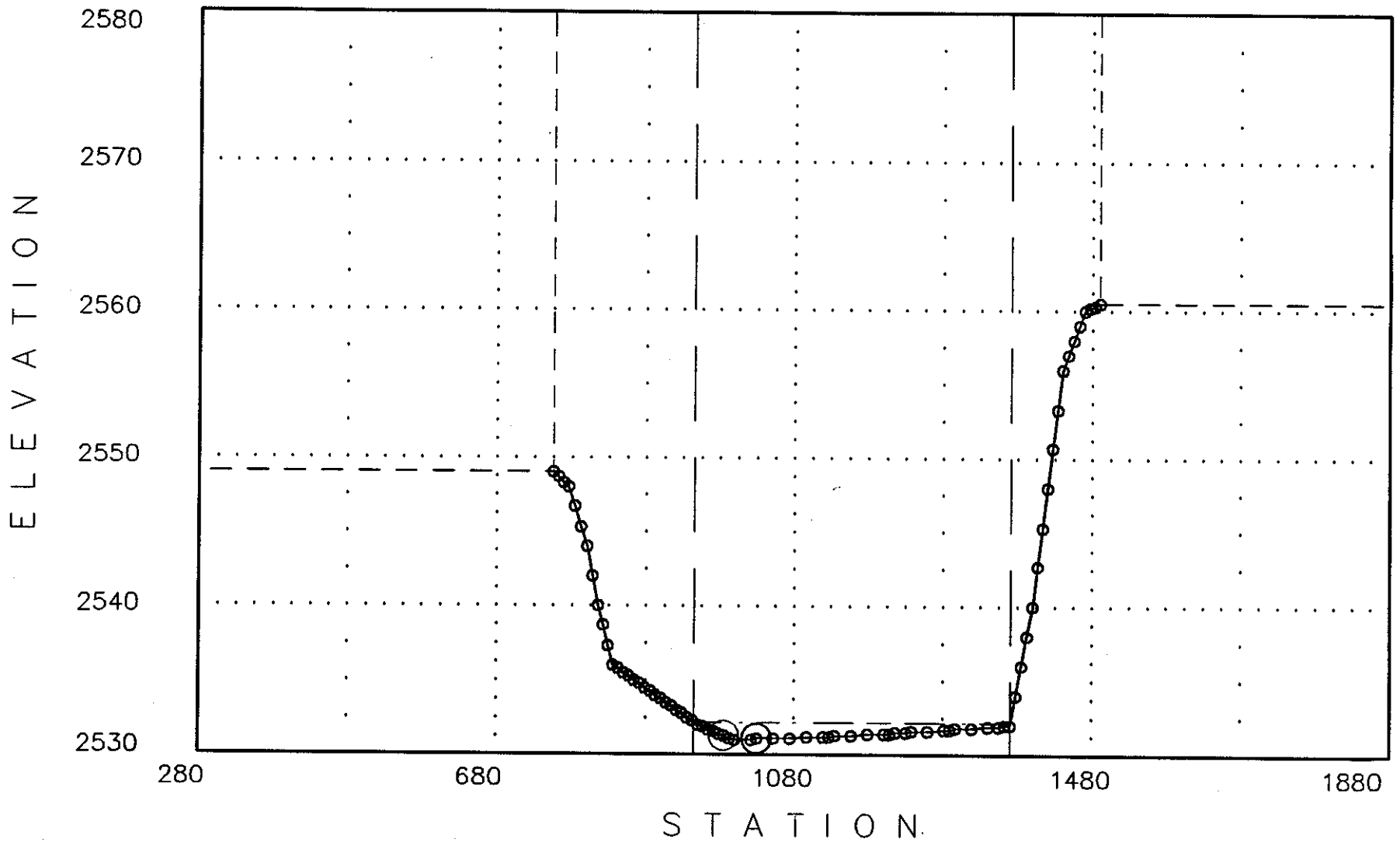


08-14-1992

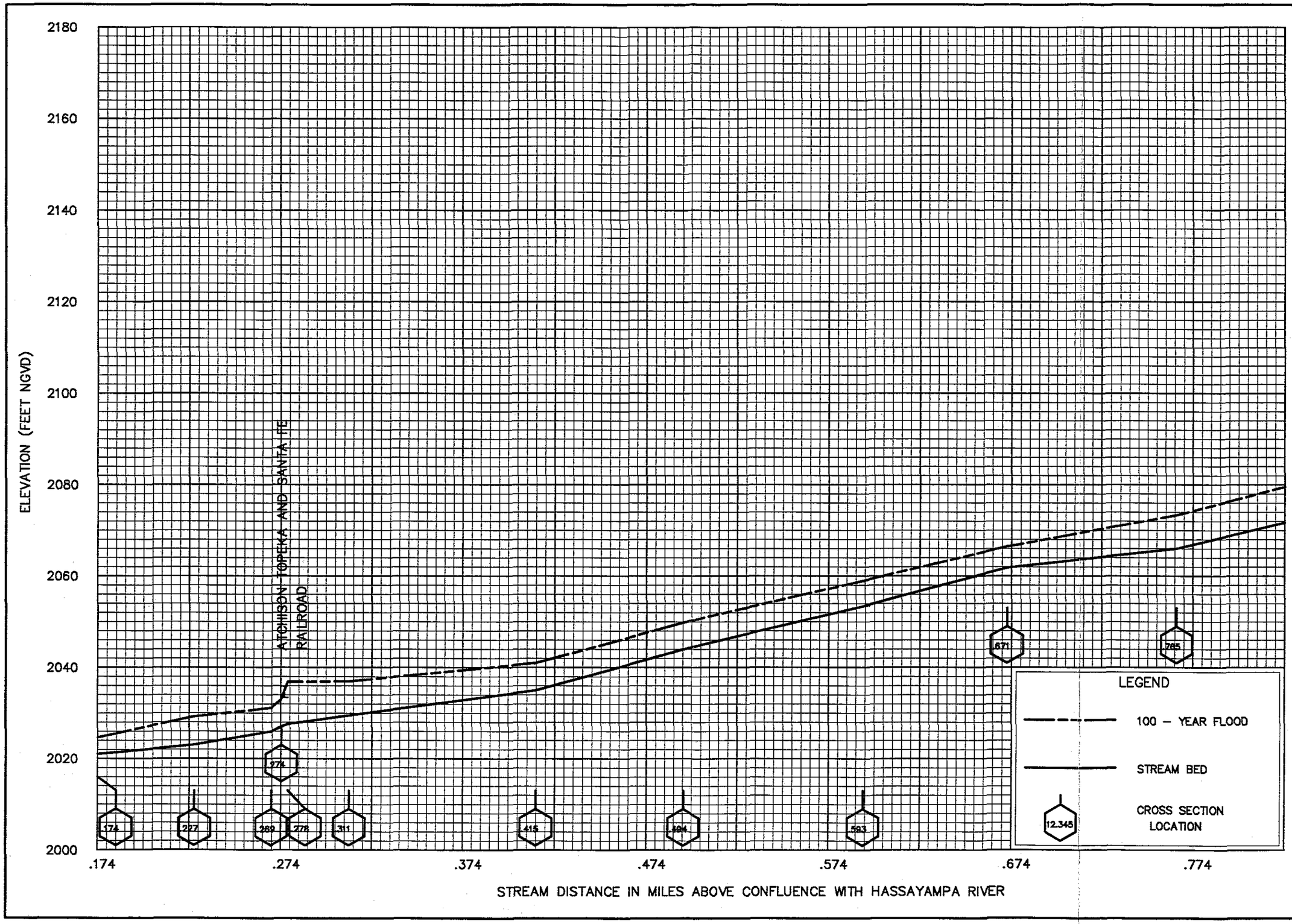
<<<<<< Cross Section: 6.224: (FN = WASHR.O) >>>>>>

Q1= 958 WS1= 2532.19
Q2= 958 WS2= 2532.19

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07



08-14-1992

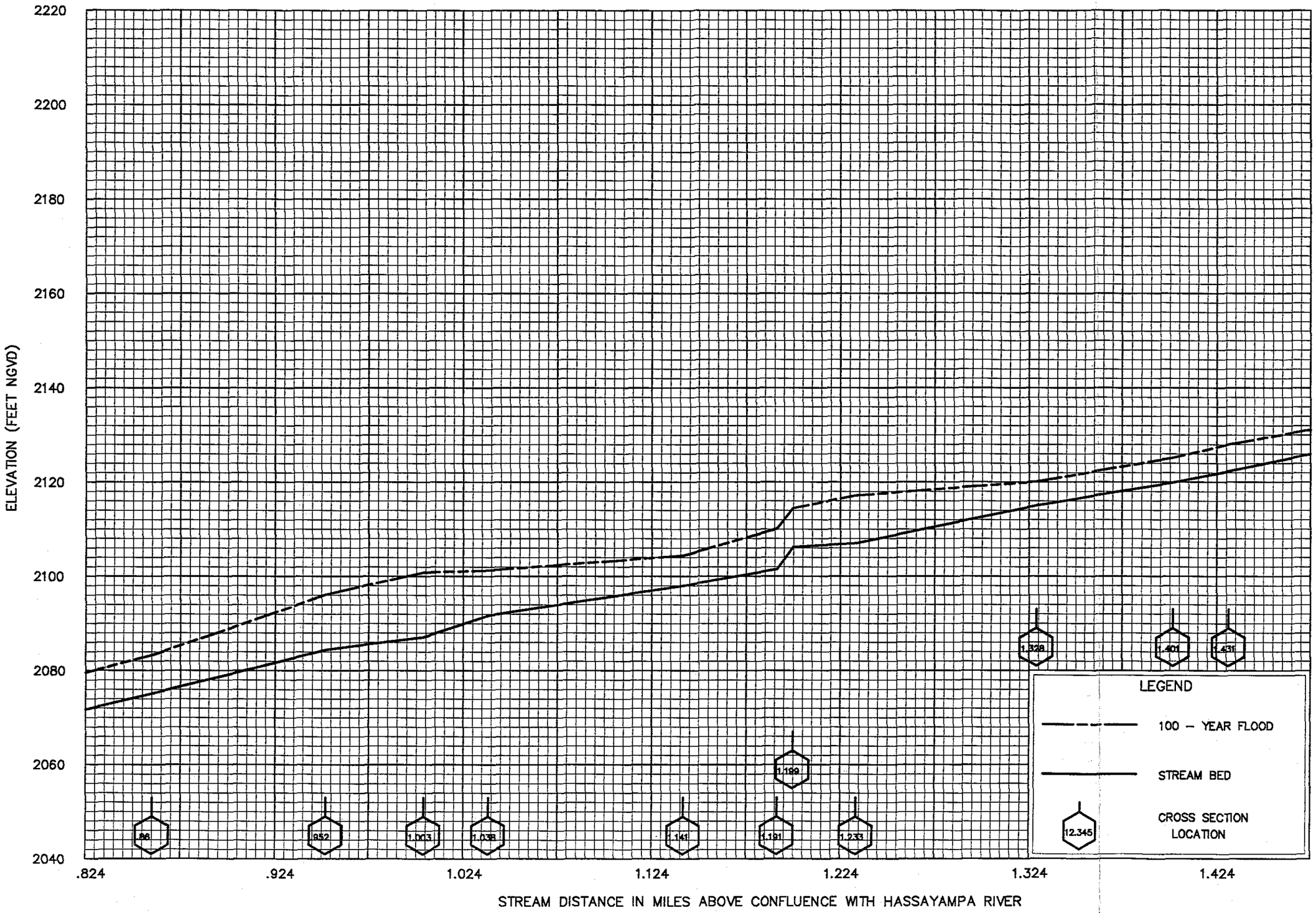


FLOOD PROFILES

CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

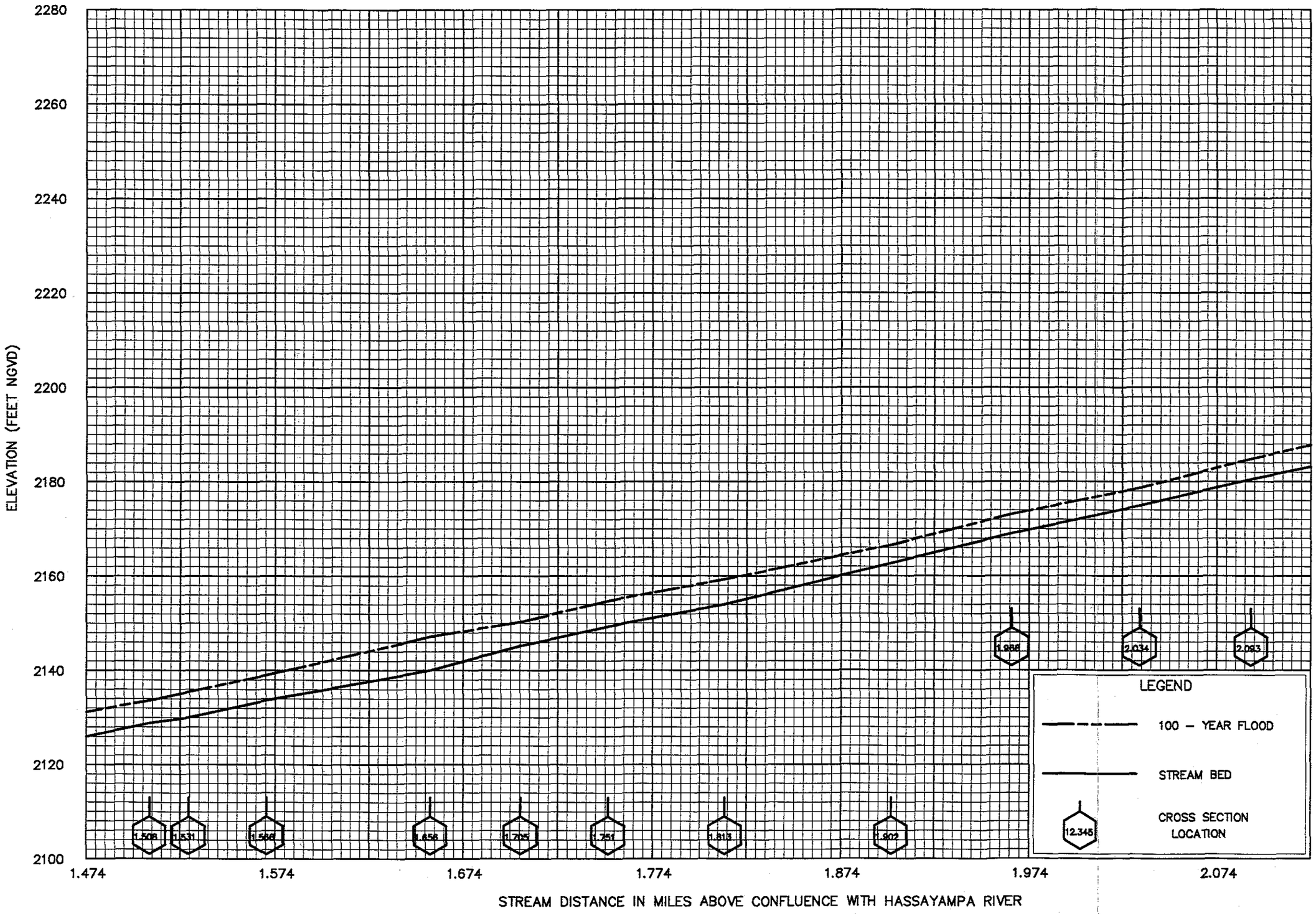


FLOOD PROFILES

CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

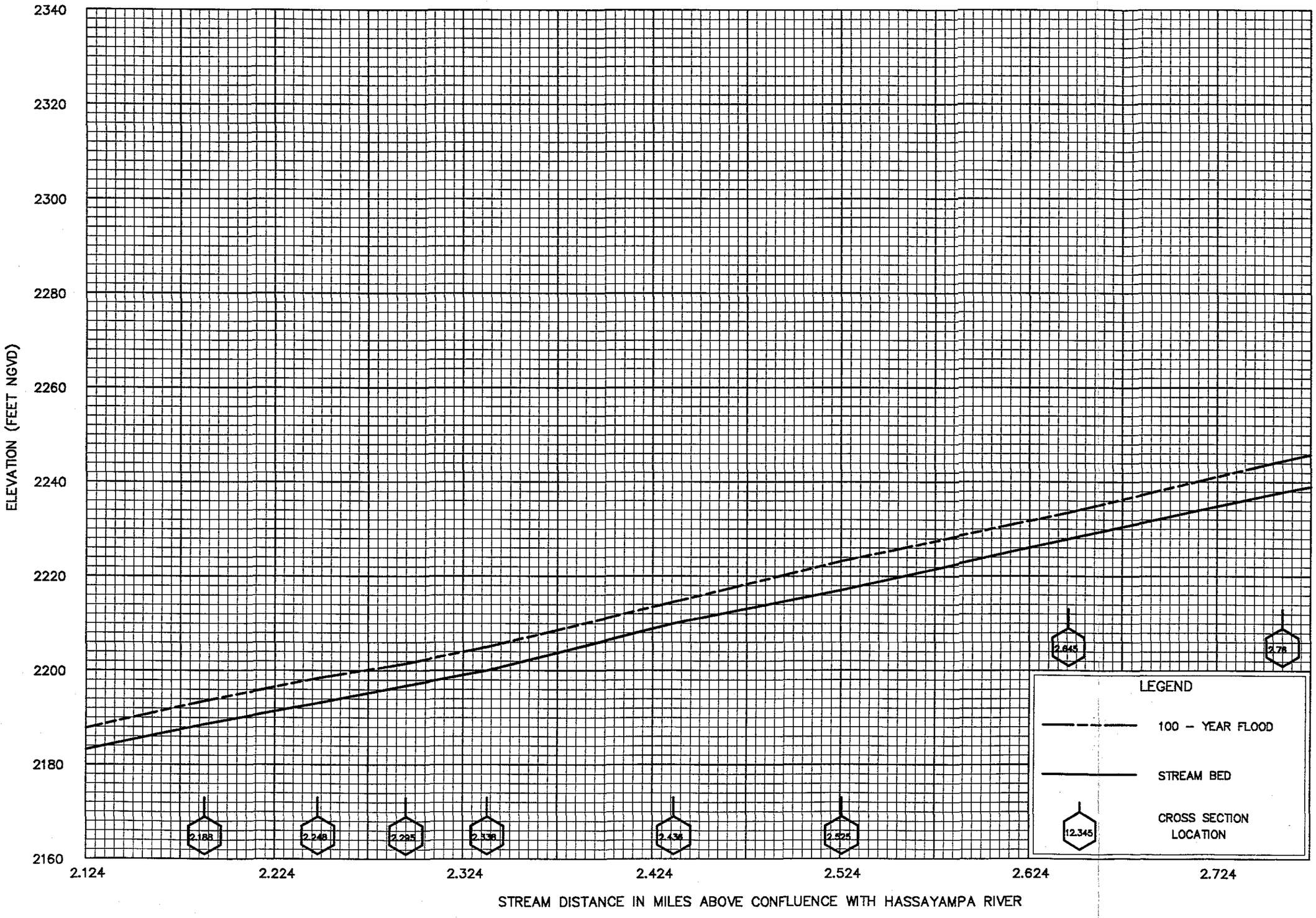


FLOOD PROFILES

CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

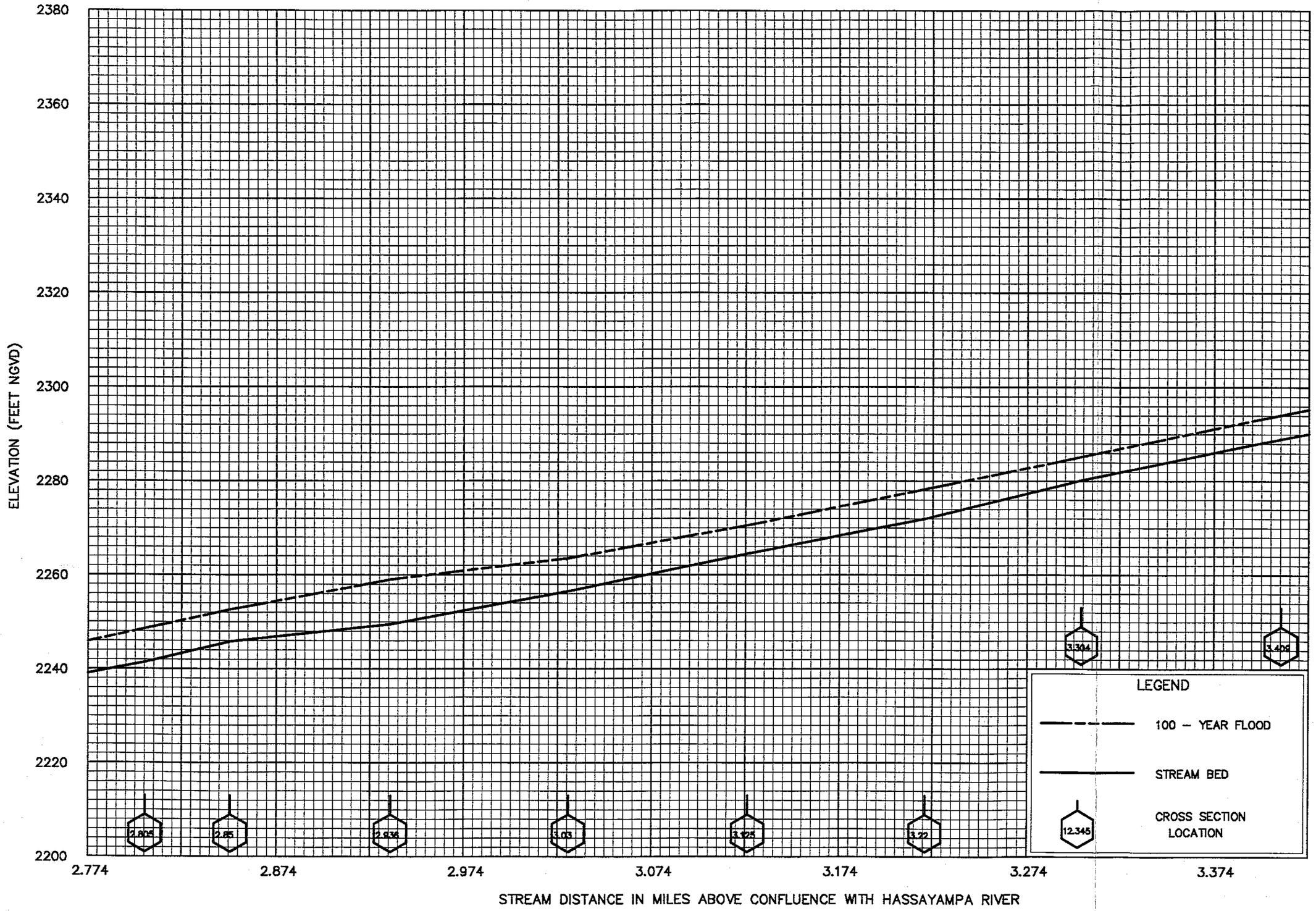


FLOOD PROFILES

CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

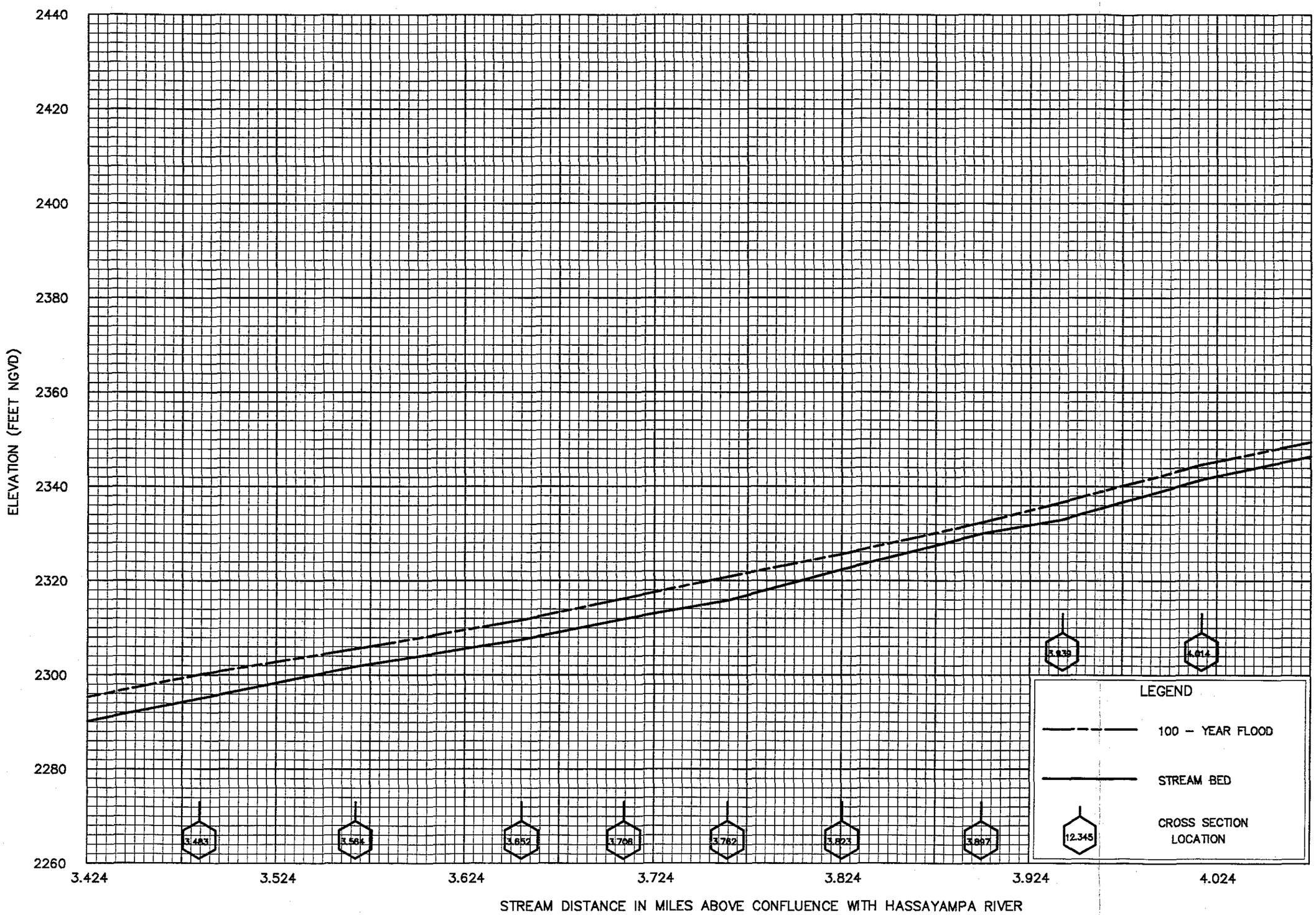


FLOOD PROFILES

CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

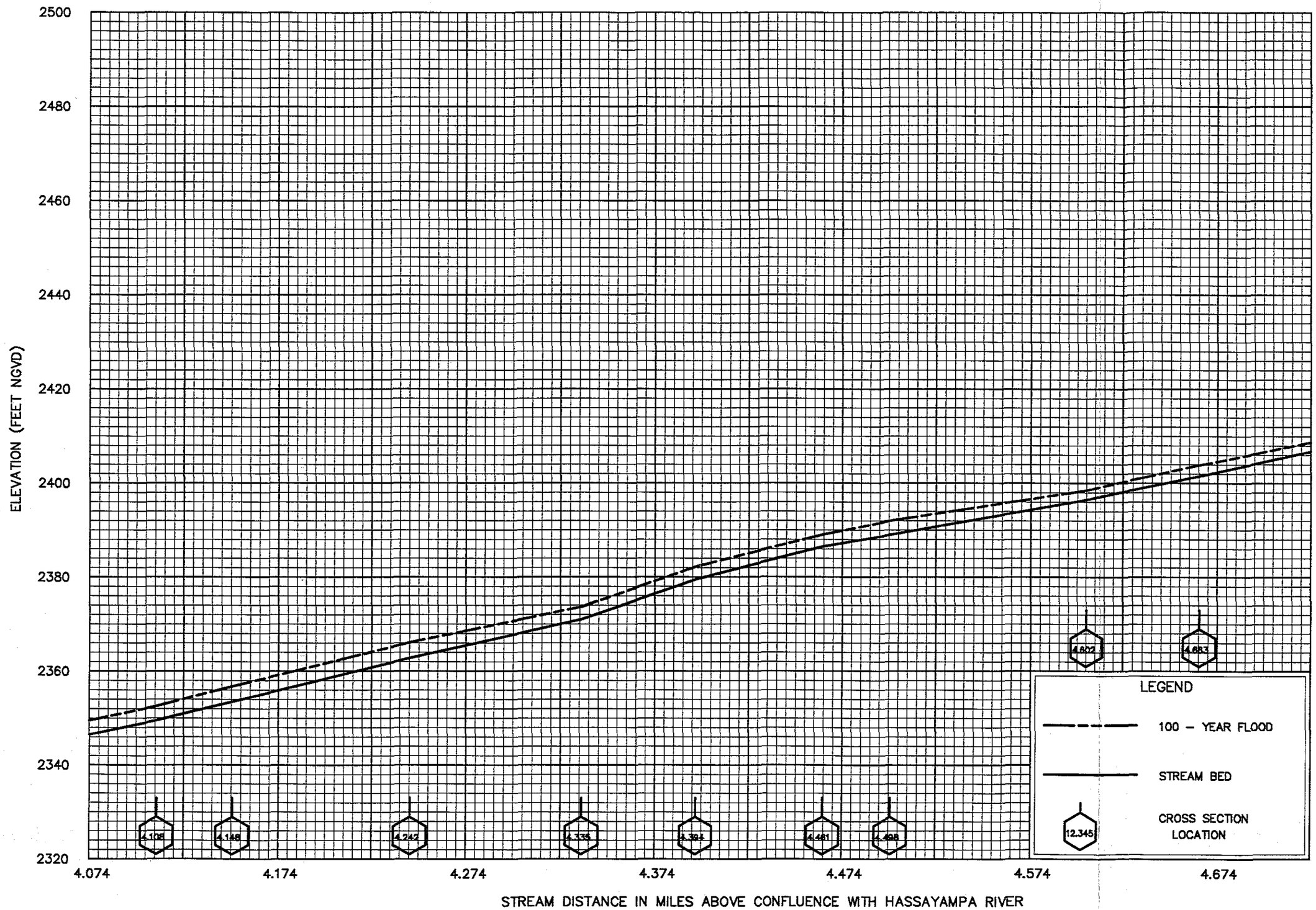


FLOOD PROFILES

CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

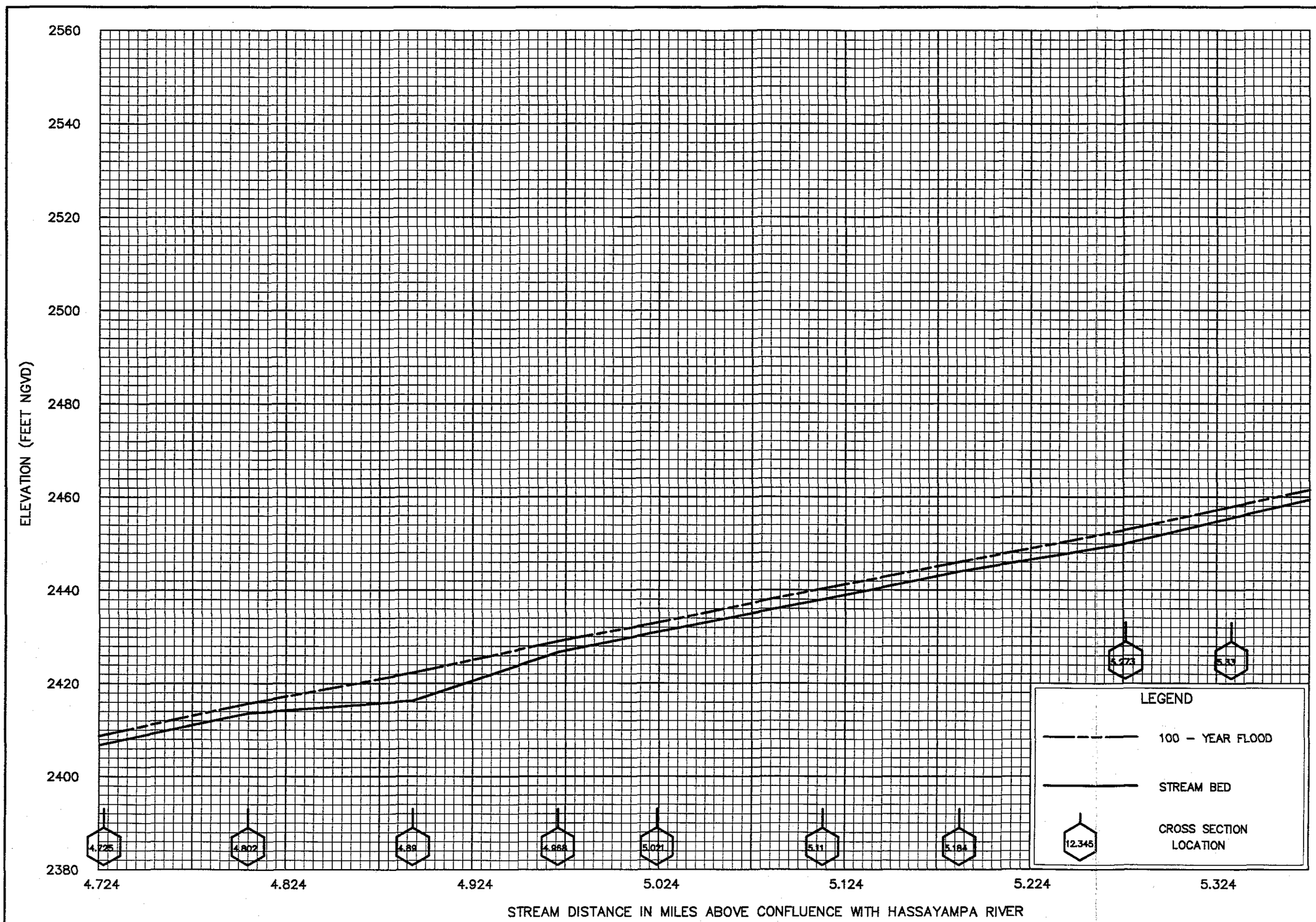


FLOOD PROFILES

CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

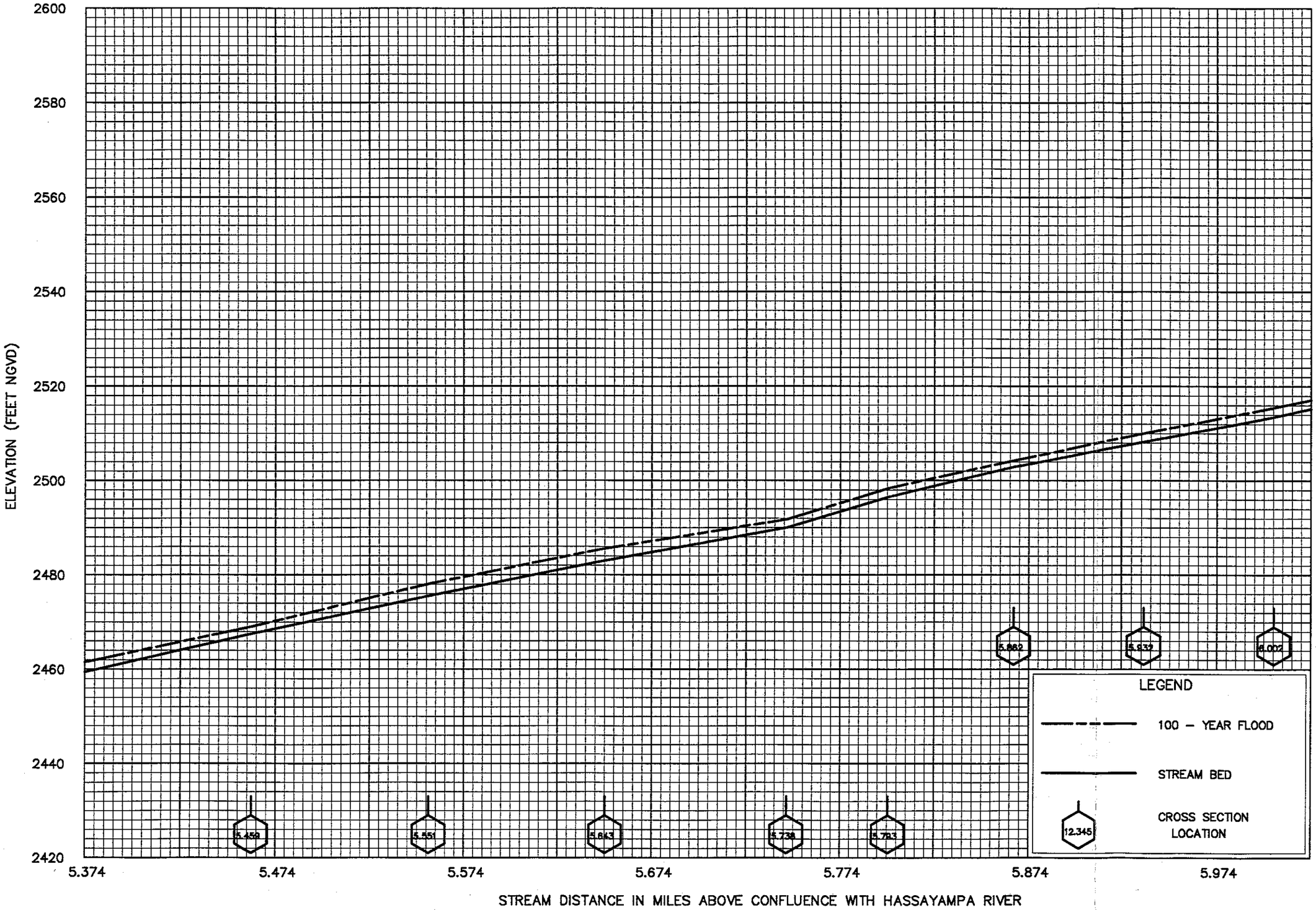


FLOOD PROFILES

CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS



FLOOD PROFILES

CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

FLOOD PROFILES

CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

Appendix # 5.2

FEDERAL EMERGENCY MANAGEMENT AGENCY **RIVERINE HYDRAULIC ANALYSIS FORM**	*O.M.B. Burden No. 3067-0148* *Expires July 31, 1994*	FEMA USE ONLY

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 2.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

Community Name: Unincorporated Maricopa County/Town of Wickenburg

Flooding Source: Wash R1 ~~R2~~ :
(One form for each flooding source)

Project Name/Identifier: Wickenburg ADMS - FCD 89-79

1. REACH TO BE REVISED

Downstream limit: Station 0.038

Upstream limit: Station 2.381

2. EFFECTIVE FIS

☐ Not studied

☐ Studied by approximate methods

Downstream limit of study _____

Upstream limit of study _____

☒ Studied by detailed methods

Downstream limit of study Confluence with Wash R - Cemetary Wash

Upstream limit of study Station 2.381

☐ Floodway delineated

Downstream limit of Floodway _____

Upstream limit of Floodway _____

3. 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: _____

☐ Other. Explain: _____

Full input and output listings along with files on diskette *(if available)* for each of the models listed below and 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. For areas which do not have detailed flooding, a hydraulic model is not required; however BFE's may not be added to the revised FIRM.

☐ Duplicate Effective Model — Natural ☐ Floodway ☐

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 — Natural ☐ Floodway ☐

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 — Natural ☐ Floodway ☐

The duplicate effective or corrected 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 — Natural ☐ Floodway ☐

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. When the request is for proposed project this model should reflect proposed conditions.

☒ Other: Please attach a sheet describing all other models or calculations submitted. — Natural ☒ Floodway ☒

New Model (Proposed Effective Model)

4. MODEL PARAMETERS ***(from model used to revise 100-year water surface elevation)***

Discharges:	Upstream Limit	Downstream Limit
10-year	121 cfs	516 cfs
50-year	192 cfs	818 cfs
100-year	221 cfs	943 cfs
500-year	—	—

Attach diagram showing changes in 100-year discharge

2. Explain how the starting water surface elevations were determined Starting water surface elevations determined by the slope-area method.

3. Give range of friction loss coefficients (*Manning's "N"*) Channel ..... 0.035 ~ 0.05

Overbanks ..... 0.05 ~ 0.07

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.

Data points for cross-sections are based on photogrammetric models for the topographic maps.

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

All reach lengths were measured from floodplain work maps.

5. 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? ..... ☐ Yes ☒ No

c. Critical depth? ..... ☒ Yes ☐ No

d. Other unique situations ..... ☐ Yes ☐ No

If yes, special problems report attached.

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 change in energy gradient between cross-sections? ..... 0.02505 ft/ft

Specify location 0.038

3. What is the distance between the cross-sections in 2 above? ..... 475.20 ft

Specify location 0.128

4. What is the maximum distance between cross-sections? ..... 501.7 ft

Specify location 1.231

5. Floodway determination

a. What is the maximum surcharge allowed by the community or State? ..... 1.0 foot

b. What is the maximum surcharge for the revised conditions? ..... 0.0 foot

Specify location ..... N/A

c. What is the maximum velocity? ..... 16.76 fps

Specify location 0.349

Explain:

d. Are there any negeative surcharge values at any cross-section ☐ Yes ☒ No

If yes, the floodway may need to widen. If it is not widened, please explain and indicate the maximum negative surcharge.

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:

_____

_____

_____

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 (See page 6)

6. 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_____ within_____feet and upstream of the project at cross section_____within_____feet.

B. The revised floodway elevations tie into those computed by the effective FIS model, dowstream of the project at cross section_____within_____feet and upstream of the project at cross section_____ 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. If channel distance has changed, the stationing should be revised for all profile sheets.

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

Proceed to Riverine /Coastal Mapping Form

FEDERAL EMERGENCY MANAGMENT AGENCY

WATER SURFACE ELEVATION CHECK

COMMUNITY NAME	FLOODIND SOURCE	PROJECT NAME /IDENTIFIER
Unincorporated Maricopa County / Town of Wickenburg	Wash R2!	Wickenburg ADMS-FCD 89-79

	EFFECTIVE			DUPLICATE EFFECTIVE			CORRECTED EFFECTIVE			EXISTING/PRE-PROJECT			REVISED/PROJECT		
SECNO	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]

COMMENTS:

New Model- See following Floodway Data Table

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

Include all cross sections in the models between tie-in points. Any interpolated values should be indicated in parentheses.

FLOODWAY DATA, TRIBUTARY WASH R-1
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
2.805	112.	644.	10.7	2248.6	2248.6	.0
.038	61.	431.	2.2	2253.2	2253.2	.0
.128	53.	129.	7.3	2256.4	2256.4	.0
.189	81.	209.	4.5	2262.1	2262.1	.0
.278	34.	109.	8.7	2268.1	2268.1	.0
.349	21.	89.	10.6	2275.6	2275.6	.0
.381	33.	100.	9.4	2283.2	2283.2	.0
.473	39.	108.	8.8	2291.5	2291.5	.0
.568	55.	123.	7.7	2300.9	2300.9	.0
.663	22.	72.	9.3	2308.5	2308.5	.0
.758	51.	97.	6.9	2321.8	2321.8	.0
.852	45.	94.	7.1	2329.5	2329.5	.0
.947	34.	82.	8.1	2338.8	2338.8	.0
1.042	31.	83.	8.1	2349.5	2349.5	.0
1.136	46.	118.	5.7	2355.4	2355.4	.0
1.231	47.	102.	6.6	2363.7	2363.7	.0
1.314	47.	77.	5.8	2373.0	2373.0	.0
1.364	63.	92.	4.9	2377.6	2377.6	.0
1.420	35.	69.	6.5	2382.0	2382.0	.0
1.515	36.	69.	6.5	2388.6	2388.6	.0
1.610	42.	74.	6.0	2400.3	2400.3	.0
1.691	34.	63.	7.0	2409.8	2409.8	.0
1.735	25.	38.	5.8	2415.5	2415.5	.0
1.800	31.	41.	5.5	2420.5	2420.5	.0
1.856	32.	40.	5.6	2427.0	2427.0	.0
1.894	27.	38.	5.8	2432.5	2432.5	.0
1.945	27.	44.	5.1	2437.5	2437.5	.0
2.030	26.	38.	5.8	2448.8	2448.8	.0
2.102	25.	40.	5.5	2457.6	2457.6	.0
2.199	38.	42.	5.3	2472.8	2472.8	.0
2.280	47.	53.	4.2	2484.2	2484.2	.0
2.339	57.	49.	4.5	2492.2	2492.2	.0
2.381	46.	46.	4.9	2500.7	2500.7	.0

```
*****************************************
*  HEC-2 WATER SURFACE PROFILES         *
*                                       *
*  Version   4.6.2;  May 1991           *
*                                       *
*  RUN DATE    23JUN92    TIME   10:24:28 *
*****************************************
```

```
****************************************
*  U.S. ARMY CORPS OF ENGINEERS        *
*  HYDROLOGIC ENGINEERING CENTER       *
*  609 SECOND STREET, SUITE D          *
*  DAVIS, CALIFORNIA 95616-4687        *
*          (916) 756-1104              *
****************************************
```

```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                        X
XXXXXXX  XXXX     X         XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX             XXXXXXX
```

THIS RUN EXECUTED 23JUN92 10:24:28

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************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.2;  May 1991
************************************


T1      WICKENBURG ADMS - CONTRACT FCDMC 89-79
T2      BLACK & VEATCH PN 17676: COE & VAN LOO JN 1197-02
T3      TRIBUTARY WASH R-1                    (TRIBR1B.O)

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2        0        0        0        0        0        0    2248.57      0

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

      1        0       -1        0        0        0       -1        0        0        15


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150       200

QT       2      6870      6870
NC   0.070     0.070     0.035       .1        .3
ET                         9.1                                                          925       1038
            CONFLUENCE OF WASH R - CEMETERY WASH AND TRIBUTARY WASH R-1
            THE METHOD USED TO START THIS HEC-2, WATER SURFACE PROFILE
            ANALYSIS IS THE KNOWN STARTING WATER SURFACE METHOD.  THE
            WATER SURFACE ELEVATION FOR CROSS SECTION 5.184, WASH R-
            CEMETERY WASH, WAS USED AS THE STARTING WATER SURFACE ELEVATION
            FOR THE WASH R-2 HEC-2 WATER SURFACE PROFILE ANALYSIS.  THE
            WATER SURFACE ELEVATION USED WAS COMPUTED DURING THE HEC-2
            ANALYSIS FOR WASH R-CEMETERY WASH.
X1   2.805       67     988.0    1014.6        0        0        0
GR    2270      890    2269.2     892.1   2268.3    894.2   2267.5    896.3   2266.7    898.3
GR  2265.8    900.4      2265     902.5   2264.2    904.6   2263.3    906.7   2262.5    908.8
GR  2261.7    910.8    2260.8     912.9     2260      915   2257.7    917.1   2255.4    919.3
GR  2253.1    921.4    2250.9     923.6   2248.6    925.7   2246.3    927.9     2244      930
GR  2243.7    936.4    2243.4     942.9   2243.1    947.5   2242.8      956   2242.5      964
GR  2242.2      974    2241.9       982   2241.7      988   2241.4      996   2241.7   1014.6
GR    2242     1025    2243.1    1027.1   2244.3   1029.3   2245.4   1031.4   2246.6   1033.6
GR  2247.7   1035.7    2248.9    1037.9     2250     1040     2251     1042     2252     1044
GR    2253     1046      2254      1048     2255     1050     2256     1052     2257     1054
GR    2258     1056      2259      1058     2260     1060   2260.5     1062     2261     1064
GR  2261.5     1066      2262      1068   2262.5     1070     2263     1072   2263.5     1074
GR    2264     1076    2264.5      1078     2265     1080   2265.5     1082     2266     1084
GR  2266.5     1086      2267      1088   2267.5     1090     2268     1092   2268.5     1094
GR    2269     1096    2269.5      1098
```

```
QT      2      943      943
NC  0.070    0.070    0.035       .1       .3
ET                     9.1                                                  956     1019
            THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
            CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION,
            UNLESS OTHERWISE NOTED.
            FIRST CROSS SECTION OF TRIBUTARY WASH R-1
X1  0.038       73    997.5    1000.8      300      170    200.6
GR   2260      950   2259.2     950.8   2258.3    951.7   2257.5    952.5   2256.7    953.3
GR 2255.8     954.2     2255       955   2254.2    955.8   2253.3    956.7   2252.5    957.5
GR 2251.7     958.3   2250.8     959.2     2250      960   2249.7    960.8   2249.3    961.7
GR   2249     962.5   2248.7     963.3   2248.3    964.2     2248      965   2247.7    965.8
GR 2247.3     966.7     2247     967.5   2246.7    968.3   2246.3    969.2     2246      970
GR 2245.7     973.3   2245.4     975.8   2245.1    979.2   2244.9    980.8   2244.6    984.2
GR 2244.4     985.8   2244.1     989.2   2243.9    991.7   2243.6    997.5   2243.6   1000.8
GR 2243.9    1004.2     2244      1005   2244.3   1005.8   2244.7   1006.7     2245   1007.5
GR 2245.3    1008.3   2245.7    1009.2     2246      1010   2246.7   1010.8   2247.3   1011.7
GR   2248    1012.5   2248.7    1013.3   2249.3   1014.2     2250     1015   2250.8   1015.8
GR 2251.7    1016.7   2252.5    1017.5   2253.3   1018.3   2254.2   1019.2     2255     1020
GR 2255.8    1020.8   2256.7    1021.7   2257.5   1022.5   2258.3   1023.3   2259.2   1024.2
GR   2260      1025   2260.8    1025.8   2261.7   1026.7   2262.5   1027.5   2263.3   1028.3
GR 2264.2    1029.2     2265      1030   2265.8   1030.8   2266.7   1031.7   2267.5   1032.5
GR 2268.3    1033.3   2269.2    1034.2     2270     1035

                       9.1                                                  987     1042
    0.128       72    997.5    1003.9      390      495    475.2
GR   2280      955   2279.3     956.3   2278.7    957.7     2278      959   2277.3    960.3
GR 2276.7     961.7     2276       963   2275.3    964.3   2274.7    965.7     2274      967
GR 2273.3     968.3   2272.7     969.7     2272      971   2271.3    972.3   2270.7    973.7
GR   2270      975   2268.8     976.3   2267.5    977.5   2266.3    978.8     2265      980
GR 2263.8     981.3   2262.5     982.5   2261.3    983.8     2260      985   2258.5    986.3
GR   2257     987.5   2255.5     988.8     2254      990   2253.7    996.3   2253.6    997.5
GR 2253.6    1003.9   2253.9    1024.6     2254     1035   2254.5   1036.3     2255   1037.5
GR 2255.5    1038.8     2256      1040   2256.5   1041.3     2257   1042.5   2257.5   1043.8
GR   2258      1045   2258.5    1046.3     2259   1047.5   2259.5   1048.8     2260     1050
GR 2261.3    1051.3   2262.5    1052.5   2263.8   1053.8     2265     1055   2266.3   1056.3
GR 2267.5    1057.5   2268.8    1058.8     2270     1060   2270.5   1061.3   2271.1   1062.6
GR 2271.6    1063.9   2272.1    1065.3   2272.6   1066.6   2273.2   1067.9   2273.7   1069.2
GR 2274.2    1070.5   2274.7    1071.8   2275.3   1073.2   2275.8   1074.5   2276.3   1075.8
GR 2276.8    1077.1   2277.4    1078.4   2277.9   1079.7   2278.4   1081.1   2278.9   1082.4
GR 2279.5    1083.7     2280      1085

ET                     9.1                                                  979     1062
X1  0.189       72    998.1     1005.7      300      365    322.0
GR   2280      925   2279.4     926.9   2278.9    928.9   2278.3    930.8   2277.8    932.8
GR 2277.2     934.7   2276.7     936.7   2276.1    938.6   2275.6    940.6     2275    942.5
GR 2274.4     944.4   2273.9     946.4   2273.3    948.3   2272.8    950.3   2272.2    952.2
GR 2271.7     954.2   2271.1     956.1   2270.6    958.1     2270      960   2269.2    961.9
GR 2268.5     963.8   2267.7     965.8   2266.9    967.7   2266.1    969.6   2265.4    971.5
   2264.6     973.5   2263.9     975.4   2263.1    977.3   2262.3    979.2   2261.5    981.2
   2260.8     983.1     2260       985   2259.6    988.8   2259.4    990.6   2259.1    994.4
GR 2258.9     996.3   2258.7     998.1   2258.7   1005.7     2259   1017.1   2259.3   1028.4
GR 2259.6    1039.8   2259.9    1051.2     2260     1055   2260.6   1056.9   2261.3   1058.8
```

	2261.9	1060.6	2262.5	1062.5	2263.1	1064.4	2263.8	1066.3	2264.4	1068.1
GR	2265	1070	2265.6	1071.9	2266.3	1073.8	2266.9	1075.6	2267.5	1077.5
GR	2268.1	1079.4	2268.8	1081.3	2269.4	1083.1	2270	1085	2270.8	1086.9
GR	2271.5	1088.8	2272.3	1090.8	2273.1	1092.7	2273.9	1094.6	2274.6	1096.5
GR	2275.4	1098.5	2276.1	1100.4	2276.9	1102.3	2277.7	1104.2	2278.5	1106.2
GR	2279.2	1108.1	2280	1110						
NC	0.060	0.060	0.035	.3	.5					
ET			9.1						974	1009
X1	0.278	79	997.5	1001.3	535	400	469.9			
GR	2290	915	2289.3	917.6	2288.9	918.9	2288.1	921.5	2287.8	922.8
GR	2287.4	924.1	2286.7	926.7	2286.3	928	2285.9	929.3	2285.6	930.6
GR	2285.2	931.8	2284.8	933.2	2284.4	934.4	2284.1	935.7	2283.7	937
GR	2283	939.6	2282.6	940.9	2282.2	942.2	2281.5	944.8	2281.1	946.1
GR	2280.7	947.4	2280	950	2279.3	951.3	2278.7	952.7	2278	954
GR	2277.3	955.3	2276.7	956.7	2276	958	2275.3	959.3	2274.7	960.7
GR	2274	962	2273.3	963.3	2272.7	964.7	2272	966	2271.3	967.3
GR	2270.7	968.7	2270	970	2269.5	971.3	2269	972.5	2268.5	973.8
GR	2268	975	2267.5	976.3	2267	977.5	2266.5	978.8	2266	980
GR	2265.5	982.5	2265	985	2264.5	987.5	2264	990	2263.6	997.5
GR	2263.6	1001.3	2264	1005	2265.5	1006.3	2267	1007.5	2268.5	1008.8
GR	2270	1010	2270.7	1011.3	2271.3	1012.7	2272	1014	2272.7	1015.3
GR	2273.3	1016.7	2274	1018	2274.7	1019.3	2275.3	1020.7	2276	1022
GR	2276.7	1023.3	2277.3	1024.7	2278	1026	2278.7	1027.3	2279.3	1028.7
GR	2280	1030	2281.3	1031.3	2282.5	1032.5	2283.8	1033.8	2285	1035
	2286.3	1036.3	2287.5	1037.5	2288.8	1038.8	2290	1040		
NC	0.050	0.050	0.035	.1	.3					
ET			9.1						989	1011
X1	0.349	70	998.8	1001.3	365	295	374.9			
GR	2300	940	2299.2	942.4	2298.4	944.8	2297.6	947.2	2296.8	949.6
GR	2296	952	2295.2	954.4	2294.4	956.8	2293.6	959.2	2292.8	961.6
GR	2292	964	2291.2	966.4	2290.4	968.8	2290	970	2289.2	971.3
GR	2288.3	972.5	2287.5	973.8	2286.7	975	2285.8	976.3	2285	977.5
GR	2284.2	978.8	2283.3	980	2282.5	981.3	2281.7	982.5	2280.8	983.8
GR	2280	985	2278.8	986.3	2277.5	987.5	2276.3	988.8	2275	990
GR	2273.8	991.3	2272.5	992.5	2271.3	993.8	2270	995	2269.6	998.8
GR	2269.6	1001.3	2270	1005	2271.3	1006.3	2272.5	1007.5	2273.8	1008.8
GR	2275	1010	2276.3	1011.3	2277.5	1012.5	2278.8	1013.8	2280	1015
GR	2280.8	1016.3	2281.7	1017.5	2282.5	1018.8	2283.3	1020	2284.2	1021.3
GR	2285	1022.5	2285.8	1023.8	2286.7	1025	2287.5	1026.3	2288.3	1027.5
GR	2289.2	1028.8	2290	1030	2290.8	1032.4	2291.6	1034.8	2292.4	1037.2
GR	2293.2	1039.6	2294	1042	2294.8	1044.4	2295.6	1046.8	2296.4	1049.2
GR	2297.2	1051.6	2298	1054	2298.8	1056.4	2299.6	1058.8	2300	1060
ET			9.1						980	1014
X1	0.381	75	997.7	1001.1	160	175	169.0			
GR	2300	945	2299.6	946.1	2299.1	947.3	2298.6	948.4	2298.2	949.5
GR	2297.7	950.7	2297.3	951.8	2296.8	953	2296.4	954.1	2295.9	955.2
GR	2295.4	956.4	2295	957.5	2294.6	958.6	2294.1	959.8	2293.6	960.9
GR	2293.2	962	2292.7	963.2	2292.3	964.3	2291.8	965.5	2291.4	966.6
	2290.9	967.7	2290.4	968.9	2290	970	2289.2	971.2	2288.5	972.3
GR	2287.7	973.5	2286.9	974.6	2286.1	975.8	2285.4	976.9	2284.6	978.1
GR	2283.9	979.2	2283.1	980.4	2282.3	981.5	2281.5	982.7	2280.8	983.8

	2280	985	2279.6	995.4	2279.6	997.7	2279.6	1001.1	2280	1010
GR	2281.1	1011.1	2282.2	1012.2	2283.3	1013.3	2284.4	1014.4	2285.6	1015.6
GR	2286.7	1016.7	2287.8	1017.8	2288.9	1018.9	2290	1020	2290.4	1021.2
GR	2290.8	1022.3	2291.1	1023.5	2291.5	1024.6	2291.9	1025.8	2292.3	1026.9
GR	2292.7	1028.1	2293.1	1029.2	2293.5	1030.4	2293.9	1031.5	2294.2	1032.7
GR	2294.6	1033.8	2295	1035	2295.4	1036.2	2295.8	1037.3	2296.1	1038.5
GR	2296.5	1039.6	2296.9	1040.8	2297.3	1041.9	2297.7	1043.1	2298.1	1044.2
GR	2298.5	1045.4	2298.9	1046.5	2299.2	1047.7	2299.6	1048.8	2300	1050
ET			9.1						980	1019
X1	0.473	55	997.3	1002.7	420	548	485.7			
GR	2300	955	2299.4	956.8	2298.8	958.6	2298.2	960.5	2297.6	962.3
GR	2297	964.1	2296.4	965.9	2295.8	967.7	2295.4	968.6	2294.9	970.5
GR	2294.6	971.4	2294.2	972.3	2293.6	974.1	2293	975.9	2292.4	977.7
GR	2291.8	979.5	2291.2	981.4	2290.6	983.2	2290	985	2289.7	985.8
GR	2289.3	986.7	2288.7	988.3	2288.3	989.2	2287.9	990.9	2287.6	997.3
GR	2287.6	1002.7	2288	1010	2288.4	1010.9	2288.7	1011.8	2289.1	1012.7
GR	2289.4	1013.6	2289.8	1014.5	2290.2	1015.5	2290.6	1016.4	2290.9	1017.3
GR	2291.3	1018.2	2291.6	1019.1	2292	1020	2292.5	1021.8	2292.9	1023.5
GR	2293.4	1025.3	2293.9	1027.1	2294.4	1028.8	2294.8	1030.6	2295.3	1032.3
GR	2295.8	1034.1	2296.2	1035.9	2296.7	1037.7	2297.2	1039.4	2297.6	1041.2
GR	2298.1	1042.9	2298.6	1044.7	2299.1	1046.5	2299.5	1048.2	2300	1050
ET			9.1						977	1033
X1	0.568	66	997.0	1003.0	540	410	501.6			
	2312	950	2311.6	951	2311.2	952	2310.8	953	2310.4	954
	2310	955	2309.6	956	2309.2	957	2308.8	958	2308.4	959
GR	2308	960	2307.6	961	2307.2	962	2306.8	963	2306.4	964
GR	2306	965	2305.6	966	2305.2	967	2304.8	968	2304.4	969
GR	2304	970	2303.6	971	2303.2	972	2302.8	973	2302.4	974
GR	2302	975	2301.6	976	2301.2	977	2300.8	978	2300.4	979
GR	2300	980	2299.6	982	2299.2	984	2298.8	986	2298.4	988
GR	2298	990	2297.7	996	2297.6	997	2297.6	1003	2298	1010
GR	2298.3	1013.2	2298.6	1016.3	2299.1	1020.5	2299.5	1024.7	2299.8	1027.9
GR	2300	1030	2300.4	1031	2300.8	1032	2301.2	1033	2301.6	1034
GR	2302	1035	2302.4	1036	2302.8	1037	2303.2	1038	2303.6	1039
GR	2304	1040	2304.8	1041	2305.6	1042	2306.4	1043	2307.2	1044
GR	2308	1045	2308.8	1046	2309.6	1047	2310.4	1048	2311.2	1049
GR	2312	1050								
QT	2	670	670							
ET			9.1						988	1011
X1	0.663	72	998.0	1002.	435	560	501.6			
GR	2324	950	2323.6	951.9	2323.2	953.8	2322.7	956.7	2322.3	958.6
GR	2321.9	960.5	2321.5	962.4	2321.1	964.3	2320.6	967.1	2320.2	969
GR	2320	970	2319.2	971	2318.4	972	2317.6	973	2316.8	974
GR	2316	975	2315.2	976	2314.4	977	2313.6	978	2312.8	979
GR	2312	980	2311.6	980.9	2311.3	981.8	2310.9	982.7	2310.6	983.6
GR	2310.2	984.5	2309.8	985.5	2309.4	986.4	2309.1	987.3	2308.7	988.2
GR	2308.4	989.1	2308	990	2307.2	991	2306.4	992	2305.6	993
	2304.8	994	2304	995	2303.7	998	2303.7	1002	2304	1005
	2304.7	1005.9	2305.4	1006.8	2306.2	1007.7	2306.9	1008.6	2307.6	1009.5
GR	2308.4	1010.5	2309.1	1011.4	2309.8	1012.3	2310.6	1013.2	2311.3	1014.1
GR	2312	1015	2312.7	1015.9	2313.4	1016.8	2314.2	1017.7	2314.9	1018.6

	2315.6	1019.5	2316.4	1020.5	2317.1	1021.4	2317.8	1022.3	2318.6	1023.2
GR	2319.3	1024.1	2320	1025	2320.4	1026.9	2320.8	1028.8	2321.3	1031.7
GR	2321.7	1033.6	2322.1	1035.5	2322.5	1037.4	2322.9	1039.3	2323.4	1042.1
GR	2323.8	1044.1	2324	1045						
ET			9.1						976	1028
X1	0.758	65	996.7	1007.1	495	395	501.6			
GR	2332	885	2331.7	888.5	2331.4	893.9	2331.1	897.4	2330.8	901
GR	2330.4	906.3	2330.1	911.6	2329.8	915.2	2329.4	920.5	2329	925.8
GR	2328.6	931.1	2328.3	936.5	2328	940	2327.6	941.8	2327.3	943.6
GR	2326.9	945.5	2326.6	947.3	2326.2	949.1	2325.8	950.9	2325.4	952.7
GR	2325.1	954.5	2324.7	956.4	2324.4	958.2	2324	960	2323.8	961.8
GR	2323.5	963.5	2323.1	967.1	2322.8	968.8	2322.4	972.3	2322.1	974.1
GR	2321.9	975.9	2321.6	977.7	2321.2	981.2	2320.9	982.9	2320.5	986.5
GR	2320.2	988.2	2319.8	991.7	2319.5	995	2319.3	996.7	2319	1000
GR	2319.3	1007.1	2319.6	1014.3	2319.9	1021.4	2320	1025	2321.3	1026.7
GR	2322.7	1028.3	2324	1030	2325.3	1031.7	2326.7	1033.3	2328	1035
GR	2328.7	1036.7	2329.3	1038.3	2330	1040	2330.7	1041.7	2331.3	1043.3
GR	2332	1045	2333.3	1046.7	2334.7	1048.3	2336	1050	2336.7	1051.7
GR	2337.3	1053.3	2338	1055	2338.7	1056.7	2339.3	1058.3	2340	1060
ET			9.1						979	1024
X1	0.852	63	997.3	1004.3	465	500	496.4			
GR	2340	925	2339.6	927.8	2339.1	930.6	2338.7	933.3	2338.2	936.1
GR	2337.8	938.9	2337.3	941.7	2336.9	944.4	2336.4	947.2	2336	950
	2335.4	952.9	2334.9	955.7	2334.3	958.6	2333.7	961.4	2333.1	964.3
	2332.6	967.1	2332	970	2331.6	971.4	2331.3	972.7	2330.9	974.1
GR	2330.6	975.5	2330.2	976.8	2329.8	978.2	2329.4	979.5	2329.1	980.9
GR	2328.7	982.3	2328.4	983.6	2328	985	2327.6	987.7	2327.1	991.8
GR	2326.7	994.5	2326.4	997.3	2326	1000	2326.4	1004.3	2326.9	1008.6
GR	2327.3	1012.9	2327.7	1017.1	2328	1020	2328.6	1021.4	2329.1	1022.9
GR	2329.7	1024.3	2330.3	1025.7	2330.9	1027.1	2331.4	1028.6	2332	1030
GR	2332.6	1032.9	2333.1	1035.7	2333.7	1038.6	2334.3	1041.4	2334.9	1044.3
GR	2335.4	1047.1	2336	1050	2336.4	1051.4	2336.7	1052.7	2337.1	1054.1
GR	2337.4	1055.4	2337.8	1056.8	2338.2	1058.2	2338.6	1059.6	2338.9	1060.9
GR	2339.3	1062.3	2339.6	1063.6	2340	1065				
ET			9.1						982	1018
X1	0.947	77	997.0	1003.0	385	525	501.6			
GR	2352	950	2351.6	951	2351.2	952	2350.8	953	2350.4	954
GR	2350	955	2349.6	956	2349.2	957	2348.8	958	2348.4	959
GR	2348	960	2347.5	962	2346.9	964	2346.4	966	2345.9	968
GR	2345.3	970	2344.8	972	2344.3	974	2344	975	2343.2	976
GR	2342.4	977	2341.6	978	2340.8	979	2340	980	2339.6	981
GR	2339.2	982	2338.8	983	2338.4	984	2338	985	2337.6	986
GR	2337.2	987	2336.8	988	2336.4	989	2336	990	2335.6	997
GR	2335.6	1003	2336	1010	2336.4	1011	2336.8	1012	2337.2	1013
GR	2337.6	1014	2338	1015	2338.4	1016	2338.8	1017	2339.2	1018
GR	2339.6	1019	2340	1020	2340.4	1021	2340.8	1022	2341.2	1023
GR	2341.6	1024	2342	1025	2342.4	1026	2342.8	1027	2343.2	1028
GR	2343.6	1029	2344	1030	2344.4	1031	2344.8	1032	2345.2	1033
	2345.6	1034	2346	1035	2346.4	1036	2346.8	1037	2347.2	1038
GR	2347.6	1039	2348	1040	2348.4	1041	2348.8	1042	2349.2	1043
GR	2349.6	1044	2350	1045	2350.4	1046	2350.8	1047	2351.2	1048

	2351.6	1049	2352	1050						
ET			9.1						986	1017
X1	1.042	58	998.6	1002.1	570	495	501.6			
GR	2360	965	2359.4	965.7	2358.9	966.4	2358.3	967.1	2357.7	967.9
GR	2357.1	968.6	2356.6	969.3	2356	970	2355.4	971.4	2354.9	972.9
GR	2354.3	974.3	2353.7	975.7	2353.1	977.1	2352.6	978.6	2352	980
GR	2351.4	981.4	2350.9	982.9	2350.3	984.3	2349.7	985.7	2349.1	987.1
GR	2348.6	988.6	2348	990	2347.5	991.4	2347.1	992.9	2346.6	994.3
GR	2346.2	995.7	2345.7	997.1	2345.3	998.6	2344.8	1000	2345.3	1002.1
GR	2345.7	1004.3	2346.2	1006.4	2346.6	1008.6	2347.1	1010.7	2347.5	1012.9
GR	2347.9	1014.3	2348	1015	2348.6	1015.7	2349.1	1016.4	2349.7	1017.1
GR	2350.3	1017.9	2350.9	1018.6	2351.4	1019.3	2352	1020	2352.6	1020.7
GR	2353.1	1021.4	2353.7	1022.1	2354.3	1022.9	2354.9	1023.6	2355.4	1024.3
GR	2356	1025	2356.6	1026.4	2357.1	1027.9	2357.7	1029.3	2358.3	1030.7
GR	2358.9	1032.1	2359.4	1033.6	2360	1035				
NC	0.050	0.065	0.035	.1	.3					
ET			9.1						981	1028
X1	1.136	54	997.0	1003.	460	540	496.2			
GR	2360	960	2359.6	962	2359.2	964	2358.8	966	2358.4	968
GR	2358	970	2357.6	972	2357.2	974	2356.8	976	2356.4	978
GR	2356	980	2355.6	981	2355.2	982	2354.8	983	2354.4	984
GR	2354	985	2353.6	986	2353.2	987	2352.8	988	2352.4	989
GR	2352	990	2351.6	997	2351.6	1003	2352	1010	2352.4	1012
	2352.8	1014	2353.2	1016	2353.6	1018	2354	1020	2354.4	1022
	2354.8	1024	2355.2	1026	2355.6	1028	2356	1030	2356.4	1031
GR	2356.8	1032	2357.2	1033	2357.6	1034	2358	1035	2358.4	1036
GR	2358.8	1037	2359.2	1038	2359.6	1039	2360	1040	2360.4	1042
GR	2360.8	1044	2361.2	1046	2361.6	1048	2362	1050	2362.4	1052
GR	2362.8	1054	2363.2	1056	2363.6	1058	2364	1060		
NC	0.060	0.070	0.040	.1	.3					
ET			9.1						981	1029
X1	1.231	42	998.6	1005.7	565	335	501.7			
GR	2372	950	2371.4	951.4	2370.3	954.3	2369.7	955.7	2368.6	958.6
GR	2368	960	2367.4	962.9	2366.6	967.1	2366	970	2365.4	972.9
GR	2364.6	977.1	2364	980	2363.7	981.4	2363.4	982.9	2363.1	984.3
GR	2362.9	985.7	2362.6	987.1	2363.3	988.6	2363.0	990	2362.6	991.4
GR	2362.3	992.9	2361.9	994.3	2361.6	995.7	2360.2	997.1	2359.9	998.6
GR	2359.5	1000	2359.8	1005.7	2360.6	1012.9	2361.4	1017.1	2362	1020
GR	2362.6	1022.9	2363.4	1027.1	2364	1030	2364.6	1034.3	2365.3	1040
GR	2366.1	1045.7	2366.9	1051.4	2367.6	1057.1	2368.3	1065.6	2369	1076.8
GR	2369.6	1088	2370	1095						
QT	2	447	447							
ET			9.1						982	1030
X1	1.314	68	996.7	1003.6	320	390	438.2			
GR	2385	950	2384.7	951.7	2384.3	953.3	2384	955	2383.3	956.7
GR	2382.7	958.3	2382	960	2381.3	961.7	2380.7	963.3	2380	965
	2379.3	966.7	2378.7	968.3	2378	970	2377.3	971.7	2376.7	973.3
	2376	975	2375.3	976.7	2374.7	978.3	2374	980	2373.3	981.7
GR	2372.7	983.3	2372	985	2371.6	988.3	2371.3	990	2370.9	993.3
GR	2370.7	995	2370.4	996.7	2370	1000	2370.4	1003.6	2370.7	1007.3

	2371.1	1010.9	2371.4	1014.5	2371.8	1018.2	2372.2	1021.8	2372.6	1025.3
GR	2373	1028.8	2373.4	1032.3	2373.8	1035.8	2374.2	1039.3	2374.6	1042.8
GR	2375	1046.3	2375.4	1049.8	2375.8	1053.3	2376.1	1056.7	2376.5	1060.2
GR	2376.8	1063.7	2377.1	1067.1	2377.4	1070.6	2377.7	1074	2378	1077.5
GR	2378.3	1081	2378.6	1084.4	2378.9	1087.9	2379.2	1091.3	2379.5	1094.8
GR	2379.9	1098.3	2380	1100	2380.4	1101.8	2380.7	1103.6	2381.1	1105.4
GR	2381.4	1107.3	2381.8	1109.1	2382.2	1110.9	2382.6	1112.7	2382.9	1114.6
GR	2383.3	1116.4	2383.6	1118.2	2384	1120				
ET			9.1						954	1018
X1	1.364	69	991.4	1002.	250	210	264.			
GR	2388	855	2387.6	859.2	2387.2	863.4	2386.9	865.5	2386.5	869.7
GR	2386.1	874	2385.7	878.2	2385.3	882.4	2385.1	884.5	2384.8	886.6
GR	2384.4	890.8	2384	895	2383.8	897.2	2383.5	899.4	2383.3	901.6
GR	2383	903.8	2382.8	905.9	2382.5	908.1	2382.3	910.3	2382	912.5
GR	2381.8	914.7	2381.5	916.9	2381.3	919.1	2381	921.3	2380.8	923.4
GR	2380.5	925.6	2380.3	927.8	2380	930	2379.6	934.2	2379.2	938.4
GR	2378.9	940.5	2378.5	944.7	2378.1	949	2377.7	953.2	2377.3	957.4
GR	2377.1	959.5	2376.8	961.6	2376.4	965.8	2376	970	2375.7	987.1
GR	2375.6	991.4	2375.6	1002	2376	1010	2376.4	1012.2	2376.9	1014.4
GR	2377.3	1016.7	2377.8	1018.9	2378.2	1021.1	2378.7	1023.3	2379.1	1025.6
GR	2379.6	1027.8	2380	1030	2380.8	1032	2381.6	1034	2382.4	1036
GR	2383.2	1038	2384	1040	2384.3	1042.1	2384.6	1044.3	2385.1	1048.6
GR	2385.4	1050.7	2385.7	1052.9	2386	1055	2386.3	1057.1	2386.6	1059.3
GR	2387.1	1063.6	2387.4	1065.7	2387.7	1067.9	2388	1070		
	0.055	0.055	0.035	.1	.3					
ET			9.1						982	1018
X1	1.420	61	997.1	1002.9	260	260	295.7			
GR	2392	950	2391.6	951.4	2391.3	952.7	2390.9	954.1	2390.6	955.5
GR	2390.2	956.8	2389.8	958.2	2389.4	959.5	2389.1	960.9	2388.7	962.3
GR	2388.4	963.6	2388	965	2387.4	966.4	2386.9	967.9	2386.3	969.3
GR	2385.7	970.7	2385.1	972.1	2384.6	973.6	2384	975	2383.6	976.4
GR	2383.3	977.7	2382.9	979.1	2382.6	980.5	2382.2	981.8	2381.8	983.2
GR	2381.4	984.5	2381.1	985.9	2380.7	987.3	2380.4	988.6	2380	990
GR	2379.6	992.9	2379.1	995.7	2378.9	997.1	2378.5	1000	2378.9	1002.9
GR	2379.4	1005.7	2379.8	1008.6	2380	1010	2380.4	1011.4	2380.7	1012.7
GR	2381.1	1014.1	2381.4	1015.5	2381.8	1016.8	2382.2	1018.2	2382.6	1019.5
GR	2382.9	1020.9	2383.3	1022.3	2383.6	1023.6	2384	1025	2384.3	1029.2
GR	2384.6	1034.9	2385	1040.5	2385.3	1046.2	2385.6	1050.4	2386	1057.5
GR	2386.3	1061.7	2386.6	1067.4	2387	1073	2387.3	1078.7	2387.6	1082.9
GR	2388	1090								
ET			9.1						970	1006
X1	1.515	53	996.4	1001.7	460	475	501.6			
GR	2400	850	2399.3	853.6	2398.9	855.5	2398.6	857.3	2398.2	859.1
GR	2397.8	860.9	2397.4	862.7	2397.1	864.5	2396.7	866.4	2396	870
GR	2395.5	875.4	2395	880.8	2394.4	888	2393.9	893.4	2393.4	898.8
GR	2392.8	906	2392.3	911.4	2391.9	916.8	2391.4	924	2390.9	933.1
GR	2390.4	940.3	2389.9	949.3	2389.4	956.5	2388.9	965.6	2388.4	972.8
GR	2387.6	981.8	2387.3	983.6	2386.9	985.5	2386.6	987.3	2386.2	989.1
	2385.8	990.9	2385.4	992.7	2385.1	994.5	2384.7	996.4	2384	1000
GR	2385.3	1001.7	2386.7	1003.3	2388	1005	2389.3	1006.7	2390.7	1008.3
GR	2392	1010	2392.7	1011.7	2393.3	1013.3	2394	1015	2394.7	1016.7

	2395.3	1018.3	2396	1020	2396.7	1021.7	2397.3	1023.3	2398	1025
GR	2398.7	1026.7	2399.3	1028.3	2400	1030				
ET			9.1						979	1022
X1	1.610	51	994.5	1003.6	340	530	501.6			
GR	2416	885	2415.4	890.5	2414.7	896	2414.1	901.6	2413.5	907.1
GR	2412.8	912.6	2412.2	918.2	2411.6	923.7	2410.9	929.2	2410.3	934.7
GR	2409.7	940.3	2409.1	945.8	2408.4	951.3	2407.5	956.9	2406.5	960.6
GR	2405.5	964.4	2404.5	968.1	2404	970	2403.3	971.7	2402.7	973.3
GR	2402	975	2401.3	976.7	2400.7	978.3	2400	980	2399.4	983.6
GR	2398.6	989.1	2397.8	994.5	2397	1000	2397.6	1003.6	2398.4	1009.1
GR	2399.2	1014.5	2400	1020	2401	1023.8	2402	1027.5	2403	1031.3
GR	2404	1035	2404.7	1036.7	2405.3	1038.3	2406	1040	2406.7	1041.7
GR	2407.3	1043.3	2408	1045	2408.7	1046.7	2409.3	1048.3	2410	1050
GR	2410.7	1051.7	2411.3	1053.3	2412	1055	2413.3	1056.7	2414.7	1058.3
GR	2416	1060								
NC	0.050	.050	0.035	.1	.3					
ET			9.1						973	1008
X1	1.691	50	994.3	1001.7	440	395	427.7			
GR	2420	890	2419.6	895.8	2419.2	901.6	2418.8	905.9	2418.4	911.7
GR	2418	917.5	2417.6	923.3	2417.2	929.1	2416.8	933.4	2416.4	939.2
GR	2416	945	2415.4	947.9	2414.9	950.7	2414.3	953.6	2413.7	956.4
GR	2413.1	959.3	2412.6	962.1	2412	965	2411.6	966.5	2411.2	968
GR	2410.8	969.5	2410.4	971	2410	972.5	2409.6	974	2409.2	975.5
	2408.8	977	2408.4	978.5	2408	980	2407.6	987.1	2407.3	994.3
	2407.3	1001.7	2407.7	1003.3	2408	1005	2409.3	1006.7	2410.7	1008.3
GR	2412	1010	2412.6	1011.4	2413.1	1012.9	2413.7	1014.3	2414.3	1015.7
GR	2414.9	1017.1	2415.4	1018.6	2416	1020	2416.6	1021.4	2417.1	1022.9
GR	2417.7	1024.3	2418.3	1025.7	2418.9	1027.1	2419.4	1028.6	2420	1030
QT	2	221	221							
ET			9.1						983	1009
X1	1.735	64	997.7	1001.3	285	170	232.3			
GR	2424	950	2423.8	951.2	2423.5	952.3	2423.1	954.7	2422.8	955.9
GR	2422.4	958.2	2422.1	959.4	2421.9	960.6	2421.6	961.8	2421.2	964.1
GR	2420.9	965.3	2420.5	967.7	2420.2	968.8	2420	970	2419.5	971.3
GR	2419	972.5	2418.5	973.8	2418	975	2417.5	976.3	2417	977.5
GR	2416.5	978.8	2416	980	2415.6	982.3	2415.2	984.7	2414.8	987.1
GR	2414.4	989.4	2414.1	990.6	2413.7	992.9	2413.3	995.3	2412.9	997.7
GR	2412.5	1000	2412.9	1001.3	2413.4	1002.5	2413.8	1003.8	2414.3	1005
GR	2414.7	1006.3	2415.1	1007.5	2415.6	1008.8	2416	1010	2416.4	1013.6
GR	2416.7	1017.3	2417	1019.7	2417.3	1023.3	2417.6	1025.8	2417.9	1029.4
GR	2418.2	1031.8	2418.6	1035.4	2418.9	1039.1	2419.3	1042.7	2419.6	1046.4
GR	2419.9	1048.8	2420.2	1051.2	2420.5	1052.3	2420.9	1054.7	2421.2	1055.9
GR	2421.6	1058.2	2421.9	1059.4	2422.1	1060.6	2422.4	1061.8	2422.8	1064.1
GR	2423.1	1065.3	2423.5	1067.7	2423.8	1068.8	2424	1070		
ET			9.1						985	1017
X1	1.800	69	997.	1004.5	343	343	343.2			
	2436	920	2435.4	923.1	2434.8	926.2	2434.1	929.2	2433.5	932.3
	2432.9	935.4	2432.3	938.5	2431.6	941.5	2431.2	943	2430.8	944.5
GR	2430.4	946	2429.6	949	2429.2	950.5	2428.8	952	2428.4	953.5
GR	2428	955	2427.4	956.4	2426.9	957.9	2426.3	959.3	2425.7	960.7

	2425.1	962.1	2424.6	963.6	2424	965	2423.5	968	2423	971.1
GR	2422.4	974.1	2421.9	977.2	2421.4	980.2	2420.9	983.3	2420.4	986.3
GR	2419.8	989.3	2419.3	992.4	2418.8	995.4	2418.5	997	2418	1000
GR	2418.6	1004.5	2419.2	1009	2419.6	1012	2420.4	1016.5	2420.8	1018
GR	2421.2	1019.5	2421.6	1021	2422.4	1024	2422.8	1025.5	2423.2	1027
GR	2423.6	1028.5	2424.4	1031.5	2424.8	1033	2425.2	1034.5	2425.6	1036
GR	2426.4	1039	2426.8	1040.5	2427.2	1042	2427.6	1043.5	2428	1045
GR	2428.6	1046.4	2429.1	1047.9	2429.7	1049.3	2430.3	1050.7	2430.9	1052.1
GR	2431.4	1053.6	2432	1055	2432.6	1058.1	2433.2	1061.2	2433.9	1064.2
GR	2434.5	1067.3	2435.1	1070.4	2435.7	1073.5	2436	1075		
NC	0.060	0.060	0.045	.1	.3					
ET			9.1						978	1011
X1	1.856	57	997.9	1002.1	260	345	295.6			
GR	2448	915	2447.1	919.4	2446.2	923.9	2445.3	928.3	2444.4	932.8
GR	2443.6	937.2	2442.7	941.7	2441.8	946.1	2440.9	950.6	2440	955
GR	2438	957.5	2436	960	2434	962.5	2432	965	2430	967.5
GR	2428	970	2427.3	976.4	2426.5	982.9	2425.8	989.3	2425	995.7
GR	2424.8	997.9	2425	1002.1	2426	1006.4	2427	1010.7	2428	1015
GR	2428.6	1017.1	2429.1	1019.3	2429.7	1021.4	2430.3	1023.6	2430.9	1025.7
GR	2431.4	1027.9	2432	1030	2432.8	1032	2433.6	1034	2434.4	1036
GR	2435.2	1038	2436	1040	2436.9	1044.4	2437.8	1048.9	2438.7	1053.3
GR	2439.6	1057.8	2440.4	1062.2	2441.3	1066.7	2442.2	1071.1	2443.1	1075.6
GR	2444	1080	2444.9	1084.4	2445.8	1088.9	2446.7	1093.3	2447.6	1097.8
GR	2448.2	1102.2	2448.9	1108.9	2449.6	1115.6	2450.2	1122.2	2450.9	1128.9
	2451.6	1135.6	2452	1140						
ET			9.1						988	1016
X1	1.894	67	998.	1004.3	185	205	200.6			
GR	2448	870	2447.5	874	2446.9	878	2446.4	882	2445.9	886
GR	2445.3	890	2444.8	894	2444.3	898	2443.8	902.1	2443.3	908.3
GR	2442.8	914.6	2442.3	920.8	2441.8	927.1	2441.3	933.3	2440.8	939.6
GR	2440.3	945.8	2439.7	952	2439.2	956	2438.7	960	2438.1	964
GR	2437.6	968	2437.1	972	2436.5	976	2436	980	2435.2	982
GR	2434.4	984	2433.6	986	2432.8	988	2432	990	2431.6	992
GR	2431.2	994	2430.8	996	2430.4	998	2430	1000	2430.6	1004.3
GR	2431.1	1008.6	2431.7	1012.9	2432	1015	2434	1017.5	2436	1020
GR	2436.8	1022	2437.6	1024	2438.4	1026	2439.2	1028	2440	1030
GR	2440.8	1032	2441.6	1034	2442.4	1036	2443.2	1038	2444	1040
GR	2444.4	1042	2444.8	1044	2445.2	1046	2445.6	1048	2446	1050
GR	2446.4	1052	2446.8	1054	2447.2	1056	2447.6	1058	2448	1060
GR	2448.6	1062.1	2449.1	1064.3	2449.7	1066.4	2450.3	1068.6	2450.9	1070.7
GR	2451.4	1072.9	2452	1075						
ET			9.1						986	1014
X1	1.945	77	996.0	1004.	260	270	269.3			
GR	2452	925	2451.5	926.9	2451	928.8	2450.5	930.6	2450	932.5
GR	2449.5	934.4	2449	936.3	2448.5	938.1	2448	940	2447.6	942
GR	2447.2	944	2446.8	946	2446.4	948	2445.6	952	2445.2	954
GR	2444.8	956	2444.4	958	2443.6	962	2443.2	964	2442.8	966
GR	2442.4	968	2441.6	972	2441.2	974	2440.8	976	2440.4	978
	2440	980	2439.2	982	2438.4	984	2437.6	986	2436.8	988
GR	2436	990	2435.4	996	2435.4	1004	2435.8	1008	2436	1010
GR	2436.8	1012	2437.6	1014	2438.4	1016	2439.2	1018	2440	1020

	2440.8	1022	2441.6	1024	2442.4	1026	2443.2	1028	2444	1030
GR	2444.8	1032	2445.6	1034	2446.4	1036	2447.2	1038	2448	1040
GR	2448.8	1042	2449.6	1044	2450.4	1046	2451.2	1048	2452	1050
GR	2452.5	1051.9	2453	1053.8	2453.5	1055.6	2454	1057.5	2454.5	1059.4
GR	2455	1061.3	2455.5	1063.1	2456	1065	2456.5	1069	2457.1	1073
GR	2457.6	1077	2458.1	1081	2458.7	1085	2459.2	1089	2459.7	1093
GR	2460.3	1097.1	2461	1101.3	2461.7	1105.4	2462.3	1109.6	2463	1113.8
GR	2463.7	1117.9	2464	1120						
NC	0.070	0.070	0.050	.1	.3					
ET			9.1						986	1013
X1	2.030	61	998.	1002.	460	420	448.8			
GR	2468	890	2467.1	894.4	2466.2	898.9	2465.3	903.3	2464.4	907.8
GR	2463.7	912.1	2463	916.3	2462.3	920.4	2461.7	924.6	2461	928.8
GR	2460.3	932.9	2460	935	2459.4	937.1	2458.3	941.4	2457.7	943.6
GR	2456.6	947.9	2456	950	2455.1	954.4	2454.2	958.9	2453.3	963.3
GR	2452.4	967.8	2451.6	972.2	2450.7	976.7	2449.8	981.1	2448.9	985.6
GR	2448	990	2447.2	994	2446.4	998	2446.4	1002	2447.2	1006
GR	2448	1010	2448.8	1012	2449.6	1014	2450.4	1016	2451.2	1018
GR	2452	1020	2452.6	1022.1	2453.7	1026.4	2454.3	1028.6	2455.4	1032.9
GR	2456	1035	2456.6	1037.1	2457.7	1041.4	2458.3	1043.6	2459.4	1047.9
GR	2460	1050	2460.9	1054.4	2461.8	1058.9	2462.7	1063.3	2463.6	1067.8
GR	2464	1070	2464.6	1072.1	2465.7	1076.4	2466.3	1078.6	2467.4	1082.9
GR	2468	1085	2468.6	1087.1	2469.7	1091.4	2470.3	1093.6	2471.4	1097.9
GR	2472	1100								
			9.1						983	1010
X1	2.102	62	996.0	1005.	335	410	380.1			
GR	2480	900	2479.2	904	2478.4	908	2477.6	912	2476.8	916
GR	2476	920	2475.2	922	2474.4	924	2473.6	926	2472.8	928
GR	2472	930	2471	933.8	2470	937.5	2469	941.3	2468	945
GR	2467	948.8	2466	952.5	2465	956.3	2464	960	2463	963.8
GR	2462	967.5	2461	971.3	2460	975	2459	978.8	2458	982.5
GR	2457	986.3	2456	990	2455.6	994	2455.4	996	2455	1000
GR	2455.5	1002.5	2456	1005	2456.8	1007	2457.6	1009	2458.4	1011
GR	2459.2	1013	2460	1015	2461	1018.8	2462	1022.5	2463	1026.3
GR	2464	1030	2464.5	1034	2465.1	1038	2465.6	1042	2466.1	1046
GR	2466.7	1050	2467.2	1054	2467.7	1058	2468.5	1061.9	2469.5	1065.6
GR	2470.5	1069.4	2471.5	1073.1	2472.5	1076.9	2473.5	1080.6	2474.5	1084.4
GR	2475.5	1088.1	2476	1090	2476.8	1092	2477.6	1094	2478.4	1096
GR	2479.2	1098	2480	1100						
ET			9.1						987	1027
X1	2.199	67	996.7	1005.7	465	520	512.1			
GR	2492	820	2491.4	826.2	2490.8	832.3	2490.1	838.5	2489.5	844.6
GR	2488.9	850.8	2488.3	856.9	2487.8	863	2487.4	872	2486.9	881
GR	2486.4	890	2485.9	899	2485.4	908	2485	917	2484.5	926
GR	2484	935	2483.4	937.9	2482.9	940.7	2482.3	943.6	2481.7	946.4
GR	2481.1	949.3	2480.6	952.1	2480	955	2479.5	958.1	2479	961.3
GR	2478.5	964.4	2478	967.5	2477.5	970.6	2477	973.8	2476.5	976.9
GR	2476	980	2474.7	983.3	2473.3	986.7	2472	990	2471.3	996.7
	2471.3	1005.7	2471.7	1014.3	2472.4	1023	2472.8	1026	2473.2	1029
GR	2473.6	1032	2474.4	1038	2474.8	1041	2475.2	1044	2475.6	1047
GR	2476	1050	2476.6	1052.9	2477.1	1055.7	2477.7	1058.6	2478.3	1061.4

	2478.9	1064.3	2479.4	1067.1	2480	1070	2481.3	1073.3	2482.7	1076.7
GR	2484	1080	2485.3	1083.3	2486.7	1086.7	2488	1090	2488.5	1093.1
GR	2489	1096.3	2489.5	1099.4	2490	1102.5	2490.5	1105.6	2491	1108.8
GR	2491.5	1111.9	2492	1115						
ET			9.1						979	1027
X1	2.280	50	996.7	1003.6	445	415	427.7			
GR	2500	900	2499.4	903.6	2498.9	907.1	2498.3	910.7	2497.7	914.3
GR	2497.1	917.9	2496.6	921.4	2496	925	2495	928.8	2494	932.5
GR	2493	936.3	2492	940	2491.4	943.6	2490.9	947.1	2490.3	950.7
GR	2489.7	954.3	2489.1	957.9	2488.6	961.4	2488	965	2487	968.8
GR	2486	972.5	2485	976.3	2484	980	2483.3	986.7	2482.7	993.3
GR	2482.3	996.7	2482.3	1003.6	2482.9	1010.7	2483.4	1017.9	2484	1025
GR	2484.4	1028.3	2484.9	1031.7	2485.3	1035	2485.8	1038.3	2486.2	1041.7
GR	2486.7	1045	2487.1	1048.3	2487.6	1051.7	2488.1	1058.3	2488.4	1075
GR	2488.8	1091.7	2489.2	1108.3	2489.6	1125	2489.9	1141.7	2490.3	1158.3
GR	2490.7	1175	2491	1191.7	2491.4	1208.3	2491.8	1225	2492	1235
ET			9.1						968	1026
X1	2.339	41	996.7	1003.3	338	260	311.5			
GR	2494.5	945	2494.2	948.3	2493.8	951.7	2493.5	955	2493.2	958.3
GR	2492.8	961.7	2492.5	965	2492.2	968.3	2491.9	971.7	2491.6	978.3
GR	2491.3	983.3	2491	990	2490.7	996.7	2490.7	1003.3	2491	1008.3
GR	2491.3	1013.3	2491.6	1018.3	2491.9	1023.3	2492	1025	2492.3	1026.7
GR	2492.5	1028.3	2492.8	1030	2493.1	1031.7	2493.3	1033.3	2493.6	1035
	2493.9	1036.7	2494.1	1038.3	2494.4	1040	2494.7	1041.7	2494.9	1043.3
	2495.2	1045	2495.5	1046.7	2495.7	1048.3	2496	1050	2496.3	1058.6
GR	2496.6	1068.8	2496.9	1079.1	2497.2	1087.6	2497.5	1097.9	2497.8	1108.2
GR	2498	1115								
ET			9.1						973	1020
		LAST CROSS SECTION OF DETAILED ANALYSIS								
X1	2.381	69	993.3	1006.0	195	255	221.8			
GR	2505	915	2504.6	924.4	2504.4	930.6	2504.1	936.9	2504	940
GR	2503.7	943.3	2503.3	946.7	2503	950	2502.7	953.3	2502.3	956.7
GR	2502	960	2501.7	963.3	2501.3	966.7	2501	970	2500.7	973.3
GR	2500.3	976.7	2500	980	2499.7	986.7	2499.3	993.3	2499	1000
GR	2499.4	1006	2499.6	1009	2500	1015	2500.5	1018.1	2501	1021.3
GR	2501.5	1024.4	2502	1027.5	2502.5	1030.6	2503	1033.8	2503.5	1036.9
GR	2504	1040	2504.3	1049.6	2504.4	1055.9	2504.6	1059.1	2504.9	1071.8
GR	2504.6	1084.4	2504.4	1090.6	2504.1	1096.9	2504	1113.3	2504	1130
GR	2504	1140	2504.3	1143.1	2504.5	1146.3	2504.8	1149.4	2505	1152.5
GR	2505.3	1155.6	2505.5	1158.8	2505.8	1161.9	2506	1165	2506.3	1168.1
GR	2506.5	1171.3	2506.8	1174.4	2507	1177.5	2507.3	1180.6	2507.5	1183.8
GR	2507.8	1186.9	2508	1190	2508.4	1193.3	2508.9	1196.7	2509.3	1200
GR	2509.8	1203.3	2510.2	1206.7	2510.7	1210	2511.1	1213.3	2511.6	1216.7
GR	2512	1220	2513.3	1223.3	2514.7	1226.7	2516	1230		

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS
0

CCHV= .100 CEHV= .300
*SECNO 2.805
3720 CRITICAL DEPTH ASSUMED
CONFLUENCE OF WASH R - CEMETERY WASH AND TRIBUTARY WASH R-1
THE METHOD USED TO START THIS HEC-2, WATER SURFACE PROFILE
ANALYSIS IS THE KNOWN STARTING WATER SURFACE METHOD. THE
WATER SURFACE ELEVATION FOR CROSS SECTION 5.184, WASH R-
CEMETERY WASH, WAS USED AS THE STARTING WATER SURFACE ELEVATION
FOR THE WASH R-2 HEC-2 WATER SURFACE PROFILE ANALYSIS. THE
WATER SURFACE ELEVATION USED WAS COMPUTED DURING THE HEC-2
ANALYSIS FOR WASH R-CEMETERY WASH.

2.805	7.17	2248.57	2248.57	2248.57	2251.43	2.86	.00	.00	2241.70
6870.0	2703.5	3325.0	841.5	347.1	186.7	110.4	.0	.0	2241.70
.00	7.79	17.81	7.62	.070	.035	.070	.000	2241.40	925.73
.013088	0.	0.	0.	0	4	0	.00	111.57	1037.30

FLOW DISTRIBUTION FOR SECNO= 2.81 CWSEL= 2248.57

STA=	926.	936.	943.	956.	964.	974.	982.	988.	1015.	1025.	1034.	1037.
PER Q=	3.5	3.4	8.0	5.5	7.4	6.4	5.1	48.4	8.8	3.3	.1	
AREA=	39.9	32.6	72.2	47.4	62.2	52.2	40.6	186.7	69.9	36.8	3.7	
VEL=	6.1	7.1	7.6	7.9	8.2	8.5	8.7	17.8	8.6	6.2	2.5	
DEPTH=	3.7	5.0	5.5	5.9	6.2	6.5	6.8	7.0	6.7	4.3	1.0	

CCHV= .100 CEHV= .300
*SECNO .038

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .64

THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION,
UNLESS OTHERWISE NOTED.
FIRST CROSS SECTION OF TRIBUTARY WASH R-1

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
.038	9.55	2253.15	2247.61	.00	2253.26	.11	1.55	.28	2243.60
943.0	585.3	147.4	210.3	289.2	31.5	110.6	3.1	.5	2243.60
.03	2.02	4.68	1.90	.070	.035	.070	.000	2243.60	956.86
.000601	300.	201.	170.	2	11	0	.00	61.28	1018.14

FLOW DISTRIBUTION FOR SECNO= .04 CWSEL= 2253.15

STA=	957.	965.	968.	973.	976.	979.	984.	986.	989.	992.	998.	1001.	1004.
PER Q=	3.2	3.3	7.2	4.0	5.9	9.4	3.2	7.1	5.5	13.4	15.6	7.8	
AREA=	25.6	19.1	35.6	19.0	26.8	41.6	13.8	30.2	22.9	54.5	31.5	31.9	
VEL=	1.2	1.6	1.9	2.0	2.1	2.1	2.2	2.2	2.3	2.3	4.7	2.3	
DEPTH=	3.1	5.8	7.1	7.6	7.9	8.3	8.6	8.9	9.1	9.4	9.5	9.4	

STA=	1004.	1006.	1008.	1010.	1014.	1018.
PER Q=	3.4	3.1	3.9	3.4	.6	
AREA=	14.5	14.4	19.1	22.9	7.7	
VEL=	2.2	2.1	1.9	1.4	.8	
DEPTH=	9.1	8.5	7.6	5.5	2.0	

SECNO .128

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.128	2.84	2256.44	2256.44	.00	2257.65	1.21	.81	.33	2253.60
943.0	134.7	247.7	560.5	22.1	18.2	89.1	5.9	1.1	2253.60
.04	6.11	13.63	6.29	.070	.035	.070	.000	2253.60	987.99
.025651	390.	475.	495.	0	17	0	.00	53.16	1041.14

FLOW DISTRIBUTION FOR SECNO= .13 CWSEL= 2256.44

STA=	988.	989.	990.	996.	998.	1004.	1025.	1035.	1036.	1038.	1039.	1040.	1041.
PER Q=	.1	.8	11.1	2.4	26.3	38.8	17.1	1.7	1.0	.6	.2	.0	
AREA=	.4	2.0	16.3	3.3	18.2	55.7	25.9	2.8	2.0	1.5	.8	.3	
VEL=	1.5	3.5	6.4	6.7	13.6	6.6	6.2	5.5	4.6	3.6	2.5	1.2	
DEPTH=	.5	1.7	2.6	2.8	2.8	2.7	2.5	2.2	1.7	1.2	.7	.2	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .189

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.69

.189	3.40	2262.10	2261.42	.00	2262.59	.49	4.88	.07	2258.70
943.0	155.2	234.3	553.5	41.4	25.8	141.7	7.3	1.6	2258.70
.06	3.75	9.08	3.90	.070	.035	.070	.000	2258.70	979.72
.008976	300.	322.	365.	4	8	0	.00	81.50	1061.21

FLOW DISTRIBUTION FOR SECNO= .19 CWSEL= 2262.10

STA=	980.	989.	994.	998.	1006.	1017.	1028.	1040.	1051.	1057.	1061.
PER Q=	4.5	6.5	5.4	24.8	17.3	14.6	12.3	10.0	3.9	.6	
AREA=	14.2	15.5	11.8	25.8	37.0	33.3	30.1	26.7	11.6	3.1	
VEL=	3.0	4.0	4.3	9.1	4.4	4.1	3.8	3.5	3.2	1.8	
DEPTH=	1.6	2.8	3.2	3.4	3.2	2.9	2.6	2.3	2.0	.7	

CCHV= .300 CEHV= .500
*SECNO .278

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.278	4.50	2268.10	2268.10	.00	2269.72	1.62	5.66	.56	2263.60
943.0	513.6	260.2	169.2	68.7	17.1	23.0	8.9	2.2	2263.60
.08	7.48	15.23	7.36	.060	.035	.060	.000	2263.60	974.77
.017320	535.	470.	400.	0	11	0	.00	33.69	1008.45

FLOW DISTRIBUTION FOR SECNO= .28 CWSEL= 2268.10

STA=	975.	983.	985.	988.	990.	998.	1001.	1005.	1008.	1008.
PER Q=	5.7	4.9	6.4	8.1	29.4	27.6	14.5	3.4	.1	
AREA=	11.3	7.1	8.4	9.6	32.2	17.1	15.9	6.6	.5	
VEL=	4.8	6.5	7.2	7.9	8.6	15.2	8.6	4.9	1.6	
DEPTH=	1.5	2.8	3.3	3.8	4.3	4.5	4.3	2.6	.5	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO .349

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.349	5.95	2275.55	2275.55	.00	2277.72	2.16	5.50	.16	2269.60
943.0	348.5	249.4	345.1	37.0	14.9	36.7	9.7	2.4	2269.60
.08	9.42	16.76	9.40	.050	.035	.050	.000	2269.60	989.49
.014441	365.	375.	295.	0	11	0	.00	21.06	1010.55

FLOW DISTRIBUTION FOR SECNO= .35 CWSEL= 2275.55

STA=	989.	994.	995.	999.	1001.	1005.	1006.	1008.	1011.
PER Q=	5.5	5.0	26.5	26.4	25.8	5.5	3.1	2.2	
AREA=	9.3	5.9	21.9	14.9	21.3	6.4	4.4	4.7	
VEL=	5.6	8.0	11.4	16.8	11.4	8.2	6.7	4.4	
DEPTH=	2.2	4.9	5.8	6.0	5.8	4.9	3.7	1.5	

*SECNO .381

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.381	3.62	2283.22	2283.22	.00	2284.76	1.53	2.77	.06	2279.60
943.0	460.2	170.9	311.9	51.8	12.3	35.7	10.1	2.5	2279.60
.09	8.89	13.87	8.75	.050	.035	.050	.000	2279.60	980.22
.019184	160.	169.	175.	0	14	0	.00	33.01	1013.22

FLOW DISTRIBUTION FOR SECNO= .38 CWSEL= 2283.22

STA=	980.	982.	983.	984.	985.	995.	998.	1001.	1010.	1011.	1012.	1013.
PER Q=	.1	.7	1.4	2.6	35.3	8.6	18.1	30.2	2.0	.8	.1	
AREA=	.6	1.6	2.3	3.4	35.6	8.3	12.3	30.5	2.9	1.7	.5	
VEL=	2.3	4.4	6.0	7.3	9.3	9.7	13.9	9.3	6.3	4.4	2.1	
DEPTH=	.4	1.3	2.1	2.8	3.4	3.6	3.6	3.4	2.7	1.6	.5	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .473
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.473	3.93	2291.53	2291.53	.00	2292.95	1.42	8.11	.01	2287.60
943.0	335.9	275.2	331.9	43.5	21.2	42.8	11.2	2.9	2287.60
.10	7.72	12.97	7.76	.050	.035	.050	.000	2287.60	980.36
.015046	420.	486.	548.	0	8	0	.00	38.53	1018.89

FLOW DISTRIBUTION FOR SECNO= .47 CWSEL= 2291.53

STA=	980.	987.	989.	991.	997.	1003.	1010.	1012.	1015.	1019.
PER Q=	3.0	4.9	5.0	22.7	29.2	25.3	4.5	3.9	1.5	
AREA=	6.7	6.8	5.8	24.2	21.2	27.2	5.7	6.2	3.7	
VEL=	4.3	6.8	8.1	8.8	13.0	8.8	7.5	6.0	3.7	
DEPTH=	1.1	2.7	3.4	3.8	3.9	3.7	3.2	2.3	.8	

*SECNO .568
7185 MINIMUM SPECIFIC ENERGY
[illegible]0 CRITICAL DEPTH ASSUMED

.568	3.32	2300.92	2300.92	.00	2302.03	1.11	7.46	.03	2297.60
943.0	292.4	239.2	411.4	41.9	19.9	61.1	12.5	3.4	2297.60
.12	6.97	12.01	6.74	.050	.035	.050	.000	2297.60	977.70
.016166	540.	502.	410.	0	15	0	.00	54.59	1032.30

FLOW DISTRIBUTION FOR SECNO= .57 CWSEL= 2300.92

STA=	978.	986.	988.	990.	996.	997.	1003.	1010.	1013.	1016.	1021.	1025.	1032.
PER Q=	5.2	3.2	4.2	15.6	2.9	25.4	18.7	7.0	5.6	5.6	3.7	3.0	
AREA=	10.1	4.6	5.4	18.4	3.3	19.9	21.8	8.9	7.7	8.7	6.8	7.2	
VEL=	4.8	6.5	7.3	8.0	8.3	12.0	8.1	7.4	6.9	6.1	5.2	4.0	
DEPTH=	1.2	2.3	2.7	3.1	3.3	3.3	3.1	2.8	2.5	2.1	1.6	1.0	

*SECNO .663

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.663	4.77	2308.47	2308.47	.00	2310.19	1.71	7.42	.18	2303.70
670.0	203.6	262.8	203.6	26.5	19.1	26.4	13.6	3.9	2303.70
.13	7.69	13.77	7.72	.050	.035	.050	.000	2303.70	988.88
.013081	435.	502.	560.	0	11	0	.00	21.71	1010.59

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= .66 CWSEL= 2308.47

STA=	989.	993.	994.	995.	998.	1002.	1005.	1006.	1007.	1009.	1011.
PER Q=	3.4	3.1	4.5	19.5	39.2	19.5	4.1	3.0	3.1	.7	
AREA=	5.3	3.3	4.1	13.9	19.1	13.9	3.7	3.1	4.1	1.6	
VEL=	4.3	6.4	7.4	9.4	13.8	9.4	7.5	6.6	5.0	2.8	
DEPTH=	1.3	3.3	4.1	4.6	4.8	4.6	4.1	3.4	2.3	.8	

*SECNO .758

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.758	2.85	2321.85	2321.85	.00	2322.79	.95	6.48	.08	2319.30
670.0	142.7	281.4	245.9	27.6	28.0	41.2	14.5	4.3	2319.30
.15	5.16	10.04	5.97	.050	.035	.050	.000	2319.00	976.22
.014926	495.	502.	395.	0	14	0	.00	51.10	1027.32

FLOW DISTRIBUTION FOR SECNO= .76 CWSEL= 2321.85

STA=	976.	987.	992.	995.	997.	1007.	1014.	1021.	1025.	1027.
PER Q=	3.6	7.0	6.6	4.1	42.0	16.7	13.2	5.7	1.1	
AREA=	7.2	9.0	7.2	4.2	28.0	17.3	14.9	6.8	2.2	
VEL=	3.3	5.2	6.1	6.6	10.0	6.5	5.9	5.6	3.3	
DEPTH=	.7	1.7	2.2	2.4	2.7	2.4	2.1	1.9	.9	

*SECNO .852
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.852	3.49	2329.49	2329.49	.00	2330.53	1.04	7.01	.03	2326.40
670.0	191.0	252.5	226.6	32.8	23.0	38.4	15.6	4.8	2326.40
.17	5.82	10.96	5.89	.050	.035	.050	.000	2326.00	979.20
.013728	465.	496.	500.	0	11	0	.00	44.61	1023.81

FLOW DISTRIBUTION FOR SECNO= .85 CWSEL= 2329.49

STA=	979.	988.	992.	995.	997.	1004.	1009.	1013.	1017.	1020.	1024.
PER Q=	5.4	7.5	6.8	8.8	37.7	12.7	9.5	6.9	3.4	1.3	
AREA=	8.8	8.8	7.0	8.2	23.0	12.2	10.3	8.4	4.8	2.8	
VEL=	4.1	5.8	6.5	7.1	11.0	7.0	6.2	5.5	4.8	3.1	
DEPTH=	1.0	2.1	2.6	2.9	3.3	2.8	2.4	2.0	1.6	.7	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .947
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.947	3.24	2338.84	2338.84	.00	2340.07	1.23	6.97	.06	2335.60
670.0	221.1	227.8	221.1	31.4	19.5	31.4	16.5	5.2	2335.60
.18	7.03	11.70	7.03	.050	.035	.050	.000	2335.60	982.89
.015804	385.	502.	525.	0	11	0	.00	34.22	1017.11

FLOW DISTRIBUTION FOR SECNO= .95 CWSEL= 2338.84

STA=	983.	988.	990.	997.	1003.	1010.	1012.	1015.	1017.
PER Q=	3.3	4.7	24.9	34.0	24.9	4.7	3.0	.3	
AREA=	5.2	4.9	21.3	19.5	21.3	4.9	4.3	.9	
VEL=	4.3	6.5	7.8	11.7	7.8	6.5	4.7	2.3	
DEPTH=	1.0	2.4	3.0	3.2	3.0	2.4	1.4	.4	

*SECNO 1.042
7185 MINIMUM SPECIFIC ENERGY
[illegible]0 CRITICAL DEPTH ASSUMED

1.042	4.75	2349.55	2349.55	.00	2350.87	1.33	7.57	.03	2345.30
670.0	188.4	205.5	276.2	28.2	15.7	39.1	17.5	5.6	2345.30
.20	6.69	13.06	7.06	.050	.035	.050	.000	2344.80	986.06
.013463	570.	502.	495.	0	14	0	.00	30.86	1016.92

FLOW DISTRIBUTION FOR SECNO= 1.04 CWSEL= 2349.55

STA=	986.	991.	994.	996.	997.	999.	1002.	1004.	1006.	1009.	1011.	1013.	1016.
PER Q=	3.3	6.5	4.7	5.8	7.7	30.7	11.5	9.0	7.6	5.5	4.3	3.2	
AREA=	5.5	7.1	4.4	5.0	6.1	15.7	8.9	7.6	6.9	5.7	4.9	4.6	
VEL=	4.0	6.1	7.2	7.8	8.6	13.1	8.7	7.9	7.3	6.6	5.8	4.6	
DEPTH=	1.0	2.5	3.1	3.6	4.0	4.5	4.0	3.6	3.1	2.7	2.2	1.6	

STA=	1016.	1017.
PER Q=	.2	
AREA=	.6	
VEL=	2.1	
DEPTH=	.5	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO 1.136

3301 HV CHANGED MORE THAN HVINS

1.136	3.83	2355.43	2354.84	.00	2356.13	.70	5.20	.06	2351.60
670.0	226.1	216.9	227.1	40.1	23.0	54.8	18.7	6.1	2351.60
.22	5.63	9.43	4.14	.050	.035	.065	.000	2351.60	981.42
.008236	460.	496.	540.	4	19	0	.00	45.73	1027.16

FLOW DISTRIBUTION FOR SECNO= 1.14 CWSEL= 2355.43

STA=	981.	987.	989.	997.	1003.	1010.	1012.	1014.	1018.	1027.
PER Q=	3.0	3.9	26.9	32.4	18.6	4.3	3.5	4.7	2.9	
AREA=	6.2	5.3	28.6	23.0	25.4	6.5	5.7	8.9	8.4	
VEL=	3.3	4.9	6.3	9.4	4.9	4.5	4.1	3.5	2.3	
DEPTH=	1.1	2.6	3.6	3.8	3.6	3.2	2.8	2.2	.9	

V= .100 CEHV= .300
CNO 1.231
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.231	4.23	2363.73	2363.73	.00	2364.85	1.12	4.85	.12	2359.90
670.0	100.5	323.0	246.5	23.0	28.9	50.2	19.8	6.5	2359.80
.24	4.37	11.19	4.91	.060	.040	.070	.000	2359.50	981.27
.014130	565.	502.	335.	0	8	0	.00	47.41	1028.68

FLOW DISTRIBUTION FOR SECNO= 1.23 CWSEL= 2363.73

STA=	981.	993.	996.	999.	1006.	1013.	1017.	1020.	1029.
PER Q=	3.3	3.2	8.5	48.2	22.1	8.3	3.5	2.9	
AREA=	8.5	5.0	9.5	28.9	25.4	11.5	5.9	7.5	
VEL=	2.6	4.3	6.0	11.2	5.8	4.9	4.0	2.6	
DEPTH=	.7	1.8	3.3	4.1	3.5	2.7	2.0	.9	

*SECNO 1.314
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.314	3.03	2373.03	2373.03	.00	2373.86	.83	6.15	.03	2370.40
447.0	109.2	192.7	145.0	22.5	19.5	35.3	20.6	6.9	2370.40
.25	4.87	9.86	4.11	.060	.040	.070	.000	2370.00	982.41
.017748	320.	438.	390.	0	19	0	.00	46.67	1029.08

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 1.31 CWSEL= 2373.03

STA=	982.	988.	993.	995.	997.	1004.	1007.	1011.	1015.	1018.	1025.	1029.
PER Q=	4.1	9.9	4.8	5.7	43.1	10.6	8.0	6.0	4.2	3.4	.2	
AREA=	5.4	9.1	3.8	4.2	19.5	9.2	7.7	6.4	5.3	5.9	.8	
VEL=	3.4	4.9	5.6	6.0	9.9	5.2	4.7	4.1	3.6	2.6	1.1	
DEPTH=	.9	1.8	2.2	2.5	2.8	2.5	2.1	1.8	1.4	.8	.2	

*SECNO 1.364

1.364	1.99	2377.59	2377.37	.00	2378.07	.48	4.17	.04	2375.60
447.0	215.9	157.1	74.0	50.4	21.0	20.6	21.0	7.2	2375.60
.27	4.28	7.48	3.58	.060	.040	.070	.000	2375.60	954.44
.016265	250.	264.	210.	3	11	0	.00	63.51	1017.94

FLOW DISTRIBUTION FOR SECNO= 1.36 CWSEL= 2377.59

STA=	954.	966.	970.	987.	991.	1002.	1010.	1014.	1018.
PER Q=	3.9	5.1	30.2	9.1	35.1	12.7	3.4	.4	
AREA=	6.7	5.8	29.6	8.3	21.0	14.3	5.1	1.3	
VEL=	2.6	3.9	4.6	4.9	7.5	4.0	3.0	1.5	
DEPTH=	.6	1.4	1.7	1.9	2.0	1.8	1.2	.4	

CCHV= .100 CEHV= .300
*SECNO 1.420
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.420	3.46	2381.96	2381.96	.00	2382.93	.97	3.94	.15	2378.90
447.0	124.9	198.4	123.7	25.0	18.9	24.9	21.5	7.5	2378.90
.28	4.99	10.49	4.97	.055	.035	.055	.000	2378.50	982.64
.012769	260.	296.	260.	0	14	0	.00	34.73	1017.36

FLOW DISTRIBUTION FOR SECNO= 1.42 CWSEL= 2381.96

STA=	983.	989.	993.	996.	997.	1003.	1006.	1009.	1010.	1013.	1017.
PER Q=	3.3	9.5	9.4	5.8	44.4	10.6	8.2	3.2	3.9	1.7	
AREA=	4.8	8.7	7.3	4.1	18.9	7.9	6.8	2.9	4.3	3.0	
VEL=	3.0	4.9	5.7	6.3	10.5	6.0	5.4	4.9	4.1	2.6	
DEPTH=	.8	2.0	2.6	3.0	3.3	2.8	2.4	2.1	1.6	.6	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.515
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.515	4.58	2388.58	2388.58	.00	2389.63	1.05	5.56	.02	2384.70
447.0	193.1	230.3	23.6	40.4	21.9	6.4	22.3	7.9	2385.30
.29	4.77	10.52	3.67	.055	.035	.055	.000	2384.00	970.24
.010457	460.	502.	475.	0	11	0	.00	35.51	1005.76

FLOW DISTRIBUTION FOR SECNO= 1.51 CWSEL= 2388.58

STA=	970.	984.	987.	989.	991.	993.	995.	996.	1002.	1003.	1006.
PER Q=	3.6	5.2	4.0	5.3	6.7	8.2	10.1	51.5	4.0	1.3	
AREA=	7.5	6.1	3.9	4.6	5.4	6.0	7.0	21.9	4.1	2.3	
VEL=	2.2	3.8	4.6	5.1	5.6	6.1	6.5	10.5	4.3	2.6	
DEPTH=	.6	1.6	2.2	2.6	3.0	3.3	3.7	4.1	2.6	.9	

*SECNO 1.610
7185 MINIMUM SPECIFIC ENERGY
[illegible]0 CRITICAL DEPTH ASSUMED

1.610	3.34	2400.34	2400.34	.00	2401.23	.89	4.99	.02	2397.80
447.0	86.1	253.8	107.1	21.4	27.1	25.5	23.0	8.3	2397.60
.31	4.03	9.36	4.20	.055	.035	.055	.000	2397.00	979.17
.011495	340.	502.	530.	0	19	0	.00	42.13	1021.30

FLOW DISTRIBUTION FOR SECNO= 1.61 CWSEL= 2400.34

STA=	979.	980.	984.	989.	995.	1004.	1009.	1015.	1020.	1021.
PER Q=	.0	1.1	5.8	12.4	56.8	14.6	7.1	2.2	.0	
AREA=	.1	2.3	7.4	11.6	27.1	12.9	8.3	4.1	.2	
VEL=	.8	2.1	3.5	4.8	9.4	5.1	3.8	2.4	.9	
DEPTH=	.2	.6	1.3	2.1	3.0	2.3	1.5	.7	.2	

CCHV= .100 CEHV= .300
*SECNO 1.691
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.691	2.47	2409.77	2409.77	.00	2410.70	.94	5.80	.01	2407.30
447.0	217.4	180.7	48.9	36.5	18.2	8.9	23.7	8.7	2407.30
.33	5.96	9.90	5.50	.050	.035	.050	.000	2407.30	973.38
.016341	440.	428.	395.	0	15	0	.00	33.85	1007.23

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 1.69 CWSEL= 2409.77

STA=	973.	976.	977.	979.	980.	987.	994.	1002.	1003.	1005.	1007.	1007.
PER Q=	.2	.8	1.6	2.6	18.6	24.8	40.4	5.2	4.2	1.5	.0	
AREA=	.6	1.1	1.7	2.3	14.0	16.7	18.2	3.6	3.3	1.9	.1	
VEL=	1.7	3.1	4.1	5.0	6.0	6.6	9.9	6.4	5.8	3.5	1.2	
DEPTH=	.3	.8	1.2	1.6	2.0	2.3	2.5	2.3	1.9	1.1	.2	

*SECNO 1.735
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.735	2.97	2415.47	2415.47	.00	2416.22	.76	3.70	.02	2412.90
221.0	88.4	92.6	40.0	18.8	10.0	9.0	24.0	8.8	2412.90
.34	4.70	9.30	4.44	.050	.035	.050	.000	2412.50	983.10
.012795	285.	232.	170.	0	11	0	.00	25.35	1008.45

FLOW DISTRIBUTION FOR SECNO= 1.74 CWSEL= 2415.47

=[illegible]	983.	989.	993.	995.	998.	1001.	1003.	1004.	1005.	1008.
[illegible]ER Q=	3.8	9.8	11.2	15.2	41.9	7.0	5.4	3.1	2.6	
AREA=	3.3	5.1	4.7	5.7	10.0	2.8	2.4	1.7	2.1	
VEL=	2.5	4.3	5.2	5.9	9.3	5.6	4.9	4.0	2.7	
DEPTH=	.5	1.4	2.0	2.4	2.8	2.3	1.9	1.4	.6	

*SECNO 1.800
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.800	2.49	2420.49	2420.49	.00	2421.15	.66	4.29	.01	2418.50
221.0	43.2	130.5	47.3	11.3	16.5	12.6	24.3	9.1	2418.60
.35	3.81	7.89	3.76	.050	.035	.050	.000	2418.00	985.78
.012198	343.	343.	343.	0	15	0	.00	31.04	1016.82

FLOW DISTRIBUTION FOR SECNO= 1.80 CWSEL= 2420.49

STA=	986.	989.	992.	995.	997.	1005.	1009.	1012.	1017.	1017.
PER Q=	.9	4.1	8.1	6.5	59.1	14.3	5.1	2.0	.0	
AREA=	1.2	2.9	4.3	2.9	16.5	7.1	3.3	2.2	.0	
VEL=	1.7	3.1	4.1	4.9	7.9	4.4	3.4	2.0	.0	
DEPTH=	.3	.9	1.4	1.8	2.2	1.6	1.1	.5	.0	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300

*SECNO 1.856

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

1.856	2.23	2427.03	2427.03	.00	2427.64	.61	4.89	.00	2424.80
221.0	106.5	75.9	38.6	21.8	8.9	8.8	24.5	9.3	2425.00
.37	4.88	8.50	4.37	.060	.045	.060	.000	2424.80	978.62
.024238	260.	296.	345.	0	11	0	.00	32.20	1010.82

FLOW DISTRIBUTION FOR SECNO= 1.86 CWSEL= 2427.03

STA=	979.	983.	989.	996.	998.	1002.	1006.	1011.
PER Q=	.8	8.9	25.0	13.5	34.3	14.9	2.5	
AREA=	1.1	5.6	10.4	4.7	8.9	6.6	2.3	
VEL=	1.6	3.5	5.3	6.4	8.5	5.0	2.5	
DEPTH=	.3	.9	1.6	2.1	2.1	1.5	.5	

*SECNO 1.894

[illegible]5 MINIMUM SPECIFIC ENERGY

[illegible]0 CRITICAL DEPTH ASSUMED

1.894	2.50	2432.50	2432.50	.00	2433.19	.69	4.46	.02	2430.40
221.0	47.8	115.2	58.0	10.7	14.1	13.4	24.7	9.4	2430.60
.38	4.45	8.18	4.33	.060	.045	.060	.000	2430.00	988.74
.021378	185.	201.	205.	0	8	0	.00	26.89	1015.63

FLOW DISTRIBUTION FOR SECNO= 1.89 CWSEL= 2432.50

STA=	989.	990.	992.	994.	996.	998.	1004.	1009.	1013.	1015.	1016.
PER Q=	.2	1.8	3.8	6.4	9.5	52.1	16.2	8.2	1.7	.1	
AREA=	.3	1.4	2.2	3.0	3.8	14.1	7.1	4.7	1.4	.2	
VEL=	1.4	2.8	3.8	4.7	5.5	8.2	5.0	3.8	2.7	1.2	
DEPTH=	.3	.7	1.1	1.5	1.9	2.2	1.7	1.1	.7	.3	

*SECNO 1.945

1.945	2.09	2437.49	2437.20	.00	2437.96	.47	4.75	.02	2435.40
221.0	55.2	110.3	55.4	13.5	16.7	13.5	25.0	9.6	2435.40
.39	4.09	6.61	4.11	.060	.045	.060	.000	2435.40	986.28
.014989	260.	269.	270.	4	19	0	.00	27.44	1013.72

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 1.95 CWSEL= 2437.49

STA=	986.	988.	990.	996.	1004.	1008.	1010.	1012.	1014.
PER Q=	.4	3.0	21.6	49.9	15.8	5.9	3.0	.4	
AREA=	.6	2.2	10.7	16.7	7.6	3.2	2.2	.6	
VEL=	1.4	3.1	4.5	6.6	4.6	4.1	3.1	1.4	
DEPTH=	.3	1.1	1.8	2.1	1.9	1.6	1.1	.3	

CCHV= .100 CEHV= .300
*SECNO 2.030
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.030	2.41	2448.81	2448.81	.00	2449.52	.71	8.97	.07	2446.40
221.0	67.8	87.0	66.2	14.4	9.6	13.7	25.4	9.8	2446.40
.41	4.70	9.04	4.85	.070	.050	.070	.000	2446.40	986.06
.028710	460.	449.	420.	0	8	0	.00	25.95	1012.01

FLOW DISTRIBUTION FOR SECNO= 2.03 CWSEL= 2448.81

STA=	986.	990.	994.	998.	1002.	1006.	1010.	1012.
PER Q=	1.4	8.8	20.5	39.4	20.5	8.8	.7	
AREA=	1.6	4.8	8.0	9.6	8.0	4.8	.8	
VEL=	1.9	4.0	5.6	9.0	5.6	4.0	1.9	
DEPTH=	.4	1.2	2.0	2.4	2.0	1.2	.4	

*SECNO 2.102

2.102	2.64	2457.64	2457.43	.00	2458.23	.59	8.70	.01	2455.40
221.0	67.3	144.4	9.3	16.5	20.4	3.3	25.7	10.1	2456.00
.43	4.07	7.09	2.81	.070	.050	.070	.000	2455.00	983.91
.019468	335.	380.	410.	4	5	0	.00	25.17	1009.08

FLOW DISTRIBUTION FOR SECNO= 2.10 CWSEL= 2457.64

STA=	984.	986.	990.	994.	996.	1005.	1007.	1009.
PER Q=	.5	5.9	14.6	9.4	65.3	3.6	.6	
AREA=	.8	4.2	7.3	4.3	20.4	2.5	.9	
VEL=	1.3	3.1	4.4	4.9	7.1	3.2	1.6	
DEPTH=	.3	1.1	1.8	2.1	2.3	1.2	.4	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.199
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.199	1.55	2472.85	2472.85	.00	2473.39	.54	12.81	.00	2471.30
221.0	37.5	103.1	80.4	8.9	13.9	19.2	26.2	10.4	2471.30
.45	4.21	7.41	4.18	.070	.050	.070	.000	2471.30	987.85
.034813	465.	512.	520.	0	14	0	.00	38.48	1026.34

FLOW DISTRIBUTION FOR SECNO= 2.20 CWSEL= 2472.85

STA=	988.	990.	997.	1006.	1014.	1023.	1026.	1026.
PER Q=	.9	16.1	46.6	25.2	10.6	.5	.0	
AREA=	.9	8.0	13.9	11.6	6.9	.7	.0	
VEL=	2.1	4.4	7.4	4.8	3.4	1.5	.0	
DEPTH=	.4	1.2	1.5	1.3	.8	.2	.0	

*SECNO 2.280

2.280	1.90	2484.20	2484.04	.00	2484.56	.36	11.16	.02	2482.30
221.0	59.0	85.0	77.0	17.4	13.1	22.6	26.6	10.8	2482.30
.48	3.39	6.49	3.42	.070	.050	.070	.000	2482.30	979.27
.020339	445.	428.	415.	5	8	0	.00	47.35	1026.62

FLOW DISTRIBUTION FOR SECNO= 2.28 CWSEL= 2484.20

STA=	979.	987.	993.	997.	1004.	1011.	1018.	1025.	1027.
PER Q=	3.3	12.2	11.2	38.5	21.2	10.6	3.0	.0	
AREA=	3.7	7.9	5.8	13.1	11.3	7.5	3.5	.2	
VEL=	2.0	3.4	4.3	6.5	4.1	3.1	1.9	.6	
DEPTH=	.5	1.2	1.7	1.9	1.6	1.0	.5	.1	

*SECNO 2.339

2.339	1.46	2492.16	2492.14	.00	2492.57	.41	7.99	.01	2490.70
221.0	85.5	68.7	66.8	21.9	9.6	17.4	27.0	11.2	2490.70
.49	3.89	7.17	3.83	.070	.050	.070	.000	2490.70	968.85
.035400	338.	312.	260.	2	19	0	.00	57.01	1025.86

FLOW DISTRIBUTION FOR SECNO= 2.34 CWSEL= 2492.16

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	969.	972.	978.	983.	990.	997.	1003.	1008.	1013.	1018.	1023.	1025.	1026.
PER Q=	.2	2.6	5.0	12.1	18.8	31.1	14.0	9.0	5.0	2.0	.2	.0	
AREA=	.4	2.7	3.5	6.7	8.7	9.6	6.5	5.0	3.5	2.0	.3	.1	
VEL=	1.0	2.2	3.1	4.0	4.8	7.2	4.8	4.0	3.1	2.2	1.4	.0	
DEPTH=	.1	.4	.7	1.0	1.3	1.5	1.3	1.0	.7	.4	.2	.1	

*SECNO 2.381
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
LAST CROSS SECTION OF DETAILED ANALYSIS

2.381	1.70	2500.70	2500.70	.00	2501.18	.48	7.06	.02	2499.30
221.0	55.7	129.6	35.7	16.1	19.4	10.5	27.2	11.5	2499.40
.51	3.47	6.70	3.40	.070	.050	.070	.000	2499.00	973.32
.029012	195.	222.	255.	0	8	0	.00	46.04	1019.36

FLOW DISTRIBUTION FOR SECNO= 2.38 CWSEL= 2500.70

STA=	973.	977.	980.	987.	993.	1006.	1009.	1015.	1018.	1019.
PER Q=	.4	2.0	8.3	14.6	58.6	6.6	8.2	1.3	.0	
AREA=	.7	1.8	5.7	7.9	19.4	3.6	5.4	1.4	.1	
VEL=	1.2	2.4	3.2	4.1	6.7	4.1	3.4	2.1	.8	
DEPTH=	.2	.5	.8	1.2	1.5	1.2	.9	.4	.1	

T1 FLOODWAY DETERMINATION

T2

T3 TRIBUTARY WASH R-1

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	3	0	0	0	0	0	0	2248.57	0
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2	0	-1	0	0	0	-1	0	0	0

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*PROF 2

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS
0

CCHV=     .100 CEHV=     .300
*SECNO 2.805
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      925.0    1038.0  TYPE=      1  TARGET=      113.000
            CONFLUENCE OF WASH R - CEMETERY WASH AND TRIBUTARY WASH R-1
            THE METHOD USED TO START THIS HEC-2, WATER SURFACE PROFILE
            ANALYSIS IS THE KNOWN STARTING WATER SURFACE METHOD.  THE
            WATER SURFACE ELEVATION FOR CROSS SECTION 5.184, WASH R-
            CEMETERY WASH, WAS USED AS THE STARTING WATER SURFACE ELEVATION
            FOR THE WASH R-2 HEC-2 WATER SURFACE PROFILE ANALYSIS.  THE
            WATER SURFACE ELEVATION USED WAS COMPUTED DURING THE HEC-2
            ANALYSIS FOR WASH R-CEMETERY WASH.
    2.805      7.17   2248.57   2248.57   2248.57   2251.43      2.86       .00       .00   2241.70
   6870.0    2703.5    3324.9     841.6     347.1     186.8     110.4        .0        .0   2241.70
      .00      7.79     17.80      7.62      .070      .035      .070      .000   2241.40    925.73
  .013083        0.        0.        0.         0         4         0       .00    111.57   1037.30


CCHV=     .100 CEHV=     .300
*SECNO  .038

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .64


3470 ENCROACHMENT STATIONS=      956.0    1019.0  TYPE=      1  TARGET=       63.000
            THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
            CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION,
            UNLESS OTHERWISE NOTED.
            FIRST CROSS SECTION OF TRIBUTARY WASH R-1
     .038      9.55   2253.15   2247.61   2253.15   2253.25       .11      1.55       .28   2243.60
    943.0     585.3     147.4     210.3     289.2      31.5     110.6       3.1        .5   2243.60
      .03      2.02      4.68      1.90      .070      .035      .070      .000   2243.60    956.86
  .000601      300.      201.      170.         2        11         0       .00     61.28   1018.14
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .128

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 987.0 1042.0 TYPE= 1 TARGET= 55.000

.128	2.84	2256.44	2256.44	2256.44	2257.65	1.21	.82	.33	2253.60
943.0	134.7	247.7	560.5	22.1	18.2	89.1	5.9	1.1	2253.60
.04	6.11	13.63	6.29	.070	.035	.070	.000	2253.60	987.99
.025651	390.	475.	495.	0	17	0	.00	53.16	1041.14

*SECNO .189

3301 HV CHANGED MORE THAN HVINS

[illegible]2 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.69

3470 ENCROACHMENT STATIONS= 979.0 1062.0 TYPE= 1 TARGET= 83.000

.189	3.40	2262.10	2261.42	2262.10	2262.59	.49	4.88	.07	2258.70
943.0	155.2	234.3	553.5	41.4	25.8	141.7	7.3	1.6	2258.70
.06	3.75	9.08	3.90	.070	.035	.070	.000	2258.70	979.72
.008976	300.	322.	365.	4	8	0	.00	81.49	1061.21

CCHV= .300 CEHV= .500
*SECNO .278

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 974.0 1009.0 TYPE= 1 TARGET= 35.000

.278	4.50	2268.10	2268.10	2268.10	2269.72	1.62	5.66	.56	2263.60
943.0	513.6	260.2	169.2	68.7	17.1	23.0	8.9	2.2	2263.60
.08	7.48	15.22	7.36	.060	.035	.060	.000	2263.60	974.76
.017305	535.	470.	400.	0	11	0	.00	33.69	1008.45

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO .349

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 989.0 1011.0 TYPE= 1 TARGET= 22.000

.349	5.95	2275.55	2275.55	2275.55	2277.72	2.16	5.50	.16	2269.60
943.0	348.5	249.4	345.1	37.0	14.9	36.7	9.7	2.4	2269.60
.08	9.41	16.76	9.40	.050	.035	.050	.000	2269.60	989.49
.014432	365.	375.	295.	0	11	0	.00	21.06	1010.55

*SECNO .381

3301 HV CHANGED MORE THAN HVINS

[illegible]5 MINIMUM SPECIFIC ENERGY
[illegible]20 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 980.0 1014.0 TYPE= 1 TARGET= 34.000

.381	3.63	2283.23	2283.23	2283.22	2284.76	1.53	2.76	.06	2279.60
943.0	460.2	170.9	311.9	51.8	12.3	35.7	10.1	2.5	2279.60
.09	8.88	13.86	8.74	.050	.035	.050	.000	2279.60	980.21
.019118	160.	169.	175.	0	14	0	.00	33.02	1013.23

*SECNO .473
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 980.0 1019.0 TYPE= 1 TARGET= 39.000

.473	3.93	2291.53	2291.53	2291.53	2292.95	1.42	8.09	.01	2287.60
943.0	335.9	275.2	331.9	43.5	21.2	42.8	11.2	2.9	2287.60
.10	7.72	12.96	7.75	.050	.035	.050	.000	2287.60	980.35
.015020	420.	486.	548.	0	8	0	.00	38.54	1018.89

*SECNO .568
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 977.0 1033.0 TYPE= 1 TARGET= 56.000

.568	3.32	2300.92	2300.92	2300.92	2302.03	1.11	7.45	.03	2297.60
943.0	292.4	239.1	411.4	41.9	19.9	61.1	12.5	3.4	2297.60
.12	6.97	12.01	6.74	.050	.035	.050	.000	2297.60	977.70
.016161	540.	502.	410.	0	15	0	.00	54.59	1032.30

*SECNO .663

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 988.0 1011.0 TYPE= 1 TARGET= 23.000

.663	4.77	2308.47	2308.47	2308.47	2310.19	1.72	7.43	.18	2303.70
670.0	203.6	262.8	203.6	26.5	19.1	26.4	13.6	3.9	2303.70
.13	7.69	13.77	7.73	.050	.035	.050	.000	2303.70	988.89
.013105	435.	502.	560.	0	11	0	.00	21.70	1010.59

*SECNO .758

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 976.0 1028.0 TYPE= 1 TARGET= 52.000

.758	2.85	2321.85	2321.85	2321.85	2322.79	.94	6.46	.08	2319.30
670.0	142.9	281.2	245.9	27.7	28.1	41.2	14.5	4.3	2319.30
.15	5.15	10.01	5.96	.050	.035	.050	.000	2319.00	976.20
.014832	495.	502.	395.	0	14	0	.00	51.13	1027.33

*SECNO .852
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 979.0 1024.0 TYPE= 1 TARGET= 45.000

.852	3.49	2329.49	2329.49	2329.49	2330.53	1.03	6.98	.03	2326.40
670.0	191.0	252.4	226.6	32.8	23.1	38.5	15.6	4.8	2326.40
.17	5.82	10.95	5.89	.050	.035	.050	.000	2326.00	979.20
.013692	465.	496.	500.	0	11	0	.00	44.62	1023.82

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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO  .947
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      982.0    1018.0  TYPE=      1  TARGET=      36.000
     .947      3.24   2338.84   2338.84   2338.84   2340.07      1.23      6.96       .06   2335.60
    670.0     221.1     227.8     221.1      31.4      19.5      31.4      16.5       5.2   2335.60
      .18      7.04     11.70      7.04      .050      .035      .050      .000   2335.60    982.89
  .015809      385.      502.      525.         0        11         0       .00     34.22   1017.11


*SECNO 1.042
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      986.0    1017.0  TYPE=      1  TARGET=      31.000
    1.042      4.75   2349.55   2349.55   2349.55   2350.87      1.32      7.57       .03   2345.30
    670.0     188.4     205.4     276.2      28.2      15.7      39.2      17.5       5.6   2345.30
      .20      6.68     13.05      7.05      .050      .035      .050      .000   2344.80    986.06
  .013436      570.      502.      495.         0        14         0       .00     30.86   1016.92


CCHV=     .100 CEHV=     .300
*SECNO 1.136

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      981.0    1028.0  TYPE=      1  TARGET=      47.000
    1.136      3.83   2355.43   2354.84   2355.43   2356.13       .70      5.20       .06   2351.60
    670.0     226.1     216.9     227.0      40.1      23.0      54.8      18.7       6.1   2351.60
      .22      5.64      9.44      4.14      .050      .035      .065      .000   2351.60    981.43
  .008249      460.      496.      540.         4        19         0       .00     45.72   1027.15


CCHV=     .100 CEHV=     .300
*SECNO 1.231
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      981.0    1029.0  TYPE=      1  TARGET=      48.000
    1.231      4.23   2363.73   2363.73   2363.73   2364.85      1.11      4.85       .12   2359.90
    670.0     100.7     322.8     246.5      23.1      28.9      50.3      19.8       6.5   2359.80
      .24      4.36     11.17      4.90      .060      .040      .070      .000   2359.50    981.25
  .014064      565.      502.      335.         0         8         0       .00     47.45   1028.70
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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*SECNO 1.314
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      982.0    1030.0  TYPE=      1  TARGET=      48.000
     1.314      3.03   2373.03   2373.03   2373.03   2373.86      .82      6.12      .03   2370.40
     447.0     109.3     192.6     145.1      22.5      19.6     35.4      20.6      6.9   2370.40
       .25      4.86      9.85      4.10      .060      .040     .070      .000   2370.00    982.41
   .017665      320.      438.      390.         0        19        0       .00    46.70   1029.11


*SECNO 1.364

3470 ENCROACHMENT STATIONS=      954.0    1018.0  TYPE=      1  TARGET=      64.000
     1.364      1.99   2377.59   2377.37   2377.59   2378.07      .48      4.17      .03   2375.60
     447.0     215.9     157.1      74.0      50.3      21.0     20.6      21.0      7.2   2375.60
       .27      4.29      7.49      3.59      .060      .040     .070      .000   2375.60    954.46
   .016345      250.      264.      210.         3        11        0       .00    63.47   1017.93


HV=     .100 CEHV=     .300
*SECNO 1.420
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      982.0    1018.0  TYPE=      1  TARGET=      36.000
     1.420      3.46   2381.96   2381.96   2381.96   2382.93      .97      3.94      .15   2378.90
     447.0     124.9     198.3     123.7      25.0      18.9     24.9      21.5      7.5   2378.90
       .28      4.99     10.48      4.97      .055      .035     .055      .000   2378.50    982.63
   .012760      260.      296.      260.         0        14        0       .00    34.73   1017.37


*SECNO 1.515
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      970.0    1006.0  TYPE=      1  TARGET=      36.000
     1.515      4.58   2388.58   2388.58   2388.58   2389.63     1.04      5.54      .02   2384.70
     447.0     193.3     230.0      23.7      40.6      21.9      6.5      22.3      7.9   2385.30
       .29      4.76     10.49      3.67      .055      .035     .055      .000   2384.00    970.15
   .010380      460.      502.      475.         0        11        0       .00    35.61   1005.76
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.610
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 979.0 1022.0 TYPE= 1 TARGET= 43.000

1.610	3.34	2400.34	2400.34	2400.34	2401.23	.88	4.96	.02	2397.80
447.0	86.2	253.7	107.2	21.4	27.2	25.6	23.0	8.3	2397.60
.31	4.02	9.34	4.19	.055	.035	.055	.000	2397.00	979.16
.011445	340.	502.	530.	0	19	0	.00	42.15	1021.31

CCHV= .100 CEHV= .300
*SECNO 1.691
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 973.0 1008.0 TYPE= 1 TARGET= 35.000

1.691	2.46	2409.76	2409.76	2409.77	2410.70	.94	5.80	.02	2407.30
447.0	217.3	180.8	48.9	36.4	18.2	8.9	23.7	8.7	2407.30
.33	5.98	9.93	5.51	.050	.035	.050	.000	2407.30	973.40
.016455	440.	428.	395.	0	19	0	.00	33.83	1007.23

*SECNO 1.735
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 983.0 1009.0 TYPE= 1 TARGET= 26.000

1.735	2.97	2415.47	2415.47	2415.47	2416.22	.75	3.72	.02	2412.90
221.0	88.4	92.6	40.0	18.8	10.0	9.0	24.0	8.8	2412.90
.34	4.70	9.29	4.43	.050	.035	.050	.000	2412.50	983.09
.012747	285.	232.	170.	0	11	0	.00	25.37	1008.46

*SECNO 1.800
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 985.0 1017.0 TYPE= 1 TARGET= 32.000

1.800	2.49	2420.49	2420.49	2420.49	2421.15	.66	4.27	.01	2418.50
221.0	43.2	130.5	47.3	11.3	16.6	12.6	24.3	9.1	2418.60
.35	3.81	7.88	3.75	.050	.035	.050	.000	2418.00	985.78
.012174	343.	343.	343.	0	15	0	.00	31.05	1016.83

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO 1.856
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 978.0 1011.0 TYPE= 1 TARGET= 33.000

1.856	2.23	2427.03	2427.03	2427.03	2427.64	.61	4.86	.01	2424.80
221.0	106.6	75.7	38.7	22.0	9.0	8.9	24.6	9.3	2425.00
.37	4.85	8.45	4.35	.060	.045	.060	.000	2424.80	978.57
.023894	260.	296.	345.	0	11	0	.00	32.28	1010.84

*SECNO 1.894
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 988.0 1016.0 TYPE= 1 TARGET= 28.000

1.894	2.50	2432.50	2432.50	2432.50	2433.19	.69	4.43	.02	2430.40
221.0	47.8	115.2	57.9	10.7	14.1	13.4	24.7	9.4	2430.60
.38	4.45	8.19	4.33	.060	.045	.060	.000	2430.00	988.74
.021409	185.	201.	205.	0	8	0	.00	26.88	1015.63

*SECNO 1.945

3470 ENCROACHMENT STATIONS= 986.0 1014.0 TYPE= 1 TARGET= 28.000

1.945	2.09	2437.49	2437.20	2437.49	2437.96	.47	4.75	.02	2435.40
221.0	55.3	110.3	55.4	13.5	16.7	13.5	25.0	9.6	2435.40
.39	4.09	6.60	4.10	.060	.045	.060	.000	2435.40	986.28
.014976	260.	269.	270.	4	19	0	.00	27.44	1013.72

CCHV= .100 CEHV= .300
*SECNO 2.030
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 986.0 1013.0 TYPE= 1 TARGET= 27.000

2.030	2.41	2448.81	2448.81	2448.81	2449.52	.71	8.94	.07	2446.40
221.0	67.8	86.9	66.3	14.5	9.6	13.7	25.4	9.8	2446.40
.41	4.68	9.02	4.84	.070	.050	.070	.000	2446.40	986.04
.028477	460.	449.	420.	0	8	0	.00	25.99	1012.02

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.102

3470 ENCROACHMENT STATIONS= 983.0 1010.0 TYPE= 1 TARGET= 27.000

2.102	2.63	2457.63	2457.43	2457.64	2458.23	.60	8.70	.01	2455.40
221.0	67.3	144.4	9.3	16.5	20.3	3.3	25.7	10.1	2456.00
.43	4.08	7.10	2.82	.070	.050	.070	.000	2455.00	983.92
.019592	335.	380.	410.	4	5	0	.00	25.15	1009.07

*SECNO 2.199
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 987.0 1027.0 TYPE= 1 TARGET= 40.000

2.199	1.54	2472.84	2472.84	2472.85	2473.39	.55	12.88	.01	2471.30
221.0	37.5	103.1	80.4	8.9	13.9	19.2	26.2	10.4	2471.30
.45	4.21	7.42	4.19	.070	.050	.070	.000	2471.30	987.86
.034971	465.	512.	520.	0	14	0	.00	38.47	1026.33

*SECNO 2.280

3470 ENCROACHMENT STATIONS= 979.0 1027.0 TYPE= 1 TARGET= 48.000

2.280	1.90	2484.20	2484.04	2484.20	2484.56	.36	11.16	.02	2482.30
221.0	59.0	84.9	77.1	17.4	13.1	22.6	26.7	10.8	2482.30
.48	3.39	6.49	3.41	.070	.050	.070	.000	2482.30	979.27
.020267	445.	428.	415.	5	8	0	.00	47.37	1026.63

*SECNO 2.339

3470 ENCROACHMENT STATIONS= 968.0 1026.0 TYPE= 1 TARGET= 58.000

2.339	1.45	2492.15	2492.14	2492.16	2492.56	.41	7.98	.01	2490.70
221.0	85.5	68.7	66.8	21.9	9.6	17.4	27.0	11.2	2490.70
.49	3.90	7.18	3.84	.070	.050	.070	.000	2490.70	968.86
.035510	338.	312.	260.	3	19	0	.00	56.99	1025.85

*SECNO 2.381
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 973.0 1020.0 TYPE= 1 TARGET= 47.000

LAST CROSS SECTION OF DETAILED ANALYSIS

2.381	1.69	2500.69	2500.69	2500.70	2501.18	.49	7.16	.03	2499.30
221.0	55.5	129.9	35.6	15.9	19.2	10.4	27.3	11.5	2499.40
.51	3.49	6.75	3.43	.070	.050	.070	.000	2499.00	973.39
.029672	195.	222.	255.	0	11	0	.00	45.92	1019.31

THIS RUN EXECUTED 23JUN92 10:24:40

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

TRIBUTARY WASH R-1

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	2.805	.00	.00	.00	2241.40	6870.00	2248.57	2248.57	2251.43	130.88	17.81	644.19	600.50
*	2.805	.00	.00	.00	2241.40	6870.00	2248.57	2248.57	2251.43	130.83	17.80	644.28	600.62
*	.038	200.60	.00	.00	2243.60	943.00	2253.15	2247.61	2253.26	6.01	4.68	431.32	384.70
*	.038	200.60	.00	.00	2243.60	943.00	2253.15	2247.61	2253.25	6.01	4.68	431.29	384.66
	.128	475.20	.00	.00	2253.60	943.00	2256.44	2256.44	2257.65	256.51	13.63	129.29	58.88
*	.128	475.20	.00	.00	2253.60	943.00	2256.44	2256.44	2257.65	256.51	13.63	129.29	58.88
*	.189	322.00	.00	.00	2258.70	943.00	2262.10	2261.42	2262.59	89.76	9.08	208.98	99.54
*	.189	322.00	.00	.00	2258.70	943.00	2262.10	2261.42	2262.59	89.76	9.08	208.98	99.54
*	.278	469.90	.00	.00	2263.60	943.00	2268.10	2268.10	2269.72	173.20	15.23	108.74	71.65
*	.278	469.90	.00	.00	2263.60	943.00	2268.10	2268.10	2269.72	173.05	15.22	108.77	71.68
*	.349	374.90	.00	.00	2269.60	943.00	2275.55	2275.55	2277.72	144.41	16.76	88.59	78.47
*	.349	374.90	.00	.00	2269.60	943.00	2275.55	2275.55	2277.72	144.32	16.76	88.61	78.50
*	.381	169.00	.00	.00	2279.60	943.00	2283.22	2283.22	2284.76	191.84	13.87	99.75	68.08
*	.381	169.00	.00	.00	2279.60	943.00	2283.23	2283.23	2284.76	191.18	13.86	99.87	68.20
*	.473	485.70	.00	.00	2287.60	943.00	2291.53	2291.53	2292.95	150.46	12.97	107.48	76.88
*	.473	485.70	.00	.00	2287.60	943.00	2291.53	2291.53	2292.95	150.20	12.96	107.55	76.94
*	.568	501.60	.00	.00	2297.60	943.00	2300.92	2300.92	2302.03	161.66	12.01	122.92	74.17
*	.568	501.60	.00	.00	2297.60	943.00	2300.92	2300.92	2302.03	161.61	12.01	122.93	74.18
*	.663	501.60	.00	.00	2303.70	670.00	2308.47	2308.47	2310.19	130.81	13.77	71.95	58.58
*	.663	501.60	.00	.00	2303.70	670.00	2308.47	2308.47	2310.19	131.05	13.77	71.90	58.53
	.758	501.60	.00	.00	2319.00	670.00	2321.85	2321.85	2322.79	149.26	10.04	96.84	54.84
	.758	501.60	.00	.00	2319.00	670.00	2321.85	2321.85	2322.79	148.32	10.01	97.05	55.02

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	.852	496.40	.00	.00	2326.00	670.00	2329.49	2329.49	2330.53	137.28	10.96	94.27	57.18
*	.852	496.40	.00	.00	2326.00	670.00	2329.49	2329.49	2330.53	136.92	10.95	94.35	57.26
*	.947	501.60	.00	.00	2335.60	670.00	2338.84	2338.84	2340.07	158.04	11.70	82.33	53.30
*	.947	501.60	.00	.00	2335.60	670.00	2338.84	2338.84	2340.07	158.09	11.70	82.32	53.29
*	1.042	501.60	.00	.00	2344.80	670.00	2349.55	2349.55	2350.87	134.63	13.06	83.05	57.74
*	1.042	501.60	.00	.00	2344.80	670.00	2349.55	2349.55	2350.87	134.36	13.05	83.11	57.80
	1.136	496.20	.00	.00	2351.60	670.00	2355.43	2354.84	2356.13	82.36	9.43	117.97	73.83
	1.136	496.20	.00	.00	2351.60	670.00	2355.43	2354.84	2356.13	82.49	9.44	117.90	73.77
*	1.231	501.70	.00	.00	2359.50	670.00	2363.73	2363.73	2364.85	141.30	11.19	102.08	56.36
*	1.231	501.70	.00	.00	2359.50	670.00	2363.73	2363.73	2364.85	140.64	11.17	102.28	56.50
*	1.314	438.20	.00	.00	2370.00	447.00	2373.03	2373.03	2373.86	177.48	9.86	77.31	33.55
*	1.314	438.20	.00	.00	2370.00	447.00	2373.03	2373.03	2373.86	176.65	9.85	77.44	33.63
	1.364	264.00	.00	.00	2375.60	447.00	2377.59	2377.37	2378.07	162.65	7.48	92.06	35.05
	1.364	264.00	.00	.00	2375.60	447.00	2377.59	2377.37	2378.07	163.45	7.49	91.90	34.96
*	1.420	295.70	.00	.00	2378.50	447.00	2381.96	2381.96	2382.93	127.69	10.49	68.85	39.56
*	1.420	295.70	.00	.00	2378.50	447.00	2381.96	2381.96	2382.93	127.60	10.48	68.86	39.57
	1.515	501.60	.00	.00	2384.00	447.00	2388.58	2388.58	2389.63	104.57	10.52	68.77	43.71
*	1.515	501.60	.00	.00	2384.00	447.00	2388.58	2388.58	2389.63	103.80	10.49	68.99	43.87
*	1.610	501.60	.00	.00	2397.00	447.00	2400.34	2400.34	2401.23	114.95	9.36	74.03	41.69
*	1.610	501.60	.00	.00	2397.00	447.00	2400.34	2400.34	2401.23	114.45	9.34	74.15	41.78
*	1.691	427.70	.00	.00	2407.30	447.00	2409.77	2409.77	2410.70	163.41	9.90	63.60	34.97
*	1.691	427.70	.00	.00	2407.30	447.00	2409.76	2409.76	2410.70	164.55	9.93	63.45	34.85
*	1.735	232.30	.00	.00	2412.50	221.00	2415.47	2415.47	2416.22	127.95	9.30	37.75	19.54
*	1.735	232.30	.00	.00	2412.50	221.00	2415.47	2415.47	2416.22	127.47	9.29	37.81	19.57
*	1.800	343.20	.00	.00	2418.00	221.00	2420.49	2420.49	2421.15	121.98	7.89	40.47	20.01
*	1.800	343.20	.00	.00	2418.00	221.00	2420.49	2420.49	2421.15	121.74	7.88	40.50	20.03
*	1.856	295.60	.00	.00	2424.80	221.00	2427.03	2427.03	2427.64	242.38	8.50	39.60	14.20
*	1.856	295.60	.00	.00	2424.80	221.00	2427.03	2427.03	2427.64	238.94	8.45	39.81	14.30
*	1.894	200.60	.00	.00	2430.00	221.00	2432.50	2432.50	2433.19	213.78	8.18	38.20	15.11
*	1.894	200.60	.00	.00	2430.00	221.00	2432.50	2432.50	2433.19	214.09	8.19	38.18	15.10
	1.945	269.30	.00	.00	2435.40	221.00	2437.49	2437.20	2437.96	149.89	6.61	43.70	18.05
	1.945	269.30	.00	.00	2435.40	221.00	2437.49	2437.20	2437.96	149.76	6.60	43.71	18.06
	2.030	448.80	.00	.00	2446.40	221.00	2448.81	2448.81	2449.52	287.10	9.04	37.71	13.04
	2.030	448.80	.00	.00	2446.40	221.00	2448.81	2448.81	2449.52	284.77	9.02	37.83	13.10

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	2.102	380.10	.00	.00	2455.00	221.00	2457.64	2457.43	2458.23	194.68	7.09	40.21	15.84
	2.102	380.10	.00	.00	2455.00	221.00	2457.63	2457.43	2458.23	195.92	7.10	40.12	15.79
*	2.199	512.10	.00	.00	2471.30	221.00	2472.85	2472.85	2473.39	348.13	7.41	42.05	11.84
*	2.199	512.10	.00	.00	2471.30	221.00	2472.84	2472.84	2473.39	349.71	7.42	41.99	11.82
	2.280	427.70	.00	.00	2482.30	221.00	2484.20	2484.04	2484.56	203.39	6.49	53.04	15.50
	2.280	427.70	.00	.00	2482.30	221.00	2484.20	2484.04	2484.56	202.67	6.49	53.11	15.52
	2.339	311.50	.00	.00	2490.70	221.00	2492.16	2492.14	2492.57	354.00	7.17	48.97	11.75
	2.339	311.50	.00	.00	2490.70	221.00	2492.15	2492.14	2492.56	355.10	7.18	48.91	11.73
*	2.381	221.80	.00	.00	2499.00	221.00	2500.70	2500.70	2501.18	290.12	6.70	45.89	12.97
*	2.381	221.80	.00	.00	2499.00	221.00	2500.69	2500.69	2501.18	296.72	6.75	45.52	12.83

BUTARY WASH R-1

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	2.805	6870.00	2248.57	.00	.00	.00	111.57	.00
*	2.805	6870.00	2248.57	.00	.00	.00	111.57	.00
*	.038	943.00	2253.15	.00	4.58	.00	61.28	200.60
*	.038	943.00	2253.15	.00	4.58	.00	61.28	200.60
*	.128	943.00	2256.44	.00	3.29	.00	53.16	475.20
*	.128	943.00	2256.44	.00	3.29	.00	53.16	475.20
*	.189	943.00	2262.10	.00	5.66	.00	81.50	322.00
*	.189	943.00	2262.10	.00	5.66	.00	81.49	322.00
*	.278	943.00	2268.10	.00	6.00	.00	33.69	469.90
*	.278	943.00	2268.10	.00	6.00	.00	33.69	469.90
*	.349	943.00	2275.55	.00	7.45	.00	21.06	374.90
*	.349	943.00	2275.55	.00	7.45	.00	21.06	374.90
	.381	943.00	2283.22	.00	7.67	.00	33.01	169.00
	.381	943.00	2283.23	.00	7.67	.00	33.02	169.00
*	.473	943.00	2291.53	.00	8.31	.00	38.53	485.70
*	.473	943.00	2291.53	.00	8.30	.00	38.54	485.70
*	.568	943.00	2300.92	.00	9.39	.00	54.59	501.60
*	.568	943.00	2300.92	.00	9.39	.00	54.59	501.60
*	.663	670.00	2308.47	.00	7.55	.00	21.71	501.60
*	.663	670.00	2308.47	.00	7.55	.00	21.70	501.60
*	.758	670.00	2321.85	.00	13.37	.00	51.10	501.60
*	.758	670.00	2321.85	.00	13.38	.00	51.13	501.60
*	.852	670.00	2329.49	.00	7.65	.00	44.61	496.40
*	.852	670.00	2329.49	.00	7.64	.00	44.62	496.40
*	.947	670.00	2338.84	.00	9.35	.00	34.22	501.60
*	.947	670.00	2338.84	.00	9.35	.00	34.22	501.60
*	1.042	670.00	2349.55	.00	10.70	.00	30.86	501.60
*	1.042	670.00	2349.55	.00	10.70	.00	30.86	501.60
	1.136	670.00	2355.43	.00	5.89	.00	45.73	496.20
	1.136	670.00	2355.43	.00	5.88	.00	45.72	496.20
*	1.231	670.00	2363.73	.00	8.30	.00	47.41	501.70
*	1.231	670.00	2363.73	.00	8.30	.00	47.45	501.70

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	1.314	447.00	2373.03	.00	9.30	.00	46.67	438.20
*	1.314	447.00	2373.03	.00	9.30	.00	46.70	438.20
	1.364	447.00	2377.59	.00	4.56	.00	63.51	264.00
	1.364	447.00	2377.59	.00	4.55	.00	63.47	264.00
*	1.420	447.00	2381.96	.00	4.37	.00	34.73	295.70
*	1.420	447.00	2381.96	.00	4.37	.00	34.73	295.70
*	1.515	447.00	2388.58	.00	6.62	.00	35.51	501.60
*	1.515	447.00	2388.58	.01	6.62	.01	35.61	501.60
*	1.610	447.00	2400.34	.00	11.76	.00	42.13	501.60
*	1.610	447.00	2400.34	.00	11.76	.00	42.15	501.60
*	1.691	447.00	2409.77	.00	9.42	.00	33.85	427.70
*	1.691	447.00	2409.76	.00	9.42	.00	33.83	427.70
*	1.735	221.00	2415.47	.00	5.70	.00	25.35	232.30
*	1.735	221.00	2415.47	.00	5.71	.00	25.37	232.30
*	1.800	221.00	2420.49	.00	5.02	.00	31.04	343.20
*	1.800	221.00	2420.49	.00	5.02	.00	31.05	343.20
	1.856	221.00	2427.03	.00	6.54	.00	32.20	295.60
*	1.856	221.00	2427.03	.01	6.55	.01	32.28	295.60
*	1.894	221.00	2432.50	.00	5.48	.00	26.89	200.60
*	1.894	221.00	2432.50	.00	5.47	.00	26.88	200.60
	1.945	221.00	2437.49	.00	4.99	.00	27.44	269.30
	1.945	221.00	2437.49	.00	4.99	.00	27.44	269.30
*	2.030	221.00	2448.81	.00	11.32	.00	25.95	448.80
*	2.030	221.00	2448.81	.00	11.32	.00	25.99	448.80
	2.102	221.00	2457.64	.00	8.83	.00	25.17	380.10
	2.102	221.00	2457.63	-.01	8.82	-.01	25.15	380.10
*	2.199	221.00	2472.85	.00	15.21	.00	38.48	512.10
*	2.199	221.00	2472.84	.00	15.21	.00	38.47	512.10
	2.280	221.00	2484.20	.00	11.36	.00	47.35	427.70
	2.280	221.00	2484.20	.00	11.36	.00	47.37	427.70
	2.339	221.00	2492.16	.00	7.95	.00	57.01	311.50
	2.339	221.00	2492.15	-.01	7.95	-.01	56.99	311.50
	2.381	221.00	2500.70	.00	8.54	.00	46.04	221.80
	2.381	221.00	2500.69	-.01	8.54	-.01	45.92	221.80

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=      2.805  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      2.805  PROFILE=  2  CRITICAL DEPTH ASSUMED

WARNING SECNO=       .038  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=       .038  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=       .128  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .128  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=       .128  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .128  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=       .189  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=       .189  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=       .278  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .278  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=       .278  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .278  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=       .349  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .349  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=       .349  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .349  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=       .381  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .381  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=       .381  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .381  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=       .473  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .473  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=       .473  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .473  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=       .568  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .568  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=       .568  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .568  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=       .663  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .663  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=       .663  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .663  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=       .758  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .758  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=       .758  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .758  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=       .852  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=       .852  PROFILE=  1  MINIMUM SPECIFIC ENERGY
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TION SECNO=      .852  PROFILE=  2  CRITICAL DEPTH ASSUMED
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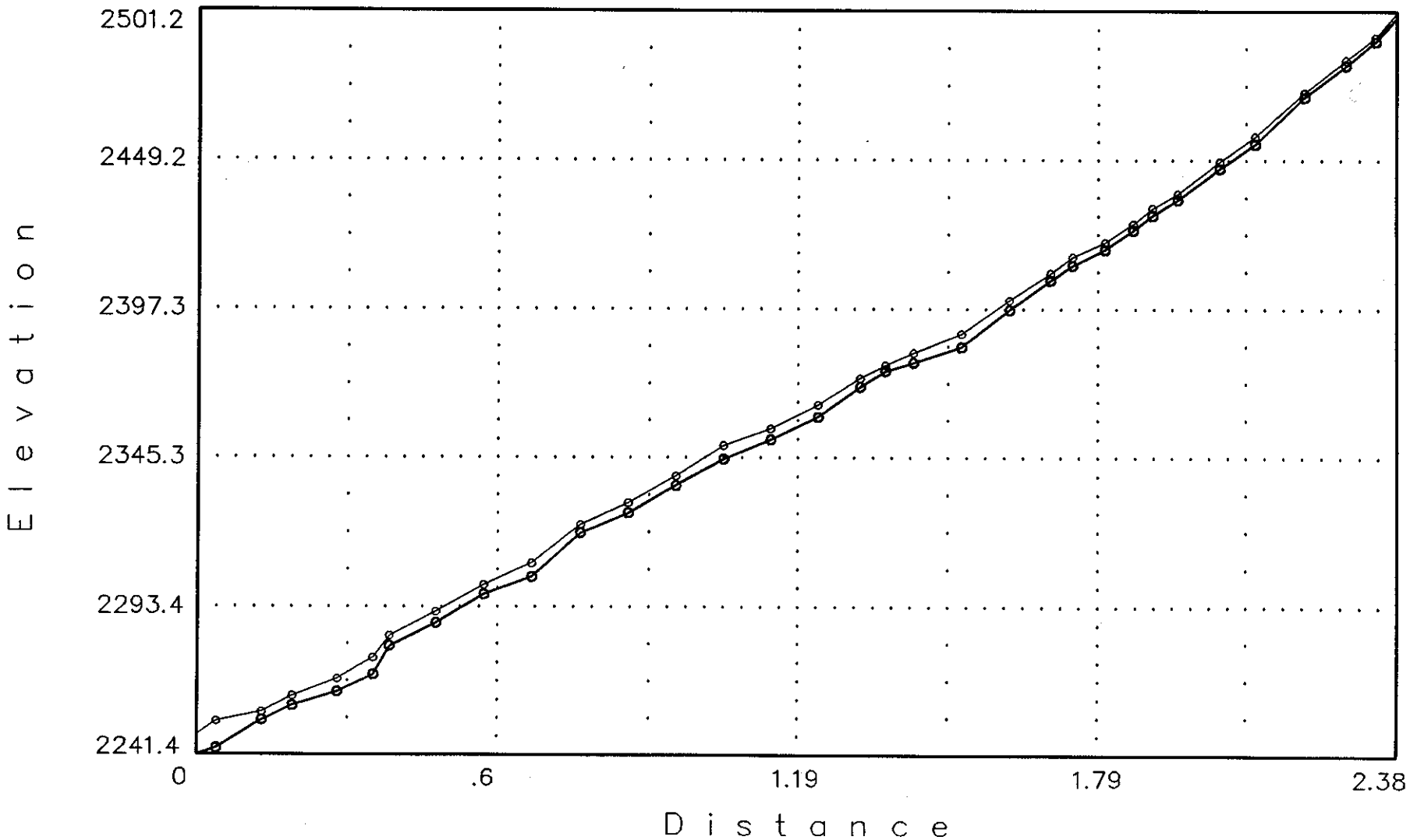
FLOODWAY DATA, TRIBUTARY WASH R-1
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
2.805	112.	644.	10.7	2248.6	2248.6	.0
.038	61.	431.	2.2	2253.2	2253.2	.0
.128	53.	129.	7.3	2256.4	2256.4	.0
.189	81.	209.	4.5	2262.1	2262.1	.0
.278	34.	109.	8.7	2268.1	2268.1	.0
.349	21.	89.	10.6	2275.6	2275.6	.0
.381	33.	100.	9.4	2283.2	2283.2	.0
.473	39.	108.	8.8	2291.5	2291.5	.0
.568	55.	123.	7.7	2300.9	2300.9	.0
.663	22.	72.	9.3	2308.5	2308.5	.0
.758	51.	97.	6.9	2321.8	2321.8	.0
.852	45.	94.	7.1	2329.5	2329.5	.0
.947	34.	82.	8.1	2338.8	2338.8	.0
1.042	31.	83.	8.1	2349.5	2349.5	.0
1.136	46.	118.	5.7	2355.4	2355.4	.0
1.231	47.	102.	6.6	2363.7	2363.7	.0
1.314	47.	77.	5.8	2373.0	2373.0	.0
1.364	63.	92.	4.9	2377.6	2377.6	.0
1.420	35.	69.	6.5	2382.0	2382.0	.0
1.515	36.	69.	6.5	2388.6	2388.6	.0
1.610	42.	74.	6.0	2400.3	2400.3	.0
1.691	34.	63.	7.0	2409.8	2409.8	.0
1.735	25.	38.	5.8	2415.5	2415.5	.0
1.800	31.	41.	5.5	2420.5	2420.5	.0
1.856	32.	40.	5.6	2427.0	2427.0	.0
1.894	27.	38.	5.8	2432.5	2432.5	.0
1.945	27.	44.	5.1	2437.5	2437.5	.0
2.030	26.	38.	5.8	2448.8	2448.8	.0
2.102	25.	40.	5.5	2457.6	2457.6	.0
2.199	38.	42.	5.3	2472.8	2472.8	.0
2.280	47.	53.	4.2	2484.2	2484.2	.0
2.339	57.	49.	4.5	2492.2	2492.2	.0
2.381	46.	46.	4.9	2500.7	2500.7	.0

<<<<<< WS ELEV. & BED ELEV. vs DISTANCE(mi) >>>>>>

Profile No. 1
Profile No. 2

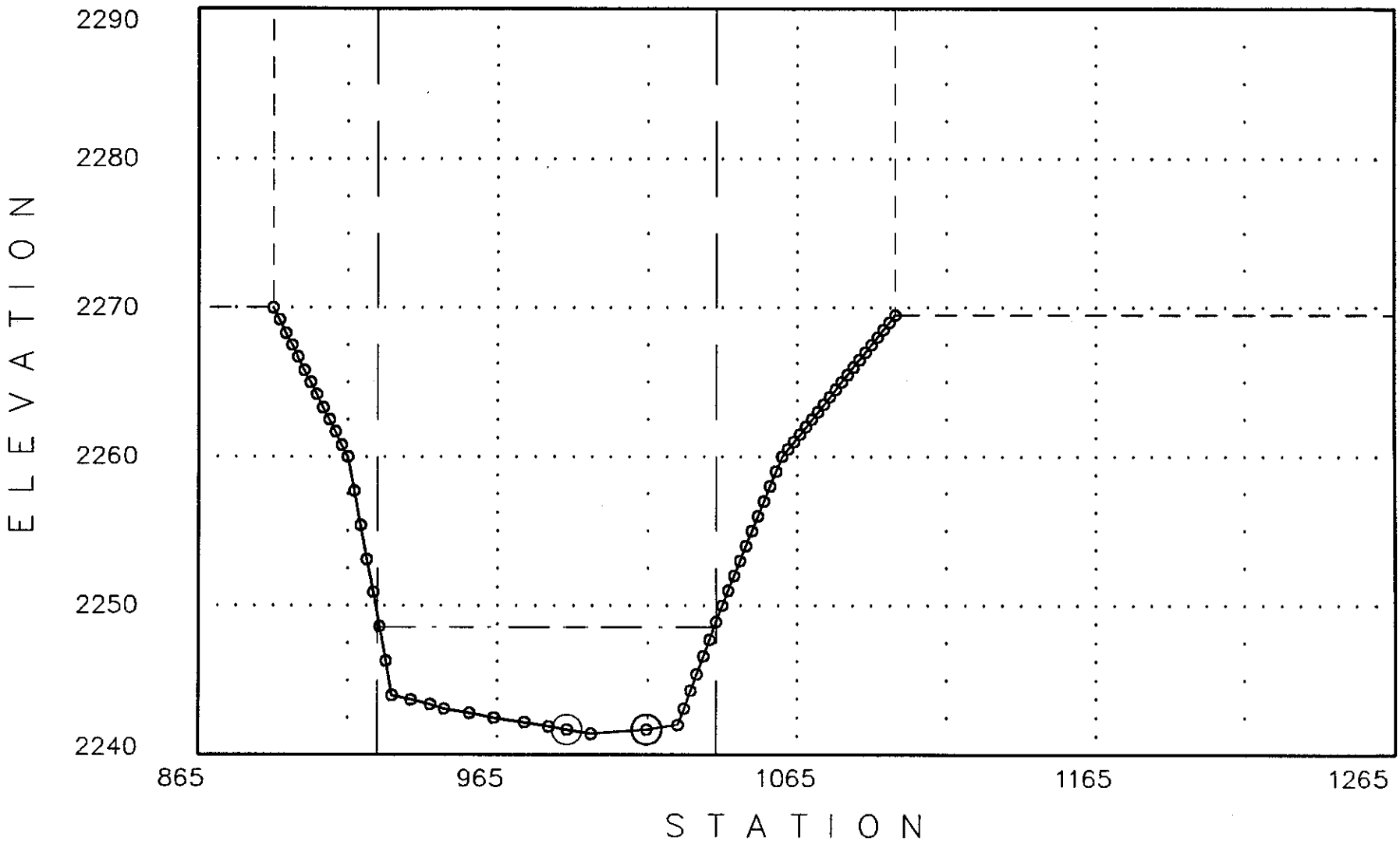
(FN=TRIBR1B.0)



<<<<<< Cross Section: 2.805: (FN = TRIBR1B.0) >>>>>>

Q1= 6870 WS1= 2248.57
Q2= 6870 WS2= 2248.57

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

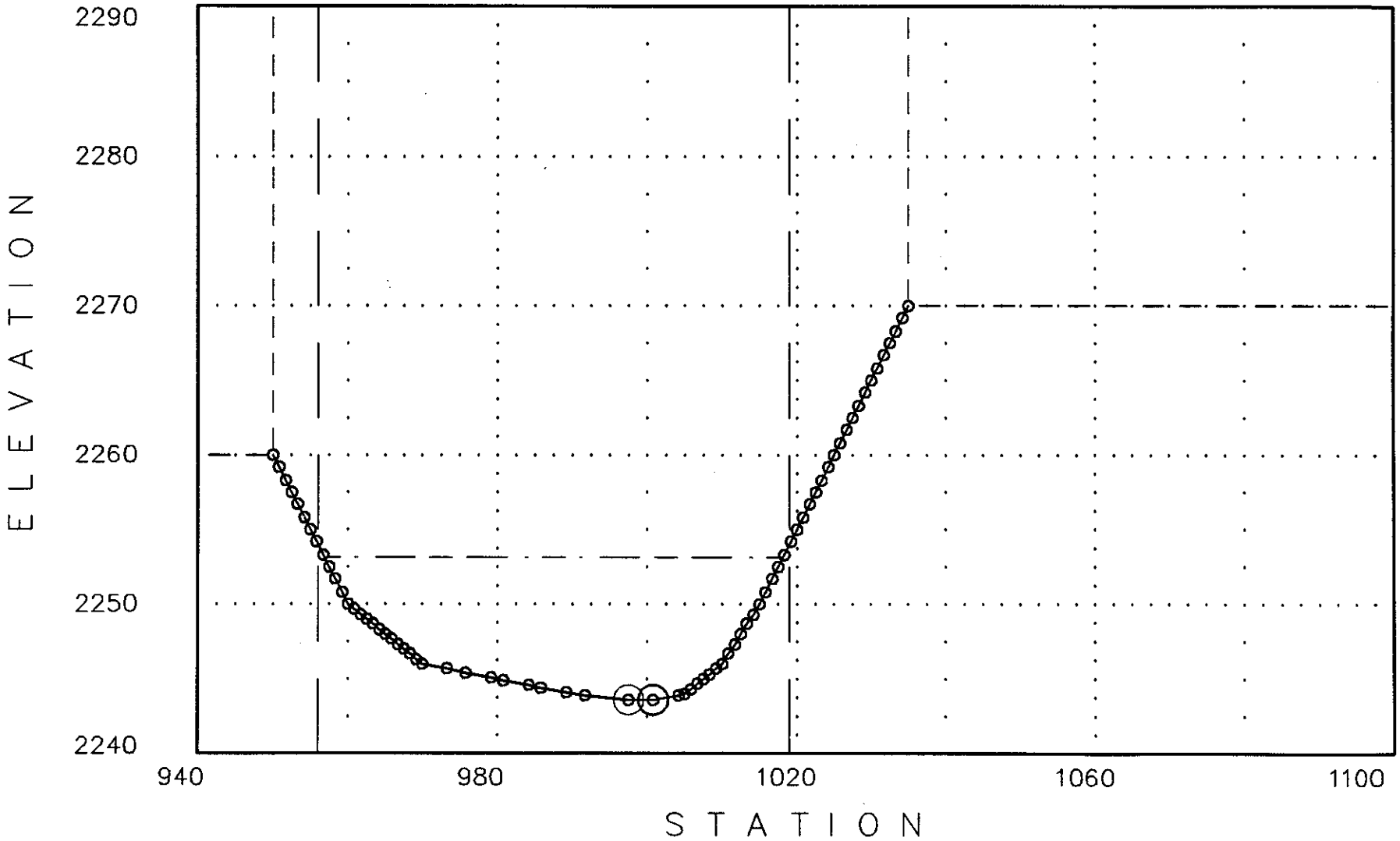


08-21-1992

<<<<<< Cross Section: .038: (FN = TRIBR1B.O) >>>>>>

Q1= 943 WS1= 2253.15
Q2= 943 WS2= 2253.15

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

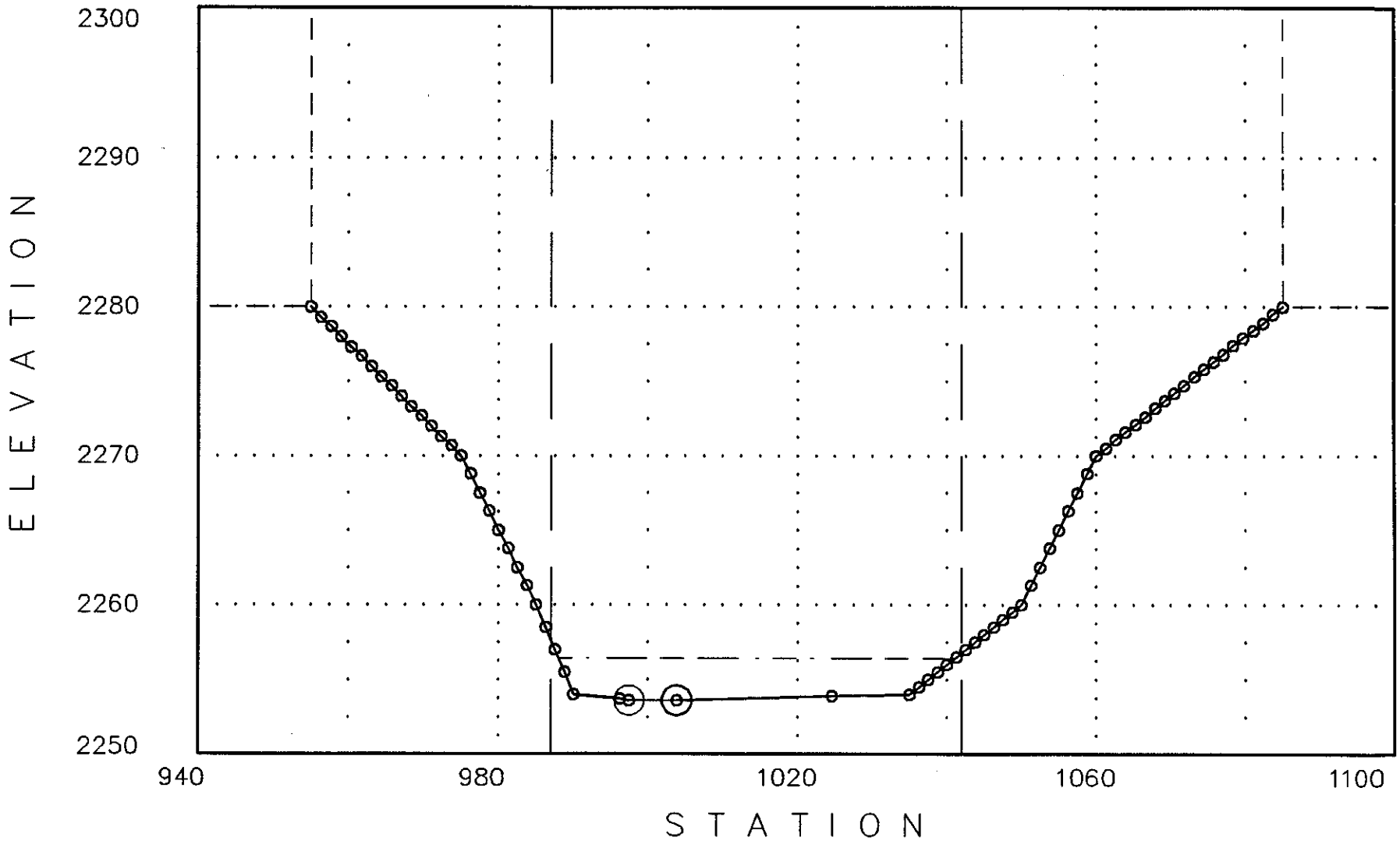


08-21-1992

<<<<<< Cross Section: .128: (FN = TRIBR1B.0) >>>>>>

Q1= 943 WS1= 2256.44
Q2= 943 WS2= 2256.44

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

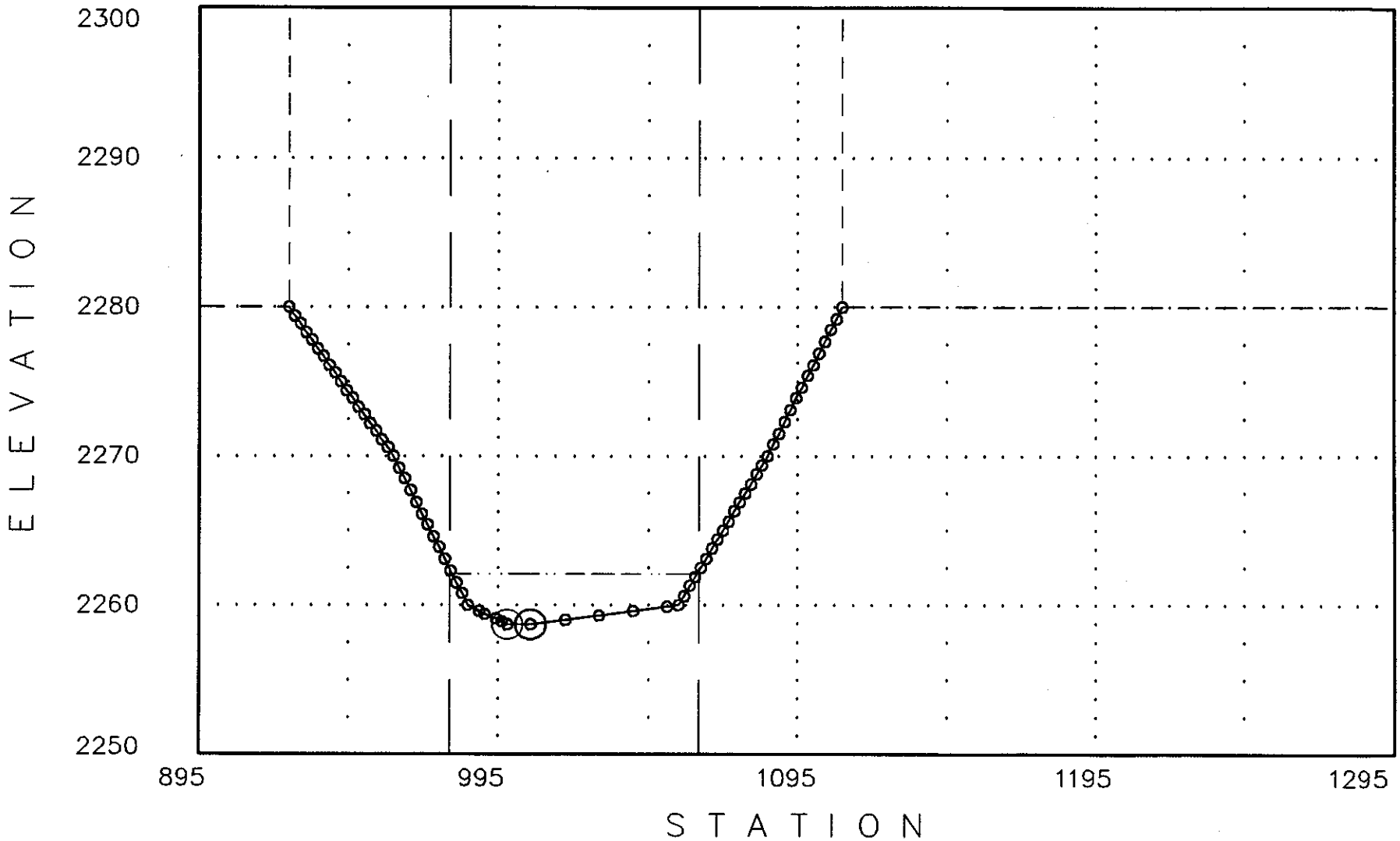


08-21-1992

<<<<<< Cross Section: .189: (FN = TRIBR1B.0) >>>>>>

Q1= 943 WS1= 2262.1
Q2= 943 WS2= 2262.1

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

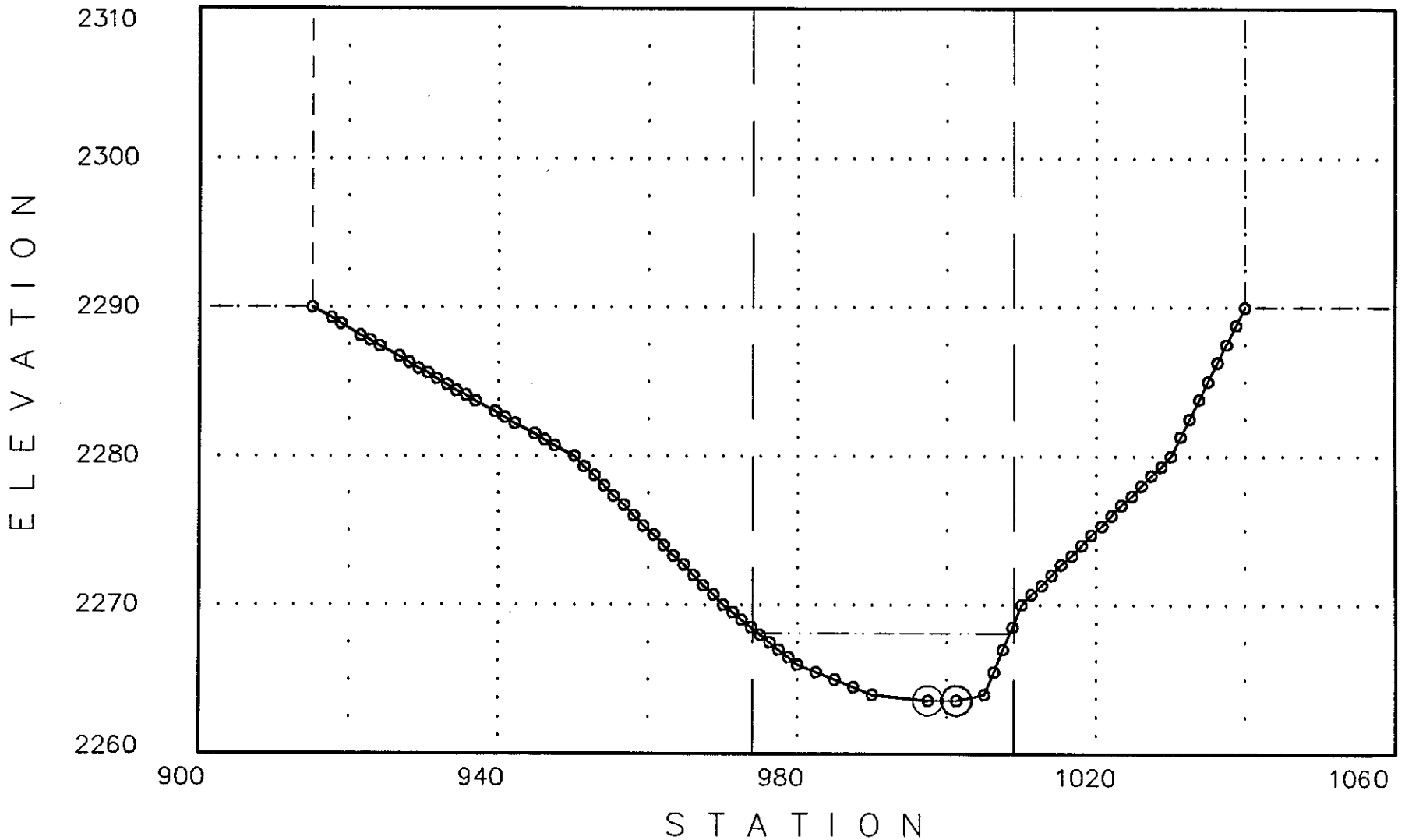


08-21-1992

<<<<<< Cross Section: .278: (FN = TRIBR1B.O) >>>>>>

Q1= 943 WS1= 2268.1
Q2= 943 WS2= 2268.1

Manning-n's: n-lob = .06 n-ch = .035 n-rob = .06



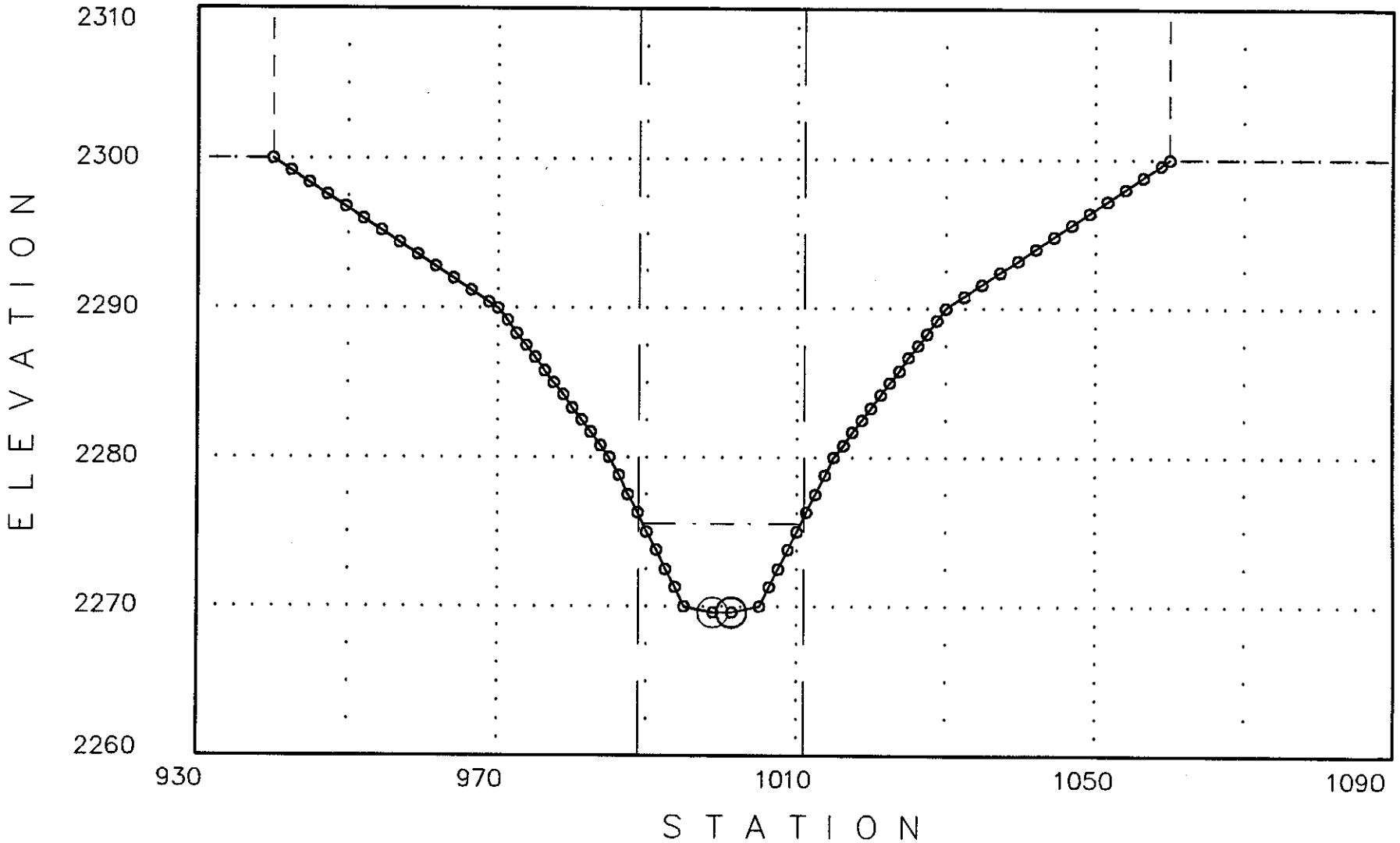
08-21-1992

<<<<<< Cross Section: .349: (FN = TRIBR1B.O) >>>>>>

Q1= 943 WS1= 2275.55

Q2= 943 WS2= 2275.55

Manning-n's: n-lob = .05 n-ch = .035 n-rob = .05

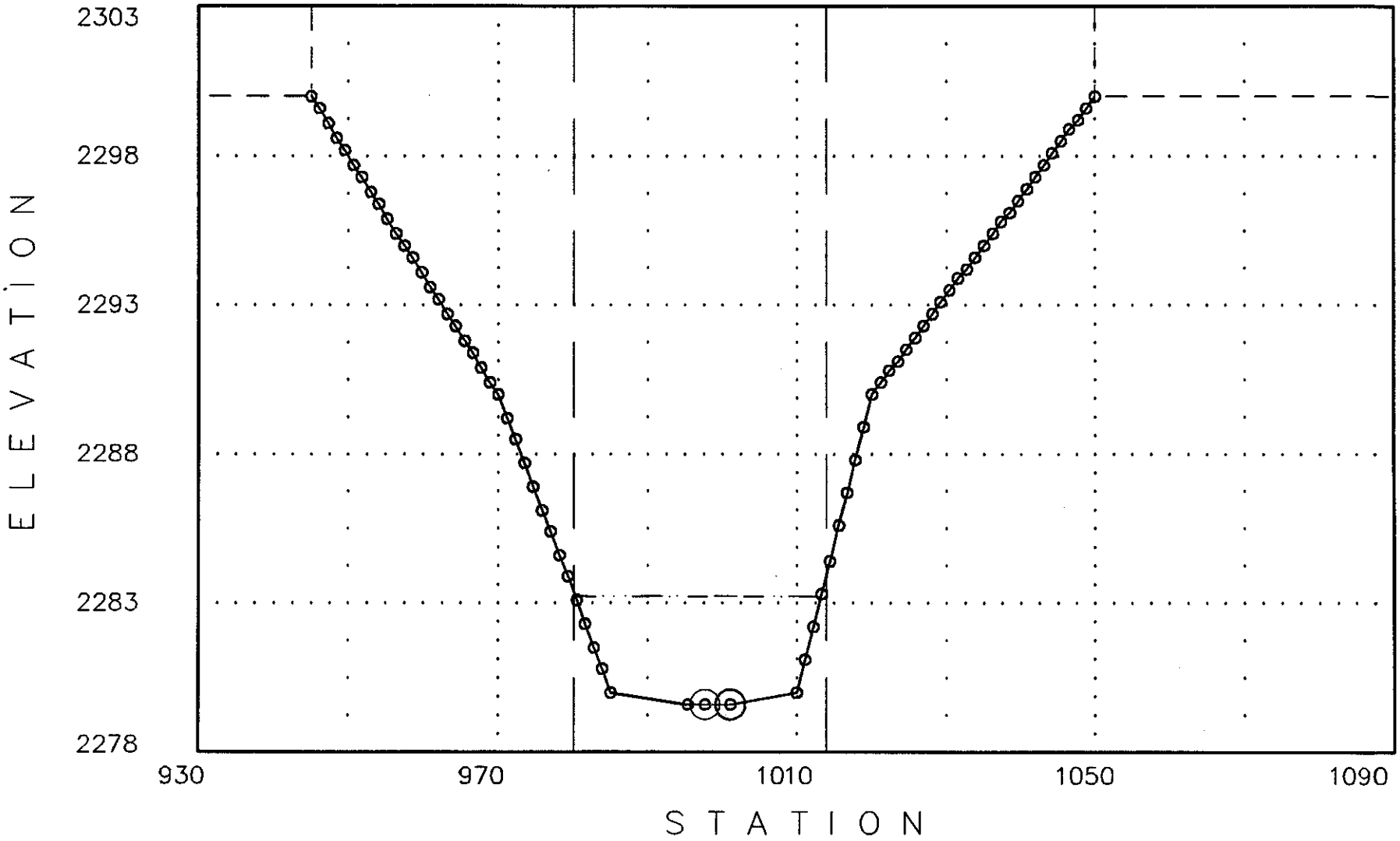


08-21-1992

<<<<<< Cross Section: .381: (FN = TRIBR1B.O) >>>>>>

Q1= 943 WS1= 2283.22
Q2= 943 WS2= 2283.23

Manning-n's: n-lob = .05 n-ch = .035 n-rob = .05

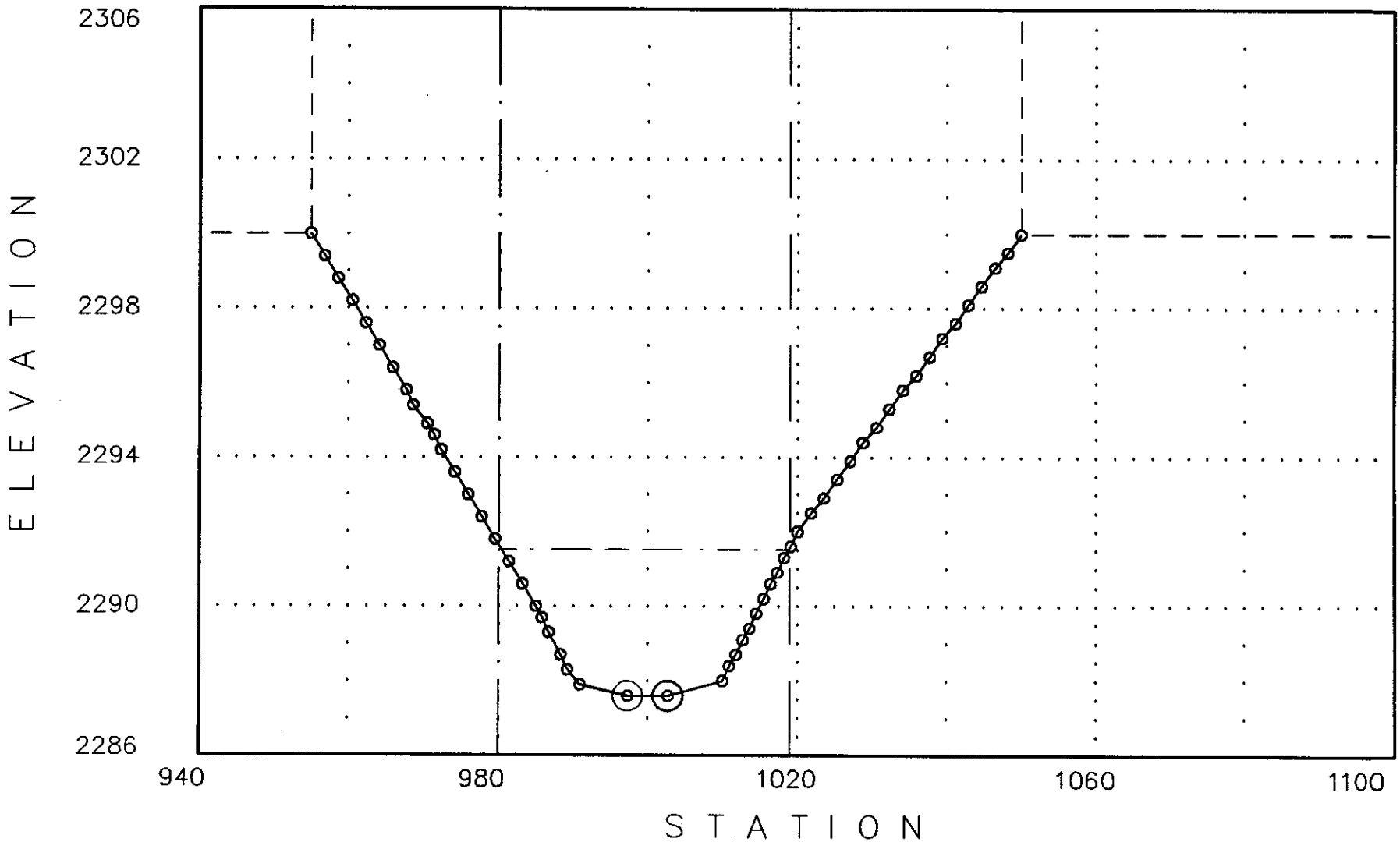


08-21-1992

<<<<<< Cross Section: .473: (FN = TRIBR1B.0) >>>>>>

Q1= 943 WS1= 2291.53
Q2= 943 WS2= 2291.53

Manning-n's: n-lob = .05 n-ch = .035 n-rob = .05

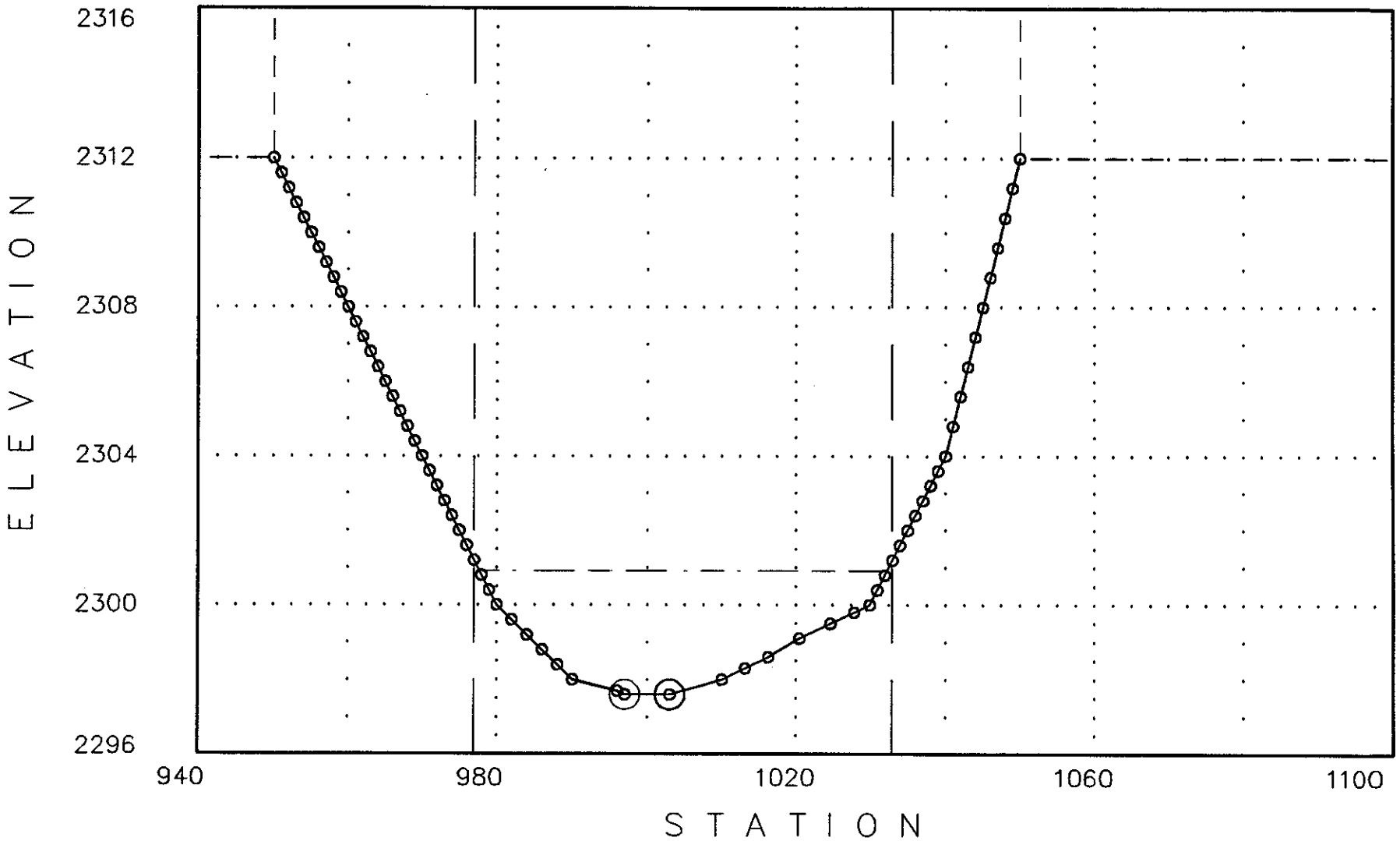


08-21-1992

<<<<<< Cross Section: .568: (FN = TRIBR1B.0) >>>>>>

Q1= 943 WS1= 2300.92
Q2= 943 WS2= 2300.92

Manning-n's: n-lob = .05 n-ch = .035 n-rob = .05

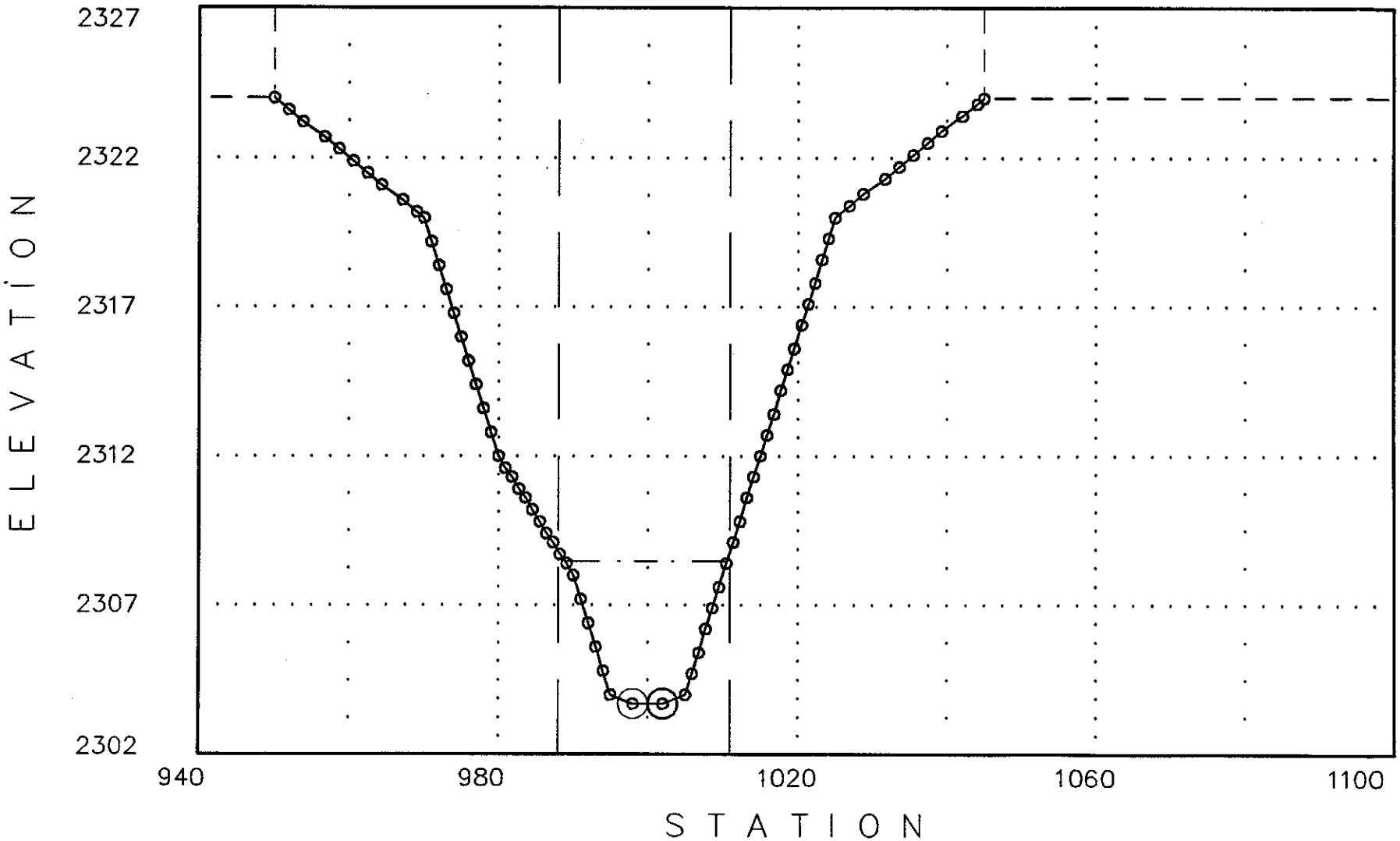


08-21-1992

<<<<<< Cross Section: .663: (FN = TRIBR1B.0) >>>>>>

Q1= 670 WS1= 2308.47
Q2= 670 WS2= 2308.47

Manning-n's: n-lob = .05 n-ch = .035 n-rob = .05

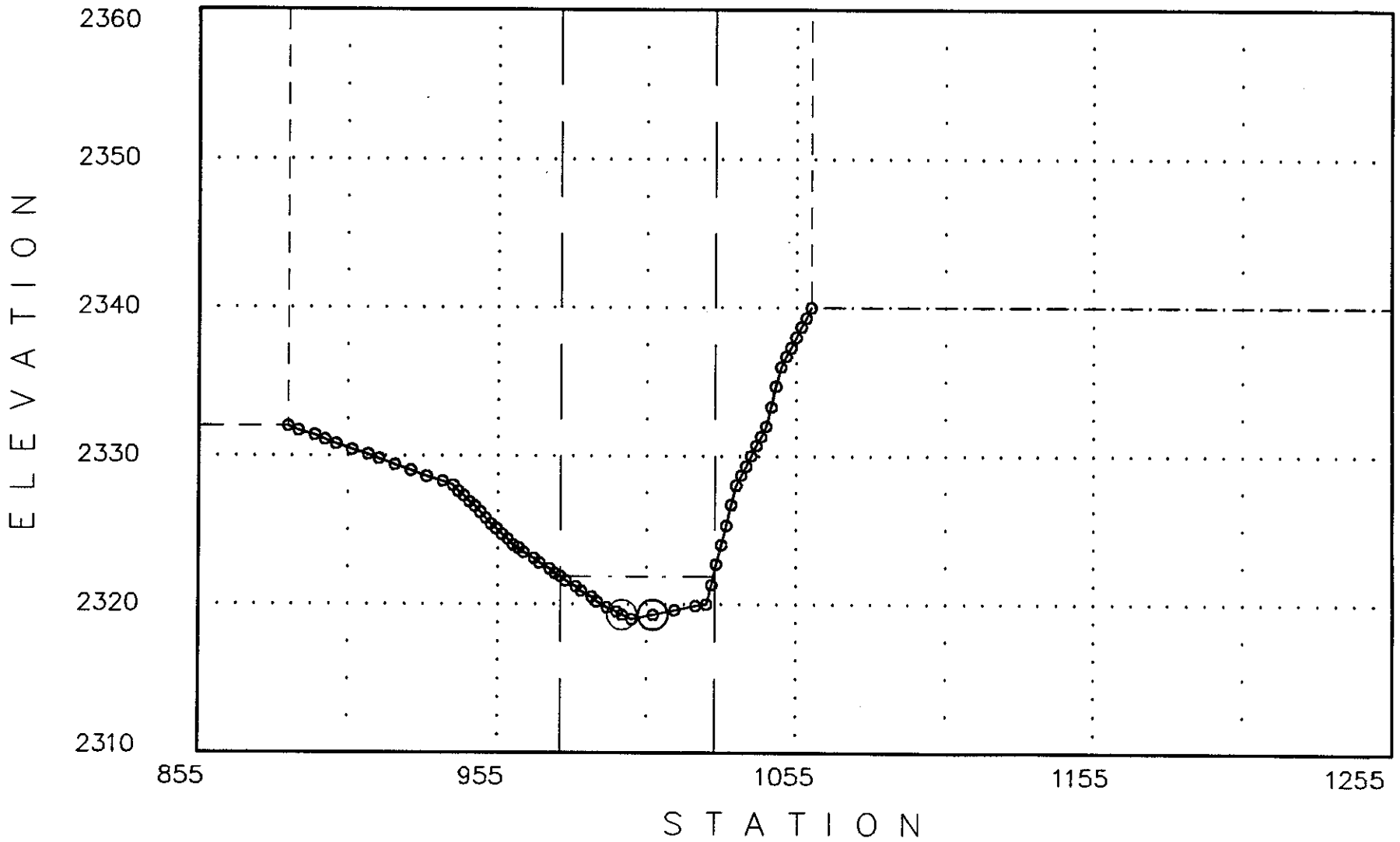


08-21-1992

<<<<<< Cross Section: .758: (FN = TRIBR1B.O) >>>>>>

Q1= 670 WS1= 2321.85
Q2= 670 WS2= 2321.85

Manning-n's: n-lob = .05 n-ch = .035 n-rob = .05

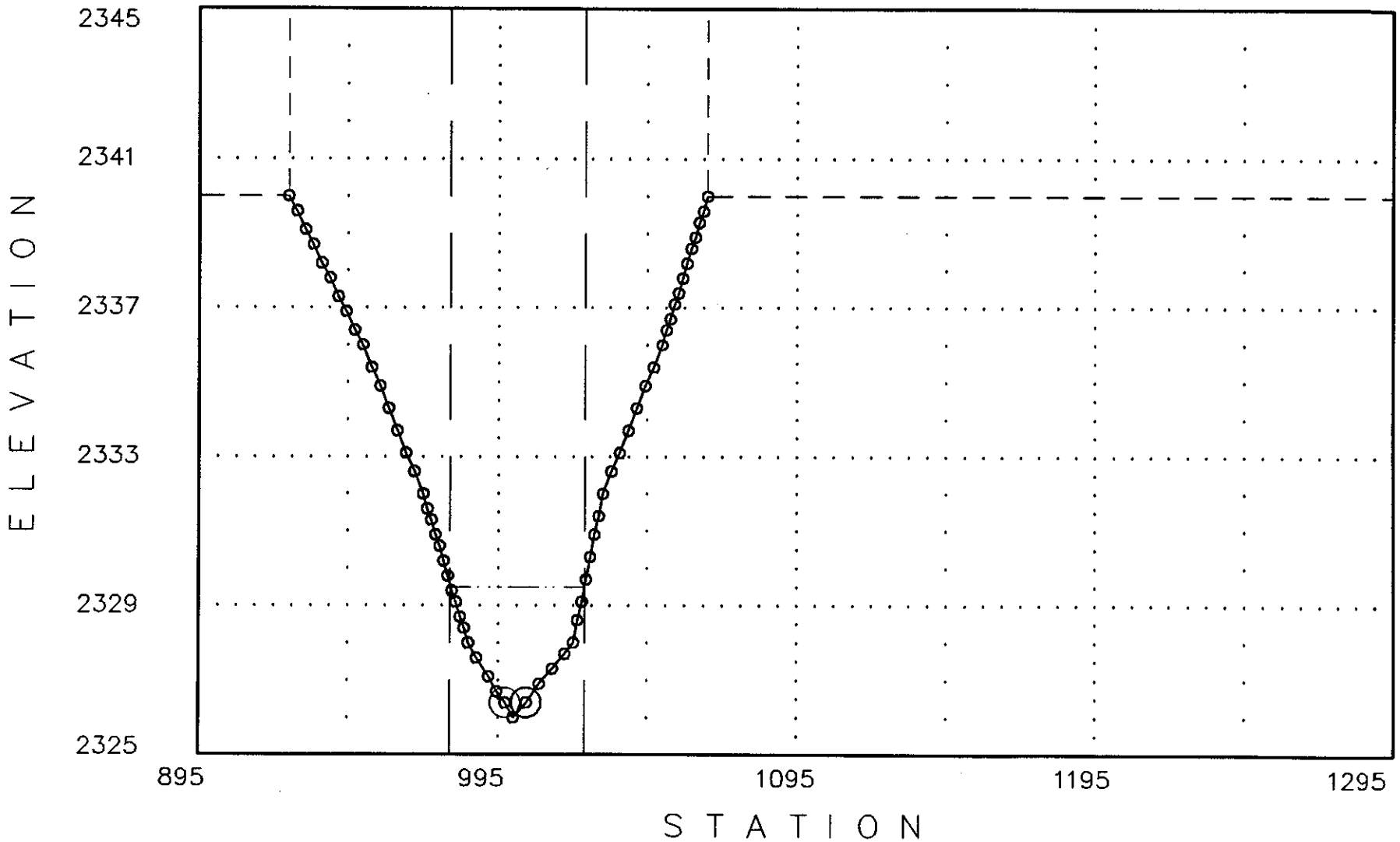


08-21-1992

<<<<<< Cross Section: .852: (FN = TRIBR1B.0) >>>>>>

Q1= 670 WS1= 2329.49
Q2= 670 WS2= 2329.49

Manning-n's: n-lob = .05 n-ch = .035 n-rob = .05

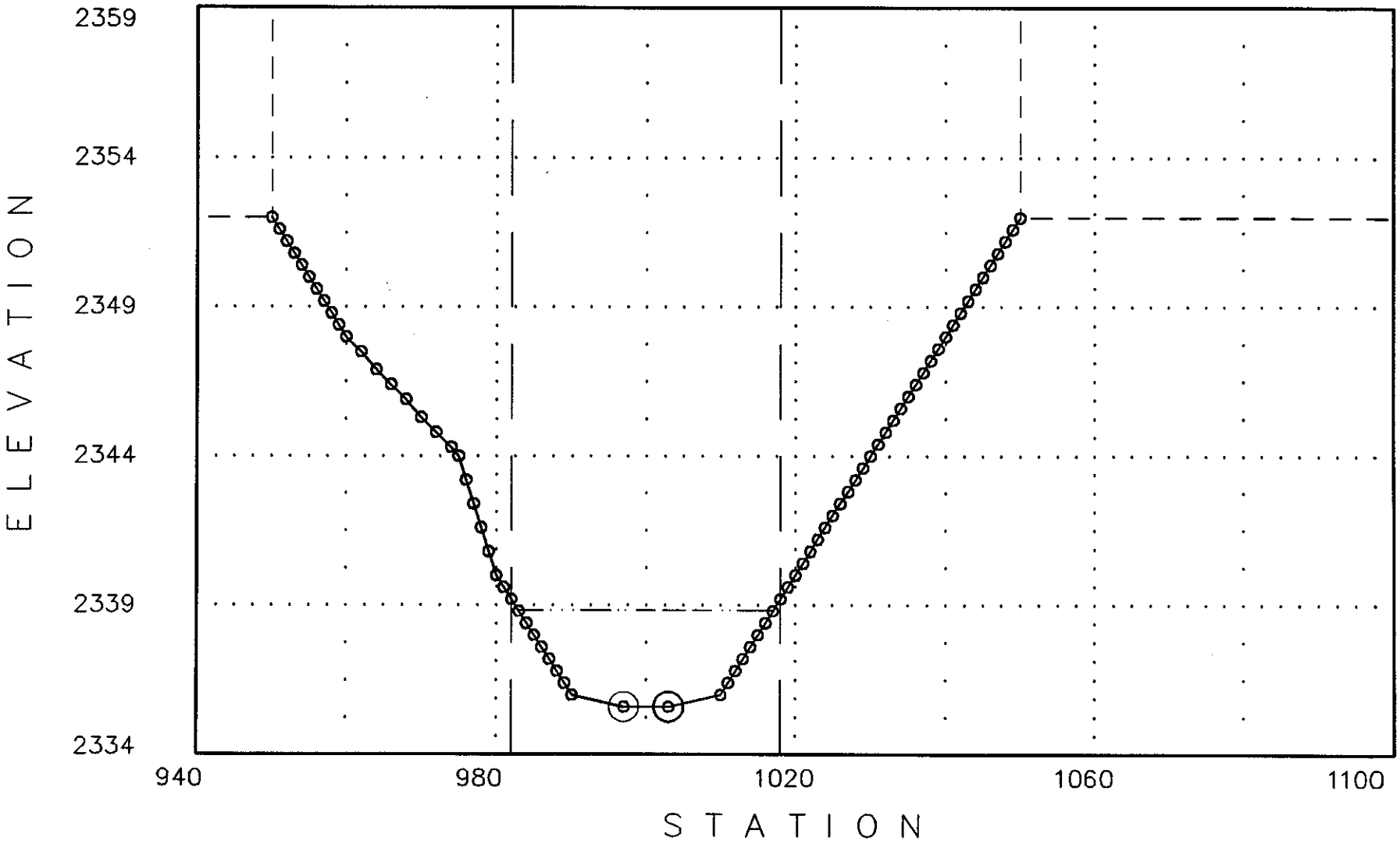


08-21-1992

<<<<<< Cross Section: .947: (FN = TRIBR1B.0) >>>>>>

Q1= 670 WS1= 2338.84
Q2= 670 WS2= 2338.84

Manning-n's: n-lob = .05 n-ch = .035 n-rob = .05

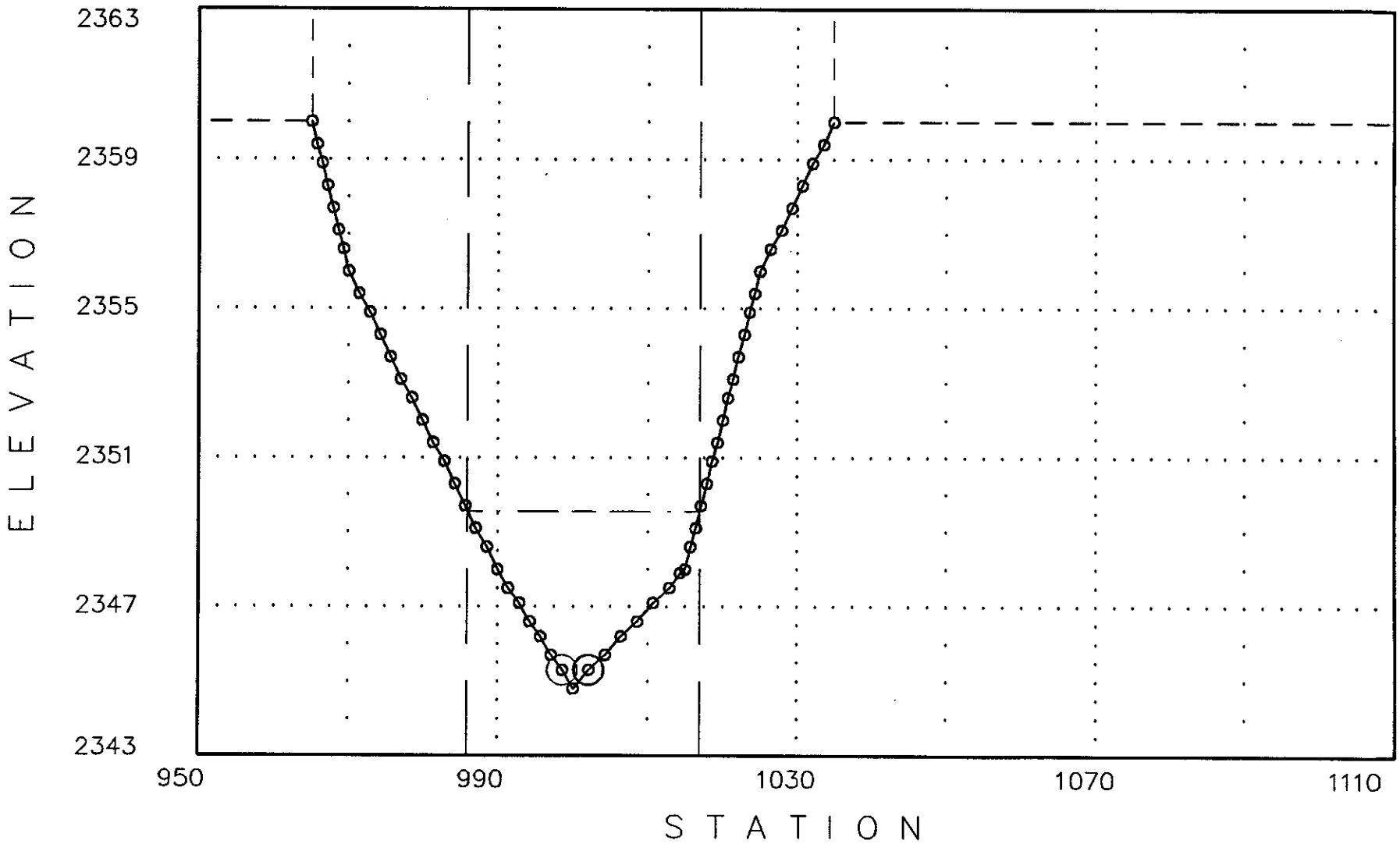


08-21-1992

<<<<<< Cross Section: 1.042: (FN = TRIBR1B.O) >>>>>>

Q1= 670 WS1= 2349.55
Q2= 670 WS2= 2349.55

Manning-n's: n-lob = .05 n-ch = .035 n-rob = .05

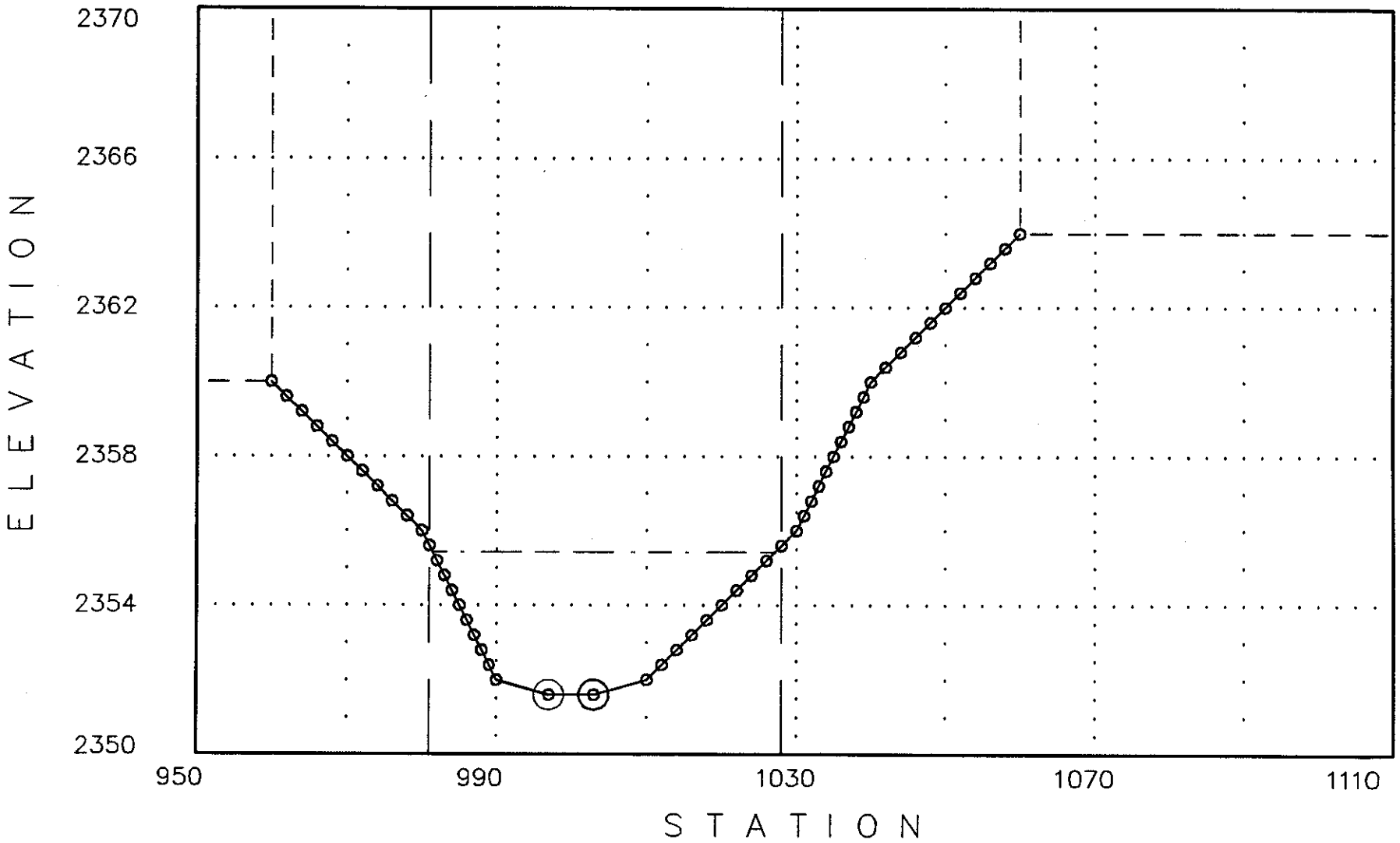


08-21-1992

<<<<<< Cross Section: 1.136: (FN = TRIBR1B.O) >>>>>>

Q1= 670 WS1= 2355.43
Q2= 670 WS2= 2355.43

Manning-n's: n-lob = .05 n-ch = .035 n-rob = .065

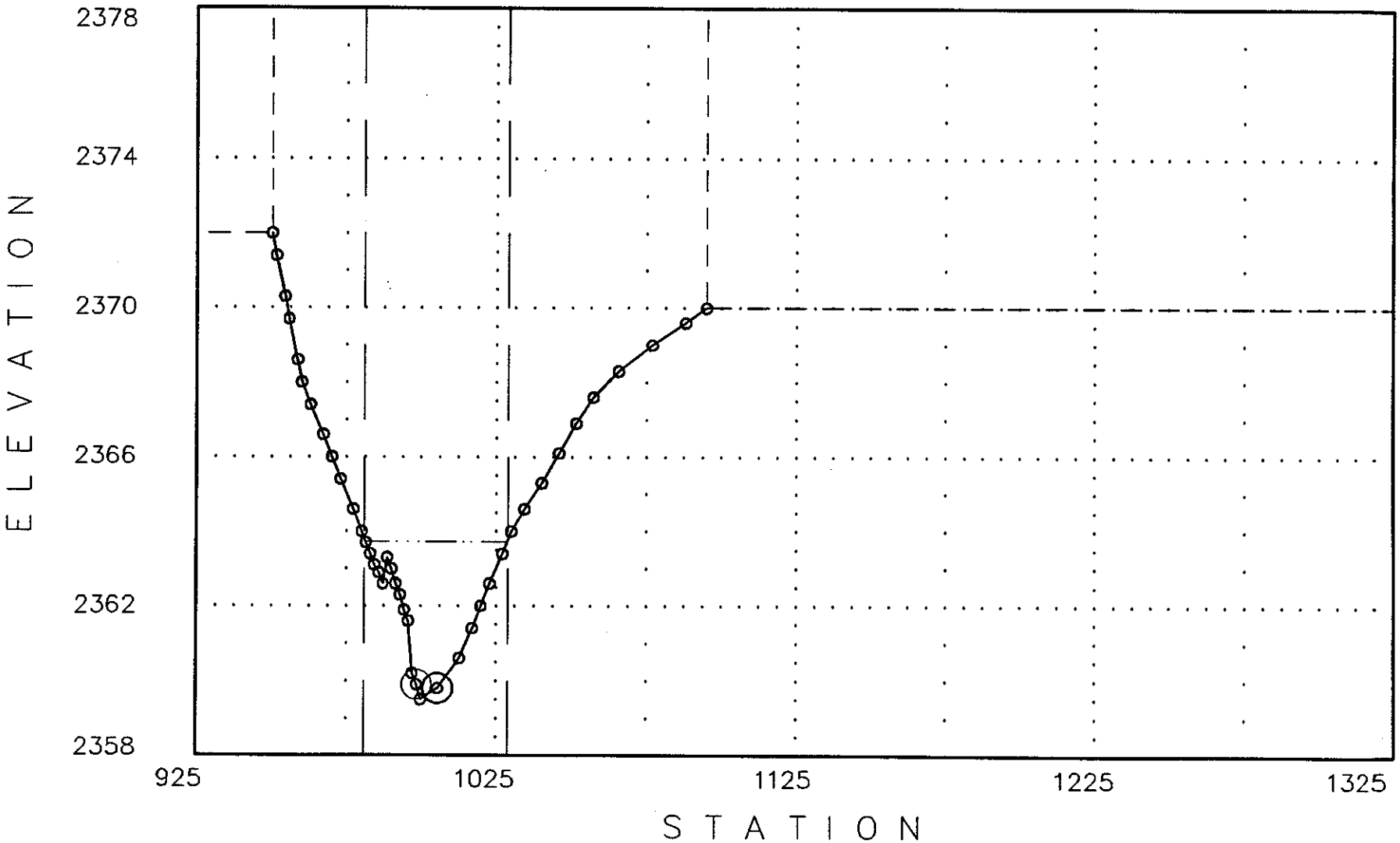


08-21-1992

<<<<<< Cross Section: 1.231: (FN = TRIBR1B.O) >>>>>>

Q1= 670 WS1= 2363.73
Q2= 670 WS2= 2363.73

Manning-n's: n-lob = .06 n-ch = .04 n-rob = .07

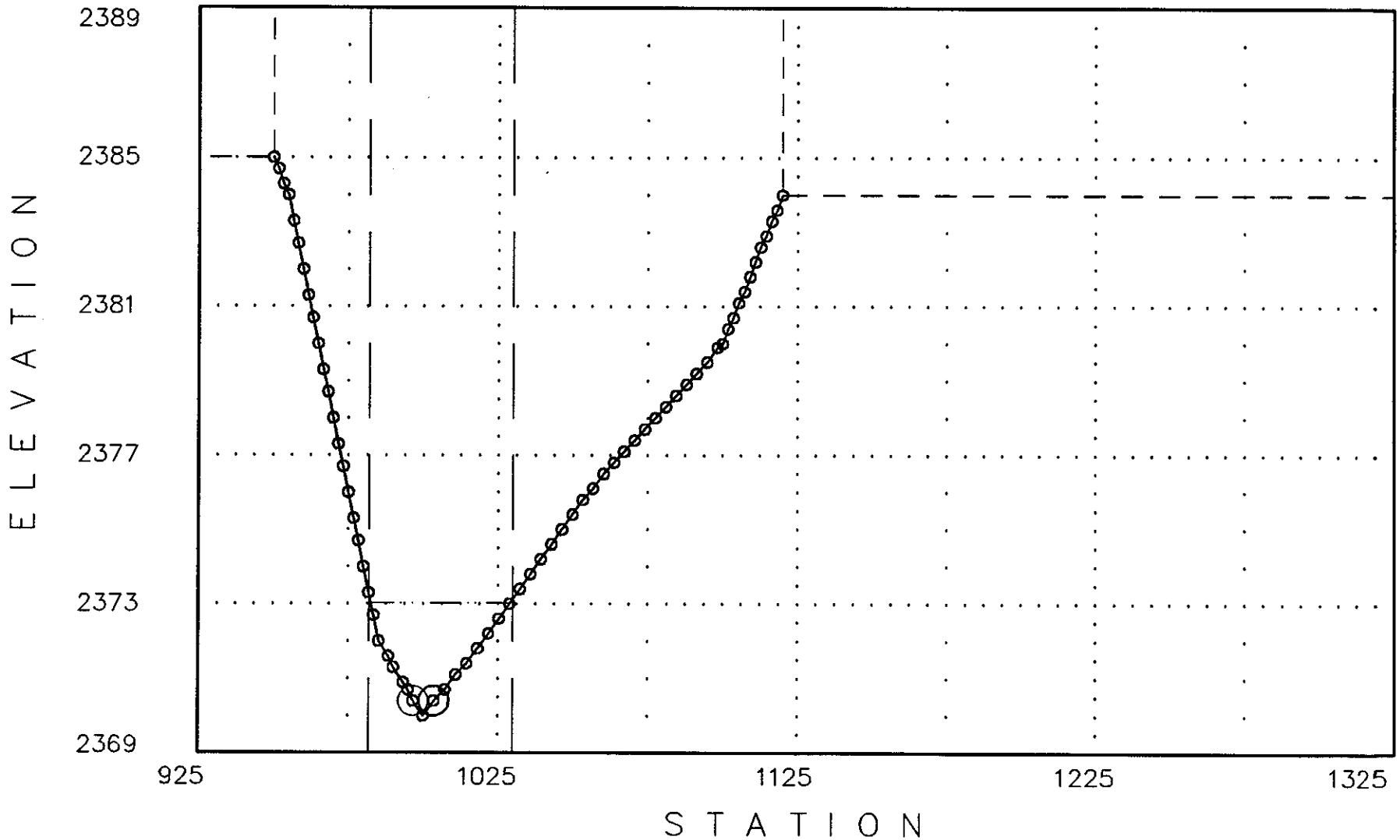


08-21-1992

<<<<<< Cross Section: 1.314: (FN = TRIBR1B.O) >>>>>>

Q1= 447 WS1= 2373.03
Q2= 447 WS2= 2373.03

Manning-n's: n-lob = .06 n-ch = .04 n-rob = .07

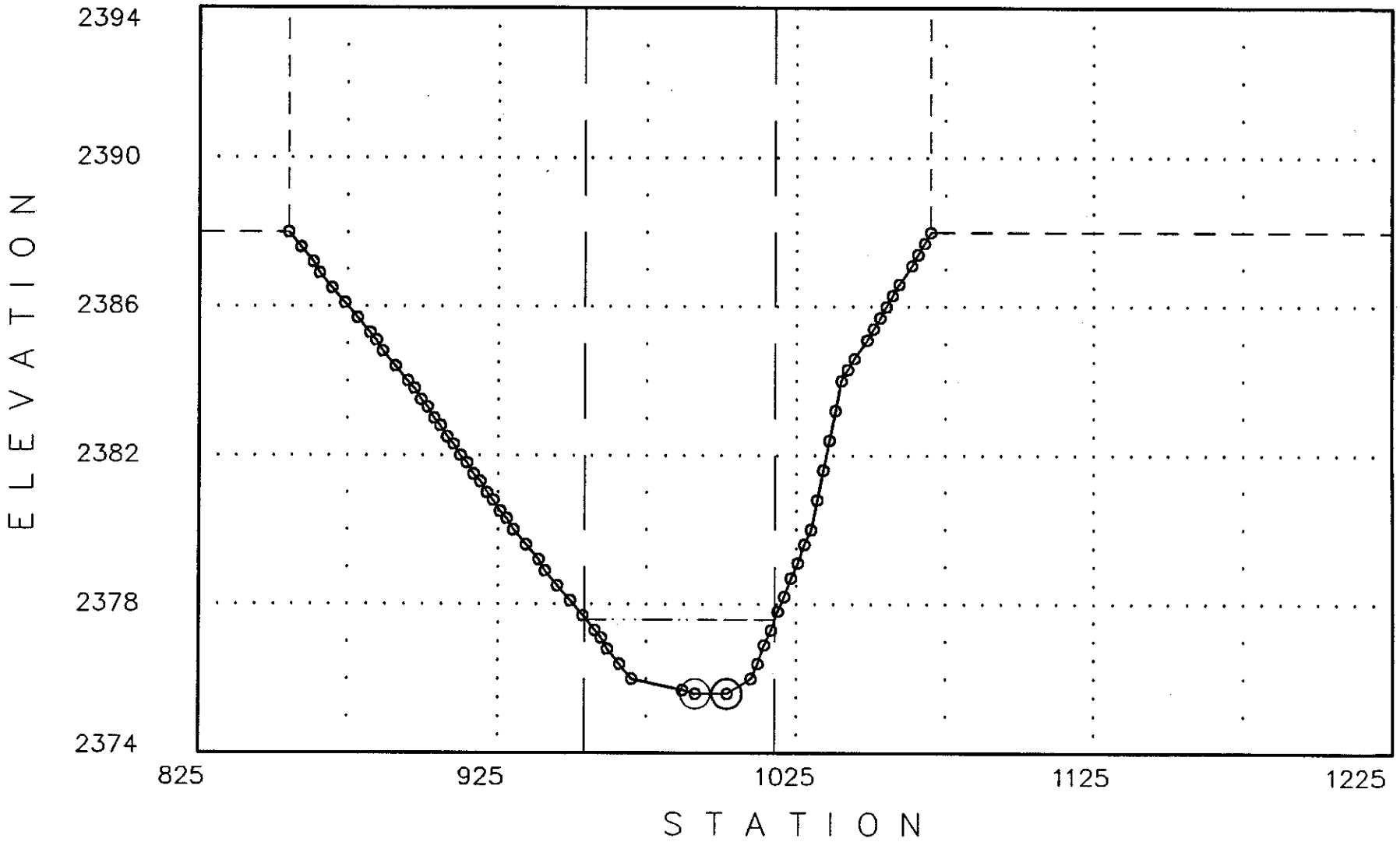


08-21-1992

<<<<<< Cross Section: 1.364: (FN = TRIBR1B.0) >>>>>>

Q1= 447 WS1= 2377.59
Q2= 447 WS2= 2377.59

Manning-n's: n-lob = .06 n-ch = .04 n-rob = .07

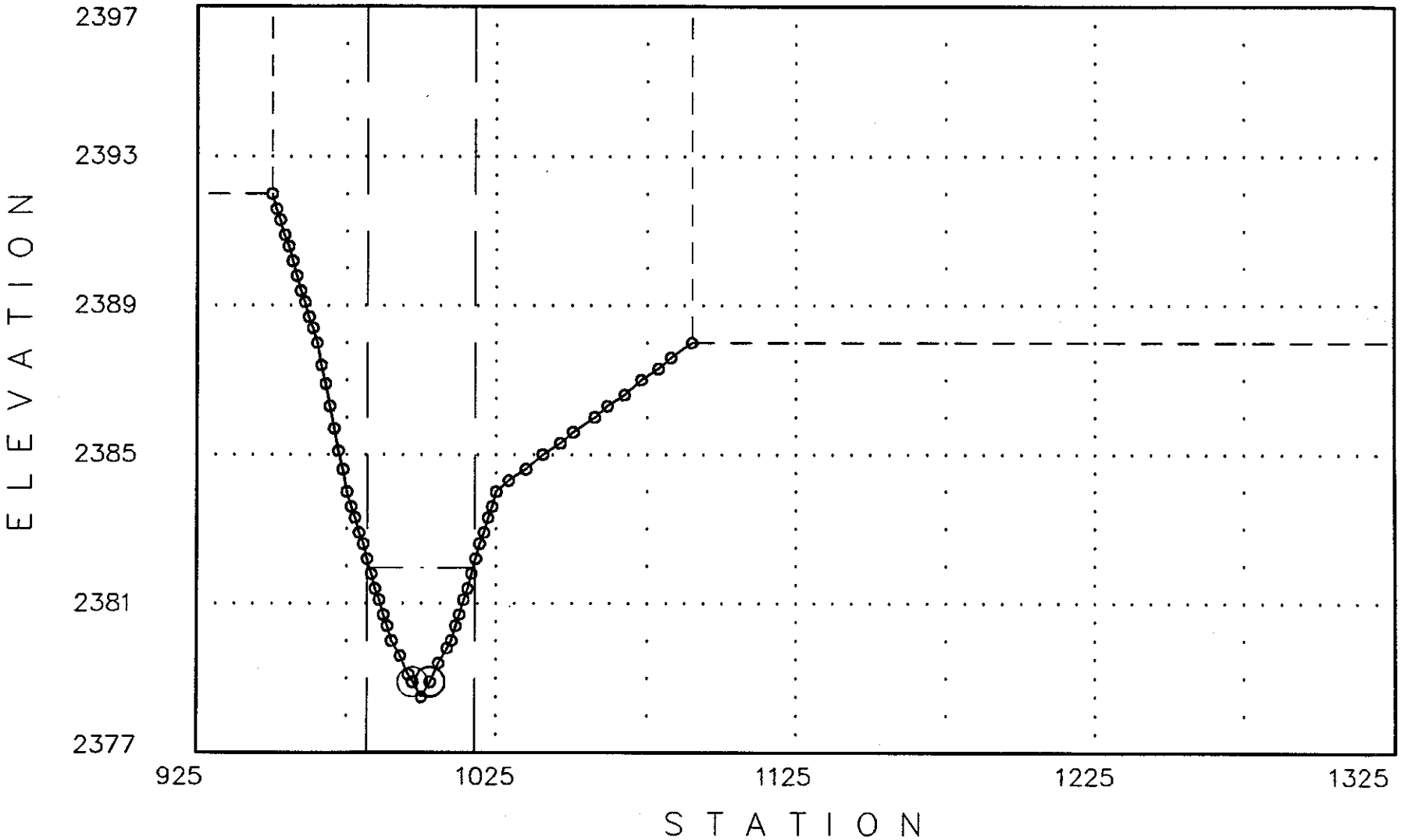


08-21-1992

<<<<<< Cross Section: 1.42: (FN = TRIBR1B.O) >>>>>>

Q1= 447 WS1= 2381.96
Q2= 447 WS2= 2381.96

Manning-n's: n-lob = .055 n-ch = .035 n-rob = .055

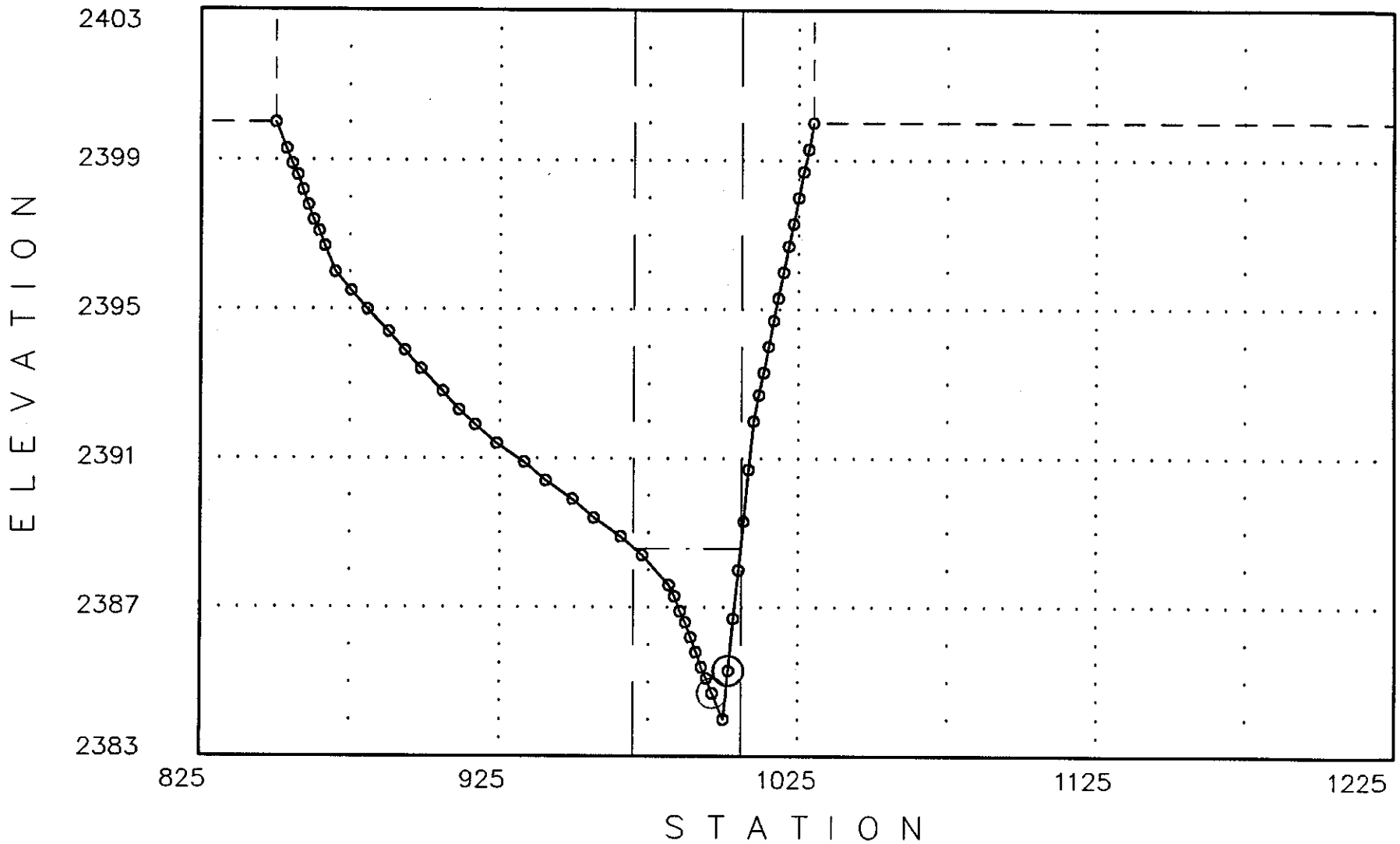


08-21-1992

<<<<<< Cross Section: 1.515: (FN = TRIBR1B.0) >>>>>>

Q1= 447 WS1= 2388.58
Q2= 447 WS2= 2388.58

Manning-n's: n-lob = .055 n-ch = .035 n-rob = .055

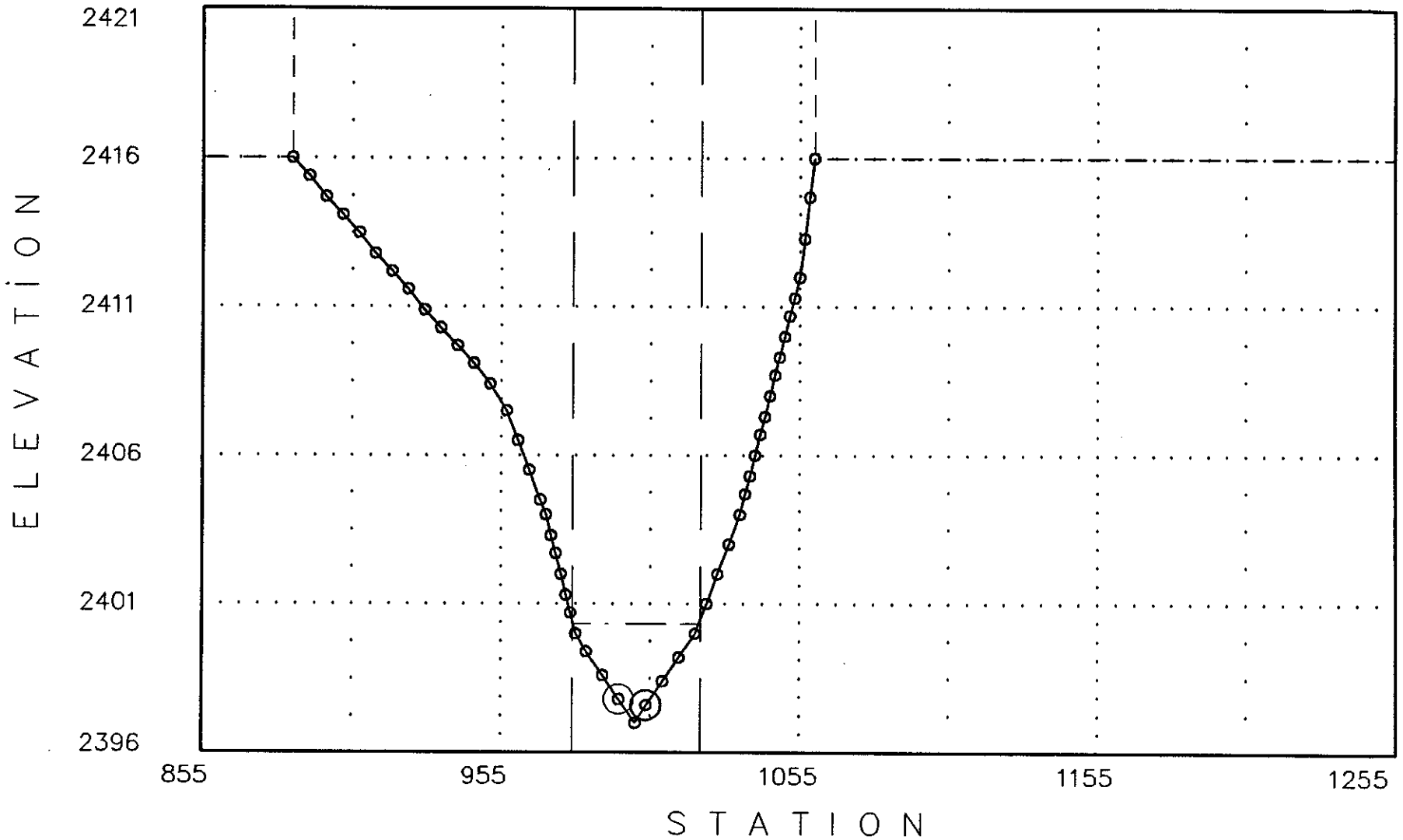


08-21-1992

<<<<<< Cross Section: 1.61: (FN = TRIBR1B.O) >>>>>>

Q1= 447 WS1= 2400.34
Q2= 447 WS2= 2400.34

Manning-n's: n-lob = .055 n-ch = .035 n-rob = .055

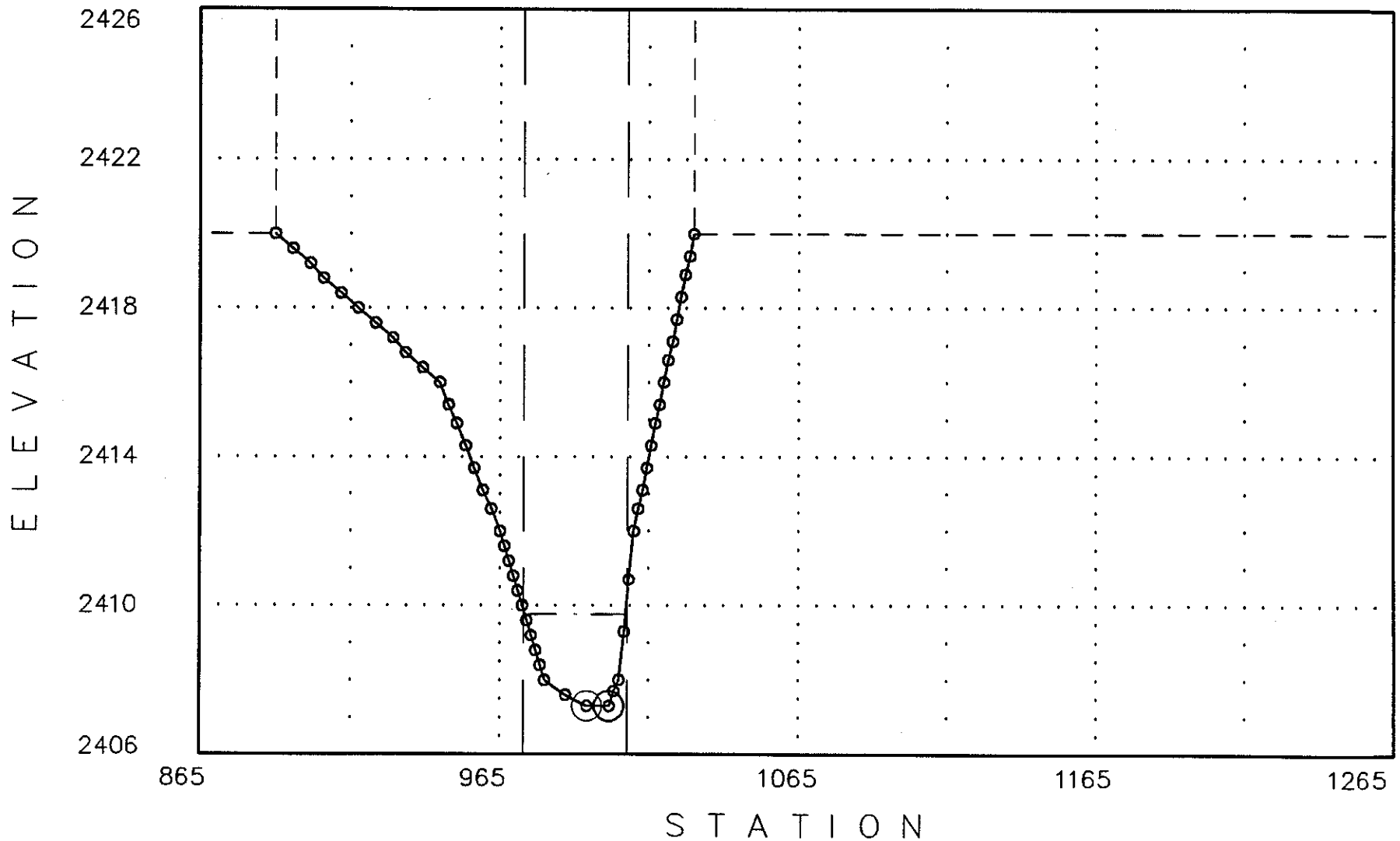


08-21-1992

<<<<<< Cross Section: 1.691: (FN = TRIBR1B.O) >>>>>>

Q1= 447 WS1= 2409.77
Q2= 447 WS2= 2409.76

Manning-n's: n-lob = .05 n-ch = .035 n-rob = .05

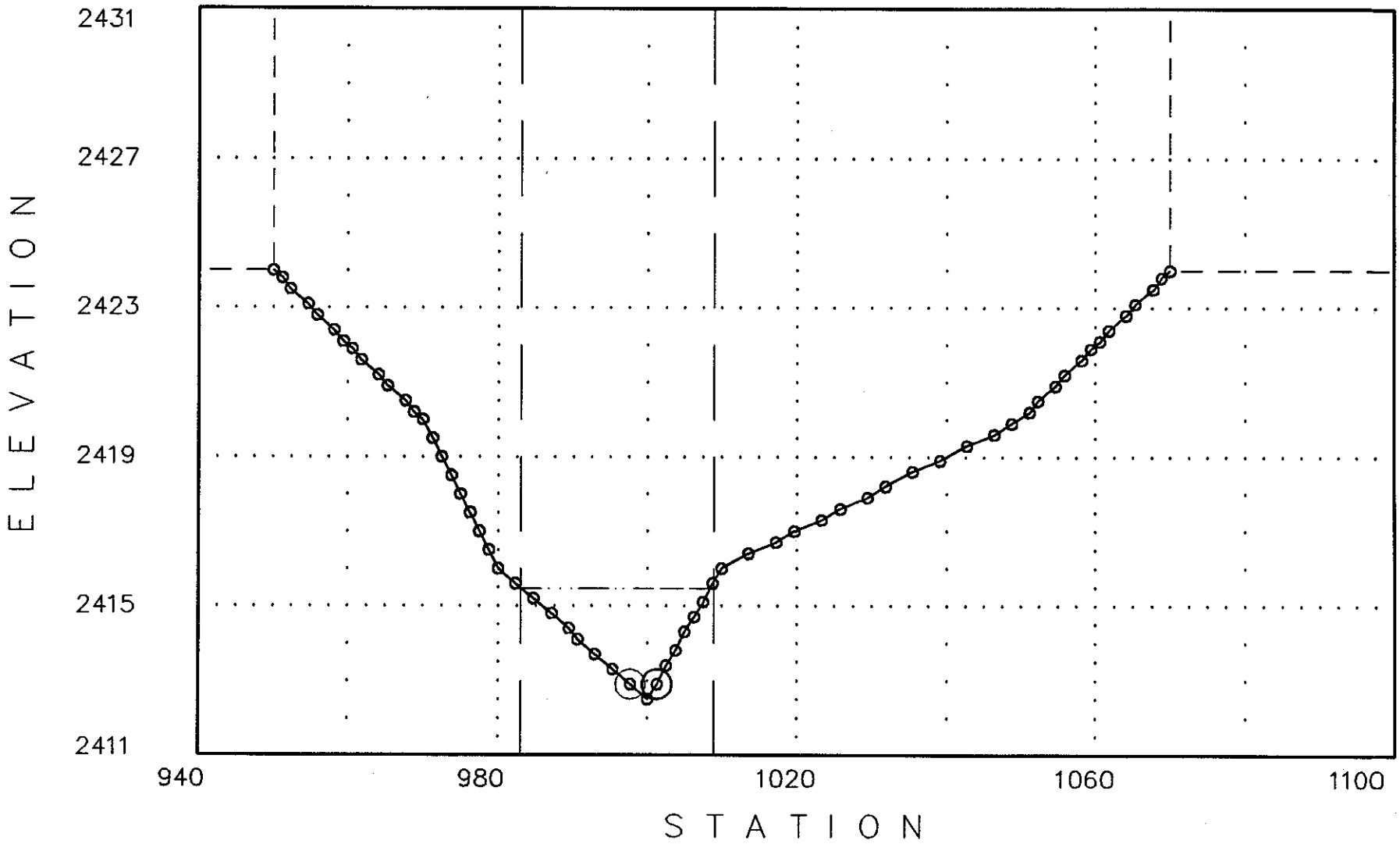


08-21-1992

<<<<<< Cross Section: 1.735: (FN = TRIBR1B.0) >>>>>>

Q1= 221 WS1= 2415.47
Q2= 221 WS2= 2415.47

Manning-n's: n-lob = .05 n-ch = .035 n-rob = .05

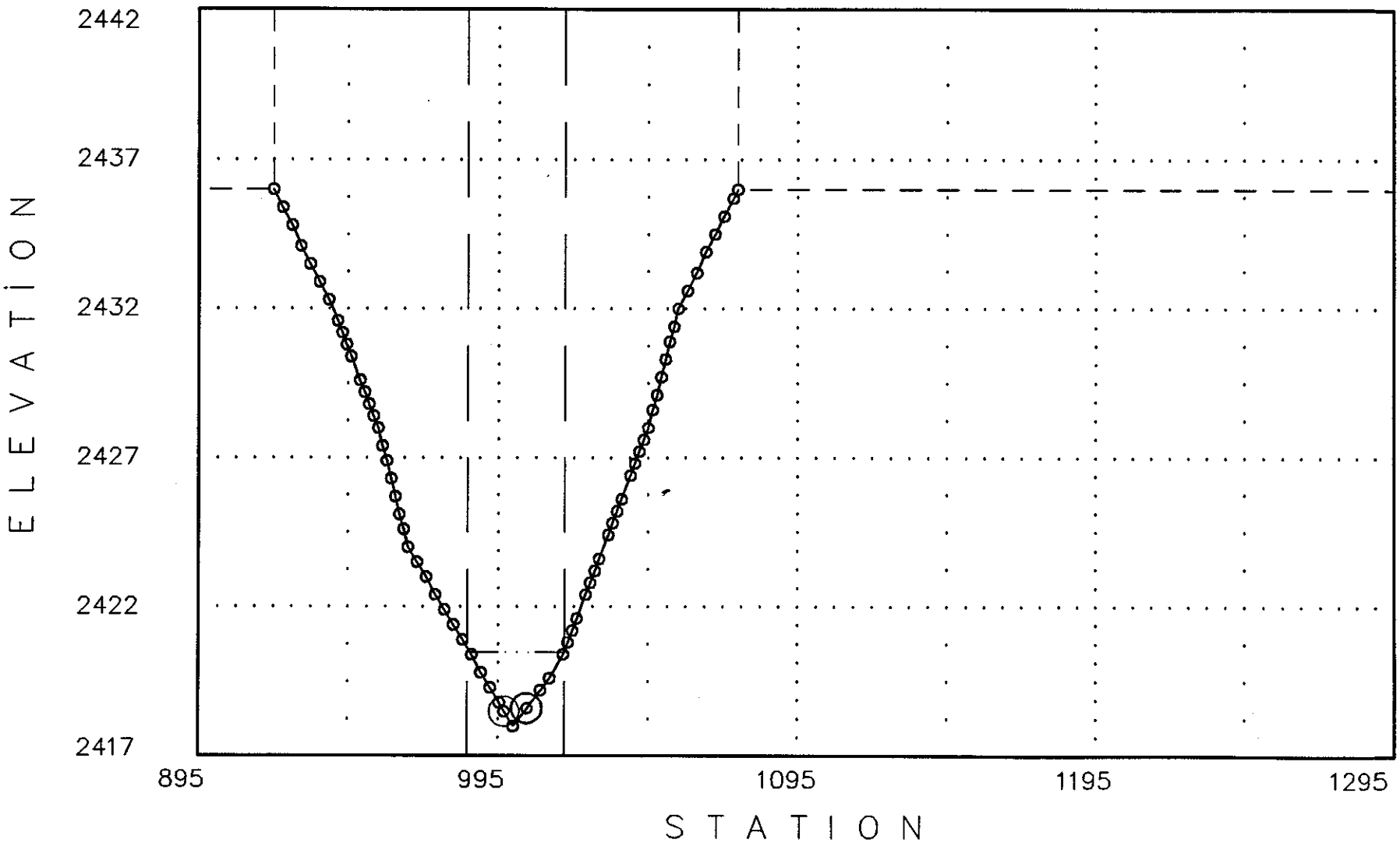


08-21-1992

<<<<<< Cross Section: 1.8: (FN = TRIBR1B.O) >>>>>>

Q1= 221 WS1= 2420.49
Q2= 221 WS2= 2420.49

Manning-n's: n-lob = .05 n-ch = .035 n-rob = .05

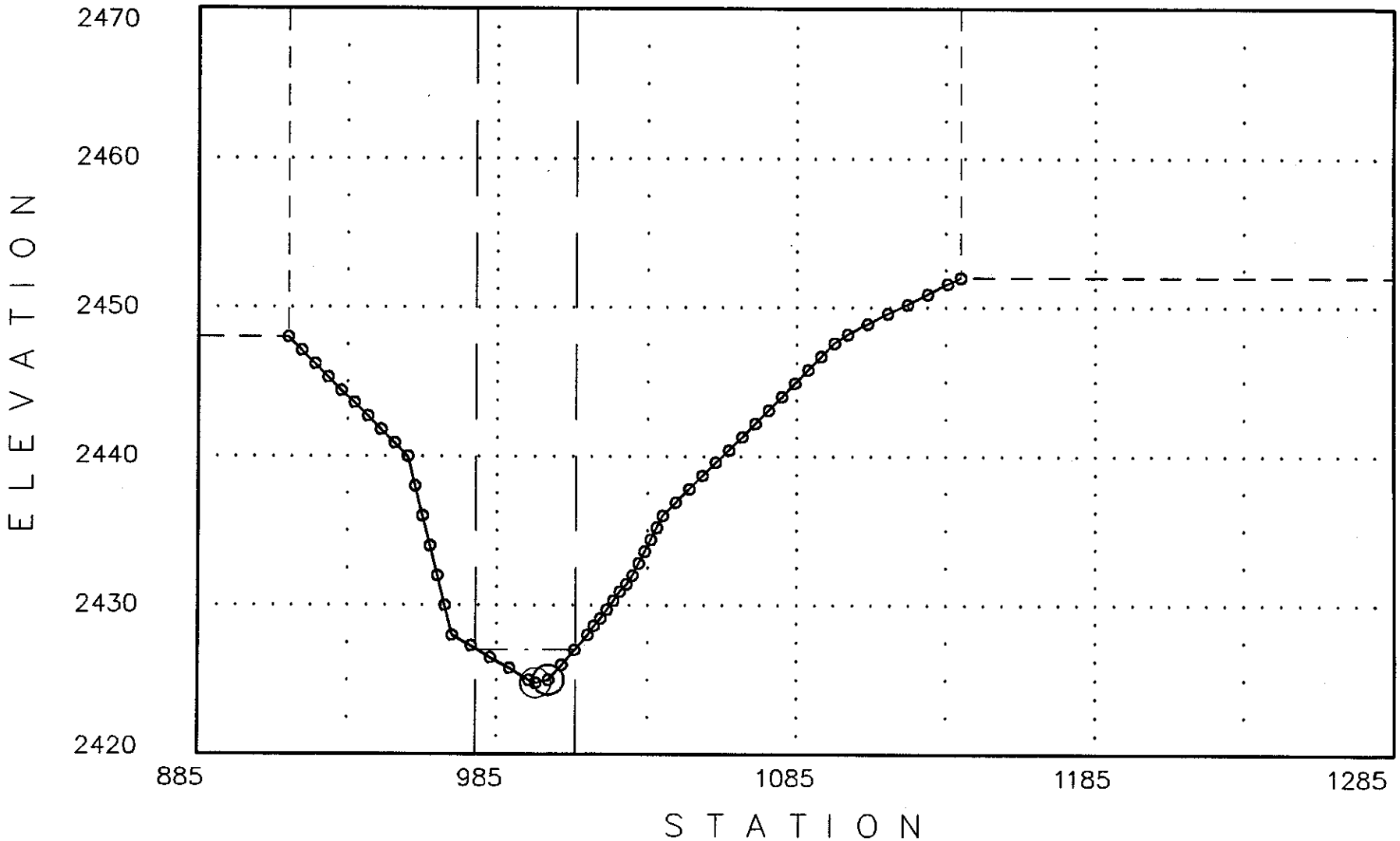


08-21-1992

<<<<<< Cross Section: 1.856: (FN = TRIBR1B.O) >>>>>>

Q1= 221 WS1= 2427.03
Q2= 221 WS2= 2427.03

Manning-n's: n-lob = .06 n-ch = .045 n-rob = .06

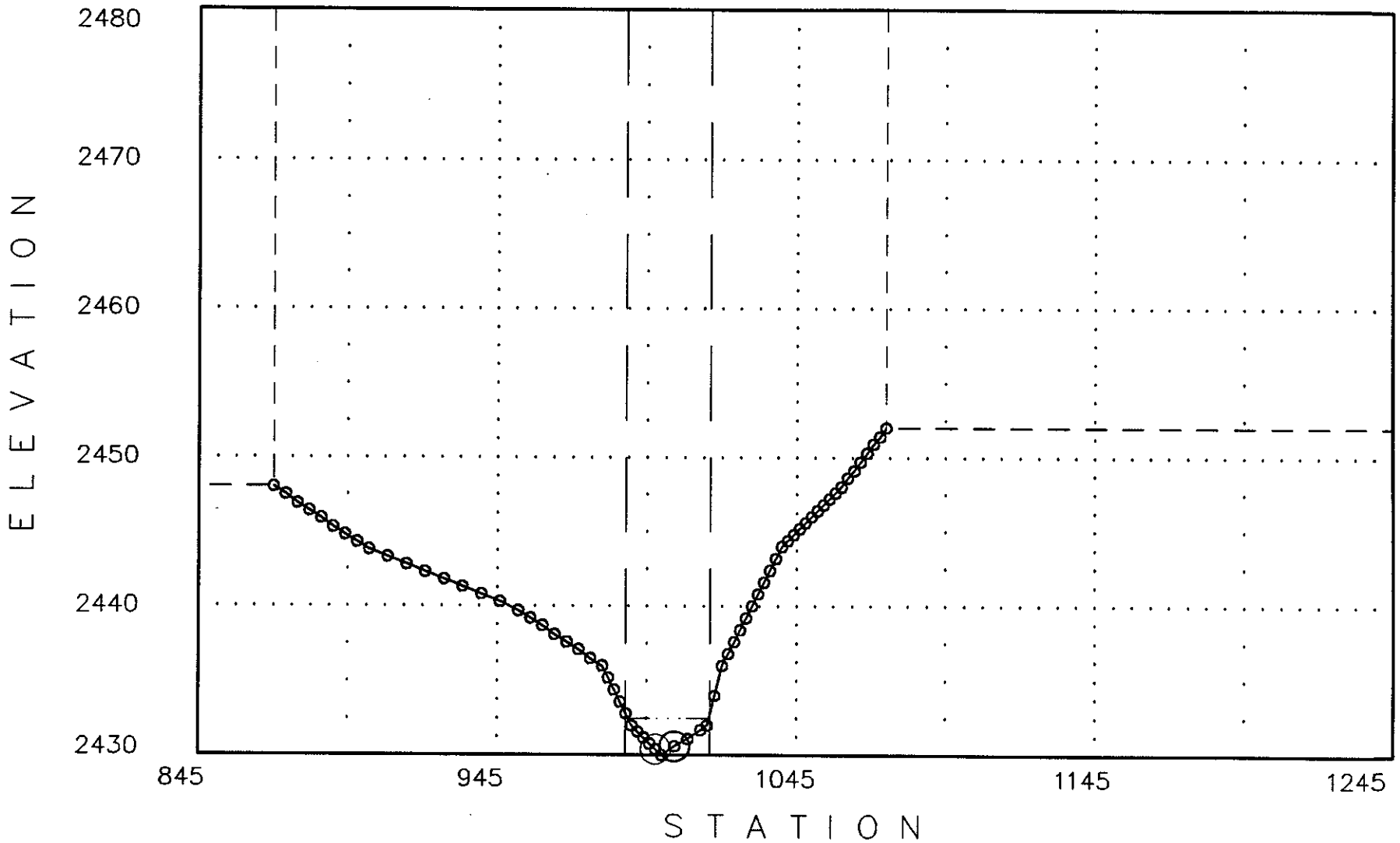


08-21-1992

<<<<<< Cross Section: 1.894: (FN = TRIBR1B.0) >>>>>>

Q1= 221 WS1= 2432.5
Q2= 221 WS2= 2432.5

Manning-n's: n-lob = .06 n-ch = .045 n-rob = .06

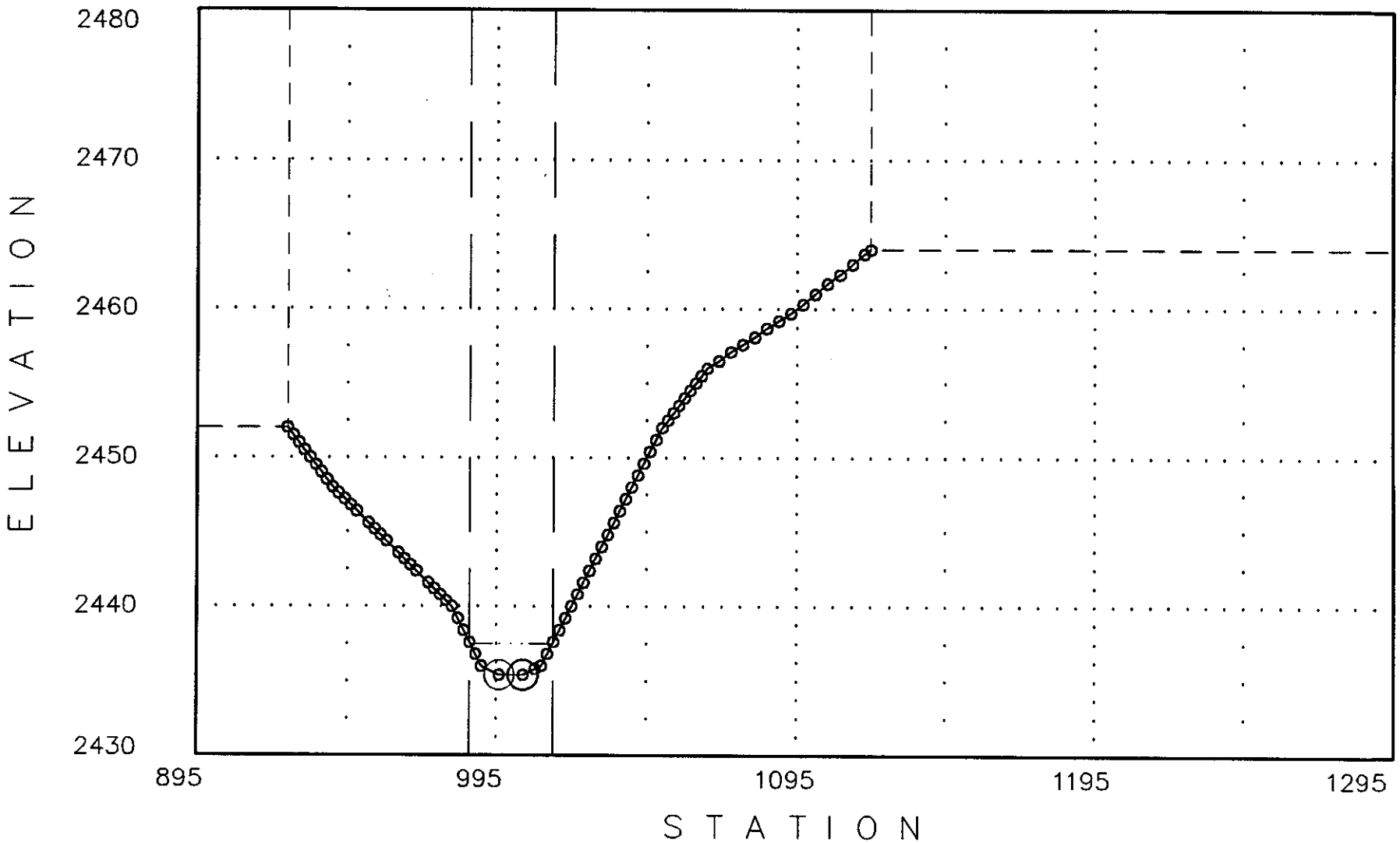


08-21-1992

<<<<<< Cross Section: 1.945: (FN = TRIBR1B.0) >>>>>>

Q1= 221 WS1= 2437.49
Q2= 221 WS2= 2437.49

Manning-n's: n-lob = .06 n-ch = .045 n-rob = .06

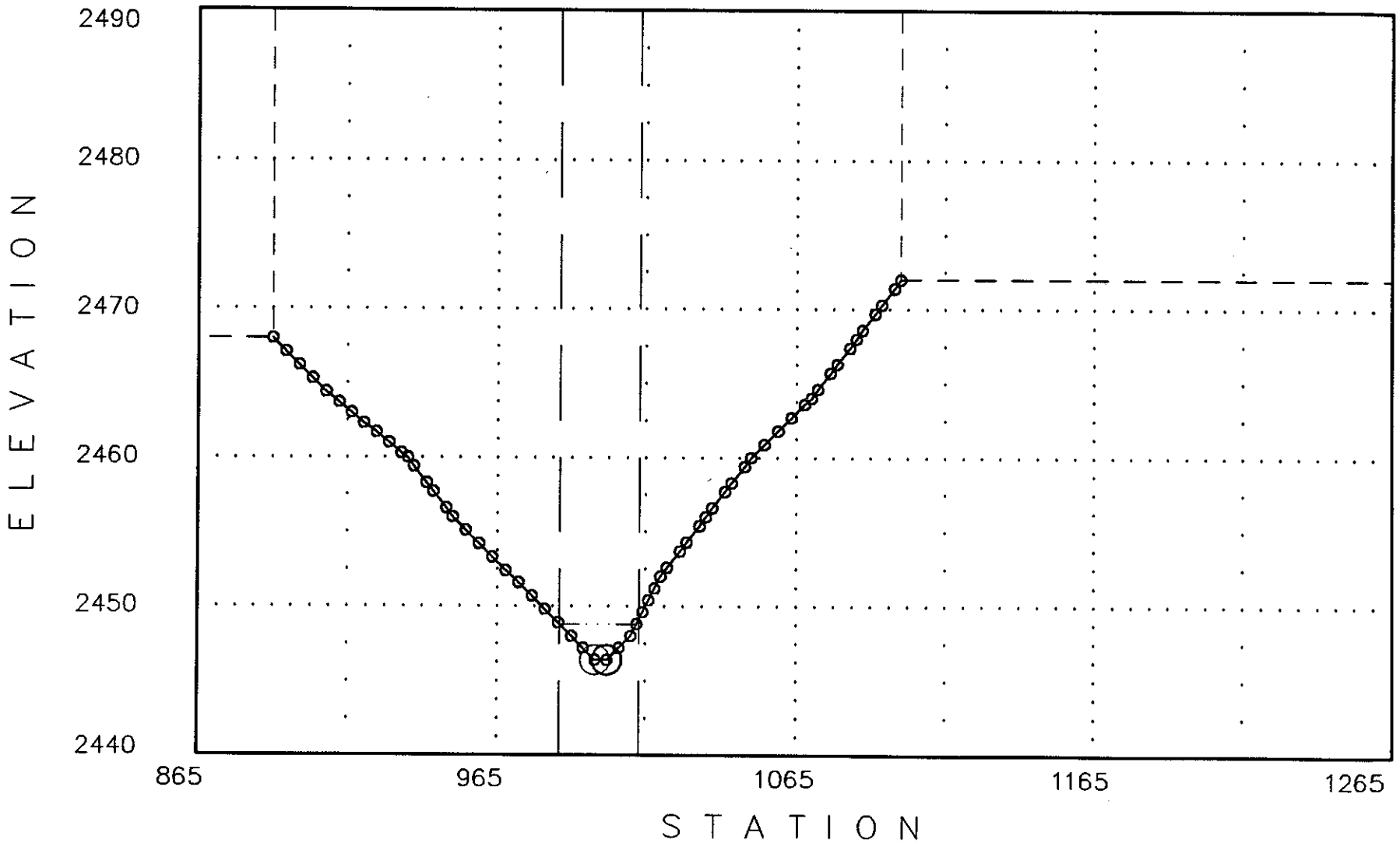


08-21-1992

<<<<<< Cross Section: 2.03: (FN = TRIBR1B.O) >>>>>>

Q1= 221 WS1= 2448.81
Q2= 221 WS2= 2448.81

Manning-n's: n-lob = .07 n-ch = .05 n-rob = .07

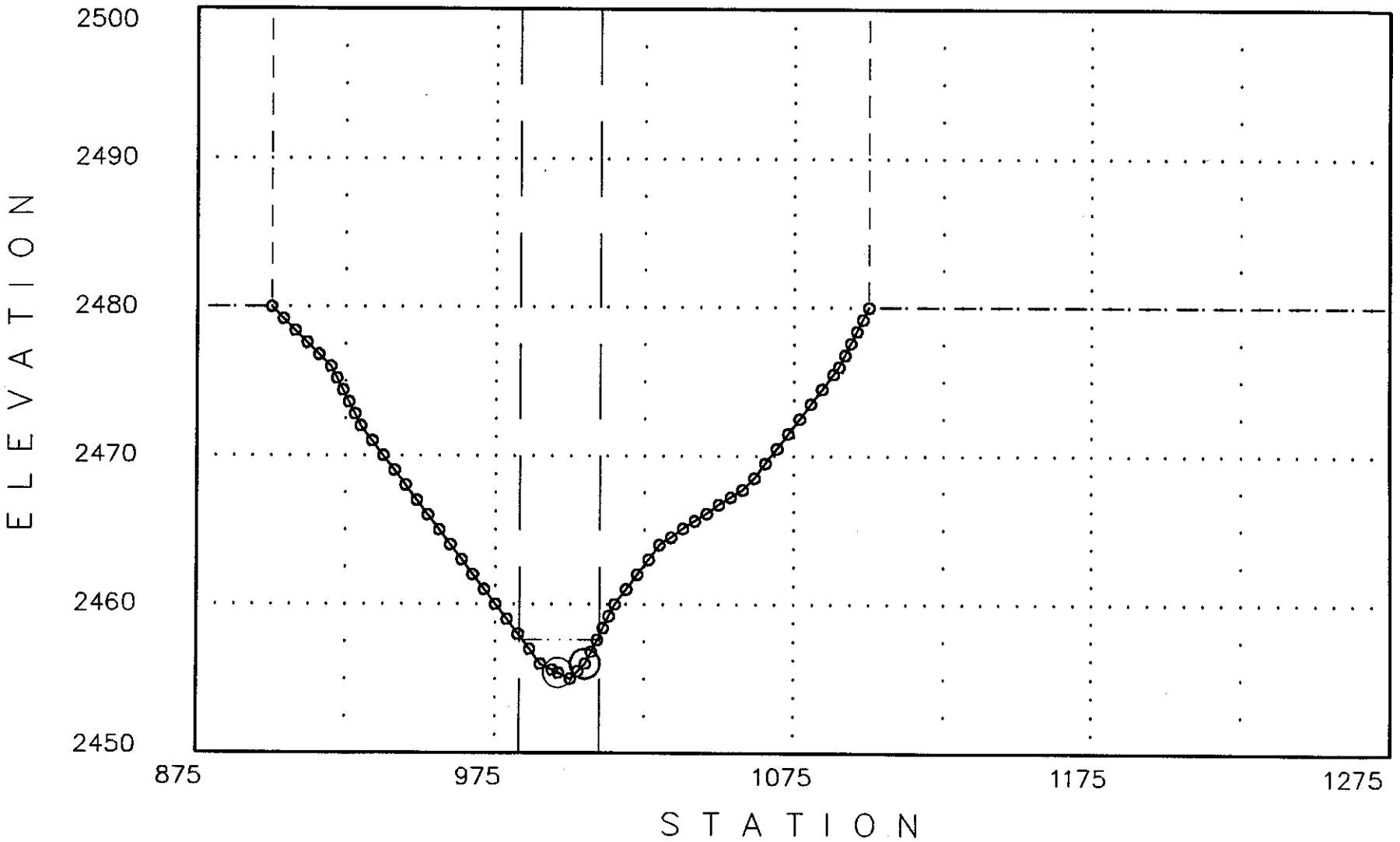


08-21-1992

<<<<<< Cross Section: 2.102: (FN = TRIBR1B.O) >>>>>>

Q1= 221 WS1= 2457.64
Q2= 221 WS2= 2457.63

Manning-n's: n-lob = .07 n-ch = .05 n-rob = .07

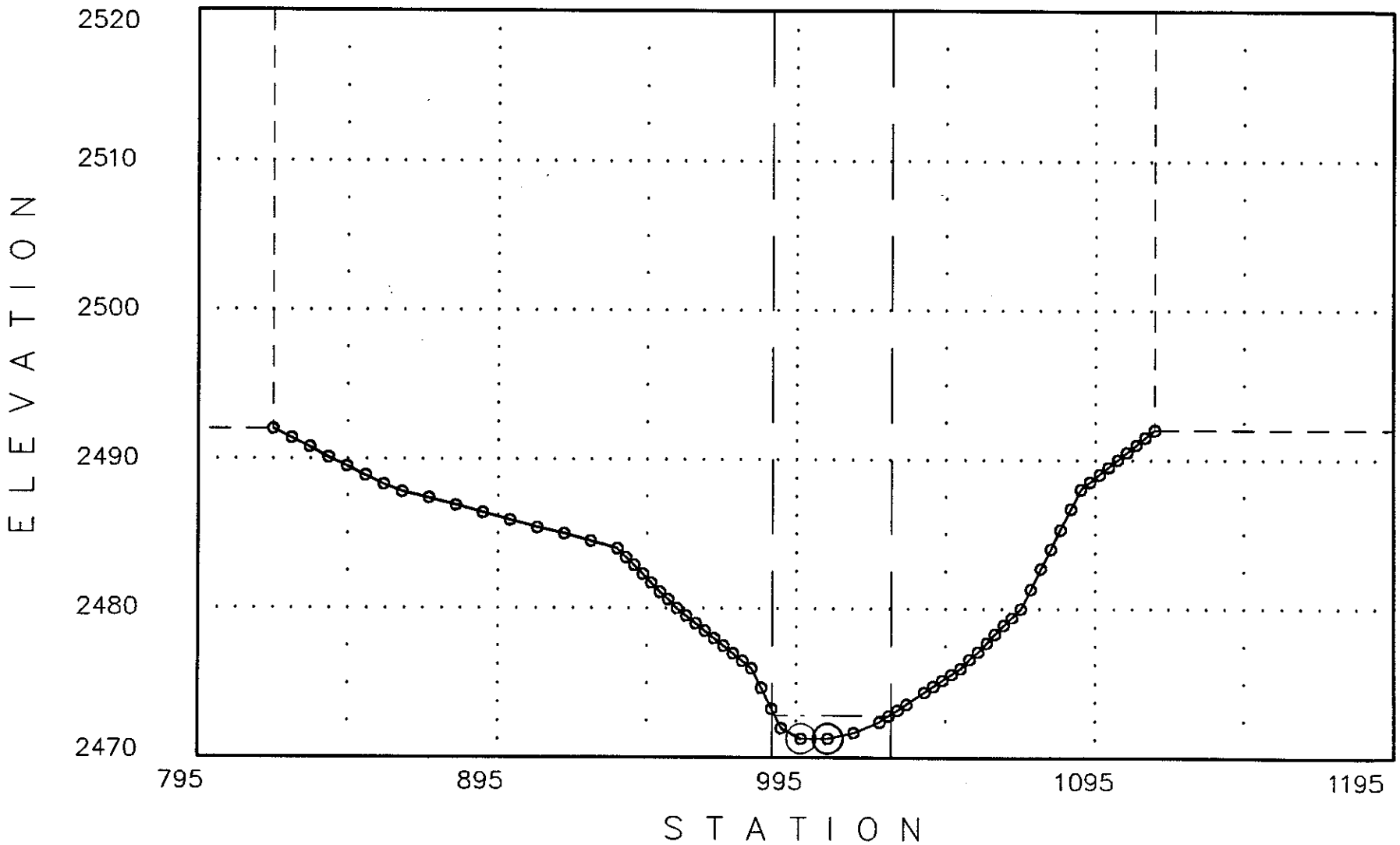


08-21-1992

<<<<<< Cross Section: 2.199: (FN = TRIBR1B.O) >>>>>>

Q1= 221 WS1= 2472.85
Q2= 221 WS2= 2472.84

Manning-n's: n-lob = .07 n-ch = .05 n-rob = .07

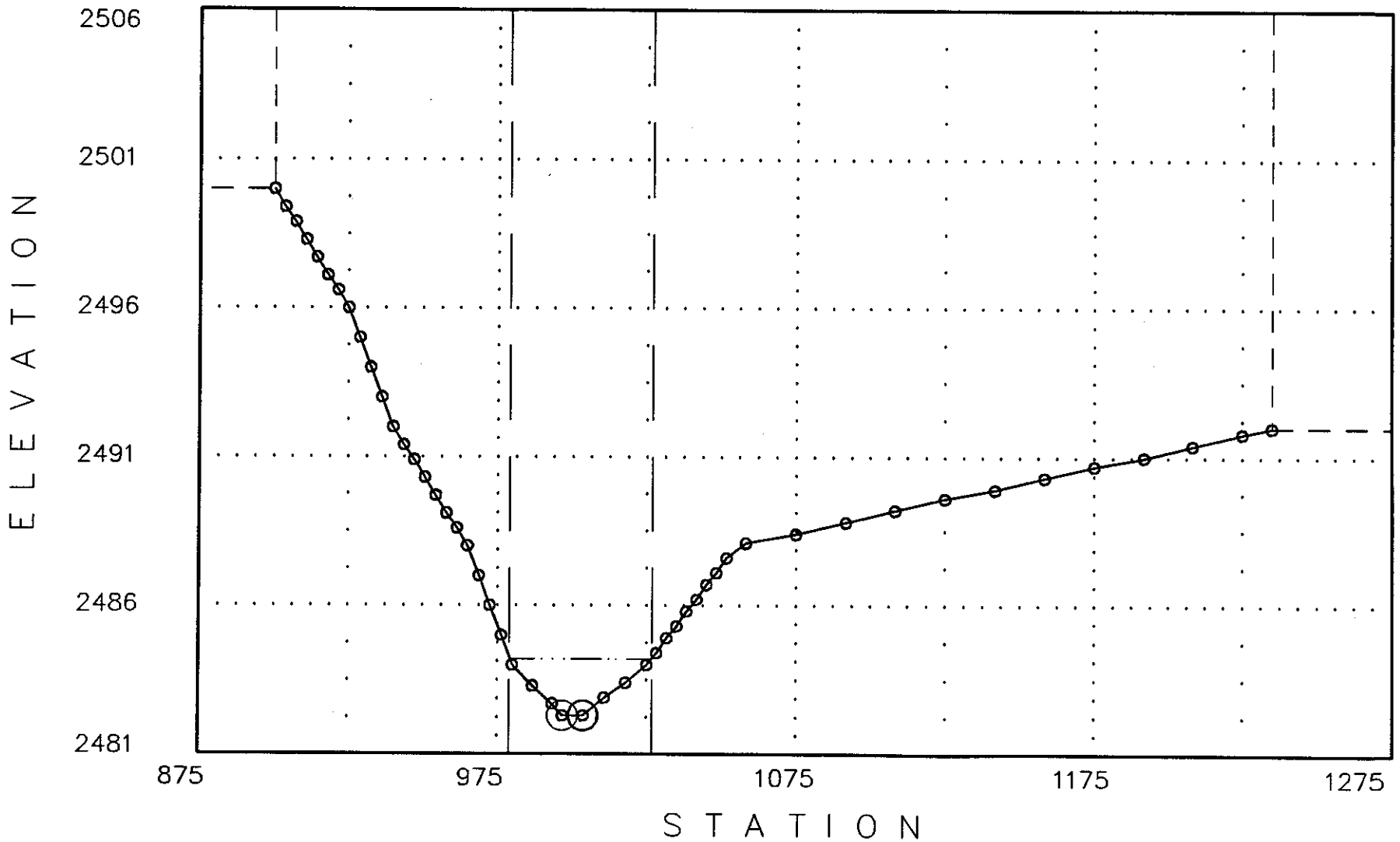


08-21-1992

<<<<<< Cross Section: 2.28: (FN = TRIBR1B.O) >>>>>>

Q1= 221 WS1= 2484.2
Q2= 221 WS2= 2484.2

Manning-n's: n-lob = .07 n-ch = .05 n-rob = .07

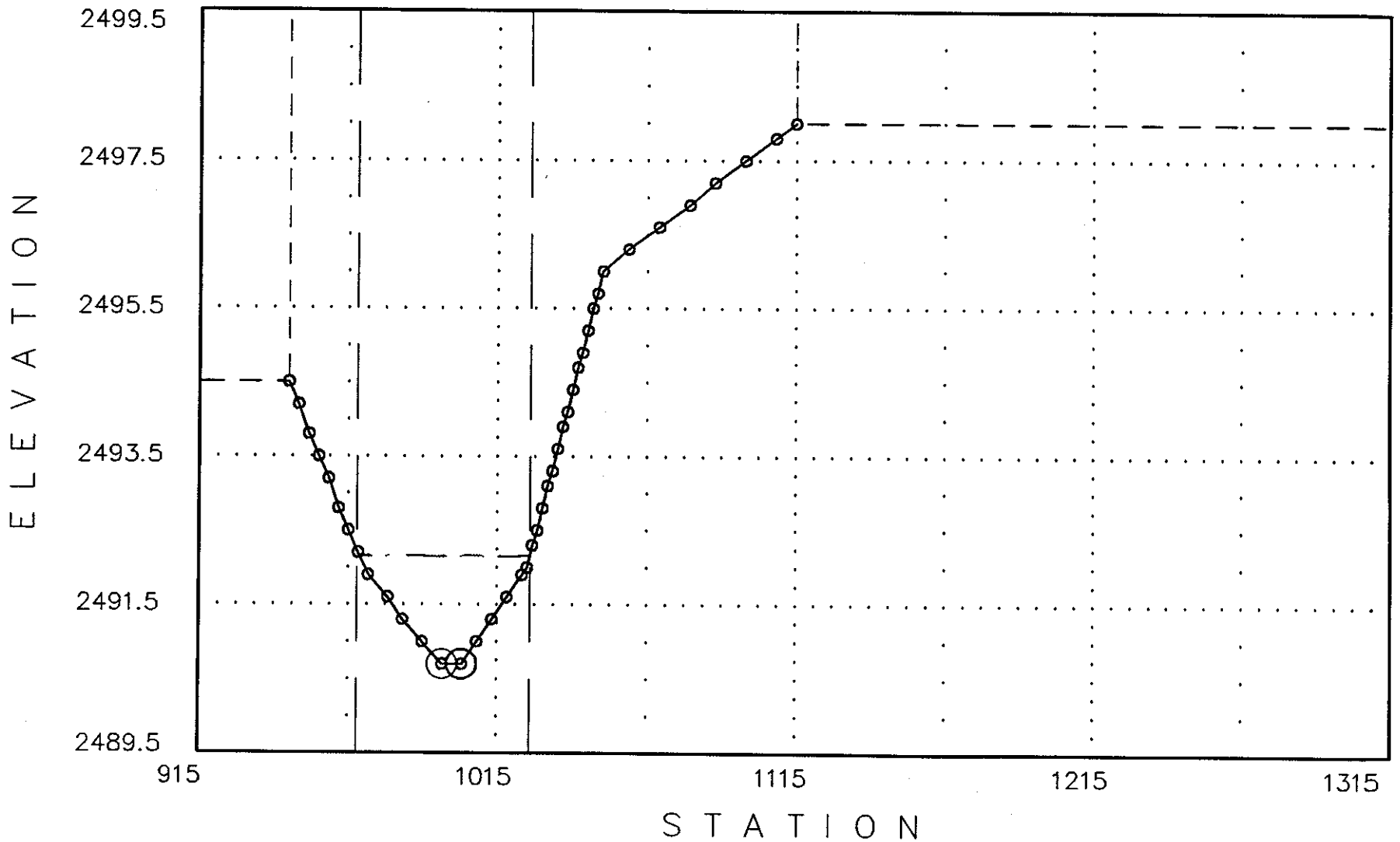


08-21-1992

<<<<<< Cross Section: 2.339: (FN = TRIBR1B.0) >>>>>>

Q1= 221 WS1= 2492.16
Q2= 221 WS2= 2492.15

Manning-n's: n-lob = .07 n-ch = .05 n-rob = .07

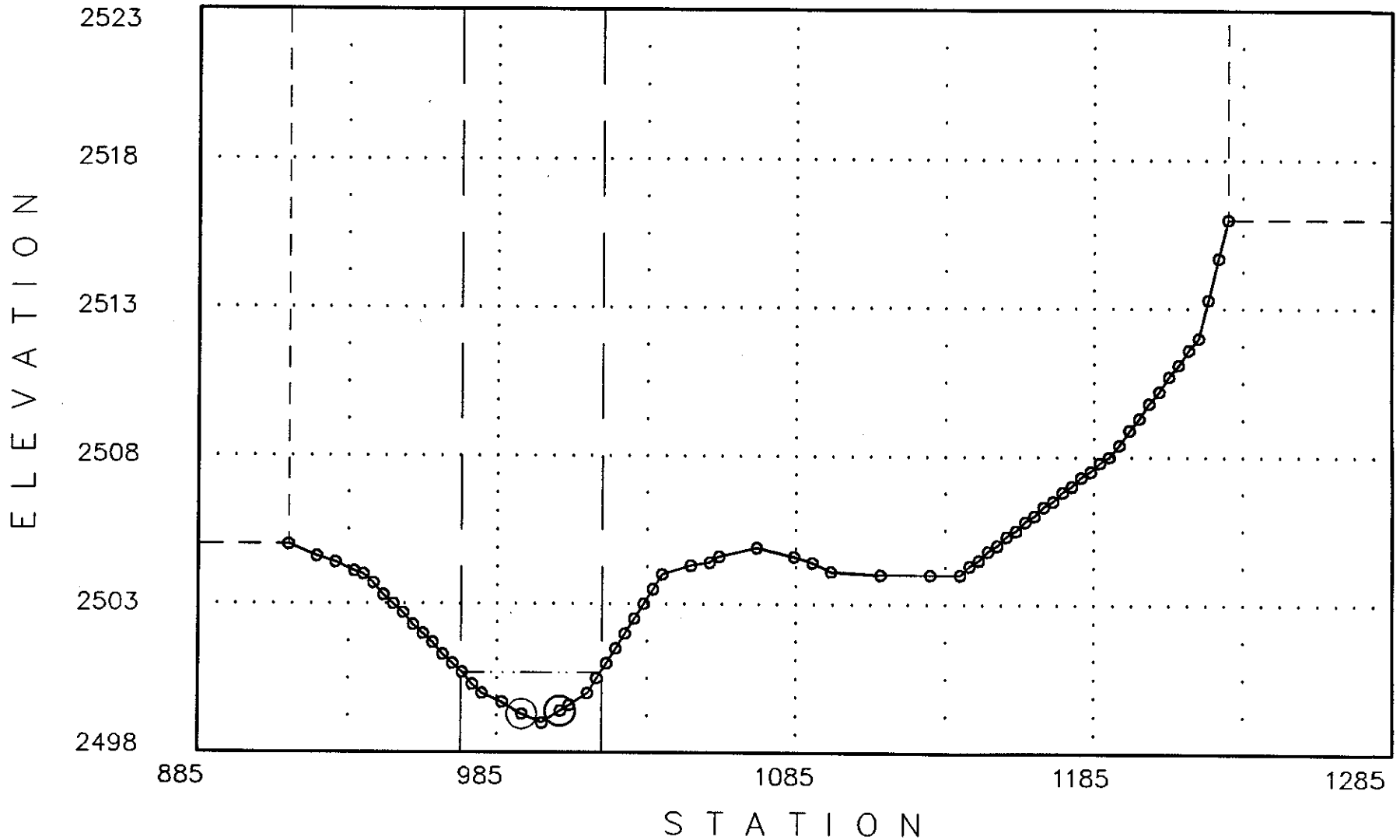


08-21-1992

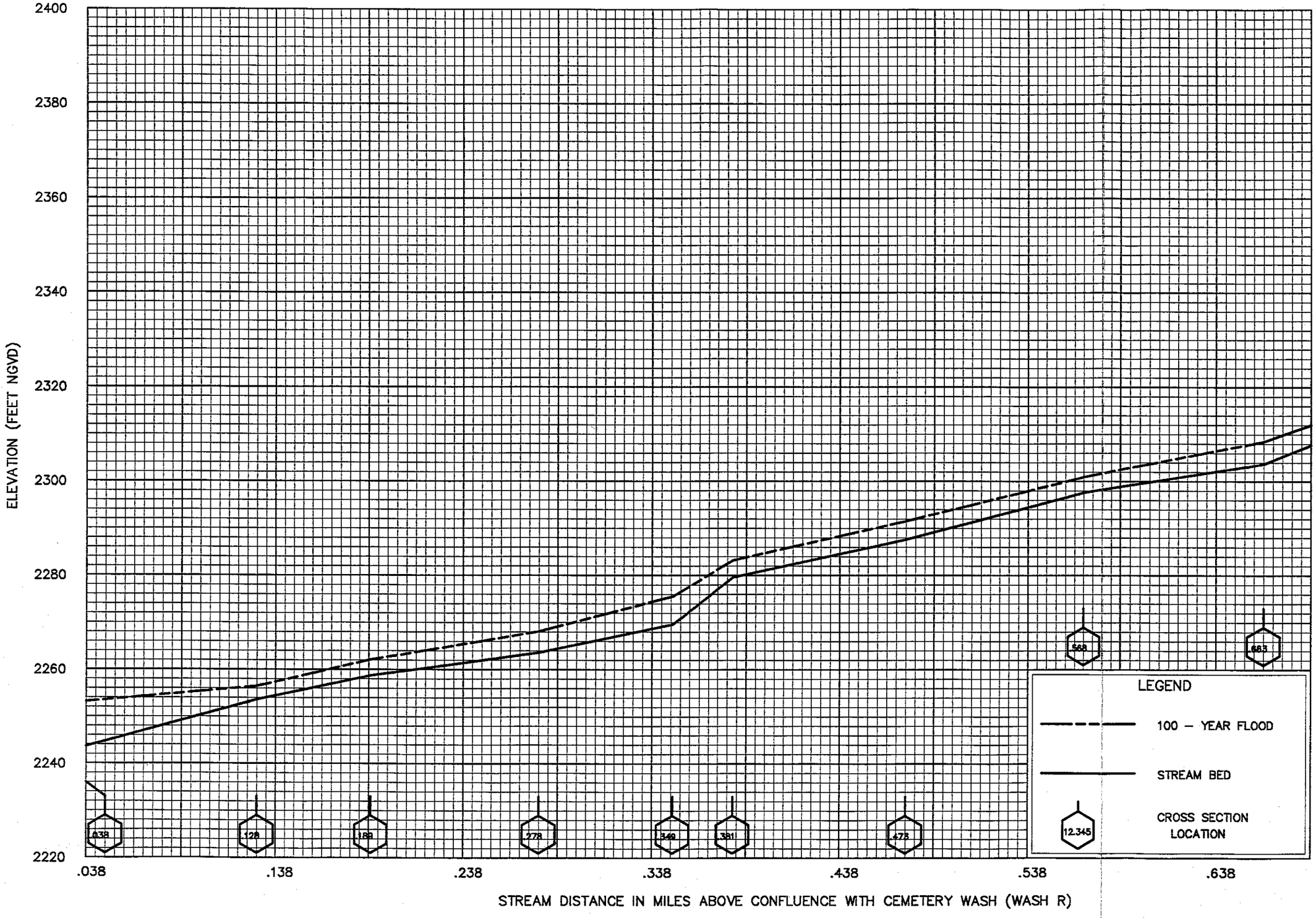
<<<<<< Cross Section: 2.381: (FN = TRIBR1B.0) >>>>>>

Q1= 221 WS1= 2500.7
Q2= 221 WS2= 2500.69

Manning-n's: n-lob = .07 n-ch = .05 n-rob = .07



08-21-1992



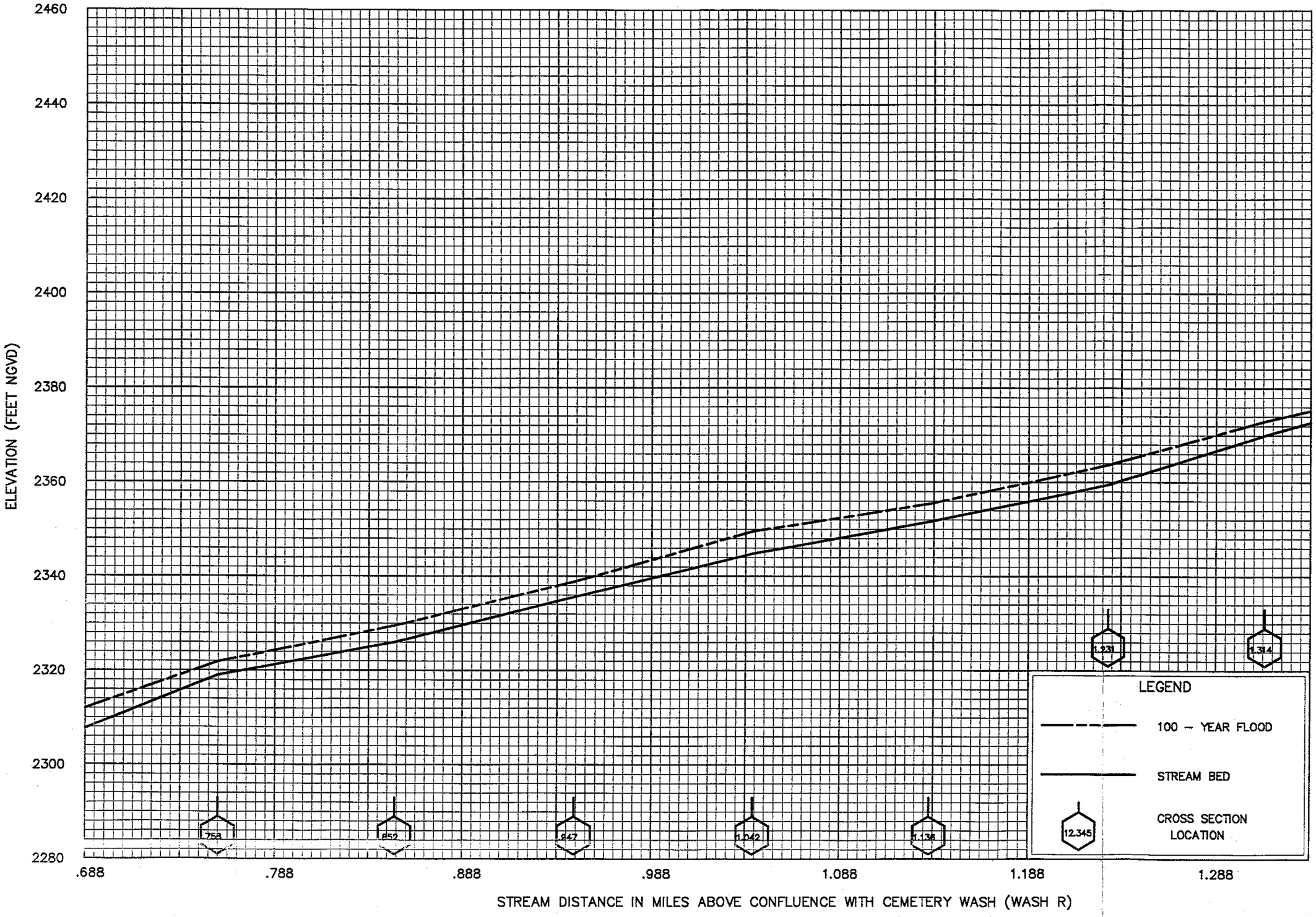
FLOOD PROFILES

TRIBUTARY #1 TO CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

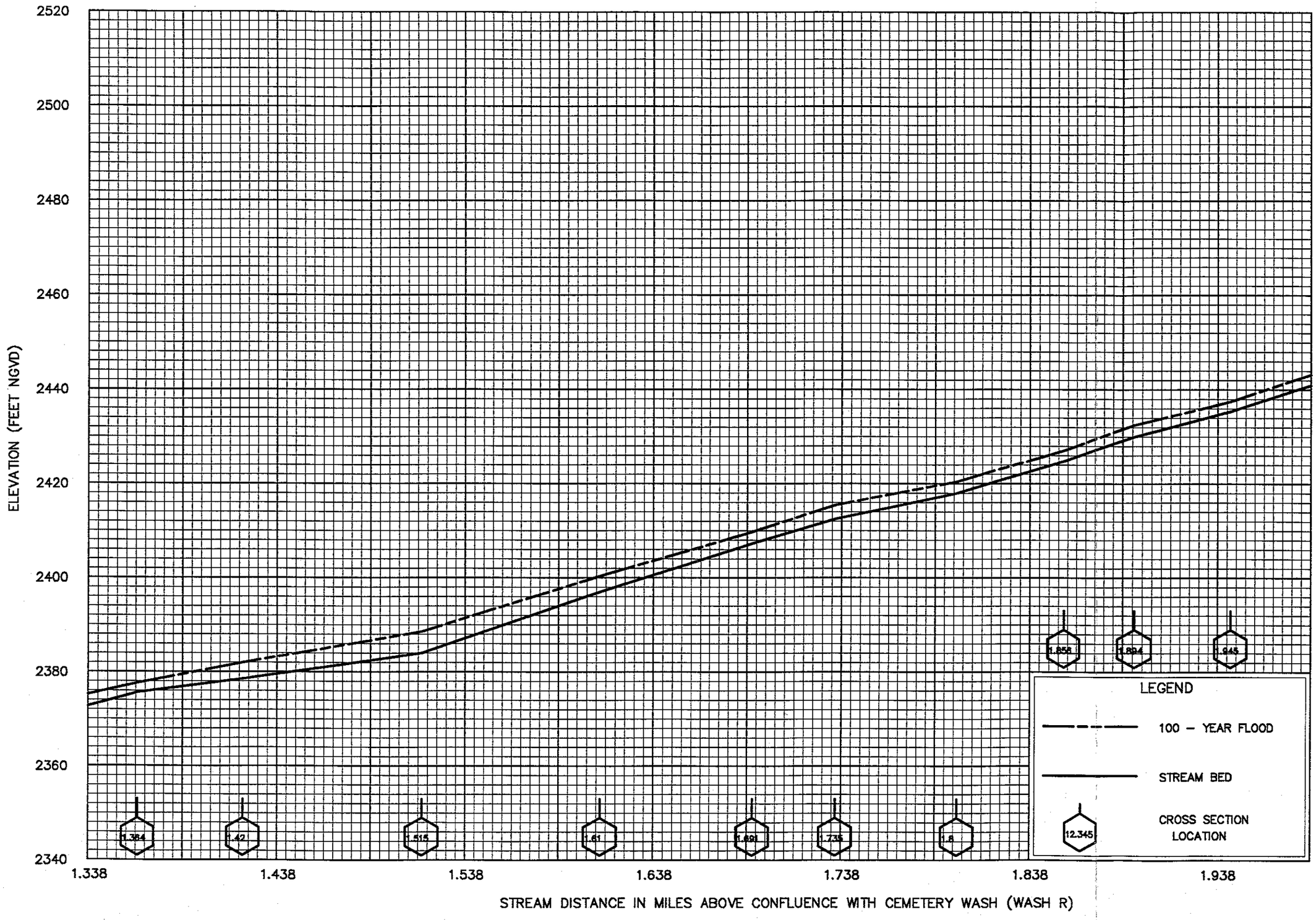
R1–1



FLOOD PROFILES

TRIBUTARY #1 TO CEMETERY WASH (WASH R)

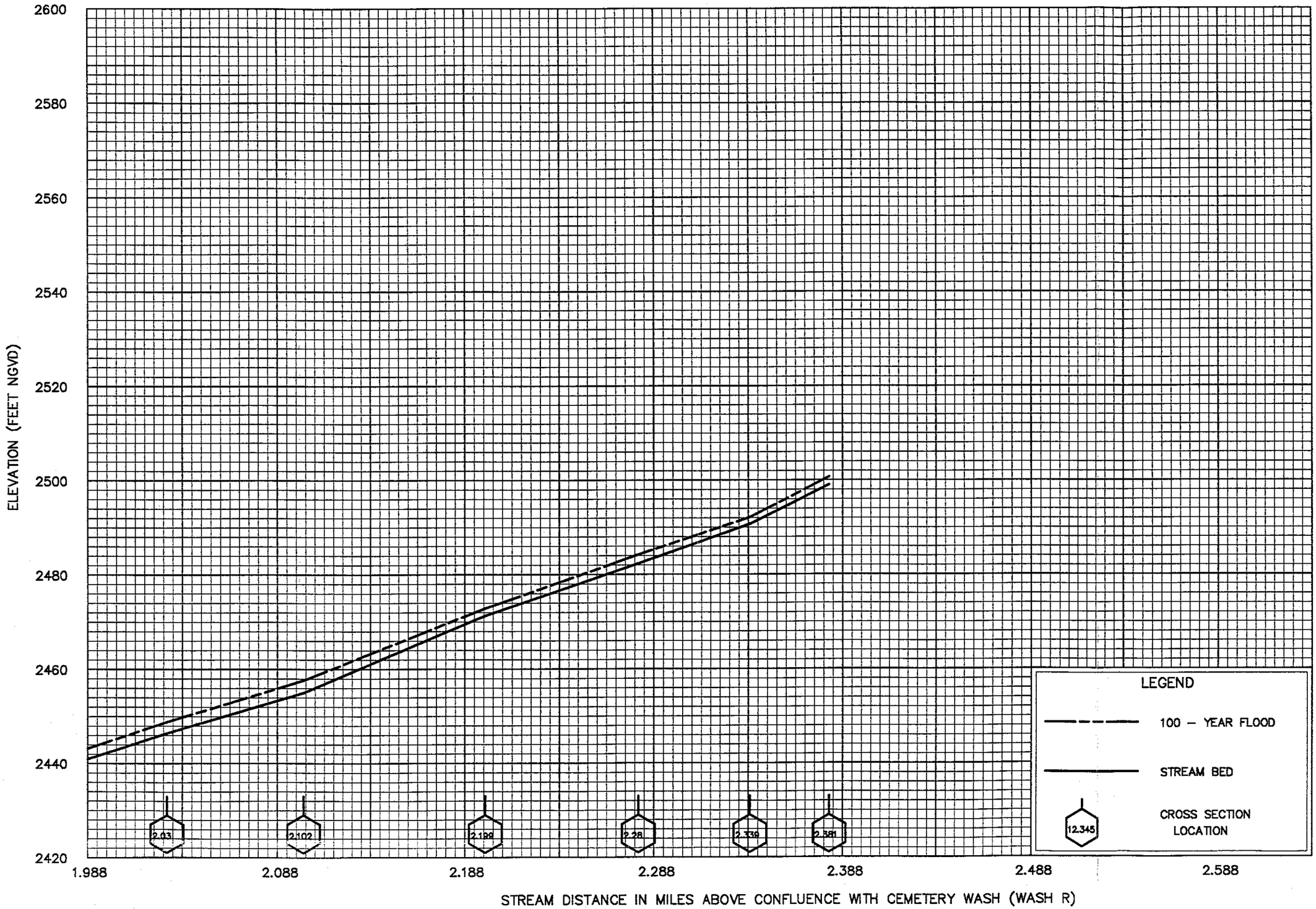
FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
AND INCORPORATED AREAS



FLOOD PROFILES

TRIBUTARY #1 TO CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
AND INCORPORATED AREAS



FLOOD PROFILES

TRIBUTARY #1 TO CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

Appendix # 5.2

FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERINE HYDRAULIC ANALYSIS FORM	O.M.B. Burden No. 3067-0148 Expires July 31, 1994	FEMA USE ONLY

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 2.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

Community Name: Unincorporated Maricopa County/Town of Wickenburg

Flooding Source: Wash ~~R3~~ R2:
(One form for each flooding source)

Project Name/Identifier: Wickenburg ADMS - FCD 89-79

1. REACH TO BE REVISED

Downstream limit: Station 0.214

Upstream limit: Station 2.854

2. EFFECTIVE FIS

☐ Not studied

☐ Studied by approximate methods

Downstream limit of study _____

Upstream limit of study _____

☒ Studied by detailed methods

Downstream limit of study Confluence with Wash R - Cemetary Wash

Upstream limit of study Station 2.854

☐ Floodway delineated

Downstream limit of Floodway _____

Upstream limit of Floodway _____

3. 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: _____

☐ Other. Explain: _____

3. RIVERINE HYDRAULIC ANALYSIS FORM
Models Submitted

Full input and output listings along with files on diskette *(if available)* for each of the models listed below and 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. For areas which do not have detailed flooding, a hydraulic model is not required; however BFE's may not be added to the revised FIRM.

☐ Duplicate Effective Model — Natural ☐ Floodway ☐

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 — Natural ☐ Floodway ☐

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 — Natural ☐ Floodway ☐

The duplicate effective or corrected 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 — Natural ☐ Floodway ☐

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. When the request is for proposed project this model should reflect proposed conditions.

☒ Other: Please attach a sheet describing all other models or calculations submitted. — Natural ☒ Floodway ☒

New Model (Proposed Effective Model)

4. MODEL PARAMETERS *(from model used to revise 100-year water surface elevation)*

Discharges:	Upstream Limit	Downstream Limit
10-year	917 cfs	1542 cfs
50-year	1491 cfs	2392 cfs
100-year	1724 cfs	2797 cfs
500-year	—	—

Attach diagram showing changes in 100-year discharge

2. Explain how the starting water surface elevations were determined Starting water surface elevations determined by the slope-area method.

3. Give range of friction loss coefficients (*Manning's "N"*) Channel ..... 0.035 ~ 0.040

Overbanks ..... 0.060 ~ 0.070

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.

Data points for cross-sections are based on photogrammetric models for the topographic maps.

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

All reach lengths were measured from floodplain work maps.

5. 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? ..... ☐ Yes ☒ No

c. Critical depth? ..... ☒ Yes ☐ No

d. Other unique situations ..... ☐ Yes ☐ No

If yes, special problems report attached.

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 change in energy gradient between cross-sections? ..... 0.0286 ft/ft

Specify location 1.801

3. What is the distance between the cross-sections in 2 above? ..... 411.9 ft

Specify location 1.879

4. What is the maximum distance between cross-sections? ..... 580.8 ft

Specify location 1.989

5. Floodway determination

a. What is the maximum surcharge allowed by the community or State? ..... 1.0 foot

b. What is the maximum surcharge for the revised conditions? ..... 0 foot

Specify location ..... N/A

c. What is the maximum velocity? ..... 13.12 fps

Specify location 0.441

Explain:

d. Are there any negeative surcharge values at any cross-section ☐ Yes ☒ No

If yes, the floodway may need to widen. If it is not widened, please explain and indicate the maximum negative surcharge.

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:

_____

_____

_____

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 (See page 6)

6. 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_____ within_____feet and upstream of the project at cross section_____within_____feet.

B. The revised floodway elevations tie into those computed by the effective FIS model, dowstream of the project at cross section_____within_____feet and upstream of the project at cross section_____ 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. If channel distance has changed, the stationing should be revised for all profile sheets.

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

Proceed to Riverine /Coastal Mapping Form

FEDERAL EMERGENCY MANAGMENT AGENCY

WATER SURFACE ELEVATION CHECK

COMMUNITY NAME	FLOODIND SOURCE	PROJECT NAME /IDENTIFIER
Unincorporated Maricopa County / Town of Wickenburg	Wash R3:	Wickenburg ADMS-FCD 89-79

	EFFECTIVE			DUPLICATE EFFECTIVE			CORRECTED EFFECTIVE			EXISTING/PRE-PROJECT			REVISED/PROJECT		
SECNO	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]

COMMENTS:

New Model- See following Floodway Data Table

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

Include all cross sections in the models between tie-in points. Any interpolated values should be indicated in parentheses.

FLOODWAY DATA, WASH R-~~2~~3: TRIBUTARY WASH
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
3.483	531.	1189.	4.5	2300.1	2300.1	.0
.214	102.	333.	8.4	2311.0	2311.0	.0
.254	155.	798.	3.5	2313.2	2313.2	.0
.358	272.	521.	5.4	2321.1	2321.1	.0
.441	189.	463.	6.0	2328.2	2328.2	.0
.516	307.	566.	4.4	2334.1	2334.1	.0
.623	519.	543.	4.6	2344.2	2344.2	.0
.663	393.	550.	4.5	2349.2	2349.2	.0
.723	233.	434.	5.8	2354.5	2354.5	.0
.820	277.	553.	4.5	2361.4	2361.4	.0
.911	309.	494.	5.1	2368.3	2368.3	.0
1.007	345.	469.	4.8	2377.4	2377.4	.0
1.098	367.	551.	4.1	2385.8	2385.8	.0
1.157	452.	555.	4.1	2391.3	2391.3	.0
1.248	506.	582.	3.9	2398.8	2398.8	.0
1.347	121.	297.	7.6	2407.8	2407.8	.0
1.445	144.	347.	6.5	2418.9	2418.9	.0
1.549	240.	490.	4.6	2426.1	2426.1	.0
1.633	381.	357.	5.8	2432.2	2432.2	.0
1.686	467.	559.	3.7	2436.9	2436.9	.0
1.748	298.	330.	6.3	2442.3	2442.3	.0
1.801	317.	618.	3.4	2447.1	2447.1	.0
1.879	289.	362.	5.7	2453.3	2453.3	.0
1.989	351.	444.	4.7	2468.0	2468.0	.0
2.083	196.	471.	4.4	2474.3	2474.3	.0
2.174	391.	465.	4.1	2482.2	2482.2	.0
2.260	278.	570.	3.4	2486.3	2486.3	.0
2.354	326.	462.	4.2	2491.0	2491.0	.0
2.449	296.	498.	3.9	2497.2	2497.2	.0
2.544	285.	368.	5.2	2504.0	2504.0	.0
2.614	307.	506.	3.4	2508.5	2508.5	.0
2.695	232.	296.	5.8	2513.3	2513.3	.0
2.786	383.	453.	3.8	2521.7	2521.7	.0
2.854	452.	580.	3.0	2525.3	2525.3	.0

```
*******************************************
*  HEC-2 WATER SURFACE PROFILES           *
*                                         *
*  Version   4.6.2;  May 1991             *
*                                         *
*  RUN DATE    23JUN92    TIME   10:15:26 *
*******************************************
```

```
****************************************
*  U.S. ARMY CORPS OF ENGINEERS        *
*  HYDROLOGIC ENGINEERING CENTER       *
*  609 SECOND STREET, SUITE D          *
*  DAVIS, CALIFORNIA 95616-4687        *
*          (916) 756-1104              *
****************************************
```

```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                        X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX             XXXXXXX
```

THIS RUN EXECUTED 23JUN92 10:15:26

```
************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.2;  May 1991
************************************


T1      WICKENBURG ADMS - CONTRACT FCDMC 89-79
T2      BLACK & VEATCH PN 17676: COE & VAN LOO JN 1197-02
T3      WASH R-2: TRIBUTARY WASH                (TRIBR2B.O)

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2        0        0        0        0        0        0   2300.10       0

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

      1        0       -1        0        0        0       -1        0        0        15


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150       200

QT       2      5307      5307
NC   0.065     0.070     0.035       .1        .3
ET                         9.1                                                          979       1511
            CONFLUENCE OF WASH R - CEMETERY WASH AND TRIBUTARY WASH R-2
            THE METHOD USED TO START THIS HEC-2, WATER SURFACE PROFILE
            ANALYSIS IS THE KNOWN STARTING WATER SURFACE METHOD.  THE
            WATER SURFACE ELEVATION FOR CROSS SECTION 5.184, WASH R-
            CEMETERY WASH, WAS USED AS THE STARTING WATER SURFACE ELEVATION
            FOR THE WASH R-2 HEC-2 WATER SURFACE PROFILE ANALYSIS.  THE
            WATER SURFACE ELEVATION USED WAS COMPUTED DURING THE HEC-2
            ANALYSIS FOR WASH R-CEMETERY WASH.
X1   3.483       42    1452.0    1495.0         0         0         0
GR    2308      960    2305.3     966.7    2302.7     973.3      2300       980    2298.9       985
GR  2297.8      990    2298.1    1006.7    2298.4      1025    2298.5    1046.3    2298.5    1068.8
GR  2298.6   1091.3    2298.6    1113.8    2298.6    1136.9    2298.4    1160.6    2298.4    1184.4
GR  2298.3   1208.1    2298.4    1232.5    2298.6      1245    2298.4    1256.4    2298.1    1273.6
GR  2297.9     1285    2297.6    1307.9    2297.4    1319.3    2297.3    1342.1    2297.3    1364.9
GR  2297.3   1387.8    2297.3    1410.6      2297      1434    2296.6      1446    2296.5      1452
GR  2296.2     1464      2296      1470    2295.7    1476.7    2295.3    1483.3      2295      1490
GR  2296.5     1495      2298      1500      2299      1505      2300      1510    2301.3    1516.3
GR  2302.5   1522.5    2303.8    1528.8

QT       2      2797      2797
    0.070     0.070     0.035       .1        .3
                           9.1                                                          928       1031
```

THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION,
UNLESS OTHERWISE NOTED.

X1	0.214	74	973.6	1012.5	575	552	552			
GR	2328	809	2326.7	812	2325.3	815	2324	818	2323.4	821
GR	2322.9	824	2322.3	827	2321.7	830	2321.1	833	2320.6	836
GR	2320	839	2319.6	842.1	2319.2	845.2	2318.8	848.3	2318.4	851.4
GR	2318	854.5	2317.6	857.6	2317.2	860.7	2316.8	863.8	2316.4	866.9
GR	2316	870	2315.5	876	2315.1	882	2314.6	888	2314.1	894
GR	2313.6	900	2313.2	906	2312.7	912	2312.2	918	2312	921
GR	2311.6	923.9	2311.3	926.8	2310.9	929.7	2310.6	932.6	2310.2	935.5
GR	2309.8	938.5	2309.4	941.4	2309.1	944.3	2308.7	947.2	2308.4	950.1
GR	2308	953	2307.6	961.8	2307.1	973.6	2306.6	985.3	2306.1	997.1
GR	2306.5	1006.3	2307	1012.5	2307.5	1018.8	2308	1025	2309.5	1027.9
GR	2311	1030.8	2312.5	1033.6	2314	1036.5	2315.5	1039.4	2317	1042.3
GR	2318.5	1045.1	2320	1048	2320.7	1050.8	2321.3	1053.7	2322	1056.5
GR	2322.7	1059.3	2323.3	1062.2	2324	1065	2326	1068.5	2328	1072
GR	2328.4	1075.1	2328.9	1078.2	2329.3	1081.3	2329.8	1084.4	2330.2	1087.6
GR	2330.7	1090.7	2331.1	1093.8	2331.6	1096.9	2332	1100		
ET			9.1						868	1024
X1	0.254	68	975.0	1010.0	160	228	211.2			
GR	2328	815	2327.4	817.4	2326.9	819.9	2326.3	822.3	2325.7	824.7
GR	2325.1	827.1	2324.6	829.6	2324	832	2323.4	834.4	2322.9	836.9
GR	2322.3	839.3	2321.7	841.7	2321.1	844.1	2320.6	846.6	2320	849
	2319	851.8	2318	854.5	2317	857.3	2316	860	2315.2	862.4
	2314.4	864.8	2313.6	867.2	2312.8	869.6	2312	872	2311.5	874.6
GR	2311	877.3	2310.5	879.9	2310	882.5	2309.5	885.1	2309	887.8
GR	2308.5	890.4	2308	893	2308	895.5	2307.9	898	2307.8	907.9
GR	2307.7	910.4	2307.6	920.3	2307.5	922.8	2307.5	925.2	2307.4	927.7
GR	2307.3	937.6	2307.2	940.1	2307.1	950	2307	952.5	2307	975
GR	2307	997.5	2307	1000	2307.3	1002.5	2307.5	1005	2307.8	1007.5
GR	2308	1010	2309	1012.5	2310	1015	2311	1017.5	2312	1020
GR	2313	1022.5	2314	1025	2315	1027.5	2316	1030	2317	1032.5
GR	2318	1035	2319	1037.5	2320	1040	2320.8	1042.4	2321.6	1044.8
GR	2322.4	1047.2	2323.2	1049.6	2324	1052				
ET			9.1						951	1223
X1	0.358	64	990.0	1017.5	509	563	549.1			
GR	2332	920	2331.2	923.8	2330.4	927.6	2329.6	931.4	2328.8	935.2
GR	2328	939	2326	942	2324	945	2322.7	948	2321.3	951
GR	2320	954	2319.9	957.7	2319.7	961.4	2319.6	965.1	2319.4	968.9
GR	2319.3	972.6	2319.1	976.3	2319	980	2318.8	983.3	2318.7	986.7
GR	2318.5	990	2318.3	993.3	2318.2	996.7	2318	1000	2318.1	1003.5
GR	2318.2	1007	2318.3	1010.5	2318.4	1014	2318.5	1017.5	2318.6	1021
GR	2318.7	1024.5	2318.8	1028	2318.9	1031.5	2319	1035	2319	1062.5
GR	2319	1090	2319	1093.5	2319.1	1096.9	2319.2	1121.1	2319.3	1124.6
GR	2319.4	1145.3	2319.5	1148.8	2319.5	1159.2	2319.6	1162.7	2319.7	1183.4
GR	2319.8	1186.9	2319.9	1211.1	2320	1214.5	2320	1218	2320.8	1221.5
GR	2321.6	1224.9	2322.4	1228.4	2323.2	1231.9	2324	1235.3	2324.8	1238.8
	2325.6	1242.3	2326.4	1245.7	2327.2	1249.2	2328	1252.7	2328.8	1256.1
	2329.6	1259.6	2330.4	1263.1	2331.2	1266.5	2332	1270		

ET			9.1						851	1041
X1	0.441	69	987.3	1003.3	465	378	438.2			
GR	2340	820	2338.9	822.9	2337.8	825.8	2336.7	828.7	2335.6	831.6
GR	2334.6	834.5	2333.4	837.5	2332.4	840.4	2331.3	843.3	2330.2	846.2
GR	2329.1	849.1	2328	852	2327.8	861	2327.6	867	2327.4	876
GR	2327.2	882	2327	891	2326.8	897.1	2326.6	903.2	2326.4	909.3
GR	2326.2	915.4	2326.1	921.5	2325.9	924.5	2325.7	933.7	2325.5	939.8
GR	2325.3	945.9	2325.1	952	2324.9	957.9	2324.7	963.7	2324.6	966.6
GR	2324.4	969.4	2324.2	975.2	2324	981	2323.8	984.2	2323.7	987.3
GR	2323.5	990.5	2323.3	993.7	2323.2	996.8	2323	1000	2323.3	1003.3
GR	2323.7	1006.7	2324	1010	2324.4	1013	2324.8	1016	2325.2	1019
GR	2325.6	1022	2326	1025	2326.4	1028	2326.8	1031	2327.2	1034
GR	2327.6	1037	2328	1040	2328.6	1042.9	2329.1	1045.7	2329.7	1048.6
GR	2330.3	1051.4	2330.9	1054.3	2331.4	1057.1	2332	1060	2332.6	1062.9
GR	2333.1	1065.7	2333.7	1068.6	2334.3	1071.4	2334.9	1074.3	2335.4	1077.1
GR	2336	1080	2337.3	1083.3	2338.7	1086.7	2340	1090		
QT	2	2502	2502							
NC	0.070	0.070	0.040	.1	.3					
ET			9.1						720	1028
X1	0.516	66	990.5	1010.	385	410	396.0			
GR	2352	650	2351	655	2350	660	2349	665	2348	670
GR	2346	675	2344	680	2342	684.5	2340	689	2339.2	693.2
GR	2338.4	697.4	2337.6	701.6	2336.8	705.8	2336	710	2335.2	714.4
GR	2334.4	718.8	2333.6	723.2	2332.8	727.6	2332	732	2331.8	741.4
GR	2331.6	750.8	2331.4	760.2	2331.2	769.6	2331	779	2331.2	788.2
GR	2331.4	797.4	2331.6	806.6	2331.8	815.8	2332	825	2332.2	834.1
GR	2332.4	843.2	2332.4	847.7	2332.6	852.3	2332.8	865.9	2333	875
GR	2333	888.9	2333	902.9	2333	916.8	2333	930.7	2332.9	944.6
GR	2332.7	953.7	2332.6	958.2	2332.4	962.8	2332.2	971.9	2332	981
GR	2331.8	990.5	2331.6	995.3	2331.6	1005	2331.8	1010	2332	1020
GR	2333.3	1024.7	2334.7	1029.3	2336	1034	2336.9	1038.5	2337.9	1043.1
GR	2338.8	1047.6	2339.7	1052.2	2340.6	1056.7	2341.5	1061.2	2342.5	1065.8
GR	2343.4	1070.3	2344.3	1074.8	2345.2	1079.4	2346.1	1083.9	2347.1	1088.5
GR	2348	1093								
ET			9.1						503	1023
X1	0.623	60	982.0	1011.0	493	588	565.0			
GR	2352	450	2351	455.8	2350	461.7	2349	467.5	2348	473.3
GR	2347	479.2	2346	485	2345.3	491.7	2344.7	498.3	2344	505
GR	2343.8	510.7	2343.6	516.4	2343.4	522.1	2343.2	527.8	2343	533.5
GR	2342.8	539.2	2342.6	544.9	2342.4	550.6	2342.2	556.3	2342	562
GR	2342	580.5	2342	599.1	2342	617.6	2342	630	2342.3	636.3
GR	2342.5	642.5	2342.8	648.8	2343	655	2343	673.2	2343	691.4
GR	2343	709.6	2343	727.9	2343.1	746	2343.3	764	2343.5	782
GR	2343.7	800	2343.9	818	2344	836.4	2344	855.6	2343.9	874
GR	2343.7	892	2343.6	910	2343.4	922	2343.3	940	2343.1	958
GR	2343	976	2343	982	2343	1000	2343.3	1005.5	2343.5	1011
GR	2343.8	1016.5	2344	1022	2346	1028.5	2348	1035	2350	1041.3
GR	2352	1047.5	2354	1053.8	2356	1060	2358	1065	2360	1070

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ET              7.1       9.1                                630      1023       630      1023
X1    0.663      70      972.     1015.0     215      225.0    215.6
GR     2356     440     2355.3    446.7    2354.7    453.3     2354     460     2353.3    466.7
GR   2352.7    473.3     2352      480     2351.3    487.3    2350.7   494.7     2350      502
GR   2349.9    508.8    2349.7    515.5    2349.5    522.3    2349.4   529.1    2349.2    535.8
GR   2349.1    542.6    2348.9    549.4    2348.8    556.2    2348.6   562.9    2348.5    569.7
GR   2348.3    576.5    2348.1    583.2    2347.9    596.9    2347.7   617.7    2347.5    631.5
GR   2347.3    652.3    2347.1    666.2     2347      687      2347     708      2347      729
GR     2347     750     2347.2    764      2347.4    778      2347.6   792      2347.8    806
GR     2348     820     2348.2    833.8    2348.4    847.6    2348.6   854.4    2348.8    868.2
GR     2349     882     2348.8    902.8    2348.6    916.6    2348.4   937.4    2348.2    951.2
GR     2348     972     2347.8    979      2347.5    986      2347.3   993      2347      1000
GR   2347.5   1007.5     2348     1015      2349     1021.5    2350     1028     2351      1034.5
GR     2352    1041     2352.6   1048.3    2353.1   1055.6    2353.7   1062.9   2354.3    1070.1
GR   2354.9   1077.4    2355.4   1084.7     2356     1092     2357.1   1098.9   2358.3    1105.7
GR   2359.4   1112.6    2360.6   1119.4    2361.7   1126.3    2362.9   1133.1    2364     1140

NC    0.070    0.070     0.035     .1        .3
ET              7.1       9.1                                800      1033       800      1033
                ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
                SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
                WSEL AND THE TOPOGRAPHY.
X1    0.723      71      987.     1021.      250      322      316.8
GR     2360     580     2359.3    585      2358.7    590      2358     595      2356      600
       2355.5   605      2355      610      2354.5    615      2354     620      2353      625
        2352    630     2351.8    645      2351.6    655      2351.4   670      2351.2    680
GR     2351     695      2351     709.6     2351     724.3     2351     738.9    2351      753.5
GR     2351    768.1     2351      773     2351.3    777.8    2351.5   782.5    2351.8    787.3
GR     2352     792      2352      807      2352      812     2351.8   816.5    2351.5     821
GR   2351.3    825.5     2351      830     2351.3    835.3    2351.5   840.5    2351.8    845.8
GR     2352     851     2352.7    855.3    2353.3    859.7     2354     864      2354      875.3
GR   2353.9    885.9    2353.7    900.7    2353.5    910.5    2353.3   920.3    2353.1    935.1
GR   2352.9    945.2    2352.7    955.7    2352.6    960.9    2352.4   966.1    2352.2    976.6
GR     2352     987     2351.7    991.3    2351.3    995.7     2351    1000     2351.3    1005.3
GR   2351.5   1010.5    2351.8   1015.8     2352     1021      2353    1025.8    2354     1030.5
GR     2355   1035.3     2356     1040     2356.5   1044.5     2357     1049    2357.5    1053.5
GR     2358    1058      2359    1063.5     2360     1069     2360.7   1073.3   2361.3    1077.7
GR     2362    1082

ET              7.1       9.1                                950      1228       950      1228
                ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
                SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
                WSEL AND THE TOPOGRAPHY.
X1    0.820      61      981.9    1021.2     435      410      512.2
GR   2370.0    770.0    2369.6    777.2    2369.3    780.6    2368.4   791.1    2367.8    799.4
GR   2367.1    808.8    2366.0    820.0    2365.2    826.5    2364.4   831.2    2362.0    839.4
GR   2359.1    851.8    2357.5    855.6    2356.3    858.1    2355.8   861.6    2356.2    866.3
GR   2356.4    870.8    2357.4    879.0    2357.7    891.4    2358.2   898.9    2359.4    910.7
GR   2359.8    918.6    2360.2    930.0    2360.2    941.5    2360.2   952.2    2359.8    959.3
     2359.7    968.7    2359.7    981.9    2359.4    988.7    2359.3   1000.0   2359.3    1006.1
     2359.3   1010.5    2359.3   1016.2    2359.4   1021.2    2359.4   1029.3   2359.5    1042.1
GR   2359.3   1049.7    2359.3   1057.6    2359.3   1062.5    2359.2   1068.4   2359.2    1075.6
GR   2359.2   1082.1    2359.2   1091.8    2359.0   1100.5    2358.8   1111.6   2358.7    1120.9
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     2358.7    1128.5    2358.8    1136.4    2359.0    1141.7    2359.1    1152.0    2359.1    1158.9
GR   2359.2    1169.1    2359.4    1182.3    2359.8    1191.2    2360.0    1200.3    2360.4    1209.3
GR   2360.9    1222.8    2362.0    1232.5    2363.1    1243.0    2363.8    1250.8    2368.0    1262.4
GR   2370.0    1270.0

NC   0.070     0.060     0.035       .1        .3
ET               7.1       9.1                                   704      1014       704      1014
               ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
               SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
               WSEL AND THE TOPOGRAPHY.
X1   0.911       67      986.4    1012.8       420       515     480.5
GR   2380.0     668.6    2378.8     675.4    2376.3     683.1    2372.5     690.2    2370.0     695.6
GR   2369.4     701.6    2368.0     704.9    2366.1     711.8    2364.5     717.2    2364.1     721.6
GR   2364.0     727.7    2364.2     732.6    2364.7     740.6    2364.9     748.7    2365.1     757.5
GR   2365.3     766.4    2365.6     777.3    2365.8     792.1    2366.1     800.3    2366.2     808.7
GR   2366.2     816.5    2366.5     827.1    2366.5     832.8    2366.4     842.9    2366.4     851.0
GR   2366.7     858.3    2366.8     865.7    2367.1     877.6    2367.3     884.8    2367.5     890.8
GR   2367.8     898.6    2368.0     904.7    2368.2     911.0    2368.3     919.3    2368.0     930.0
GR   2367.4     936.1    2367.3     942.8    2367.4     947.5    2367.5     952.2    2367.7     961.1
GR   2368.0     970.5    2368.4     977.9    2368.5     986.4    2368.1     992.6    2367.4     997.4
GR   2367.2    1000.0    2367.2    1004.3    2367.6    1007.8    2368.1    1012.8    2370.0    1018.7
GR   2370.6    1027.4    2371.0    1031.6    2372.4    1040.8    2373.1    1052.8    2373.8    1060.4
GR   2374.2    1070.5    2374.7    1081.0    2375.2    1090.1    2375.6    1101.6    2375.9    1111.1
GR   2376.3    1121.6    2376.5    1132.1    2376.7    1138.4    2377.0    1141.6    2377.3    1150.4
GR   2377.5    1158.8    2377.8    1165.4

       2         2264      2264
ET               7.1       9.1                                   747      1093       747      1093
               ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
               SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
               WSEL AND THE TOPOGRAPHY.
X1   1.007       66      995.0    1009.0      465.      535.     508.
GR   2382       711      2381       719    2380       727    2379       735    2378       743
GR   2377       751      2376       759    2375.6     782.3    2375.4     797.8    2375.1     813.3
GR   2375     836.6      2375       860    2375.4     876      2375.6     884      2376       900
GR   2376.3    916.3    2376.7     932.7    2377       949      2376.7     964.3    2376.3     979.7
GR   2376       995      2375      1000    2376      1009      2376.3    1025.1    2376.7    1049.3
GR   2376.9   1065.5    2377.1    1073.5    2377.5    1097.7    2377.9    1121.9    2378      1130
GR   2378.3   1137.5    2378.5    1145      2378.8    1152.5    2379      1160      2379.3    1167.5
GR   2379.5    1175     2379.8    1182.5    2380.1    1197.5    2380.4    1212.5    2380.2    1234.7
GR   2380      1242     2379.5    1253      2379.8    1259      2380.1    1273.1    2380.4    1297.2
GR   2380.6   1305.3    2380.9    1329.4    2381.1    1345.6    2381.4    1369.7    2381.6    1377.8
GR   2381.9   1401.9    2382      1410      2382.3    1417.5    2382.5    1425      2382.8    1432.5
GR   2383      1440     2383.3    1447.5    2383.5    1455      2383.8    1462.5    2384      1470
GR   2385     1478.8    2386      1487.5    2387      1496.3    2388      1505      2388.3    1512.5
GR   2388.5    1520

NC   0.070     0.065     0.040       .1        .3
ET                       9.1                                                           938      1307
X1   1.098       67      979.1      1020.     500       470     479.4
     2392       915      2390.5     920    2389       925    2387.5     930    2386       935
     2385.8    939.9     2385.6     944.8    2385.4    949.7    2385.2    954.6    2385      959.5
GR   2384.8    964.4     2384.6     969.3    2384.4    974.2    2384.2    979.1    2384      984
GR   2383.8    989.3     2383.7     994.7    2383.5    1000     2383.6    1005     2383.8    1010
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	2384	1020	2384.3	1025	2384.5	1030	2384.8	1035	2385	1040
GR	2384.8	1049.5	2384.6	1054.3	2384.4	1063.8	2384.3	1068.5	2384.1	1073.3
GR	2384.2	1093.4	2384.4	1108.8	2384.4	1124.2	2384.2	1139.7	2384	1150
GR	2383.8	1159.5	2383.6	1164.3	2383.7	1183.1	2383.9	1192.6	2384.1	1212.1
GR	2384.2	1227.4	2384.3	1242.6	2384.4	1257.8	2384.5	1273	2384.7	1278.3
GR	2384.9	1283.6	2385.1	1288.9	2385.4	1294.1	2385.6	1299.4	2385.8	1304.7
GR	2386	1310	2386.3	1315	2386.6	1320	2386.9	1325	2387.1	1330
GR	2387.4	1335	2387.7	1340	2388	1345	2388.3	1350	2388.6	1355
GR	2388.9	1360	2389.1	1365	2389.4	1370	2389.7	1375	2390	1380
GR	2391	1385	2392	1390						
ET			9.1						981	1434
X1	1.157	63	988.0	1048.1	295.	418.	311.5			
GR	2396	959	2394.5	966.3	2393	973.5	2391.5	980.8	2390	988
GR	2389.5	994	2389	1000	2389.1	1006.9	2389.3	1013.8	2389.5	1027.5
GR	2389.6	1034.4	2389.8	1041.3	2389.9	1048.1	2390.1	1061.9	2390.3	1068.8
GR	2390.5	1082.5	2390.6	1089.4	2390.8	1096.3	2391	1110	2390.8	1131.2
GR	2390.6	1152.3	2390.5	1173.5	2390.3	1194.7	2390.1	1215.9	2390	1236.9
GR	2389.9	1257.7	2389.7	1278.5	2389.6	1299.2	2389.5	1320	2389.5	1335.2
GR	2389.5	1350.4	2389.7	1370.8	2389.9	1383.6	2390	1390	2390.2	1397.2
GR	2390.4	1404.4	2390.7	1411.7	2390.9	1418.9	2391.1	1426.1	2391.3	1433.3
GR	2391.6	1440.6	2391.8	1447.8	2392	1455	2392.2	1462.5	2392.3	1470
GR	2392.5	1477.5	2392.7	1485	2392.8	1492.5	2393	1500	2393	1520.6
GR	2393	1541.3	2393	1555	2393.2	1562	2393.4	1569	2393.6	1576
GR	2393.8	1583	2394	1590	2395	1597.5	2396	1605	2397	1612.5
	2398	1620	2399	1627.5	2400	1635				
NC	0.065	0.065	0.035	.1	.3					
ET		7.1	9.1				774	1280	774	1280

ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED WSEL AND THE TOPOGRAPHY.

X1	1.248	79	974.8	1019.0	490	478	480.5			
GR	2402	760	2399.4	770	2397.6	780	2396.9	784.2	2396.6	788.5
GR	2397.1	793.3	2397.6	797.4	2398.1	806.9	2398	809	2398.5	820
GR	2398	831	2397.7	840.2	2397.6	858.5	2397.5	876.9	2397.6	895.3
GR	2397.7	913.6	2397.8	922.8	2398	932	2398.5	945	2398	958
GR	2397.7	966.4	2397.4	974.8	2397.1	983.2	2396.8	991.6	2396.5	1000
GR	2396.6	1004.8	2397.3	1009.5	2398	1019	2398.3	1029.5	2398.5	1040
GR	2398.3	1056.5	2398.1	1064.8	2398	1081.9	2397.9	1099.8	2397.8	1117.8
GR	2397.8	1126.7	2397.6	1135.7	2397.5	1153.6	2397.4	1171.5	2397.3	1189.4
GR	2397.3	1198.3	2397.5	1207.3	2397.6	1216.2	2397.3	1225.2	2397.1	1234.1
GR	2396.9	1243.1	2397	1261	2396.9	1269.9	2397.1	1278.9	2397.3	1296.8
GR	2397.2	1314.7	2397	1323.6	2396.8	1332.6	2397	1341.5	2397	1350.5
GR	2397.2	1359.4	2397.3	1368.4	2397.5	1377.3	2397.6	1386.3	2397.8	1395.2
GR	2398	1404.2	2398	1422.1	2398	1440	2398.1	1449.2	2398.3	1458.5
GR	2398.5	1467.7	2398.6	1476.9	2398.8	1486.2	2398.9	1495.4	2399.1	1504.6
GR	2399.2	1513.8	2399.4	1523.1	2399.5	1532.3	2399.7	1541.5	2399.9	1550.8
GR	2400	1560	2401	1568.8	2402	1577.5	2403	1586.3		

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ET              7.1       9.1                                   910       1031       910       1031
                ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
                SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
                WSEL AND THE TOPOGRAPHY.
                DIRT ROAD DIP CROSSING
X1    1.347       54      995.     1020.      535       380     522.7
GR     2412      550    2411.5      555     2411       560    2410.5      565      2410       570
GR   2409.2      575    2408.4      580   2407.6       585    2406.8      590      2406       595
GR   2405.9    611.7    2405.8    628.4   2405.7     645.1    2405.7    661.9    2405.6     678.6
GR   2405.5    695.3    2405.4      712   2405.3     728.7    2405.2    745.4    2405.1     762.1
GR   2405.1    778.9      2405    795.4   2405.2     811.7    2405.3    827.9    2405.4     844.2
GR   2405.6    860.4    2405.8    876.5   2405.9     892.6      2406      910    2405.8       922
GR   2405.6      934    2405.5      940   2405.2     946.3    2404.8    952.7    2404.5       959
GR   2404.7    969.4    2404.9    979.8      2405       995      2405     1000    2404.8      1006
GR   2404.5     1012      2406     1020      2407      1026      2408     1032    2408.5    1037.8
GR     2409   1043.5    2409.5   1049.3      2410      1055      2411   1060.8      2412    1066.7
GR     2413   1072.5      2414   1078.3      2415    1084.2      2416     1090

ET              7.1       9.1                                   882       1026       882       1026
                ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
                SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
                WSEL AND THE TOPOGRAPHY.
                DIRT ROAD DIP CROSSING
X1    1.445       81      986.     1008.      535       520     517.5
      2424      415    2423.5     421.3     2423     427.5    2422.5    433.8      2422       440
      2421    447.5      2420      455     2419     462.5      2418      470    2417.9     476.9
GR   2417.7    483.9    2417.5    490.8   2417.4     497.7    2417.2    504.6    2417.1     511.5
GR   2416.9    518.5    2416.8    525.4   2416.6     532.3    2416.5    539.2    2416.3     546.2
GR   2416.1    553.1      2416      560   2415.7     566.5    2415.3      573      2415     579.5
GR   2414.7      586    2414.3    592.5     2414       599    2413.8    605.5    2413.5       612
GR   2413.7      618    2413.8      624     2414       630    2414.5    637.5      2415       645
GR   2415.5    652.5      2416      660     2416     686.7      2416    713.3      2416       720
GR   2415.5      727      2415      734   2415.2     741.2    2415.4    748.4    2415.6     755.6
GR   2415.8    762.8      2416      770   2416.2     784.1    2416.4    798.2    2416.6     819.4
GR   2416.8    833.5      2417    847.7   2417.2     868.8    2417.4    882.9    2417.3     903.5
GR   2417.1    910.3      2417      917   2416.7     924.7    2416.3    932.3      2416       940
GR     2416      951    2416.3    957.5   2416.5       964    2416.3    971.5      2416       979
GR   2415.7      986    2415.3      993     2415      1000      2416     1008      2417      1014
GR     2418     1020      2419     1026     2420      1032      2421   1039.3      2422    1046.5
GR     2423   1053.8      2424     1061     2425    1068.3      2426   1075.5      2427    1082.8
GR     2428     1090

ET              7.1       9.1                                   984       1225       984       1225
                ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
                SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
                WSEL AND THE TOPOGRAPHY.
X1    1.549       76     992.0     1020.      520       375     549.1
GR     2435      950    2433.2      957   2431.4       964    2429.6      971    2427.8       978
GR     2426      985      2424      992   2423.5      1000    2423.8   1006.7    2424.2    1013.3
GR   2424.5     1020    2424.3     1026     2424      1032      2424     1046      2424      1060
GR   2423.9   1075.7    2423.7   1091.4   2423.6    1107.1    2423.5   1123.3    2423.5      1140
GR   2423.7   1148.3    2423.8   1156.7     2424      1165    2424.1   1172.5    2424.3      1180
GR   2424.5     1195    2424.6   1202.5   2424.8      1210      2425     1225      2425    1239.3
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     2425    1253.6     2425    1267.9     2425      1275    2424.8    1282.7    2424.7    1290.3
GR  2424.5      1298   2424.3    1305.7   2424.2    1313.3      2424      1321    2423.9    1336.1
GR  2423.7    1351.3   2423.6    1366.4   2423.5    1381.4    2423.5    1396.2    2423.5    1410.9
GR  2423.5    1425.7   2423.5    1440.5   2423.5    1455.2    2423.5      1470    2423.4    1485.5
GR  2423.2    1501.1     2423    1516.6   2422.9    1532.2    2422.7    1547.7    2422.6    1563.2
GR  2422.5      1571   2422.7    1578.7   2422.9    1586.4    2423.1    1594.1    2423.4    1601.9
GR  2423.6    1609.6   2423.8    1617.3     2424      1625    2424.5      1633      2425      1641
GR  2425.5      1649     2426      1657     2428      1665      2429      1673      2430      1681
GR  2430.7    1687.3   2431.3    1693.7     2432      1700    2432.3    1706.7    2432.7    1713.3
GR    2433      1720

QT        2      2073     2073
NC    0.065     0.065    0.040       .1       .3
ET                 7.1      9.1                                 974      1355       974      1355
                ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
                SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
                WSEL AND THE TOPOGRAPHY.
X1    1.633       77    981.3     1012.      480       340     443.5
GR     2440      920   2439.1     926.1   2438.2     932.2    2437.3     938.3    2436.4     944.4
GR   2435.6    950.6   2434.7     956.7   2433.8     962.8    2432.9     968.9      2432       975
GR   2431.6    981.3   2431.3     987.5   2430.9     993.8    2430.5      1000      2431      1006
GR   2431.5     1012     2432      1018   2432.2    1024.2    2432.4    1030.4    2432.6    1036.6
GR   2432.8   1042.8     2433      1049   2432.9    1055.1    2432.7    1061.3    2432.6    1067.4
GR   2432.4   1073.6   2432.3    1079.7   2432.1    1085.9    2432.2    1104.3    2432.4    1122.8
GR   2432.3   1140.6   2432.1    1152.2   2431.9    1163.9    2431.7    1169.7    2431.6    1175.6
     2431.4   1181.4   2431.3    1187.3   2431.1    1193.1    2430.9    1204.9    2430.7    1210.7
     2430.6   1216.6   2430.4    1222.4   2430.3    1228.3    2430.1    1234.1    2429.9    1245.8
GR   2429.7   1263.3   2429.5      1275   2429.7    1286.7    2429.9    1304.2      2430      1310
GR   2430.3   1315.6   2430.5    1321.3   2430.8    1326.9      2431    1332.5    2431.3    1338.1
GR   2431.5   1343.8   2431.8    1349.4     2432      1355      2432    1373.3      2432    1391.5
GR     2432   1409.8     2432      1428   2432.3    1434.4    2432.5    1440.8    2432.8    1447.1
GR     2433   1453.5   2433.3    1459.9   2433.5    1466.3    2433.8    1472.6      2434      1479
GR   2434.6   1484.9   2435.3    1490.7   2435.9    1496.6    2436.6    1502.4    2437.2    1508.3
GR   2437.9   1514.1   2438.5      1520

ET                       9.1                                                        978      1446
X1    1.686       55     989.     1018.      255       270.    278.8
GR     2443      929     2442     934.3     2441     939.7     2440       945    2439.5     950.3
GR     2439    955.5   2438.5     960.8     2438       966    2437.5     971.8      2437     977.5
GR   2436.5    983.3     2436       989   2435.5     994.5      2435      1000    2435.3      1006
GR   2435.7     1012     2436      1018   2436.2    1028.4    2436.4    1038.9    2436.6    1044.1
GR   2436.8   1054.6     2437      1065   2436.9    1081.7    2436.8    1098.4    2436.7    1115.1
GR   2436.6   1131.8   2436.5    1148.5   2436.4    1165.2    2436.3    1181.9    2436.2    1198.6
GR   2436.1   1215.3     2436      1232   2435.3      1238    2434.7      1244      2434      1250
GR     2434   1266.7     2434    1283.3     2434      1300    2434.1    1305.6    2434.3    1311.3
GR   2434.5   1322.5   2434.6    1328.1   2434.8    1333.8      2435      1345    2435.2    1361.6
GR   2435.4   1378.2   2435.5    1394.8   2435.7    1411.3    2435.9    1427.9      2436      1439
GR   2436.8   1444.8   2437.6    1450.6   2438.4    1456.4    2439.2    1462.2      2440      1468
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ET              7.1       9.1                                977       1276       977       1276
                ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
                SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
                WSEL AND THE TOPOGRAPHY.
X1    1.748      73      985.     1025.     360.      280.      327.4
GR    2450      780      2449     785.5     2448      791       2447.3    797.3     2446.7    803.7
GR    2446      810      2445.7   815.7     2445.4    821.4     2445.1    827.1     2444.9    832.9
GR    2444.6    838.6    2444.3   844.3     2444      850       2443.8    855.9     2443.7    861.8
GR    2443.5    867.8    2443.3   873.7     2443.2    879.6     2443      885.5     2442.8    891.4
GR    2442.7    897.3    2442.5   903.3     2442.3    909.2     2442.2    915.1     2442      921
GR    2441.7    927.3    2441.3   933.7     2441      940       2441.3    946.3     2441.7    952.7
GR    2442      959      2442.3   964.5     2442.5    970       2442.3    977.5     2442      985
GR    2441.3    992.5    2440.5   1000      2440.9    1006.3    2441.3    1012.5    2441.6    1018.8
GR    2442      1025     2442.2   1036.7    2442.4    1054.2    2442.2    1077.4    2442      1089
GR    2441.8    1101.1   2441.6   1119.2    2441.4    1131.3    2441.2    1149.4    2441      1161.5
GR    2440.8    1179.6   2440.6   1191.7    2440.4    1209.8    2440.2    1221.9    2440      1240
GR    2439.8    1247.5   2439.5   1255      2439.8    1262.5    2440      1270      2442.5    1275.5
GR    2445      1281     2447.5   1286.5    2450      1292      2450.8    1298      2451.6    1304
GR    2452.4    1310     2453.2   1316      2454      1322      2454.2    1327.6    2454.4    1333.2
GR    2454.6    1338.8   2454.8   1344.4    2455      1350

ET                        9.1                                                          959       1277
X1    1.801      79      986.3    1012.9    245       335       279.8
GR    2453      929      2452     933.8     2451      938.6     2450      943.4     2449      948.2
      2448      953      2447.3   958       2446.7    963       2446      968       2445.9    972.6
      2445.7    977.1    2445.6   981.7     2445.4    986.3     2445.3    990.9     2445.1    995.4
GR    2445      1000     2445.1   1004.3    2445.3    1008.6    2445.4    1012.9    2445.6    1017.1
GR    2445.7    1021.4   2445.9   1025.7    2446      1030      2446      1045      2445.9    1049.5
GR    2445.8    1063.1   2445.8   1067.6    2445.7    1072.1    2445.6    1085.6    2445.5    1090.1
GR    2445.5    1094.6   2445.4   1099.2    2445.3    1112.7    2445.2    1117.2    2445.1    1130.7
GR    2445      1135.2   2445     1139.8    2444.9    1144.3    2444.8    1157.8    2444.7    1162.3
GR    2444.6    1175.8   2444.5   1180.4    2444.5    1184.9    2444.4    1189.4    2444.3    1202.9
GR    2444.2    1207.4   2444.1   1221      2444.1    1225.5    2444      1230      2443.8    1235
GR    2443.5    1240     2443.8   1245      2444      1250      2444.5    1254.2    2445      1258.3
GR    2445.5    1262.5   2446     1266.7    2446.5    1270.8    2447      1275      2447.3    1280
GR    2447.7    1285     2448     1290      2449      1295      2450      1300      2451      1305
GR    2452      1310     2454.7   1314      2457.3    1318      2460      1322      2460.8    1326.3
GR    2461.6    1330.6   2462.4   1334.9    2463.2    1339.2    2464      1343.5    2464.8    1347.8
GR    2465.6    1352.1   2466.4   1356.4    2467.2    1360.7    2468      1365

ET              7.1       9.1                                950       1240       950       1240
                ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
                SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
                WSEL AND THE TOPOGRAPHY.
                FIRST CROSS SECTION ADJACENT TO VULTURE MINE ROAD
                WASH PARALLELS ROAD FORM 1.879 TO END OF DETAILED STUDY
                AT CROSS SECTION 2.854
X1    1.879      76      982.     1013.3    335       348       411.9
GR    2464      660      2463.3   666.7     2462.7    673.3     2462      680       2461.3    686.7
      2460.7    693.3    2460     700       2458.7    706.7     2457.3    713.3     2456      720
      2455      725      2454     730       2453.9    736.6     2453.7    743.2     2453.5    756.4
GR    2453.3    763      2453.1   776.2     2452.9    782.8     2452.7    796       2452.5    802.6
GR    2452.3    815.8    2452.1   822.4     2452      841.8     2452      860.9     2452      880
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	2452.3	886.3	2452.5	892.5	2452.8	898.8	2453	905	2453.3	911.3
GR	2453.5	917.5	2453.8	923.8	2454	930	2453.8	936.5	2453.5	943
GR	2453.3	949.5	2453	956	2452.8	962.5	2452.5	969	2452.3	975.5
GR	2452	982	2451.8	988	2451.7	994	2451.5	1000	2451.7	1006.7
GR	2451.8	1013.3	2452	1020	2452	1038	2452	1050	2451.8	1056.5
GR	2451.5	1063	2451.6	1069.8	2451.8	1076.5	2452	1090	2452.2	1103.3
GR	2452.4	1123.3	2452.3	1142	2452.1	1154	2451.9	1166.3	2451.7	1185.3
GR	2451.5	1198	2451.7	1210.8	2451.9	1223.6	2452	1230	2453	1237.3
GR	2454	1244.5	2455	1251.8	2456	1259	2457.3	1266	2458.7	1273
GR	2460	1280	2461.6	1286.2	2463.2	1292.4	2464.8	1298.6	2466.4	1304.8
GR	2468	1311								
NC	0.070	0.070	.040	.1	.3					
ET			9.1						784	1136
X1	1.989	83	984.	1025.	665	505	580.8			
GR	2482	445	2481.3	453.3	2480.7	461.7	2480	470	2479.7	477.9
GR	2479.4	485.7	2479.1	493.6	2478.9	501.4	2478.6	509.3	2478.3	517.1
GR	2478	525	2477.7	532.9	2477.4	540.7	2477.1	548.6	2476.9	556.4
GR	2476.6	564.3	2476.3	572.1	2476	580	2475.6	587.7	2475.3	595.5
GR	2474.9	603.2	2474.6	610.9	2474.2	618.6	2473.8	626.4	2473.4	634.1
GR	2473.1	641.8	2472.7	649.5	2472.4	657.3	2472	665	2471.7	673
GR	2471.5	681	2471.2	689	2470.9	697	2470.7	705	2470.4	713
GR	2470.1	721	2469.9	729	2469.6	737	2469.3	745	2469.1	753
GR	2468.8	761	2468.5	769	2468.3	777	2468	785	2468	810
GR	2467.5	820	2467.3	828.3	2467.2	836.7	2467	845	2466.8	870
	2466.7	895	2466.5	920	2466.4	944	2466.2	968	2466.1	984
	2466	1008.3	2466	1025	2466	1050	2466.2	1057.7	2466.4	1065.4
GR	2466.6	1073.2	2466.7	1080.9	2466.9	1088.6	2467.1	1096.4	2467.3	1104.1
GR	2467.4	1111.8	2467.6	1119.6	2467.8	1127.3	2468	1135	2468.7	1142.5
GR	2469.3	1150	2470	1157.5	2470.7	1165	2471.3	1172.5	2472	1180
GR	2473	1188.8	2474	1197.5	2475	1206.3	2476	1215	2477	1223.8
GR	2478	1232.5	2479	1241.3	2480	1250				
ET			9.1						945	1142
X1	2.083	71	986.9	1029.	565	420	496.3			
GR	2488	790	2487.6	798	2487.4	802	2487	810	2486.7	814.1
GR	2486.4	818.2	2486.2	822.3	2485.9	826.4	2485.6	830.5	2485.4	834.5
GR	2485.1	838.6	2484.8	842.7	2484.6	846.8	2484.3	850.9	2484	855
GR	2483.6	859.4	2483.1	863.9	2482.7	868.3	2482.2	872.8	2481.8	877.2
GR	2481.3	881.7	2480.9	886.1	2480.4	890.6	2480	895	2479.5	899.4
GR	2479	903.8	2478.5	908.1	2478	912.5	2477.5	916.9	2477	921.3
GR	2476.5	925.6	2476	930	2475.5	934.4	2475	938.8	2474.5	943.1
GR	2474	947.5	2473.5	951.9	2473	956.3	2472.5	960.6	2472	965
GR	2471.7	986.9	2471.5	1008.3	2471.6	1029	2471.8	1049.2	2471.8	1070
GR	2471.5	1082.9	2471.2	1091.4	2471.4	1112.9	2471.6	1117.1	2471.9	1125.7
GR	2472	1130	2472.8	1134	2473.6	1138	2474.4	1142	2475.2	1146
GR	2476	1150	2476.7	1154.2	2477.3	1158.3	2478	1162.5	2478.7	1166.7
GR	2479.3	1170.8	2480	1175	2480.9	1179.4	2481.8	1183.9	2482.7	1188.3
GR	2483.6	1192.8	2484.4	1197.2	2485.3	1201.7	2486.2	1206.1	2487.1	1210.6
GR	2488	1215								

QT	2	1929	1929							
ET			9.1						654	1046
X1	2.174	72	976.0	1029.2	490	465	480.5			
GR	2492	495	2491.2	501	2490.4	507	2489.6	513	2488.8	519
GR	2488	525	2487.6	530.8	2487.2	536.7	2486.8	542.5	2486.3	548.3
GR	2485.9	554.2	2485.5	560	2485.1	566.3	2484.8	572.5	2484.4	578.8
GR	2484	585	2483.8	590.9	2483.7	596.9	2483.5	602.8	2483.4	608.8
GR	2483.2	614.7	2483.1	620.6	2482.9	626.6	2482.8	632.5	2482.6	638.4
GR	2482.4	644.4	2482.3	650.3	2482.1	656.3	2482	662.2	2481.8	668.1
GR	2481.7	674.1	2481.5	680	2481.4	697.5	2481.4	715	2481.4	732.5
GR	2481.3	750	2481.3	768.3	2481.4	786.5	2481.4	804.8	2481.4	823
GR	2481.4	841.3	2481.5	859.6	2481.5	877.8	2481.4	896.2	2481.3	902.3
GR	2481.1	908.5	2480.9	920.8	2480.7	933.1	2480.5	945.4	2480.4	951.5
GR	2480.2	957.7	2480	970	2479.8	976	2479.6	982	2479.4	988
GR	2479.2	994	2479	1000	2479.2	1005.8	2479.3	1011.7	2479.5	1017.5
GR	2479.7	1023.3	2479.8	1029.2	2480	1035	2481.3	1041.7	2482.7	1048.3
GR	2484	1055	2485	1060.8	2486	1066.7	2487	1072.5	2488	1078.3
GR	2489	1084.2	2490	1090						
ET			9.1						763	1042
X1	2.260	60	992.5	1011.7	395	465	454.1			
GR	2496	700	2495	703.8	2494	707.5	2493	711.3	2492	715
GR	2491.1	718.8	2490.3	722.5	2489	726.3	2488	730	2487.8	733.9
GR	2487.6	737.8	2487.4	741.7	2487.2	745.6	2487	749.4	2486.8	753.3
	2486.6	757.2	2486.4	761.1	2486.3	765	2486.1	768.9	2485.9	772.8
	2485.7	776.7	2485.5	780.6	2485.3	784.4	2485.1	788.3	2484.9	792.2
GR	2484.7	796.1	2484.5	800	2484.5	815.7	2484.5	831.4	2484.5	847.1
GR	2484.4	862.7	2484.4	878.1	2484.3	893.5	2484.2	908.8	2484.1	924.1
GR	2484.1	939.4	2484.1	954.7	2484	970	2483.8	977.5	2483.6	981.3
GR	2483.4	988.8	2483.3	992.5	2483.1	996.3	2483.3	1011.7	2483.4	1015.6
GR	2483.6	1019.4	2483.8	1027.2	2484	1035	2485.3	1038.8	2486.7	1042.5
GR	2488	1046.3	2489.3	1050	2490.7	1053.8	2492	1057.5	2493.3	1061.3
GR	2494.7	1065	2496	1068.8	2497.3	1072.5	2498.7	1076.3	2500	1080
NC	0.060	0.060	0.040	.1	.3					
ET			9.1						755	1081
X1	2.354	69	975	1005.	445	495	496.3			
GR	2496	700	2495.5	705	2495	710	2494.5	715	2494	720
GR	2493.5	725	2493	730	2492.5	735	2492	740	2491.6	745
GR	2491.1	750	2491	755	2490.3	760	2490	765	2490	770
GR	2489	775	2489	785	2488.7	790	2489	795	2489	815
GR	2489.2	820	2489.2	825	2489.4	830	2489.4	850	2489.6	865
GR	2489.8	870	2490	875	2489.8	890	2489.6	910	2489.5	930
GR	2489.5	950	2489.4	970	2489.4	975	2489.4	995	2489.5	1005
GR	2489.5	1025	2489.5	1045	2489.5	1055	2489.8	1060	2490.1	1065
GR	2490.3	1070	2490.6	1075	2490.9	1080	2491.2	1085	2491	1090
GR	2491.4	1095	2492	1100	2492	1105	2492.8	1110	2493.2	1115
GR	2493.6	1120	2492	1125	2492.4	1130	2493.1	1135	2493.5	1140
GR	2493.9	1145	2496	1150	2496.8	1155	2496.8	1160	2497.4	1165
	2498.2	1170	2499	1175	2500.6	1180	2501.1	1185	2501.7	1190
	2502.3	1195	2502.9	1200	2503.4	1205	2504	1210		

ET			9.1						747	1044
X1	2.449	81	985.	1015.	520	485	501.6			
GR	2517	450	2516.8	455	2516.5	460	2516.3	465	2516	470
GR	2514.7	475	2513.3	480	2512	485	2510.7	490	2509.3	495
GR	2508	500	2507.8	510	2507.6	515	2507.4	525	2507.3	530
GR	2507.1	535	2506.9	545	2506.8	550	2506.6	555	2506.4	565
GR	2506.3	570	2506.1	575	2506	580	2505.8	585	2505.6	590
GR	2505.4	595	2505.3	600	2505.1	605	2504.9	610	2504.7	615
GR	2504.6	620	2504.4	625	2504.2	630	2504	635	2503.9	640
GR	2503.7	645	2503.6	650	2503.4	655	2503.3	660	2503.1	665
GR	2503	685	2503	690	2501.8	695	2501.5	700	2501.3	705
GR	2501	710	2500.8	715	2500.5	720	2500.3	725	2500	730
GR	2499.2	735	2498.4	740	2497.6	745	2496.8	750	2496	755
GR	2495.8	770	2495.6	790	2495.5	810	2495.5	830	2495.5	850
GR	2495.5	870	2495.5	890	2495.5	910	2495.5	930	2495.5	950
GR	2495.5	970	2495.5	985	2495	990	2495	1010	2495.5	1015
GR	2495.5	1020	2496	1025	2496	1040	2498	1045	2500	1050
GR	2501.8	1055	2502.7	1060	2504	1065	2505.5	1070	2506.5	1075
GR	2508	1080								
ET		7.1	9.1				782	1080	782	1080

ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED WSEL AND THE TOPOGRAPHY.

	2.544	85	978.1	1007.3	475	518	501.6			
	2516	245	2515.3	252.5	2514.7	260	2514	267.5	2513.3	275
GR	2512.7	282.5	2512	290	2511.6	297.3	2511.3	304.5	2510.9	311.8
GR	2510.6	319.1	2510.2	326.4	2509.8	333.6	2509.4	340.9	2509.1	348.2
GR	2508.7	355.5	2508.4	362.7	2508	370	2507.5	377.5	2507	385
GR	2506.5	392.5	2506	400	2505.3	408.3	2504.7	416.7	2504	425
GR	2503.7	476.1	2504	560	2504.4	582.1	2504.6	596.8	2504.9	618.8
GR	2505.1	626.2	2505.4	648.2	2505.6	662.9	2505.9	677.7	2505.6	707.5
GR	2505.4	715	2505.1	730	2504.9	745	2504.6	760	2504.4	767.5
GR	2504.1	782.5	2503.9	797.7	2503.6	813	2503.3	828.3	2503.1	843.7
GR	2502.9	851.3	2502.5	874.3	2502.1	897.3	2502	978.1	2502.2	1007.3
GR	2502.4	1014.5	2502.6	1021.8	2502.9	1036.4	2503.1	1043.6	2503.4	1058.2
GR	2503.6	1065.4	2504	1080	2504.4	1095	2504.7	1102.5	2504.9	1110
GR	2505.1	1117.5	2505.3	1125	2505.6	1132.5	2506	1147.5	2506.4	1162.5
GR	2506.7	1170	2506.9	1177.5	2507.1	1185	2507.3	1192.5	2507.6	1200
GR	2508	1215	2508.9	1222.2	2509.8	1229.4	2510.7	1236.7	2511.6	1243.9
GR	2512.4	1251.1	2513.3	1258.3	2514.2	1265.6	2515.1	1272.8	2516	1280
GR	2516.8	1288	2517.6	1296	2518.4	1304	2519.2	1312	2520	1320
QT	2	1724	1724							
ET			9.1						718	1027
X1	2.614	52	985.	1010.0	350	379	369.6			
GR	2512.8	585	2512.6	595	2512.4	610	2512.2	620	2512	635
GR	2511.8	640	2511.6	645	2511.4	650	2511.2	655	2510.9	660
GR	2510.7	665	2510.5	670	2510.3	675	2510	680	2509.9	685
	2509.7	690	2509.5	695	2509.3	700	2509.1	705	2508.8	710
	2508.6	715	2508.4	720	2508.2	725	2508	730	2507.8	749.5
GR	2507.6	769	2507.4	788.5	2507.2	808	2507	827.6	2506.8	847.1
GR	2506.6	866.6	2506.4	886.1	2506.2	905.6	2506	930	2506	965

	2506	985	2506	1000	2506.4	1005	2506.8	1010	2507.2	1015
GR	2507.6	1020	2508	1025	2510	1030	2512	1035	2512.8	1040
GR	2513.6	1045	2514.4	1050	2515.2	1055	2516	1060	2517.3	1065
GR	2518.7	1070	2520	1075						
ET			9.1						867	1100
X1	2.695	46	990.4	1018.6	390	450	427.7			
GR	2520.8	715.0	2520.8	721.2	2520.6	733.7	2520.4	742.0	2520.0	750.3
GR	2520.0	755.1	2518.1	762.9	2516.0	778.4	2515.3	789.0	2514.8	801.4
GR	2514.4	809.6	2514.0	815.0	2514.3	824.4	2514.1	836.2	2513.8	849.8
GR	2513.4	866.6	2513.1	871.5	2512.8	882.0	2512.4	891.2	2512.0	900.3
GR	2511.8	914.7	2511.2	922.3	2511.4	931.2	2512.0	939.9	2512.2	955.0
GR	2512.0	971.5	2511.7	990.4	2511.6	1000.0	2511.6	1005.6	2511.6	1010.0
GR	2511.9	1018.6	2512.0	1031.2	2512.0	1052.9	2512.0	1068.8	2512.8	1091.8
GR	2513.5	1102.1	2514.2	1111.6	2514.9	1128.7	2516.0	1145.2	2518.2	1161.8
GR	2520.0	1172.6	2524.3	1184.8	2528.3	1195.2	2532.1	1203.6	2536.4	1211.0
GR	2540.0	1215.0								
ET			9.1						807	1190
X1	2.786	78	988.0	1018.8	412	425	480.4			
GR	2527	555	2526.9	566.8	2526.8	578.6	2526.7	590.5	2526.6	602.3
GR	2526.6	614.1	2526.5	620	2526.3	626.3	2526.1	632.5	2525.9	638.8
GR	2525.7	645	2525.5	651.3	2525.3	657.5	2525	663.8	2524.8	670
GR	2524.6	676.3	2524.4	682.5	2524.2	688.8	2524	695	2523.8	707
GR	2523.6	713	2523.4	725	2523.3	731	2523.1	737	2522.9	749
	2522.8	755	2522.6	761	2522.4	773	2522.3	779	2522.1	785
	2521.9	797	2521.8	803	2521.6	809	2521.5	820.9	2521.4	832.8
GR	2521.3	844.7	2521.3	856.6	2521.2	868.4	2521.2	880.3	2521.1	892.2
GR	2521	904.1	2521	916	2520.9	928	2520.8	940	2520.8	952
GR	2520.7	964	2520.6	976	2520.6	988	2520.5	1000	2520.4	1012.5
GR	2520.6	1018.8	2520.5	1031.3	2520.5	1043.8	2520.5	1050	2520.3	1055.8
GR	2520.1	1061.7	2520.1	1073.3	2520	1085	2519.8	1097.5	2519.6	1103.8
GR	2519.4	1116.3	2519.3	1122.5	2519.1	1128.8	2519.1	1141.3	2519.3	1147.5
GR	2519.5	1160	2519.7	1172	2519.9	1184	2521.8	1190	2523.1	1196.7
GR	2524	1203.3	2526	1210	2528	1217.5	2529.5	1225	2530.7	1231.3
GR	2532	1237.5	2534	1243.8	2534.8	1250				
ET			9.1						924	1377
		LAST CROSS SECTION OF DETAILED STUDY								
X1	2.854	81	980.	1020.	402	338	359.1			
GR	2532	455	2531.7	465	2531.3	475	2531	485	2530.7	495
GR	2530.3	505	2530	515	2529.7	525	2529.3	535	2529	545
GR	2528.7	555	2528.3	565	2528	575	2527.9	584.3	2527.7	593.6
GR	2527.6	602.9	2527.4	612.1	2527.3	621.4	2527.1	630.7	2527	640
GR	2527.2	650	2527.3	660	2527.5	670	2527.7	680	2527.8	690
GR	2528	700	2528.2	710	2528.4	720	2528.6	730	2528.8	740
GR	2529	750	2528.8	760	2528.6	770	2528.4	780	2528.2	790
GR	2528	800	2527.8	809.2	2527.7	818.3	2527.5	827.5	2527.3	836.7
GR	2527.2	845.8	2527	855	2526.8	864.2	2526.5	873.3	2526.3	882.5
GR	2526	891.7	2525.8	900.8	2525.5	910	2525.3	920	2525.2	930
	2525	940	2524.8	950	2524.6	960	2524.4	970	2524.2	980
	2524	990	2523.5	1000	2524	1010	2524.2	1020	2524.5	1030
GR	2524.5	1090	2524	1100	2523.8	1160	2523.6	1170	2523.6	1200
GR	2523.4	1210	2523.4	1220	2523.6	1229.6	2523.6	1258.2	2523.4	1267.7

	2523.7	1277.3	2523.5	1315.4	2523.6	1352	2523.9	1361	2524	1370
GR	2526	1380	2528	1390	2530	1400	2532	1410	2536	1420
GR	2540	1430								

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS
0

CCHV= .100 CEHV= .300
*SECNO 3.483

CONFLUENCE OF WASH R - CEMETERY WASH AND TRIBUTARY WASH R-2
THE METHOD USED TO START THIS HEC-2, WATER SURFACE PROFILE
ANALYSIS IS THE KNOWN STARTING WATER SURFACE METHOD. THE
WATER SURFACE ELEVATION FOR CROSS SECTION 5.184, WASH R-
CEMETERY WASH, WAS USED AS THE STARTING WATER SURFACE ELEVATION
FOR THE WASH R-2 HEC-2 WATER SURFACE PROFILE ANALYSIS. THE
WATER SURFACE ELEVATION USED WAS COMPUTED DURING THE HEC-2
ANALYSIS FOR WASH R-CEMETERY WASH.

3.483	5.10	2300.10	2299.91	2300.10	2300.75	.65	.00	.00	2296.50
5307.0	3412.7	1816.8	77.5	980.7	182.8	25.3	.0	.0	2296.50
.00	3.48	9.94	3.07	.065	.035	.070	.000	2295.00	979.75
.008025	0.	0.	0.	0	9	0	.00	530.73	1510.49

FLOW DISTRIBUTION FOR SECNO= 3.48 CWSEL= 2300.10

STA=	980.	1025.	1069.	1114.	1161.	1208.	1245.	1285.	1308.	1342.	1365.	1388.	1411.
PER Q=	4.9	3.8	3.5	3.8	4.5	3.4	4.3	3.7	6.9	4.9	4.9	4.9	
AREA=	81.8	71.2	68.6	72.6	81.9	62.7	74.0	53.8	92.3	63.8	64.1	63.8	
VEL=	3.1	2.8	2.7	2.7	2.9	2.9	3.1	3.6	4.0	4.1	4.1	4.1	
DEPTH=	1.8	1.6	1.5	1.6	1.7	1.7	1.9	2.4	2.7	2.8	2.8	2.8	

STA=	1411.	1434.	1446.	1452.	1495.	1510.
PER Q=	5.5	3.4	1.9	34.2	1.5	
AREA=	69.0	39.6	21.3	182.8	25.3	
VEL=	4.2	4.5	4.8	9.9	3.1	
DEPTH=	3.0	3.3	3.6	4.3	1.6	

CCHV= .100 CEHV= .300
*SECNO .214

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION,
UNLESS OTHERWISE NOTED.

.214	4.91	2311.01	2311.01	.00	2312.72	1.71	4.96	.32	2307.10
2797.0	483.8	2063.4	249.8	107.6	173.3	52.6	9.9	4.1	2307.00
.02	4.50	11.90	4.75	.070	.035	.070	.000	2306.10	928.91
.010739	575.	552.	552.	0	8	0	.00	101.90	1030.82

FLOW DISTRIBUTION FOR SECNO= .21 CWSEL= 2311.01

STA=	929.	950.	962.	974.	1013.	1019.	1025.	1031.
PER Q=	3.1	6.1	8.1	73.8	4.5	3.5	1.0	
AREA=	28.0	36.4	43.2	173.3	23.7	20.2	8.7	
VEL=	3.1	4.7	5.2	11.9	5.3	4.8	3.0	
DEPTH=	1.3	3.1	3.7	4.5	3.8	3.3	1.5	

*SECNO .254

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.53

.254	6.24	2313.24	2310.26	.00	2313.53	.29	.67	.14	2307.00
2797.0	1498.8	1234.5	63.8	550.5	213.0	34.3	12.3	4.7	2308.00
.03	2.72	5.80	1.86	.070	.035	.070	.000	2307.00	868.29
.001681	160.	211.	228.	2	14	0	.00	154.79	1023.09

FLOW DISTRIBUTION FOR SECNO= .25 CWSEL= 2313.24

STA=	868.	890.	898.	908.	920.	928.	938.	950.	975.	1010.	1023.
PER Q=	3.8	3.6	5.1	6.7	4.2	5.9	7.8	16.4	44.1	2.3	
AREA=	57.2	39.3	53.3	69.0	42.4	58.3	75.2	155.8	213.0	34.3	
VEL=	1.8	2.6	2.7	2.7	2.8	2.8	2.9	2.9	5.8	1.9	
DEPTH=	2.6	5.2	5.4	5.6	5.7	5.9	6.1	6.2	6.1	2.6	

*SECNO .358

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.358	3.14	2321.14	2321.14	.00	2321.99	.84	2.12	.17	2318.50
2797.0	292.4	904.9	1599.6	68.1	79.5	372.8	20.4	7.3	2318.50
.05	4.29	11.38	4.29	.070	.035	.070	.000	2318.00	951.36
.017436	509.	549.	563.	0	8	0	.00	271.59	1222.96

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= .36 CWSEL= 2321.14

STA=	951.	973.	983.	990.	1018.	1025.	1035.	1063.	1090.	1121.	1145.	1159.	1183.
PER Q=	3.8	3.7	3.0	32.4	3.3	4.2	9.8	9.8	10.1	6.5	3.2	4.8	
AREA=	29.3	22.3	16.5	79.5	17.8	24.1	58.9	58.9	62.8	43.7	23.0	36.5	
VEL=	3.6	4.6	5.1	11.4	5.2	4.9	4.7	4.7	4.5	4.2	3.9	3.7	
DEPTH=	1.4	2.1	2.5	2.9	2.5	2.3	2.1	2.1	2.0	1.8	1.7	1.5	

STA=	1183.	1211.	1223.
PER Q=	4.3	1.1	
AREA=	36.2	10.9	
VEL=	3.3	2.9	
DEPTH=	1.3	.9	

*SECNO .441
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.441	5.18	2328.18	2328.18	.00	2329.37	1.19	5.95	.10	2323.70
2797.0	1296.2	1024.5	476.3	289.1	78.1	95.6	25.1	9.5	2323.30
.07	4.48	13.12	4.98	.070	.035	.070	.000	2323.00	851.53
.011578	465.	438.	378.	0	14	0	.00	189.33	1040.86

FLOW DISTRIBUTION FOR SECNO= .44 CWSEL= 2328.18

STA=	852.	903.	922.	934.	946.	952.	958.	964.	969.	975.	981.	987.	1003.
PER Q=	3.5	4.2	4.1	5.1	3.1	3.3	3.6	3.9	4.5	4.9	6.0	36.6	
AREA=	43.3	34.1	28.4	32.7	18.2	18.8	19.6	20.5	22.5	23.7	27.4	78.1	
VEL=	2.3	3.5	4.0	4.4	4.7	4.9	5.1	5.4	5.6	5.8	6.1	13.1	
DEPTH=	.8	1.9	2.3	2.7	3.0	3.2	3.4	3.6	3.9	4.1	4.4	4.9	

STA=	1003.	1007.	1010.	1016.	1022.	1041.
PER Q=	3.6	3.1	4.5	3.0	2.8	
AREA=	15.9	14.3	22.7	17.9	24.9	
VEL=	6.4	6.1	5.5	4.7	3.2	
DEPTH=	4.7	4.3	3.8	3.0	1.3	

CCHV= .100 CEHV= .300
*SECNO .516

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

.516	3.09	2334.09	2333.61	.00	2334.47	.38	5.02	.08	2331.80
2502.0	1999.1	385.6	117.3	489.1	47.6	29.7	29.7	11.8	2331.80
.09	4.09	8.11	3.95	.070	.040	.070	.000	2331.00	720.51
.014514	385.	396.	410.	4	8	0	.00	306.79	1027.29

FLOW DISTRIBUTION FOR SECNO= .52 CWSEL= 2334.09

STA=	721.	741.	751.	760.	770.	779.	788.	797.	807.	816.	825.	843.	866.
PER Q=	5.0	4.1	4.7	5.3	6.0	5.8	5.2	4.6	4.0	3.5	5.4	4.5	
AREA=	32.6	22.5	24.3	26.2	28.1	27.5	25.7	23.8	22.0	20.1	34.4	33.8	
VEL=	3.8	4.6	4.8	5.1	5.3	5.3	5.1	4.8	4.6	4.3	3.9	3.3	
DEPTH=	1.6	2.4	2.6	2.8	3.0	3.0	2.8	2.6	2.4	2.2	1.9	1.5	

STA=	866.	903.	931.	954.	972.	991.	1010.	1020.	1027.
PER Q=	4.5	3.3	3.2	4.3	6.5	15.4	3.8	.9	
AREA=	41.2	30.3	27.6	30.1	38.9	47.6	21.9	7.8	
VEL=	2.8	2.7	2.9	3.6	4.2	8.1	4.3	2.9	
DEPTH=	1.1	1.1	1.2	1.7	2.1	2.4	2.2	1.1	

*SECNO .623

.623	2.18	2344.18	2344.02	.00	2344.52	.34	10.05	.00	2343.00
2502.0	2285.9	206.9	9.2	508.0	31.1	4.5	36.1	16.5	2343.50
.12	4.50	6.65	2.06	.070	.040	.070	.000	2342.00	503.30
.029119	493.	565.	588.	4	14	0	.00	519.28	1022.58

FLOW DISTRIBUTION FOR SECNO= .62 CWSEL= 2344.18

STA=	503.	539.	551.	562.	581.	599.	618.	630.	643.	655.	673.	691.	710.
PER Q=	3.6	3.5	5.1	9.8	9.9	9.8	6.6	5.3	3.2	3.5	3.5	3.5	
AREA=	26.8	18.0	22.5	40.3	40.5	40.3	27.0	23.8	17.5	21.4	21.4	21.4	
VEL=	3.4	4.9	5.7	6.1	6.1	6.1	6.1	5.6	4.6	4.0	4.0	4.0	
DEPTH=	.7	1.6	2.0	2.2	2.2	2.2	2.2	1.9	1.4	1.2	1.2	1.2	

STA=	710.	728.	746.	782.	910.	958.	976.	982.	1011.	1023.
PER Q=	3.5	3.2	4.2	3.6	5.3	3.2	1.1	8.3	.4	
AREA=	21.6	20.4	31.6	45.3	40.6	20.3	7.1	31.1	4.5	
VEL=	4.0	3.9	3.3	2.0	3.3	3.9	4.0	6.6	2.1	
DEPTH=	1.2	1.1	.9	.4	.8	1.1	1.2	1.1	.4	

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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO  .663

3470 ENCROACHMENT STATIONS=      630.0    1023.0  TYPE=      1  TARGET=      393.000
      .663      2.18   2349.18   2348.87       .00   2349.57       .38      5.03       .01   2348.00
    2502.0    1968.9     522.7      10.3     473.5      72.0       4.6      38.8      18.8   2348.00
       .13      4.16      7.26      2.24      .070      .040      .070      .000   2347.00    630.00
   .019221      215.      216.      225.         4        12         0       .00    392.74   1022.74


FLOW DISTRIBUTION FOR SECNO=       .66          CWSEL=   2349.18

STA=     630.     652.     666.     687.     708.     729.     750.     764.     778.     792.     806.     834.     917.
  PER Q=      6.7      5.2      8.7      9.1      9.1      9.1      5.6      4.8      4.0      3.2      4.4      3.3
   AREA=     39.8     27.7     44.5     46.0     46.0     46.0     29.3     26.5     23.7     20.9     33.1     40.6
    VEL=      4.2      4.7      4.9      5.0      5.0      5.0      4.8      4.5      4.2      3.8      3.3      2.0
  DEPTH=      1.8      2.0      2.1      2.2      2.2      2.2      2.1      1.9      1.7      1.5      1.2       .5

STA=     917.     972.    1015.    1023.
  PER Q=      5.5     20.9       .4
   AREA=     49.4     72.0      4.6
    VEL=      2.8      7.3      2.2
  DEPTH=       .9      1.7       .6

CCHV=     .100 CEHV=     .300
*SECNO  .723

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      800.0    1033.0  TYPE=      1  TARGET=      233.000
            ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
            SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
            WSEL AND THE TOPOGRAPHY.
      .723      3.45   2354.45   2354.45       .00   2355.41       .95      4.69       .17   2352.00
    2502.0    1367.1    1084.8      50.1     318.9     100.0      14.4      41.8      20.6   2352.00
       .14      4.29     10.85      3.49      .070      .035      .070      .000   2351.00    800.00
   .015548      250.      317.      322.         0        14         0       .00    232.68   1032.68
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= .72 CWSEL= 2354.45

STA=	800.	812.	821.	826.	830.	835.	841.	846.	855.	911.	935.	956.	966.
PER Q=	5.1	4.9	3.1	3.5	4.1	3.5	3.1	4.2	3.4	3.4	4.6	3.2	
AREA=	29.5	24.1	13.7	14.9	17.5	15.9	14.9	22.3	38.4	28.9	32.1	19.6	
VEL=	4.3	5.1	5.6	5.9	5.9	5.6	5.3	4.7	2.2	3.0	3.6	4.0	
DEPTH=	2.5	2.7	3.1	3.3	3.3	3.1	2.8	2.4	.7	1.2	1.6	1.9	

STA=	966.	977.	987.	1021.	1033.
PER Q=	4.0	4.6	43.4	2.0	
AREA=	22.6	24.5	100.0	14.4	
VEL=	4.4	4.7	10.9	3.5	
DEPTH=	2.2	2.4	2.9	1.2	

*SECNO .820

3301 HV CHANGED MORE THAN HVINS

70 ENCROACHMENT STATIONS= 950.0 1228.0 TYPE= 1 TARGET= 278.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

.820	5.62	2361.42	2360.84	.00	2361.84	.42	6.38	.05	2359.70
2502.0	168.0	629.6	1704.3	51.2	80.9	421.5	46.7	23.2	2359.40
.17	3.28	7.78	4.04	.070	.035	.070	.000	2355.80	950.00
.012843	435.	512.	410.	3	17	0	.00	277.40	1227.40

FLOW DISTRIBUTION FOR SECNO= .82 CWSEL= 2361.42

STA=	950.	969.	982.	1021.	1042.	1058.	1068.	1082.	1092.	1101.	1112.	1121.	1129.
PER Q=	3.6	3.1	25.2	6.3	5.0	3.7	5.0	3.5	3.4	5.0	4.6	3.9	
AREA=	28.5	22.7	80.9	41.6	32.1	23.2	30.4	21.6	20.2	28.0	24.9	20.7	
VEL=	3.1	3.5	7.8	3.8	3.9	4.0	4.1	4.1	4.2	4.5	4.6	4.7	
DEPTH=	1.5	1.7	2.1	2.0	2.1	2.1	2.2	2.2	2.3	2.5	2.7	2.7	

STA=	1129.	1136.	1152.	1169.	1182.	1200.	1227.
PER Q=	3.9	6.6	6.6	4.4	4.1	2.1	
AREA=	21.1	37.8	39.2	28.0	30.1	22.6	
VEL=	4.6	4.3	4.2	4.0	3.4	2.3	
DEPTH=	2.7	2.4	2.3	2.1	1.7	.8	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO .911

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 704.0 1014.0 TYPE= 1 TARGET= 310.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

.911	4.27	2368.27	2367.72	.00	2368.67	.40	6.82	.00	2368.50
2502.0	2439.5	62.5	.0	478.3	14.9	.0	52.3	26.2	2368.10
.19	5.10	4.19	.03	.070	.035	.060	.000	2364.00	704.27
.017272	420.	481.	515.	3	23	0	.00	290.53	1013.32

FLOW DISTRIBUTION FOR SECNO= .91 CWSEL= 2368.27

STA=	704.	717.	722.	728.	733.	741.	749.	758.	766.	777.	792.	800.	809.
PER Q=	4.6	4.9	7.5	5.9	8.3	7.2	7.1	6.4	6.8	7.9	3.7	3.3	
AREA=	24.4	17.5	25.7	20.4	30.5	28.1	28.7	27.3	30.7	38.0	19.0	17.8	
VEL=	4.7	7.0	7.3	7.2	6.8	6.4	6.1	5.9	5.6	5.2	4.9	4.6	
DEPTH=	1.9	4.0	4.2	4.2	3.8	3.5	3.3	3.1	2.8	2.6	2.3	2.1	

STA=	809.	827.	843.	858.	878.	948.	975.	1013.
PER Q=	6.4	4.7	4.6	3.8	3.4	1.1	2.5	
AREA=	36.4	28.4	27.7	26.9	36.3	14.4	14.9	
VEL=	4.4	4.1	4.1	3.5	2.3	2.0	4.2	
DEPTH=	2.0	1.8	1.8	1.4	.5	.5	.7	

*SECNO 1.007

3470 ENCROACHMENT STATIONS= 747.0 1093.0 TYPE= 1 TARGET= 346.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

1.007	2.41	2377.41	2377.21	.00	2377.87	.46	9.18	.02	2376.00
2264.0	1800.5	261.1	202.5	383.8	26.8	58.7	57.5	29.7	2376.00
.22	4.69	9.74	3.45	.070	.035	.060	.000	2375.00	747.69
.022484	465.	508.	535.	4	11	0	.00	344.81	1092.50

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 1.01 CWSEL= 2377.41

STA=	748.	782.	798.	813.	837.	860.	876.	884.	900.	916.	964.	995.	1009.
PER Q=	8.3	6.4	7.9	13.7	14.3	8.5	3.3	5.0	3.4	3.7	5.0	11.5	
AREA=	45.6	29.7	33.5	55.1	56.5	35.4	15.3	25.8	20.6	32.8	33.4	26.8	
VEL=	4.1	4.9	5.3	5.6	5.7	5.4	4.9	4.4	3.7	2.5	3.4	9.7	
DEPTH=	1.3	1.9	2.2	2.4	2.4	2.2	1.9	1.6	1.3	.7	1.1	1.9	

STA=	1009.	1025.	1049.	1092.
PER Q=	3.9	3.4	1.6	
AREA=	20.4	22.1	16.2	
VEL=	4.3	3.5	2.3	
DEPTH=	1.3	.9	.4	

CCHV= .100 CEHV= .300

*SECNO 1.098

1.098	2.35	2385.85	2385.50	.00	2386.19	.35	8.31	.01	2384.20
2264.0	85.7	584.5	1593.8	33.3	83.8	433.3	63.2	33.6	2384.00
.25	2.58	6.97	3.68	.070	.040	.065	.000	2383.50	938.73
.013534	500.	479.	470.	5	15	0	.00	367.24	1305.97

FLOW DISTRIBUTION FOR SECNO= 1.10 CWSEL= 2385.85

STA=	939.	979.	1020.	1035.	1064.	1093.	1109.	1124.	1140.	1150.	1160.	1183.	1193.
PER Q=	3.8	25.8	3.3	4.1	8.1	3.7	3.4	3.8	3.1	3.4	10.2	3.7	
AREA=	33.2	83.8	21.7	32.1	49.1	23.8	22.3	24.0	18.0	18.5	51.6	19.5	
VEL=	2.6	7.0	3.4	2.9	3.7	3.6	3.4	3.6	3.9	4.1	4.5	4.3	
DEPTH=	.8	2.0	1.4	1.1	1.7	1.5	1.4	1.5	1.7	1.9	2.2	2.0	

STA=	1193.	1212.	1227.	1243.	1258.	1273.	1306.
PER Q=	6.4	4.3	3.9	3.5	3.1	2.4	
AREA=	36.0	26.0	24.3	22.8	21.2	22.4	
VEL=	4.0	3.8	3.6	3.5	3.3	2.5	
DEPTH=	1.8	1.7	1.6	1.5	1.4	.7	

*SECNO 1.157

1.157	2.32	2391.32	2391.12	.00	2391.69	.37	5.49	.01	2390.00
2264.0	8.1	769.8	1486.2	4.2	111.6	439.3	68.2	37.3	2389.90
.27	1.95	6.90	3.38	.070	.040	.065	.000	2389.00	981.68
.015131	295.	312.	418.	4	15	0	.00	452.00	1433.69

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 1.16 CWSEL= 2391.32

STA=	982.	988.	1048.	1069.	1131.	1195.	1216.	1237.	1258.	1279.	1299.	1320.	1335.
PER Q=	.4	34.0	3.7	3.4	5.1	3.2	3.9	4.3	5.2	6.0	6.7	5.1	
AREA=	4.2	111.6	25.9	36.6	48.6	23.7	26.6	28.4	31.5	34.5	36.7	27.6	
VEL=	1.9	6.9	3.3	2.1	2.4	3.0	3.3	3.5	3.7	4.0	4.1	4.2	
DEPTH=	.7	1.9	1.2	.6	.8	1.1	1.3	1.4	1.5	1.7	1.8	1.8	

STA=	1335.	1350.	1371.	1384.	1404.	1434.
PER Q=	5.1	6.2	3.2	3.5	1.0	
AREA=	27.6	35.0	19.4	24.8	12.4	
VEL=	4.2	4.0	3.7	3.2	1.9	
DEPTH=	1.8	1.7	1.5	1.2	.4	

CCHV= .100 CEHV= .300
*SECNO 1.248

3470 ENCROACHMENT STATIONS= 774.0 1280.0 TYPE= 1 TARGET= 506.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

1.248	2.28	2398.78	2398.64	.00	2399.15	.37	7.46	.00	2397.40
2264.0	627.2	590.6	1046.2	202.4	76.5	303.2	74.5	42.6	2398.00
.30	3.10	7.72	3.45	.065	.035	.065	.000	2396.50	774.00
.015956	490.	481.	478.	4	15	0	.00	506.00	1280.00

FLOW DISTRIBUTION FOR SECNO= 1.25 CWSEL= 2398.78

STA=	774.	789.	807.	859.	877.	895.	923.	966.	975.	1019.	1082.	1118.	1154.
PER Q=	3.2	3.9	5.1	3.3	3.3	4.1	3.1	1.5	26.1	3.1	3.8	5.7	
AREA=	19.1	24.1	42.8	22.8	22.8	30.4	30.0	10.4	76.5	34.7	31.9	40.7	
VEL=	3.8	3.6	2.7	3.3	3.3	3.1	2.3	3.3	7.7	2.0	2.7	3.2	
DEPTH=	1.3	1.3	.8	1.2	1.2	1.1	.7	1.2	1.7	.6	.9	1.1	

STA=	1154.	1172.	1189.	1207.	1225.	1243.	1261.	1270.	1279.	1280.
PER Q=	3.7	4.2	4.2	3.5	5.5	6.3	3.1	3.0	.2	
AREA=	23.9	25.7	25.7	23.1	30.2	32.9	16.4	16.1	1.8	
VEL=	3.5	3.7	3.7	3.4	4.1	4.3	4.3	4.3	2.2	
DEPTH=	1.3	1.4	1.4	1.3	1.7	1.8	1.8	1.8	1.7	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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*SECNO 1.347

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      910.0    1031.0  TYPE=      1  TARGET=      121.000
            ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
            SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
            WSEL AND THE TOPOGRAPHY.
            DIRT ROAD DIP CROSSING
    1.347      3.25   2407.75   2407.75       .00   2409.00      1.25      9.06       .26   2405.00
   2264.0    1383.3     848.8      31.8     218.6      69.5       9.2      79.3      46.0   2406.00
      .32      6.33     12.21      3.45      .065      .035      .065      .000   2404.50    910.00
  .021295      535.      523.      380.         0        11         0       .00    120.52   1030.52


FLOW DISTRIBUTION FOR SECNO=      1.35          CWSEL=   2407.75

=     910.     922.     934.     940.     946.     953.     959.     969.     980.     995.    1020.    1026.    1031.
 PER Q=      4.5      5.9      3.3      4.0      5.1      6.1     10.4      9.3     12.5     37.5      1.3       .1
  AREA=     22.2     24.6     13.2     15.1     17.6     19.6     32.8     30.7     42.6     69.5      7.5      1.7
   VEL=      4.6      5.4      5.6      6.0      6.5      7.1      7.2      6.9      6.6     12.2      3.8      1.7
 DEPTH=      1.9      2.1      2.2      2.4      2.8      3.1      3.2      3.0      2.8      2.8      1.3       .4

*SECNO 1.445
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      882.0    1026.0  TYPE=      1  TARGET=      144.000
            ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
            SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
            WSEL AND THE TOPOGRAPHY.
            DIRT ROAD DIP CROSSING
    1.445      5.43   2418.93   2418.93       .00   2420.08      1.15      9.30       .01   2415.70
   2264.0    1221.0     935.5     107.5     242.8      78.0      25.8      83.2      47.6   2416.00
      .34      5.03     11.99      4.16      .065      .035      .065      .000   2413.50    882.00
  .014822      535.      518.      520.         0        17         0       .00    143.61   1025.61
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 1.45 CWSEL= 2418.93

STA=	882.	904.	917.	925.	932.	940.	951.	958.	964.	972.	979.	986.	1008.
PER Q=	5.6	4.5	3.2	4.1	5.2	8.1	4.4	3.8	4.3	5.1	5.6	41.3	
AREA=	34.0	24.4	16.1	18.5	21.4	32.3	18.1	16.5	19.0	20.9	21.6	78.0	
VEL=	3.7	4.1	4.5	5.0	5.5	5.7	5.5	5.2	5.2	5.5	5.9	12.0	
DEPTH=	1.6	1.8	2.1	2.4	2.8	2.9	2.8	2.5	2.5	2.8	3.1	3.5	

STA=	1008.	1014.	1026.
PER Q=	3.2	1.5	
AREA=	14.6	11.2	
VEL=	5.0	3.1	
DEPTH=	2.4	1.0	

*SECNO 1.549

3301 HV CHANGED MORE THAN HVINS

70 ENCROACHMENT STATIONS= 984.0 1225.0 TYPE= 1 TARGET= 241.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

1.549	3.57	2426.07	2425.52	.00	2426.49	.41	6.33	.07	2424.00
2264.0	19.5	471.0	1773.5	7.5	60.1	422.3	87.5	49.5	2424.50
.36	2.59	7.84	4.20	.065	.035	.065	.000	2422.50	984.72
.012360	520.	549.	375.	2	11	0	.00	240.28	1225.00

FLOW DISTRIBUTION FOR SECNO= 1.55 CWSEL= 2426.07

STA=	985.	992.	1020.	1032.	1046.	1060.	1076.	1091.	1107.	1123.	1140.	1148.	1157.
PER Q=	.9	20.8	3.6	5.3	5.3	6.2	6.9	7.7	8.5	9.1	4.2	3.8	
AREA=	7.5	60.1	21.6	29.0	29.0	33.3	35.7	38.0	40.9	43.0	20.5	19.5	
VEL=	2.6	7.8	3.8	4.1	4.1	4.2	4.4	4.6	4.7	4.8	4.6	4.5	
DEPTH=	1.0	2.1	1.8	2.1	2.1	2.1	2.3	2.4	2.5	2.6	2.5	2.3	

STA=	1157.	1165.	1180.	1195.	1210.	1225.
PER Q=	3.4	5.1	4.0	3.1	2.1	
AREA=	18.0	29.2	25.1	21.7	17.6	
VEL=	4.3	4.0	3.6	3.3	2.7	
DEPTH=	2.2	1.9	1.7	1.4	1.2	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
*SECNO 1.633

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .62

3470 ENCROACHMENT STATIONS= 974.0 1355.0 TYPE= 1 TARGET= 381.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

1.633	2.67	2432.17	2431.97	.00	2432.70	.53	6.18	.04	2431.60
2073.0	4.5	225.0	1843.6	2.4	34.3	320.1	90.9	51.6	2431.50
.38	1.85	6.56	5.76	.065	.040	.065	.000	2429.50	974.00
.027025	480.	444.	340.	3	19	0	.00	270.41	1355.00

FLOW DISTRIBUTION FOR SECNO= 1.63 CWSEL= 2432.17

STA=	974.	981.	1012.	1193.	1211.	1222.	1234.	1246.	1263.	1275.	1287.	1304.	1310.
PER Q=	.2	10.9	3.2	4.5	4.6	6.1	7.7	13.3	10.2	10.2	13.3	4.0	
AREA=	2.4	34.3	25.0	21.7	18.6	22.1	25.4	41.4	30.0	30.0	41.4	12.9	
VEL=	1.9	6.6	2.7	4.3	5.1	5.8	6.3	6.7	7.0	7.0	6.7	6.4	
DEPTH=	.3	1.1	.1	1.2	1.6	1.9	2.2	2.4	2.6	2.6	2.4	2.2	

STA=	1310.	1316.	1327.	1344.	1355.
PER Q=	3.3	4.7	3.2	.4	
AREA=	11.3	18.6	17.2	4.4	
VEL=	6.0	5.2	3.9	2.1	
DEPTH=	2.0	1.6	1.0	.4	

*SECNO 1.686

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.58

1.686	2.92	2436.92	2436.36	.00	2437.14	.22	4.41	.03	2436.00
2073.0	7.7	199.9	1865.4	4.8	41.0	513.0	93.8	53.9	2436.00
.40	1.61	4.87	3.64	.065	.040	.065	.000	2434.00	978.49
.010869	255.	279.	270.	4	15	0	.00	448.44	1445.63

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 1.69 CWSEL= 2436.92

STA=	978.	989.	1018.	1182.	1232.	1244.	1250.	1267.	1283.	1300.	1306.	1311.	1323.
PER Q=	.4	9.6	3.6	3.7	3.0	3.3	11.4	11.4	11.4	3.7	3.5	6.0	
AREA=	4.8	41.0	51.2	38.3	19.1	15.4	48.7	48.4	48.7	16.0	15.5	28.2	
VEL=	1.6	4.9	1.4	2.0	3.3	4.4	4.9	4.9	4.9	4.8	4.6	4.4	
DEPTH=	.5	1.4	.3	.8	1.6	2.6	2.9	2.9	2.9	2.9	2.7	2.5	

STA=	1323.	1334.	1345.	1362.	1378.	1395.	1428.	1446.
PER Q=	5.2	4.1	5.2	4.2	3.6	5.3	1.4	
AREA=	25.9	22.6	30.1	26.8	24.3	40.2	13.7	
VEL=	4.1	3.8	3.5	3.3	3.1	2.7	2.1	
DEPTH=	2.3	2.0	1.8	1.6	1.5	1.2	.8	

*SECNO 1.748

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
[illegible]0 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 977.0 1276.0 TYPE= 1 TARGET= 299.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

1.748	2.80	2442.30	2442.30	.00	2442.92	.62	5.12	.12	2442.00
2073.0	1.4	295.2	1776.4	1.2	41.5	287.5	96.7	56.2	2442.00
.41	1.23	7.11	6.18	.065	.040	.065	.000	2439.50	977.35
.034986	360.	327.	280.	0	8	0	.00	278.24	1275.07

FLOW DISTRIBUTION FOR SECNO= 1.75 CWSEL= 2442.30

STA=	977.	985.	1025.	1131.	1149.	1162.	1180.	1192.	1210.	1222.	1240.	1248.	1255.
PER Q=	.1	14.2	4.3	3.8	3.4	6.6	5.5	10.0	8.0	13.9	6.7	7.9	
AREA=	1.2	41.5	31.4	18.2	14.6	25.4	19.4	32.7	24.3	39.9	18.0	19.9	
VEL=	1.2	7.1	2.8	4.3	4.8	5.4	5.9	6.3	6.8	7.2	7.7	8.2	
DEPTH=	.2	1.0	.3	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.7	

STA=	1255.	1263.	1270.	1275.
PER Q=	7.9	6.7	1.2	
AREA=	19.9	18.0	5.8	
VEL=	8.2	7.7	4.4	
DEPTH=	2.7	2.4	1.2	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.801

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.25

1.801	3.60	2447.10	2446.25	.00	2447.29	.19	4.32	.04	2445.40
2073.0	66.6	241.0	1765.4	29.8	50.8	537.8	100.2	58.5	2445.40
.44	2.23	4.75	3.28	.065	.040	.065	.000	2443.50	959.59
.006900	245.	280.	335.	6	6	0	.00	317.22	1276.81

FLOW DISTRIBUTION FOR SECNO= 1.80 CWSEL= 2447.10

STA=	960.	986.	1013.	1045.	1068.	1086.	1113.	1131.	1144.	1158.	1176.	1185.	1203.
PER Q=	3.2	11.6	4.3	3.0	3.0	5.9	5.0	4.3	4.8	7.3	4.1	8.8	
AREA=	29.8	50.8	40.3	28.2	25.8	45.6	34.8	28.7	30.5	43.8	23.5	49.2	
VEL=	2.2	4.7	2.2	2.2	2.4	2.7	2.9	3.1	3.3	3.4	3.6	3.7	
DEPTH=	1.1	1.9	1.3	1.2	1.4	1.7	1.9	2.1	2.3	2.4	2.6	2.7	

STA=	1203.	1221.	1230.	1235.	1240.	1245.	1250.	1258.	1277.
PER Q=	10.0	5.2	3.2	3.6	3.6	3.2	3.8	2.1	
AREA=	53.1	27.3	16.0	17.3	17.3	16.0	21.7	18.6	
VEL=	3.9	4.0	4.1	4.3	4.3	4.1	3.6	2.3	
DEPTH=	2.9	3.0	3.2	3.5	3.5	3.2	2.6	1.0	

*SECNO 1.879
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 950.0 1240.0 TYPE= 1 TARGET= 290.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.
FIRST CROSS SECTION ADJACENT TO VULTURE MINE ROAD
WASH PARALLELS ROAD FORM 1.879 TO END OF DETAILED STUDY
AT CROSS SECTION 2.854

1.879	1.78	2453.28	2453.28	.00	2453.90	.63	4.76	.13	2452.00
2073.0	75.7	458.3	1539.0	20.3	48.8	293.0	104.2	60.9	2451.80
.46	3.72	9.40	5.25	.065	.040	.065	.000	2451.50	950.02
.035451	335.	412.	348.	0	8	0	.00	289.26	1239.29

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 1.88 CWSEL= 2453.28

STA=	950.	982.	1013.	1038.	1050.	1063.	1070.	1090.	1103.	1123.	1142.	1166.	1185.
PER Q=	3.7	22.1	8.0	3.7	5.3	3.5	7.7	3.6	4.0	3.4	6.6	7.5	
AREA=	20.3	48.8	32.2	15.3	19.5	11.7	29.1	15.6	19.5	17.3	28.6	28.0	
VEL=	3.7	9.4	5.1	5.1	5.7	6.2	5.5	4.8	4.2	4.1	4.8	5.6	
DEPTH=	.6	1.6	1.3	1.3	1.5	1.7	1.4	1.2	1.0	.9	1.2	1.5	

STA=	1185.	1198.	1211.	1224.	1237.	1239.
PER Q=	6.2	6.3	5.1	3.1	.0	
AREA=	21.3	21.5	18.9	14.1	.3	
VEL=	6.1	6.1	5.6	4.6	1.1	
DEPTH=	1.7	1.7	1.5	1.0	.1	

CCHV= .100 CEHV= .300

*SECNO 1.989

1.989	2.01	2468.01	2467.88	.00	2468.51	.50	14.59	.01	2466.10
2073.0	851.1	674.6	547.3	226.0	81.5	136.9	109.5	65.1	2466.00
.49	3.77	8.28	4.00	.070	.040	.070	.000	2466.00	784.54
.019871	665.	581.	505.	4	8	0	.00	350.64	1135.18

FLOW DISTRIBUTION FOR SECNO= 1.99 CWSEL= 2468.01

STA=	785.	870.	895.	920.	944.	968.	984.	1025.	1050.	1058.	1073.	1089.	1127.
PER Q=	6.9	5.4	6.5	7.3	8.5	6.5	32.5	11.6	3.3	5.0	3.4	3.1	
AREA=	50.2	31.7	35.4	37.6	41.2	29.9	81.5	50.4	14.8	25.1	19.9	25.8	
VEL=	2.8	3.5	3.8	4.0	4.3	4.5	8.3	4.8	4.6	4.1	3.6	2.5	
DEPTH=	.6	1.3	1.4	1.6	1.7	1.9	2.0	2.0	1.9	1.6	1.3	.7	

STA=	1127.	1135.
PER Q=	.0	
AREA=	.9	
VEL=	.7	
DEPTH=	.1	

*SECNO 2.083

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.51

2.083	3.07	2474.27	2473.46	.00	2474.66	.39	6.14	.01	2471.70
2073.0	247.0	763.6	1062.4	75.5	113.4	281.8	114.5	68.2	2471.60
.51	3.27	6.73	3.77	.070	.040	.070	.000	2471.20	945.13
.008764	565.	496.	420.	6	8	0	.00	196.22	1141.35

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 2.08 CWSEL= 2474.27

STA=	945.	987.	1029.	1049.	1070.	1083.	1091.	1113.	1126.	1138.	1141.
PER Q=	11.9	36.8	9.3	9.0	6.2	4.9	12.6	6.0	3.2	.1	
AREA=	75.5	113.4	51.9	51.4	33.8	24.8	63.8	33.3	21.7	1.1	
VEL=	3.3	6.7	3.7	3.6	3.8	4.1	4.1	3.8	3.0	.9	
DEPTH=	1.8	2.7	2.6	2.5	2.6	2.9	3.0	2.6	1.8	.3	

*SECNO 2.174
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.174	3.16	2482.16	2482.16	.00	2482.76	.60	4.76	.06	2479.80
1929.0	703.0	1142.5	83.5	293.0	146.2	25.0	119.7	71.5	2479.80
.54	2.40	7.82	3.35	.070	.040	.070	.000	2479.00	654.53
.011509	490.	481.	465.	0	8	0	.00	391.21	1045.75

FLOW DISTRIBUTION FOR SECNO= 2.17 CWSEL= 2482.16

STA=	655.	733.	768.	823.	878.	921.	945.	958.	970.	976.	1029.	1042.	1046.
PER Q=	4.3	3.1	4.2	3.7	4.3	5.5	3.8	4.8	2.8	59.2	4.2	.1	
AREA=	46.9	29.9	42.4	38.9	38.2	35.9	22.0	25.3	13.6	146.2	23.2	1.7	
VEL=	1.8	2.0	1.9	1.8	2.2	2.9	3.4	3.7	3.9	7.8	3.5	1.3	
DEPTH=	.6	.8	.8	.7	.9	1.5	1.8	2.1	2.3	2.7	1.9	.4	

*SECNO 2.260

2.260	3.25	2486.35	2485.64	.00	2486.61	.26	3.81	.03	2483.30
1929.0	1287.1	408.3	233.5	440.4	60.4	70.1	124.6	74.6	2483.30
.57	2.92	6.76	3.33	.070	.040	.070	.000	2483.10	763.26
.007197	395.	454.	465.	4	15	0	.00	278.30	1041.56

FLOW DISTRIBUTION FOR SECNO= 2.26 CWSEL= 2486.35

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	763.	800.	816.	831.	847.	863.	878.	894.	909.	924.	939.	955.	970.
PER Q=	3.5	4.1	4.1	4.1	4.2	4.4	4.5	4.9	5.3	5.5	5.5	5.7	
AREA=	33.1	29.0	29.0	29.0	29.6	29.9	30.7	32.0	33.6	34.3	34.3	35.1	
VEL=	2.0	2.7	2.7	2.7	2.8	2.8	2.9	2.9	3.0	3.1	3.1	3.1	
DEPTH=	.9	1.8	1.8	1.8	1.9	1.9	2.0	2.1	2.2	2.2	2.2	2.3	

STA=	970.	978.	989.	993.	1012.	1019.	1027.	1035.	1042.
PER Q=	3.1	5.8	2.1	21.2	4.3	3.7	3.2	.9	
AREA=	18.3	31.4	11.1	60.4	22.5	20.6	19.1	7.9	
VEL=	3.3	3.6	3.7	6.8	3.7	3.4	3.3	2.2	
DEPTH=	2.4	2.8	3.0	3.1	2.9	2.6	2.4	1.2	

CCHV= .100 CEHV= .300
*SECNO 2.354

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .69

2.354	2.26	2490.96	2490.57	.00	2491.25	.29	4.64	.01	2489.40
1929.0	1312.5	279.4	337.1	323.9	46.1	91.6	130.0	77.8	2489.50
.60	4.05	6.06	3.68	.060	.040	.060	.000	2488.70	755.33
.014985	445.	496.	495.	3	11	0	.00	325.58	1080.90

FLOW DISTRIBUTION FOR SECNO= 2.35 CWSEL= 2490.96

STA=	755.	785.	795.	815.	825.	850.	865.	890.	910.	930.	950.	970.	975.
PER Q=	7.6	5.4	9.6	4.2	8.4	4.4	4.6	4.6	5.5	5.9	6.2	1.6	
AREA=	37.1	21.0	39.1	18.0	39.4	21.8	27.4	25.1	28.1	29.1	30.1	7.8	
VEL=	4.0	5.0	4.7	4.5	4.1	3.9	3.2	3.5	3.8	3.9	4.0	4.1	
DEPTH=	1.3	2.1	2.0	1.8	1.6	1.5	1.1	1.3	1.4	1.5	1.5	1.6	

STA=	975.	1005.	1025.	1045.	1060.	1081.
PER Q=	14.5	5.9	5.9	4.2	1.6	
AREA=	46.1	29.1	29.1	21.1	12.4	
VEL=	6.1	3.9	3.9	3.8	2.5	
DEPTH=	1.5	1.5	1.5	1.4	.6	

*SECNO 2.449

2.449	2.24	2497.24	2496.77	.00	2497.52	.28	6.27	.00	2495.50
1929.0	1407.6	407.4	114.0	396.4	65.0	37.0	135.7	81.4	2495.50
.63	3.55	6.27	3.08	.060	.040	.060	.000	2495.00	747.19
.010175	520.	502.	485.	4	15	0	.00	295.94	1043.13

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 2.45 CWSEL= 2497.24

STA=	747.	770.	790.	810.	830.	850.	870.	890.	910.	930.	950.	970.	985.
PER Q=	3.7	5.4	6.3	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	4.9	
AREA=	25.1	31.0	34.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	26.3	
VEL=	2.9	3.3	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	
DEPTH=	1.1	1.5	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	

STA=	985.	1015.	1040.	1043.
PER Q=	21.1	5.7	.2	
AREA=	65.0	35.0	2.0	
VEL=	6.3	3.2	1.7	
DEPTH=	2.2	1.4	.6	

*SECNO 2.544

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .69

0 ENCROACHMENT STATIONS= 782.0 1080.0 TYPE= 1 TARGET= 298.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

2.544	1.96	2503.96	2503.83	.00	2504.47	.51	6.88	.07	2502.00
1929.0	1244.4	441.2	243.4	250.5	54.1	62.8	140.5	84.7	2502.20
.66	4.97	8.15	3.87	.060	.040	.060	.000	2502.00	793.58
.021124	475.	502.	518.	3	15	0	.00	284.74	1078.32

FLOW DISTRIBUTION FOR SECNO= 2.54 CWSEL= 2503.96

STA=	794.	851.	874.	897.	978.	1007.	1015.	1036.	1065.	1078.
PER Q=	4.2	6.3	9.9	44.1	22.9	3.1	6.3	3.1	.1	
AREA=	29.8	28.8	38.0	153.8	54.1	11.9	28.2	20.4	2.3	
VEL=	2.7	4.2	5.0	5.5	8.1	5.0	4.3	2.9	1.1	
DEPTH=	.5	1.3	1.7	1.9	1.9	1.7	1.3	.7	.2	

*SECNO 2.614

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.55

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.614	2.45	2508.45	2507.77	.00	2508.66	.21	4.16	.03	2506.00
1724.0	1377.4	310.7	35.9	432.3	57.3	16.0	144.0	87.1	2506.80
.68	3.19	5.42	2.24	.060	.040	.060	.000	2506.00	718.69
.007056	350.	370.	379.	5	11	0	.00	307.44	1026.13

FLOW DISTRIBUTION FOR SECNO= 2.61 CWSEL= 2508.45

STA=	719.	789.	828.	847.	867.	886.	906.	930.	965.	985.	1010.	1026.
PER Q=	4.6	6.9	4.9	6.0	7.2	8.4	12.3	18.8	10.8	18.0	2.1	
AREA=	46.5	49.0	30.3	34.2	38.1	42.0	57.4	85.8	49.0	57.3	16.0	
VEL=	1.7	2.4	2.8	3.0	3.2	3.5	3.7	3.8	3.8	5.4	2.2	
DEPTH=	.7	1.3	1.6	1.8	2.0	2.2	2.4	2.5	2.5	2.3	1.0	

*SECNO 2.695

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .49

2.695	2.14	2513.34	2513.34	.00	2513.98	.64	5.19	.13	2511.70
1724.0	846.4	428.9	448.7	156.5	47.4	91.8	147.8	89.6	2511.90
.70	5.41	9.05	4.89	.060	.040	.060	.000	2511.20	867.54
.029766	390.	428.	450.	3	15	0	.00	232.24	1099.78

FLOW DISTRIBUTION FOR SECNO= 2.69 CWSEL= 2513.34

STA=	868.	900.	915.	922.	931.	940.	955.	972.	990.	1019.	1031.	1053.	1069.
PER Q=	4.8	6.6	5.2	7.3	4.9	5.4	5.9	9.1	24.9	5.4	8.8	6.4	
AREA=	21.8	20.8	14.0	18.2	14.3	18.8	20.5	28.2	47.4	17.5	29.1	21.3	
VEL=	3.8	5.5	6.4	6.9	5.9	4.9	4.9	5.6	9.1	5.3	5.2	5.2	
DEPTH=	.7	1.4	1.8	2.0	1.6	1.2	1.2	1.5	1.7	1.4	1.3	1.3	

STA=	1069.	1092.	1100.
PER Q=	5.2	.2	
AREA=	21.7	2.2	
VEL=	4.1	1.8	
DEPTH=	.9	.3	

*SECNO 2.786

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.55

2.786	2.56	2521.66	2521.30	.00	2521.92	.26	7.90	.04	2520.60
1724.0	242.9	165.5	1315.6	109.1	36.0	308.4	151.4	92.6	2520.60
.73	2.23	4.60	4.27	.060	.040	.060	.000	2519.10	806.96
.012445	412.	480.	425.	5	8	0	.00	382.62	1189.58

FLOW DISTRIBUTION FOR SECNO= 2.79 CWSEL= 2521.66

STA=	807.	904.	940.	964.	988.	1019.	1044.	1062.	1073.	1085.	1098.	1104.	1116.
PER Q=	3.3	3.5	3.2	4.1	9.6	5.0	4.5	3.9	4.2	5.2	3.1	7.3	
AREA=	36.2	26.4	21.4	25.0	36.0	28.6	23.3	18.2	18.9	22.1	12.4	27.1	
VEL=	1.6	2.3	2.6	2.8	4.6	3.0	3.3	3.7	3.8	4.0	4.3	4.6	
DEPTH=	.4	.7	.9	1.0	1.2	1.1	1.3	1.6	1.6	1.8	2.0	2.2	

STA=	1116.	1123.	1129.	1141.	1148.	1160.	1172.	1184.	1190.
PER Q=	4.0	4.5	9.6	4.5	7.8	6.5	5.4	.7	
AREA=	14.4	15.5	32.1	15.3	28.3	24.8	22.4	4.9	
VEL=	4.8	5.0	5.2	5.0	4.8	4.5	4.2	2.5	
DEPTH=	2.3	2.5	2.6	2.5	2.3	2.1	1.9	.9	

*SECNO 2.854

LAST CROSS SECTION OF DETAILED STUDY

2.854	1.85	2525.25	2524.69	.00	2525.40	.15	3.47	.01	2524.20
1724.0	48.2	216.6	1459.3	27.8	53.1	498.2	155.5	96.0	2524.20
.76	1.73	4.08	2.93	.060	.040	.060	.000	2523.40	924.71
.008260	402.	359.	338.	6	8	0	.00	451.56	1376.26

FLOW DISTRIBUTION FOR SECNO= 2.85 CWSEL= 2525.25

STA=	925.	980.	1020.	1090.	1160.	1200.	1210.	1220.	1230.	1258.	1268.	1277.	1315.
PER Q=	2.8	12.6	6.0	14.3	11.8	3.3	3.7	3.2	8.6	3.2	3.0	11.5	
AREA=	27.8	53.1	54.2	91.2	65.1	17.5	18.5	16.8	47.3	16.7	16.3	63.0	
VEL=	1.7	4.1	1.9	2.7	3.1	3.3	3.4	3.3	3.1	3.3	3.2	3.1	
DEPTH=	.5	1.3	.8	1.3	1.6	1.8	1.9	1.8	1.7	1.8	1.7	1.7	

STA=	1315.	1352.	1370.	1376.
PER Q=	11.6	4.1	.4	
AREA=	62.3	25.3	3.9	
VEL=	3.2	2.8	1.6	
DEPTH=	1.7	1.4	.6	

FLOODWAY DETERMINATION

T2

T3 WASH R-2

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	3	0	0	0	0	0	0	2300.10	0
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2	0	-1	0	0	0	-1	0	0	0

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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*PROF 2

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS
0

CCHV=     .100 CEHV=     .300
*SECNO 3.483

3470 ENCROACHMENT STATIONS=      979.0    1511.0  TYPE=      1  TARGET=      532.000
            CONFLUENCE OF WASH R - CEMETERY WASH AND TRIBUTARY WASH R-2
            THE METHOD USED TO START THIS HEC-2, WATER SURFACE PROFILE
            ANALYSIS IS THE KNOWN STARTING WATER SURFACE METHOD.  THE
            WATER SURFACE ELEVATION FOR CROSS SECTION 5.184, WASH R-
            CEMETERY WASH, WAS USED AS THE STARTING WATER SURFACE ELEVATION
            FOR THE WASH R-2 HEC-2 WATER SURFACE PROFILE ANALYSIS.  THE
            WATER SURFACE ELEVATION USED WAS COMPUTED DURING THE HEC-2
            ANALYSIS FOR WASH R-CEMETERY WASH.
    3.483      5.10   2300.10   2299.91   2300.10   2300.75       .65       .00       .00   2296.50
   5307.0    3412.7    1816.8      77.5     980.7     182.8      25.3        .0        .0   2296.50
      .00      3.48      9.94      3.07      .065      .035      .070      .000   2295.00    979.75
  .008025        0.        0.        0.         0         9         0       .00    530.73   1510.48


CCHV=     .100 CEHV=     .300
*SECNO  .214

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      928.0    1031.0  TYPE=      1  TARGET=      103.000
            THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
            CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION,
            UNLESS OTHERWISE NOTED.
     .214      4.91   2311.01   2311.01   2311.01   2312.72      1.71      4.96       .32   2307.10
   2797.0     483.8    2063.5     249.7     107.5     173.3      52.6       9.9       4.1   2307.00
     .02      4.50     11.91      4.75      .070      .035      .070      .000   2306.10    928.92
  .010741      575.      552.      552.         0         8         0       .00    101.90   1030.82


*SECNO  .254
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.53

3470 ENCROACHMENT STATIONS= 868.0 1024.0 TYPE= 1 TARGET= 156.000

.254	6.24	2313.24	2310.26	2313.24	2313.53	.29	.67	.14	2307.00
2797.0	1498.8	1234.5	63.8	550.5	213.0	34.3	12.3	4.7	2308.00
.03	2.72	5.80	1.86	.070	.035	.070	.000	2307.00	868.29
.001680	160.	211.	228.	2	14	0	.00	154.79	1023.09

*SECNO .358

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 951.0 1223.0 TYPE= 1 TARGET= 272.000

.358	3.14	2321.14	2321.14	2321.14	2321.99	.84	2.12	.17	2318.50
2797.0	292.4	904.9	1599.7	68.1	79.6	372.9	20.4	7.3	2318.50
.05	4.29	11.37	4.29	.070	.035	.070	.000	2318.00	951.36
.017429	509.	549.	563.	0	8	0	.00	271.59	1222.96

*SECNO .441
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 851.0 1041.0 TYPE= 1 TARGET= 190.000

.441	5.18	2328.18	2328.18	2328.18	2329.37	1.19	5.95	.10	2323.70
2797.0	1296.2	1024.5	476.3	289.0	78.1	95.6	25.1	9.5	2323.30
.07	4.48	13.12	4.98	.070	.035	.070	.000	2323.00	851.53
.011581	465.	438.	378.	0	14	0	.00	189.33	1040.86

CCHV= .100 CEHV= .300
*SECNO .516

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      720.0    1028.0  TYPE=      1  TARGET=      308.000
      .516      3.09   2334.09   2333.61   2334.09   2334.46       .38      5.02       .08   2331.80
    2502.0    1999.1     385.6     117.3     489.1      47.6      29.7      29.7      11.8   2331.80
       .09      4.09      8.11      3.95      .070      .040      .070      .000   2331.00    720.51
   .014509      385.      396.      410.         4         8         0       .00    306.79   1027.29


*SECNO  .623

3470 ENCROACHMENT STATIONS=      503.0    1023.0  TYPE=      1  TARGET=      520.000
      .623      2.18   2344.18   2344.02   2344.18   2344.52       .34     10.05       .00   2343.00
    2502.0    2285.9     206.9       9.2     507.9      31.1       4.5      36.1      16.5   2343.50
       .12      4.50      6.65      2.06      .070      .040      .070      .000   2342.00    503.30
   .029137      493.      565.      588.         4        14         0       .00    519.28   1022.58


CNO  .663

3470 ENCROACHMENT STATIONS=      630.0    1023.0  TYPE=      1  TARGET=      393.000
      .663      2.18   2349.18   2348.87   2349.18   2349.57       .38      5.04       .01   2348.00
    2502.0    1968.9     522.7      10.3     473.6      72.0       4.6      38.8      18.8   2348.00
       .13      4.16      7.26      2.24      .070      .040      .070      .000   2347.00    630.00
   .019212      215.      216.      225.         4        11         0       .00    392.74   1022.74


CCHV=     .100 CEHV=     .300
*SECNO  .723

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      800.0    1033.0  TYPE=      1  TARGET=      233.000
            ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
            SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
            WSEL AND THE TOPOGRAPHY.
      .723      3.46   2354.46   2354.46   2354.45   2355.41       .95      4.69       .17   2352.00
    2502.0    1367.3    1084.5      50.1     319.1     100.0      14.4      41.8      20.6   2352.00
       .14      4.28     10.84      3.49      .070      .035      .070      .000   2351.00    800.00
   .015515      250.      317.      322.         0        14         0       .00    232.69   1032.69
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .820

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 950.0 1228.0 TYPE= 1 TARGET= 278.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

.820	5.62	2361.42	2360.84	2361.42	2361.84	.42	6.38	.05	2359.70
2502.0	168.0	629.6	1704.4	51.2	80.8	421.3	46.7	23.2	2359.40
.17	3.28	7.79	4.05	.070	.035	.070	.000	2355.80	950.00
.012868	435.	512.	410.	3	17	0	.00	277.39	1227.39

CCHV= .100 CEHV= .300
*SECNO .911

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 704.0 1014.0 TYPE= 1 TARGET= 310.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

.911	4.27	2368.27	2367.73	2368.27	2368.67	.40	6.83	.00	2368.50
2502.0	2439.4	62.6	.0	478.7	14.9	.0	52.3	26.2	2368.10
.19	5.10	4.19	.03	.070	.035	.060	.000	2364.00	704.27
.017241	420.	481.	515.	3	23	0	.00	290.73	1013.32

*SECNO 1.007

3470 ENCROACHMENT STATIONS= 747.0 1093.0 TYPE= 1 TARGET= 346.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

1.007	2.41	2377.41	2377.21	2377.41	2377.87	.46	9.18	.02	2376.00
2264.0	1800.6	261.1	202.3	383.5	26.8	58.6	57.5	29.7	2376.00
.22	4.69	9.75	3.45	.070	.035	.060	.000	2375.00	747.70
.022530	465.	508.	535.	4	11	0	.00	344.74	1092.44

```
 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO 1.098

3470 ENCROACHMENT STATIONS=      938.0    1307.0  TYPE=      1  TARGET=      369.000
    1.098      2.35   2385.85   2385.50   2385.85   2386.19       .35      8.31       .01   2384.20
   2264.0      85.8     584.4    1593.8      33.3      83.9     433.6      63.2      33.6   2384.00
      .25      2.57      6.97      3.68      .070      .040      .065      .000   2383.50    938.71
  .013507      500.      479.      470.         5        15         0       .00    367.29   1306.00


*SECNO 1.157

3470 ENCROACHMENT STATIONS=      981.0    1434.0  TYPE=      1  TARGET=      453.000
    1.157      2.32   2391.32   2391.12   2391.32   2391.69       .37      5.49       .01   2390.00
   2264.0       8.1     770.0    1486.0       4.2     111.5     439.0      68.2      37.3   2389.90
      .27      1.95      6.90      3.39      .070      .040      .065      .000   2389.00    981.69
  .015165      295.      312.      418.         4        15         0       .00    451.97   1433.66


HV=     .100 CEHV=     .300
ECNO 1.248

3470 ENCROACHMENT STATIONS=      774.0    1280.0  TYPE=      1  TARGET=      506.000
            ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
            SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
            WSEL AND THE TOPOGRAPHY.
    1.248      2.28   2398.78   2398.64   2398.78   2399.15       .37      7.47       .00   2397.40
   2264.0     627.3     590.5    1046.2     202.5      76.5     303.4      74.5      42.6   2398.00
      .30      3.10      7.72      3.45      .065      .035      .065      .000   2396.50    774.00
  .015926      490.      481.      478.         4        15         0       .00    506.00   1280.00


*SECNO 1.347

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      910.0    1031.0  TYPE=      1  TARGET=      121.000
            ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
            SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
            WSEL AND THE TOPOGRAPHY.
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          DIRT ROAD DIP CROSSING
    1.347      3.25   2407.75   2407.75   2407.75   2409.00      1.25      9.05       .26   2405.00
   2264.0    1383.3     848.8      31.9     218.6      69.5       9.2      79.3      46.0   2406.00
      .32      6.33     12.20      3.45      .065      .035      .065      .000   2404.50    910.00
  .021289      535.      523.      380.         0        11         0       .00    120.52   1030.52


*SECNO 1.445
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      882.0    1026.0  TYPE=      1  TARGET=      144.000
          ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
          SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
          WSEL AND THE TOPOGRAPHY.
          DIRT ROAD DIP CROSSING
    1.445      5.43   2418.93   2418.93   2418.93   2420.08      1.15      9.30       .01   2415.70
   2264.0    1220.9     935.7     107.5     242.7      78.0      25.8      83.2      47.6   2416.00
      .34      5.03     12.00      4.16      .065      .035      .065      .000   2413.50    882.00
  .014840      535.      518.      520.         0        17         0       .00    143.60   1025.60


*SECNO 1.549

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      984.0    1225.0  TYPE=      1  TARGET=      241.000
          ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
          SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
          WSEL AND THE TOPOGRAPHY.
    1.549      3.57   2426.07   2425.52   2426.07   2426.49       .41      6.33       .07   2424.00
   2264.0      19.5     470.9    1773.5       7.5      60.1     422.4      87.5      49.5   2424.50
      .36      2.59      7.84      4.20      .065      .035      .065      .000   2422.50    984.71
  .012346      520.      549.      375.         2        11         0       .00    240.29   1225.00


CCHV=     .100 CEHV=     .300
*SECNO 1.633

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .62


3470 ENCROACHMENT STATIONS=      974.0    1355.0  TYPE=      1  TARGET=      381.000
          ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
          SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
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          WSEL AND THE TOPOGRAPHY.
    1.633      2.67   2432.17   2431.97   2432.17   2432.70       .53      6.18       .04   2431.60
   2073.0       4.4     224.9    1843.6       2.4      34.3     319.9      90.9      51.6   2431.50
      .38      1.85      6.56      5.76      .065      .040      .065      .000   2429.50    974.00
  .027064      480.      444.      340.         3        19         0       .00    270.18   1355.00


*SECNO 1.686

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.58


3470 ENCROACHMENT STATIONS=      978.0    1446.0  TYPE=      1  TARGET=      468.000
    1.686      2.92   2436.92   2436.36   2436.92   2437.14       .22      4.41       .03   2436.00
   2073.0       7.7     199.9    1865.4       4.8      41.0     513.1      93.8      53.9   2436.00
      .40      1.61      4.87      3.64      .065      .040      .065      .000   2434.00    978.49
  .010864      255.      279.      270.         4        15         0       .00    448.50   1445.63


*SECNO 1.748

3265 DIVIDED FLOW

[illegible] MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      977.0    1276.0  TYPE=      1  TARGET=      299.000
          ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
          SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
          WSEL AND THE TOPOGRAPHY.
    1.748      2.80   2442.30   2442.30   2442.30   2442.92       .62      5.12       .12   2442.00
   2073.0       1.4     295.2    1776.3       1.2      41.5     287.6      96.7      56.2   2442.00
      .41      1.23      7.11      6.18      .065      .040      .065      .000   2439.50    977.33
  .034949      360.      327.      280.         0         8         0       .00    278.36   1275.07


*SECNO 1.801

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.25


3470 ENCROACHMENT STATIONS=      959.0    1277.0  TYPE=      1  TARGET=      318.000
    1.801      3.60   2447.10   2446.25   2447.10   2447.29       .19      4.32       .04   2445.40
   2073.0      66.6     241.0    1765.4      29.8      50.8     537.7     100.2      58.5   2445.40
      .44      2.23      4.75      3.28      .065      .040      .065      .000   2443.50    959.60
  .006903      245.      280.      335.         6         6         0       .00    317.21   1276.80
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1.879
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 950.0 1240.0 TYPE= 1 TARGET= 290.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.
FIRST CROSS SECTION ADJACENT TO VULTURE MINE ROAD
WASH PARALLELS ROAD FORM 1.879 TO END OF DETAILED STUDY
AT CROSS SECTION 2.854

1.879	1.78	2453.28	2453.28	2453.28	2453.91	.63	4.76	.13	2452.00
2073.0	75.7	458.4	1539.0	20.3	48.7	292.9	104.2	60.9	2451.80
.46	3.72	9.40	5.25	.065	.040	.065	.000	2451.50	950.03
.035494	335.	412.	348.	0	8	0	.00	289.25	1239.28

CCHV= .100 CEHV= .300
*SECNO 1.989

[illegible]0 ENCROACHMENT STATIONS= 784.0 1136.0 TYPE= 1 TARGET= 352.000

1.989	2.01	2468.01	2467.88	2468.01	2468.52	.50	14.60	.01	2466.10
2073.0	851.2	674.5	547.3	226.1	81.5	136.9	109.5	65.1	2466.00
.49	3.77	8.28	4.00	.070	.040	.070	.000	2466.00	784.54
.019861	665.	581.	505.	4	8	0	.00	350.65	1135.19

*SECNO 2.083

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.51

3470 ENCROACHMENT STATIONS= 945.0 1142.0 TYPE= 1 TARGET= 197.000

2.083	3.07	2474.27	2473.46	2474.27	2474.66	.39	6.13	.01	2471.70
2073.0	247.0	763.6	1062.4	75.5	113.4	281.9	114.5	68.2	2471.60
.51	3.27	6.73	3.77	.070	.040	.070	.000	2471.20	945.13
.008758	565.	496.	420.	6	8	0	.00	196.22	1141.35

*SECNO 2.174
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS=      654.0    1046.0  TYPE=      1  TARGET=      392.000
     2.174      3.16   2482.16   2482.16   2482.16   2482.76       .60      4.75       .06   2479.80
    1929.0     703.8    1141.7      83.5     293.6     146.3      25.0     119.7      71.5   2479.80
       .54      2.40      7.80      3.34      .070      .040      .070      .000   2479.00    654.48
   .011465      490.      481.      465.         0         8         0       .00    391.28   1045.76


*SECNO 2.260

3470 ENCROACHMENT STATIONS=      763.0    1042.0  TYPE=      1  TARGET=      279.000
     2.260      3.24   2486.34   2485.64   2486.35   2486.60       .26      3.81       .03   2483.30
    1929.0    1287.0     408.4     233.6     440.0      60.3      70.0     124.6      74.6   2483.30
       .57      2.92      6.77      3.34      .070      .040      .070      .000   2483.10    763.33
   .007215      395.      454.      465.         4        15         0       .00    278.22   1041.56


CCHV=     .100 CEHV=     .300
*SECNO 2.354

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .69


3470 ENCROACHMENT STATIONS=      755.0    1081.0  TYPE=      1  TARGET=      326.000
     2.354      2.26   2490.96   2490.58   2490.96   2491.25       .29      4.64       .01   2489.40
    1929.0    1312.4      279.4     337.1     324.1      46.2      91.7     130.0      77.8   2489.50
       .60      4.05      6.05      3.68      .060      .040      .060      .000   2488.70    755.32
   .014952      445.      496.      495.         3        11         0       .00    325.60   1080.92


*SECNO 2.449

3470 ENCROACHMENT STATIONS=      747.0    1044.0  TYPE=      1  TARGET=      297.000
     2.449      2.24   2497.24   2496.77   2497.24   2497.52       .28      6.27       .00   2495.50
    1929.0    1407.6      407.5     113.9     396.2      65.0      36.9     135.7      81.4   2495.50
       .63      3.55      6.27      3.09      .060      .040      .060      .000   2495.00    747.19
   .010190      520.      502.      485.         4        15         0       .00    295.93   1043.12


*SECNO 2.544

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .70
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 782.0 1080.0 TYPE= 1 TARGET= 298.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

2.544	1.96	2503.96	2503.83	2503.96	2504.47	.51	6.88	.07	2502.00
1929.0	1244.4	441.1	243.5	250.7	54.2	62.9	140.5	84.7	2502.20
.66	4.96	8.14	3.87	.060	.040	.060	.000	2502.00	793.53
.021090	475.	502.	518.	3	15	0	.00	284.82	1078.35

*SECNO 2.614

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.54

3470 ENCROACHMENT STATIONS= 718.0 1027.0 TYPE= 1 TARGET= 309.000

2.614	2.45	2508.45	2507.77	2508.45	2508.66	.21	4.16	.03	2506.00
1724.0	1377.4	310.7	35.9	432.3	57.3	16.0	144.1	87.1	2506.80
.68	3.19	5.42	2.24	.060	.040	.060	.000	2506.00	718.70
.007059	350.	370.	379.	5	11	0	.00	307.43	1026.13

*SECNO 2.695
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 867.0 1100.0 TYPE= 1 TARGET= 233.000

2.695	2.14	2513.34	2513.34	2513.34	2513.98	.64	5.19	.13	2511.70
1724.0	846.4	428.8	448.8	156.6	47.4	91.9	147.8	89.6	2511.90
.70	5.40	9.05	4.88	.060	.040	.060	.000	2511.20	867.53
.029715	390.	428.	450.	0	15	0	.00	232.26	1099.79

*SECNO 2.786

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.54

3470 ENCROACHMENT STATIONS= 807.0 1190.0 TYPE= 1 TARGET= 383.000

2.786	2.56	2521.66	2521.30	2521.66	2521.92	.26	7.91	.04	2520.60
1724.0	242.7	165.5	1315.8	109.0	36.0	308.3	151.4	92.6	2520.60
.73	2.23	4.60	4.27	.060	.040	.060	.000	2519.10	807.00
.012466	412.	480.	425.	6	8	0	.00	382.58	1189.58

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.854

3470 ENCROACHMENT STATIONS= 924.0 1377.0 TYPE= 1 TARGET= 453.000

LAST CROSS SECTION OF DETAILED STUDY

2.854	1.85	2525.25	2524.69	2525.25	2525.40	.15	3.47	.01	2524.20
1724.0	48.2	216.6	1459.2	27.8	53.2	498.5	155.6	96.0	2524.20
.76	1.73	4.07	2.93	.060	.040	.060	.000	2523.40	924.61
.008241	402.	359.	338.	6	8	0	.00	451.66	1376.27

THIS RUN EXECUTED 23JUN92 10:15:42

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HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WASH R-2: TRIBUTARY WASH

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	3.483	.00	.00	.00	2295.00	5307.00	2300.10	2299.91	2300.75	80.25	9.94	1188.70	592.40
	3.483	.00	.00	.00	2295.00	5307.00	2300.10	2299.91	2300.75	80.25	9.94	1188.70	592.40
*	.214	552.00	.00	.00	2306.10	2797.00	2311.01	2311.01	2312.72	107.39	11.90	333.51	269.91
*	.214	552.00	.00	.00	2306.10	2797.00	2311.01	2311.01	2312.72	107.41	11.91	333.49	269.88
	.254	211.20	.00	.00	2307.00	2797.00	2313.24	2310.26	2313.53	16.81	5.80	797.69	682.25
*	.254	211.20	.00	.00	2307.00	2797.00	2313.24	2310.26	2313.53	16.80	5.80	797.73	682.30
*	.358	549.10	.00	.00	2318.00	2797.00	2321.14	2321.14	2321.99	174.36	11.38	520.50	211.82
*	.358	549.10	.00	.00	2318.00	2797.00	2321.14	2321.14	2321.99	174.29	11.37	520.56	211.86
*	.441	438.20	.00	.00	2323.00	2797.00	2328.18	2328.18	2329.37	115.78	13.12	462.75	259.94
*	.441	438.20	.00	.00	2323.00	2797.00	2328.18	2328.18	2329.37	115.81	13.12	462.70	259.91
	.516	396.00	.00	.00	2331.00	2502.00	2334.09	2333.61	2334.47	145.14	8.11	566.30	207.68
	.516	396.00	.00	.00	2331.00	2502.00	2334.09	2333.61	2334.46	145.09	8.11	566.37	207.72
	.623	565.00	.00	.00	2342.00	2502.00	2344.18	2344.02	2344.52	291.19	6.65	543.60	146.62
	.623	565.00	.00	.00	2342.00	2502.00	2344.18	2344.02	2344.52	291.37	6.65	543.48	146.58
	.663	215.60	.00	.00	2347.00	2502.00	2349.18	2348.87	2349.57	192.21	7.26	550.10	180.47
	.663	215.60	.00	.00	2347.00	2502.00	2349.18	2348.87	2349.57	192.12	7.26	550.20	180.51
*	.723	316.80	.00	.00	2351.00	2502.00	2354.45	2354.45	2355.41	155.48	10.85	433.20	200.66
*	.723	316.80	.00	.00	2351.00	2502.00	2354.46	2354.46	2355.41	155.15	10.84	433.54	200.87
	.820	512.20	.00	.00	2355.80	2502.00	2361.42	2360.84	2361.84	128.43	7.78	553.64	220.78
	.820	512.20	.00	.00	2355.80	2502.00	2361.42	2360.84	2361.84	128.68	7.79	553.30	220.56
	.911	480.50	.00	.00	2364.00	2502.00	2368.27	2367.72	2368.67	172.72	4.19	493.29	190.38
	.911	480.50	.00	.00	2364.00	2502.00	2368.27	2367.73	2368.67	172.41	4.19	493.65	190.55

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	1.007	508.00	.00	.00	2375.00	2264.00	2377.41	2377.21	2377.87	224.84	9.74	469.30	150.99
	1.007	508.00	.00	.00	2375.00	2264.00	2377.41	2377.21	2377.87	225.30	9.75	468.96	150.83
	1.098	479.40	.00	.00	2383.50	2264.00	2385.85	2385.50	2386.19	135.34	6.97	550.43	194.61
	1.098	479.40	.00	.00	2383.50	2264.00	2385.85	2385.50	2386.19	135.07	6.97	550.79	194.80
	1.157	311.50	.00	.00	2389.00	2264.00	2391.32	2391.12	2391.69	151.31	6.90	555.08	184.05
	1.157	311.50	.00	.00	2389.00	2264.00	2391.32	2391.12	2391.69	151.65	6.90	554.64	183.84
	1.248	480.50	.00	.00	2396.50	2264.00	2398.78	2398.64	2399.15	159.56	7.72	582.07	179.23
	1.248	480.50	.00	.00	2396.50	2264.00	2398.78	2398.64	2399.15	159.26	7.72	582.44	179.40
*	1.347	522.70	.00	.00	2404.50	2264.00	2407.75	2407.75	2409.00	212.95	12.21	297.33	155.14
*	1.347	522.70	.00	.00	2404.50	2264.00	2407.75	2407.75	2409.00	212.89	12.20	297.36	155.17
*	1.445	517.50	.00	.00	2413.50	2264.00	2418.93	2418.93	2420.08	148.22	11.99	346.67	185.96
*	1.445	517.50	.00	.00	2413.50	2264.00	2418.93	2418.93	2420.08	148.40	12.00	346.53	185.85
	1.549	549.10	.00	.00	2422.50	2264.00	2426.07	2425.52	2426.49	123.60	7.84	489.85	203.64
	1.549	549.10	.00	.00	2422.50	2264.00	2426.07	2425.52	2426.49	123.46	7.84	490.02	203.76
*	1.633	443.50	.00	.00	2429.50	2073.00	2432.17	2431.97	2432.70	270.25	6.56	356.77	126.10
*	1.633	443.50	.00	.00	2429.50	2073.00	2432.17	2431.97	2432.70	270.64	6.56	356.57	126.01
	1.686	278.80	.00	.00	2434.00	2073.00	2436.92	2436.36	2437.14	108.69	4.87	558.78	198.84
*	1.686	278.80	.00	.00	2434.00	2073.00	2436.92	2436.36	2437.14	108.64	4.87	558.89	198.89
*	1.748	327.40	.00	.00	2439.50	2073.00	2442.30	2442.30	2442.92	349.86	7.11	330.19	110.83
*	1.748	327.40	.00	.00	2439.50	2073.00	2442.30	2442.30	2442.92	349.49	7.11	330.32	110.89
*	1.801	279.80	.00	.00	2443.50	2073.00	2447.10	2446.25	2447.29	69.00	4.75	618.39	249.55
*	1.801	279.80	.00	.00	2443.50	2073.00	2447.10	2446.25	2447.29	69.03	4.75	618.31	249.50
*	1.879	411.90	.00	.00	2451.50	2073.00	2453.28	2453.28	2453.90	354.51	9.40	362.16	110.10
*	1.879	411.90	.00	.00	2451.50	2073.00	2453.28	2453.28	2453.91	354.94	9.40	362.01	110.03
	1.989	580.80	.00	.00	2466.00	2073.00	2468.01	2467.88	2468.51	198.71	8.28	444.37	147.06
	1.989	580.80	.00	.00	2466.00	2073.00	2468.01	2467.88	2468.52	198.61	8.28	444.46	147.09
*	2.083	496.30	.00	.00	2471.20	2073.00	2474.27	2473.46	2474.66	87.64	6.73	470.75	221.44
*	2.083	496.30	.00	.00	2471.20	2073.00	2474.27	2473.46	2474.66	87.58	6.73	470.84	221.51
*	2.174	480.50	.00	.00	2479.00	1929.00	2482.16	2482.16	2482.76	115.09	7.82	464.13	179.81
*	2.174	480.50	.00	.00	2479.00	1929.00	2482.16	2482.16	2482.76	114.65	7.80	464.90	180.16
	2.260	454.10	.00	.00	2483.10	1929.00	2486.35	2485.64	2486.61	71.97	6.76	570.82	227.38
	2.260	454.10	.00	.00	2483.10	1929.00	2486.34	2485.64	2486.60	72.15	6.77	570.34	227.10
*	2.354	496.30	.00	.00	2488.70	1929.00	2490.96	2490.57	2491.25	149.85	6.06	461.62	157.58
	2.354	496.30	.00	.00	2488.70	1929.00	2490.96	2490.58	2491.25	149.52	6.05	461.93	157.76

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	2.449	501.60	.00	.00	2495.00	1929.00	2497.24	2496.77	2497.52	101.75	6.27	498.33	191.23
	2.449	501.60	.00	.00	2495.00	1929.00	2497.24	2496.77	2497.52	101.90	6.27	498.12	191.10
*	2.544	501.60	.00	.00	2502.00	1929.00	2503.96	2503.83	2504.47	211.24	8.15	367.50	132.72
*	2.544	501.60	.00	.00	2502.00	1929.00	2503.96	2503.83	2504.47	210.90	8.14	367.71	132.83
*	2.614	369.60	.00	.00	2506.00	1724.00	2508.45	2507.77	2508.66	70.56	5.42	505.67	205.24
*	2.614	369.60	.00	.00	2506.00	1724.00	2508.45	2507.77	2508.66	70.59	5.42	505.60	205.20
*	2.695	427.70	.00	.00	2511.20	1724.00	2513.34	2513.34	2513.98	297.66	9.05	295.73	99.93
*	2.695	427.70	.00	.00	2511.20	1724.00	2513.34	2513.34	2513.98	297.15	9.05	295.90	100.01
*	2.786	480.40	.00	.00	2519.10	1724.00	2521.66	2521.30	2521.92	124.45	4.60	453.47	154.54
*	2.786	480.40	.00	.00	2519.10	1724.00	2521.66	2521.30	2521.92	124.66	4.60	453.19	154.41
	2.854	359.10	.00	.00	2523.40	1724.00	2525.25	2524.69	2525.40	82.60	4.08	579.07	189.69
	2.854	359.10	.00	.00	2523.40	1724.00	2525.25	2524.69	2525.40	82.41	4.07	579.51	189.91

H R-2: TRIBUTARY WASH

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	3.483	5307.00	2300.10	.00	.00	.00	530.73	.00
	3.483	5307.00	2300.10	.00	.00	.00	530.73	.00
*	.214	2797.00	2311.01	.00	10.91	.00	101.90	552.00
*	.214	2797.00	2311.01	.00	10.91	.00	101.90	552.00
*	.254	2797.00	2313.24	.00	2.23	.00	154.79	211.20
*	.254	2797.00	2313.24	.00	2.23	.00	154.79	211.20
*	.358	2797.00	2321.14	.00	7.91	.00	271.59	549.10
*	.358	2797.00	2321.14	.00	7.91	.00	271.59	549.10
*	.441	2797.00	2328.18	.00	7.04	.00	189.33	438.20
*	.441	2797.00	2328.18	.00	7.04	.00	189.33	438.20
	.516	2502.00	2334.09	.00	5.91	.00	306.79	396.00
	.516	2502.00	2334.09	.00	5.91	.00	306.79	396.00
	.623	2502.00	2344.18	.00	10.09	.00	519.28	565.00
	.623	2502.00	2344.18	.00	10.09	.00	519.28	565.00
	.663	2502.00	2349.18	.00	5.01	.00	392.74	215.60
	.663	2502.00	2349.18	.00	5.01	.00	392.74	215.60
*	.723	2502.00	2354.45	.00	5.27	.00	232.68	316.80
*	.723	2502.00	2354.46	.00	5.27	.00	232.69	316.80
	.820	2502.00	2361.42	.00	6.97	.00	277.40	512.20
	.820	2502.00	2361.42	.00	6.96	.00	277.39	512.20
	.911	2502.00	2368.27	.00	6.85	.00	290.53	480.50
	.911	2502.00	2368.27	.00	6.85	.00	290.73	480.50
	1.007	2264.00	2377.41	.00	9.14	.00	344.81	508.00
	1.007	2264.00	2377.41	.00	9.14	.00	344.74	508.00
	1.098	2264.00	2385.85	.00	8.44	.00	367.24	479.40
	1.098	2264.00	2385.85	.00	8.44	.00	367.29	479.40
	1.157	2264.00	2391.32	.00	5.47	.00	452.00	311.50
	1.157	2264.00	2391.32	.00	5.47	.00	451.97	311.50
	1.248	2264.00	2398.78	.00	7.46	.00	506.00	480.50
	1.248	2264.00	2398.78	.00	7.47	.00	506.00	480.50
*	1.347	2264.00	2407.75	.00	8.97	.00	120.52	522.70
*	1.347	2264.00	2407.75	.00	8.97	.00	120.52	522.70

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	1.445	2264.00	2418.93	.00	11.18	.00	143.61	517.50
*	1.445	2264.00	2418.93	.00	11.18	.00	143.60	517.50
	1.549	2264.00	2426.07	.00	7.14	.00	240.28	549.10
	1.549	2264.00	2426.07	.00	7.14	.00	240.29	549.10
*	1.633	2073.00	2432.17	.00	6.10	.00	270.41	443.50
*	1.633	2073.00	2432.17	.00	6.09	.00	270.18	443.50
*	1.686	2073.00	2436.92	.00	4.75	.00	448.44	278.80
*	1.686	2073.00	2436.92	.00	4.75	.00	448.50	278.80
*	1.748	2073.00	2442.30	.00	5.38	.00	278.24	327.40
*	1.748	2073.00	2442.30	.00	5.38	.00	278.36	327.40
*	1.801	2073.00	2447.10	.00	4.80	.00	317.22	279.80
*	1.801	2073.00	2447.10	.00	4.80	.00	317.21	279.80
*	1.879	2073.00	2453.28	.00	6.17	.00	289.26	411.90
*	1.879	2073.00	2453.28	.00	6.17	.00	289.25	411.90
	1.989	2073.00	2468.01	.00	14.73	.00	350.64	580.80
	1.989	2073.00	2468.01	.00	14.74	.00	350.65	580.80
	2.083	2073.00	2474.27	.00	6.26	.00	196.22	496.30
*	2.083	2073.00	2474.27	.00	6.26	.00	196.22	496.30
*	2.174	1929.00	2482.16	.00	7.89	.00	391.21	480.50
*	2.174	1929.00	2482.16	.00	7.89	.00	391.28	480.50
	2.260	1929.00	2486.35	.00	4.19	.00	278.30	454.10
	2.260	1929.00	2486.34	.00	4.18	.00	278.22	454.10
*	2.354	1929.00	2490.96	.00	4.61	.00	325.58	496.30
*	2.354	1929.00	2490.96	.00	4.62	.00	325.60	496.30
	2.449	1929.00	2497.24	.00	6.28	.00	295.94	501.60
	2.449	1929.00	2497.24	.00	6.28	.00	295.93	501.60
*	2.544	1929.00	2503.96	.00	6.71	.00	284.74	501.60
*	2.544	1929.00	2503.96	.00	6.72	.00	284.82	501.60
*	2.614	1724.00	2508.45	.00	4.49	.00	307.44	369.60
*	2.614	1724.00	2508.45	.00	4.49	.00	307.43	369.60
*	2.695	1724.00	2513.34	.00	4.89	.00	232.24	427.70
*	2.695	1724.00	2513.34	.00	4.89	.00	232.26	427.70
	2.786	1724.00	2521.66	.00	8.32	.00	382.62	480.40
	2.786	1724.00	2521.66	.00	8.32	.00	382.58	480.40

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2.854	1724.00	2525.25	.00	3.59	.00	451.56	359.10
2.854	1724.00	2525.25	.00	3.59	.00	451.66	359.10

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=      .214  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .214  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .214  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .214  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      .254  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .254  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .358  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .358  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .358  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .358  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .441  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .441  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .441  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .441  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .723  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .723  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .723  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .723  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     1.347  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.347  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.347  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.347  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     1.445  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.445  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.445  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.445  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     1.633  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.633  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.686  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.686  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.748  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.748  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.748  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.748  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     1.801  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.801  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.879  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.879  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     1.879  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.879  PROFILE=  2  MINIMUM SPECIFIC ENERGY
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WARNING SECNO=     2.083  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.083  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     2.174  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.174  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     2.174  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.174  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     2.354  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.354  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.544  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.544  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.614  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.614  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.695  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=     2.695  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     2.695  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     2.786  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     2.786  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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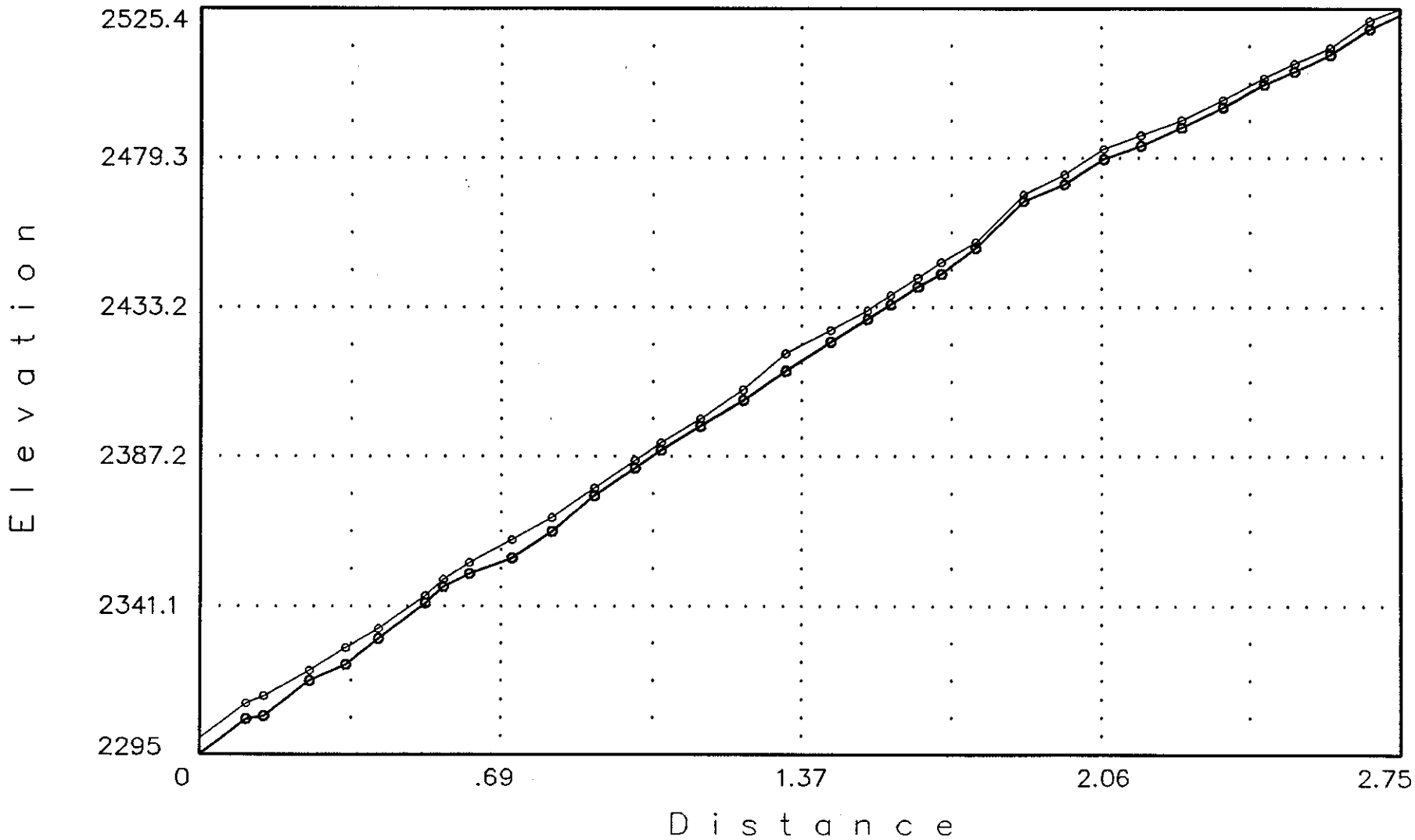
FLOODWAY DATA, WASH R-2: TRIBUTARY WASH
PROFILE NO. 2

STATION	------- FLOODWAY ------- WIDTH	SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
3.483	531.	1189.	4.5	2300.1	2300.1	.0
.214	102.	333.	8.4	2311.0	2311.0	.0
.254	155.	798.	3.5	2313.2	2313.2	.0
.358	272.	521.	5.4	2321.1	2321.1	.0
.441	189.	463.	6.0	2328.2	2328.2	.0
.516	307.	566.	4.4	2334.1	2334.1	.0
.623	519.	543.	4.6	2344.2	2344.2	.0
.663	393.	550.	4.5	2349.2	2349.2	.0
.723	233.	434.	5.8	2354.5	2354.5	.0
.820	277.	553.	4.5	2361.4	2361.4	.0
.911	309.	494.	5.1	2368.3	2368.3	.0
1.007	345.	469.	4.8	2377.4	2377.4	.0
1.098	367.	551.	4.1	2385.8	2385.8	.0
1.157	452.	555.	4.1	2391.3	2391.3	.0
1.248	506.	582.	3.9	2398.8	2398.8	.0
1.347	121.	297.	7.6	2407.8	2407.8	.0
1.445	144.	347.	6.5	2418.9	2418.9	.0
1.549	240.	490.	4.6	2426.1	2426.1	.0
1.633	381.	357.	5.8	2432.2	2432.2	.0
1.686	467.	559.	3.7	2436.9	2436.9	.0
1.748	298.	330.	6.3	2442.3	2442.3	.0
1.801	317.	618.	3.4	2447.1	2447.1	.0
1.879	289.	362.	5.7	2453.3	2453.3	.0
1.989	351.	444.	4.7	2468.0	2468.0	.0
2.083	196.	471.	4.4	2474.3	2474.3	.0
2.174	391.	465.	4.1	2482.2	2482.2	.0
2.260	278.	570.	3.4	2486.3	2486.3	.0
2.354	326.	462.	4.2	2491.0	2491.0	.0
2.449	296.	498.	3.9	2497.2	2497.2	.0
2.544	285.	368.	5.2	2504.0	2504.0	.0
2.614	307.	506.	3.4	2508.5	2508.5	.0
2.695	232.	296.	5.8	2513.3	2513.3	.0
2.786	383.	453.	3.8	2521.7	2521.7	.0
2.854	452.	580.	3.0	2525.3	2525.3	.0

<<<<<< WS ELEV. & BED ELEV. vs DISTANCE(mi) >>>>>>

Profile No. 1
Profile No. 2

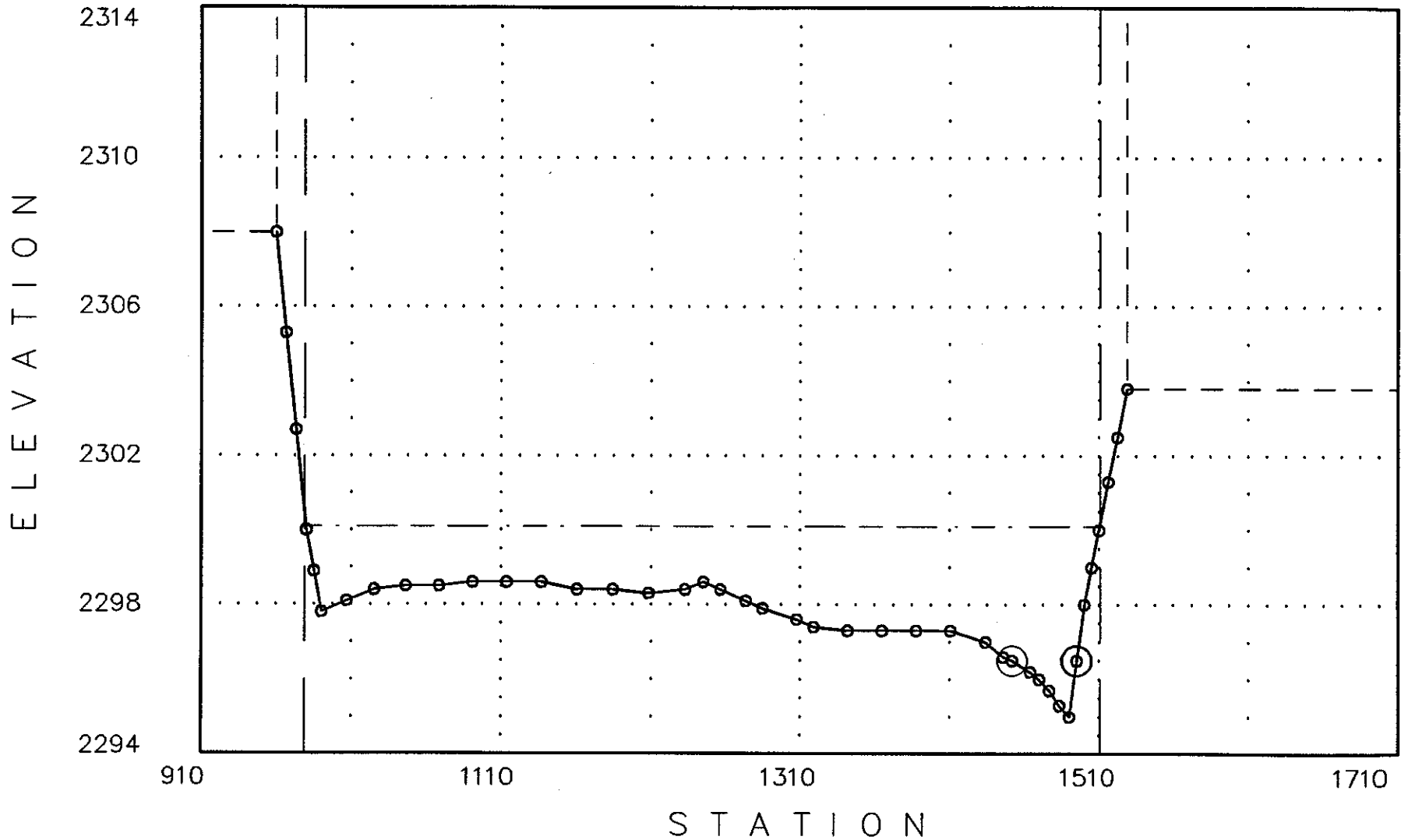
(FN=TRIBR2B.O)



<<<<<< Cross Section: 3.483: (FN = TRIBR2B.0) >>>>>>

Q1= 5307 WS1= 2300.1
Q2= 5307 WS2= 2300.1

Manning--n's: n-lob = .065 n-ch = .035 n-rob = .07

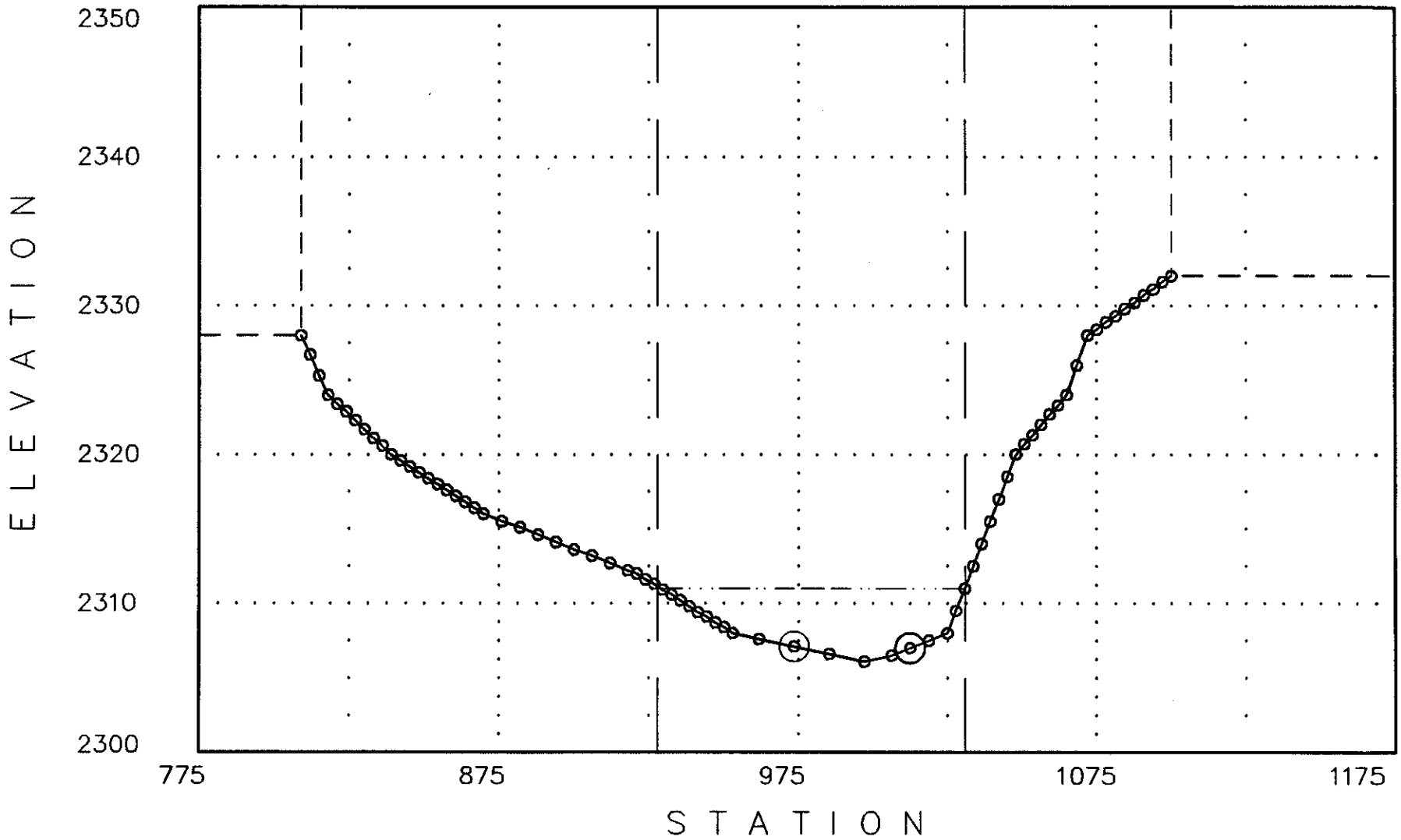


08-21-1992

<<<<<< Cross Section: .214: (FN = TRIBR2B.0) >>>>>>

Q1= 2797 WS1= 2311.01
Q2= 2797 WS2= 2311.01

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

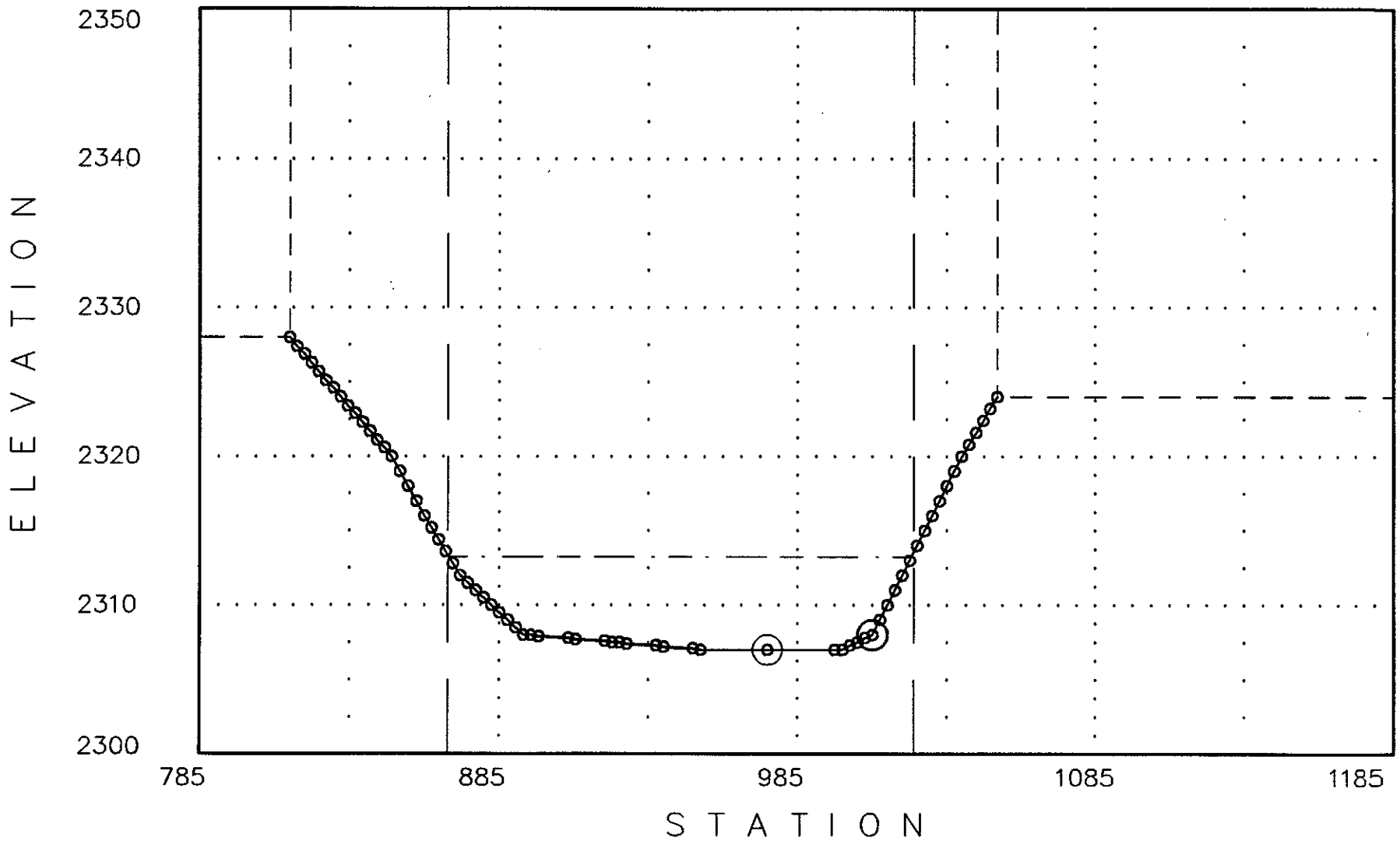


08-21-1992

<<<<<< Cross Section: .254: (FN = TRIBR2B.O) >>>>>>

Q1= 2797 WS1= 2313.24
Q2= 2797 WS2= 2313.24

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

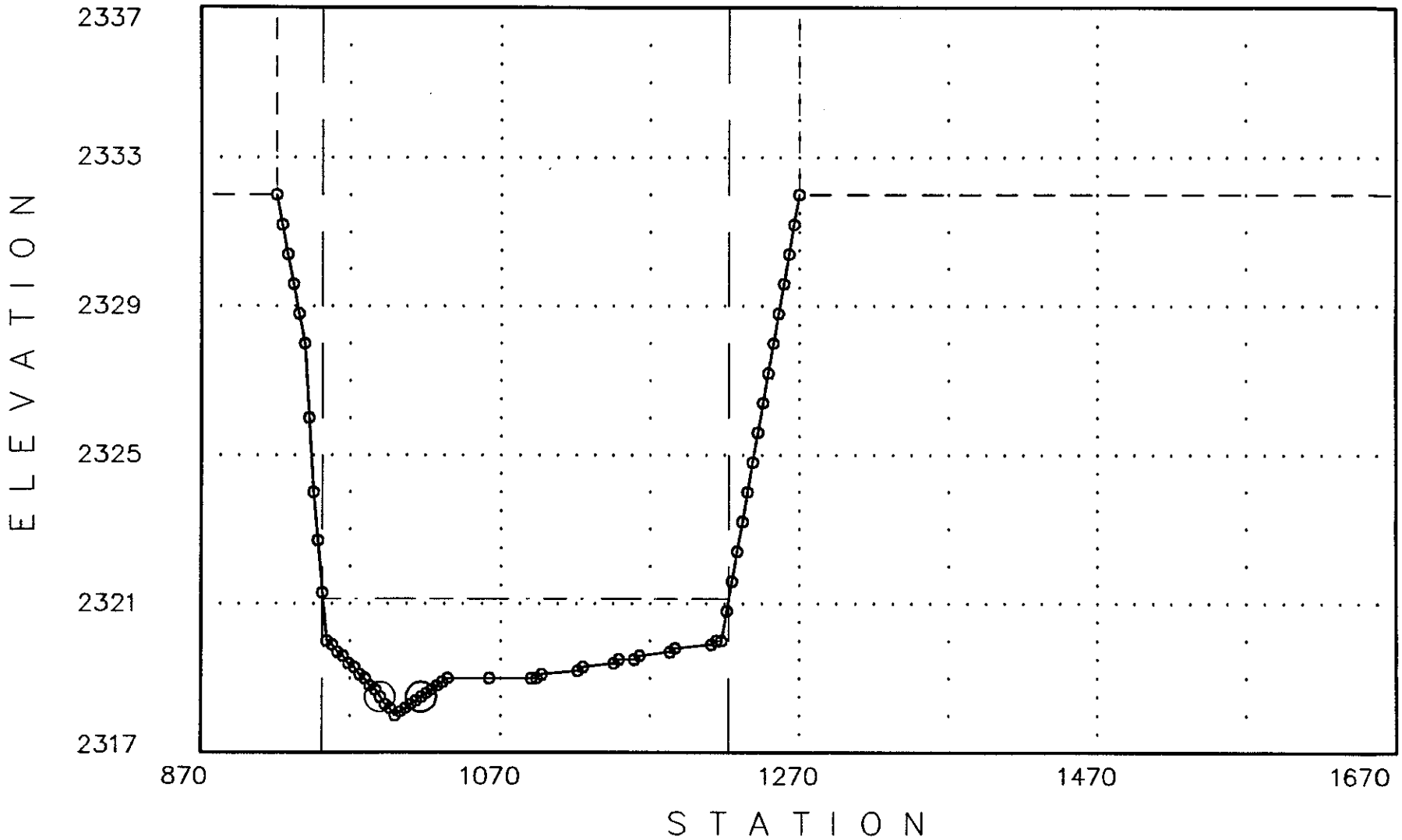


08-21-1992

<<<<<< Cross Section: .358: (FN = TRIBR2B.0) >>>>>>

Q1= 2797 WS1= 2321.14
Q2= 2797 WS2= 2321.14

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

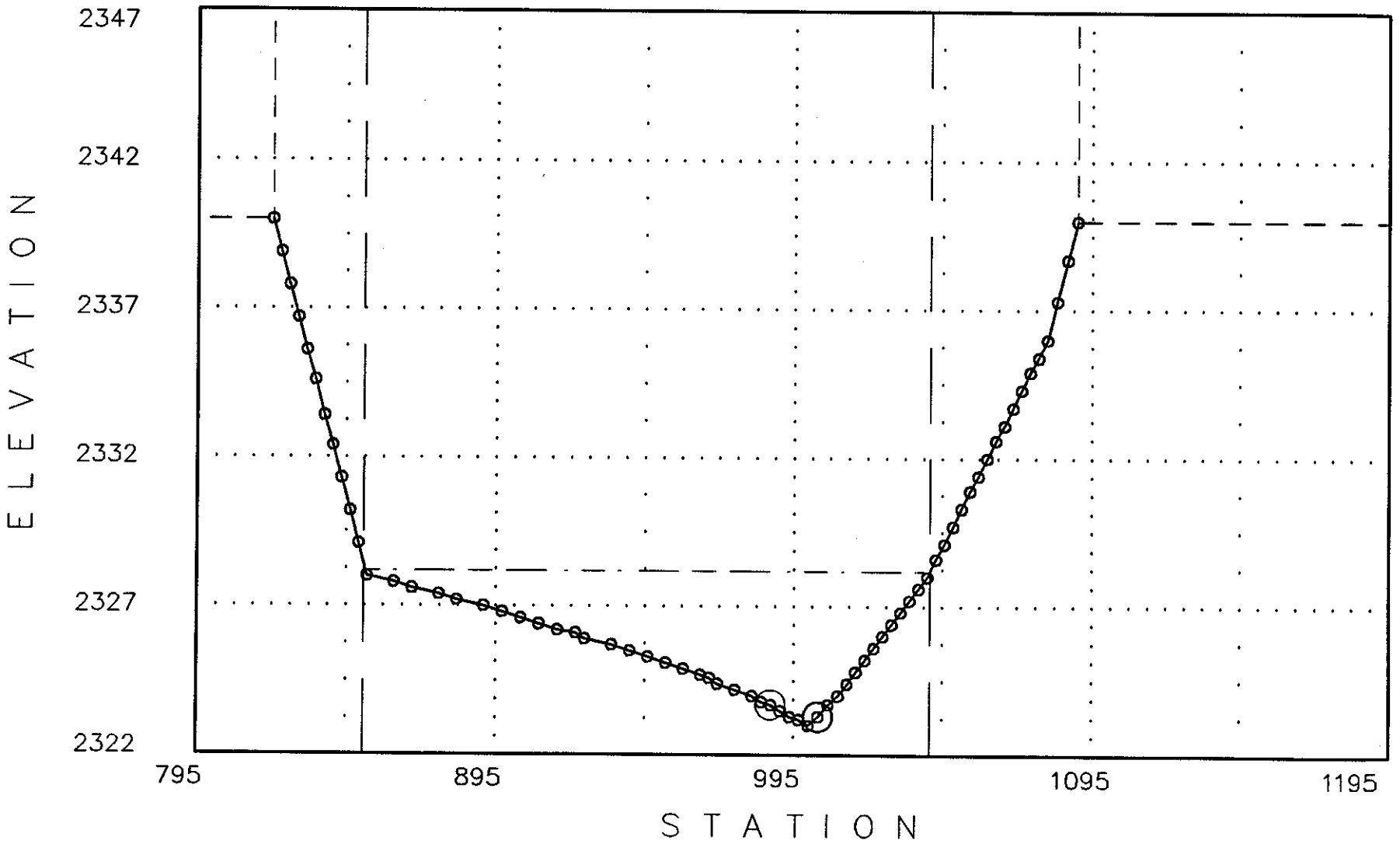


08-21-1992

<<<<<< Cross Section: .441: (FN = TRIBR2B.O) >>>>>>

Q1= 2797 WS1= 2328.18
Q2= 2797 WS2= 2328.18

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

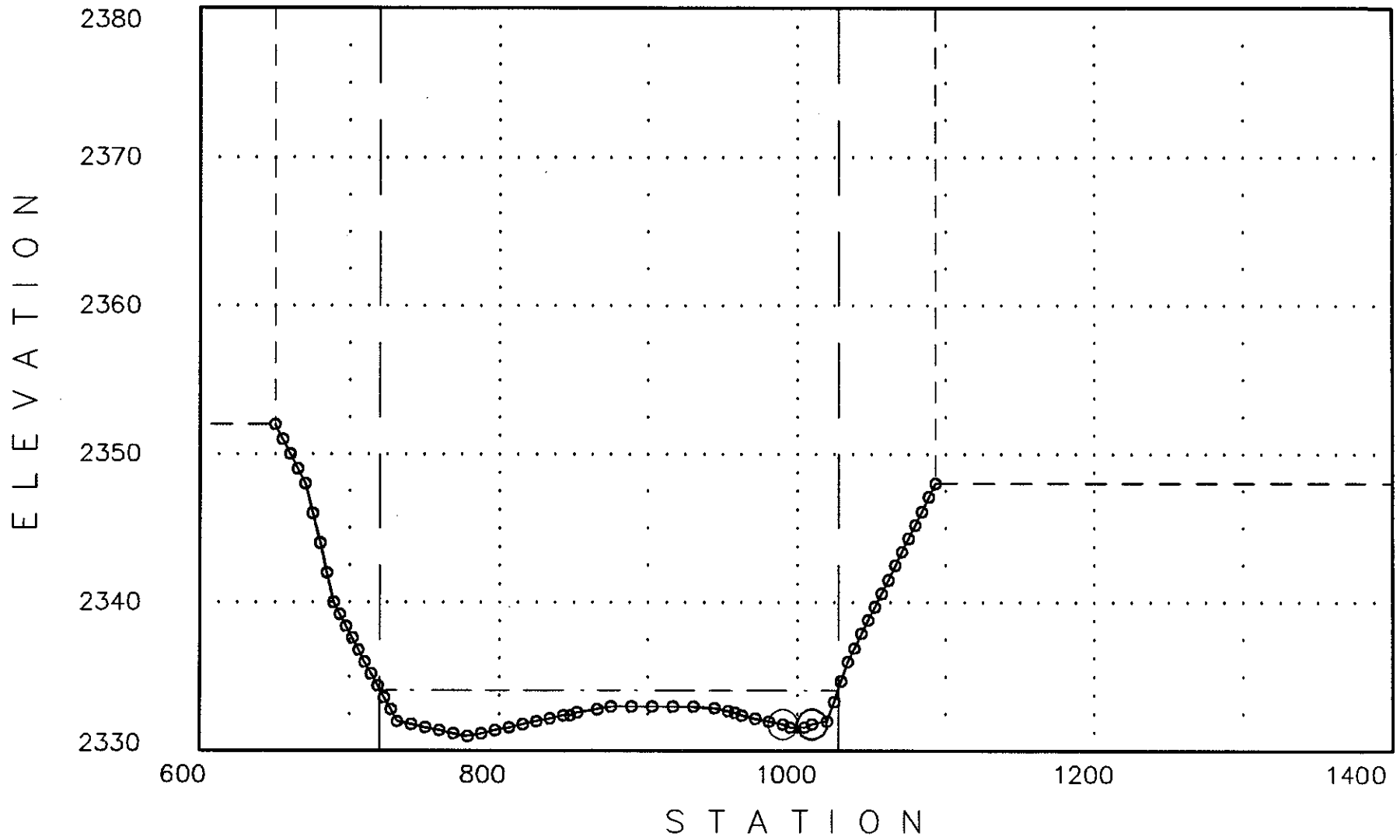


08-21-1992

<<<<<< Cross Section: .516: (FN = TRIBR2B.0) >>>>>>

Q1= 2502 WS1= 2334.09
Q2= 2502 WS2= 2334.09

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

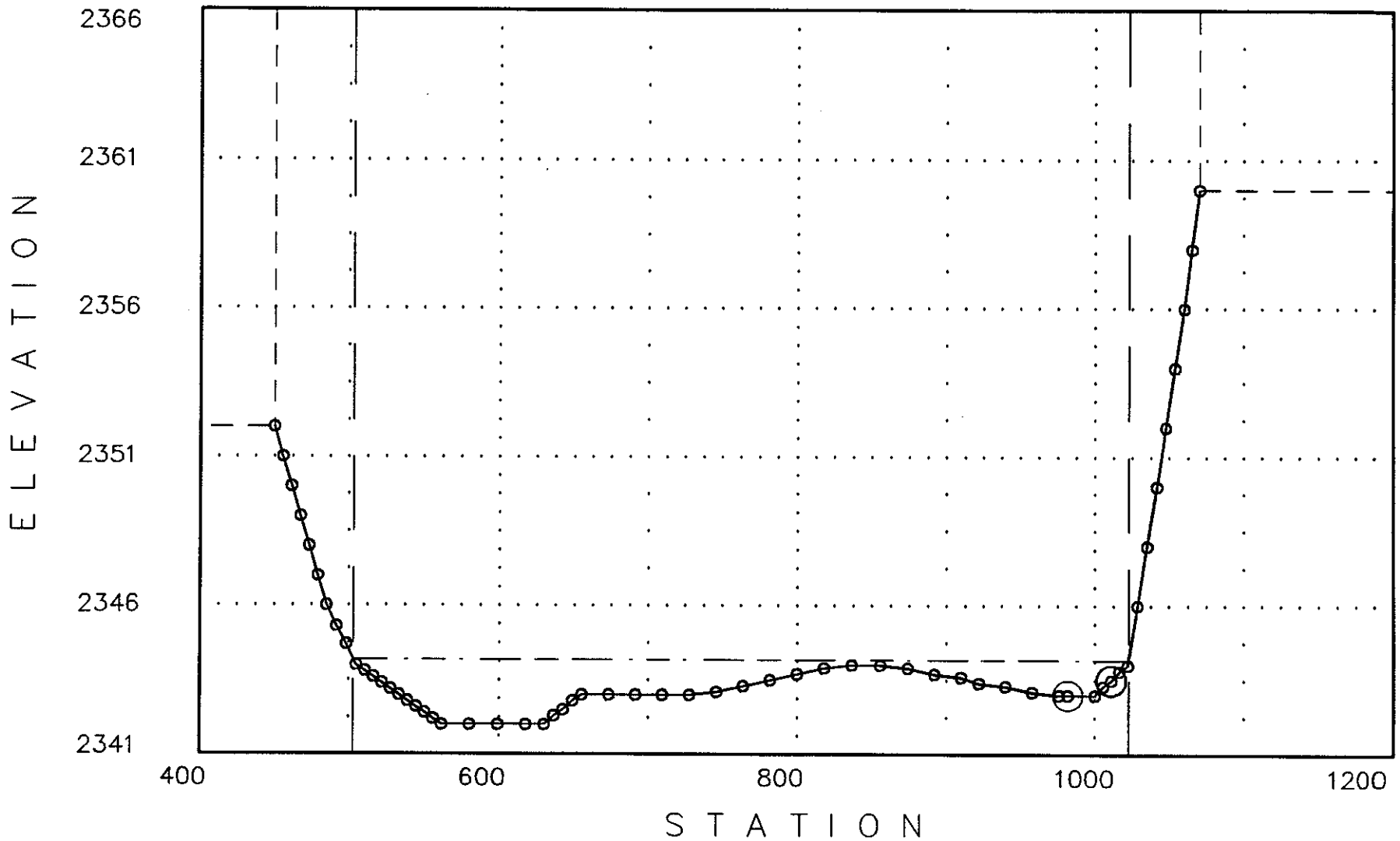


08-21-1992

<<<<<< Cross Section: .623: (FN = TRIBR2B.O) >>>>>>

Q1= 2502 WS1= 2344.18
Q2= 2502 WS2= 2344.18

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

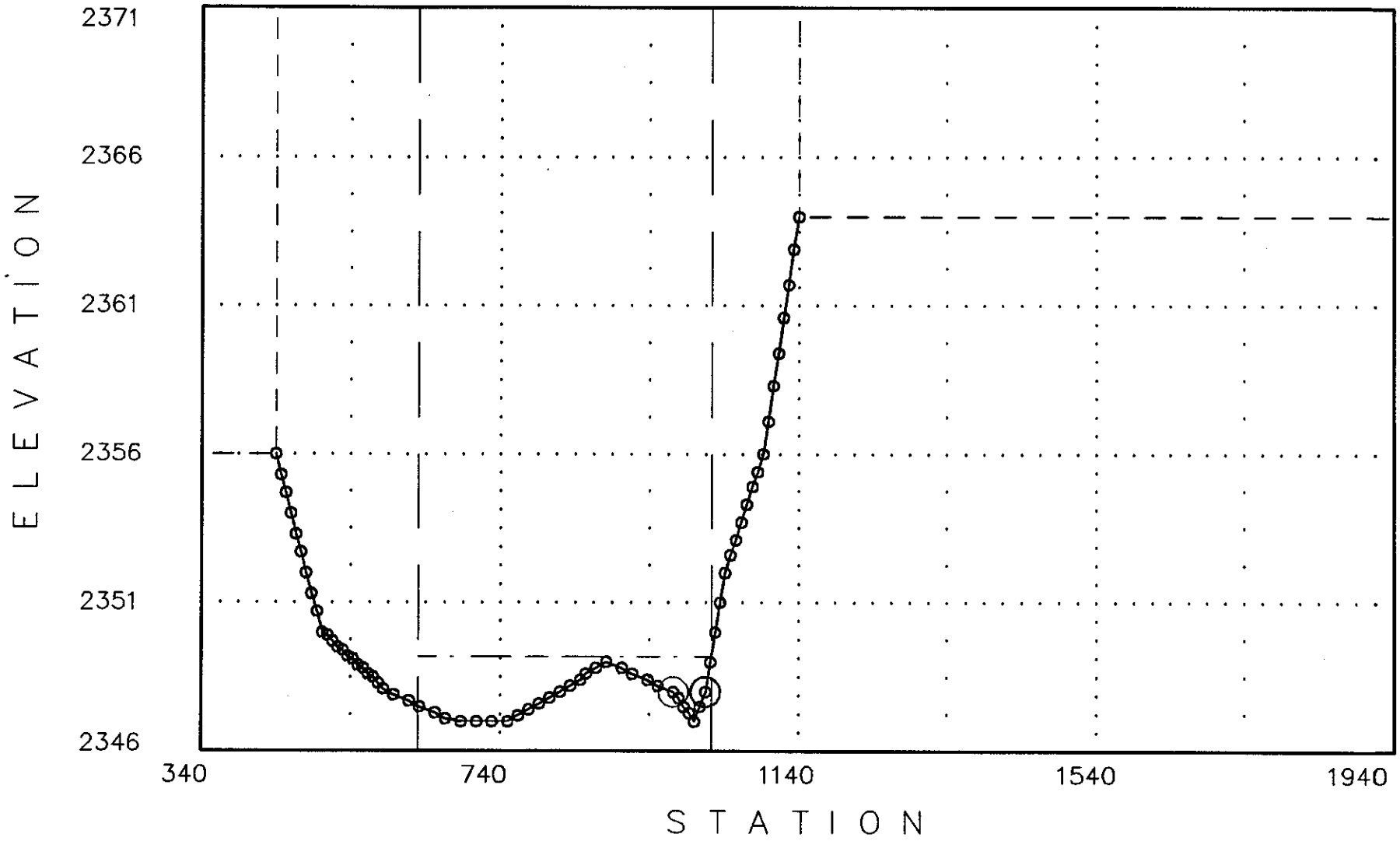


08-21-1992

<<<<<< Cross Section: .663: (FN = TRIBR2B.0) >>>>>>

Q1= 2502 WS1= 2349.18
Q2= 2502 WS2= 2349.18

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

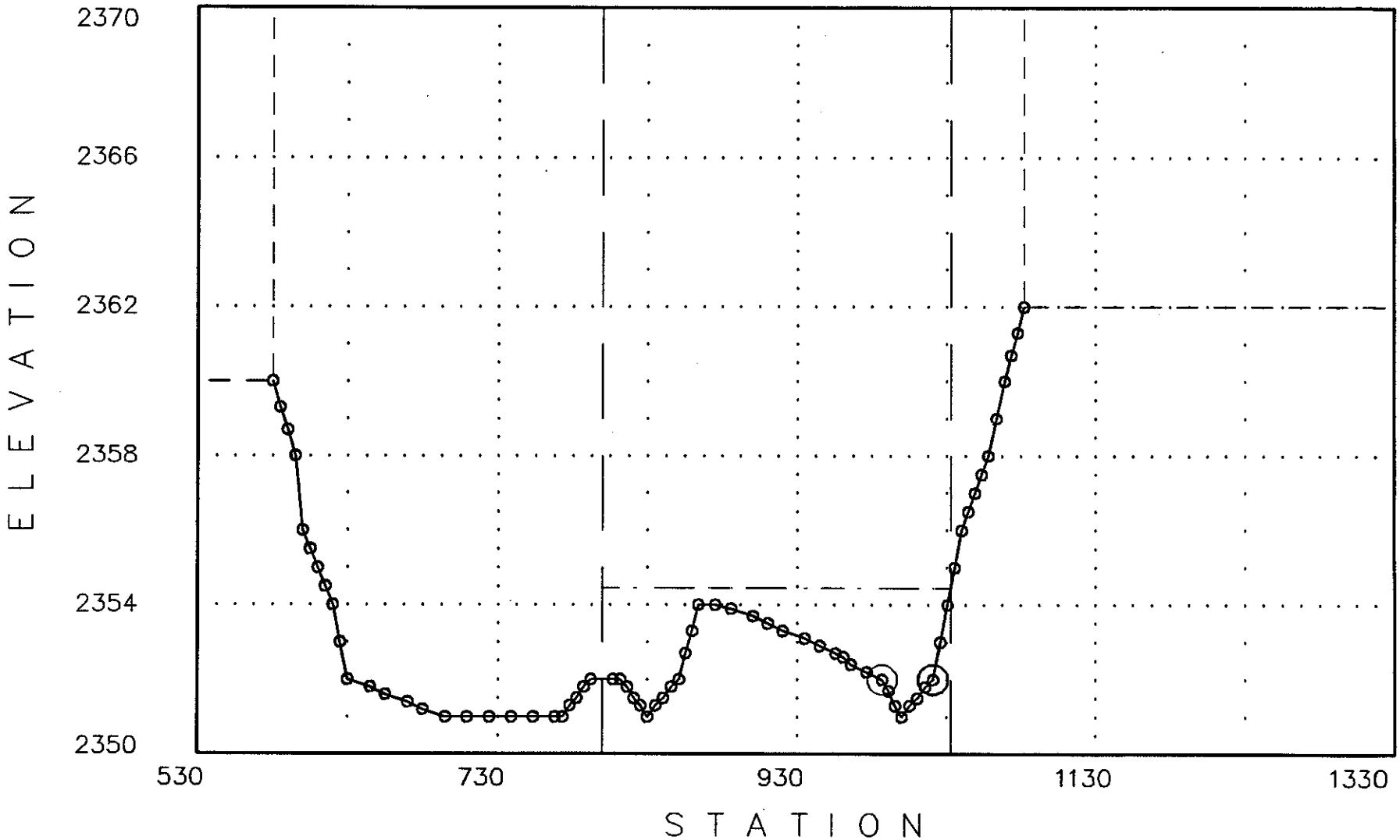


08-21-1992

<<<<<< Cross Section: .723: (FN = TRIBR2B.O) >>>>>>

Q1= 2502 WS1= 2354.45
Q2= 2502 WS2= 2354.46

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

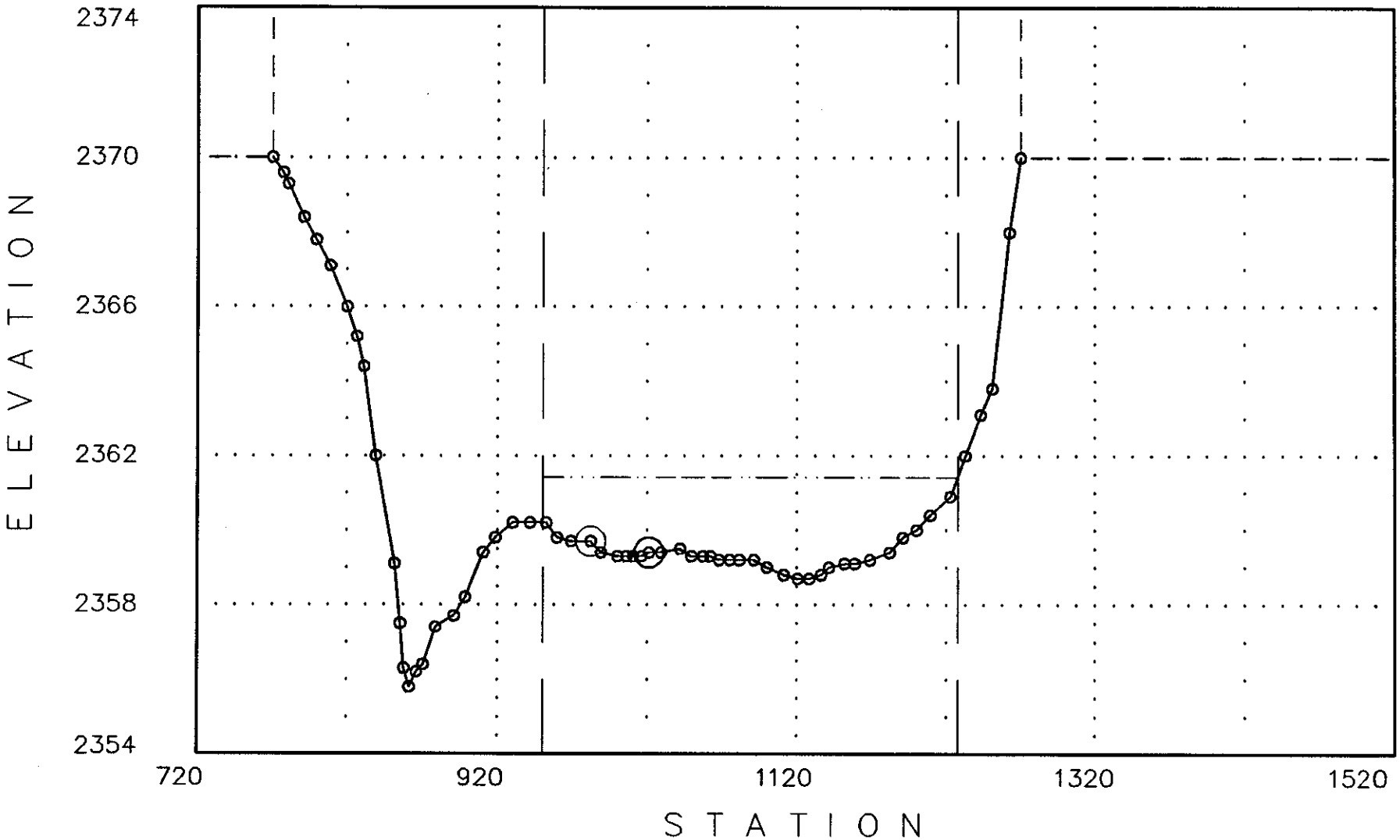


08-21-1992

<<<<<< Cross Section: .82: (FN = TRIBR2B.0) >>>>>>

Q1= 2502 WS1= 2361.42
Q2= 2502 WS2= 2361.42

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .07

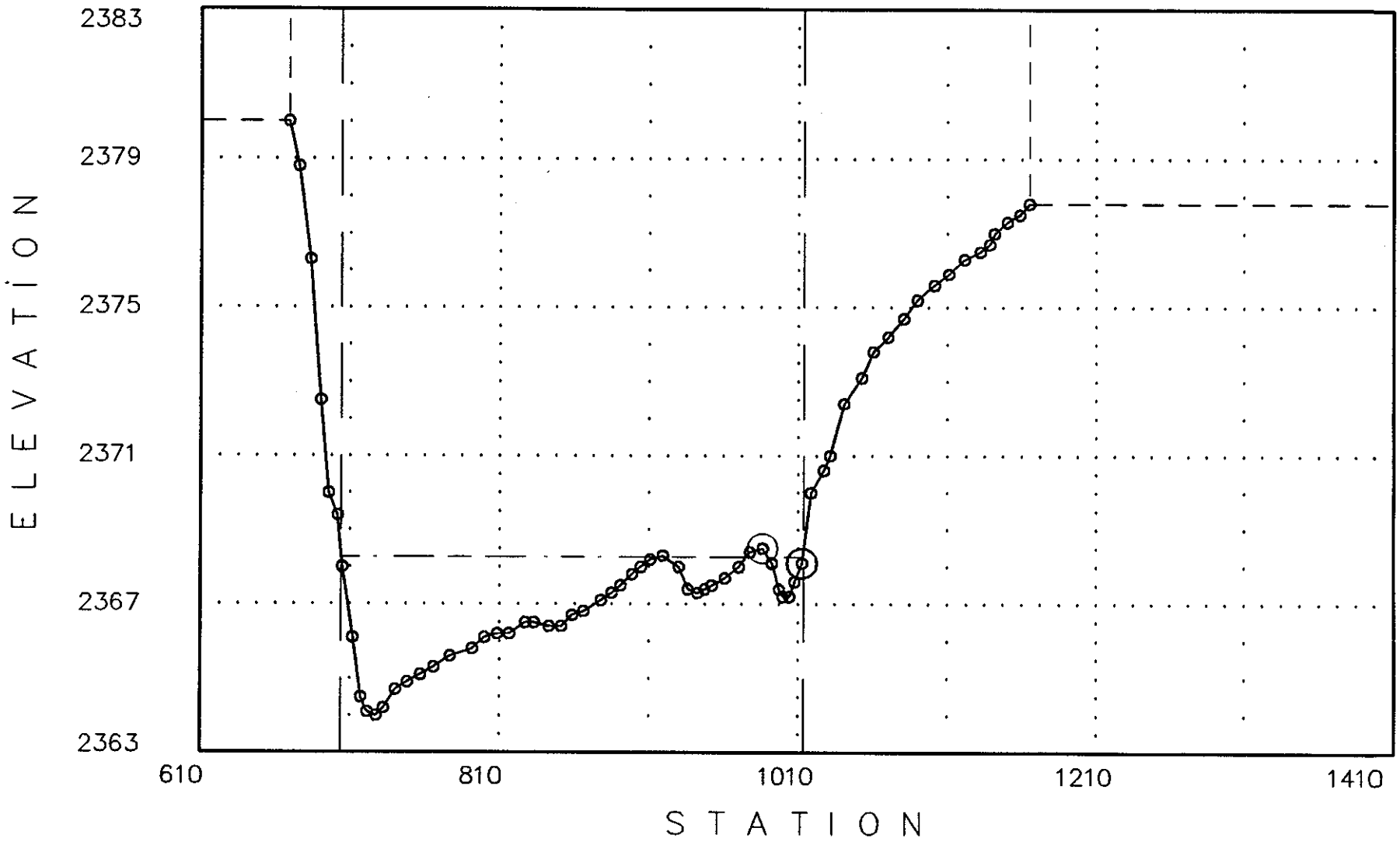


08-21-1992

<<<<<< Cross Section: .911: (FN = TRIBR2B.O) >>>>>>

Q1= 2502 WS1= 2368.27
Q2= 2502 WS2= 2368.27

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .06

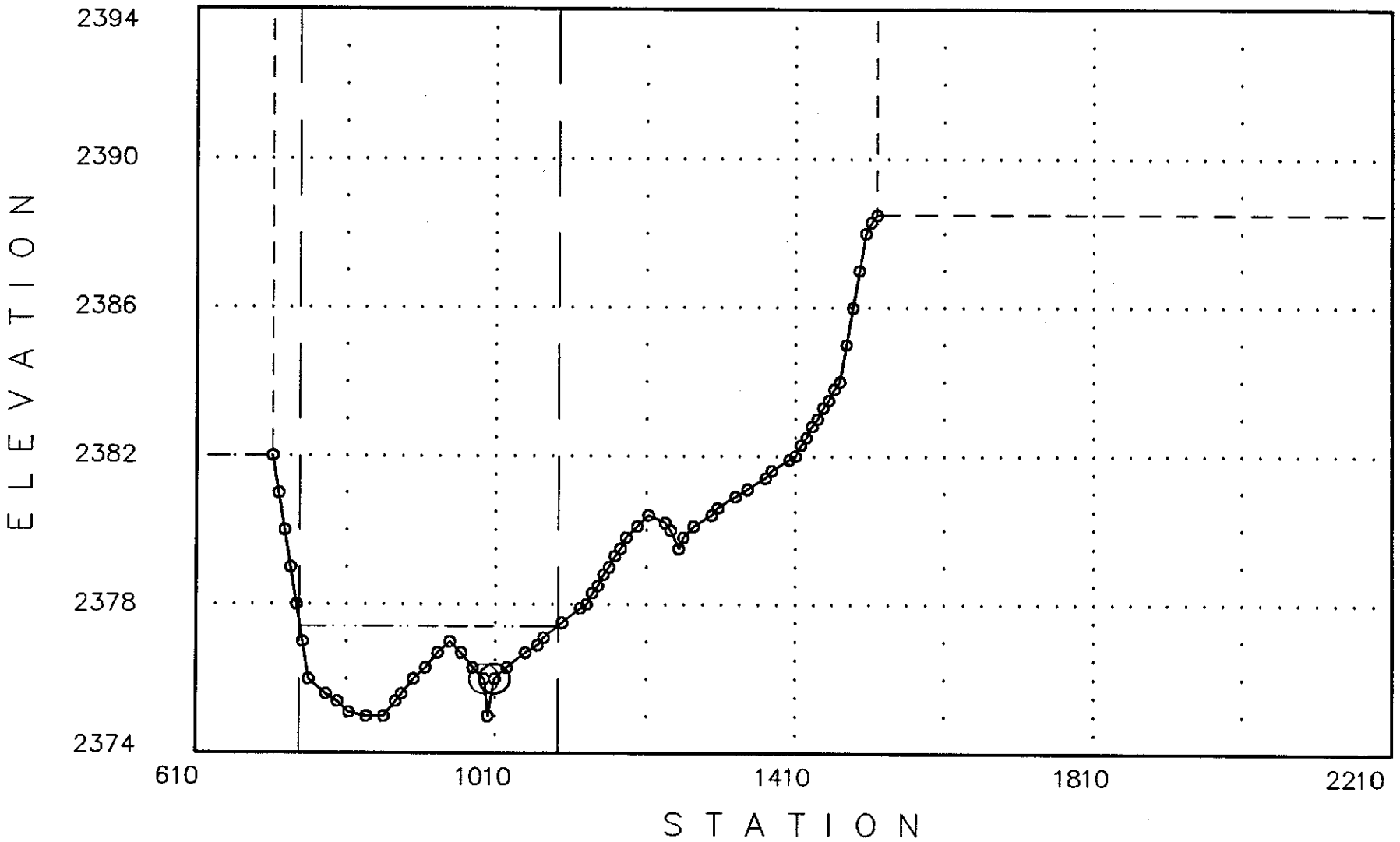


08-21-1992

<<<<<< Cross Section: 1.007: (FN = TRIBR2B.0) >>>>>>

Q1= 2264 WS1= 2377.41
Q2= 2264 WS2= 2377.41

Manning-n's: n-lob = .07 n-ch = .035 n-rob = .06

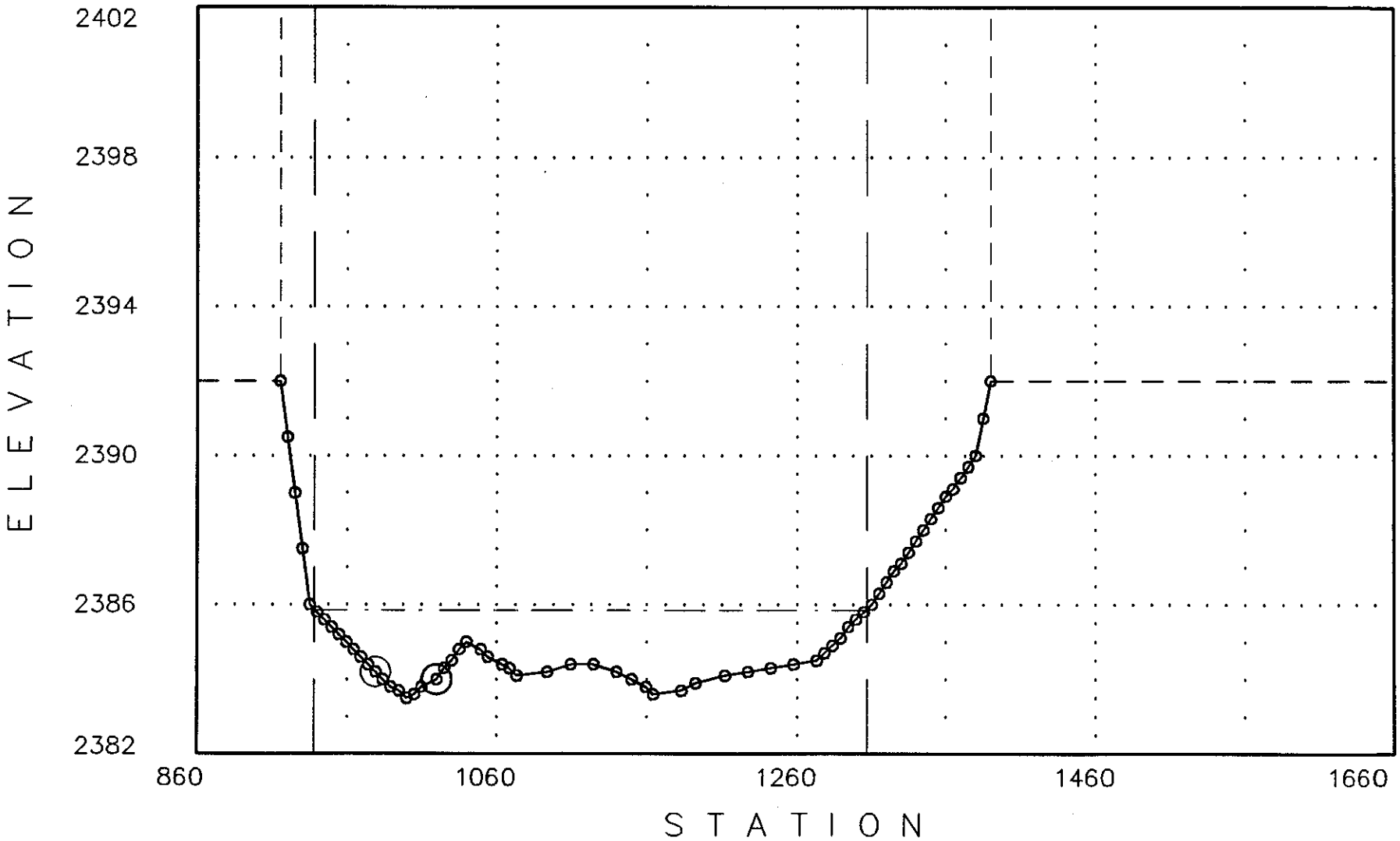


08-21-1992

<<<<<< Cross Section: 1.098: (FN = TRIBR2B.0) >>>>>>

Q1= 2264 WS1= 2385.85
Q2= 2264 WS2= 2385.85

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .065

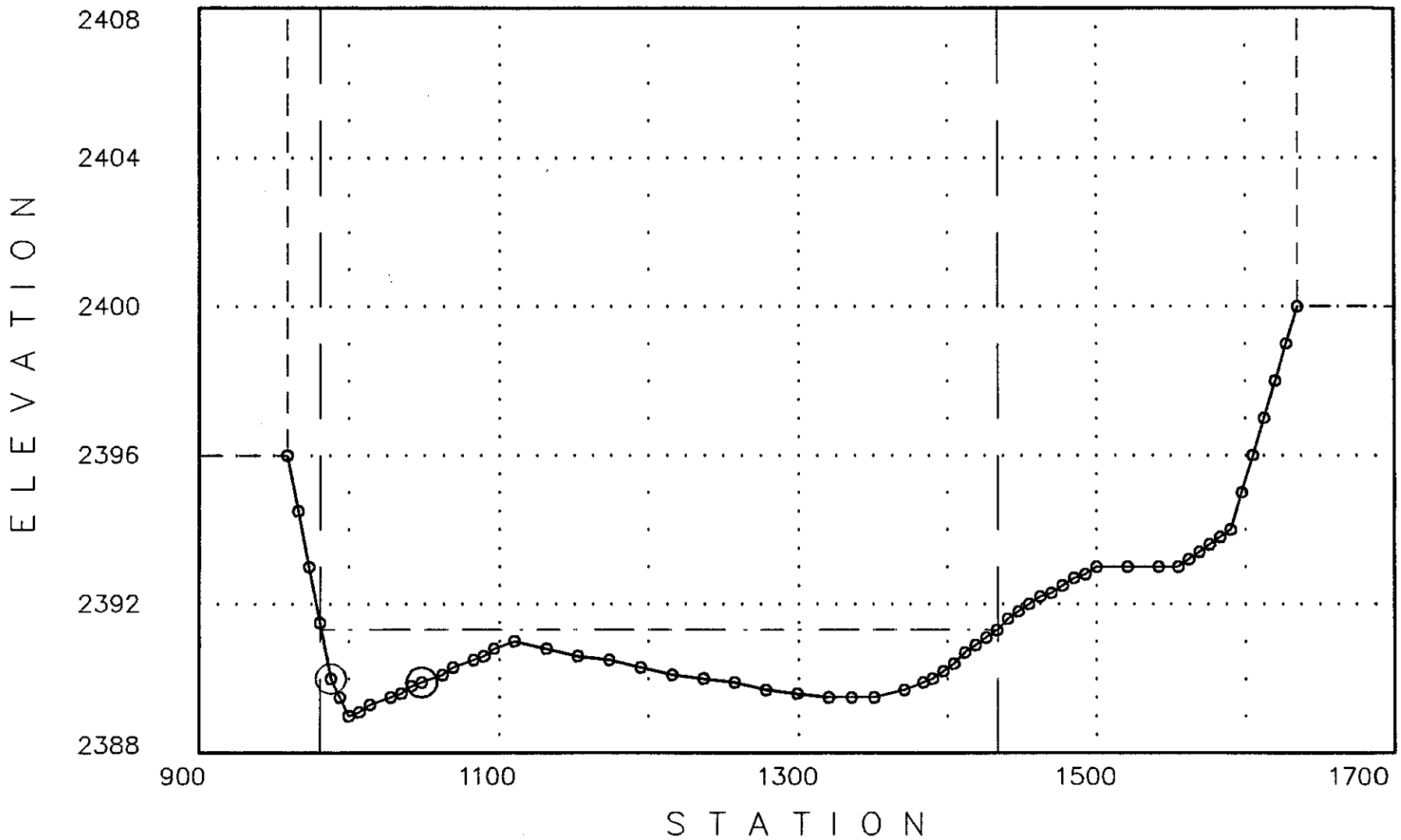


08-21-1992

<<<<<< Cross Section: 1.157: (FN = TRIBR2B.O) >>>>>>

Q1= 2264 WS1= 2391.32
Q2= 2264 WS2= 2391.32

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .065

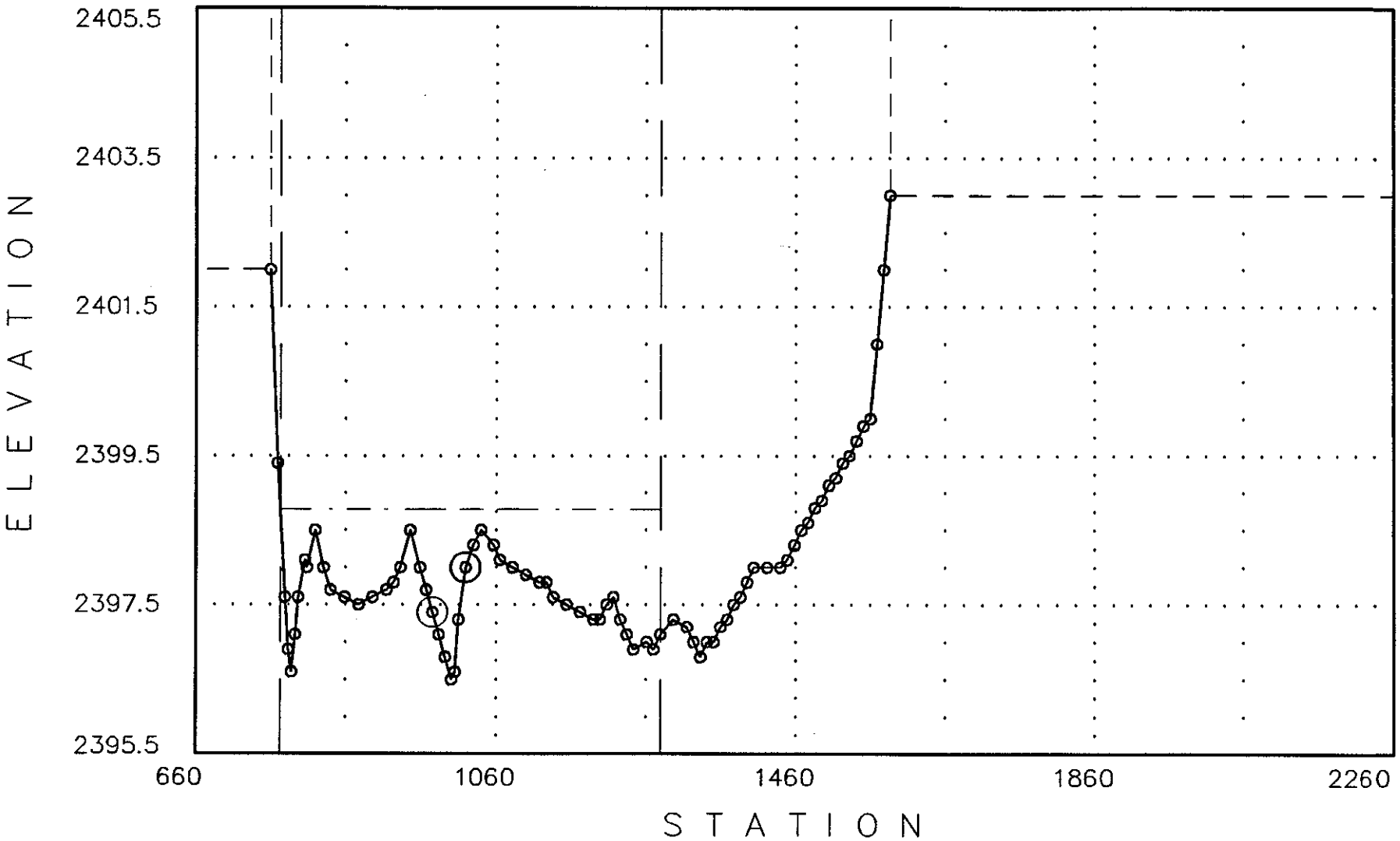


08-21-1992

<<<<<< Cross Section: 1.248: (FN = TRIBR2B.0) >>>>>>

Q1= 2264 WS1= 2398.78
Q2= 2264 WS2= 2398.78

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

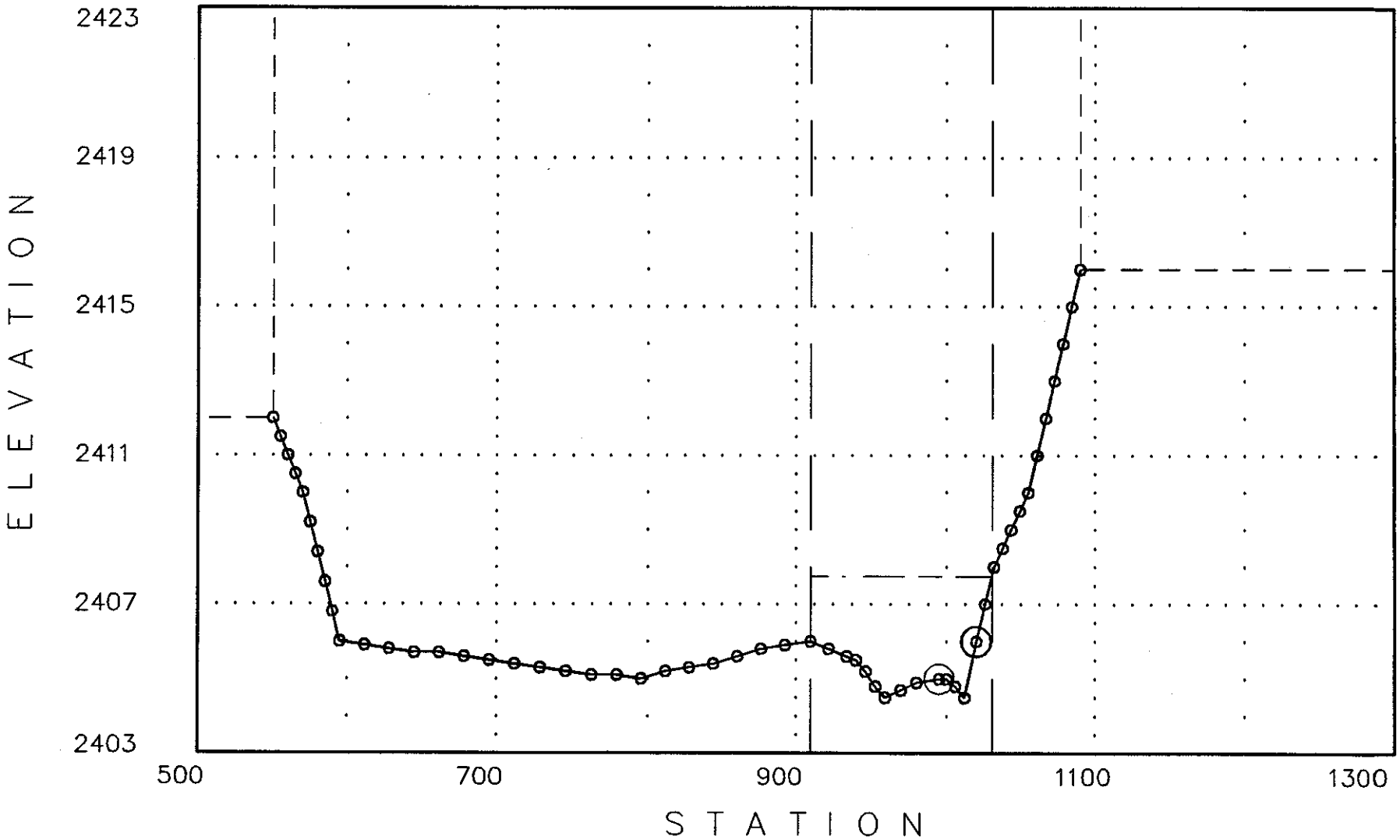


08-21-1992

<<<<<< Cross Section: 1.347: (FN = TRIBR2B.0) >>>>>>

Q1= 2264 WS1= 2407.75
Q2= 2264 WS2= 2407.75

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

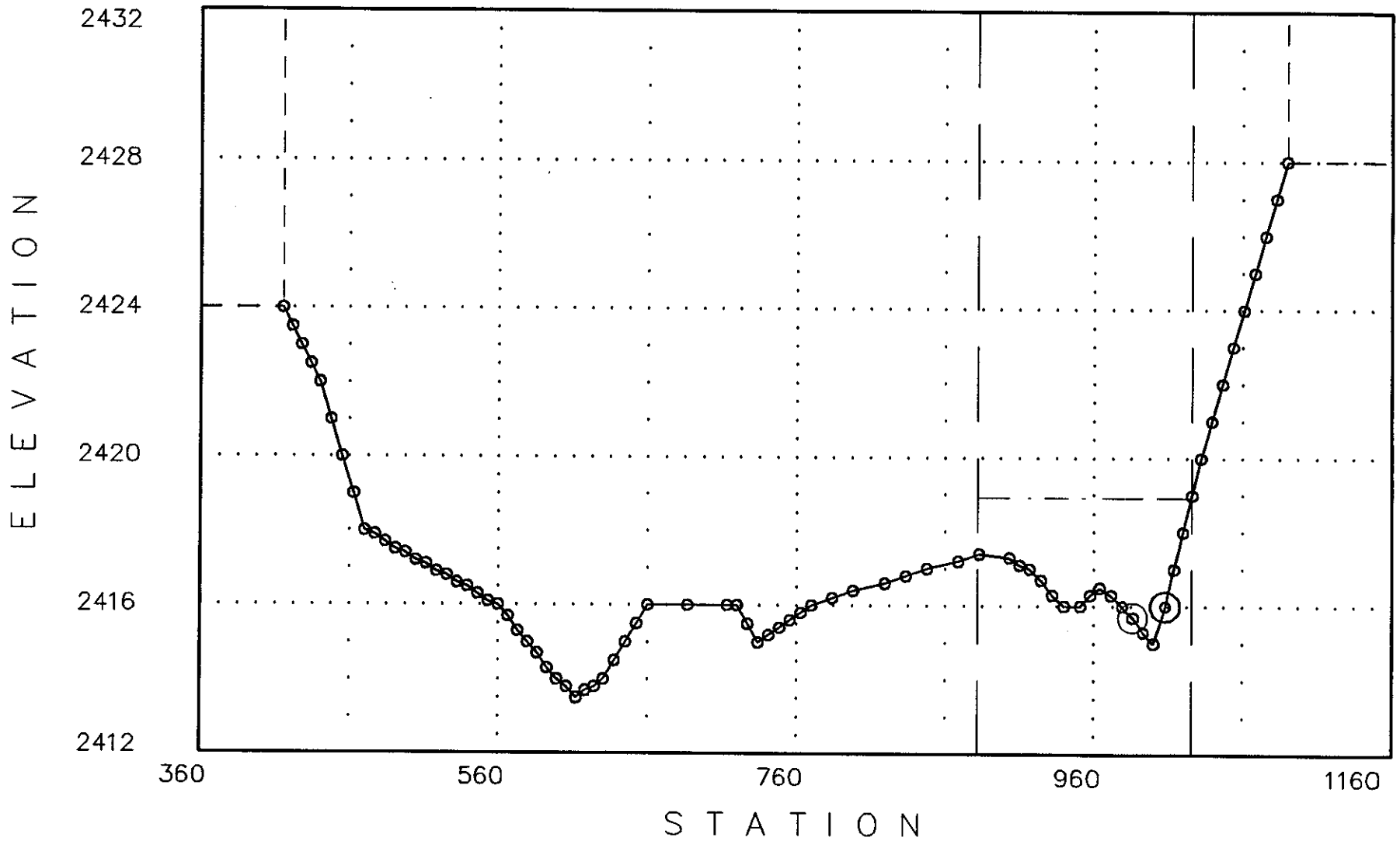


08-21-1992

<<<<<< Cross Section: 1.445: (FN = TRIBR2B.0) >>>>>>

Q1= 2264 WS1= 2418.93
Q2= 2264 WS2= 2418.93

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065

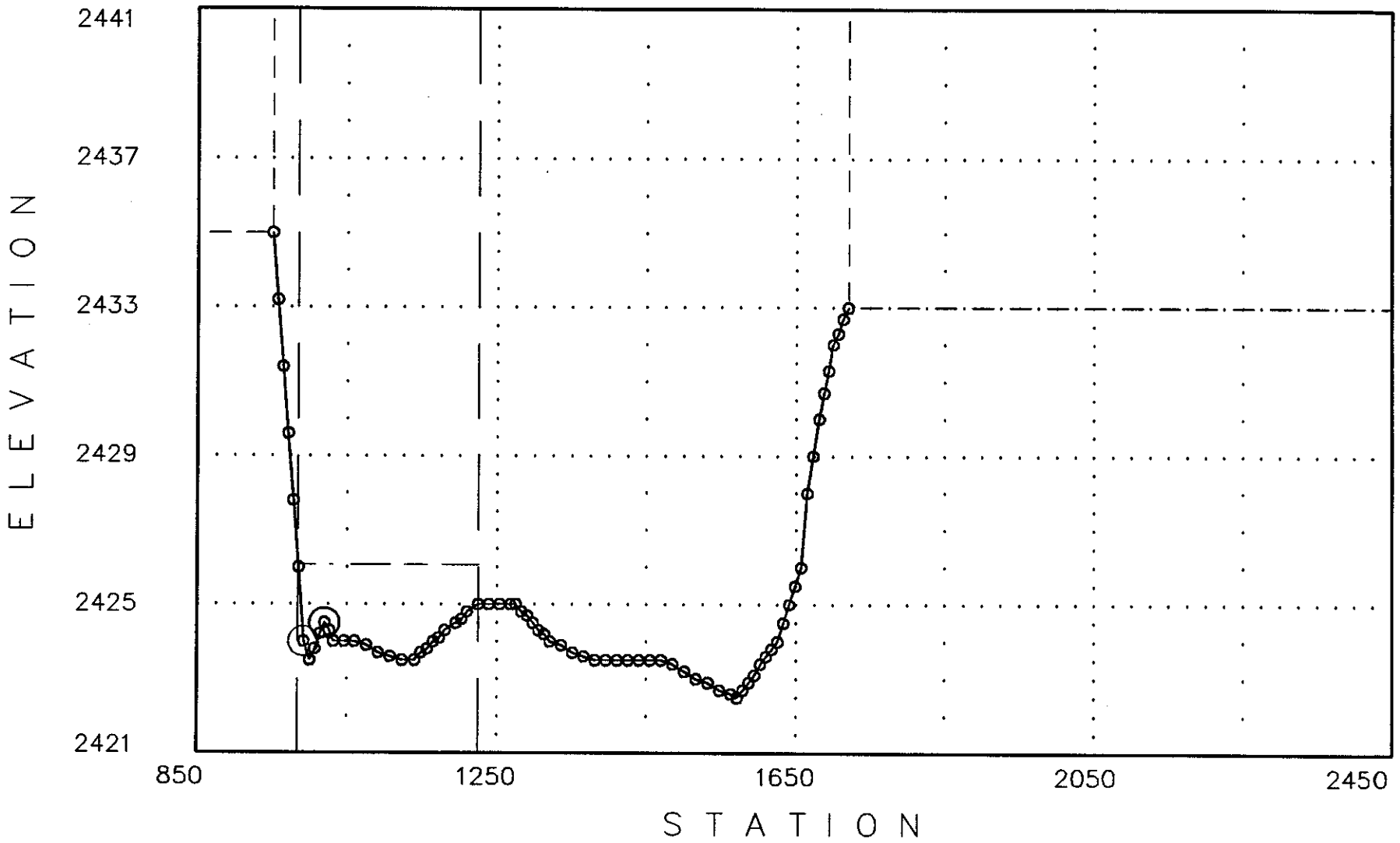


08-21-1992

<<<<<< Cross Section: 1.549: (FN = TRIBR2B.O) >>>>>>

Q1= 2264 WS1= 2426.07
Q2= 2264 WS2= 2426.07

Manning-n's: n-lob = .065 n-ch = .035 n-rob = .065



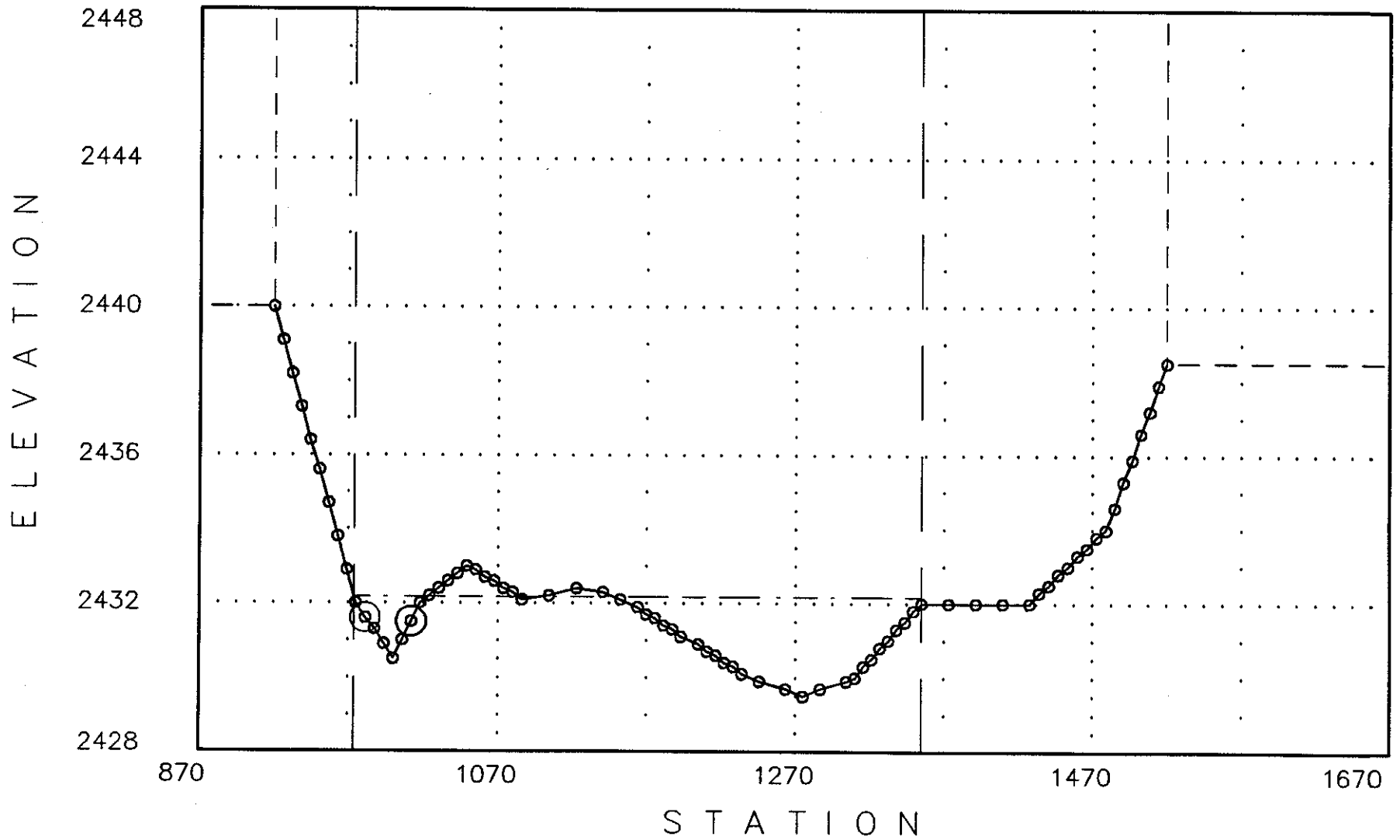
08-21-1992

<<<<<< Cross Section: 1.633: (FN = TRIBR2B.0) >>>>>>

Q1= 2073 WS1= 2432.17

Q2= 2073 WS2= 2432.17

Manning-n's: n-lob = .065 n-ch = .04 n-rob = .065

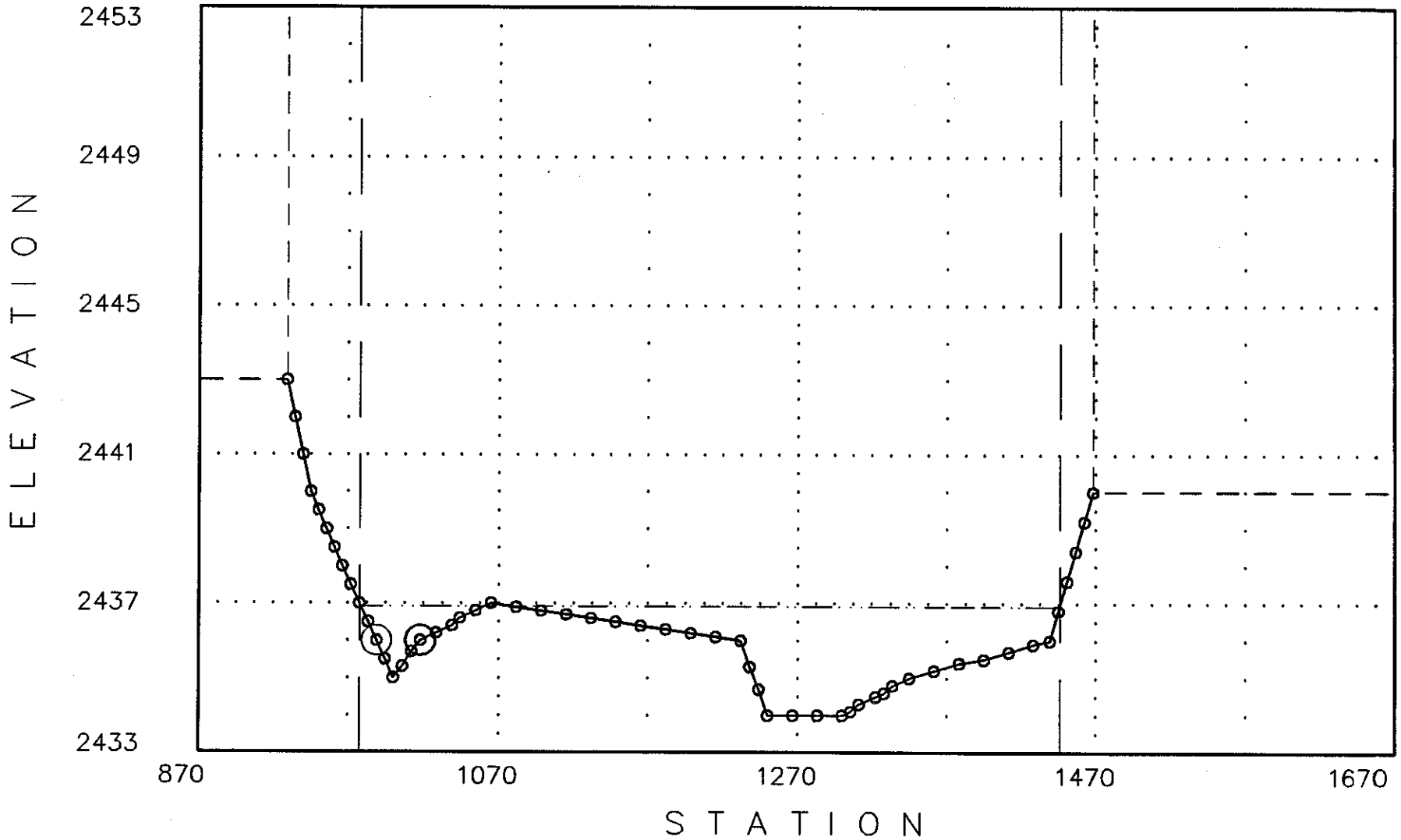


08-21-1992

<<<<<< Cross Section: 1.686: (FN = TRIBR2B.0) >>>>>>

Q1= 2073 WS1= 2436.92
Q2= 2073 WS2= 2436.92

Manning-n's: n-lob = .065 n-ch = .04 n-rob = .065

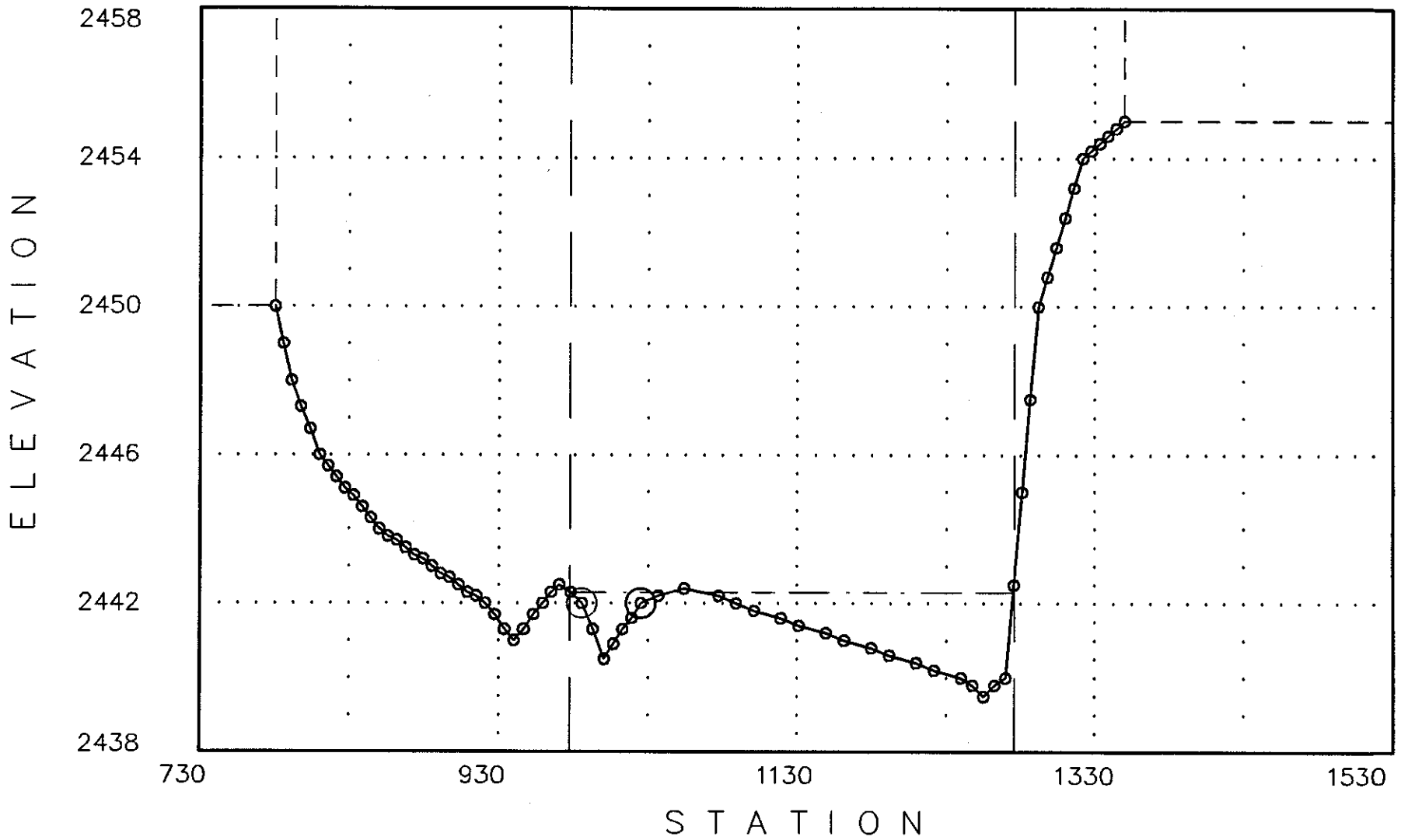


08-21-1992

<<<<<< Cross Section: 1.748: (FN = TRIBR2B.O) >>>>>>

Q1= 2073 WS1= 2442.3
Q2= 2073 WS2= 2442.3

Manning-n's: n-lob = .065 n-ch = .04 n-rob = .065

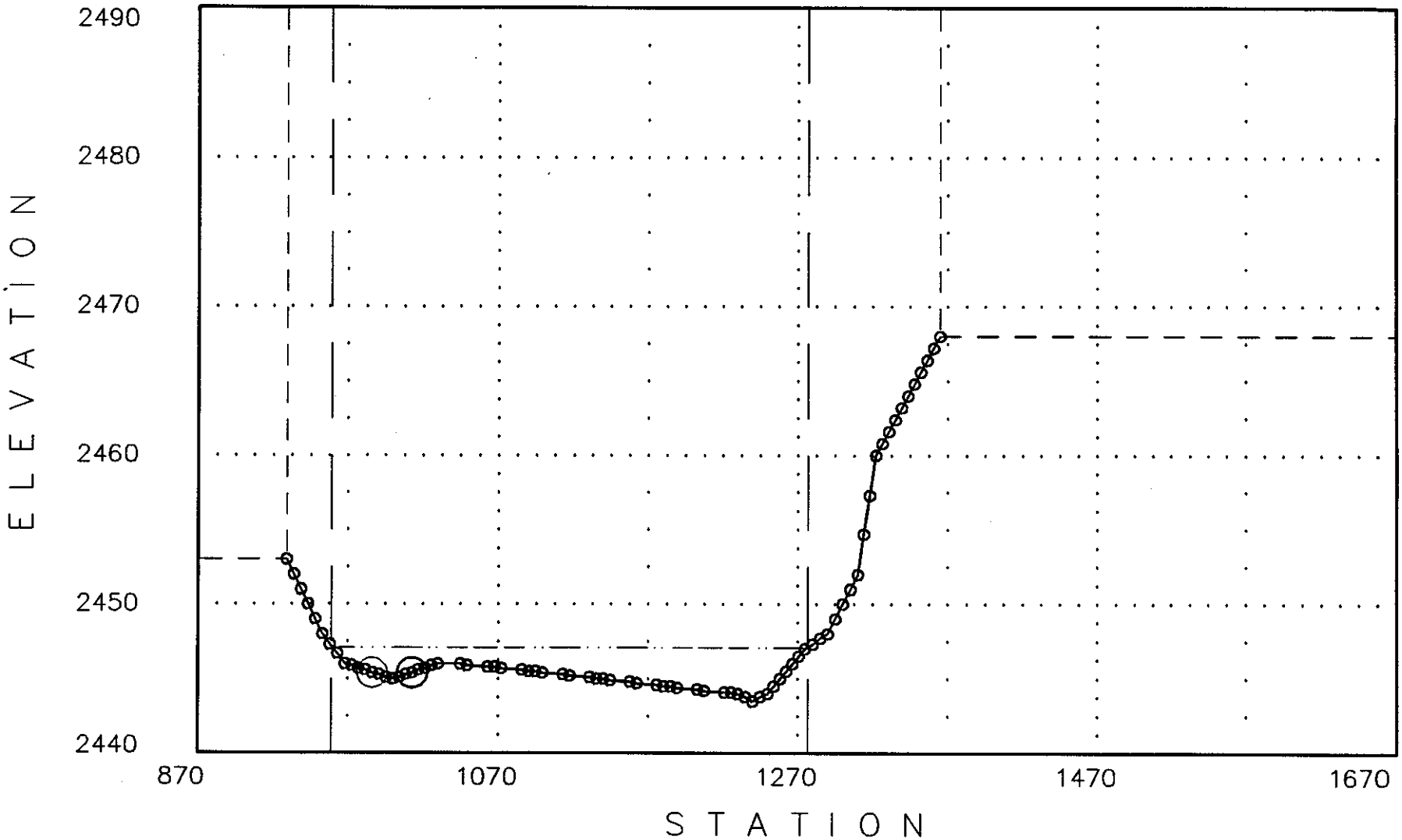


08-21-1992

<<<<<< Cross Section: 1.801: (FN = TRIBR2B.0) >>>>>>

Q1= 2073 WS1= 2447.1
Q2= 2073 WS2= 2447.1

Manning-n's: n-lob = .065 n-ch = .04 n-rob = .065

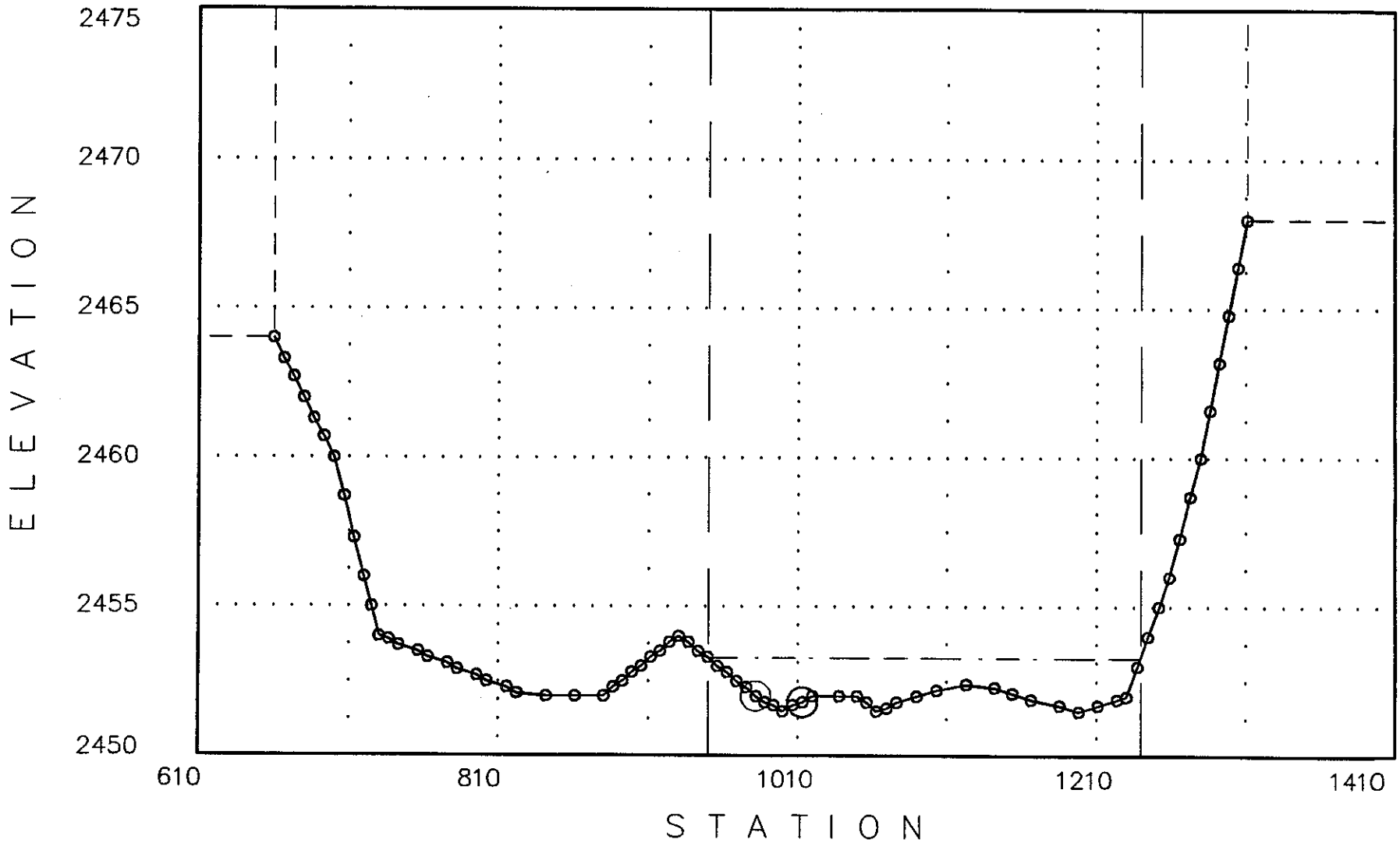


08-21-1992

<<<<<< Cross Section: 1.879: (FN = TRIBR2B.O) >>>>>>

Q1= 2073 WS1= 2453.28
Q2= 2073 WS2= 2453.28

Manning-n's: n-lob = .065 n-ch = .04 n-rob = .065

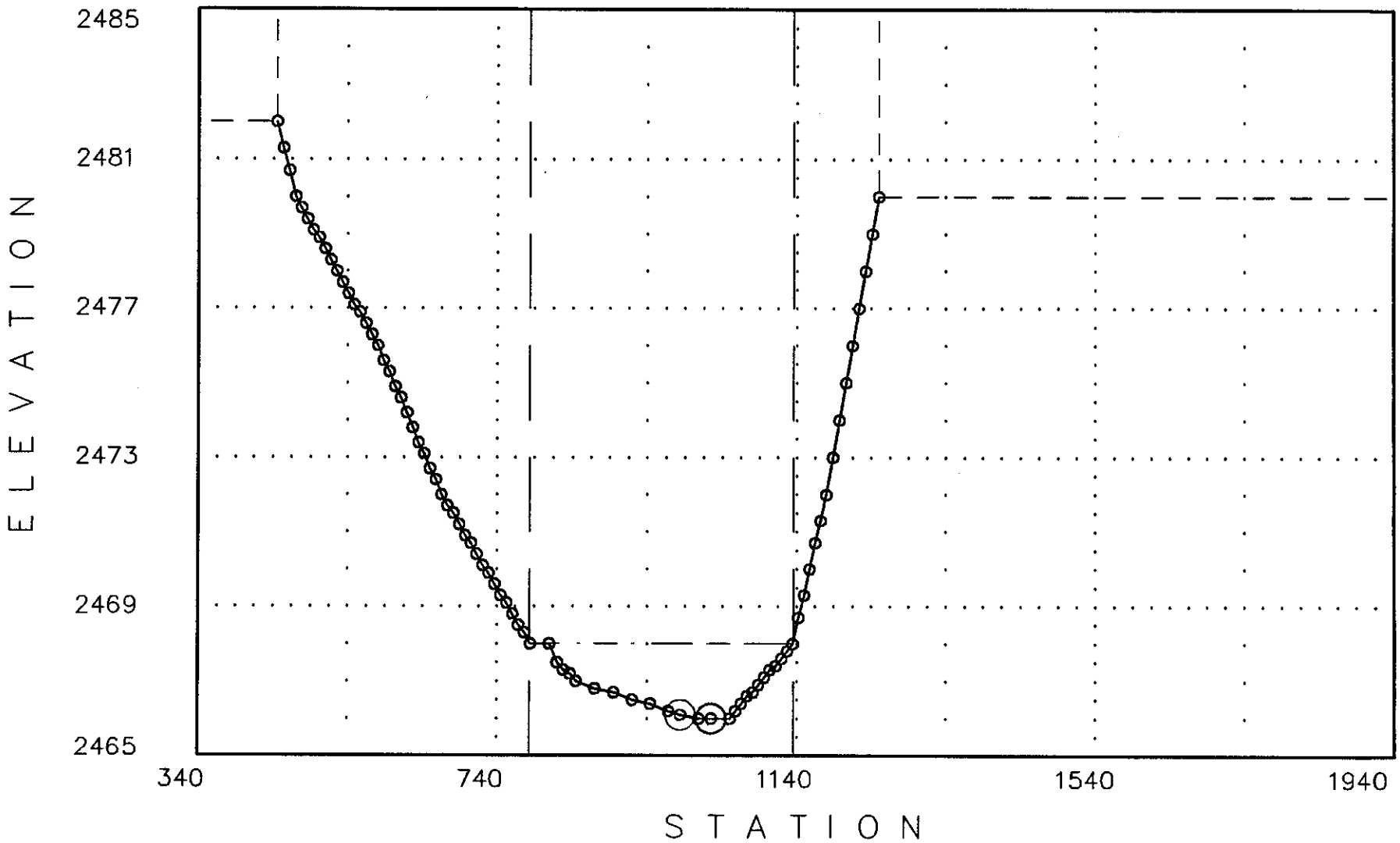


08-21-1992

<<<<<< Cross Section: 1.989: (FN = TRIBR2B.0) >>>>>>

Q1= 2073 WS1= 2468.01
Q2= 2073 WS2= 2468.01

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

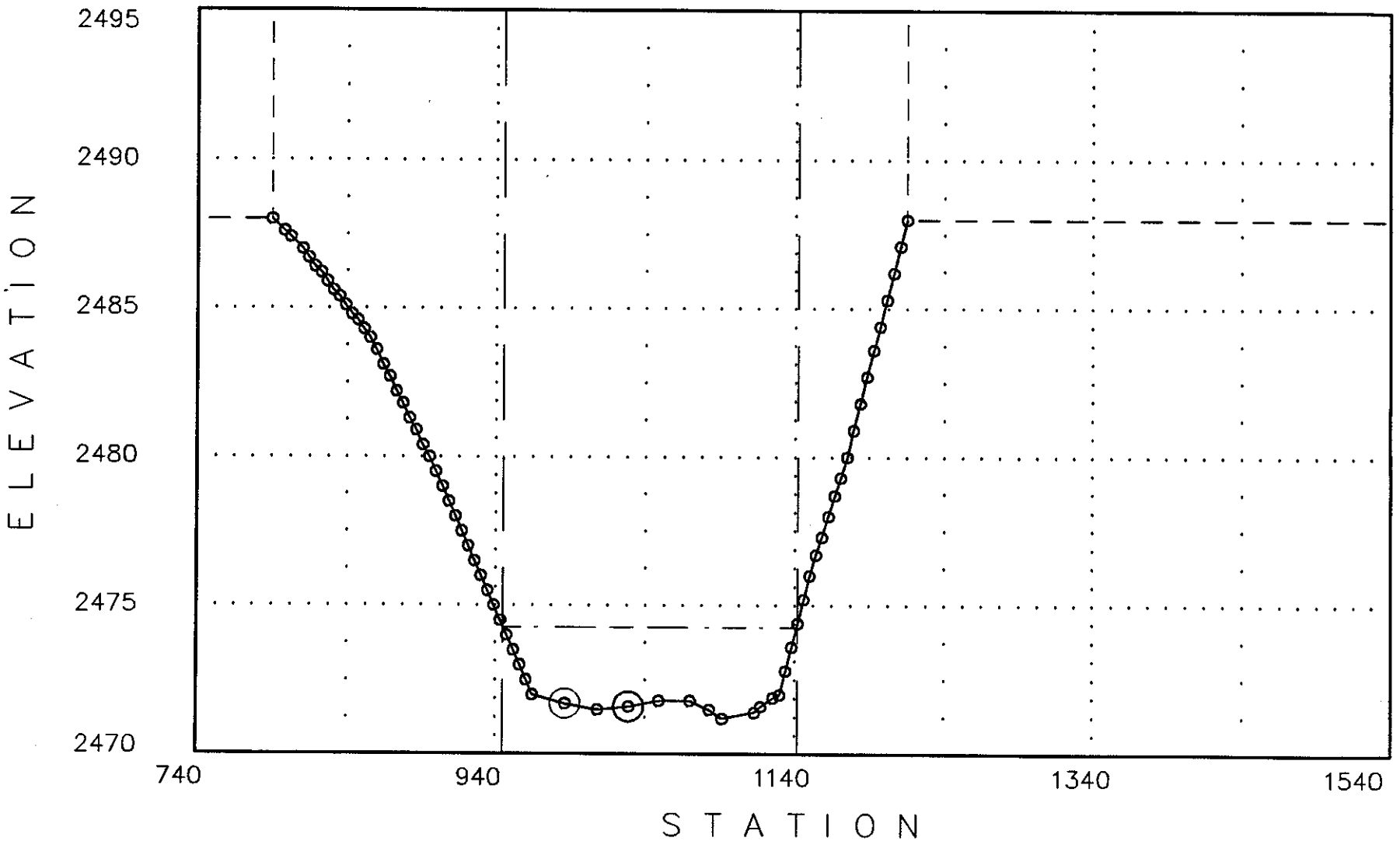


08-21-1992

<<<<<< Cross Section: 2.083: (FN = TRIBR2B.0) >>>>>>

Q1= 2073 WS1= 2474.27
Q2= 2073 WS2= 2474.27

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

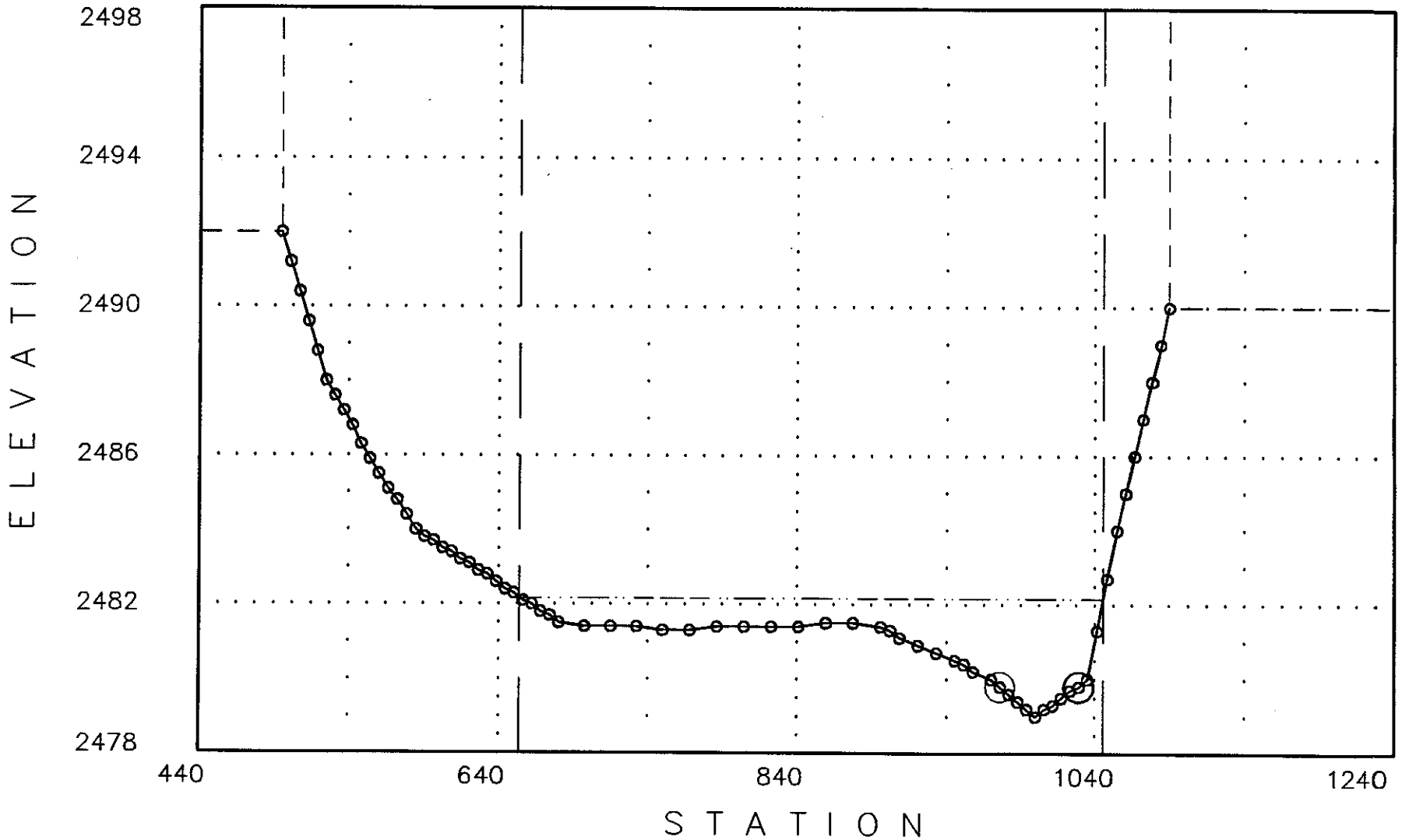


08-21-1992

<<<<<< Cross Section: 2.174: (FN = TRIBR2B.0) >>>>>>

Q1= 1929 WS1= 2482.16
Q2= 1929 WS2= 2482.16

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

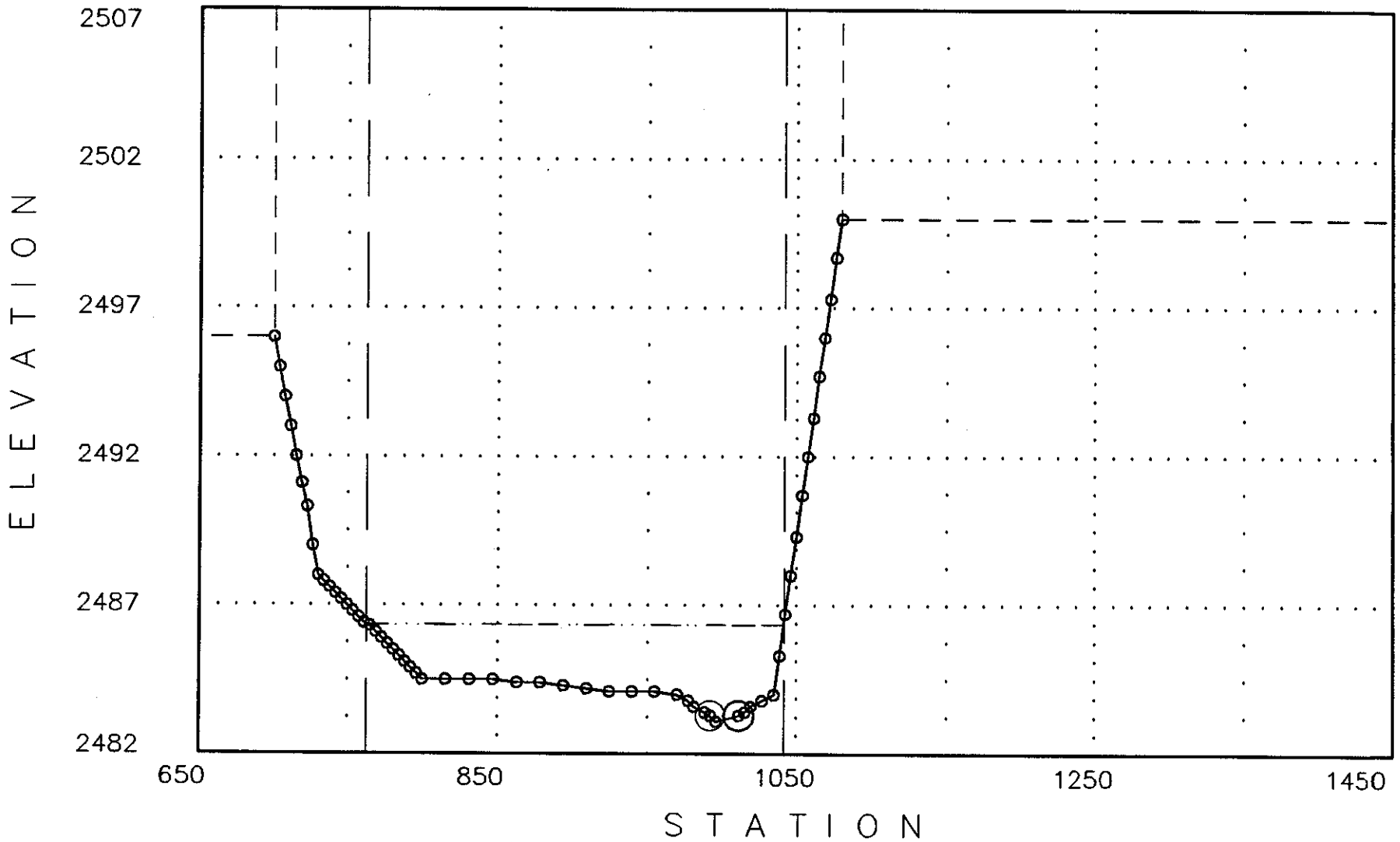


08-21-1992

<<<<<< Cross Section: 2.26: (FN = TRIBR2B.O) >>>>>>

Q1= 1929 WS1= 2486.35
Q2= 1929 WS2= 2486.34

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

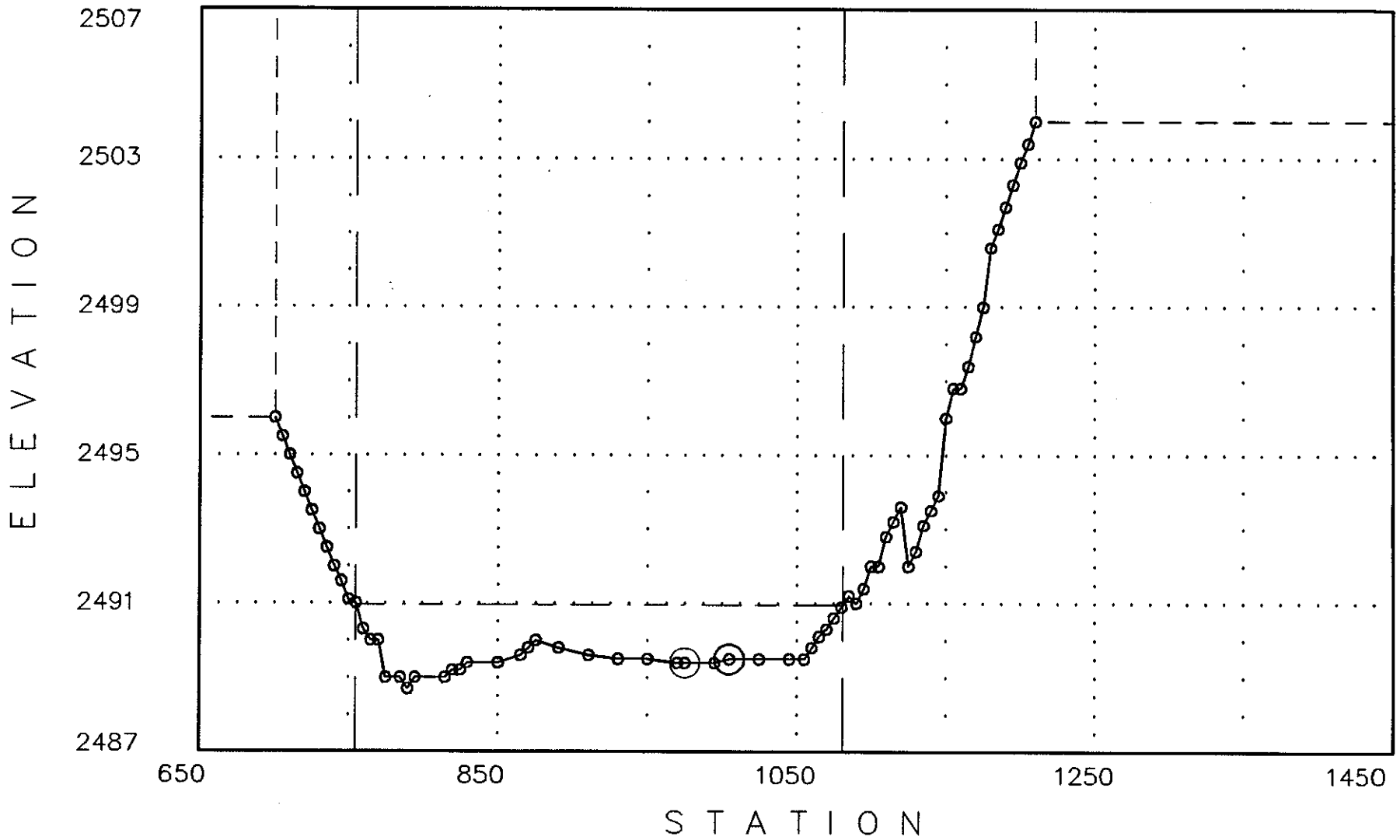


08-21-1992

<<<<<< Cross Section: 2.354: (FN = TRIBR2B.0) >>>>>>

Q1= 1929 WS1= 2490.96
Q2= 1929 WS2= 2490.96

Manning-n's: n-lob = .06 n-ch = .04 n-rob = .06

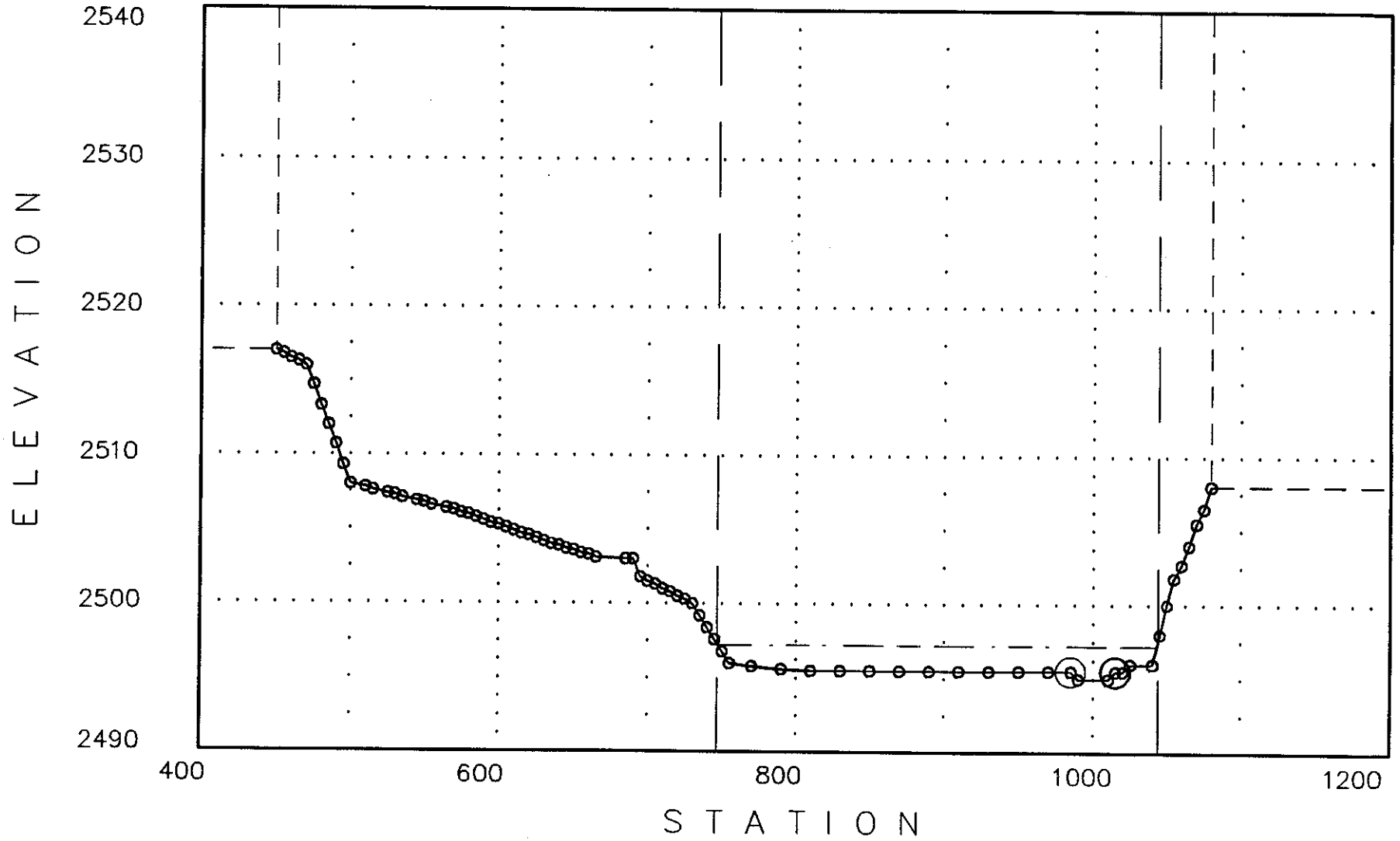


08-21-1992

<<<<<< Cross Section: 2.449: (FN = TRIBR2B.O) >>>>>>

Q1= 1929 WS1= 2497.24
Q2= 1929 WS2= 2497.24

Manning-n's: n-lob = .06 n-ch = .04 n-rob = .06



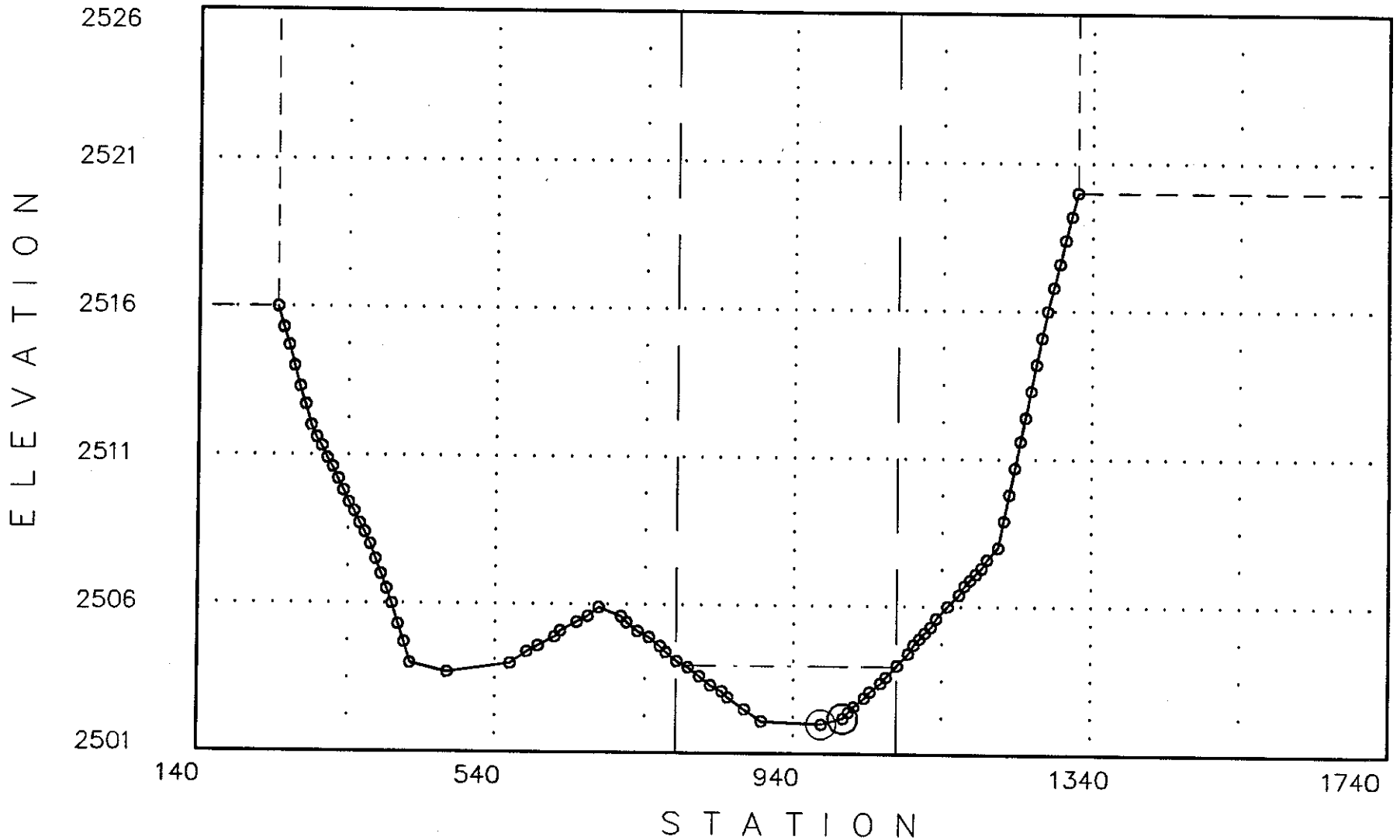
08-21-1992

<<<<<< Cross Section: 2.544: (FN = TRIBR2B.0) >>>>>>

Q1= 1929 WS1= 2503.96

Q2= 1929 WS2= 2503.96

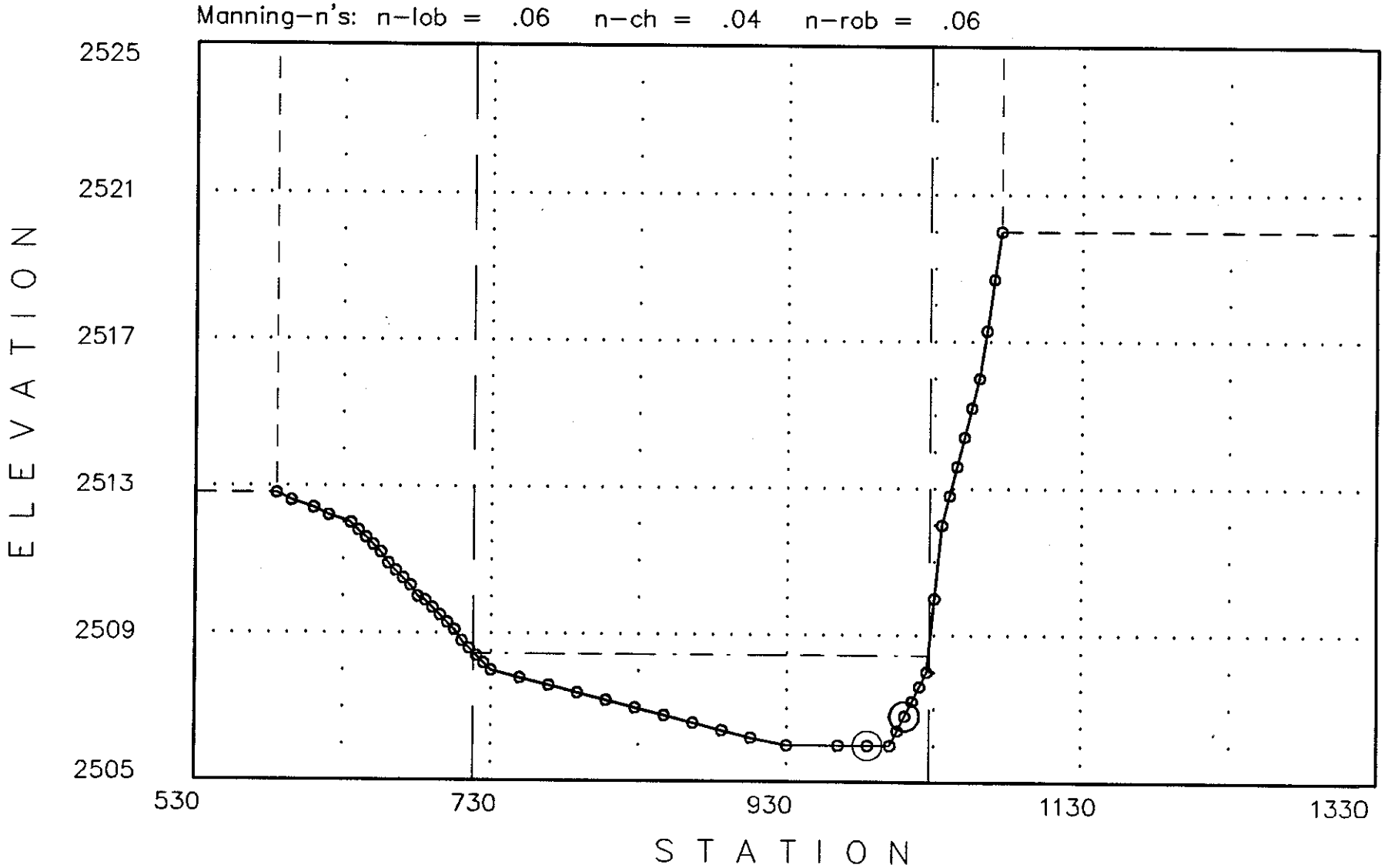
Manning-n's: n-lob = .06 n-ch = .04 n-rob = .06



08-21-1992

<<<<<< Cross Section: 2.614: (FN = TRIBR2B.0) >>>>>>

Q1= 1724 WS1= 2508.45
Q2= 1724 WS2= 2508.45

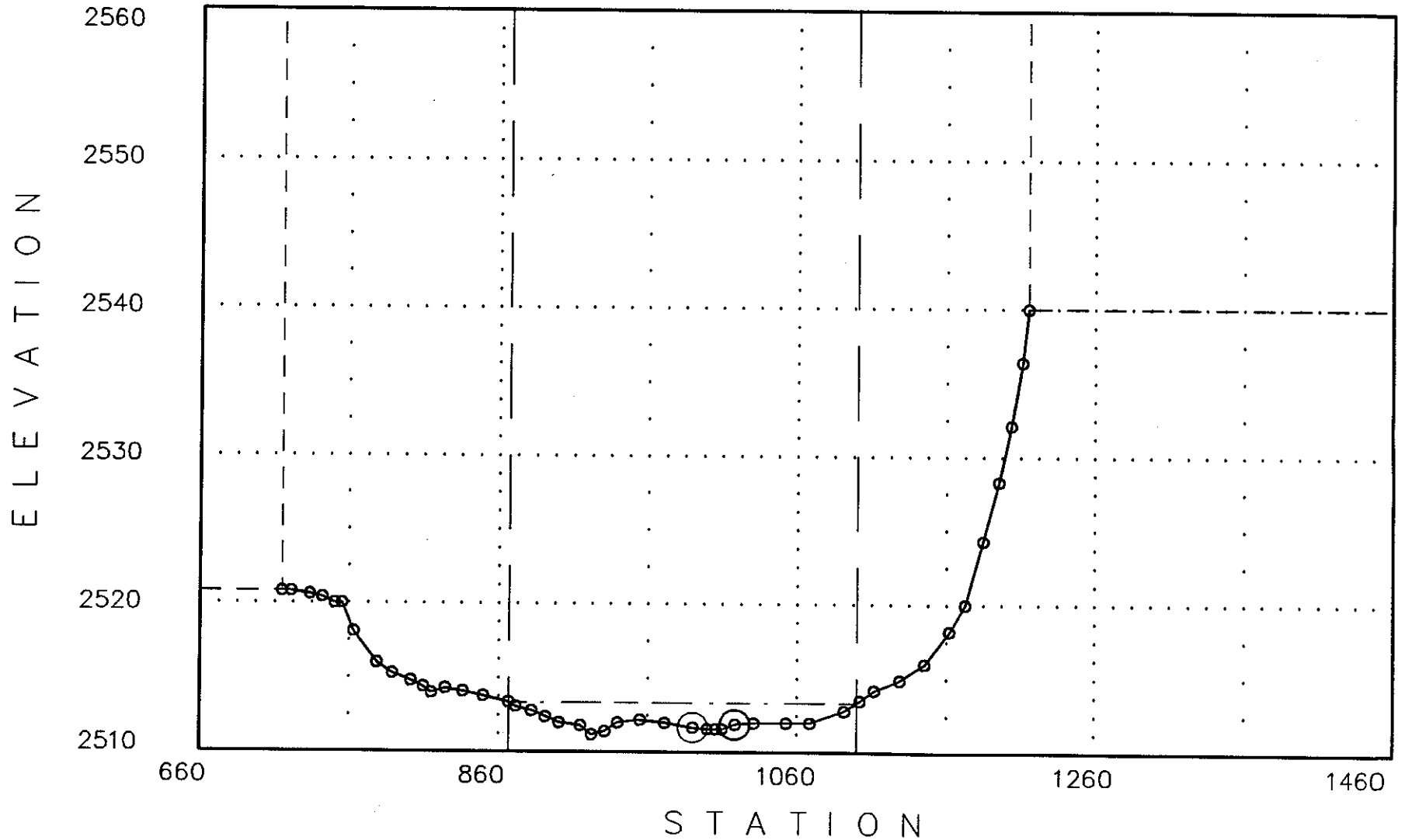


08-21-1992

<<<<<< Cross Section: 2.695: (FN = TRIBR2B.0) >>>>>>

Q1= 1724 WS1= 2513.34
Q2= 1724 WS2= 2513.34

Manning-n's: n-lob = .06 n-ch = .04 n-rob = .06

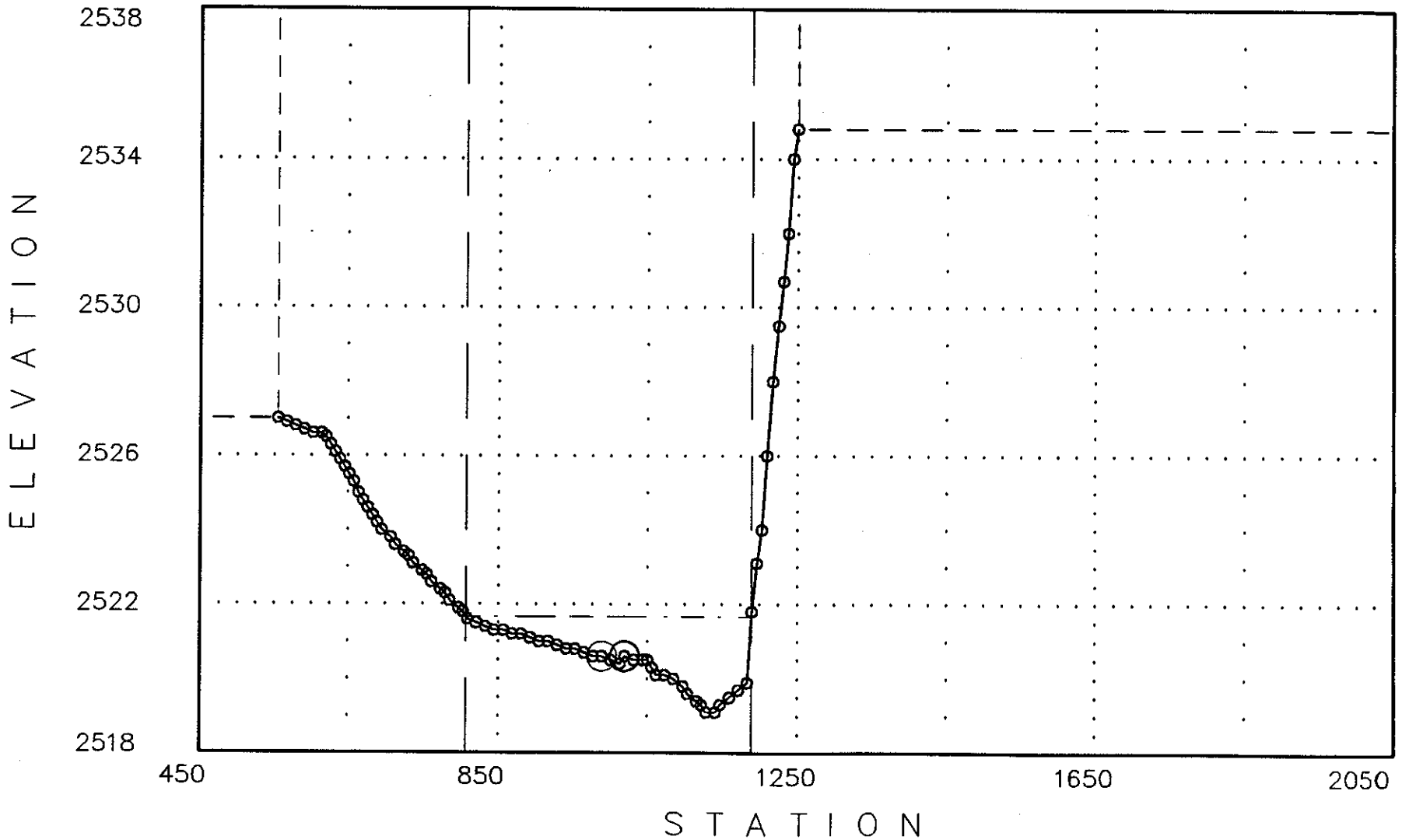


08-21-1992

<<<<<< Cross Section: 2.786: (FN = TRIBR2B.0) >>>>>>

Q1= 1724 WS1= 2521.66
Q2= 1724 WS2= 2521.66

Manning-n's: n-lob = .06 n-ch = .04 n-rob = .06

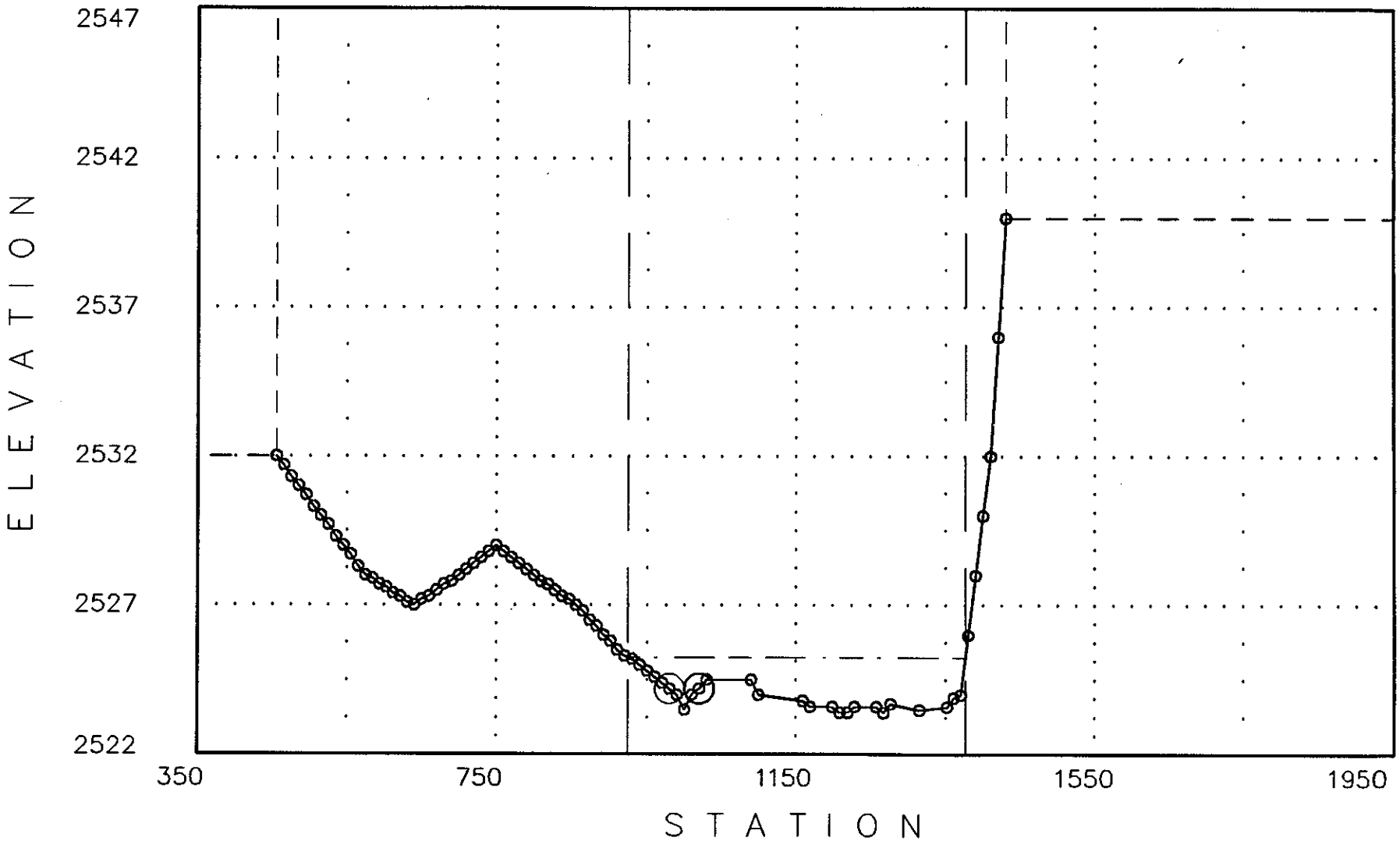


08-21-1992

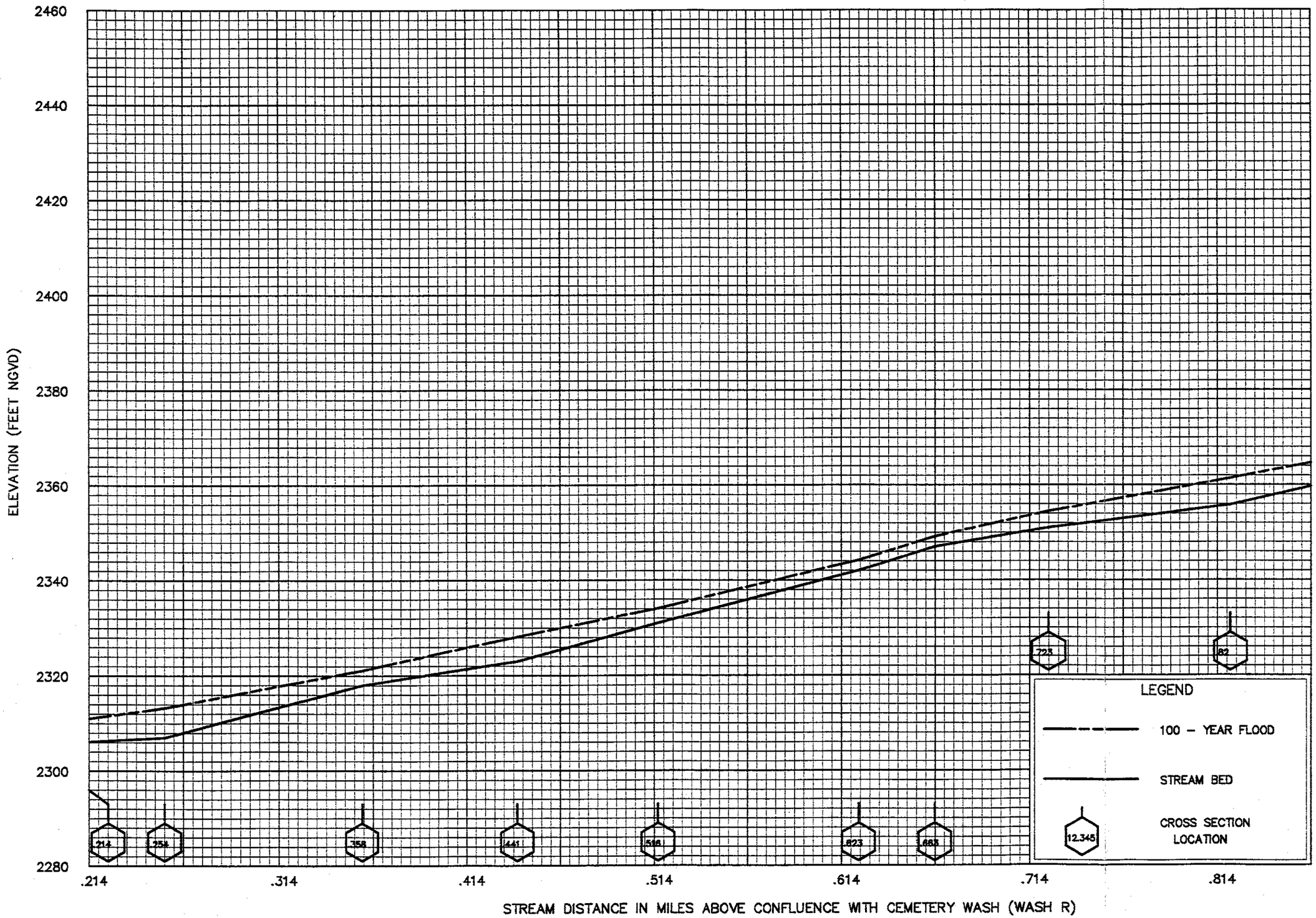
<<<<<< Cross Section: 2.854: (FN = TRIBR2B.0) >>>>>>

Q1= 1724 WS1= 2525.25
Q2= 1724 WS2= 2525.25

Manning-n's: n-lob = .06 n-ch = .04 n-rob = .06



08-21-1992

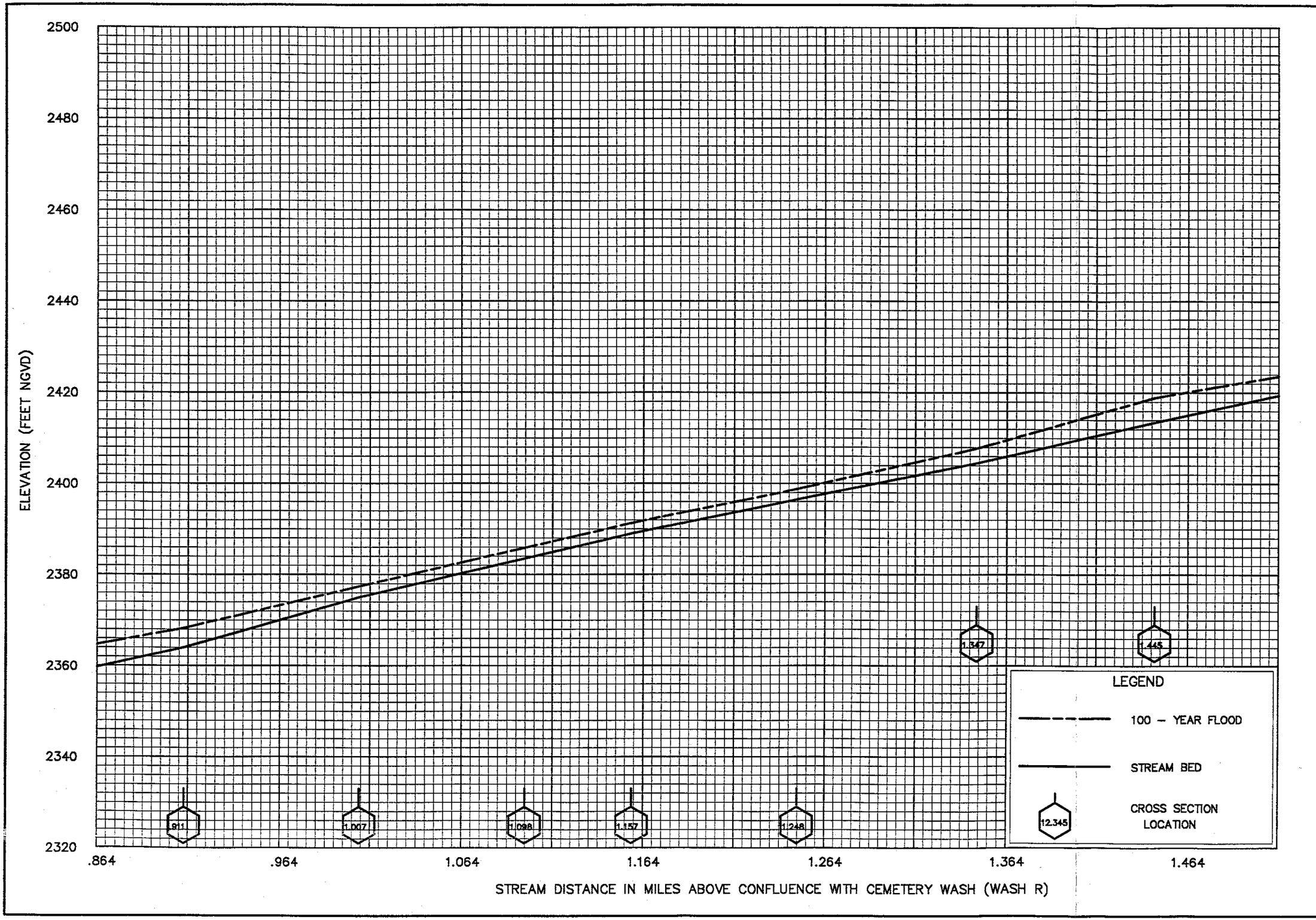


FLOOD PROFILES

TRIBUTARY #2 TO CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY
MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

R2–1

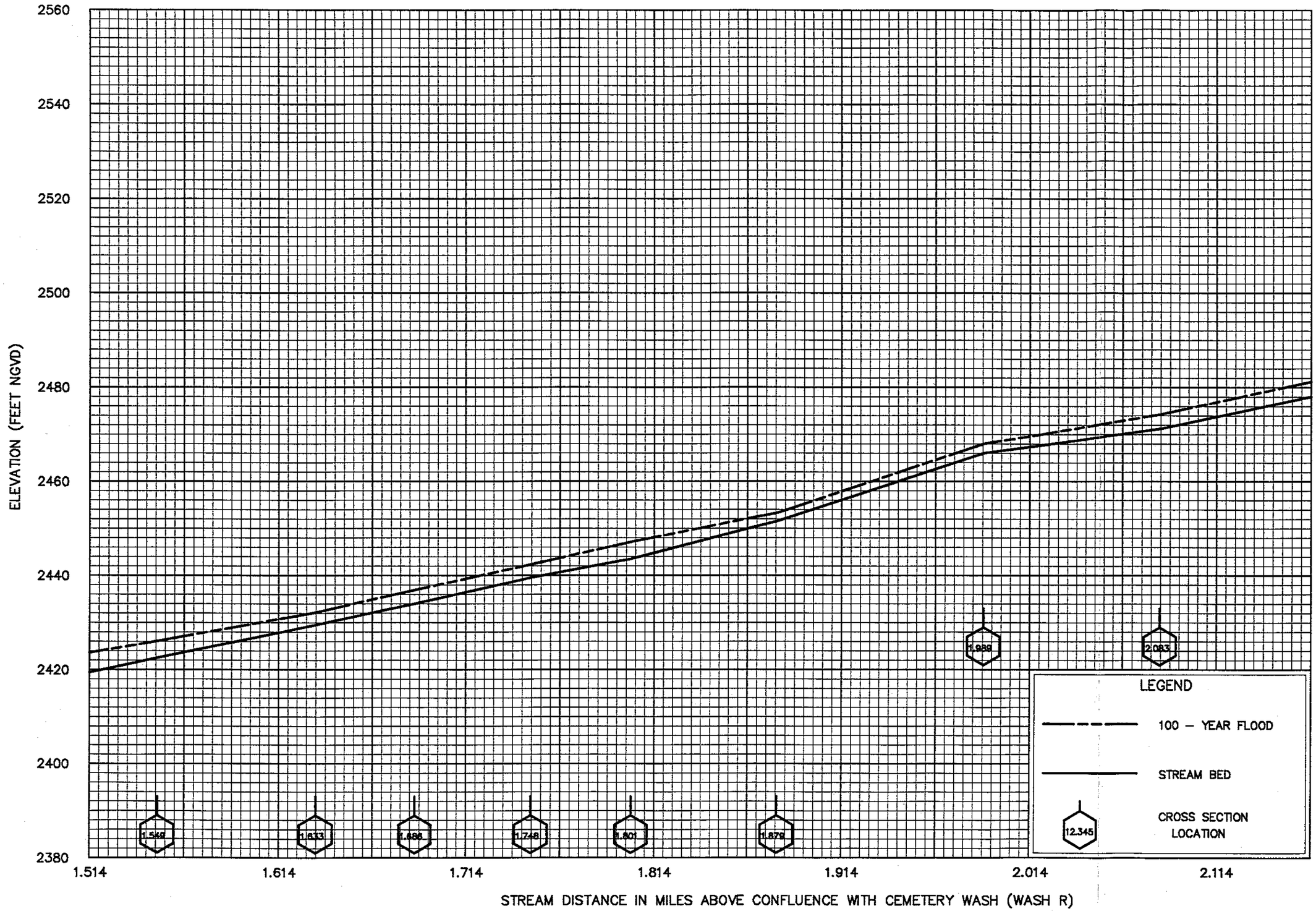


FLOOD PROFILES

TRIBUTARY #2 TO CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS



FLOOD PROFILES

TRIBUTARY #2 TO CEMETERY WASH (WASH R)

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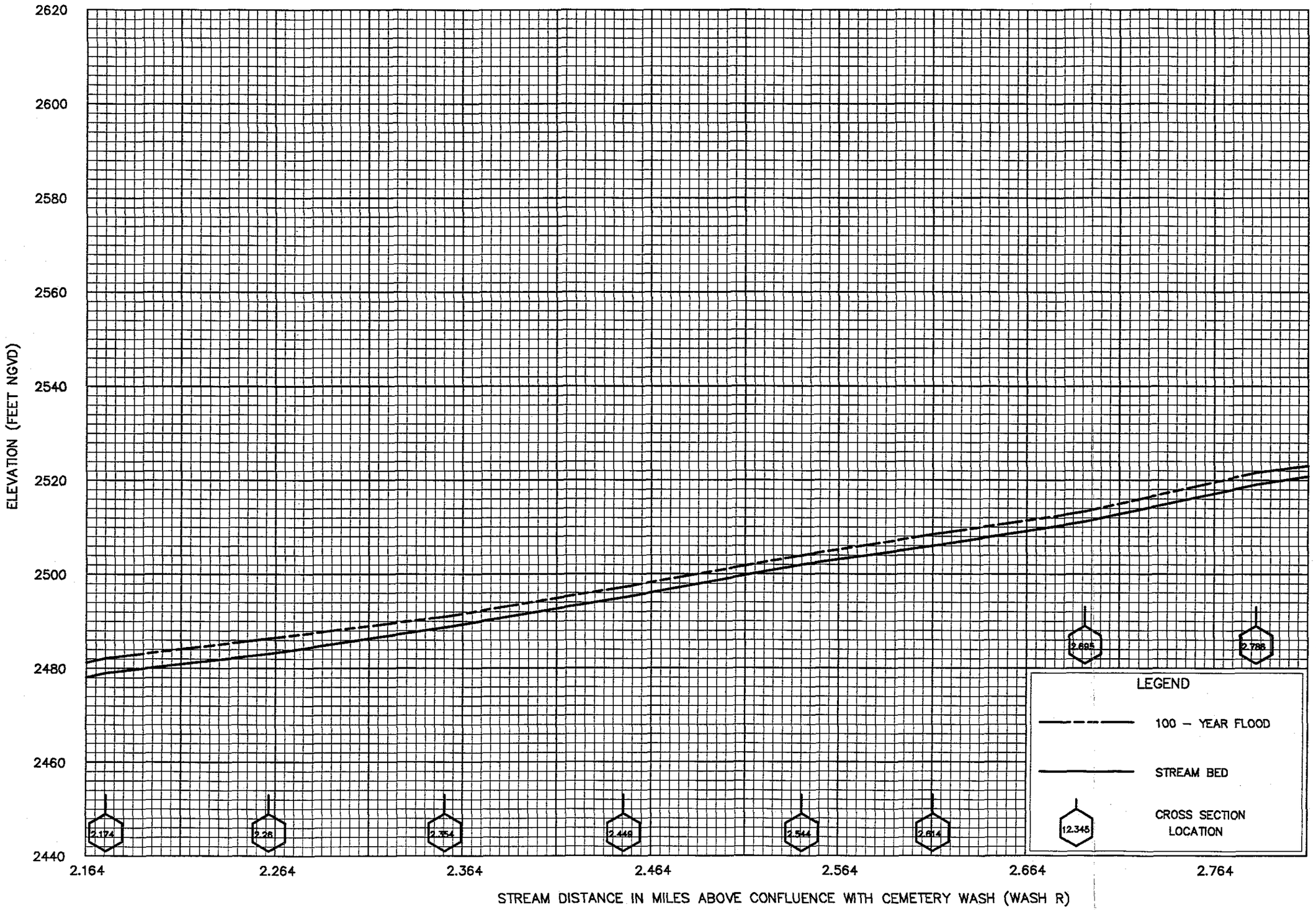

FLOOD PROFILES

TRIBUTARY #2 TO CEMETERY WASH (WASH R)

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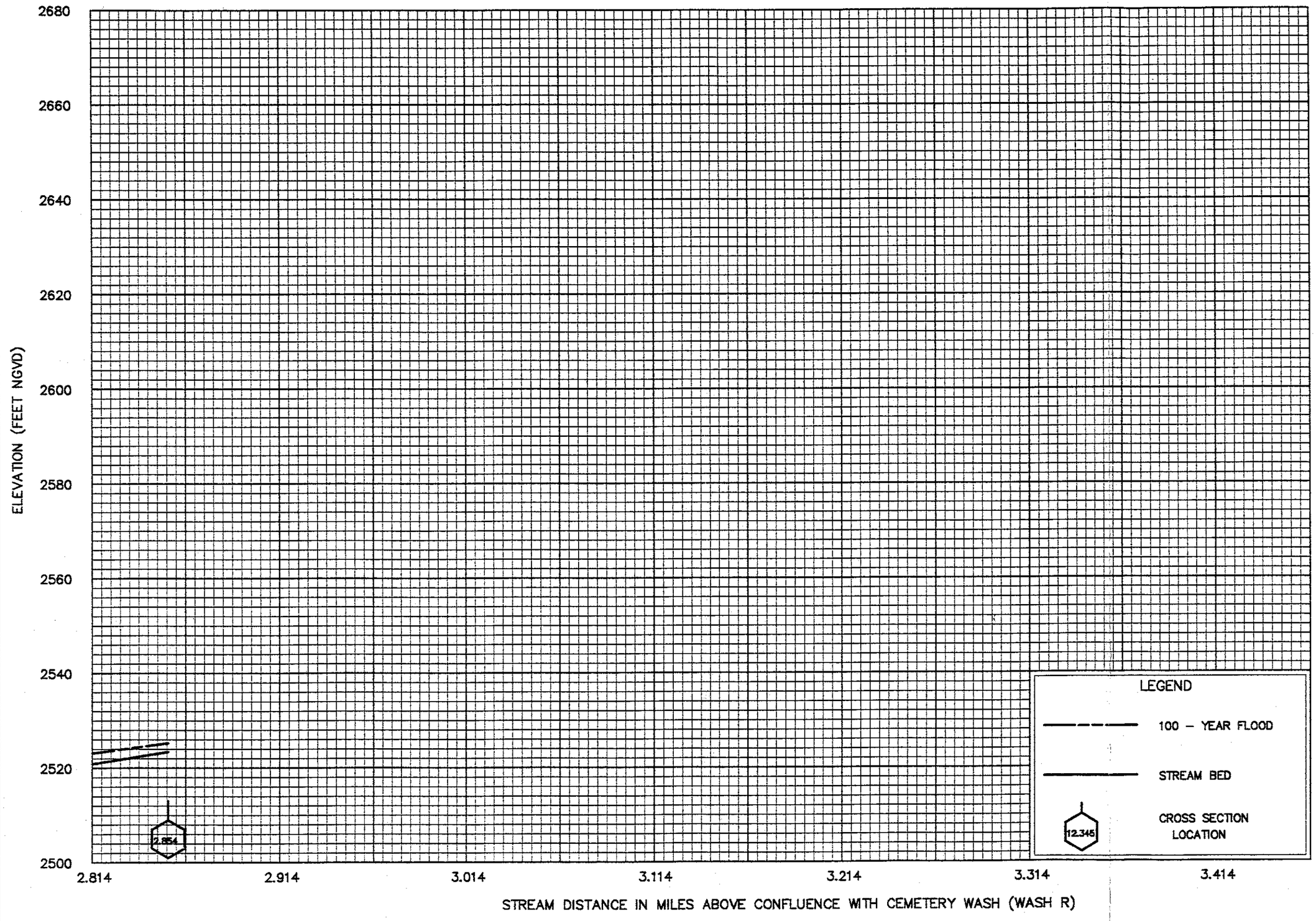

FLOOD PROFILES

TRIBUTARY #2 TO CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

Appendix # 5.2

FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERINE HYDRAULIC ANALYSIS FORM	O.M.B. Burden No. 3067-0148 Expires July 31, 1994	FEMA USE ONLY

PUBLIC BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 2.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0148), Washington, DC 20503.

Community Name: Unincorporated Maricopa County/Town of Wickenburg

Flooding Source: Wash ~~B4~~ R3:
(One form for each flooding source)

Project Name/Identifier: Wickenburg ADMS - FCD 89-79

1. REACH TO BE REVISED

Downstream limit: Station 0.101

Upstream limit: Station 0.872

2. EFFECTIVE FIS

☐ Not studied

☐ Studied by approximate methods

Downstream limit of study _____

Upstream limit of study _____

☒ Studied by detailed methods

Downstream limit of study Confluence with Wash R - Cemetary Wash

Upstream limit of study Station 0.872

☐ Floodway delineated

Downstream limit of Floodway _____

Upstream limit of Floodway _____

3. 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: _____

☐ Other. Explain: _____

Full input and output listings along with files on diskette *(if available)* for each of the models listed below and 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. For areas which do not have detailed flooding, a hydraulic model is not required; however BFE's may not be added to the revised FIRM.

	Natural	Floodway
☐ 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.

	Natural	Floodway
☐ 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.

	Natural	Floodway
☐ Existing or Pre-Project Conditions Model	☐	☐

The duplicate effective or corrected 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.

	Natural	Floodway
☐ 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. When the request is for proposed project this model should reflect proposed conditions.

	Natural	Floodway
☒ Other: Please attach a sheet describing all other models or calculations submitted.	☒	☒

New Model (Proposed Effective Model)

4. MODEL PARAMETERS *(from model used to revise 100-year water surface elevation)*

1. Discharges:

	Upstream Limit	Downstream Limit
10-year	127 cfs	338 cfs
50-year	208 cfs	553 cfs
100-year	241 cfs	641 cfs
500-year	—	—

Attach diagram showing changes in 100-year discharge

2. Explain how the starting water surface elevations were determined Starting water surface elevations determined by the slope-area method.

3. Give range of friction loss coefficients (*Manning's "N"*) Channel ..... 0.040 ~ 0.045

Overbanks 0.07

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.

Data points for cross-sections are based on photogrammetric models for the topographic maps.

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

All reach lengths were measured from floodplain work maps.

5. 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? ..... ☐ Yes ☒ No

c. Critical depth? ..... ☒ Yes ☐ No

d. Other unique situations ..... ☐ Yes ☐ No

If yes, special problems report attached.

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 change in energy gradient between cross-sections? ..... 0.04387 ft/ft

Specify location 0.237

3. What is the distance between the cross-sections in 2 above? ..... 374.40 ft

Specify location 0.308

4. What is the maximum distance between cross-sections? ..... 549.1 ft

Specify location 0.237

5. Floodway determination

a. What is the maximum surcharge allowed by the community or State? ..... 1.0 foot

b. What is the maximum surcharge for the revised conditions? ..... 0.0 foot

Specify location ..... N/A

c. What is the maximum velocity? ..... 6.61 fps

Specify location 0.451

Explain:

d. Are there any negeative surcharge values at any cross-section ☐ Yes ☒ No

If yes, the floodway may need to widen. If it is not widened, please explain and indicate the maximum negative surcharge.

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:

_____

_____

_____

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 (See page 6)

6. 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_____ within_____feet and upstream of the project at cross section_____within_____feet.

B. The revised floodway elevations tie into those computed by the effective FIS model, dowstream of the project at cross section_____within_____feet and upstream of the project at cross section_____ 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. If channel distance has changed, the stationing should be revised for all profile sheets.

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

Proceed to Riverine /Coastal Mapping Form

FEDERAL EMERGENCY MANAGMENT AGENCY

WATER SURFACE ELEVATION CHECK

COMMUNITY NAME	FLOODIND SOURCE	PROJECT NAME /IDENTIFIER
Unincorporated Maricopa County / Town of Wickenburg	Wash R3	Wickenburg ADMS-FCD 89-79

	EFFECTIVE			DUPLICATE EFFECTIVE			CORRECTED EFFECTIVE			EXISTING/PRE-PROJECT			REVISED/PROJECT		
SECNO	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]	NCWSEL[1]	FCWSEL[2]	SURC.[3]

COMMENTS:

New Model- See following Floodway Data Table

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

Include all cross sections in the models between tie-in points. Any interpolated values should be indicated in parentheses.

Sheet ___ of ___

FLOODWAY DATA, WASH R~~3~~4: TRIBUTARY WASH
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
5.184	371.	576.	3.1	2446.1	2446.1	.0
.101	459.	194.	3.3	2451.0	2451.0	.0
.133	537.	291.	2.2	2457.6	2457.6	.0
.237	330.	317.	2.0	2464.0	2464.0	.0
.308	270.	129.	3.7	2468.5	2468.5	.0
.400	207.	206.	2.3	2476.7	2476.7	.0
.451	233.	145.	3.3	2481.8	2481.8	.0
.529	179.	137.	2.3	2488.9	2488.9	.0
.573	188.	96.	3.4	2492.6	2492.6	.0
.620	193.	113.	2.8	2497.0	2497.0	.0
.717	138.	70.	3.4	2508.5	2508.5	.0
.813	86.	72.	3.4	2520.1	2520.1	.0
.872	91.	90.	2.7	2524.6	2524.6	.0

```
*********************************************
*  HEC-2 WATER SURFACE PROFILES             *
*                                           *
*  Version   4.6.2;  May 1991               *
*                                           *
*  RUN DATE    23JUN92    TIME   10:10:33   *
*********************************************
```

```
****************************************
*  U.S. ARMY CORPS OF ENGINEERS        *
*  HYDROLOGIC ENGINEERING CENTER       *
*  609 SECOND STREET, SUITE D          *
*  DAVIS, CALIFORNIA 95616-4687        *
*          (916) 756-1104              *
****************************************
```

```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                        X
XXXXXXX  XXXX     X         XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX             XXXXXXX
```

THIS RUN EXECUTED 23JUN92 10:10:33

```
************************************
 HEC-2 WATER SURFACE PROFILES

 Version   4.6.2;  May 1991
************************************


T1      WICKENBURG ADMS - FCDMC CONTRACT 89-79
T2      BLACK & VEATCH PN 17676: COE & VAN LOO JN 1197-02
T3      WASH R-3: TRIBUTARY WASH                (TRIBR3.O)

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        2        0        0        0        0        0        0    2446.05      0

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

      1        0       -1        0        0        0       -1        0        0        15


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150       200

QT       2      1793      1793
NC   0.070     0.070     0.045       .1        .3
ET               7.1       9.1                                          807      1178       807      1178
            CONFLUENCE OF WASH R - CEMETERY WASH AND TRIBUTARY WASH R-3
            THE METHOD USED TO START THIS HEC-2, WATER SURFACE PROFILE
            ANALYSIS IS THE KNOWN STARTING WATER SURFACE METHOD.  THE
            WATER SURFACE ELEVATION FOR CROSS SECTION 5.184, WASH R-
            CEMETERY WASH, WAS USED AS THE STARTING WATER SURFACE ELEVATION
            FOR THE WASH R-2 HEC-2 WATER SURFACE PROFILE ANALYSIS.  THE
            WATER SURFACE ELEVATION USED WAS COMPUTED DURING THE HEC-2
            ANALYSIS FOR WASH R-CEMETERY WASH.
            ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
            SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
            WSEL AND THE TOPOGRAPHY.
X1    5.184        75     820.0     855.6         0         0         0
GR     2456       700    2455.7     705.8    2455.4     711.5    2455.1     717.3    2454.8     723.1
GR   2454.5     728.8    2454.1     734.6    2453.9     740.4    2453.5     746.2    2453.2     751.9
GR   2452.9     757.7    2452.6     763.5    2452.3     769.2      2452       775    2450.7     781.7
GR   2449.3     788.3      2448       795      2447     801.3      2446     807.5      2445     813.8
GR     2444       820      2444     836.7      2444       850      2444     855.6    2444.1     861.3
GR   2444.1     872.5    2444.2     883.8    2444.2     889.4    2444.3       895    2444.3     906.3
GR   2444.4     917.5    2444.4     928.8    2444.5     934.4    2444.5       946    2444.5       958
GR   2444.5       970    2444.5       982    2444.5       994    2444.5    1005.9    2444.5    1017.7
GR   2444.5    1029.6    2444.5    1041.4    2444.5    1053.2    2444.5      1065    2444.5    1076.5
GR   2444.5    1088.1    2444.5    1099.6    2444.5    1111.2    2444.5    1122.7    2444.5    1134.2
GR   2444.5      1140    2444.7    1145.7      2445    1151.3    2445.2      1157    2445.4    1162.7
GR   2445.7    1168.3    2445.9      1174    2446.1    1179.7    2446.4    1185.3    2446.6      1191
GR   2446.8    1196.7    2447.1    1202.3    2447.3      1208    2447.5    1213.7    2447.8    1219.3
GR     2448      1225    2449.3    1231.7    2450.7    1238.3      2452      1245    2453.3      1250
```

GR	2454.7	1255	2456	1260	2457	1266.3	2458	1272.5	2459	1278.8

```
NT      2      641      641
ET             7.1      9.1                                  1056     1524     1056     1524
           FIRST CROSS SECTION OF WASH R-3 UPSTREAM OF CONFLUENCE
           THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
           CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION,
           UNLESS OTHERWISE NOTED.
           ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
           SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
           WSEL AND THE TOPOGRAPHY.
X1    0.101       67   1477.5   1512.5      315      380      328
GR     2468      505   2467.5    516.9     2467    528.8   2466.5    540.6     2466    552.5
GR   2465.5    564.4     2465    576.3   2464.5    588.1     2464      600     2462    612.5
GR     2460      625     2459    636.3     2458    647.5     2457    658.8     2456      670
GR   2455.8      695   2455.6    707.5   2455.4    732.5   2455.3      745   2455.1    757.5
GR     2455      770   2454.7    782.1   2454.4    794.3   2454.1    806.4   2453.9    818.6
GR   2453.6    830.7   2453.3    842.9     2453      855   2452.8      879   2452.6      903
GR   2452.4      927   2452.2      951     2452      975   2451.5    987.5   2450.5     1000
GR     2451     1015     2451   1056.7   2450.8     1094   2450.6     1118   2450.5   1156.7
GR   2450.5   1192.5   2450.5   1226.8   2450.5   1262.3   2450.5   1297.7   2450.5   1333.2
GR   2450.5     1370   2450.5   1403.8   2450.5     1440   2450.5   1477.5     2450     1490
GR   2450.5     1500   2450.8   1512.5     2451     1525   2451.3   1537.5   2451.5     1550
GR   2451.8   1562.5     2452     1575   2452.7   1586.7   2453.3   1598.3     2454     1610
GR   2454.7   1621.7   2455.3   1633.3     2456     1645   2457.3   1658.3   2458.7   1671.7
GR     2460     1685     2462     1695

     0.070    0.070    0.045       .1       .3
ET                       9.1                                                     480     1018
X1    0.133       58    985.2   1008.3      215      180      170
GR     2460      355   2459.7    361.7   2459.3    368.3     2459      375   2458.7    381.7
GR   2458.3    388.3     2458      395   2457.9    409.7   2457.9    424.4   2457.8    439.1
GR   2457.8    453.8   2457.7    468.5   2457.6    483.2   2457.6    497.9   2457.5    512.7
GR   2457.5    527.3   2457.4    542.1   2457.4    556.8   2457.3    571.5   2457.2    586.2
GR   2457.2    600.9   2457.1    615.6   2457.1    630.3     2457      645     2457      660
GR     2457      675     2457      690     2457      705     2457      720     2457      735
GR     2457    749.6     2457    764.2     2457    778.8     2457    793.5     2457    808.1
GR     2457    822.7     2457    837.4     2457    852.2     2457      867   2456.9    881.7
GR   2456.9    896.5   2456.9    911.3   2456.9    926.1   2456.9    940.9   2456.9    955.7
GR   2456.8    970.4   2456.8    985.2   2456.8     1000   2457.2   1008.3   2457.6   1016.7
GR     2458     1025   2458.5   1032.5     2459     1040   2459.5   1047.5     2460     1055
GR   2460.7   1061.7   2461.3   1068.3     2462     1075

ET                       9.1                                                     703     1037
X1    0.237       48     990.   1010.0      585      540    549.1
GR     2488      610     2487      615     2486      620     2485      625     2484      630
GR   2483.2      635   2482.4      640   2481.6      645   2480.8      650     2480      655
GR   2478.7      660   2477.3      665     2476      670     2472      675     2468      680
GR   2467.2      685   2466.4      690   2465.6      695   2464.8      700     2464      705
GR   2463.6    729.1   2463.3    753.2   2462.9    777.3   2462.6    801.4   2462.2    825.5
GR   2462.2      850   2462.8      875   2463.3      900   2463.4      925   2463.3      950
GR   2463.1      975   2463.1      990   2463.3     1010   2463.9     1030     2464     1035
GR     2465     1040     2466     1045     2467     1050     2468     1055     2470     1060
GR     2472     1065   2473.3     1070   2474.7     1075     2476     1080     2477     1085
GR     2478     1090     2479     1095     2480     1100
```

```
QT      2      481      481
ET             7.1      9.1                                    747      1018      747      1018
           ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
           SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
           WSEL AND THE TOPOGRAPHY.
X1   0.308       67     990.0    1005.0      340      350     374.9
GR    2488      685      2486       690     2484      695    2482.7      700    2481.3      705
GR    2480      710      2478       715     2476      720      2474      725      2472      730
GR  2471.2      734    2470.4       738   2469.6      742    2468.8      746      2468      750
GR    2468    763.3      2468     776.7     2468      790      2468    803.3      2468    816.7
GR    2468      830    2467.9     842.7   2467.8    855.4    2467.6    868.1    2467.5    880.8
GR  2467.7    893.3    2467.9     905.8   2468.1    914.4    2468.3    923.3    2468.4    927.8
GR  2468.6    932.2    2468.8     941.1     2469      950    2468.8    958.9    2468.6    967.8
GR  2468.4    972.2    2468.2     981.1     2468      990    2467.8      995    2467.5     1000
GR  2467.8     1005      2468      1010   2468.3   1014.2    2468.6   1018.5    2468.9   1022.7
GR  2469.2   1026.9    2469.5    1031.2   2469.9   1035.4    2470.1   1039.6    2470.5   1043.8
GR  2470.8   1048.1    2471.1    1052.3   2471.4   1056.5    2471.7   1060.8      2472     1065
GR    2476     1070    2477.3      1075   2478.7     1080      2480     1085    2481.3     1090
GR  2482.7     1095      2484      1100   2484.8     1104    2485.6     1108    2486.4     1112
GR  2487.2     1116      2488      1120

NC   0.070    0.070     0.040        .1       .3
ET             7.1      9.1                                    835      1045      835      1045
           ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
           SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
           WSEL AND THE TOPOGRAPHY.
X1   0.400       78     990.8    1010.0      405      525     485.8
GR    2492      270    2491.3     278.3   2490.7    286.7      2490      295    2489.3     303.3
GR  2488.7    311.7      2488       320   2487.4    329.3    2486.9    338.6    2486.3    347.9
GR  2485.7    357.1    2485.1     366.4   2484.6    375.7      2484      385    2483.5    394.4
GR    2483    403.8    2482.5     413.1     2482    422.5    2481.5    431.9      2481    441.3
GR  2480.5    450.6      2480       460   2479.8    488.1    2479.6    516.3    2479.7    551.7
GR  2479.9    576.7      2480       585   2480.7      595    2481.3      605      2482      615
GR  2481.5    623.8      2481     632.5   2480.5    641.3      2480      650      2476      660
GR  2475.8    668.8    2475.5     677.5   2475.3    686.3      2475      695    2475.1    703.6
GR  2475.3    712.1    2475.4     720.7   2475.6    729.3    2475.7    737.9    2475.9    746.4
GR    2476      755    2477.3     763.3   2478.7    771.7      2480      780      2480      815
GR  2478.7    823.3    2477.3     831.7     2476      840    2475.8      860    2475.6      870
GR  2475.5    907.7    2475.5     944.6   2475.5    981.5    2475.5    990.8    2475.5     1000
GR  2475.7     1010    2475.8      1020     2476     1030    2476.5     1040      2477     1050
GR  2477.3   1058.9    2477.7    1067.8     2478   1076.7    2478.3   1085.6    2478.7   1094.4
GR    2479   1103.3    2479.3    1112.2   2479.7   1121.1      2480     1130      2484     1140
GR    2488     1150      2490    1157.5     2492     1165

ET                       9.1                                                       862      1096
X1   0.451       71     993.3    1012.5      260      250     269.2
GR    2494      585    2493.7     590.7   2493.4    596.4    2493.1    602.1    2492.9    607.9
GR  2492.6    613.6    2492.3     619.3     2492      625      2491    631.3      2490    637.5
GR    2489    643.8      2488       650   2486.7    656.7    2485.3    663.3      2484      670
GR  2483.7    682.2    2483.3     694.4     2483    706.7    2482.7    718.9    2482.5      725
GR  2482.8      731    2483.1       737   2483.4      743    2483.7      749      2484      755
GR    2486    762.5      2488       770     2488    782.5      2488      795      2488    807.5
GR    2488      820    2486.7     826.7   2485.3    833.3      2484      840    2483.4    846.3
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	2482.8	852.5	2482.1	858.8	2481.5	865	2481.4	877.1	2481.4	889.2
GR	2481.3	901.3	2481.3	913.4	2481.2	925.5	2481.2	937.6	2481.1	949.7
GR	2481.1	961.8	2481	974	2480.8	986.7	2480.7	993.3	2480.6	1006.3
GR	2480.6	1012.5	2480.8	1025	2480.9	1037.5	2481	1050	2481.2	1062
GR	2481.4	1074	2481.6	1086	2481.8	1098	2482	1110	2482.3	1115.8
GR	2482.7	1121.7	2483	1127.5	2483.3	1133.3	2483.7	1139.2	2484	1145
GR	2486	1150	2488	1155	2490	1160	2492	1165	2494	1172.5
GR	2496	1180								
QT	2	321	321							
ET			9.1						843	1023
X1	0.529	74	992.0	1006.7	450	410	411.9			
GR	2504	340	2503.4	347.1	2502.9	354.3	2502.3	361.4	2501.7	368.6
GR	2501.1	375.7	2500.6	382.9	2500	390	2499.7	397.5	2499.3	405
GR	2499	412.5	2498.7	420	2498.3	427.5	2498	435	2497.7	442.5
GR	2497.3	450	2497	457.5	2496.7	465	2496.3	472.5	2496	480
GR	2495.7	495.7	2495.6	503.6	2495.4	511.4	2495.1	527.1	2494.9	542.9
GR	2494.6	558.6	2494.4	566.4	2494.1	582.1	2494	590	2494.4	598
GR	2494.8	606	2495.2	614	2495.6	622	2496	630	2496.3	638.3
GR	2496.7	646.7	2497	655	2496.6	669	2496.4	676	2496	690
GR	2495.4	697.1	2494.9	704.3	2494.3	711.4	2493.7	718.6	2493.1	725.7
GR	2492.6	732.9	2492	740	2491.5	748	2491	756	2490.5	764
GR	2490	772	2489.5	780	2489.2	811.4	2488.9	842.9	2488.6	874.3
GR	2488.4	897.8	2488.1	944.4	2487.8	968	2487.5	984	2487.4	992
GR	2487.2	1000	2487.5	1006.7	2487.7	1013.3	2488	1020	2492	1030
	2494	1037.5	2496	1045	2498	1052.5	2500	1060	2500.8	1068
	2501.6	1076	2502.4	1084	2503.2	1092	2504	1100		
ET			9.1						834	1023
X1	0.573	75	991.7	1015.0	210	240	232.3			
GR	2504	430	2504	485	2504	525	2503	533.8	2502	542.5
GR	2501	551.3	2500	560	2499.7	568.3	2499.5	576.7	2499.2	585
GR	2498.9	593.3	2498.7	601.7	2498.4	610	2498.1	618.3	2497.9	626.7
GR	2497.6	635	2497.3	643.3	2497.1	651.7	2496.8	660	2496.5	668.3
GR	2496.3	676.7	2496	685	2495.8	693.3	2495.6	701.7	2495.4	710
GR	2495.2	718.3	2495.1	726.7	2494.9	735	2494.7	743.3	2494.5	751.7
GR	2494.3	760	2494.1	768.3	2493.9	776.7	2493.7	785	2493.5	793.3
GR	2493.3	801.7	2493.1	810	2492.9	818.3	2492.8	826.7	2492.6	835
GR	2492.4	843.3	2492.2	851.7	2492	860	2492.2	885	2492	941.9
GR	2492	991.7	2492	1015	2492.6	1022.9	2493.1	1030.7	2493.7	1038.6
GR	2494.3	1046.4	2494.9	1054.3	2495.4	1062.1	2496	1070	2497	1078.8
GR	2498	1087.5	2499	1096.3	2500	1105	2500.4	1113.3	2500.9	1121.7
GR	2501.3	1130	2501.8	1138.3	2502.2	1146.7	2502.7	1155	2503.1	1163.3
GR	2503.6	1171.7	2504	1180	2504.5	1188.1	2505	1196.3	2505.5	1204.4
GR	2506	1212.5	2506.5	1220.6	2507	1228.8	2507.5	1236.9	2508	1245
ET			9.1						841	1034
X1	0.620	64	892.3	1006.3	170	290	248.2			
GR	2512	510	2511.2	516	2510.4	522	2509.6	528	2508.8	534
GR	2508	540	2507.2	546	2506.4	552	2505.6	558	2504.8	564
	2504	570	2503.7	582.9	2503.6	589.3	2503.4	595.7	2503.1	608.6
	2502.9	621.4	2502.6	634.3	2502.4	640.7	2502.1	653.6	2501.9	666.4
GR	2501.6	679.3	2501.4	685.7	2501.1	698.6	2500.9	711.4	2500.6	724.3
GR	2500.4	730.7	2500.1	743.6	2499.8	756.4	2499.6	762.9	2499.4	769.3

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     2499.1    775.7   2498.9    782.1   2498.5     795   2498.1    807.9   2497.9    814.3
GR   2497.6    820.7   2497.4    827.1     2497     840   2496.7    866.2   2496.4    892.3
GR   2496.1    911.9   2496.2    963.6   2496.2     988   2496.4   1006.3   2496.6   1018.8
GR   2496.9   1031.3   2497.1   1037.5   2497.4    1050   2497.6   1056.3   2497.9   1068.8
GR     2498     1075   2498.3   1081.3   2498.5  1087.5   2498.8   1093.8     2499     1100
GR   2499.3   1106.3   2499.5   1112.5   2499.8  1118.8     2500     1125     2502     1130
GR     2504     1135   2505.3   1141.7   2506.7  1148.3     2508     1155

QT        2      241      241
ET               7.1      9.1                                904     1044      904     1044
                ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
                SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
                WSEL AND THE TOPOGRAPHY.
X1    0.717       77    992.0   1008.0     430     520   512.1
GR     2520      700   2519.7    707.5   2519.4     715   2519.1    722.5   2518.9     730
GR   2518.6    737.5   2518.3      745     2518   752.5   2517.7      760   2517.4   767.5
GR   2517.1      775   2516.9    782.5   2516.6     790   2516.3    797.5     2516     805
GR     2515    812.5     2514      820     2513   827.5     2512      835   2511.6   842.2
GR   2511.2    849.4   2510.8    856.7   2510.4   863.9   2510.1    871.1   2509.7   878.3
GR   2509.3    885.6   2508.9    892.8   2508.5     900   2508.3    922.5   2508.1     945
GR   2507.9      968   2507.6      992   2507.6    1008   2507.9     1032     2508    1040
GR     2509   1047.5     2510     1055     2511  1062.5     2512     1070     2516    1080
GR     2520     1090     2524     1100     2526  1107.5     2528     1115   2528.5  1122.5
GR     2529     1130   2528.7   1136.7   2528.3  1143.3     2528     1150     2527  1157.5
GR     2526     1165     2525   1172.5     2524    1180   2523.4   1187.1   2522.9  1194.3
     2522.3   1201.4   2521.7   1208.6   2521.1  1215.7   2520.6   1222.9     2520    1230
       2516   1236.7     2512   1243.3     2508    1250   2507.6   1272.5   2507.4  1287.5
GR   2507.1   1302.5   2506.8   1317.5   2506.5  1332.5   2506.2   1347.5   2506.1  1370.7
GR   2506.1   1394.3   2506.2     1410     2508    1420     2512     1430     2516    1440
GR     2518   1447.5     2520     1455

ET                      9.1                                                943    1031
X1    0.813       74    990.0   1005.0     510.     500   506.9
GR     2536      840   2535.7    842.5   2535.3     845     2535    847.5   2534.7     850
GR   2534.3    852.5     2534      855   2533.7   857.5   2533.3      860     2533   862.5
GR   2532.7      865   2532.3    867.5     2532     870     2531    872.5     2530     875
GR     2529    877.5     2528      880   2527.6   882.5   2527.2      885   2526.8   887.5
GR   2526.4      890     2526    892.5   2525.6     895   2525.2    897.5   2524.8     900
GR   2524.4    902.5     2524      905   2523.8   907.5   2523.5      910   2523.3   912.5
GR     2523      915   2522.8    917.5   2522.5     920   2522.3    922.5     2522     925
GR   2521.8    927.5   2521.5      930   2521.3   932.5     2521      935   2520.8   937.5
GR   2520.5      940   2520.3    942.5     2520     945   2519.6      960   2519.4     965
GR     2519    982.5   2518.8      990   2518.8    1005   2519.1   1012.5   2519.5    1020
GR   2519.8     1025     2520     1030   2520.7  1032.5   2521.3     1035     2522  1037.5
GR   2522.7     1040   2523.3   1042.5     2524    1045   2524.7   1047.5   2525.3    1050
GR     2526   1052.5   2526.7     1055   2527.3  1057.5     2528     1060   2528.7  1062.5
GR   2529.3     1065     2530   1067.5   2530.7    1070   2531.3   1072.5     2532    1075
GR     2533   1077.5     2534     1080     2535  1082.5     2536     1085
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ET			9.1						955	1048
		LAST CROSS SECTION OF DETAILED STUDY								
		LIMITS OF DETAILED ANALYSIS								
X1	0.872	75	996.8	1003.0	355.0	290.	311.5			
GR	2538	795	2537.6	798	2537.2	801	2536.8	804	2536.4	807
GR	2536	810	2535.7	813	2535.5	816	2535.2	819	2534.9	822
GR	2534.7	825	2534.4	828	2534.1	831	2533.9	834	2533.6	837
GR	2533.3	840	2533.1	843	2532.8	846	2532.5	849	2532.3	852
GR	2532	855	2531.7	858	2531.5	861	2531.2	864	2530.9	867
GR	2530.7	870	2530.4	873	2530.1	876	2529.9	879	2529.6	882
GR	2529.3	885	2529.1	888	2528.8	891	2528.5	894	2528.3	897
GR	2528	900	2527.6	906.2	2527.4	909.3	2527.1	915.5	2526.9	918.6
GR	2526.5	924.8	2526.1	931	2525.9	934	2525.5	940.2	2525.1	946.4
GR	2524.9	949.5	2524.6	955.7	2524.4	958.8	2524	965	2523.7	974.5
GR	2523.6	980.9	2523.4	984.1	2523.1	996.8	2523.1	1003	2523.4	1018
GR	2523.6	1027	2523.9	1039	2524	1045	2524.8	1048	2525.6	1051
GR	2526.4	1054	2527.2	1057	2528	1060	2529.3	1063.3	2530.7	1066.7
GR	2532	1070	2532.7	1073.3	2533.3	1076.7	2534	1080	2534.7	1083.3
GR	2535.3	1086.7	2536	1090	2536.5	1093.3	2537	1096.7	2537.5	1100

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS
0

CCHV= .100 CEHV= .300
*SECNO 5.184

3470 ENCROACHMENT STATIONS= 807.0 1178.0 TYPE= 1 TARGET= 371.000
CONFLUENCE OF WASH R - CEMETERY WASH AND TRIBUTARY WASH R-3
THE METHOD USED TO START THIS HEC-2, WATER SURFACE PROFILE
ANALYSIS IS THE KNOWN STARTING WATER SURFACE METHOD. THE
WATER SURFACE ELEVATION FOR CROSS SECTION 5.184, WASH R-
CEMETERY WASH, WAS USED AS THE STARTING WATER SURFACE ELEVATION
FOR THE WASH R-2 HEC-2 WATER SURFACE PROFILE ANALYSIS. THE
WATER SURFACE ELEVATION USED WAS COMPUTED DURING THE HEC-2
ANALYSIS FOR WASH R-CEMETERY WASH.
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

5.184	2.05	2446.05	2445.48	.00	2446.24	.19	.00	.00	2444.00
1793.0	31.3	380.1	1381.6	13.1	73.0	489.5	.0	.0	2444.00
.00	2.39	5.21	2.82	.070	.045	.070	.000	2444.00	807.19
.009551	0.	0.	0.	0	18	0	.00	370.81	1178.00

FLOW DISTRIBUTION FOR SECNO= 5.18 CWSEL= 2446.05

STA=	807.	820.	856.	873.	884.	895.	906.	918.	929.	946.	970.	994.	1018.
PER Q=	1.7	21.2	6.0	3.8	3.5	3.3	3.1	3.0	4.2	5.8	5.8	5.7	
AREA=	13.1	73.0	33.2	21.5	20.4	19.8	19.0	18.6	26.9	37.2	37.2	36.7	
VEL=	2.4	5.2	3.3	3.2	3.1	3.0	3.0	2.9	2.8	2.8	2.8	2.8	
DEPTH=	1.0	2.1	2.0	1.9	1.8	1.8	1.7	1.7	1.6	1.6	1.6	1.6	

STA=	1018.	1041.	1065.	1088.	1111.	1134.	1151.	1178.
PER Q=	5.7	5.7	5.5	5.5	5.5	3.5	1.3	
AREA=	36.7	36.6	35.8	35.8	35.7	24.0	14.2	
VEL=	2.8	2.8	2.8	2.8	2.8	2.6	1.6	
DEPTH=	1.6	1.6	1.6	1.6	1.6	1.4	.5	

*SECNO .101
7185 MINIMUM SPECIFIC ENERGY

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1056.0 1524.0 TYPE= 1 TARGET= 468.000
FIRST CROSS SECTION OF WASH R-3 UPSTREAM OF CONFLUENCE
THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION,
UNLESS OTHERWISE NOTED.
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

.101	.96	2450.96	2450.96	.00	2451.17	.20	4.63	.01	2450.50
641.0	528.4	111.8	.8	173.3	20.0	.8	3.2	3.3	2450.80
.03	3.05	5.60	.98	.070	.045	.070	.000	2450.00	1063.62
.061009	315.	328.	380.	0	15	0	.00	459.06	1522.69

FLOW DISTRIBUTION FOR SECNO= .10 CWSEL= 2450.96

STA=	1064.	1157.	1193.	1227.	1262.	1298.	1333.	1370.	1404.	1440.	1478.	1513.	1523.
ER Q=	9.7	8.1	7.8	8.0	8.0	8.0	8.3	7.7	8.2	8.5	17.4	.1	
AREA=	24.8	16.6	15.9	16.4	16.4	16.4	17.0	15.6	16.8	17.4	20.0	.8	
VEL=	2.5	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	5.6	1.0	
DEPTH=	.3	.5	.5	.5	.5	.5	.5	.5	.5	.5	.6	.1	

CCHV= .100 CEHV= .300
*SECNO .133

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.79

.133	.82	2457.62	2457.42	.00	2457.71	.08	6.53	.01	2456.80
641.0	574.2	64.9	2.0	272.0	17.3	1.9	4.3	5.7	2457.20
.05	2.11	3.75	1.06	.070	.045	.070	.000	2456.80	480.14
.018963	215.	170.	180.	8	14	0	.00	536.99	1017.13

FLOW DISTRIBUTION FOR SECNO= .13 CWSEL= 2457.62

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

STA=	480.	586.	616.	645.	660.	675.	690.	705.	720.	735.	750.	764.	779.
PER Q=	3.2	3.5	4.9	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	
AREA=	18.4	13.1	16.0	9.3	9.3	9.3	9.3	9.3	9.3	9.1	9.1	9.1	
VEL=	1.1	1.7	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	
DEPTH=	.2	.4	.5	.6	.6	.6	.6	.6	.6	.6	.6	.6	

STA=	779.	794.	808.	823.	837.	852.	867.	882.	897.	911.	926.	941.	956.
PER Q=	3.0	3.0	3.0	3.0	3.0	3.0	3.4	3.9	3.9	3.9	3.9	3.9	
AREA=	9.1	9.1	9.1	9.1	9.2	9.2	9.9	10.7	10.7	10.7	10.7	10.7	
VEL=	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.4	2.4	2.4	2.4	
DEPTH=	.6	.6	.6	.6	.6	.6	.7	.7	.7	.7	.7	.7	

STA=	956.	970.	985.	1008.	1017.
PER Q=	4.3	4.9	10.1	.3	
AREA=	11.3	12.1	17.3	1.9	
VEL=	2.5	2.6	3.7	1.1	
DEPTH=	.8	.8	.7	.2	

*SECNO .237

*802 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.63

.237	1.84	2464.04	2463.50	.00	2464.10	.07	6.39	.00	2463.10
641.0	589.9	41.8	9.3	291.1	16.8	9.2	8.4	11.5	2463.30
.13	2.03	2.49	1.01	.070	.045	.070	.000	2462.20	704.75
.007164	585.	549.	540.	8	14	0	.00	330.44	1035.20

FLOW DISTRIBUTION FOR SECNO= .24 CWSEL= 2464.04

STA=	705.	753.	777.	801.	826.	850.	875.	900.	925.	950.	975.	990.	1010.
PER Q=	3.4	6.1	10.3	15.4	19.0	14.4	6.9	3.8	3.8	5.2	3.8	6.5	
AREA=	20.0	22.6	31.1	39.5	45.1	38.5	24.7	17.2	17.2	21.0	14.1	16.8	
VEL=	1.1	1.7	2.1	2.5	2.7	2.4	1.8	1.4	1.4	1.6	1.7	2.5	
DEPTH=	.4	.9	1.3	1.6	1.8	1.5	1.0	.7	.7	.8	.9	.8	

STA=	1010.	1035.
PER Q=	1.4	
AREA=	9.2	
VEL=	1.0	
DEPTH=	.4	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .308

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .28

3470 ENCROACHMENT STATIONS= 747.0 1018.0 TYPE= 1 TARGET= 271.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

.308	1.00	2468.50	2468.48	.00	2468.76	.25	4.60	.06	2468.00
481.0	393.9	72.7	14.3	112.5	11.6	4.8	10.2	13.7	2467.80
.16	3.50	6.28	2.96	.070	.045	.070	.000	2467.50	747.47
.051030	340.	375.	350.	2	11	0	.00	229.95	1017.15

FLOW DISTRIBUTION FOR SECNO= .31 CWSEL= 2468.50

STA=	747.	763.	777.	790.	803.	817.	830.	843.	855.	868.	881.	893.	906.
PER Q=	4.5	4.3	4.3	4.3	4.3	4.3	4.8	6.3	8.8	11.7	10.6	7.0	
AREA=	7.4	6.8	6.7	6.7	6.8	6.7	7.1	8.3	10.2	12.1	11.3	8.8	
VEL=	2.9	3.0	3.0	3.0	3.0	3.0	3.2	3.6	4.2	4.7	4.5	3.8	
DEPTH=	.5	.5	.5	.5	.5	.5	.6	.7	.8	1.0	.9	.7	

STA=	906.	923.	990.	1005.	1017.
PER Q=	4.0	2.9	15.1	3.0	
AREA=	7.1	6.4	11.6	4.8	
VEL=	2.7	2.1	6.3	3.0	
DEPTH=	.4	.1	.8	.4	

CCHV= .100 CEHV= .300
*SECNO .400

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.29

3470 ENCROACHMENT STATIONS= 835.0 1045.0 TYPE= 1 TARGET= 210.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
.400	1.66	2476.66	2476.22	.00	2476.76	.10	7.98	.02	2475.50
481.0	362.3	83.0	35.7	164.0	21.2	21.0	11.8	15.8	2475.70
.20	2.21	3.91	1.70	.070	.040	.070	.000	2475.00	835.80
.009701	405.	486.	525.	7	11	0	.00	207.35	1043.15

FLOW DISTRIBUTION FOR SECNO= .40 CWSEL= 2476.66

STA=	836.	840.	860.	870.	908.	945.	982.	991.	1010.	1020.	1030.	1040.	1043.
PER Q=	.3	5.5	4.0	19.4	20.5	20.5	5.2	17.3	3.7	2.7	1.0	.0	
AREA=	1.4	15.1	9.6	41.7	42.7	42.7	10.8	21.2	9.1	7.6	4.1	.2	
VEL=	1.0	1.7	2.0	2.2	2.3	2.3	2.3	3.9	2.0	1.7	1.1	.4	
DEPTH=	.3	.8	1.0	1.1	1.2	1.2	1.2	1.1	.9	.8	.4	.1	

*SECNO .451
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

.451	1.16	2481.76	2481.76	.00	2482.04	.28	3.95	.05	2480.70
481.0	185.6	142.6	152.8	73.3	21.6	51.9	12.8	17.1	2480.60
.22	2.53	6.61	2.94	.070	.040	.070	.000	2480.60	862.34
.027076	260.	269.	250.	0	16	0	.00	233.13	1095.47

FLOW DISTRIBUTION FOR SECNO= .45 CWSEL= 2481.76

STA=	862.	901.	926.	938.	950.	962.	974.	987.	993.	1013.	1025.	1038.	1050.
PER Q=	4.9	5.2	3.3	3.8	4.4	5.0	7.1	4.9	29.6	10.0	7.7	6.4	
AREA=	13.3	11.7	6.8	7.4	8.0	8.6	10.9	6.7	21.6	13.2	11.3	10.1	
VEL=	1.8	2.2	2.4	2.5	2.6	2.8	3.2	3.5	6.6	3.6	3.3	3.0	
DEPTH=	.3	.5	.6	.6	.7	.7	.9	1.0	1.1	1.1	.9	.8	

STA=	1050.	1062.	1086.	1095.
PER Q=	4.3	3.3	.1	
AREA=	7.9	8.6	.7	
VEL=	2.6	1.8	.6	
DEPTH=	.7	.4	.1	

*SECNO .529

.529	1.69	2488.89	2488.65	.00	2489.04	.16	6.99	.01	2487.40
321.0	175.3	109.8	35.9	96.4	23.0	16.4	14.2	19.2	2487.50
.26	1.82	4.78	2.18	.070	.040	.070	.000	2487.20	844.33
.009123	450.	412.	410.	6	11	0	.00	177.88	1022.22

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= .53 CWSEL= 2488.89

STA=	844.	874.	898.	944.	968.	984.	992.	1007.	1013.	1020.	1022.
PER Q=	.7	3.0	13.9	13.4	14.4	9.2	34.2	6.3	4.5	.3	
AREA=	4.3	9.1	29.6	22.1	19.8	11.5	23.0	8.5	6.9	1.0	
VEL=	.6	1.1	1.5	1.9	2.3	2.6	4.8	2.4	2.1	1.1	
DEPTH=	.1	.4	.6	.9	1.2	1.4	1.6	1.3	1.0	.4	

*SECNO .573

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .45

.573	.61	2492.61	2492.59	.00	2492.83	.22	3.77	.02	2492.00
321.0	235.8	80.1	5.0	80.1	14.2	2.5	14.8	20.1	2492.00
.28	2.94	5.63	2.05	.070	.040	.070	.000	2492.00	834.53
.044205	210.	232.	240.	3	22	0	.00	188.54	1023.08

FLOW DISTRIBUTION FOR SECNO= .57 CWSEL= 2492.61

STA=	835.	843.	852.	860.	885.	942.	992.	1015.	1023.
PER Q=	.3	1.7	3.8	11.4	25.9	30.5	25.0	1.6	
AREA=	.9	2.6	4.2	12.8	29.1	30.4	14.2	2.5	
VEL=	1.0	2.1	2.9	2.9	2.9	3.2	5.6	2.0	
DEPTH=	.1	.3	.5	.5	.5	.6	.6	.3	

*SECNO .620

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.00

.620	.87	2496.97	2496.83	.00	2497.13	.16	4.29	.01	2496.40
321.0	16.4	293.9	10.7	14.7	88.9	9.0	15.3	21.0	2496.40
.30	1.12	3.31	1.19	.070	.040	.070	.000	2496.10	841.62
.011046	170.	248.	290.	6	11	0	.00	192.21	1033.83

FLOW DISTRIBUTION FOR SECNO= .62 CWSEL= 2496.97

STA=	842.	866.	892.	1006.	1019.	1031.	1034.
PER Q=	.7	4.5	91.5	2.6	.8	.0	
AREA=	3.5	11.3	88.9	6.0	2.9	.1	
VEL=	.6	1.3	3.3	1.4	.8	.3	
DEPTH=	.1	.4	.8	.5	.2	.0	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .717
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 904.0 1044.0 TYPE= 1 TARGET= 140.000
ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
WSEL AND THE TOPOGRAPHY.

.717	2.35	2508.45	2508.45	.00	2508.76	.30	8.38	.04	2507.60
241.0	89.0	86.7	65.3	34.4	13.7	21.7	16.4	22.8	2507.60
.33	2.59	6.34	3.01	.070	.040	.070	.000	2506.10	905.13
.035975	430.	512.	520.	0	17	0	.00	138.28	1043.41

FLOW DISTRIBUTION FOR SECNO= .72 CWSEL= 2508.45

STA=	905.	923.	945.	968.	992.	1008.	1032.	1040.	1043.
PER Q=	.4	3.8	10.3	22.4	36.0	22.4	4.3	.5	
AREA=	1.3	5.7	10.4	16.9	13.7	16.9	4.0	.8	
VEL=	.7	1.6	2.4	3.2	6.3	3.2	2.6	1.5	
DEPTH=	.1	.3	.5	.7	.9	.7	.5	.2	

*SECNO .813

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.50

.813	1.33	2520.13	2520.02	.00	2520.41	.28	11.65	.00	2518.80
241.0	82.1	112.9	46.1	33.5	19.9	18.6	17.2	24.1	2518.80
.37	2.45	5.67	2.48	.070	.040	.070	.000	2518.80	943.94
.015977	510.	507.	500.	7	11	0	.00	86.51	1030.45

FLOW DISTRIBUTION FOR SECNO= .81 CWSEL= 2520.13

STA=	944.	960.	965.	983.	990.	1005.	1013.	1020.	1025.	1030.	1030.
PER Q=	2.6	2.6	17.2	11.7	46.8	10.9	6.1	1.6	.5	.0	
AREA=	5.0	3.1	16.2	9.2	19.9	8.8	6.2	2.4	1.1	.0	
VEL=	1.3	2.0	2.6	3.1	5.7	3.0	2.4	1.6	1.0	.0	
DEPTH=	.3	.6	.9	1.2	1.3	1.2	.8	.5	.2	.1	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO .872

LAST CROSS SECTION OF DETAILED STUDY

LIMITS OF DETAILED ANALYSIS

.872	1.49	2524.59	2524.27	.00	2524.75	.16	4.32	.01	2523.10
241.0	85.3	48.3	107.5	36.3	9.2	44.6	17.8	24.8	2523.10
.40	2.35	5.22	2.41	.070	.040	.070	.000	2523.10	955.83
.011581	355.	312.	290.	6	15	0	.00	91.39	1047.22

FLOW DISTRIBUTION FOR SECNO= .87 CWSEL= 2524.59

STA=	956.	959.	965.	975.	981.	984.	997.	1003.	1018.	1027.	1039.	1045.	1047.
PER Q=	.1	1.2	5.5	5.5	3.5	19.6	20.0	23.2	9.9	8.5	2.7	.3	
AREA=	.3	2.4	7.0	6.0	3.5	17.0	9.2	20.1	9.8	10.1	3.8	.7	
VEL=	.5	1.2	1.9	2.2	2.4	2.8	5.2	2.8	2.4	2.0	1.7	1.0	
DEPTH=	.1	.4	.7	.9	1.1	1.3	1.5	1.3	1.1	.8	.6	.3	

T2 FLOODWAY DETERMINATION

T3 WASH R-3: TRIBUTARY WASH

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	3	0	0	0	0	0	0	2446.05	0

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2	0	-1	0	0	0	-1	0	0	0

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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*PROF 2

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS
0

CCHV=     .100 CEHV=     .300
*SECNO 5.184

3470 ENCROACHMENT STATIONS=      807.0    1178.0  TYPE=      1  TARGET=      371.000
            CONFLUENCE OF WASH R - CEMETERY WASH AND TRIBUTARY WASH R-3
            THE METHOD USED TO START THIS HEC-2, WATER SURFACE PROFILE
            ANALYSIS IS THE KNOWN STARTING WATER SURFACE METHOD.  THE
            WATER SURFACE ELEVATION FOR CROSS SECTION 5.184, WASH R-
            CEMETERY WASH, WAS USED AS THE STARTING WATER SURFACE ELEVATION
            FOR THE WASH R-2 HEC-2 WATER SURFACE PROFILE ANALYSIS.  THE
            WATER SURFACE ELEVATION USED WAS COMPUTED DURING THE HEC-2
            ANALYSIS FOR WASH R-CEMETERY WASH.
            ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
            SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
            WSEL AND THE TOPOGRAPHY.
  5.184      2.05   2446.05   2445.48   2446.05   2446.24       .19       .00       .00   2444.00
 1793.0      31.3     380.1    1381.6      13.1      73.0     489.5        .0        .0   2444.00
    .00      2.39      5.21      2.82      .070      .045      .070      .000   2444.00    807.19
.009551        0.        0.        0.         0        18         0       .00    370.81   1178.00


*SECNO  .101
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     1056.0    1524.0  TYPE=      1  TARGET=      468.000
            FIRST CROSS SECTION OF WASH R-3 UPSTREAM OF CONFLUENCE
            THE POINT OF INTERSECTION OF THE THALWEG WITH A CROSS SECTION
            CORRESPONDS TO STATION 1000.00 OF THE CROSS SECTION,
            UNLESS OTHERWISE NOTED.
            ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
            SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
            WSEL AND THE TOPOGRAPHY.
   .101       .96   2450.96   2450.96   2450.96   2451.17       .20      4.63       .01   2450.50
  641.0     528.4     111.8        .8     173.3      20.0        .8       3.2       3.3   2450.80
    .03      3.05      5.60       .98      .070      .045      .070      .000   2450.00   1063.62
 .061009     315.      328.      380.         0        15         0       .00    459.06   1522.69
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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO  .133

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.79


3470 ENCROACHMENT STATIONS=      480.0    1018.0  TYPE=      1  TARGET=      538.000
      .133       .82   2457.62   2457.42   2457.62   2457.71       .08      6.53       .01   2456.80
     641.0     574.2      64.9       2.0     272.0      17.3       1.9       4.3       5.7   2457.20
       .05      2.11      3.75      1.06      .070      .045      .070      .000   2456.80    480.14
   .018963      215.      170.      180.         8        14         0       .00    536.99   1017.13


*SECNO  .237

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.63


3470 ENCROACHMENT STATIONS=      703.0    1037.0  TYPE=      1  TARGET=      334.000
      .237      1.84   2464.04   2463.50   2464.04   2464.10       .07      6.39       .00   2463.10
     641.0     589.9      41.8       9.3     291.1      16.8       9.2       8.4      11.5   2463.30
       .13      2.03      2.49      1.01      .070      .045      .070      .000   2462.20    704.75
   .007164      585.      549.      540.         8        14         0       .00    330.44   1035.20


*SECNO  .308

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .28


3470 ENCROACHMENT STATIONS=      747.0    1018.0  TYPE=      1  TARGET=      271.000
            ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
            SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
            WSEL AND THE TOPOGRAPHY.
      .308      1.00   2468.50   2468.48   2468.50   2468.76       .25      4.60       .06   2468.00
     481.0     393.9      72.7      14.3     112.5      11.6       4.8      10.2      13.7   2467.80
       .16      3.50      6.28      2.96      .070      .045      .070      .000   2467.50    747.47
   .051030      340.      375.      350.         2        11         0       .00    229.95   1017.15
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


CCHV=     .100 CEHV=     .300
*SECNO  .400

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.29


3470 ENCROACHMENT STATIONS=      835.0    1045.0  TYPE=      1  TARGET=      210.000
            ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
            SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
            WSEL AND THE TOPOGRAPHY.
     .400      1.66   2476.66   2476.22   2476.66   2476.76       .10      7.98       .02   2475.50
    481.0     362.3      83.0      35.7     164.0      21.2      21.0      11.8      15.8   2475.70
      .20      2.21      3.91      1.70      .070      .040      .070      .000   2475.00    835.80
  .009701      405.      486.      525.         7        11         0       .00    207.35   1043.15


*SECNO  .451
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0 ENCROACHMENT STATIONS=      862.0    1096.0  TYPE=      1  TARGET=      234.000
     .451      1.15   2481.75   2481.75   2481.76   2482.04       .29      3.99       .06   2480.70
    481.0     185.0     143.2     152.8      72.5      21.5      51.4      12.8      17.1   2480.60
      .22      2.55      6.67      2.97      .070      .040      .070      .000   2480.60    862.40
  .027786      260.      269.      250.         0        19         0       .00    232.72   1095.12


*SECNO  .529

3470 ENCROACHMENT STATIONS=      843.0    1023.0  TYPE=      1  TARGET=      180.000
     .529      1.69   2488.89   2488.65   2488.89   2489.05       .15      6.99       .01   2487.40
    321.0     175.8     109.4      35.8      97.4      23.1      16.5      14.2      19.2   2487.50
      .26      1.81      4.74      2.17      .070      .040      .070      .000   2487.20    843.64
  .008929      450.      412.      410.         6        11         0       .00    178.59   1022.23


*SECNO  .573

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .44


3470 ENCROACHMENT STATIONS=      834.0    1023.0  TYPE=      1  TARGET=      189.000
     .573       .60   2492.60   2492.59   2492.61   2492.83       .23      3.76       .02   2492.00
    321.0     235.7      80.3       5.0      79.0      14.1       2.4      14.8      20.1   2492.00
      .28      2.98      5.70      2.06      .070      .040      .070      .000   2492.00    834.82
  .046110      210.      232.      240.         3        22         0       .00    188.15   1022.97
```

```
SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     L-BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       R-BANK ELEV
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


*SECNO  .620

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.06


3470 ENCROACHMENT STATIONS=      841.0    1034.0  TYPE=      1  TARGET=      193.000
      .620       .88   2496.98   2496.82   2496.97   2497.13       .16      4.29       .01   2496.40
     321.0      16.6     293.6      10.8      14.9      89.4       9.1      15.3      21.0   2496.40
       .30      1.11      3.29      1.18      .070      .040      .070      .000   2496.10    841.23
   .010822      170.      248.      290.         6        11         0       .00    192.73   1033.96


*SECNO  .717
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      904.0    1044.0  TYPE=      1  TARGET=      140.000
            ET-DATA USED TO SET LIMITS OF EFFECTIVE FLOW AREA AT CURRENT
            SECTION: THEREFORE, FLOODPLAIN LIMITS ARE BASED ON THE COMPUTED
            WSEL AND THE TOPOGRAPHY.
      .717      2.36   2508.46   2508.46   2508.45   2508.76       .30      8.24       .04   2507.60
     241.0      89.0      86.6      65.3      34.5      13.7      21.7      16.4      22.8   2507.60
       .33      2.58      6.33      3.00      .070      .040      .070      .000   2506.10    905.02
   .035791      430.      512.      520.         0        17         0       .00    138.40   1043.41


*SECNO  .813

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.49


3470 ENCROACHMENT STATIONS=      943.0    1031.0  TYPE=      1  TARGET=       88.000
      .813      1.32   2520.13   2520.02   2520.13   2520.41       .28     11.65       .00   2518.80
     241.0      82.0     112.9      46.1      33.5      19.9      18.6      17.2      24.1   2518.80
       .37      2.45      5.68      2.48      .070      .040      .070      .000   2518.80    943.95
   .016028      510.      507.      500.         7        11         0       .00     86.50   1030.45


*SECNO  .872

3470 ENCROACHMENT STATIONS=      955.0    1048.0  TYPE=      1  TARGET=       93.000
            LAST CROSS SECTION OF DETAILED STUDY
            LIMITS OF DETAILED ANALYSIS
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
.872	1.49	2524.59	2524.27	2524.59	2524.75	.16	4.32	.01	2523.10
241.0	85.3	48.2	107.5	36.3	9.3	44.6	17.8	24.8	2523.10
.40	2.35	5.22	2.41	.070	.040	.070	.000	2523.10	955.82
.011564	355.	312.	290.	6	15	0	.00	91.39	1047.22

THIS RUN EXECUTED 23JUN92 10:10:39

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WASH R-3: TRIBUTARY WASH

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	5.184	.00	.00	.00	2444.00	1793.00	2446.05	2445.48	2446.24	95.51	5.21	575.55	183.46
	5.184	.00	.00	.00	2444.00	1793.00	2446.05	2445.48	2446.24	95.51	5.21	575.55	183.46
*	.101	328.00	.00	.00	2450.00	641.00	2450.96	2450.96	2451.17	610.09	5.60	194.03	25.95
*	.101	328.00	.00	.00	2450.00	641.00	2450.96	2450.96	2451.17	610.09	5.60	194.03	25.95
	.133	170.00	.00	.00	2456.80	641.00	2457.62	2457.42	2457.71	189.63	3.75	291.19	46.55
*	.133	170.00	.00	.00	2456.80	641.00	2457.62	2457.42	2457.71	189.63	3.75	291.19	46.55
*	.237	549.10	.00	.00	2462.20	641.00	2464.04	2463.50	2464.10	71.64	2.49	317.10	75.73
*	.237	549.10	.00	.00	2462.20	641.00	2464.04	2463.50	2464.10	71.64	2.49	317.10	75.73
*	.308	374.90	.00	.00	2467.50	481.00	2468.50	2468.48	2468.76	510.30	6.28	128.95	21.29
*	.308	374.90	.00	.00	2467.50	481.00	2468.50	2468.48	2468.76	510.30	6.28	128.95	21.29
*	.400	485.80	.00	.00	2475.00	481.00	2476.66	2476.22	2476.76	97.01	3.91	206.23	48.84
*	.400	485.80	.00	.00	2475.00	481.00	2476.66	2476.22	2476.76	97.01	3.91	206.23	48.84
*	.451	269.20	.00	.00	2480.60	481.00	2481.76	2481.76	2482.04	270.76	6.61	146.74	29.23
*	.451	269.20	.00	.00	2480.60	481.00	2481.75	2481.75	2482.04	277.86	6.67	145.37	28.86
	.529	411.90	.00	.00	2487.20	321.00	2488.89	2488.65	2489.04	91.23	4.78	135.77	33.61
	.529	411.90	.00	.00	2487.20	321.00	2488.89	2488.65	2489.05	89.29	4.74	136.95	33.97
*	.573	232.30	.00	.00	2492.00	321.00	2492.61	2492.59	2492.83	442.05	5.63	96.81	15.27
*	.573	232.30	.00	.00	2492.00	321.00	2492.60	2492.59	2492.83	461.10	5.70	95.53	14.95
*	.620	248.20	.00	.00	2496.10	321.00	2496.97	2496.83	2497.13	110.46	3.31	112.60	30.54
*	.620	248.20	.00	.00	2496.10	321.00	2496.98	2496.82	2497.13	108.22	3.29	113.44	30.86
	.717	512.10	.00	.00	2506.10	241.00	2508.45	2508.45	2508.76	359.75	6.34	69.80	12.71
	.717	512.10	.00	.00	2506.10	241.00	2508.46	2508.46	2508.76	357.91	6.33	69.93	12.74

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	.813	506.90	.00	.00	2518.80	241.00	2520.13	2520.02	2520.41	159.77	5.67	72.01	19.07
*	.813	506.90	.00	.00	2518.80	241.00	2520.13	2520.02	2520.41	160.28	5.68	71.93	19.04
	.872	311.50	.00	.00	2523.10	241.00	2524.59	2524.27	2524.75	115.81	5.22	90.11	22.39
	.872	311.50	.00	.00	2523.10	241.00	2524.59	2524.27	2524.75	115.64	5.22	90.16	22.41

H R-3: TRIBUTARY WASH

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	5.184	1793.00	2446.05	.00	.00	.00	370.81	.00
	5.184	1793.00	2446.05	.00	.00	.00	370.81	.00
*	.101	641.00	2450.96	.00	4.91	.00	459.06	328.00
*	.101	641.00	2450.96	.00	4.91	.00	459.06	328.00
*	.133	641.00	2457.62	.00	6.66	.00	536.99	170.00
*	.133	641.00	2457.62	.00	6.66	.00	536.99	170.00
*	.237	641.00	2464.04	.00	6.41	.00	330.44	549.10
*	.237	641.00	2464.04	.00	6.41	.00	330.44	549.10
*	.308	481.00	2468.50	.00	4.47	.00	229.95	374.90
*	.308	481.00	2468.50	.00	4.47	.00	229.95	374.90
*	.400	481.00	2476.66	.00	8.15	.00	207.35	485.80
*	.400	481.00	2476.66	.00	8.15	.00	207.35	485.80
	.451	481.00	2481.76	.00	5.10	.00	233.13	269.20
	.451	481.00	2481.75	-.01	5.10	-.01	232.72	269.20
	.529	321.00	2488.89	.00	7.13	.00	177.88	411.90
	.529	321.00	2488.89	.01	7.14	.01	178.59	411.90
*	.573	321.00	2492.61	.00	3.72	.00	188.54	232.30
*	.573	321.00	2492.60	-.01	3.71	-.01	188.15	232.30
*	.620	321.00	2496.97	.00	4.36	.00	192.21	248.20
*	.620	321.00	2496.98	.00	4.37	.00	192.73	248.20
*	.717	241.00	2508.45	.00	11.48	.00	138.28	512.10
*	.717	241.00	2508.46	.00	11.48	.00	138.40	512.10
*	.813	241.00	2520.13	.00	11.67	.00	86.51	506.90
*	.813	241.00	2520.13	.00	11.67	.00	86.50	506.90
	.872	241.00	2524.59	.00	4.46	.00	91.39	311.50
	.872	241.00	2524.59	.00	4.47	.00	91.39	311.50

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION SECNO=      .101  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .101  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .101  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .101  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      .133  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .133  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .237  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .237  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .308  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .308  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .400  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .400  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .451  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .451  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .451  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .451  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      .573  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .573  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .620  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .620  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .717  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .717  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .717  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .717  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      .813  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .813  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
```

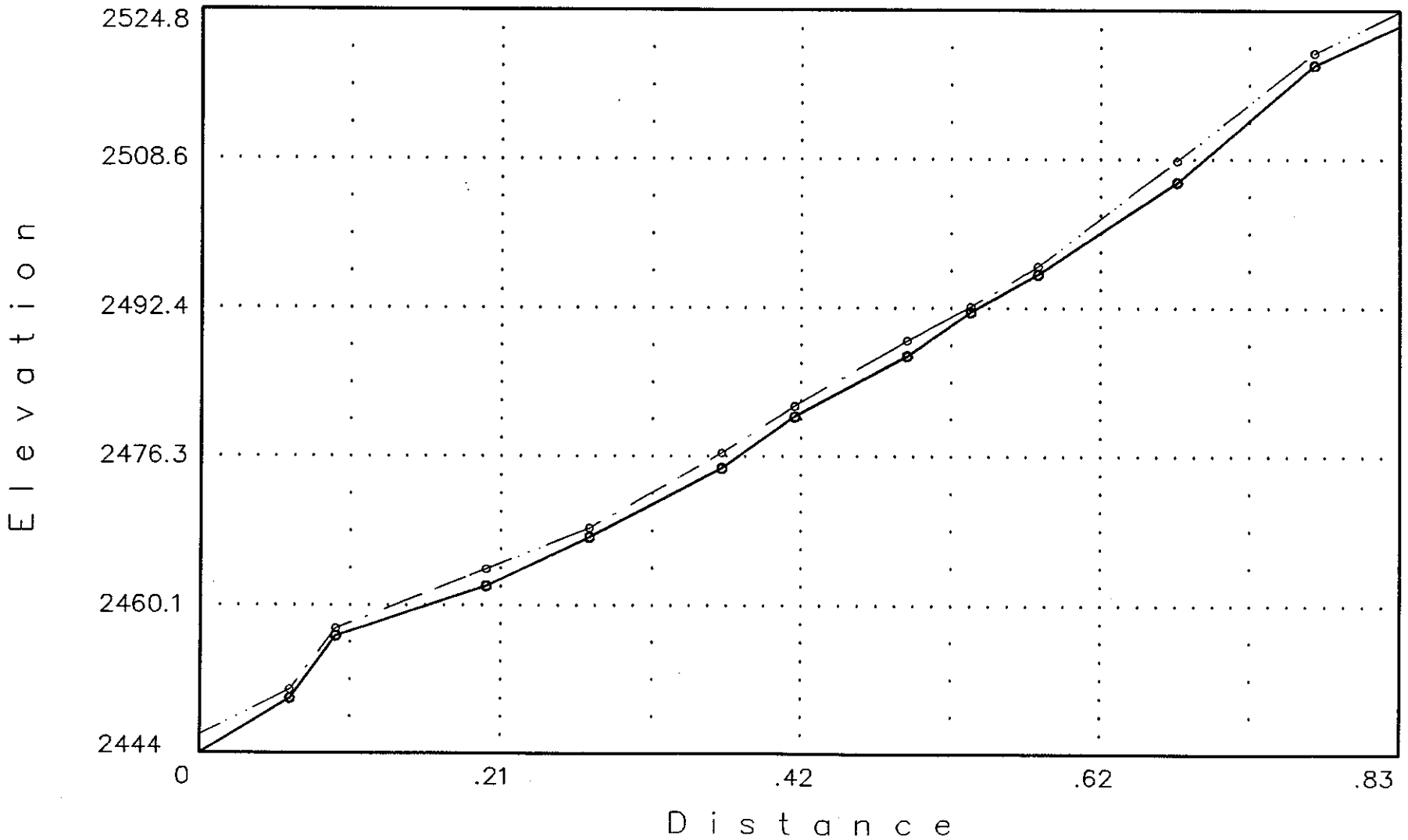
FLOODWAY DATA, WASH R-3: TRIBUTARY WASH
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
5.184	371.	576.	3.1	2446.1	2446.1	.0
.101	459.	194.	3.3	2451.0	2451.0	.0
.133	537.	291.	2.2	2457.6	2457.6	.0
.237	330.	317.	2.0	2464.0	2464.0	.0
.308	270.	129.	3.7	2468.5	2468.5	.0
.400	207.	206.	2.3	2476.7	2476.7	.0
.451	233.	145.	3.3	2481.8	2481.8	.0
.529	179.	137.	2.3	2488.9	2488.9	.0
.573	188.	96.	3.4	2492.6	2492.6	.0
.620	193.	113.	2.8	2497.0	2497.0	.0
.717	138.	70.	3.4	2508.5	2508.5	.0
.813	86.	72.	3.4	2520.1	2520.1	.0
.872	91.	90.	2.7	2524.6	2524.6	.0

<<<<<< WS ELEV. & BED ELEV. vs DISTANCE(mi) >>>>>>

Profile No. 1
Profile No. 2

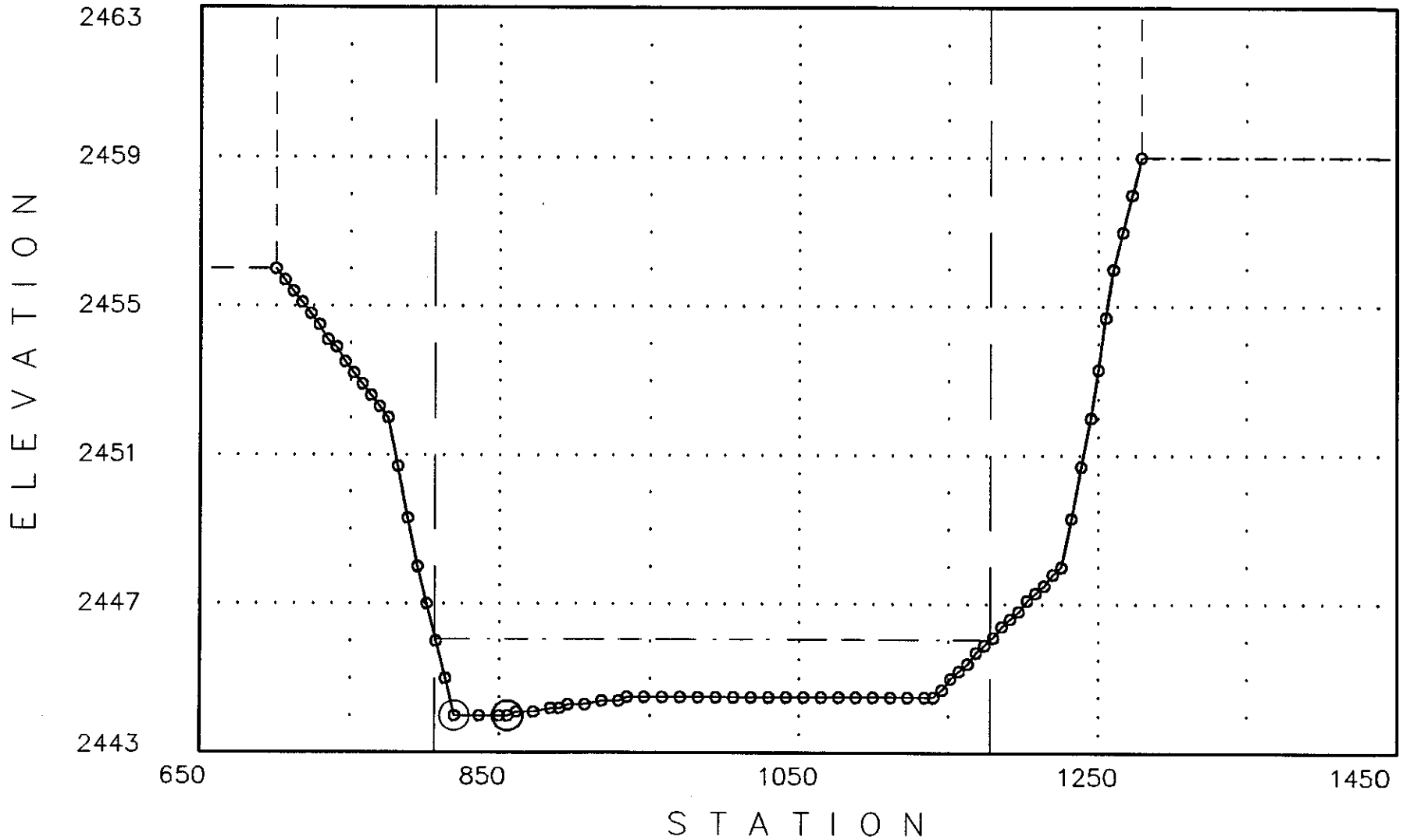
(FN=tribr3b.o)



<<<<<< Cross Section: 5.184: (FN = tribr3b.o) >>>>>>

Q1= 1793 WS1= 2446.05
Q2= 1793 WS2= 2446.05

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

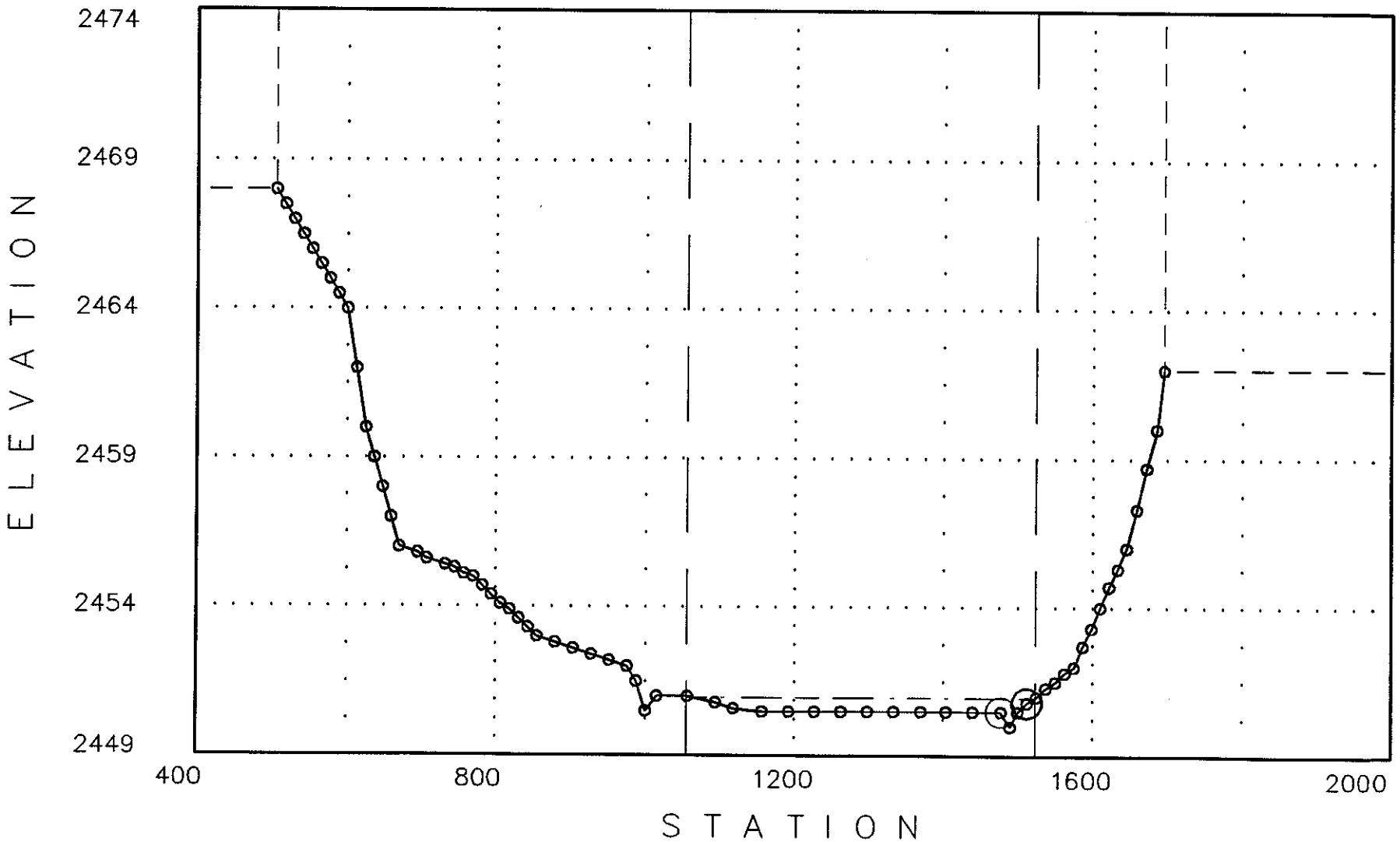


08-24-1992

<<<<<< Cross Section: .101: (FN = tribr3b.o) >>>>>>

Q1= 641 WS1= 2450.96
Q2= 641 WS2= 2450.96

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

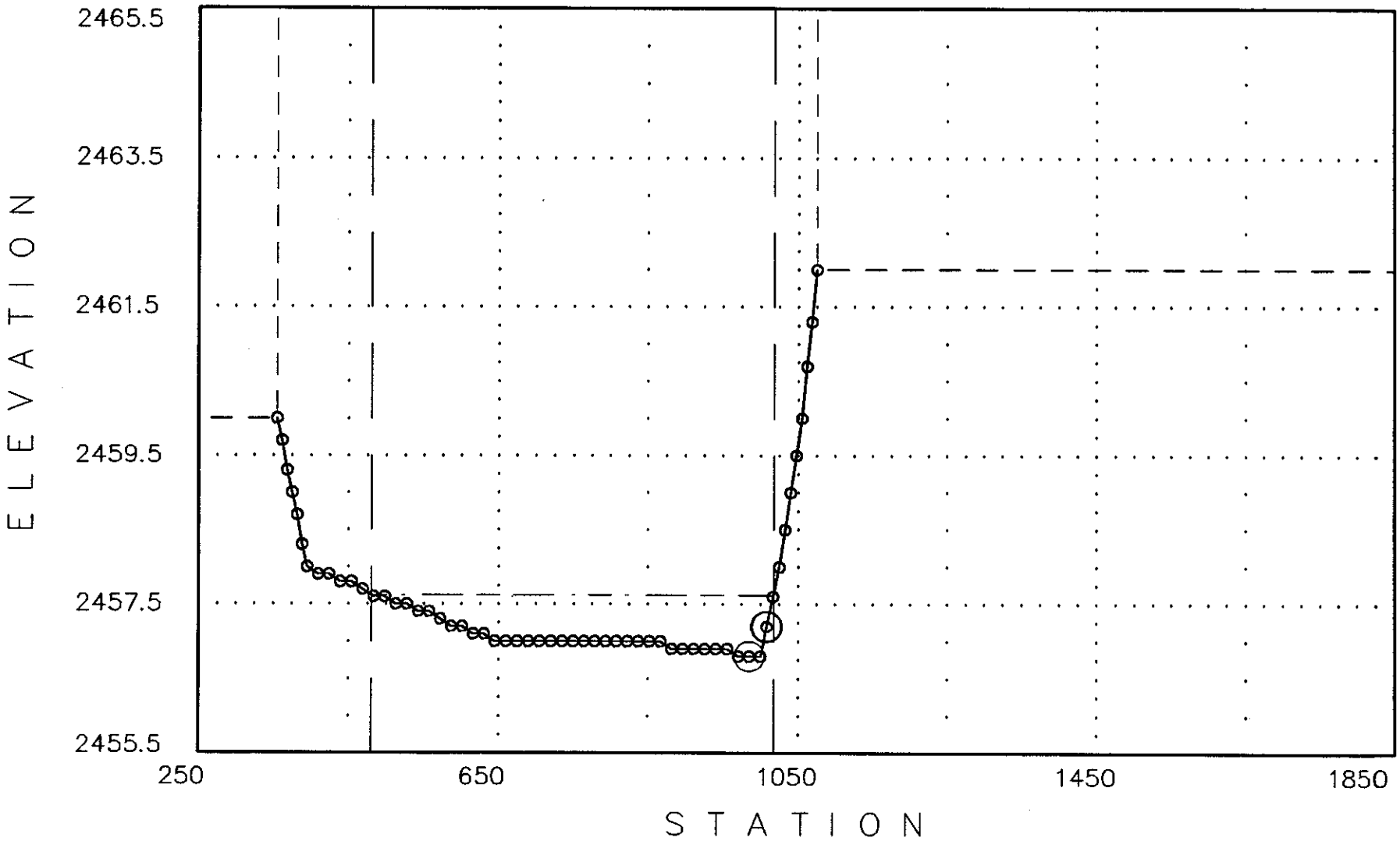


08-24-1992

<<<<<< Cross Section: .133: (FN = tribr3b.o) >>>>>>

Q1= 641 WS1= 2457.62
Q2= 641 WS2= 2457.62

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

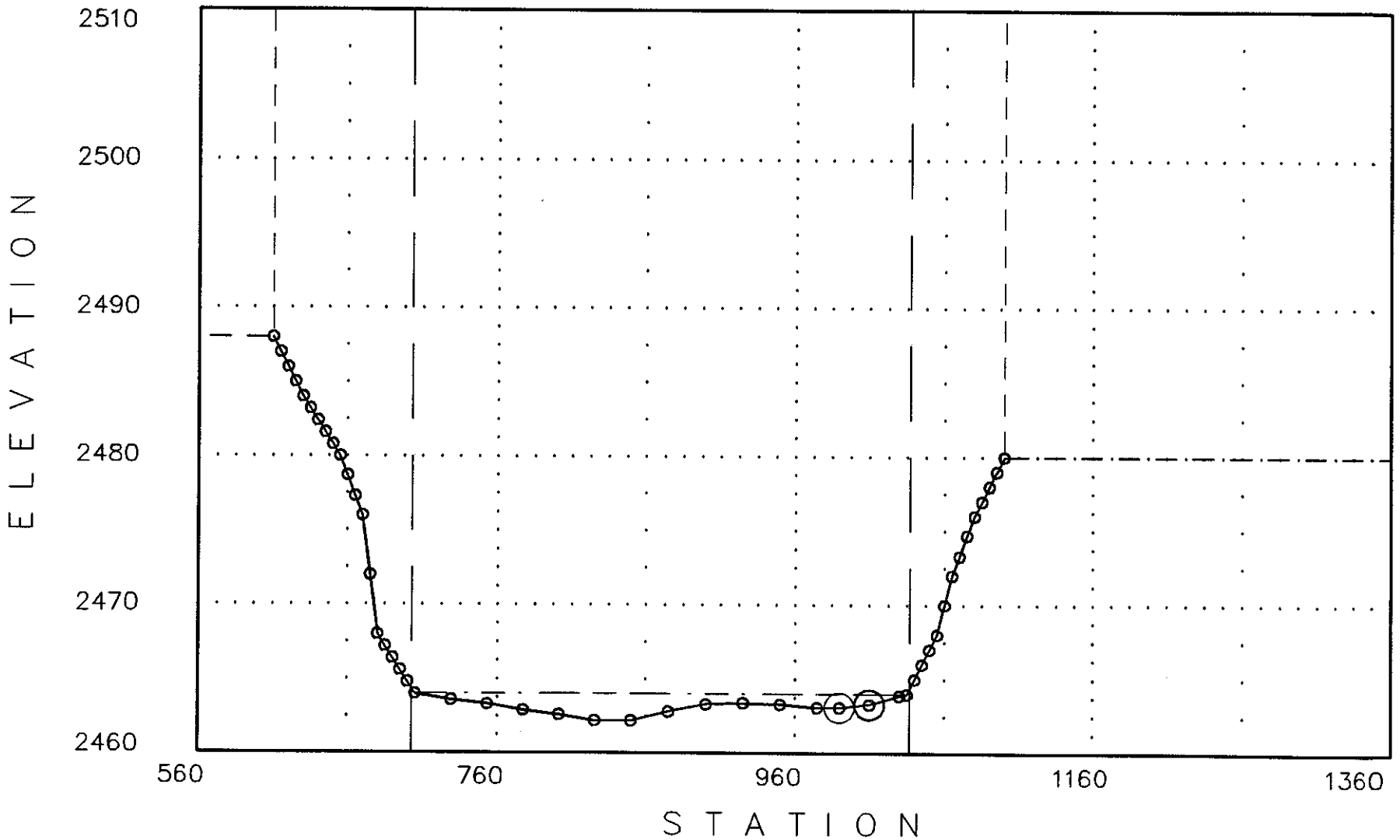


08-24-1992

<<<<<< Cross Section: .237: (FN = tribr3b.o) >>>>>>

Q1= 641 WS1= 2464.04
Q2= 641 WS2= 2464.04

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

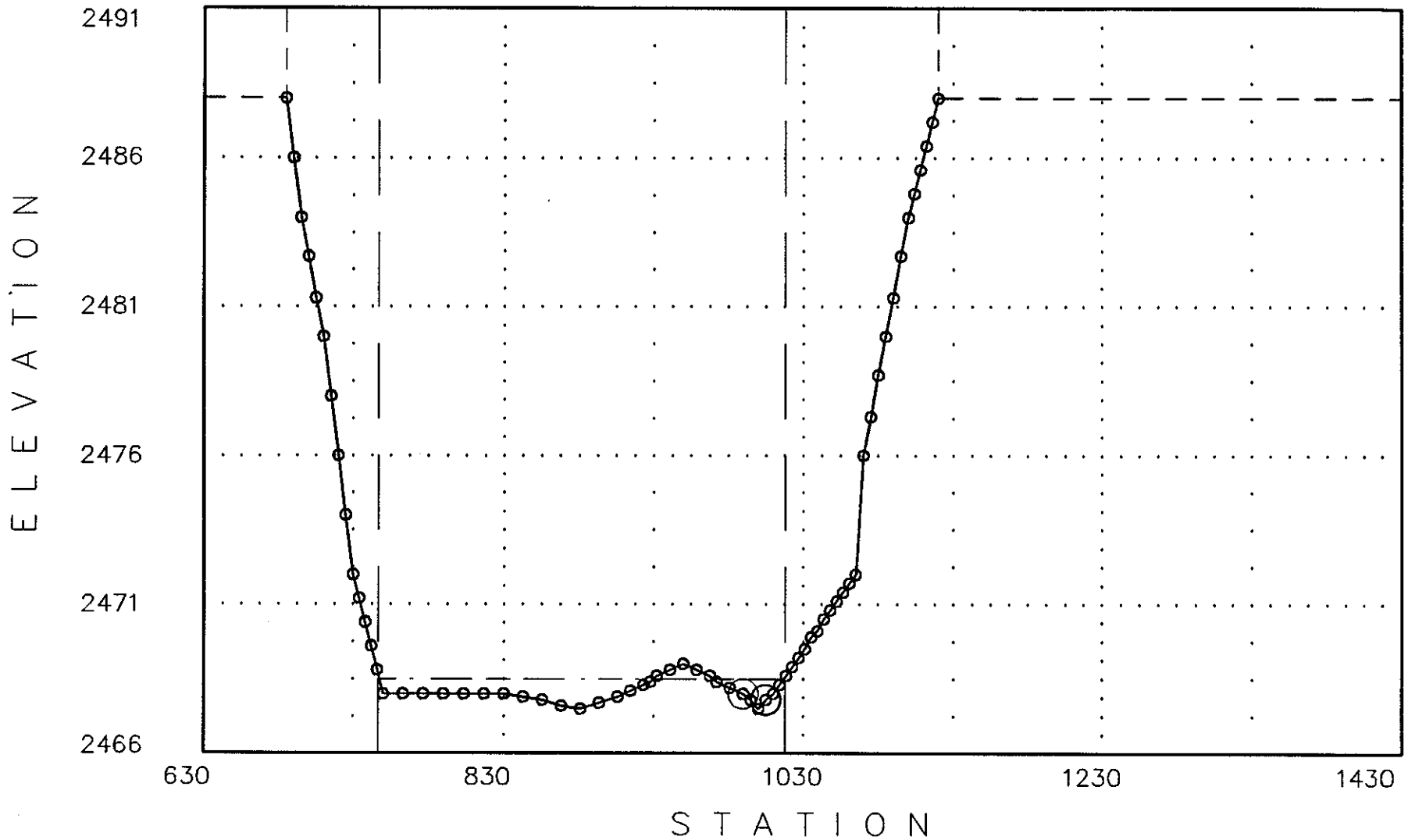


08-24-1992

<<<<<< Cross Section: .308: (FN = tribr3b.o) >>>>>>

Q1= 481 WS1= 2468.5
Q2= 481 WS2= 2468.5

Manning-n's: n-lob = .07 n-ch = .045 n-rob = .07

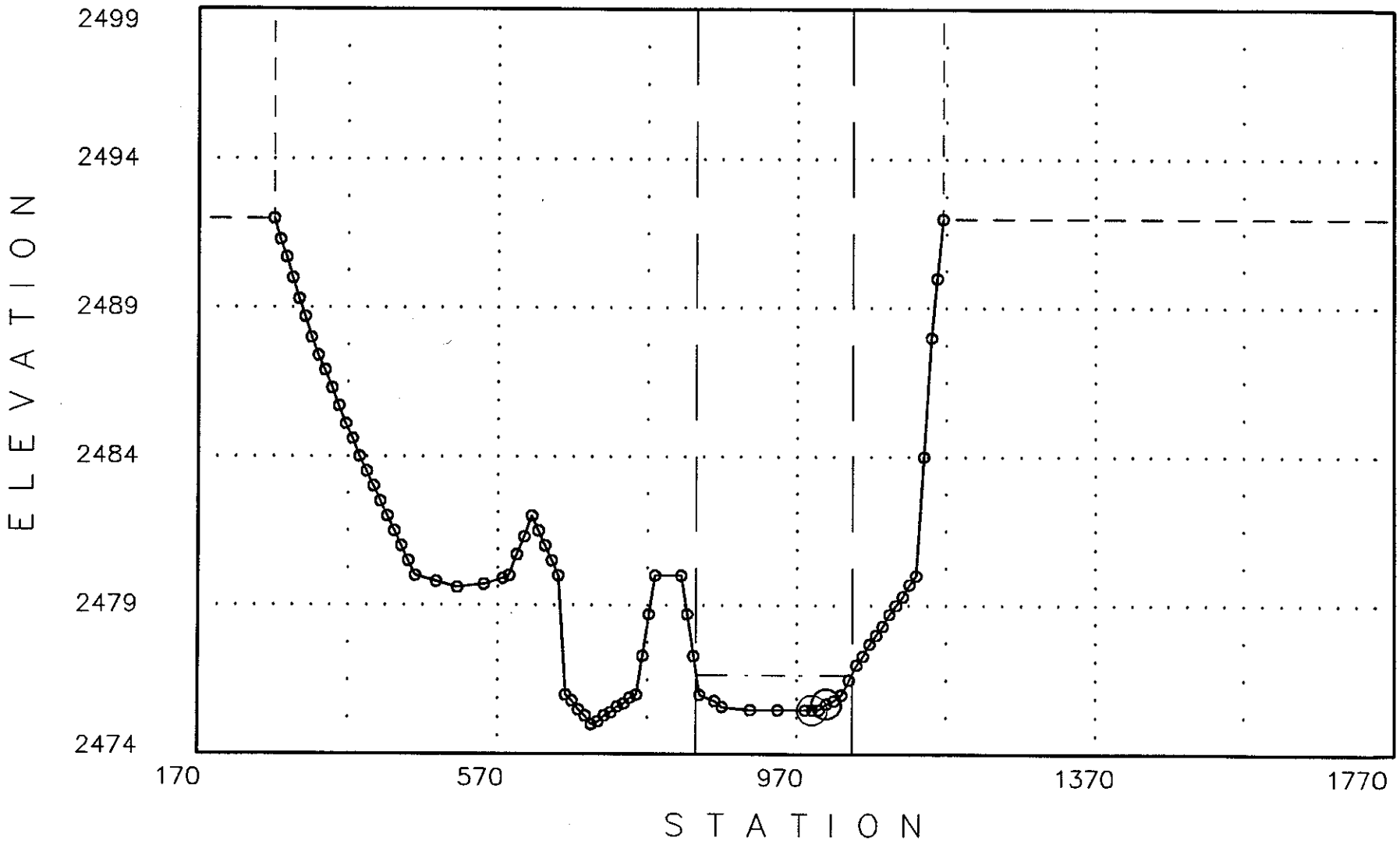


08-24-1992

<<<<<< Cross Section: .4: (FN = tribr3b.o) >>>>>>

Q1= 481 WS1= 2476.66
Q2= 481 WS2= 2476.66

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

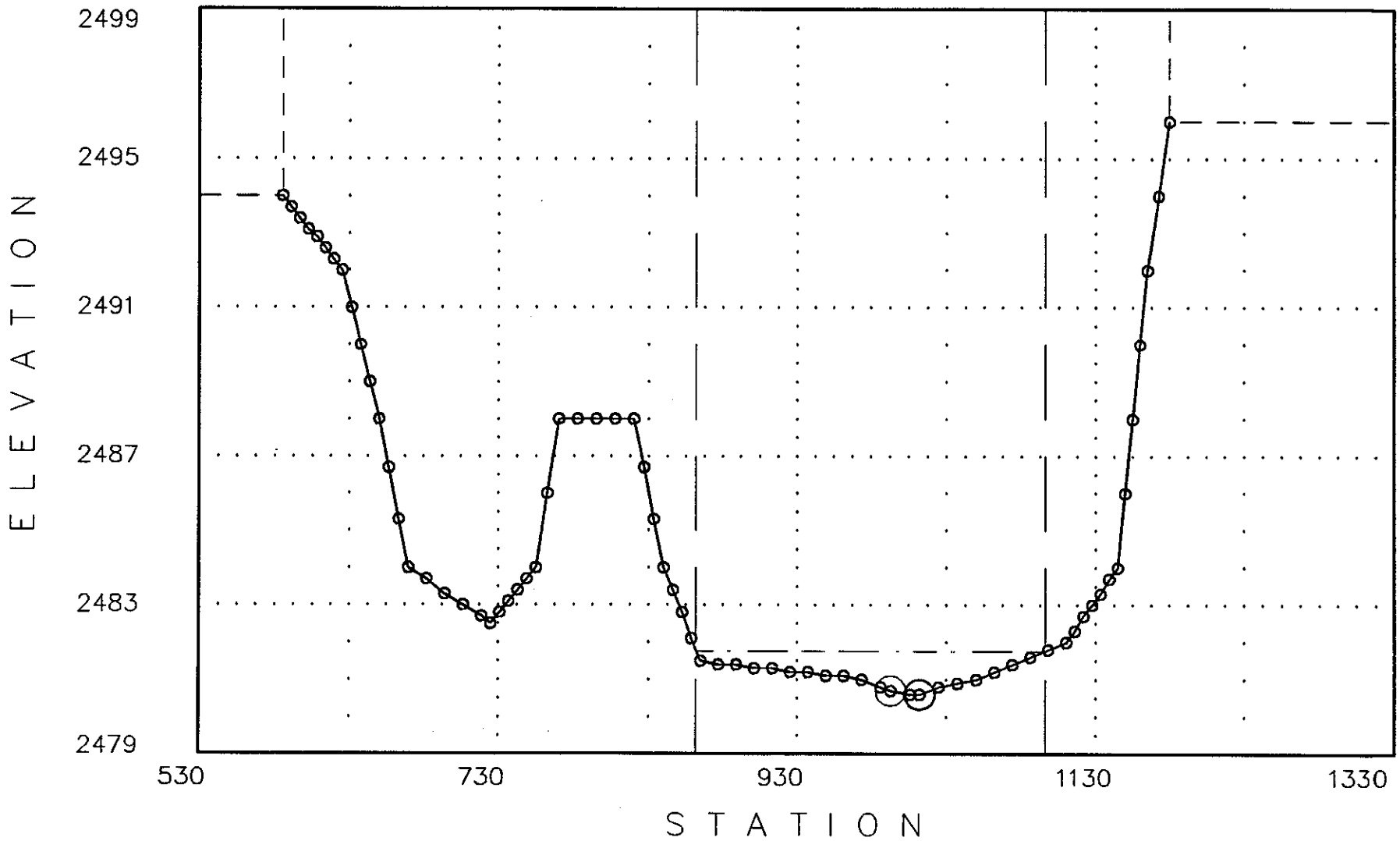


08-24-1992

<<<<<< Cross Section: .451: (FN = tribr3b.o) >>>>>>

Q1= 481 WS1= 2481.76
Q2= 481 WS2= 2481.75

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

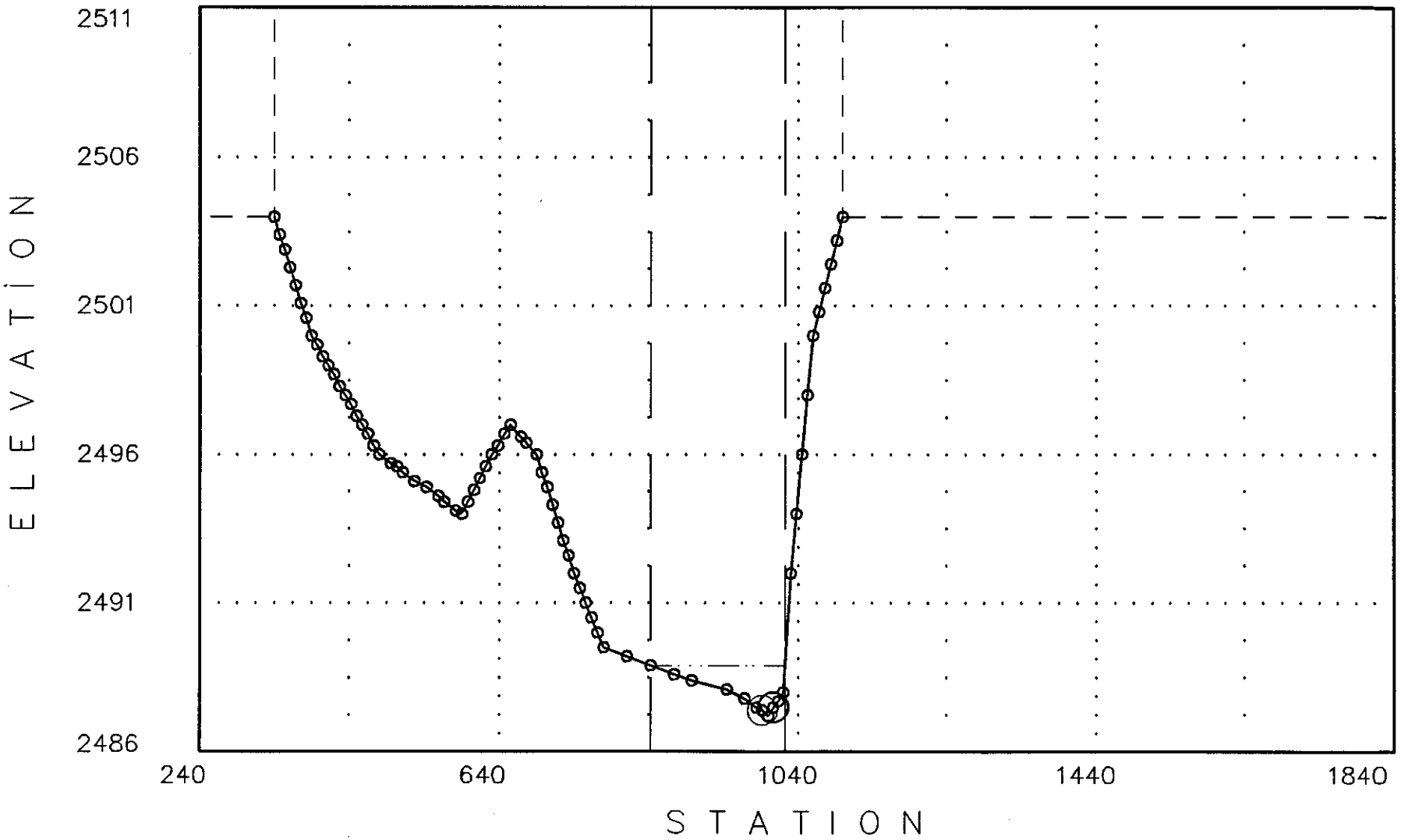


08-24-1992

<<<<<< Cross Section: .529: (FN = tribr3b.o) >>>>>>

Q1= 321 WS1= 2488.89
Q2= 321 WS2= 2488.89

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

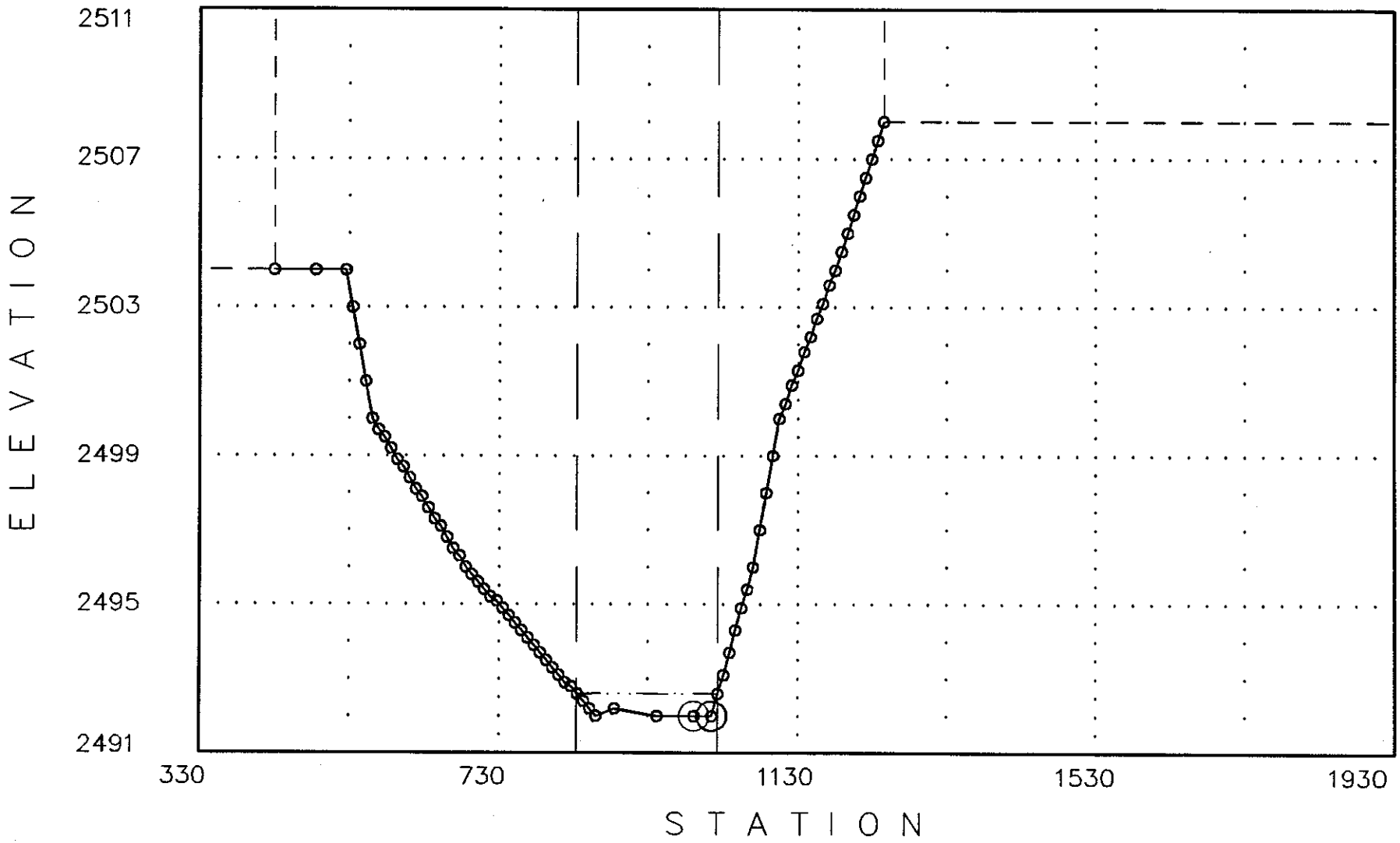


08-24-1992

<<<<<< Cross Section: .573: (FN = tribr3b.o) >>>>>>

Q1= 321 WS1= 2492.61
Q2= 321 WS2= 2492.6

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

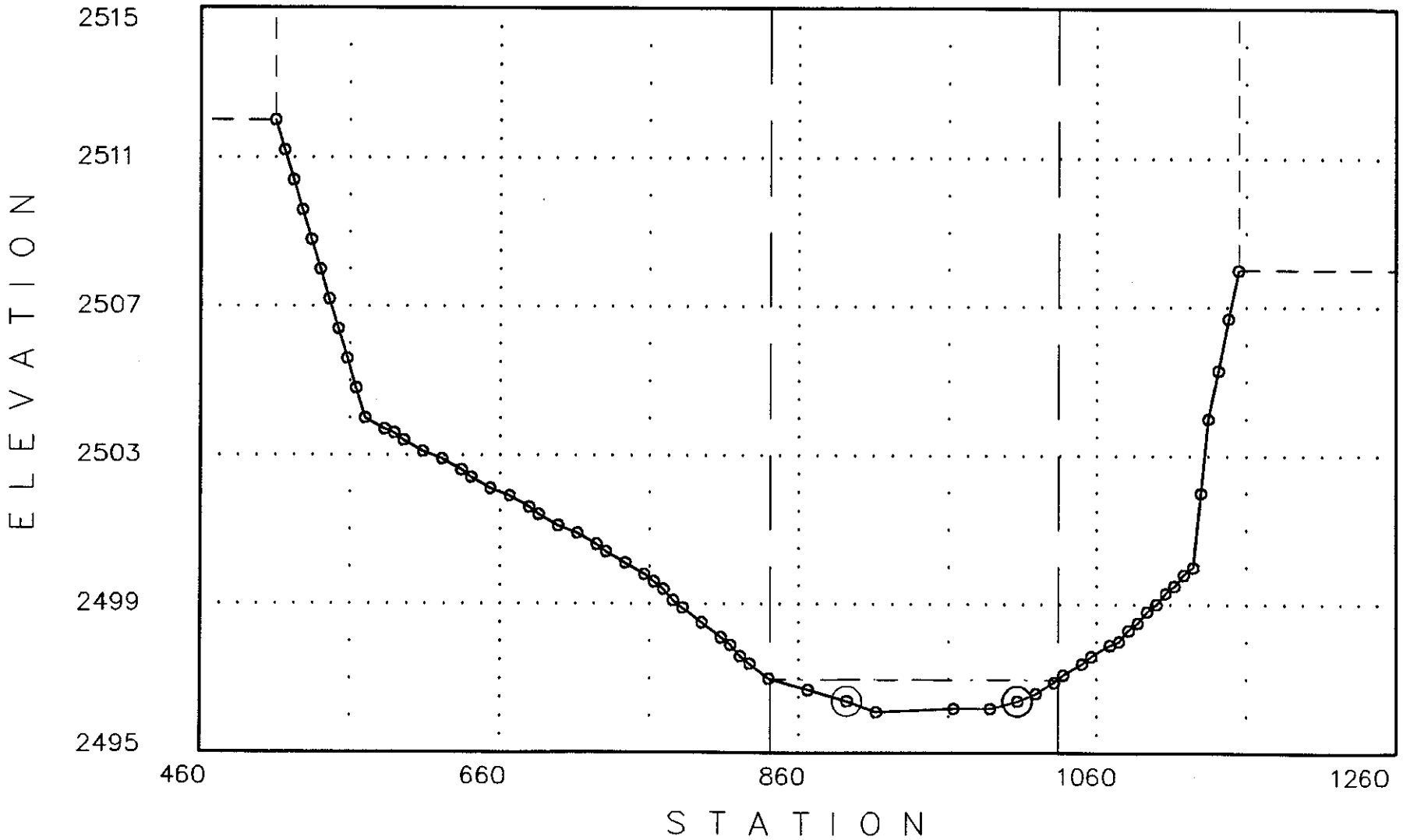


08-24-1992

<<<<<< Cross Section: .62: (FN = tribr3b.o) >>>>>>

Q1= 321 WS1= 2496.97
Q2= 321 WS2= 2496.98

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

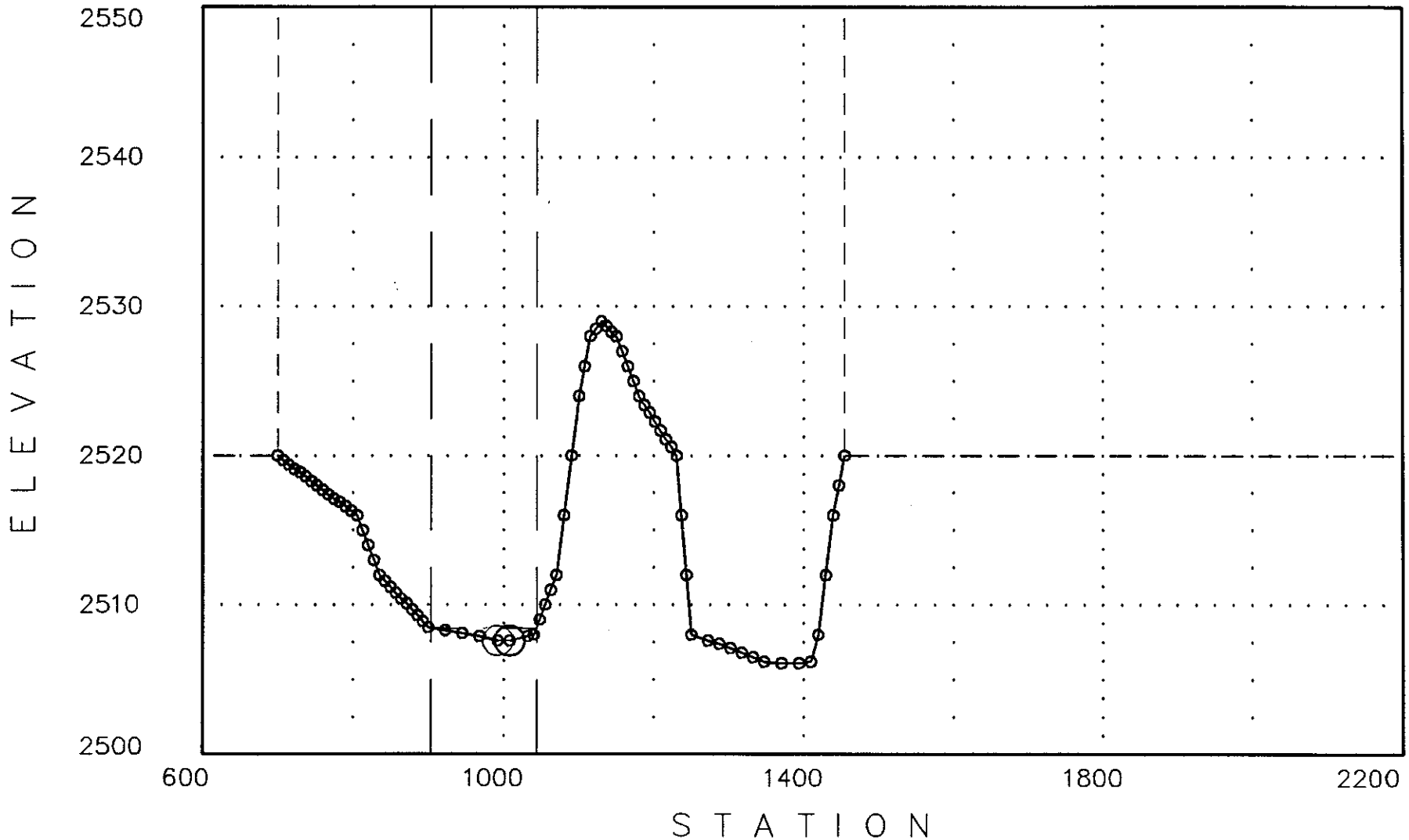


08-24-1992

<<<<<< Cross Section: .717: (FN = tribr3b.o) >>>>>>

Q1= 241 WS1= 2508.45
Q2= 241 WS2= 2508.46

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

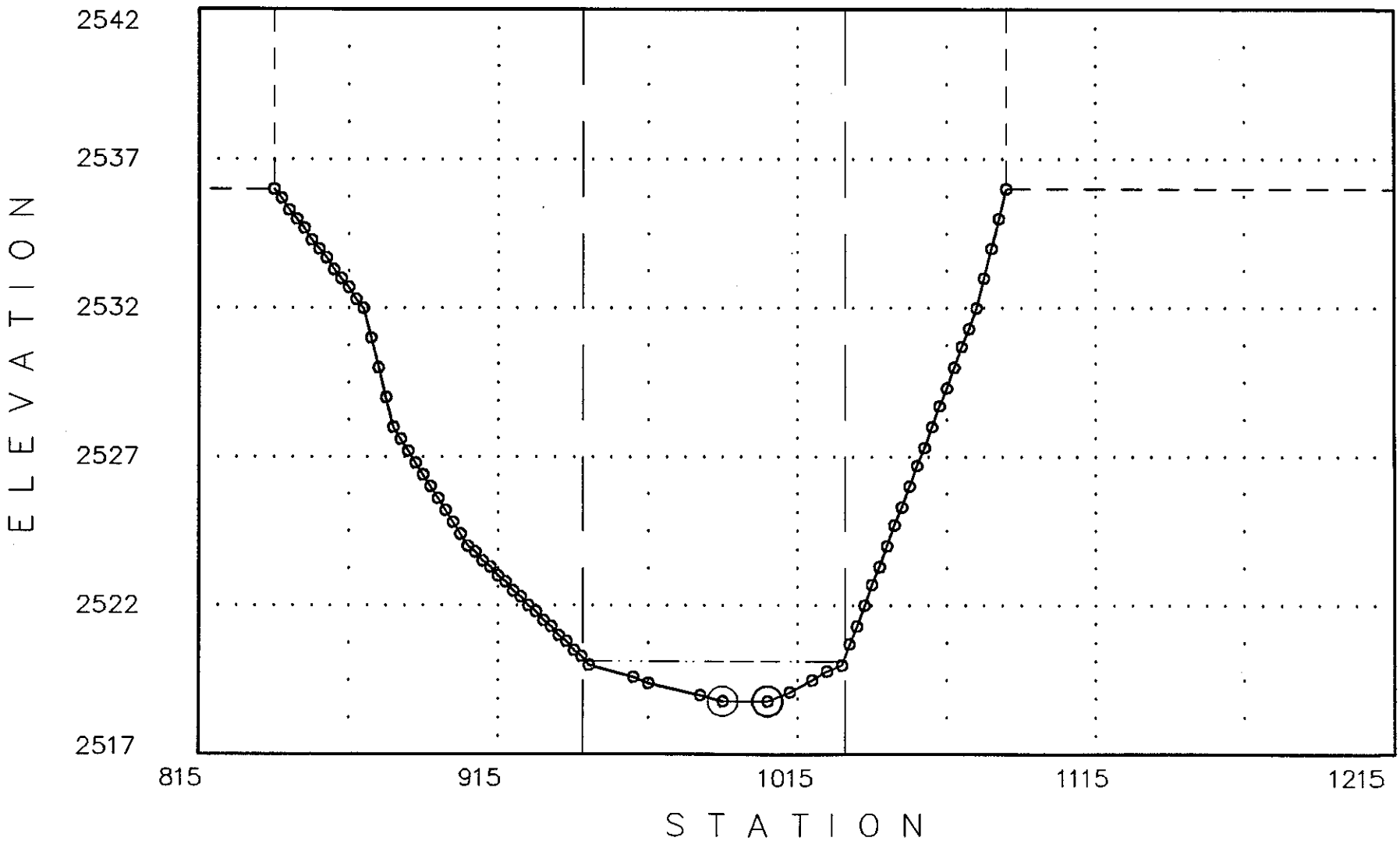


08-24-1992

<<<<<< Cross Section: .813: (FN = tribr3b.o) >>>>>>

Q1= 241 WS1= 2520.13
Q2= 241 WS2= 2520.13

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07

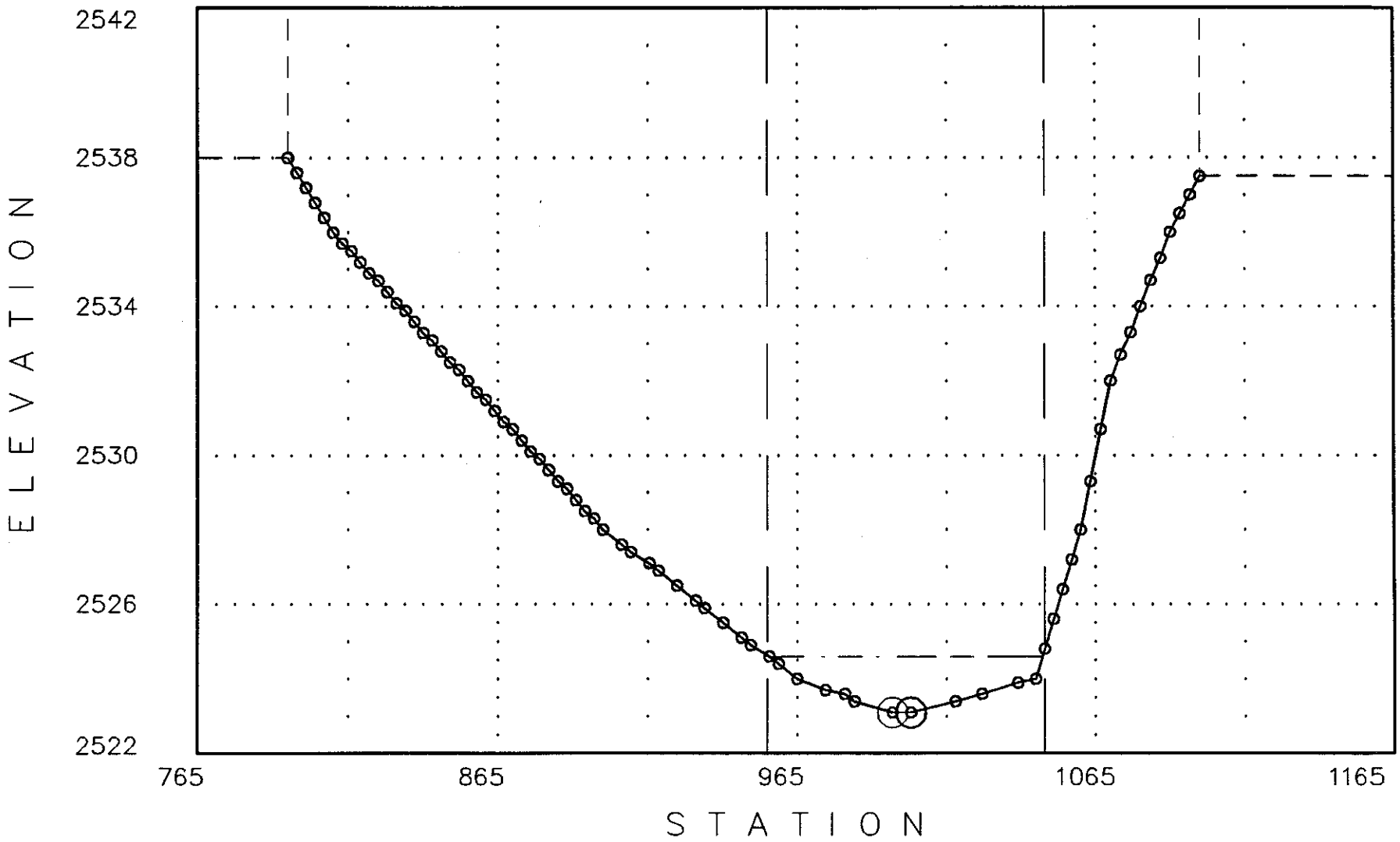


08-24-1992

<<<<<< Cross Section: .872: (FN = tribr3b.o) >>>>>>

Q1= 241 WS1= 2524.59
Q2= 241 WS2= 2524.59

Manning-n's: n-lob = .07 n-ch = .04 n-rob = .07



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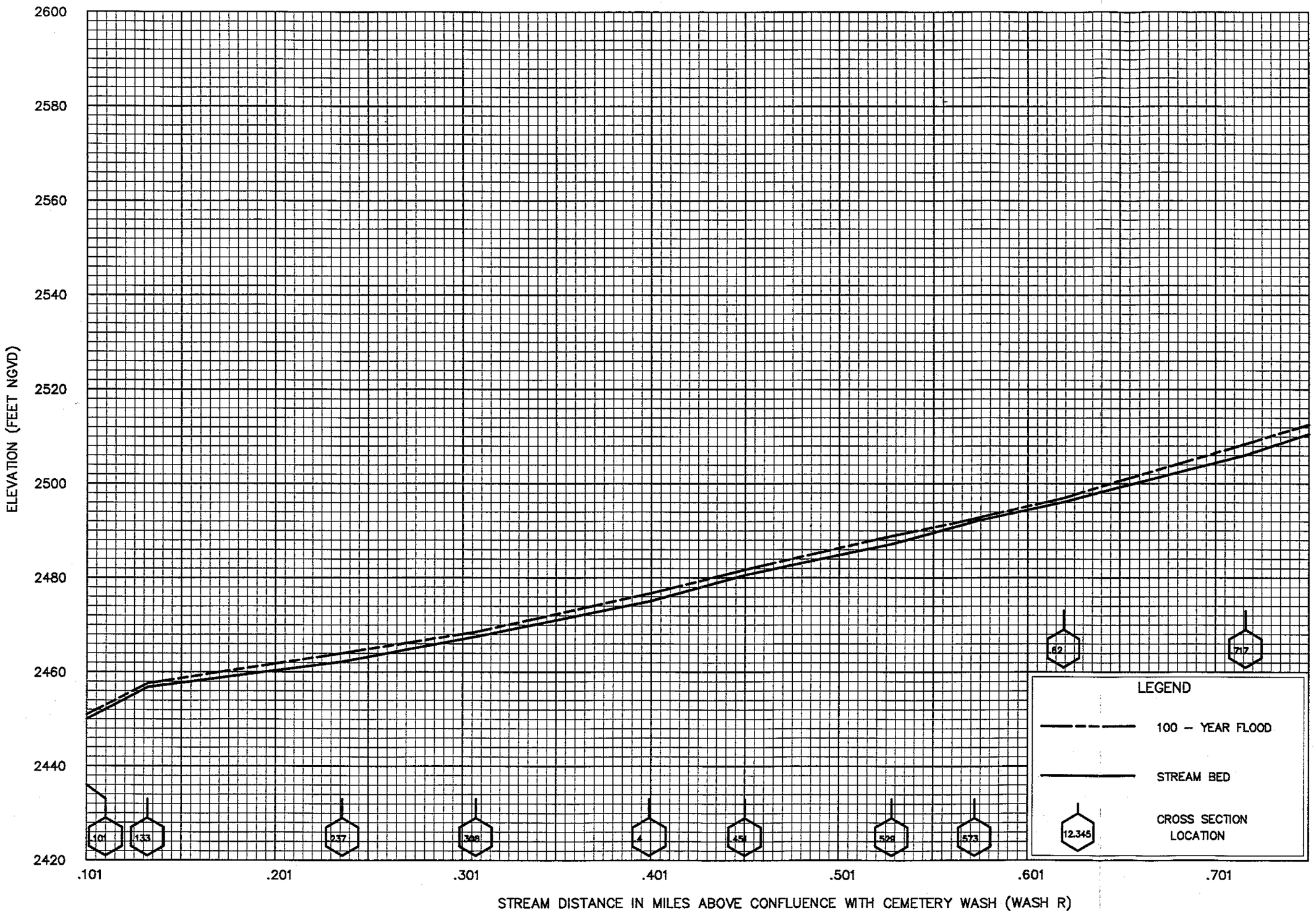


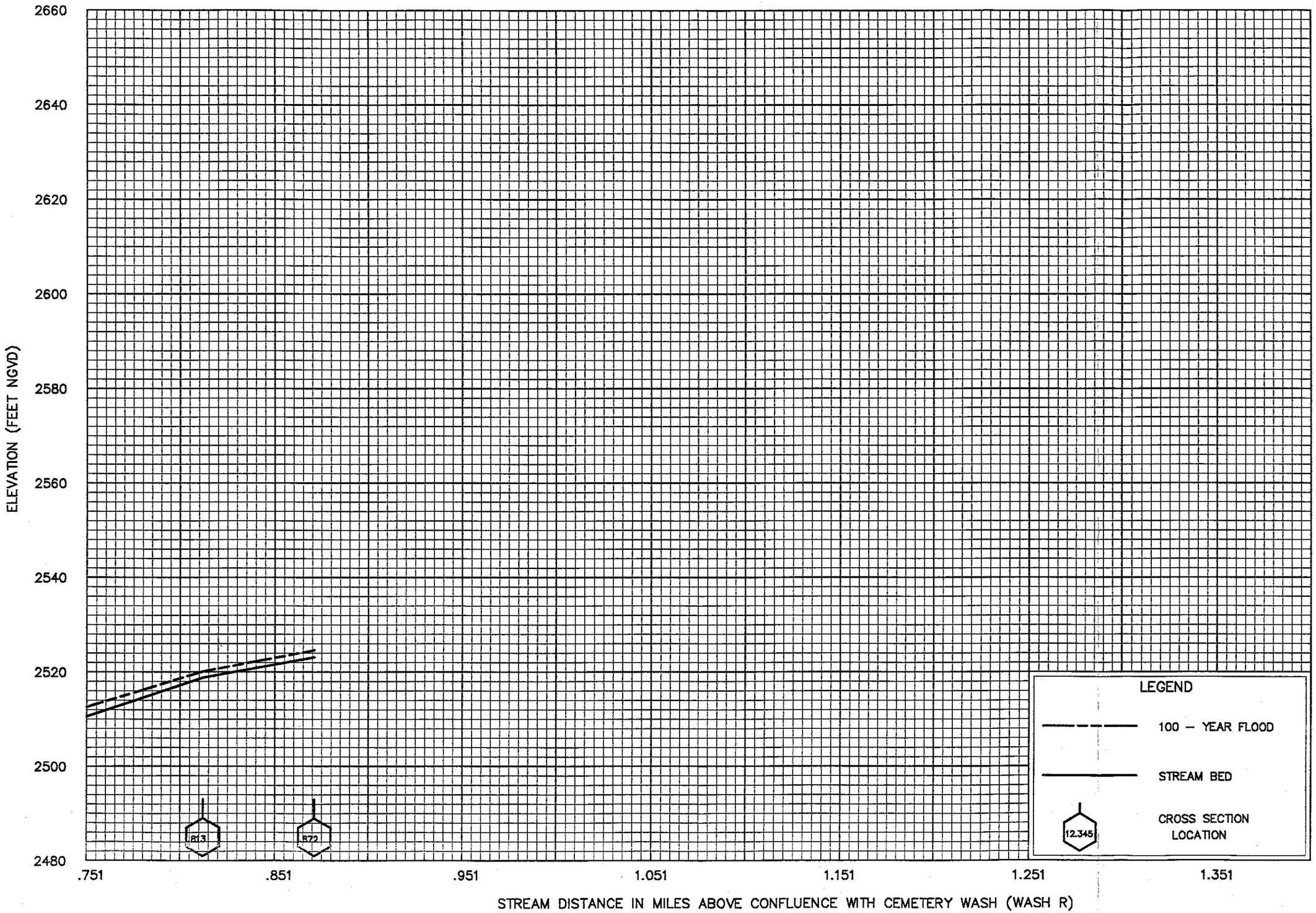
FLOOD PROFILES

TRIBUTARY #3 TO CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY

MARICOPA COUNTY, AZ
AND INCORPORATED AREAS

R3–1



FLOOD PROFILES

TRIBUTARY #3 TO CEMETERY WASH (WASH R)

FEDERAL EMERGENCY MANAGEMENT AGENCY
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