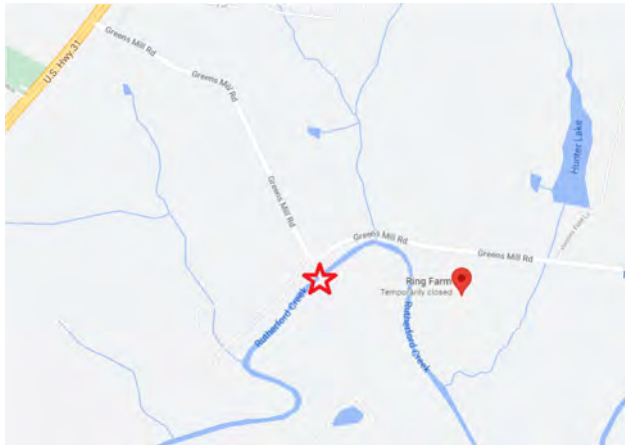




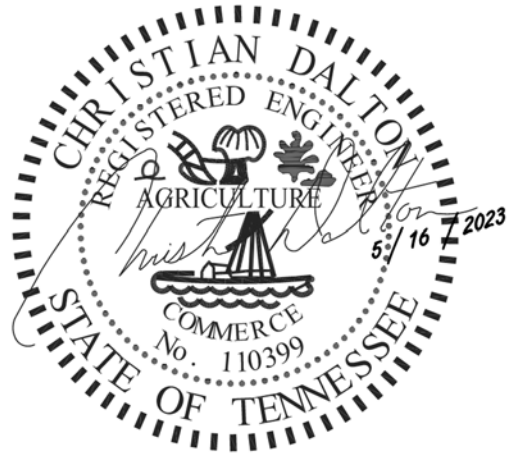
FEMA Letter of Map Revision

**Green Mill Road
Bridge Improvement
Maury County, TN**

**February 2, 2022
(Revised May 16, 2023)**



LOCATION MAP



ATTACHMENTS

Project Narrative

Application

Sediment Transport

Effective Model Information

(HEC2 Prints – August 21, 1987)

Duplicate Effective Model *(HEC2 Prints – August 21, 1987/Input int HEC-Ras Model)*

Recreated Effective Cross Sections

Effective HEC-RAS Analysis Tabular Results

FEMA Flow Data Used in Study

Existing Conditions Cross Sections

Existing Conditions HEC-RAS Analysis Tabular Results

Existing Conditions Working Drawing

Proposed Grading Plan

Proposed Bridge Data

Proposed Conditions Cross Sections

Proposed Condition HEC-RAS Analysis Tabular Results

Proposed Conditions Working Drawing

Bridge Drawings/Details

Bridge Data per the Application

Existing Conditions/Encroachments Cross Sections

Existing Conditions/Encroachment HEC-RAS Analysis Tabular Results

Proposed Conditions/Encroachment Cross Sections

Proposed Conditions/Encroachment HEC-RAS Analysis Tabular Results

Annotated FEMA PANEL

Summary Tables

No-Rise Documentation

Computer Files Attached

Existing-Final

Proposed-Final

Encroachment-Existing-Change 2 Sections

Encroachment-Proposed-Final

Project Narrative

Green Mill Property Narrative

SUMMARY:

The Federal Emergency Management Agency has established regulatory land areas that must be reserved in order to discharge the 100-Year runoff event, also noted as the base flood. Proposed improvements within such areas must provide documentation and technical data reflecting proposed development will not cumulatively increase the water surface elevation more than a designated height of 1-ft.

The proposed Greens Mill residential development includes approximately 550 single family homes, located along Greens Mill Road in Columbia, Tennessee. Greens Mill Road runs along the northern boundary of the site, parallel with Rutherford Creek. Proposed access to the development includes two access routes. The first is located on Greens Mill Road and the second along Double Branch Road. Currently, access from Green Mill Road is provided with a small bridge crossing intended for single family use. The existing crossing will be structurally deficient and inadequately sized to accommodate traffic generated by the proposed development.

Therefore, providing access to the site from Green Mill Road will require a new bridge crossing at Rutherford Creek, to increase the functionality of the crossing. The new project includes a two-lane roadway, with adjacent sidewalk for pedestrian use, with a slightly adjusted alignment from that of the existing bridge. The proposed bridge span has been closely matched to the existing structure to maintain the current behavior of the waterway. The attached analysis outlines the stream behavior associated with the proposed development.



The report herein is explicitly written to provide information to confirm the proposed project meets FEMA's requirements and demonstrates that the proposed residential bridge will have no adverse effects on water surface elevations. Supporting information outlines that upon completion, increases of WSE(s) due to backwatering effects, have not exceeded the FEMA allowable 1.0 ft.

SITE LOCATION:

The site is located at 2558 Green Mill, in Columbia, TN, Map 051, parcel 55.00.

PURPOSE OF THE STUDY:

Typical bridge openings and culverts are designed to allow stream flows associated with frequent storm events to pass without backwater effects, though such construction may still cause increase in the base flood elevations. Therefore, any proposed bridges, culverts, or other road crossings should be evaluated for their potential effect on the base flood and the associated waterway. In addition, such studies may seek to verify the accuracy of current record data through evaluation of surveyed field conditions. Significant changes in the stream channel or floodplain geometry could affect floodplains and should be considered in analysis. Such items may include added floodplain fill, stream channel migration, changes associated with significant erosion and/or depositions, whether any portions of the stream have been channelized, widened, or dredged, and whether there have been any significant changes in the vegetation in the floodplain. Utilizing hydraulic modeling we seek to identify any potential increases in water surface elevations associated with the proposed construction of a residential bridge crossing along Rutherford Creek.

STREAM DATA:

This stream site, maintained by the USGS Tennessee Water Science Center (identifier USGS-TN), has the name "RUTHERFORD CREEK NEAR SPRING HILL, TN" and has the identifier USGS-03599965. This site is in the watershed defined by the 8 digit Hydrologic Unit Code (HUC) 06040003. The watershed includes residential neighborhoods and agricultural land. Principal roadways within the study area include Carter's Creek Pike, US Highway 31, and Kedron Road. Due to the rural nature of the area, rapid runoff associated with impervious surfaces should not contribute to flooding in the area.

FEMA PANEL:

The Flood Insurance Rate Map (FIRM), published by the Federal Emergency Management Agency (FEMA), depicts flood risk information and supporting data used to develop the risk data. The primary risk classifications used are the 1-percent-annual-chance flood event, the 0.2-percent-annual-chance flood event, and areas of minimal flood risk. The FIRM Database is derived from Flood Insurance Studies (FISs), previously published Flood Insurance Rate Maps (FIRMs), flood hazard analyses performed in support of the FISs and FIRMs, and new mapping data where available. Insurance applications include enforcement of the mandatory purchase requirement of the Flood Disaster Protection Act, which requires the purchase of flood insurance by property owners who are being assisted by Federal programs or by Federally supervised. Per FEMA PANEL 47119C0180E (Effective Date-April 16, 2007), the site of interest DOES lie within an area identified as having special flood hazard.

PLAN DATA:

FEMA provides guidelines describing the tasks needed to demonstrate allowable WSE increases. The guidelines state that the effective FEMA hydraulic model is the primary tool used to demonstrate site compliance based upon the Army Corps of Engineers' backwater programs such as HEC-RAS or HEC-2. The site-specific model results demonstrate that the project will not increase 100-year storm event water levels beyond the allowable 1-ft of rise.

COMPUTER MODEL:

Our data was processed using a computer model, HEC-RAS, which was developed by the U.S. Army Corps of Engineers' Hydrologic Engineering Center. Utilizing cross section data, discharges, stream

characteristics such as roughness and slope, in addition to locations and sizes of structures, the program can make the necessary calculations of the effects of proposed development. Changes in hydraulic conditions of a stream usually occur when new bridges, culverts and road crossings are constructed, and when there are changes in the physical characteristics of the stream. If a bridge or culvert is not properly sized, it can cause waters to back-up, which increases water levels upstream. Therefore, we seek to limit any increase in water surface elevation increase to 1-ft of rise. Our analysis followed the FEMA guidelines and modified the effective model to create an HEC-RAS model that contains sufficient detail to evaluate comparisons between existing and proposed conditions.

Existing Conditions Model:

Survey data was utilized to prepare the existing or pre-project conditions model to reflecting modifications that may have occurred or been permitted within the floodplain since the date of the FEMA Panel preparation.

CROSS SECTIONS:

Detailed stream studies examine the areas through which floodwater will flow, or rather the stream cross section areas. This requires a determination of ground elevations and obstructions to flow (such as vegetation, buildings, bridges, and other development) for these areas. The channel geometry and changes in the floodplain for our study were obtained from LIDAR survey, aerial photography, or topographic maps. LIDAR recorded elevations allowed the establishment of changes in the ground levels or stream characteristics as elevations relative to the referenced datum, of NAD 88. Graphical depictions of the stream were then established in the form of cross sections at specific points along the stream. The sections were taken at right angles to the flow of the stream. Bends were added to the sections to avoid any section overlap. Each section has been geo-located within the model to represent real data georeferenced to earth's surface using the UTM projection and coordinate system.

LIDAR topographical information for the site of interest was applied and reach lengths were coordinated through AutoCAD placements. Based on the aerial for the waterway, the stream banks are tree lined with dense vegetation. For the existing and proposed models referenced, Water Surface Elevations "WSE(s)" for the 10-, 50-, 100-, and 500-Year storm events are provided.

The cumulative reach lengths of the waterway have also been updated. The resulting geometry information noted is as the "Existing Conditions Model." The resulting plan information saved as Plan "Existing." Roughness coefficients were maintained within the new cross section areas and no ineffective flow areas were noted.

Proposed Conditions Model:

The existing conditions model was modified to reflect the proposed development using the updated topo conditions cross-sections, with the addition of the proposed waterway crossing. The overbank roughness parameters remained the same. Ineffective flow areas were added to cross sections adjacent to the proposed bridge location. The resulting geometry information noted is as the "Proposed Conditions Model." The resulting plan information saved as Plan "Proposed."

BRIDGE CONSTRUCTION:

The proposed crossing consists of 35'-0" wide vehicular lane crossing, with a 110'-0" clear span. The structure will consist of a typical gravity abutment support including the bridge seat, backwall, footing, and wing walls to hold the bridge's deck. The vertical loading for the structure will be supported by a foundational footing, distributing the weight of the structure. The footing, backwall, and wings will be constructed from reinforced concrete, connecting the surface deck of the bridge to the ground. The backwall will include a bridge seat consisting of a horizontal shelf to support the bridge deck. Granular backfill material will be placed to relieve potential earth pressure on both the backwalls and wingwall locations. The abutment will form a retaining wall for the embankment

with wing walls placed at a slight backward angle to provide controlled routing through the bridge opening and prevent erosion around the approach, while also adding stability. The 110-ft bridge span will be achieved with the use of an I-BEAM supports. Final decking will consist of metal sleepers. Guardrail is also proposed. No fill is proposed as part of the bridge construction, apart from the material utilized for the abutment. Upon project completion, the bridge will serve as the ingress/egress point to the family residence.

ROUGHNESS FACTORS:

All hydraulic computations involving flow in open channels require an evaluation of the roughness characteristics of the channel. Roughness factors relate to ground surface conditions and reflect changes in floodwater velocity due to ground friction. At the present state of knowledge, the selection of roughness coefficients for natural channels remains chiefly engineering judgement. Roughness factors associated with the effective modeling provided by TEMA, included Roughness factors of .06 (noted as heavy stands of timber). Stream channel roughness values were .03 (main channel with weeds and stones, ineffective slopes and lower stages). Aerial information was used in the hydrologic analysis to establish verify the roughness factors for the site.

RESULTS:

The hydraulic computer program determinations WSE(s) elevations, velocities, and flow widths at each cross section for a range of flow frequencies. These elevations are the primary source of data used to analyze the construction impacts. Water-Surface Elevations (WSEL) for the 10-, 50-, 100-, and 500-year events are provided for review. Although the project will, in some places, increase the WSE slightly, this does not result in a net increase in water surface elevations exceeding the 1-ft allowable. Basic hydraulic theory, based upon the energy equation, suggests that constrictions into a river channel that reduce the cross-sectional area, will cause a rise in the elevation of the Energy Grade Line (EGL), which represents the total energy of the river flow. Slight constrictions within the river can cause a rise in the EGL but also an increase the velocity. It should be noted that the changes in velocity are negligibly small, and will not have any impact (e.g. scour or erosion), and are also insufficient to impact the water surface elevation. Rather the changes in WSE appear to be due solely to flow construction through the proposed structure.

Application

DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
RIVERINE HYDROLOGY & HYDRAULICS FORM (FORM 2)

OMB Control Number: 1660-0016
Expiration: 1/31/2024

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 3.5 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless it displays a valid OMB control number. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, Paperwork Reduction Project (1660-0016). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. **Please do not send your completed survey to the above address.**

PRIVACY ACT STATEMENT

AUTHORITY: The National Flood Insurance Act of 1968, Public Law 90-448, as amended by the Flood Disaster Protection Act of 1973, Public Law 93-234.

PRINCIPAL PURPOSE(S): This information is being collected for the purpose of determining an applicant's eligibility to request changes to National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRM).

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DISCLOSURE: The disclosure of information on this form is voluntary; however, failure to provide the information requested may delay or prevent FEMA from processing a determination regarding a requested change to a (NFIP) Flood Insurance Rate Maps (FIRM).

Flooding Source: Rutherford Creek

Note: Fill out one form for each flooding source studied

A. HYDROLOGY

1. Reason for New Hydrologic Analysis (check all that apply):

- Not revised (skip to section B)
 No existing analysis
 Improved data
 Alternative methodology
 Proposed Conditions (CLOMR)
 Changed physical condition of watershed

2. Comparison of Representative 1%-Annual-Chance Discharges

Location	Drainage Area (Sq. Mi.)	Effective/FIS (cfs)	Revised (cfs)
Section V	61.67	16690	16690

3. Methodology for New Hydrologic Analysis (check all that apply)

- Precipitation/Runoff Model → Specify Model: _____ Duration: _____ Rainfall Amount: _____
 Statistical Analysis of Gage Records
 Regional Regression Equations
 Other (please attach description)

Please enclose all relevant models in digital format, maps, computations (including computation of parameters), and documentation to support the new analysis.

4. Review/Approval of Analysis

If your community requires a regional, state, or federal agency to review the hydrologic analysis, please attach evidence of approval/review. 4. HEC-RAS File Description**:

5. Impacts of Sediment Transport on Hydrology

Is the hydrology for the revised flooding source(s) affected by sediment transport?
 Yes
 No

If yes, then fill out Section F (Sediment Transport) of Form 3. If No, then attach your explanation.

B. HYDRAULICS

1. Reach to be Revised

	Description	Cross Section	Water-Surface Elevation (ft.)	
			Effective	Proposed/Revised
Downstream Limit*	000' Down of Phys Chang	2000	614.73	614.80
Upstream Limit*	1000' Up of Phys Change	0	619.88	619.22

*Proposed/Revised elevations must tie-into the Effective elevations within 0.5 foot at the downstream and upstream limits of revision.

2. Hydraulic Method/Model Used: MAPPING is NAVD 88

Steady State Unsteady State One-Dimensional Two-Dimensional

3. Pre-Submittal Review of Hydraulic Models*

DHS-FEMA has developed two review programs, CHECK-2 and CHECK-RAS, to aid in the review of HEC-2 and HEC-RAS hydraulic models, respectively. We recommend that you review your HEC-2 and HEC-RAS models with CHECK-2 and CHECK-RAS.

4. HEC-RAS File Description**:

Models Submitted	Natural Run		Floodway Run		Datum
Duplicate Effective Model*	File Name:	Plan Name:	File Name:	Plan Name:	
	Existing-Final	Existing-Final			
Corrected Effective Model*	File Name:	Plan Name:	File Name:	Plan Name:	
	Existing-Final	Existing-Final			
Existing or Pre-Project Conditions Model	File Name:	Plan Name:	File Name:	Plan Name:	
	Existing-Final	Existing-Final			
Revised or Post-Project Conditions Model	File Name:	Plan Name:	File Name:	Plan Name:	
	Proposed-Final	Proposed-Final			
Other - (attach description)	File Name:	Plan Name:	File Name:	Plan Name:	
	Encroachment-Existing-Change 2 Sections		ENCR-EX-CH-2-Sections		
	Encroachment-Proposed-Final		ENCR-PRO-FINAL		

* For details, refer to the corresponding section of the instructions.

**See instructions for information about modeling other than HEC-RAS. Digital Models Submitted? (Required)

C. MAPPING REQUIREMENTS

A **certified topographic work map** must be submitted showing the following information (where applicable): the boundaries of the effective, existing, and proposed conditions 1%-annual-chance floodplain (for approximate Zone A revisions) or the boundaries of the 1%- and 0.2%-annual-chance floodplains and regulatory floodway (for detailed Zone AE, AO, and AH revisions); location and alignment of all cross sections with stationing control indicated; stream, road, and other alignments (e.g., dams, levees, etc.); current community easements and boundaries; boundaries of the requester's property; certification of a registered professional engineer registered in the subject State; location and description of reference marks; and the referenced vertical datum (NGVD, NAVD, etc.).

Topographic Information: Digital Mapping (GIS/CADD) Data Submitted (preferred)

Source: **LIDAR SURVEY**

Date: **December 2, 2022**

Vertical Datum: **NAVD 88**

Spatial Projection: **102736.prj**

Accuracy:

Note that the boundaries of the existing or proposed conditions floodplains and regulatory floodway to be shown on the revised FIRM and/or FBFM must tie-in with the effective floodplain and regulatory floodway boundaries. Please attach a **copy of the effective FIRM and/or FBFM**, at the same scale as the original, annotated to show the boundaries of the revised 1%-and 0.2%-annual-chance floodplains and regulatory floodway that tie-in with the boundaries of the effective 1%-and 0.2%-annual-chance floodplain and regulatory floodway at the upstream and downstream limits of the area on revision.

Annotated FIRM and/or FBFM (Required)

D. COMMON REGULATORY REQUIREMENTS*

1. For LOMR/CLOMR requests, do Base Flood Elevations (BFEs) or Special Flood Hazard Areas (SFHAs) increase compared to the effective BFEs? Yes No
- If Yes, please attach **proof of property owner notification**. Examples of property owner notifications can be found in the MT-2 Form 2 Instructions.
2. For CLOMR requests, if either of the following is true, please submit **evidence of compliance with Section 65.12 of the NFIP regulations**:
- The proposed project encroaches upon a regulatory floodway and would result in increases above 0.00 foot compared to pre-project conditions.
 - The proposed project encroaches upon a SFHA with or without BFEs established and would result in increases above 1.00 foot compared to pre-project conditions.
3. Does the request involve the placement or proposed placement of fill? Yes No
- If Yes, the community must be able to certify that the area to be removed from the special flood hazard area, to include any structures or proposed structures, meets all of the standards of the local floodplain ordinances, and is reasonably safe from flooding in accordance with the NFIP regulations set forth at 44 CFR 60.3(A)(3), 65.5(a)(4), and 65.6(a)(14). Please see the MT-2 instructions for more information.
4. Does the request involve the placement or proposed placement of fill? Yes No
- If Yes, attach **evidence of regulatory floodway revision notification**. As per Paragraph 65.7(b)(1) of the NFIP Regulations, notification is required for requests involving revisions to the regulatory floodway Elements and examples of regulatory floodway revision notification can be found in the MT-2 Form 2 Instructions.
5. For CLOMR requests, please submit documentation to FEMA and the community to show that you have complied with Sections 9 and 10 of the Endangered Species Act (ESA). For actions authorized, funded, or being carried out by Federal or State agencies, please submit documentation from the agency showing its compliance with Section 7(a)(2) of the ESA. Please see the MT-2 instructions for more detail.

DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
RIVERINE STRUCTURES FORM (FORM 3)

OMB Control Number: 1660-0016
Expiration: 1/31/2024

PAPERWORK BURDEN DISCLOSURE NOTICE

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Flooding Source: _____

Note: Fill out one form for each flooding source studied

A. GENERAL

Complete the appropriate section(s) for each Structure listed below:

- Channelization: complete Section B
- Bridge/Culvert: complete Section C
- Dam: complete Section D
- Levee/Floodwall: complete Section E
- Sediment Transport: complete Section F (if required)

Description Of Modeled Structure

1. Name of Structure: Green Mill Entry Bridge

Type (check one): Channelization Bridge/Culvert Levee/Floodwall Dam

Location of Structure: _____

Downstream Limit/Cross Section: _____

Upstream Limit/Cross Section: _____

2. Name of Structure: N/A

Type (check one): Channelization Bridge/Culvert Levee/Floodwall Dam

Location of Structure: _____

Downstream Limit/Cross Section: _____

Upstream Limit/Cross Section: _____

3. Name of Structure: N/A

Type (check one): Channelization Bridge/Culvert Levee/Floodwall Dam

Location of Structure: _____

Downstream Limit/Cross Section: _____

Upstream Limit/Cross Section: _____

NOTE: FOR MORE STRUCTURES, ATTACH ADDITIONAL PAGES AS NEEDED.

DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
RIVERINE STRUCTURES FORM (FORM 3)

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Flooding Source: _____

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A. GENERAL

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- Channelization: complete Section B
- Bridge/Culvert: complete Section C
- Dam: complete Section D
- Levee/Floodwall: complete Section E
- Sediment Transport: complete Section F (if required)

Description Of Modeled Structure

1. Name of Structure: Green Mill Entry Bridge

Type (check one): Channelization Bridge/Culvert Levee/Floodwall Dam

Location of Structure: _____

Downstream Limit/Cross Section: _____

Upstream Limit/Cross Section: _____

2. Name of Structure: N/A

Type (check one): Channelization Bridge/Culvert Levee/Floodwall Dam

Location of Structure: _____

Downstream Limit/Cross Section: _____

Upstream Limit/Cross Section: _____

3. Name of Structure: N/A

Type (check one): Channelization Bridge/Culvert Levee/Floodwall Dam

Location of Structure: _____

Downstream Limit/Cross Section: _____

Upstream Limit/Cross Section: _____

NOTE: FOR MORE STRUCTURES, ATTACH ADDITIONAL PAGES AS NEEDED.

B. CHANNELIZATION

Flooding Source: _____

Name of Structure: _____

1. Hydraulic Considerations

The channel was designated to carry _____ (cfs) and/or the _____ - year flood

The design elevation in the channel is based on (check one):

- Subcritical flow Critical flow Supercritical flow Energy grade line

If there is the potential for a hydraulic jump at the following locations, check all that apply and attach an explanation of how the hydraulic jump is controlled without affecting the stability of the channel.

- Inlet to channel Outlet to channel At Drop Structures At Transitions

Other locations (specify): _____

2. Channel Design Plans

Attach the plans of the channelization certified by a registered professional engineer, as described in the instructions.

3. Accessory Structures

The channelization includes (check one):

- Levees [Attach Section E (Levee/Floodwall)] Drop structures Superelevated sections Energy dissipater
 Transitions in cross sectional geometry Debris basin/detention basin [Attach Section D (Dam/Basin)] Weir
 Other (Describe): _____

4. Sediment Transport Considerations

Are the hydraulics of the channel affected by sediment transport? Yes No

If yes, then fill out Section F (Sediment Transport) of Form 3. If No, then attach your explanation for why sediment transport was not considered

C. BRIDGE/CULVERT

Flooding Source: Rutherford Creek

Name of Structure: Green Mill Entry Bridge

1. This revision reflects (check one):

- Bridge/Culvert not modeled in the FIS
 Modified Bridge/Culvert previously modeled in the FIS
 Revised analysis of Bridge/Culvert previously modeled in the FIS

2. Hydraulic model used to analyze the structure (e.g., HEC-2 with special bridge routine, WSPRO, HY8): HEC-RAS 6.1

If different than hydraulic analysis for the flooding source, justify why the hydraulic analysis used for the flooding source could not analyze the structures. Attach justification.

3. Attach plans of the structures certified by a registered professional engineer. The plan detail and information should include the following (check the information that has been provided):

- | | |
|--|---|
| <input checked="" type="checkbox"/> Dimensions (height, width, span, radius, length) | <input checked="" type="checkbox"/> Distance between Cross Sections |
| <input type="checkbox"/> Shape (culverts only) | <input checked="" type="checkbox"/> Erosion Protection |
| <input checked="" type="checkbox"/> Material | <input checked="" type="checkbox"/> Low Chord Elevations - Upstream and Downstream |
| <input checked="" type="checkbox"/> Beveling and Rounding | <input checked="" type="checkbox"/> Top of Road Elevations - Upstream and Downstream |
| <input type="checkbox"/> Wink Wall Angle | <input checked="" type="checkbox"/> Structure Invert Elevations - Upstream and Downstream |
| <input type="checkbox"/> Skew Angle | <input type="checkbox"/> Stream Invert Elevations - Upstream and Downstream |
| | <input type="checkbox"/> Cross-Section Locations |

4. Sediment Transport Considerations

Are the hydraulics of the channel affected by sediment transport? Yes No

If yes, then fill out Section F (Sediment Transport) of Form 3. If No, then attach your explanation for why sediment transport was not considered.

D. DAM/BASIN

Flooding Source: _____

Name of Structure: _____

1. This request is for (check one): Existing Dam/Basin New Dam/Basin Modification of existing Dam/Basin

2. The Dam/Basin was designed by (check one): Federal Agency State Agency Private Organization

Local Government Agency Name of the Agency or Organization: _____

3. The Dam was permitted as (check one): Federal Dam State Dam

Provide the permit or identification number (ID) for the dam and the appropriate permitting agency or organization

Permit or ID number _____ Permitting Agency or Organization _____

a. Local Government Dam Private Dam

Provided related drawings, specification and supporting design information.

4. Does the project involve revised hydrology? Yes No

If Yes, complete the Riverine Hydrology & Hydraulics Form (Form 2).

Was the dam/basin designed using critical duration storm? (must account for the maximum volume of runoff)

Yes, provide supporting documentation with your completed Form 2.

No, provide a written explanation and justification for not using the critical duration storm.

5. Does the submittal include debris/sediment yield analysis? Yes No

If Yes, then fill out Section F (Sediment Transport). If No, then attach your explanation for why debris/sediment analysis was not considered?

6. Does the Base Flood Elevation behind the dam/basin or downstream of the dam/basin change? Yes No

If Yes, complete the Riverine Hydrology & Hydraulics Form (Form 2) and complete the table below.

Stillwater Elevation Behind the Dam/Basin

FREQUENCY (% annual chance)	FIS	REVISED
-----------------------------	-----	---------

10-year (10%)		
---------------	--	--

50-year (2%)		
--------------	--	--

100-year (1%)		
---------------	--	--

500-year (0.2%)		
-----------------	--	--

Normal Pool Elevation

7. Please attach a copy of the formal Operation and Maintenance Plan

E. LEVEE/FLOODWALL

1. System Elements

a. This Levee/Floodwall analysis is based on (check one):

<input type="checkbox"/> Upgrading of an existing levee/floodwall system	<input type="checkbox"/> A newly constructed levee/floodwall system	<input type="checkbox"/> Reanalysis of an existing levee/floodwall system
--	---	---

b. Levee elements and locations are (check one):

Earthen embankment, dike, berm, etc Stationed _____ to _____

Structured floodwall Stationed _____ to _____

Other (describe): _____ Stationed _____ to _____

E. LEVEE/FLOODWALL (CONTINUED)

c. Structural Type (check one): Monolithic cast-in place reinforced concrete Reinforced concrete masonry block
 Sheet piling Other (describe): _____

d. Has this levee/floodwall system been certified by a Federal agency to provide protection from the base flood?
 Yes No

If Yes, by which agency? _____

e. Attach certified drawings containing the following information (indicate drawing sheet numbers):

- 1. Plan of the levee embankment and floodwall structures. Sheet Numbers: _____
- 2. A profile of the levee/floodwall system showing the Base Flood Elevation (BFE), levee and/or wall crest and foundation, and closure locations for the total levee system. Sheet Numbers: _____
- 3. A profile of the levee/floodwall system showing the Base Flood Elevation (BFE), levee and/or wall crest and foundation, and closure locations for the total levee system. Sheet Numbers: _____
- 4. A layout detail for the embankment protection measures. Sheet Numbers: _____
- 5. Location, layout, and size and shape of the levee embankment features, foundation treatment, Floodwall structure, closure structures, and pump stations. Sheet Numbers: _____

2. Freeboard

a. The minimum freeboard provided above the BFE is:

Riverine

- 3.0 feet or more at the downstream end and throughout Yes No
- 3.5 feet or more at the upstream end Yes No
- 4.0 feet within 100 feet upstream of all structures and/or constrictions Yes No

Coastal

- 1.0 foot above the height of the one percent wave associated with the 1%-annual-chance stillwater surge elevation or maximum wave runup (whichever is greater). Yes No
- 2.0 feet above the 1%-annual-chance stillwater surge elevation Yes No

Please note, occasionally exceptions are made to the minimum freeboard requirement. If an exception is requested, attach documentation addressing Paragraph 65.10(b)(1)(ii) of the NFIP Regulations.

If No is answered to any of the above, please attach an explanation.

b. Is there an indication from historical records that ice-jamming can affect the BFE? Yes No

3. Closures

a. Openings through the levee system (check one): Exists Does not exist

If opening exists, list all closures:

Channel Station	Left or Right Bank	Opening Type	Highest Elevation for Opening Invert	Type of Closure Device

(Extend table on an added sheet as needed and reference)

Note: Geotechnical and geologic data

In addition to the required detailed analysis reports, data obtained during field and laboratory investigations and used in the design analysis for the following system features should be submitted in a tabulated summary form. (Reference U.S. Army Corps of Engineers [USACE] EM-1110-2-1906 Form 2086.)

E. LEVEE/FLOODWALL (CONTINUED)

4. Embankment Protection

- a. The maximum levee slope land side is: _____
- b. The maximum levee slope flood side is: _____
- c. The range of velocities along the levee during the base flood is: _____ (min) to _____ (max)
- d. Embankment material is protected by (describe what kind): _____
- e. Riprap Design Parameters (check one): Velocity Tractive Stress
Attach references

Reach	Sideslope	Flow Depth	Velocity	Curve or Straight	Stone Riprap			Depth of Toedown
					D ₁₀₀	D ₅₀	Thickness	
Sta _____ to _____	_____	_____	_____	_____	_____	_____	_____	_____
Sta _____ to _____	_____	_____	_____	_____	_____	_____	_____	_____
Sta _____ to _____	_____	_____	_____	_____	_____	_____	_____	_____
Sta _____ to _____	_____	_____	_____	_____	_____	_____	_____	_____
Sta _____ to _____	_____	_____	_____	_____	_____	_____	_____	_____
Sta _____ to _____	_____	_____	_____	_____	_____	_____	_____	_____

(Extend table on an added sheet as needed and reference each entry)

- f. Is a bedding/filter analysis and design attached? Yes No
- g. Describe the analysis used for other kinds of protection used (include copies of the design analysis):

Attach engineering analysis to support construction plans.

5. Embankment and Foundation Stability

- a. Identify locations and describe the basis for selection of critical location for analysis:

Overall height: STA: _____, height _____ ft.

Limiting foundation soil strength:

Strength ϕ = _____ degrees, c = _____ psf

Slope: SS = _____ (h) to _____ (v)

(Repeat as needed on an added sheet for additional locations)

- b. Specify the embankment stability analysis methodology used (e.g., circular arc, sliding block, infinite slope, etc.):

- c. Summary of stability analysis results: _____

E. LEVEE/FLOODWALL (CONTINUED)

5. Embankment and Foundation Stability (continued)

Case	Loading Conditions	Critical Safety Factor	Criteria (Min.)
I	End of construction		1.3
II	Sudden drawdown		1.0
III	Critical flood stage		1.4
IV	Steady seepage at flood stage		1.4
VI	Earthquake (Case I)		1.0

(Reference: USACE EM-1110-2-1913 Table 6-1)

- d. Was a seepage analysis for the embankment performed? Yes No
 If Yes, describe methodology used:
- e. Was a seepage analysis for the embankment performed? Yes No
- f. Were uplift pressures at the embankment landside toe checked? Yes No
- g. Were seepage exit gradients checked for piping potential? Yes No
- h. The duration of the base flood hydrograph against the embankment is _____ hours.
- Attach engineering analysis to support construction plans.

6. Floodwall and Foundation Stability

- a. Describe analysis submittal based on Code (check one): UBC (1988) Other (specify): _____
- b. Stability analysis submitted provides for: Overturning Sliding If not, explain: _____
- c. Loading included in the analyses were: Lateral earth @ $P_A =$ _____ psf; $P_p =$ _____ psf
 Surcharge-Slope @ _____, surface _____ psf
 Wind @ $P_w =$ _____ psf
 Seepage (Uplift); _____ Earthquake @ $P_{eq} =$ _____ %g
- 1%-annual-chance significant wave height: _____ ft.
- 1%-annual-chance significant wave period: _____ sec.
- d. Summary of Stability Analysis Results: Factors of Safety.
 Itemize for each range in site layout dimension and loading condition limitation for each respective reach.

Loading Condition	Criteria (Min)		Sta	To	Sta	To
	Overturn	Sliding	Overturn	Sliding	Overturn	Sliding
Dead & Wind	1.5	1.5				
Dead & Soil	1.5	1.5				
Dead, Soil, Flood, & Impact	1.5	1.5				
Dead, Soil, & Seismic	1.3	1.3				

(Ref: FEMA 114 Sept 1986; USACE EM 1110-2-2502)
 Note: (Extend table on an added sheet as needed and reference)

E. LEVEE/FLOODWALL (CONTINUED)

e. Foundation bearing strength for each soil type:

Bearing Pressure	Sustained Load (psf)	Short Term Load (psf)
Computed design maximum		
Maximum allowable		

f. Foundation scour protection is, is not provided. If provided, attach explanation and supporting documentation:
Attach engineering analysis to support construction plans.

7. Settlement

- a. Has anticipated potential settlement been determined and incorporated into the specified construction elevations to maintain the established freeboard margin?
- b. The computed settlement range is _____ ft. to _____ ft.
- c. Settlement of the levee crest is determined to be primarily from : Foundation consolidation
 Embankment compression Other (Describe): _____
- d. Differential settlement of floodwalls has has not been accommodated in the structural design and construction
Attach engineering analysis to support construction plans.

8. Interior Drainage

- a. Specify size of each interior watershed:
Drainage to pressure conduit: _____ acres
Drainage to ponding area: _____ acres
- b. Relationship Established:
- | | | |
|------------------------------------|------------------------------|-----------------------------|
| Ponding elevation vs. storage | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Ponding elevation vs. gravity flow | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Differential head vs. gravity flow | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
- c. The river flow duration curve is enclosed: Yes No
- d. Specify the discharge capacity of the head pressure conduit: _____ cfs
- e. Which flooding conditions were analyzed?
- | | | |
|-----------------------------------|------------------------------|-----------------------------|
| Gravity flow (Interior Watershed) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Common storm (River Watershed) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Historical ponding probability | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Coastal wave overtopping | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

If No for any of the above, attach explanation.

- f. Interior drainage has been analyzed based on joint probability of interior and exterior flooding and the capacities of pumping and outlet facilities to provide the established level of flood protection.
 Yes No If No, attach explanation.
- g. The rate of seepage through the levee system for the base flood is : _____ cfs
- h. The length of levee system used to drive this seepage rate in item g: _____ ft.

E. LEVEE/FLOODWALL (CONTINUED)

8. Interior Drainage (continued)

i. Will pumping plants be used for interior drainage? Yes No

If Yes, include the number of pumping plants: _____ For each pumping plant, list:

	Plant #1	Plant #2
The number of pumps		
The ponding storage capacity		
The maximum pumping rate		
The maximum pumping head		
The pumping starting elevation		
The pumping stopping elevation		
Is the discharge facility protected?		
Is there a flood warning plan?		
How much time is available between warning and flooding?		

Will the operation be automatic? Yes No

If the pumps are electric; are there backup power sources? Yes No

(Reference: USACE EM-1110-2-3101, 3102, 3103, 3104, and 3105)

Include a copy of supporting documentation of data and analysis. Provide a map showing the flooded area and maximum ponding elevations for all interior watersheds that result in flooding.

9. Other Design Criteria

a. The following items have been addressed as stated:

Liquefaction is is not a problem

Hydrocompaction is is not a problem

Heave differential movement due to soils of high shrink/swell is is not a problem

b. For each of these problems, state the basic facts and corrective action taken:

Attach supporting documentation

c. If the levee/floodwall is new or enlarged, will the structure adversely impact flood levels and/or flow velocities floodside of the structure? Yes No

d. Sediment Transport Considerations:

Was sediment transport considered? Yes No

If Yes, then fill out Section F (Sediment Transport). If No, then attach your explanation for why sediment transport was not considered.

10. Operational Plan and Criteria

a. Are the planned/installed works in full compliance with Part 65.10 of the NFIP Regulations? Yes No

b. Does the operation plan incorporate all the provisions for closure devices as required in Paragraph 65.10(c)(1) of the NFIP regulations? Yes No

c. Does the operation plan incorporate all the provisions for interior drainage as required in Paragraph 65.10(c)(2) of the NFIP regulations? Yes No

If the answer is No to any of the above, please attach supporting documentation.

E. LEVEE/FLOODWALL (CONTINUED)

11. Maintenance Plan

Please attach a copy of the formal maintenance plan for the levee/floodwall

12. Operational and Maintenance Plan

Please attach a copy of the formal Operations and Maintenance Plan for the levee/floodwall.

CERTIFICATION OF THE LEVEE DOCUMENTATION

This certification is to be signed and sealed by a licensed registered professional engineer authorized by law to certify elevation information data, hydrologic and hydraulic analysis, and any other supporting information as per NFIP regulations paragraph 65.10(e) and as described in the MT-2 Forms Instructions. All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Certifier's Name: _____ License No.: _____ Expiration Date: _____

Company Name: _____ Telephone No.: _____ Fax No.: _____

Signature: _____ Date: _____ E-mail Address: _____

CERTIFICATION OF THE LEVEE DOCUMENTATION

Flooding Source: _____

Name of Structure: _____

If there is any indication from historical records that sediment transport (including scour and deposition) can affect the Base Flood Elevation (BFE); and/or based on the stream morphology, vegetative cover, development of the watershed and bank conditions, there is a potential for debris and sediment transport (including scour and deposition) to affect the BFEs, then provide the following information along with the supporting documentation:

Sediment load associated with the base flood discharge: Volume _____ acres-feet

Debris load associated with the base flood discharge: Volume _____ acres-feet

Sediment transport rate _____ (percent concentration by volume)

Method used to estimate sediment transport: _____

Most sediment transport formulas are intended for a range of hydraulic conditions and sediment sizes; attach a detailed explanation for using the selected method.

Method used to estimate scour and/or deposition: _____

Method used to revise hydraulic or hydrologic analysis (model) to account for sediment transport: _____

Please note that bulked flows are used to evaluate the performance of a structure during the base flood; however, FEMA does not map BFEs based on bulked flows.

If a sediment analysis has not been performed, an explanation as to why sediment transport (including scour and deposition) will not affect the BFEs or structures must be provided.

LOMC Application

Application ID: R4154271462242	Revision
--------------------------------	-----------------

Revision Review

Project Type

Project Type: LOMR

Payment Total

Fee: \$8000.00 (LOMR Based on Bridge, Culvert, Channel, Hydrology, or Combination Thereof)

Project Name/Identifier

Project Name/Identifier: Green Mill Road

Community Information

State, District or Territory: TN
County: Maury County
Community Name: MAURY COUNTY*
Map Panel Number - Effective Date: 47119C0180E - 04/16/2007
CID: 470123

Flooding

Flooding Source: Rutherford Creek
Types of Flooding: Riverine

Basis for Request

The basis for this revision request is: Physical Change

Zone Designation

FEMA Zone designations affected: AE

Revision Structures

Revision Structures

The area of revision encompasses the following structures: Bridge

Primary Contact Information

Title: Mrs.
 First Name: Christian
 Last Name: Dalton
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 City: Brentwood
 State, District or Territory: TN
 ZIP Code: 37027
 E-mail Address: christian@crunkeng.com
 Company/Organization: Crunk Engineering
 Phone: 615-873-1795

Community Official Information

Title: Mr.
 First Name: Austin
 Last Name: Brass
 Professional Title: City Planner
 Community Name: MAURY COUNTY*
 Address 1: 700 N Garden Street
 City: Columbia
 State, District or Territory: TN
 ZIP Code: 38401
 E-mail Address: abrass@columbiatn.com
 Phone: 931-560-1500

As the CEO or designee responsible for the floodplain management, I hereby acknowledge that we have received and reviewed this Letter of Map Revision (LOMR) or conditional LOMR request. Based upon the community's review, we find the completed or proposed project meets or is designed to meet all of the community floodplain management requirements, including the requirement for when fill is placed in the regulatory floodway, and that all necessary Federal, State, and local permits have been, or in the case of a conditional LOMR, will be obtained. For conditional LOMR request, the applicant has documented Endangered Species Act (ESA) compliance to DHS/FEMA prior to DHS/FEMA's review of the Conditional LOMR application. For LOMR request, I acknowledge that compliance with sections 9 and 10 of the ESA has been achieved independently of DHS/FEMA's process. For actions authorized, funded, or being carried out by Federal or State agencies, existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding as defined in 44 CFR 65.2(c), and that we have available upon request by DHS/FEMA, all analyses and documentation used to make this determination.

Community Official Signature:


Austin Brass - CITY PLANNER.

Date:

3-18-2022

Certification by Registered Professional Engineer and/or Land Surveyor

This certification is to be signed and sealed by a licensed land surveyor, registered professional engineer, or architect authorized by law to certify elevation information data, hydrologic and hydraulic analysis, and any other supporting information as per NFIP regulations paragraph 65.2(b) and as described in the MT-2 Forms instruction. All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

First Name: Christian
Last Name: Dalton
License Number: 110399
Expiration Date: 2022
Company Name: Crunk Engineering
E-mail Address: Christian@crunkeng.com
Telephone Number: 615-873-1795
Fax Number: _____
Certifier's Signature: 
Date: 4/4/2022

Sediment Transport

Sediment Transport

Sediment transport can occur due to several factors. These include wave dominated settings, areas with the occurrence of deep pooling, and areas of limited vegetation. Stream flow producing water surface waves would be characteristic of accelerated flows, with breaker-generated turbulence resulting in sediment mobilization. Rutherford Creek functions in a steady flow state, with no tendency toward water surges or swell creation, even in higher storm frequencies, such as a 100-Year event. In addition, the section of stream included in the analysis contains no deep pool areas that would typically generate aggravated flow as water enters and exits areas of elevation change in the stream bed. Such areas may have warranted the inclusion of fixed sediment transport boundaries within the model but were deemed unnecessary due to the stream geography. The existing conditions for the site also include a densely vegetated stream bank. The presence of roots and underground stems provide additional tensile strength along the flow path, effectively reducing the resuspension of sediments.

Due to the absence of the referenced environmental conditions in the project area of interest, the Riverine Model analysis provided for review does not include sediment discharge as part of the analysis. To verify the low potential for sediment transport, the flow depth and velocity resulting from the mean annual stream flow were input into an online sediment transport calculator. Utilizing 3mm particle size with the Meyer-Peter formula, resulted in a sediment transport of -0-.

Also worth noting, land uses in the area, including construction and regulated agricultural and development activities, have sought to reduce volumetric runoff from sites with the use of sediment retention basins making sediment transport less likely.

Formula

$$q_s = (39.25 q^{2/3} S_o - 9.95 d_{50})^{3/2}$$

[U.S. Customary Units (ft-lb-s)]

100-Year Flow

INPUT DATA:

[Sample input/output data set]

Stream or river (optional):

Select:

SI or U.S. Customary units.

[Default: U.S. Customary Units].

Flow depth d (m) [ft]: ft

Channel width b (m) [ft]: ft

Mean velocity v (m/s) [fps]: fps

Channel slope S_o (m/m) [ft/ft]: ft/ft

Particle diameter d_{50} (mm):

OUTPUT:

Stream or river: Rutherford Creek

U.S. Customary Units.

Bed-material transport rate $q_s = 1.993$ lbs/s/ft

Bed-material transport rate $Q_s = 159.458$ lbs/s

Bed-material transport rate $Q_s = 6888.6$ tons/day

Your request was processed at 10:42:01 am on December 28th, 2021 [211228 10:42:01].

Thank you for running online_meyer-peter. Please call again. [080703]

**Effective Model
HEC-2 DATA**

RUTHERFORD

CREEK

 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

T1 MAURY CO TN FEMA PRUTHMF F276 000 1000
 T2 100 YEAR FLOOD G JCH 7/27/87 SCA 8/12/87 000 2000
 T3 PUTHERFORD CREEK (MIDDLE) REV 100FW 000 3000

J1 TCHECK INQ NINV IDIR STRT METRIC HVINS **FLOW** WSEL FQ
 0. 5. 0. 0. .00000 0. .00 18070. 612.39 .00 4000

J2 NPRDF IPLDT PRFVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE
 1. 0. -1. 0. 0. .00 .0 0. 0. 0. 5000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT
 110.00 .00 200.00 .00 .00 .00 .00 .00 .00 .00 6000

NC .050 **Mannings** .070 .035 **Expansion/Contraction** .1 .3 **FLOW** 23760. 18070. 0. 0. 0. 8000
 QT 6. 5420. 10430. 5760. 18070. 0. 0. 0. 9000
 FT 0. .00 .00 .00 .00 .00 8.11 100.00 280.00 .00 10000

Section Station & Elevations

Section ID
 X1 9.71 13. 116. 209. 3500. 4300. 4500. .00 .00 0. 11000
 GR 616.0 0. 603.3 116. 590.8 130. 587.8 146. 587.6 171. 12000
 GR 587.8 186. 587.9 198. 590.8 199. 601.4 209. 604.0 302. 13000
 GR 615.4 323. 616.0 400. 620.0 600. 0. 0. 0. 0. 14000
 NC .080 .110 .040 .0 .0 **FLOW** 15000
 QT 6. 4940. 9700. 14370. 16490. 21690. 16490. 0. 0. 0. 16000
 FT 0. .00 .00 .00 .00 .00 8.11 330.00 510.00 .00 17000

Section ID
 X1 10.74 12. 411. 504. 5100. 4700. 5170. .00 .00 0. 18000
 GR 628.0 0. 620.0 179. 616.0 271. 608.0 341. 604.3 411. 19000
 GR 597.6 426. 594.6 446. 592.7 466. 594.4 486. 597.6 488. 20000
 GR 604.6 **Mannings** 628.0 542. .0 0. .0 0. 0. 0. 21000
 NC .080 .100 .045 .0 .0 **FLOW** 22000
 QT 6. 4880. 9580. 14200. 16290. 21420. 16290. 0. 0. 0. 23000
 FT 0. .00 .00 .00 .00 .00 8.11 1140.00 1620.00 .00 24000

Section ID
 X1 11.55 19. 1498. 1579. 3500. 4000. 4240. .00 .00 0. 25000
 GR 638.0 0. 628.0 350. 620.0 650. 617.0 900. 616.0 1195. 26000
 GR 613.3 1421. 611.0 1079. 609.9 1498. 604.5 1510. 601.3 1524. 27000
 GR 599.9 1544. 601.0 1559. 604.5 1569. 608.0 1579. 612.0 1648. 28000
 GR 620.0 1672. 626.8 1695. 626.1 1710. 636.1 1910. 0. 0. 29000
 QT 6. 4870. 9570. 14180. 16260. 21390. 16260. 0. 0. 0. 30000
 FT 0. .00 .00 .00 .00 .00 8.11 1140.00 1620.00 .00 31000

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X1	11.65	22.	1498.	1583.	500.	500.	500.	.00	.00	0.	32000
GR	636.0	0.	628.0	350.	620.0	650.	617.0	900.	616.0	1195.	33000
GR	613.3	1421.	611.0	1469.	609.9	1498.	607.8	1501.	604.5	1506.	34000
GR	600.0	1515.	599.7	1525.	601.8	1540.	600.7	1565.	604.5	1572.	35000
GR	607.7	1577.	608.8	1583.	612.0	1648.	620.0	1672.	626.8	1695.	36000
GR	626.1	1716.	636.1	1910.	0.	0.	0.	0.	0.	0.	37000
NC	.000	.000	.000	.3	.5						38000
ET	0.	.00	.00	.00	.00	.00	8.11	1140.00	1620.00	.00	39000

X1	11.65	0.	0.	0.	40.	40.	40.	.00	.00	0.	40000
SB	1.25	1.60	3.00	0.	77.00	2.00	1290.00	.00	600.8	600.8	41000
ET	0.	.00	.00	.00	.00	.00	8.11	1140.00	1620.00	.00	42000

X1	11.65	0.	0.	0.	15.	15.	15.	.00	.00	0.	43000
X2	0.	.00	1.	618.0	617.8	.00	0.	.00	.0	0.	44000
RT	12.0	350.0	628.0	.0	650.0	620.0	.0	1183.0	619.0	.0	45000
RT	1283.0	617.8	.0	1383.0	619.5	.0	1483.0	620.9	.0	1497.0	46000
RT	621.0	.0	1497.0	621.5	.0	1583.0	621.3	.0	1583.0	620.9	47000
RT	.0	1683.0	621.2	.0	1760.0	625.4	.0	.0	.0	.0	48000
ET	0.	.00	.00	.00	.00	.00	8.11	1140.00	1620.00	.00	49000

X1	11.65	0.	0.	0.	10.	10.	10.	.00	.00	0.	50000
NC	.075	.090	.045	.1	.3						51000
QT	.0	.070	.050	.1170	.16250						52000
FT	0.	.00	.00	.00	.00	.00	8.11	1140.00	1630.00	.00	53000

X1	11.69	19.	1498.	1579.	200.	200.	200.	.00	.00	0.	54000
GR	636.0	0.	628.0	350.	620.0	650.	617.0	900.	616.0	1195.	55000
GR	613.3	1421.	611.0	1469.	609.9	1498.	604.5	1510.	601.3	1524.	56000
GR	599.9	1544.	601.0	1559.	604.5	1569.	608.0	1579.	612.0	1648.	57000
GR	620.0	1626.0	626.0	1695.	626.1	1716.	636.1	1910.	.0	0.	58000
NC	.075	.075	.040	.0	.0						59000
QT	.0	.070	.040	.14020	.16080						60000
ET	0.	.00	.00	.00	.00	.00	8.11	260.00	640.00	.00	61000

X1	12.37	13.	479.	589.	3570.	2970.	3600.	.00	.00	0.	62000
GR	636.0	0.	624.2	98.	620.3	313.	614.1	479.	607.9	489.	63000
GR	613.3	493.	603.1	513.	603.1	533.	603.3	561.	607.9	569.	64000
GR	616.6	620.1	653.	636.0	745.	.0	.0	.0	.0	.0	65000
NC	.070	.070	.035	.0	.0						66000
QT	.0	.070	.035	.13830	.15870	.20880	.15870	.0	.0	.0	67000
ET	0.	.00	.00	.00	.00	.00	8.11	1000.00	1340.00	.00	68000

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X1	13.23	17.	1229.	1328.	4440.	3100.	4540.	.00	.00	.0.	69000
GR	636.0	0.	632.1	405.	628.0	955.	624.0	1096.	620.4	1154.	70000
GR	623.0	1229.	618.1	1248.	611.4	1254.	608.2	1260.	608.0	1290.	71000
GR	607.9	1310.	611.4	1316.	618.1	1328.	626.9	1349.	634.2	1380.	72000
GR	636.0	1462.	636.2	1472.	.0	0.	.0	.0	.0	0.	73000
NC	.070	.075	.040	.0	.0	.0	.0	.0	.0	0.	74000
QT	6.	4710.	9250.	13710.	15720.	20690.	15720.	0.	0.	0.	75000
ET	0.	.00	.00	.00	.00	.00	8.11	190.00	540.00	.00	76000

X1	13.80	16.	234.	310.	2050.	2750.	3050.	.00	-.60	.0.	77000
GR	640.0	0.	632.5	83.	632.5	117.	624.2	141.	620.0	234.	78000
GR	613.6	240.	609.9	240.	609.3	260.	609.1	287.	609.9	297.	79000
GR	613.6	297.	622.2	310.	623.8	594.	624.3	784.	628.0	840.	80000
GR	640.0	884.	.0	0.	.0	0.	.0	.0	.0	0.	81000
NC	.065	.065	.035	.3	.5	.0	.0	.0	.0	0.	82000
QT	6.	4710.	9240.	13690.	15700.	20660.	15700.	0.	0.	0.	83000
ET	0.	.00	.00	.00	.00	.00	8.11	155.00	505.00	.00	84000

X1	13.88	15.	155.	368.	380.	380.	380.	.00	.00	.0.	85000
GR	640.0	0.	632.5	80.	632.5	117.	625.5	155.	613.4	190.	86000
GR	610.7	204.	611.4	232.	608.5	267.	610.0	302.	613.0	345.	87000
GR	622.5	368.	623.8	594.	624.3	784.	628.0	840.	640.0	884.	88000
ET	0.	.00	.00	.00	.00	.00	8.11	155.00	505.00	.00	89000

X1	13.88	0.	0.	0.	20.	20.	20.	.00	.00	.0.	90000
X3	10.	.0	.0	.0	.0	.0	.0	631.8	631.1	0.	91000
SB	.90	1.60	3.00	0.	120.00	9.00	3151.00	3.79	610.0	610.0	92000
ET	0.	.00	.00	.00	.00	.00	8.11	155.00	505.00	.00	93000

X1	13.88	0.	0.	0.	32.	32.	32.	.00	.00	.0.	94000
X2	0.	.00	1.	627.7	631.5	.00	.0.	.00	.0	0.	95000
X3	10.	.0	.0	.0	.0	.0	.0	632.2	631.5	0.	96000
BT	12.0	.0	640.0	.0	88.0	632.2	.0	133.0	632.4	.0	97000
BT	133.0	634.4	.0	142.0	634.9	.0	388.0	634.9	.0	400.0	98000
BT	634.5	.0	400.0	632.5	.0	488.0	631.8	.0	588.0	631.5	99000
BT	.0	688.0	632.1	.0	870.0	636.0	.0	.0	.0	.0	100000
ET	0.	.00	.00	.00	.00	.00	8.11	155.00	505.00	.00	101000

X1	13.88	0.	0.	0.	5.	5.	5.	.00	.00	.0.	102000
NC	.070	.065	.050	.0	.0	.0	.0	.0	.0	0.	103000
QT	6.	4700.	9220.	13670.	15680.	20630.	15680.	0.	0.	0.	104000
ET	0.	.00	.00	.00	.00	.00	8.11	180.00	570.00	.00	105000

X1	13.98	16.	234.	310.	500.	500.	500.	.00	.40	0.	106000
GR	640.0	0.	632.5	83.	632.5	117.	624.2	141.	620.0	234.	107000
GR	613.6	240.	609.9	240.	609.3	260.	609.1	287.	609.9	297.	108000
GR	613.6	297.	622.2	310.	623.8	594.	624.3	784.	628.0	840.	109000
GR	640.0	884.	.0	0.	.0	0.	.0	0.	.0	0.	110000
NC	.070	.065	.040	.1	.3						111000
QT	6.	4680.	9190.	13630.	15630.	20570.	15630.	0.	0.	0.	112000
ET	0.	.00	.00	.00	.00	.00	8.11	20.00	360.00	.00	113000

X1	14.18	13.	25.	108.	1000.	600.	1000.	.00	.00	0.	114000
GR	636.0	0.	622.5	25.	620.0	30.	611.0	50.	611.0	80.	115000
GR	620.0	100.	622.5	108.	624.0	125.	624.0	340.	628.0	380.	116000
GR	632.0	410.	636.0	500.	640.0	1050.	.0	0.	0.	0.	117000
NC	.090	.075	.045	.0	.0						118000
QT	6.	4660.	9140.	13540.	15540.	20450.	15540.	0.	0.	0.	119000
ET	0.	.00	.00	.00	.00	.00	8.11	40.00	360.00	.00	120000

X1	14.55	12.	78.	142.	2070.	1720.	2070.	.00	.00	0.	121000
GR	644.0	0.	628.2	38.	624.5	72.	616.5	78.	613.0	88.	122000
GR	615.1	98.	615.0	108.	616.5	118.	619.0	133.	624.4	142.	123000
GR	628.0	293.	644.0	476.	.0	0.	.0	0.	.0	0.	124000
NC	.075	.080	.040	.0	.0						125000
QT	6.	4570.	8980.	13300.	15260.	20090.	15260.	0.	0.	0.	126000
ET	0.	.00	.00	.00	.00	.00	8.11	805.00	1225.00	.00	127000

X1	15.66	19.	1152.	1217.	4500.	5900.	6090.	.00	.00	0.	128000
GR	648.0	0.	640.0	259.	635.9	501.	638.9	722.	631.1	935.	129000
GR	633.3	1084.	631.5	1126.	630.4	1152.	622.9	1158.	620.5	1161.	130000
GR	620.0	1184.	620.4	1207.	622.9	1215.	630.4	1217.	632.6	1230.	131000
GR	639.7	1240.	639.7	1250.	646.3	1279.	648.0	1502.	.0	0.	132000
NC	.100	.065	.040	.0	.0						133000
QT	6.	4500.	8840.	13100.	15030.	19790.	15030.	0.	0.	0.	134000
ET	0.	.00	.00	.00	.00	.00	8.11	55.00	855.00	.00	135000

X1	16.58	20.	62.	133.	4700.	3500.	4860.	.00	.00	0.	136000
GR	656.0	0.	632.2	11.	652.4	25.	636.2	62.	629.9	77.	137000
GR	628.9	78.	627.6	97.	627.5	107.	628.6	125.	629.9	125.	138000
GR	636.4	133.	641.8	191.	642.9	221.	639.7	256.	640.6	502.	139000
GR	639.0	1259.	644.0	1418.	649.4	1566.	647.5	1682.	656.0	2038.	140000
NC	.075	.085	.045	.0	.0						141000
QT	6.	4440.	8710.	12910.	14810.	19500.	14810.	0.	0.	0.	142000
ET	0.	.00	.00	.00	.00	.00	8.11	660.00	950.00	.00	143000

X1	17.45	15.	835.	945.	3950.	4710.	4710.	.00	.00	0.	144000
GR	660.0	0.	656.0	80.	652.0	345.	648.0	595.	644.0	700.	145000
GR	640.0	835.	632.0	850.	630.2	855.	630.2	925.	632.0	930.	146000
GR	640.0	945.	644.0	950.	648.0	965.	652.0	1005.	656.0	1035.	147000
NC	.090	.090	.050	.0	.0						148000
QT	6.	4420.	8680.	12870.	14770.	19440.	14770.	0.	0.	0.	149000
ET	0.	.00	.00	.00	.00	.00	8.11	290.00	510.00	.00	150000

AC

X1	17.64	15.	330.	405.	700.	1010.	1010.	.00	.00	0.	151000
GR	660.0	0.	652.0	199.	651.0	273.	648.0	291.	644.1	298.	152000
GR	643.0	330.	632.4	344.	630.0	344.	630.1	354.	630.0	370.	153000
GR	631.4	385.	632.4	390.	643.2	405.	648.0	544.	660.0	624.	154000
NC	.065	.065	.040	.0	.0						155000
QT	6.	4380.	8600.	12740.	14620.	19250.	14620.	0.	0.	0.	156000
ET	0.	.00	.00	.00	.00	.00	8.11	720.00	1020.00	.00	157000

X1	18.23	19.	889.	964.	3150.	2600.	3150.	.00	.00	0.	158000
GR	660.0	0.	656.0	328.	652.0	502.	648.1	808.	644.0	847.	159000
GR	643.0	889.	635.8	899.	634.6	899.	634.1	919.	634.8	934.	160000
GR	635.8	946.	642.0	955.	642.4	959.	645.0	964.	647.2	1063.	161000
GR	655.9	1134.	655.3	1178.	656.0	1453.	664.0	1934.	.0	0.	162000
NC	.000	.000	.000	.3	.5						163000
ET	0.	.00	.00	.00	.00	.00	8.11	720.00	1020.00	.00	164000

X1	18.23	20.	889.	964.	19.	10.	10.	.00	.00	0.	165000
BT	4.0	915.0	638.7	.0	915.0	638.7	636.9	925.0	638.7	636.9	166000
BT	925.0	638.7	.0	.0	.0	.0	.0	.0	.0	.0	167000
GR	664.0	0.	656.0	328.	652.0	502.	648.1	808.	644.0	847.	168000
GR	643.0	889.	638.7	895.	638.7	915.	634.1	915.	634.1	925.	169000
GR	638.7	925.	638.7	949.	642.0	955.	642.9	959.	645.0	964.	170000
GR	647.2	1063.	655.9	1134.	655.3	1178.	656.0	1453.	664.0	1934.	171000
ET	0.	.00	.00	.00	.00	.00	8.11	720.00	1020.00	.00	172000

X1	18.23	0.	0.	0.	12.	12.	12.	.00	.00	0.	173000
X2	0.	.00	0.	.0	.0	.00	1.	.00	.0	0.	174000
ET	0.	.00	.00	.00	.00	.00	8.11	720.00	1020.00	.00	175000

ATP

X1	18.23	19.	889.	964.	5.	5.	5.	.00	.00	0.	176000
GR	664.0	0.	656.0	328.	652.0	502.	648.1	808.	644.0	847.	177000
GR	643.0	889.	635.8	899.	634.6	899.	634.1	919.	634.8	934.	178000
GR	635.8	946.	642.0	955.	642.4	959.	645.0	964.	647.2	1063.	179000
GR	655.9	1134.	655.3	1178.	656.0	1453.	664.0	1934.	.0	0.	180000
NC	.085	.070	.045	.1	.3						181000
QT	6.	4350.	8530.	12640.	14500.	19100.	14500.	0.	0.	0.	182000
ET	0.	.00	.00	.00	.00	.00	8.11	30.00	410.00	.00	183000

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AE	X1	18.70	14.	41.	118.	2050.	2500.	2500.	.00	.00	0.	184000
	GR	664.0	0.	648.3	24.	646.3	41.	636.7	56.	635.1	70.	185000
	GR	634.7	87.	634.8	97.	635.9	107.	636.7	107.	647.4	118.	186000
	GR	648.0	270.	656.0	543.	660.0	980.	664.0	1100.	.0	0.	187000
	NC	.080	.080	.045	.0	.0	.0	.0	.0	.0	.0	188000
	QT	6.	4310.	8460.	12530.	14360.	18930.	14380.	0.	0.	0.	189000
	ET	0.	.00	.00	.00	.00	.00	8.11	1550.00	2060.00	.00	190000

	X1	19.20	29.	1884.	1988.	1910.	2130.	2710.	.00	-1.00	0.	191000
	GR	668.0	0.	664.0	691.	660.1	1028.	656.0	1152.	652.0	1459.	192000
	GR	649.0	1631.	652.0	1726.	652.0	1873.	652.5	1884.	647.2	1892.	193000
	GR	645.0	1897.	640.3	1907.	639.2	1912.	639.7	1928.	640.1	1944.	194000
	GR	640.3	1960.	644.8	1967.	649.6	1988.	652.0	2125.	660.0	2245.	195000
	GR	662.7	2359.	660.5	2382.	662.2	2404.	662.3	2426.	661.0	2433.	196000
	GR	663.0	2439.	662.2	2456.	664.0	2811.	668.0	2903.	.0	0.	197000
	NH	5.	.500	1726.	.080	1884.	.045	1988.	.080	2125.	.500	198000
	NH	2903.	.000	0.	.000	0.	.000	0.	.000	0.	.000	199000
	QT	6.	4300.	8440.	12510.	14350.	18900.	14350.	0.	0.	0.	200000
	ET	0.	.00	.00	.00	.00	.00	8.11	1640.00	2080.00	.00	201000

	X1	19.30	0.	0.	0.	300.	300.	360.	.00	.20	0.	202000
	NC	.080	.080	.045	.3	.5	.5	.5	.0	.0	.0	203000
	QT	6.	4000.	7800.	11500.	13200.	17600.	13200.	0.	0.	0.	204000
	ET	0.	.00	.00	.00	.00	.00	8.11	1815.00	2015.00	.00	205000

	X1	19.37	31.	1821.	2010.	300.	300.	300.	.00	.00	0.	206000
	GR	667.0	0.	664.0	680.	660.0	1020.	660.9	1218.	661.5	1318.	207000
	GR	662.3	1418.	662.9	1518.	663.3	1618.	663.0	1780.	654.0	1821.	208000
	GR	652.3	1832.	650.5	1846.	646.8	1861.	645.5	1875.	644.8	1883.	209000
	GR	640.3	1903.	640.2	1906.	638.3	1918.	639.3	1938.	639.4	1956.	210000
	GR	640.2	1960.	644.4	1972.	649.0	1984.	652.9	1998.	658.0	2010.	211000
	GR	662.6	2040.	662.3	2118.	661.7	2206.	661.8	2418.	664.0	2810.	212000
	GR	668.0	2903.	.0	0.	0.	0.	0.	0.	0.	0.	213000
	ET	0.	.00	.00	.00	.00	.00	8.11	1815.00	2015.00	.00	214000

	X1	19.37	0.	0.	0.	80.	80.	80.	.00	.00	0.	215000
	X3	10.	.0	.0	.0	.0	.0	.0	658.5	660.0	.0	216000
	ET	0.	.00	.00	.00	.00	.00	8.11	1815.00	2015.00	.00	217000

	X1	19.37	46.	1821.	2010.	1.	1.	1.	.00	.00	0.	218000
	BT	8.0	1821.0	662.9	.0	1821.0	663.3	660.6	1903.0	663.3	659.5	219000
	BT	1903.0	663.3	660.6	1956.0	663.3	660.6	1956.0	663.3	659.5	2010.0	220000
	BT	663.3	660.6	2010.0	662.3	.0	.0	.0	.0	.0	.0	221000
	GR	667.9	0.	663.8	700.	660.0	1020.	660.9	1218.	661.5	1318.	222000
	GR	662.3	1418.	662.9	1518.	663.3	1618.	662.9	1821.	658.3	1821.	223000
	GR	650.5	1804.	660.2	1844.	660.2	1846.	650.5	1846.	646.8	1861.	224000
	GR	645.5	1873.	659.8	1873.	659.8	1875.	645.5	1875.	644.8	1883.	225000

GR	640.3	1901.	659.5	1901.	659.5	1903.	640.3	1903.	640.2	1906.	226000
GR	638.3	1918.	639.3	1938.	639.4	1956.	659.5	1956.	659.5	1958.	227000
GR	639.4	1958.	640.2	1960.	644.4	1972.	649.0	1984.	660.0	1984.	228000
GR	660.0	1986.	649.0	1986.	652.9	1998.	658.6	2010.	662.3	2010.	229000
GR	662.6	2040.	662.3	2118.	661.7	2206.	661.8	2418.	664.0	2811.	230000
GR	668.0	2903.	.0	.0	.0	.0	.0	.0	.0	.0	231000
FI	0.	.00	.00	.00	.00	.00	8.11	1815.00	2015.00	.00	232000

X1	19.37	0.	0.	0.	29.	29.	29.	.00	.00	0.	233000
X2	0.	.00	0.	.0	.0	.00	1.	.00	.0	0.	234000
ET	0.	.00	.00	.00	.00	.00	8.11	1815.00	2015.00	.00	235000

X1	19.37	31.	1821.	2010.	1.	1.	1.	.00	.00	0.	236000
GR	667.0	0.	664.0	680.	660.0	1020.	660.9	1218.	661.5	1318.	237000
GR	662.3	1418.	662.9	1518.	663.3	1618.	663.0	1780.	654.0	1821.	238000
GR	652.3	1832.	650.5	1846.	646.8	1861.	645.5	1875.	644.8	1883.	239000
GR	640.3	1903.	640.2	1906.	638.3	1918.	639.3	1938.	639.4	1956.	240000
GR	640.2	1960.	644.4	1972.	649.0	1984.	652.9	1998.	658.0	2010.	241000
GR	662.6	2040.	662.3	2118.	661.7	2206.	661.8	2418.	664.0	2811.	242000
GR	668.0	2903.	.0	.0	.0	.0	.0	.0	.0	.0	243000
ET	0.	.00	.00	.00	.00	.00	8.11	1815.00	2015.00	.00	244000

X1	19.37	0.	0.	0.	20.	20.	20.	.00	.00	0.	245000
MC	.100	.100	.045	.1	.3						246000
QT	6.	4000.	7800.	11500.	13200.	17600.	13200.	0.	0.	0.	247000
ET	0.	.00	.00	.00	.00	.00	8.11	1560.00	2080.00	.00	248000

X1	19.45	29.	1884.	1988.	240.	290.	390.	.00	.00	0.	249000
GR	668.0	0.	664.0	691.	660.1	1028.	656.0	1152.	652.0	1459.	250000
GR	649.0	1631.	652.0	1726.	652.0	1873.	652.5	1884.	647.2	1892.	251000
GR	645.8	1897.	640.3	1907.	639.2	1912.	639.7	1928.	640.1	1944.	252000
GR	640.3	1960.	644.8	1967.	649.6	1988.	652.0	2125.	660.0	2245.	253000
GR	662.7	2359.	660.5	2382.	662.2	2404.	662.3	2426.	661.0	2433.	254000
GR	663.0	2434.	662.2	2456.	664.0	2811.	668.0	2903.	.0	0.	255000
MC	.070	.080	.040	.0	.0						256000
QT	6.	4000.	7800.	11500.	13200.	17600.	13200.	0.	0.	0.	257000
ET	0.	.00	.00	.00	.00	.00	8.11	770.00	1320.00	.00	258000

X1	19.73	30.	1156.	1241.	870.	920.	1450.	.00	.00	0.	259000
GR	668.0	0.	665.1	196.	662.9	256.	661.3	356.	659.7	456.	260000
GR	659.1	486.	657.9	556.	656.3	656.	654.5	756.	653.3	856.	261000
GR	653.1	456.	653.2	1076.	653.5	1110.	653.5	1156.	649.7	1161.	262000
GR	648.2	1166.	644.4	1176.	643.6	1182.	640.6	1186.	641.7	1196.	263000
GR	641.8	1199.	642.1	1209.	640.4	1219.	640.4	1229.	640.0	1239.	264000
GR	643.6	1239.	651.1	1241.	656.0	1282.	650.0	1406.	668.0	1448.	265000
ET	0.	.00	.00	.00	.00	.00	8.11	770.00	1320.00	.00	266000

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X1	19.73	0.	0.	0.	20.	20.	20.	.00	.00	0.	267000
SB	1.15	1.60	3.00	0.	72.00	3.00	704.00	.00	641.5	641.5	268000
ET	0.	.00	.00	.00	.00	.00	8.11	770.00	1320.00	.00	269000

X1	19.73	0.	0.	0.	18.	18.	18.	.00	.00	0.	270000
X2	0.	.00	1.	651.7	653.1	.00	0.	.00	.0	0.	271000
BT	18.0	196.0	665.1	.0	256.0	662.9	.0	356.0	661.3	.0	272000
BT	456.0	659.7	.0	486.0	659.1	.0	556.0	657.9	.0	656.0	273000
BT	656.3	.0	756.0	654.5	.0	856.0	653.3	.0	956.0	653.1	274000
BT	.0	1076.0	653.2	.0	1110.0	653.3	.0	1156.0	654.5	.0	275000
BT	1156.0	658.8	.0	1239.0	658.4	.0	1239.0	654.7	.0	1256.0	276000
BT	654.5	.0	1356.0	654.0	.0	.0	.0	.0	.0	.0	277000
ET	0.	.00	.00	.00	.00	.00	8.11	770.00	1320.00	.00	278000

X1	19.73	0.	0.	0.	5.	5.	5.	.00	.00	0.	279000
NC	.070	.075	.045	.0	.0	.0	.0	.0	.0	.0	280000
QT	6.	3410.	6670.	10030.	11110.	15020.	11110.	0.	0.	0.	281000
ET	0.	.00	.00	.00	.00	.00	8.11	1120.00	1780.00	.00	282000

X1	20.24	24.	1699.	1765.	2050.	2450.	2780.	.00	.00	0.	283000
GR	676.0	0.	672.4	192.	675.5	210.	675.5	233.	669.1	255.	284000
GR	672.0	303.	664.0	620.	660.0	682.	656.9	1084.	657.4	1500.	285000
GR	658.3	1665.	657.6	1699.	656.2	1703.	649.1	1703.	648.5	1705.	286000
GR	648.0	1711.	647.7	1726.	648.3	1739.	646.0	1759.	648.5	1764.	287000
GR	656.0	1765.	659.2	1777.	660.0	1848.	676.0	2078.	.0	0.	288000
NC	.080	.080	.050	.0	.0	.0	.0	.0	.0	.0	289000
QT	6.	3310.	6470.	9730.	10770.	14560.	10770.	0.	0.	0.	290000
ET	0.	.00	.00	.00	.00	.00	8.11	270.00	930.00	.00	291000

X1	20.76	26.	551.	615.	2270.	2370.	2750.	.00	.00	0.	292000
GR	688.1	0.	668.4	68.	662.8	93.	663.7	98.	663.7	120.	293000
GR	660.6	146.	660.3	306.	660.5	470.	662.1	538.	662.6	551.	294000
GR	661.8	554.	654.0	554.	653.2	555.	653.2	570.	653.6	580.	295000
GR	653.2	594.	654.0	606.	661.8	615.	660.2	803.	661.5	1068.	296000
GR	664.0	1264.	668.0	1367.	672.4	1447.	676.0	1481.	680.0	1532.	297000
GR	669.8	1608.	.0	.0	.0	.0	.0	.0	.0	.0	298000
QT	6.	3270.	6390.	9620.	10650.	14400.	10650.	0.	0.	0.	299000
ET	0.	.00	.00	.00	.00	.00	8.11	250.00	930.00	.00	300000

X1	20.95	0.	0.	0.	1050.	570.	1050.	.00	2.40	0.	301000
NC	.075	.085	.050	.0	.0	.0	.0	.0	.0	.0	302000
QT	6.	3230.	6300.	9490.	10510.	14210.	10510.	0.	0.	0.	303000
ET	0.	.00	.00	.00	.00	.00	8.11	980.00	1390.00	.00	304000

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X1	21.16	22.	1298.	1381.	1100.	900.	1100.	.00	.00	0.	305000
GR	676.0	0.	672.6	751.	669.8	810.	667.4	832.	667.0	840.	306000
GR	667.4	992.	667.5	1000.	667.4	1140.	667.4	1209.	665.9	1278.	307000
GR	662.4	1298.	661.8	1308.	656.8	1325.	655.7	1328.	655.5	1338.	308000
GR	655.3	1363.	656.8	1370.	666.0	1381.	668.0	1395.	675.2	1439.	309000
GR	683.7	1516.	688.7	1540.	.0	0.	.0	0.	.0	0.	310000
NC	.000.	.000.	.000.	.3	.5						311000
ET	0.	.00	.00	.00	.00	.00	8.11	980.00	1390.00	.00	312000

X1	21.16	0.	0.	0.	20.	20.	20.	.00	.00	0.	313000
X3	10.	.0	.0	0.	.0	0.	.0	665.7	668.8		314000
SB	1.15	1.60	3.00	0.	35.00	2.00	509.00	2.01	656.0		315000
ET	0.	.00	.00	.00	.00	.00	8.11	980.00	1390.00	.00	316000

X1	21.16	0.	0.	0.	18.	18.	18.	.00	.00	0.	317000
X2	0.	.00	1.	665.8	666.7	.00	0.	.00	.0	0.	318000
X3	10.	.0	.0	0.	.0	0.	.0	666.7	669.4		319000
BT	13.0	810.0	669.8	.0	832.0	667.4	.0	840.0	667.0	.0	320000
BT	900.0	666.7	.0	1000.0	667.5	.0	1100.0	667.9	.0	1200.0	321000
BT	668.2	.0	1300.0	668.7	.0	1300.0	670.3	.0	1368.0	670.3	322000
BT	.0	1368.0	669.4	.0	1400.0	670.5	.0	1453.0	674.2	.0	323000
ET	0.	.00	.00	.00	.00	.00	8.11	980.00	1390.00	.00	324000

AI	X1	21.16	0.	0.	0.	5.	5.	5.	.00	.00	0.	325000
NC	.070	.070	.050	.1	.3							326000
RT	6.	3040.	5950.	8950.	9910.	13400.	9910.	0.	0.	0.		327000
ET	0.	.00	.00	.00	.00	.00	8.11	900.00	1530.00	.00		328000

AK	X1	22.09	31.	1277.	1352.	4300.	4000.	4940.	.00	.00	0.	329000
GR	702.4	0.	696.0	105.	692.0	222.	688.0	396.	684.0	459.		330000
GR	680.0	613.	676.0	732.	672.0	759.	671.8	790.	671.2	869.		331000
GR	672.9	947.	672.9	1247.	675.8	1277.	668.0	1287.	667.7	1299.		332000
GR	667.6	1324.	667.2	1336.	667.6	1343.	673.6	1347.	675.2	1352.		333000
GR	673.9	1508.	674.7	1640.	676.0	1713.	680.0	1871.	684.0	1962.		334000
GR	686.0	2002.	688.0	2282.	692.0	2369.	696.0	2464.	700.0	2603.		335000
GR	704.3	2749.	.0	0.	.0	0.	0.	0.	.0	0.		336000
FJ												337000

THIS RUN EXECUTED 08/21/87, 10:56 AM

 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

T1	MAURY CO TN FEMA	RRUTHMF F276	003	38000
T2	100 YEAR FLOODWAY	Q JCH 7/27/87 SCA 8/12/87	003	39000
T3	RUTHERFORD CREEK (MIDDLE)	REV 100FW	003	40000

J1	ICHECK	ING	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	0.	7.	0.	0.	.00000	0.	.00	18070.	613.19	.00	341000

J2	NPROF	TPL0T	PRFVS	XSECV	XSECH	FN	ALLDC	IRW	CHNIM	ITRACE	
	15.	0.	-1.	0.	0.	.00	.0	0.	0.	0.	342000

THIS RUN EXECUTED 08/21/87, 10:57 AM

 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

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

RUTHERFORD CREEK (MIDDLE)

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	QL00	QCH	QROB
	9.710	612.39	.00	613.18	284.	0.	0.	0.	116.	209.	427.	15382.	2261.
T	9.710	613.19	.80	614.02	180.	180.	100.	280.	116.	209.	193.	16079.	1798.
	10.740	616.16	.00	616.98	256.	0.	0.	0.	411.	504.	2231.	14131.	127.
J	10.740	616.83	.66	617.63	180.	180.	330.	510.	411.	504.	2075.	14354.	61.
	11.550	620.26	.00	620.64	1033.	0.	0.	0.	1498.	1579.	5646.	9052.	1592.
	11.550	620.87	.60	621.37	480.	480.	1140.	1620.	1498.	1579.	5096.	10199.	996.
	11.650	620.73	.00	621.04	1052.	0.	0.	0.	1498.	1583.	5876.	9008.	1375.
V	11.650	621.40	.67	621.83	480.	480.	1140.	1620.	1498.	1583.	5186.	10279.	794.
	11.650	620.76	.00	621.07	1053.	0.	0.	0.	1498.	1583.	5902.	8983.	1375.
	11.650	621.44	.67	621.86	480.	480.	1140.	1620.	1498.	1583.	5203.	10263.	794.
	11.650	621.40	.00	621.64	1079.	0.	0.	0.	1498.	1583.	6395.	8495.	1371.
	11.650	622.27	.88	622.63	480.	480.	1140.	1620.	1498.	1583.	5570.	9900.	790.
	11.650	621.40	.00	621.65	1079.	0.	0.	0.	1498.	1583.	6399.	8490.	1371.
	11.650	622.28	.88	622.63	480.	480.	1140.	1620.	1498.	1583.	5573.	9897.	790.
	11.690	621.54	.00	621.76	1085.	0.	0.	0.	1498.	1579.	6835.	7746.	1669.
	11.690	622.45	.91	622.76	490.	490.	1140.	1630.	1498.	1579.	5910.	9055.	1285.
KI	12.370	623.51	.00	624.12	537.	0.	0.	0.	479.	589.	2230.	13269.	581.
	12.370	624.51	1.00	625.63	380.	380.	260.	640.	479.	589.	2526.	13008.	546.
	13.230	627.57	.00	628.61	382.	0.	0.	0.	1229.	1328.	1992.	13659.	219.
X	13.230	627.89	.32	628.87	340.	340.	1000.	1340.	1229.	1328.	2154.	13538.	177.
	13.800	630.46	.00	630.69	730.	0.	0.	0.	234.	310.	1692.	7742.	6287.
	13.800	630.99	.53	631.46	350.	350.	190.	540.	234.	310.	1120.	10175.	4424.

SECNO CWSL DIFKWS EG TOPWID PERENC STENCL STENCR STCHL STCHR QLOB QCH QROB

13.880	630.66	.00	630.80	723.	0.	0.	0.	155.	368.	36.	12579.	3085.
13.880	631.47	.81	631.66	350.	350.	155.	505.	155.	368.	0.	14346.	1354.
13.880	630.60	.00	630.87	213.	0.	0.	0.	155.	368.	0.	15700.	0.
13.880	631.48	.87	631.66	350.	350.	155.	505.	155.	368.	0.	14367.	1333.
13.880	630.96	.00	631.22	213.	0.	0.	0.	155.	368.	0.	15700.	0.
13.880	631.91	.95	632.09	350.	350.	155.	505.	155.	368.	0.	14316.	1384.
13.880	631.13	.00	631.26	727.	0.	0.	0.	155.	368.	42.	12405.	3253.
13.880	631.92	.78	632.09	350.	350.	155.	505.	155.	368.	0.	14291.	1409.
13.980	631.22	.00	631.39	728.	0.	0.	0.	234.	310.	1739.	6542.	7399.
13.980	631.99	.77	632.29	390.	390.	180.	570.	234.	310.	1406.	8400.	5874.
14.180	631.52	.00	632.09	398.	0.	0.	0.	25.	108.	125.	10143.	5362.
14.180	632.51	1.00	633.01	340.	340.	20.	360.	25.	108.	57.	9972.	5601.
14.550	633.84	.00	634.79	335.	0.	0.	0.	78.	142.	979.	10363.	4198.
14.550	634.39	.55	635.25	320.	320.	40.	360.	78.	142.	856.	10213.	4472.
15.660	640.51	.00	640.84	1011.	0.	0.	0.	1152.	1217.	7122.	7843.	295.
15.660	640.99	.48	641.42	420.	420.	805.	1225.	1152.	1217.	6501.	8647.	112.
16.580	644.00	.00	644.29	1374.	0.	0.	0.	62.	133.	73.	6398.	8559.
16.580	644.98	.98	645.42	800.	800.	55.	855.	62.	133.	60.	7745.	7225.
17.450	648.33	.00	649.01	397.	0.	0.	0.	835.	945.	2228.	12493.	90.
17.450	649.38	1.00	649.91	290.	290.	660.	950.	835.	945.	2481.	12288.	41.
17.640	649.55	.00	651.02	273.	0.	0.	0.	330.	405.	677.	12744.	1349.
17.640	650.26	.72	651.57	220.	220.	290.	510.	330.	405.	751.	12557.	1462.
18.230	654.60	.00	654.93	734.	0.	0.	0.	889.	964.	4367.	7966.	2287.
18.230	655.29	.69	655.79	300.	300.	720.	1020.	889.	964.	3834.	9392.	1394.
18.230	654.71	.00	654.96	740.	0.	0.	0.	889.	964.	5464.	6314.	2841.
18.230	655.38	.67	655.81	300.	300.	720.	1020.	889.	964.	4960.	7860.	1800.
18.230	654.72	.00	654.97	741.	0.	0.	0.	889.	964.	5469.	6309.	2842.
18.230	655.40	.68	655.83	300.	300.	720.	1020.	889.	964.	4963.	7857.	1800.
18.230	654.69	.00	655.01	739.	0.	0.	0.	889.	964.	4412.	7911.	2297.
18.230	655.36	.69	655.86	300.	300.	720.	1020.	889.	964.	3856.	9365.	1399.
18.700	656.30	.00	656.69	564.	0.	0.	0.	41.	118.	379.	8977.	5145.
18.700	657.22	.92	657.57	380.	380.	30.	410.	41.	118.	157.	8825.	5518.
19.200	657.84	.00	657.95	1161.	0.	0.	0.	1884.	1988.	6159.	6379.	1842.
19.200	658.75	.91	658.96	510.	510.	1550.	2060.	1884.	1988.	5025.	8179.	1176.

SECNO CWSL DIFKWS EG TOPWID PERENC STENCL STENCR STCHL STCHR QLQB QCH QROB

19.300	657.87	.00	658.18	1154.	0.	0.	0.	1884.	1988.	2979.	9117.	2254.
19.300	658.85	.98	659.21	440.	440.	1640.	2080.	1884.	1988.	2620.	9939.	1790.
19.370	658.05	.00	658.52	208.	0.	0.	0.	1821.	2010.	34.	13166.	0.
19.370	659.05	1.00	659.45	200.	200.	1815.	2015.	1821.	2010.	26.	13173.	1.
19.370	658.13	.00	658.59	189.	0.	0.	0.	1821.	2010.	0.	13200.	0.
19.370	659.12	.99	659.52	195.	200.	1815.	2015.	1821.	2010.	26.	13174.	0.
19.370	658.09	.00	658.63	177.	0.	0.	0.	1821.	2010.	0.	13200.	0.
19.370	659.08	.99	659.55	179.	200.	1815.	2015.	1821.	2010.	0.	13200.	0.
19.370	658.17	.00	658.70	178.	0.	0.	0.	1821.	2010.	0.	13200.	0.
19.370	659.15	.98	659.61	179.	200.	1815.	2015.	1821.	2010.	0.	13200.	0.
19.370	658.28	.00	658.73	210.	0.	0.	0.	1821.	2010.	38.	13152.	0.
19.370	659.24	.96	659.63	200.	200.	1815.	2015.	1821.	2010.	27.	13172.	2.
19.370	658.30	.00	658.75	211.	0.	0.	0.	1821.	2010.	39.	13161.	0.
19.370	659.25	.95	659.64	200.	200.	1815.	2015.	1821.	2010.	27.	13171.	2.
19.450	658.85	.00	658.98	1162.	0.	0.	0.	1884.	1988.	5094.	6583.	1523.
19.450	659.65	.80	659.88	520.	520.	1560.	2080.	1884.	1988.	3845.	8176.	1179.
19.730	659.32	.00	659.57	927.	0.	0.	0.	1156.	1241.	4739.	7255.	1207.
19.730	660.26	.94	660.52	550.	550.	770.	1320.	1156.	1241.	4679.	7538.	983.
19.730	659.33	.00	659.59	928.	0.	0.	0.	1156.	1241.	4744.	7248.	1208.
19.730	660.27	.94	660.53	550.	550.	770.	1320.	1156.	1241.	4683.	7534.	983.
19.730	659.37	.00	659.62	930.	0.	0.	0.	1156.	1241.	4768.	7220.	1212.
19.730	660.37	1.00	660.62	550.	550.	770.	1320.	1156.	1241.	4723.	7489.	988.
19.730	659.37	.00	659.62	930.	0.	0.	0.	1156.	1241.	4769.	7219.	1213.
19.730	660.38	1.00	660.63	550.	550.	770.	1320.	1156.	1241.	4724.	7488.	989.
20.240	661.32	.00	661.55	1205.	0.	0.	0.	1699.	1765.	6277.	4632.	202.
20.240	662.15	.83	662.44	660.	660.	1120.	1780.	1699.	1765.	5813.	5186.	111.
20.760	664.86	.00	665.03	1202.	0.	0.	0.	551.	615.	3503.	3417.	3851.
20.760	665.81	.95	666.04	660.	660.	270.	930.	551.	615.	3235.	4042.	3493.
20.950	666.54	.00	666.85	182.	0.	0.	0.	551.	615.	3309.	3890.	3451.
20.950	667.53	.94	667.82	680.	680.	250.	930.	551.	615.	3213.	4246.	3191.
21.160	669.34	.00	670.27	589.	0.	0.	0.	1298.	1381.	2235.	8211.	64.
21.160	669.94	.60	670.82	410.	410.	980.	1390.	1298.	1381.	2116.	8341.	53.
21.160	669.51	.00	670.36	592.	0.	0.	0.	1298.	1381.	2391.	8049.	70.
21.160	670.05	.54	670.89	410.	410.	980.	1390.	1298.	1381.	2190.	8266.	55.

SECNO CWSL DIFKWS EG TOPWID PERENC STENCL STENCR STCHL STCHR QLOB QCH QROB

21.160	669.97	.00	670.64	601.	0.	0.	0.	1298.	1381.	2813.	7611.	85.
21.160	670.97	1.00	671.55	410.	410.	980.	1390.	1298.	1381.	2772.	7674.	84.
21.160	669.99	.00	670.65	601.	0.	0.	0.	1298.	1381.	2825.	7599.	86.
21.160	670.98	.99	671.56	410.	410.	980.	1390.	1298.	1381.	2774.	7672.	64.
22.090	677.72	.00	677.82	1100.	0.	0.	0.	1277.	1352.	5637.	2604.	1669.
22.090	678.65	.93	678.81	630.	630.	900.	1530.	1277.	1352.	5100.	3389.	1422.

FLOODWAY DATA, RUTHERFORD CREEK (MIDDLE)
PROFILE NO. 2

STATION	FLOODWAY			WATER SURFACE ELEVATION		
	WIDTH	SECTION AREA	MEAN VELOCITY	WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
9.710	180.	2991.	6.0	613.2	612.4	.8
10.740	180.	2774.	5.9	616.8	616.2	.6
11.550	480.	4319.	3.8	620.9	620.3	.6
11.750	480.	4615.	3.5	621.4	620.7	.7
11.650	480.	4632.	3.5	621.4	620.8	.6
11.650	480.	5034.	3.2	622.3	621.4	.9
11.650	480.	5037.	3.2	622.3	621.4	.9
11.690	490.	5199.	3.1	622.5	621.5	1.0
12.370	380.	3781.	4.3	624.5	623.5	1.0
13.230	340.	2712.	5.9	627.9	627.6	.3
13.800	350.	4009.	3.9	631.0	630.5	.5
13.880	350.	5145.	3.1	631.5	630.7	.8
13.880	350.	5146.	3.0	631.5	630.6	.9
13.880	350.	5300.	3.0	631.9	631.0	.9
13.880	350.	5300.	3.0	631.9	631.1	.8
13.980	390.	4341.	3.6	632.0	631.2	.8
14.180	340.	3654.	4.3	632.5	631.5	1.0
14.550	320.	2957.	5.3	634.4	633.8	.6
15.660	420.	4269.	3.6	641.0	640.5	.5
16.580	800.	4554.	3.3	645.0	644.0	1.0
17.450	290.	3144.	4.7	649.4	648.4	1.0
17.640	220.	2071.	7.1	650.3	649.5	.8
18.230	300.	3367.	4.3	655.3	654.6	.7
18.230	300.	3216.	4.5	655.4	654.7	.7
18.230	300.	3220.	4.5	655.4	654.7	.7
18.230	300.	3394.	4.3	655.4	654.7	.7
18.700	380.	4089.	3.5	657.2	656.3	.9
19.200	510.	5351.	2.7	658.8	657.8	1.0
19.300	440.	4571.	3.1	658.8	657.9	.9
19.370	200.	2614.	5.0	659.1	658.0	1.1
19.370	200.	2625.	5.0	659.1	658.1	1.0
19.370	200.	2410.	5.5	659.1	658.1	1.0
19.370	200.	2421.	5.5	659.1	658.2	.9
19.370	200.	2654.	5.0	659.2	658.3	.9
19.370	200.	2656.	5.0	659.3	658.3	1.0
19.450	520.	5381.	2.5	659.7	658.9	.8
19.730	550.	4729.	2.8	660.3	659.3	1.0
19.730	550.	4735.	2.8	660.3	659.3	1.0
19.730	550.	4791.	2.8	660.4	659.4	1.0
19.730	550.	4792.	2.8	660.4	659.4	1.0
20.240	660.	3699.	3.0	662.2	661.3	.9
20.760	660.	3743.	2.9	665.8	664.9	.9

FLOODWAY DATA, RUTHERFORD CREEK (MIDDLE)
 PROFILE NO. 2

STATION	WIDTH	FLOODWAY		WATER SURFACE ELEVATION		
		SECTION AREA	MEAN VELOCITY	WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
20.950	680.	3386.	3.1	667.5	666.6	.9
21.160	410.	1946.	5.4	669.9	669.3	.6
21.160	410.	1990.	5.3	670.0	669.5	.5
21.160	410.	2370.	4.4	671.0	670.0	1.0
21.160	410.	2371.	4.4	671.0	670.0	1.0
22.090	630.	3632.	2.7	678.6	677.7	.9

THIS RUN EXECUTED 08/21/87, 10:54 AM

 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

T1	MAURY CO TN FEMA	RRUTHM F276	000	1000
T2	2 YEAR FLOOD	@ JCH 7/27/87 BPL 5/2/87	000	2000
T3	RUTHERFORD CREEK (MIDDLE)	REV 2,10,50,100,500	000	3000

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	U	WSEL	FG	
	0.	2.	0.	0.	.00000	0.	.00	5420.	602.58	.00	4000

J2	NPROF	TPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	1.	0.	-1.	0.	0.	.00	.0	0.	0.	0.	5000

J3 VARIABLE COEFS FOR SUMMARY PRINTOUT

	150.00	.00	160.00	.00	.00	.00	.00	.00	.00	.00	6000
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NC	.090	.070	.035	.1	.3						8000
QT	6.	5420.	10630.	15760.	18070.	23760.	18070.	0.	0.	0.	9000

X1	9.71	13.	116.	209.	3500.	4300.	4500.	.00	.00	0.	10000
GR	616.0	0.	603.3	116.	590.8	136.	587.8	146.	587.6	171.	11000
GR	587.8	186.	587.9	196.	590.8	199.	601.4	209.	604.0	302.	12000
GR	615.4	323.	616.0	400.	620.0	600.	.0	0.	.0	0.	13000
NC	.080	.110	.040	.0	.0						14000
QT	6.	4940.	9700.	14370.	16490.	21690.	16490.	0.	0.	0.	15000

Y1	10.74	12.	411.	504.	5100.	4700.	5170.	.00	.00	0.	16000
GR	628.0	0.	620.0	179.	616.0	271.	608.0	341.	604.3	411.	17000
GR	597.6	426.	594.6	446.	592.7	466.	594.4	486.	597.6	488.	18000
GR	604.6	504.	628.0	542.	.0	0.	.0	0.	.0	0.	19000
NC	.080	.100	.045	.0	.0						20000
QT	6.	4880.	9580.	14200.	16290.	21420.	16290.	0.	0.	0.	21000

X1	11.55	19.	1498.	1579.	3500.	4000.	4240.	.00	.00	0.	22000
GR	636.0	0.	628.0	350.	620.0	650.	617.0	900.	616.0	1195.	23000
GR	613.3	1421.	611.0	1469.	609.9	1498.	604.5	1510.	601.3	1524.	24000
GR	590.9	1544.	601.0	1559.	604.5	1569.	608.0	1579.	612.0	1646.	25000
GR	620.0	1672.	626.8	1695.	626.1	1716.	636.1	1910.	.0	0.	26000
QT	6.	4870.	9570.	14180.	16260.	21390.	16260.	0.	0.	0.	27000

X1	13.80	16.	234.	310.	2050.	2750.	3050.	.00	-60	0.	66000
GR	640.0	0.	632.5	83.	632.5	117.	624.2	141.	620.0	234.	67000
GR	613.6	240.	609.9	240.	609.3	260.	609.1	287.	609.9	297.	68000
GR	613.6	297.	622.2	310.	623.8	594.	624.3	784.	628.0	840.	69000
GR	640.0	884.	.0	0.	.0	0.	.0	0.	.0	0.	70000
NC	.065	.065	.035	.3	.5						71000
QT	6.	4710.	9240.	13690.	15700.	20660.	15700.	0.	0.	0.	72000

X1	13.88	15.	155.	368.	380.	380.	380.	.00	.00	0.	73000
GR	640.0	0.	632.5	80.	632.5	117.	625.5	155.	613.4	190.	74000
GR	610.7	204.	611.4	23.	608.5	267.	610.0	302.	613.0	345.	75000
GR	622.5	368.	623.8	594.	624.3	784.	628.0	840.	640.0	884.	76000

X1	13.88	0.	0.	0.	20.	20.	20.	.00	.00	0.	77000
X3	10.	.0	.0	0.	.0	0.	.0	631.8	631.1		78000
SB	.90	1.60	3.00	0.	120.00	9.00	3151.00	3.79	610.0	610.0	79000

X1	13.88	0.	0.	0.	32.	32.	32.	.00	.00	0.	80000
X2	0.	.00	1.	627.7	631.5	.00	0.	.00	.0	0.	81000
X3	10.	.0	.0	0.	.0	0.	.0	632.2	631.5		82000
BT	12.0	.0	640.0	.0	88.0	632.2	.0	133.0	632.4	.0	83000
BT	133.0	634.4	.0	142.0	634.9	.0	388.0	634.9	.0	400.0	84000
BT	634.5	.0	400.0	632.5	.0	488.0	631.8	.0	588.0	631.5	85000
BT	.0	688.0	632.1	.0	870.0	636.0	.0	.0	.0	.0	86000

X1	13.88	0.	0.	0.	5.	5.	5.	.00	.00	0.	87000
NC	.070	.065	.050	.0	.0						88000
QT	6.	4700.	9220.	13670.	15680.	20630.	15680.	0.	0.	0.	89000

X1	13.98	16.	234.	310.	500.	500.	500.	.00	.40	0.	90000
GR	640.0	0.	632.5	83.	632.5	117.	624.2	141.	620.0	234.	91000
GR	613.6	240.	609.9	240.	609.3	260.	609.1	287.	609.9	297.	92000
GR	613.6	297.	622.2	310.	623.8	594.	624.3	784.	628.0	840.	93000
GR	640.0	884.	.0	0.	.0	0.	.0	0.	.0	0.	94000
NC	.070	.065	.040	.1	.3						95000
QT	6.	4680.	9190.	13630.	15630.	20570.	15630.	0.	0.	0.	96000

X1	14.18	15.	25.	108.	1000.	600.	1000.	.00	.00	0.	97000
GR	636.0	0.	622.5	25.	620.0	30.	611.0	50.	611.0	80.	98000
GR	620.0	100.	622.5	108.	624.0	125.	624.0	340.	628.0	380.	99000
GR	632.0	410.	636.0	500.	640.0	1050.	.0	0.	.0	0.	100000
NC	.090	.075	.045	.0	.0						101000
QT	6.	4660.	9140.	13540.	15540.	20450.	15540.	0.	0.	0.	102000

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X1	14.55	12.	78.	142.	2070.	1720.	2070.	.00	.00	0.	103000
GR	644.0	0.	628.2	38.	624.5	72.	616.5	78.	613.0	88.	104000
GR	615.1	98.	615.0	108.	616.5	118.	619.0	133.	624.4	142.	105000
GR	628.0	293.	644.0	476.	.0	0.	.0	0.	.0	0.	106000
NC	.075	.080	.040	.0	.0						107000
QT	6.	4570.	8980.	13300.	15260.	20090.	15260.	0.	0.	0.	108000

X1	15.66	19.	1152.	1217.	4500.	5900.	6090.	.00	.00	0.	109000
GR	648.0	0.	640.0	259.	635.9	501.	638.9	722.	631.1	935.	110000
GR	633.3	1084.	631.5	1128.	630.4	1152.	622.9	1158.	620.5	1161.	111000
GR	620.0	1184.	620.4	1207.	622.9	1215.	630.4	1217.	632.6	1230.	112000
GR	639.7	1240.	639.7	1250.	646.3	1279.	648.0	1502.	.0	0.	113000
NC	.100	.065	.040	.0	.0						114000
QT	6.	4500.	8840.	13100.	15030.	19790.	15030.	0.	0.	0.	115000

X1	16.58	20.	62.	133.	4700.	3500.	4860.	.00	.00	0.	116000
GR	656.0	0.	652.2	11.	652.4	25.	636.2	62.	629.9	77.	117000
GR	628.9	78.	627.6	97.	627.5	107.	628.6	125.	629.9	125.	118000
GR	636.4	133.	641.8	191.	642.9	221.	639.7	256.	640.6	502.	119000
GR	639.0	1259.	644.0	1418.	649.4	1566.	647.5	1682.	656.0	2038.	120000
NC	.075	.085	.045	.0	.0						121000
QT	6.	4440.	8710.	12910.	14810.	19500.	14810.	0.	0.	0.	122000

X1	17.45	15.	835.	945.	3950.	4710.	4710.	.00	.00	0.	123000
GR	660.0	0.	656.0	80.	652.0	345.	648.0	595.	644.0	700.	124000
GR	640.0	835.	632.0	850.	630.2	855.	630.2	925.	632.0	930.	125000
GR	640.0	945.	644.0	950.	648.0	965.	652.0	1005.	656.0	1035.	126000
NC	.090	.050	.050	.0	.0						127000
QT	6.	4420.	8680.	12870.	14770.	19440.	14770.	0.	0.	0.	128000

X1	17.64	15.	330.	405.	700.	1010.	1010.	.00	.00	0.	129000
GR	660.0	0.	652.0	199.	651.0	273.	648.0	291.	644.1	298.	130000
GR	643.0	330.	632.4	344.	630.0	344.	630.1	354.	630.0	370.	131000
GR	631.4	385.	632.4	390.	643.2	405.	648.0	544.	660.0	624.	132000
NC	.065	.065	.040	.0	.0						133000
QT	6.	4380.	8600.	12740.	14620.	19250.	14620.	0.	0.	0.	134000

X1	18.23	19.	889.	964.	3150.	2600.	3150.	.00	.00	0.	135000
GR	664.0	0.	656.0	328.	652.0	502.	648.1	808.	644.0	847.	136000
GR	643.0	889.	635.8	899.	634.6	899.	634.1	919.	634.8	934.	137000
GR	635.8	946.	642.0	955.	642.4	959.	645.0	964.	647.2	1063.	138000
GR	655.9	1134.	655.3	1178.	656.0	1453.	664.0	1934.	.0	0.	139000
NC	.000	.000	.000	.3	.5						140000

X1	18.23	20.	889.	964.	10.	10.	10.	.00	.00	0.	141000
BT	4.0	915.0	638.7	.0	915.0	638.7	636.9	925.0	638.7	636.9	142000
BT	925.0	638.7	.0	.0	.0	.0	.0	.0	.0	.0	143000
GR	664.0	0.	656.0	328.	652.0	502.	648.1	808.	644.0	847.	144000
GR	643.0	889.	638.7	895.	638.7	915.	634.1	915.	634.1	925.	145000
GR	638.7	925.	638.7	949.	642.0	955.	642.9	959.	645.0	964.	146000
GR	647.2	1063.	655.9	1134.	655.3	1178.	656.0	1453.	664.0	1434.	147000

X1	18.23	0.	0.	0.	12.	12.	12.	.00	.00	0.	148000
X2	0.	.00	0.	.0	.0	.00	1.	.00	.0	0.	149000

X1	18.23	19.	889.	964.	5.	5.	5.	.00	.00	0.	150000
GR	664.0	0.	656.0	328.	652.0	502.	648.1	808.	644.0	847.	151000
GR	643.0	889.	635.8	899.	634.6	899.	634.1	919.	634.8	934.	152000
GR	635.8	946.	642.0	955.	642.4	959.	645.0	964.	647.2	1063.	153000
GR	655.9	1134.	655.3	1178.	656.0	1453.	664.0	1434.	.0	0.	154000
NC	.085	.070	.045	.1	.3						155000
QT	6.	4350.	8530.	12640.	14500.	19100.	14500.	0.	0.	0.	156000

X1	18.70	14.	41.	118.	2050.	2500.	2500.	.00	.00	0.	157000
GR	664.0	0.	648.3	24.	646.3	41.	636.7	56.	635.1	70.	158000
GR	634.7	87.	634.8	97.	635.9	107.	636.7	107.	647.4	118.	159000
GR	648.0	270.	656.0	543.	660.0	980.	664.0	1100.	.0	0.	160000
NC	.080	.060	.045	.0	.0						161000
QT	6.	4310.	8460.	12530.	14380.	18930.	14380.	0.	0.	0.	162000

X1	19.20	29.	1584.	1988.	1910.	2130.	2710.	.00	-1.00	0.	163000
GR	668.0	0.	664.0	691.	660.1	1028.	656.0	1152.	652.0	1459.	164000
GR	649.0	1631.	652.0	1726.	652.0	1873.	652.5	1884.	647.2	1892.	165000
GR	645.8	1897.	640.3	1907.	639.2	1912.	639.7	1928.	640.1	1944.	166000
GR	640.3	1960.	644.8	1967.	649.6	1988.	652.0	2125.	660.0	2245.	167000
GR	662.7	2359.	660.5	2382.	662.2	2404.	662.3	2426.	661.0	2433.	168000
GR	663.0	2439.	662.2	2456.	664.0	2811.	668.0	2903.	.0	0.	169000
NH	5.	.500	1726.	.030	1884.	.045	1988.	.080	2125.	.500	170000
NH	2903.	.000	0.	.000	0.	.000	0.	.000	0.	.000	171000
QT	6.	4300.	8440.	12510.	14350.	18900.	14350.	0.	0.	0.	172000

X1	19.30	0.	0.	0.	300.	300.	360.	.00	.20	0.	173000
NC	.080	.080	.045	.3	.5						174000
QT	6.	4000.	7800.	11500.	13200.	17600.	13200.	0.	0.	0.	175000

X1	19.37	31.	1821.	2010.	300.	300.	300.	.00	.00	0.	176000
GR	667.0	0.	664.0	680.	660.0	1020.	660.9	1218.	661.5	1318.	177000
GR	662.3	1418.	662.9	1518.	663.3	1618.	663.0	1780.	654.0	1821.	178000
GR	652.3	1832.	650.5	1846.	646.8	1861.	645.5	1875.	644.8	1883.	179000
GR	640.3	1903.	640.2	1906.	638.3	1918.	639.3	1938.	639.4	1956.	180000

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GR	640.2	1960.	644.4	1972.	649.0	1984.	652.9	1998.	658.0	2010.	181000
GR	662.6	2040.	662.3	2118.	661.7	2206.	661.8	2418.	664.0	2810.	192000
GR	668.0	2903.	.0	0.	.0	0.	.0	0.	.0	0.	183000

X1	19.37	0.	0.	0.	80.	80.	80.	.00	.00	0.	184000
X3	10.	.0	.0	0.	.0	0.	.0	658.5	660.0	0.	185000

X1	19.37	46.	1821.	2010.	1.	1.	1.	.00	.00	0.	186000
BT	8.0	1821.0	662.9	.0	1821.0	663.3	660.6	1903.0	663.3	659.5	187000
BT	1903.0	663.3	660.6	1956.0	663.3	660.6	1956.0	663.3	659.5	2010.0	188000
BT	663.3	660.6	2010.0	662.3	.0	.0	.0	.0	.0	.0	189000
GR	667.9	0.	663.6	700.	660.0	1020.	660.9	1218.	661.5	1318.	190000
GR	662.3	1418.	662.9	1518.	663.3	1618.	662.9	1821.	658.3	1821.	191000
GR	650.5	1844.	660.2	1844.	660.2	1843.	650.5	1846.	646.8	1861.	192000
GR	645.5	1873.	659.8	1873.	659.8	1875.	645.5	1875.	644.8	1883.	193000
GR	640.3	1901.	659.5	1901.	659.5	1903.	640.3	1903.	640.2	1906.	194000
GR	638.3	1918.	639.3	1938.	639.4	1956.	659.5	1956.	659.5	1958.	195000
GR	639.4	1958.	640.2	1960.	644.4	1972.	649.0	1984.	660.0	1984.	196000
GR	660.0	1988.	649.0	1986.	652.9	1998.	658.6	2010.	662.3	2010.	197000
GR	662.6	2040.	662.3	2118.	661.7	2206.	661.8	2418.	664.0	2811.	198000
GR	668.0	2903.	.0	0.	.0	0.	.0	0.	.0	0.	199000

X1	19.37	0.	0.	0.	29.	29.	29.	.00	.00	0.	200000
X2	0.	.00	0.	.0	.0	.00	1.	.00	.0	0.	201000

X1	19.37	31.	1821.	2010.	1.	1.	1.	.00	.00	0.	202000
GR	667.0	0.	664.0	680.	660.0	1020.	660.9	1218.	661.5	1318.	203000
GR	662.3	1418.	662.9	1518.	663.3	1618.	663.0	1780.	654.0	1821.	204000
GR	652.3	1832.	650.5	1846.	646.8	1861.	645.5	1875.	644.8	1883.	205000
GR	640.3	1903.	640.2	1906.	638.3	1918.	639.3	1938.	639.4	1956.	206000
GR	640.2	1960.	644.4	1972.	649.0	1984.	652.9	1998.	658.0	2010.	207000
GR	662.6	2040.	662.3	2118.	661.7	2206.	661.8	2418.	664.0	2810.	208000
GR	668.0	2903.	.0	0.	.0	0.	.0	.0	.0	0.	209000

X1	19.37	0.	0.	0.	20.	20.	20.	.00	.00	0.	210000
NC	.100	.100	.045	.1	.3						211000
QT	6.	4000.	7800.	11500.	13200.	17600.	13200.	0.	0.	0.	212000

X1	19.45	29.	1884.	1988.	240.	290.	390.	.00	.00	0.	213000
GR	668.0	0.	664.0	691.	660.1	1028.	656.0	1152.	652.0	1459.	214000
GR	649.0	1631.	652.0	1726.	652.0	1873.	652.5	1884.	647.2	1892.	215000
GR	645.8	1807.	640.3	1907.	639.2	1912.	639.7	1928.	640.1	1944.	216000
GR	640.3	1960.	644.8	1967.	649.6	1986.	652.0	2125.	660.0	2245.	217000
GR	662.7	2359.	660.5	2382.	662.2	2404.	662.3	2426.	661.0	2433.	218000
GR	663.0	2439.	662.2	2456.	664.0	2811.	668.0	2903.	.0	0.	219000
NC	.070	.060	.040	.0	.0						220000
BT	6.	4000.	7800.	11500.	13200.	17600.	13200.	0.	0.	0.	221000

X1	19.73	30.	1156.	1241.	870.	1920.	1450.	.00	.00	0.	222000
GR	668.0	0.	665.1	196.	662.9	256.	661.3	356.	659.7	456.	223000
GR	659.1	486.	657.9	556.	656.3	656.	654.5	756.	653.3	856.	224000
GR	653.1	956.	653.2	1076.	653.5	1110.	653.5	1156.	649.7	1161.	225000
GR	648.2	1166.	644.4	1176.	643.6	1182.	640.6	1186.	641.7	1196.	226000
GR	641.8	1199.	642.1	1209.	640.4	1219.	640.4	1229.	640.0	1239.	227000
GR	643.6	1239.	651.1	1241.	656.0	1382.	660.0	1406.	668.0	1448.	228000

X1	19.73	0.	0.	0.	20.	20.	20.	.00	.00	0.	229000
SB	1.15	1.60	3.00	0.	72.00	3.00	704.00	.00	641.5	641.5	230000

X1	19.73	0.	0.	0.	18.	18.	18.	.00	.00	0.	231000
X2	0.	.00	1.	651.7	653.1	.00	0.	.00	0.	0.	232000
RT	19.0	196.0	665.1	0	256.0	662.9	0	356.0	661.3	0	233000
RI	356.0	659.7	0	486.0	659.1	0	556.0	657.9	0	656.0	234000
RT	656.3	0	756.0	654.5	0	856.0	653.3	0	956.0	653.1	235000
RI	0	1076.0	653.2	0	1110.0	653.3	0	1156.0	654.5	0	236000
RI	1156.0	656.0	0	1239.0	658.0	0	1239.0	654.7	0	1256.0	237000
RT	654.5	0	1756.0	654.0	0	0	0	0	0	0	238000

X1	19.73	0.	0.	0.	5.	5.	5.	.00	.00	0.	239000
NC	.070	.075	.045	0	0	0	0	0	0	0	240000
OT	6.	3010.	6670.	10030.	11110.	15020.	11110.	0.	0.	0.	241000

X1	20.24	24.	1699.	1765.	2050.	2450.	2780.	.00	.00	0.	242000
GR	676.0	0.	672.4	192.	675.5	210.	675.5	233.	669.1	255.	243000
GR	672.0	303.	664.0	620.	660.0	682.	656.9	1084.	657.0	1500.	244000
GR	658.3	1665.	657.6	1699.	656.2	1703.	649.1	1703.	648.5	1705.	245000
GR	648.0	1711.	647.7	1720.	648.3	1733.	648.0	1754.	648.5	1764.	246000
GR	656.0	1765.	659.2	1777.	660.0	1848.	676.0	2078.	0	0.	247000
NC	.060	.080	.050	0	0	0	0	0	0	0	248000
OT	6.	3310.	6470.	9730.	10770.	14560.	10770.	0.	0.	0.	249000

X1	20.76	26.	551.	615.	2270.	2370.	2750.	.00	.00	0.	250000
GR	688.1	0.	688.4	68.	662.8	93.	663.7	96.	663.7	120.	251000
GR	680.6	140.	680.3	306.	680.5	470.	682.1	538.	682.6	551.	252000
GR	661.8	554.	654.0	554.	653.2	555.	653.2	570.	653.6	580.	253000
GR	653.2	594.	654.0	606.	661.8	615.	660.2	603.	661.5	1068.	254000
GR	664.0	1264.	668.0	1367.	672.4	1047.	676.0	1481.	680.0	1532.	255000
GR	669.8	1608.	0	0	0	0	0	0	0	0	256000
OT	6.	3270.	6390.	9620.	10650.	14400.	10650.	0.	0.	0.	257000

THIS RUN EXECUTED 08/21/87, 10:56 AM

 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CDPR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

T1	MAURY CO TN FEMA	RRUTHM F276	002	90000
T2	10 YEAR FLOOD	Q JCH 7/27/87 RPL 5/2/87	002	91000
T3	RUTHERFORD CREEK (MIDDLE)	REV 2,10,50,100,500	002	92000

J1	ICHECK	ING	MINV	TDIR	STPT	METRIC	HVINS	Q	WSEL	F0	
	0.	3.	0.	0.	.00000	0.	.00	10630.	607.77	.00	293000

J2	WPPGE	TPL0T	PREVS	XSECV	XSECH	FN	ALLDC	IRW	CHNIM	ITRACE	
	2.	0.	-1.	0.	0.	.00	.0	0.	0.	0.	294000

 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

T1	MAURY CD TN FEMA	RRUTHM F276	002	95000
T2	50 YEAR FLOOD	Q JCH 7/27/87 RPL 5/2/87	002	96000
T3	RUTHERFORD CREEK (MIDDLE)	REV 2,10,50,100,500	002	97000

J1	ICHECK	ING	NINV	IBR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	0.	4.	0.	0.	.00000	0.	.00	15760.	611.30	.00	298000

J2	NPROF	IPLUT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	3.	0.	-1.	0.	0.	.00	.0	0.	0.	0.	299000

THIS RUN EXECUTED 08/21/87, 10:57 AM

 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

T1	MAURY CO TN FEMA	RRUTHM F276	003	0
T2	100 YEAR FLOOD	Q JCH 7/27/87 BPL 5/2/87	003	1000
T3	RUTHERFORD CREFK (MIDDLE)	REV 2,10,50,100,500	003	2000

J1	TCHECK	INQ	NINV	IDIR	SIRT	METRIC	HVINS	Q	WSEL	FQ	
	0.	5.	0.	0.	.00000	0.	.00	18070.	612.39	.00	303000

J2	NPROF	IPLUT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	4.	0.	-1.	0.	0.	.00	.0	0.	0.	0.	304000

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 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

T1	MADRY CO TN FEMA	RRUTHM F276	003	5000
T2	500 YEAR FLOOD	Q JCH 7/27/87 RPL 5/2/87	003	6000
T3	RUTHERFORD CREEK (MIDDLE)	REV 2,10,50,100,500	003	7000

J1	ICHECK	INW	NINW	IDIR	STRT	METRIC	HVINS	Q	WSEL	FG	
	0.	6.	0.	0.	.00000	0.	.00	23760.	614.75	.00	308000

J2	NPROF	TPLUT	PRFVS	XSECV	XSECH	FN	ALLDC	IRW	CHNIM	ITRACE	
	15.	0.	-1.	0.	0.	.00	.0	0.	0.	0.	309000

 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

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

RUTHERFORD CREEK (MIDDLE

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	FLMIN	Q	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
9.710	4500.	.0	.0	587.6	5420.0	602.58	.00	602.96	5.76	4.95	1118.71	2257.65
9.710	4500.	.0	.0	587.6	10630.0	607.77	.00	608.33	5.75	6.25	2151.91	4431.80
9.710	4500.	.0	.0	587.6	15760.0	611.30	.00	612.00	5.90	7.18	3045.52	6485.91
9.710	4500.	.0	.0	587.6	18070.0	612.39	.00	613.18	6.28	7.67	3349.08	7210.31
9.710	4500.	.0	.0	587.6	23760.0	614.75	.00	615.74	7.08	8.73	4051.02	8926.54
Section U	10.740	5170.	.0	.0	592.7	4940.0	606.46	.00	606.91	10.82	956.60	1502.13
	10.740	5170.	.0	.0	592.7	9700.0	611.40	.00	612.02	9.29	1825.56	3182.82
	10.740	5170.	.0	.0	592.7	14370.0	614.91	.00	615.67	8.88	2605.55	4821.61
	10.740	5170.	.0	.0	592.7	16490.0	616.16	.00	616.98	8.99	2914.94	5498.62
	10.740	5170.	.0	.0	592.7	21690.0	618.88	.00	619.83	9.14	3698.63	7174.55
	11.550	4240.	.0	.0	599.9	4380.0	612.24	.00	612.80	18.44	977.86	1136.38
	11.550	4240.	.0	.0	599.9	9580.0	616.24	.00	616.86	15.03	2273.18	2471.15
	11.550	4240.	.0	.0	599.9	14200.0	619.15	.00	619.59	10.32	4608.57	4421.08
	11.550	4240.	.0	.0	599.9	16290.0	620.26	.00	620.64	8.86	5711.42	5473.94
	11.550	4240.	.0	.0	599.9	21420.0	622.68	.00	622.96	6.52	8319.50	8388.27
Section V	11.650	500.	.0	.0	599.7	4870.0	613.14	.00	613.51	10.99	1204.94	1469.05
	11.650	500.	.0	.0	599.7	9570.0	617.05	.00	617.49	10.03	2835.37	3021.48
	11.650	500.	.0	.0	599.7	14180.0	619.71	.00	620.05	7.82	5176.35	5070.02
	11.650	500.	.0	.0	599.7	16260.0	620.73	.00	621.04	7.02	6232.85	6136.95
	11.650	500.	.0	.0	599.7	21390.0	623.01	.00	623.26	5.60	8738.47	9036.65
	11.650	40.	.0	.0	599.7	4870.0	613.19	.00	613.56	10.75	1218.32	1485.46
	11.650	40.	.0	.0	599.7	9570.0	617.10	.00	617.53	9.84	2873.77	3051.17
	11.650	40.	.0	.0	599.7	14180.0	619.74	.00	620.08	7.72	5212.49	5104.57
	11.650	40.	.0	.0	599.7	16260.0	620.76	.00	621.07	6.94	6266.27	6172.47
	11.650	40.	.0	.0	599.7	21390.0	623.04	.00	623.28	5.56	8766.22	9071.19

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRINS	EC	10K*8	VCH	AREA	01K	
11.650	15.	617.8	618.0	599.7	4870.0	613.21	.00	613.58	10.68	5.04	1221.50	1489.85	
11.650	15.	617.8	616.0	599.7	9570.0	617.13	.00	617.55	9.74	5.92	2893.57	3066.56	
11.650	15.	617.8	618.0	599.7	14180.0	620.71	.00	620.95	5.38	5.10	6212.41	6115.26	
11.650	15.	617.8	618.0	599.7	16260.0	621.40	.00	621.64	5.54	5.30	5941.07	6509.48	
11.650	15.	617.8	618.0	599.7	21390.0	623.24	.00	623.47	5.22	5.48	8999.44	9363.35	
11.650	10.	.0	.0	599.7	4870.0	613.22	.00	613.59	10.64	5.03	1224.35	1492.86	
11.650	10.	.0	.0	599.7	9570.0	617.14	.00	617.56	9.70	5.92	2901.15	3072.46	
11.650	10.	.0	.0	599.7	14180.0	620.72	.00	620.95	5.37	5.09	6218.73	6121.96	
Section V	11.650	10.	.0	599.7	16260.0	621.40	.00	621.65	5.53	5.30	5947.22	6916.36	
11.650	10.	.0	.0	599.7	21390.0	623.25	.00	623.48	5.21	5.47	9005.25	9370.67	
11.690	200.	.0	.0	599.9	4870.0	613.43	.00	613.81	11.11	5.17	1241.63	1461.21	
11.690	200.	.0	.0	599.9	9560.0	617.37	.00	617.75	9.19	5.81	3052.60	3153.98	
11.690	200.	.0	.0	599.9	14170.0	620.85	.00	621.06	5.01	4.95	6325.48	6351.20	
11.690	200.	.0	.0	599.9	16250.0	621.54	.00	621.76	5.12	5.13	7063.71	7182.71	
11.690	200.	.0	.0	599.9	32380.0	623.23	.00	623.72	11.49	8.15	8951.68	9552.82	
W	12.370	3600.	.0	.0	603.1	4820.0	616.39	.00	616.66	5.91	4.17	1216.28	1982.86
12.370	3600.	.0	.0	603.1	9460.0	620.19	.00	620.65	7.15	5.63	2179.77	3007.86	
12.370	3600.	.0	.0	603.1	14020.0	622.76	.00	623.32	7.52	6.45	3240.82	5113.66	
Section W	12.370	3600.	.0	.0	603.1	16080.0	623.51	.00	624.12	8.07	6.88	3623.84	5060.98
12.370	3600.	.0	.0	603.1	21160.0	626.34	.00	626.93	6.57	6.87	5307.32	8256.65	
13.230	4540.	.0	.0	607.9	4750.0	619.76	.00	620.30	11.01	5.92	805.31	1431.28	
13.230	4540.	.0	.0	607.9	9330.0	624.04	.00	624.86	11.90	7.40	1530.54	2704.85	
13.230	4540.	.0	.0	607.9	13830.0	626.65	.00	627.62	11.79	8.39	2302.49	4026.92	
13.230	4540.	.0	.0	607.9	15870.0	627.57	.00	628.61	11.94	8.79	2638.52	4593.09	
13.230	4540.	.0	.0	607.9	20880.0	629.78	.00	630.85	11.22	9.30	3732.28	6233.24	
13.800	3050.	.0	.0	608.5	4711.0	622.81	.00	623.18	8.13	5.00	1167.43	1652.02	
13.800	3050.	.0	.0	608.5	9250.0	626.94	.00	627.20	5.32	4.97	3775.11	3972.48	
13.800	3050.	.0	.0	608.5	13710.0	629.50	.00	629.73	4.67	5.10	5610.22	6342.10	
13.800	3050.	.0	.0	608.5	15720.0	630.46	.00	630.69	4.54	5.19	6306.53	7381.54	
13.800	3050.	.0	.0	608.5	20690.0	632.57	.00	632.80	4.32	5.42	7885.19	9953.10	
Y	13.880	380.	.0	.0	608.5	4710.0	623.29	.00	623.36	1.05	2.10	2288.71	4586.32
13.880	380.	.0	.0	608.5	9240.0	627.23	.00	627.33	1.19	2.71	4663.81	8454.02	
13.880	380.	.0	.0	608.5	13690.0	629.72	.00	629.85	1.30	3.14	6413.37	12016.25	
13.880	380.	.0	.0	608.5	15700.0	630.66	.00	630.80	1.34	3.31	7089.48	13546.28	
13.880	380.	.0	.0	608.5	20660.0	632.74	.00	632.91	1.43	3.68	8622.38	17271.90	
13.880	20.	.0	.0	608.5	4710.0	623.29	.00	623.36	1.05	2.11	2236.27	4585.71	
13.880	20.	.0	.0	608.5	9240.0	627.21	.00	627.35	1.48	3.02	3062.25	7582.80	
13.880	20.	.0	.0	608.5	13690.0	629.68	.00	629.90	1.92	3.82	3587.25	9871.15	
13.880	20.	.0	.0	608.5	15700.0	630.60	.00	630.87	2.12	4.15	3784.52	10792.35	
13.880	20.	.0	.0	608.5	20660.0	632.75	.00	632.91	1.43	3.68	8626.85	17282.85	

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRINS	EG	10K*8	VCH	AREA	.01K
13.880	32.	631.5	627.7	608.5	4710.0	623.29	.00	623.36	1.06	2.11	2235.27	4582.49
13.880	32.	631.5	627.7	608.5	9240.0	627.22	.00	627.36	1.48	3.02	3063.26	7586.96
13.880	32.	631.5	627.7	608.5	13690.0	629.92	.00	630.14	1.83	3.76	3640.38	10116.01
13.880	32.	631.5	627.7	608.5	15700.0	630.96	.00	631.22	1.98	4.07	3861.23	11159.40
13.880	32.	631.5	627.7	608.5	20660.0	633.44	.00	633.59	1.23	3.49	9170.80	18636.03
13.880	5.	.0	.0	608.5	4710.0	623.30	.00	623.36	1.05	2.10	2290.39	4589.64
13.880	5.	.0	.0	608.5	9240.0	627.27	.00	627.37	1.18	2.70	4691.12	8505.14
13.880	5.	.0	.0	608.5	13690.0	630.06	.00	630.18	1.19	3.05	6652.55	12548.40
13.880	5.	.0	.0	608.5	15700.0	631.13	.00	631.26	1.20	3.18	7429.22	14344.46
13.880	5.	.0	.0	608.5	20660.0	633.44	.00	633.59	1.23	3.49	9171.30	18637.30
13.980	500.	.0	.0	609.5	4700.0	623.25	.00	623.67	15.17	5.29	995.03	1206.87
13.980	500.	.0	.0	609.5	9220.0	627.32	.00	627.57	8.64	4.89	3351.38	3137.35
13.980	500.	.0	.0	609.5	13670.0	630.14	.00	630.32	5.86	4.51	5345.17	5645.85
13.980	500.	.0	.0	609.5	15680.0	631.22	.00	631.39	5.26	4.44	6126.44	6826.38
13.980	500.	.0	.0	609.5	20630.0	633.54	.00	633.70	4.48	4.41	7865.49	9747.14
14.180	1000.	.0	.0	611.0	4680.0	624.54	.00	625.03	12.00	5.66	955.55	1350.84
14.180	1000.	.0	.0	611.0	9190.0	627.98	.00	628.53	10.97	6.62	2140.39	2774.78
14.180	1000.	.0	.0	611.0	13630.0	630.51	.00	631.07	10.94	7.12	3091.67	4301.56
14.180	1000.	.0	.0	611.0	15630.0	631.52	.00	632.09	9.73	7.30	3486.50	5011.16
14.180	1000.	.0	.0	611.0	20570.0	633.74	.00	634.34	9.16	7.70	4417.98	6797.65
14.550	2070.	.0	.0	613.0	4660.0	627.33	.00	627.92	16.19	6.32	949.83	1158.15
14.550	2070.	.0	.0	613.0	9140.0	630.59	.00	631.39	18.14	7.98	1814.46	2145.93
14.550	2070.	.0	.0	613.0	13540.0	632.91	.00	633.82	18.81	9.00	2524.42	3122.33
14.550	2070.	.0	.0	613.0	15540.0	633.84	.00	634.79	18.87	9.35	2831.46	3577.70
14.550	2070.	.0	.0	613.0	20450.0	635.90	.00	636.94	18.84	10.07	3552.30	4710.85
15.660	6090.	.0	.0	620.0	4570.0	633.96	.00	634.31	7.46	5.00	1374.26	1673.06
15.660	6090.	.0	.0	620.0	8980.0	637.48	.00	637.85	7.41	5.86	3035.39	3298.50
15.660	6090.	.0	.0	620.0	13300.0	639.69	.00	640.05	7.01	6.21	4919.14	5023.54
15.660	6090.	.0	.0	620.0	15260.0	640.51	.00	640.84	6.75	6.27	5730.79	5874.85
15.660	6090.	.0	.0	620.0	20090.0	642.30	.00	642.60	6.18	6.36	7594.28	8082.89
16.580	4860.	.0	.0	627.5	4500.0	639.06	.00	639.75	18.03	6.68	713.99	1059.83
16.580	4860.	.0	.0	627.5	8840.0	641.84	.00	642.32	13.10	6.77	3171.82	2441.95
16.580	4860.	.0	.0	627.5	13100.0	643.40	.00	643.73	9.87	6.37	5226.89	4169.89
16.580	4860.	.0	.0	627.5	15030.0	644.00	.00	644.29	9.10	6.29	6040.63	4983.76
16.580	4860.	.0	.0	627.5	19790.0	645.35	.00	645.59	7.65	6.13	7928.33	7154.40
17.450	4710.	.0	.0	630.2	4440.0	643.34	.00	643.52	4.40	3.43	1457.50	2117.43
17.450	4710.	.0	.0	630.2	8710.0	646.28	.00	646.63	6.78	4.96	2262.96	3344.69
17.450	4710.	.0	.0	630.2	12910.0	647.80	.00	648.35	9.69	6.33	2782.18	4147.02
17.450	4710.	.0	.0	630.2	14810.0	648.38	.00	649.01	10.89	6.88	3000.11	4487.34
17.450	4710.	.0	.0	630.2	19500.0	649.58	.00	650.41	13.71	8.08	3528.19	5267.21

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10K*8	VCH	AREA	.01K
17.640	1010.	.0	.0	630.0	4420.0	643.91	.00	644.39	17.41	5.53	817.03	1059.44
17.640	1010.	.0	.0	630.0	8680.0	647.04	.00	647.97	25.34	7.93	1365.70	1724.41
17.640	1010.	.0	.0	630.0	12870.0	648.85	.00	650.18	32.65	9.77	1813.76	2252.51
17.640	1010.	.0	.0	630.0	14770.0	649.55	.00	651.02	35.20	10.45	2000.36	2489.65
17.640	1010.	.0	.0	630.0	19440.0	651.02	.00	652.85	40.77	11.91	2415.74	3044.60
18.230	3150.	.0	.0	634.1	4380.0	647.61	.00	647.93	7.82	4.82	1195.64	1566.37
18.230	3150.	.0	.0	634.1	8600.0	651.39	.00	651.74	6.89	5.53	2653.84	3276.32
18.230	3150.	.0	.0	634.1	12740.0	653.73	.00	654.06	6.33	5.85	4118.51	5064.57
18.230	3150.	.0	.0	634.1	14620.0	654.60	.00	654.93	6.15	5.96	4738.41	5895.06
18.230	3150.	.0	.0	634.1	19250.0	656.44	.00	656.75	5.77	6.17	6438.15	8013.58
18.230	10.	638.7	636.9	634.1	4380.0	647.57	.00	648.00	22.95	5.73	1005.81	914.37
18.230	10.	638.7	636.9	634.1	8600.0	651.45	.00	651.76	12.75	5.50	2506.95	2408.22
18.230	10.	638.7	636.9	634.1	12740.0	653.83	.00	654.09	9.75	5.42	4010.86	4079.99
18.230	10.	638.7	636.9	634.1	14620.0	654.71	.00	654.96	9.05	5.42	4640.32	4861.14
18.230	10.	638.7	636.9	634.1	19250.0	656.56	.00	656.78	7.81	5.43	6399.09	6888.83
18.230	12.	638.7	636.9	634.1	4380.0	647.60	.00	648.03	22.63	5.70	1012.20	920.81
18.230	12.	638.7	636.9	634.1	8600.0	651.46	.00	651.77	12.68	5.49	2513.45	2414.66
18.230	12.	638.7	636.9	634.1	12740.0	653.84	.00	654.10	9.71	5.41	4017.50	4088.00
18.230	12.	638.7	636.9	634.1	14620.0	654.72	.00	654.97	9.01	5.41	4646.99	4869.61
18.230	12.	638.7	636.9	634.1	19250.0	656.57	.00	656.79	7.78	5.42	6408.57	6899.39
18.230	5.	.0	.0	634.1	4380.0	647.76	.00	648.07	7.34	4.72	1235.03	1616.71
18.230	5.	.0	.0	634.1	8600.0	651.45	.00	651.79	6.70	5.47	2695.18	3322.62
18.230	5.	.0	.0	634.1	12740.0	653.81	.00	654.14	6.13	5.78	4179.44	5144.64
18.230	5.	.0	.0	634.1	14620.0	654.69	.00	655.01	5.96	5.89	4805.12	5986.44
18.230	5.	.0	.0	634.1	19250.0	656.53	.00	656.84	5.59	6.09	6547.70	8142.12
18.700	2500.	.0	.0	634.7	4350.0	649.58	.00	649.85	7.03	4.33	1304.76	1640.54
18.700	2500.	.0	.0	634.7	8530.0	653.18	.00	653.51	7.33	5.26	2622.63	3150.16
18.700	2500.	.0	.0	634.7	12640.0	655.45	.00	655.83	7.81	5.93	3692.61	4524.02
18.700	2500.	.0	.0	634.7	14500.0	656.30	.00	656.69	7.96	6.18	4140.48	5139.56
18.700	2500.	.0	.0	634.7	19100.0	658.07	.00	658.48	8.14	6.63	5312.06	6694.27
19.200	2710.	.0	.0	638.2	4310.0	651.49	.00	651.68	6.72	3.74	1843.48	1662.81
19.200	2710.	.0	.0	638.2	8460.0	654.80	.00	654.94	4.50	3.73	4703.96	3988.66
19.200	2710.	.0	.0	638.2	12530.0	657.00	.00	657.12	3.77	3.79	7076.07	6457.18
19.200	2710.	.0	.0	638.2	14380.0	657.84	.00	657.95	3.62	3.85	8019.43	7559.30
19.200	2710.	.0	.0	638.2	18930.0	659.58	.00	659.70	3.43	4.02	10126.58	10222.39
19.300	360.	.0	.0	638.4	4300.0	651.71	.00	651.95	7.81	4.04	1857.71	1538.29
19.300	360.	.0	.0	638.4	8440.0	654.30	.00	655.17	7.42	4.77	4602.74	3097.42
19.300	360.	.0	.0	638.4	12510.0	657.05	.00	657.35	7.55	5.33	6895.64	4552.87
19.300	360.	.0	.0	638.4	14350.0	657.87	.00	658.18	7.66	5.56	7824.01	5184.75
19.300	360.	.0	.0	638.4	18900.0	659.58	.00	659.94	8.09	6.12	9872.13	6643.09

AC

AD

AE

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10K*8	VCH	AREA	.01K
19.370	300.	.0	.0	638.3	4000.0	652.02	.00	652.17	5.31	3.05	1313.44	1735.74
19.370	300.	.0	.0	638.3	7800.0	655.12	.00	655.40	7.58	4.21	1856.88	2842.80
19.370	300.	.0	.0	638.3	11500.0	657.24	.00	657.65	9.01	5.11	2289.45	3830.26
19.370	300.	.0	.0	638.3	13200.0	658.05	.00	658.52	9.69	5.50	2432.10	4240.28
19.370	300.	.0	.0	638.3	17600.0	659.72	.00	660.36	11.30	6.45	2797.31	5235.78
19.370	80.	.0	.0	638.3	4000.0	652.07	.00	652.21	5.22	3.03	1321.89	1750.07
19.370	80.	.0	.0	638.3	7800.0	655.19	.00	655.46	7.44	4.18	1864.94	2858.87
19.370	80.	.0	.0	638.3	11500.0	657.32	.00	657.72	8.89	5.09	2257.89	3857.23
19.370	80.	.0	.0	638.3	13200.0	658.13	.00	658.59	9.53	5.48	2410.84	4276.29
19.370	80.	.0	.0	638.3	17600.0	659.82	.00	660.46	11.04	6.41	2809.31	5206.46
19.370	1.	662.3	660.6	638.3	4000.0	652.06	.00	652.22	9.13	3.18	1256.92	1322.14
19.370	1.	662.3	660.6	638.3	7800.0	655.17	.00	655.48	15.46	4.49	1736.16	1983.94
19.370	1.	662.3	660.6	638.3	11500.0	657.29	.00	657.76	21.03	5.50	2091.75	2507.59
19.370	1.	662.3	660.6	638.3	13200.0	658.09	.00	658.63	23.53	5.91	2232.66	2721.42
19.370	1.	662.3	660.6	638.3	17600.0	659.76	.00	660.52	34.89	6.96	2528.72	2979.78
19.370	29.	662.3	660.6	638.3	4000.0	652.09	.00	652.25	9.12	3.18	1258.88	1324.71
19.370	29.	662.3	660.6	638.3	7800.0	655.22	.00	655.53	15.31	4.48	1742.69	1993.35
19.370	29.	662.3	660.6	638.3	11500.0	657.35	.00	657.82	20.74	5.47	2103.42	2525.17
19.370	29.	662.3	660.6	638.3	13200.0	658.17	.00	658.70	23.17	5.88	2246.18	2742.12
19.370	29.	662.3	660.6	638.3	17600.0	659.88	.00	660.62	36.29	6.91	2545.49	2921.60
19.370	1.	.0	.0	638.3	4000.0	652.11	.00	652.25	5.17	3.01	1327.29	1759.25
19.370	1.	.0	.0	638.3	7800.0	655.28	.00	655.54	7.24	4.14	1885.18	2899.33
19.370	1.	.0	.0	638.3	11500.0	657.45	.00	657.84	8.54	5.03	2311.22	3934.42
19.370	1.	.0	.0	638.3	13200.0	658.28	.00	658.73	9.09	5.39	2482.65	4377.53
19.370	1.	.0	.0	638.3	17600.0	660.05	.00	660.66	10.46	6.30	2872.93	5442.04
AF 19.370	20.	.0	.0	638.3	4000.0	652.12	.00	652.26	5.15	3.01	1329.60	1763.18
19.370	20.	.0	.0	638.3	7800.0	655.29	.00	655.56	7.19	4.14	1889.43	2909.33
19.370	20.	.0	.0	638.3	11500.0	657.47	.00	657.86	8.48	5.01	2317.17	3949.30
19.370	20.	.0	.0	638.3	13200.0	658.30	.00	658.75	9.03	5.38	2488.25	4392.74
19.370	20.	.0	.0	638.3	17600.0	660.07	.00	660.69	10.40	6.29	2878.75	5456.81
19.450	390.	.0	.0	639.2	4000.0	652.31	.00	652.50	6.70	3.69	1718.43	1545.62
19.450	390.	.0	.0	639.2	7800.0	655.63	.00	655.78	4.90	3.86	4528.05	3523.40
19.450	390.	.0	.0	639.2	11500.0	657.95	.00	658.09	4.05	3.92	7009.13	5714.72
19.450	390.	.0	.0	639.2	13200.0	658.85	.00	658.98	3.84	3.97	8033.98	6732.92
19.450	390.	.0	.0	639.2	17600.0	660.80	.00	660.93	3.59	4.14	10415.42	9292.55
19.730	1450.	.0	.0	640.0	4000.0	653.28	.00	653.60	8.38	4.60	952.46	1381.42
19.730	1450.	.0	.0	640.0	7800.0	656.29	.00	656.63	8.01	5.33	2739.11	2755.31
19.730	1450.	.0	.0	640.0	11500.0	658.46	.00	658.74	6.44	5.30	4485.35	4530.49
19.730	1450.	.0	.0	640.0	13200.0	659.32	.00	659.57	5.95	5.28	5259.88	5411.40
19.730	1450.	.0	.0	640.0	17600.0	661.22	.00	661.45	5.17	5.30	7137.77	7742.41

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10KAS	VCH	AREA	.01K
19.730	20.	.0	.0	640.0	4000.0	653.29	.00	653.62	6.34	4.59	957.92	1385.00
19.730	20.	.0	.0	640.0	7800.0	656.31	.00	656.65	7.95	5.31	2755.42	2770.25
19.730	20.	.0	.0	640.0	11500.0	658.75	.00	658.75	6.41	5.29	4494.41	4540.50
19.730	20.	.0	.0	640.0	13200.0	659.33	.00	659.59	5.93	5.27	5268.81	5421.86
19.730	20.	.0	.0	640.0	17600.0	661.23	.00	661.46	5.15	5.29	7146.73	7754.05
19.730	18.	653.1	651.7	640.0	4000.0	653.62	.00	653.92	7.35	4.39	1100.64	1475.79
19.730	18.	653.1	651.7	640.0	7800.0	656.31	.00	656.65	7.89	5.30	2763.32	2777.55
19.730	18.	653.1	651.7	640.0	11500.0	658.49	.00	658.76	6.37	5.27	4508.71	4556.31
19.730	18.	653.1	651.7	640.0	13200.0	659.37	.00	659.62	5.83	5.24	5305.25	5464.69
19.730	18.	653.1	651.7	640.0	17600.0	661.32	.00	661.53	5.00	5.23	7237.12	7871.88
19.730	5.	.0	.0	640.0	4000.0	653.63	.00	653.92	7.33	4.39	1102.60	1477.03
19.730	5.	.0	.0	640.0	7800.0	656.32	.00	656.65	7.88	5.29	2764.76	2778.89
19.730	5.	.0	.0	640.0	11500.0	658.49	.00	658.76	6.36	5.27	4510.57	4558.36
19.730	5.	.0	.0	640.0	13200.0	659.37	.00	659.62	5.83	5.23	5307.30	5467.10
19.730	5.	.0	.0	640.0	17600.0	661.32	.00	661.54	5.00	5.23	7239.41	7874.88
20.240	2780.	.0	.0	647.7	3410.0	656.79	.00	657.41	28.23	6.36	536.95	641.85
20.240	2780.	.0	.0	647.7	6670.0	659.27	.00	659.71	21.13	6.44	2238.93	1451.12
20.240	2780.	.0	.0	647.7	10030.0	660.72	.00	661.01	15.24	5.96	3897.95	2569.65
20.240	2780.	.0	.0	647.7	11110.0	661.32	.00	661.55	12.42	5.55	4598.75	3152.93
20.240	2780.	.0	.0	647.7	15020.0	662.89	.00	663.05	8.89	5.08	6527.27	5036.49
20.760	2750.	.0	.0	653.2	3310.0	662.36	.00	662.51	13.50	3.93	1909.31	901.01
20.760	2750.	.0	.0	653.2	6470.0	663.81	.00	663.94	13.18	4.31	3454.88	1782.39
20.760	2750.	.0	.0	653.2	9730.0	664.66	.00	664.81	15.31	4.92	4456.24	2487.01
20.760	2750.	.0	.0	653.2	10770.0	664.86	.00	665.03	16.15	5.12	4705.51	2679.62
20.760	2750.	.0	.0	653.2	14560.0	665.75	.00	665.93	16.61	5.48	5772.79	3572.28
20.950	1050.	.0	.0	655.6	3270.0	664.06	.00	664.42	27.58	5.42	1240.01	622.70
20.950	1050.	.0	.0	655.6	6390.0	665.38	.00	665.66	27.01	5.00	2543.98	1229.44
20.950	1050.	.0	.0	655.6	9620.0	666.33	.00	666.60	26.24	6.13	3602.06	1877.94
20.950	1050.	.0	.0	655.6	10650.0	666.59	.00	666.85	26.17	6.24	3901.48	2081.70
20.950	1050.	.0	.0	655.6	14400.0	667.45	.00	667.71	25.36	6.49	4931.52	2859.63
21.160	1100.	.0	.0	655.3	3230.0	666.27	.00	666.59	14.98	4.58	739.68	834.43
21.160	1100.	.0	.0	655.3	6300.0	667.99	.00	668.67	26.68	6.92	1267.71	1219.60
21.160	1100.	.0	.0	655.3	9490.0	669.06	.00	669.93	33.51	8.30	1887.81	1639.26
21.160	1100.	.0	.0	655.3	10510.0	669.34	.00	670.27	35.21	8.65	2055.06	1771.19
21.160	1100.	.0	.0	655.3	14210.0	670.23	.00	671.30	40.33	9.73	2589.75	2237.65
21.160	20.	.0	.0	655.3	3230.0	666.31	.00	666.62	14.72	4.55	744.59	841.94
21.160	20.	.0	.0	655.3	6300.0	668.07	.00	668.73	25.70	6.83	1296.93	1242.66
21.160	20.	.0	.0	655.3	9490.0	669.21	.00	670.02	30.94	8.04	1973.58	1706.02
21.160	20.	.0	.0	655.3	10510.0	669.51	.00	670.36	32.30	8.36	2150.09	1849.27
21.160	20.	.0	.0	655.3	14210.0	670.44	.00	671.41	36.56	9.36	2709.52	2350.11

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
21.160	18.	666.7	665.8	655.3	3230.0	666.99	.00	667.25	11.14	4.17	837.94	967.78
21.160	18.	666.7	665.8	655.3	6300.0	668.79	.00	669.24	17.25	5.86	1703.50	1515.35
21.160	18.	666.7	665.8	655.3	9490.0	669.73	.00	670.34	23.48	7.22	2278.93	1958.60
21.160	18.	666.7	665.8	655.3	10510.0	669.97	.00	670.64	25.36	7.60	2424.56	2086.93
* 21.160	18.	666.7	665.8	655.3	14210.0	670.74	.00	671.58	31.53	8.84	2896.26	2530.54
21.160	5.	.0	.0	655.3	3230.0	667.00	.00	667.26	11.10	4.17	842.42	969.43
21.160	5.	.0	.0	655.3	6300.0	668.80	.00	669.25	17.10	5.83	1732.67	1523.50
21.160	5.	.0	.0	655.3	9490.0	669.74	.00	670.36	23.32	7.20	2286.56	1965.19
21.160	5.	.0	.0	655.3	10510.0	669.99	.00	670.65	25.19	7.58	2432.54	2094.09
21.160	5.	.0	.0	655.3	14210.0	670.76	.00	671.60	31.32	8.81	2905.19	2539.32
22.090	4940.	.0	.0	667.2	3040.0	674.21	.00	674.39	21.36	4.25	1297.65	657.75
22.090	4940.	.0	.0	667.2	5950.0	676.09	.00	676.19	12.85	3.80	2949.07	1659.86
22.090	4940.	.0	.0	667.2	8950.0	677.37	.00	677.47	10.65	3.85	4268.81	2742.53
22.090	4940.	.0	.0	667.2	9910.0	677.72	.00	677.82	10.27	3.89	4652.94	3091.96
22.090	4940.	.0	.0	667.2	13400.0	678.85	.00	678.96	9.44	4.04	5944.91	4361.40

RUTHERFORD CREEK (MIDDLE)

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.710	5420.	602.6	.0	.0	.0	134.06	4500.00
9.710	10630.	607.8	5.2	.0	.0	233.77	4500.00
9.710	15760.	611.3	3.5	.0	.0	272.52	4500.00
9.710	18070.	612.4	1.1	.0	.0	284.48	4500.00
9.710	23760.	614.8	2.4	.0	.0	310.39	4500.00
10.740	4940.	606.5	.0	3.9	.0	136.69	5170.00
10.740	9700.	611.4	4.9	3.6	.0	203.77	5170.00
10.740	14370.	614.9	3.5	3.6	.0	240.22	5170.00
10.740	16490.	616.2	1.3	3.8	.0	255.57	5170.00
10.740	21690.	618.9	2.7	4.1	.0	322.35	5170.00
11.550	4880.	612.2	.0	5.8	.0	205.55	4240.00
11.550	9580.	616.2	4.0	4.8	.0	538.66	4240.00
11.550	14200.	619.2	2.9	4.2	.0	949.12	4240.00
11.550	16290.	620.3	1.1	4.1	.0	1032.78	4240.00
11.550	21420.	622.7	2.4	3.8	.0	1131.32	4240.00
11.650	4870.	613.1	.0	.9	.0	226.97	500.00
11.650	9570.	617.1	3.9	.9	.0	767.43	500.00
11.650	14180.	619.7	2.7	.6	.0	996.57	500.00
11.650	16260.	620.7	1.0	.5	.0	1051.93	500.00
11.650	21390.	623.0	2.3	.3	.0	1145.18	500.00
11.650	4870.	613.2	.0	.1	.0	228.37	40.00
11.650	9570.	617.1	3.9	.1	.0	771.74	40.00
11.650	14180.	619.7	2.6	.0	.0	999.70	40.00
11.650	16260.	620.8	1.0	.0	.0	1053.23	40.00
11.650	21390.	623.0	2.3	.0	.0	1146.17	40.00
11.650	4870.	613.2	.0	.0	.0	228.75	15.00
11.650	9570.	617.1	3.9	.0	.0	773.95	15.00
11.650	14180.	620.7	3.6	1.0	.0	1051.14	15.00
11.650	16260.	621.4	.7	.6	.0	1079.11	15.00
11.650	21390.	623.2	1.8	.2	.0	1154.46	15.00
11.650	4870.	613.2	.0	.0	.0	229.00	10.00
11.650	9570.	617.1	3.9	.0	.0	774.80	10.00
11.650	14180.	620.7	3.6	.0	.0	1051.38	10.00
11.650	16260.	621.4	.7	.0	.0	1079.34	10.00
11.650	21390.	623.2	1.8	.0	.0	1154.66	10.00
11.690	4870.	613.4	.0	.2	.0	242.62	200.00
11.690	9560.	617.4	3.9	.2	.0	795.08	200.00
11.690	14170.	620.9	3.5	.1	.0	1056.80	200.00
11.690	16250.	621.5	.7	.1	.0	1084.99	200.00
11.690	32380.	623.2	1.7	-.0	.0	1153.94	200.00

SECNO	U	CHSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH	
12.370	4820.	616.4	.0	3.0	.0	170.85	3600.00	
Section W	12.370	9460.	620.2	3.8	2.8	.0	337.73	3600.00
12.370	14020.	622.8	2.6	1.9	.0	491.22	3600.00	
12.370	16080.	623.5	.7	2.0	.0	536.62	3600.00	
12.370	21160.	626.4	2.9	3.2	.0	609.51	3600.00	
13.230	4750.	619.6	.0	3.4	.0	90.40	4540.00	
13.230	9330.	624.0	4.3	3.9	.0	247.72	4540.00	
13.230	13830.	626.6	2.6	3.9	.0	345.65	4540.00	
13.230	15870.	627.6	.9	4.1	.0	381.69	4540.00	
13.230	20880.	629.8	2.2	3.4	.0	644.38	4540.00	
13.800	4711.	622.8	.0	3.0	.0	365.46	3050.00	
13.800	9250.	626.9	4.1	2.9	.0	701.62	3050.00	
13.800	13710.	629.5	2.6	2.9	.0	723.78	3050.00	
13.800	15720.	630.5	1.0	2.9	.0	730.06	3050.00	
13.800	20690.	632.5	2.1	2.8	.0	783.36	3050.00	
13.880	4710.	623.3	.0	.5	.0	344.06	380.00	
13.880	9240.	627.2	3.9	.3	.0	682.68	380.00	
13.880	13690.	629.7	2.5	.2	.0	714.23	380.00	
13.880	15700.	630.7	.9	.2	.0	722.78	380.00	
13.880	20660.	632.7	2.1	.2	.0	779.98	380.00	
13.880	4710.	623.3	.0	.0	.0	206.64	20.00	
13.880	9240.	627.2	3.9	-.0	.0	213.00	20.00	
13.880	13690.	629.7	2.5	-.0	.0	213.00	20.00	
13.880	15700.	630.6	.9	-.1	.0	213.00	20.00	
13.880	20660.	632.7	2.1	.0	.0	780.07	20.00	
13.880	4710.	623.3	.0	.0	.0	206.62	32.00	
13.880	9240.	627.2	3.9	.0	.0	213.00	32.00	
13.880	13690.	629.9	2.7	.2	.0	213.00	32.00	
13.880	15700.	631.0	1.0	.4	.0	213.00	32.00	
13.880	20660.	633.4	2.5	.7	.0	790.00	32.00	
13.880	4710.	623.3	.0	.0	.0	344.92	5.00	
13.880	9240.	627.3	4.0	.1	.0	683.50	5.00	
13.880	13690.	630.1	2.8	.1	.0	717.26	5.00	
13.880	15700.	631.1	1.1	.2	.0	727.05	5.00	
13.880	20660.	633.4	2.3	.0	.0	790.01	5.00	
13.980	4700.	623.2	.0	-.0	.0	254.41	500.00	
13.980	9220.	627.3	4.1	.1	.0	690.65	500.00	
13.980	13670.	630.1	2.8	.1	.0	721.37	500.00	
13.980	15680.	631.2	1.1	.1	.0	728.46	500.00	
13.980	20630.	633.5	2.3	.1	.0	782.99	500.00	

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
14.180	4680.	624.5	.0	1.3	.0	324.24	1000.00
14.180	9190.	628.0	3.4	.7	.0	364.99	1000.00
14.180	13630.	630.5	2.5	.4	.0	388.64	1000.00
14.180	15630.	631.5	1.0	.3	.0	398.02	1000.00
14.180	20570.	633.7	2.2	.2	.0	444.88	1000.00
14.550	4660.	627.3	.0	2.8	.0	219.00	2070.00
14.550	9140.	630.6	3.3	2.6	.0	290.44	2070.00
14.550	13540.	632.9	2.3	2.4	.0	322.51	2070.00
14.550	15540.	633.6	.9	2.3	.0	335.43	2070.00
14.550	20450.	635.9	2.1	2.2	.0	363.96	2070.00
15.660	4570.	634.0	.0	6.6	.0	375.06	6090.00
15.660	8980.	637.5	3.5	6.9	.0	685.32	6090.00
15.660	13300.	639.7	2.2	6.8	.0	962.92	6090.00
15.660	15260.	640.5	.8	6.7	.0	1011.07	6090.00
15.660	20090.	642.3	1.8	6.4	.0	1076.71	6090.00
16.580	4500.	639.1	.0	5.1	.0	136.31	4860.00
16.580	8840.	641.8	2.8	4.4	.0	1259.70	4860.00
16.580	13100.	643.4	1.6	3.7	.0	1353.58	4860.00
16.580	15030.	644.0	.6	3.5	.0	1373.87	4860.00
16.580	19790.	645.4	1.4	3.1	.0	1414.08	4860.00
17.450	4440.	643.3	.0	4.3	.0	226.88	4710.00
17.450	8710.	646.3	2.9	4.4	.0	318.40	4710.00
17.450	12910.	647.8	1.5	4.4	.0	364.05	4710.00
17.450	14810.	648.4	.6	4.4	.0	397.42	4710.00
17.450	19500.	649.6	1.2	4.2	.0	464.26	4710.00
17.640	4420.	643.9	.0	.6	.0	122.29	1010.00
17.640	8680.	647.0	3.1	.8	.0	223.60	1010.00
17.640	12870.	648.9	1.8	1.0	.0	263.79	1010.00
17.640	14770.	649.5	.7	1.2	.0	272.61	1010.00
17.640	19440.	651.0	1.5	1.4	.0	292.71	1010.00
18.230	4380.	647.6	.0	3.7	.0	253.61	3150.00
18.230	8600.	651.4	3.8	4.3	.0	547.13	3150.00
18.230	12740.	653.7	2.3	4.9	.0	689.38	3150.00
18.230	14620.	654.6	.9	5.1	.0	734.37	3150.00
18.230	19250.	656.4	1.8	5.4	.0	1169.54	3150.00
18.230	4380.	647.6	.0	.0	.0	252.91	10.00
18.230	8600.	651.4	3.9	.1	.0	552.32	10.00
18.230	12740.	653.8	2.4	.1	.0	694.77	10.00
18.230	14620.	654.7	.9	.1	.0	740.09	10.00
18.230	19250.	656.6	1.9	.1	.0	1161.64	10.00

SECNO	Q	CWSL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
18.230	4380.	647.6	.0	.0	.0	253.75	12.00
18.230	8600.	651.5	3.9	.0	.0	553.53	12.00
18.230	12740.	653.8	2.4	.0	.0	695.26	12.00
18.230	14620.	654.7	.9	.0	.0	740.56	12.00
18.230	19250.	656.6	1.9	.0	.0	1182.45	12.00
18.230	4380.	647.8	.0	.2	.0	256.34	5.00
18.230	8600.	651.5	3.7	-.0	.0	553.64	5.00
18.230	12740.	653.8	2.4	-.0	.0	693.93	5.00
18.230	14620.	654.7	.9	-.0	.0	739.04	5.00
18.230	19250.	656.5	1.8	-.0	.0	1178.97	5.00
18.700	4350.	649.6	.0	1.8	.0	301.96	2500.00
18.700	8530.	653.2	3.6	1.7	.0	430.29	2500.00
18.700	12640.	655.5	2.3	1.6	.0	511.32	2500.00
18.700	14500.	656.3	.8	1.6	.0	563.89	2500.00
18.700	19100.	658.1	1.8	1.5	.0	759.96	2500.00
19.200	4310.	651.5	.0	1.9	.0	710.46	2710.00
19.200	8460.	654.8	3.3	1.6	.0	1014.92	2710.00
19.200	12530.	657.0	2.2	1.6	.0	1124.04	2710.00
19.200	14380.	657.8	.8	1.5	.0	1161.40	2710.00
19.200	18930.	659.6	1.7	1.5	.0	1285.31	2710.00
19.300	4300.	651.7	.0	.2	.0	712.58	360.00
19.300	8440.	654.9	3.2	.1	.0	1005.73	360.00
19.300	12510.	657.1	2.1	.0	.0	1116.76	360.00
19.300	14350.	657.9	.8	.0	.0	1153.76	360.00
19.300	18900.	659.6	1.7	-.0	.0	1257.62	360.00
19.370	4000.	652.0	.0	.3	.0	160.71	300.00
19.370	7800.	655.1	3.1	.2	.0	187.36	300.00
19.370	11500.	657.2	2.1	.2	.0	202.00	300.00
19.370	13200.	658.0	.8	.2	.0	207.64	300.00
19.370	17600.	659.7	1.7	.1	.0	226.29	300.00
19.370	4000.	652.1	.0	.0	.0	161.30	80.00
19.370	7800.	655.2	3.1	.1	.0	182.38	80.00
19.370	11500.	657.3	2.1	.1	.0	187.38	80.00
19.370	13200.	658.1	.8	.1	.0	189.00	80.00
19.370	17600.	659.8	1.7	.1	.0	215.52	80.00
19.370	4000.	652.1	.0	-.0	.0	146.07	1.00
19.370	7800.	655.2	3.1	-.0	.0	162.54	1.00
19.370	11500.	657.3	2.1	-.0	.0	173.25	1.00
19.370	13200.	658.1	.8	-.0	.0	177.31	1.00
19.370	17600.	659.8	1.7	-.1	.0	183.00	1.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
19.370	4000.	652.1	.0	.0	.0	146.15	29.00
19.370	7800.	655.2	3.1	.0	.0	162.75	29.00
19.370	11500.	657.4	2.1	.1	.0	173.59	29.00
19.370	13200.	658.2	.8	.1	.0	177.70	29.00
19.370	17600.	659.9	1.7	.1	.0	185.00	29.00
19.370	4000.	652.1	.0	.0	.0	161.68	1.00
19.370	7800.	655.3	3.2	.1	.0	188.40	1.00
19.370	11500.	657.4	2.2	.1	.0	203.42	1.00
19.370	13200.	658.3	.8	.1	.0	210.32	1.00
19.370	17600.	660.1	1.8	.2	.0	245.53	1.00
19.370	4000.	652.1	.0	.0	.0	161.85	20.00
19.370	7800.	655.3	3.2	.0	.0	188.55	20.00
19.370	11500.	657.5	2.2	.0	.0	203.62	20.00
19.370	13200.	658.3	.8	.0	.0	210.62	20.00
19.370	17600.	660.1	1.8	.0	.0	252.91	20.00
19.450	4000.	652.3	.0	.2	.0	669.37	390.00
19.450	7800.	655.6	3.3	.3	.0	998.89	390.00
19.450	11500.	658.0	2.3	.5	.0	1121.35	390.00
19.450	13200.	658.9	.9	.5	.0	1161.96	390.00
19.450	17600.	660.8	2.0	.7	.0	1319.04	390.00
19.730	4000.	653.3	.0	1.0	.0	364.37	1450.00
19.730	7800.	656.3	3.0	.7	.0	726.62	1450.00
19.730	11500.	658.5	2.2	.5	.0	873.51	1450.00
19.730	13200.	659.3	.9	.5	.0	926.98	1450.00
19.730	17600.	661.2	1.9	.4	.0	1051.58	1450.00
19.730	4000.	653.3	.0	.0	.0	373.87	20.00
19.730	7800.	656.3	3.0	.0	.0	728.03	20.00
19.730	11500.	658.5	2.2	.0	.0	874.18	20.00
19.730	13200.	659.3	.9	.0	.0	927.52	20.00
19.730	17600.	661.2	1.9	.0	.0	1052.16	20.00
19.730	4000.	653.6	.0	.3	.0	484.60	18.00
19.730	7800.	656.3	2.7	.0	.0	728.77	18.00
19.730	11500.	658.5	2.2	.0	.0	875.23	18.00
19.730	13200.	659.4	.9	.0	.0	929.71	18.00
19.730	17600.	661.3	1.9	.1	.0	1057.96	18.00
19.730	4000.	653.6	.0	.0	.0	485.05	5.00
19.730	7800.	656.3	2.7	.0	.0	728.90	5.00
19.730	11500.	658.5	2.2	.0	.0	875.37	5.00
19.730	13200.	659.4	.9	.0	.0	929.84	5.00
19.730	17600.	661.3	1.9	.0	.0	1058.11	5.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
20.240	3410.	656.8	.0	3.2	.0	66.58	2780.00
20.240	6670.	659.3	2.5	2.9	.0	1005.29	2780.00
20.240	10030.	660.7	1.5	2.2	.0	1187.84	2780.00
20.240	11110.	661.3	.6	2.0	.0	1205.33	2780.00
20.240	15020.	662.9	1.6	1.6	.0	1252.22	2780.00
20.760	3310.	662.4	.0	5.6	.0	997.57	2750.00
20.760	6470.	663.8	1.4	4.5	.0	1160.34	2750.00
20.760	9730.	664.7	.8	3.9	.0	1196.11	2750.00
20.760	10770.	664.9	.2	3.5	.0	1202.39	2750.00
20.760	14560.	665.7	.9	2.9	.0	1228.92	2750.00
20.950	3270.	664.1	.0	1.7	.0	892.62	1050.00
20.950	6390.	665.4	1.3	1.6	.0	1059.85	1050.00
20.950	9620.	666.3	1.0	1.7	.0	1170.80	1050.00
20.950	10650.	666.6	.3	1.7	.0	1182.01	1050.00
20.950	14400.	667.5	.9	1.7	.0	1208.06	1050.00
21.160	3230.	666.3	.0	2.2	.0	121.94	1100.00
21.160	6300.	668.0	1.7	2.6	.0	568.32	1100.00
21.160	9490.	669.1	1.1	2.7	.0	584.76	1100.00
21.160	10510.	669.3	.3	2.8	.0	589.12	1100.00
21.160	14210.	670.2	.9	2.8	.0	608.09	1100.00
21.160	3230.	666.3	.0	.0	.0	122.01	20.00
21.160	6300.	668.1	1.8	.1	.0	555.11	20.00
21.160	9490.	669.2	1.1	.2	.0	587.00	20.00
21.160	10510.	669.5	.3	.2	.0	591.58	20.00
21.160	14210.	670.4	.9	.2	.0	613.42	20.00
21.160	3230.	667.0	.0	.7	.0	153.21	18.00
21.160	6300.	668.8	1.8	.7	.0	561.78	18.00
21.160	9490.	669.7	.9	.5	.0	594.89	18.00
21.160	10510.	670.0	.2	.5	.0	600.66	18.00
* 21.160	14210.	670.7	.8	.3	.0	621.64	18.00
21.160	3230.	667.0	.0	.0	.0	160.50	5.00
21.160	6300.	668.8	1.8	.0	.0	580.70	5.00
21.160	9490.	669.7	.9	.0	.0	595.09	5.00
21.160	10510.	670.0	.2	.0	.0	601.02	5.00
21.160	14210.	670.8	.8	.0	.0	622.03	5.00
22.090	3040.	674.2	.0	7.2	.0	675.58	4940.00
22.090	5950.	676.1	1.9	7.3	.0	987.07	4940.00
22.090	8950.	677.4	1.3	7.6	.0	1075.68	4940.00
22.090	9910.	677.7	.4	7.7	.0	1100.13	4940.00
22.090	13400.	678.8	1.1	8.1	.0	1178.66	4940.00

RUTHERFORD CREEK (MIDDLE)

MILE	500 YEAR FLOOD		MAURY CO TN FEMA 100 YEAR FLOOD		50 YEAR FLOOD		10 YEAR FLOOD	
	Q	ELEV	Q	ELEV	Q	ELEV	Q	ELEV
9.710	23760.	614.8	18070.	612.4	15760.	611.3	10630.	607.8
Section U 10.740	21690.	618.9	16490.	616.2	14370.	614.9	9700.	611.4
11.550	21420.	622.7	16290.	620.3	14200.	619.2	9580.	616.2
Section V 11.650	21390.	623.0	16260.	620.7	14180.	619.7	9570.	617.1
11.650	21390.	623.2	16260.	621.4	14180.	620.7	9570.	617.1
11.690	32380.	623.2	16250.	621.5	14170.	620.9	9560.	617.4
Section W 12.370	21160.	626.4	16080.	623.5	14020.	622.8	9460.	620.2
13.230	20880.	629.8	15870.	627.6	13830.	626.6	9330.	624.0
13.800	20690.	632.6	15720.	630.5	13710.	629.5	9250.	626.9
13.880	20660.	632.7	15700.	630.7	13690.	629.7	9240.	627.2
13.880	20660.	633.4	15700.	631.1	13690.	630.1	9240.	627.3
13.980	20630.	633.5	15680.	631.2	13670.	630.1	9220.	627.3
14.180	20570.	633.7	15650.	631.5	13630.	630.5	9190.	628.0
14.550	20450.	635.9	15540.	633.8	13540.	632.9	9140.	630.6
15.660	20090.	642.3	15260.	640.5	13300.	639.7	8980.	637.5
16.580	19790.	645.4	15030.	644.0	13100.	643.4	8840.	641.8
17.450	19500.	649.6	14810.	648.4	12910.	647.8	8710.	646.3
17.640	19440.	651.0	14770.	649.5	12870.	648.9	8680.	647.0
18.230	19250.	656.4	14620.	654.6	12740.	653.7	8600.	651.4
18.230	19250.	656.5	14620.	654.7	12740.	653.8	8600.	651.5
18.700	19100.	658.1	14500.	656.3	12640.	655.5	8530.	653.2
19.200	18930.	659.6	14380.	657.8	12530.	657.0	8460.	654.8
19.300	18900.	659.6	14350.	657.9	12510.	657.1	8440.	654.9
19.370	17600.	659.7	13200.	658.0	11500.	657.2	7800.	655.1
19.370	17600.	660.1	13200.	658.3	11500.	657.5	7800.	655.3
19.450	17600.	660.8	13200.	658.9	11500.	658.0	7800.	655.6

19.730	17600.	661.2	13200.	659.3	11500.	658.5	7800.	656.3
19.730	17600.	661.3	13200.	659.4	11500.	658.5	7800.	656.3
20.240	15020.	662.9	11110.	661.3	10030.	660.7	6670.	659.3
20.760	14560.	665.7	10770.	664.9	9730.	664.7	6470.	663.8
20.950	14400.	667.5	10650.	666.6	9620.	666.3	6390.	665.4
21.160	14210.	670.2	10510.	669.3	9490.	669.1	6300.	668.0
21.160	14210.	670.8	10510.	670.0	9490.	669.7	6300.	668.8
22.090	13400.	678.8	9910.	677.7	8950.	677.4	5950.	676.1

ROUYERFORD CREEK (MIDDLE)

MAURY CO TO FEMA

2 YEAR FLOOD

MILE	Q	ELEV	Q	ELEV
9.710	5420.	602.6		
10.740	4940.	606.5		
11.550	4880.	612.2		
11.650	4870.	613.1		
11.650	4870.	613.2		
11.690	4870.	613.4		
12.370	4820.	616.4		
13.230	4750.	619.8		
13.800	4711.	622.8		
13.880	4710.	623.3		
13.880	4710.	623.3		
13.980	4700.	623.2		
14.180	4680.	624.5		
14.550	4660.	627.3		
15.660	4570.	634.0		
16.580	4500.	639.1		
17.450	4440.	643.3		
17.640	4420.	643.9		
18.230	4380.	647.6		
18.230	4380.	647.8		
18.700	4350.	649.6		
19.200	4310.	651.5		
19.300	4300.	651.7		
19.370	4000.	652.0		
19.370	4000.	652.1		
19.450	4000.	652.3		

19.730 4000. 653.3

19.730 4000. 653.6

20.240 3410. 656.8

20.760 3310. 662.4

20.950 3270. 664.1

21.160 3230. 666.3

21.160 3230. 667.0

22.090 3040. 674.2

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THIS RUN EXECUTED 07/11/67, 3:26 PM

HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980

ERROR CORR - 01,02,03,04,05,06

MODIFICATION - 50,51,52,53,54

T1	MAURY CO TN FEMA	RUTHM F276	000	3000
T2	2 YEAR FLOOD	Q JCH 6/10/87 BPL 5/2/87	000	2000
T3	RUTHERFORD CREEK (MIDDLE)	2,10,50,100,500	000	3000

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	0	2	0	0	00000	0	00	7680	605.17	00	4000

J2	NPROF	IPI.OT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	1	0	-1	0	0	00	0	0	0	0	5000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

	150.00	60	160.00	00	00	00	00	00	00	00	6000
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NC	090	070	035	1	3						8000
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QT	6.	7680.	14960.	22470.	24890.	33400.	24890.	0.	0.	0.	9000
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X1	9.71	13.	116.	209.	3500.	4300.	4500.	00	00	0.	10000
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GR	616.0	0.	603.3	116.	590.8	136.	587.8	146.	587.6	171.	13000
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GR	587.8	186.	587.9	198.	590.8	199.	601.4	209.	604.0	362.	12000
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GR	615.4	323.	616.0	400.	620.0	600.	0	0.	0	0.	13000
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NC	080	110	040	0	0						14000
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QT	6.	7000.	13650.	20520.	22720.	30510.	22720.	0.	0.	0.	15000
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X1	10.74	12.	411.	504.	5100.	4700.	5170.	00	00	0.	16000
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GR	628.0	0.	620.0	179.	616.0	271.	608.0	341.	604.3	411.	17000
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GR	597.6	426.	594.6	406.	592.7	466.	594.0	486.	597.6	488.	18000
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GR	604.6	504.	628.0	542.	0	0.	0	0.	0	0.	19000
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NC	080	100	045	0	0						20000
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QT	6.	6920.	13490.	20270.	22440.	30140.	22440.	0.	0.	0.	21000
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X1	11.55	19.	1498.	1579.	3500.	4000.	4240.	00	00	0.	22000
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GR	636.0	0.	628.0	350.	620.0	650.	617.0	900.	616.0	1195.	23000
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GR	613.3	1421.	611.0	1469.	609.9	1498.	604.5	1510.	604.0	1524.	24000
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GR	599.9	1544.	601.0	1559.	604.5	1569.	608.0	1579.	612.0	1648.	25000
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GR	620.0	1672.	626.8	1695.	626.1	1716.	636.1	1910.	0	0.	26000
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QT	6.	6910.	13460.	20230.	22410.	30090.	22410.	0.	0.	0.	27000
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X1	11.65	22.	1498.	1583.	500.	500.	500.	.00	.00	0.	28000
GR	636.0	0.	628.0	350.	620.0	250.	617.0	900.	616.0	1195.	29000
GR	613.3	1421.	611.0	1469.	609.9	1498.	607.8	1501.	604.5	1506.	30000
GR	600.0	1515.	599.7	1525.	601.8	1540.	600.7	1565.	604.5	1572.	31000
GR	607.7	1577.	608.8	1583.	612.0	1648.	620.0	1672.	626.8	1695.	32000
GR	626.1	1716.	636.1	1910.	0.	0.	0.	0.	0.	0.	33000
NC	.000	.000	.000	.3	.5						34000

X1	11.65	0.	0.	0.	40.	40.	40.	.00	.00	0.	35000
SB	1.25	1.60	3.00	0.	72.00	2.00	1290.00	.00	600.8	600.8	36000

X1	11.65	0.	0.	0.	15.	15.	15.	.00	.00	0.	37000
Y2	0.	.00	1.	618.0	617.8	.00	0.	.00	.0	0.	38000
BT	12.0	350.0	628.0	.0	650.0	620.0	.0	1183.0	619.0	.0	39000
BT	1283.0	617.8	.0	1383.0	619.5	.0	1483.0	620.9	.0	1497.0	40000
BT	621.0	0	1497.0	621.5	.0	1583.0	621.3	.0	1583.0	620.9	41000
BT	.0	1683.0	621.2	.0	1760.0	625.4	.0	.0	.0	.0	42000

X1	11.65	0.	0.	0.	10.	10.	10.	.00	.00	0.	43000
NC	.075	.090	.045	.1	.3						44000
QT	6.	6900.	13460.	20220.	22390.	30070.	22390.	0.	0.	0.	45000

X1	11.69	19.	1498.	1579.	200.	200.	200.	.00	.00	0.	46000
GR	636.0	0.	628.0	350.	620.0	650.	617.0	900.	616.0	1195.	47000
GR	613.3	1421.	611.0	1469.	609.9	1498.	604.5	1510.	601.3	1524.	48000
GR	599.9	1544.	601.0	1559.	604.5	1569.	608.0	1579.	612.0	1648.	49000
GR	620.0	1672.	626.8	1695.	626.1	1716.	636.1	1910.	.0	0.	50000
NC	.075	.075	.040	.0	.0						51000
QT	6.	6830.	13320.	20010.	22160.	29760.	22160.	0.	0.	0.	52000

X1	12.37	13.	479.	589.	3570.	2970.	3600.	.00	.00	0.	53000
GR	636.0	0.	624.2	98.	620.3	313.	614.1	479.	607.9	489.	54000
GR	604.9	493.	603.1	513.	603.1	533.	603.3	561.	607.9	569.	55000
GR	616.6	589.	620.1	653.	636.0	745.	.0	0.	.0	0.	56000
NC	.070	.070	.035	.0	.0						57000
QT	6.	6740.	13140.	19740.	21860.	29370.	21860.	0.	0.	0.	58000

X1	13.23	17.	1229.	1328.	4440.	3100.	4540.	.00	.00	0.	59000
GR	636.0	0.	632.1	405.	628.0	955.	624.0	1096.	620.4	1154.	60000
GR	623.0	1229.	618.1	1248.	611.4	1254.	608.2	1260.	608.0	1290.	61000
GR	607.9	1310.	611.4	1316.	618.1	1328.	626.9	1349.	634.2	1380.	62000
GR	636.0	1462.	636.2	1472.	.0	.0	.0	.0	.0	.0	63000
NC	.070	.075	.040	.0	.0						64000
QT	6.	6680.	13020.	19560.	21670.	29100.	21670.	0.	0.	0.	65000

X1	13.80	16.	234.	310.	2050.	2750.	3050.	.00	-.60	0.	66000
GR	640.0	0.	632.5	83.	632.5	117.	624.2	141.	620.0	234.	67000
GR	613.6	240.	609.9	240.	609.3	260.	609.1	297.	609.9	297.	68000
GR	613.6	297.	622.2	310.	623.8	594.	624.3	784.	628.0	840.	69000
GR	640.0	884.	.0	0.	.0	0.	.0	0.	.0	0.	70000
NC	.065	.065	.035	.3	.5						71000
QT	6.	6670.	13000.	19540.	21640.	29070.	21640.	0.	0.	0.	72000

X1	13.88	15.	155.	368.	380.	380.	380.	.00	.00	0.	73000
GR	640.0	0.	632.5	80.	632.5	117.	625.5	155.	613.4	190.	74000
GR	610.7	204.	611.4	232.	608.5	267.	610.0	302.	613.0	345.	75000
GR	622.5	368.	623.8	594.	624.3	784.	628.0	840.	640.0	884.	76000

X1	13.88	0.	0.	0.	20.	20.	20.	.00	.00	0.	77000
X3	10.	.0	.0	0.	.0	0.	.0	630.0	630.0		78000
SB	90	1.60	3.00	0.	120.00	9.00	3151.00	3.79	610.0	610.0	79000

X1	13.88	0.	0.	0.	32.	32.	32.	.00	.00	0.	80000
X2	0.	.00	1.	627.7	631.5	.00	0.	.00	.0	0.	81000
X3	10.	.0	.0	0.	.0	0.	.0	632.2	631.5		82000
BT	12.0	0.	640.0	0.	88.0	632.2	0.	133.0	632.4	0.	83000
BT	133.0	634.4	.0	142.0	634.9	.0	388.0	634.9	.0	400.0	84000
BT	634.5	.0	400.0	632.5	.0	488.0	631.8	.0	588.0	631.5	85000
BT	.0	688.0	632.1	.0	870.0	636.0	.0	.0	.0	.0	86000

X1	13.88	0.	0.	0.	5.	5.	5.	.00	.00	0.	87000
NC	.070	.065	.040	.1	.3						88000
QT	6.	6660.	12980.	19510.	21600.	29020.	21600.	0.	0.	0.	89000

X1	13.98	16.	234.	310.	500.	500.	500.	.00	.40	0.	90000
GR	640.0	0.	632.5	83.	632.5	117.	624.2	141.	620.0	234.	91000
GR	613.6	240.	609.9	240.	609.3	260.	609.1	287.	609.9	297.	92000
GR	613.6	297.	622.2	310.	623.8	594.	624.3	784.	628.0	840.	93000
GR	640.0	884.	.0	0.	.0	0.	.0	0.	.0	0.	94000
QT	6.	6640.	12940.	19450.	21540.	28930.	21540.	0.	0.	0.	95000

X1	14.18	13.	25.	108.	1000.	600.	1000.	.00	.00	0.	96000
GR	636.0	0.	622.5	25.	620.0	30.	611.0	50.	611.0	80.	97000
GR	620.0	100.	622.5	108.	624.0	125.	624.0	340.	628.0	380.	98000
GR	632.0	410.	636.0	500.	640.0	1050.	.0	0.	.0	0.	99000
NC	.090	.075	.045	.0	.0						100000
QT	6.	6600.	12860.	19330.	21410.	28760.	21410.	0.	0.	0.	101000

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Y1	14.55	12.	78.	142.	2070.	1720.	2070.	.00	.00	0.	102000
GR	644.0	0.	628.2	38.	624.5	72.	616.5	78.	613.0	88.	103000
GR	615.1	96.	615.0	108.	616.5	118.	619.0	133.	624.4	142.	104000
GR	628.0	293.	644.0	476.	.0	0.	.0	0.	.0	0.	105000
NC	.075	.060	.040	.0	.0	.0	.0	.0	.0	.0	106000
OT	6.	6480.	12630.	18980.	21030.	28250.	21030.	0.	0.	0.	107000
Y1	15.66	19.	1152.	1217.	4500.	5900.	6090.	.00	.00	0.	108000
GR	648.0	0.	640.0	259.	635.9	501.	636.9	722.	631.1	935.	109000
GR	633.3	1084.	631.5	1128.	630.4	1152.	622.9	1158.	620.5	1161.	110000
GR	620.0	1184.	620.4	1207.	622.9	1215.	630.4	1217.	632.6	1230.	111000
GR	639.7	1240.	639.7	1250.	646.3	1279.	648.0	1502.	.0	0.	112000
NC	.100	.065	.040	.0	.0	.0	.0	.0	.0	.0	113000
OT	6.	6380.	12440.	18700.	20710.	27830.	26710.	0.	0.	0.	114000
Y1	16.58	20.	62.	133.	4700.	3500.	4860.	.00	.00	0.	115000
GR	656.0	0.	652.2	11.	652.4	25.	636.2	62.	629.0	77.	116000
GR	628.9	78.	627.6	97.	627.5	107.	628.6	125.	629.9	125.	117000
GR	636.4	133.	641.8	191.	642.9	221.	639.7	256.	640.6	502.	118000
GR	649.0	1259.	644.0	1418.	649.4	1566.	647.5	1682.	656.0	2038.	119000
NC	.075	.085	.045	.0	.0	.0	.0	.0	.0	.0	120000
OT	6.	6290.	12260.	18430.	20410.	27430.	20410.	0.	0.	0.	121000
Y1	17.45	15.	835.	945.	3950.	4710.	4710.	.00	.00	0.	122000
GR	660.0	0.	656.0	80.	652.0	345.	648.0	595.	644.0	700.	123000
GR	640.0	635.	632.0	850.	630.2	855.	630.2	925.	632.0	930.	124000
GR	640.0	785.	644.0	950.	648.0	965.	652.0	1005.	656.0	1035.	125000
NC	.000	.000	.050	.0	.0	.0	.0	.0	.0	.0	126000
OT	6.	6270.	12220.	18370.	20340.	27340.	20340.	0.	0.	0.	127000
Y1	17.64	15.	330.	405.	700.	1010.	1010.	.00	.00	0.	128000
GR	660.0	0.	652.0	199.	651.0	273.	648.0	291.	644.1	298.	129000
GR	643.0	330.	632.4	344.	630.0	344.	630.1	354.	630.0	370.	130000
GR	631.4	585.	632.4	390.	643.2	405.	648.0	544.	660.0	624.	131000
NC	.065	.065	.040	.0	.0	.0	.0	.0	.0	.0	132000
OT	6.	6200.	12100.	18180.	20140.	27070.	20140.	0.	0.	0.	133000
Y1	18.23	19.	589.	464.	3150.	2600.	3150.	.00	.00	0.	134000
GR	664.0	0.	656.0	328.	652.0	502.	648.1	606.	644.0	847.	135000
GR	643.0	889.	635.8	899.	634.6	899.	634.1	919.	634.8	934.	136000
GR	635.8	940.	642.0	955.	642.4	959.	645.0	964.	647.2	1063.	137000
GR	655.0	1134.	655.3	1178.	656.0	1453.	664.0	1934.	.0	0.	138000
NC	.000	.000	.000	.3	.5	.0	.0	.0	.0	.0	139000

X1	18.23	20.	889.	964.	10.	10.	10.	.00	.00	0.	140000
BT	4.0	915.0	638.7	.0	915.0	638.7	636.9	925.0	638.7	636.9	141000
BT	925.0	638.7	.0	.0	.0	.0	.0	.0	.0	.0	142000
GR	664.0	0.	656.0	328.	652.0	502.	648.1	808.	644.0	847.	143000
GR	643.0	889.	638.7	895.	638.7	915.	634.1	915.	634.1	925.	144000
GR	638.7	925.	638.7	949.	642.0	955.	642.9	959.	645.0	964.	145000
GR	647.2	1063.	655.9	1134.	655.3	1178.	656.0	1453.	664.0	1934.	146000

X1	18.23	0.	0.	0.	12.	12.	12.	.00	.00	0.	147000
X2	0.	.00	0.	.0	.0	.00	1.	.00	.0	0.	148000

X1	18.23	19.	889.	964.	5.	5.	5.	.00	.00	0.	149000
GR	664.0	0.	656.0	328.	652.0	502.	648.1	808.	644.0	847.	150000
GR	643.0	889.	635.8	899.	634.6	899.	634.1	919.	634.8	934.	151000
GR	635.8	946.	642.0	955.	642.4	959.	645.0	964.	647.2	1063.	152000
GR	655.9	1134.	655.3	1178.	656.0	1453.	664.0	1934.	0.	0.	153000
MC	.085	.070	.045	.1	.3						154000
QT	6.	6150.	12000.	18040.	19980.	26860.	19980.	0.	0.	0.	155000

X1	18.70	14.	41.	118.	2050.	2500.	2500.	.00	.00	0.	156000
GR	664.0	0.	648.3	24.	646.3	41.	636.7	56.	635.1	70.	157000
GR	643.7	87.	634.8	97.	635.9	107.	636.7	107.	647.4	118.	158000
GR	648.0	279.	656.0	543.	660.0	980.	664.0	1100.	.0	0.	159000
MC	.080	.080	.045	.0	.0						160000
QT	6.	6100.	11900.	17880.	19800.	26630.	19800.	0.	0.	0.	161000

X1	19.20	29.	1884.	1988.	1910.	2130.	2710.	.00	-1.00	0.	162000
GR	664.0	0.	664.0	691.	660.1	1028.	656.0	1152.	652.0	1459.	163000
GR	640.0	1631.	652.0	1726.	652.0	1873.	652.5	1884.	647.2	1892.	164000
GR	645.8	1697.	640.3	1907.	639.2	1912.	639.7	1928.	640.1	1944.	165000
GR	640.3	1960.	644.8	1967.	649.6	1988.	652.0	2125.	660.0	2245.	166000
GR	662.7	2359.	660.5	2382.	662.2	2404.	662.3	2426.	661.0	2433.	167000
GR	663.0	2439.	662.2	2456.	664.0	2611.	668.0	2903.	.0	0.	168000
NH	5.	.500	1726.	.080	1884.	.045	1988.	.080	2125.	.500	169000
MH	2903.	.000	.0	.000	0.	.000	0.	.000	0.	.000	170000
QT	6.	6090.	11800.	17850.	19770.	26540.	19770.	0.	0.	0.	171000

X1	19.30	0.	0.	0.	309.	300.	360.	.00	.20	0.	172000
NC	.080	.080	.045	.3	.5						173000
QT	6.	5030.	9810.	14750.	16330.	21990.	16330.	0.	0.	0.	174000

X1	19.37	31.	1821.	2019.	300.	300.	300.	.00	.00	0.	175000
GR	667.0	0.	664.0	601.	660.0	1020.	660.9	1218.	661.5	1318.	176000
GR	662.3	1416.	662.9	1518.	663.3	1616.	663.0	1780.	654.0	1821.	177000
GR	652.3	1832.	650.5	1849.	646.8	1861.	645.5	1875.	644.8	1883.	178000
GR	640.3	1903.	640.2	1906.	638.3	1918.	639.3	1938.	639.4	1956.	179000

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GR	640.2	1960.	644.4	1972.	649.0	1984.	652.9	1998.	658.0	2010.	180000
GR	662.6	2040.	662.3	2118.	661.7	2206.	661.8	2418.	664.0	2810.	181000
GR	668.0	2903.	.0	.0	.0	0.	.0	0.	.0	0.	182000

X1	19.37	0.	0.	0.	80.	80.	80.	.00	.00	0.	183000
X3	10.	.0	.0	0.	.0	0.	.0	658.5	660.0	0.	184000

X1	19.37	46.	1821.	2010.	1.	1.	1.	.00	.00	0.	185000
BT	8.0	1821.0	662.9	.0	1821.0	663.3	660.6	1903.0	663.3	659.5	186000
BT	1903.0	663.3	660.6	1956.0	663.3	660.6	1956.0	663.3	659.5	2010.0	187000
BT	663.3	660.6	2010.0	662.3	.0	.0	.0	.0	.0	.0	188000
GR	667.9	.0	663.8	700.	660.0	1020.	660.9	1218.	661.5	1318.	189000
GR	662.3	1418.	662.9	1518.	663.3	1618.	662.9	1821.	658.3	1821.	190000
GR	650.5	1844.	660.2	1844.	660.2	1846.	650.5	1846.	646.8	1861.	191000
GR	645.5	1873.	659.8	1873.	659.8	1875.	645.5	1875.	644.8	1883.	192000
GR	640.3	1901.	659.5	1901.	659.5	1903.	640.3	1903.	640.2	1906.	193000
GR	638.3	1918.	639.3	1938.	639.4	1956.	659.5	1956.	659.5	1958.	194000
GR	632.4	1958.	640.2	1960.	644.4	1972.	649.0	1984.	660.0	1984.	195000
GR	660.0	1986.	649.0	1986.	652.9	1998.	658.6	2010.	662.3	2010.	196000
GR	662.6	2040.	662.3	2118.	661.7	2206.	661.8	2418.	664.0	2811.	197000
GR	668.0	2903.	.0	0.	.0	0.	.0	0.	.0	0.	198000

X1	19.37	0.	0.	0.	29.	29.	29.	.00	.00	0.	199000
X2	0.	.00	0.	.0	.0	.00	1.	.00	.0	0.	200000

X1	19.37	31.	1821.	2010.	1.	1.	1.	.00	.00	0.	201000
GR	667.0	0.	664.0	680.	660.0	1020.	660.9	1218.	661.5	1318.	202000
GR	662.3	1418.	662.9	1518.	663.3	1618.	663.0	1780.	654.0	1821.	203000
GR	652.3	1832.	650.5	1846.	646.8	1861.	645.5	1875.	644.8	1883.	204000
GR	640.3	1903.	640.2	1906.	638.3	1918.	639.3	1938.	639.4	1956.	205000
GR	640.2	1960.	644.4	1972.	649.0	1984.	652.9	1998.	658.0	2010.	206000
GR	662.6	2040.	662.3	2118.	661.7	2206.	661.8	2418.	664.0	2810.	207000
GR	668.0	2903.	.0	0.	.0	0.	.0	0.	.0	0.	208000

X1	19.37	0.	0.	0.	20.	20.	20.	.00	.00	0.	209000
NC	.100	.100	.045	.1	.5						210000
BT	6.	5030.	9800.	14740.	16320.	21980.	15320.	0.	0.	0.	211000

X1	19.45	29.	1884.	1988.	240.	290.	390.	.00	.00	0.	212000
GR	668.0	0.	664.0	691.	660.1	1028.	656.0	1152.	652.0	1459.	213000
GR	649.0	1831.	652.0	1726.	652.0	1873.	652.5	1884.	647.2	1892.	214000
GR	645.8	1897.	640.3	1907.	639.2	1912.	639.7	1926.	640.1	1944.	215000
GR	640.3	1960.	644.8	1967.	649.6	1988.	652.0	2125.	660.0	2245.	216000
GR	662.7	2359.	660.5	2382.	662.2	2404.	662.3	2426.	661.0	2433.	217000
GR	663.0	2439.	662.2	2456.	664.0	2811.	668.0	2903.	.0	0.	218000
NC	.070	.080	.040	.0	.0						219000
BT	6.	5020.	9790.	14720.	16300.	21950.	16300.	0.	0.	0.	220000

X1	19.73	30.	1256.	1241.	870.	920.	1450.	.00	.00	0.	221000
GR	668.0	0.	665.1	196.	662.9	256.	661.3	356.	659.7	456.	222000
GR	659.1	486.	657.9	556.	656.3	656.	654.5	756.	653.3	856.	223000
GR	653.1	956.	653.2	1076.	653.5	1110.	653.5	1156.	649.7	1161.	224000
GR	648.2	1166.	644.4	1176.	643.6	1182.	640.6	1186.	641.7	1196.	225000
GR	641.3	1196.	642.1	1209.	640.4	1219.	640.4	1229.	640.0	1239.	226000
GR	643.6	1239.	651.1	1241.	656.0	1382.	660.0	1406.	668.0	1448.	227000

X1	19.73	0.	0.	0.	20.	20.	20.	.00	.00	0.	228000
SB	1.15	1.60	3.00	0.	72.00	3.00	704.00	.00	641.5	641.5	229000

X1	19.73	0.	0.	0.	18.	18.	18.	.00	.00	0.	230000
X2	0.	.00	1.	651.7	653.1	.00	0.	.00	.0	0.	231000
BT	12.0	196.0	665.1	0.	256.0	662.9	0.	356.0	661.3	0.	232000
BT	456.0	659.7	0.	486.0	659.1	0.	556.0	657.9	0.	656.0	233000
BT	656.3	0.	756.0	654.5	0.	656.0	653.3	0.	956.0	653.1	234000
BT	0.	1076.0	653.2	0.	1110.0	653.3	0.	1156.0	654.5	0.	235000
BT	1156.0	658.8	0.	1239.0	658.4	0.	1239.0	654.7	0.	1256.0	236000
BT	654.5	0.	1356.0	654.0	0.	0.	0.	0.	0.	0.	237000

X1	19.73	0.	0.	0.	5.	5.	5.	.00	.00	0.	238000
NC	.070	.075	.045	0.	0.	0.	0.	0.	0.	0.	239000
QT	6.	3410.	6670.	10030.	11110.	15020.	11110.	0.	0.	0.	240000

X1	20.24	24.	1699.	1765.	2050.	2450.	2780.	.00	.00	0.	241000
GR	676.0	0.	672.4	192.	675.5	210.	675.5	233.	669.1	255.	242000
GR	672.0	303.	664.0	626.	660.0	682.	656.9	1084.	657.4	1500.	243000
GR	658.3	1665.	657.6	1699.	656.2	1703.	649.1	1703.	648.5	1705.	244000
GR	648.0	1711.	647.7	1728.	648.3	1739.	648.0	1759.	648.5	1764.	245000
GR	656.0	1765.	659.2	1777.	660.0	1848.	676.0	2078.	0.	0.	246000
NC	.040	.060	.050	0.	0.	0.	0.	0.	0.	0.	247000
QT	6.	3310.	6470.	9730.	10770.	14560.	10770.	0.	0.	0.	248000

Y1	20.76	26.	551.	615.	2270.	2370.	2750.	.00	.00	0.	249000
GR	688.1	0.	688.4	68.	662.8	93.	663.7	98.	663.7	120.	250000
GR	660.6	146.	660.3	306.	660.5	470.	662.1	536.	662.6	551.	251000
GR	661.8	554.	654.0	554.	653.2	555.	653.2	570.	653.6	580.	252000
GR	653.2	594.	654.0	606.	661.8	615.	660.2	803.	661.5	1066.	253000
GR	664.0	1264.	668.0	1367.	672.4	1447.	676.0	1481.	680.0	1532.	254000
GR	689.8	1608.	0.	0.	0.	0.	0.	0.	0.	0.	255000
QT	6.	3270.	6390.	9620.	10650.	14400.	10650.	0.	0.	0.	256000

X1	20.95	0.	0.	0.	1050.	570.	1050.	.00	2.40	0.	257000
NC	.075	.085	.050	.0	1.0						258000
QT	6.	3230.	6310.	9490.	10510.	14210.	10510.	0.	0.	0.	259000

X1	21.16	22.	1298.	1381.	1100.	900.	1100.	.00	.00	0.	260000
GR	676.0	0.	672.6	751.	669.8	810.	667.4	832.	667.0	840.	261000
GR	667.4	992.	667.5	1000.	667.4	1140.	667.4	1209.	665.9	1278.	262000
GR	662.4	1298.	661.8	1308.	656.8	1325.	655.7	1328.	655.5	1338.	263000
GR	655.3	1363.	656.8	1370.	666.0	1381.	668.0	1395.	675.2	1439.	264000
GR	683.7	1516.	688.7	1540.	0.	0.	0.	0.	0.	0.	265000
NC	.000	.000	.000	.3	.5						266000

X1	21.16	0.	0.	0.	20.	20.	20.	.00	.00	0.	267000
X3	10.	.0	.0	0.	.0	0.	.0	665.7	668.8		268000
SB	1.15	1.60	3.00	0.	35.00	2.00	509.00	2.01	656.0	656.0	269000

X1	21.16	0.	0.	0.	18.	18.	18.	.00	.00	0.	270000
X2	0.	.00	1.	665.8	666.7	.00	0.	.00	.0	0.	271000
X3	10.	.0	.0	0.	.0	0.	.0	666.7	669.4		272000
BT	13.0	810.0	669.8	0.	832.0	667.4	0.	840.0	667.0	0.	273000
BT	900.0	666.7	.0	1000.0	667.5	.0	1100.0	667.9	.0	1200.0	274000
BT	668.2	0.	1300.0	668.7	0.	1300.0	670.3	0.	1368.0	670.3	275000
BT	.0	1368.0	669.2	.0	1400.0	670.5	.0	1453.0	674.2	.0	276000

X1	21.16	0.	0.	0.	5.	5.	5.	.00	.00	0.	277000
NC	.070	.070	.050	.1	.3						278000
QT	6.	3040.	5950.	8950.	9910.	13400.	9910.	0.	0.	0.	279000

X1	22.09	31.	1277.	1352.	4300.	4000.	4940.	.00	.00	0.	280000
GR	702.4	0.	696.0	105.	692.0	222.	688.0	396.	684.0	459.	281000
GR	680.0	013.	676.0	732.	672.0	759.	671.8	790.	671.2	869.	282000
GR	672.9	947.	672.9	1247.	675.8	1277.	668.0	1287.	667.7	1299.	283000
GR	667.6	1324.	667.2	1336.	667.6	1343.	673.6	1347.	675.2	1352.	284000
GR	673.9	1508.	674.7	1640.	676.0	1713.	680.0	1871.	684.0	1962.	285000
GR	686.0	2002.	688.0	2282.	692.0	2369.	696.0	2464.	700.0	2603.	286000
GR	704.3	2749.	0.	0.	0.	0.	0.	0.	0.	0.	287000
EJ											288000

 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR = 01,02,03,04,05,06
 MODIFICATION = 50,51,52,53,54

T1	MAURY CO TN FEMA	RUTHM F276	002	89000
T2	10 YEAR FLOOD	0 JCH 6/10/87 BPI 5/2787	002	90000
T3	RUTHERFORD CREEK (MIDDLE)	2,10,50,100,500	002	91000

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FO	
	0.	3.	0.	0.	00000	0.	00	14970.	610.83	00	292000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IRW	CHNIM	ITRACE	
	2.	0.	-1.	0.	0.	00	0.	0.	0.	0.	293000

 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

T1	MATURY CO TN FEMA	RUTHM F276	002	94000
T2	50 YEAR FLOOD	0 JCH 6/10/87 BPL 5/2/87	002	95000
T3	RUTHERFORD CREEK (MIDDLE)	2,10,50,100,500	002	96000

J1	ICHECK	ING	NINV	IDIR	STRT	METRIC	HVINS	G	WSEL	FQ	
	0.	0.	0.	0.	00000	0.	00	22480	614.21	00	297000

J2	NPROF	TPL0T	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	3	0	-1	0	0	00	0	0	0	0	298000

 HEC2 RELEASE DATFU NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

T1	MAURY CO TN FEMA	RUTHM F276								002	99000
T2	100 YEAR FLOOD	0 JCH 6/10/87	0 PL 5/2/87							003	0
T3	RUTHERFORD CREEK (MIDDLE)	2,10,50,100,500								003	1000
J1	ICHECK	INH	NINV	IDIR	SIRT	METRIC	HVINS	W	WSEL	FB	
	0.	5.	0.	0.	00000	0.	00	24900.	615.21	00	302000
J2	NPROF	IPLOT	PRFS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	4.	0.	-1.	0.	0.	00	0.	0.	0.	0.	303000

 HEC2 RELEASE DATED NOV 76, UPDATED APRIL 1980
 ERROR CORN - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

T1	MAURY CO IN FEMA	RUTHM F276	003	4000
T2	500 YEAR FLOOD	0 JCH 6/10/87 HPL 5/2/87	003	5000
T3	RUTHERFORD CREEK (MIDDLE)	2,10,50,100,500	003	6000

J1	ICHECK	ING	MINV	IDIR	STRT	METRIC	HVINS	0	WSEL	F0	
	0.	5.	0.	0.	0.0000	0.	00	33420.	618.19	0.00	3070.00

J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLDC	18W	CHNIM	ITRACE	
	15.	0.	-1.	0.	0.	00	0	0.	0.	0.	3080.00

 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

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

RUTHERFORD CREEK (MIDDLE)

SUMMARY PRINTOUT TABLE 150

SECTN	XLCH	ELTRD	ELLL	ELMIN	Q	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
9.710	4500.	.0	.0	587.6	7680.0	605.17	.00	605.64	5.75	5.59	1581.20	3203.19
9.710	4500.	.0	.0	587.6	14960.0	610.83	.00	611.51	5.85	7.04	2918.65	6186.74
9.710	4500.	.0	.0	587.6	22470.0	614.21	.00	615.16	6.96	8.52	3885.02	8515.87
9.710	4500.	.0	.0	587.6	24890.0	615.21	.00	616.23	7.19	8.90	4194.96	9284.84
9.710	4500.	.0	.0	587.6	33400.0	618.19	.00	619.41	7.82	10.03	5466.25	11947.48
10.740	5170.	.0	.0	592.7	7000.0	608.89	.00	609.42	9.81	5.96	1346.24	2235.30
10.740	5170.	.0	.0	592.7	13650.0	614.43	.00	615.16	8.91	7.29	2489.86	4572.43
10.740	5170.	.0	.0	592.7	20520.0	618.29	.00	619.21	9.16	8.42	3509.42	6779.21
10.740	5170.	.0	.0	592.7	22720.0	619.38	.00	620.35	9.14	8.70	3862.12	7505.17
10.740	5170.	.0	.0	592.7	30510.0	622.64	.00	623.75	9.25	9.57	5084.71	10032.05
11.550	4240.	.0	.0	599.9	6920.0	614.17	.00	614.79	17.20	6.72	1440.72	1668.40
11.550	4240.	.0	.0	599.9	13490.0	618.75	.00	619.22	10.96	6.74	4224.92	4074.57
11.550	4240.	.0	.0	599.9	20270.0	622.16	.00	622.46	6.94	6.11	7737.35	7693.92
11.550	4240.	.0	.0	599.9	22440.0	623.13	.00	623.40	6.19	5.96	8835.03	9021.76
11.550	4240.	.0	.0	599.9	30140.0	626.15	.00	626.36	4.67	5.68	12492.77	13949.61
11.650	500.	.0	.0	599.7	6910.0	615.05	.00	615.49	10.91	5.66	1780.21	2091.97
11.650	500.	.0	.0	599.7	13460.0	619.34	.00	619.70	8.10	5.94	4816.15	4729.78
11.650	500.	.0	.0	599.7	20230.0	622.52	.00	622.78	5.87	5.68	8176.09	8347.34
11.650	500.	.0	.0	599.7	22410.0	623.45	.00	623.69	5.38	5.60	9238.37	9666.11
11.650	500.	.0	.0	599.7	30090.0	626.38	.00	626.58	4.25	5.43	12830.75	14590.07
11.650	40.	.0	.0	599.7	6910.0	615.10	.00	615.53	10.69	5.62	1801.79	2113.25
11.650	40.	.0	.0	599.7	13460.0	619.38	.00	619.73	7.98	5.90	4852.88	4764.13
11.650	40.	.0	.0	599.7	20230.0	622.54	.00	622.80	5.82	5.66	8204.91	8382.17
11.650	40.	.0	.0	599.7	22410.0	623.47	.00	623.71	5.34	5.58	9265.24	9700.38
11.650	40.	.0	.0	599.7	30090.0	626.40	.00	626.60	4.23	5.42	12853.85	14623.44

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
11.650	15.	617.8	618.0	599.7	6910.0	615.13	.00	615.56	10.60	5.60	1810.68	2122.01
11.650	15.	617.8	618.0	599.7	13460.0	620.46	.00	620.69	5.32	5.02	5947.97	5837.05
11.650	15.	617.8	618.0	599.7	20230.0	622.80	.00	623.04	5.36	5.47	8496.93	8738.10
11.650	15.	617.8	618.0	599.7	22410.0	623.64	.00	623.86	5.07	5.47	9460.81	9951.04
11.650	15.	617.8	618.0	599.7	30090.0	626.55	.00	626.74	4.07	5.34	13052.74	14910.86
11.650	10.	.0	.0	599.7	6910.0	615.14	.00	615.57	10.56	5.60	1814.83	2126.09
11.650	10.	.0	.0	599.7	13460.0	620.46	.00	620.70	5.31	5.02	5953.44	5843.65
11.650	10.	.0	.0	599.7	20230.0	622.81	.00	623.04	5.35	5.47	8502.82	8745.33
11.650	10.	.0	.0	599.7	22410.0	623.64	.00	623.87	5.06	5.47	9466.53	9958.41
11.650	10.	.0	.0	599.7	30090.0	626.56	.00	626.75	4.07	5.34	13058.03	14918.51
11.690	200.	.0	.0	599.9	6900.0	615.37	.00	615.78	10.56	5.63	1869.83	2123.76
11.690	200.	.0	.0	599.9	13460.0	620.60	.00	620.80	4.98	4.89	6056.32	6032.60
11.690	200.	.0	.0	599.9	20220.0	622.94	.00	623.15	4.91	5.28	8623.40	9122.52
11.690	200.	.0	.0	599.9	22390.0	623.77	.00	623.97	4.63	5.27	9583.37	10400.57
11.690	200.	.0	.0	599.9	30070.0	626.66	.00	626.83	3.71	5.14	13159.63	15619.29
12.370	3600.	.0	.0	603.1	6830.0	618.33	.00	618.69	6.45	4.87	1626.08	2690.05
12.370	3600.	.0	.0	603.1	13320.0	622.49	.00	623.02	7.32	6.30	3108.41	4922.86
12.370	3600.	.0	.0	603.1	20010.0	624.27	.00	625.56	8.68	7.50	4398.36	6793.70
12.370	3600.	.0	.0	603.1	22160.0	625.61	.00	626.32	8.77	7.73	4636.63	7482.63
12.370	3600.	.0	.0	603.1	29760.0	628.15	.00	628.90	8.53	8.27	6406.73	10190.53
13.230	4540.	.0	.0	607.9	6740.0	621.96	.00	622.64	11.77	6.68	1073.18	1964.66
13.230	4540.	.0	.0	607.9	13140.0	626.31	.00	627.26	11.75	8.24	2187.77	3833.70
13.230	4540.	.0	.0	607.9	19740.0	629.10	.00	630.23	12.05	9.39	3332.97	5685.86
13.230	4540.	.0	.0	607.9	21860.0	629.85	.00	631.01	12.01	9.65	3787.55	6306.57
13.230	4540.	.0	.0	607.9	29370.0	632.22	.00	633.37	11.31	10.17	5719.88	8731.52
13.800	3050.	.0	.0	608.5	6680.0	624.95	.00	625.27	6.61	5.03	2417.60	2598.37
13.800	3050.	.0	.0	608.5	13020.0	629.16	.00	629.39	4.73	5.06	5358.54	5984.30
13.800	3050.	.0	.0	608.5	19560.0	632.05	.00	632.28	4.44	5.41	7478.44	9278.01
13.800	3050.	.0	.0	608.5	21670.0	632.81	.00	633.05	4.45	5.54	8073.62	10272.16
13.800	3050.	.0	.0	608.5	29100.0	635.10	.00	635.36	4.60	6.02	9910.53	13573.44
13.880	380.	.0	.0	608.5	6670.0	625.34	.00	625.43	1.13	2.40	3413.87	6281.16
13.880	380.	.0	.0	608.5	13000.0	629.38	.00	629.50	1.28	3.08	6170.18	11485.71
13.880	380.	.0	.0	608.5	19540.0	632.23	.00	632.39	1.44	3.62	8233.83	16308.73
13.880	380.	.0	.0	608.5	21640.0	632.99	.00	633.16	1.49	3.78	8811.58	17738.02
13.880	380.	.0	.0	608.5	29070.0	635.26	.00	635.47	1.68	4.31	10628.00	22439.68
13.880	20.	.0	.0	608.5	6670.0	625.34	.00	625.44	1.23	2.50	2664.92	6023.72
13.880	20.	.0	.0	608.5	13000.0	629.34	.00	629.55	1.86	3.70	3515.61	9544.77
13.880	20.	.0	.0	608.5	19540.0	632.23	.00	632.39	1.43	3.62	8238.15	16319.53
13.880	20.	.0	.0	608.5	21640.0	632.99	.00	633.16	1.49	3.78	8816.21	17749.48
13.880	20.	.0	.0	608.5	29070.0	635.26	.00	635.47	1.68	4.31	10633.09	22453.39

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
13.880	32.	631.5	627.7	608.5	6670.0	625.34	.00	625.44	1.23	2.50	2664.42	6021.97
13.880	32.	631.5	627.7	608.5	13000.0	629.56	.00	629.76	1.78	3.65	3561.63	9753.92
13.880	32.	631.5	627.7	608.5	19540.0	632.92	.00	633.06	1.23	3.43	8759.64	17609.56
13.880	32.	631.5	627.7	608.5	21640.0	633.71	.00	633.86	1.27	3.58	9385.16	19179.71
13.880	32.	631.5	627.7	608.5	29070.0	635.95	.00	636.14	1.47	4.12	11196.61	23988.64
13.880	5.	.0	.0	608.5	6670.0	625.36	.00	625.44	1.12	2.40	3418.97	6288.91
13.880	5.	.0	.0	608.5	13000.0	629.67	.00	629.79	1.19	3.00	6378.78	11940.11
13.880	5.	.0	.0	608.5	19540.0	632.92	.00	633.06	1.23	3.43	8760.13	17610.79
13.880	5.	.0	.0	608.5	21640.0	633.71	.00	633.87	1.27	3.58	9385.68	19181.04
13.880	5.	.0	.0	608.5	29070.0	635.95	.00	636.14	1.47	4.12	11197.22	23990.30
13.980	500.	.0	.0	609.5	6660.0	625.24	.00	625.67	8.81	5.61	1952.54	2243.40
13.980	500.	.0	.0	609.5	12980.0	629.70	.00	629.93	4.97	5.10	5028.83	5819.81
13.980	500.	.0	.0	609.5	19510.0	632.98	.00	633.18	3.95	5.09	7426.75	9814.00
13.980	500.	.0	.0	609.5	21600.0	633.78	.00	633.98	3.90	5.18	8047.86	10944.14
13.980	500.	.0	.0	609.5	29020.0	636.04	.00	636.27	4.01	5.61	9858.13	14491.35
14.180	1000.	.0	.0	611.0	6640.0	626.14	.00	626.69	12.05	6.28	1488.08	1912.95
14.180	1000.	.0	.0	611.0	12940.0	630.06	.00	630.64	10.44	7.12	2919.10	4004.44
14.180	1000.	.0	.0	611.0	19450.0	633.18	.00	633.78	9.46	7.67	4173.97	6322.31
14.180	1000.	.0	.0	611.0	21540.0	633.96	.00	634.59	9.49	7.90	4517.22	6992.38
14.180	1000.	.0	.0	611.0	28930.0	636.17	.00	636.90	10.07	8.75	5575.86	9114.43
14.550	2070.	.0	.0	613.0	6600.0	628.95	.00	629.65	17.33	7.18	1354.96	1585.45
14.550	2070.	.0	.0	613.0	12860.0	632.55	.00	633.45	18.91	8.89	2409.84	2957.12
14.550	2070.	.0	.0	613.0	19330.0	635.42	.00	636.44	19.04	9.95	3378.65	4430.33
14.550	2070.	.0	.0	613.0	21410.0	636.19	.00	637.26	19.21	10.27	3658.30	4884.26
14.550	2070.	.0	.0	613.0	28760.0	638.49	.00	639.72	20.26	11.35	4542.13	6389.21
15.660	6090.	.0	.0	620.0	6480.0	635.73	.00	636.10	7.43	5.44	2083.49	2377.74
15.660	6090.	.0	.0	620.0	12630.0	639.40	.00	639.75	7.09	6.18	4634.84	4741.73
15.660	6090.	.0	.0	620.0	18980.0	641.91	.00	642.21	6.30	6.35	7175.02	7559.97
15.660	6090.	.0	.0	620.0	21030.0	642.61	.00	642.91	6.10	6.39	7930.53	8512.31
15.660	6090.	.0	.0	620.0	28250.0	644.83	.00	645.11	5.56	6.51	10447.09	11980.11
16.580	4860.	.0	.0	627.5	6380.0	640.62	635.93	641.33	17.20	7.23	1663.77	1538.18
16.580	4860.	.0	.0	627.5	12440.0	643.19	.00	643.52	10.20	6.41	4935.79	3895.90
16.580	4860.	.0	.0	627.5	18700.0	645.05	.00	645.30	7.94	6.16	7503.32	6636.58
16.580	4860.	.0	.0	627.5	20710.0	645.61	.00	645.84	7.42	6.10	8285.18	7601.49
16.580	4860.	.0	.0	627.5	27830.0	647.43	.00	647.63	6.14	5.97	10924.29	11230.92
17.450	4710.	.0	.0	630.2	6290.0	645.12	.00	645.36	5.01	4.03	1914.09	2810.28
17.450	4710.	.0	.0	630.2	12260.0	647.59	.00	648.10	9.26	6.14	2705.75	4028.24
17.450	4710.	.0	.0	630.2	18430.0	649.32	.00	650.11	13.09	7.82	3407.38	5093.27
17.450	4710.	.0	.0	630.2	20410.0	649.78	.00	650.66	14.22	8.30	3630.53	5413.10
17.450	4710.	.0	.0	630.2	27430.0	651.24	.00	652.38	17.62	9.73	4437.30	6534.19

SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
17.640	1010.	.0	.0	630.0	6270.0	645.72	.00	646.36	19.77	6.55	1096.08	1410.17
17.640	1010.	.0	.0	630.0	12220.0	648.60	.00	649.87	31.73	9.53	1746.76	2167.42
17.640	1010.	.0	.0	630.0	18370.0	650.71	.00	652.46	39.55	11.59	2325.35	2920.92
17.640	1010.	.0	.0	630.0	20340.0	651.27	.00	653.16	41.72	12.17	2493.40	3148.89
17.640	1010.	.0	.0	630.0	27340.0	653.05	.00	655.36	47.86	13.87	3146.62	3951.90
18.230	3150.	.0	.0	634.1	6200.0	649.56	.00	649.90	7.19	5.16	1799.67	2312.92
18.230	3150.	.0	.0	634.1	12100.0	653.41	.00	653.74	6.40	5.81	3901.99	4782.99
18.230	3150.	.0	.0	634.1	18180.0	656.05	.00	656.37	5.87	6.14	5995.51	7504.03
18.230	3150.	.0	.0	634.1	20140.0	656.75	.00	657.06	5.68	6.18	6805.66	8448.21
18.230	3150.	.0	.0	634.1	27070.0	658.85	.00	659.13	5.18	6.29	9546.67	11940.17
18.230	10.	638.7	636.9	634.1	6200.0	649.56	.00	649.92	16.15	5.54	1822.89	1542.71
18.230	10.	638.7	636.9	634.1	12100.0	653.51	.00	653.77	10.06	5.42	3790.40	3815.76
18.230	10.	638.7	636.9	634.1	18180.0	656.16	.00	656.41	8.07	5.44	5951.99	6399.09
18.230	10.	638.7	636.9	634.1	20140.0	656.87	.00	657.09	7.60	5.42	6769.01	7305.45
18.230	10.	638.7	636.9	634.1	27070.0	658.96	.00	659.16	6.43	5.37	9530.72	10675.59
18.230	12.	638.7	636.9	634.1	6200.0	649.59	.00	649.94	16.09	5.53	1825.85	1545.61
18.230	12.	638.7	636.9	634.1	12100.0	653.52	.00	653.79	10.01	5.41	3797.02	3823.61
18.230	12.	638.7	636.9	634.1	18180.0	656.19	.00	656.42	8.04	5.43	5961.40	6409.62
18.230	12.	638.7	636.9	634.1	20140.0	656.88	.00	657.10	7.58	5.41	6778.54	7316.31
18.230	12.	638.7	636.9	634.1	27070.0	658.97	.00	659.17	6.41	5.37	9540.52	10688.24
18.230	5.	.0	.0	634.1	6200.0	649.62	.00	649.95	7.02	5.32	1822.57	1339.35
18.230	5.	.0	.0	634.1	12100.0	653.50	.00	653.82	6.20	5.74	3960.52	4858.65
18.230	5.	.0	.0	634.1	18180.0	656.15	.00	656.46	5.88	6.06	6102.72	7625.92
18.230	5.	.0	.0	634.1	20140.0	656.84	.00	657.14	5.51	6.11	6916.16	8580.74
18.230	5.	.0	.0	634.1	27070.0	658.94	.00	659.21	5.00	6.22	9671.21	12107.58
18.700	2500.	.0	.0	634.7	6150.0	651.40	.00	651.70	7.12	4.78	1912.14	2305.38
18.700	2500.	.0	.0	634.7	12000.0	655.15	.00	655.51	7.73	5.84	3536.32	4316.73
18.700	2500.	.0	.0	634.7	18040.0	657.70	.00	658.11	8.08	6.53	5041.71	6346.09
18.700	2500.	.0	.0	634.7	19980.0	658.36	.00	658.78	8.17	6.71	5545.37	6992.15
18.700	2500.	.0	.0	634.7	26860.0	660.35	.00	660.79	8.41	7.23	7328.76	9263.59
19.200	2710.	.0	.0	638.2	6100.0	653.13	.00	653.29	5.38	3.72	3136.96	2628.80
19.200	2710.	.0	.0	638.2	11900.0	656.70	.00	656.82	3.84	3.78	6733.36	6072.06
19.200	2710.	.0	.0	638.2	17880.0	659.22	.00	659.33	3.45	3.98	9666.41	9621.14
19.200	2710.	.0	.0	638.2	19800.0	659.87	.00	659.99	3.42	4.05	10505.04	10714.01
19.200	2710.	.0	.0	638.2	26630.0	661.87	.00	661.99	3.37	4.32	13514.35	14495.91
19.300	360.	.0	.0	638.4	6090.0	653.28	.00	653.54	7.57	4.40	3095.59	2213.58
19.300	360.	.0	.0	638.4	11880.0	656.75	.00	657.05	7.52	5.25	6564.93	4333.04
19.300	360.	.0	.0	638.4	17850.0	659.22	.00	659.57	7.97	5.99	9429.34	6322.13
19.300	360.	.0	.0	638.4	19770.0	659.87	.00	660.23	8.20	6.23	10235.05	8903.18
19.300	360.	.0	.0	638.4	26580.0	661.82	.00	662.25	9.06	7.02	13099.70	8831.35

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	1UK*S	VCH	AREA	.01K
19.370	300.	.0	.0	638.3	5030.0	653.60	.00	653.76	5.13	3.19	1579.13	2219.99
19.370	300.	.0	.0	638.3	9810.0	656.96	.00	657.27	7.06	4.47	2213.30	3691.12
19.370	300.	.0	.0	638.3	14750.0	659.41	.00	659.88	8.57	5.53	2725.37	5038.93
19.370	300.	.0	.0	638.3	16330.0	660.04	.00	660.57	9.02	5.85	2870.51	5435.80
19.370	300.	.0	.0	638.3	21990.0	661.94	.00	662.67	10.33	6.80	3951.02	6842.73
19.370	80.	.0	.0	638.3	5030.0	653.64	.00	653.80	5.06	3.17	1588.08	2237.17
19.370	80.	.0	.0	638.3	9810.0	657.02	.00	657.33	6.97	4.45	2204.17	3714.97
19.370	80.	.0	.0	638.3	14750.0	659.48	.00	659.95	8.43	5.51	2734.26	5081.50
19.370	80.	.0	.0	638.3	16330.0	660.12	.00	660.64	8.88	5.82	2887.80	5478.98
19.370	80.	.0	.0	638.3	21990.0	662.08	.00	662.76	10.06	6.74	4060.11	6932.40
19.370	1.	662.3	660.6	638.3	5030.0	653.63	.00	653.81	9.39	3.37	1493.85	1641.39
19.370	1.	662.3	660.6	638.3	9810.0	657.00	.00	657.36	16.26	4.80	2042.05	2433.00
19.370	1.	662.3	660.6	638.3	14750.0	659.44	.00	659.99	22.59	5.96	2473.85	3103.35
19.370	1.	662.3	660.6	638.3	16330.0	660.07	.00	660.70	33.11	6.36	2570.03	2838.17
19.370	1.	662.3	660.6	638.3	21990.0	661.94	.00	662.90	73.10	8.03	3199.25	2571.95
19.370	29.	662.3	660.6	638.3	5030.0	653.66	.00	653.84	9.36	3.36	1495.55	1643.75
19.370	29.	662.3	660.6	638.3	9810.0	657.05	.00	657.40	16.12	4.79	2049.21	2443.72
19.370	29.	662.3	660.6	638.3	14750.0	659.51	.00	660.06	22.78	5.93	2486.88	3090.39
19.370	29.	662.3	660.6	638.3	16330.0	660.17	.00	660.79	34.06	6.33	2585.44	2798.21
19.370	29.	662.3	660.6	638.3	21990.0	662.23	.00	663.12	69.88	7.86	3446.24	2630.64
19.370	1.	.0	.0	638.3	5030.0	653.69	.00	653.84	5.00	3.15	1594.93	2250.32
19.370	1.	.0	.0	638.3	9810.0	657.12	.00	657.42	6.78	4.41	2244.69	3768.77
19.370	1.	.0	.0	638.3	14750.0	659.63	.00	660.09	8.11	5.44	2776.66	5179.24
19.370	1.	.0	.0	638.3	16330.0	660.32	.00	660.83	8.45	5.74	2951.50	5616.05
19.370	1.	.0	.0	638.3	21990.0	662.61	.00	663.22	8.69	6.39	4744.60	7459.33
19.370	20.	.0	.0	638.3	5030.0	653.70	.00	653.85	4.97	3.15	1597.47	2255.21
19.370	20.	.0	.0	638.3	9810.0	657.14	.00	657.44	6.73	4.40	2249.29	3780.18
19.370	20.	.0	.0	638.3	14750.0	659.65	.00	660.10	8.06	5.43	2782.25	5194.55
19.370	20.	.0	.0	638.3	16330.0	660.34	.00	660.85	8.42	5.73	2957.73	5628.13
19.370	20.	.0	.0	638.3	21990.0	662.63	.00	663.23	8.63	6.38	4777.44	7483.43
19.450	390.	.0	.0	639.2	5030.0	653.89	.00	654.03	4.65	3.41	2932.78	2332.93
19.450	390.	.0	.0	639.2	9800.0	657.51	.00	657.62	3.49	3.57	6516.50	5246.32
19.450	390.	.0	.0	639.2	14740.0	660.20	.00	660.30	3.05	3.73	9639.51	8437.37
19.450	390.	.0	.0	639.2	16320.0	660.94	.00	661.05	2.95	3.78	10601.71	9496.24
19.450	390.	.0	.0	639.2	21980.0	663.33	.00	663.43	2.67	3.91	14400.32	13443.06
19.730	1450.	.0	.0	640.0	5020.0	654.57	.00	654.88	7.58	4.72	1606.79	1823.72
19.730	1450.	.0	.0	640.0	9790.0	657.96	.00	658.20	5.81	4.92	4052.50	4060.94
19.730	1450.	.0	.0	640.0	14720.0	660.56	.00	660.76	4.59	4.87	6454.32	6867.71
19.730	1450.	.0	.0	640.0	16300.0	661.29	.00	661.48	4.33	4.86	7208.04	7833.85
19.730	1450.	.0	.0	640.0	21950.0	663.63	.00	663.79	3.65	4.83	9854.70	11496.93

SECNO	XLCH	FLTRD	ELLC	ELMIN	Q	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
19.730	20.	.0	.0	640.0	5020.0	654.58	.00	654.90	7.53	4.71	1613.89	1828.95
19.730	20.	.0	.0	640.0	9790.0	657.97	.00	658.22	5.79	4.91	4060.28	4069.23
19.730	20.	.0	.0	640.0	14720.0	660.57	.00	660.77	4.58	4.87	6461.89	6877.25
19.730	20.	.0	.0	640.0	16300.0	661.30	.00	661.49	4.32	4.85	7215.59	7843.69
19.730	20.	.0	.0	640.0	21950.0	663.64	.00	663.80	3.64	4.83	9862.08	11507.83
19.730	18.	653.1	651.7	640.0	5020.0	654.67	.00	654.97	7.22	4.64	1667.57	1868.83
19.730	18.	653.1	651.7	640.0	9790.0	657.98	.00	658.22	5.75	4.90	4071.92	4081.64
19.730	18.	653.1	651.7	640.0	14720.0	660.64	.00	660.84	4.45	4.81	6540.72	6976.78
19.730	18.	653.1	651.7	640.0	16300.0	661.39	.00	661.57	4.18	4.79	7313.04	7971.53
19.730	18.	653.1	651.7	640.0	21950.0	663.77	.00	663.93	3.49	4.75	10024.54	11748.56
19.730	5.	.0	.0	640.0	5020.0	654.67	.00	654.97	7.21	4.63	1669.03	1869.92
19.730	5.	.0	.0	640.0	9790.0	657.98	.00	658.23	5.75	4.90	4073.63	4083.47
19.730	5.	.0	.0	640.0	14720.0	660.65	.00	660.84	4.45	4.81	6542.72	6979.31
19.730	5.	.0	.0	640.0	16300.0	661.39	.00	661.57	4.18	4.79	7315.07	7974.20
19.730	5.	.0	.0	640.0	21950.0	663.77	.00	663.93	3.49	4.75	10026.54	11751.55
20.240	2780.	.0	.0	647.7	3410.0	657.42	.00	657.93	22.09	5.82	707.93	725.56
20.240	2780.	.0	.0	647.7	6670.0	659.89	.00	660.15	12.77	5.20	2922.80	1866.87
20.240	2780.	.0	.0	647.7	10030.0	661.97	.00	662.09	6.70	4.22	5386.93	3876.22
20.240	2780.	.0	.0	647.7	11110.0	662.59	.00	662.70	5.71	4.01	6159.72	4648.62
20.240	2780.	.0	.0	647.7	15020.0	664.70	.00	664.77	3.75	3.57	8848.81	7759.72
20.760	2750.	.0	.0	653.2	3310.0	662.30	.00	662.51	13.51	3.93	1908.56	900.66
20.760	2750.	.0	.0	653.2	6470.0	663.50	.00	663.74	15.97	4.67	3197.41	1618.92
20.760	2750.	.0	.0	653.2	9730.0	664.44	.00	664.62	17.90	5.25	4205.55	2299.77
20.760	2750.	.0	.0	653.2	10770.0	664.77	.00	664.95	17.19	5.25	4600.25	2597.51
20.760	2750.	.0	.0	653.2	14560.0	666.10	.00	666.31	12.94	4.96	6236.65	4048.08
20.950	1050.	.0	.0	655.6	3270.0	664.06	.00	664.41	27.63	5.42	1238.43	622.12
20.950	1050.	.0	.0	655.6	6390.0	665.30	.00	665.66	26.94	5.79	2546.93	1231.09
20.950	1050.	.0	.0	655.6	9620.0	666.31	.00	666.58	26.67	6.18	3579.11	1862.91
20.950	1050.	.0	.0	655.6	10650.0	666.58	.00	666.84	26.38	6.26	3889.59	2073.39
20.950	1050.	.0	.0	655.6	14400.0	667.56	.00	667.81	23.46	6.29	5071.17	2973.34
21.160	1110.	.0	.0	655.3	3230.0	666.27	.00	666.59	14.96	4.58	739.76	834.55
21.160	1100.	.0	.0	655.3	6310.0	667.99	.00	668.67	26.80	6.93	1266.41	1218.85
21.160	1100.	.0	.0	655.3	9490.0	669.07	.00	669.94	33.41	8.29	1891.26	1641.91
21.160	1100.	.0	.0	655.3	10510.0	669.35	.00	670.27	35.17	8.64	2056.26	1772.16
21.160	1100.	.0	.0	655.3	14210.0	670.20	.00	671.29	41.18	9.81	2564.52	2214.30
21.160	20.	.0	.0	655.3	3230.0	666.31	.00	666.62	14.71	4.55	744.68	842.07
21.160	20.	.0	.0	655.3	6310.0	668.07	.00	668.73	25.76	6.83	1297.86	1243.22
21.160	20.	.0	.0	655.3	9490.0	669.22	.00	670.03	30.77	8.02	1979.73	1710.88
21.160	20.	.0	.0	655.3	10510.0	669.51	.00	670.36	32.22	8.35	2152.78	1851.51
21.160	20.	.0	.0	655.3	14210.0	670.43	.00	671.40	36.58	9.37	2708.78	2349.41

SECNO	XLCH	ELTRD	ELLC	ELMIN	0	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
21.160	18.	666.7	665.8	655.3	3230.0	666.99	.00	667.26	11.14	4.17	838.03	967.90
21.160	18.	666.7	665.8	655.3	6310.0	668.79	.00	669.24	17.32	5.87	1704.85	1516.34
21.160	18.	666.7	665.8	655.3	9490.0	669.73	.00	670.35	23.41	7.21	2282.16	1961.39
21.160	18.	666.7	665.8	655.3	10510.0	669.97	.00	670.64	25.33	7.60	2426.01	2088.23
* 21.160	18.	666.7	665.8	655.3	14210.0	670.74	.00	671.58	31.56	8.84	2895.29	2529.59
21.160	5.	.0	.0	655.3	3230.0	667.00	.00	667.26	11.10	4.16	842.52	969.55
21.160	5.	.0	.0	655.3	6310.0	668.81	.00	669.25	17.13	5.84	1734.04	1524.50
21.160	5.	.0	.0	655.3	9490.0	669.75	.00	670.36	23.25	7.19	2282.76	1967.97
21.160	5.	.0	.0	655.3	10510.0	669.99	.00	670.65	25.16	7.58	2433.98	2095.39
21.160	5.	.0	.0	655.3	14210.0	670.76	.00	671.60	31.34	8.81	2904.22	2538.36
22.090	4940.	.0	.0	667.2	3040.0	674.21	.00	674.39	21.36	4.25	1297.56	657.70
22.090	4940.	.0	.0	667.2	5950.0	676.09	.00	676.19	12.82	3.80	2951.56	1861.71
22.090	4940.	.0	.0	667.2	8950.0	677.37	.00	677.47	10.66	3.86	4267.39	2741.27
22.090	4940.	.0	.0	667.2	9910.0	677.72	.00	677.82	10.28	3.89	4652.32	3091.38
22.090	4940.	.0	.0	667.2	13400.0	678.85	.00	678.96	9.44	4.04	5945.24	4361.74

RUTHERFORD CREEK (MIDDLE)

SUMMARY PRINTOUT TABLE 150

SECNO	N	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.710	7680.	605.2	.0	.0	.0	205.24	4500.00
9.710	14960.	610.8	5.7	.0	.0	267.36	4500.00
9.710	22470.	614.2	3.4	.0	.0	304.46	4500.00
9.710	24890.	615.2	1.0	.0	.0	315.43	4500.00
9.710	33400.	618.2	3.0	.0	.0	509.50	4500.00
10.740	7000.	608.9	.0	3.7	.0	177.70	5170.00
10.740	13650.	614.4	5.5	3.6	.0	235.17	5170.00
10.740	20520.	618.3	3.9	4.1	.0	307.56	5170.00
10.740	22720.	619.4	1.1	4.2	.0	334.61	5170.00
10.740	30510.	622.8	3.3	4.5	.0	413.41	5170.00
11.550	6920.	614.2	.0	5.3	.0	305.59	4240.00
11.550	13490.	618.7	4.6	4.3	.0	913.55	4240.00
11.550	20270.	622.2	3.4	3.9	.0	1110.08	4240.00
11.550	22440.	623.1	1.0	3.7	.0	1149.79	4240.00
11.550	30140.	626.1	3.0	3.5	.0	1275.45	4240.00
11.650	6910.	615.1	.0	.9	.0	382.80	500.00
11.650	13460.	619.3	4.3	.6	.0	964.86	500.00
11.650	20230.	622.5	3.2	.4	.0	1124.92	500.00
11.650	22410.	623.4	.9	.3	.0	1162.89	500.00
11.650	30090.	626.4	2.9	.2	.0	1296.86	500.00
11.650	6910.	615.1	.0	.1	.0	387.65	40.00
11.650	13460.	619.4	4.3	.0	.0	968.15	40.00
11.650	20230.	622.5	3.2	.0	.0	1125.97	40.00
11.650	22410.	623.5	.9	.0	.0	1163.83	40.00
11.650	30090.	626.4	2.9	.0	.0	1298.40	40.00
11.650	6910.	615.1	.0	.0	.0	389.64	15.00
11.650	13460.	620.5	5.3	1.1	.0	1040.77	15.00
11.650	20230.	622.8	2.3	.3	.0	1136.52	15.00
11.650	22410.	623.6	.8	.2	.0	1170.68	15.00
11.650	30090.	626.6	2.9	.2	.0	1312.22	15.00
11.650	6910.	615.1	.0	.0	.0	390.50	10.00
11.650	13460.	620.5	5.3	.0	.0	1041.02	10.00
11.650	20230.	622.8	2.3	.0	.0	1136.74	10.00
11.650	22410.	623.6	.8	.0	.0	1170.86	10.00
11.650	30090.	626.6	2.9	.0	.0	1312.58	10.00
11.690	6900.	615.4	.0	.2	.0	409.63	200.00
11.690	13460.	620.5	5.2	.1	.0	1046.34	200.00
11.690	20220.	622.9	2.3	.1	.0	1142.25	200.00
11.690	22390.	623.8	.8	.1	.0	1176.10	200.00
11.690	30070.	626.7	2.9	.1	.0	1321.81	200.00

SECNO	D	CHREL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12.370	6830.	618.3	.0	3.0	.0	254.87	3600.00
12.370	13320.	622.5	4.2	1.9	.0	474.52	3600.00
12.370	20010.	624.9	2.4	1.9	.0	588.12	3600.00
12.370	22160.	625.6	.7	1.8	.0	598.53	3600.00
12.370	29760.	628.2	2.5	1.5	.0	634.42	3600.00
13.230	6740.	622.0	.0	3.6	.0	174.08	4540.00
13.230	13140.	626.3	4.4	3.8	.0	332.92	4540.00
13.230	19740.	629.1	2.8	4.2	.0	552.00	4540.00
13.230	21860.	629.9	.8	4.2	.0	656.15	4540.00
13.230	29370.	632.2	2.4	4.1	.0	978.95	4540.00
13.800	6680.	625.0	.0	3.0	.0	665.83	3050.00
13.800	13020.	629.2	4.2	2.6	.0	721.49	3050.00
13.800	19540.	632.0	2.9	2.9	.0	775.67	3050.00
13.800	21670.	632.8	.8	3.0	.0	786.90	3050.00
13.800	29100.	635.1	2.3	2.9	.0	820.57	3050.00
13.880	6670.	625.3	.0	.4	.0	644.33	380.00
13.880	13000.	629.4	4.0	.2	.0	711.12	380.00
13.880	19540.	632.2	2.9	.2	.0	737.04	380.00
13.880	21640.	633.0	.8	.2	.0	783.45	380.00
13.880	29070.	635.3	2.3	.2	.0	816.01	380.00
13.880	6670.	625.3	.0	.0	.0	212.55	20.00
13.880	13000.	629.3	4.0	.0	.0	213.00	20.00
13.880	19540.	632.2	2.9	.0	.0	737.10	20.00
13.880	21640.	633.0	.8	.0	.0	783.54	20.00
13.880	29070.	635.3	2.3	.0	.0	816.10	20.00
13.880	6670.	625.3	.0	.0	.0	212.54	32.00
13.880	13000.	629.3	4.2	.2	.0	213.00	32.00
13.880	19540.	632.4	3.4	.7	.0	782.50	32.00
13.880	21640.	633.7	.8	.7	.0	793.86	32.00
13.880	29070.	635.4	2.2	.7	.0	825.94	32.00
13.880	6670.	625.4	.0	.0	.0	644.47	5.00
13.880	13000.	629.7	4.3	.1	.0	713.78	5.00
13.880	19540.	632.4	3.2	.0	.0	782.51	5.00
13.880	21640.	633.7	.8	.0	.0	793.89	5.00
13.880	29070.	635.4	2.2	.0	.0	825.95	5.00
13.980	6660.	625.2	.0	.1	.0	653.12	500.00
13.980	12860.	629.7	4.5	.0	.0	718.49	500.00
13.980	19510.	633.0	3.3	.1	.0	774.69	500.00
13.980	21600.	633.0	.8	.1	.0	786.42	500.00
13.980	29020.	636.0	2.3	.1	.0	819.63	500.00

SECNO	N	CHSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
14.180	6640.	626.1	.0	.9	.0	343.15	1000.00
14.180	12940.	630.1	3.9	.4	.0	384.46	1000.00
14.180	19450.	633.2	3.1	.2	.0	431.32	1000.00
14.180	21540.	634.0	.8	.2	.0	450.28	1000.00
14.180	28930.	636.2	2.2	.1	.0	523.80	1000.00
14.550	6600.	628.9	.0	2.8	.0	267.64	2070.00
14.550	12860.	632.5	3.6	2.5	.0	317.55	2070.00
14.550	19330.	635.4	2.9	2.2	.0	357.30	2070.00
14.550	21410.	636.2	.8	2.2	.0	367.97	2070.00
14.550	28760.	638.5	2.3	2.3	.0	399.84	2070.00
15.660	6480.	635.7	.0	6.8	.0	425.92	6090.00
15.660	12630.	639.4	3.7	6.8	.0	944.91	6090.00
15.660	18980.	641.9	2.5	6.5	.0	1062.30	6090.00
15.660	21030.	642.6	.7	6.4	.0	1088.13	6090.00
15.660	28250.	644.8	2.2	6.3	.0	1170.08	6090.00
16.580	6380.	649.6	.0	4.9	.0	1190.37	4860.00
16.580	12440.	643.2	2.6	3.8	.0	1346.19	4860.00
16.580	18700.	645.1	1.9	3.1	.0	1405.12	4860.00
16.580	20710.	645.6	.6	3.0	.0	1421.55	4860.00
16.580	27830.	647.4	1.8	2.6	.0	1475.64	4860.00
17.450	6290.	645.1	.0	4.5	.0	283.63	4710.00
17.450	12260.	647.6	2.5	4.4	.0	357.69	4710.00
17.450	18430.	649.3	1.7	4.3	.0	465.83	4710.00
17.450	20410.	649.8	.5	4.2	.0	499.35	4710.00
17.450	27430.	651.2	1.5	3.8	.0	605.26	4710.00
17.640	6270.	645.7	.0	2.6	.0	182.79	1010.00
17.640	12220.	648.6	2.9	1.0	.0	260.56	1010.00
17.640	18370.	650.7	2.1	1.4	.0	287.31	1010.00
17.640	20340.	651.3	.6	1.5	.0	313.38	1010.00
17.640	27340.	653.0	1.8	1.8	.0	404.64	1010.00
18.230	6200.	649.6	.0	3.6	.0	389.06	3150.00
18.230	12160.	653.4	3.8	4.8	.0	672.96	3150.00
18.230	18180.	656.1	2.6	5.3	.0	1130.61	3150.00
18.230	20140.	656.7	.7	5.5	.0	1200.89	3150.00
18.230	27070.	658.8	2.1	5.8	.0	1412.98	3150.00
18.230	6200.	649.6	.0	.0	.0	389.73	10.00
18.230	12100.	653.5	3.9	.1	.0	678.18	10.00
18.230	18180.	656.2	2.7	.1	.0	1142.74	10.00
18.230	20140.	658.9	.7	.1	.0	1212.89	10.00
18.230	27070.	659.0	2.1	.1	.0	1424.66	10.00

SECNO	G	CHREL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
18.230	6200.	649.6	.0	.0	.0	390.39	12.00
18.230	12100.	653.5	3.9	.0	.0	678.68	12.00
18.230	18180.	656.2	2.7	.0	.0	1143.57	12.00
18.230	20140.	656.9	.7	.0	.0	1213.68	12.00
18.230	27070.	659.0	2.1	.0	.0	1425.35	12.00
18.230	6200.	649.6	.0	.0	.0	394.13	5.00
18.230	12100.	653.5	3.9	-.0	.0	677.44	5.00
18.230	18180.	656.1	2.7	-.0	.0	1140.16	5.00
18.230	20140.	656.8	.7	-.0	.0	1210.16	5.00
18.230	27070.	658.9	2.1	-.0	.0	1421.86	5.00
18.700	6150.	651.4	.0	1.8	.0	366.73	2500.00
18.700	12000.	655.1	3.7	1.6	.0	500.30	2500.00
18.700	18040.	657.7	2.6	1.6	.0	719.47	2500.00
18.700	19980.	658.4	.7	1.5	.0	793.24	2500.00
18.700	26860.	660.3	2.0	1.4	.0	964.91	2500.00
19.200	6100.	653.1	.0	1.7	.0	861.69	2710.00
19.200	11900.	656.7	3.6	1.6	.0	1110.16	2710.00
19.200	17880.	659.2	2.5	1.5	.0	1236.40	2710.00
19.200	19800.	659.4	.7	1.5	.0	1329.33	2710.00
19.200	26630.	661.9	2.0	1.5	.0	1792.59	2710.00
19.300	6090.	653.3	.0	.2	.0	857.28	360.00
19.300	11860.	656.8	3.5	.1	.0	1103.28	360.00
19.300	17850.	659.2	2.5	.0	.0	1215.74	360.00
19.300	19770.	659.9	.6	-.0	.0	1298.08	360.00
19.300	26580.	661.8	2.0	-.0	.0	1715.74	360.00
19.370	5030.	653.6	.0	.3	.0	176.04	300.00
19.370	9810.	657.0	3.4	.2	.0	200.07	300.00
19.370	14750.	659.4	2.4	.2	.0	222.74	300.00
19.370	16330.	660.0	.6	.2	.0	242.40	300.00
19.370	21990.	662.0	1.9	.2	.0	1060.17	300.00
19.370	5030.	653.6	.0	.0	.0	176.49	80.00
19.370	9810.	657.0	3.4	.1	.0	186.70	80.00
19.370	14750.	659.5	2.5	.1	.0	213.93	80.00
19.370	16330.	660.1	.6	.1	.0	263.98	80.00
19.370	21990.	662.1	2.0	.1	.0	1114.93	80.00
19.370	5030.	653.6	.0	-.0	.0	154.83	1.00
19.370	9810.	657.0	3.4	-.0	.0	171.79	1.00
19.370	14750.	659.4	2.4	-.0	.0	179.00	1.00
19.370	16330.	660.1	.6	-.1	.0	207.81	1.00
19.370	21990.	661.9	1.9	-.1	.0	976.70	1.00

SECNO	Q	CWSEL	DIFWSP	DIFWSY	DIFKWS	TOPWID	XLCH
19.370	5030.	653.7	.0	.0	.0	154.88	29.00
19.370	9810.	657.0	3.4	.1	.0	172.00	29.00
19.370	14750.	659.5	2.5	.1	.0	183.00	29.00
19.370	16330.	660.2	.7	.1	.0	239.69	29.00
19.370	21990.	662.2	2.1	.3	.0	1129.49	29.00
19.370	5030.	653.7	.0	.0	.0	176.83	1.00
19.370	9810.	657.1	3.4	.1	.0	201.15	1.00
19.370	14750.	659.6	2.5	.1	.0	225.28	1.00
19.370	16330.	660.3	.7	.2	.0	331.59	1.00
19.370	21990.	662.6	2.3	.4	.0	1453.05	1.00
19.370	5030.	653.7	.0	.0	.0	176.96	20.00
19.370	9810.	657.1	3.4	.0	.0	201.31	20.00
19.370	14750.	659.6	2.5	.0	.0	225.55	20.00
19.370	16330.	660.3	.7	.0	.0	337.48	20.00
19.370	21990.	662.6	2.3	.0	.0	1462.83	20.00
19.450	5030.	653.9	.0	.2	.0	839.67	390.00
19.450	9800.	657.5	3.6	.4	.0	1101.29	390.00
19.450	14740.	660.2	2.7	.5	.0	1233.59	390.00
19.450	16320.	660.9	.7	.6	.0	1340.34	390.00
19.450	21980.	663.3	2.4	.7	.0	1930.92	390.00
19.730	5020.	654.0	.0	.7	.0	588.36	1450.00
19.730	9790.	658.0	3.4	.4	.0	841.03	1450.00
19.730	14720.	660.6	2.6	.4	.0	1006.56	1450.00
19.730	16300.	661.3	.7	.3	.0	1056.10	1450.00
19.730	21950.	663.6	2.3	.3	.0	1188.92	1450.00
19.730	5020.	654.6	.0	.0	.0	589.39	20.00
19.730	9790.	658.0	3.4	.0	.0	841.62	20.00
19.730	14720.	660.6	2.6	.0	.0	1007.09	20.00
19.730	16300.	661.3	.7	.0	.0	1056.56	20.00
19.730	21950.	663.6	2.3	.0	.0	1189.12	20.00
19.730	5020.	654.7	.0	.1	.0	597.02	18.00
19.730	9790.	658.0	3.3	.0	.0	842.51	18.00
19.730	14720.	660.6	2.7	.1	.0	1012.38	18.00
19.730	16300.	661.4	.7	.1	.0	1062.81	18.00
19.730	21950.	663.6	2.4	.1	.0	1193.56	18.00
19.730	5020.	654.7	.0	.0	.0	597.23	5.00
19.730	9790.	658.0	3.3	.0	.0	842.64	5.00
19.730	14720.	660.6	2.7	.0	.0	1012.52	5.00
19.730	16300.	661.4	.7	.0	.0	1062.94	5.00
19.730	21950.	663.6	2.4	.0	.0	1193.61	5.00

SECNO	G	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
20.240	3410.	657.4	.0	2.7	.0	556.27	2780.00
20.240	6670.	659.9	2.5	1.9	.0	1144.27	2780.00
20.240	10030.	662.0	2.1	1.3	.0	1224.71	2780.00
20.240	11110.	662.6	.5	1.2	.0	1243.42	2780.00
20.240	15020.	664.7	2.1	.9	.0	1323.10	2780.00
20.760	3310.	662.4	.0	4.9	.0	997.45	2750.00
20.760	6470.	663.6	1.2	3.7	.0	1117.94	2750.00
20.760	9730.	664.4	.9	2.5	.0	1189.76	2750.00
20.760	10770.	664.3	.3	2.2	.0	1199.74	2750.00
20.760	14560.	666.2	1.4	1.5	.0	1241.73	2750.00
20.950	3270.	664.1	.0	1.7	.0	892.19	1050.00
20.950	6390.	665.8	1.3	1.8	.0	1060.12	1050.00
20.950	9620.	666.3	.9	1.9	.0	1169.17	1050.00
20.950	10650.	666.6	.3	1.8	.0	1181.71	1050.00
20.950	14400.	667.6	1.0	1.4	.0	1211.54	1050.00
21.160	3230.	666.3	.0	2.2	.0	121.98	1100.00
21.160	6310.	668.0	1.7	2.6	.0	568.28	1100.00
21.160	9490.	669.1	1.1	2.8	.0	584.85	1100.00
21.160	10510.	669.3	.3	2.8	.0	589.15	1100.00
21.160	14210.	670.2	.9	2.6	.0	606.96	1100.00
21.160	5230.	666.3	.0	.0	.0	122.04	20.00
21.160	6310.	668.1	1.3	.1	.0	555.13	20.00
21.160	9490.	669.2	1.2	.2	.0	587.16	20.00
21.160	10510.	669.5	.3	.2	.0	591.65	20.00
21.160	14210.	670.4	.9	.2	.0	613.38	20.00
21.160	5230.	667.0	.0	.7	.0	153.24	18.00
21.160	6310.	668.8	1.8	.7	.0	561.81	18.00
21.160	9490.	669.7	.9	.5	.0	594.98	18.00
21.160	10510.	670.0	.2	.5	.0	600.72	18.00
21.160	14210.	670.7	.8	.3	.0	621.59	18.00
21.160	5230.	667.0	.0	.0	.0	160.53	5.00
21.160	6310.	668.8	1.8	.9	.0	580.73	5.00
21.160	9490.	669.7	.9	.0	.0	595.17	5.00
21.160	10510.	670.0	.2	.0	.0	601.08	5.00
21.160	14210.	670.8	.8	.0	.0	621.99	5.00
22.090	5040.	674.2	.0	7.2	.0	675.54	4940.00
22.090	5950.	676.1	1.9	7.3	.0	987.25	4940.00
22.090	6950.	677.4	1.3	7.6	.0	1075.59	4940.00
22.090	8010.	677.7	.4	7.7	.0	1100.09	4940.00
22.090	15200.	678.8	1.1	8.1	.0	1178.66	4940.00

RUTHERFORD CREEK (MIDDLE)

MAURY CO. TN FEMA

500 YEAR FLOOD 100 YEAR FLOOD 50 YEAR FLOOD 10 YEAR FLOOD

MILE	Q	ELEV	Q	ELEV	Q	ELEV	Q	ELEV
9.710	33400.	618.2	24690.	615.2	22470.	614.2	14960.	610.8
10.740	30510.	622.6	22720.	619.4	20520.	618.3	13650.	614.4
11.550	30140.	626.1	22440.	623.1	20270.	622.2	13490.	618.7
11.650	30090.	626.4	22410.	623.4	20230.	622.5	13460.	619.3
11.650	30090.	626.6	22410.	623.6	20230.	622.8	13460.	620.5
11.690	30070.	626.7	22390.	623.8	20220.	622.9	13460.	620.6
12.370	29760.	628.2	22160.	625.6	20010.	620.9	13320.	622.5
13.230	29370.	632.2	21860.	629.9	19740.	629.1	13140.	626.3
13.800	29100.	635.1	21670.	632.8	19560.	632.0	13020.	629.2
13.880	29070.	635.3	21640.	633.0	19540.	632.2	13000.	629.4
13.880	29070.	635.9	21640.	633.7	19540.	632.9	13000.	629.7
13.980	29020.	636.0	21600.	633.8	19510.	633.0	12980.	629.7
14.180	28930.	636.2	21540.	634.0	19450.	633.2	12940.	630.1
14.550	28760.	638.5	21410.	636.2	19330.	635.4	12860.	632.5
15.660	28250.	644.8	21030.	642.6	18980.	641.9	12630.	639.4
16.580	27830.	647.4	20710.	645.6	18700.	645.1	12440.	643.2
17.450	27430.	651.2	20410.	649.8	18430.	649.3	12260.	647.6
17.640	27340.	653.0	20340.	651.3	18370.	650.7	12220.	648.6
18.230	27070.	658.8	20140.	656.7	18180.	656.1	12100.	653.4
18.230	27070.	658.9	20140.	656.8	18180.	656.1	12100.	653.5
18.700	26860.	660.3	19980.	658.4	18040.	657.7	12000.	655.1
19.200	26630.	661.9	19800.	659.9	17880.	659.2	11900.	656.7
19.300	26580.	661.8	19770.	659.9	17850.	659.2	11880.	656.8
19.370	21990.	662.0	16330.	660.0	14750.	659.4	9810.	657.0
19.370	21990.	662.6	16330.	660.3	14750.	659.6	9810.	657.1
19.450	21980.	663.3	16320.	660.9	14740.	660.2	9800.	657.5

19.730	21950.	663.6	16300.	661.3	14720.	660.6	9790.	658.0
19.730	21950.	663.8	16300.	661.4	14720.	660.6	9799.	658.0
20.240	15020.	664.7	11110.	662.6	10030.	662.0	6670.	659.9
20.760	14560.	666.2	10770.	664.8	9730.	664.4	6470.	663.6
20.950	14400.	667.6	10650.	666.6	9620.	666.3	6390.	665.4
21.160	14210.	670.2	10510.	669.3	9490.	669.1	6310.	668.0
21.160	14210.	670.8	10510.	670.0	9490.	669.7	6310.	668.8
22.090	13400.	678.8	9910.	677.7	8950.	677.4	5950.	675.1

RUTHERFORD CREEK (MIDDLE)

MAURY CO TN FEMA

2 YEAR FLOOD

MILE	Q	ELEV
9.710	7680.	605.2
10.740	7000.	608.9
11.550	6920.	614.2
11.650	6910.	615.1
11.650	6910.	615.1
11.690	6900.	615.4
12.370	6830.	618.3
13.230	6740.	622.0
13.800	6680.	625.0
13.880	6670.	625.3
13.880	6670.	625.4
13.980	6660.	625.2
14.180	6640.	626.1
14.550	6600.	628.9
15.660	6480.	635.7
16.580	6380.	640.6
17.450	6290.	645.1
17.640	6270.	645.7
18.230	6200.	649.6
18.230	6200.	649.6
18.700	6150.	651.4
19.200	6100.	653.1
19.300	6090.	653.3
19.370	5030.	653.6
19.370	5030.	653.7
19.450	5030.	653.9

19.730 5020 654.6

19.730 5020 654.7

20.240 3410 657.4

20.760 3310 662.4

20.950 3270 664.1

21.160 3230 666.3

21.160 3230 667.0

22.090 3040 671.2

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PRINTED IN U.S.A.
TEL

 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

T1	MAURY CO TN FEMA	PUTHMF F276	000	1000
T2	100 YEAR FLOOD	Q JCH 6/10/87 SCA 7/8/87	000	2000
T3	RUTHERFORD CREEK (MIDDLE)	100FW	000	3000

J1	TCHECK	INW	MINV	TDIR	STRT	METRIC	HVINS	Q	WSEL	FD	
	0.	5.	0.	0.	00000	0.	00	24900.	615.21	00	4000

J2	UPROF	IPLUT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	1.	0.	-1.	0.	0.	00	0.	0.	0.	0.	5000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

	116.00	00	200.00	00	00	00	00	00	00	00	6000
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NC	040	070	035	1	3						8000
QT	6.	7680.	14960.	22470.	24890.	33400.	24490.	0.	0.	0.	9000
FT	0.	00	00	00	00	00	8.11	60.00	310.00	00	10000

X1	9.71	15.	116.	209.	3500.	4300.	4500.	00	00	0.	11000
GR	616.0	0.	603.3	116.	590.8	136.	587.8	146.	587.6	171.	12000
GR	587.8	186.	587.8	198.	590.8	199.	601.4	209.	604.0	302.	13000
GR	615.4	323.	616.0	400.	620.0	600.	0.	0.	0.	0.	14000
NC	086	110	040	0	0						15000
QT	6.	7000.	13650.	20520.	22720.	30510.	22720.	0.	0.	0.	16000
FT	0.	00	00	00	00	00	8.11	215.00	525.00	00	17000

X1	10.74	12.	411.	504.	5100.	4700.	5170.	00	00	0.	18000
GR	628.0	0.	620.0	179.	616.0	271.	608.0	341.	604.3	411.	19000
GR	597.6	426.	594.6	448.	592.7	466.	590.0	486.	597.6	488.	20000
GR	604.6	504.	628.0	542.	0.	0.	0.	0.	0.	0.	21000
NC	080	100	045	0	0						22000
QT	6.	6920.	13490.	20270.	22440.	30140.	22440.	0.	0.	0.	23000
FT	0.	00	00	00	00	00	8.11	1020.00	1640.00	00	24000

X1	11.55	19.	1498.	1579.	3500.	4000.	4240.	00	00	0.	25000
GR	636.0	0.	628.0	350.	620.0	650.	617.0	900.	616.0	1195.	26000
GR	613.3	1421.	611.0	1469.	609.9	1498.	604.5	1510.	601.3	1524.	27000
GR	599.9	1584.	601.0	1559.	604.5	1569.	608.0	1579.	612.0	1648.	28000
GR	620.0	1672.	626.8	1695.	626.1	1716.	636.1	1910.	0.	0.	29000
QT	6.	6910.	13460.	20230.	22410.	30090.	22410.	0.	0.	0.	30000
FT	0.	00	00	00	00	00	8.11	1020.00	1640.00	00	31000

X1	11.65	22.	1498.	1583.	500.	500.	500.	.00	.00	0.	32000
GR	636.0	0.	628.0	350.	620.0	650.	617.0	900.	616.0	1195.	33000
CR	613.3	1421.	611.0	1469.	609.9	1498.	607.8	1501.	604.5	1506.	34000
GR	600.0	1515.	599.7	1525.	601.8	1540.	600.7	1565.	604.5	1572.	35000
GR	607.7	1577.	606.8	1583.	612.0	1648.	620.0	1672.	626.8	1645.	36000
GR	626.1	1710.	636.1	1910.	0.	0.	0.	0.	0.	0.	37000
MC	.000	.000	.000	.3	.5						38000
FI	0.	.00	.00	.00	.00	.00	8.11	1020.00	1640.00	.00	39000

X1	11.65	0.	0.	0.	40.	40.	40.	.00	.00	0.	40000
SE	1.25	1.60	3.00	0.	77.00	2.00	1290.00	.00	600.8	600.8	41000
FI	0.	.00	.00	.00	.00	.00	8.11	1020.00	1640.00	.00	42000

X1	11.65	0.	0.	0.	15.	15.	15.	.00	.00	0.	43000
X2	0.	.00	1.	618.0	617.8	.00	0.	.00	.0	0.	44000
PJ	12.0	350.0	628.0	0.	650.0	620.0	0.	1183.0	619.0	0.	45000
RT	1283.0	617.8	0.	1383.0	619.5	0.	1483.0	620.9	0.	1497.0	46000
BJ	621.0	0.	1097.0	621.5	0.	1583.0	621.3	0.	1583.0	620.9	47000
RI	0.	1483.0	621.2	0.	1700.0	625.4	0.	0.	0.	0.	48000
FI	0.	.00	.00	.00	.00	.00	8.11	1020.00	1640.00	.00	49000

X1	11.65	0.	0.	0.	10.	10.	10.	.00	.00	0.	50000
MC	.075	.020	.045	.1	.3						51000
OT	6.	6900.	13060.	20220.	22390.	30070.	22390.	0.	0.	0.	52000
FI	0.	.00	.00	.00	.00	.00	8.11	1020.00	1640.00	.00	53000

X1	11.69	19.	1490.	1579.	200.	200.	200.	.00	.00	0.	54000
GR	636.0	0.	628.0	350.	620.0	650.	617.0	900.	616.0	1195.	55000
GR	613.3	1421.	611.0	1469.	609.9	1498.	604.5	1510.	601.3	1524.	56000
GR	599.0	1515.	601.0	1559.	604.5	1569.	608.0	1579.	612.0	1648.	57000
GR	620.0	1672.	626.8	1695.	626.1	1710.	636.1	1910.	0.	0.	58000
MC	.075	.075	.040	0.	0.						59000
OT	6.	6930.	13320.	20010.	22160.	29760.	22160.	0.	0.	0.	60000
FI	0.	.00	.00	.00	.00	.00	8.11	240.00	670.00	.00	61000

X1	12.57	13.	479.	589.	3570.	2970.	3600.	.00	.00	0.	62000
GR	636.0	0.	628.2	36.	620.3	313.	614.1	479.	607.9	489.	63000
GR	600.0	405.	603.1	513.	603.1	535.	603.3	561.	607.9	569.	64000
GR	616.6	589.	620.1	653.	636.0	745.	0.	0.	0.	0.	65000
MC	.070	.070	.035	0.	0.						66000
OT	6.	6740.	13140.	19740.	21860.	29370.	21860.	0.	0.	0.	67000
FI	0.	.00	.00	.00	.00	.00	8.11	930.00	1350.00	.00	68000

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X1	13.23	17.	1229.	1328.	4449.	3100.	4540.	.00	.00	0.	69000
GR	636.0	0.	632.1	405.	628.0	955.	624.0	1990.	620.9	1154.	70000
GR	623.0	1229.	616.1	1248.	611.4	1254.	608.2	1260.	608.0	1290.	71000
GR	607.9	1310.	611.4	1316.	618.1	1328.	626.0	1349.	634.2	1380.	72000
GR	636.0	1462.	636.2	1472.	0.	0.	0.	0.	0.	0.	73000
NC	.070	.075	.080	0.	0.	0.	0.	0.	0.	0.	74000
BT	6.	6680.	13020.	19500.	21670.	29100.	21670.	0.	0.	0.	75000
ET	0.	.00	.00	.00	.00	.00	8.11	145.00	565.00	.00	76000

X1	13.60	10.	234.	310.	2050.	2750.	3050.	.00	-.60	0.	77000
GR	640.0	0.	632.5	83.	632.5	117.	620.2	181.	620.0	234.	78000
GR	613.6	240.	609.9	240.	609.3	260.	609.1	287.	609.9	297.	79000
GR	613.6	297.	622.2	310.	623.8	594.	628.3	784.	628.0	840.	80000
GR	640.0	884.	0.	0.	0.	0.	0.	0.	0.	0.	81000
NC	.065	.065	.035	.3	.5	0.	0.	0.	0.	0.	82000
BT	6.	6670.	13000.	19540.	21640.	29070.	21640.	0.	0.	0.	83000
ET	0.	.00	.00	.00	.00	.00	8.11	145.00	565.00	.00	84000

X1	13.88	15.	155.	368.	380.	380.	380.	.00	.00	0.	85000
GR	640.0	0.	632.5	80.	632.5	117.	625.5	155.	613.4	190.	86000
GR	610.7	204.	611.4	232.	608.5	267.	610.0	302.	613.0	345.	87000
GR	622.5	368.	623.8	594.	624.3	784.	628.0	840.	648.0	884.	88000
ET	0.	.00	.00	.00	.00	.00	8.11	145.00	565.00	.00	89000

X1	13.88	0.	0.	0.	20.	20.	20.	.00	.00	0.	90000
X3	10.	0.	0.	0.	0.	0.	0.	630.0	630.0	0.	91000
SB	90	1.00	5.00	0.	120.00	9.00	3151.00	3.79	618.0	610.0	92000
ET	0.	.00	.00	.00	.00	.00	8.11	145.00	565.00	.00	93000

X1	13.88	0.	0.	0.	32.	32.	32.	.00	.00	0.	94000
X2	0.	.00	1.	627.7	631.5	.00	0.	.00	0.	0.	95000
X3	10.	0.	0.	0.	0.	0.	0.	632.2	631.5	0.	96000
BT	12.0	0.	640.0	0.	88.0	632.2	0.	133.0	632.4	0.	97000
BT	133.0	634.4	0.	142.0	634.9	0.	388.0	634.9	0.	400.0	98000
BT	634.5	0.	400.0	632.5	0.	488.0	631.8	0.	588.0	631.5	99000
BT	0.	688.0	632.1	0.	870.0	636.0	0.	0.	0.	0.	100000
ET	0.	.00	.00	.00	.00	.00	8.11	145.00	565.00	.00	101000

X1	13.88	0.	0.	0.	5.	5.	5.	.00	.00	0.	102000
NC	.070	.065	.040	.1	.3	0.	0.	0.	0.	0.	103000
BT	6.	6680.	12980.	19510.	21600.	29020.	21600.	0.	0.	0.	104000
ET	0.	.00	.00	.00	.00	.00	8.11	145.00	565.00	.00	105000

X1	13.98	16.	234.	310.	500.	500.	500.	.00	.40	0.	106000
GR	640.0	0.	632.5	84.	632.5	117.	624.2	141.	620.0	234.	107000
GR	613.6	240.	609.9	240.	609.9	260.	609.1	287.	609.9	297.	108000
GR	613.6	297.	622.2	310.	622.2	594.	624.3	784.	628.0	840.	109000
GR	640.0	384.	0.	0.	0.	0.	0.	0.	0.	0.	110000
QT	6.	6640.	12940.	19450.	21540.	28930.	21540.	0.	0.	0.	111000
ET	0.	.00	.00	.00	.00	.00	8.11	15.00	385.00	.00	112000

X1	14.18	15.	25.	108.	1000.	600.	1030.	.00	.00	0.	113000
GR	636.0	0.	622.5	25.	620.0	30.	611.0	50.	611.0	80.	114000
GR	620.0	100.	622.5	108.	624.0	125.	624.0	340.	628.0	380.	115000
GR	632.0	410.	636.0	500.	640.0	1050.	0.	0.	0.	0.	116000
NC	.090	.075	.045	0.	0.	0.	0.	0.	0.	0.	117000
QT	6.	6600.	12860.	19330.	21410.	28760.	21410.	0.	0.	0.	118000
ET	0.	.00	.00	.00	.00	.00	8.11	30.00	370.00	.00	119000

X1	14.55	12.	78.	142.	2070.	1720.	2070.	.00	.00	0.	120000
GR	644.0	0.	628.2	38.	624.5	72.	616.5	78.	613.0	88.	121000
GR	615.1	98.	615.0	108.	616.5	118.	619.0	133.	624.4	142.	122000
GR	628.0	293.	644.0	476.	0.	0.	0.	0.	0.	0.	123000
NC	.075	.080	.040	0.	0.	0.	0.	0.	0.	0.	124000
QT	6.	6480.	12630.	18980.	21030.	28250.	21030.	0.	0.	0.	125000
ET	0.	.00	.00	.00	.00	.00	8.11	530.00	1280.00	.00	126000

X1	15.66	19.	1152.	1217.	4500.	5900.	6090.	.00	.00	0.	127000
GR	648.0	0.	640.0	259.	635.9	501.	638.9	722.	631.1	935.	128000
GR	633.3	1084.	631.5	1128.	630.4	1152.	622.9	1158.	620.5	1561.	129000
GR	620.0	1184.	620.4	1207.	622.9	1215.	630.4	1217.	632.6	1230.	130000
GR	639.7	1240.	639.7	1250.	646.3	1279.	648.0	1502.	0.	0.	131000
NC	.100	.065	.040	0.	0.	0.	0.	0.	0.	0.	132000
QT	6.	6380.	12440.	18700.	20710.	27830.	20710.	0.	0.	0.	133000
ET	0.	.00	.00	.00	.00	.00	8.11	50.00	980.00	.00	134000

X1	16.58	20.	62.	133.	4700.	3500.	4860.	.00	.00	0.	135000
GR	656.0	0.	652.2	11.	652.4	25.	636.2	62.	629.9	77.	136000
GR	628.9	78.	627.6	97.	627.5	107.	628.6	125.	629.9	125.	137000
GR	636.4	133.	641.8	191.	642.9	221.	639.7	256.	640.6	502.	138000
GR	639.0	1259.	644.0	1418.	649.4	1566.	647.5	1882.	656.0	2038.	139000
NC	.075	.085	.045	0.	0.	0.	0.	0.	0.	0.	140000
QT	6.	6290.	12260.	18430.	20410.	27430.	20410.	0.	0.	0.	141000
ET	0.	.00	.00	.00	.00	.00	8.11	510.00	980.00	.00	142000

X1	17.45	15.	835.	945.	3950.	4710.	4710.	.00	.00	0.	143000
GR	660.0	0.	656.0	80.	652.0	345.	648.0	595.	644.0	700.	144000
GR	640.0	835.	632.0	850.	630.2	855.	630.2	925.	632.0	930.	145000
GR	640.0	945.	644.0	950.	648.0	965.	652.0	1005.	656.0	1035.	146000
NC	.090	.090	.050	0.	0.	0.	0.	0.	0.	0.	147000

PT	6.	6270.	12220.	18370.	20340.	27340.	20340.	0.	0.	0.	148000
ET	4.	.00	.00	.00	.00	.00	8.11	250.00	550.00	.00	149000
X1	17.64	15.	330.	405.	700.	1010.	1010.	.00	.00	0.	150000
GR	660.0	0.	652.0	199.	651.0	273.	648.0	291.	544.1	298.	151000
GR	643.0	330.	632.4	344.	630.0	344.	630.1	354.	630.0	370.	152000
GR	631.4	385.	632.4	390.	643.2	405.	648.0	544.	660.0	624.	153000
NC	.065	.065	.040	.0	.0						154000
PT	6.	6200.	12100.	18180.	20140.	27070.	20140.	0.	0.	0.	155000
ET	0.	.00	.00	.00	.00	.00	8.11	670.00	1070.00	.00	156000
X1	18.23	19.	889.	964.	3150.	2600.	3150.	.00	.00	0.	157000
GR	664.0	0.	656.0	378.	652.0	502.	648.1	808.	644.0	847.	158000
GR	643.0	889.	635.8	899.	634.6	899.	634.1	919.	634.8	934.	159000
GR	635.8	946.	642.0	955.	642.4	959.	645.0	964.	647.2	1063.	160000
GR	655.9	1134.	655.3	1178.	656.0	1453.	664.0	1934.	.0	0.	161000
NC	.000	.000	.000	.3	.5						162000
ET	0.	.00	.00	.00	.00	.00	8.11	670.00	1070.00	.00	163000
X1	18.23	20.	889.	964.	10.	10.	10.	.00	.00	0.	164000
BT	4.0	915.1	638.7	.0	915.0	638.7	636.9	925.0	638.7	636.9	165000
BT	925.0	638.7	.0	.0	.0	.0	.0	.0	.0	.0	166000
GR	664.0	0.	656.0	328.	652.0	502.	648.1	808.	644.0	847.	167000
GR	643.0	889.	638.7	895.	638.7	915.	634.1	915.	634.1	925.	168000
GR	638.7	925.	638.7	948.	642.0	955.	642.9	959.	645.0	964.	169000
GR	647.2	1063.	655.9	1134.	655.3	1178.	656.0	1453.	664.0	1934.	170000
ET	0.	.00	.00	.00	.00	.00	8.11	670.00	1070.00	.00	171000
X1	18.23	0.	0.	0.	12.	12.	12.	.00	.00	0.	172000
Y2	0.	.00	.0.	.0	.0	.00	1.	.00	.0	0.	173000
ET	0.	.00	.00	.00	.00	.00	8.11	670.00	1070.00	.00	174000
X1	18.23	19.	889.	964.	5.	5.	5.	.00	.00	0.	175000
GR	664.0	0.	656.0	328.	652.0	502.	648.1	808.	644.0	847.	176000
GR	643.0	889.	635.8	899.	634.6	899.	634.1	919.	634.8	934.	177000
GR	635.8	946.	642.0	955.	642.4	959.	645.0	964.	647.2	1063.	178000
GR	655.9	1134.	655.3	1178.	656.0	1453.	664.0	1934.	.0	0.	179000
NC	.085	.070	.045	.1	.3						180000
PT	6.	6150.	12000.	18040.	19980.	26860.	19980.	0.	0.	0.	181000
ET	0.	.00	.00	.00	.00	.00	8.11	30.00	400.00	.00	182000
X1	18.70	14.	41.	118.	2050.	2500.	2500.	.00	.00	0.	183000
GR	664.0	0.	648.3	24.	646.3	41.	636.7	56.	635.1	70.	184000
GR	644.7	87.	634.8	97.	635.9	107.	636.7	107.	647.4	118.	185000
GR	648.0	270.	656.0	543.	660.0	980.	664.0	1100.	.0	0.	186000
NC	.060	.080	.045	.0	.0						187000
PT	6.	6100.	11900.	17880.	19800.	26630.	19800.	0.	0.	0.	188000
ET	0.	.00	.00	.00	.00	.00	8.11	1440.00	2060.00	.00	189000

X1	19.20	29.	1884.	1988.	1910.	2130.	2710.	.00	-1.00	0.	190000
GR	668.0	0.	664.0	691.	660.1	1028.	656.0	1152.	652.0	1459.	191000
GR	649.0	1631.	652.0	1726.	652.0	1873.	652.5	1884.	647.2	1892.	192000
GR	645.8	1897.	640.3	1907.	639.2	1912.	639.7	1928.	640.1	1944.	193000
GR	640.3	1960.	644.8	1967.	649.6	1988.	652.0	2125.	660.0	2245.	194000
GR	662.7	2359.	660.5	2382.	662.2	2404.	662.3	2426.	661.0	2433.	195000
GR	663.0	2439.	662.2	2456.	664.0	2811.	668.0	2903.	.0	0.	196000
NH	5.	500	1726.	.080	1884.	.045	1988.	.080	2125.	.500	197000
NH	2903.	.000	0.	.000	0.	.000	0.	.000	0.	.000	198000
QT	6.	6090	11880	17850	19770	26580	19770	0.	0.	0.	199000
ET	0.	.00	.00	.00	.00	.00	8.11	1600.00	2100.00	.00	200000

X1	19.30	0.	0.	1.	300.	300.	360.	.00	.20	0.	201000
NC	.080	.080	.045	.3	.5						202000
QT	6.	5030	9810	14750	16330	21990	16330	0.	0.	0.	203000
ET	0.	.00	.00	.00	.00	.00	8.11	1815.00	2015.00	.00	204000

X1	19.37	31.	1821.	2010.	300.	300.	300.	.00	.00	0.	205000
GR	667.0	0.	664.0	680.	660.0	1020.	660.9	1218.	661.5	1318.	206000
GR	662.3	1418.	662.9	1518.	663.3	1618.	663.0	1780.	659.0	1821.	207000
GR	652.3	1832.	650.5	1846.	646.8	1861.	645.5	1875.	644.8	1883.	208000
GR	640.3	1903.	640.2	1906.	638.3	1918.	639.3	1938.	639.4	1956.	209000
GR	640.2	1960.	644.4	1972.	649.0	1984.	652.9	1998.	658.0	2010.	210000
GR	662.6	2040.	662.3	2118.	661.7	2206.	661.8	2418.	664.0	2810.	211000
GR	668.0	2903.	.0	0.	.0	0.	.0	0.	.0	0.	212000
ET	0.	.00	.00	.00	.00	.00	8.11	1815.00	2015.00	.00	213000

X1	19.37	0.	0.	0.	80.	80.	80.	.00	.00	0.	214000
X3	10.	0	0	0	0	0	0	658.5	660.0		215000
ET	0.	.00	.00	.00	.00	.00	8.11	1815.00	2015.00	.00	216000

X1	19.37	46.	1821.	2010.	1.	1.	1.	.00	.00	0.	217000
BT	8.0	1821.0	662.9	.0	1821.0	663.3	660.6	1903.0	663.3	659.5	218000
BT	1903.0	663.3	660.6	1956.0	663.3	660.6	1956.0	663.3	659.5	2010.0	219000
BT	663.3	660.6	2010.0	662.3	.0	.0	.0	.0	.0	.0	220000
GR	667.9	0.	663.8	700.	660.0	1020.	660.9	1218.	661.5	1318.	221000
GR	662.3	1418.	662.9	1518.	663.3	1618.	662.9	1821.	658.3	1821.	222000
GR	650.5	1844.	660.2	1844.	660.2	1846.	650.5	1846.	646.8	1861.	223000
GR	645.5	1873.	659.8	1873.	659.8	1875.	645.5	1875.	644.8	1883.	224000
GR	640.3	1901.	659.5	1901.	659.5	1903.	640.3	1903.	640.2	1906.	225000
GR	638.3	1918.	639.3	1938.	639.4	1956.	659.5	1956.	659.5	1958.	226000
GR	639.4	1958.	640.2	1960.	644.4	1972.	649.0	1984.	660.0	1984.	227000
GR	660.0	1986.	649.0	1986.	652.9	1998.	658.6	2010.	662.3	2010.	228000
GR	662.6	2040.	662.3	2118.	661.7	2206.	661.8	2418.	664.0	2811.	229000
GR	668.0	2903.	.0	0.	.0	0.	.0	0.	.0	0.	230000
ET	0.	.00	.00	.00	.00	.00	8.11	1815.00	2015.00	.00	231000

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X1	19.37	0.	0.	0.	29.	29.	29.	.00	.00	.0.	232000
X2	0.	.00	0.	0.	0.	00	1.	.00	0.	0.	233000
ET	0.	.00	.00	.00	.00	.00	8.11	1815.00	2015.00	.00	234000

X1	19.37	31.	1821.	2010.	1.	1.	1.	.00	.00	0.	235000
GR	667.0	0.	664.0	680.	660.0	1020.	660.9	1218.	661.5	1318.	236000
GR	662.3	1418.	662.9	1518.	663.3	1618.	663.0	1780.	654.0	1821.	237000
GR	652.3	1832.	650.5	1846.	646.8	1861.	645.5	1875.	644.8	1883.	238000
GR	640.3	1903.	640.2	1906.	638.3	1918.	639.3	1938.	639.4	1956.	239000
GR	640.2	1960.	644.4	1972.	649.0	1984.	652.9	1998.	658.0	2010.	240000
GR	662.6	2040.	662.3	2118.	661.7	2206.	661.0	2418.	664.0	2810.	241000
GR	668.0	2903.	0.	0.	0.	0.	0.	0.	0.	0.	242000
ET	0.	.00	.00	.00	.00	.00	8.11	1815.00	2015.00	.00	243000

X1	19.37	0.	0.	0.	20.	20.	20.	.00	.00	0.	244000
MC	100	100	045	1	3						245000
QT	6.	5030.	9800.	14740.	16320.	21980.	15320.	0.	0.	0.	246000
ET	0.	.00	.00	.00	.00	.00	8.11	1510.00	2100.00	.00	247000

X1	19.45	29.	1804.	1988.	240.	290.	390.	.00	.00	0.	248000
GE	668.0	0.	664.0	691.	660.1	1028.	656.0	1152.	652.0	1459.	249000
GR	649.0	1631.	652.0	1726.	652.0	1873.	652.5	1884.	647.2	1892.	250000
GR	645.8	1897.	640.3	1907.	639.2	1912.	639.7	1928.	640.1	1944.	251000
GR	640.3	1960.	644.8	1967.	649.6	1988.	652.0	2125.	660.0	2245.	252000
GR	662.7	2359.	660.5	2382.	662.2	2404.	662.3	2426.	661.0	2433.	253000
GR	663.0	2439.	662.2	2456.	664.0	2811.	668.0	2903.	0.	0.	254000
NC	070	080	040	0	0	0	0	0	0	0	256000
QT	6.	5020.	9790.	14720.	16300.	21950.	16300.	0.	0.	0.	257000
ET	0.	.00	.00	.00	.00	.00	8.11	760.00	1350.00	.00	258000

X1	19.73	30.	1156.	1241.	870.	920.	1450.	.00	.00	0.	258000
GR	668.0	0.	665.1	198.	662.9	256.	661.3	356.	659.7	456.	259000
GR	659.1	486.	657.9	556.	656.3	656.	654.5	756.	653.3	856.	260000
GR	653.1	956.	653.2	1076.	653.5	1110.	653.5	1156.	649.7	1161.	261000
GR	648.2	1166.	644.4	1176.	643.6	1182.	640.6	1186.	641.7	1196.	262000
GR	641.8	1199.	642.1	1209.	640.4	1219.	640.4	1229.	640.0	1239.	263000
GR	643.6	1239.	651.1	1241.	656.0	1382.	660.0	1406.	668.0	1448.	264000
ET	0.	.00	.00	.00	.00	.00	8.11	760.00	1350.00	.00	265000

X1	19.73	0.	0.	0.	20.	20.	20.	.00	.00	0.	266000
SB	1.15	1.60	3.00	0.	72.00	3.00	704.00	.00	641.5	641.5	267000
ET	0.	.00	.00	.00	.00	.00	8.11	760.00	1350.00	.00	268000

SAT, JUL 11, 1987, 3:26 PM

X1	19.73	0.	0.	0.	18.	18.	18.	.00	.00	0.	269000
X2	0.	.00	1.	651.7	653.1	.00	.00	.00	.00	0.	270000
BT	18.0	196.0	665.1	.0	256.0	662.9	.0	356.0	661.3	.0	271000
BT	456.0	659.7	.0	486.0	659.1	.0	556.0	657.9	.0	656.0	272000
BT	656.3	.0	756.0	654.5	.0	856.0	653.3	.0	956.0	653.1	273000
BT	.0	1076.0	653.2	.0	1110.0	653.3	.0	1156.0	654.5	.0	274000
BT	1106.0	658.8	.0	1239.0	658.4	.0	1239.0	654.7	.0	1256.0	275000
BT	654.5	.0	1356.0	654.0	.0	.0	.0	.0	.0	.0	276000
ET	0.	.00	.00	.00	.00	.00	8.11	760.00	1350.00	.00	277000

X1	19.73	0.	0.	0.	5.	5.	5.	.00	.00	0.	278000
NC	.070	.075	.045	.0	.0	.0	.0	.0	.0	.0	279000
QT	6.	3410.	6670.	10030.	11110.	15020.	11110.	.0	.0	.0	280000
ET	0.	.00	.00	.00	.00	.00	8.11	1060.00	1810.00	.00	281000

X1	20.28	24.	1699.	1765.	2050.	2450.	2780.	.00	.00	0.	282000
GR	676.0	0.	672.4	192.	675.5	210.	675.5	233.	669.1	255.	283000
GR	672.0	303.	664.0	620.	660.0	682.	656.9	1084.	657.4	1500.	284000
GR	658.3	1665.	657.6	1899.	656.2	1703.	649.1	1703.	648.5	1705.	285000
GR	648.0	1711.	647.7	1728.	648.3	1739.	648.0	1759.	648.5	1764.	286000
GR	656.0	1765.	659.2	1777.	660.0	1848.	676.0	2078.	.0	0.	287000
NC	.080	.080	.050	.0	.0	.0	.0	.0	.0	.0	288000
QT	6.	3310.	6470.	9730.	10770.	14560.	10770.	.0	.0	.0	289000
ET	0.	.00	.00	.00	.00	.00	8.11	230.00	940.00	.00	290000

X1	20.76	26.	551.	615.	2270.	2370.	2150.	.00	.00	0.	291000
GR	688.1	0.	668.4	64.	662.8	93.	643.7	98.	663.7	120.	292000
GR	660.6	146.	660.3	306.	660.5	470.	682.1	538.	662.6	551.	293000
GR	661.3	554.	654.0	554.	653.2	555.	653.2	570.	653.6	580.	294000
GR	653.2	594.	654.0	606.	661.8	615.	660.2	803.	661.5	1068.	295000
GR	664.0	1264.	668.0	1367.	672.4	1447.	676.0	1481.	680.0	1532.	296000
GR	689.8	1608.	.0	.0	.0	.0	.0	.0	.0	.0	297000
QT	6.	3270.	6390.	9620.	10650.	14400.	10650.	.0	.0	.0	298000
ET	0.	.00	.00	.00	.00	.00	8.11	250.00	930.00	.00	299000

X1	20.95	0.	0.	0.	1050.	570.	1050.	.00	2.40	0.	300000
NC	.075	.085	.050	.0	.0	.0	.0	.0	.0	.0	301000
QT	6.	3230.	6310.	9490.	10510.	14210.	10510.	.0	.0	.0	302000
ET	0.	.00	.00	.00	.00	.00	8.11	980.00	1390.00	.00	303000

X1	21.16	22.	1298.	1381.	1100.	900.	1100.	.00	.00	0.	304000
GR	676.0	0.	672.6	751.	669.8	810.	667.4	832.	667.0	840.	305000
GR	667.4	992.	667.5	1000.	667.4	1140.	667.4	1209.	665.9	1278.	306000
GR	662.4	1298.	661.8	1308.	656.8	1325.	655.7	1328.	655.5	1338.	307000
GR	655.3	1363.	656.8	1370.	666.0	1381.	668.0	1395.	675.2	1439.	308000
GR	683.7	1516.	688.7	1540.	.0	.0	.0	.0	.0	.0	309000
NC	.000	.000	.000	.3	.5	.0	.0	.0	.0	.0	310000

PRINTED IN U.S.A.

ET 0. .00 .00 .00 .00 .00 .00 8.11 980.00 1390.00 .00 311000

X1 21.16 0. 0. 0. 20. 20. 20. .00 .00 0. 312000
 X3 10. .0 .0 .0 .0 .0 .0 665.7 668.8 313000
 SB 1.15 1.60 3.00 0. 35.00 2.00 509.00 2.01 656.0 656.0 314000
 ET 0. .00 .00 .00 .00 .00 8.11 980.00 1390.00 .00 315000

X1 21.16 0. 0. 0. 18. 18. 18. .00 .00 0. 316000
 X2 0. .00 1. 665.8 666.7 .00 0. .00 .0 0. 317000
 X3 10. .0 .0 .0 .0 .0 .0 666.7 669.4 318000
 BF 13.0 810.0 669.8 .0 832.0 667.4 .0 840.0 667.0 .0 319000
 BT 900.0 666.7 .0 1000.0 667.5 .0 1100.0 667.9 .0 1200.0 320000
 BT 668.2 .0 .00.0 668.7 .0 1300.0 670.3 .0 1368.0 670.3 321000
 BT .0 1368.0 669.4 .0 1400.0 670.5 .0 1453.0 674.2 .0 322000
 FT 0. .00 .00 .00 .00 .00 8.11 980.00 1390.00 .00 323000

X1 21.16 0. 0. 0. 5. 5. 5. .00 .00 0. 324000
 NC .070 .070 .050 .1 .3 325000
 BT 6. 3040. 5950. 8950. 9910. 13400. 9910. 0. 0. 0. 326000
 FT 0. .00 .00 .00 .00 .00 8.11 900.00 1530.00 .00 327000

X1 22.00 31. 1277. 1352. 4300. 4000. 4940. .00 .00 0. 328000
 GR 702.4 0. 696.0 105. 692.0 222. 688.0 396. 684.0 459. 329000
 GR 680.0 613. 676.0 732. 672.0 759. 671.8 790. 671.2 669. 330000
 GR 672.9 947. 672.9 1247. 675.8 1277. 668.0 1287. 667.7 1299. 331000
 GR 667.6 1324. 667.2 1336. 667.6 1343. 673.6 1347. 675.2 1352. 332000
 GR 673.9 1508. 674.7 1640. 676.0 1713. 680.0 1871. 684.0 1962. 333000
 GR 686.0 2002. 688.0 2282. 692.0 2369. 696.0 2464. 700.0 2603. 334000
 GR 704.3 2749. .0 0. .0 0. .0 0. .0 0. 335000
 EJ 336000

THIS RUN EXECUTED 07/11/87, 3:28 PM

HEC2 RELEASE DATED NOV 76 D-DATED APRIL 1980

ERROR CORR - 01,02,03,04,05,06

MODIFICATION - 50,51,52,53,54

T1	MAURY CO TN FEMA	RUTHMF	F276	003	37000
T2	100 YEAR FLOODWAY	Q JCH	6/10/87 SCA 7/8/87	003	38000
T3	RUTHERFORD CREEK (MIDDLE)	100FW		003	39000

J1	ICHECK	INQ	MINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FG	
	0	7	0	0	00000	0	00	24900	616.18	00	340000

J2	NPROF	TPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	15	0	-1	0	0	00	0	0	0	0	341000

 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

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

RUTHERFORD CREEK (MIDDLE)

SUMMARY PRINTOUT TABLE 110

SECNO	CASEL	DIFKWS	EG	TOPMID	PERENC	STENCL	STENCR	STCHL	STCHR	QLOB	QCH	QROB
9.710	615.21	.00	616.23	315.	0.	0.	0.	116.	209.	938.	20194.	3758.
9.710	616.18	.97	617.11	250.	250.	60.	310.	116.	209.	959.	20053.	3879.
10.740	619.38	.00	620.35	335.	0.	0.	0.	411.	504.	4104.	18370.	247.
10.740	619.86	.47	620.76	310.	310.	215.	525.	411.	504.	4260.	18201.	260.
11.550	623.13	.00	623.40	1150.	0.	0.	0.	1498.	1579.	10587.	9758.	2095.
11.550	623.62	.49	624.01	620.	620.	1020.	1640.	1498.	1579.	9413.	11259.	1768.
11.650	623.45	.00	623.69	1163.	0.	0.	0.	1498.	1583.	10616.	9940.	1854.
11.650	624.02	.57	624.37	620.	620.	1020.	1640.	1498.	1583.	9402.	11494.	1513.
11.650	623.47	.00	623.71	1164.	0.	0.	0.	1498.	1583.	10633.	9923.	1854.
11.650	624.05	.58	624.39	620.	620.	1020.	1640.	1498.	1583.	9415.	11482.	1513.
11.650	623.64	.00	623.86	1171.	0.	0.	0.	1498.	1583.	10757.	9802.	1851.
11.650	624.44	.80	624.76	620.	620.	1020.	1640.	1498.	1583.	9610.	11293.	1507.
11.650	623.64	.00	623.87	1171.	0.	0.	0.	1498.	1583.	10761.	9799.	1850.
11.650	624.45	.80	624.77	620.	620.	1020.	1640.	1498.	1583.	9613.	11290.	1507.
11.690	623.77	.00	623.97	1176.	0.	0.	0.	1498.	1579.	11290.	8898.	2202.
11.690	624.60	.83	624.88	620.	620.	1020.	1640.	1498.	1579.	10152.	10376.	1862.
12.370	625.61	.00	626.32	599.	0.	0.	0.	479.	589.	4336.	16703.	1120.
12.370	626.59	.99	627.23	430.	430.	240.	670.	479.	589.	4376.	16517.	1267.
13.230	629.85	.00	631.01	656.	0.	0.	0.	1229.	1328.	4242.	17193.	425.
13.230	630.23	.38	631.32	420.	420.	930.	1350.	1229.	1328.	4366.	17068.	427.
13.800	632.81	.00	633.05	787.	0.	0.	0.	234.	310.	2540.	9258.	9871.
13.800	633.36	.55	633.81	420.	420.	180.	600.	234.	310.	1817.	11877.	7976.

SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	GLOB	QCH	QROB
13.880	632.99	.00	633.16	783.	0.	0.	0.	155.	368.	108.	16240.	5292.
13.880	633.76	.77	633.99	420.	420.	145.	565.	155.	368.	59.	18613.	2968.
13.880	632.99	.00	633.16	784.	0.	0.	0.	155.	368.	108.	16238.	5294.
13.880	633.76	.77	634.00	420.	420.	145.	565.	155.	368.	59.	18611.	2969.
13.880	633.71	.00	633.86	794.	0.	0.	0.	155.	368.	143.	15934.	5563.
13.880	634.49	.78	634.71	420.	420.	145.	565.	155.	368.	63.	18477.	3100.
13.880	633.71	.00	633.87	794.	0.	0.	0.	155.	368.	143.	15933.	5564.
13.880	634.49	.78	634.71	420.	420.	145.	565.	155.	368.	63.	18477.	3100.
13.980	633.76	.00	633.98	786.	0.	0.	0.	234.	310.	2364.	8640.	10596.
13.980	634.50	.72	634.89	420.	420.	145.	565.	234.	310.	2713.	11197.	7690.
14.180	633.96	.00	634.59	450.	0.	0.	0.	25.	108.	234.	12576.	8730.
14.180	634.96	1.00	635.50	370.	370.	15.	385.	25.	108.	175.	12324.	9041.
14.550	636.19	.00	637.26	368.	0.	0.	0.	78.	142.	1546.	12930.	6935.
14.550	636.79	.59	637.73	346.	340.	30.	370.	78.	142.	1531.	12634.	7245.
15.660	642.61	.00	642.91	1088.	0.	0.	0.	1152.	1217.	11714.	8862.	454.
15.660	643.01	.40	643.37	735.	750.	530.	1280.	1152.	1217.	11002.	9513.	515.
16.580	645.61	.00	645.84	1422.	0.	0.	0.	62.	133.	108.	6900.	13701.
16.580	646.40	.79	646.75	930.	930.	50.	980.	62.	133.	120.	8288.	12302.
17.450	649.78	.00	650.66	499.	0.	0.	0.	835.	945.	3872.	16354.	184.
17.450	650.77	.99	651.48	470.	470.	510.	980.	835.	945.	4433.	15743.	233.
17.640	651.27	.00	653.16	313.	0.	0.	0.	330.	405.	1188.	16421.	2730.
17.640	651.86	.59	653.53	300.	300.	250.	550.	330.	405.	1286.	16091.	2963.
18.230	656.75	.00	657.06	1201.	0.	0.	0.	889.	964.	7286.	9261.	3593.
18.230	657.30	.55	657.75	400.	400.	670.	1070.	889.	964.	6046.	10661.	3433.
18.230	656.87	.00	657.09	1213.	0.	0.	0.	889.	964.	8659.	7192.	4289.
18.230	657.42	.55	657.79	400.	400.	670.	1070.	889.	964.	7363.	8602.	4175.
18.230	656.88	.00	657.10	1214.	0.	0.	0.	889.	964.	8662.	7186.	4291.
18.230	657.44	.56	657.80	400.	400.	670.	1070.	889.	964.	7365.	8599.	4176.
18.230	656.84	.00	657.14	1210.	0.	0.	0.	889.	964.	7327.	9188.	3625.
18.230	657.40	.56	657.84	400.	400.	670.	1070.	889.	964.	6072.	10624.	3444.
18.700	658.36	.00	658.78	793.	0.	0.	0.	41.	118.	566.	10814.	8600.
18.700	659.15	.79	659.57	420.	420.	30.	450.	41.	118.	210.	11005.	8765.
19.200	659.87	.00	659.99	1329.	0.	0.	0.	1884.	1988.	9440.	7571.	2789.
19.200	660.75	.87	660.94	520.	620.	1440.	2060.	1884.	1988.	8916.	9373.	1511.

SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	QLOB	QCH	QROB
19.300	659.87	.00	660.23	1298.	0.	0.	0.	1884.	1988.	4818.	11511.	3441.
19.300	660.78	.91	661.21	500.	500.	1600.	2100.	1884.	1988.	4204.	12507.	3060.
19.370	660.04	.00	660.57	242.	0.	0.	0.	1821.	2010.	95.	16227.	8.
19.370	660.99	.95	661.47	200.	200.	1815.	2015.	1821.	2010.	42.	16279.	10.
19.370	660.12	.00	660.64	264.	0.	0.	0.	1821.	2010.	98.	16224.	8.
19.370	661.06	.94	661.52	200.	200.	1815.	2015.	1821.	2010.	42.	16278.	10.
19.370	660.07	.00	660.70	208.	0.	0.	0.	1821.	2010.	0.	16330.	0.
19.370	660.99	.92	661.60	182.	200.	1815.	2015.	1821.	2010.	0.	16330.	0.
19.370	660.17	.00	660.79	240.	0.	0.	0.	1821.	2010.	1.	16329.	0.
19.370	661.12	.95	661.72	189.	200.	1815.	2015.	1821.	2010.	0.	16330.	0.
19.370	660.32	.00	660.83	332.	0.	0.	0.	1821.	2010.	107.	16213.	10.
19.370	661.32	1.00	661.77	200.	200.	1815.	2015.	1821.	2010.	43.	16276.	11.
19.370	660.34	.00	660.85	337.	0.	0.	0.	1821.	2010.	108.	16211.	11.
19.370	661.34	.99	661.79	200.	200.	1815.	2015.	1821.	2010.	43.	16276.	11.
19.450	660.94	.00	661.05	1340.	0.	0.	0.	1884.	1988.	7126.	7088.	2106.
19.450	661.82	.88	661.99	590.	590.	1510.	2100.	1884.	1988.	5377.	8295.	1646.
19.730	661.29	.00	661.48	1056.	0.	0.	0.	1156.	1241.	7089.	7494.	1718.
19.730	662.24	.95	662.46	590.	590.	760.	1350.	1156.	1241.	6525.	8137.	1637.
19.730	661.30	.00	661.49	1057.	0.	0.	0.	1156.	1241.	7092.	7489.	1718.
19.730	662.25	.95	662.47	590.	590.	760.	1350.	1156.	1241.	6528.	8134.	1638.
19.730	661.39	.00	661.57	1063.	0.	0.	0.	1156.	1241.	7142.	7431.	1726.
19.730	662.39	1.00	662.60	590.	590.	760.	1350.	1156.	1241.	6575.	8078.	1647.
19.730	661.39	.00	661.57	1063.	0.	0.	0.	1156.	1241.	7143.	7430.	1727.
19.730	662.39	1.00	662.60	590.	590.	760.	1350.	1156.	1241.	6576.	8078.	1647.
20.240	662.59	.00	662.70	1243.	0.	0.	0.	1699.	1765.	7106.	3687.	317.
20.240	663.60	1.00	663.72	750.	750.	1060.	1810.	1699.	1765.	6742.	4102.	266.
20.760	664.77	.00	664.95	1200.	0.	0.	0.	551.	615.	3486.	3475.	3809.
20.760	665.70	.93	665.91	710.	710.	230.	940.	551.	615.	3515.	3873.	3381.
20.950	666.58	.00	666.84	1182.	0.	0.	0.	551.	615.	3306.	3899.	3445.
20.950	667.40	.83	667.72	680.	680.	250.	930.	551.	615.	3179.	4318.	3153.
21.160	669.35	.00	670.27	589.	0.	0.	0.	1298.	1381.	2237.	8209.	64.
21.160	669.94	.59	670.82	410.	410.	980.	1390.	1298.	1381.	2117.	8340.	53.
21.160	669.51	.00	670.36	592.	0.	0.	0.	1298.	1381.	2395.	8045.	70.
21.160	670.05	.54	670.89	410.	410.	980.	1390.	1298.	1381.	2190.	8265.	55.

SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	QLOB	QCH	QROB
21.160	669.97	.00	670.64	601.	0.	0.	0.	1298.	1381.	2815.	7609.	86.
21.160	670.97	.99	671.55	410.	410.	980.	1390.	1298.	1381.	2772.	7674.	64.
21.160	669.99	.00	670.65	601.	0.	0.	0.	1298.	1381.	2827.	7597.	86.
21.160	670.98	.99	671.57	410.	410.	980.	1390.	1298.	1381.	2775.	7672.	64.
22.090	677.72	.00	677.82	1100.	0.	0.	0.	1277.	1352.	5637.	2604.	1669.
22.090	678.65	.93	678.81	530.	630.	900.	1530.	1277.	1352.	5100.	3389.	1422.

FLOODWAY DATA, RUTHERFORD CREEK (MIDDLE
PROFILE NO. 2

STATION	----- FLOODWAY -----			WATER SURFACE ELEVATION		
	WIDTH	SECTION AREA	MEAN VELOCITY	WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
9.710	250.	4241.	5.9	616.2	615.2	1.0
10.740	310.	3996.	5.7	619.9	619.4	.5
11.550	620.	6762.	3.3	623.6	623.1	.5
11.650	620.	7046.	3.2	624.0	623.4	.6
11.650	620.	7061.	3.2	624.0	623.5	.5
11.650	620.	7306.	3.1	624.4	623.6	.8
11.650	620.	7309.	3.1	624.4	623.6	.8
11.690	620.	7368.	3.0	624.6	623.8	.8
12.370	430.	4852.	4.6	626.6	625.6	1.0
13.230	420.	3740.	5.8	630.2	629.9	.3
13.800	420.	5572.	3.9	633.4	632.8	.6
13.880	420.	6635.	3.3	633.8	633.0	.8
13.880	420.	6639.	3.3	633.8	633.0	.8
13.880	420.	6944.	3.1	634.5	633.7	.8
13.880	420.	6944.	3.1	634.5	633.7	.8
13.980	420.	5650.	3.8	634.5	633.8	.7
14.180	370.	4720.	4.6	635.0	634.0	1.0
14.550	340.	3821.	5.6	636.8	636.2	.6
15.660	750.	6800.	3.1	643.0	642.6	.4
16.580	930.	6552.	3.2	646.4	645.6	.8
17.450	470.	4088.	5.0	650.8	649.8	1.0
17.640	300.	2649.	7.7	651.9	651.3	.6
18.230	400.	4882.	4.1	657.3	656.7	.6
18.230	400.	4751.	4.2	657.4	656.9	.5
18.230	400.	4755.	4.2	657.4	656.9	.5
18.230	400.	4922.	4.1	657.4	656.8	.6
18.700	420.	5079.	3.9	659.1	658.4	.7
19.200	620.	7512.	2.6	660.7	659.9	.8
19.300	500.	6120.	3.2	660.8	659.9	.9
19.370	200.	3005.	5.4	661.0	660.0	1.0
19.370	200.	3017.	5.4	661.1	660.1	1.0
19.370	200.	2615.	6.2	661.0	660.1	.9
19.370	200.	2615.	6.2	661.1	660.2	.9
19.370	200.	3070.	5.3	661.3	660.3	1.0
19.370	200.	3073.	5.3	661.3	660.3	1.0
19.450	590.	7276.	2.1	661.8	660.9	.9
19.730	590.	6131.	2.7	662.2	661.3	.9
19.730	590.	6135.	2.7	662.2	661.3	.9
19.730	590.	6220.	2.6	662.4	661.4	1.0
19.730	590.	6221.	2.6	662.4	661.4	1.0
20.240	750.	5176.	2.1	663.6	662.6	1.0
20.760	710.	3929.	2.7	665.7	664.8	.9

FLOODWAY DATA, RUTHERFORD CREEK (MIDDLE
PROFILE NO. 2

STATION	----- FLOODWAY -----			WATER SURFACE ELEVATION		
	WIDTH	SECTION AREA	MEAN VELOCITY	WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
20.950	680.	3301.	3.2	667.4	666.6	.8
21.160	410.	1947.	5.4	669.9	669.3	.6
21.160	410.	1991.	5.3	670.1	669.5	.6
21.160	410.	2370.	4.4	671.0	670.0	1.0
21.160	410.	2371.	4.4	671.0	670.0	1.0
22.090	630.	3632.	2.7	678.6	677.7	.9

..

**Effective Model
Recreated in HEC-RAS**

RUTHERFORD

CREEK

 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54

T1 MAURY CO TN FEMA RRUTHMF F276 000 1000
 T2 100 YEAR FLOOD Q JCH 7/27/87 SCA 8/12/87 000 2000
 T3 PUTHERFORD CREEK (MIDDLE) REV 100FW 000 3000

J1 TCHECK INQ NINV IDIR STRT METRIC HVINS **FLOW** WSEL FQ
 0. 5. 0. 0. .00000 0. .00 18070. 612.39 .00 4000

J2 NPROF IPILOT PRFVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE
 1. 0. -1. 0. 0. .00 .0 0. 0. 0. 5000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT
 110.00 .00 200.00 .00 .00 .00 .00 .00 .00 .00 6000

NC **Mannings** **Expansion/Contraction** **FLOW**
 .090 .070 .035 .1 .3 23760. 18070. 0. 0. 0. 8000
 QT 6. 5420. 10430. 15700. 14070. 23760. 18070. 0. 0. 0. 9000
 FT 0. .00 .00 .00 .00 .00 8.11 100.00 280.00 .00 10000

Section Station & Elevations

Section ID
 X1 9.71 13. 116. 209. 3500. 4300. 4500. .00 .00 0. 11000
 GR 616.0 0. 603.3 116. 590.8 136. 587.8 146. 587.6 171. 12000
 GR 587.8 186. 587.9 198. 590.8 199. 601.4 209. 604.0 302. 13000
 GR 615.4 323. 616.0 400. 620.0 600. .0 0. .0 0. 14000
 NC .080 .110 .040 .0 .0 **FLOW** 15000
 QT 6. 4940. 9700. 14370. 16490. 21690. 16490. 0. 0. 0. 16000
 FT 0. .00 .00 .00 .00 .00 8.11 330.00 510.00 .00 17000

Section ID
 X1 10.74 12. 411. 504. 5100. 4700. 5170. .00 .00 0. 18000
 GR 628.0 0. 620.0 179. 616.0 271. 608.0 341. 604.3 411. 19000
 GR 597.6 426. 594.6 446. 592.7 466. 594.4 486. 597.6 488. 20000
 GR 604.6 **Mannings** 628.0 542. .0 0. .0 0. .0 0. 21000
 NC .080 .100 .045 .0 .0 **FLOW** 22000
 QT 6. 4880. 9580. 14200. 16290. 21420. 16290. 0. 0. 0. 23000
 FT 0. .00 .00 .00 .00 .00 8.11 1140.00 1620.00 .00 24000

Section ID
 X1 11.55 19. 1498. 1579. 3500. 4000. 4240. .00 .00 0. 25000
 GR 636.0 0. 628.0 350. 620.0 650. 617.0 900. 616.0 1195. 26000
 GR 613.3 1421. 611.0 1473. 609.9 1498. 604.5 1510. 601.3 1524. 27000
 GR 599.9 1544. 601.0 1559. 604.5 1569. 608.0 1579. 612.0 1648. 28000
 GR 620.0 1672. 626.8 1695. 626.1 **FLOW** 29000
 QT 6. 4870. 9570. 14180. 16250. 21390. 16250. 0. 0. 0. 30000
 FT 0. .00 .00 .00 .00 .00 8.11 1140.00 1620.00 .00 31000

PRINTED IN U.S.A.

X1	11.65	22.	1498.	1583.	500.	500.	500.	.00	.00	0.	32000
GR	636.0	0.	628.0	350.	620.0	650.	617.0	900.	616.0	1195.	33000
GR	613.3	1421.	611.0	1469.	609.9	1498.	607.8	1501.	604.5	1506.	34000
GR	600.0	1515.	599.7	1525.	601.8	1540.	600.7	1565.	604.5	1572.	35000
GR	607.7	1577.	608.8	1583.	612.0	1648.	620.0	1672.	626.8	1695.	36000
GR	626.1	1716.	636.1	1910.	0.	0.	0.	0.	0.	0.	37000
NC	.000	.000	.000	.3	.5						38000
ET	0.	.00	.00	.00	.00	.00	8.11	1140.00	1620.00	.00	39000

X1	11.65	0.	0.	0.	40.	40.	40.	.00	.00	0.	40000
SB	1.25	1.60	3.00	0.	77.00	2.00	1290.00	.00	600.8	600.8	41000
ET	0.	.00	.00	.00	.00	.00	8.11	1140.00	1620.00	.00	42000

X1	11.65	0.	0.	0.	15.	15.	15.	.00	.00	0.	43000
X2	0.	.00	1.	618.0	617.8	.00	0.	.00	.0	0.	44000
BT	12.0	350.0	628.0	.0	650.0	620.0	.0	1183.0	619.0	.0	45000
BT	1283.0	617.8	.0	1383.0	619.5	.0	1483.0	620.9	.0	1497.0	46000
BT	621.0	.0	1497.0	621.5	.0	1583.0	621.3	.0	1583.0	620.9	47000
BT	.0	1683.0	621.2	.0	1760.0	625.4	.0	.0	.0	.0	48000
ET	0.	.00	.00	.00	.00	.00	8.11	1140.00	1620.00	.00	49000

X1	11.65	Mannings	0.	Expansion/Contraction	10.	10.	.00	.00	0.	50000	
NC	.075	.090	.045	.1	.3	FLOW					51000
QT	6.	4870.	9560.	14170.	16250.	32380.	16250.	0.	0.	0.	52000
ET	0.	.00	.00	.00	.00	.00	8.11	1140.00	1630.00	.00	53000

X1	11.69	Section ID	19.	1498.	1579.	200.	200.	200.	.00	.00	0.	54000
GR	636.0	0.	628.0	350.	620.0	650.	617.0	900.	616.0	1195.	55000	
GR	613.3	1421.	611.0	1469.	609.9	1498.	604.5	1510.	601.3	1524.	56000	
GR	599.9	1544.	601.0	1559.	604.5	1569.	608.0	1579.	612.0	1648.	57000	
GR	620.0	Mannings	626.8	1695.	626.1	1716.	636.1	1910.	.0	0.	58000	
NC	.075	.075	.040	.0	.0	FLOW					59000	
QT	6.	4820.	9480.	14020.	16080.	21160.	16080.	0.	0.	0.	60000	
ET	0.	.00	.00	.00	.00	.00	8.11	260.00	640.00	.00	61000	

X1	12.37	Section ID	13.	479.	589.	3570.	2970.	3600.	.00	.00	0.	62000
GR	636.0	0.	624.2	98.	620.3	313.	614.1	479.	607.9	489.	63000	
GR	644.9	493.	603.1	513.	603.1	533.	603.3	561.	607.9	569.	64000	
GR	616.6	Mannings	620.1	653.	636.0	745.	.0	0.	.0	0.	65000	
NC	.070	.070	.035	.0	.0	FLOW					66000	
QT	6.	4750.	9330.	13830.	15870.	20880.	15870.	0.	0.	0.	67000	
ET	0.	.00	.00	.00	.00	.00	8.11	1000.00	1340.00	.00	68000	

RUTHERFORD CREEK (MIDDLE)

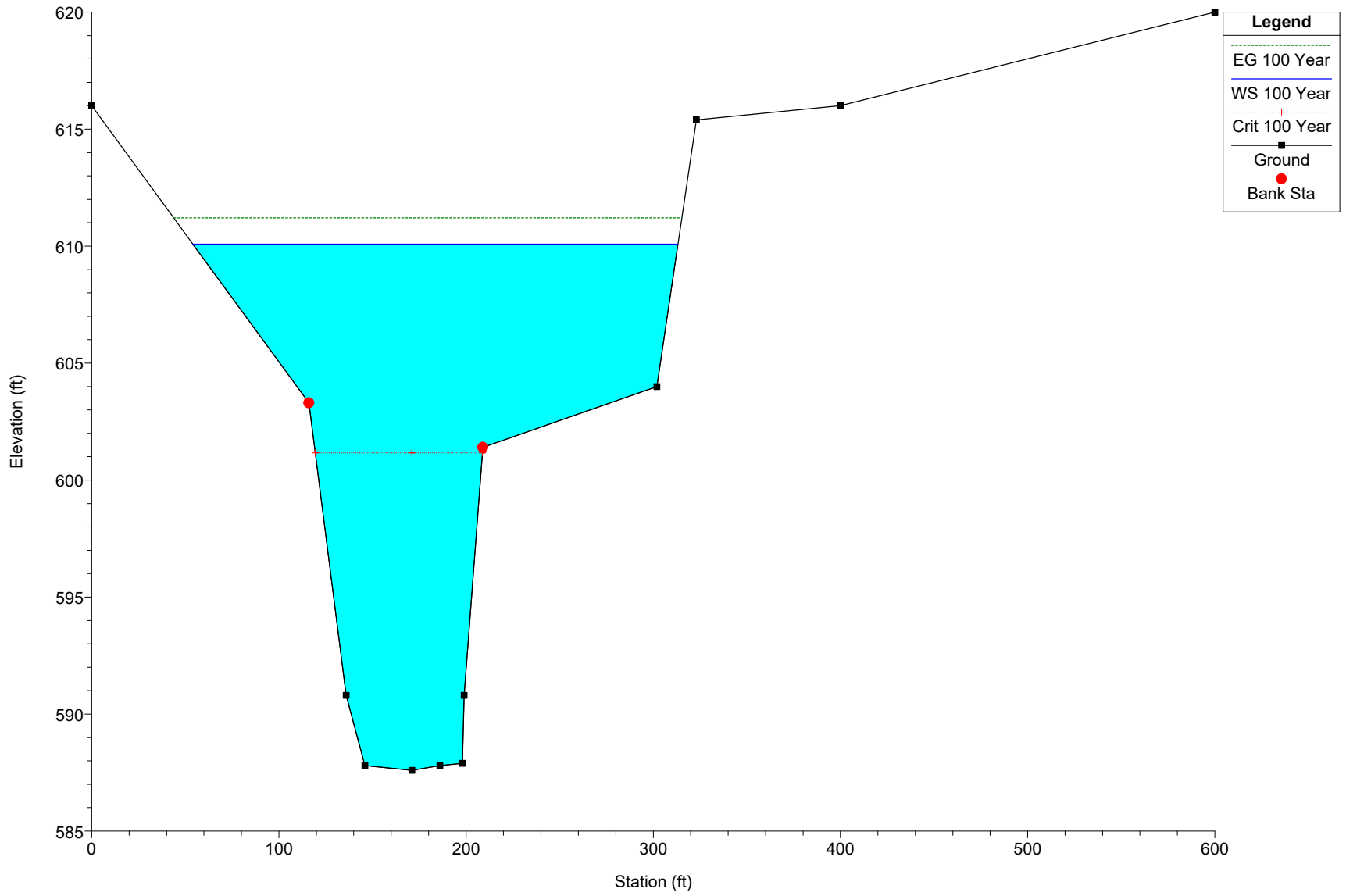
MAURY CO TN FEMA

500 YEAR FLOOD 100 YEAR FLOOD 50 YEAR FLOOD 10 YEAR FLOOD

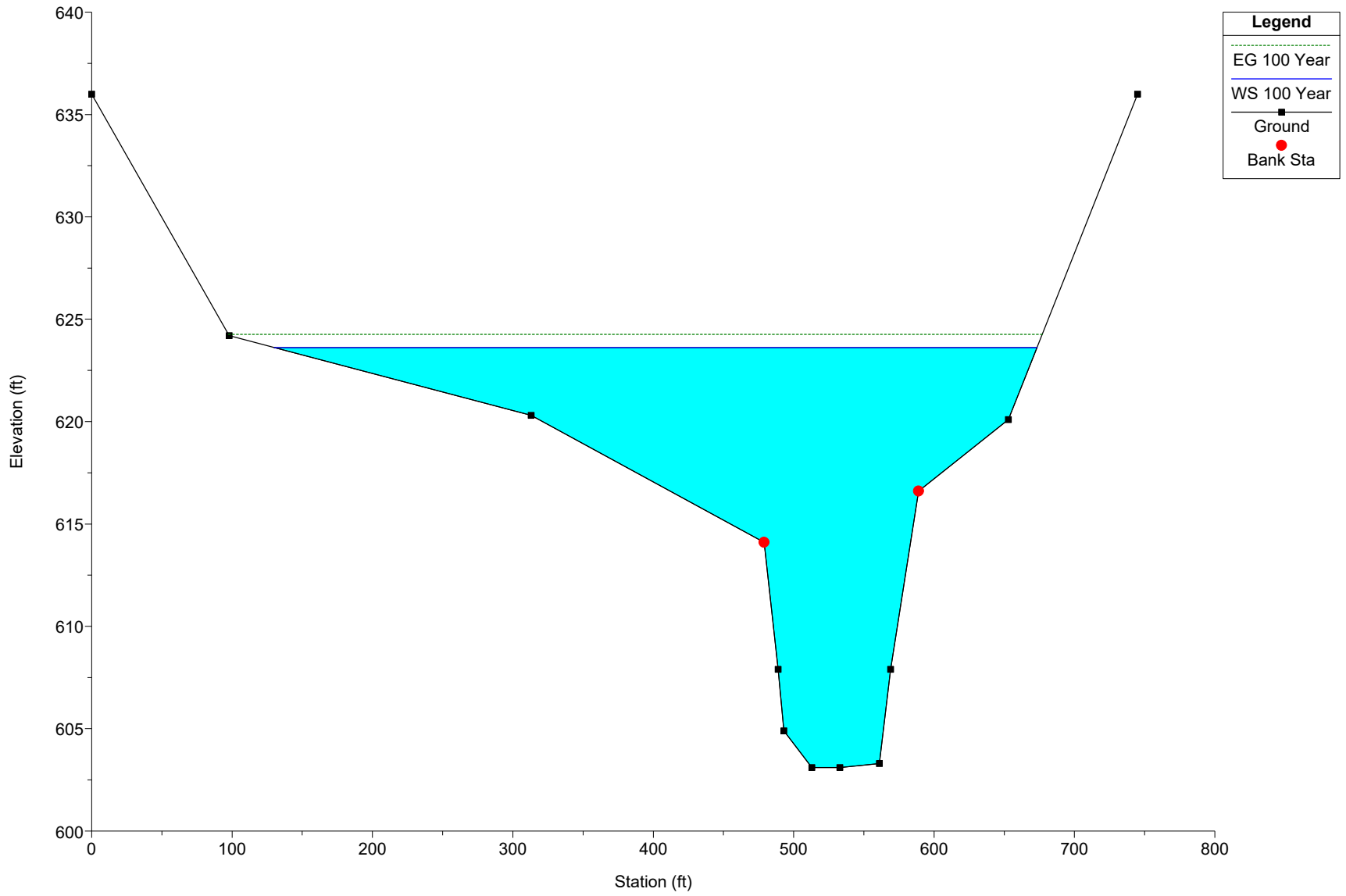
MILE	Q	ELEV	Q	ELEV	Q	ELEV	Q	ELEV
9.710	23760.	614.8	18070.	612.4	15760.	611.3	10630.	607.8
Section U 10.740	21690.	618.9	16490.	616.2	14370.	614.9	9700.	611.4
11.550	21420.	622.7	16290.	620.3	14200.	619.2	9580.	616.2
Section V 11.650	21390.	623.0	16260.	620.7	14180.	619.7	9570.	617.1
11.650	21390.	623.2	16260.	621.4	14180.	620.7	9570.	617.1
11.690	32380.	623.2	16250.	621.5	14170.	620.9	9560.	617.4
Section W 12.370	21160.	626.4	16080.	623.5	14020.	622.8	9460.	620.2
13.230	20880.	629.8	15870.	627.6	13830.	626.6	9330.	624.0
13.800	20690.	632.6	15720.	630.5	13710.	629.5	9250.	626.9
13.880	20660.	632.7	15700.	630.7	13690.	629.7	9240.	627.2
13.880	20660.	633.4	15700.	631.1	13690.	630.1	9240.	627.3
13.980	20630.	633.5	15680.	631.2	13670.	630.1	9220.	627.3
14.180	20570.	633.7	15650.	631.5	13630.	630.5	9190.	628.0
14.550	20450.	635.9	15540.	633.8	13540.	632.9	9140.	630.6
15.660	20090.	642.3	15260.	640.5	13300.	639.7	8980.	637.5
16.580	19790.	645.4	15030.	644.0	13100.	643.4	8840.	641.8
17.450	19500.	649.6	14810.	648.4	12910.	647.8	8710.	646.3
17.640	19440.	651.0	14770.	649.5	12870.	648.9	8680.	647.0
18.230	19250.	656.4	14620.	654.6	12740.	653.7	8600.	651.4
18.230	19250.	656.5	14620.	654.7	12740.	653.8	8600.	651.5
18.700	19100.	658.1	14500.	656.3	12640.	655.5	8530.	653.2
19.200	18930.	659.6	14380.	657.8	12530.	657.0	8460.	654.8
19.300	18900.	659.6	14350.	657.9	12510.	657.1	8440.	654.9
19.370	17600.	659.7	13200.	658.0	11500.	657.2	7800.	655.1
19.370	17600.	660.1	13200.	658.3	11500.	657.5	7800.	655.3
19.450	17600.	660.8	13200.	658.9	11500.	658.0	7800.	655.6

Effective Model Cross-Sections

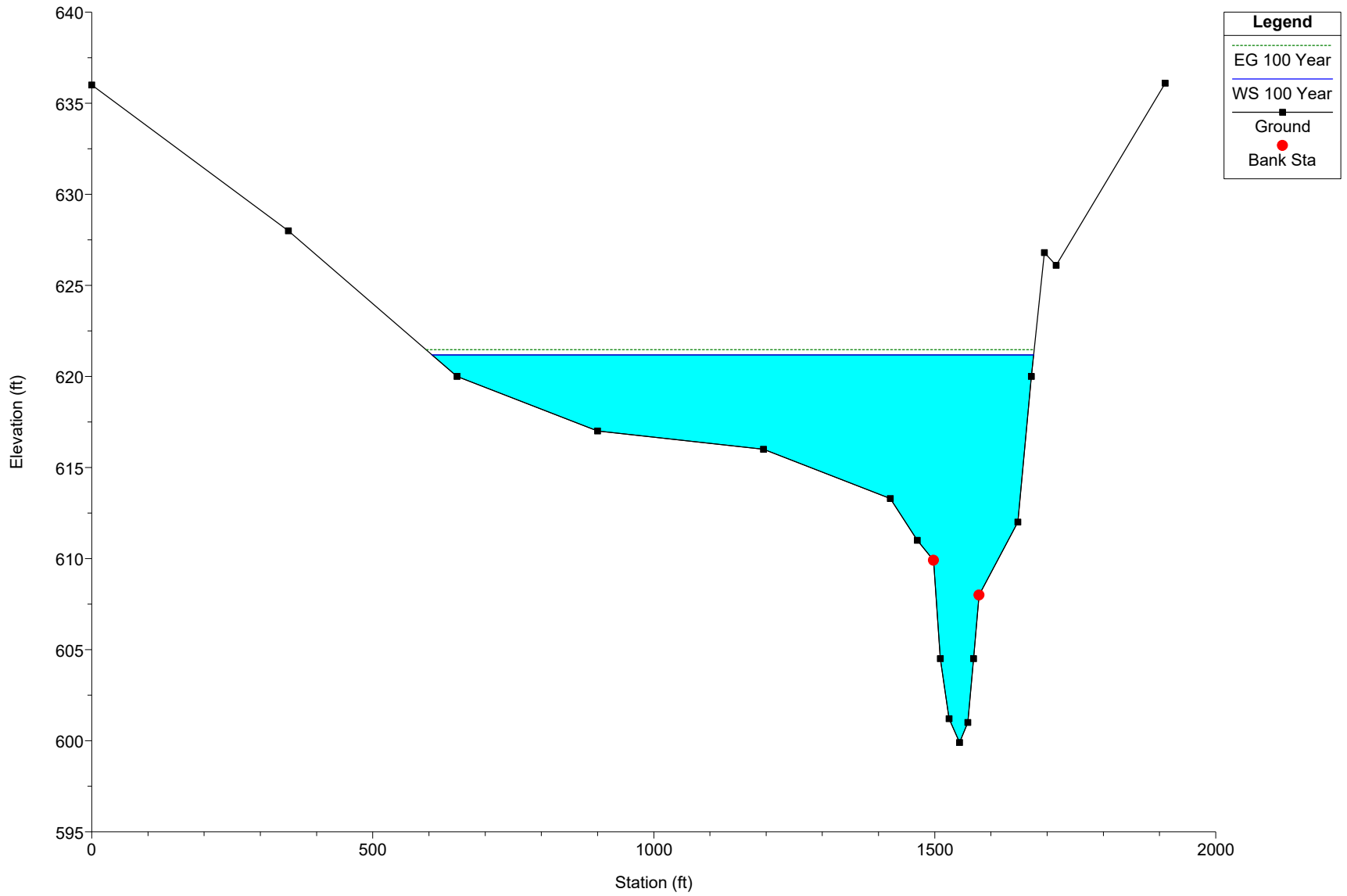
2021-09-30-Rutherford Creek-DUPL-EFFECT Plan: Plan 01 2/2/2022
Hec 2 -- Section 9.71 (51,269)



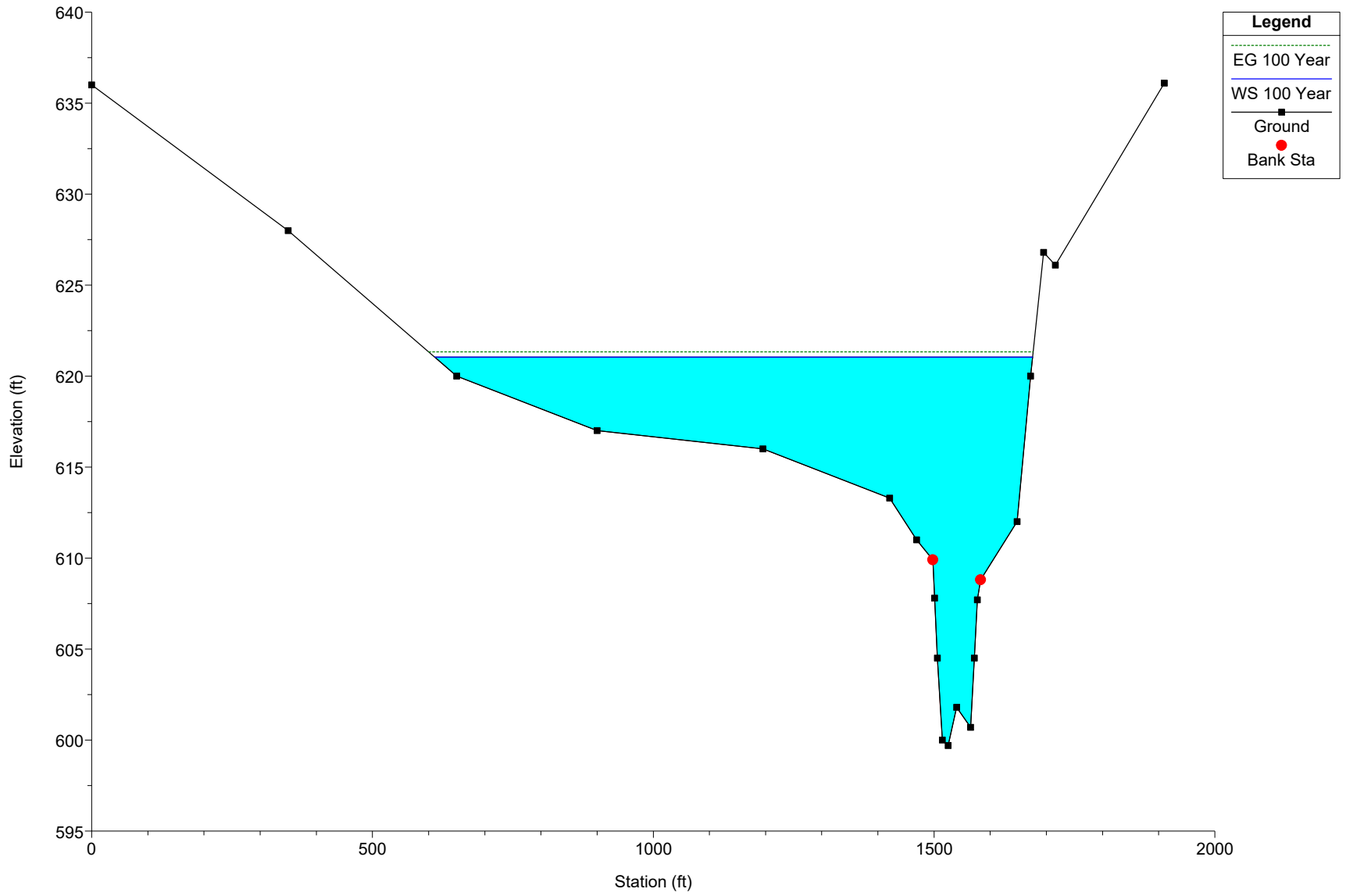
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Hec 2 -- Section 12.37 (65,314)



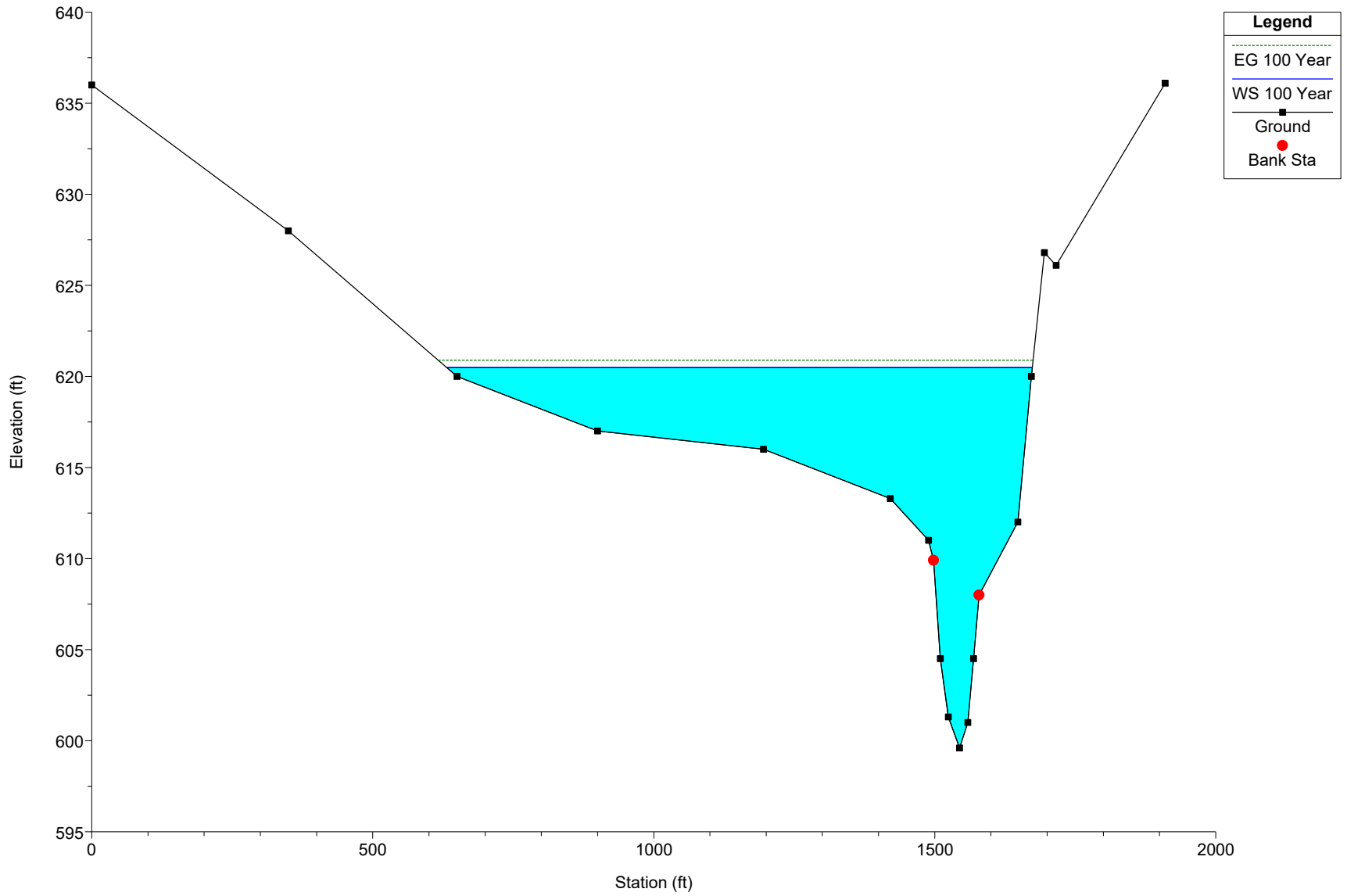
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Hec 2 -- Section 11.69 (61,723)



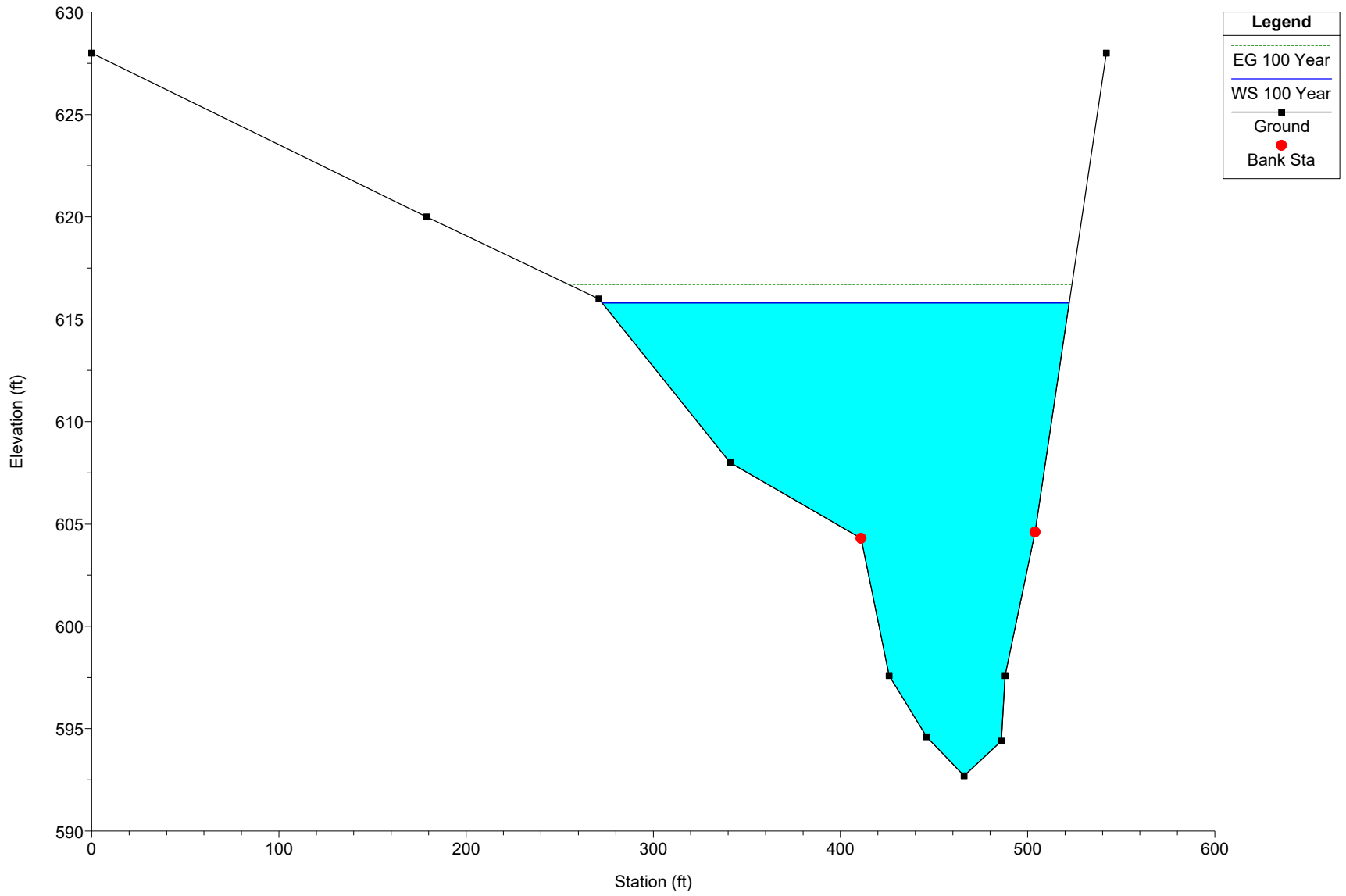
2021-09-30-Rutherford Creek-DUPL-EFFECT Plan: Plan 01 2/2/2022
Hec 2 -- Section 11.65 (61,512)



2021-09-30-Rutherford Creek-DUPL-EFFECT Plan: Plan 01 2/2/2022
Hec 2 -- Section 11.55 (60,984)



2021-09-30-Rutherford Creek-DUPL-EFFECT Plan: Plan 01 2/2/2022
Hec 2 -- Section 10.74 (56,707)



HEC-RAS-River River Analysis

(Tabular Results-Effective Model)

HEC-RAS Plan: 1 River: RUTHERFORD CREEK Reach: Green Mill Road Profile: 100 Year

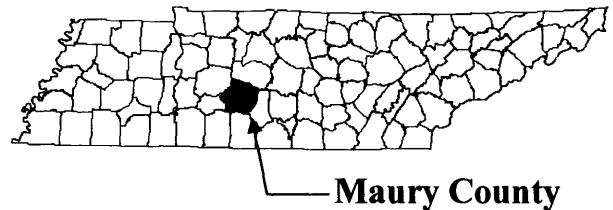
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Green Mill Road	65314	100 Year	16080.00	603.10	623.62		624.26	0.000827	6.99	3682.45	543.23	0.29
Green Mill Road	61723	100 Year	16250.00	599.90	621.19		621.47	0.000647	5.69	6681.27	1070.55	0.23
Green Mill Road	61512	100 Year	16260.00	599.70	621.04		621.33	0.000649	5.67	6557.53	1064.48	0.23
Green Mill Road	60984	100 Year	16290.00	599.60	620.49		620.89	0.000904	6.57	5915.94	1041.97	0.28
Green Mill Road	56707	100 Year	16490.00	592.70	615.81		616.70	0.000993	8.08	2824.37	249.49	0.33
Green Mill Road	51269	100 Year	18070.00	587.60	610.09	601.17	611.21	0.001001	8.98	2723.12	259.21	0.36

FEMA Flow DATA Used in Analysis

FLOOD INSURANCE STUDY



MAURY COUNTY, TENNESSEE AND INCORPORATED AREAS



**Community
Name**

**Community
Number**

COLUMBIA, CITY OF
MOUNT PLEASANT, CITY OF
SPRING HILL, CITY OF
MAURY COUNTY
(UNINCORPORATED AREAS)

475423
470125
470278
470123

April 16, 2007



Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
47119CV000A

Table 1. Summary of Discharges (continued)

Peak Discharges (Cubic Feet per Second)

<u>Flooding Source and Location</u>	<u>Drainage Area (Square Miles)</u>	<u>10-Percent- Annual-Chance</u>	<u>2-Percent- Annual-Chance</u>	<u>1-Percent- Annual-Chance</u>	<u>0.2-Percent- Annual-Chance</u>
Rutherford Creek					
At Mouth	113.00	15,740	23,300	26,710	35,010
Just downstream of confluence of Carters Creek	106.00	15,000	22,210	25,460	33,380
Just upstream of confluence of Carters Creek	72.10	11,220	16,620	19,060	25,050
Just downstream of confluence of Double Branch	66.90	10,600	15,720	18,020	23,690
Just upstream of confluence of Double Branch	60.40	9,820	14,550	16,690	21,950
Just downstream of confluence of McCutcheon Creek	49.39	8,440	12,510	14,350	18,900
Just upstream of confluence of McCutcheon Creek	38.30	7,800	11,500	13,200	17,600
Just upstream of confluence of Aenon Creek	23.30	6,750	10,150	11,240	15,190
Silver Creek					
At mile 1.4	14.60	4,510	6,790	7,990	10,470
Sugar Creek					
At Bluegrass Avenue	11.30	N/A	N/A	N/A	20,100
Sugar Fork					
At Mouth	41.10	N/A	N/A	N/A	49,000
At U.S. Route 43	36.70	N/A	N/A	N/A	46,000

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (NAVD)	WITHOUT FLOODWAY (NAVD)	WITH FLOODWAY (NAVD)	INCREASE
RUTHERFORD CREEK								
A	590	180	2,969	9.0	581.5	563.8 ²	563.8	0.0
B	2,440	480	2,983	8.9	581.5	567.3 ²	567.3	0.0
C	4,790	180	3,269	8.1	581.5	572.3 ²	572.6	0.3
D	6,607	160	3,582	7.4	581.5	575.8 ²	576.5	0.7
E	9,430	200	3,113	8.4	581.5	577.7 ²	578.3	0.6
F	9,652	260	5,165	5.1	581.5	579.5 ²	580.5	1.0
G	12,869	220	4,314	6.0	581.5	580.7 ²	581.6	0.9
H	14,207	300	3,832	6.8	582.8	582.8	583.7	0.9
I	15,812	140	3,219	8.1	584.9	584.9	585.7	0.8
J	19,007	140	2,939	8.8	589.2	589.2	590.2	1.0
K	22,287	220	3,934	6.5	591.9	591.9	592.7	0.8
L	25,627	210	3,762	6.8	593.8	593.8	594.8	1.0
M	28,857	190	2,820	6.7	596.2	596.2	597.1	0.9
N	31,662	170	3,402	5.6	599.6	599.6	600.4	0.8
O	31,944	130	2,395	7.9	600.2	600.2	600.4	0.2
P	34,824	280	3,931	4.8	602.3	602.3	603.2	0.9
Q	38,824	280	3,827	4.9	604.5	604.5	605.5	1.0
R	42,324	290	4,126	4.5	607.3	607.3	607.9	0.6
S	46,312	300	3,838	4.8	609.9	609.9	610.9	1.0
T	50,812	180	2,990	6.0	612.5	612.5	613.3	0.8
U	55,982	180	2,774	5.9	616.3	616.3	616.9	0.6
V	60,787	480	5,037	3.2	621.5	621.5	622.4	0.9
W	64,587	380	3,781	4.3	623.6	623.6	624.6	1.0
X	69,127	340	2,712	5.9	627.7	627.7	628.0	0.3
Y	72,614	350	5,300	3.0	631.2	631.2	632.0	0.8

¹ Feet above confluence with Duck River

² Elevations without considering backwater effect from Duck River

TABLE 3

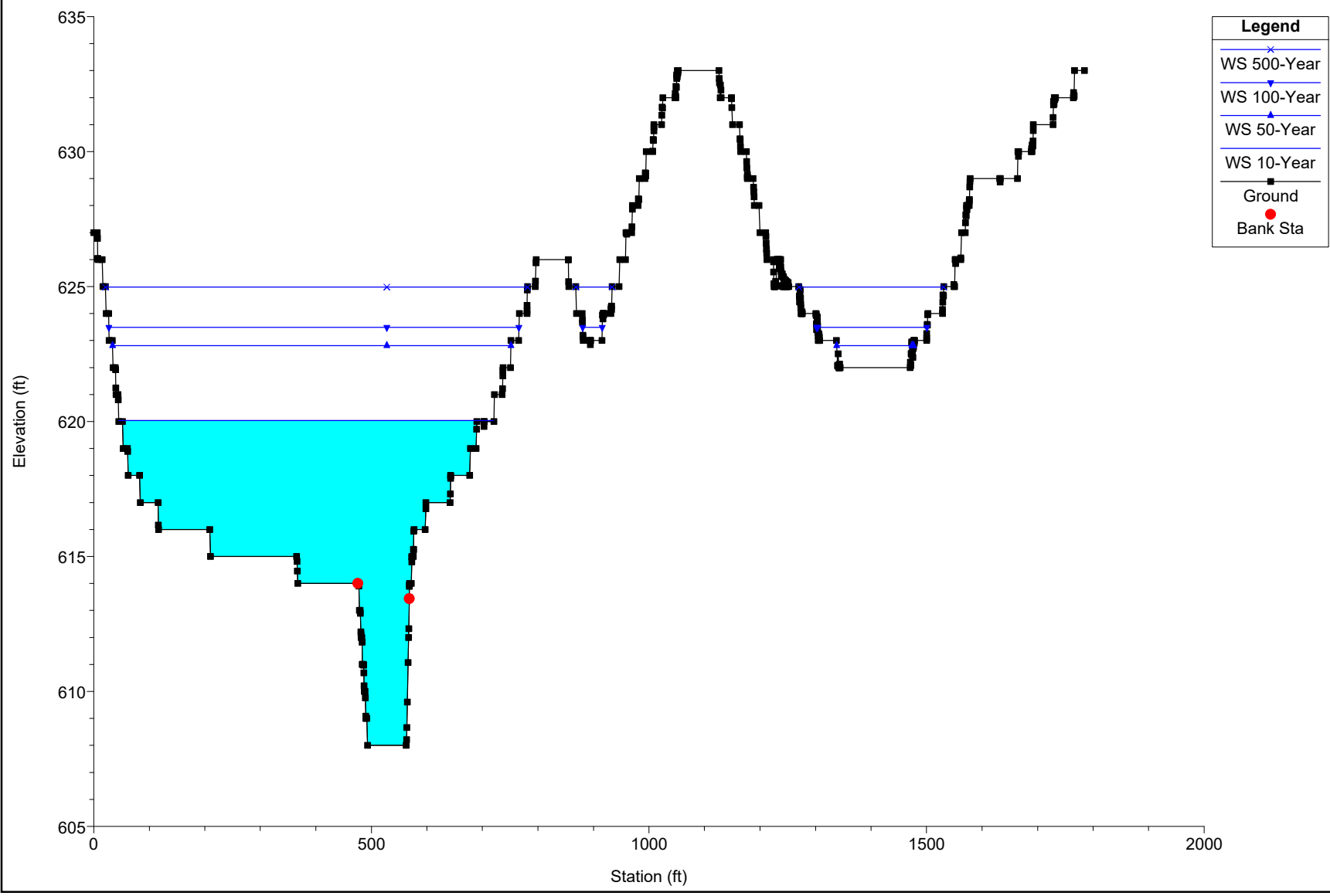
FEDERAL EMERGENCY MANAGEMENT AGENCY
MAURY COUNTY, TN
 AND INCORPORATED AREAS

FLOODWAY DATA

RUTHERFORD CREEK

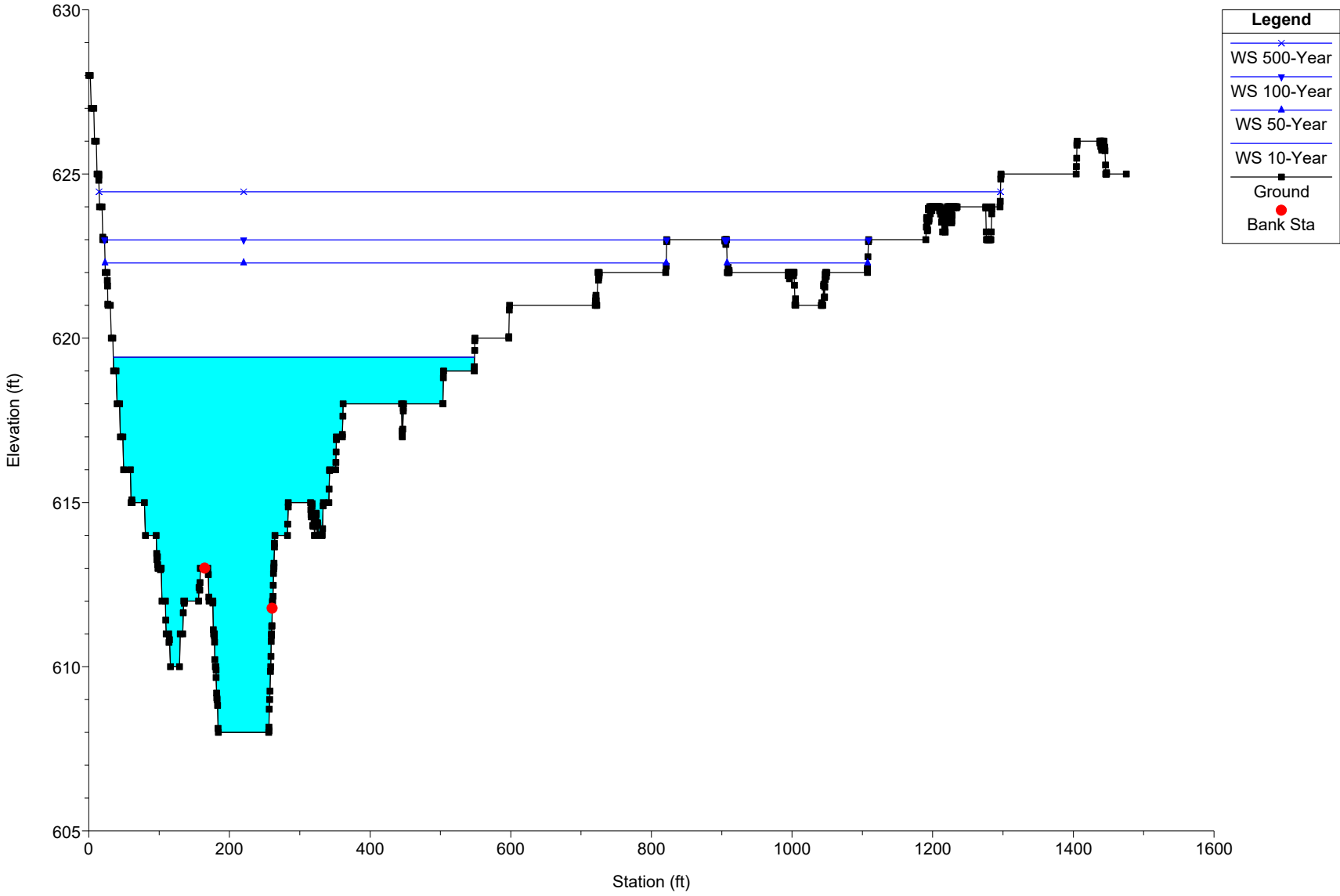
Existing Conditions Cross-Sections

2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023
RS = 66500 Cross Section - 66,500



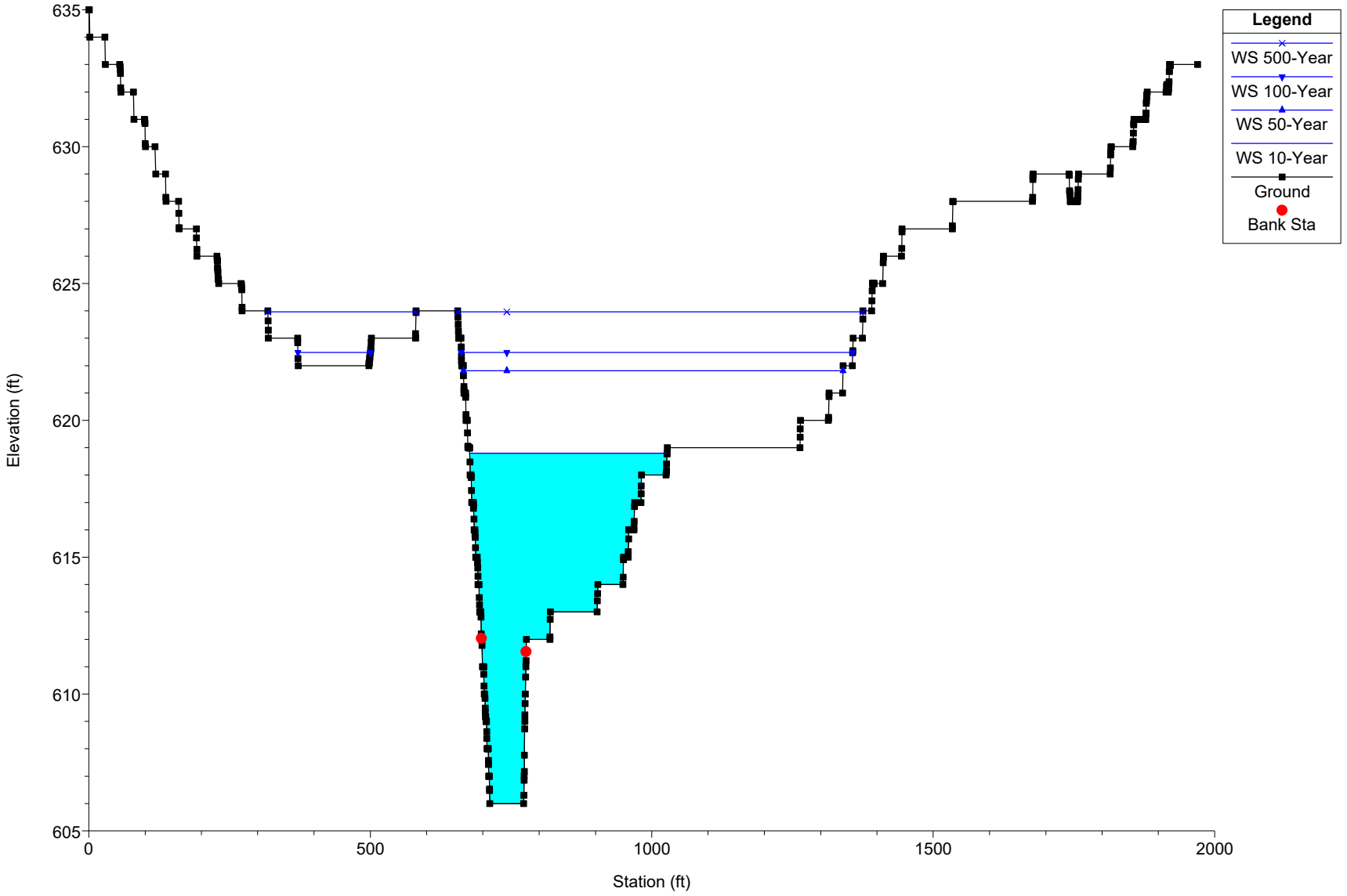
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 66000 Cross Section - 66,000

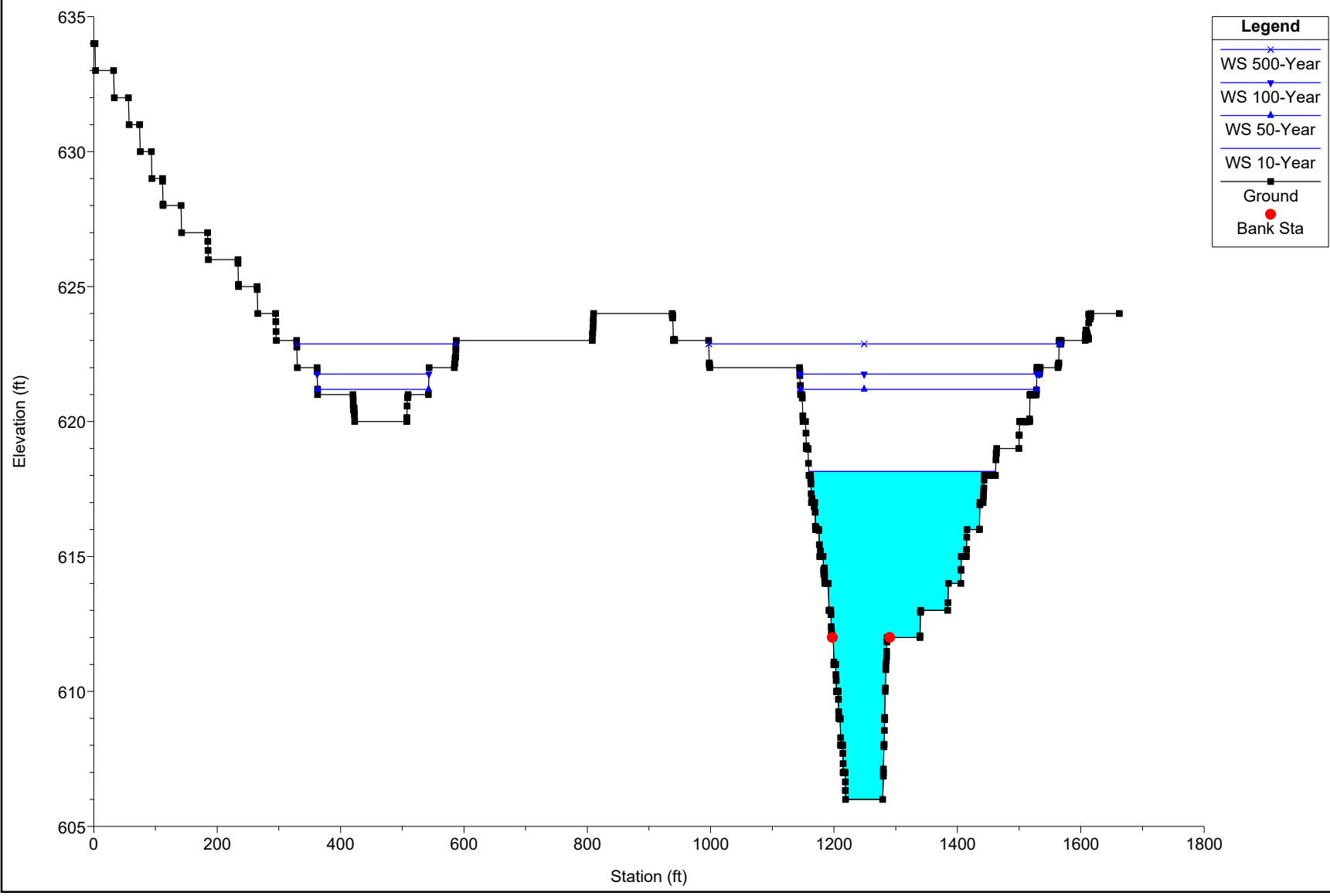


2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

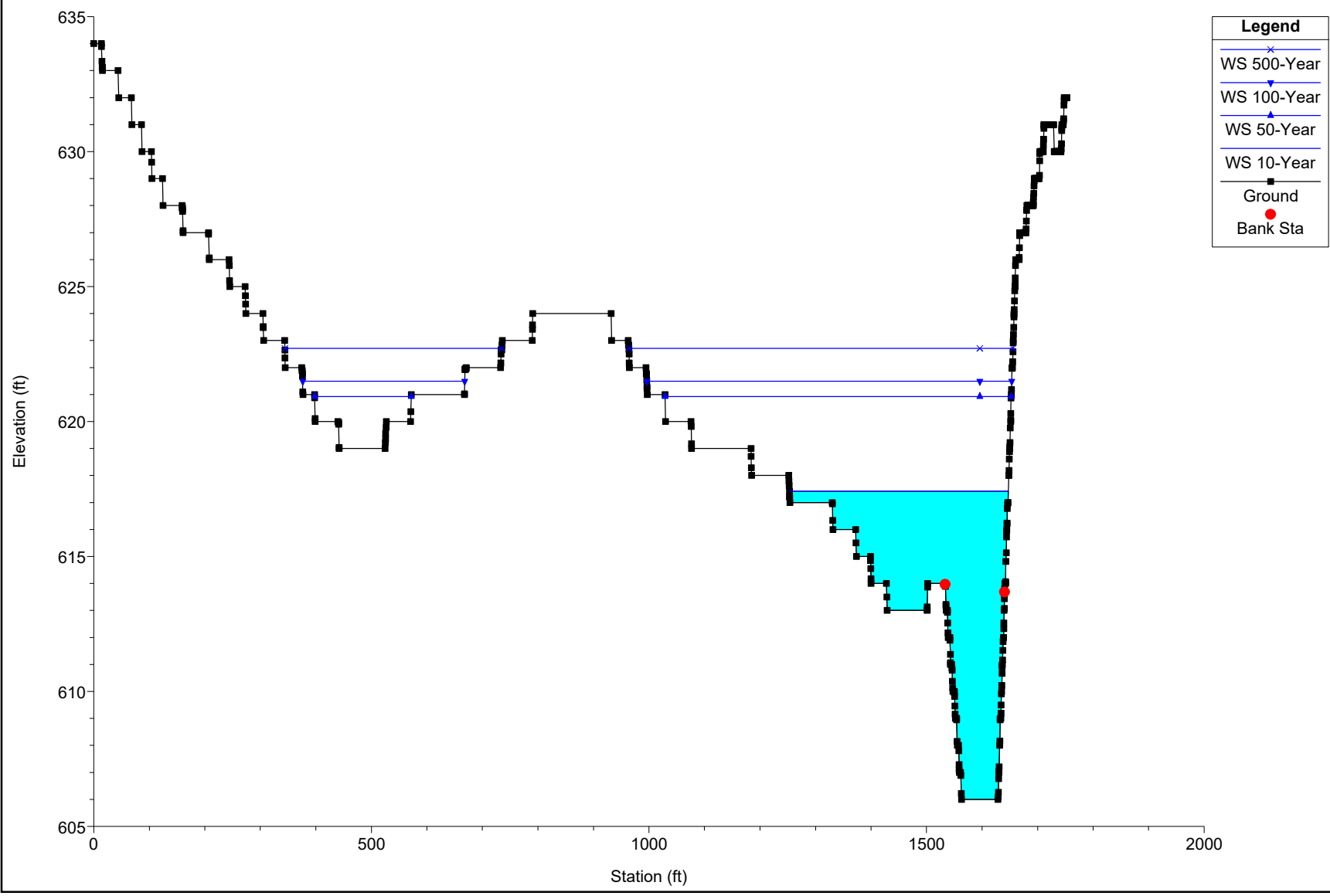
RS = 65500 Cross Section - 65,500



2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023
RS = 65000 Cross Section - 65,000

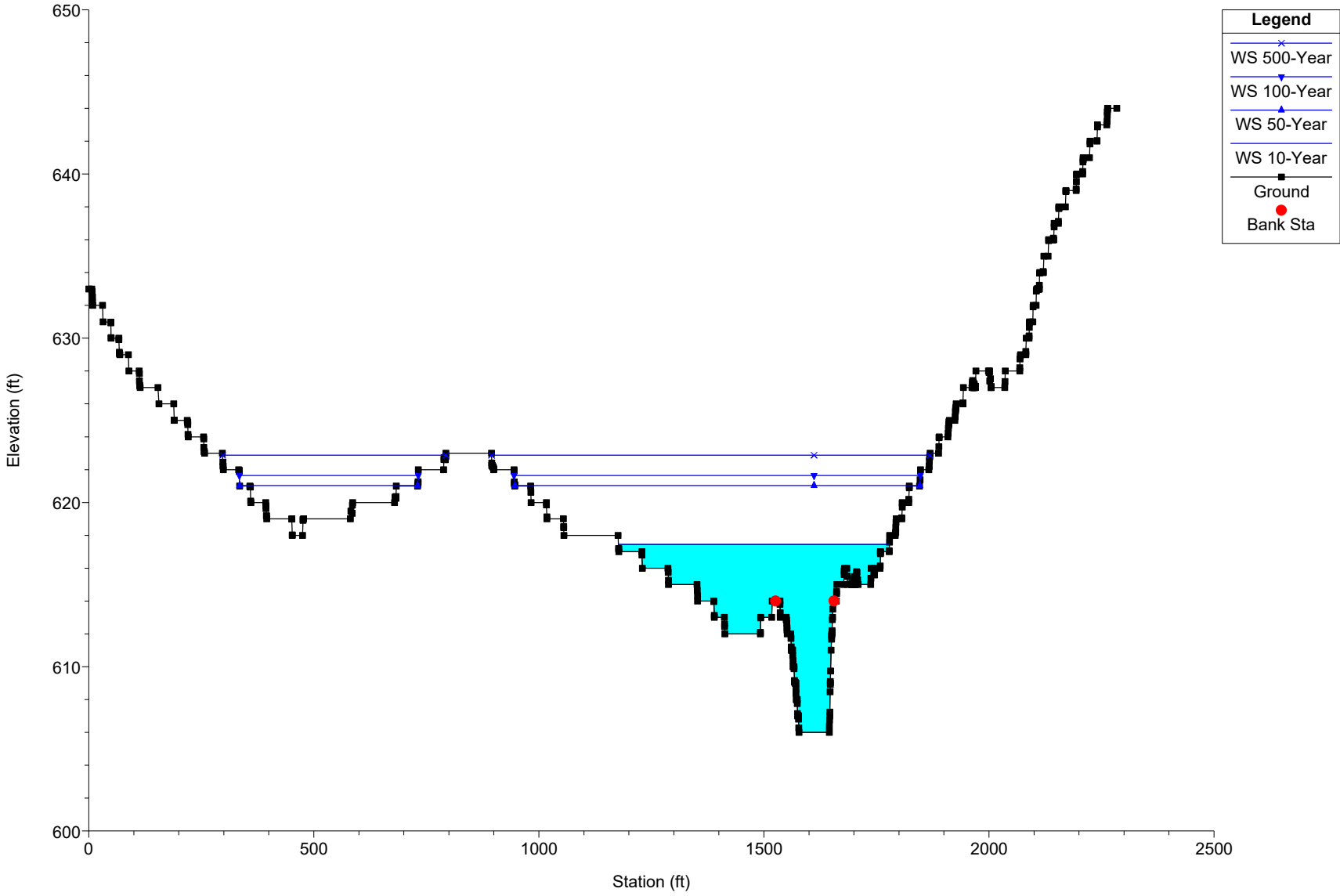


2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023
RS = 64500 Cross Section - 64,500



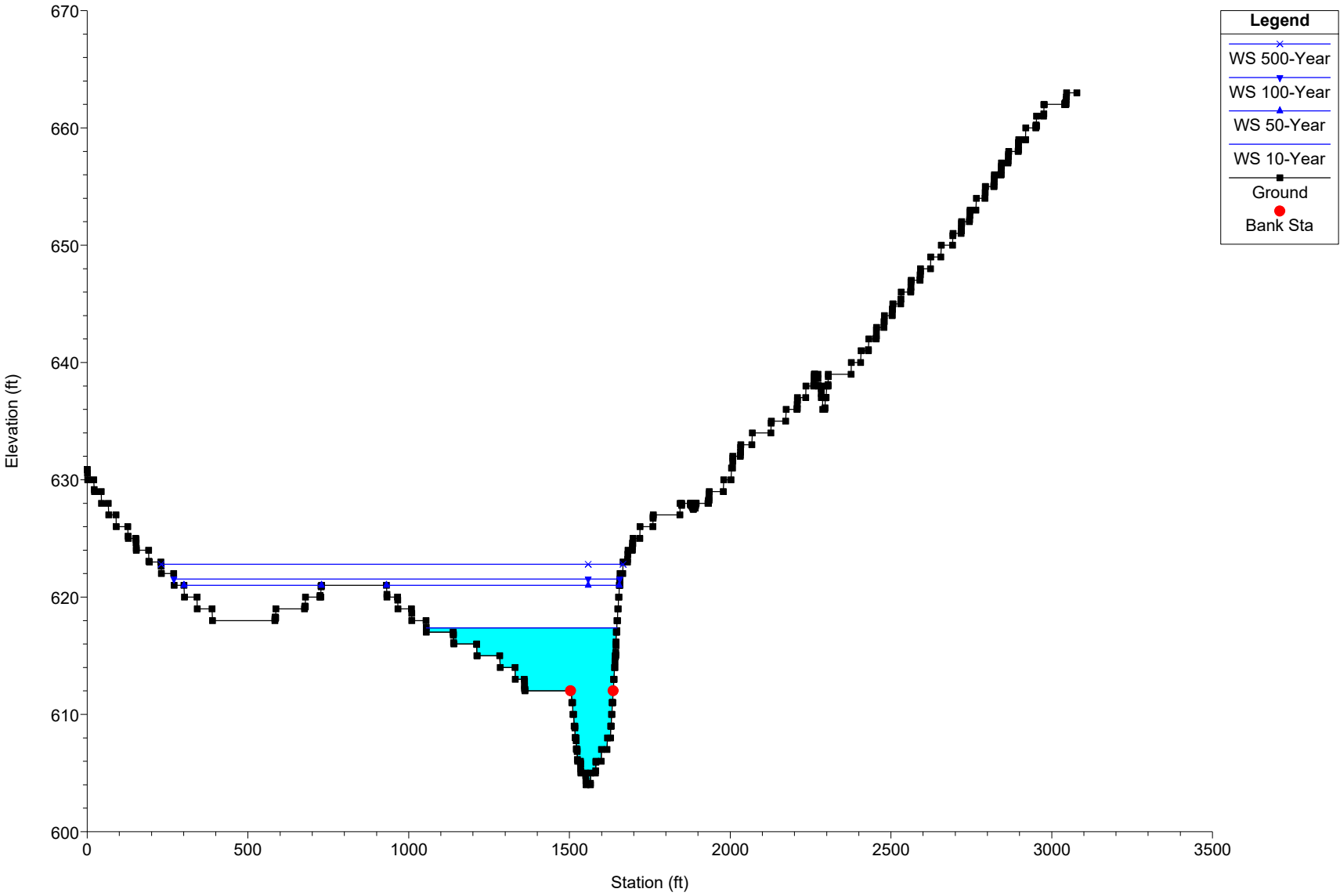
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 64300 Cross Section - 64,300



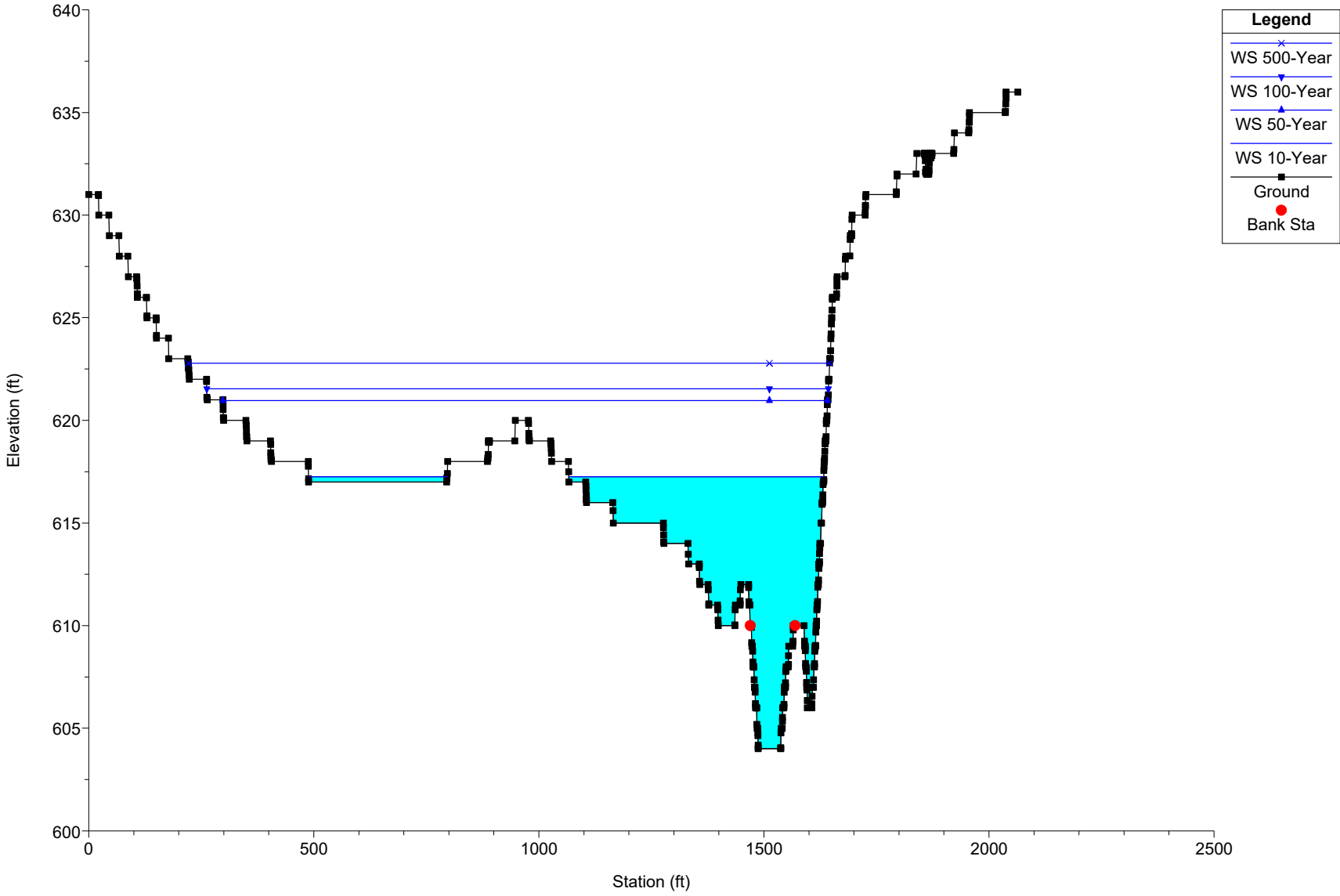
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 64100 Cross Section - 64,100



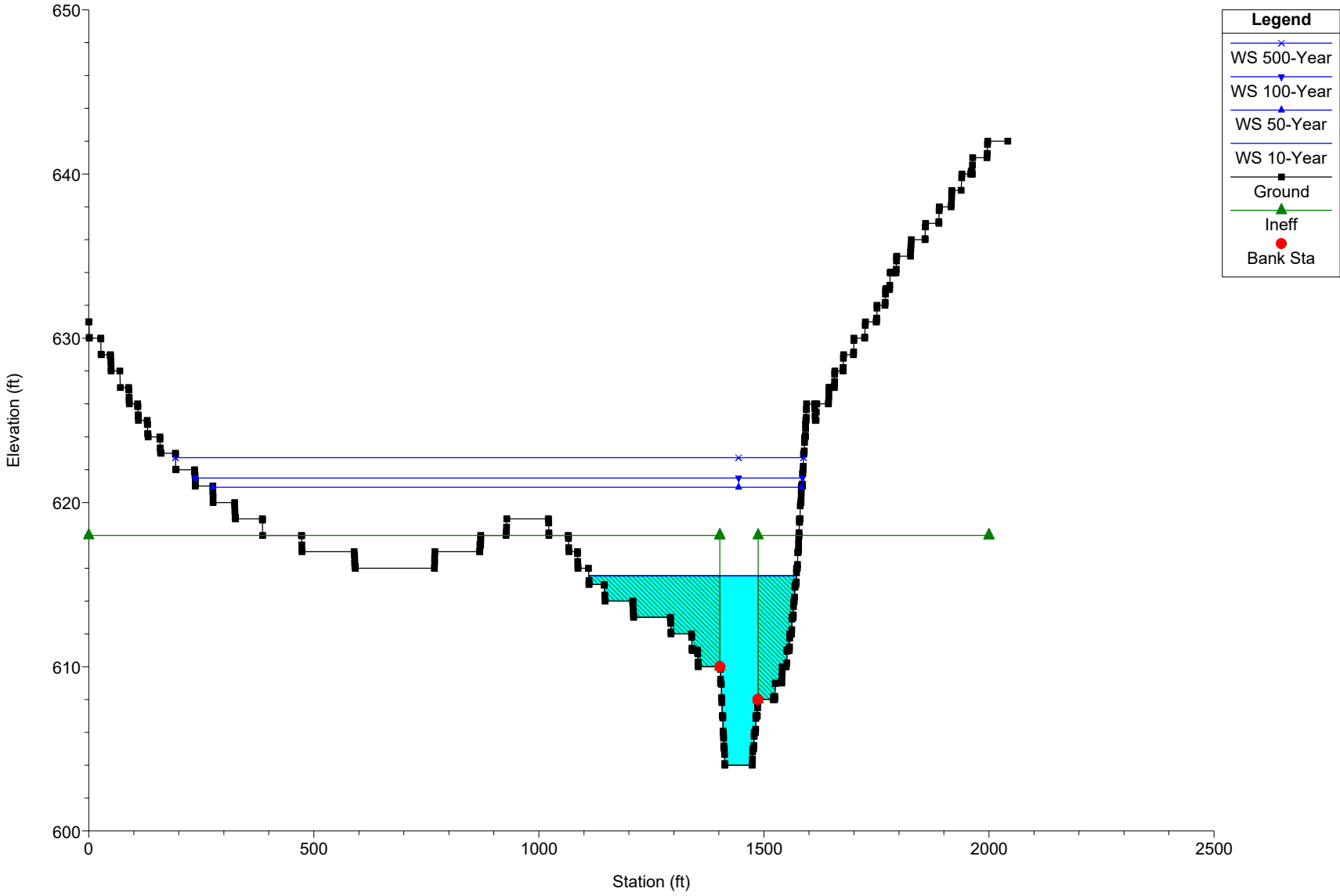
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 63900 Cross Section - 63,900



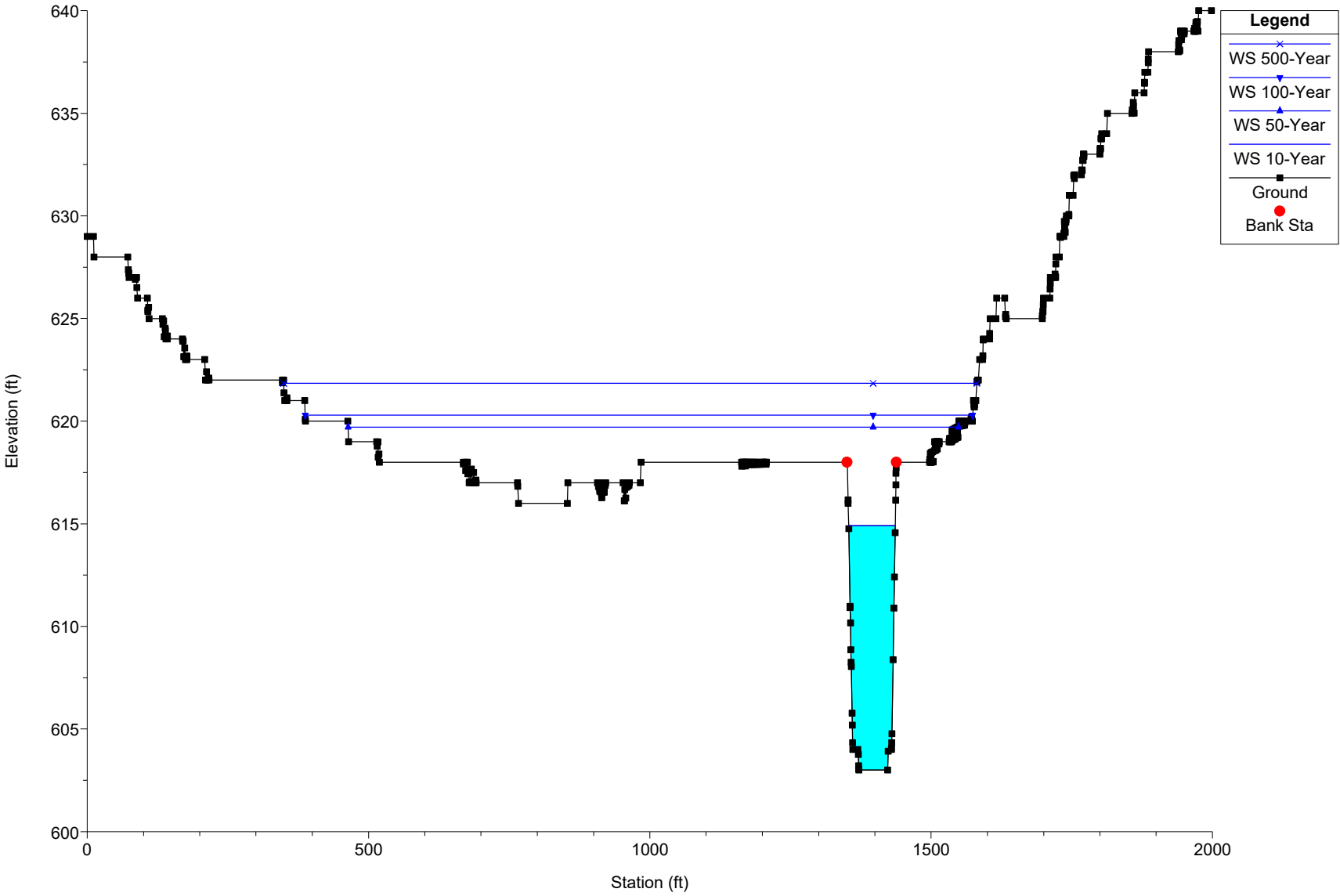
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 63700 Cross Section - 63,700



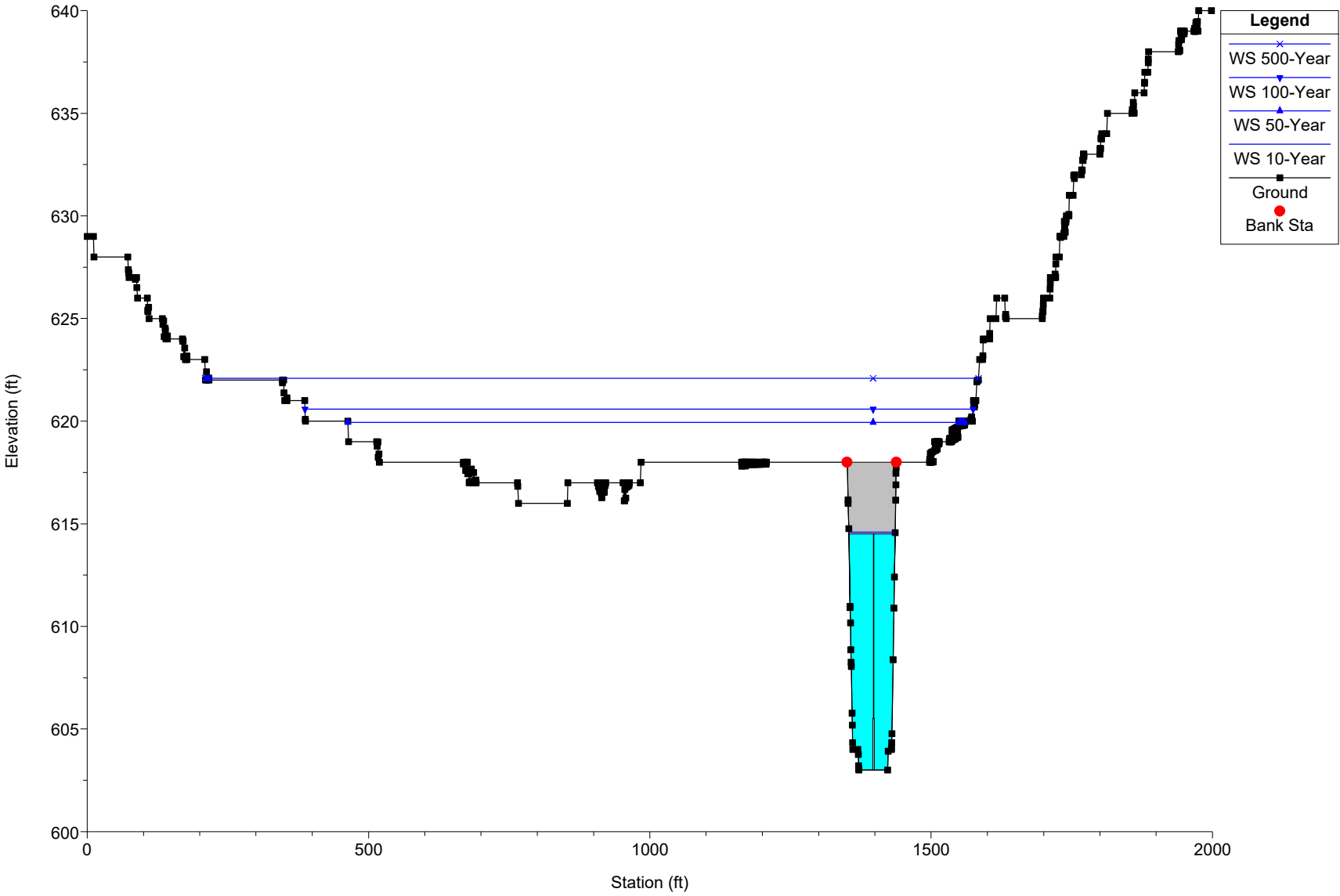
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 63504 Cross Section - 63,504



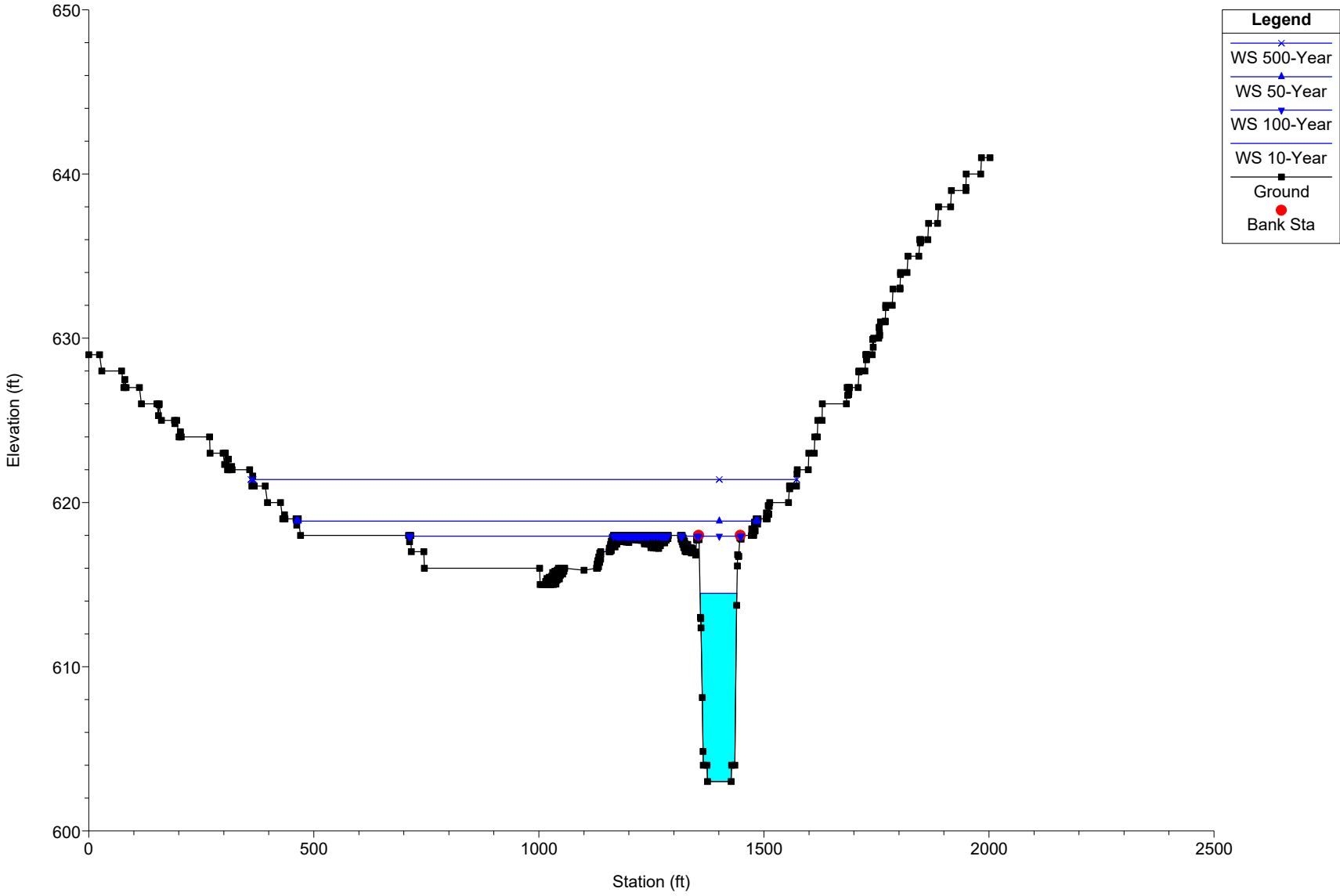
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 63497 BR Existing Bridge

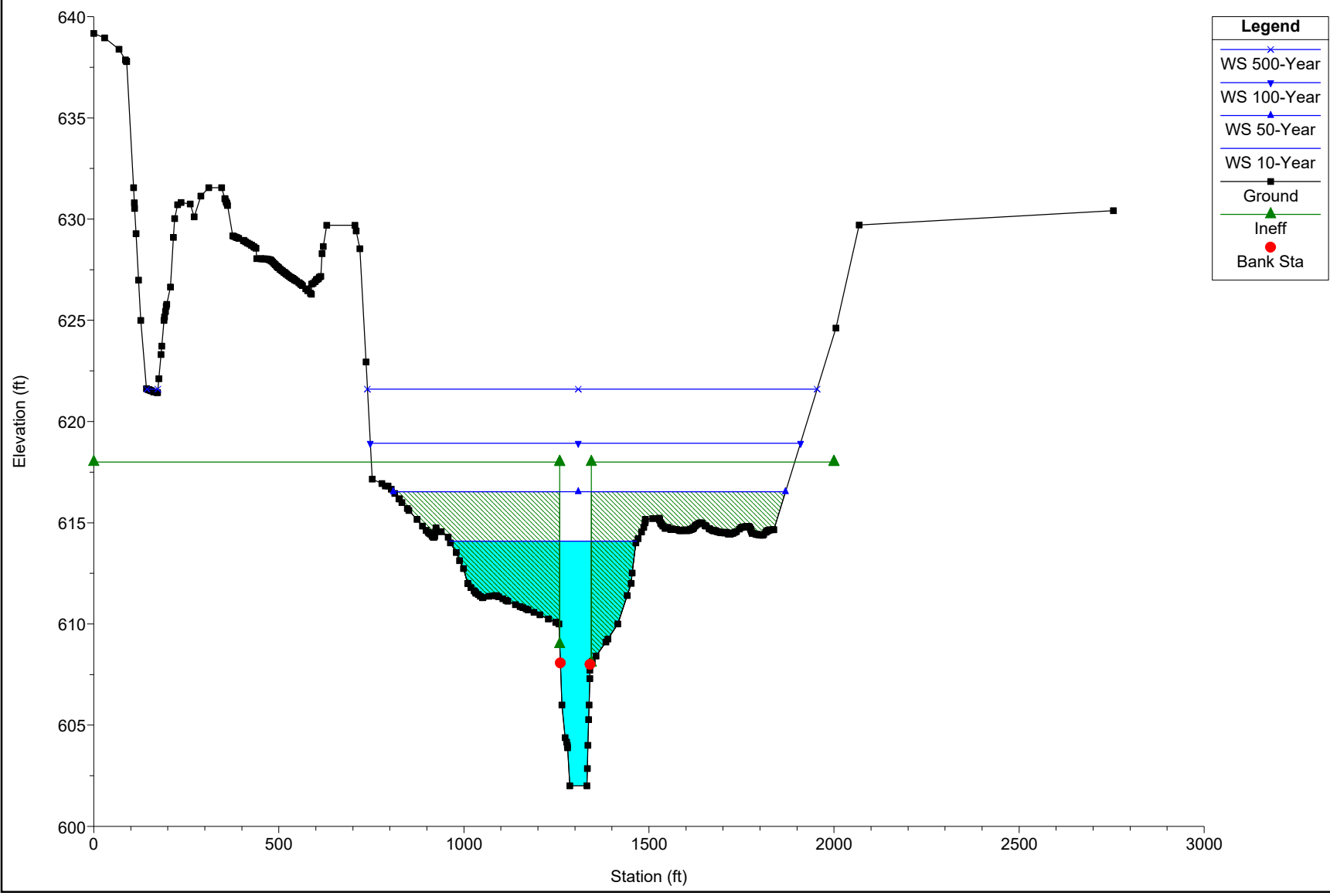


2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 63490 Cross Section - 63,490

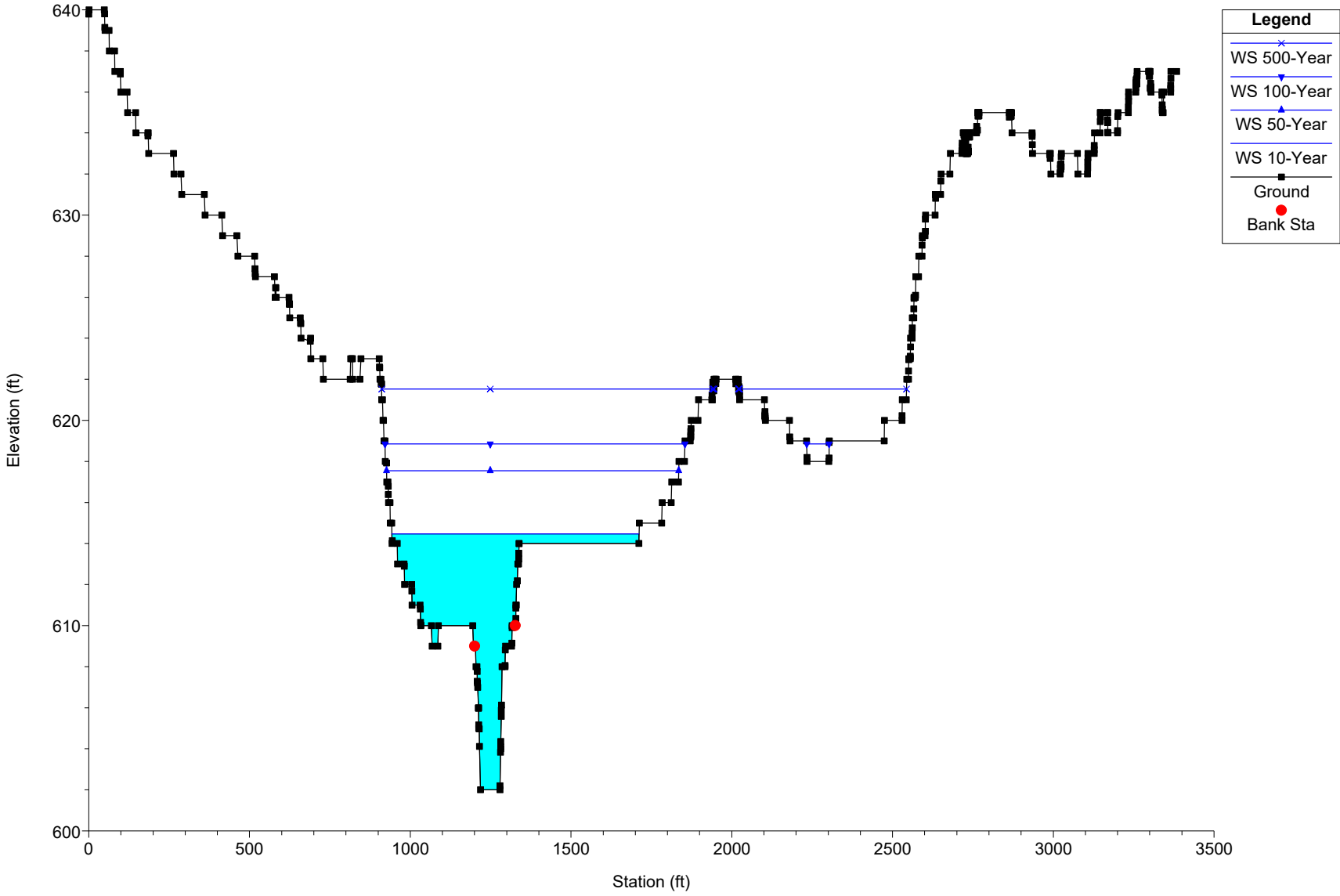


2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023
RS = 63300 Cross Section - 63,300



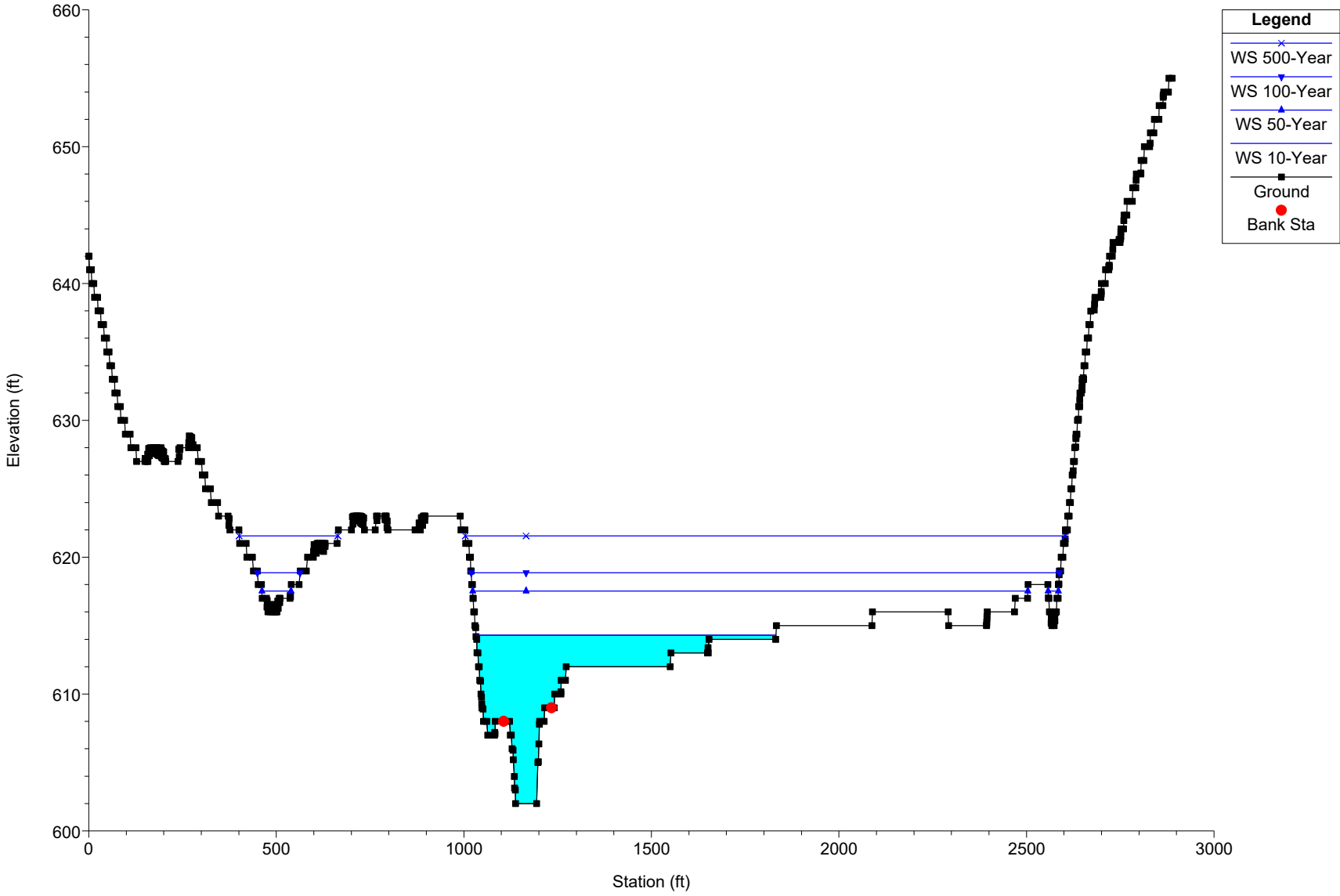
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 63100 Cross Section - 63,100



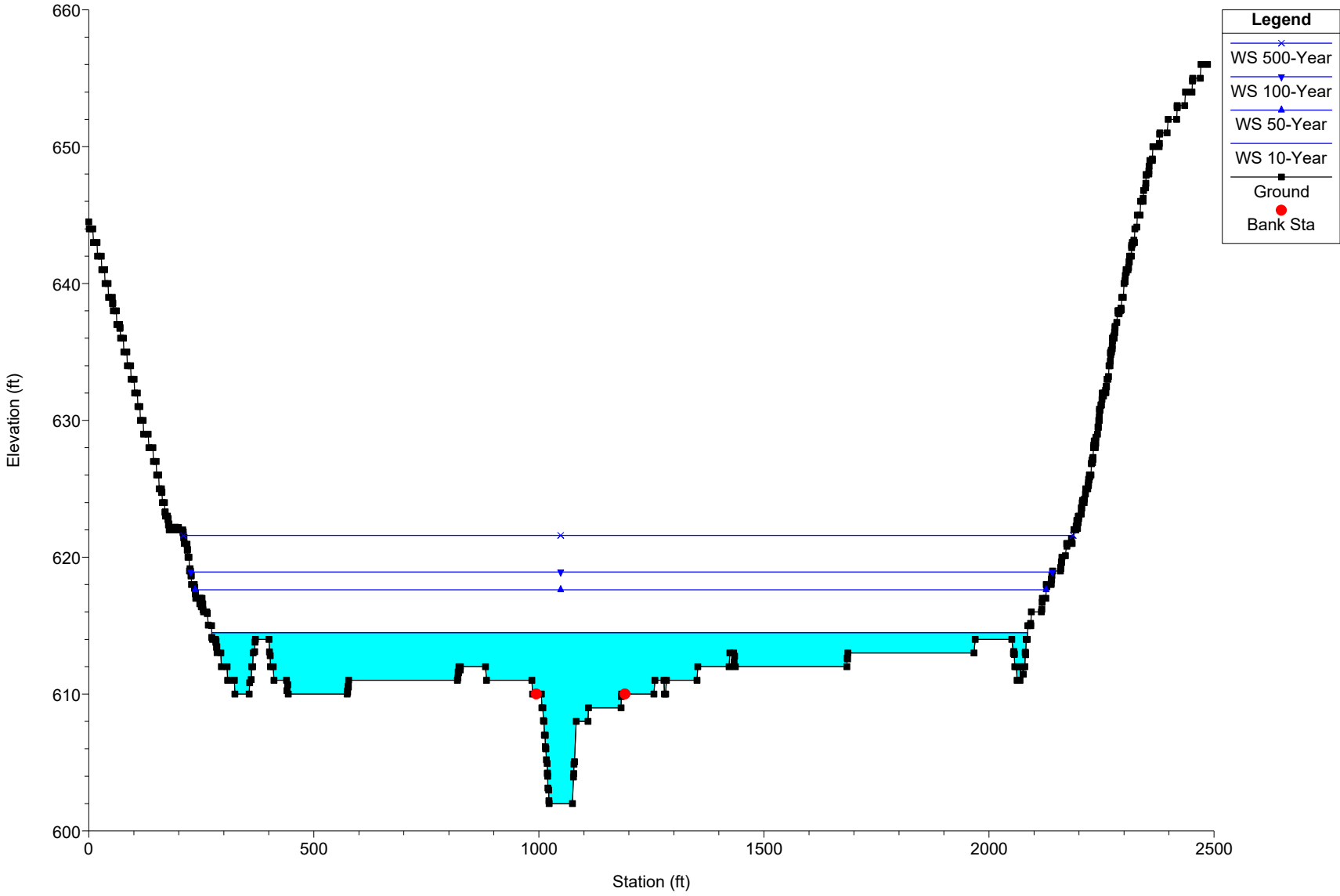
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 62900 Cross Section - 62,900



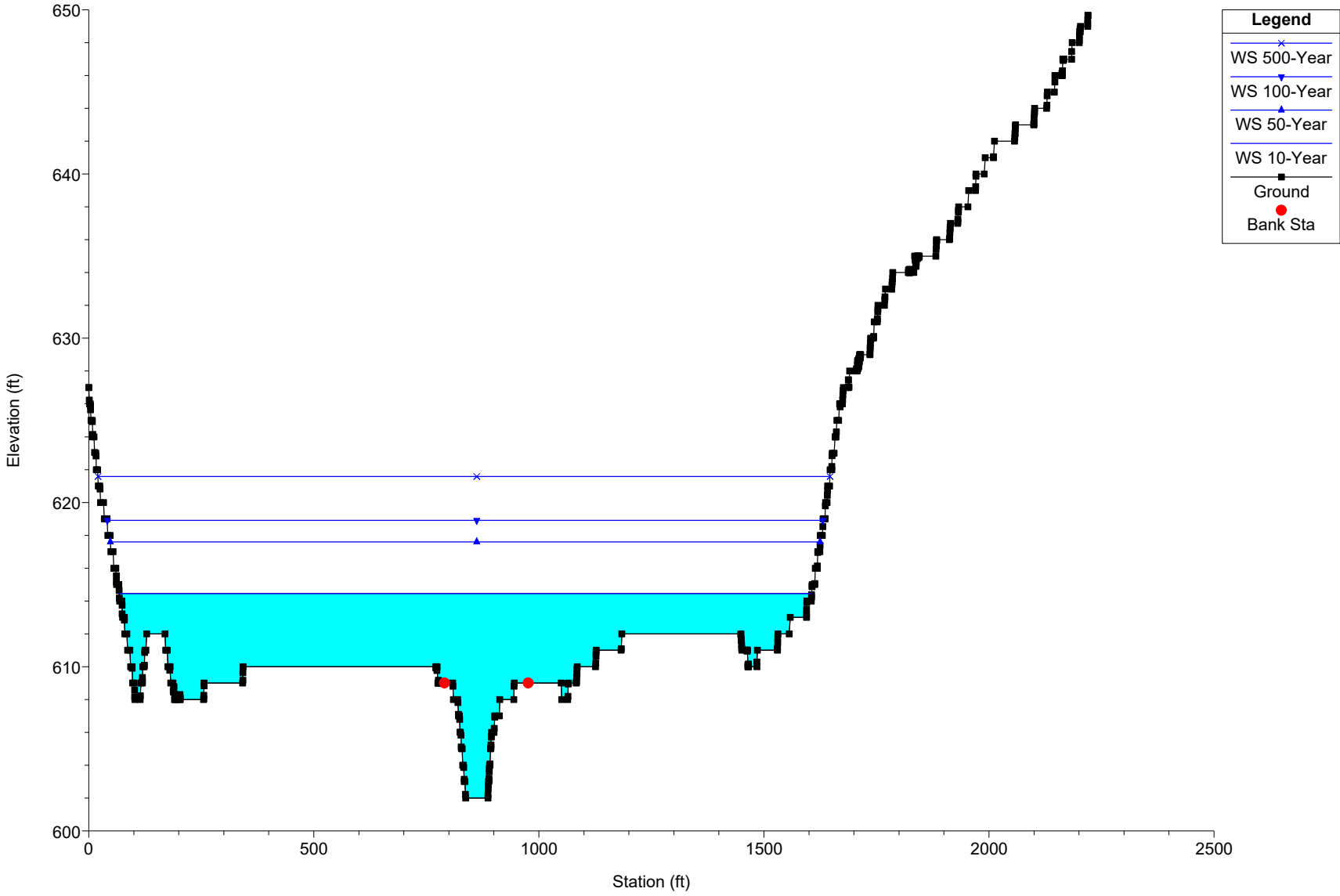
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 62700 Cross Section - 62,700



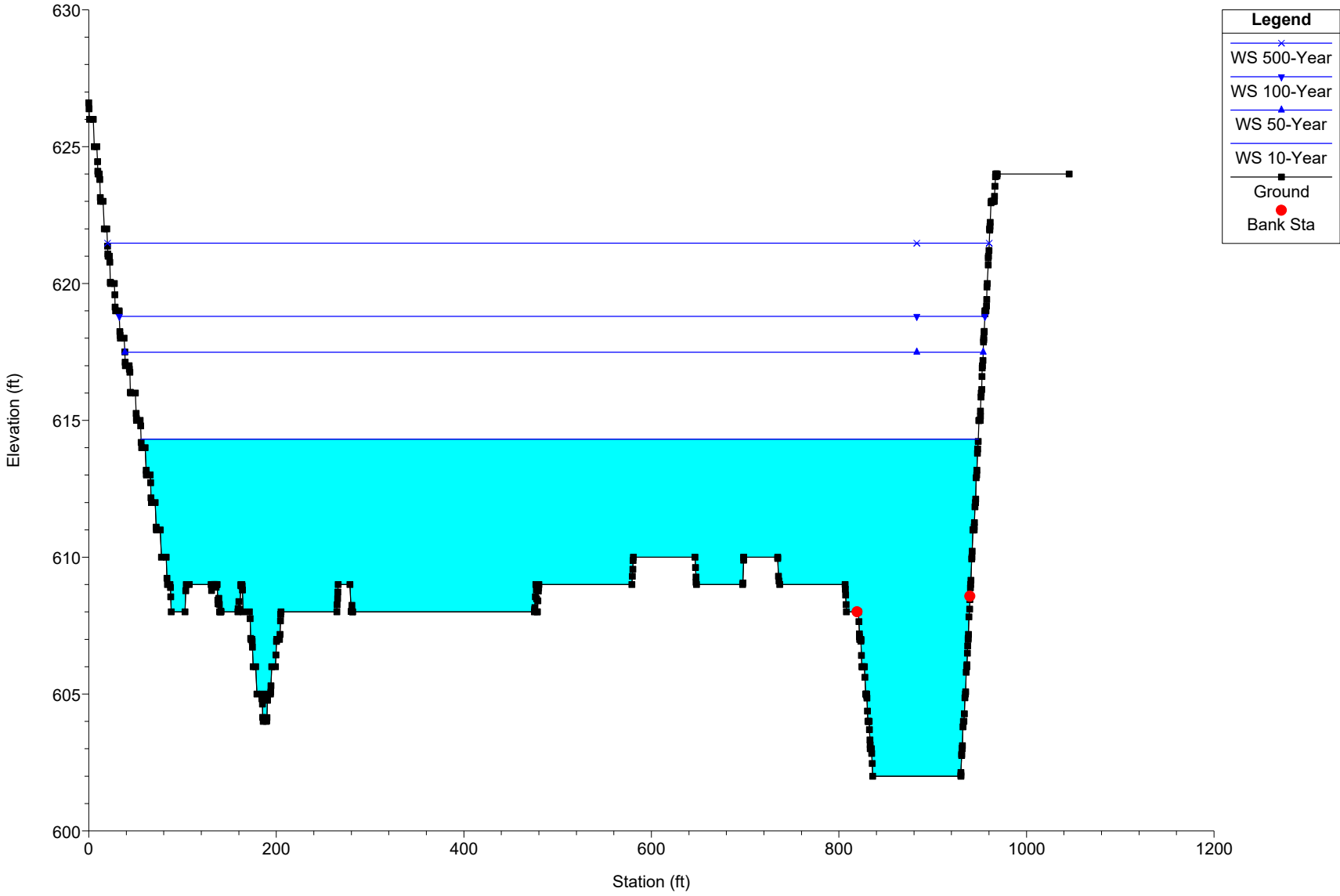
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 62500 Cross Section - 62,500



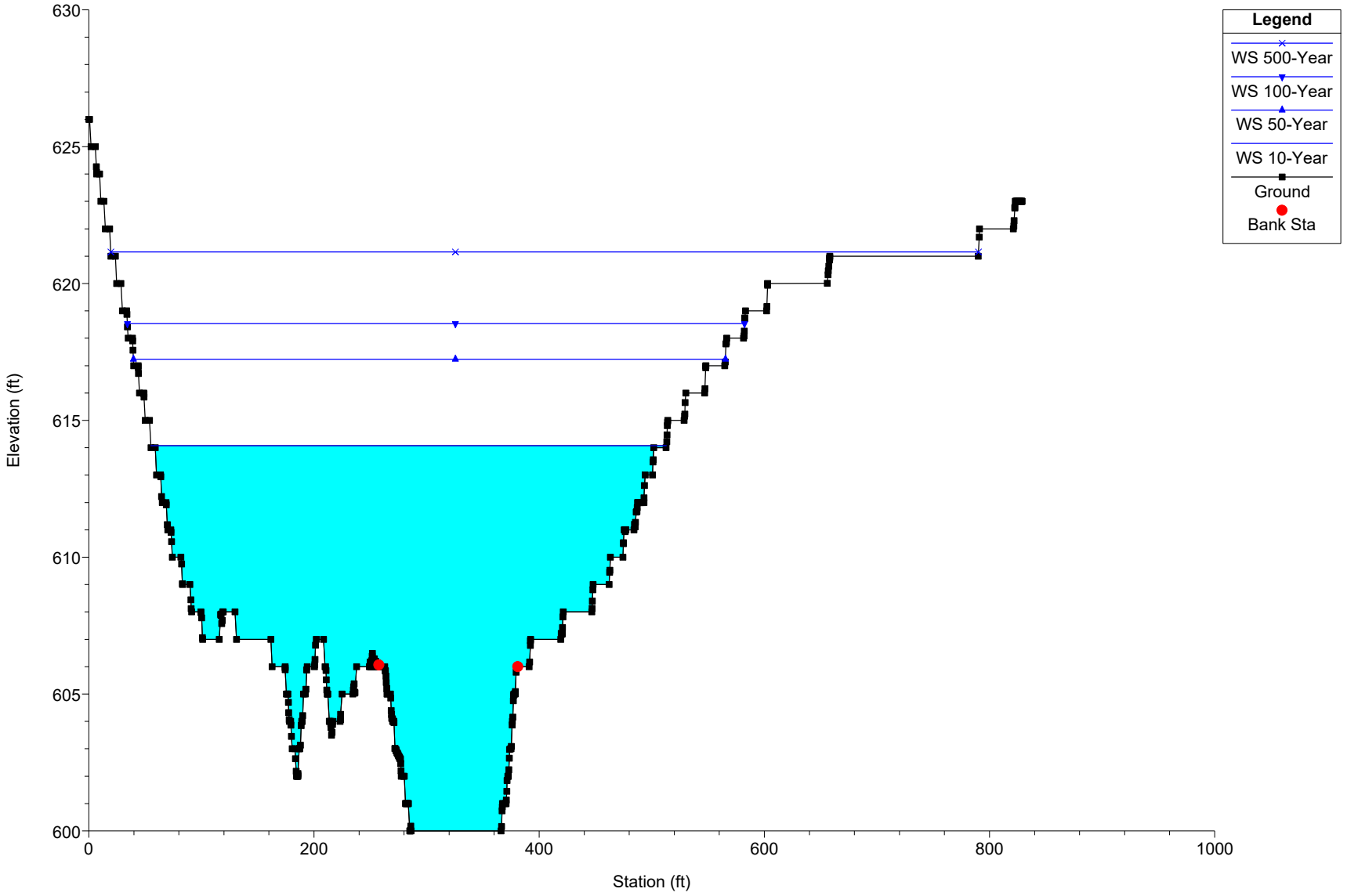
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 62000 Cross Section - 62,000



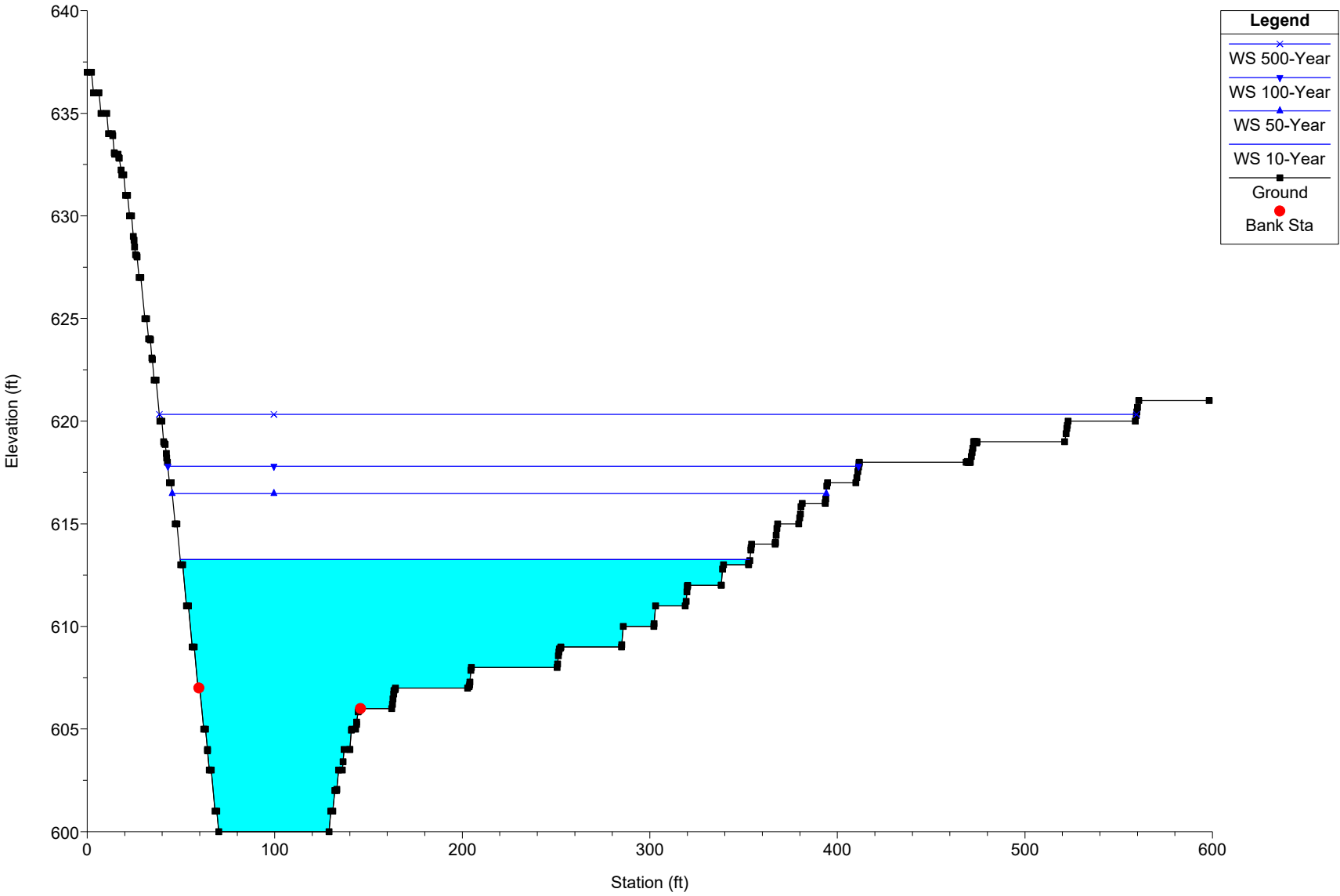
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 61500 Cross Section - 61,500



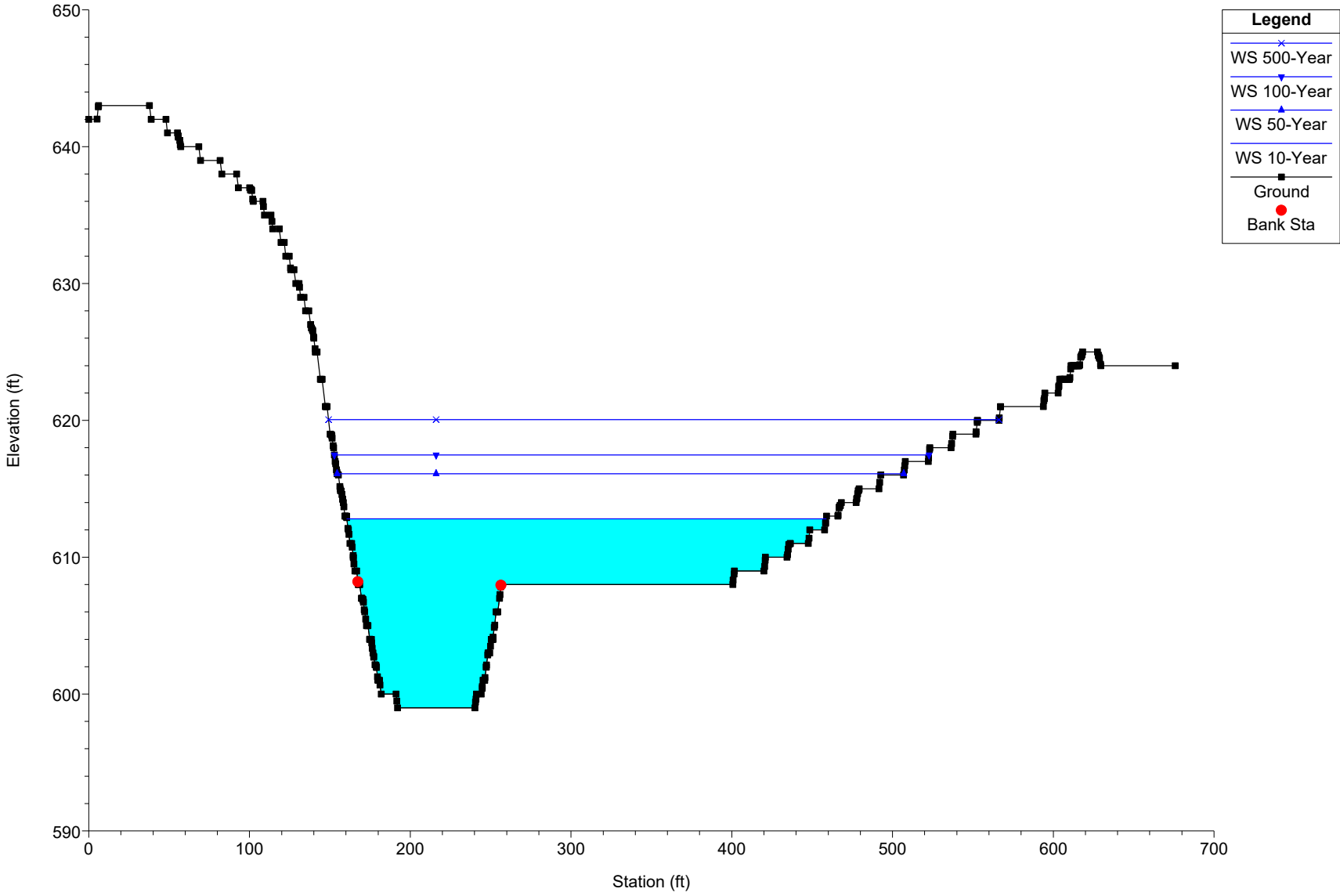
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 61000 Cross Section - 61,000



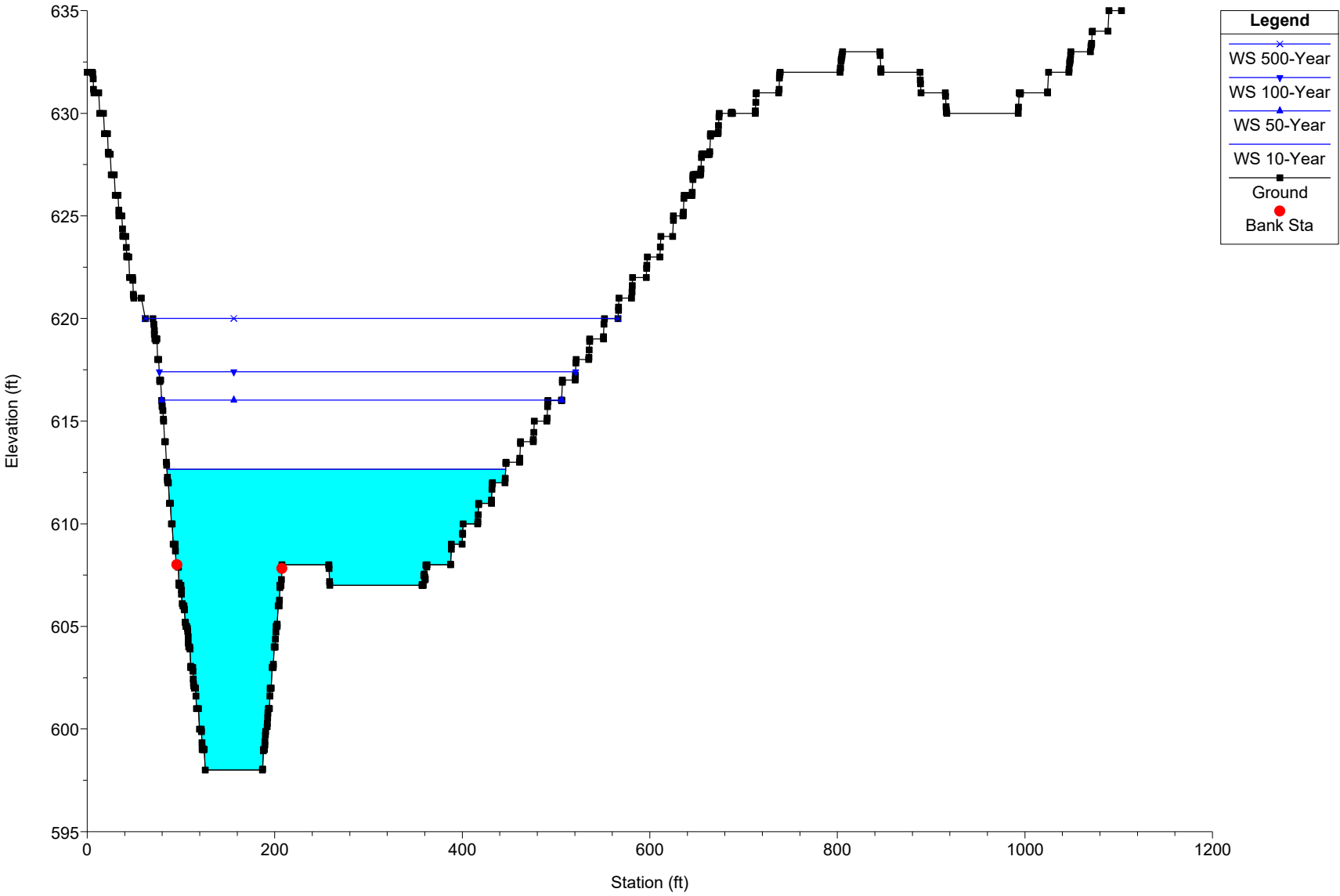
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 60500 Cross Section - 60,500



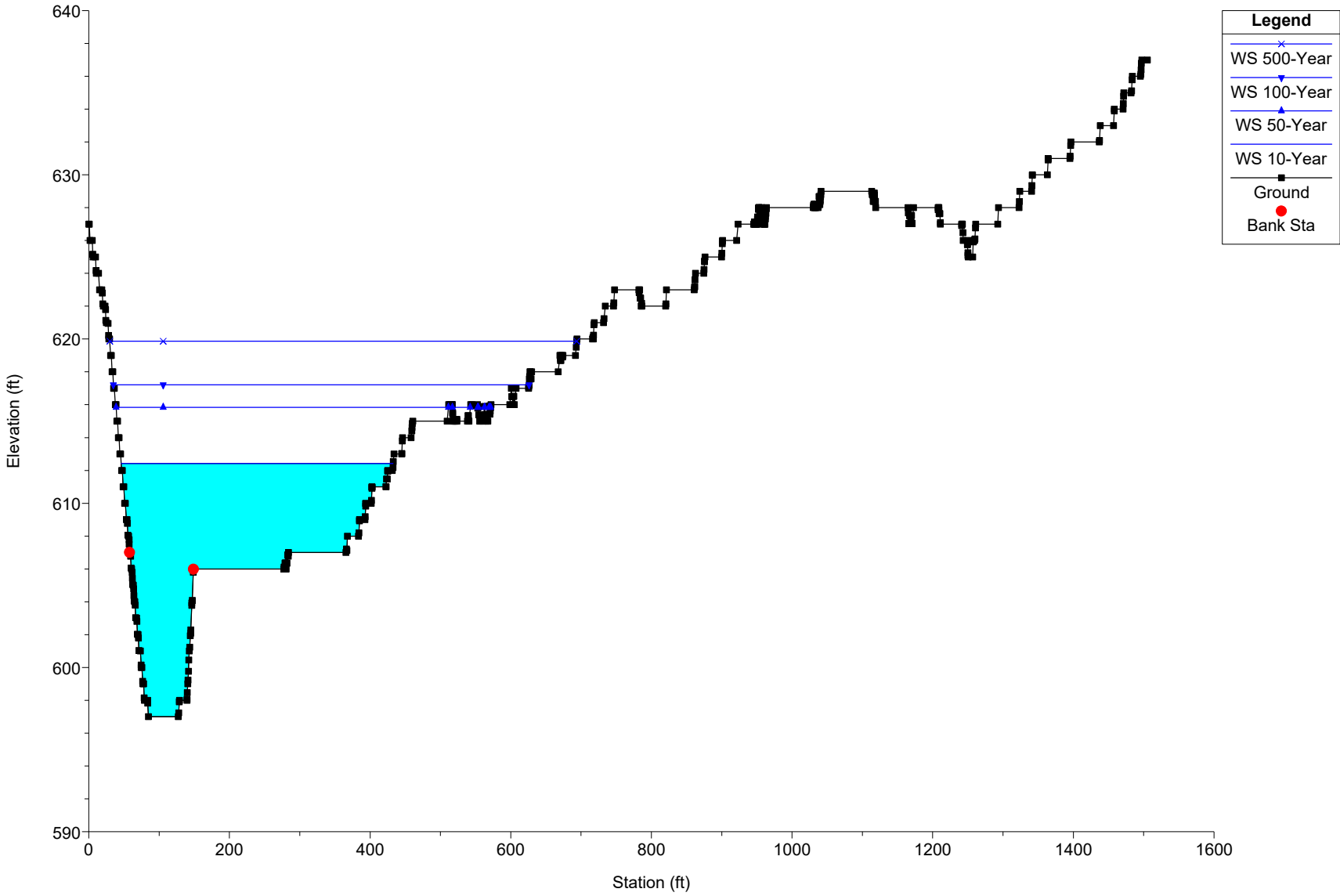
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 60000 Cross Section - 60,000



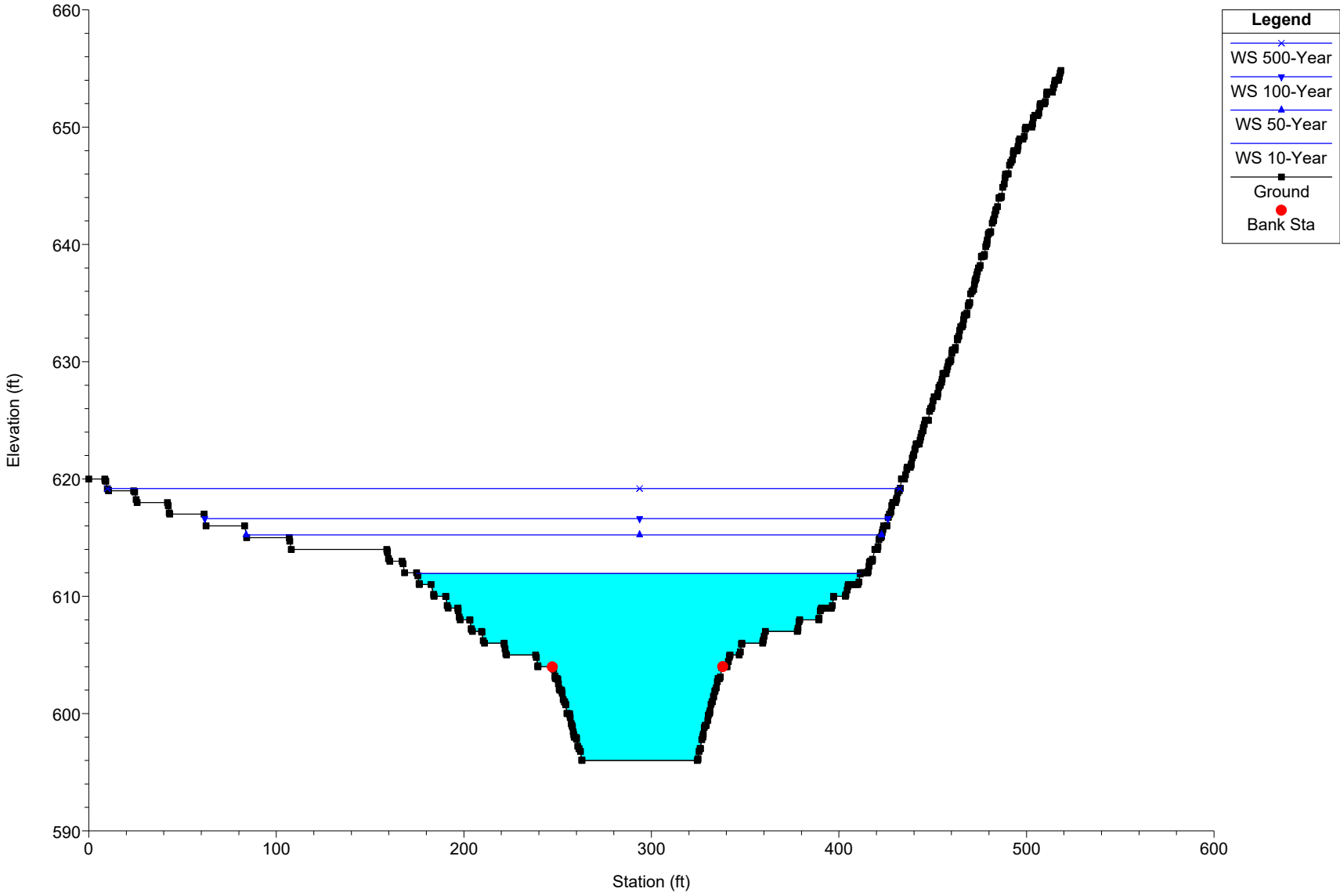
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 59500 Cross Section - 59,500



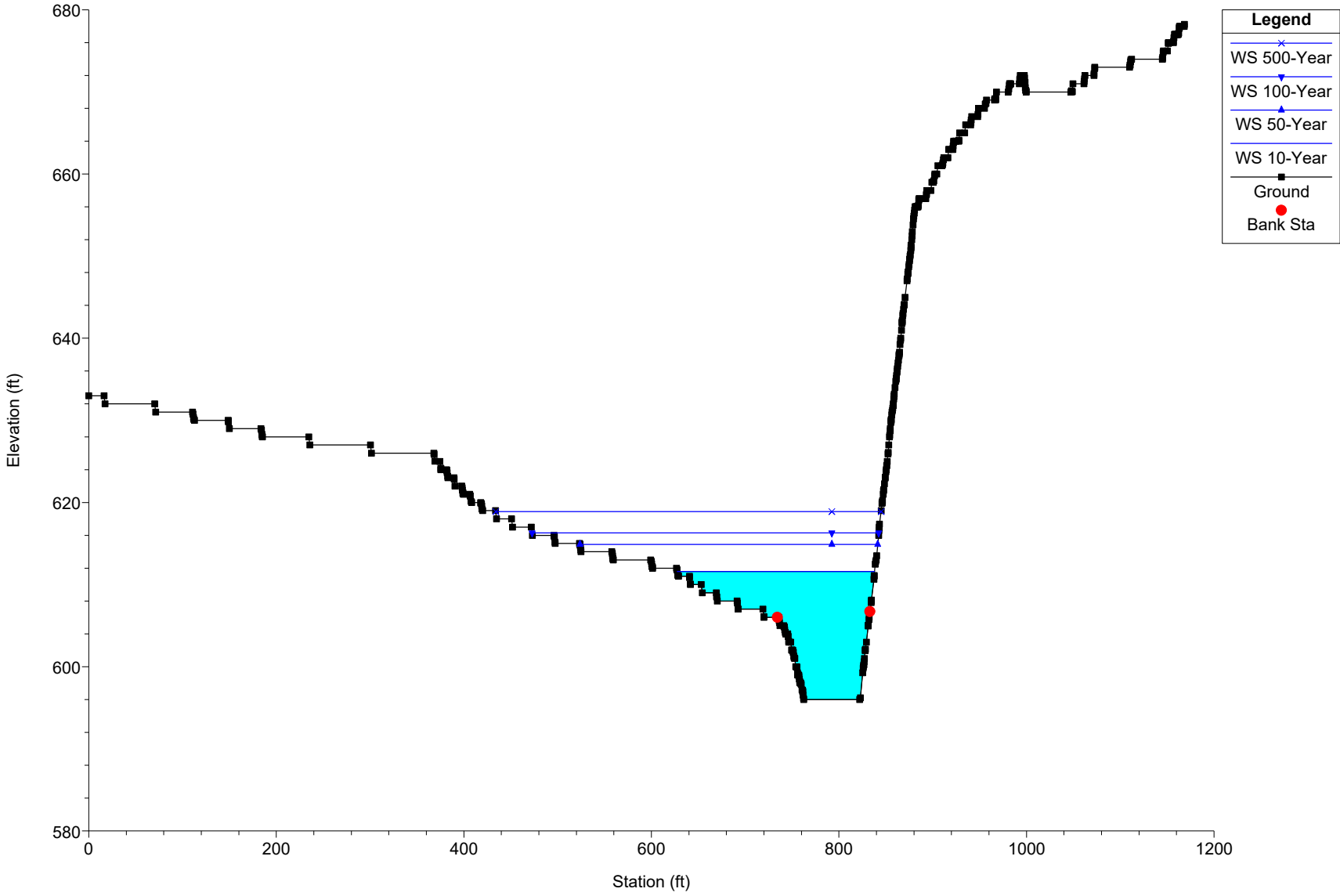
2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 59000 Cross Section - 59,000



2023-07-07-Rutherford Creek-TOTAL Plan: Existing-Final-RE 7/7/2023

RS = 58662 Cross Section - 58,662 (Section U)



HEC-RAS-River River Analysis

(Tabular Results-Existing Conditions Model)

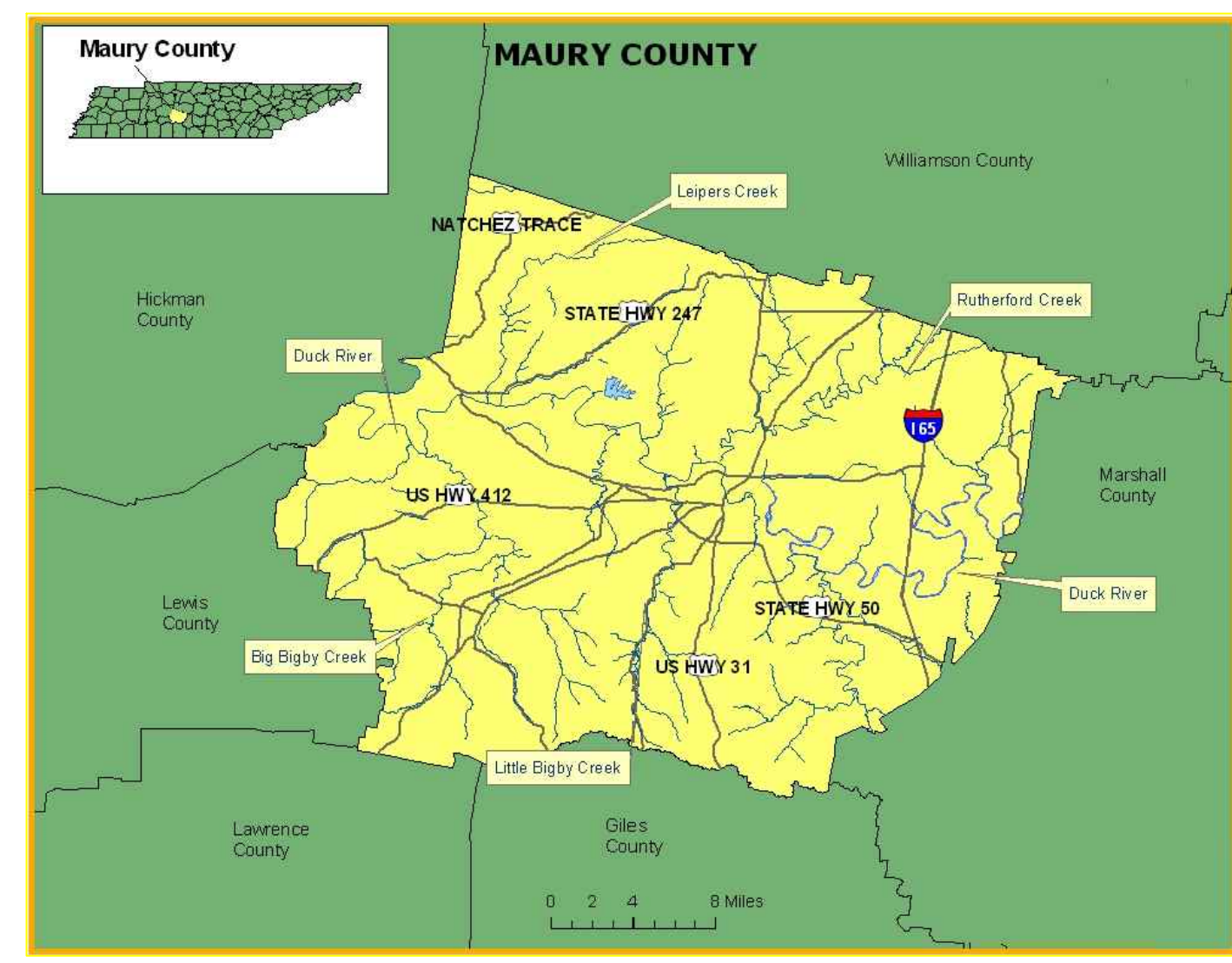
HEC-RAS Plan: Existing-FINAL-RE River: Rutherford Reach: Rutherford

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Rutherford	66500	10-Year	9820.00	608.00	620.04		620.39	0.000595	5.89	3379.58	675.88	0.31
Rutherford	66500	50-Year	14550.00	608.00	622.81		623.09	0.000416	5.70	5415.01	855.31	0.27
Rutherford	66500	100-Year	16690.00	608.00	623.49		623.79	0.000431	5.99	6048.87	971.17	0.27
Rutherford	66500	500-Year	21950.00	608.00	624.99		625.31	0.000446	6.49	7613.14	1086.38	0.28
Rutherford	66000	10-Year	9820.00	608.00	619.43		619.99	0.000887	6.98	2467.99	513.61	0.38
Rutherford	66000	50-Year	14550.00	608.00	622.29		622.80	0.000656	7.04	4359.70	997.61	0.34
Rutherford	66000	100-Year	16690.00	608.00	622.99		623.50	0.000644	7.21	5057.47	1003.00	0.34
Rutherford	66000	500-Year	21950.00	608.00	624.46		625.01	0.000671	7.86	6839.12	1281.76	0.35
Rutherford	65500	10-Year	9820.00	606.00	618.80		619.52	0.000961	7.73	2145.02	350.70	0.39
Rutherford	65500	50-Year	14550.00	606.00	621.82		622.44	0.000726	7.80	4000.56	674.37	0.35
Rutherford	65500	100-Year	16690.00	606.00	622.48		623.13	0.000749	8.15	4517.41	824.09	0.36
Rutherford	65500	500-Year	21950.00	606.00	623.97		624.64	0.000754	8.69	5897.15	982.95	0.37
Rutherford	65000	10-Year	9820.00	606.00	618.15		618.98	0.001163	8.01	1831.08	302.88	0.43
Rutherford	65000	50-Year	14550.00	606.00	621.19		622.02	0.000916	8.38	2995.94	562.61	0.40
Rutherford	65000	100-Year	16690.00	606.00	621.76		622.68	0.000987	8.93	3319.68	565.13	0.41
Rutherford	65000	500-Year	21950.00	606.00	622.88		624.11	0.001242	10.53	4176.05	826.47	0.47
Rutherford	64500	10-Year	9820.00	606.00	617.42		618.34	0.001379	8.19	1758.76	394.46	0.46
Rutherford	64500	50-Year	14550.00	606.00	620.92		621.55	0.000746	7.37	3844.78	797.40	0.36
Rutherford	64500	100-Year	16690.00	606.00	621.49		622.17	0.000792	7.81	4374.20	949.61	0.37
Rutherford	64500	500-Year	21950.00	606.00	622.71		623.46	0.000855	8.58	5622.19	1082.80	0.39
Rutherford	64300	10-Year	9820.00	606.00	617.44		618.01	0.001103	6.76	2442.16	602.19	0.40
Rutherford	64300	50-Year	14550.00	606.00	621.04		621.34	0.000467	5.54	5732.82	1295.24	0.28
Rutherford	64300	100-Year	16690.00	606.00	621.64		621.95	0.000463	5.69	6519.90	1299.83	0.28
Rutherford	64300	500-Year	21950.00	606.00	622.88		623.21	0.000486	6.20	8276.49	1470.10	0.29
Rutherford	64100	10-Year	9820.00	604.00	617.38		617.80	0.000586	5.68	2818.50	593.03	0.31
Rutherford	64100	50-Year	14550.00	604.00	621.00		621.25	0.000299	4.93	6190.74	1152.46	0.23
Rutherford	64100	100-Year	16690.00	604.00	621.55		621.86	0.000357	5.52	6950.33	1387.19	0.25
Rutherford	64100	500-Year	21950.00	604.00	622.80		623.13	0.000373	5.95	8722.32	1436.80	0.26
Rutherford	63900	10-Year	9820.00	604.00	617.25		617.68	0.000627	6.11	3014.77	874.56	0.32
Rutherford	63900	50-Year	14550.00	604.00	620.97		621.18	0.000289	5.01	7318.24	1343.44	0.23
Rutherford	63900	100-Year	16690.00	604.00	621.54		621.77	0.000301	5.24	8110.27	1381.15	0.23
Rutherford	63900	500-Year	21950.00	604.00	622.79		623.03	0.000323	5.70	9861.67	1424.82	0.24
Rutherford	63700	10-Year	9820.00	604.00	615.54	612.22	617.33	0.002076	10.74	917.52	461.19	0.58
Rutherford	63700	50-Year	14550.00	604.00	620.93	614.47	621.12	0.000265	5.02	7598.23	1307.90	0.22
Rutherford	63700	100-Year	16690.00	604.00	621.50	615.40	621.71	0.000280	5.28	8364.28	1349.60	0.23
Rutherford	63700	500-Year	21950.00	604.00	622.73	617.53	622.97	0.000306	5.79	10066.76	1395.22	0.24
Rutherford	63504	10-Year	9820.00	603.00	614.90	611.62	616.84	0.002615	11.15	880.91	82.47	0.60
Rutherford	63504	50-Year	14550.00	603.00	619.71	614.05	620.77	0.001180	9.14	3296.82	1084.98	0.42
Rutherford	63504	100-Year	16690.00	603.00	620.30	615.04	621.35	0.001192	9.42	3963.34	1186.33	0.42
Rutherford	63504	500-Year	21950.00	603.00	621.84	619.98	622.68	0.001002	9.21	5835.48	1232.15	0.40
Rutherford	63497		Bridge									
Rutherford	63490	10-Year	9820.00	603.00	614.47		616.57	0.002996	11.64	843.76	81.64	0.64
Rutherford	63490	50-Year	14550.00	603.00	618.86	614.05	620.11	0.001549	9.82	2944.05	1020.12	0.47
Rutherford	63490	100-Year	16690.00	603.00	617.95	615.04	620.33	0.002999	13.06	2037.43	680.82	0.65
Rutherford	63490	500-Year	21950.00	603.00	621.39		622.19	0.001054	9.09	5798.71	1211.29	0.40
Rutherford	63300	10-Year	9820.00	602.00	614.09	610.96	615.99	0.002176	11.11	902.84	505.16	0.59
Rutherford	63300	50-Year	14550.00	602.00	616.54	613.23	619.30	0.002418	13.40	1110.96	1059.95	0.65
Rutherford	63300	100-Year	16690.00	602.00	618.93	614.20	619.22	0.000406	6.13	7089.73	1162.29	0.27
Rutherford	63300	500-Year	21950.00	602.00	621.61	616.36	621.80	0.000263	5.48	10271.92	1244.39	0.23
Rutherford	63100	10-Year	9820.00	602.00	614.47		615.04	0.000969	6.68	2361.50	768.73	0.38
Rutherford	63100	50-Year	14550.00	602.00	617.55		617.90	0.000504	5.81	4992.53	908.59	0.29
Rutherford	63100	100-Year	16690.00	602.00	618.85		619.14	0.000395	5.50	6253.66	1002.98	0.26
Rutherford	63100	500-Year	21950.00	602.00	621.53		621.74	0.000268	5.10	9878.31	1551.19	0.22
Rutherford	62900	10-Year	9820.00	602.00	614.30		614.84	0.000937	6.55	2596.93	799.70	0.38
Rutherford	62900	50-Year	14550.00	602.00	617.52		617.78	0.000407	5.26	6639.84	1584.91	0.26
Rutherford	62900	100-Year	16690.00	602.00	618.86		619.04	0.000283	4.69	8842.09	1681.26	0.22
Rutherford	62900	500-Year	21950.00	602.00	621.56		621.67	0.000166	4.05	13605.43	1862.77	0.18
Rutherford	62700	10-Year	9820.00	602.00	614.48		614.61	0.000372	3.67	5949.58	1812.48	0.23
Rutherford	62700	50-Year	14550.00	602.00	617.62		617.68	0.000131	2.73	11759.79	1891.30	0.15
Rutherford	62700	100-Year	16690.00	602.00	618.92		618.97	0.000099	2.56	14241.61	1914.72	0.13
Rutherford	62700	500-Year	21950.00	602.00	621.59		621.63	0.000068	2.42	19441.70	1976.61	0.11
Rutherford	62500	10-Year	9820.00	602.00	614.46		614.53	0.000225	3.01	6974.91	1538.47	0.18
Rutherford	62500	50-Year	14550.00	602.00	617.60		617.65	0.000106	2.56	11874.43	1576.98	0.13

HEC-RAS Plan: Existing-FINAL-RE River: Rutherford Reach: Rutherford (Continued)

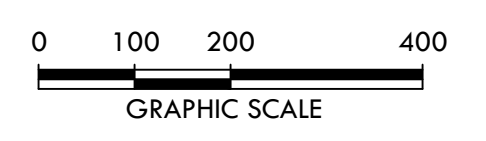
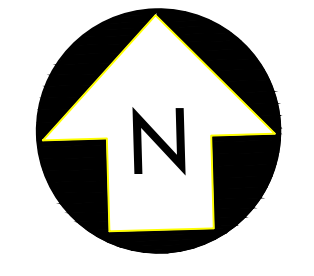
Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Rutherford	62500	100-Year	16690.00	602.00	618.91		618.95	0.000086	2.47	13940.67	1590.13	0.12
Rutherford	62500	500-Year	21950.00	602.00	621.57		621.61	0.000066	2.45	18240.38	1626.35	0.11
Rutherford	62000	10-Year	9820.00	602.00	614.32		614.43	0.000208	3.57	5726.28	893.00	0.18
Rutherford	62000	50-Year	14550.00	602.00	617.49		617.59	0.000142	3.47	8598.22	915.46	0.16
Rutherford	62000	100-Year	16690.00	602.00	618.80		618.89	0.000127	3.47	9803.68	923.05	0.15
Rutherford	62000	500-Year	21950.00	602.00	621.48		621.57	0.000111	3.60	12296.96	940.31	0.15
Rutherford	61500	10-Year	9820.00	600.00	614.08		614.30	0.000271	4.39	3666.28	457.88	0.22
Rutherford	61500	50-Year	14550.00	600.00	617.23		617.48	0.000245	4.83	5193.14	525.79	0.21
Rutherford	61500	100-Year	16690.00	600.00	618.54		618.80	0.000233	4.96	5892.73	548.13	0.21
Rutherford	61500	500-Year	21950.00	600.00	621.15		621.47	0.000243	5.55	7468.81	770.67	0.22
Rutherford	61000	10-Year	9820.00	600.00	613.26		614.01	0.000922	7.64	1976.19	303.72	0.39
Rutherford	61000	50-Year	14550.00	600.00	616.47		617.23	0.000745	8.03	3018.37	348.66	0.36
Rutherford	61000	100-Year	16690.00	600.00	617.80		618.56	0.000687	8.15	3496.98	368.37	0.35
Rutherford	61000	500-Year	21950.00	600.00	620.33		621.22	0.000699	9.03	4650.80	521.04	0.36
Rutherford	60500	10-Year	9820.00	599.00	612.80		613.55	0.000929	7.56	1937.86	298.10	0.38
Rutherford	60500	50-Year	14550.00	599.00	616.11		616.86	0.000740	7.92	2999.16	352.54	0.36
Rutherford	60500	100-Year	16690.00	599.00	617.47		618.21	0.000676	8.01	3489.23	369.90	0.34
Rutherford	60500	500-Year	21950.00	599.00	620.05		620.86	0.000643	8.59	4492.68	417.09	0.34
Rutherford	60000	10-Year	9820.00	598.00	612.66		613.11	0.000540	5.89	2475.88	361.24	0.30
Rutherford	60000	50-Year	14550.00	598.00	616.03		616.49	0.000436	6.22	3792.15	426.43	0.28
Rutherford	60000	100-Year	16690.00	598.00	617.41		617.87	0.000400	6.30	4390.57	443.90	0.27
Rutherford	60000	500-Year	21950.00	598.00	620.01		620.52	0.000387	6.80	5597.23	504.15	0.27
Rutherford	59500	10-Year	9820.00	597.00	612.41		612.84	0.000512	6.01	2727.03	386.65	0.29
Rutherford	59500	50-Year	14550.00	597.00	615.83		616.27	0.000422	6.34	4194.77	515.47	0.27
Rutherford	59500	100-Year	16690.00	597.00	617.21		617.67	0.000409	6.58	4972.85	591.05	0.27
Rutherford	59500	500-Year	21950.00	597.00	619.87		620.31	0.000362	6.79	6652.88	663.95	0.26
Rutherford	59000	10-Year	9820.00	596.00	611.95		612.56	0.000544	6.62	1997.27	236.40	0.31
Rutherford	59000	50-Year	14550.00	596.00	615.23		615.99	0.000545	7.59	2907.67	338.88	0.32
Rutherford	59000	100-Year	16690.00	596.00	616.63		617.40	0.000518	7.78	3398.02	364.31	0.31
Rutherford	59000	500-Year	21950.00	596.00	619.18		620.05	0.000521	8.48	4401.71	422.72	0.32
Rutherford	58662	10-Year	9820.00	596.00	611.60	604.84	612.34	0.000723	7.08	1683.10	210.48	0.34
Rutherford	58662	50-Year	14550.00	596.00	614.90	607.33	615.78	0.000676	7.94	2572.79	317.60	0.34
Rutherford	58662	100-Year	16690.00	596.00	616.30	608.37	617.20	0.000639	8.14	3060.50	369.73	0.34
Rutherford	58662	500-Year	21950.00	596.00	618.90	610.34	619.86	0.000607	8.68	4080.97	411.08	0.34

Existing Conditions Working Drawing

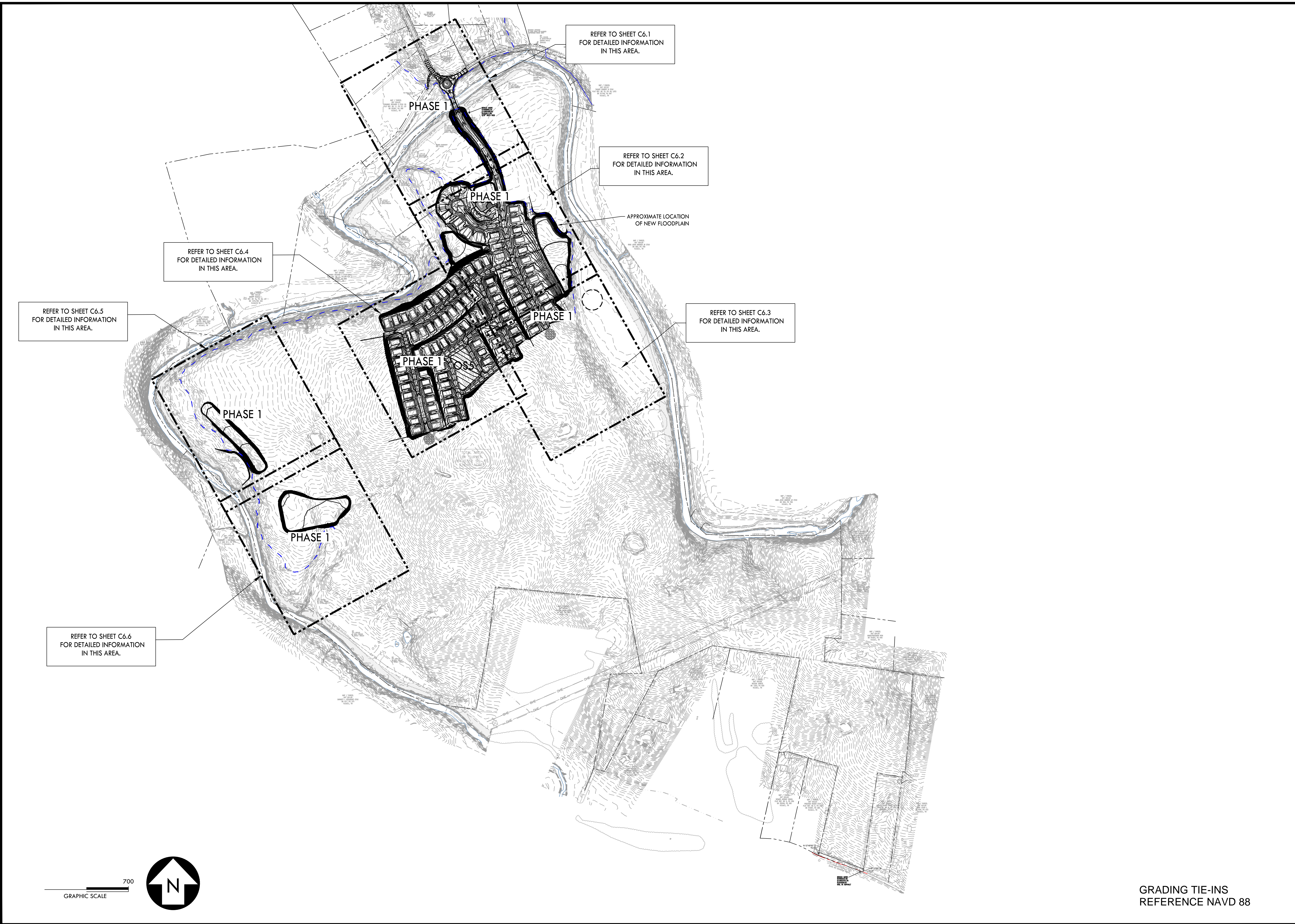


- EXISTING CONDITIONS CROSS SECTIONS
- STREAM CENTERLINE
- - - CONTOUR ELEVATIONS
- EXISTING FLOODWAY
- EXISTING 1 PCT ANNUAL CHANCE FLOOD HAZARD
- EXISTING 0.2 PCT ANNUAL CHANCE FLOOD HAZARD

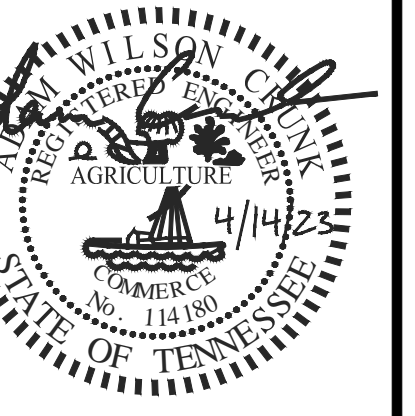
**EXISTING
TOPOGRAPHICAL
WORK MAP
NOVEMBER 16, 2022
VERTICAL DATUM
NAVD 88**



Proposed Grading Plan



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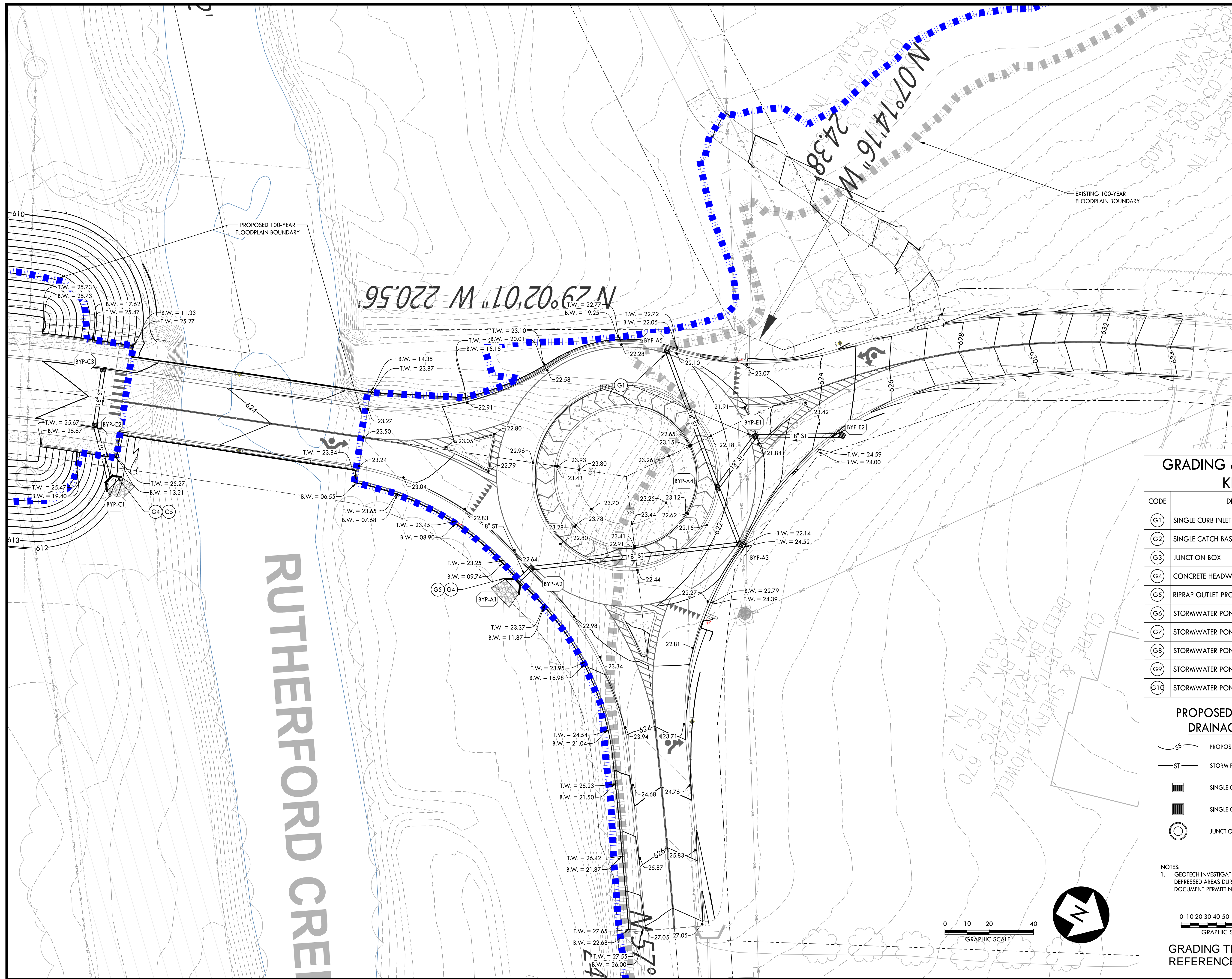
GREENS MILL ROAD
LAND DISTURBANCE PLANS
 COLUMBIA, TENNESSEE

REVISIONS	No.	DATE

04/14/23 17067

C6.0
 OVERALL GRADING
 & DRAINAGE PLAN

GRADING TIE-INS
 REFERENCE NAVD 88



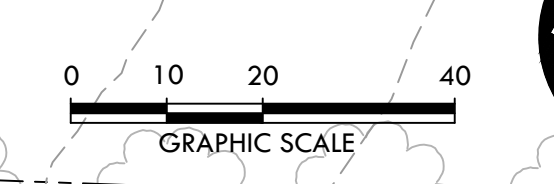
GRADING & DRAINAGE PLAN KEYNOTES

CODE	DESCRIPTION	DETAIL LOCATION
G1	SINGLE CURB INLET	C6.9 - 4
G2	SINGLE CATCH BASIN	C6.9 - 3
G3	JUNCTION BOX	C6.9 - 6
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G6	STORMWATER POND 1 OUTLET STRUCTURE	C6.8 - 1
G7	STORMWATER POND 2 OUTLET STRUCTURE	C6.8 - 3
G8	STORMWATER POND 3 OUTLET STRUCTURE	C6.8 - 2
G9	STORMWATER POND 5 OUTLET STRUCTURE	C6.9 - 1
G10	STORMWATER POND 6 OUTLET STRUCTURE	C6.9 - 2

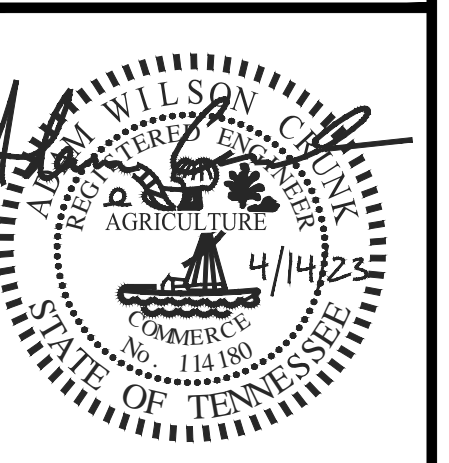
PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

NOTES:
1. GEOTECH INVESTIGATION TO BE PERFORMED ON ALL DEPRESSED AREAS DURING CONSTRUCTION DOCUMENT PERMITTING.



GRADING TIE-INS
REFERENCE NAVD 88



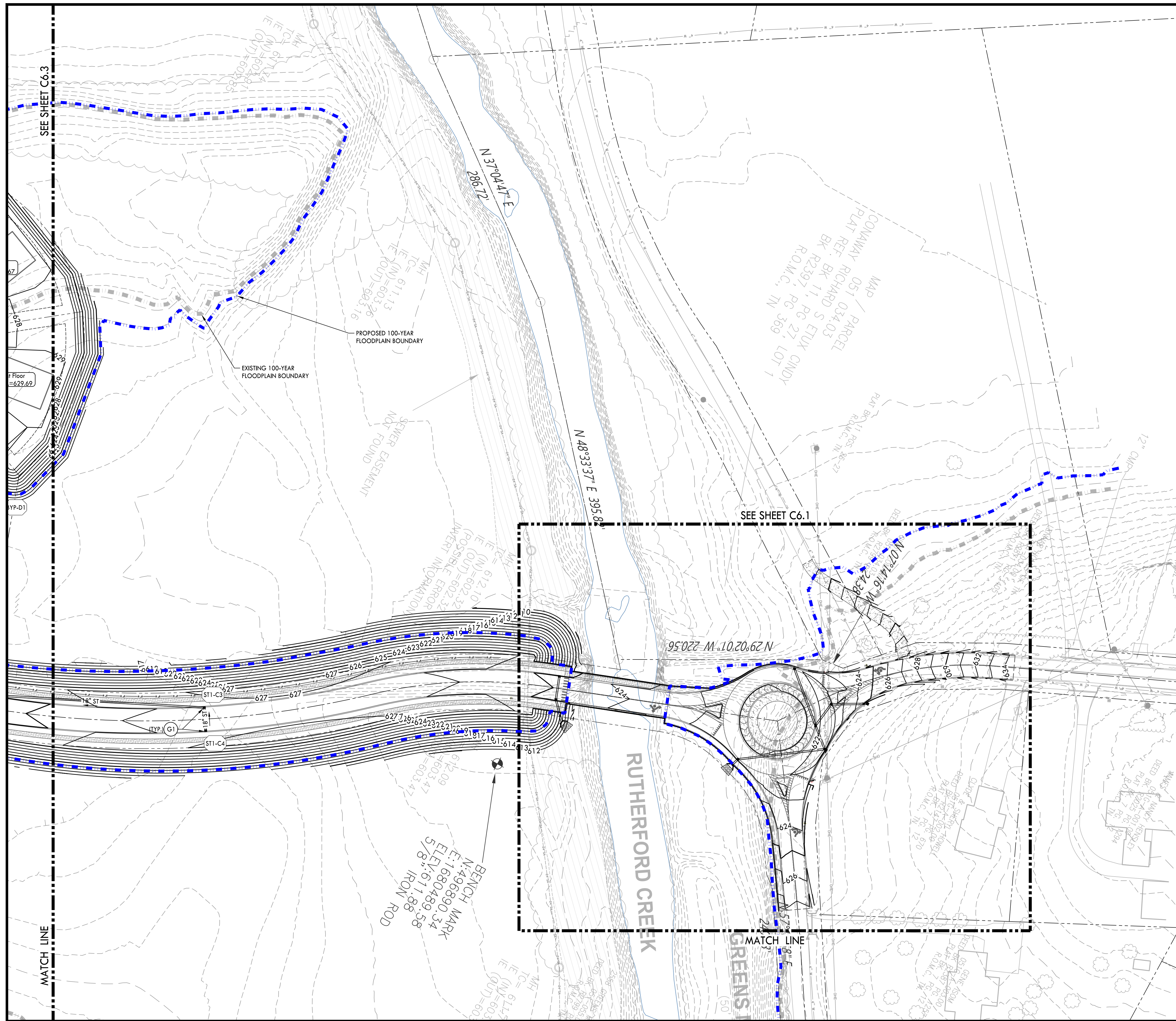
GREENS MILL ROAD LAND DISTURBANCE PLANS COLUMBIA, TENNESSEE

REVISIONS	DATE
No.	

04/14/23 17067

C6.1

ROUNDBOUT
GRADING &
DRAINAGE PLAN



GRADING & DRAINAGE PLAN KEYNOTES

CODE	DESCRIPTION	DETAIL LOCATION
G1	SINGLE CURB INLET	C6.9 - 4
G2	SINGLE CATCH BASIN	C6.9 - 3
G3	JUNCTION BOX	C6.9 - 6
G4	CONCRETE HEADWALL	-
G5	RIPRAP OUTLET PROTECTION	C6.9 - 5
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G9	STORMWATER POND 5 OUTLET STRUCTURE	C6.9 - 1
G10	STORMWATER POND 6 OUTLET STRUCTURE	C6.9 - 2

PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

NOTES:
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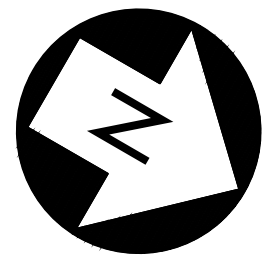
04/14/23 17067

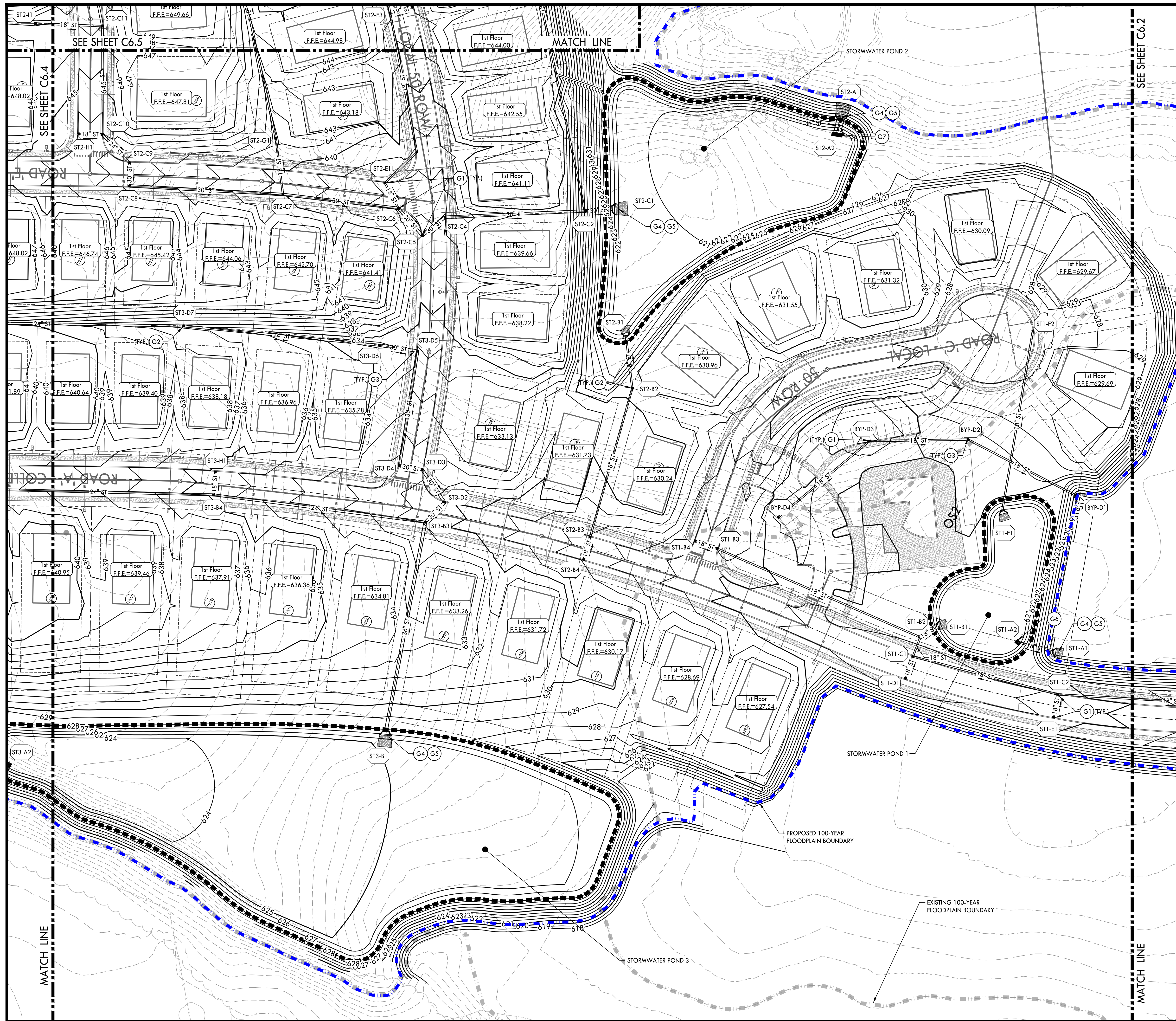
C6.2

GRADING & DRAINAGE PLAN



GRADING TIE-INS
 REFERENCE NAVD 88





GRADING & DRAINAGE PLAN KEYNOTES

CODE	DESCRIPTION	DETAIL LOCATION
G1	SINGLE CURB INLET	C6.9 - 4
G2	SINGLE CATCH BASIN	C6.9 - 3
G3	JUNCTION BOX	C6.9 - 6
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G8	STORMWATER POND 3 OUTLET STRUCTURE	C6.8 - 2
G9	STORMWATER POND 5 OUTLET STRUCTURE	C6.9 - 1
G10	STORMWATER POND 6 OUTLET STRUCTURE	C6.9 - 2

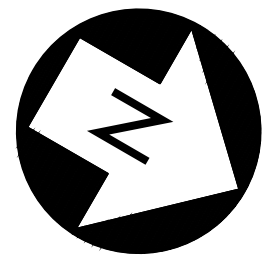
PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

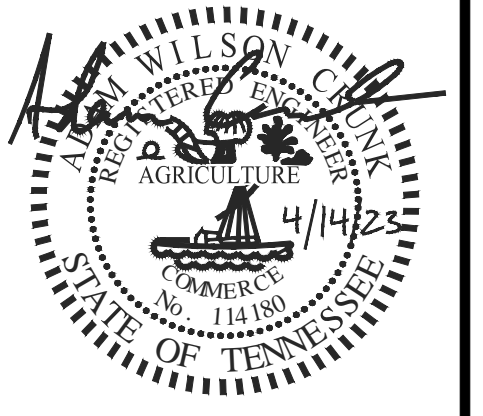
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GRADING TIE-INS
 REFERENCE NAVD 88



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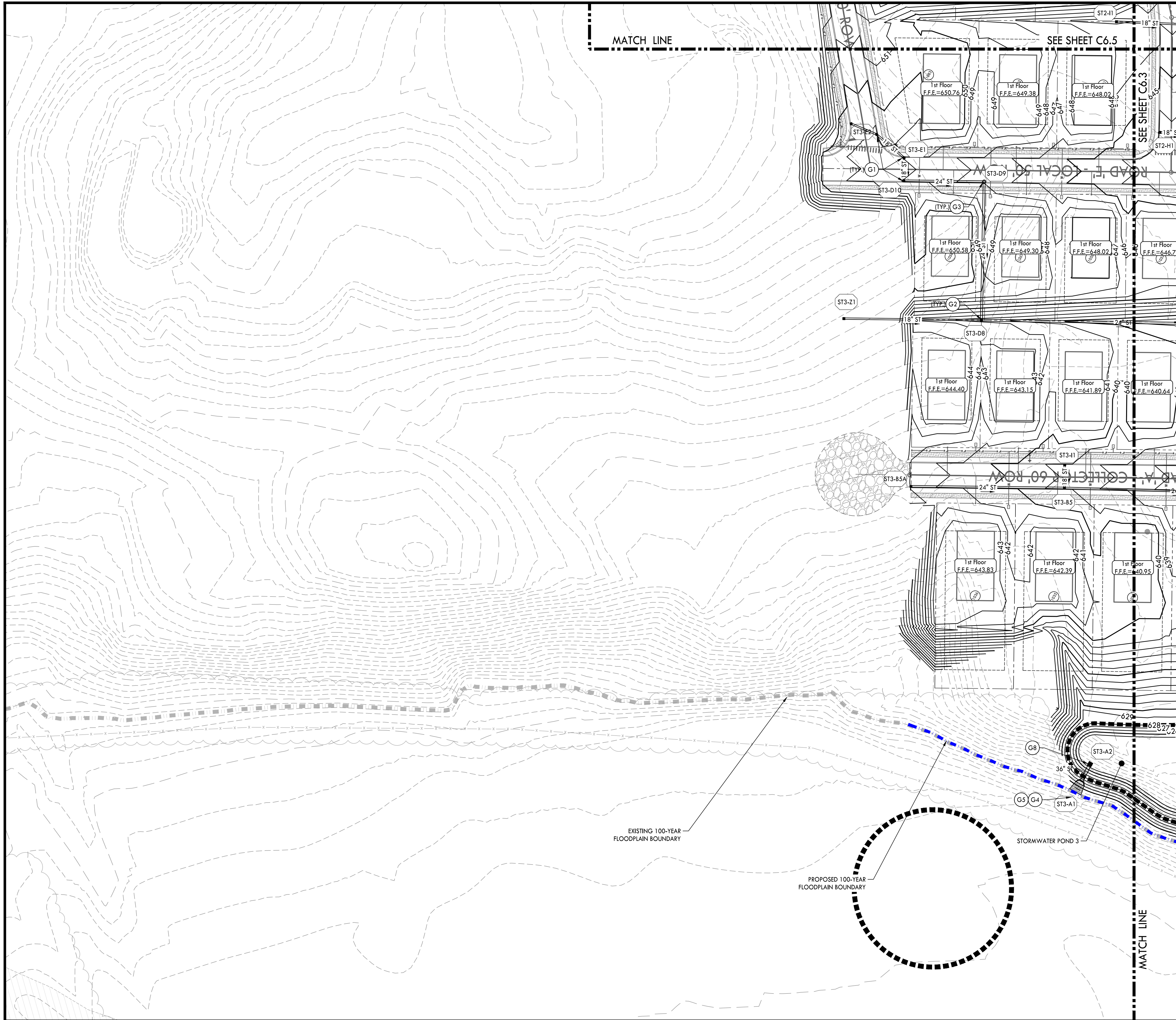
GREENS MILL ROAD LAND DISTURBANCE PLANS COLUMBIA, TENNESSEE

REVISIONS	DATE
No.	

04/14/23 17067

C6.3

GRADING &
 DRAINAGE PLAN



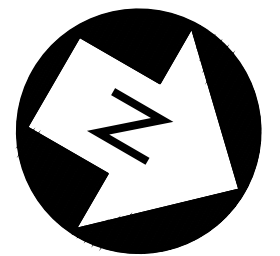
GRADING & DRAINAGE PLAN KEYNOTES

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G1	SINGLE CURB INLET	C6.9 - 4
G2	SINGLE CATCH BASIN	C6.9 - 3
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G10	STORMWATER POND 6 OUTLET STRUCTURE	C6.9 - 2

PROPOSED GRADING & DRAINAGE LEGEND

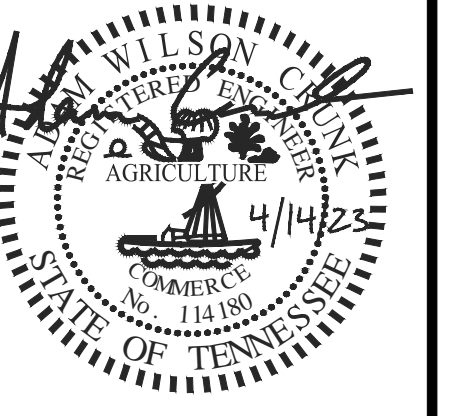
- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

NOTES:
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GRADING TIE-INS
 REFERENCE NAVD 88

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C6.4

GRADING &
 DRAINAGE PLAN



GRADING & DRAINAGE PLAN KEYNOTES

CODE	DESCRIPTION	DETAIL LOCATION
G1	SINGLE CURB INLET	C6.9 - 4
G2	SINGLE CATCH BASIN	C6.9 - 3
G3	JUNCTION BOX	C6.9 - 6
G4	CONCRETE HEADWALL	-
G5	RIPRAP OUTLET PROTECTION	C6.9 - 5
G6	STORMWATER POND 1 OUTLET STRUCTURE	C6.8 - 1
G7	STORMWATER POND 2 OUTLET STRUCTURE	C6.8 - 3
G8	STORMWATER POND 3 OUTLET STRUCTURE	C6.8 - 2
G9	STORMWATER POND 5 OUTLET STRUCTURE	C6.9 - 1
G10	STORMWATER POND 6 OUTLET STRUCTURE	C6.9 - 2

PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

NOTES:
1. GEOTECH INVESTIGATION TO BE PERFORMED ON ALL DEPRESSED AREAS DURING CONSTRUCTION DOCUMENT PERMITTING.

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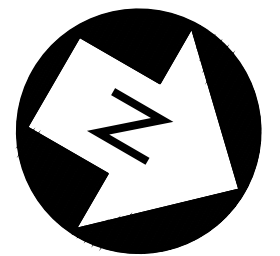
REVISIONS	DATE
No.	

04/14/23 17067

C6.5
GRADING & DRAINAGE PLAN



GRADING TIE-INS
REFERENCE NAVD 88

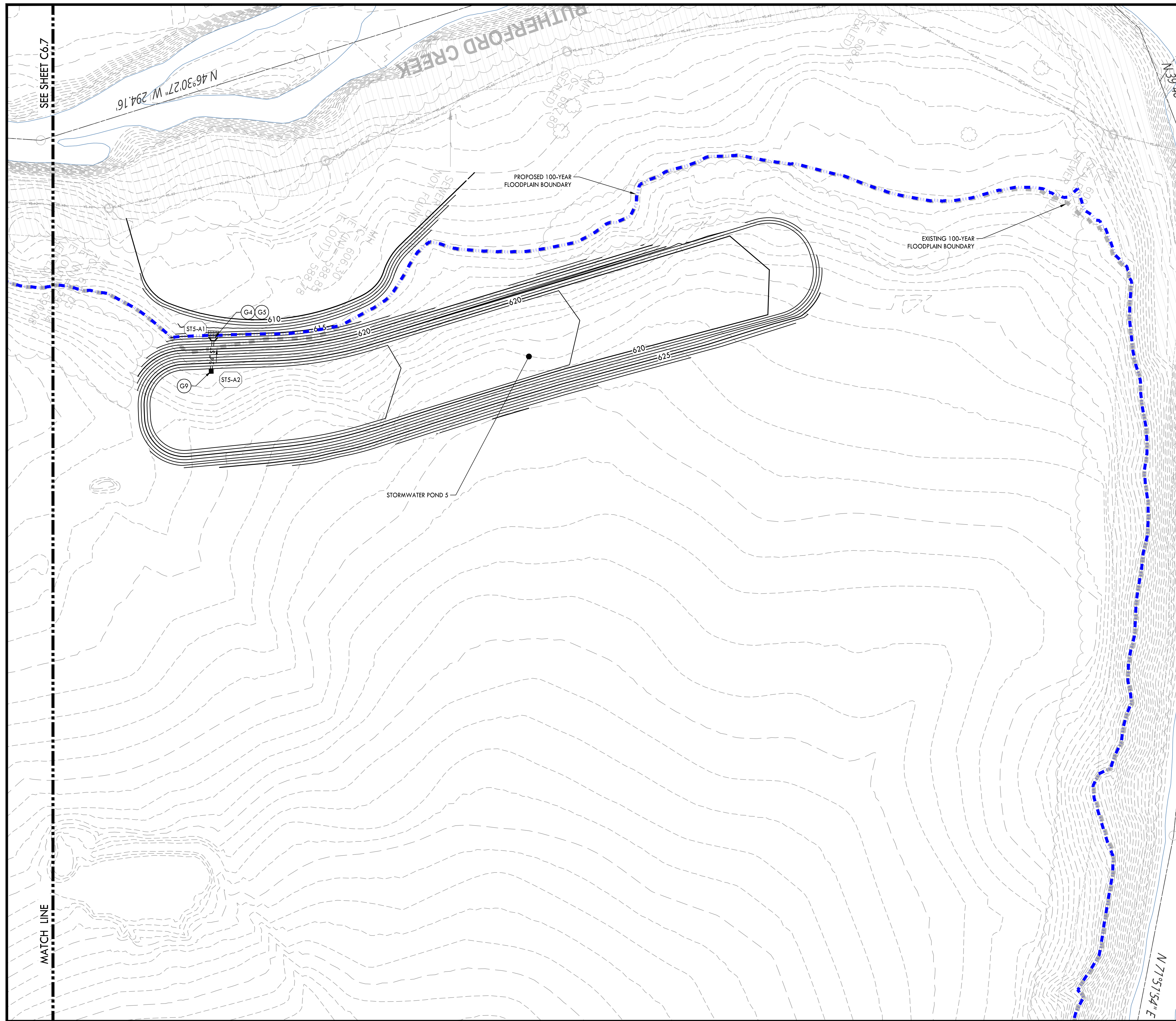


SEE SHEET C6.4

MATCH LINE

SEE SHEET C6.3

MATCH LINE



GRADING & DRAINAGE PLAN KEYNOTES

CODE	DESCRIPTION	DETAIL LOCATION
G1	SINGLE CURB INLET	C6.9 - 4
G2	SINGLE CATCH BASIN	C6.9 - 3
G3	JUNCTION BOX	C6.9 - 6
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G8	STORMWATER POND 3 OUTLET STRUCTURE	C6.8 - 2
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G10	STORMWATER POND 6 OUTLET STRUCTURE	C6.9 - 2

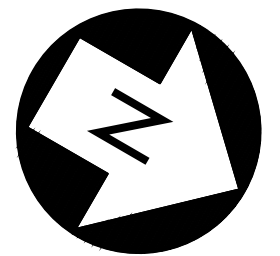
PROPOSED GRADING & DRAINAGE LEGEND

- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

NOTES:
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GRADING TIE-INS
 REFERENCE NAVD 88



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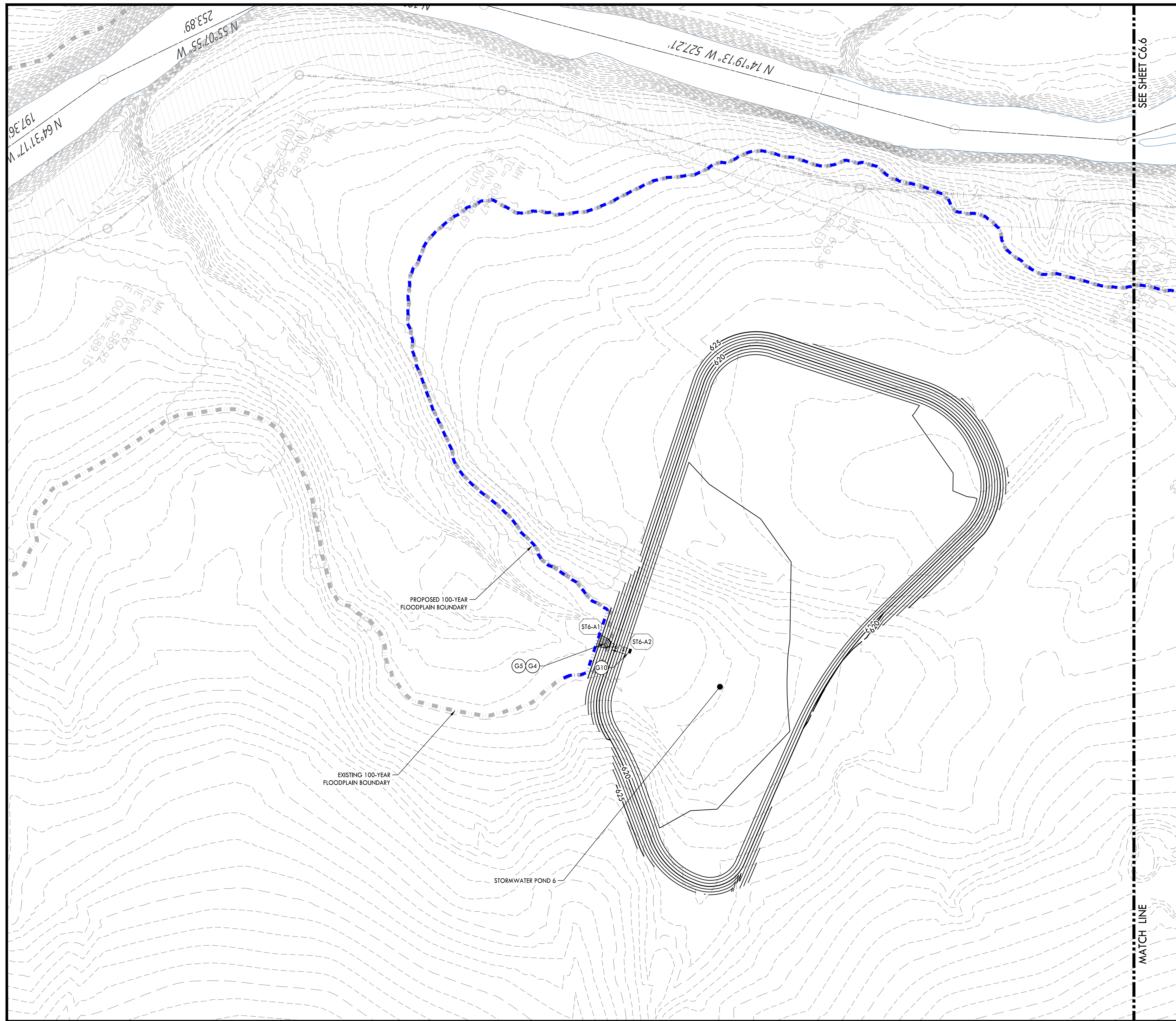
GREENS MILL ROAD LAND DISTURBANCE PLANS COLUMBIA, TENNESSEE

REVISIONS	No.	DATE

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C6.6

GRADING &
 DRAINAGE PLAN



GRADING & DRAINAGE PLAN KEYNOTES

CODE	DESCRIPTION	DETAIL LOCATION
G1	SINGLE CURB INLET	C6.9 - 4
G2	SINGLE CATCH BASIN	C6.9 - 3
G3	JUNCTION BOX	C6.9 - 6
G4	CONCRETE HEADWALL	-
G5	RIPRAP OUTLET PROTECTION	C6.9 - 5
G6	STORMWATER POND 1 OUTLET STRUCTURE	C6.8 - 1
G7	STORMWATER POND 2 OUTLET STRUCTURE	C6.8 - 3
G8	STORMWATER POND 3 OUTLET STRUCTURE	C6.8 - 2
G9	STORMWATER POND 5 OUTLET STRUCTURE	C6.9 - 1
G10	STORMWATER POND 6 OUTLET STRUCTURE	C6.9 - 2

PROPOSED GRADING & DRAINAGE LEGEND

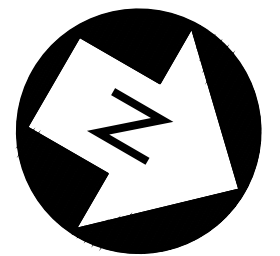
- PROPOSED CONTOUR
- STORM PIPE
- SINGLE CURB INLET
- SINGLE CATCH BASIN
- JUNCTION BOX

NOTES:
 1. GEOTECH INVESTIGATION TO BE PERFORMED ON ALL DEPRESSED AREAS DURING CONSTRUCTION DOCUMENT PERMITTING.

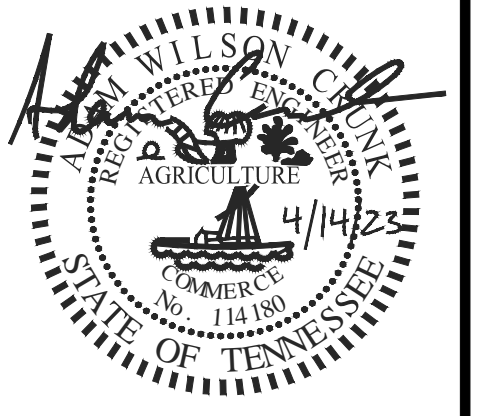
GRADING TIE-INS
 REFERENCE NAVD 88



GRADING TIE-INS
 REFERENCE NAVD 88



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C6.7

GRADING &
 DRAINAGE PLAN

Bridge Data

Reason for Revised Bridge Modeling:

Currently, access from Green Mill Road is provided with a small bridge crossing intended for single family use. The existing crossing will be structurally deficient and inadequately sized to accommodate traffic generated by the proposed development.

Model Used to Analyze the Hydraulics:

HEC-RAS Version 6.1

Model request was made to FEMA. Information issued from request was HEC2 paper copy, dated August 21, 1987. Also received Maury County Flood Study, dated 2007. No computer model was issued.

HEC2 hard copy information has been included here as the “Effective Model.”

Cross section information from HEC2 hard copy was then utilized to develop the required “Duplicate Effective Model”. The resulting WSE(s) were not replicated. HEC2 model was part of an overall study that included all of Rutherford Creek, and the more targeted approach to our study may have varied the results. Further input was deemed unnecessary due to the age of the paper study, and the likelihood that the information was based on topographical data available for the area, in 1987, but not site-specific survey data. Since the area has now been surveyed, updated site data will produce a more accurate model.

The “Corrected Duplicate Model” or “Existing Model” has utilized true Lidar information to create the cross sections associated with the area of interest. The information, as provided, is more detailed and precise. Associated manning’s values from previous study were utilized as part of the new study. In addition, the 100-Year flow data applied was pulled from the Maury County 2007 study, since it was the more recent data provided to our office, and is the 100 Year flow record for FEMA.

The “Corrected Duplicate Model” or “Existing Model” includes the existing bridge. The structure is a 87’4” span bridge, with one center pier.

The “Proposed Model” includes cross sections, as input into the existing model. Proposed roadway data was used to develop the top chord elevations. The proposed bridge is a 105 ft. clear span structure. The structure referenced as 110 ft. for adjustment support. The wider clear span structure results in an overall WSE decrease upstream of the structure, and no change in the cross sections downstream of the proposed bridge improvement.

No. 3

Dimensions – 110 ft. Out to Out Deck with 35 ft. Width

Shape – Rectangular opening created by clear span with no piers

Material – Steel Girder supports with concrete deck

Beveling and Rounding – Beveling associated with abutment supports

Wink Wall Angle – 0°

Skew Angle – 0°

Distance between Cross Sections – 100 ft. Typical

Erosion Protection – Abutments will be poured concrete; Bridge will be clear span. Flow will operate within the channel as it currently exists. No hard armor or erosion control matting proposed.

Low Chord Elevations – 619.39’

Top of Road Elevations – 623.50’

Stream Invert Elevations – 599.94 ft.

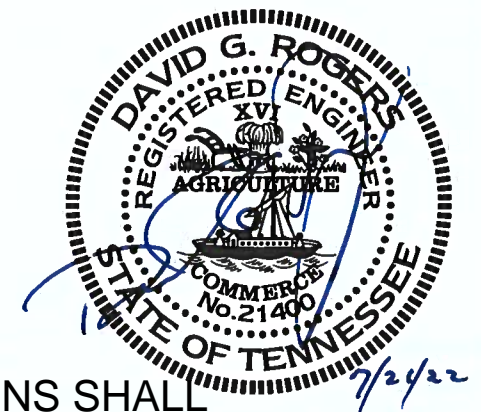
Cross Section Locations – Section 1000 (Existing), Section 1027 (Proposed)

110'-0" x 35'-0"

GREEN MILLS SUBDIVISION BRIDGE

COLUMBIA, TN

REVIEW AND APPROVAL		
APPROVED	APPROVED AS NOTED	REVISE & RESUBMIT
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
REVIEWED BY:		
COMPANY:		
DATE:		
PLEASE CHECK ONE BOX AND ADD COMMENTS AS NEEDED ON APPROPRIATE SHEETS.		



BRIDGE TIE-INS SHALL
BE REFERENCED TO
NAVD 88



I:\MERLIN\PROJECTS\ACTIVELY\66165366\661653-10-BIG R CUSTOM ROLLED GIRDER\DRAWINGS\CONTRACT\661653-10 INITIAL SUBMITTAL.DWG 7/21/2022 3:12 PM

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MARK	DATE	REVISION DESCRIPTION	BY
	7/21/2022	INITIAL SUBMITTAL	TLF

CONTECH
ENGINEERED SOLUTIONS LLC
www.ContechES.com

25581 Hillman Highway Abingdon, VA 24210
800-328-2047 320-345-9126 320-566-3148 FAX



CONTECH
CONTRACT
DRAWING

110'-0" x 35'-0"
GREEN MILLS SUBDIVISION BRIDGE
ROLLED GIRDER - SITE SPECIFIC MODULAR
COLUMBIA, TN

PROJECT No: 661653	SEQ. No: 10	DATE: 7/21/2022
DESIGNED: SLJ	DRAWN: TLF	
CHECKED: SLJ	APPROVED: DGR	
SHEET NO. 1 OF 10		

GENERAL NOTES:

- CONTECH ENGINEERED SOLUTIONS HAS AISC QUALITY CERTIFIED BRIDGE FABRICATION - ADVANCED (MAJOR) WITH A FRACTURE CRITICAL AND COMPLEX COATING ENDORSEMENT.
- DESIGN IS IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9th EDITION 2020 (ABDS)
- MATERIALS (UNLESS NOTED OTHERWISE):
 - STRUCTURAL STEEL: ASTM A588 WEATHERING STEEL
 - ELASTOMERIC PADS: GRADE 4, 60 DUROMETER
 - STRUCTURAL BOLTS: ASTM F3125 GRADE A325 (TYPE 3)
- DESIGN LOADINGS:
 - BRIDGE DEAD LOAD PLUS 25 PSF FUTURE WEARING SURFACE.
 - VEHICLE LIVE LOAD: HL-93, MAX ADTT = 293
 - WIND LOADING PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 3.8:
WIND SPEED = 115 MPH
WIND EXPOSURE CATEGORY = C
MAX HEIGHT OF STRUCTURE = 33 FT.
 - BRIDGE RAIL TO MATCH CALTRANS ST-30 CRASH TESTED RAIL SYSTEM.
 - SEISMIC LOADING PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 3.10. TRANSVERSE LOADS CALCULATED USING THE TRANSVERSE PERIOD OF THE BRIDGE AND LONGITUDINAL LOADS CALCULATED USING A PERIOD OF ZERO. A RESPONSE MODIFICATION FACTOR OF 0.8 IS USED FOR THE CALCULATION OF FORCES APPLIED TO THE BRIDGE ANCHORAGE AND A RESPONSE MODIFICATION FACTOR OF 1.0 IS USED FOR THE CALCULATION OF BEARING REACTIONS. IT SHALL BE THE RESPONSIBILITY OF THE FOUNDATION ENGINEER TO DETERMINE THE FORCES USED FOR THE FOUNDATION DESIGN. SEISMIC PARAMETERS USED ARE AS FOLLOWS:
SITE CLASS: D
PGA = 0.110
S_s = 0.250
S_v = 0.080
PERIOD OF BRIDGE = T_m = 0.084 SEC
- BRIDGE TO BE BUILT TO THE REQUIREMENTS OF AWS D1.5
- ALL SHOP WELDING SHALL USE THE GAS METAL ARC WELDING OR FLUX CORED ARC WELDING PROCESS.
- FINISH:
ALL EXPOSED SURFACES OF STEEL TO BE CLEANED IN ACCORDANCE WITH STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS NO. 7, SSPC-SP7 BRUSH-OFF BLAST CLEANING. EXPOSED SURFACES OF STEEL SHALL BE DEFINED AS THOSE SURFACES SEEN FROM THE DECK OR FROM THE OUTSIDE (AND BOTTOM) OF THE STRUCTURE. ALL OTHER SURFACES TO HAVE STANDARD MILL FINISH.
- ALL BOLTED CONNECTIONS ARE CONSIDERED TO BE PRETENSIONED OR SLIP-CRITICAL CONNECTIONS. ALL BOLTS ARE TO BE PRETENSIONED PER THE REQUIREMENTS OF SECTION 8.2 OF THE SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS BY RCSC.
- ALL BOLTS, NUTS AND WASHERS SHALL BE FURNISHED IN THE AMOUNT OF 5% IN EXCESS OF THE NUMBER REQUIRED FOR EACH SIZE AND LENGTH.
- IF BOLTS DO NOT SMOOTHLY ENGAGE UP TO SNUG-TIGHT, THERE MAY BE AN OBSTRUCTION WITHIN THE THREADS. THE BOLTS SHOULD BE REMOVED, THE THREADS ON THE BOLT AND NUT CLEANED AND RETAPPED IF NECESSARY TO ALLOW SMOOTH INSTALLATION OF THE BOLT. (IF APPLICABLE)
- MAINTENANCE NOTE: CONTECH ENGINEERED SOLUTIONS RECOMMENDS NOT APPLYING DE-ICING OR DUST PROHIBITIVE CHEMICALS OR SALTS TO ANY PART OF THE BRIDGE STRUCTURE. IF DE-ICING OR DUST PROHIBITIVE CHEMICALS OR SALTS ARE APPLIED TO ANY PART OF THE BRIDGE STRUCTURE, CONTECH ENGINEERED SOLUTIONS WILL NOT BE RESPONSIBLE FOR ANY RESULTANT ACCELERATED CORROSION.
- SURFACE WATER DRAINAGE OFF OF THE BRIDGE DECK IS NOT THE RESPONSIBILITY OF CONTECH ENGINEERED SOLUTIONS. IF DECK DRAINS OR ANY OTHER MODIFICATIONS TO THE DECK SYSTEM ARE NEEDED FOR DECK DRAINAGE, THEY MAY BE ADDED, HOWEVER THE DETAILS MUST BE APPROVED BY CONTECH ENGINEERED SOLUTIONS PRIOR TO THE MODIFICATIONS BEING MADE.

CONCRETE NOTES

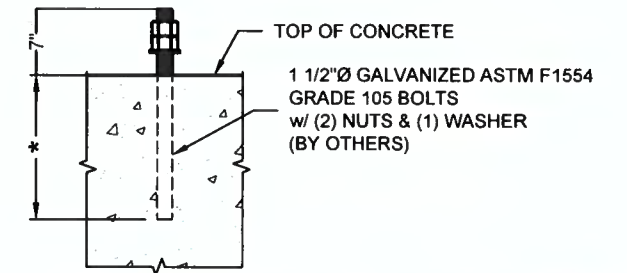
- CONTECH ENGINEERED SOLUTIONS IS RESPONSIBLE FOR THE STRUCTURAL DESIGN OF THE CONCRETE DECK. ALL ISSUES RELATED TO MATERIAL SUPPLY, TESTING AND INSTALLATION ARE OUTSIDE OF CONTECH'S RESPONSIBILITY.
- CONCRETE MIX DESIGN, MATERIALS, MIXING, PLACEMENT, FINISHING AND TESTING SHALL BE IN ACCORDANCE WITH THE PROJECT CONTRACT DOCUMENTS. IF THESE ITEMS ARE NOT COVERED IN THE PROJECT CONTRACT DOCUMENTS THE REQUIREMENTS OF SECTION 552 OF FEDERAL HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP-14) SHALL BE USED. FP-14 CAN BE VIEWED OR DOWNLOADED AT: <http://fh.fhwa.dot.gov/business/resources/specs/>
- MINIMUM MATERIAL REQUIREMENTS:
 - CONCRETE: f_c = 4500 PSI
AIR CONTENT OF 6% +/- 1.5%
UNIT WEIGHT OF 145 PCF MAX
 - REINFORCING: ASTM A615 OR AASHTO M31 GRADE 60
- THE USE OF EPOXY COATED REBAR, GALVANIZED REBAR, DECK SEALERS OR ANY OTHER FORM OF PROTECTION OF THE REBAR SHALL BE DONE AS NEEDED FOR LOCAL CONDITIONS OR AS REQUIRED PER THE PROJECT CONTRACT DOCUMENTS AND IS NOT THE RESPONSIBILITY OF CONTECH ENGINEERED SOLUTIONS.
- THE CONTRACTOR MUST EXERCISE CARE TO CONTROL TRAFFIC AND STORAGE OF MATERIALS ON THE FORM DECK BEFORE CONCRETE IS PLACED.
- INSTALLATION PLANS FOR THE SIP FORM DECKING WILL BE PROVIDED FROM THE SIP FORM DECK SUPPLIER PRIOR TO DELIVERY OF THE BRIDGE.
- LONGITUDINAL BARS MAY BE SPLICED IF REQUIRED. SPLICES SHALL BE STAGGERED EVERY OTHER LONGITUDINAL BAR. REQUIRED SPLICE LENGTHS ARE AS FOLLOWS:

BAR SIZE	NORMAL WEIGHT CONCRETE (145 PCF)	LIGHT WEIGHT CONCRETE (120 PCF)
#4	29"	35"
#5	36"	43"
#6	43"	52"
#7	50"	60"
#8	57"	69"
#9	70"	85"

BEARING REACTION IN KIPS	MAX AT INTERIOR GIRDER			MAX AT EXTERIOR GIRDER			TOTAL AT ABUTMENT		
	P	T	L	P	T	L	P	T	L
DEAD LOAD (DC)	74.24			95.13			487.22		
WEARING SURFACE LOAD (DW)	8.71			0.46			35.75		
HL-93 DESIGN VEHICLE	VEHICLE LOAD (LL)	66.54		40.55			201.56		
	VEHICLE LOAD + DYNAMIC LOAD ALLOWANCE (LL+IM)	80.89		49.29			245.01		
WIND LOAD (WS)	-28.60*	2.75			2.75		-28.60*	16.50	
THERMAL LOAD (TU)			12.64			12.64			75.84
BRAKING FORCE (BR)			6.00			6.00			36.00
SEISMIC LOAD (EQ)		32.46	30.30		32.46	30.30		194.73	181.78

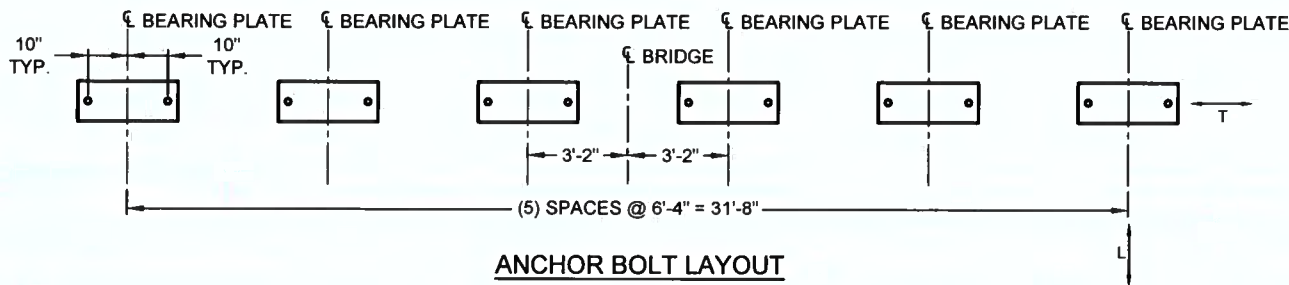
P: VERTICAL LOAD
 T: HORIZONTAL LOAD TRANSVERSE TO THE STRUCTURE
 L: HORIZONTAL LOAD LONGITUDINAL TO THE STRUCTURE
 * WIND LOAD UPLIFT ASSUMES FULL 20 PSF TO DECK AREA IS APPLIED TO ONE GIRDER LINE

LIFTING WEIGHTS			
ITEM	QTY	UNIT WEIGHT (LBS)	TOTAL WEIGHT (LBS)
BRIDGE MODULE #1A & 1C	2	20,540	41,080
BRIDGE MODULE #1B	1	20,360	20,360
BRIDGE MODULE #2A & 2C	2	19,910	39,820
BRIDGE MODULE #2B	1	19,750	19,750
BRIDGE MODULE #3A & 3C	2	20,540	41,080
BRIDGE MODULE #3B	1	20,360	20,360
LOOSE ITEMS	-	-	31,230
TOTAL BRIDGE WEIGHT:			213,680

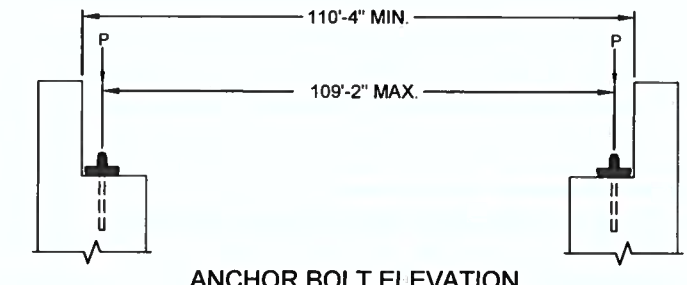


ANCHOR BOLT DETAIL

***NOTE:**
 ANCHOR BOLTS ARE DESIGNED BY CONTECH FOR STEEL STRENGTH IN SHEAR AND TENSION OF THE ANCHOR BOLT ONLY. ALL DESIGN CONSIDERATIONS REGARDING CONCRETE BREAKOUT STRENGTH IN SHEAR AND TENSION, PULLOUT STRENGTH, CONCRETE SIDE-FACE BLOWOUT STRENGTH, CONCRETE PRYOUT STRENGTH, EMBEDMENT DEPTH, TYPE OF ANCHORAGE OR ANY OTHER CONCRETE FAILURE MODES ARE NOT CONSIDERED AND ARE NOT THE RESPONSIBILITY OF CONTECH. IF LARGER DIAMETER BOLTS ARE REQUIRED TO MEET ANY OF THESE REQUIREMENTS, THAT INFORMATION MUST BE PROVIDED TO CONTECH PRIOR TO BEGINNING ANY FABRICATION ON THE BRIDGE.



ANCHOR BOLT LAYOUT



ANCHOR BOLT ELEVATION

BRIDGE TIE-INS SHALL BE REFERENCED TO NAVD 88

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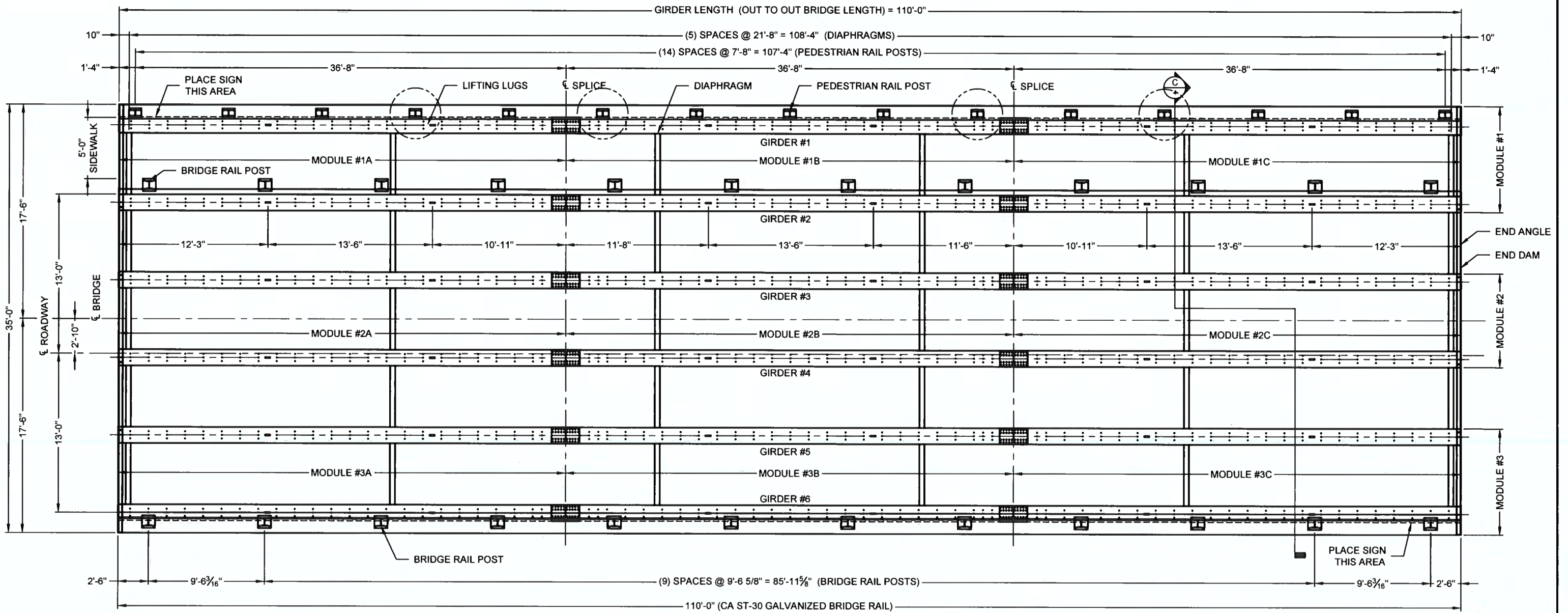
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BIG R
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 CONTECH CONTRACT DRAWING

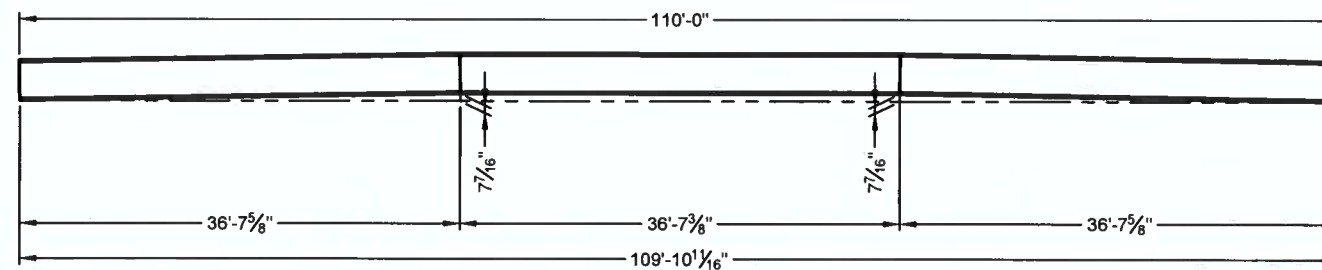
110'-0" x 35'-0"
 GREEN MILLS SUBDIVISION BRIDGE
 ROLLED GIRDER - SITE SPECIFIC MODULAR
 COLUMBIA, TN

PROJECT No.: 661653	SEQ. No.: 10	DATE: 7/21/2022
DESIGNED: SLJ	DRAWN: TLF	
CHECKED: SLJ	APPROVED: DGR	
SHEET NO.: 2		OF 10

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FRAMING PLAN



MEMBERS	DESCRIPTION
GIRDER	W 40x249
S.I.P. BRIDGE DECKING	DMAC 2x9 22 GA. (45") G165
S.I.P. DECKING SUPPORT	L3x2x10 GA. GALV.
DIAPHRAGM	W 21x44
SIDE DAM	∠ 1/4"
END ANGLE	L 4x4x3/8
END DAM	∠ 1/4"x 9"

BRIDGE TIE-INS SHALL
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NAVD 88



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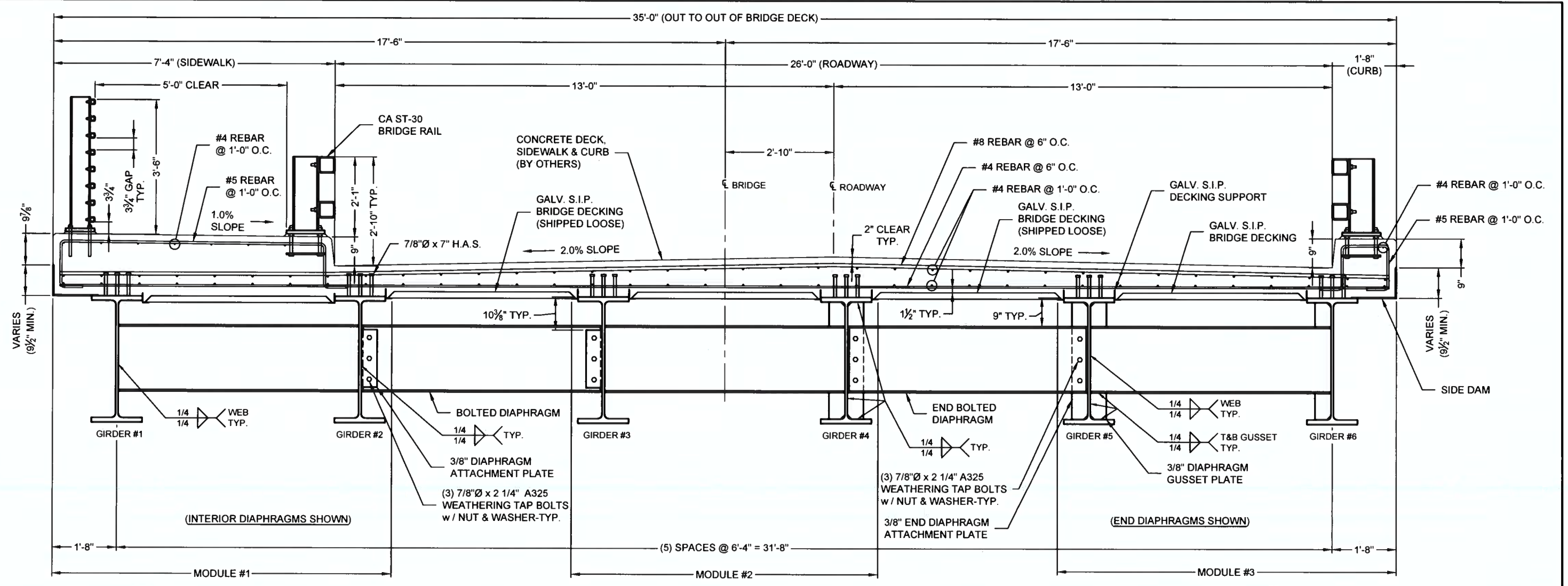
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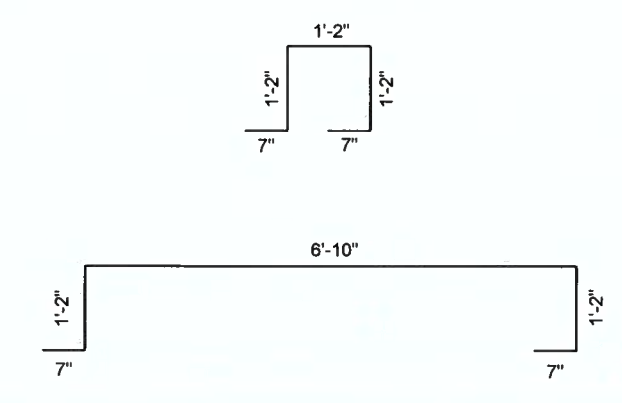
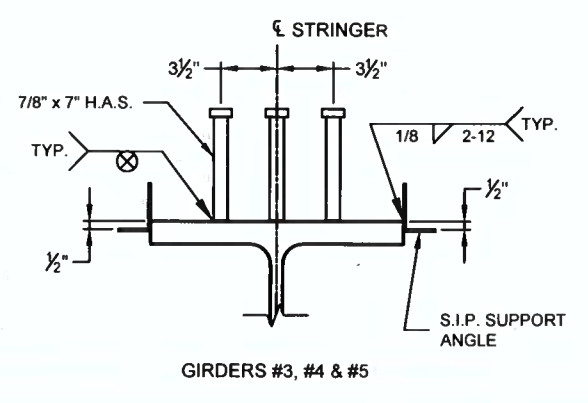
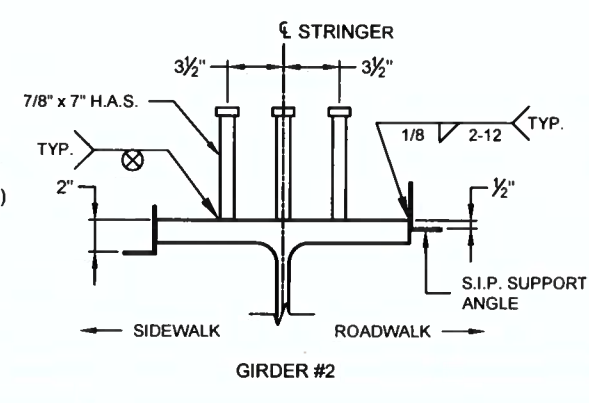
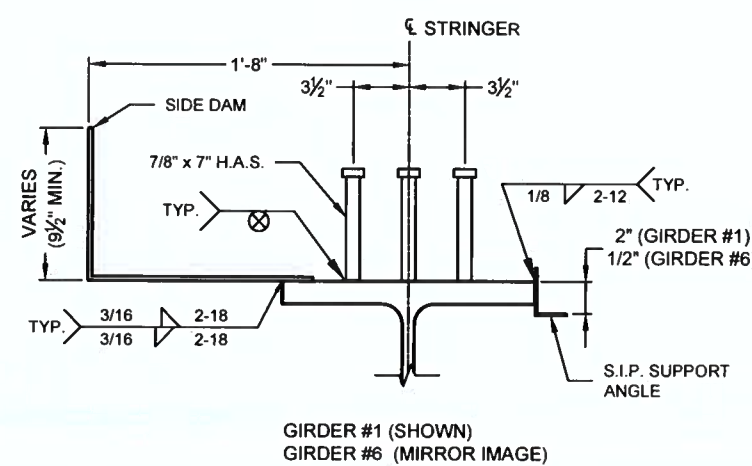
110'-0" x 35'-0"
GREEN MILLS SUBDIVISION BRIDGE
ROLLED GIRDER - SITE SPECIFIC MODULAR
COLUMBIA, TN

PROJECT No.: 661653	SEQ. No.: 10	DATE: 7/21/2022
DESIGNED: SLJ	DRAWN: TLF	
CHECKED: SLJ	APPROVED: DGR	
SHEET No.: 3 OF 10		

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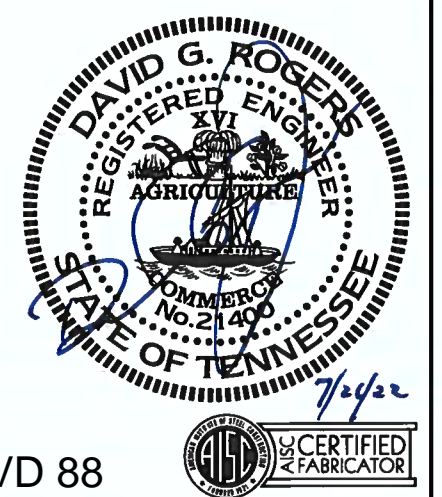
SECTION A



GIRDER DETAILS

BENT REBAR DETAIL

BRIDGE TIE-INS SHALL BE REFERENCED TO NAVD 88



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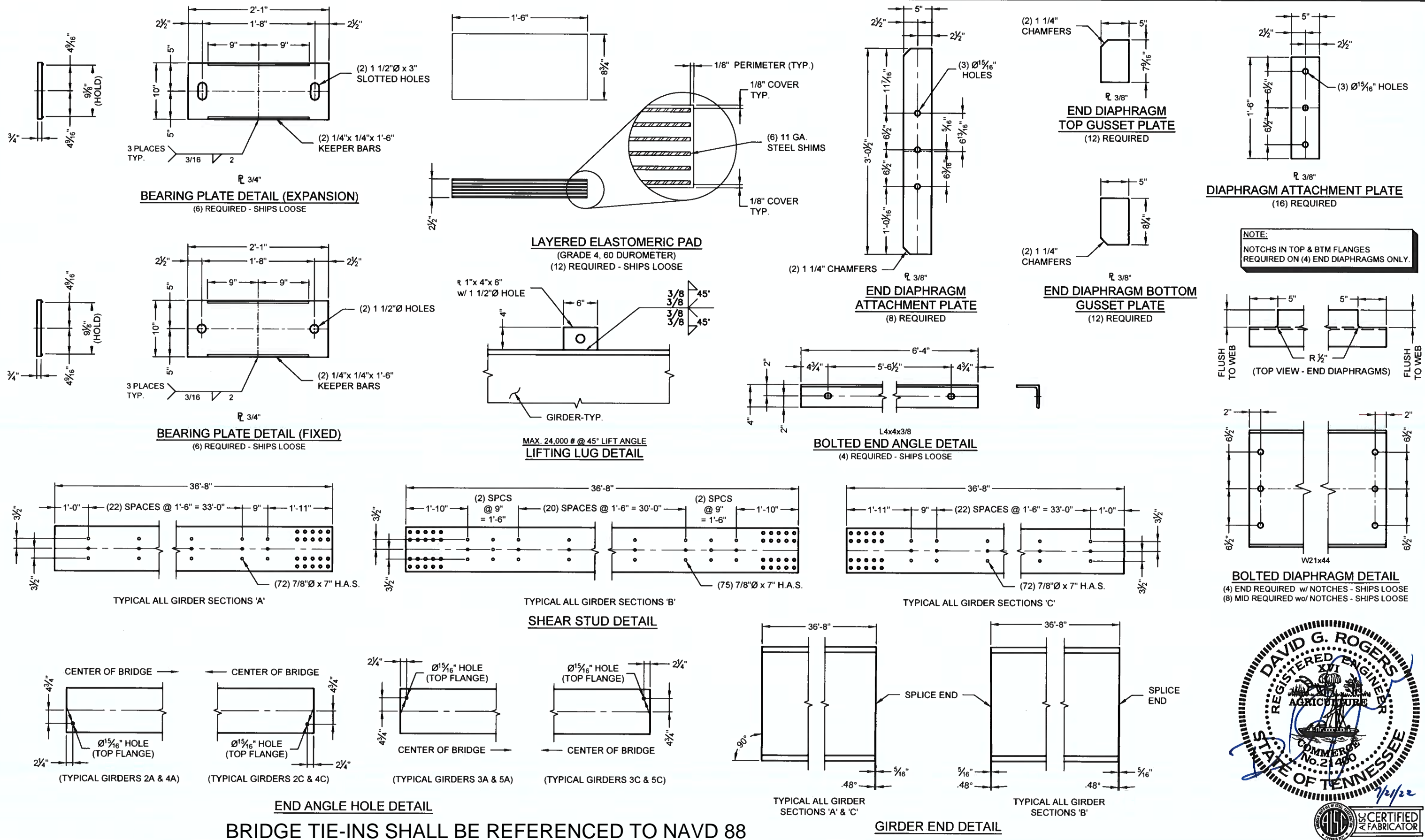
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110'-0" x 35'-0"
GREEN MILLS SUBDIVISION BRIDGE
ROLLED GIRDER - SITE SPECIFIC MODULAR
COLUMBIA, TN

PROJECT No.	SEQ. No.	DATE
661653	10	7/21/2022
DESIGNED: SLJ	DRAWN: TLF	
CHECKED: SLJ	APPROVED: DGR	
SHEET NO.:	4 OF 10	

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NOTE:
 NOTCHES IN TOP & BTM FLANGES
 REQUIRED ON (4) END DIAPHRAGMS ONLY.



BRIDGE TIE-INS SHALL BE REFERENCED TO NAVD 88

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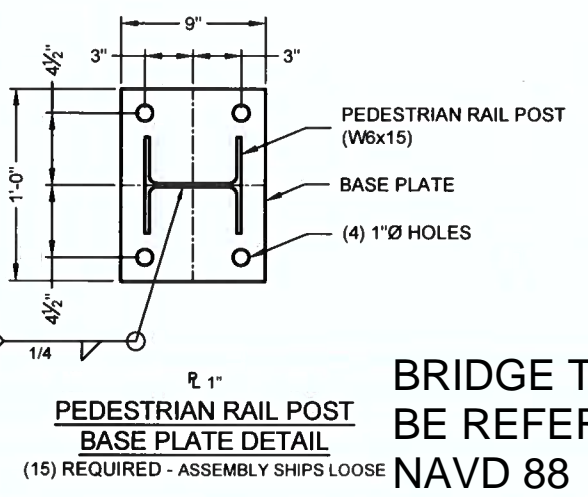
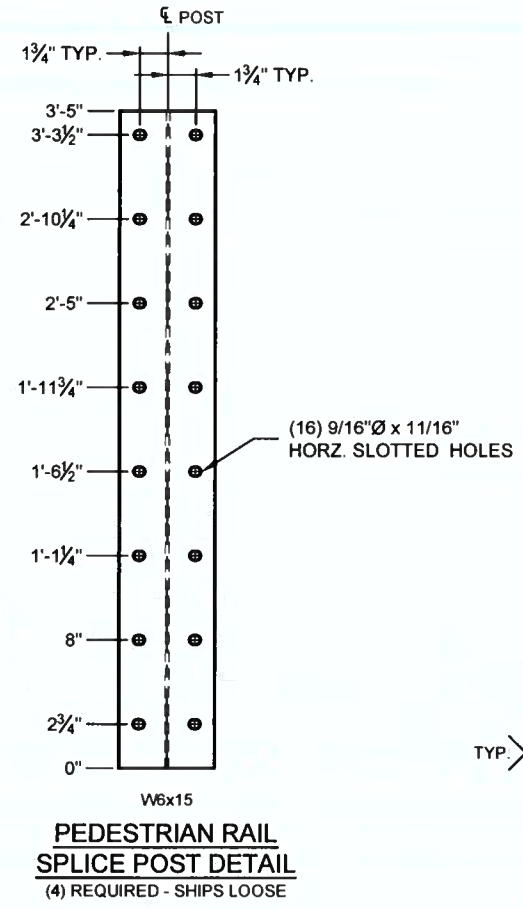
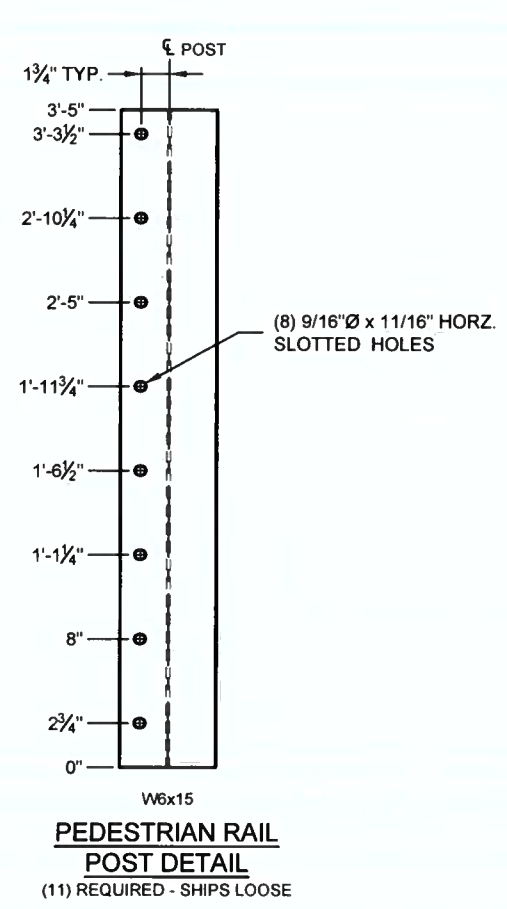
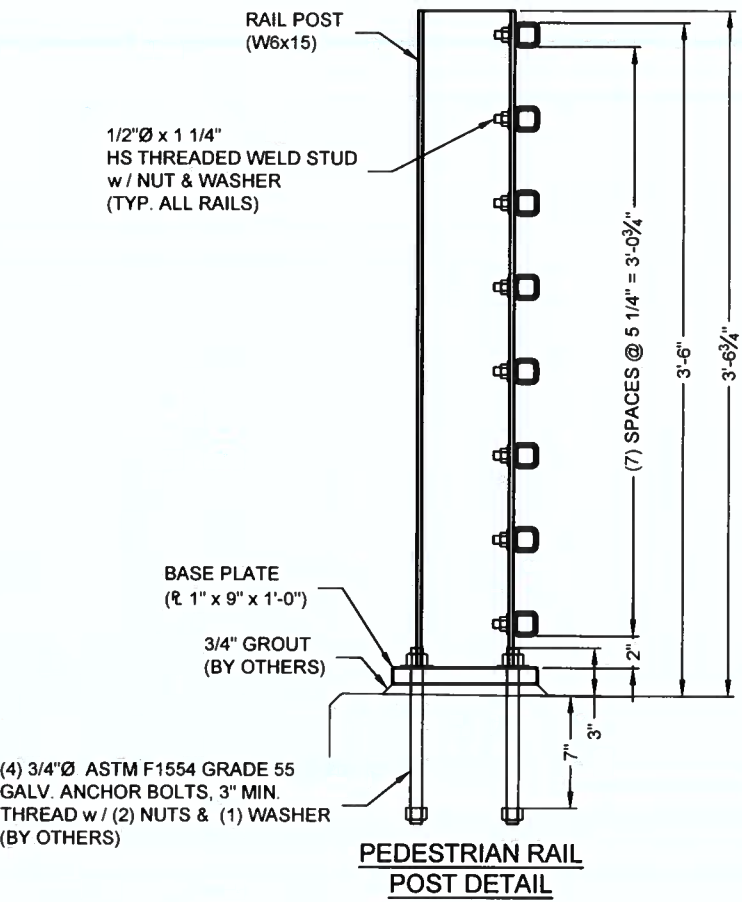
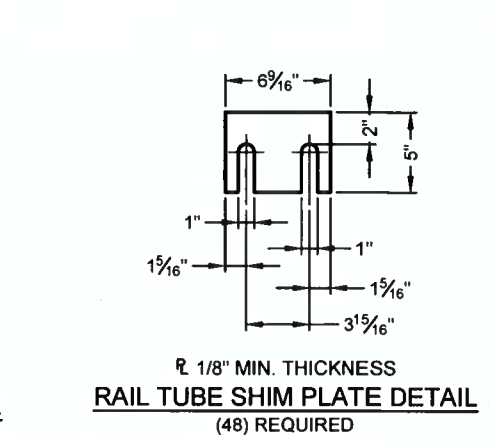
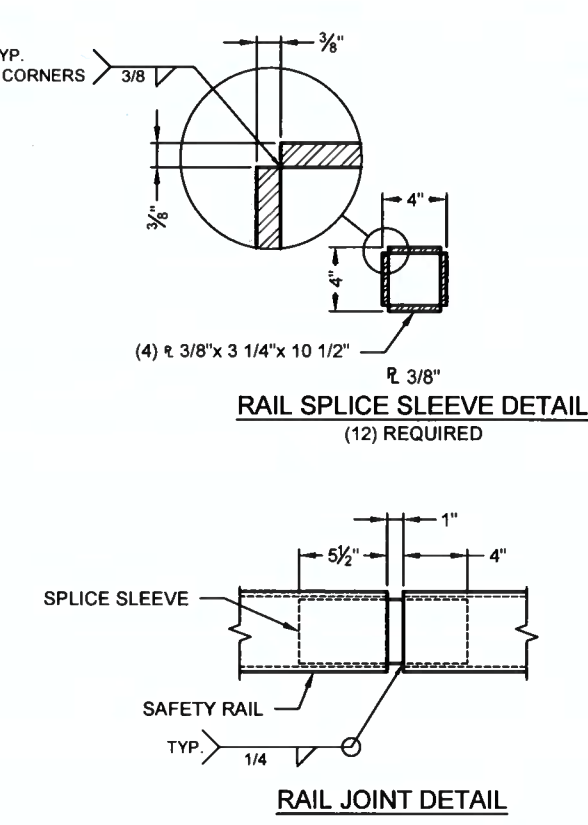
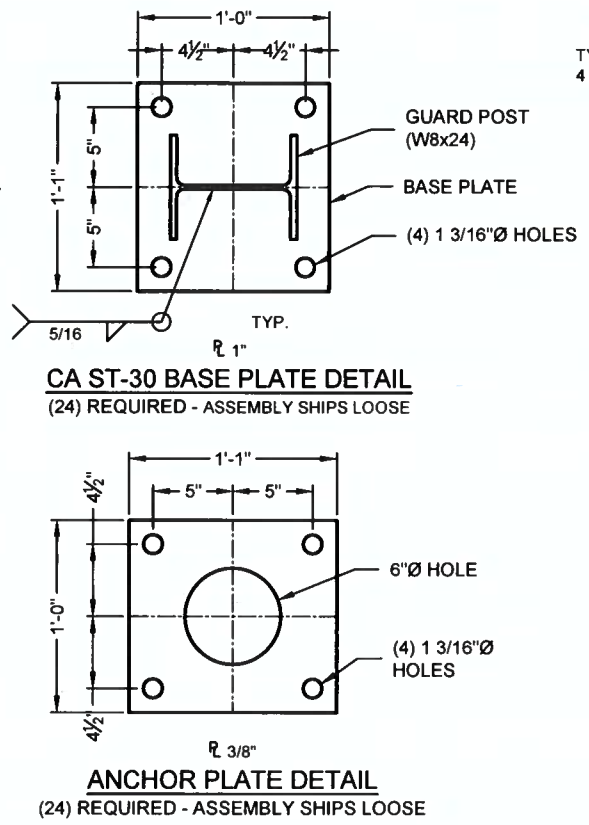
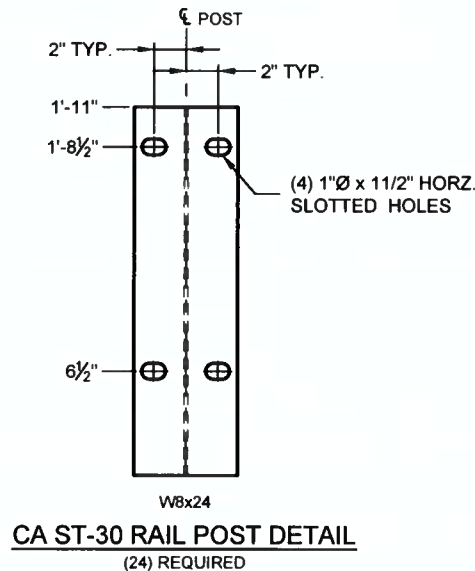
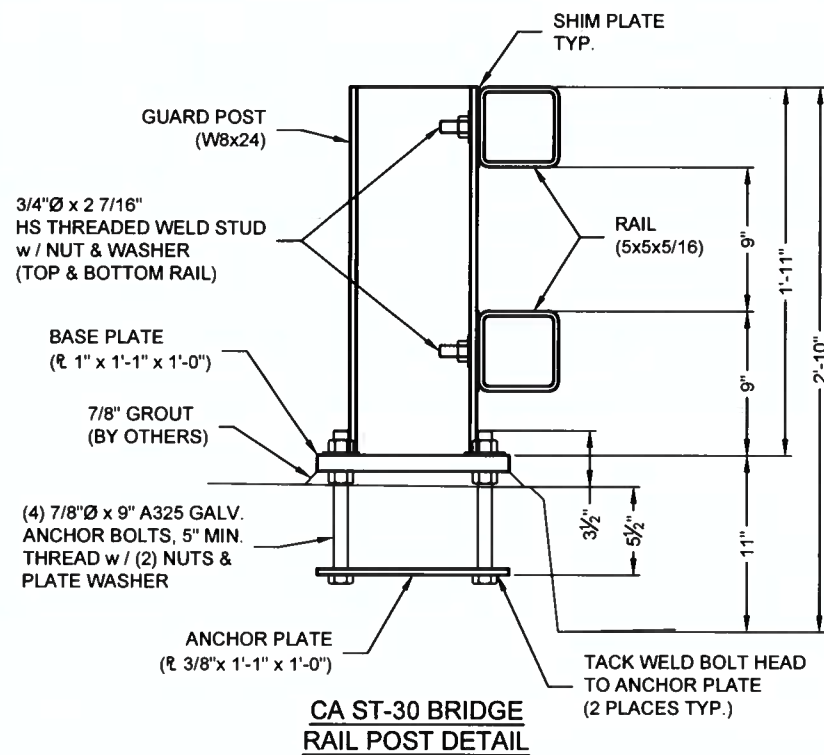
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BIG R
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 CONTECH
 CONTRACT
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110'-0" x 35'-0"
GREEN MILLS SUBDIVISION BRIDGE
 ROLLED GIRDER - SITE SPECIFIC MODULAR
 COLUMBIA, TN

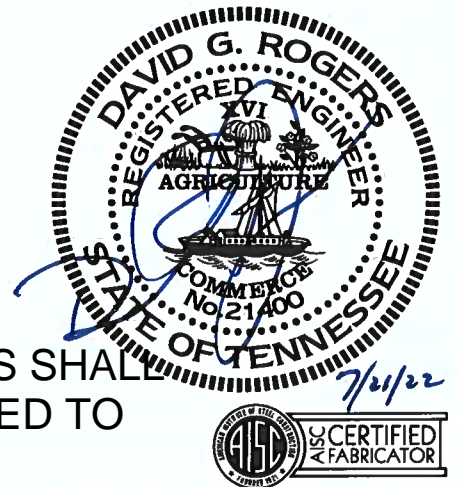
PROJECT No: 661653	SEQ No: 10	DATE: 7/21/2022
DESIGNED: SLJ	DRAWN: TLF	
CHECKED: SLJ	APPROVED: DGR	
SHEET NO.: 6 OF 10		

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- GENERAL NOTES FOR CALIFORNIA ST-30:**
- MATERIALS (UNLESS NOTED OTHERWISE):
 - a) TUBING: ASTM A847 Fy = 46 ksi MIN.
 - b) SHAPES: ASTM A588 Fy = 50 ksi
 - c) PLATES: ASTM A588 Fy = 50 ksi
 - ALL EXPOSED CORNERS TO BE GROUND SMOOTH.
 - CHECK SPLICE SLEEVE FOR PROPER FIT.
- REFERENCE: CALTRANS STANDARD PLAN B11-65

BRIDGE TIE-INS SHALL BE REFERENCED TO NAVD 88



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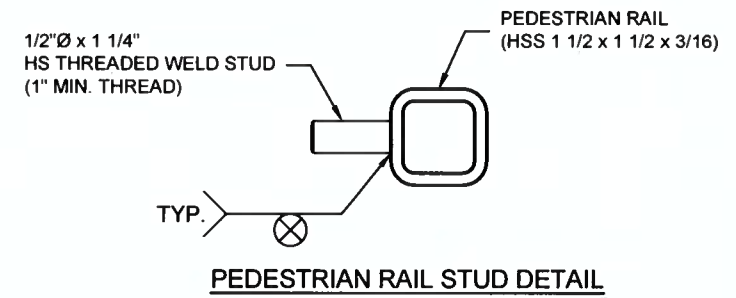
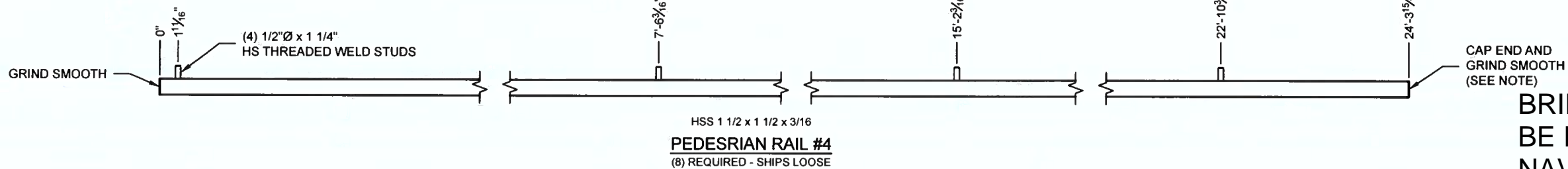
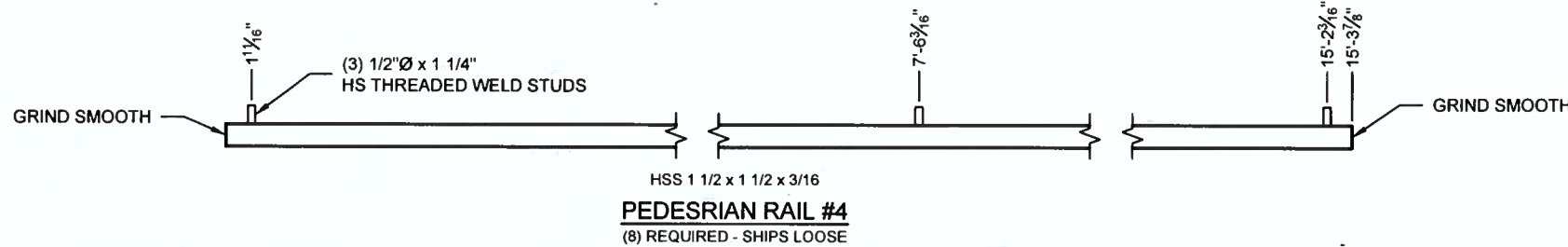
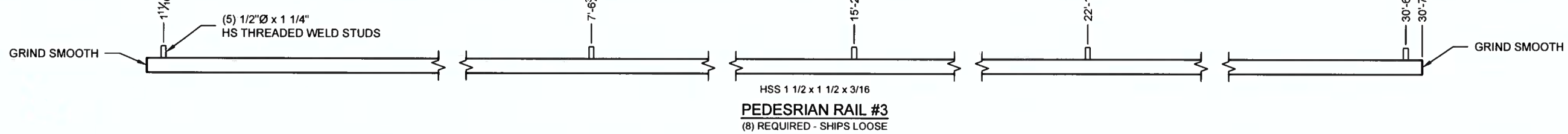
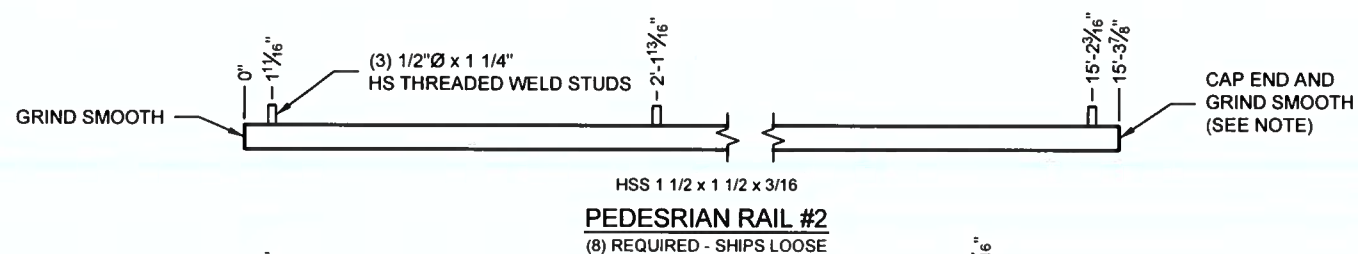
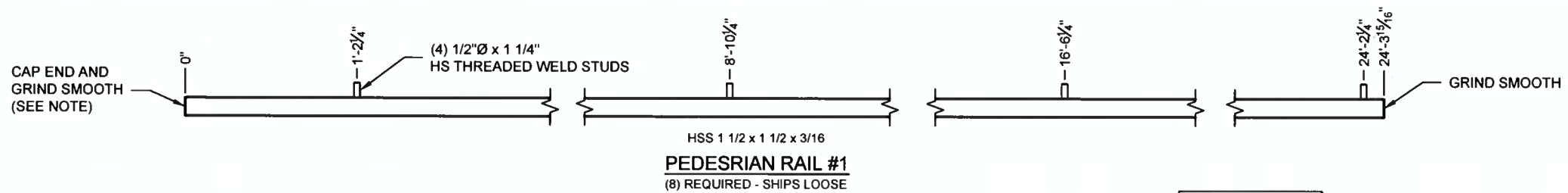
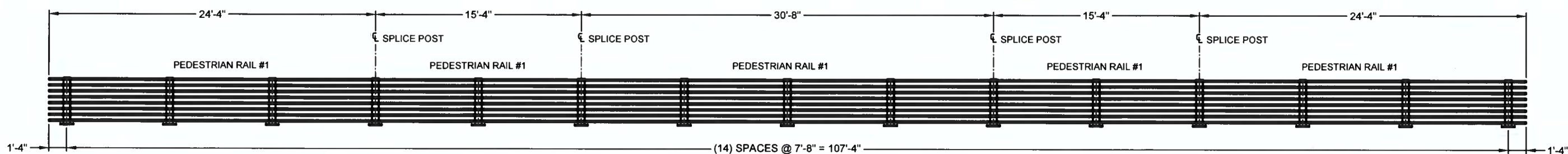
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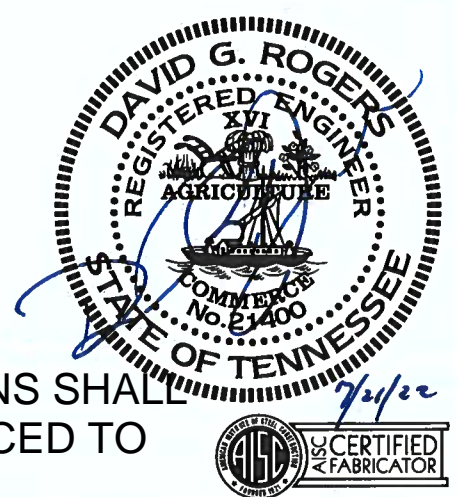
BIG R
BRIDGE
CONTECH CONTRACT DRAWING

110'-0" x 35'-0"
GREEN MILLS SUBDIVISION BRIDGE
ROLLED GIRDER - SITE SPECIFIC MODULAR
COLUMBIA, TN

PROJECT No:	SEQ. No:	DATE
661653	10	7/21/2022
DESIGNED:	SLJ	DRAWN: TLF
CHECKED:	SLJ	APPROVED: DGR
SHEET NO:	7 OF 10	



NOTE:
OUT TO OUT LENGTH
OF RAILS #1 & #4
INCLUDES END CAP.



BRIDGE TIE-INS SHALL
BE REFERENCED TO
NAVD 88

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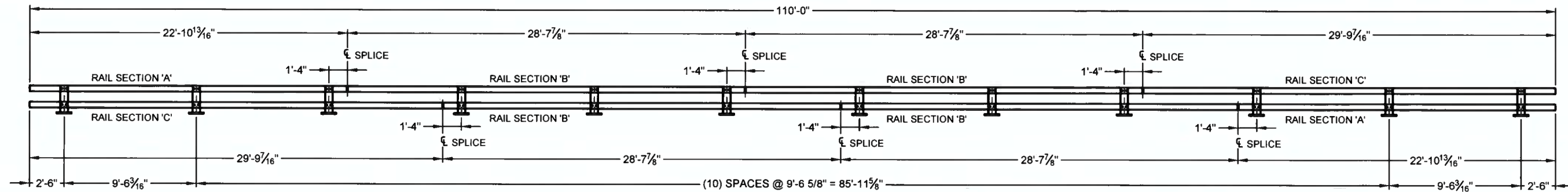
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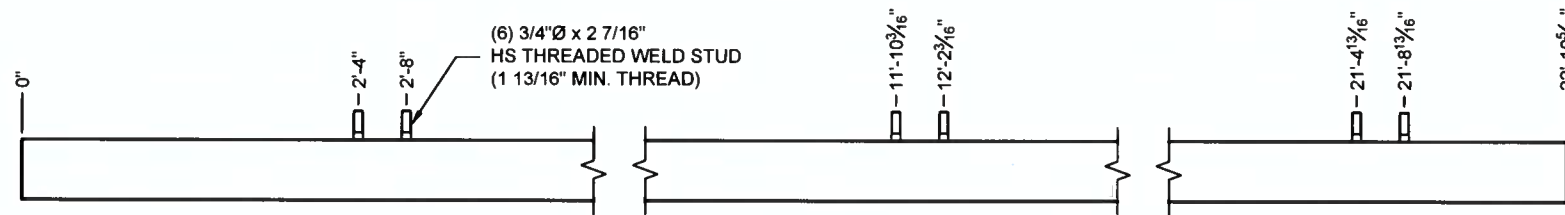
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BRIDGE
CONTECH
CONTRACT
DRAWING

110'-0" x 35'-0"
GREEN MILLS SUBDIVISION BRIDGE
ROLLED GIRDER - SITE SPECIFIC MODULAR
COLUMBIA, TN

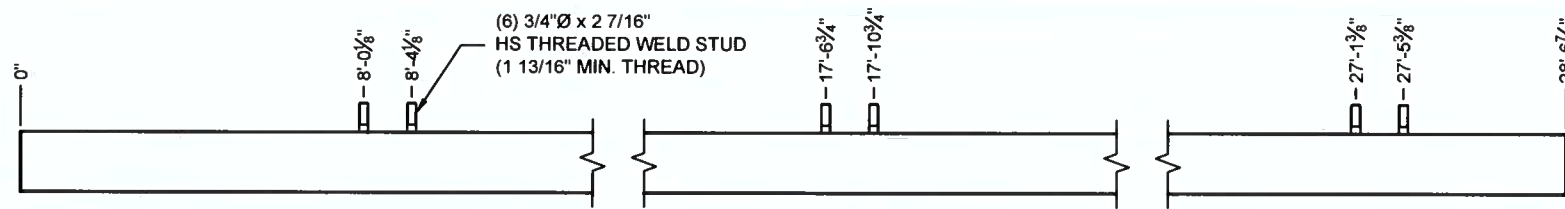
PROJECT No. 661653	SEQ. No. 10	DATE 7/21/2022
DESIGNED: SLJ	DRAWN: TLF	
CHECKED: SLJ	APPROVED: DGR	
SHEET NO.: 8 OF 10		



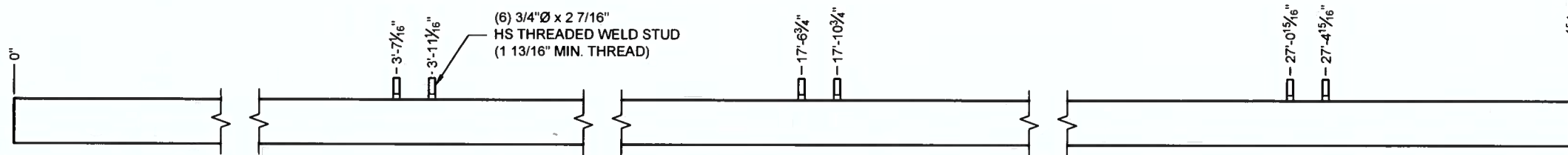
CA ST-30 BRIDGE RAIL LAYOUT
(TYPICAL BOTH SIDES OF ROADWAY)



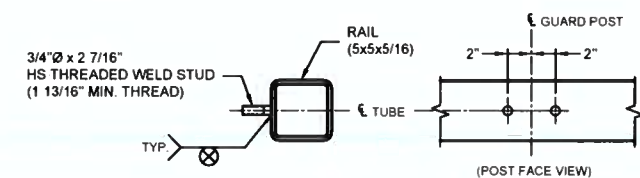
BRIDGE RAIL SECTION 'A'
(4) REQUIRED - SHIPS LOOSE



BRIDGE RAIL SECTION 'B'
(8) REQUIRED - SHIPS LOOSE



BRIDGE RAIL SECTION 'C'
(4) REQUIRED - SHIPS LOOSE



RAIL STUD DETAIL



**BRIDGE TIE-INS SHALL
BE REFERENCED TO
NAVD 88**



I:\WORK\PROJECTS\ACTIVE\661653-10-BIG R CUSTOM ROLLED GIRDER\DRAWINGS\CONTRACT\661653-10-INITIAL SUBMITTAL.DWG 7/21/2022 3:12 PM

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MARK	DATE	REVISION DESCRIPTION	BY
-	7/21/2022	INITIAL SUBMITTAL	TLF

CONTECH
ENGINEERED SOLUTIONS LLC

www.ContechES.com

25581 Hillman Highway Abingdon, VA 24210

800-328-2047 320-345-9126 320-566-3148 FAX

BIG R
BRIDGE

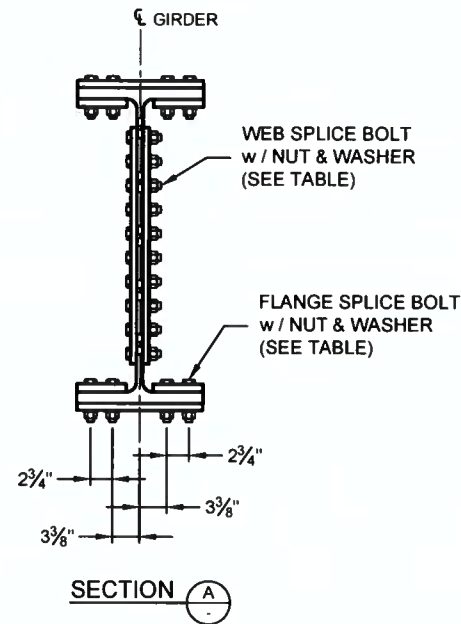
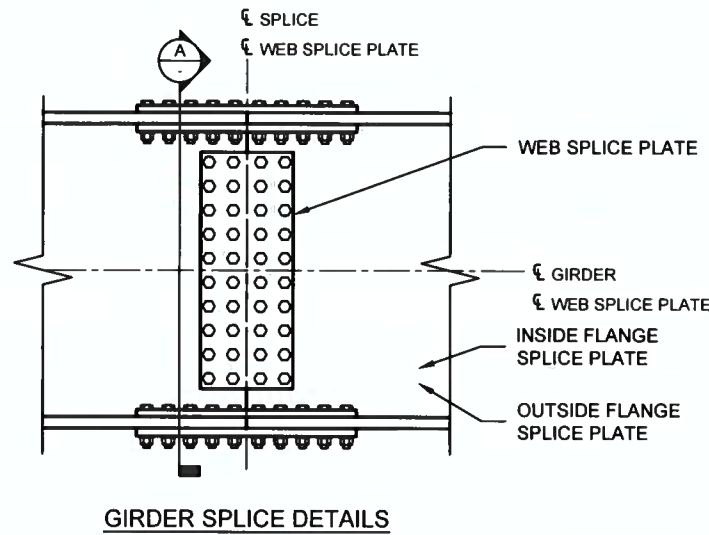
CONTECH
CONTRACT
DRAWING

110'-0" x 35'-0"
GREEN MILLS SUBDIVISION BRIDGE
ROLLED GIRDER - SITE SPECIFIC MODULAR
COLUMBIA, TN

PROJECT No.	SEQ. No.	DATE
661653	10	7/21/2022
DESIGNED: SLJ	DRAWN: TLF	
CHECKED: SLJ	APPROVED: DGR	
SHEET NO.: 9 OF 10		

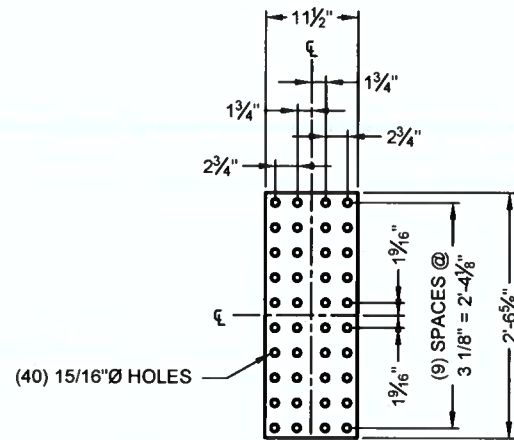
SHOP NOTE:
15/16"Ø HOLES IN STRINGER
FLANGE AND WEB

MEMBERS	QTY	THICKNESS	SIZE	HOLE Ø	BOLTS w/NUT & WASHER	BOLT QTY
WEB SPLICE PLATE	24	3/4"	11 1/2" x 2'-6 5/8"	15/16"	7/8"Ø x 3 3/4" A325 T3	480
INSIDE TOP & BTM FLANGE SPLICE PLATE	48	1"	6 1/4" x 2'-3 1/2"	15/16"	-	-
OUTSIDE TOP & BTM FLANGE SPLICE PLATE	24	7/8"	1'-3 3/4" x 2'-3 1/2"	15/16"	7/8"Ø x 4 3/4" A325 T3	960

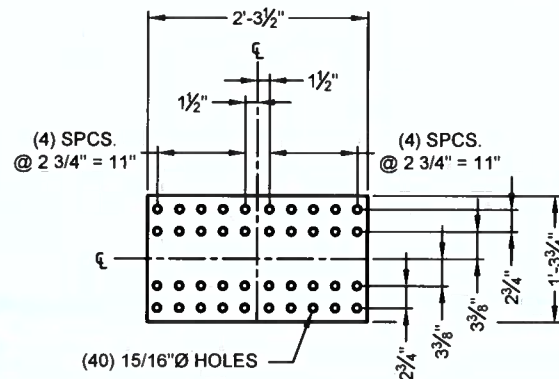


GIRDER SPLICE DETAILS

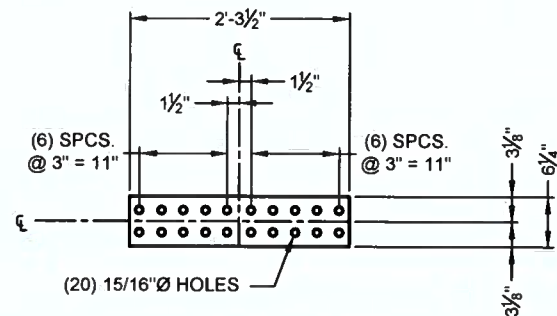
SECTION A



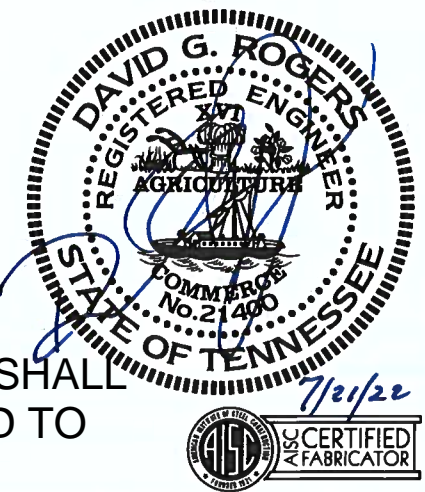
WEB SPLICE PLATE DETAIL



OUTSIDE TOP & BTM FLANGE SPLICE PLATE DETAIL



INSIDE TOP & BTM FLANGE SPLICE PLATE DETAIL



BRIDGE TIE-INS SHALL
BE REFERENCED TO
NAVD 88

I:\MERLIN\PROJECTS\ACTIVE\661653-10-BIG R CUSTOM ROLLED GIRDER\DRAWINGS\CONTRACT\661653-10\INITIAL SUBMITTAL.DWG 7/21/2022 3:12 PM

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800-328-2047 320-345-9126 320-566-3148 FAX

BIG R
BRIDGE
CONTECH
CONTRACT
DRAWING

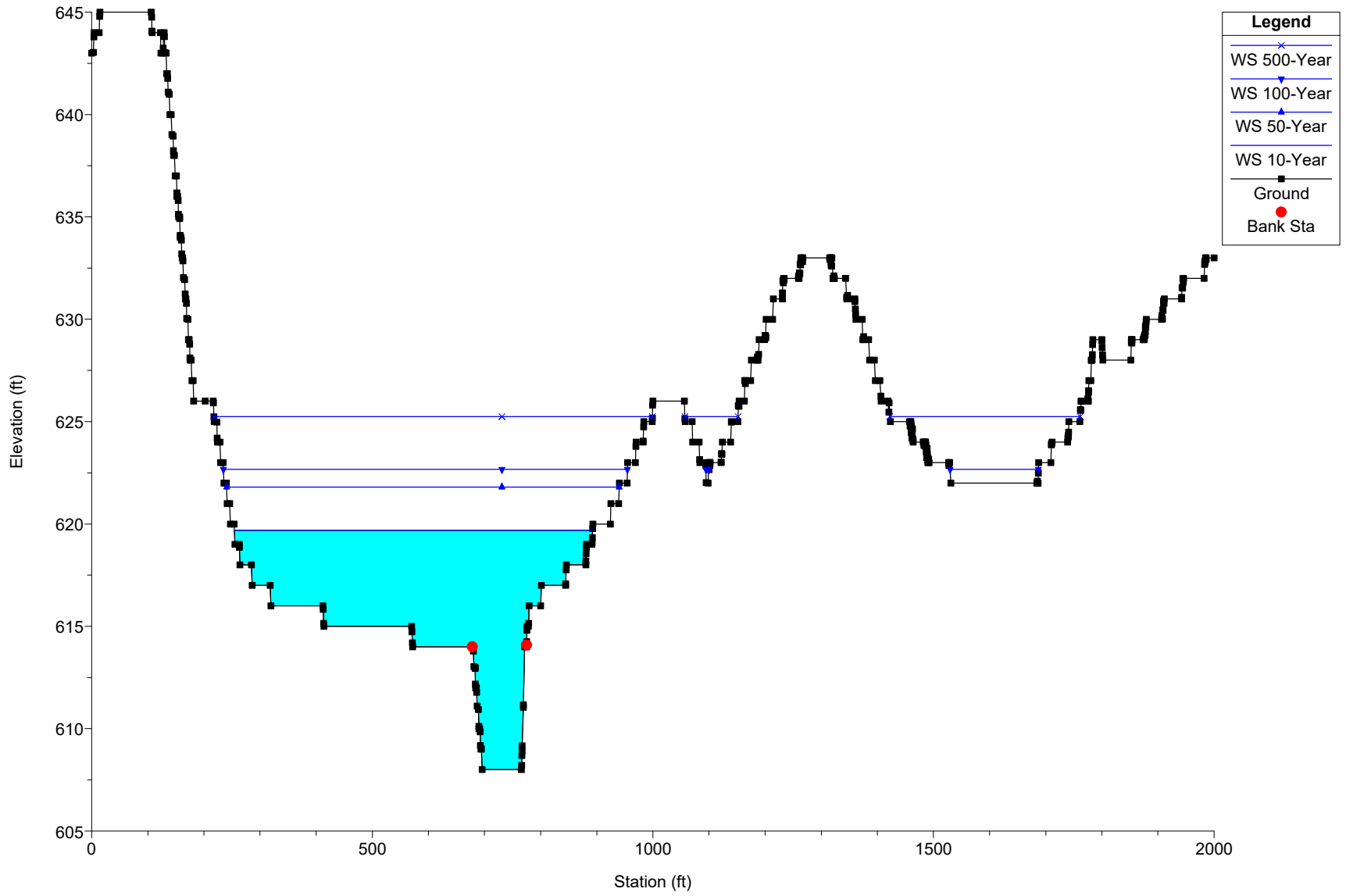
110'-0" x 35'-0"
GREEN MILLS SUBDIVISION BRIDGE
ROLLED GIRDER - SITE SPECIFIC MODULAR
COLUMBIA, TN

PROJECT No: 661653	SEQ. No.: 10	DATE: 7/21/2022
DESIGNED: SLJ	DRAWN: TLF	
CHECKED: SLJ	APPROVED: DGR	
SHEET NO.: 10 OF 10		

Proposed Conditions Cross-Sections

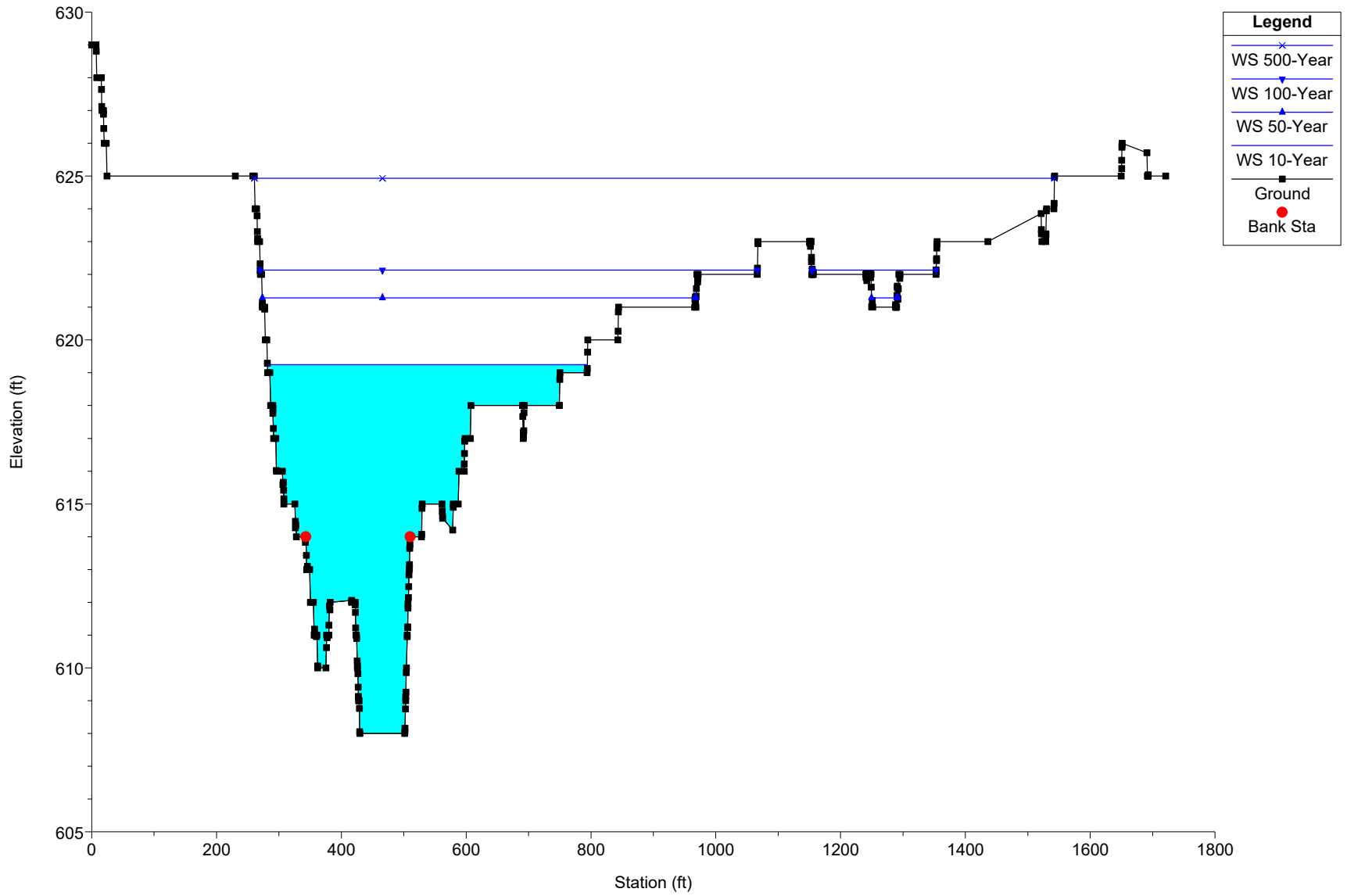
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 66500 Cross Section - 66,500



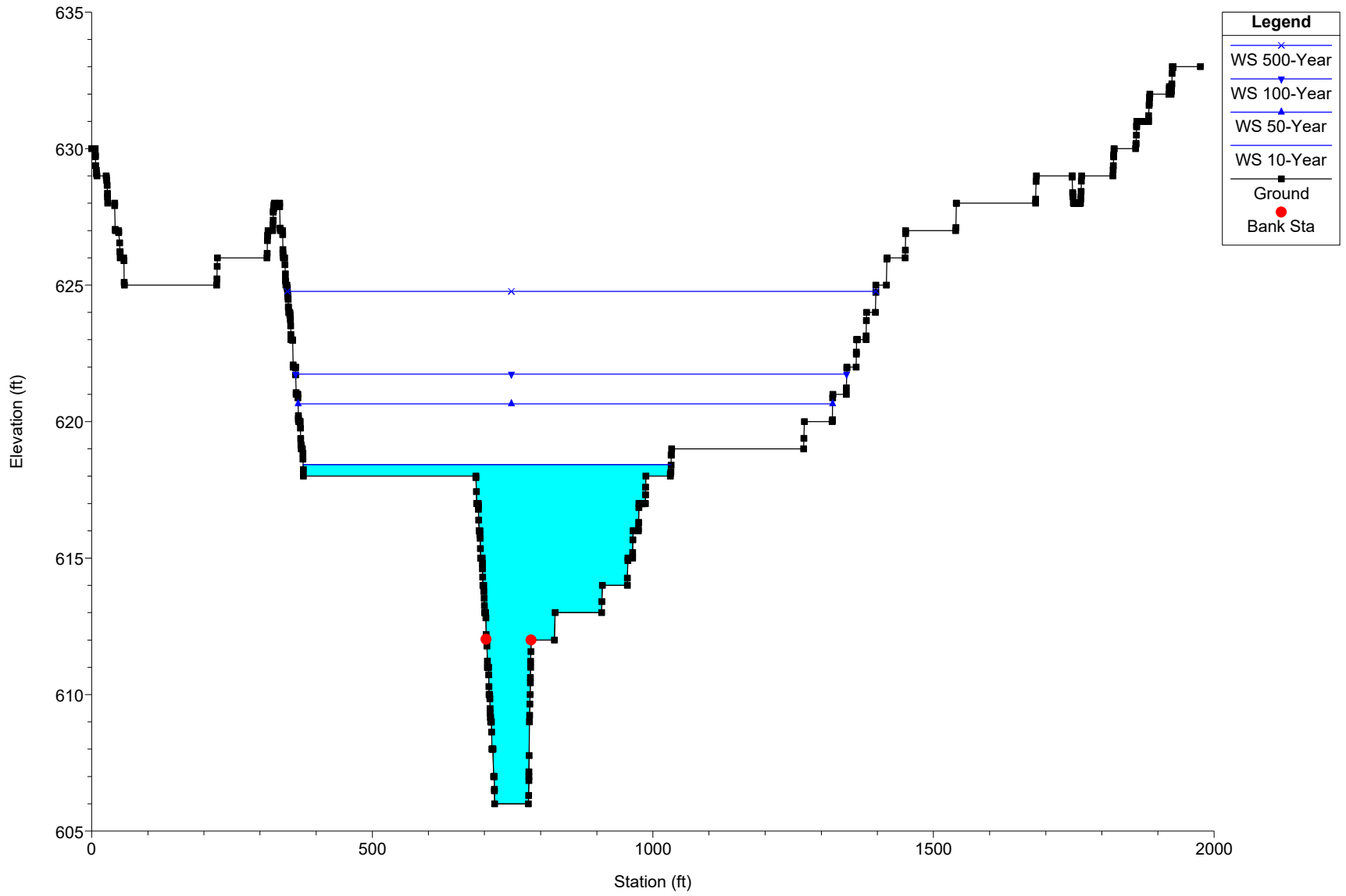
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 66000 Cross Section - 66,000



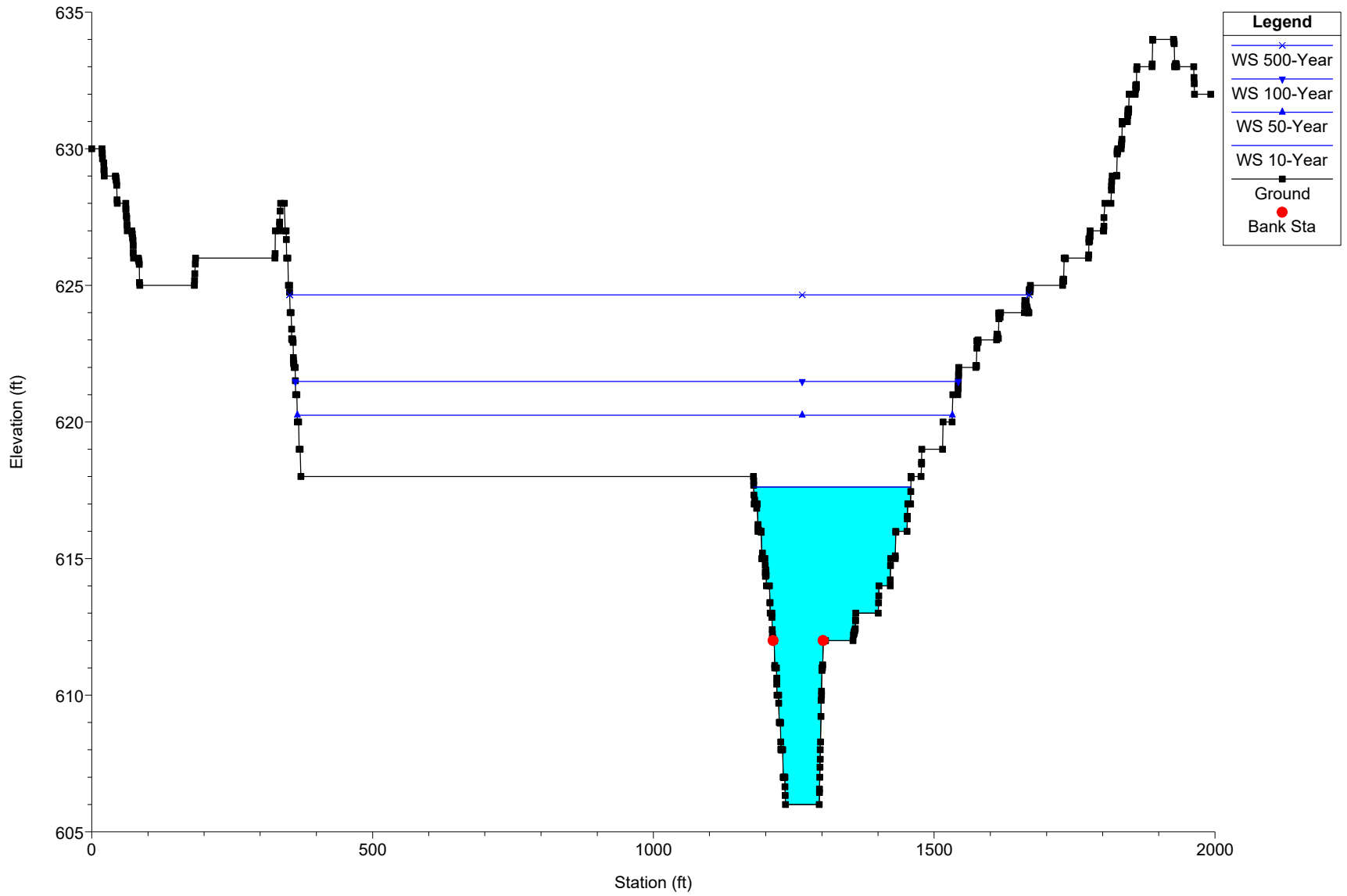
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 65500 Cross Section - 65,500



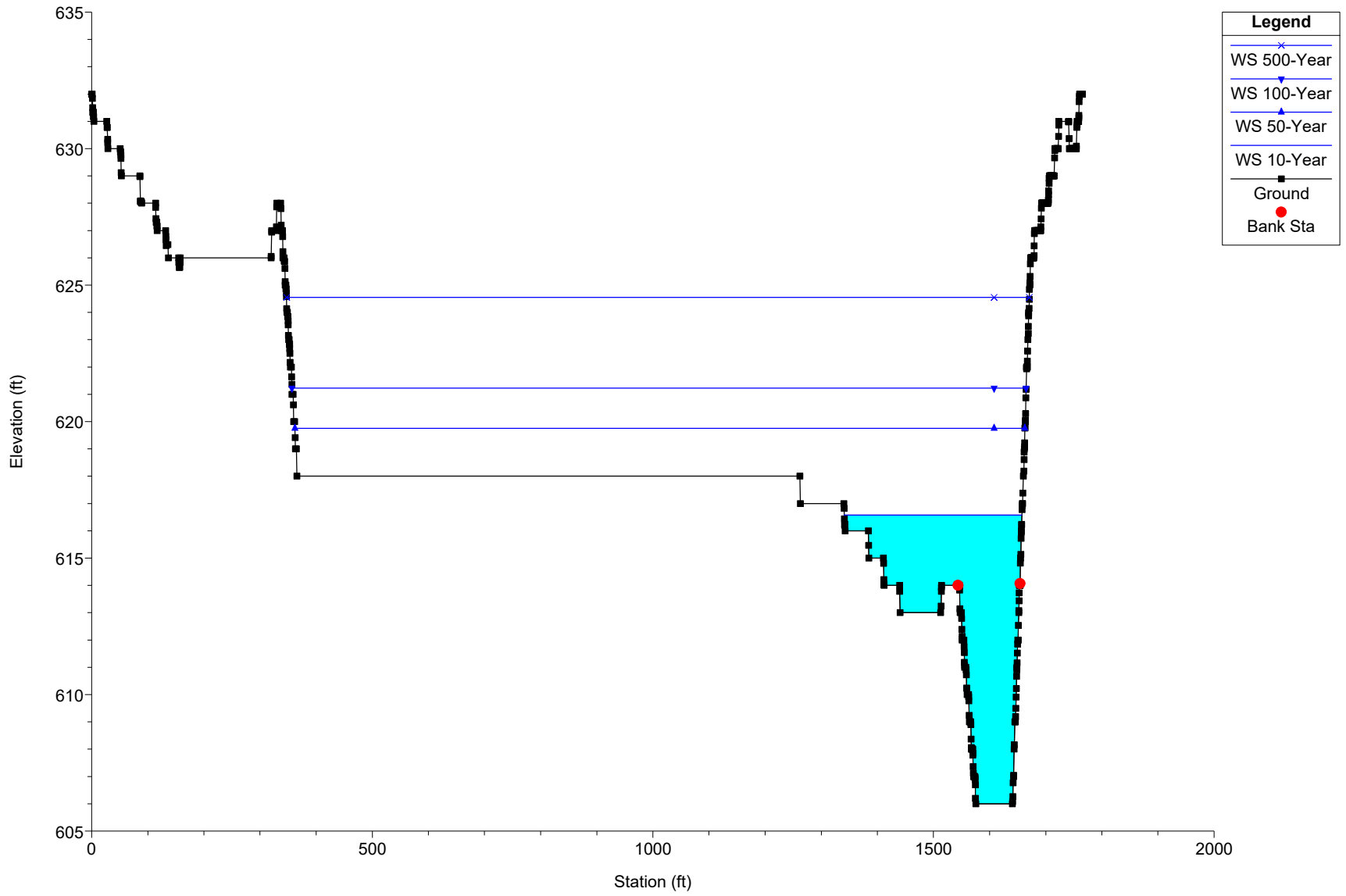
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 65000 Cross Section - 65,000



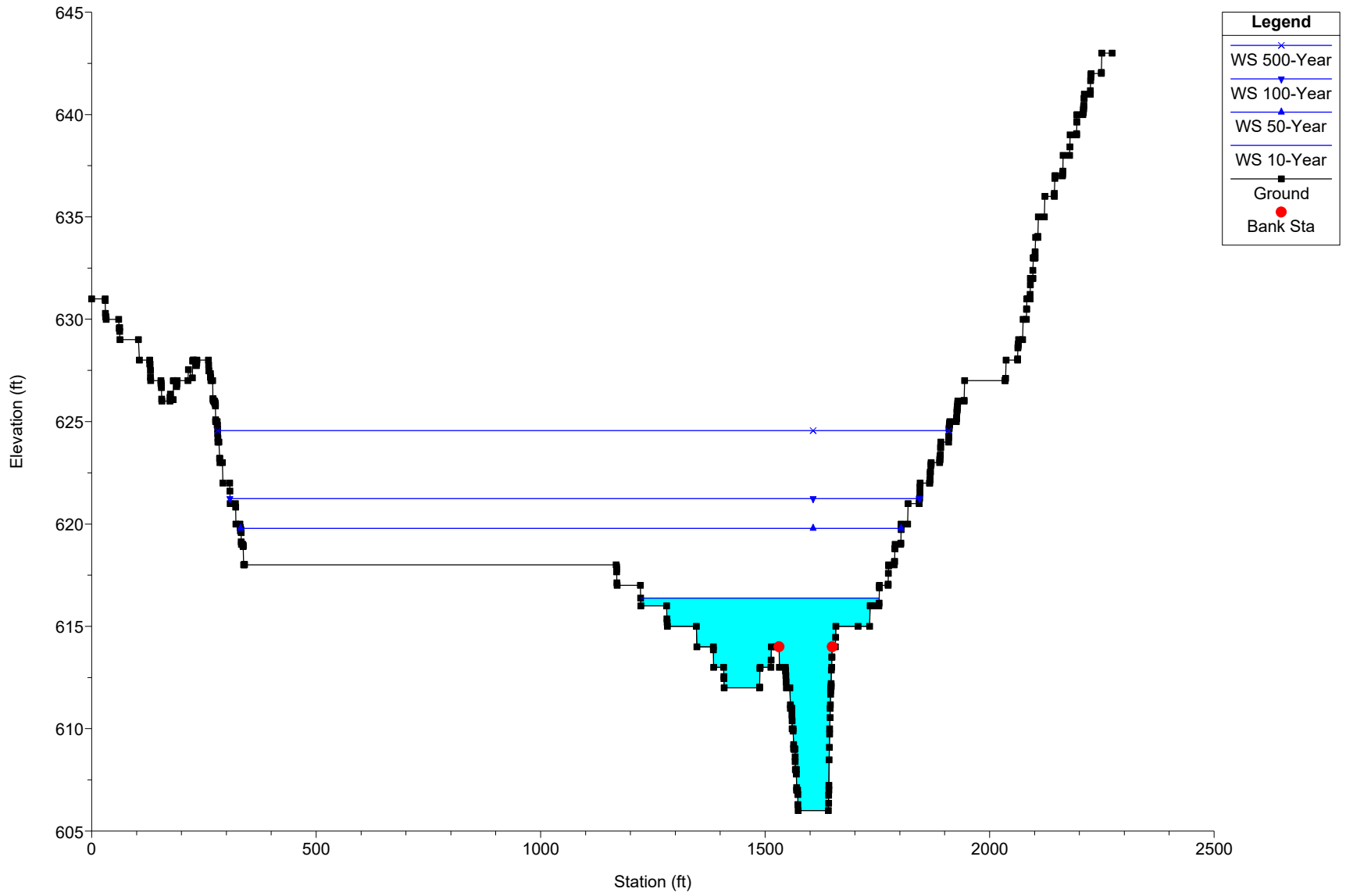
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 64500 Cross Section - 64,500



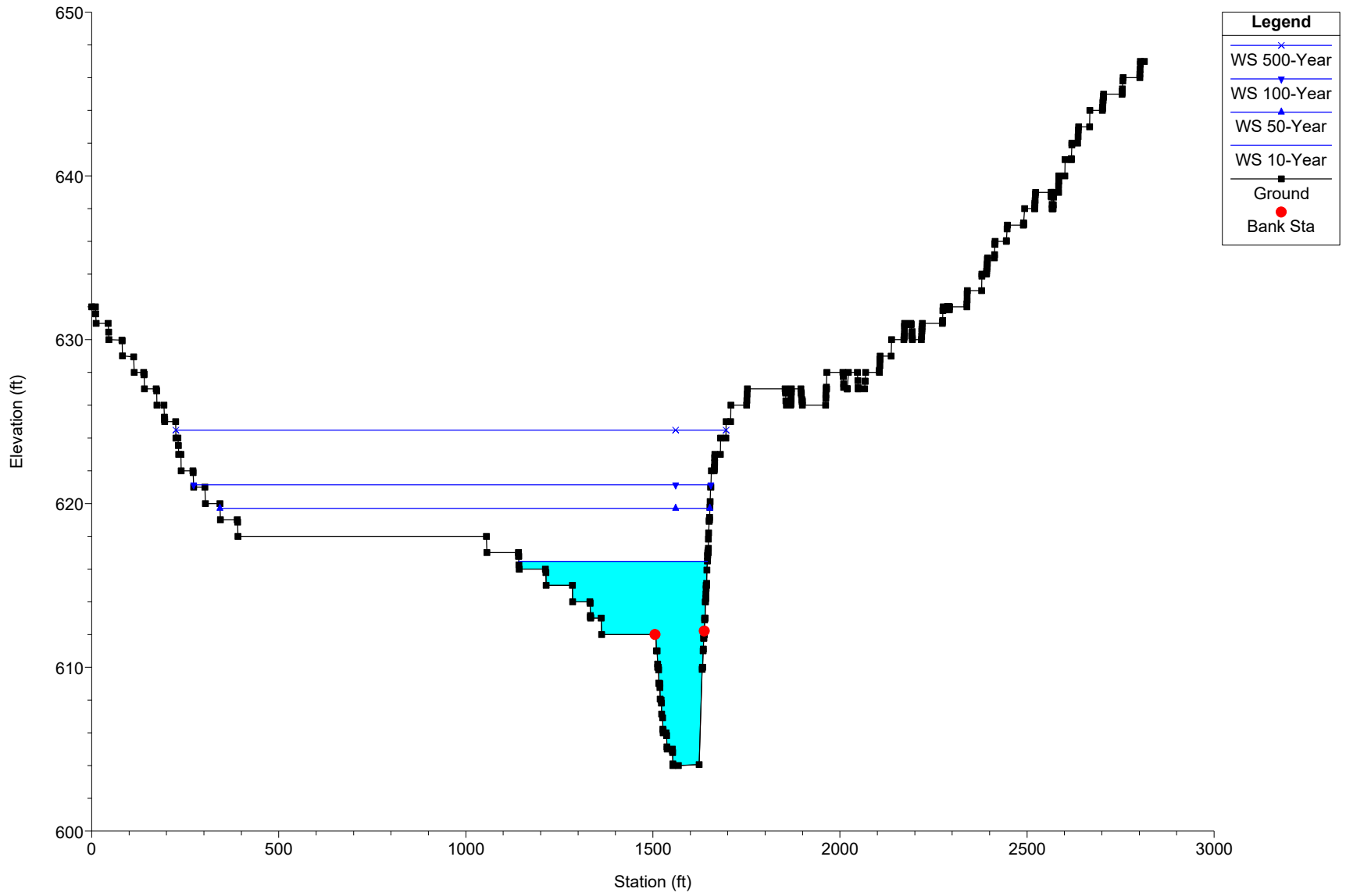
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 64300 Cross Section - 64,300



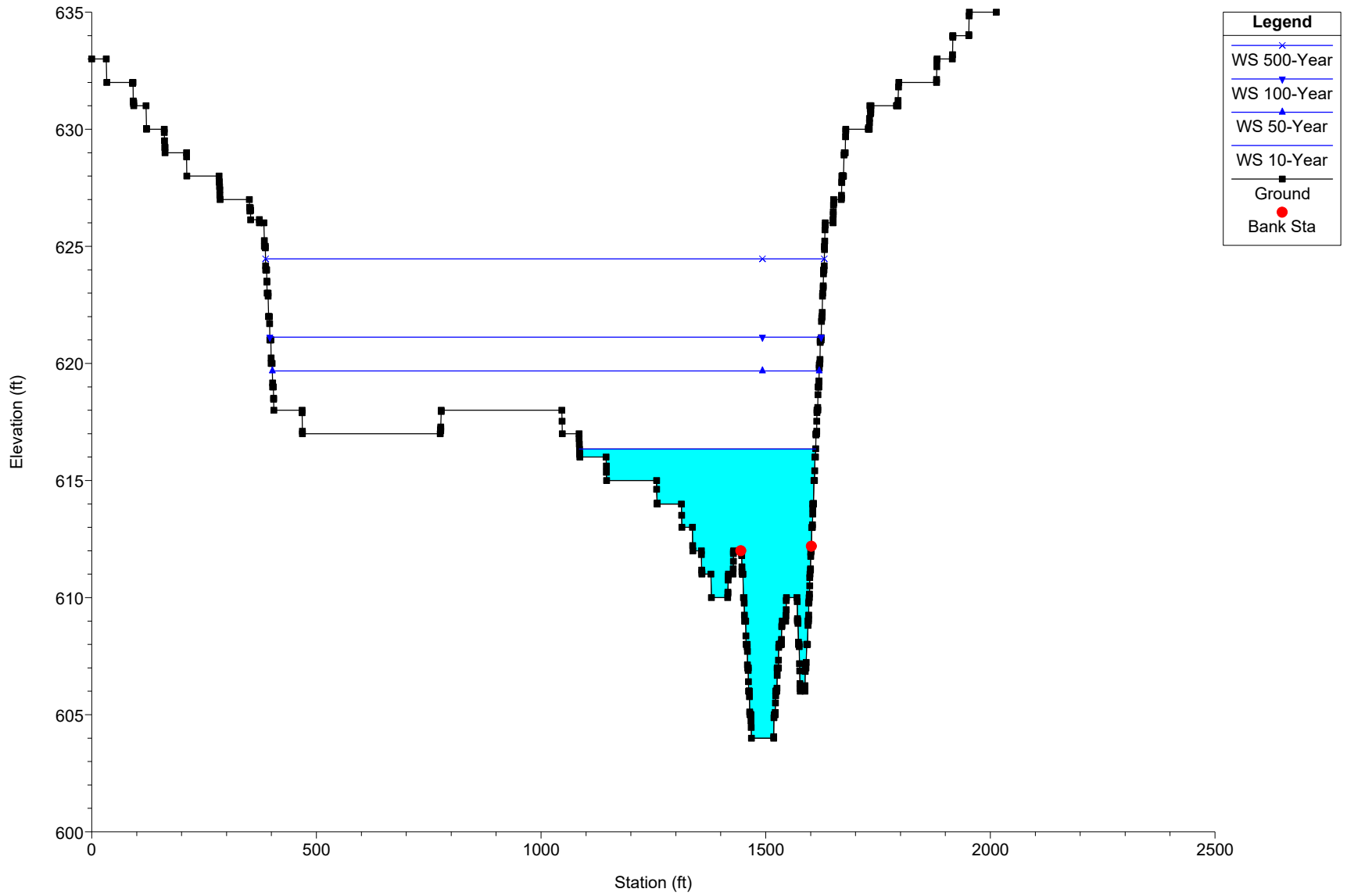
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 64100 Cross Section - 64,100



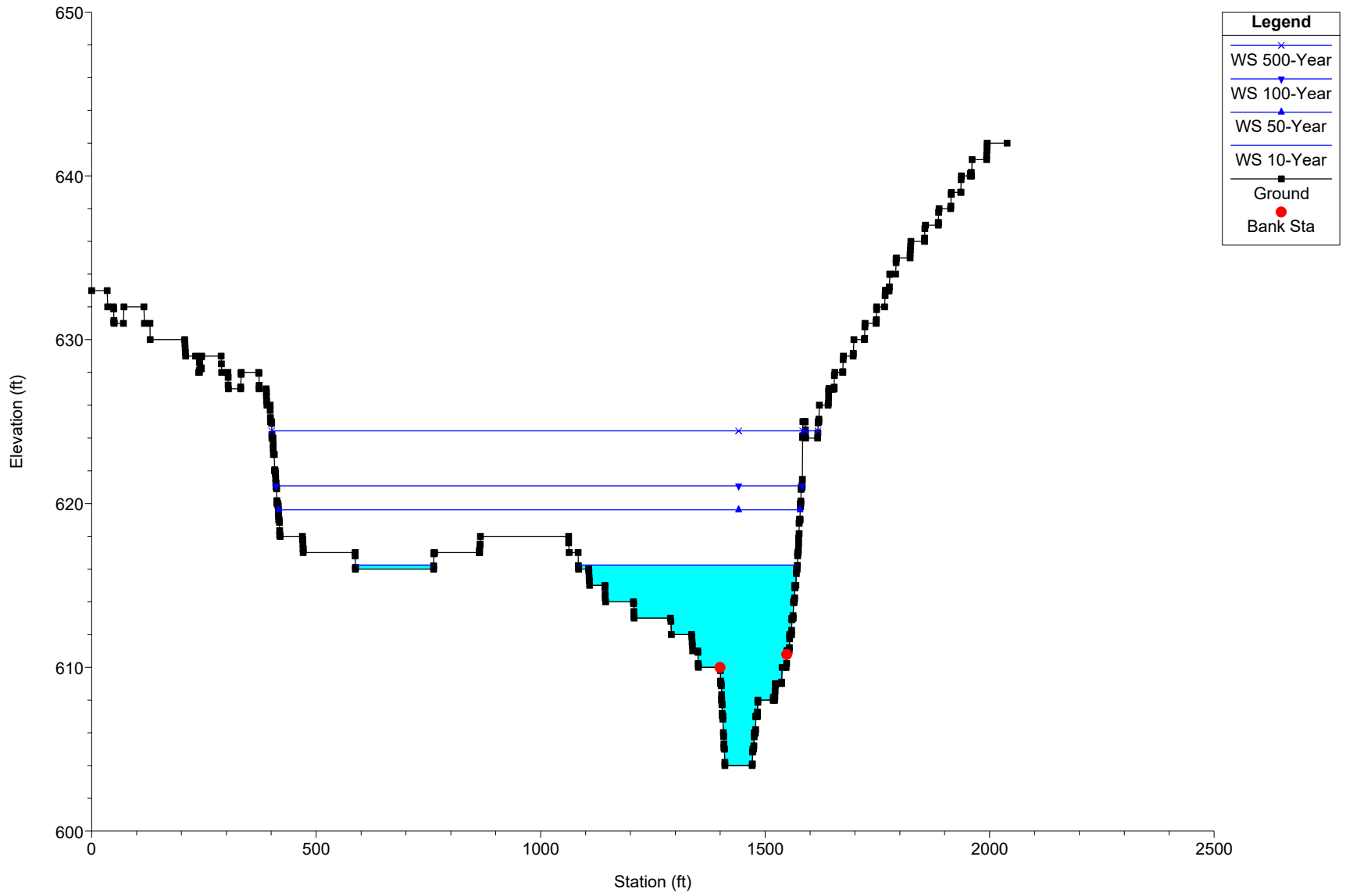
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 63900 Cross Section - 63,900

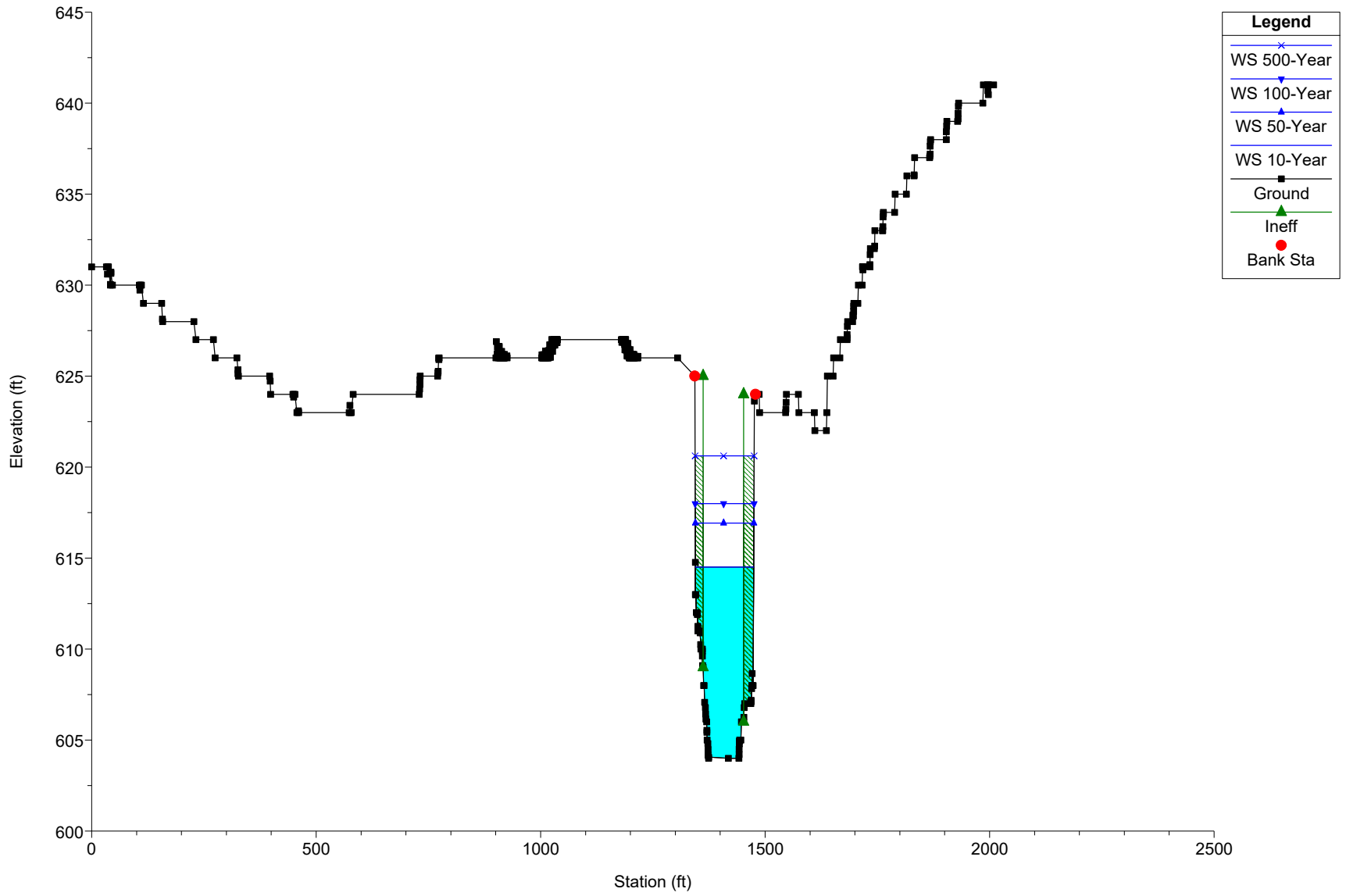


2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

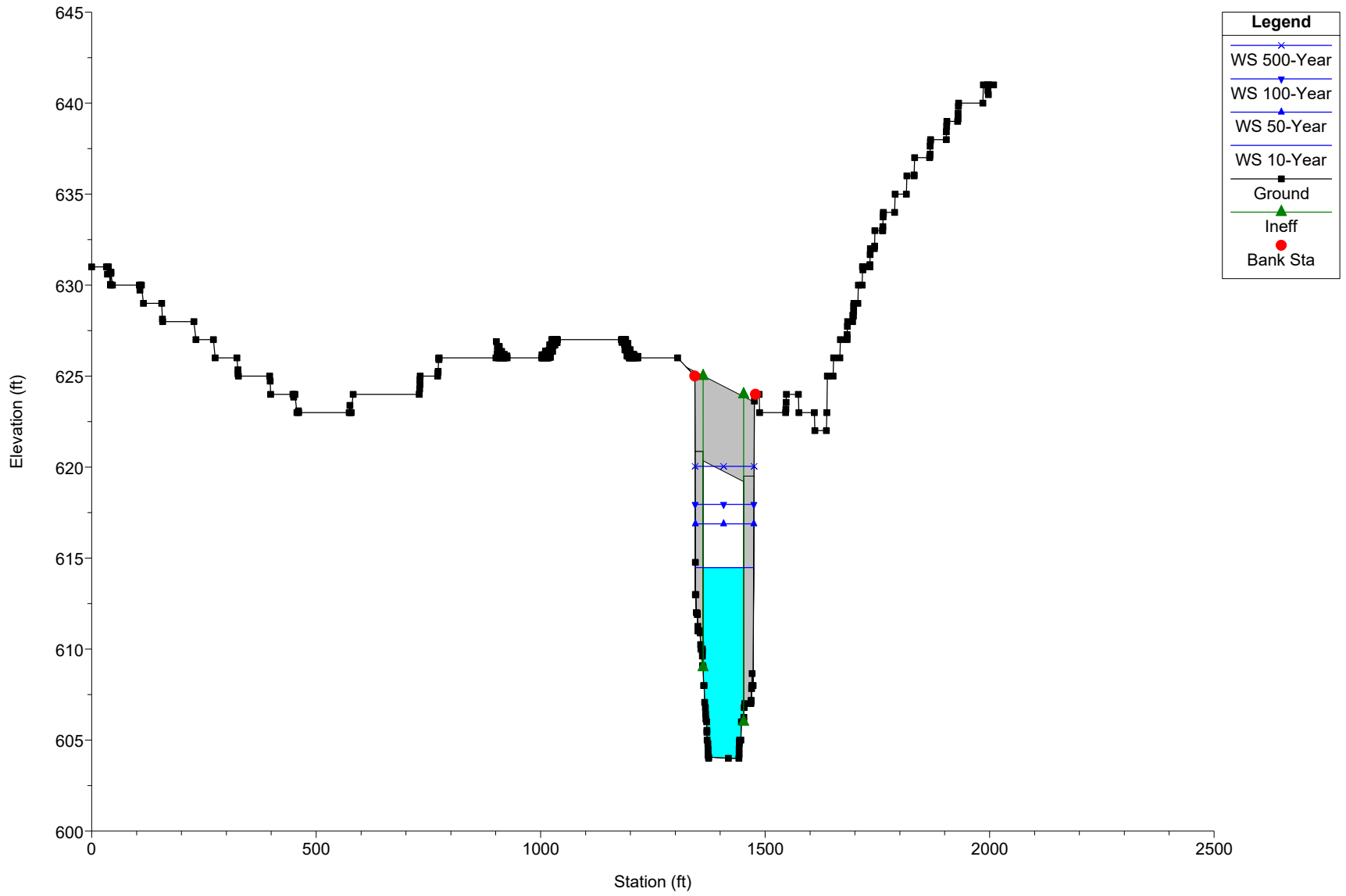
RS = 63700 Cross Section - 63,700



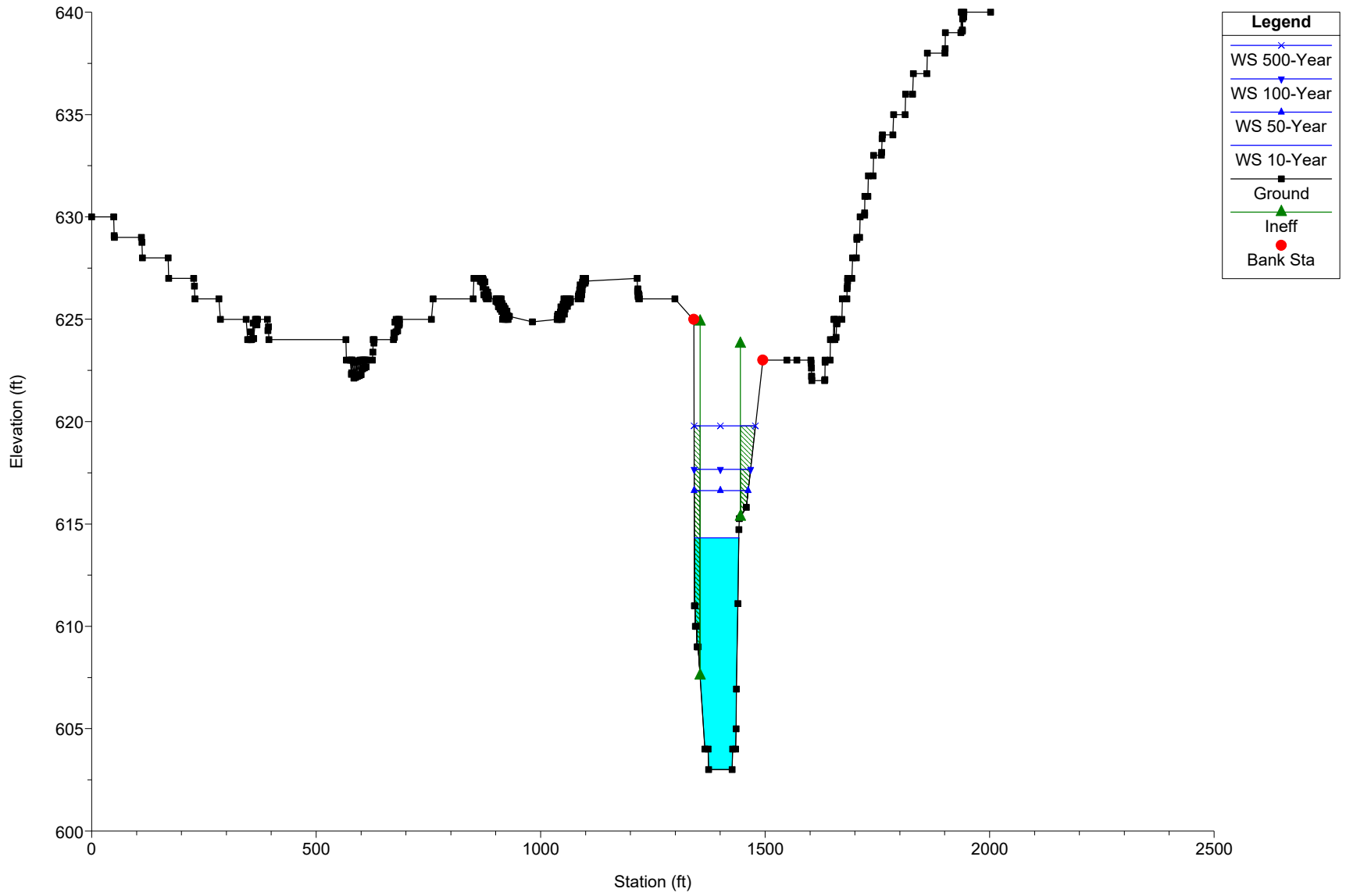
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023
RS = 63549 Cross Section - 63,549



2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023
RS = 63527 BR

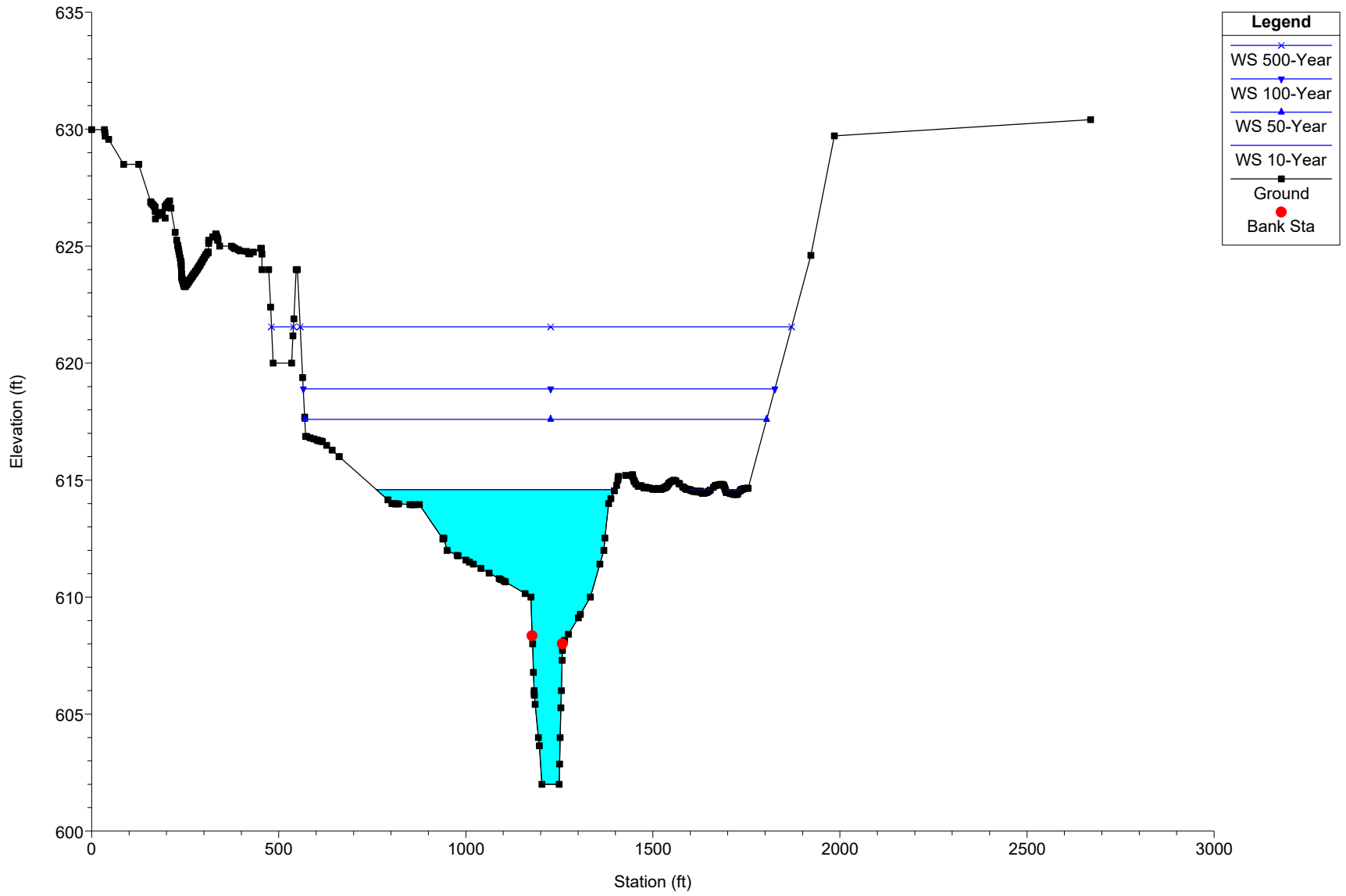


2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023
RS = 63442 Cross Section - 63,442



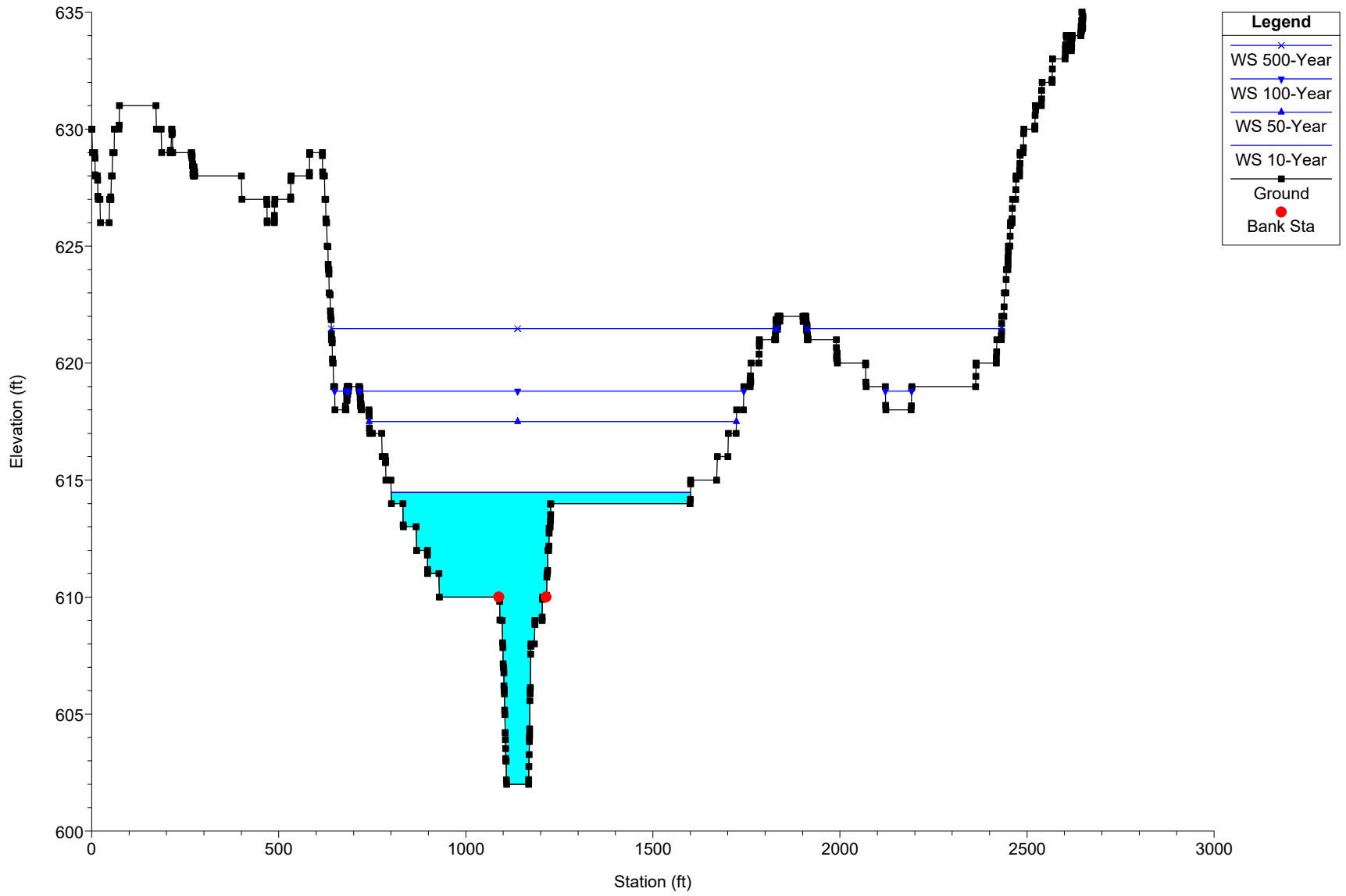
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 63300 Cross Section - 63,300



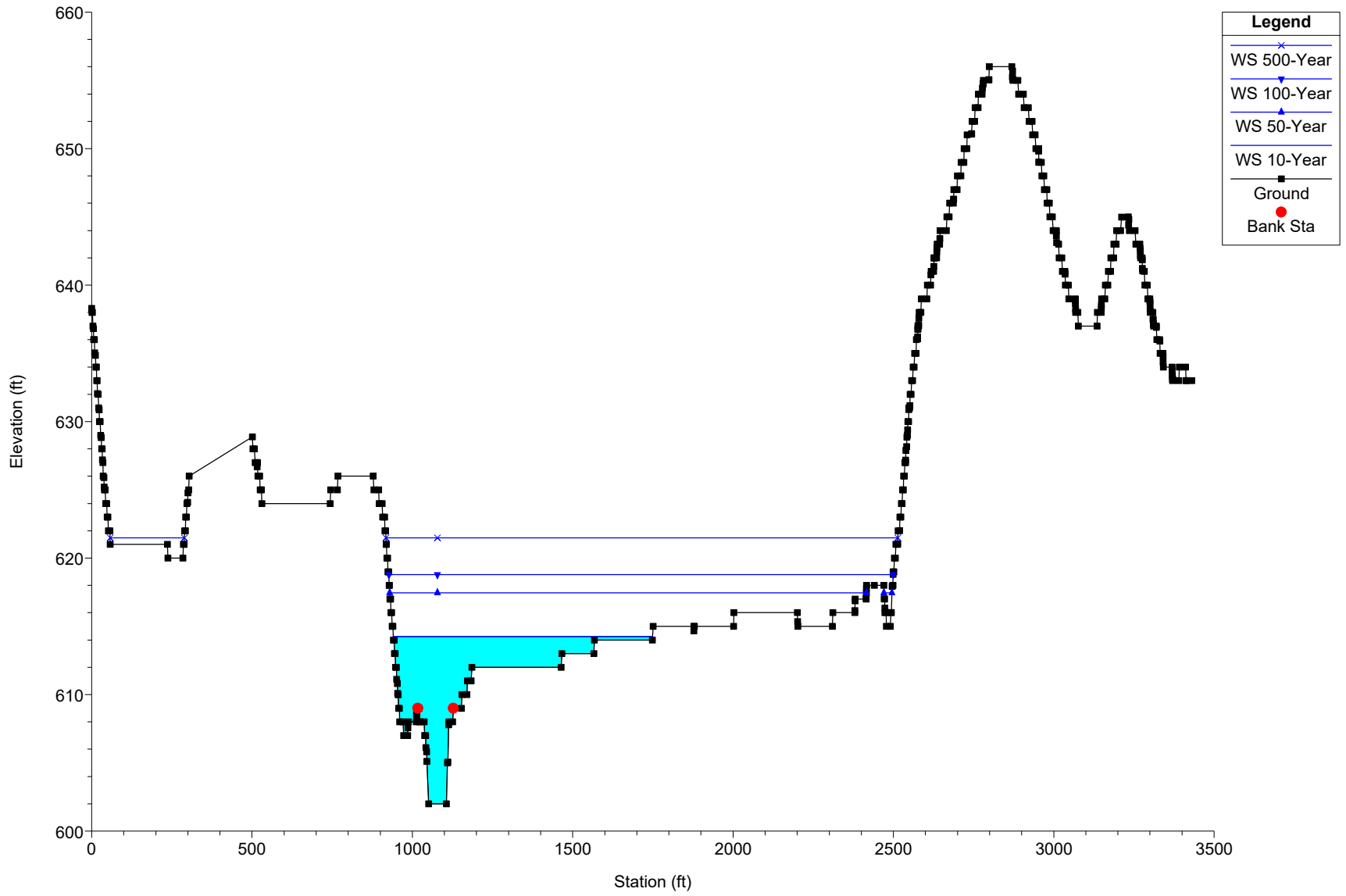
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 63100 Cross Section - 63,100

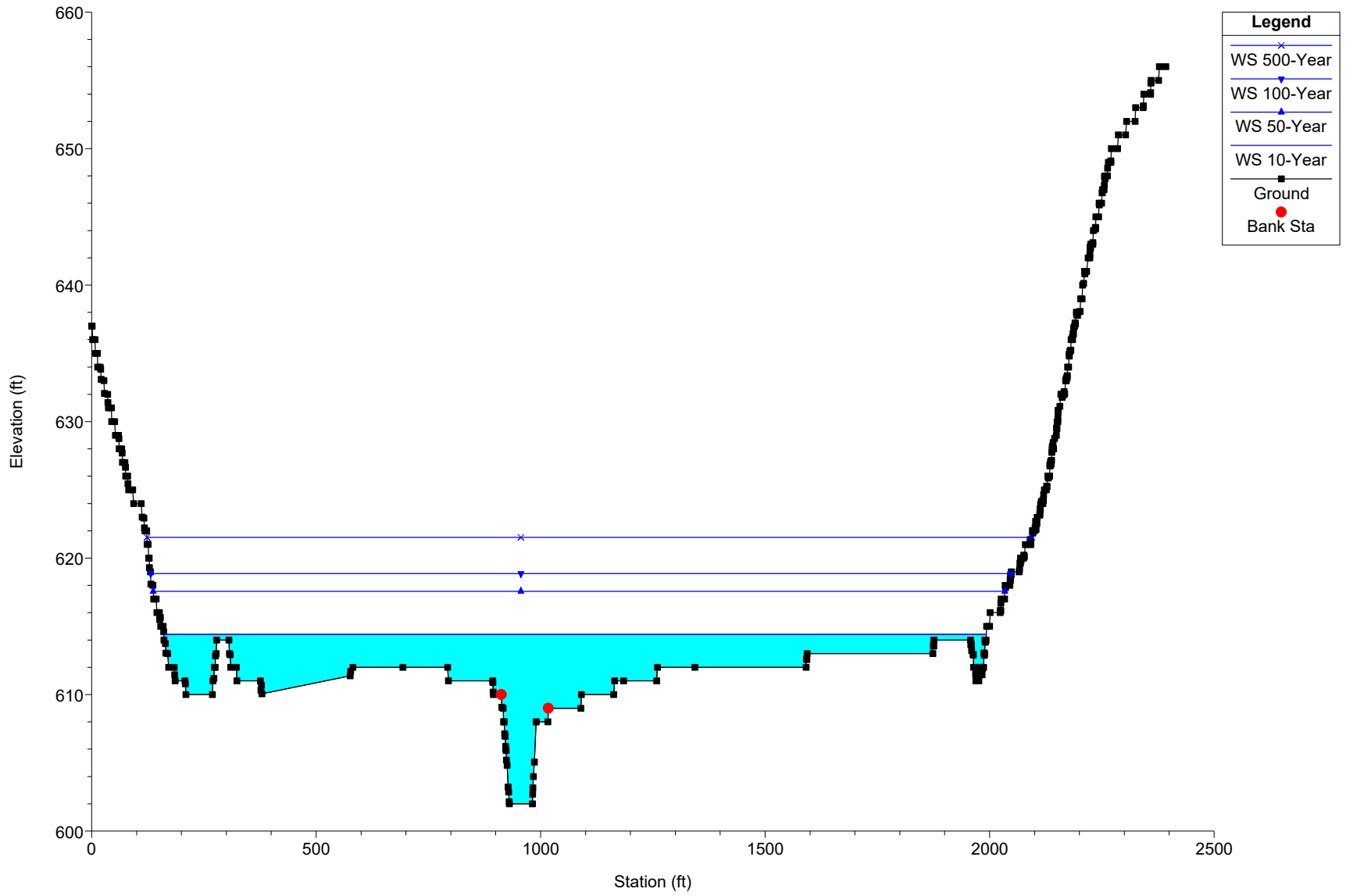


2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 62900 Cross Section - 62,900

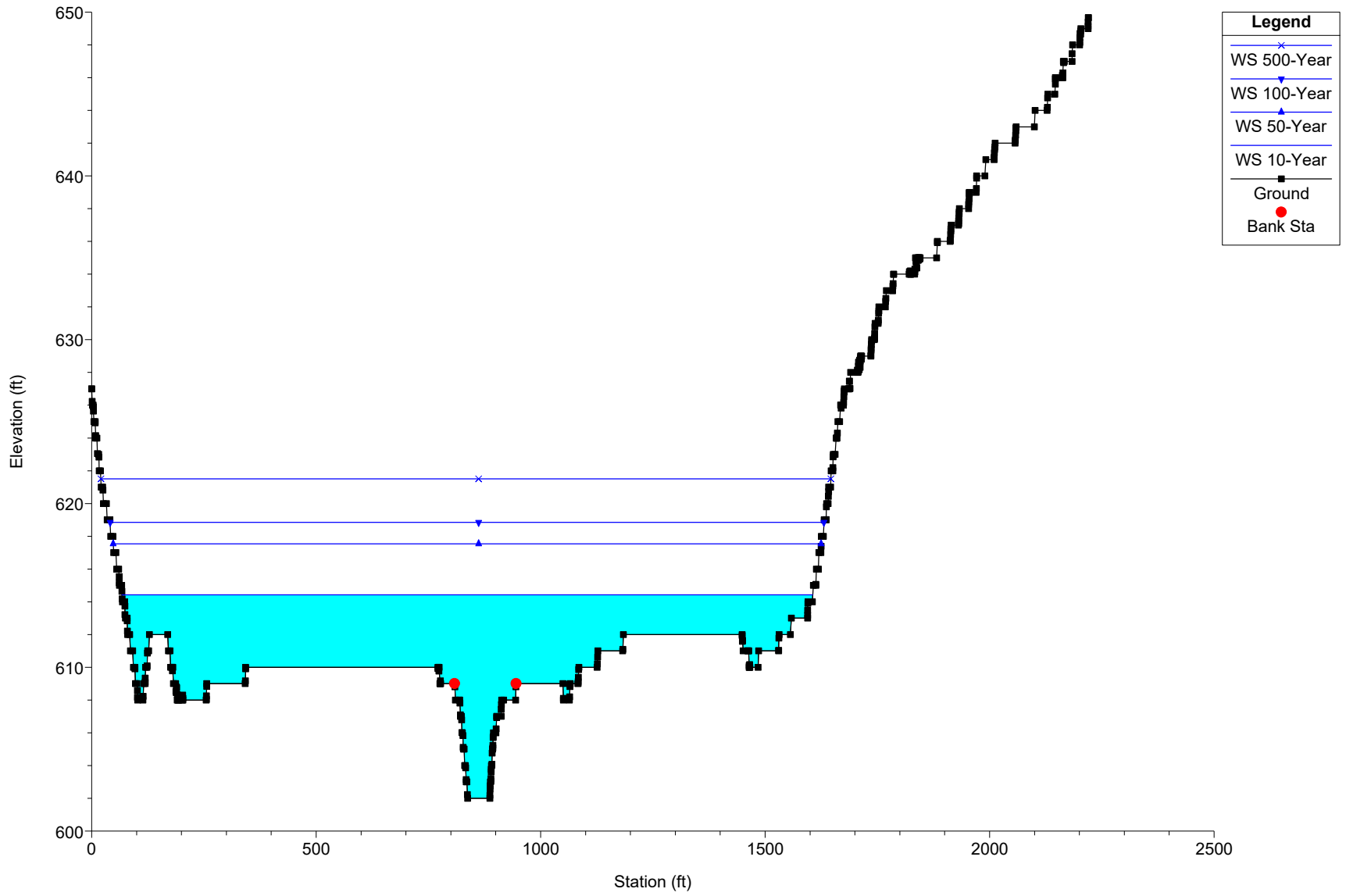


2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023
RS = 62700 Cross Section - 62,700



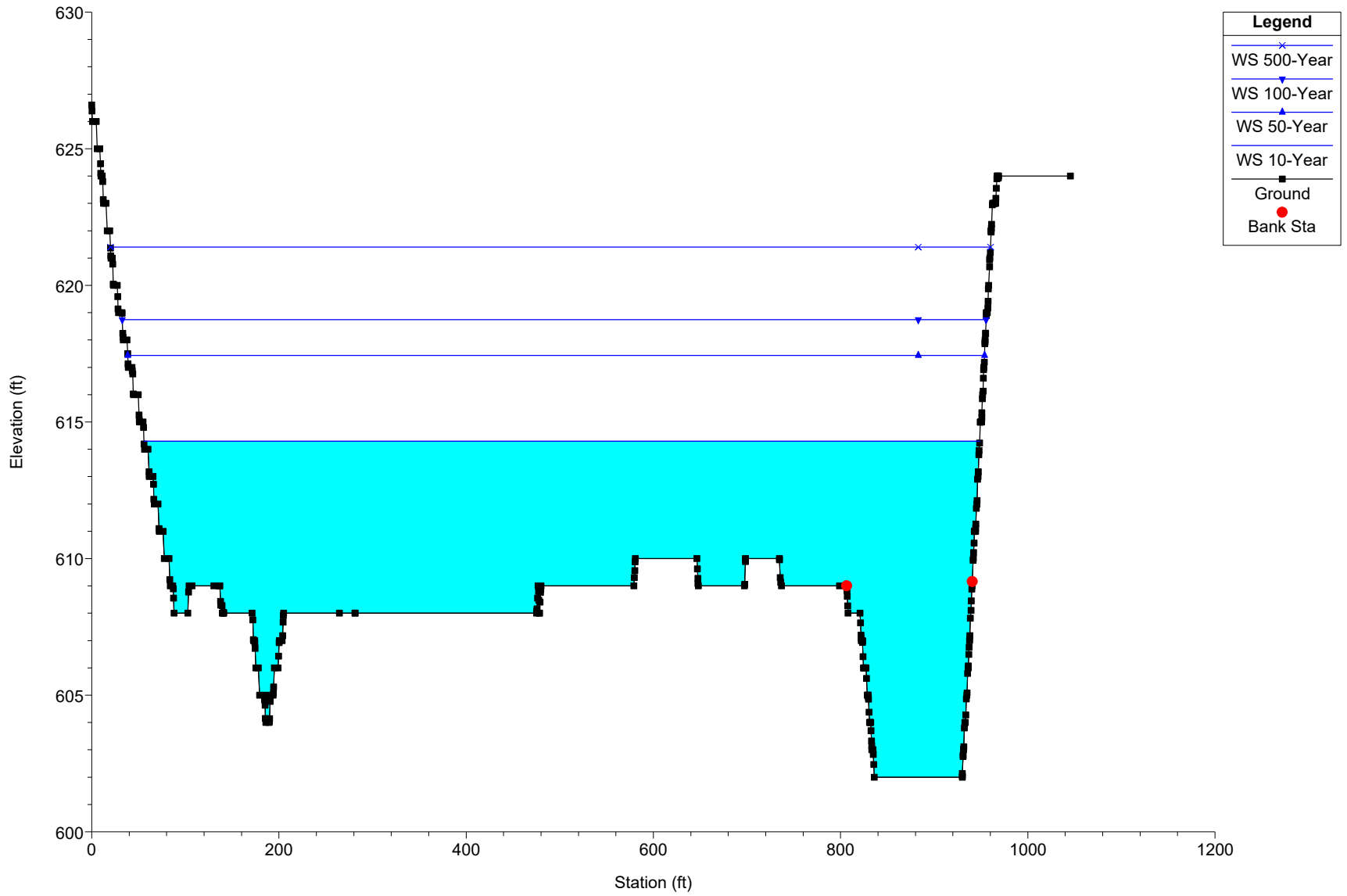
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 62500 Cross Section - 62,500



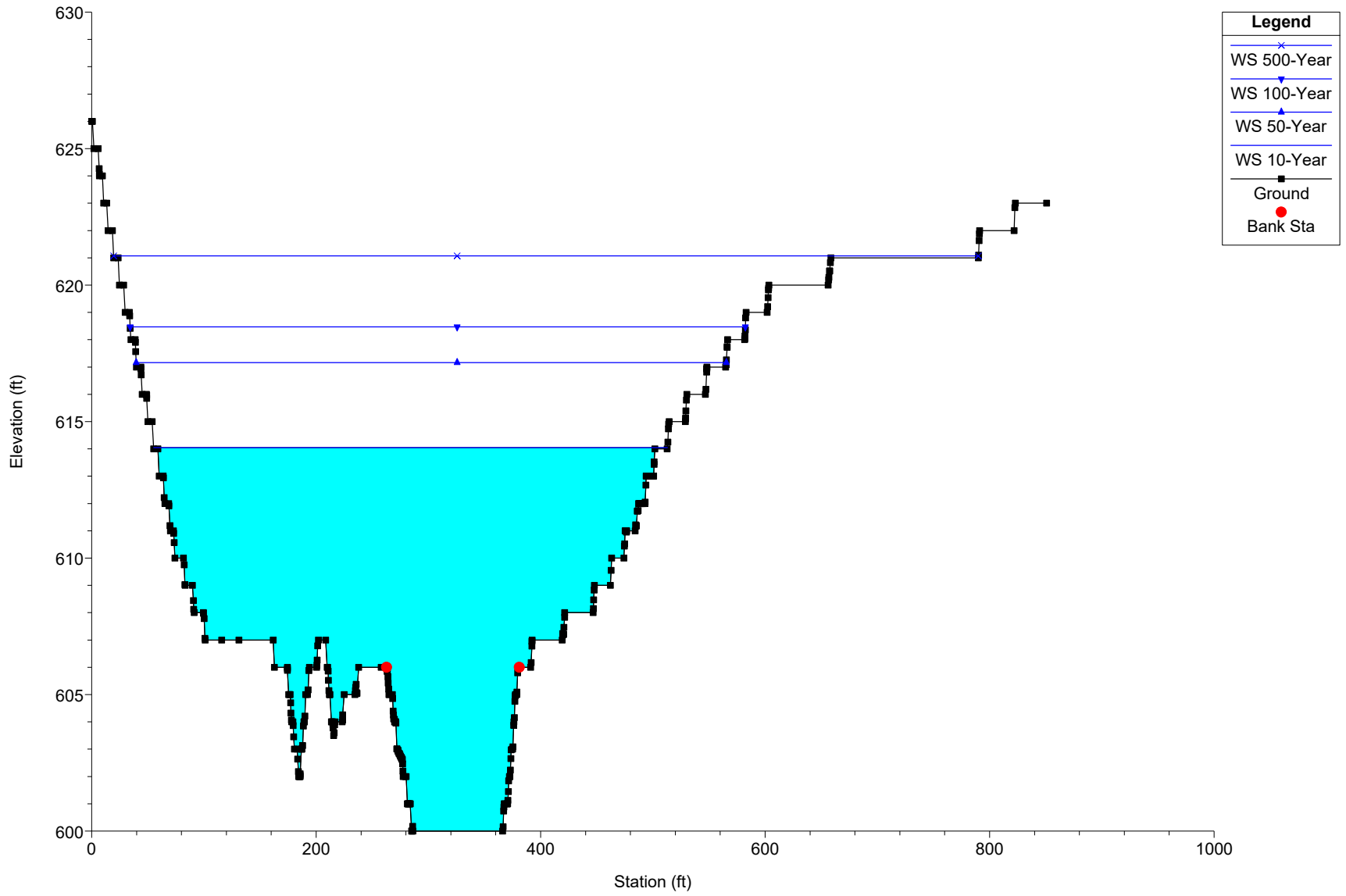
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 62000 Cross Section - 62,000



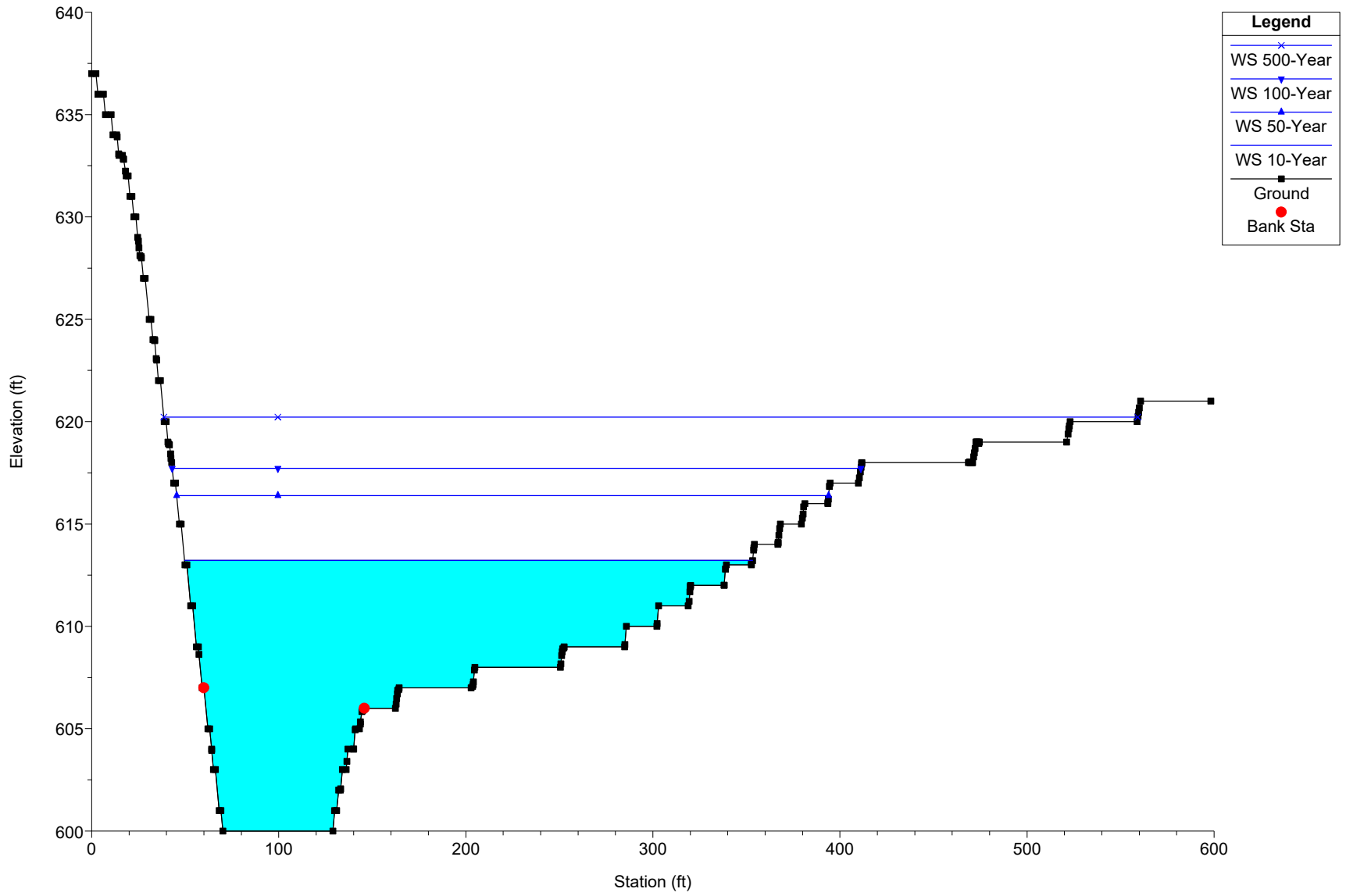
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 61500 Cross Section - 61,500



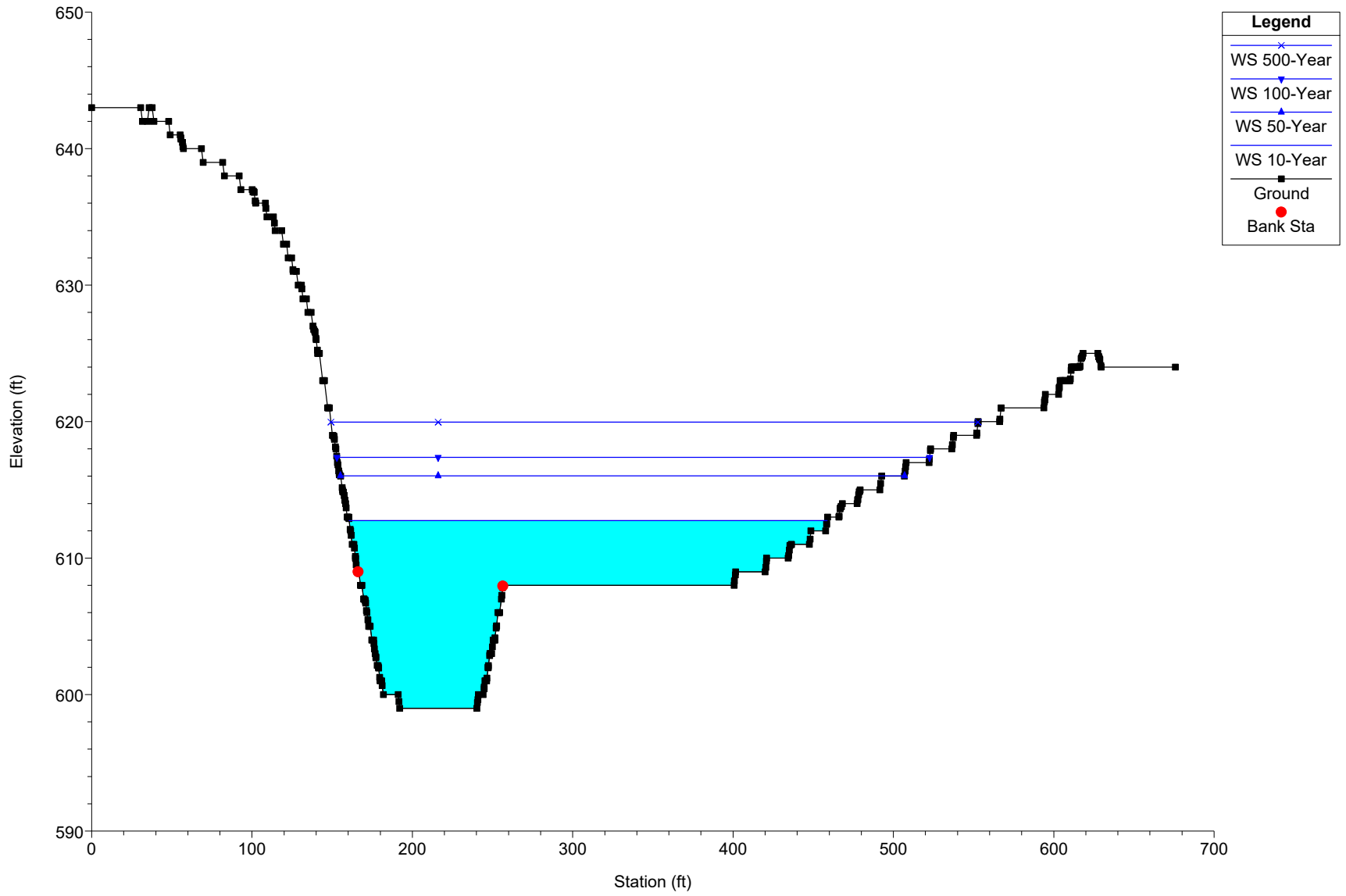
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 61000 Cross Section - 61,000



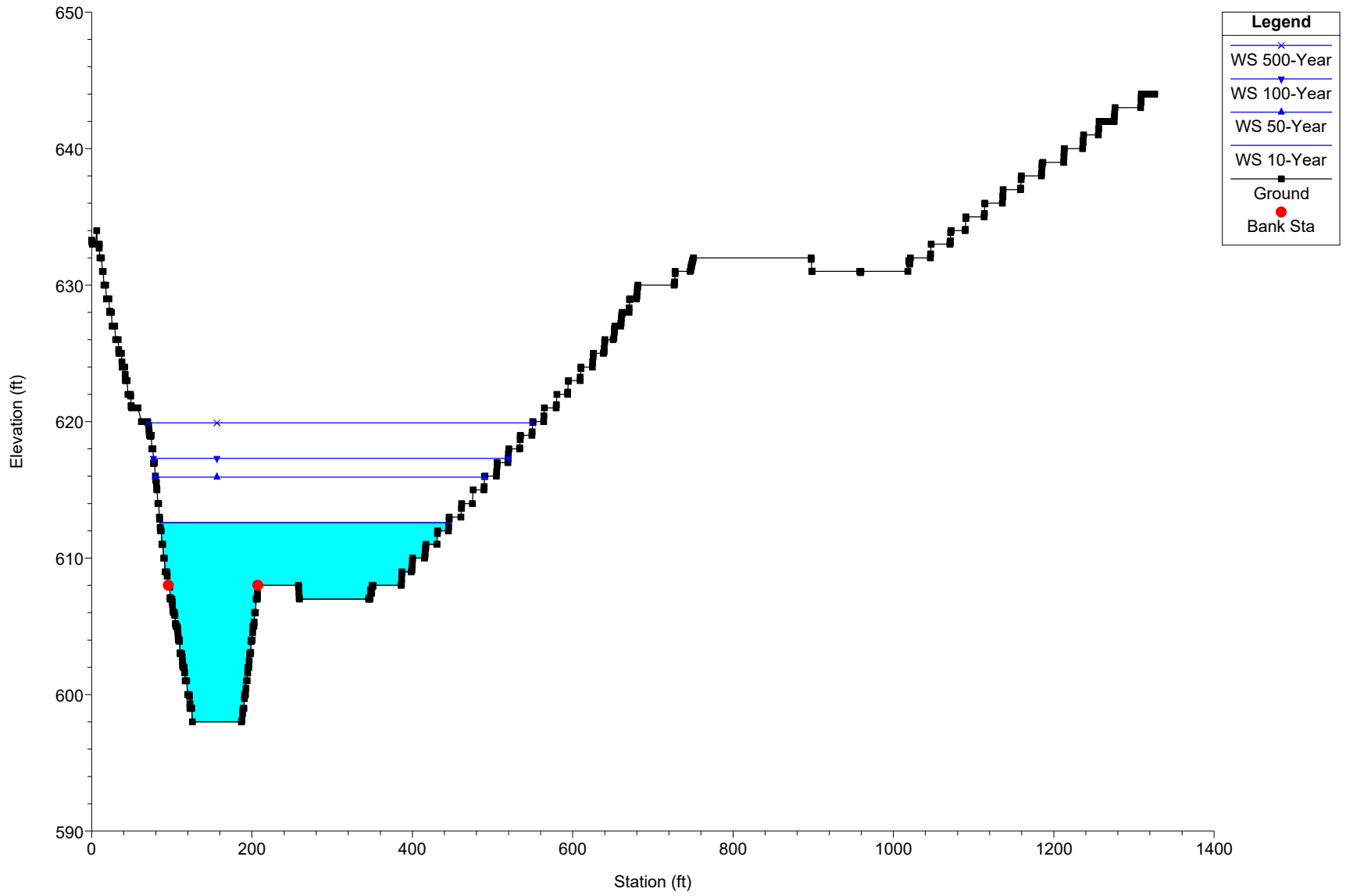
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 60500 Cross Section - 60,500



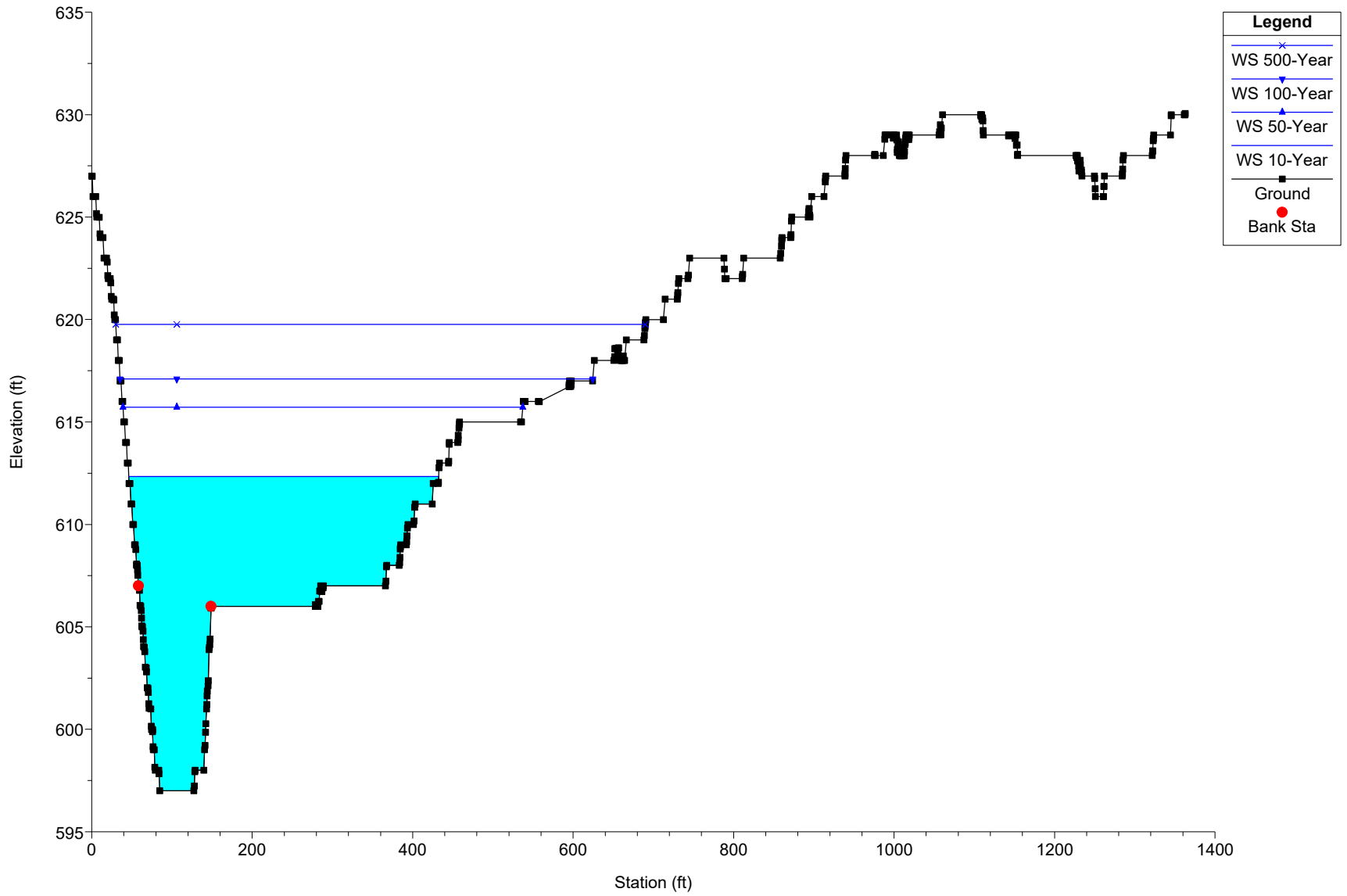
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 60000 Cross Section - 60,000



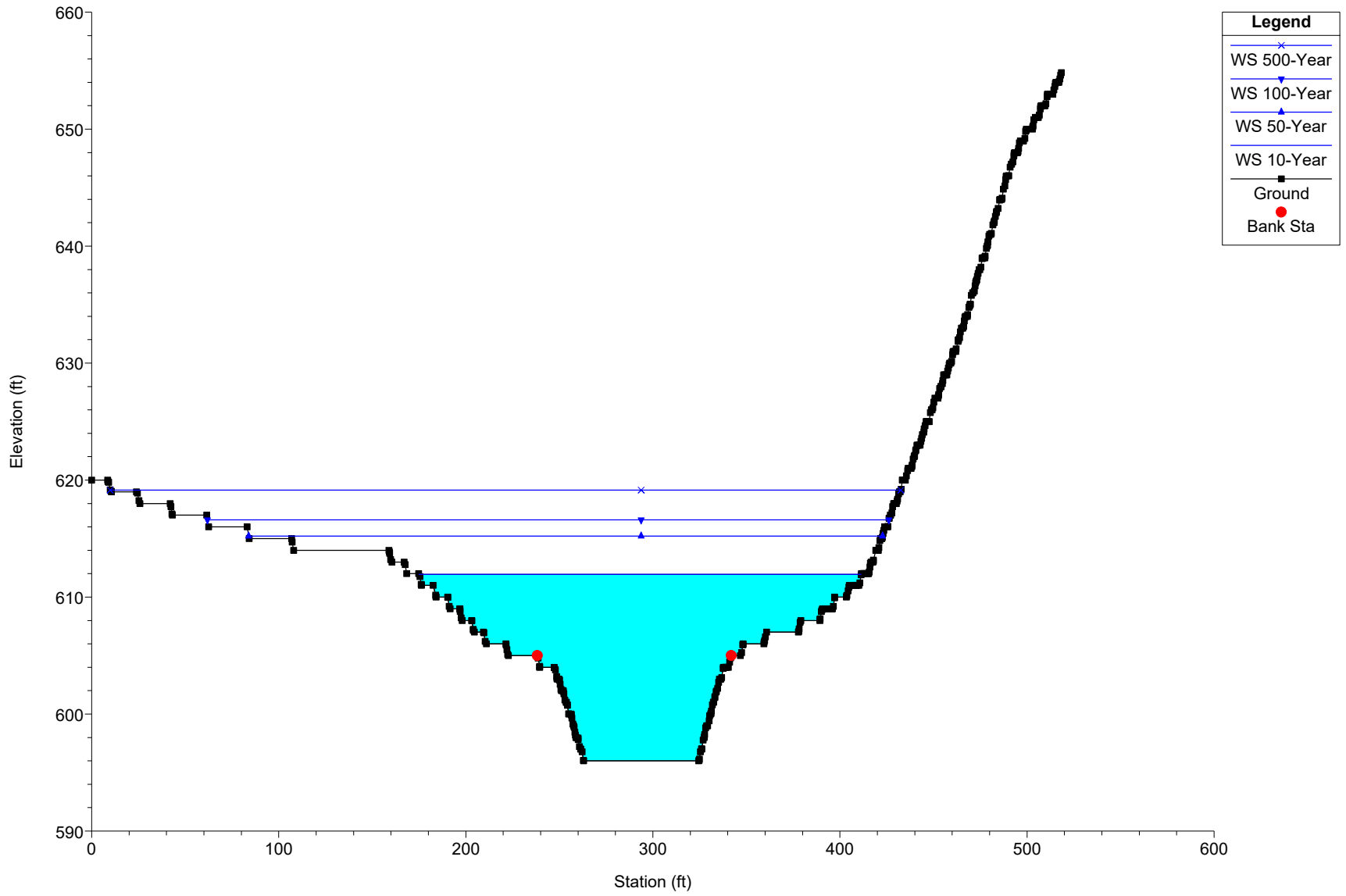
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RS = 59500 Cross Section - 59,500



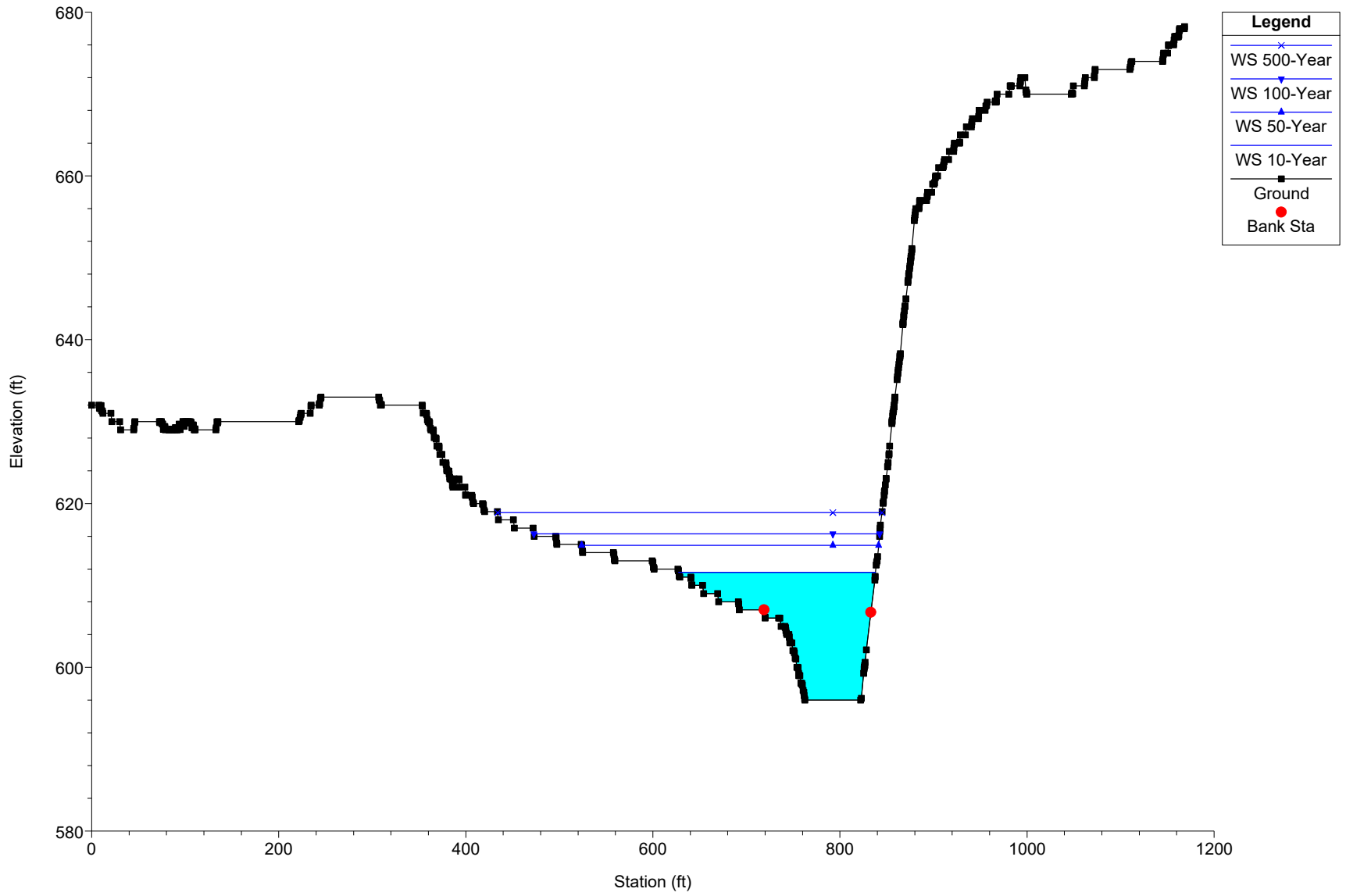
2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 59000 Cross Section - 59,000



2023-07-07-Rutherford Creek-TOTAL Plan: Proposed-Final-RE 7/7/2023

RS = 58662 Cross Section - 58,662 (Section U)



HEC-RAS-River River Analysis

(Tabular Results-Proposed Model)

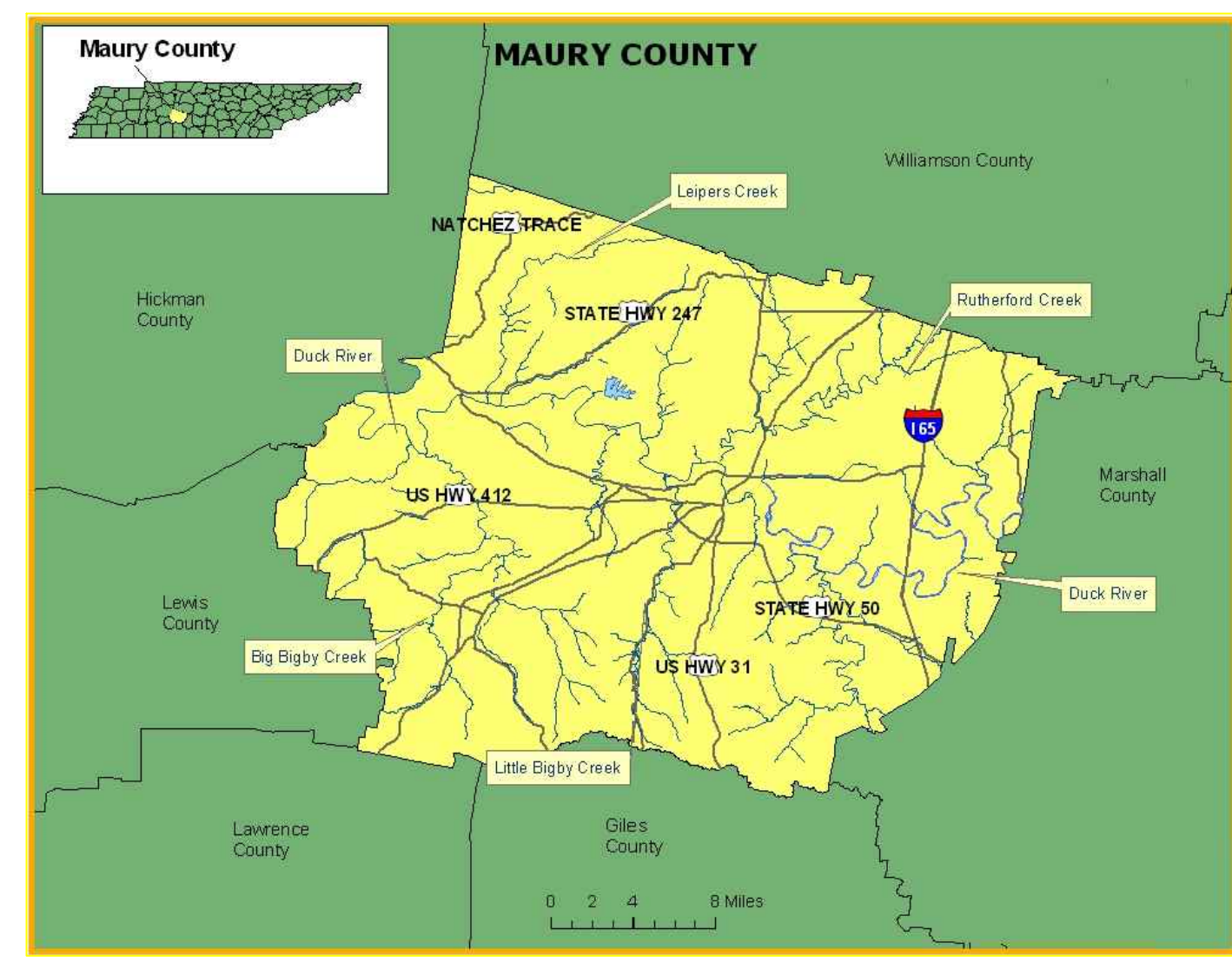
HEC-RAS Plan: Proposed-Final-RE River: Rutherford Reach: Rutherford

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Rutherford	66500	10-Year	9820.00	608.00	619.68		620.08	0.000692	6.12	3150.78	638.11	0.33
Rutherford	66500	50-Year	14550.00	608.00	621.80		622.19	0.000606	6.46	4592.74	699.55	0.32
Rutherford	66500	100-Year	16690.00	608.00	622.66		623.04	0.000574	6.57	5313.21	882.21	0.31
Rutherford	66500	500-Year	21950.00	608.00	625.25		625.55	0.000408	6.21	8022.79	1214.87	0.27
Rutherford	66000	10-Year	9820.00	608.00	619.25		619.70	0.000706	5.68	2381.05	512.48	0.33
Rutherford	66000	50-Year	14550.00	608.00	621.28		621.83	0.000699	6.45	3540.21	735.84	0.34
Rutherford	66000	100-Year	16690.00	608.00	622.13		622.70	0.000680	6.67	4199.25	995.92	0.34
Rutherford	66000	500-Year	21950.00	608.00	624.93		625.33	0.000417	6.00	7491.67	1282.09	0.27
Rutherford	65500	10-Year	9820.00	606.00	618.42		619.23	0.001118	8.13	2141.02	655.49	0.42
Rutherford	65500	50-Year	14550.00	606.00	620.65		621.40	0.000971	8.52	4038.28	952.41	0.40
Rutherford	65500	100-Year	16690.00	606.00	621.74		622.34	0.000772	7.99	5098.95	981.78	0.36
Rutherford	65500	500-Year	21950.00	606.00	624.77		625.10	0.000417	6.65	8186.98	1048.30	0.28
Rutherford	65000	10-Year	9820.00	606.00	617.62		618.59	0.001409	8.64	1681.03	279.59	0.47
Rutherford	65000	50-Year	14550.00	606.00	620.25		620.91	0.000905	8.02	4329.45	1166.30	0.39
Rutherford	65000	100-Year	16690.00	606.00	621.48		621.95	0.000647	7.20	5775.25	1180.21	0.33
Rutherford	65000	500-Year	21950.00	606.00	624.65		624.89	0.000327	5.84	9713.69	1316.56	0.25
Rutherford	64500	10-Year	9820.00	606.00	616.57		617.74	0.001985	9.10	1460.13	316.61	0.54
Rutherford	64500	50-Year	14550.00	606.00	619.75		620.44	0.000976	7.84	4268.01	1300.84	0.40
Rutherford	64500	100-Year	16690.00	606.00	621.23		621.63	0.000581	6.53	6190.23	1308.53	0.31
Rutherford	64500	500-Year	21950.00	606.00	624.55		624.73	0.000252	4.98	10565.44	1323.53	0.21
Rutherford	64300	10-Year	9820.00	606.00	616.38		617.31	0.001883	8.41	1860.89	531.03	0.52
Rutherford	64300	50-Year	14550.00	606.00	619.78		620.21	0.000718	6.55	5399.71	1471.59	0.34
Rutherford	64300	100-Year	16690.00	606.00	621.24		621.49	0.000435	5.52	7574.44	1535.74	0.27
Rutherford	64300	500-Year	21950.00	606.00	624.56		624.67	0.000187	4.21	12836.24	1628.97	0.18
Rutherford	64100	10-Year	9820.00	604.00	616.47		616.96	0.000648	6.01	2442.73	504.23	0.32
Rutherford	64100	50-Year	14550.00	604.00	619.70		620.09	0.000419	5.75	5486.08	1309.39	0.27
Rutherford	64100	100-Year	16690.00	604.00	621.14		621.42	0.000300	5.20	7420.76	1382.94	0.23
Rutherford	64100	500-Year	21950.00	604.00	624.49		624.64	0.000156	4.27	12200.49	1470.58	0.17
Rutherford	63900	10-Year	9820.00	604.00	616.35		616.81	0.000750	5.82	2449.07	525.83	0.33
Rutherford	63900	50-Year	14550.00	604.00	619.68		619.98	0.000398	5.19	5703.16	1217.21	0.26
Rutherford	63900	100-Year	16690.00	604.00	621.12		621.34	0.000282	4.70	7466.07	1227.34	0.22
Rutherford	63900	500-Year	21950.00	604.00	624.46		624.60	0.000154	4.00	11596.56	1243.57	0.17
Rutherford	63700	10-Year	9820.00	604.00	616.23		616.66	0.000645	5.66	2614.24	662.13	0.32
Rutherford	63700	50-Year	14550.00	604.00	619.61		619.90	0.000354	5.11	5899.14	1162.38	0.25
Rutherford	63700	100-Year	16690.00	604.00	621.07		621.29	0.000258	4.67	7598.93	1172.00	0.21
Rutherford	63700	500-Year	21950.00	604.00	624.43		624.57	0.000147	4.05	11567.04	1210.56	0.17
Rutherford	63549	10-Year	9820.00	604.00	614.51	611.69	616.35	0.002323	10.90	900.95	129.98	0.61
Rutherford	63549	50-Year	14550.00	604.00	616.93	613.81	619.56	0.002479	13.01	1118.69	130.61	0.65
Rutherford	63549	100-Year	16690.00	604.00	617.99	614.73	620.93	0.002479	13.74	1214.71	130.88	0.66
Rutherford	63549	500-Year	21950.00	604.00	620.61	616.79	624.17	0.002373	15.13	1450.59	131.54	0.66
Rutherford	63527		Bridge									
Rutherford	63442	10-Year	9820.00	603.00	614.32	611.33	616.21	0.002450	11.03	889.98	99.33	0.61
Rutherford	63442	50-Year	14550.00	603.00	616.62	613.59	619.37	0.002858	13.30	1094.20	120.33	0.67
Rutherford	63442	100-Year	16690.00	603.00	617.67	614.53	620.74	0.002855	14.04	1188.40	125.80	0.68
Rutherford	63442	500-Year	21950.00	603.00	619.79	616.75	623.73	0.003005	15.91	1379.48	136.89	0.72
Rutherford	63300	10-Year	9820.00	602.00	614.60		615.32	0.001030	7.88	2496.33	739.19	0.41
Rutherford	63300	50-Year	14550.00	602.00	617.59		617.98	0.000541	6.67	5816.69	1234.38	0.31
Rutherford	63300	100-Year	16690.00	602.00	618.90		619.17	0.000388	5.99	7445.72	1260.37	0.27
Rutherford	63300	500-Year	21950.00	602.00	621.55		621.73	0.000245	5.28	10942.69	1371.78	0.22
Rutherford	63100	10-Year	9820.00	602.00	614.48		615.08	0.001048	6.83	2340.61	799.79	0.40
Rutherford	63100	50-Year	14550.00	602.00	617.50		617.86	0.000538	5.91	5064.20	981.38	0.30
Rutherford	63100	100-Year	16690.00	602.00	618.80		619.09	0.000414	5.54	6453.06	1130.03	0.27
Rutherford	63100	500-Year	21950.00	602.00	621.47		621.68	0.000269	5.04	10460.61	1709.03	0.22
Rutherford	62900	10-Year	9820.00	602.00	614.25		614.87	0.001035	7.08	2555.59	808.75	0.40
Rutherford	62900	50-Year	14550.00	602.00	617.46		617.74	0.000448	5.63	6507.39	1510.77	0.28
Rutherford	62900	100-Year	16690.00	602.00	618.79		618.99	0.000310	5.00	8577.91	1572.24	0.23
Rutherford	62900	500-Year	21950.00	602.00	621.49		621.61	0.000181	4.29	13004.61	1828.20	0.18
Rutherford	62700	10-Year	9820.00	602.00	614.42		614.60	0.000463	4.76	5739.55	1832.06	0.27
Rutherford	62700	50-Year	14550.00	602.00	617.56		617.62	0.000155	3.31	11597.37	1897.05	0.16
Rutherford	62700	100-Year	16690.00	602.00	618.86		618.91	0.000115	3.04	14078.80	1916.87	0.14
Rutherford	62700	500-Year	21950.00	602.00	621.52		621.56	0.000078	2.81	19259.70	1970.70	0.12
Rutherford	62500	10-Year	9820.00	602.00	614.42		614.51	0.000241	3.34	6919.75	1538.36	0.19
Rutherford	62500	50-Year	14550.00	602.00	617.54		617.59	0.000115	2.79	11780.41	1576.81	0.14

HEC-RAS Plan: Proposed-Final-RE River: Rutherford Reach: Rutherford (Continued)

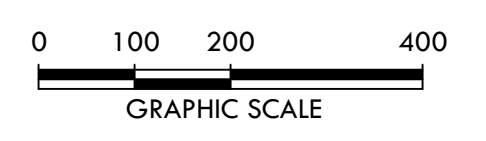
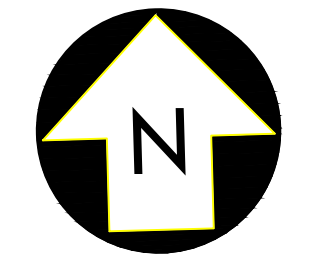
Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Rutherford	62500	100-Year	16690.00	602.00	618.84		618.89	0.000093	2.69	13840.64	1589.96	0.13
Rutherford	62500	500-Year	21950.00	602.00	621.50		621.54	0.000071	2.64	18123.89	1626.16	0.11
Rutherford	62000	10-Year	9820.00	602.00	614.29		614.40	0.000207	3.44	5723.12	892.96	0.18
Rutherford	62000	50-Year	14550.00	602.00	617.44		617.53	0.000142	3.37	8564.06	915.35	0.16
Rutherford	62000	100-Year	16690.00	602.00	618.74		618.83	0.000126	3.37	9764.86	922.92	0.15
Rutherford	62000	500-Year	21950.00	602.00	621.40		621.50	0.000110	3.50	12247.46	940.15	0.15
Rutherford	61500	10-Year	9820.00	600.00	614.05		614.27	0.000274	4.45	3665.55	457.67	0.22
Rutherford	61500	50-Year	14550.00	600.00	617.17		617.42	0.000251	4.91	5173.22	525.69	0.21
Rutherford	61500	100-Year	16690.00	600.00	618.47		618.73	0.000239	5.04	5869.39	548.05	0.21
Rutherford	61500	500-Year	21950.00	600.00	621.07		621.40	0.000250	5.66	7421.99	770.43	0.22
Rutherford	61000	10-Year	9820.00	600.00	613.22		613.98	0.000938	7.70	1962.27	303.63	0.39
Rutherford	61000	50-Year	14550.00	600.00	616.39		617.16	0.000765	8.12	2989.26	348.50	0.37
Rutherford	61000	100-Year	16690.00	600.00	617.72		618.49	0.000705	8.24	3465.25	368.12	0.36
Rutherford	61000	500-Year	21950.00	600.00	620.22		621.13	0.000721	9.15	4594.88	520.73	0.37
Rutherford	60500	10-Year	9820.00	599.00	612.75		613.51	0.000953	7.58	1922.93	298.00	0.39
Rutherford	60500	50-Year	14550.00	599.00	616.02		616.78	0.000761	7.96	2967.96	351.77	0.36
Rutherford	60500	100-Year	16690.00	599.00	617.38		618.13	0.000694	8.04	3456.18	369.72	0.35
Rutherford	60500	500-Year	21950.00	599.00	619.96		620.76	0.000644	8.53	4457.89	403.63	0.34
Rutherford	60000	10-Year	9820.00	598.00	612.59		613.06	0.000559	5.97	2435.20	360.52	0.30
Rutherford	60000	50-Year	14550.00	598.00	615.94		616.40	0.000445	6.25	3735.17	410.76	0.28
Rutherford	60000	100-Year	16690.00	598.00	617.31		617.78	0.000415	6.38	4325.16	442.64	0.27
Rutherford	60000	500-Year	21950.00	598.00	619.92		620.43	0.000390	6.81	5528.46	479.92	0.27
Rutherford	59500	10-Year	9820.00	597.00	612.34		612.78	0.000523	6.06	2702.58	386.23	0.29
Rutherford	59500	50-Year	14550.00	597.00	615.72		616.18	0.000446	6.50	4130.20	498.37	0.28
Rutherford	59500	100-Year	16690.00	597.00	617.10		617.57	0.000426	6.69	4874.39	589.23	0.28
Rutherford	59500	500-Year	21950.00	597.00	619.76		620.22	0.000375	6.88	6537.29	659.98	0.27
Rutherford	59000	10-Year	9820.00	596.00	611.93		612.50	0.000534	6.30	1994.23	236.35	0.30
Rutherford	59000	50-Year	14550.00	596.00	615.20		615.91	0.000522	7.19	2899.48	338.83	0.31
Rutherford	59000	100-Year	16690.00	596.00	616.60		617.32	0.000495	7.37	3386.99	364.25	0.30
Rutherford	59000	500-Year	21950.00	596.00	619.16		619.97	0.000494	8.04	4390.72	422.60	0.31
Rutherford	58662	10-Year	9820.00	596.00	611.60	604.84	612.28	0.000727	6.75	1683.05	210.48	0.34
Rutherford	58662	50-Year	14550.00	596.00	614.90	607.43	615.70	0.000653	7.51	2572.72	317.59	0.34
Rutherford	58662	100-Year	16690.00	596.00	616.30	608.35	617.12	0.000611	7.69	3060.43	369.73	0.33
Rutherford	58662	500-Year	21950.00	596.00	618.90	610.30	619.78	0.000574	8.20	4080.90	411.08	0.33

Proposed Conditions Working Drawing



- PROPOSED CONDITIONS CROSS SECTIONS
- STREAM CENTERLINE
- - - CONTOUR ELEVATIONS
- EXISTING FLOODWAY
- PROPOSED 1 PCT ANNUAL CHANCE FLOOD HAZARD
- PROPOSED 0.2 PCT ANNUAL CHANCE FLOOD HAZARD

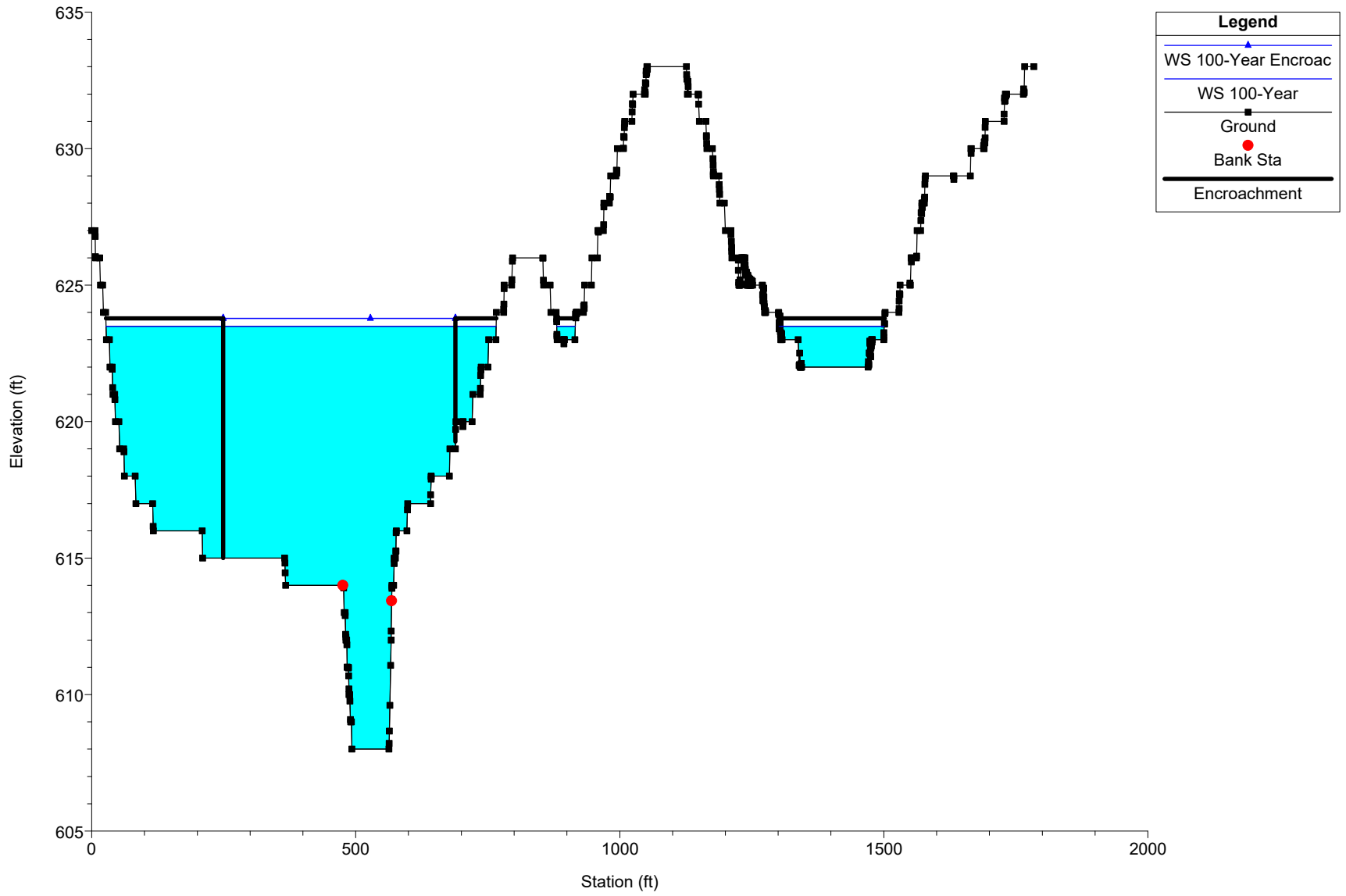
**PROPOSED
 TOPOGRAPHICAL
 WORK MAP
 NOVEMBER 16, 2022
 VERTICAL DATUM
 NAVD 88**



Existing Conditions/Encroachment Cross-Sections

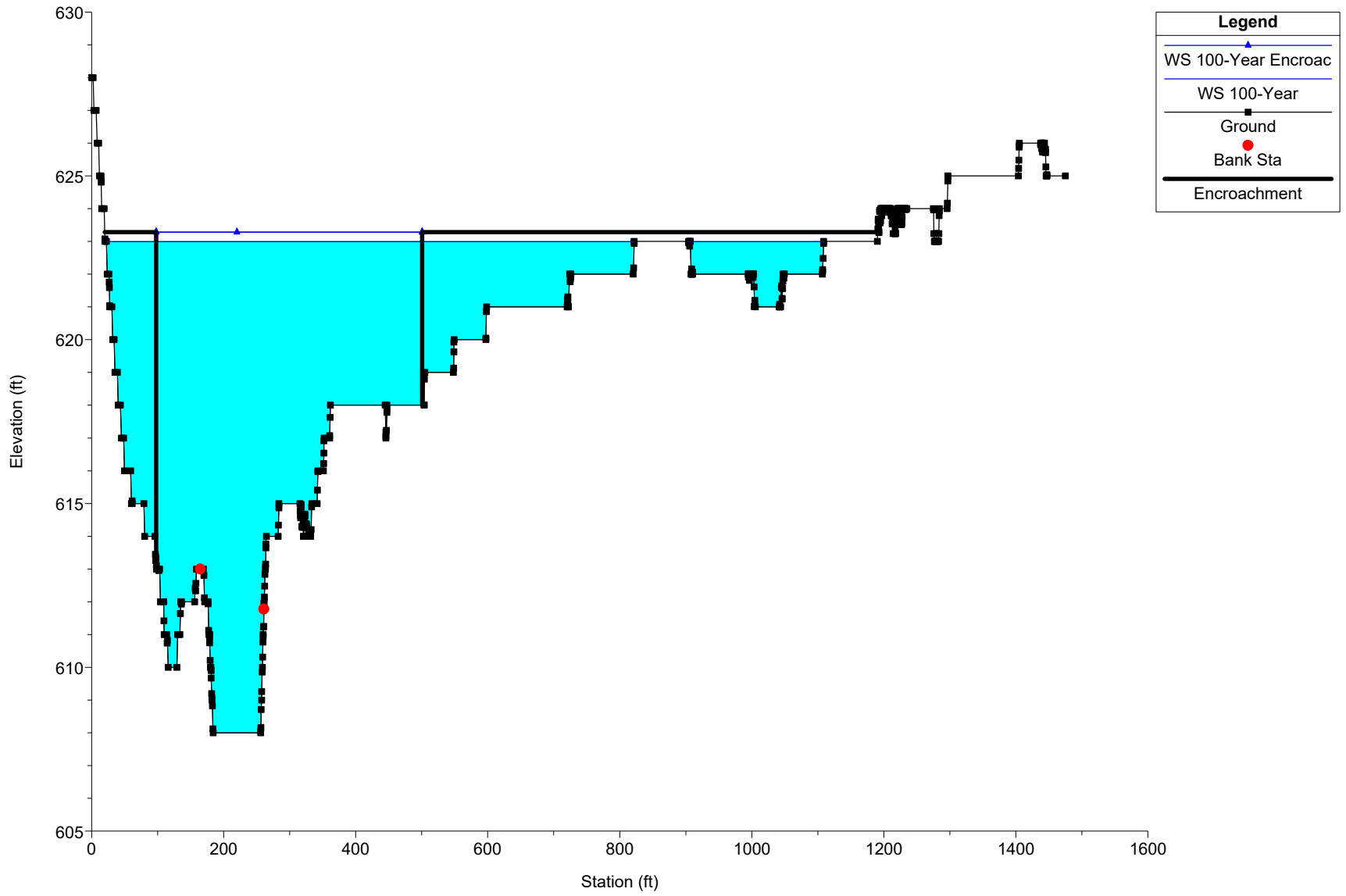
2023-07-07-Rutherford Creek-TOTAL Plan: Encroachment-Existing-Final-RE 7/7/2023

RS = 66500 Cross Section - 66,500



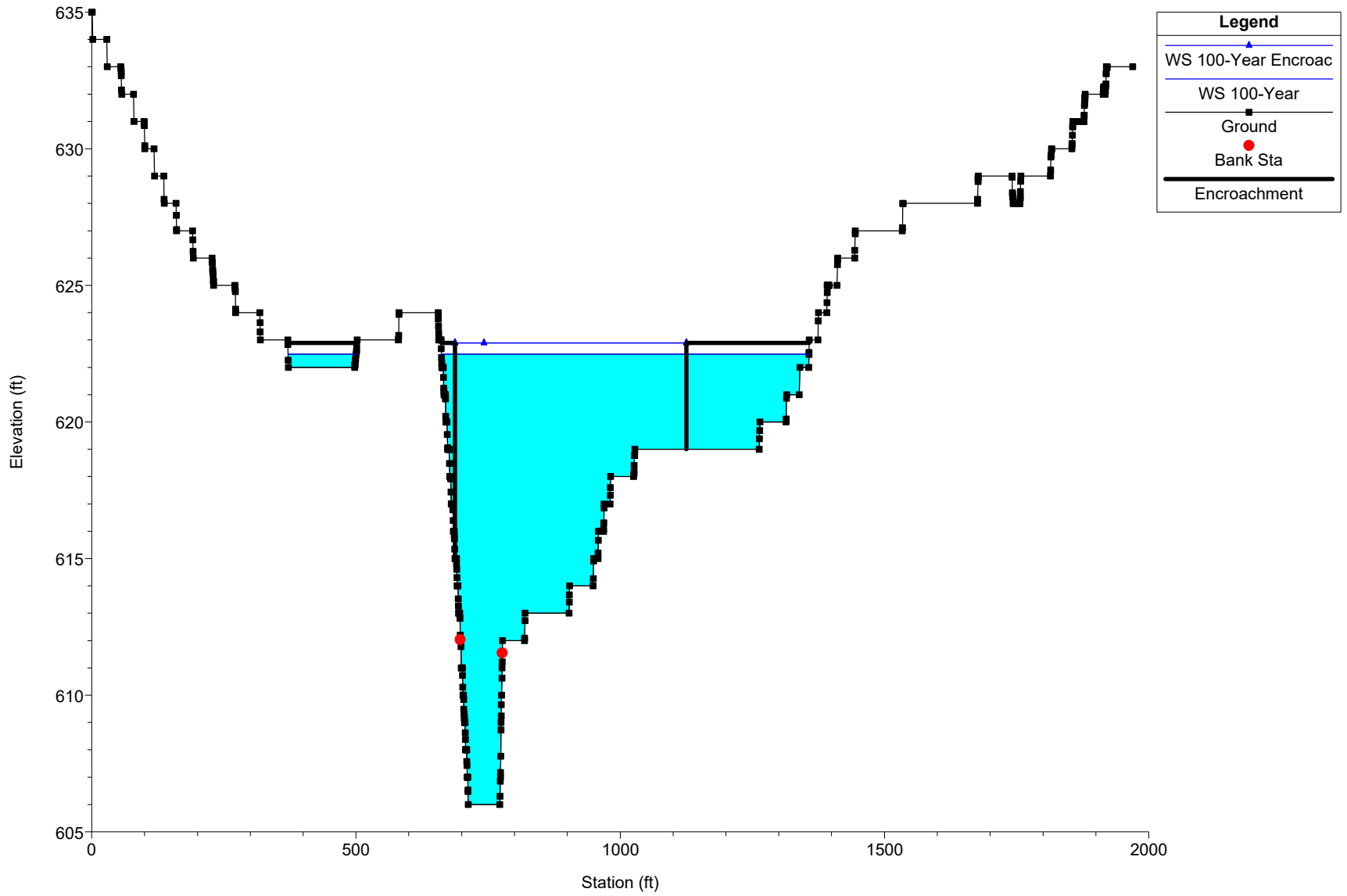
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RS = 66000 Cross Section - 66,000



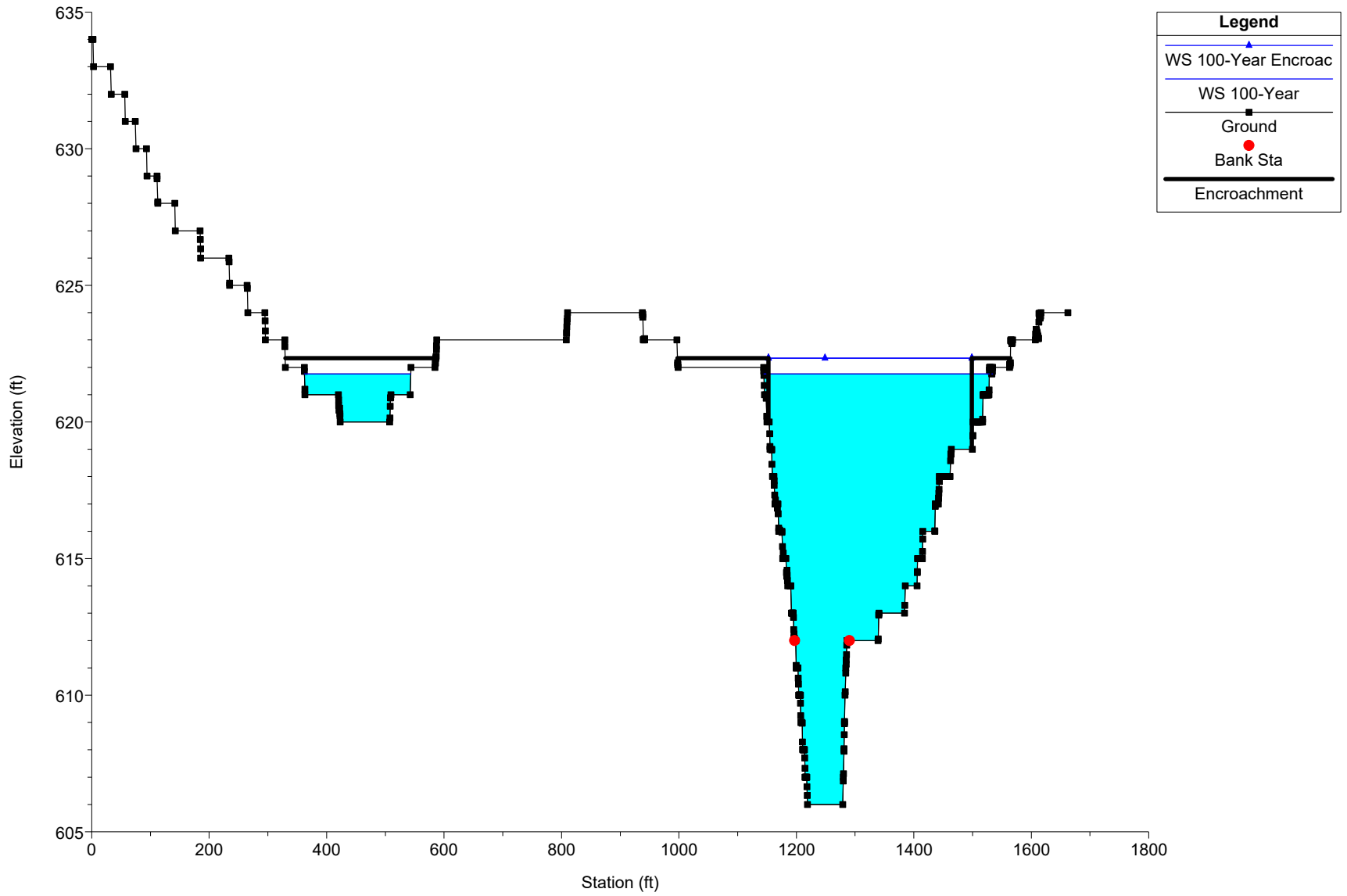
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RS = 65500 Cross Section - 65,500



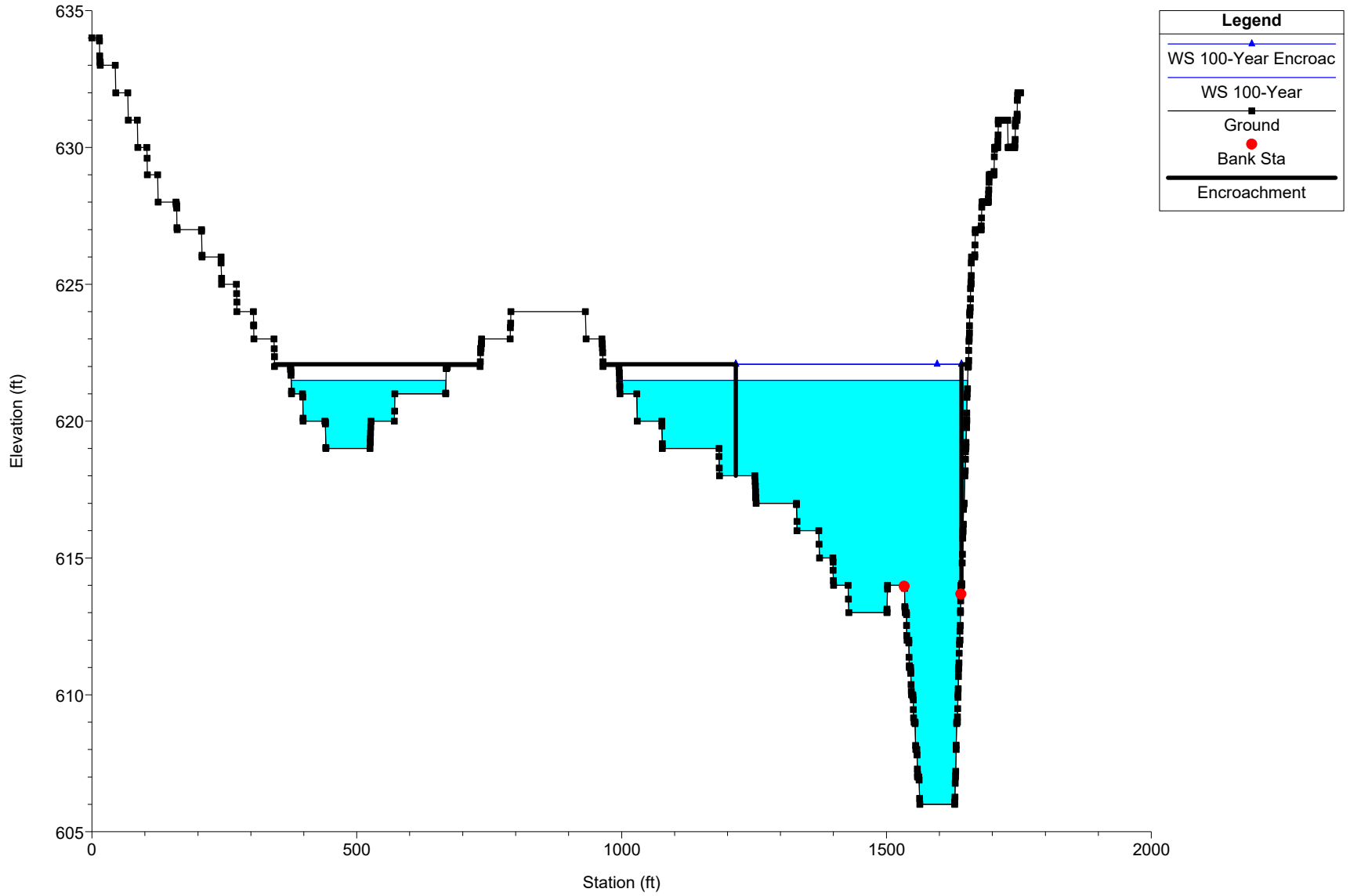
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RS = 65000 Cross Section - 65,000



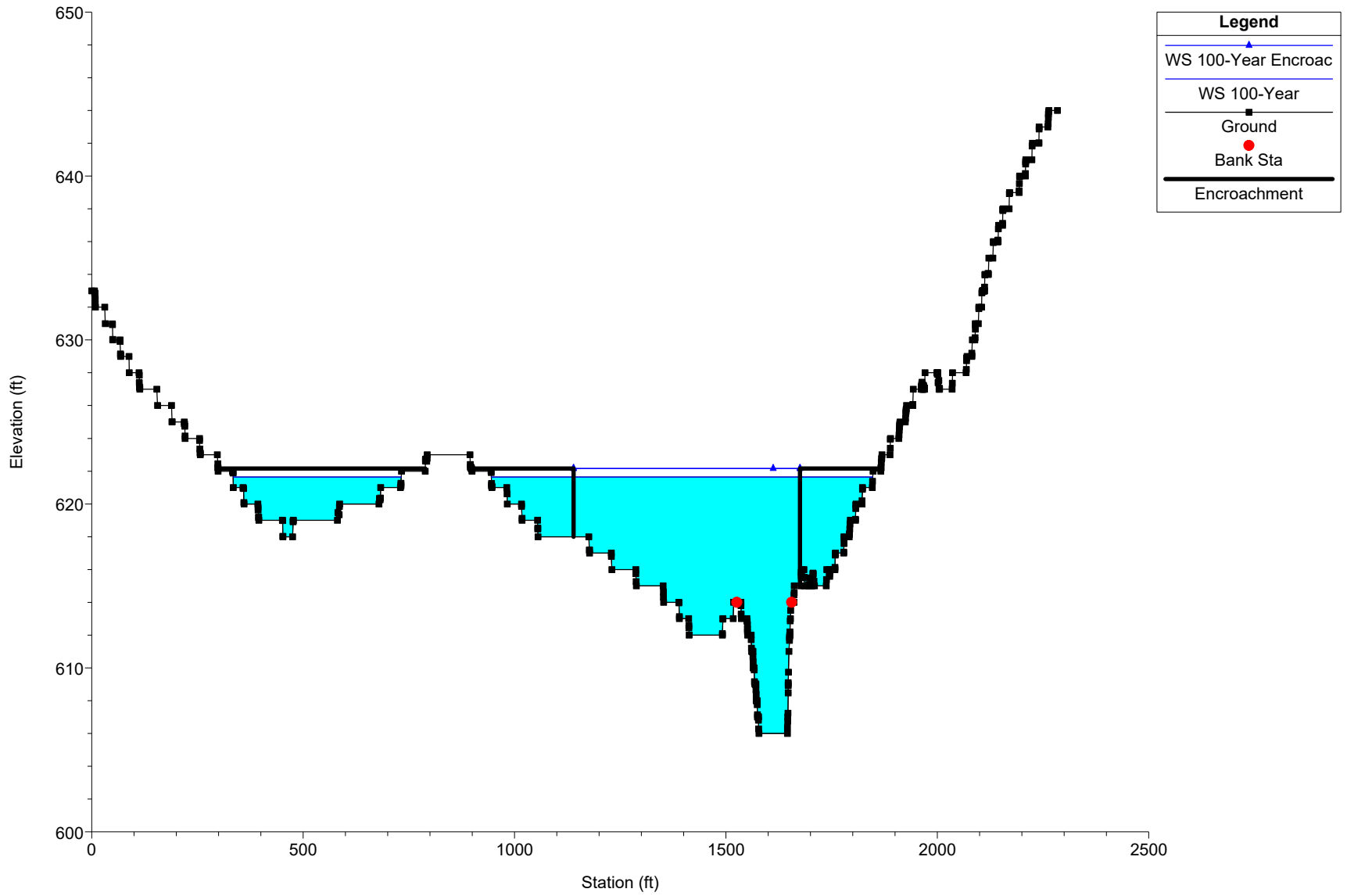
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RS = 64500 Cross Section - 64,500



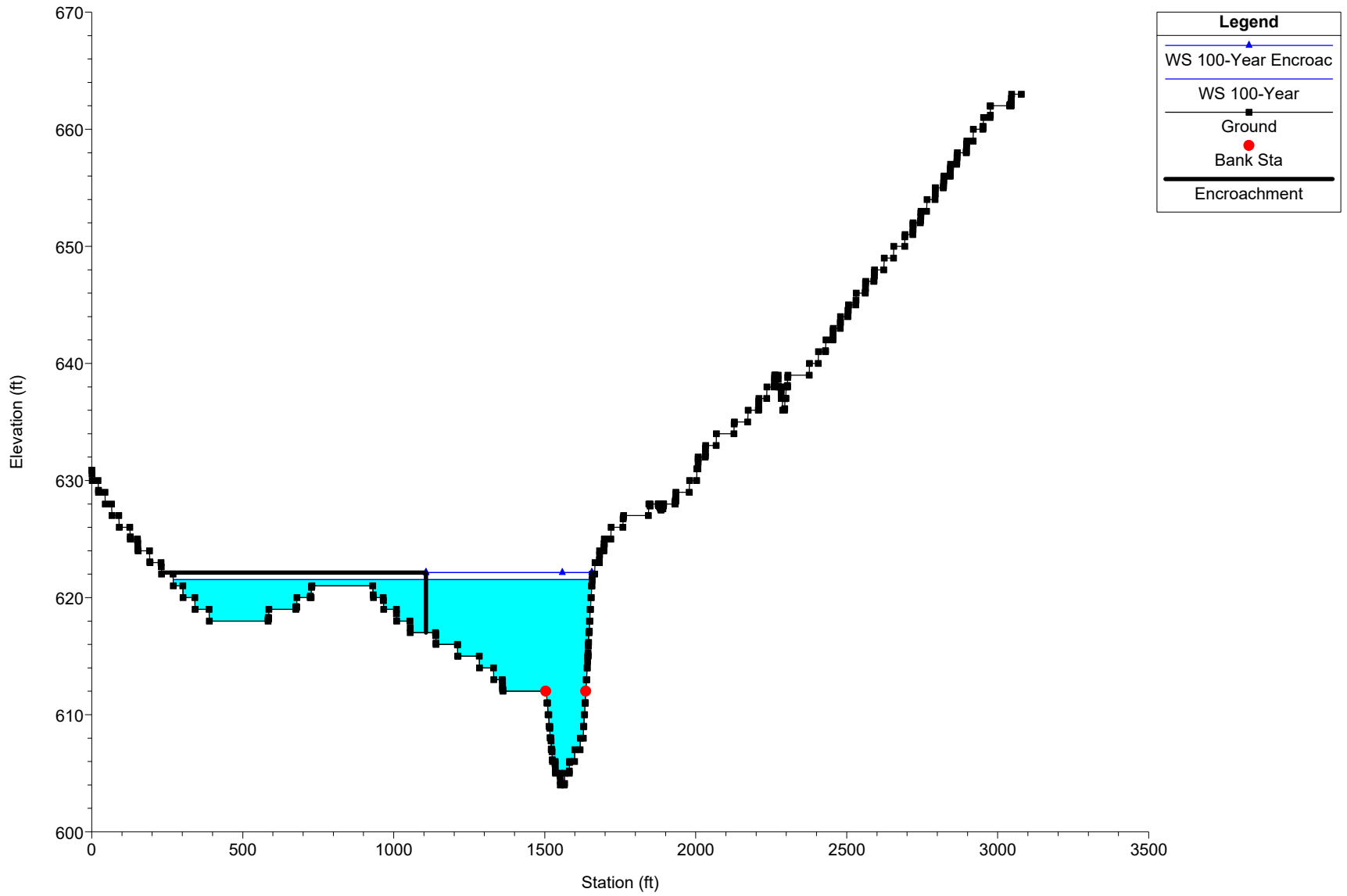
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RS = 64300 Cross Section - 64,300



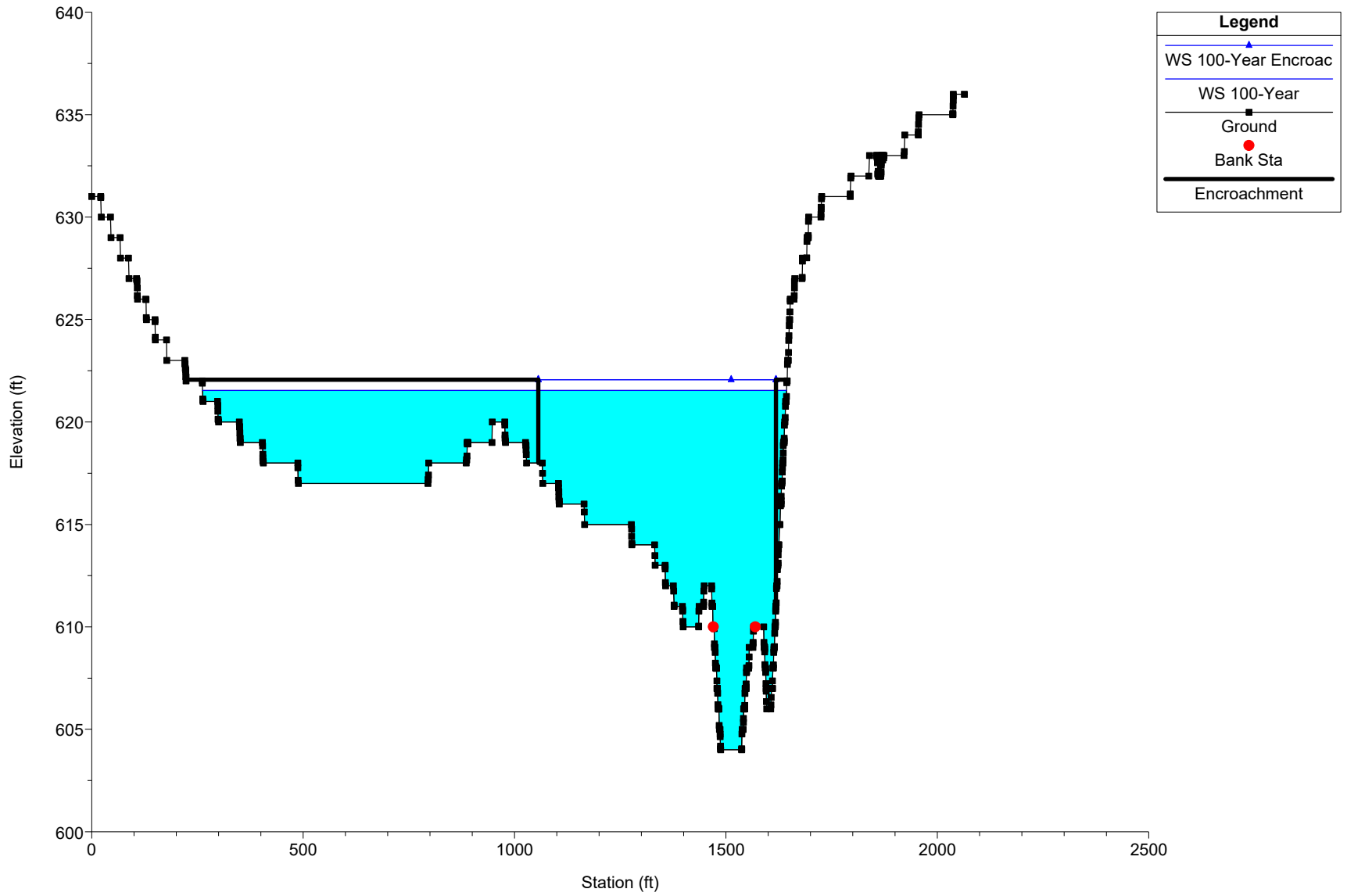
2023-07-07-Rutherford Creek-TOTAL Plan: Encroachment-Existing-Final-RE 7/7/2023

RS = 64100 Cross Section - 64,100



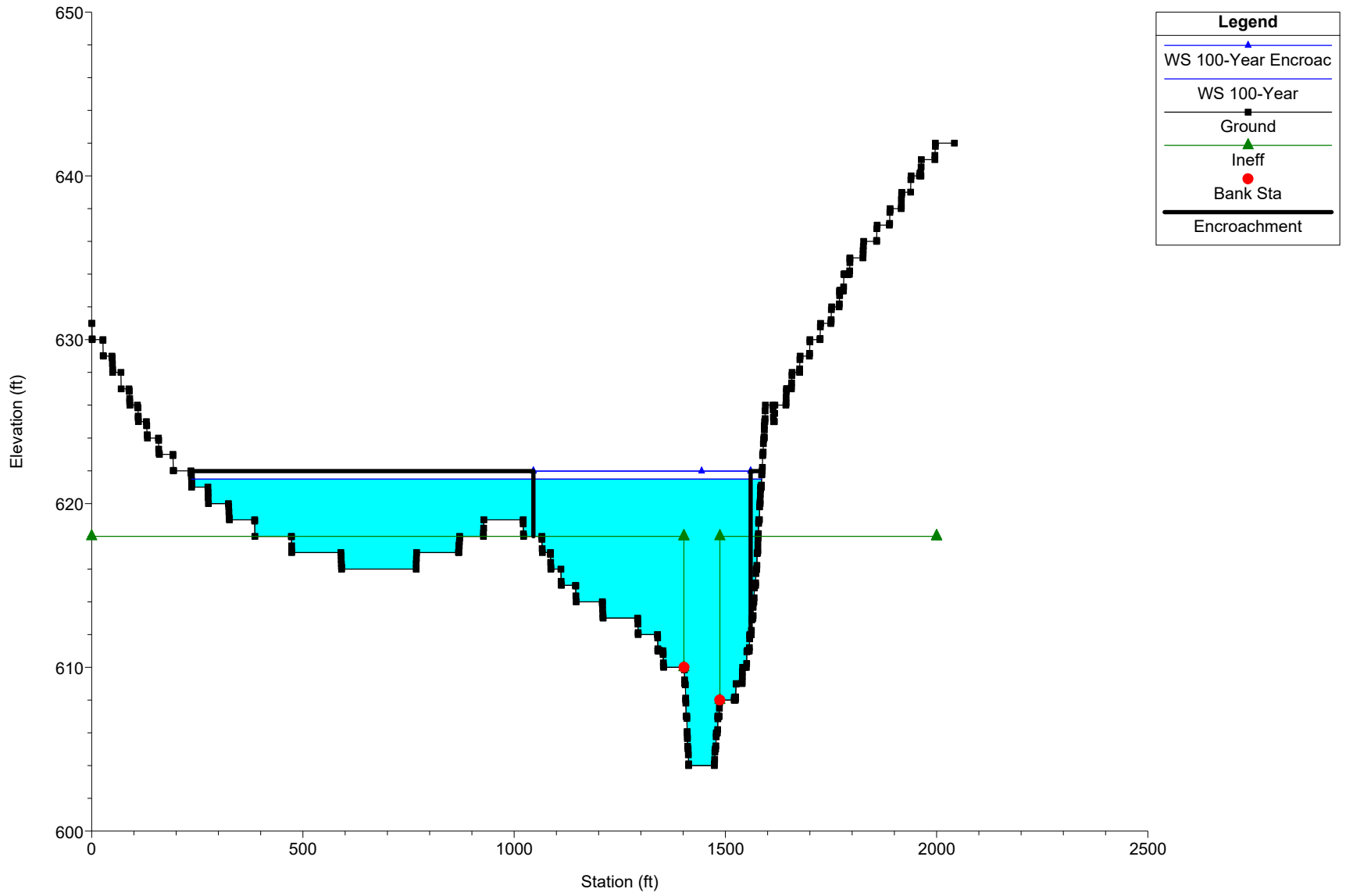
2023-07-07-Rutherford Creek-TOTAL Plan: Encroachment-Existing-Final-RE 7/7/2023

RS = 63900 Cross Section - 63,900



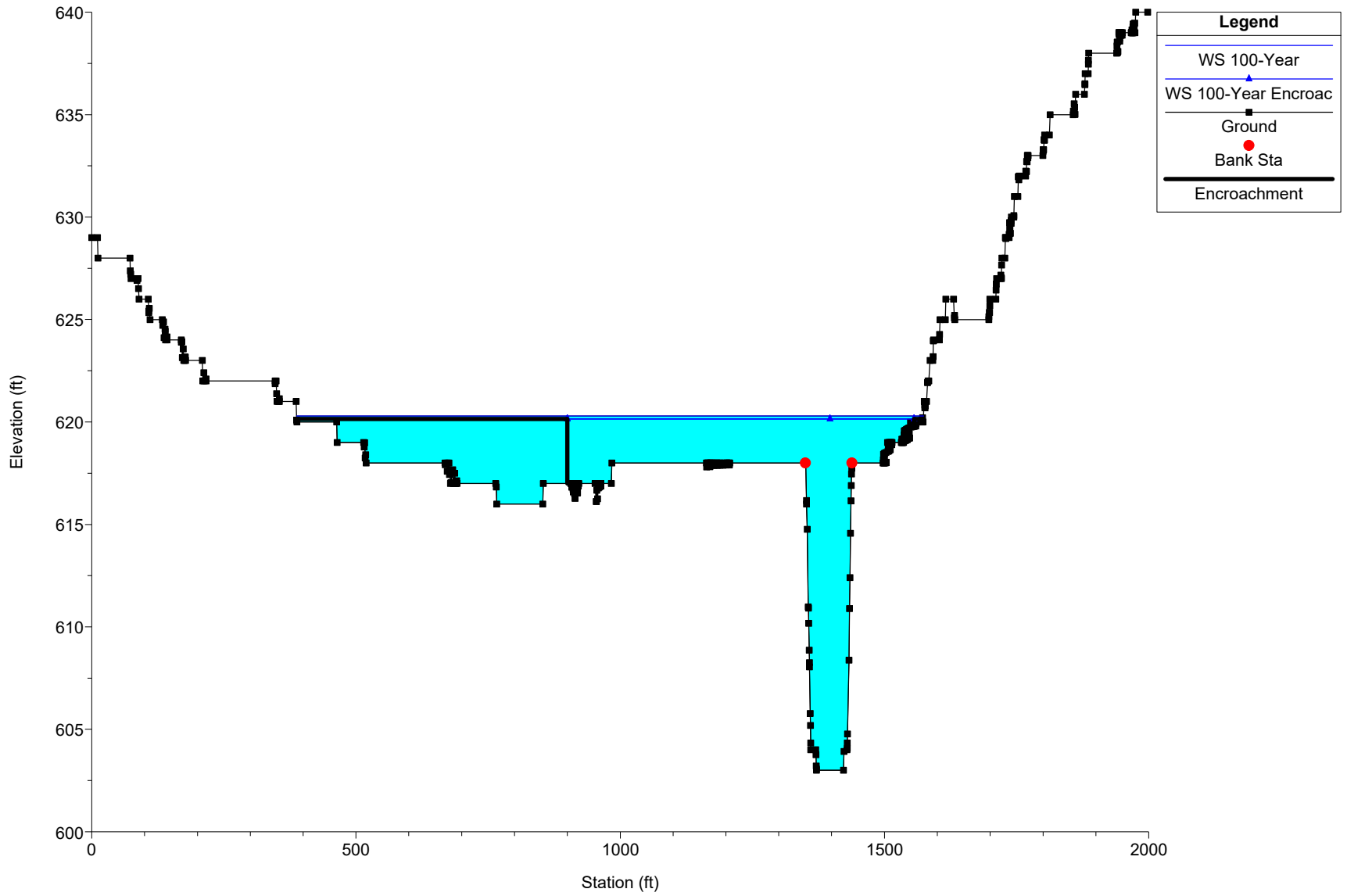
2023-07-07-Rutherford Creek-TOTAL Plan: Encroachment-Existing-Final-RE 7/7/2023

RS = 63700 Cross Section - 63,700



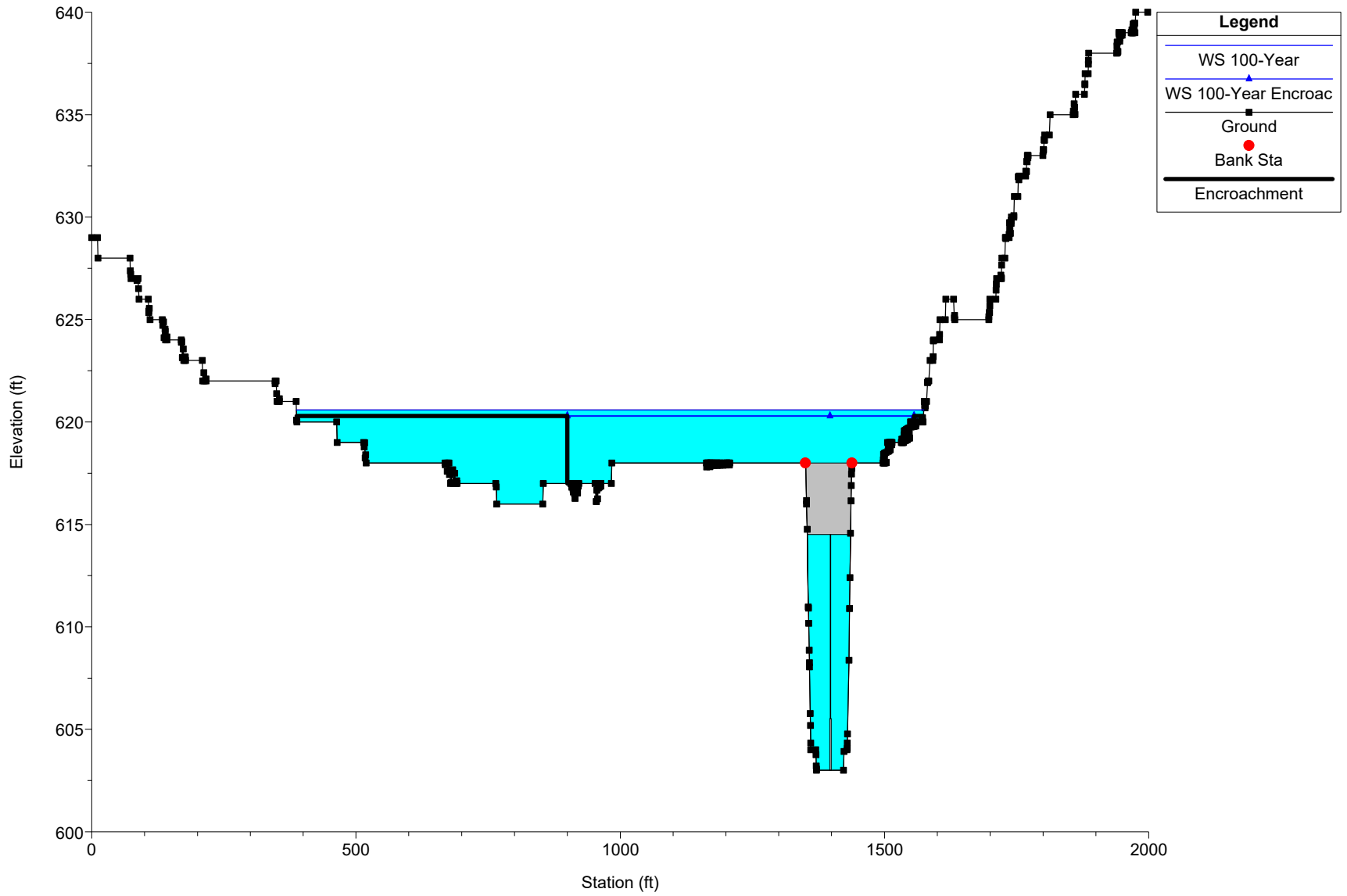
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RS = 63504 Cross Section - 63,504



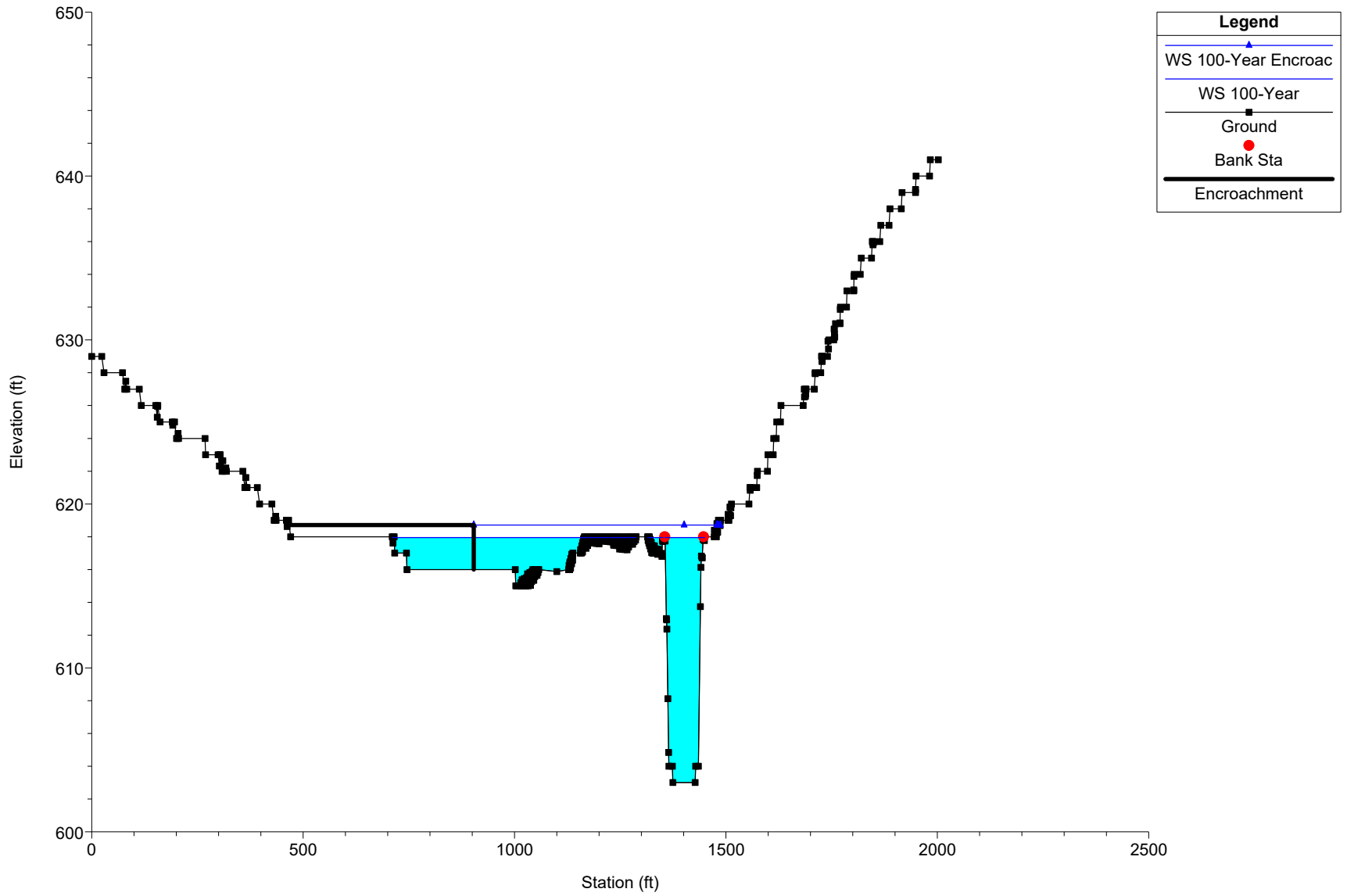
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RS = 63497 BR Existing Bridge



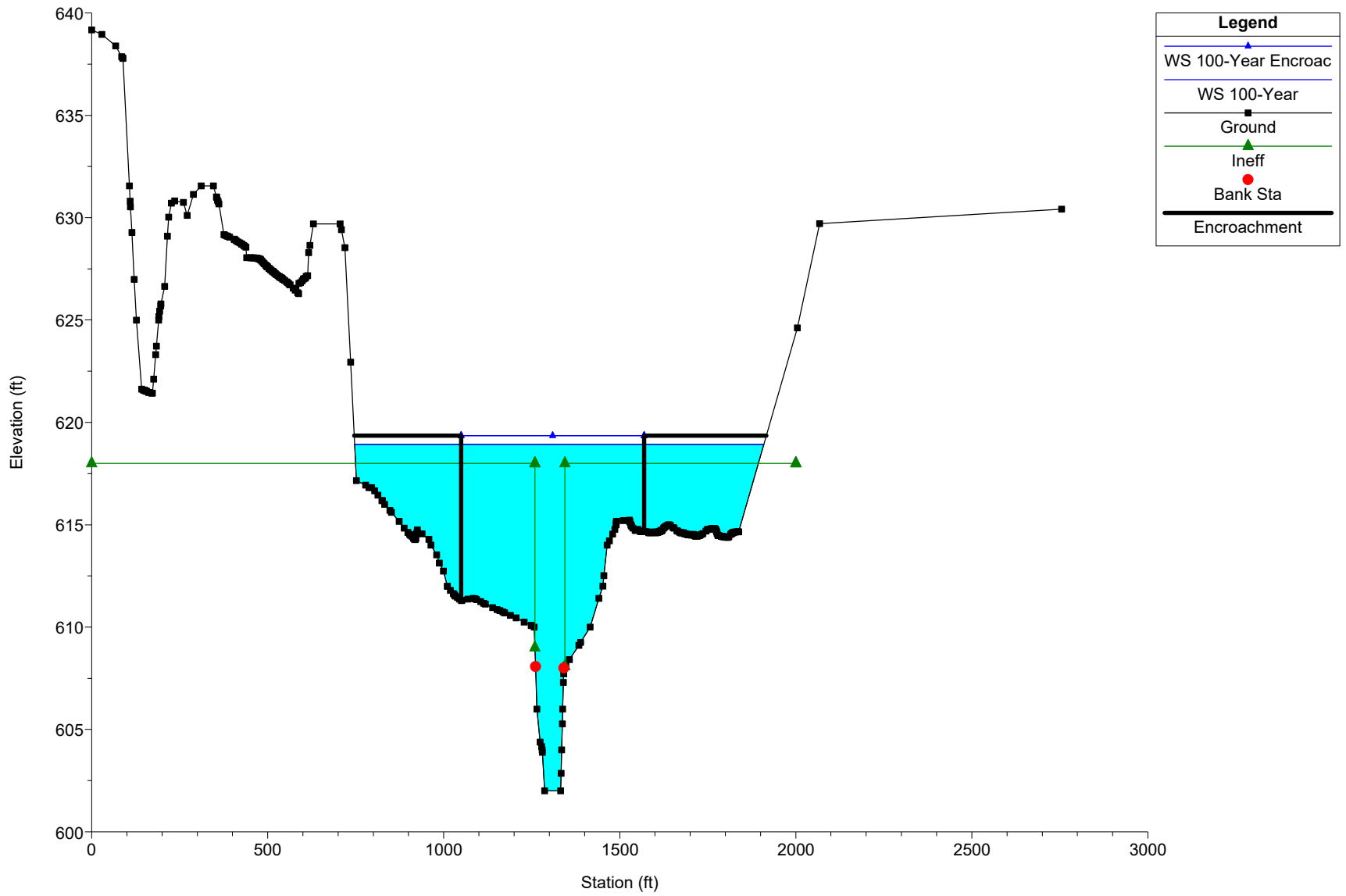
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RS = 63490 Cross Section - 63,490



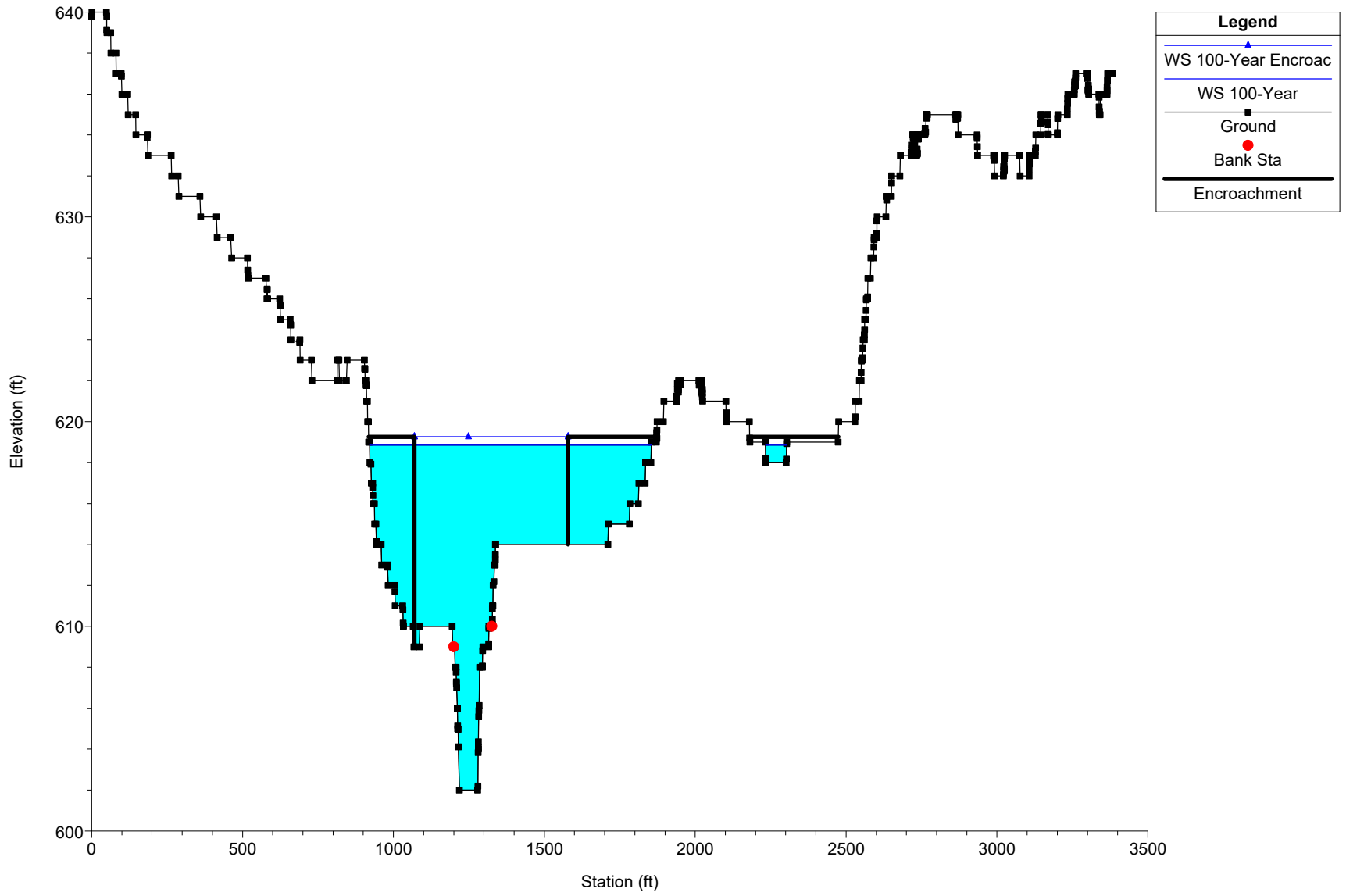
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RS = 63300 Cross Section - 63,300



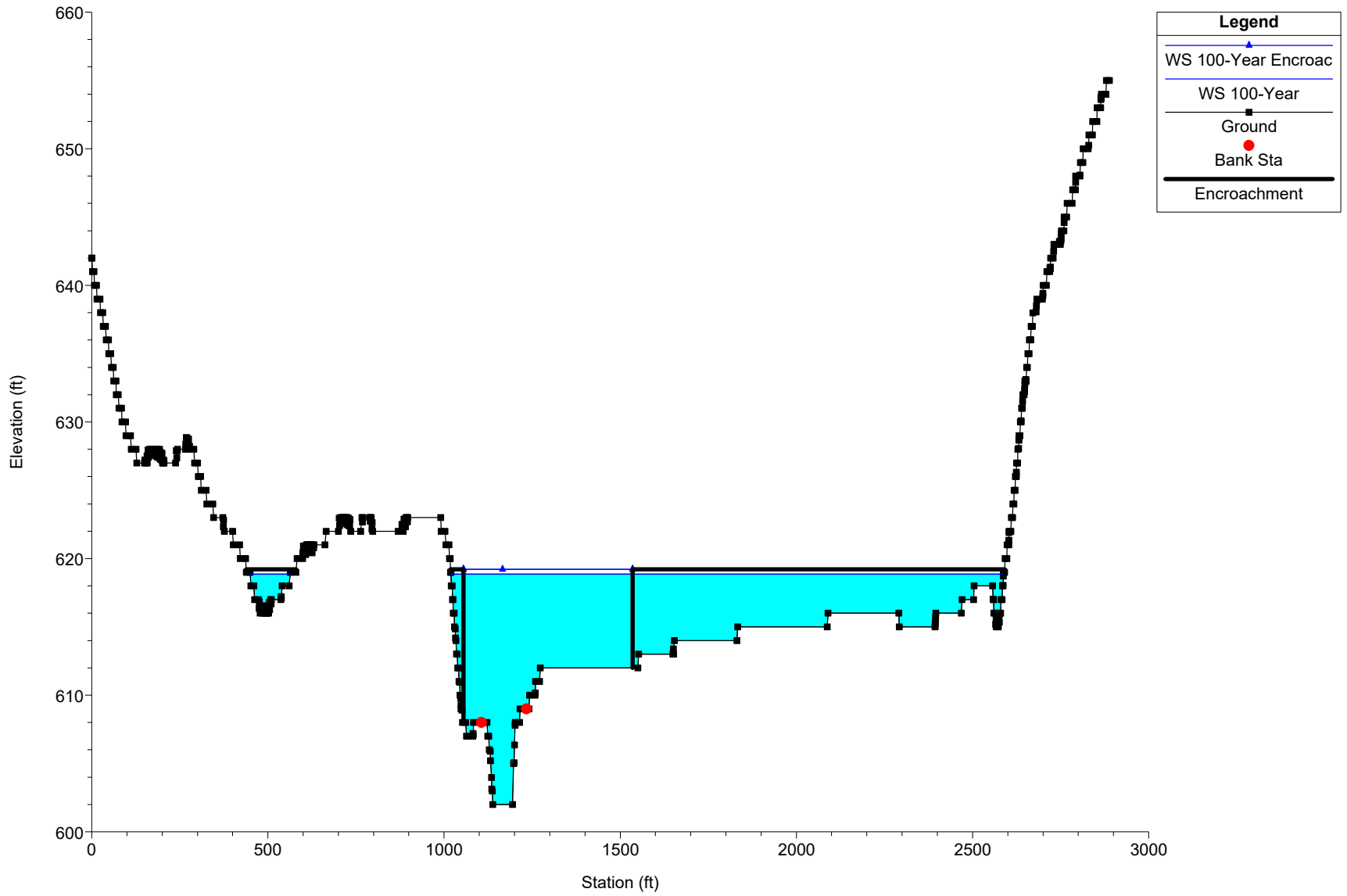
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RS = 63100 Cross Section - 63,100



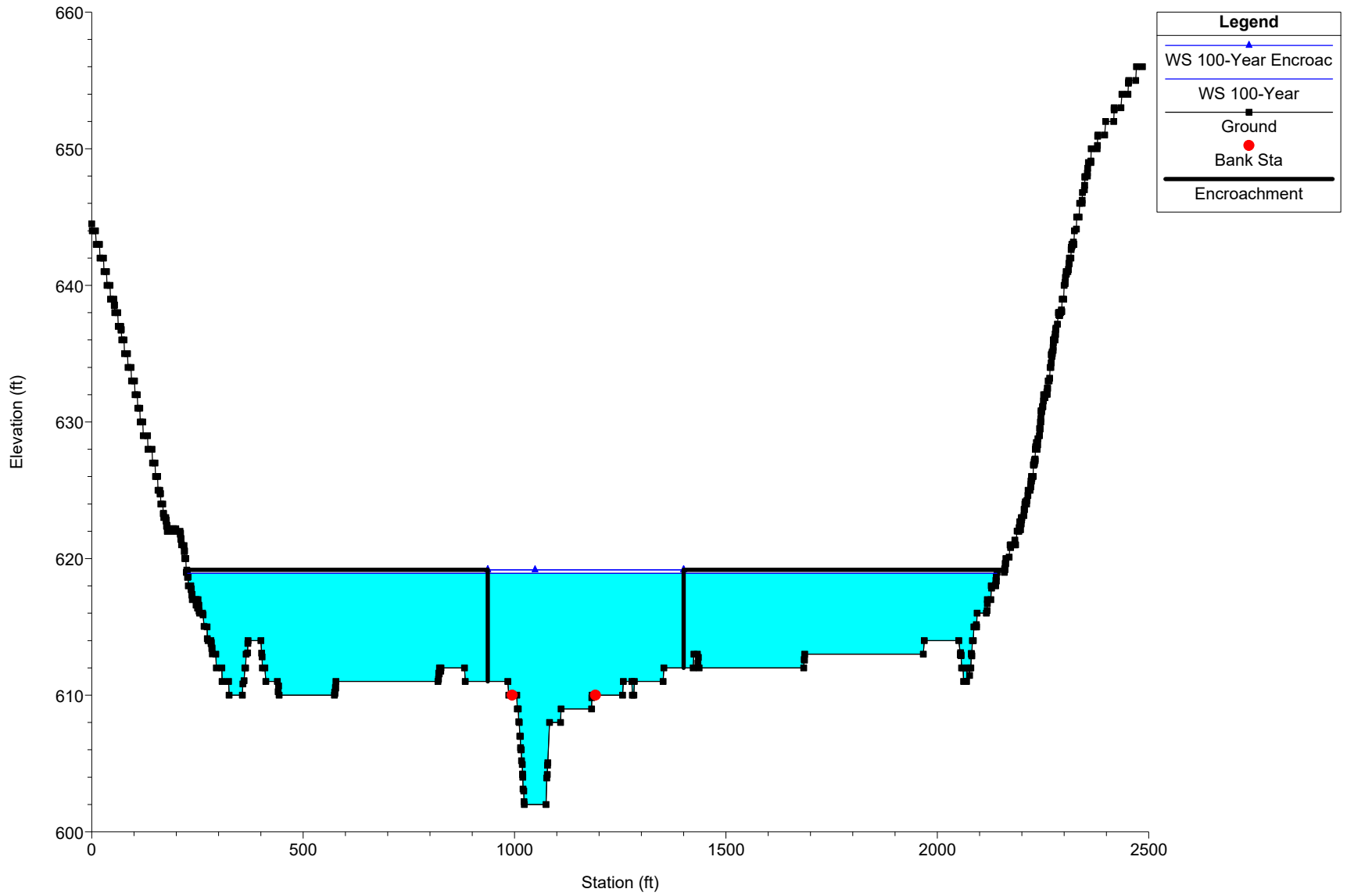
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RS = 62900 Cross Section - 62,900



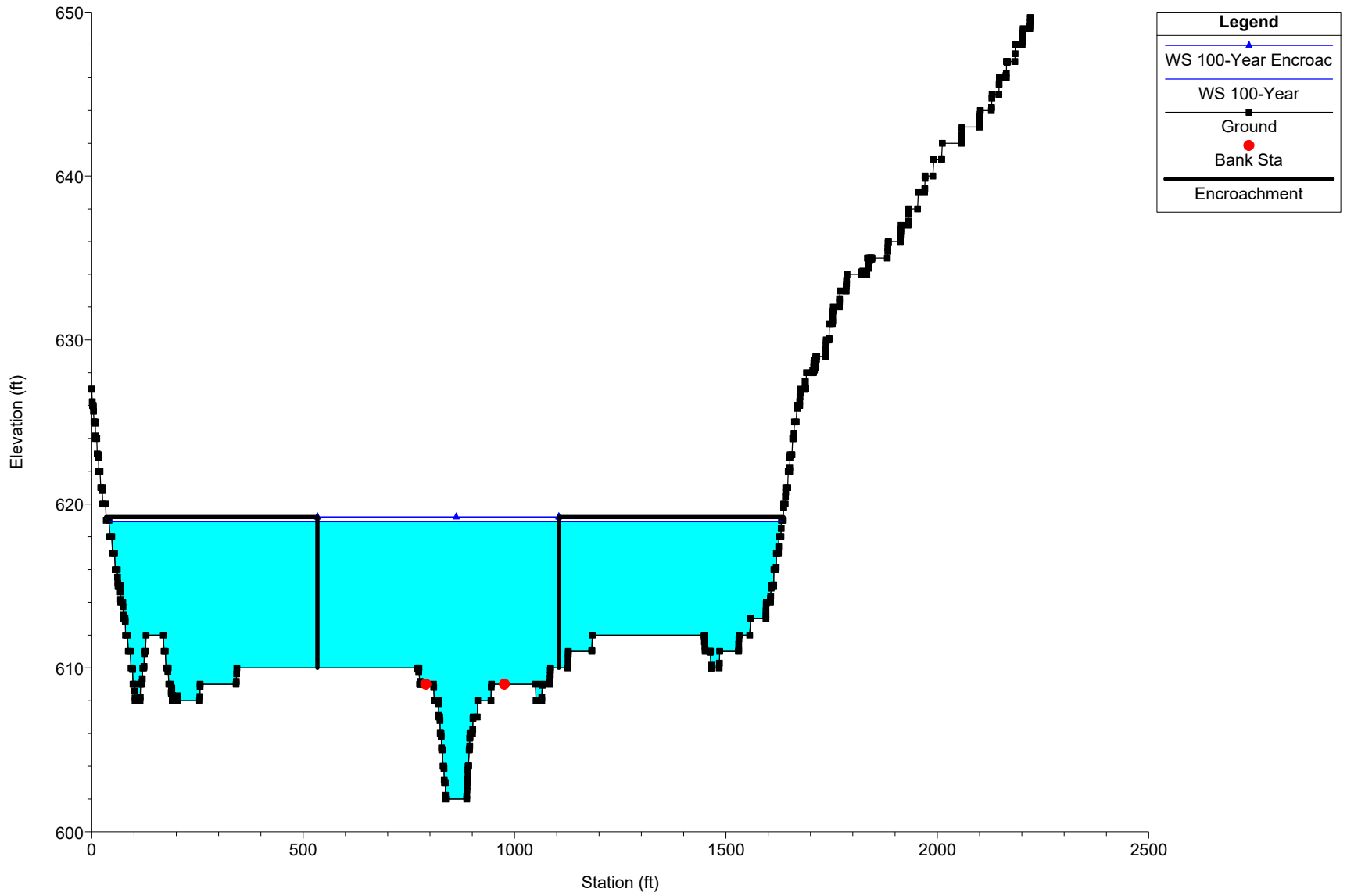
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RS = 62700 Cross Section - 62,700



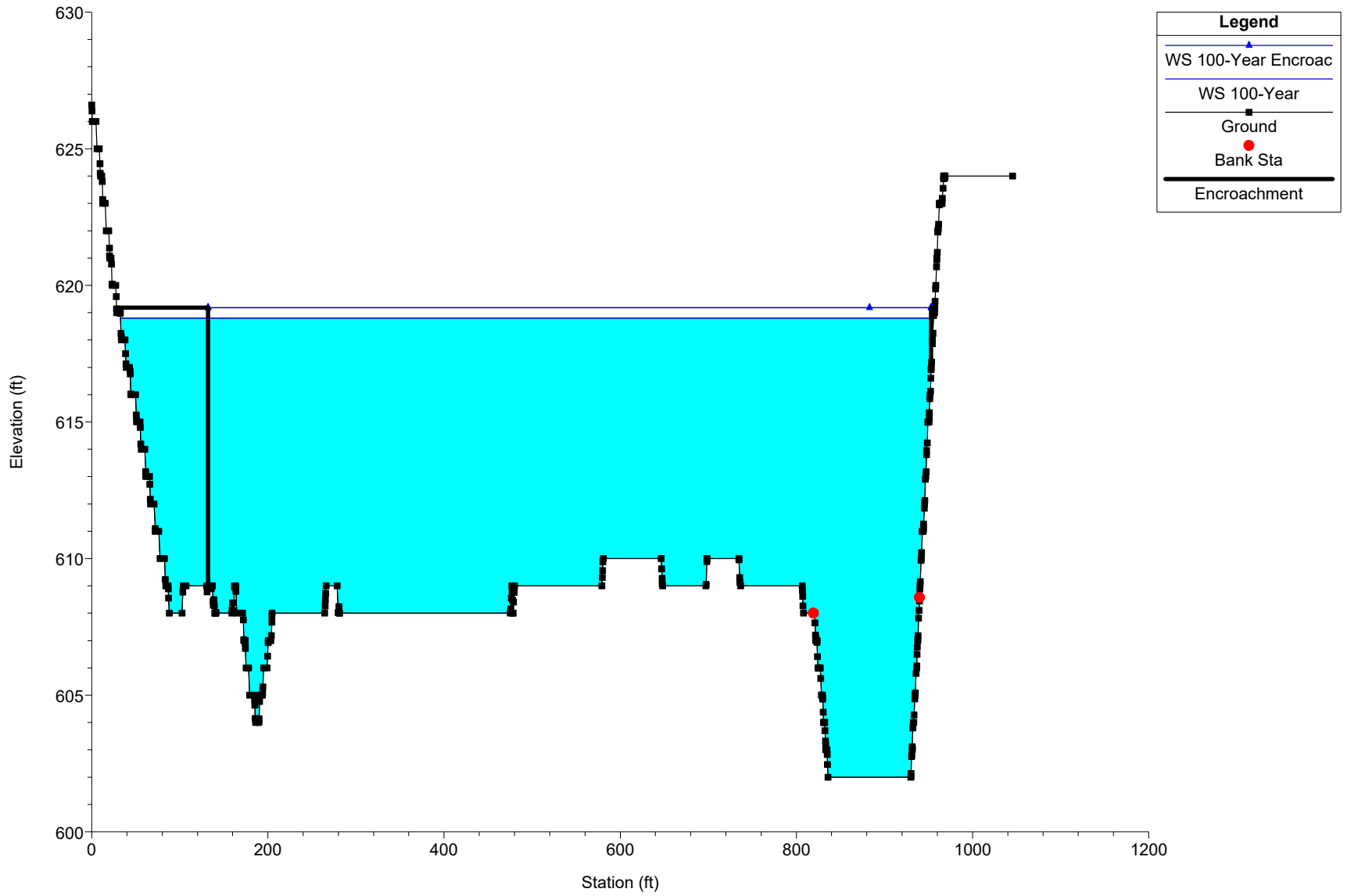
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RS = 62500 Cross Section - 62,500



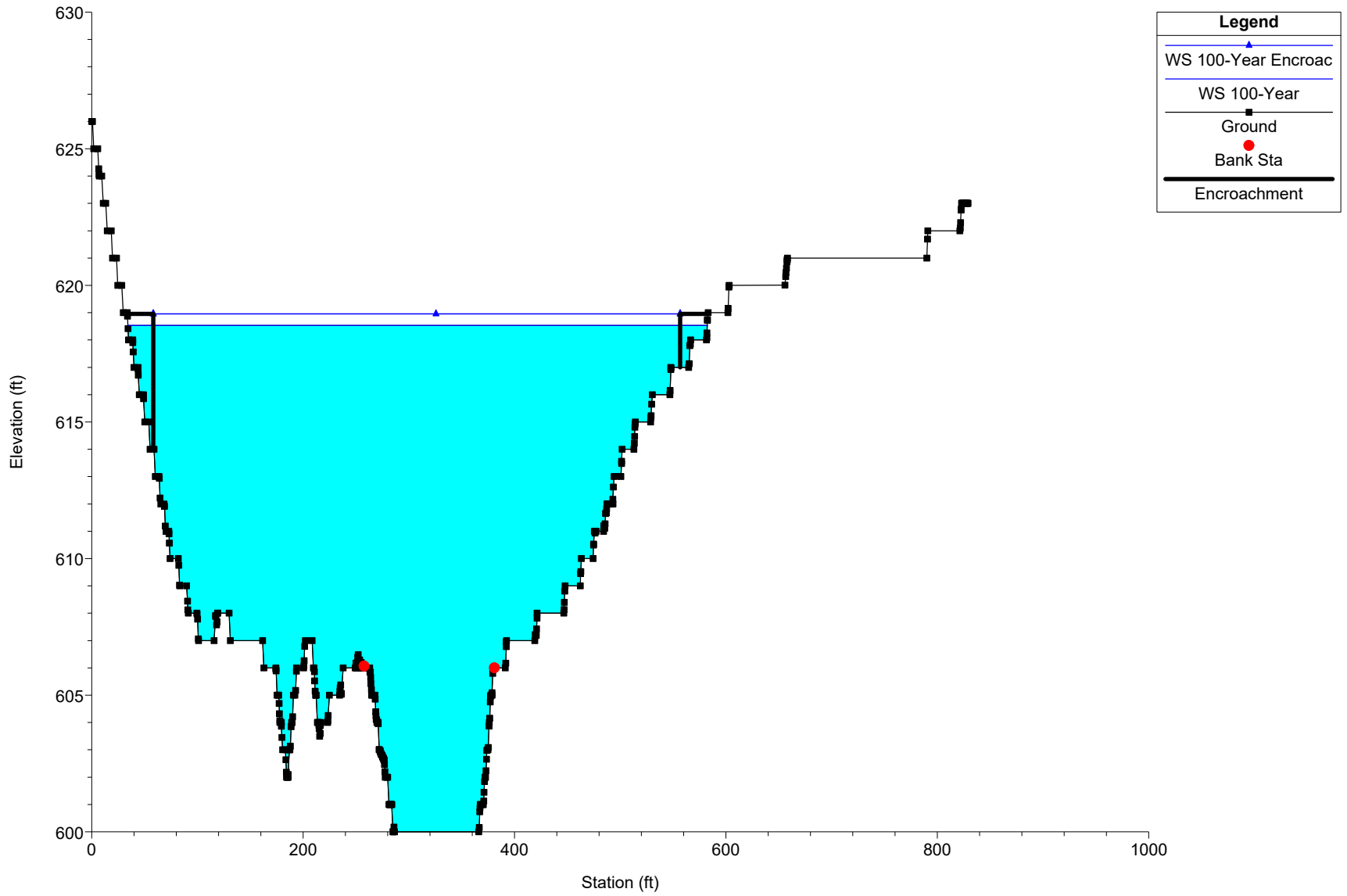
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RS = 62000 Cross Section - 62,000



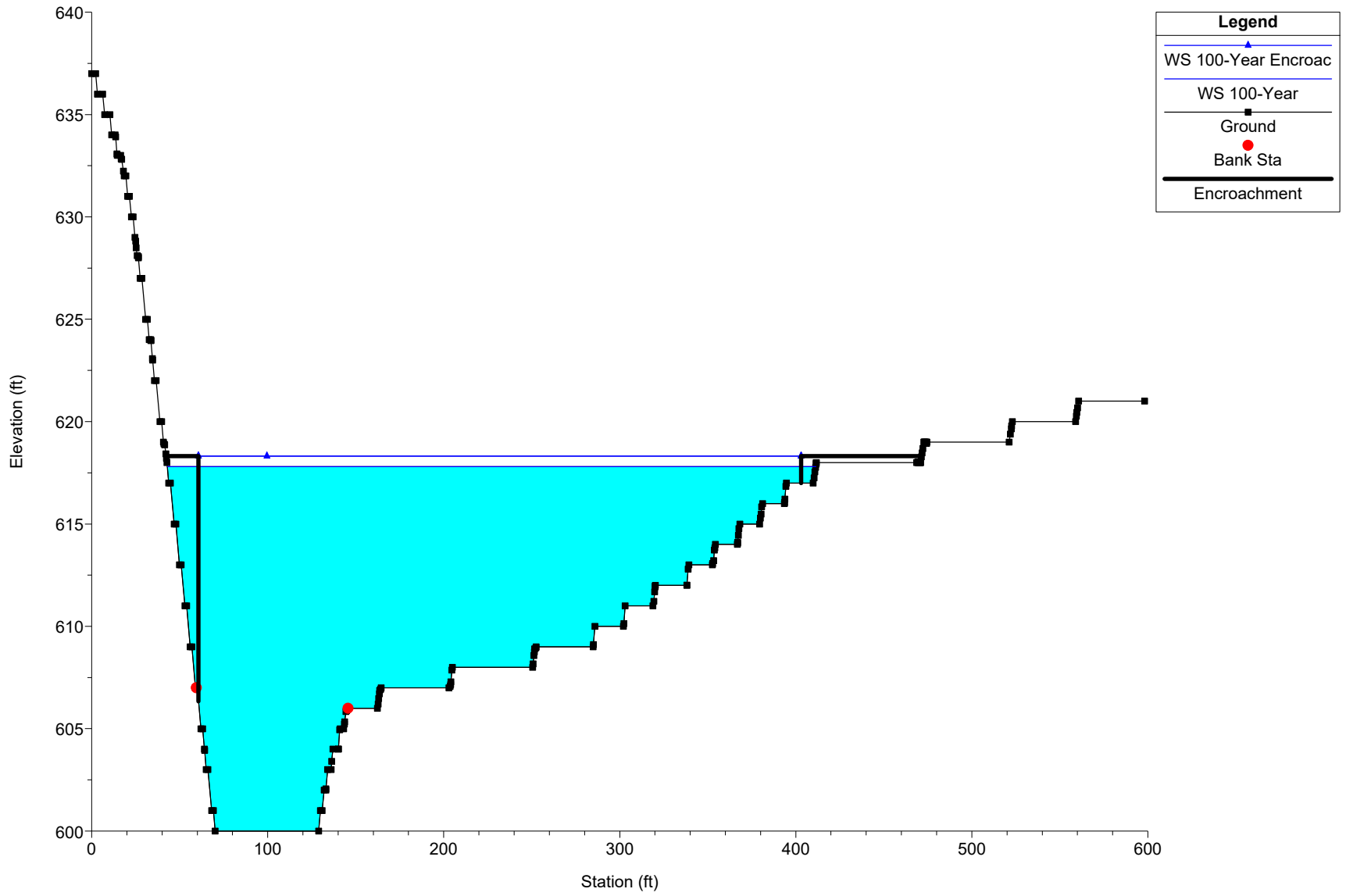
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RS = 61500 Cross Section - 61,500



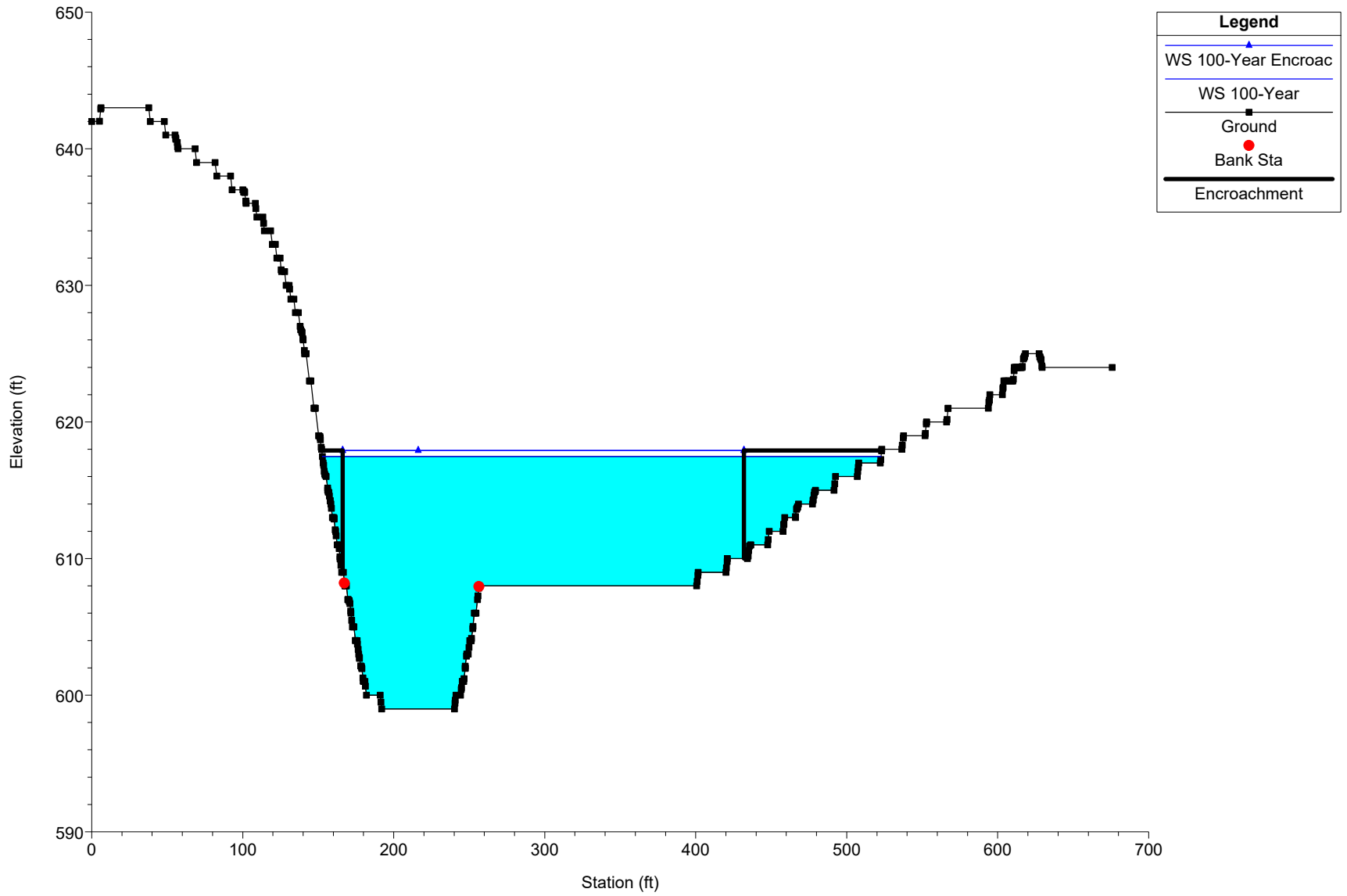
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RS = 61000 Cross Section - 61,000



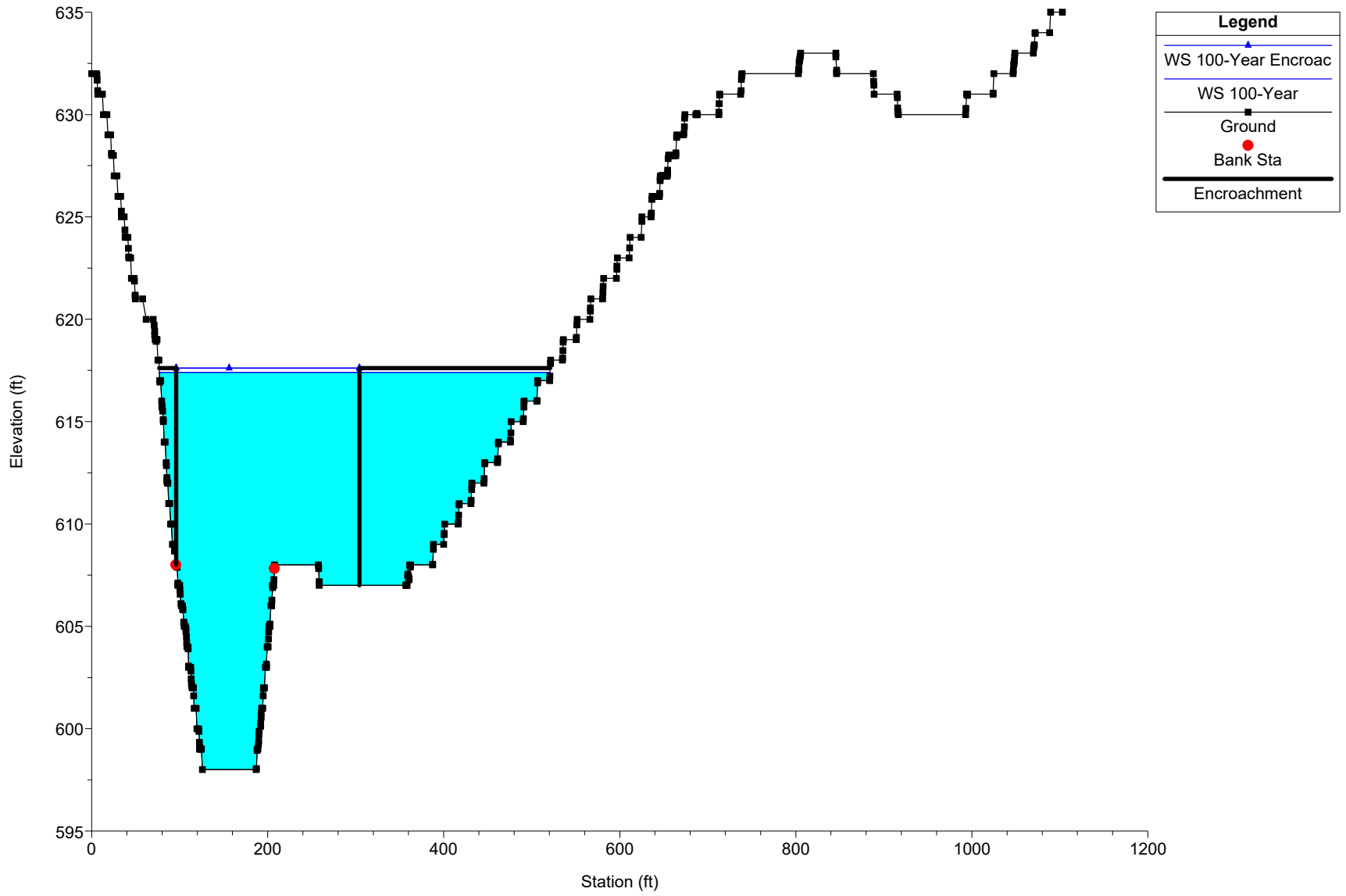
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RS = 60500 Cross Section - 60,500



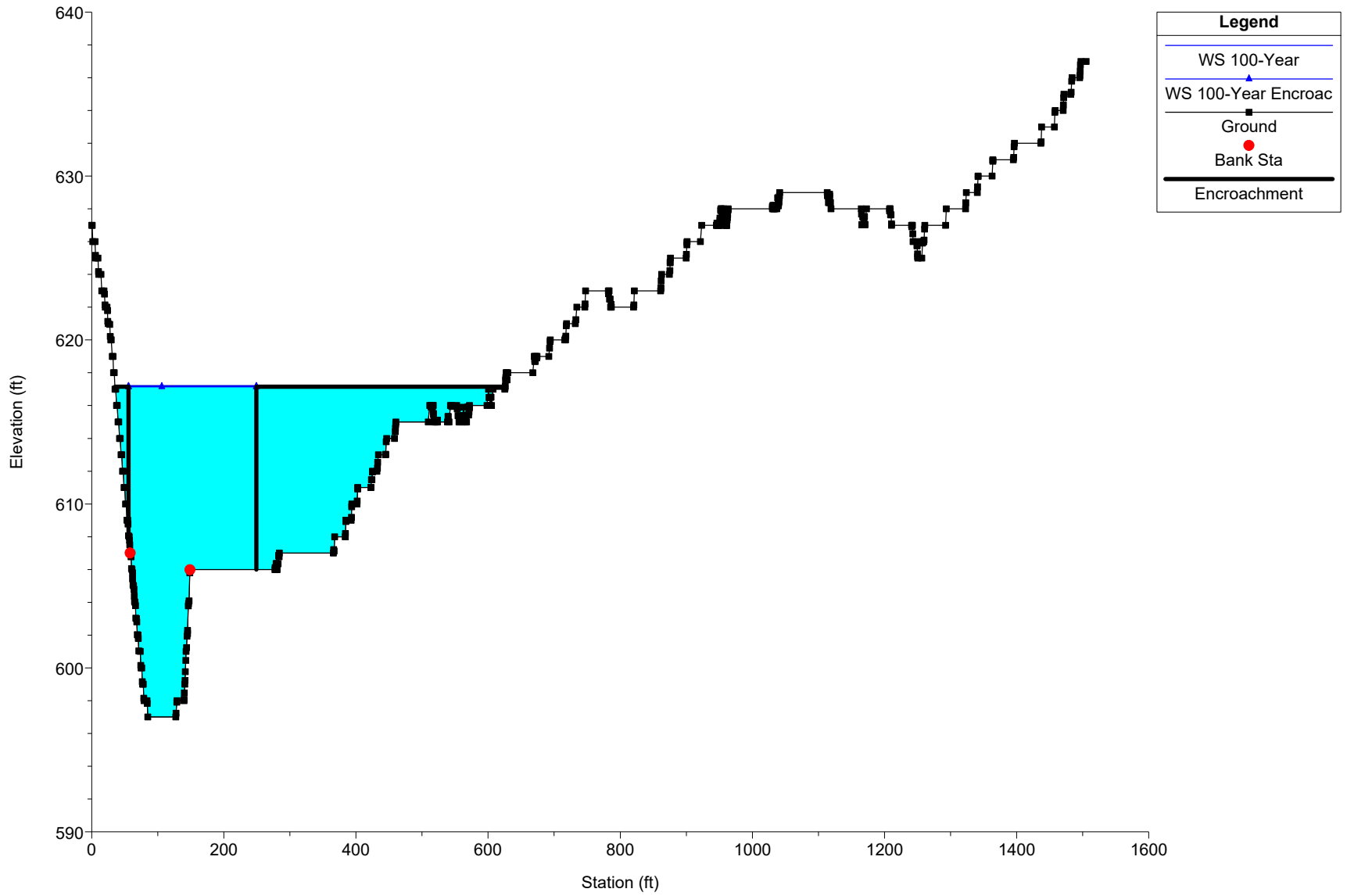
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RS = 60000 Cross Section - 60,000



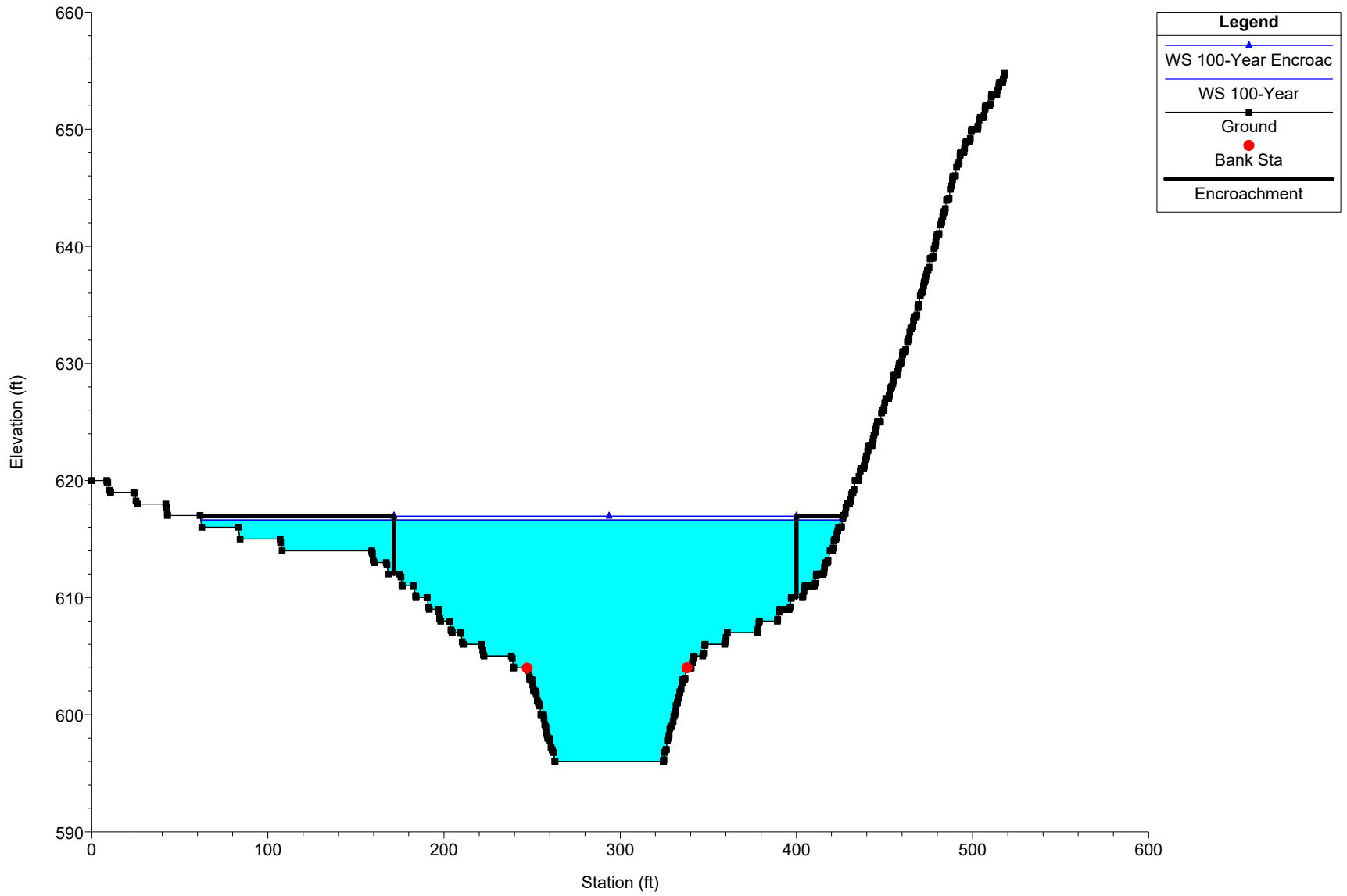
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RS = 59500 Cross Section - 59,500



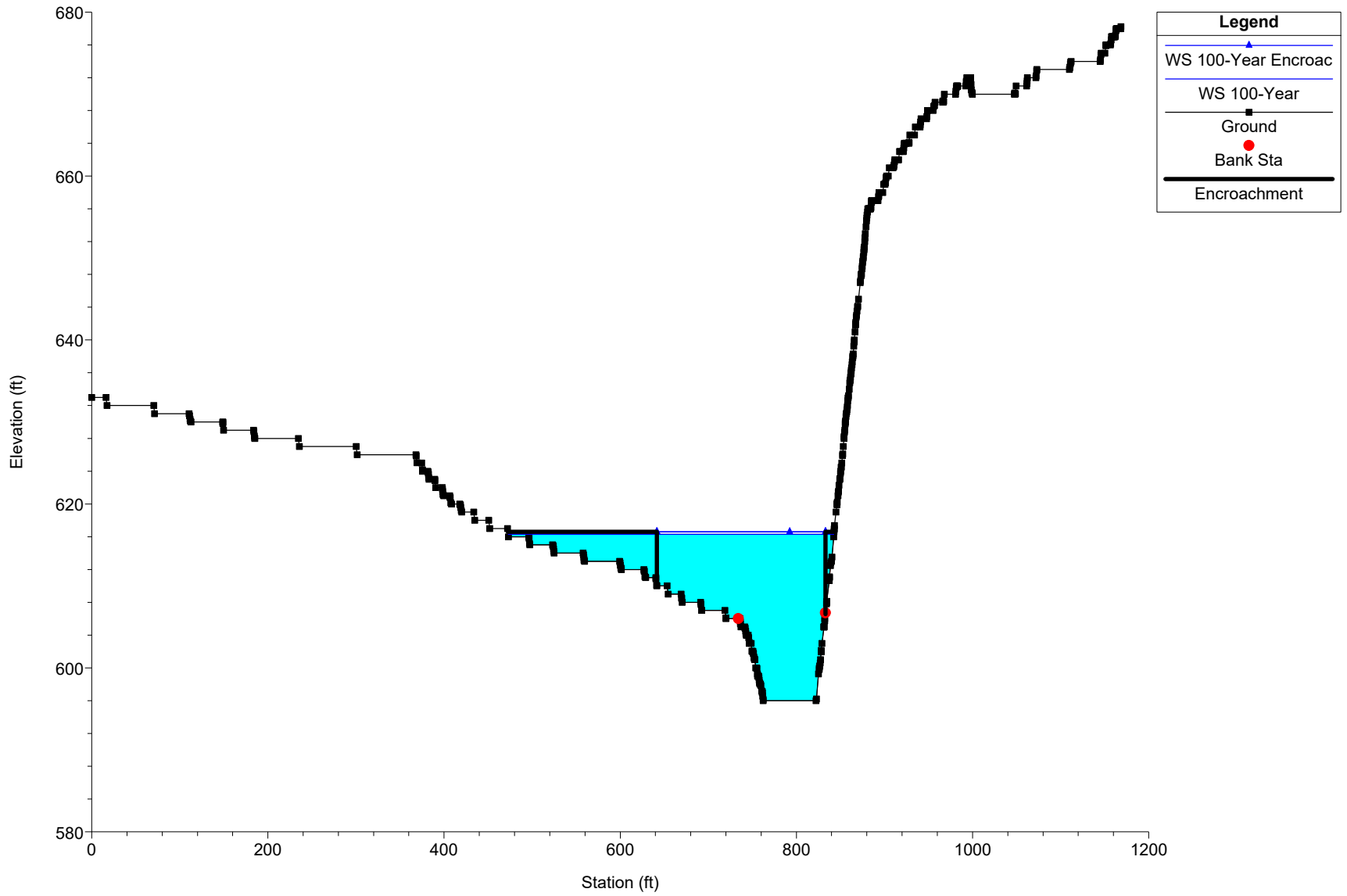
2023-07-07-Rutherford Creek-TOTAL Plan: Encroachment-Existing-Final-RE 7/7/2023

RS = 59000 Cross Section - 59,000



2023-07-07-Rutherford Creek-TOTAL Plan: Encroachment-Existing-Final-RE 7/7/2023

RS = 58662 Cross Section - 58,662 (Section U)



HEC-RAS-River River Analysis

(Tabular Results-Existing/Encroachment Conditions Model)

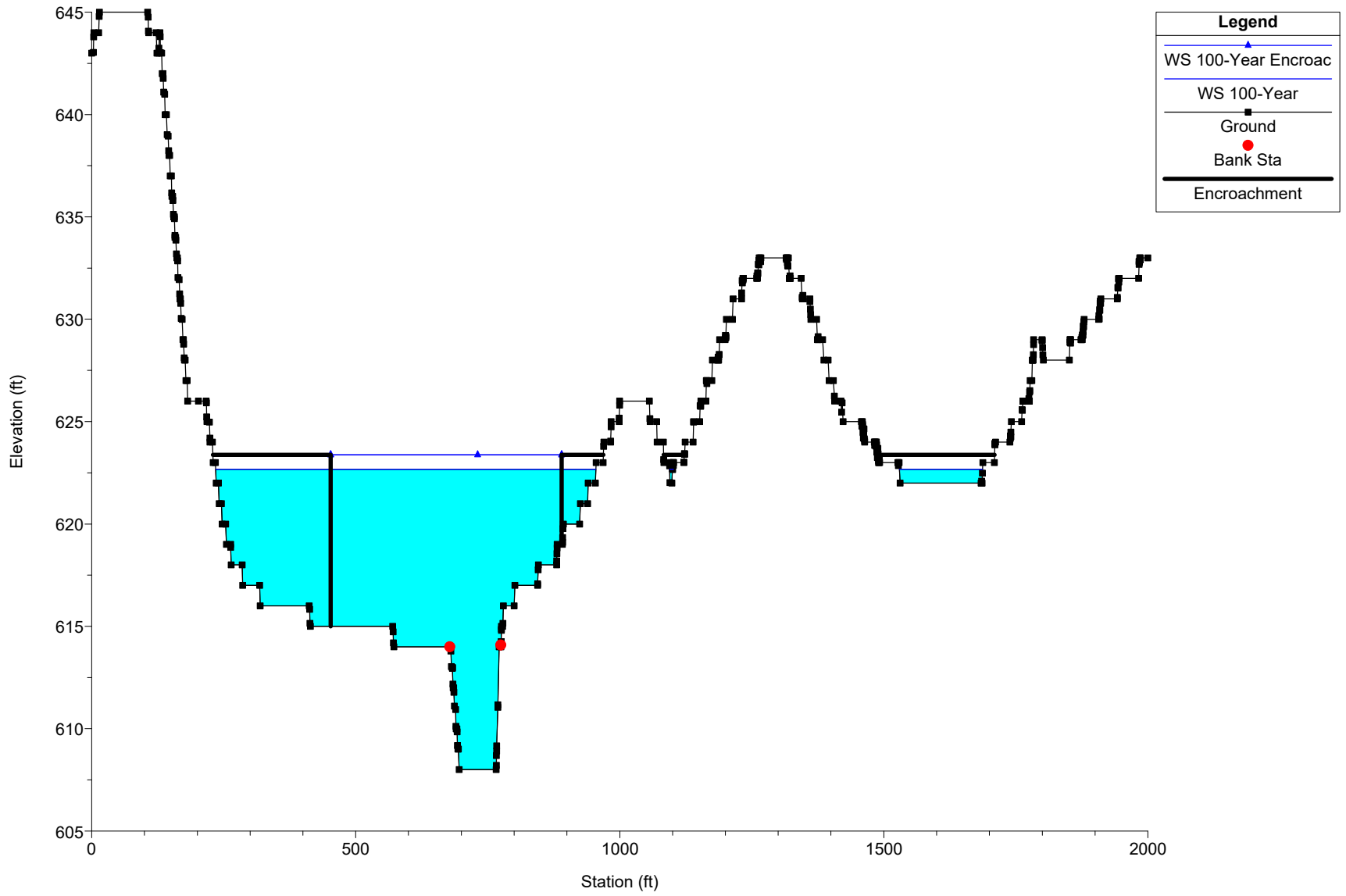
HEC-RAS Plan: Encroachment-EXIST-FINAL-RE River: Rutherford Reach: Rutherford

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Rutherford	66500	100-Year	16690.00	608.00	623.49		623.79	0.000431	5.99	6048.87	971.17	0.27
Rutherford	66500	100-Year Encroac	16690.00	608.00	623.78		624.26	0.000572	6.99	4293.01	439.86	0.32
Rutherford	66000	100-Year	16690.00	608.00	622.99		623.50	0.000644	7.21	5057.47	1003.00	0.34
Rutherford	66000	100-Year Encroac	16690.00	608.00	623.28		623.91	0.000715	7.70	3756.00	403.02	0.36
Rutherford	65500	100-Year	16690.00	606.00	622.48		623.13	0.000749	8.15	4517.41	824.09	0.36
Rutherford	65500	100-Year Encroac	16690.00	606.00	622.89		623.55	0.000711	8.08	3896.18	438.02	0.36
Rutherford	65000	100-Year	16690.00	606.00	621.76		622.68	0.000987	8.93	3319.68	565.13	0.41
Rutherford	65000	100-Year Encroac	16690.00	606.00	622.34		623.16	0.000838	8.45	3245.00	346.56	0.38
Rutherford	64500	100-Year	16690.00	606.00	621.49		622.17	0.000792	7.81	4374.20	949.61	0.37
Rutherford	64500	100-Year Encroac	16690.00	606.00	622.08		622.73	0.000698	7.54	3713.03	425.79	0.35
Rutherford	64300	100-Year	16690.00	606.00	621.64		621.95	0.000463	5.69	6519.90	1299.83	0.28
Rutherford	64300	100-Year Encroac	16690.00	606.00	622.16		622.54	0.000492	6.02	4764.55	535.22	0.29
Rutherford	64100	100-Year	16690.00	604.00	621.55		621.86	0.000357	5.52	6950.33	1387.19	0.25
Rutherford	64100	100-Year Encroac	16690.00	604.00	622.13		622.44	0.000314	5.31	5391.16	549.37	0.24
Rutherford	63900	100-Year	16690.00	604.00	621.54		621.77	0.000301	5.24	8110.27	1381.15	0.23
Rutherford	63900	100-Year Encroac	16690.00	604.00	622.06		622.37	0.000344	5.72	5589.15	562.16	0.25
Rutherford	63700	100-Year	16690.00	604.00	621.50	615.40	621.71	0.000280	5.28	8364.28	1349.60	0.23
Rutherford	63700	100-Year Encroac	16690.00	604.00	621.98	615.40	622.30	0.000347	5.99	5446.64	514.68	0.25
Rutherford	63504	100-Year	16690.00	603.00	620.30	615.05	621.35	0.001192	9.42	3963.34	1186.33	0.42
Rutherford	63504	100-Year Encroac	16690.00	603.00	620.14	615.04	621.78	0.001631	10.95	2577.93	656.00	0.50
Rutherford	63497		Bridge									
Rutherford	63490	100-Year	16690.00	603.00	617.95	615.04	620.33	0.002999	13.06	2037.43	680.82	0.65
Rutherford	63490	100-Year Encroac	16690.00	603.00	618.71	615.05	620.84	0.002491	12.35	2131.02	577.48	0.60
Rutherford	63300	100-Year	16690.00	602.00	618.93	614.20	619.22	0.000406	6.13	7089.73	1162.29	0.27
Rutherford	63300	100-Year Encroac	16690.00	602.00	619.36	614.20	619.82	0.000520	7.06	4734.83	519.72	0.31
Rutherford	63100	100-Year	16690.00	602.00	618.85		619.14	0.000395	5.50	6253.66	1002.98	0.26
Rutherford	63100	100-Year Encroac	16690.00	602.00	619.25		619.71	0.000518	6.42	4368.65	509.28	0.30
Rutherford	62900	100-Year	16690.00	602.00	618.86		619.04	0.000283	4.69	8842.09	1681.26	0.22
Rutherford	62900	100-Year Encroac	16690.00	602.00	619.20		619.59	0.000449	6.01	4646.57	479.97	0.28
Rutherford	62700	100-Year	16690.00	602.00	618.92		618.97	0.000099	2.56	14241.61	1914.72	0.13
Rutherford	62700	100-Year Encroac	16690.00	602.00	619.17		619.49	0.000381	5.09	4658.06	463.19	0.25
Rutherford	62500	100-Year	16690.00	602.00	618.91		618.95	0.000086	2.47	13940.67	1590.13	0.12
Rutherford	62500	100-Year Encroac	16690.00	602.00	619.20		619.39	0.000250	4.28	6117.25	571.09	0.21
Rutherford	62000	100-Year	16690.00	602.00	618.80		618.89	0.000127	3.47	9803.68	923.05	0.15
Rutherford	62000	100-Year Encroac	16690.00	602.00	619.18		619.28	0.000126	3.51	9374.33	820.89	0.15
Rutherford	61500	100-Year	16690.00	600.00	618.54		618.80	0.000233	4.96	5892.73	548.13	0.21
Rutherford	61500	100-Year Encroac	16690.00	600.00	618.95		619.19	0.000206	4.74	6019.55	498.50	0.20
Rutherford	61000	100-Year	16690.00	600.00	617.80		618.56	0.000687	8.15	3496.98	368.37	0.35
Rutherford	61000	100-Year Encroac	16690.00	600.00	618.32		618.97	0.000684	7.67	3565.78	342.30	0.33
Rutherford	60500	100-Year	16690.00	599.00	617.47		618.21	0.000676	8.01	3489.23	369.90	0.34
Rutherford	60500	100-Year Encroac	16690.00	599.00	617.91		618.64	0.000627	7.85	3245.04	265.90	0.33
Rutherford	60000	100-Year	16690.00	598.00	617.41		617.87	0.000400	6.30	4390.57	443.90	0.27
Rutherford	60000	100-Year Encroac	16690.00	598.00	617.61		618.33	0.000590	7.32	2907.28	208.18	0.31
Rutherford	59500	100-Year	16690.00	597.00	617.21		617.67	0.000409	6.58	4972.85	591.05	0.27
Rutherford	59500	100-Year Encroac	16690.00	597.00	617.16		618.01	0.000628	8.14	2794.31	193.75	0.34
Rutherford	59000	100-Year	16690.00	596.00	616.63		617.40	0.000518	7.78	3398.07	364.31	0.31
Rutherford	59000	100-Year Encroac	16690.00	596.00	616.95		617.71	0.000487	7.63	3125.97	228.40	0.30
Rutherford	58662	100-Year	16690.00	596.00	616.30	608.37	617.20	0.000639	8.14	3060.50	369.73	0.34
Rutherford	58662	100-Year Encroac	16690.00	596.00	616.60	608.37	617.50	0.000692	8.07	2617.82	191.39	0.33

Proposed Conditions/Encroachment Cross- Sections

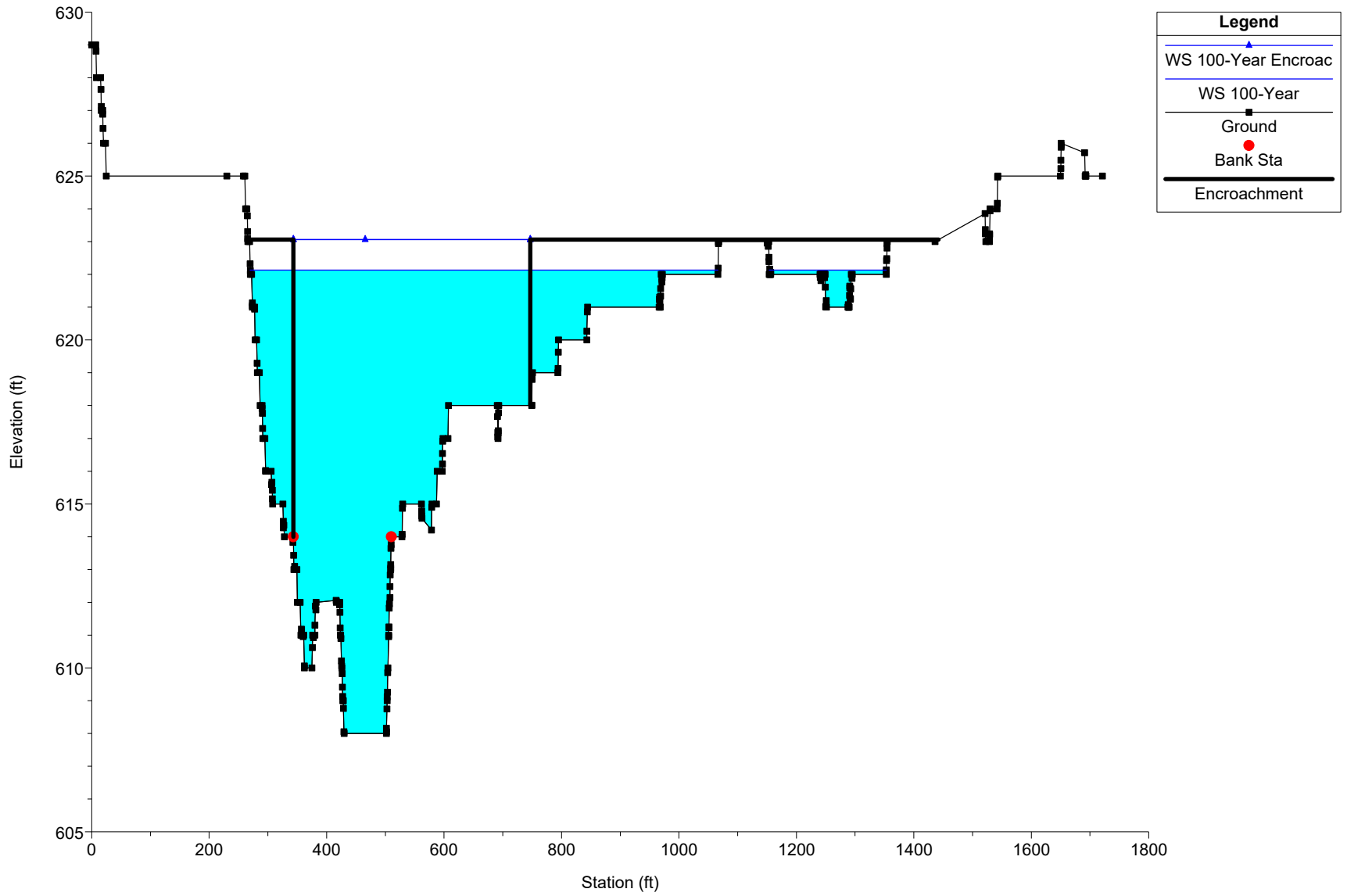
2023-07-07-Rutherford Creek-TOTAL Plan: Encroachment-Proposed-Final-RE 7/7/2023

RS = 66500 Cross Section - 66,500



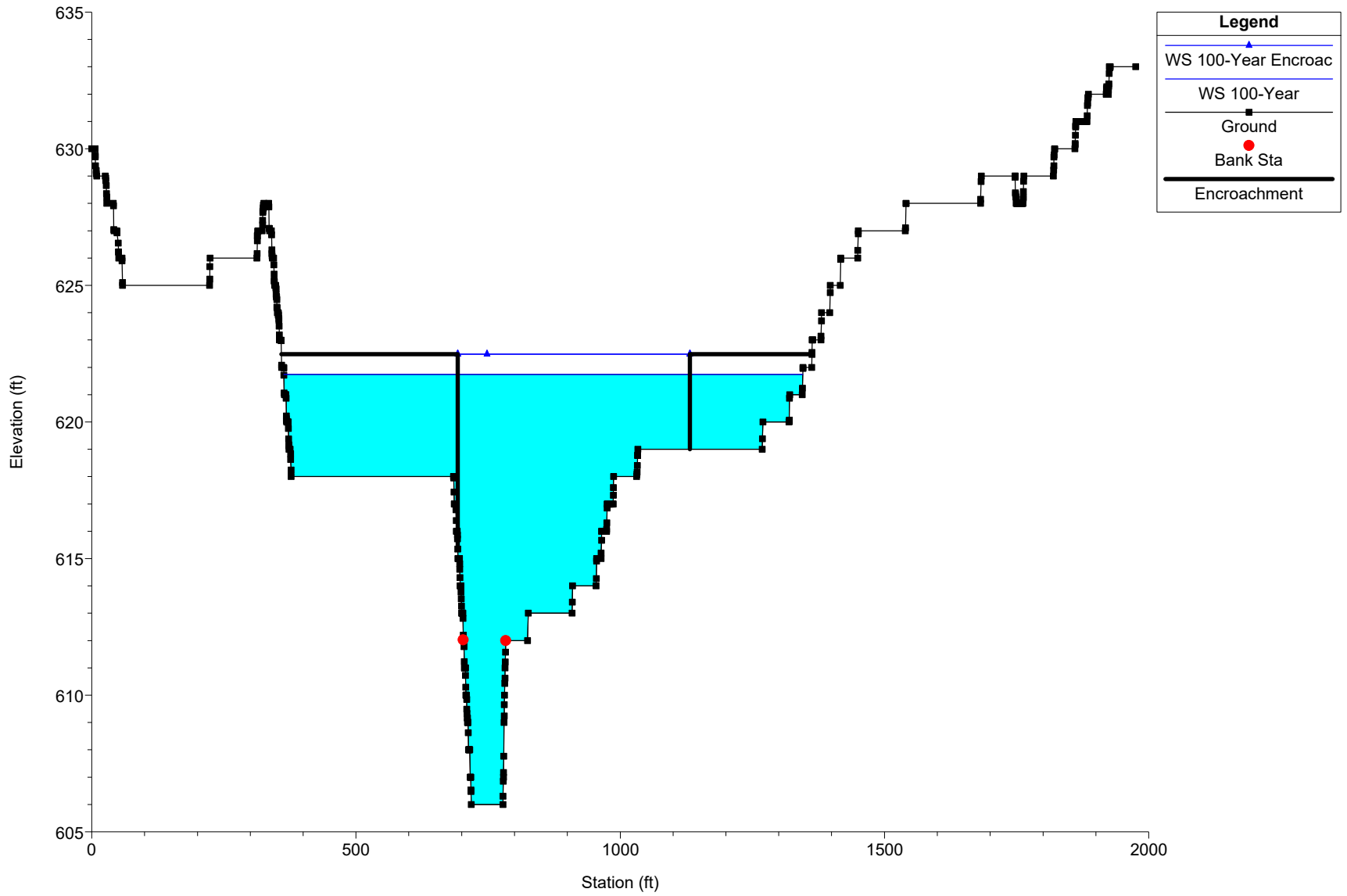
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RS = 66000 Cross Section - 66,000



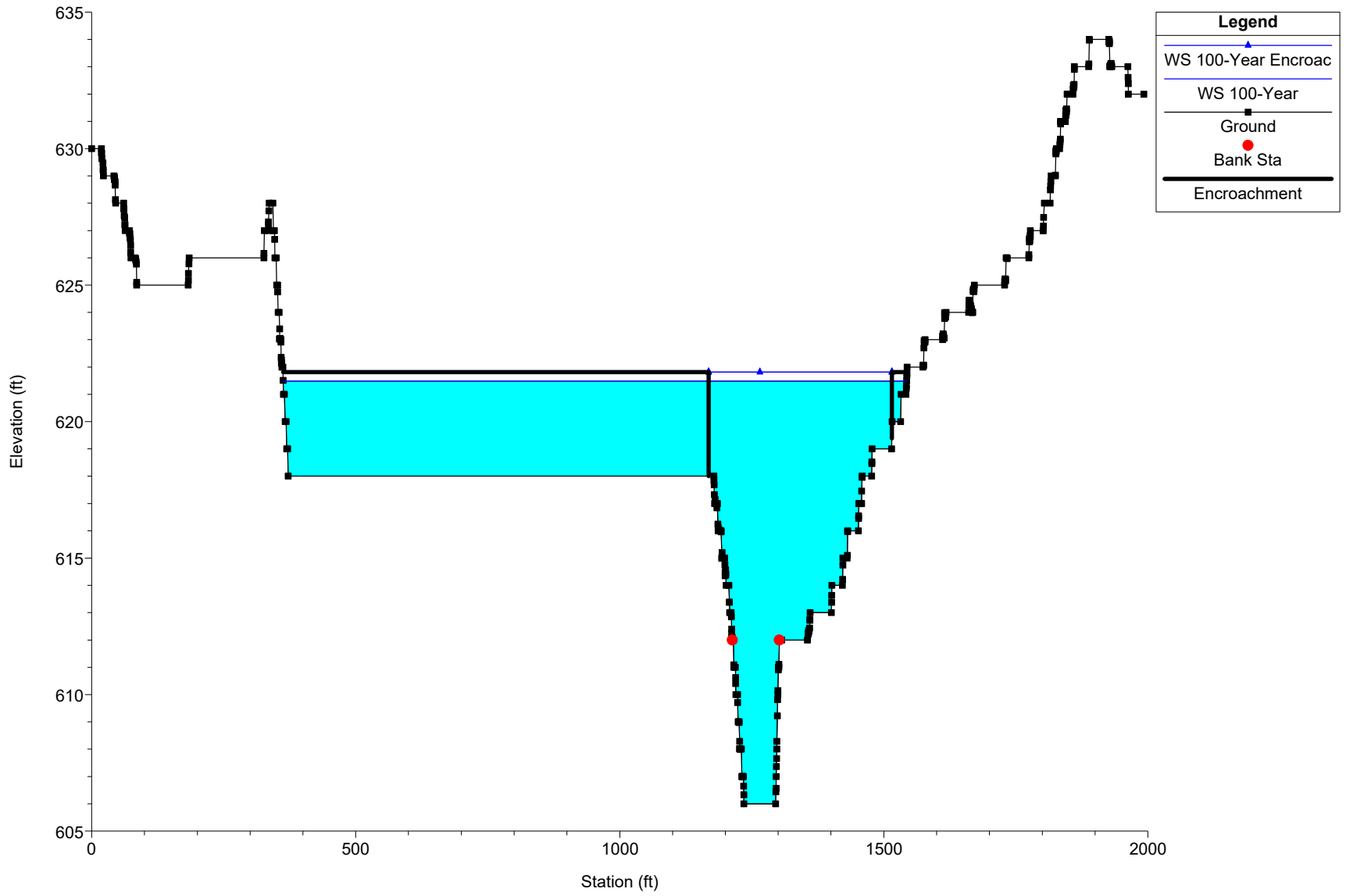
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RS = 65500 Cross Section - 65,500



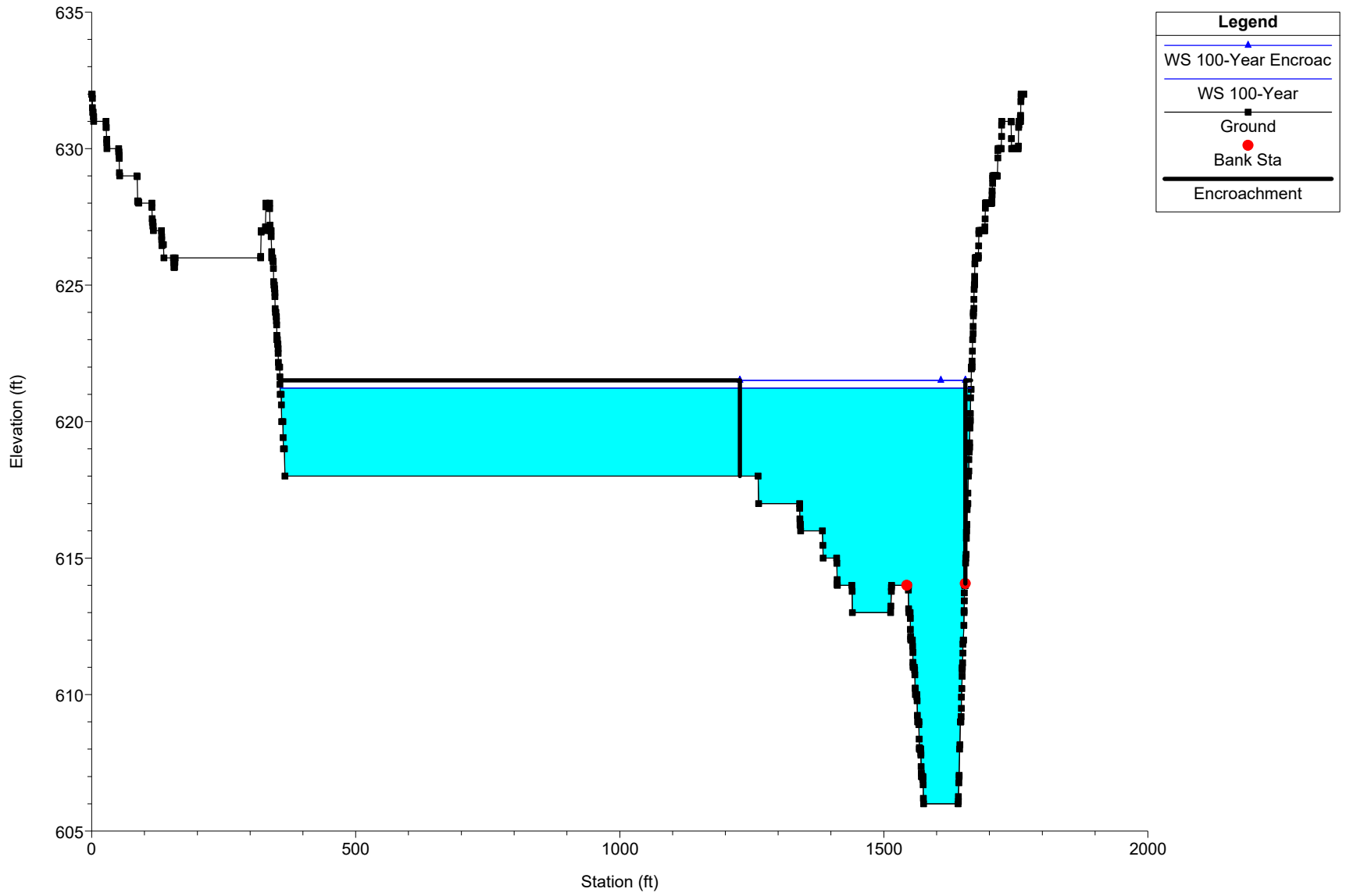
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RS = 65000 Cross Section - 65,000



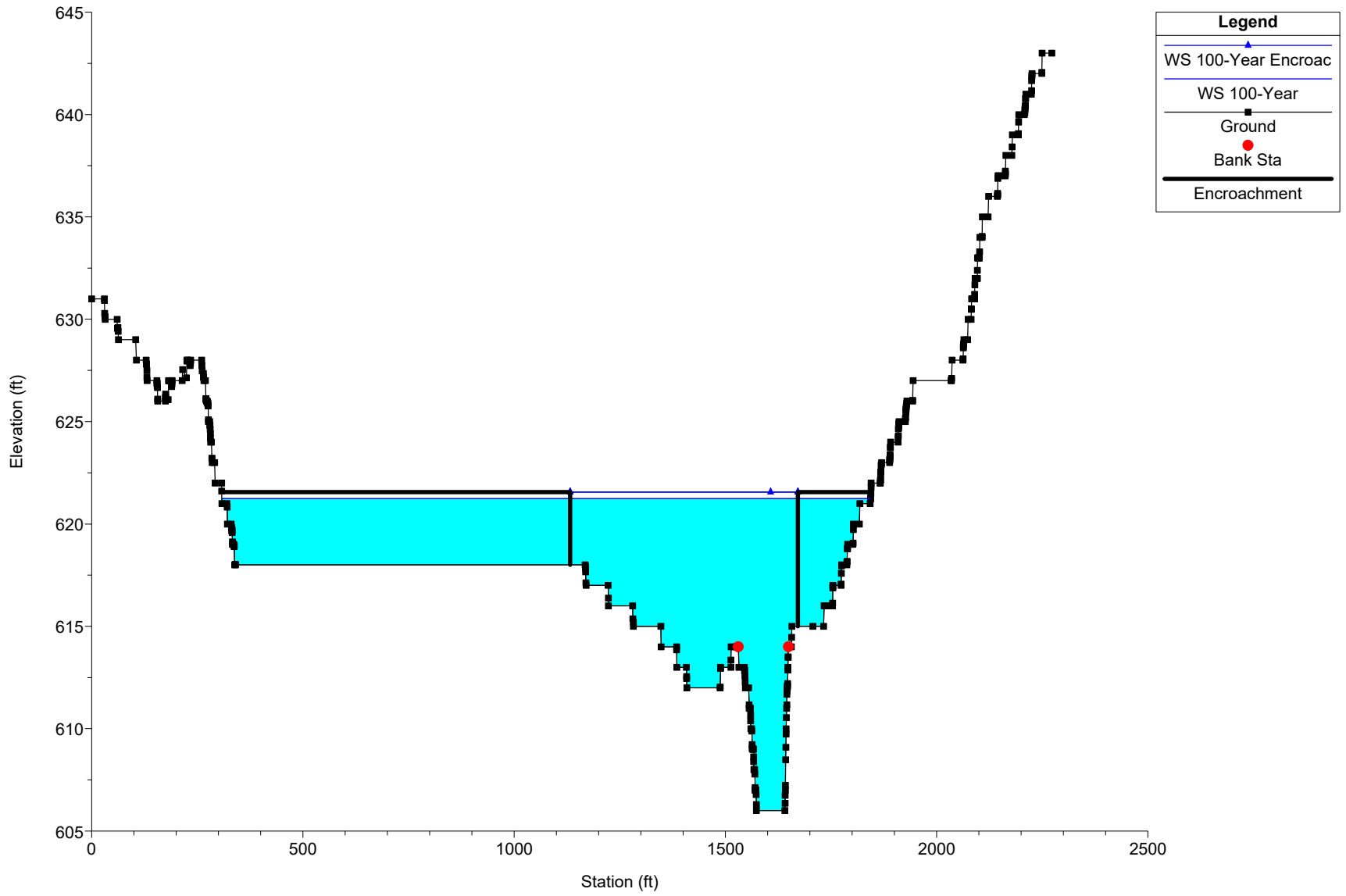
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RS = 64500 Cross Section - 64,500



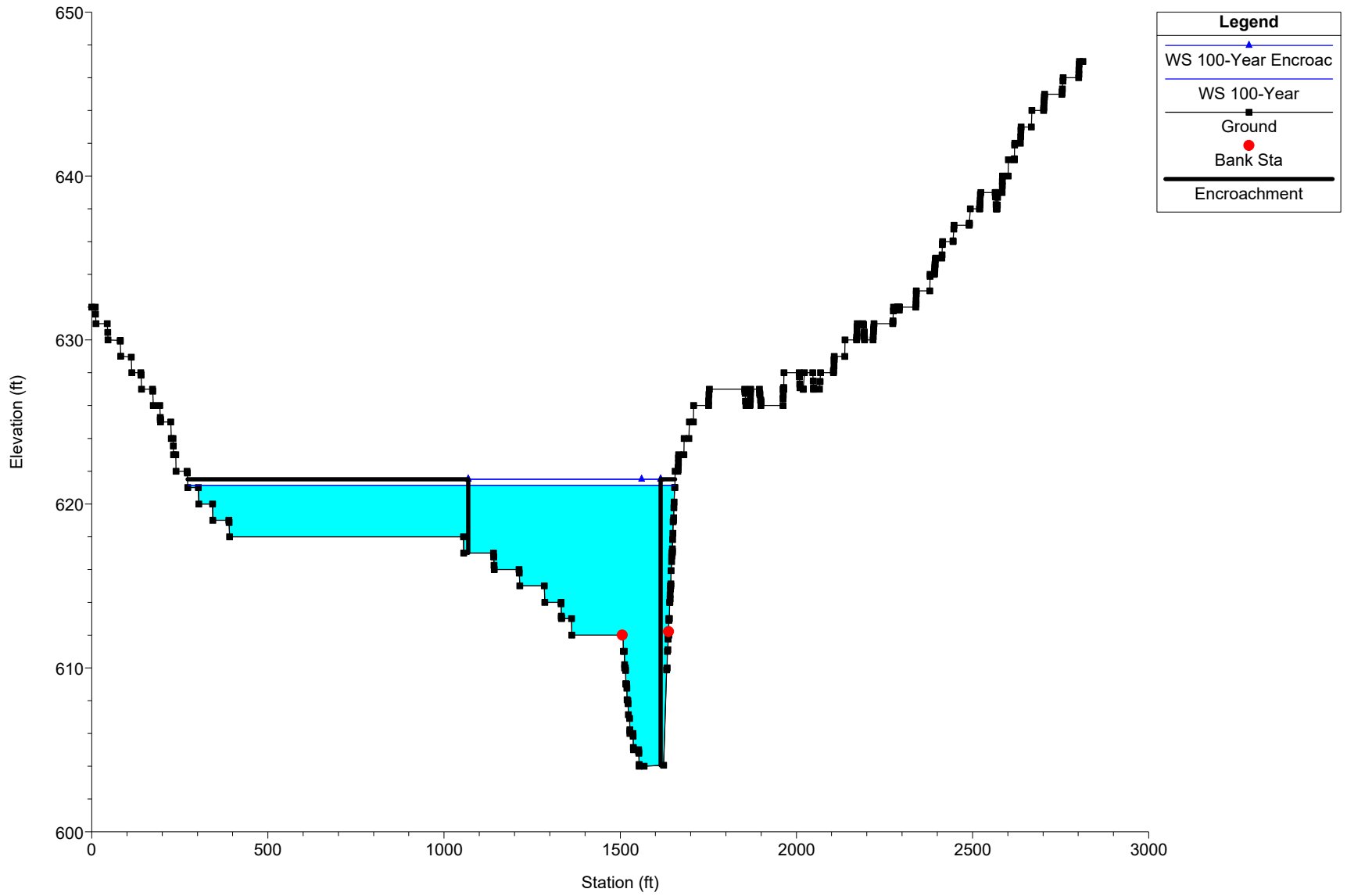
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RS = 64300 Cross Section - 64,300



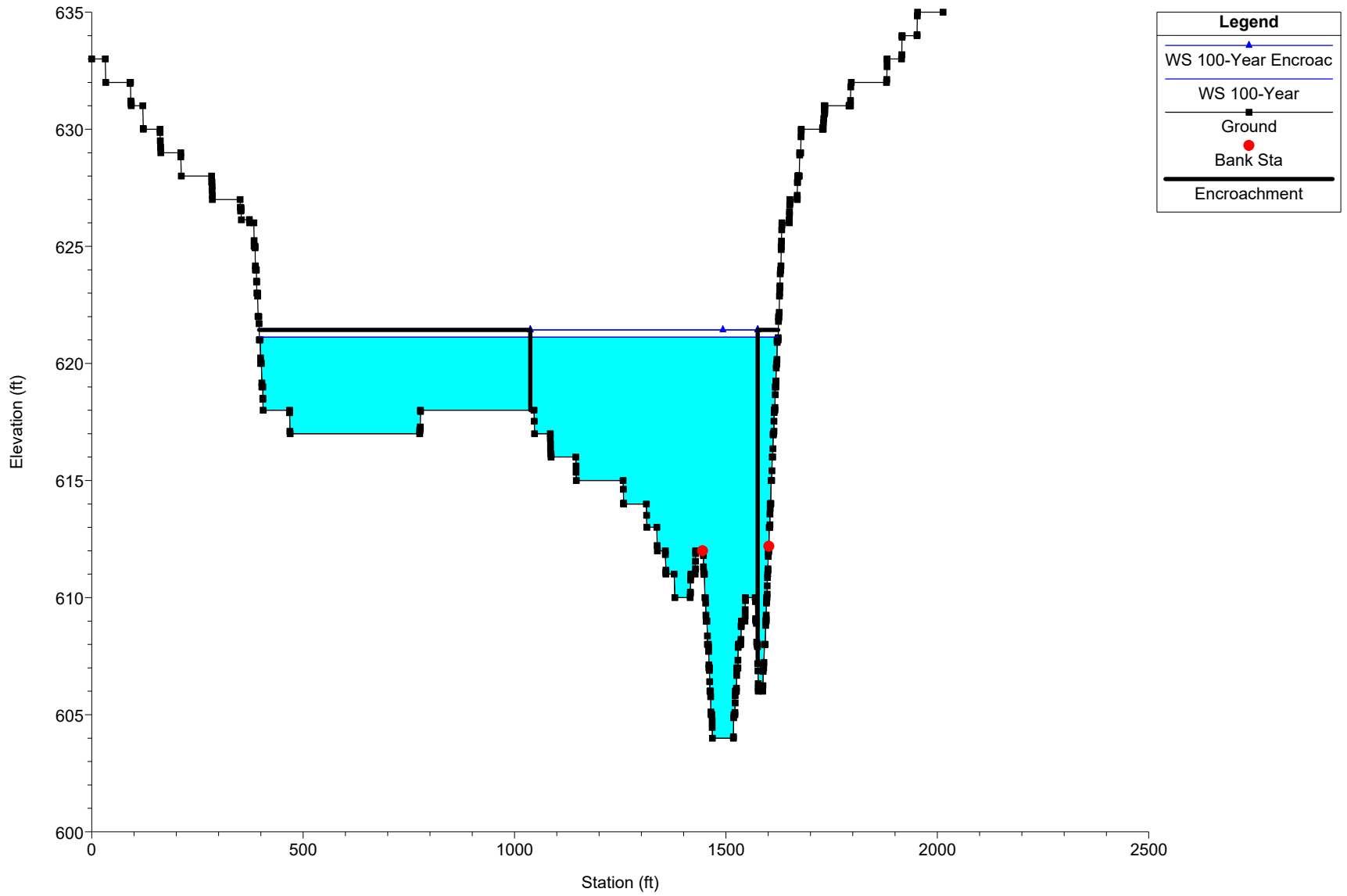
2023-07-07-Rutherford Creek-TOTAL Plan: Encroachment-Proposed-Final-RE 7/7/2023

RS = 64100 Cross Section - 64,100



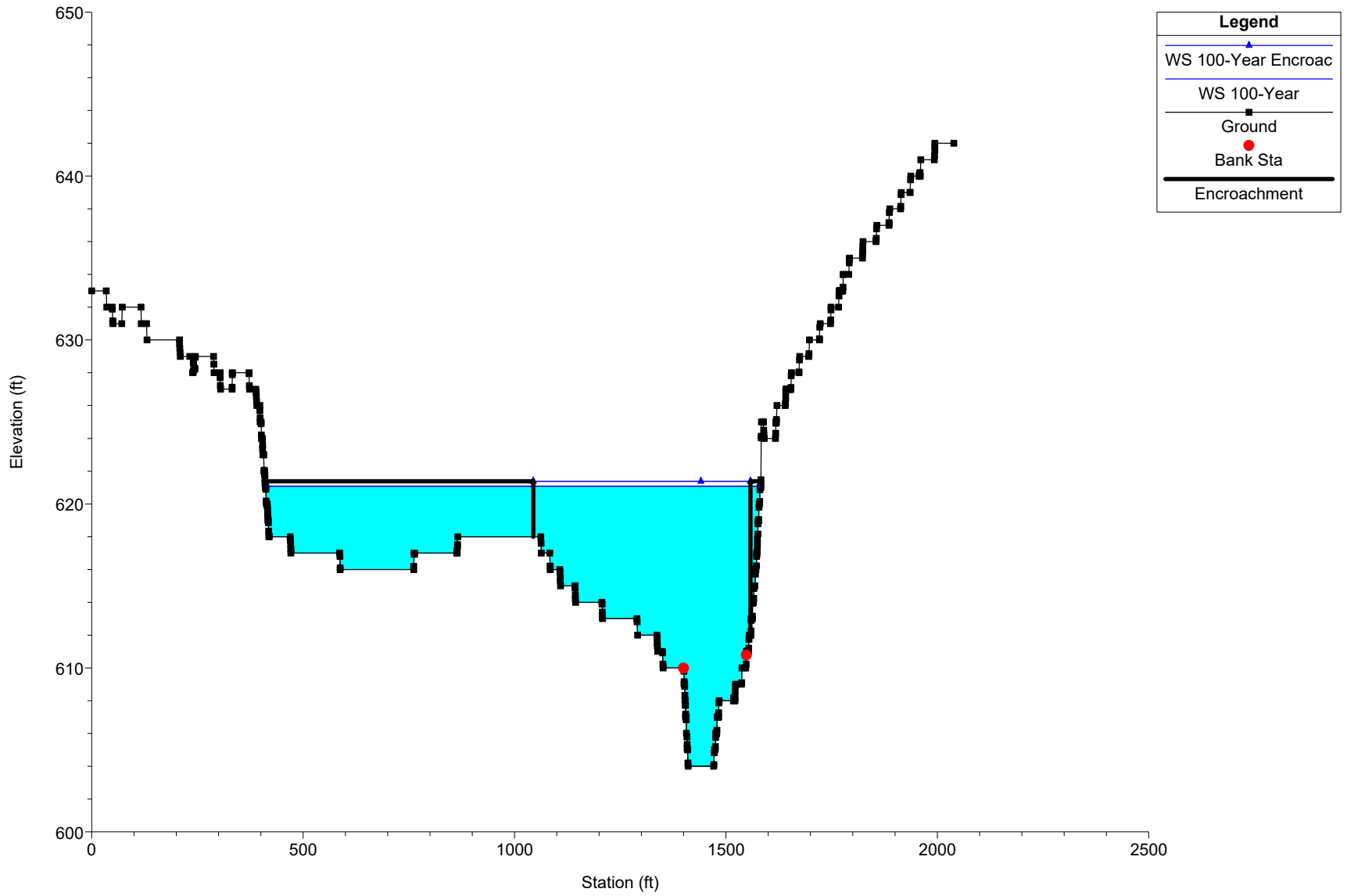
2023-07-07-Rutherford Creek-TOTAL Plan: Encroachment-Proposed-Final-RE 7/7/2023

RS = 63900 Cross Section - 63,900



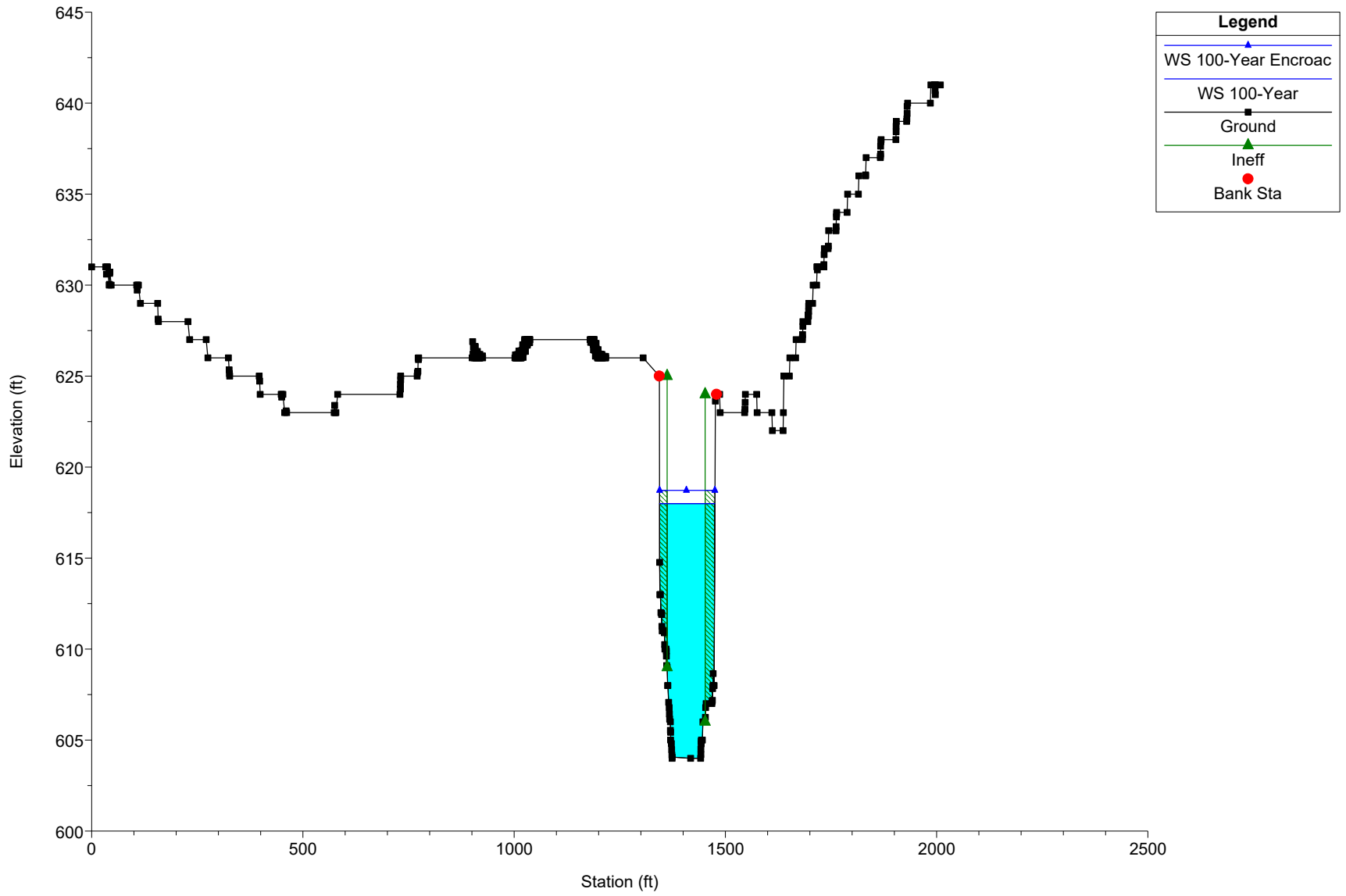
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RS = 63700 Cross Section - 63,700

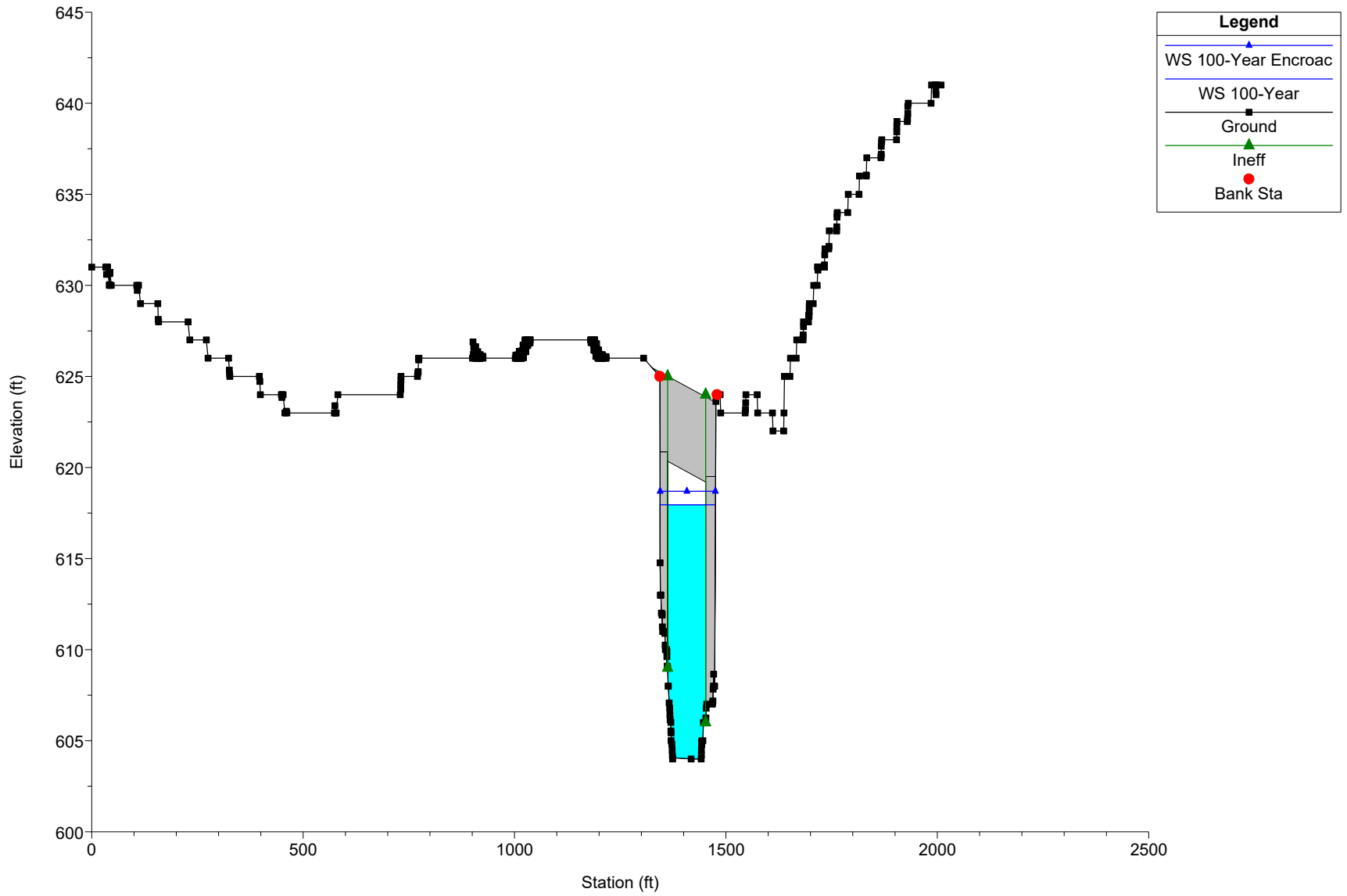


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RS = 63549 Cross Section - 63,549

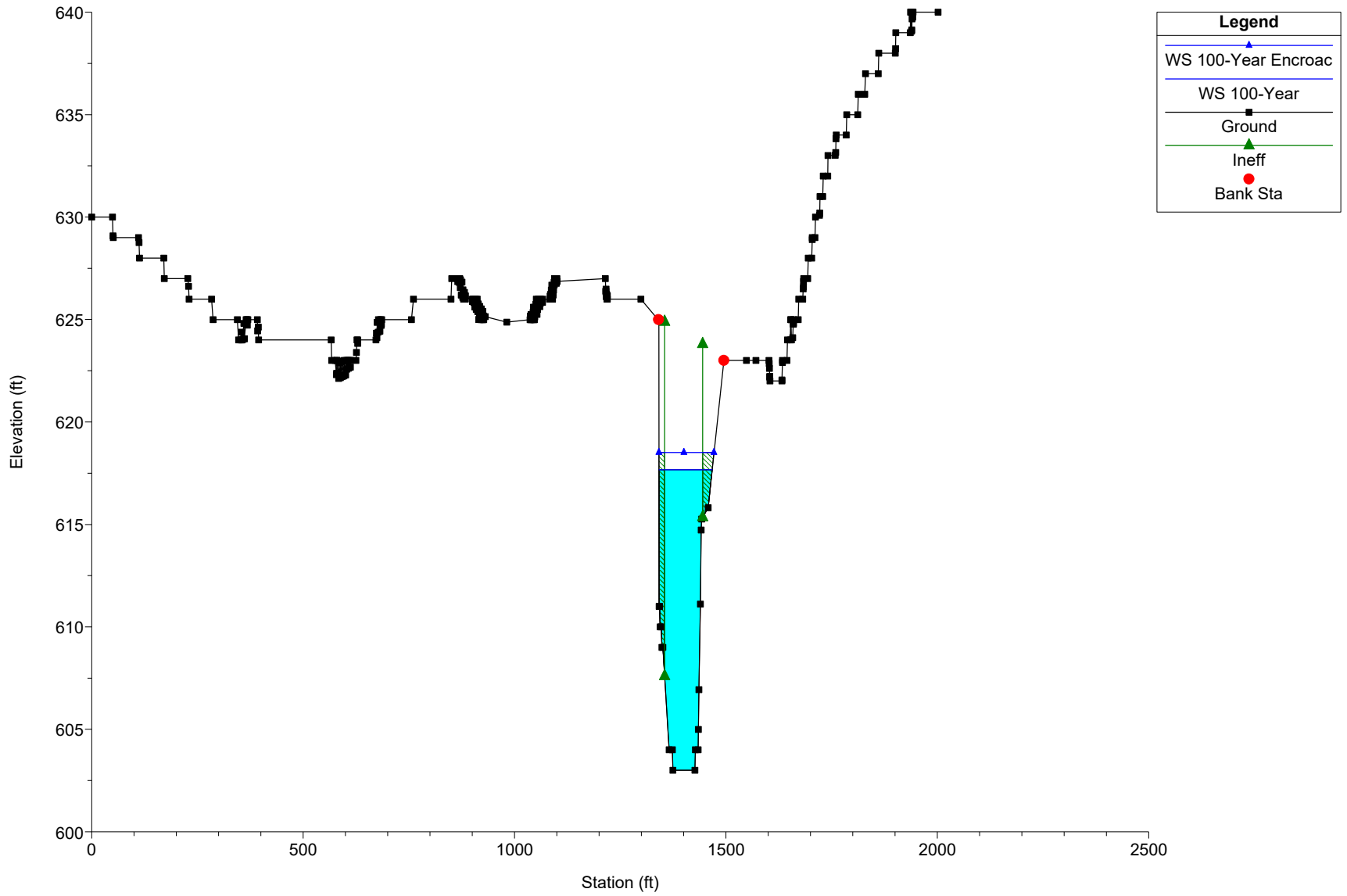


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RS = 63527 BR



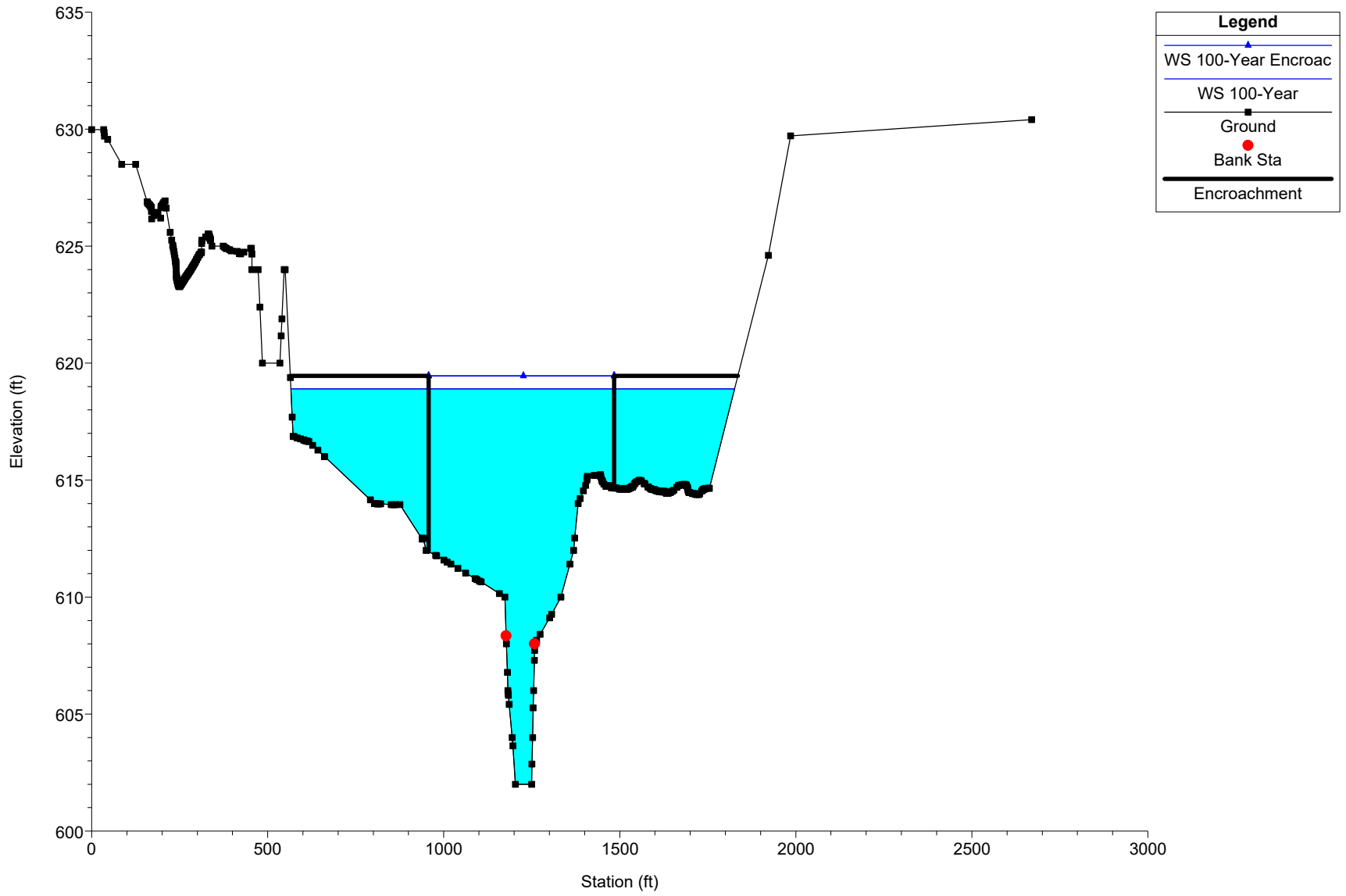
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RS = 63442 Cross Section - 63,442



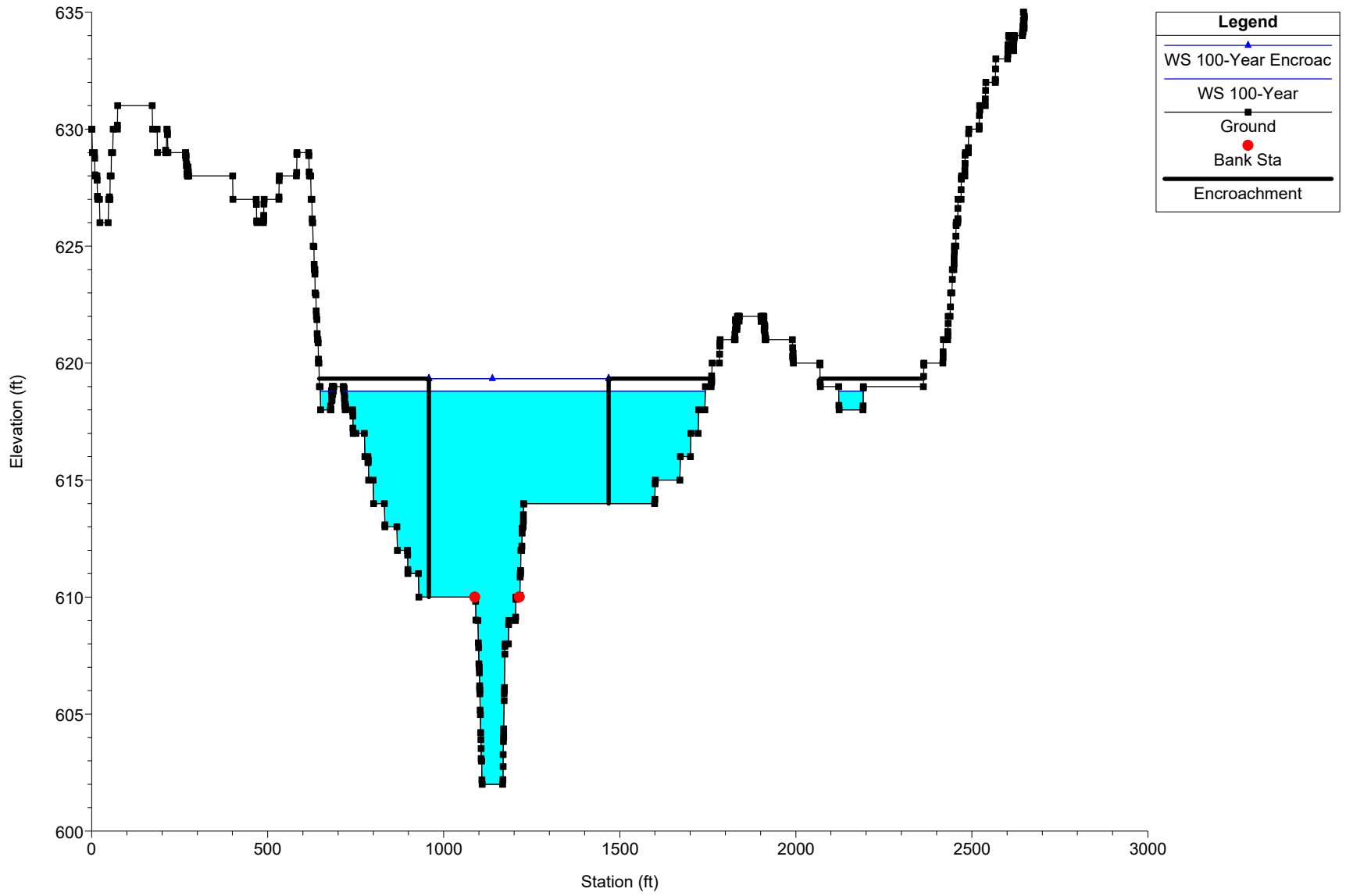
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RS = 63300 Cross Section - 63,300



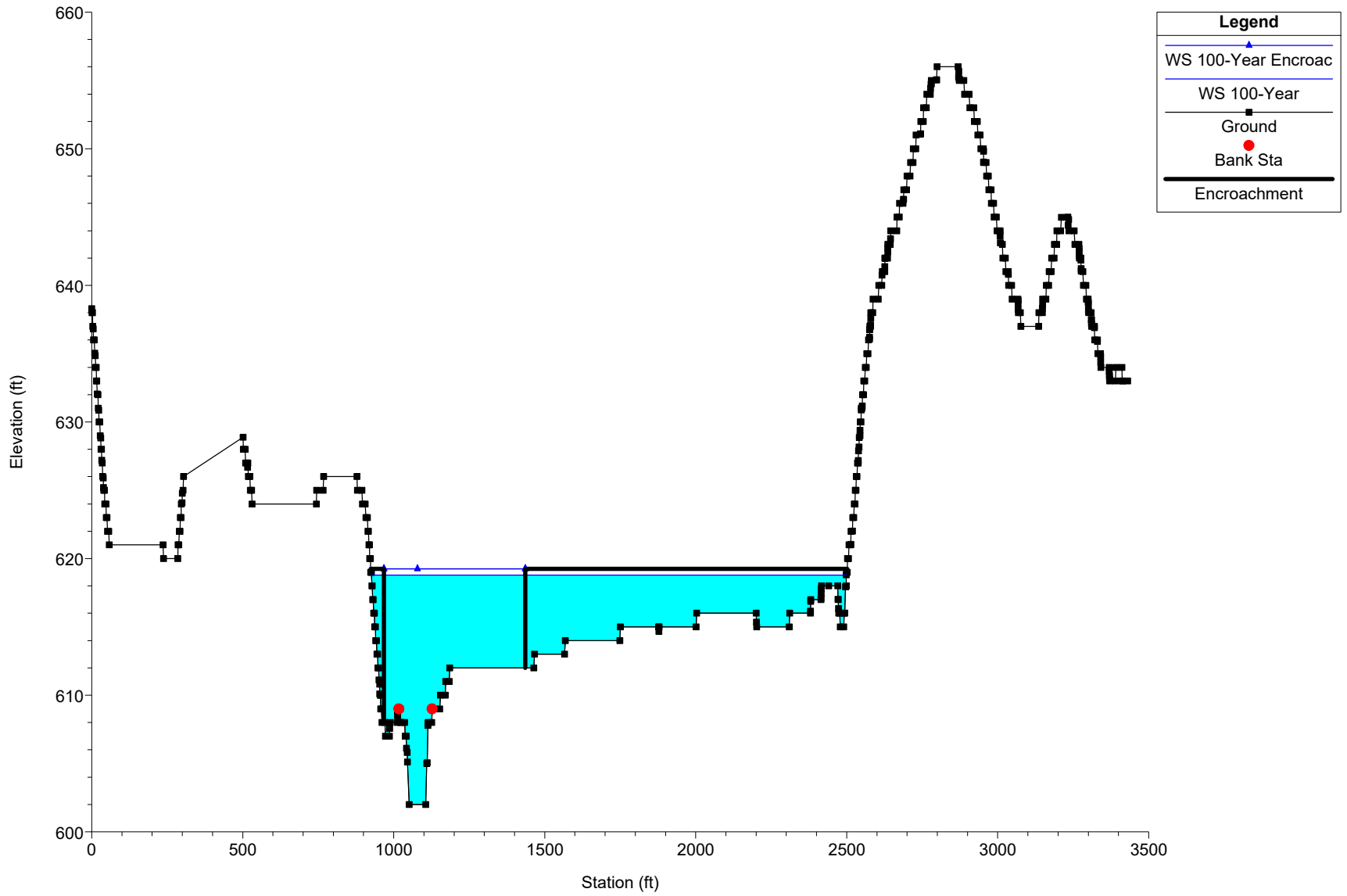
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RS = 63100 Cross Section - 63,100

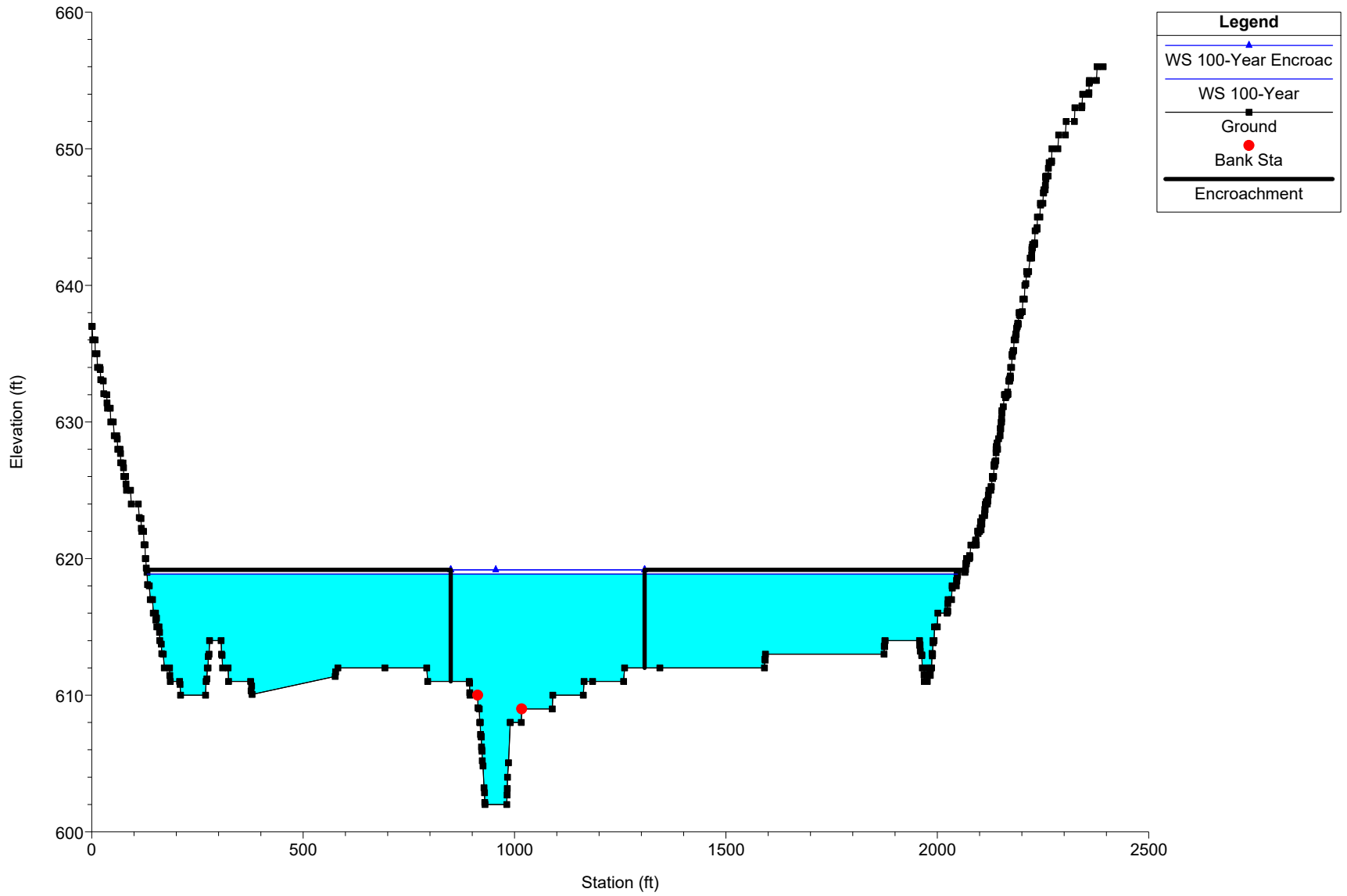


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RS = 62900 Cross Section - 62,900

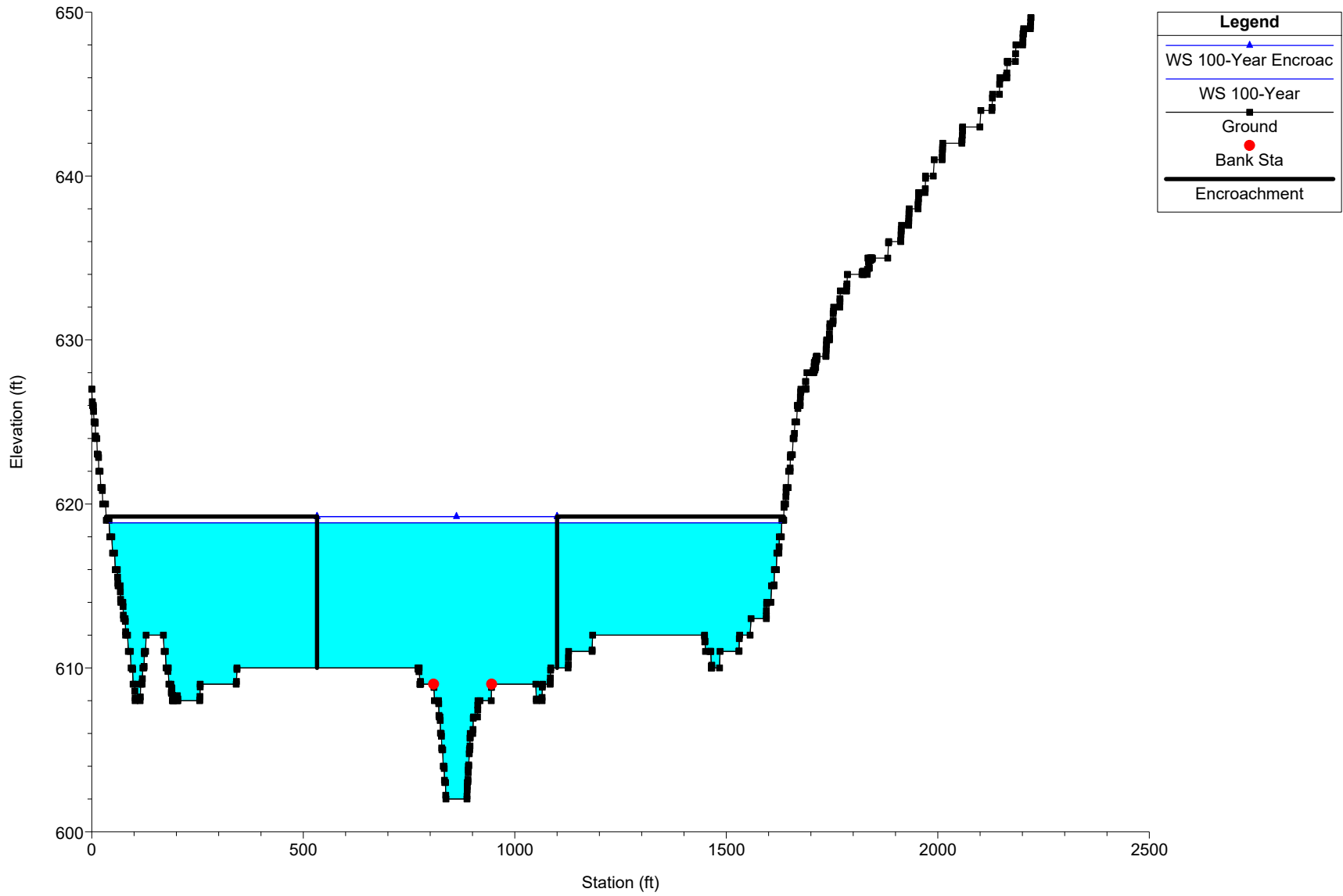


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RS = 62700 Cross Section - 62,700



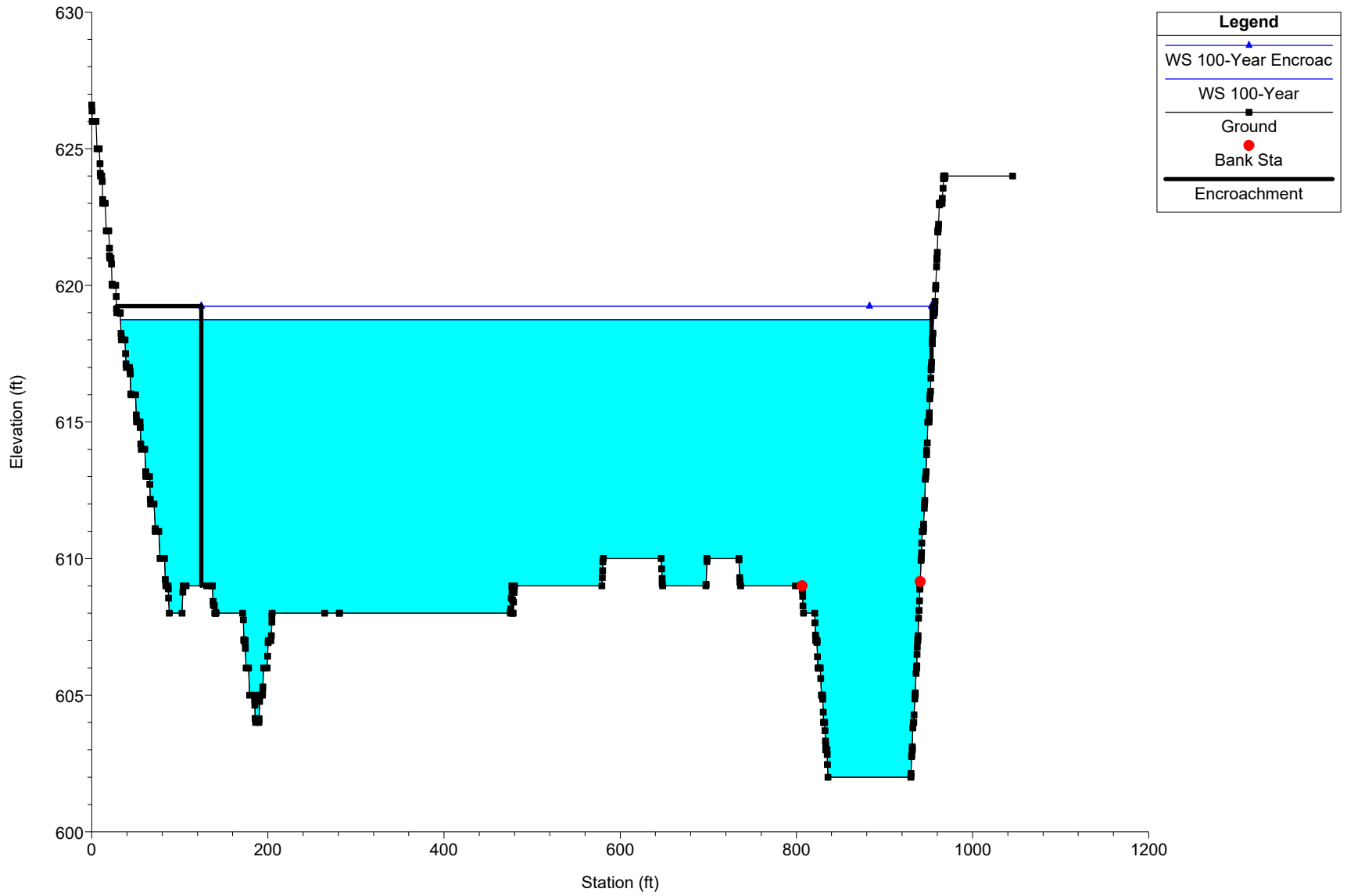
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RS = 62500 Cross Section - 62,500



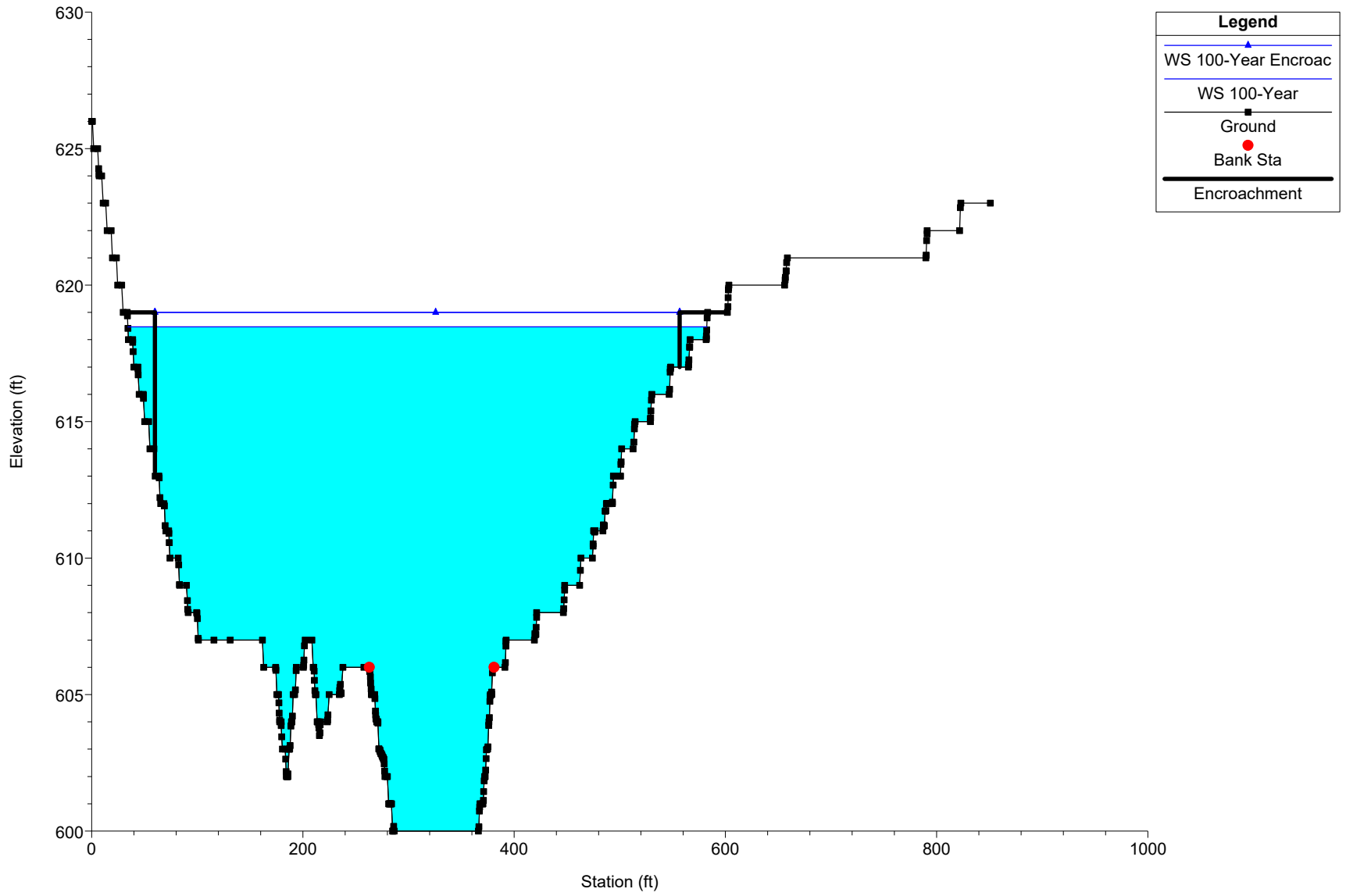
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RS = 62000 Cross Section - 62,000



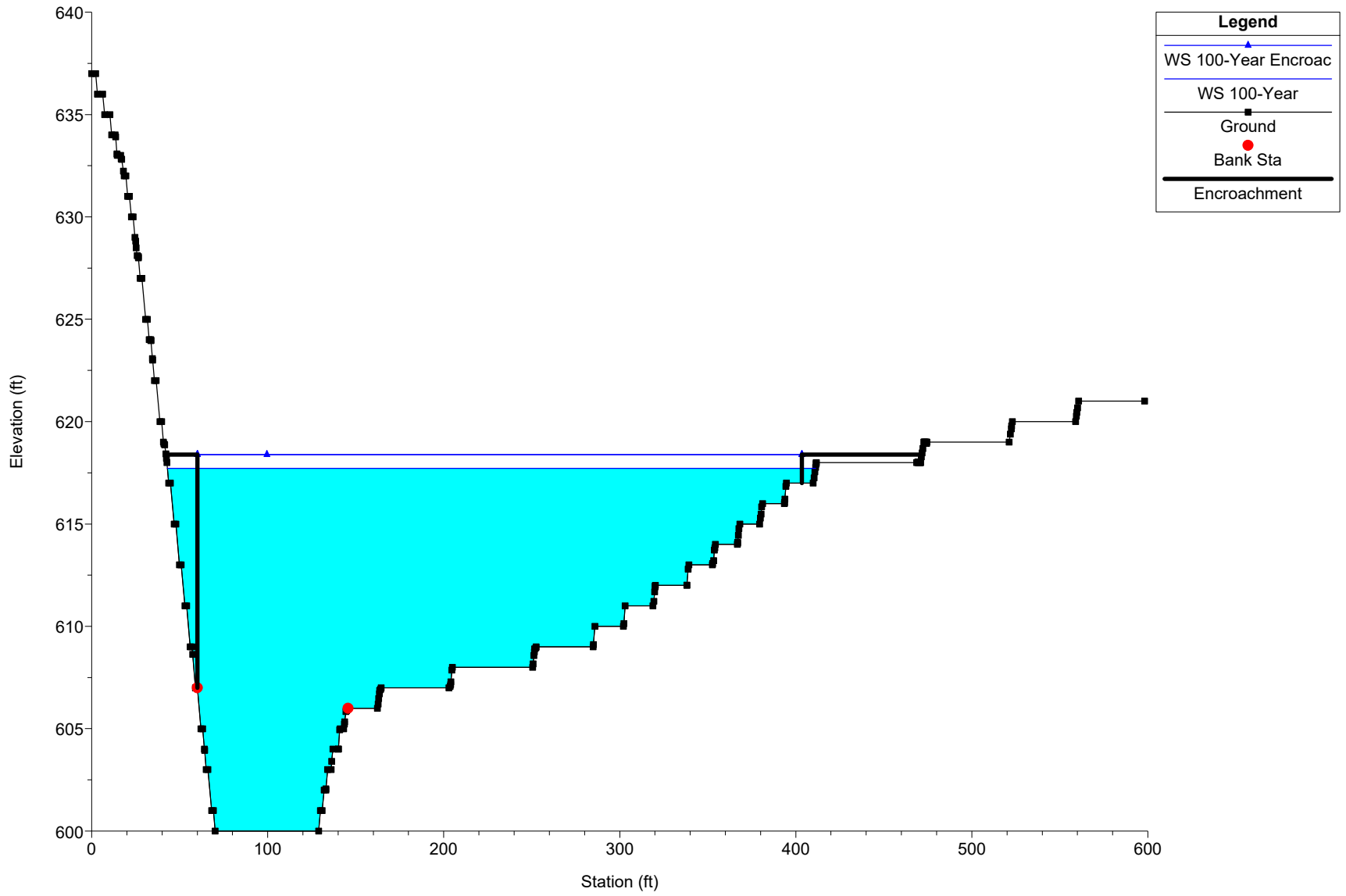
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RS = 61500 Cross Section - 61,500



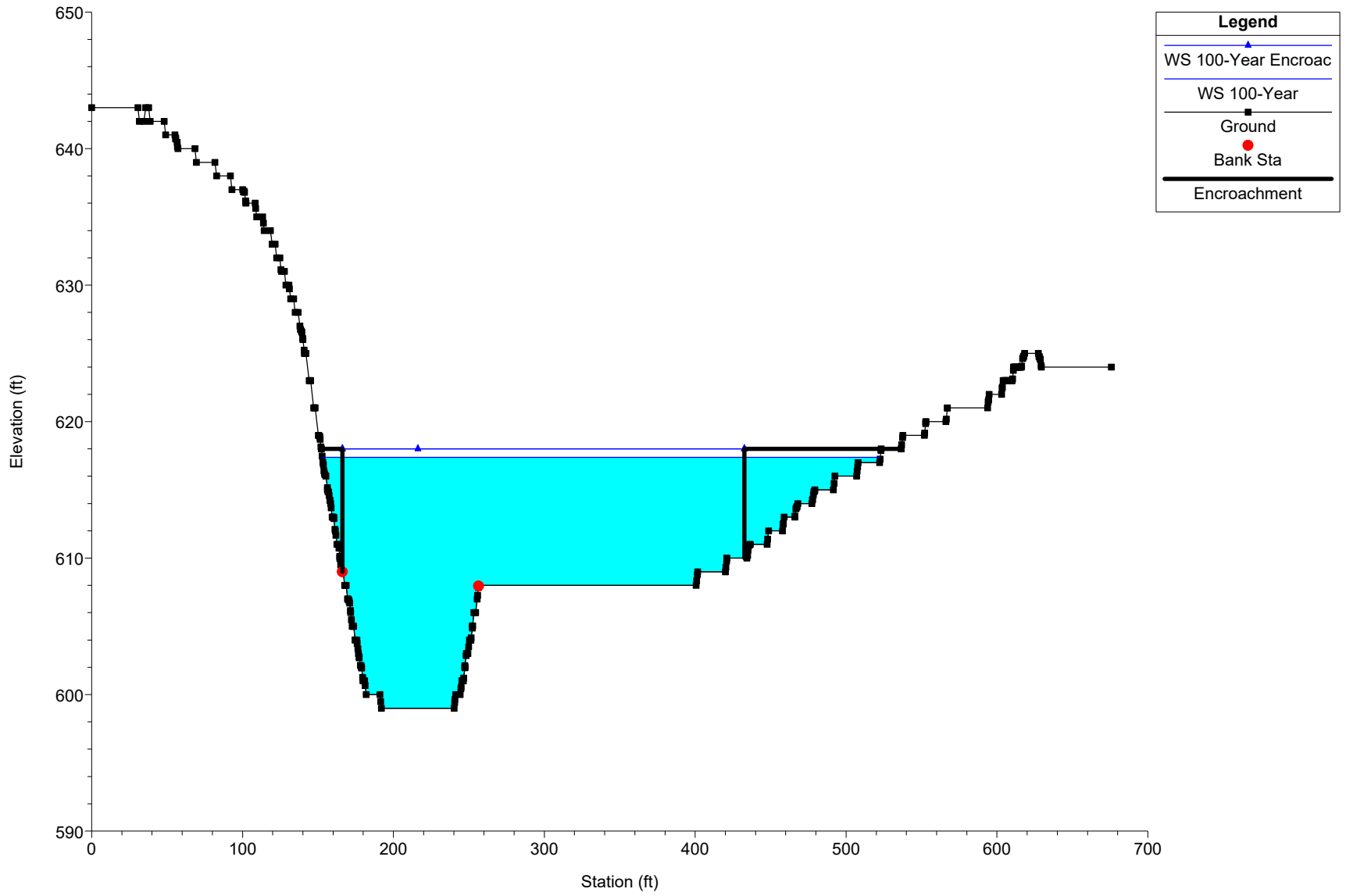
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RS = 61000 Cross Section - 61,000



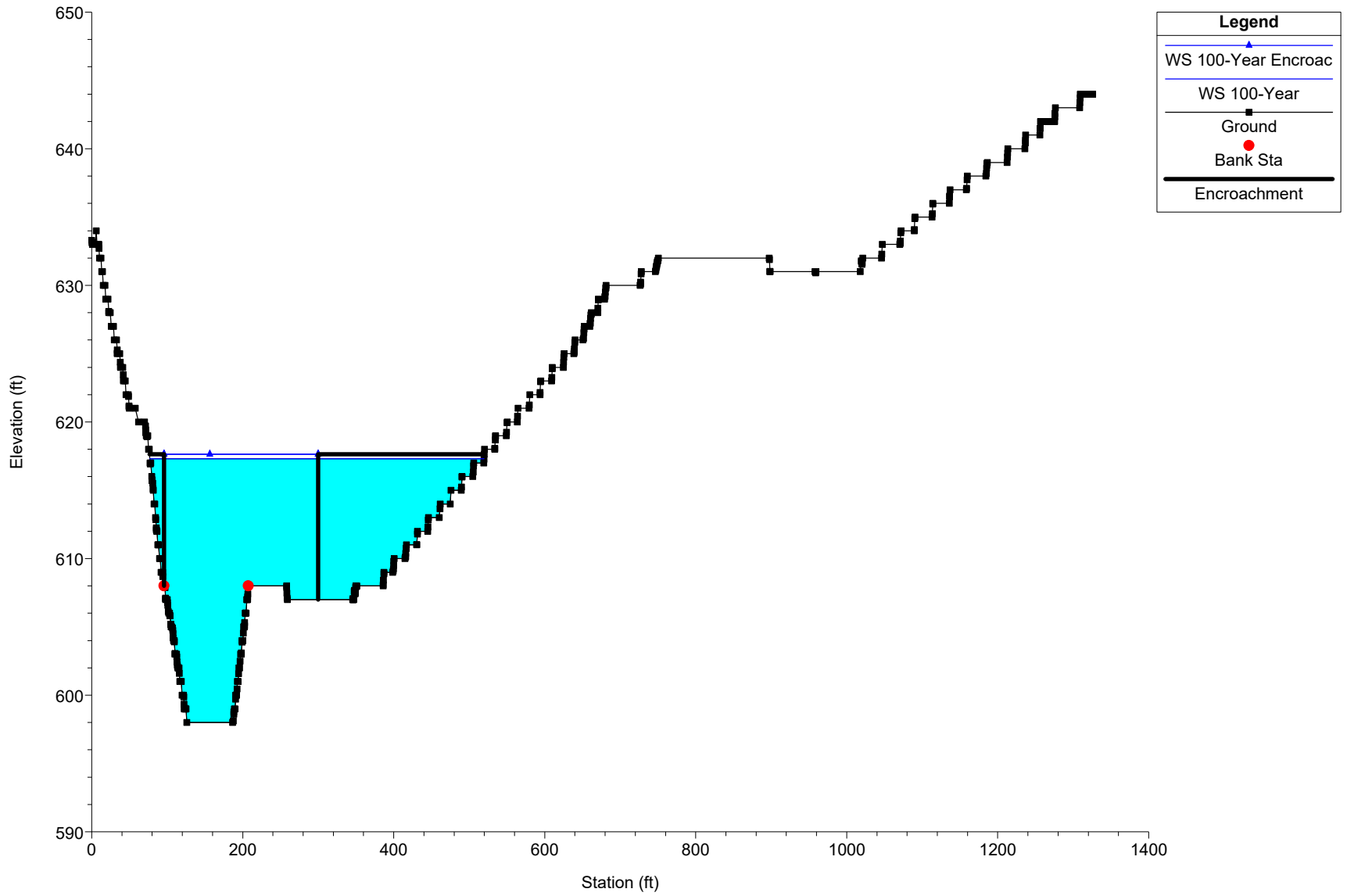
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RS = 60500 Cross Section - 60,500



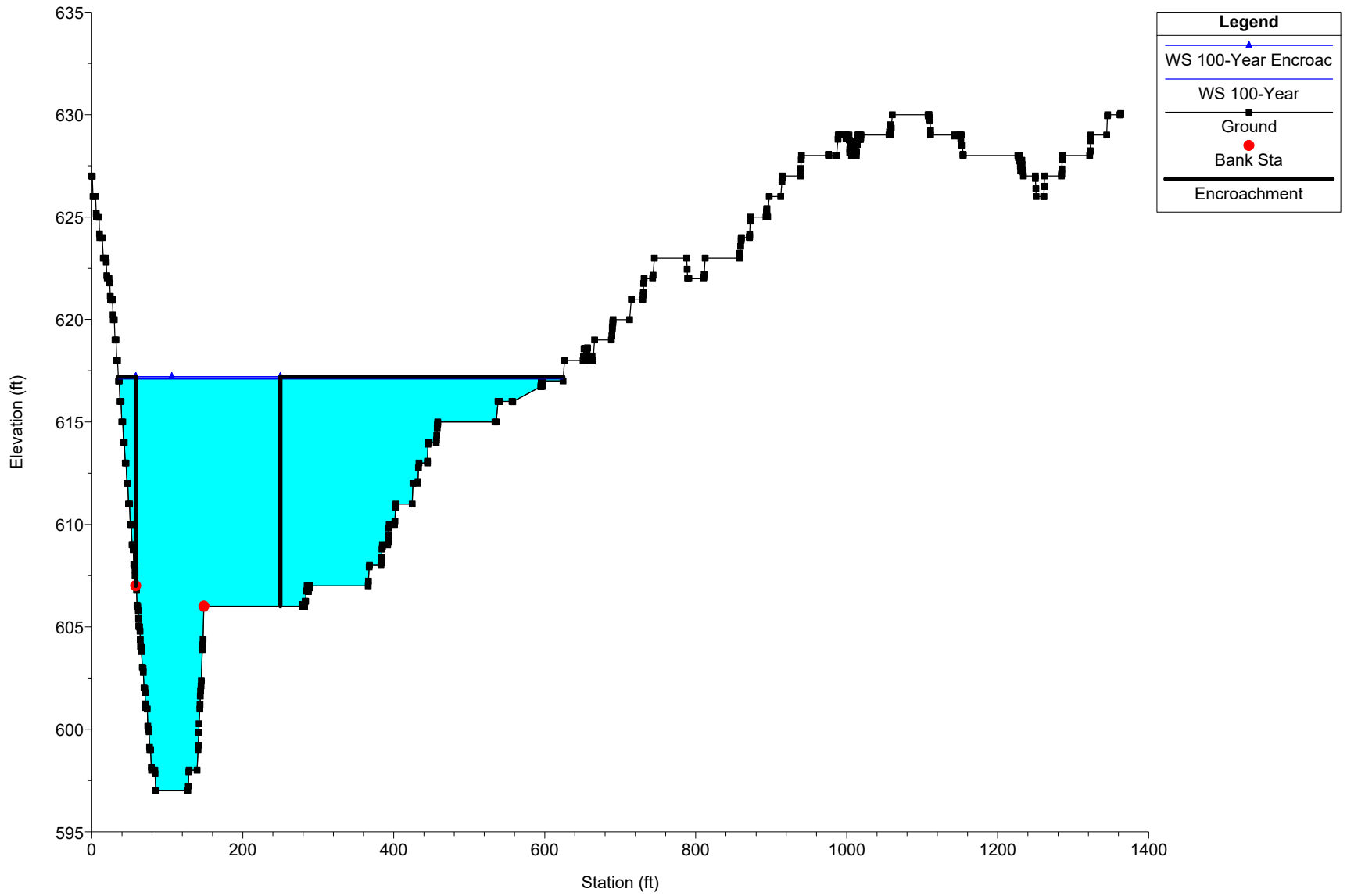
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RS = 60000 Cross Section - 60,000



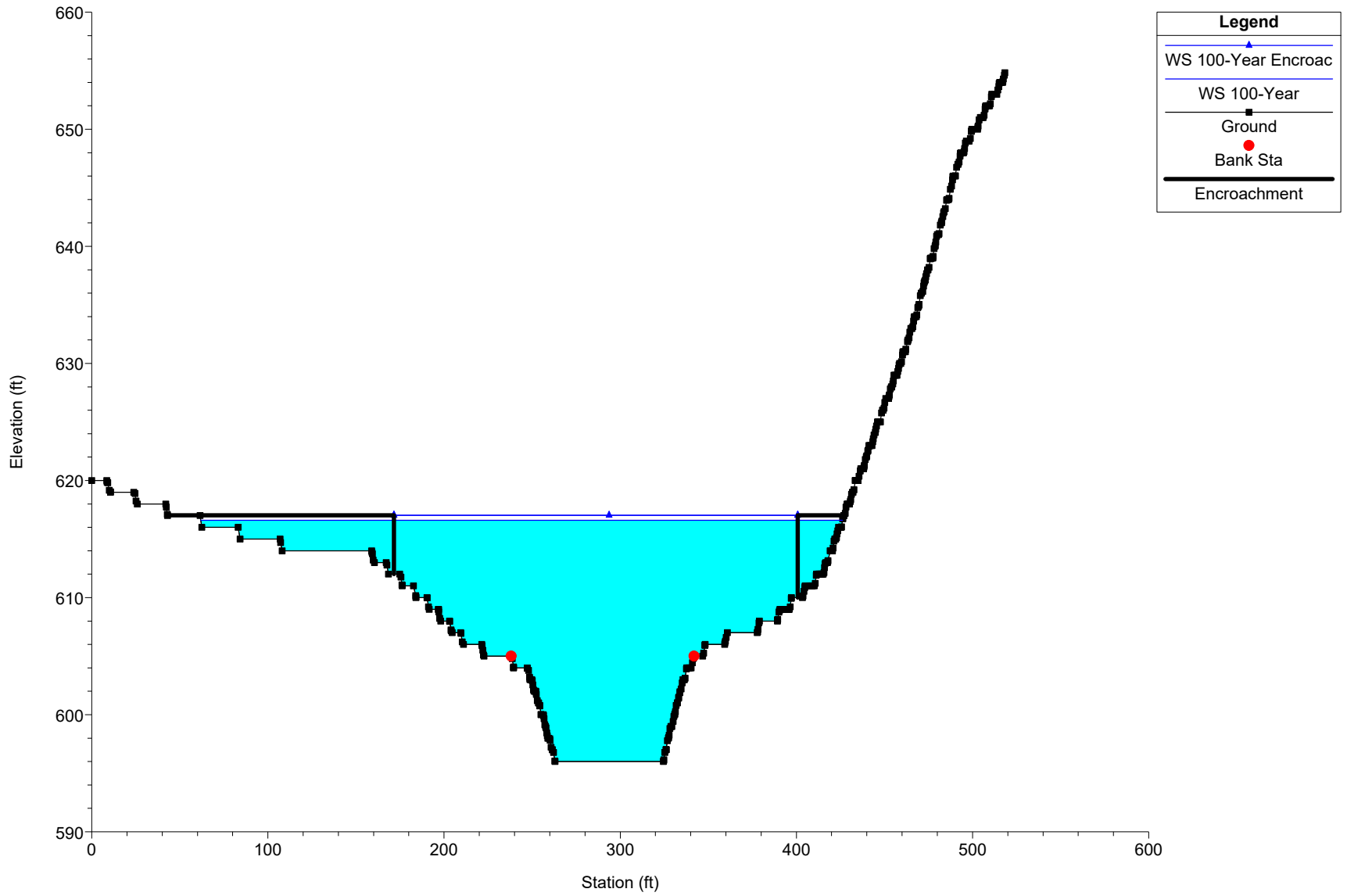
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RS = 59500 Cross Section - 59,500

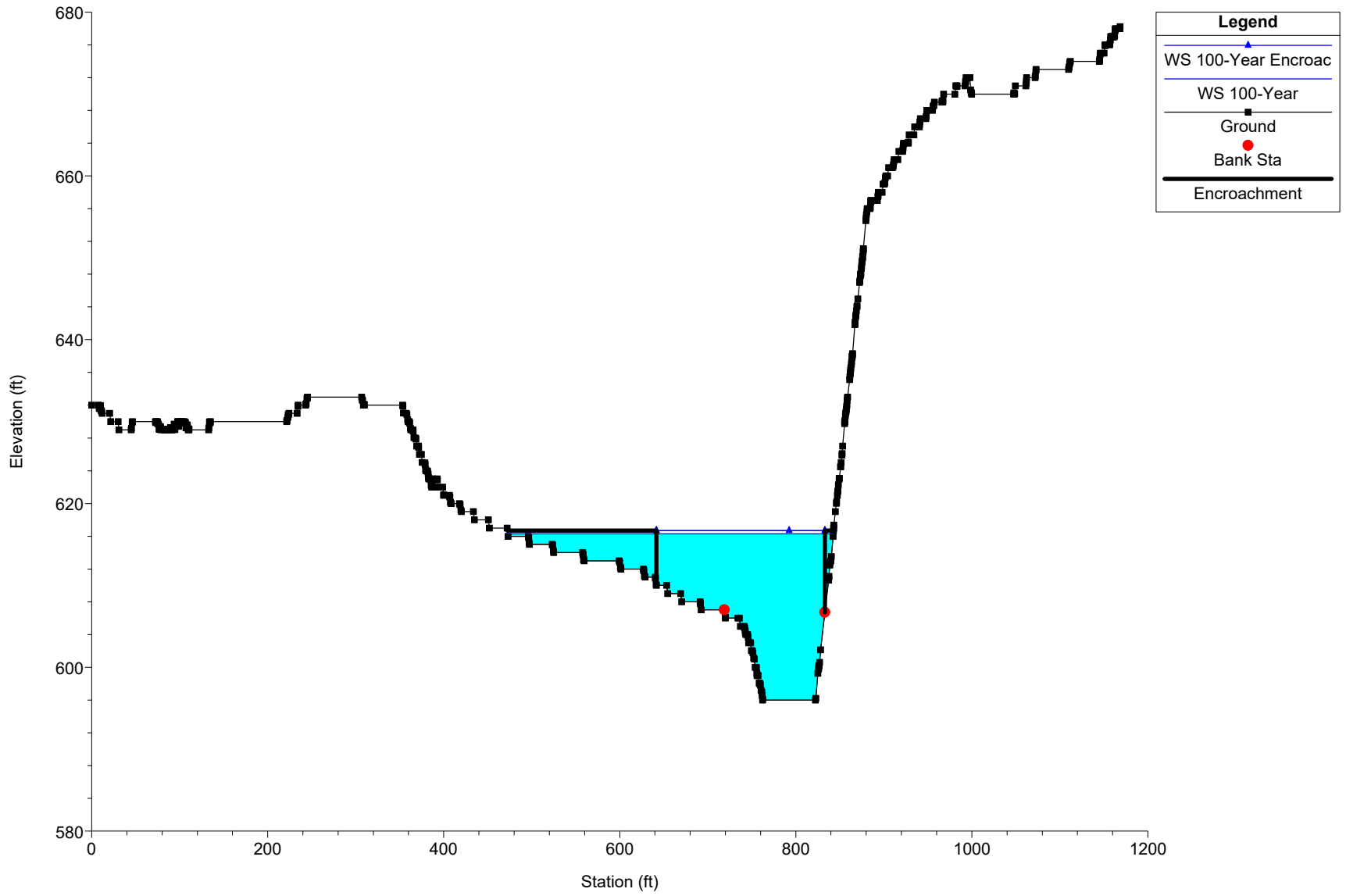


2023-07-07-Rutherford Creek-TOTAL Plan: Encroachment-Proposed-Final-RE 7/7/2023

RS = 59000 Cross Section - 59,000



2023-07-07-Rutherford Creek-TOTAL Plan: Encroachment-Proposed-Final-RE 7/7/2023
RS = 58662 Cross Section - 58,662 (Section U)



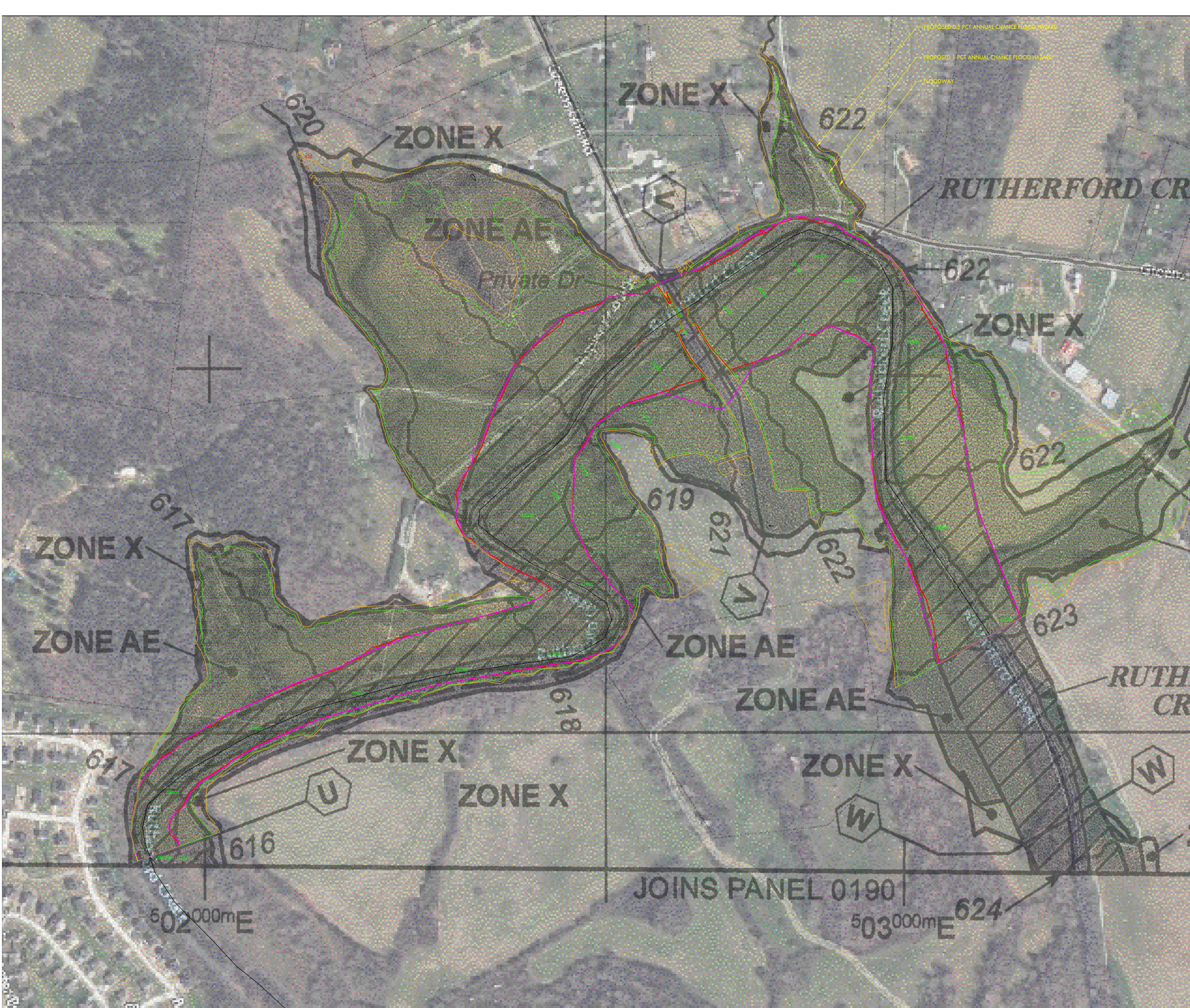
HEC-RAS-River River Analysis

(Tabular Results-Proposed/Encroachment Conditions Model)

HEC-RAS Plan: Encroachment-PRO-FINAL-RE River: Rutherford Reach: Rutherford

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Rutherford	66500	100-Year	16690.00	608.00	622.66		623.04	0.000574	6.57	5313.21	882.21	0.31
Rutherford	66500	100-Year Encroac	16690.00	608.00	623.38		623.90	0.000643	7.19	4098.53	437.23	0.33
Rutherford	66000	100-Year	16690.00	608.00	622.13		622.70	0.000680	6.67	4199.25	995.92	0.34
Rutherford	66000	100-Year Encroac	16690.00	608.00	623.06		623.58	0.000581	6.27	3679.29	403.62	0.31
Rutherford	65500	100-Year	16690.00	606.00	621.74		622.34	0.000772	7.99	5098.95	981.78	0.36
Rutherford	65500	100-Year Encroac	16690.00	606.00	622.48		623.21	0.000804	8.43	3723.47	439.40	0.38
Rutherford	65000	100-Year	16690.00	606.00	621.48		621.95	0.000647	7.20	5775.25	1180.21	0.33
Rutherford	65000	100-Year Encroac	16690.00	606.00	621.81		622.75	0.000991	9.05	3072.52	346.79	0.42
Rutherford	64500	100-Year	16690.00	606.00	621.23		621.63	0.000581	6.53	6190.23	1308.53	0.31
Rutherford	64500	100-Year Encroac	16690.00	606.00	621.52		622.22	0.000878	7.81	3483.54	426.95	0.37
Rutherford	64300	100-Year	16690.00	606.00	621.24		621.49	0.000435	5.52	7574.44	1535.74	0.27
Rutherford	64300	100-Year Encroac	16690.00	606.00	621.55		622.01	0.000605	6.61	4462.10	538.55	0.32
Rutherford	64100	100-Year	16690.00	604.00	621.14		621.42	0.000300	5.20	7420.76	1382.94	0.23
Rutherford	64100	100-Year Encroac	16690.00	604.00	621.51		621.88	0.000449	5.98	4924.02	546.04	0.26
Rutherford	63900	100-Year	16690.00	604.00	621.12		621.34	0.000282	4.70	7466.07	1227.34	0.22
Rutherford	63900	100-Year Encroac	16690.00	604.00	621.43		621.78	0.000449	5.69	4894.22	537.66	0.26
Rutherford	63700	100-Year	16690.00	604.00	621.07		621.29	0.000258	4.67	7598.93	1172.00	0.21
Rutherford	63700	100-Year Encroac	16690.00	604.00	621.38		621.70	0.000317	5.25	5138.49	513.48	0.24
Rutherford	63549	100-Year	16690.00	604.00	617.99	614.73	620.93	0.002479	13.74	1214.71	130.88	0.66
Rutherford	63549	100-Year Encroac	16690.00	604.00	618.73	614.70	621.37	0.002078	13.03	1280.81	131.06	0.61
Rutherford	63527		Bridge									
Rutherford	63442	100-Year	16690.00	603.00	617.67	614.53	620.74	0.002855	14.04	1188.40	125.80	0.68
Rutherford	63442	100-Year Encroac	16690.00	603.00	618.51	614.53	621.22	0.002328	13.21	1263.47	130.16	0.62
Rutherford	63300	100-Year	16690.00	602.00	618.90		619.17	0.000388	5.99	7445.72	1260.37	0.27
Rutherford	63300	100-Year Encroac	16690.00	602.00	619.45		619.89	0.000500	6.95	4823.62	527.47	0.30
Rutherford	63100	100-Year	16690.00	602.00	618.80		619.09	0.000414	5.54	6453.06	1130.03	0.27
Rutherford	63100	100-Year Encroac	16690.00	602.00	619.34		619.79	0.000522	6.39	4380.79	510.88	0.30
Rutherford	62900	100-Year	16690.00	602.00	618.79		618.99	0.000310	5.00	8577.91	1572.24	0.23
Rutherford	62900	100-Year Encroac	16690.00	602.00	619.26		619.68	0.000487	6.40	4555.03	467.83	0.29
Rutherford	62700	100-Year	16690.00	602.00	618.86		618.91	0.000115	3.04	14078.80	1916.87	0.14
Rutherford	62700	100-Year Encroac	16690.00	602.00	619.17		619.58	0.000492	6.37	4611.30	458.43	0.29
Rutherford	62500	100-Year	16690.00	602.00	618.84		618.89	0.000093	2.69	13840.64	1589.96	0.13
Rutherford	62500	100-Year Encroac	16690.00	602.00	619.23		619.45	0.000276	4.71	6103.98	567.35	0.22
Rutherford	62000	100-Year	16690.00	602.00	618.74		618.83	0.000126	3.37	9764.86	922.92	0.15
Rutherford	62000	100-Year Encroac	16690.00	602.00	619.24		619.33	0.000120	3.35	9514.14	829.11	0.15
Rutherford	61500	100-Year	16690.00	600.00	618.47		618.73	0.000239	5.04	5869.39	548.05	0.21
Rutherford	61500	100-Year Encroac	16690.00	600.00	619.00		619.24	0.000206	4.77	6049.56	496.80	0.20
Rutherford	61000	100-Year	16690.00	600.00	617.72		618.49	0.000705	8.24	3465.27	368.12	0.36
Rutherford	61000	100-Year Encroac	16690.00	600.00	618.38		619.02	0.000666	7.60	3596.41	343.51	0.32
Rutherford	60500	100-Year	16690.00	599.00	617.38		618.13	0.000694	8.04	3456.20	369.72	0.35
Rutherford	60500	100-Year Encroac	16690.00	599.00	618.01		618.69	0.000665	7.61	3276.08	266.44	0.32
Rutherford	60000	100-Year	16690.00	598.00	617.31		617.78	0.000415	6.38	4325.19	442.64	0.27
Rutherford	60000	100-Year Encroac	16690.00	598.00	617.63		618.37	0.000597	7.36	2869.14	204.29	0.31
Rutherford	59500	100-Year	16690.00	597.00	617.10		617.57	0.000426	6.69	4874.42	589.23	0.28
Rutherford	59500	100-Year Encroac	16690.00	597.00	617.21		618.04	0.000691	8.01	2787.43	191.76	0.33
Rutherford	59000	100-Year	16690.00	596.00	616.60		617.32	0.000495	7.37	3387.04	364.25	0.30
Rutherford	59000	100-Year Encroac	16690.00	596.00	617.03		617.72	0.000458	7.21	3147.75	229.18	0.29
Rutherford	58662	100-Year	16690.00	596.00	616.30	608.33	617.12	0.000611	7.69	3060.43	369.73	0.33
Rutherford	58662	100-Year Encroac	16690.00	596.00	616.70	608.33	617.52	0.000644	7.61	2638.84	191.58	0.32

Annotated FEMA PANEL



- STREAM CENTERLINE
- EXISTING FLOODWAY
- PROPOSED FLOODWAY
- PROPOSED 1 PCT ANNUAL CHANCE FLOOD HAZARD
- PROPOSED 0.2 PCT ANNUAL CHANCE FLOOD HAZARD

PANEL 0180E

FIRM
FLOOD INSURANCE RATE MAP
MAURY COUNTY,
TENNESSEE
AND INCORPORATED AREAS


PANEL 180 OF 440
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

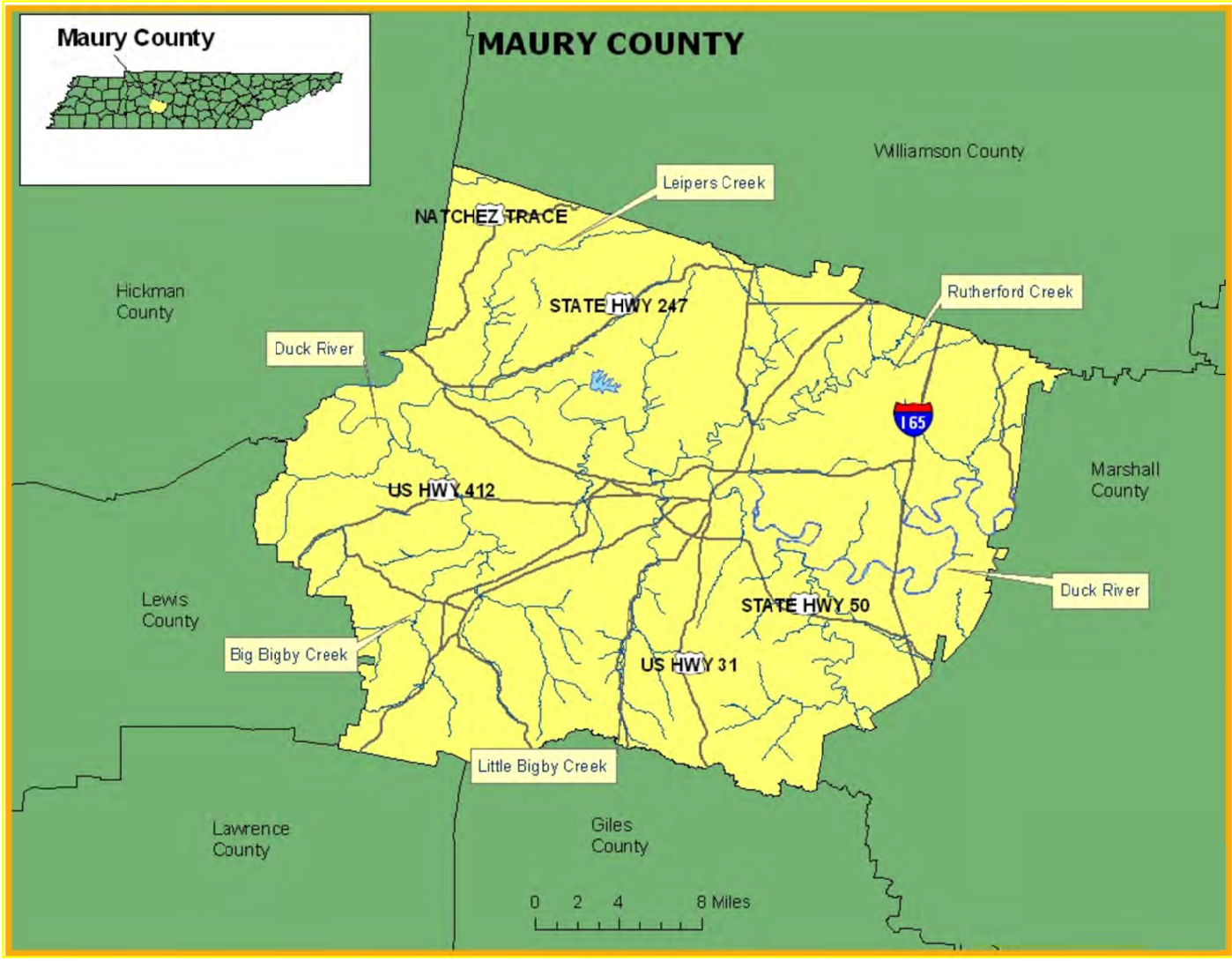
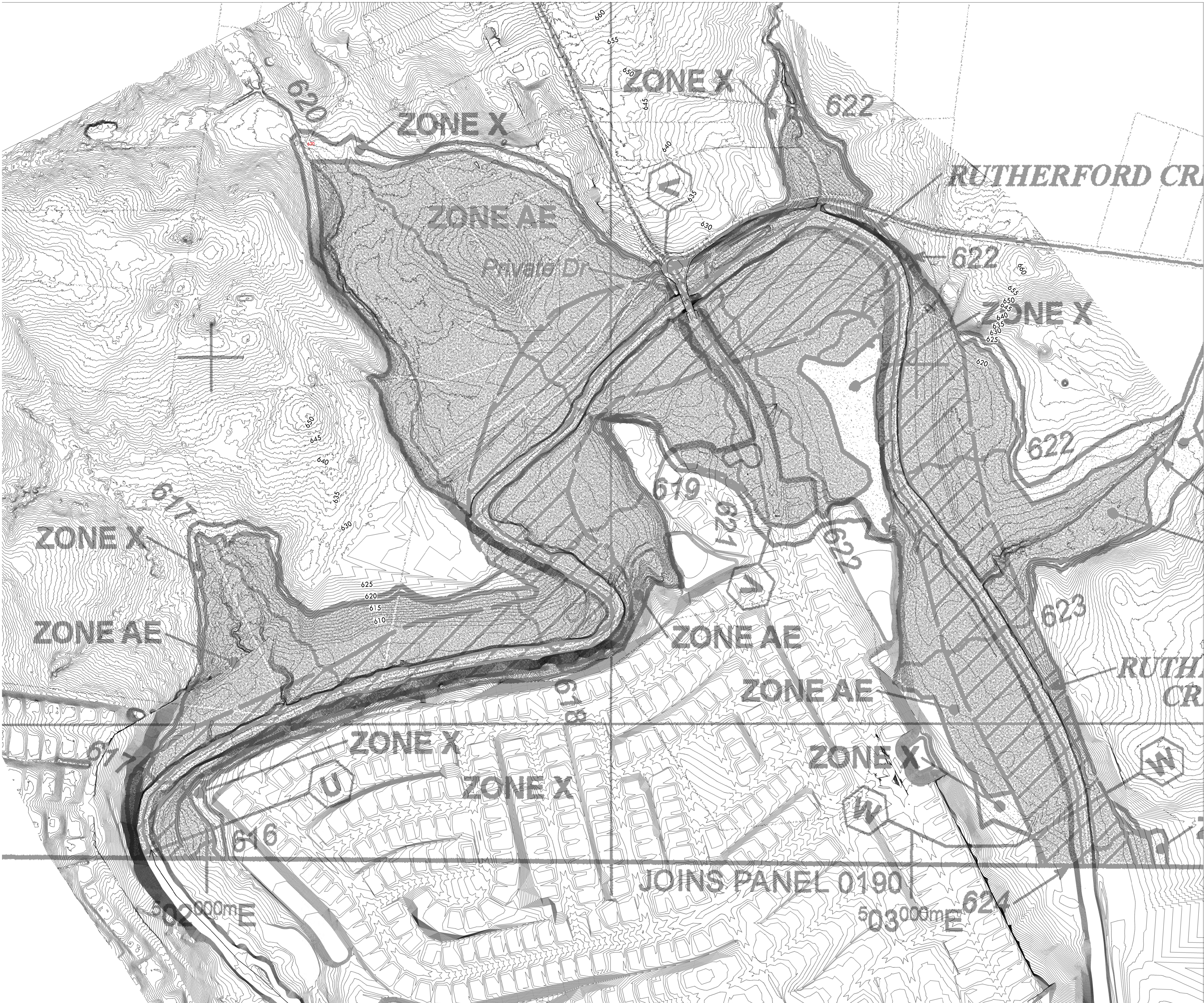
CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
COLUMBIA, CITY OF	479423	0180	E
MAURY COUNTY	470123	0180	E
SPRING HILL, CITY OF	470276	0180	E

Notice to User: The Map Number shown below should be used when placing trap orders. The Community Number shown above should be used on insurance applications for the subject community.

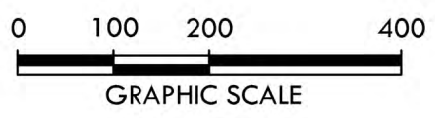
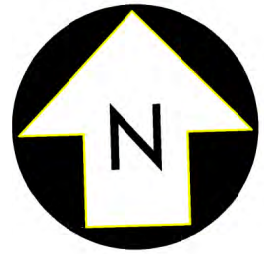
MAP NUMBER
47119C0180E
EFFECTIVE DATE
APRIL 16, 2007


Federal Emergency Management Agency



--- CONTOUR ELEVATIONS

**PROPOSED
TOPOGRAPHICAL
WORK MAP WITH FEMA
NOVEMBER 16, 2022
VERTICAL DATUM
NAVD 88**



Summary Table

(Tabular Results)

Summary of Data Used

10-Year Storm

Existing Conditons Station River	Existing Conditions 100 Year Flow (QFS) from 2007 Maury County Flood Study	W.S. Elev (ft)	Proposed Conditons Station River	Proposed Conditons Station River	W.S. Elev (ft)	Difference (ft)
66500	9820	620.04	66500	9820	619.68	-0.36
66000	9820	619.43	66000	9820	619.25	-0.18
65500	9820	618.80	65500	9820	618.42	-0.38
65000	9820	618.15	65000	9820	617.62	-0.53
64500	9820	617.42	64500	9820	616.57	-0.85
64300	9820	617.44	64300	9820	616.38	-1.06
64100	9820	617.38	64100	9820	616.47	-0.91
63900	9820	617.25	63900	9820	616.35	-0.90
63700	9820	615.54	63700	9820	616.23	0.69
			63549	9820	614.51	
			63527	Proposed Bridge		
63504	9820	614.90				
63497	Existing Bridge					
63490	9820	614.47				
63442	9820		63442	9820	614.32	
63300	9820	614.09	63300	9820	614.60	0.51
63100	9820	614.47	63100	9820	614.48	0.01
62900	9820	614.30	62900	9820	614.25	-0.05
62700	9820	614.48	62700	9820	614.42	-0.06
62500	9820	614.46	62500	9820	614.42	-0.04
62000	9820	614.32	62000	9820	614.29	-0.03
61500	9820	614.08	61500	9820	614.05	-0.03
61000	9820	613.26	61000	9820	613.22	-0.04
60500	9820	612.80	60500	9820	612.75	-0.05
60000	9820	612.66	60000	9820	612.59	-0.07
59500	9820	612.41	59500	9820	612.34	-0.07
59000	9820	611.95	59000	9820	611.93	-0.02
58662	9820	611.60	58662	9820	611.60	0.00

50-Year Storm

Existing Conditons Station River	Existing Conditions 100 Year Flow (QFS) from 2007 Maury County Flood Study	W.S. Elev (ft)	Proposed Conditons Station River	Proposed Conditons Station River	W.S. Elev (ft)	Difference (ft)
66500	14550	622.81	66500	9820	621.80	-1.01
66000	14550	622.29	66000	9820	621.28	-1.01
65500	14550	621.82	65500	9820	620.65	-1.17
65000	14550	621.19	65000	9820	620.25	-0.94
64500	14550	620.92	64500	9820	619.75	-1.17
64300	14550	621.04	64300	9820	619.78	-1.26
64100	14550	621.00	64100	9820	619.70	-1.30
63900	14550	620.97	63900	9820	619.68	-1.29
63700	14550	620.93	63700	9820	619.61	-1.32
			63549	9820	616.93	
			63527	Proposed Bridge		
63504	14550	619.71				
63497	Existing Bridge					
63490	14550	618.86				
63442	14550		63442	9820	616.62	
63300	14550	616.54	63300	9820	617.59	1.05
63100	14550	617.55	63100	9820	617.50	-0.05
62900	14550	617.52	62900	9820	617.46	-0.06
62700	14550	617.62	62700	9820	617.56	-0.06
62500	14550	617.60	62500	9820	617.54	-0.06
62000	14550	617.49	62000	9820	617.44	-0.05
61500	14550	617.23	61500	9820	617.17	-0.06
61000	14550	616.47	61000	9820	616.39	-0.08
60500	14550	616.11	60500	9820	616.02	-0.09
60000	14550	616.03	60000	9820	615.94	-0.09
59500	14550	615.83	59500	9820	615.72	-0.11
59000	14550	615.23	59000	9820	615.20	-0.03
58662	14550	614.90	58662	9820	614.90	0.00

100-Year Storm

Existing Conditons Station River	Existing Conditions 100 Year Flow (QFS) from 2007 Maury County Flood Study	W.S. Elev (ft)	Proposed Conditons Station River	Proposed Conditons Station River	W.S. Elev (ft)	Difference (ft)
66500	16690	623.49	66500	9820	622.66	-0.83
66000	16690	622.99	66000	9820	622.13	-0.86
65500	16690	622.48	65500	9820	621.74	-0.74
65000	16690	621.76	65000	9820	621.48	-0.28
64500	16690	621.49	64500	9820	621.23	-0.26
64300	16690	621.64	64300	9820	621.24	-0.40
64100	16690	621.55	64100	9820	621.14	-0.41
63900	16690	621.54	63900	9820	621.12	-0.42
63700	16690	621.50	63700	9820	621.07	-0.43
			63549	9820	617.99	
			63527	Proposed Bridge		
63504	16690	620.30				
63497	Existing Bridge					
63490	16690	617.95				
63442	16690		63442	9820	617.67	
63300	16690	618.93	63300	9820	618.90	-0.03
63100	16690	618.85	63100	9820	618.80	-0.05
62900	16690	618.86	62900	9820	618.79	-0.07
62700	16690	618.92	62700	9820	618.86	-0.06
62500	16690	618.91	62500	9820	618.84	-0.07
62000	16690	618.80	62000	9820	618.74	-0.06
61500	16690	618.54	61500	9820	618.47	-0.07
61000	16690	617.80	61000	9820	617.72	-0.08
60500	16690	617.47	60500	9820	617.38	-0.09
60000	16690	617.41	60000	9820	617.31	-0.10
59500	16690	617.21	59500	9820	617.10	-0.11
59000	16690	616.63	59000	9820	616.60	-0.03
58662	16690	616.30	58662	9820	616.30	0.00

500-Year Storm

Existing Conditons Station River	Existing Conditions 100 Year Flow (QFS) from 2007 Maury County Flood Study	W.S. Elev (ft)	Proposed Conditons Station River	Proposed Conditons Station River	W.S. Elev (ft)	Difference (ft)
66500	21950	624.99	66500	9820	625.25	0.26
66000	21950	624.46	66000	9820	624.93	0.47
65500	21950	623.97	65500	9820	624.77	0.80
65000	21950	622.88	65000	9820	624.65	1.77
64500	21950	622.71	64500	9820	624.55	1.84
64300	21950	622.88	64300	9820	624.56	1.68
64100	21950	622.80	64100	9820	624.49	1.69
63900	21950	622.79	63900	9820	624.46	1.67
63700	21950	622.73	63700	9820	624.43	1.70
			63549	9820	620.61	
			63527	Proposed Bridge		
63504	21950	621.84				
63497	Existing Bridge					
63490	21950	621.39				
63442	21950		63442	9820	619.79	
63300	21950	621.61	63300	9820	621.55	-0.06
63100	21950	621.53	63100	9820	621.47	-0.06
62900	21950	621.56	62900	9820	621.49	-0.07
62700	21950	621.59	62700	9820	621.52	-0.07
62500	21950	621.57	62500	9820	621.50	-0.07
62000	21950	621.48	62000	9820	621.40	-0.08
61500	21950	621.15	61500	9820	621.07	-0.08
61000	21950	620.33	61000	9820	620.22	-0.11
60500	21950	620.05	60500	9820	619.96	-0.09
60000	21950	620.01	60000	9820	619.92	-0.09
59500	21950	619.87	59500	9820	619.76	-0.11
59000	21950	619.18	59000	9820	619.16	-0.02
58662	21950	618.90	58662	9820	618.90	0.00

100-Year Encroachment-Existing Profile

Existing Conditons Station River	Existing Conditions 100 Year Flow (QFS) from 2007 Maury County Flood Study	W.S. Elev (ft)	Encroachment Conditons Station River	Encroachment Conditons Station River	W.S. Elev (ft)	Difference (ft)
66500	16690	623.49	66500	16690	623.78	0.29
66000	16690	622.99	66000	16690	623.28	0.29
65500	16690	622.48	65500	16690	622.89	0.41
65000	16690	621.76	65000	16690	622.34	0.58
64500	16690	621.49	64500	16690	622.08	0.59
64300	16690	621.64	64300	16690	622.16	0.52
64100	16690	621.55	64100	16690	622.13	0.58
63900	16690	621.54	63900	16690	622.06	0.52
63700	16690	621.50	63700	16690	621.98	0.48
63504	16690	620.30	63504	16690	620.14	-0.16
63497	Existing Bridge		63497	Existing Bridge		
63490	16690	617.95	63490	16690	618.71	0.76
63442	16690		63442	16690		
63300	16690	618.93	63300	16690	619.36	0.43
63100	16690	618.85	63100	16690	619.25	0.40
62900	16690	618.86	62900	16690	619.2	0.34
62700	16690	618.92	62700	16690	619.17	0.25
62500	16690	618.91	62500	16690	619.2	0.29
62000	16690	618.80	62000	16690	619.18	0.38
61500	16690	618.54	61500	16690	618.95	0.41
61000	16690	617.80	61000	16690	618.32	0.52
60500	16690	617.47	60500	16690	617.91	0.44
60000	16690	617.41	60000	16690	617.61	0.20
59500	16690	617.21	59500	16690	617.16	-0.05
59000	16690	616.63	59000	16690	616.95	0.32
58662	16690	616.30	58662	16690	616.6	0.30

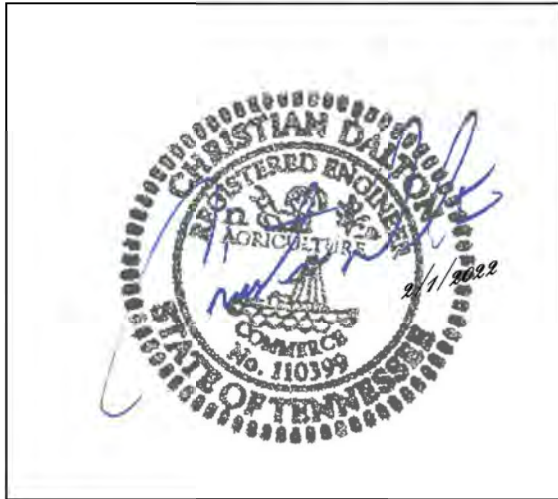
100-Year Encroachment-Proposed Profile

Proposed Conditons Station River	Proposed Conditons Station River	W.S. Elev (ft)	Proposed Conditons Station River	Proposed Conditons Station River	W.S. Elev (ft)	Difference (ft)
66500	9820	622.66	66500	9820	623.38	0.72
66000	9820	622.13	66000	9820	623.06	0.93
65500	9820	621.74	65500	9820	622.48	0.74
65000	9820	621.48	65000	9820	621.81	0.33
64500	9820	621.23	64500	9820	621.52	0.29
64300	9820	621.24	64300	9820	621.55	0.31
64100	9820	621.14	64100	9820	621.51	0.37
63900	9820	621.12	63900	9820	621.43	0.31
63700	9820	621.07	63700	9820	621.38	0.31
63549	9820	617.99	63549	9820	618.73	0.74
63527	Proposed Bridge		63527	Proposed Bridge		
63442	9820	617.67	63442	9820	618.51	0.84
63300	9820	618.90	63300	9820	619.45	0.55
63100	9820	618.80	63100	9820	619.34	0.54
62900	9820	618.79	62900	9820	619.26	0.47
62700	9820	618.86	62700	9820	619.17	0.31
62500	9820	618.84	62500	9820	619.23	0.39
62000	9820	618.74	62000	9820	619.24	0.50
61500	9820	618.47	61500	9820	619.00	0.53
61000	9820	617.72	61000	9820	618.38	0.66
60500	9820	617.38	60500	9820	618.01	0.63
60000	9820	617.31	60000	9820	617.63	0.32
59500	9820	617.10	59500	9820	617.21	0.11
59000	9820	616.60	59000	9820	617.03	0.43
58662	9820	616.30	58662	9820	616.70	0.40

No-Rise Documentation

NO-RISE CERTIFICATION

This document is to certify that I am duly qualified engineer licensed to practice in the State of Tennessee. It is to further certify that the attached technical data supports the fact that the proposed Green Mill Road Development _____ will not increase the base flood elevations or floodway elevations, or impact the floodway widths, on Rutherford Creek at _____ published cross-sections in the Flood Insurance Study for Maury County, TN _____, dated April 16, 2007 and will not increase the base flood elevations or floodway elevations, or impact the floodway widths at unpublished cross-sections in the area of the proposed development.



Seal and Signature

Christian Dalton, PE

Name

Staff Engineer, Crunk Engineering

Title

7112 Crossroads Blvd.

Brentwood, TN 37027

Address

February 1, 2022

Date

FOR COMMUNITY USE ONLY

Approved

Disapproved

Name and Title

Signature

Date