US ARMY Corps
Of Engineers®
Little Rock District

JOINT PUBLIC NOTICE

CORPS OF ENGINEERS – STATE OF ARKANSAS

Application Number: SWL 2014-00270
Date: August 11, 2014
Comments Due: September 5, 2014

TO WHOM IT MAY CONCERN: **Comments are invited on the work described below. Please see the Public Involvement section for details on submitting comments**.

Point of Contact. If additional information is desired, please contact the project manager, Johnny McLean, telephone number: (501) 324-5295, mailing address: Little Rock District Corps of Engineers, Regulatory Division, PO Box 867, Little Rock, Arkansas 72203-0867, email address: Johnny.L.McLean@usace.army.mil.

Project Information. Pursuant to Section 404 of the Clean Water Act (33 U.S. Code 1344), notice is hereby given that the

Arkansas Highway and Transportation Department (AHTD)
PO Box 2261
Little Rock, Arkansas 72203

has requested authorization for the placement of dredged and fill material in waters of the United States associated with widening U.S. Highway 63, replacing the bridges over the Spring River, Trace Creek and Burlington Northern Santa Fe Railroad, and extending the box culverts in Long Run Hollow and an unnamed tributary. The proposed project is located adjacent to and over the Spring River at Mammoth Spring, in sections 8 and 16, T. 21 N., R. 5 W., Fulton County, Arkansas. Total length of the project is approximately 1.9 miles.

The basic purpose of the project is to upgrade the roadway for additional capacity and safety. The overall purpose of the project is to widen the existing roadway and replace three structurally deficient bridges in the Mammoth Spring area. The bridges are water dependent.

The proposed project would widen the existing two-lane roadway to four 12-foot-wide travel lanes with an 11-foot-wide median and 8-foot-wide shoulders. The three bridges will be replaced on existing alignment utilizing staged construction techniques. Construction would permanently impact approximately 2.3 acres of wetlands through widening the roadway between the Trace Creek Bridge and extending the box culvert at Long Run Hollow. In addition to wetland impacts, approximately 1,430 linear feet of streams would be relocated. This includes 1,030 feet of Trace Creek, and 400 feet of an unnamed tributary to Trace Creek. Construction of the Trace Creek Bridge would require the discharge of 395 cubic yards of permanent fill and 1,440 cubic yards of temporary fill, and 440 cubic yards of excavation. Two bridge bents would be constructed in Trace Creek. Construction of the Spring River Bridge would require the discharge of 180 cubic yards of permanent fill and 1,000 cubic yards of temporary fill, and 520 cubic yards of excavation. Four bridge bents would be constructed in the Spring River. Constructing bridges over Trace Creek and the Spring River would require temporary work roads in both streams.

The Spring River and associated tributaries are Extraordinary Resource Waters and Ecologically Sensitive Waterbodies; therefore, the proposed project will require Section 401 individual water quality certification from the Arkansas Department of Environmental Quality. Mammoth Spring is the tenth largest spring in the world and discharges approximately 9 million gallons of water per hour. The Spring River flows for approximately 57 miles and empties into the Black River near Black Rock. Trace Creek is a moderately functional perennial stream which parallels U.S. Highway 63 and flows westerly to its confluence with the Spring River. Long Run Hollow is an intermittent stream that is moderately functional and also flows into the Spring River. Three wetlands were delineated within the project area. Wetland Nos. 1 and 2 are located adjacent to Long Run Hollow. Wetland No. 1 is a herbaceous wetland located within a maintained utility right-of-way. It is dominated by cattails, swamp smartweed, bulrush and arrowhead, with sycamore and black willow trees on the margins. Wetland No. 2 is a forested wetland dominated by green ash, sycamore, black willow and American Elm. Wetland No. 3 is located adjacent to Trace Creek and the dominant vegetation is box elder, green ash, lizard tail and smartweed. Wetland No. 1 is partially impaired; Wetland Nos. 2 and 3 are fully functional.

The least damaging most practicable alternative for this project was selected. Minimization was accomplished by designing the bridges on existing alignment. The remainder of the project was also designed on existing alignment except for minor modifications on the north and south ends of the job where two curves were modified. Mitigation requirements were assessed utilizing the Little Rock District Stream Method for streams and the 2002 Charleston Method for wetlands. These methods determined that 7,499 stream credits and 29.85 wetland credits would be required to offset the unavoidable impacts for this project. There are currently no mitigation banks or areas that service the Spring River watershed (hydrologic unit code 11010010). The AHTD proposes to develop a mitigation bank or mitigation area in either the Spring River, Strawberry River or Eleven Point River watersheds to provide compensatory mitigation for this project.

The location and general plan for the proposed work are shown on the enclosed sheets 1 through 10 of 10.

Water Quality Certification. By copy of this public notice, the applicant is requesting water quality certification from the Arkansas Department of Environmental Quality (ADEQ) in accordance with Section 401(a)(1) of the Clean Water Act. Upon completion of the comment period and a public hearing, if held, a determination relative to water quality certification will be made. Evidence of this water quality certification or waiver of the right to certify must be submitted prior to the issuance of a Corps of Engineers permit.

Cultural Resources. A Corps staff archeologist will review topographic maps, the National Register of Historic Places, and other data on reported sites in the area. The District Engineer invites responses to this public notice from Native American Nations or tribal governments; Federal, State, and local agencies; historical and archeological societies; and other parties likely to have knowledge of or concerns with historic properties in the area.

Endangered Species. Our preliminary determination is that the proposed activity will not affect listed Endangered Species or their critical habitat. A copy of this notice is being furnished to the U.S. Fish and Wildlife Service and appropriate state agencies and constitutes a request to those

agencies for information on whether any listed or proposed-to-be-listed endangered or threatened species may be present in the area which would be affected by the proposed activity.

Flood Plain. We are providing copies of this notice to appropriate flood plain officials in accordance with 44 CFR Part 60 (Flood Plain Management Regulations Criteria for Land Management and Use) and Executive Order 11988 on Flood Plain Management.

Section 404(b)(1) Guidelines. The evaluation of activities to be authorized under this permit which involves the discharge of dredged or fill material will include application of guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act. These guidelines are contained in 40 Code of Federal Regulations (CFR) 230.

Public Involvement. Any interested party is invited to submit to the above-listed POC written comments or objections relative to the proposed work on or before **September 5, 2014**. Substantive comments, both favorable and unfavorable, will be accepted and made a part of the record and will receive full consideration in determining whether this work would be in the public interest. The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Any person may request in writing within the comment period specified in this notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. The District Engineer will determine if the issues raised are substantial and whether a hearing is needed for making a decision.

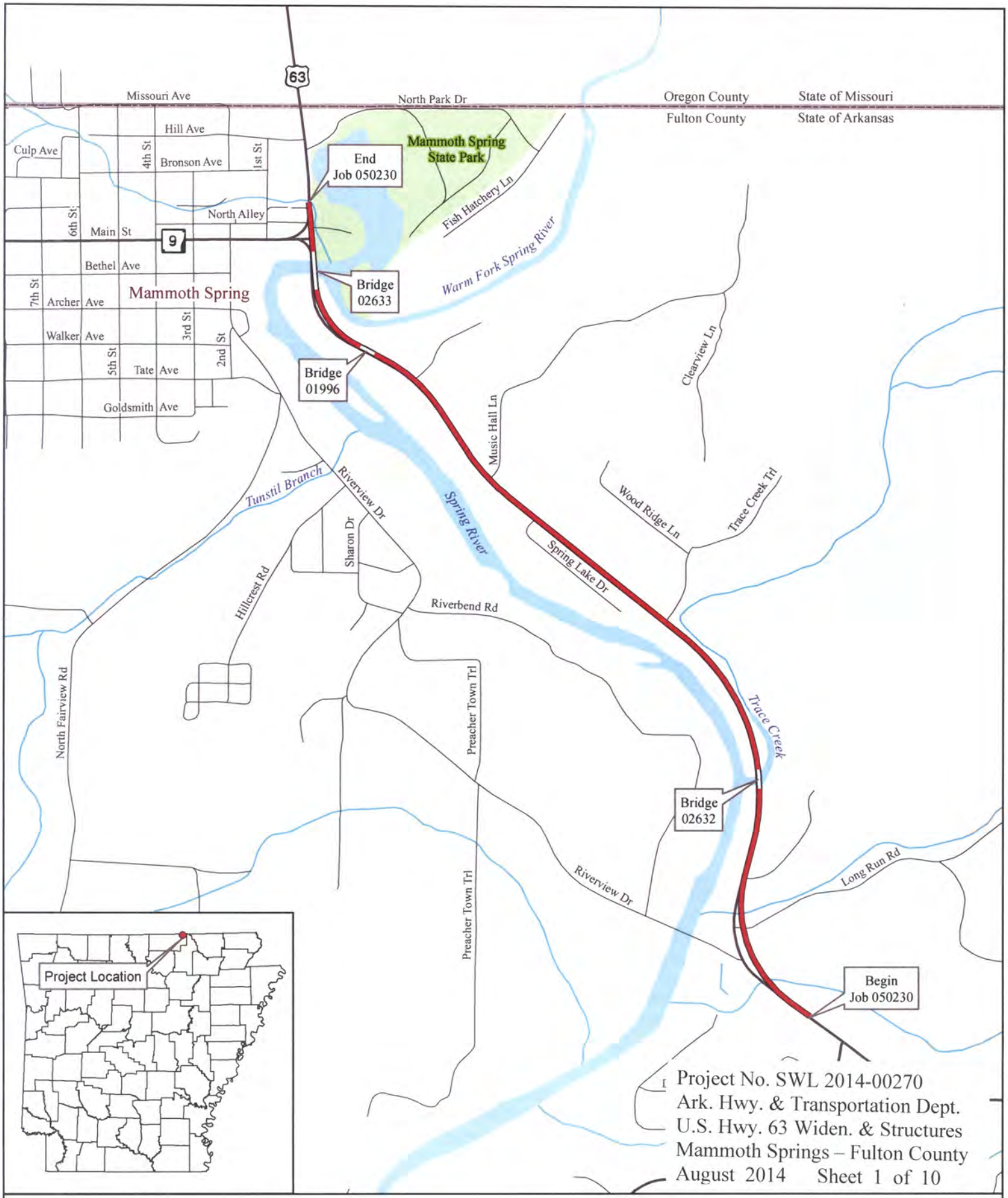
NOTE: The mailing list for this Public Notice is arranged by state and county(s) where the project is located, and also includes any addressees who have asked to receive copies of all public notices. Please discard notices that are not of interest to you. If you have no need for any of these notices, please advise us so that your name can be removed from the mailing list.

Enclosures

Approximate Coordinates of Project Center

Latitude: **36.481144** Longitude: **-91.522001**

UTM Zone: **15** Northing: **4038332** Easting: **632399**



Project No. SWL 2014-00270
Ark. Hwy. & Transportation Dept.
U.S. Hwy. 63 Widen. & Structures
Mammoth Springs – Fulton County
August 2014 Sheet 1 of 10

Figure 1
Project Location

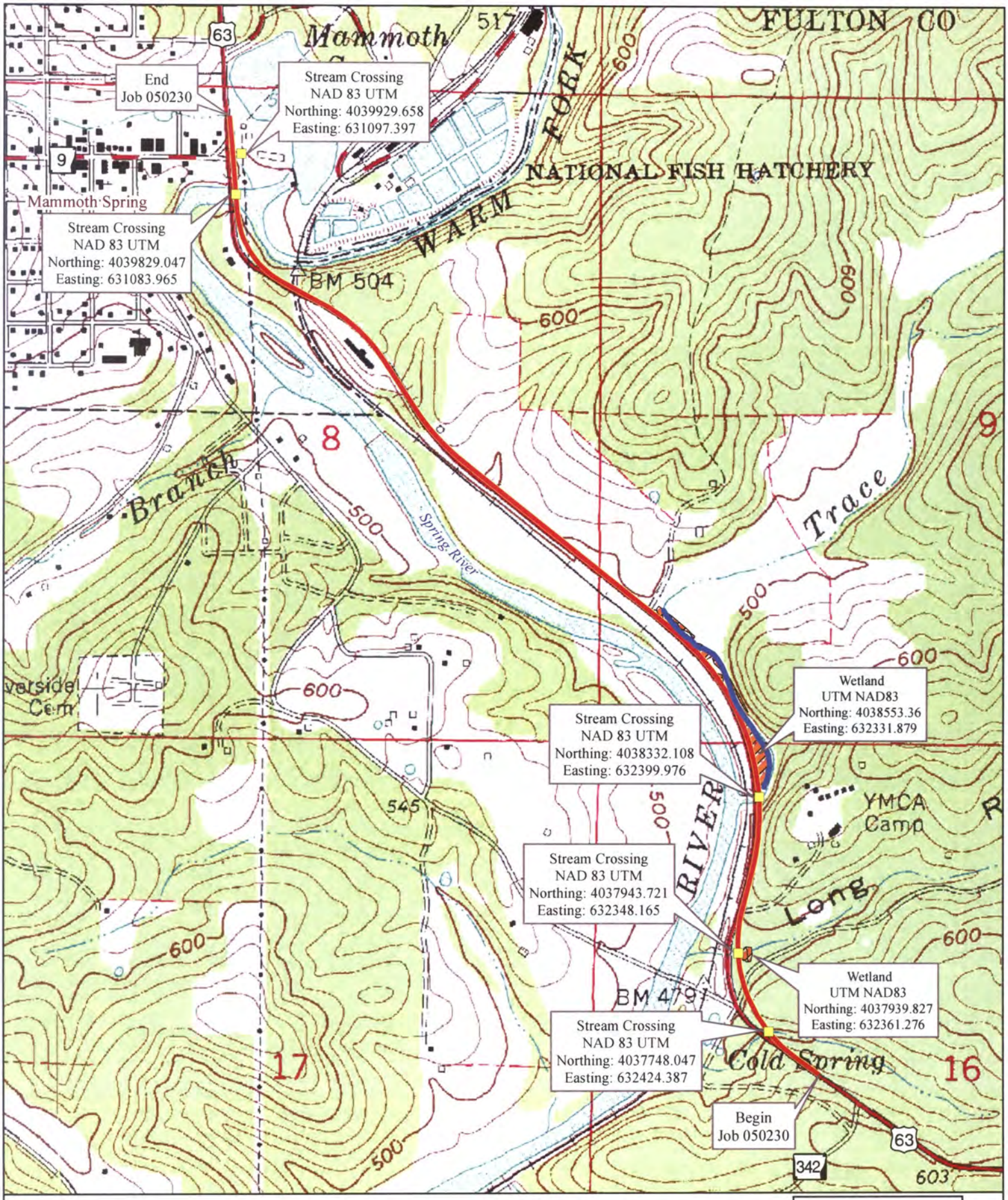
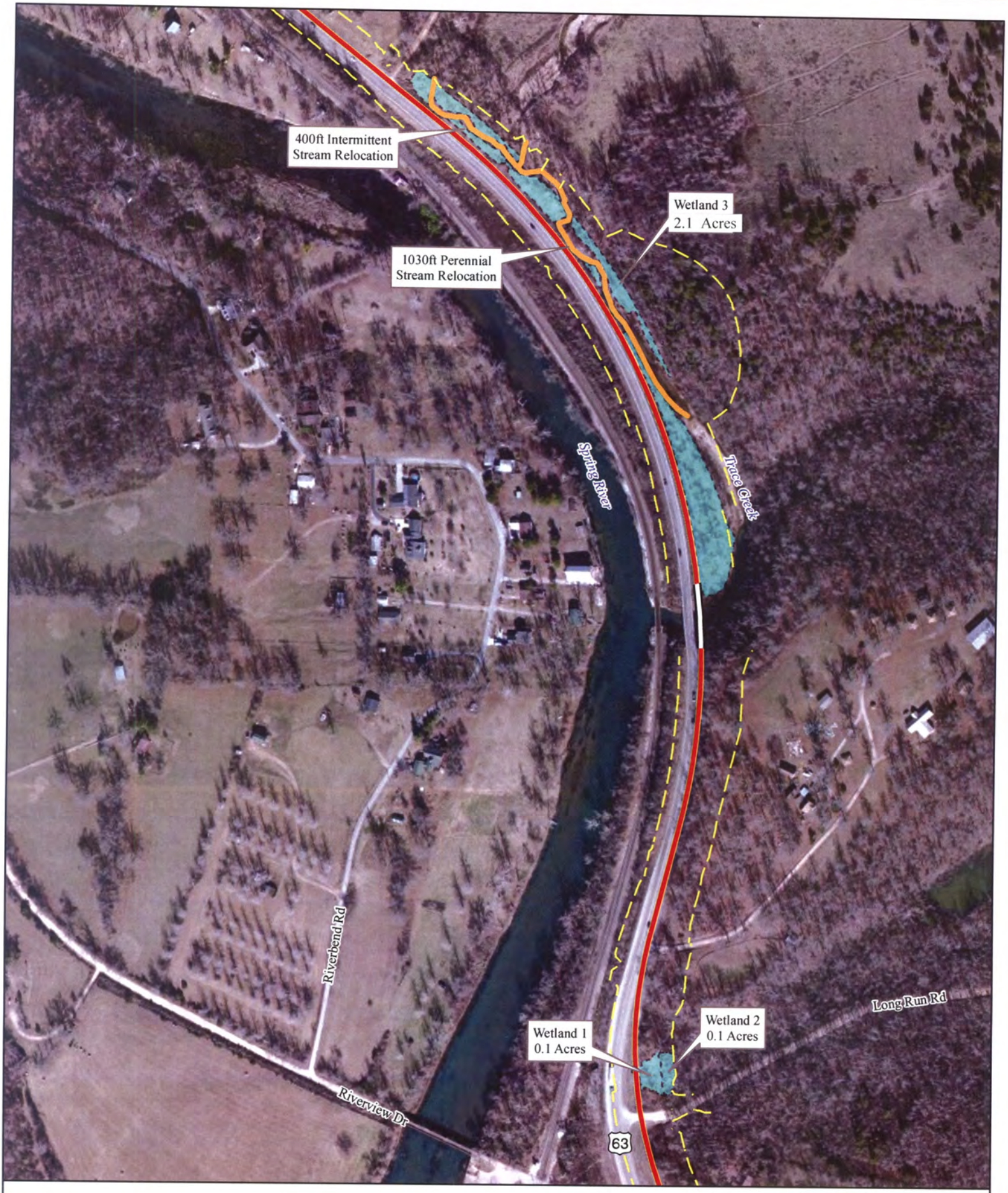


Figure 1
Waters of the US

Job 050230
July 12, 2012
AHTD - Environmental GIS - Strawn

Mammoth Spring 1980 USGS Topographic Map



0 175 350
Feet

Job 050230
July 12, 2012
AHTD - Environmental GIS - Strawn

Project Location
Bridge
Construction Limits
Stream Relocation
Wetland

Figure 2
Detailed View of Wetlands

ADVERSE IMPACT
FACTORS FOR RIVERINE SYSTEMS WORKSHEET

Stream Type Impacted	Ephemeral 0.1			Intermittent 0.4			Perennial-OHWM width		
							<15' 0.4	15'-30' 0.6	>30' 0.8
Priority Area	Tertiary 0.1			Secondary 0.4			Primary 0.8		
Existing Condition	Functionally Impaired 0.1			Moderately Functional 0.8			Fully Functional 1.6		
Duration	Temporary 0.05			Recurrent 0.1			Permanent 0.3		
Activity	Clearing 0.05	Utility Crossing/Bridge Footing 0.15	Below Grade Culvert 0.3	Armor 0.5	Detention 0.75	Morpho-logic Change 1.5	Impound-ment (dam) 2.0	Pipe >100' 2.2	Fill 2.5
Cumulative Linear Impact	<100' 0	100'-200' 0.05	201-500' 0.1	501-1000' 0.2	>1000 linear feet (LF) 0.1 reach 500 LF of impact (example: scaling factor for 5,280 LF of impacts = 1.1)				

Factor	Dominant Impact Type 1	Dominant Impact Type 2	Dominant Impact Type 3	Dominant Impact Type 4	Dominant Impact Type 5
Stream Type Impacted	Intermittent	Perennial 15-30'	blank	blank	blank
Priority Area	Primary	Primary	blank	blank	blank
Existing Condition	Moderately Funct	Moderately Functi	blank	blank	blank
Duration	Permanent	Permanent	blank	blank	blank
Activity	Fill	Fill	blank	blank	blank
Cumulative Linear Impact	blank 0.3	blank 0.3	blank	blank	blank
Sum of Factors	M = 5.1	5.3	0	0	0
Linear Feet of Stream Impacted in Reach	LF= 400	1030			0
M X LF	2,040.00	5459	0	0	0

Total Mitigation Credits Required = (M X LF) = 7499

Required Wetland Mitigation Credit Table and Worksheet

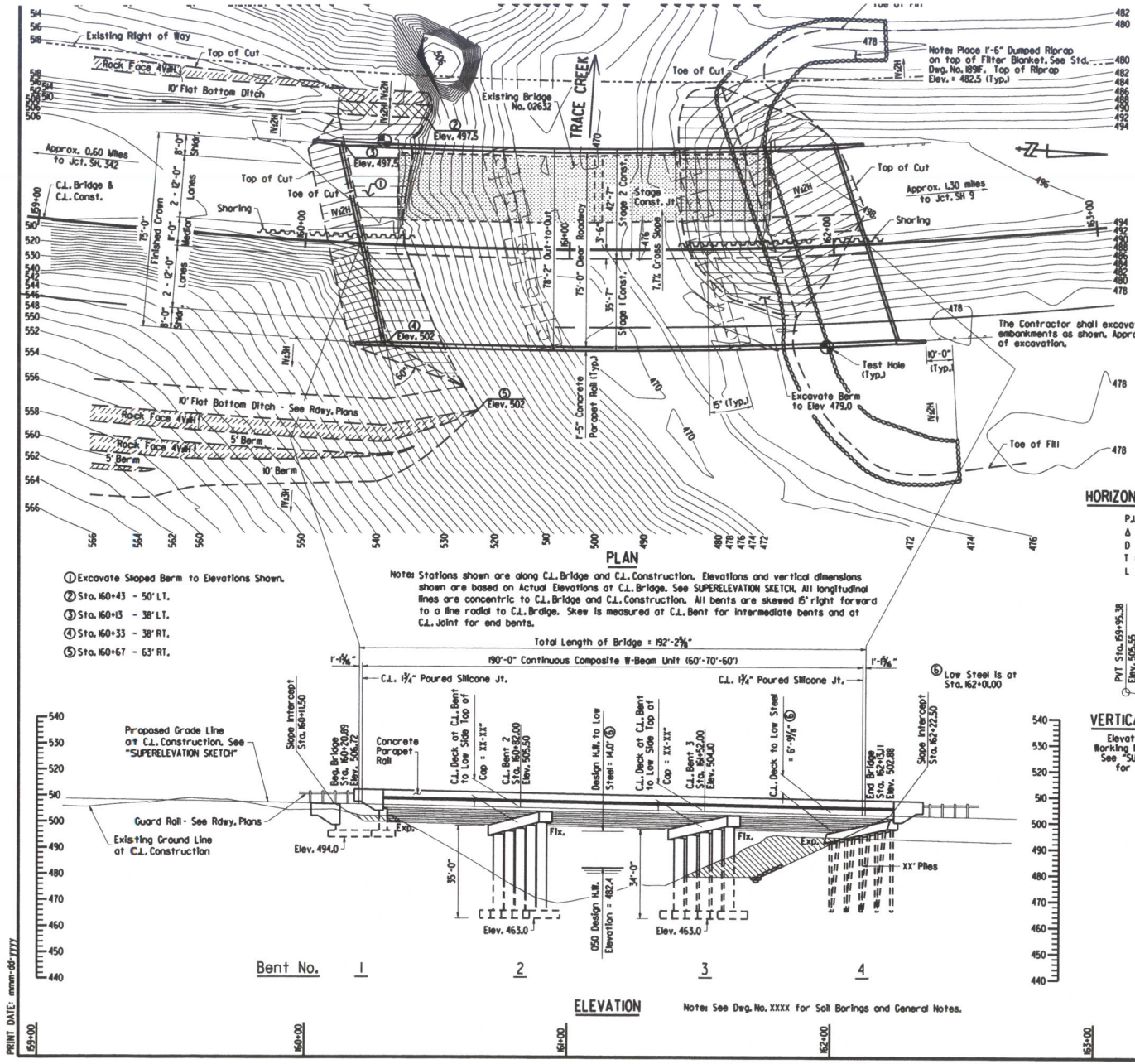
TIP: Leave cursor over each factor or option below to pop-up helpful information or definitions.

Required Wetland Mitigation Credit Table					
FACTORS	OPTIONS				
Lost Type	Type C 0.2	Type B 2.0	Type A 3.0		
Priority Category	Tertiary 0.5	Secondary 1.5	Primary 2.0		
Existing Condition	Very Impaired 0.1	Impaired 1.0	Partially Impaired 2.0	Fully Functional 2.5	
Duration	0 to 1 Year 0.2	1 to 3 Years 0.5	3 to 5 Years 1.0	5 to 10 Years 1.5	Over 10 Years 2.0
Dominant Impact	Shade 0.2	Clear 1.0	Drain 2.0	Dredge 2.5	Impound/Flood 2.5	Fill 3.0
Cumulative Impact	< 0.25 Acre 0.1	0.25 - 0.99 Acres 0.2	1.0 - 2.99 Acres 0.5	3.0 - 9.99 Acres 1.0	≥ 10.0 Acres 2.0

NOTE: The cumulative impact factor for the overall project should be included in the sum of factors for each impacted area on the Required Wetland Mitigation Credit Worksheet

Required Wetland Mitigation Credit Worksheet						
FACTOR	**AREA 1**	**AREA 2**	**AREA 3**	**AREA 4**	**AREA 5**	**AREA 6**
Lost Type	Type A	Type A	Type A			
Priority Category	Primary	Primary	Primary			
Existing Condition	Partially Impaired	Fully Functional	Fully Functional			
Duration	Over 10 Years	Over 10 Years	Over 10 Years			
Dominant Impact	Fill	Fill	Fill			
Cumulative Impact	1.0 - 2.99 Acres	1.0 - 2.99 Acres	1.0 - 2.99 Acres			
Sum of Factors	12.5	13	13			
Impacted Area	0.1	0.1	2.1			
R x AA=	1.25	1.3	27.3			

Required Wetland Mitigation Credits = Σ (R x A) = **29.85**



PLAN

① Excavate Sloped Berm to Elevations Shown.
② Sta. 160+43 - 50' LT.
③ Sta. 160+13 - 38' LT.
④ Sta. 160+33 - 38' RT.
⑤ Sta. 160+67 - 63' RT.

Note: Stations shown are along C.L. Bridge and C.L. Construction. Elevations and vertical dimensions shown are based on Actual Elevations at C.L. Bridge. See SUPERELEVATION SKETCH. All longitudinal lines are concentric to C.L. Bridge and C.L. Construction. All bents are skewed 15° right forward to a line radial to C.L. Bridge. Skew is measured at C.L. Bent for intermediate bents and at C.L. Joint for end bents.

ELEVATION

Note: See Dwg. No. XXXX for Soil Borings and General Notes.

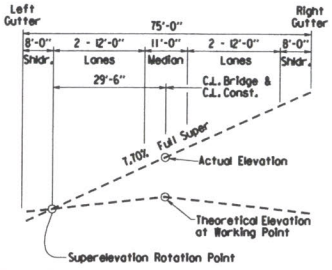
HORIZONTAL CURVE DATA

P.I. Sta. 167+33.92
Δ = 66°10'14.2" LT.
D = 3°00'00"
T = 1244.32'
L = 2205.69'

PVT Sta. 159+95.38
Elev. 505.55
-2.00%

VERTICAL GRADE DATA

Elevations at Theoretical Working Point along C.L. Bridge. See "SUPERELEVATION SKETCH" for Actual Elevations.



Begin Max Superelevation 158+71.28
End Max Superelevation 175+60.29

SUPERELEVATION SKETCH

Looking Ahead
(No Scale)

HYDRAULIC DATA

FLOOD DESCRIPTION	FREQUENCY	DISCHARGE	*NATURAL WATER SURFACE ELEVATION	WATER SURFACE ELEV. WITH BACKWATER
	YEARS	CFS	FEET	FEET
Design	50	4720	481.5	482.4
Base	100	5450	482.3	483.3
Extreme	500	7310	484.3	485.6
Overtopping	>500	-	-	-

*Unconstricted water surface without structure or roadway approaches.
0100 backwater elevation for existing structure = 483.8
Proposed Low Bridge Chord Elev. = 496.4
Drainage area = 9.7 square miles.
Historical H.W. Elev. = N/A

PRELIMINARY
SUBJECT TO REVISION
BRIDGE DIVISION
PRINT DATE mmm-dd-yyyy
TRIBO
BRIDGE ENGINEER

SHEET 1 OF 2
LAYOUT OF BRIDGE OVER TRACE CREEK
HWY. 9 - SO. OF HWY. 342
(MAMMOTH SPRING) (S)
FULTON COUNTY
ROUTE 63 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: LJB DATE: 6/26/12 FILENAME: b050230sl_1.dgn
CHECKED BY: DATE: SCALE: 1"=20'-0"
DESIGNED BY: DATE:
BRIDGE NO. XXXXX DRAWING NO. XXXXX

REVISED | FILMED | REVISED | FILMED | SHEET NO. 6 | ADD.
JOB NO. 050230
① XXXXX - LAYOUT - XXXXX

PRINT DATE: mmm-dd-yyyy

REVISED	FILMED	REVISED	FILMED	SHEET	2	OF
				JOB NO.	050230	
				XXXXX -	LAYOUT	- XXXXX

GENERAL NOTES

BENCH MARK: NGS MARK M 308; 40.24 LT. STA 160+31.95, EL = 503.24.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 2003 edition, with applicable supplemental specifications and special provisions. Unless otherwise noted in the plans Section and Subsection refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications, Sixth Edition (2012).

LIVE LOADING: HL-93

SEISMIC ZONE: 1

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (superstructure)	f 'c = 4,000 psi
Class S Concrete (substructure)	f 'c = 3,500 psi
Reinforcing Steel (AASHTO M 31 or M 53, Gr. 60)	fy = 60,000 psi
Structural Steel (AASHTO M 270, Gr. 50W)	Fy = 50,000 psi
Structural Steel (AASHTO M 270, Gr. 36)	Fy = 36,000 psi

BORING LOGS: Boring logs may be obtained from the Programs and Contracts Division.

STEEL PILING: Piling in Bent 4 shall be HP12 X 53 and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of XX tons per pile and into the material designated as Hard Dolostone on the boring legend. Lengths shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with Subsection 805.14. Piling in Bent 4 shall be driven after embankment to bottom of cap is in place. On all piles, the Contractor shall use approved steel H-Pile driving points.

FOOTINGS: Bent 1 footing shall be set a minimum of 1'-0" into material designated as Hard Dolostone on the boring legend. Intermediate bent footings shall be set a minimum of 2'-0" into material designated as Hard Dolostone on the boring legend. The top of the intermediate bent footings shall be set at or below the channel bottom. Foundations for footings shall be prepared in accordance with Subsection 801.04. Rock excavations shall be made to neat lines of the concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock. Excavations shall be backfilled and compacted to the level of surrounding ground in accordance with Subsection 801.08.

BRIDGE DECK: The concrete bridge deck shall be given a tine finish as specified for final finishing in Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

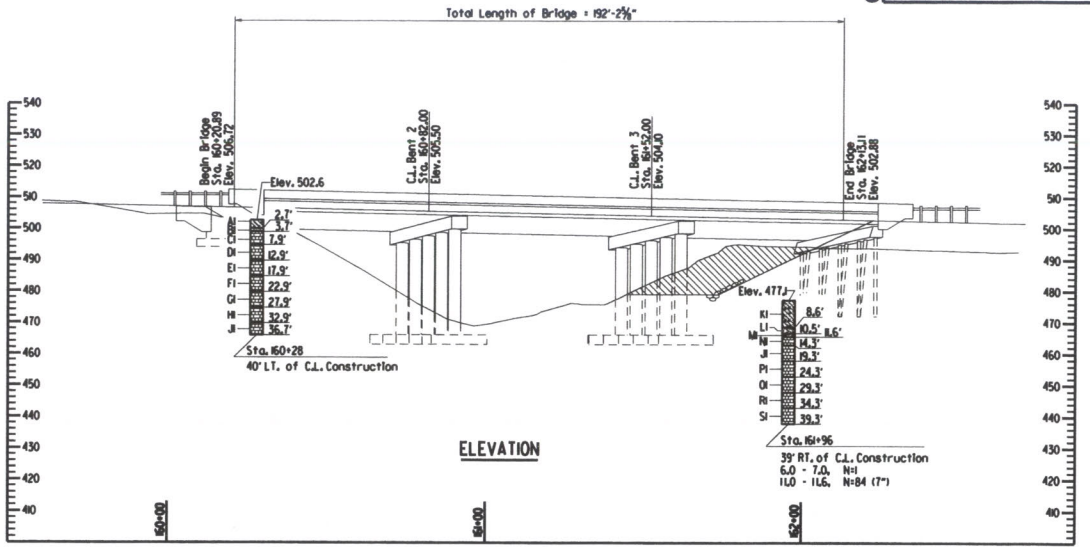
DETAIL DRAWINGS:	DRAWING NO.
Details of End Bents	X
Details of Intermediate Bents	X
190'-0" Cont. Comp. W-Beam Unit	X
Elastomeric Bearings	X
Steel Piling	14995A
Type B Approach Gutters	2016C

EXISTING BRIDGE: Existing Bridge No. 02632 (L.M. 1.57) is143' in length and 29' wide and is comprised of continuous steel beam spans supported by a concrete pier. Centerline of existing bridge is located approximately 23.5' downstream of the proposed centerline of construction.

SHORING: Shoring is required at Bridge Ends for Stage 1 Construction. See SP Job 050230 "Shoring".

REMOVAL AND SALVAGE: After Stage 1 Construction of the new bridge is open to traffic, existing Bridge No. 02632 shall be removed in accordance with Section 205. All material from the existing bridge shall become property of the Contractor.

MAINTENANCE OF TRAFFIC: See Roadway Plans.



BORING LEGEND

Ai-Moist, Brown and Gray Clay with Gravel (Dolostone Fragments)
Bi-DOLOSTONE - Light Gray, Moderately Hard
Ci-DOLOSTONE - Light Gray, Medium Bedded, Slightly Weathered, Hard, with Slight Dip and some Fractured Layers
Di-DOLOSTONE - Light Gray, Very Thick Bedded, Slightly Weathered, Hard, with Moderate Dip
Ei-LIMY DOLOSTONE - Light Gray, Very Thick Bedded, Slightly Weathered, Hard, with Slight Dip
Fi-LIMY DOLOSTONE WITH OCCASIONAL CHERT SEAMS - Light Gray, Very Thick Bedded, Hard, with Slight Dip
Gi-LIMY DOLOSTONE WITH OCCASIONAL CHERT SEAMS - Light Gray, Very Thick Bedded, Slightly Weathered, Hard, with Slight Dip
Hi-LIMY DOLOSTONE - Light Gray, Very Thick Bedded, Hard, with Slight Dip
Ji-DOLOSTONE - Light Gray, Thick Bedded, Slightly Weathered, Hard, with Slight Dip
Ki-Moist, Very Soft, Dark Gray Sandy Clay with Gravel (Dolostone Fragments)
Li-Moist, Dense, Brown Sand with Clay, Gravel (Dolostone Fragments) and Cobbles
Mi-Wet, Dense, Brown Sand with Gravel (Dolostone Fragments) and Cobbles
Ni-DOLOSTONE - Light Gray, Medium Bedded, Slightly Weathered, Moderately Hard, with Slight Dip and Fractured Layers
Pi-LIMY DOLOSTONE - Light Gray, Thick Bedded, Slightly Weathered, Vuggy, Hard, with Slight Dip
Qi-DOLOSTONE WITH OCCASIONAL SHALE SEAMS - Light Gray, Thick Bedded, Slightly Weathered, Hard, with Slight Dip
Ri-DOLOSTONE WITH OCCASIONAL SHALE SEAMS - Light Gray, Medium Bedded, Slightly Weathered, Hard, with Moderate Dip
Si-DOLOSTONE WITH OCCASIONAL SHALE SEAMS - Light Gray, Medium Bedded, Slightly Weathered, Hard, with Moderate Dip and Fractured Layers

PRELIMINARY
SUBJECT TO REVISION
BRIDGE DIVISION
PRINT DATE
mmm-dd-yyyy
TRIBO
BRIDGE ENGINEER

SHEET 2 OF 2
LAYOUT OF BRIDGE OVER TRACE CREEK
HWY. 9 - SO. OF HWY. 342
(MAMMOTH SPRING) (S)
FULTON COUNTY

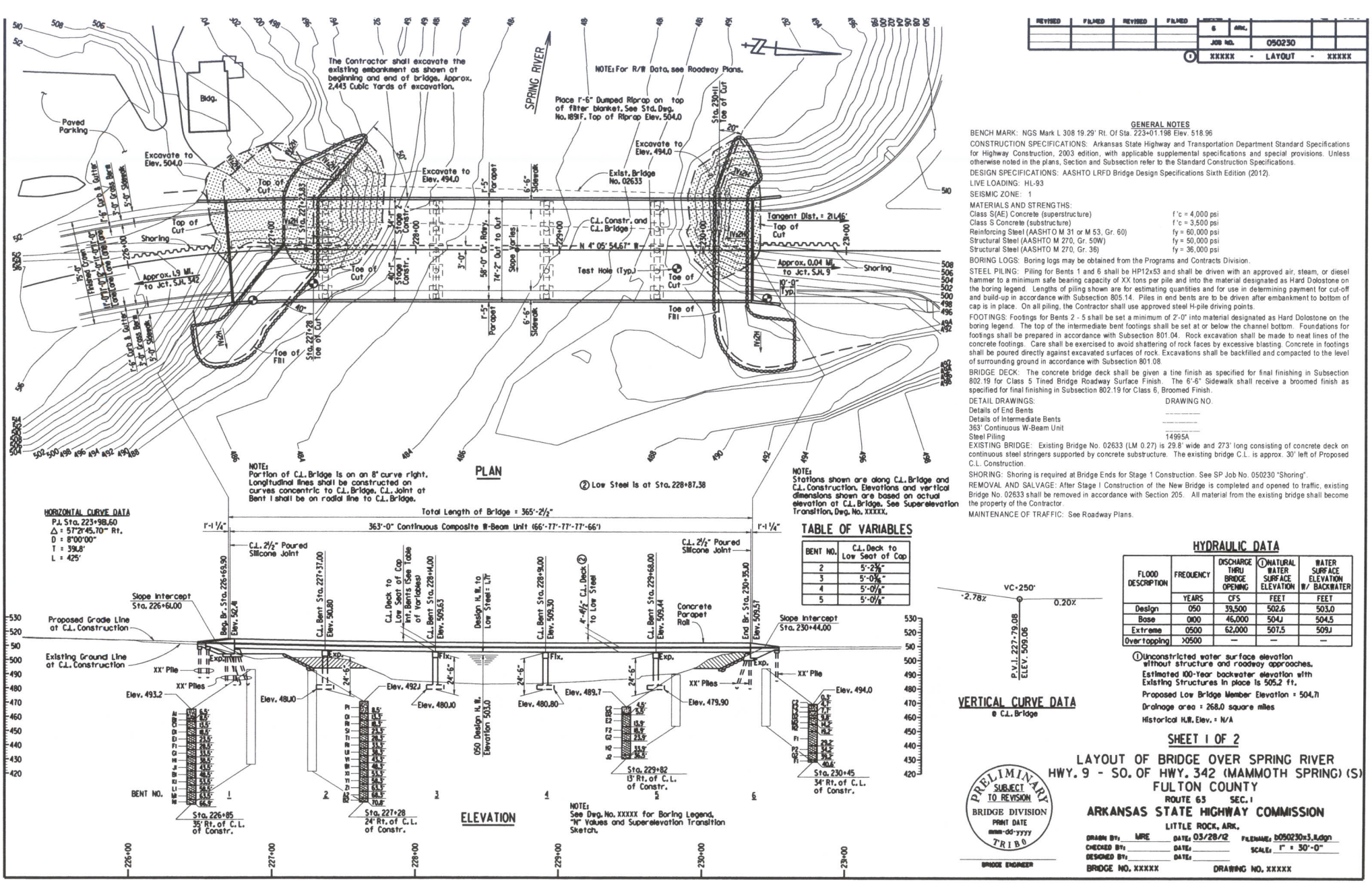
ROUTE 63 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: LJB DATE: 6/26/12 FILENAME: b050230st_1.dgn
CHECKED BY: DATE: SCALE: 1"=20'-0"
DESIGNED BY: DATE:

BRIDGE NO. XXXXX DRAWING NO. XXXXX

PRINT DATE: mmm-dd-yyyy



REVISED	FILMED	REVISED	FILMED	SHEET	ADD.			
				JOB NO.	050230			
				① XXXXX	- LAYOUT	- XXXXX		

GENERAL NOTES

BENCH MARK: NGS Mark L 308 19.29' Rt. Of Sta. 223+01.198 Elev. 518.96

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 2003 edition, with applicable supplemental specifications and special provisions. Unless otherwise noted in the plans, Section and Subsection refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications Sixth Edition (2012).

LIVE LOADING: HL-93

SEISMIC ZONE: 1

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (superstructure)	f 'c = 4,000 psi
Class S Concrete (substructure)	f 'c = 3,500 psi
Reinforcing Steel (AASHTO M 31 or M 53, Gr. 60)	fy = 60,000 psi
Structural Steel (AASHTO M 270, Gr. 50W)	fy = 50,000 psi
Structural Steel (AASHTO M 270, Gr. 36)	fy = 36,000 psi

BORING LOGS: Boring logs may be obtained from the Programs and Contracts Division.

STEEL PILING: Piling for Bents 1 and 6 shall be HP12x53 and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of XX tons per pile and into the material designated as Hard Dolostone on the boring legend. Lengths of piling shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with Subsection 805.14. Piles in end bents are to be driven after embankment to bottom of cap is in place. On all piling, the Contractor shall use approved steel H-pile driving points.

FOOTINGS: Footings for Bents 2 - 5 shall be set a minimum of 2'-0" into material designated as Hard Dolostone on the boring legend. The top of the intermediate bent footings shall be set at or below the channel bottom. Foundations for footings shall be prepared in accordance with Subsection 801.04. Rock excavation shall be made to neat lines of the concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock. Excavations shall be backfilled and compacted to the level of surrounding ground in accordance with Subsection 801.08.

BRIDGE DECK: The concrete bridge deck shall be given a tine finish as specified for final finishing in Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish. The 6'-6" Sidewalk shall receive a broomed finish as specified for final finishing in Subsection 802.19 for Class 6, Broomed Finish.

DETAIL DRAWINGS:	DRAWING NO.
Details of End Bents	_____
Details of Intermediate Bents	_____
363' Continuous W-Beam Unit	_____
Steel Piling	14995A

EXISTING BRIDGE: Existing Bridge No. 02633 (LM 0.27) is 29.8' wide and 273' long consisting of concrete deck on continuous steel stringers supported by concrete substructure. The existing bridge C.L. is approx. 30' left of Proposed C.L. Construction.

SHORING: Shoring is required at Bridge Ends for Stage 1 Construction. See SP Job No. 050230 "Shoring".

REMOVAL AND SALVAGE: After Stage I Construction of the New Bridge is completed and opened to traffic, existing Bridge No. 02633 shall be removed in accordance with Section 205. All material from the existing bridge shall become the property of the Contractor.

MAINTENANCE OF TRAFFIC: See Roadway Plans.

TABLE OF VARIABLES

BENT NO.	C.L. Deck to Low Seat of Cap
2	5'-2⅞"
3	5'-0⅞"
4	5'-0⅞"
5	5'-0⅛"

HYDRAULIC DATA

FLOOD DESCRIPTION	FREQUENCY	DISCHARGE THRU BRIDGE OPENING	①NATURAL WATER SURFACE ELEVATION	WATER SURFACE ELEVATION W/ BACKWATER
	YEARS	CFS	FEET	FEET
Design	050	39,500	502.6	503.0
Base	0100	46,000	504.1	504.5
Extreme	0500	62,000	507.5	509.1
Overtopping	>0500	—	—	—

①Unconstricted water surface elevation without structure and roadway approaches.

Estimated 100-Year backwater elevation with Existing Structures in place is 505.2 ft.

Proposed Low Bridge Member Elevation = 504.71

Drainage area = 268.0 square miles

Historical H.W. Elev. = N/A

VERTICAL CURVE DATA

℄ C.L. Bridge

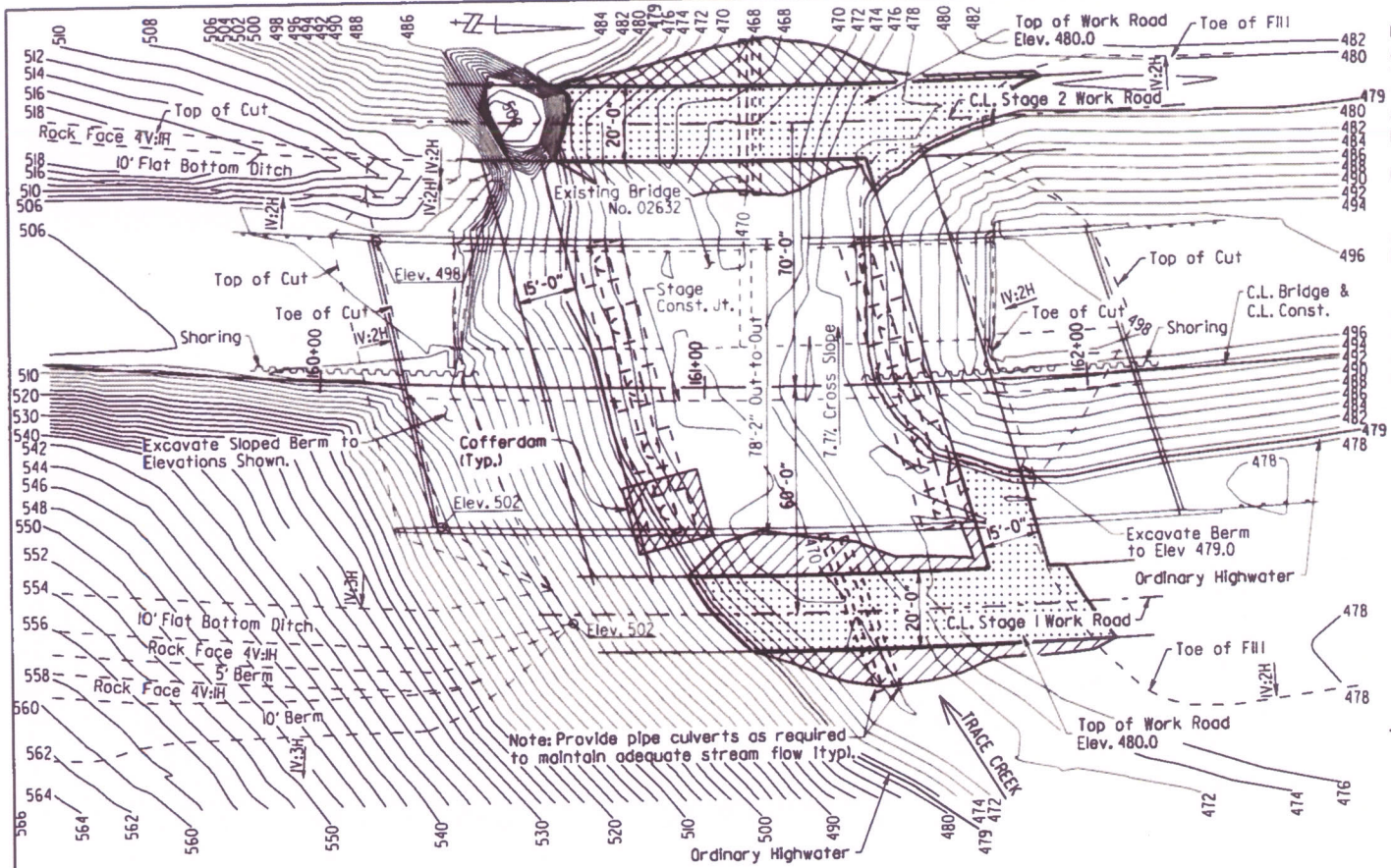
PRELIMINARY SUBJECT TO REVISION
BRIDGE DIVISION
PRINT DATE mm-dd-yyyy
TRIBO
BRIDGE ENGINEER

SHEET 1 OF 2

LAYOUT OF BRIDGE OVER SPRING RIVER
HWY. 9 - SO. OF HWY. 342 (MAMMOTH SPRING) (S)
FULTON COUNTY
ROUTE 63 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MRE DATE: 03/28/12 FILENAME: b050230s3.dgn
CHECKED BY: DATE: SCALE: 1" = 30'-0"
DESIGNED BY: DATE:
BRIDGE NO. XXXXX DRAWING NO. XXXXX



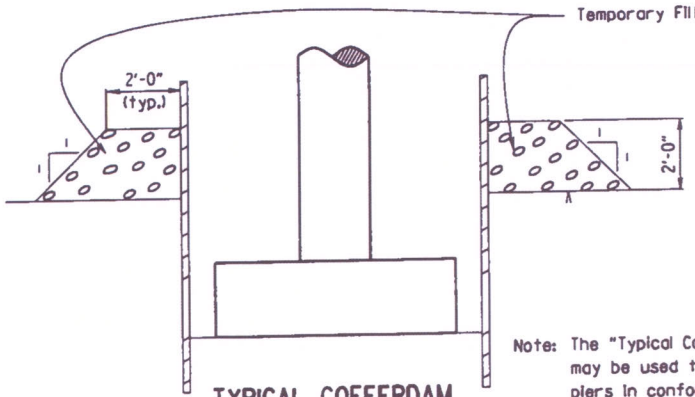
Notes: The temporary fill to construct the work road(s) shown has been permitted to facilitate construction of the project. The Contractor shall determine and provide temporary culverts of a size and number that will be sufficient to maintain low stream flows and assist the passage of aquatic wildlife.

Clearing, Grubbing, or any other disturbance of vegetaion on the stream banks shall be limited to the minimum necessary for the completion of the project. The Contractor shall submit plans for proposed vegetaion disturbance to the Engineer for his approval prior to beginning work.

The Contractor is responsible for maintenance of the work road(s) during the contract period. See SP Job 50230 "Construction in Special Flood Hazard Areas" and Section 110.06(c) in the Standard Specifications for additional information.

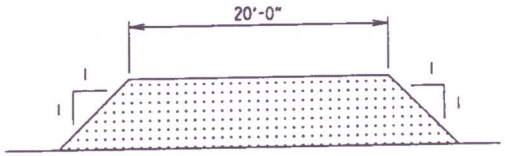
APPROXIMATE TEMPORARY FILL QUANTITIES

	STAGE 1	STAGE 2
FILL AREA	5,935 sq. ft.	5,955 sq. ft.
FILL VOLUME BELOW ELEV. 479.0	640 cu. yd.	800 cu. yd.



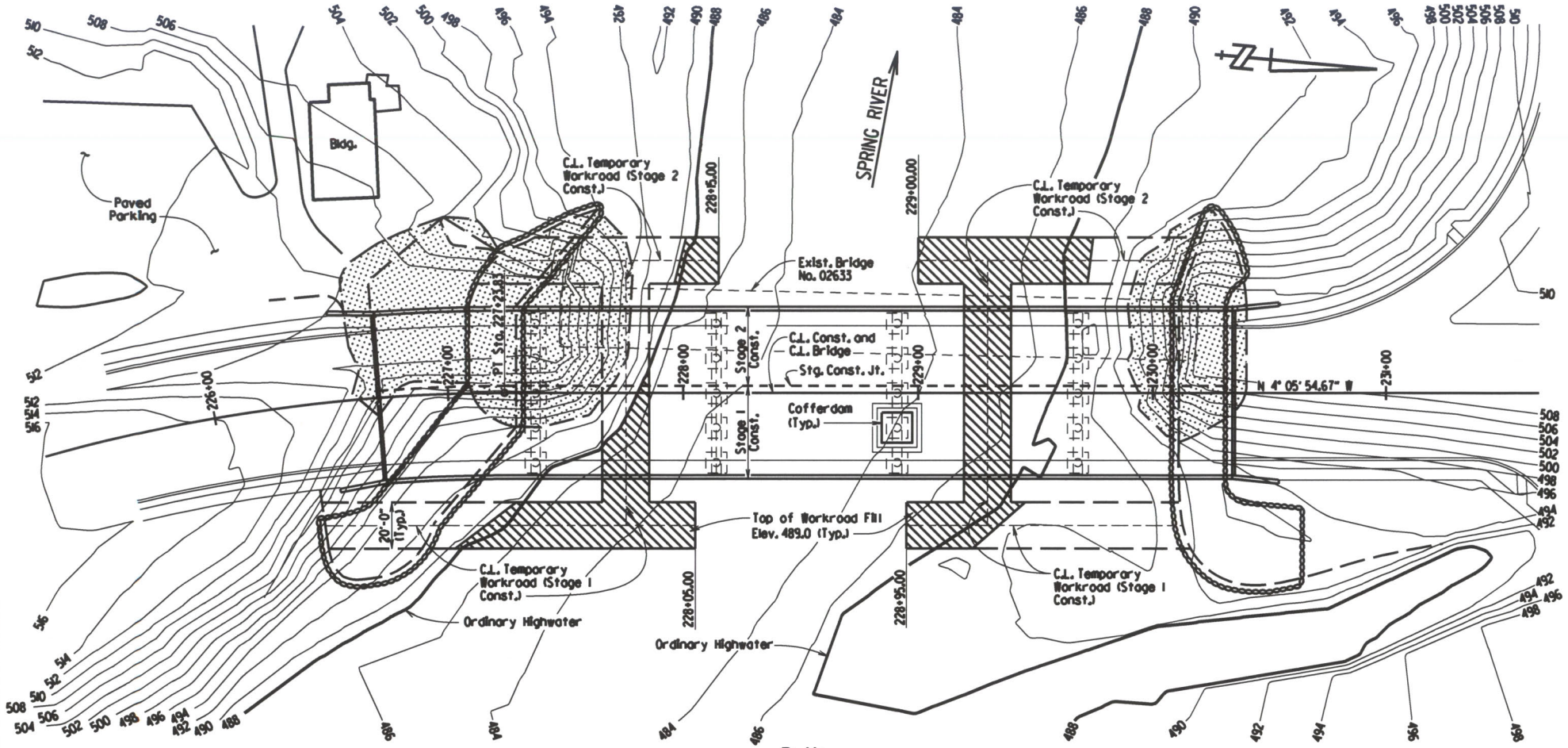
TYPICAL COFFERDAM
ELEVATION VIEW
Not to Scale

Note: The "Typical Cofferdam" details shown may be used to construct new footings and piers in conformance with the Standard Specifications for Highway Construction, 2003 Edition.

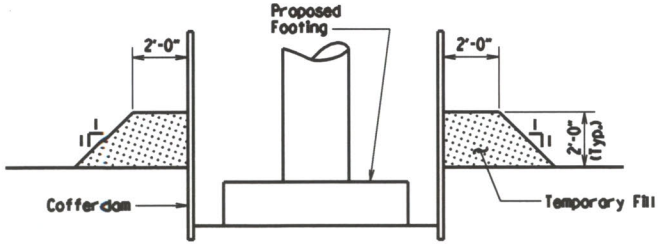


TYPICAL SECTION FOR
WORK ROAD FILL
No Scale

(SITE NO. 1)
BRIDGE OVER
TRACE CREEK
CONCEPTUAL WORK PLAN
FOR TEMPORARY FILL
JOB 050230
Scale: 1" = 50'-0"

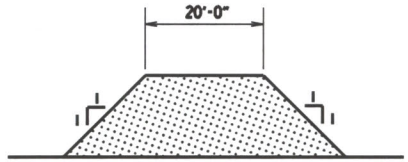


PLAN



TYPICAL COFFERDAM
ELEVATION VIEW
NO SCALE

NOTE:
The "Typical Cofferdam" details shown may be used to construct new footings and piers in conformance with the Standard Specifications for Highway Construction, 2003 Edition.



WORK ROAD
TYPICAL SECTION
NO SCALE

NOTES:
The temporary fill to construct the work roads shown has been permitted to facilitate construction of the project.

The Contractor is responsible for maintenance of the work roads during the contract period. See SP Job 050230 "Construction in Special Flood Areas" and Section 110.06(c) in the Standard Specifications for additional information.

APPROX. TEMPORARY FILL QUANTITIES

STAGE	AREA		VOLUME BELOW ELEV. 489	
	WORK ROAD	COFFERDAMS	WORK ROAD	COFFERDAMS
	SQ. YDS.	SQ. YDS.	CU. YDS.	CU. YDS.
1	482		300	
2	297		208	

PERMISSIBLE WORK ROAD
JOB NO. 050230
BRIDGE OVER SPRING RIVER
HWY. 9 - SO. OF HWY. 342 (MAMMOTH SPRING) (S)
FULTON COUNTY

MRE 10-23-2012

Scale: 1" = 30'

b050230x3.wr.dgn