

Missouri Department of Transportation Bridge Survey Location Request

Page 1 to be completed by District staff.

Bridge over: Dillard Creek Route: 34
 County: Cape Girardeau Section: 18 Township: 31 North Range: 11 East
 Latitude: 37°21'27.05"N Longitude: 89°50'23.02"W
 District Contact: Garrett Galyean (573-472-5221) Date: 5/3/2023

HIGH WATER ELEVATIONS AT PROPOSED BRIDGE SITE

Recorded high water elevations or elevation of high water marks

Extreme High Water (EHW) (Give date(s) of occurrence)

Elevations and date(s) of same	Location	Source of information
4.2" Below (2002)	Below East End of Bridge Deck	D10 HW Book 2002

Existing Bridge Overtopped <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	Existing Roadway Overtopped <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown
Approx. Overtopping Location(s):	

LOCATION OF NEW BRIDGE

Replace in Existing Location	<input checked="" type="checkbox"/>	Provide details of any proposed changes to profile grade below or as an attachment.
Relocation (near existing Structure)	<input type="checkbox"/>	Provide details of proposed location and grade of the roadway across the floodplain, any proposed/potential channel changes or modifications, etc. below or as an attachment.
New Route	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	

Additional Information:

Note: Proposed elevations, distances, etc. are based on the best available data at the time the form was completed. Actual field conditions or recently acquired data may require deviation from the proposed values. Please contact the Bridge Division with concerns regarding the proposed values or if large deviations from these values are required.

Note: The information below supplements the survey requirements noted in the EPG, please consult EPG 238 for additional surveying requirements.

Bridge Contact: Landon Bodenschatz, 573-639-1480, Landon.Bodenschatz@modot.mo.gov

Survey Type: **1D Survey**

Stream Crossing Survey Location Details (1D)					
Item		Requirement	Standard Guidance		Specific Guidance
Profiles* (EPG 238.3.36.1.3)	C/L Profile	Terminal Point	Limit of Longest offset Profile		Use Standard Guidance
	Upstream Offset Profile	Terminal Point	Same as Valley Sections		Elevation = 440
		Offset Distance	On Natural Ground		Estimated Distance = 40
	Downstream Offset Profile	Terminal Point	Same as Valley Sections		Elevation = 440
		Offset Distance	On Natural Ground		Estimated Distance = 40
Special	N/A				
Streambed Profiles** (EPG 238.3.36.3.6)	Length	Natural Stream	Section limits (Min. of 1000' each side of crossing.)		Use Natural Stream Guidance
		Drainage Ditch	500' Each Side of Crossing		
	Elevation Intervals	Within 1000' of Crossing	Nat. Stream 25' Drain. Ditch 50'		Use Natural Stream Guidance (see EPG 238.3.36.3.6 if a significant slope change is encountered)
		Beyond 1000' from Crossing	At Vertical and Horizontal Break Points (200' max.)		
Valley Sections (EPG 238.3.36.3.8), (EPG 750.3.1.1)	Terminal Point	Natural Stream	5' above EHW		Elevation = 440
		Drainage Ditch	25' Beyond Bankside Toe of Levee		Distance = N/A

Item	Requirement	Standard Guidance		Specific Guidance
Water Surface Profile (EPG 238.3.36.3.7)	Water Surface Profile Data Needed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
	Locations with flowing water	Drainage Ditch	100' and 200' each side of Crossing	Use Water Surface Profile Standard Guidance

Item	Requirement	Standard Guidance		Specific Guidance
Typical Channel Sections (EPG 238.3.36.3.9)	Typical Channel Section Data Needed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
	Within 300' each side of Centerline	Provide when Needed (i.e., Culvert on Perennial and		

		Intermittent Stream)	
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Item	Requirement	Standard Guidance	Specific Guidance
Existing Bridge Data	Existing Bridge Data Needed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
	Description	Provide General Description	N/A

Item	Requirement	Standard Guidance	Specific Guidance
Other Bridges (EPG 238.3.36.3.10)	Other Bridge Data Needed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
	Description	Provide General Description	N/A
	Profile Location	C/L Structure	N/A
	Profile Terminal Point	5' above EHW	Elevation = N/A

* additional profiles may be needed for relocated routes

** at confluent streams provide proposed data for both streams as appropriate.

Additional Information:

Additional Documents Provided:

Image & kmz files showing Valley Section Locations.

Roadway Design Notes for Bridge Survey:

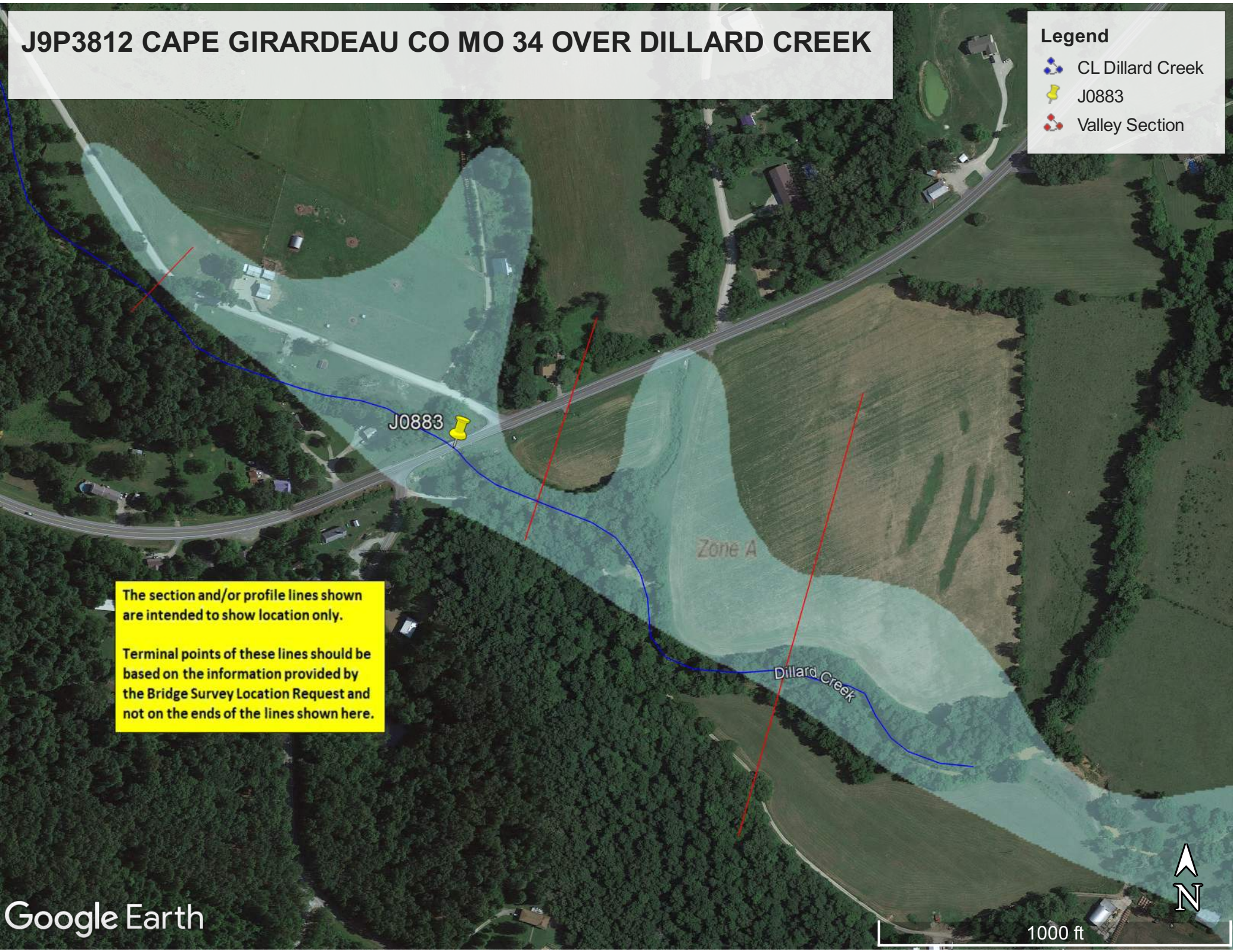
The Bridge Survey should include all the pertinent items listed in [EPG 747](#) and the [Bridge Survey Checklist](#).

Bridge Design Notes:

According to the TMS flood report, Bridge J0883 was overtopped in 2008.
FEMA Zone A

J9P3812 CAPE GIRARDEAU CO MO 34 OVER DILLARD CREEK

- Legend**
- CL Dillard Creek
 - J0883
 - Valley Section

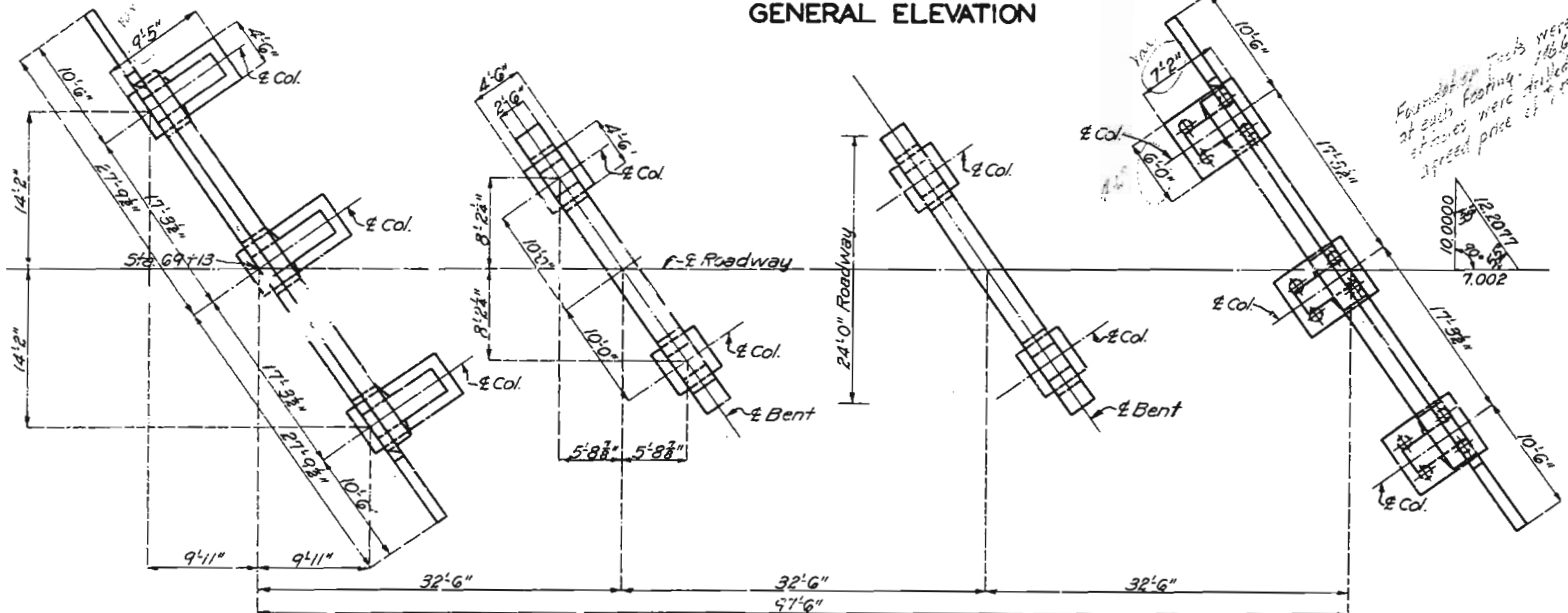
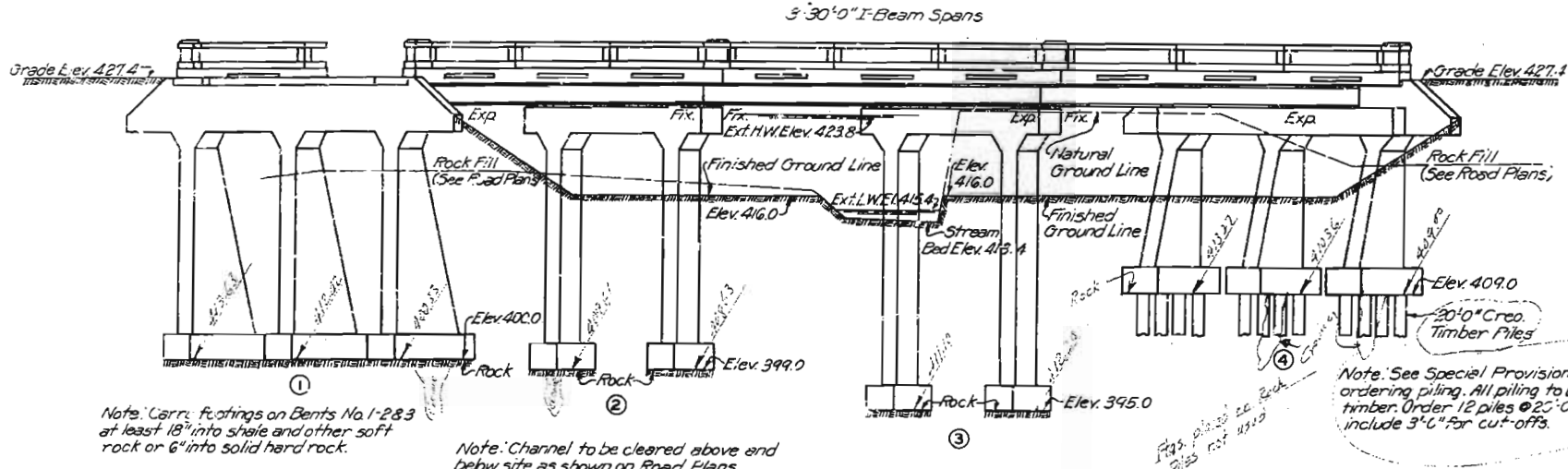


The section and/or profile lines shown are intended to show location only.

Terminal points of these lines should be based on the information provided by the Bridge Survey Location Request and not on the ends of the lines shown here.

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	7-256	19		



GENERAL ELEVATION

PLAN

COMPLETE BILL OF REINFORCING STEEL

No.	Size	Length	Mark	Location	Bending Sketches & Cutting Diagrams	No.	Size	Length	Mark	Location
Bents No. 1&2										
18	3/8"	6'3"	F1	Ftg. #1		12	3/8"	11'3"	Road Rail	
18	3/8"	5'3"	D2	Ftg. #4		90	3/8"	9"	R2	"
32	3/8"	9'3"	F1	Haunch		60	3/8"	7'6"	R3	Subpost
16	3/8"	9'6"	F2	"		32	3/8"	3'9"	R4	Post
12	3/8"	11'9"	H1	Wing		888	3/8"	18"	R5	Reinforce
8	3/8"	18'3"	H2	"		12	3/8"	3'9"	R6	Rail
2	3/8"	40'0"	H3	Wall		12	3/8"	10'0"	R7	"
24	1"	41'9"	H4	Beam		8	3/8"	2'3"	R7	Post
4	3/8"	39'9"	H5	"		8	3/8"	12'0"	R8	Rail
8	3/8"	12'9"	T1	Wing		16	3/8"	9'6"	R9	"
4	3/8"	40'0"	T2	Wall		6	3/8"	34'6"	C1	Curb
12	3/8"	6'6"	V1	Wing		72	3/8"	12"	C2	"
4	3/8"	4'9"	V2	"		6	3/8"	32'3"	C	"
80	3/8"	11'9"	V3	Beam		6	3/8"	30'6"	C4	"
18	3/8"	21'9"	V4	Col. #1		194	3/8"	26'9"	S1	Slab
18	3/8"	12'9"	V5	Col. #4	74	3/8"	31'9"	S2	"	
Bents No. 2&3										
16	3/8"	6'3"	D1	Footings	12	3/8"	32'6"	S3	"	
32	3/8"	9'3"	F1	Haunch	318	3/8"	27'9"	S4	"	
26	1"	31'9"	G1	Beam	37	3/8"	32'3"	S5	"	
4	3/8"	29'9"	G2	"	52	3/8"	8'0"	S6	"	
58	3/8"	10'0"	P. Columns		8	3/8"	6'9"	S7	"	
8	3/8"	22'6"	F2	Cols. #2						
8	3/8"	26'6"	F3	Col. #3						
84	3/8"	10'6"	U2	Beam						
14	3/8"	12'9"								

Note: Reinforcing bars 3/8" or over in diameter, which are bent to an angle greater than 90°, shall be of structural grade. Dimensions of bars are given along centerline and are for computed lengths.

GENERAL NOTES:

Concrete in handrail to be 1:2:3 mix. Class "A". Concrete in slab and curbs to be 1:2:3 1/2 mix. Class "X". All other concrete to be 1:2:4 mix. Class "B". Exposed edges to be beveled 3/8" where no other bevel is noted. Where rubber compound is specified on plans for use in expansion or partition joints, the pre-molded joint shall be securely stitched to one face of concrete with copper wire. Two nameplates type "A" as shown on Std. S-918 to be furnished and placed on the contractor. Cost of name plates to be included in price for other items. Detail shop drawings for the structural steel shall be submitted to the Missouri State Highway Department in duplicate and shall be approved before steel is fabricated. Rivets 3/8", Holes 1 1/8" except as noted. Field connections riveted unless otherwise noted. Paint: Shop - None; Field: Surfaces inaccessible after erection three coats of red lead. No other paint to be applied by contractor. All paint required will be furnished by the Missouri State Highway Department. Bridge excavation in accordance with Section I of Standard Specifications issued April 1, 1930, except that quantities paid for will be computed from extreme low water Elev. 415.4 where existing ground line is below this elevation. Piles to be driven to full penetration or to rock.

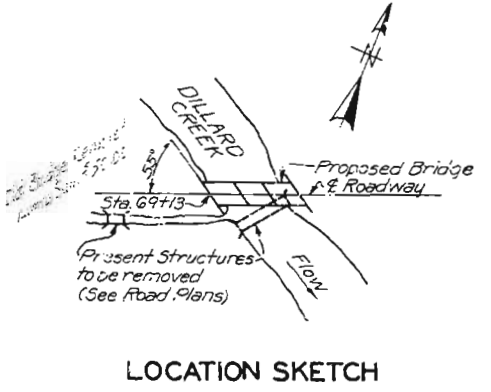
See other table for additional final quantities.

Item	Superstr.	Substr.	Total	FINAL QUANT.
Excavation Class I	Cu. Yds.	55	55	51.2
Excavation Class II	Cu. Yds.	420	420	205.5
Concrete 1:2:3 mix Class "A"	Cu. Yds.	10.0	10.0	10.0
Concrete 1:2:3 1/2 mix Class "X"	Cu. Yds.	68.9	68.9	68.9
Concrete 1:2:4 mix Class "B"	Cu. Yds.	136.1	136.1	112.4
Fabricated Structural Steel	Lbs.	37900	37900	37,350
Reinforcing steel	Lbs.	20920	10650	31,570
Creo. Timber Piles	Lin. Ft.	252	252	0
Creo. Timber Pile Cut off's	Lin. Ft.	35	35	0
Removal Old Bridge	Lump Sum			1

Note: Bridge excavation above Elev. 417.0 will be paid for as Class I Bridge Excavation. Bridge excavation below Elev. 417.0 will be paid for as Class II Bridge Excavation. Estimated quantities for creo. timber piles include four lines per pile as allowance for metal shoes in accordance with specifications.

ADDITIONAL FINAL QUANTITIES

Class II Exc. Below High Water	Cu. Yd.	5.5
Mining Pile Driver - Cutting Steel	Ft.	27.16
Drilling Test Holes (1/4" Dia)	Lin. Ft.	116.5
Hauling Unused Sand (R.F. 415)	Cu. Yd.	11
Unused Piling taken over	Lin. Ft.	240
" Piling Shoes taken over	Each	12
Gravel	Cu. Yd.	20
Heating Concrete (Substructure)	S. Yd.	112.4
Final Placed Rock Fill Spreading	S. Yd.	255



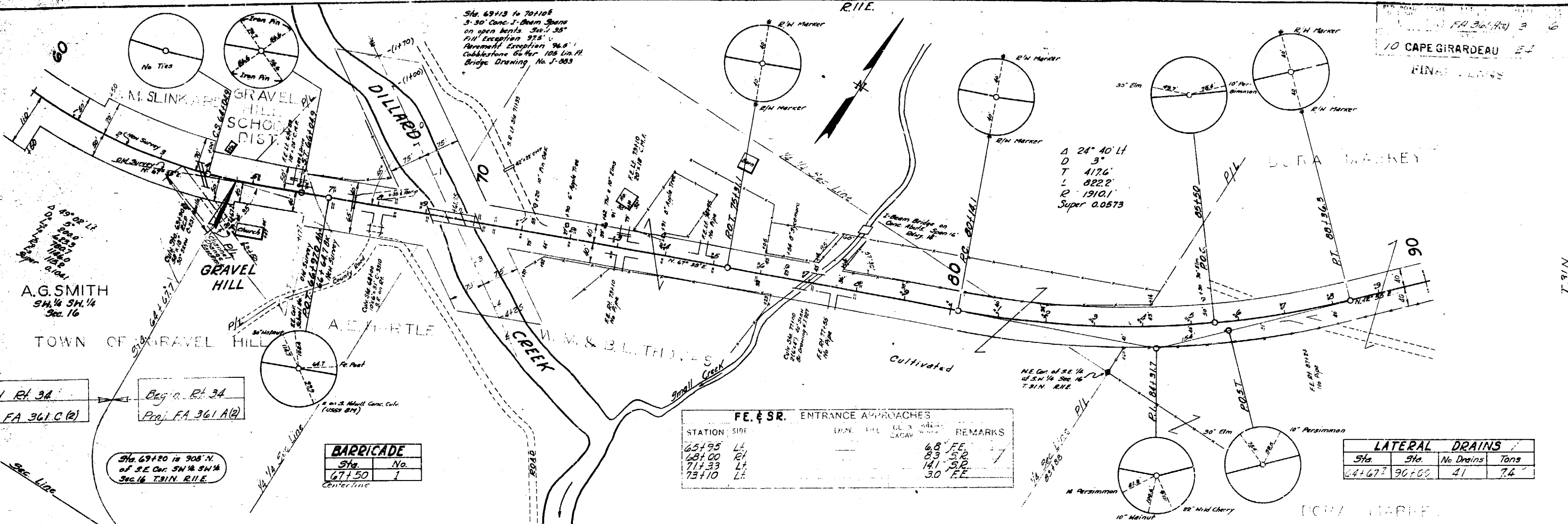
LOCATION SKETCH

Drawn Sept. 1932 By P.H.S.
Traced Sept. 1932 By H.W.H.
Checked Sept. 1932 By I.B.

Elev. 420.80 - Nail in rock of 24" Wall at 1' Rt Sta. 68+80
BRIDGE OVER DILLARD CREEK
STATE ROAD FROM GRAVEL HILL TO JACKSON
ABOUT 13 MILES WEST OF JACKSON
PROJECT NO. E361A (R.34) STA. 69+13

CAPE GIRARDEAU COUNTY
SUBMITTED BY *N.P. Bay* DATE 9/7/32
APPROVED BY *T.H. Cutler* DATE 9/7/32
BRIDGE ENGINEER
CHIEF ENGINEER

STD.C-6501 R1
STD.S-918
J-883



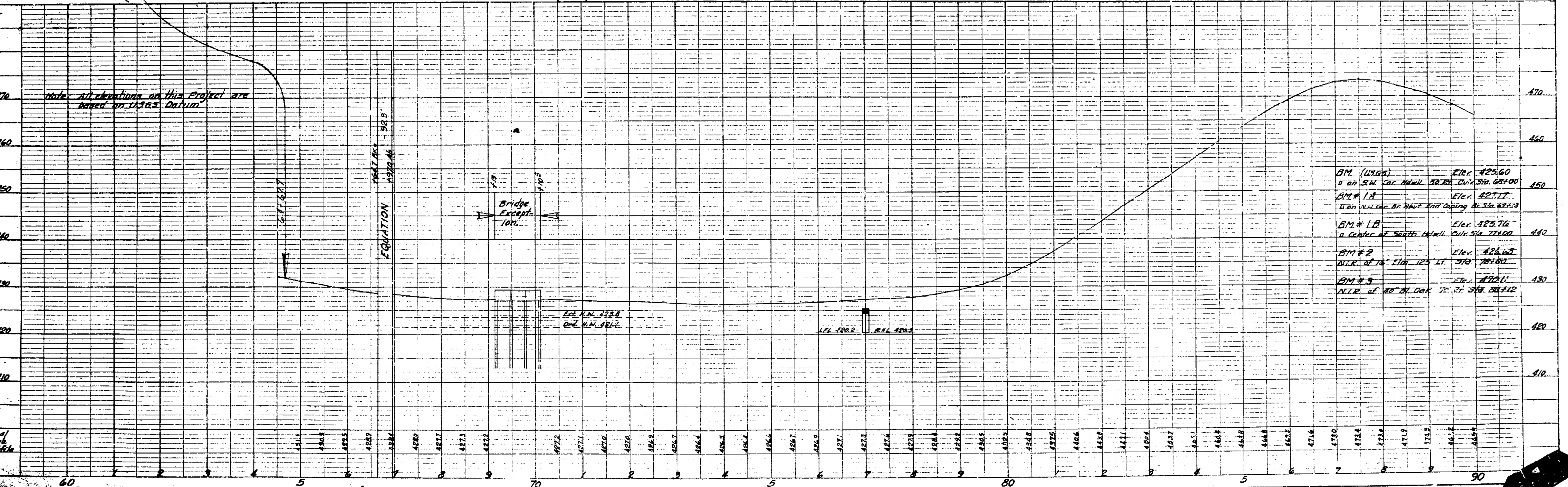
Sta. 69+13 to 70+10±
3-30' Conc. T-Beam Spans
on open bents 35' x 35'
FH Exception 97.5'
Pavement Exception 96.5'
Cobblesstone 65' W. of 108' W. Pt.
Bridge Drawing No. J-883

Δ 24° 40' Lt
D 3'
T 417.6'
L 822.2'
R 1910.1'
Super 0.0573

FE. & SR. ENTRANCE APPROACHES					
STATION	SIDE	EXC.	FILL	GRASS	REMARKS
65+95	Lt				6.8' FE
68+00	Rt				8.3' S.P.
71+33	Lt				14.1' S.P.
73+10	Lt				3.0' EE

LATERAL DRAINS			
Sta.	Sta.	No. Drains	Tons
64+67	90+00	41	7.4

BARRICADE	
Sta.	No.
67+50	1



Note: All elevations on this project are based on 1985 Datum.

BM (USGS)	Elev. 425.60	470
a on S.W. cor. NW 1/4 50.24' Curb Sta. 68+00		450
BM # 1A	Elev. 427.17	
on N.W. cor. of Dike and Leasing Co. Sta. 68+33		
BM # 1B	Elev. 425.76	440
a Center of South Hill Curb Sta. 77+00		
BM # 2	Elev. 426.68	
N.T.R. of 16' dia 125' Lt 393' 787.83		
BM # 3	Elev. 422.11	430
N.T.R. of 40' dia 100' 72' 31' Sta. 88+12		

Final Station Profile