

B.M. #1314-1
Existing USGS BM Disk in Top S.W. Wingwall of Existing Bridge over Sandy Creek, Stamped "V.P.T. 1979", EL 585.28

B.M. #1314-2
Set Chiseled "I" on Concrete Inlet Structure at the Northwest Corner of Massey Lane and Fricke Lane 460'± North of Centerline Bridge over Sandy Creek, EL 582.37

B.M. #1314-3
Set Yellow BM Spike Nail in Gate Post, South Side of Field Entrance on East Side Massey Lane, 500'± South of Centerline Bridge over Sandy Creek, EL 594.38

GENERAL NOTES

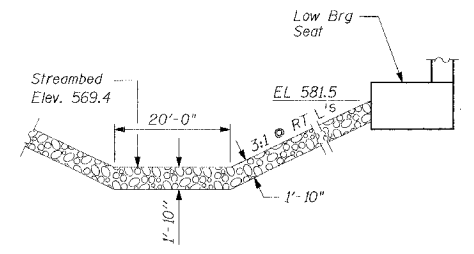
- See Special Provisions for Boring Logs.
- The Contractor shall drive a test pile as specified in a permanent location in Pier #1 as directed by the Engineer prior to ordering the remainder of the piles.
- A Calcium Nitrite Corrosion Inhibitor, as covered in the Special Provisions shall be used in the concrete for precast prestressed concrete deck beams.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- Road shall be closed to traffic at all times during construction.

EXISTING STRUCTURE:

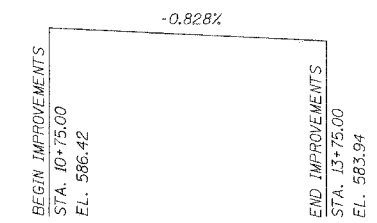
Structure No. 069-3068 Three Span Bridge with a Reinforced Concrete Deck on Steel Stringers with Reinforced Concrete Abutments and Pier Caps on Timber Piles. The Existing Structure is 96'-11" back to back Abutments and 26'-0" Wide. The Contractor shall remove the existing structure in accordance with the Special Provisions.

Estimate of quantities for Existing Structure Removal.

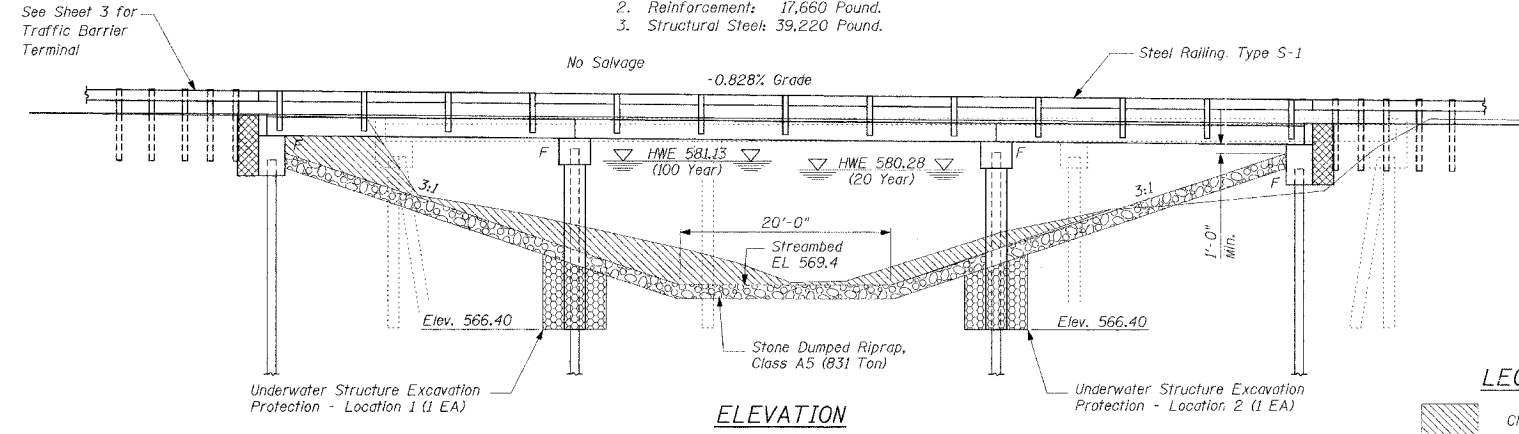
- Concrete: 94.4 Cu Yd.
- Reinforcement: 17,660 Pound.
- Structural Steel: 39,220 Pound.



STONE RIPRAP CHANNEL DETAIL
N.T.S.



PROFILE GRADE
ALONG CENTERLINE ROADWAY

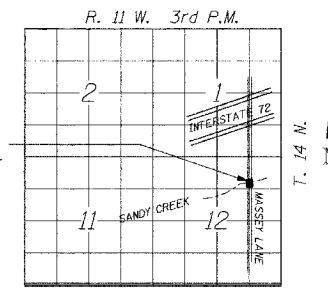


ELEVATION

LEGEND

- Channel Excavation
- Structure Excavation
- Underwater Structure Excavation

PROPOSED STRUCTURE



LOCATION SKETCH

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
MASSEY LANE	*	MORGAN	15	4

* 03-06118-00-BR
SEISMIC DATA
Seismic Performance Category (SPC) A
Bedrock Acceleration Coefficient (A) 0.05
Site Coefficient (S) 1.5

DESIGN SPECIFICATIONS
AASHTO 2002

LOADING HS20-44
Future Wearing Surface = 50 psf
Allowance 50 psf Wearing Surface

DESIGN STRESSES
FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST PRESTRESSED UNITS
 $f'_c = 5,000$ psi
 $f'_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi (1/2" ϕ Strands)
 $f'_{si} = 201,960$ psi (1/2" ϕ Strands)

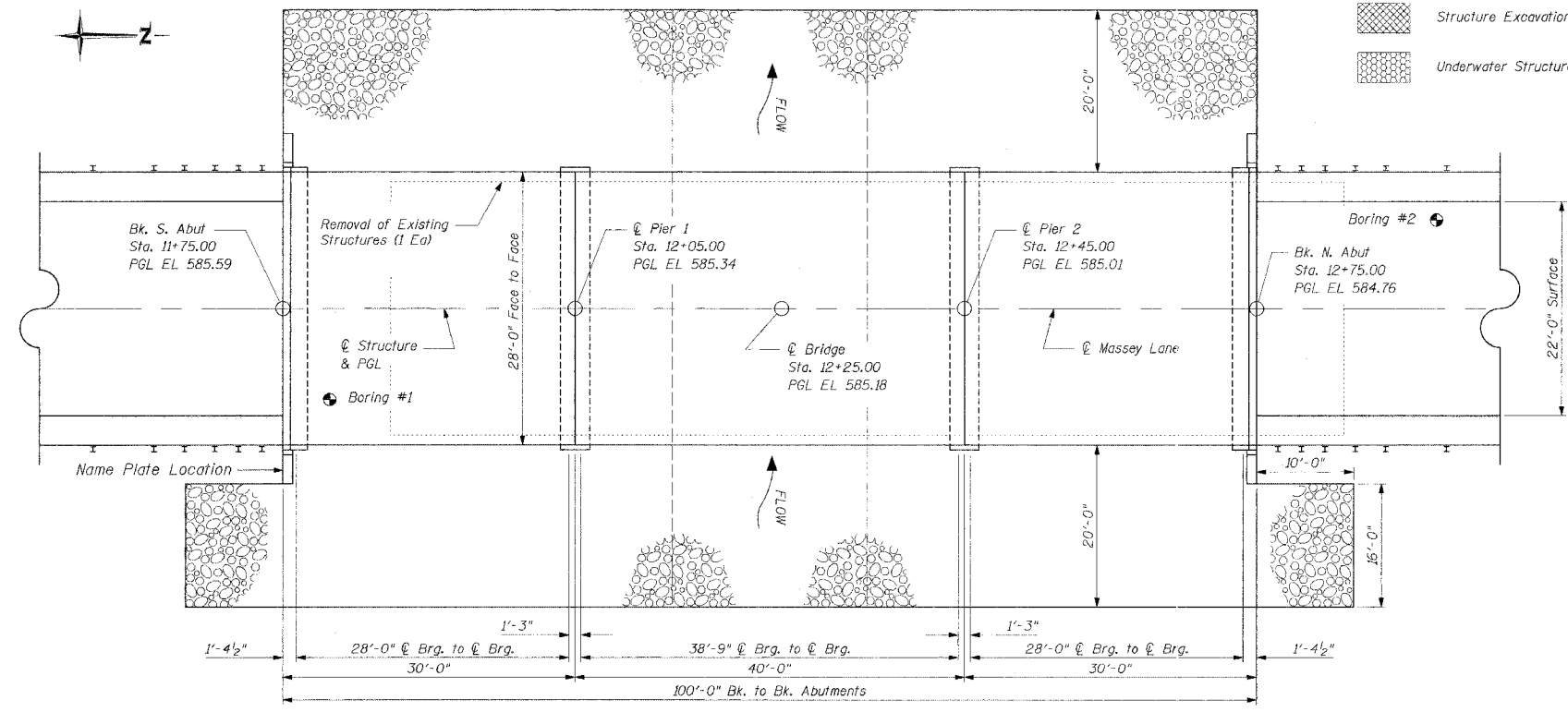
SANDY CREEK
BUILT 200... BY
ROAD DISTRICT #6
MORGAN COUNTY
SEC 03-06118-00-BR
STA 12+25.00
STR. NO. 069-3256 LOADING HS20

LETTERING FOR NAME PLATE
See Std. 515001
(Locate at S.E. Wing)

TOTAL BILL OF MATERIALS

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu Yd		513	513
* Stone Dumped Riprap, Class A5	Ton		756	756
* Removal of Existing Structures	L Sum		1	1
Structure Excavation	Cu Yd		100	100
Concrete Structures	Cu Yd		92.9	92.9
Precast Prestressed Concrete				
Deck Beams (21" Depth)	Sq Ft	2,751.0		2751.0
Reinforcement Bars	Pound		8,330	8,330
Steel Railing, Type S-1	Foot	200		200
Furnishing Metal Pile Shells.	Foot		1,230	1,230
Driving and Filling Shells	Foot		1,230	1,230
Test Pile Metal Shells	Each		1	1
Name Plates	Each		1	1
* Underwater Structure Excavation Protection - Location 1	Each		1	1
* Underwater Structure Excavation Protection - Location 2	Each		1	1

* See Special Provisions



PLAN

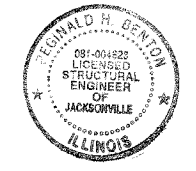
WATERWAY INFORMATION

Flood		Design		Base		Overtopping		Max. Calc.	
Freq. Yr.	Q	Opening Sq. Ft.	Nat.	Head-Ft.	Headwater El.	Freq. Yr.	Q	Opening Sq. Ft.	Nat.
20	3322	551	571	580.28	0.63	0.27	580.91	580.55	
100	4780	634	638	581.13	1.44	0.58	582.57	581.71	

CONSTRUCTION PERMITS

This project has been approved for construction under statewide permit No. 12, as issued by the Department of Natural Resources' / Office of Water Resources.

I hereby declare that to the best of my knowledge, information and belief this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of the structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges".



EXPIRATION DATE: 11-30-2006

BY *Ronald H. Benton*
DATE 3/8/2005

DRAWN BY MKC
CHECKED BY LEL
APPROVED BY REG
DATE MARCH 2005

REVISIONS	
DATE	BY

GENERAL PLAN AND ELEVATION
MASSEY LANE OVER SANDY CREEK
SEC 03-06118-00-BR STA. 12+25.00

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