B.M. - B.M. #1, R.R. Spike in 26" Tree, 19.09' RT., STA. 49+35.80, EL. 485.91
B.M. #2, R.R. Spike in 18" Tree, 19.12' RT., STA. 51+16.79, EL. 490.52

Existing Structure - Two span precast concrete channel beams on timber caps with timber piling

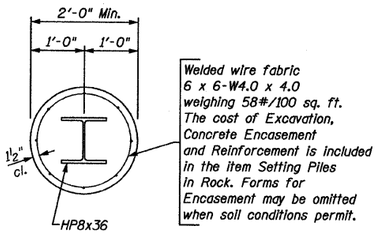
Salvage - None

Existing Known Utilities - Overhead electric, Telephone

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

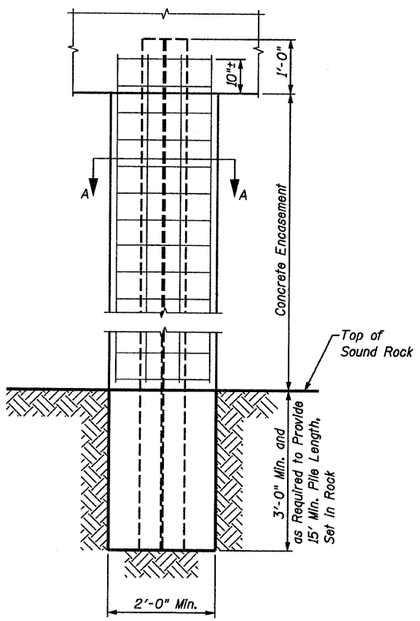
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 20	05-00125-00-BR	MARION	13	4
FEDERAL AID PROJECT:		ILLINOIS		

CONTRACT NO. 97332

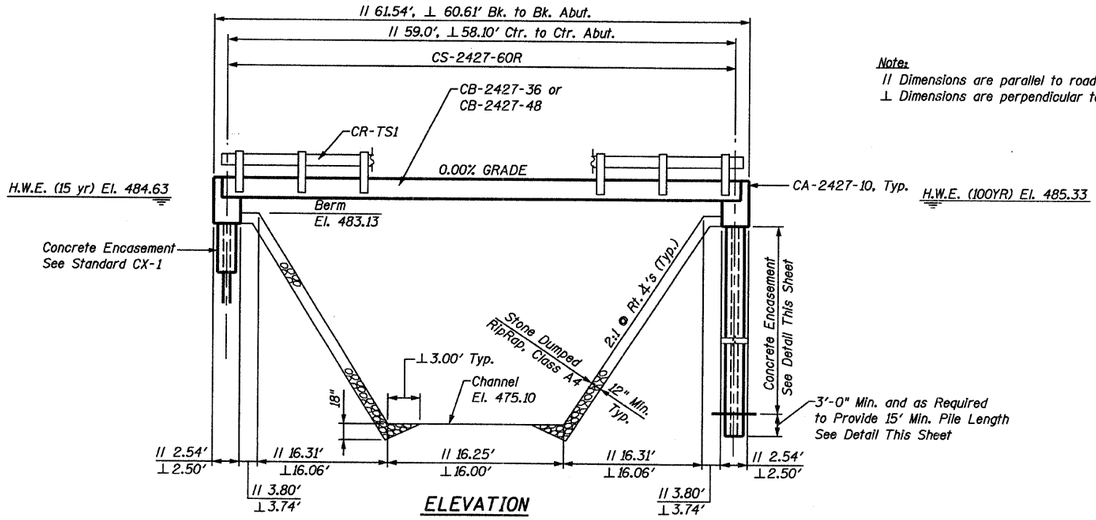


Welded wire fabric 6 x 6-W4.0 x 4.0 weighing 58#/100 sq. ft. The cost of Excavation, Concrete Encasement and Reinforcement is included in the item Setting Piles in Rock. Forms for Encasement may be omitted when soil conditions permit.

SECTION A-A

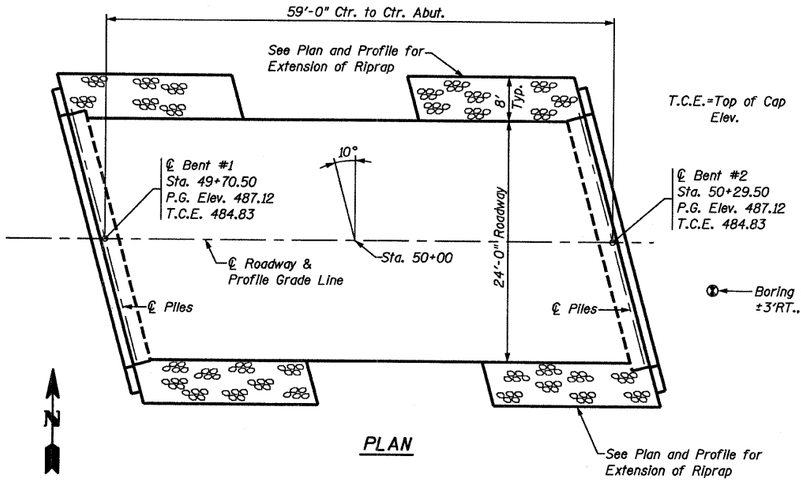


SETTING PILES IN ROCK AND HP PILE ENCASEMENT DETAIL
(Bent #2 Only)



ELEVATION

Note:
// Dimensions are parallel to roadway
⊥ Dimensions are perpendicular to channel



PLAN

T.C.E.=Top of Cap Elev.

GENERAL NOTES

1. The contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles.
2. See Special Provisions for boring logs.
3. A Corrosion Inhibitor shall be used in the concrete for precast, prestressed concrete deck beams, according to Article 1020.05 (b) (12) of the Standard Specifications.
4. The Waterproofing Membrane System and Bituminous Concrete Surface Course Shown on the Standards Shall Not be Provided.
5. Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60 (IL Modified). See special provisions. This not supersedes notes on Abutment and Pier Sheets.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub. Piers	Sub. Abuts.	Total
Removal of Existing Structures	Each				1
Concrete Structures	Cu. Yd.			18.2	18.2
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1440			1440
Steel Railing, Type S1	Foot	120			120
Reinforcement Bars	Pound			2300	2300
Furnishing Steel Piles HP 8x36	Foot			141	141
Driving Piles	Foot			69	69
Test Pile Steel HP 8x36	Each			1	1
Name Plates	Each			1	1
Concrete Encasement	Cu. Yd.			0.76	0.76
Setting Piles in Rock	Each			4	4

The standard detail sheets for this structure were assembled by me or persons under my direct supervision.

MICHAEL R. QUANDT 062-042893 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

Date: 01/28/08

Date of License Expiration: 11/30/09

Signature: Michael R. Quandt

I certify these Standard Bridge Plans for foundation treatment only.

WILLIAM D. LUEBKING 4341 LICENSED STRUCTURAL ENGINEER OF ILLINOIS

Date: 01/28/08

Date of License Expiration: 11/30/08

Signature: William D Luebking

INDEX OF SHEETS

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications - 17th ed.

LOADING HS 20-44

Allow 25# / Sq. Ft. for Future Wearing Surface.

PILE DATA (2-ABUTS.)

Pile Type and Size:	Steel Piles, HP8x36
Nominal Required Bearing:	258 kips Bent #1, Set in Rock Bent #2
Allowable Resistance Available:	86 kips
Estimated Pile Length:	23 Feet Bent #1, 18 Feet Bent #2
Number of Production Piles:	7
Number of Test Piles:	1 (located in Bent #1)

STATION 50+00
BEE BRANCH
SEC. 05-00125-00-BR BUILT 20__
PROJECT NO. BROS-121 (47)
MARION COUNTY
LOADING HS20
STR. NO. 061-3304

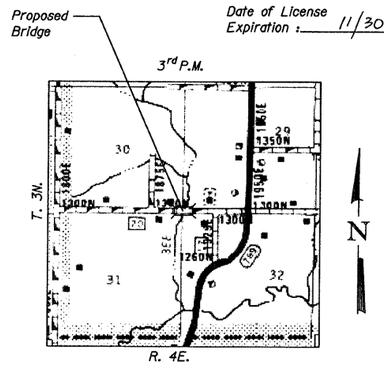
LETTERING FOR NAME PLATE

Locate Name Plate at Northwest Corner of Bridge (See Std. CN)

WATERWAY INFORMATION

Drainage Area = 8.84 Sq. Mi. Low Grade Elev. 484.68 ◎ Sta. 48+08.73

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E. Ft.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater Elev. - Ft. Exist.	Headwater Elev. - Ft. Prop.
Design	15	1930	284	341	484.63	N/A	0.32	N/A	484.95
Base	100	3130	298	341	485.33	N/A	0.91	N/A	486.24
Overtopping									
Max. Calc.	500								



LOCATION SKETCH

GENERAL PLAN & ELEVATION

COUNTY HIGHWAY 20 (BEE BRANCH ROAD) OVER BEE BRANCH

SECTION 05-00125-00-BR
MARION COUNTY