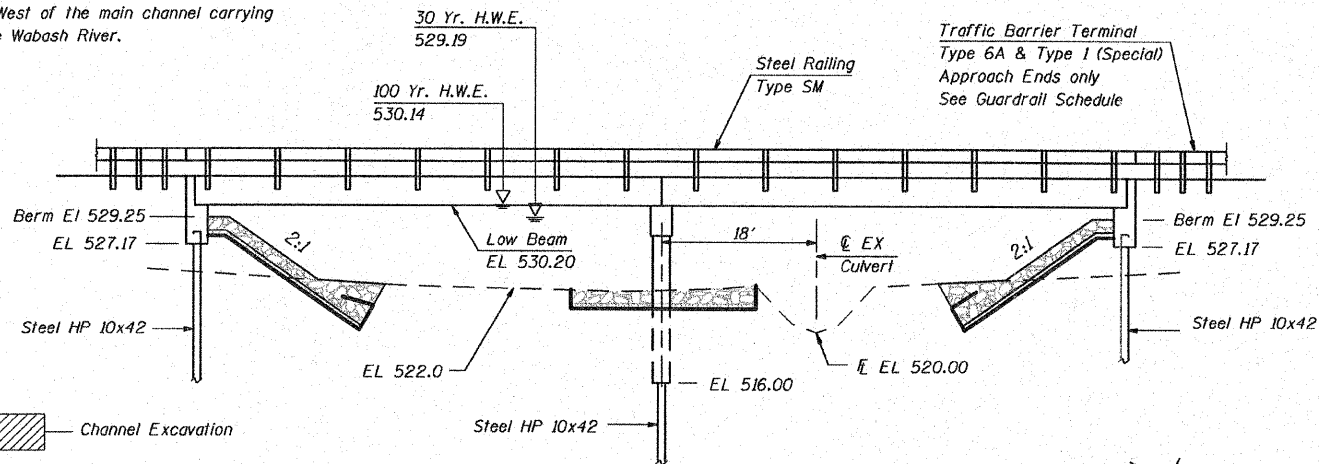


B.M. #4-Chiseled "□" in middle of West concrete headwall on box culvert just North of bridge (500'±) Elev 528.88

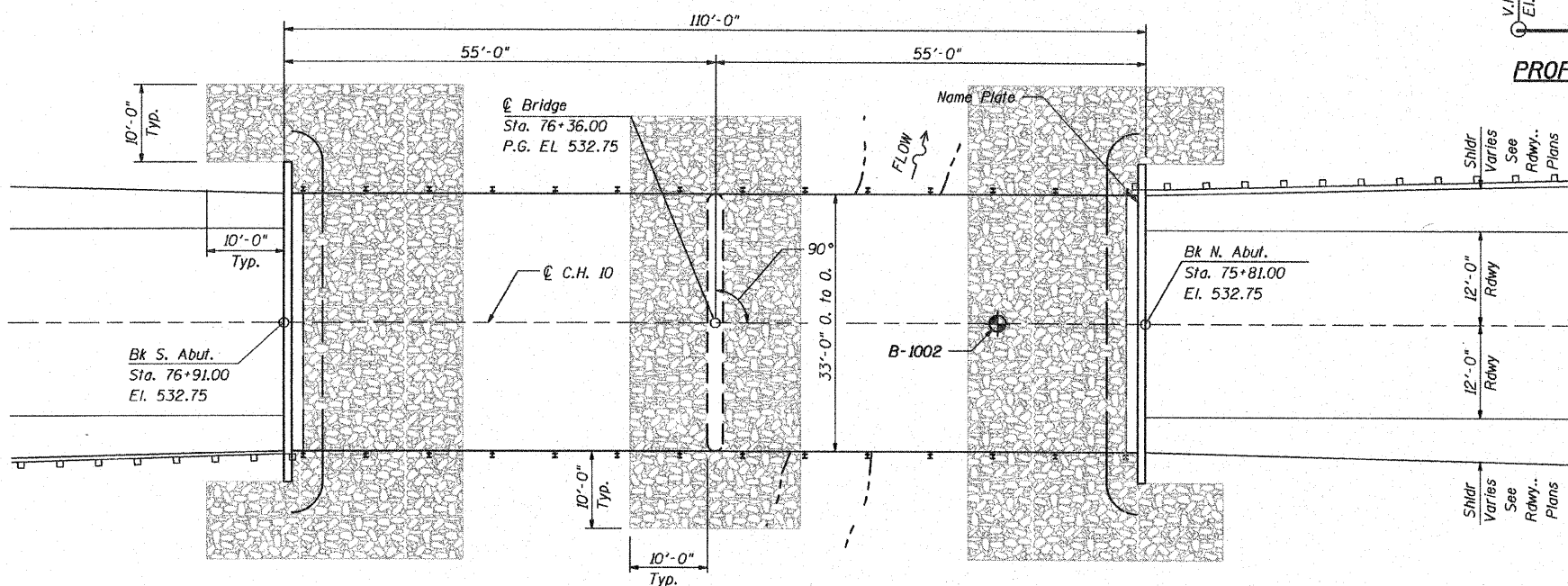
EXISTING STRUCTURE:
6' x 8' concrete box culvert located approximately 700' North and West of the main channel carrying CH 10 over Little Wabash River.

No Salvage.



- Channel Excavation
- Structure Excavation
- Stone Dumped Riprap Class A5

ELEVATION



PLAN

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec (SD1) = 0.149
Design Spectral Acceleration at 0.2 sec. (SDs) = 0.360
Soil Site Class = C

WATERWAY INFORMATION

Drainage Area	213.3	Sq.Mi.
Required Opening (15yr.)	610	Sq.Ft.
Provided Opening	610	Sq.Ft.
Present Opening	48	Sq.Ft.
30 yr. Discharge	16,377	cfs
100yr. Discharge	21,060	cfs
Created Head at Bridge (100yr.)	<1.0	Ft.
Created Head 1000' upstream (100yr.)	<0.5	Ft.

DESIGN STRESSES

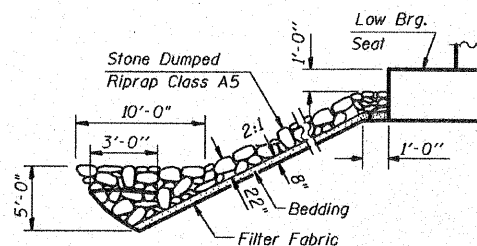
Precast Unit
f'c = 6,000 psi
f'ci = 5,000 psi
f's = 270,000 psi
f'si = 189,000 psi

Cast-in-Place Unit
f'c = 3,500 psi
f's = 60,000 psi
n = 9

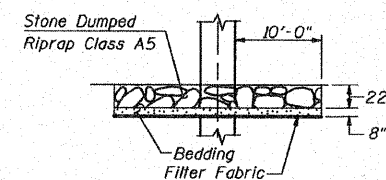
LOADING HL-93
DESIGN SPECIFICATION:
2010 AASHTO LRFD Bridge Design Specifications, 5th Edition
FUTURE WEARING SURFACE: 50 lb/Sq. Ft.

LITTLE WABASH RIVER TRIB.
BUILT 20XX BY
EFFINGHAM COUNTY
SEC. 04-00084-01-PV
CH 10 STA. 76+36.00
STR. NO. 025-3223 LOADING HL-93

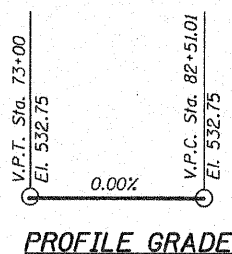
NAME PLATE
(See Std. 515001)



STONE RIPRAP ANCHOR DETAIL



STONE RIPRAP AT PIER DETAIL



PROFILE GRADE

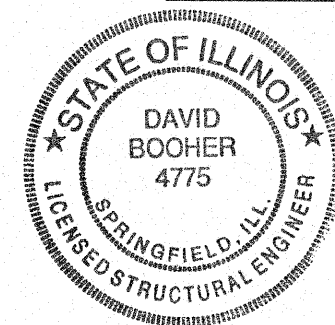
GENERAL NOTES

See Proposal for Boring Data
The Contractor shall drive one steel test pile at each abutment and at the pier as directed by the Engineer before ordering the remainder of the piles.
Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

GUARDRAIL SCHEDULE							
STA.	TO	STA.	LT/RT	TRAF BAR TERM 6A (EACH)	TRAF BAR TERM TI SPL TAN (EACH)	GUARDRAIL MARKER TYPE A (EACH)	TERMINAL MARKER DA (EACH)
74+88		75+38	RT		1	1	1
75+38		75+82	RT	1		1	
76+90		77+34	LT	1		1	
77+34		77+84	LT		1	1	1
TOTALS				2	2	4	2

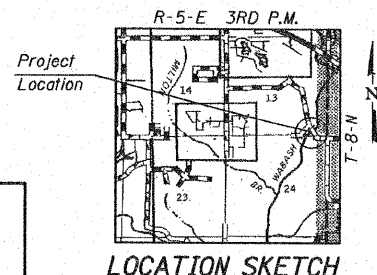
BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		166	166
Concrete Structures	Cu. Yd.		68.9	68.9
Reinforcement Bars	Pound		5790	5790
Precast Prestressed Concrete				
Deck Beams (27" Depth)	Sq. Ft.	3562		3562
Steel Railing, Type SM	Foot	216		216
Furnishing Steel Piles HP 10 x 42	Foot		1242	1242
Driving Piles	Foot		1242	1242
Test Pile Steel HP 10 x 42	Each		3	3
Concrete Encasement	Cu. Yd.		4.2	4.2
Name Plates	Each	1		1
Stone Dumped Riprap, Class A5	Ton		765	765
Filter Fabric	Sq. Yd.		579	579
Traffic Barrier Terminal, Type 6A	Each	2		2
Traffic Barrier Terminal, Type 1 (Special) Tangent	Each	2		2
Guardrail Markers, Type A	Each	4		4
Terminal Marker - Direct Applied	Each	2		2



I certify 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 structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.

David Booher, Illinois S.E. 081-004775
Expires 11-30-2012



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
C.H. 10 OVER
LITTLE WABASH TRIBUTARY
SEC. 04-00084-01-PV
EFFINGHAM COUNTY
STRUCTURE NO. 025-3223
STA. 76+36.00

SHEET NO. 1 of 7 SHEETS	ROUTE CH 10	SECTION 04-00084-01-PV	COUNTY EFFINGHAM	TOTAL SHEETS 139	SHEET NO. 56
CONTRACT NO. 95639			ILLINOIS FED. AID PROJECT		