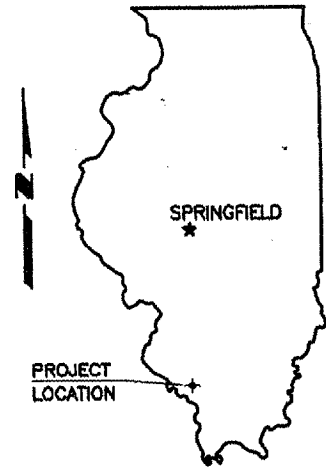


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

HIGHWAY BRIDGE PROGRAM

TOWNSHIP ROUTE 45 (CALVARY CEMETERY ROAD)
BRADLEY TOWNSHIP
SECTION 01-01111-00-BR
PROJECT NO. BROS-077(52)
JOB NO. C-99-503-08
COX CREEK

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 45	01-01111-00-BR	JACKSON	12	1
PROJECT NO. BROS-077(52)		CONTRACT NO. 99310		



INDEX OF SHEETS

- COVER SHEET
- PLAN AND PROFILE
- EROSION CONTROL PLAN
- GENERAL PLAN AND ELEVATION
- DECK BEAMS 21" X 36"
- DECK BEAMS 21" X 48"
- ABUTMENTS
- STEEL RAILING
- NAME PLATES
- PILE DETAILS
- 12. CROSS SECTIONS
 - STANDARDS 280001-03 TEMPORARY EROSION CONTROL SYSTEMS
 - 701901 TRAFFIC CONTROL DEVICES
 - BLR-21-7 TRAFFIC CONTROL

000001-05
515001-02
630301-04
635006-02
BLR 26
BLR 27

CLASSIFICATION : LOCAL ROAD
ADT : 50
DESIGN SPEED : 30 MPH

SUMMARY OF QUANTITIES

CODE NO.	PAY ITEM	UNIT	TOTAL
20100210	TREE REMOVAL (OVER 15 UNIT DIAMETER)	UNIT	60
20200100	EARTH EXCAVATION	CU YD	1,010
20300100	CHANNEL EXCAVATION	CU YD	64
25000200	SEEDING, CLASS 2	ACRE	0.8
25000400	NITROGEN FERTILIZER NUTRIENTS	POUND	72
25000500	PHOSPHOROUS FERTILIZER NUTRIENTS	POUND	72
25000600	POTASSIUM FERTILIZER NUTRIENTS	POUND	72
25000700	AGRICULTURAL GROUND LIMESTONE	TON	1.6
25100120	MULCH, METHOD 2	TON	0.3
25100630	EROSION CONTROL BLANKET	SQ YD	2,103
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	80
28000300	TEMPORARY DITCH CHECKS	EACH	15
28000400	PERIMETER EROSION BARRIER	FOOT	615
28000500	INLET AND PIPE PROTECTION	EACH	2
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	140
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	580
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50105220	PIPE CULVERT REMOVAL	FOOT	70
50200100	STRUCTURE EXCAVATION	CU YD	37
50300225	CONCRETE STRUCTURES	CU YD	18.6
50300280	CONCRETE ENCASEMENT	CU YD	2.1
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	1198
50800105	REINFORCEMENT BARS	POUND	2,440
50900205	STEEL RAILING, TYPE S1	FOOT	100
51201400	FURNISHING STEEL PILES HP10X42	FOOT	208
51202305	DRIVING PILES	FOOT	208
51500100	NAME PLATES	EACH	1
542A0229	PIPE CULVERTS, CLASS A, TYPE 1 24"	FOOT	34
542A1093	PIPE CULVERTS, CLASS A, TYPE 2 48"	FOOT	50
542A048	PIPE CULVERTS, CLASS A, TYPE 2 48" (TEMPORARY)	FOOT	22
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	87.5
* 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	2
* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	2
67100100	MOBILIZATION	L SUM	1
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	2

*** SPECIALTY ITEMS**

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
J.U.L.I.E. 1-800-892-0123
CONTACT 48 HOURS BEFORE EXCAVATING

CONTRACT NO. 99310

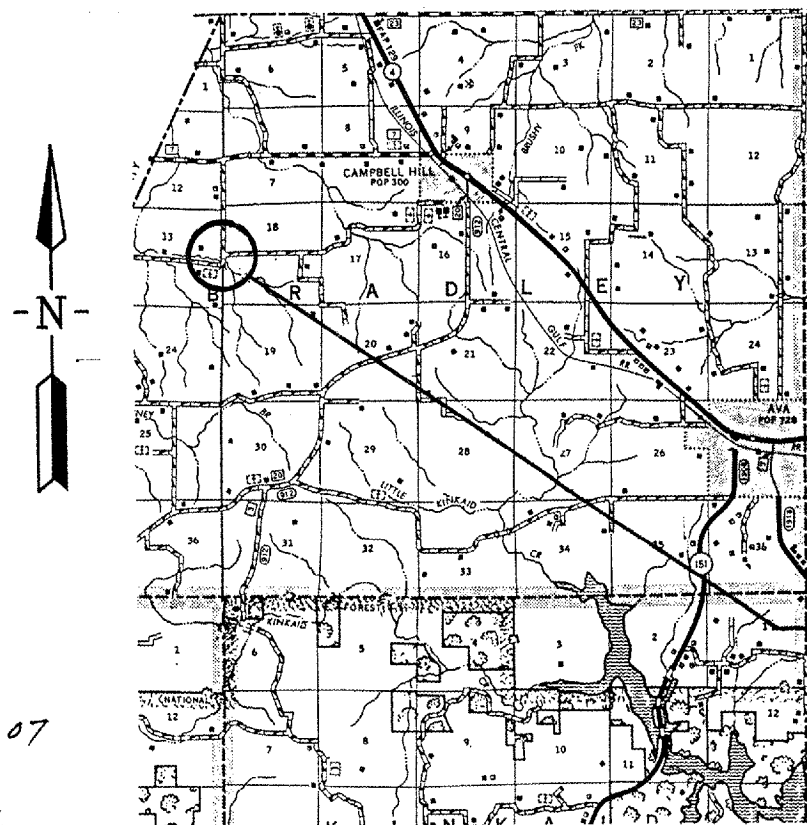
E. MILLER ENGINEERING, INC.
CONSULTING ENGINEERS
HARRISBURG, ILLINOIS



Edward W. Miller
Edward W. Miller
PROFESSIONAL ENGINEER
#062-025277
EXPIRES NOV. 30, 2007

12-18-07

JACKSON COUNTY



LOCATION MAP

SCALE: 1" = 2 MILES

NET LENGTH OF IMPROVEMENT = 580.00 FT. = 0.1098 MILES

ILLINOIS DEPARTMENT OF TRANSPORTATION	
Approved	<u>December 19, 2007</u> <i>Kyle Rodwald</i> Highway Commissioner Bradley Township
Approved	<u>DECEMBER 19, 2007</u> <i>Paul G...</i> Jackson County Engineer
Passed	<u>FEBRUARY 13, 2008</u> <i>Dennis W. Hill</i> District 9 Engineer of Local Roads and Streets
Releasing for Bid Based on Limited Review	<u>Feb 13, 2008</u> <i>May Ch...</i> Deputy Director of Highways, Region 5 Engineer

TBM - Double nail in PP
 144' Rt. Station 13+65
 Elev. 493.00

Existing Structure - Single span precast concrete deck bridge on timber pile bents with one concrete and one timber closed abutment. 29.9'L x 18.8'W
 Note: Removal of the existing concrete in the streambed to be included as part of the removal of the existing structure.

Begin Improvement - Station 10+80

EXISTING CURVE DATA
 R = 21,264.21'

Tree Removal (Over 15 Unit Diameter)
 Sta. 12+81 10' Rt. - 32 Unit
 Sta. 13+25 10' Lt. - 28 Unit

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 45	01-01111-00-BR	JACKSON	12	2
PROJECT NO. BROS-077(52)			CONTRACT NO. 99310	

Station 12+59.6 - P. Cul. Cl. A 2 48" - 50 Ft
 Skewed 4.5° Left Forward
 US E 24.0' Rt. Sta. 12+57.9 El. 483.5
 DS E 25.8' Lt. Sta. 12+61.8 El. 482.2

Pipe Culvert, Cl A, Ty. 2 48" Temp. - 22 Ft.
 Match stream E at US end

Existing 48" x 42" CMP to be removed
 Note: Removal of the concrete in E of culvert and riprap at the ends to be included as part of the Culvert Removal.

CURVE DATA
 PI Sta = 12+71.91
 $\Delta = 53^{\circ}32'55''$ T = 127.08'
 D = 22'45"00" L = 235.38'
 R = 251.85' E = 30.24'
 SE = 0.040'/Ft

PE CURVE DATA
 PI Sta = 0+40.66
 $\Delta = 55^{\circ}43'22''$
 R = 50.00'

Attain Sta. 10+80.0 to Sta. 11+66.0
 Decrease Sta. 13+58.7 to Sta. 13+80.2*

91.86' Rt. Sta. 13+15.49
 Match Existing ROW

PE CURVE DATA
 PI Sta = 1+96.90
 $\Delta = 99^{\circ}09'51''$
 R = 50.00'

* Match SE on bridge of 0.0261 ft./ft.

CURVE DATA
 PI Sta = 15+43.95
 $\Delta = 44^{\circ}46'26''$ T = 103.74'
 D = 22'45"00" L = 196.81'
 R = 251.85' E = 20.53'
 SE = 0.040'/Ft

Existing structure to be removed
 Cut abutment slopes at 2:1 and shape to match existing channel.

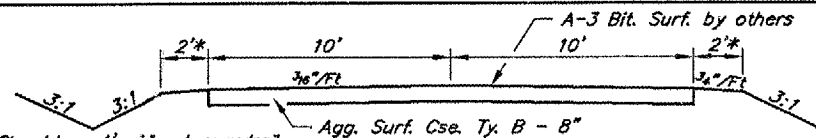
113.42' Rt. Sta. 14+51.45
 10' Rt. of Exist. ROW

- Guard Rail Installation
- ① Traf. Bar. Term., Ty. 5A - 1 Ea.
 SPBGR, Ty. A - 37.5 Ft.
 Traf. Bar. Term., Ty. 1 (Spl.) Tang. - 1 Ea.
 - ② Traf. Bar. Term., Ty. 5A - 1 Ea.
 SPBGR, Ty. A - 50.0 Ft.
 Traf. Bar. Term., Ty. 1 (Spl.) Tang. - 1 Ea.

Note: The existing roadway to be removed, ditches filled and area graded for positive drainage. See cross sections.

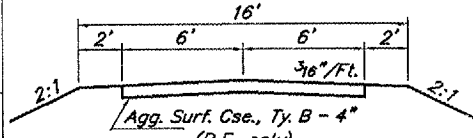
EXISTING CURVE DATA
 PI Sta = 17+90.73
 $\Delta = 82^{\circ}50'39''$ T = 130.72'
 D = 38'40"20" L = 214.22'
 R = 148.16' E = 49.42'

SCALES:
 1" = 80' HOR
 1" = 10' VER

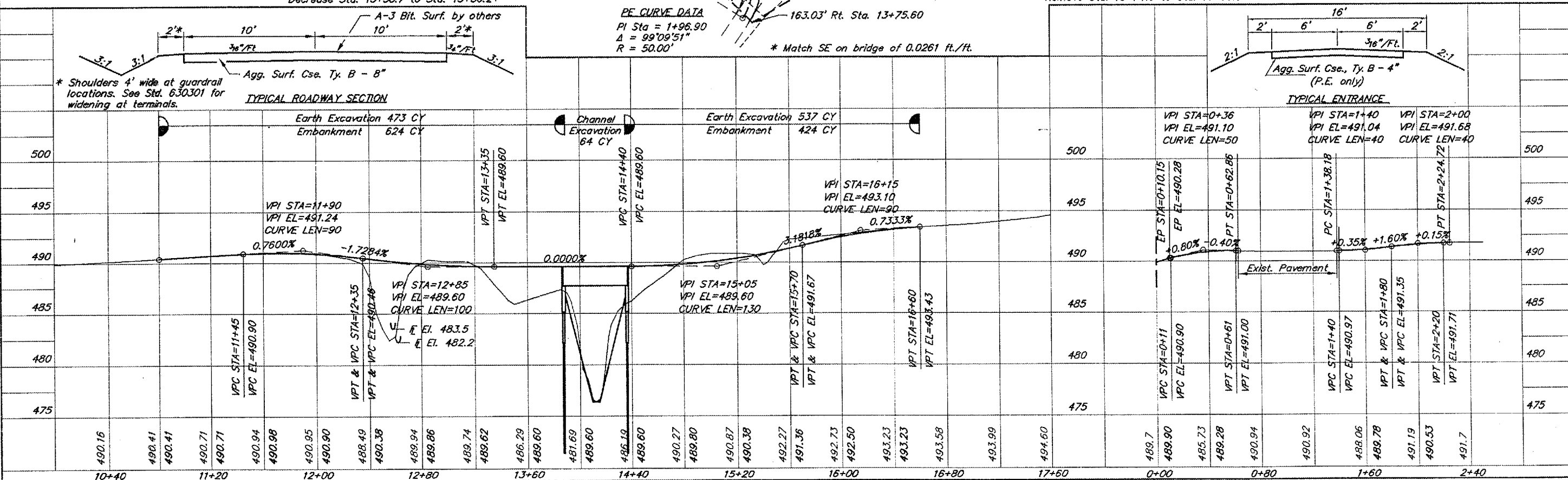


* Shoulders 4' wide at guardrail locations. See Std. 6.30301 for widening at terminals.

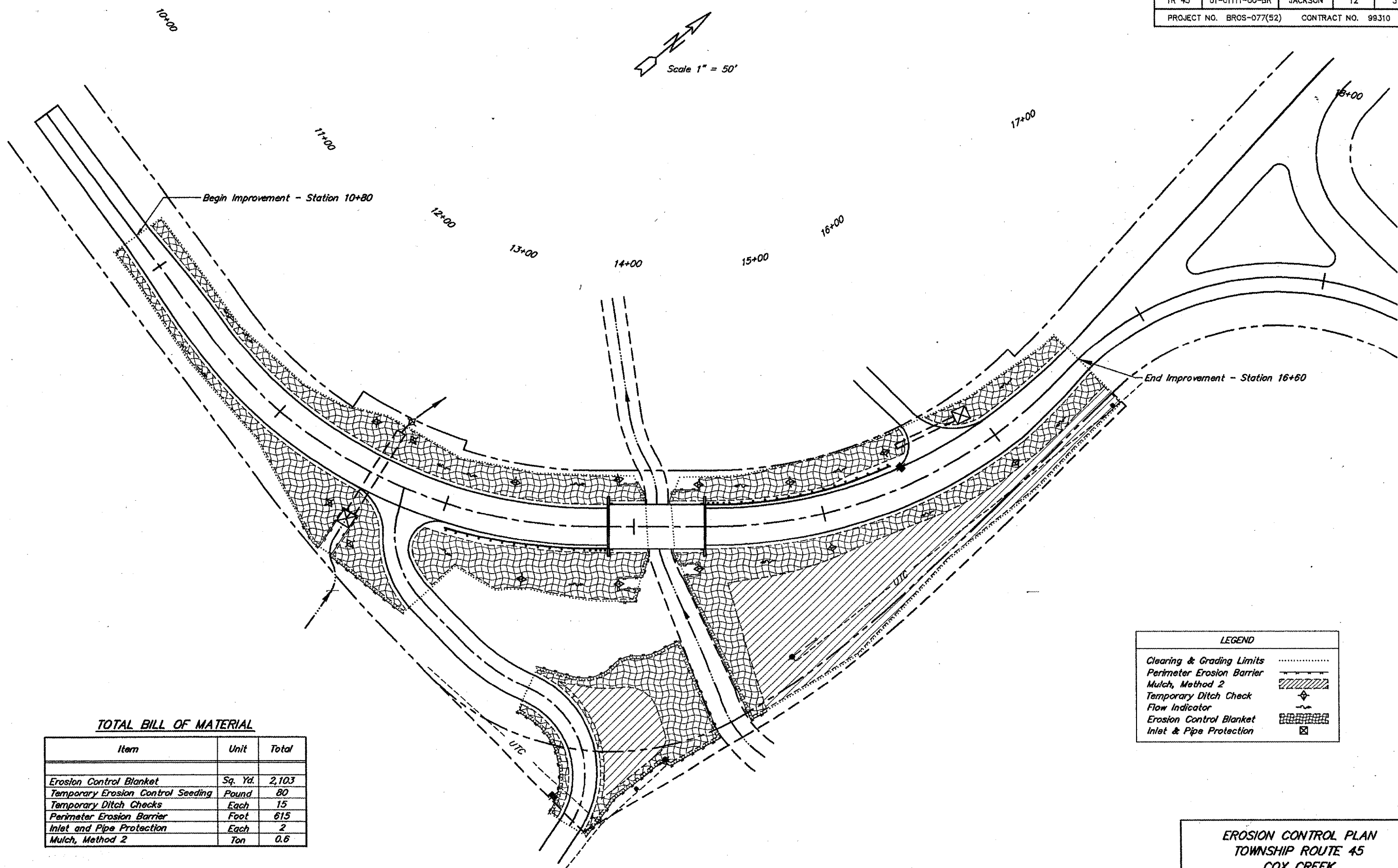
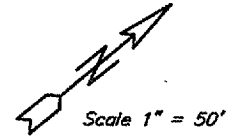
TYPICAL ROADWAY SECTION



TYPICAL ENTRANCE



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 45	01-01111-00-BR	JACKSON	12	3
PROJECT NO. BROS-077(52)		CONTRACT NO. 99310		



TOTAL BILL OF MATERIAL

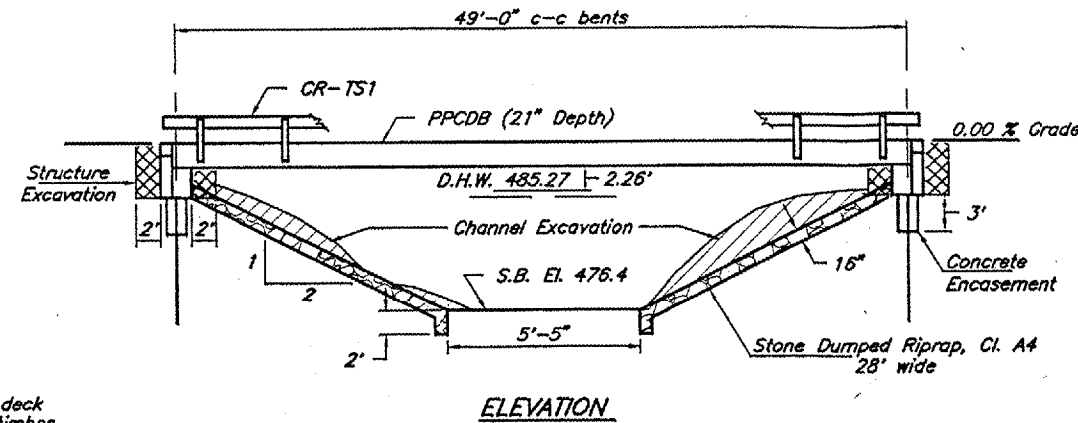
Item	Unit	Total
Erosion Control Blanket	Sq. Yd.	2,103
Temporary Erosion Control Seeding	Pound	80
Temporary Ditch Checks	Each	15
Perimeter Erosion Barrier	Foot	615
Inlet and Pipe Protection	Each	2
Mulch, Method 2	Ton	0.6

LEGEND	
Clearing & Grading Limits	-----
Perimeter Erosion Barrier	-----
Mulch, Method 2	////
Temporary Ditch Check	◆
Flow Indicator	~~~~
Erosion Control Blanket	XXXX
Inlet & Pipe Protection	□

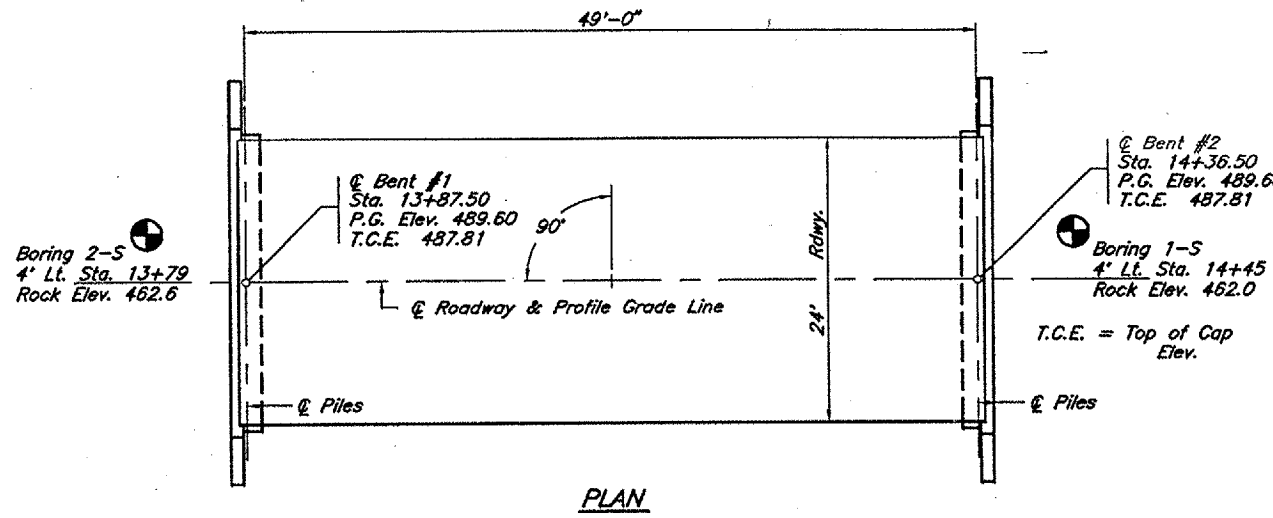
EROSION CONTROL PLAN
TOWNSHIP ROUTE 45
COX CREEK
SECTION 01-01111-00-BR
JACKSON COUNTY

B.M. - Double nail in Power Pole
144' Rt. of Station 13+65
Elev. 493.00 (Assumed)

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 45	01-01111-00-BR	JACKSON	12	4
PROJECT NO. BROS-077(52)			CONTRACT NO. 99310	



Existing Structure - Single span precast concrete deck beam bridge on timber pile bents with one timber and one concrete closed abutments. 30'L x 18.8'W



GENERAL NOTES

- Steel H piles shall meet AASHTO M270 Grade 50 specifications.
- See special provisions for boring logs.
- A Corrosion inhibitor, as covered in the Standard Specifications, shall be used in the precast prestressed concrete deck beams.

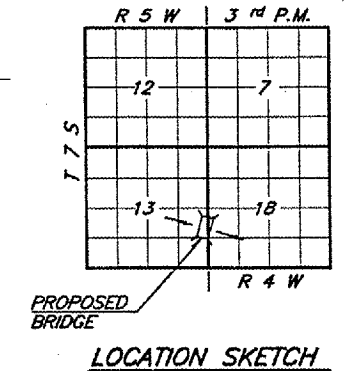
TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Removal of Existing Structures	Each				1
Concrete Structures	Cu. Yds.			18.6	18.6
P.P. Conc. Dk. Bm. 21" Dp.	Sq. Ft.	1198			1198
Steel Railing, Type S1	Foot	100			100
Reinforcement Bars	Pound			2440	2440
Furnishing Steel Piles HP10X42	Foot			208	208
Driving Piles	Foot			208	208
Concrete Encasement	Cu. Yds.			2.1	2.1
Name Plates	Each			1	1
Structure Excavation	Cu. Yds.			37	37
Channel Excavation	Cu. Yds.			64	64
Stone Dumped Riprap, Class A4	Tons			140	140

FILE DATA (2-ABUTS.)
Type & Size : HP10X42
Nominal Required Bearing : 74 kips
Allowable Resistance Available : 222 kips
Estimated Length : 26 Feet
Number Required : 8

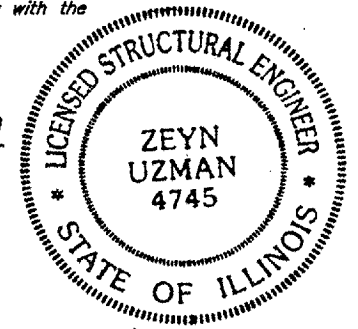
COX CREEK
SEC. 01-01111-00-BR BUILT 20____
BRADLEY TOWNSHIP
JACKSON COUNTY
LOADING HS20
STR. NO. 039-3243

LETTERING FOR NAME PLATE
Locate Name Plate at Southeast Corner of Bridge (See Std. CN)



I certify that to the best of my knowledge, information and belief, the revised standard detail sheets and/or special component sheets included with the standard bridge detail sheets are structurally adequate for the design loading shown on the plans and comply with the requirements of the current AASHTO Standard Specifications for Highway Bridges.

Zeyn B. Uzman
Zeyn B. Uzman
S.E. #81-4745
Expires Nov. 30, 2008



DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications - 17th ed.

LOADING HS20-44
Allow 25#/sq. ft. for future wearing surface

SEISMIC DATA
Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 13.3%
Site Coefficient (S) = 1.0

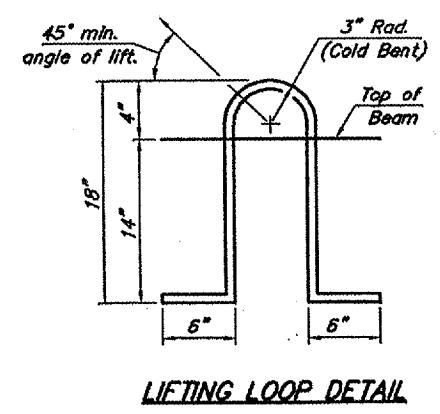
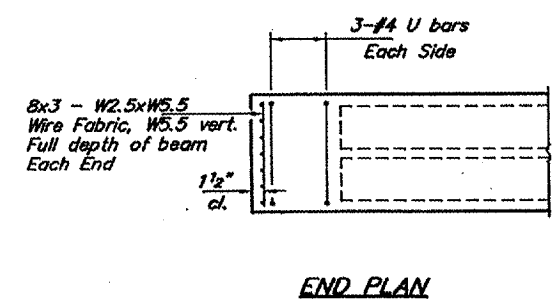
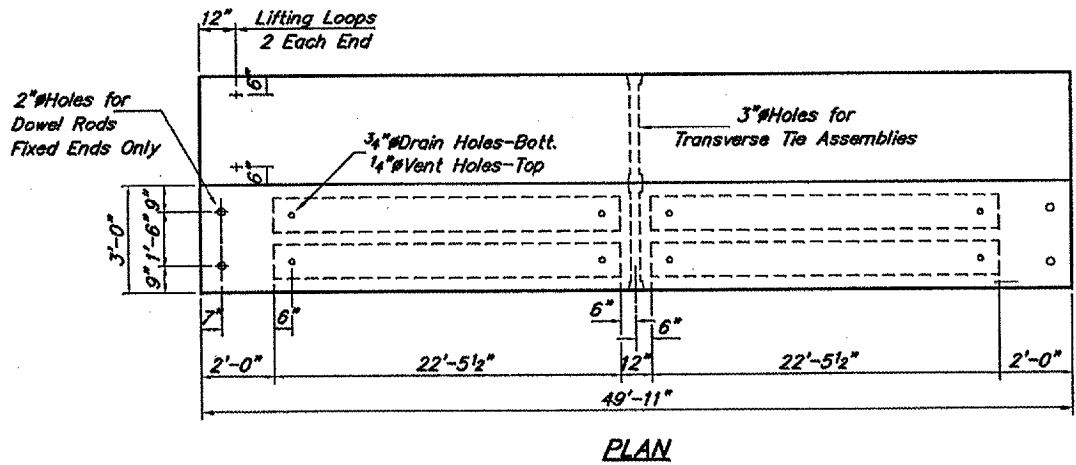
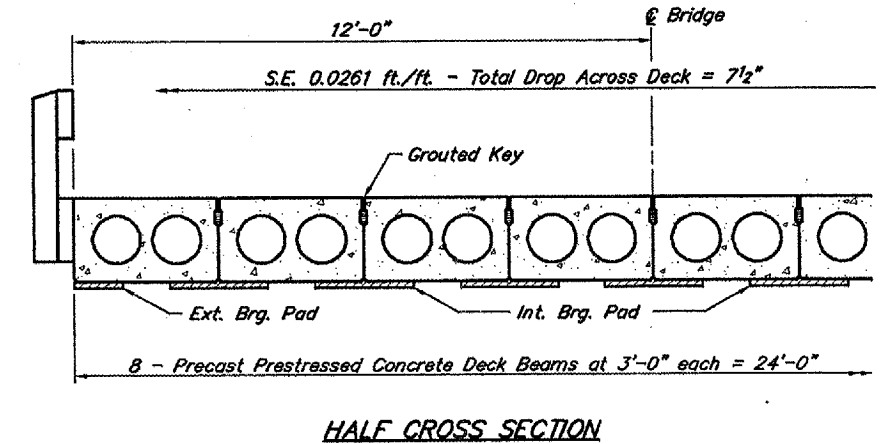
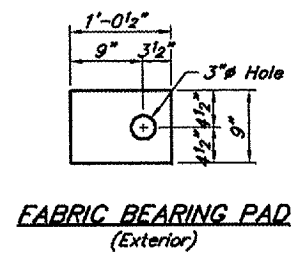
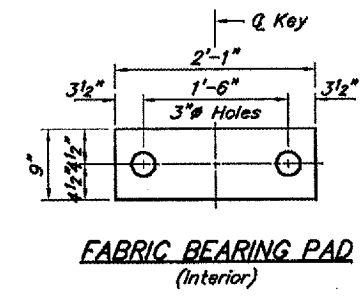
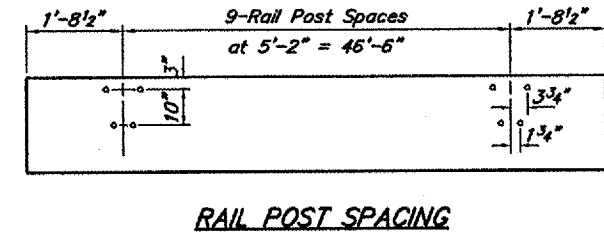
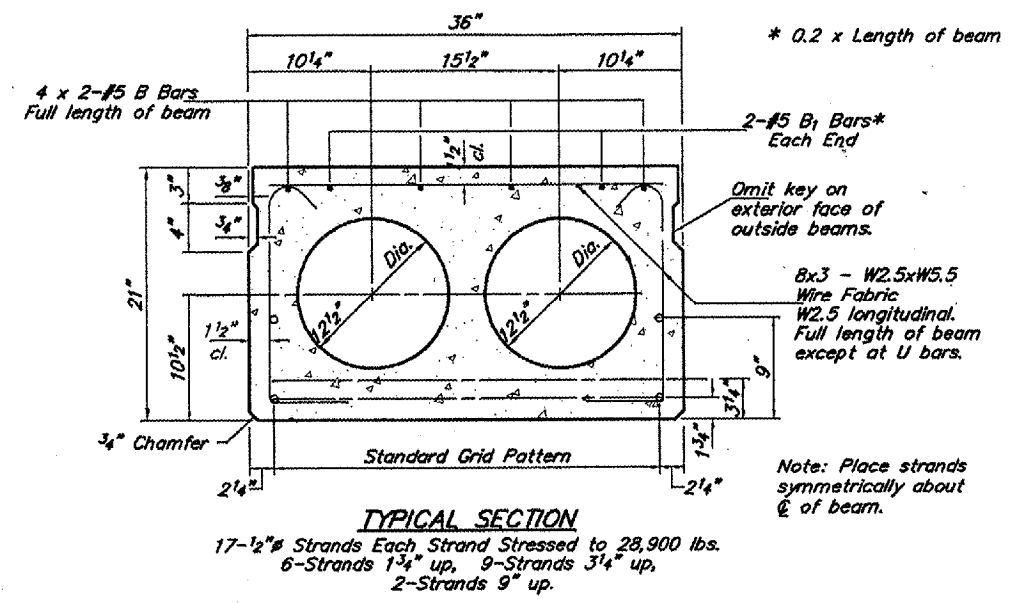
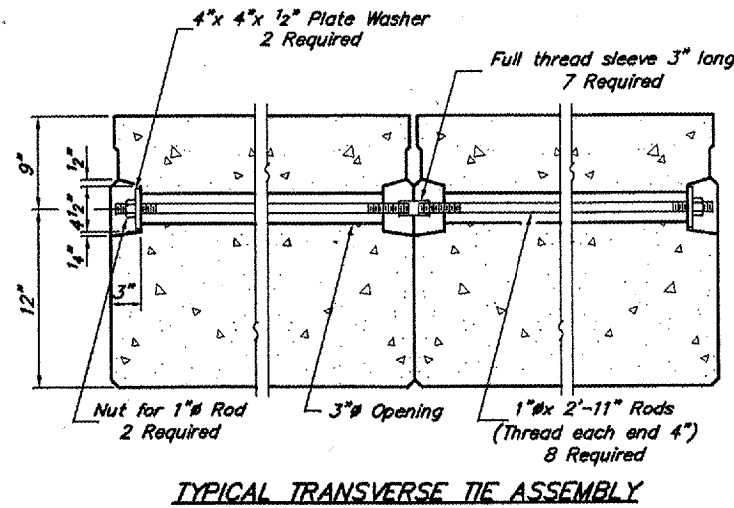
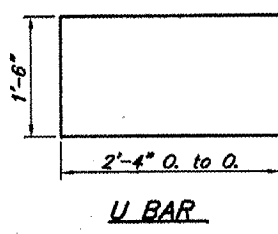
WATERWAY INFORMATION

		Drainage Area = 1.758 Sq. Mi.		Low Grade Elev. = 489.60		At Sta. 14+12			
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist. Prop.	Natural H.W.E.* Exist. Prop.	Head-Ft. Exist. Prop.	Headwater El. Exist. Prop.			
Design	15	1165	219.5 205.4	485.68 485.27	0.00 0.00	485.68 485.27			
Base	100	1890	272.1 291.7	487.62 487.21	0.00 0.00	487.62 487.21			
Overtopping									
Max. Calc.	500	2491	307.6 306.9	488.93 488.52	0.00 0.00	488.93 488.52			

*Note: Proposed structure located 86' downstream from existing structure

GENERAL PLAN & ELEVATION
TOWNSHIP ROUTE 45
COX CREEK
SECTION 01-01111-00-BR
JACKSON COUNTY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 45	01-01111-00-BR	JACKSON	12	5
PROJECT NO. BROS-077(52)		CONTRACT NO. 99310		



NOTES

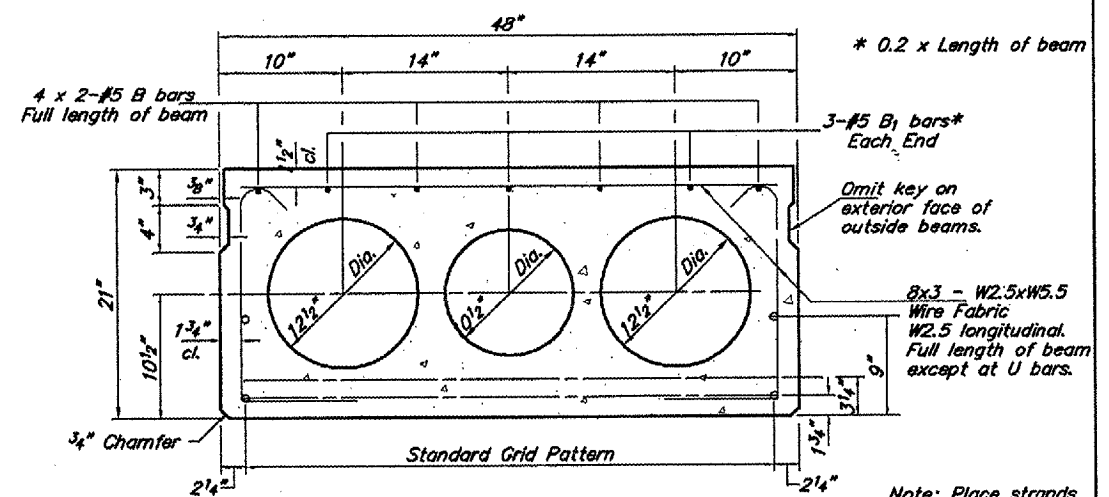
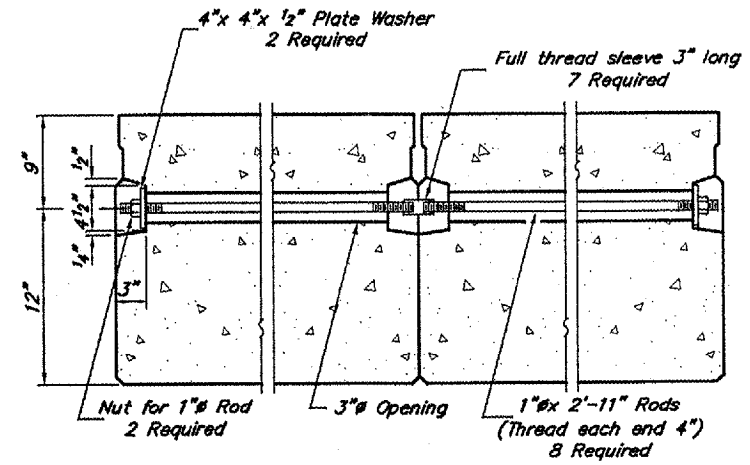
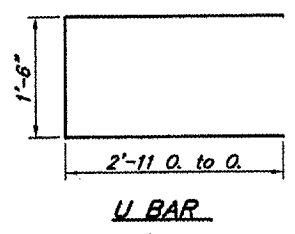
Reinforcement bars shall conform to AASHTO M-31 or M-322, Grade 60.
 Prestressing steel shall be uncoated high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Required release strength, F_{ci} , shall be 4,100 p.s.i.
 An equal substitution of the low-relaxation strands for the stress-relieved strands will be permitted.
 Lifting loops shall be 5/8" diameter, 6x25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 33,000 lbs. or 2-1/2" #270 ksi strands, as shown.
 Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between the top of the beam and the bottom edge of the key.
 The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
 The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
 After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure a minimum of 24 hours prior to grouting the shear keys.
 Nominal 1" joint at \bar{c} Pier shall be filled with non-shrink grout.
 Rail Post Anchor Devices shall be cast into exterior face of outside beams as elsewhere specified.
 Cost of reinforcement and accessories cast into the beam, of bearing pads, and of grouting longitudinal shear keys is incidental to Precast Prestressed Concrete Deck Beams.
 When Waterproofing Membrane System is specified, the top surface of the beams shall be finished in accordance with Article 504.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a min. of 1/4".

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
B	8	#5	25'-8"	—
B ₁	4	#5	10'-0"	—
U	12	#3	6'-2"	—
Precast Prestressed Concrete Deck Beams		Sq. Ft.	1198	

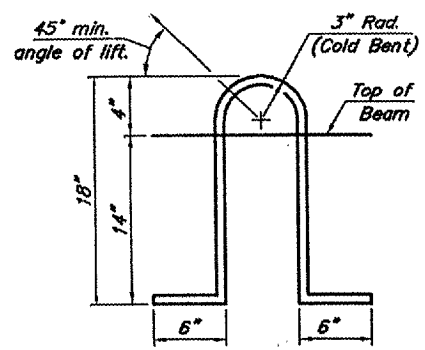
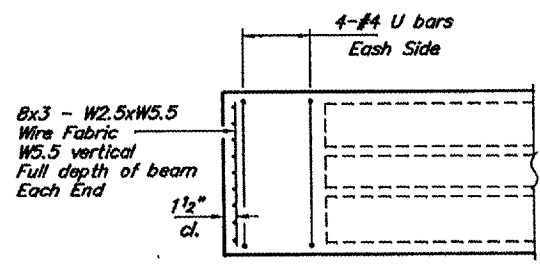
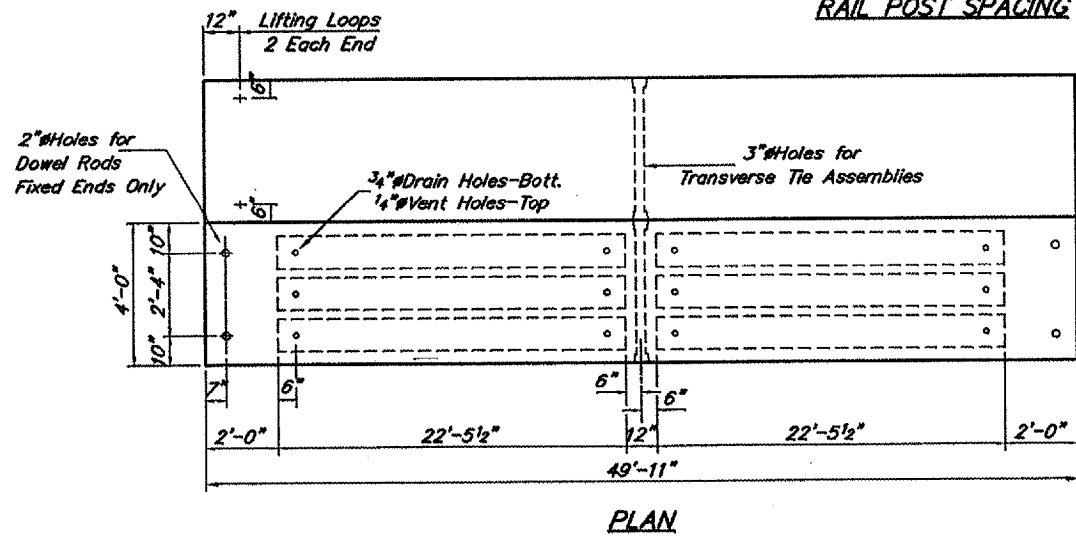
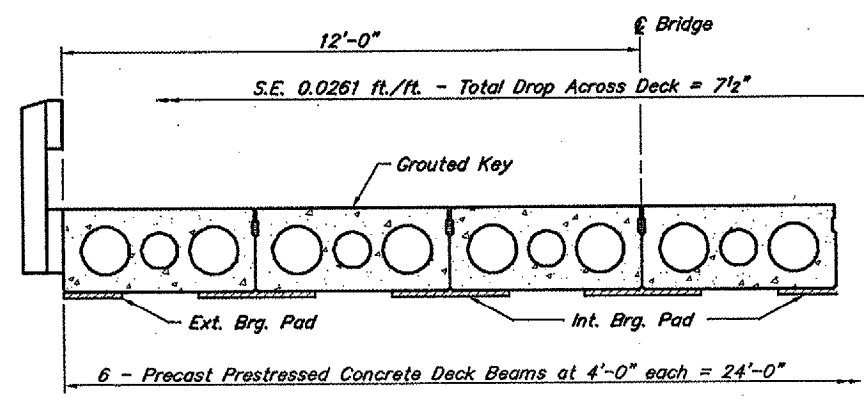
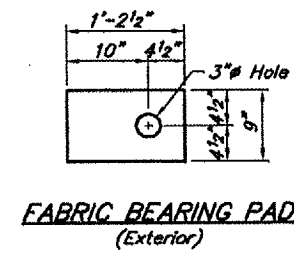
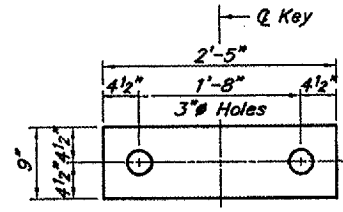
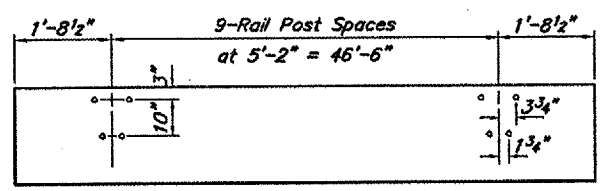
DECK BEAMS 21" X 36"
 TOWNSHIP ROUTE 45
 COX CREEK
 SECTION 01-01111-00-BR
 JACKSON COUNTY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 45	01-01111-00-BR	JACKSON	12	6
PROJECT NO. BROS-077(52)		CONTRACT NO. 99310		



22-1/2" Strands Each Strand Stressed to 28,900 lbs.
 8-Strands 1 3/4" up, 12-Strands 3/4" up,
 2-Strands 9" up.

Note: Place strands symmetrically about Q of beam.



NOTES

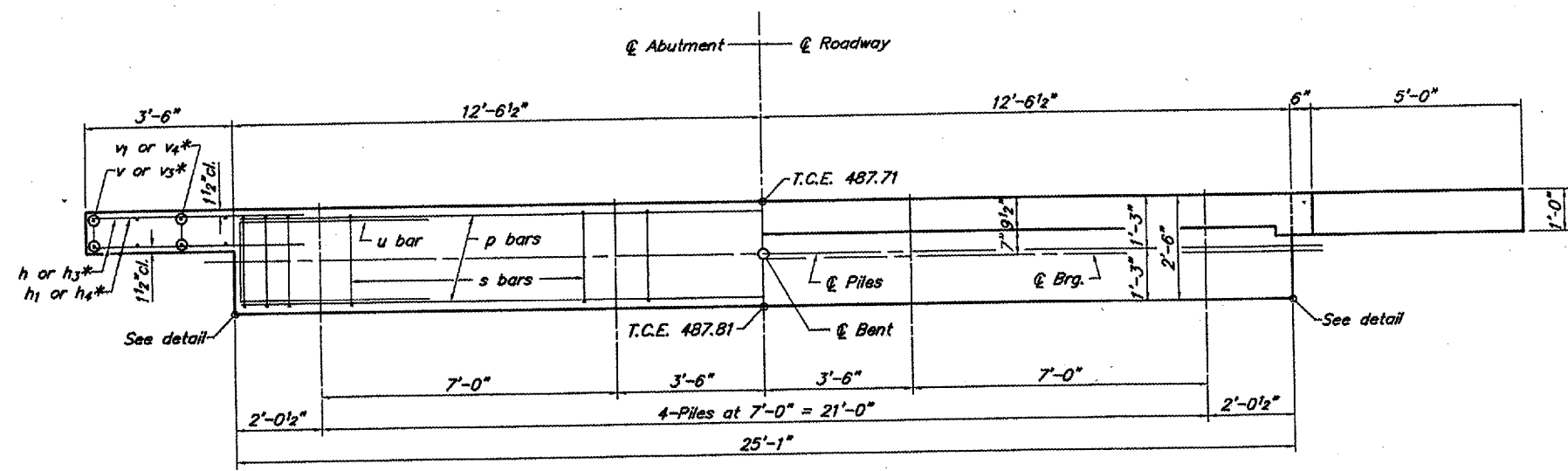
Reinforcement bars shall conform to AASHTO M-31 or M-322, Grade 60.
 Prestressing steel shall be uncoated high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Required release strength, f_{ci}, shall be 4,200 p.s.i.
 An equal substitution of the low-relaxation strands for the stress-relieved strands will be permitted.
 Lifting loops shall be 5/8" diameter, 6x25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 33,000 lbs. or 2-1/2" #270 strands, as shown.
 Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between the top of the beam and the bottom edge of the key.
 The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
 The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
 After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure a minimum of 24 hours prior to grouting the shear keys.
 Nominal 1" joint at Q Pier shall be filled with non-shrink grout.
 Rail Post Anchor Devices shall be cast into exterior face of outside beams as elsewhere specified.
 Cost of reinforcement and accessories cast into the beam, of bearing pads, and of grouting longitudinal shear keys is incidental to Precast Prestressed Concrete Deck Beams.
 When Waterproofing Membrane System is specified, the top surface of the beams shall be finished in accordance with Article 504.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a min. of 1/4".

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
B	8	#5	25'-8"	—
B ₁	6	#5	10'-0"	—
U	16	#4	7'-4"	⊓
Precast Prestressed Concrete Deck Beams		Sq. Ft.	1198	

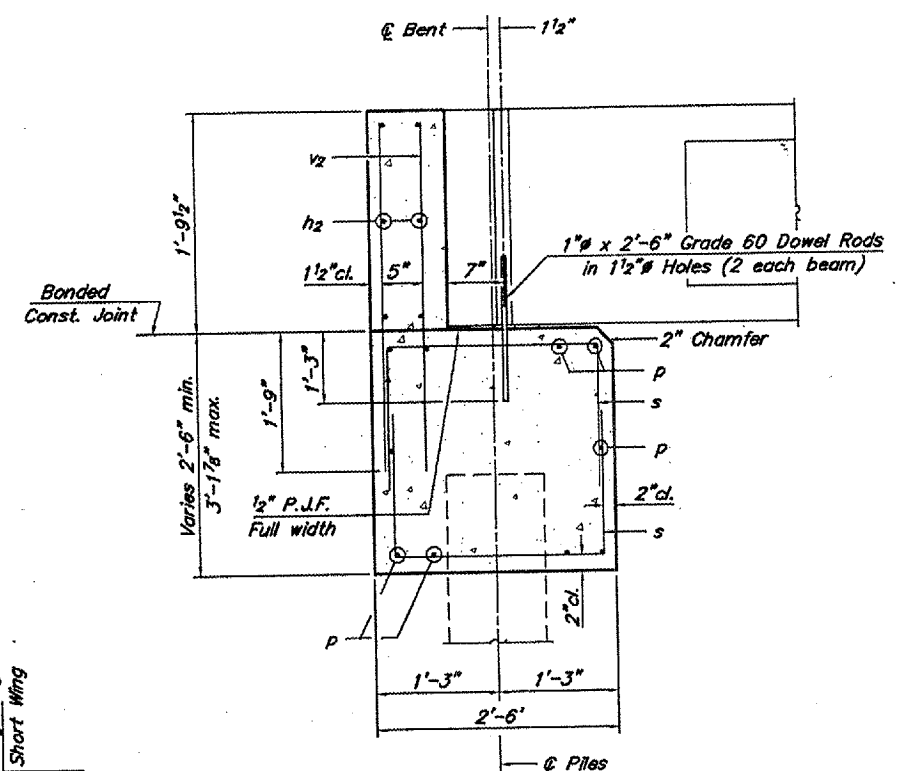
DECK BEAMS 21" X 48"
 TOWNSHIP ROUTE 45
 COX CREEK
 SECTION 01-01111-00-BR
 JACKSON COUNTY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 45	01-01111-00-BR	JACKSON	12	7
PROJECT NO. BROS-077(52)			CONTRACT NO. 99310	

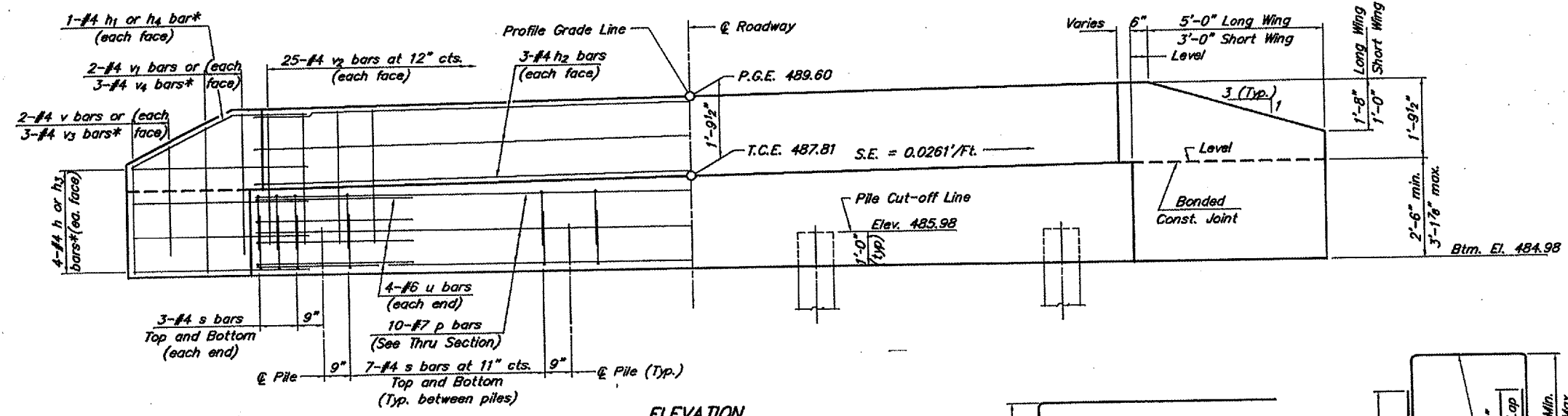


PLAN

* v_1, v_2, h and h_1 bars in short wing
 v_3, v_4, h_3 and h_4 bars in long wing
 (N. Abut. shown. Move backwall and wings across cap for S. Abut.)



SECTION THRU ABUT.
(At Right Angles)



ELEVATION

BILL OF MATERIAL FOR ONE ABUTMENT

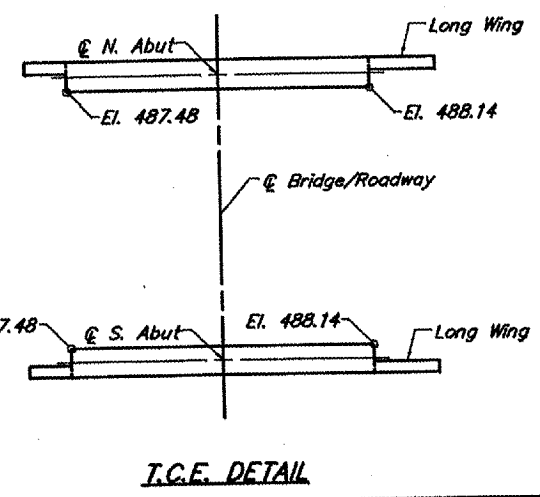
Bar	No.	Size	Length	Shape
h	8	#4	5'-0"	—
h1	2	#4	5'-0"	—
h2	6	#4	24'-9"	—
h3	8	#4	7'-0"	—
h4	2	#4	7'-1"	—
p	10	#7	24'-9"	—
s	54	#4	6'-6"	□
u	8	#6	11'-1"	□
v	4	#4	3'-2"	—
v1	4	#4	3'-11"	—
v2	50	#4	3'-5"	—
v3	6	#4	3'-10"	—
v4	6	#4	4'-7"	—
Concrete Structures			9.3	Cu. Yds.
Reinforcement Bars			1220	Lbs.

NOTES

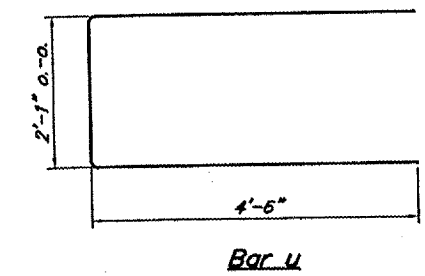
- The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
- Reinforcement bars shall conform to A.A.S.H.T.O. M-31, M-42 or M-53, Grade 60.

DESIGN STRESSES

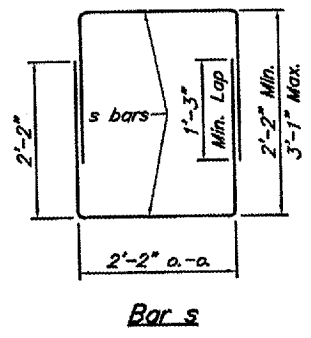
$f_c = 3,500$ psi
 $f_y = 60,000$ psi



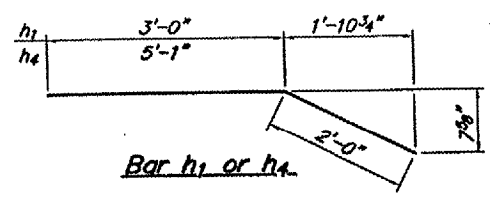
T.C.E. DETAIL



Bar u



Bar s



Bar h1 or h4

ABUTMENTS
 TOWNSHIP ROUTE 45
 COX CREEK
 SECTION 01-01111-00-BR
 JACKSON COUNTY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 45	01-01111-00-BR	JACKSON	12	8

PROJECT NO. BROS-077(52) CONTRACT NO. 99310

NOTES

Hot rolled structural steel tubing shall conform to the requirements of ASTM designation A500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft.-lbs. at 0° F.
 All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270 Grade 50.

Bolts, cap screws, and nuts shall conform to the requirement of ASTM designation A307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M-111 and ASTM A 385. Galvanized rail shall not be painted.

Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for STEEL RAILING, TYPE S-1.

For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with STEEL RAILING, TYPE S-1.

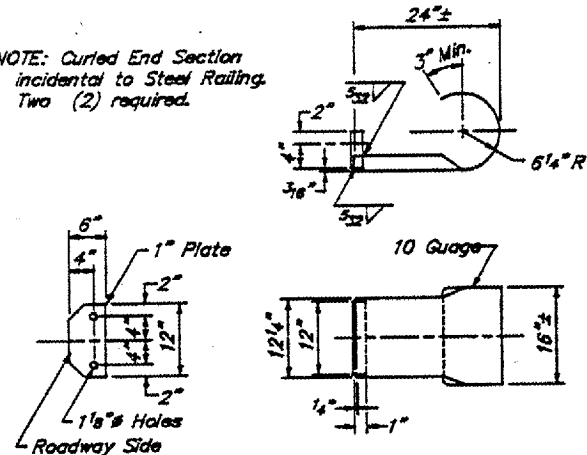
All field drilled holes shall be coated with an approved zinc rich paint before erection.

The 1/2" x 7" x 6" plates that come in contact with concrete shall either receive two coats of asphalt paint conforming to Section 1060.07 Type II, or 1/2" fabric bearing pads shall be placed between the plates and concrete.

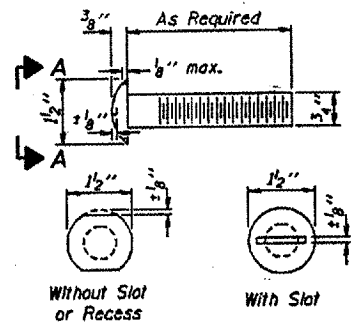
The 3/4" high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04 (IX2) of the Standard Specifications. The 1" high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/2 turn. The 5/8" cap screws in bottom of posts shall be tightened to a snug fit only.

The maximum allowable rail post spacing shall be 10'-6". The rail post spacing shown elsewhere in the plans is based on the allowable spacing for another type of rail. When this type of rail is used, the number of posts may be decreased and the post spacing increased to provide equal post spaces of 10'-6" or less.

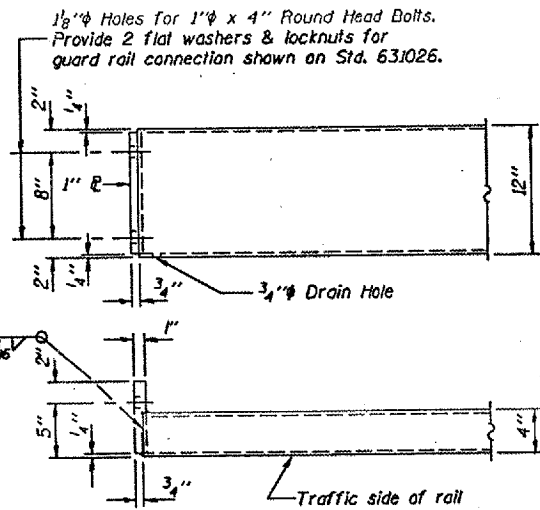
NOTE: Curled End Section incidental to Steel Railing. Two (2) required.



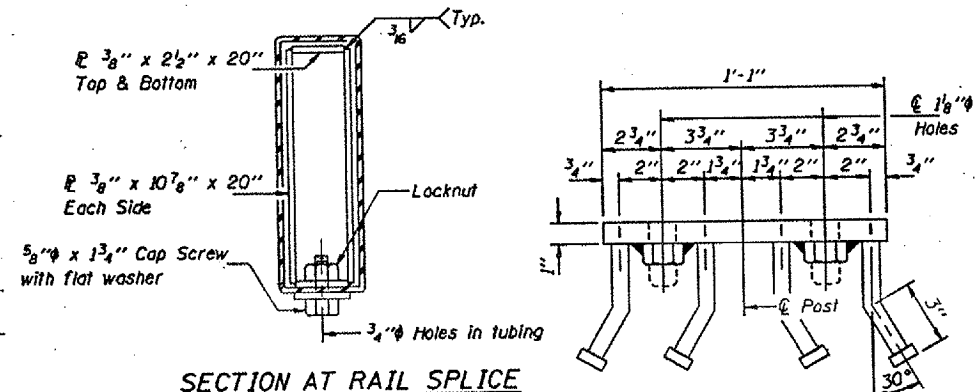
CURLED END SECTION DETAILS



**VIEW A-A
ROUND HEAD BOLT**

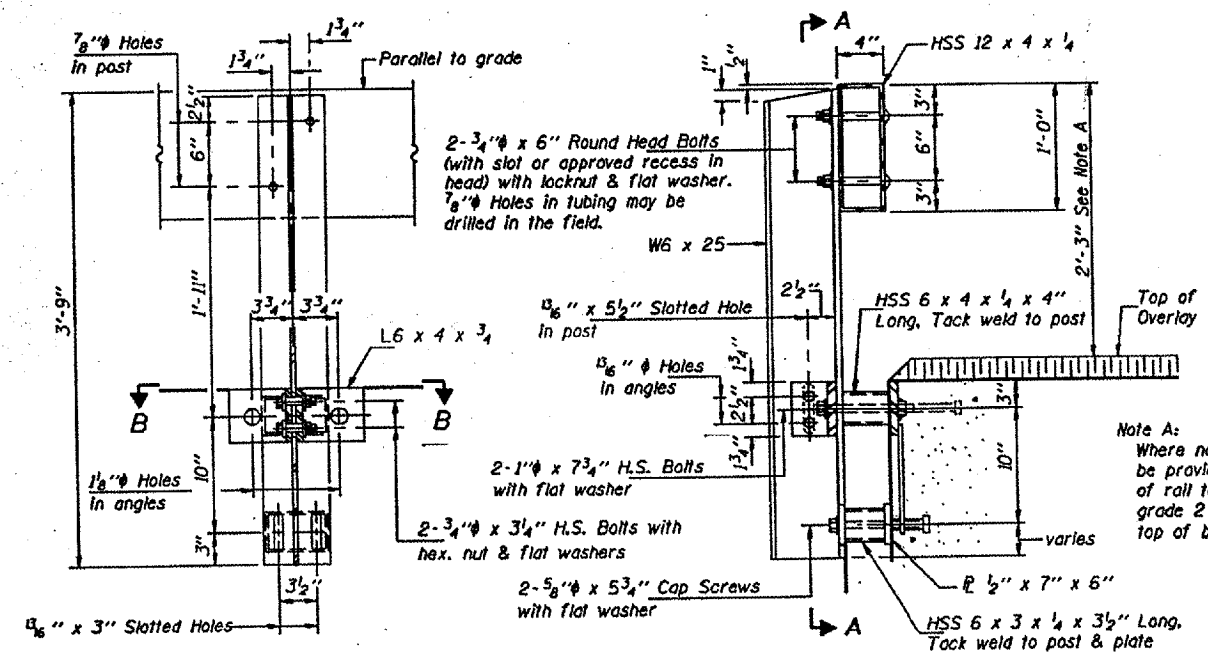


END OF RAIL DETAILS



SECTION AT RAIL SPLICE

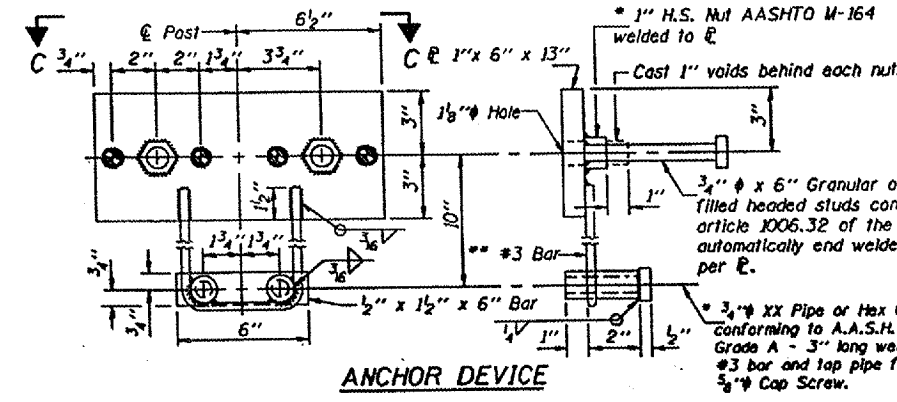
VIEW C-C



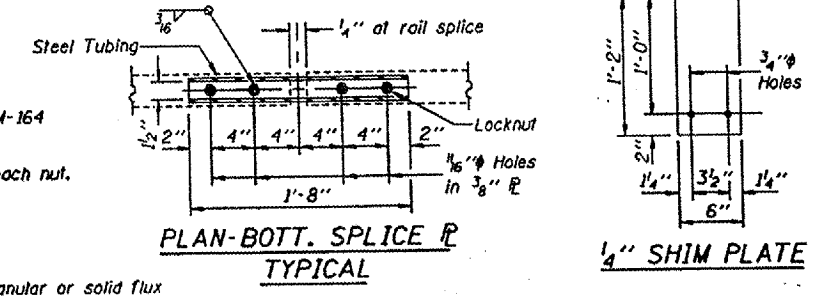
SECTION A-A

SECTION AT RAIL POST

Note A: Where no overlay is to be provided, adjust top of rail to lay parallel to grade 2'-5" max. above top of beam.
 ** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



ANCHOR DEVICE



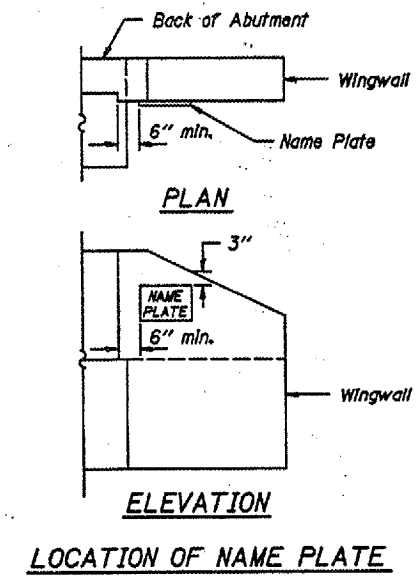
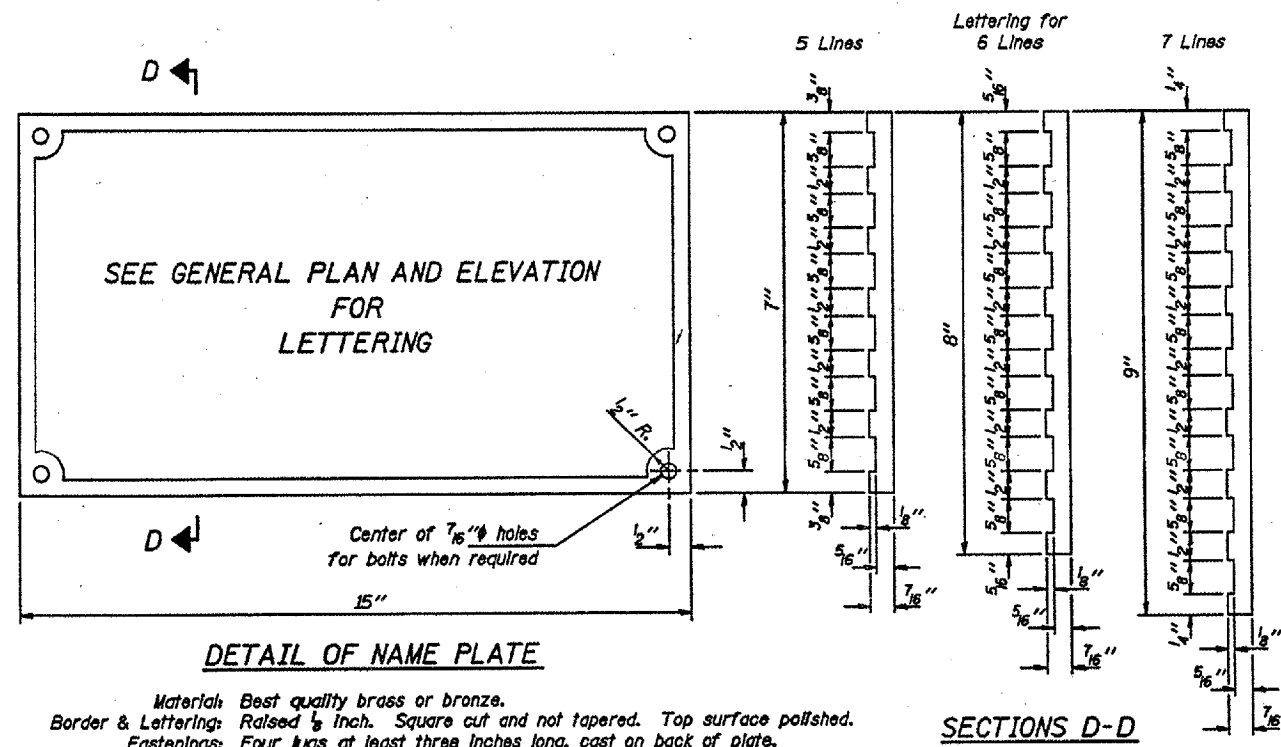
**PLAN-BOTT. SPLICE P
TYPICAL**

1/4\"/>

Illinois Department of Transportation
 PASSED APRIL 4, 2005
 Approved by: [Signature]
 APPROVED APRIL 4, 2005
 Approved by: [Signature]

**STEEL RAILING, TYPE S-1
STANDARD CR-TS1**

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 45	01-01111-00-BR	JACKSON	12	9
PROJECT NO. BROS-077(52)			CONTRACT NO. 99310	



Illinois Department of Transportation

PASSED APRIL 4, 2005

Thomas S. Nims (Signature)

Engineer of Bridge Design

APPROVED APRIL 4, 2005

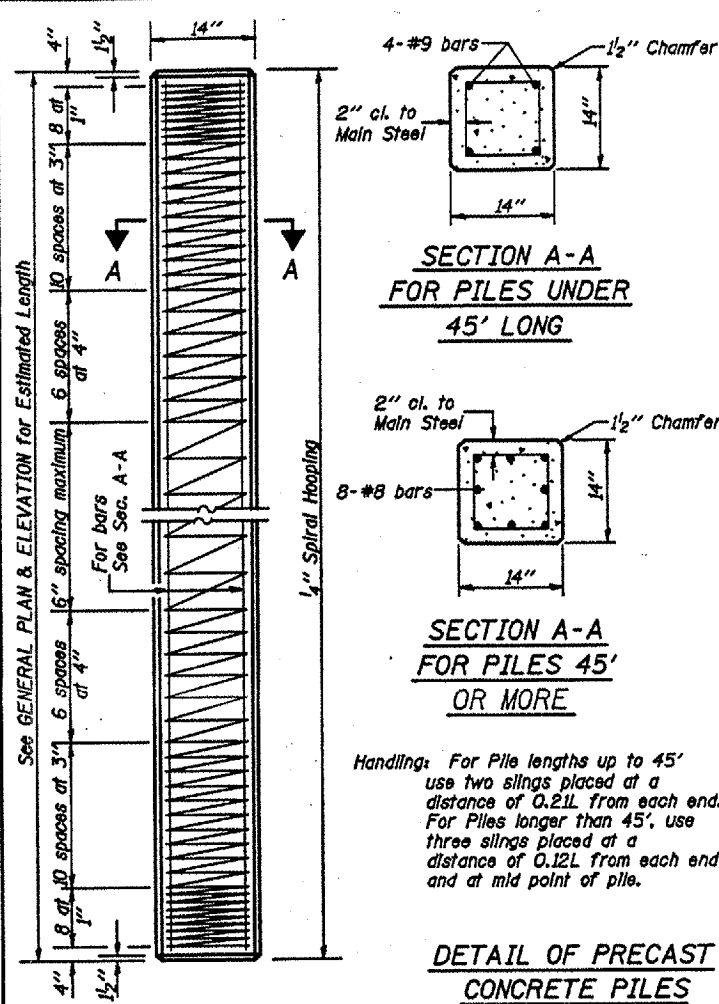
Robert E. Quinn (Signature)

Engineer of Bridge and Structures

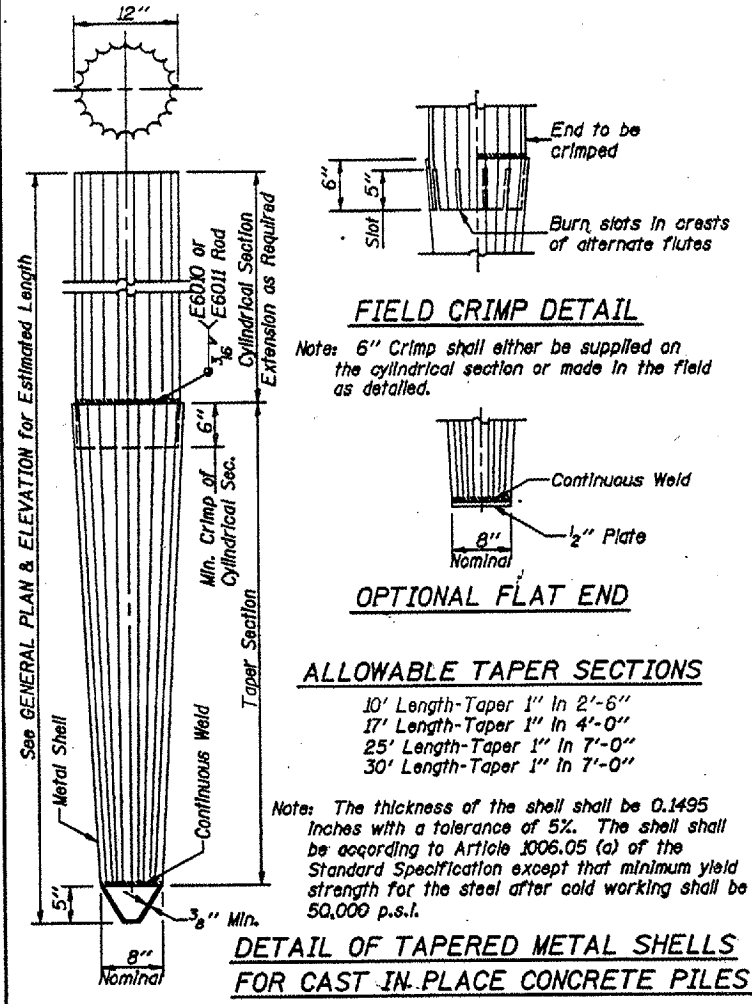
NAME PLATE

STANDARD CN

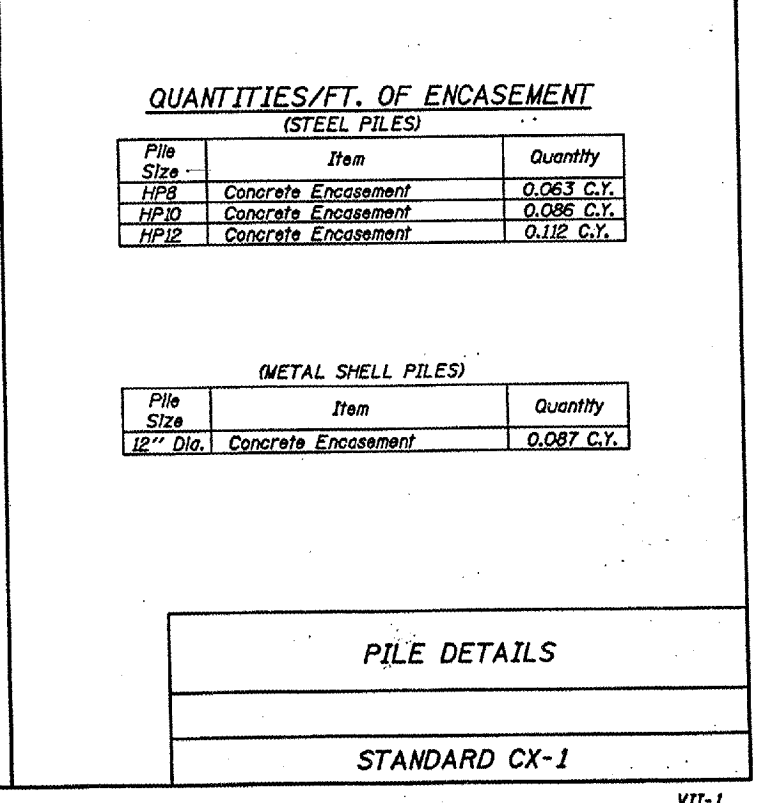
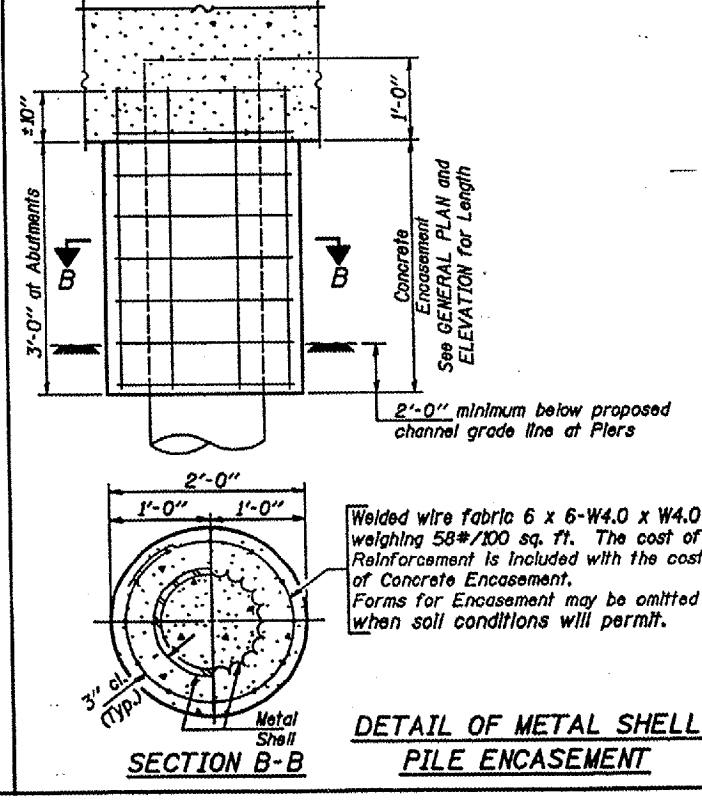
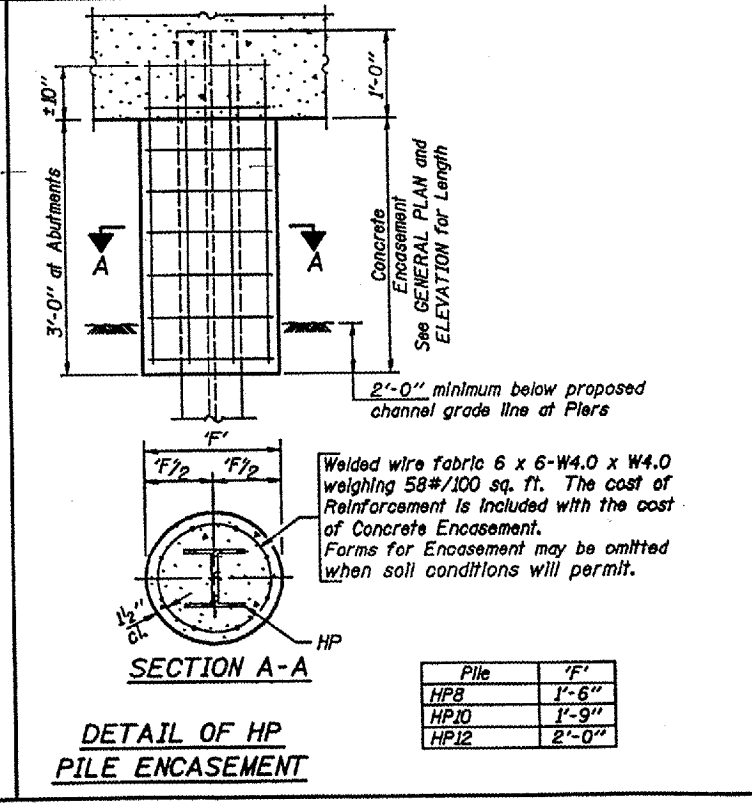
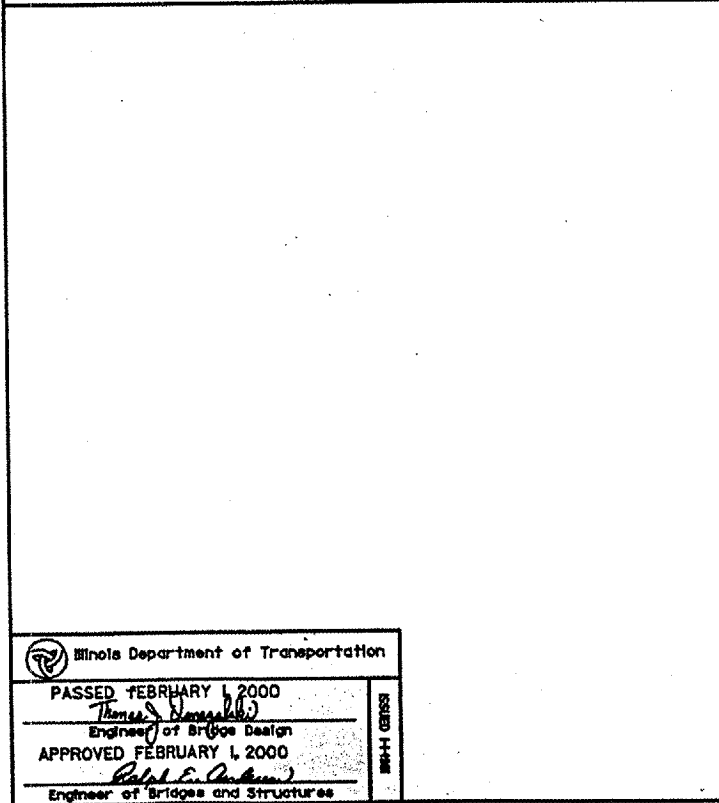
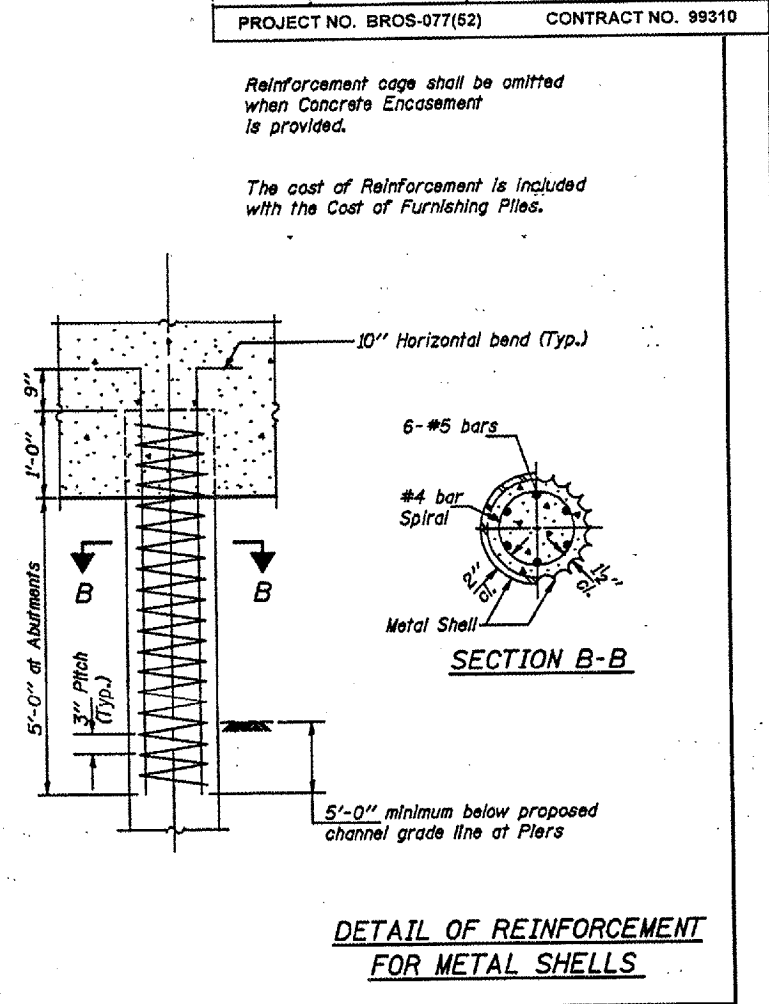
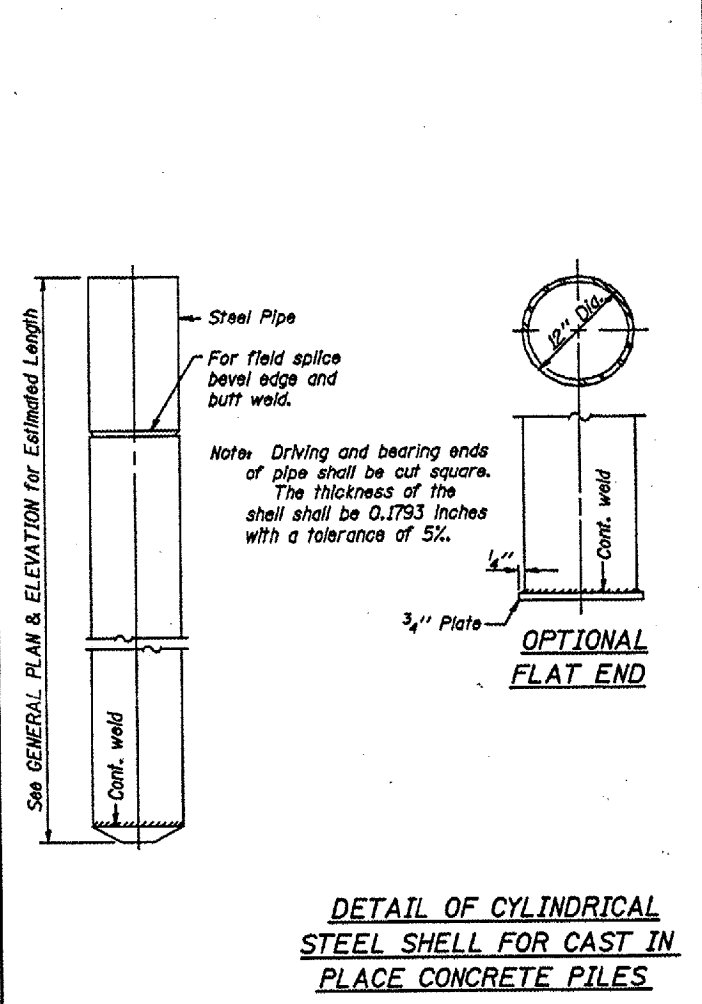
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 45	01-01111-00-BR	JACKSON	12	10
PROJECT NO. BROS-077(62)			CONTRACT NO. 99310	



DETAIL OF PRECAST CONCRETE PILES



DETAIL OF TAPERED METAL SHELLS FOR CAST-IN-PLACE CONCRETE PILES



Illinois Department of Transportation
 PASSED FEBRUARY 1, 2000
 Approved by: [Signature]
 APPROVED FEBRUARY 1, 2000
 Approved by: [Signature]
 Engineer of Bridges and Structures

