

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 11	05-04122-00-BR	JASPER	14	4
CONTRACT NO. 95491		ILLINOIS	PROJECT BROS-079(133)	

GENERAL NOTES

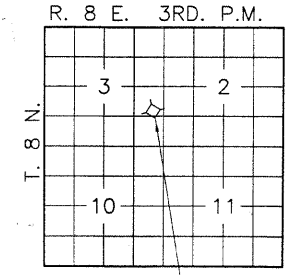
- The Contractor shall drive test pile to 110% of the nominal required bearing specified in production locations at East abutment or approved by the Engineer before ordering the remainder of piles. The test pile shall come equipped with a pile shoe.
- See Bridge Plan Sheet 8 for boring logs.
- A Corrosion inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
- Concrete sealer shall be applied to exterior face of each fascia beam.
- Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
- The Steel H-piles shall be according to AASHTO M270 Grade 50.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Fr 60 (IL Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Removal of Existing Structures	Each				1
Concrete Structures	Cu.Yds.			32.0	32.0
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq.Ft.	2025			2025
Steel Railing, Type S-1	Foot	150			150
Reinforcement Bars	Pound			3120	3120
Furnishing Steel Piles HP 10 X 42	Foot			270	270
Driving Piles	Foot			270	270
Test Pile Steel HP 10 X 42	Each			1	1
Pile Shoes	Each			9	9
Name Plates	Each			1	1
Concrete Encasement	Cu.Yds.			3.6	3.6
Aggregate Base Course, Type B	Tons			60	60
Stone Dumped Riprap, Class A-4	Tons			250	250
Channel Excavation	Cu.Yds.			270	270
Perimeter Erosion Barrier	Foot			250	250

INDEX OF SHEETS

- General Plan & Elevation
- Superstructure
- Superstructure Details
- Steel Railing, Type S-1
- West Abutment Details
- East Abutment Details
- Pile Details
- Boring Logs



LOCATION SKETCH

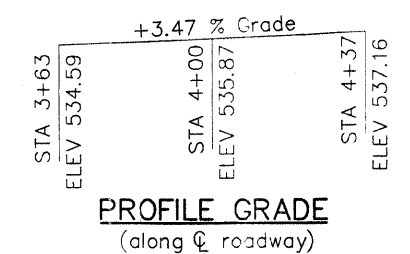
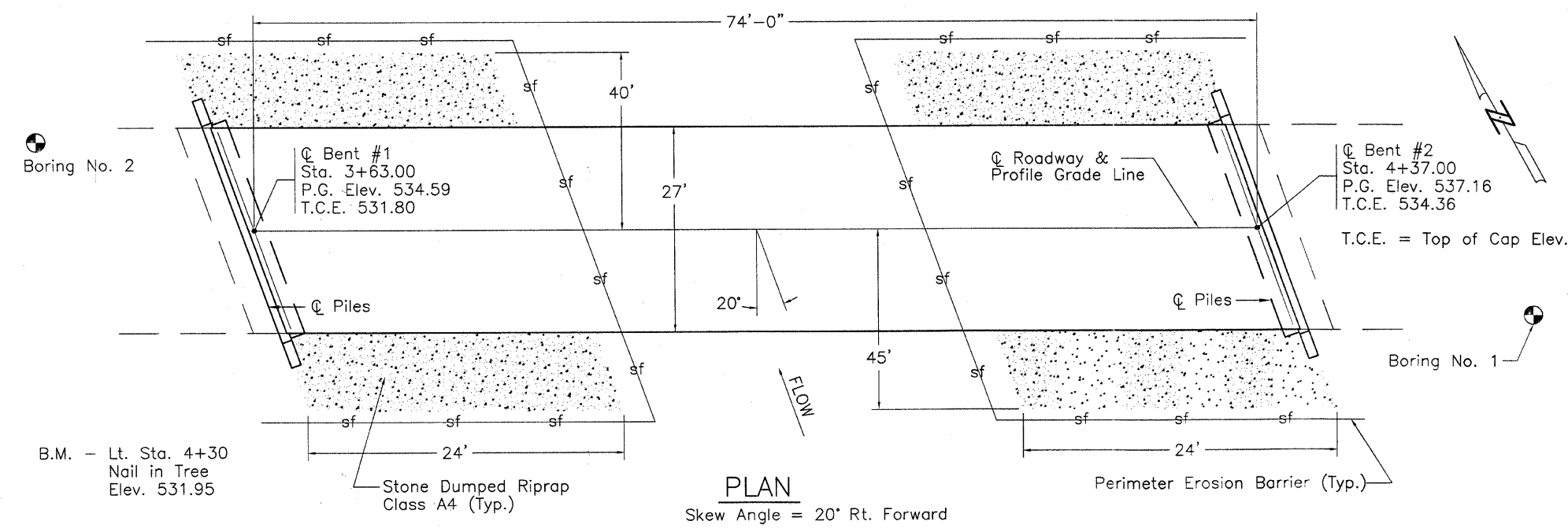
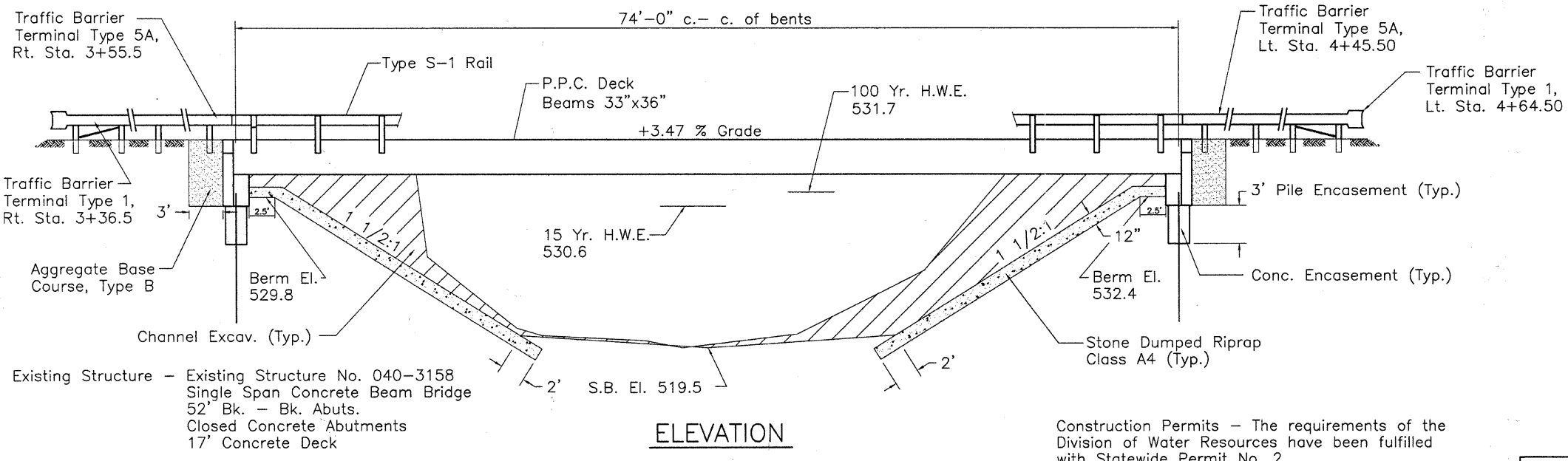
STATION 4+00.00
ISLAND CREEK
SEC. 05-04122-00-BR BUILT 201
JASPER COUNTY
PROJECT BROS-079(133)
LOADING HL93
STR. NO. 040-3254

LETTERING FOR NAME PLATE

Locate Name Plate at S.W. corner
Corner of Bridge (See Std. 515001)

I certify that to the best of 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.

N. Z. Kraddin
12-18-2011



Salvage - Any material deemed salvageable by the Engineer shall be stockpiled on the R.O.W. and shall become the property of the Grove Road District Commissioner. The Contractor shall dispose of all remaining material.

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications - 4th ed.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.210g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.500g
Soil Site Class = D

DESIGN STRESSES

FIELD UNITS
 f'_c = 3,500 psi
 F_y = 60,000 psi (reinforcement)

PRECAST PRESTRESSED UNITS

f'_c = 6,000 psi
 f'_{ci} = 5,000 psi
 F'_s = 270,000 psi ($1/2$ " low relax. strands)
 F_{si} = 201,960 psi ($1/2$ " low relax. strands)

PILE DATA

Type	HP 10 X 42
Nominal Required Bearing	325 kips
Factored Resistance Available	170 kips
Estimated Pile Length	30 Feet
Number of Production Piles	9
Number of Test Piles	1
Pile Shoes	9

WATERWAY INFORMATION

Drainage Area = 15.6 Sq. Mi.		Low Grade Elev. = 530.8 @ Sta. 2+00				
Flood	Freq. Yr.	Q ft ³ /s	Opening ft ²	Nat. H.W.E.	Head - ft	Headwater
		Exist.	Prop.	Exist.	Exist.	Prop.
Design	15	1895	370 481	530.6	0.2 0.1	530.8 530.7
Base	100	2990	424 552	531.7	0.4 0.1	532.1 531.8
Overtopping						
Max. Calc.	500					

GENERAL PLAN & ELEVATION

T.R. ROUTE 11
OVER ISLAND CREEK

SECTION 05-04122-00-BR
JASPER COUNTY
STATION 4+00.00