

**BENCH MARK**

R.R. Spike in P.P. on E. Side of IL Rte. 78,  
(±) 1500' south of Bridge. Elev. 742.88

Existing Structure: SN 043-0040 was built in 1982 as FA Rte 642 Section 10 BR-3 at Sta. 779+14.00

The structure consist of two simple span PPC Deck Beams on pile bent abutments and solid pier on spread footing.

The back to back abutment dimension is 155'-6" while the out to out width measures 36'-0".

The wearing surface of the existing superstructure is to be replaced with 5" (min.) concrete wearing surface.

Traffic is to be maintained by utilizing Stage construction.

One lane of traffic for both direction will be provided.

No salvage.

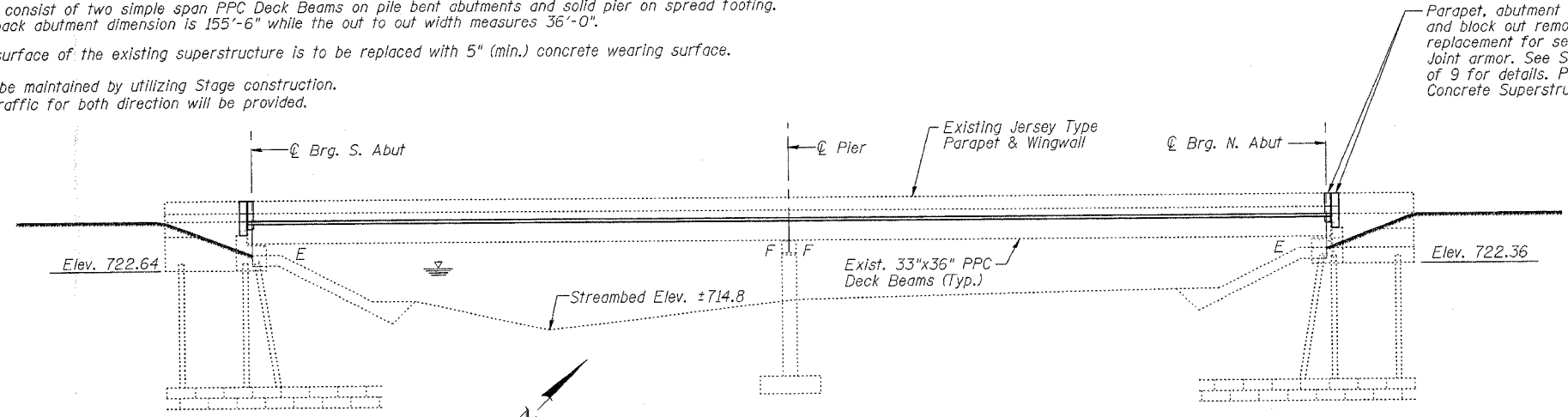
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO.
78	10 BR-3D & 11BR-8	JO DAVIESS	45	19	9 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract # 64B27

**Index of Sheets**

1. General Plan & Elevation
2. Construction Staging
3. Superstructure Plan
4. Superstructure Details - 1
5. Bridge Joint System - Expansion (Preformed Joint Seal)
6. Bridge Joint System - Expansion (Alternate - Strip Seal)
7. Substructure Concrete Removal, Repair & Details
8. North & South Abutment Details
9. Bar Splicer



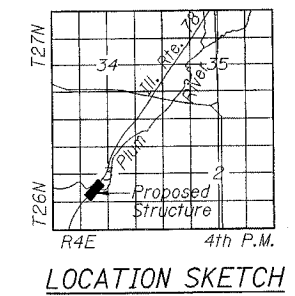
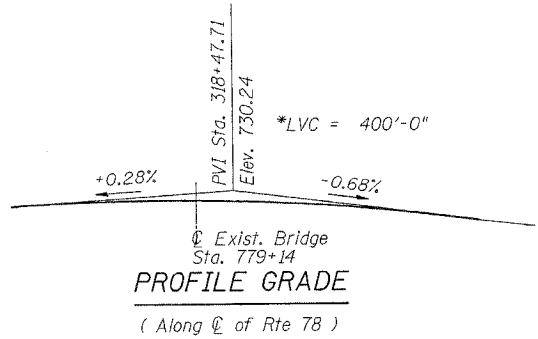
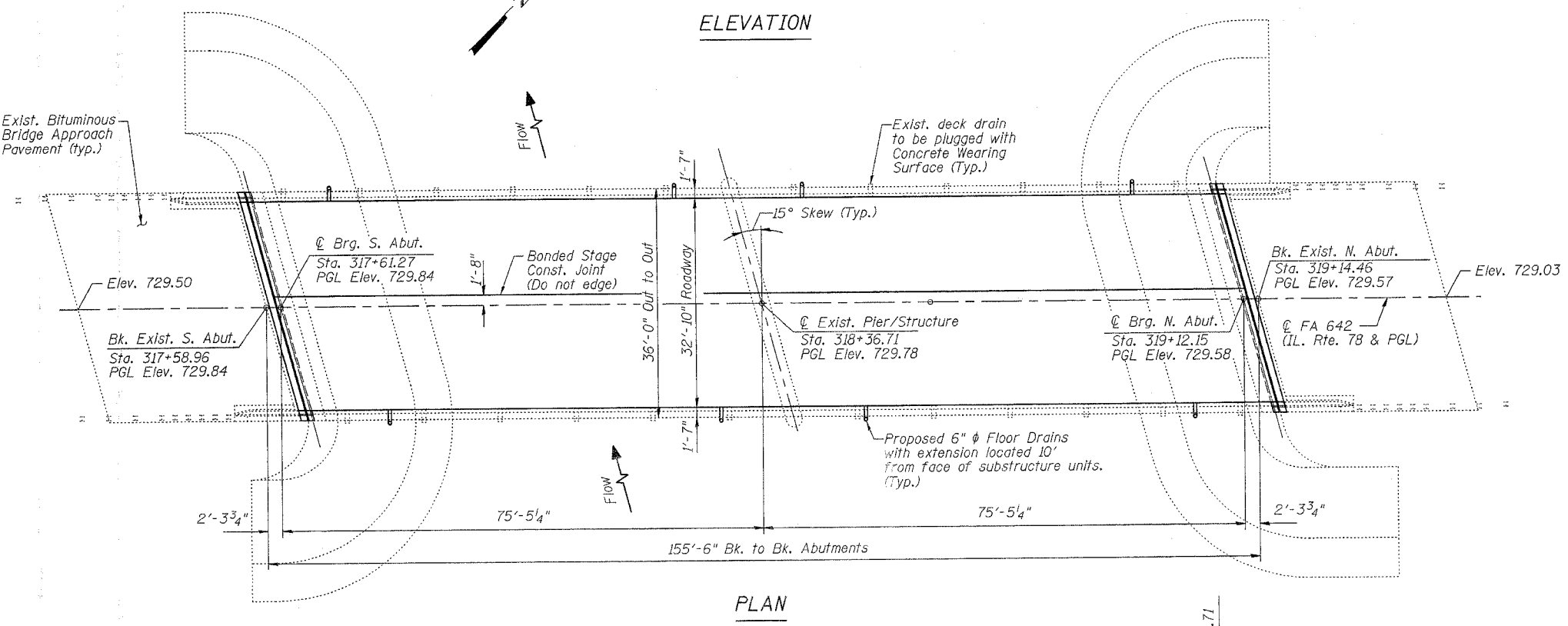
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	2.1	6.0	8.1
Concrete Structure	Cu. Yd.	-	6.3	6.3
Concrete Superstructure	Cu. Yd.	2.7	-	2.7
Formed Concrete Repair (D>5")	Sq. Ft.	-	21.0	21.0
Reinforcement Bars, Epoxy Coated	Pound	7350	780	8130
Concrete Wearing Surface, 5"	Sq. Yd.	548.5	-	548.5
Bridge Deck Grooving	Sq. Yd.	515	-	515
Protective Coat	Sq. Yd.	556	10	566
Bit. Conc. Surface Removal Complete	Sq. Yd.	555.0	-	555.0
Bar Splicer	Ea.	153	8	161
Bridge Joint System (Expansion) -1"	Foot	74.6	-	74.6
Floor Drains Extension	Each	8	-	8
Floor Drains	Each	8	-	8

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

**DESIGN SPECIFICATIONS**  
2002 AASHTO

**DESIGN STRESSES**  
**NEW & EXISTING CONSTRUCTION**  
**FIELD UNITS**  
f'c = 5,000 psi (concrete wearing surface)  
f'c = 3,500 psi  
fy = 60,000 psi (reinforcement)



STATE OF ILLINOIS  
EFREN M. MIRANDA  
81-3957  
CHICAGO, ILLINOIS  
REGISTERED STRUCTURAL ENGINEER  
Exp. 11/20/04

**GENERAL PLAN & ELEVATION**  
**IL. RTE. 78 OVER**  
**PLUM RIVER**  
**F.A. 642 SECTION (10BR-3)D & 11BR-8**  
**JO DAVIESS COUNTY**  
**STA. 318+36.71**  
**STRUCTURE NUMBER 043-0040**

DESIGNED JPM	200
CHECKED EMM	EXAMINED
DRAWN RLH, JPM	PASSED
CHECKED EMM	ENGINEER OF BRIDGES AND STRUCTURES

Vertical Curve data is only valid from Sta. 317+58.96 to Sta. 319+14.46  
Beyond those limits, see Roadway Plans for bituminous tapes to meet existing grades.