

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAS RTE 1588	*	ADAMS	20	9
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		
* 04-00185-00-BR				

Existing Structure - Single bridge built in 1959. Structure No. 001-3026 at Sta 314+60.75. The structure is a three span, wide flange steel beam bridge with open slab concrete abutments and concrete piers, 191'-6" back to back of abutments, 28'-0" roadway width and 0° skew.

Roadway will be closed during construction. Access to local properties shall be maintained during construction.

No salvage.

BM #1 - RR Spike in Power Pole, 60' Rt. of Sta 312+07, Elevation = 599.54

**SCOPE OF WORK**

1. Remove deck, curbs, railing and top of abutment backwalls.
2. Remove existing rocker expansion bearings at abutments. Replace with elastomeric bearings.
3. Install shear connectors in positive moment areas of beam lines.
4. Construct 7 1/2" deck, top of abutment backwalls, preformed joint seals, steel bridge railing (special) and bridge approach pavements.

**GENERAL NOTES**

Painting of the existing structural steel will not be done under this contract.

All new structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type I.

Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.

Plan dimensions and details relative to existing structure have been taken from existing plans, and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variation shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Two 1/8" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, two 1/8" shims of the dimensions of the top plate shall be provided and placed as detailed.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

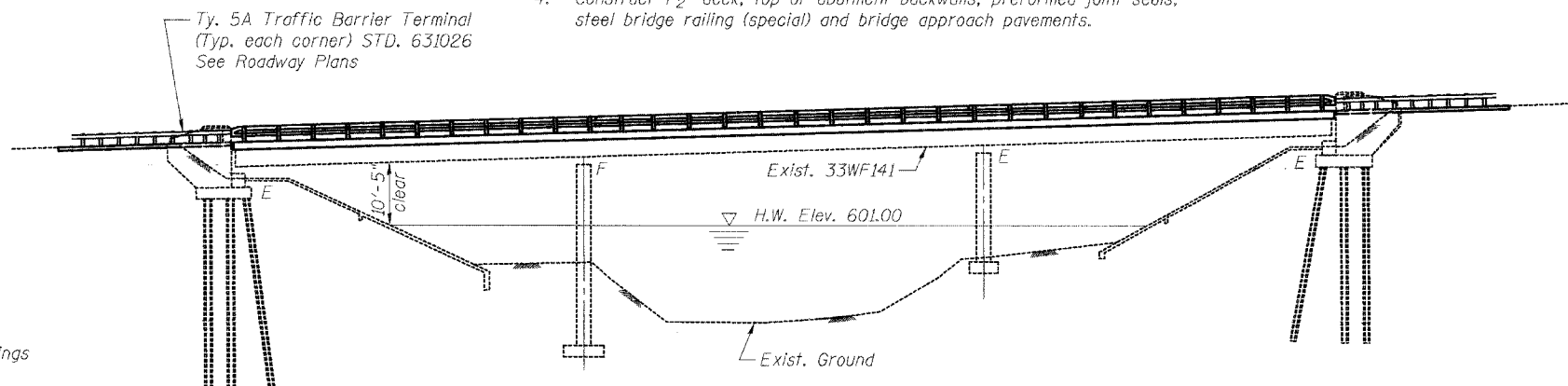
All construction joints shall be bonded.

Prior to pouring the new concrete deck, all loose rust, loose mill scale, and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the pay item "Removal of Existing Concrete Deck". All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04.

The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

**INDEX OF SHEETS**

- 1 General Plan and Elevation
- 2-3 Top of Slab Elevations
- 4-5 Superstructure
- 6 Steel Bridge Rail (Special)
- 7 Structural Steel Details
- 8 Moment & Reaction Tables, Jack and Remove Existing Bearings
- 9 Type I Elastomeric Bearing
- 10 Type II Elastomeric Bearing
- 11 Anchor Bolt Details for Bearings
- 12 Bridge Approach Pavement (Special)



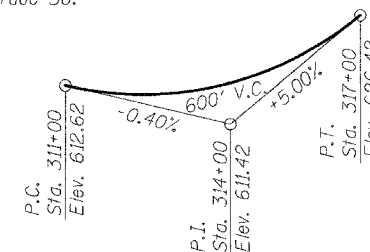
**ELEVATION**

**McKEE CREEK  
REBUILT 200...**  
SEC. 04-00185-00-BR  
PROJECT RS-1588 (106)  
LOADING HS20 STR. NO. 001-3026

Rail Mount Name Plate at Southwest Corner of Bridge (See Plan)

**NAME PLATE**

See Std. 515001 (1 Required)

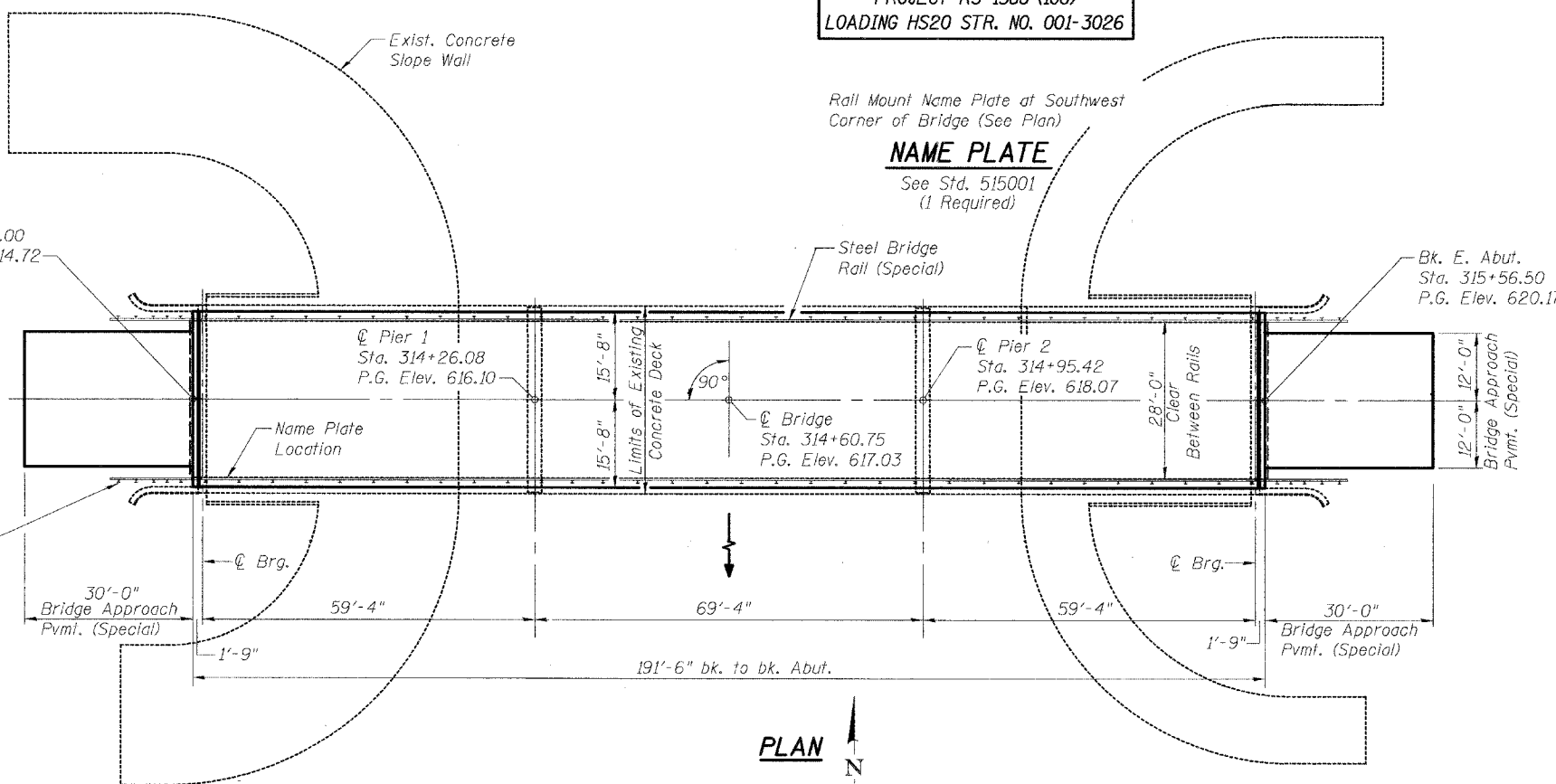


**PROFILE GRADE**

(along & roadway)

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Name Plates	EACH	1		1
Removal of Existing Concrete Deck	EACH	1		1
Protective Coat	SQ YD	658		658
Elastomeric Bearing Assembly Type I	EACH	6		6
Elastomeric Bearing Assembly Type II	EACH	6		6
Concrete Superstructure	CU YD	148.6		148.6
Stud Shear Connectors	EACH	2,718		2,718
Reinforcement Bars, Epoxy Coated	POUND	34,370		34,370
Preformed Joint Seal 2 1/2"	FOOT	31.5		31.5
Preformed Joint Seal 4"	FOOT	31.5		31.5
Bridge Deck Grooving	SQ YD	658		658
Concrete Removal	CU YD	3.5		3.5
Jack and Remove Existing Bearings	Each	12		12
Steel Bridge Rail (Special)	FOOT	383		383
Bridge Approach Pavement (Special)	SQ YD	160		160



**PLAN**

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.043  
Site Coefficient (S) = 1.0

**DESIGN SPECIFICATIONS**

17th Edition - 2002 AASHTO  
Load Factor Design  
**LOADING HS 20-44**  
Allow 50#/sq. ft. for future wearing surface.

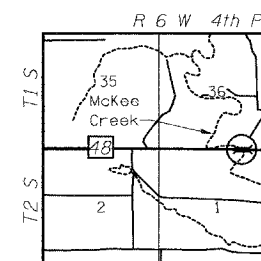
**DESIGN STRESSES**

**FIELD UNITS**  
f'c = 2500 psi (existing)  
f'c = 3500 psi (new)  
fy = 60,000 psi (reinf.)  
fs = 18,000 psi (Existing Structure)

"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'."



Alan D. Lukens 4/14/04  
Alan D. Lukens  
Licensed Structural Engineer  
State of Illinois No. 081-005167  
License Expires November 30, 2004



**LOCATION SKETCH**



**Engineers / Architects**  
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Internet Address: www.klingner.com  
STATE OF ILLINOIS DESIGN FIRM # 1642738

REV. NO.	DRAWN	CHECKED	APPD.	DESCRIPTION	DATE
	BGJ				03/04

**F.A.S. RTE. 1588 OVER MCKEE CREEK  
SECTION 04-00185-00-BR  
Project RS-1588 (106)  
ADAMS COUNTY**

**GENERAL PLAN AND ELEVATION  
STRUCTURE NUMBER 001-3026  
STATION 314+60.75**