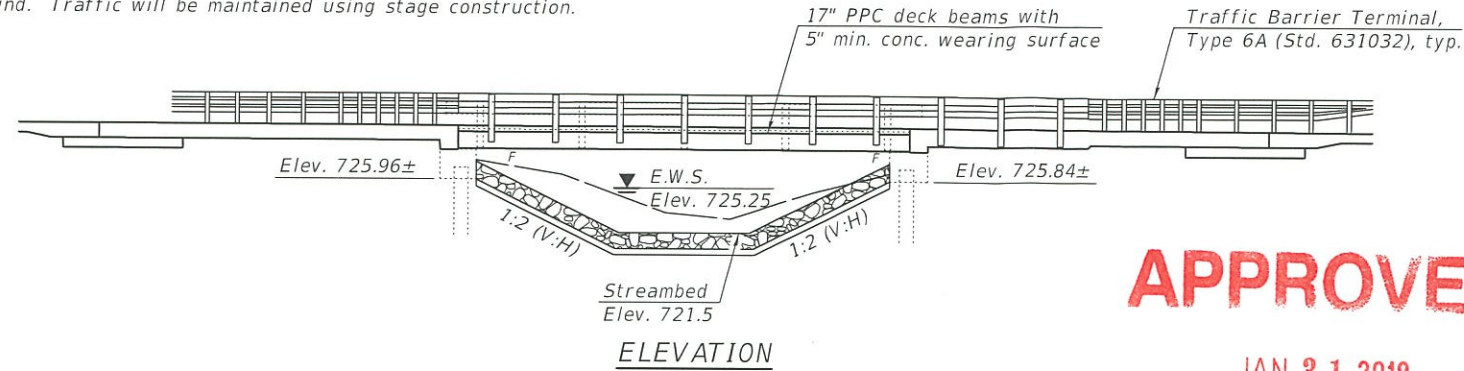


Benchmark: #4482-3 from the intersection of IL Rte. 10 and Duncan Rd., go West on IL Rte. 10 for 0.1 mile to the chiseled square on the top of the Northwest wingwall of Structure No. 010-0247. Elev. 730.12

Existing Structure: Structure No. 010-0247, built in 1983 as F.A.U. Rte. 7123, Section 4BR at Sta. 84+20, resurfaced in 2003 as F.A.P. Rte. 801, Section 4RS-5, is a one span PPC deck beam superstructure supported by pile bent abutments. The clear bridge width is 44'-0". The abutment back-to-back length is 40'-8". The superstructure is to be replaced in-kind. Traffic will be maintained using stage construction.

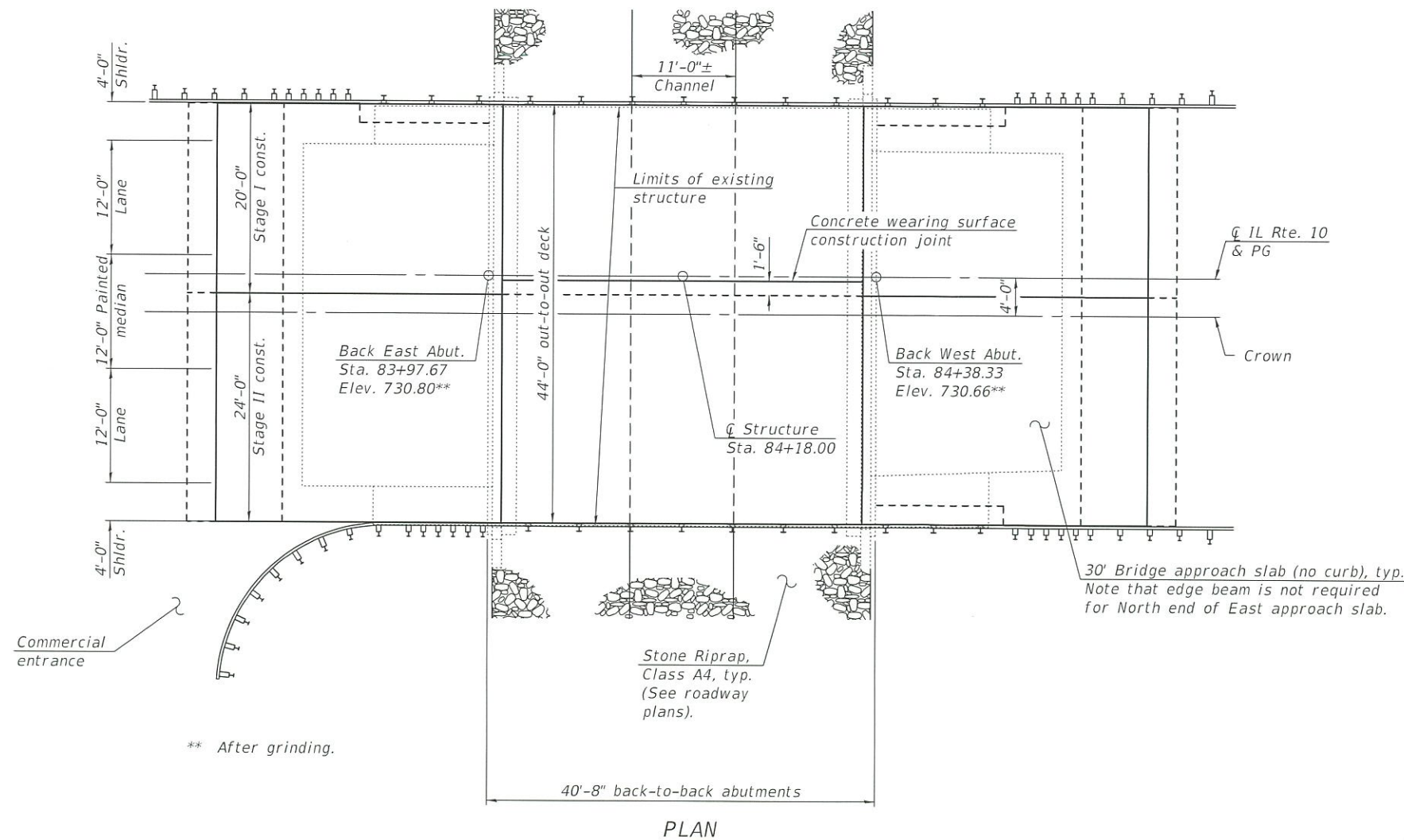
No Salvage.



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**DESIGN SCOUR ELEVATION TABLE**

Event / Limit State	Design Scour Elevations (ft.)		Item
	E. Abut.	W. Abut.	
Q100	725.96	725.84	8
Q200	725.96	725.84	
Design	725.96	725.84	
Check	725.96	725.84	

**DESIGN SPECIFICATIONS**

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

**DESIGN STRESSES**

**FIELD UNITS**

$f'_c = 5,000$  psi (Superstructure)  
 $f'_c = 3,500$  psi (Substructure)  
 $f_y = 60,000$  psi (Reinforcement)

**PRECAST PRESTRESSED UNITS**

$f'_c = 6,000$  psi  
 $f'_{ci} = 5,000$  psi  
 $f_{pu} = 270,000$  psi (1/2"  $\emptyset$  low lax strands)  
 $f_{pbt} = 201,960$  psi (1/2"  $\emptyset$  low lax strands)

**HIGHWAY CLASSIFICATION**

IL Rte. 10 - F.A.P. Rte. 801  
 Functional Class: Other Principal Arterial  
 ADT: 8150 (2017); 9000 (2037)  
 ADTT: 775 (2017); 855 (2037)  
 DHV: 780 (2037)  
 Design Speed: 55 m.p.h.  
 Posted Speed: 45 m.p.h.  
 Two-Way Traffic  
 Directional Distribution: 55:45

**LOADING HL-93**

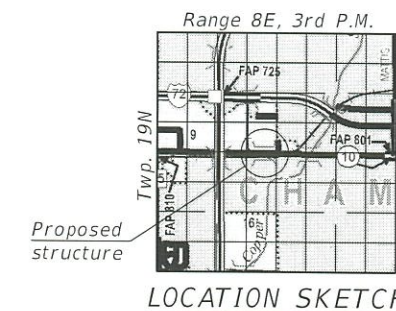
Allow 50#/sq. ft. for future wearing surface.

**SEISMIC DATA**

Seismic Performance Category = A  
 Bedrock Acceleration Coefficient (A) = 0.048 g  
 Site Coefficient (S) = 1.5

Note:

Location of new dowel rods shall be located to miss existing dowel rod locations.  
 Steel railing, Type SM ends at East abutment for NE railing connection to the Traffic Barrier Terminal, Type 6A.  
 Up to 1/4" may be ground off of the concrete wearing surface and the bridge approach slabs.



**GENERAL PLAN & ELEVATION**  
**ILLINOIS ROUTE 10 OVER UNNAMED**  
**TRIBUTARY TO COPPER SLOUGH**  
**F.A.P. ROUTE 801 - SEC. 4BR-2**  
**CHAMPAIGN COUNTY**  
**STATION 84+18.00**  
**STRUCTURE NO. 010-0247**

MODEL: 0100247-70602-TSL-001  
 FILE NAME: pw:\11084EBIDINTEG.illinois.gov\PWIDOT\Documents\IDOT Offices\Bureau of Bridges and Structures\Projects\0100247\CADD\Plans\0100247-70602.dgn

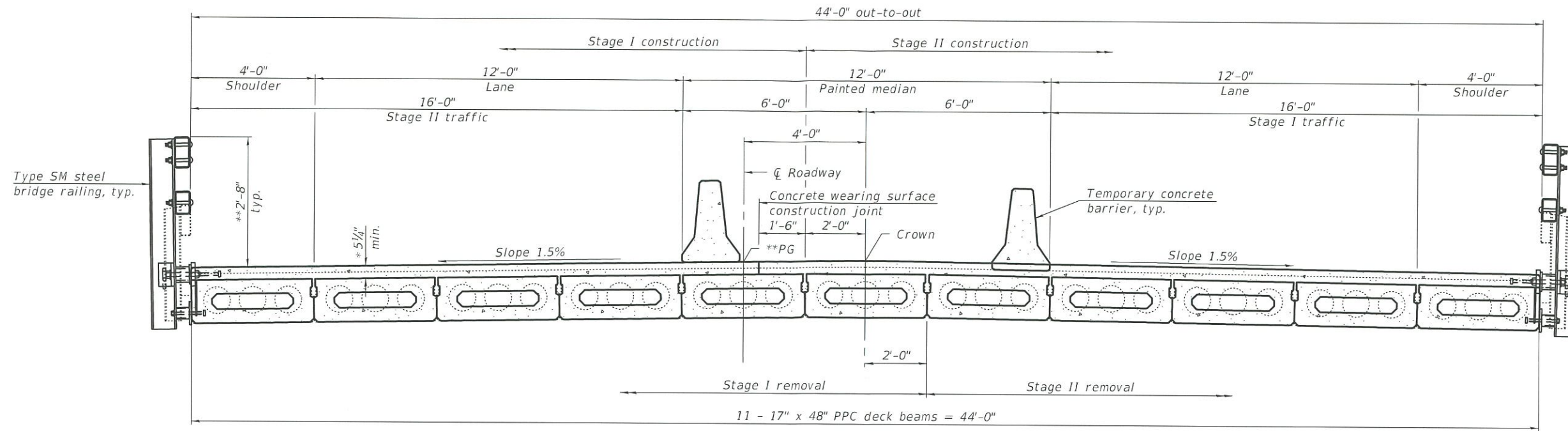
DESIGNED -	NICHOLAS R. BARNETT
CHECKED -	JASON A. KERN
DRAWN -	MICHAEL B. MOSSMAN
CHECKED -	N.R.B./J.A.K.

1/31/2018 - 9:14:07 AM

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

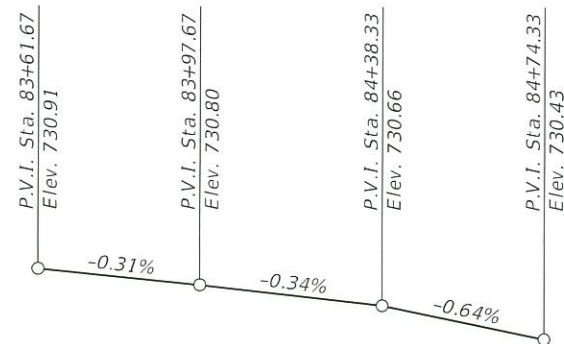
SHEET 1 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
801	4BR-2	CHAMPAIGN	2	1
CONTRACT NO. 70602				
ILLINOIS FED AID PROJECT				



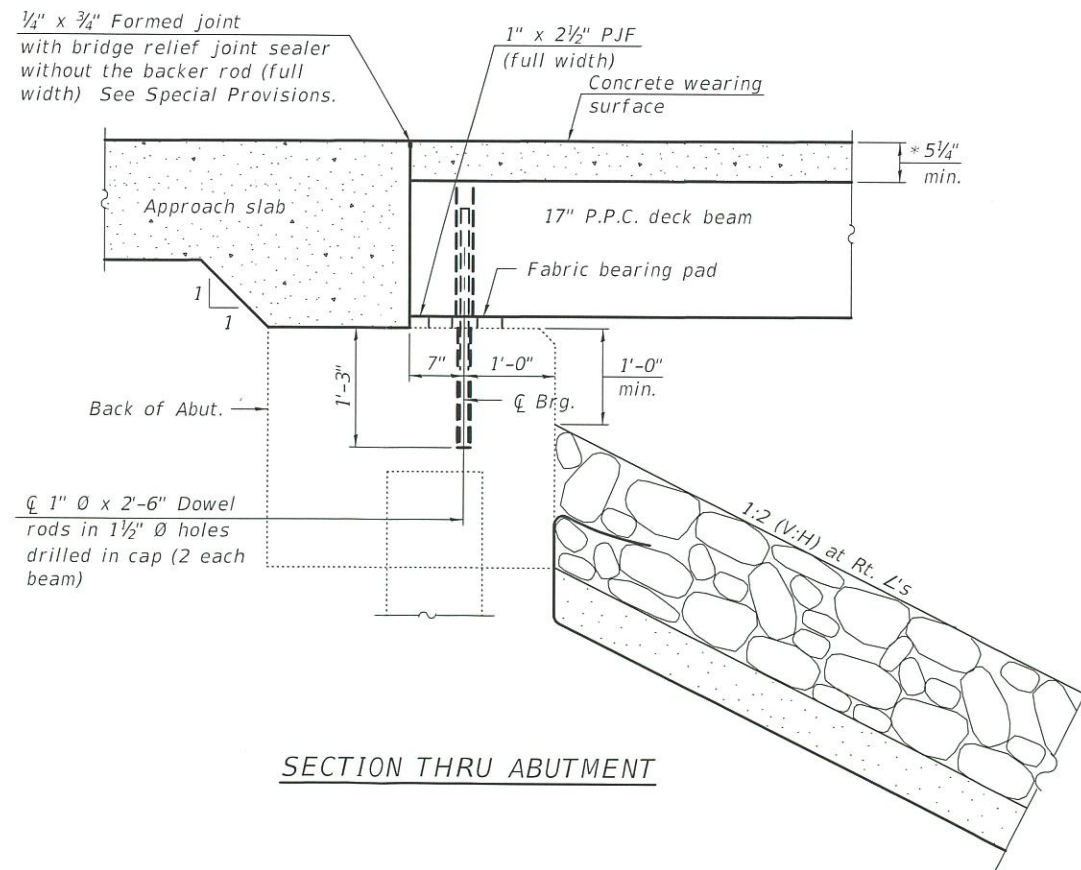
**CROSS SECTION**  
(Looking West)

\* Prior to grinding.  
\*\* After grinding.



**PROFILE GRADE**  
(Along Centerline Roadway)

Note:  
The profile grade shows the final elevations after grinding.



**SECTION THRU ABUTMENT**

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**DETAILS**  
ILLINOIS ROUTE 10 OVER UNNAMED  
TRIBUTARY TO COPPER SLOUGH  
F.A.P. ROUTE 801 - SEC. 4BR-2  
CHAMPAIGN COUNTY  
STATION 84+18.00  
STRUCTURE NO. 010-0247

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SHEET 2 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
801	4BR-2	CHAMPAIGN	---	---
CONTRACT NO. 70602				
ILLINOIS FED. AID PROJECT				