

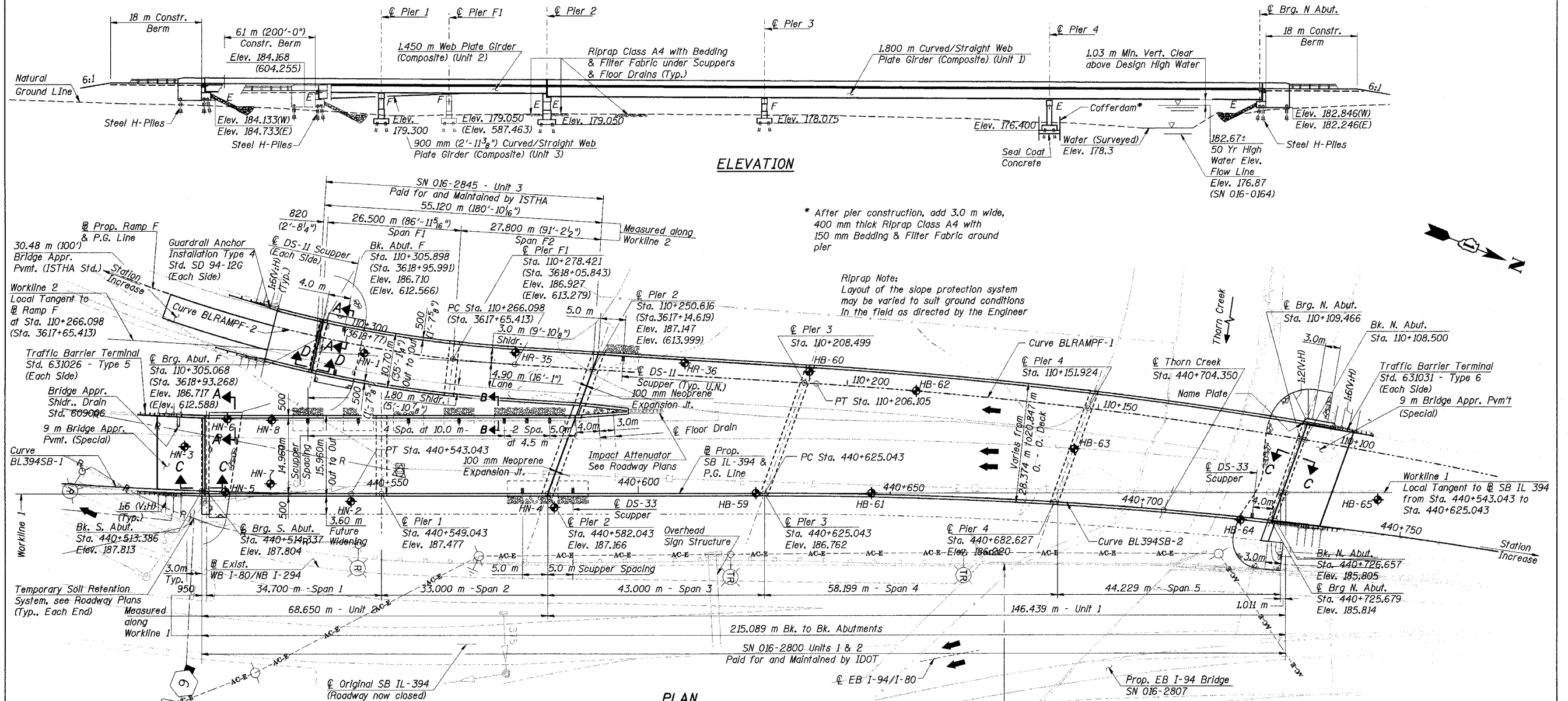
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Staging:  
New bridge to be constructed while WB I-80/NB I-294 and EB I-94/I-80 traffic is maintained on existing bridge (SN 016-0164) and while SB IL-394 traffic has been detoured off the existing bridge to new NB IL-394 pavement.

ROUTE NO. F. A. I. 80/94	SECTION •	COUNTY COOK	TOTAL SHEETS 870	SHEET NO. 515	SHEET NO. 1 91 SHEETS
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT- (0203.1 & 0312-708) R-3			CONTRACT NO. 62108		

Benchmark: TBM #316 Set cut box on foundation of overhead sign truss (C3) NE corner of exit ramp to I-80 westbound; approximately mile marker 74.30 Elev. = 183.274  
Existing Structure: S.N. 016-0164, three-span continuous 39.49 m Bk. to Bk. abutments, variable width from 21.60 m to 23.4 m O. to O. Haunched R.C. slab on multicolumn piers and closed abutments. Built as S.A. Route 66, Sec. 066-0303.1-MFT at Station 4+61.67 (English) in 1945. Bridge was widened in 1969 and deck was rehabilitated in 1995.

Salvage: No salvage.  
Note: All dimensions are in millimeters (mm) except as noted.  
(Dimensions, Stations and Elevations in parenthesis are in English Units.)



**WATERWAY INFORMATION**  
Drainage Area = 274.43 km<sup>2</sup> Prop. Low Grade Elev. 184.80 @ Sta. 440+750

Freq. Yr.	Q m <sup>3</sup> /s	Opening m <sup>2</sup>		Nat. Head-m.		Headwater El.	
		Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
10	124.6		208.7	181.97	0.01	181.98	
Design	50	188.3	276.1	182.67	0.01	182.68	
Base	100	213.5	307.8	182.98	0.01	182.99	
Overtop	100	213.5	---	182.98	---	---	
Max. Calc.	500	280.3	339.6	183.77	0.03	183.82	

**LOADING MS18 & ALT.**  
Allow 2.4 kN/m<sup>2</sup> for future wearing surface.

**DESIGN SPECIFICATIONS**  
2002 AASHTO  
2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges  
Bridge Design Criteria: IDOT except Illinois State Toll Highway Authority, June 2000 with Approved Revisions-Unit 3 only (Ramp F South of Pier 2, excluding Pier 2 Joint)

DESIGNED	DD
CHECKED	PCA
DRAWN	LK/JRB
CHECKED	PCA

**DESIGN STRESSES**  
FIELD UNITS  
f<sub>c</sub> = 24 MPa  
f<sub>s</sub> = 400 MPa (reinforcement)  
f<sub>s</sub> = 345 MPa (structural steel) (M270M Grade 345)  
f<sub>s</sub> = 250 MPa (structural steel) (M270M Grade 250)

**SEISMIC DATA**  
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = .04  
Site Coefficient (S) = 1.0

- LEGEND**
- ◆ Boring
  - Exist. Guardrail
  - Exist. Manhole
  - Exist. Inlet
  - ⊗ Exist. Light Pole
  - Exist. Drainage
  - Exist. Elec. Conduit
  - Exist. Utility Power Pole
  - Exist. Fence

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REGISTERED STRUCTURAL ENGINEER

Philip C. Azzarello 9.9.05  
Ill. Reg. No. 081-004245  
Expires 11-30-06

**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (TSO)  
ENGINEER OF BRIDGES AND STRUCTURES

Notes:  
1. All Work shown on this drawing related to the fabrication of the structural steel and bearings is for information only.  
2. Work this sheet with Sheet No. 3 of 91.

Range 14 E - 3rd PM  
Proposed Structure

**LOCATION SKETCH**

ILLINOIS DEPARTMENT OF TRANSPORTATION  
I-94 EAST BOUND / IL 394 SOUTH BOUND

**GENERAL PLAN & ELEVATION**

SB IL ROUTE 394 / RAMP F OVER THORN CREEK  
F.A.P. 332 SECTION (0203.1 & 0312-708) R-3  
COOK COUNTY  
STA. 440+704.350 STRUCTURE NO. 016-2800/2845  
DATE JUL 18, 2005  
SCALE ---

**HNTB**

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