

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

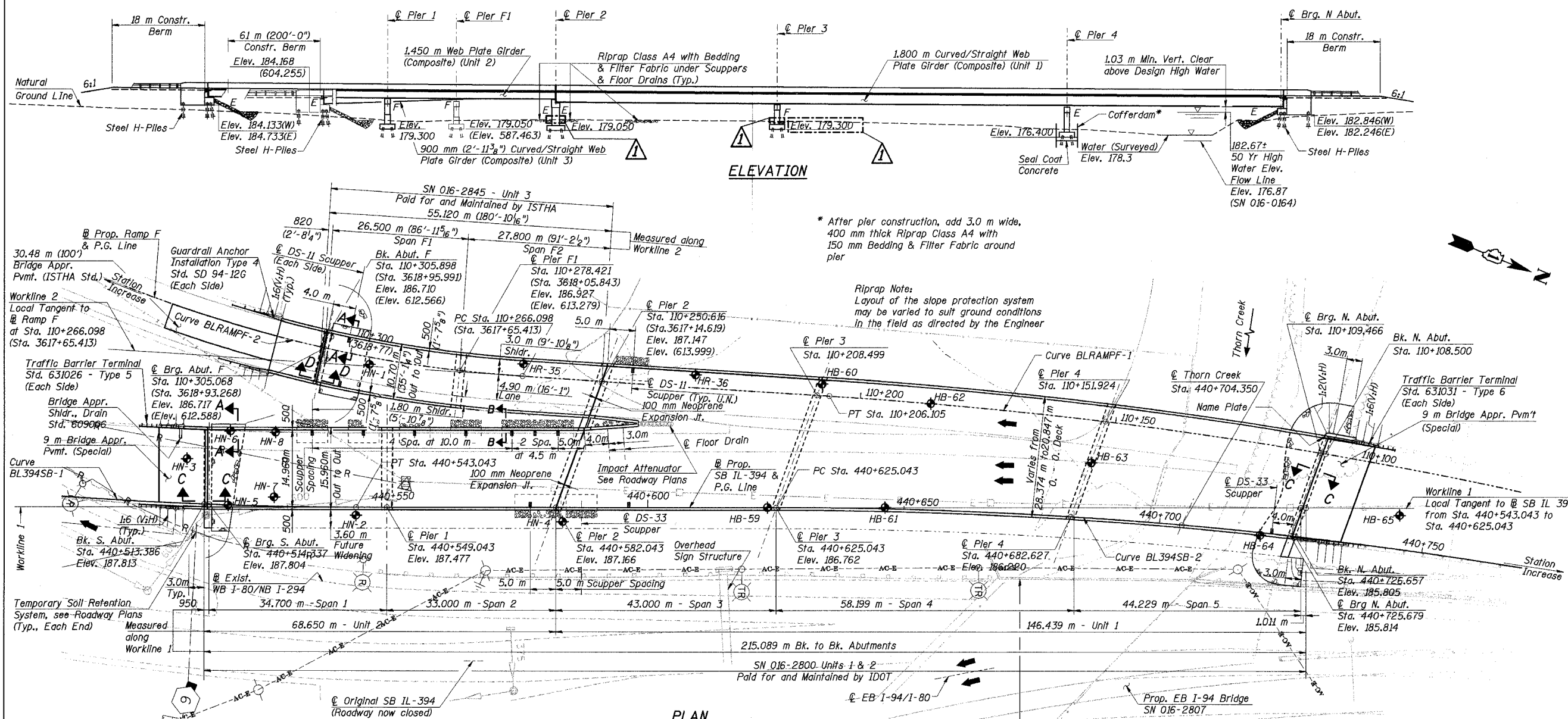
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1 91 SHEETS
F. A. I. 80/94	*	COOK	870	515	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-			
(0203.1 & 0312-708W) R-3		CONTRACT NO. 62108			

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.

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.

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 km² Prop. Low Grade Elev. 184.80 @ Sta. 440+750

Freq. Yr.	Q m ³ /s	Opening m ²		Head-m.		Headwater El. Prop.
		Exist.	Prop.	Exist.	Prop.	
10	124.6	208.7	181.97	0.01	0.01	181.98
Design	188.3	276.1	182.67	0.01	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/m² 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

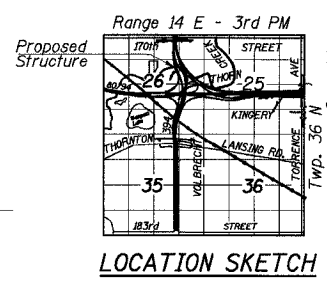
DESIGN STRESSES
FIELD UNITS
f_c = 24 MPa
f_r = 400 MPa (reinforcement)
f_r = 345 MPa (structural steel) (M270M Grade 345)
f_r = 250 MPa (structural steel) (M270M Grade 250)

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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CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

Philip C. Azzarelli 11.30.05
Philip C. Azzarelli, S.E.
Ill. Reg. No. 081-004245
Expires 11-30-06



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

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 & 0312-708W) R-3
COOK COUNTY
STA. 440+704.350 STRUCTURE NO. 016-2800/2845
DATE JUL 18, 2005
SCALE ---

HNTB

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