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 out-to-out. Haunched R.C. slab on multicolumn piers and closed abutments founded on timber piles. 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. The Contractor shall remove in stages the existing superstructure and substructure and replace with new structures (SN 016-2807, 2800/2845) while maintaining traffic on the existing structure using staged construction.

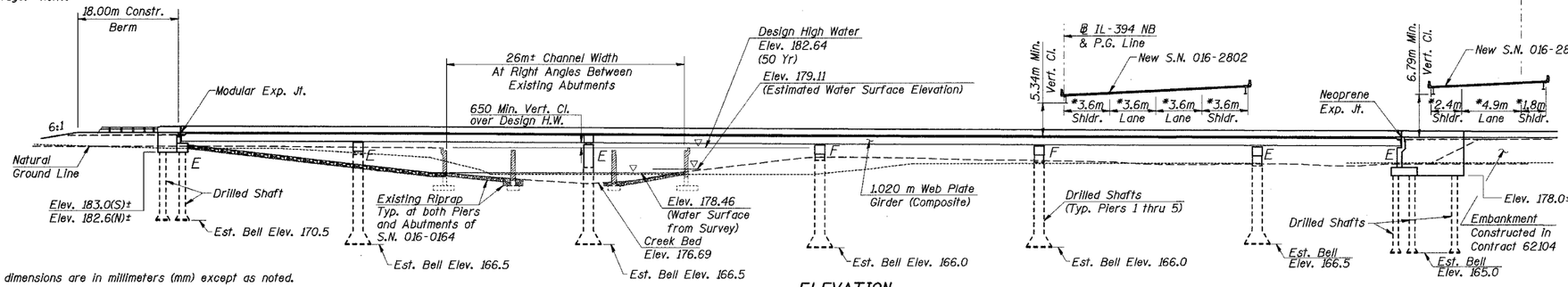
Salvage: None.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. 80/94	*	COOK	90	58
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
21 SHEETS

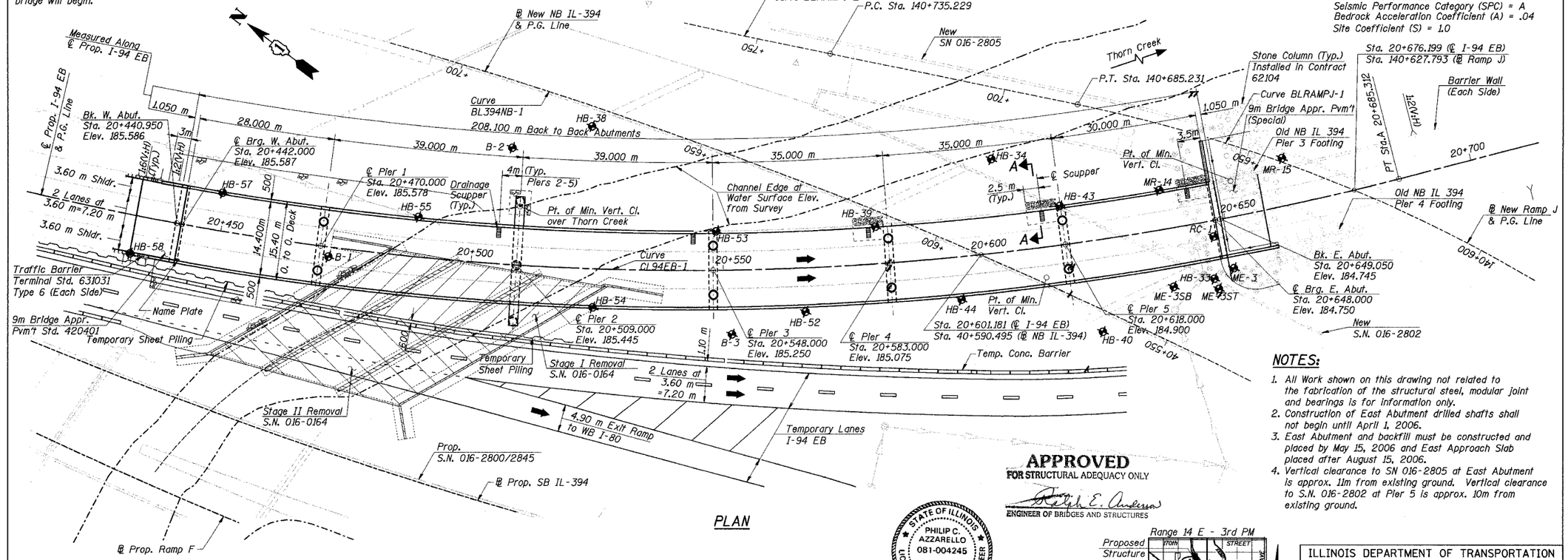
* 2004-133F
CONTRACT NO. 62898



ELEVATION

All dimensions are in millimeters (mm) except as noted.

Staging: Prior to the beginning of construction of the new bridge, the two existing lanes of EB I-94 traffic will be shifted to the southern half of the existing bridge. The SB IL394 Traffic will be shifted to the new NB IL394 lanes. The northern half of the existing bridge will then be removed and construction of the new bridge will begin.



PLAN

WATERWAY INFORMATION

Drainage Area = 274.4 km² Prop. Low Grade Elev. 183.89 ⊙ Sta. 20+100

	Freq. Yr.	Q m³/s	Opening m² Exist.	Opening m² Prop.	Nat. H.W.E.	Head-m. Exist.	Head-m. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	124.6		201.3	181.94		0.01		181.95
Design	50	188.3		264.3	182.64		0.02		182.66
Base	100	213.5		294.8	182.94		0.02		182.96
Max. Calc.	500	280.3		328.6	183.74		0.02		183.76

LEGEND

- Existing Fence
- Existing Drainage Pipe
- Existing Manhole
- Existing Inlet
- Existing Catch Basin
- Boring
- Structure Removal

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

DESIGN STRESSES

FIELD UNITS
f'_c = 24 MPa
f_y = 400 MPa (reinforcement)
f_y = 345 MPa (structural steel) (M270M Grade 345)
f_y = 250 MPa (structural steel) (M270M Grade 250)

SEISMIC DATA

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

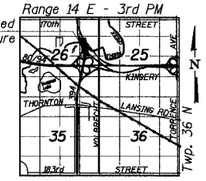
NOTES:

1. All Work shown on this drawing not related to the fabrication of the structural steel, modular joint and bearings is for information only.
2. Construction of East Abutment drilled shafts shall not begin until April 1, 2006.
3. East Abutment and backfill must be constructed and placed by May 15, 2006 and East Approach Slab placed after August 15, 2006.
4. Vertical clearance to SN 016-2805 at East Abutment is approx. 11m from existing ground. Vertical clearance to S.N. 016-2802 at Pier 5 is approx. 10m from existing ground.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
PHILIP C. AZZARELLO
081-004245
CHICAGO, ILLINOIS
REGISTERED STRUCTURAL ENGINEER

Philip C. Azzarello 5-20-05
Philip C. Azzarello, S.E.
Ill. Reg. No. 081-004245
Expires 11-30-06

Range 14 E - 3rd PM
Proposed Structure


LOCATION SKETCH

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-94 EAST BOUND / IL 394 SOUTH BOUND
GENERAL PLAN & ELEVATION
EB I-94 OVER THORN CREEK
F.A.I. 94 SECTION 2004-133F
COOK COUNTY
STA. 20+509.000 STRUCTURE NO. 016-2807
DATE 05/16/05
SCALE ---

HNTB

DESIGNED	JJK
CHECKED	PCA
DRAWN	LK
CHECKED	CJH

Ikelite
E:\34562\CADD\bi\SN_2807\cda\CTR_29_2807\gp2900l4a_2807.dgn
20-MAY-2005 14:31