

Bench Mark: Cut square at center of door entrance to 707 W. Harrison St; South side of Harrison St. ±90' west of west line of Des Plaines. Elevation 597.47.

Existing Structure: SN 016-1088 was originally built in 1960 as part of the F.A.I. Route No. 4 Project, Section S-2626.2-1B, and reconstructed in 1989 under Section 1985-080 R. The existing structure is a three (3) span bridge with a reinf. concrete deck supported on steel WF beams. The existing substructure consists of reinforced concrete abutments and multi column piers founded on sub-piers (reinforced concrete caissons). The existing structure has an overall length of 152'-1 3/8" and an out-to-out deck width of 68'-4". The existing structure is to be removed and replaced. Harrison Street traffic will be detoured via local roads during construction and bridge will be closed. Local access to Cermak Pump Station provided via structure (SN 016-1713).

Salvage portion of existing West Abutment and North Retaining Wall.

Proposed West Abutment is designed for vertical load and portion of lateral load. The remainder of the lateral load is resisted by the existing counterfort wall, which is to remain.

DESIGN SPECIFICATIONS
2012 AASHTO LRFD Bridge Design Specifications,
6th Edition with 2013 Interim Revisions

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

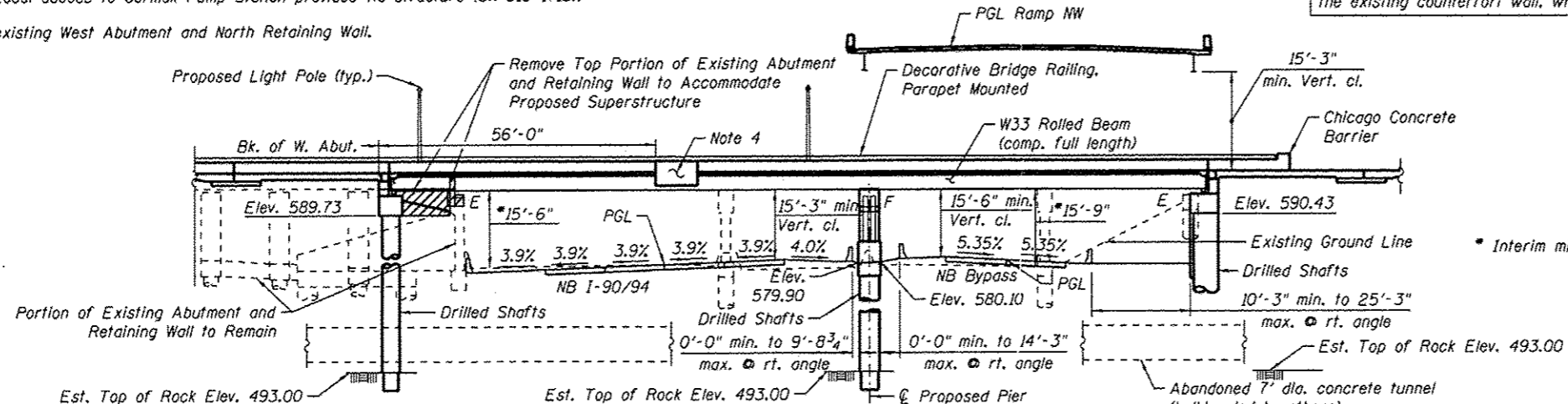
f'c = 3,500 psi
f'c = 7,000 psi (East Abut. Drilled Shafts)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)
fy = 36,000 psi (M270 Grade 36)

EXISTING UNITS

f'c = 3,000 psi
fy = 40,000 psi (Reinforcement)

SEISMIC DATA

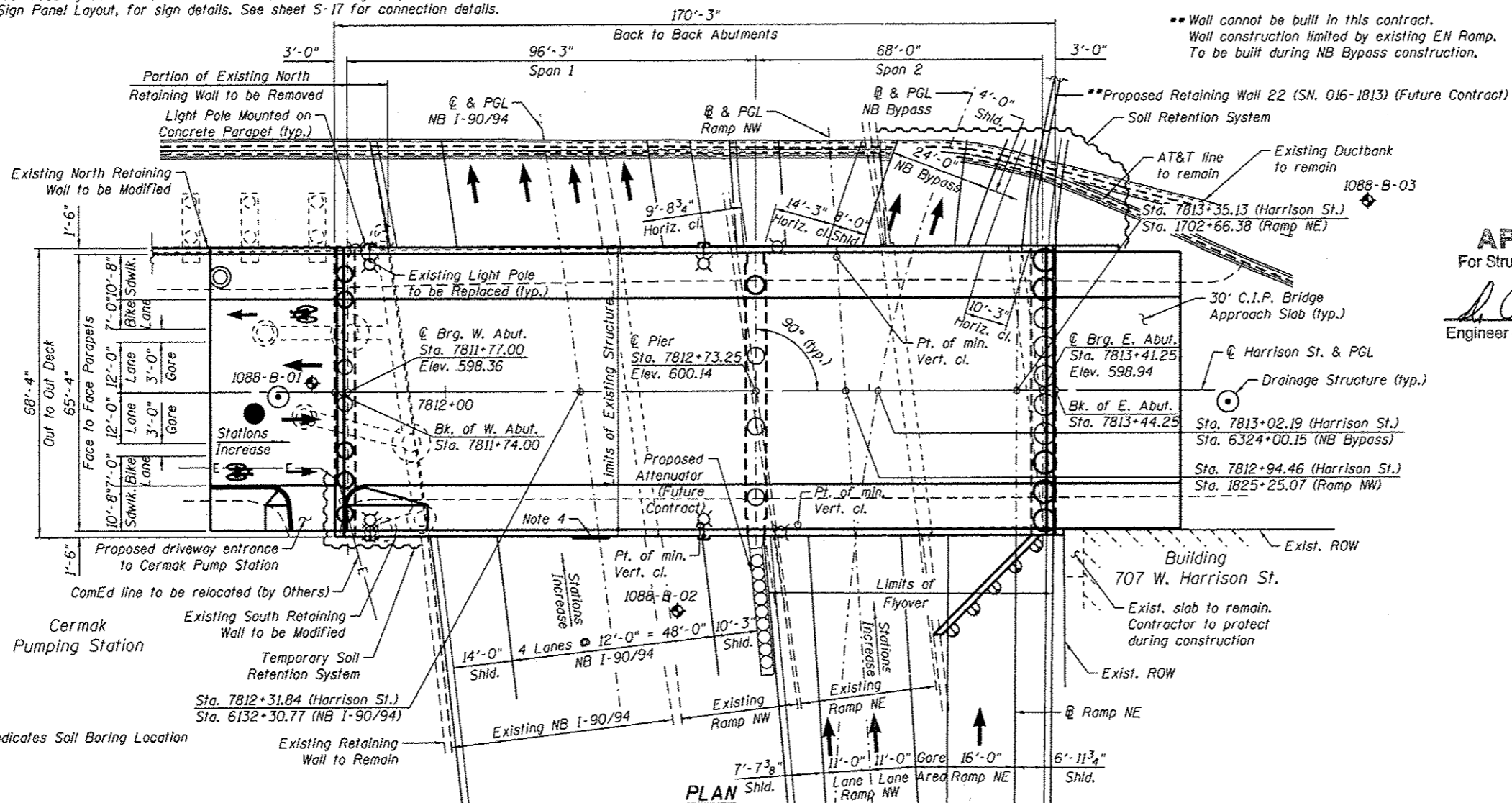
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.085g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.144g
Soil Site Class = D



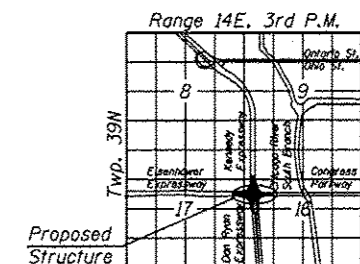
ELEVATION

NOTES:

1. Utilities are not shown for clarity. For utility locations see sheet S-07.
2. For soil and temporary soil retention system details see sheet S-07.
3. See Civil Plans for roadway barrier removal under the structure along ramps and I-90/94.
4. See Civil Plan Sign Panel Layout, for sign details. See sheet S-17 for connection details.



PLAN



LOCATION SKETCH

APPROVED
For Structural Adequacy Only
[Signature]
Engineer of Bridges & Structures



[Signature]
EXPIRATION DATE: 11-30-2014 12/18/13

GENERAL PLAN & ELEVATION
HARRISON ST. OVER
F.A.I. RTE. NB 90/94
(DAN RYAN EXPRESSWAY)
F.A.I. RTE. 90/94/290 - SECTION 2013-036R
COOK COUNTY
STATION 7812+31.84
STRUCTURE NO. 016-1711



USER NAME = dunkerlayb	DESIGNED - DD	REVISED
CHECKED - EJO	CHECKED - EJO	REVISED
DRAWN - MRK	DRAWN - MRK	REVISED
CHECKED - EJO	CHECKED - EJO	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 016-1711
SHEET NO. 5-01 OF 5-47 SHEETS

F.A.I. RTE. 90/94/290	SECTION 2013-036R	COUNTY COOK	TOTAL SHEETS 256	SHEET NO. 93
CONTRACT NO. 60W71				ILLINOIS FED. AID PROJECT NUMBER

0161711-60W71-501-CPE