Benchmark: Chiseled Square in South side of Concrete Foundation for Traffic Signal. Located at the Northeast Corner of Elmhurst Rd. and the Eastbound Palatine Frontage Rd. Station = 364+20, Offset = 36' Rt., Elevation = 662.25

Existing Structure: S.N. 016-1031 built as Palatine Road Grade Separation over Elmhurst Road, Section 110-1313.1 M.F.T. in 1963 by the Cook County Highway Department. The existing five-span continuous structure is ±349'-0" Back-to-Back of Abutments, 64'-10" wide and is a cast-in-place reinforced concrete nine cell box beam superstructure supported by concrete abutments and piers. The existing structure shall be removed as required and replaced with a reinforced concrete deck on a three span continuous steel plate girder superstructure supported by reinforced concrete abutments and piers. Traffic will be rerouted to the frontage roads during construction.

No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 305	*	Cook	21	3

SHEET NO. 1
37 SHEETS

Contract No. 62852 *1313.1F

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

LOADING: HS20-44

Allow 50 psf for future wearing surface.
Live Load Traffic Surcharge = 240 psf
Equivalent Fluid Lateral Soil Pressure = 40 pcf

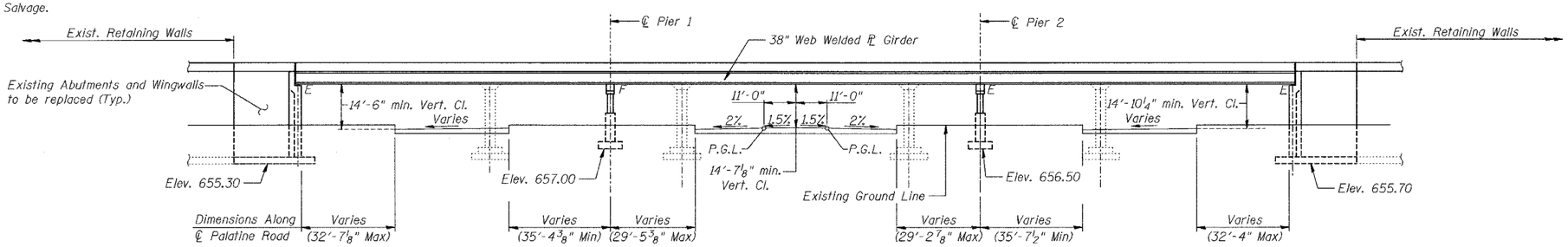
DESIGN STRESSES

FIELD UNITS

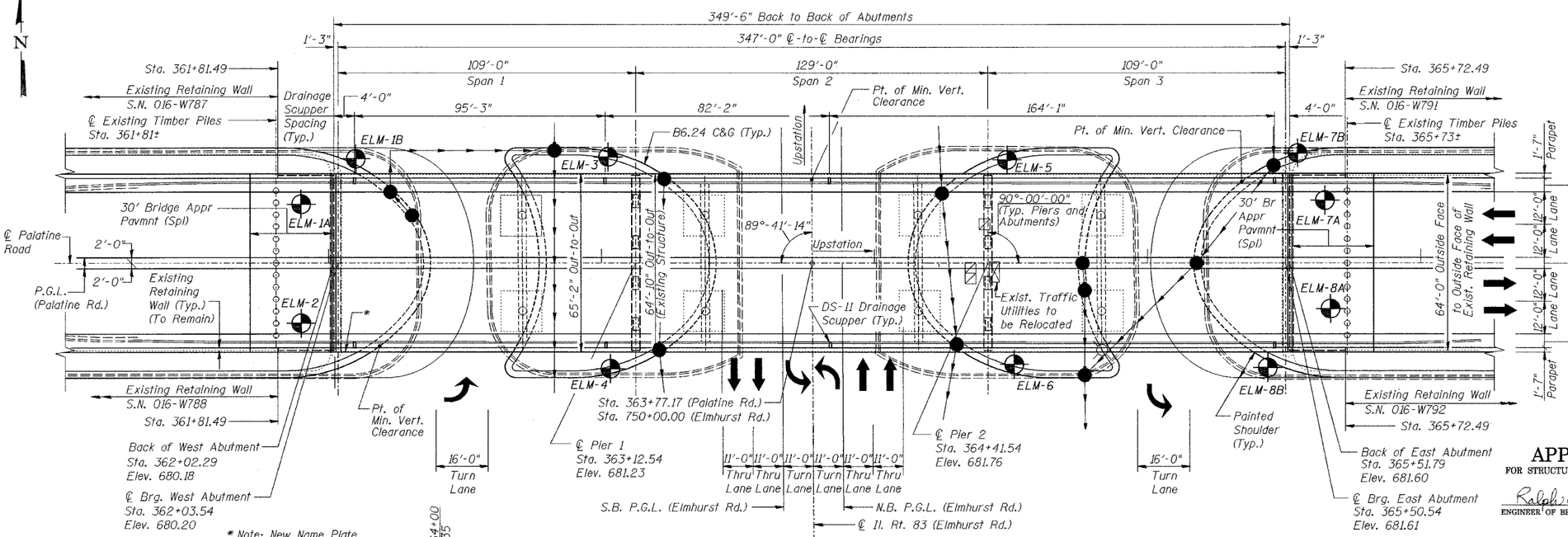
f'_c = 3,500 psi
f_y = 60,000 psi (Reinforcement)
f_y = 50,000 psi (M270, Grade 50; Structural Steel)
f_y = 36,000 psi (M270, Grade 36; Structural Steel)

SEISMIC DATA

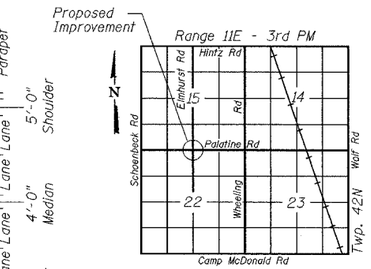
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0



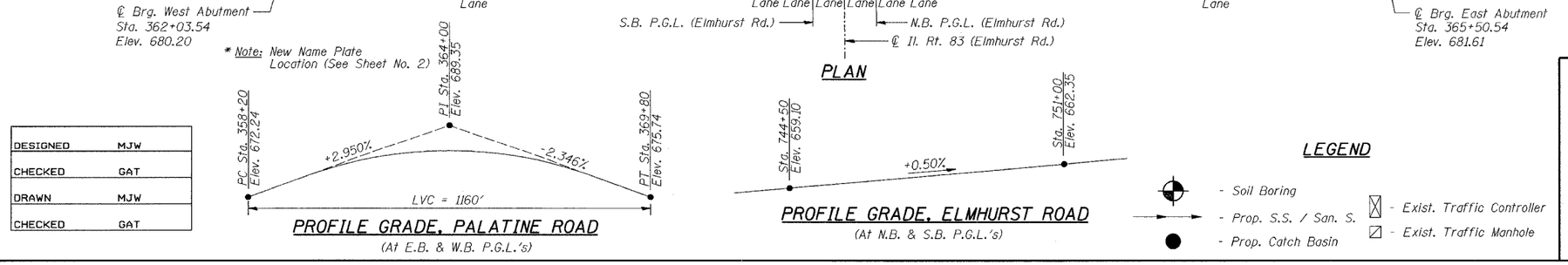
ELEVATION
(Looking North)



PLAN



LOCATION SKETCH



PROFILE GRADE, PALATINE ROAD
(At E.B. & W.B. P.G.L.'s)

PROFILE GRADE, ELMHURST ROAD
(At N.B. & S.B. P.G.L.'s)

LEGEND

- Soil Boring
- Prop. S.S. / San. S.
- Prop. Catch Basin
- Exist. Traffic Controller
- Exist. Traffic Manhole

DESIGNED	MJW
CHECKED	GAT
DRAWN	MJW
CHECKED	GAT

LICENSED STRUCTURAL ENGINEER GARY S. POWELL 081-004771 CHICAGO ILLINOIS STATE OF ILLINOIS

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

Gary S. Powell
GARY S. POWELL, S.E.
IL. LIC. NO. 081-004771
EXP 11-30-2004
DATE 8-13-2004

GENERAL PLAN AND ELEVATION
PALATINE ROAD OVER
IL. RT. 83 (ELMHURST ROAD)
F.A.P. RTE. 305 SECT. 1313.1F
COOK COUNTY
STATION 363+77.17
STRUCTURE NO. 016-2812

AMERICAN CONSULTING ENGINEERS
CONSULTING ENGINEERS & PLANNERS
CHICAGO, ILLINOIS