Bench Mark: Top of Curb, 10.5' Lt. Sta. 140+77. Elev. 435.30

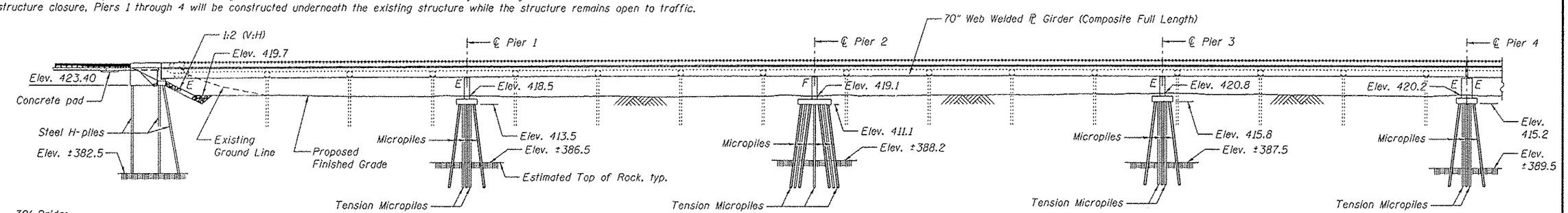
Existing Structure: S.N. 014-0014 was built in 1929 (House Bill No. 578, Sec. 1-A) and reconstructed in 1961 (F.A. Route 128, Section 1-BR). The 23-span structure consists of continuous composite steel beam superstructure units with a total length of 1136'-1¼" bk. to bk. of abutments and a width of 36'-0" out to out of deck. The substructure units consist of pile bent piers with precast concrete piles (approach spans), solid wall piers supported on spread footings (main channel piers), a pile supported stub abutment (North), and a closed abutment on spread footing (South).

The existing structure is to be removed and replaced.

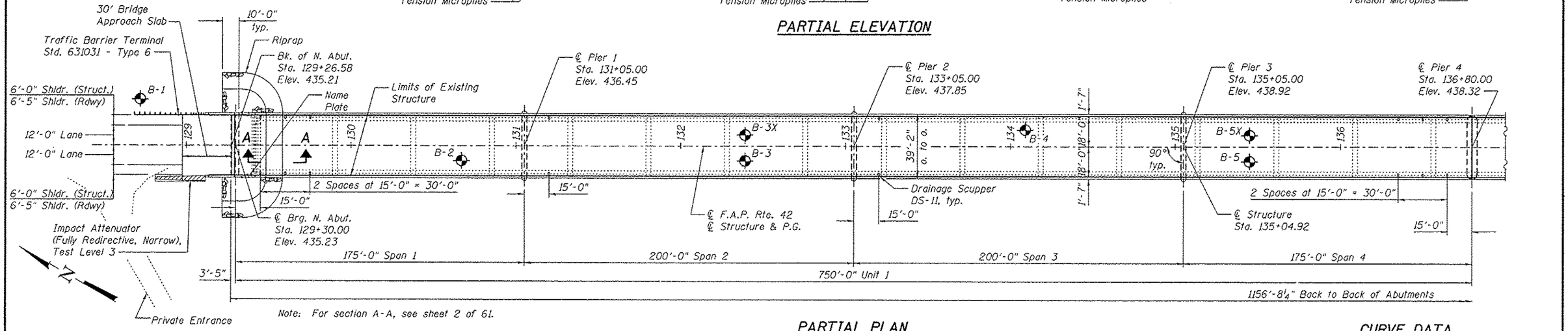
The structure is to be completely closed to traffic during construction. Traffic is to be maintained by detouring onto an alternate route. In order to limit the structure closure, Piers 1 through 4 will be constructed underneath the existing structure while the structure remains open to traffic.

No salvage.

APPROVED
For Structural Adequacy Only
Dr. Carl Lenzy
Engineer of Bridges & Structures

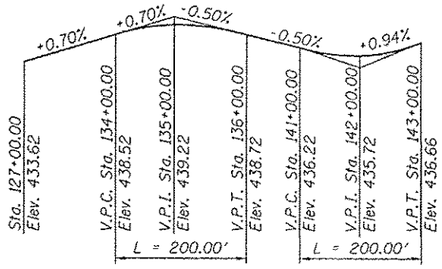


PARTIAL ELEVATION



Note: For section A-A, see sheet 2 of 61.

PARTIAL PLAN



PROFILE GRADE

LOADING HL-93

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

DESIGN SPECIFICATIONS

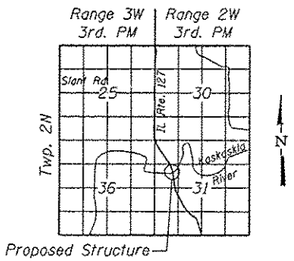
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

DESIGN STRESSES

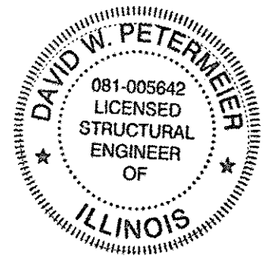
f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 36,000 psi (M270 Grade 36 structural steel)
f_y = 50,000 psi (M270 Grade 50 structural steel)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.262 g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.608 g
Soil Site Class = D



LOCATION SKETCH



DAVID W. PETERMEIER
EDWARDSVILLE, ILLINOIS
ILLINOIS LICENSED STRUCTURAL ENGINEER NO. 081-005642
EXPIRES 11/30/2014

1/31/13

CURVE DATA

Proposed Curve F1
P.I. Sta. = 144+37.28
Δ = 17° 18' 17" (LT)
D = 4° 14' 39"
R = 1,350.00'
L = 407.74'
T = 205.43'
E = 15.54'
P.C. Sta. = 142+31.85
P.T. Sta. = 146+39.59
SE = 6%
TRANSITION STA. = 140+97.85

GENERAL PLAN AND ELEVATION - 1
ILLINOIS ROUTE 127 OVER KASKASKIA RIVER (PUBLIC WATER)
F.A.P. ROUTE 42 - SEC. 1-1BR-2
CLINTON COUNTY
STATION 135+04.92
STRUCTURE NO. 014-0033

MODJESKI and MASTERS Experience great bridges.	USER NAME =	DESIGNED - RLM	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - JTH	REVISED	
	PLOT SCALE =	DRAWN - PRC	REVISED	
	PLOT DATE = 2/1/2013	CHECKED - RLM	REVISED	

SHEET NO. 1 OF 61 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	1-1BR-2	CLINTON	159	70
		CONTRACT NO. 76479		
	ILLINOIS FED. AID PROJECT			