ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 827	12Z-3, 12BR	WABASH, IL GIBSON, IN	158	17
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	

BRIDGE SHEET S1 OF S114 — CONTRACT 94450

Bench Marks : U.S.G.S.: City of Mt. Carmel @ SW side of courthouse on SE wing on west sill in wall. Bronze tablet stamped 465. Elev. 464.86

IDOT: NW monument. Top of steel rebar set in concrete flush with top of levee under existing span 1, existing Sta. 2+74, 30' left, Elev. 408.52

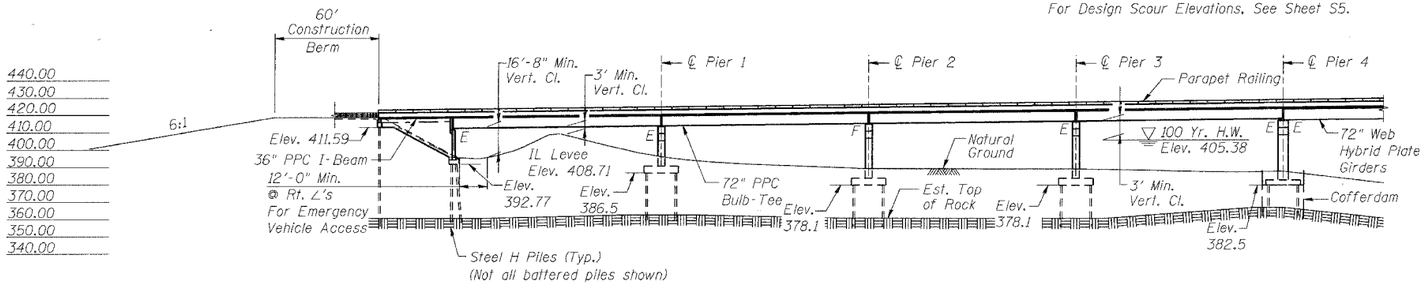
Existing Structure : S.N. 093-0014 built as FA Route 827 (IL 15) consists of 12 thru-truss spans with a concrete deck on concrete piers and abutments. The existing dimensions are 2725'-6" from end-to-end and 26'-10" out-to-out. Traffic shall be maintained on the existing structure until the proposed structure and the approach roadways are built. S.N. 093-0014 to be demolished after construction of proposed structure S.N. 093-0021.

WATERWAY INFORMATION

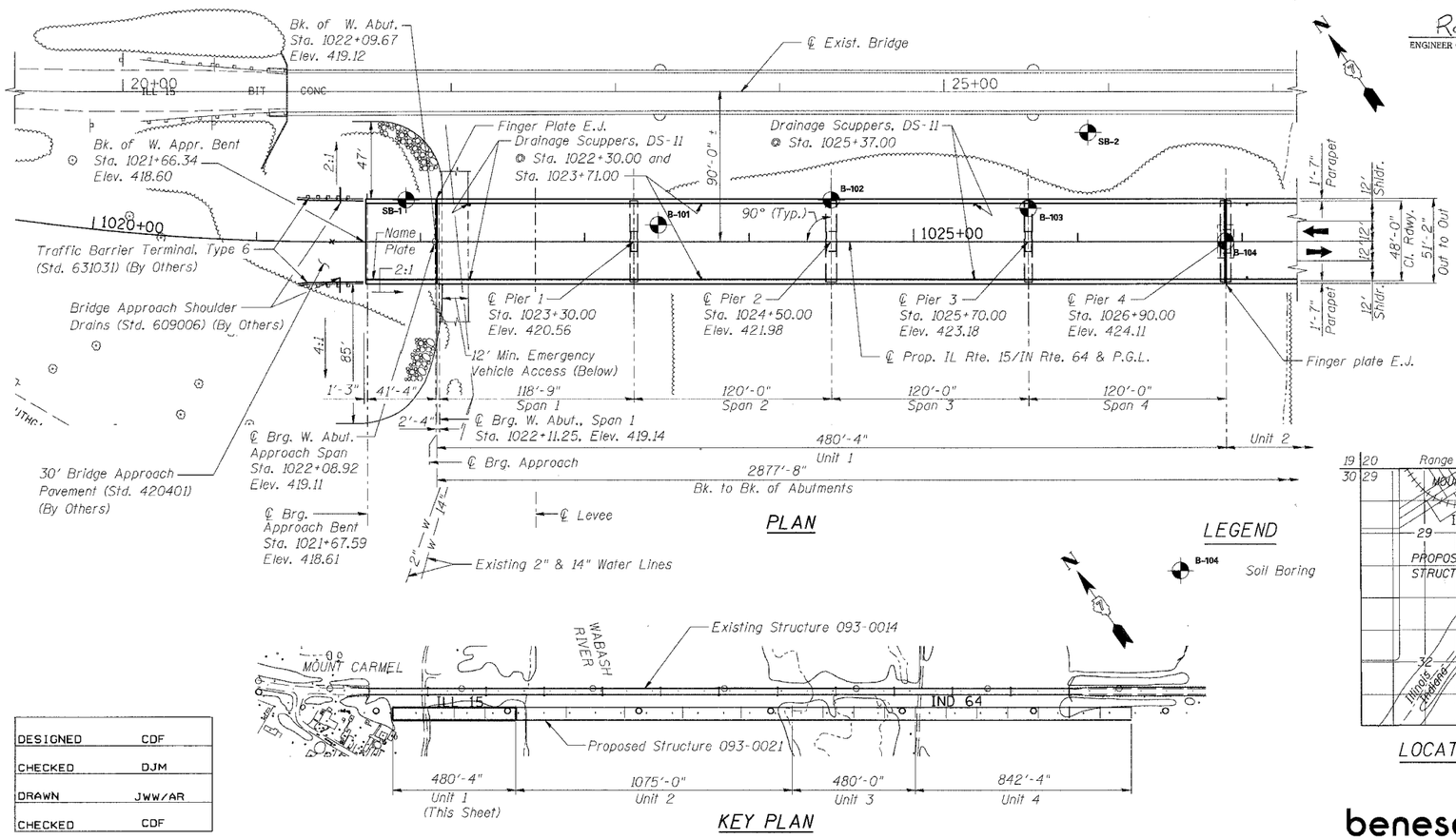
Drainage Area=28,635 Sq. Mi. — Low Grade Elev.=408.40 ft. Sta. 22+100 — Max Rec. H.W. Elev.=402.46 ft.

Flood	Freq. Yr.	Q (cfs)	Opening²(ft.) Exist.	Opening²(ft.) Prop.	Nat. H.W. Elev. (ft.)	Head (ft.) Exist.	Head (ft.) Prop.	Headwater Elev. (ft.) Exist.	Headwater Elev. (ft.) Prop.
Design	50	283,000	62,420	60,676	404.04	.16	.07	404.20	404.10
Base	100	315,000	65,896	64,239	405.38	.16	.07	405.54	405.45
Overtopping	—	—	—	—	—	—	—	—	—
Max. Calc.	500	400,000	74,745	73,356	408.46	.33	.13	408.79	408.60

For Design Scour Elevations, See Sheet S5.



ELEVATION

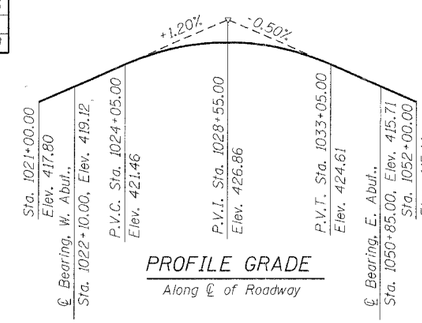


PLAN

LEGEND

B-104 Soil Boring

KEY PLAN



PROFILE GRADE

Along ℄ of Roadway

STATE OF ILLINOIS — DAVID J. MORRILL 81-4816 CHICAGO, IL — LICENSED STRUCTURAL ENGINEER

EXPIRATION DATE 11-30-08

DATE 06-26-07

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (STD)
ENGINEER OF BRIDGES AND STRUCTURES

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
f y = 60,000 psi (Reinf.)
f y = 50,000 psi (Structural Steel M270 GR 50W)
fy = 70,000 psi (Structural Steel M270 GR HPS 70W)

PRECAST PRESTRESSED UNITS

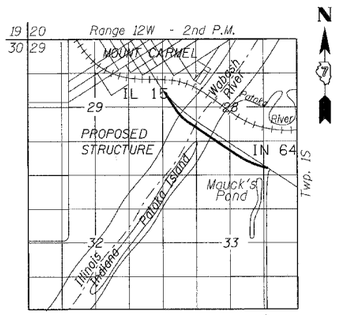
f'c = 6,000 psi
f'ci = 5,000 psi
f's = 270,000 psi (1/2 "ϕ low lax strands)
f'si = 201,960 psi (1/2 "ϕ low lax strands)

CURVE PROP1

Δ = 30° 30' 49" (LT)
D = 4° 05' 44"
T = 381.57'
L = 745.02'
E = 51.11'
R = 1,398.94'
P.C. STA. = 1014+01.04
P.T. STA. = 1021+46.06
P.I. STA. = 1017+82.61
S.E. = 0.055 ft./ft.
S.E. Removed Sta 1020+74 to 1023+36

CURVE PROP2

Δ = 4° 38' 34.15" (LT)
D = 0° 25' 04.04"
T = 555.95'
L = 1,111.28'
E = 11.26'
R = 13,714.05'
P.C. STA. = 1054+43.84
P.T. STA. = 1065+55.13
P.I. STA. = 1059+99.79



LOCATION SKETCH

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 0.094g
Site Coefficient (S) = 1.5

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44

Allow 50 lb/ft² for future wearing surface.

DESIGNED	CDF
CHECKED	DJM
DRAWN	JWW/AR
CHECKED	CDF

benesch

alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450
Job No. 3426

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 15/IN ROUTE 64
OVER WABASH RIVER PUBLIC WATERS
FAP 827 SECT 12Z-3, 12BR

GENERAL PLAN AND ELEVATION
UNIT 1

SN: 093-0021 (IL)/9502700 (IN)
WABASH CO., IL.

STA. 1036+27
DATE: JUNE 15, 2007

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6/26/2007