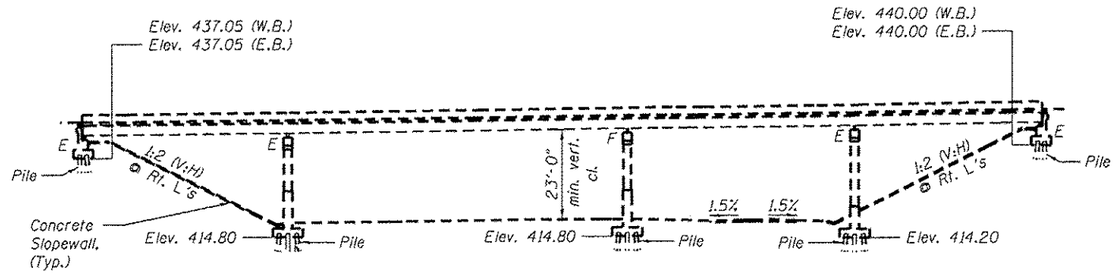

ELEVATION

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	29.6
Concrete Superstructure	Cu. Yd.	29.3
Bridge Deck Concrete Sealer	Sq. Ft.	32580
Furnishing and Erecting Structural Steel	Pound	7270
Reinforcement Bars, Epoxy Coated	Pound	4270
Preformed Joint Strip Seal	Foot	224
Deck Slab Repair (Full)	Sq. Yd.	5.0
Deck Slab Repair (Partial)	Sq. Yd.	0.8
Structural Repair of Concrete (Depth <= 5")	Sq. Ft.	42
Bar Splicers	Each	96
Remove Existing Conduit Attached to Structure	Foot	272
Fence Removal	Foot	192
Anchor Bolts, 1"	Sq. Yd.	80

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Concrete Removal & Replacement	6-8
Preformed Joint Strip Seal	9
Substructure Repairs	10
Bar Splicer Assembly Details	11

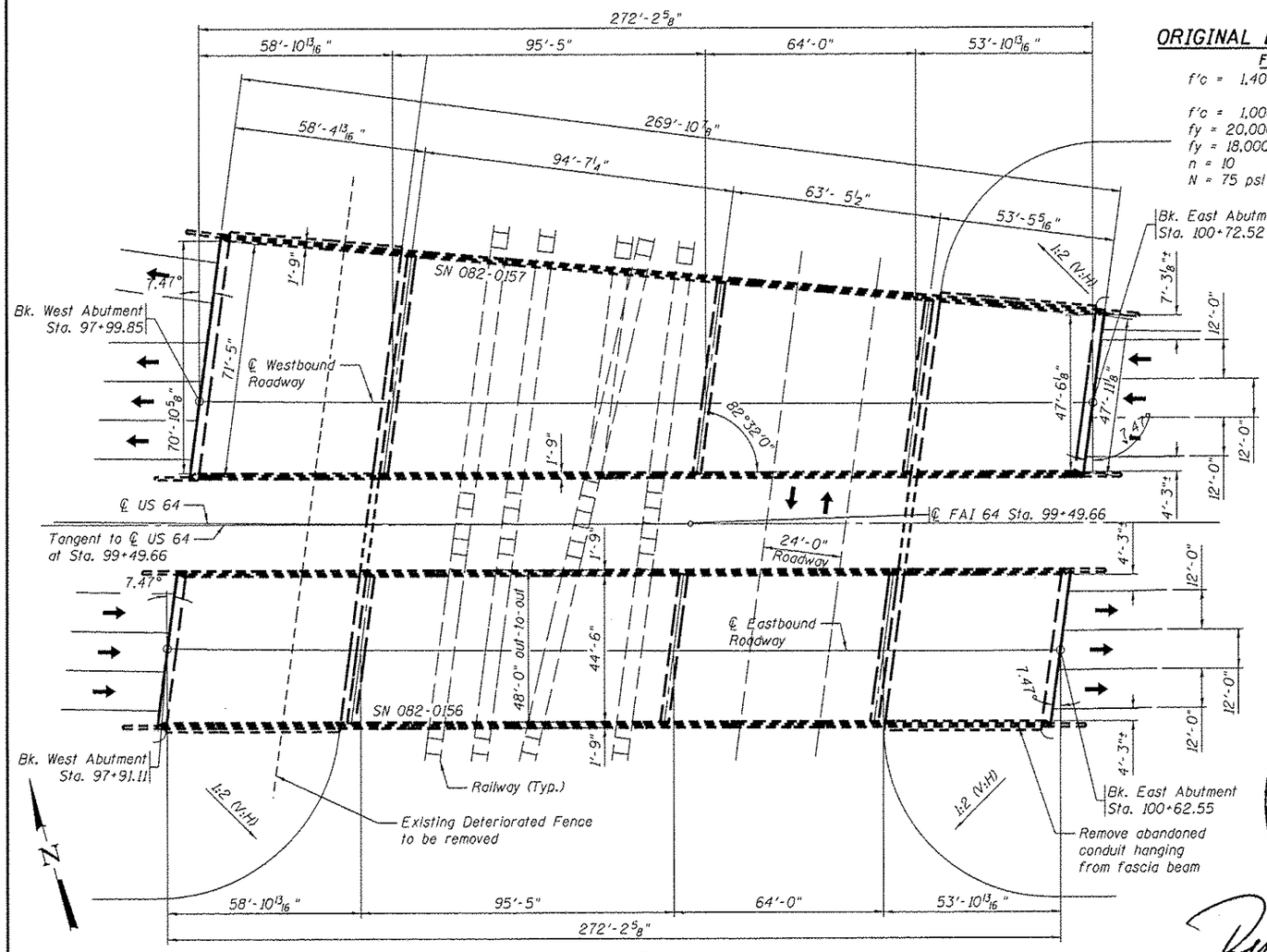
GENERAL NOTES

1. All new structural steel shall conform to AASHTO Classification M270 Gr. 36 unless otherwise noted.
2. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts (in painted areas and M164 Type 3 in unpainted areas). Bolts $\frac{7}{8}$"Φ, holes $\frac{15}{16}$"Φ, unless otherwise noted.
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars designated (E) shall be epoxy coated.
5. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
6. As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that can not be removed by grinding $\frac{1}{4}$ in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
7. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
8. Existing reinforcement bars extended into the removal area shall be cleaned, straightened, and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with approved bar slicer or anchorage system. Cost included with Concrete Removal.
9. Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50°F.
10. Areas of deck repairs shown are estimated. The Engineer shall show actual locations of deck repairs on As-built Plans.
11. All structural steel shall be shop painted with inorganic zinc rich primer per AASHTO M300, Type 1. Color to match existing. Cost included with Furnishing and Erecting Structural Steel.
12. The existing structural steel contains lead. The contractor shall take appropriate precautions to deal with the presence of lead on this project.
13. Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provisions "Cleaning & Painting Contact Surface Areas of Existing Steel Structures".

ORIGINAL DESIGN STRESSES

FIELD UNITS

f'c = 1,400 psi (Superstructure & Substructure without earth pressure)
f'c = 1,000 psi (Substructure with Earth Pressure)
fy = 20,000 psi (Reinforcement)
fy = 18,000 psi (Structural Steel A36)
n = 10
N = 75 psi



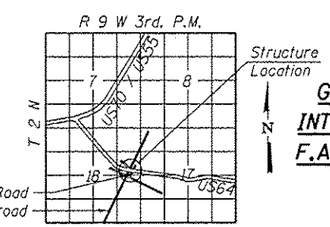
PLAN

FAI 64 CURVE DATA

(Spiral Curve)

PI STA. = 88+63.12
Δ = 30° 24' 20"
Δ_c = 27° 24' 20"
D_c = 1° 30' 0"
R_c = 3,819.72'
L_c = 1827.04'
L_s = 200.00'
θ_s = 1° 30' 0"
T_s = 1138.11'
E_s = 138.98'
S.E. = 0.01'/FT.

REGINALD H. BENTON
081-004623
LICENSED STRUCTURAL ENGINEER OF JACKSONVILLE
ILLINOIS
8/20/13 EXP 11/30/14



LOCATION SKETCH

GENERAL PLAN & ELEVATION
INTERSTATE 64 OVER RAILROAD
F.A.I. RTE. 64 - SEC. 82-1VBR-1
ST. CLAIR COUNTY
US 64 STA. 108+77.79
RAILROAD STA. 3+88.47

BENTON & ASSOCIATES, INC.

FILE NAME = P:\ 10e2166-2\ Design\ Plans\ 082-0156 & 082-0157 0820156-76D22-001-GPE.dgn	USER NAME =	DESIGNED - MBH	REVISED -
		CHECKED - SJH	REVISED -
	PLOT SCALE =	DRAWN - MBH	REVISED -
	PLOT DATE =	CHECKED - SJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 082-0156 & 082-0157
SHEET NO. 1 OF 11 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-1VBI / 82-1VBR	ST. CLAIR	208	148
		CONTRACT NO. 76D22		
FED. ROAD DIST. NO. 8	ILLINOIS	FED. AID PROJECT		