ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 782	111BR-1	GALLATIN	73	50
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
14 SHEETS

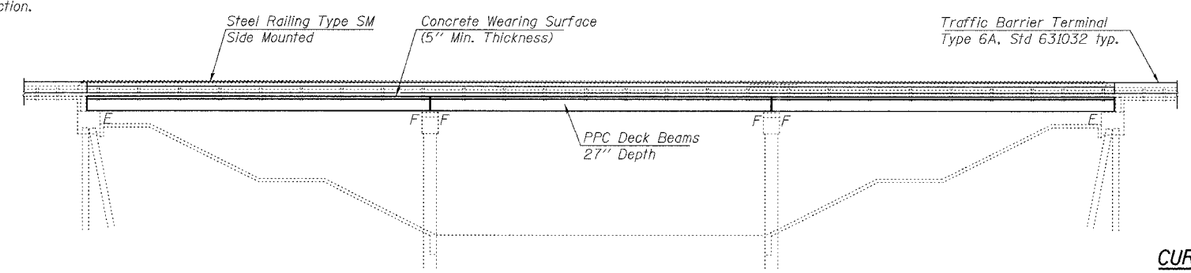
Contract #78034

Benchmark: CW-17, Chiseled square on Southwest wingwall of SN 030-0018, Elev. 367.142

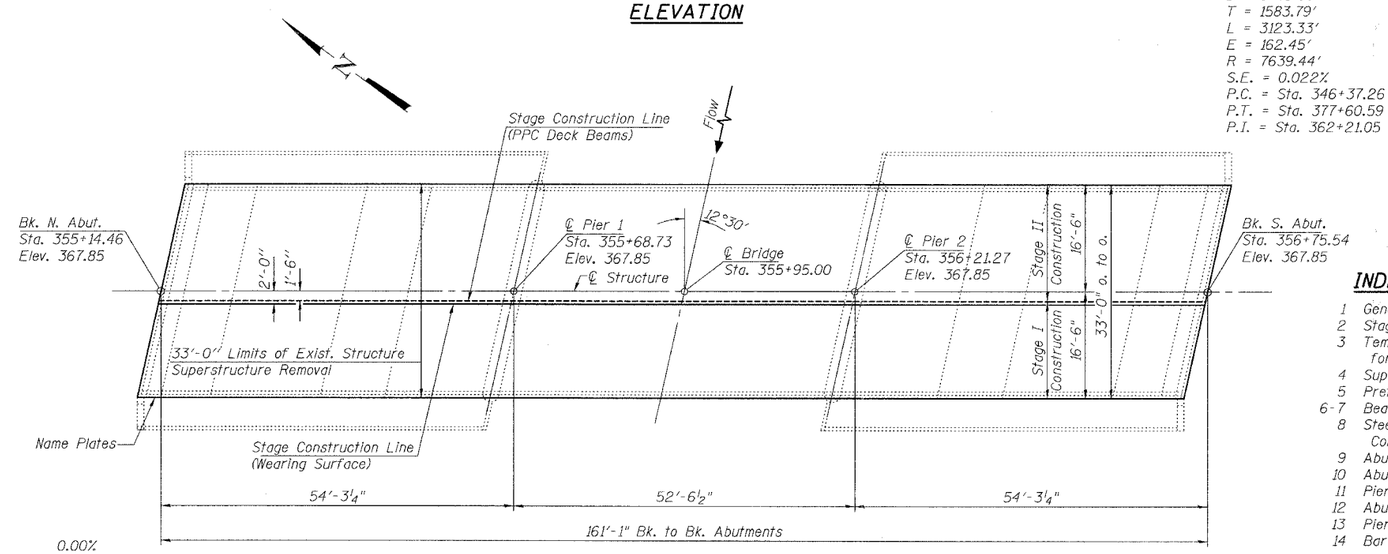
Existing Structure: SN 030-0018 built in 1973 Sta 355+95.00 as FA Rte 782 Section 111B-1. Structure is a 3-span precast prestressed concrete deck beam superstructure 161'-1" bk to bk abutments and 33'-0" out to out deck on steel H pile supported stub abutments and solid wall concrete piers on steel H piles. 12°30' Skew LF.

Bridge superstructure shall be removed and replaced with new beams and reinforced concrete wearing surface. Stage construction shall be utilized allowing one lane of traffic during construction.

No salvage.



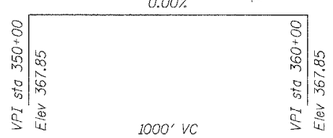
ELEVATION



CURVE DATA

Δ = 23°25'30"
D = 0°45'00"
T = 1583.79'
L = 3123.33'
E = 162.45'
R = 7639.44'
S.E. = 0.022%
P.C. = Sta. 346+37.26
P.T. = Sta. 377+60.59
P.I. = Sta. 362+21.05

PLAN



PROFILE GRADE

STATION 355+95.00
RE-BUILT 20__ BY
STATE OF ILLINOIS
F.A. RTE. 782 SEC. 111BR-1
LOADING HS20
STRUCTURE NO. 030-0018

NAME PLATE

See Std. 515001

The existing name plate shall be cleaned and relocated next to the new name plate. Cost included with Name Plates.

DESIGN SPECIFICATIONS

2007 AASHTO LRFD

DESIGN STRESSES

FIELD UNITS - EXISTING

fc = 1,400 psi (Substructure)
fs = 20,000 psi (Reinforcement)

DESIGN STRESSES

FIELD UNITS - PROPOSED

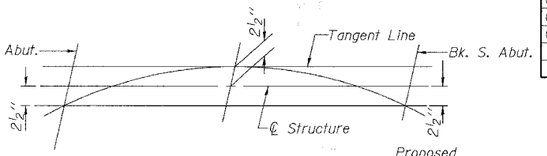
f'c = 3,500 psi (Substructure)
f'c = 5,000 psi (Concrete wearing surface)
f'y = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
f's = 270,000 psi (½" ϕ Low Relaxation Strands)
fsi = 201,960 psi (½" ϕ Low Relaxation Strands)

LOADING HL 93

No allowance for future wearing surface.



OFFSET SKETCH

GENERAL NOTES

Concrete Removal and Structural Repair of Concrete shall occur prior to placement of the new deck beams.

Plan dimensions and details relative to existing plans are subject to routine 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 based upon the unit price bid for the work.

The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

No drilling shall be permitted into the existing precast deck beams to be used for Stage I traffic lane or the proposed deck beams.

If the Contractor's procedures for existing beam removal or placement of new beams involves placement of heavy equipment on the new deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Precast Prestressed Concrete Deck Beams (27" Depth).

Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of Removal of Existing Superstructures.

Reinforcement bars designated (E) shall be epoxy coated.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60 (IL Modified). See Special Provisions.

No in-stream work will be allowed on this project.

The minimum thickness of concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Rafik E. Qudsi
ENGINEER OF BRIDGES AND STRUCTURES

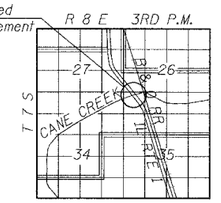
INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Exist. Superstructures No. 2	Each	1		1
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	5210		5210
Reinforcement Bars, Epoxy Coated	Pound	7300	870	8170
Steel Railing, Type SM	Foot	316		316
Name Plate	Each	1		1
Bar Splicers	Each	160	12	172
Concrete Wearing Surface, 5"	Sq. Yd.	580		580
Protective Coat	Sq. Yd.	580		580
Bridge Deck Grooving	Sq. Yd.	580		580
Preformed Joint Strip Seal	Foot	68		68
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.		56	56
Epoxy Crack Injection	Foot		30	30
Asbestos Bearing Pad Removal	Each		44	44
Concrete Structures	Cu. Yd.		5.7	5.7
Concrete Removal	Cu. Yd.		5.6	5.6
Concrete Sealer	Sq. Ft.		455	455

LICENSED STRUCTURAL ENGINEER
MARY COOMBE BLOXDORF
4859
SPRINGFIELD
STATE OF ILLINOIS

Illinois Structure No. 4859
Expires: 11/30/08
Date: 4-17-08



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
F.A. RT. 782 SECTION 111BR-1
GALLATIN COUNTY
STATION 355+95.00
STRUCTURE NO. 030-0018

COOMBE-BLOXDORF P.C.
Engineers / Land Surveyors
Springfield, Illinois
Design Firm License No. 184-002703

PROJECT NO. 07056-4
DATE 4/17/08
DRAWN BY TFG
CHECKED BY GB/BD/MCB

PLOT DATE = 04/17/2008
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PLOT SCALE = 100.0000 '/ IN.
USER NAME = DTC_