EXISTING STRUCTURE: S.N. 058-0101(NB) & 0102(SB), originally constructed in 1976 as FA Route 412 Sec. 58-20HVB at Station 133+62.02, using rolled and welded steel I-girders with 8" concrete deck and $1_2''$ bituminous wearing surface, 4 STATE OF ILLINOIS spans, 291'-31," back-back abutments, variable out-out width, open stub abutments on concrete piles, multi-column piers DEPARTMENT OF TRANSPORTATION with footings on concrete piles. Staged construction shall be used to maintain one lane of traffic in each direction. - € U.S. 51 Bus. € ICRR Existing Ground ELEVATION −© Brg. E. Abut. € Brg. W. Abut.-Varies Ramp € Rdwy. (SB)-30'-0" Bridge **—** Appr. Slab (typ.,

12°11′21.5"

126'-1'4" Span 2

PLAN

291'-3'2" Bk. to Bk. Abuts.

Sta. 133+62.02 U.S. 51 = Sta. 519+95.03 U.S. 51 Bus.

INDEX OF SHEETS

heet No.	<u>Description</u>				
1	Gen Plan, Gen Notes, Bill of Mat'				
2	Temporary Sheet Piling				
3	Temporary Concrete Barrier				
4-10	Superstructure				
11	Preformed Joint Strip Seal				
12-15	Bridge Approach Slab Details				
<i>1</i> 6	Bearings				
17-22	Abutments				
23-24	Piers				
0.5	D C- 12				

straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal. existing concrete according to Section 584 of the Standard Specifications. Cost

Bar Splicer Assembly Details

Traffic Barrier Terminal

(See Rdwy. Plans)

Type 6 - Std. 631031 (typ.)

◆Boring #2

Varies Ramp

5,5

2'-434"

Soil Borings

Proposed

Sta. 134+67.40 U.S. 51

59'-1" Span 3

= Sta. 520+17.28 ICRR

48'-05" Span 4

included with Reinforcement Bars, Epoxy Coated.

deck is poured at an ambient temperature other than 50° F.

Reinforcement bars designated (E) shall be epoxy coated.

See Special Provisions.

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. 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

GENERAL NOTES

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the

No field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.

Existing reinforcement bars extending into the removal area shall be cleaned.

Where shown on the plans, reinforcement bars shall be epoxy grouted into

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill

removed from the surfaces in contact with concrete. Tightly adhered paint may

scale, and other loose or potentially detrimental foreign material shall be

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 existing structural steel coating contains lead. The Contractor shall take

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 Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

appropriate precautions to deal with the presence of lead on this project.

All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Furnishing and Erecting Structural Steel

Protective Shield shall be provided for the full width of the bridge deck, over the roadway below from edge of shoulder to edge of shoulder, and over the railroad for 10 feet each side of the track centerline.

Elevations shown on these plans are based on the original 1975 plan elevations, not the current datum. The original plan elevations may be used to establish a temporary benchmark for construction.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SB	NB	
Porous Granular Embankment, Special	Cu Yd	167	209	
Hot-Mix Asphalt Surface Removal (Deck)	Sq Yd	1327	1603	
Concrete Removal	Cu Yd	52.7	63.1	
Protective Shield	Sq Yd	558	664	
Structure Excavation	Cu Yd	167	209	
Concrete Structures	Cu Yd	50.8	58.4	
Concrete Superstructure	Cu Yd	162.7	197.4	
Bridge Deck Grooving	Sq Yd	1523	1855	
Protective Coat	Sq Yd	1851	2184	
Furnishing And Erecting Structural Steel	Pound	1100	1260	
Jack And Remove Existing Bearings	Each	7	8	
Reinforcement Bars, Epoxy Coated	Pound	40390	48040	
Bar Splicers	Each	391	408	
Temporary Sheet Piling	Sq Ft	328	334	
Preformed Joint Strip Seal	Foot	178	213	
Elastomeric Bearing Assembly, Type I	Each	7	8	
Anchor Bolts, 1"	Each	14	16	
Geocomposite Wall Drain	Sq Yd	75	89	
Pipe Underdrains For Structures 4"	Foot	243	260	
Structural Repair Of Concrete (Depth = < 5")	Sq Ft	24	22	
Bridge Deck Microsilica Concrete Overlay 2 ¹ 4"	Sq Yd	1248	1507	
Bridge Deck Hydro-Scarification 2"	Sq Yd	1248	1507	
Deck Slab Repair (Full Depth, Type II)	Sq Yd	<i>1</i> 5	17	

Range 2E - 3rd PM LOCATION SKETCH

GENERAL PLAN & ELEVATION U.S. 51 OVER U.S. 51 BUS. & ICRR F.A.P. RTE. 322 SECTION (58-20)RS MACON COUNTY STATION 133+62.02

STRUCTURE NO. 058-0101(NB) & 0102(SB)

SHEET 1	F.A.P. RTE.	SEC.	TION	COUNTY	TOTAL SHEETS	SHEE NO.
	322	(58-2	20)RS	MACON	151	66
OF 26		STA, 133+6	CONTRACT	NO.	74150	
	FED. RO	AD DIST. NO.	ILLINOIS FED. A	D PROJECT		

Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois DESIGNED: JDQ DRAWN. PTR

DCD

21-431

CHECKED:

DCD

@ U.S. 51-

& Rdwy. (NB)

Temporary Sheet Piling (typ.)

◆Boring #1

CHECKED:

DAVID C. DEPP 081-005117 : David Depp 4-9-2010 Lic. Expires: 11-30-2010

53'-3\dau Span 1