

- \* Included in the cost of Pipe Underdrains for Structures.
- \*\* Slope Wall shall be reinforced with galvanized welded wire fabric, 6 in. x 6 in. W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

#### Note:

All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

STATION 56+05.23 RE-BUILT 20 BY STATE OF ILLINOIS F.A.P RTE. 669 LOADING HS20-44 SEC 13-[(HB.HB-1.2)BR-1]RS-2 STRUCTURE NO. 090-0032

### NAME PLATE See Std. 515001

Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.



### PROFILE GRADE

(F.A.P. Route 669) Measured 3' from 🕻 bridge on both sides of median at top of concrete deck

# GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 7/8" Ø unless noted otherwise.

No field welding is permitted except as specified in the contract documents. The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck. Dye penetrant (PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications. Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring new concrete deck, all heavy or loose rust, mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete (SSPC-SP3 standards). 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 paid for according to Article 109.04 of the Standard Specifications. 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 cannot be removed by grinding  $\frac{\gamma}{4}$  inch 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.

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.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of  $\frac{1}{8}$  inch (0.01 ft.). Adjustment shall be made by either grinding the surface or shimming the bearings.

Slipforming of the parapets is not allowed.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to address the presence of lead on this project. All new structural steel shall be shop painted with an inorganic zinc rich

primer per AASHTO M300, Type 1. Cleaning and painting of the existing and new structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures." All existing and new steel shall be cleaned per Near White Blast Cleaning - SSPC-SP10. All existing and new steel shall be painted according to the requirements of Paint System 1 - 0Z/E/U. The color of the final finish coat for all interior steel surfaces shall be Gray (Munsell No. 5B 7/1). The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Blue (Munsell No. 10B 3/6). A minimum of four air monitors will be required to monitor abrasive blasting

operations at this site. See Special Provision for "Containment and Disposal of Lead Paint Cleaning Residues."

SSPC QP1 and QP2 Contractor Certification is required for this Contract. Care shall be taken not to damage rubber bearing or joint components during blasting and cleaning operations. Any damage to these components shall be repaired at the contractor's expense.

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."

A film forming Concrete Sealer shall be applied to the horizontal surfaces of the pier crash wall extensions and penetrating Concrete Sealer shall be applied to the vertical serfaces of the pier crash wall extensions.

# LOADING HS20-44

Allow for 25 psf future wearing surface.

SEISMIC DATA

Seismic Performance Category A Bedrock Acceleration Coefficient = 0.04g Site Coefficient = 1.5

### DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

### DESIGN STRESSES

FIELD UNITS (Exist. Construction)

f'c = 3,500 psi fy = 36,000 psi (Structural Steel)

fy = 40,000 psi (Reinforcement)

FIELD UNITS (New Construction)

- f'c = 3,500 psi (Substructure) f'c = 4,000 psi (Superstructure)
- fy = 60,000 psi (Reinforcement)
- fy = 36,000 psi (Structural Steel)
- *fy* = 36,000 *psi* (*Bearing/Side Retainers*)

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	VEENSTRA	USER NAME =	DESIGNED - DJC	REVISED 2 11/2/2023 M.A.H.		GENERAL DATA	F.A.P SECTION	COUNTY TOTAL SHEET
AME			CHECKED - KES	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 090–0032	669 13-[(HB.HB-1.2)BR-1]RS-2	TAZEWELL 293 135
I S E	Springfield, IL. Phone: (217)544-8033	PLOT SCALE =	DRAWN - JRP	REVISED -				CONTRACT NO. 68C00
FILE	IL. Design Firm No. 184-001939	PLOT DATE = August 24th, 2023	CHECKED - MAH	REVISED		SHEET NO. 2 OF 31 SHEETS	ILLINOIS FED. AID PROJECT	
1	1/2/2022 10 15 59 AM	•				-		$\wedge$

ITEM	UNIT	SUPER	SUB	TOTAL				
Concrete Removal	Cu. Yd.		99.6	99.6				
Slope Wall Removal	Sq. Yd.		83	83				
Removal of Existing Concrete Deck No. 2	Each	1		1				
Protective Shield	Sq. Yd.	668		668				
Structure Excavation	Cu. Yd.		310	310				
Concrete Structures	Cu.Yd.		131.4	131.4				
Concrete Superstructure	Cu. Yd.	436.3		436.3				
Bridge Deck Grooving	Sq. Yd.	1463		1463				
Protective Coat	Sq. Yd.	1889		1889				
Concrete Superstructure (Approach Slab)	Cu. Yd.	183.6		183.6				
Stud Shear Connectors	Each	3030		3030				
Furnishing and Erecting Structural Steel	Pound	130,810		130,810				
Reinforcement Bars, Epoxy Coated	Pound	165,210	17,740	182,950				
Slope Wall 4"	Sq. Yd.		83	83				
Name Plates	Each	1		1				
Elastomeric Bearing Assembly, Type I	Each	20		20				
Anchor Bolts, 1"	Each	40		40				
Drainage System for Structures	L. Sum	0.33		0.33				
Granular Backfill for Structures	Cu.Yd.		368	368				
Concrete Sealer	Sq. Ft.		570	570				
Geocomposite Wall Drain	Sq.Yd.		166	166				
Pipe Underdrains for Structures 4"	Foot		230	230				
Containment and Disposal of Lead Paint	L. Sum	1		1				
Cleaning Residues Bridge No. 2		-		1				
Cleaning and Painting Bridge No. 2	L. Sum.	1		1				
Structural Repair of Concrete (Depth	Sq. Ft.	18		18				
Equal to or Less than 5 Inches)								
Drainage Scuppers, DS-11	Each	8		8				
Bar Splicers	Each	832		832				
Temporary Sheet Piling	Sq. Ft.		516	516				
Structural Steel Removal	Pound	98,410		98,410				

# TOTAL BILL OF MATERIAL

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