## GENERAL NOTES

- 1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 78" diameter, open holes 1516" diameter, unless otherwise noted.
- 2. Calculated weight of Structural Steel: AASHTO (M270 GR 50) = 748.170 pounds AASHTO (M270 GR 36) = 68,490 pounds
- 3. No field welding is permitted except as specified in the contract documents.
- 4. The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams, the tension flanges and webs of the plate girders, and all splice plate material except fill plates.
- 5. Materials, fabrication welding, and non-destructive testing for the members identified as Fracture Critical Member and member components (F.C.M.) in the contract plans shall conform to the requirements of Section 12 of the current ANSI / AASHTO / AWS / D 1.5 Bridge Welding Code.
- 6. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
- 7. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of  $l_{g}$ ". Adjustments shall be made either by grinding the surface or by shimming the bearing. Two  $l_{g}$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.
- 8. The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
- 9. Concrete Sealer shall be applied to the seat area of the East and West Abutments.
- 10. When the deck pour is stopped for the day at one or more of the Transverse Bonded Construction joints in the deck Pouring Sequence as shown, the next pour shall not be made until both of the following requirements are met: 1. At least 72 hours shall have elapsed from the end of the previous pour.
  - 2. The concrete strength shall have attained a minimum flexural strength of
  - 650 psi or a minimum compressive strength of 3500 psi.
- 11. In addition to all other requirements of section 512 of the Standard Specifications, splices for the 12" metal shell piles shall develop the full capacity of the steel's cross sectional area of the pile for tension, shear and bending forces. One approved method of achieving this requirement is full penetration butt welding of the entire cross section. Other types of splices meeting the full capacity requirement may be allowed subject to the approval of the Engineer. Any proposal by the Contractor to use an alternate splice method must include adequate documentation demonstrating that the full tension, shear and bending capacities will be met. Appropriate welder qualifications will be required for the positions and processes used in splicing all piles. Nondestructive testing of completed welds will be limited to visual inspection.
- 12. The existing structural steel coating contains lead. The contractor shall take appropriate precautions to deal with the presence of lead on this project.
- 13. All construction joints shall be bonded.
- 14. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06b of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- 15. The organic zinc rich primer/epoxy/urethane paint system shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. 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 gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures."
- 16. Slipforming of the parapaets is not allowed.
- 17. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- 18. Wherever reference is made to Neoprene Expansion Joint in these plans it shall be interpreted to mean Preformed Joint Strip Seal.

## TOTAL BILL OF MATERIAL

ITEM	UNIT	SUB-STRUCT.	SUPER-STRUCT.	TOTAL
Removal of Existing Structures	EACH			1
Structure Excavation	CU YD	401		401
Preformed Joint Strip Seal	FOOT		524	524
Concrete Structures	CU YD	770		770
Concrete Superstructure	CU YD		858	858
Bridge Deck Grooving	SQ YD		2935	2935
Protective Coat	SQ YD		3456	3456
Furnishing and Erecting Structural Steel	L.S.		1	1
Stud Shear Connectors	EACH		16981	16981
Reinforcement Bars, Epoxy Coated	POUND	89390	233410	322800
Aluminum Railing, Type L	F00T		408	408
Furnishing Metal Shell Piles 12" x 0.250"	FOOT	15910		15910
Driving Piles	F00T	15910		15910
Test Pile Metal Shells	EACH	3		3
Temporary Sheet Piling	SQ FT	3000		3000
Name Plates	EACH	1	·	1
Concrete Sealer	SQ FT	1415		1415
Temporary Mechanically Stabilized Earth Wall	SQ FT	1600		1600
Drainage Scuppers, DS-11	EACH		4	4
Drainage System	L.S.		1	1
High Load Multi-Rotation Bearings, Fixed-250 K	EACH		13	13
High Load Multi-Rotation Bearings, Guided Expansion, 100 K	EACH		26	26
High Load Multi-Rotation Bearings, Guided Expansion, 350 K	EACH		2	2
High Load Multi-Rotation Bearings, Guided Expansion, 650 K	EACH		2	2
High Load Multi-Rotation Bearings, Non-Guided Expansion, 50 K	EACH		8	8
High Load Multi-Rotation Bearings, Non-Guided Expansion, 75 K	EACH		6	6
High Load Multi-Rotation Bearings, Non-Guided Expansion, 100 K	EACH		6	6
High Load Multi-Rotation Bearings, Non-Guided Expansion, 150 K	EACH		6	6
High Load Multi-Rotation Bearings, Non-Guided Expansion, 200 K	EACH		4	4
Bar Splicers	EACH	567	672	1239
Protective Shield	SQ YD		1146	1146
Anchor Bolts, 1"	EACH	224		224
Anchor Bolts, 14"	EACH	52		52
Anchor Bolts, 1 <sup>1</sup> 2"	EACH	20		20

F.A.I. RTE.	SECTI0	N	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60	0-10HB	MADISON	420	221
STA.		TO	STA.		
FED. RO	AD DIST. NO.	ILLINOIS	FED. AID	PROJECT	

CONTRACT NO. 76709

## THOSE OF CHESTS

<u>IND l</u>	EX OF SHEETS					
S-01	General Plan	5-60	Pier Plan &	Elevation	- Stage	II
S-02	Bridge Geometry	S-61	Pier Details			
	General Notes, B.O.M., & Index of Sheets	S-62	Pier & Pile	Details		
	Foundation Plan	S-63	Bar Splicer	Assembly	•	
S-05			Boring Logs			
S-06	Existing Structure Removal		Boring Logs			
S-07			Boring Logs			
S-08	Temporary Concrete Barrier	S-67				
S-09		S-68	Boring Logs			
S-10	Deck Elevations - IL 162		3 3			
S-11	Deck Elevations - IL 162					
S-12	Screed Plan-Ramps A thru D					
S-13	Ramps A&B Deck Elevations					
S-14	Ramps C&D Deck Elevations					
S-15	Deck Key Plan & Pour Sequence					
S-16	Deck Plan - IL 162					
S-17	Deck Plan-Ramps A & B-Top Bars					
S-18	Deck Plan-Ramps A & B-Bottom Bars					
S-19	Deck Plan-Ramps C & D-Top Bars					
	Deck Plan-Ramps C & D-Bottom Bars					
S-21	•					
5-22						
S-23	•					
S-24	Deck Details					
S-25	Electrical Details					
	North & South Island Details					
S-27	Parapet Detail at Ramp Corners					
S-28	Parapet Elevations & Details-Ramps A, B, & M	lorth Isla	ınd			
S-29	Parapet Elevations - Ramps B, C, & South Isl	'and				
S-30	Superimposed Median Details					
S-31	Superstructure B.O.M.					
S-32	Expansion Joint Details					
S-33	Preformed Joint Strip Seal					
5-34	Bridge Drainage System					
S-35	Drainage Scupper, DS-11					
S-36	Type L Railing					
S-37	Framing Key Plan					
S-38	Framing Plan - IL 162					
S-39	Framing Plan - Ramps A & B					
S-40	Framing Plan - Ramps C & D					
S-41	Elevation - Girders 1 & 17					
	Elevation - Girders 2 & 16					
S-43	Elevation - Girders 3 thru 15, Top of Girder E	Elevations	5			
	Elevation - Ramp Girders, Top of Girder Eleva	ntions				
S-45	Moment and Reaction Tables - Ramp Girders					
S-46	Moment and Reaction Tables - Girders 1 Thru	17				
S-47						
S-48	, •					
S-49	Steel Details - Diaphragms & Ramp Connection					
	High Load Multi-Rotation Bearings - Fixed and		ided			
S-51	High Load Multi-Rotation Bearings - Guided Ex	pansion				
S-52	Not Used					
S-53						
S-54	•					
S-55						
S-56	West Abutment Plan & Elevation - Stage I					

SHT. S-03 OF S-68 STV Incorporated

S-57 West Abutment Plan & Elevation - Stage II

S-58 West Abutment Details

S-59 Pier Plan & Elevation - Stage I

ILLINOIS DEPARTMENT OF TRANSPORTATION IL ROUTE 162 OVER I-55/70 IN TROY F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB MADISON COUNTY STATION 499+48.35 STRUCTURE NO. 060-0338

GENERAL NOTES, B.O.M., & INDEX OF SHEETS

DESIGNED: BTO DATE: 03/06 CHECKED: AWH

DRAWN: BTO CHECKED: AWH