

GENERAL NOTES

1. Fasteners shall be high strength bolts (AASHTO M164 type 3). Bolts M22 ϕ , open holes 24 mm ϕ , unless otherwise noted.
2. Calculated total mass of Structural Steel (M270M, Grade 345W) = 1,630,550 kg
Calculated total mass of Structural Steel (M270M, Grade 345) = 5,600 kg
The estimated amount of structural steel for this structure that is to be erected under this contract is 1,285,870 kg G345W and 4,190 kg G345 for the Lump Sum item of Erecting Structural Steel.
3. All structural steel shall be AASHTO M 270M Grade 345W except expansion joint plates and attached bars which shall be AASHTO M 270M Grade 345.
4. Expansion joint plates and attached bars shall be shop painted with the inorganic zinc rich primer.
5. Field welding of construction accessories will not be permitted to beams or girders.
6. The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270M Grade 345W.
7. Anchor bolts shall be set before bolting diaphragms or cross frames over supports.
8. 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, tension flanges and webs of plate girders and all splice plate material except fill plates.
9. Reinforcement bars shall conform to the requirements of AASHTO M 31M or M 322M Grade 400.
10. Layout of slope protection system may be varied in the field to suit ground conditions as directed by Engineer.
11. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 3 mm. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 3 mm adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, two 3 mm adjusting shims shall be provided for each bearing and placed as detailed.
12. The contractor shall drive 7-356 ϕ Metal Shell test piles in a permanent location. One each at the East and West Abutments, and one each at the five Piers as directed by the Engineer before ordering the remainder of piles.
13. Bridge Seat Sealer shall be applied to the seat area of the East Abutment, West Abutment and Pier 3.
14. All dimensions are in millimeters (mm) except as noted.
15. When 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 modulus of rupture of 4.5 MPa or a minimum compressive strength of 24 MPa.
16. The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project. No additional compensation will be made to properly dispose of the existing structure containing lead.
17. All construction joints shall be bonded.
18. AASHTO M 270M Grade 345W structural steel shall only be painted, for a distance of three times the depth of the beams or girders (but not exceeding 3 m) each way from the deck joints. All structural steel shall be cleaned as specified in the special provision for "Surface Preparation and Painting Requirements for Weathering Steel".

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

INDEX OF SHEETS

- S-1 General Plan
- S-2 General Notes, Index of Sheets and Total Bill of Material
- S-3 Stage Construction Details - Substructure
- S-4 Stage Construction Details - Superstructure
- S-5 Temporary Concrete Barrier for Stage Construction
- S-6 Substructure Layout
- S-7 Cofferdams for Pier Construction
- S-8 Top of Deck Elevations - Unit 1 Layout
- S-9 Top of Deck Elevations - Unit 2 Layout
- S-10 Top of Deck Elevations - Unit 1 (1 of 8)
- S-11 Top of Deck Elevations - Unit 1 (2 of 8)
- S-12 Top of Deck Elevations - Unit 1 (3 of 8)
- S-13 Top of Deck Elevations - Unit 1 (4 of 8)
- S-14 Top of Deck Elevations - Unit 1 (5 of 8)
- S-15 Top of Deck Elevations - Unit 1 (6 of 8)
- S-16 Top of Deck Elevations - Unit 1 (7 of 8)
- S-17 Top of Deck Elevations - Unit 1 (8 of 8)
- S-18 Top of Deck Elevations - Unit 2 (1 of 5)
- S-19 Top of Deck Elevations - Unit 2 (2 of 5)
- S-20 Top of Deck Elevations - Unit 2 (3 of 5)
- S-21 Top of Deck Elevations - Unit 2 (4 of 5)
- S-22 Top of Deck Elevations - Unit 2 (5 of 5)
- S-23 Deck Plan - Unit 1 Eastbound
- S-24 Deck Plan - Unit 1 Westbound
- S-25 Deck Plan - Unit 2 Eastbound
- S-26 Deck Plan - Unit 2 Westbound
- S-27 Parapet Elevations - Unit 1
- S-28 Parapet Elevations - Unit 2
- S-29 Superstructure Details (1 of 2)
- S-30 Superstructure Details (2 of 2)
- S-31 Expansion Joint Details
- S-32 Drainage Scupper Details
- S-33 Framing Plan - Unit 1 Eastbound
- S-34 Framing Plan - Unit 1 Westbound
- S-35 Framing Details - Unit 1 (1 of 3)
- S-36 Framing Details - Unit 1 (2 of 3)
- S-37 Framing Details - Unit 1 (3 of 3)
- S-38 Framing Plan - Unit 2 Eastbound
- S-39 Framing Plan - Unit 2 Westbound
- S-40 Framing Details - Unit 2 (1 of 2)
- S-41 Framing Details - Unit 2 (2 of 2)
- S-42 Bearing Details (1 of 5)
- S-43 Bearing Details (2 of 5)
- S-44 Bearing Details (3 of 5)
- S-45 Bearing Details (4 of 5)
- S-46 Bearing Details (5 of 5)
- S-47 Anchor Bolt Details
- S-48 West Abutment - Eastbound
- S-49 West Abutment - Westbound
- S-50 West Abutment Details
- S-51 East Abutment - Eastbound
- S-52 East Abutment - Westbound
- S-53 East Abutment Details
- S-54 Piers 1 and 2 - Eastbound
- S-55 Piers 1 and 2 - Westbound
- S-56 Pier 3 - Eastbound
- S-57 Pier 3 - Westbound
- S-58 Piers 4 and 5 - Eastbound
- S-59 Piers 4 and 5 - Westbound
- S-60 Pier Details
- S-61 Bar Splicer (Coupler) Details
- S-62 Concrete Pile Details
- S-63 Boring Logs (1 of 10)
- S-64 Boring Logs (2 of 10)
- S-65 Boring Logs (3 of 10)
- S-66 Boring Logs (4 of 10)
- S-67 Boring Logs (5 of 10)
- S-68 Boring Logs (6 of 10)
- S-69 Boring Logs (7 of 10)
- S-70 Boring Logs (8 of 10)
- S-71 Boring Logs (9 of 10)
- S-72 Boring Logs (10 of 10)

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO. S-2
F.A.L. 88/94	2626.2-R-1	LAKE COUNTY, INDIANA	1207 621	72 SHEETS
ILL. HIGHWAY		FED. AID PROJECT		

CONTRACT NO. 62114 INDOT DES. NO. 0100987

TOTAL BILL OF MATERIAL

ITEM	UNIT	*PHASE 2		PHASE 3		TOTAL
		SUPER	SUB	SUPER	SUB	
(IN) Present Structure, Str. No. I-80-1-8460, Remove Portions	L. Sum	1		1		
(IN) Field Welded Stud Shear Connector	Each	10,464		33,612		44,076
(IN) Test Pile, 356 mm	Each		7			7
(IN) Structure Backfill	m ³		153		473	626
(IN) Riprap, Revetment	m ²		2,122		4,314	6,436
(IN) Excavation, Foundation, Unclassified	m ³		878		2,671	3,549
(IN) Excavation, Wet	m ³		166		498	664
(IN) Excavation, Dry	m ³		455		1,362	1,817
(IN) Concrete, A, Substructure	m ³		902.7		2,761.1	3,663.8
(IN) Concrete, C, Superstructure	m ³	554.7		1,716.2		2,270.9
(IN) Surface Seal	L. Sum	0.75		0.47		
(IN) Reinforcing Bars, Epoxy Coated	kg	71,800	64,650	223,480	199,750	559,680
(IN) Pile, Concrete, Steel Shell Encased, 6.35 mm, 356 mm	m		2,865.5		9,483.0	12,348.5
(IN) Structural Expansion Joint, SS	m	43.7		131.1		174.8
(IN) Threaded Tie Bar Assembly, Epoxy Coated	Each	1,465	424		299	2,188
(IN) Anchor Bolt	Each	154		462		616
(IN) Noise Abatement Wall Anchor Rod Assembly	Each	50		55		105
* Furnishing Structural Steel	L. Sum					0.54
* Erecting Structural Steel	L. Sum	1		0.79		
* Furnishing Elastomeric Bearing Assembly, Type I	Each					84
* Erecting Elastomeric Bearing Assembly, Type I	Each		21		63	84
* Furnishing Elastomeric Bearing Assembly, Type II	Each					56
* Erecting Elastomeric Bearing Assembly, Type II	Each		14		42	56
* Furnishing Floating Bearings, Guided Expansion, 1250 kN	Each					28
* Erecting Floating Bearings, Guided Expansion, 1250 kN	Each		7		21	28
* Storage of Structural Steel and Bearings	**					1,883
(IN) Masonry Coating	L. Sum	1		0.25		
(IN) Grates, Basins, and Fittings, Cast Iron	kg			584		584

** For Storage of Structural Steel one unit shall be equal to 5 metric tons. The quantity was calculated based on the assumption that 25% of the steel mass has to be stored for 30 calendar days.

(IN) Indiana Pay Items, denoted by "(Indiana)" in Special Provisions and Summary of Quantities.

• Structural steel and bearings are being furnished by Beam and Bearing Fabrication Contract 62743.

• Phase 2 Construction is annotated on these drawings as "For Information Only" and is being completed in Contract 62113.

• Contract 62114 includes Phase 3 Construction work only.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.L. ROUTE 80/94 (BORMAN EXPRESSWAY)
 OVER LITTLE CALUMET RIVER & N.L.C.T.D. R.O.W.
 GENERAL NOTES, INDEX OF SHEETS AND
 TOTAL BILL OF MATERIAL
 SECTION 2626.2-R-1
 LAKE COUNTY, INDIANA
 STATION 8+470.000
 STRUCTURE NO. I-80-1-8460 (EB & WB)
 DATE 07/05 (016-1003 & 016-1004)

AMERICAN
 CONSULTING ENGINEERS

*** FOR INFORMATION ONLY**