

THIS DETAIL IS INCLUDED FOR INFORMATION ONLY

* 57-7(1) HBR-1;HBR-2] SHEET NO. 2
57-20(1) HBR,HBR-1,HBR-3] OF 17 SHEETS

SECTION	COUNTY	DATE	SCALE
57-20	McLEAN		3/8"
STA	1/4 STA		
FILE NO.	PROJECT		
0-93-048-R4			

BENCH MARK: TOP OF CONCRETE HEADWALL FOR SLOPE DRAIN AT N.W. QUARTER AT STRUCTURE 0060. ELEV.=784.45.

EXISTING STRUCTURES: TWIN BRIDGES AT STA 638+50.46, VETERANS PARKWAY OVER S.B. - F.A.I. ROUTE 74 SECTION 57-20HBR-1, BUILT IN 1963 AND 1964. STRUCTURE NO. 057-0059 AND 057-0060. SUPERSTRUCTURE-3 SIMPLE COMPOSITE SPANS W/R.C. SLAB ON STL. BEAMS, SUBSTRUCTURE - STANDARD PILE BENT ABUTMENTS; PIERS - MULTIPLE COLUMNS (3) ON PILES.

SALVAGE: METAL RAILING AND EXPANSION JOINT MATERIAL TO IDOT MAINTENANCE.

SUPERSTRUCTURE: TO BE RETROFITTED WITH NEW CONCRETE PARAPETS, DECK SCARIFICATION, 2 1/2" CONCRETE OVERLAY, NEW DRAINAGE SCUPPERS, REPLACE MEOPRENE EXPANSION JOINTS WITH 2 1/2" PREFORMED JOINT SEALS, REMOVE EXISTING LONGITUDINAL SEPARATION JOINT, ADD NEW DIAPHRAGMS FOR BEAMS AT SEPARATION JOINT, PARTIAL AND FULL DEPTH DECK REPAIRS, CLEAN AND PAINT BRIDGES, REPOSITION BEARINGS, AND REPLACE NUTS AND WASHERS ON EXISTING ANCHOR BOLTS.

SUBSTRUCTURE: REP CONC. STRUCT, EPOXY CRACK SEALING AND FORM CONC. REP FOR PIERS & ABUTS. SEE SHEETS #13 AND #14 OF 17 FOR DETAILS. REPAIR AND EXTEND SLOPE WALLS TO 5' BEYOND FACE OF PARAPETS AND PLACE SLOPE WALL BETWEEN STRUCTURES 0059 AND 0060, SEE SHEET #16 OF 17 FOR DETAILS.

STAGE CONSTRUCTION: TRAFFIC TO BE MAINTAINED USING STAGE CONSTRUCTION. CLOSE HALF OF EACH STRUCTURE AT A TIME WITH TEMPORARY CONCRETE BARRIER AS INDICATED ON SHEET #3.

*All top surfaces of Abutments & Piers Beams shall be...
Bridge East Side Treatment. Estimated quantity = 1000 sq ft*

GENERAL NOTES

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 3/4"Ø, OPEN HOLES 15/16"Ø, UNLESS OTHERWISE NOTED.

CALCULATED WEIGHT OF STRUCTURAL STEEL=19,980 LBS. (M 183)

THE THREE COAT LEAD AND CHROMATE FREE ALKID PAINT SYSTEM SHALL BE USED FOR SHIP AND FIELD PAINTING OF NEW STRUCTURAL STEEL AND FOR PAINTING OF EXISTING STRUCTURAL STEEL. THE COLOR OF THE FINAL FINISH COAT SHALL BE MUNSSELL STANDARD 7.5G4/B INTERSTATE GREEN.

ALL CONTACT SURFACES OF EXISTING STRUCTURAL STEEL TO WHICH NEW STRUCTURAL STEEL IS TO BE CONNECTED SHALL BE FREE OF PAINT OR LACQUER.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF BEAMS OR GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31, M-42 OR M-53 GRADE 60.

SLOPE WALLS SHALL BE REINFORCED WITH WELDED WIRE FABRIC, 6" X 6" -W4.0 X W4.0, WEIGHING 58 LBS. PER 100 SQ. FT.

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD 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 THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

EXPANSION BOLTS SHALL CONSIST OF APPROVED EXPANSION ANCHORS, PROVIDING MINIMUM CERTIFIED PROOF LOAD = 4,080 LBS., AND 3/4" Ø X 12" HOOKED BOLTS.

THE CONTRACTOR WILL BE REQUIRED TO MARK ON TOP OF THE CONCRETE DECK THE LOCATIONS OF THE TOP FLANGE OF ALL THE STEEL BEAMS OR GIRDERS, PRIOR TO ANY REMOVAL OF THE BRIDGE CONCRETE DECK. SAW CUTTING DIRECTLY OVER THE TOP OF THE BEAM OR GIRDER FLANGES IS NOT PERMITTED.

THE MAXIMUM HEIGHT THAT A BEAM CAN BE RAISED FOR REPOSITIONING A BEARING IS 1/8" THE COST OF JACKING AND CRIBBING IS INCIDENTAL TO "BEARING REPOSITIONING". SEE SPECIAL PROVISIONS FOR "BEARING REPOSITIONING".

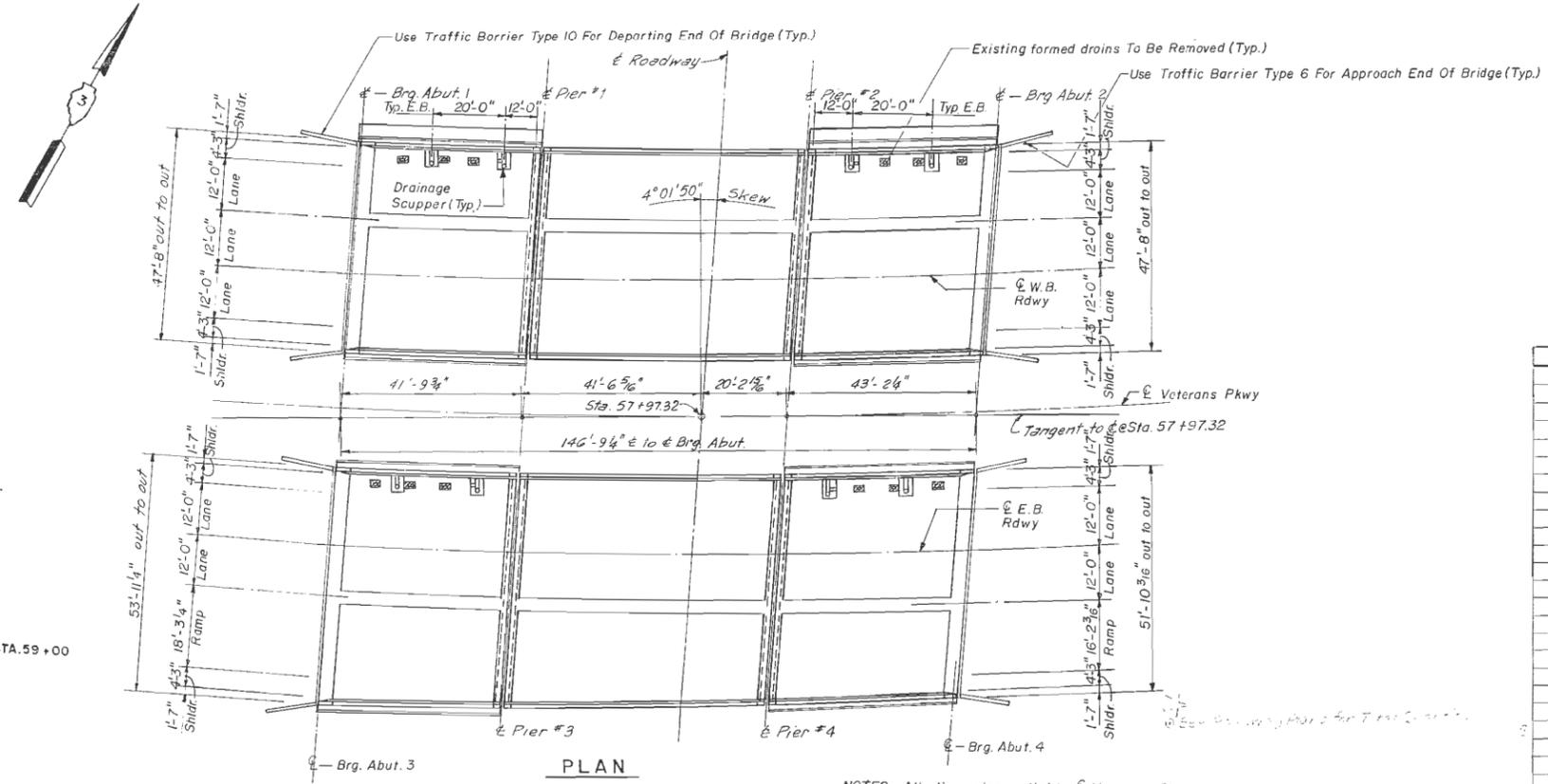
CLEAN AND PAINT ALL STRUCTURAL STEEL. ALL EXISTING STRUCTURAL STEEL SHALL BE CLEANED USING METHOD 11, WITH THE EXCEPTION OF THE FOLLOWING WHICH SHALL BE CLEANED BY METHOD 1: THE END 10 FEET OF EACH BEAM AT THE ABUTMENTS AND AT THE PIERS; AND THE BEARINGS. FOLLOWING THE REMOVAL OF THE CONCRETE DECK IN THE DESIGNATED AREAS, THE TOP FLANGES OF THE BEAMS AND THE END DIAPHRAGMS SHALL BE CLEANED USING METHOD 11. THE STEEL THUS EXPOSED SHALL BE FIELD PRIMED PRIOR TO FORMING THE NEW DECK. SEE SPECIAL PROVISIONS FOR CLEANING AND PAINTING STEEL STRUCTURES.

CURVE DATA

CURVE NO. 12
PI. STA. = 49+30.21
Δ = 52°-30'-00"
D = 2°-30'
R = 2291.83'
T = 1130.21'
L = 2100.00'
E = 263.53'
S = 0.0457/FT.

RAMP CURVE FOR 0059

PI. STA. = 17+47.06
Δ = 9°-15'-14.3"
D = 2°-25'
R = 2370.86'
T = 191.88'
L = 382.92'
L.C. = 382.51'
P.C. STA. = 15 + 55.16 = P.T. STA. 59 + 00



TOTAL BILL OF MATERIALS

ITEM	UNIT	SUPER	SUB.	TOTAL
FURNISHING & ERECTING STRUCTURAL STEEL	LB.	19,980	-	19,980
REINFORCEMENT BARS (EPOXY COATED)	LB.	29470	2000	31470
CONCRETE REMOVAL (SPECIAL)	CU. YD.	58.4	-	58.4
CLASS X CONCRETE, SUPERSTRUCTURE	SQ. YD.	147.9	-	147.9
BRIDGE DECK CONCRETE OVERLAY OPTION	SQ. YD.	1550	-	1550
BRIDGE DECK CONCRETE SCARIFICATION 1/4"	SQ. YD.	1550	-	1550
BITUMINOUS CONCRETE SURFACE REMOVAL	SQ. YD.	1289	-	1289
PROTECTIVE COAT	SQ. YD.	1792	-	1792
EXPANSION BOLTS 3/4 INCH	EACH	-	24	24
DRAINAGE SCUPPERS	EACH	8	-	8
PREFORMED JOINT SEAL 2 1/2"	LIN. FT.	404	-	404
CONCRETE REMOVAL	CU. YD.	81.4	18.1	99.5
EPOXY CRACK SEALING	LIN. FT.	-	192	192
FORM CONC REP > 1.5	SQ. FT.	-	406.4	406.4
BEARING REPOSITIONING	EACH	20	-	20
SLOPE WALL REMOVAL	SQ. YD.	-	281	281
SLOPE WALL, 4"	SQ. YD.	-	571	571
CLEANING AND PAINTING STEEL BRIDGE NO. 3	LUMP SUM	1	-	1
BRIDGE HANDRAIL REMOVAL	LIN. FT.	600	-	600
EXPANSION DEVICE REMOVAL	LIN. FT.	370	-	370
TEMPORARY CONCRETE BARRIER	LIN. FT.	300	-	300
DECK SLAB REPAIR (PARTIAL DEPTH)	SQ. YD.	377	-	377
DECK SLAB REPAIR (FULL DEPTH, TYPE 1)	SQ. YD.	41	-	41
CLEANING & PAINTING STEEL BRIDGE NO. 4	LUMP SUM	1	-	1
1" ANCHOR BOLTS			116	116

NOTES: All dimension radial to Δ Veterans Pkwy (Curve 2°30' unless noted)



DESIGNED	<i>R.H.</i>
CHECKED	<i>M.J.H.</i>
DRAWN	<i>J.D.</i>
CHECKED	<i>K.H.</i>



DESIGN STRESSES (NEW CONSTRUCTION)

Concrete $f_c = 3,500$ psi
Reinforcement $f_y = 60,000$ psi
Design Loading: H-20-S16-44 and Alternate
Design Specifications: 1983 A.A.S.H.T.O. and 1984 thru 1988 Interim Specifications.
Structural Steel: $f_y = 36,000$ psi A.A.S.H.T.O. M-183 Existing and Proposed Structural Steel.

REVISIONS

NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA

VETERANS PARKWAY OVER E.B.-FA.I. RT. 74
SECTION 57-20(HB,HBR-1)
MCLEAN COUNTY
STATION 638 + 50.46
STRUCTURE NO. 057-0059(E.B.)
STRUCTURE NO. 057-0060(W.B.)

