THE IMPROVEMENTS COVERED IN THESE PLANS SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

THE PLACEMENT OF PAVEMENT MARKINGS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD), 2011 EDITION, AS AMENDED.

DO NOT OPEN STRUCTURE TO TRAFFIC UNTIL ALL PROPOSED CONCRETE ATTAINS 100% OF ITS SPECIFIED STRENGTH.

APPLY CONCRETE SURFACE COATING TO THE ENTIRE EXPOSED SURFACE OF ABUTMENTS (EXCEPT THE TOPS) AND TO THE ENTIRE EXPOSED SURFACE OF THE PIERS (EXCEPT TOP). USE LIGHT GRAY URETHANE PROTECTIVE COAT, AMS—STD—595 COLOR NUMBER 16440.

APPLY SUBSTRUCTURE HORIZONTAL SURFACE SEALER TO THE TOP OF ALL PIERS AND ABUTMENTS. CLEAN ACCIDENTALLY COATED VERTICAL SURFACES AT CONTRACTORS EXPENSE.

COAT STRUCTURAL STEEL ACCORDING TO SECTION 716 OF THE STANDARD SPECIFICATIONS. USE LIGHT GRAY URETHANE PROTECTIVE COAT, AMS-STD-595 COLOR NUMBER 16440.

APPLY CONCRETE SURFACE COATING TO THE ENTIRE CONCRETE SURFACE OF BRIDGE BARRIER. USE CONCRETE SURFACE COATING AMS-STD-595 COLOR NUMBER 16440.

REMOVE ALL ACCUMULATED FOREIGN MATTER FROM THE BRIDGE DECK INCLUDING SIDEWALK, CURBS, EXPANSION JOINTS, TOP OF ABUTMENTS, INCLUDING BEARINGS, TOPS OF PIERS, INCLUDING BEARINGS, LOWER FLANGES OF BEAMS. STAGE WORK SUCH THAT ELEMENTS ARE CLEAN ND FREE OF DEBRIS AFTER COMPLETION OF ALL BRIDGE WORK. IF CLEANING OF ELEMENTS IS REQUIRED FOR ACCESS OR TO SAFELY PERFORM WORK OPERATIONS, CLEANING MAY BE REQUIRED BEFORE AND AFTER OTHER ITEMS OF WORK. INCLUDED IN THE ITEM "BRIDGE CLEANING, STRUCTURE XXXX".

REMOVE AND REPLACE ONLY THAT PORTION OF BARRIER, SIDEWALK AND BRUSH BLOCK THAT IS NECESSARY FOR INSTALLATION OF THE DECK JOINT.

SOUND CONCRETE BEFORE OVERLAYING TO DETERMINE WHETHER THE REMOVAL AT EITHER SIDE OF TRANSVERSE JOINTS WILL BE ADEQUATE. INCREASE THE REMOVAL LIMITS AS APPROVED BY THE ENGINEER.

CONSTRUCT BRIDGE OVERLAY TO CROSS SLOPE TO MATCH EXISTING CROSS SLOPE

HEAVY EQUIPMENT, INCLUDING CONCRETE TRUCKS AND VACUUM TRUCKS FOR REMOVING CONCRETE DEBRIS, ARE NOT ALLOWED ON HYDRODEMOLISHED SURFACES OF THE DECK.

THE ENGINEER WILL INSPECT THE STRUCTURAL STEEL PARTS THAT HAVE BEEN BLAST CLEANED FOR EVIDENCE OF CRACKS OR LOSS OF SECTION DUE TO CORROSION OF MORE THAN 25 PERCENT. THE ENGINEER WILL REPORT DETERIORATION IN WRITING TO THE REGION BRIDGE ENGINEER.

IMPLEMENT MEASURES TO PREVENT DEBRIS FROM FALLING FROM THE STRUCTURE. (IF DEBRIS FALLS INTO THE WATERWAY, REMOVE IT WITHIN 24 HOURS. SINCE DISTURBANCE OF THE WATERWAY BOTTOM MAY BE AS HARMFUL AS THE DEBRIS ITSELF, THE PREVENTIVE MEASURES MUST BE EFFECTIVE. REMOVAL OF DEBRIS IS INCLUDED IN RELATED ITEMS OF WORK.

THE DESIGN OF THE STRUCTURAL MEMBER IS BASED ON MATERIAL OF THE FOLLOWING GRADE AND STRESSES:

PATCHING, CONCRETE C-L
CONCRETE, SILICA FUME MODIFIED (SMFC)

Know what's below.

Call before you dig.

f'c=3,000 psi f'c=4,000 psi fy=60,000 psi

STEEL REINFORCEMENT fy=60,000 psi

FOR DETAILS OF CONCRETE SLOPE PAVING PROTECTION, SEE STANDARD PLAN B-102-SERIES.

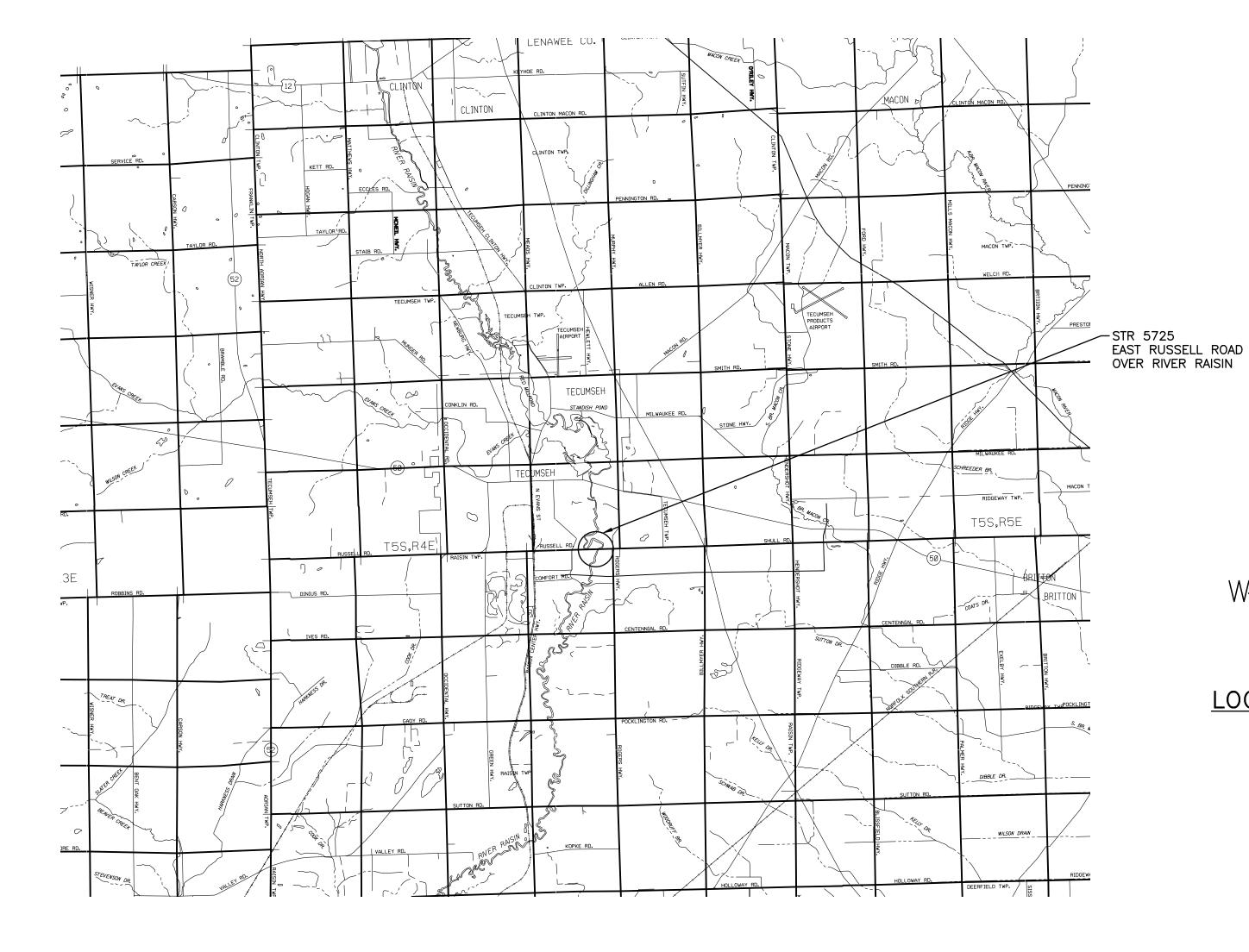
THIS PROJECT HAS BEEN EVALUATED USING THE FAA NOTICE CRITERIA TOOL FOR A MAX STRUCTURE HEIGHT OF 100 FEET ABOVE GROUND LEVEL HEIGHT OF 792 FEET AND NO PERMIT IS REQUIRED.

# SHEET INDEX GENERAL SHEETS SHEET NO. COVER SHEET 1 EAST RUSSELL ROAD MOT 2 EAST RUSSELL ROAD NOTES AND QUANTITES 3 EAST RUSSELL ROAD EXISTING SHEETS 4-6 EAST RUSSELL ROAD REMOVAL AND PROPOSED PLAN 7 EAST RUSSELL ROAD EXPANSION JOINT DETAILS 8

# CITY OF TECUMSEH DEPARTMENT OF PUBLIC WORKS

# CAPITAL PREVENTATIVE MAINTENANCE FOR EAST RUSSELL ROAD OVER RIVER RAISIN







THE REGULATED WASTE ACTIVITY
IDENTIFICATION NUMBERS FOR THIS
PROJECT ARE AS FOLLOWS:
CONTROL SECTION: NUMBER:
464665400038 MIK171412031

PROJECT DESCRIPTION: CAPITAL PREVENTATIVE MAINTENANCE ON EAST RUSSELL ROAD OVER THE RIVER RAISIN IN THE CITY OF TECUMSEH.

JOB NO.

TEC2064-01T

1



25251 Northline Rd. Taylor, MI 48180 734.947.9700 www.wadetrim.com





WADE TRIM, INC — LEON SOLOWJOW, P.E. 7/26/24 REGISTRATION NO. 43213

PROTECTION OF UNDERGROUND UTILITES

THE CONTRACTOR SHALL CONTACT "MISS DIG" AT 800.482.7171, 811, OR VISIT WWW.MISSDIG.ORG, A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO EXCAVATING IN THE VICINITY OF UNDERGROUND UTILITIES TO VERIFY THEIR LOCATION. ADDITIONALLY, THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING UTILITY OWNERS WHO ARE NOT PART OF THE "MISS DIG" ALERT SYSTEM.

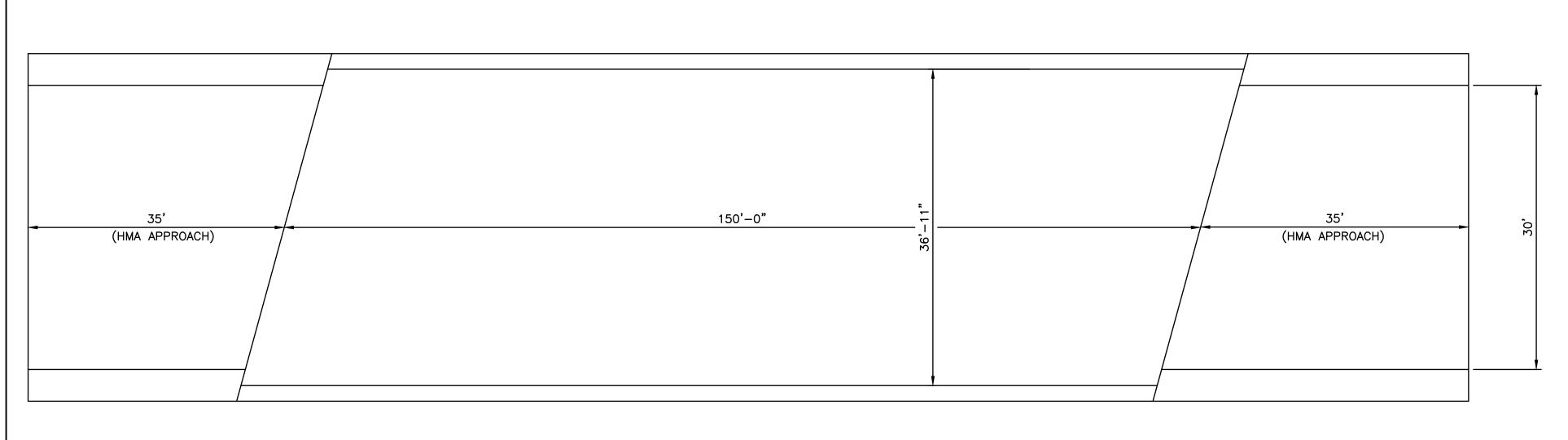


25251 Northline Rd. Taylor, MI 48180 734.947.9700 www.wadetrim.com

WORKS

SSUED FOR: DATE:

TEC2064-01T



COLD MILLING HMA SURAFACE

COLD MILL HMA SURFACE (1.5 INCH)

LIMITS OF PREFORMED MÈMBRANE LIMITS OF HMA OVERLAY

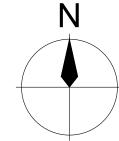
# - TIE GALVANIC ANODES TO EXISTING EXPOSED REINFORCEMENT. PLACE AROUND THE PERIMETER OF THE CONCRETE REPAIR. PLACE IN A GRID PATTERN WITHIN THE INTERIOR OF THE REPAIR IF THE REINFORCEMENT IS IN CONTACT WITH EXISTING CONCRETE, SEE SPECIAL PROVISION FOR EMBEDDED GALVANIC ANODES (TYP) 1" DEEP SAWCUT-CONCRETE REMOVAL -BLAST CLEAN AND REUSE ALL EXISTING LIMITS TO BE DETERMINED REINFORCEMENT. PAYMENT INCLUDED BY ENGINEER IN THE BID ITEM "HAND CHIPPING, OTHER THAN DECK". **ELEVATION**

# TYPICAL BRIDGE PLAN

REMOVAL LIMITS

MEMBRANE, PREFORMED -

WATERPROOFING



LIMITS OF

COATING

CONCRETE SURFACE

# \* PATCHING, CONC, C-L FOR SUBSTRUCTURE REPAIRS. CONC, SILICA FUME MODIFIED FOR DECK AND RAILING PATCHING. EXISTING VERTICAL BARS PATCHING, CONC, SILICA FUME MODIFIED FOR DECK AND RAILING PATCHING. EXISTING HORIZ BARS PATCHING, CONC, SILICA FUME MODIFIED FOR DECK AND RAILING PATCHING. EXISTING HORIZ BARS PATCHING, CONC, C-L FOR SUBSTRUCTURE REPAIRS. CONC, SILICA FUME MODIFIED FOR DECK AND RAILING PATCHING. PATCHING, CONC, SILICA FUME MODIFIED FOR DECK AND RAILING PATCHING. THE BIOLITEM, "HAND CHIPPING, OTHER THAN DECK". (TYPICAL AT VERTICAL SURFACE)

# TYPICAL SECTION

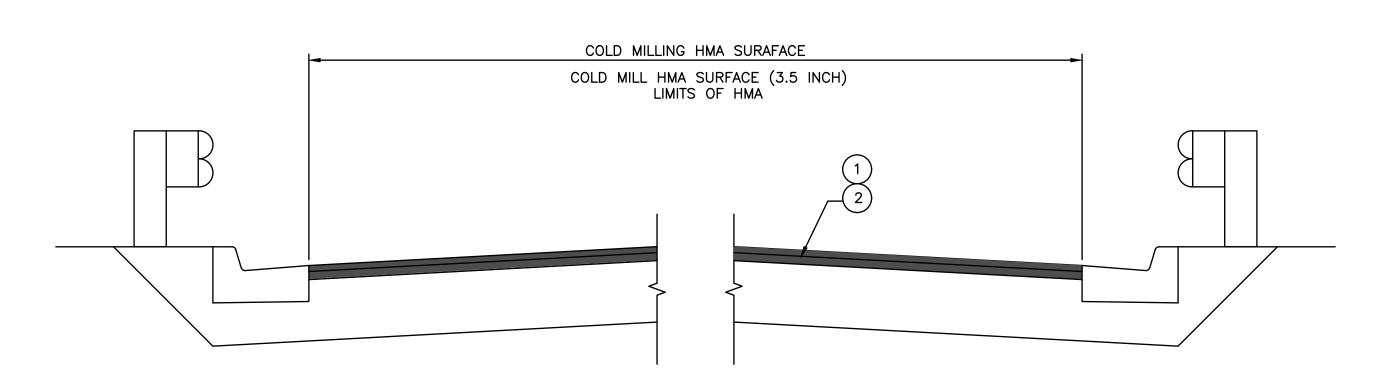
# TYPICAL ABUTMENT PIER CAP AND RAILING REPAIRS

EXISTING REINFORCEMENT
THAT IS CORRODED AND/OR
DAMAGED SHALL BE REPLACED
AS DIRECTED BY THE
ENGINEER. AN ALLOTMENT OF
REINFORCEMENT HAS BEEN
PROVIDED FOR SUCH CASES.

BAR	DIMENSIONS								NO.	TOTAL					
	а	b	С	d	е	f	g	h	j	k	m	n	р	REQ'D	WT.
EA062407	24'-7"													16	591

# TYPICAL BRIDGE SECTION FOR RUSSELL

LIMITS OF HMA OVERLAY AND PREFORMED MEMBRANE



# TYPICAL APPROACH SECTION FOR RUSSELL LIMITS OF HMA MILL AND FILL

HMA APPLICATION ESTIMATE							
INDENT NO	ITEM	RATE: LBS PER SYD	PERFORMANCE GRADE	REMARKS			
1	5EL	165	PG 70-22P	WEARING COURSE			
2	4EL	220	PG 70-22P	LEVELING COURSE			
	* BOND COAT	0.05-0.10 GAL					

r	ITEM	QUANTITIY	UNIT
H	MOBILIZATION, MAX	1	LS
	HMA SURFACE, REM	833	SYD
F	DECK JOINT, REM	82	FT
F	BRIDGE CLEANING (STR 5725)	1	LS
	HMA, 4EL	26	TON
	HMA, 5EL	69	TON
	CONC SURFACE COATING	417	SYD
	SUBSTRUCTURE HORIZONTAL SURFACE SEALER	34	SYD
	EXPANSION JOINT DEVICE	82	FT
	PATCH, FORMING	446	SFT
	HAND CHIPPING, OTHER THAN DECK	149	CFT
	PATCHING CONC, C-L	6	CYD
	EMBEDDED GALVANIC ANODE	1530	EA
	STRUCTURAL CRACK, REPR	190	FT
	MEMBRANE, PREFORMED WATERPROOFING	5538	SFT
	CONC, SILICA FUME MODIFIED	8	CYD
	REINFORCEMENT, STEEL EPOXY COATED	691	LB
Γ	EROSION CONTROL, SILT FENCE	150	FT

- \* FOR SUBSTRUCTURE REPAIRS & RAILING REPAIR
- \*\* 591 LB FOR PROPOSED TRANSVERSE DECK REINFORCEMENT TOP&BOTT 100 LB FOR REINFORCEMENT REPAIR AS DIRECTED BY ENGINEER.
- \*\*\* FOR DECK AND RAILING PATCHING
- \*\*\*\* AS DIRECTED BY ENGINEER

MISCELLANEOUS QUANTI	TIES, CO	NT.
TEM	QUANTITIY	UNIT
MINOR TRAF DEVICES	1	LS
PLASTIC DRUM, FLUORESCENT, FURN	13	EA
PLASTIC DRUM, FLUORESCENT, OPER	13	EA
SIGN, TYPE B, TEMP, PRISMATIC, FURN	133	SFT
SIGN, TYPE B, TEMP, PRISMATIC, OPER	133	SFT
SIGN, TYPE B, TEMP, PRISMATIC, SPEC, OPER	108	SFT
SIGN, TYPE B, TEMP, PRISMATIC, SPEC, FURN	108	SFT
BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, FURN	7	EA
BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, OPER	7	EA
SIGN COVER	1	EA

SSUED FOR: DATE: BY:

WORKS

DEP.

JOB NO. TEC2064-01T

3

5

FIELD BOOK INFORMATION:— NTITIES—RUSSELL ROAD.DWG — 3 — PLOTTED 8/6/2024 7:41 AM BY SPENCE, AMANDA

EXISTING

FOR INFORMATION ONLY
DO NOT WORK FROM THIS SHEET, THE
INFORMATION SHOWN HERE IS FOR
REFERENCE ONLY. NO PAY ITEMS ARE
SHOWN.

ISSUED FOR: DATE:

WORKS

CITY OF TECUMSEH DEPARTMENT OF PUBLIC

RUSSEL ROAD OVER EXISTING PLAN OF

JOB NO. TEC2064-01T

4

PROJECT MANAGER: LEON SOLOWJOW, PE

# EXISTING

FOR INFORMATION ONLY
DO NOT WORK FROM THIS SHEET, THE
INFORMATION SHOWN HERE IS FOR
REFERENCE ONLY. NO PAY ITEMS ARE
SHOWN.

25251 Northline Rd. Taylor, MI 48180 734.947.9700

CITY OF TECUMSEH

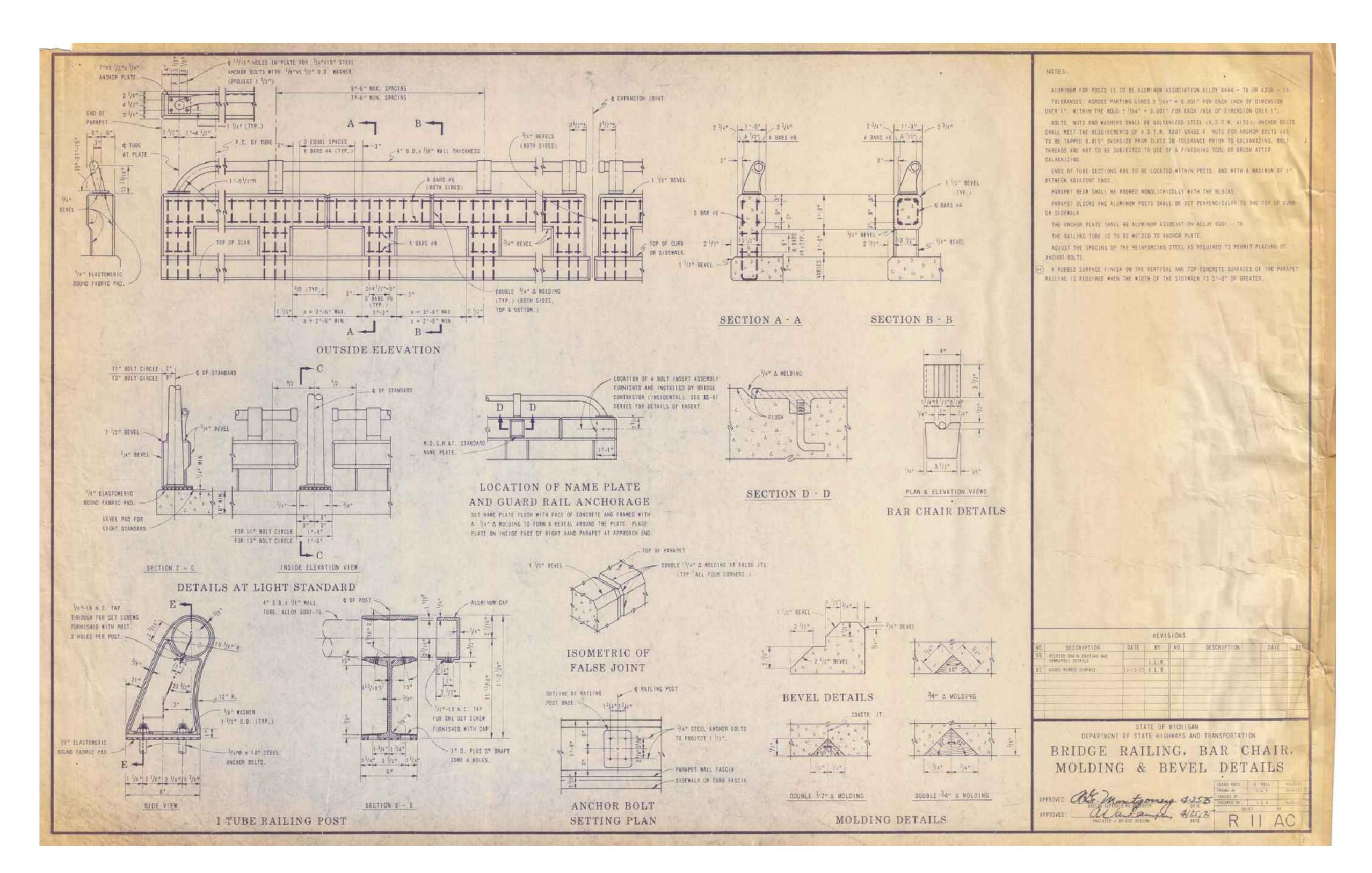
DEPARTMENT OF PUBLIC WORKS

EAST RUSSEL ROAD OVER RIVER RAISIN
EXISTING SECTION

SSUED FOR: DATE: BY:

JOB NO. TEC2064-01T

5



EXISTING

FOR INFORMATION ONLY
DO NOT WORK FROM THIS SHEET, THE
INFORMATION SHOWN HERE IS FOR
REFERENCE ONLY. NO PAY ITEMS ARE
SHOWN

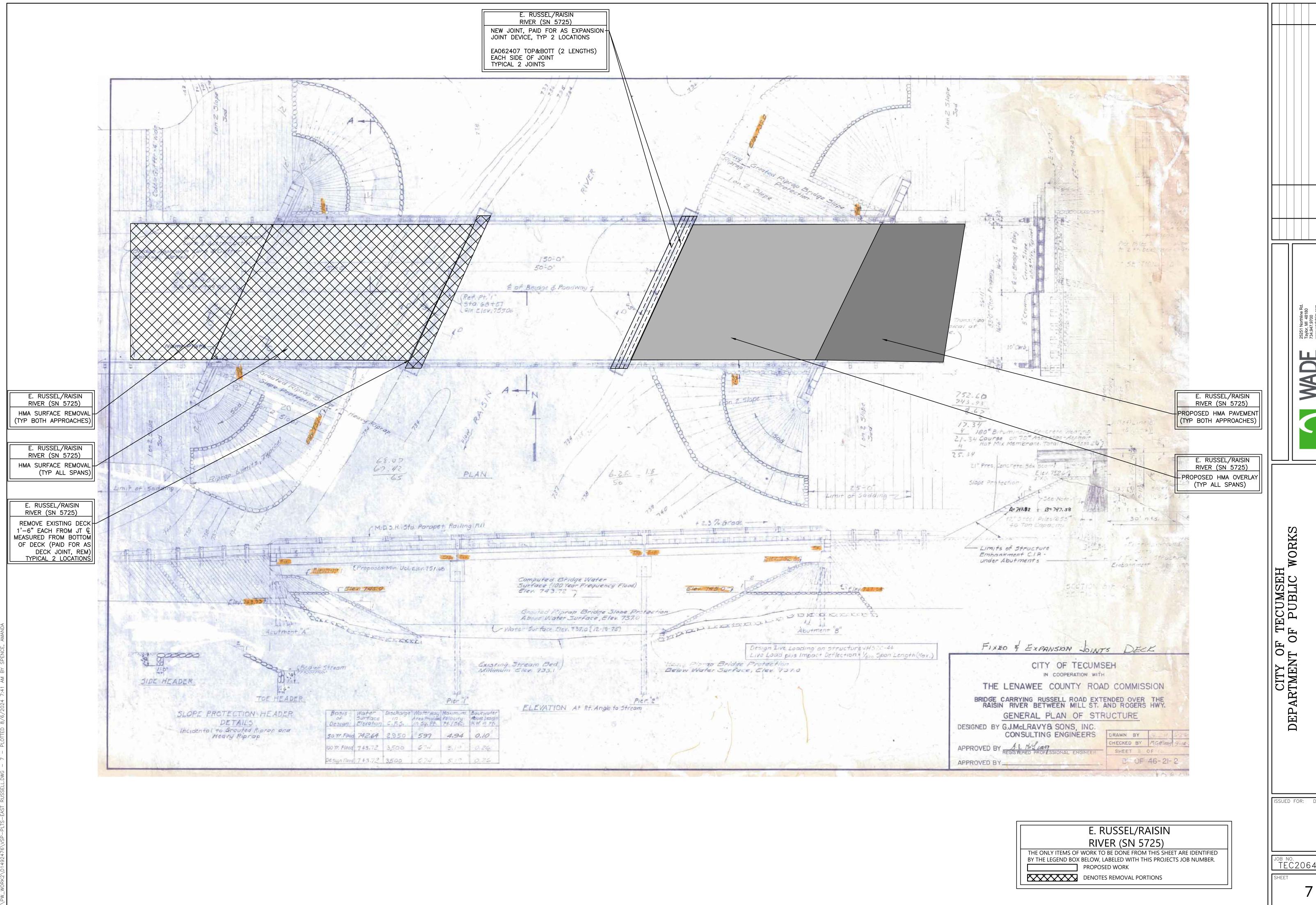
CITY OF TECUMSEH DEPARTMENT OF PUBLIC

WORKS

SSUED FOR: DATE: BY:

JOB NO. TEC2064-01T

6

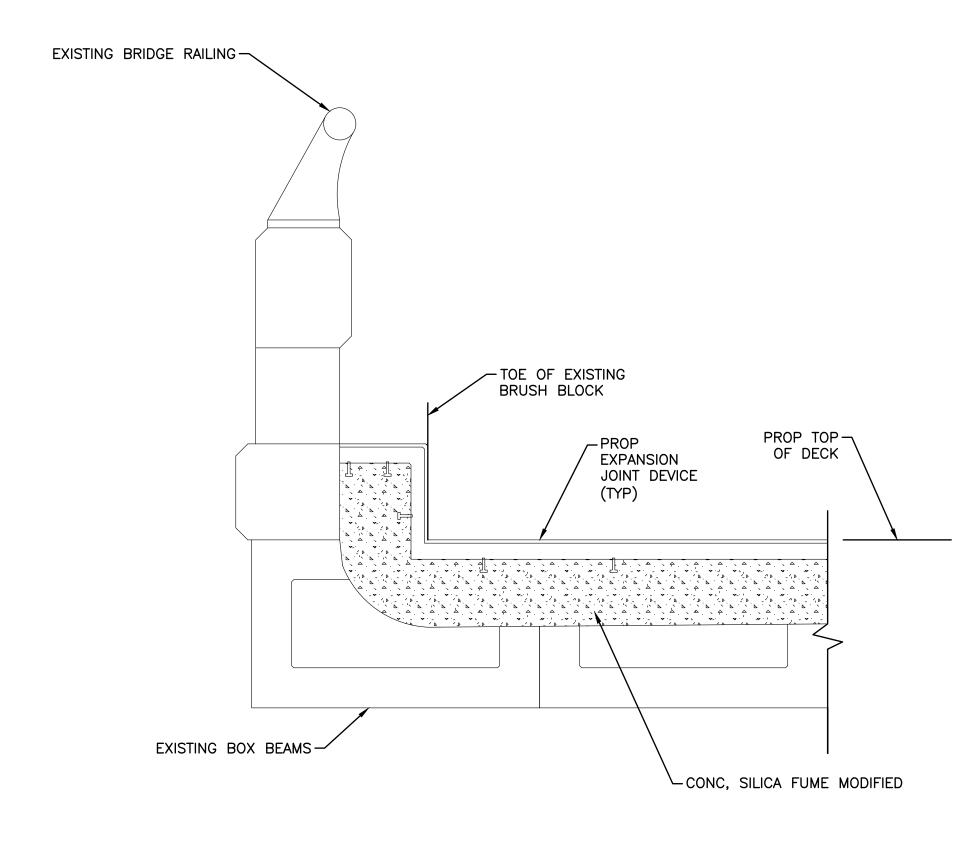


RUSSEL ROAD OVER RIVER PROPOSED PLAN

SSUED FOR: DATE:

TEC2064-01T

# SECTION THROUGH EXPANSION JOINT



SECTION THROUGH BARRIER AT PROP EXPANSION JOINT DEVICE

# NOTES:

# JOINT TYPES

THE EXPANSION JOINT DEVICE SHALL BE OF A TYPE THAT INCLUDES A CONTINUOUS NEOPRENE (OR EQUIVALENT) SEAL ACROSS THE DECK. UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR HAS THE OPTION OF USING ANY OF THE DEVICES LISTED BELOW:

# <u>DEVICE</u>

WABO STRIP SEAL - TYPE M	WATSON-BOWMAN & ACME, INC.
WABO STRIP SEAL - TYPE A	WATSON-BOWMAN & ACME, INC.
STEELFLEX-SSA2	D.S. BROWN
STEELFLEX-SSCM	D.S. BROWN
ONFLEX 40 SS	STRUCTURAL RUBBER PRODUCTS CO.
ONFLEX 40 SSA	STRUCTURAL RUBBER PRODUCTS CO.

THE MODEL OF THE JOINT TYPE SELECTED SHALL BE SUITABLE TO ACCOMMODATE THE TOTAL MOVEMENT NOTED ON THE PLANS.

COMPLETE WORKING DRAWINGS OF ALL DETAILS OF FABRICATION OF THE EXPANSION JOINT DEVICE SHALL BE SUBMITTED FOR REVIEW IN ACCORDANCE WITH STANDARD SPECIFICATION 104.02.

## FABRICATION AND INSTALLATION

REMOVE SHIPPING BOLTS PRIOR TO PLACEMENT OF CONCRETE.

THE EXPANSION JOINT SHALL BE SHOP FABRICATED TO CONFORM TO THE CONTOUR OF THE APPROACH SLAB AND SLEEPER SLAB. IT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS SUBJECT TO NOTES HEREIN AND THE APPROVAL OF THE ENGINEER.

WHEN EXPANSION JOINT DEVICE IS CONTINUOUS ON EACH SIDE OF AN OBSTRUCTION SUCH AS THE END OF A BRIDGE RAILING, CONCRETE CURBS, BRUSH BLOCKS, PARAPETS OR END WALLS, THE END OF THE OBSTRUCTION SHALL BE OFFSET PER MANUFACTURER'S SPECIFICATIONS FROM EXPANSION JOINT DEVICE TO NOT INTERFERE WITH INSTALLATION AND MAINTENANCE.

TIE SLAB REINFORCING STEEL TO STEEL FRAME ANCHORS TO MAXIMUM EXTENT PRACTICABLE WITHOUT DAMAGING GALVANIZED OR EPOXY COATINGS.

THE TOP OF THE EXPANSION JOINT DEVICE SHALL BE SET  $\frac{1}{4}$ "  $-\frac{3}{8}$ " BELOW THE CONCRETE SLAB (PAVEMENT).

THE STEEL ANCHORAGE FOR STRIP SEAL GLANDS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH SUBSECTION 707.03C.17 OF THE STANDARD SPECIFICATIONS.

THE AREA OF THE STEEL ANCHORAGE AND SEALING GLAND WHICH WILL BE IN CONTACT WITH A SEALANT, OR LUBRICANT—ADHESIVE SHALL BE CLEANED WITH TOLUENE OR OTHER APPROVED SOLVENT.

IN THE EVENT THAT SPLICING IS REQUIRED OF THE SEALING GLAND, IT SHALL BE SPLICED BY AN APPROVED METHOD (SUCH AS COLD VULCANIZATION) BY A TRAINED REPRESENTATIVE OF THE MANUFACTURER.

## DETAILS AT CURBS OR BARRIERS

END OF EXPANSION JOINT SHALL TERMINATE AT SIDES OR EDGES OF SLABS PER MANUFACTURER'S SPECIFICATIONS.

# MATERIALS

THE COST OF ALL MATERIALS AND LABOR REQUIRED FOR PROPER INSTALLATION OF THE EXPANSION JOINT DEVICE AND END PLATE ASSEMBLIES AT THE APPROACH SLAB EDGE IS INCLUDED IN THE PAYMENT FOR THE EXPANSION JOINT DEVICE

STRUCTURE NUMBER	ANGLE OF CROSSING TO NEAREST 10°	LOCATION OF JOINT	MIN. TOT. TRAVEL ALONG CENTERLINE OF BRIDGE *	
5725	70°	PIER 1	1.25"	40'-9"
5725	70°	PIER 2	1.25"	40'-9"

WABO STRIP SEAL TYPE M						
TOTAL TRAVEL *	PLATE WIDTH	Y	Z			
< 1"	10"	3 3/4"	5 3/4"			
1" - 2"	11"	3 3/4"	6 3/4"			
2" - 3"	12"	3 3/4"	7 3/4"			
> 3"	13"	3 3/4"	8 3/4"			

	ALL OTHER [		
TOTAL TRAVEL *	PLATE WIDTH	Y	Z
< 1 1/2"	8"	2 1/2"	5 <b>"</b>
1 1/2"-3 1/2'	10"	2 1/2"	7"
> 3 1/2"	12"	2 1/2"	9"

\* SEE TABLE FOR MINIMUM TOTAL TRAVEL ALONG CENTERLINE OF BRIDGE

25251 Northline Rd
Taylor, MI 48180
734.947.9700
www.wadetrim.com

DEPARTMENT OF PUBLIC WORKS

EAST RUSSELL ROAD OVER RIVER RAISIN

ED FOR: DATE: BY:

JOB NO. TEC2064-01T

8