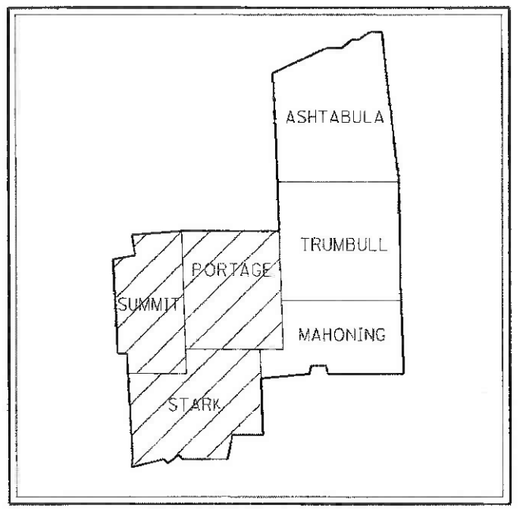
D04 - BH FY2020 (West)
190561 PID - 101378
Dist 4 11/21/2019



LOCATION MAP

LATITUDE: N41°9'31" LONGITUDE: W81°16'6"

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

D04-BH-FY2020 (WEST)

CITIES OF AKRON, STOW, STREETSBORO

CANTON, PARIS, RAVENNA TOWNSHIPS

PORTAGE, STARK, SUMMIT COUNTIES

PROJECT DESCRIPTION

BRIDGE MAINTENANCE ON VARIOUS ROUTES IN POR, STA, AND SUM COUNTIES.

EARTH DISTURBED AREAS

PROJECT EDA:	N/A MAINTENANCE ONLY
ESTIMATED CONTRACTOR EDA:	N/A MAINTENANCE ONLY
NOTICE OF INTENT EDA:	N/A MAINTENANCE ONLY

LIMITED ACCESS (I-76, I-77)

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 8

DESIGN DESIGNATION

STRUCTURE	FUNCTIONAL CLASSIFICATION / NHS ROUTE
POR-5-1266	RURAL PRINCIPAL ARTERIAL / NHS
POR-14-0167	URBAN PRINCIPAL ARTERIAL / NHS
POR-59-0659	URBAN PRINCIPAL ARTERIAL / NHS
STA-172-2554	RURAL MAJOR COLLECTOR / NON-NHS
STA-800-0633	URBAN MINOR ARTERIAL / NON-NHS
SUM-59-1241	URBAN PRINCIPAL ARTERIAL / NHS
SUM-76-1276	URBAN FREEWAYS AND EXPRESSWAYS / NHS
STA-77-0586L	URBAN FREEWAYS AND EXPRESSWAYS / NHS
STA-77-0586R	URBAN FREEWAYS AND EXPRESSWAYS / NHS

INDEX OF SHEETS:

DESIGN EXCEPTIONS

NONE REQUIRED

CONFORMED SET

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:
ODOT --- DISTRICT 4 PLANNING AND ENGINEERING
2088 SOUTH ARLINGTON ROAD
AKRON, OHIO 44306

ENGINEERS SEAL:

STATE OF OHIO · MARK J. ANDRASIK · E-80194 · REGISTERED PROFESSIONAL ENGINEER

SIGNED: M. Andrasik
DATE: 8/20/19

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
BP-2.1	7/17/15	MT-95.32	4/19/19	TC-41.20	10/18/13			800-2019	7/19/19	
BP-2.2	7/18/08	MT-97.10	4/19/19	TC-52.10	10/18/13			821	4/20/12	
BP-2.5	7/19/13	MT-98.29	1/20/17	TC-52.20	7/20/18			832	10/19/18	
BP-8.1	7/18/08	MT-101.70	7/20/18					844	4/20/18	
BP-9.1	1/18/19	MT-101.75	7/15/16					848	1/20/17	
DM-4.3	1/15/16	MT-101.90	7/21/17					856	10/20/17	
DM-4.4	1/15/16	MT-102.20	4/19/19					921	4/20/12	
		MT-105.10	7/19/13					849	1/18/13	
MGS-1.1	1/19/18	MT-99.30	1/19/18							
MGS-2.1	1/19/18	MT-102.10	1/18/19							
MGS-6.1	1/19/18									
		RM-4.2	4/18/14							
AS-1-15	7/17/15									
MT-95.30	7/10/10									
MT-95.31	7/10/10									

APPROVED [signature] DISTRICT DEPUTY DIRECTOR
DATE 9/20/19

APPROVED [signature] DIRECTOR, DEPARTMENT OF TRANSPORTATION
DATE 9/23/19

FEDERAL PROJECT NO. E190097
PID NO. 101378
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT METRO RTA
D04-BH-FY2020 (WEST)
1 / 19

UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, OHIO811, THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS (MICHELLE CHANEY AT 330-786-2267) AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

PAVEMENT MARKING DETAILS

THE PAVEMENT MARKING DETAIL SHEETS WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.

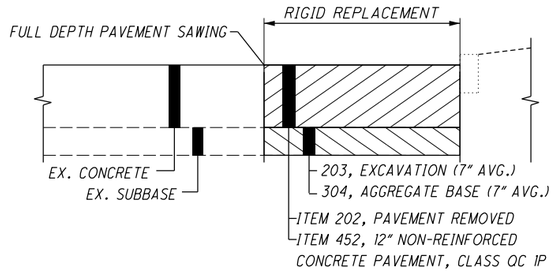
CONCRETE SHOULDER REPLACEMENT (I-76)

THIS WORK SHALL CONSIST OF REPLACING ALL DETERIORATED RIGID CONCRETE PAVEMENT ON THE REAR RIGHT SHOULDER OF I-76 EB AT THE APPROACH OF STRUCTURE SUM-76-1276 (EB). THIS WORK SHALL BE COMPLETED DURING PHASE 2 OF THE CONCRETE DECK OVERLAY OF STRUCTURE SUM-76-1276 (EB). NEW CONCRETE PAVEMENT SHALL BE DOWELED INTO THE EXISTING PAVEMENT. ALL WORK AND MATERIALS ASSOCIATED WITH DOWELING INTO THE EXISTING PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO ITEM 452 - 12" NON-REINFORCED CONCRETE PAVEMENT, CLASS QCIP.

THE PROVIDED QUANTITIES SHALL BE USED TO REPLACE THE SHOULDER RIGID PAVEMENT WITHIN THE LIMITS OF APPROXIMATELY 40' FROM THE APPROACH SLAB JOINT OR AS DIRECTED BY THE ENGINEER.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 202 - PAVEMENT REMOVED, 56 SY
ITEM 203 - EXCAVATION, 11 CY
ITEM 255 - FULL DEPTH PAVEMENT SAWING, 80 FT
ITEM 304 - AGGREGATE BASE, 11 CY
ITEM 452 - 12" NON-REINFORCED CONCRETE PAVEMENT, CLASS OC IP, 56 SY



PAVEMENT MARKINGS

THIS WORK WILL CONSIST OF REPLACING THE EXISITNG PAVEMENT MARKINGS THAT ARE REMOVED DURING REMOVAL AND REPLACEMENT OF THE EXISTING BRIDGE DECK AND APPROACH SLAB WEARING SURFACE. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

REF NO.	STRUCTURE	642 EDGE LINE, 6"	642 LANE LINE, 6"	642 CENTER LINE	642 CHANNELIZING LINE, 12"			
		MILE	MILE	MILE	FT			
	SUM-59-1241		0.02	0.01				
	SUM-76-1273 (EB)	0.36	0.51		500			
	STA-77-0586L	0.25	0.25					
TOTALS CARRIED TO GENERAL SUMMARY		0.61	0.79	0.01	500			

CALCULATED BFR
CHECKED MJA

GENERAL NOTES

D04-BH-FY2020 (WEST)

MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF ONE TEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING PAVEMENT OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.

2. TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.

3. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES RURAL OR ONE [1] MILE URBAN.

4. FOR ROUTES NOT ON THE PERMITTED LANE CLOSURE CHART, ONLY DURING OFF-PEAK PERIODS (ie ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.

5. A QUANTITY OF 5 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

6. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

7. THE CONTRACTOR SHALL PLACE THE SIGNS: W8-1 [BUMP] PER OMUTCD 2C.28; W8-11 [UNEVEN LANES] PER OMUCTD 6F.45; AND W6-3 [TWO-WAY TRAFFIC] PER OMUTCD 6F.32. PAYMENT FOR THESE SIGNS SHALL BE INCIDENTAL TO THE LUMP SUM ITEM 614-MAINTAINING TRAFFIC. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGNS HAS BEEN INCLUDED IN THE PLANS PER CMS 614.04.

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT (SUM-59-1241):

PHASE I - PLANED SURFACE
- 614, WORK ZONE CENTER LINE, CLASS I, 0.01 MILE
- 614, WORK ZONE LANE LINE, CLASS I, 6", 0.02 MILE
- 614, WORK ZONE MARKING SIGN, 20 EACH (ALL PHASES)

PHASE II - INTERMEDIATE COURSE
- 614, WORK ZONE CENTERLINE, CLASS I, 642 PAINT 0.01 MILE
- 614, WORK ZONE LANE LINE, CLASS I, 642 PAINT 0.02 MILE

PHASE III - SURFACE COURSE
- 614, WORK ZONE CENTERLINE, CLASS III, 642 PAINT 0.01 MILE
- 614, WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT 0.02 MILE

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

ADVANCED NOTICE TO PAVE

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE DISTRICT CONSTRUCTION ENGINEER A DETAILED SCHEDULE 15 DAYS PRIOR TO THE PLACEMENT OF THE OVERLAY COURSES, ON HOW THEY PROPOSE TO PROSECUTE THE PAVING OPERATIONS. THE DETAILS SHALL SHOW THE ORDER OF PERFORMANCE OF EACH STAGE (START TO FINISH) OF THE WORK INCLUDING THE MAINTENANCE OF TRAFFIC THAT WILL BE USED.

LANE CLOSURES (I-76, I-77)

DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AS PER THE PERMITTED LANE CLOSURE CHART. THE PERMITTED LANE CLOSURE CHART USED FOR THIS PROJECT SHALL BE THE MOST CURRENT CHART AVAILABLE ON THE DATE THIS PROJECT SELLS.

THE CHART CAN BE FOUND AT:
http://plcm.dot.state.oh.us

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE REQUIREMENTS IN THE CHART, THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF $2,000 PER HOUR OR PORTION THEREOF THAT THE LANE REDUCTION REMAINS BEYOND THE SPECIFIED LIMIT.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
ROAD & RAMP CLOSURES	>= 2WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	2 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERNS CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

ITS MESSAGE BOARDS

THE EXISTING ITS MESSAGE BOARDS IN THE VICINITY OF THE PROJECT WILL BE UTILIZED TO PROVIDE SUPPLEMENTAL INFORMATION TO THE TRAVELING PUBLIC. THE CONTRACTOR WILL NOTIFY THE PROJECT ENGINEER ONE [1] WEEK IN ADVANCE OF ANY PHASE CHANGE ON I-76. THE PROJECT ENGINEER WILL COORDINATE WITH RAMON MARSCH AT 330-786-2208 TO GET THE ITS MESSAGE BOARDS ADJUSTED.

DETOUR NOTIFICATION [ODOT/CITY OF AKRON]

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-3148) AND THE CITY OF AKRON (330-375-2079) EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING
AKRON MARATHON	

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00AM FRIDAY
THURSDAY	(THANKSGIVING ONLY) 6:00AM WEDNESDAY THROUGH 6:00AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR) (SUM-76-1273 [EB])

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 9 CONSECUTIVE CALENDAR DAYS (FRIDAY 8:00PM TO MONDAY 6:00AM) PER PART WIDTH PHASE OF CONCRETE OVERLAY, 2 LANES OF THROUGH TRAFFIC SHALL BE MAINTAINED DURING BOTH PHASES. RAMP TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 8. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $2000 FOR EACH HOUR THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT PROJECT(S):

NEAR SUM-76-1276: SUM-18/VAR-13.19/VAR (PID: 98475)
NEAR STA-77-0586L&R: D04 BH FY2019A (WEST) (PID: 96679)

MAY BE ONGOING IN AN AREA IMMEDIATELY ADJACENT TO AND WITHIN THE PROJECT LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS TO CAUSE A MINIMUM OF DELAY OR CONFLICT WITH THE OTHER PROJECTS. IN ACCORDANCE WITH 105.08, THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL RECIEVE DAILY APPROVALS FROM THE ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. ANY CONFLICT BETWEEN CONTRACTORS INVOLVING WORK SCHEDULES, WORK AREA, OR COOPERATION SHALL BE RESOLVED BY THE ENGINEER. CONPENSATION FOR THE ABOVE COOPERATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

CALCULATED BFR
CHECKED XXX

MAINTENANCE OF TRAFFIC GENERAL NOTES

D04-BH-FY2020 (WEST)

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEETS) 8 OF THE PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 2 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

(THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.) THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE, AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 9 SIGN MONTH ASSUMING 9 PCMS SIGN(S) FOR 1 MONTH(S)

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).
- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

IN GENERAL LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONE.

THE LEOS WORK AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 150 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION(S)

PORTIONS OF THE MOT PLANS AS DESCRIBED BELOW HAVE BEEN APPROVED BY THE MOT EXCEPTION COMMITTEE (MOTEC) OR THE PROJECT IMPACT ADVISORY COUNCIL (PIAC) PER TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

APPROVED MOT EXCEPTION(S) INCLUDE:
TWO PHASES. EACH PHASE CONSISTS OF MAINTAINING 2 OF 4 LANES OF I-76 EB ACROSS BRIDGE OVER KELLY AVE (CLOSING ENTRANCE FROM ARLINGTON ST AND EXIT RAMP TO INNOVATION WAY) FOR 10 DAYS (1 WEEK PLUS WEEKENDS ON BOTH ENDS. CLOSE LANES BEGINNING FRIDAY NIGHT. REOPEN LANES BY MONDAY MORNING 10 DAYS LATER).

IN ADDITION TO ANY NOTIFICATIONS REQUIRED IN OTHER NOTES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 3 BUSINESS DAYS IN ADVANCE OF IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE SO THAT THE PROJECT ENGINEER CAN SEND EMAIL NOTIFICATION TO THE OFFICE OF ROADWAY ENGINEERING, STATEWIDE TMC, DWZTM AND SPECIAL HAULING PERMITS AT LEAST 2 BUSINESS DAYS IN ADVANCE OF THE IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE. REFERENCE "EXCEPTION REQUEST APPROVAL DATED [07/12/19] FOR PID [101378]" IN THE NOTIFICATION AND OTHER CORRESPONDENCE.

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTION(S) LISTED ABOVE SHALL BE APPROVED IN WRITING BY THE APPLICABLE ODOT CENTRAL OFFICE COMMITTEE (MOTEC OR PIAC). IN THE EVENT THAT SUCH CHANGES ARE PROPOSED, THE REQUEST SHALL BE COORDINATED THROUGH THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE DESIRED IMPLEMENTATION DATE. IF THE DISTRICT AGREES WITH THE PROPOSED CHANGES THE DWZTM SHALL SEEK APPROVAL FROM THE APPLICABLE ODOT CENTRAL OFFICE COMMITEE. IN THE EVENT THE PROPOSED CHANGES ARE APPROVED IN WRITING, THE CLOSURES ARE STILL SUBJECT TO NOTIFICATION REQUIREMENTS WITHIN THIS NOTE PRIOR TO IMPLEMENTATION.

CALCULATED BFR CHECKED XXX

MAINTENANCE OF TRAFFIC GENERAL NOTES

D04-BH-FY2020 (WEST)

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NONGATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL AND ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

REMOVAL AND REPLACEMENT OF EXISTING RUMBLE STRIPS

WHEN TRAFFIC WILL BE SHIFTED ONTO THE SHOULDER ALL EXISTING RUMBLE STRIPS SHALL BE FILLED WITH ASPHALT. WHEN CONSTRUCTION IS COMPLETE, THE RUMBLE STRIPS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND LOCATION. PAYMENT FOR ALL WORK AND MATERIALS ASSOCIATED WITH PLACING THE ASPHALT AND RESTORING THE RUMBLE STRIPS TO THEIR ORIGINAL CONDITION WILL BE PAID FOR UNDER ITEM 614, MAINTAINING TRAFFIC, MISC: SHOULDER RUMBLE STRIPS. ALL REQUIREMENTS OF STANDARD CONSTRUCTION DRAWING SHALL BP-9.1 WILL APPLY.

STA-77-0586L PARAPET REPAIR WORK ZONE

THE WORK ZONE LAYOUT FOR STA-77-0586L PARAPET REPAIR SHOWN ON SHEET 6 SHALL BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION.

THE CONTRACTOR MAY MAINTAIN TRAFFIC FOR STA-77-0586L FOR A PERIOD NOT TO EXCEED 10 CONSECUTIVE CALENDAR DAYS. SHOULD THE CONTRACTOR FAIL TO MEET THE ABOVE REQUIREMENT A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $2000 PER DAY THAT THE WORK ZONE REMAINS IN PLACE.

THE FOLLOWING QUANTITES SHALL BE USED IN THE STA-77-0586L PARAPET WORK ZONE AS SHOWN ON SHEET 6 AND HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

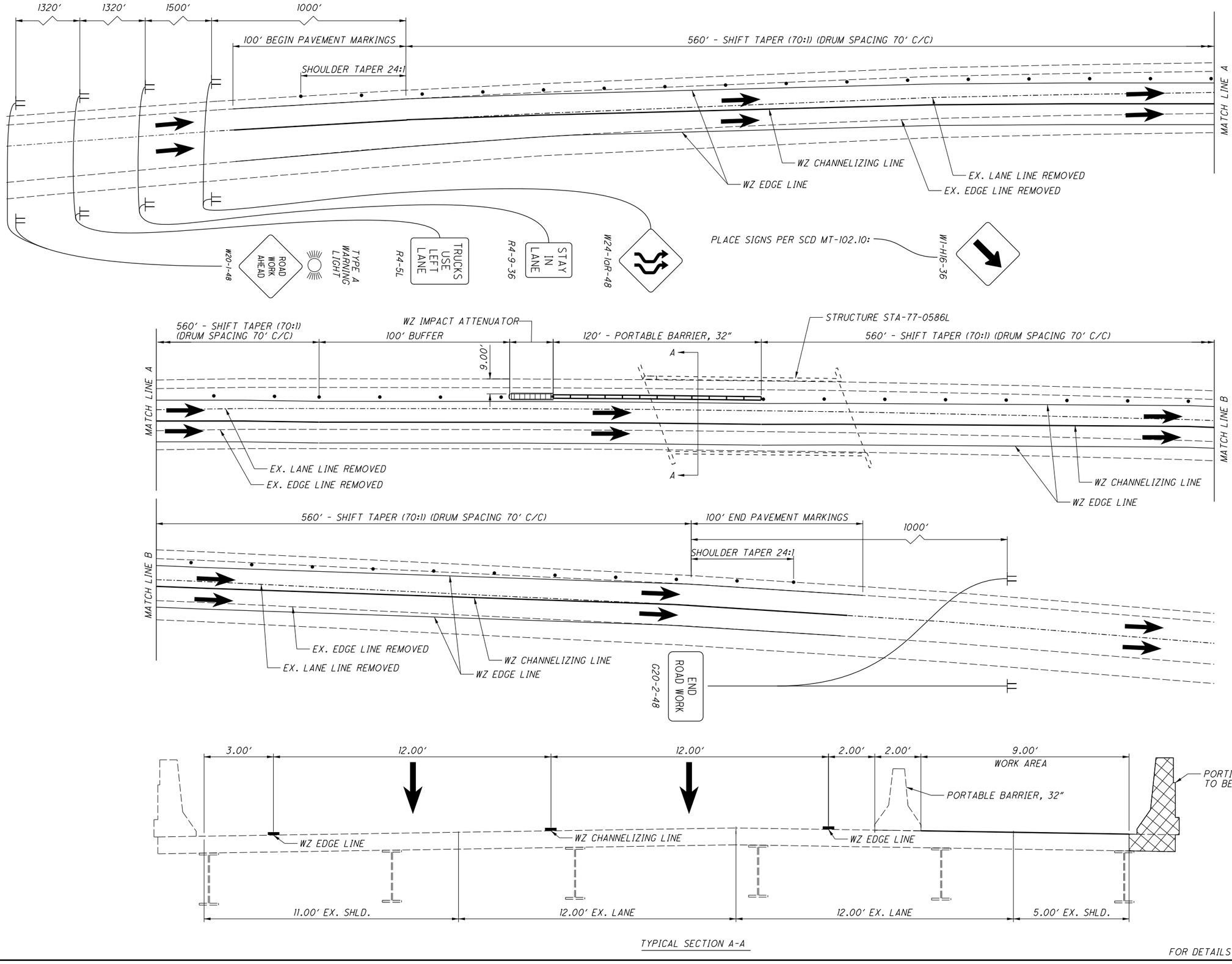
ITEM 614, WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL), 1 EACH
ITEM 614, BARRIER REFLECTORS, TYPE 1, ONE WAY, 3 EACH
ITEM 614, OBJECT MARKERS, ONE-WAY, 3 EACH
ITEM 614, WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT, 0.60 MILE
ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT, 1575 FT
ITEM 614, MAINTAINING TRAFFIC, MISC.: SHOULDER RUMBLE STRIPS, 1276 FT
ITEM 622, PORTABLE BARRIER, 32", 120 FT

CALCULATED BFR
CHECKED XXX

GENERAL NOTES OF TRAFFIC MAINTENANCE

D04-BH-FY2020 (WEST)

5
19

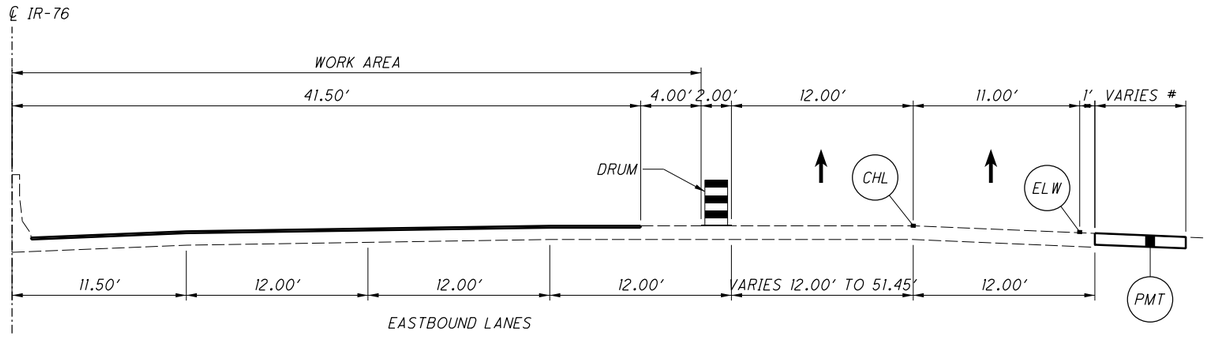


TYPICAL SECTION A-A

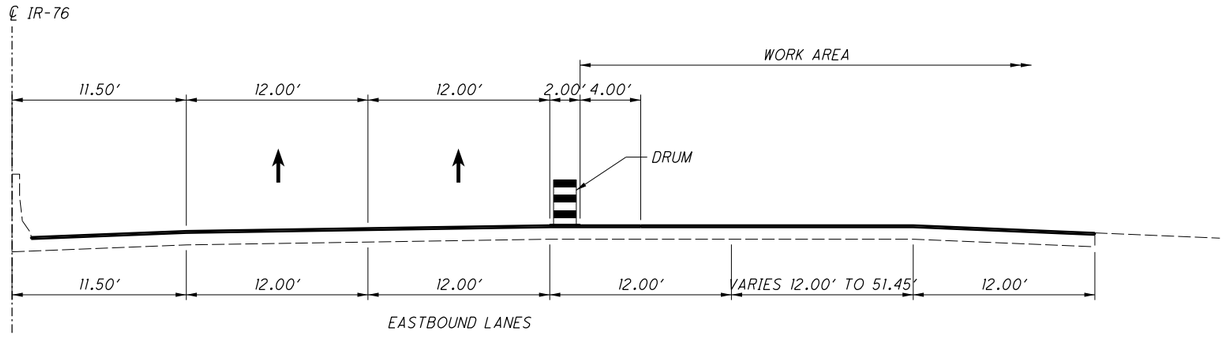
FOR DETAILS NOT SHOWN SEE SCD MT-102.10

MAINTENANCE OF TRAFFIC STA-77-0586 WORK ZONE

D04-BH-FY2020 (WEST)



PHASE 1



PHASE 2

LEGEND

(CHL) - ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS I, 740.06, TYPE I

(ELW) - ITEM 614, WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I (WHITE)

(PMT) - ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:

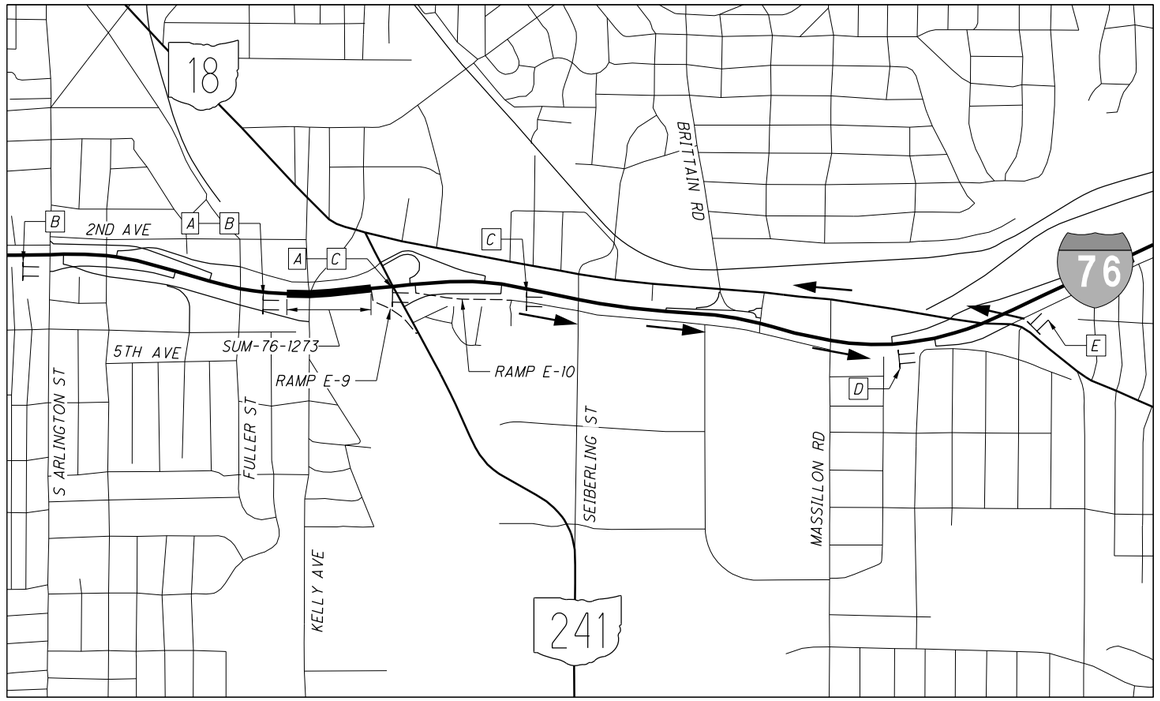
PHASE 1

(ELW) 614, WORK ZONE EDGE LINE, CLASS I, 6", 0.81 MILE
(CHL) 614, WORK ZONE CHANNELIZING LINE, CLASS I, 12", 4277 FT

#VARIES 6' WIDE AT SLM 13.00 (RAMP E-10 GORE) TO 2' WIDE AT SLM 13.03 PLACE PAVEMENT FOR MAINTAINING TRAFFIC PRIOR TO PHASE 1. REMOVE AND REPLACE TYPE E ANCHOR ASSEMBLY AT SLM 13.05 PRIOR TO PHASE 1. REMOVE PAVEMENT FOR MAINTAINING TRAFFIC WHEN NO LONGER NEEDED; TYPE E ANCHOR ASSEMBLY IS TO REMAIN. REMOVE AND REERECT EXIT SIGN 50' EAST FROM CURRENT POSITION. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 202, ANCHOR ASSEMBLY REMOVED, TYPE E, 1 EACH
ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, (MASH 2016) 1 EACH
ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, 82 SQ.YD.
ITEM 615, ROADS FOR MAINTAINING TRAFFIC, LUMP SUM
ITEM 630, GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9, 35 FT
ITEM 630, BREAKAWAY STRUCTURAL BEAM CONNECTION, 2 EACH
ITEM 630, GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION, 2 EACH
ITEM 630, REMOVAL OF GROUND MOUNTED SIGN AND REERECTION, 1 EACH

SEE STANDARD CONSTRUCTION DRAWINGS MT-95.30 AND MT-102.20 FOR PLAN LAYOUT. USE A 60MPH DESIGN SPEED AND PROVIDE A 570' BUFFER AREA BETWEEN THE MERGE TAPER AND THE SHIFT TAPER AND BETWEEN THE SHIFT TAPER AND THE BRIDGE. DO NOT PROVIDE PAVEMENT MARKINGS FOR THE MERGE TAPER OR THE ADJACENT BUFFER AREA.



DETOUR PLAN FOR RAMP E-9 (I-76 EAST TO SR 241) AND E-10 (I-76 EAST TO BRITTAIN RD / ENGLEWOOD AVE)

NOT TO SCALE

DETOUR ROUTE: I-76 EAST / SR 18 WEST

CLOSE RAMPS AS PER STD. DWG. MT-98.29

REFER TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 6H-8 (TYPICAL APPLICATION 8), FOR SIGN SPACING.

A PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:
-PLACE 7 DAYS PRIOR TO CLOSURE

1. RAMP TO
   (STREET NAME)
   TO CLOSE

2. (DATES/TIMES)

B PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:

1. RAMP TO
   SR 241
   CLOSED

2. RAMP TO
   BRITTAIN
   CLOSED

C PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:

1. RAMP
   DETOUR

2. CONTINUE
   EAST
   ON I-76

D PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:

1. DETOUR
   SR 241
   BRITTAIN

2. USE
   SR 18
   EXIT

E PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:

1. DETOUR
   SR 241
   BRITTAIN

2. FOLLOW
   SR 18
   WEST

DETOUR PLAN FOR RAMP E-6 (S ARLINGTON ST TO I-76 EAST)

CLOSE RAMP E-6 AS PER STD. DWG. MT-98.30

DETOUR ROUTE: ARLINGTON ST/ EXCHANGE ST / MARKET ST (SR 18)

ESTIMATED PCMS QUANTITY: 3

CALCULATED BFR
CHECKED XXX

MAINTENANCE OF TRAFFIC RAMP DETOURS

D04-BH-FY2020 (WEST)

SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
					2	3	4	5	7		01/NHS/BR	05/IMS/BR	06/IMS/BR						
																		ROADWAY	
					56							56		202	23000	56	SY	PAVEMENT REMOVED	
									1			1		202	42010	1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
					11							11		203	10000	11	CY	EXCAVATION	
									1			1		606	26150	1	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
								120					120	622	41000	120	FT	PORTABLE BARRIER, 32"	
																		EROSION CONTROL	
												3,000		832	30000	3,000	EACH	EROSION CONTROL	
																		PAVEMENT	
					80							80		255	20000	80	FT	FULL DEPTH PAVEMENT SAWING	
					11							11		304	20000	11	CY	AGGREGATE BASE	
					56							56		452	15010	56	SY	12" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
																		TRAFFIC CONTROL	
									35			35		630	06500	35	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	
									2			2		630	09000	2	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
									2			2		630	84500	2	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
									1			1		630	85100	1	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
					0.61							0.36	0.25	642	00094	0.61	MILE	EDGE LINE, 6"	
					0.79						0.02	0.52	0.25	642	00194	0.79	MILE	LANE LINE, 6"	
					0.01						0.01			642	00290	0.01	MILE	CENTER LINE	
					500							500		642	00394	500	FT	CHANNELIZING LINE, 12"	
																		STRUCTURE REPAIRS	
																		FOR POR-14-0167 ESTIMATED QUANTITIES	13
																		FOR POR-5-1266 ESTIMATED QUANTITIES	13
																		FOR POR-59-0659 ESTIMATED QUANTITIES	13
																		FOR STA-172-2554 ESTIMATED QUANTITIES	13
																		FOR STA-77-0586L ESTIMATED QUANTITIES	13
																		FOR STA-77-0586R ESTIMATED QUANTITIES	18
																		FOR STA-800-0633 ESTIMATED QUANTITIES	13
																		FOR SUM-59-1241 ESTIMATED QUANTITIES	13
																		FOR SUM-76-1276 ESTIMATED QUANTITIES	13
																		MAINTENANCE OF TRAFFIC	
							150					150		614	11111	150	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE, AS PER PLAN	4
								1					1	614	12336	1	EACH	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	
					20						20			614	12460	20	EACH	WORK ZONE MARKING SIGN	
					5						5			614	13000	5	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
								3					3	614	13310	3	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
								3					3	614	13350	3	EACH	OBJECT MARKER, ONE WAY	
								1,276					1,276	614	18030	1,276	FT	MAINTAINING TRAFFIC, MISC.: SHOULDER RUMBLE STRIPS	5
							9					9		614	18601	9	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	4
					0.2						0.2			614	20010	0.2	MILE	WORK ZONE LANE LINE, CLASS I, 6"	
					0.2						0.2			614	20110	0.2	MILE	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	
					0.2						0.2			614	20560	0.2	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
					0.1						0.1			614	21000	0.1	MILE	WORK ZONE CENTER LINE, CLASS I	
					0.1						0.1			614	21100	0.1	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
					0.1						0.1			614	21550	0.1	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
								0.81				0.81		614	22010	0.81	MILE	WORK ZONE EDGE LINE, CLASS I, 6"	
								0.6					0.6	614	22360	0.6	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
								4,277				4,277		614	23010	4,277	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12"	
								1,575					1,575	614	23690	1,575	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
									LS			LS		615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
									82			82		615	20000	82	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
																		INCIDENTALS	
												LS		614	11000	LS		MAINTAINING TRAFFIC	
												6		619	16010	6	MNTH	FIELD OFFICE, TYPE B	
												LS		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
												LS		624	10000	LS		MOBILIZATION	

CALCULATED BFR
CHECKED MJA

GENERAL SUMMARY

D04-BH-FY2020 (WEST)

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15 DATED (REVISED) 7/17/2015

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

848 DATED 1/20/2017
849 DATED 1/18/13
856 DATED 10/20/2017

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2002 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

EXISTING STRUCTURE VERIFICATION

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

PROPOSED WORK

POR-5-1266 (BRANCH MAHONING RIVER)
-SEAL ALL CONCRETE SURFACES OF THE HEADWALLS AND WINGWALLS WITH EPOXY-URETHANE
-CLEARING AND GRUBBING 15' AROUND THE STRUCTURE TO REMOVE VEGETATION
-NEW STRUCTURE IDENTIFICATION SIGNS

POR-14-0167 (BRANCH TINKERS CREEK)
-REMOVE ALL SPALLED AREAS FROM THE BOTTOM OF DECK FLOOR AND SEAL WITH EPOXY-URETHANE
-SEAL ALL CONCRETE SURFACES OF THE HEADWALLS AND WINGWALLS WITH EPOXY-URETHANE
-CLEARING AND GRUBBING 15' AROUND THE STRUCTURE TO REMOVE VEGETATION
-NEW STRUCTURE IDENTIFICATION SIGNS

POR-59-0659 (WAHOO DITCH)
-SEAL ALL CONCRETE SURFACES OF THE HEADWALLS AND WINGWALLS WITH EPOXY-URETHANE
-CLEARING AND GRUBBING 15' AROUND THE STRUCTURE TO REMOVE VEGETATION
-NEW STRUCTURE IDENTIFICATION SIGNS

STA-77-0586L (OVER PRAIRIE COLLEGE ST)
-REPAIR ACCIDENT DAMAGE TO THE FORWARD RIGHT PARAPET AND PORTION OF DECK SLAB
-PATCH ALL UNSOUND AREAS OF THE PARAPETS
-SEAL ALL PATCHED OR REPAIRED AREAS WITH EPOXY-URETHANE
-CLEARING AND GRUBBING 15' AROUND THE STRUCTURE TO REMOVE VEGETATION

STA-77-0586R (OVER PRAIRIE COLLEGE ST)
-HEAT STRAIGHTEN COLLISION DAMAGE AT THE RIGHT FACIA BEAM
-CLEARING AND GRUBBING 15' AROUND THE STRUCTURE TO REMOVE VEGETATION

STA-172-2554 (BLACK RUN CREEK)
-PARTIAL DEPTH PAVEMENT REPAIRS OF THE EXISTING BRIDGE WEARING SURFACE
-REPAIR ALL SPALLED AREAS OF THE STRUCTURE FLOOR WITH FIBER WRAP CONCRETE TREATMENT
-PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE
-SEAL PATCHED AREAS OF THE SUBSTRUCTURE WITH EPOXY-URETHANE
-CLEARING AND GRUBBING 15' AROUND THE STRUCTURE TO REMOVE VEGETATION
-NEW STRUCTURE IDENTIFICATION SIGNS

STA-800-0633 (BRANCH NIMISHILLEN CREEK)
-REMOVE ALL SPALLED AREAS FROM THE BOTTOM OF DECK FLOOR AND SEAL WITH EPOXY-URETHANE
-SEAL ALL CONCRETE SURFACES OF THE HEADWALLS AND WINGWALLS WITH EPOXY-URETHANE
-CLEARING AND GRUBBING 15' AROUND THE STRUCTURE TO REMOVE VEGETATION
-NEW STRUCTURE IDENTIFICATION SIGNS

SUM-59-1241 (FISH CREEK)
-REMOVE AND REPLACE THE EXISTING ASPHALT CONCRETE WEARING SURFACE
-REMOVE ALL SPALLED AREAS FROM THE BOTTOM OF DECK FLOOR AND SEAL WITH EPOXY-URETHANE
-PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE
-SEAL ALL CONCRETE SURFACES OF THE ABUTMENTS, WINGWALLS, PARAPETS AND REPAIRED CONCRETE SURFACES WITH EPOXY-URETHANE
-CLEARING AND GRUBBING 15' AROUND THE STRUCTURE TO REMOVE VEGETATION
-NEW STRUCTURE IDENTIFICATION SIGNS

SUM-76-1276 (OVER KELLY AVE, METRO RTA, CANAL)
-REMOVE AND REPLACE THE EXISTING CONCRETE WEARING SURFACE WITH A FIBER REINFORCED CONCRETE OVERLAY (EB ONLY)
-PATCH ALL UNSOUND AREAS OF ALL PIERS AND WEST ABUTMENT *
-SEAL PATCHED AREAS OF THE SUBSTRUCTURE WITH EPOXY-URETHANE
-CLEARING AND GRUBBING 15' AROUND THE STRUCTURE TO REMOVE VEGETATION
* NOTE: NO SUBSTRUCTURE PATCHING AND/OR SEALING WORK SHALL BE PERFORMED AT THE EAST BRIDGE ABUTMENT

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

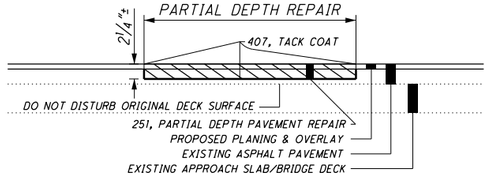
ITEM 202 - WEARING COURSE REMOVED, AS PER PLAN

REMOVE ALL OF THE ASPHALT CONCRETE ON STRUCTURE(S) SUM-59-1241. THICKNESS VARIES WITH A MINIMUM THICKNESS OF 3". MILLING OR OTHER MECHANICAL METHOD OF ASPHALT DECK REMOVAL MAY BE PERFORMED TO WITHIN ½"± OF THE TOP OF THE EXISTING PRESTRESSED CONCRETE BOX BEAMS. THE LAST ½"± OF ASPHALT CONCRETE TO BE REMOVED AND THE WATERPROOFING WILL BE REMOVED USING A NONDESTRUCTIVE METHOD SUCH AS HAND SCRAPING. THE CONTRACTOR WILL USE CAUTION IN REMOVING THE REMAINING ASPHALT AND WATERPROOFING TO ENSURE NO DAMAGE OCCURS TO THE PRESTRESSED CONCRETE BOX BEAMS. ANY DAMAGE TO THE BOX BEAMS WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

PAYMENT FOR THIS ITEM WILL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY INCIDENTALS REQUIRED TO PERFORM THIS WORK. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER SQUARE YARD FOR ITEM 202, WEARING COURSE REMOVED, AS PER PLAN.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING LOCATIONS ON STRUCTURE STA-172-2554 EXHIBITING SURFACE DETERIORATION. THIS SHALL CONSIST OF PLACING ITEM 441 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. REPAIR ALL DETERIORATED AREAS OF THE DECK AND APPROACH SLAB. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE THE ORIGINAL DECK SURFACE OR WATERPROOFING DURING REPAIR. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR.



ITEM 509 - REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCEMENT STEEL

ITEM SHALL CONSIST OF REPLACING EXISTING REINFORCING STEEL AS DIRECTED BY THE ENGINEER DURING CONSTRUCTION OF THE CONCRETE OVERLAY ON STRUCTURE SUM-76-1276 (EB). THIS ITEM SHALL NOT BE USED FOR REPAIRING DAMAGED STEEL REINFORCEMENT CAUSED BY SCARIFICATION OR HYDRO DEMOLITION OPERATIONS.

ITEM 515 - HIGH EARLY STRENGTH KEY-WAY GROUT

KEY-WAY GROUT WILL BE EXAMINED FOR VISIBLE DETERIORATION AFTER THE REMOVAL OF THE ASPHALT CONCRETE OVERLAY AND WATERPROOFING. ANY GROUT DETERMINED TO BE REPLACED BY THE PROJECT ENGINEER WILL BE REMOVED BY ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN AND THE GROUT WILL BE REPLACED USING ITEM 515, HIGH EARLY STRENGTH KEY-WAY GROUT.

PAYMENT FOR THIS ITEM WILL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND ANY INCIDENTALS REQUIRED TO PERFORM THIS WORK. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER FOOT FOR ITEM 515, HIGH EARLY STRENGTH KEY-WAY GROUT.

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

SPECIAL - STRUCTURES: CONCRETE SPALL REMOVAL

THIS WORK WILL CONSIST OF REMOVING ALL VISIBLY SPALLED AREAS OF THE BOTTOM DECK FLOOR OF STRUCTURE(S) POR-14-0167, STA-800-0633, AND SUM-59-1241 WITHOUT SOUNDING. AFTER SPALLED CONCRETE AREAS HAVE BEEN REMOVED, REMOVAL AREAS WILL BE SEALED WITH ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY- URETHANE).

CONCRETE SPALL REMOVAL WILL BE PAID FOR AT THE UNIT BID PRICE FOR SPECIAL - STRUCTURE MISC.: CONCRETE SPALL REMOVAL. THIS PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

ABUTMENT WALL TEXTURE

CONCRETE REPAIRS TO THE ABUTMENT OR WINGWALLS ON STRUCTURE SUM-76-1276 SHALL HAVE THE FINISHED SURFACE MATCH THE EXISTING TEXTURE USING FORM LINERS. THE TEXTURED SURFACE CONSISTS OF A ¾" DEEP FRACTURED FIN TEXTURE. THE CONTRACTOR SHALL SUBMIT A SAMPLE CONCRETE TEXTURED SURFACE FOR APPROVAL BY THE PROJECT ENGINEER PRIOR TO PATCHING. FORM LINERS AND ALL WORK ASSOCIATED WITH TEXTURING THE PATCHED SURFACE SHALL BE INCIDENTAL TO ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN.

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
BFR	BFR	RAS	8/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MJA	XXX	00000	

STRUCTURE GENERAL NOTES
POR-5-1266, POR-14-0167, POR-59-0659, STA-77-0586L&R
STA-172-2554, STA-800-0633, SUM-59-1241, SUM-76-1273

D04-BH-FY2020
(WEST)
PID No. 101378

ITEM 848 - MICRO-SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN
ITEM 848 - SURFACE PREPARATION USING HYDRODEMOLITION, AS PER PLAN
ITEM 848 - MICRO-SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
ITEM 848 - FULL DEPTH REPAIR, AS PER PLAN
ITEM 848 - EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN
ITEM 848 - REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY, AS PER PLAN

THESE ITEMS SHALL BE PERFORMED PER SUPPLEMENTAL SPECIFICATION "BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE USING HYDRO DEMOLITION" WITH THE FOLLOWING REVISIONS:

THE THICKNESS OF THE CONCRETE OVERLAY REMOVED, ASPHALT WEARING COURSE REMOVED, PROPOSED OVERLAY, AND THE DEPTH OF HYDRODEMOLITION SHALL BE AS SPECIFIED IN THE PLANS.

CONSTRUCTION JOINTS WILL NOT BE PERMITTED IN THE WHEEL LINE.

(SEE 848.12) THE COMPONENTS OF THE MICRO-SILICA MODIFIED CONCRETE SHALL BE PROPORTIONED AS FOLLOWS.

CONCRETE TABLE
QUANTITIES PER CUBIC YARD
AGGREGATES (SSD)

AGG TYPE	FINE AGG (LB)	#8 COARSE AGG (LB) *	AGG TOTAL (LB) *	CEMENT CONTENT (LB)	MICRO SILICA (LB)	WATER TO CEMENT-ITIOUS RATIO	AIR CONTENT +/- 2%	FIBER (1 1/4" POLYPROPY-LENE) (LB) **
GRAVEL	1410	1430	2840	600	50	0.4	8	1
LIME-STONE	1410	1450	2860	600	50	0.4	8	1
SLAG	1300	1350	2650	600	50	0.4	8	1

* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127

** FIBER MESH SHALL BE 100% VIRGIN POLYPROPYLENE IN A FIBRILLATED-NETWORK FORM AND SHALL BE 1 ¼" IN LENGTH.

THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE WERE CALCULATED FOR MATERIALS OF THE FOLLOWING BULK SPECIFIC GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, MICRO-SILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED. FIBER MESH WEIGHTS NOT INCLUDED IN MIX DESIGN.

ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED BY ASTM C127

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

(SEE 848.20) THE CONTRACTOR SHALL USE CONVENTIONAL SCARIFYING EQUIPMENT TO MAKE AN INITIAL PASS ACROSS THE DECK TO REMOVE THE FIRST 1-¼ INCH

(SEE 848.21) THE FINAL DECK SOUNDING MAY TAKE PLACE WITHIN 24 HOURS OF A RAIN, AND THE DECK DOES NOT HAVE TO BE COMPLETELY DRY.

(SEE 848.23) FULL DEPTH REPAIR IS NOT REQUIRED IF LESS THAN ONE HALF OF THE DECK ORIGINAL CONCRETE THICKNESS IS SOUND.

(SEE 848.30) THE OVERLAY SURFACE EVAPORATION RATE REQUIREMENTS ARE IN EFFECT FROM 9:30 AM TO 11:00 PM. THEY ARE NOT IN EFFECT FROM 11:00 PM TO 11:00 AM.

(SEE 848.31) FOR EACH PHASE, THE CONTRACTOR SHALL PROVIDE ENOUGH MATERIAL FOR TWO BEAM BREAKS EACH AT 12 HOURS, 24 HOURS, 36 HOURS, AND 48 HOURS. THE DEPARTMENT WILL PERFORM THE BEAM BREAK TESTS AND DOCUMENT THE TIME OF THE POUR, THE TIME OF THE BEAM BREAK TESTS, AND THE MODULUS OF RUPTURE FOR EACH BEAM UNTIL THE MODULUS OF RUPTURE OF THE TWO TESTS IS NOT LESS THAN 650 PSI (4.5 MPa). TRAFFIC IS ALLOWED ON THE OVERLAY AT 600 PSI (4.5 Mpa).

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

CORRECTING BRIDGE IDENTIFICATION SIGN NUMBERS:

SOME OF THE EXISTING BRIDGE NUMBER SIGNS HAVE INCORRECT BRIDGE NUMBERS ON THEM. THE FOLLOWING BRIDGE NUMBERS ARE THE CORRECT ONES AND WILL BE USED ON THE NEW BRIDGE IDENTIFICATIONS SIGNS.

IDENTIFICATIONS SIGNS.

POR-5-1266 (SFN:6700276)
POR-14-0167 (SFN:6700519)
POR-59-0659 (SFN:6701868)
STA-172-2554 (SFN:7605390)
STA-800-0633 (SFN:7606729)
SUM-59-1241 (SFN:7702019)

STRUCTURE/CULVERT IDENTIFICATION SIGNS

STRUCTURE IDENTIFICATION SIGNS (I-H25b) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:
POR-5-1266 (2 APPROACHES), POR-14-0167 (2 APPROACHES), POR-59-0659 (2 APPROACHES), STA-800-0633 (2 APPROACHES)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:
- ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT
- ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 7.5 FT
- ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 1 EACH
- ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 1 EACH

OBJECT MARKERS AND STRUCTURE/CULVERT IDENTIFICATION SIGNS

OBJECT MARKERS WILL BE PLACED ON EACH APPROACH OFF THE LEFT AND RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. ONE OM-3L AND ONE OM-3R WILL BE INSTALLED AT EACH APPROACH. THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND SHALL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 10.5 FT IN LENGTH.

STRUCTURE IDENTIFICATION SIGNS (I-H25b) WILL BE INSTALLED ON THE SAME POST AND DIRECTLY BELOW THE OBJECT MARKER OFF THE RIGHT SHOULDER ON EACH APPROACH. A QUANTITY OF ONE SIGN WILL BE INSTALLED AT EACH APPROACH. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:
STA-172-2554 (2 APPROACHES), SUM-59-1241 (2 APPROACHES)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:
- ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT
- ITEM 630 - SIGN, FLAT SHEET, 6 SQ FT
- ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 21 FT
- ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 3 EACH
- ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 2 EACH

STREAM IMPACT AVOIDANCE

NO EXCAVATION, GRADING OR FILLING OPERATIONS SHALL BE PERFORMED BELOW THE ORDINARY HIGH WATER MARK OF THE FOLLOWING STREAMS.

BRANCH OF THE MAHONING RIVER (POR-5-1266; SFN: 6700276)
BRANCH OF TINKERS CREEK (POR-14-0167; SFN: 6700519)
WAHOO DITCH (POR-59-0659; SFN: 6701868)
BLACK RUN (STA-172-2554; SFN: 7605390)
BRANCH OF NIMISHILLEN CREEK (STA-800-0633; SFN: 7606729)
FISH CREEK (SUM-59-1241; SFN: 7702019)
LITTLE CUYAHOGA RIVER (SUM-76-1273; SFN: 7706332)

USE OF MOTORIZED EQUIPMENT BELOW ORDINARY HIGH WATER MARK OF ANY STREAM IS PROHIBITIED. USE OF LADDERS AND SCAFFOLDING IS PERMITED AT THE SUM-59-1241 BRIDGE LOCATION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE CONSTRUCTION EQUIPMENT AND/OR MATERIALS IN STREAMS OR OTHER JURISDICTIONAL WATERS OF THE UNITED STATES. ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION 107.10 (PROTECTION AND RESTORATION OF PROPERTY) PROHIBIT THE CONTRACTOR FROM CREATING STAGING AREAS NEAR STREAMS AND/OR WETLANDS.

STRUCTURE REPAIR/PAINTING/CONCRETE SEALING OPERATIONS

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT EPOXY-URETHANE SEALER, PAINT OR OTHER MATERIALS USED TO REPAIR, CLEAN, PAINT, SEAL OR TREAT ANY STRUCTURE FROM ENTERING ANY STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE.

ENDANGERED BAT HABITAT REMOVAL - STA-800-0633 (SFN: 7606729) BRIDGE LOCATION

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED AT THE STA-800-0633 BRIDGE LOCATION FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL TO BE PERFORMED AT THE STA-800-0633 BRIDGE LOCATION SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

SUM-76-1276 (SFN: 7706332) - MAINTAIN SAFE ACCESS

AN ASPHALT SIDEWALK IS PRESENT AT THE EAST ABUTMENT OF THE SUM-76-1273 BRIDGE AND AN EXISTING ACCESS DRIVE IS PRESENT WEST OF THE LITTLE CUYAHOGA RIVER. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO MAINTAIN SAFE ACCESS ON THE EXISTING ASPHALT SIDEWALK AND THE ACCESS DRIVE AT ALL TIMES DURING PROJECT CONSTRUCTION. THE CONTRACTOR SHALL NOT STORE OR STAGE CONSTRUCTION EQUIPMENT OR MATERIALS ON THE EXISTING ASPHALT SIDEWALK AND/OR THE ACCESS DRIVE.

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
BFR	BFR	RAS	8/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MJA	XXX	00000	

STRUCTURE GENERAL NOTES
POR-5-1266, POR-14-0167, POR-59-0659, STA-172-2554, STA-800-0633, SUM-59-1241, SUM-76-1273

D04-BH-FY2020 (WEST)
PID No. 101378

2 / 10

11 / 19

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

REMOVAL METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (PRESTRESSED BOX BEAM, I-BEAM, STEEL BEAM STEEL GIRDER, ETC.), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS. DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G., FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

ITEM 509 REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

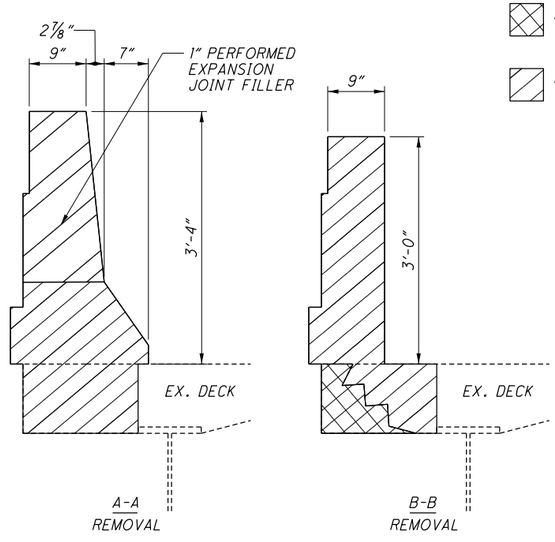
REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

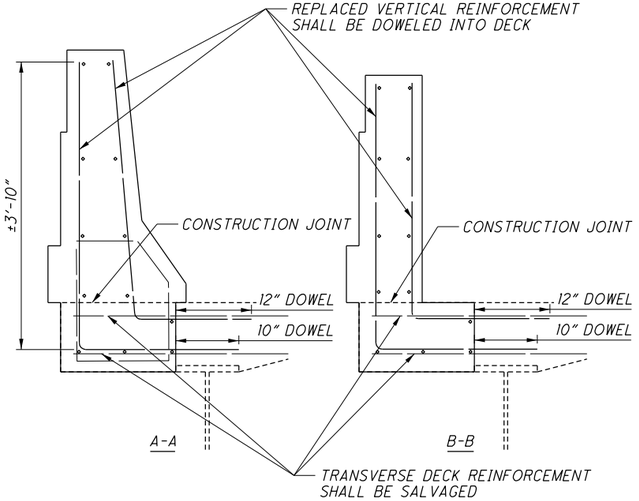
ITEM 511, CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN

THIS WORK WILL CONSIST OF REPLACING THE LAST 8' OF THE STRUCTURE CONCRETE PARAPET AND A PORTION OF THE DECK AT THE FORWARD RIGHT OF STRUCTURE STA-77-0586L. ENSURE THE CONCRETE IS SOUND AT THE END OF THE REPAIR/REPLACEMENT LIMITS

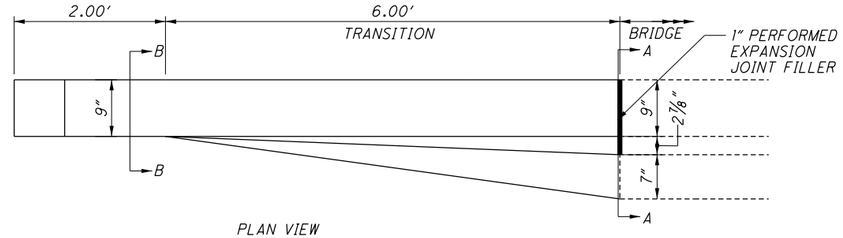
THE CONTRACTOR WILL ATTEMPT TO MATCH THE REPLACEMENT CONCRETE PARAPET AS CLOSELY AS POSSIBLE WITH THE ORIGINAL. SEE THE DIAGRAM ON THIS SHEET. FOR DETAILS NOT SHOWN SEE THE EXISTING AS BUILT PLANS.

CONCRETE BARRIER REPLACEMENT SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 511, CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN. THE PRICE SHALL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK. NEW REINFORCING STEEL, DOWEL HOLES, AND 1" PERFORMED EXPANSION JOINT FILLER SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM.



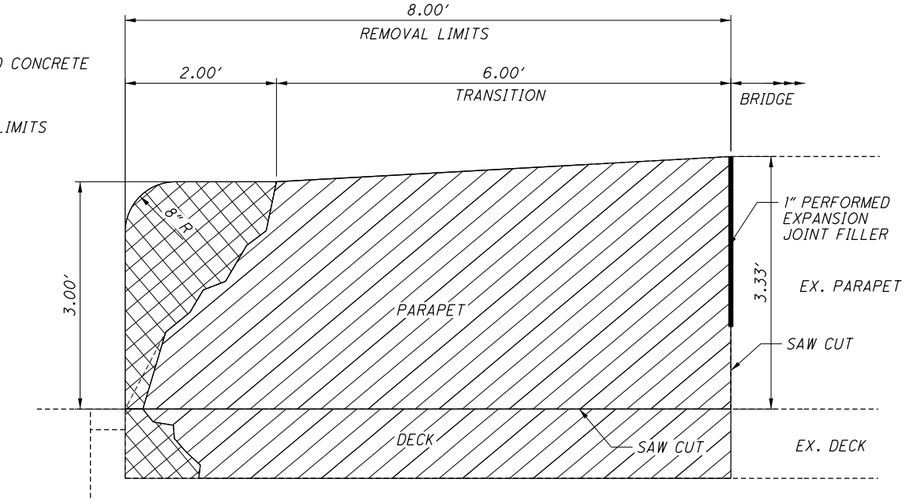


APPROACH PARAPET DETAILS STA-77-0586L

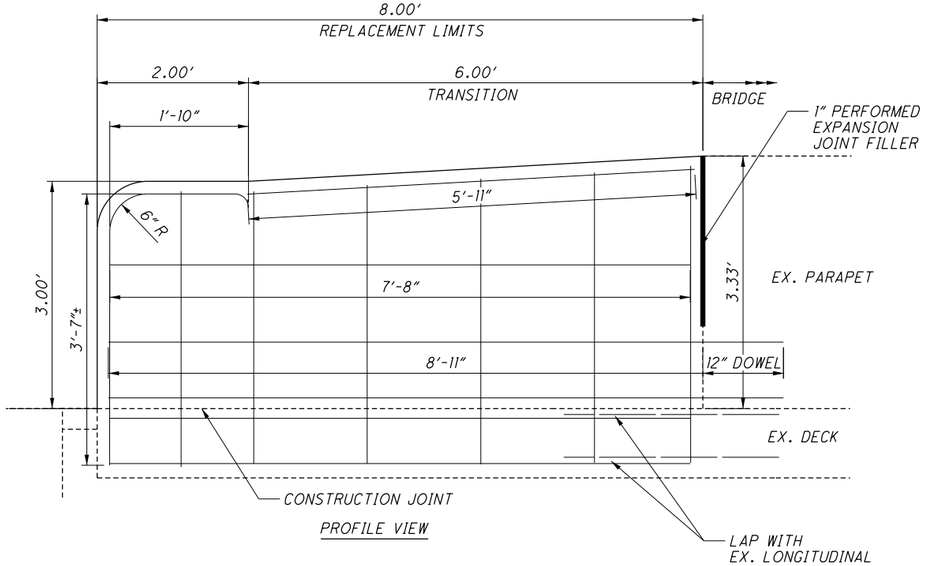


PLAN VIEW

- DAMAGED CONCRETE
- REPAIR LIMITS



REMOVAL PROFILE VIEW



PROFILE VIEW

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
BFR	BFR	RAS	8/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MJA	XXX	7603215	

STRUCTURE GENERAL NOTES
BRIDGE NO. STA-77-0586L
FEATURE INTERSECTED: OVER PRAIRIE COLLEGE ST.

D04-BH-FY2020
(WEST)
PID No. 101378

3 / 10

12 / 19

CALC:	BFR	DATE:	6/11/2019
CHECKED:		DATE:	

ESTIMATED QUANTITIES

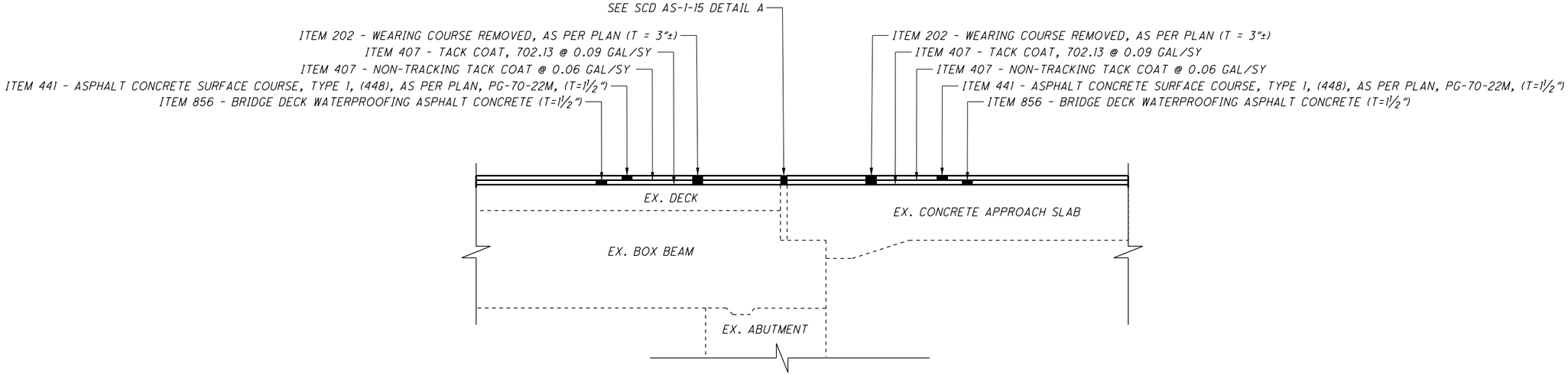
BRIDGE NO. / STRUCTURE FILE NO.								ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
POR-5-1266 6700276 03/NHS/BR	POR-14-0167 6700519 03/NHS/BR	POR-59-0659 6701868 03/NHS/BR	STA-77-0586L 7603215 06/IMS/BR	STA-172-2554 7605390 02/STR/BR	STA-800-0633 7606729 04/S>2/BR	SUM-59-1241 7702019 01/NHS/BR	SUM-76-1276 7706332 05/IMS/BR					
LS	LS	LS	LS	LS	LS	LS	LS	201	11000		CLEARING AND GRUBBING	
			LS					202	11201		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	3
						301		202	23501	SY	WEARING COURSE REMOVED, AS PER PLAN	1
			1					202	47200	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED FOR REUSE	
				50				251	01001	SY	PARTIAL DEPTH PAVEMENT REPAIR (441), AS PER PLAN	1
						28		407	13900	GAL	TACK COAT, 702.13	
						19		407	20000	GAL	NON-TRACKING TACK COAT	
						13		441	50101	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG-70-22M	1
							400	509	20000	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL	
			100					509	20001	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	3
			2					511	34411	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN	3
93	65	125	15	20	105	249	50	512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
	60							512	74000	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
						100		515	30000	FT	HIGH EARLY STRENGTH KEYWAY GROUT	
						48		516	31000	FT	JOINT SEALER	
						48		SPECIAL	51631200	FT	SAWING AND SEALING BITUMINOUS CONCRETE JOINTS	1
				50				SPECIAL	51900100	SF	COMPOSITE FIBER WRAP SYSTEM	1
			50	150			400	519	11101	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	1
	5				5	10		SPECIAL	53000800	SY	STRUCTURES, MISC.: CONCRETE SPALL REMOVAL	1
			1					606	35012	EACH	MGS BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1	
15	15	15		42	15	42		630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
				12		12		630	80100	SF	SIGN, FLAT SHEET	
2	2	2		2	2	2		630	80100	SF	SIGN, FLAT SHEET, 730.20	
2	2	2		6	2	6		630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
2	2	2		4	2	4		630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
							9063	848	10001	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN, (T=1-3/4")	2
							9063	848	20001	SY	SURFACE PREPARATION USING HYDRODEMOLITION, AS PER PLAN	2
							253	848	30001	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	2
							4532	848	50000	SY	HAND CHIPPING	
							LS	848	50100		TEST SLAB	
							2	848	50201	CY	FULL DEPTH REPAIR, AS PER PLAN	2
							9063	848	50321	SY	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN	2
							1000	848	50341	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY, AS PE	2
						13		856	10000	CY	BRIDGE DECK WATERPROOFING ASPHALT CONCRETE	

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
BFR	BFR	RAS	8/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MJA	BFR	00000	

STRUCTURE ESTIMATED QUANTITIES
POR-5-1266, POR-14-0167, POR-59-0659, STA-172-2554,
STA-800-0633, SUM-59-1241, SUM-76-1273

D04-BH-FY2020
(WEST)
PID No. 101378



SUM-59-1241

APPROACH SHOWN, TRAILING SIMILAR

BRIDGE NUMBER	BRIDGE DECK												APPROACH SLABS												
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	202 WEARING COURSE REMOVED, AS PER PLAN, (T=3")	407 TACK COAT, 702.13	407 NON-TRACKING TACK COAT	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG-70-22M	856 BRIDGE DECK WATERPROOFING ASPHALT CONCRETE					LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)	202 WEARING COURSE REMOVED, AS PER PLAN, (T=3")	407 TACK COAT, 702.13	407 NON-TRACKING TACK COAT	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG-70-22M	856 BRIDGE DECK WATERPROOFING ASPHALT CONCRETE		516 JOINT SEALER	SPEC SAWING AND SEALING BITUMINOUS CONCRETE JOINTS	
	FT	FT	SQ YD	SY	GAL	GAL	CY	CY					FT	FT	SQ YD		SY	GAL	GAL	CY	CY		FT	FT	
SUM-59-1241	26.33	48.00	140.43	140.43	12.64	8.43	5.85	5.85					15.00	48.00	80.00	FWD	80.00	7.20	4.80	3.33	3.33		48.00	48.00	
													15.00	48.00	80.00	REAR	80.00	7.20	4.80	3.33	3.33		48.00	48.00	
TOTALS				141	13	9	6	6	0	0	0	0				TOTALS	160	15	10	7	7	0	96	96	0

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

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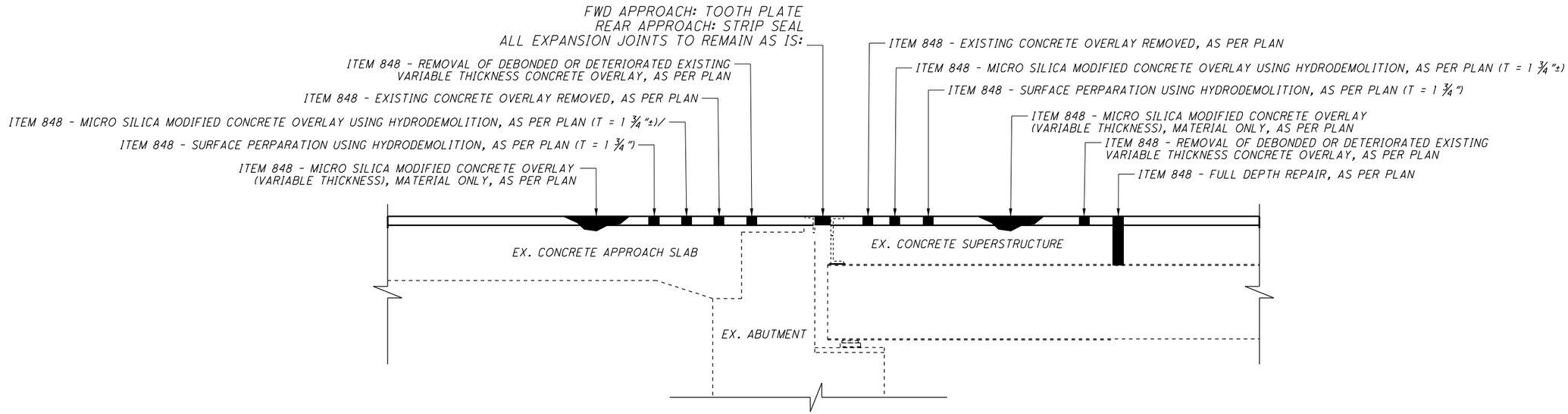
MJA	XXX	7702019	

STRUCTURE DETAILS
SUM-59-1241
OVER FISH CREEK

D04-BH-FY2020
(WEST)
PID No. 101378



SUM-76-1276 (EB)

APPROACH SHOWN, TRAILING SIMILAR

BRIDGE NUMBER	BRIDGE DECK												APPROACH SLABS												
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA		848 MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T = 1 3/4")	848 SURFACE PREPARATION USING HYDRODEMOLITION, AS PER PLAN (T = 1 3/4")	848 MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	848 HAND CHIPPING	848 TEST SLAB	848 FULL DEPTH REPAIR, AS PER PLAN	848 EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN	848 REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY, AS PER	LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)			848 MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T = 1 3/4")	848 SURFACE PREPARATION USING HYDRODEMOLITION, AS PER PLAN (T = 1 3/4")	848 MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	848 HAND CHIPPING	848 EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN	848 REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY, AS PER	
	FT	FT	SQ YD		SY	SY	CY	SY	LS	CY	SY	SY	FT	FT	SQ YD				SY	SY	CY	SY	SY	SY	
SUM-76-1276 (EB)	813.80	VARIES	8500.57		8500.57	8500.57	236.13	4250.29	LS	2.00	8500.57	900.00	30.00	71.79	239.30	FWD			239.30	239.30	6.65	119.65	239.30	45.00	
													30.00	25.00	83.33	FWD			83.33	83.33	2.31	41.67	83.33	10.00	
													30.00	71.79	239.30	REAR			239.30	239.30	6.65	119.65	239.30	45.00	
			TOTALS	0	8501	8501	237	4251	0	2	8501	900				TOTALS	0	0	562	562	16	281	562	100	0

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
BFR	BFR	RAS	8/2/19
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MJA	XXX	7716332	

STRUCTURE DETAILS
SUM-76-1273
OVER KELLY AVE RR & CANAL

D04-BH-FY2020
(WEST)
PID No. 101378

6 / 10

15
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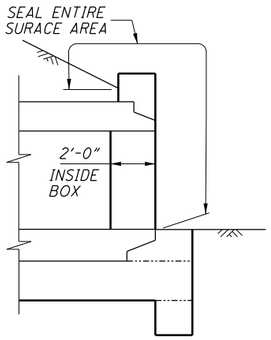
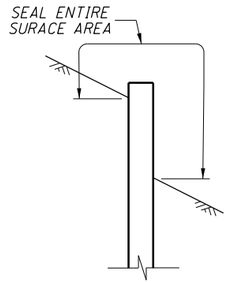
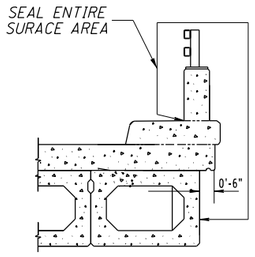


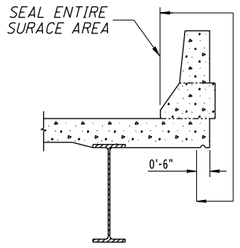
DETAIL A
FORESLOPE WALL AND PRECAST BOX



DETAIL B
PRECAST BOX WINGWALL



DETAIL C
PRESTRESSED BOX BEAM



DETAIL D
CONCRETE DECK WITH
DEFLECTOR PARAPET

BRIDGE NUMBER	STRUCTURE TYPE	PROPOSED SEALING	FEDERAL COLOR NUMBER	ESTIMATED QUANTITIES				
				ABUT (SQ YD)	PIER (SQ YD)	SUPER (SQ YD)	GENERAL (SQ YD)	TOTAL (SQ YD)
POR-5-1266	CONCRETE CULVERT FILLED	SEAL BOX CULVERT PER DETAIL A, SEAL WING WALLS PER DETAIL B	PER CMS				93	93
POR-14-0167	CONCRETE CULVERT FILLED	SEAL BOX CULVERT PER DETAIL A, SEAL WING WALLS PER DETAIL B	PER CMS				65	65
POR-59-0659	CONCRETE CULVERT FILLED	SEAL BOX CULVERT PER DETAIL A, SEAL WING WALLS PER DETAIL B	PER CMS				125	125
STA-77-0586L	STEEL BEAM CONTIUOUS	SEAL ALL REPAIRED CONCRETE SURFACES	PER CMS			15		15
STA-172-2554	PRESTRESSED CONC BOX BEAM SIMPLE SPAN	SEAL ALL REPAIRED CONCRETE SURFACES	PER CMS				20	20
STA-800-0633	CONCRETE CULVERT FILLED	SEAL BOX CULVERT PER DETAIL A, SEAL WING WALLS PER DETAIL B	PER CMS				105	105
SUM-59-1241	PRESTRESSED CONC BOX BEAM SIMPLE SPAN	SEAL PARAPETS PER DETAIL C, SEAL ABUTMENTS SEAL WING WALLS	PER CMS	150		62	37	249
SUM-76-1276	STEEL GIRDER DECK	SEAL ALL REPAIRED CONCRETE SURFACES	PER CMS				50	50

NOTES:
- EPOXY-URETHANE SEALER SHALL BE USED UNLESS SHOWN OTHERWISE

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
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MJA	XXX	00000	

CONCRETE SEALING DETAILS
POR-5-1266, POR-14-0167, POR-59-0659,
STA-800-0633, SUM-59-1241

D04-BH-FY2020
(WEST)
PID No. 101378

7 / 10

16
19

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05, 105.02 AND 513.04. BASE CONTRACT BID PRICES UPON RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

EXISTING PLANS: EXISTING PLANS CAN BE INSPECTED IN THE LOCAL ODOT DISTRICT OFFICE.

STEEL RESTRAINT OR PRELOAD LIMITS: EXISTING ASTM A36 DO NOT SUBJECT ANY PART OF THE STRUCTURE TO A JACKING, PULLING OR RESTRAINING UNIT STRESS EXCEEDING 20,000 PSI (137.9 MPA)

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS): AN ESTIMATED QUANTITY FOR EACH LOCATION IS PROVIDED IN TABLE 2, FOR REMOVAL OF SECONDARY MEMBERS AS DETERMINED BY FIELD INSPECTION ACCORDING TO ITEM 849, DAMAGE ASSESSMENT OR AS DIRECTED BY THE ENGINEER. SUPPORT THE EXISTING SECONDARY MEMBERS ACCORDING TO ITEM 849, STRAIGHTENING WORK PLAN. FLAME OR SAW CUT THE EXISTING MEMBERS TO WITHIN 1/8 INCH OF THE EXISTING MAIN MATERIAL USING A MECHANICAL GUIDE ACCORDING TO C&MS 513.12 PROVIDE SHIELDING AS NECESSARY TO PREVENT DAMAGE TO MAIN OR SECONDARY MATERIALS THAT REMAIN. GRIND THE EXISTING MAIN OR SECONDARY MEMBER SMOOTH IN PREPARATION FOR COMPLETE PENETRATION OR FILLET WELDING. PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 MIL (TO ACCOMMODATE THE PROPOSED REPLACEMENT MATERIALS). DETERMINE FINAL QUANTITIES BY FIELD MEASUREMENTS.
THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 202 - PORTIONS OF SECONDARY MEMBERS REMOVED, AS PER PLAN: POUND.

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN: ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.06 OR SUPPLY THE ENGINEER WITH "AS BUILT" DRAWINGS MEETING 513.06 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITION. THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS. SUPPLY A COPY OF THE DRAWINGS, STAMPED, SEALED AND DATED, ACCORDING S1002, TO THE STRUCTURAL, WELDING AND METALS SECTION OF THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES. THE MEMBERS INCLUDED IN THIS ITEM ARE PROVIDED IN TABLE 2 AND 3. THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN: POUND.

ITEM 513 - STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MAIN OR SECONDARY MEMBERS, FILLET WELDING: AFTER DAMAGED AREAS HAVE BEEN INSPECTED ACCORDING TO ITEM 849 DAMAGE ASSESSMENT. PREPARE THE DAMAGED MATERIAL FOR WELDING, PERFORMING 5/16 INCH FILLET WELDS ACCORDING TO ITEM 513 USING APPROVED ELECTRODES, PROCEDURES AND WELDERS. WELD EACH SECONDARY MEMBER ACCORDING TO PLAN DETAILS. MAGNETIC PARTICLE INSPECT ALL FILLET WELDS ACCORDING TO C&MS 513.25B. THE ENGINEER MAY OBTAIN TECHNICAL ASSISTANCE FROM THE OFFICE OF MATERIALS MANAGEMENT. THE DEPARTMENT WILL INCLUDE ALL MATERIALS; TOOLS; LABOR; EQUIPMENT; AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL MISC., REPAIR OF DAMAGED MAIN OR SECONDARY MEMBERS: FILLET WELDING. FOOT.

ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT):

1.0 DESCRIPTION THIS ITEM CONSISTS OF FIELD PAINTING STRUCTURAL STEEL PREVIOUSLY COATED WITH A NEWER EXISTING OZEU OR IZEU PAINT SYSTEM OR UNPAINTED WEATHERING STEEL TO CORRECT DAMAGE BY COLLISION OR CORROSION. THIS WORK CONSIST OF PERFORMING SURFACE PREPARATION AND APPLYING A THREE-COAT PAINT SYSTEM TO THE PREPARED STEEL AND FEATHERED REMOVAL AREAS OF EXISTING OZEU OR IZEU PAINT SYSTEMS OR UNPAINTED WEATHERING STEEL.

2.0 GENERAL C&MS 514.05 THROUGH 514.10 AND 514.13.D APPLY UNLESS MODIFIED BY THESE NOTES.

3.0 WASHING EXISTING OZEU OR IZEU PAINTED SURFACES OR UNPAINTED WEATHERING STEEL CLEAN SURFACES TO BE COATED WITH LOW PRESSURE WATER CLEANING TO REMOVE ALL DIRT, DEBRIS, ANIMAL EXCREMENT, SALT CONTAMINANTS AND OTHER ACCUMULATED FOREIGN MATERIAL IN ACCORDANCE WITH SSPC-SP12 (LP WC), LOW PRESSURE WATER CLEANING. THE PRESSURE WASHER SHALL BE CAPABLE OF ACHIEVING AT LEAST 2000 POUNDS PER SQUARE INCH AT THE NOZZLE. WHEN USING THE POWER WASHING EQUIPMENT, THE NOZZLE SHALL BE MAINTAINED NO MORE THAN 10 INCHES FROM THE SURFACE. SUPPLY AND USE POTABLE WATER. PROVIDE TO THE ENGINEER A LETTER OF WRITTEN ACCIPTANCE FOR ANY BIODEGRADABLE DETERGENTS OR CLEANERS USED IN CONJUNCTION WITH THIS METHOD.

COLLECT AND CONTAIN WATER AND DEBRIS REMOVED DURING WASHING OPERATIONS ABOVE WATER FEATURES IN CONFORMANCE WITH C&MS 514.08 AND C&MS 514.13.D FOR ANY DEBRIS. CREATE SETTLEMENT COLLECTION BASINS AND STRAIN ALL WASH WATER ABOVE LAND FEATURES AS NECESSARY TO PRODUCE VISIBLY CLEAR WATER AND COMPLY WITH C&MS 514.08 AND C&MS 514.13.D FOR ANY DEBRIS.

4.0 SURFACE PREPARATION AFTER THE PRESSURE WASHED SURFACE HAS DRIED, REMOVE EXISTING PAINT COATING TO CONTRACT LIMITS OR AS DIRECTED BY THE ENGINEER ACCORDING TO: SSPC-SP 11, POWER TOOL CLEANING TO BARE METAL, AS SHOWN ON THE PICTORIAL SURFACE PREPARATION STANDARDS FOR PAINTING STEEL SURFACES SHOWN IN SSPC-VIS 3; SSPC SP6, COMMERCIAL BLAST CLEANING, AS SHOWN ON THE PICTORIAL SURFACE PREPARATION STANDARDS FOR PAINTING STEEL SURFACES SHOWN IN SSPC-VIS 1; OR SSPC SP12 UHP WJ-4, ULTRAHIGH-PRESSURE WATER JETTING, AS SHOWN ON THE PICTORIAL SURFACE PREPARATION STANDARDS FOR PAINTING STEEL SURFACES SHOWN IN SSPC-VIS 4. SUPPLY BLAST WATER CONTAINING A COMMERCIALLY AVAILABLE RUST INHIBITOR AT A DOSAGE THAT PREVENTS FLASH RUSTING FOR 12 HOURS AND DOCUMENTED AS ACCEPTABLE TO THE COATING'S MANUFACTURER. THE ENGINEER WILL USE THE SSPC-VIS 1, SSPC-VIS 3 OR SSPC-VIS 4 TO DETERMINE THE ACCEPTANCE OF THE SURFACE PREPARATION. FEATHER THE EXISTING PAINT TO EXPOSE A MINIMUM OF 1/2 INCH OF EACH COAT. CONTAIN AND DISPOSE DISPOSE OF WASTE GENERATED BY THE CLEANING ACCORDING TO C&MS 514.13.D.

ROUND ALL EXPOSED CORNERS OF MAIN MATERIAL TO BE PAINTED AS NECESSARY TO ACHIEVE A 1/16 INCH RADIUS OR EQUIVALENT FLAT SURFACE AT A 45 DEGREE ANGLE.

5.0 FIELD PAINTING APPLY THE PRIME, INTERMEDIATE AND FINISH COATS OF THE THREE-COAT PAINT SYSTEM SPECIFIED IN C&MS 708.02, ACCORDING TO C&MS 514.15, 514.16, 514.17, 514.19 AND 514.20 TO CONTRACT LIMITS OR AS DIRECTED BY THE ENGINEER. TINT THE FINISH COAT TO APPROXIMATELY THE SAME COLOR AS THE EXISTING FINISH COLOR, UNPAINTED WEATHERING STEEL OR AS DESIGNATED IN THE CONTRACT. MATCH THE COLOR TO THE ENGINEERS SATISFACTION. THE ENGINEER WILL DETERMINE THE PRIME AND INTERMEDIATE COAT THICKNESS USING A TYPE 2 MAGNETIC GAGE AT SPOT LOCATIONS. THE PRIME, INTERMEDIATE AND FINISH COAT OF PAINT SHALL MEET THE MINIMUM DRY FILM THICKNESS REQUIREMENTS OF C&MS 514.20. APPLY PAINT AS FOLLOWS:

A. APPLY THE PRIME COAT ONLY TO THE PREPARED SURFACE OF THE BARE STEEL AND THE EXISTING PRIME COAT EXPOSED BY FEATHERING. DO NOT APPLY THE PRIME COAT TO THE ADJACENT INTERMEDIATE COAT.

B. APPLY CAULK AFTER PRIMING

C. APPLY THE INTERMEDIATE COAT TO THE NEW PRIME COAT AND TO THE EXISTING INTERMEDIATE COATS THAT ARE EXPOSED BY FEATHERING.

D. APPLY THE FINISH COAT TO THE NEW INTERMEDIATE COAT AND TO THE EXISTING FINISH COATS THAT ARE EXPOSED BY FEATHERING.

AT THE PERIMETER OF THE REPAIR AREA, APPLY THE PRIME, INTERMEDIATE AND FINISH COATS WITH A BRUSH. IN LIEU OF BRUSHING THE CONTRACTOR MAY DOUBLE MASK AREAS NOT TO BE COATED AND SPRAY TO FEATHERED REMOVAL LINES.

BLEND REPAIR AREAS WITH THE ADJACENT COATING TO PROVIDE A FINISHED SURFACE IN THE PATCHED AREAS THAT IS SMOOTH AND HAS AN EVEN PROFILE WITH THE ADJACENT SURFACE.

6.0 MEASUREMENT THE DEPARTMENT WILL MEASURE FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN BY THE NUMBER OF SQUARE FEET OF STRUCTURAL STEEL PAINTED.

THE DEPARTMENT WILL DETERMINE THE SURFACE AREA BY TAKING EXACT FIELD MEASUREMENTS OF ALL PAINTED SURFACES AND CALCULATIONS.

7.0 BASIS OF PAYMENT THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICES AS FOLLOWS: THE DEPARTMENT MAY CONSIDER PAINT AS ELIGIBLE FOR PAYMENT FOR MATERIAL ON-HAND AS SPECIFIED IN 109.10, HOWEVER, ONLY PAINT THAT THE CONTRACTOR CAN PROVE TO THE ENGINEER WILL BE USED DURING THE CONSTRUCTION SEASON IS ELIGIBLE FOR PAYMENT. THE CONTRACTOR SHALL PROVIDE THE ENGINEER CALCULATIONS INDICATING THE TOTAL SQUARE FEET OF STEEL TO BE PAINTED DURING THE CONSTRUCTION SEASON. THE CONTRACTOR SHALL ALSO PROVIDE CALCULATIONS SHOWING THE TOTAL NUMBER OF GALLONS REQUIRED.

IF THE CONTRACTOR CAUSES DAMAGE OR INJURY TO PUBLIC OR PRIVATE PROPERTY, THE DEPARTMENT WILL NOT PAY FOR RESTORING THE PROPERTY TO ITS ORIGINAL CONDITION.

THE DEPARTMENT WILL NOT PAY FOR REPAIRING ADJACENT COATINGS DAMAGED DURING THE WASHING, POWER TOOL CLEANING OR BLAST CLEANING OPERATION.

THE DEPARTMENT WILL NOT PAY FOR REMOVING AND REPLACING AN AREA OF COATING BECAUSE A SPOT OR MAXIMUM AVERAGE THICKNESS EXCEEDS THE MAXIMUM SPOT THICKNESS.

THE DEPARTMENT WILL NOT PAY FOR ADDITIONAL TESTING REQUIRED BY ANY HAULER, TREATMENT FACILITY, DISPOSAL FACILITY OR LANDFILL.

THE DEPARTMENT WILL NOT PAY FOR ACCESSING, INSPECTING, AND REPAIRING AREAS THAT ARE NOT FOUND TO BE IN CONFORMANCE WITH THE SPECIFICATIONS AND PERTINENT CONTRACT DOCUMENTS.

ALL OTHER REQUIREMENTS OF THIS FIELD PAINTING SPECIFICATION ARE CONSIDERED INCIDENTAL TO THE WORK.

ITEM	UNIT	DESCRIPTION
514	SQUARE FEET	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL - THREE COAT, AS PER PLAN

ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN: THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE PERFORM REPAIRS DEFINED IN THE HEAT STRAIGHTENING PLAN.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH C&MS 501.05. IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH C&MS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS NECESSITATED BY THE JACKING OPERATION. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS. THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516,JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

OFFICE OF STRUCTURAL ENGINEERING
DESIGNED BFR | CHECKED MJA | REVIEWED MJA

PLAN INSERT SHEET
COLLISION REPAIR AND HEAT STRAIGHTENING NOTES

PIS CRHS

CALC:	BFR	DATE:	9/13/2019
CHECKED:	MJA	DATE:	9/13/2019

ESTIMATED QUANTITIES (07/IMS/BR)

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
201	11000	LS		CLEARING AND GRUBBING				LS	
202	11501	6	EACH	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SECONDARY MEMBERS)				6	8
513	10201	300	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN				300	8
513	95000	12	FT	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MAIN OR SECONDARY MEMBER, FILLET WELDING				12	8
514	20001	190	SF	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT)				190	8
516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LS	8
849	10000	LS		DAMAGE ASSESSMENT				LS	
849	10500	LS		SURFACE PREPARATION				LS	
849	10600	2	HOUR	REPAIRING DAMAGED MEMBERS BY GRINDING				2	
849	10700	LS		STRAIGHTENING DAMAGED MEMBERS				LS	

OFFICE OF STRUCTURAL ENGINEERING

DESIGNED BFR | CHECKED MJA | REVIEWED MJA

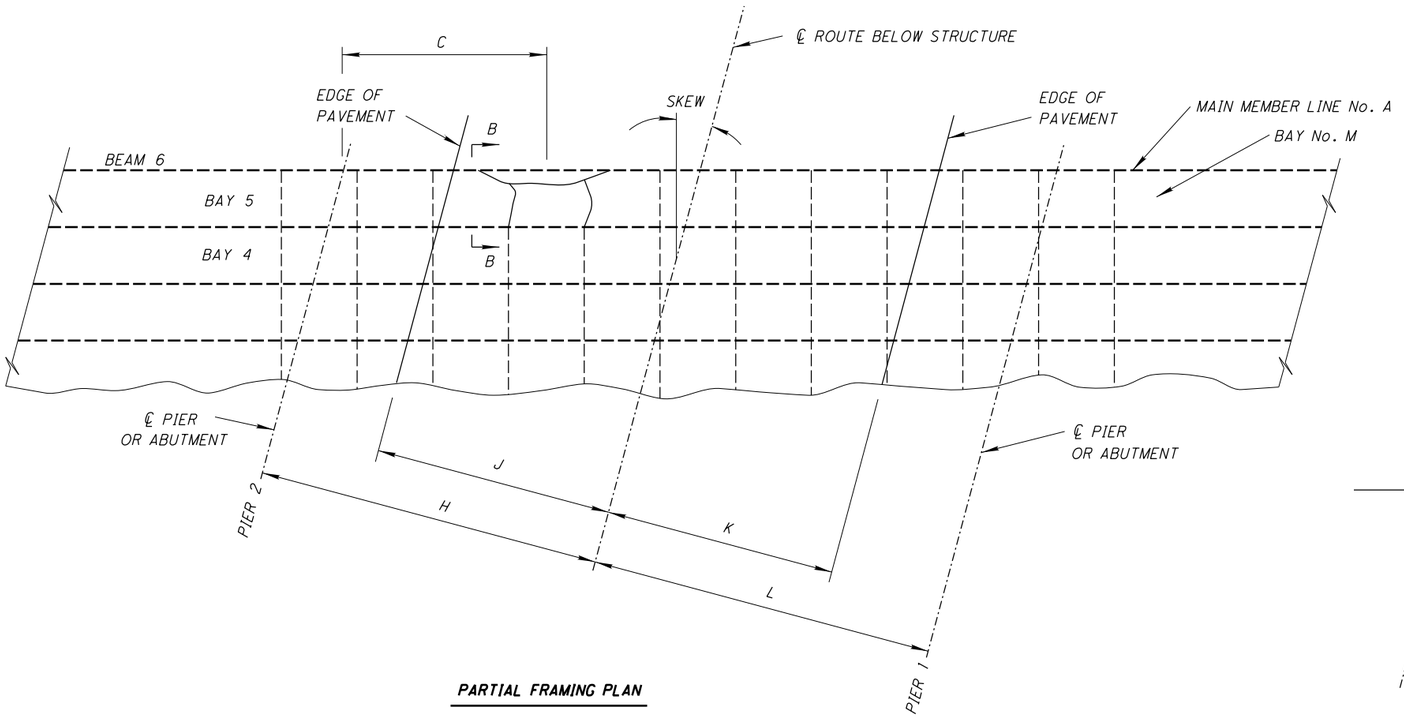
PLAN INSERT SHEET

COLLISION REPAIR AND HEAT STRAIGHTENING ESTIMATED QUANTITIES

PIS CRHS

9 / 10

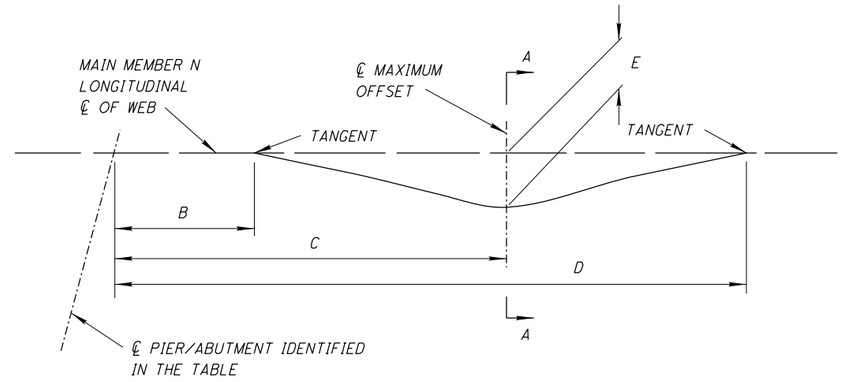
18 / 19



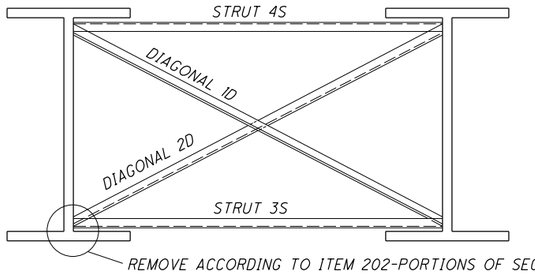
PARTIAL FRAMING PLAN

ORIENTATION NOTE

ABUTMENTS AND PIERS ARE NUMBERED IN THE CARDINAL DIRECTION (FROM SOUTH TO NORTH OR WEST TO EAST). BEAMS ARE NUMBERED FROM LEFT TO RIGHT WHEN FACING IN THE CARDINAL DIRECTION. BAYS ARE NUMBERED TO MATCH THE MAIN MEMBERLINE NUMBER TO THE LEFT OF THE CROSSFRAME BAY WHEN FACING IN THE CARDINAL DIRECTION.



EXISTING STRUCTURE: STA-77-0586R
ROUTE ON STRUCTURE: IR-77
ROUTE BELOW STRUCTURE: PRAIRIE COLLEGE ST.
TYPE: STEEL BEAM CONTINUOUS
SPANS: 32'-0"/46'-0"/32'-0" ℄ /℄ BEARINGS
ROADWAY WIDTH: 42'-0" F/F PARAPETS
SKEW: 19°-56'-49"
ALIGNMENT: 0°-28'-00" CURVE LEFT; STRUCTURE ON TANGENT
SUPERELEVATION: NONE
YEAR BUILT: 1965
NUMBER OF BEAMS: 6
STEEL TYPE: ASTM A36
PAINT TYPE: OZEU
PAINT DATE: 9/1/2013



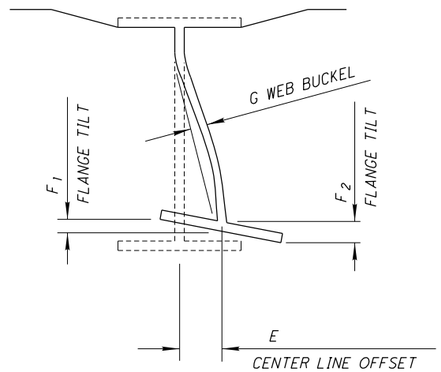
REMOVE ACCORDING TO ITEM 202-PORTIONS OF SECONDARY MEMBERS REMOVED, AS PER PLAN. REPLACE BY MATCHING EXISTING DETAIL. SEE GSD-1-96 FOR ADDITIONAL CLARIFICATION.

MAIN AND SECONDARY MEMBER DAMAGE IS NOT SHOWN. FOR CLARITY SEE SECTION A-A

SECTION B-B

SECONDARY MEMBER BAY No. M

N- NUMBER OF CROSSFRAME BRACES COUNTED FROM THE PIER OR ABUTMENT IDENTIFIED IN TABLE



SECTION A-A

NEGATIVE E VALUES ARE BENT LEFT
NEGATIVE F VALUES ARE BENT DOWN
NEGATIVE G VALUES ARE BENT LEFT

TABLE #2 DAMAGED SECONDARY MEMBER TO BE REPLACED

CROSSFRAME BAY M	PIER/ABUT.	N	1D	2D	3S	4S
4	PIER 1	2	1	1	1	
5	PIER 1	2	1	1	1	

TABLE # 1 DAMAGED MAIN MEMBERS TO BE HEAT STRAIGHTENED

DAMAGE AREA No.	MEMBER LINE No. A	PIER OR ABUT.	B	C	D	E	F1	F2	G	H	J	K	L
1	6	PIER 2	11'-8 1/8"	16'-10 1/2"	22'-8 1/4"	2 1/8"	-1 1/8"	3/4"	0"	20'-8"	9'-10"	9'-4"	23'-1"

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PLAN INSERT SHEET

COLLISION REPAIR AND HEAT STRAIGHTENING PLAN
STA-77-0586R

PIS CRHS

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