

**ITEM 202 - ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN**

WHERE DESIGNATED, EXISTING ANCHOR ASSEMBLIES INCLUDING ALL POST AND HARDWARE SHALL BE REMOVED. THIS ITEM SHALL ALSO INCLUDE THE REMOVAL OF THE ENTIRE CONCRETE ANCHOR AND CONCRETE ENCASUREMENT. ALL HOLES LEFT AFTER REMOVAL OF ASSEMBLIES AND POSTS SHALL BE FILLED WITH GRANULAR MATERIAL AS DIRECTED BY THE ENGINEER. PAYMENT SHALL INCLUDE ALL NECESSARY LABOR AND EQUIPMENT REQUIRED TO PERFORM THE INDICATED ABOVE.

**NON-USE OF ASBESTOS-CONTAINING MATERIALS**

THE CONTRACTOR SHALL AT NO TIME INCORPORATE ANY MATERIALS WHICH ARE COMPOSED OF OR CONTAIN ANY AMOUNT OF ASBESTOS. THE SUBSTITUTION OF MATERIALS WHICH CONTAIN ANY AMOUNTS OF ASBESTOS WILL IN NO CIRCUMSTANCES BE ACCEPTABLE. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF CERTIFICATION ASSERTING THAT NO ASBESTOS CONTAINING MATERIALS WERE USED IN ANY PORTION OF THE CONSTRUCTION.

**ENDANGERED BAT HABITAT REMOVAL**

NO TREES SHALL BE REMOVED. 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.

**WATERWAY WORK RESTRICTIONS**

THE CONTRACTOR SHALL NOT PERFORM ANY IN-STREAM WORK WITHIN THE WATERS OF THE UNITED STATE. NO WATER CRAFTS SHALL BOTTOM OUT ON THE STREAM BANK. DETAILED MAPPING OF WETLANDS WILL BE PROVIDED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.

**DEMOLITION DEBRIS**

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING THE STREAM OR FALLING ONTO TRAFFIC LANES, HOMES OR TRAILS BELOW THE BRIDGE. ANY MATERIAL THAT DOES FALL INTO THE STREAM OR ONTO ROADS, HOMES OR TRAILS SHALL BE REMOVED AS SOON AS POSSIBLE. ANY DAMAGED CAUSED BY FALLING DEBRIS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

WHILE PAINTING, SANDBLASTING, OR SEALING ANY PORTION OF BRIDGE STRUCTURES, AN APPROPRIATE APRON WILL BE UTILIZED TO PREVENT DEBRIS, PAINT OVERSPRAY, AND SEALANTS FROM ENTERING INTO THE STREAMS OR IMPACTING TRAFFIC.

**CLEAN OUT OF EXISTING BRIDGE SCUPPERS AND DOWNSPOUTS**

CLEAR SCUPPERS AND DOWN SPOUTS OF DEBRIS. CARE SHALL BE TAKEN TO CAPTURE AND DISPOSE OF CLOGGED MATERIAL SO THAT IT IS NOT DISCHARGED INTO THE WATERWAY.

**IN-STREAM WORK RESTRICTIONS**

THE CONTRACTOR IS FORBIDDEN FROM PLACING ANY FILL MATERIAL OR MACHINERY BELOW THE ORDINARY HIGH WATER MARK. TO COMPLETE THE PROPOSED WORK SPECIALIZED RIGGING, FLOATING PLATFORMS, BOAT ACCESS, SNOOPER, CRANES, CONTAINMENT, AND/OR ADAPTIVE CLIMBING TECHNIQUES MAY BE NECESSARY TO ACCOMPLISH CERTAIN WORK TO COMPLY WITH ENVIRONMENTAL, RESIDENTIAL, AND MAINTENANCE OF TRAFFIC RESTRICTIONS.

ALL FALSEWORK SHALL BE DESIGNED AND PLACED AS TO NOT UNDULY OBSTRUCT ANY WATERWAY AND SHALL NOT USE EXPANSION ANCHORS OR DOWELS TO SUPPORT THE FALSEWORK ON PIERS OR ABUTMENTS PER CMS 508.

**MIGRATORY BIRD PROTECTION**

CLIFF SWALLOWS, A NATIVE BIRD PROTECTED UNDER THE MIGRATORY BIRD TREATY ACT (MBTA), HAVE BEEN OBSERVED NESTING UPON THE WAR-22-0303 BRIDGE AND THE WAR-48-0863 BRIDGE. THE MBTA PROHIBITS THE INTENTIONAL KILLING OR CAPTURE OF NATIVE BIRDS PROTECTED UNDER THE ACT. IF CONSTRUCTION ACTIVITIES ARE TO OCCUR BETWEEN THE DATES OF MAY 1 AND AUGUST 31 ON THESE STRUCTURES, THEN PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR MUST INSPECT THE STRUCTURES FOR EVIDENCE OF ACTIVE BIRD NESTS CONTAINING AN EGG OR CHICK. WRITTEN CONFIRMATION OF THE INSPECTION, INCLUDING A STATEMENT WHETHER AN ACTIVE NEST WAS FOUND, MUST BE PROVIDED TO THE ENGINEER. IF AN ACTIVE NEST CONTAINING AN EGG OR CHICK IS ENCOUNTERED, IMPACTS TO THE NEST MUST BE AVOIDED UNTIL ALL DEVELOPING BIRDS ARE ABLE TO INDEPENDENTLY FLY FROM THE NEST. IF NO NESTS ARE ENCOUNTERED DURING THE INSPECTION, OR IF ONLY INACTIVE NESTS THAT DO NOT CONTAIN AN EGG OR CHICK ARE ENCOUNTERED, CONSTRUCTION ACTIVITIES CAN PROCEED. INACTIVE NESTS CAN BE REMOVED AND DESTROYED. IF AN ACTIVE NEST CONTAINING AN EGG OR CHICK CANNOT BE AVOIDED, THE CONTRACTOR MUST OBTAIN A DEPREDATION PERMIT FROM THE USFWS PRIOR TO DESTROYING ANY ACTIVE NEST. INFORMATION ON OBTAINING A DEPREDATION PERMIT FROM THE USFWS CAN BE OBTAINED BY CONTACTING THE REGION 3 MIGRATORY BIRD REGIONAL PERMIT OFFICE AT 5600 AMERICAN BLVD. WEST, SUITE 990, BLOOMINGTON, MN 55437-1458, PHONE NUMBER 612-713-5436, EMAIL PERMITSR3MB@FWS.GOV. PROJECTS PERFORMING THE CONSTRUCTION ACTIVITIES BETWEEN THE DATES OF AUGUST 31 AND MAY 1 DO NOT REQUIRE AN INSPECTION FOR MIGRATORY BIRDS OR AVOIDANCE MEASURES.

THESE BIRDS CAN REMAKE A NEST WITHIN 48 HOURS. THE CONTRACTOR SHALL TAKE STEPS TO PREVENT BIRDS FROM REMAKING NESTS AFTER THEY HAVE BEEN REMOVED. THIS CAN INCLUDE ERECTING NETTING, PAINT TARPS, ETC. TO PREVENT NEST CREATION DURING STRUCTURE REHABILITATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO KEEP THE WORK AREA FREE OF BIRDS AND SECURE FROM BIRD ENTRY. FAILURE TO MEET THIS REQUIREMENT MAY RESULT IN PROJECT DELAYS. SUCH DELAYS WILL BE CONSIDERED NON-EXCUSABLE AND NON-COMPENSABLE PER CMS 108.06E.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE STRUCTURE QUANTITY TABLES FOR THIS WORK:  
ITEM 530 - STRUCTURE, MISC.: PROTECTION FROM MIGRATORY BIRDS (LUMP SUM)

**LITTLE MIAMI STATE PARK TRAIL**

THE CONTRACTOR SHALL CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH ODOT, THE OHIO DEPARTMENT OF NATURAL RESOURCES (MELISSA.CLARK@DNR.STATE.OH.US, 937-382-1096), AND FRIENDS OF THE LITTLE MIAMI STATE PARK (PRESIDENT@FLMSP.ORG, 513-212-6958) TWO WEEKS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL NOT STAGE AND/OR STORE ANY CONSTRUCTION EQUIPMENT OR MATERIALS OUTSIDE OF THE PROPOSED CONSTRUCTION LIMITS THAT ARE WITHIN THE DEFINED BOUNDARIES OF THE LITTLE MIAMI STATE PARK TRAIL. TEMPORARY CONSTRUCTION FENCING SHALL BE INSTALLED ALONG PROPOSED CONSTRUCTION LIMITS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES TO PROTECT THE LITTLE MIAMI STATE PARK TRAIL AND THE PUBLIC. THE CONTRACTOR SHALL INSTALL APPROPRIATE SIGNAGE TO ALERT USERS OF THE LITTLE MIAMI STATE PARK TRAIL OF CONSTRUCTION ACTIVITIES.

**MANHOLE REHABILITATION**

THE CONTRACTOR SHALL REPLACE THE EXISTING MANHOLE COVER WITH AN EMERGENCY PRESURE VENTING MANHOLE COVER AT THE LOCATIONS SHOWN IN THE PLANS. MANHOLE COVER SHALL BE PROVIDED BY ONE OF THE FOLLOWING MANUFACTURERS OR AN APPROVED EQUAL. CONTRACTOR SHALL VERIFY PRODUCT DIMENSIONS PRIOR TO ORDERING TO ENSURE PROPER FIT-UP TO EXISTING MANHOLES.

STORM SURGE  
EAST JORDAN CASTING CO.  
301 SPRING STREET  
PO BOX 439  
EAST JORDAN, MI 49727  
TEL 800-874-4100  
FAX 231-536-4458  
WWW.EJCO.COM

HYDROVENT  
NEENAH FOUNDRY CO.  
2121 BROOKS AVENUE  
NEENAH, WI 54956  
PHONE: 800.558.5075  
FAX: 920.729.3661  
WWW.NFCO.COM

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

202 - REMOVAL, MISC.: MANHOLE FRAME AND COVER = 2 EACH  
611 - MANHOLE FRAME AND COVER, AS PER PLAN = 2 EACH (EMERGENCY VENTING TYPE)

**BRIDGE MOUNTED STREAM GAGE (WAR-48-8.63 BRIDGE)**

90 DAYS PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT WARREN COUNTY EMA TO ARRANGE FOR THE BRIDGE MOUNTED STREAM GAUGES AND ASSOCIATED WIRING CONDUITS TO BE DISCONNECTED FROM THE BRIDGE TO ACCOMMODATE PARAPET AND EXPANSION JOINT REPLACEMENT AS WELL AS BRIDGE PAINTING.

ONCE THE BRIDGE WORK IS COMPLETED, THE WARREN COUNTY EMA SHALL BE CONTACTED AGAIN TO ARRANGE FOR THE STREAM GAUGES TO BE RECONNECTED TO THE BRIDGE. ALL STREAM GAUGE WORK AND ASSOICATED COSTS SHALL BE THE RESPONSIBILITY OF THE WARREN COUNTY EMA.

DAVID WOOD  
LEPC/GRANTS COORDINATOR  
WARREN COUNTY EMA  
520 JUSTICE DRIVE  
LEBANON, OHIO, 45036  
O: 513-695-1313  
F: 513-695-1715



**REVIEW OF DRAINAGE FACILITIES**

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

**BRIDGE MOUNTED SIGN (WAR-48-8.63 BRIDGE)**

TEMPORARILY DETATCH THE EXISTING RIVER MILE MARKERS MOUNTED TO THE GIRDER BOTTOM FLANGES TO ACCOMMODATE BRIDGE PAINTING. RE-ATTACH SIGN ONCE PAINTING IS COMPLETED COST FOR THIS WORK SHALL BE INCIDENTAL TO ITEM 514



**CONSTRUCTION LIMITS**

CONSTRUCTION LIMITS FOR THE PROPOSED WORK SHOWN IN THE PLANS SHALL MATCH THE EXISTING RIGHT OF WAY LIMITS FOR THE BRIDGES AND ADJACENT ROADS.

**CARL RAME SCENIC RIVER ACCESS**

THE CONTRACTOR SHALL NOT STAGE AND/OR STORE ANY CONSTRUCTION EQUIPMENT OR MATERIALS OUTSIDE OF THE PROPOSED CONSTRUCTION LIMITS THAT ARE WITHIN THE DEFINED BOUNDARIES OF THE CARL RAME SCENIC RIVER ACCESS. ACCESS TO THE CARL RAME SCENIC RIVER ACCESS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.

**MAINTAINING TRAFFIC**

ALL EXISTING LANES SHALL BE OPEN AND AVAILABLE TO TRAFFIC BETWEEN NOVEMBER 1 AND JUNE 1. SHOULD THE CONTRACTOR FAIL TO MEET THESE REQUIREMENTS, A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT SPECIFIED IN THE A+B CONTRACT PER CALENDAR DAY.

**US 22:**

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED THE TIME BID IN THE A+B CONTRACT ACCORDING TO PN 125, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 8. THE US 22 CLOSURE SHALL OCCUR DURING CALENDAR YEAR 2021.

**SR 48:**

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED THE TIME BID IN THE A+B CONTRACT ACCORDING TO PN 125, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 7. THE SR 48 CLOSURE SHALL OCCUR DURING CALENDAR YEAR 2020.

**FOSTERS-MAINVILLE ROAD:**

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 7 CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 9. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$5,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

**OLD 3C HIGHWAY:**

SEE SHEET 8 FOR ADDITIONAL REQUIREMENTS REGARDING LEFT TURN MOVEMENTS FROM OLD 3C HIGHWAY ONTO US 22 AND LEFT TURN MOVEMENT RESTRICTIONS FROM US 22 ONTO OLD 3C HIGHWAY DURING PEAK HOURS WHILE WORK IS PERFORMED AT THE WAR-22-3.03 BRIDGE.

DURING THE US 22/3 ROAD CLOSURE THE BELOW INTERSECTIONS SHALL BE REVISED TO ALL WAY STOP CONTROLLED INTERSECTIONS. INSTALL W3-1-48 AND R1-1-48 SIGNS AND WORK ZONE STOP LINE ON US 22/3 IN EACH DIRECTION OF US 22/3 AT BOTH INTERSECTIONS. INSTALL ALL WAY PLAQUES, R1-3P, ON ALL STOP SIGNS; PLAQUES ON EXISTING SIGNS TO BE 18X6, PLAQUES ON TEMPORARY SIGNS TO BE 30X12. REPLACE ALL EXISTING YELLOW LED FLASHING LIGHTS WITH RED LED FLASHING LIGHTS. UPON COMPLETION OF ALL WORK AT WAR-22-3.03 AND IMMEDIATELY PRIOR TO OPENING THE ROAD TO TRAFFIC, ALL TEMPORARY MEASURES DETAILED HERE SHALL BE RESTORED TO EXISTING CONDITION.

US 22/3 AT OLD 3C AND CREEKWOOD PLACE  
US 22/3 AT OLD 3C

WITH THE EXCEPTION OF THE WORK ZONE STOP LINE, PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THIS WORK SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS SPECIFIED ABOVE.

WORK ZONE STOP LINE, CLASS 1, 740.06, TYPE 1 84 FEET

MAINTAIN ACCESS TO RESIDENTIAL, COMMERCIAL AND SERVICE DRIVES, TRAILS AND ROADS AT ALL TIMES EXCEPT AS NOTED ABOVE. ANY CONSTRUCTION DAMAGE TO THE ABOVE MENTIONED ITEMS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

CONTRACTOR SHALL ERECT WARNING SIGNAGE AND MAINTAIN TRAFFIC ON THE LITTLE MIAMI STATE PARK TRAIL USING FLAGGERS.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO

INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS,

THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

**NOTICE OF CLOSURE SIGN TIME TABLE**

ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
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RAMP &	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
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ROAD	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
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CLOSURES < 12 HOURS		2 BUSINESS DAYS PRIOR TO CLOSURE
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THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE LOCATIONS SHOWN IN THE PLANS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES AT LOCATIONS SHOWN ON THE DETOUR PLANS.

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

CHRISTMAS	NEW YEARS
THANKSGIVING	
WESTERN AND SOUTHERN OPEN (US 22 ONLY)	

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
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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 IN THE AMOUNT OF \$145 PER MINUTE. ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE

PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

**ADVANCE WORK ZONE INFORMATION**

ADVANCE WORK ZONE INFORMATION SIGNS, AS USED IN THIS NOTE, ARE FIXED MESSAGE TYPES. THE SIGNS ARE TO BE LOCATED AT EXTREME DISTANCE FROM THE WORK AREA, AS SHOWN IN THE PLANS.

THE SIGNS SHALL BE BLACK ON ORANGE (INCLUDING A BLACK BORDER). THE LAYOUT SHALL BE IN CONFORMANCE WITH TEM CHAPTER 211.

WHEN REGULATORY INFORMATION IS PROVIDED, IT SHALL BE DISPLAYED SEPARATELY AS A STANDARD BLACK-ON-WHITE SIGN. MIXING OF BLACK-ON-WHITE REGULATORY INFORMATION ON A BLACK-ON-ORANGE INFORMATION SIGN IS PROHIBITED.

IF THE MOTORIST IS BEING DETOURED OR IF AN ALTERNATE ROUTE IS PROVIDED, THE ROUTE SHOULD BE SIGNED WITH ASSEMBLIES CONSISTING OF THE APPROPRIATE BLACK-ON-ORANGE DETOUR OR ALT MARKER WITH A STANDARD ROUTE MARKER AND ARROW PLATE. IF MORE TARGET VALUE IS DESIRED, THIS TRAIL BLAZER INFORMATION MAY BE SHOWN ON AN ORANGE PANEL (OMUTCD SECTION 2D.32).

ROUTE SIGN ASSEMBLIES SHALL BE SIZED ACCORDING TO THE TYPE OF ROAD ON WHICH THEY ARE LOCATED IN ACCORDANCE WITH THE OMUTCD.

SUPPORTS FOR SIGN INSTALLATIONS SHALL CONFORM TO ALL EXISTING STANDARDS FOR PERMANENT SIGNS. THESE SIGNS SHOULD NOT BE ATTACHED TO EXISTING SUPPORTS.

WHERE THE PLANS CALL FOR AN OVERLAY TO COVER A PORTION OF AN EXISTING SIGN, THE OVERLAY SHALL BE BLACK-ON-ORANGE. LETTER SIZES SHOULD BE THE SAME AS ON THE EXISTING SIGNS. WHEN LANE ARROWS ARE TO BE COVERED, A BLANK OVERLAY SHOULD BE PLACED OVER EACH OF THE AFFECTED ARROWS. WHEN A RAMP IS BEING CLOSED, RATHER THAN USING A BLANK OVERLAY TO COVER THE ENTIRE SIGN, THE LEGEND "EXIT CLOSED" (W20-H15) SHOULD BE USED ON A DIAGONAL OVERLAY (LOWER LEFT TO UPPER RIGHT) ON THE SIGN. THE SIZE OF LETTERING ON OVERLAYS AND THE SIZE OF THE OVERLAY ARE INDICATED IN THE PLANS. THE MINIMUM LETTER SIZE FOR THE DIAGONAL "EXIT CLOSED" (W20-H15) OVERLAY SHALL BE 12" C.

ALL ADVANCE WORK ZONE INFORMATION SIGN INSTALLATIONS LOCATED OUTSIDE OF THE PROJECT WORK LIMITS SHALL BE PAID FOR UNDER APPROPRIATE 630 ITEMS (SIGNS, SUPPORTS, CONCRETE, BREAKAWAY CONNECTION, OVERLAYS, REMOVALS, ETC.).

**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

**NOTIFICATION OF TRAFFIC RESTRICTIONS (CON'T)**

THE SPECIAL HAULING PERMITS SECTION AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO).

**CONTACT INFORMATION:**

DISTRICT PUBLIC INFORMATION OFFICER BY EMAIL AT DOT.D08.PIO@DOT.OHIO.GOV

DISTRICT PERMIT SECTION BY EMAIL AT D08.PERMITS@DOT.OHIO.GOV

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY EMAIL AT HAULING.PERMITS@DOT.OHIO.GOV

DISTRICT TRAFFIC, DETOUR SECTION BY EMAIL AT DOT.D08.DETOURS@DOT.OHIO.GOV

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
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 CALENDAR DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN 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.

LOCATION OF CRITICAL WORK	MINIMUM DAYS	MAXIMUM DAYS	INCENTIVE/DECENTIVE \$ PER DAY	MAXIMUM INCENTIVE \$
ALL WORK AT WAR-US 22-3.03	30	60	\$11,600	\$116,000
ALL WORK AT WAR-SR 48-8.63	75	120	\$16,500	\$165,000

CALCULATED  
XXX  
CHECKED  
XXX

MAINTENANCE OF TRAFFIC GENERAL NOTES

WAR-22/48-  
3.03/8.63

5  
56

**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 OMTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMTCD, 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).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN A 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).

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 ZONES.

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.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. 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.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING THE 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. 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 200 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 A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

**DESIGNATED LOCAL DETOUR ROUTES FOR SR 48 & US22 AND FOSTERS-MAINEVILLE RD.**

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTES, LOCAL ROUTES HAVE BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTES OR "DESIGNATED LOCAL DETOUR ROUTES." THESE ROUTES ARE SHOWN ON SHEETS 7, 8 & 9. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THESE ROUTES IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE. MULTIPLE MOBILIZATIONS MAY BE REQUIRED.

THE QUANTITIES BELOW ARE PROVIDED TO REPAIR VARIOUS LOCATIONS ALONG THE DESIGNATED LOCAL DETOUR ROUTES FOR US 22, SR 48 AND FOSTERS-MAINVILLE RD.

ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22 (448)	176 CU. YD.
ITEM 407, TACK COAT	380 GAL.
ITEM 642, CENTER LINE	0.3 MILE

**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 SHEET(S) 7 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.

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 TOTAL 32 SIGN MONTHS ASSUMING 8 PCMS AT US 22 AND 4 PCMS AT SR 48

**MAINTENANCE OF CANOE TRAFFIC**

CANOE TRAFFIC SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION OF THE PROJECT EITHER THROUGH EXISTING RIVER CHANNEL OR THROUGH PORTAGE TRAIL APPROVED BY THE ENGINEER.

ADEQUATE SIGNING BOTH UPSTREAM AND DOWNSTREAM SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR. THE FOLLOWING TYPE SIGNS ARE CONSIDERED TO BE MINIMUM TREATMENT:

1. APPROXIMATELY ONE-QUARTER MILE UPSTREAM, ADVANCED WARNING TYPE SIGNS ON BOTH BANKS;
2. APPROXIMATELY 300 FEET UPSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF CANOEIST ON BOTH BANKS;
3. APPROXIMATELY ONE-QUARTER MILE DOWNSTREAM, ADVANCE WARNING TYPE SIGNS ON BOTH BANKS; AND
4. APPROXIMATELY 300 FEET DOWNSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF CANOEIST OF BOTH BANKS.

THE ABOVE SIGNING SHALL BE MOUNTED IN SUCH A WAY AS TO BE A MINIMUM OF 4 FEET ABOVE THE WATER LEVEL, UNOBSTRUCTED BY TREE BRANCHES, AND PROPERLY ANGLED FOR MAXIMUM VISIBILITY FROM THE MAIN CLEAR CHANNEL. THE METHOD OF SUPPORTING THE SIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. UPON COMPLETION OF THE PROJECT, THE SIGNS AND SUPPORT SYSTEMS SHALL BE COMPLETELY REMOVED FROM THE RIVER CHANNEL. THE CONTRACTOR SHALL NOTIFY LOCAL CANOE LIVERIES USING THIS PORTION OF THE RIVER AT LEAST 10 DAYS PRIOR TO ANY CHANGES AFFECTING CANOE TRAFFIC. PORTAGE TRAILS IF USED SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR WITH THE LEAST POSSIBLE DISTURBANCE TO THE SURROUNDING AREA. THE TRAIL SHALL BE ADEQUATELY MARKED IN BOTH DIRECTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE RIGHT-OF-WAY FOR THE PORTAGE TRAILS IF REQUIRED.

IN THE EVENT PIPES ARE USED TO DIVERT OR CARRY RIVER WATER, BOTH THE INLET AND OUTLET ENDS SHALL BE ADEQUATELY PROTECTED BY GRATES OR FENCE SO THAT PEOPLE OR CANOES ARE NOT DRAWN THROUGH OR HELD BY THEM.

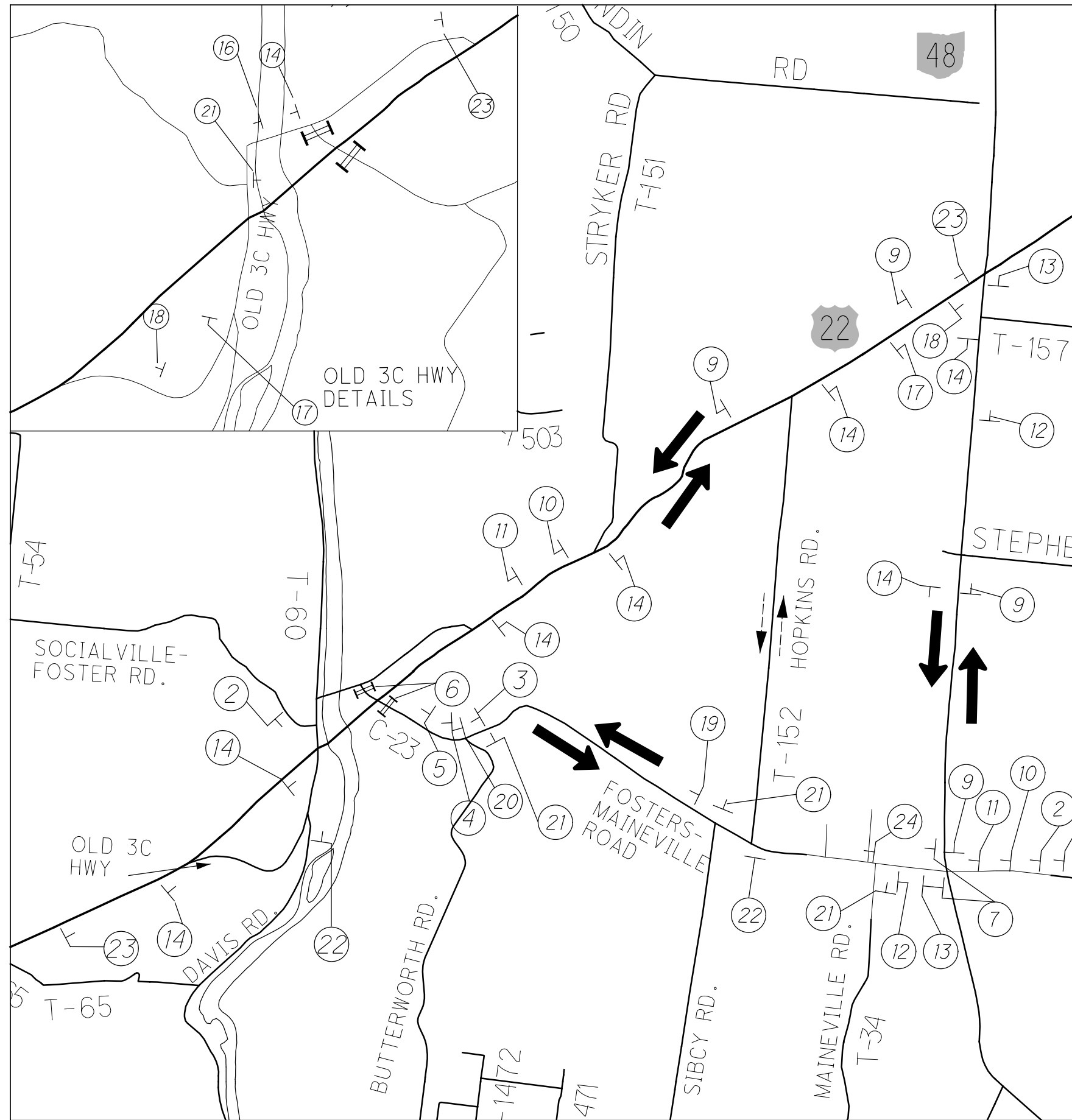
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MAINTENANCE OF TRAFFIC GENERAL NOTES

WAR-22/48 -  
3.03/8.63

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SEE OLD 3C HWY  
DETAILS ABOVE

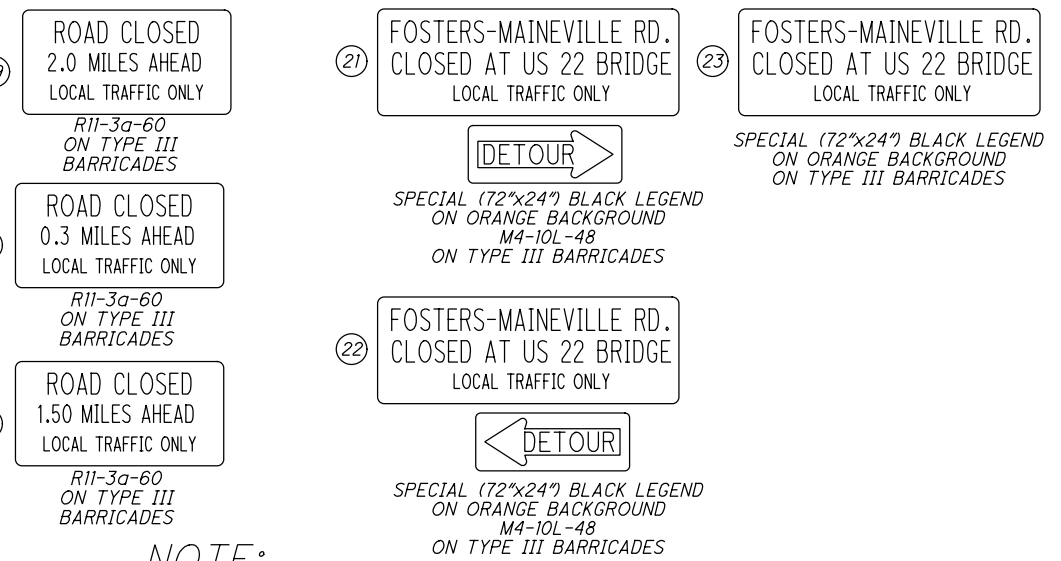
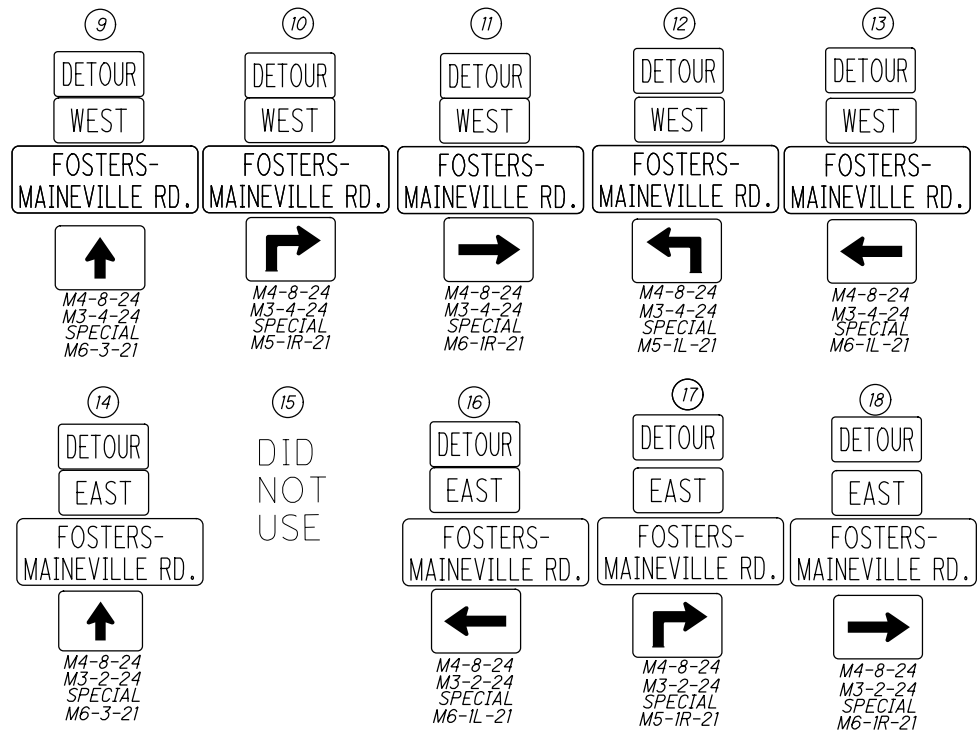
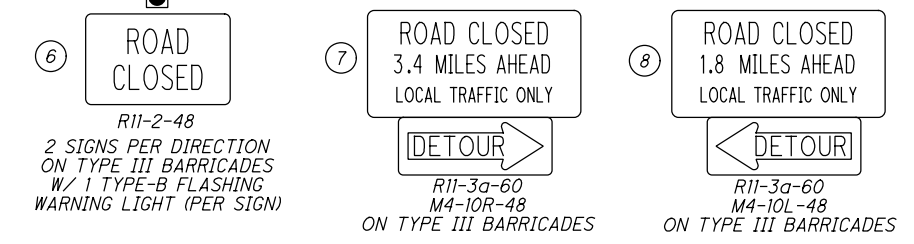
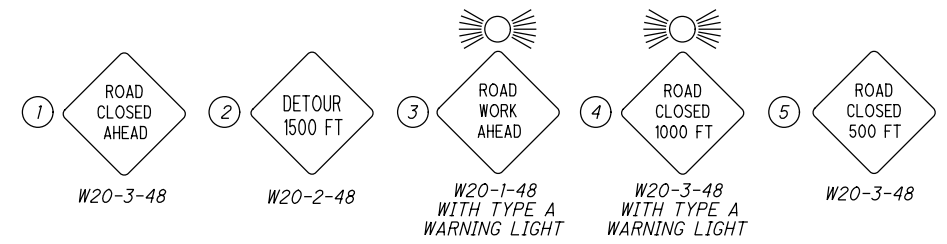
**LEGEND**



OFFICIAL DETOUR (5.6 MILES)



LOCAL DETOUR (3.9 MILES)



**NOTE:**

SEE SHEET 5 FOR ADDITIONAL NOTES REGARDING LEFT TURN MOVEMENT RESTRICTIONS TO AND FROM OLD 3C HIGHWAY TO US 22.



**MAINTENANCE OF TRAFFIC  
FOSTERS-MAINEVILLE RD. DETOUR PLAN**

**WAR-22/48-  
3.03/8.63**

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SHEET NUM.											PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
3	4	5	6	8	11	12	16	36	39		01/S>2/BR	EXT	TOTAL				
ROADWAY																	
LUMP								3			LUMP	201	11001	LS		CLEARING AND GRUBBING, AS PER PLAN	3
											3	202	23011	3	SY	PAVEMENT REMOVED, ASPHALT, AS PER PLAN	3
						843					843	202	38000	843	FT	GUARDRAIL REMOVED	
						2					2	202	42001	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN	4
						4					4	202	47000	4	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
	2										2	202	98100	2	EACH	REMOVAL MISC.: MANHOLE FRAME AND COVER	4
								5	54		59	203	22000	59	CY	EMBANKMENT, USING NATURAL SOILS, 703.16.A	
											10	204	10000	10	SY	SUBGRADE COMPACTION	
											5	204	30020	5	CY	GRANULAR MATERIAL, TYPE C	
						612.5					612.5	606	15100	612.5	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
						1					1	606	17500	1	EACH	POST END ANCHOR (OR CONCRETE BLOCK END ANCHOR)	
						4					4	606	26150	4	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016 OR NCHRP 350)	3
						2					2	606	26550	2	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
						11					11	606	35002	11	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
							72	72	72		216	609	24510	216	FT	CURB, TYPE 4-C202E11203	
EROSION CONTROL																	
									75		75	601	20000	75	SY	CRUSHED AGGREGATE SLOPE PROTECTION 202E11203	
									63		63	601	21050	63	SY	TIED CONCRETE BLOCK MAT, TYPE 1	
									70		70	836	10040	70	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 4	
484											484	659	00540	484	SY	SEEDING AND MULCHING, CLASS 3C	
24											24	659	14000	24	SY	REPAIR SEEDING AND MULCHING	
0.07											0.07	659	20000	0.07	TON	COMMERCIAL FERTILIZER	
2.61											2.61	659	35000	2.61	MGAL	WATER	
											1,000	832	30000	1,000	EACH	EROSION CONTROL	
DRAINAGE																	
									16		16	601	11000	16	SY	RIPRAP, TYPE D	
									78		78	611	09100	78	FT	21" CONDUIT, TYPE C	
									1		1	611	98504	1	EACH	CATCH BASIN, NO. 2-2C	
	2										2	611	99651	2	EACH	MANHOLE FRAME AND COVER, AS PER PLAN (EMERGENCY VENTING TYPE)	4
PAVEMENT																	
					256						256	254	01000	256	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T=2.75")	
					4						4	254	01600	4	SY	PATCHING PLANED SURFACE	
								1			1	301	46000	1	CY	ASPHALT CONCRETE BASE, PG64-22	
			380		23						403	407	20000	403	GAL	NON-TRACKING TACK COAT	
			176		13			1			190	441	50000	190	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
TRAFFIC CONTROL																	
					63						63	621	00100	63	EACH	RPM	
					63						63	621	54000	63	EACH	RAISED PAVEMENT MARKER REMOVED	
						15					15	626	00110	15	EACH	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL)	
						104					104	630	03100	104	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
						24					24	630	80100	24	SF	SIGN, FLAT SHEET	
				48							48	630	83000	48	SF	COVERING OF SIGN	
						9					9	630	84900	9	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
						6					6	630	85100	6	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
						9					9	630	86002	9	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
						6					6	630	86010	6	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION	
			0.3								0.3	642	00290	0.3	MILE	CENTER LINE	
					0.02						0.02	644	00104	0.02	MILE	EDGE LINE, 6"	
					0.01						0.01	644	00300	0.01	MILE	CENTER LINE	
					0.93						0.93	645	00112	0.93	MILE	EDGE LINE, 6", TYPE A1	
					0.47						0.47	645	00300	0.47	MILE	CENTER LINE, TYPE A1	
STRUCTURE REPAIR (WAR-22-0303)																	
																	20
STRUCTURE REPAIR (WAR-48-0863)																	
																	43
MAINTENANCE OF TRAFFIC																	
			200								200	614	11110	200	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
											LUMP	614	12420	LS		DETOUR SIGNING	
			32								32	614	18600	32	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN	6
		84									84	614	26400	84	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
INCIDENTALS																	
		LUMP									LUMP	614	11000	LS		MAINTAINING TRAFFIC	
LUMP											LUMP	623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	3
											LUMP	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

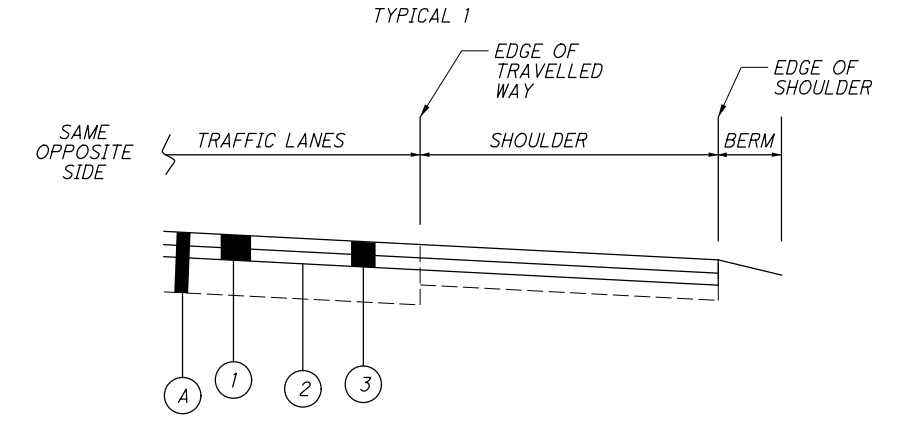
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COUNTY-ROUTE	LOG POINT (MILE)		LENGTH		PAVEMENT WIDTH (AVERAGE)	PAVEMENT AREA	254			407	441		NOTES
	FROM	TO	MILES	FT			DEPTH	PAVEMENT PLANING ASPHALT CONCRETE		NON-TRACKING TACK COAT @ 0.09 GAL/SQ YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448), PG64-22		
								SQ YD	SQ YD		THICKNESS	SAFETY EDGE	
WAR-48	8.623	8.630	0.007	35	34	130	3.00	129.7	2.0	11.7	1.75	6.3	NO REPLACEMENT RUMBLES
WAR-48	8.830	8.837	0.007	35	32	126	2.75	125.8	2.0	11.3	1.75	6.1	NO REPLACEMENT RUMBLES
TOTALS CARRIED TO GENERAL SUMMARY								256	4	23		13	



- (A) EXISTING ASPHALT CONCRETE PAVEMENT
- (1) ITEM 254- PAVEMENT PLANING, ASPHALT CONCRETE
- (2) ITEM 407- TACK COAT (.09 GAL/SQ YD)
- (3) ITEM 441- ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448), PG 64-22

COUNTY-ROUTE	LOG POINT (MILE)		TOTAL	644					645			REMARKS	
	FROM	TO		EDGE LINE 6"		LANE LINE		CENTER LINE		EDGE LINE 6"			CENTER LINE
				WHITE		DASHED	SOLID	DASHED	SOLID	WHITE			DASHED
WAR-48	8.625	8.630	0.005	0.010					0.005				
WAR-48	8.630	8.830	0.200						0.4		0.200		WAR-48-8.63 BRIDGE & FWD. APP SLAB
WAR-48	8.830	8.835	0.005	0.010					0.005				
WAR-CR 23	0.034	0.037	0.003	0.003									FOSTERS-MAINVILLE RD PIER PROTECT.
WAR-22	3.025	3.292	0.27						0.534		0.267		WAR-22-3.03 BRIDGE & APP SLABS
TOTALS CARRIED TO GENERAL SUMMARY				0.0226				0.0098		0.934		0.467	

PART	COUNTY	ROUTE	LOCATION		DETAIL	ITEM 621		PRISMATIC RETRO-REFLECTOR COLORS					REMARKS	
			S.L.M. SECTION	FROM		TO	RPM	RAISED PAVEMENT MARKER REMOVED	ONE-WAY		TWO-WAY			
									WHITE	YELLOW	YELLOW/WHITE	YELLOW/YELLOW		WHITE/RED
	WAR	48	8.625	8.835	1	28	28					28		
	WAR	22	3.025	3.292	1	35	35					35		
TOTALS CARRIED TO GENERAL SUMMARY						63	63							

DETAIL	TC-65.10
1	MIANLINE UNDIVIDED
	TYPICAL SPACING
2	LANE LINE TYPICAL
	SPACING
2A	CHANNELIZING TYPICAL

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**ROADWAY SUBSUMMARY**  
**WAR-22/48 - 3.03/8.63**  
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**ITEM 848 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T-134) (cont'd)**

FIBERS AND THE MIX MEET OR EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX, MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE.

CONCRETE SUPPLIERS ARE FORBIDDEN TO INCLUDE THE MACRO-SYNTHETIC FIBER PACKAGING/CONTAINER IN THE CONCRETE MIX.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE CONCRETE SUPPLIERS CHOICE OF ONE OF THESE ADMIXTURES DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS.

REVISIONS TO 848.21: THE FINAL SOUNDING MAY TAKE PLACE WITHIN 24 HOURS OF A RAIN, AND THE DECK DOES NOT HAVE TO BE COMPLETELY DRY. HAND CHIPPING IS FOR THE PURPOSE OF CHIPPING AREAS WHERE THE HYDRODEMOLITION MACHINE DOES NOT HAVE ACCESS. IF THE DESIRED DEPTH IS ACHIEVED BY HYDRODEMOLITION, NO FURTHER REMOVAL IS NECESSARY.

**CLASS QC3 CONCRETE, MISC.: SUBSTRUCTURE CONCRETE WITH QC/QA, AS PER PLAN**

THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC AND CORROSION INHIBITORS INTO THE SUBSTRUCTURE CONCRETE. THIS ITEM SHALL CONFORM TO CMS 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:

PORTLAND CEMENT CONCRETE 499.03, CLASS QC 3 MEETING A DESIGN STRENGTH OF 4,000 PSI, WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02  
FIBERS FOR CONCRETE ASTM C 1116, TYPE III  
CORROSION INHIBITOR 515.15

THE CLASS QC3 CONCRETE FOR THE SUBSTRUCTURE SHALL MEET THE FOLLOWING CRITERIA:  
WATER/CEMENT RATIO = 0.40 MAXIMUM; MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.0 IN. MIN. TO 2.5 IN. MAX.) MEETING ASTM C1116 TYPE III SHALL BE ADDED TO THE MIX.

MIX SHALL INCLUDE A MIGRATING CORROSION INHIBITOR AS MANUFACTURED BY AN APPROVED SUPPLIER LISTED ON ODOT'S QUALIFIED APPROVED SUPPLIERS, ITEM 515.15. THE DOSAGE RATE LISTED ON THE ODOT QUALIFIED APPROVED SUPPLIERS LIST WILL APPLY.

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO 'BALLING' OCCURS. UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE AND MACRO-SYNTHETIC FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES.

PROVIDE MACRO-SYNTHETIC FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK. ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI, A MINIMUM MODULUS OF ELASTICITY OF 800 KSI, A MINIMUM FILAMENT DIAMETER OF 0.012 INCHES, AND ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.0 AND 2.5 INCHES IN LENGTH.

STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURE'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT AND MOISTURE.

USE A MINIMUM DOSAGE RATE OF MACRO-SYNTHETIC FIBERS OF 4.0 LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE RATE THROUGH MIX TESTING. ENSURE THE FIBER REINFORCED CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C 1609. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. UTILIZE A LABORATORY REGULARLY INSPECTED BY THE CEMENT AND CONCRETE REFERENCE LABORATORY (CCRL) OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, OR OTHER APPROVED REFERENCE LABORATORY, TO PERFORM THE TESTING. BEFORE USE, SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING BOTH THE MACRO-SYNTHETIC FIBERS AND THE MIX MEET OR EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX, MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED. THE TRANSIT MIXER CHARGE SHALL BE LIMITED TO 3/4 OF ITS RATED CAPACITY OR 6 CUBIC YARDS, WHICHEVER IS SMALLER. THE FIRST THREE TRANSIT MIXER LOADS ARE REQUIRED TO BE AT THE MINIMUM YARDAGE LISTED ABOVE TO SHOW PROOF OF THE SUCCESSFUL BATCHING OPERATION. AFTER CONSISTENCY IN THE DELIVERED MATERIAL HAS BEEN ESTABLISHED, THE CONCRETE SUPPLIER MAY INCREASE THE BATCH DELIVERED QUANTITIES AS LONG AS THE QUALITY REMAINS ACCEPTABLE TO THE ENGINEER. THE ENGINEER CAN REDUCE THE BATCH LOAD SIZE AT ANY TIME AS NEEDED TO CORRECT/IMPROVE CONCRETE QUALITY.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT THE CORROSION INHIBITOR AND ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE CORROSION INHIBITOR IS SUGGESTED TO BE A MCI PRODUCT BY CORTEC OR AN APPROVED EQUAL FROM THE QUALIFIED PRODUCTS LIST. THE CONCRETE SUPPLIER'S CHOICE OF ONE OF THESE CORROSION INHIBITORS DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS. PLEASE BE ADVISED THAT SOME PRODUCTS ON THE LIST EFFECT THE DELIVERED MIX PROPERTIES GREATLY WHILE OTHER PRODUCTS DO NOT.

THE CONTRACTOR SHOULD BE ADVISED THAT CONCRETE RETARDING AGENTS MAY NEED TO BE ADDED TO OFFSET THE EFFECTS OF THE MIGRATING CORROSION INHIBITOR SELECTED.

**CLASS QC3 CONCRETE, MISC.: SUPERSTRUCTURE CONCRETE WITH QC/QA, AS PER PLAN**

THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC, AND CORROSION INHIBITORS INTO THE SUPERSTRUCTURE CONCRETE. THIS ITEM SHALL CONFORM TO CMS 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:

PORTLAND CEMENT CONCRETE 499.03, CLASS QC 3 MEETING A DESIGN STRENGTH OF 4,500 PSI, WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02  
FIBERS FOR CONCRETE ASTM C 1116, TYPE III  
CORROSION INHIBITOR 515.15

THE CLASS QC3 CONCRETE FOR THE SUPERSTRUCTURE SHALL MEET THE FOLLOWING CRITERIA:  
WATER/CEMENT RATIO = 0.40 MAXIMUM; MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.0 IN. MIN. TO 2.5 IN. MAX.) MEETING ASTM C1116 TYPE III SHALL BE ADDED TO THE MIX.

MIX SHALL INCLUDE A MIGRATING CORROSION INHIBITOR AS MANUFACTURED BY AN APPROVED SUPPLIER LISTED ON ODOT'S QUALIFIED APPROVED SUPPLIERS, ITEM 515.15. THE DOSAGE RATE LISTED ON THE ODOT QUALIFIED APPROVED SUPPLIERS LIST WILL APPLY.

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO 'BALLING' OCCURS. UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE AND MACRO-SYNTHETIC FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK. ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI, A MINIMUM MODULUS OF ELASTICITY OF 800 KSI, A MINIMUM FILAMENT DIAMETER OF 0.012 INCHES, AND ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.0 AND 2.5 INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURE'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT AND MOISTURE.

USE A MINIMUM DOSAGE RATE OF MACRO-SYNTHETIC FIBERS OF 4.0 LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE RATE THROUGH MIX TESTING. ENSURE THE FIBER REINFORCED CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C 1609. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. UTILIZE A LABORATORY REGULARLY INSPECTED BY THE CEMENT AND CONCRETE REFERENCE LABORATORY (CCRL) OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, OR OTHER APPROVED REFERENCE LABORATORY, TO PERFORM THE TESTING. BEFORE USE, SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING BOTH THE MACRO-SYNTHETIC FIBERS AND THE MIX MEET OR EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX, MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED. THE TRANSIT MIXER CHARGE SHALL BE LIMITED TO 3/4 OF ITS RATED CAPACITY OR 6 CUBIC YARDS, WHICHEVER IS SMALLER. THE FIRST THREE TRANSIT MIXER LOADS ARE REQUIRED TO BE AT THE MINIMUM YARDAGE LISTED ABOVE TO SHOW PROOF OF THE SUCCESSFUL BATCHING OPERATION. AFTER CONSISTENCY IN THE DELIVERED MATERIAL HAS BEEN ESTABLISHED, THE CONCRETE SUPPLIER MAY INCREASE THE BATCH DELIVERED QUANTITIES AS LONG AS THE QUALITY REMAINS ACCEPTABLE TO THE ENGINEER. THE ENGINEER CAN REDUCE THE BATCH LOAD SIZE AT ANY TIME AS NEEDED TO CORRECT/IMPROVE CONCRETE QUALITY.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT THE CORROSION INHIBITOR AND ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE CORROSION INHIBITOR IS SUGGESTED TO BE A MCI PRODUCT BY CORTEC OR AN APPROVED EQUAL FROM THE QUALIFIED PRODUCTS LIST. THE CONCRETE SUPPLIER'S CHOICE OF ONE OF THESE CORROSION INHIBITORS DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS. PLEASE BE ADVISED THAT SOME PRODUCTS ON THE LIST EFFECT THE DELIVERED MIX PROPERTIES GREATLY WHILE OTHER PRODUCTS DO NOT.

APPROACH SLABS, DIAPHRAGMS, AND BRIDGE RAILING CONCRETE (WHEN APPLICABLE) ARE TO USE THE SAME MIX DESIGN AS THE BRIDGE DECK. THE CONTRACTOR SHOULD BE ADVISED THAT CONCRETE RETARDING AGENTS MAY NEED TO BE ADDED TO OFFSET THE EFFECTS OF THE MIGRATING CORROSION INHIBITOR SELECTED. USE SELF-COMPACTING CONCRETE ON DECORATIVE RAILING SIMILAR TO TEXAS RAILING AND MACRO-SYNTHETIC CONCRETE PER THIS SPECIFICATION ON TRADITIONAL CONCRETE RAILING WHEN APPLICABLE.

THE CONTRACTOR SHALL PROVIDE TRADITIONAL BRIDGE DECK FORMS CONFORMING TO CMS 508. PERMANENT STAY-IN-PLACE (SIP) FORMS ARE NOT ALLOWED. THE PLACING OF THE DECK AND THE APPROACH SLABS IN THE SAME CONCRETE POUR IS NOT PERMITTED.

**CLASS QC3 CONCRETE AND CONCRETE FOR DECK OVERLAYS**

DURING THE ADDITION OF MICROFIBERS OR MACROSYNTHETIC FIBERS TO THE CONCRETE MIX, THE CONCRETE SUPPLIER IS FORBIDDEN FROM INCLUDING THE BAG/CONTAINER FOR FIBERS INTO THE CONCRETE MIX. ANY EVIDENCE OF THIS OCCURRENCE SHALL BE CAUSE FOR REJECTION OF THE CONCRETE AND A NEW BATCH OF CONCRETE, APPROVED BY THE PROJECT ENGINEER, SHALL BE PROVIDED AT THE CONTRACTOR'S EXPENSE.

**DECK SURVEY**

THE DECK SLAB AND APPROACH SLAB ELEVATIONS PROVIDED SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. PRIOR TO THE START OF DEMOLITION, THE CONTRACTOR SHALL SURVEY THE EXISTING DECK SLAB AND APPROACHES TO THE BRIDGE TO ENSURE THAT A PROFILE IS RE-ESTABLISHED THAT TRANSITIONS SMOOTHLY FROM THE EXISTING ASPHALT APPROACH PAVEMENT ONTO THE BRIDGE.

THE SURVEY SHALL ALSO BE USED TO MANUFACTURE THE NEW STEEL EXPANSION JOINTS WITH A PROPER CROSS SLOPE THAT MATCHES EXISTING. ALL COSTS ASSOCIATED WITH THE SURVEY SHALL BE CONSIDERED INCIDENTAL TO ITEM 848.

DESIGNED		C/AH	CHECKED	GTF
DRAWN		CAH	REVIEWED	XXX
REVIEWED		XXX	MM/DD/YY	STRUCTURE FILE NUMBER
DATE		8500036	8501085	
DESIGN AGENCY		OHIO DEPT OF TRANSPORTATION		
DISTRICT		8 BRIDGE OFFICE		

**STRUCTURE NOTES - 3**  
BRIDGE NO. WAR-22-3.03/WAR-48-8.63

WAR-22/48 -  
3.03/8.63  
PID No. 103849

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**ITEM SPECIAL STRUCTURES: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION**

ALL CONCRETE SHALL BE TESTED. ALL TESTING, INSPECTION AND QUALITY CONTROL FOR CONCRETE, NOT INCLUDED UNDER QC/QA PAY ITEMS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A CONCRETE TESTING CONSULTANT WITH PREVIOUS EXPERIENCE AND FAMILIARITY IN ODOT PROCEDURES, CONCRETE TESTING REQUIREMENTS AND CONCRETE TESTING DOCUMENTATION. AT LEAST 30 DAYS PRIOR TO CONCRETE PLACEMENT, SUBMIT TO THE ENGINEER FOR APPROVAL, THE PROPOSED CONCRETE TESTING CONSULTANT ALONG WITH THE RESUMES OF THE PROPOSED TESTING PERSONNEL.

TESTING CONCRETE FOR STRUCTURES AND PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE PERFORMED AS OUTLINED IN CONSTRUCTION AND MATERIAL SPECIFICATIONS 455.

THROUGH THE CONTRACTOR, THE CONSULTANT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONCRETE PLACED IS IN ACCORDANCE WITH THE SPECIFICATIONS. SUCH WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE ODOT CONSTRUCTION INSPECTION MANUAL OF PROCEDURES FOR CONCRETE. THE CONCRETE CONSULTANT SHALL PROVIDE THE NECESSARY TRAINED TECHNICIAN(S) AND EQUIPMENT AND SHALL FURNISH THE PROJECT ENGINEER WITH TWO (2) COPIES OF ALL TEST RESULTS WITHIN 24 HOURS AFTER COMPLETION OF CONCRETE PLACEMENT.

THE TECHNICIANS SHALL BE ACI LEVEL 1 CERTIFIED AND WILL BE REQUIRED TO DEMONSTRATE HIS/HER COMPETENCE AND EXPERIENCE LEVELS TO THE ENGINEER PRIOR TO BEGINNING WORK. THE ENGINEER WILL ORDER THE CONTRACTOR TO REPLACE ANY TECHNICIAN THAT IS NOT VERSED IN THE REQUIRED TESTING PROCEDURE.

THE TECHNICIAN SHALL VERBALLY NOTIFY THE ODOT PROJECT ENGINEER OF ANY FAILING TESTS AND SHALL SUBMIT FOLLOW-UP WRITTEN NOTIFICATION TO THE PROJECT ENGINEER OF REMEDIAL ACTION(S) TAKEN. TESTS SHALL BE TAKEN AS SPECIFIED WITHIN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, CONCRETE MANUAL OR APPROPRIATE SUPPLEMENTAL SPECIFICATION AS LISTED IN THE PROPOSAL GOVERNING THE PROJECT. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO MAKE IMMEDIATE CORRECTIONS OR ADJUSTMENTS TO THE CONCRETE MIX VIA DIRECT COMMUNICATION WITH THE CONCRETE SUPPLIER'S PLANT PERSONNEL TO MAINTAIN UNINTERRUPTED COMPLIANCE WITH THE SPECIFICATIONS UPON NOTIFICATION OF CONCRETE MIX NON-COMPLIANCE BY THE CONSULTANT TECHNICIAN. THE PROJECT ENGINEER MAY REQUIRE MORE FREQUENT TESTING AS CONDITIONS WARRANT.

UPON COMPLETION OF DAILY CONCRETE PLACEMENT(S), THE CONCRETE CONSULTANT SHALL PROVIDE THE PROJECT ENGINEER WITH DAILY TEST REPORTS, TE-45'S, INSPECTORS DAILY REPORT AND SUPPORTING DOCUMENTATION FOR EACH ITEM OF CONCRETE WORK PERFORMED SEPARATED BY MIX DESIGN. SUBSEQUENTLY, UPON COMPLETION OF AN ENTIRE CONCRETE SPECIFICATION ITEM, THE CONCRETE CONSULTANT SHALL ALSO PROVIDE THE PROJECT ENGINEER WITH TWO (2) COPIES OF AN ADDITIONAL INSPECTION REPORT BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHICH CONTAINS THE TESTING RESULTS SUMMARY FOR EACH ITEM BY CONTRACT REFERENCE NUMBER AND THE CONSULTANT'S CONCLUSIONS RELATIVE TO SPECIFICATION COMPLIANCE FOR ALL CONCRETE TESTING WORK.

THE ODOT PROJECT ENGINEER RESERVES THE RIGHT TO MAKE UNANNOUNCED QUALITY-CONTROL TESTS TO VERIFY PROCEDURES USED AND RESULTS BEING OBTAINED BY THE CONTRACTOR.

THE CONCRETE TECHNICIAN SHALL WORK UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHO WILL MONITOR THE CONCRETE TEST RESULTS. THE FINAL INSPECTION REPORTS FOR EACH COMPLETED ITEM SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, CERTIFYING THAT ALL CONCRETE TESTS PROVIDED BY THE CONTRACTOR MET APPLICABLE CONTRACT REQUIREMENTS. A FINAL REPORT ISSUED BY THE CONSULTING FIRM SHALL CONTAIN A CERTIFIED STATEMENT OF COMPLIANCE WITH ODOT SPECIFICATIONS AND ANY OTHER CONCLUSIONS REGARDING THE CONCRETE MATERIALS INCORPORATED INTO THE PROJECT. SUCH STATEMENT SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO. AND, THE CONCRETE CONSULTANT SHALL BE REQUIRED TO ATTEND MONTHLY PROGRESS MEETINGS AS REQUIRED BY THE PROJECT ENGINEER.

ADDITIONALLY, THE CONTRACTOR SHALL BE REQUIRED TO KEEP A POSTED LIST OF BEAM AND CYLINDER IDENTIFICATION NUMBERS FOR THE PURPOSE OF IDENTIFYING THE CORRESPONDING PLACEMENT LOCATION AND CONCRETE SPECIFICATION ITEM.

PAYMENT SHALL BE BID AS LUMP SUM FOR ITEM SPECIAL STRUCTURES: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION. THE ITEM WILL BE PAID FOR AS FOLLOWS:

UPON APPROVAL OF CONSULTANT ..... 20%  
PROGRESSIVE EQUIVALENT PAYMENTS ..... 50%  
UPON SUBMISSION OF FINAL REPORT ..... 30%

THE TECHNICIAN SHALL HAVE THE FULL EFFECT AND AUTHORITY OF AN ODOT PROJECT INSPECTOR IN DETERMINING ACCEPTABILITY OF MATERIAL AND CONCRETE PLACEMENT PRACTICES.

**ITEM 513 - REPLACEMENT OF DETERIORATED END CROSS FRAMES**

THIS ITEM INCLUDES THE WORK NECESSARY FOR REPLACEMENT OF THE END CROSS FRAMES. THESE ITEMS SHALL BE COMPLETED AT THE LOCATIONS SPECIFIED ON THE PLANS. THIS ITEM ALSO INCLUDES GRINDING THE BEARING AND END CROSS FRAME CONNECTION WELDS SMOOTH AT THE LOCATIONS SHOWN ON THE PLANS.

STEEL MEMBERS TO BE FABRICATED UNDER THIS ITEM WILL NOT REQUIRE SHOP DRAWINGS PRIOR TO FABRICATION. THE CONTRACTOR SHALL MAKE NECESSARY MEASUREMENTS AND PREPARE SKETCHES, DRAWINGS, TABLES, ETC. THE PROJECT ENGINEER SHALL HAVE THE AUTHORITY AND RESPONSIBILITY FOR ENSURING THAT THE FABRICATED STEEL IS ACCEPTABLE. TECHNICAL ASSISTANCE WILL BE PROVIDED TO THE ENGINEER, IF REQUESTED, BY THE OFFICE OF STRUCTURAL ENGINEERING. MILL TEST REPORTS AND SHIPPING DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INCORPORATING STEEL ITEMS INTO THE WORK, AS REQUIRED BY 501.06. AFTER FABRICATION, THE CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL TO ENSURE THAT THE DRAWINGS DEPICT THE STEEL AS ACTUALLY INCORPORATED INTO THE WORK. THE ENGINEER WILL THEN SEND ONE APPROVED SET TO THE OFFICE OF STRUCTURAL ENGINEERING FOR INFORMATION. PAY WEIGHTS SHALL BE COMPUTED IN COMPLIANCE WITH 513 OF THE CMS AND SUBMITTED TO THE ENGINEER FOR HIS REVIEW AND APPROVAL.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, TOOLS, MATERIALS AND LABOR NECESSARY TO PERFORM THIS TASK. PAYMENT FOR WELDING, CUTTING, GRINDING, DRILLING AND BOLTING SHALL BE DEEMED TO BE INCLUDED FOR PAYMENT UNDER THIS ITEM. PAYMENT FOR FIELD DRILLING HOLES IN

**ITEM 513 - REPLACEMENT OF DETERIORATED END CROSS FRAMES (CON'T)**

EXISTING MATERIAL IN-SITU AS PART OF THE REPAIR SHALL ALSO BE INCLUDED FOR PAYMENT UNDER THIS ITEM. PAYMENT SHALL BE MADE AT A UNIT BID PRICE OF POUNDS.

**ITEM SPECIAL - STRUCTURE, MISC.: TEMPORARY CONSTRUCTION SITE ACCESS FOR WAR-22-3.03 & WAR-48-8.63**

THIS ITEM INCLUDES THE CONSTRUCTION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL TEMPORARY CONSTRUCTION ACCESS ROADS, EQUIPMENT AND STREAM CROSSINGS.

THE CONTRACTOR IS FORBIDDEN FROM PLACING ANY FILL MATERIAL OR MACHINERY BELOW THE ORDINARY HIGH WATER MARK. TO COMPLETE THE PROPOSED WORK SPECIALIZED RIGGING, FLOATING PLATFORMS, BOAT ACCESS, SNOOPER, CRANES, CONTAINMENT, AND/OR ADAPTIVE CLIMBING TECHNIQUES MAY BE NECESSARY TO ACCOMPLISH CERTAIN WORK TO COMPLY WITH ENVIRONMENTAL, RESIDENTIAL, AND MAINTENANCE OF TRAFFIC RESTRICTIONS.

ALL FALSEWORK SHALL BE DESIGNED AND PLACED AS TO NOT UNDULY OBSTRUCT ANY WATERWAY AND SHALL NOT USE EXPANSION ANCHORS OR DOWELS TO SUPPORT THE FALSEWORK ON PIERS OR ABUTMENTS PER CMS 508.

THIS WORK SHALL NOT IMPACT EXISTING WETLANDS. NO STORAGE OF MATERIALS OR FILLS SHALL TAKE PLACE DIRECTLY UNDER THE WAR-48-8.63 BRIDGE NORTH OF THE LITTLE MIAMI RIVER. VEHICLES ARE ALLOWED TO PASS UNDER THE BRIDGE BUT MUST AVOID ANY AREAS OF PONDING WATER TYPICALLY FOUND UNDER/NEAR THE BRIDGE SCUPPERS. NO WETLANDS WERE IDENTIFIED TO THE LEFT AND RIGHT OF THE WAR-48-8.63 BRIDGE NORTH OF THE LITTLE MIAMI RIVER. NO WETLANDS WERE IDENTIFIED AT THE WAR-22-3.03 BRIDGE ABOVE OHWM.

RETRIEVE ANY AND ALL MATERIAL THAT MOVES INTO A STREAM DURING HIGH FLOW CONDITIONS OR AT ANY OTHER TIME. RECLAMATION SHALL SATISFY ALL REQUIREMENTS SET BY THE PROJECT ENGINEER.

ANY AUTHORIZED STRUCTURE OR FILL SHALL BE PROPERLY MAINTAINED, INCLUDING MAINTENANCE TO ENSURE PUBLIC SAFETY. STREAM DEBRIS AND CONSTRUCTION/DEMOLITION DEBRIS SHALL NOT BE PERMITTED TO ACCUMULATE AGAINST OR IN THE TEMPORARY CONSTRUCTION SITE ACCESS AREA AND SHALL BE ROUTINELY AND PROPERLY DISPOSED OF BY THE CONTRACTOR. TEMPORARY CONSTRUCTION FILLS (I.E. EARTH, AGGREGATE, ETC.) PLACED ABOVE THE ORDINARY HIGH WATER MARK ELEVATIONS MAY BE REQUIRED AND IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN THESE FILLS. THE DEPARTMENT WILL NOT COMPENSATE THE CONTRACTOR FOR REPAIR OF ANY RESULTING DAMAGE TO PERMITTED TEMPORARY CONSTRUCTION ACCESS FILLS PLACED ABOVE THE OHWM ELEVATIONS.

TO THE MAXIMUM EXTENT POSSIBLE, THE TEMPORARY CONSTRUCTION SITE ACCESS MUST BE DESIGNED TO MAINTAIN NORMAL PRE-CONSTRUCTION CONDITIONS AND STREAM FLOWS.

PRIOR TO THE INITIATION OF ANY WORK, ESTABLISH GROUND MOUNTED MONUMENTS (I.E. GROUND MOUNTED ROD OR POST) UPSTREAM OF PROPOSED TEMPORARY

**ITEM SPECIAL - STRUCTURE, MISC.: TEMPORARY CONSTRUCTION SITE ACCESS FOR WAR-22-3.03 & WAR-48-8.63 (CON'T)**

CONSTRUCTION SITE ACCESS AREAS TO VISUALLY MONITOR THE WATER ELEVATION IN THE WATERWAY. MAINTAIN THE MONUMENT THROUGHOUT THE PROJECT. PROVIDE A VISUAL MARK ON THE MONUMENT THAT IDENTIFIES THE ORDINARY HIGH WATER MARKS (OHWM) SHOWN ON THE PLANS.

ENSURE THAT THE MONUMENT CAN BE READ FROM THE BANK OF THE WATERWAY. HAVE THESE ELEVATIONS SET AND CERTIFIED BY AN OHIO REGISTERED SURVEYOR. TEMPORARY CONSTRUCTION ACCESS FILL PLACED BY THE CONTRACTOR ABOVE THE OHWM ARE NOT SUBJECT TO THE 404/401 PERMIT CONSTRAINTS. THE CONTRACTOR SHALL NOT BE ALLOWED TO WORK UNTIL THE WATER ELEVATION IS AT OR BELOW OHWM ELEVATION. WHEN NOT IN USE OR IF THE OHWM ELEVATION OF THE WATERWAY SHOULD BE EXCEEDED, THE CONTRACTOR SHALL WITHDRAW ALL CONSTRUCTION EQUIPMENT FROM THE TEMPORARY CONSTRUCTION ACCESS FILL AND MOVE TO HIGHER GROUND. AT NO TIME SHALL ANY CONSTRUCTION EQUIPMENT BE LEFT IDLE OR ALLOWED TO WORK IN A PARTIALLY SUBMERGED CONDITION.

THE DEPARTMENT WILL NOT PAY FOR REPAIR AND MAINTENANCE OF TEMPORARY ACCESS STRUCTURES THAT ARE RELATED TO THE STREAM CROSSINGS OR CONSTRUCTION SITE ACCESS. SHOULD THE WATER ELEVATION EXCEED THE OHWM ELEVATION SHOWN ON THE MONUMENT, THE DEPARTMENT WILL RECOGNIZE THIS EVENT AS AN EXCUSABLE, NON-COMPENSABLE DELAY IN ACCORDANCE WITH SECTION 108.06 OF THE CONSTRUCTION & MATERIALS SPECIFICATIONS.

TEMPORARY PIPES/CULVERTS SHALL NOT BE USED TO CROSS EXISTING SWALES/STREAMS TO ACCESS THE BRIDGE(S).

THE CONTRACTOR SHALL SUBMIT THEIR PROPOSED CONSTRUCTION SITE ACCESS SCHEME/PLANS TO THE PROJECT ENGINEER FOR APPROVAL AT LEAST 30 DAYS PRIOR TO THAT START OF CONSTRUCTION.

UNLESS ITEMIZED SEPERATELY, ALL EQUIPMENT, MATERIAL, LABOR AND ANY MISCELLANEOUS APPURTENANCES ASSOCIATED WITH THE CONSTRUCTION, MAINTENANCE AND SUBSEQUENT REMOVAL OF THE TEMPORARY CONSTRUCTION SITE ACCESS, REFERENCED MONUMENT, SITE ACCESS EQUIPMENT SITE RESTORATION AND/OR STREAM CROSSINGS SHALL BE INCLUDED FOR PAYMENT UNDER ITEM SPECIAL - STRUCTURE, MISC.: TEMPORARY CONSTRUCTION SITE ACCESS (LUMP SUM).

NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.

DESIGNED		CAH	CHECKED	GTF
DRAWN		CAH	REVISION	XXX
REVIEWED	XXX	MM/DD/YY	STRUCTURE FILE NUMBER	8500036/8501085
DATE		OHIO DEPT OF TRANSPORTATION DISTRICT 8 BRIDGE OFFICE		
DESIGN AGENCY				

WAR-22 / 48 -	STRUCTURE NOTES - 4
3.03 / 8.63	BRIDGE NO. WAR-22-3.03/WAR-48-8.63
PID No. 103849	

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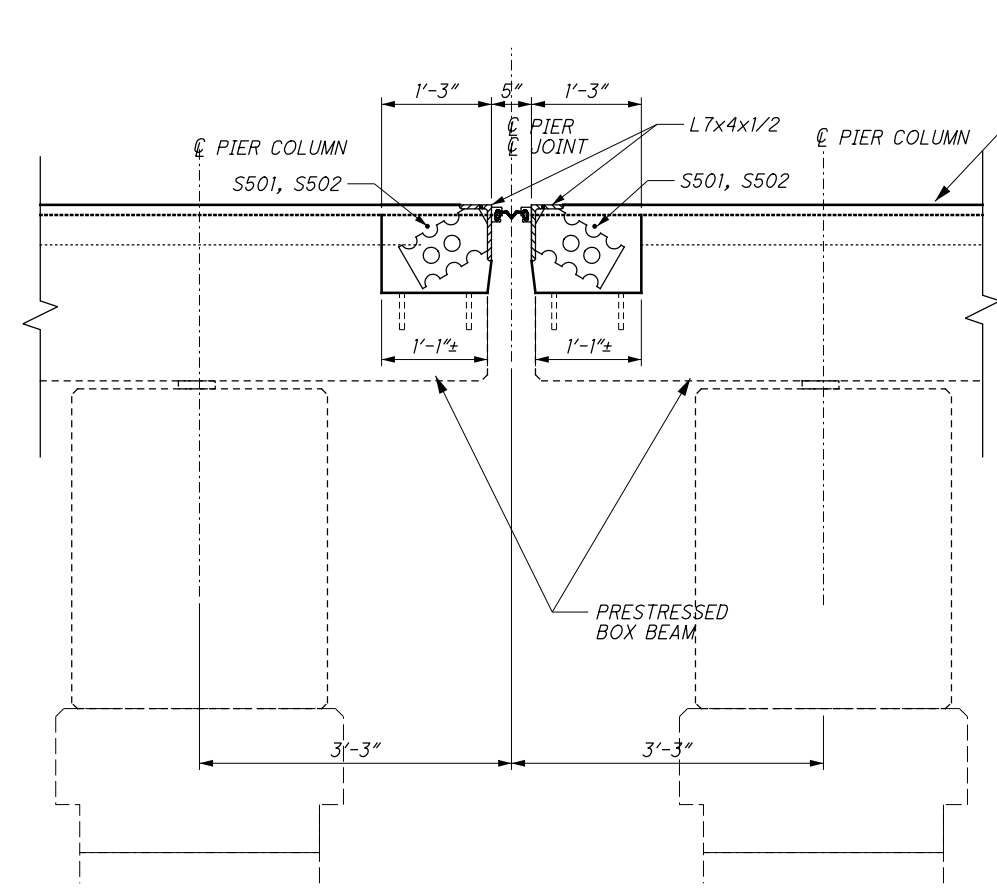
**ESTIMATED QUANTITIES**

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #
202	11203	-	LS	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	LUMP	LUMP	LUMP		13
503	11100	-	LS	COFFERDAMS AND EXCAVATION BRACING	LUMP				
503	21300	LUMP	LS	UNCLASSIFIED EXCAVATION	LUMP	LUMP		LUMP	
509	10001	2,457	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	375	809	841	432	13
509	20001	200	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	100		100		13
510	10000	212	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	156	56			
511	46510	2	CY	CLASS QC1 CONCRETE, FOOTING		2			
511	53012	4	CY	CLASS QC2 CONCRETE, MISC.: PIER PROTECTION		4			
511	53014	31	CY	CLASS QC3 CONCRETE, MISC.: SUPERSTRUCTURE WITH QC/QA, AS PER PLAN			31		15
511	53014	10	CY	CLASS QC3 CONCRETE, MISC.: SUBSTRUCTURE WITH QC/QA, AS PER PLAN	10				15
512	10001	88	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)	18	70			13
512	10100	55	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) (COLOR: LIGHT NEUTRAL 17778)			55		
512	10100	231	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) (COLOR: GREY 16515)			231		
512	10600	10	FT	CONCRETE REPAIR BY EPOXY INJECTION		10			
512	74000	107	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	18	70	19		
516	11210	340	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL			340		
516	31000	32	FT	JOINT SEALER (HOT APPLIED 705.04)				32	36
518	63300	LUMP	LS	STRUCTURE DRAINAGE, MISC.: CLEAN OUT OF BRIDGE SCUPPERS AND DOWNSPOUTS		LUMP	LUMP		4
519	11101	887	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN		293	594		13
SPECIAL	53000200	LUMP	LS	STRUCTURES: CONSTRUCTION SITE ACCESS				LUMP	
SPECIAL	53000200	LUMP	LS	STRUCTURES: PROTECTION FROM MIGRATORY BIRDS				LUMP	
SPECIAL	53000200	LUMP	LS	STRUCTURES: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION	LUMP	LUMP	LUMP	LUMP	
848	10001	4,702	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T= 1/4")			4,702		14
848	20001	4,702	SY	SURFACE PREPARATION USING HYDRODEMOLITION, AS PER PLAN			4,702		14
848	30001	131	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN			131		14
848	50000	470	SY	HAND CHIPPING			470		
848	50100	-	LS	TEST SLAB			LUMP		

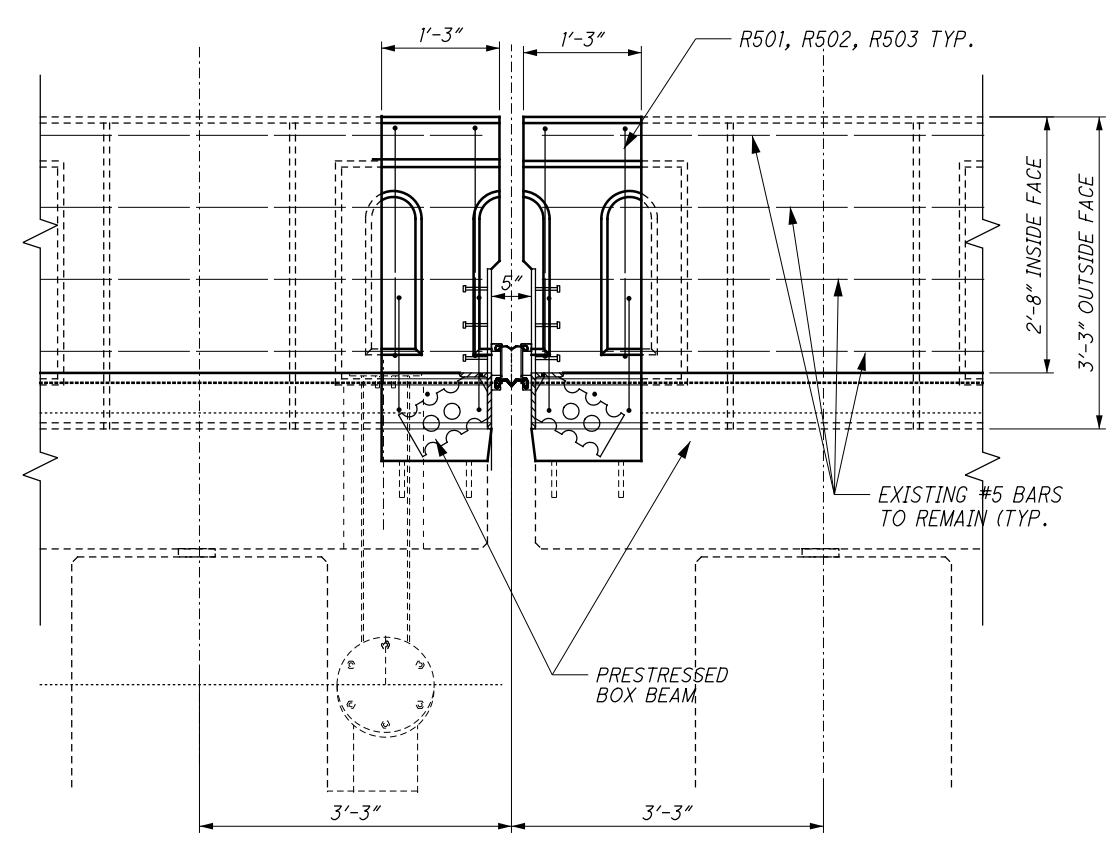
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<b>WAR-22/48-</b> <b>3.03/8.63</b> PID No. 103849	5/20 20 56	DESIGNED CAH CHECKED GTF	DRAWN CAH REVISIONS XXX	REVIEWED XXX STRUCTURE FILE NUMBER 8300038	DATE MM/DD/YY XXX	DESIGN AGENCY OHIO DEPT OF TRANSPORTATION DISTRICT 8 BRIDGE OFFICE
		STRUCTURE QUANTITIES BRIDGE NO. WAR-22/3-3.03 OVER OLD 3C HWY, LITTLE MIAMI RIVER, FOSTER-MAINVILLE RD.				

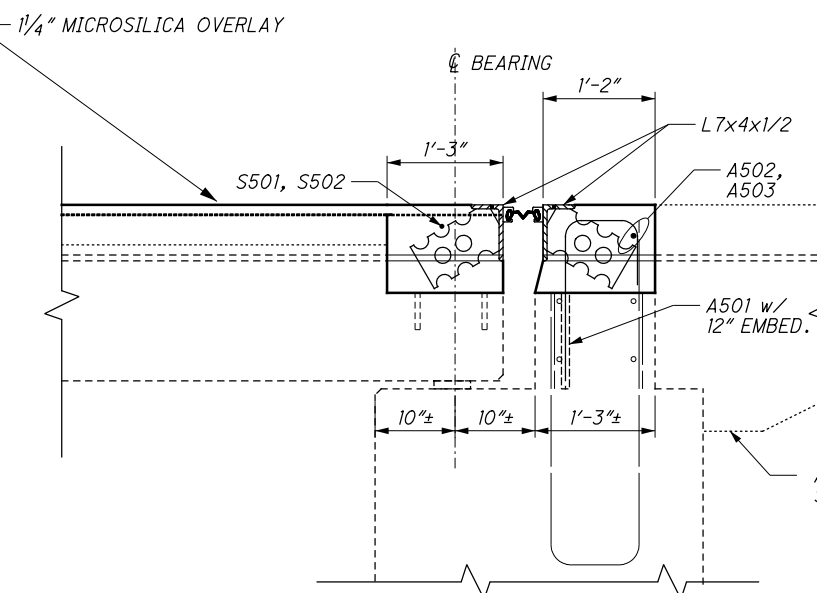
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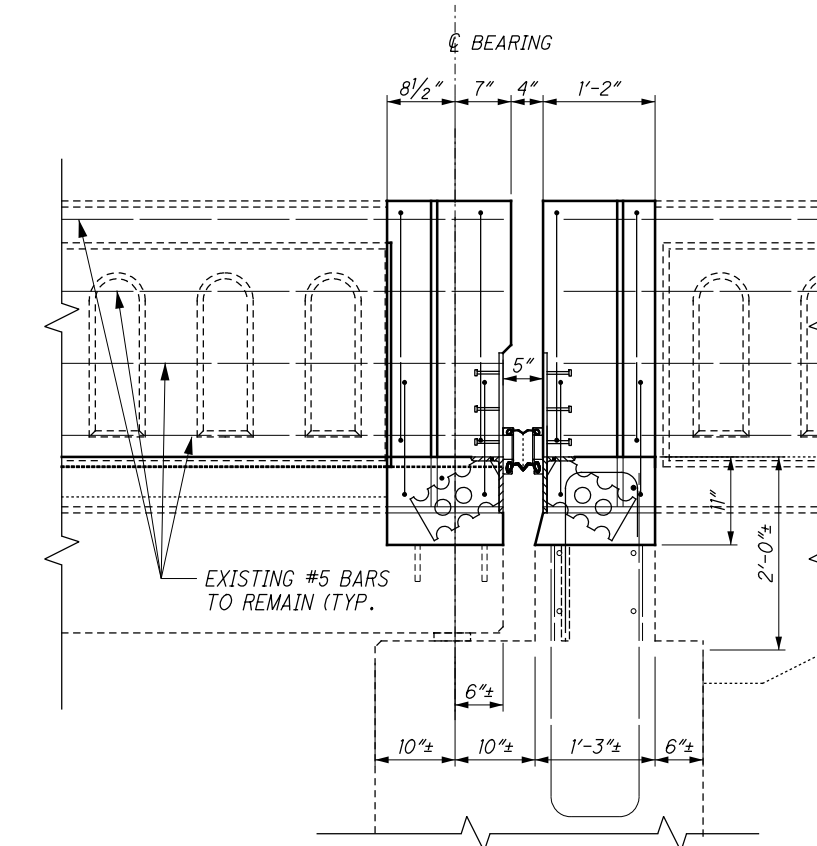
INTERMEDIATE EXPANSION JOINT



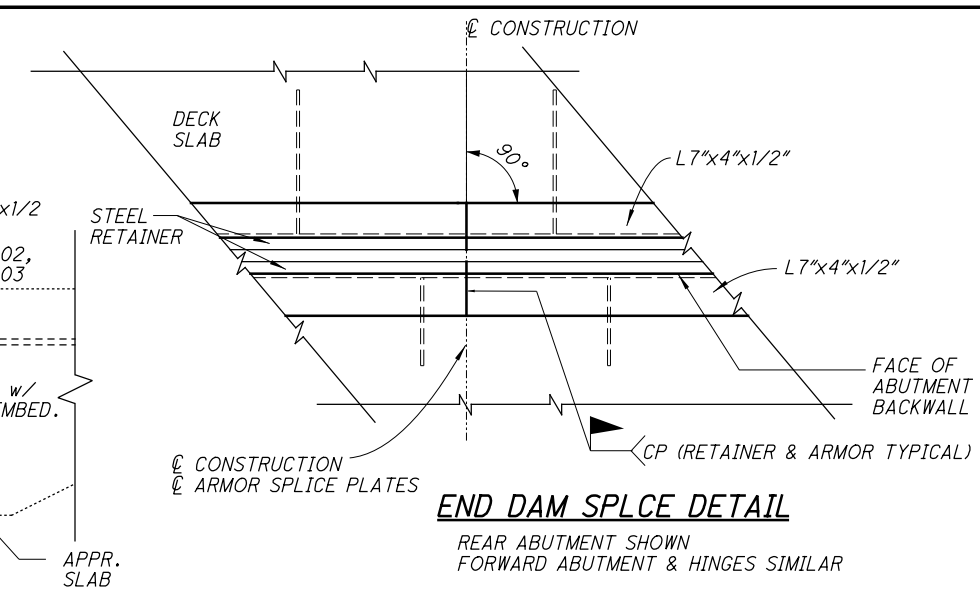
PARAPET AT INTERMEDIATE EXPANSION JOINT



ABUTMENT EXPANSION JOINT



PARAPET AT ABUTMENT EXPANSION JOINT



END DAM SPLCE DETAIL

**EXPANSION JOINT OPENING TABLE FOR 4" GLAND**

AMBIENT TEMP (°F)	DIMENSION "A"	DIMENSION "A"
	REAR ABUT. & FWD. ABUT.	INTERMEDIATE EXPANSION JTS.
30°	2.37"	2.44"
40°	2.29"	2.31"
50°	2.21"	2.19"
60°	2.13"	2.06"
70°	2.05"	1.94"
80°	1.97"	1.81"
90°	1.89"	1.68"

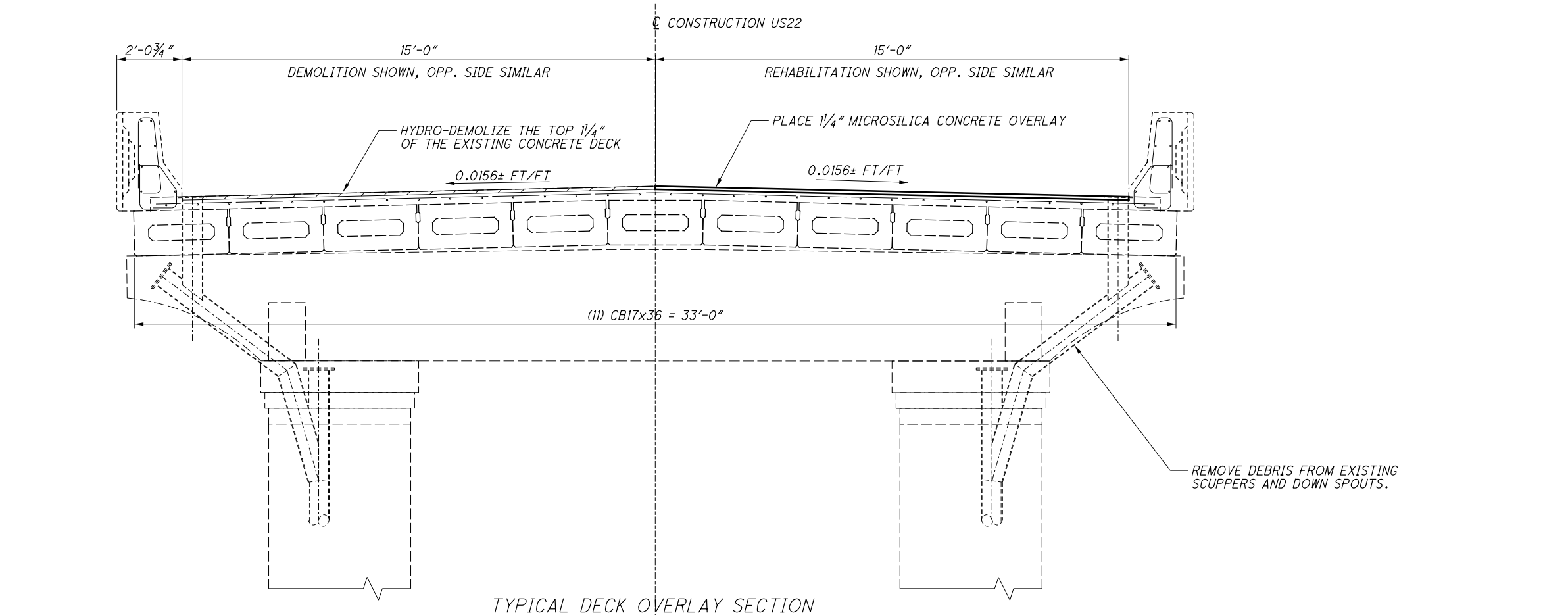
MINIMUM JOINT OPENING (DIMENSION 'A') AT THE TIME OF SEAL GLAND INSTALLATION SHALL NOT BE LESS THAN 2". IF THE JOINT OPENING IS LESS, INSTALLATION SHALL BE POSTPONED UNTIL THE TEMPERATURE DROPS A SUFFICIENT AMOUNT TO ALLOW THE 2" OPENING.

**NOTES:**

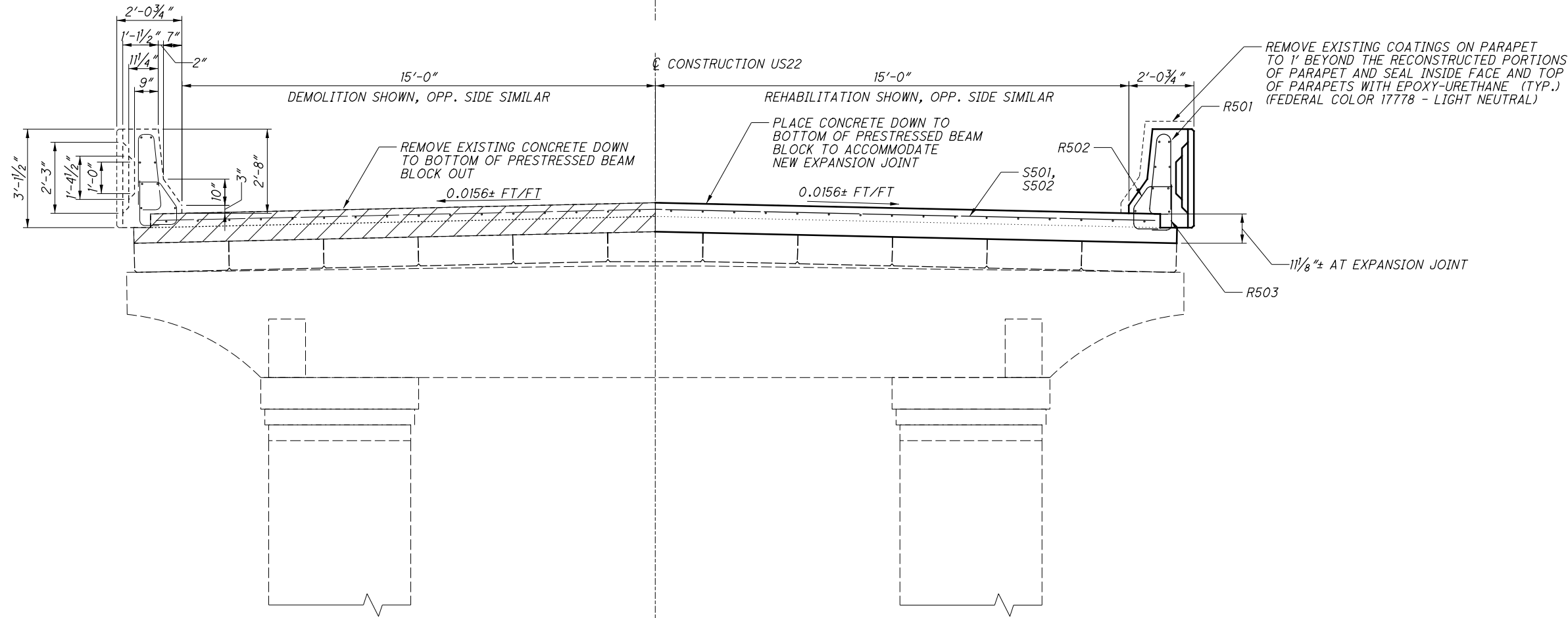
- SEE STD. DWG. EXJ-4-87 FOR ADDITIONAL INFORMATION.
- STRIP SEAL GLAND SHALL BE INSTALLED IN ONE CONTINUOUS PIECE AFTER COMPLETION OF THE END DAM INSTALLATION.
- PORTIONS OF THE STRIP SEAL EXPANSION JOINT ASSEMBLY THAT ARE ANGLED TO MEET THE TRANSVERSE DECK CROSS SLOPE SHALL BE CONNECTED AS SHOWN AT THE CL OF CONSTRUCTION USING COMPLETE PENETRATION FIELD WELDS AND ANY NEEDED SPLICE PLATES. WELDS SHALL BE GROUND SMOOTH. WELDS AND SPLICE PLATES SHALL BE INCLUDED WITH THE EXPANSION JOINT FOR PAYMENT.
- INSTALLATION OF SEAL: DURING INSTALLATION OF THE SUPPORT/ARMOR FOR THE SUPERSTRUCTURE SIDE OF THE EXPANSION JOINT SEAL, OBSERVE THE SEATING OF BEAMS ON BEARINGS TO ASSURE THAT POSITIVE BEARING IS MAINTAINED.  
  
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE EXPANSION JOINT IS SET TO PROPER ELEVATION. TEMPORARY EXPANSION JOINT SUPPORT MAY ACHIEVED BY BRIDGING THE JOINT AT THE DECK SURFACE. AT THE APPROVAL OF THE ENGINEER, SMALL EXPANSION JOINT SUPPORTS MAY BE DRILLED AND GROUTED INTO THE BOX BEAMS. ANY DAMAGE CAUSED TO THE BOX BEAMS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- ALL COSTS ASSOCIATED WITH THE ELASTOMERIC STRIP SEAL EXPANSION JOINT, ANCHOR PLATES, AND ANY REMAINING INCIDENTALS REQUIRED TO COMPLETE THE EXPANSION JOINT INSTALLATION SHALL BE INCLUDED WITH ITEM 516 - STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN FOR PAYMENT.
- THE CONTRACTOR SHALL VERIFY DECK ELEVATIONS AND CROSS SLOPES PRIOR TO ORDERING EXPANSION JOINT. ANY COSTS ASSOCIATED WITH THIS WORK SHALL BE INCIDENTAL TO THE EXPANSION JOINT.
- RECONSTRUCT THE PARAPETS TO MATCH THE EXISTING AESTHETIC DETAILS.

DESIGNED CAH	CHECKED GTF	DRAWN CAH	REVISED XXX	REVIEWED XXX	DATE MM/DD/YY XXX	DESIGN AGENCY OHIO DEPT OF TRANSPORTATION DISTRICT 8 BRIDGE OFFICE
EXPANSION JOINT DETAILS						STRUCTURE FILE NUMBER 8300038
BRIDGE NO. WAR-22/3-3.03 OVER						HWY, LITTLE MIAMI RIVER, FOSTER-MAINVILLE RD.
WAR-22/48 -						PID No. 103849
3.03/8.63						12/20
27						56

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TYPICAL DECK OVERLAY SECTION



DECK SECTION AT EXPANSION JOINTS

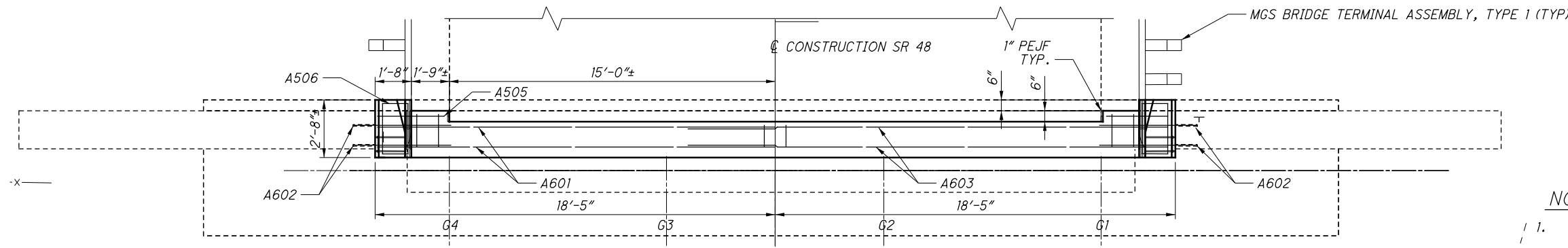
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CHECKED GTF	REVISED XXX	STRUCTURE FILE NUMBER 8300038		DISTRICT & BRIDGE OFFICE
<b>TRANSVERSE SUPERSTRUCTURE SECTIONS</b>				
BRIDGE NO. WAR-22/3-3.03 OVER				
OLD 3C HWY, LITTLE MIAMI RIVER, FOSTER-MAINVILLE RD.				
WAR-22/48-				
3.03/8.63				
PID No. 103849				
17/20				
32 56				

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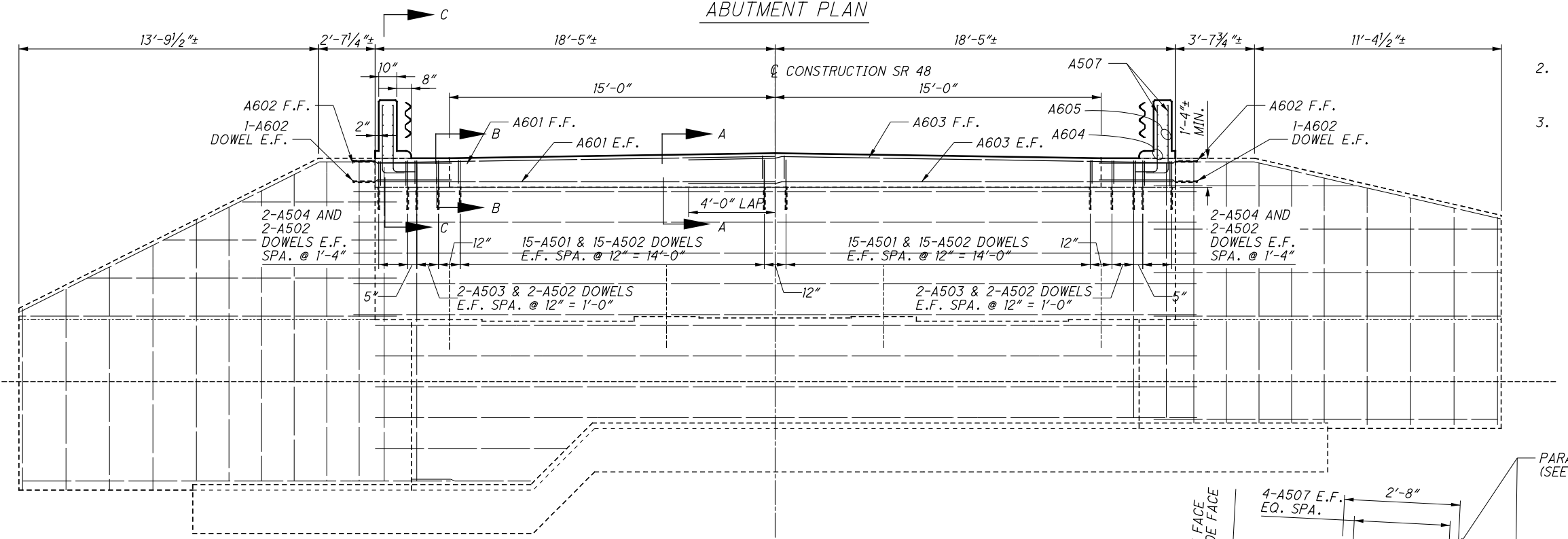
WAR-48-8.63 ESTIMATED STRUCTURE QUANTITIES					100% 01/NHS/BR FUNDING				
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #
202	11203	LUMP	LS	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	LUMP		LS		13
503	11100	LUMP	LS	COFFERDAMS AND EXCAVATION BRACING	LUMP				
503	21100	4	CY	UNCLASSIFIED EXCAVATION	4				
509	10001	31,298	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	1,326		29,972		13
509	20001	200	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	100		100		13
509	25000	10,172	LB	REINFORCING STEEL (GFRP REBAR)			10,172		
510	10000	4,192	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	164		4,028		
511	53014	326	CY	CLASS QC3 CONCRETE, MISC.: SUPERSTRUCTURE, AS PER PLAN			326		15
511	53014	8	CY	CLASS QC3 CONCRETE, MISC.: SUBSTRUCTURE, AS PER PLAN	8				15
512	10100	2,860	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	176	115	2,569		
512	74000	519	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	176		343		
513	21000	8	EACH	TRIMMING OF BEAM END			8		
513	21500	5590	LB	REPLACEMENT OF DETERIORATED END CROSSFRAMES			5590		
514	00050	113,103	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			113,103		
514	00056	113,103	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			113,103		
514	00060	113,103	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			113,103		
514	00066	113,103	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			113,103		
514	00504	69	MNHR	GRINDING FINIS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			69		
514	10000	95	EACH	FINAL INSPECTION REPAIR			95		
516	11210	146	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL			146		
516	13600	3	SF	1" PREFORMED EXPANSION JOINT FILLER	3				
516	44200	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) 18"x13"x3.88" w/ 20"x14"x(1.25" MIN, 2.5" MAX) LOAD PLATE			8		
516	47001	LUMP	LS	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN			LUMP		13
518	12500	83	EACH	SCUPPER, MISC.: CLEAN OUT OF BRIDGE SCUPPERS AND DOWNSPOUTS			83		4
519	11101	4.5	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN		4.5			13
SPECIAL	53000200	LUMP	LS	STRUCTURES: CONSTRUCTION SITE ACCESS				LUMP	
SPECIAL	53000200	LUMP	LS	STRUCTURES: PROTECTION FROM MIGRATORY BIRDS				LUMP	
SPECIAL	53000200	LUMP	LS	STRUCTURES: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION	LUMP	LUMP	LUMP	LUMP	
848	10201	3,916	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T=1¾")			3,823	93	14
848	20000	3,916	SY	SURFACE PREPARATION USING HYDRODEMOLITION			3,823	93	14
848	30200	109	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY			106	3	14
848	50000	392	SY	HAND CHIPPING			393	9	
848	50100	LUMP	LS	TEST SLAB			LUMP	LUMP	
848	50200	1	CY	FULL-DEPTH REPAIR			1		
848	50320	3,916	SY	EXISTING CONCRETE OVERLAY REMOVED (T=1¾")			3,823	93	

DESIGNED CAH	CHECKED GTF	DRAWN CAH	REVIEWED XXX	DATE MM/DD/YY	DESIGN AGENCY OHIO DEPT OF TRANSPORTATION DISTRICT 8 BRIDGE OFFICE
				STRUCTURE FILE NUMBER 8301085	
<b>STRUCTURE QUANTITIES</b>					
BRIDGE NO. WAR-48-8.63 OVER THE LITTLE MIAMI RIVER					
WAR-22/48 - 3.03/8.63 PID No. 103849					
5 / 18					
43 56					

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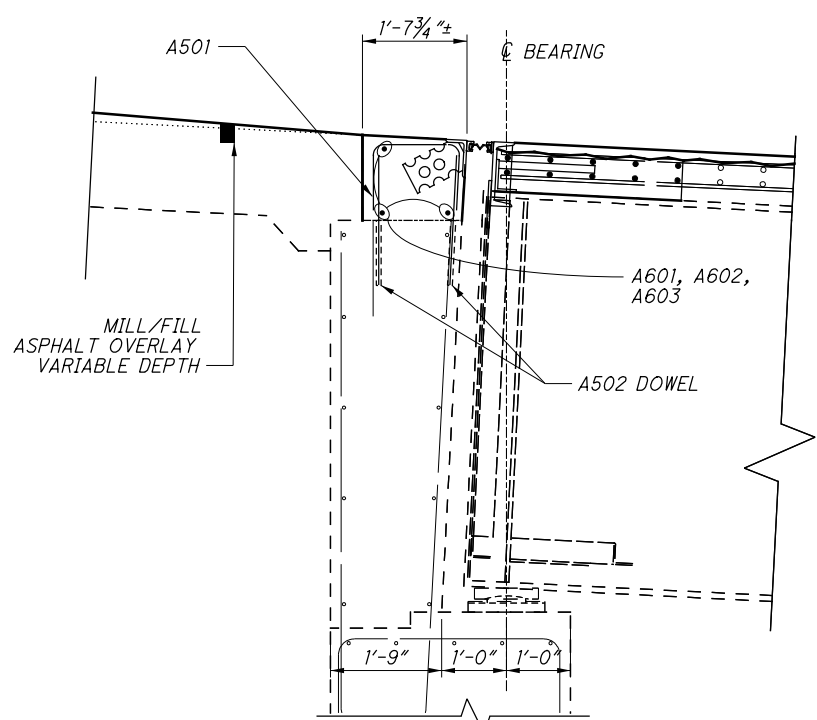


ABUTMENT PLAN

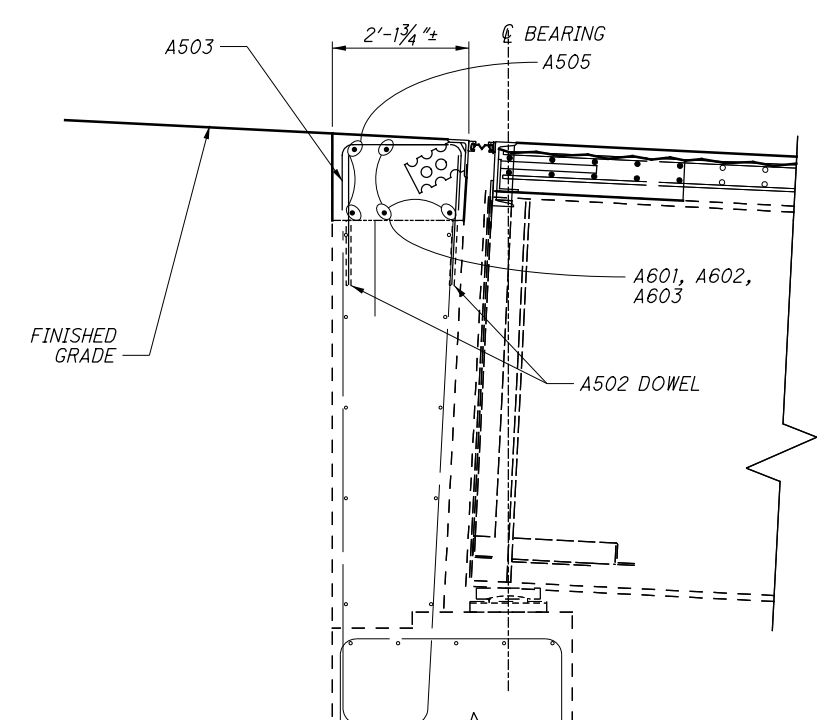


ABUTMENT ELEVATION

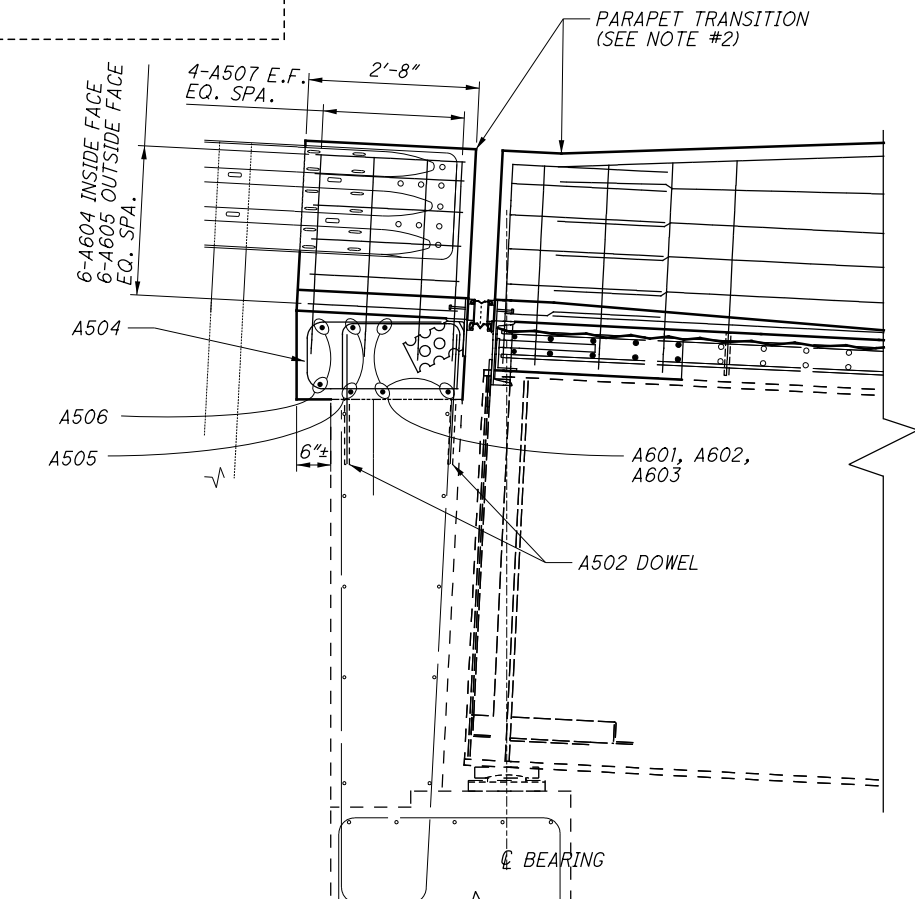
- NOTES:**
1. REBAR DOWELS SHALL HAVE A 12" MINIMUM EMBEDMENT UNLESS NOTED OTHERWISE. INSTALL DOWELS USING NON-SHRINK, NON-METALLIC GROUT PER CMS 510.
  2. SEE SHEET 54 FOR PARAPET TRANSITION DETAIL AND REBAR.
  3. SEAL ALL EXPOSED CONCRETE SURFACES WITH EPOXY-URETHANE. DO NOT SEAL BEAM SEAT UNDER NEW BEARINGS.



SECTION A-A



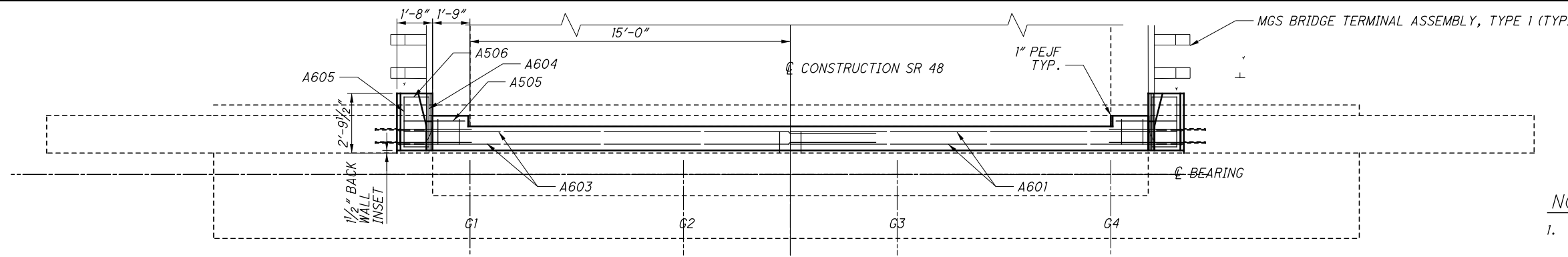
SECTION B-B



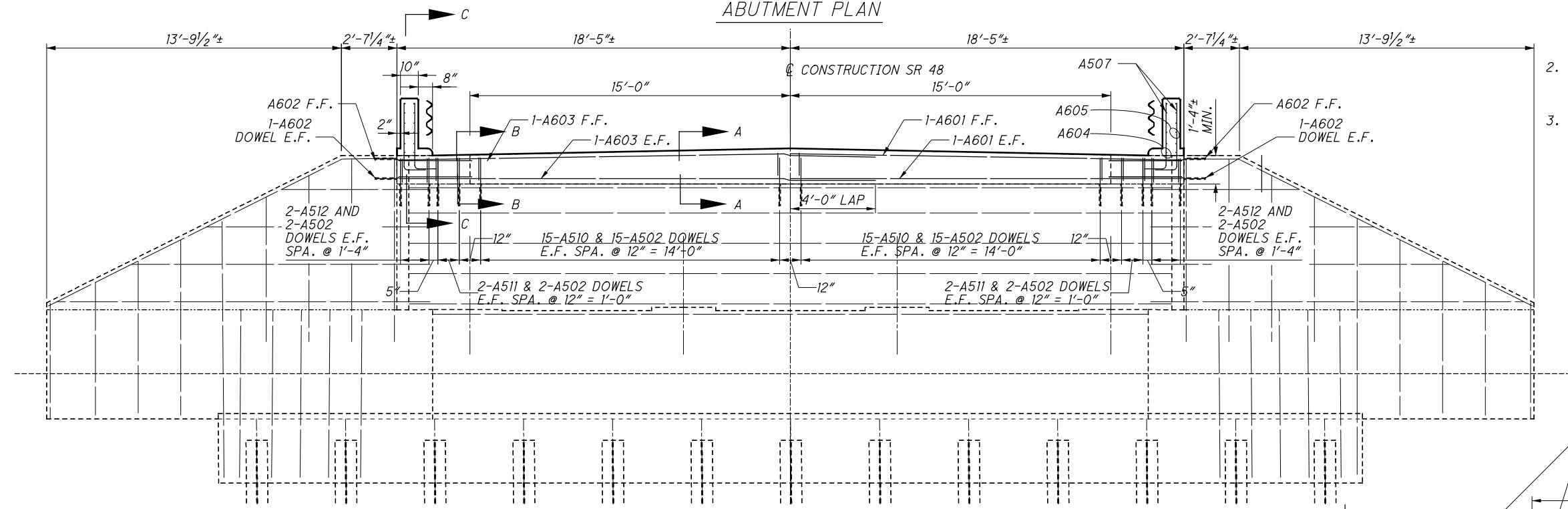
SECTION C-C

DESIGN AGENCY		OHIO DEPT OF TRANSPORTATION	
DATE		DISTRICT 8 BRIDGE OFFICE	
REVIEWED	DATE	STRUCTURE FILE NUMBER	8501085
CAH	XXX	CAH	XXX
DESIGNED	CAH	CHECKED	GTF
<b>REAR ABUTMENT REHABILITATION PLAN</b>			
BRIDGE NO. WAR-48-8.63			
OVER THE LITTLE MIAMI RIVER			
WAR-22/48-		3.03/8.63	
PID No. 103849			
9/18			
47			
56			

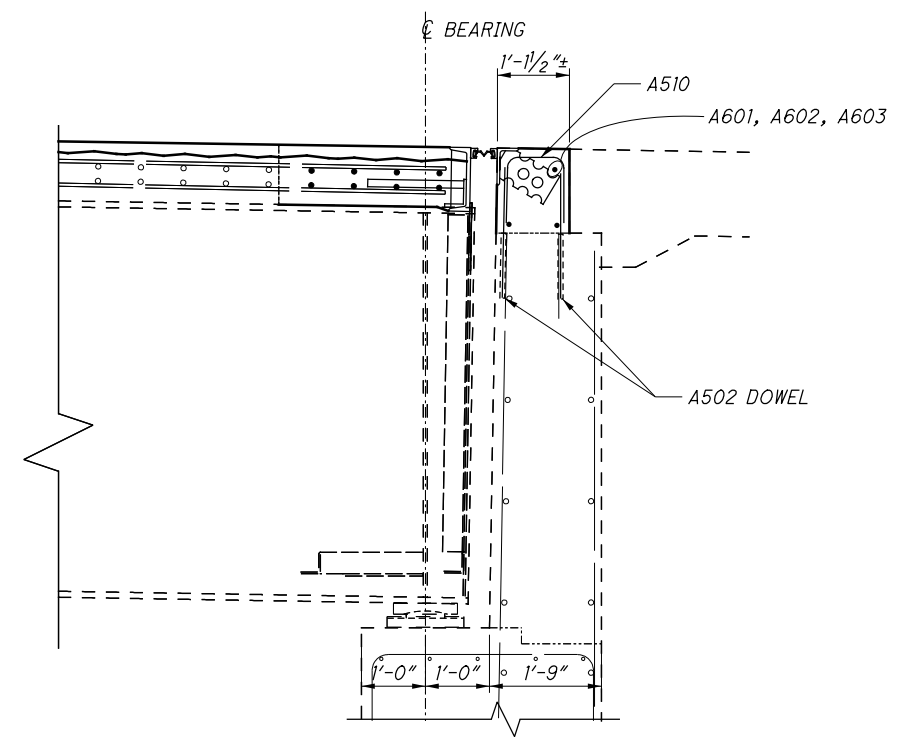
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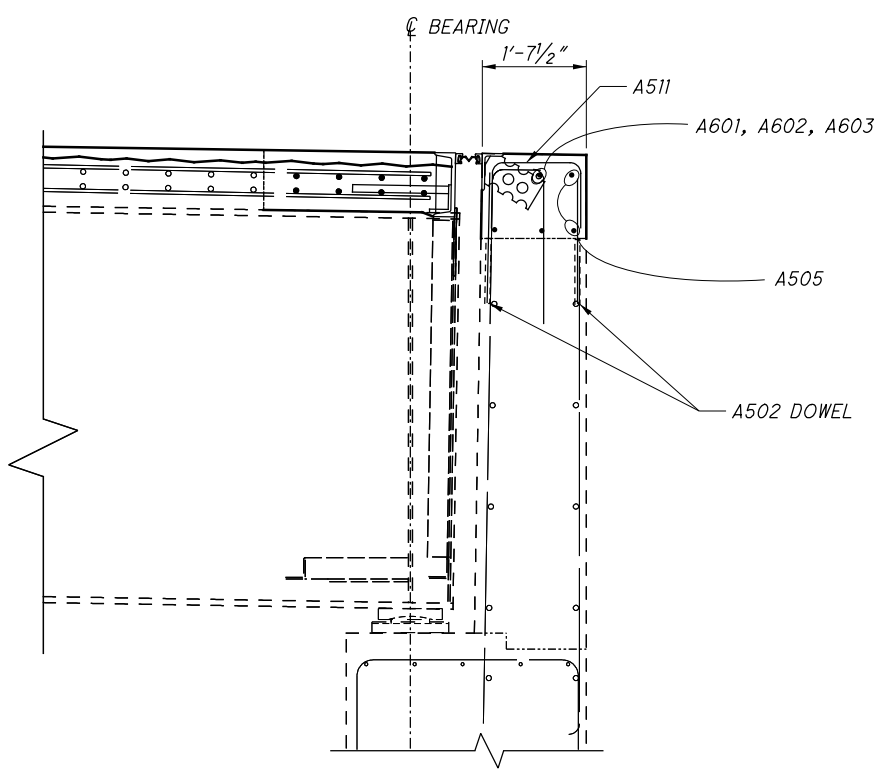
ABUTMENT PLAN



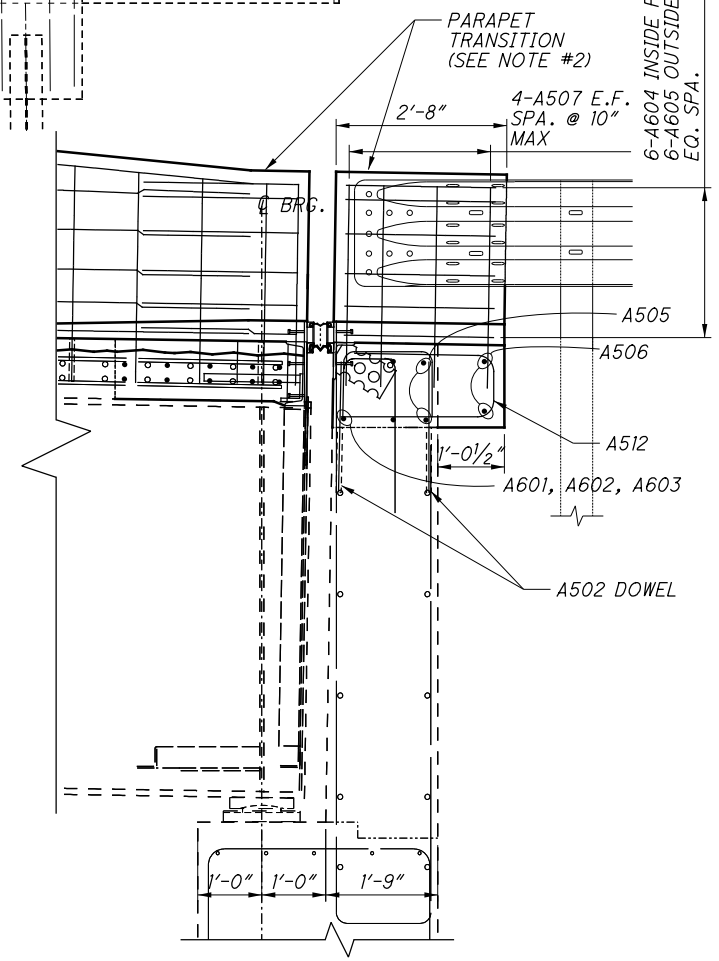
ABUTMENT ELEVATION



SECTION A-A



SECTION B-B



SECTION C-C

- NOTES:**
- REBAR DOWELS SHALL HAVE A 12" MINIMUM EMBEDMENT UNLESS NOTED OTHERWISE. INSTALL DOWELS USING NON-SHRINK, NON-METALLIC GROUT PER CMS 510.
  - SEE SHEET 54 FOR PARAPET TRANSITION DETAIL AND REBAR.
  - SEAL ALL EXPOSED CONCRETE SURFACES WITH EPOXY-URETHANE. DO NOT SEAL BEAM SEAT UNDER NEW BEARINGS.

DESIGNED	CAH	CHECKED	GTF
DRAWN	CAH	REVISED	XXX
REVIEWED	XXX	STRUCTURE FILE NUMBER	8301085
DATE	MM/DD/YY	DESIGN AGENCY	OHIO DEPT OF TRANSPORTATION
			DISTRICT 8 BRIDGE OFFICE

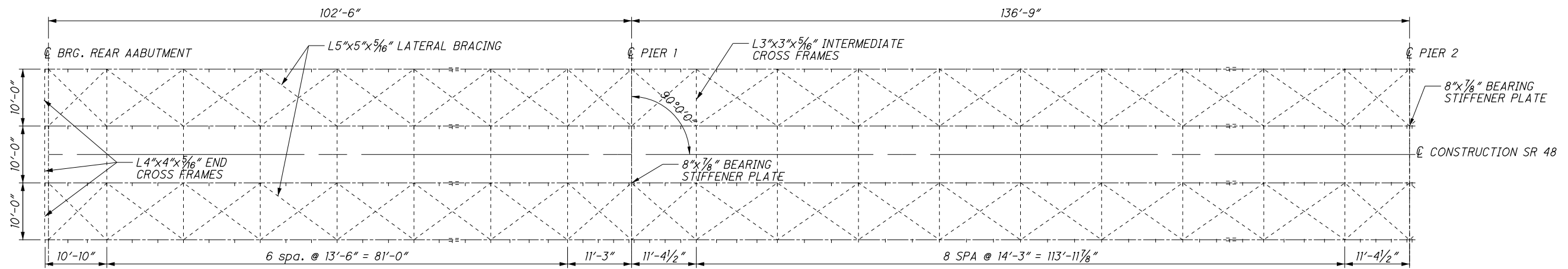
**FORWARD ABUTMENT REHABILITATION PLAN**  
 BRIDGE NO. WAR-48-8.63  
 OVER THE LITTLE MIAMI RIVER

WAR-22/48-3.03/8.63  
 PID No. 103849

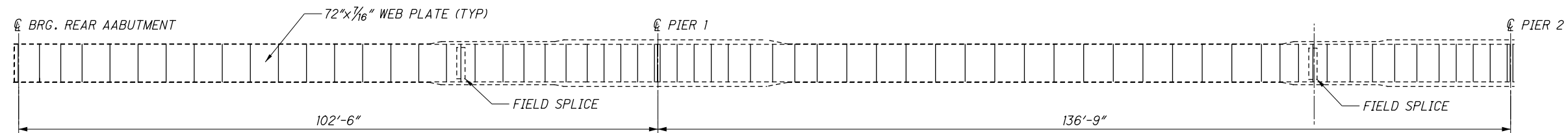
10/18

48/56

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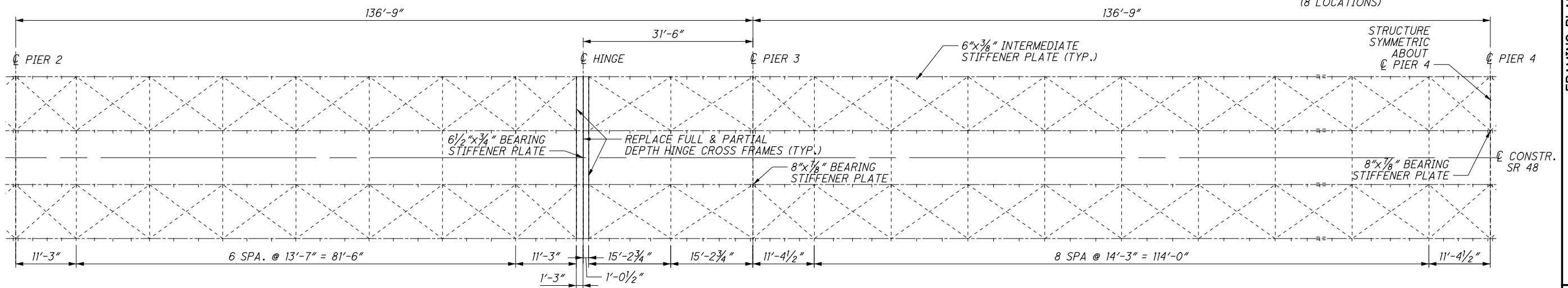
PARTIAL FRAMING PLAN



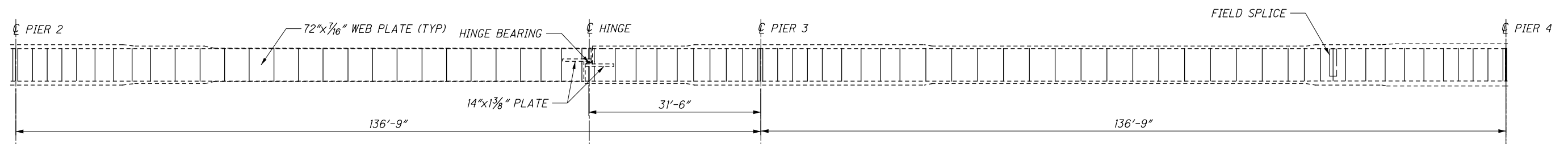
PARTIAL GIRDER ELEVATION

NOTES:

1. PAINT ALL STRUCTURAL STEEL PER OZEU. PAINT COLOR SHALL BE FEDERAL STANDARD 15526 (BLUE).
2. TRIM ABUTMENT BEAM ENDS TO PROVIDE 2± CLEARANCE TO ABUTMENT BACKWALL. (8 LOCATIONS)



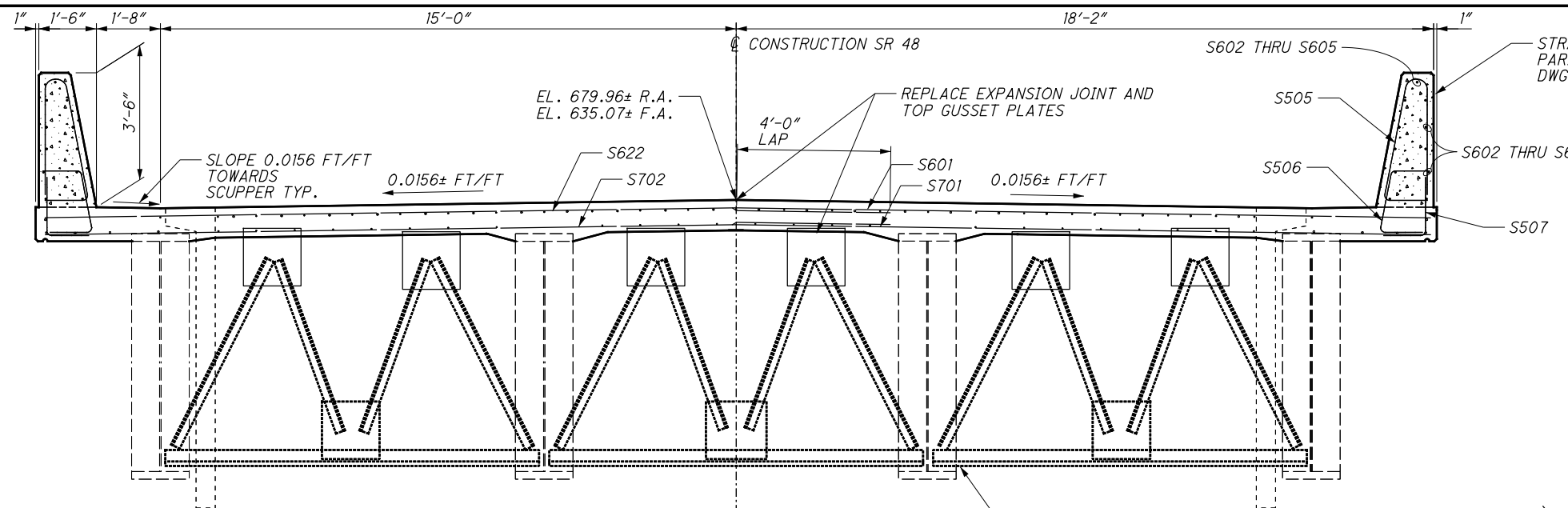
PARTIAL FRAMING PLAN



PARTIAL GIRDER ELEVATION

DESIGNED CAH	CHECKED GTF	DRAWN NH	REVIEWED XXX	DATE MM/DD/YY XXX	DESIGN AGENCY OHIO DEPT OF TRANSPORTATION DISTRICT 8 BRIDGE OFFICE
FRAMING PLAN				STRUCTURE FILE NUMBER 8301085	
WAR-22/48-				BRIDGE NO. WAR-48-8.63	
3-03/8.63				OVER THE LITTLE MIAMI RIVER	
PID No. 103849					
				12/18	
				50	
				56	

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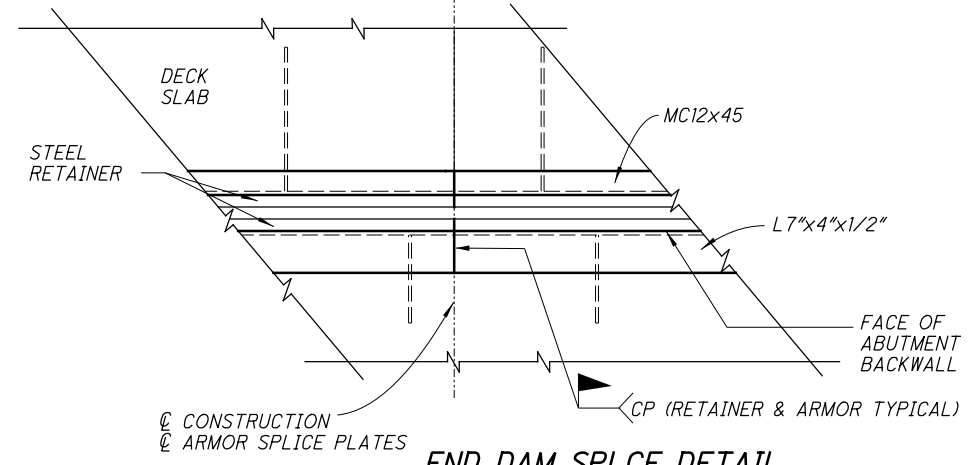


**EXPANSION JOINT OPENING TABLE FOR 4" GLAND**

AMBIENT TEMP (°F)	DIMENSION "A"
	REAR ABUT. & FWD. ABUT.
30°	2.55"
40°	2.37"
50°	2.19"
60°	2.00"
70°	1.81"
80°	1.62"
90°	1.44"

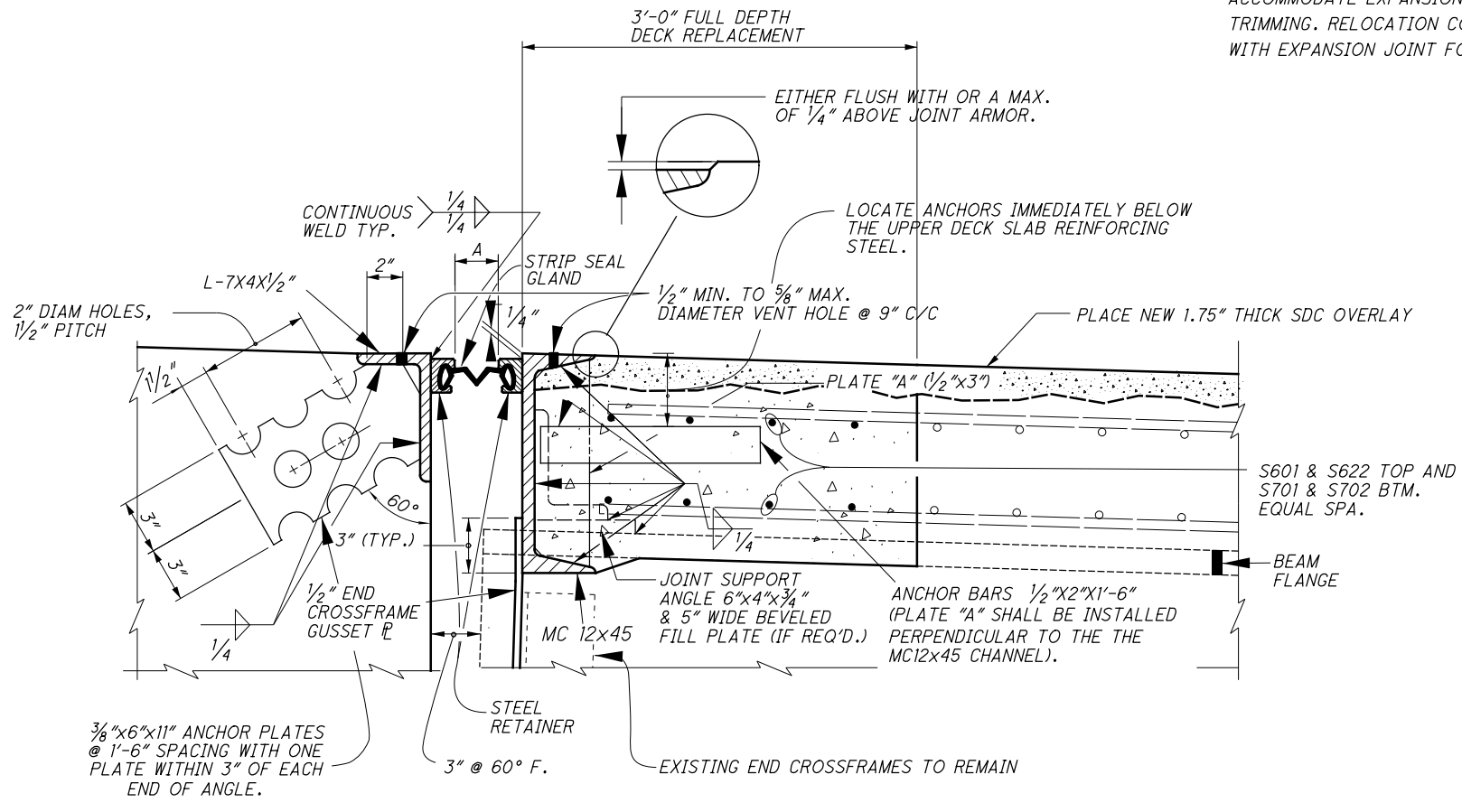
MINIMUM JOINT OPENING (DIMENSION 'A') AT THE TIME OF SEAL GLAND INSTALLATION SHALL NOT BE LESS THAN 2". IF THE JOINT OPENING IS LESS, INSTALLATION SHALL BE POSTPONED UNTIL THE TEMPERATURE DROPS A SUFFICIENT AMOUNT TO ALLOW THE 2" OPENING.

EXISTING ABUTMENT END CROSSFRAMES SHALL REMAIN. RELOCATE END CROSSFRAMES AND CONNECTION STIFFENER PLATES IF NECESSARY TO ACCOMMODATE EXPANSION JOINT FITUP AND BEAM TRIMMING. RELOCATION COSTS SHALL BE INCLUDED WITH EXPANSION JOINT FOR PAYMENT.



**END DAM SPLCE DETAIL**

REAR ABUTMENT SHOWN  
FORWARD ABUTMENT & HINGES SIMILAR



**ELASTOMERIC STRIP SEAL JOINT SECTION**

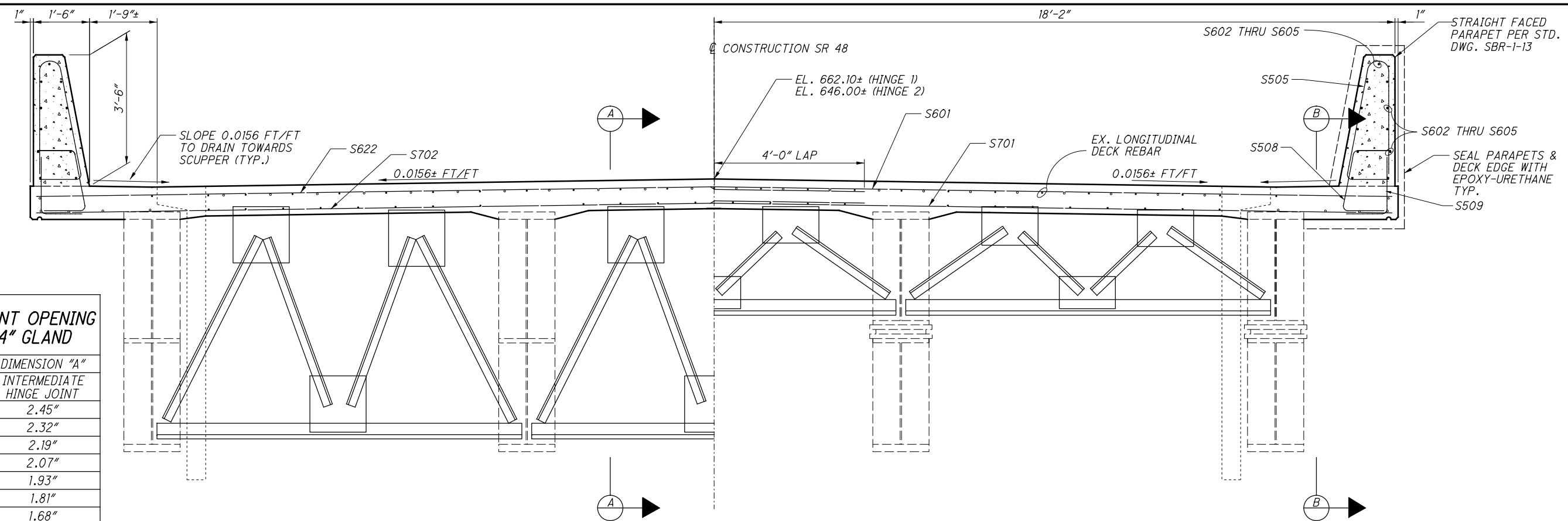
TYPICAL THRU DECK SLAB

**NOTES:**

- SEE STD. DWG. EXJ-4-87 FOR ADDITIONAL INFORMATION.
- STRIP SEAL GLAND SHALL BE INSTALLED IN ONE CONTINUOUS PIECE AFTER COMPLETION OF THE END DAM INSTALLATION.
- PORTIONS OF THE STRIP SEAL EXPANSION JOINT ASSEMBLY THAT ARE ANGLED TO MEET THE TRANSVERSE DECK CROSS SLOPE SHALL BE CONNECTED AS SHOWN AT THE C OF CONSTRUCTION USING COMPLETE PENETRATION FIELD WELDS AND ANY NEEDED SPLICE PLATES. WELDS SHALL BE GROUND SMOOTH. WELDS AND SPLICE PLATES SHALL BE INCLUDED WITH THE EXPANSION JOINT FOR PAYMENT.
- INSTALLATION OF SEAL: DURING INSTALLATION OF THE SUPPORT/ARMOR FOR THE SUPERSTRUCTURE SIDE OF THE EXPANSION JOINT SEAL, OBSERVE THE SEATING OF BEAMS ON BEARINGS TO ASSURE THAT POSITIVE BEARING IS MAINTAINED.  
  
PROPER ELEVATION OF THE SUPPORT/ARMOR ON THE BEAMS SHALL BE ACHIEVED BY POSITIONING OF THE BEVEL FILL PLATES RATHER THAN BY CLAMPING FORCE.
- ALL COSTS ASSOCIATED WITH THE ELASTOMERIC STRIP SEAL EXPANSION JOINT, ANCHOR PLATES, AND ANY REMAINING INCIDENTALS REQUIRED TO COMPLETE THE EXPANSION JOINT INSTALLATION SHALL BE INCLUDED WITH ITEM 516 - STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN FOR PAYMENT.
- THE CONTRACTOR SHALL VERIFY DECK ELEVATIONS AND CROSS SLOPES PRIOR TO ORDERING EXPANSION JOINT. ANY COSTS ASSOCIATED WITH THIS WORK SHALL BE INCIDENTAL TO THE EXPANSION JOINT.
- EXPANSION JOINTS SHALL HAVE A CONTINUOUS CROSS SLOPE BETWEEN THE CROWN LINE AND THE EDGE OF DECK.



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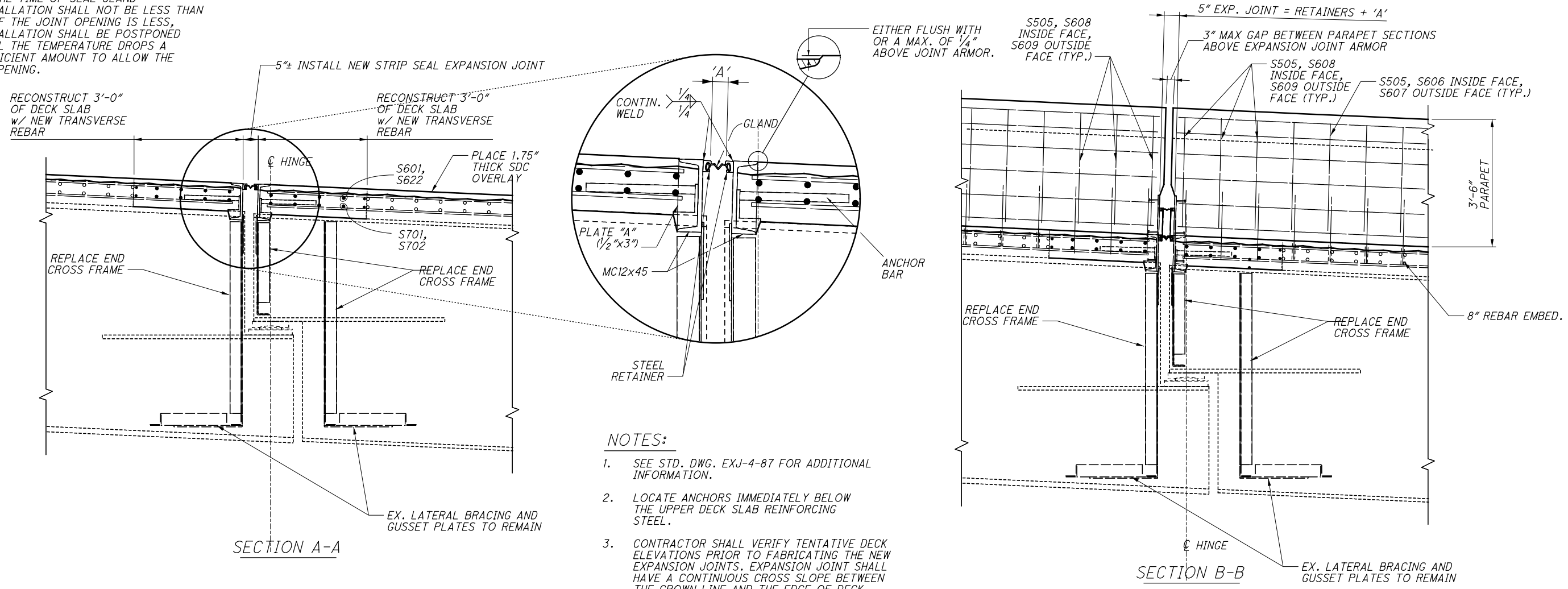


**EXPANSION JOINT OPENING TABLE FOR 4" GLAND**

AMBIENT TEMP (°F)	DIMENSION "A" INTERMEDIATE HINGE JOINT
30°	2.45"
40°	2.32"
50°	2.19"
60°	2.07"
70°	1.93"
80°	1.81"
90°	1.68"

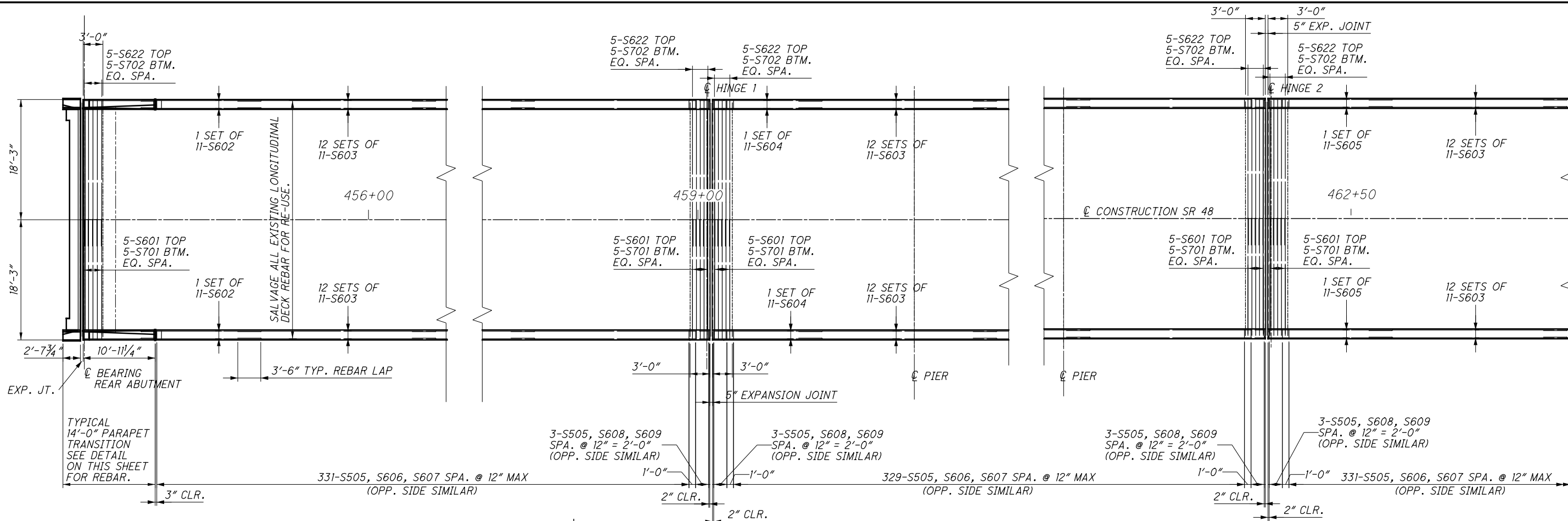
MINIMUM JOINT OPENING (DIMENSION 'A') AT THE TIME OF SEAL GLAND INSTALLATION SHALL NOT BE LESS THAN 2". IF THE JOINT OPENING IS LESS, INSTALLATION SHALL BE POSTPONED UNTIL THE TEMPERATURE DROPS A SUFFICIENT AMOUNT TO ALLOW THE 2" OPENING.

**REHABILITATION OF INTERMEDIATE (HINGE) EXPANSION JOINTS**

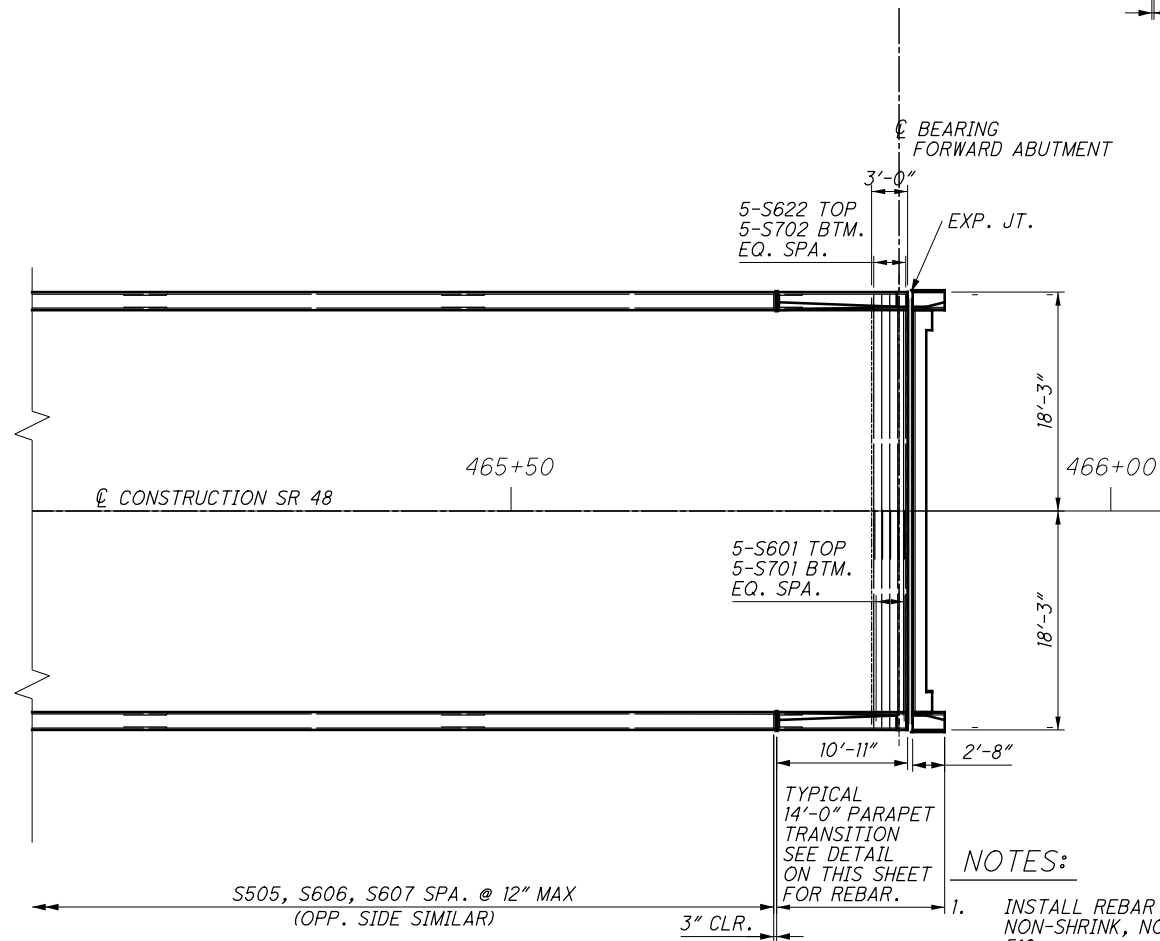


- NOTES:**
- SEE STD. DWG. EXJ-4-87 FOR ADDITIONAL INFORMATION.
  - LOCATE ANCHORS IMMEDIATELY BELOW THE UPPER DECK SLAB REINFORCING STEEL.
  - CONTRACTOR SHALL VERIFY TENTATIVE DECK ELEVATIONS PRIOR TO FABRICATING THE NEW EXPANSION JOINTS. EXPANSION JOINT SHALL HAVE A CONTINUOUS CROSS SLOPE BETWEEN THE CROWN LINE AND THE EDGE OF DECK.

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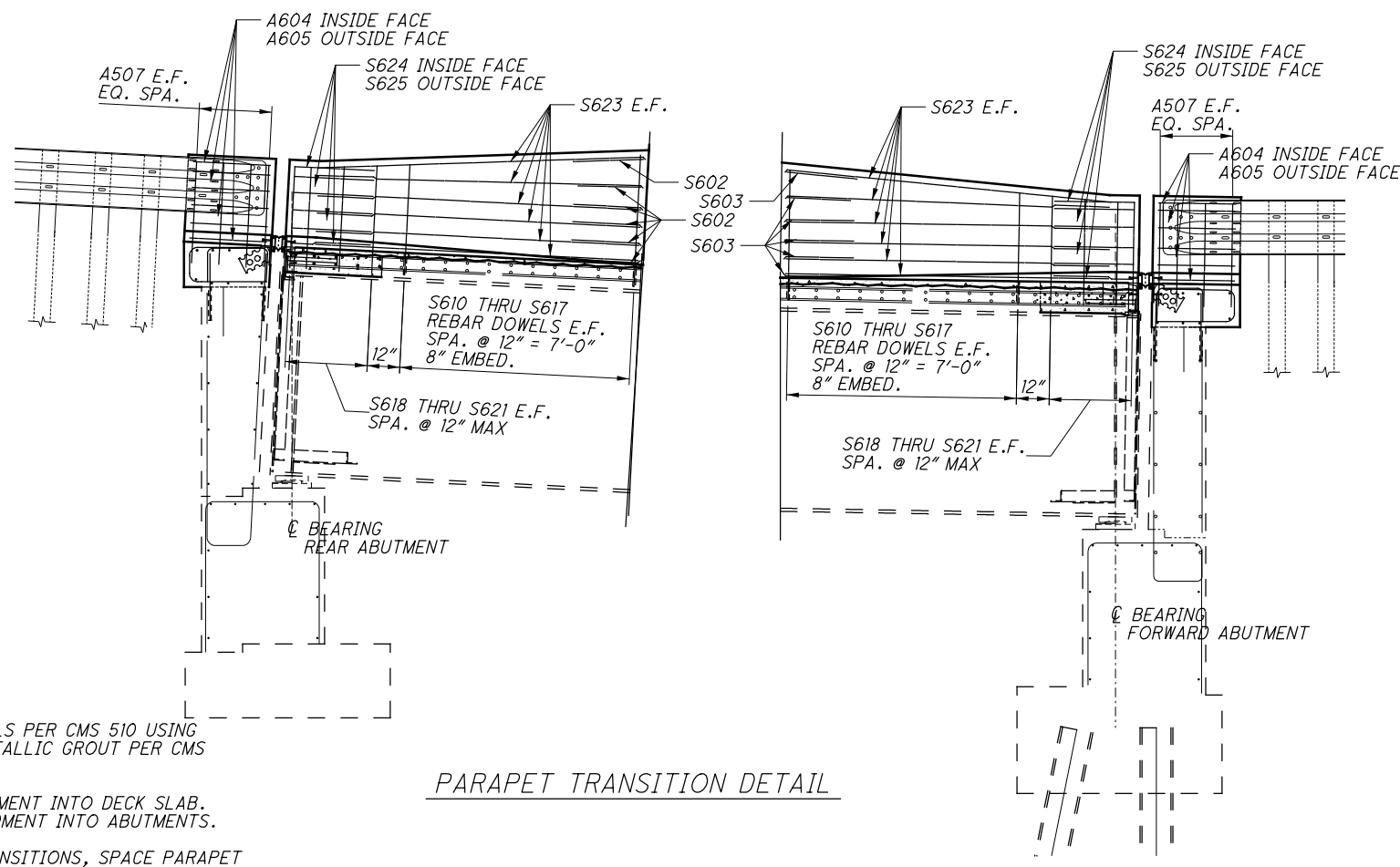


DECK PLAN



NOTES:

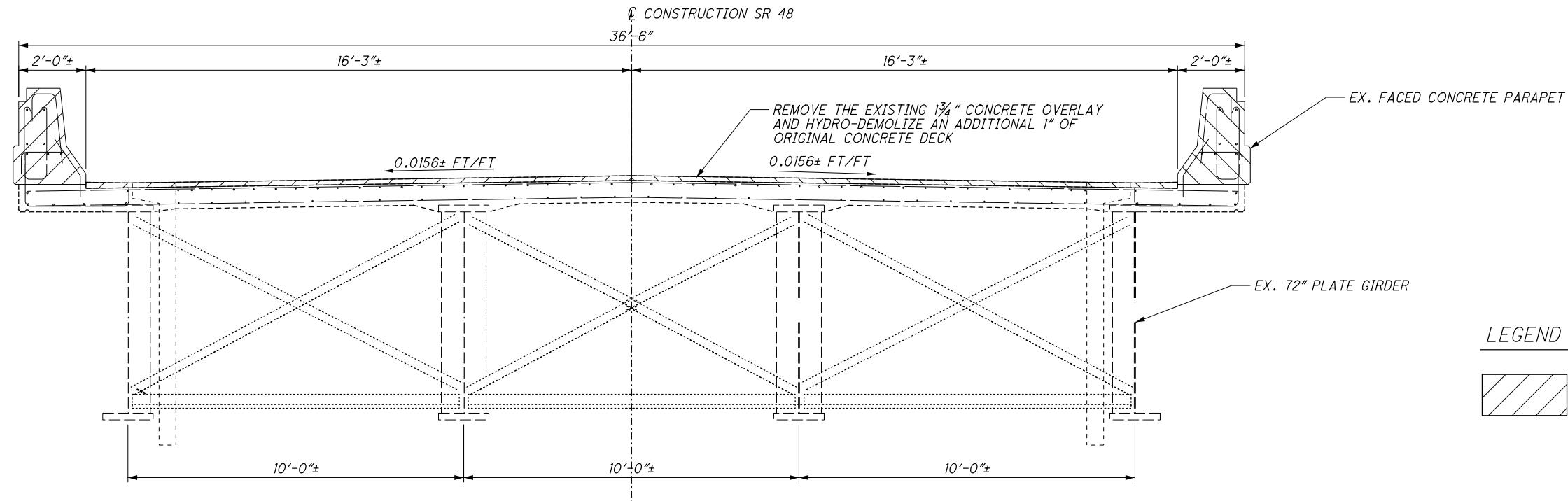
1. INSTALL REBAR DOWELS PER CMS 510 USING NON-SHRINK, NON-METALLIC GROUT PER CMS 510.
2. 8" MIN. DOWEL EMBEDMENT INTO DECK SLAB. 12" MIN. DOWEL EMBEDMENT INTO ABUTMENTS.
3. BEYOND PARAPET TRANSITIONS, SPACE PARAPET SAWCUTS AT 7'-6" MAX.



PARAPET TRANSITION DETAIL

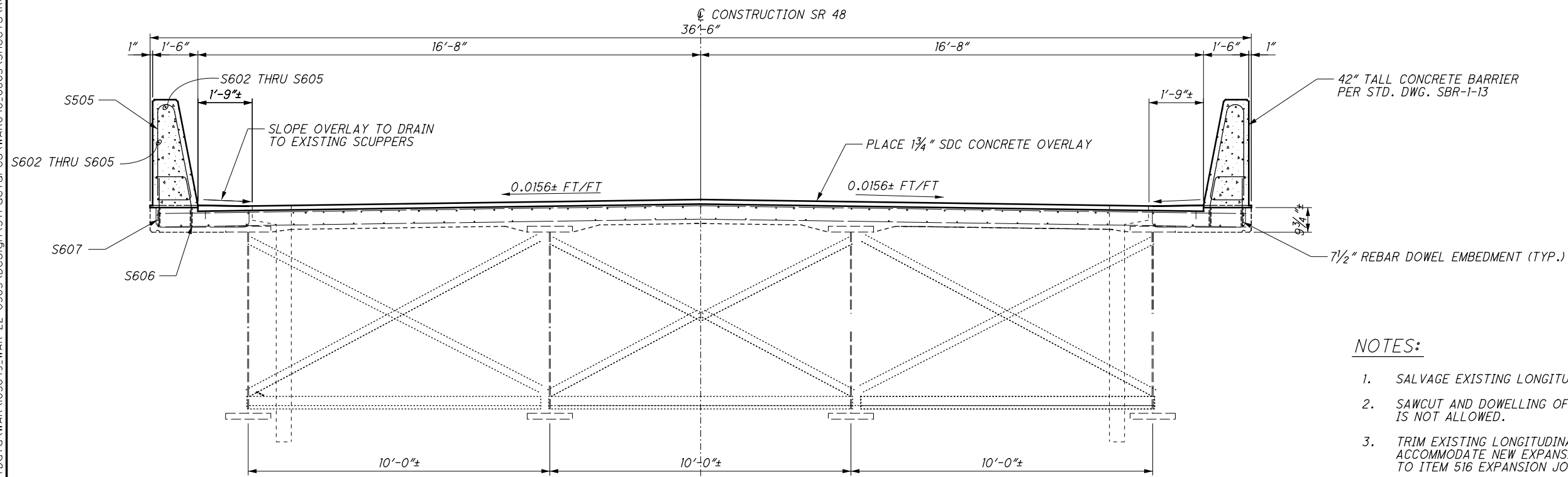
DESIGNED	CAH	CHECKED	GTF
DRAWN	CAH	REVISED	XXX
REVIEWED	XXX	MM/DD/YY	STRUCTURE FILE NUMBER
DATE	XXX	MM/DD/YY	8301085
DESIGN AGENCY	OHIO DEPT OF TRANSPORTATION		
	DISTRICT 8 BRIDGE OFFICE		
BRIDGE NO. WAR-48-8.63			
OVER THE LITTLE MIAMI RIVER			
WAR-22/48-			
3.03/8.63			
PID No. 103849			
16/18			
54			
56			

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EXISTING TRANSVERSE SECTION - PARAPET REMOVAL AND HYDRO-DEMOLITION

LEGEND



TYPICAL TRANSVERSE SECTION - DECK OVERLAY & PARAPET REPLACEMENT

NOTES:

1. SALVAGE EXISTING LONGITUDINAL DECK REBAR FOR RE-USE.
2. SAWCUT AND DOWELLING OF NEW LONGITUDINAL DECK REBAR IS NOT ALLOWED.
3. TRIM EXISTING LONGITUDINAL DECK REBAR AS NECESSARY TO ACCOMMODATE NEW EXPANSION JOINT. COST SHALL BE INCIDENTAL TO ITEM 516 EXPANSION JOINT.

DESIGNED CAH	DRAWN CAH	REVIEWED XXX	DATE MM/DD/YY XXX	DESIGN AGENCY OHIO DEPT OF TRANSPORTATION DISTRICT 8 BRIDGE OFFICE
CHECKED GTF	REVISER XXX	STRUCTURE FILE NUMBER 8301085		
<p><b>TYPICAL TRANSVERSE DECK SECTION</b>          BRIDGE NO. WAR-48-8.63          OVER THE LITTLE MIAMI RIVER</p>				
<p>WAR-22/48 -          3.03/8.63          PID No. 103849</p>				
17 / 18				
<div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <span style="margin-right: 5px;">55</span> <span>56</span> </div>				

I:\ProjectData\WAR\103849\_WAR-22-0303\Design\Structures\WAR048\_0863\_Sheets\RO48\_0863\_S1001.dgn Sheet 12/6/2019 6:33:59 PM chowar-d4

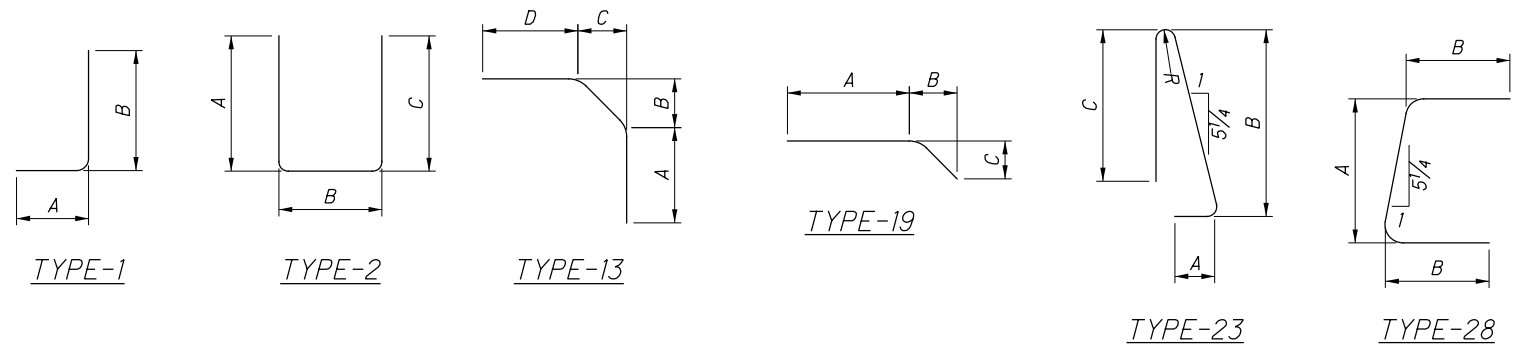
MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	REAR ABUTMENT	FORWARD ABUTMENT	TOTAL				A	B	C	D	E	R
<b>ABUTMENT REINFORCING STEEL LIST</b>												
A501	30		30	2'-2"	68	1	1'-2"	1'-2"	1'-2"			
A502	76	76	152	2'-2"	343	STR						
A503	4		4	2'-9"	11	1	1'-2"	1'-9"	1'-2"			
A504	4		4	3'-2"	13	1	2'-4"	1'-0"	2'-4"			
A505	4	4	8	3'-1"	26	STR						
A506	4	4	8	1'-4"	11	STR						
A507	16	16	32	4'-6"	150	1	1'-0"	3'-8"				
A510		30	30	1'-9"	55	1	1'-2"	0'-9"	1'-2"			
A511		4	4	2'-3"	9	1	1'-2"	1'-3"	1'-2"			
A512		4	4	3'-3"	14	1	2'-5"	1'-0"	2'-5"			
A601	3	3	6	18'-1"	163	STR						
A602	6	6	12	5'-0"	90	STR						
A603	3	3	6	22'-1"	199	STR						
A604			24	2'-5"	87	19	0'-11"	1'-5"	0'-5"			
A605			24	2'-5"	87	STR						
<b>SUB-TOTAL</b>					<b>1,326</b>							

NOTE: A508 & A509 BAR MARKS NOT USED

MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL					A	B	C	D	E	R	INC
<b>SUPERSTRUCTURE REINFORCING STEEL LIST (GFRP REBAR)</b>												
S602	22		18'-2"	163	STR							
S603	792		30'-0"	9,694	STR							
S604	22		16'-5"	147	STR							
S605	22		18'-8"	168	STR							
<b>SUB-TOTAL</b>					<b>10,172</b>							

#5 GFRP REBAR => 5/8" DIAMETER, WEIGHT = 0.287 LB/FT  
 #6 GFRP REBAR => 3/4" DIAMETER, WEIGHT = 0.408 LB/FT

NOTE: S501, S502, S503 & S504 BAR MARKS NOT USED



MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL					A	B	C	D	E	R	INC
<b>SUPERSTRUCTURE REINFORCING STEEL LIST</b>												
S505	2006		7'-4"	15343	23	0'-11"	3'-3"	3'-0"			0'-3"	
S601	30		18'-1"	815	STR							
S606	1982		2'-7"	5340	13	0'-8"	1'-0"	0'-2 1/4"	1'-0"			
S607	1982		1'-8"	3444	STR							
S608	24		3'-2"	80	28	1'-7"	0'-11"					
S609	24		2'-5"	60	1	1'-0"	1'-7"					
S610	8		4'-0"	48	STR							
S611	8		3'-11"	47	STR							
S612	8		3'-10"	46	STR							
S613	8		3'-9"	45	STR							
S614	8		3'-8"	44	STR							
S615	8		3'-7"	43	STR							
S616	8		3'-6"	42	STR							
S617	8		3'-5"	41	STR							
S618	8		3'-4"	40	STR							
S619	8		3'-3"	39	STR							
S620	8		3'-2"	38	STR							
S621	8		3'-1"	37	STR							
S622	30		22'-1"	995	STR							
S623	24		2'-9"	99	19	0'-11"	1'-10"	0'-1 1/2"				
S624	24		2'-10"	102	STR							
S625	48		10'-0"	721	STR							
S701	30		18'-1"	1109	STR							
S702	30		22'-1"	1354	STR							
<b>SUB-TOTAL</b>					<b>29,972</b>							

NOTE: S506, S507 & S508 BAR MARKS NOT USED  
 S506 16 2'-9" 46 19 0'-11" 1'-10" 0'-1 1/2"  
 S507 16 2'-10" 47 STR  
 S508 32 10'-0" 334 STR

- NOTES:**
- ALL DIMENSIONS ARE OUT TO OUT OF BAR
  - DIMENSIONS ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE STANDARD HOOKS ARE TO BE USED. REFERENCE CMS 509.
  - ALL BARS ARE TO BE CORROSION RESISTANT.
  - ALL REINFORCING STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.
  - SEE SHEET 34 FOR PARAPET TRANSITION REBAR.
  - SEE SHEETS 37 AND 38 FOR PIER PROTECTION REBAR.
  - ALL REBAR SHALL BE STANDARD EPOXY COATED UNLESS NOTED OTHERWISE.