

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

HAM-IR 74-11.16

HAMILTON COUNTY

FEDERAL PROJECT NUMBER

E121002

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

MINOR PAVEMENT REHABILITATION ON IR-74 FROM NORTH OF BEEKMAN ST. TO SOUTH OF HARRISON AVE. BRIDGE REPAIRS INCLUDE CONCRETE SEALING, BRIDGE PAINTING, CONCRETE PATCHING AND GUARDRAIL UPGRADES.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 3.8 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.0 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A ACRES

LIMITED ACCESS

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.

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

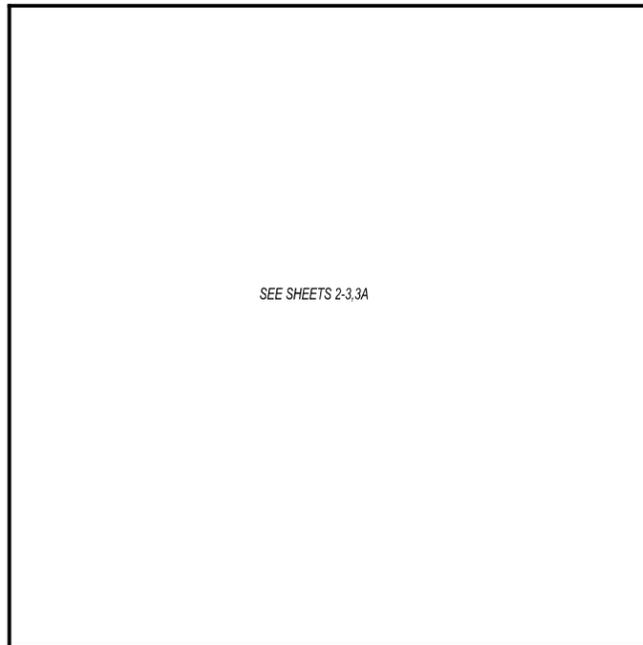
I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

DISTRICT DEPUTY DIRECTOR

Tammy K. Campbell

DIRECTOR, DEPARTMENT OF TRANSPORTATION

Justin M. Roberts



LOCATION MAP

LATITUDE: N39°11'47" LONGITUDE: W84°39'51"

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DESIGN DESIGNATION

	11.16 - 14.45	14.45 - 17.53	17.53 - 18.20
CURRENT ADT (20)	36,500	44,000	63,000
DESIGN YEAR ADT (20)	36,500	56,500	77,000
DESIGN HOURLY VOLUME (20)	3,600	5,600	7,700
DIRECTIONAL DISTRIBUTION	60.2%	60.2%	53.8%
TRUCKS (24 HOUR B&C)	9.0%	8.0%	8.0%
DESIGN SPEED	60 MPH	70 MPH	70 MPH
LEGAL SPEED	55 MPH	65 MPH	65 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	HAM-74 11.20-18.0 01 Interstate (Urban)		
NHS PROJECT	YES		

DESIGN EXCEPTIONS

NONE

ADA DESIGN WAIVERS

NONE

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:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 8 ENGINEERING
505 SOUTH S.R. 741 LEBANON, OHIO, 45036

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-3.1	1/19/24	MT-95.30	7/19/19	MT-101.80	1/17/20	800-2023	1/19/24	ULTRA SONIC	
BP-7.1	7/21/23	MT-95.31	7/19/19	MT-101.90	7/17/20	807	1/21/22	TESTING AND	
BP-9.1	1/18/19	MT-95.32	4/19/19	MT-102.10	7/21/23	808	1/18/19	INSPECTION	
		MT-95.40	7/21/23	MT-102.20	4/19/19	809	7/21/23	10/6/23	
MGS-1.1	7/16/21	MT-95.45	7/21/23	MT-102.30	10/16/15	821	4/20/12		
MGS-2.1	1/19/18	MT-95.50	7/21/17	MT-103.10	1/21/22	832	7/21/23	ASBESTOS	
MGS-4.3	1/18/13	MT-97.10	4/19/19	MT-104.10	4/26/23	850	7/21/23	INSPECTION	
MGS-5.3	7/15/16	MT-98.10	1/17/20	MT-105.10	1/17/20	872	1/21/22	REPORT	
RM-4.2	4/17/20	MT-98.11	1/17/20			878	1/21/22	10/6/23	
RM-4.5	7/21/17	MT-98.21	7/21/23	TC-61.30	7/19/19	896	7/21/17		
RM-4.6	7/19/13	MT-98.22	1/17/20	TC-65.11	7/15/22	905	4/17/20		
		MT-98.29	1/17/20	TC-71.10	4/26/23	908	10/20/17		
BR-1-13	1/17/14	MT-98.30	7/19/21	TC-72.20	7/21/23	909	7/21/23		
EXJ-4-87	7/21/23	MT-99.30	1/17/20	TC-73.20	7/21/23	921	4/20/12		
GSD-1-19	1/15/11	MT-101.70	4/26/23	TC-74.10	7/21/23				
PCB-91	7/17/20	MT-101.75	7/21/23						

ENGINEER'S SEAL	ENGINEER'S SEAL
ROADWAY	BRIDGE

TITLE SHEET

DESIGN AGENCY
DESIGNER
NCD
REVIEWER
JDO 9/20/23
PROJECT ID
88679
SHEET
01
TOTAL
53

HAM-IR 74-11.16

MODEL: Sheet PAPER: 17x11 (in.) DATE: 5/29/2024 TIME: 5:54:53 PM USER: choward4 pwc:\ohio-dot-pw-bentley.com\shahid-cpw-102\Documents\01 Active Projects\District 08 Hamilton\88679\400-Engineering\Roadway\Sheets\88679_G1001.dgn

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER UNLESS AUTHORIZED BY THE ENGINEER". THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DIRECTION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THE PROJECT.

PERMANENT PAVEMENT MARKINGS

THE CONTRACTOR SHALL REFERENCE ALL PAVEMENT MARKINGS INCLUDING AUXILIARY PAVEMENT MARKINGS BEFORE THE START OF THE RESURFACING OPERATION. THIS WILL BE NECESSARY TO ASSURE THE CORRECT PLACEMENT OF MARKINGS IN ORIGINAL LOCATIONS EXCEPT AS NOTED: EXIT RAMP GORES SHALL FOLLOW PAYMENT FOR THIS OPERATION SHALL BE INCLUDED WITH MARKING LAYOUT PER TC-72.20.

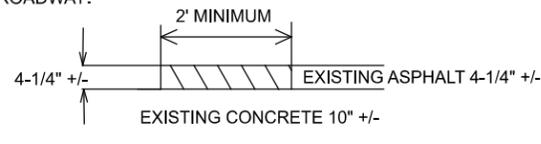
PAYMENT FOR THIS OPERATION SHALL BE INCLUDED WITH EACH RESPECTIVE PAVEMENT MARKING ITEM.

ITEM 623- CONSTRUCTION LAYOUT STAKES, AS PER PLAN

PRIOR TO THE START OF ROADWAY OPERATION, THE CONTRACTOR SHALL REFERENCE THE LENGTH OF THE PROJECT ON BOTH SIDES OF THE ROADWAY, IN A MANNER SATISFACTORY TO THE ENGINEER. THE PAVEMENT SHALL BE REFERENCED IN 500' FEET INCREMENTS, OR IN INCREMENTS ACCEPTABLE TO THE ENGINEER, IN A SEMIPERMANENT CONDITION.

ITEM 253- PAVEMENT REPAIR (A)

AN ESTIMATED QUANTITY OF 1400 CU YDS OF ITEM 253- PAVEMENT REPAIR HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER. THIS OPERATION SHALL BE PERFORMED BEFORE PAVEMENT PLANING OF ROADWAY.



EXISTING DETERIORATED ASPHALT SHALL BE REMOVED TO A DEPTH OF 4-1/4" INCHES OR AS DIRECTED BY THE ENGINEER AND REPLACED WITH ITEM 301, ASPHALT CONCRETE BASE. THE 301 SHALL BE COMPACTED AS PER 401.15 AND IN APPROXIMATELY EQUAL LAYERS. DO NOT DISTURB ANY SOUND CONCRETE SURFACE. REMOVE ANY DETERIORATED CONCRETE AND REPLACE WITH ITEM 301 AS NOTED ABOVE. THE LOCATIONS AND SIZE OF THE REPAIRS SHALL BE DETERMINED BY THE ENGINEER.

LONGITUDINAL JOINT REPAIRS AT A 2' MINIMUM WIDTH WILL BE REQUIRED WITH THE PROJECT. THE ESTIMATED QUANTITY FOR THIS WORK IS 235 CY (INCLUDED WITH THE OVERALL 1400 CY) ALL OTHER REPAIRS ARE ASSUMED TO HAVE A 4' MINIMUM WIDTH.

ITEM 254- PAVEMENT PLANING, ASPHALT CONCRETE

THE PAVEMENT PLANING SHALL BE SCHEDULED TO BE COVERED BY THE SURFACE COURSE PRIOR TO REOPENING THE LANE TO TRAFFIC, EXCEPT THE CONTRACTOR IS PERMITTED TO MILL AHEAD 1000 FEET BEYOND THE PLACED SURFACE COURSE. THE MILLED AHEAD SURFACE SHALL BE COVERED BY THE SURFACE COURSE ASPHALT WITHIN 72 HOURS OF BEING OPEN TO TRAFFIC. ADDITIONALLY, THE MILLED AHEAD SURFACE SHALL NOT BE LOCATED WITHIN AN INTERSECTION OR RAMP. THE MILLED AHEAD SURFACE SHALL BE SMOOTH, FREE OF DEBRIS, AND FREE OF POTHOLES. A DISINCENTIVE IN THE AMOUNT OF \$1,500 SHALL BE ASSESSED FOR EACH DAY THE CONTRACTOR FAILS TO MEET ANY OF THESE REQUIREMENTS.

ENVIRONMENTAL NOTE

NO IN STREAM WORK IS PERMITTED FOR THIS PROJECT. SPECIFICALLY, NO INSTREAM WORK IS TO BE PERFORMED IN THE STREAM ON THE EAST SIDE OF HAFT RD, UNDER I-74. IF INSTREAM WORK BECOMES NECESSARY, PLEASE CONTACT KEITH SMITH, ODOT DISTRICT 8 ENVIRONMENTAL COORDINATOR AT 513-933-6590.

ITEM 621- RAISED PAVEMENT MARKER REMOVED/REPLACED

RPM'S SHALL BE INSTALLED ACCORDING TO SCD TC-65.10, TC-65.11 AND TC-73.20.

THE FOLLOWING RPM QUANTITIES ARE TO BE USED ON HAM IR 74 EB/WB S.L.M.11.16-18.00 AND HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

- ITEM 621- RPM, 1-WAY (WHITE)..... 1198 EA
- ITEM 621- RPM, 2-WAY (YELLOW/RED)..... 303 EA
- ITEM 621- RPM, 2-WAY (WHITE/RED)..... 275 EA

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

- ITEM 621- RPM 1776 EA
- ITEM 621- RAISED PAVEMENT MARKER REMOVED..... 1776 EA

GUARDRAIL INSTALLATION

THIS PROJECT REQUIRES THE INSTALLATION OF NEW GUARDRAIL POSTS. SURVEY WORK HAS NOT BEEN PERFORMED EVERYWHERE ON THIS PROJECT, NOR HAVE THE UTILITY LOCATIONS BEEN CONFIRMED IN THE FIELD. IN ADDITION TO CMS 105.07, IF, DURING THE COURSE OF INSTALLING ANY NEW GUARDRAIL COMPONENT, IT IS DETERMINED THAT A UTILITY CONFLICT MAY RESULT, THE CONTRACTOR IS TO NOTIFY THE PROJECT ENGINEER IMMEDIATELY. UTILITIES ARE NOT TO BE RELOCATED AS A RESULT OF THIS OPERATION. ADJUSTMENTS TO THE PROPOSED GUARDRAIL WILL ACCOMMODATE THE EXISTING UTILITY. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE GUARDRAIL VIA MEANS THAT WOULD BE COMPLIANT WITH THE IMPACTED UTILITY'S SAFETY GUIDELINES AS WELL AS STILL MEETING ODOT'S DESIGN CRITERIA. ANY MINOR ADJUSTMENTS MADE TO THE PROPOSED GUARDRAIL INSTALLATIONS SHALL BE INCIDENTAL TO PAY ITEM 606.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER. ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

GUARDRAIL REPLACEMENT

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE THE EXISTING GUARDRAIL, PREPARE THE SITE, AND INSTALL THE NEW GUARDRAIL/BARRIER IN A CONTINUOUS OPERATION. THE REMOVAL OF ALL GUARDRAIL/BARRIER SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL/BARRIER SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON SITE, READY FOR INSTALLATION. FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED UNTIL SUCH TIME AS THE ENGINEER IS ASSURED OF COMPLIANCE.

ITEM 606 - IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING THE PLAN SPECIFIED TYPE 2 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 2 (62 MPH), HAZARD WIDTH (69"), (UNIDIRECTIONAL OR BIDIRECTIONAL)], EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. UNLESS OTHERWISE NOTED IN THE PLANS.

NESTING BIRDS

ECOLOGICAL STUDIES IDENTIFIED SWALLOW NESTS ON THE STEEL SUPERSTRUCTURE AND STEEL PORTIONS OF THE PIERS ON THE HAM-74-11.16 L/R BRIDGES. THESE NESTS AND BIRD DROPPINGS MUST BE REMOVED FROM THE STRUCTURE PRIOR TO THE START OF ULTRA SONIC TESTING AND INSPECTION (UTI), CONCRETE BARRIER REHABILITATION AND/OR PAINTING OF THE STRUCTURAL STEEL.

IF CONSTRUCTION ACTIVITIES WILL OCCUR BETWEEN MAY 1 AND AUGUST 31 ON THIS STRUCTURE, INSPECT THE STRUCTURE FOR EVIDENCE OF AN ACTIVE BIRD NEST CONTAINING AN EGG OR CHICK PRIOR TO STARTING WORK. PROVIDE WRITTEN CONFIRMATION OF THE INSPECTION, INCLUDING A STATEMENT WHETHER AN ACTIVE NEST WAS FOUND, TO THE ENGINEER.

IF NO NESTS ARE ENCOUNTERED DURING THE INSPECTION, OR IF ONLY INACTIVE NESTS THAT DO NOT CONTAIN AN EGG OR CHICK ARE ENCOUNTERED, PROCEED WITH CONSTRUCTION ACTIVITIES. THE CONTRACTOR MAY REMOVE AND DESTROY INACTIVE NESTS. THE CONTRACTOR MAY INSTALL EXCLUSION MEASURES BETWEEN AUGUST 31 AND MAY 1 TO PREVENT MIGRATORY BIRDS FROM NESTING ON THE STRUCTURE. PROJECTS PERFORMING CONSTRUCTION ACTIVITIES BETWEEN THE DATES OF SEPTEMBER 1 AND APRIL 30 DO NOT REQUIRE AN INSPECTION FOR MIGRATORY BIRDS OR AVOIDANCE MEASURES.

IF AN ACTIVE NEST CONTAINING AN EGG OR CHICK IS ENCOUNTERED, AVOID IMPACTS TO THE NEST UNTIL ALL DEVELOPING BIRDS ARE ABLE TO INDEPENDENTLY FLY FROM THE NEST. IF AN ACTIVE NEST CONTAINING AN EGG OR CHICK CANNOT BE AVOIDED, CONTACT THE ENGINEER AT LEAST 4 WEEKS PRIOR DESTROYING AN ACTIVE NEST SO THE DEPARTMENT CAN OBTAIN A DEPREDATION PERMIT FROM THE U.S. FISH AND WILDLIFE SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS AND COMPLETING ALL TASKS RELATED TO OBTAINING THE DEPREDATION PERMIT EXCEPT FOR DIRECT COORDINATION WITH THE MIGRATORY BIRDREGIONAL PERMIT OFFICE. DO NOT PROCEED WITH ACTIVITIES THAT WILL IMPACT AN ACTIVE NEST UNTIL THE DEPARTMENT CONFIRMS THE DEPREDATION PERMIT IS RECEIVED.

CONCRETE TESTING

REFER TO STRUCTURE NOTES FOR CONCRETE TESTING REQUIREMENTS THAT SHALL APPLY TO ALL ROADWAY & STRUCTURE CONCRETE WORK.

ASBESTOS ABATEMENT

AN ASBESTOS SURVEY FOR SFN's 3115437, 3115429, 3108767, 3108732, 3108619, 3108589, 3108430, AND 3108465 SCHEDULED FOR RENOVATION WORK WAS CONDUCTED ON 8/30/2023 BY A LICENSED ASBESTOS HAZARD EVALUATION SPECIALIST. THE ASBESTOS SURVEY DID NOT IDENTIFY THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS.

ELECTRONIC SUBMISSION:

THE CONTRACTOR SHALL SUBMIT ELECTRONICALLY TO OEPA A COMPLETED NOTIFICATION OF DEMOLITION & RENOVATION FORM (NDRF) AND APPLICABLE FEES ALONG WITH THE ASBESTOS SURVEY REPORT. THE COMPLETED NDRF MUST BE SUBMITTED TO OEPA AT LEAST 10 DAYS PRIOR TO ANY DEMOLITION AND RENOVATION ACTIVITY. THE CONTRACTOR IS RESPONSIBLE FOR RETAINING AN ELECTRONIC COPY OF THE NDRF (IN PDF FORM) FOR SUBMISSION TO THE DISTRICT ENVIRONMETNAL STAFF AND A ONE HARD COPY TO THE PROJECT ENGINEER.

(GO TO THE OEPA EBUSINESS CENTER AND SUBMIT THE DNR AND PAYMENT ALONG WITH THE ASBESTOS SURVEY REPORT)

HARD COPY SUBMISSION:

THE CONTRACTOR MAY ELECT TO SUBMIT A HARD COPY OF THE COMPLETED NDRF AND PAYMENT ALONG WITH THE ASBESTOS SURVEY REPORT TO THE FOLLOWING:

ASBESTOS PROGRAM	OR	ASBESTOS PROGRAM
OHIO EPA, DAPC		OHIO EPA, DAPC
P.O. BOX 1049		50 W. TOWN ST., SUITE 700
COLUMBUS, OHIO 43216-1049		COLUMBUS, OHIO 43215

IF THE CONTRACTOR ELECTS TO SUBMIT A HARD COPY TO OEPA THEY ARE RESPONSIBLE FOR RETAINING A HARD COPY OF THE NDRF FOR SUBMISSION TO THE DISTRICT ENVIRONMETNAL STAFF AND A ONE HARD COPY TO THE PROJECT ENGINEER.

BASIS OF PAYMENT

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:
690E98400 ITEM SPECIAL - MISC.: WORK INVOLVING ASBESTOS CONTAINING MATERIALS - LUMP SUM

DESIGN AGENCY



DESIGNER
NCD

REVIEWER
JDO 9/20/23

PROJECT ID
88679

SHEET TOTAL
04 53

ITEM 614 - MAINTAINING TRAFFIC

GENERAL: MAINTAIN ALL EXISTING LANES AT ALL TIMES, EXCEPT LANE CLOSURES ARE PERMITTED IN ACCORDANCE WITH THE LANE VALUE CONTRACT TABLE, BY USE OF THE EXISTING PAVEMENT AND THE COMPLETED PAVEMENT.

I-74 RESURFACING: MAINTAIN A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION PER THE LANE VALUE CONTRACT TABLE.

I-74 BRIDGE WORK: MAINTAIN A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTIONS. LANE CLOSURES ARE PERMITTED ACCORDING TO THE LANE VALUE CONTRACT TABLE AND THE MAINTENANCE OF TRAFFIC POLICY EXCEPTION NOTE. BEFORE AND AFTER THE WEEKEND LANE CLOSURES, 2 LANES OF TRAFFIC MAY PLACED IN A SHIFTED PATTERN USING THE SHOULDER PER MT-102.10 AND MT-99.30.

PROVIDE PORTABLE BARRIER USING SHOULDER CLOSURES TO PROTECT REMOVED PORTIONS OF EXISTING PARAPET INCLUDING AT THE EXPANSION JOINTS. DURING THE WEEKEND LANE CLOSURES, PORTABLE BARRIER MAY BE RELOCATED INTO THE LANE FOR TRAFFIC PROTECTION AND THEN BACK TO THE SHOULDER BEFORE REOPENING THE LANE. THIS RELOCATION OF PORTABLE BARRIER FOR WEEKEND LANE CLOSURES IS NOT ITEMIZED AND SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

HARRISON AVENUE:

IN GENERAL, MAINTAIN A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION PER THE LANE VALUE CONTRACT TABLE. TO PERFORM THE MEDIAN BARRIER UPGRADES, CLOSE ONE LANE IN EACH DIRECTION USING PORTABLE BARRIER AND PROVIDE A 480' SOUTH-BOUND LEFT TURN LANE; THIS LANE CLOSURE MAY REMAIN IN PLACE UP TO 3 WEEKS.

SHEPHERD CREEK:

MAINTAIN A MINIMUM OF ONE LANE OF TWO WAY TRAFFIC DURING WORKING HOURS.

MONTANA AVENUE:

MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION PER THE LANE VALUE CONTRACT TABLE.

ITEM 614 - MAINTAINING TRAFFIC

MAINTAIN ALL EXISTING LANES AT ALL TIMES, EXCEPT LANE CLOSURES ARE PERMITTED IN ACCORDANCE WITH THE LANE VALUE CONTRACT TABLE, BY USE OF THE EXISTING PAVEMENT AND THE COMPLETED PAVEMENT.

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

NEW YEAR'S (OBSERVED)	GENERAL/REGULAR ELECTION DAY ((NOV)
TOTAL SOLAR ECLIPSE (4/8/24)	THANKSGIVING
MEMORIAL DAY	CHRISTMAS (OBSERVED)
FOURTH OF JULY (OBSERVED)	(OTHER HOLIDAY OR SPECIAL EVENT)
LABOR DAY	SOLOR ECLIPSE (4/8/24)

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

DAY OF HOLIDAY TIME ALL LANES
OR SPECIAL EVENT MUST BE OPEN TO TRAFFIC

SUNDAY	12:00N	FRIDAY THROUGH 6:00 AM	MONDAY
MONDAY	12:00N	FRIDAY THROUGH 6:00 AM	TUESDAY
MONDAY	(TOTAL SOLAR ECLIPSE)		
	12:00N	MONDAY THROUGH 6:00 AM	WEDNESDAY
TUESDAY	12:00N	MONDAY THROUGH 6:00 AM	WEDNESDAY
TUESDAY	(GEN./REG. ELECTION)		
	5:00 AM	TUESDAY THROUGH 12:00 AM	WEDNESDAY
WEDNESDAY	12:00N	TUESDAY THROUGH 6:00 AM	THURSDAY
THURSDAY	12:00N	WEDNESDAY THROUGH 6:00 AM	FRIDAY
THURSDAY	(THANKSGIVING ONLY)		
	6:00 AM	WEDNESDAY THROUGH 6:00 AM	MONDAY
FRIDAY	12:00N	THURSDAY THROUGH 6:00 AM	MONDAY
SATURDAY	12:00N	FRIDAY THROUGH 6:00 AM	MONDAY

DURING THE SAME PERIODS, MAINTAIN PEDESTRAIN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION. [NEWLY CONSTRUCTED LANE ADDITIONS, ONCE COMPLETED AND INITIALLY OPENED TO TRAFFIC, SHALL BE OPEN TO TRAFFIC DURING ALL SUBSEQUENT DESIGNATED HOLIDAYS AND SPECIAL EVENTS, AND RELATED PERIODS OF TIME, SPECIFIED ABOVE.]

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

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

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
RAMP &	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
ROAD	> 12 HOURS	7 CALENDAR DAYS
CLOSURES	& < 2 WEEKS	PRIOR TO CLOSURE
	<= 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

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.

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.

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 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 OF TRAFFIC RESTRICTIONS TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
CLOSURES	> 12 HOURS	14 CALENDAR DAYS
	& < 2 WEEKS <= 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.

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

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING 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.

[INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND PERMANENT CONCRETE BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE UNDER EITHER OF THE FOLLOWING CONDITIONS: ALONG TAPERS AND TRANSITION AREAS; OR ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.]

[THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.]

[DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE "CRIMPED." PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT-101.70.]

[TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.]

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE 1 ONE-WAY 104 EACH

ITEM 614, OBJECT MARKER, _ONE-WAY 104 EACH

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

[ALONG RUNS OF INCREASED BARRIER DELINEATION WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN OF INCREASED BARRIER DELINEATION, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL DELINEATION PANELS OR STACKS OF BARRIER REFLECTORS.]

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

DESIGN AGENCY



DESIGNER
NCD

REVIEWER
SK 9/20/23

PROJECT ID
88679

SHEET TOTAL
06 | 53

WORK ZONE SPEED ZONES (WZSZS)

THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISION(S) HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

WZSZ REVISION NUMBER(S) COUNTY-ROUTE-SECTION(S) DIRECTION(S)
WZ- 45122 HAM-74 EB/WB

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF 55 MPH OR GREATER, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A

WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, APPROVED LIST, SUPPLEMENTAL SPECIFICATIONS (SS) 808 AND 908, AND TRAFFIC SCD MT-104.10.

[WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS SHALL BE IN ACCORDANCE WITH THIS NOTE AND SCD MT-104.10. ADDITIONALLY PAYMENT MAY BE REMOVED, OR A DISINCENTIVE APPLIED, FOR WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS THE SAME AS DESCRIBED IN THE MOST RECENT PUBLICATION OF SS 808 IN REGARDS TO WZSZS USING DSL SIGN ASSEMBLIES (SEE SS 808.06 PARAGRAPHS 4 THROUGH 7, INCLUDING TABLE 1.)]

ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES, AS DEFINED IN O MUTCD PART 6.

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRECONSTRUCTION, POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED, THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH) FOR WORK ZONES ON HIGH-SPEED (55 MPH OR GREATER) MULTI-LANE HIGHWAYS

ORIGINAL POSTED SPEED LIMIT	WITH POSITIVE PROTECTION		WITHOUT POSITIVE PROTECTION	
	WORKERS PRESENT	WORKERS NOT PRESENT	WORKERS PRESENT	WORKERS NOT PRESENT
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

[ITEM 808, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY 48 SIGN MNTH [ASSUMING 8 DSL SIGN ASSEMBLY(IES) FOR 6 MONTH(S)]

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.

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 TO 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 14 SIGN MONTH (ASSUMING 2 PCMS SIGN(S) FOR 7 MONTH(S))

ITEM 614- WORK ZONE MARKINGS

THE CONTRACTOR SHALL PLACE WORK ZONE PAVEMENT MARKINGS UPON COMPLETION OF THE ASPHALT SURFACE COURSE PRIOR TO OPENING THE ROADWAY TO TRAFFIC.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS PER THE REQUIREMENTS OF PER C&MS 614.11.

SURFACE COURSE

ITEM 614-WORK ZONE EDGE LINE 6", CLASS I, 807 PAINT -	32.74 MILES
ITEM 614-WORK ZONE LANE LINE, CLASS I, 807 PAINT -	17 MILES
ITEM 614-WORK ZONE STOP LINE, CLASS III, 642 PAINT -	104 FEET
ITEM 614-WORK ZONE CROSSWALK LINE, CLASS III, 642 PAINT -	248 FEET
ITEM 614-WORK ZONE CHANNELIZING LINE CLASS I, 807 PAINT -	9952 FEET

ITEM 614-WORK ZONE WORD ON PAVEMENT 96" CLASS III, 642 PAINT -	1 EACH
ITEM 614-WORK ZONE DOTTED LINE, CLASS I, 807 PAINT -	4076 FEET
ITEM 614-WORK ZONE ARROW, CLASS III, 642 PAINT -	38 EACH

SURFACE COURSE FOR BRIDGES

ITEM 614-WORK ZONE EDGE LINE 6", CLASS I, 807 PAINT -	0.58 MILES
ITEM 614-WORK ZONE LANE LINE, CLASS I, 807 PAINT -	0.29 MILES
ITEM 614-WORK ZONE CHANNELIZING LINE CLASS III, 642 PAINT -	572 FEET

HARRISON RD WORK ZONE MARKINGS

ITEM 614-WORK ZONE ARROW, CLASS I, 740.06, TYPE I	6 EACH
ITEM 614-WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I -	0.29 MILES
ITEM 614-WORK ZONE CHANNELIZING LINE, CLASS I, 8", 740.06, TYPE I	480 FEET

WORKZONE MARKINGS FOR PHASED I-74 BRIDGE WORK:

ITEM 614-WORKZONE EDGE LINE 6", CLASS I, 807 PAINT	5.32 MI
ITEM 614-WORKZONE CHANNELIZING LINE, CLASS I, 807 PAINT	8340 FT
ITEM 614-WORKZONE LANE LINE, CLASS I, 807 PAINT	1.08 MI

ITEM 614, MAINTAINING TRAFFIC (ESTIMATED QUANTITIES)

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 614, WORK ZONE IMPACT ATTENUATOR,	14 EACH
ITEM 622, PORTABLE BARRIER, UNANCHORED	4600 FEET

DESIGN AGENCY



DESIGNER	NCD
REVIEWER	SK 9/20/23
PROJECT ID	88679
SHEET	TOTAL
07	53

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

PORTIONS OF THE MOT PLANS AS DESCRIBED BELOW HAVE APPROVED MOT EXCEPTION(S) PER TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

APPROVED MOT EXCEPTION(S) INCLUDE:

THE CONTRACTOR IS PERMITTED 4 WEEKEND LANE CLOSURES IN THE EASTBOUND DIRECTION AND 4 WEEKEND LANE CLOSURES IN THE WESTBOUND DIRECTION TO COMPLETE THE EXPANSION JOINT REPLACEMENT. THESE WEEKEND LANE CLOSURES MAY OCCUR IN THE SAME DIRECTION AT THE SAME TIME; IT IS NOT REQUIRED. EXTRA ADVANCED WARNING SIGNING AT THE 3 MILE CLUSTER AND WZQDWS SHALL BE PROVIDED IN EACH DIRECTION DURING THE WEEKEND LANE CLOSURE.

- WESTBOUND I-74: THE WEEKEND LANE CLOSURE WILL BEGIN FRIDAY NIGHT AT 7 PM AND REOPEN MONDAY MORNING BY 9 AM.
- EASTBOUND I-74: THE WEEKEND LANE CLOSURE WILL BEGIN FRIDAY NIGHT AT 7 PM AND REOPEN MONDAY MORNING BY 6 AM.

A MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD A MINIMUM OF [30] CALENDAR DAYS PRIOR TO IMPLEMENTATION OF EACH APPROVED MOT EXCEPTION. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER AND AS WELL AS THE CONTRACTOR, WORKSITE TRAFFIC SUPERVISOR (WTS) AND ANY SUBCONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL.

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 [8/23/2023] FOR PID [PID 88679]" 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 MOT EXCEPTION COMMITTEE (MOTEC). 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 MOTEC. IN THE EVENT THE PROPOSED CHANGES ARE APPROVED IN WRITING, THE CLOSURES ARE STILL SUBJECT TO NOTIFICATION REQUIREMENTS WITHIN THIS NOTE PRIOR TO IMPLEMENTATION.

VERTICAL CLEARANCE

ANY WORK (FALSEWORK, TRAFFIC PROTECTION, CONTAINMENT, ETC.) OVER LIVE TRAFFIC BY THE CONTRACTOR THAT REDUCES THE EXISTING VERTICAL CLEARANCE IS PROHIBITED UNLESS 30 DAYS ADVANCED NOTICE IS PROVIDED WITH NEW PROPOSED VERTICAL CLEARANCES. THE CONTRACTOR SHALL PROVIDE FIELD MEASUREMENTS BEFORE ALLOWING TRAFFIC UNDERNEATH. IF ANY WORK IS TO OCCUR BELOW 14'-6", THEN SIGNS ON THE STRUCTURE AND ADVANCE WARNING SIGNS SHALL BE INSTALLED A MINIMUM OF 2 WEEKS PRIOR TO PERFORMING SUCH WORK. SIGNING SHALL BE IN ACCORDANCE WITH THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (OMUTCD) AND THE OHIO "TRAFFIC ENGINEERING MANUAL" (TEM). NO WORK OVER TRAFFIC SHALL OCCUR WITH A VERTICAL CLEARANCE LESS THAN 14'-0". LOWERING THE VERTICAL CLEARANCE DURING CONSTRUCTION IS CONSIDERED THE CONTRACTOR'S MEANS AND METHODS OF ACCOMPLISHING THE WORK, AND THEREFORE THE STATE IS NOT RESPONSIBLE FOR ANY DAMAGE FROM VEHICULAR IMPACTS THAT MAY RESULT AS PER 107.10."

EXTRA ADVANCE WARNING SIGNS (NOTE A)

AN EXTRA ADVANCE WARNING SIGN GROUP CONSISTS OF TWO W20-1 (ROAD WORK AHEAD) SIGNS, TWO W20-5 (RIGHT/LEFT LANE CLOSED AHEAD) SIGNS WITH W16-3A DISTANCE PLATES, AND TWO W3-H7 (WATCH FOR STOPPED TRAFFIC) SIGNS AND REQUIRED WARNING LIGHTS.

THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN AND REMOVE EXTRA ADVANCE WARNING SIGN GROUPS AS SHOWN ON TRAFFIC SCD MT-95.50 AT THE FOLLOWING DISTANCES IN ADVANCE OF THE LANE TAPERS WITH THE APPROPRIATE W16-3A DISTANCE PLATES:

- 1) EB 74 AT HAM-IR 74-11.16 3 MILES.
- 2) WB 74 AT HAM-IR 74-11.16 3 MILES.

THE CONTRACTOR SHALL HAVE AN ADDITIONAL EXTRA ADVANCE WARNING SIGN GROUP (6 SIGNS AND 2 DISTANCE PLATES) AVAILABLE FOR USE WHEN DIRECTED BY THE ENGINEER. THE DISTANCE PLATES FOR THIS GROUP SHALL BE ABLE TO BE MODIFIED IN THE FIELD TO SHOW APPROPRIATE WHOLE MILES TO THE LANE TAPER.

PAYMENT FOR PROVIDING, ERECTING, MAINTAINING AND REMOVING EXTRA ADVANCE WARNING SIGN GROUPS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

ACCESS MANAGEMENT FOR DAILY/NIGHTLY WORK OPERATIONS

ACCESS MANAGEMENT IS PART OF THE CONTRACTOR'S MEANS AND METHODS. IT IS ANTICIPATED THAT EQUIPMENT WILL BE STORED WITHIN THE RIGHT-OF-WAY AT A LOCATION(S) DETERMINED BY THE CONTRACTOR.

IF IT IS NECESSARY TO CROSS OPEN LANES OF TRAVEL, MT-99.60 IS THE GOVERNING STANDARD AND SHALL BE PERFORMED BETWEEN MIDNIGHT AND 5:00 AM. REMOVE, TURN, OR COVER ALL SIGNS USED IN THE SHORT-DURATION CLOSURE IF THE NEXT SHORT-DURATION CLOSURE WILL OCCUR MORE THAN 2 HOURS LATER. THIS INCLUDES TURNING OFF OR REVISING THE MESSAGE ON THE PORTABLE CHANGEABLE MESSAGE SIGN.

ALL COSTS ASSOCIATED WITH ACCESS MANAGEMENT INCLUDING LAW ENFORCEMENT OFFICERS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

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 C&MS 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).

IN ADDITION TO THE REQUIREMENT OF C&MS 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) 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 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).

FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:
ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND
AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION;
AND,
AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

"WITHOUT POSITIVE PROTECTION" MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS "WITHOUT POSITIVE PROTECTION". FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:

- THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR
- THE ACTIVE WORK AREA LATERALLY CLOSEST TO THE OPEN TRAVELED LANE; OR
- OTHER LOCATION AS APPROVED BY THE ENGINEER.

THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

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

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 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 THAT 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 __750_ 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.

WORK ZONE QUEUE DETECTION WARNING SYSTEM

THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN AN APPROVED WORK ZONE QUEUE DETECTION WARNING SYSTEM (WZQDWS) AS PER SUPPLEMENTAL SPECIFICATION 896.

IT IS EXPECTED THAT WZQDWS DEVICES LOCATIONS WILL VARY BASED ON PLANNED OR UNPLANNED PHASE AND TRAFFIC PATTERN CHANGES. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE DEVICES BY THE CONTRACTOR SHALL BE DIRECTED BY THE ENGINEER.

THE FOLLOWING TRAFFIC SENSOR THRESHOLDS AND PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) MESSAGES SHALL BE USED:

- GREATER THAN OR EQUAL TO 50 MPH - USE FOUR CORNER FLASHING CAUTION MODE BETWEEN 50 MPH AND 25 MPH - TRAFFIC AHEAD XX MPH / SLOW DOWN BELOW OR EQUAL TO 25 MPH - TRAFFIC AHEAD XX MPH / PREPARE TO STOP

FOUR CORNER FLASHING CAUTION MODE SHALL CONSIST OF THE USE OF ONE ASTERISK IN EACH CORNER OF THE PCMS DISPLAY (4 TOTAL ASTERISKS).

XX SHALL BE ROUNDED UP TO THE NEAREST MULTIPLE OF 5 MPH MINUS 1. OCCUPANCY MAY BE DIRECTED TO BE USED BASED ON CERTAIN TRAFFIC CONDITIONS AND SCENARIOS. ODOT WILL DIRECT THE CONTRACTOR OF THE THRESHOLDS TO BE USED FOR THOSE AREAS WHERE OCCUPANCY IS DIRECTED TO BE USED.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY

ITEM 896, PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS II __16__ SIGN MONTH ASSUMING __8__ SENSOR(S) FOR __2__ MONTH(S)

ITEM 896, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN __4__ SIGN MONTH ASSUMING __2__ PCMS SIGN(S) FOR __2__ MONTH(S)

DESIGN AGENCY



DESIGNER JED

REVIEWER SK 9/20/23

PROJECT ID 88679

SHEET 08 TOTAL 53

PERMITTED LANE CLOSURE TIMES

SHORT TERM LANE CLOSURES ARE THOSE WHICH ARE PERMITTED BY THE PERMITTED LANE CLOSURE NOTE. THESE TIMES SHALL NOT BE REVISED WITHOUT PRIOR APPROVAL FROM THE DISTRICT 8 WORK ZONE TRAFFIC CONTROL ENGINEER. SHORT TERM LANE CLOSURES SHALL ONLY BE IMPLEMENTED WHEN WORK IS BEING CONTINUOUSLY PERFORMED IN THE LANE. THE CLOSURE SHALL BE REMOVED AS SOON AS POSSIBLE AFTER WORK HAS STOPPED. PERMITTED LANE CLOSURES SHALL ONLY BE ALLOWED DURING THE TIMES SPECIFIED IN THE LANE VALUE CONTRACT TABLE INCLUDED IN THESE PLANS. NO LANE OR SHOULDER CLOSURE SHALL BE IN PLACE WHEN NO WORK IS BEING PERFORMED.

LANE VALUE CONTRACT TABLE

DESCRIPTION OF CRITICAL LANE/RAMP TO BE MAINTAINED	RESTRICTED TIME PERIOD		TIME UNIT	DISINCENTIVE \$ PER TIME UNIT PER LANE
	M-F	S-S		
I-74: ALL LANES OPEN TO TRAFFIC	EB	6 AM TO 7 PM	1 MINUTE	\$315
	WB	9 AM TO 8 PM		
		9 AM TO 7 PM		
I-74: ALL RAMPS OPEN TO TRAFFIC	5 AM TO 10 PM		1 MINUTE	\$315
HARRISON AVENUE: ALL LANES OPEN TO TRAFFIC		M-F	1 MINUTE	\$315
	NB	3 PM TO 7 PM		
	SB	2 PM TO 7 PM		
HAFT ROAD: ALL LANES OPEN TO TRAFFIC	NO RESTRICTION		1 MINUTE	\$315
SHEPHERD CREEK: ALL LANES OPEN TO TRAFFIC	NO RESTRICTION		1 MINUTE	\$315
MONTANA AVENUE: ALL LANES OPEN TO TRAFFIC	6 AM TO 9 AM AND 3 PM TO 7 PM		1 MINUTE	\$315

NOTE:

- ON I-74 MAINTAIN A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES.
- THE EXIT RAMP FROM I-74 (EITHER DIRECTION) TO NORTH BEND ROAD SHALL BE MAINTAINED AT ALL TIMES.
- TURN LANE REDUCTION ON ANY RAMP SHALL FOLLOW THE I-74 LANES OPEN TIMES. ONLY 1 RAMP IS PERMITTED TO BE CLOSED AT A TIME.
- NO CLOSURES 2 HOURS BEFORE (EASTBOUND) AND 2 HOURS AFTER (WESTBOUND) EVENTS AT GREAT AMERICAN BALL PARK, PAYCOR STADIUM, TOL STADIUM, OR HERITAGE BANK AREA. THIS RESTRICTION ALSO APPLIES TO ANY OTHER LOCAL VENUE GENERATING AN EVENT ATTENDANCE OF 15,000+.
- NO SHORT-TERM SHOULDER CLOSURES INCLUDING RAMPS BETWEEN 6AM TO 9AM AND 3PM TO 7PM MONDAY THROUGH FRIDAY.

PATCHING RUMBLE STRIPS

THE CONTRACTOR SHALL MILL THE EXISTING RUMBLE STRIPS A WIDTH OF 4 FEET AT 1 1/2 INCH DEPTH AND PAVE WITH 1 1/2 INCH ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1. PAYMENT FOR ALL MATERIALS, LABOR AND EQUIPMENT SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 614 MAINTAINING TRAFFIC, MISC.: RUMBLE STRIP MILLED/FILLED 12,480 FT.

INTERIM COMPLETION REQUIREMENTS

THE PROJECT HAS AN INTERIM COMPLETION DATE. SEE BELOW TABLE FOR FURTHER INFORMATION.

THE CONTRACT WILL BE SUBJECT TO DAILY DISINCENTIVES FOR FAILURE TO COMPLETE ALL THE REQUIRED WORK, AND ASSOCIATED INCIDENTALS RELATED TO THE WORK, AS OUTLINED IN THE TABLE INCLUDED IN THIS NOTE. APPLICATION OF THE DISINCENTIVES WILL BE BASED ON THE OVERALL CONTRACT AMOUNT. DAILY DISINCENTIVES ARE APPLICABLE TO THE WORK REQUIRED TO THE INTERIM COMPLETION DATE ONLY. THE CONTRACT IS STILL SUBJECT TO LIQUIDATED DAMAGES AS OUTLINED IN CMS 108.07 FOR THE REMAINDER OF THE CONTRACT.

Description or Location of Critical Work	Completion Date	Time Period	Disincentive \$ per Time Period
ALL PAVEMENT REPAIR WORK EXCEPT PAVEMENT REPAIR FOR CURB RAMP INSTALLATION	11/1/2024	DAY	\$5,000

PROJECT COORDINATION

COORDINATION WITH PID 110563 (RACE ROAD BRIDGEOVER I-74) AND THIS PROJECT PID 88679 (I-74 2" MILL/FILL WITH BRIDGE REHAB) WILL BE UNDER CONSTRUCTION AT THE SAME TIME. PID 110563 WILL HAVE THE I-74 MEDIAN AND OUTSIDE SHOULDERS CLOSED IN BOTH DIRECTIONS AT RACE ROAD WITH CLOSURES LIKELY EXTENDING BEYOND THIS PROJECT'S COMPLETION DATE THE PID 88679 (I-74 2" MILL/FILL WITH BRIDGE REHAB). THE CONTRACTOR FOR PID 110563 SHALL COORDINATE THEIR WORK AND MOT WITH THIS PROJECT; WORK AND MOT ON PID 88679 GOVERNS AND CONTROLS. TO PREVENT REWORK, THE I-74 SHOULDER RESURFACING SHALL BE OMITTED FROM THIS PROJECT APPROXIMATELY FROM S.L.M. 13.04 TO S.L.M. 14.04. THE TRAVEL LANES INCLUDING EDGE LINES SHALL BE RESURFACED.

COORDINATION WITH PID 104668: THIS PROJECT AND PID 104668 (I-74 RECONSTRUCTION) WILL BE UNDER CONSTRUCTION AT THE SAME TIME. PID 104668 WILL HAVE THE WB BEEKMAN EXIT RAMP CLOSED AND TRAFFIC DETOURED USING A TEXAS TURN AROUND (TTA) AT MONTANA AVENUE DURING 2024 WHILE MAINLINE WORK CONTINUES THROUGH 2025. THE CONTRACTOR FOR THIS PROJECT SHALL COORDINATE THEIR WORK AND PID 104668. WORK AND MOT ON PID 104668 GOVERNS AND CONTROLS WITH ADDITIONAL REQUIREMENTS AS FOLLOWS:

- CURB RAMP RECONSTRUCTION ON MONTANA AVENUE SHALL NOT BEGIN UNTIL APRIL 1, 2025 WHEN THE TTA HAS BEEN REMOVED AND MONTANA AVENUE PLACED IN FINAL CONFIGURATION.
- RESURFACING ON THE MONTANA AVENUE ENTRANCE/EXIT RAMPS SHALL NOT BEGIN UNTIL APRIL 1, 2025 WHEN THE TTA HAS BEEN REMOVED AND MONTANA AVENUE ENTRANCE/EXIT RAMPS PLACED IN FINAL CONFIGURATION.
- RESURFACING ON I-74 MAINLINE SHALL BE COORDINATED WITH THE PID 104668 THAT WILL BE PERFORMING WORK INCLUDING RESURFACING ON I-74 MAINLINE UNTIL SEPTEMBER 1, 2025.

ITEM 614, WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN

WORK ZONE RAISED PAVEMENT MARKERS, AS PER PLAN, AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614 OR C&MS 621 AS SPECIFIED HEREIN.

RAISED PAVEMENT MARKERS IN USE DURING THE SNOW-PLOWING SEASON SHALL CONFORM TO 621.

RAISED PAVEMENT MARKERS IN USE DURING THE NON-SNOW-PLOW SEASON SHALL CONFORM TO EITHER 614 OR TO 621.

THE SNOW-PLOWING SEASON SHALL RUN FROM DECEMBER 1st THROUGH MARCH 31st.

IF PROJECT DELAYS, NOT THE FAULT OF ODOT, CAUSE THE WORK TO EXTEND INTO THE SNOW-PLOWING SEASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WORK ZONE RAISED PAVEMENT MARKERS (WZRPMS) CONFORMING TO C&MS 614, WITH RAISED PAVEMENT MARKERS CONFORMING TO 621, AS DETERMINED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN, INCLUDING FILLING OF ANY DEPRESSIONS CREATED IN THE PAVEMENT AS PER C&MS 621.08.

RESURFACING OF THE TRANSITION AREAS SHALL BE PERFORMED AT THE TIME THAT THE SURFACE COURSE IS BEING APPLIED TO THE ENTIRE PROJECT. PRIOR TO APPLICATION OF THE SURFACE COURSE ON THE PROJECT, THE EXISTING PAVEMENT WITHIN THE TRANSITION AREA SHALL BE REMOVED TO A DEPTH NECESSARY TO REACH THE LEVEL OF THE INTERMEDIATE COURSE OF THE PAVEMENT, AS DETERMINED BY THE ENGINEER.

THE FOLLOWING BID ITEMS SHOULD BE INCLUDED IN THE PLANS:

ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN 1,660 EACH

PAYMENT FOR RESURFACING WITHIN THE TRANSITION AREA SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEMS FOR THE WORK REQUIRED, AS PROVIDED FOR IN THE PLANS.

MAINTENANCE OF TRAFFIC

DESIGN AGENCY



DESIGNER

JED

REVIEWER

SK 9/20/23

PROJECT ID

88679

SHEET

09 TOTAL

53

REFER TO THE FOLLOWING STANDARD DRAWINGS:

BR-1-13	1/17/14	EXJ-4-87	7/21/23
GSD-1-19	1/15/21	PCB-91	7/17/20

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "LRFD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 9th ED. , AND THE 2020 ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

C.F. 2000 (57) => HAM-74-11.16 L/R, HAM-74-12.92 L/R, HAM-74-16.18 L/R & HAM-74-17.44 L/R

DESIGN STRESSES

- CLASS QC1 CONCRETE - COMPRESSIVE STRENGTH 4.0 KSI (MEDIAN BARRIER)
- CLASS QC2 CONCRETE, MISC.: FAST SET CONCRETE - COMPRESSIVE STRENGTH 4.5 KSI (DECK & ABUT. BACKWALL FOR EXPANSION JOINT REPLACEMENT)
- REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI
- STRUCTURAL STEEL - ASTM A709 GRADE 50, MINIMUM YIELD STRENGTH = 50 KSI

PATCHING AND REPAIR OF BRIDGE PARAPETS

PATCHING OF BRIDGE PARAPETS SHALL ADHERE TO ALL REQUIREMENTS OF CMS 513.

FULL DEPTH REPAIR OF BRIDGE PARAPETS SHALL ADHERE TO ALL REQUIREMENTS OF CMS 511 FOR QC2 CONCRETE, SUPERSTRUCTURE.

PARAPET REPAIR DIMENSIONS PROVIDE LENGTH ALONG THE PARAPET BY HEIGHT MEASURED DOWN FROM THE TOP OF PARAPET UNLESS OTHERWISE NOTED.

FOR FULL DEPTH PARPET REPAIRS, ALL EXISTING PARAPET REINFORCING STEEL SHALL REMAIN IN PLACE FOR RE-USE.

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

THIS ITEM INCLUDES SEALING THE CONCRETE SUPERSTRUCTURE AND SUBSTRUCTURE SURFACES OF SPECIFIED BRIDGES AS SHOWN ON THE PLANS. THE COLOR OF THE URETHANE COATING SHALL BE FEDERAL COLOR STANDARD NO. 17778 (LIGHT NEUTRAL) FOR THE BRIDGE PARAPETS.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, MATERIAL AND LABOR NECESSARY TO PERFORM THIS TASK. PAYMENT SHALL BE MADE AT THE BID PRICE PER SQUARE YARD.

PATCHING AND/OR RECONSTRUCTION OF TOP OF ABUTMENT BACK WALLS

PATCHING AND/OR RECONSTRUCTION OF TOP OF ABUTMENT BACK WALLS SHALL PROCEED IN ACCORDANCE WITH PROPOSAL NOTE 512. EXISTING REINFORCING STEEL SHALL REMAIN IN PLACE FOR RE-USE. ALL WORK, EQUIPMENT, MATERIALS, ETC. REQUIRED TO COMPLETE THE PROPOSED IMPROVEMENTS SHALL BE PAID FOR UNDER:

ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECKS, TYPE B (SQUARE YARD).

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

THIS WORK CONSISTS OF THE REMOVAL OF PORTIONS OF THE EXISTING STRUCTURES, ETC. AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING SUPERSTRUCTURE AND SUBSTRUCTURE REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION AND DEMOLITION PLANS TO THE ENGINEER FOR APPROVAL.

THE CONTRACTOR MUST REVIEW THE STRUCTURE WHEN PREPARING HIS BID. THE CONTRACTOR WILL REVIEW THE CONDITION OF THE STRUCTURE TO DETERMINE WHAT DEBRIS WILL FALL FROM THE STRUCTURE DURING REMOVAL. THE CONTRACTOR WILL DETERMINE THE CORRESPONDING COST TO CLEAN UP ANY AND ALL DEBRIS WHICH FALLS FROM THE STRUCTURE DURING ALL REMOVAL OPERATIONS. THE COST TO CLEAR AND CLEAN UP ALL DEBRIS DURING REMOVAL SHALL BE INCLUDED WITH THE BID FOR THIS ITEM OF WORK. NO ADDITIONAL COST WILL BE RECOGNIZED TO CLEAN DEBRIS RESULTING FROM THE STRUCTURE REMOVAL OPERATION.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE ANY PORTION OF THE STRUCTURE THAT WILL REMAIN IN SERVICE. ANY PORTION OF THE REMAINING STRUCTURE DAMAGED AS A RESULT OF CONTRACTOR ACTIONS SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ITEM SPECIAL : 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.

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.

ITEM 513 - STRUCTURAL STEEL, MISC.: ULTRASONIC IMPACT TREATMENT (UIT)

THIS ITEM CONSISTS OF NDT (MAG PARTICLE) INSPECTION OF THE EXISTING WELDS AT THE GIRDER TIE PLATE CONNECTIONS TO THE PIER CAP WEBS, PERFORMING ANY NEEDED WELD REPAIRS AND PERFORMING ULTRASONIC IMPACT TREATMENT IN ACCORDANCE WITH THE SPECIAL PROVISION AT THE LOCATIONS SHOWN IN THE PLANS.

ITEM SPECIAL - STRUCTURE CLEANING

ONCE THE BIRD NESTS AND DROPPINGS ARE REMOVED, USE 1,500 PSI MAXIMUM PRESSURE WATER TO REMOVE ANY REMAINING DEBRIS FROM THE STRUCTURAL STEEL AND PROVIDE A CLEAN WORK SURFACE PRIOR TO THE START OF ULTRA SONIC TESTING AND INSPECTION (UTI), CONCRETE BARRIER REHABILITATION AND/OR PAINTING OF STRUCTURAL STEEL. AVOID SKIN CONTACT OR INHALING NEAR DISTURBED NESTS OR DROPPINGS.

SFN VARIES DESIGN AGENCY



DESIGNER/CHECKER CAH GTF

REVIEWER AMS 9/20/23

PROJECT ID 88679

SUBSET TOTAL 1 2

SHEET TOTAL 16 53

PROPOSED WORK

HAM-74-11.16 L/RI-74 OVER HARRISON RD.
SFN's 3108430 + 3108465

- PATCH THE TOP OF BACKWALLS WITH CONCRETE PER PROPOSAL NOTE 512, TYPE B.
- PATCH THE SUBSTRUCTURE WITH 519 PATCHING AND REPLACE DETERIORATED PORTIONS OF THE BARRIER FULL THICKNESS WHERE UNSOUND ON BOTH SIDES. REPAIR/REPLACE ASPHALT OVERLAY ON THE APPROACH SLABS SEE ROADWAY PLANS.
- TREAT ALL WELDS ON/TO THE STEEL PIER CAPS WITH ULTRASONIC IMPACT TREATMENT (UIT). PERFORM STEEL RETROFITS AT LEFT BRIDGE PIER 2.
- PAINT THE STRUCTURAL STEEL PER 514 (ZEL) SPECIFICATIONS, FEDERAL COLOR 14277 (GREEN). THIS INCLUDES ALL STEEL PORTIONS OF THE PIER.
- SEAL THE CONCRETE SURFACES OF THE BARRIERS, ABUTMENTS, AND PIERS WITH EPOXY URETHANE SEALER, FEDERAL COLOR 17778. REMOVE LOOSE AREAS ALONG THE DECK EDGE, UNDER THE BARRIER PRIOR TO SEALING.
- SEAL THE WEARING SURFACE OF THE DECK WITH GRAVITY FED RESIN.
- INCREASE THE MEDIAN BARRIER TO 54" PER LRFD REQUIREMENTS FOR NON-REDUNDANT SUBSTRUCTURES. REPAIR THE EROSION BEHIND THE SOUTH/WEST CURB OF HARRISON AVE.

HAM-74-1292L/R OVER HAFT RD.
SFN's 3108589 + 3108619

- REPLACE THE EXPANSION JOINT, TOP OF BACKWALL DOWN TO THE APPROACH SLAB SEAT, AND THE ADJACENT 2 FEET OF DECK.
- PATCH THE SUBSTRUCTURE WITH 519 PATCHING AND REPLACE DETERIORATED PORTIONS OF THE BARRIER FULL THICKNESS WHERE UNSOUND AS SHOWN IN THE PLANS. REPAIR/REPLACE ASPHALT OVERLAY ON THE APPROACH SLABS SEE ROADWAY PLANS).
- SEAL THE CONCRETE SURFACES OF THE BARRIERS, ABUTMENTS, AND PIERS WITH EPOXY URETHANE SEALER, FEDERAL COLOR 17778
- SEAL THE WEARING SURFACE OF THE DECK WITH GRAVITY FED RESIN.

HAM-74-1618 L/R OVER CR 151 SHEPHERD CREEK RD.
SFN's 3108767 + 3108732

- REPLACE THE EXPANSION JOINT, TOP OF BACKWALL DOWN TO THE APPROACH SLAB SEAT, AND THE ADJACENT 2 FEET OF DECK.
- PATCH THE SUBSTRUCTURE WITH 519 PATCHING AND REPAIR/REPLACE ASPHALT OVERLAY ON THE APPROACH SLABS (SEE ROADWAY PLANS).
- REPAIR THE SEALER ON THE PATCHED AREAS WITH NEW EPOXY URETHANE SEALER, FEDERAL COLOR 17778.
- SEAL THE WEARING SURFACE OF THE DECK WITH GRAVITY FED RESIN.
- INSTALL NEW GUARDRAIL IN FRONT OF THE PIERS ALONG SHEPHERD CREEK RD.

HAM-74-1744 L/R OVER MONTANA AVE.
SFN's: 3115437 + 3115429

- PATCH THE TOP OF BACKWALLS AND CONCRETE AREA OF APPROACH SLAB WITH CONCRETE PER PROPOSAL NOTE 512, TYPE B.
- PATCH THE SUBSTRUCTURE WITH 519 PATCHING. REPAIR/REPLACE ASPHALT OVERLAY ON THE APPROACH SLABS (SEE ROADWAY PLANS).
- SEAL THE WEARING SURFACE OF THE DECK WITH GRAVITY FED RESIN.

ITEM 516 - STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN

THE CONTRACTOR SHALL FIELD VERIFY THE TOE OF THE EXISTING BARRIERS AT THE EXISTING EXPANSION JOINT AND PROVIDE ELEVATIONS TO THE JOINT FABRICATOR TO CONFIRM THE EXISTING DECK CROSS SLOPE AT EACH JOINT. THE CONTRACTOR SHALL ALSO FIELD VERIFY THE PLAN DIMENSIONS PRIOR TO JOINT FABRICATION. THE CONTRACTOR SHALL ALSO FIELD VERIFY THE EXISTING END CROSS FRAMES AND PROVIDE GUSSET PLATES (AND FILL PLATES AS NEEDED) TO ENSURE PROPER FIT-UP BETWEEN THE NEW EXPANSION JOINT AND EXISTING END CROSS FRAMES. IF UPON FIELD VERIFICATION, THE DIMENSIONS VARY FROM WHAT IS SHOWN, THE JOINT SHALL MATCH THE INFORMATION FOUND IN THE FIELD. ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO FIELD VERIFY THE EXISTING EXPANSION JOINT AND END CROSS FRAMES SHALL BE INCLUDED IN PAY ITEM 516 - STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN FOR PAYMENT.

ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN

INSTALL ADHESIVE ANCHORS ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS PUBLISHED IN THE ICC-ES REPORTS LISTED BELOW.

WWW.ICC-ES.ORG/EVALUATION REPORTS/

THE HOLES FOR THE ADHESIVE ANCHORS SHALL BE DRILLED WITH A HAMMER DRILL AND CARBIDE BIT. PRIOR TO THE INSTALLATION OF THE ANCHORS, THE HOLES SHALL BE CLEANED AND DRIED IN A MANNER CONSISTENT WITH THE MANUFACTURER'S REQUIREMENTS FOR DRY CONCRETE.

SELECT FROM ONE OF THE FOLLOWING APPROVED PRODUCTS:

HILTI HIT-HY 200 ADHESIVE ANCHORS
ICC-ES REPORT ESR-3187)

DEWALT PURE110+ EPOXY ADHESIVE ANCHOR SYSTEM
(ICC-ES REPORT ESR-3298)

SIMPSON STRONG-TIE SET-3G EPOXY ADHESIVE ANCHORS
ICC-ES REPORT ESR-4057)

ATC ULTRABOND HS-1CC ADHESIVE ANCHOR SYSTEM
(ICC-ES REPORT ESR-4094)

ITEM 511 - CLASS QC2 CONCRETE, MISC: FAST SET CONCRETE

INCORPORATE FAST SET ADMIXTURES AS REQUIRED TO MEET THE 4 KSI AND 4.5 KSI RESPECTIVE CONCRETE STRENGTHS AND ACCOMMODATE THE WEEKEND WORK SCHEDULES. ADMIXTURES AND CONCRETE SHALL COMPLY WITH ALL REQUIREMENTS OF CMS 511. COST OF ADMIXTURES SHALL BE INCIDENTAL TO THE CONCRETE.

THE CONTRACTOR SHALL CONTINUE THE WET CURE FOR THE MAXIMUM NUMBER OF HOURS POSSIBLE DURING THE PERMITTED LANE CLOSURE. THE CLOCK STARTS FOR THE WET CURE WHEN THE CONCRETE PLACEMENT IS COMPLETE.

SCHEDULE OF DEDUCTIONS FOR WET CURE PERIOD LESS THAN 24 HOURS

HOURS OF WET CURE	AMOUNT OF DEDUCTION FOR EACH HOUR LESS THAN 24 HOURS OF WET CURE PER BID PRICE OF SQUARE YARD OF CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (BY PERCENTAGE)
24-22	0%
21	2%
20	4%
19	6%
18	10%
17	14%
16	18%
15	22%
14	26%
13	30%
12	34%

IF THE CONTRACTOR FAILS TO OPEN LANES TO TRAFFIC AT THE TIMES REQUIRED IN THE MAINTENANCE OF TRAFFIC NOTES, THE CONTRACTOR WILL BE ASSESSED THE HIGHER OF THE TWO DISINCENTIVES FOR THE WET CURE PERIOD AND FOR THE MAINTENANCE OF TRAFFIC REQUIREMENT.

TRAFFIC WILL NOT BE PERMITTED ON THE FINISHED CONCRETE SURFACE UNTIL AFTER COMPLETION OF A 12 HOUR MINIMUM WET CURE AND AFTER TWO TEST BEAMS HAVE ATTAINED AN AVERAGE MODULUS OF RUPTURE OF 600 PSI.

FOR EACH POUR, 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 OF EACH BEAM. TESTING SHALL CONTINUE UNTIL THE MODULUS OF RUPTURE OF TWO TESTS IS NOT LESS THAN 650 PSI.

SFN
VARIES
DESIGN AGENCY



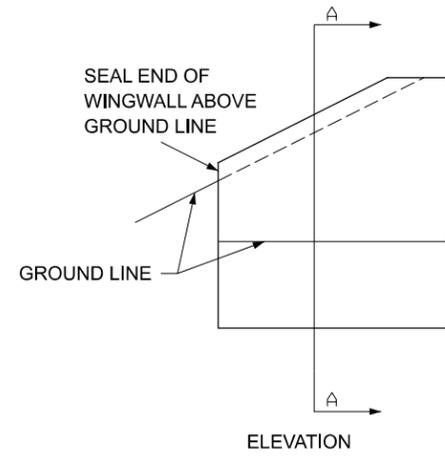
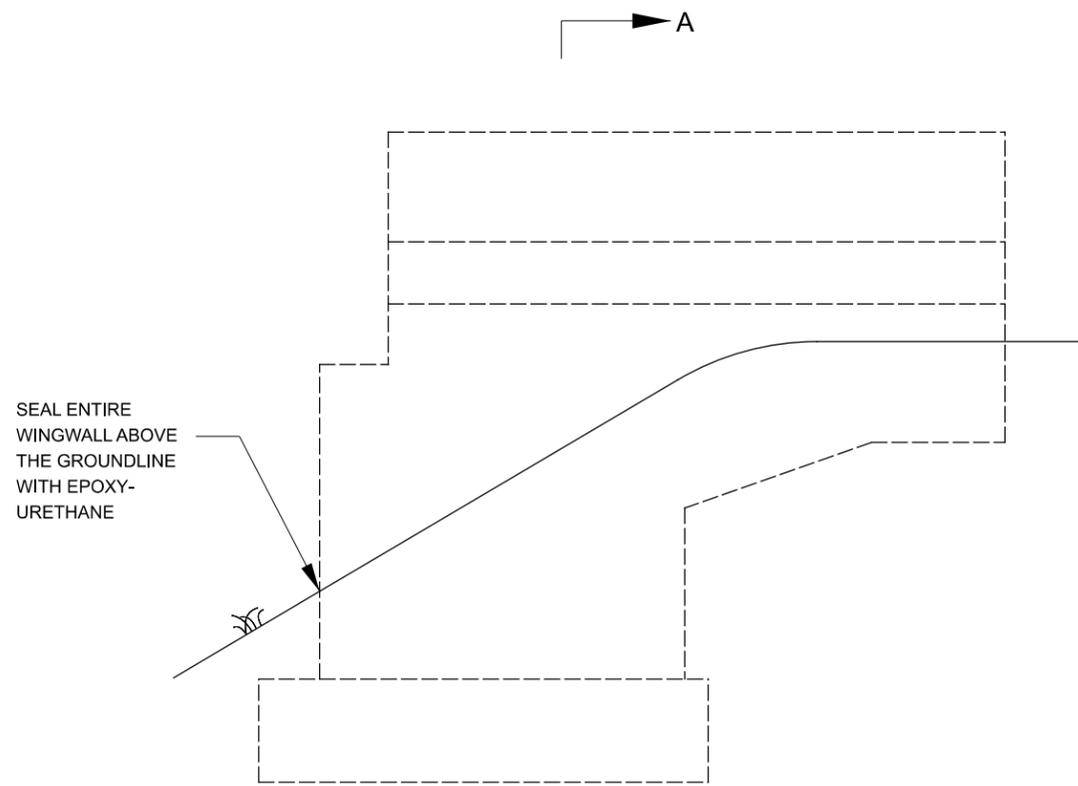
DESIGNER CHECKER
CAH GTF

REVIEWER
AMS 9/20/23

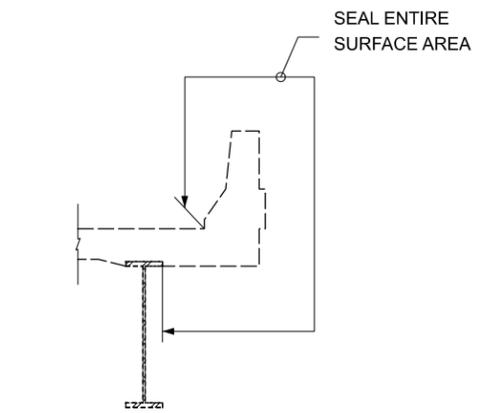
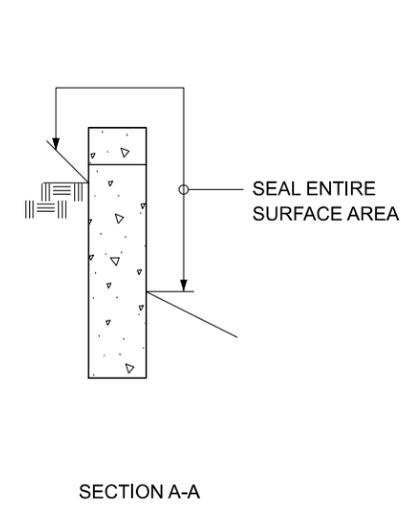
PROJECT ID
88679

SUBSET	TOTAL
2	2

SHEET	TOTAL
17	53

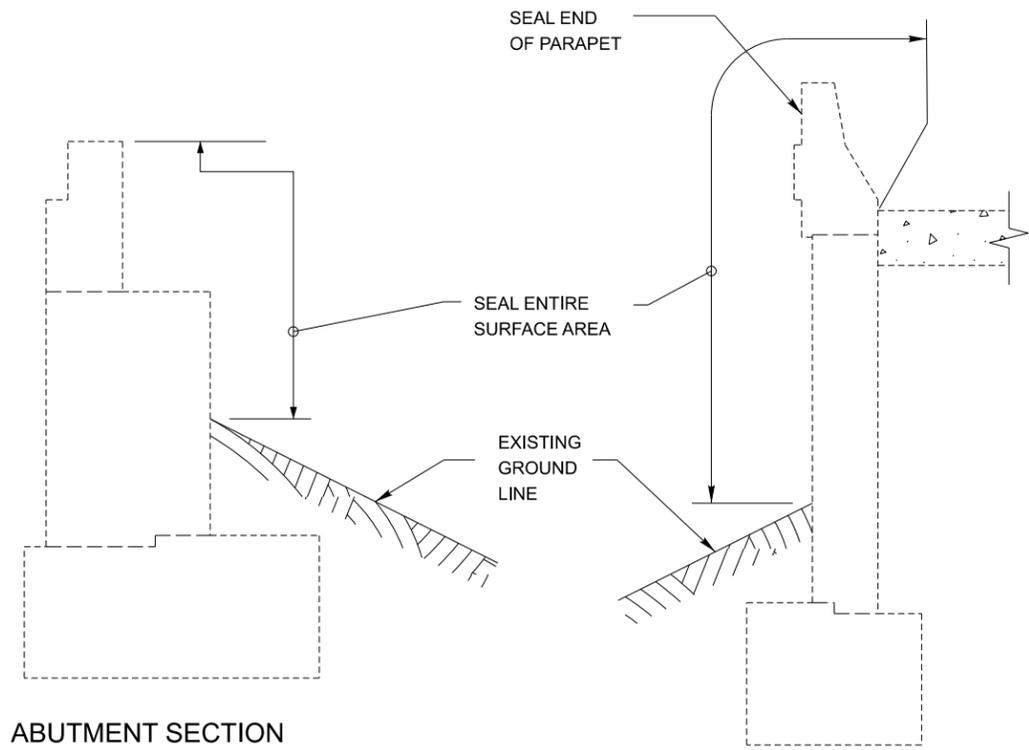


WINGWALL SEALING LIMITS
(STRAIGHT WING ABUTMENT)



CONCRETE DECK WITH
DEFLECTOR PARAPET
(STEEL BEAM/GIRDER BEAMS)

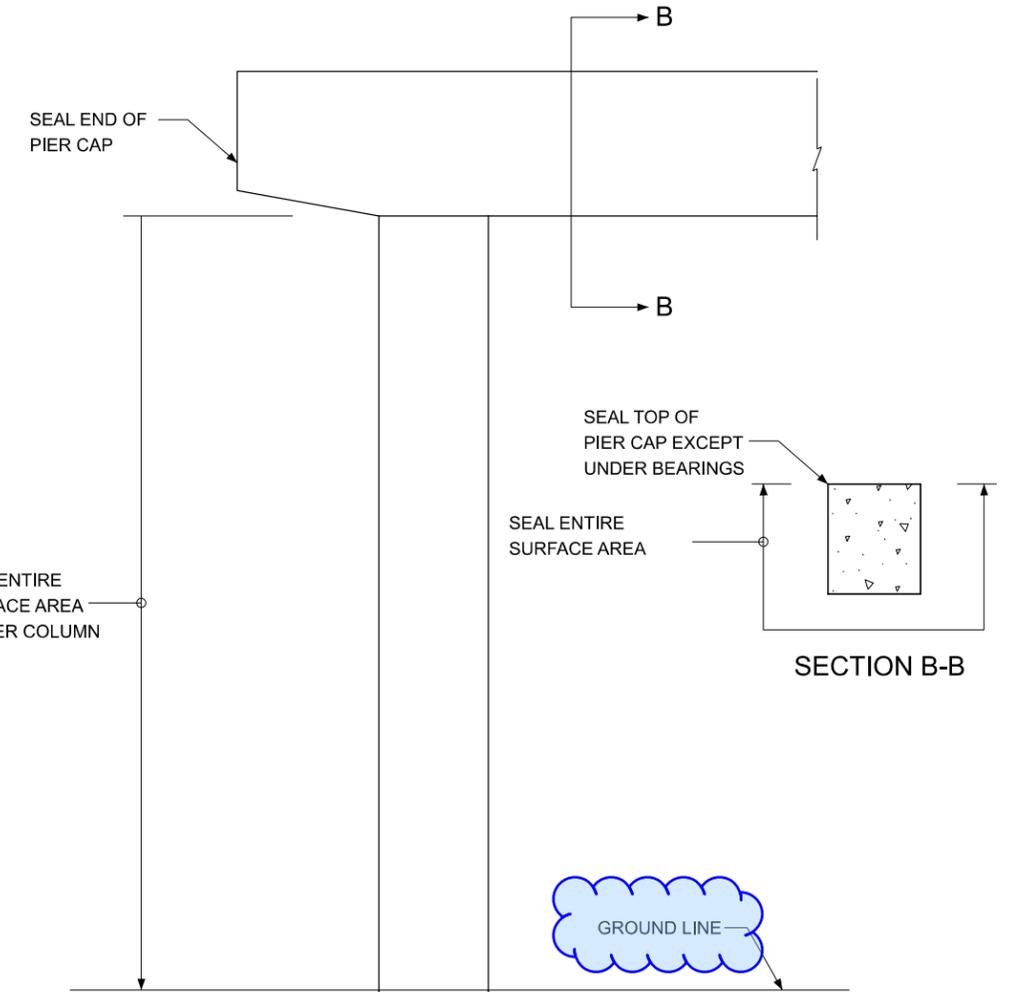
WINGWALL SEALING LIMITS
(TURN BACK WING ABUTMENT)



ABUTMENT SECTION

WING WALL SECTION A-A

ABUTMENT AND WINGWALL SEALING LIMITS



CAP & COLUMN PIER SEALING



DESIGNER	CHECKER
CAH	GTF
REVIEWER	
AMS	9/20/23
PROJECT ID	
88679	
SUBSET	TOTAL
1	1
SHEET	TOTAL
18	53

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-74-1618L					(100% 02/IMS/13 FUNDING)				
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUTMENT	PIERS	SUPERSTRUCTURE	GENERAL	SHT. REF.
202	11203	LS	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	LUMP	LUMP	LUMP		16
509	25000	3327	LB	UNCOATED STEEL REINFORCMENT	1370		1957		
510	10001	273	EACH	DOWEL HOLES WITH NONSHRINK, NON,ETALLIC GROUT, AS PER PLAN	146		127		17
511	53012	24	CY	CLASS QC2 CONCRETE, MISC.: FAST SET CONCRETE	16		8		
512	10100	100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	77		23		
512	73500	1038	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN			1,038		
512	74000	43	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	35		8		
516	11211	117	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN			117		17
519	11100	45	SF	PATCHING CONCRETE STRUCTURE	45				
530	00200	LS	LUMP	SPECIAL - STRUCTURES: CONSULTANT FOR CONCRETE QUALTY CONTROL INCLUDING TESTING AND INSPECTION	LUMP		LUMP		

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-74-1618R					(100% 02/IMS/13 FUNDING)				
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUTMENT	PIERS	SUPERSTRUCTURE	GENERAL	SHT. REF.
202	11203	LS	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	LUMP	LUMP	LUMP		16
509	25000	2612	LB	UNCOATED STEEL REINFORCMENT	1053		1559		
510	10001	234	EACH	DOWEL HOLES WITH NONSHRINK, NON,ETALLIC GROUT, AS PER PLAN	124		110		17
511	53012	18	CY	CLASS QC2 CONCRETE, MISC.: FAST SET CONCRETE	12		6		
512	10100	73	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	50		23		
512	73500	583	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN			583		
512	74000	26	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	18		8		
516	11211	92	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN			92		17
519	11100	9	SF	PATCHING CONCRETE STRUCTURE	9				
530	00200	LS	LUMP	SPECIAL - STRUCTURES: CONSULTANT FOR CONCRETE QUALTY CONTROL INCLUDING TESTING AND INSPECTION	LUMP		LUMP		

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-74-1744L					(100% 02/IMS/13 FUNDING)				
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUTMENT	PIERS	SUPERSTRUCTURE	GENERAL	SHT. REF.
512	10100	4	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	3	1			
512	73500	948	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN			876	72	
512	74000	3	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	2	1			
519	11100	20	SF	PATCHING CONCRETE STRUCTURE	18	2			
519	12300	20	SY	PATCHING CONCRETE BRIDGE DECK - TYPE B	11			9	

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-74-1744R					(100% 02/IMS/13 FUNDING)				
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUTMENT	PIERS	SUPERSTRUCTURE	GENERAL	SHT. REF.
512	10100	7	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	7				
512	73500	864	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN			864		
512	74000	5	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	5				
519	11100	32	SF	PATCHING CONCRETE STRUCTURE	32				
519	12300	29	SY	PATCHING CONCRETE BRIDGE DECK - TYPE B	11			18	

STRUCTURE QUANTITIES - 2
 BRIDGE No.: VARIES

SFN
 VARIES
 DESIGN AGENCY



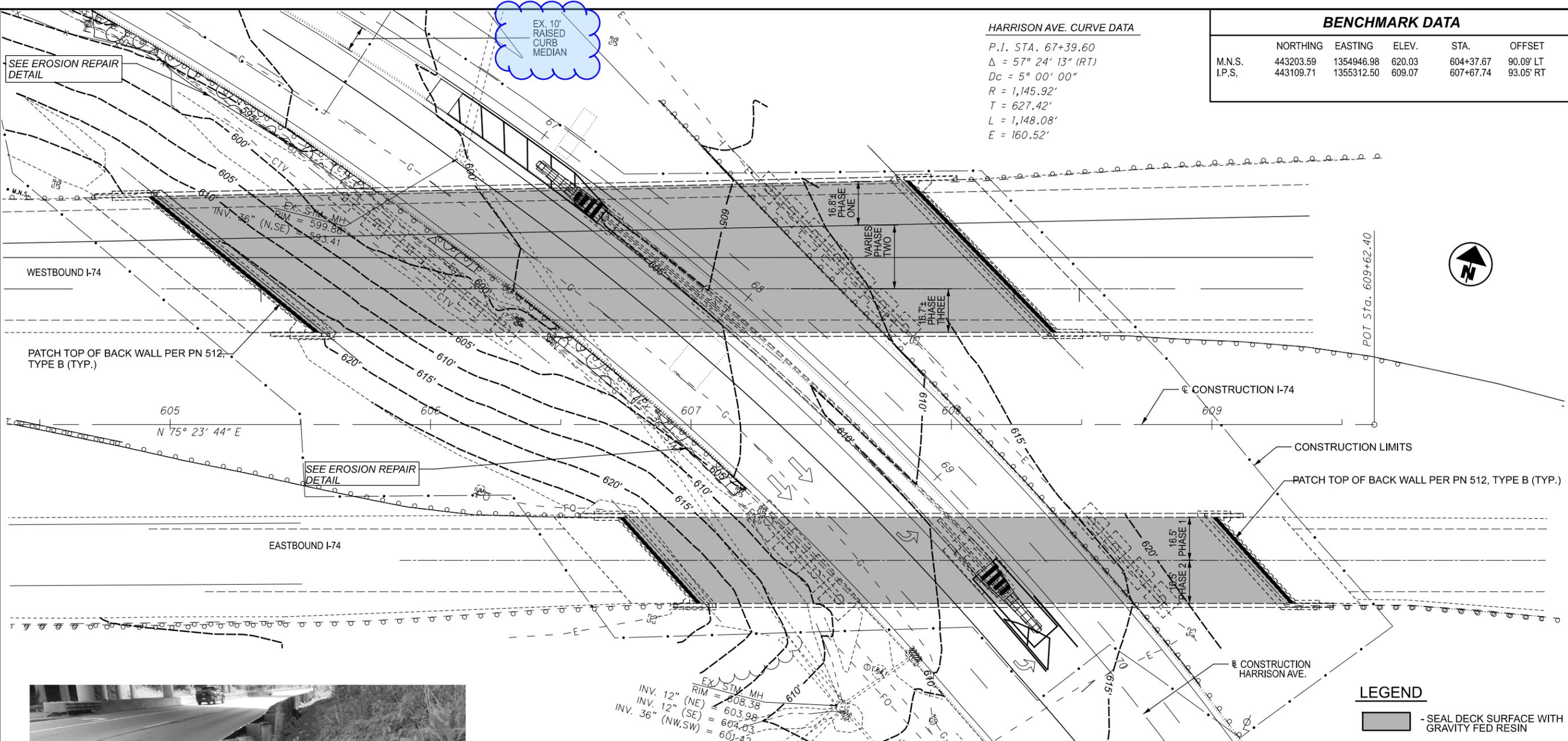
DESIGNER CHECKER
 CAH GTF

REVIEWER
 AMS 9/20/23

PROJECT ID
 88679

SUBSET	TOTAL
2	2

SHEET	TOTAL
20	53

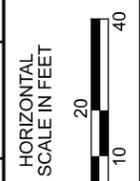


HARRISON AVE. CURVE DATA

P.I. STA. 67+39.60
 $\Delta = 57^\circ 24' 13''$ (RT)
 $D_c = 5^\circ 00' 00''$
 $R = 1,145.92'$
 $T = 627.42'$
 $L = 1,148.08'$
 $E = 160.52'$

BENCHMARK DATA

	NORTHING	EASTING	ELEV.	STA.	OFFSET
M.N.S.	443203.59	1354946.98	620.03	604+37.67	90.09' LT
I.P.S.	443109.71	1355312.50	609.07	607+67.74	93.05' RT



SITE PLAN
 BRIDGE No.: HAM-74-11.16 L/R
 IR 74 OVER HARRISON AVE.



EROSION REPAIR DETAIL

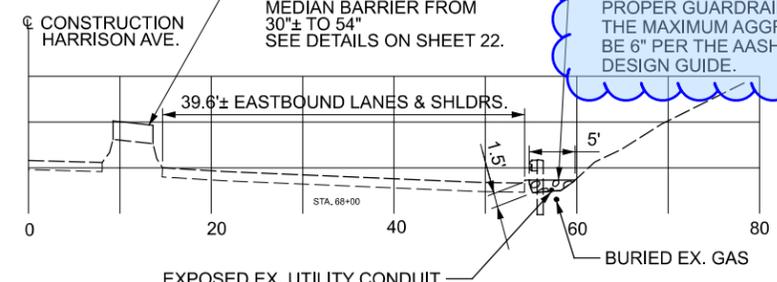
HARRISON AVE. STA. 65+00 TO STA. 68+50, RT.
 (VIEW LOOKING SOUTH)

PLACE GEOTEXTILE FABRIC AND TYPE 'D' ROCK BEHIND CURB, AND AROUND/BEHIND GUARDRAIL POSTS TO PREVENT FURTHER EROSION. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ROCK, TYPE 'D' = 5' x 350' x 1.5' = 2,625 CF = 97 CY
 GEOTEXTILE FABRIC = 9' x 350' = 3,150 SF = 350 SY

EXTEND THE LENGTH AND INCREASE THE HEIGHT OF MEDIAN BARRIER FROM 30"± TO 54" SEE DETAILS ON SHEET 22.

TYPE 'D' ROCK PLACED ON TOP OF GEOTEXTILE FABRIC TO ALLOW FOR PROPER GUARDRAIL IMPACT MOVEMENT. THE MAXIMUM AGGREGATE SIZE SHALL BE 6" PER THE AASHTO ROADSIDE DESIGN GUIDE.



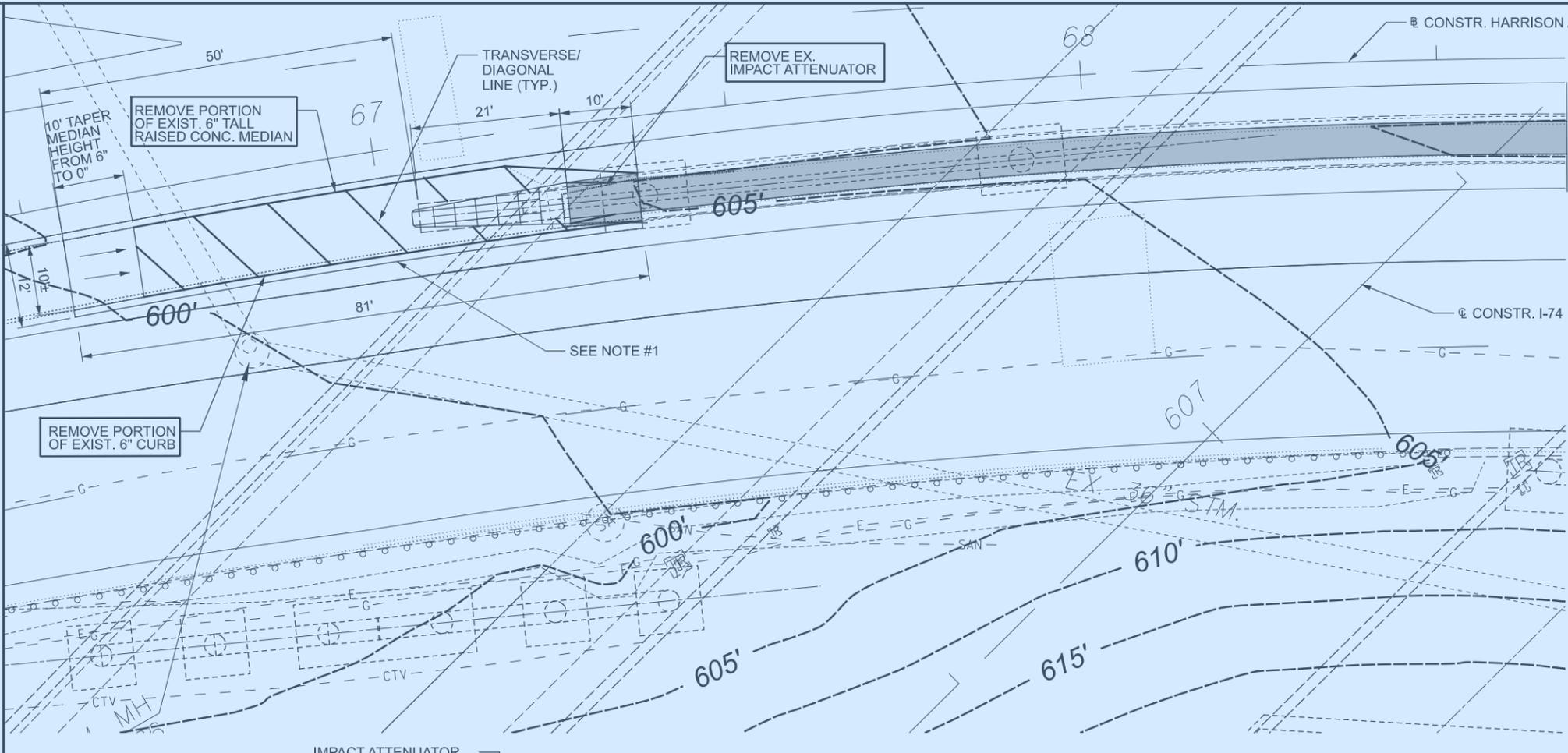
LEGEND

- SEAL DECK SURFACE WITH GRAVITY FED RESIN

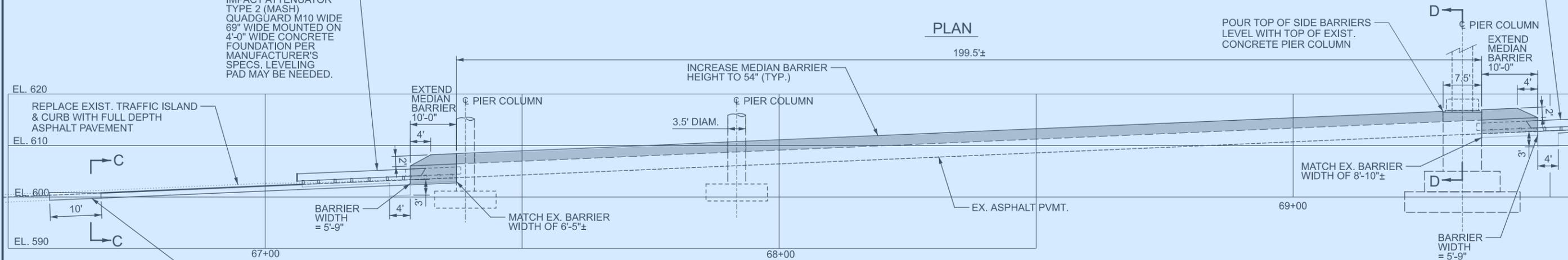
EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK SUPPORTED ON REINFORCED CAP AND COLUMN PIERS AND STUB ABUTMENTS
 SPANS: LEFT BRIDGE - 72'-0", 90'-0", 67'-0", 53'-6"
 RIGHT BRIDGE - 53'-0", 66'-0", 58'-0", 46'-6"
 ROADWAY: LT. BRIDGE - VAR. 52.2' TO 58.1' TOE/TOE OF PARAPET
 RT. BRIDGE - 33'-0" TOE/TOE OF PARAPET
 LOADING: CF=2000(57) ALT. LOADING
 SKEW: LEFT BRIDGE - 49°19'30" RT FWD
 RIGHT BRIDGE - 42°00'00" RT FWD
 WEARING SURFACE: 1.75" CONCRETE OVERLAY
 APPROACH SLABS: 25'-0" LONG (AS-1-54)
 ALIGNMENT: TANGENT
 CROWN: 0.0156 FT/FT
 STRUCTURE FILE NUMBER: 3118430 (LT) / 3118465 (RT)
 DATE BUILT: (LT. BRIDGE) 1961, (RT. BRIDGE) 1966. (1990 REHAB)
 DISPOSITION: SEE PROPOSED WORK
 DECK AREA: (LT. BRIDGE) 16,748 SF
 (RT. BRIDGE) 8,143 SF
 COORDINATES: LATITUDE N39°11'47.69"
 LONGITUDE W84°39'52.33"

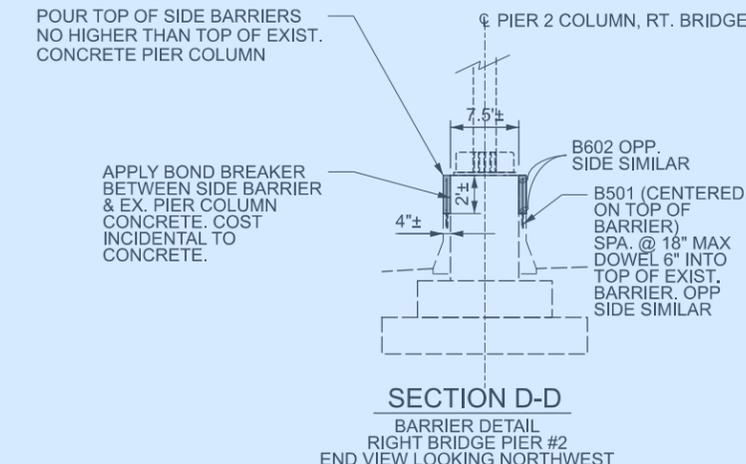
SFN	3108430
SFN	3108465
DESIGN AGENCY	
DESIGNER/CHECKER	CAH / GTF
REVIEWER	AMS
DATE	9/20/23
PROJECT ID	88679
SUBSET	TOTAL
1	11
SHEET	TOTAL
21	53



PLAN



ELEVATION

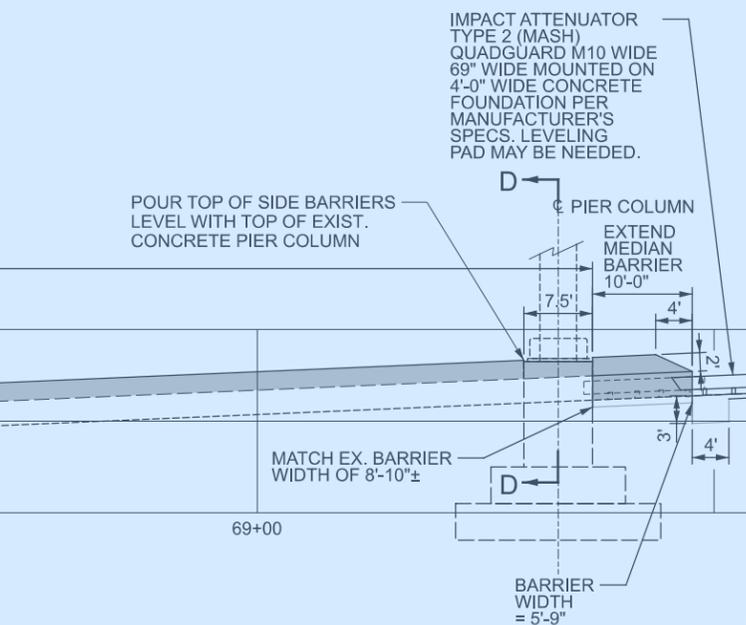


SECTION D-D

BARRIER DETAIL

RIGHT BRIDGE PIER #2

END VIEW LOOKING NORTHWEST



SECTION C-C

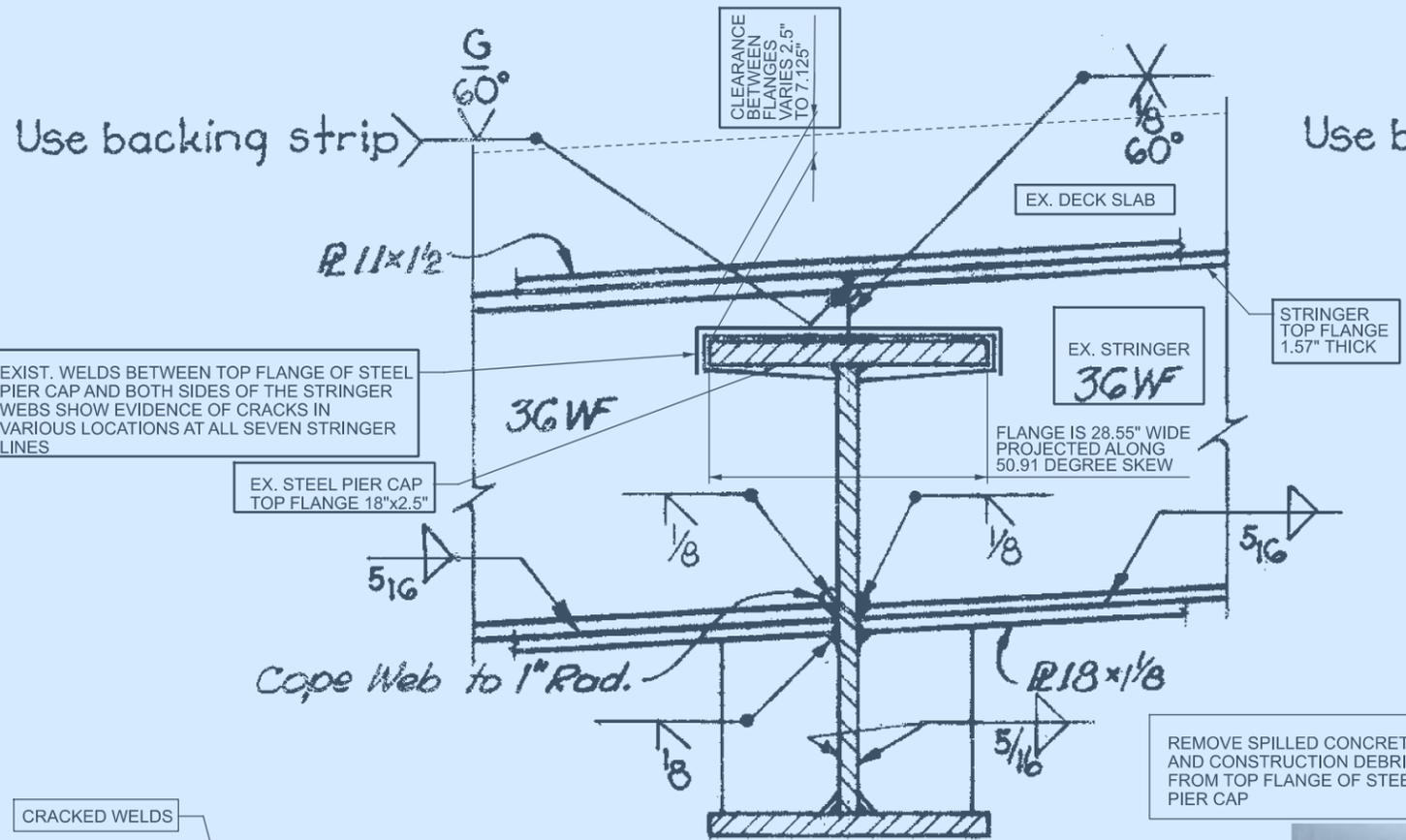
NOTES:

- REMOVE EXISTING PAVEMENT 1' BEYOND EXISTING MEDIAN, BARRIER AND/OR CURB TO ACCOMMODATE INSTALLATION OF THE MEDIAN BARRIER EXTENSION, IMPACT ATTENUATORS AND REPLACEMENT MEDIAN, CURB AND PAVEMENT.
- EARTHWORK, FOUNDATIONS, AND ANY OTHER APPURTENANCES REQUIRED TO COMPLETE THE INSTALLATION OF THE IMPACT ATTENUATORS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE IMPACT ATTENUATORS.
- COMPOSITION OF REPLACEMENT FULL DEPTH PAVEMENT SHALL BE AS FOLLOWS:
 - ITEM 441 - ASPHALT CONCRETE SURFACE COURSE (449), (T=2")
 - ITEM 407 - TACK COAT
 - ITEM 301 - ASPHALT CONCRETE BASE (T=6")
 - ITEM 304 - AGGREGATE BASE (T=4")
 - ITEM 204 - SUBGRADE COMPACTION

4. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR PAVEMENT, MEDIAN AND CURB CONSTRUCTION.

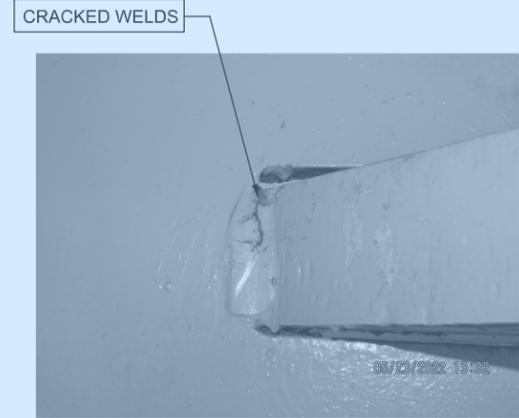
$[(20'x2') + (50'x12') + (21'x8') + (10'x2') + (35'x8')] = 1,108 \text{ SF} = 123 \text{ SY}$
 ITEM 441 - ASPHALT CONCRETE SURFACE COURSE (449), (T=2") = 1,108 SF x 0.17'x1/27 = 7 CY
 ITEM 407 - NON-TRACKING TACK COAT = 123 SY * .09 GAL/SY = 11 GAL
 ITEM 301 - ASPHALT CONCRETE BASE (T=6") = 1,108 SF x 0.5'x1/27 = 21 CY
 ITEM 304 - AGGREGATE BASE (T=4") = 1,108 SF x 0.33'x1/27 = 14 CY
 ITEM 204 - SUBGRADE COMPACTION = (81' + 35')x12' x 1/9 = 155 SY
 ITEM 609 - 9" CONCRETE TRAFFIC ISLAND = 10'x10'x1/9 = 11 SY
 ITEM 642 - EDGE LINE (4") = 2x(81'+45') = 252 FT * 1/5280 = 0.05 MILES
 ITEM 642 - TRANSVERSE/DIAGONAL LINE = 15 FT + (17'x6) = 117 FT

HORIZONTAL SCALE: 1" = 20'
 MEDIAN BARRIER REHAB DETAILS
 HARRISON AVE. UNDER IR-74
 SFN 3108430
 SFN 3108465
 DESIGN AGENCY
 DESIGNER/CHECKER CAH GTF
 REVIEWER AMS 9/20/23
 PROJECT ID 88679
 SUBSETOTAL 3 11
 SHEETOTAL 22A 53

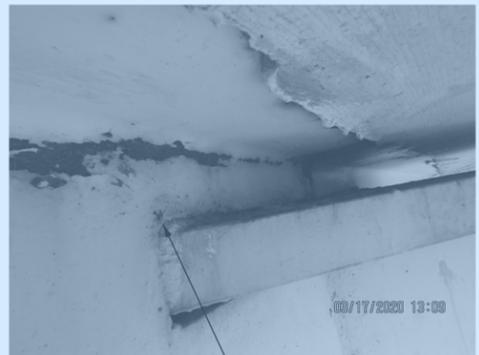


SECTION A-A

EXISTING CONDITION



CRACKED WELDS

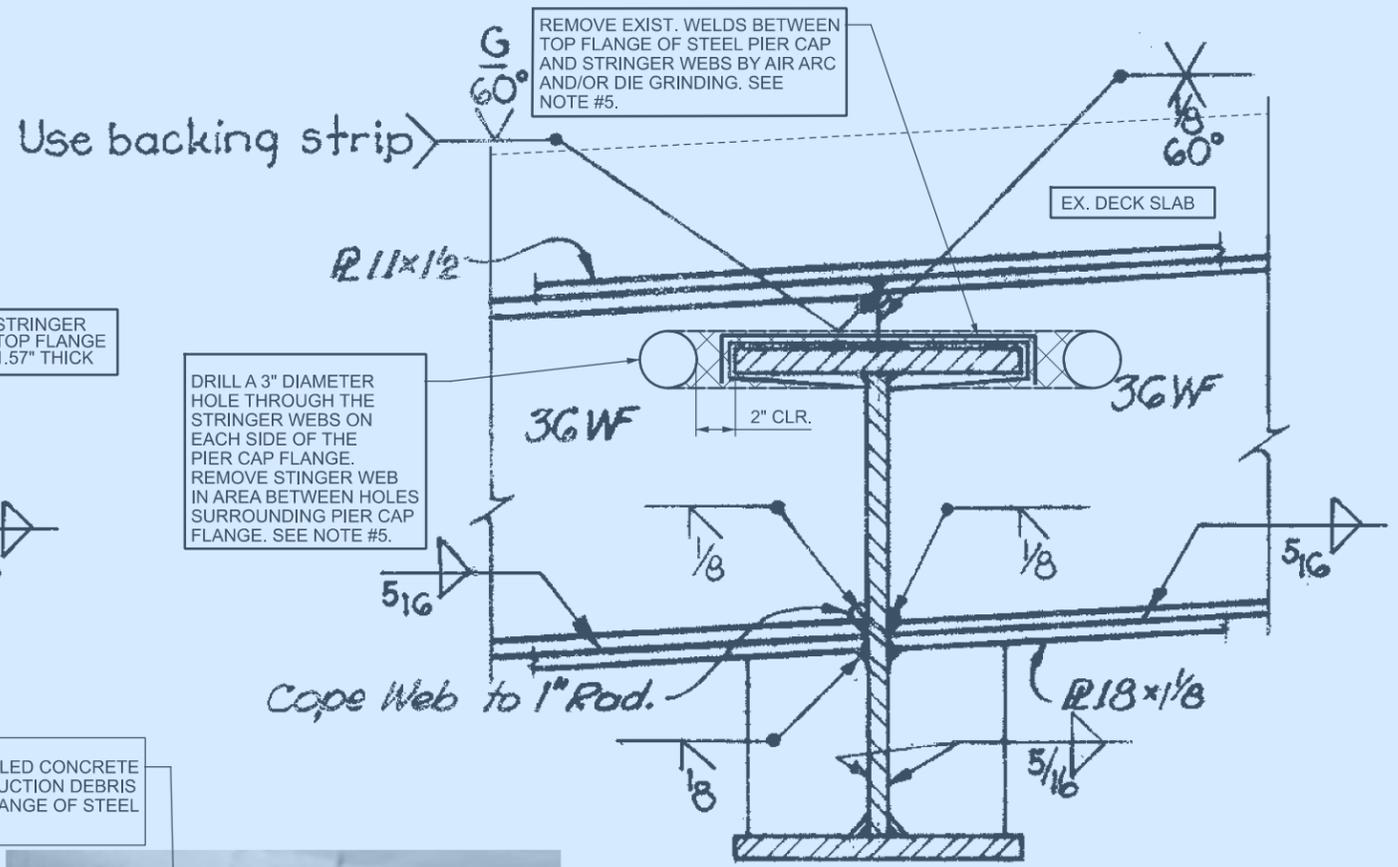


CRACKED WELDS



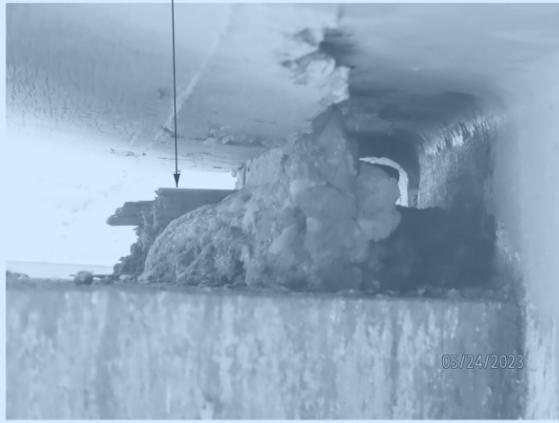
NESTING BIRDS (SEE NOTE #4)

REMOVE SPILLED CONCRETE AND CONSTRUCTION DEBRIS FROM TOP FLANGE OF STEEL PIER CAP



SECTION A-A

RETROFIT DETAIL



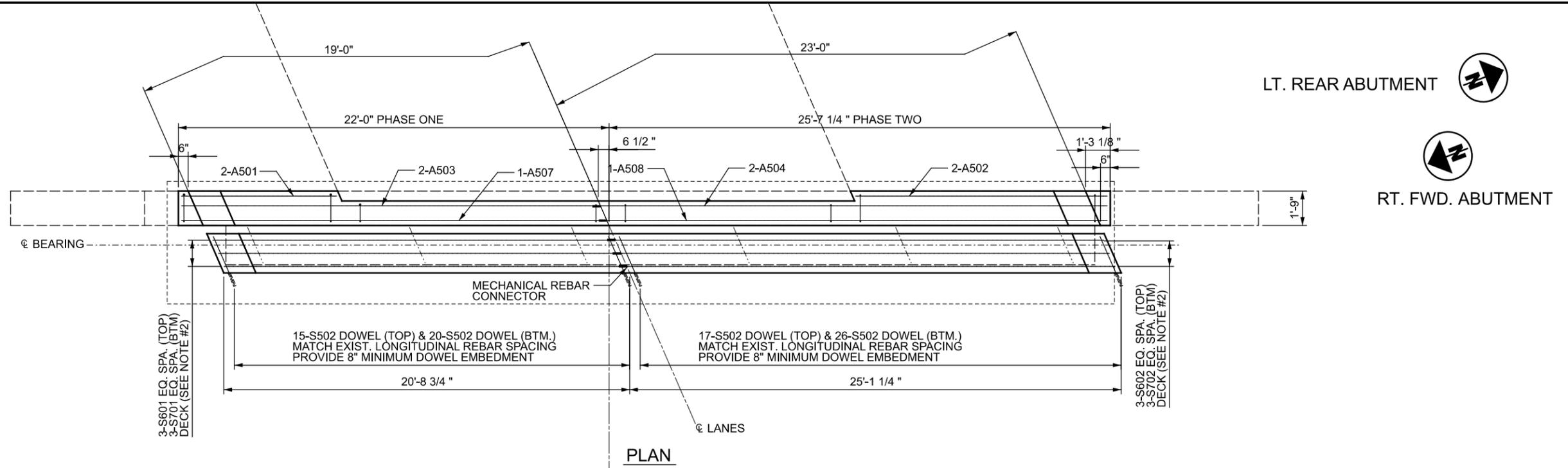
DEBRIS REMOVAL

NOTES:

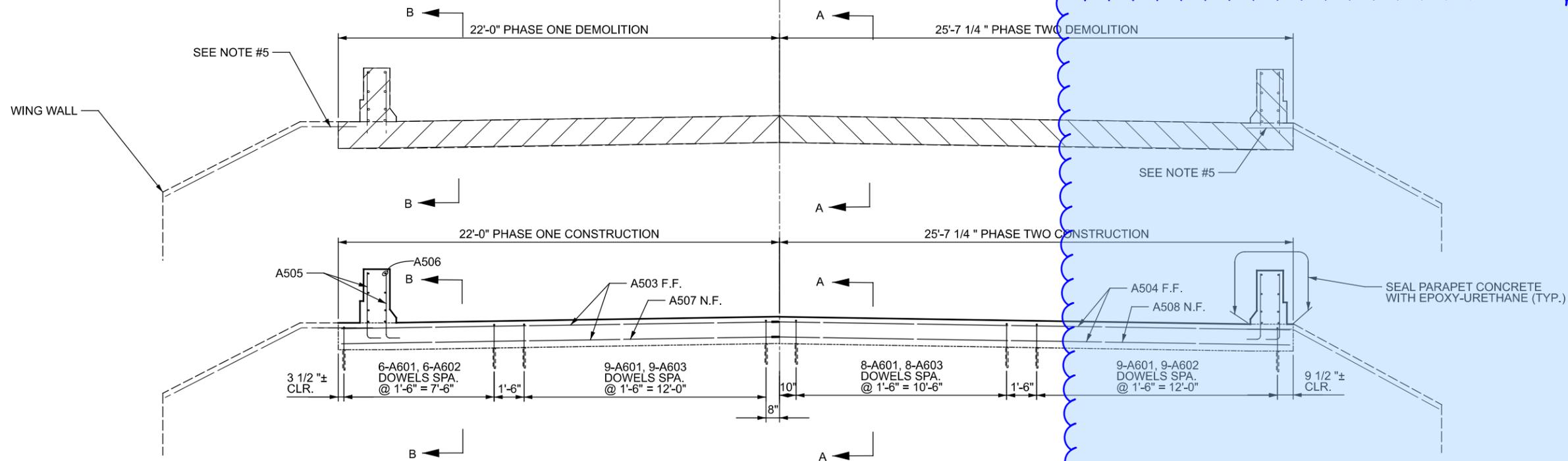
1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK INDICATED IN THE FRAMED TEXT AND/OR DESCRIBED IN THE GENERAL NOTES.
3. PERFORM ULTRASONIC TESTING AN INSPECTION (UTI) ON ALL STEEL PIER CAP WELDS INCLUDING STIFFENERS, BEARINGS, MOMENT PLATES, BEAM TO PIER CAP CONNECTIONS, ETC.
4. THE CONTRACTOR SHALL BE AWARE OF BIRDS NESTS AND DROPPINGS LOCATED IN CONFINED SPACES OF THE PIER CAP. THE CONTRACTOR SHALL REMOVE INACTIVE BIRDS NESTS AND DROPPINGS AND CLEAN AFFECTED STEEL SURFACES WITH WATER (1,500 PSI MINIMUM WATER PRESSURE) PRIOR TO PERFORMING UTI AND STRUCTURE PAINTING.
5. FOR STEEL RETROFIT, CUT STRINGER WEBS WITH GRINDING WHEEL OR AIR ARC CUTTER. DO NOT USE A TORCH OR PLASMA CUTTER. PROVIDE CUTTING METHOD AND TOOLS TO BE USED TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING WORK. TOP FLANGE OF THE PIER CAP AND CUT SURFACES OF THE STRINGER WEBS SHALL BE GROUND SMOOTH. REMOVAL OF EXISTING STRINGER WEB STEEL SHALL BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN FOR PAYMENT.
 THE FOLLOWING PAY ITEMS ARE ALSO PROVIDED FOR THE STEEL RETROFIT WORK:
 ITEM 513 - STRUCTURAL STEEL, MISC.: DRILLING 3" DIAM HOLES (14 LOCATIONS - EACH)
 ITEM 513 - STRUCTURAL STEEL, MISC.: CUTTING STEEL BEAMS (6 FT. PER STRINGER WEB * 7 STRINGERS = 42 FT)
 ITEM 513 - STRUCTURAL STEEL, MISC.: GRINDING OLD WELDS, FINS, TEARS AND SLIVERS (8 FT. PER STRINGER * 7 STRINGERS * 2 SIDES= 112 FT)
6. REMOVAL OF CONSTRUCTION DEBRIS, BIRD NESTS AND DROPPINGS SHALL BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN FOR PAYMENT.

PIER REHAB DETAILS-2
 BRIDGE No.: HAM-74-11.16L
 IR 74 OVER HARRISON AVE.

SFN	3108430
DESIGN AGENCY	
DESIGNER/CHECKER	CAH GTF
REVIEWER	AMS 9/20/23
PROJECT ID	88679
SUBJECT	TOTAL
7	11
SHEET	TOTAL
26	53



PLAN



PARTIAL ABUTMENT ELEVATION

LEGEND

202 - PORTIONS OF STRUCTURE REMOVED OVER 20 FT. SPAN, AS PER PLAN

NOTES:

- LEFT REAR ABUTMENT/DECK END SHOWN. LEFT FORWARD ABUTMENT/DECK END SIMILAR.
- SAWCUT AND REMOVE EXISTING TRANSVERSE AND LONGITUDINAL DECK REBAR TO INSTALL NEW EXPANSION JOINT AND DECK REBAR. SAWCUT AND REMOVE EXISTING PARAPET REBAR TO INSTALL NEW EXPANSION JOINT AND PARAPET REBAR. SEE SHEET 44. SAWCUTTING OF REBAR SHALL BE INCLUDED WITH ITEM 516 - STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN.
- SEAL NEW CONCRETE WITH EPOXY-URETHANE.
- INCORPORATE EXISTING WING WALL REBAR INTO NEW CONCRETE. DO NOT CUT.
- SEE SHEET 35 FOR SECTIONS A-A & B-B.

DECK, BACKWALL AND EXPANSION JOINT DETAILS
 BRIDGE No.: HAM-74-12.92 L/R
 I-74 OVER HAFT RD.

SFN 3108589

SFN 3108619

DESIGN AGENCY



DESIGNER/CHECKER

CAH GTF

REVIEWER

AMS 9/20/23

PROJECT ID

88679

SUBSET TOTAL

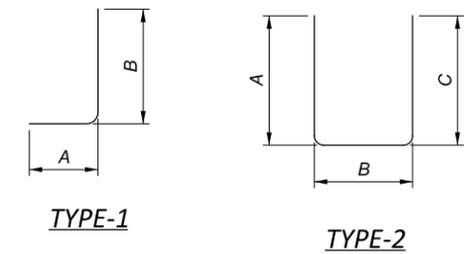
4 8

SHEET TOTAL

34 53

MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL					A	B	C	D	E	R
LEFT BRIDGE - SUPERSTRUCTURE REINFORCING STEEL LIST											
S501	32		3'-7"	120	1	3'-1"	0'-8"				
S502	188		2'-7"	507	STR						
S601	6		20'-7"	185	STR						
S602	6		24'-11"	225	STR						
S701	6		20'-7"	252	STR						
S702	6		24'-11"	306	STR						
SUB-TOTAL				1,595							
RIGHT BRIDGE - SUPERSTRUCTURE REINFORCING STEEL LIST											
S501	32		3'-7"	120	1	3'-1"	0'-8"				
S502	188		2'-7"	507	STR						
S601	6		20'-7"	185	STR						
S602	6		24'-11"	225	STR						
S701	6		20'-7"	252	STR						
S702	6		24'-11"	306	STR						
SUB-TOTAL				1,595							

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	REAR ABUT.	FWD. ABUT.	TOTAL				A	B	C	D	E	R
LEFT BRIDGE - ABUTMENT REINFORCING STEEL LIST												
A501	2	2	4	7'-11"	33	STR						
A502	2	2	4	12'-10"	54	STR						
A503	2	2	4	21'-5"	89	STR						
A504	2	2	4	25'-10"	108	STR						
A505	8	8	16	4'-0"	67	1	3'-6"	0'-8"				
A506	16	16	32	1'-5"	47	STR						
A507	1	1	2	21'-9"	45	STR						
A508	1	1	2	25'-6"	53	STR						
SUB-TOTAL					1,088							
RIGHT BRIDGE - ABUTMENT REINFORCING STEEL LIST												
A501	2	2	4	7'-11"	33	STR						
A502	2	2	4	12'-10"	54	STR						
A503	2	2	4	21'-5"	89	STR						
A504	2	2	4	25'-10"	108	STR						
A505	8	8	16	4'-0"	67	1	3'-6"	0'-8"				
A506	16	16	32	1'-5"	47	STR						
A507	1	1	2	21'-9"	45	STR						
A508	1	1	2	25'-6"	53	STR						
SUB-TOTAL					1,088							



REBAR BEND DIAGRAMS

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 REINFORCING STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.
- TRIM REBAR AS NEEDED FOR PROPER FIT-UP.
- ALL REBAR SHALL BE BLACK BARS UNLESS NOTED OTHERWISE.
- BLACK REBAR DOWELS SHALL BE USED TO OBTAIN PROPER BOND WHEN USING CMS 510 GROUT WITH SHALLOW EMBEDMENT DECK DOWELS.
- PROVIDE THREADED "FORM SAVER" TYPE MECHANICAL CONNECTORS. CONTRACTOR SHALL ADJUST THE PROVIDED REBAR LENGTHS AS REQUIRED FOR MECHANICAL CONNECTOR USAGE. COST SHALL BE INCLUDED WITH ITEM 509 FOR PAYMENT.

REINFORCING STEEL LIST
BRIDGE No.: HAM-74-12.92 L/R
I-74 OVER HAFT RD.

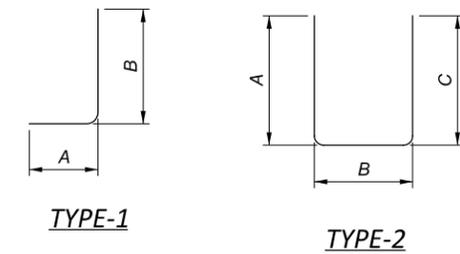
SFN 3108589
 SFN 3108619
 DESIGN AGENCY



DESIGNER	CHECKER
CAH	GTF
REVIEWER	
AMS	9/20/23
PROJECT ID	88679
SUBSET	TOTAL
8	8
SHEET	TOTAL
38	53

MARK	NUMBER		LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL					A	B	C	D	E	R
LEFT BRIDGE - SUPERSTRUCTURE REINFORCING STEEL LIST											
S501	32		3'-7"	120	1	3'-1"	0'-8"				
S502	222		2'-7"	598	STR						
S601	6		20'-5"	184	STR						
S602	6		37'-10"	341	STR						
S701	6		20'-5"	250	STR						
S702	6		37'-10"	464	STR						
SUB-TOTAL				1,957							
RIGHT BRIDGE - SUPERSTRUCTURE REINFORCING STEEL LIST											
S501	32		3'-7"	120	1	3'-1"	0'-8"				
S502	188		2'-7"	507	STR						
S601	6		24'-0"	216	STR						
S602	6		19'-10"	179	STR						
S701	6		24'-0"	294	STR						
S702	6		19'-10"	243	STR						
SUB-TOTAL				1,559							

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	REAR ABUT.	FWD. ABUT.	TOTAL				A	B	C	D	E	R
LEFT BRIDGE - ABUTMENT REINFORCING STEEL LIST												
A501	2	2	4	7'-11"	33	STR						
A502	2	2	4	12'-9"	53	STR						
A503	2	2	4	21'-3"	89	STR						
A504	2	2	4	38'-9"	162	STR						
A505	8	8	16	4'-0"	67	1	3'-6"	0'-8"				
A506	16	16	32	1'-5"	47	STR						
A507	1	1	2	21'-7"	45	STR						
A508	1	1	2	58'-5"	122	STR						
A601	41	41	82	2'-2"	267	STR						
A602	15	15	30	4'-3"	192	2	1'-0"	1'-5"	2'-2"			
A603	26	26	52	3'-9"	293	STR						
SUB-TOTAL					1,370							
RIGHT BRIDGE - ABUTMENT REINFORCING STEEL LIST												
A501	2	2	4	11'-9"	49	STR						
A502	2	2	4	8'-0"	33	STR						
A503	2	2	4	24'-9"	103	STR						
A504	2	2	4	20'-8"	86	STR						
A505	8	8	16	4'-0"	67	1	3'-6"	0'-8"				
A506	16	16	32	1'-5"	47	STR						
A507	1	1	2	25'-0"	52	STR						
A508	1	1	2	20'-5"	43	STR						
A601	31	31	62	2'-2"	202	STR						
A602	14	14	28	4'-3"	179	2	1'-0"	1'-5"	2'-2"			
A603	17	17	34	3'-9"	192	2	1'-0"	0'-11"	2'-2"			
SUB-TOTAL					1,053							



REBAR BEND DIAGRAMS

NOTES:

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- DIMENSIONS ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE STANDARD HOOKS ARE TO BE USED. REFERENCE CMS 509.
- ALL REINFORCING STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.
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- ALL REBAR SHALL BE BLACK BARS UNLESS NOTED OTHERWISE.
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- PROVIDE THREADED "FORM SAVER" TYPE MECHANICAL CONNECTORS. CONTRACTOR SHALL ADJUST THE PROVIDED REBAR LENGTHS AS REQUIRED FOR MECHANICAL CONNECTOR USAGE. COST SHAL BE INCLUDED WITH ITEM 509 FOR PAYMENT.

REINFORCING STEEL LIST
BRIDGE No: HAM-74-16.18L/R
I-74 OVER SHEPHERD CREEK RD.

SFN 3108732
 SFN 3108767
 DESIGN AGENCY



DESIGNER/CHECKER
 CAH GTF
 REVIEWER
 AMS 9/20/23
 PROJECT ID
 88679
 SUBSET TOTAL
 11 11
 SHEET TOTAL
 49 53