STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

FRA-33-2456
BRIDGE HIT REPAIR

FRANKLIN COUNTY



FRA-33-2456
SFN: 2501899

LOCATION MAP

LATITUDE: 39°54'10" N LONGITUDE: 82°54'5" W

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

	US 33	WATKINS RD
CURRENT ADT (2026)	*51,226*	*152*
DESIGN YEAR ADT (2026)	*51,738*	*155*
DESIGN HOURLY VOLUME (2026)	*4,588*	*25*
DIRECTIONAL DISTRIBUTION	*64%*	*50%*
TRUCKS (24 HOUR B&C)	*6%*	*7%*
DESIGN SPEED	*65 MPH*	*40 MPH*
LEGAL SPEED	*60 MPH*	*35 MPH*
DESIGN FUNCTIONAL CLASSIFICATION:	*02 - PRINCIPAL ARTERIAL FREEWAY*	*06 - MINOR COLLECTOR*
NHS PROJECT	*YES*	*NO*

DESIGN EXCEPTIONS

NONE

INDEX OF SHEETS:

TITLE SHEET	P.1
SCHEMATIC PLAN	P.2
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FRA-33-2456	P.24 - P.42

FEDERAL PROJECT NUMBER

N/A

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

BRIDGE REPAIR OF FRA-33-24.56 (WATKINS RD OVER US 33)

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	*N/A ACRES*
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	*N/A 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 AND CHANGES LISTED IN 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 EXCEPT FOR THE SIDE ROADS AS DESCRIBED ON SHEETS P.19 AND P.13 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

Anthony C. Turowski, P.E.
District 06 Deputy Director

Pamela Boratyn
Director, Department of Transportation

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:
EMH&T
Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Toll Free: 888.775.3648
emht.com

ENGINEER'S SEAL
BRIDGE
STATE OF OHIO
CRAIG A. SCHRADER
E-77433
REGISTERED
PROFESSIONAL ENGINEER
Digitally signed by Craig Schrader
Date: 2026.11.18 12:23:11 -05'00'

STANDARD CONSTRUCTION DRAWINGS

MT-95.30	*7/17/26*				
MT-95.40	*7/17/26*				
MT-98.20	*4/19/19*				
MT-98.29	*1/17/20*				
MT-101.70	*7/19/24*				
MT-101.75	*7/21/23*				
MT-101.90	*7/17/20*				
MT-102.10	*7/17/26*				
MT-105.10	*1/17/20*				

SUPPLEMENTAL SPECIFICATIONS

800-2023	*7/17/26*
832	*7/17/26*
849	*1/18/13*

SPECIAL PROVISIONS

ASBESTOS SURVEY REPORT 5/12/26

ENVIRONMENTAL DOCUMENT 9/11/26

TITLE SHEET

DESIGN AGENCY: EMH&T
DESIGNER: BLM
REVIEWER: CAS 08/20/26
PROJECT ID: 125600
SHEET: P.1 TOTAL: 42

FRA-33-2456 BRIDGE HIT REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 11/17/2026 TIME: 10:02:26 PM USER: cschrader
J:\2025\0232\ODOT\117444\400-Engineering\Roadway\Sheets\117444_GT001.dgn

CONSTRUCTION OVERVIEW

CONSTRUCTION ACTIVITIES SHALL BE COMPLETED USING THE MAINTENANCE OF TRAFFIC SET-UPS DETAILED WITHIN. THESE SET-UPS CAN BE IMPLEMENTED IN ANY ORDER. BELOW IS A SUMMARY OF EXPECTED ACTIVITIES AND THEIR RESPECTIVE MOT APPLICATION:

1. TEMPORARY SUPPORT PLACEMENT - SEE SHOULDER CLOSURE DETAIL
TEMPORARY SUPPORTS SHALL BE PROTECTED WITH PORTABLE BARRIER AS SHOWN IN THE SHOULDER CLOSURE DETAIL. THIS SET-UP CAN BE APPLIED AT ANY STAGE OF CONSTRUCTION. ONCE PORTABLE BARRIER IS INSTALLED, IT SHALL REMAIN IN PLACE UNTIL PROJECT COMPLETION.

2. BRIDGE DECK DEMOLITION - SEE WB CLOSURE DETAIL
DECK REMOVAL SHALL BE COMPLETED WITH WB US-33 AND RAMP C UNDER FULL CLOSURE. THIS SET-UP SHALL ONLY BE PERMITTED FROM 9:00 PM TO 5:00 AM. BRIDGE DECK DEMO IS EXPECTED TO BE COMPLETED IN 2 NIGHTS (SEE MOT POLICY EXCEPTIONS).

3. BEAM DEMOLITION - SEE WB CLOSURE DETAIL
BEAM REMOVAL SHALL BE COMPLETED WITH WB US-33 AND RAMP C UNDER FULL CLOSURE. THIS SET-UP SHALL ONLY BE PERMITTED FROM 9:00 PM TO 5:00 AM. BEAM DEMO IS EXPECTED TO BE COMPLETED IN 1 NIGHT (SEE MOT POLICY EXCEPTIONS).

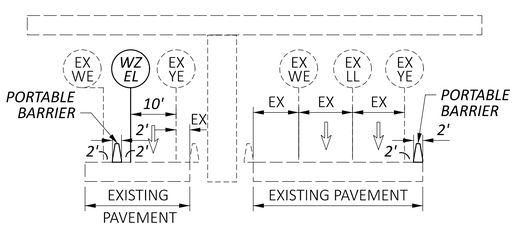
4. HEAT STRAIGHTENING - SEE HEAT STRAIGHTENING DETAIL
HEAT STRAIGHTENING OF THE BEAM SHALL BE COMPLETED WITH THE LEFT LANE OF US-33 WB CLOSED. PORTABLE BARRIER INSTALLED IN THE SHOULDER CLOSURE DETAIL SHALL BE IN PLACE CONCURRENTLY. RAMP C SHALL ALSO BE CLOSED, BUT WILL HAVE A DIFFERENT DETOUR ROUTE THAN WHAT WAS USED IN THE "WB CLOSURE" SET-UP. THE HEAT STRAIGHTENING SET-UP CAN BE IMPLEMENTED AS NEEDED, WITH TIME RESTRICTIONS PER THE LANE VALUE CONTRACT TABLE AND RAMP CLOSURE RESTRICTIONS.

5. BEAM ERECTION - SEE WB CLOSURE DETAIL
BEAM ERECTION SHALL BE COMPLETED WITH WB US-33 AND RAMP C UNDER FULL CLOSURE. THIS SET-UP SHALL ONLY BE PERMITTED FROM 9:00 PM TO 5:00 AM. BEAM ERECTION IS EXPECTED TO BE COMPLETED IN 1 NIGHT (SEE MOT POLICY EXCEPTIONS).

6. GIRDER 4 REPAIRS - SEE WB CLOSURE DETAIL
WORK ON GIRDER 4 SHALL BE COMPLETED WITH WB US-33 AND RAMP C UNDER FULL WEEKEND CLOSURE. THIS SET-UP SHALL ONLY BE PERMITTED FROM 9:00 PM FRIDAY TO 5:00 AM MONDAY. GIRDER 4 REPAIRS IS EXPECTED TO BE COMPLETED IN 1 WEEKEND (SEE MOT POLICY EXCEPTIONS).

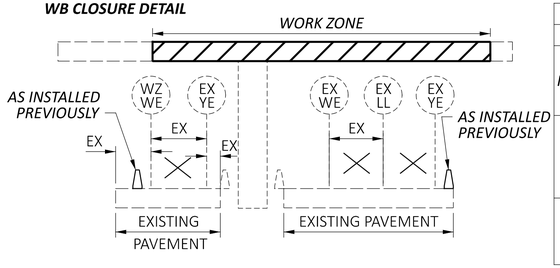
NOTE - WATKINS RD IS CURRENTLY CLOSED AND SHALL REMAIN CLOSED FOR THE DURATION OF THIS PROJECT (SEE SHEET P.6).

SHOULDER CLOSURE DETAIL



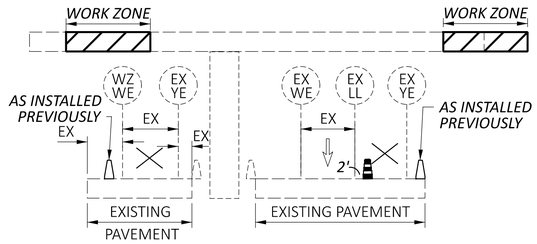
THE LEFT SHOULDERS OF US-33 WB/EB AND RIGHT SHOULDER OF RAMP C SHALL BE CLOSED USING PORTABLE BARRIER (SEE P.6 AND P.7). ONCE INSTALLED, PORTABLE BARRIER SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT.

WB CLOSURE DETAIL



THE US-33 WB AND RAMP C CLOSURE SHALL BE INSTALLED PER SHEETS P.8 - P.11 . US-33 WB (INCLUDING RAMP G) SHALL BE DETOURED PER P.12. THE RAMP G CLOSURE SHALL BE PER SHEET P.13. RAMP C SHALL BE CLOSED PER ODOT SCD MT-98.29 AND DETOURED PER P.14.

HEAT STRAIGHTENING DETAIL



THE LEFT LANE OF US-33 WB SHALL BE CLOSED PER SHEETS P.15 -P.17 . RAMP C SHALL BE CLOSED PER ODOT SCD MT-98.29 AND DETOURED PER P.18.

LANE VALUE CONTRACT

THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE FOR EACH UNIT OF TIME THE DESCRIBED CRITICAL LANE/RAMP IS RESTRICTED FROM FULL USE BY THE TRAVELING PUBLIC WITHIN THE RESTRICTED TIME PERIOD. THE LANE VALUE CONTRACT TABLE IS LOCATED BELOW. THE DISINCENTIVES WILL BE ASSESSED FOR ALL RESTRICTIONS OF THE CRITICAL WORK.

CRITICAL WORK IS SHOWN IN THE LANE VALUE CONTRACT TABLE.

CRITICAL WORK IS DEFINED AS HAVING THE DESIGNATED SECTIONS OPEN TO UNRESTRICTED TRAFFIC AS SHOWN IN THE TABLE, OR THE ENTIRE PROJECT IF NOT OTHERWISE LISTED.

UNRESTRICTED TRAFFIC IS DEFINED AS ALL TRAFFIC LANES BEING AVAILABLE FOR USE WITH SPECIFIED STRIPING AND SAFETY FEATURES IN PLAN.

LANE VALUE CONTRACT TABLE US-33 AND IR-270 INTERCHANGE			
DESCRIPTION OF CRITICAL LANE TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE $ PER TIME UNIT
RAMP C IR-270 SB TO US-33 WB	AS PER THE PERMITTED LANE CLOSURE SCHEDULE	MINUTE	$300
RAMP G IR-270 NB TO US-33 WB	AS PER THE PERMITTED LANE CLOSURE SCHEDULE	MINUTE	$300

LANE VALUE CONTRACT TABLE FRA-33						
SECTION (SLM)	EXISTING NUMBER OF LANES PER DIRECTION	LANE CLOSURES ARE NOT PERMITTED				DISINCENTIVE AMOUNTS PER MINUTE PER LANE
		LANE REDUCTION	MON TO FRI	SAT	SUN	
PETZINGER RD (22.23) TO I-270 (24.75) WESTBOUND US-33	2	2 to 1	5AM-7PM	8AM-8PM	9AM-8PM	$205
I-270 (24.75) TO FAIRFIELD COUNTY LINE (31.23) WESTBOUND US-33 WESTBOUND US-34	2	2 to 1	5AM-7PM	8AM-8PM	9AM-8PM	$355
SHORT TERM SHOULDER CLOSURES ARE NOT PERMITTED 5AM-9AM AND 3PM-6PM MONDAY-FRIDAY.						

RAMP CLOSURE RESTRICTIONS FRA-33 AT IR-270					
RAMP	MOVEMENT	NO CLOSURES ALLOWED		DETOUR ROUTES	
		MON TO FRI	SAT TO SUN	PRIMARY ROUTE	SECONDARY ROUTE
C	I-270 SB TO US-33 WB	5AM-9AM & 3PM-7PM	NO RESTRICTIONS	270 S TO US-33 E (RAMP E) TO 270 N (RAMP F) TO US-33 W (RAMP G)	270 S TO ALUM CREEK DR TO 270 N TO US-33 W (RAMP G)
G	I-270 NB TO US-33 WB	5AM-7PM	NO RESTRICTIONS	270 N TO 70 W TO 270 S TO US-33 W (RAMP C)	270 N TO US-33 E (RAMP A) TO OH-317 TO US-33 W

APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTIONS

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

APPROVED MOT EXCEPTIONS INCLUDE:
(5) SINGLE NIGHTTIME CLOSURES OF US-33 WB FROM 9:00 PM 5:00 AM
(1) WEEKEND CLOSURE OF US-33 WB FROM 9:00 PM FRIDAY 5:00 AM MONDAY

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 AS WELL AS THE CONTRACTOR 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 EXCEPTIONS 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 EXCEPTIONS REFERENCED ABOVE. REFERENCE "EXCEPTION REQUEST APPROVAL DATED [11/16/26] FOR PID 125600"IN THE NOTIFICATION AND OTHER CORRESPONDENCE.

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTIONS 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.

ITEM 614, MAINTAINING TRAFFIC

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)

MEMORIAL DAY THANKSGIVING

FOURTH OF JULY (OBSERVED) CHRISTMAS (OBSERVED)

LABOR DAY

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 OR SPECIAL EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
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 PEDESTRIAN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

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

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY
EMH&T

DESIGNER MMP
REVIEWER SMM 08/20/26
PROJECT ID 125600
SHEET P.4 TOTAL 42

FRA-33-2456 BRIDGE HIT REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 11/18/2026 TIME: 10:46:41 AM USER: mplants
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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.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

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

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

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEETS P.12, P.14 AND P.18 OF THE PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

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

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

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

THE 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.

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

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
3 SIGN MONTHS
ASSUMING 3 PCMS SIGN FOR 1 MONTH

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 OR PERMANENT BARRIER (INCLUDING BRIDGE PARAPETS) CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

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

ITEM 614,	BARRIER REFLECTOR, TYPE 1, ONE-WAY	15 EACH
ITEM 614,	OBJECT MARKER, ONE-WAY	15 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.

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 SHALL NOT BE PERMITTED AT PROJECT COST NOR PROJECT COMPENSATION. 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).
- DURING PERIODS WHERE TRAFFIC NEEDS TO BE DIRECTED CONTRARY TO A TRAFFIC CONTROL DEVICE (FLAGGER, SIGN [E.G. STOP SIGN, STREET OR HIGHWAY SIGNS, ETC], SIGNAL OR OTHER DEVICE USED TO REGULATE, WARN OR GUIDE TRAFFIC). TRAFFIC IN THIS INSTANCE INCLUDES VEHICULAR, PEDESTRIAN AND/OR SHARED USE PATH USERS.

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 THAT MEET ALL OF THE CRITERIA LISTED BELOW: 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).

  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)

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 AND/OR IN CONTRARY TO OTHER TRAFFIC CONTROL DEVICES IN WORK ZONES.

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

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

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

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE SHIFT DURATION SHALL NOT BE LESS THAN THE LEO'S MINIMUM SHOW-UP TIME REQUIRED BY THEIR LAW ENFORCEMENT AGENCY. 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	112 HOURS

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

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

TEMPORARY VANDAL PROTECTION FENCING

IF CONSTRUCTION ACTIVITIES REQUIRE THE REMOVAL OF EXISTING VANDAL PROTECTION FENCING, TEMPORARY VANDAL PROTECTION FENCING SHALL BE INSTALLED PER ODOT SCD TVPF-1-18. ALL COSTS ASSOCIATED WITH THIS ITEM SHALL BE INCIDENTAL TO THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

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
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	> 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	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.

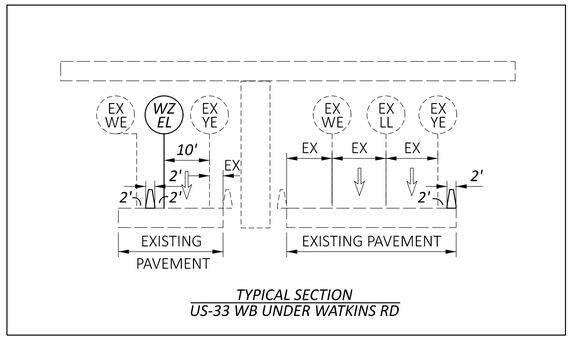
MAINTENANCE OF TRAFFIC NOTES

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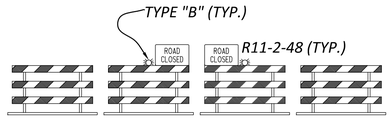
DESIGN AGENCY
EMH&T
DESIGNER MMP
REVIEWER SMM 08/20/26
PROJECT ID 125600
SHEET P.5 TOTAL 42

MAINTENANCE OF TRAFFIC - SHOULDER CLOSURE US-33 WB AND RAMP C PORTABLE BARRIER

HORIZONTAL SCALE IN FEET
0 25 50 100

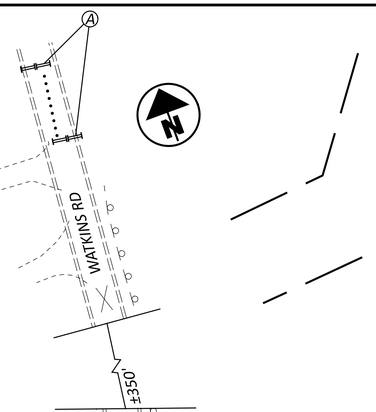


TYPICAL SECTION
US-33 WB UNDER WATKINS RD



10' TYPE III BARRICADE AND ADVANCED WARNING SIGNAGE PER ODOT SCD MT-101.60, (INSTALLED BEFORE STARTING WORK TO REMAIN FOR DURATION OF PROJECT)

Ⓐ



END ROAD WORK
G20-2-48

PORTABLE BARRIER AND IMPACT ATTENUATOR INSTALLED THIS PHASE

WORK ZONE EDGE LINE

1029' R

1000'

260'

50' DROP TAPER

RAMP C I-270 SB TO US-33 WB

10'

EX

1.5'

EX

EX

EX

EX

2'

US-33 WB

MATCH LINE SEE SHEET P.7

US-33 EB

EX

EX

2'

RAMP US-33 EB TO I-270 SB

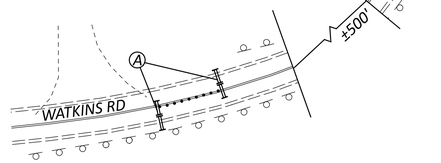
500'

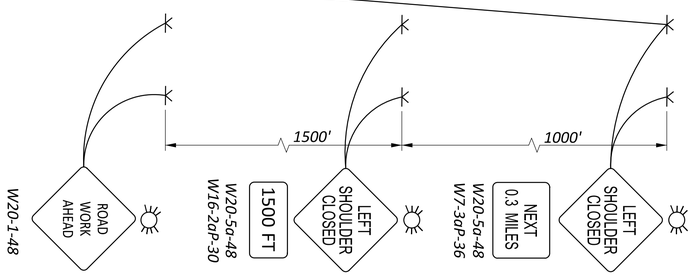
20:1 SHOULDER TAPER @ 60 MPH

570' BUFFER

340'

PORTABLE BARRIER AND IMPACT ATTENUATOR INSTALLED THIS PHASE





LEGEND

- *WORK AREA*
- *DIRECTION OF TRAVEL*
- *DRUM*
- *PORTABLE BARRIER*
- *TEMPORARY SIGN SUPPORT*
- *ROAD CLOSURE*

DRUM SPACING CHART	
TANGENT	*120' c/c*
TAPER	*60' c/c*
RADII/CLOSURE	*10' c/c*

DESIGN AGENCY
EMH&T

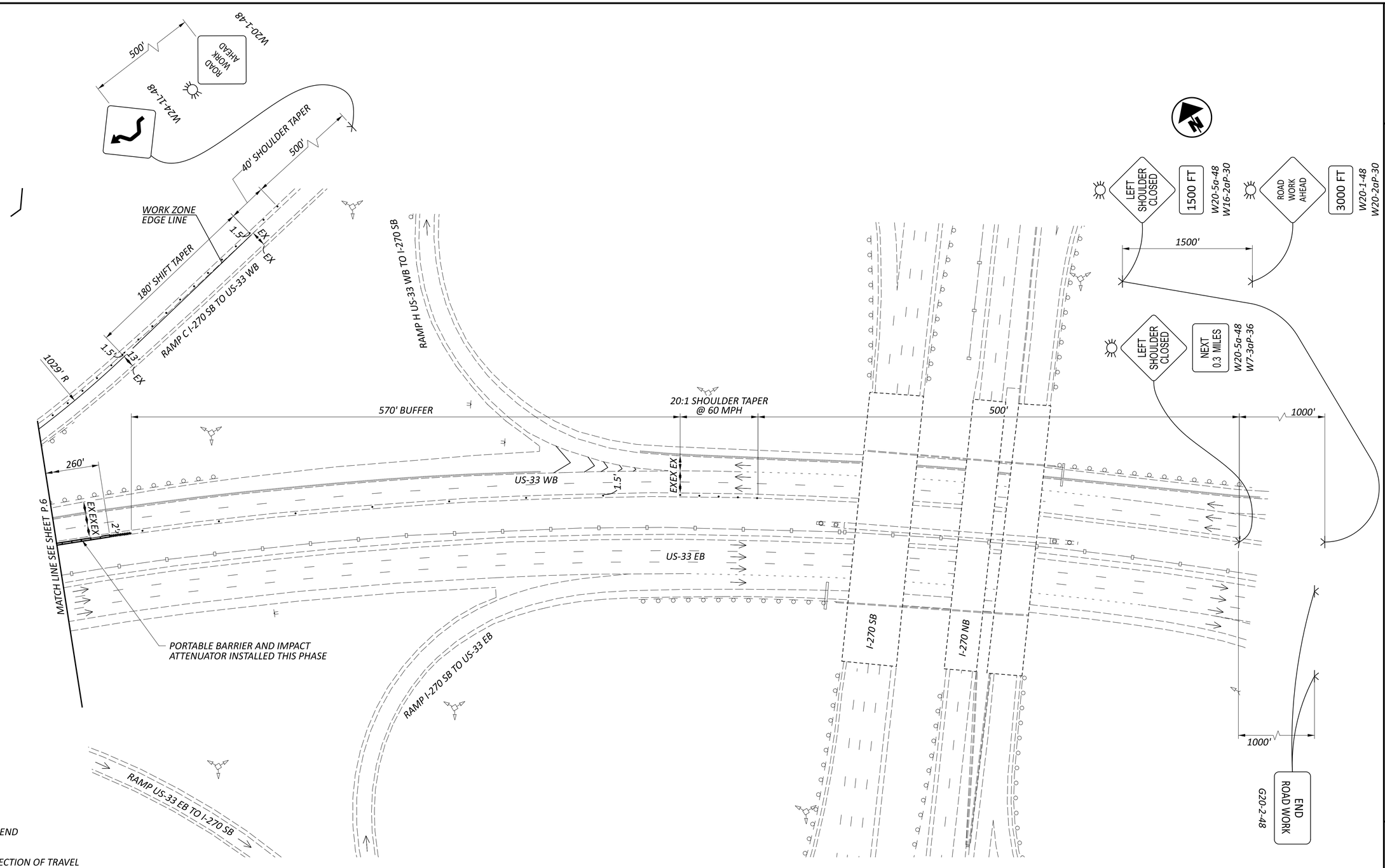
DESIGNER	MMP
REVIEWER	SMM 08/20/26
PROJECT ID	125600
SHEET	P.6
TOTAL	42

FRA-33-2456 BRIDGE HIT REPAIR

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MAINTENANCE OF TRAFFIC - SHOULDER CLOSURE US-33 WB AND RAMP C PORTABLE BARRIER

HORIZONTAL SCALE IN FEET
0 25 50 100



LEGEND

- *DIRECTION OF TRAVEL*
- *DRUM*
- *PORTABLE BARRIER*
- *TEMPORARY SIGN SUPPORT*
- *IMPACT ATTENUATOR*

DRUM SPACING CHART	
TANGENT	*120' c/c*
TAPER	*60' c/c*
RADII/CLOSURE	*10' c/c*

FRA-33-2456 BRIDGE HIT REPAIR

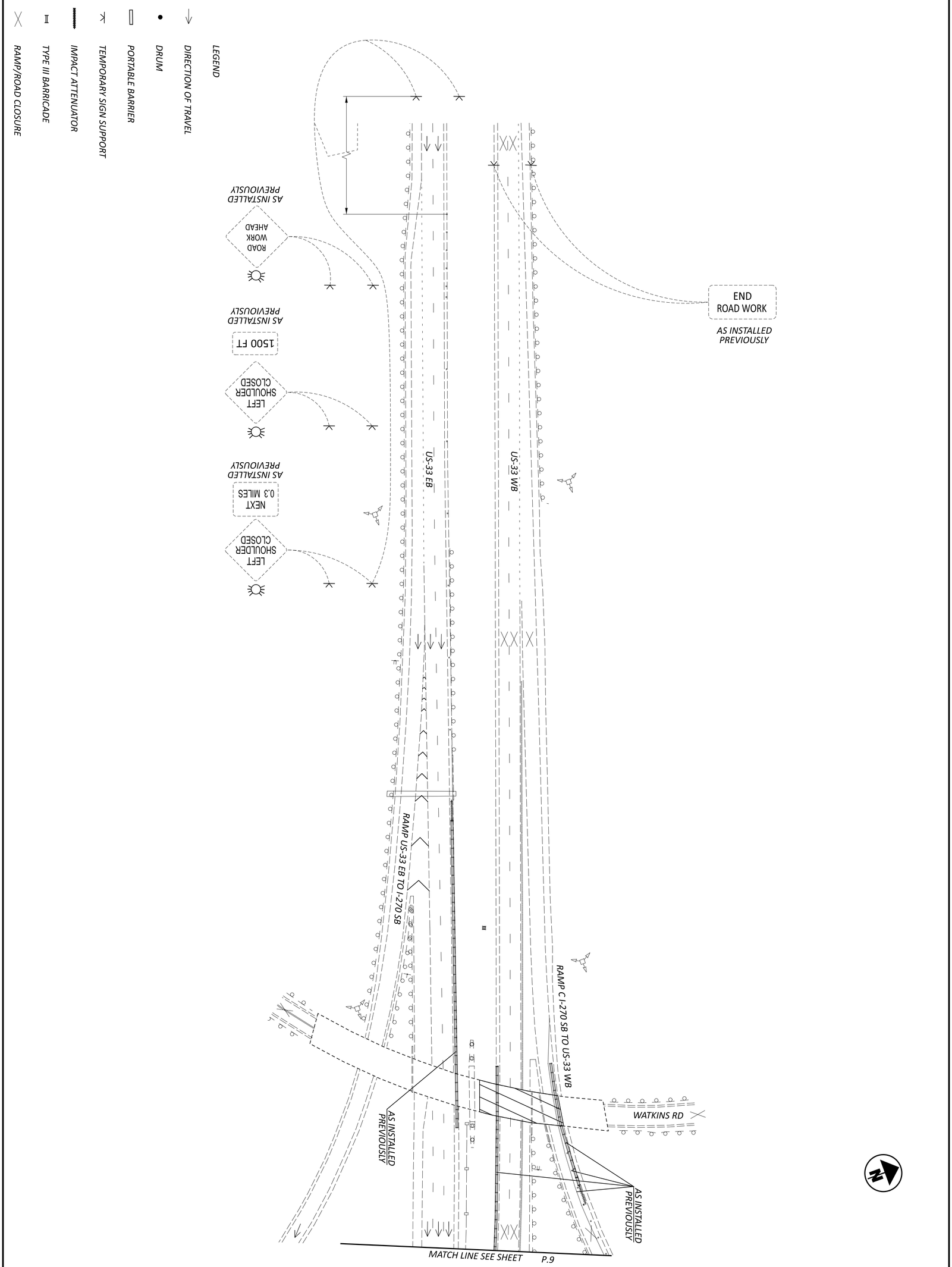
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DESIGN AGENCY
EMH&T

DESIGNER MMP
REVIEWER SMM 08/20/26
PROJECT ID 125600
SHEET P.7 TOTAL 42

FRA-33-2456 BRIDGE HIT REPAIR

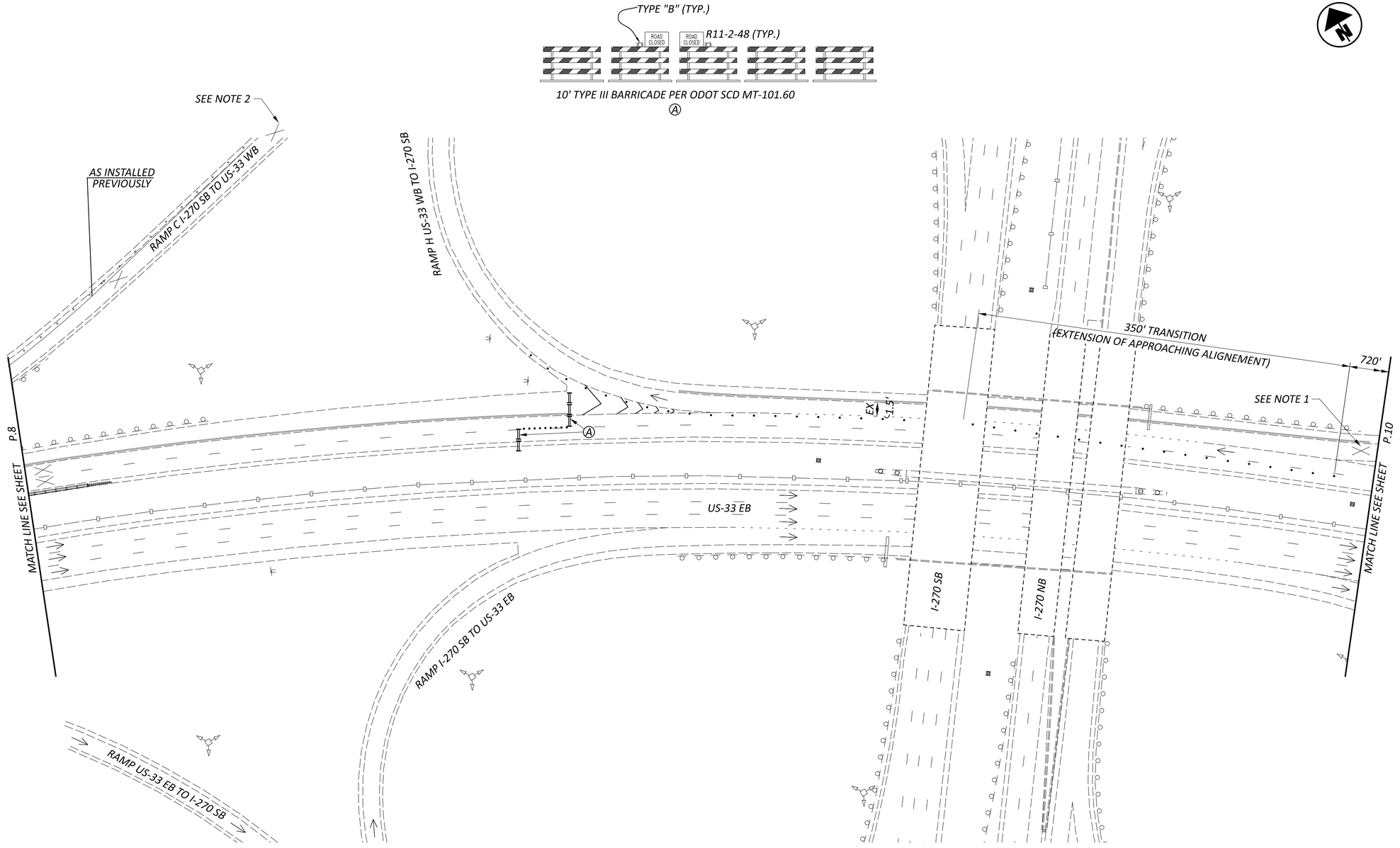
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SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.8	42	125600	SMM 08/20/26	MMP	EMH&T

MAINTENANCE OF TRAFFIC - WB CLOSURE
US-33 WB AND RAMP C CLOSURE DETAIL

HORIZONTAL SCALE IN FEET
0 50
25 100



LEGEND

- DIRECTION OF TRAVEL
- DRUM
- PORTABLE BARRIER
- TEMPORARY SIGN SUPPORT
- IMPACT ATTENUATOR
- TYPE III BARRICADE
- RAMP/ROAD CLOSURE

DRUM SPACING CHART	
TANGENT	120' c/c
TAPER	60' c/c
RADII/CLOSURE	10' c/c

NOTES:
1. RAMP G (I-270 NB TO US-33 WB) SHALL BE CLOSED PER P.13RAMP G TRAFFIC SHALL BE DETOURED PER P.12 .
2. RAMP C (I-270 SB TO US-33 WB) SHALL BE CLOSED PER ODOT SCD MT-98.29. RAMP C TRAFFIC SHALL BE DETOURED PER P.14.

HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC - WB CLOSURE US-33 WB AND RAMP C CLOSURE DETAIL

FRA-33-2456 BRIDGE HIT REPAIR

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DESIGN AGENCY
EMH&T

DESIGNER
MMP

REVIEWER
SMM 08/20/26

PROJECT ID
125600

SHEET P.9 | TOTAL 42

FRA-33-2456 BRIDGE HIT REPAIR

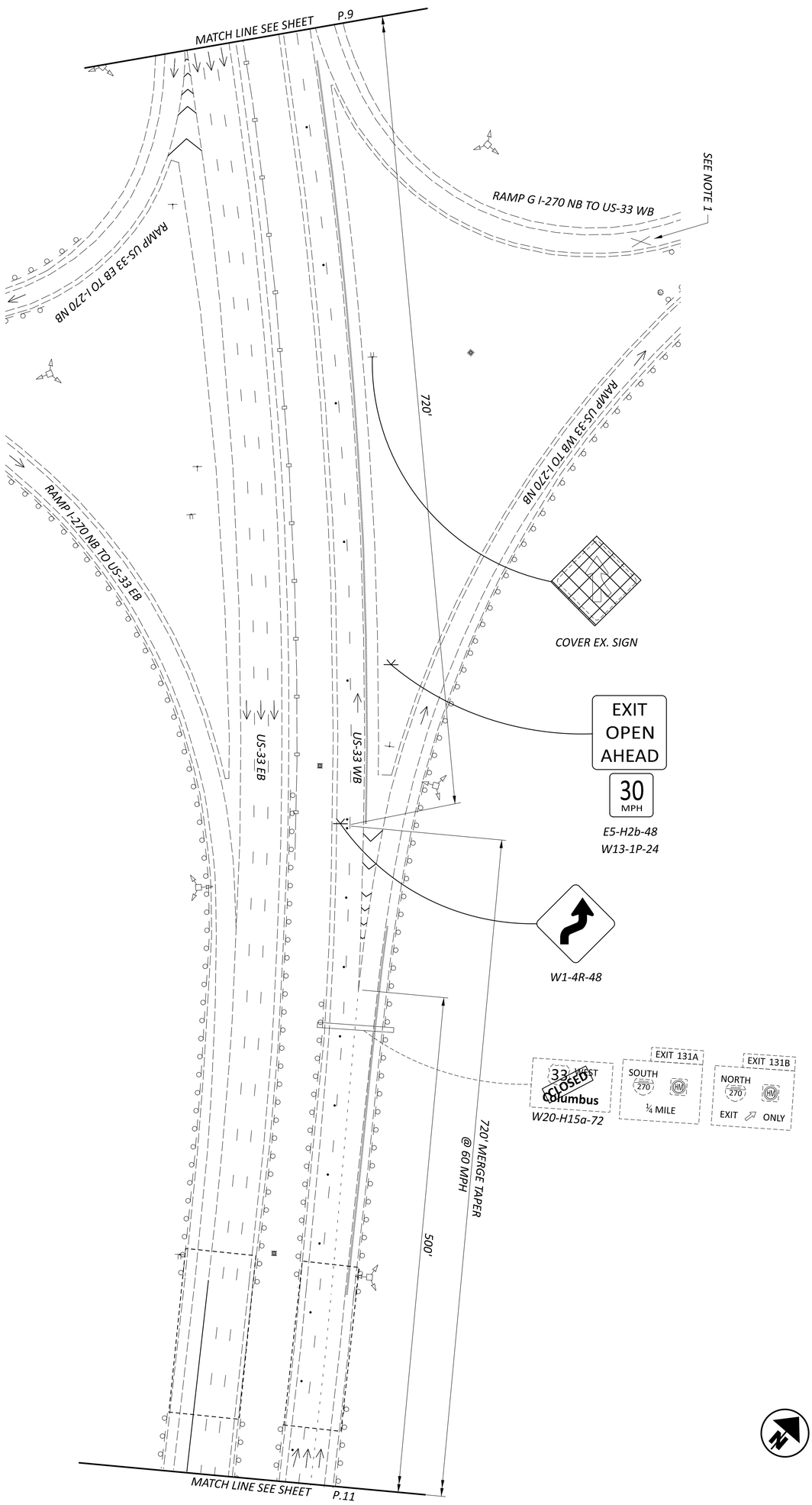
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LEGEND

- RAMP CLOSURE
- TEMPORARY SIGN SUPPORT
- DRUM
- DIRECTION OF TRAVEL

DRUM SPACING CHART	
TANGENT	120' c/c
TAPER	60' c/c
RADII/CLOSURE	10' c/c

NOTES:
1. SEE P.13 FOR RAMP G CLOSURE DETAILS. US-33 WB AND RAMP G DETOUR SIGNAGE IS SHOWN ON P.12.

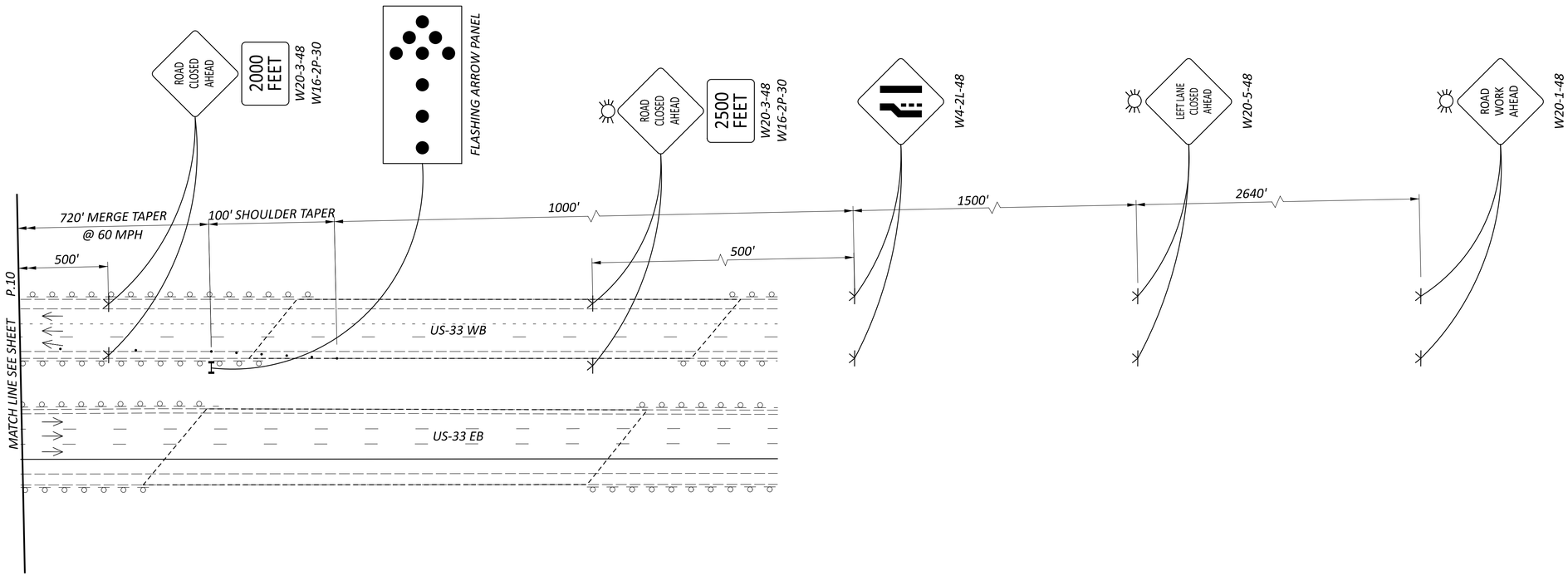


MAINTENANCE OF TRAFFIC - WB CLOSURE
US-33 WB AND RAMP C CLOSURE DETAIL

HORIZONTAL SCALE IN FEET
0 50
25 100

SHEET	TOTAL
P.10	42

PROJECT ID: 125600
REVIEWER: SMM 08/20/26
DESIGNER: MMP
DESIGN AGENCY: EMH&T



LEGEND

- *DIRECTION OF TRAVEL*
- *DRUM*
- *TEMPORARY SIGN SUPPORT*
- *RAMP CLOSURE*
- *FLASHING ARROW PANEL*

DRUM SPACING CHART	
TANGENT	*120' c/c*
TAPER	*60' c/c*
RADII/CLOSURE	*10' c/c*

HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC - WB CLOSURE
US-33 WB AND RAMP C CLOSURE DETAIL

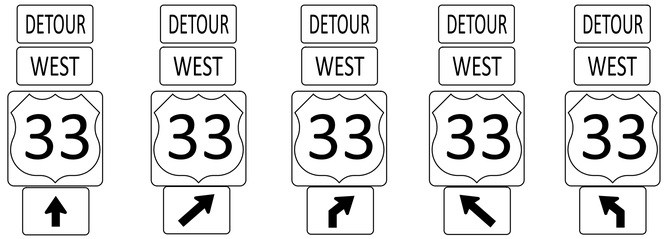
DESIGN AGENCY
EMH&T

DESIGNER MMP
REVIEWER SMM 08/20/26
PROJECT ID 125600
SHEET P.11 TOTAL 42

FRA-33-2456 BRIDGE HIT REPAIR

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SIGNING LEGEND



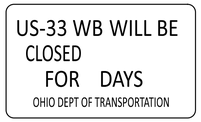
M4-8-30
M3-4-30
M1-4-36-2
M6-3-30
Ⓐ

M4-8-30
M3-4-30
M1-4-36-2
M6-2-30
Ⓑ

M4-8-30
M3-4-30
M1-4-36-2
M5-2-30
Ⓒ

M4-8-30
M3-4-30
M1-4-36-2
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Ⓓ

M4-8-30
M3-4-30
M1-4-36-2
M5-2-30
Ⓔ



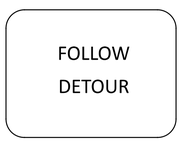
W20-H14-60
PLACE 2 BUSINESS DAYS PRIOR TO CLOSURE
Ⓕ

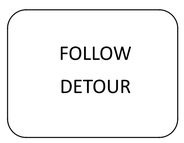


W20-H14-60
PLACE 2 BUSINESS DAYS PRIOR TO CLOSURE
Ⓖ







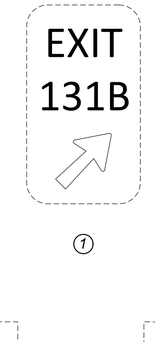


PORTABLE CHANGEABLE MESSAGE SIGN
Ⓗ

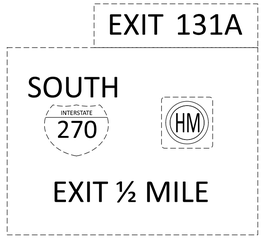
PORTABLE CHANGEABLE MESSAGE SIGN
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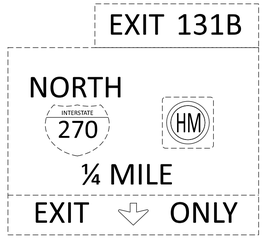


M4-8a-24
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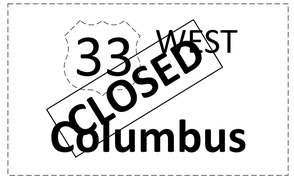


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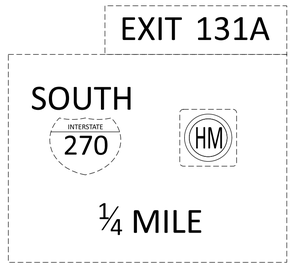


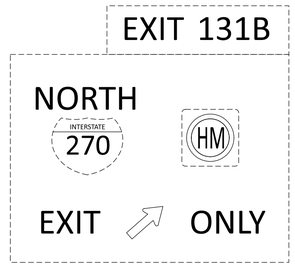


②



W20-H15a-72





③

LEGEND

WORK AREA

XXXXX *RAMP/ROAD CLOSURE*

DETOUR ROUTE

TEMPORARY SIGN SUPPORT

NOTES:
1. PID 98232 (FRA-70-22.85) AND PID 125600 WILL BE UNDER CONSTRUCTION AT THE SAME TIME. THE CONTRACTOR FOR PID 125600 SHALL COORDINATE WITH THE CONTRACTOR OF PID 89232. TO ENSURE THE RAMP G DETOUR IS NOT IN PLACE DURING CONFLICTING RAMP CLOSURES AT THE I-270/I-70 INTERCHANGE.

FRA-33-2456 BRIDGE HIT REPAIR

MAINTENANCE OF TRAFFIC - WB CLOSURE
US 33 WB AND RAMP G (I-270 NB TO US-33 WB) DETOUR PLAN

DESIGN AGENCY
EMH&T

DESIGNER
MMP

REVIEWER
SMM 08/20/26

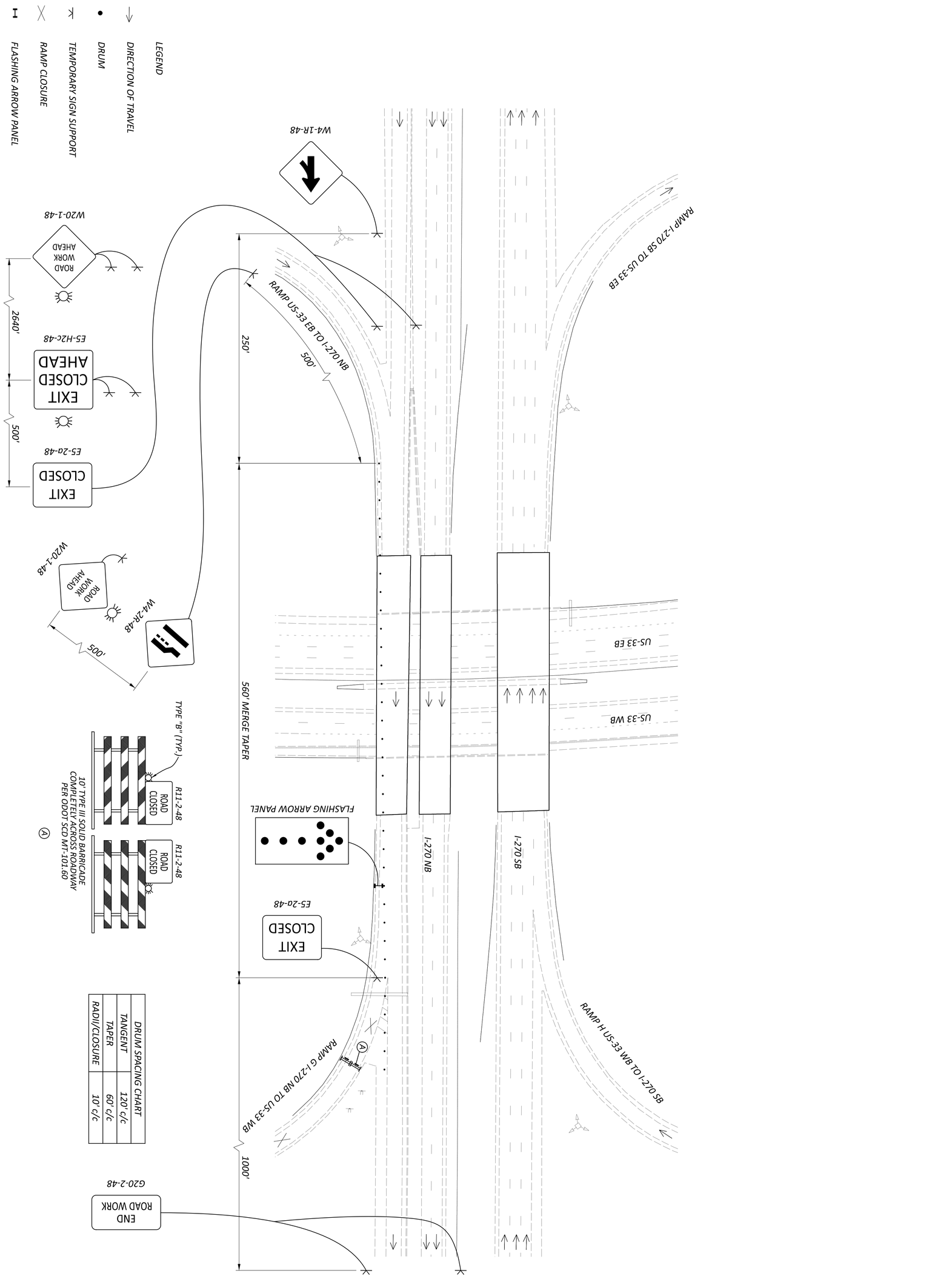
PROJECT ID
125600

SHEET P.12 | TOTAL 42

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FRA-33-2456 BRIDGE HIT REPAIR

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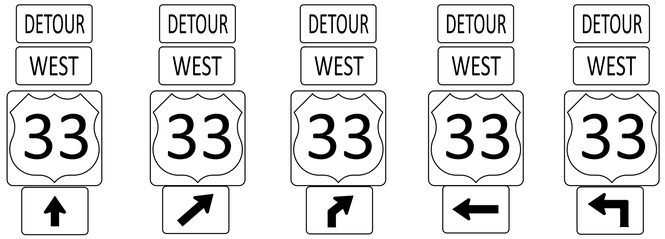
MAINTENANCE OF TRAFFIC - WB CLOSURE
RAMP G CLOSURE DETAIL

HORIZONTAL SCALE IN FEET
0 50
25 100

DESIGNER	REVIEWER	PROJECT ID	SHEET	TOTAL
MMP	SMM 08/20/26	125600	P.13	42

DESIGN AGENCY: EMH&T

SIGNING LEGEND



M4-8-30
M3-4-30
M1-4-36-2
M6-3-30
Ⓐ

M4-8-30
M3-4-30
M1-4-36-2
M6-2-30
Ⓑ

M4-8-30
M3-4-30
M1-4-36-2
M5-2-30
Ⓒ

M4-8-30
M3-4-30
M1-4-36-2
M6-1-30
Ⓓ

M4-8-30
M3-4-30
M1-4-36-2
M5-1-30
Ⓔ



M4-8-30
M3-4-30
M1-4-36-2
M6-1-30
Ⓕ



M4-8-30
M3-4-30
M1-4-36-2
M5-1-30
Ⓖ

RAMP WILL BE CLOSED
FOR DAYS
OHIO DEPT OF TRANSPORTATION

W20-H14-60
PLACE 2 BUSINESS DAYS PRIOR TO CLOSURE
Ⓗ

EXIT TO
US-33 WEST
CLOSED

FOLLOW
DETOUR

PORTABLE CHANGEABLE MESSAGE SIGN
Ⓘ

END
DETOUR

M4-8a-24
Ⓙ

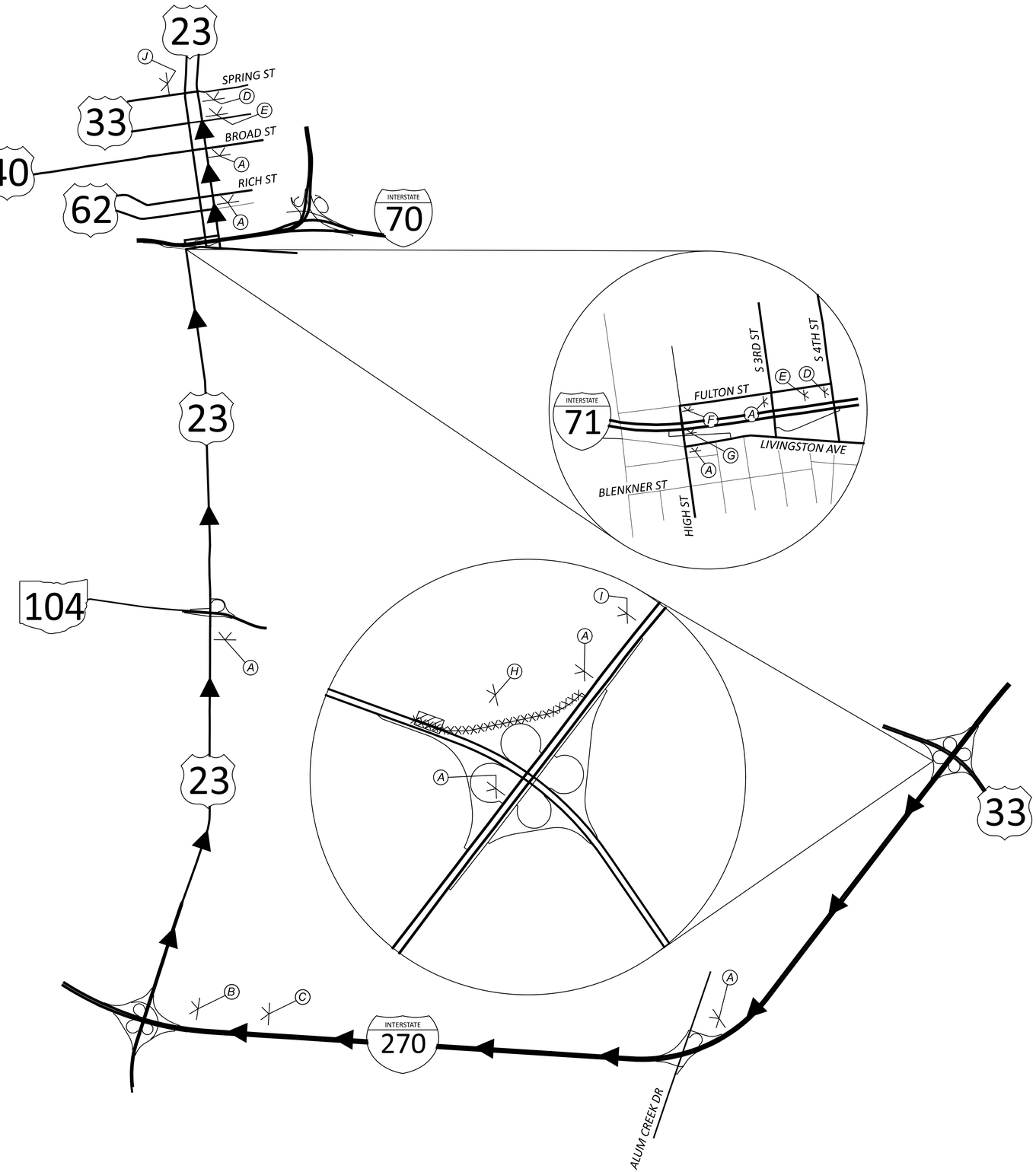
LEGEND

WORK AREA

XXXXX *RAMP CLOSURE*

DETOUR ROUTE

TEMPORARY SIGN SUPPORT



MAINTENANCE OF TRAFFIC - WB CLOSURE
RAMP C (I-270 SB TO US-33 WB) DETOUR PLAN

DESIGN AGENCY
EMH&T

DESIGNER
MMP

REVIEWER
SMM 08/20/26

PROJECT ID
125600

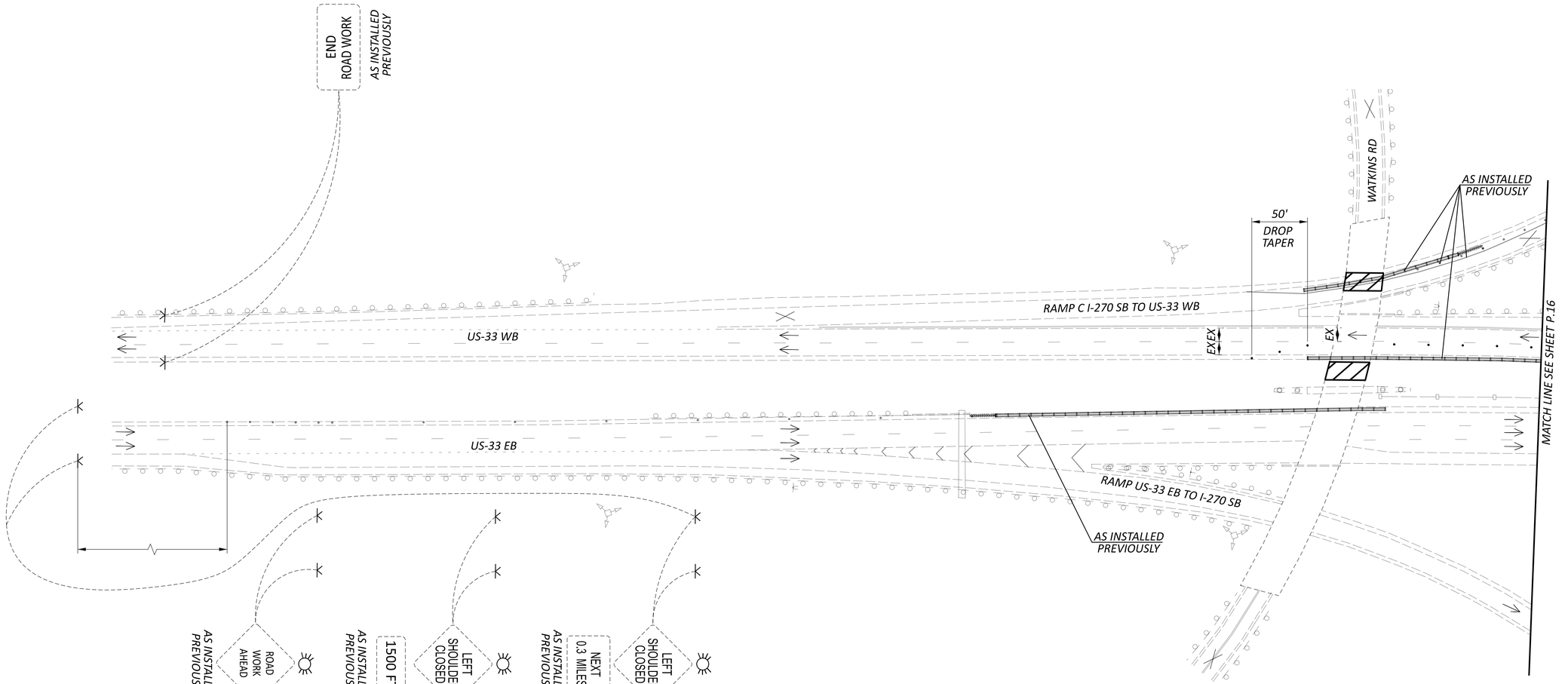
SHEET P.14 | TOTAL 42

FRA-33-2456 BRIDGE HIT REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 11/17/2026 TIME: 1:54:53 PM USER: mplants
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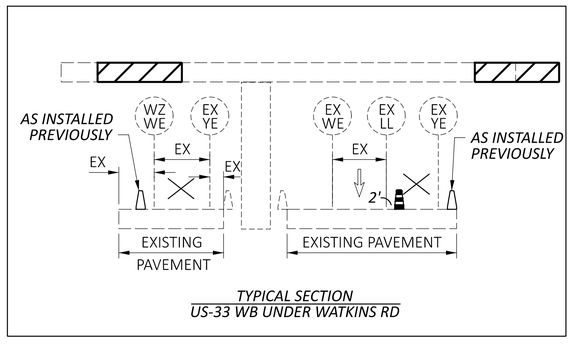
MAINTENANCE OF TRAFFIC - HEAT STRAIGHTENING
LEFT LANE CLOSURE US-33 WB AND RAMP C CLOSURE DETAIL

HORIZONTAL SCALE IN FEET
0 25 50 100



LEGEND

- WORK AREA
- DIRECTION OF TRAVEL
- DRUM
- PORTABLE BARRIER
- TEMPORARY SIGN SUPPORT
- TYPE III BARRICADE
- RAMP/ROAD CLOSURE



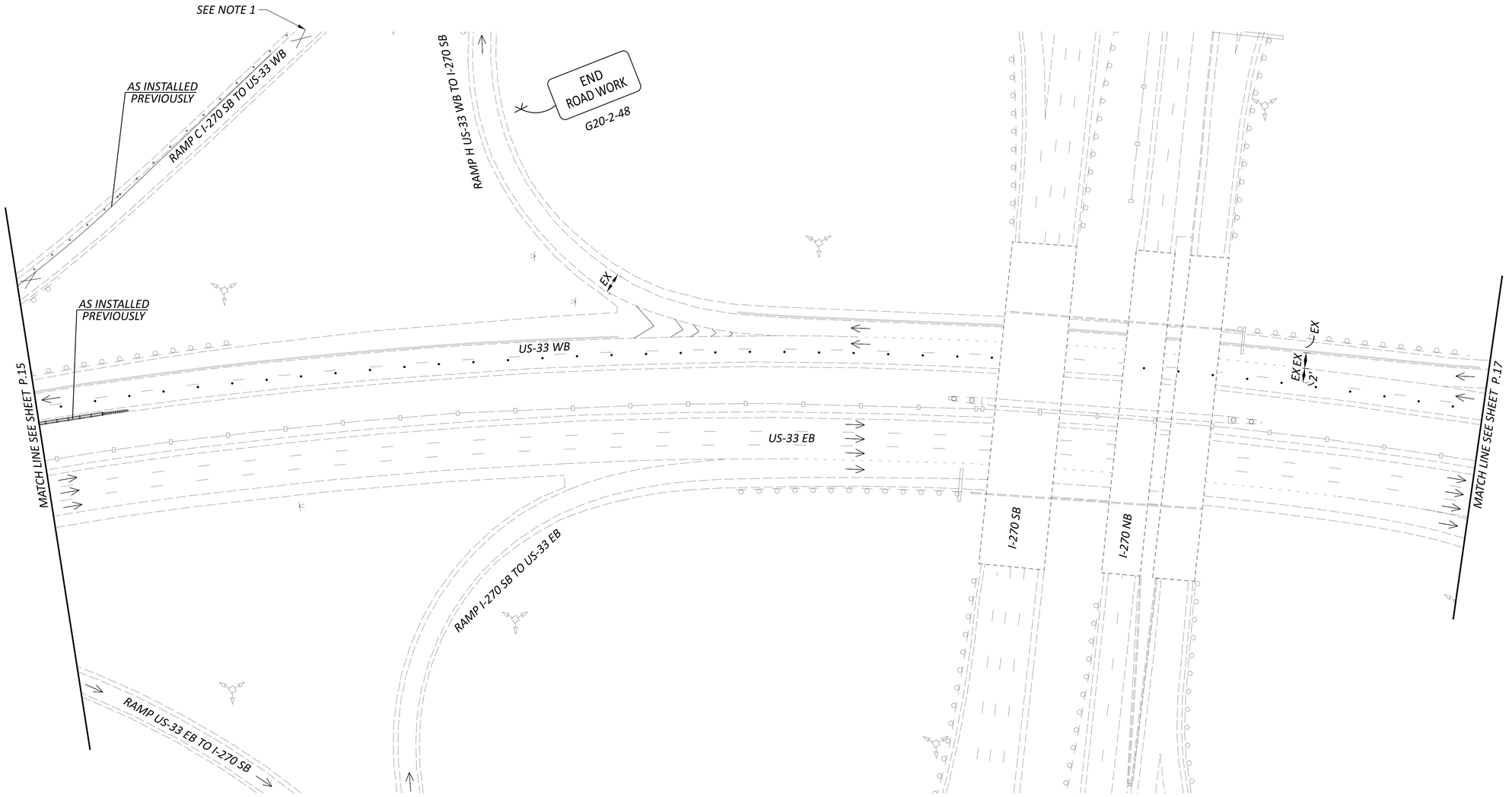
TYPICAL SECTION
US-33 WB UNDER WATKINS RD

DRUM SPACING CHART	
TANGENT	120' c/c
TAPER	60' c/c
RADII/CLOSURE	10' c/c

FRA-33-2456 BRIDGE HIT REPAIR

MODEL: Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/17/2026 TIME: 1:54:54 PM USER: mplants
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DESIGN AGENCY: EMHT
DESIGNER: MMP
REVIEWER: SMM 08/20/26
PROJECT ID: 125600
SHEET: P.15 TOTAL: 42



LEGEND

- DIRECTION OF TRAVEL
- DRUM
- PORTABLE BARRIER
- TEMPORARY SIGN SUPPORT
- IMPACT ATTENUATOR
- TYPE III BARRICADE
- RAMP CLOSURE

DRUM SPACING CHART	
TANGENT	120' c/c
TAPER	60' c/c
RADII/CLOSURE	10' c/c

NOTES:
1. RAMP C (I-270 SB TO US-33 WB) SHALL BE CLOSED PER ODOT SCD MT-98.29. RAMP C SHALL BE DETOURED PER SHEET P.18.

HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC - HEAT STRAIGHTENING
LEFT LANE CLOSURE US-33 WB AND RAMP C CLOSURE DETAIL

FRA-33-2456 BRIDGE HIT REPAIR

MODEL: Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/17/2026 TIME: 1:54:55 PM USER: mplants
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DESIGN AGENCY: EMH&T

DESIGNER: MMP
REVIEWER: SMM 08/20/26
PROJECT ID: 125600
SHEET: P.16 | TOTAL: 42

FRA-33-2456 BRIDGE HIT REPAIR

MODEL: Plan 3 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/17/2026 TIME: 1:54:55 PM USER: mplants
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LEGEND

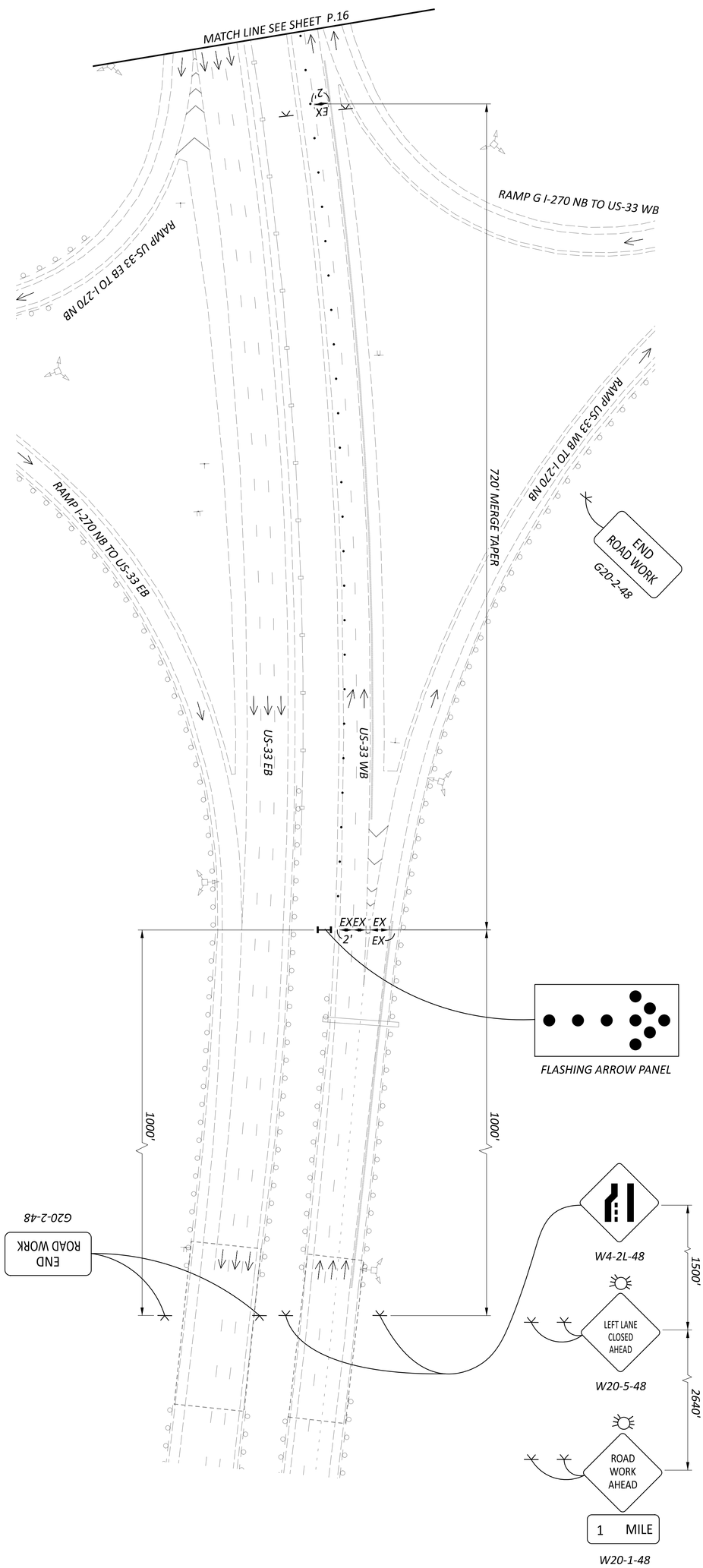
RAMP CLOSURE

TEMPORARY SIGN SUPPORT

DRUM

DIRECTION OF TRAVEL

DRUM SPACING CHART	
TANGENT	120' c/c
TAPER	60' c/c
RADII/CLOSURE	10' c/c

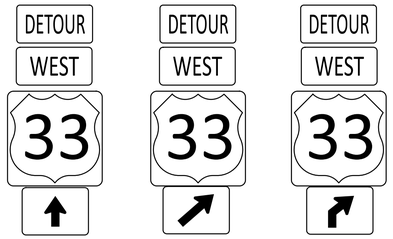


MAINTENANCE OF TRAFFIC - HEAT STRAIGHTENING
LEFT LANE CLOSURE US-33 WB AND RAMP C CLOSURE DETAIL

HORIZONTAL SCALE IN FEET
0 50
25 100

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.17	42	125600	SMM 08/20/26	MMP	EMH&T

SIGNING LEGEND



M4-8-30
M3-4-30
M1-4-36-2
M6-3-30
Ⓐ

M4-8-30
M3-4-30
M1-4-36-2
M6-2-30
Ⓑ

M4-8-30
M3-4-30
M1-4-36-2
M5-2-30
Ⓒ

RAMP WILL BE CLOSED
FOR DAYS
OHIO DEPT OF TRANSPORTATION

W20-H14-60
PLACE 2 BUSINESS DAYS PRIOR TO CLOSURE
Ⓓ

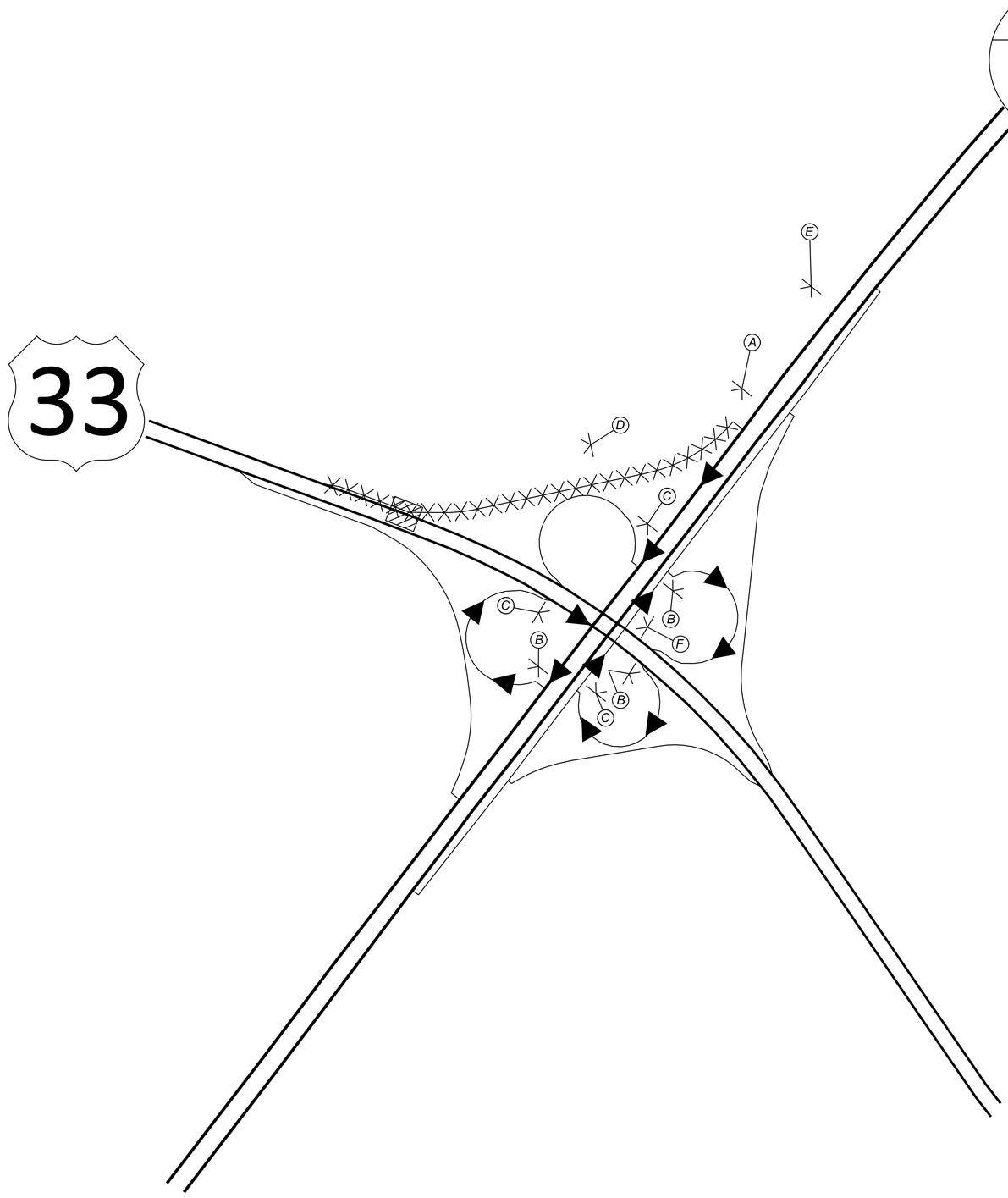
EXIT TO
US-33 WEST
CLOSED

FOLLOW
DETOUR

PORTABLE CHANGEABLE MESSAGE SIGN
Ⓔ

END
DETOUR

M4-8a-24
Ⓕ



LEGEND

WORK AREA

XXXXX *RAMP CLOSURE*

DETOUR ROUTE

TEMPORARY SIGN SUPPORT

MAINTENANCE OF TRAFFIC - HEAT STRAIGHTENING
RAMP C (I-270 SB TO US-33 WB) DETOUR PLAN

FRA-33-2456 BRIDGE HIT REPAIR

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 11/17/2026 TIME: 1:54:56 PM USER: mplants
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DESIGN AGENCY
EMH&T

DESIGNER
MMP

REVIEWER
SMM 08/20/26

PROJECT ID
125600

SHEET P.18 | TOTAL 42

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FRA-33-2456 BRIDGE HIT REPAIR

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DESIGN AGENCY
EMH&T

DESIGNER
MMP

REVIEWER
SMM 08/20/26

PROJECT ID
125600

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FRA-33-2456 BRIDGE HIT REPAIR

MODEL: Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/17/2026 TIME: 1:54:59 PM USER: mplants
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DESIGN AGENCY
EMH&T

DESIGNER
MMP

REVIEWER
SMM 08/20/26

PROJECT ID
125600

SHEET P.20 | TOTAL 42

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FRA-33-2456 BRIDGE HIT REPAIR

MODEL: Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/17/2026 TIME: 1:54:59 PM USER: mplants
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DESIGN AGENCY
EMH&T

DESIGNER
MMP

REVIEWER
SMM 08/20/26

PROJECT ID
125600

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FRA-33-2456 BRIDGE HIT REPAIR

MODEL: Plan 3 |Sheet| PAPERSIZE: 34x22 (in.) DATE: 11/17/2026 TIME: 1:54:59 PM USER: mplants
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DESIGN AGENCY
EMH&T

DESIGNER
MMP

REVIEWER
SMM 08/20/26

PROJECT ID
125600

SHEET NUMBER	PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.3	01/NHS						
						EROSION CONTROL	
1,000	1,000	832	30000	1,000	EACH	EROSION CONTROL	
						MAINTENANCE OF TRAFFIC	
	112	614	11110	112	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
	3	614	12380	3	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
	LS	614	12420	LS		DETOUR SIGNING	
	15	614	13310	15	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	
	15	614	13350	15	EACH	OBJECT MARKER, ONE WAY	
	3	614	18601	3	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	P.5
	0.11	614	22210	0.11	MILE	WORK ZONE EDGE LINE, CLASS 1, 6", 740.06 TYPE 1	
	740	622	41100	740	FT	PORTABLE BARRIER, UNANCHORED	
						TRAFFIC CONTROL	
	0.02	646	10010	0.02	MILE	EDGE LINE, 6", WHITE	P.24
						STRUCTURE OVER 20 FOOT SPAN (BRIDGE NO. FRA-33-2456)	
	LS	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	P.25
	108	202	75267	108	FT	VANDAL PROTECTION FENCE REMOVED AND RESET, AS PER PLAN	P.26
	7,037	509	10000	7,037	LB	EPOXY COATED STEEL REINFORCEMENT	
	21	511	34444	21	CY	CLASS QC2 CONCRETE, BRIDGE DECK	
	15	511	34448	15	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)	
	105	512	10050	105	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
	13	512	10300	13	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
	13	512	10600	13	FT	CONCRETE REPAIR BY EPOXY INJECTION	
	2,362	513	10201	2,362	LB	STRUCTURAL STEEL MEMBERS, LEVEL 4E, AS PER PLAN (SECONDARY MEMBERS)	P.25
	22,583	513	10301	22,583	LB	STRUCTURAL STEEL MEMBERS, LEVEL 5, AS PER PLAN (MAIN MEMBERS)	P.26
	2	513	95000	2	FT	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MEMBERS, COMPLETE PENETRATION WELDING	P.25
	116	513	95000	116	FT	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MEMBERS, FILLET WELDING	P.25
	162	513	95030	162	EACH	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MEMBERS, DRILLING	P.25
	1	513	95030	1	EACH	STRUCTURAL STEEL, MISC.: REPAIR OF DAMAGED MEMBERS, COPE HOLES	P.25
	1,270	514	20001	1,270	SF	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (TWO COATS)	P.25
	1	516	45305	1	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	P.26
	LS	516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	P.26
	LS	849	10000	LS		DAMAGE ASSESSMENT	
	LS	849	10500	LS		SURFACE PREPARATION	
	4	849	10600	4	HOUR	REPAIRING DAMAGED MEMBERS BY GRINDING	
	LS	849	10700	LS		STRAIGHTENING DAMAGED MEMBERS	
						INCIDENTALS	
	LS	614	11000	LS		MAINTAINING TRAFFIC	
	LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

FRA-33-2456 BRIDGE HIT REPAIR

MODEL: General Summary - Sheet 1 PAPERSIZE: 34x22 (in.) DATE: 11/18/2026 TIME: 10:02:38 AM USER: mplants
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DESIGN AGENCY
EMH&T

DESIGNER
BLM

REVIEWER
CAS 08/20/26

PROJECT ID
125600

SHEET P.23 TOTAL 42

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:
REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:
849 DATED 01-18-2013

REFER TO THE FOLLOWING ARCHIVED STANDARD BRIDGE DRAWINGS:
GSD-1-96 DATED 07-19-2002
(SEE SHEET 4/19 TO 5/19).

BR-1 04-03-1990
(SEE SHEET 6/19)

VPF-1-90 07-21-2023
(SEE SHEET 7/19 TO 9/19)

DESIGN DATA:
STRUCTURAL STEEL, ASTM 709 GRADE 50 - MINIMUM YIELD STRENGTH 50 KSI

CONCRETE CLASS QC2, COMPRESSIVE STRENGTH 4.5 KSI

EPOXY COATED STEEL REINFORCEMENT, MINIMUM YIELD STRENGTH 60 KSI

EXISTING STRUCTURE VERIFICATION:
DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS, SECTIONS 102.05, 105.02, AND 513.04. BASE CONTRACT BID PRICES UPON 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 THAT HAVE BEEN VERIFIED IN THE FIELD.

EXISTING PLANS:
EXISTING PLANS CAN BE INSPECTED IN THE LOCAL ODOT DISTRICT OFFICE, AND WILL BE PROVIDED ELECTRONICALLY UPON REQUEST.

STEEL RESTRAINT OR PRELOAD LIMITS:
EXISTING ASTM A709 GRADE 36 - DO NOT SUBJECT ANY PART OF THE STRUCTURE TO A JACKING, PULLING OR RESTRAINING UNIT STRESS EXCEEDING 18,000 PSI.

UTILITIES:
THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS, PARAPETS, AND STEEL MEMBERS FROM THE EXISTING STRUCTURE. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK 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 PLANS TO INCLUDE PROTECTION OF TRAFFIC ACCORDING TO CMS 501.05.

REMOVAL OF CONCRETE OR STEEL MEMBERS IS NOT PERMITTED WITH LIVE TRAFFIC OF U.S. 33 UNDERNEATH OF WATKINS ROAD BRIDGE.

ALL CONCRETE REMOVED AS DETAILED IN THE PLANS MUST BE REMOVED BY MEANS OF CUTTING AND OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE WEIGHT OF THE HAMMER MUST NOT BE MORE THAN 35 POUNDS FOR REMOVAL AROUND REBAR TO BE PRESERVED IN THE DECK. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH THE REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

DECK REMOVALS – DECK EDGE REHABILITATION: IF THE CONTRACTOR'S MEANS AND METHODS REQUIRE DRILLING HOLES THROUGH THE BRIDGE DECK, ALL HOLES SHALL BE DRILLED FROM THE BOTTOM OF THE DECK UPWARD. DRILLING HOLES FROM THE TOP OF THE DECK IS NOT PERMITTED. FALSEWORK INTENDED TO FORM THE NEW DECK EDGE MAY BE USED AS A WORK PLATFORM TO AIDE IN THE DECK EDGE REMOVAL. IF FORMS BECOME DAMAGED DURING CONCRETE REMOVAL, THE DAMAGED PORTIONS SHALL BE REPAIRED OR REPLACED PRIOR TO POURING THE CONCRETE. PRIOR TO PLACING CONCRETE, THOROUGHLY CLEAN ALL SURFACES OF THE FORMS THAT CONTACT THE BOTTOM OF THE EXISTING BRIDGE DECK TO ENSURE A SNUG FIT BETWEEN THE FORMS AND EXISTING BRIDGE DECK. THE PORTION OF THE FORM TO BE IN CONTACT WITH THE FRESH CONCRETE SHALL BE FREE OF LAITANCE, SILT, DIRT, SHAVINGS, SAWDUST, LOOSE AND BUILT-UP RUST, AND OTHER DEBRIS. ALL HOLES DRILLED THOUGH THE BRIDGE DECK SHALL BE REPAIRED WITH TROWELABLE MORTAR IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 843.

CUT LINE CONSTRUCTION JOINT PREPARATION: PRIOR TO REMOVING THE DECK EDGE, PLACE A 1-IN (+0-IN,-1/4-IN) DEEP SAW CUT AT THE BOUNDARIES OF PROPOSED CONCRETE REMOVALS. IF THERE ARE INTEGRAL CONCRETE PIER CAPS WITHIN THE PROPOSED REMOVAL LIMITS, ALSO SAWCUT THE DECK CONCRETE ALONG THE INTERFACE OF THE DECK AND PIER CAP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING CONCRETE REINFORCEMENT, 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 STEEL REINFORCEMENT 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.

ITEM 513 - STRUCTURAL STEEL MEMBERS LEVEL UF, AS PER PLAN:
ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.06 OR SUPPLY THE ENGINEER WITH "AS BUILT" DRAWINGS MEETING 513.06 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITION. THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS. SUPPLY A COPY OF THE DRAWINGS STAMPED, SEALED, AND DATED, ACCORDING TO SUPPLEMENT 1002, TO THE STRUCTURAL WELDING AND METALS SECTION OF THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES. THE MEMBERS INCLUDED IN THIS ITEM ARE PROVIDED IN TABLE 2 AND 3 AND SHEETS 12/19 THROUGH 14/19. THIS WORK INCLUDES SECONDARY MEMBERS (CROSSFRAMES AND DIAPHRAGMS). THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL MEMBERS LEVEL UF AS PER PLAN: POUND.

ITEM 513 - STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MEMBERS, DRILLING:
AN ESTIMATED QUANTITY FOR EACH LOCATION IS PROVIDED IN TABLE 3, FOR DRILLING MAIN OR SECONDARY MEMBERS AS DETERMINED BY FIELD INSPECTION ACCORDING TO ITEM 849, DAMAGE ASSESSMENT OR AS DIRECTED BY THE ENGINEER. DRILL 2 INCH DIAMETER HOLES AT BOTH ENDS OF EACH IDENTIFIED CRACK AS DIRECTED BY THE ENGINEER. GRIND THE HOLES SMOOTH ACCORDING TO C&MS 513.19. THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MEMBERS, DRILLING: EACH.

ITEM 513 - STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MEMBERS, COPE HOLES:
AN ESTIMATED QUANTITY FOR EACH LOCATION IS PROVIDED IN TABLE 3, FOR COPING MAIN MEMBERS AS DETERMINED BY FIELD INSPECTION ACCORDING TO ITEM 849, DAMAGE ASSESSMENT OR AS DIRECTED BY THE ENGINEER. PROVIDE A 2 INCH DIAMETER X 4 INCH LONG COPE ACCORDING TO PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. GRIND THE HOLES SMOOTH ACCORDING TO C&MS 513.19. THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 -STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MEMBERS, COPE HOLES: EACH.

ITEM 513 - STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MAIN MEMBER, COMPLETE PENETRATION WELDING:
AFTER DAMAGED AREAS HAVE BEEN INSPECTED ACCORDING TO ITEM 849 DAMAGE ASSESSMENT. PREPARE THE DAMAGED MATERIAL FOR WELDING, PROVIDE RUNOFF TABS FOR ALL COMPLETE PENETRATION WELDS. PERFORMING COMPLETE PENETRATION WELDS ACCORDING TO C&MS 513 USING APPROVED ELECTRODES, PROCEDURES AND WELDERS. REMOVE RUNOFF TABS AND GRIND THE COMPLETED EDGES SMOOTH. GRIND THE COMPLETED WELDS SMOOTH AND FLUSH WITH THE ADJACENT SURFACES TO PROVIDE A SURFACE FINISH ACCORDING TO ANSI B46.1 OF 250 MIL. DO NOT OVER GRIND AS TO REDUCE THE MATERIAL THICKNESS OR WIDTH OF THE NEW OR EXISTING MATERIALS. PREPARE ALL REENTRANT CORNERS WITH A ONE INCH RADIUS. REMOVE WELDING, START AND STOP DISCONTINUITIES. RADIOGRAPHIC TEST THE FINISHED WELDS ACCORDING TO C&MS 513.25A AND SUBMIT COPIES OF THE REPORTS TO THE ENGINEER. THE ENGINEER MAY OBTAIN TECHNICAL ASSISTANCE FROM THE OFFICE OF MATERIALS MANAGEMENT. THE DEPARTMENT WILL INCLUDE ALL MATERIALS; TOOLS; LABOR; EQUIPMENT; AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL MISC.: REPAIR OF DAMAGED MAIN MEMBERS, COMPLETE PENETRATION WELDING: FOOT.

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

ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (TWO COAT):
1.0 DESCRIPTION
THIS ITEM CONSISTS OF FIELD PAINTING STRUCTURAL STEEL ON FRA-33-2456, PREVIOUSLY COATED WITH AN OLDER EXISTING OZEU OR IZEU PAINT SYSTEM OR UNPAINTED WEATHERING STEEL TO CORRECT DAMAGE BY COLLISION OR CORROSION. THIS WORK CONSISTS OF PERFORMING SURFACE PREPARATION AND APPLYING A TWO-COAT PAINT SYSTEM TO THE PREPARED STEEL AND FEATHERED REMOVAL AREAS OF EXISTING OZEU OR IZEU PAINT SYSTEMS OR UNPAINTED WEATHERING STEEL. REFER TO TABLE 4 FOR QUANTITIES.

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

3.0 WASHING EXISTING SURFACES
WASHING EXISTING OZEU OR IZEU PAINTED SURFACES OR UNPAINTED WEATHERING STEEL CLEAN SURFACES TO BE COATED WITH LOW PRESSURE WATER CLEANING TO REMOVE ALL DIRT, DEBRIS, ANIMAL EXCREMENT, SALT CONTAMINANTS AND OTHER ACCUMULATED FOREIGN MATERIAL IN ACCORDANCE WITH SSPC-SP12 (LP WC), LOW PRESSURE WATER CLEANING. THE PRESSURE WASHER SHALL BE CAPABLE OF ACHIEVING AT LEAST 2000 POUNDS PER SQUARE INCH AT THE NOZZLE. WHEN USING THE POWER WASHING EQUIPMENT, THE NOZZLE SHALL BE MAINTAINED NO MORE THAN 10 INCHES FROM THE SURFACE. SUPPLY AND USE POTABLE WATER. PROVIDE TO THE ENGINEER A LETTER OF WRITTEN ACCEPTANCE FOR ANY BIODEGRADABLE DETERGENTS OR CLEANERS USED IN CONJUNCTION WITH THIS METHOD. COLLECT AND CONTAIN WATER AND DEBRIS REMOVED DURING WASHING OPERATIONS ABOVE WATER FEATURES IN CONFORMANCE WITH C&MS 514.08 AND C&MS 514.13.D FOR ANY DEBRIS. CREATE SETTLEMENT COLLECTION BASINS AND STRAIN ALL WASH WATER ABOVE LAND FEATURES AS NECESSARY TO PRODUCE VISIBLY CLEAR WATER AND COMPLY WITH C&MS 514.08 AND C&MS 514.13.D FOR ANY DEBRIS.

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

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

ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (TWO COAT) (CONTINUED...):
5.0 FIELD PAINTING
APPLY THE PRIME AND INTERMEDIATE COATS OF THE THREE-COAT PAINT SYSTEM SPECIFIED IN C&MS 708.02, ACCORDING TO C&MS 514.15, 514.16, 514.17, 514.19 AND 514.20 TO CONTRACT LIMITS OR AS DIRECTED BY THE ENGINEER. TINT THE INTERMEDIATE COAT TO APPROXIMATELY THE SAME COLOR AS THE EXISTING FINISH COLOR, UNPAINTED WEATHERING STEEL OR AS DESIGNATED IN THE CONTRACT. MATCH THE COLOR TO THE ENGINEERS SATISFACTION. THE ENGINEER WILL DETERMINE THE PRIME AND INTERMEDIATE COAT THICKNESS USING A TYPE 2 MAGNETIC GAGE AT SPOT LOCATIONS. DO NOT APPLY THE FINISH COAT. THE PRIME AND INTERMEDIATE COAT OF PAINT SHALL MEET THE MINIMUM DRY FILM THICKNESS REQUIREMENTS OF C&MS 514.20. APPLY PAINT AS FOLLOWS:

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

B. *APPLY CAULK AFTER PRIMING*

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

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

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

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

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

STRUCTURE REPAIR NOTES
BRIDGE NO. FRA-33-2456
WATKINS ROAD OVER US 33

SFN 2501899
DESIGN AGENCY EMH&T
DESIGNER CAD | CHECKER TDA
REVIEWER CAS 08/20/26
PROJECT ID 125600
SUBSET 2 | TOTAL 19
SHEET P.25 | TOTAL 42

FRA-33-2456 BRIDGE HIT REPAIR

MODEL: Structure Notes Sheet 1 PAPERSIZE: 34x22 (in.) DATE: 11/17/2026 TIME: 10:10:36 PM USER: cschrader
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7.0 BASIS OF PAYMENT
THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICES AS FOLLOWS:

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

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

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

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

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

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

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

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

ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN:
THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE PERFORM REPAIRS DEFINED IN TABLE 3, SHEETS 11/19 AND 12/19, OR THE HEAT STRAIGHTENING PLAN.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH C&MS 501.05.

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

ITEM 516 REFURBISH BEARING DEVICE, AS PER PLAN
REMOVE AND SALVAGE THE EXISTING ROCKER LOAD PLATE FROM THE EXISTING DAMAGED MAIN MEMBER OVER PIER 4 AND WELD NEW PLATE TO PROPOSED BEAM ACCORDING TO DETAILS PROVIDED ON SHEET 17/19. IF DAMAGE IS PRESENT ON END COVER PLATES AFTER INSPECTION, REMOVE AND WELD NEW PLATES TO ENSURE THE ROCKER IS FIXED HORIZONTALLY TO THE TOP ROCKER PLATE. PORTIONS OF THE EXISTING BEARING TO BE REUSED WILL BE PROVIDED TO THE CONTRACTOR BY THE DISTRICT.

ASBESTOS NOTIFICATION
AN ASBESTOS SURVEY WAS CONDUCTED BY A LICENSED ASBESTOS HAZARD EVALUATION SPECIALIST FOR RENOVATION WORK. A COPY OF THE ASBESTOS INSPECTION REPORT FOR EACH STRUCTURE IS INCLUDED IN THE PLAN PACKAGE OF THIS PROJECT. THE ASBESTOS INSPECTION REPORT DID NOT IDENTIFY THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS ABOVE REGULATORY LIMITS. SUBMIT A COMPLETED ELECTRONIC NOTIFICATION OF DEMOLITION AND RENOVATION FORM (NDRF), APPLICABLE FEES, AND THE ASBESTOS INSPECTION REPORT TO THE OEPA AT LEAST 10 DAYS PRIOR TO ANY DEMOLITION ACTIVITY, RENOVATION ACTIVITY, OR BOTH. SUBMIT THE NDRF AND PAYMENT ALONG WITH THE ASBESTOS INSPECTION REPORT USING THE OEPA EBUSINESS CENTER. SUBMIT ONE ELECTRONIC PDF COPY AND ONE HARD COPY OF THE NDRF TO THE ENGINEER.

VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN
CAREFULLY REMOVE AND SALVAGE POSTS AND FENCING MESH OVER THE LIMITS OF THE DECK REMOVAL. REPLACE THE VANDAL PROTECTION FENCING WITH THE SALVAGED PARTS AND NEW BOLTS ACCORDING TO VPF-1-90.

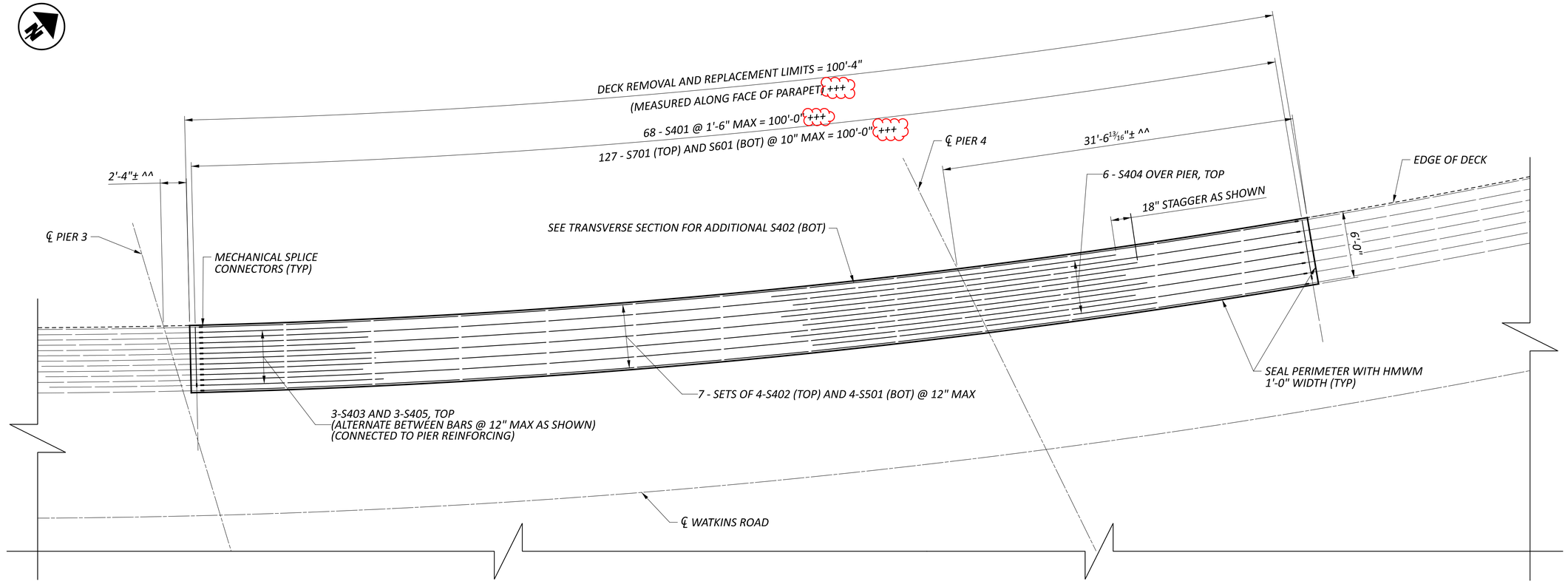
ITEM 513 - STRUCTURAL STEEL MEMBERS LEVEL 5, AS PER PLAN:
ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.06 OR SUPPLY THE ENGINEER WITH "AS BUILT" DRAWINGS MEETING 513.06 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITION. THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS. SUPPLY A COPY OF THE DRAWINGS STAMPED, SEALED, AND DATED, ACCORDING TO SUPPLEMENT 1002, TO THE STRUCTURAL WELDING AND METALS SECTION OF THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES. THE MEMBERS INCLUDED IN THIS ITEM ARE PROVIDED ON SHEETS 12/19 THROUGH 14/19. THIS WORK INCLUDES BEAM 1 PARIAL REPALCEMENT, STIFFENERS, SPLICE PLATES, AND FIELD DRILLING OF FLANGE AND WEB SPLICE HOLES OF THE REPLACED MAIN MEMBER TO ENSURE FIT UP TO EXISTING BEAM. THE CONTRACTOR MUST VERIFY LENGTH OF NEW BEAM PRIOR TO ORDERING/FABRICATION. THE DEPARTMENT WILL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL MEMBERS LEVEL 5, AS PER PLAN: POUND.

FRA-33-2456 BRIDGE HIT REPAIR

MODEL: Structure Notes Sheet 2 PAPERSIZE: 34x22 (in.) DATE: 11/17/2026 TIME: 10:10:39 PM USER: cschrader
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STRUCTURE REPAIR NOTES (CONT.)
BRIDGE NO. FRA33-2456
WATKINS ROAD OVER US 33

SFN 2501899
DESIGN AGENCY EM&T
DESIGNER CAD | CHECKER TDA
REVIEWER CAS 08/20/26
PROJECT ID 125600
SUBSET 3 | TOTAL 19
SHEET P.26 | TOTAL 42



DECK PLAN

LEGEND

^^ MEASURED ALONG EDGE OF DECK

+++ CONTRACTOR SHALL FIELD VERIFY EXISTING BAR INSTALLATION DURING REMOVALS PRIOR TO ORDERING REINFORCING BARS. FINAL INSTALLATION SHALL STAGGER MECHANICAL CONNECTORS TO ENSURE CLEARANCE.

NOTES

1. LAP LENGTHS FOR STEEL REINFORCING BARS SHALL BE:

   #4 BAR = 1'-11"
   #5 BAR = 2'-5"
   #6 BAR = 3'-7"
   #7 BAR = 4'-2"

DECK PLAN
BRIDGE NO. FRA-33-2456
WATKINS ROAD OVER US 33

SFN 2501899

DESIGN AGENCY EMH&T

DESIGNER	CHECKER
CAD	TDA

REVIEWER: CAS 08/20/26

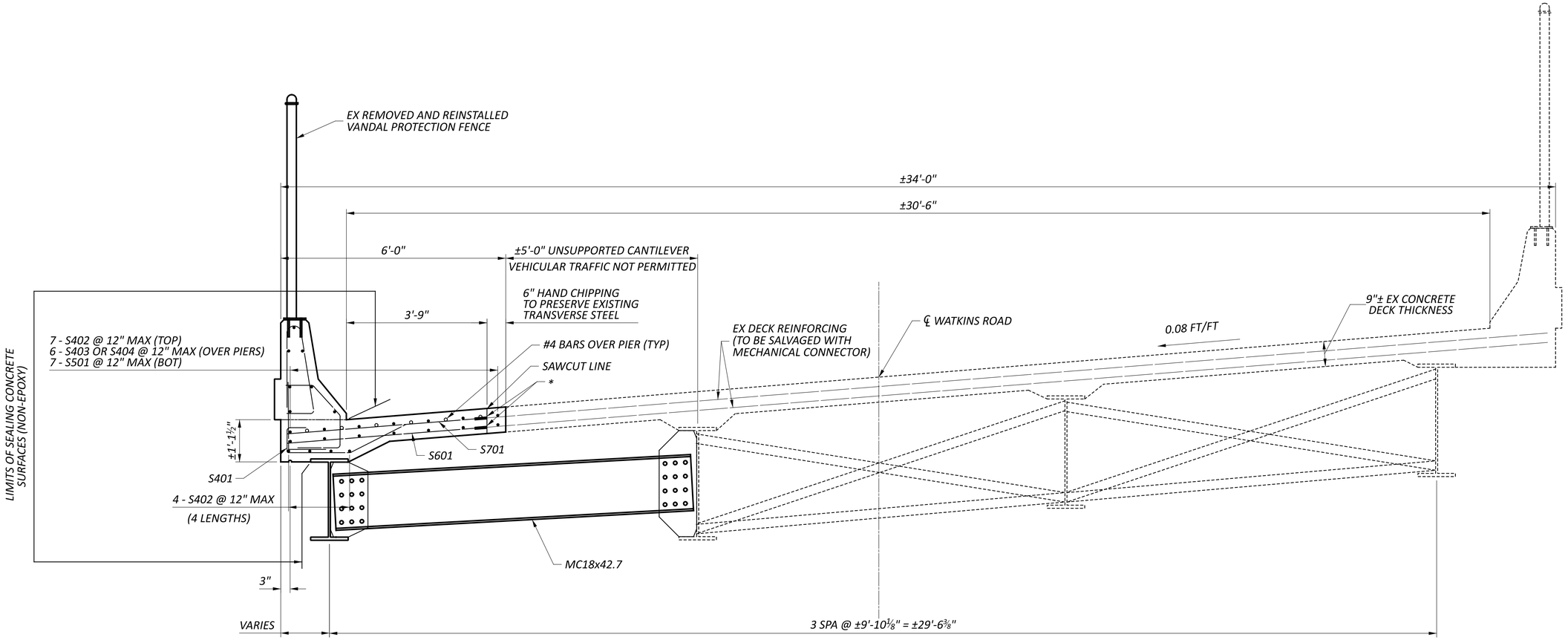
PROJECT ID: 125600

SUBSET	TOTAL
16	19

SHEET	TOTAL
P.39	42

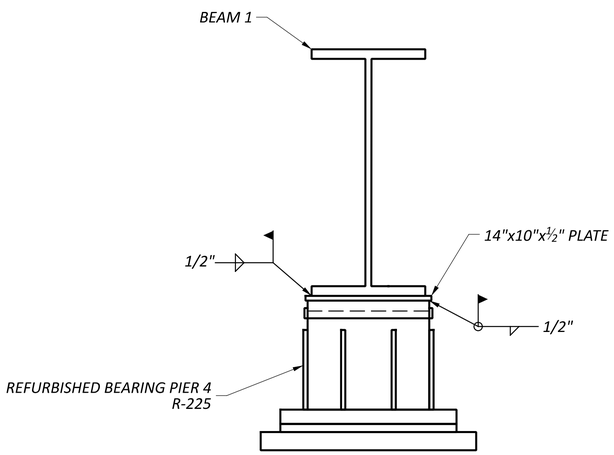
FRA-33-2456 BRIDGE HIT REPAIR

MODEL: Deck Plan [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/17/2026 TIME: 10:17:21 PM USER: cschrader
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TRANSVERSE VIEW

(SPAN 4)



BEARING DETAIL PIER 4

LEGEND

* - MECHANICAL SPLICE CONNECTORS
(CONTRACTOR SHALL FIELD VERIFY EXISTING BAR INSTALLATION DURING REMOVALS PRIOR TO ORDERING REINFORCING BARS. FINAL INSTALLATION SHALL STAGGER MECHANICAL CONNECTORS TO ENSURE CLEARANCE.)

NOTES

1. FOR PARAPET AND VANDAL PROTECTION FENCE DETAILS, SEE SHEET 15/16.

TRANSVERSE SECTION
BRIDGE NO. FRA-33-2456
WATKINS ROAD OVER US 33

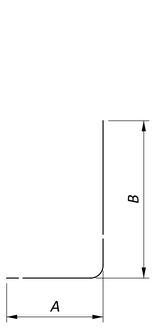
FRA-33-2456 BRIDGE HIT REPAIR

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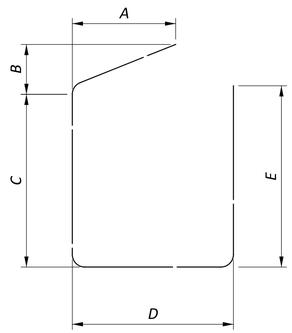
SFN 2501899
DESIGN AGENCY EM&T
DESIGNER CAD | CHECKER TDA
REVIEWER CAS 08/20/26
PROJECT ID 125600
SUBSET 17 | TOTAL 19
SHEET P.40 | TOTAL 42

	MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
	DECK AND RAILNGS (EPOXY COATED REINFORCING STEEL)											
	S401	68	4'-4''	197	12	0'-9''	1'-6''	1'-8''	0'-8''	0'-6''		
**	S402	44	26'-9''	786	STR							
**	S403	3	14'-0''	28	STR							
**	S404	6	31'-0''	124	STR							
**	S405	3	15'-6''	31	STR							
	S501	28	30'-3''	883	STR							
**	S601	127	5'-4''	1017	STR							
**	S701	127	5'-4''	1384	STR							
	P501	112	5'-9''	672	22	0'-9''	2'-5''	2'-2''			0'-3''	
	P502	16	30'-3''	505	STR							
	P503	28	6'-10''	200	STR							
	P601	14	6'-10''	144	STR							
	P602	112	3'-8''	617	14	1'-3''	0'-10''	0'-10''	0'-9''	0'-8''		
	P603	112	2'-8''	449	1	1'-0''	1'-9 1/2''					
			TOTAL	7,037								

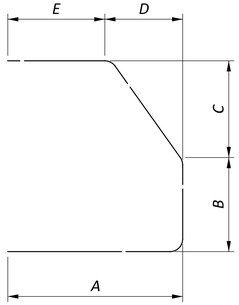
** BAR INCLUDES A MECHANICAL CONNECTOR. CONTRACTOR SHALL FIELD VERIFY EXISTING BAR INSTALLATION DURING REMOVALS PRIOR TO ORDERING REINFORCING BARS. FINAL INSTALLATION SHALL STAGGER MECHANICAL CONNECTORS TO ENSURE CLEARANCE. CONTRACTOR SHALL MODIFY REBAR LENGTHS AS APPROPRIATE.



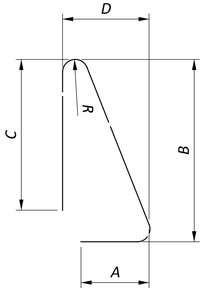
TYPE-1



TYPE-12



TYPE-14



TYPE-22

NOTES

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, THE BAR MARK "S601" IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT/OUT, UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD" WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.
2. ALL REINFORCING STEEL TO BE EPOXY COATED.

REINFORCING STEEL SCHEDULE
BRIDGE NO. FRA-33-2456
WATKINS ROAD OVER US 33

FRA-33-2456 BRIDGE HIT REPAIR

MODEL: Rebar Table-1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/17/2026 TIME: 10:18:58 PM USER: cschrader
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SFN 2501899
DESIGN AGENCY EMH&T
DESIGNER CAD | CHECKER TDA
REVIEWER CAS 08/20/26
PROJECT ID 125600
SUBSET 19 | TOTAL 19
SHEET P.42 | TOTAL 42