INDEX OF SHEETS:

CALCULATED XXX
CHECKED XXX

INDEX OF SHEETS

MUS-70-10.49

MOT SEQUENCE OF OPERATIONS

PRE-PHASE 1 (SHEETS 103-139)

REMOVE AND REERECT EXISTING LIGHT POLES THAT CONFLICT WITH THE PROPOSED TEMPORARY PAVEMENT.

CONSTRUCT TEMPORARY PAVEMENT ON THE OUTSIDE SHOULDERS OF I.R. 70 AS SHOWN IN THE PLANS UTILIZING SHOULDER CLOSURES AS PER SCD MT-95.45. PORTABLE BARRIER QUANTITIES ITEMIZED IN THE PLANS.

REMOVE ALL OVERHEAD SIGNS AND SUPPORTS ALONG I.R. 70 AS SHOWN IN THE PLANS. INSTALL WORK ZONE GROUND MOUNTED MAJOR SIGNS ON TEMPORARY SUPPORTS IN ACCORDANCE WITH SCD MT-105.10. SEE SHEETS 93-95 FOR DETAILS OF THESE SIGNS.

MILL AND FILL EXISTING RUMBLE STRIPS ALONG THE INSIDE AND OUTSIDE SHOULDERS OF I.R. 70 AS DETAILED ON SHEET 63.

INSTALL ALL PROPOSED RADAR DETECTORS AT THE VARIOUS INTERSECTIONS IN THE CITY OF ZANESVILLE AS SHOWN ON SHEETS 1221-1228.

ALL CONFLICTING PAVEMENT MARKINGS, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE REMOVED OR COVERED.

PHASE 1 (SHEETS 140-189)

MAINTAIN TWO LANES OF TRAFFIC IN EACH DIRECTION ON I.R. 70 AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

MOVE TRAFFIC TO THE OUTSIDE OF THE EASTBOUND AND WESTBOUND LANES AND CONSTRUCT THE MEDIAN SECTION OF I.R. 70.

CONSTRUCT THE I.R. 70 MAINLINE PAVEMENT AS PER THE PROPOSED TYPICAL SECTIONS EXCEPT THAT THE 1.50" SURFACE COURSE SHALL BE REPLACED WITH A TEMPORARY 1.50" SURFACE COMPRISED OF ITEM 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448), AS PER PLAN (PG64-22/PG64-28).

CONSTRUCT RAMP E, RAMP F, RAMP H AND RAMP O DURING PHASE 1. (RAMP N MAY BE CONSTRUCTED THIS PHASE ALSO.)

BEFORE RAMP O CAN BE CLOSED, TEMPORARY SIGNALS MUST BE IN PLACE AT THE RAMP INTERSECTIONS OF THE I.R. 70/ S.R. 93 INTERCHANGE AS SHOWN ON SHEETS 87-89. THESE SIGNALS ARE TO REMAIN IN PLACE UNTIL THE PROJECT IS COMPLETED.

BEFORE RAMP E CAN BE CLOSED, THE NECESSARY RE-STRIPING OF MAPLE AVE. AT ADAIR AVE. AND SUBSEQUENT SIGNAL WORK MUST BE IN PLACE. SEE SHEETS 90-92 FOR DETAILS.

CLOSURE RESTRICTIONS:

- RAMP E AND RAMP O SHALL NOT BE CLOSED AT THE SAME TIME.
- 5TH STREET, 6TH STREET, AND 7TH STREET SHALL BE CLOSED DURING BRIDGE DEMOLITION AND WHILE THE FALSEWORK IS IN PLACE. 5TH STREET AND 7TH STREET SHALL NOT BE CLOSED AT THE SAME TIME.

PRE-PHASE 2 (SHEETS 190-196)

CONSTRUCT CROSSOVER 1, CROSSOVER 2, AND OTHER NECESSARY TEMPORARY PAVEMENT NEEDED TO MAINTAIN PHASE 2 TRAFFIC AS DETAILED IN THE PLANS.

ALL CONFLICTING PAVEMENT MARKINGS, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE REMOVED OR COVERED.

PHASE 2 (SHEETS 197-239)

MAINTAIN TWO LANES OF TRAFFIC IN EACH DIRECTION ON I.R. 70 AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

THE PASSING LANE OF I.R. 70 EASTBOUND WILL CROSSOVER TO THE WESTBOUND SIDE OF THE ROADWAY, AND THE DRIVING LANE WILL TAPER OVER TO THE PASSING LANE TO ALLOW FOR THE CONSTRUCTION AREA OF THE EASTBOUND LANES.

CONSTRUCT THE I.R. 70 MAINLINE PAVEMENT AS PER THE PROPOSED TYPICAL SECTIONS EXCEPT THAT THE 1.50" SURFACE COURSE SHALL BE REPLACED WITH A TEMPORARY 1.50" SURFACE COMPRISED OF ITEM 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448), AS PER PLAN (PG64-22/PG64-28).

CONSTUCT RAMP T, RAMP U, RAMP J, AND RAMP L DURING PHASE 2.

CLOSURE RESTRICTIONS:

- RAMP T, RAMP J, AND RAMP L SHALL NOT BE CLOSED AT THE SAME TIME. A MINIMUM OF TWO EASTBOUND OFF-RAMPS SHALL BE OPEN AT ALL TIMES.
- RAMP U AND RAMP O SHALL NOT BE CLOSED AT THE SAME TIME.
- RAMP E, RAMP H, AND RAMP J SHALL BE CLOSED WHILE WORK IS IN PROGRESS ON THE MUS-70-1159 STRUCTURE. RAMP E AND RAMP H MAY BE REOPENED TO FIRE/EMS VEHICLES WHILE WORK ON THE MUS-70-1159 STRUCTURE IS ONGOING ONCE THE REAR APPROACH SLAB IS COMPLETE.
- 5TH STREET, 6TH STREET, AND 7TH STREET SHALL BE CLOSED DURING BRIDGE DEMOLITION AND WHILE THE FALSEWORK IS IN PLACE. 5TH STREET AND 7TH STREET SHALL NOT BE CLOSED AT THE SAME TIME.

PRE-PHASE 3 (SHEETS 240-248)

CONSTRUCT CROSSOVER 3, CROSSOVER 4, AND OTHER NECESSARY TEMPORARY PAVEMENT NEEDED TO MAINTAIN PHASE 3 TRAFFIC AS DETAILED IN THE PLANS.

ALL CONFLICTING PAVEMENT MARKINGS, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE REMOVED OR COVERED.

PHASE 3 (SHEETS 249-292)

MAINTAIN TWO LANES OF TRAFFIC IN EACH DIRECTION ON I.R. 70 AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

THE PASSING LANE OF I.R. 70 WESTBOUND WILL CROSSOVER TO THE EASTBOUND SIDE OF THE ROADWAY, AND THE DRIVING LANE WILL TAPER OVER TO THE PASSING LANE TO ALLOW FOR THE CONSTRUCTION AREA OF THE WESTBOUND LANES.

CONSTRUCT THE I.R. 70 MAINLINE PAVEMENT AS PER THE PROPOSED TYPICAL SECTIONS EXCEPT THAT THE 1.50" SURFACE COURSE SHALL BE REPLACED WITH A TEMPORARY 1.50" SURFACE COMPRISED OF ITEM 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448), AS PER PLAN (PG64-22/PG64-28).

CONSTRUCT RAMP V, RAMP W, RAMP A, RAMP K, AND STATE STREET DURING PHASE 3. CONSTRUCT RAMP N IN PHASE 3 (IF NOT CONSTRUCTED IN PHASE 1).

CLOSURE RESTRICTIONS:

- RAMP W, RAMP A, AND RAMP N SHALL NOT BE CLOSED AT THE SAME TIME. A MINIMUM OF TWO WESTBOUND OFF-RAMPS SHALL BE OPEN AT ALL TIMES.
- RAMP V AND RAMP K SHALL NOT BE CLOSED AT THE SAME TIME.
- RAMP A AND RAMP K SHALL BE CLOSED WHILE WORK IS IN PROGRESS ON THE MUS-70-1159 STRUCTURE. RAMP A AND RAMP K MAY BE REOPENED TO FIRE/EMS VEHICLES WHILE WORK ON THE MUS-70-1159 STRUCTURE IS ONGOING ONCE THE APPROACH SLABS ARE COMPLETE.
- 5TH STREET, 6TH STREET, AND 7TH STREET SHALL BE CLOSED DURING BRIDGE DEMOLITION AND WHILE THE FALSEWORK IS IN PLACE. 5TH STREET AND 7TH STREET SHALL NOT BE CLOSED AT THE SAME TIME.
- STATE STREET SHALL BE CLOSED AS PER THE A+B DETAILS ON THIS SHEET.

BEFORE FINAL RESURFACING, CONSTRUCT THE REMAINING SECTIONS OF MEDIAN BARRIER UTILIZING SHOULDER CLOSURES PER SCD MT-95.45.

PHASE 4

THE ASPHALT CONCRETE PAVEMENT ALONG I.R. 70 WITHIN THE FULL DEPTH PROJECT LIMITS SHALL BE PLANED OFF AT A DEPTH OF 1.50".

PLACE ASPHALT CONRETE SURFACE COURSE AS SHOWN ON THE PROPOSED TYPICAL SECTIONS.

WORK DURING THIS PHASE SHALL BE PERFORMED AT NIGHT WITH ONE LANE CLOSED DURING THE PERMITTED CLOSURE TIMES.

PAINTING OF ALL STRUCTURES AS SHOWN IN THE PLANS SHALL ALSO BE PERFORMED DURING PHASE 4. INTERMITTENT CLOSURES OF MCINTIRE AVENUE, LINDEN AVENUE, AND UNDERWOOD STREET WILL BE PERMITTED.

A+B BIDDING CONTRACT TABLE

USE THE FOLLOWING INFORMATION WITH THE PROPOSAL NOTE 124 A+B BIDDING. THE CONTRACTOR WILL BID THE NUMBER OF CALENDAR DAYS TO COMPLETE THE PROJECT AS LISTED IN THE PROPOSAL.

A+B BIDDING CONTRACT TABLE

CONTRACT SEGMENT/ LOCATION OF CRITICAL WORK	MIN. DAYS	MAX. DAYS	INCENTIVE/ DISINCENTIVE $ PER DAY	MAXIMUM INCENTIVE $
STATE STREET BRIDGE & RELATED ROADWAY WORK	90*	100	$8,000	$80,000

*CLOSURE WILL ONLY BE PERMITTED BETWEEN THE DATES OF MAY 1ST AND AUGUST 8TH.

LANE VALUE- I.R. 70

LANE CLOSURES WILL ONLY BE IMPLEMENTED AT THE TIMES LISTED ON THE OHIO DEPARTMENT OF TRANSPORTATION'S WEBSITE, "PERMITTED LANE CLOSURE TIMES" SECTION, LOCATED AT THE ADDRESS BELOW:

http://plcm.dot.state.oh.us/

THE PERMITTED LANE CLOSURE TIMES LISTED ON THE WEBSITE, 14 CALENDAR DAYS PRIOR TO THE BID LETTING DATE, WILL BE IN EFFECT FOR THIS PROJECT. NO WORK WITHIN ACTIVE TRAVEL LANES OR WHICH WILL SLOW TRAFFIC IS PERMITTED AT ANY OTHER TIMES. WHEN NECESSARY, LANE CLOSURES WILL BE ACCOMPLISHED IN ACCORDANCE WITH THE STANDARD CONSTRUCTION DRAWINGS.

SHOULD THE CONTRACTOR CLOSE A LANE BEFORE THE ALLOWABLE TIME AND/OR FAIL TO RE-OPEN ALL LANES TO TRAFFIC, BY THE ALLOWABLE TIME, A DISINCENTIVE AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE AND PROPOSAL NOTE 127 WILL BE ASSESSED.

LANE VALUE CONTRACT TABLE - I.R. 70

DESCRIPTION OF CRITICAL LANE TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE $ PER TIME UNIT
1 LANE OF I.R. 70 MM 10.00 TO MM 14.00	ODOT WEBSITE: PERMITTED LANE CLOSURE TIMES	15 MIN.	$2,500

ALTERNATE METHODS

IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED EFFECT UNTIL APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE DIRECTOR.

CALCULATED BRH CHECKED HAG

MAINTENANCE OF TRAFFIC GENERAL NOTES

MAINTENANCE

MUS-70-10.49

ITEM 614, MAINTAINING TRAFFIC

TRAFFIC SHALL BE MAINTAINED AS PER THE DETAIL SHEETS AND SPECIFICATIONS AND AS OUTLINED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION. IN ADDITION, THE FOLLOWING REQUIREMENTS SHALL APPLY:

THE CONTRACTOR SHALL SUBMIT, IN WRITING A SCHEDULE OF OPERATIONS TO THE DISTRICT DEPUTY DIRECTOR AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT.

BEFORE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER, THE NAMES AND TELEPHONE NUMBERS OF A PERSON OR PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IMMEDIATELY, PER C&MS 614.03.

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

DRUMS SHALL BE PROPERLY REFLECTORIZED (HIGH INTENSITY, FLORESCENT SHEETING) PLASTIC DRUMS AND WEIGHTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL INVOLVED IN PLACING AND REMOVING PORTABLE BARRIER.

THE CONTRACTOR SHALL ARRANGE HIS OPERATIONS SO AS TO PREVENT ANY INTERFERENCE TO THE CONTINUOUS FLOW OF TRAFFIC. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE ROADWAY UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER.

TEMPORARY FEATHERS USING ITEM 441 WILL BE REQUIRED AT ANY LOCATION DESIGNATED BY THE PROJECT ENGINEER. THEY SHALL BE INSTALLED ACCORDING TO BP-3.1 AND REMOVED WHEN NO LONGER REQUIRED.

THE PLANS INDICATE THE MINIMUM SIGNAGE WHICH MUST BE INSTALLED AND/OR MAINTAINED DURING ALL PHASES OF CONSTRUCTION.

EXISTING SIGNS AND CONTRACTOR SUPPLIED SIGNS SHALL BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS SHOWN IN THE PLANS.

ANY CONFLICTING SIGNS AND PAVEMENT MARKINGS WHETHER INSIDE OR OUTSIDE THE WORK LIMITS SHALL BE REMOVED OR COVERED AND TEMPORARY SIGNS AND MARKIGNS ERECTED AND PLACED WHEN APPLICABLE BY THE CONTRACTOR.

THE ENGINEER SHALL RECORD INSTALLATION, REMOVAL, COVERING, UNCOVERING, OR REERECTION OF SIGNS IN THE PROJECT DIARY.

ALL NECESSARY MOT REQUIRED FOR PAINTING STRUCTURES AS SPECIFIED IN THE PLANS SHALL BE INCLUDED IN THIS ITEM.

ANY SIGNAGE REQUIRED TO KEEP THE TRAVELING PUBLIC FROM USING THE EMERGENCY VEHICLE ACCESS AS SHOWN ON SHEET 122 SHALL BE INCLUDED IN THIS ITEM, AS DIRECTED BY THE ENGINEER.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURES, THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, ETC.) AS PER C&MS 2019 501.05.B.2.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 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 AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS ITEMIZED SEPARATELY IN THE PLANS.

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 D5 PUBLIC INFORMATION OFFICER (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, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVEABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
ROAD CLOSURES	>= 2 WEEKS	21 DAYS
	> 12 HOURS & < 2 WEEKS	14 DAYS
	<= 12 HOURS	4 DAYS
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 DAYS
	< 2 WEEKS	5 DAYS
START OF CONST. & TRAFFIC PATTERN CHANGE	N/A	14 DAYS

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

ITEM 614, MAINTAINING TRAFFIC (LANE CLOSURE/REDUCTION REQUIRED

LENGTH AND DURATION OF LANES 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.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

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 ONE 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.

NOTIFICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
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.

ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, THE CONTRACTOR SHALL PREPARE THE SUBGRADE AS PER 209.06. A SOUND EDGE OF THE EXISTING PAVED SHOULDER MUST BE LOCATED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER BEFORE THE TEMPORARY PAVEMENT IS PLACED. PAYMENT FOR THE SUBGRADE PREPARATION AND COMPACTION SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQ. YD. FOR ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN.

ITEM 615, ROADS FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED TO CONSTRUCT THE TEMPORARY PAVEMENT DURING PRE-PHASE 1, PRE-PHASE 2, AND PRE-PHASE 3. THE REMOVAL OF THE TEMPORARY PAVEMENT SHALL BE INCLUDED IN THIS ITEM. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PERFORM THIS WORK AS PER ITEM 615.

THE FOLLOWING QUANTITES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN **(SEE SHEET 102)**

ITEM 615, ROADS FOR MAINTAINING TRAFFIC **LS**

EARTHWORK FOR MAINTAINING TRAFFIC

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR INFORMATION PURPOSES ONLY:

EXCAVATION FOR MAINTAINING TRAFFIC	5,293 CY
EMBANKMENT FOR MAINTAINING TRAFFIC	1,657 CY

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS)

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES ON I.R. 70 SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS:

CHRISTMAS	FOURTH OF JULY
NEW YEAR'S	LABOR DAY
MEMORIAL DAY	THANKSGIVING

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

DAY OF HOLIDAY	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY TO 6:00 AM MONDAY
MONDAY	12:00N FRIDAY TO 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY TO 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY TO 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY TO 6:00 AM FRIDAY
THURSDAY (THANKS-GIVING ONLY)	6:00 AM WEDNESDAY TO 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY TO 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY TO 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $150 FOR EACH MINUTE THE ABOVE DESCRIBED LANE RESTRICTIONS ARE VIOLATED.

CALCULATED BRH CHECKED BRH

NOTICE OF TRAFFIC GENERAL NOTES MAINTENANCE

MUS-70-10.49

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE

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 AS APPROVED BY THE ENGINEER.

- 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).
- ASSISTING A WIDE LOAD THROUGH THE WORK ZONE.
- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ASSIGNMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SET-UP).

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

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

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENICES, AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEO'S 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 CMS 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 SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSITANCE. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE — 2,500 HOUR

THE HOURS PAID SHALL INCLUDE ANY MIMIMUM 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.

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 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.

ITEM 614, MAINTAINING TRAFFIC (ROAD CLOSED SIGN)

THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN STANDARD 48 x 30 INCH "ROAD CLOSED" SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AS SHOWN ON THE DETOUR SHEETS IN THESE MOT PLANS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

ITEM 614, MAINTAINING TRAFFIC (SIGNS AND BARRICADES)

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

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, 4 CHANGEABLE MESSAGE SIGNS. 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 CMS 614.03.

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

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

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

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE. THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

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

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

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

(ESTIMATED 6 SIGNS X 60 MONTHS = 360 SNMT)

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN — 360 SNMT

PHASE CHANGE PAVEMENT MARKING QUANITITES

THE FOLLOWING ESTIMATED QUANTITIES SHALL BE USED AS DIRECTED BY THE ENGINEER TO MAINTAIN TRAFFIC BETWEEN CHANGES IN CONSTRUCTION PHASES DURING THE PROJECT.

SHORT TERM NEEDS (14 DAYS OR LESS):

614, WZ LANE LINE, CLASS I, 6", 642 PAINT	2 MILE
614, WZ EDGE LINE, CLASS I, 6", 642 PAINT	8 MILE
614, WZ CHANNELIZING LINE, CLASS I, 12" 642 PAINT	2,000 FT

LONG TERM NEEDS (GREATER THAN 14 DAYS):

614, WZ LANE LINE, CLASS I, 6", 807 PAINT	10 MILE
614, WZ EDGE LINE, CLASS I, 6", 807 PAINT	40 MILE
614, WZ CHANNELIZING LINE, CLASS I, 12", 807 PAINT	10,000 FT
614, WZ DOTTED LINE, CLASS I, 6", 807 PAINT	5,000 FT

CALCULATED BRH CHECKED BRH

MAINTENANCE OF TRAFFIC GENERAL NOTES

MUS-70-10.49

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

1. EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO, OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES, OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.

2. NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION. IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT, THE RESPONSE OF THE CONTRACTOR SHALL BE OUTLINED AS ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO, OR CANNOT RESPOND TO, AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE OR THE CITY OF ZANESVILLE FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED A REASONABLE AMOUNT OF TIME, AS APPROVED BY THE ENGINEER. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS.

ANY VEHICULAR SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN RECORDS OF MALFUNCTIONS INCLUDING:

1. TIME OF NOTIFICATION OF MALFUNCTION.

2. TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION.

3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED.

4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE.

5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614, SPECIAL - WORK ZONE TRAFFIC SIGNAL (MAPLE AVE. & ADAIR AVE.)

THIS ITEM OF WORK CONSISTS OF THE MODIFICATION OF THE EXISTING SPAN WIRE TRAFFIC SIGNAL AT THE INTERSECTION OF MAPLE AVE. AND ADAIR AVE. IN THE CITY OF ZANESVILLE.

THE CONTRACTOR SHALL SUPPLY THE NECESSARY PROPOSED SIGNAL HEADS AS SHOWN ON SHEET 90, AND INSTALL THEM IN ACCORDANCE WITH C&MS 732, AS WELL AS SCD TC-85.22.

THE EXISTING SIGNAL HEADS THAT ARE REQUIRED TO BE REMOVED SHALL BE STORED BY THE CONTRACTOR, AND RE-INSTALLED AT THE COMPLETION OF THE PROJECT.

ALL PROPOSED SIGNAL HEADS SHALL CONSIST OF 12" LED LENSES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY MALFUNCTIONING SIGNAL HEADS OR LEDS.

THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF ZANESVILLE TO UPDATE THE PHASING AND TIMING OF THE SIGNAL, AS WELL AS TO RESTORE THE SYSTEM BACK TO ITS ORIGINAL STATE AT THE COMPLETION OF THE PROJECT.

THIS ITEM OF WORK SHALL INCLUDE ALL INCIDENTALS INCLUDING, BUT NOT LIMITED TO; UNLASHING AND RELASHING MESSENGER WIRE, PROPOSED SIGNAL CABLE, AS WELL AS ANY ASSISTANCE FROM LAW ENFORCEMENT FOR THE INSTALLATION OF THE NEW SIGNAL HEADS.

PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECCESSARY TO MAKE THE TRAFFIC SIGNAL FULLY-FUNCTIONAL AND OPERATIONAL. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 614, SPECIAL - WORK ZONE TRAFFIC SIGNAL (MAPLE AVE. & ADAIR AVE.) 1 EACH

ITEM 614, SPECIAL - WORK ZONE TRAFFIC SIGNAL (S.R. 93 & I.R. 70 W.B. RAMPS)

THE CONTRACTOR SHALL ERECT THE TEMPORARY SIGNAL AS SHOWN ON SHEETS 88-89 AND SHALL CONFORM TO C&MS SECTION 733.02 AS WELL AS SCD'S MT-96.20 AND MT-96.26.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING POWER TO THE SIGNAL BY CONTACTING THE AEP SOLUTION CENTER AT 1-800-672-2231.

THE CONTRACTOR SHALL DESIGN, FURNISH, INSTALL, AND MAINTAIN A TRAFFIC DETECTOR ON EACH APPROACH WHICH WILL RELIABLY DETECT ALL LEGAL TRAFFIC APPROACHING (BUT NOT LEAVING) THE SIGNAL AS IT PASSES OR WAITS AT THE APPROACH. THE DETECTOR SHALL BE A NON-INVASIVE TYPE (RADAR, VIDEO, OR MICROWAVE) THAT SHALL BE MOUNTED ON THE NEAREST SIGNAL SUPPORT AND CAPABLE TO DETECT VEHICLES A MINIMUM OF 20 FEET BACK FROM THE STOP LINE ON EACH APPROACH.

DETECTORS WHICH DO NOT PROVIDE RELIABLE DETECTION, FREE FROM FALSE CALLS, SHALL BE IMMEDIATELY REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

ALL SIGNAL HEADS SHALL CONSIST OF 12" LED LENSES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY MALFUNCTIONING SIGNAL HEADS AND LED'S.

THE CONTRACTOR SHALL FURNISH A CELLULAR MODEM, ONE 3-ANTENNA ASSEMBLY (PART # 6001136), AND A 10' ETHERNET CABLE FOR REMOTE WIRELESS CELLULAR COMMUNICATION. FOR NETWORK CONSISTENCY, CELLULAR MODEM SHALL BE THE SIERRA WIRELESS: MODEM, AIRLINK MP70 ETHERNET WITH AC TO DC POWER CABLE - MODEL 1102709KIT. THE CONTRACTOR SHALL ALSO FURNISH A MOUNTING BRACKET FOR THE ANTENNA WITH ALL NECESSARY HARDWARE INCLUDING BUT NOT LIMITED TO SPRING NUTS, WASHERS, AND BOLTS THAT INSTALLS TO THE MOUNTING CHANNEL ON THE SIDE OF THE SIGNAL CABINET. THE CELLULAR MODEM EQUIPMENT SHALL BE DELIVERED TO THE ODOT DISTRICT 5 TRAFFIC OFFICE FOR PROGRAMMING PRIOR TO INSTALLATION. THE CONTRACTOR SHALL PROVIDE THE MODEM SERIAL NUMBERS AND NECESSARY ESN NUMBERS FOR ODOT TO ESTABLISH WIRELESS SERVICE. UPON COMPLETION OF THE PROJECT, THE MODEM SHALL BE DELIVERED TO THE ODOT DISTRICT 5 TRAFFIC OFFICE.

SIGNAL TIMING SHALL BE ADJUSTED BY THE CONTRACTOR AS DEEMED NECESSARY BY THE PROJECT ENGINEER.

PAYMENT SHALL BE MADE AT THE CONTRACT BID PRICE AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO FURNISH, INSTALL, AND MAINTAIN THE SYSTEM AS DESCRIBED HEREIN. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 614, SPECIAL - WORK ZONE TRAFFIC SIGNAL (S.R. 93 & I.R. 70 W.B. RAMPS) 1 EACH

ITEM 614, SPECIAL - WORK ZONE TRAFFIC SIGNAL (S.R. 93 & I.R. 70 E.B. RAMPS)

THE CONTRACTOR SHALL ERECT THE TEMPORARY SIGNAL AS SHOWN ON SHEETS 87 AND 89 AND SHALL CONFORM TO C&MS SECTION 733.02 AS WELL AS SCD'S MT-96.20 AND MT-96.26.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE NECESSARY CABLES AND EQUIPMENT INTO THE EXISTING CONTROLLER CABINET AT THE INTERSECTION OF U.S. 22 AND S.R. 93. THE CONTRACTOR SHALL REMOVE THE EXISTING CONTROLLER FROM THE CABINET AT THE S.R. 93/U.S. 22 INTERSECTION, AND INSTALL A NEW ATC V6.24 ECONOLITE COBALT CONTROLLER. THE EXISTING CONTROLLER SHALL BE DELIVERED TO THE ODOT DISTRICT TRAFFIC DEPARTMENT.

THE CONTRACTOR SHALL DESIGN, FURNISH, INSTALL, AND MAINTAIN A TRAFFIC DETECTOR ON EACH APPROACH WHICH WILL RELIABLY DETECT ALL LEGAL TRAFFIC APPROACHING (BUT NOT LEAVING) THE SIGNAL AS IT PASSES OR WAITS AT THE APPROACH. THE DETECTOR SHALL BE A NON-INVASIVE TYPE (RADAR, VIDEO, OR MICROWAVE) THAT SHALL BE MOUNTED ON THE NEAREST SIGNAL SUPPORT AND CAPABLE TO DETECT VEHICLES A MINIMUM OF 20 FEET BACK FROM THE STOP LINE ON EACH APPROACH.

DETECTORS WHICH DO NOT PROVIDE RELIABLE DETECTION, FREE FROM FALSE CALLS, SHALL BE IMMEDIATELY REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

ALL SIGNAL HEADS SHALL CONSIST OF 12" LED LENSES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY MALFUNCTIONING SIGNAL HEADS AND LED'S.

PAYMENT SHALL BE MADE AT THE CONTRACT BID PRICE FOR EACH TEMPORARY SIGNAL LOCATION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO PROVIDE THE SYSTEMS AS DETAILED ABOVE.

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 614, SPECIAL - WORK ZONE TRAFFIC SIGNAL (S.R. 93 & I.R. 70 E.B. RAMPS) 1 EACH

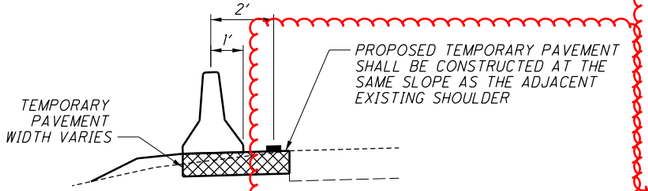
CALCULATED BRH CHECKED BRH

MAINTENANCE OF TRAFFIC GENERAL NOTES

MUS-70-10.49

NOTES

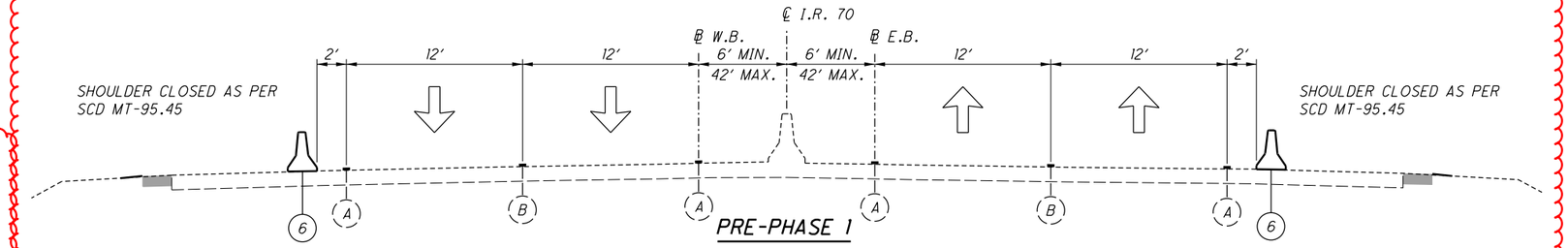
SEE MOT PLAN SHEETS FOR TEMPORARY PAVEMENT LOCATIONS, SAW CUT TAPERS, AND PORTABLE BARRIER TAPERS.



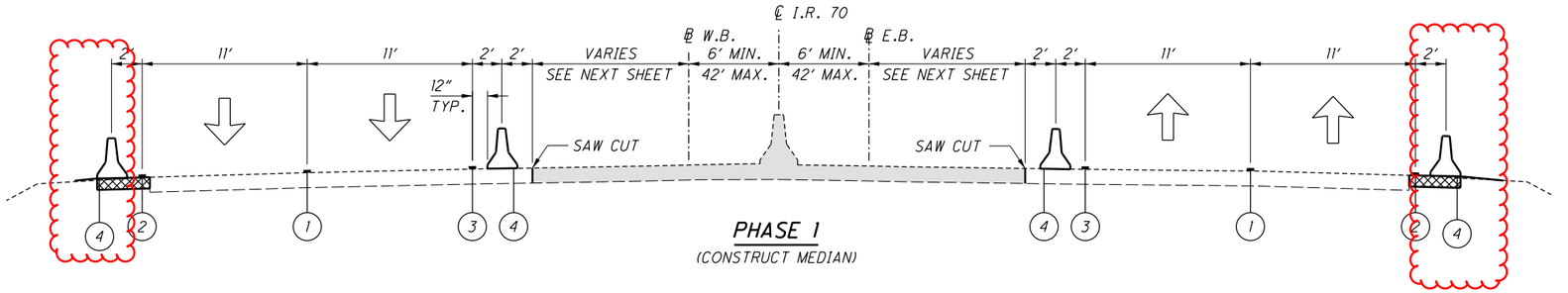
SHOULDER WIDENING DETAIL (TYP.)
(NOT TO SCALE)

LEGEND

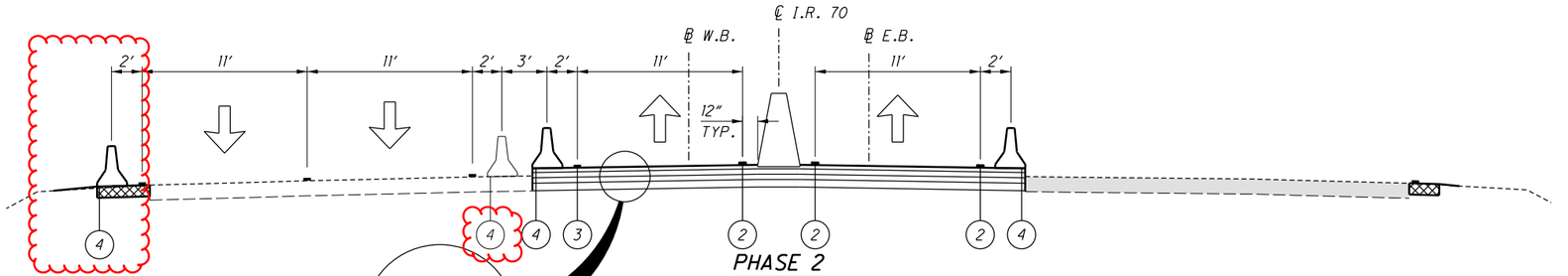
- CONSTRUCTION AREA
- ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- (1) ITEM 614, WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT
- (2) ITEM 614, WORK ZONE EDGE LINE, CLASS I, 6" (WHITE), 807 PAINT
- (3) ITEM 614, WORK ZONE EDGE LINE, CLASS I, 6" (YELLOW), 807 PAINT
- (4) ITEM 622, PORTABLE BARRIER, ANCHORED (NEW JERSEY SHAPE)
- (5) FINAL RESURFACING: 1.50" PAVEMENT PLANING/ PROPOSED ASPHALT CONCRETE SURFACE COURSE
- (6) ITEM 622, PORTABLE BARRIER, UNANCHORED
- (A) EXISTING EDGE LINE
- (B) EXISTING LANE LINE



PRE-PHASE 1
(CONSTRUCT SHOULDER WIDENING)



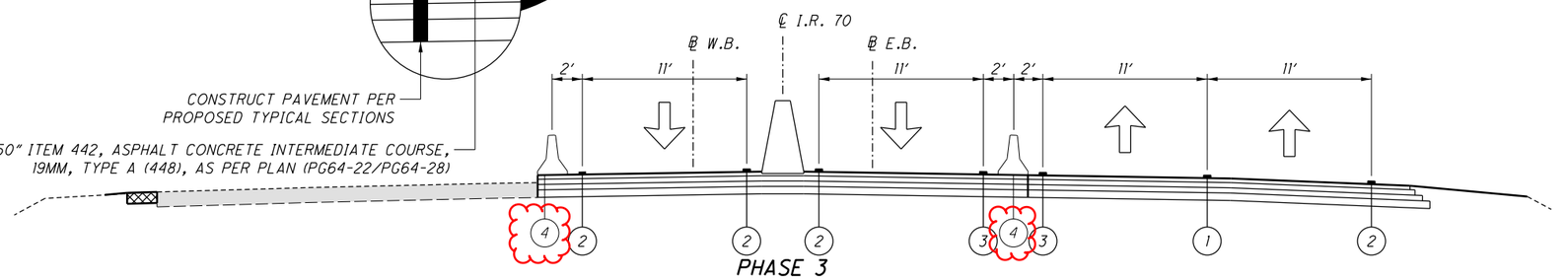
PHASE 1
(CONSTRUCT MEDIAN)



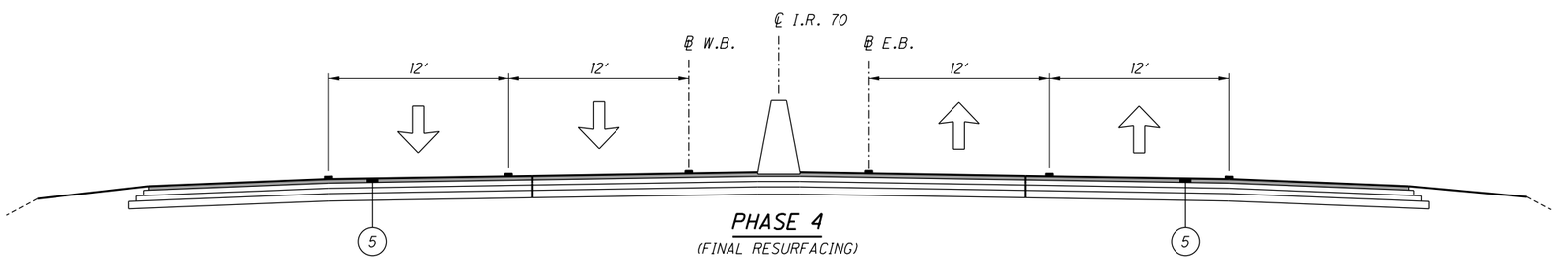
PHASE 2
(CONSTRUCT E.B. PAVEMENT & RAMPS)

CONSTRUCT PAVEMENT PER PROPOSED TYPICAL SECTIONS

1.50" ITEM 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448), AS PER PLAN (PG64-22/PG64-28)



PHASE 3
(CONSTRUCT W.B. PAVEMENT & RAMPS)



PHASE 4
(FINAL RESURFACING)

	BARRIER 4
SHAPE	NEW JERSEY
ANCHORING	NEW JERSEY SHAPE: 1. USE THE PCB AS DETAILED ON SCD PCB-91 (NJ SHAPE SEGMENTS WITH ANCHORING HOLES) 2. ANCHOR THE PCB WITH 4 ANCHORING BOLTS PER BARRIER SEGMENT, ONE LOCATED AT EACH CORNER OF THE PCB. 3. EACH ANCHORING BOLT SHALL BE 1 INCH DIAMETER HIGH -STRENGTH STEEL WITH A NUT AND WASHER AS SPECIFIED IN SCD PCB-91. 4. ANCHORING BOLTS WILL BE A MINIMUM OF 36 INCHES LONG

CALCULATED BRH CHECKED CMY

MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

MUS-70-10.49

6.8
2231

MAINTENANCE OF TRAFFIC SUBSUMMARY

CALCULATED BRH | CHECKED CMY

SHEET NO.	PHASE	254 PAVEMENT PLANING, ASPHALT CONCRETE (1.50") SY	254 PAVEMENT PLANING, PORTLAND CEMENT CONCRETE (1.50") SY		407 NON-TRACING TACK COAT (0.09 GAL/SY) GAL	407 NON-TRACING TACK COAT (0.08 GAL/SY) GAL		441 ASPHALT CONCRETE SURFACE COURSE, TYPE I, (448), PG64-22 (1.50") CY		614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE I (ONE WAY) EACH	614 OBJECT MARKER, ONE WAY EACH		615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN SY	622 PORTABLE BARRIER, UNANCHORED FT	625 REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN EACH		630 SIGN, FLAT SHEET SF	630 SIGN, GROUND MOUNTED EXTRUSHEET SF		
103	PRE-PHASE 1	122.3			11.1			6.8														
104	PRE-PHASE 1	200.0			18.0			11.2													198	
105	PRE-PHASE 1	244.5			22.1			13.6						89								
106	PRE-PHASE 1	244.5			22.1			13.6						244								
107	PRE-PHASE 1	244.2			22.0			13.6						416								
108	PRE-PHASE 1	27.3	38.0		2.5	3.1		3.7						153								
109	PRE-PHASE 1		244.5			19.6		13.6						286								
110	PRE-PHASE 1		121.8			9.8		6.8						72								
111	PRE-PHASE 1	174.2			15.7			9.7												4	80	
112	PRE-PHASE 1	234.2			21.1			13.1						152		2					28	
113	PRE-PHASE 1	245.3			22.1			13.7						176		3						
114	PRE-PHASE 1	226.4			20.4			12.6						268		4					42	
115	PRE-PHASE 1	244.8			22.1			13.6						193		4					85	
116	PRE-PHASE 1	244.5			22.1			13.6						524		5					74	
117	PRE-PHASE 1	38.1			3.5			2.2						153							42	
118	PRE-PHASE 1		19.6			1.6		1.1						56								
119	PRE-PHASE 1		187.3			15.0		10.5						442		2				4	205	
120	PRE-PHASE 1		134.4			10.8		7.5						143		2					28	
121	PRE-PHASE 1		179.8			14.4		10.0						514		2						
122	PRE-PHASE 1	87.0	69.2		7.9	5.6		8.7						545		3						
123	PRE-PHASE 1	244.5			22.1			13.6						473		4					28	
124	PRE-PHASE 1	222.0			20.0			12.4						202		1						
125	PRE-PHASE 1	244.8			22.1			13.6						202							98	
126	PRE-PHASE 1	244.6			22.1			13.6						386		3						
127	PRE-PHASE 1	244.5			22.1			13.6						488		3						
128	PRE-PHASE 1	244.5			22.1			13.6						470		3						
129	PRE-PHASE 1	244.5			22.1			13.6						434		1						
130	PRE-PHASE 1	244.5			22.1			13.6						443		3						
131	PRE-PHASE 1	169.9			15.3			9.5						276		1						
132	PRE-PHASE 1	244.6			22.1			13.6						151								
133	PRE-PHASE 1	244.5			22.1			13.6						151							242	
134	PRE-PHASE 1	244.5			22.1			13.6						132								
135	PRE-PHASE 1	244.5			22.1			13.6						70								
136	PRE-PHASE 1	169.6			15.3			9.5														
137	PRE-PHASE 1	122.3			11.1			6.8														
138	PRE-PHASE 1	122.4			11.1			6.8														
139	PRE-PHASE 1	52.5			4.8			3.0														
	EST. QTY'S FOR CONSTRUCTING TEMP. PAVEMENT									12	500	500			25,000							
	TOTALS CARRIED TO SHEET 102	6,126	995		634			397		12	500	500		8,304	25,000	46		8	1,150			

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SHEET NO.	PHASE	254 PAVEMENT PLANING, ASPHALT CONCRETE (1.50") SY		407 NON-TRACING TACK COAT (0.09 GAL/SY) GAL		411 STABILIZED CRUSHED AGGREGATE CY		441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 (1.50") CY		614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE 1 (ONE WAY) EACH	614 OBJECT MARKER, ONE WAY EACH		615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN SY		622 PORTABLE BARRIER, UNANCHORED FT
190	PRE-PHASE 2	122.3		11.1		26.9		6.8						667		
191	PRE-PHASE 2	222.3		20.1		15.5		12.4						654		
192	PRE-PHASE 2	244.5		22.1				13.6						475		
193	PRE-PHASE 2	200.0		18.0				11.2						506		
194	PRE-PHASE 2	222.3		20.1				12.4						365		
195	PRE-PHASE 2	219.1		19.8		19.0		12.2						721		
196	PRE-PHASE 2	114.1		10.3		21.6		6.4						557		
	EST. QTY'S FOR CONSTRUCTING TEMP. PAVEMENT									4	200	200				10,000
	TOTALS CARRIED TO SHEET 102	1,345		122		83		75		4	200	200		3,945		10,000

CALCULATED BRH CHECKED CMY

MAINTENANCE OF TRAFFIC SUBSUMMARY

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SHEET NO.	PHASE	254 PAVEMENT PLANING, ASPHALT CONCRETE (1.50") SY		407 NON-TRACING TACK COAT (0.09 GAL/SY) GAL		411 STABILIZED CRUSHED AGGREGATE CY		441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 (1.50") CY		614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE 1 (ONE WAY) EACH	614 OBJECT MARKER, ONE WAY EACH		615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN SY	622 PORTABLE BARRIER, UNANCHORED FT
240	PRE-PHASE 3	11.2		1.1				0.7							
241	PRE-PHASE 3	122.3		11.1				6.8							
242	PRE-PHASE 3	44.5		4.1		8.0		2.5						206	
243	PRE-PHASE 3					26.3								713	
244	PRE-PHASE 3													59	
245	PRE-PHASE 3													156	
246	PRE-PHASE 3	108.3		9.8				6.1						294	
247	PRE-PHASE 3	122.3		11.1		17.5		6.8						608	
248	PRE-PHASE 3	103.4		9.4		21.3		5.8						525	
	EST. QTY'S FOR CONSTRUCTING TEMP. PAVEMENT									4	120	120			6000
	TOTALS CARRIED TO SHEET 102	512		47		74		29		4	120	120		2,561	6,000

CALCULATED BRH
CHECKED CMY

MAINTENANCE OF TRAFFIC SUBSUMMARY

MUS-70-10.49

100
2231

MAINTENANCE OF TRAFFIC SUBSUMMARY

CALCULATED BRH
CHECKED CMY

SHEET NO.	PHASE	254 PAVEMENT PLANING, ASPHALT CONCRETE (1.50") SY	254 PAVEMENT PLANING, PORTLAND CEMENT CONCRETE (1.50") SY	407 NON-TRACKING TACK COAT GAL	411 STABILIZED CRUSHED AGGREGATE CY	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 CY	614 INCREASED BARRIER DELINEATION FT	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 WORK ZONE IMPACT ATTENUATOR, OVER 24" AND LESS THAN 36" WIDE HAZARDS, (UNIDIRECTIONAL), AS PER PLAN EACH	614 WORK ZONE RAISED PAVEMENT MARKER (1-WAY, WHITE) EACH	614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN (1-WAY WHITE) EACH	614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN (1-WAY YELLOW) EACH	614 BARRIER REFLECTOR, TYPE 1 (ONE WAY) EACH	614 BARRIER REFLECTOR, TYPE 1 (BIDIRECTIONAL) EACH	614 OBJECT MARKER, ONE WAY EACH	614 OBJECT MARKER, TWO WAY EACH	614 WORK ZONE LANE LINE, CLASS 1, 6", 807 PAINT MILE	614 WORK ZONE EDGE LINE, CLASS 1, 6", 807 PAINT (WHITE) MILE	614 WORK ZONE EDGE LINE, CLASS 1, 6", 807 PAINT (YELLOW) MILE	614 WORK ZONE CHANNELIZING LINE, CLASS 1, 12", 807 PAINT FT	614 WORK ZONE DOTTED LINE, CLASS 1, 6", 807 PAINT FT	614 WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS 1, 642 PAINT FT	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN SY	622 PORTABLE BARRIER, UNANCHORED FT	622 PORTABLE BARRIER, ANCHORED FT	622 GLARE SCREEN FT	625 REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN EACH	630 SIGN, FLAT SHEET SF	630 SIGN, GROUND MOUNTED EXTRUSHEET SF
96	PRE-PHASE 1	6,126	995	634		397		12					500		500									8,304	25,000			46	8	1,150
97	PHASE 1						5,625	11			737	235	894		981		13.1	15.0	15.1	15,252	8,130				49,550	31,400				
98	PRE-PHASE 2	1,345		122	83	75		4					200		200									3,945	10,000					
99	PHASE 2						3,110	5	1		498	145	105	1,025	10	677	7.3	29.8	15.5	11,050	3,620	130			34,360	34,060			418	
100	PRE-PHASE 3	512		47	74	29		4					120		120									2,561	6,000					
101	PHASE 3						290	4	1	40	831	252	368		6	37	7.5	30.7	16.2	10,250	4,270	130			2,770	1,440			550	
	EST. QTY'S FOR FINISHING MEDIAN BARRIER							4					20		20										1,000					
	TOTALS CARRIED TO GENERAL SUMMARY	7,983	995	803	157	501	9,025	44	2	40	2,698		2,207	1,025	1,837	714	28	123		36,552	16,020	260		14,810	42,000	66,680	66,900	46	8	2,118

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102
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i:\ProjectData\MUS\93006\400-Engineering\MOT\Sheets\93006_MS007.dgn Sheet 3/2/2021 1:36:16 PM bharlow

LEGEND

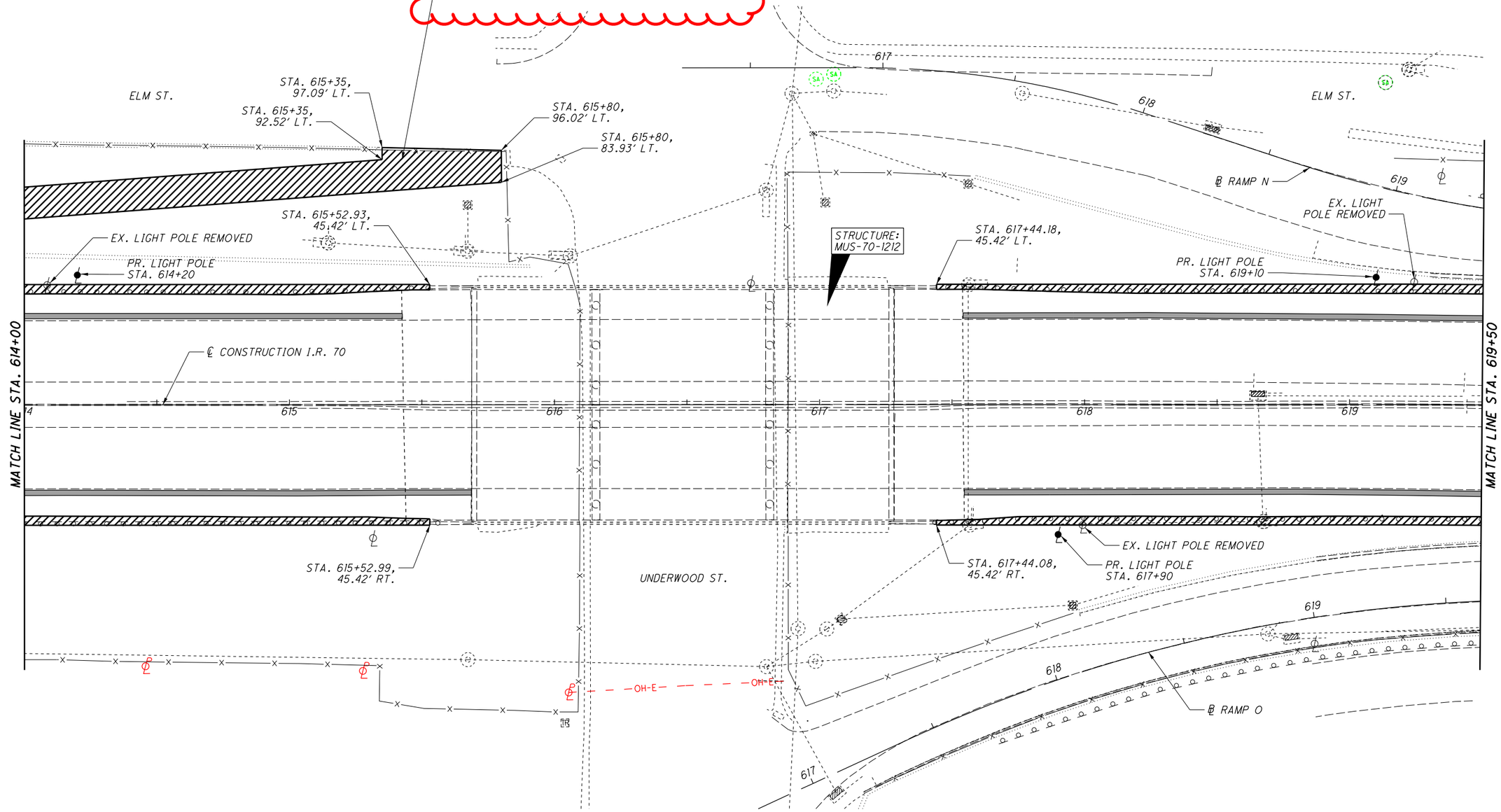
ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN

EX. RUMBLE STRIP REMOVED

EMERGENCY VEHICLE/CONTRACTOR'S ACCESS:

AS PER CMS 615.10, ANY FENCING OR SIDEWALK REMOVAL SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 615, ROADS FOR MAINTAING TRAFFIC.

ALL SIGNAGE REQUIRED TO KEEP THE TRAVELING PUBLIC FROM USING THE ACCESS SHALL BE INCLUDED IN THE LUMP SUM FOR ITEM 614, MAINTAINING TRAFFIC.



FOR MOT SEQUENCE, SEE SHEET 58

FOR MOT QUANTITIES SEE SHEET 96

FOR EXISTING LIGHTING DETAILS, SEE SHEET 1252

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED BRH
CHECKED CMY

MAINTENANCE OF TRAFFIC - PRE-PHASE 1
STA. 614+00 TO STA. 619+50

MUS-70-10.49

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2231

SHEET NUM.													PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
43	44	45	47	61	307	310	311	884	894	988	1908	2204	01/IMS/PV	02/IMS/BR	03/IMS/CV	04/SC2/OT	05/SAF/OT						
																						ROADWAY	
LS													LS					201	11000	LS		CLEARING AND GRUBBING	
									21				21					202	20010	21	EACH	HEADWALL REMOVED	
					153,323								153,323					202	23000	153,323	SY	PAVEMENT REMOVED	
						9,127							9,127					202	30000	9,127	SF	WALK REMOVED	
						1,212							1,212					202	30600	1,212	SY	CONCRETE MEDIAN REMOVED	
						11,796							11,796					202	30700	11,796	FT	CONCRETE BARRIER REMOVED	
						12,538							12,538					202	32000	12,538	FT	CURB REMOVED	
									24				24					202	32600	24	FT	GUTTER REMOVED	
											6,759			6,759				202	32800	6,759	SY	CONCRETE SLOPE PROTECTION REMOVED	
			59,480	300					3,799				63,579					202	35100	63,579	FT	PIPE REMOVED, 24" AND UNDER	
									110	20			130					202	35200	130	FT	PIPE REMOVED, OVER 24"	
				250		23,723							23,973					202	38000	23,973	FT	GUARDRAIL REMOVED	
			38			150							188					202	38200	188	FT	GUARDRAIL REMOVED FOR REUSE	
				5									5					202	42010	5	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
				5									5					202	42040	5	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
						1							1					202	42806	1	EACH	ANCHOR ASSEMBLY REMOVED FOR REUSE	
				4		3							7					202	47800	7	EACH	IMPACT ATTENUATOR REMOVED	
									14				14					202	58100	14	EACH	CATCH BASIN REMOVED	
									53				53					202	58200	53	EACH	INLET REMOVED	
									925				925					SPECIAL	20270000	925	FT	FILL AND PLUG EXISTING CONDUIT, 12"	47
									89				89					SPECIAL	20270000	89	FT	FILL AND PLUG EXISTING CONDUIT, 15"	47
									150				150					SPECIAL	20270110	150	FT	PIPE CLEANOUT, 24" AND UNDER	47
												7,668	7,668					202	75000	7,668	FT	FENCE REMOVED	
												9	9					202	75250	9	EACH	GATE REMOVED	
	17												17					202	98100	17	EACH	REMOVAL MISC.:BARRIER REFLECTOR	44
	3												3					SPECIAL	20307520	3	EACH	SETTLEMENT CELLS	44
		58,310											58,310					203	10000	58,310	CY	EXCAVATION	
		36,960									9,345		36,960	9,345				203	20000	46,305	CY	EMBANKMENT	
											4,977			4,977				204	10000	4,977	SY	SUBGRADE COMPACTION	
1,000													1,000					204	13000	1,000	CY	EXCAVATION OF SUBGRADE	
1,000													1,000					204	30010	1,000	CY	GRANULAR MATERIAL, TYPE B	
57													57					204	45000	57	HOUR	PROOF ROLLING	
3,000													3,000					204	50000	3,000	SY	GEOTEXTILE FABRIC	
5,154													5,154					206	10500	5,154	TON	CEMENT	
170,714													170,714					206	11000	170,714	SY	CURING COAT	
170,714													170,714					206	15020	170,714	SY	CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	
LS													LS					206	30000	LS		MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	
								710					710					512	10050	710	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
				250									250					606	13000	250	FT	GUARDRAIL, TYPE 5	
							17,286						17,286					606	15050	17,286	FT	GUARDRAIL, TYPE MGS	
							425						425					606	15100	425	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
							25						25					606	15150	25	FT	GUARDRAIL, TYPE MGS HALF POST SPACING	
							38						38					606	15250	38	FT	GUARDRAIL, TYPE MGS QUARTER POST SPACING	
							125						125					606	16500	125	FT	GUARDRAIL REBUILT, TYPE 5	
							1						1					606	26050	1	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
				5									5					606	26100	5	EACH	ANCHOR ASSEMBLY, TYPE E	
							20						20					606	26150	20	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
				5									5					606	26500	5	EACH	ANCHOR ASSEMBLY, TYPE T	
							18						18					606	26550	18	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
							1						1					606	27900	1	EACH	ANCHOR ASSEMBLY REBUILT, TYPE T	
							27						27					606	35002	27	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
							22						22					606	35102	22	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	

CALCULATED XXX
CHECKED XXX

GENERAL SUMMARY

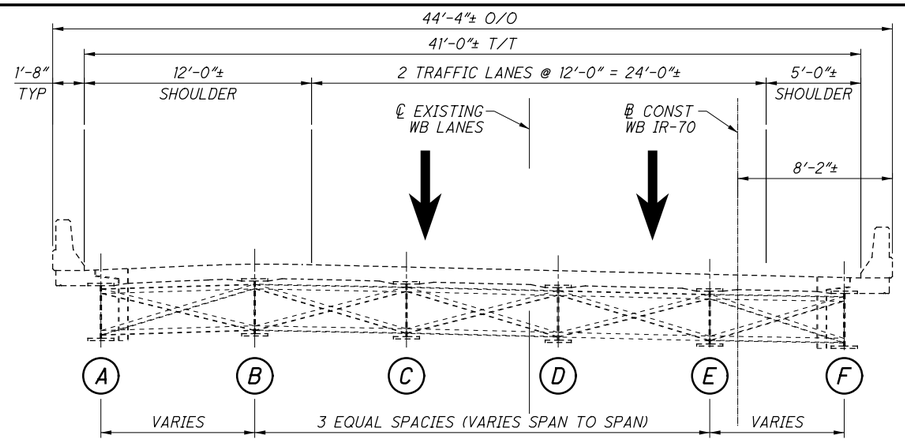
MUS-70-10.49

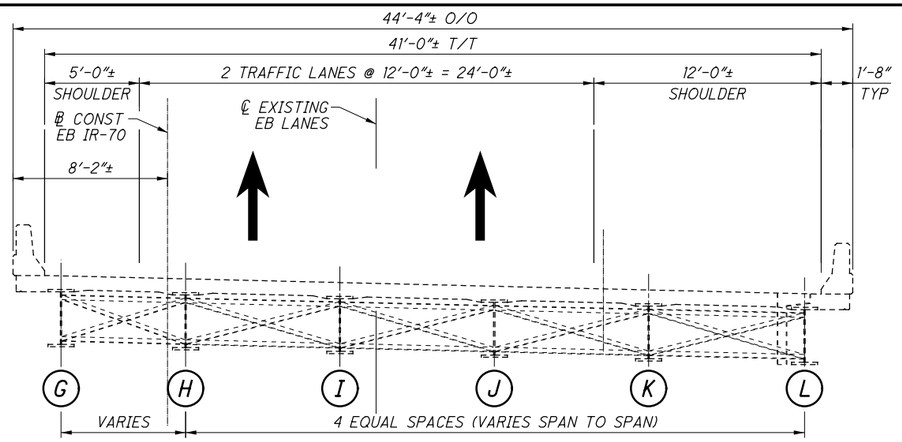
SHEET NUM.										PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
59	60	61	62	63	64	65	66	102	1220	01/IMS/PV	02/IMS/BR	03/IMS/CV	04/S<2/OT	05/SAF/OT						
																			MAINTENANCE OF TRAFFIC	
		1,000								1,000					410	13000	1,000	CY	TRAFFIC COMPACTED SURFACE, TYPE C	
			2,500						72	2,572					614	11110	2,572	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
					1					1					SPECIAL	61411300	1	EACH	WORK ZONE TRAFFIC SIGNAL (MAPLE AVE. & ADAIR AVE.)	64
					1					1					SPECIAL	61411300	1	EACH	WORK ZONE TRAFFIC SIGNAL (S.R. 93 & I.R. 70 E.B. RAMPS)	64
					1					1					SPECIAL	61411300	1	EACH	WORK ZONE TRAFFIC SIGNAL (S.R. 93 & I.R. 70 W.B. RAMPS)	64
		2,500						9,025		11,525					614	11630	11,525	FT	INCREASED BARRIER DELINEATION	
		10						44		54					614	12380	54	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
								2		2					614	12391	2	EACH	WORK ZONE IMPACT ATTENUATOR, OVER 24* AND LESS THAN 36* WIDE HAZARDS,	65
																			(UNIDIRECTIONAL), AS PER PLAN	
										LS					614	12420	LS		DETOUR SIGNING	
	36									36					614	12484	36	EACH	WORK ZONE INCREASED PENALTIES SIGN	
						25				25					614	12500	25	EACH	REPLACEMENT SIGN	
						100				100					614	12600	100	EACH	REPLACEMENT DRUM	
						4				4					614	12756	4	EACH	WORK ZONE CROSSOVER LIGHTING SYSTEM	
		250						40		290					614	12800	290	EACH	WORK ZONE RAISED PAVEMENT MARKER	
								2,698		2,698					614	12801	2,698	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	65
	250	500								750					614	13000	750	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
		500						2,207		2,707					614	13310	2,707	EACH	BARRIER REFLECTOR, TYPE 1 (ONE WAY)	
								1,025		1,025					614	13310	1,025	EACH	BARRIER REFLECTOR, TYPE 1 (BIDIRECTIONAL)	
						250				250					614	13312	250	EACH	BARRIER REFLECTOR, TYPE 2 (ONE WAY)	
		500				250		1,837		2,587					614	13350	2,587	EACH	OBJECT MARKER, ONE WAY	
								714		714					614	13360	714	EACH	OBJECT MARKER, TWO WAY	
			360							360					614	18601	360	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	62
			10					28						38	614	20056	38	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	
			2							2					614	20110	2	MILE	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	
		25	40					123						188	614	22056	188	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	
			8							8					614	22110	8	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
		5,000	10,000					36,552						51,552	614	23110	51,552	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	
			2,000							2,000					614	23210	2,000	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	
		4,000	5,000					16,020						25,020	614	24102	25,020	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	
								260		260					614	25200	260	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	
LS										LS					615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
								14,810		14,810					615	20001	14,810	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	59
	10	5,020								5,030					616	10000	5,030	MGAL	WATER	
		8								8					622	41050	8	EACH	PORTABLE BARRIER, "Y" CONNECTOR	
								42,000		42,000					622	41100	42,000	FT	PORTABLE BARRIER, UNANCHORED	
		25,000						86,680		111,680					622	41110	111,680	FT	PORTABLE BARRIER, ANCHORED	
								66,900		66,900					622	80000	66,900	FT	GLARE SCREEN	
				480						480					808	18700	480	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
							240			240					829	00100	240	SNMT	WORK ZONE EGRESS WARNING SYSTEM	

CALCULATED XXX
CHECKED XXX

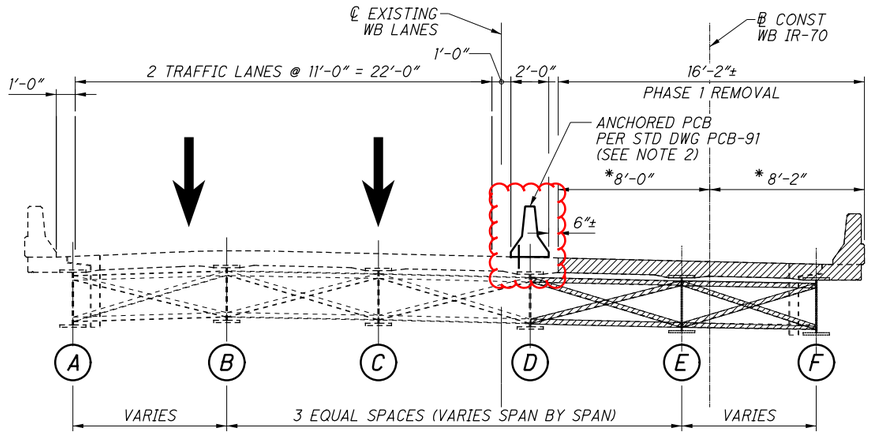
GENERAL SUMMARY

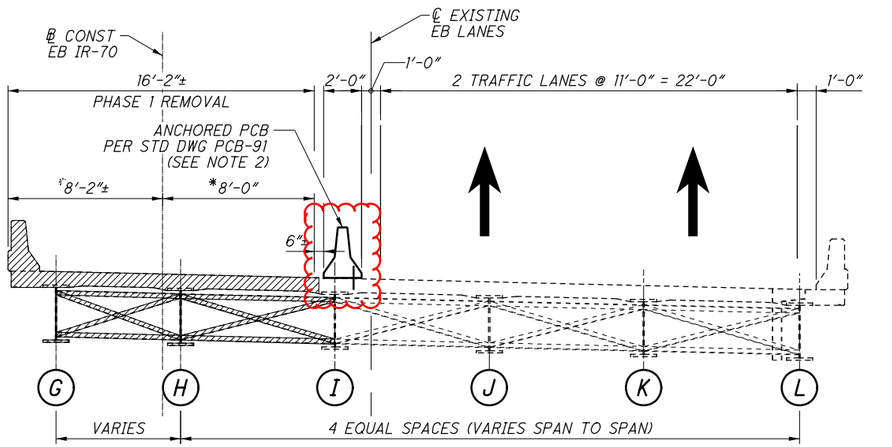
MUS-70-10.49



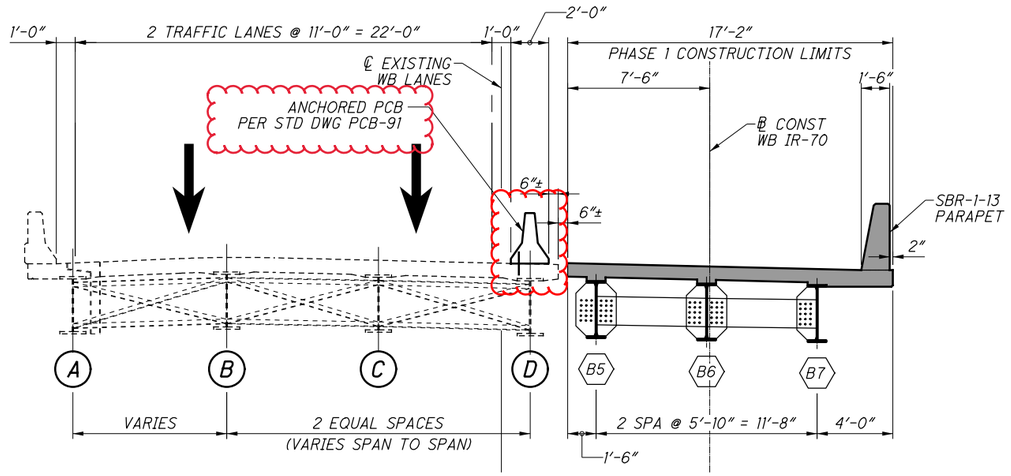


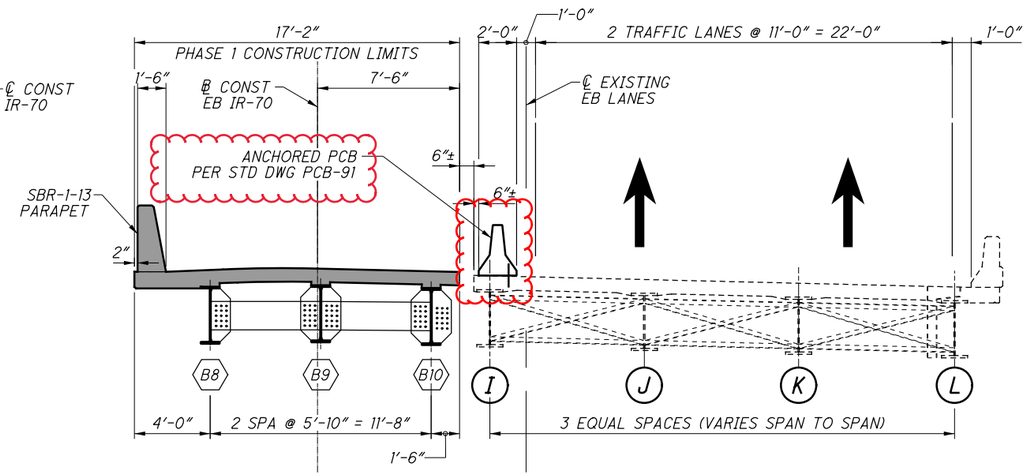
EXISTING TYPICAL SECTION





PHASE 1 - REMOVAL





PHASE 1 - CONSTRUCTION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

* DIMENSIONS SHOWN SHALL BE ADJUSTED AS NEEDED IN THE FIELD TO MAINTAIN THE EXISTING WIDTH REQUIRED TO MAINTAIN TRAFFIC AS SHOWN. THE 6" GAP BETWEEN EXISTING AND PROPOSED DECK MAY BE ADJUSTED TO ACCOMMODATE THE REQUIRED EXISTING DECK WIDTH.

NOTES

1. PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.
2. A MINIMUM OF FOUR ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. ANCHORES ARE TO REMAIN IN PLACE UNTIL AFTER PHASE 1 OR PHASE 2 IS COMPLETE, AS REQUIRED

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

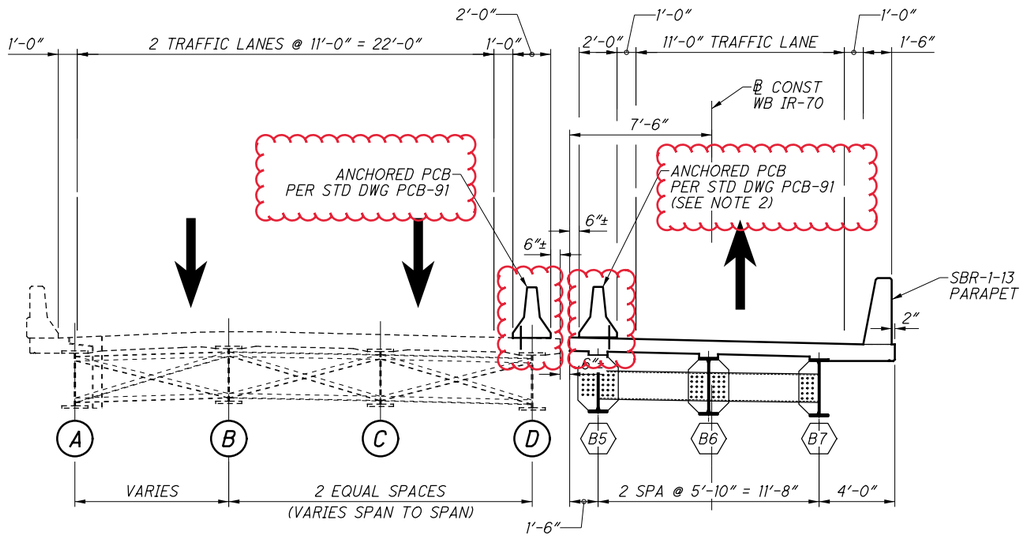
DESIGNED	DRAWN	REVIEWED	DATE
CTM	RSN	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002641	

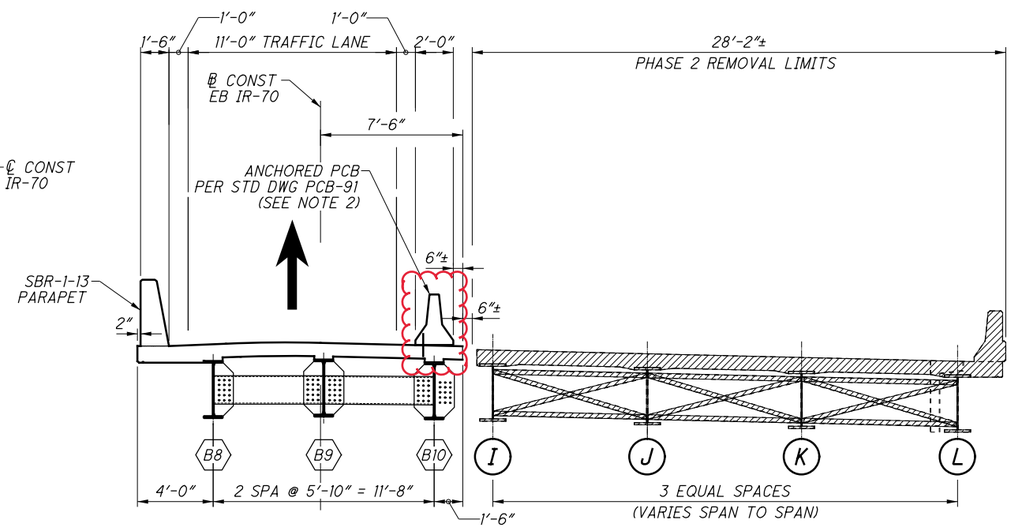
PHASED CONSTRUCTION SECTIONS 1 OF 3
BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

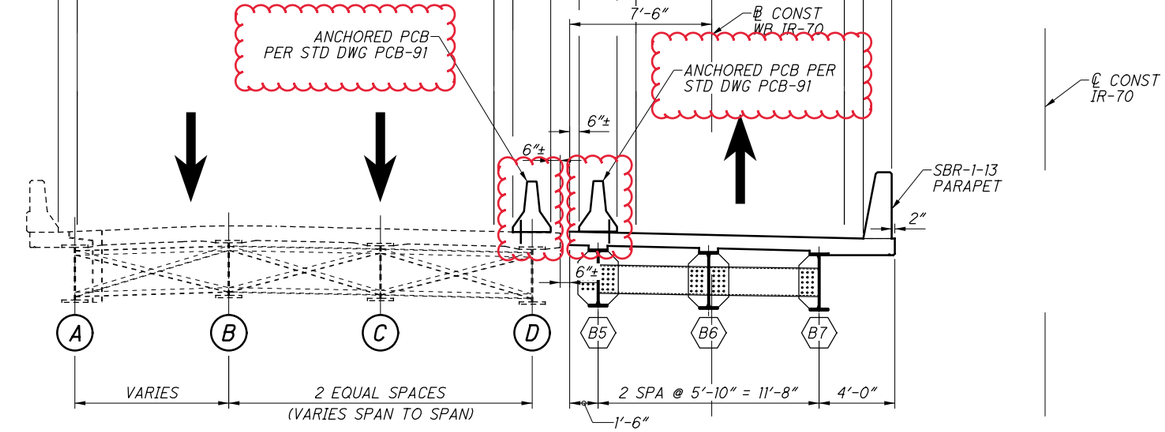
1295
2231

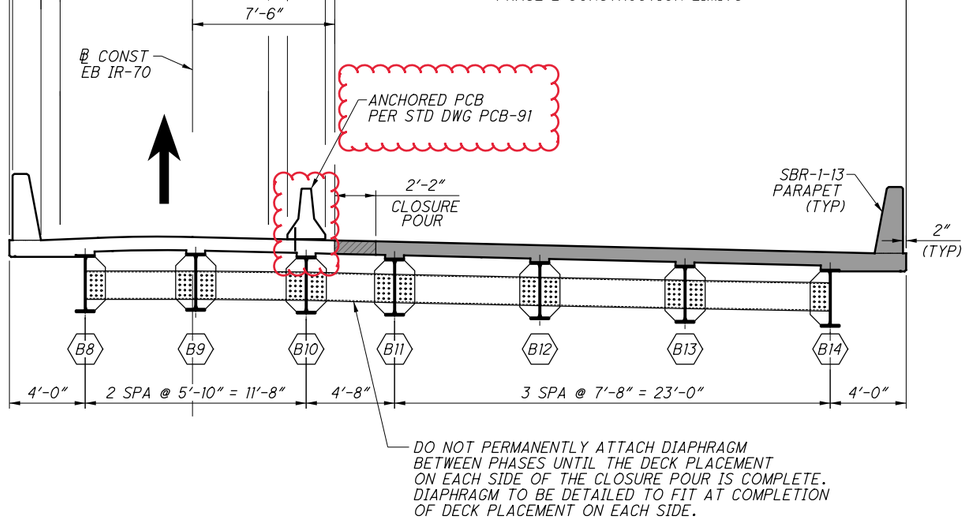
SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
pw:\\gfnet-pw.bentley.com:gfnet-pw-01\Documents\Projects\64771\93006\401-Engineering-Gannett+Fleming\Structures\MUS070_1066L\Sheets\007 sc001 3/8/2021 4:17:09 PM modonnell





PHASE 2 - REMOVAL





PHASE 2 - CONSTRUCTION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

NOTES

1. PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.
2. A MINIMUM OF FOUR ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT.WHEN NO LONGER NEEDED AFTER PHASE 3 IS COMPLETE, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 WHERE DECK IS TO REMAIN IN THE FINAL SECTION.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
CTM	RSN	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002641	

PHASED CONSTRUCTION SECTIONS 2 OF 3
BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
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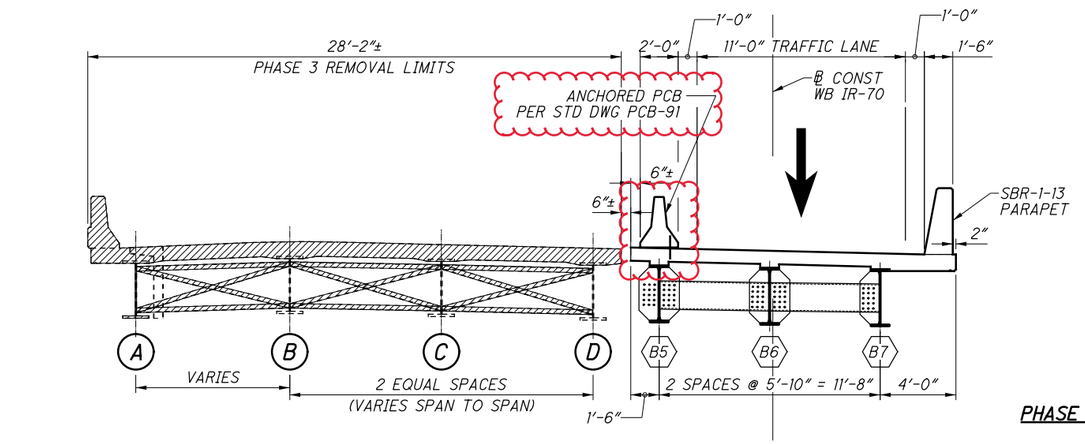
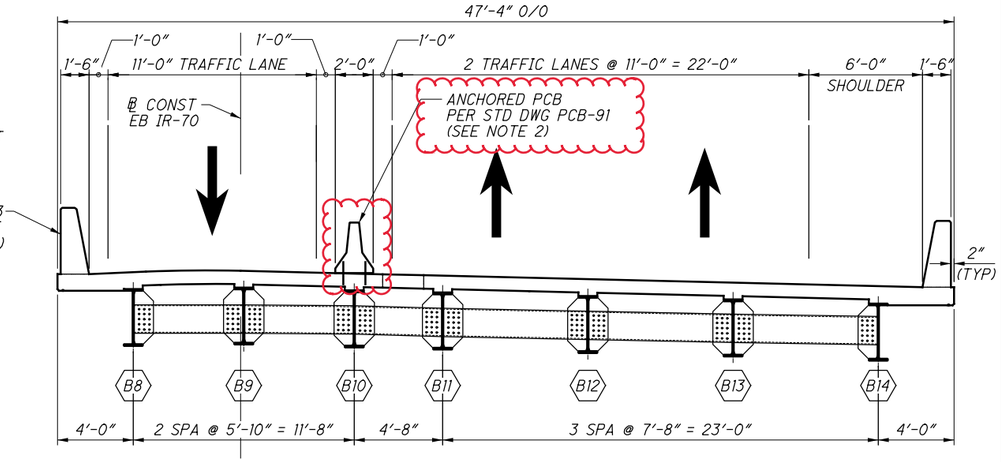
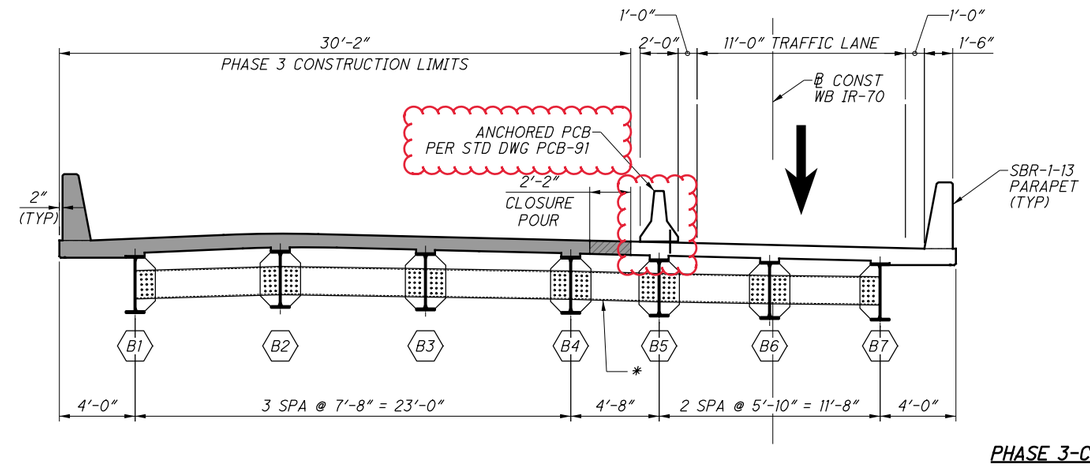
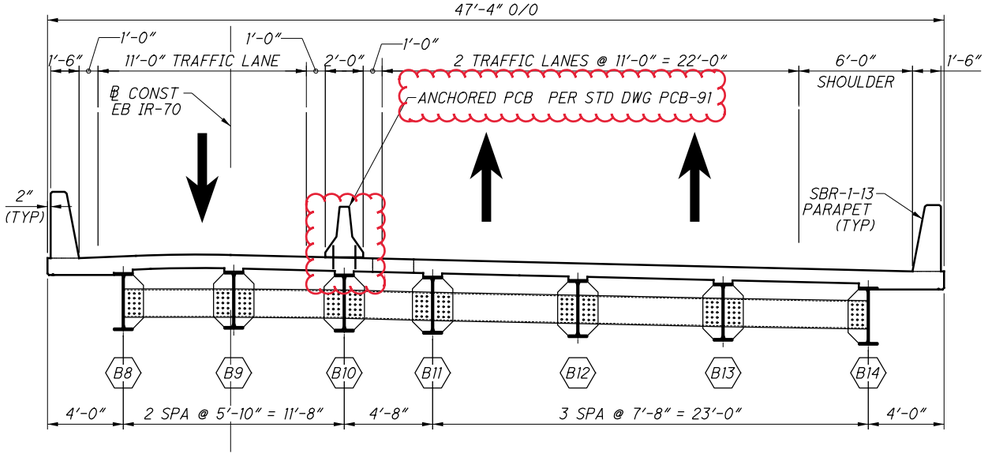


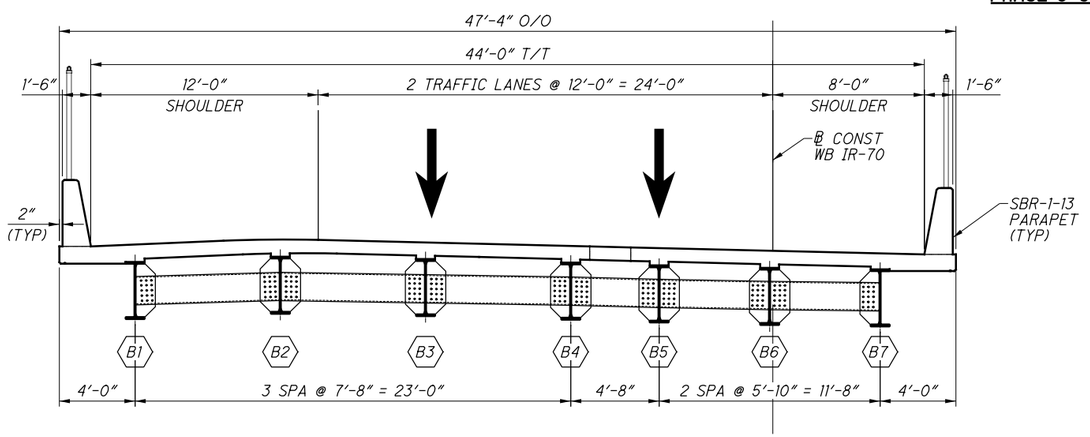


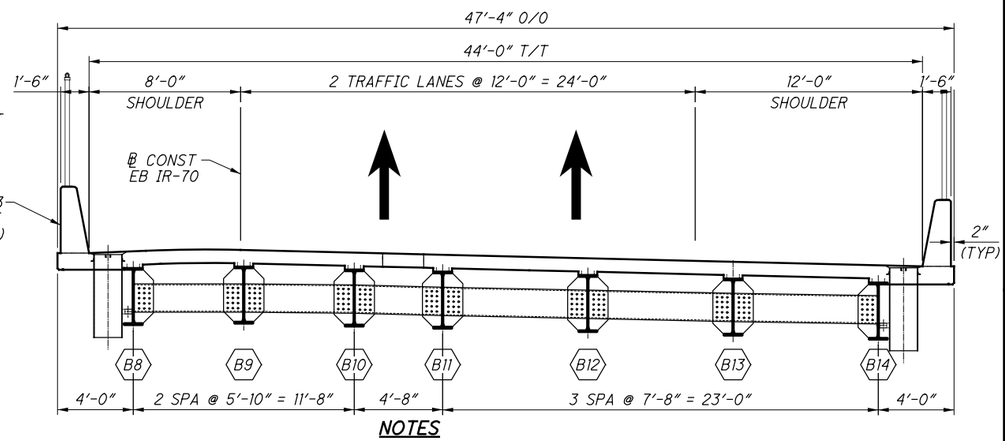
PHASE 3-REMOVAL





PHASE 3-CONSTRUCTION





FINAL TRANSVERSE SECTION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

* DO NOT PERMANENTLY ATTACH DIAPHRAGM BETWEEN PHASES UNTIL THE DECK PLACEMENT ON EACH SIDE OF THE CLOSURE POUR IS COMPLETE. DIAPHRAGM TO BE DETAILED TO FIT AT COMPLETION OF DECK PLACEMENT ON EACH SIDE.

NOTES

1. PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.
2. A MINIMUM OF TWO ANCHORS SHALL BE PROVIDED ON THE EASTBOUND (SOUTH) TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED AFTER PHASE 3 IS COMPLETE, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 WHERE DECK IS TO REMAIN IN THE FINAL SECTION.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2600 CORPORATE EXCHANGE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
CTM	RSN	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002641	

PHASED CONSTRUCTION SECTIONS 3 OF 3

BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTv8i_Pen.tbl
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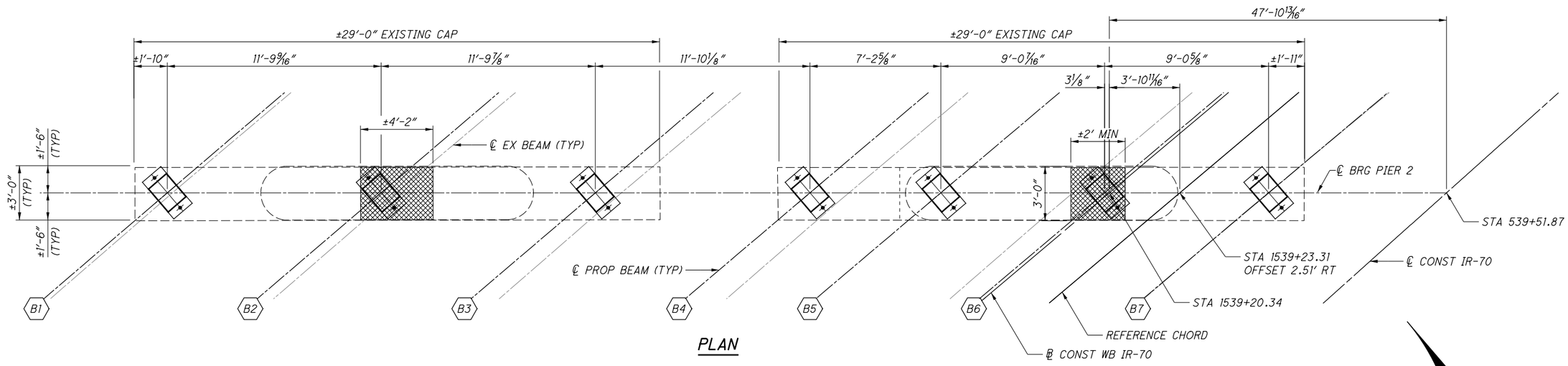
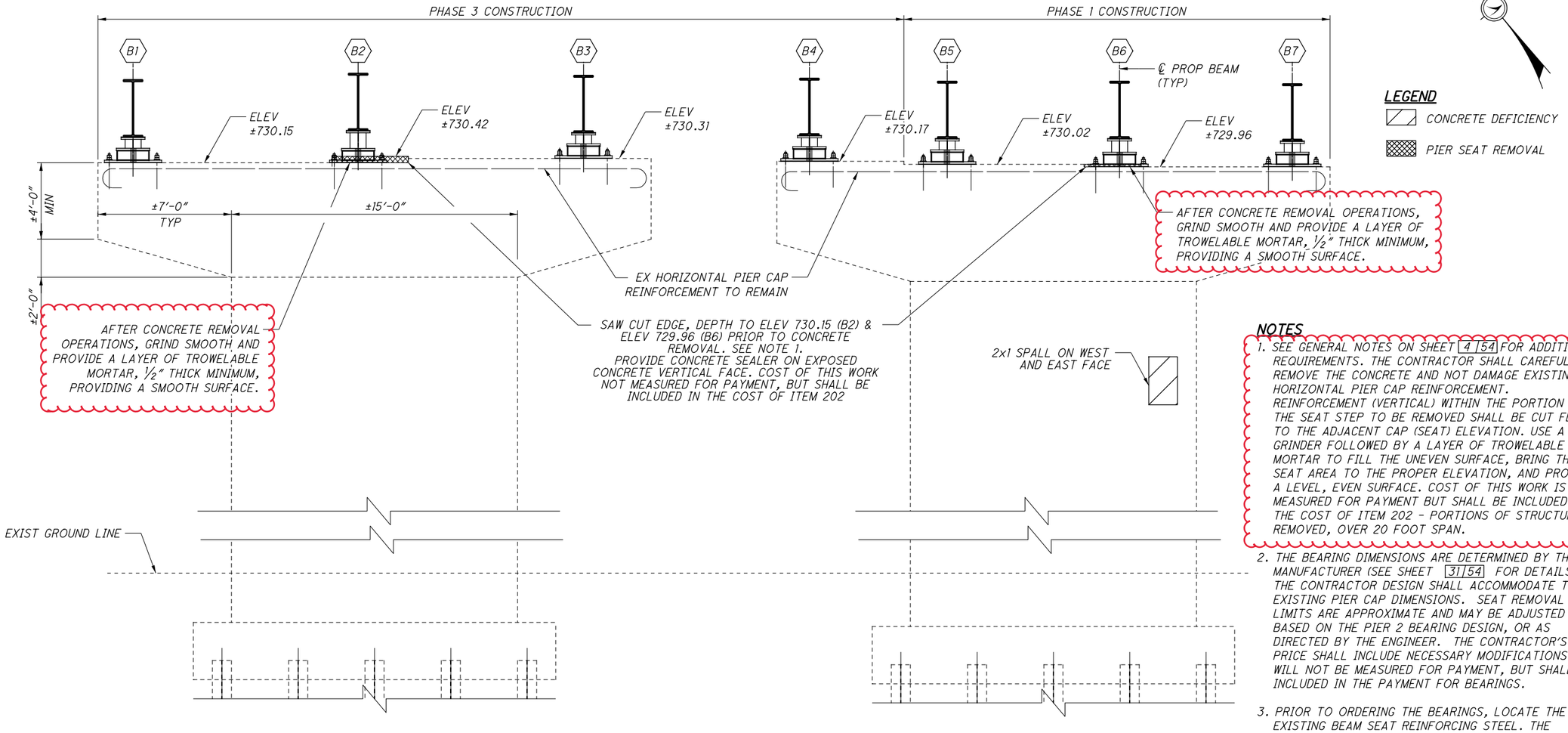


PLAN



ELEVATION

NOTES

1. SEE GENERAL NOTES ON SHEET 4 54 FOR ADDITIONAL REQUIREMENTS. THE CONTRACTOR SHALL CAREFULLY REMOVE THE CONCRETE AND NOT DAMAGE EXISTING HORIZONTAL PIER CAP REINFORCEMENT. REINFORCEMENT (VERTICAL) WITHIN THE PORTION OF THE SEAT STEP TO BE REMOVED SHALL BE CUT FLUSH TO THE ADJACENT CAP (SEAT) ELEVATION. USE A GRINDER FOLLOWED BY A LAYER OF TROWELABLE MORTAR TO FILL THE UNEVEN SURFACE, BRING THE SEAT AREA TO THE PROPER ELEVATION, AND PROVIDE A LEVEL, EVEN SURFACE. COST OF THIS WORK IS NOT MEASURED FOR PAYMENT BUT SHALL BE INCLUDED IN THE COST OF ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN.
2. THE BEARING DIMENSIONS ARE DETERMINED BY THE MANUFACTURER (SEE SHEET 31 54 FOR DETAILS). THE CONTRACTOR DESIGN SHALL ACCOMMODATE THE EXISTING PIER CAP DIMENSIONS. SEAT REMOVAL LIMITS ARE APPROXIMATE AND MAY BE ADJUSTED BASED ON THE PIER 2 BEARING DESIGN, OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR'S BID PRICE SHALL INCLUDE NECESSARY MODIFICATIONS AND WILL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE INCLUDED IN THE PAYMENT FOR BEARINGS.
3. PRIOR TO ORDERING THE BEARINGS, LOCATE THE EXISTING BEAM SEAT REINFORCING STEEL. THE MASONRY PLATE SHALL BE FABRICATED SO THE PROPOSED ANCHOR RODS AVOID THE EXISTING REINFORCING STEEL.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JGC	LAM	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002641	

PIER 2 PATCHING & MODIFICATION

BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

SUBMITTAL: Stage 3
PID: 93006
PLOT_DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8L_Pen.tbl
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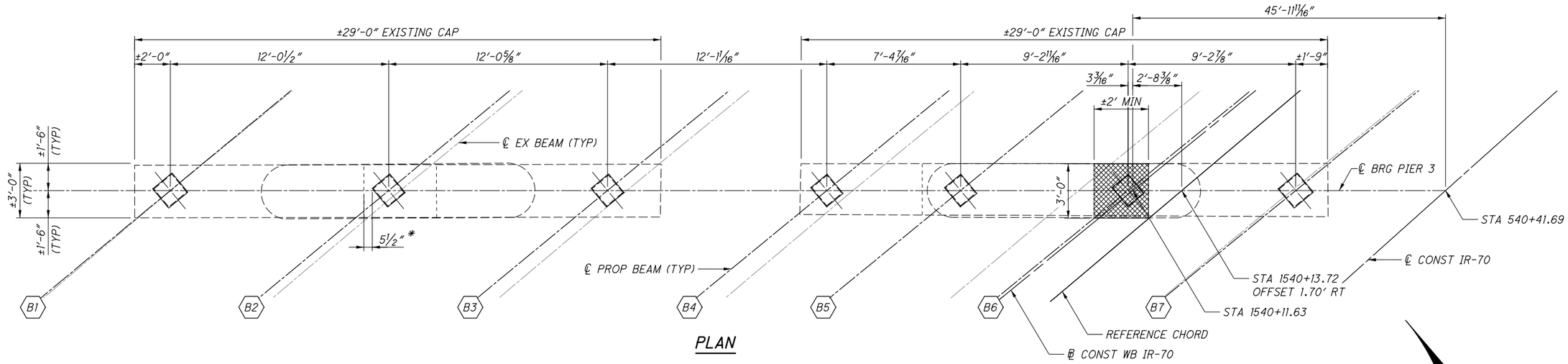
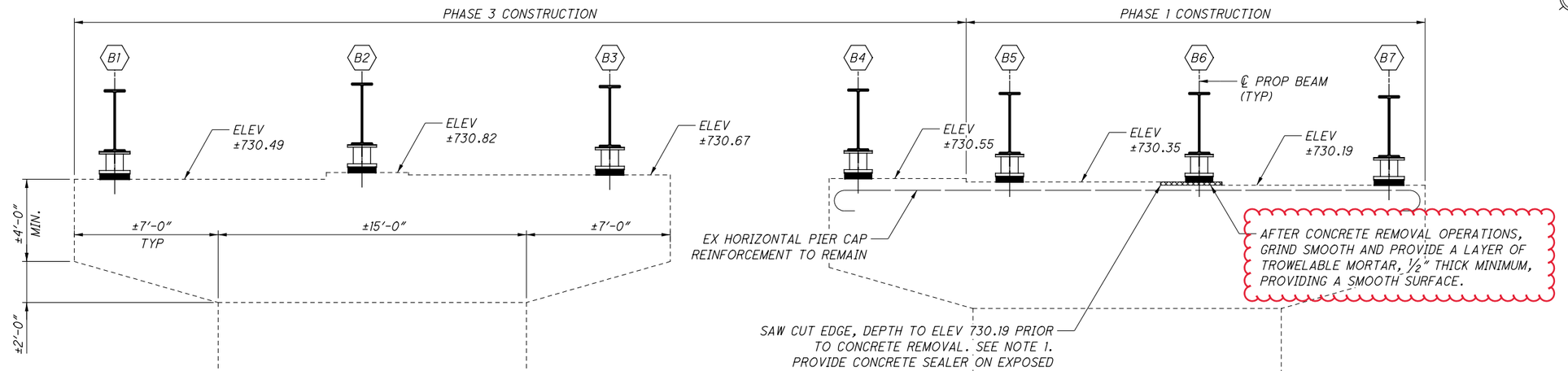


PLAN



ELEVATION

* CONTRACTOR SHALL NOTIFY THE ENGINEER IF DIMENSION IS LESS THAN 2" FROM EDGE OF ELASTOMERIC BEARING TO EXISTING SEAT EDGE. DIMENSION SHOWN IS AT MINIMUM LOCATION AND BASED ON EXISTING PLAN DIMENSIONS, ACTUAL MINIMUM EDGE DISTANCE SHALL BE FIELD VERIFIED AT ALL BEARINGS.

NOTES

1. SEE GENERAL NOTES ON SHEET 4 54 FOR ADDITIONAL REQUIREMENTS. THE CONTRACTOR SHALL CAREFULLY REMOVE THE CONCRETE AND NOT DAMAGE EXISTING HORIZONTAL PIER CAP REINFORCEMENT. REINFORCEMENT (VERTICAL) WITHIN THE PORTION OF THE SEAT STEP TO BE REMOVED SHALL BE CUT FLUSH TO THE ADJACENT CAP (SEAT) ELEVATION. USE A GRINDER FOLLOWED BY A LAYER OF TROWELABLE MORTAR TO FILL THE UNEVEN SURFACE, BRING THE SEAT AREA TO THE PROPER ELEVATION, AND PROVIDE A LEVEL, EVEN SURFACE. COST OF THIS WORK IS NOT MEASURED FOR PAYMENT BUT SHALL BE INCLUDED IN THE COST OF ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN.

LEGEND

PIER SEAT REMOVAL

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JGC	LAM	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002641	

PIER 3 PATCHING & MODIFICATION

BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

1316
2231

SUBMITTAL: Stage 3
PID: 93006
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PLOT DRIVER: ODOTcadd_PDF.pltcfg
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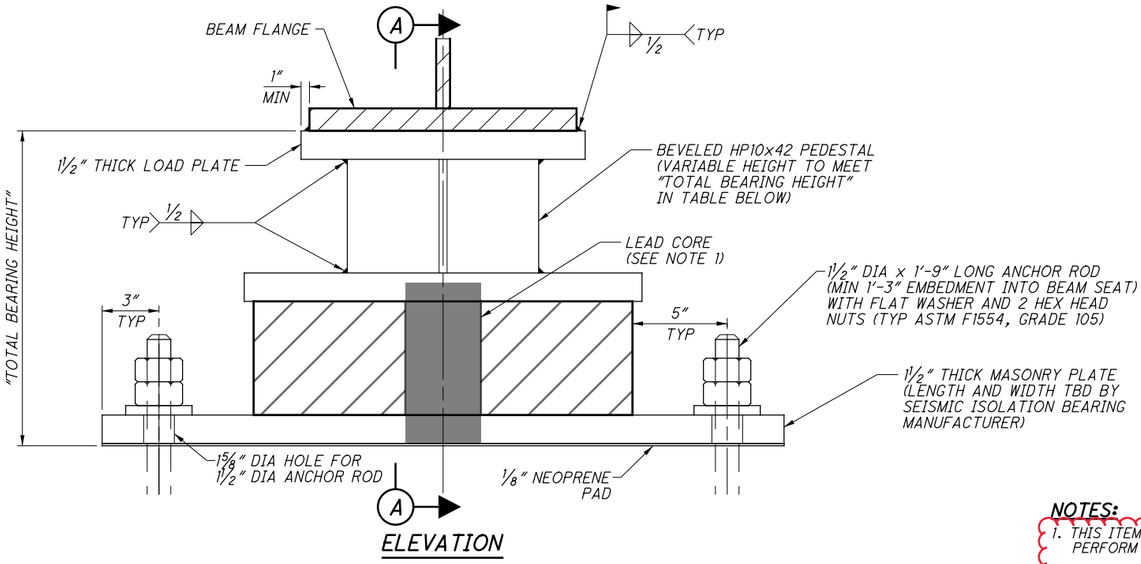
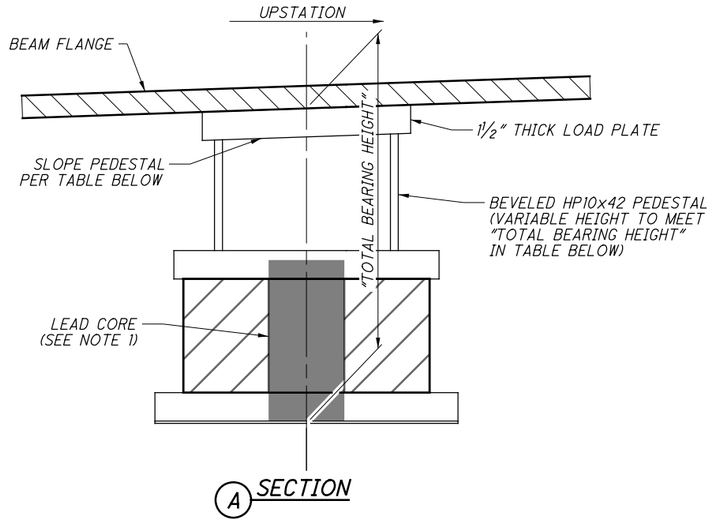
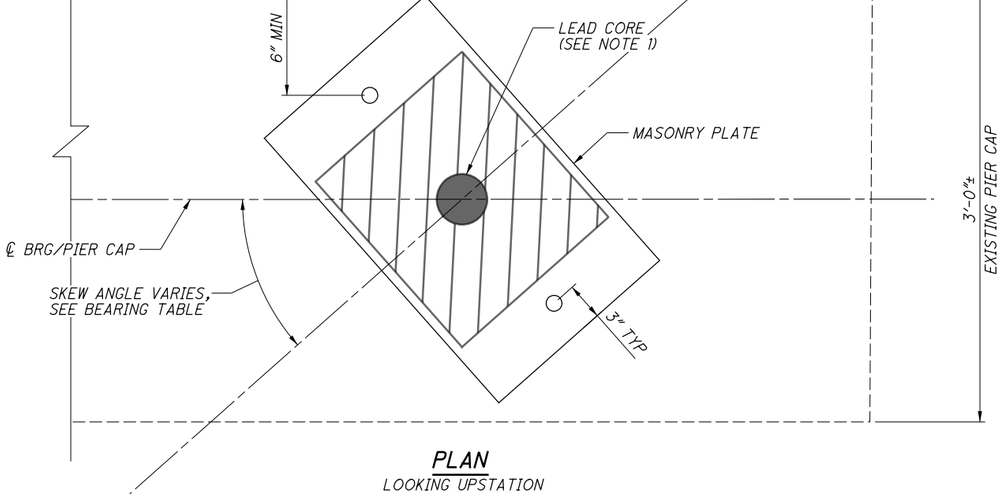


ELEVATION



SECTION



PLAN

LOOKING UPSTATION

NOTES:

1. THIS ITEM CONSISTS OF DESIGNING, PREPARING SHOP DRAWINGS, FABRICATING, TESTING, FURNISHING, AND INSTALLING SEISMIC ISOLATION BEARINGS. PERFORM ALL WORK IN ACCORDANCE WITH ITEM 516, CMS 513 LEVEL UF, AND THE NOTES AND DETAILS SHOWN ON THIS SHEET.

   SELECT FABRICATORS THAT ARE LISTED BY THE DEPARTMENT BEFORE THE CONTRACT LETTING DATE AS EVALUATED BY THE OFFICE OF MATERIALS MANAGEMENT AND PRE-QUALIFIED ACCORDING TO SUPPLEMENT 1081 AND CMS 513 AS A UF LEVEL FABRICATOR.

   DESIGN BEARINGS ACCORDING TO ALL APPLICABLE SECTIONS OF THE CURRENT EDITION OF THE "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS" INCLUDING ALL PUBLISHED INTERIM REVISIONS; THE CURRENT EDITION OF THE "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS" INCLUDING ALL PUBLISHED INTERIM REVISIONS; THE CURRENT EDITION OF THE "AASHTO GUIDE SPECIFICATIONS FOR SEISMIC ISOLATION DESIGN" INCLUDING ALL PUBLISHED INTERIM REVISIONS; AND THESE NOTES. DESIGN BEARINGS TO ACCOMMODATE THE LOADS, FORCES, AND MOVEMENTS SPECIFIED IN THE NOTES AND DETAILS SHOWN ON THIS SHEET.

   SUBMIT A DESIGN PLAN AND DESIGN CALCULATIONS ALONG WITH THE SHOP DRAWINGS ACCORDING TO THE PROCESS DEFINED IN CMS 501.04.A. THE FIRST PARAGRAPH OF CMS 501.04.B ALSO APPLIES.

   ALL BEARINGS SHALL BE TESTED AND EVALUATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "AASHTO GUIDE SPECIFICATIONS FOR SEISMIC ISOLATION DESIGN". TEST THE BEARINGS AT A TESTING FACILITY, POSSESSING THE PROPER TESTING EQUIPMENT AND TRAINED PERSONNEL, CAPABLE OF PERFORMING ALL TESTS REQUIRED BY THE "AASHTO GUIDE SPECIFICATIONS FOR SEISMIC ISOLATION DESIGN" AND THE FABRICATOR'S MANUFACTURING PROCESSES AND PROCEDURES. SUBMIT THE TEST FACILITY'S QUALIFICATION WITH THE SHOP DRAWINGS ACCORDING TO THE PROCESS DEFINED IN CMS 501.04 A. THE TEST FACILITY'S QUALIFICATIONS SHALL INCLUDE CAPACITY AND CAPABILITIES OF EACH TESTING APPARATUS AND QUALIFICATIONS OF ALL PERSONNEL THAT WILL BE PERFORMING TESTS FOR THIS CONTRACT.

   SUBMIT A REPORT CONTAINING THE RESULTS OF ALL REQUIRED TESTS WITH THE TEST REPORTS ACCORDING TO THE PROCESS DEFINED IN CMS 501.06 A. PRESENT THE RESULTS OF ALL TESTING IN A REPORT INCLUDING RAW TEST DATA, REDUCED TEST DATA, SAMPLE CALCULATIONS, MEASURED TOLERANCES, AND FINAL RESULTS ALONG WITH PHOTOGRAPHS AND CONCLUSIONS. PERFORM TESTS ON COMPLETELY FABRICATED AND RANDOMLY SAMPLED BEARINGS. RANDOMLY SAMPLE BEARINGS ACCORDING TO "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS", ARTICLE 18.3.4.

   THE FABRICATOR SHALL DELIVER THE BEARINGS TO THE JOBSITE IN MOISTURE PROOF AND DUST PROOF MATERIAL TO PROTECT AGAINST SHIPPING AND JOB SITE CONDITIONS. STORE THE BEARINGS AT THE JOB SITE IN A DRY, SHELTERED AREA FREE FROM DIRT OR DUST UNTIL INSTALLATION. HAVE A REPRESENTATIVE FROM THE BEARING MANUFACTURER ON SITE TO ENSURE PROPER INSTALLATION OF THE BEARINGS.

2. THE SEISMIC ISOLATION BEARING SHOWN (ELASTOMERIC LEAD CORE) IS JUST ONE POSSIBLE SOLUTION. FABRICATOR TO PROVIDE A BEARING THAT MEETS THE REQUIREMENTS AND DETAILS PROVIDED ON THIS SHEET. THE BEARING SHALL ACT AS A FIXED BEARING UNDER THE SERVICE AND STRENGTH LOADS LISTED IN THE TABLE BELOW AND RELEASE RESTRAINT UNDER LOADING WHICH EXCEEDS THE "EXTREME EVENT HORIZONTAL FORCE GOAL" IN THE TABLE BELOW. MINOR STRAIN/MOVEMENTS FOR LOADS LESS THAN THE FORCE GOAL ARE ACCEPTABLE; DESIGN AND DETAILS TO BE REVIEWED AND ACCEPTED BY THE ENGINEER PRIOR TO FABRICATION. MINOR STRAIN/MOVEMENTS FOR LOADS LESS THAN THE FORCE GOAL ARE ACCEPTABLE.
3. FURNISHING AND INSTALLING ANCHOR RODS AND ALL ASSOCIATED NUTS/WASHERS SHALL BE INCLUDED FOR PAYMENT WITH THE BEARINGS.
4. ALL STEEL BEARING ELEMENTS SHALL BE PAINTED WITH THE SAME SYSTEM USED ON THE STRUCTURAL STEEL; PAINTING IS INCLUDED WITH PAYMENT FOR ITEM 516 - BEARING DEVICE, MISC.: SEISMIC ISOLATION BEARING.
5. ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
6. PRIOR TO ORDERING THE BEARINGS, VERIFY THE REQUIRED BEARING HEIGHT BY VERIFYING EXISTING BEARING SEAT ELEVATIONS AND LOCATE THE EXISTING BEAM SEAT REINFORCING STEEL. THE MASONRY PLATE SHALL BE FABRICATED SO THE PROPOSED ANCHOR RODS AVOID THE EXISTING REINFORCING STEEL.
7. IN ADDITION TO THE PRIMARY AXIS ROTATIONS LISTED IN THE TABLE, THE BEARING DESIGN SHALL INCLUDE ALLOWANCE FOR 0.01 RADIANS OF TRANSVERSE ROTATION (INCLUDING CONSTRUCTION TOLERANCE).

MUS-70-1066L SEISMIC ISOLATION BEARING DETAILS AT PIER 2

BEAM	TOTAL BEARING HEIGHT (INCHES)	PEDESTAL SLOPE (REAR TO FORWARD)	SERVICE LOADS (KIPS)					STRENGTH LOADS (KIPS)					ROTATION REQUIREMENTS - PRIMARY AXIS (RADIANS)			MOVEMENT (INCHES)		EXTREME EVENT HORIZONTAL FORCE GOAL (KIPS)		SKEW ANGLE (DEGREES)
			VERTICAL			HORIZONTAL		VERTICAL			HORIZONTAL									
			DEAD	LIVE	TOTAL	LONGITUDINAL	TRANSVERSE	DEAD	LIVE	TOTAL	LONGITUDINAL	TRANSVERSE	LOADING	CONST. TOLERANCE	TOTAL	LONGITUDINAL	TRANSVERSE	LONGITUDINAL	TRANSVERSE	
B1	21.14	+0.46%	196	131	327	8	3	245	230	475	14	5	0.01	0.005	0.015	0	0	20	10	40.58
B2	26.43	+0.44%	123	135	258	8	3	154	237	391	14	5	0.01	0.005	0.015	0	0	20	10	40.48
B3	23.12	+0.42%	118	132	250	8	3	148	231	379	14	5	0.01	0.005	0.015	0	0	20	10	40.38
B4	23.07	+0.40%	101	117	218	8	3	127	205	332	14	5	0.01	0.005	0.015	0	0	20	10	40.29
B5	23.94	+0.39%	89	100	189	8	3	112	175	287	14	5	0.01	0.005	0.015	0	0	20	10	40.23
B6	23.33	+0.38%	96	103	199	8	3	120	181	301	14	5	0.01	0.005	0.015	0	0	20	10	40.16
B7	21.62	+0.36%	184	126	310	8	3	230	221	451	14	5	0.01	0.005	0.015	0	0	20	10	40.08

DESIGN AGENCY
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ENGINEERS & ARCHITECTS, P.C.
2600 CORPORATE EXCHANGE DRIVE, SUITE 230
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DESIGNED	DRAWN	REVIEWED	DATE
AH/CTM	CTM	CTM	12/2020

CHECKED	REVISED	STRUCTURE FILE NUMBER
DF		6002641

PIER SEISMIC ISOLATION FIXED BEARING DETAILS

BRIDGE NO. MUS-70-1066L
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

31 / 54

1318
2231

SUBMITTAL: Stage 3
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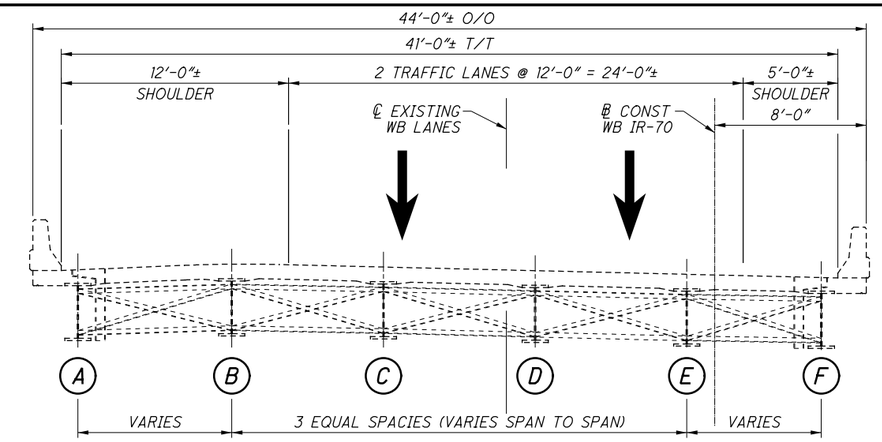

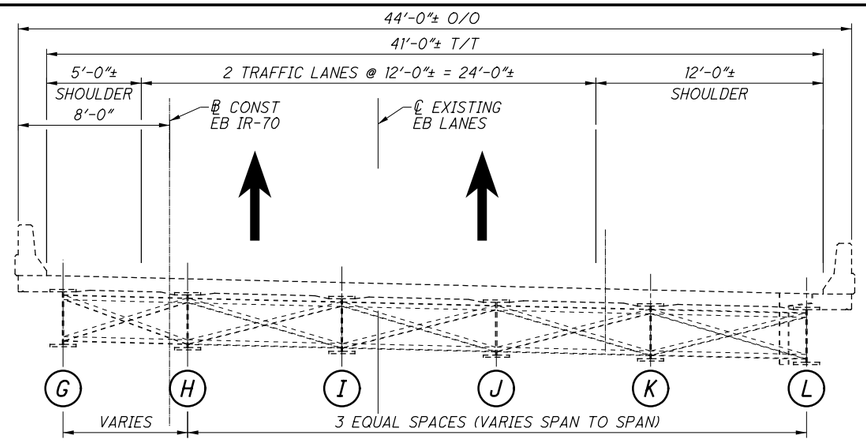

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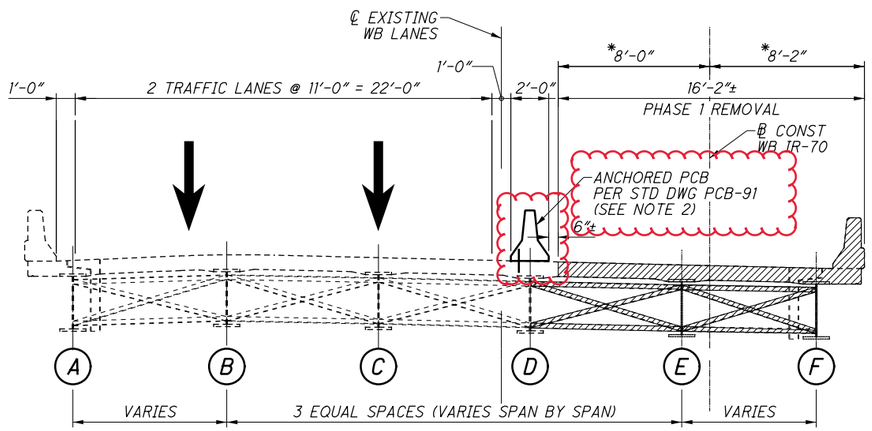
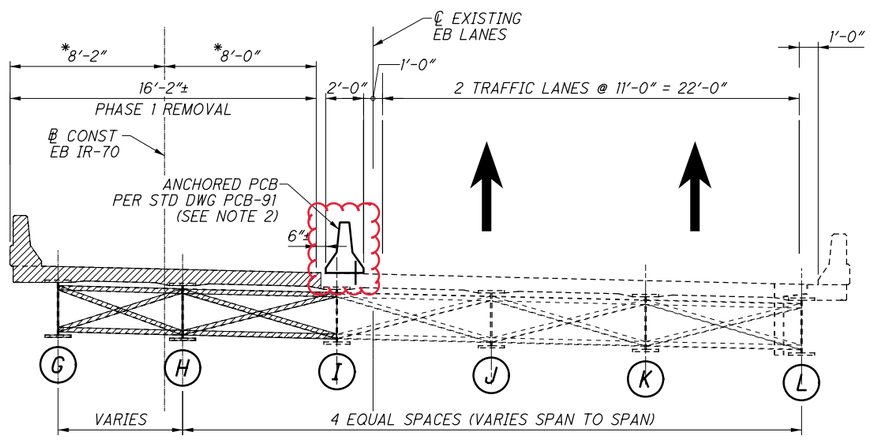
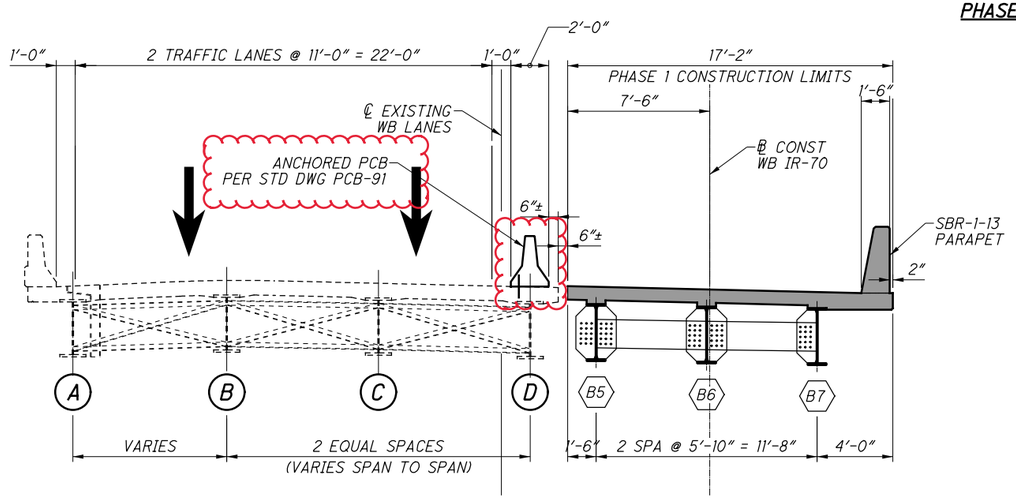
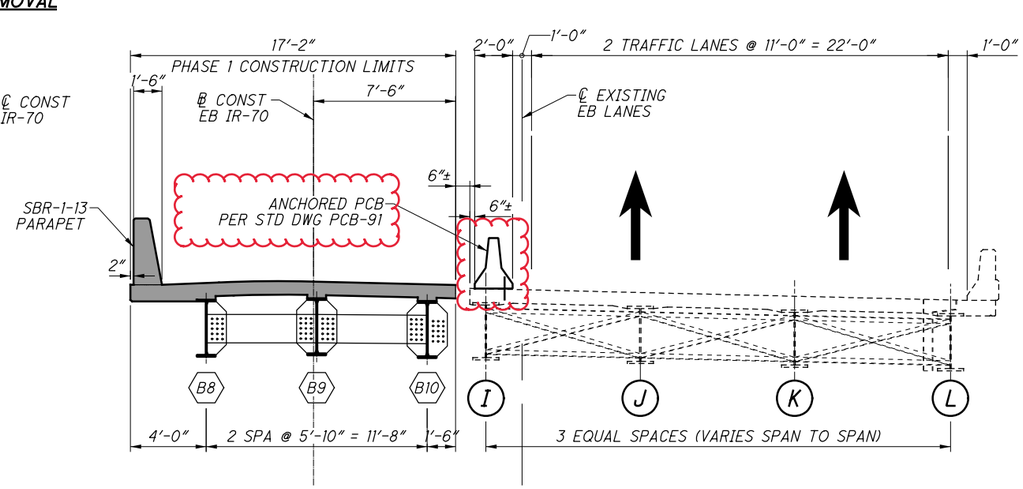




PHASE 1 - REMOVAL





PHASE 1 - CONSTRUCTION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

* DIMENSIONS SHOWN SHALL BE ADJUSTED AS NEEDED IN THE FIELD TO MAINTAIN THE EXISTING WIDTH REQUIRED TO MAINTAIN TRAFFIC AS SHOWN. THE 6" GAP BETWEEN EXISTING AND PROPOSED DECK MAY BE ADJUSTED TO ACCOMMODATE THE REQUIRED EXISTING DECK WIDTH.

NOTES

1. PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY NOT QUANTITIES.
2. A MINIMUM OF FOUR ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. ANCHORS ARE TO REMAIN IN PLACE UNTIL AFTER PHASE 1 OR PHASE 2 IS COMPLETE, AS REQUIRED.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
CTM	RSN	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002676	

PHASED CONSTRUCTION SECTIONS 1 OF 3
BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

8 / 53

1349
2231

SUBMITTAL: Stage 3
PID: 93006
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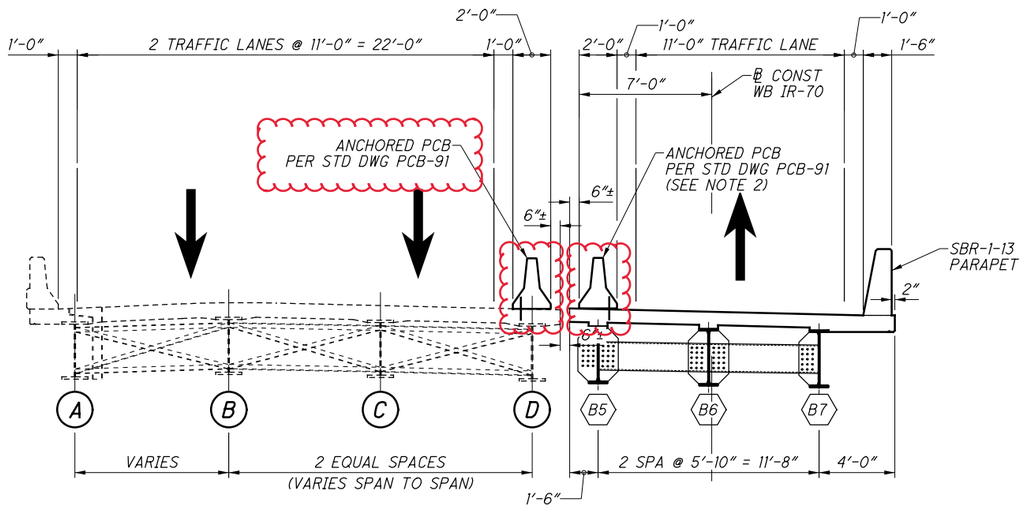
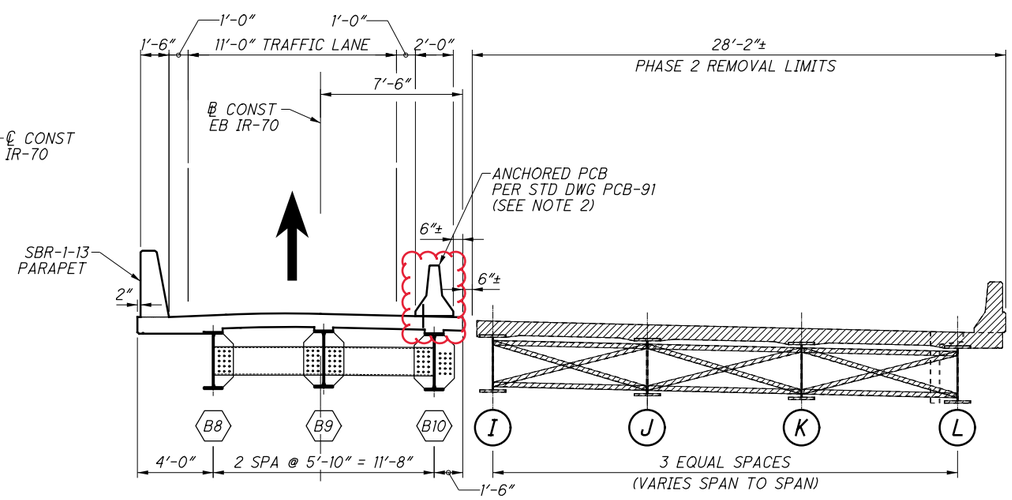
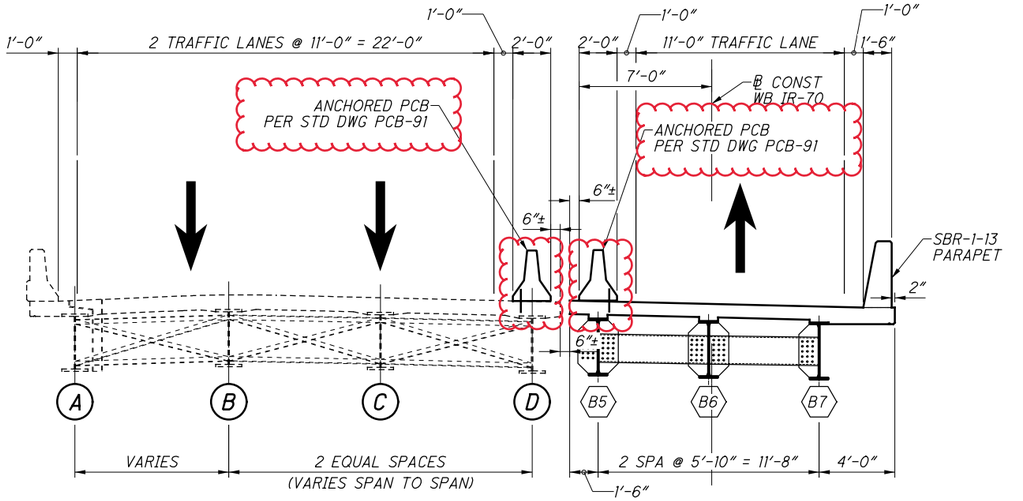
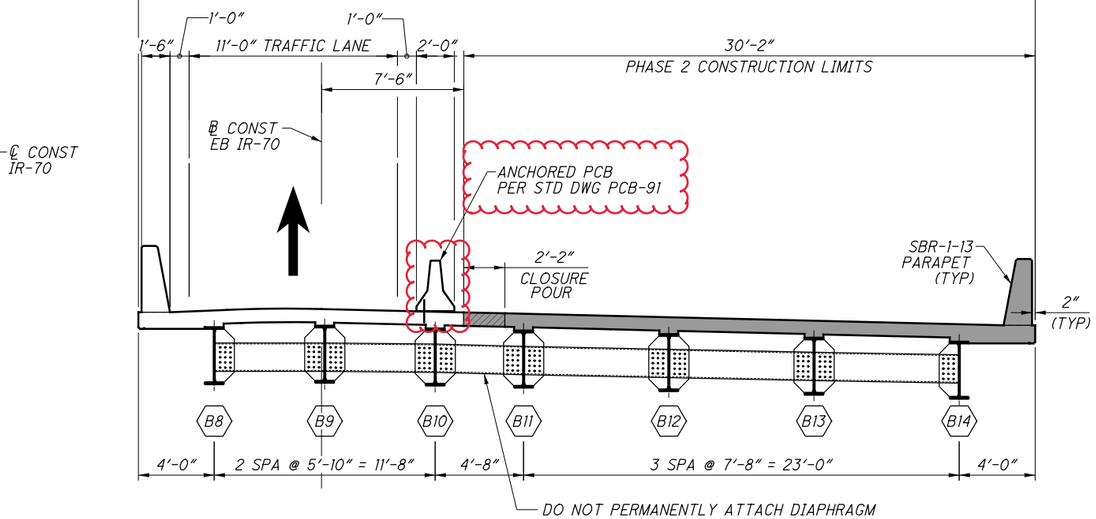




PHASE 2 - REMOVAL





DO NOT PERMANENTLY ATTACH DIAPHRAGM BETWEEN PHASES UNTIL THE DECK PLACEMENT ON EACH SIDE OF THE CLOSURE POUR IS COMPLETE. DIAPHRAGM TO BE DETAILED TO FIT AT COMPLETION OF DECK PLACEMENT ON EACH SIDE.

PHASE 2 - CONSTRUCTION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

NOTES

1. PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.
2. A MINIMUM OF FOUR ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED AFTER PHASE 3 IS COMPLETE, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 WHERE DECK IS TO REMAIN IN THE FINAL SECTION.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

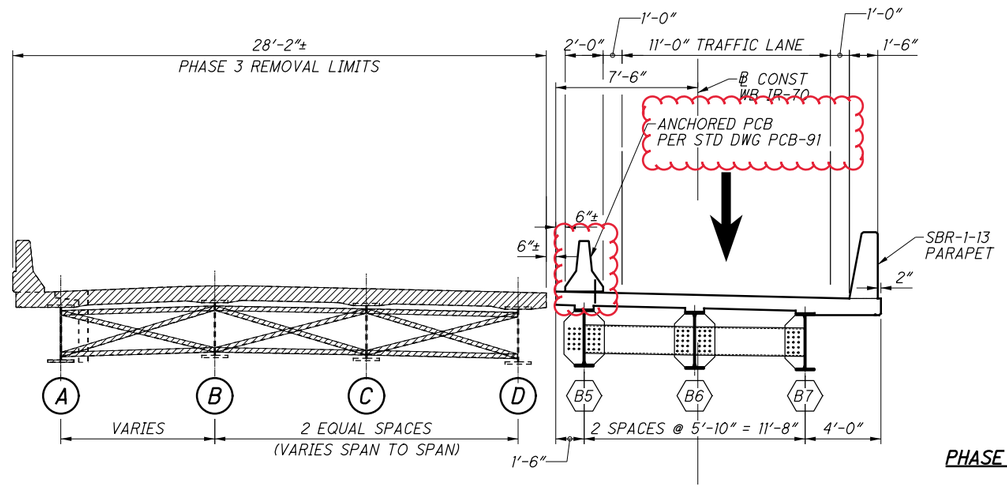
DESIGNED	DRAWN	REVIEWED	DATE
CTM	RSN	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002676	

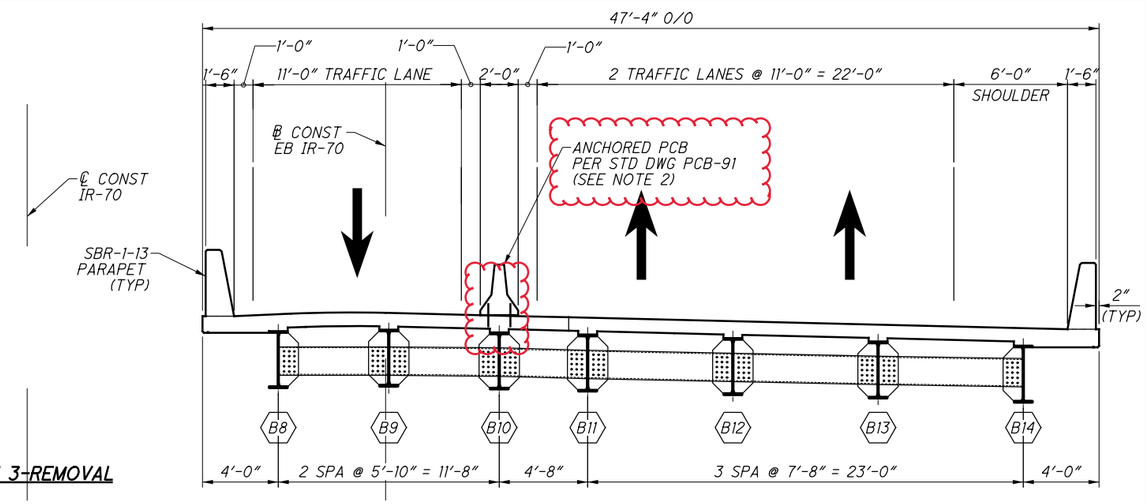
PHASED CONSTRUCTION SECTIONS 2 OF 3
BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

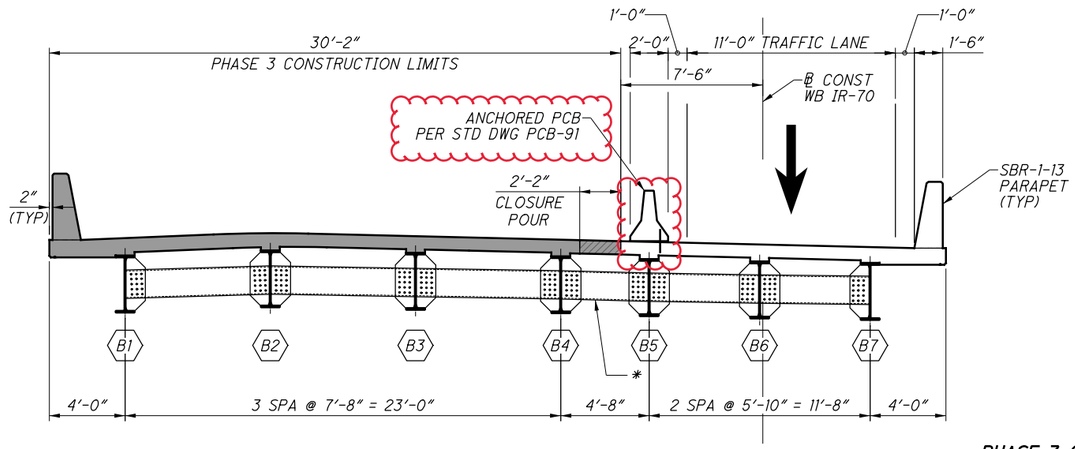
9 / 53

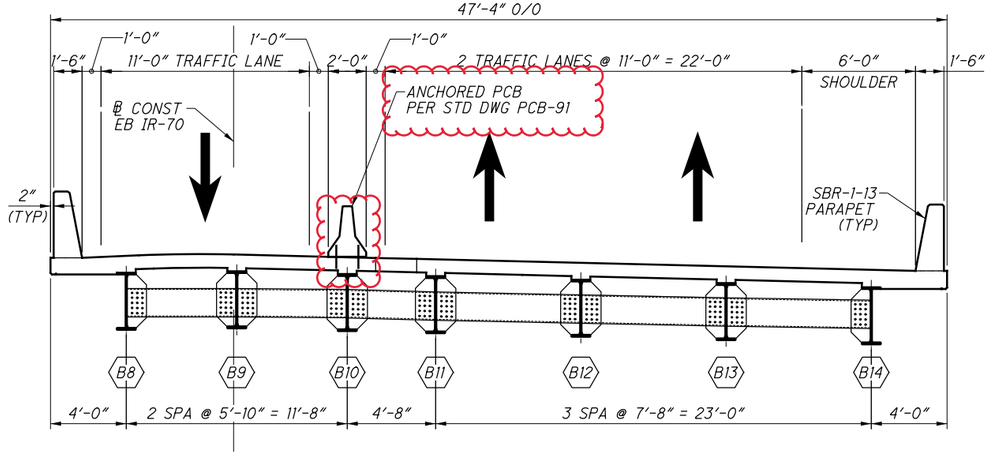
1350
2231



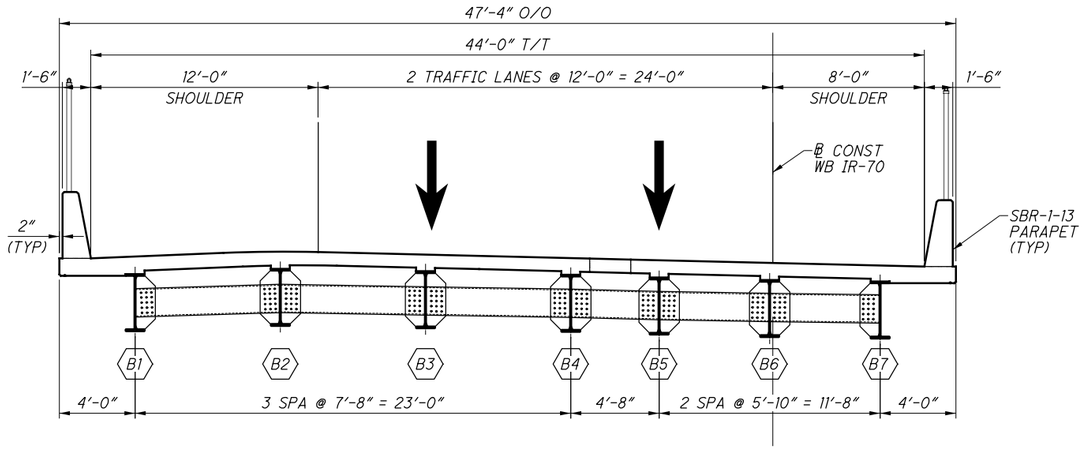


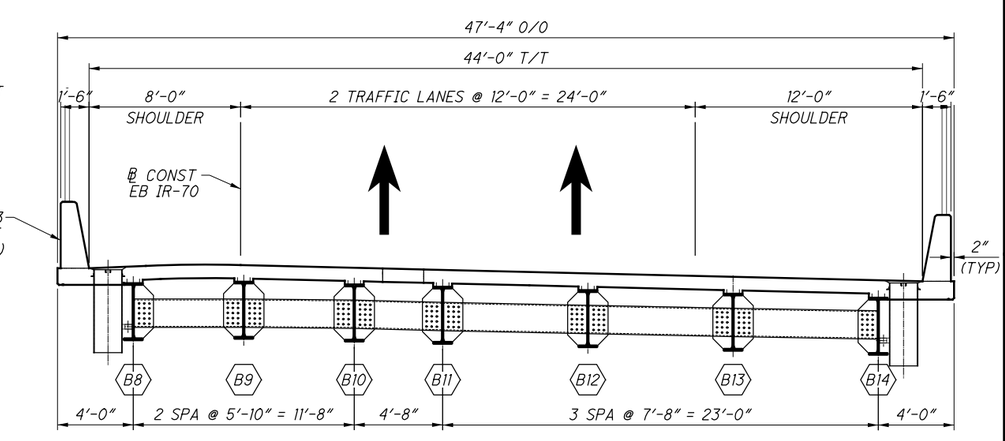
PHASE 3-REMOVAL





PHASE 3-CONSTRUCTION





FINAL TRANSVERSE SECTION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

* DO NOT PERMANENTLY ATTACH DIAPHRAGM BETWEEN PHASES UNTIL THE DECK PLACEMENT ON EACH SIDE OF THE CLOSURE POUR IS COMPLETE. DIAPHRAGM TO BE DETAILED TO FIT AT COMPLETION OF DECK PLACEMENT ON EACH SIDE.

NOTES

1. PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.
2. A MINIMUM OF TWO ANCHORS SHALL BE PROVIDED ON THE EASTBOUND (SOUTH) TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED AFTER PHASE 3 IS COMPLETE, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 WHERE DECK IS TO REMAIN IN THE FINAL SECTION.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
CTM	RSN	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002676	

PHASED CONSTRUCTION SECTIONS 3 OF 3

BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

1351
2231

SUBMITTAL: Stage 3
PID: 93006
PENTABLE: 93006_ODOTV8i_Pen.tbl
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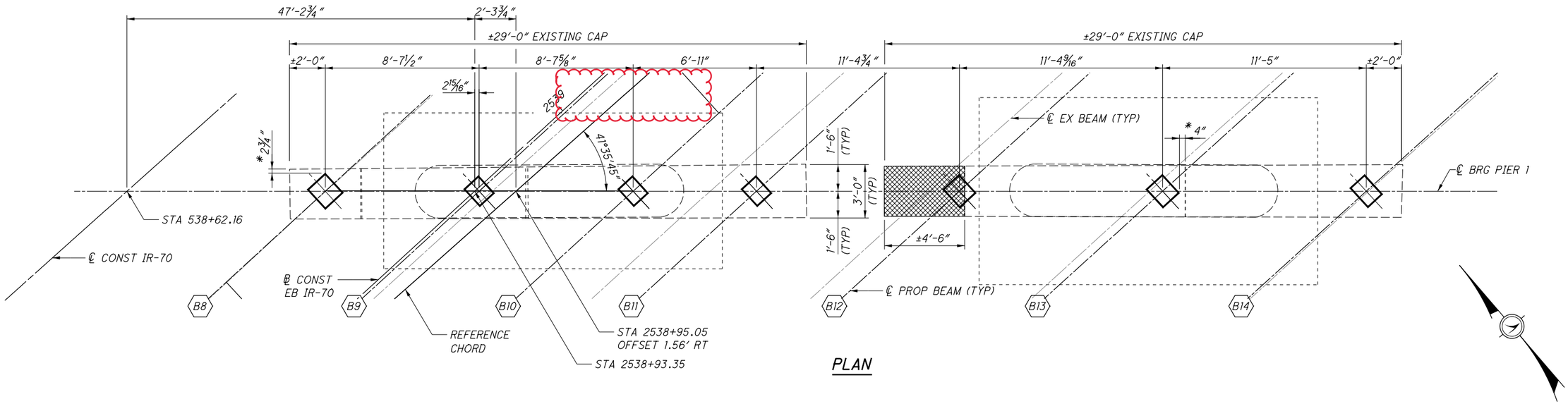
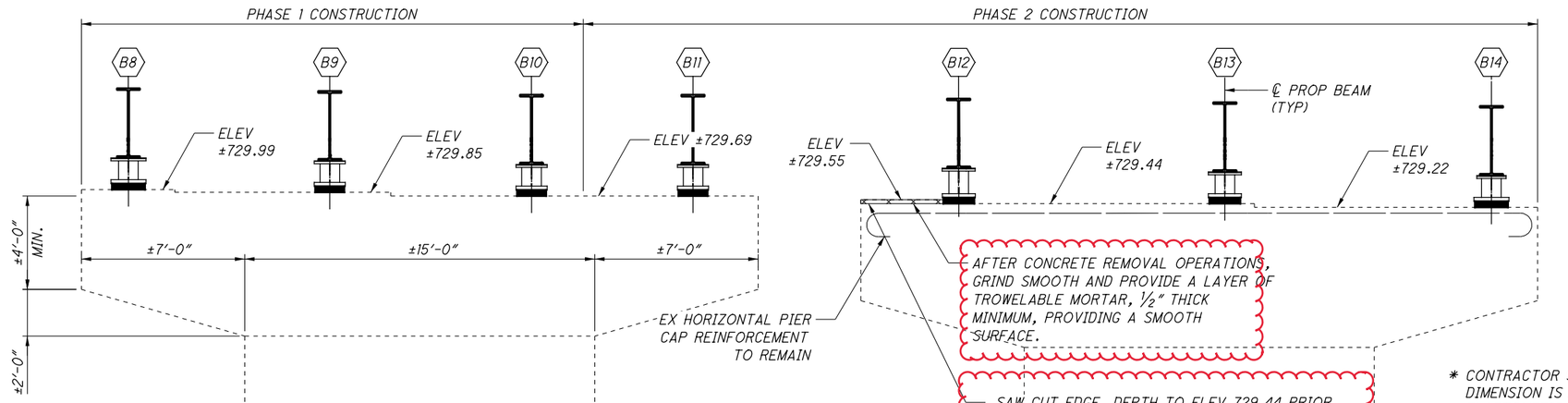


PLAN



ELEVATION

NOTES

1. SEE GENERAL NOTES ON SHEET 4 | 53 FOR ADDITIONAL REQUIREMENTS. THE CONTRACTOR SHALL CAREFULLY REMOVE THE CONCRETE AND NOT DAMAGE EXISTING HORIZONTAL PIER CAP REINFORCEMENT. REINFORCEMENT (VERTICAL) WITHIN THE PORTION OF THE SEAT STEP TO BE REMOVED SHALL BE CUT FLUSH TO THE ADJACENT CAP (SEAT) ELEVATION. USE A GRINDER FOLLOWED BY A LAYER OF TROWELABLE MORTAR TO FILL THE UNEVEN SURFACE, BRING THE SEAT AREA TO THE PROPER ELEVATION, AND PROVIDE A LEVEL, EVEN SURFACE. COST OF THIS WORK IS NOT MEASURED FOR PAYMENT BUT SHALL BE INCLUDED IN THE COST OF ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN.

* CONTRACTOR SHALL NOTIFY THE ENGINEER IF DIMENSION IS LESS THAN 2″ FROM EDGE OF ELASTOMERIC BEARING TO EXISTING SEAT EDGE. DIMENSION SHOWN IS AT MINIMUM LOCATION AND BASED ON EXISTING PLAN DIMENSIONS, ACTUAL MINIMUM EDGE DISTANCE SHALL BE FIELD VERIFIED AT ALL BEARINGS.

LEGEND

PIER SEAT REMOVAL

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
JGC	LAM	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002676	

PIER 1 PATCHING & MODIFICATION

BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

1368
2231

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
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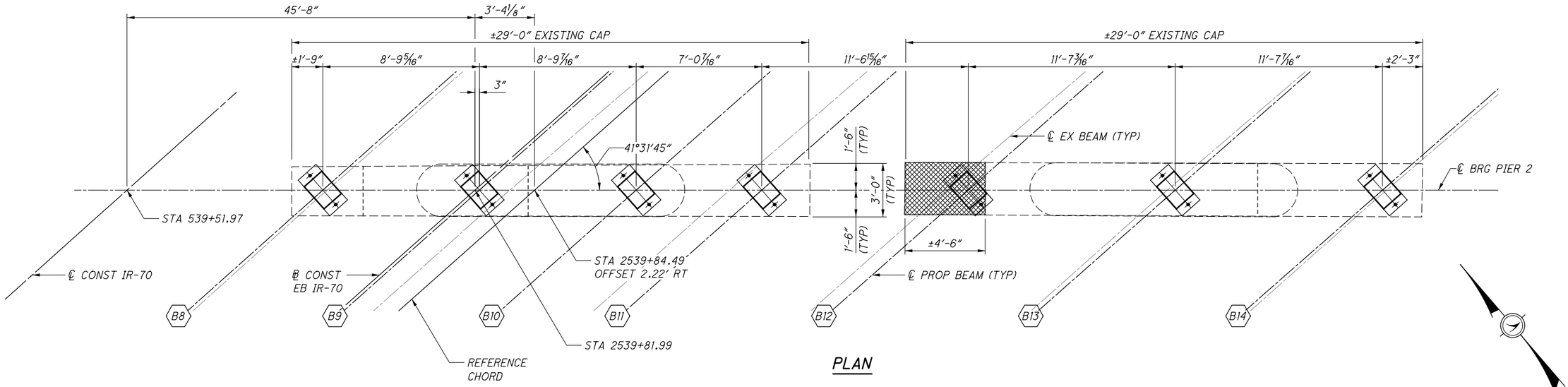
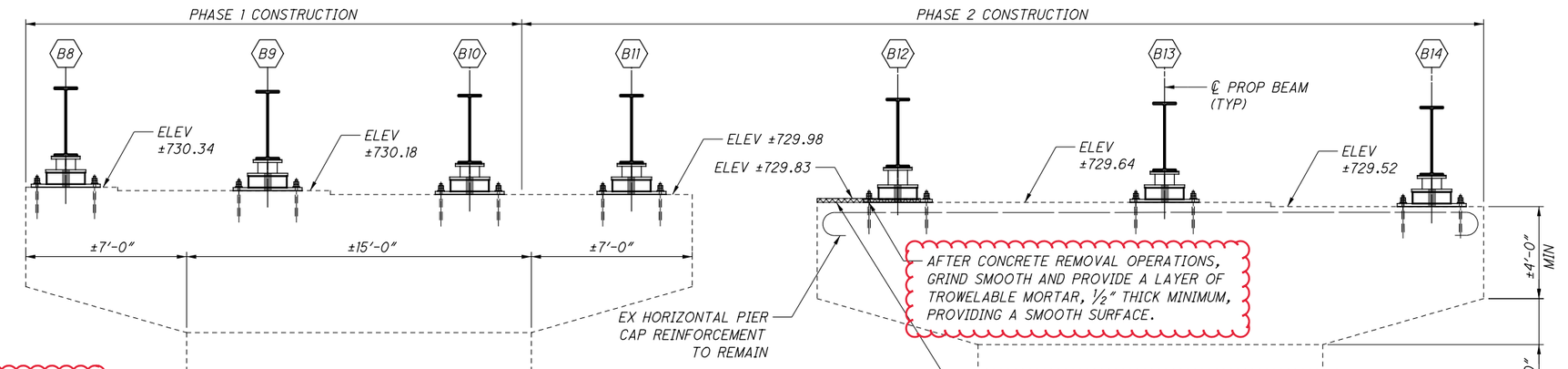


PLAN



ELEVATION

NOTES

1. SEE GENERAL NOTES ON SHEET 4 53 FOR ADDITIONAL REQUIREMENTS. THE CONTRACTOR SHALL CAREFULLY REMOVE THE CONCRETE AND NOT DAMAGE EXISTING HORIZONTAL PIER CAP REINFORCEMENT. REINFORCEMENT (VERTICAL) WITHIN THE PORTION OF THE SEAT STEP TO BE REMOVED SHALL BE CUT FLUSH TO THE ADJACENT CAP (SEAT) ELEVATION. USE A GRINDER FOLLOWED BY A LAYER OF TROWELABLE MORTAR TO FILL THE UNEVEN SURFACE, BRING THE SEAT AREA TO THE PROPER ELEVATION, AND PROVIDE A LEVEL, EVEN SURFACE. COST OF THIS WORK IS NOT MEASURED FOR PAYMENT BUT SHALL BE INCLUDED IN THE COST OF ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN.
2. THE BEARING DIMENSIONS ARE DETERMINED BY THE MANUFACTURER (SEE SHEET 31 53 FOR DETAILS). THE CONTRACTOR DESIGN SHALL ACCOMMODATE THE EXISTING PIER CAP DIMENSIONS. SEAT REMOVAL LIMITS ARE APPROXIMATE AND MAY BE ADJUSTED BASED ON THE PIER 2 BEARING DESIGN, OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR'S BID PRICE SHALL INCLUDE NECESSARY MODIFICATIONS AND WILL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE INCLUDED IN THE PAYMENT FOR BEARINGS.
3. PRIOR TO ORDERING THE BEARINGS, LOCATE THE EXISTING BEAM SEAT REINFORCING STEEL. THE MASONRY PLATE SHALL BE FABRICATED SO THE PROPOSED ANCHOR RODS AVOID THE EXISTING REINFORCING STEEL.

LEGEND

CONCRETE DEFICIENCY

PIER SEAT REMOVAL

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

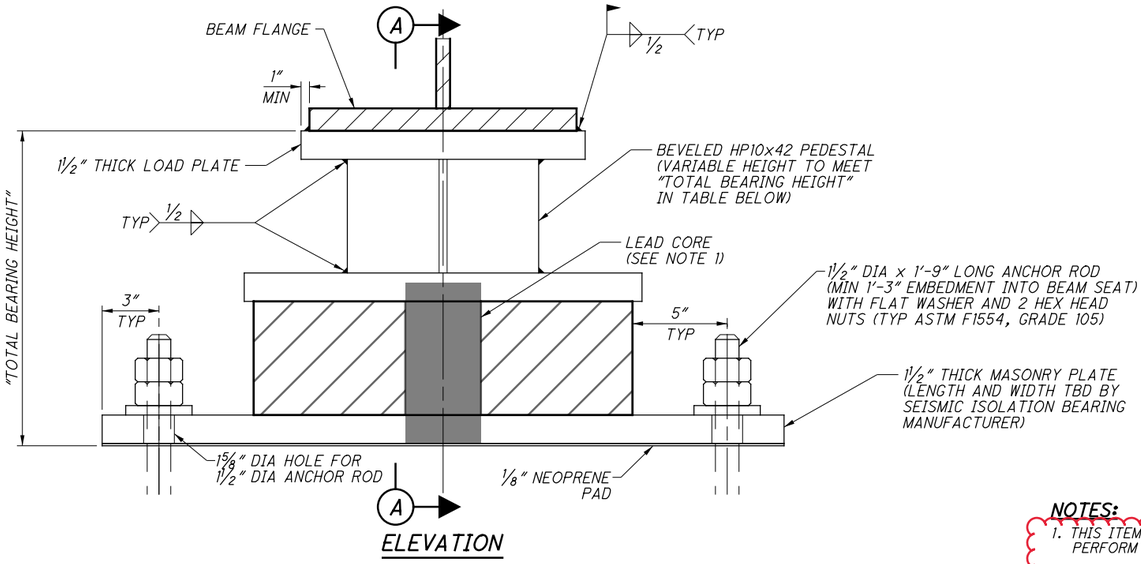
DESIGNED	DRAWN	REVIEWED	DATE
JGC	LAM	CTM	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF		6002676	

PIER 2 PATCHING & MODIFICATION
BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

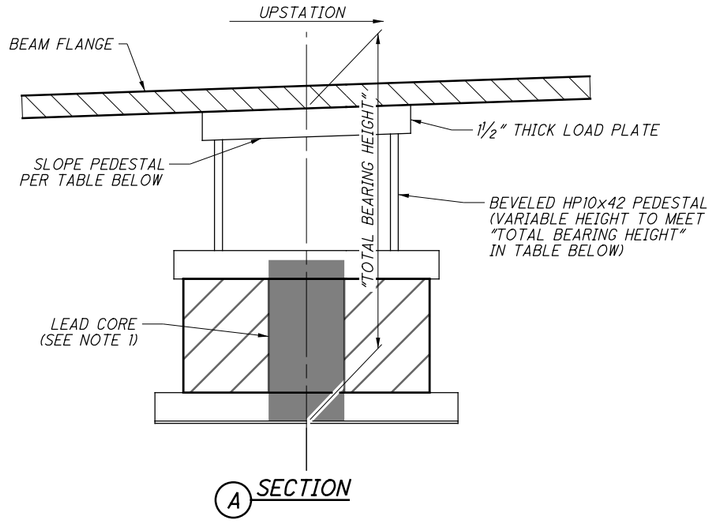
MUS-70-10.49
PID No. 93006

28 / 53

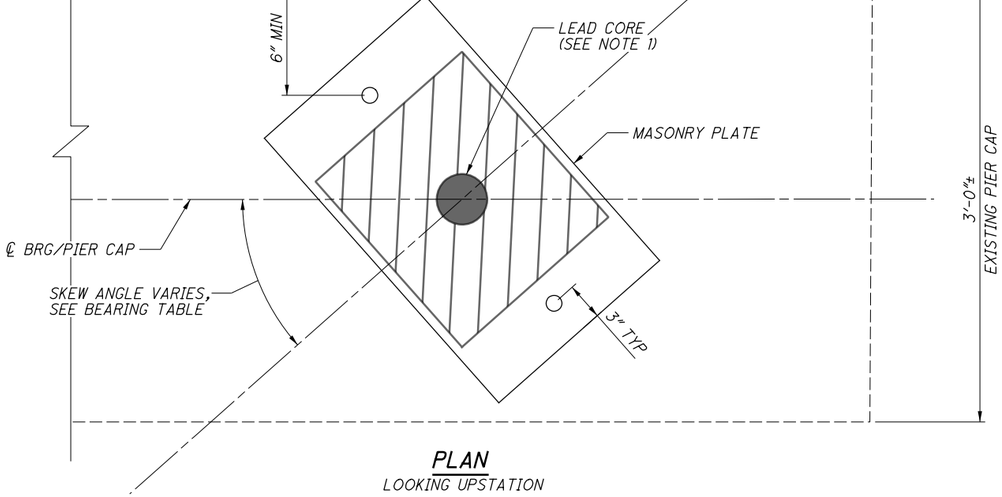
1369
2231



ELEVATION



SECTION



PLAN

LOOKING UPSTATION

NOTES:

1. THIS ITEM CONSISTS OF DESIGNING, PREPARING SHOP DRAWINGS, FABRICATING, TESTING, FURNISHING, AND INSTALLING SEISMIC ISOLATION BEARINGS. PERFORM ALL WORK IN ACCORDANCE WITH ITEM 516, CMS 513 LEVEL UF, AND THE NOTES AND DETAILS SHOWN ON THIS SHEET.

   SELECT FABRICATORS THAT ARE LISTED BY THE DEPARTMENT BEFORE THE CONTRACT LETTING DATE AS EVALUATED BY THE OFFICE OF MATERIALS MANAGEMENT AND PRE-QUALIFIED ACCORDING TO SUPPLEMENT 1081 AND CMS 513 AS A UF LEVEL FABRICATOR.

   DESIGN BEARINGS ACCORDING TO ALL APPLICABLE SECTIONS OF THE CURRENT EDITION OF THE "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS" INCLUDING ALL PUBLISHED INTERIM REVISIONS; THE CURRENT EDITION OF THE "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS" INCLUDING ALL PUBLISHED INTERIM REVISIONS; THE CURRENT EDITION OF THE "AASHTO GUIDE SPECIFICATIONS FOR SEISMIC ISOLATION DESIGN" INCLUDING ALL PUBLISHED INTERIM REVISIONS; AND THESE NOTES. DESIGN BEARINGS TO ACCOMMODATE THE LOADS, FORCES, AND MOVEMENTS SPECIFIED IN THE NOTES AND DETAILS SHOWN ON THIS SHEET.

   SUBMIT A DESIGN PLAN AND DESIGN CALCULATIONS ALONG WITH THE SHOP DRAWINGS ACCORDING TO THE PROCESS DEFINED IN CMS 501.04.A. THE FIRST PARAGRAPH OF CMS 501.04.B ALSO APPLIES.

   ALL BEARINGS SHALL BE TESTED AND EVALUATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "AASHTO GUIDE SPECIFICATIONS FOR SEISMIC ISOLATION DESIGN". TEST THE BEARINGS AT A TESTING FACILITY, POSSESSING THE PROPER TESTING EQUIPMENT AND TRAINED PERSONNEL, CAPABLE OF PERFORMING ALL TESTS REQUIRED BY THE "AASHTO GUIDE SPECIFICATIONS FOR SEISMIC ISOLATION DESIGN" AND THE FABRICATOR'S MANUFACTURING PROCESSES AND PROCEDURES. SUBMIT THE TEST FACILITY'S QUALIFICATION WITH THE SHOP DRAWINGS ACCORDING TO THE PROCESS DEFINED IN CMS 501.04 A. THE TEST FACILITY'S QUALIFICATIONS SHALL INCLUDE CAPACITY AND CAPABILITIES OF EACH TESTING APPARATUS AND QUALIFICATIONS OF ALL PERSONNEL THAT WILL BE PERFORMING TESTS FOR THIS CONTRACT.

   SUBMIT A REPORT CONTAINING THE RESULTS OF ALL REQUIRED TESTS WITH THE TEST REPORTS ACCORDING TO THE PROCESS DEFINED IN CMS 501.06 A. PRESENT THE RESULTS OF ALL TESTING IN A REPORT INCLUDING RAW TEST DATA, REDUCED TEST DATA, SAMPLE CALCULATIONS, MEASURED TOLERANCES, AND FINAL RESULTS ALONG WITH PHOTOGRAPHS AND CONCLUSIONS. PERFORM TESTS ON COMPLETELY FABRICATED AND RANDOMLY SAMPLED BEARINGS. RANDOMLY SAMPLE BEARINGS ACCORDING TO "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS", ARTICLE 18.3.4.

   THE FABRICATOR SHALL DELIVER THE BEARINGS TO THE JOBSITE IN MOISTURE PROOF AND DUST PROOF MATERIAL TO PROTECT AGAINST SHIPPING AND JOB SITE CONDITIONS. STORE THE BEARINGS AT THE JOB SITE IN A DRY, SHELTERED AREA FREE FROM DIRT OR DUST UNTIL INSTALLATION. HAVE A REPRESENTATIVE FROM THE BEARING MANUFACTURER ON SITE TO ENSURE PROPER INSTALLATION OF THE BEARINGS.

2. THE SEISMIC ISOLATION BEARING SHOWN (ELASTOMERIC LEAD CORE) IS JUST ONE POSSIBLE SOLUTION. FABRICATOR TO PROVIDE A BEARING THAT MEETS THE REQUIREMENTS AND DETAILS PROVIDED ON THIS SHEET. THE BEARING SHALL ACT AS A FIXED BEARING UNDER THE SERVICE AND STRENGTH LOADS LISTED IN THE TABLE BELOW AND RELEASE RESTRAINT UNDER LOADING WHICH EXCEEDS THE "EXTREME EVENT HORIZONTAL FORCE GOAL" IN THE TABLE BELOW. MINOR STRAIN/MOVEMENTS FOR LOADS LESS THAN THE FORCE GOAL ARE ACCEPTABLE; DESIGN AND DETAILS TO BE REVIEWED AND ACCEPTED BY THE ENGINEER PRIOR TO FABRICATION. MINOR STRAIN/MOVEMENTS FOR LOADS LESS THAN THE FORCE GOAL ARE ACCEPTABLE.
3. FURNISHING AND INSTALLING ANCHOR RODS AND ALL ASSOCIATED NUTS/WASHERS SHALL BE INCLUDED FOR PAYMENT WITH THE BEARINGS.
4. ALL STEEL BEARING ELEMENTS SHALL BE PAINTED WITH THE SAME SYSTEM USED ON THE STRUCTURAL STEEL; PAINTING IS INCLUDED WITH PAYMENT FOR ITEM 516 - BEARING DEVICE, MISC.: SEISMIC ISOLATION BEARING.
5. ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
6. PRIOR TO ORDERING THE BEARINGS, VERIFY THE REQUIRED BEARING HEIGHT BY VERIFYING EXISTING BEARING SEAT ELEVATIONS AND LOCATE THE EXISTING BEAM SEAT REINFORCING STEEL. THE MASONRY PLATE SHALL BE FABRICATED SO THE PROPOSED ANCHOR RODS AVOID THE EXISTING REINFORCING STEEL.
7. IN ADDITION TO THE PRIMARY AXIS ROTATIONS LISTED IN THE TABLE, THE BEARING DESIGN SHALL INCLUDE ALLOWANCE FOR 0.01 RADIANS OF TRANSVERSE ROTATION (INCLUDING CONSTRUCTION TOLERANCE).

MUS-70-1066R SEISMIC ISOLATION BEARING DETAILS AT PIER 2

BEAM	TOTAL BEARING HEIGHT (INCHES)	PEDESTAL SLOPE (REAR TO FORWARD)	SERVICE LOADS (KIPS)					STRENGTH LOADS (KIPS)					ROTATION REQUIREMENTS - PRIMARY AXIS (RADIANS)			MOVEMENT (INCHES)		EXTREME EVENT HORIZONTAL FORCE GOAL (KIPS)		SKEW ANGLE (DEGREES)
			VERTICAL			HORIZONTAL		VERTICAL			HORIZONTAL									
			DEAD	LIVE	TOTAL	LONGITUDINAL	TRANSVERSE	DEAD	LIVE	TOTAL	LONGITUDINAL	TRANSVERSE	LOADING	CONST. TOLERANCE	TOTAL	LONGITUDINAL	TRANSVERSE	LONGITUDINAL	TRANSVERSE	
B8	19.31	+0.25%	179	118	297	8	3	224	207	431	14	5	0.01	0.005	0.015	0	0	20	10	41.69
B9	22.55	+0.24%	93	100	193	8	3	117	175	292	14	5	0.01	0.005	0.015	0	0	20	10	41.63
B10	23.47	+0.22%	86	97	183	8	3	108	170	278	14	5	0.01	0.005	0.015	0	0	20	10	41.56
B11	22.14	+0.21%	98	116	214	8	3	123	203	326	14	5	0.01	0.005	0.015	0	0	20	10	41.51
B12	24.24	+0.19%	116	131	247	8	3	145	230	375	14	5	0.01	0.005	0.015	0	0	20	10	41.42
B13	22.25	+0.17%	120	136	256	8	3	150	238	388	14	5	0.01	0.005	0.015	0	0	20	10	41.33
B14	21.39	+0.15%	194	134	328	8	3	243	235	478	14	5	0.01	0.005	0.015	0	0	20	10	41.25

DESIGN AGENCY
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ENGINEERS & ARCHITECTS, P.C.
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COLUMBUS, OHIO 43231

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CHECKED	REVISED	STRUCTURE FILE NUMBER	
DF	.	6002676	

PIER SEISMIC ISOLATION FIXED BEARING DETAILS

BRIDGE NO. MUS-70-1066R
OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
PID No. 93006

3-1 / 53

13.72
22.31

ABUT.	PIERS	SUPER.	GENERAL	PART. 01/IMS/PV	PART. 02/IMS/BR	PART. 03/IMS/CV	PART. 04/S<2/OT	PART. 05/SAE/OT	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
													STRUCTURE OVER 20 FOOT SPAN (MUS-70-1089)	
			LS		LS				202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	3
			506		506				202	22900	506	SY	APPROACH SLAB REMOVED	
			LS		LS				503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
			LS		LS				503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	3
15,211	6,979	340,129			362,317				509	10000	362,317	LB	EPOXY COATED REINFORCING STEEL	
978	752				1,730				510	10000	1,730	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
		1,071			1,071				511	21522	1,071	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE	
		336			336				511	34450	336	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
	104				104				511	43212	104	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER	
49					49				511	45712	49	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT	
30		1,663			1,693				512	10050	1,693	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
	76				76				512	33000	76	SY	TYPE 2 WATERPROOFING	
					LS				513	10060	LS		STRUCTURAL STEEL MEMBERS, LEVEL 3	
		18,984			18,984				513	20000	18,984	EACH	WELDED STUD SHEAR CONNECTORS	
			LUMP		LS				513	95020	LS		STRUCTURAL STEEL, MISC.:EXTERNAL POST TENSIONING	3
		3,674			3,674				514	00060	3,674	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
		3,674			3,674				514	00066	3,674	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
		2			2				514	10000	2	EACH	FINAL INSPECTION REPAIR	
		186			186				516	11210	186	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	
			6		6				516	13600	6	SF	1" PREFORMED EXPANSION JOINT FILLER	
			95		95				516	14600	95	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: HOT APPLIED JOINT SEALER WITH SLEEPER SLAB	52
			190		190				516	31011	190	FT	2" DEEP JOINT SEALER, AS PER PLAN	3
		28			28				516	44200	28	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (10"x12"x3.0473")	
		42			42				516	44200	42	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (15"x16"x3.6967")	
		14			14				516	44200	14	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (15"x16"x3.6967")	
			LS		LS				516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	3
		12			12				518	12201	12	EACH	SCUPPERS, INCLUDING SUPPORTS, AS PER PLAN	44
52					52				518	21200	52	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
198					198				518	40000	198	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
120					120				518	40010	120	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
			530		530				526	25010	530	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")	

ALL QUANTITIES SHOWN BELOW HAVE BEEN CARRIED TO SHEET 1908.

ABUT.	PIERS	SUPER.	GENERAL	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
								ROADWAY	
			530	204	10000	530	SY	SUBGRADE COMPACTION	
								EROSION CONTROL	
			2	601	20010	2	CY	CRUSHED AGGREGATE SLOPE PROTECTION	
			52	601	21001	52	SY	CONCRETE SLOPE PROTECTION, AS PER PLAN	3
								PAVEMENT	
			89	304	20000	89	CY	AGGREGATE BASE	

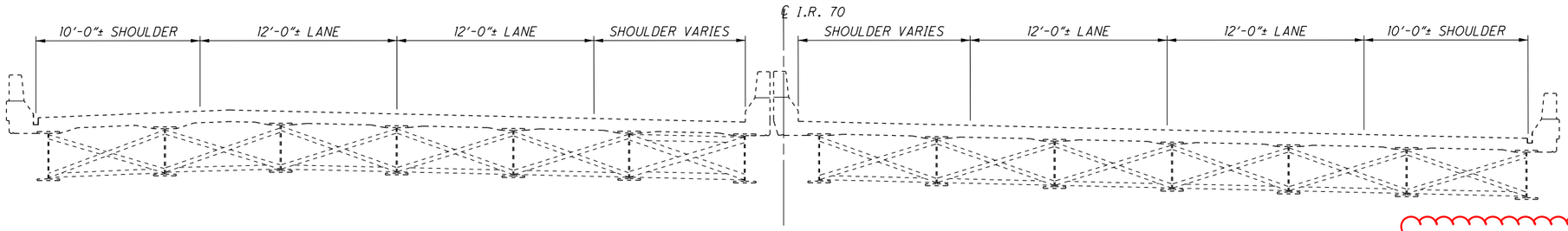
DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED MJB | DRAWN JPH | REVIEWED JPH | DATE 12/2/2020 | CHECKED TAG | REVISED | STRUCTURE FILE NUMBER 6002706

BRIDGE SUMMARY
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

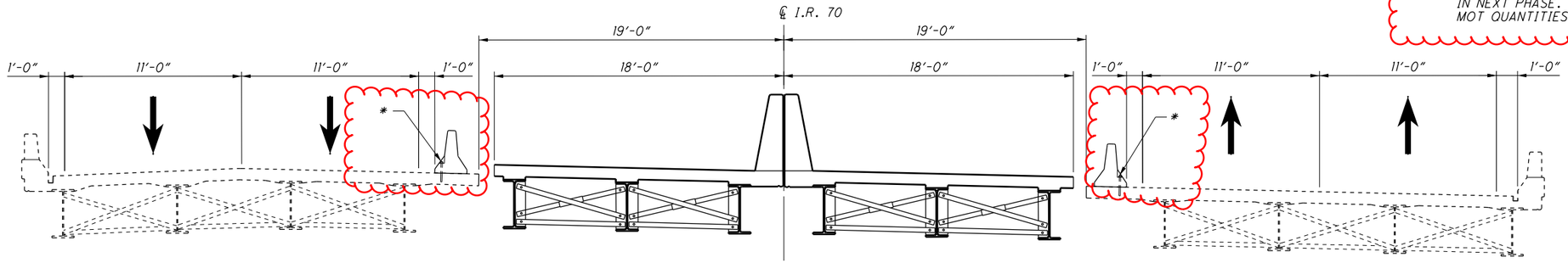
MUS-70-10.49
PID No. 93006

1398
2231

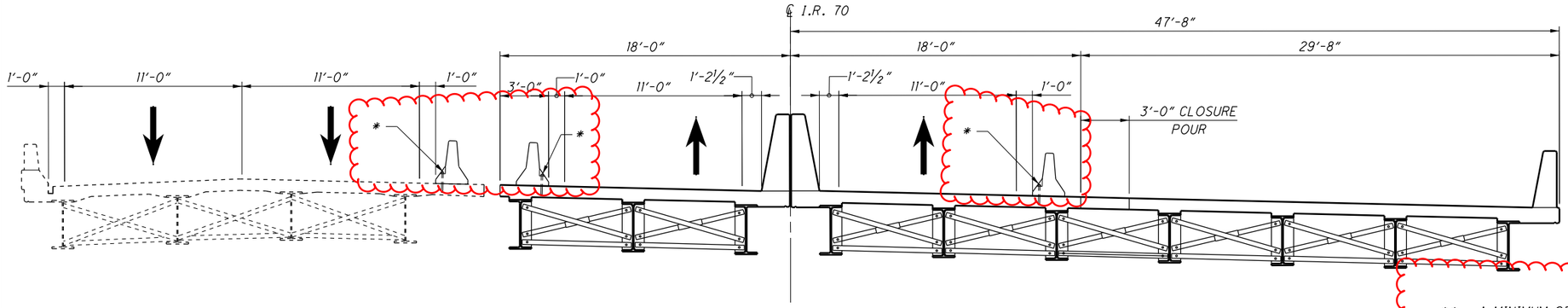


EXISTING TRANSVERSE SECTION

* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

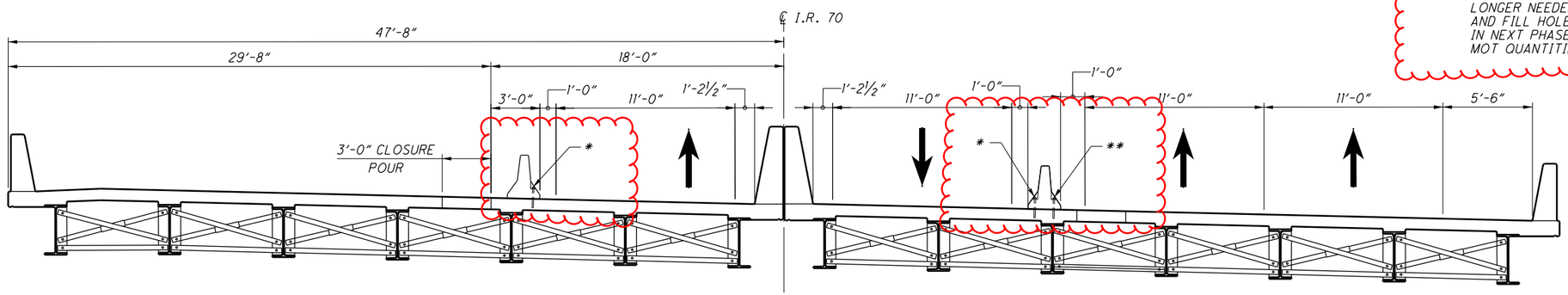


PHASE 1 CONSTRUCTION



PHASE 2 CONSTRUCTION

** - A MINIMUM OF 2 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES



PHASE 3 CONSTRUCTION

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

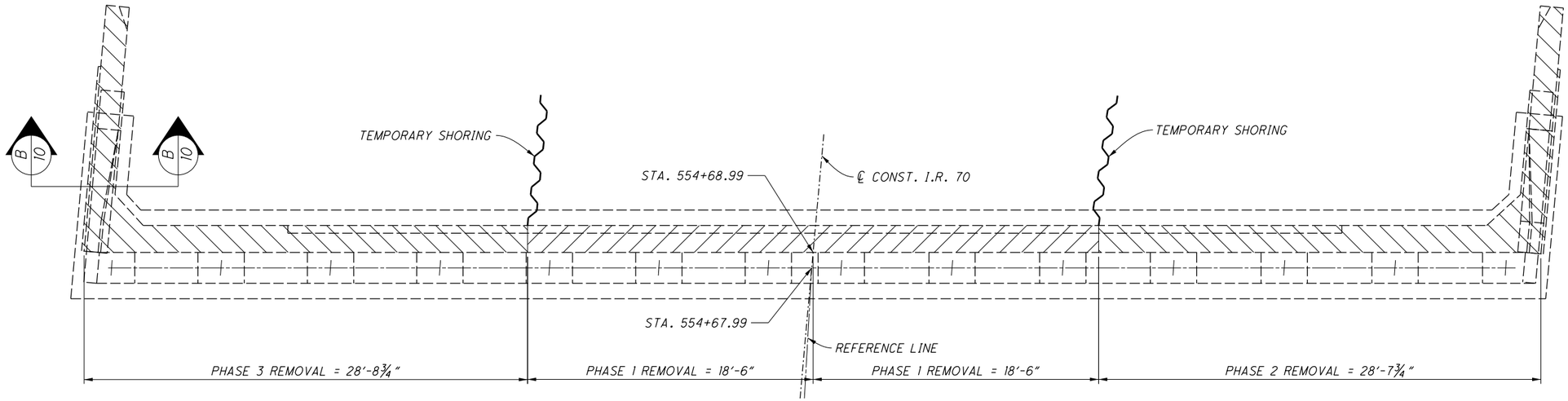
DESIGNED	DRAWN	REVIEWED	DATE
MdB	MdB	JPH	12/2/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JWH	.	6002706	

PHASE CONSTRUCTION DETAILS
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

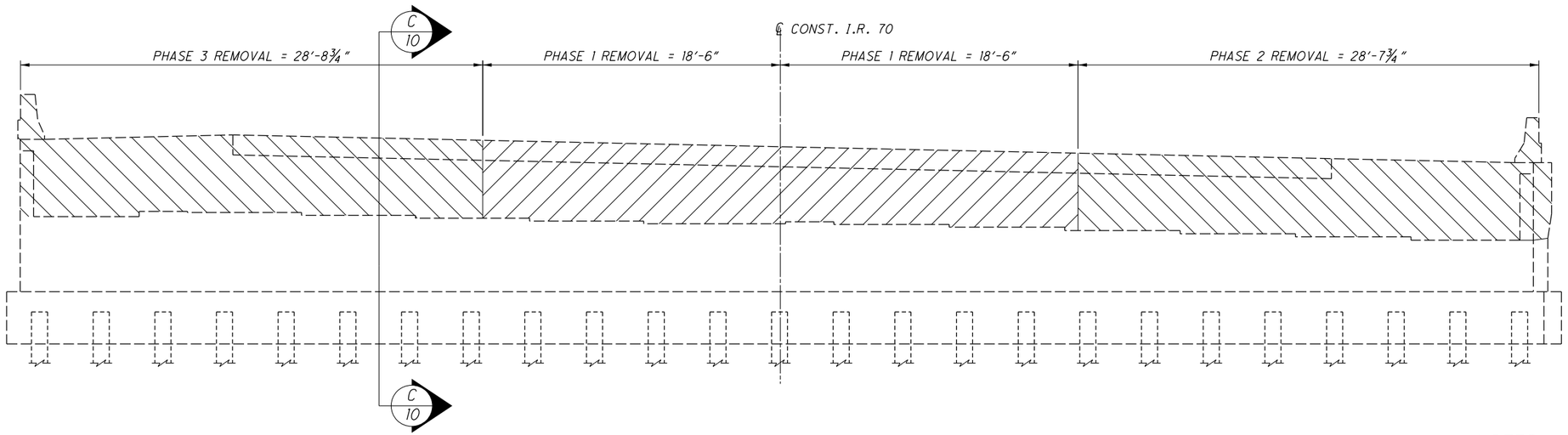
MUS-70-10.49
PID No. 93006

5 / 52

1399
2231



EXISTING FORWARD ABUTMENT PLAN



- REMOVAL LIMITS

EXISTING FORWARD ABUTMENT ELEVATION

NOTES:

1: REFER TO EXISTING PLANS FOR DIMENSIONS NOT DETAILED.

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED MJB | DRAWN JPH | REVIEWED JPH | DATE 12/2/2020
CHECKED TAG | REVISED | STRUCTURE FILE NUMBER 6002706

EXISTING FORWARD ABUTMENT
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

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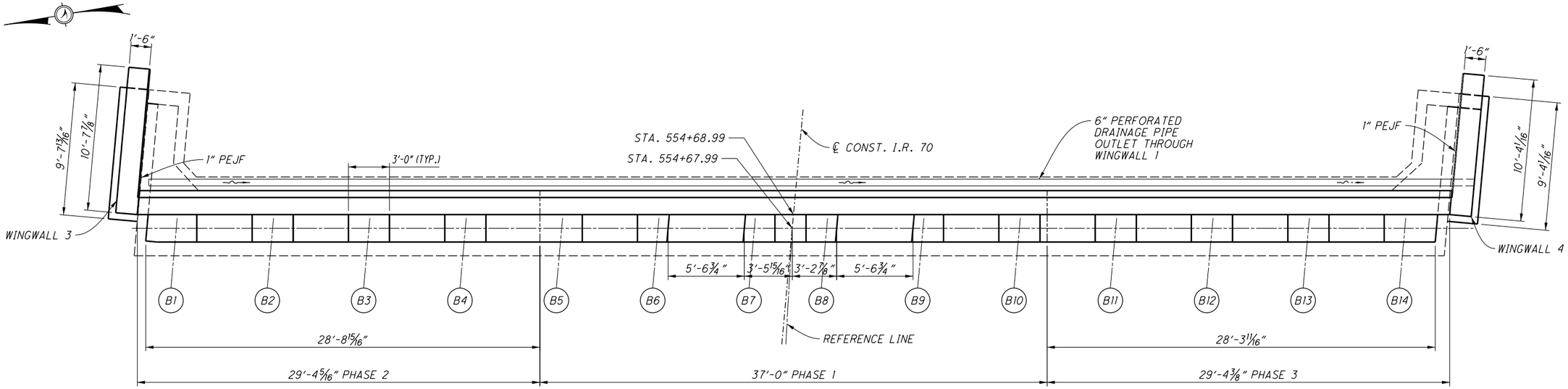
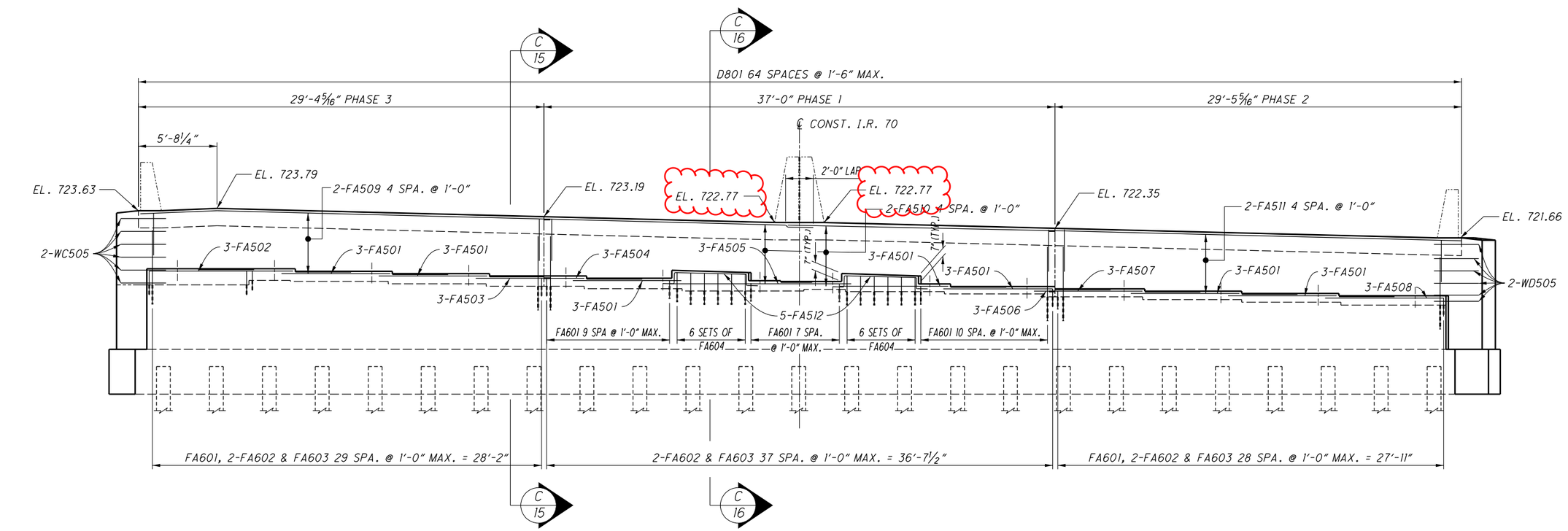
2231



PROPOSED FORWARD ABUTMENT



PROPOSED FORWARD ELEVATION

NOTES

1: MINIMUM DOWEL LENGTHS:
FA502 = 1'-0"
FA601 = 6"
FA602 = 1'-0"
FA604 = 1'-0"

BEAM SEAT ELEVATIONS

B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14
719.42	719.42	719.24	719.07	718.90	718.73	718.56	718.50	718.32	718.14	717.97	717.80	717.63	717.47

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

REVIEWED JPH DATE 12/2/2020
STRUCTURE FILE NUMBER 6002706

DRAWN JPH
REVISED

DESIGNED MJB
CHECKED TAG

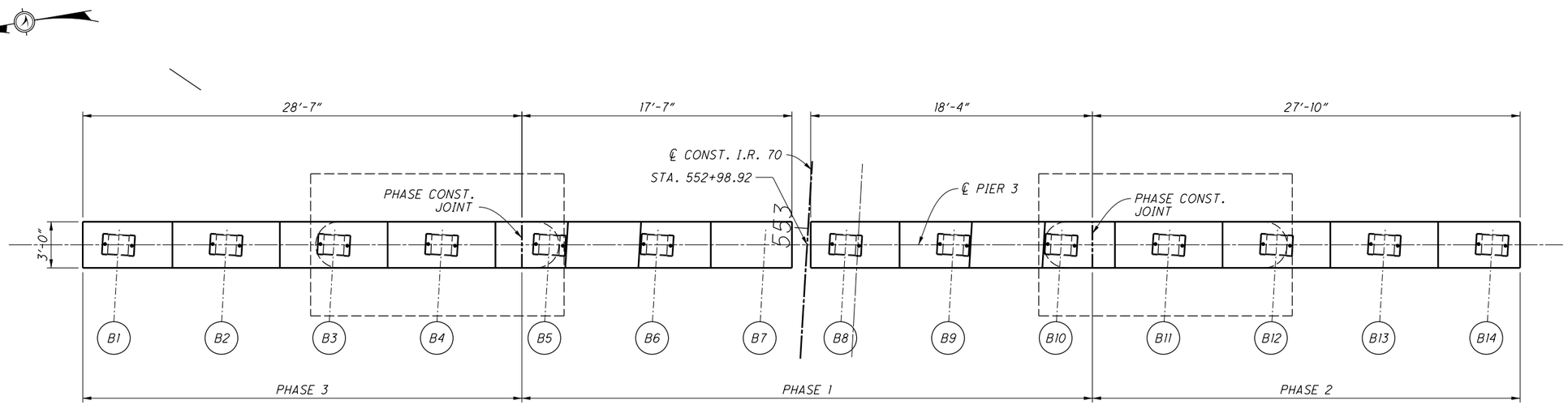
PROPOSED FORWARD ABUTMENT
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

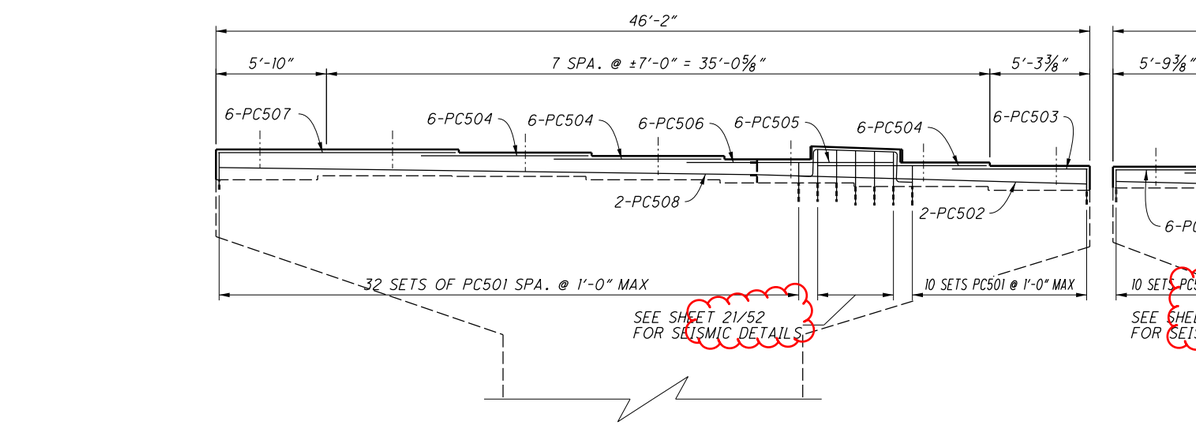
14 / 52

1408
2231

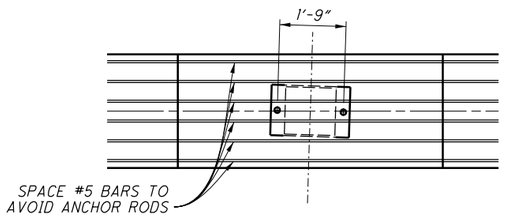
\\d05fs105\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6002706\Sheets\070_1089C_SF001.dgn 93006SF003 3/5/2021 10:26:49 AM jhuffma3



PIER 3 PLAN



PIER 3 ELEVATION



ANCHOR BOLT PLAN

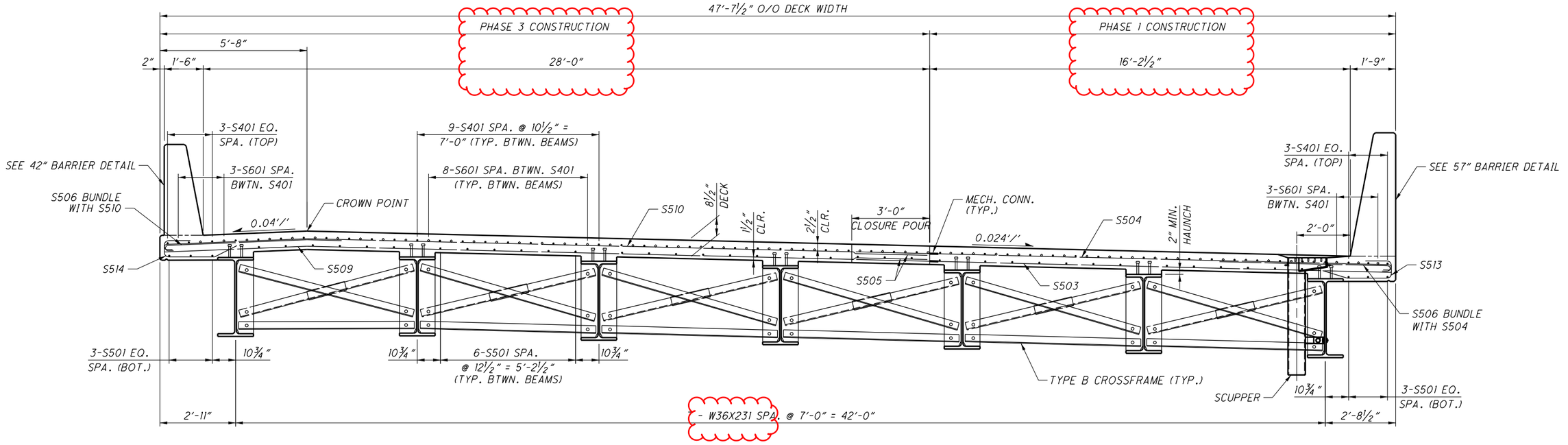
PIER 1 BEAM SEAT ELEVATIONS													
B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14
721.47	721.47	721.30	721.12	720.95	720.78	720.60	720.56	720.39	720.22	720.04	719.87	719.70	719.52

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

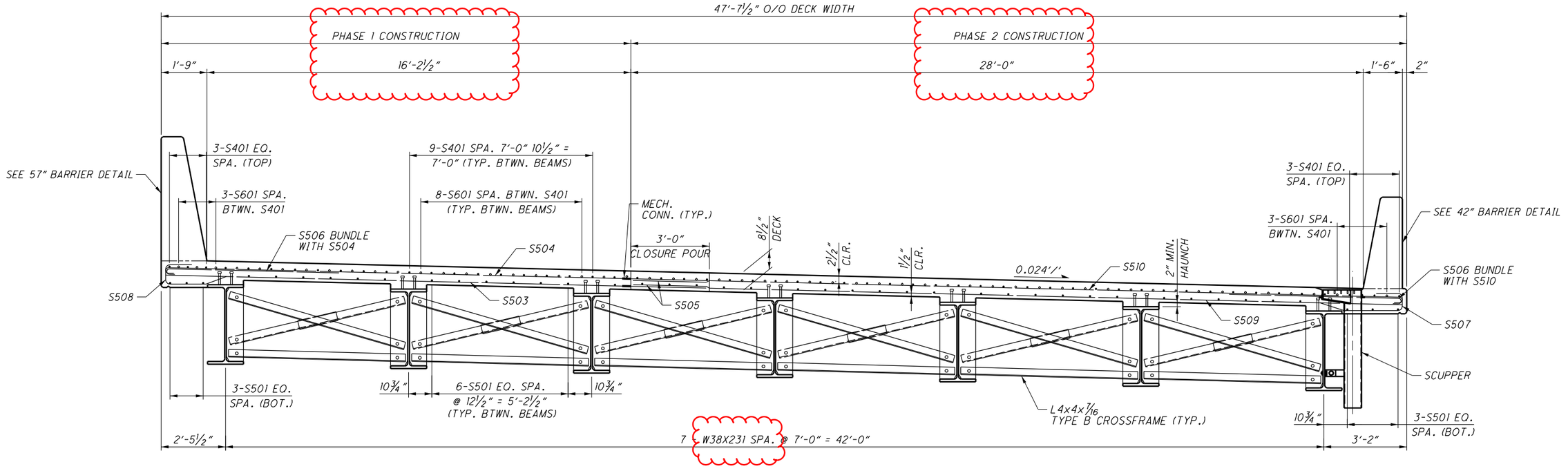
DESIGNED	DRAWN	REVIEWED	DATE
MJB	JPH	JPH	12/2/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TAG		6002706	

PROPOSED PIER 3 DETAILS
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006



WESTBOUND TRANSVERSE SECTION



EASTBOUND TRANSVERSE SECTION

1. FOR SCUPPER LOCATIONS SEE SHT. NOS. 36-43
   FOR ADDITIONAL DETAILS REFER TO STANDARD DRAWING GSD-I-19

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

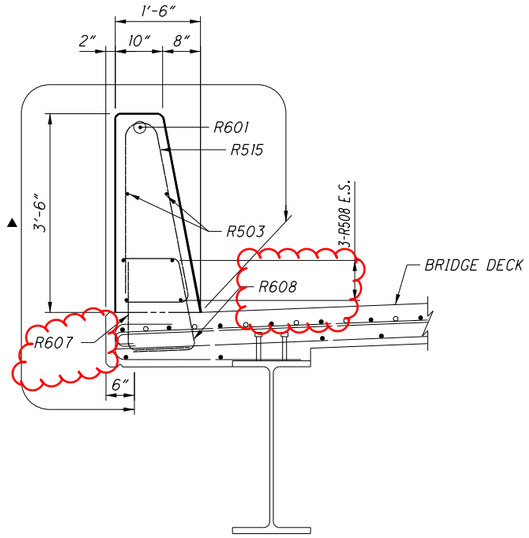
DESIGNED	DRAWN	REVIEWED	DATE
MJB	MJB	JPH	12/2/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JMH		6002706	

TRANSVERSE SECTION
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

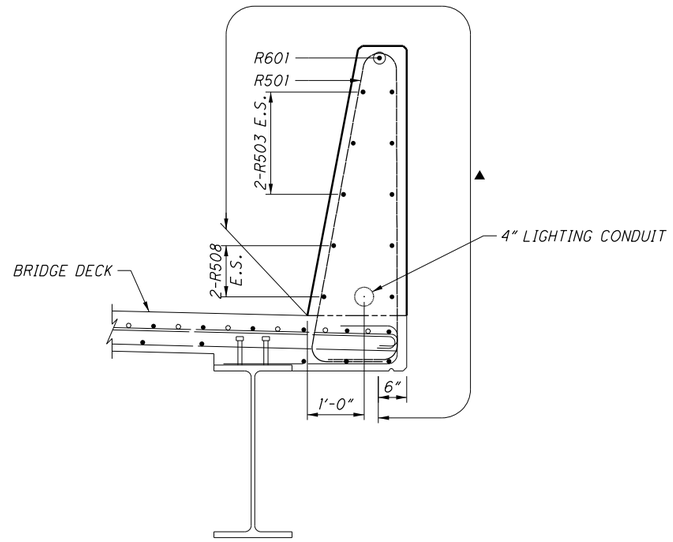
34/52

1428
2231



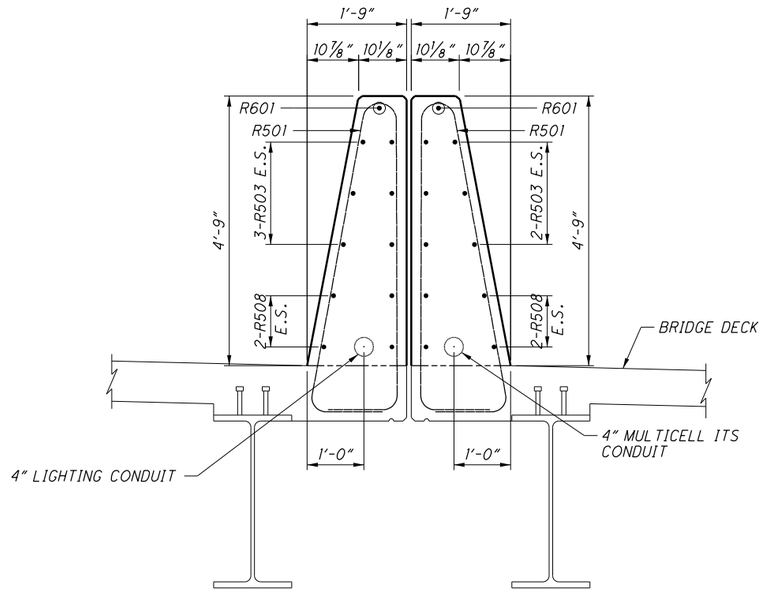
SECTION A-A
42" CONCRETE BARRIER DETAIL

▲ - LIMITS OF EPOXY-EURATHANE SEALER PER C&MS 516

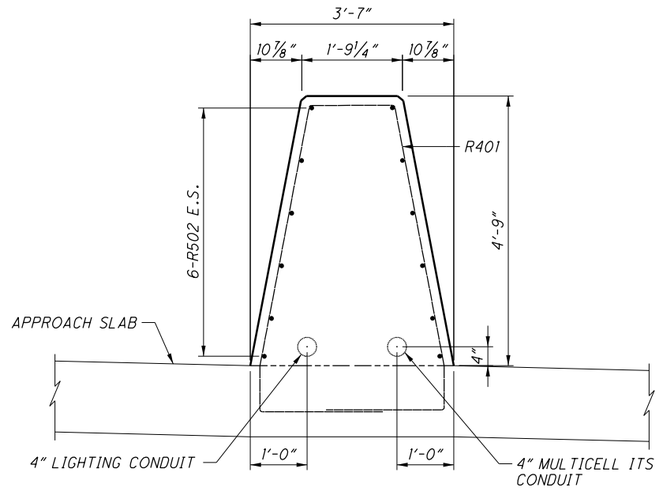


SECTION C-C (REINFORCING)
57" CONCRETE BARRIER DETAIL

▲ - LIMITS OF EPOXY-EURATHANE SEALER PER C&MS 516
(WESTBOUND SHOWN, EASTBOUND SIMILAR BUT MIRRORED)



SECTION C-C (GEOMETRY)
57" CONCRETE BARRIER DETAIL



SECTION B-B
57" CONCRETE BARRIER DETAIL

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED MJB | DRAWN MJB | REVIEWED JPH | DATE 12/2/2020
CHECKED JMH | REVISED | STRUCTURE FILE NUMBER 6002706

BARRIER DETAILS
BRIDGE NO.: MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

35 / 52

1429
2231

394'-1¾" DECK LENGTH

786-S509 (BOT.), 786-S510 (TOP), 786-S506 SPA. @ 6" & 393-S514 SPA @ 1'-0"

3'-0" 16'-5" 17'-0" 3'-0"

S510 (TOP) & S509 (BOT.)

54-S601 (OVER PIER)

8'-9½"

7½"

34-S401 (13 SETS TOP)
26-S501 (13 SETS BOT.)
PHASE 3

394'-1¾" DECK LENGTH @ PHASE LINE

786-S512 (BOT.) & 786-S513 (TOP) SPA. @ 6"

MATCHLINE A-A

S505 (TOP) & S505 (BOT.)

3'-0" CLOSURE POUR

3'-0"

394'-1¾" DECK LENGTH @ PHASE LINE

S504 (TOP) & S503 (BOT.)

21-S401 (13 SETS TOP)
16-S501 (13 SETS BOT.)
PHASE 1

17'-11½"

SCUPPER @ STA. 551+20.00

1'-11" (NO. 4 BARS)
2'-5" (NO. 5 BARS)

3°11'

0'-10½"

℄ BRG. REAR ABUT. STA. 550+75.09

℄ CONST. I.R. 70

℄ BRG. PIER 1 STA. 551+29.77

394'-1⅞" DECK LENGTH

780-S503 (BOT.), 780-S504 (TOP), 780-S506 SPA. @ 6" & 393-S513 SPA. @ 1'-0"

DECK PLAN

NOTES:

1. FOR MATCH LINE A, SEE SHT. NO. 37/52.
2. FOR ADDITIONAL NOTES, SEE SHT. NO. 39/52.

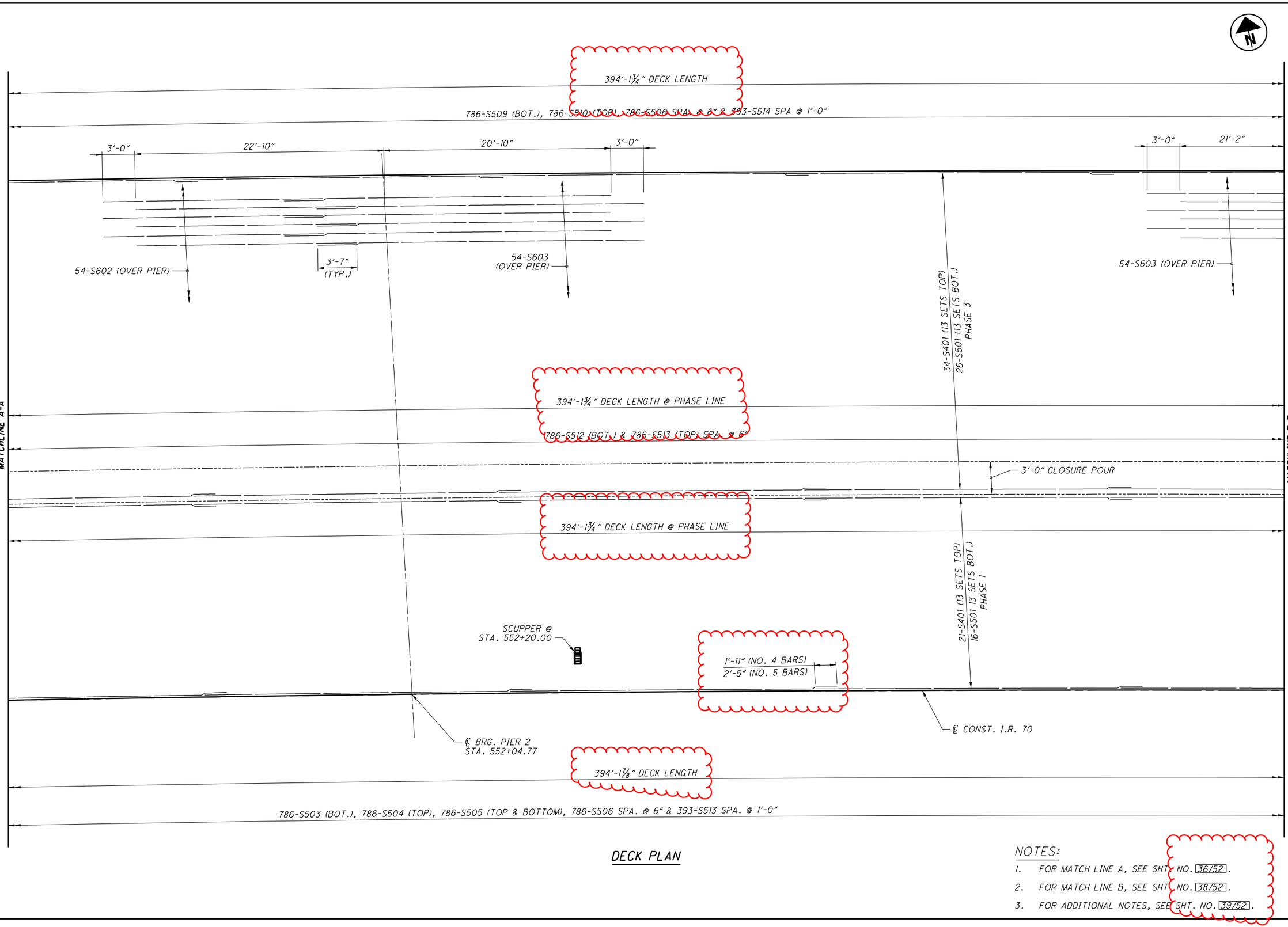
DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
MJB	MJB	JPH	12/2/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JMH		6002706	

DECK PLAN (WESTBOUND)
BRIDGE NO: MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

1430
2231



DECK PLAN

NOTES:

1. FOR MATCH LINE A, SEE SHT. NO. 36/52.
2. FOR MATCH LINE B, SEE SHT. NO. 38/52.
3. FOR ADDITIONAL NOTES, SEE SHT. NO. 39/52.

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
MJB	MJB	JPH	12/2/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JMH		6002706	

DECLPLAN (WESTBOUND)
BRIDGE NO:. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

37/52

1431
2231

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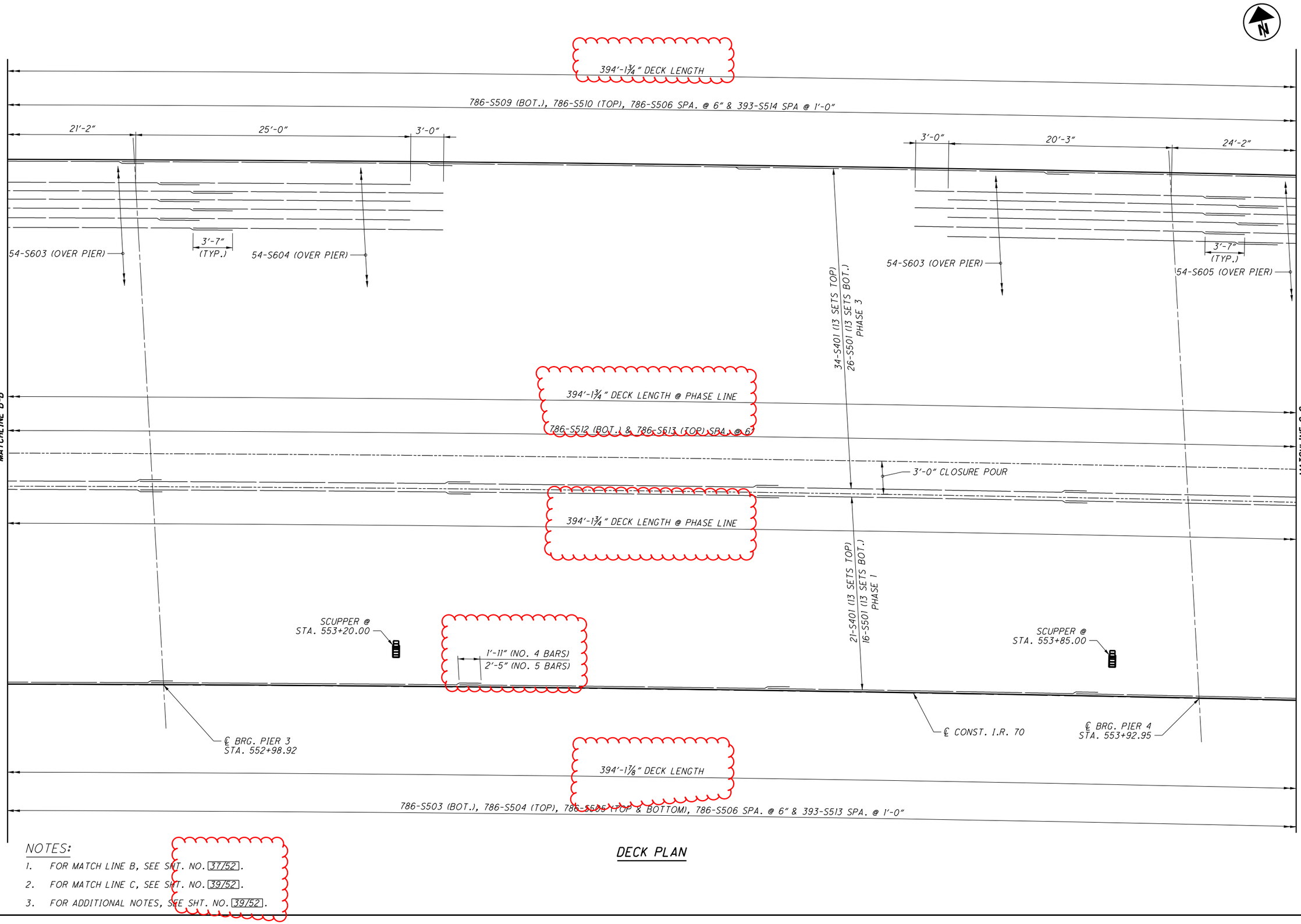


DECK PLAN

NOTES:

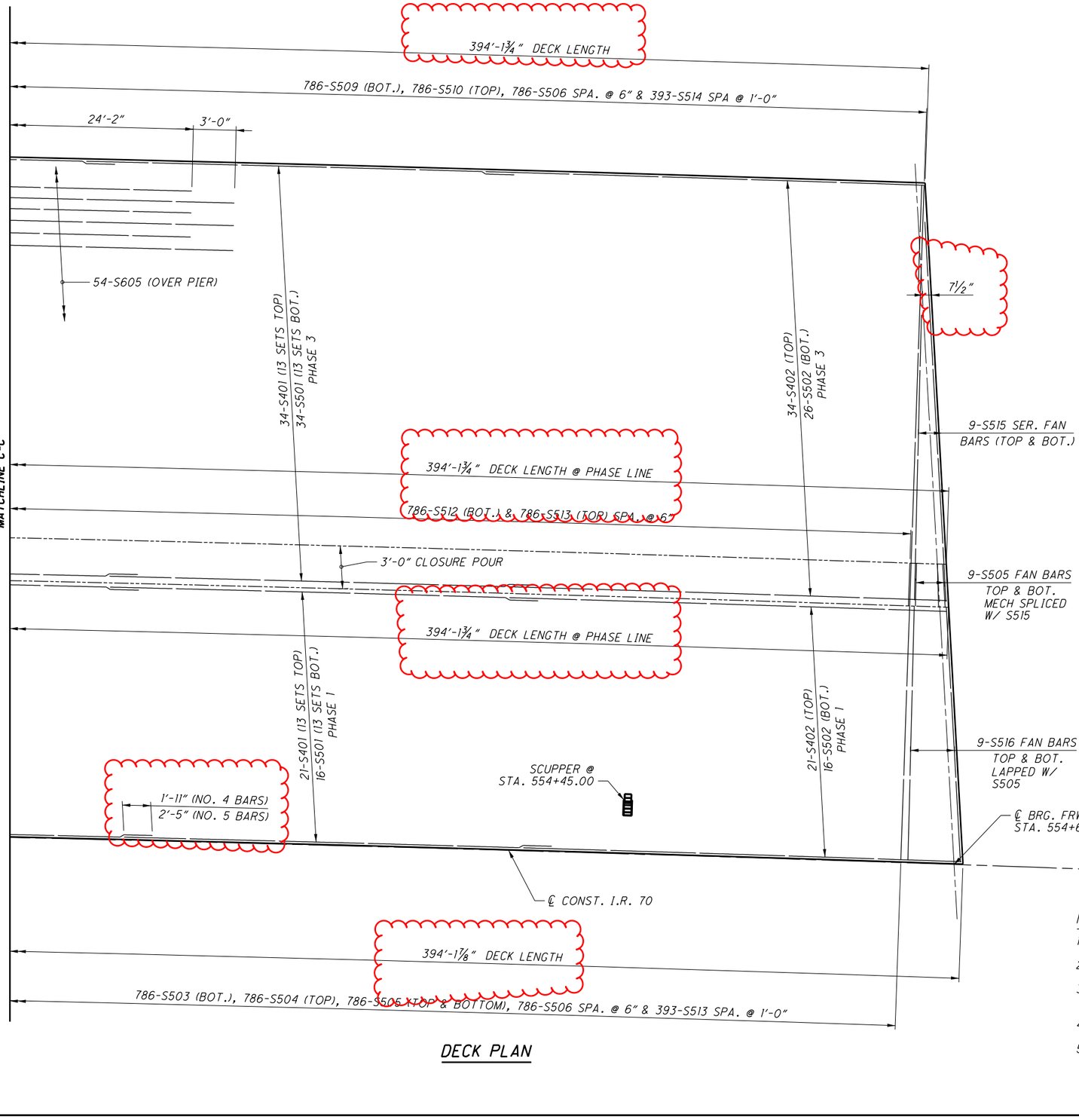
1. FOR MATCH LINE B, SEE SHT. NO. 37/52.
2. FOR MATCH LINE C, SEE SHT. NO. 39/52.
3. FOR ADDITIONAL NOTES, SEE SHT. NO. 39/52.

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
MJB	MJB	JPH	12/2/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JMH		6002706	

DECK PLAN (WESTBOUND)
BRIDGE NO:. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006



DECK PLAN

NOTES:

1. FOR MATCH LINE C, SEE SHT. NO. 38/52.
2. FOR TRANSVERSE SECTION, SEE SHT. NO. 34/52.
3. FOR SCREED, TOP OF HAUNCH, & FINISHED GRADE ELEVATIONS, SEE SHT. NOS. 30/52 THRU 33/52.
4. FOR EXPANSION JOINT DETAILS SEE SHT. NO. 44A/52.
5. SCUPPER SUPPLEMENTAL REINFORCEMENT: REINFORCE THE CONCRETE DECK AT THE TWO SCUPPER CORNERS OPPOSITE THE CURB LINE WITH ONE #4 BAR, 3'-0" LONG ORIENTED AT 45° TO THE LONG AXIS OF THE SCUPPER AND LOCATED JUST BELOW THE TRANSVERSE BARS IN THE TOP MAT OF STEEL.

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION DISTRICT 5

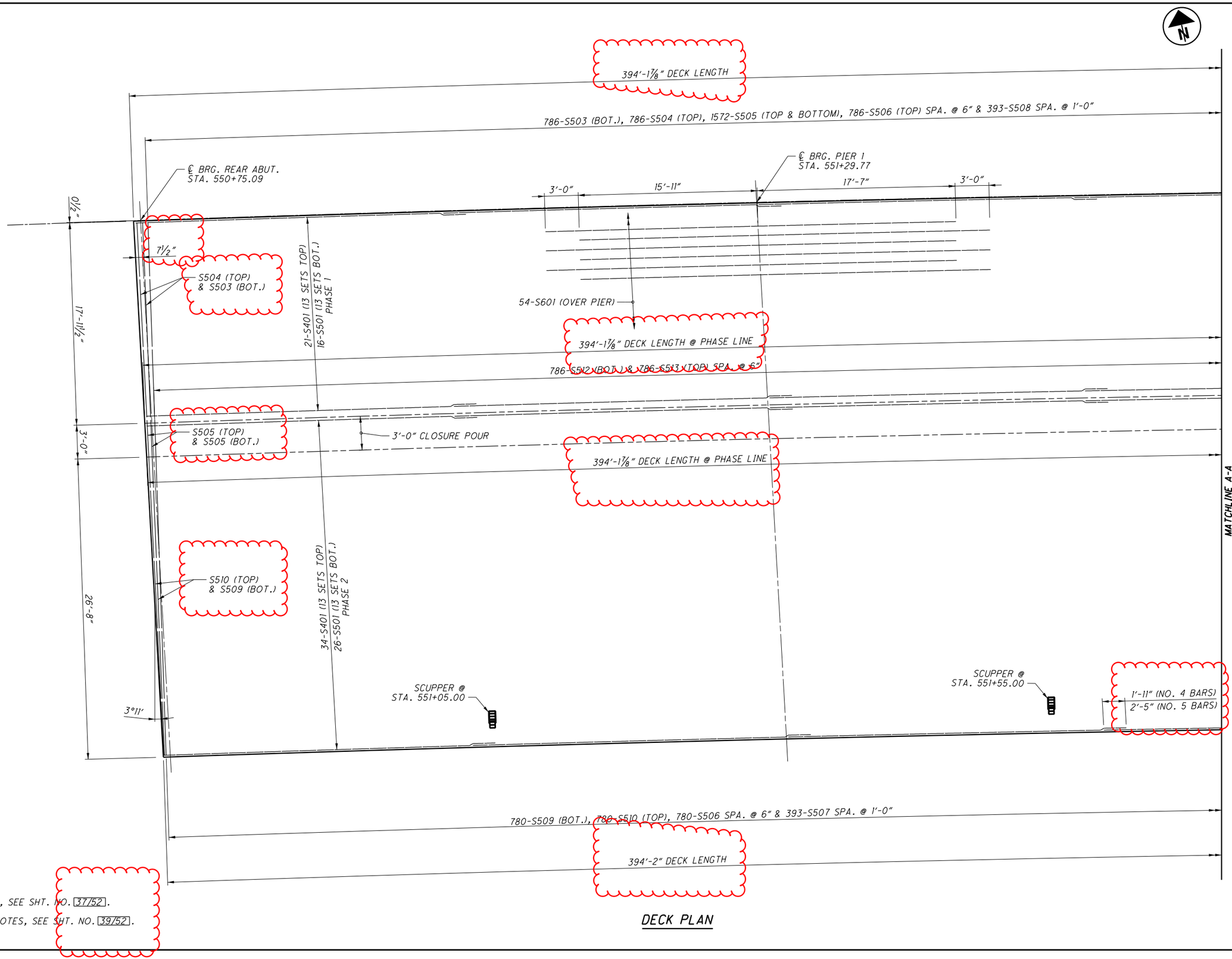
DESIGNED	DRAWN	REVIEWED	DATE
MJB	MJB	JPH	12/2/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JMH		6002706	

DECK PLAN (WESTBOUND)
BRIDG NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

39 / 52

1433
2231



NOTES:

1. FOR MATCH LINE A, SEE SHT. NO. 37/52.
2. FOR ADDITIONAL NOTES, SEE SHT. NO. 39/52.

DECK PLAN

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
MJB	MJB	JPH	12/2/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JMH		6002706	

DECK PLAN (EASTBOUND)
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

40/52

1434
2231

394'-1⅞" DECK LENGTH

786-S503 (BOT.), 786-S504 (TOP), 1572-S505 (TOP & BOTTOM), 786-S506 (TOP) SPA. @ 6" & 393-S508 SPA. @ 1'-0"

℄ BRG. PIER 2
STA. 552+04.77

3'-0" 22'-6" 20'-4" 3'-0" 3'-0" 21'-5"

3'-7" (TYP.)

54-S602 (OVER PIER)

54-S603 (OVER PIER)

54-S604 (OVER PIER)

21-S401 (13 SETS TOP)
16-S501 (13 SETS BOT.)
PHASE 1

394'-1⅞" DECK LENGTH @ PHASE LINE

786-S512 (BOT.) & 786-S513 (TOP) SPA. @ 6"

3'-0" CLOSURE POUR

394'-1⅞" DECK LENGTH @ PHASE LINE

MATCHLINE A-A

MATCHLINE B-B

34-S401 (13 SETS TOP)
26-S501 (13 SETS BOT.)
PHASE 2

SCUPPER @
STA. 552+00.00

SCUPPER @
STA. 552+50.00

1'-11" (NO. 4 BARS)
2'-5" (NO. 5 BARS)

780-S509 (BOT.), 780-S510 (TOP), 780-S506 SPA. @ 6" & 393-S507 SPA. @ 1'-0"

394'-2" DECK LENGTH

DECK PLAN

NOTES:

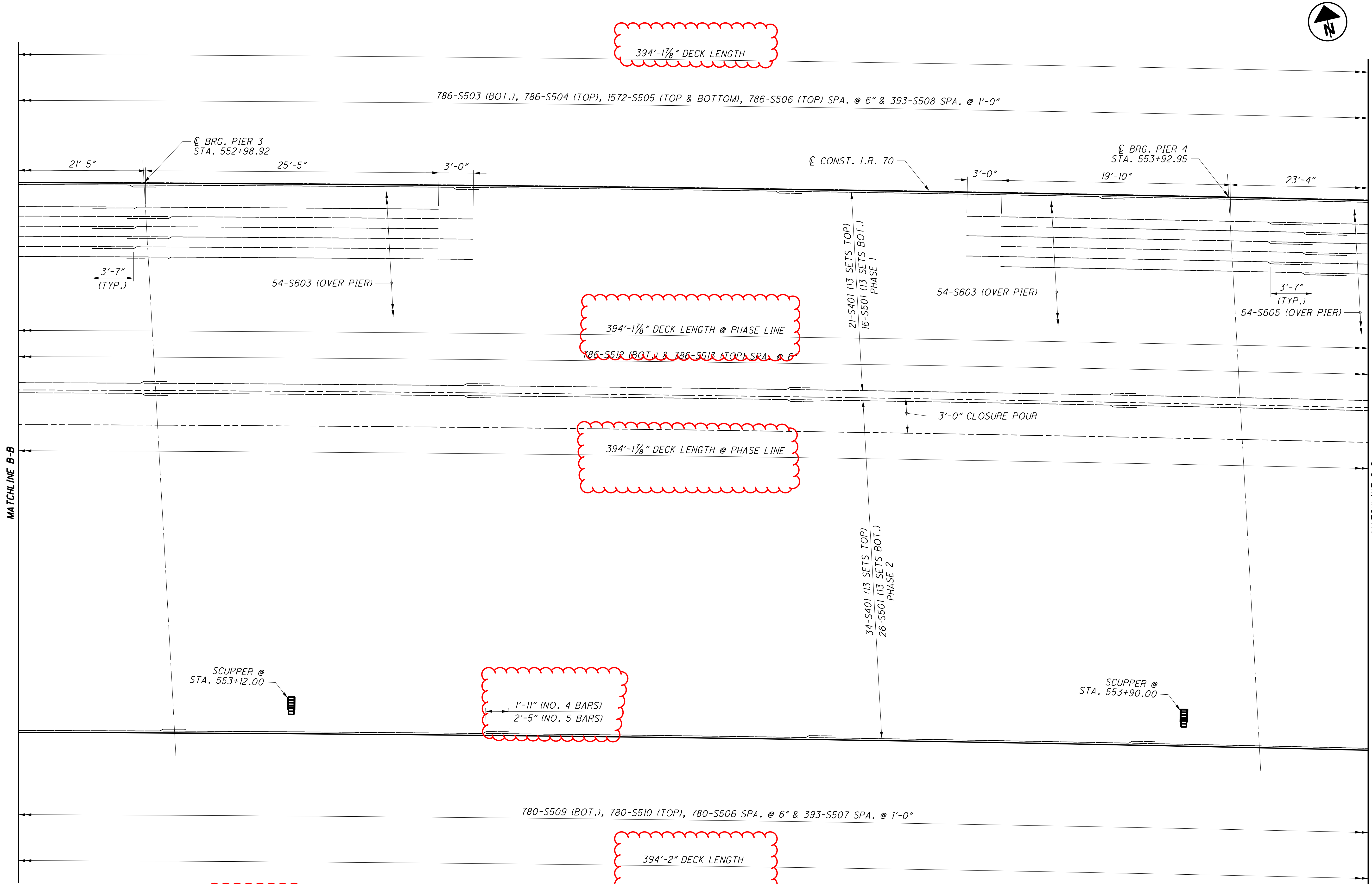
1. FOR MATCH LINE A, SEE SHT. NO. 36/52.
2. FOR MATCH LINE B, SEE SHT. NO. 38/52.
3. FOR ADDITIONAL NOTES, SEE SHT. NO. 39/52.

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
MJB	MJB	JPH	12/2/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JMH		6002706	

DECK PLAN (EASTBOUND)
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006



NOTES:

1. FOR MATCH LINE B, SEE SHT. NO. 37/52.
2. FOR MATCH LINE C, SEE SHT. NO. 39/52.
3. FOR ADDITIONAL NOTES, SEE SHT. NO. 39/52.

DECK PLAN

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DESIGN AGENCY: OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

REVIEWED: JPH | DATE: 12/2/2020 | STRUCTURE FILE NUMBER: 6002706

DRAWN: MJB | REVISED:

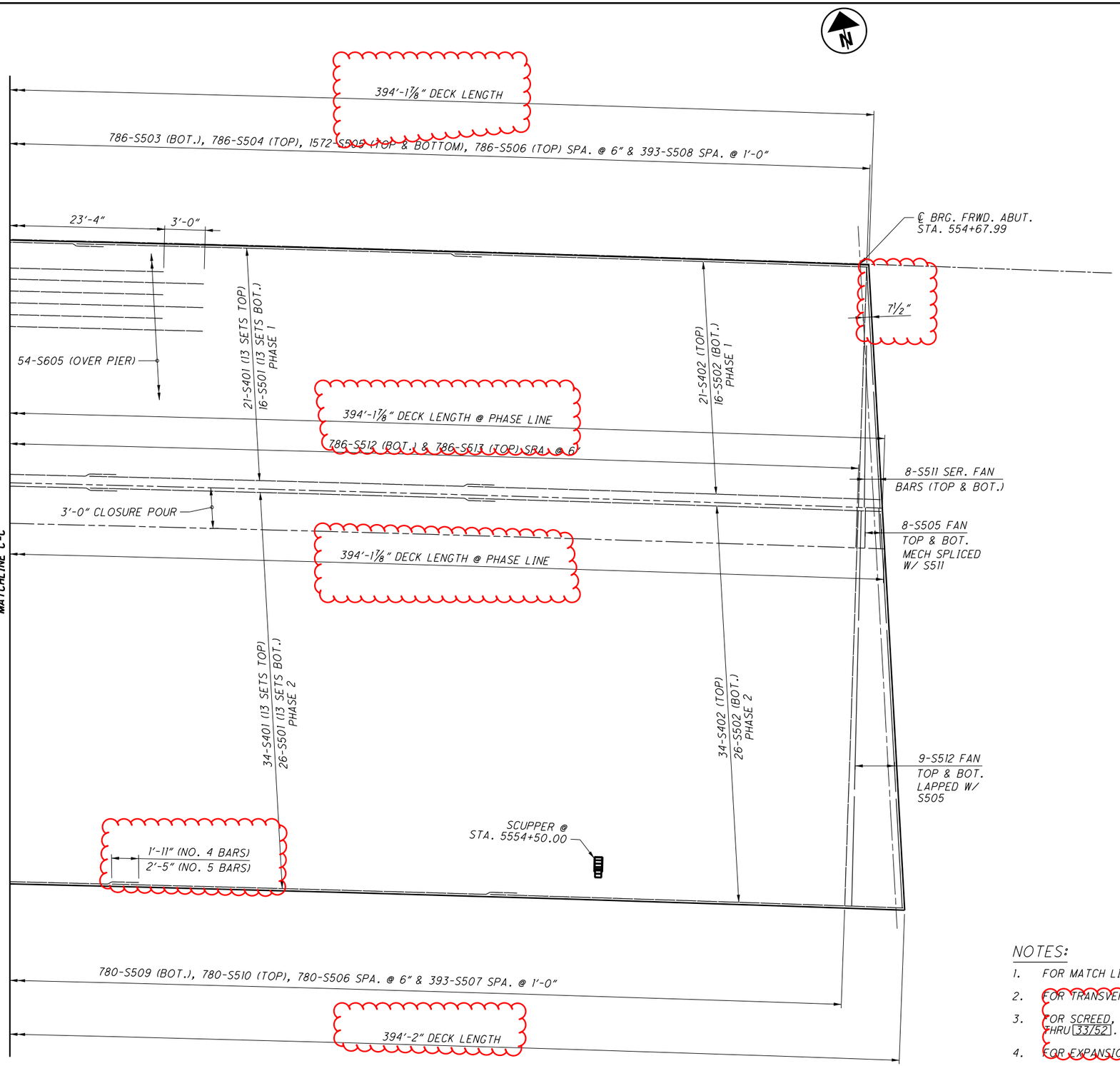
DESIGNED: MJB | CHECKED: JMH

DECK PLAN (EASTBOUND)
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

42/52

1436/2231



DECK PLAN

NOTES:

1. FOR MATCH LINE C, SEE SHT. NO. 38/52.
2. FOR TRANSVERSE SECTION, SEE SHT. NO. 34/52.
3. FOR SCREED, TOP OF HAUNCH, & FINISHED DECK ELEVATIONS, SEE SHT. NOS. 30/52 THRU 33/52.
4. FOR EXPANSION JOINT DETAILS SEE SHT. NO. 44A/52.
5. SCUPPER SUPPLEMENTAL REINFORCEMENT: REINFORCE THE CONCRETE DECK AT THE TWO SCUPPER CORNERS OPPOSITE THE CURB LINE WITH ONE #4 BAR, 3'-0" LONG ORIENTED AT 45° TO THE LONG AXIS OF THE SCUPPER AND LOCATED JUST BELOW THE TRANSVERSE BARS IN THE TOP MAT OF STEEL.

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

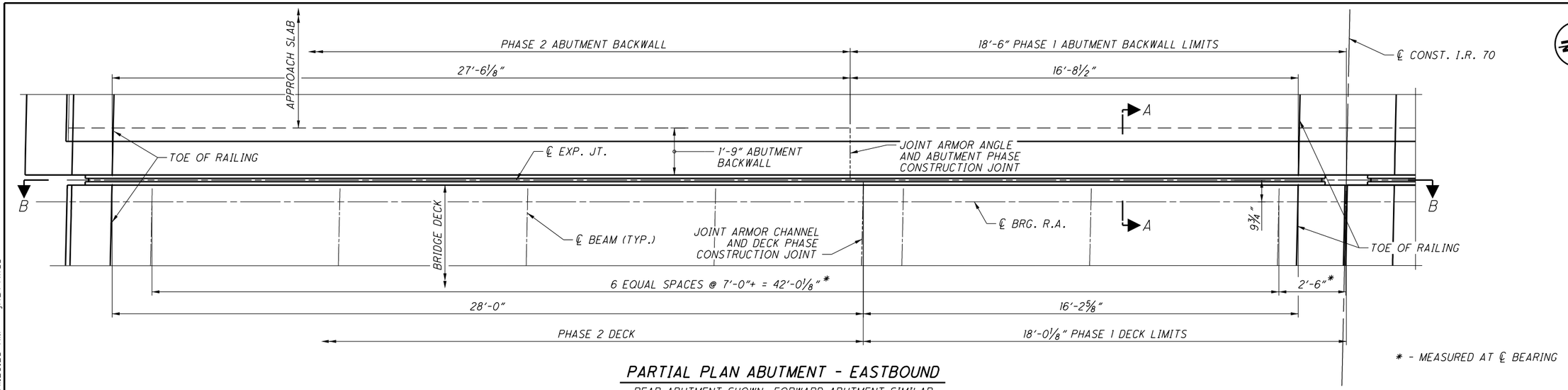
DESIGNED	DRAWN	REVIEWED	DATE
MJB	MJB	JPH	12/2/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JMH		6002706	

DECK PLAN (EASTBOUND)
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

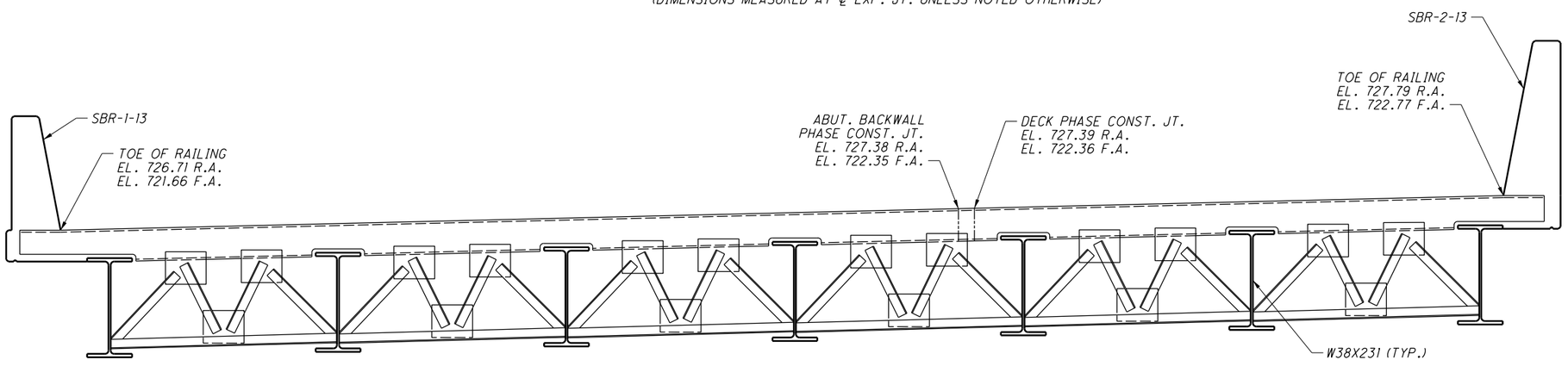
43 / 52

1437
2231



PARTIAL PLAN ABUTMENT - EASTBOUND

REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR
(DIMENSIONS MEASURED AT ℄ EXP. JT. UNLESS NOTED OTHERWISE)

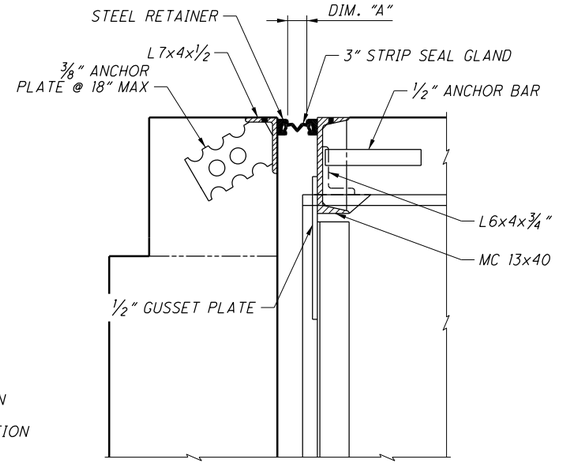


SECTION B-B

ELEVATIONS PROVIDED AT THE ℄ OF EXP. JT.

3" SEAL		
AMBIENT TEMP, °F	DIMENSION "A"	
	REAR	FORWARD
90°	15⁄16"	1⅛"
80°	1⅛"	1 5⁄16"
70°	1 5⁄16"	1 7⁄16"
60°	1½"	1 9⁄16"
50°	1 11⁄16"	1 11⁄16"
40°	1 13⁄16"	1 13⁄16"
30°	2"	1 15⁄16"

NOTE:
THE MINIMUM JOINT OPENING (DIMENSION "A") AT THE TIME OF THE SEAL GLAND INSTALLATION SHALL NOT BE LESS THAT 1½". IF THE JOINT OPENING IS LESS, THE INSTALLATION SHALL BE POSTPONED UNTIL THE TEMPERATURE DROPS A SUFFICIENT AMOUNT TO ALLOW THE MINIMUM 1½" OPENING.



SECTION A-A

NOTES:

1. FOR ADDITONAL NOTES AND INFORMATION SEE SHT. NO. 44B/52.

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

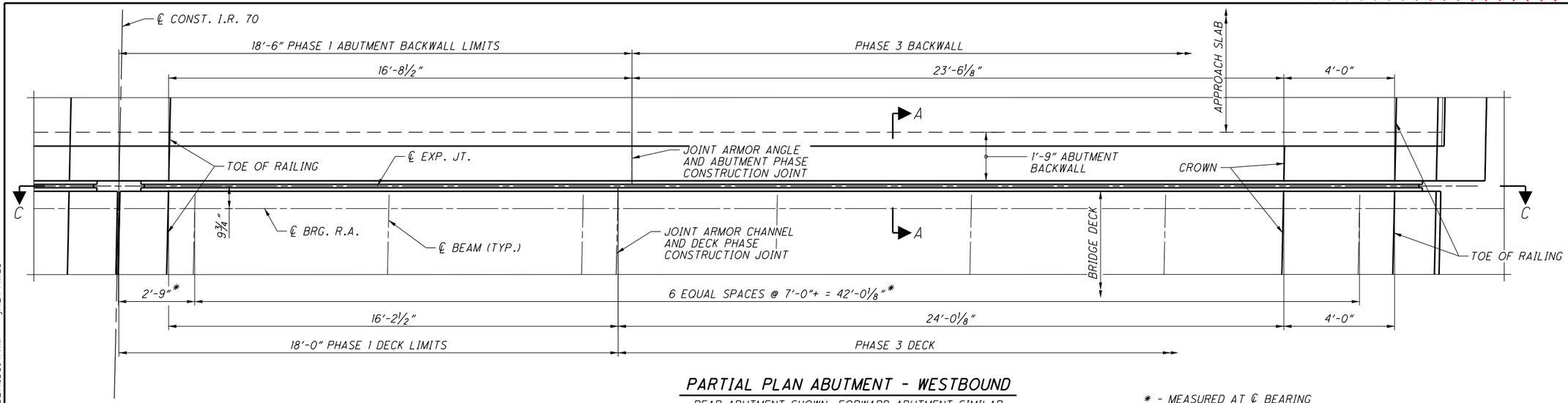
DESIGNED JMH | DRAWN MJB | REVIEWED TAG | DATE 12/2/2020
CHECKED JMH | REVISED | STRUCTURE FILE NUMBER 6002706

EXPANSION JOINT DETAILS - 1
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

44A / 52

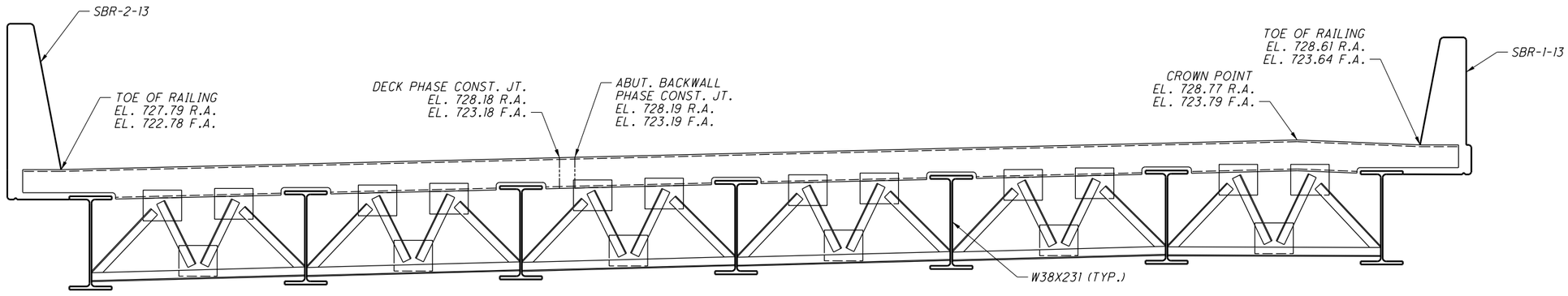
1438A
2231



PARTIAL PLAN ABUTMENT - WESTBOUND

REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR
(DIMENSIONS MEASURED AT ℄ EXP. JT. UNLESS NOTED OTHERWISE)

* - MEASURED AT ℄ BEARING



SECTION C-C

ELEVATIONS PROVIDED AT THE ℄ OF EXP. JT.

NOTES:

1. FOR SECTION A-A & EXPANSION JOINT OPENING INFORMATION, SEE SHT. NO. 44A/52.
2. FOR ADDITIONAL INFORMATION AND DETAILS NOT SHOWN, REFER TO BRIDGE STANDARD DRAWING EXJ-4-84.
3. THE STRIP SEAL GLAND SHALL BE ONE PIECE ACROSS THE TOTAL WIDTH OF EACH STRUCTURE
4. DECK DIMENSIONS ARE BASED ON A 1½" STEEL RETAINER WIDTH AND STRIP SEAL INSTALLED AT 60°F. CONTRACTOR MAY HAVE TO ADJUST DEPENDING ON ACTUAL RETAINER WIDTH AND INSTALLATION TEMPERATURE.
5. JOINTS IN STEEL RETAINERS SHALL BE PARTIAL PENETRATION WELDS AROUND THE OUTER PERIPHERY OF THE ABUTTING SURFACES AND GROUND FLUSH WHERE IN CONTACT WITH THE STRIP SEAL GLAND AND JOINT ARMOR. JOINTS IN ARMOR CHANNEL AND ANGLE SHALL BE COMPLETE PENETRATION WELDS GROUND FLUSH WHERE IN CONTACT WITH THE STEEL RETAINER.

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
JMH	MJB	TAG	12/2/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JMH		6002706	

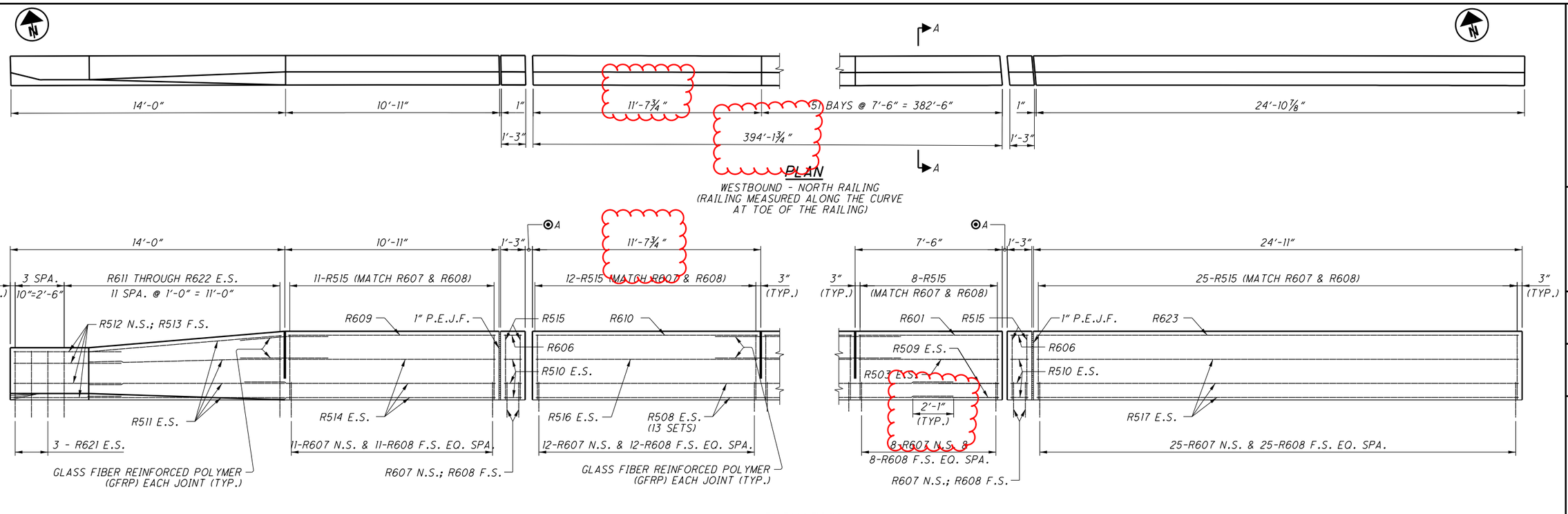
EXPANSION JOINT DETAILS - 2

BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

44B/52

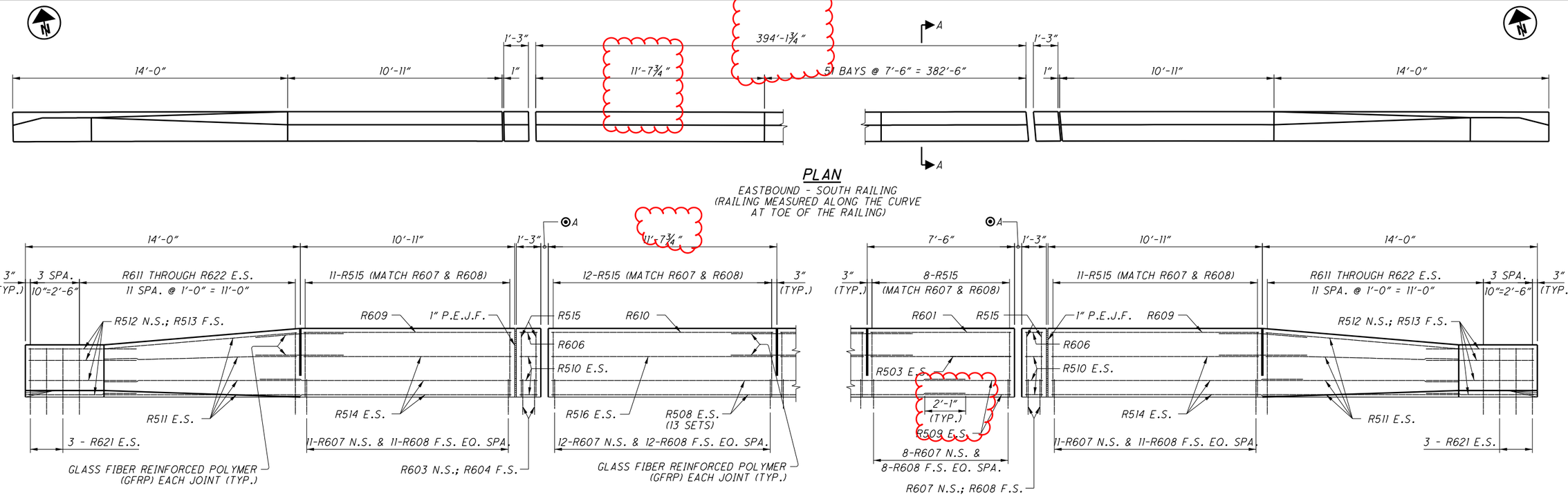
1438B
2231



ELEVATION

WESTBOUND - NORTH RAILING

A - DECK EXPANSION JOINT OPENING



ELEVATION

EASTBOUND - SOUTH RAILING

A - DECK EXPANSION JOINT OPENING

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED MJB | DRAWN MJB | REVIEWED JPH | DATE 12/2/2020
CHECKED JMH | REVISED | STRUCTURE FILE NUMBER 6002706

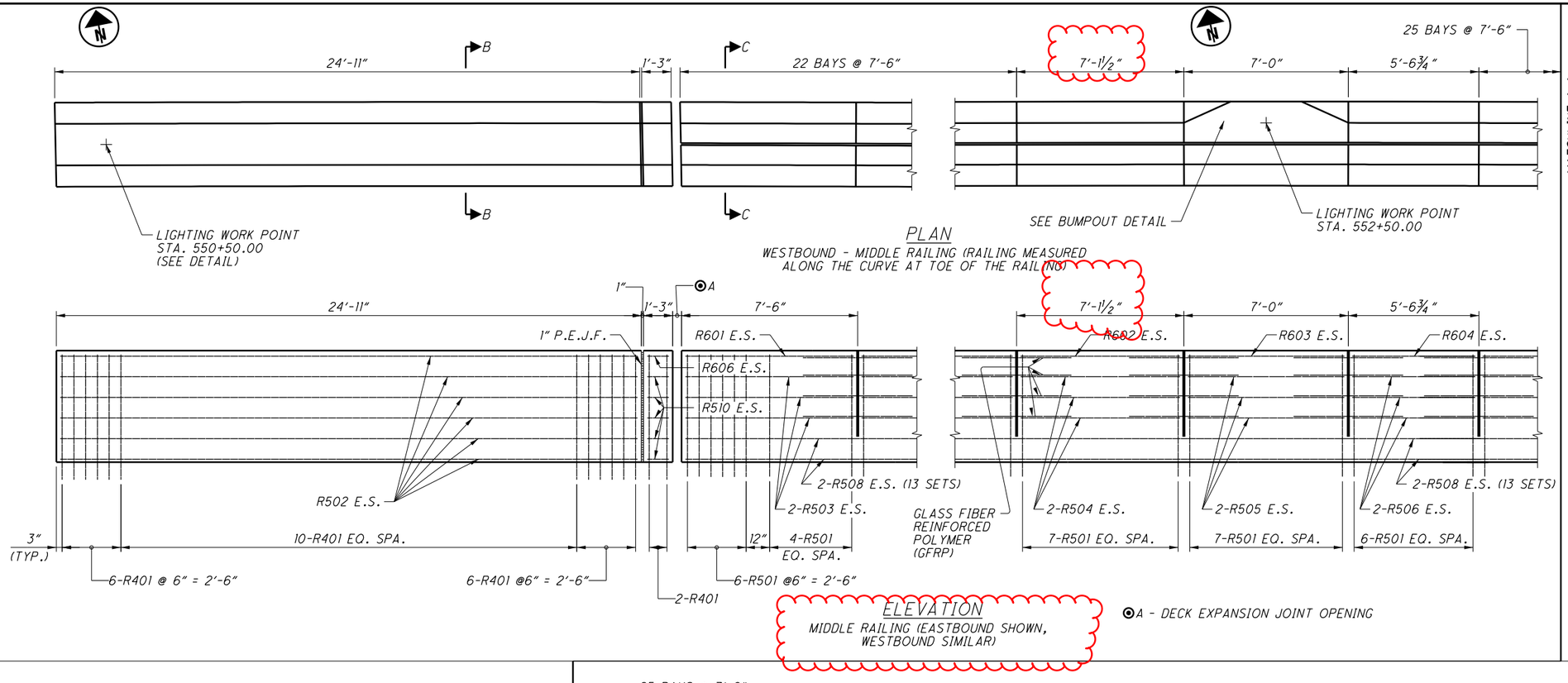
PARAPET DETAILS
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

45 / 52

1439
2231

\\d05fsl05\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6002706\Sheets\070_1089C_DP002.dgn 93006DP200I 3/4/2021 9:00:34 AM jhuffma3



PLAN

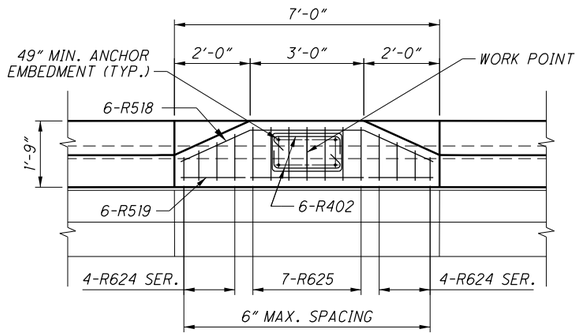
WESTBOUND - MIDDLE RAILING (RAILING MEASURED ALONG THE CURVE AT TOE OF THE RAILING)

ELEVATION

MIDDLE RAILING (EASTBOUND SHOWN, WESTBOUND SIMILAR)

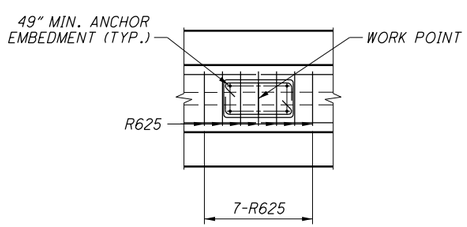
A - DECK EXPANSION JOINT OPENING

MATCHLINE A-A



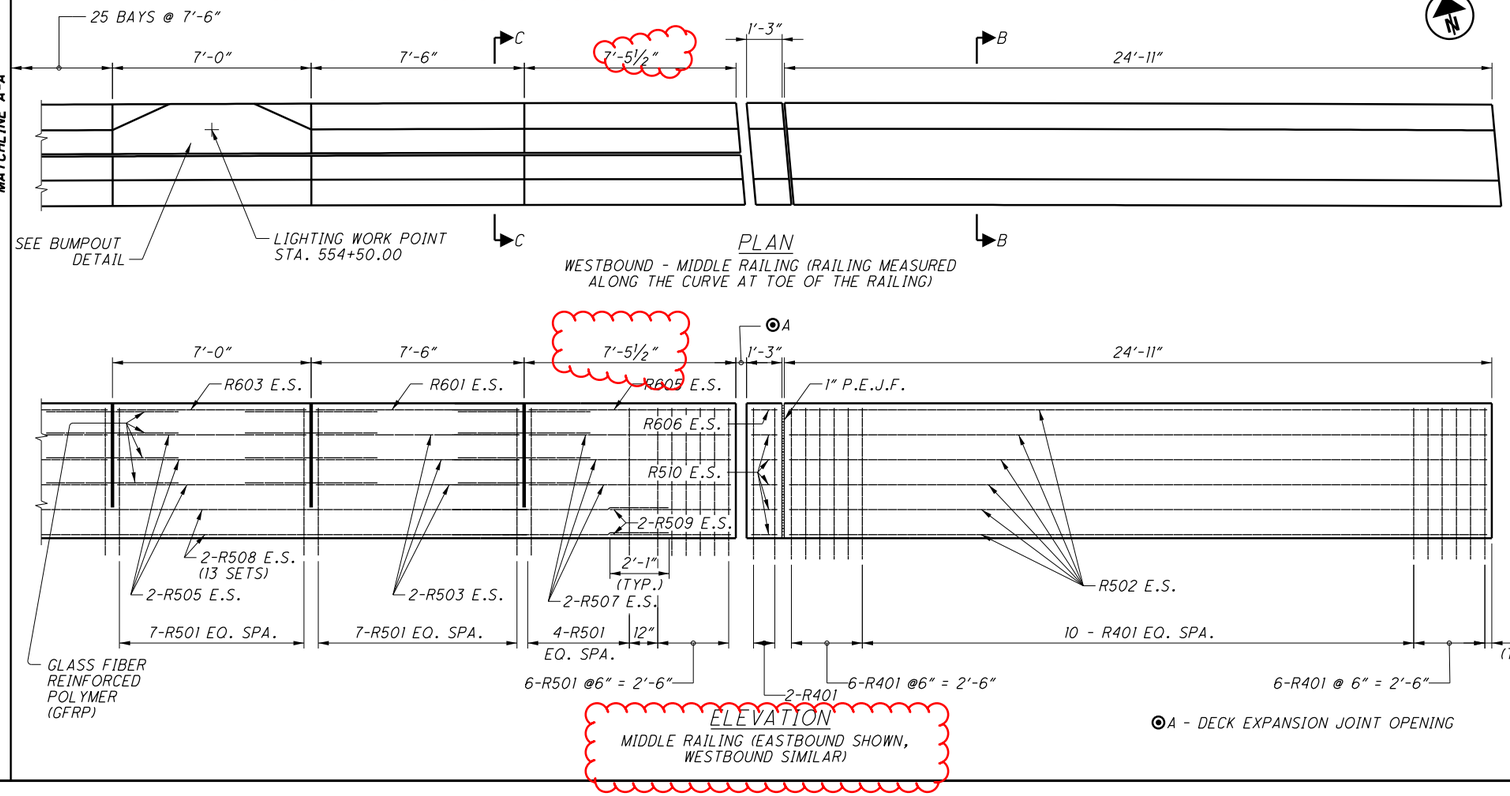
BUMPOUT DETAIL

FOR ADDITIONAL DETAILS SEE ROADWAY STD. DWG. HL-20.13



BUMPOUT DETAIL

FOR ADDITIONAL DETAILS SEE ROADWAY STD. DWG. HL-20.13



PLAN

WESTBOUND - MIDDLE RAILING (RAILING MEASURED ALONG THE CURVE AT TOE OF THE RAILING)

ELEVATION

MIDDLE RAILING (EASTBOUND SHOWN, WESTBOUND SIMILAR)

A - DECK EXPANSION JOINT OPENING

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
MJB	MJB	JPH	12/2/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JMH		6002706	

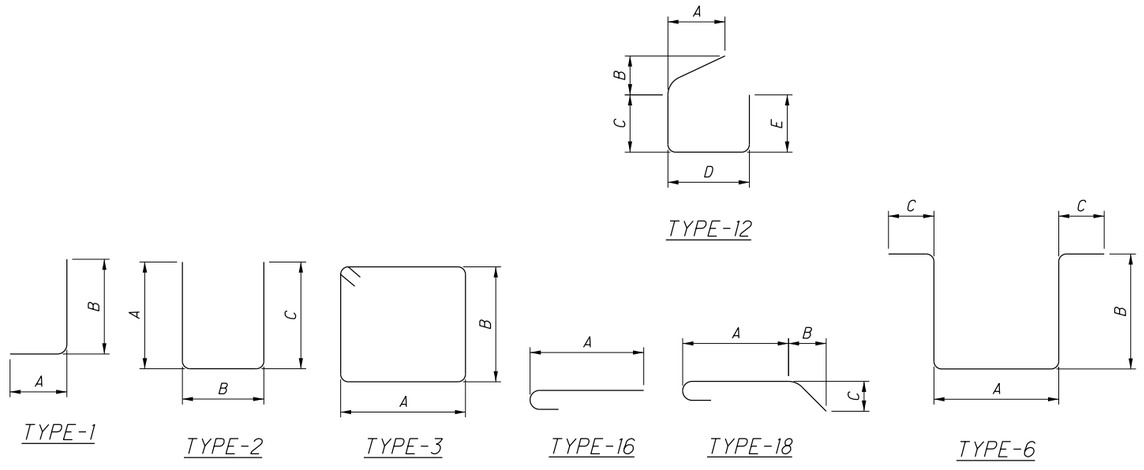
PARAPET DETAILS
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

1440
2231

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
PIER 2											
PB501*	188	4'-2"	817	1	1'-11"	2'-4"					
PB502	2	18'-1"	38	STR							
PB503	6	7'-10"	49	STR							
PB504	36	8'-10"	332	STR							
PB505	6	5'-1"	32	STR							
PB506	6	3'-9"	23	STR							
PB507	6	11'-9"	74	STR							
PB508	2	27'-9"	58	STR							
PB509	2	27'-9"	58	STR							
PB510	6	4'-11"	31	STR							
PB511	6	7'-6"	47	STR							
PB512	6	1'-4"	8	STR							
PB513	2	28'-3"	59	STR							
PB514	6	8'-2"	51	STR							
PB515	6	7'-9"	48	STR							
PIER 2 SUBTOTAL			**1,725**								
PIER 3											
PC501*	168	4'-2"	730	1	1'-11"	2'-4"					
PC502	2	17'-5"	36	STR							
PC503	6	7'-3"	45	STR							
PC504	30	8'-10"	276	STR							
PC505	6	7'-3"	45	STR							
PC506	6	3'-9"	23	STR							
PC507	6	12'-6"	78	STR							
PC508	2	28'-5"	59	STR							
PC509	2	18'-2"	38	STR							
PC510	6	5'-5"	34	STR							
PC511	6	10'-11"	68	STR							
PC512	6	7'-7"	47	STR							
PC513	6	1'-3"	8	STR							
PC514	2	27'-8"	58	STR							
PC515	6	8'-1"	51	STR							
PC516	6	7'-2"	45	STR							
PC517	12	8'-7"	107	6	4'-5"	1'-6"	0'-10"				
PC518*	20	4'-9"	99	1	2'-7"	2'-4"					
PIER 3 SUBTOTAL			**1850**								
PIER 4											
PD501*	188	4'-2"	817	1	1'-11"	2'-4"					
PD502	2	17'-11"	37	STR							
PD503	6	7'-8"	48	STR							
PD504	36	8'-10"	332	STR							
PD505	6	5'-1"	32	STR							
PD506	6	3'-9"	23	STR							
PD507	6	12'-0"	75	STR							
PD508	2	27'-9"	58	STR							
PD509	2	17'-8"	37	STR							
PD510	6	4'-11"	31	STR							
PD511	6	7'-6"	47	STR							
PD512	6	1'-3"	8	STR							
PD513	2	28'-2"	59	STR							
PD514	6	8'-2"	51	STR							
PD515	6	7'-9"	48	STR							
PIER 4 SUBTOTAL			**1,703**								

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
DECK											
S401	1430	30'-0"	28657	STR							
S402	110	31'-0"	2278	STR							
S501	1992	30'-0"	34160	STR							
S502	84	35'-6"	3110	STR							
S503	1569	17'-9"	29047	STR							
S504	1569	18'-4"	30002	16	17'-9"						
S505	3182	2'-10"	9403	STR							
S506	3182	12'-2"	23411	18	6'-7"						
S507	393	4'-6"	1845	12	0'-4"	0'-11"	2'-2"	0'-8"	1'-0"		
S508	393	3'-10"	1571	12	0'-4"	0'-11"	1'-6"	0'-8"	1'-0"		
S509	1569	29'-5"	48139	STR							
S510	1569	30'-0"	49094	16	29'-5"						
	2	12'-0"									
S511	SERIES OF	TO	249	STR							1'-3"
	8	17'-10"									
S512	18	29'-3"	549	STR							
S513	393	4'-0"	1640	12	0'-4"	0'-11"	1'-8"	0'-8"	1'-0"		
S514	393	4'-2"	1708	12	0'-4"	0'-11"	1'-11"	0'-8"	1'-0"		
	2	20'-0"									
S515	SERIES OF	TO	469	STR							1'-3"
	9	30'-0"									
S516	18	20'-9"	390	STR							
S601	108	36'-5"	5907	STR							
S602	108	20'-3"	3285	STR							
S603	324	30'-0"	14599	STR							
S604	108	22'-9"	3690	STR							
S605	108	19'-9"	3204	STR							
SUBTOTAL			**296417**								



DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

REVIEWED JPH DATE 12/2/2020
STRUCTURE FILE NUMBER 6002706

DRAWN MJB
REVISED

DESIGNED MJB
CHECKED JMH

REINFORCING STEEL SCHEDULE

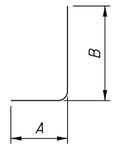
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

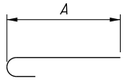
48 / 52

1442
2231

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
RAILING											
R401	48	16'-6"	529	36	1'-0"	1'-0"	3'-6"	2'-0"	4'-7"		
R402	12	2'-9"	11	18	1'-7.5"	0'-6"	0'-4"				
R501	738	13'-9"	10584	35		1'-5"	1'-0"	4'-7"			
R502	24	24'-7"	615	STR							
R503	780	7'-2"	5831	STR							
R504	12	6'-9"	84	STR							
R505	24	6'-8"	167	STR							
R506	12	5'-3"	66	STR							
R507	12	7'-1"	89	STR							
R508	208	30'-6"	6508	STR							
R509	16	4'-5"	74	STR							
R510	44	0'-11"	42	STR							
R511	24	10'-0"	250	STR							
R512	12	5'-8"	71	25	1'-10"	2'-5"	1'-5"	0'-1.5"	0'-5"		
R513	12	5'-8"	71	STR							
R514	18	10'-7"	199	STR							
R515	906	7'-8"	6930	23	0'-11"	3'-3"	3'-0"				
R516	4	11'-3"	47	STR							
R517	6	24'-10"	155	STR							
R518	12	7'-0"	88	20	0'-10"	1'-10"	3'-0"	1'-10"	0'-10"		
R519	12	6'-8"	83	STR							
R601	198	7'-2"	2131	STR							
R602	2	6'-9"	20	STR							
R603	5	6'-8"	50	STR							
R604	2	5'-3"	16	STR							
R605	2	7'-1"	21	STR							
R606	8	0'-11"	11	STR							
R607	906	2'-8"	3629	1	1'-0"	1'-9"					
R608	906	3'-5"	4654	28		1'-0"	0'-11"				
R609	3	10'-7"	48	STR							
R610	2	11'-3"	34	STR							
R611	6	5'-8"	43	1	1'-0"	4'-2"					
R612	6	4'-11"	44	1	1'-0"	4'-1"					
R613	6	4'-10"	44	1	1'-0"	3'-12"					
R614	6	4'-9"	43	1	1'-0"	3'-11"					
R615	6	4'-8"	42	1	1'-0"	3'-10"					
R616	6	4'-7"	41	1	1'-0"	3'-9"					
R617	6	4'-6"	41	1	1'-0"	3'-8"					
R618	6	4'-5"	40	1	1'-0"	3'-7"					
R619	6	4'-4"	39	1	1'-0"	3'-6"					
R620	6	4'-3"	38	1	1'-0"	3'-5"					
R621	18	4'-2"	113	1	1'-0"	3'-4"					
R622	6	4'-1"	37	1	1'-0"	3'-3"					
R623	1	24'-7"	37	STR							
R624	4 SERIES OF 24	0'-8" TO 1'-3"	93	STR							0'-2.4"
R625	14	1'-5"	30	STR							
RAILING SUBTOTAL			43711								
REAR ABUTMENT			5564								
FORWARD ABUTMENT			5612								
WINGWALL 1			999								
WINGWALL 2			988								
WINGWALL 3			1077								
WINGWALL 4			971								
PIER 1			1701								
PIER 2			1725								
PIER 3			1850								
PIER 4			1703								
SUBSTRUCTURE TOTAL			**22188**								
DECK			296417								
RAILING			43711								
SUPERSTRUCTURE TOTAL			**340129**								
GRAND TOTAL			**362317**								



TYPE-1



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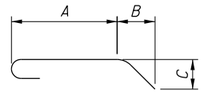

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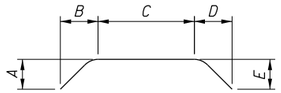

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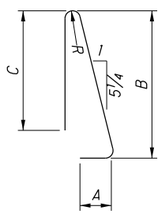

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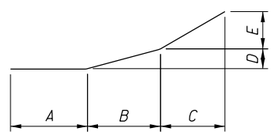
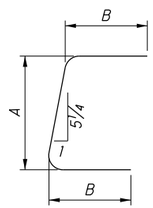


TYPE-25



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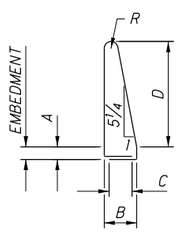

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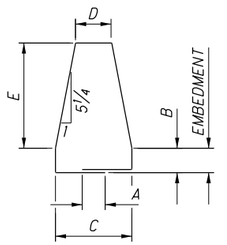


TYPE-36

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

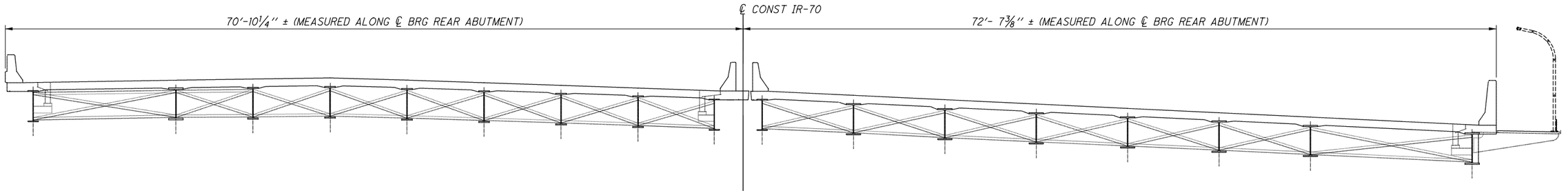
DESIGNED MJB | DRAWN MJB | REVIEWED JPH | DATE 12/2/2020 | CHECKED JMH | REVISED | STRUCTURE FILE NUMBER 6002706

REINFORCING STEEL SCHEDULE
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

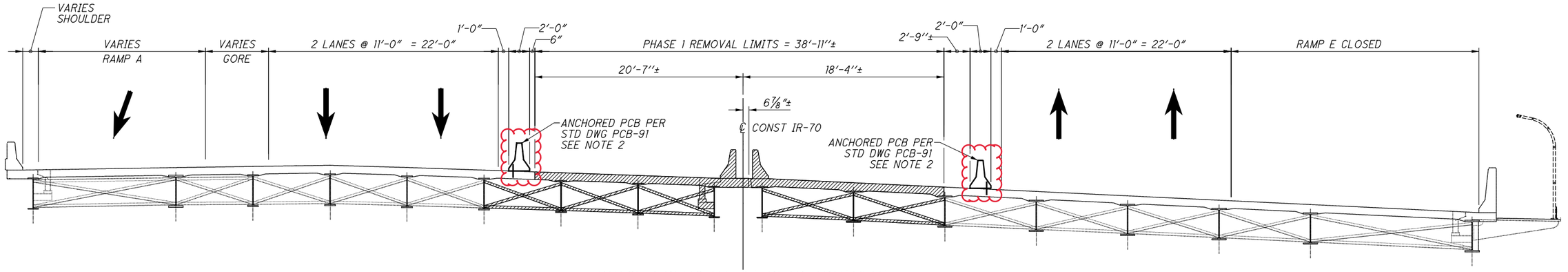
49 / 52

1443
2231



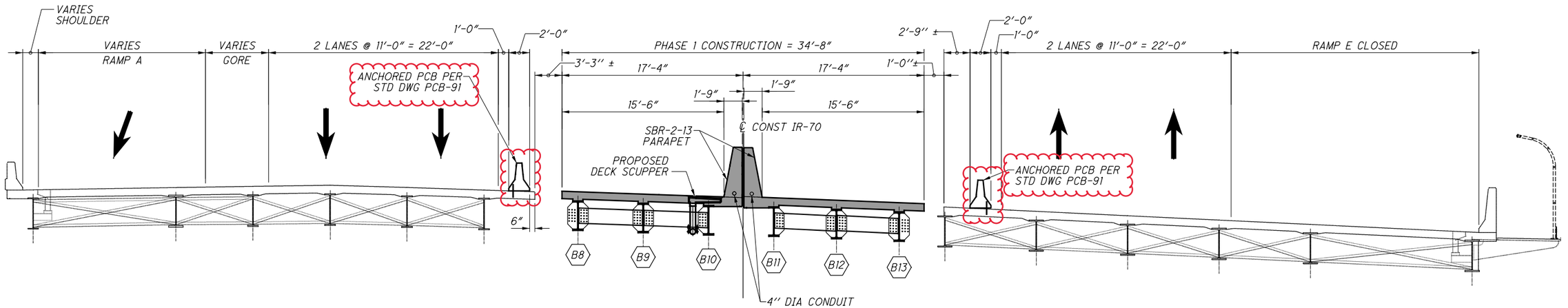
EXISTING TRANSVERSE SECTION AT REAR ABUTMENT

LOOKING UPSTATION



PHASE 1 REMOVAL AT REAR ABUTMENT

LOOKING UPSTATION



PHASE 1 CONSTRUCTION AT REAR ABUTMENT

LOOKING UPSTATION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. A MINIMUM OF FOUR ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. ANCHORS ARE TO REMAIN IN PLACE UNTIL AFTER PHASE 1 OR PHASE 2 IS COMPLETE, AS REQUIRED. PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
CTM	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAY		6002854	

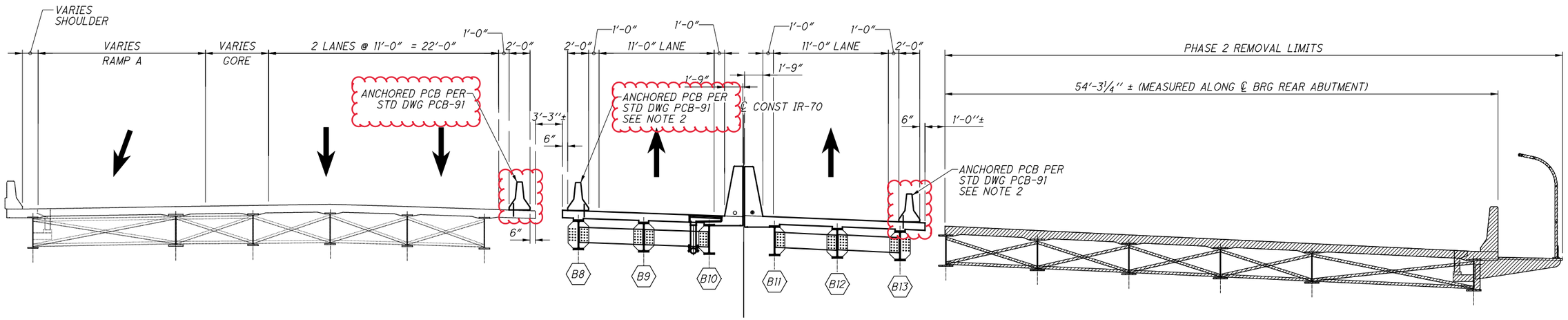
PHASE 1 REMOVAL & CONSTRUCTION AT REAR ABUTMENT
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

25 / 160

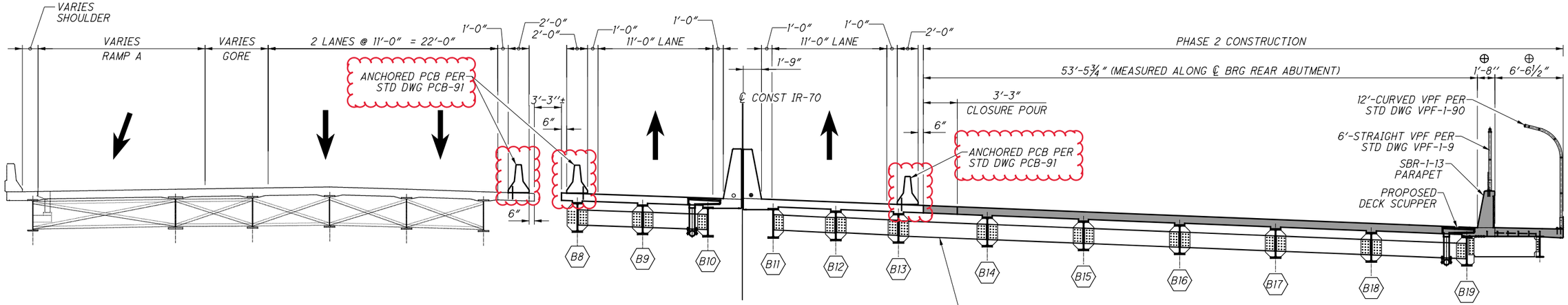
1471
2231

SUBMITTAL: Stage 3
PID: 93006
PLOT_DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8L_Pen.tbl
DW:\\gfnet-pw.bentley.com:gfnet-pw-01\Documents\Projects\64771\93006\401-Engineering-GannettFleming\Structures\MUS070_1159L\Sheets\022 sc010 3/8/2021 5:39:40 PM modonnell



PHASE 2 REMOVAL AT REAR ABUTMENT

LOOKING UPSTATION



PHASE 2 CONSTRUCTION AT REAR ABUTMENT

LOOKING UPSTATION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

⊕ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP E.

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. A MINIMUM OF FOUR ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED AFTER PHASE 3 IS COMPLETE, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 WHERE DECK IS TO REMAIN IN THE FINAL SECTION. PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

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CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAY		6002854	

PHASE 2 REMOVAL & CONSTRUCTION AT REAR ABUTMENT
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

1472
2231

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
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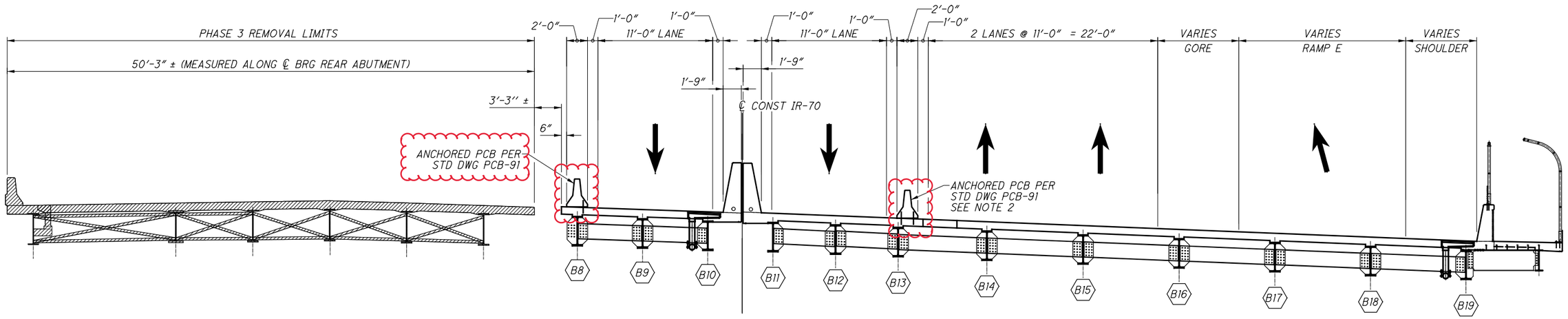
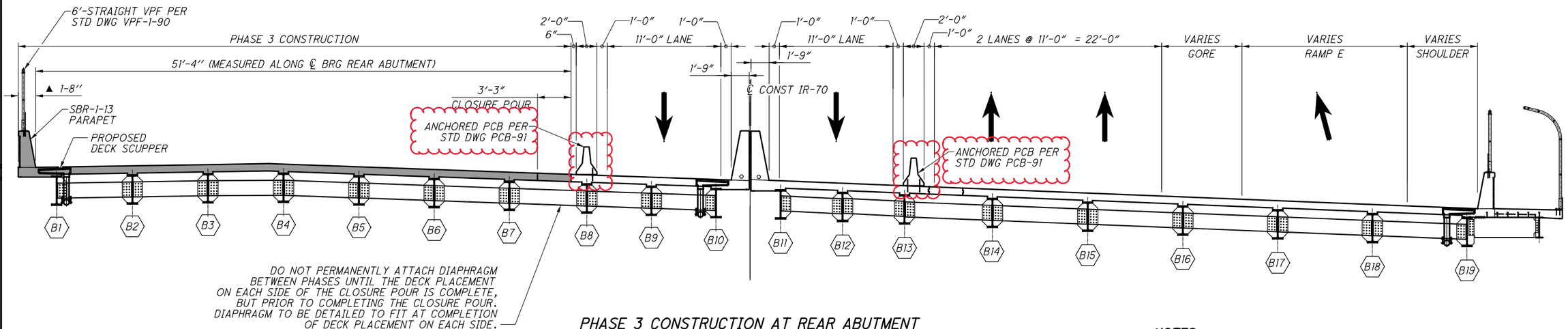


PHASE 3 REMOVAL AT REAR ABUTMENT

LOOKING UPSTATION



PHASE 3 CONSTRUCTION AT REAR ABUTMENT

LOOKING UPSTATION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

▲ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP A.

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. A MINIMUM OF TWO ANCHORS SHALL BE PROVIDED ON THE EASTBOUND (SOUTH) TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED AFTER PHASE 3 IS COMPLETE, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 WHERE DECK IS TO REMAIN IN THE FINAL SECTION. PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.

DESIGN AGENCY
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ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE, SUITE 230
COLUMBUS, OHIO 43231

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JAY		6002854	

PHASE 3 REMOVAL & CONSTRUCTION AT REAR ABUTMENT

BRIDGE NO. MUS-70-1159

OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49

PID No. 93006

1473
2231

SUBMITTAL: Stage 3
PID: 93006
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PENTABLE: 93006_ODOTV8i_Pen.tbl
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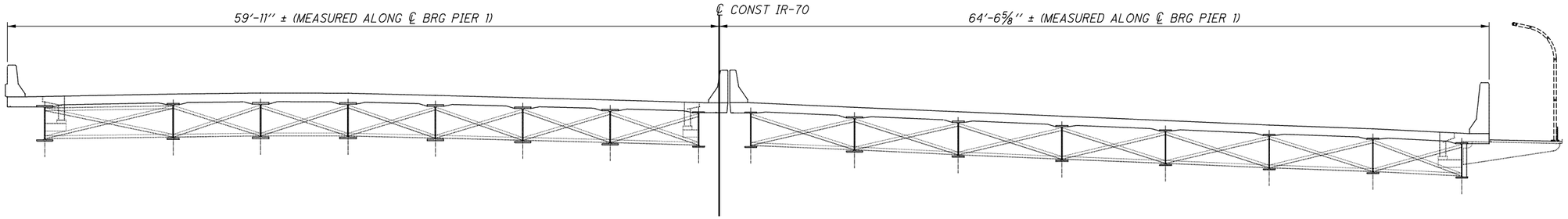
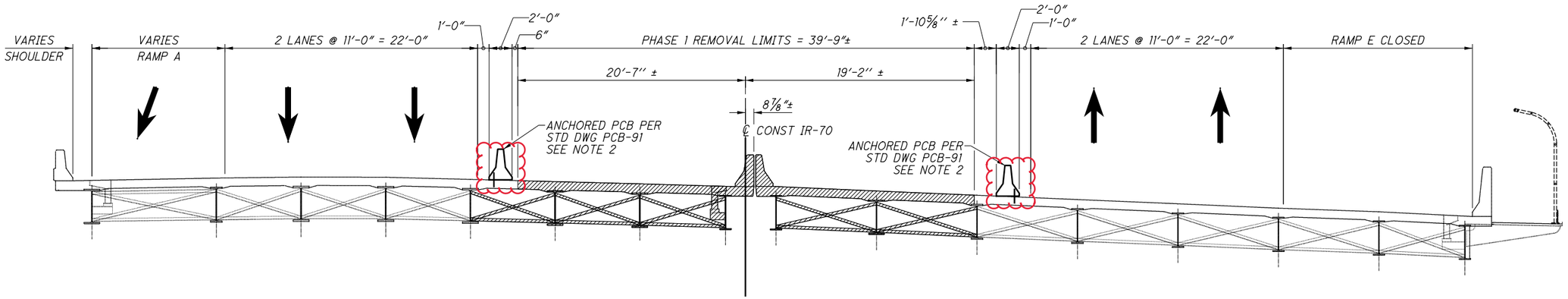


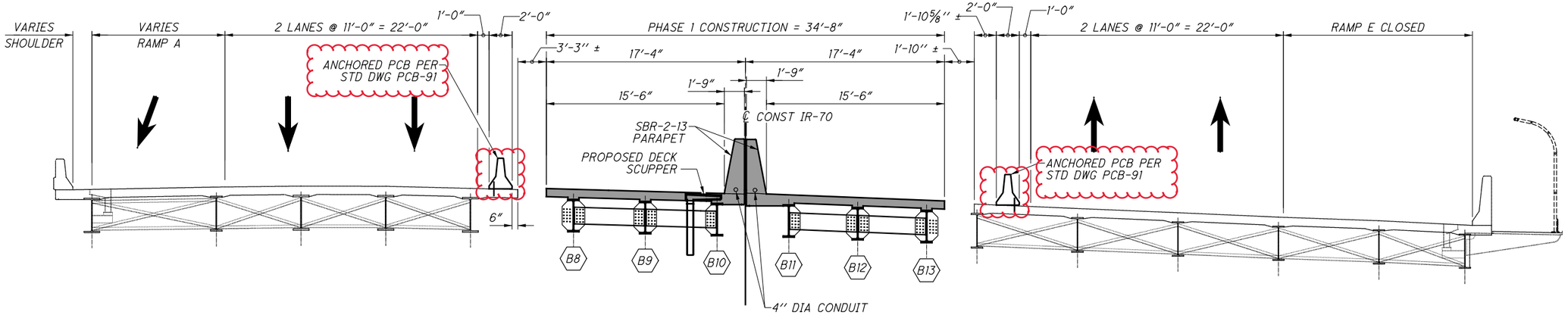
EXISTING TRANSVERSE SECTION AT PIER 1

LOOKING UPSTATION



PHASE 1 REMOVAL AT PIER 1

LOOKING UPSTATION



PHASE 1 CONSTRUCTION AT PIER 1

LOOKING UPSTATION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. A MINIMUM OF FOUR ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. ANCHORS ARE TO REMAIN IN PLACE UNTIL AFTER PHASE 1 OR PHASE 2 IS COMPLETE, AS REQUIRED. PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
CTM	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAY		6002854	

PHASE 1 REMOVAL & CONSTRUCTION AT PIER 1

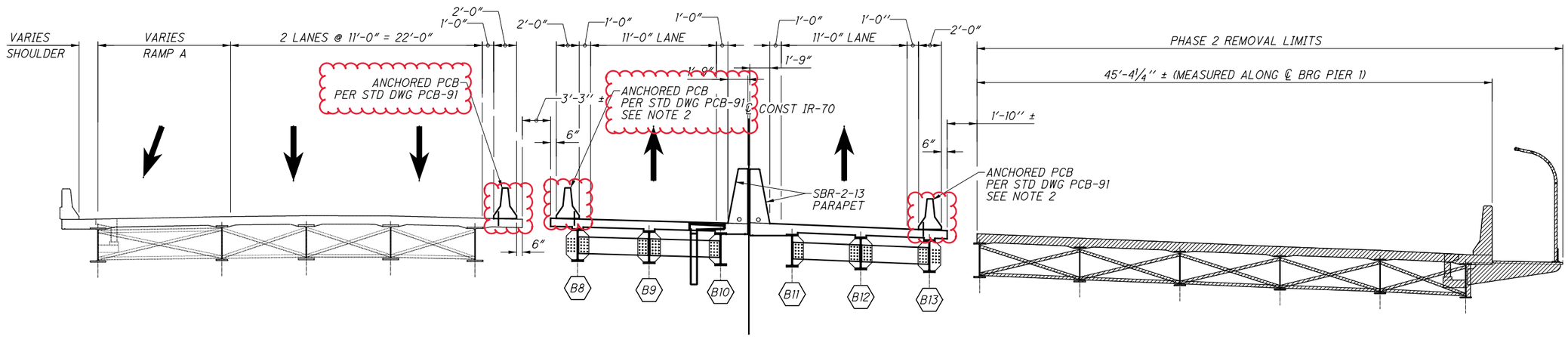
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

28 / 160

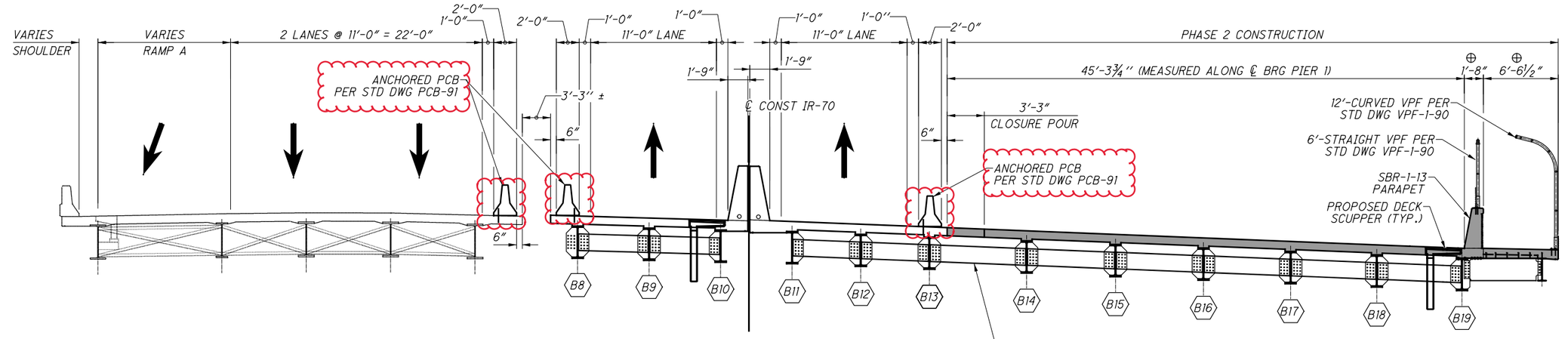
1474
2231

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
pw:\\gfnet-pw.bentley.com:gfnet-pw-01\Documents\Projects\6477\i93006\401-Engineering-GannettFleming\Structures\MUS070_I159L\Sheets\025 sc013 3/8/2021 5:40:33 PM modonnell



PHASE 2 REMOVAL AT PIER 1

LOOKING UPSTATION



PHASE 2 CONSTRUCTION AT PIER 1

LOOKING UPSTATION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

⊕ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP E.

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. A MINIMUM OF FOUR ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED AFTER PHASE 3 IS COMPLETE, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 WHERE DECK IS TO REMAIN IN THE FINAL SECTION. PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.

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2500 CORPORATE EXCHANGE, SUITE 230
COLUMBUS, OHIO 43231

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JAY		6002854	

PHASE 2 REMOVAL & CONSTRUCTION AT PIER 1
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
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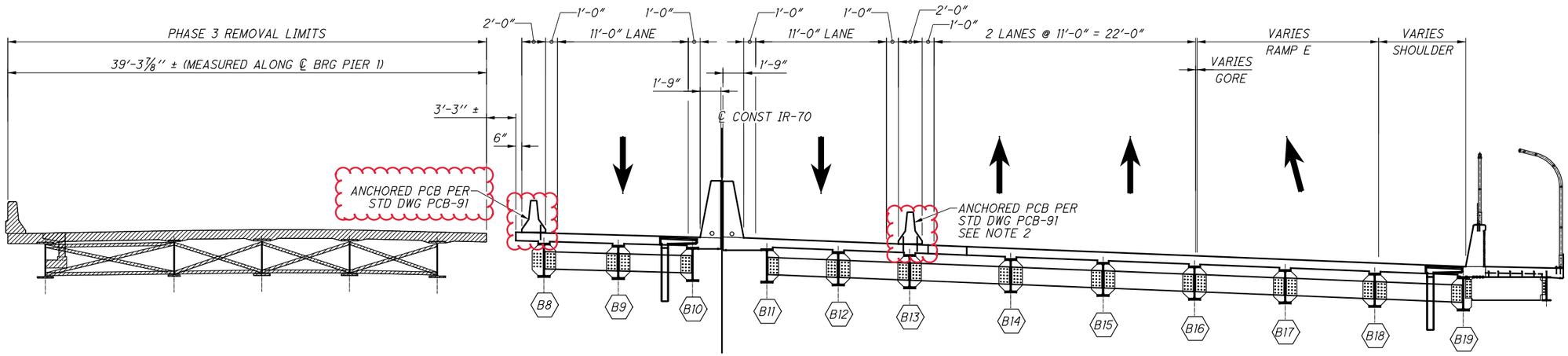
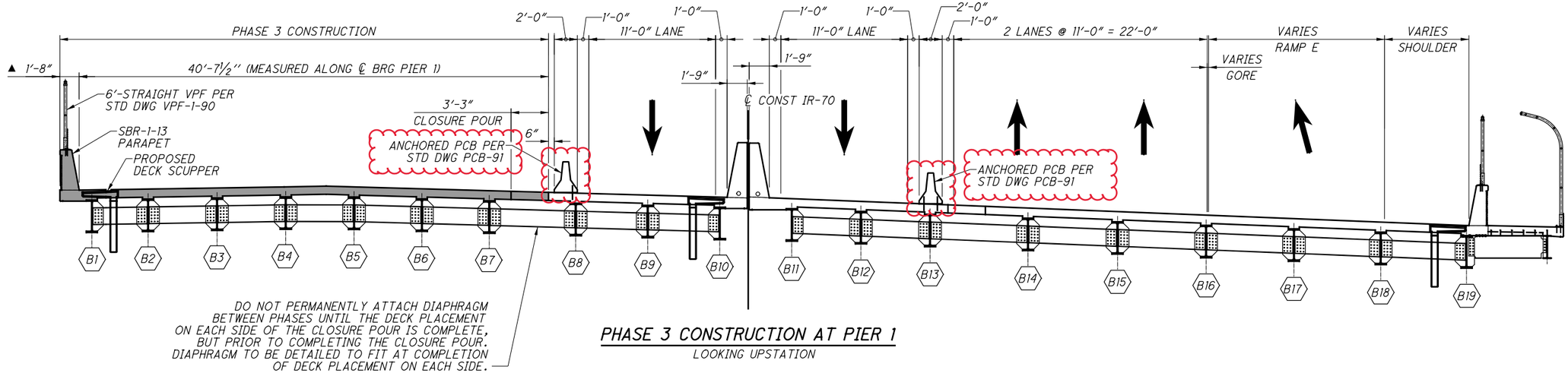


PHASE 3 REMOVAL AT PIER 1

LOOKING UPSTATION



PHASE 3 CONSTRUCTION AT PIER 1

LOOKING UPSTATION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

▲ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP A.

NOTES:

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ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

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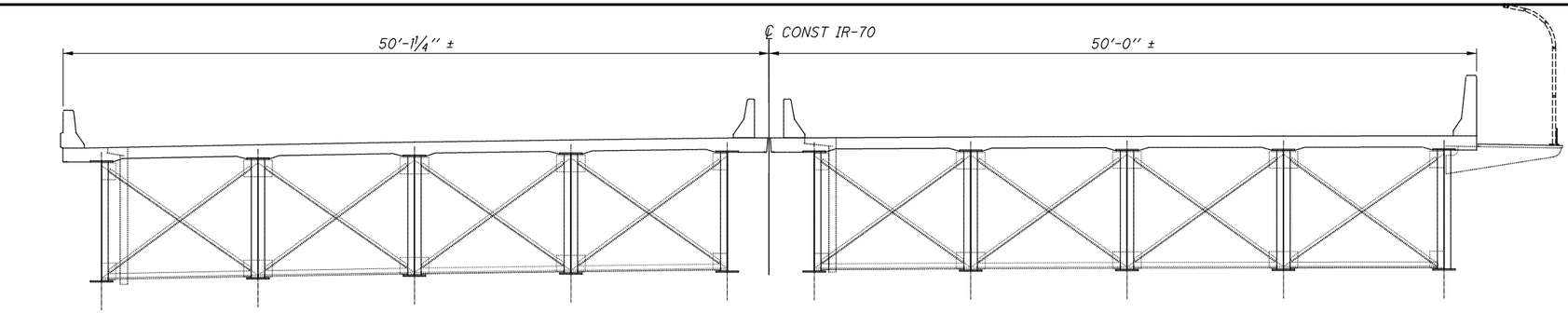
PHASE 3 REMOVAL & CONSTRUCTION AT PIER 1
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

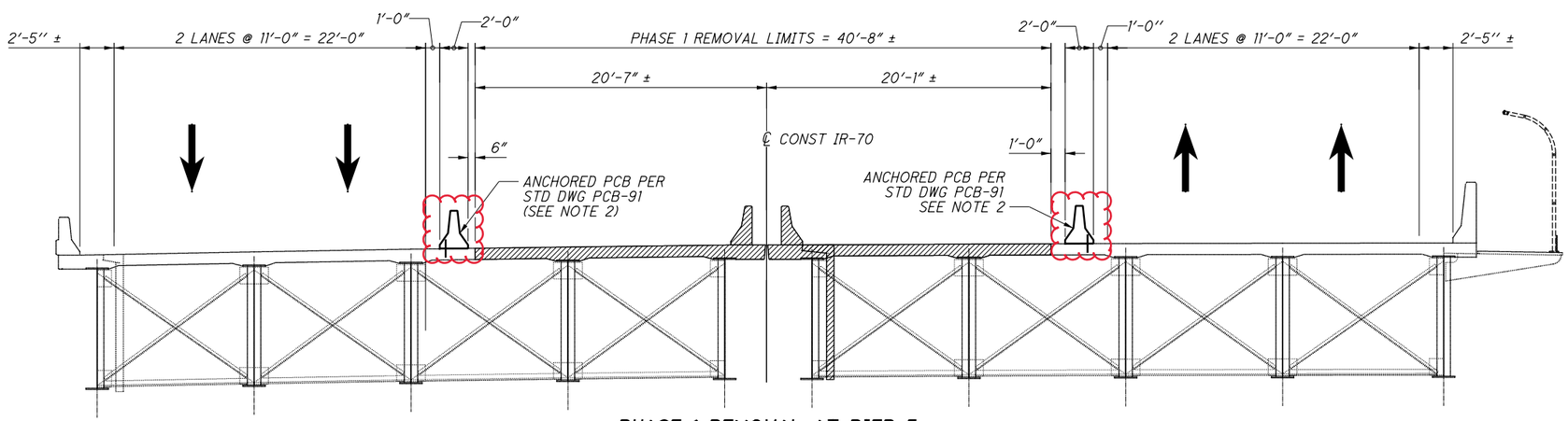
MUS-70-10.49
PID No. 93006

1476
2231



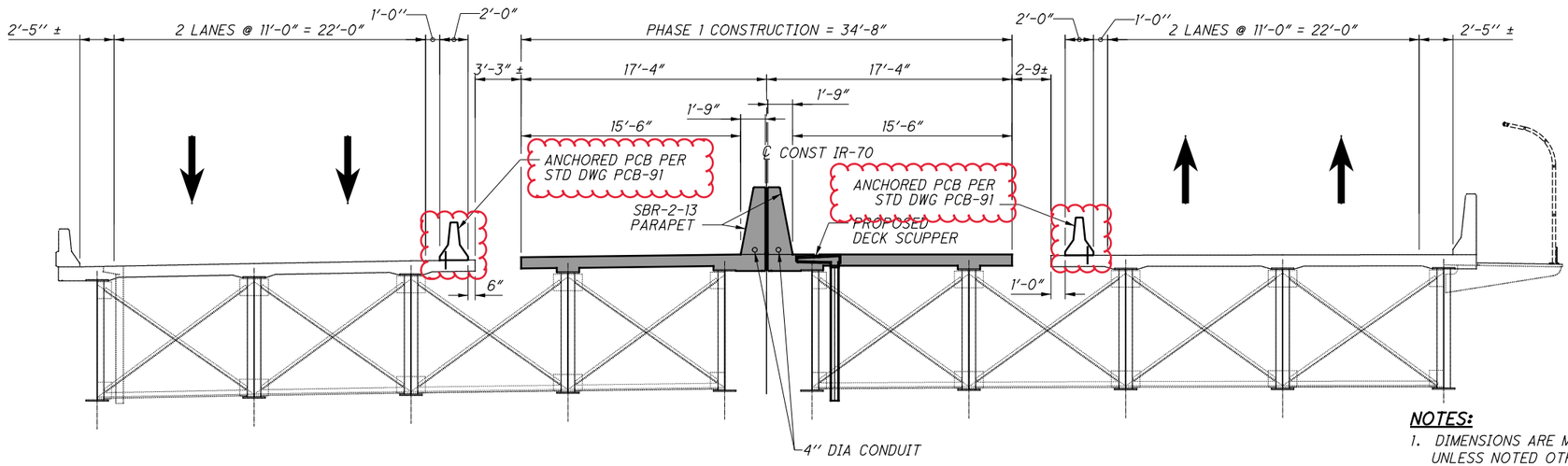
EXISTING TRANSVERSE SECTION AT PIER 5

LOOKING UPSTATION



PHASE 1 REMOVAL AT PIER 5

LOOKING UPSTATION



PHASE 1 CONSTRUCTION AT PIER 5

LOOKING UPSTATION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

NOTES:

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ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

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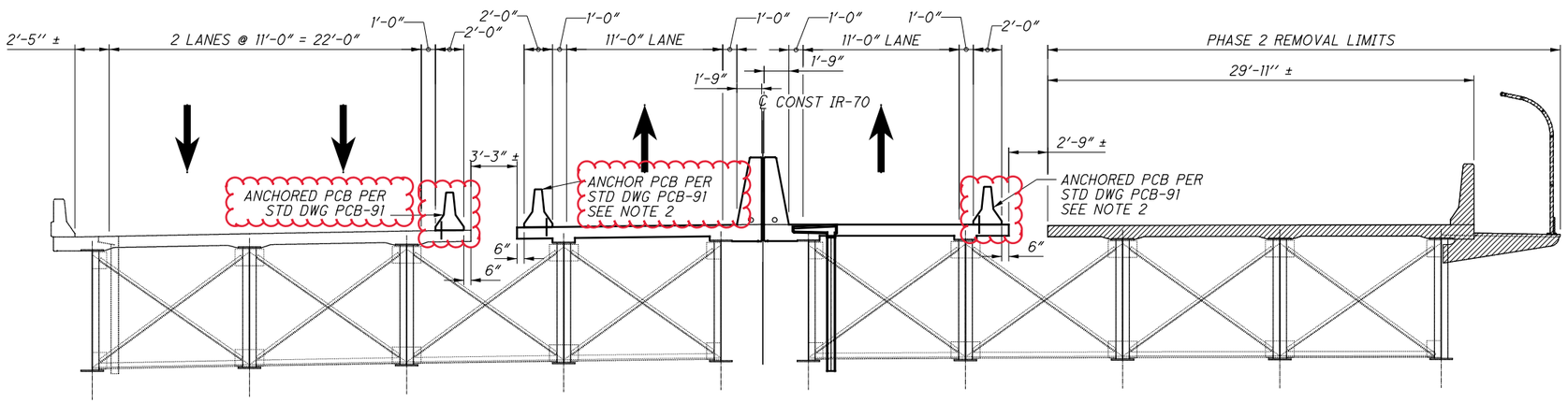
PHASE 1 REMOVAL & CONSTRUCTION AT PIER 5

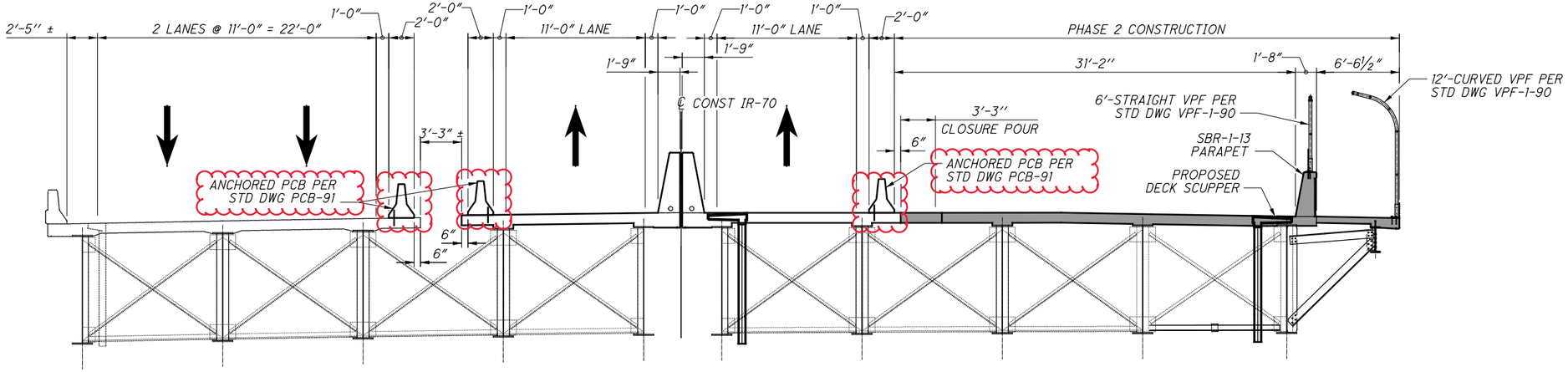
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006



PHASE 2 REMOVAL AT PIER 5

LOOKING UPSTATION



PHASE 2 CONSTRUCTION AT PIER 5

LOOKING UPSTATION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
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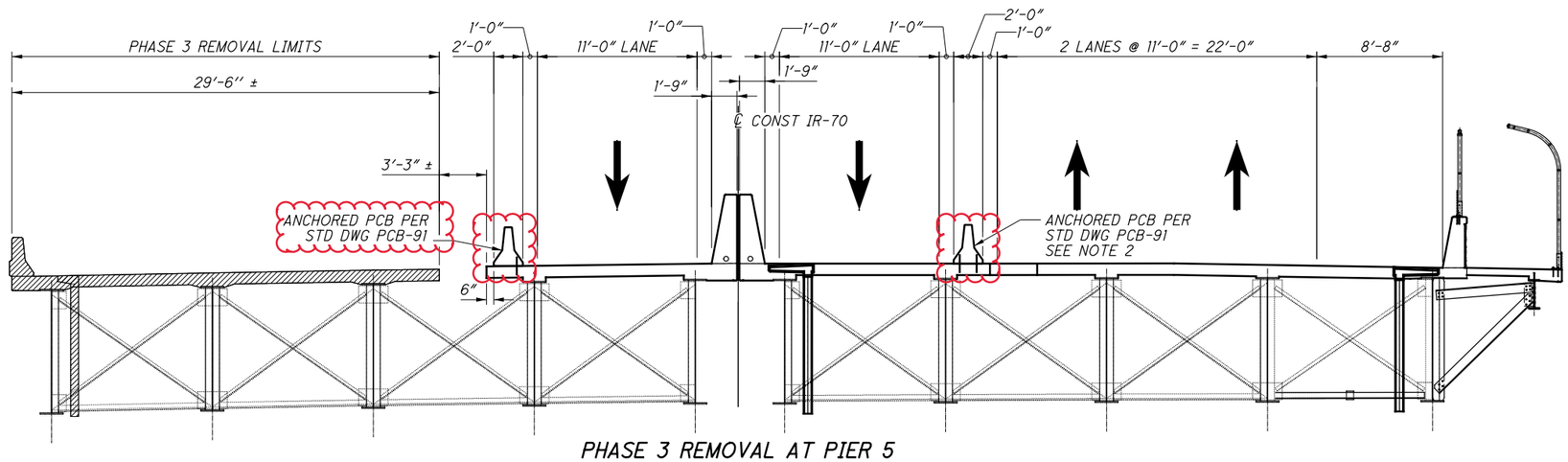
JAY		6002854	

PHASE 2 REMOVAL & CONSTRUCTION AT PIER 5
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

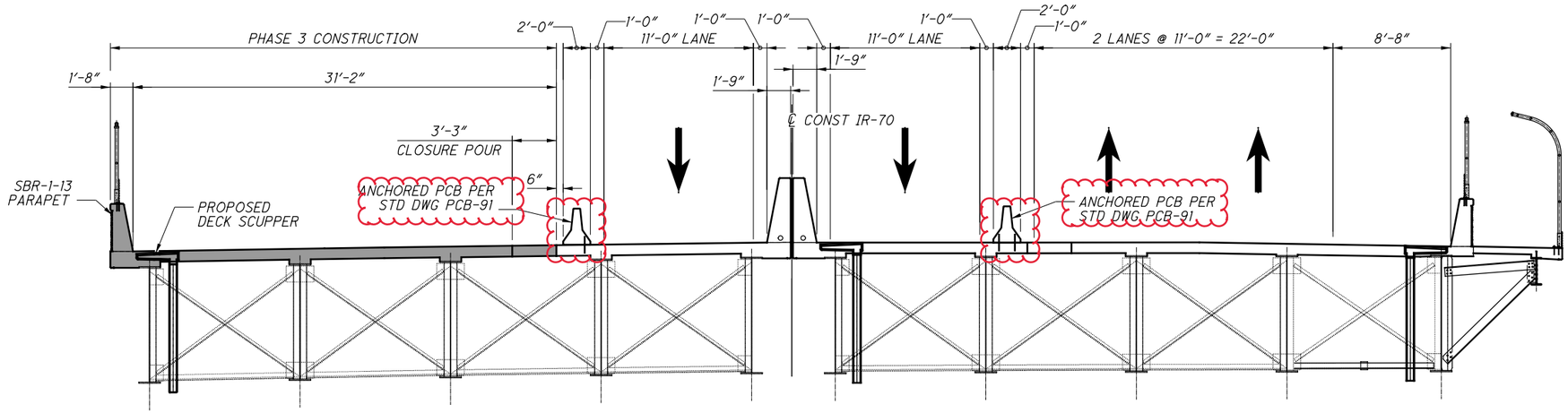
MUS-70-10.49
PID No. 93006

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
pw:\\gfnet-pw.bentley.com:gfnet-pw-01\Documents\Projects\64771\93006\401-Engineering-Gannett Fleming\Structures\MUS070_1159L\Sheets\029 sc017 3/8/2021 5:42:01 PM modonnell



PHASE 3 REMOVAL AT PIER 5

LOOKING UPSTATION



PHASE 3 CONSTRUCTION AT PIER 5

LOOKING UPSTATION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

NOTES:

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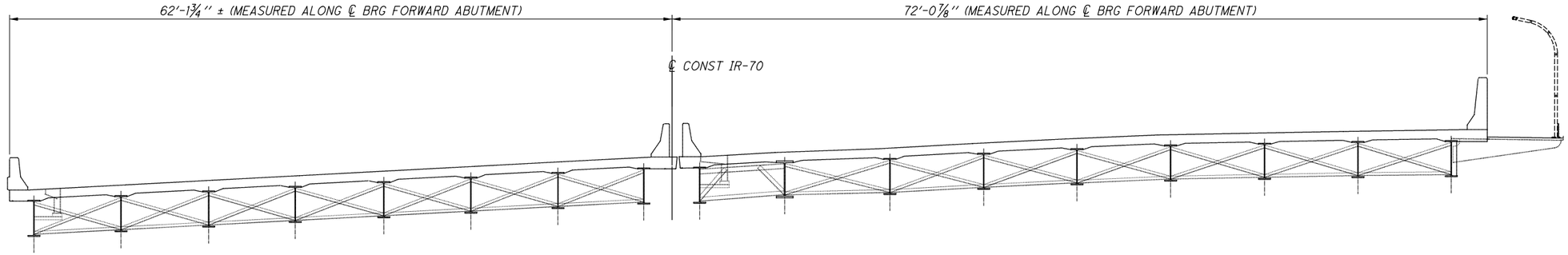
PHASE 3 REMOVAL & CONSTRUCTION AT PIER 5
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

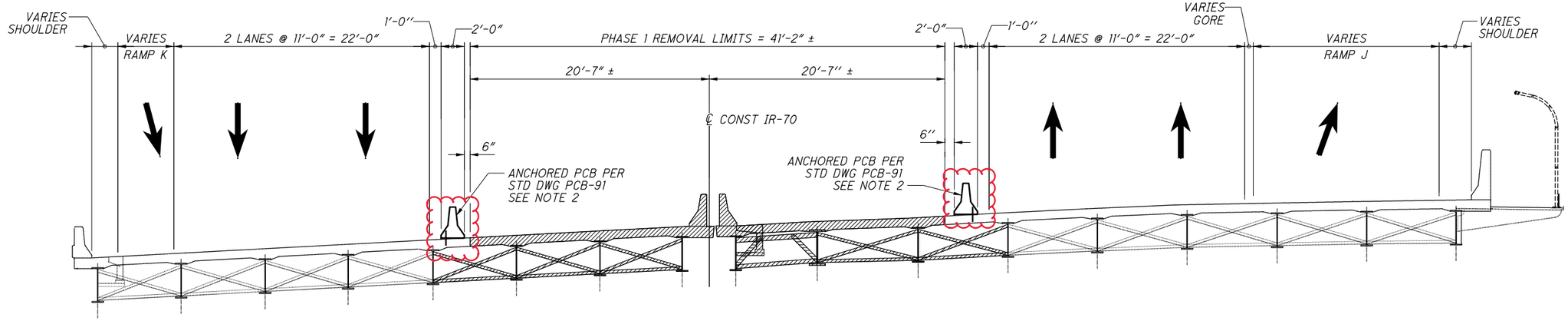
33 / 160

1479
2231



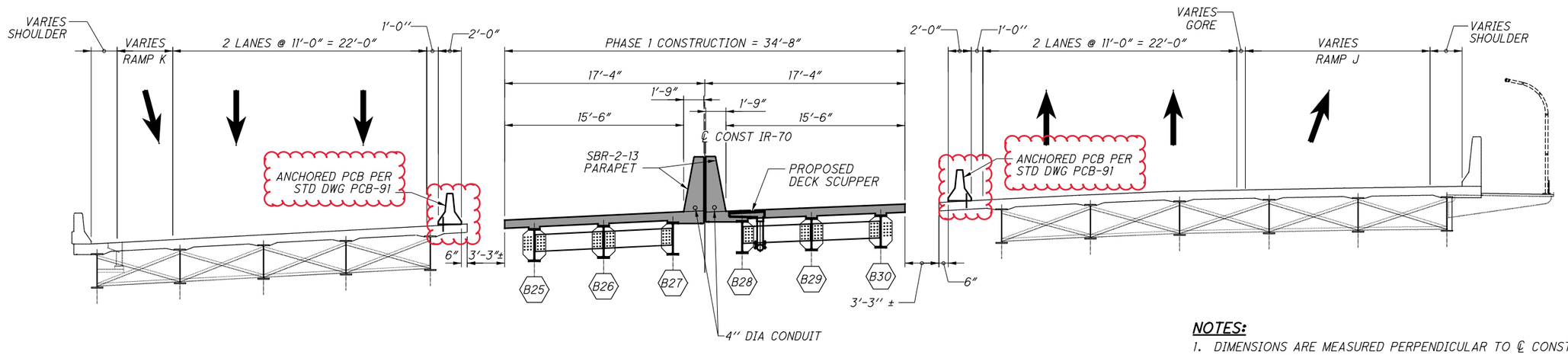
EXISTING TRANSVERSE SECTION AT FORWARD ABUTMENT

LOOKING UPSTATION



PHASE 1 REMOVAL AT FORWARD ABUTMENT

LOOKING UPSTATION



PHASE 1 CONSTRUCTION AT FORWARD ABUTMENT

LOOKING UPSTATION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

NOTES:

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COLUMBUS, OHIO 43231

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JAY		6002854	

PHASE 1 REMOVAL & CONSTRUCTION AT FORWARD ABUTMENT

BRIDGE NO. MUS-70-1159

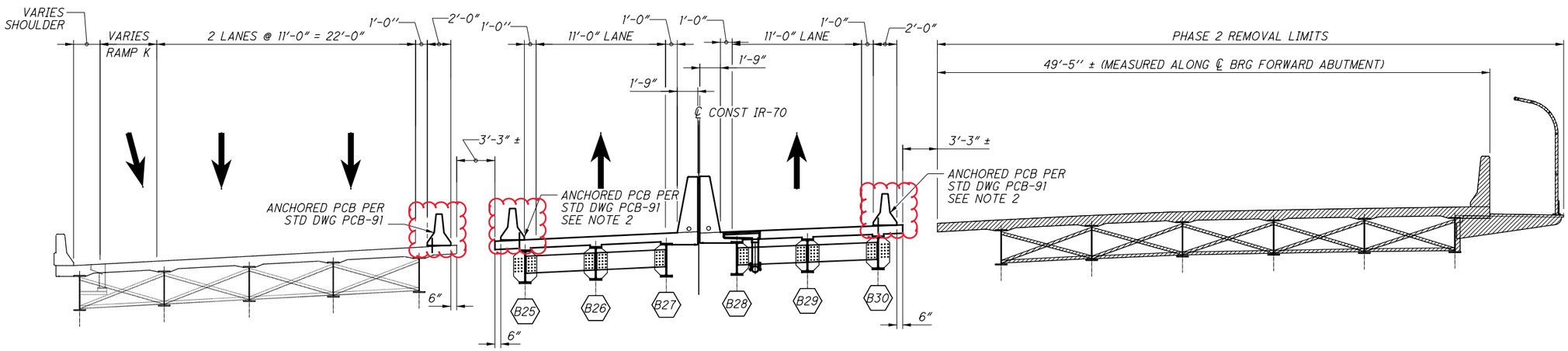
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49

PID No. 93006

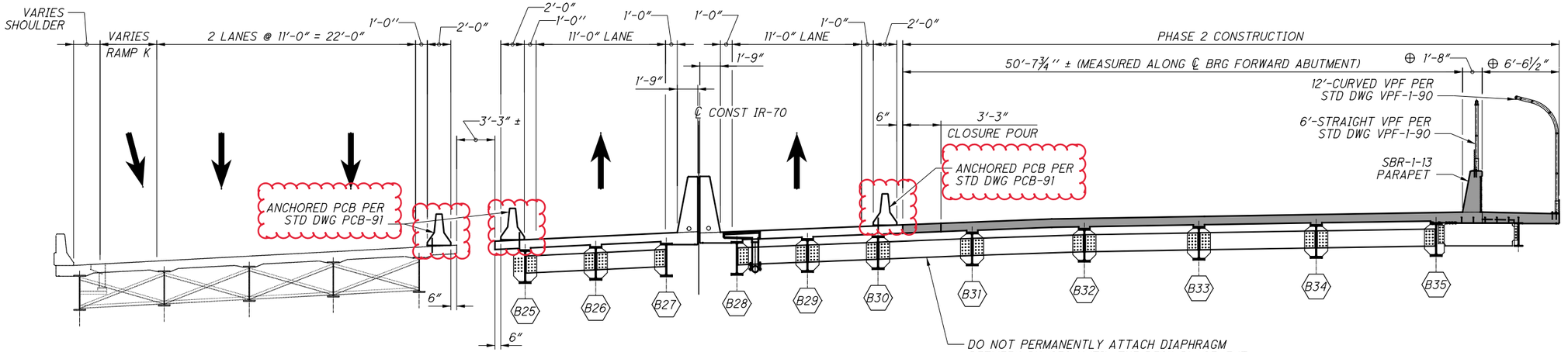
1480/2231

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
pw:\\gfnet-pw.bentley.com:gfnet-pw-01\Documents\Projects\6477\i93006\401-Engineering-GannettFleming\Structures\MUS070_1159L\Sheets\031sc019 3/8/2021 5:42:34 PM modonnell



PHASE 2 REMOVAL AT FORWARD ABUTMENT

LOOKING UPSTATION



PHASE 2 CONSTRUCTION AT FORWARD ABUTMENT

LOOKING UPSTATION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

⊕ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP J.

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. A MINIMUM OF FOUR ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED AFTER PHASE 3 IS COMPLETE, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 WHERE DECK IS TO REMAIN IN THE FINAL SECTION. PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
CTM	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAY		6002854	

PHASE 2 REMOVAL & CONSTRUCTION AT FORWARD ABUTMENT

BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
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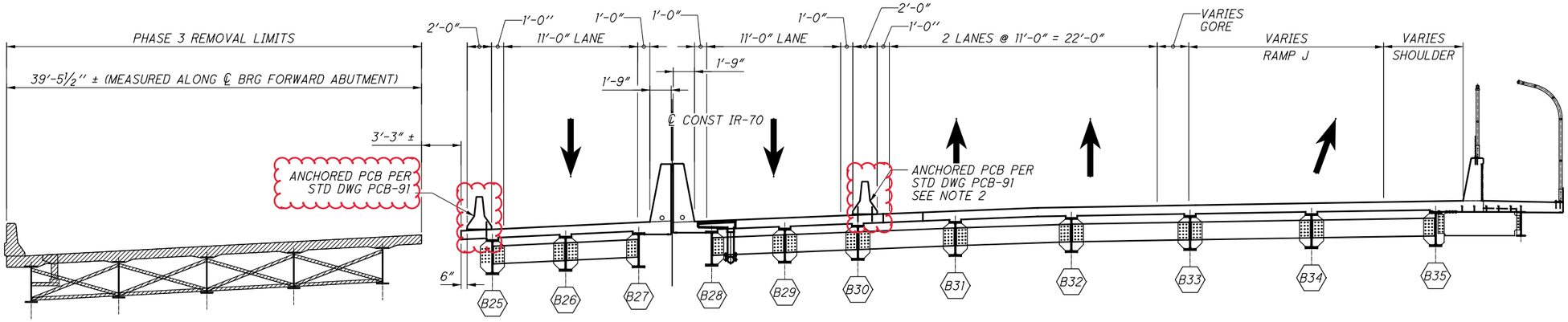
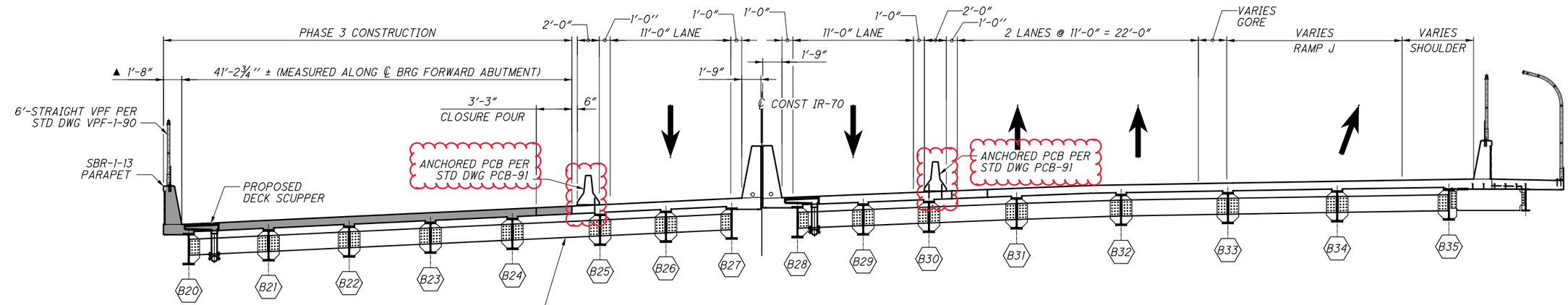


PHASE 3 REMOVAL AT FORWARD ABUTMENT

LOOKING UPSTATION



DO NOT PERMANENTLY ATTACH DIAPHRAGM BETWEEN PHASES UNTIL THE DECK PLACEMENT ON EACH SIDE OF THE CLOSURE POUR IS COMPLETE, BUT PRIOR TO COMPLETING THE CLOSURE POUR. DIAPHRAGM TO BE DETAILED TO FIT AT COMPLETION OF DECK PLACEMENT ON EACH SIDE.

PHASE 3 CONSTRUCTION AT FORWARD ABUTMENT

LOOKING UPSTATION

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

▲ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP K.

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. A MINIMUM OF TWO ANCHORS SHALL BE PROVIDED ON THE EASTBOUND (SOUTH) TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED AFTER PHASE 3 IS COMPLETE, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 WHERE DECK IS TO REMAIN IN THE FINAL SECTION. PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
CTM	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAY		6002854	

PHASE 3 REMOVAL & CONSTRUCTION AT FORWARD ABUTMENT
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

1482
2231

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
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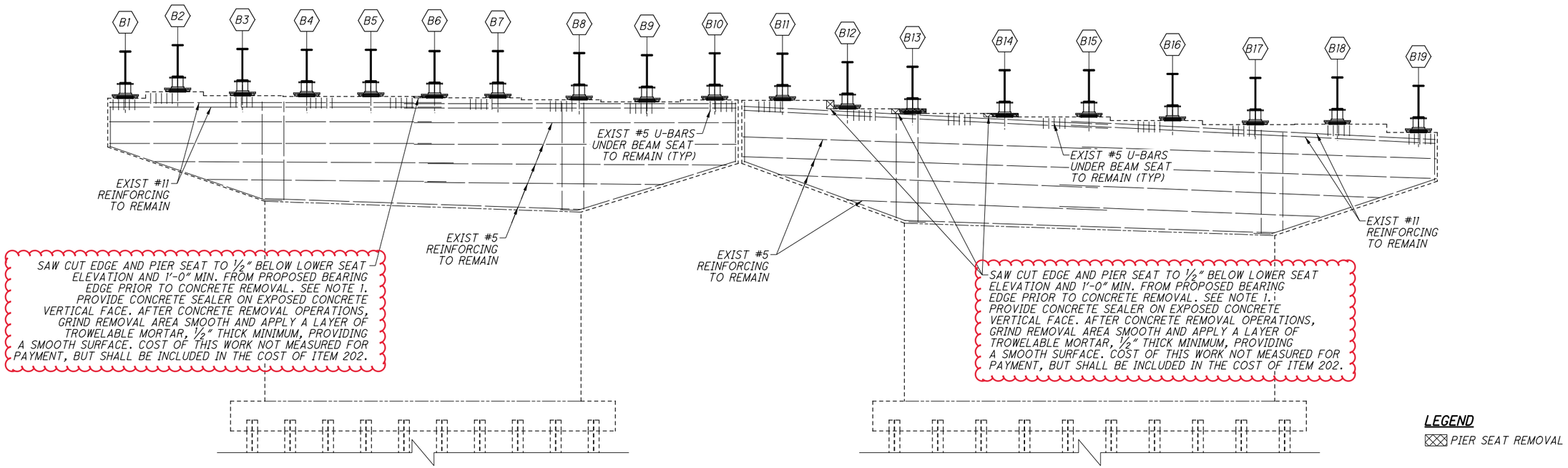
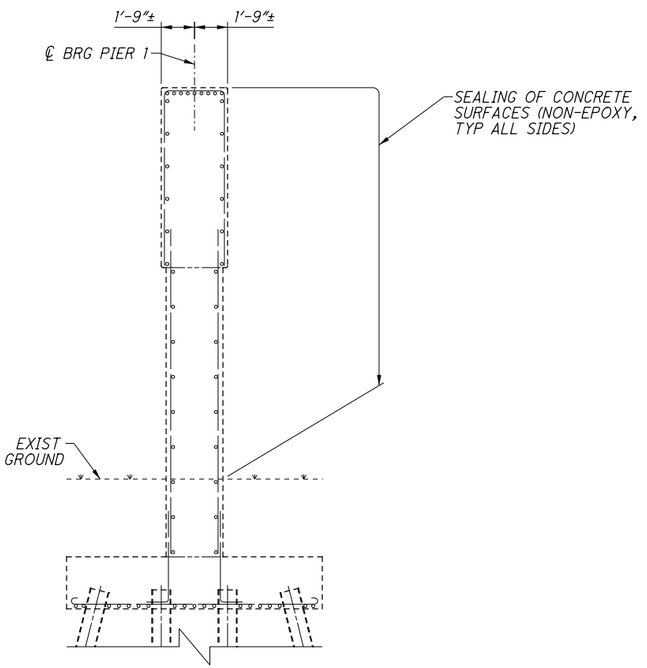


LEGEND

▨ PIER SEAT REMOVAL

PIER 1 ELEVATION

BEAM SEAT ELEVATION TABLE (ALL ±)									
B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
724.77	725.35	725.05	724.97	724.94	724.87	724.87	724.68	724.46	724.64
B11	B12	B13	B14	B15	B16	B17	B18	B19	
724.58	723.80	723.40	723.07	723.07	722.75	722.37	722.35	721.55	



PIER 1 SECTION

NOTES

1. SEE GENERAL NOTES ON SHEET 13|160 FOR ADDITIONAL REQUIREMENTS. THE CONTRACTOR SHALL CAREFULLY REMOVE THE CONCRETE AND NOT DAMAGE EXISTING HORIZONTAL PIER CAP REINFORCEMENT. REINFORCEMENT (VERTICAL) WITHIN THE PORTION OF THE SEAT STEP TO BE REMOVED SHALL BE CUT FLUSH TO THE ADJACENT CAP (SEAT) ELEVATION. USE A GRINDER FOLLOWED BY A LAYER OF TROWELABLE MORTAR TO FILL THE UNEVEN SURFACE, BRING THE SEAT AREA TO THE PROPER ELEVATION, AND PROVIDE A LEVEL, EVEN SURFACE. COST OF THIS WORK IS NOT MEASURED FOR PAYMENT BUT SHALL BE INCLUDED IN THE COST OF ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN.
2. THE BEARING DIMENSIONS ARE DETERMINED BY THE MANUFACTURER (SEE SHEET 73|160 FOR DETAILS). THE CONTRACTOR DESIGN SHALL ACCOMMODATE THE EXISTING PIER CAP DIMENSIONS. SEAT REMOVAL LIMITS ARE APPROXIMATE AND MAY BE ADJUSTED FROM THOSE SHOWN BASED ON THE PIER 1 BEARING DESIGN, OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR'S BID PRICE SHALL INCLUDE NECESSARY MODIFICATIONS AND WILL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE INCLUDED IN THE PAYMENT FOR BEARINGS.
3. EXISTING BEAM SEAT ELEVATIONS ARE APPROXIMATE DUE TO PROJECT SURVEY CONSTRAINTS. REPLACEMENT BEARING HEIGHTS TO BE FIELD VERIFIED BY CONTRACTOR PER ITEM 530 - MEASUREMENTS FOR PROPOSED BEARINGS.
4. PRIOR TO ORDERING THE BEARINGS, LOCATE THE EXISTING BEAM SEAT REINFORCING STEEL. THE MASONRY PLATE SHALL BE FABRICATED SO THE PROPOSED ANCHOR RODS AVOID THE EXISTING REINFORCING STEEL.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
ST	RSN	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JJH		6002854	

PIER 1 DETAILS

BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

SUBMITTAL: Stage 3
PID: 93006
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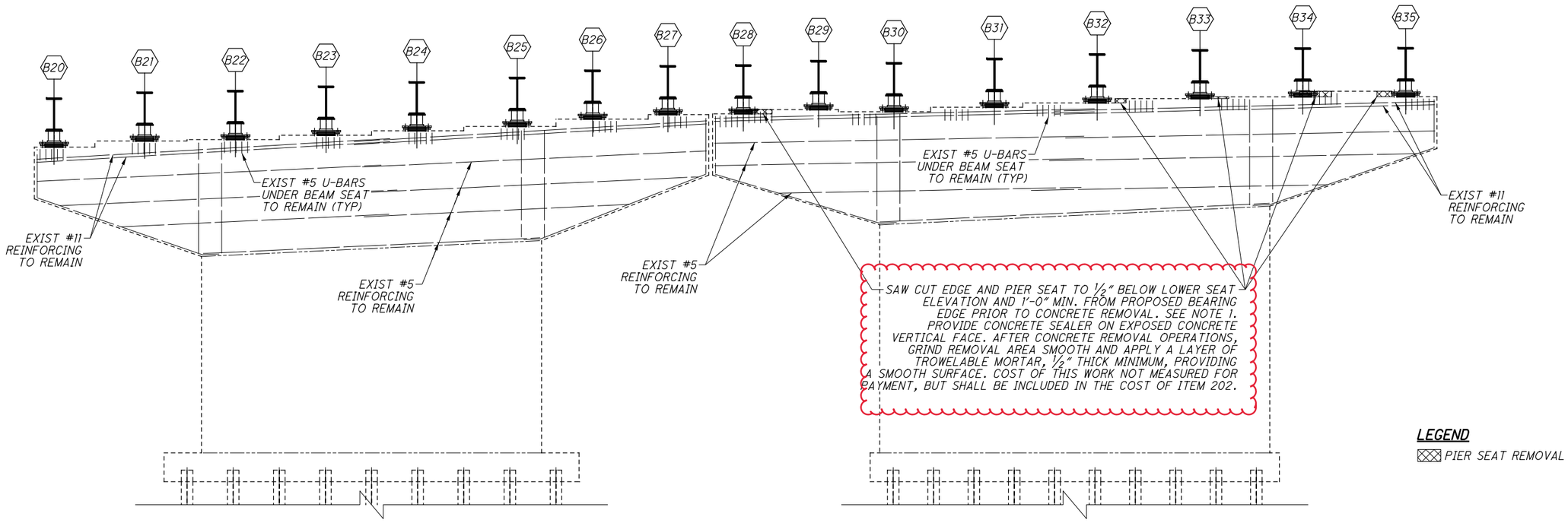
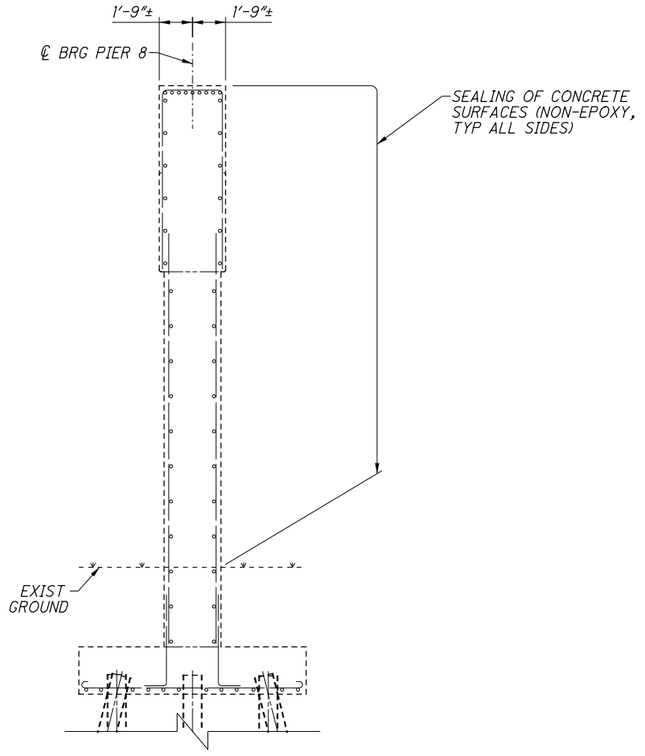


PIER 8 ELEVATION



PIER 8 SECTION

BEAM SEAT ELEVATION TABLE (ALL ±)							
B20	B21	B22	B23	B24	B25	B26	B27
724.14	724.68	724.84	725.24	725.61	725.97	726.61	727.09
B28	B29	B30	B31	B32	B33	B34	B35
727.04	727.44	727.27	727.67	728.02	728.48	728.52	728.60

NOTES

1. SEE GENERAL NOTES ON SHEET 13|160 FOR ADDITIONAL REQUIREMENTS. THE CONTRACTOR SHALL CAREFULLY REMOVE THE CONCRETE AND NOT DAMAGE EXISTING HORIZONTAL PIER CAP REINFORCEMENT. REINFORCEMENT (VERTICAL) WITHIN THE PORTION OF THE SEAT STEP TO BE REMOVED SHALL BE CUT FLUSH TO ADJACENT CAP (SEAT) ELEVATION. USE A GRINDER FOLLOWED BY A LAYER OF TROWELABLE MORTAR TO FILL THE UNEVEN SURFACE, BRING THE SEAT AREA TO THE PROPER ELEVATION, AND PROVIDE A LEVEL, EVEN SURFACE. COST OF THIS WORK IS NOT MEASURED FOR PAYMENT BUT SHALL BE INCLUDED IN THE COST OF ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN.
2. THE BEARING DIMENSIONS ARE DETERMINED BY THE MANUFACTURER (SEE SHEET 73|160 FOR DETAILS). THE CONTRACTOR DESIGN SHALL ACCOMMODATE THE EXISTING PIER CAP DIMENSIONS. SEAT REMOVAL LIMITS ARE APPROXIMATE AND MAY BE ADJUSTED FROM THOSE SHOWN BASED ON THE PIER 1 BEARING DESIGN, OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR'S BID PRICE SHALL INCLUDE NECESSARY MODIFICATIONS AND WILL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE INCLUDED IN THE PAYMENT FOR BEARINGS.
3. EXISTING BEAM SEAT ELEVATIONS ARE APPROXIMATE DUE TO PROJECT SURVEY CONSTRAINTS. REPLACEMENT BEARING HEIGHTS TO BE FIELD VERIFIED BY CONTRACTOR PER ITEM 530 - MEASUREMENTS FOR PROPOSED BEARINGS.
4. PRIOR TO ORDERING THE BEARINGS, LOCATE THE EXISTING BEAM SEAT REINFORCING STEEL. THE MASONRY PLATE SHALL BE FABRICATED SO THE PROPOSED ANCHOR RODS AVOID THE EXISTING REINFORCING STEEL.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED ST | DRAWN RSN | REVIEWED MTO | DATE 12/2020
CHECKED JJH | REVISED | STRUCTURE FILE NUMBER 6002854

PIER 8 DETAILS

BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

SUBMITTAL: Stage 3
PID: 93006
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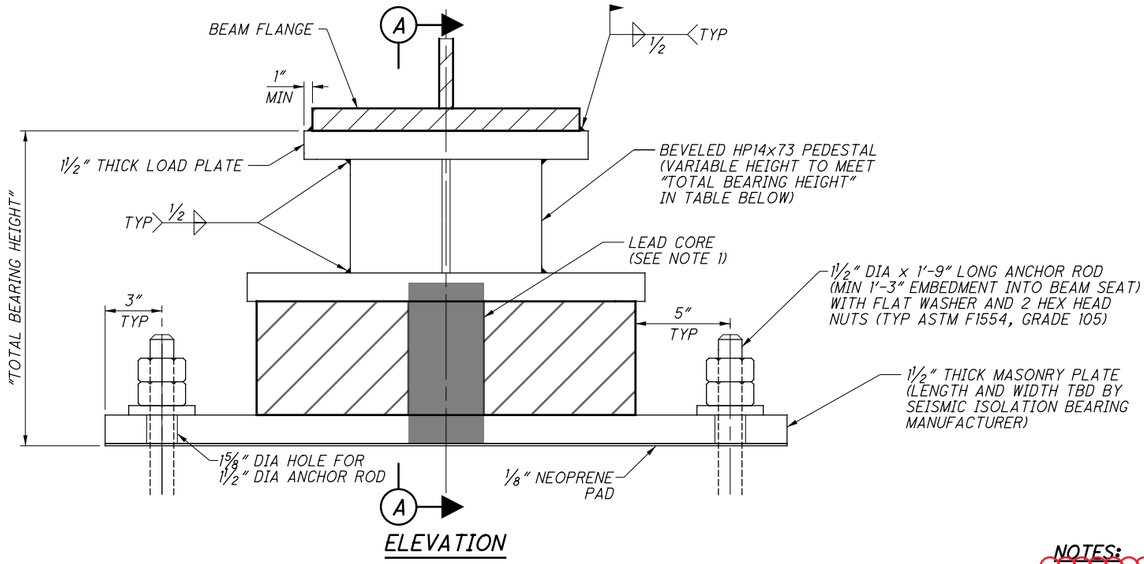
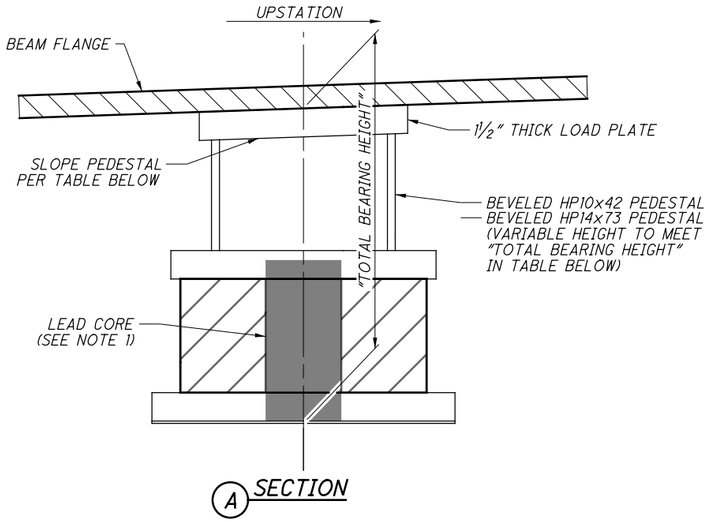
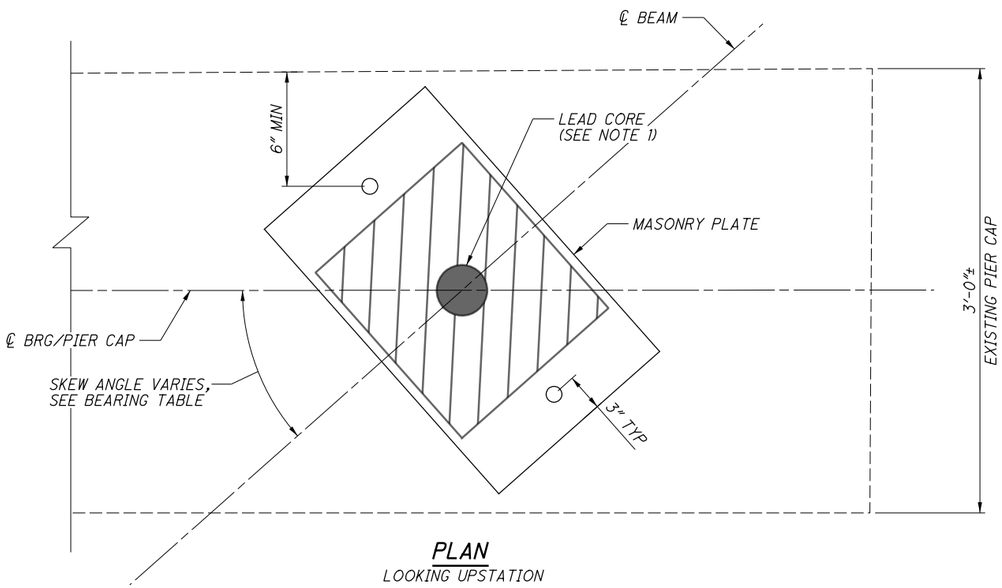


ELEVATION



SECTION



PLAN

LOOKING UPSTATION

NOTES:

1. THIS ITEM CONSISTS OF DESIGNING, PREPARING SHOP DRAWINGS, FABRICATING, TESTING, FURNISHING, AND INSTALLING SEISMIC ISOLATION BEARINGS. PERFORM ALL WORK IN ACCORDANCE WITH ITEM 516, CMS 513 LEVEL UF, AND THE NOTES AND DETAILS SHOWN ON THIS SHEET.

   SELECT FABRICATORS THAT ARE LISTED BY THE DEPARTMENT BEFORE THE CONTRACT LETTING DATE AS EVALUATED BY THE OFFICE OF MATERIALS MANAGEMENT AND PRE-QUALIFIED ACCORDING TO SUPPLEMENT 1081 AND CMS 513 AS A UF LEVEL FABRICATOR.

   DESIGN BEARINGS ACCORDING TO ALL APPLICABLE SECTIONS OF THE CURRENT EDITION OF THE "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS" INCLUDING ALL PUBLISHED INTERIM REVISIONS; THE CURRENT EDITION OF THE "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS" INCLUDING ALL PUBLISHED INTERIM REVISIONS; THE CURRENT EDITION OF THE "AASHTO GUIDE SPECIFICATIONS FOR SEISMIC ISOLATION DESIGN" INCLUDING ALL PUBLISHED INTERIM REVISIONS; AND THESE NOTES. DESIGN BEARINGS TO ACCOMMODATE THE LOADS, FORCES, AND MOVEMENTS SPECIFIED IN THE NOTES AND DETAILS SHOWN ON THIS SHEET.

   SUBMIT A DESIGN PLAN AND DESIGN CALCULATIONS ALONG WITH THE SHOP DRAWINGS ACCORDING TO THE PROCESS DEFINED IN CMS 501.04.A. THE FIRST PARAGRAPH OF CMS 501.04.B ALSO APPLIES.

   ALL BEARINGS SHALL BE TESTED AND EVALUATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "AASHTO GUIDE SPECIFICATIONS FOR SEISMIC ISOLATION DESIGN". TEST THE BEARINGS AT A TESTING FACILITY, POSSESSING THE PROPER TESTING EQUIPMENT AND TRAINED PERSONNEL, CAPABLE OF PERFORMING ALL TESTS REQUIRED BY THE "AASHTO GUIDE SPECIFICATIONS FOR SEISMIC ISOLATION DESIGN" AND THE FABRICATOR'S MANUFACTURING PROCESSES AND PROCEDURES. SUBMIT THE TEST FACILITY'S QUALIFICATION WITH THE SHOP DRAWINGS ACCORDING TO THE PROCESS DEFINED IN CMS 501.04 A. THE TEST FACILITY'S QUALIFICATIONS SHALL INCLUDE CAPACITY AND CAPABILITIES OF EACH TESTING APPARATUS AND QUALIFICATIONS OF ALL PERSONNEL THAT WILL BE PERFORMING TESTS FOR THIS CONTRACT.

   SUBMIT A REPORT CONTAINING THE RESULTS OF ALL REQUIRED TESTS WITH THE TEST REPORTS ACCORDING TO THE PROCESS DEFINED IN CMS 501.06 A. PRESENT THE RESULTS OF ALL TESTING IN A REPORT INCLUDING RAW TEST DATA, REDUCED TEST DATA, SAMPLE CALCULATIONS, MEASURED TOLERANCES, AND FINAL RESULTS ALONG WITH PHOTOGRAPHS AND CONCLUSIONS. PERFORM TESTS ON COMPLETELY FABRICATED AND RANDOMLY SAMPLED BEARINGS. RANDOMLY SAMPLE BEARINGS ACCORDING TO "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS", ARTICLE 18.3.4.

   THE FABRICATOR SHALL DELIVER THE BEARINGS TO THE JOBSITE IN MOISTURE PROOF AND DUST PROOF MATERIAL TO PROTECT AGAINST SHIPPING AND JOB SITE CONDITIONS. STORE THE BEARINGS AT THE JOB SITE IN A DRY, SHELTERED AREA FREE FROM DIRT OR DUST UNTIL INSTALLATION. HAVE A REPRESENTATIVE FROM THE BEARING MANUFACTURER ON SITE TO ENSURE PROPER INSTALLATION OF THE BEARINGS.

2. THE SEISMIC ISOLATION BEARING SHOWN (ELASTOMERIC LEAD CORE) IS JUST ONE POSSIBLE SOLUTION. FABRICATOR TO PROVIDE A BEARING THAT MEETS THE REQUIREMENTS AND DETAILS PROVIDED ON THIS SHEET. THE BEARING SHALL ACT AS A FIXED BEARING UNDER THE SERVICE AND STRENGTH LOADS LISTED IN THE TABLE ON THE NEXT SHEET AND RELEASE RESTRAINT UNDER LOADING WHICH EXCEEDS THE "EXTREME EVENT HORIZONTAL FORCE GOAL" IN THE TABLE ON THE NEXT SHEET. MINOR STRAIN/MOVEMENTS FOR LOADS LESS THAN THE FORCE GOAL ARE ACCEPTABLE; DESIGN AND DETAILS TO BE REVIEWED AND ACCEPTED BY THE ENGINEER PRIOR TO FABRICATION. MINOR STRAIN/MOVEMENTS FOR LOADS LESS THAN THE FORCE GOAL ARE ACCEPTABLE.
3. FURNISHING AND INSTALLING ANCHOR RODS AND ALL ASSOCIATED NUTS/WASHERS SHALL BE INCLUDED FOR PAYMENT WITH THE BEARINGS.
4. ALL STEEL BEARING ELEMENTS SHALL BE PAINTED WITH THE SAME SYSTEM USED ON THE STRUCTURAL STEEL; PAINTING IS INCLUDED WITH PAYMENT FOR ITEM 516 - BEARING DEVICE, MISC.: SEISMIC ISOLATION BEARING.
5. ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
6. PRIOR TO ORDERING THE BEARINGS, VERIFY THE REQUIRED BEARING HEIGHT BY VERIFYING EXISTING BEARING SEAT ELEVATIONS AND LOCATE THE EXISTING BEAM SEAT REINFORCING STEEL. THE MASONRY PLATE SHALL BE FABRICATED SO THE PROPOSED ANCHOR RODS AVOID THE EXISTING REINFORCING STEEL.
7. IN ADDITION TO THE PRIMARY AXIS ROTATIONS LISTED IN THE TABLE, THE BEARING DESIGN SHALL INCLUDE ALLOWANCE FOR 0.01 RADIANS OF TRANSVERSE ROTATION (INCLUDING CONSTRUCTION TOLERANCE).

*** BEARING LOADS AND DIMENSIONS ON NEXT SHEET ***

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
CTM	CTM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DSF		6002854	

SEISMIC ISOLATION BEARING DETAILS 1 OF 2 (PIERS 1, 4, 5 & 8)

BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

1519
2231

SUBMITTAL: Stage 3
PID: 93006 PLOT DRIVER: ODOTcadd_PDF.pltcfg
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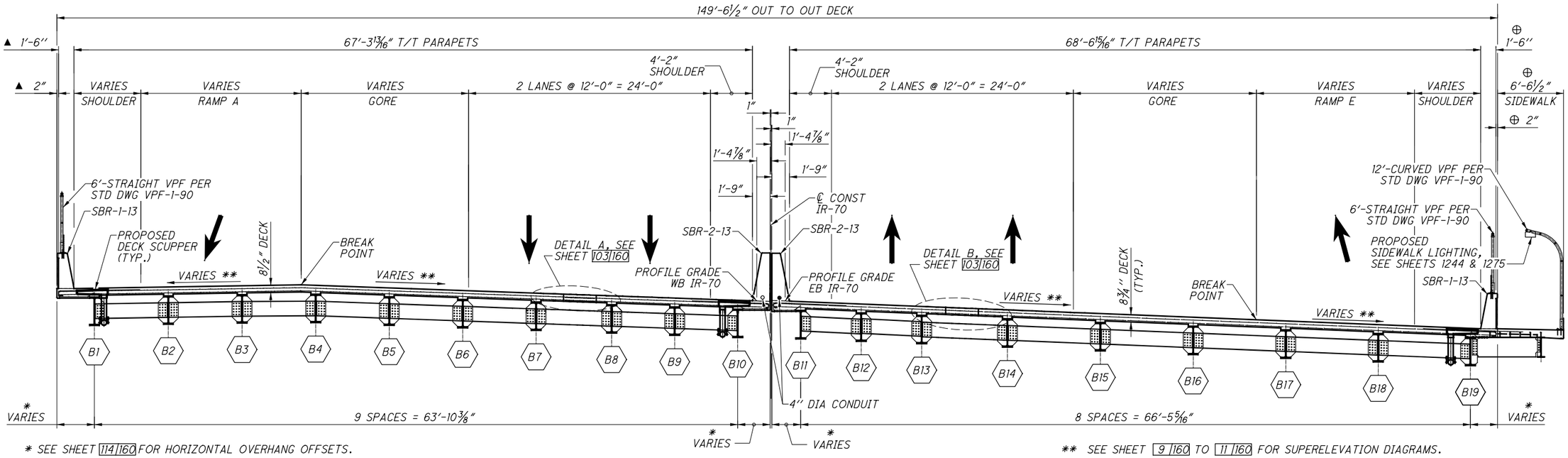
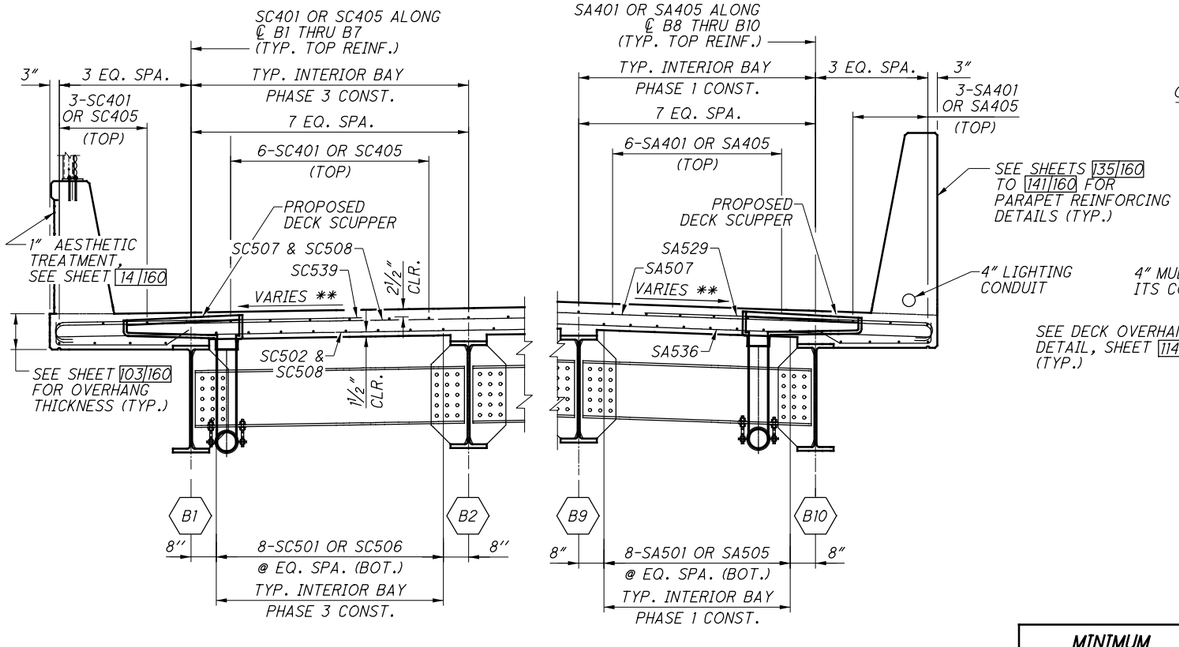


* SEE SHEET 114|160 FOR HORIZONTAL OVERHANG OFFSETS.

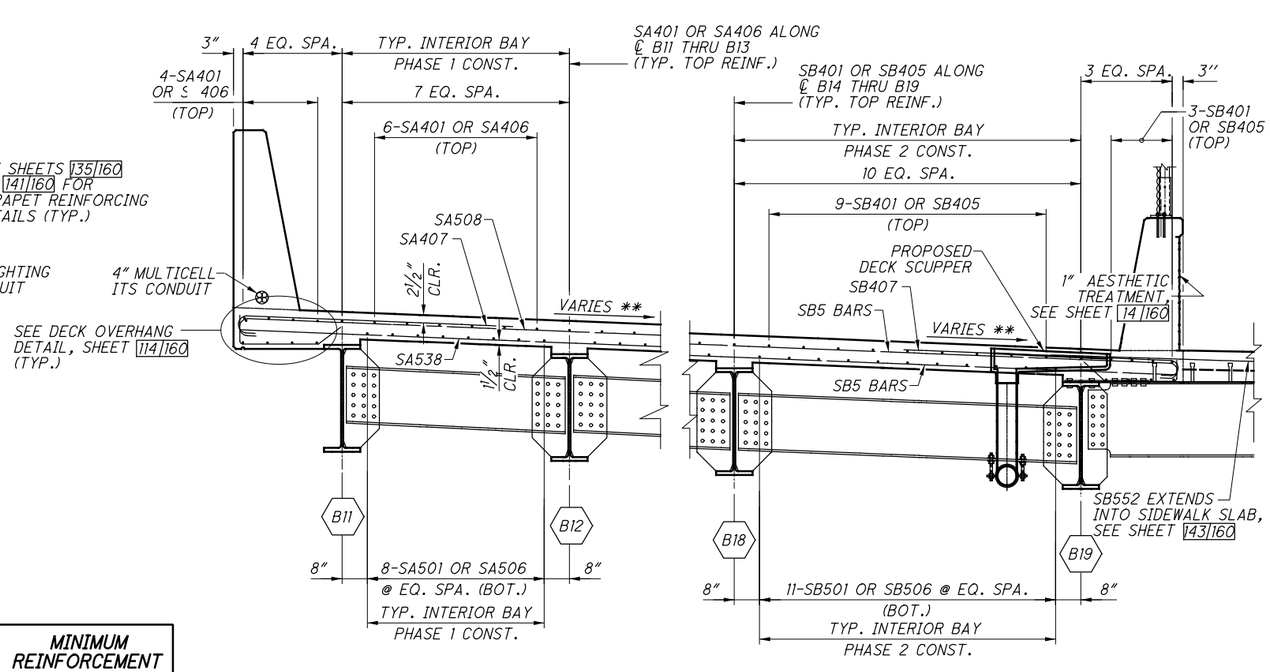
** SEE SHEET 9|160 TO 11|160 FOR SUPERELEVATION DIAGRAMS.

TRANSVERSE SECTION AT REAR ABUTMENT

LOOKING UPSTATION



REINFORCING DETAILS-WEST BOUND STRUCTURE



REINFORCING DETAILS-EAST BOUND STRUCTURE

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"

▲ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP A.

⊕ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP E.

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. SEE SHEET 103|160 FOR CLOSURE POUR DETAILS AND ADDITIONAL NOTES.
3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2560 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED TMF | DRAWN JM | CHECKED JAY | REVIEWED MTO | DATE 12/2020 | STRUCTURE FILE NUMBER 6002854

TRANSVERSE SECTION AT REAR ABUTMENT
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
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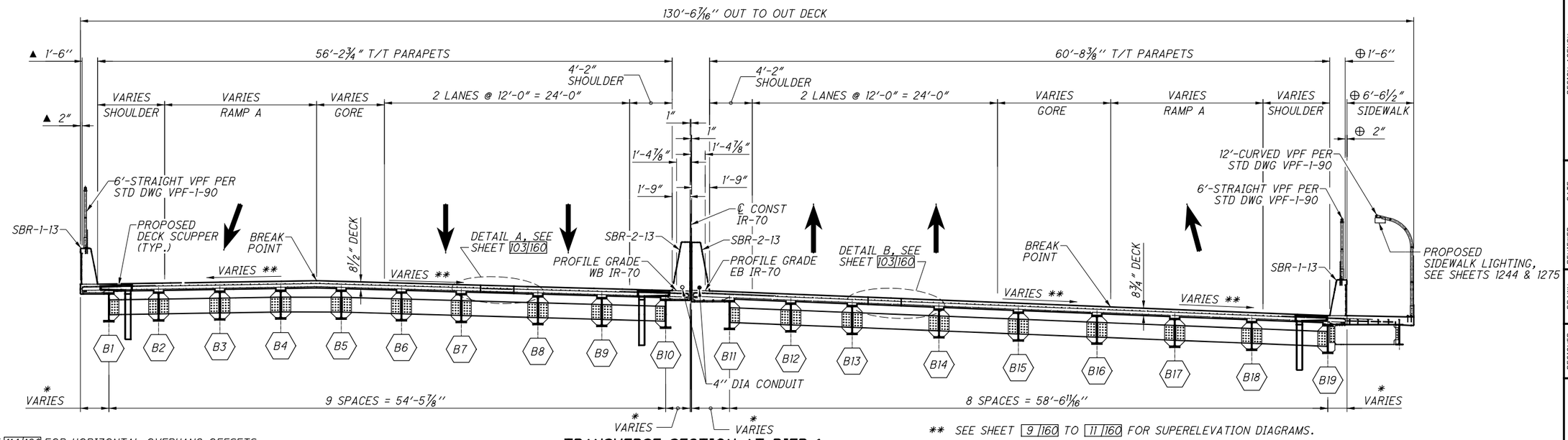
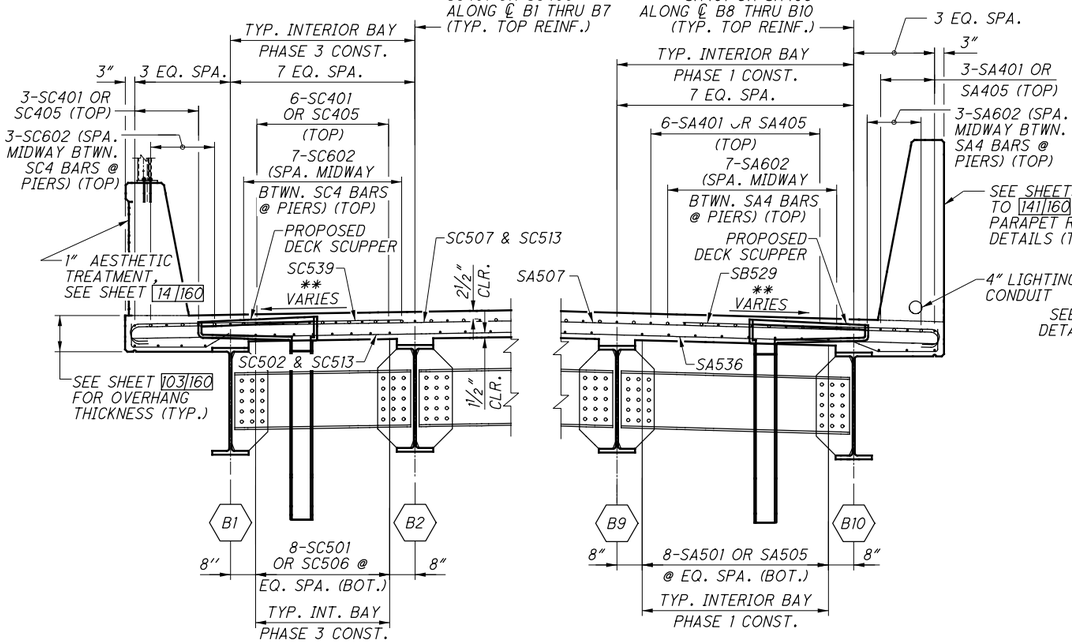


* SEE SHEET 114|160 FOR HORIZONTAL OVERHANG OFFSETS.

** SEE SHEET 9|160 TO 11|160 FOR SUPERELEVATION DIAGRAMS.

TRANSVERSE SECTION AT PIER 1

LOOKING UPSTATION

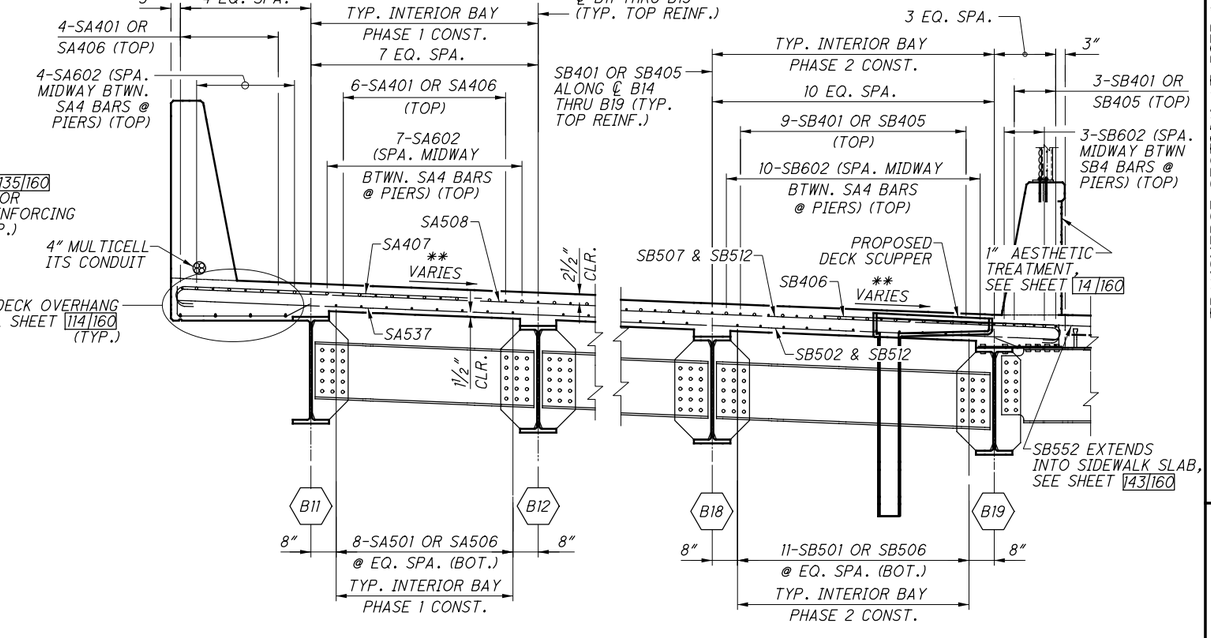


REINFORCING DETAILS-WEST BOUND STRUCTURE

▲ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP A.

⊕ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP E.

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"



REINFORCING DETAILS-EAST BOUND STRUCTURE

NOTES:

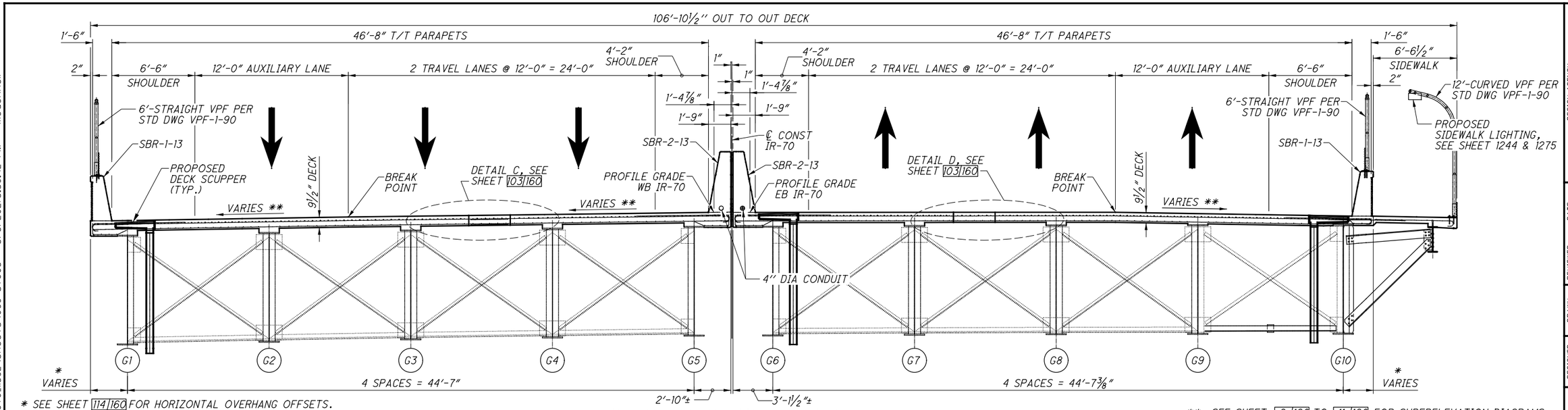
1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. SEE SHEET 103|160 FOR CLOSURE POUR DETAILS AND ADDITIONAL NOTES.
3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
TMF	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAY		6002854	

TRANSVERSE SECTION AT PIER 1
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

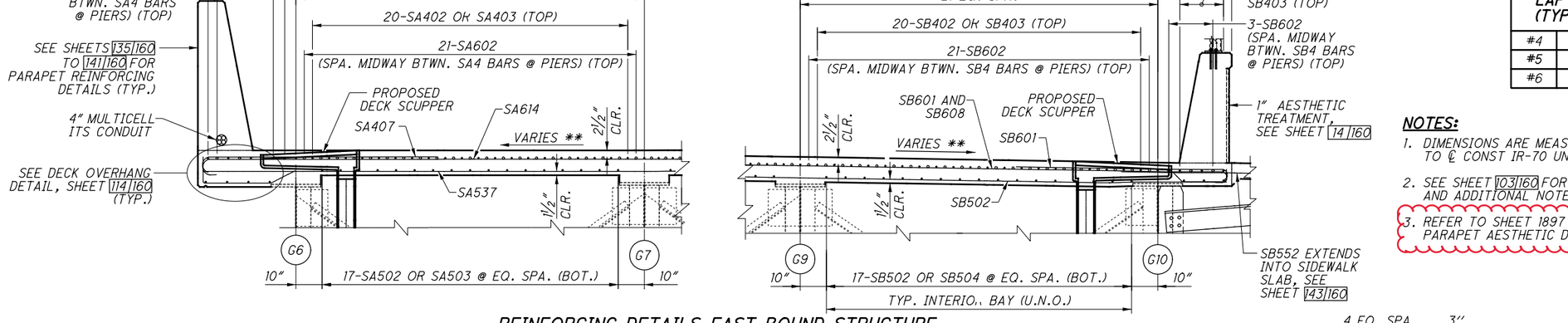


* SEE SHEET 114|160 FOR HORIZONTAL OVERHANG OFFSETS.

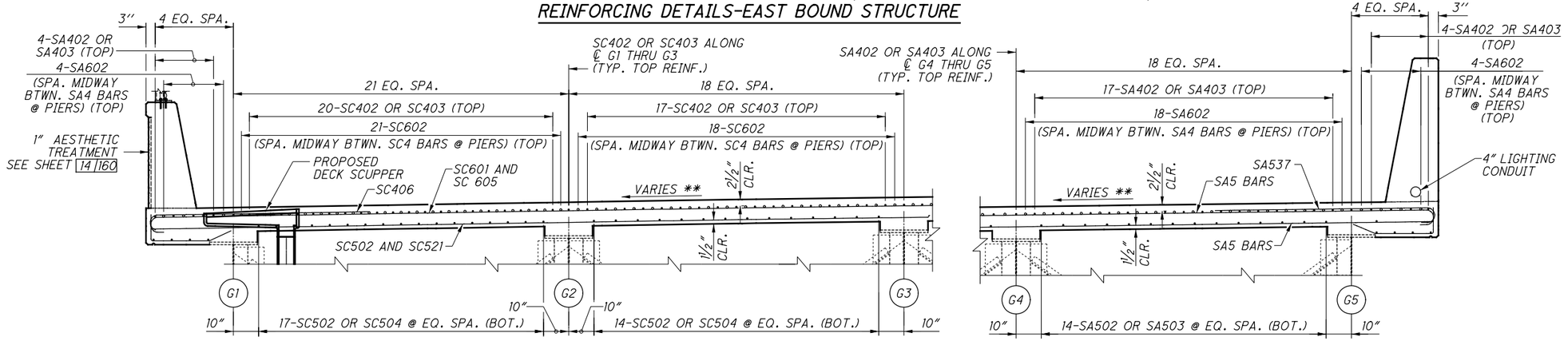
TRANSVERSE SECTION AT PIER 5

LOOKING UPSTATION

** SEE SHEET 9|160 TO 11|160 FOR SUPERELEVATION DIAGRAMS.



REINFORCING DETAILS-EAST BOUND STRUCTURE



REINFORCING DETAILS-WEST BOUND STRUCTURE

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)

#4	2'-0"
#5	2'-5"
#6	3'-0"

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. SEE SHEET 103|160 FOR CLOSURE POUR DETAILS AND ADDITIONAL NOTES.
3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
TMF	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAY		6002854	

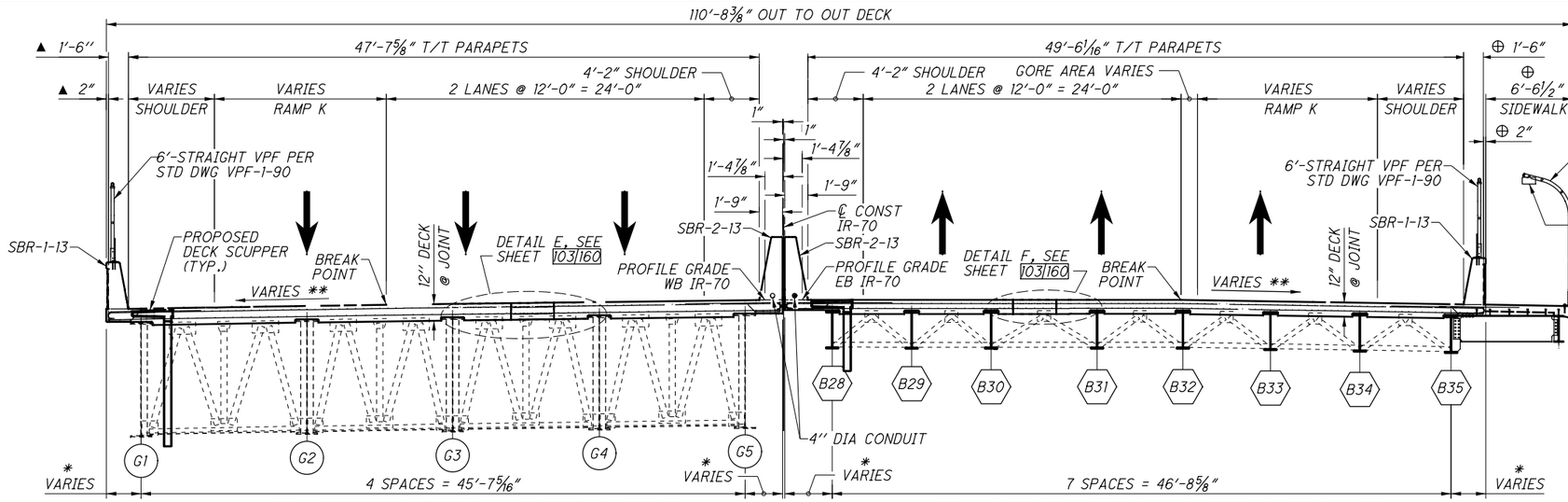
TRANSVERSE SECTION AT PIER 5
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

100|160

1546
2231

SUBMITTAL: Stage 3
PID: 93006
PENTABLE: 93006_ODOTV8i_Pen.tbl
PLOT DRIVER: ODOTcadd_PDF.pltcfg
pw:\\gfnet-pw.bentley.com:gfnet-pw-01\Documents\Projects\6477\93006\40]-Engineering-Gannett Fleming\Structures\MUS070_1159L\Sheets\099 st003 3/8/2021 5:59:42 PM mdonnell



* SEE SHEET 114|160 FOR HORIZONTAL OVERHANG OFFSETS.

TRANSVERSE SECTION AT PIER 7 (REAR)

LOOKING UPSTATION

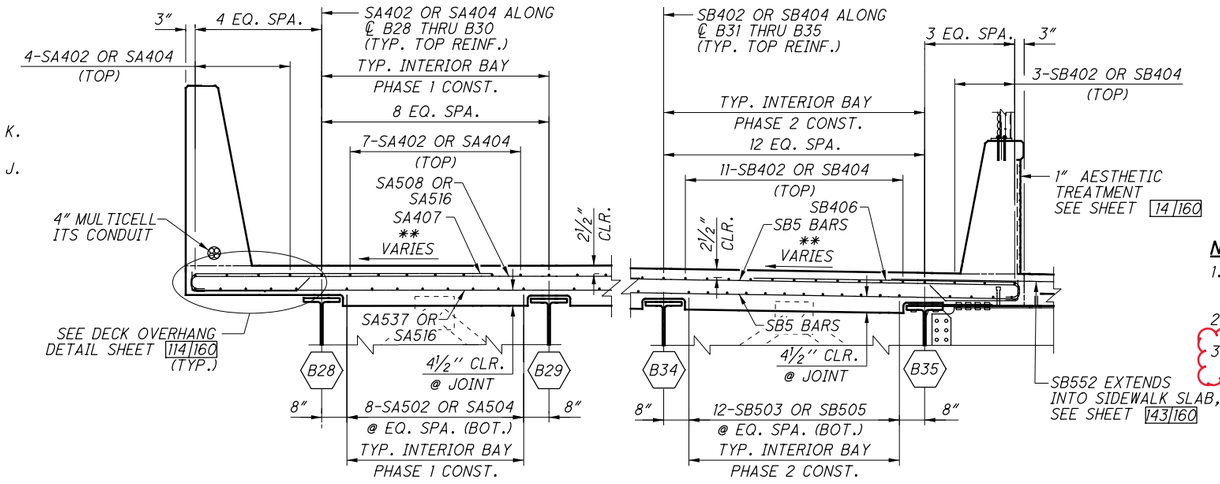
TRANSVERSE SECTION AT PIER 7 (FORWARD)

LOOKING UPSTATION

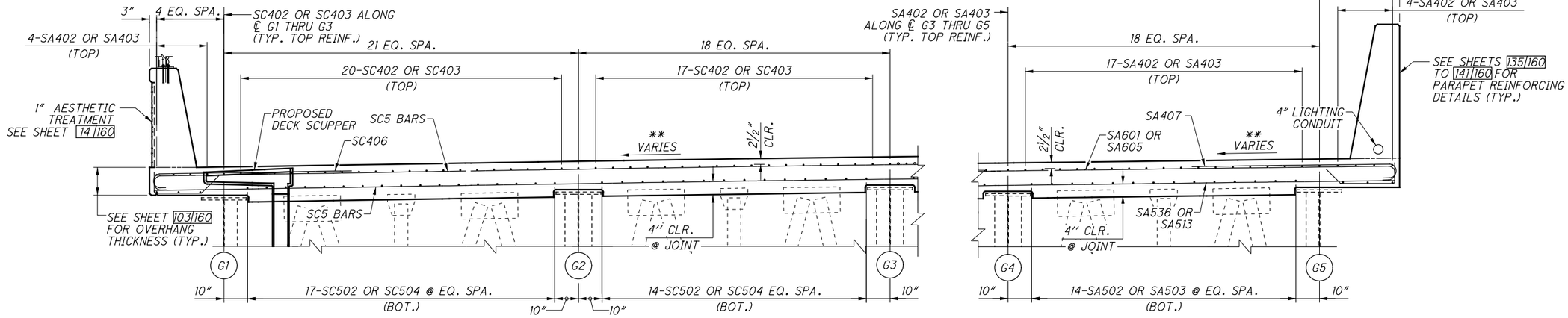
** SEE SHEET 9|160 TO 11|160 FOR SUPERELEVATION DIAGRAMS.

▲ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP K.

⊕ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP J.



REINFORCING DETAILS-EAST BOUND STRUCTURE



REINFORCING DETAILS-WEST BOUND STRUCTURE

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2′-0″
#5	2′-5″
#6	3′-0″

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. SEE SHEET 103|160 FOR CLOSURE POUR DETAILS AND ADDITIONAL NOTES.
3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2560 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
TMF	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAY		6002854	

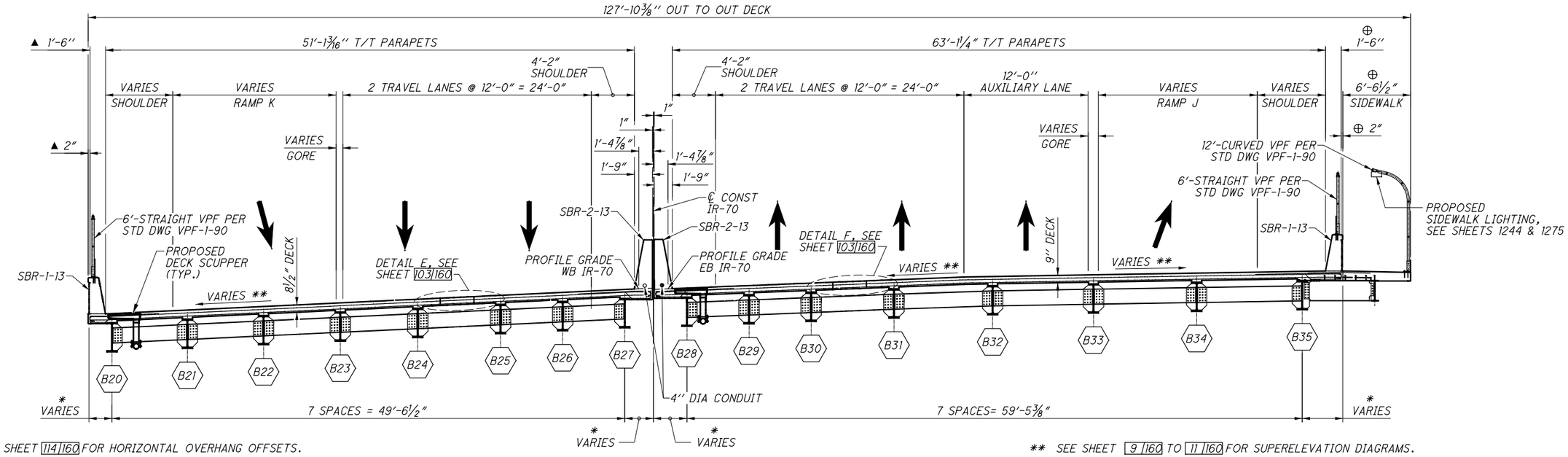
TRANSVERSE SECTION AT PIER 7
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

101 | 160

1547
2231

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
pw:\\gfnet-pw.bentley.com:gfnet-pw-ON\Documents\Projects\64771\93006\401-Engineering-Gannett Fleming\Structures\MUS070_1159L\Sheets\100 st004 3/8/2021 6:00:01 PM modonnell

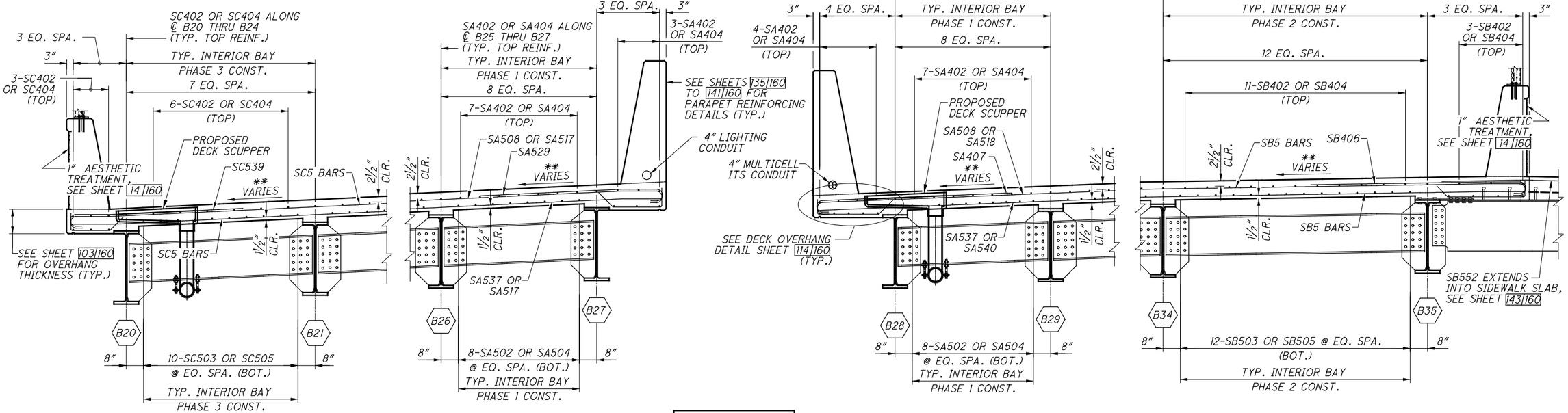


* SEE SHEET 114|160 FOR HORIZONTAL OVERHANG OFFSETS.

** SEE SHEET 9|160 TO 11|160 FOR SUPERELEVATION DIAGRAMS.

TRANSVERSE SECTION AT FORWARD ABUTMENT

LOOKING UPSTATION



REINFORCING DETAILS-WEST BOUND STRUCTURE

REINFORCING DETAILS-EAST BOUND STRUCTURE

▲ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP K.

⊕ DIMENSION MEASURED PERPENDICULAR TO ℄ CONST RAMP J.

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO ℄ CONST IR-70 UNLESS NOTED OTHERWISE.
2. SEE SHEET 103|160 FOR CLOSURE POUR DETAILS AND ADDITIONAL NOTES.
3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
TMF	JM	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JAY		6002854	

TRANSVERSE SECTION AT FORWARD ABUTMENT
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
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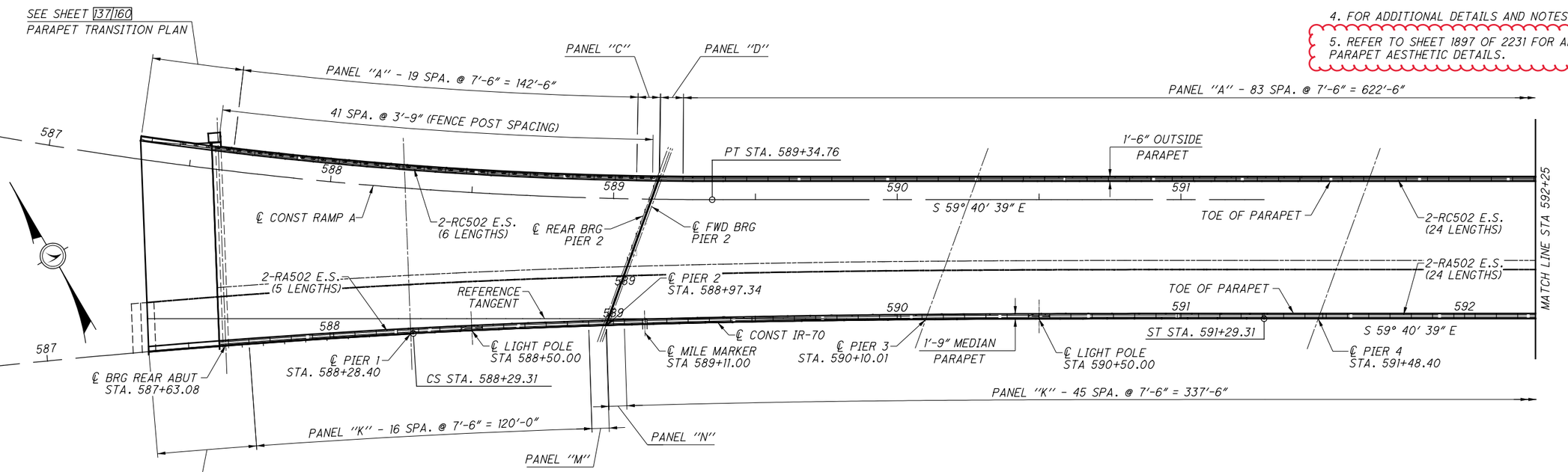
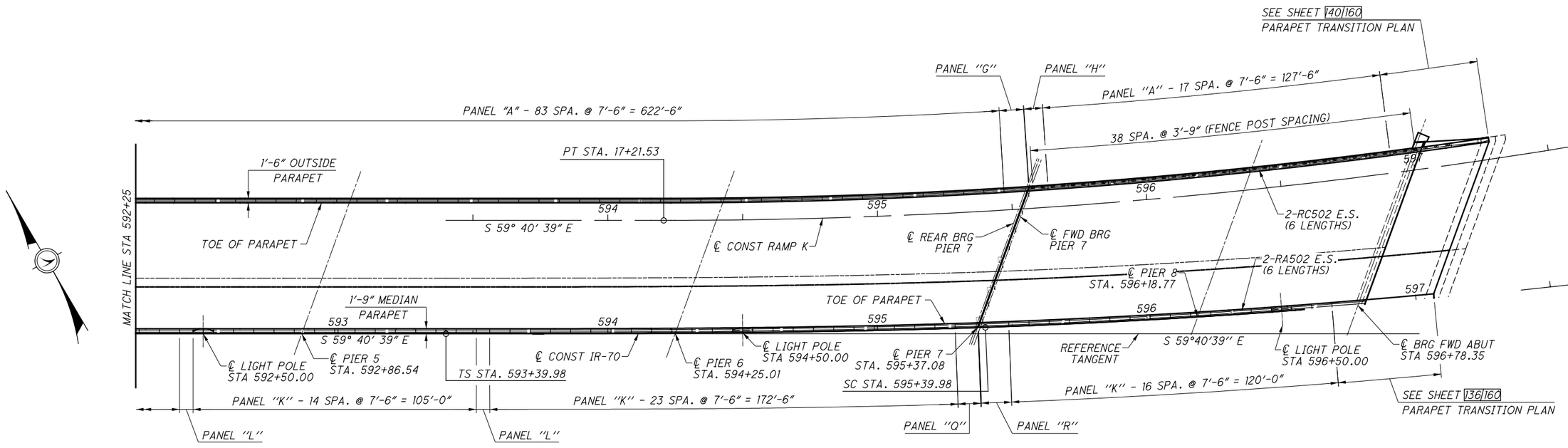
NOTES:

1. FOR PARAPET DETAILS AND NOTES NOT SHOWN, SEE STD DWG SBR-1-13 AND SBR-2-13.
2. FOR REINFORCING STEEL LIST, SEE SHEET 152|160 AND 155|160.
3. FOR PANEL INFORMATION, SEE SHEET 139|160.
4. FOR ADDITIONAL DETAILS AND NOTES, SEE SHEET 141|160.
5. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.



LEFT BRIDGE PARAPET PLAN
SPAN 1 THROUGH SPAN 4½



LEFT BRIDGE PARAPET PLAN
SPAN 4½ THROUGH SPAN 9

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
ECT	ECT	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TMF	MAL	6002854	

LEFT BRIDGE PARAPET PLAN VPF POST SPACINGS
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

135 / 160

1581 / 2231

SUBMITTAL: Stage 3
PID: 93006
PENTABLE: 93006_ODOTV8i_Pen.tbl
PLOT DRIVER: ODOTcadd_PDF.pltcfg
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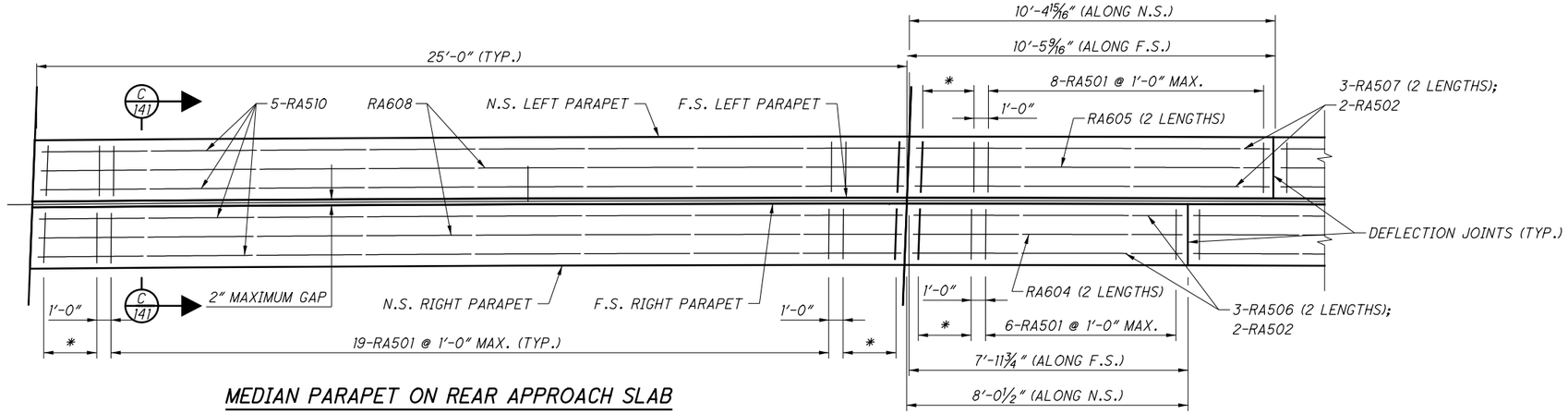
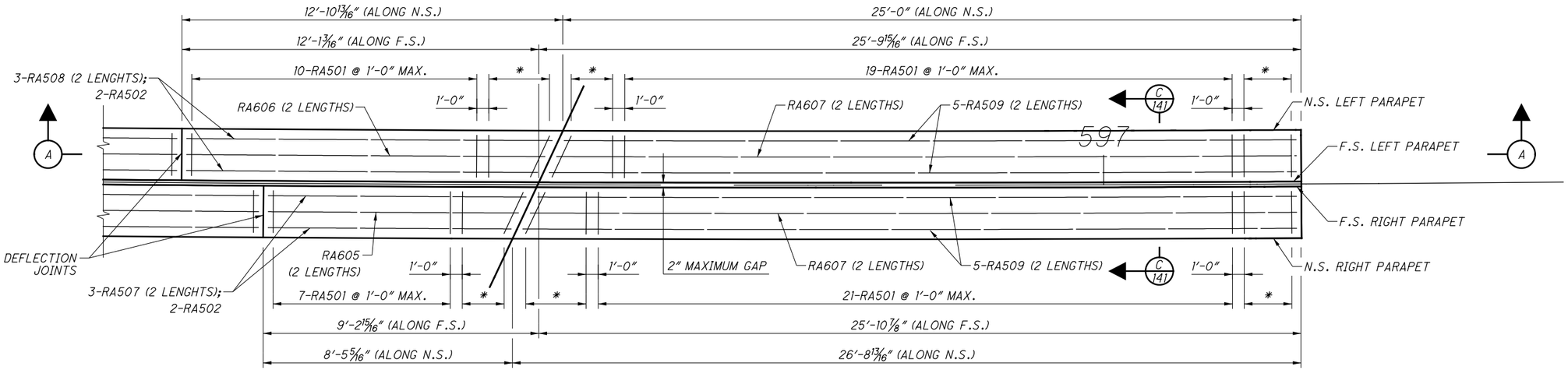
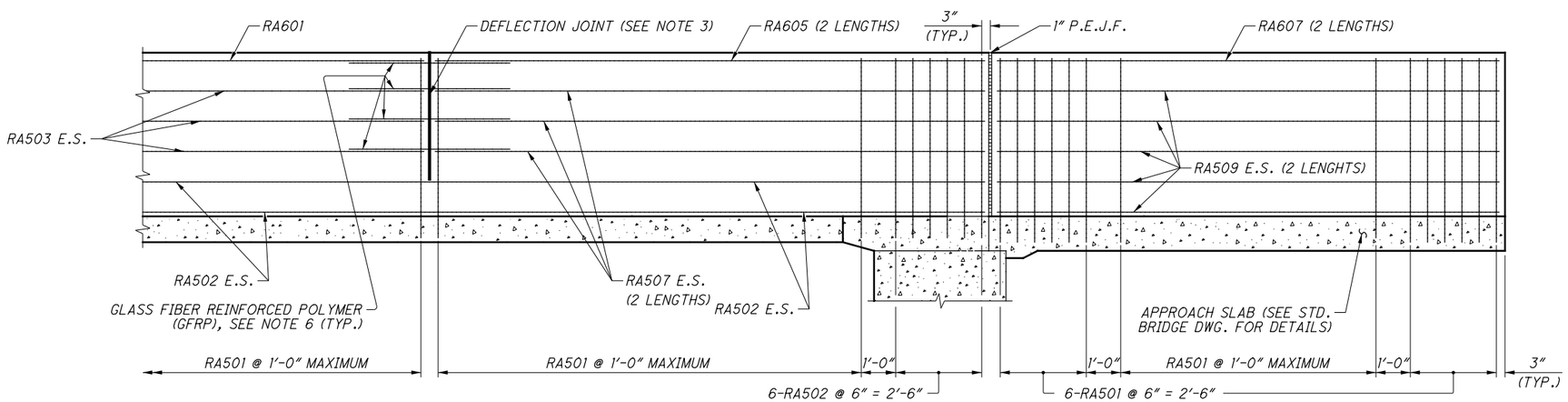


MEDIAN PARAPET ON REAR APPROACH SLAB



MEDIAN PARAPET ON FORWARD APPROACH SLAB

* = 6-RA501 @ 6" = 2'-6" (SPLAY BARS IF NEEDED)



SECTION A-A

(RIGHT FORWARD PARAPET SHOWN, ALL OTHERS SIMILAR)

NOTES:

1. FOR PARAPET DETAILS AND NOTES NOT SHOWN, SEE STD DWG SBR-2-13.
2. FOR REINFORCING STEEL LIST, SEE SHEET 152|160.
3. FOR ADDITIONAL DETAILS, NOTES, AND SECTION C-C, SEE SHEET 141|160.
4. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

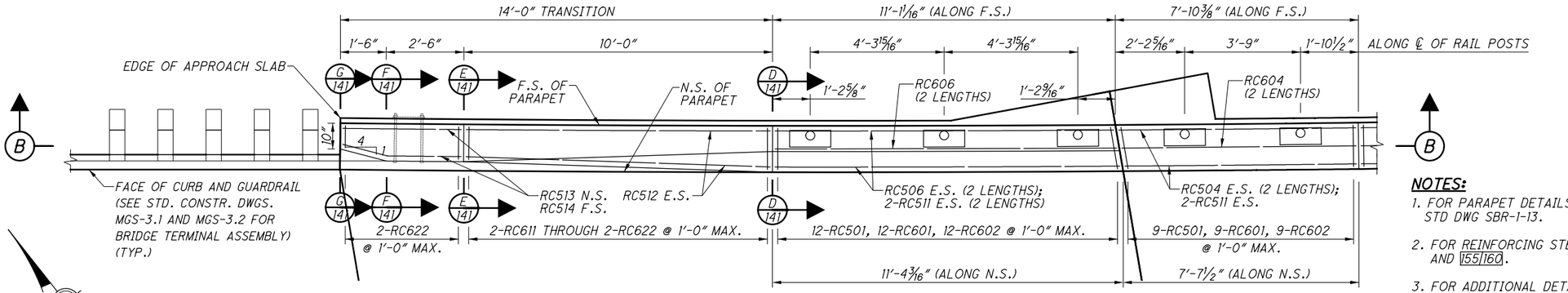
DESIGNED	DRAWN	REVIEWED	DATE
ECT	ECT	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TMF	MAL	6002854	

MEDIAN BRIDGE PARAPET TRANSITION PLANS

BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

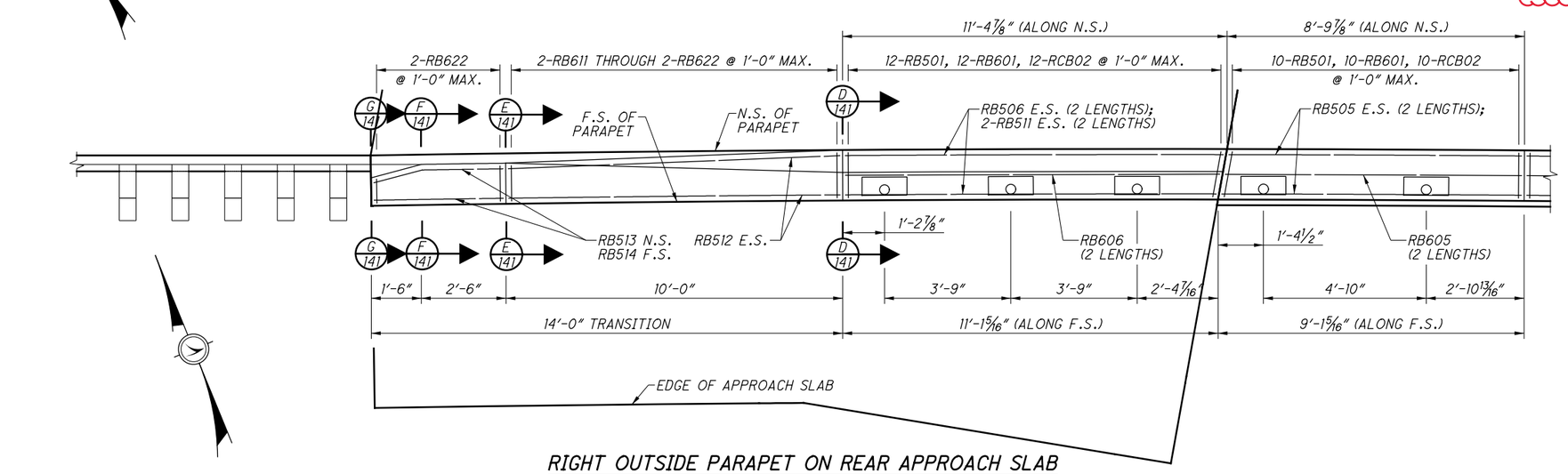
SUBMITTAL: Stage 3
PID: 93006
PENTABLE: 93006_ODOTV8i_Pen.tbl
PLOT DRIVER: ODOTcadd_PDF.pltcfg
pw:\\gfnet-pw.bentley.com:gfnet-pw-01\Documents\Projects\6477\93006\401-Engineering-Gannett+Fleming\Structures\MUS070_II59L\Sheets\133 sa002 3/8/2021 6:12:20 PM mdonnell



LEFT OUTSIDE PARAPET ON REAR APPROACH SLAB

NOTES:

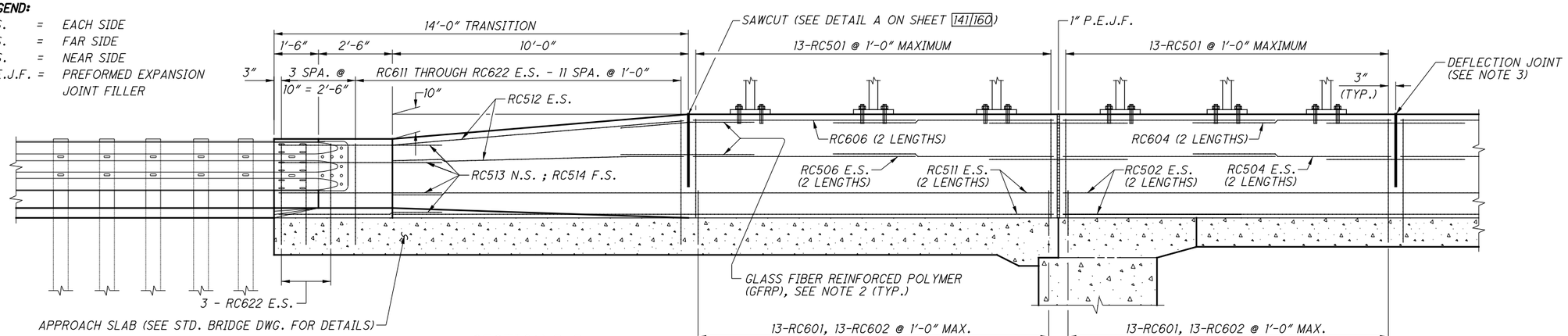
1. FOR PARAPET DETAILS AND NOTES NOT SHOWN, SEE STD DWG SBR-1-13.
2. FOR REINFORCING STEEL LIST, SEE SHEETS 154|160 AND 155|160.
3. FOR ADDITIONAL DETAILS, NOTES, AND SECTIONS D-D, E-E, F-F, AND G-G, SEE SHEET 141|160.
4. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.



RIGHT OUTSIDE PARAPET ON REAR APPROACH SLAB

LEGEND:

E.S. = EACH SIDE
F.S. = FAR SIDE
N.S. = NEAR SIDE
P.E.J.F. = PREFORMED EXPANSION JOINT FILLER



SECTION B-B

(LEFT SIDE SHOWN, RIGHT SIDE SIMILAR)

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
ECT	ECT	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TMF	MAL	6002854	

LEFT AND RIGHT OUTSIDE PARAPET TRANSITION PLANS

BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

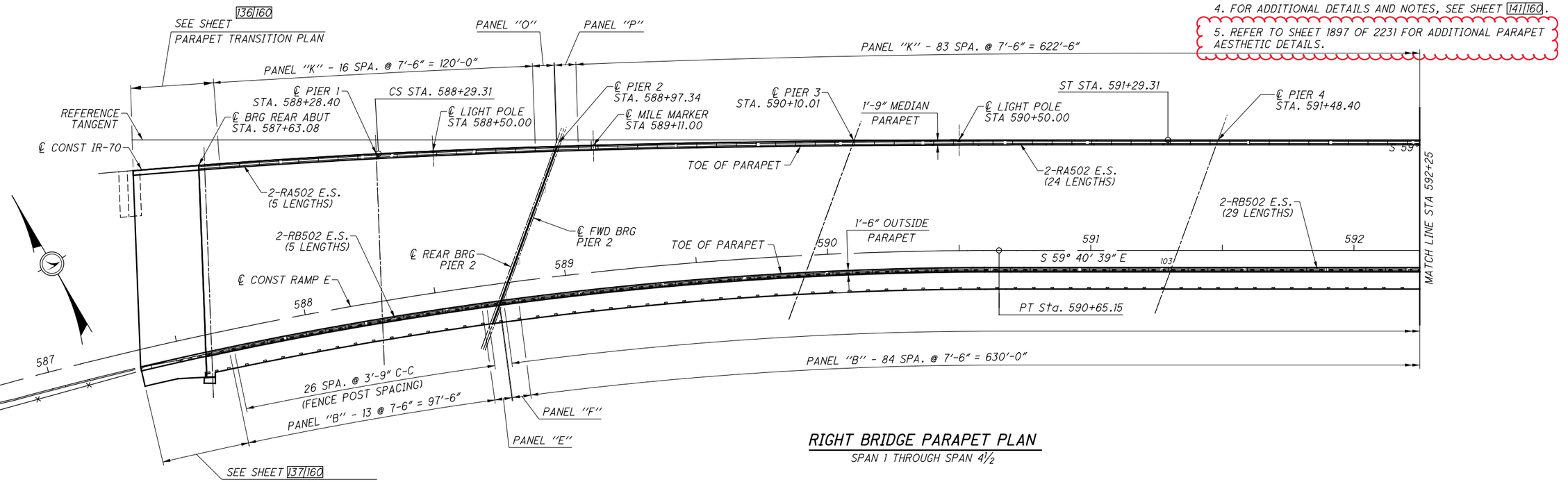
137 / 160

1583 / 2231

SUBMITTAL: Stage 3
PID: 93006
PENTABLE: 93006_ODOTV8i_Pen.tbl
PLOT DRIVER: ODOTcadd_PDF.pltcfg
pw:\\gfnet-pw.bentley.com:gfnet-pw-01\Documents\Projects\64771\93006\401-Engineering-Gannett Fleming\Structures\MUS070_1159L\Sheets\134 sa003 3/8/2021 6:12:44 PM mdonnell

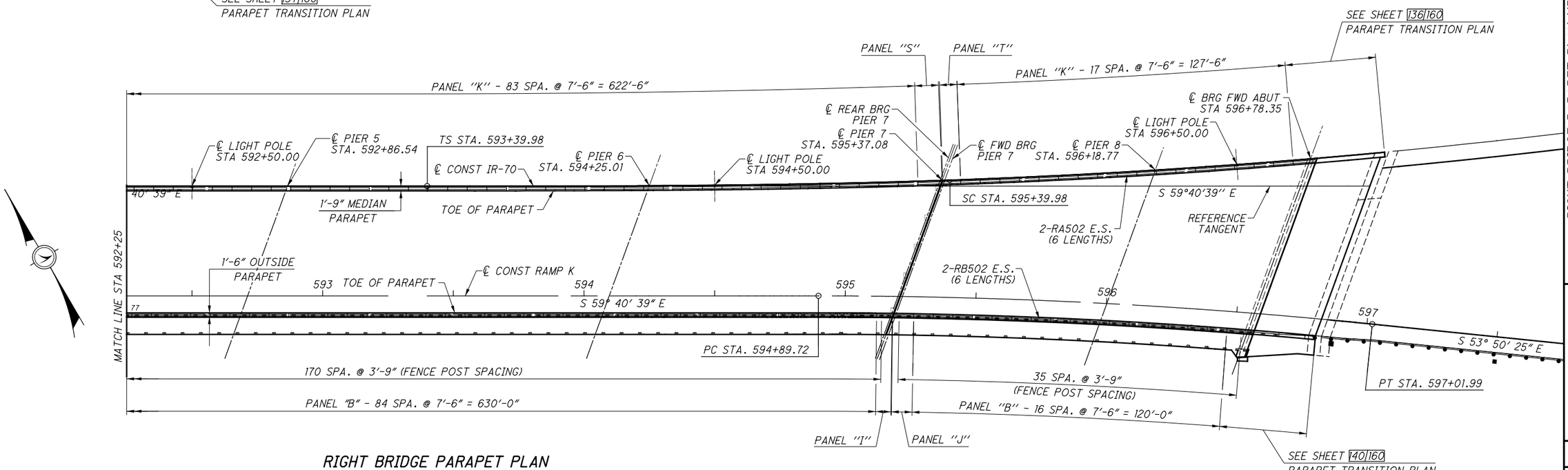
NOTES:

1. FOR PARAPET DETAILS AND NOTES NOT SHOWN, SEE STD DWG SBR-1-13 AND SBR-2-13.
2. FOR REINFORCING STEEL LIST, SEE SHEETS 152|160 AND 154|160.
3. FOR PANEL INFORMATION, SEE SHEET 139|160.
4. FOR ADDITIONAL DETAILS AND NOTES, SEE SHEET 141|160.
5. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.



RIGHT BRIDGE PARAPET PLAN

SPAN 1 THROUGH SPAN 4½



RIGHT BRIDGE PARAPET PLAN

SPAN 4½ THROUGH SPAN 9

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
ECT	ECT	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TMF	MAL	6002854	

RIGHT BRIDGE PARAPET PLAN VPF POST SPACINGS

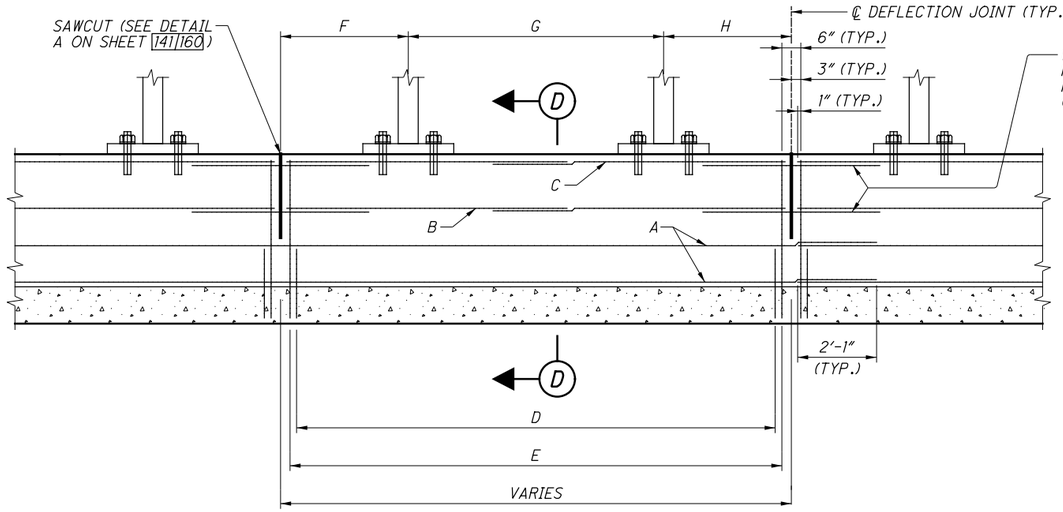
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

138 | 160

1584
2231

SUBMITTAL: Stage 3
PID: 93006
PENTABLE: 93006_ODOTV8i_Pen.tbl
PLOT DRIVER: ODOTcadd_PDF.pltcfg
pw:\\gfnet-pw.bentley.com:gfnet-pw-01\Documents\Projects\64771\93006\401-Engineering-Gannett Fleming\Structures\MUS070_II59L\Sheets\136 sa005 3/8/2021 6:43:01 PM mdonnell

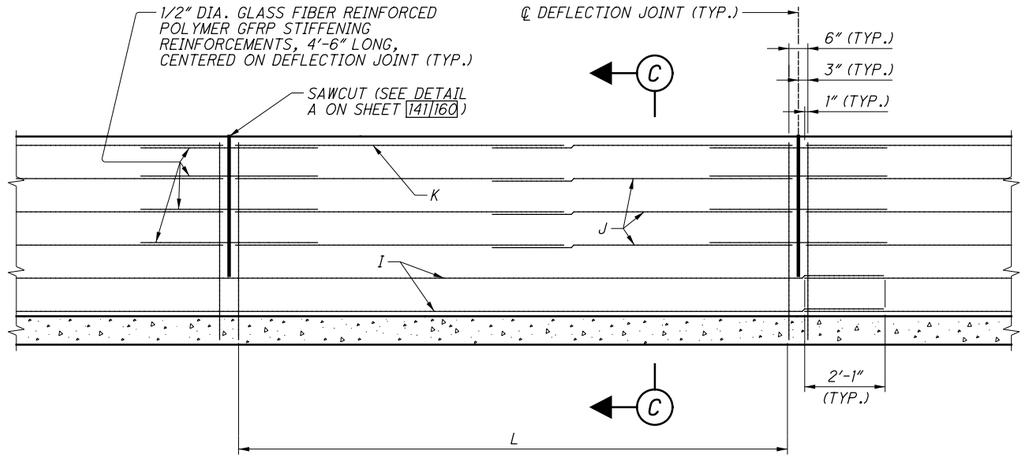


EXTERIOR PARAPET

(RIGHT BRIDGE SHOWN, LEFT BRIDGE SIMILAR)

EXTERIOR PANEL DIMENSIONS

	TOE DIM.	HEEL DIM.	A	B	C	D	E	F	G	H
PANEL "A"	7'-6"	7'-6"	RC502 E.S.	RC503 E.S.	RC603	8-RC601, RC602 @ 1'-0" MAX.	8-RC501 @ 1'-0" MAX.	1'-10½"	3'-9"	1'-10½"
PANEL "B"	7'-6"	7'-6"	RB502 E.S.	RB503 E.S.	RB603	8-RB601, RB602 @ 1'-0" MAX.	8-RB501 @ 1'-0" MAX.	1'-10½"	3'-9"	1'-10½"
PANEL "C"	7'-6"	7'-11⅛"	RC502 E.S.	RC504 E.S.	RC604	9-RC601, RC602 @ 1'-0" MAX.	9-RC501 @ 1'-0" MAX.	1'-10½"	3'-9"	2'-3 11/16"
PANEL "D"	8'-7 13/16"	8'-2½"	RC502 E.S.	RC505 E.S.	RC605	10-RC601, RC602 @ 1'-0" MAX.	10-RC501 @ 1'-0" MAX.	-	-	-
PANEL "E"	7'-6"	6'-8½"	RB502 E.S.	RB504 E.S.	RB604	8-RB601, RB602 @ 1'-0" MAX.	8-RB501 @ 1'-0" MAX.	1'-10½"	3'-7 1/16"	1'-2 9/16"
PANEL "F"	6'-5 9/16"	7'-2⅞"	RB502 E.S.	RB504 E.S.	RB604	8-RB601, RB602 @ 1'-0" MAX.	8-RB501 @ 1'-0" MAX.	1'-7 7/16"	3'-9"	1'-10½"
PANEL "G"	8'-7 11/16"	9'-2¼"	RC502 E.S.	RC505 E.S.	RC605	10-RC601, RC602 @ 1'-0" MAX.	10-RC501 @ 1'-0" MAX.	-	-	-
PANEL "H"	7'-6"	6'-11 5/16"	RC502 E.S.	RC504 E.S.	RC604	8-RC601, RC602 @ 1'-0" MAX.	8-RC501 @ 1'-0" MAX.	1'-3⅞"	3'-9"	1'-10½"
PANEL "I"	6'-5¾"	5'-11⅜"	RB502 E.S.	RB504 E.S.	RB604	7-RB601, RB602 @ 1'-0" MAX.	7-RB501 @ 1'-0" MAX.	1'-10½"	2'-10"	1'-2 15/16"
PANEL "J"	7'-6"	8'-0¼"	RB502 E.S.	RB505 E.S.	RB605	9-RB601, RB602 @ 1'-0" MAX.	9-RB501 @ 1'-0" MAX.	2'-4 13/16"	3'-9"	1'-10½"



MEDIAN ELEVATION

(RIGHT BRIDGE SHOWN, LEFT BRIDGE SIMILAR)

MEDIAN PANEL DIMENSIONS

	TOE DIM.	HEEL DIM.	I	J	K	L
PANEL "K"	7'-6"	7'-6"	RA502 E.S.	RA503 E.S.	RA601	8-RA501 @ 1'-0" MAX.
PANEL "L"	5'-0"	5'-0"	RA502 E.S.	RA504 E.S.	RA602	6-RA501 @ 1'-0" MAX.
PANEL "M"	6'-7 11/16"	6'-0½"	RA502 E.S.	RA505 E.S.*	RA603*	8-RA501 @ 1'-0" MAX.
PANEL "N"	5'-8 9/16"	6'-3 11/16"	RA502 E.S.	RA505 E.S.*	RA603*	7-RA501 @ 1'-0" MAX.
PANEL "O"	7'-6"	8'-1¼"	RA502 E.S.	RA506 E.S.*	RA604*	9-RA501 @ 1'-0" MAX.
PANEL "P"	8'-7 13/16"	8'-0 11/16	RA502 E.S.	RA506 E.S.*	RA604*	10-RA501 @ 1'-0" MAX.
PANEL "Q"	9'-0 3/16"	8'-4 15/16"	RA502 E.S.	RA506 E.S.*	RA604*	10-RA501 @ 1'-0" MAX.
PANEL "R"	10'-7¾"	11'-3⅛"	RA502 E.S.	RA508 E.S.*	RA606*	12-RA501 @ 1'-0" MAX.
PANEL "S"	8'-4 15/16"	9'-0 3/16"	RA502 E.S.	RA507 E.S.*	RA605*	10-RA501 @ 1'-0" MAX.
PANEL "T"	7'-6"	6'-10⅝"	RA502 E.S.	RA505 E.S.*	RA603*	8-RA501 @ 1'-0" MAX.

* = 2 LENGTHS

LEGEND:

E.S. = EACH SIDE
N.S. = NEAR SIDE
F.S. = FAR SIDE
P.E.J.F. = PREFORMED EXPANSION JOINT FILLER

NOTES:

1. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)

#5	3'-2"
#6	3'-9"

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE
ECT	ECT	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TMF	MAL	6002854	

BRIDGE PARAPET ELEVATION AND DETAILS
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

SUBMITTAL: Stage 3
PID: 93006
PENTABLE: 93006_ODOTV8i_Pen.tbl
PLOT DRIVER: ODOTcadd_PDF.pltcfg
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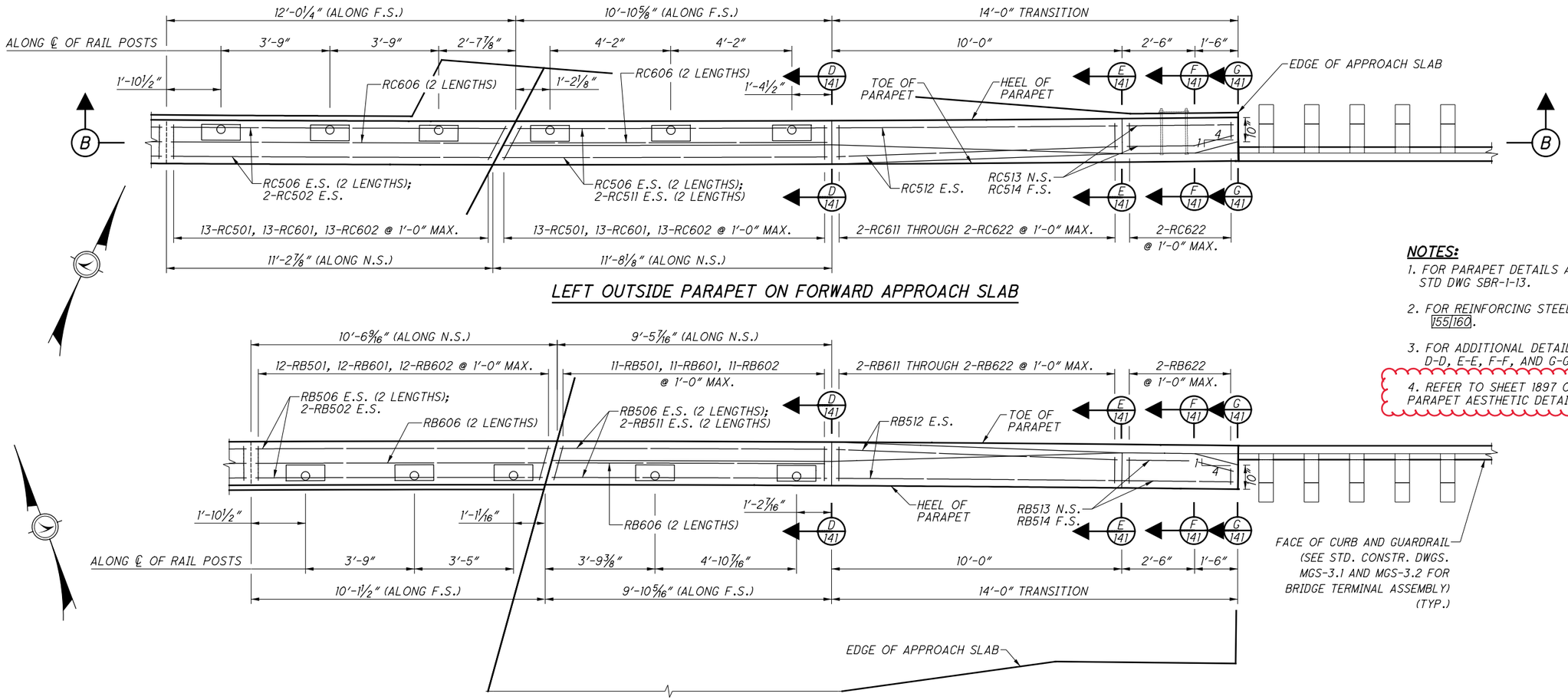
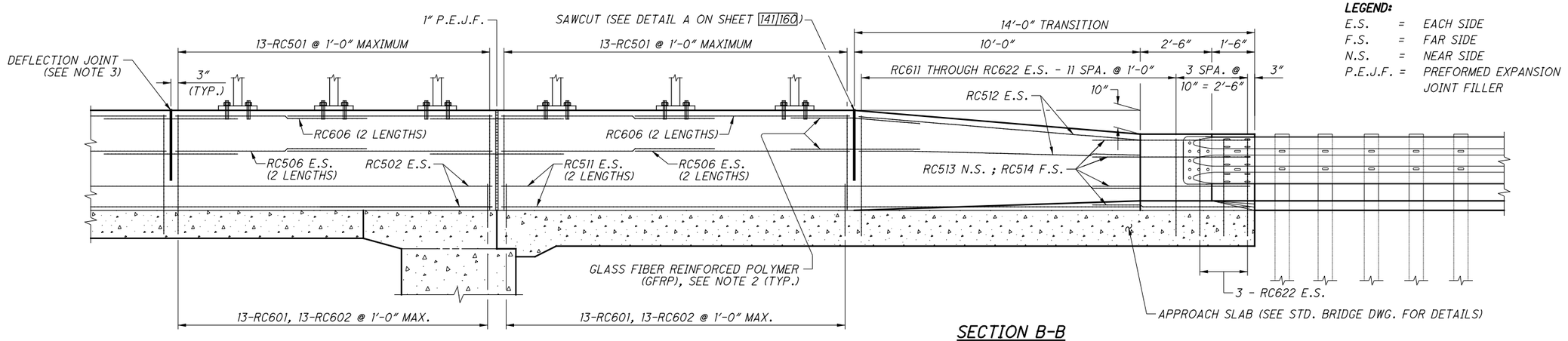


LEFT OUTSIDE PARAPET ON FORWARD APPROACH SLAB

NOTES:

1. FOR PARAPET DETAILS AND NOTES NOT SHOWN, SEE STD DWG SBR-1-13.
2. FOR REINFORCING STEEL LIST, SEE SHEET 154/160 155/160.
3. FOR ADDITIONAL DETAILS, NOTES, AND SECTIONS D-D, E-E, F-F, AND G-G, SEE SHEET 141/160.
4. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

RIGHT OUTSIDE PARAPET ON FORWARD APPROACH SLAB



LEGEND:

E.S.	=	EACH SIDE
F.S.	=	FAR SIDE
N.S.	=	NEAR SIDE
P.E.J.F.	=	PREFORMED EXPANSION JOINT FILLER

SECTION B-B

(LEFT SIDE SHOWN, RIGHT SIDE SIMILAR)

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

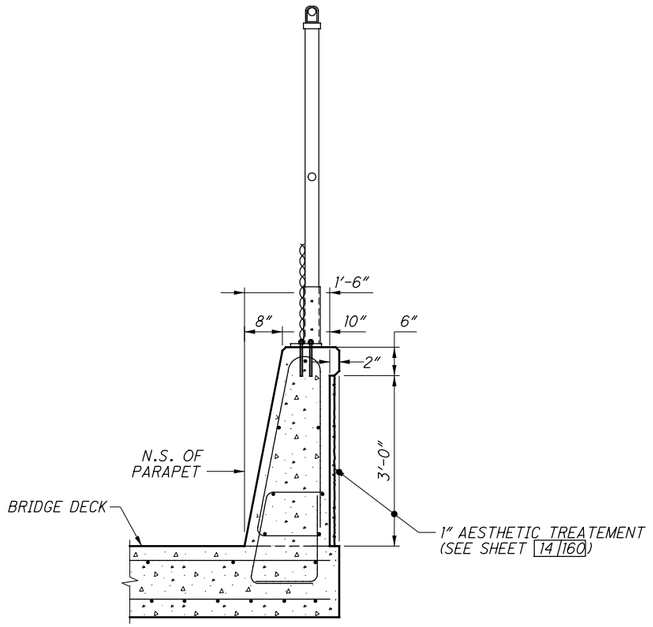
DESIGNED	DRAWN	REVIEWED	DATE
ECT	ECT	MTO	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TMF	MAL	6002854	

LEFT AND RIGHT BRIDGE PARAPET TRANSITION PLAN

BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

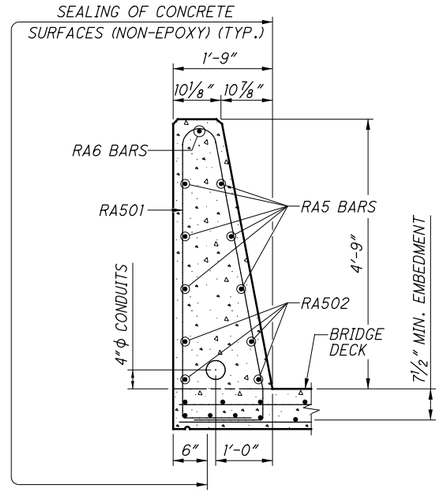
MUS-70-10.49
PID No. 93006

1586/2231



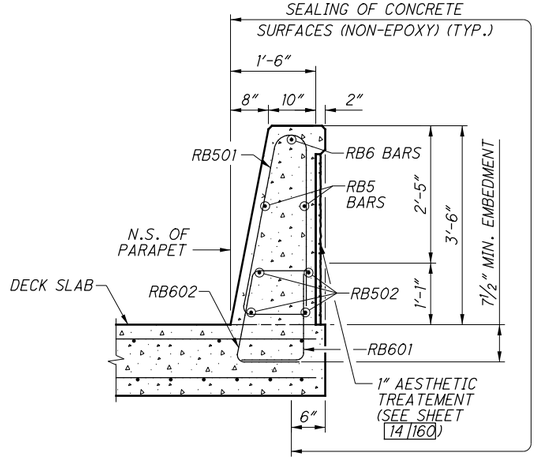
AESTHETIC DETAIL

(GFRP NOT SHOWN)
(RIGHT PARAPET SHOWN, LEFT PARAPET SIMILAR)



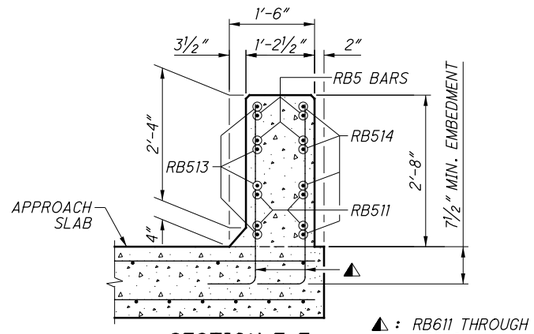
SECTION C-C

(GFRP NOT SHOWN)
(LEFT PARAPET SHOWN, RIGHT PARAPET SIMILAR)



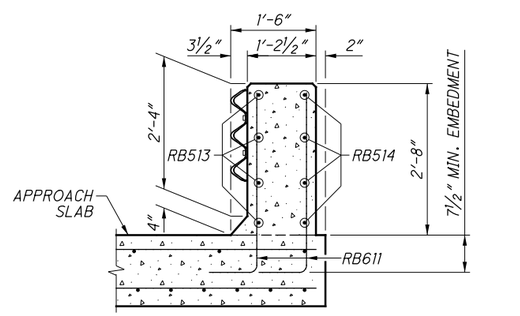
SECTION D-D

(FENCE POST AND GFRP NOT SHOWN)
(RIGHT PARAPET SHOWN, LEFT PARAPET SIMILAR)



SECTION E-E

(RIGHT PARAPET SHOWN, LEFT PARAPET SIMILAR)



SECTION F-F

(RIGHT PARAPET SHOWN, LEFT PARAPET SIMILAR)

NOTES:

1. FOR REINFORCING STEEL LIST, SEE SHEETS 14|160 & 155|160.

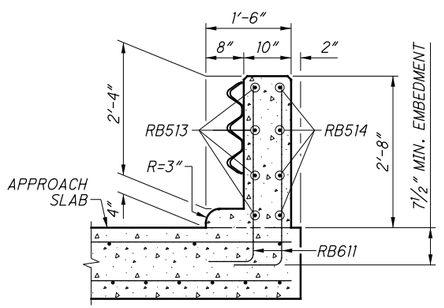
2. RAIL POSTS ARE ABSENT BETWEEN PIERS 2 AND 7 ON THE LEFT EXTERIOR RAIL

3. PAYMENT FOR ½" DIA. GLASS FIBER REINFORCED POLYMER (GFRP) STIFFENING REINFORCEMENT SHALL BE INCLUDED WITH CONTRACT PRICE FOR ITEM 509 - EPOXY COATED REINFORCING STEEL.

4. LIMITS OF SAWCUT IS SHOWN IN DETAIL A. THE 4" SAWCUT DEPTH SHOWN IN DETAIL A IS THE MINIMUM REQUIRED. HOWEVER, THE CONTRACTOR HAS AN OPTION TO PERFORM FULL DEPTH SAWCUT.

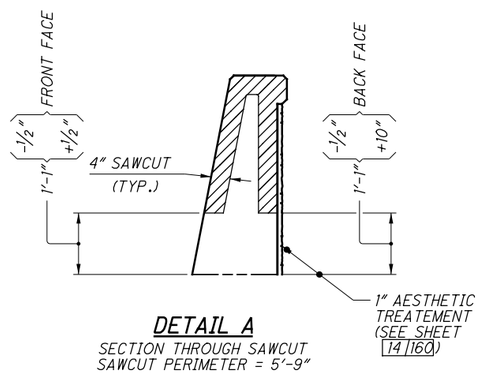
5. SEE ODOT STANDARD DRAWINGS SBR-1-13 AND SBR-2-13 FOR ADDITIONAL DETAILS AND NOTES

6. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.



SECTION G-G

(RIGHT PARAPET SHOWN, LEFT PARAPET SIMILAR)



DETAIL A

SECTION THROUGH SAWCUT
SAWCUT PERIMETER = 5'-9"

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

DESIGNED	DRAWN	REVIEWED	DATE	STRUCTURE FILE NUMBER
ECT	ECT	MTO	12/2020	6002854
CHECKED	REVISED			
TMF	MAL			

BRIDGE PARAPET TRANSITION SECTIONS AND DETAILS
BRIDGE NO. MUS-70-1159
OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

141/160

1587/2231

SHEET NUM.										PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
PHASE 1	PHASE 2	PHASE 3								02/IMS/BR						
0.34 LS	0.33 LS	0.33 LS								LS	202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUPERSTRUCTURE)	3
0.34 LS	0.33 LS	0.33 LS								LS	202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUBSTRUCTURE)	3
144	203	150								497	202	22901	497	SY	APPROACH SLAB REMOVED, AS PER PLAN	3
LS										LS	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	3
0.34 LS	0.33 LS	0.33 LS								LS	503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	3
	0.5 LS	0.5 LS								LS	505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
	422	49								471	507	00500	471	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	3
	462	54								516	507	00550	516	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	3
65,743	90,316	59,044								215,103	509	10000	215,103	LB	EPOXY COATED REINFORCING STEEL	
	9,985									9,985	509	40000	9,985	LB	REINFORCING STEEL, MISC.: GALVANIZED	3
89	42	58								189	510	10000	189	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
268	345	228								841	511	32213	841	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN	3
	26	26								52	511	34461	52	CY	CLASS QC SCC CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN	64-66
	26									26	511	41012	26	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS	
72	134	69								275	511	43512	275	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	
	13									13	511	46512	13	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	
55										55	511	53012	55	CY	CLASS QC2 CONCRETE, MISC.: MEDIAN BARRIER	62
322	360	273								955	512	10050	955	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
61	62	61								184	512	10100	184	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
116	149	98								363	516	13201	363	SF	1/2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
169	183	140								492	516	13601	492	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
	18	17								35	516	13901	35	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
69	94	63								226	516	14020	226	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
69	89	57								215	516	14600	215	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	81
69	89	57								215	516	31011	215	FT	2" DEEP JOINT SEALER, AS PER PLAN	4
1										1	516	42000	1	EACH	ELASTOMERIC BEARING PAD, MISC.: (34'-9" x 8" x 1-1/2")	3
1										1	516	42000	1	EACH	ELASTOMERIC BEARING PAD, MISC.: (34'-6" x 8" x 1-1/2")	3
	1									1	516	42000	1	EACH	ELASTOMERIC BEARING PAD, MISC.: (47'-10" x 8" x 1-1/2")	3
	1									1	516	42000	1	EACH	ELASTOMERIC BEARING PAD, MISC.: (41'-9" x 8" x 1-1/2")	3
		1								1	516	42000	1	EACH	ELASTOMERIC BEARING PAD, MISC.: (29'-6" x 8" x 1-1/2")	3
		1								1	516	42000	1	EACH	ELASTOMERIC BEARING PAD, MISC.: (29'-4" x 8" x 1-1/2")	3
5	4	5								14	518	12000	14	EACH	SCUPPERS, INCLUDING SUPPORTS	
23	38	15								76	518	21200	76	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
69	89	63								221	518	40000	221	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
29	43	31								103	518	40010	103	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
553	562	548								1,663	SPECIAL	51900100	1,663	SF	COMPOSITE FIBER WRAP SYSTEM	4
	1	1								2	523	20000	2	EACH	DYNAMIC LOAD TESTING	3
188	245	160								593	526	25001	593	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	4
	LS									LS	SPECIAL	53000200	LS		STRUCTURES (PRECONSTRUCTION CONDITION SURVEY)	4
	0.9 LS	0.1 LS								LS	SPECIAL	53000200	LS		STRUCTURES (VIBRATION MONITORING)	4
	464	460								924	SPECIAL	53000600	924	SF	STRUCTURES (AESTHETIC TREATMENT CONCRETE FORMLINER/STAIN)	4

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DATE
REVIEWED TAG 11/23/2020

STRUCTURE FILE NUMBER
6002889

DRAWN TDF

REVISED .

DESIGNED TDF

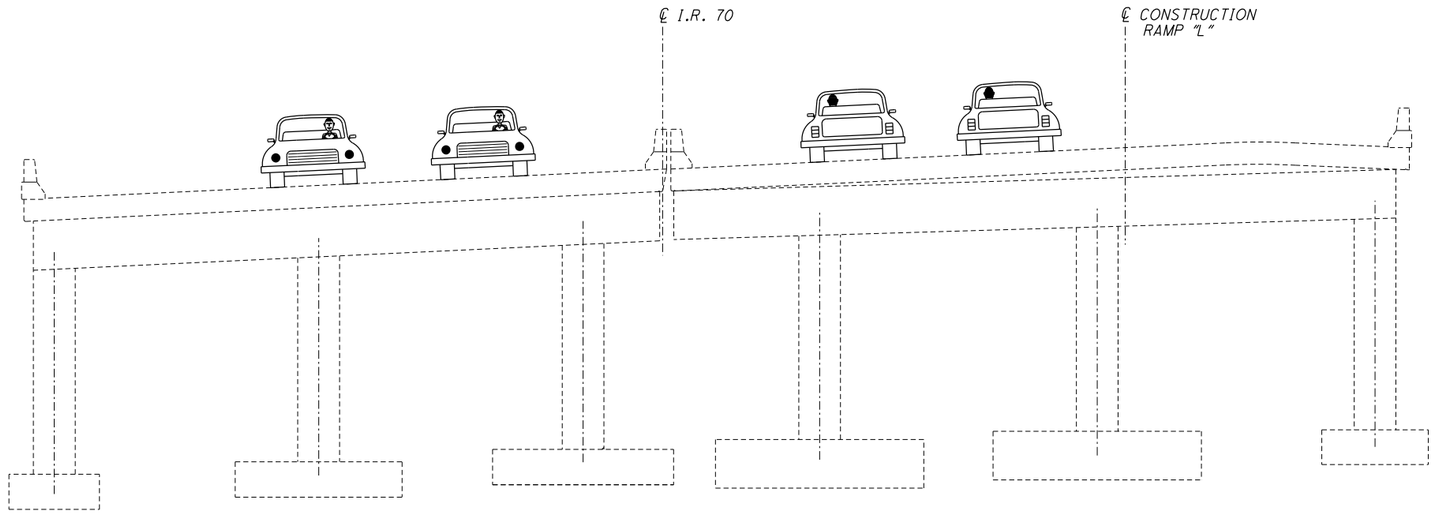
CHECKED CPS

BRIDGE SUMMARY
BRIDGE NO. MUS-70-11.86
OVER N. 5TH STREET

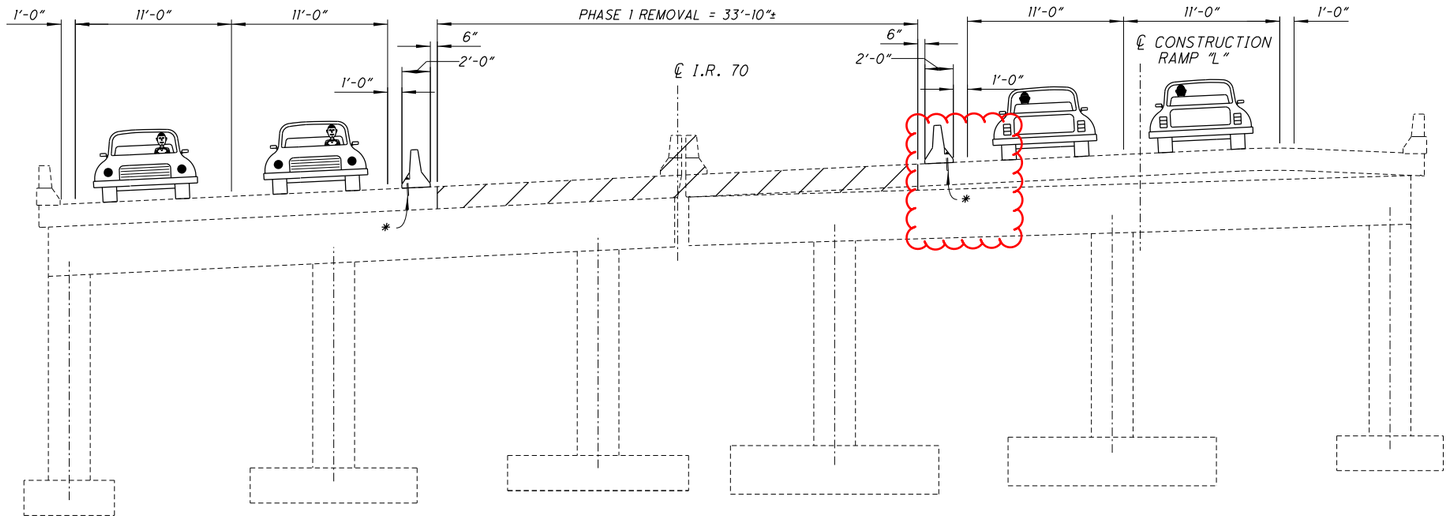
MUS-70-10.49
PID No. 93006

5 / 81

1611
2231



EXISTING TRANSVERSE SECTION



PHASE 1 REMOVAL

* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

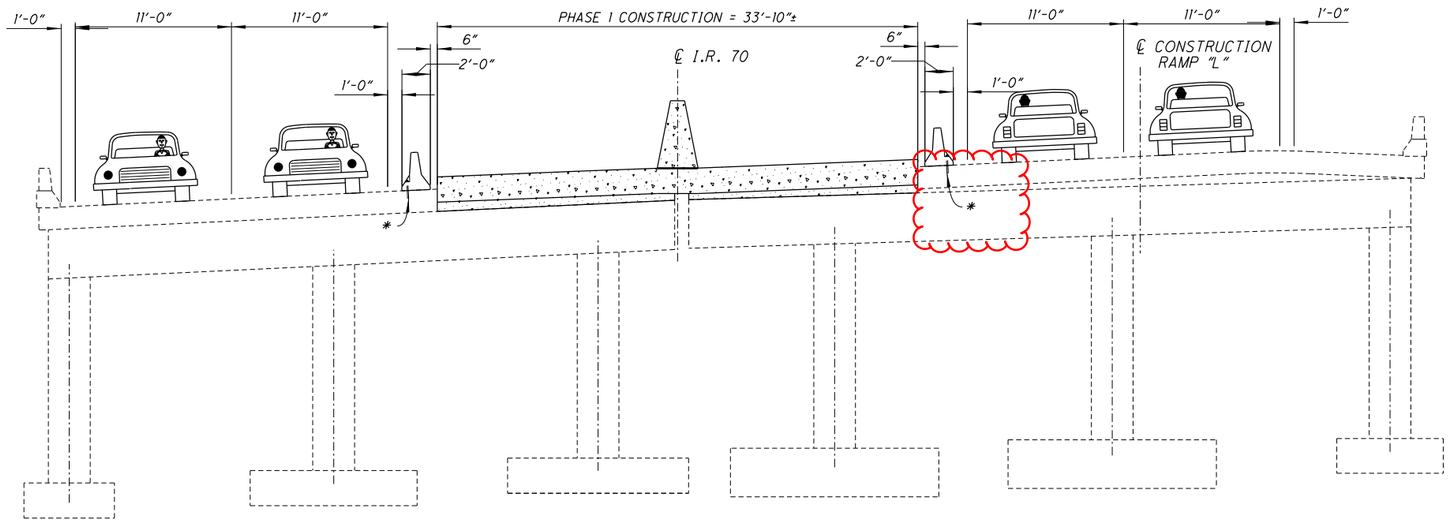
DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
TAG	TAG	TAG	11/23/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CPS		6002889	

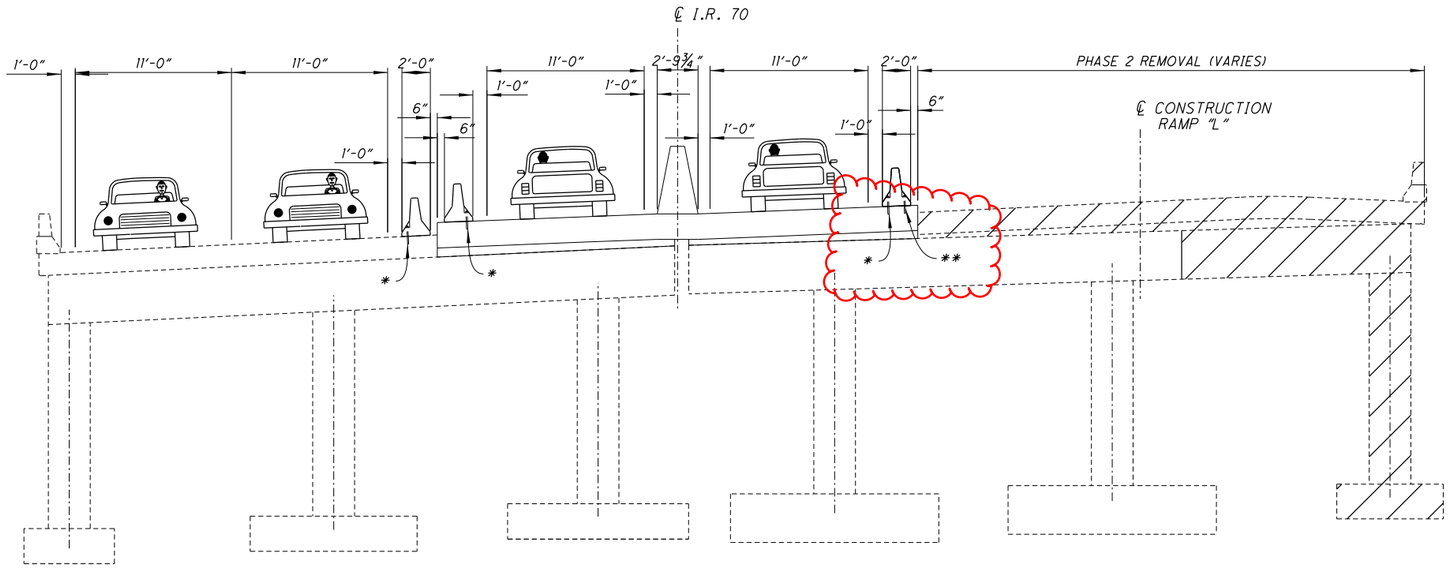
MAINTENANCE OF TRAFFIC
BRIDGE NO. MUS-70-11.86
OVER N. 5TH STREET

MUS-70-10.49
PID No. 93006

1612
2231



PHASE 1 REPLACEMENT



PHASE 2 REMOVAL

* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

** - A MINIMUM OF 2 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

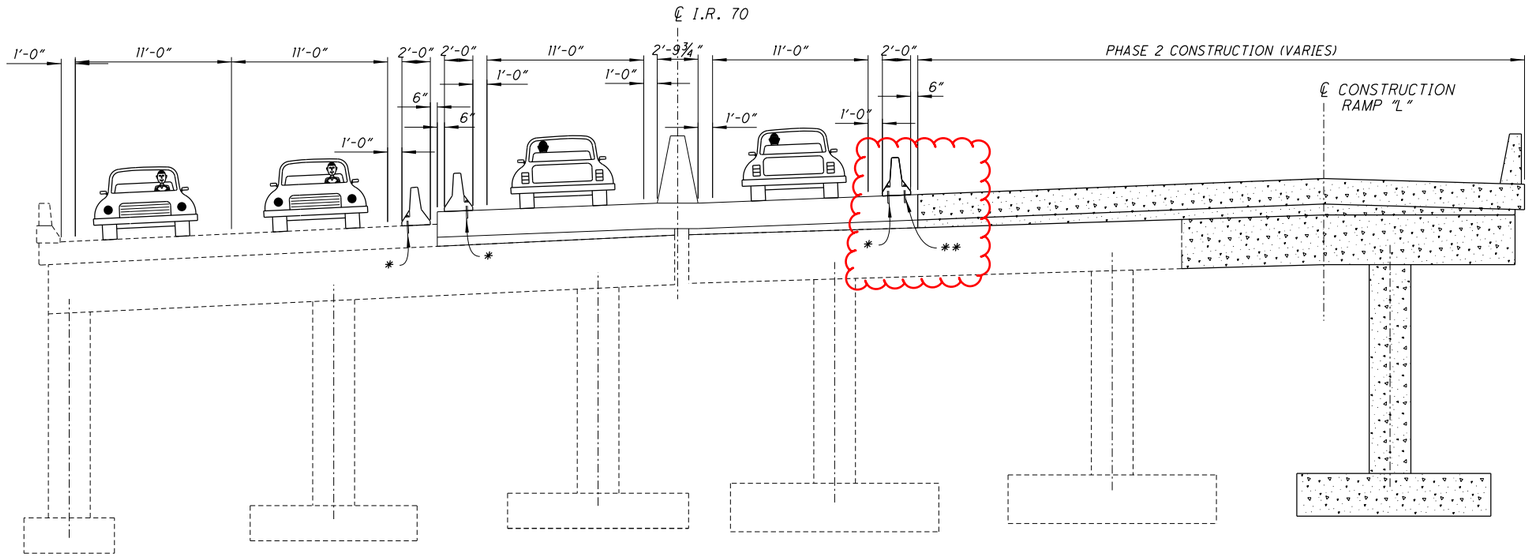
DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
TAG	TAG	TAG	11/23/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CPS		6002889	

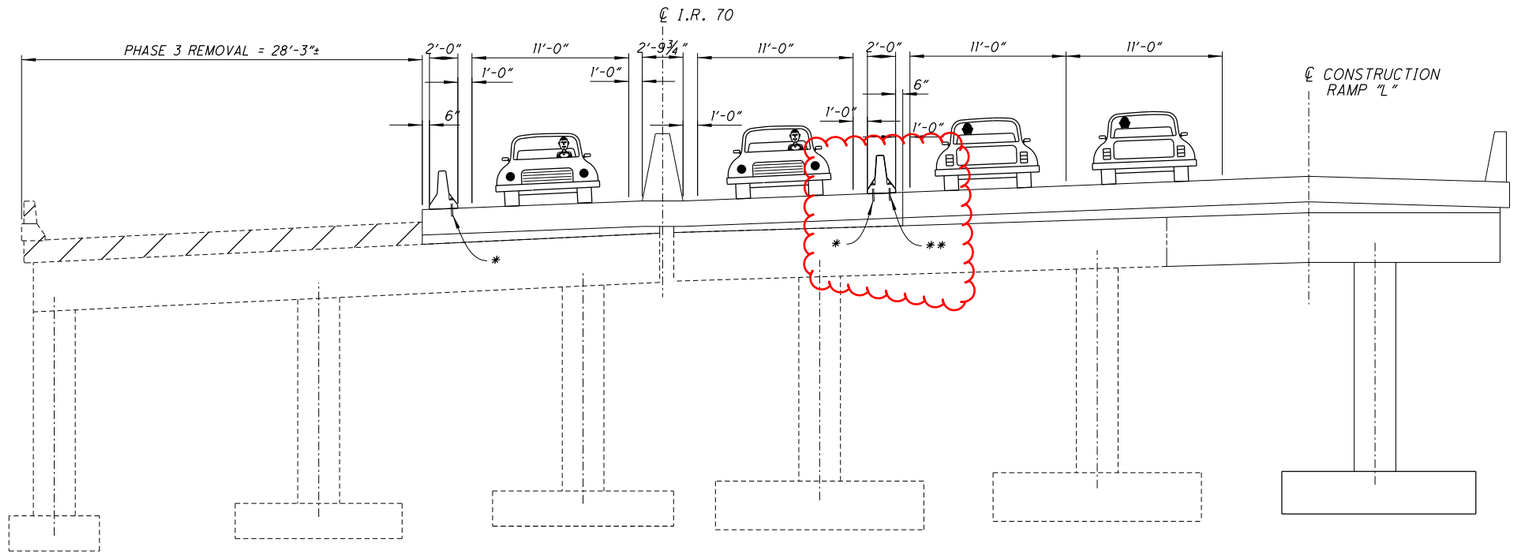
MAINTENANCE OF TRAFFIC
BRIDGE NO. MUS-70-11.86
OVER N. 5TH STREET

MUS-70-10.49
PID No. 93006

1613
2231



PHASE 2 REPLACEMENT



PHASE 3 REMOVAL

* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

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DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
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CPS		6002889	

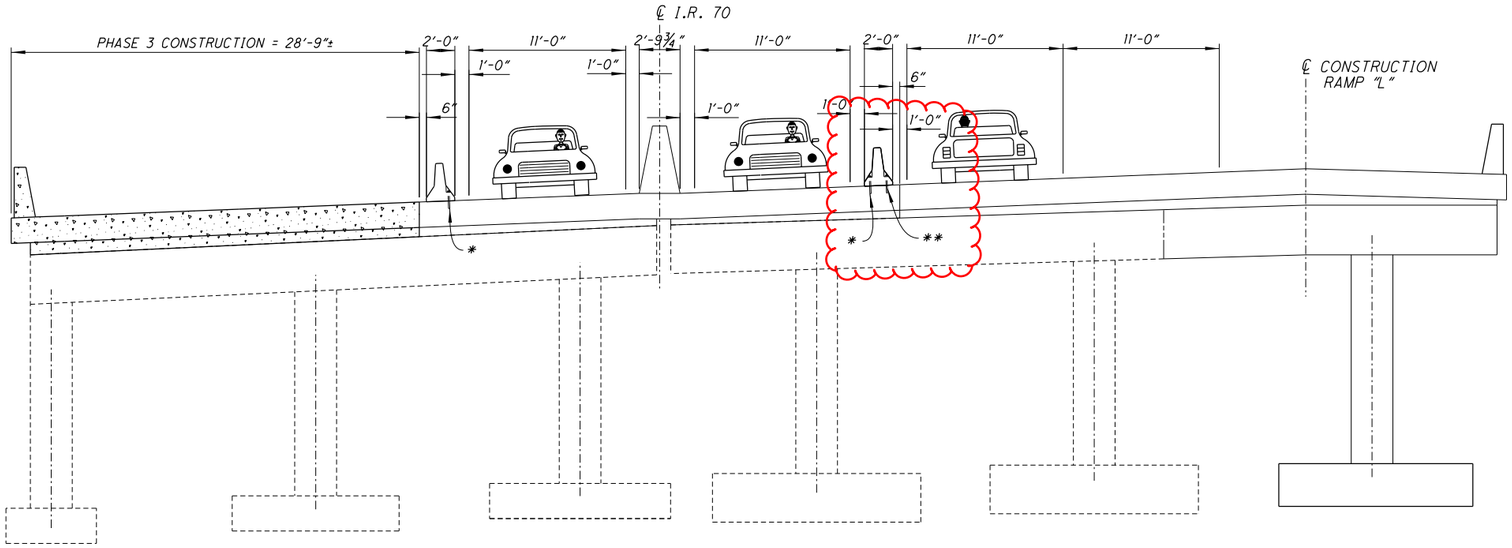
MAINTENANCE OF TRAFFIC

BRIDGE NO. MUS-70-11.86
OVER N. 5TH STREET

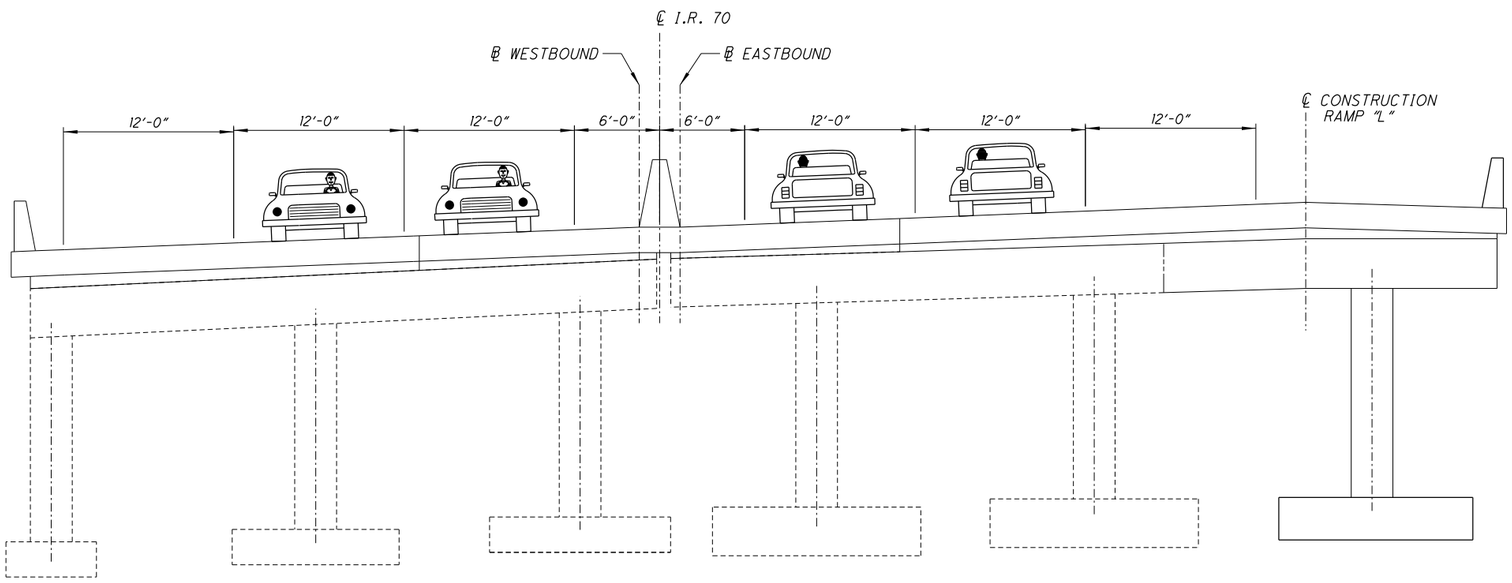
MUS-70-10.49
PID No. 93006

8 / 81

1614
2231



PHASE 3 REPLACEMENT



PROPOSED TRANSVERSE SECTION

* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

** - A MINIMUM OF 2 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
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MAINTENANCE OF TRAFFIC
BRIDGE NO. MUS-70-11.86
OVER N. 5TH STREET

MUS-70-10.49
PID No. 93006

9 / 81

1615
2231

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MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
PHASE 2											
REAR ABUTMENT											
P2R401	10	10'-0"	67	3	1'-9"	3'-0"					
P2R501	33	12'-1"	416	3	3'-2"	2'-7"					
P2R502	7	21'-1"	154	3	7'-8"	2'-7"					
P2R503	1 SERIES OF 21	24'-1" TO 26'-3"	551	3	2'-2"	9'-7" TO 10'-8"					0'-1.3"
P2R504	1 SERIES OF 11	25'-5" TO 26'-3"	296	3	2'-2"	10'-3" TO 10'-8"					0'-1"
P2R505	8	30'-0"	250	2	14'-6"	1'-2"	14'-6"				
P2R506	20	8'-1"	169	20	3'-3"	2'-6"	0'-8"	2'-6"	3'-3"		
P2R507	4	28'-0"	117	STR.							
P2R508	4	18'-11"	79	STR.							
P2R509	3	11'-2"	35	STR.							
P2R510	3	10'-0"	31	STR.							
P2R511	12	26'-10"	336	STR.							
P2R512	10	18'-11"	197	STR.							
P2R513	12	9'-11"	124	STR.							
P2R514	8	6'-11"	58	2	3'-0"	1'-2"	3'-0"				
P2R515	8	5'-11"	49	2	2'-6"	1'-2"	2'-6"				
P2R516	2	15'-1"	31	19	10'-3.5"	4'-10"	0'-6"				
P2R517	4	15'-1"	63	STR.							
P2R801	8	25'-8"	548	STR.							
P2R802	4	24'-1"	257	STR.							
P2R803	4	11'-2"	119	STR.							
P2R804	3	10'-0"	80	STR.							
P2R805	4	13'-3"	142	STR.							
P2R806	4	15'-6"	166	19	7'-9"	7'-8.7"	0'-6.5"				
REAR ABUTMENT SUB-TOTAL			4335								
FORWARD ABUTMENT											
P2F401	20	10'-0"	134	3	1'-9"	3'-0"					
P2F501	44	12'-1"	554	3	3'-2"	2'-7"					
P2F502	1 SERIES OF 25	22'-5" TO 25'-1"	619	3	2'-2"	8'-9" TO 10'-1"					0'-1.3"
P2F503	1 SERIES OF 11	24'-3" TO 25'-1"	283	3	2'-2"	9'-8" TO 10'-1"					0'-1"
P2F504	8	28'-9"	240	2	13'-11"	1'-2"	13'-11"				
P2F505	11	5'-8"	65	19	3'-0"	0'-9"	2'-11"				
P2F506	16	32'-3"	538	STR.							
P2F507	14	20'-5"	298	STR.							
P2F508	4	10'-11"	46	STR.							
P2F509	9	6'-9"	63	20	1'-10"	2'-5"	1'-4"	2'-5"	1'-10"		
P2F510	12	9'-6"	119	STR.							
P2F511	8	6'-11"	58	2	3'-0"	1'-2"	3'-0"				
P2F512	8	5'-11"	49	2	2'-6"	1'-2"	2'-6"				
P2F513	2	14'-9"	31	19	9'-11"	4'-10"	0'-7"				
P2F514	4	14'-10"	62	STR.							
P2F801	4	35'-9"	382	STR.							
P2F802	4	19'-11"	213	STR.							
P2F803	4	10'-11"	117	STR.							
P2F804	4	31'-8"	338	STR.							
P2F805	4	13'-9"	147	STR.							
P2F806	4	15'-6"	166	19	7'-9"	7'-9"	0'-6.5"				
FORWARD ABUTMENT SUB-TOTAL			4522								

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
DIAPHRAGMS											
P2D501	92	7'-1"	679	3	2'-2"	1'-1"					
P2D502	184	7'-1"	1359	2	2'-10"	1'-8"	2'-10"				
P2D801	60	6'-0"	961	18	3'-8"	1'-0"	1'-0"				
P2D802	10	25'-8"	685	STR.							
P2D803	10	31'-8"	846	STR.							
P2D804	20	12'-0"	641	STR.							
P2D805	20	15'-6"	828	19	7'-9"	7'-8.7"	0'-6.5"				
DIAPHRAGMS SUB-TOTAL			5999								
PIERS											
P2P501	42	2'-7"	113	16	2'-0"						
P2P502	48	3'-2"	159	17	2'-0"						
P2P503	57	7'-0"	416	6	2'-8"	1'-5"	1'-0"				
P2P801	8	31'-6"	673	STR.							
P2P802	8	16'-9"	358	STR.							
PIERS SUB-TOTAL			1719								
DECK											
P2S401	91	3'-7"	218	2	1'-3"	1'-3.5"	1'-3"				
P2S402	8	3'-0"	16	STR.							
P2S501	1 SERIES OF 111	26'-8" TO 32'-9"	3440	STR.							0'-0.66"
P2S502	111	13'-0"	1505	STR.							
P2S503	111	7'-11"	917	19	4'-0"	3'-11"	0'-3"				
P2S504	173	21'-5"	3865	STR.							
P2S505	86	15'-8"	1406	STR.							
P2S506	1	10'-7"	11	STR.							
P2S507	1	11'-5"	12	STR.							
P2S508	1 SERIES OF 3	5'-6" TO 19'-7"	39	STR.							7'-0.5"
P2S601	1 SERIES OF 99	26'-8" TO 32'-9"	4418	STR.							0'-0.74"
P2S602	99	13'-0"	1933	STR.							
P2S603	99	8'-11"	1326	19	4'-6"	4'-5"	0'-4"				
P2S801	171	37'-11"	17313	16	37'-0"						
P2S802	84	46'-9"	10485	STR.							
P2S803	1 SERIES OF 2	14'-10" TO 27'-0"	112	STR.							12'-2"
P2S804	1 SERIES OF 5	9'-0" TO 46'-2"	368	STR.							9'-3.5"
P2S805	1 SERIES OF 5	6'-5" TO 35'-9"	281	16	5'-6" TO 34'-10"						7'-4"
P2S806	3	42'-6"	434	STR.							
P2S901	170	35'-2"	20328	STR.							
P2S902	1 SERIES OF 3	8'-10" TO 30'-1"	198	STR.							10'-7.5"
P2S903	1 SERIES OF 4	9'-9" TO 34'-0"	298	STR.							8'-1"
DECK SUB-TOTAL			68923								

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

REVIEWED TAG DATE 11/23/2020
STRUCTURE FILE NUMBER 6002889

DRAWN TDF
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CHECKED CPS

REINFORCEMENT STEEL SCHEDULE - PHASE 2 (1 OF 2)

BRIDGE NO. MUS-70-11.86
OVER N. 5TH STREET

MUS-70-10.49
PID No. 93006

69 / 81

16.75
2231

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
PHASE 3											
REAR ABUTMENT											
P3R401	10	10'-0"	67	3	1'-9"	3'-0"					
P3R501	26	12'-1"	328	3	3'-2"	2'-7"					
P3R502	1 SERIES OF 22	19'-5" TO 21'-7"	470	3	2'-2"	7'-3" TO 8'-4"					0'-1.23"
P3R503	4	25'-9"	107	3	1'-11"	10'-8"					
P3R504	12	29'-4"	367	STR.							
P3R505	12	9'-11"	124	25	4'-4"	0'-3"	4'-4"	1'-1"			
P3R506	4	3'-8"	15	STR.							
P3R507	4	3'-2"	13	STR.							
P3R801	4	29'-4"	313	STR.							
P3R802	4	9'-11"	106	25	4'-4"	0'-3"	4'-4"	1'-1"			
P3R803	4	30'-4"	324	STR.							
REAR ABUTMENT SUB-TOTAL			2234								
FORWARD ABUTMENT											
P3F401	10	10'-0"	67	3	1'-9"	3'-0"					
P3F501	24	12'-1"	302	3	3'-2"	2'-7"					
P3F502	1 SERIES OF 23	17'-5" TO 19'-9"	446	3	2'-2"	6'-3" TO 7'-5"					0'-1.27"
P3F503	5	16'-11"	88	3	5'-7"	2'-7"					
P3F504	7	22'-1"	161	2	10'-7"	1'-2"	10'-7"				
P3F505	4	31'-3"	130	STR.							
P3F506	8	8'-1"	67	STR.							
P3F507	16	7'-2"	120	20	2'-9"	2'-3"	0'-8"	2'-3"	2'-9"		
P3F508	6	30'-7"	191	STR.							
P3F509	2	23'-5"	49	STR.							
P3F510	8	6'-9"	56	STR.							
P3F511	7	6'-11"	51	2	3'-0"	1'-2"	3'-0"				
P3F512	8	5'-11"	49	2	2'-6"	1'-2"	2'-6"				
P3F513	2	11'-9"	25	19	7'-0"	4'-11"	0'-8"				
P3F514	4	11'-9"	49	STR.							
P3F801	4	31'-3"	334	STR.							
P3F802	4	8'-1"	86	STR.							
P3F803	2	6'-0"	32	STR.							
P3F804	4	30'-7"	327	STR.							
FORWARD ABUTMENT SUB-TOTAL			2630								
DIAPHRAGMS											
P3D501	61	6'-10"	435	3	2'-2"	1'-1"					
P3D502	122	7'-2"	912	2	2'-10"	1'-8"	2'-10"				
P3D801	40	6'-0"	641	18	3'-8"	1'-0"	1'-0"				
P3D802	10	30'-4"	810	STR.							
P3D803	10	29'-2"	779	STR.							
DIAPHRAGMS SUB-TOTAL			3577								

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
PIERS											
P3P501	58	2'-7"	156	16	2'-0"						
P3P502	38	7'-0"	277	6	2'-8"	1'-5"	1'-0"				
P3P801	8	27'-9"	593	STR.							
PIERS SUB-TOTAL			1026								
DECK											
P3S401	91	3'-8"	223	2	1'-3"	1'-3.5"	1'-3"				
P3S402	10	3'-0"	20	STR.							
P3S501	111	29'-3"	3386	STR.							
P3S502	116	21'-5"	2592	STR.							
P3S503	58	15'-8"	948	STR.							
P3S601	99	29'-3"	4349	STR.							
P3S801	116	37'-11"	11745	16	37'-0"						
P3S802	58	46'-9"	7240	STR.							
P3S803	3	42'-6"	434	STR.							
P3S901	116	35'-2"	13871	STR.							
DECK SUB-TOTAL			44808								
PARAPET											
HORIZONTAL BARS											
P3X501	16	10'-0"	167	STR.							
P3X502	8	5'-8"	47	25	1'-10"	2'-5"	0'-1.5"	0'-5"			
P3X503	8	5'-8"	47	STR.							
P3X504	4	4'-1"	17	STR.							
P3X505	8	12'-11"	108	STR.							
P3X506	4	10'-8"	45	STR.							
P3X507	30	6'-8"	209	STR.							
P3X508	12	40'-0"	501	STR.							
P3X509	4	6'-0"	25	STR.							
P3X601	2	4'-1"	12	STR.							
P3X602	2	10'-8"	32	STR.							
P2X603	15	6'-8"	150	STR.							
VERTICAL BARS											
P3Y501	154	10'-0"	1606	23	0'-11"	3'-3"	3'-0"			0'-2.75"	
P3Y601	130	2'-6"	488	1	1'-0"	1'-8"					
P3Y602	130	3'-5"	668	28	1'-8"	0'-11"	1'-0"				
P3Y603	24	2'-5"	87	1	1'-0"	1'-7"					
P3Y604	24	4'-10"	174	28	1'-7"	0'-11"	1'-0"				
P3Y605	4 SERIES OF 11	4'-0" TO 4'-10"	292	1	1'-0"	3'-2" TO 4'-0"					0'-1"
P3Y606	16	3'-11"	94	1	1'-0"	3'-1"					
LEFT PARAPET SUB-TOTAL			4769								

REAR ABUTMENT SUB-TOTAL	2234
FORWARD ABUTMENT SUB-TOTAL	2630
DIAPHRAGMS SUB-TOTAL	3577
PIERS SUB-TOTAL	1026
DECK SUB-TOTAL	44808
LEFT PARAPET SUB-TOTAL	4769
PHASE 3 TOTAL	59044

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5

REVIEWED TAG DATE 11/23/2020
STRUCTURE FILE NUMBER 6002889

DRAWN TDF
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DESIGNED TDF
CHECKED CPS

REINFORCEMENT STEEL: SCHEDULE - PHASE 3

BRIDGE NO. MUS-70-11.86
OVER N. 5TH STREET

MUS-70-10.49
PID No. 93006

71 / 81

16.77
22.31

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SHEET NUM.										PHASE 1	PHASE 2	PHASE 3	PART. 02/IMS/BR	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
																		STRUCTURE OVER 20 FOOT SPAN (MUS-70-1192)	
										0.34 LS	0.33 LS	0.33 LS	LS	202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUPERSTRUCTURE)	3
										0.34 LS	0.33 LS	0.33 LS	LS	202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUBSTRUCTURE)	3
										144	146	147	437	202	22901	437	SY	APPROACH SLAB REMOVED, AS PER PLAN	3
										LS			LS	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	3
										0.34 LS	0.33 LS	0.33 LS	LS	503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	3
										96,464	87,089	87,162	270,715	509	10000	270,715	LB	EPOXY COATED REINFORCING STEEL	
										107	56	58	221	510	10000	221	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
										418	354	356	1,128	511	32213	1,128	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN	3
											29	31	60	511	34461	60	CY	CLASS QC SCC CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN	58-60
										57	74	59	190	511	43512	190	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	
										66			66	511	53012	66	CY	CLASS QC2 CONCRETE, MISC.: MEDIAN BARRIER	56
										361	334	322	1,017	512	10050	1,017	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
										56	62	50	168	512	10100	168	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
										113	96	96	305	516	13201	305	SF	1/2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
										162	117	118	397	516	13601	397	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
											46	19	65	516	13901	65	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
										68	61	61	190	516	14020	190	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
										68	55	55	178	516	14600	178	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	72
										68	55	55	178	516	31011	178	FT	2" DEEP JOINT SEALER, AS PER PLAN	4
										2			2	516	42000	2	EACH	ELASTOMERIC BEARING PAD, MISC.: (34'-0" x 8" x 1-1/2")	3
											2	2	4	516	42000	4	EACH	ELASTOMERIC BEARING PAD, MISC.: (28'-11" x 8" x 1-1/2")	3
										7		7	14	518	12000	14	EACH	SCUPPERS, INCLUDING SUPPORTS	
										23	25	14	62	518	21200	62	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
										68	58	58	184	518	40000	184	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
										29	31	34	94	518	40010	94	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
										504	561	447	1,512	SPECIAL	51900100	1,512	SF	COMPOSITE FIBER WRAP SYSTEM	3
										188	156	160	504	526	25001	504	SY	REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	3
											512	557	1,069	SPECIAL	53000600	1,069	SF	STRUCTURES (AESTHETIC TREATMENT CONCRETE FORMLINER/STAIN)	4

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DATE REVIEWED TAG 11/24/2020
STRUCTURE FILE NUMBER 6002919

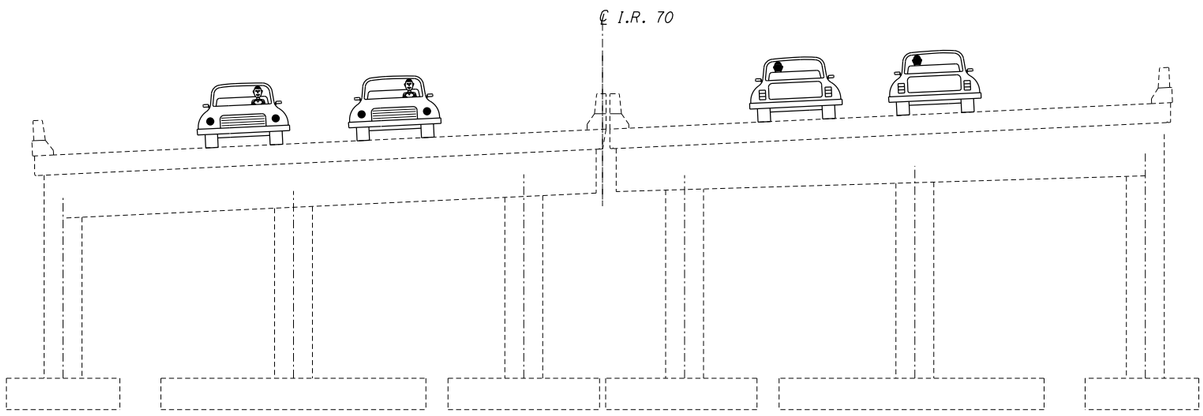
DRAWN TDF
REVISED

DESIGNED TDF
CHECKED CPS

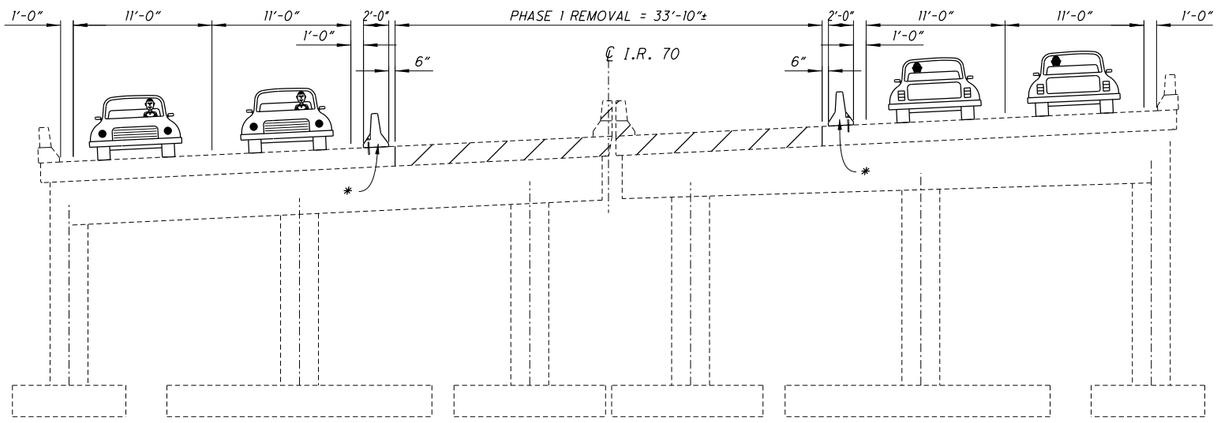
BRIDGE SUMMARY
BRIDGE NO. MUS-70-11.92
OVER N. 6TH STREET

MUS-70-10.49
PID No. 93006

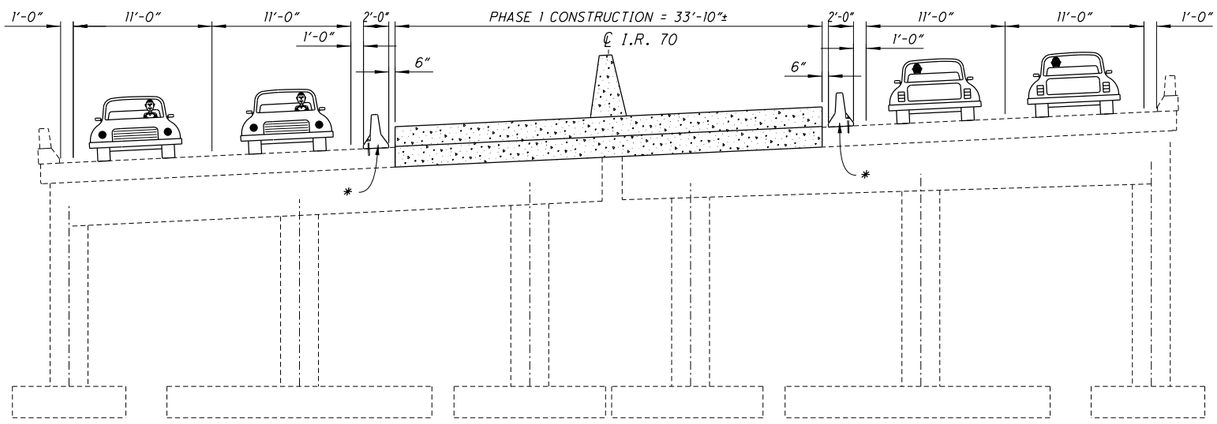
1692
2231



EXISTING TRANSVERSE SECTION



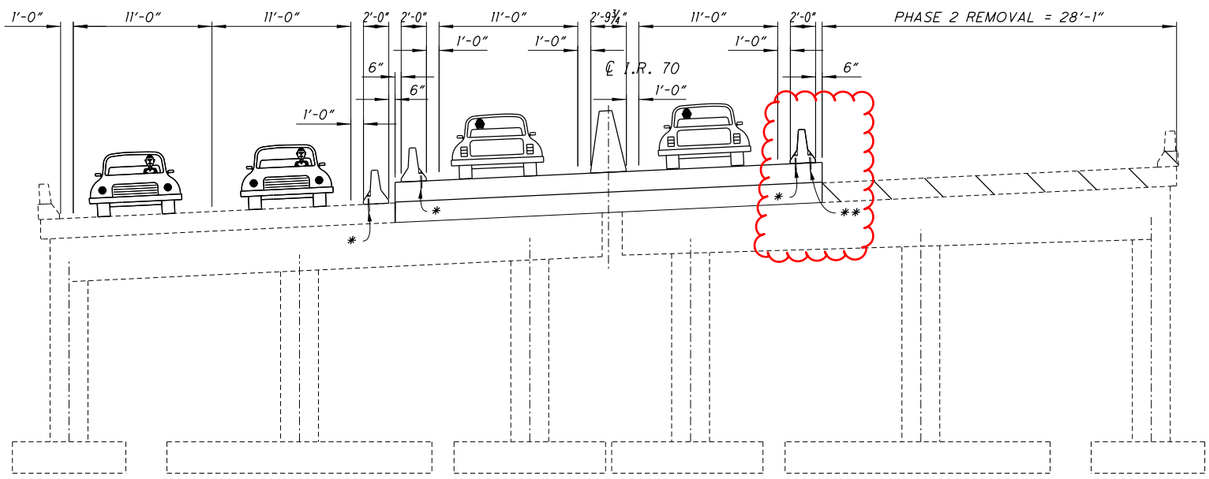
PHASE 1 REMOVAL



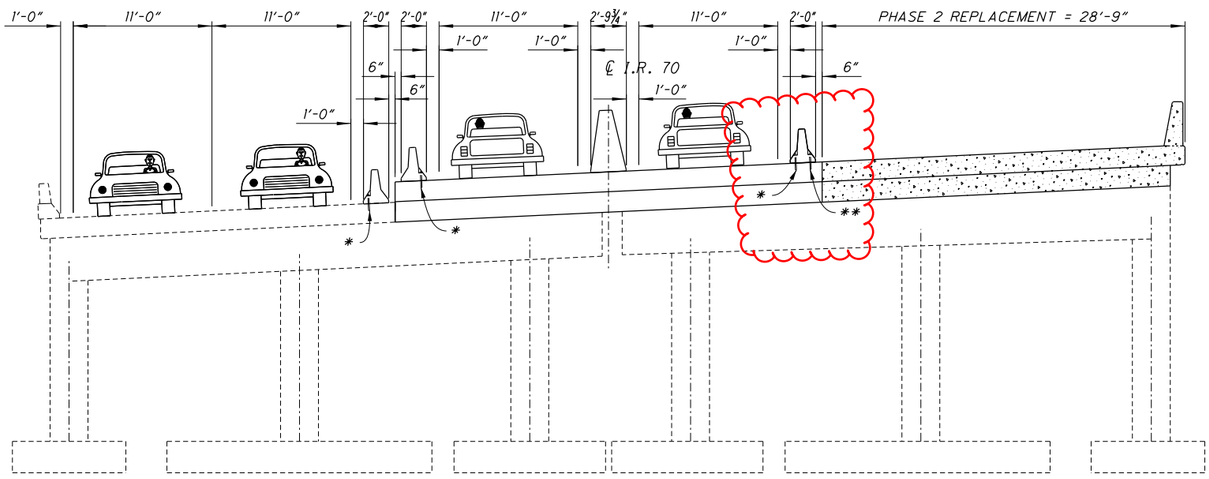
PHASE 1 REPLACEMENT

* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

NOTE: PRIOR TO ANY REMOVAL OF THE SUPERSTRUCTURE THE TRAFFIC SIGNAL WIRING WILL HAVE TO BE RELOCATED. SEE SIGNAL DETAILS, PLAN SHEET 1229/2231.

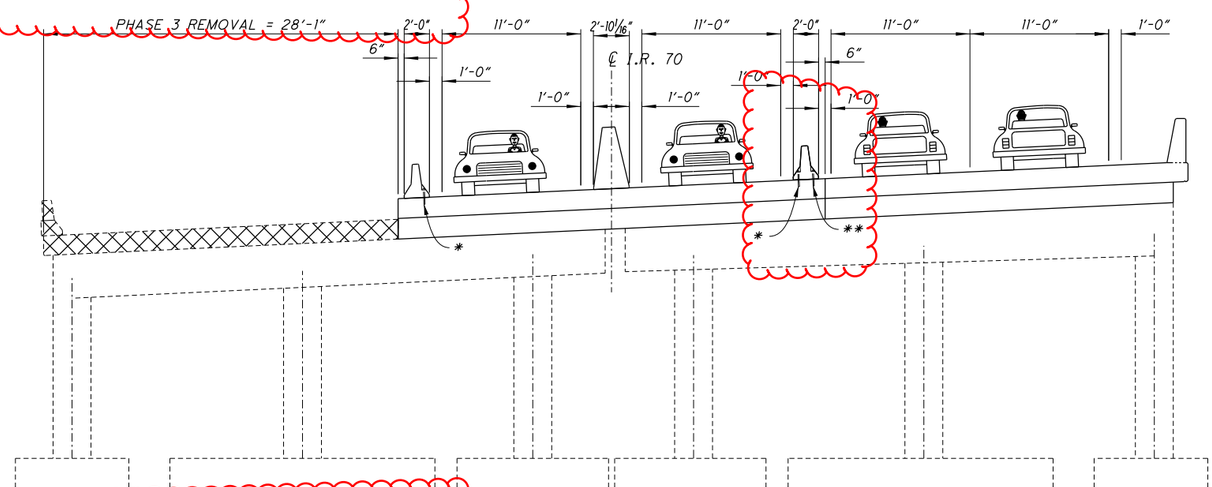


PHASE 2 REMOVAL



PHASE 2 REPLACEMENT

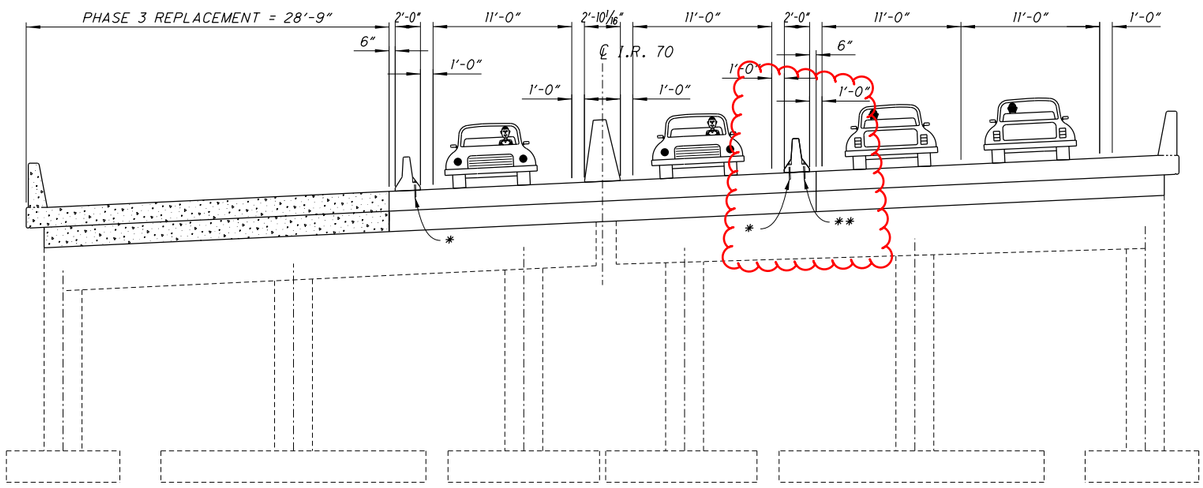
* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES



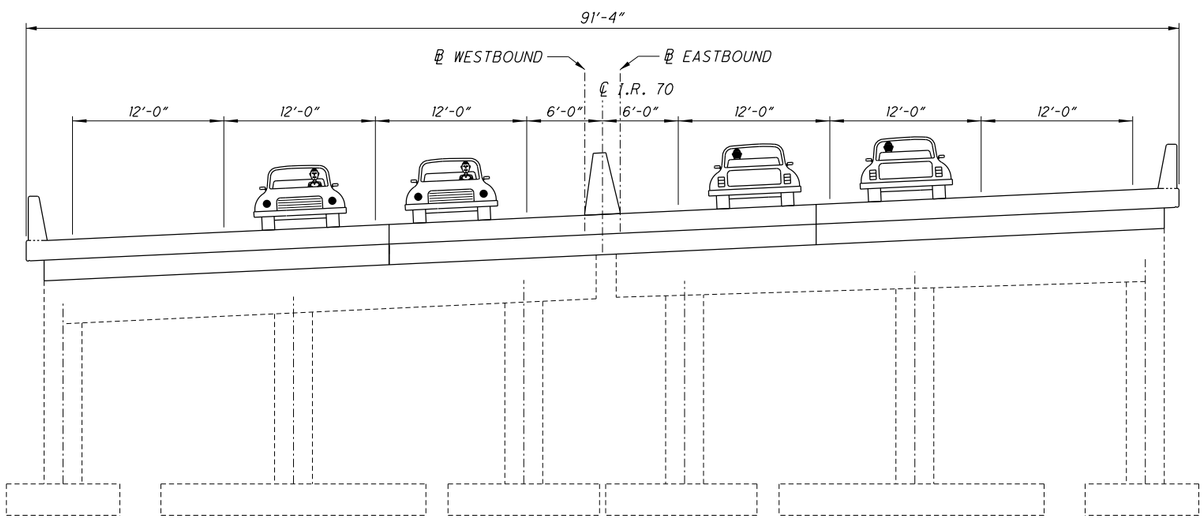
PHASE 3 REMOVAL

** - A MINIMUM OF 2 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

NOTE: PRIOR TO ANY REMOVAL OF THE SUPERSTRUCTURE THE TRAFFIC SIGNAL WIRING WILL HAVE TO BE RELOCATED. SEE SIGNAL DETAILS, PLAN SHEET 1229/2231.



PHASE 3 REPLACEMENT



PROPOSED TRANSVERSE SECTION

* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

** - A MINIMUM OF 2 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

NOTE: PRIOR TO ANY REMOVAL OF THE SUPERSTRUCTURE THE TRAFFIC SIGNAL WIRING WILL HAVE TO BE RELOCATED. SEE SIGNAL DETAILS, PLAN SHEET 1229/2231.

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
PHASE 2											
REAR ABUTMENT											
P2R401	12	10'-0"	80	3	1'-9"	3'-0"					
P2R501	28	12'-1"	353	3	3'-2"	2'-7"					
P2R502	1 SERIES OF 26	19'-1" TO 21'-7"	551	3	2'-2"	7'-1" TO 8'-4"					0'-1.2"
P2R503	3	25'-3"	79	2	11'-8"	2'-2"	11'-8"				
P2R504	12	31'-3"	391	STR.							
P2R505	3	8'-9"	27	2	3'-5"	2'-2"	3'-5"				
P2R506	4	2'-0"	8	STR.							
P2R507	4	1'-8"	7	STR.							
P2R801	8	31'-3"	668	STR.							
REAR ABUTMENT SUB-TOTAL			2164								
FORWARD ABUTMENT											
P2F401	14	10'-0"	94	3	1'-9"	3'-0"					
P2F501	34	12'-1"	428	3	3'-2"	2'-7"					
P2F502	4	17'-3"	72	3	5'-9"	2'-7"					
P2F503	1 SERIES OF 26	18'-11" TO 21'-1"	542	3	2'-2"	7'-0" TO 8'-1"					0'-1.04"
P2F504	11	26'-7"	305	2	12'-10"	1'-2"	12'-10"				
P2F505	8	8'-2"	68	20	2'-7"	2'-9"	1'-3"	2'-9"	2'-7"		
P2F506	4	31'-2"	130	STR.							
P2F507	4	14'-5"	60	STR.							
P2F508	2	3'-8"	8	STR.							
P2F509	10	6'-0"	63	19	3'-0"	0'-2"	3'-0"				
P2F510	8	29'-11"	250	STR.							
P2F511	10	12'-6"	130	STR.							
P2F512	11	7'-8"	88	2	3'-4"	1'-2"	3'-4"				
P2F513	8	6'-2"	51	2	2'-7"	1'-2"	2'-7"				
P2F514	2	17'-9"	37	19	12'-9"	4'-10.5"	1'-2.75"				
P2F515	6	17'-6"	110	STR.							
P2F801	4	31'-2"	333	STR.							
P2F802	4	14'-5"	154	STR.							
P2F803	3	3'-8"	29	STR.							
P2F804	4	29'-11"	320	STR.							
FORWARD ABUTMENT SUB-TOTAL			3272								
DIAPHRAGMS											
P2D501	60	7'-1"	443	3	2'-2"	1'-1"					
P2D502	120	8'-1"	1012	2	3'-4"	1'-8"	3'-4"				
P2D801	40	6'-8"	712	18	4'-4"	1'-0"	1'-0"				
P2D802	12	29'-10"	956	STR.							
P2D803	12	28'-7"	916	STR.							
DIAPHRAGMS SUB-TOTAL			4039								
PIERS											
P2P501	56	2'-7"	151	16	2'-0"						
P2P502	38	7'-0"	277	6	2'-8"	1'-5"	1'-0"				
P2P801	8	28'-9"	614	STR.							
PIERS SUB-TOTAL			1042								

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
DECK											
P2S401	117	4'-0"	313	2	1'-3"	1'-8"	1'-3"				
P2S501	146	28'-7"	4352	STR.							
P2S502	120	27'-5"	3432	STR.							
P2S503	60	20'-2"	1262	STR.							
P2S601	125	28'-7"	5366	STR.							
P2S1001	100	49'-4"	21227	16	47'-11"						
P2S1002	50	61'-1"	13141	STR.							
P2S1003	120	43'-1"	22245	STR.							
DECK SUB-TOTAL			71338								
PARAPET											
HORIZONTAL BARS											
P2X501	8	10'-0"	83	STR.							
P2X502	4	5'-8"	24	25	1'-10"	2'-5"	0'-1.5"	0'-5"			
P2X503	4	5'-8"	24	STR.							
P2X504	4	6'-5"	27	STR.							
P2X505	4	12'-11"	54	STR.							
P2X506	2	10'-8"	22	STR.							
P2X507	38	6'-8"	264	STR.							
P2X508	4	38'-0"	159	STR.							
P2X509	12	40'-0"	501	STR.							
P2X510	6	5'-0"	31	STR.							
P2X601	2	6'-5"	19	STR.							
P2X602	1	10'-8"	16	STR.							
P2X603	19	6'-8"	190	STR.							
P2X604	1	5'-0"	8	STR.							
VERTICAL BARS											
P2Y501	180	10'-0"	1877	23	0'-11"	3'-3"	3'-0"			0'-3.2"	
P2Y502	1 SERIES OF 6	6'-8" TO 10'-0"	52	23	0'-11"	2'-8" TO 3'-3"	2'-5" TO 3'-0"			0'-3.2"	0'-8"
P2Y601	168	2'-6"	631	1	1'-0"	1'-8"					
P2Y602	168	3'-5"	863	28	1'-8"	0'-11"	1'-0"				
P2Y603	18	2'-5"	65	1	1'-0"	1'-7"					
P2Y604	18	4'-10"	131	28	1'-7"	0'-11"	1'-0"				
P2Y605	2 SERIES OF 11	4'-0" TO 4'-10"	146	1	1'-0"	3'-2" TO 4'-0"					0'-1"
P2Y606	8	3'-11"	47	1	1'-0"	3'-1"					
RIGHT PARAPET SUB-TOTAL			5234								
REAR ABUTMENT SUB-TOTAL			2164								
FORWARD ABUTMENT SUB-TOTAL			3272								
DIAPHRAGMS SUB-TOTAL			4039								
PIERS SUB-TOTAL			1042								
DECK SUB-TOTAL			71338								
RIGHT PARAPET SUB-TOTAL			5234								
PHASE 2 TOTAL			87089								

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

REVIEWED TAG DATE 11/24/2020
STRUCTURE FILE NUMBER 6002919

DRAWN TDF
REVISED

DESIGNED TDF
CHECKED CPS

REINFORCEMENT STEEL SCHEDULE - PHASE 2

BRIDGE NO. MUS-70-11.92
OVER N. 6TH STREET

MUS-70-10.49
PID No. 93006

1750
2231

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
PHASE 3											
REAR ABUTMENT											
P3R401	14	10'-0"	94	3	1'-9"	3'-0"					
P3R501	27	12'-1"	340	3	3'-2"	2'-7"					
P3R502	5	15'-9"	82	3	5'-0"	2'-7"					
P3R503	1 SERIES OF 26	13'-11" TO 16'-3"	409	3	2'-2"	4'-6" TO 5'-8"					0'-1.1"
P3R504	7	18'-9"	137	2	8'-11"	1'-2"	8'-11"				
P3R505	6	8'-3"	52	20	2'-6"	2'-9"	1'-5"	2'-9"	2'-6"		
P3R506	4	31'-4"	131	STR.							
P3R507	6	7'-11"	50	STR.							
P3R508	8	6'-0"	50	19	3'-0"	0'-3.5"	3'-0"				
P3R509	4	30'-4"	127	STR.							
P3R510	2	10'-0"	21	STR.							
P3R511	6	6'-7"	41	STR.							
P3R512	7	7'-5"	54	2	3'-3"	1'-2"	3'-3"				
P3R513	8	6'-1"	51	2	2'-7"	1'-2"	2'-7"				
P3R514	2	11'-6"	24	19	6'-8"	4'-10.25"	0'-7"				
P3R515	6	11'-6"	72	STR.							
P3R801	4	31'-4"	335	STR.							
P3R802	4	7'-11"	85	STR.							
P3R803	2	6'-4"	34	STR.							
P3R804	4	30'-5"	325	STR.							
REAR ABUTMENT SUB-TOTAL			2514								
FORWARD ABUTMENT											
P3F401	14	10'-0"	94	3	1'-9"	3'-0"					
P3F501	29	12'-1"	365	3	3'-2"	2'-7"					
P3F502	5	16'-9"	87	3	5'-6"	2'-7"					
P3F503	1 SERIES OF 27	14'-1" TO 16'-3"	427	3	2'-2"	4'-7" TO 5'-8"					0'-1"
P3F504	6	19'-2"	120	2	9'-1"	1'-2"	9'-1"				
P3F505	5	8'-1"	42	20	2'-9"	2'-7"	1'-3"	2'-7"	2'-9"		
P3F506	4	31'-0"	129	STR.							
P3F507	6	8'-10"	55	STR.							
P3F508	7	6'-0"	44	11	0'-1.7"	3'-0"	3'-0"				
P3F509	4	30'-0"	125	STR.							
P3F510	2	8'-3"	17	STR.							
P3F511	4	6'-10"	28	STR.							
P3F512	6	7'-9"	48	2	3'-5"	1'-2"	3'-5"				
P3F513	8	6'-1"	51	2	2'-7"	1'-2"	2'-7"				
P3F514	2	12'-1"	25	19	7'-2"	4'-10"	1'-1.75"				
P3F515	6	12'-0"	75	STR.							
P3F801	4	31'-0"	331	STR.							
P3F802	3	8'-10"	71	STR.							
P3F803	3	6'-4"	51	STR.							
P3F804	4	30'-0"	320	STR.							
FORWARD ABUTMENT SUB-TOTAL			2505								
DIAPHRAGMS											
P3D501	60	7'-1"	443	3	2'-2"	1'-1"					
P3D502	120	8'-1"	1012	2	3'-4"	1'-8"	3'-4"				
P3D801	40	6'-8"	712	18	4'-4"	1'-0"	1'-0"				
P3D802	12	28'-9"	921	STR.							
P3D803	12	28'-8"	919	STR.							
DIAPHRAGMS SUB-TOTAL			4007								

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
PIERS											
P3P501	58	2'-7"	156	16	2'-0"						
P3P502	38	7'-0"	277	6	2'-8"	1'-5"	1'-0"				
P3P801	8	27'-6"	587	STR.							
PIERS SUB-TOTAL			1020								
DECK											
P3S401	117	4'-0"	313	2	1'-3"	1'-8"	1'-3"				
P3S402	14	3'-0"	28	STR.							
P3S501	146	28'-7"	4352	STR.							
P3S502	120	27'-5"	3432	STR.							
P3S503	60	20'-2"	1262	STR.							
P3S601	125	28'-7"	5366	STR.							
P3S1001	100	49'-4"	21227	16	47'-11"						
P3S1002	50	61'-1"	13141	STR.							
P3S1003	120	43'-1"	22245	STR.							
DECK SUB-TOTAL			71366								
PARAPET											
HORIZONTAL BARS											
P3X501	16	10'-0"	167	STR.							
P3X502	8	5'-8"	47	25	1'-10"	2'-5"	0'-1.5"	0'-5"			
P3X503	8	5'-8"	47	STR.							
P3X504	4	6'-5"	27	STR.							
P3X505	8	12'-11"	108	STR.							
P3X506	4	10'-8"	45	STR.							
P3X507	38	6'-8"	264	STR.							
P3X508	4	38'-0"	159	STR.							
P3X509	12	40'-0"	501	STR.							
P3X601	2	6'-5"	19	STR.							
P3X602	2	10'-8"	32	STR.							
P3X603	19	6'-8"	190	STR.							
VERTICAL BARS											
P3Y501	192	10'-0"	2003	23	0'-11"	3'-3"	3'-0"			0'-2.8"	
P3Y601	168	2'-6"	631	1	1'-0"	1'-8"					
P3Y602	168	3'-5"	863	28	1'-8"	0'-11"	1'-0"				
P3Y603	24	2'-5"	87	1	1'-0"	1'-7"					
P3Y604	24	4'-10"	174	28	1'-7"	0'-11"	1'-0"				
P3Y605	4 SERIES OF 11	4'-0" TO 4'-10"	292	1	1'-0"	3'-2" TO 4'-0"					0'-1"
P3Y606	16	3'-11"	94	1	1'-0"	3'-1"					
LEFT PARAPET SUB-TOTAL			5750								

REAR ABUTMENT SUB-TOTAL	2514
FORWARD ABUTMENT SUB-TOTAL	2505
DIAPHRAGMS SUB-TOTAL	4007
PIERS SUB-TOTAL	1020
DECK SUB-TOTAL	71366
LEFT PARAPET SUB-TOTAL	5750
PHASE 3 TOTAL	87162

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

REVIEWED TAG DATE 11/24/2020
STRUCTURE FILE NUMBER 6002919

DRAWN TDF
REVISED

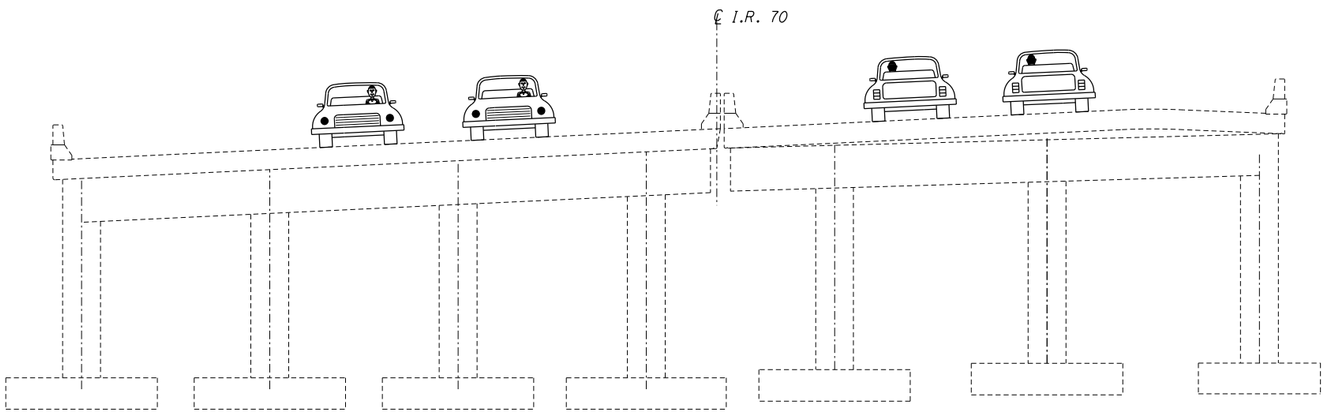
DESIGNED TDF
CHECKED CPS

REINFORCEMENT STEEL SCHEDULE - PHASE 3

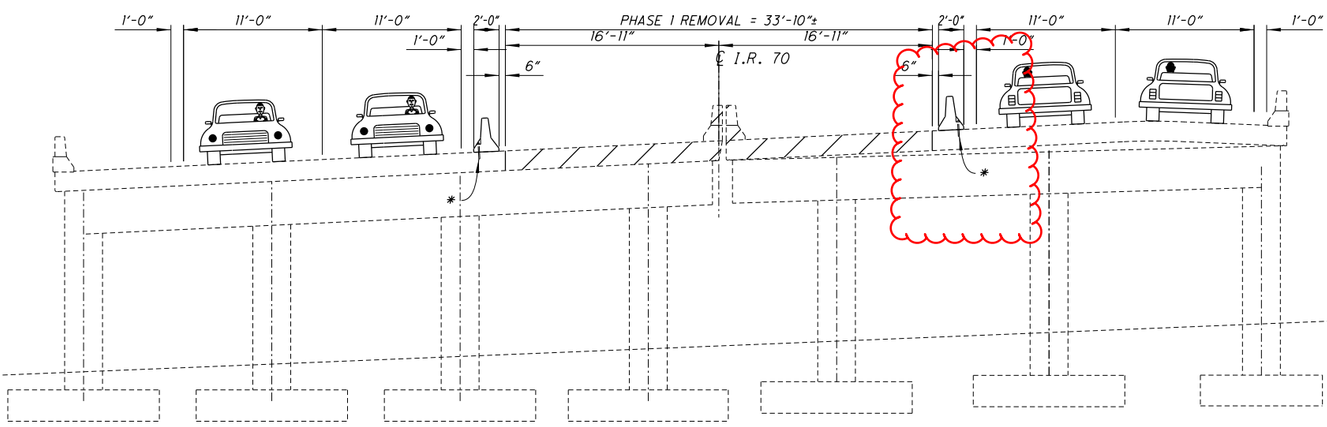
BRIDGE NO. MUS-70-11.92
OVER N. 6TH STREET

MUS-70-10.49
PID No. 93006

1751
2231

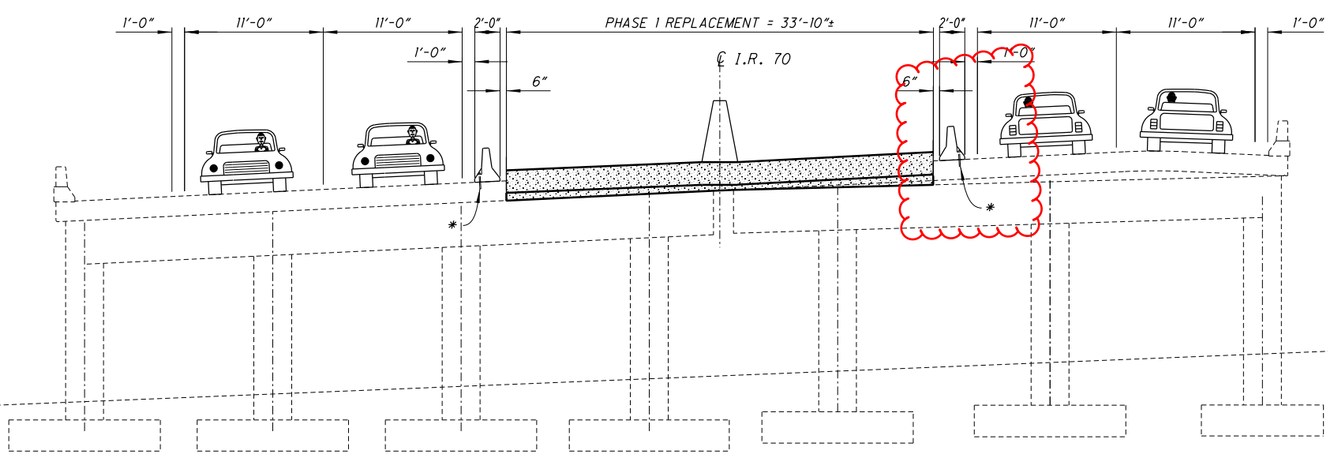


EXISTING TRANSVERSE SECTION



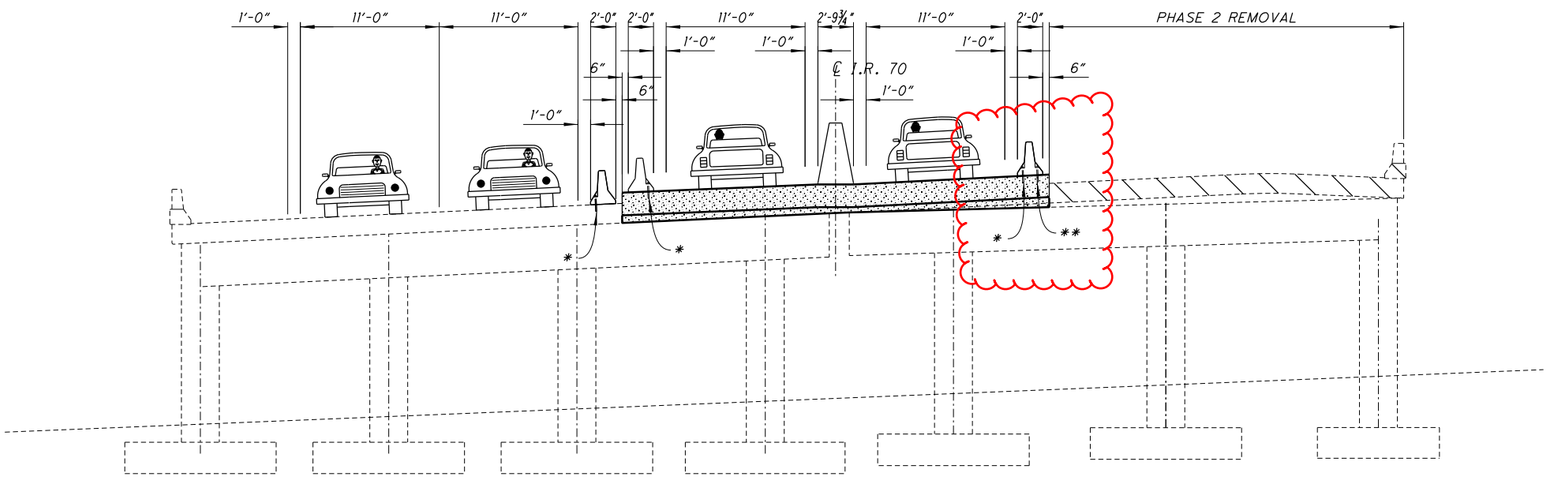
PHASE 1 REMOVAL

* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES



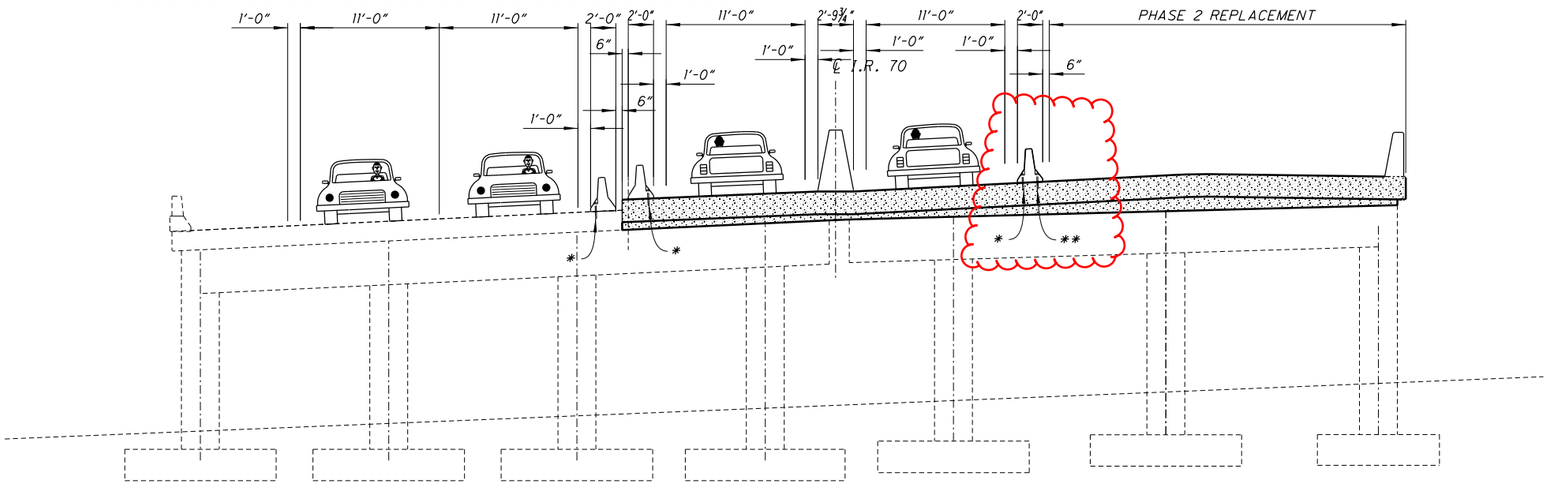
PHASE 1 REPLACEMENT

1765 / 2231	6 / 73	MUS-70-10.49 PID No. 93006	MOT REMOVAL OF BRIDGE STRUCTURES BRIDGE NO.: MUS-70-1199 OVER 7TH STREET	DESIGNED YEL CHECKED CPS	DRAWN YEL REVISED	REVIEWED TAG DATE 11/24/2020 STRUCTURE FILE NUMBER 6002943	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5



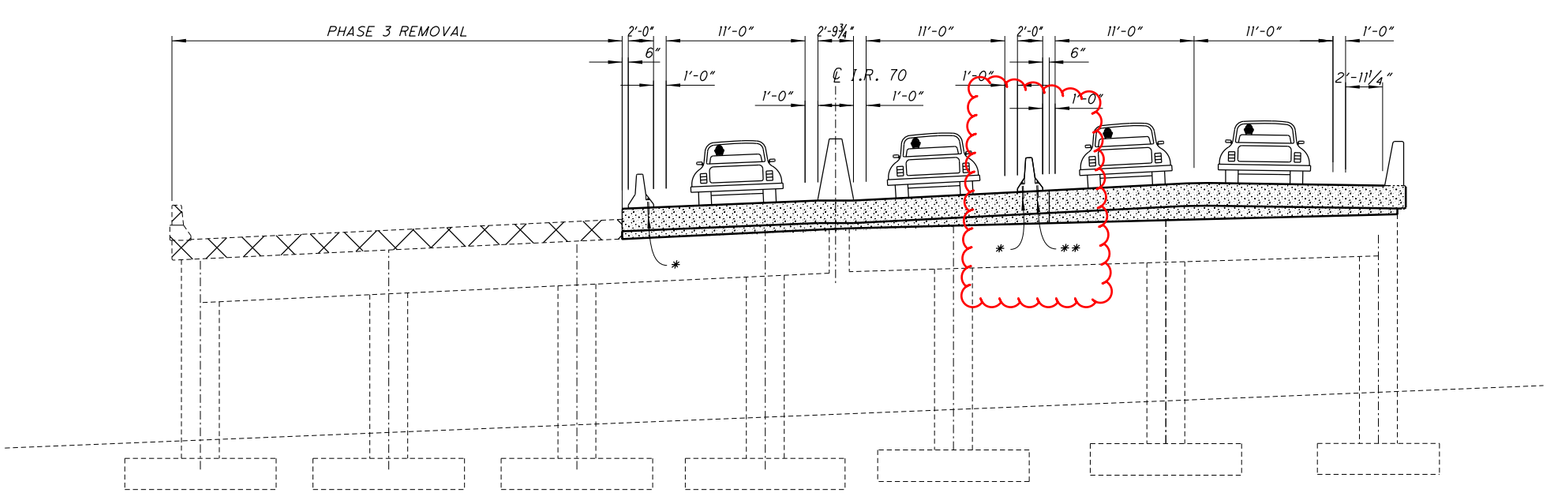
PHASE 2 REMOVAL

* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES



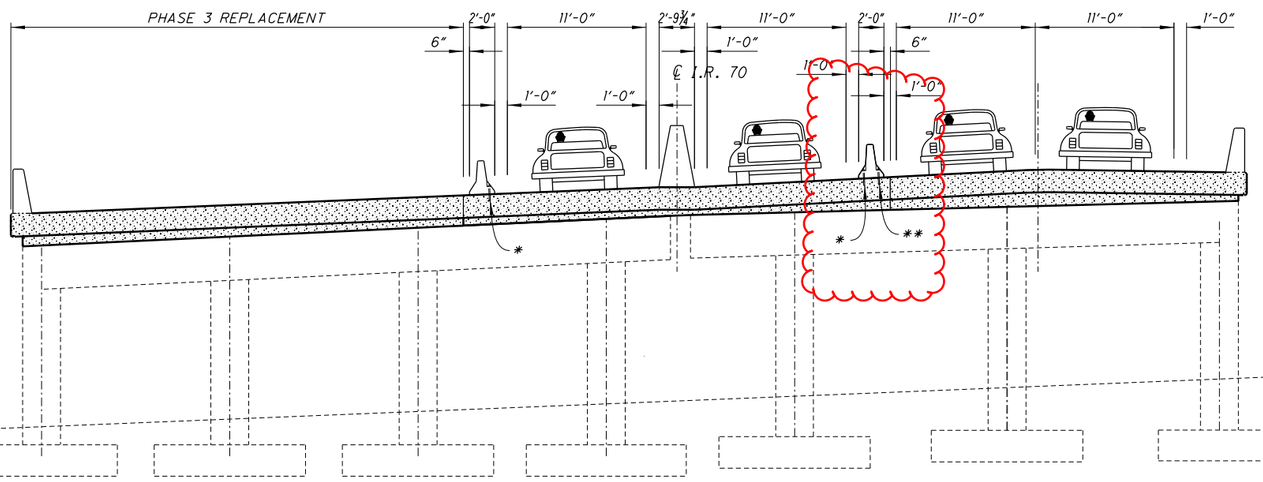
PHASE 2 REPLACEMENT

** - A MINIMUM OF 2 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

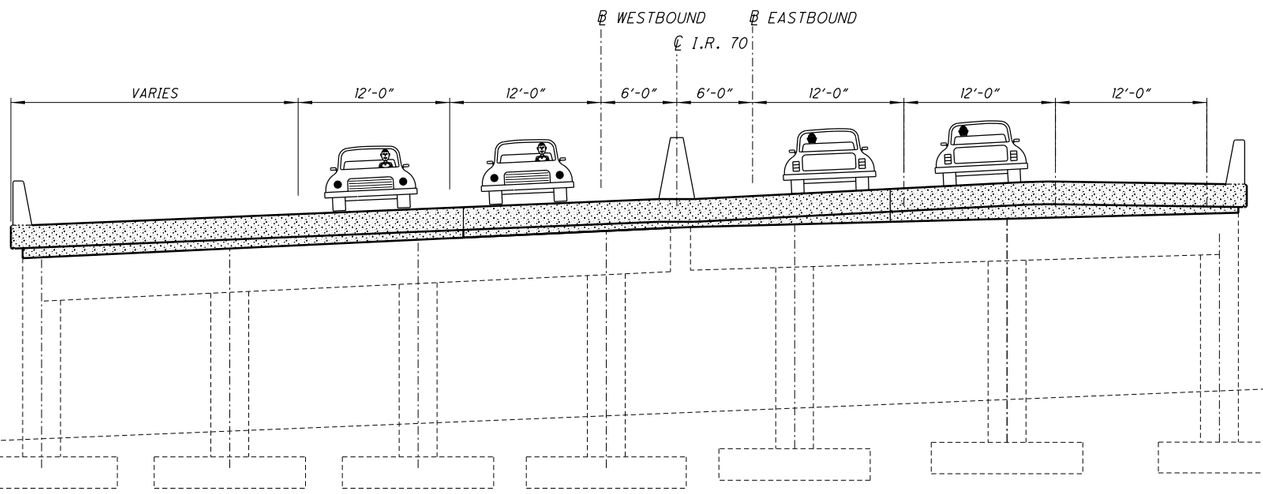


PHASE 3 REMOVAL

1766 2231	7 / 73	MUS-70-10.49 PID No. 93006	MOT REMOVAL OF BRIDGE STRUCTURES BRIDGE NO.: MUS-70-1199 OVER 7TH STREET	DESIGNED YEL CHECKED CPS	DRAWN YEL REVISED	REVIEWED TAG DATE 11/24/2020 STRUCTURE FILE NUMBER 6002943	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5



PHASE 3 REPLACEMENT

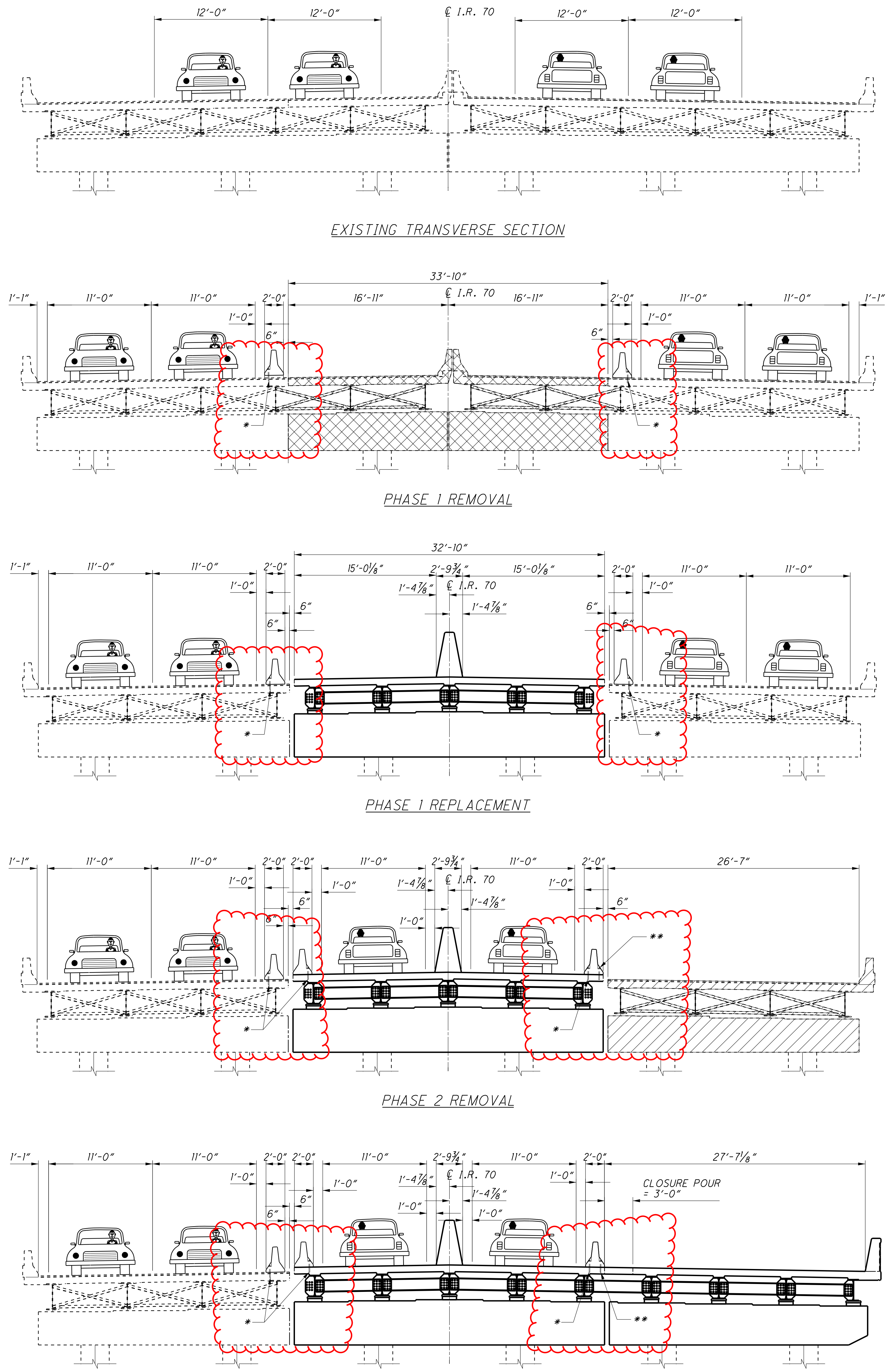


PROPOSED TRANSVERSE SECTION

* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

** - A MINIMUM OF 2 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

1767 2231	8 / 73	MUS-70-10.49 PID No. 93006	MOT REMOVAL OF BRIDGE STRUCTURES BRIDGE NO.: MUS-70-1199 OVER 7TH STREET	DESIGNED YEL CHECKED CPS	DRAWN YEL REVISED	REVIEWED TAG DATE 11/24/2020 STRUCTURE FILE NUMBER 6002943	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5



* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

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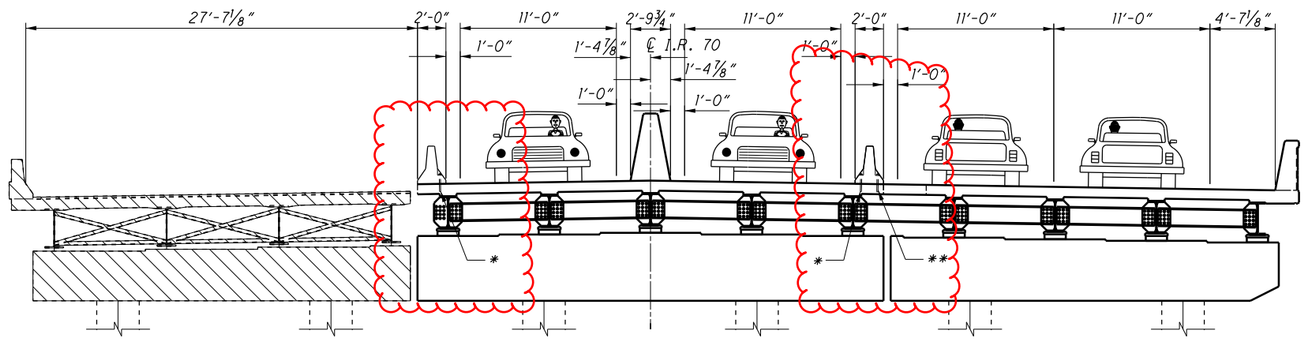
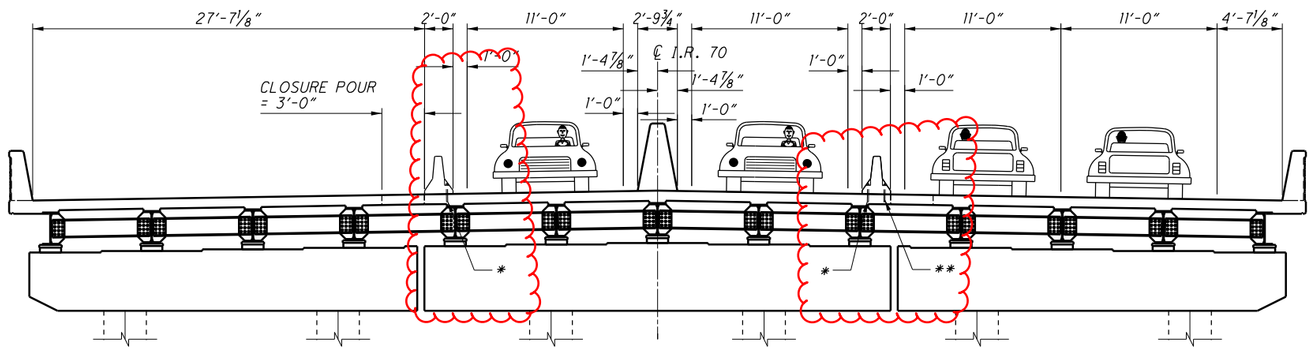
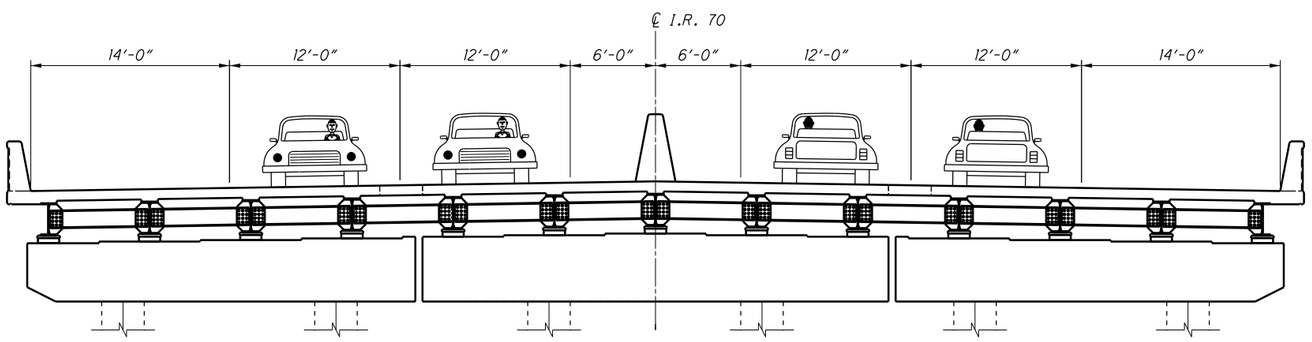
1839 / 2231	7 / 74	MUS-70-10.49 PID No. 93006	MAINTAINENCE OF TRAFFIC BRIDGE NO. MUS-70-1212 OVER UNDERWOOD ST.	DESIGNED CPS / CHECKED TAG	DRAWN CPS / REVISED	REVIEWED CPS / STRUCTURE FILE NUMBER 6002978	DATE 12/4/2020	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5



PHASE 3 REMOVAL



PHASE 3 REPLACEMENT



PROPOSED TRANSVERSE SECTION

* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

** - A MINIMUM OF 2 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

Ex A
Ex SL
Ex LA
SAN
8'-0"±
2'-0"
PHASE 3 CONSTRUCTION
PHASE 2 CONSTRUCTION
PHASE 1 = 33'-10"
90'-0"
37'-10"±
8'-10"±
PHASE CONSTRUCTION LINE
FACE OF TWFMSE WALL
END APPROACH SLAB
STA. 666+83±
℄ I-70
BEGIN APPROACH SLAB
STA. 666+58±
TEMPORARY SHEET PILING (TYP.)
BEGIN APPROACH SLAB
STA. 665+15±
END APPROACH SLAB
STA. 665+40±
1665
665
2665
1666
666
2666
1667
667
2667
36'-0"± C/C BEARINGS
45'-0"± C/C BEARINGS
36'-0"± C/C BEARINGS

PLAN

665+15
665+40
666+58
666+83
1
1.5
EL. 792.00
EL. 793.5
EL. 791.00
EL. 792.5
EL. 785.00
ITEM 203 - EMBANKMENT*
*NOTE: ALL EMBANKMENT SHALL BE PLACED TOO ELEVATION 785.00+ BEFORE ANY REMOVAL OF THE BRIDGE IS TO BE DONE.

ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
ITEM 203 - EMBANKMENT*
ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN
ITEM 840 - SELECT GRANULAR MATERIAL, AS PER PLAN
ITEM 867 - TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL (TWFW)

30'-0" PLUS FEET DEEP SEE SHEET 987 FOR SEWER DETAILS
8'-0"± to 8'-10"±
9'-0"±
EXISTING SEWAGE LINE
PROPOSED 18" SEWAGE LINE WITH 36" ENCASEMENT

ELEVATION

EXISTING STRUCTURE (SFN 6003036)

TYPE: CONTINOUS REINFORCED CONCRETE SLAB AND SUBSTRUCTURE
SPANS: 36'-0" ±, 45'-0" ±, 36'-0" ± C/C/ BEARINGS
ROADWAY: 87'-0" ± T/T EXTERIOR PARAPET WITH MEDIAN PARAPET
LOADING: CF-2000 (1957), ADEQUATE FOR AASHTO ALT. LOADING
SKEW: NONE
APPROACH SLABS: 25'-0" ± LONG
ALIGNMENT: TANGENT
WEARING COURSE: 2" SDC OVERLAY (WB BRIDGE)
DISPOSITION: TO BE REMOVED
LATITUDE: 39°57' N LONGITUDE: 81°59' W

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
TAG	TAG	TAG	11/20/20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JKS		6003036	

GENERAL PLAN AND ELEVATION

BRIDGE NO. MUS-70-1306
I.R. 70 OVER ABANDONED RAILROAD

MUS-70-10.49
PID No. 93006

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

THIS WORK CONSISTS OF THE REMOVAL OF THE ENTIRE EXISTING SUPERSTRUCTURE AND PORTIONS OF THE EXISTING SUBSTRUCTURES AS INDICATED IN THE PLANS. THIS INCLUDES THE REMOVAL OF ALL EXISTING CONCRETE DECK, PARAPETS, MEDIANS, BRIDGE RAILINGS, SCUPPERS WITH ATTACHMENTS, STEEL BULB ANGLE GUTTERS AND ALL OTHER INDIVIDUAL COMPONENTS OF THE ENTIRE EXISTING SUPERSTRUCTURE.

THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES AND AS SHOWN IN THIS PLAN. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED, I.E. THE EXISTING PIERS. THE USE OF EXPLOSIVES, HEADACHE BALLS, HOE RAM TYPE EQUIPMENT, AND TRACK HOE PULVERIZER/SHEAR/MULTI-PROCESSOR ATTACHMENTS IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF TRAFFIC: THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) AS PER CMS 2019 501.05.B.2.

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

INSPECTION FOR BATS

PRIOR TO THE START OF DEMOLITION ACTIVITIES THE CONTRACTOR SHALL INSPECT THE UNDERSIDE OF THE BRIDGE FOR THE PRESENCE OF BATS OR NESTING BIRDS. IF ANY BATS OR BIRD NESTS ARE OBSERVED THE CONTRACTOR SHALL NOTIFY NICOLE HAFER-LIPSTREU IN THE DISTRICT 5 PLANNING DEPARTMENT @ (740) 323-5103 (NICOLE.HAFERLIPSTREU@DOT.OHIO.GOV), OR, BRIAN TATMAN @ (740) 323-5191 (BRIAN.TATMAN@DOT.OHIO.GOV) PRIOR TO STARTING ANY DEMOLITION WORK.

ITEM 840 - SELECT GRANULAR BACKFILL, AS PER PLAN

SELECT GRANULAR BACKFILL, AS PER PLAN SHALL BE THE MATERIAL USED TO CONSTRUCT THE TEMPORARY WIRED FACED MECHANICALLY STABILIZED EARTH WALL AS BE SUPPLEMENT SPECIFICATION 867.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING MATERIALS FROM BEHIND THE EXISTING ABUTMENTS IN ORDER TO PERFORM ITEM 202, STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN. LIMITS OF THIS EXCAVATION SHALL BE LIMITED BETWEEN THE EXISTING WINGWALLS AND EXTEND TO THE END OF THE EXISTING APPROACH SLABS AS DETAILED.

THE BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE I SHALL CONFORM TO CMS SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE APPROACH SLABS AND IT MAY ALSO BE USED TO CONSTRUCT THE SLOPES IN THIS SAME AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE.

PAYMENT TO PERFORM ALL THE WORK OUTLINED ABOVE SHALL BE ICLUDED IN THE LUMP SUM BID FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 202 - REMOVAL MISC.: TEMPORARY PIER SUPPORT

THIS ITEM SHALL INCLUDE TEMPORARY PIER SUPPORTS TO BE INSTALLED AT THE EXISTING PIERS. SEE SHEETS 4-6/12 AND 11-12/12 FOR DETAILS.

MATERIALS:
STEEL SHALL BE ASTM A36 OR BETTER. USED STRUCTURAL STEEL IN GOOD CONDITION MAY BE PROVIDED. HIGH STRENGTH (H.S.) BOLTS AND ANCHOR RODS SHALL BE NEW 1" DIA. OR 1¼" DIA. ASTM A325. ALL BOLTS AND ANCHOR RODS SET IN EXISTING CONCRETE SHALL BE PLACED AS PER C&MS 510 USING NONSHRINK, NONMETALLIC GROUT.

CONSTRUCTION SEQUENCE:
TEMPORARY SUPPORTS SHALL BE INSTALLED PRIOR TO PHASE I REMOVALS.

REMOVAL OF SUPPORTS:
TEMPORARY SUPPORTS SHALL BE REMOVED ONLY DURING REMOVAL OF THE PORTION OF THE PIER THEY ARE AFFIXED TO. SEE SHEETS 11/12 FOR DETAILS.

WELDING:
THE CONTRACTOR MAY CHOOSE WHICH, IF ANY, WELDS ARE PERFORMED IN THE SHOP.

PAYMENT:
THIS ITEM SHALL INCLUDE ALL COSTS FOR STRUCTURAL STEEL, NUTS, BOLTS, WASHERS, PLATES, WELDING, CONCRETE, REINFORCING STEEL, AND ALL OTHER LABOR AND MATERIALS NEEDED TO INSTALL AND LATER PARTIALLY REMOVE TEMPORARY SUPPORTS.

ALL QUANTITIES SHOWN BELOW CARRIED TO THE GENERAL SUMMARY

MUS -70- 1066L	MUS -70- 1066R	MUS -70- 1089	MUS -70- 1159	MUS -70- 1186	MUS -70- 1192	MUS -70- 1199	MUS -70- 1212	MUS -70- 1306	MUS -70- 1144A	MUS -70- 1142E	MUS -70- 1142	MUS -70- 1186K	MUS -60D- 0005	MUS -60G- 0033		02/IMS/BR	ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
																					ROADWAY	
		1005		989	1037	1005	1065		327	360		414	557			6759	202	32800	6759	SQ.YD.	CONCRETE SLOPE PROTECTION REMOVED	
								9345								9345	203	20000	9345	CU.YD.	EMBANKMENT	
306	306	530	756	599	507	559	367		169	171	196	132	138	241		4977	204	10000	4977	SQ.YD.	SUBGRADE COMPACTION	
														12		12	622	24001	12	FEET	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN (B)	2132
														1		1	622	25011	1	EACH	CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN (B)	2132
														1		1	622	25051	1	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN (B)	2132
																					EROSION CONTROL	
933	933												451			2317	601	20000	2317	SQ.YD.	CRUSHED AGGREGATE SLOPE PROTECTION	
2	2	2	2	1	1	2	2		1	1		1	1			18	601	20010	18	CU.YD.	CRUSHED AGGREGATE SLOPE PROTECTION	
				987	1025	1071	1065		332	365		414	557			5816	601	21000	5816	CU.YD.	CONCRETE SLOPE PROTECTION	
		52														52	601	21001	52	CU.YD.	CONCRETE SLOPE PROTECTION, AS PER PLAN	1397
																					PAVEMENT	
51	51	89	137	95	80	93	82		28	29	33	30	42	451		1291	304	20000	1291	CU.YD.	AGGREGATE BASE	

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
JKS	JKS	TAG	11/20/20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CPS		6003036	

BRIDGE NOTES
BRIDGE NO. MUS-70-1306
I.R. 70 OVER ABANDONED RAILROAD

MUS-70-10.49
PID No. 93006

1908
2231

SHEET NUM.							PART.						ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
SUPER.	ABUT.	PIER	GEN.				01/IMS/PV	02/IMS/BR	03/IMS/CV	04/S<2/OT	05/SAE/OT	06/IMS/BR						
																	STRUCTURE OVER 20 FOOT SPAN (MUS-70-1306)	
			LS					LS					202	11003	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	2
			LS					LS					202	98000	LS		REMOVAL MISC.: TEMPORARY PIER SUPPORT	2
			LS					LS					503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	2
			LS					LS					503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	2
			2,524					2,524					840	23001	2,524	CY	SELECT GRANULAR BACKFILL, AS PER PLAN	2
			LS					LS					867	00100	LS		TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL	2

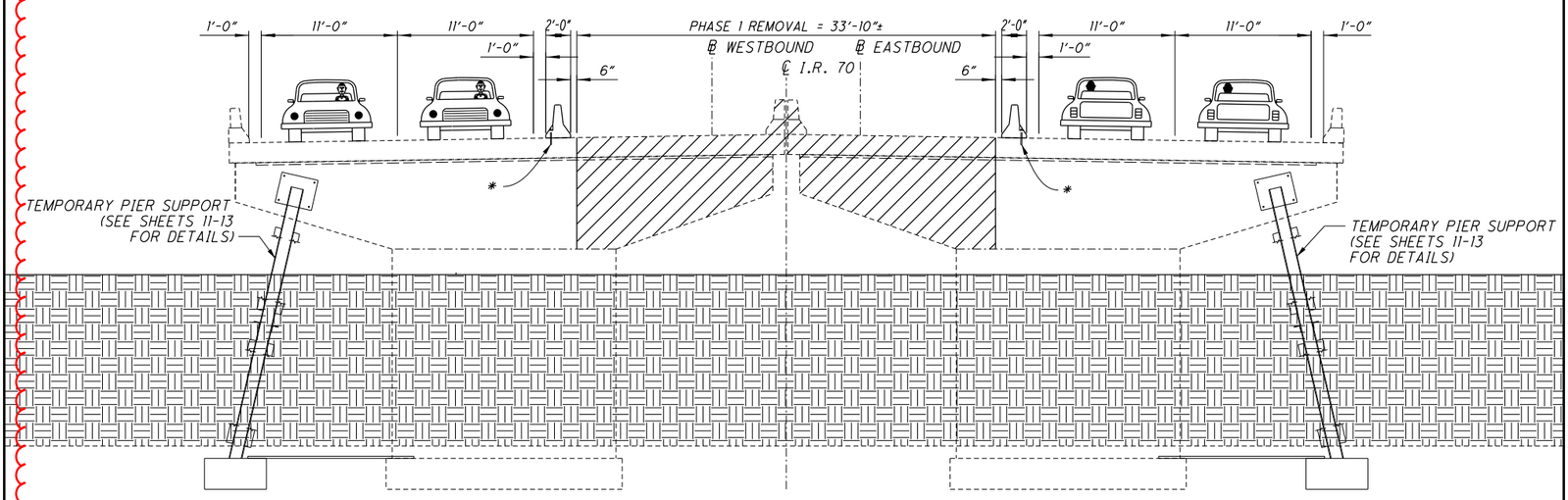
DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED JKS | DRAWN JKS | REVIEWED TAG | DATE 11/20/20
CHECKED CPS | REVISED | STRUCTURE FILE NUMBER 6003036

BRIDGE SUMMARY
BRIDGE NO. MUS-70-1306
I.R. 70 OVER ABANDONED RAILROAD

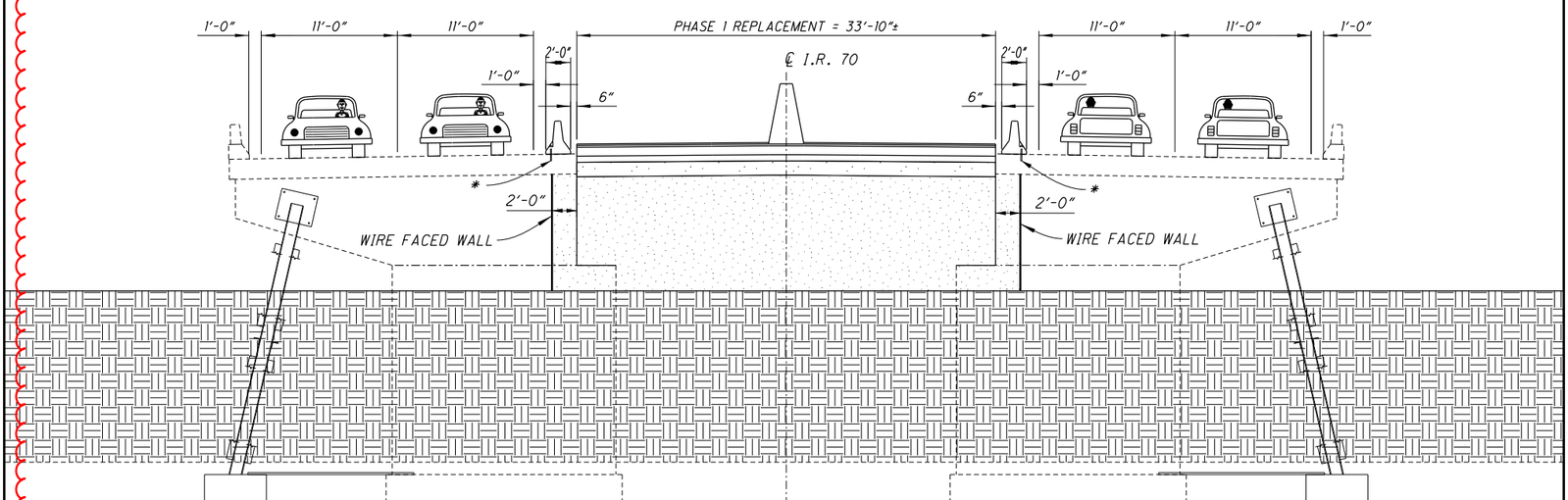
MUS-70-10.49
PID No. 93006

1909
2231



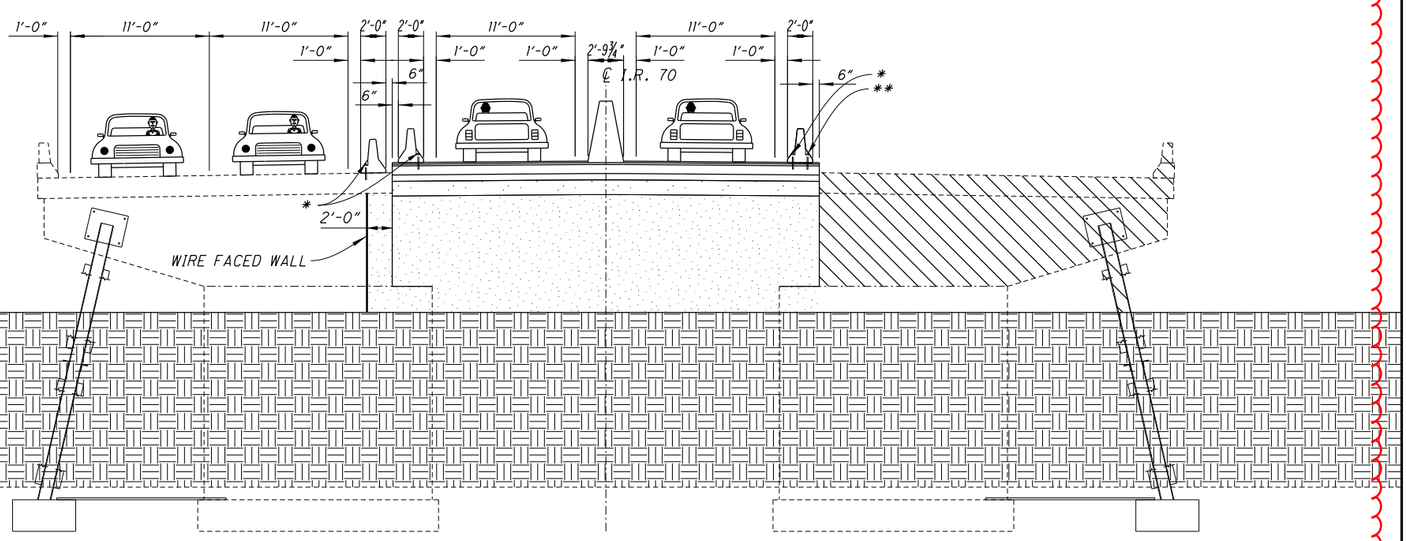
PHASE 1 REMOVAL

* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

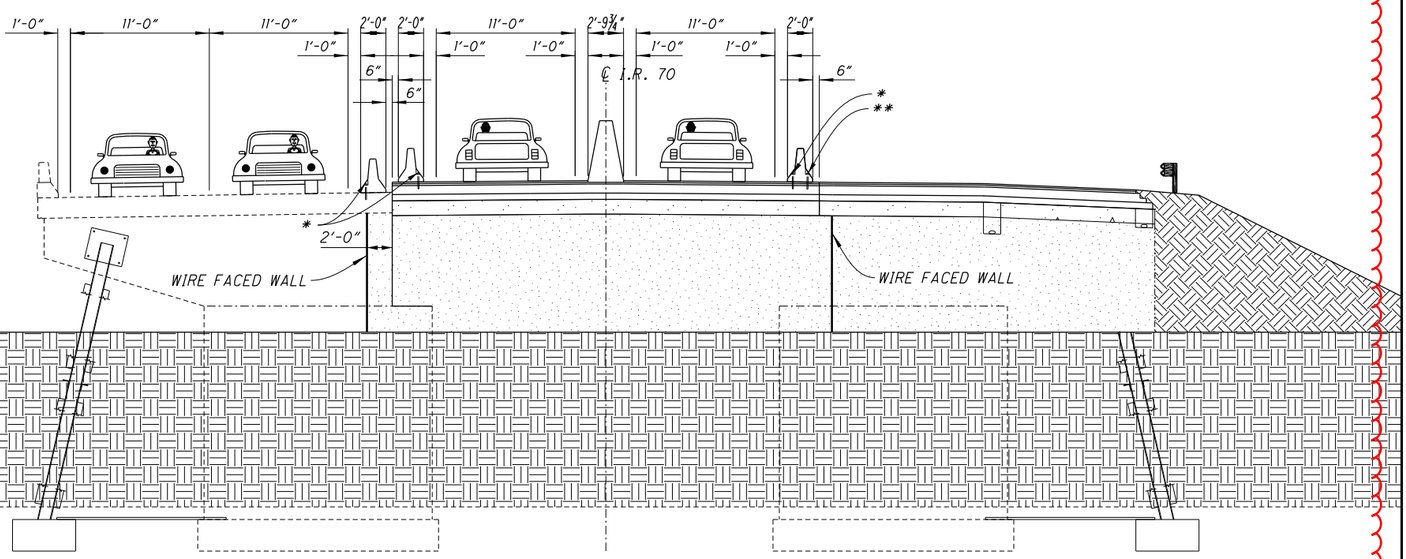


PHASE 1 REPLACEMENT

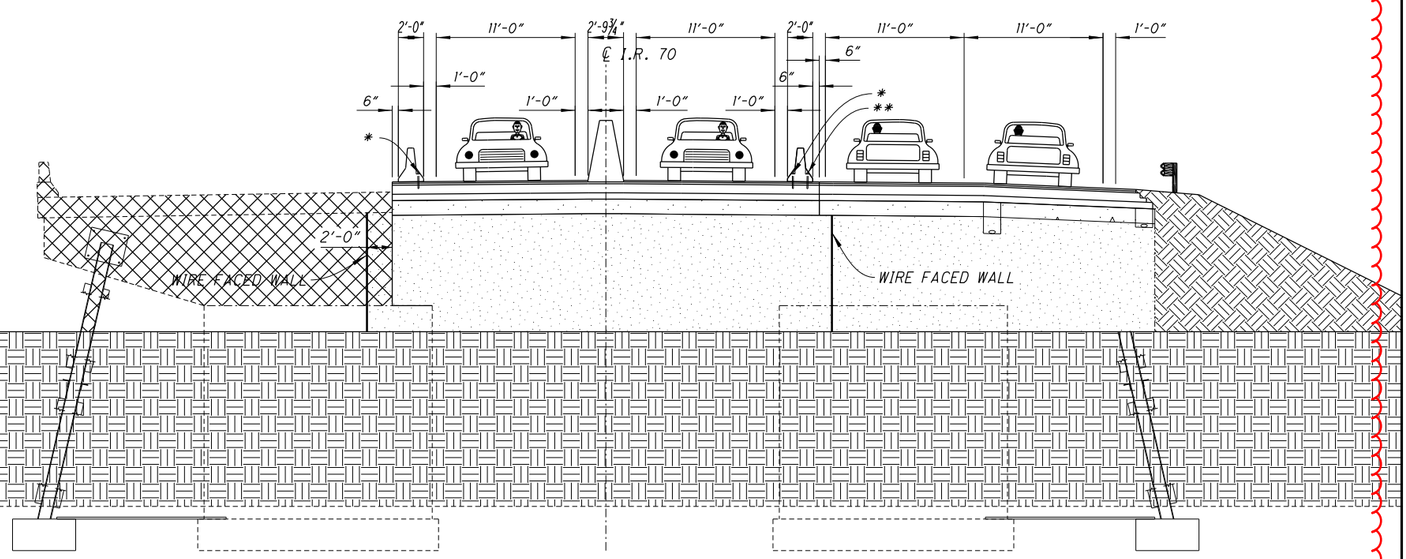
2231 / 1910	4 / 12	MUS-70-10.49 PID No. 93006	MOT REMOVAL OF BRIDGE STRUCTURES BRIDGE NO. MUS-70-1306 I.R. 70 OVER ABANDONED RAILROAD	DESIGNED TAG CHECKED JKS	DRAWN TAG REVISED	REVIEWED TAG DATE 11/20/20 STRUCTURE FILE NUMBER 6003036	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5



PHASE 2 REMOVAL



PHASE 2 REPLACEMENT

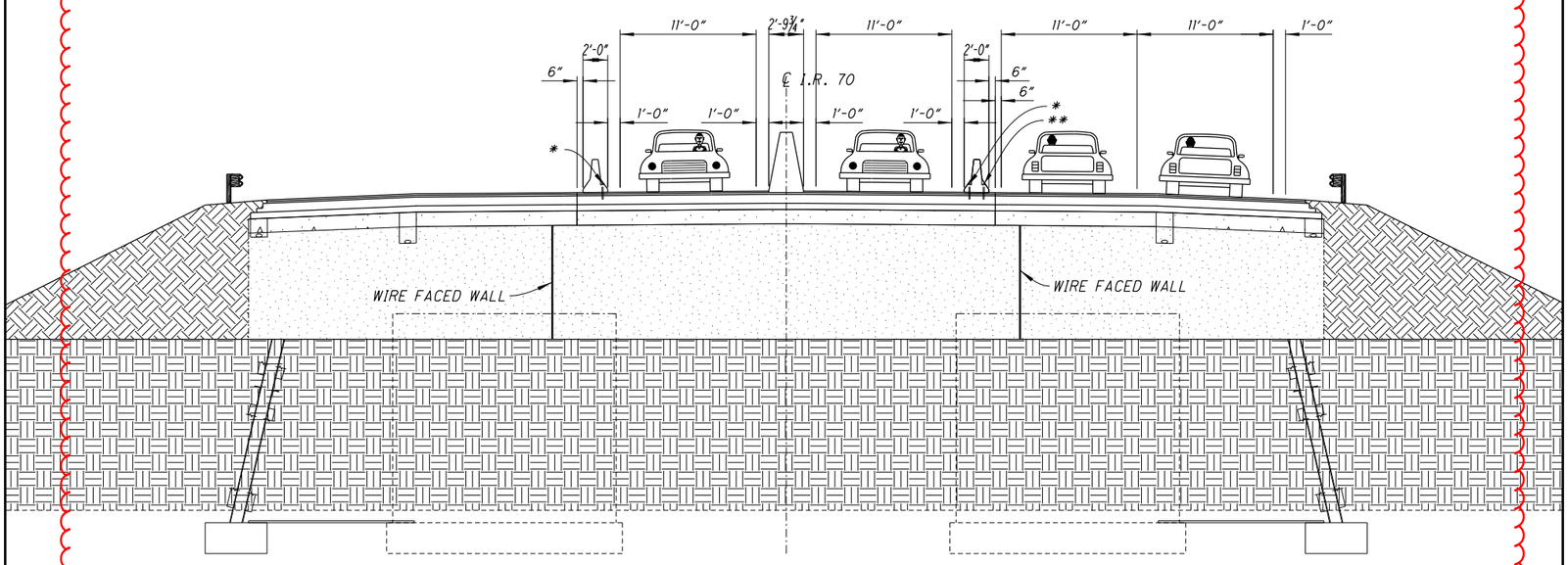


PHASE 3 REMOVAL

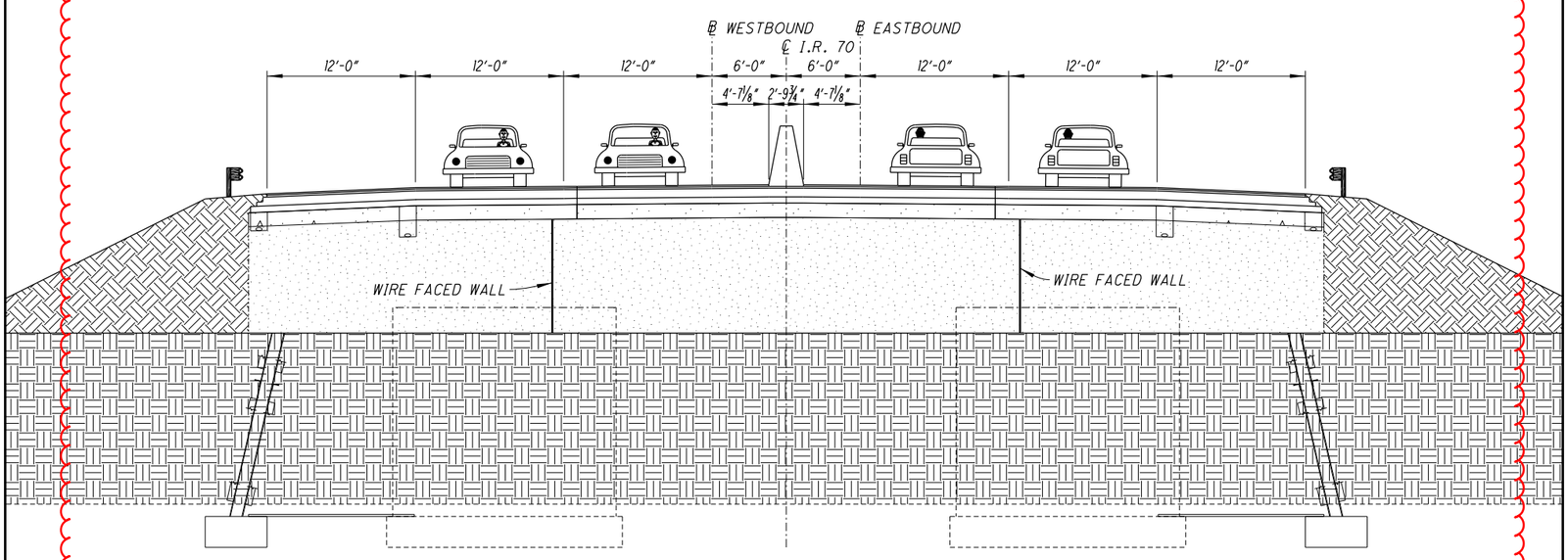
* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

** - A MINIMUM OF 2 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

2021 JUN	5 / 12	MUS-70-10.49 PID No. 93006	MOT REMOVAL OF BRIDGE STRUCTURES BRIDGE NO. MUS-70-1306 I.R. 70 OVER ABANDONED RAILROAD	DESIGNED TAG	DRAWN TAG	REVIEWED TAG 11/20/20	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
				CHECKED JKS	REVISED	STRUCTURE FILE NUMBER 6003036	



PHASE 3 REPLACEMENT



PROPOSED TYPICAL SECTION

* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. PB IS INCLUDED AND PAID FOR WITH ROADWAY MOT QUANTITIES

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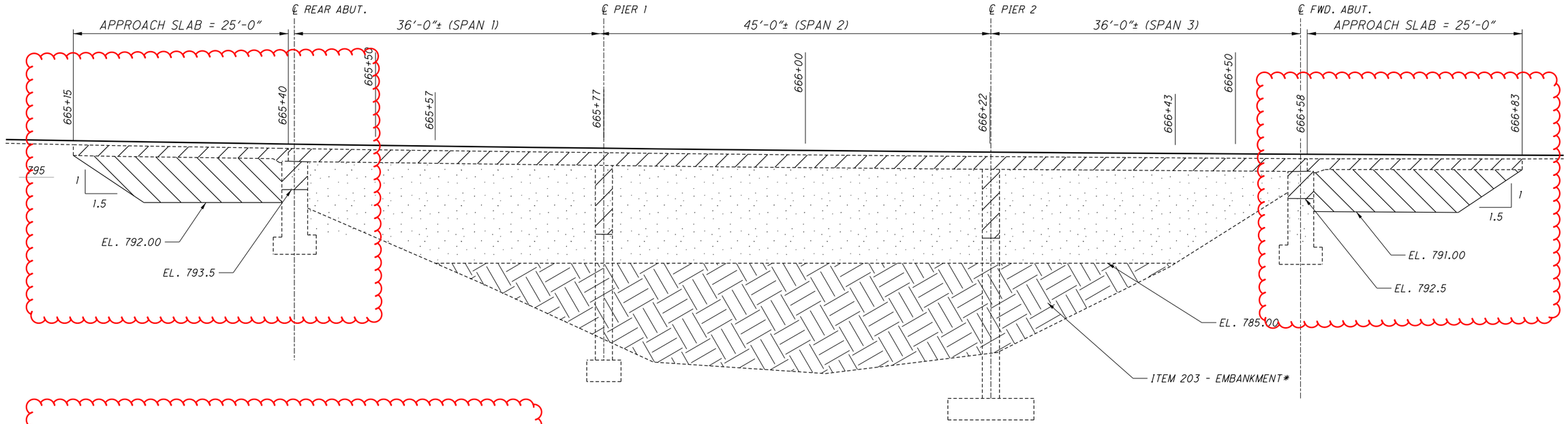
1912 / 22231	6 / 12	MUS-70-10.49 PID No. 93006	MOT REMOVAL OF BRIDGE STRUCTURES BRIDGE NO. MUS-70-1306 I.R. 70 OVER ABANDONED RAILROAD	DESIGNED TAG CHECKED JKS	DRAWN TAG REVISED	REVIEWED TAG DATE 11/20/20 STRUCTURE FILE NUMBER 6003036	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5



*NOTE: ALL EMBANKMENT SHALL BE PLACED TOO ELEVATION 785.00+ BEFORE ANY REMOVAL OF THE BRIDGE IS TO BE DONE.

- ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
- ITEM 203 EMBANKMENT *
- ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN
- ITEM 840 - SELECT GRANULAR MATERIAL, AS PER PLAN
- ITEM 867 - TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL

CALCULATION

STATION	Phase 1		Phase 2		Phase 3		TOTAL	CU.YD.
	F	G	F	G	F	G		
665+15.00	0	0	0	0	0	0		
	0	159	79	100	86	95		
665+40.00	0	343	170	215	186	205		
	0	244	111	154	116	151		
665+57.00	0	432	182	274	182	274		
	866	320	135	203	135	203		
665+77.00	2337	432	182	274	182	274		
	3895	720	303	457	303	457		
666+22.00	2337	432	182	274	182	274		
	1818	336	142	213	142	213		
666+43.00	2337	432	182	274	182	274		
	649	227	94	139	141	139		
666+58.00	0	386	157	228	325	228		
	0	0	70	0	144	0		
666+70.00	0	0	157	0	325	0		
	0	0	38	0	78	0		
666+83.00	0	0	0	0	0	0		
ITEM 203 - EMBANKMENT	7228	-	972	-	1145	-	9345	CU.YD.
ITEM 840 - SELECT GRANULAR BACKFILL, AS	-	-	-	1266	-	1258	2524	CU.YD.
ITEM 867 - TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL	-	2006	-	-	-	-	2006	CU.YD.

NOTE: ITEM 867 - TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL QUANTITY IS FOR ESTIMATION PURPOSES ONLY. THIS QUANTITY IS INCLUDED IN THE LUMP SUM PAYMENT FOR THE WALL.

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

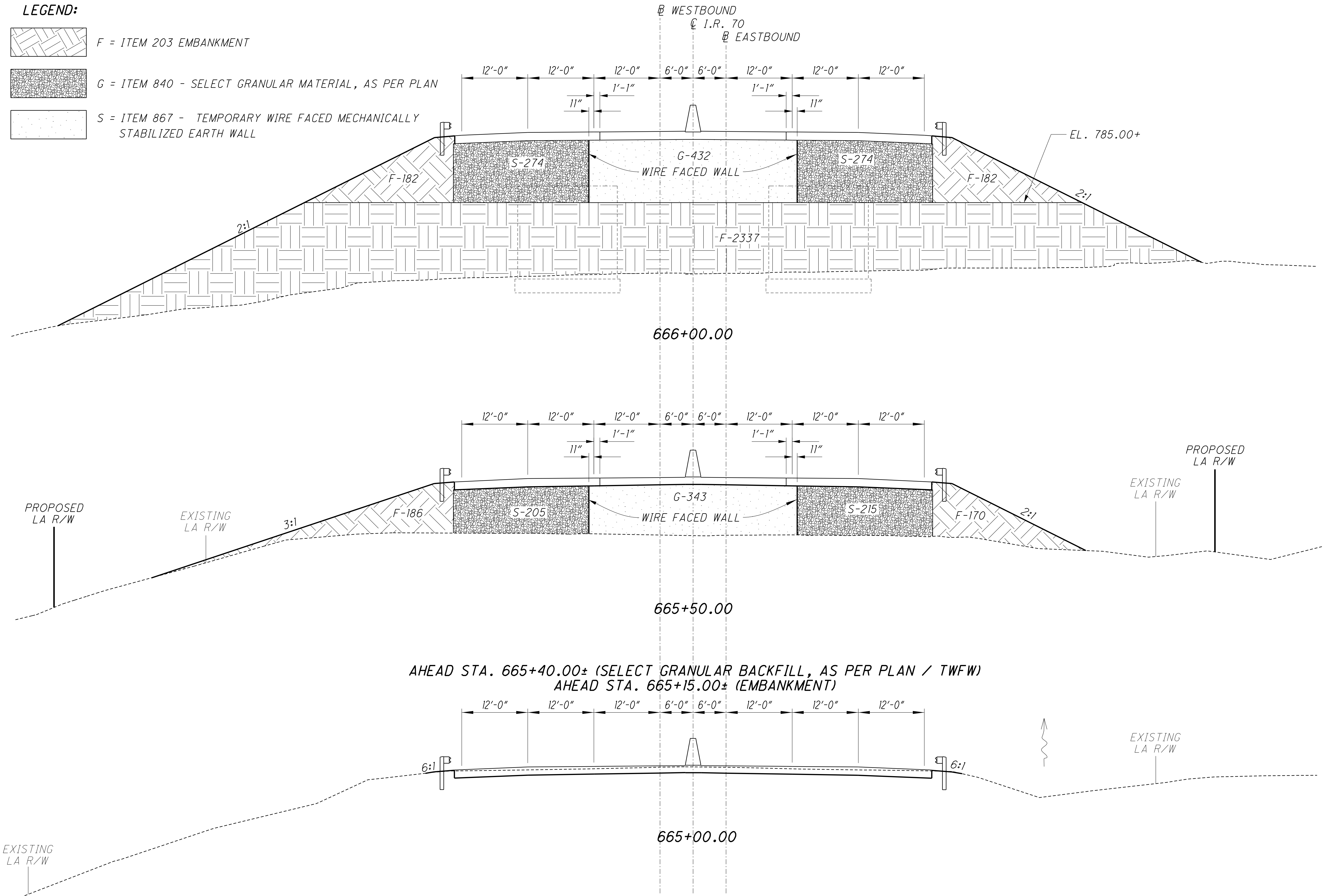
DESIGNED TAG | DRAWN TAG | REVIEWED TAG | DATE 11/20/20
CHECKED JKS | REVISED | STRUCTURE FILE NUMBER 6003036

TYPICAL PROFILE
BRIDGE NO. MUS-70-1306
I.R. 70 OVER ABANDONED RAILROAD

MUS-70-10.49
PID No. 93006

7 / 12

1913
2231



LEGEND:
F = ITEM 203 EMBANKMENT
G = ITEM 840 - SELECT GRANULAR MATERIAL, AS PER PLAN
S = ITEM 867 - TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL
℄ WESTBOUND
℄ I.R. 70
℄ EASTBOUND
12'-0"
6'-0"
1'-1"
11"
EL. 785.00+
S-274
G-432
WIRE FACED WALL
F-182
F-2337
2:1
666+00.00
PROPOSED LA R/W
EXISTING LA R/W
3:1
F-186
S-205
G-343
S-215
F-170
665+50.00
AHEAD STA. 665+40.00± (SELECT GRANULAR BACKFILL, AS PER PLAN / TWFW)
AHEAD STA. 665+15.00± (EMBANKMENT)
6:1
665+00.00

PROPOSED CROSS SECTIONS

BRIDGE NO. MUS-70-1306

I.R. 70 OVER ABANDONED RAILROAD

OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

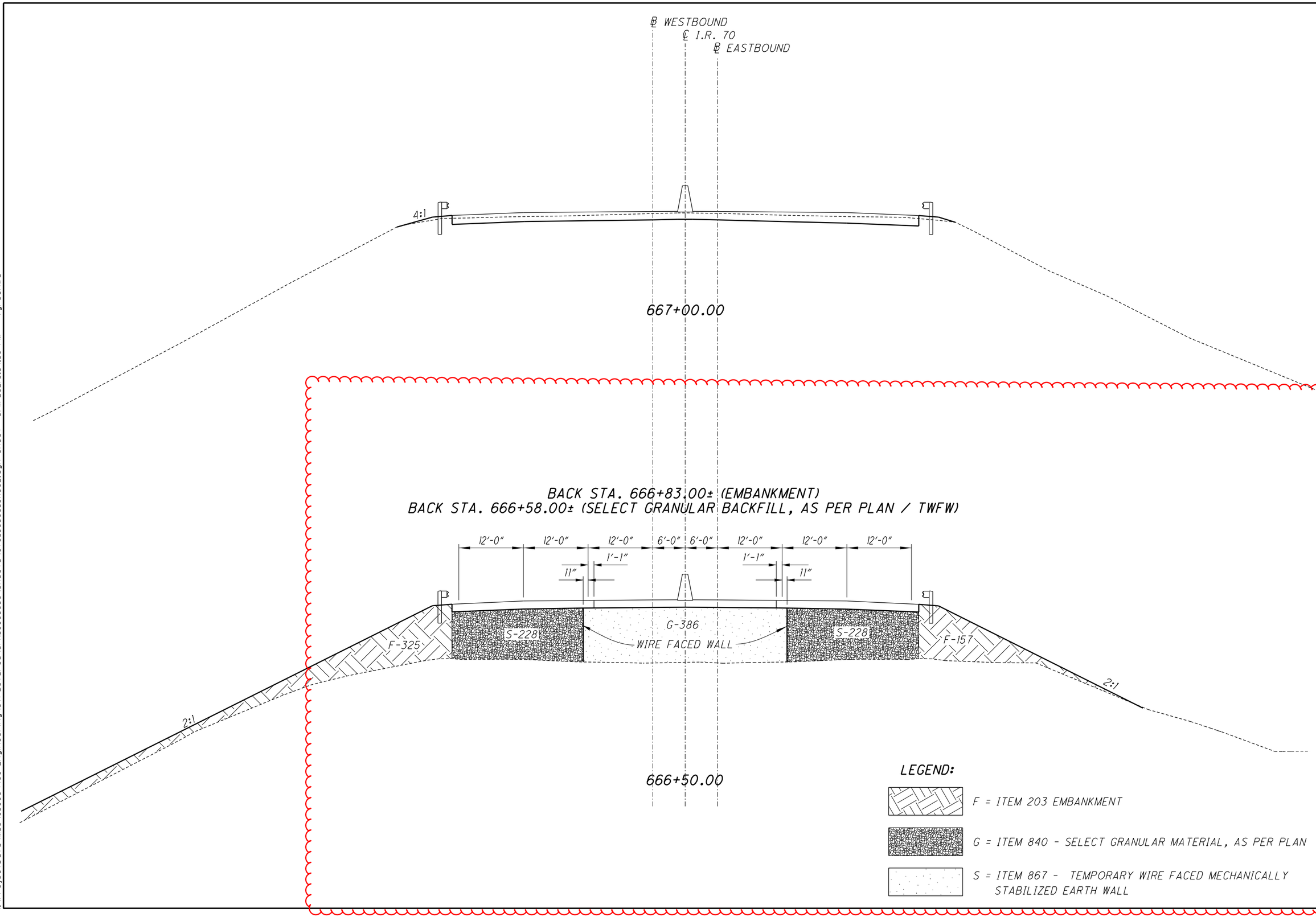
DESIGNED TAG | CHECKED JKS | DRAWN TAG | REVISED | REVIEWED TAG | DATE 11/20/20 | STRUCTURE FILE NUMBER 6003036

MUS-70-10.49

PID No. 93006

8 / 12

1914 / 2231



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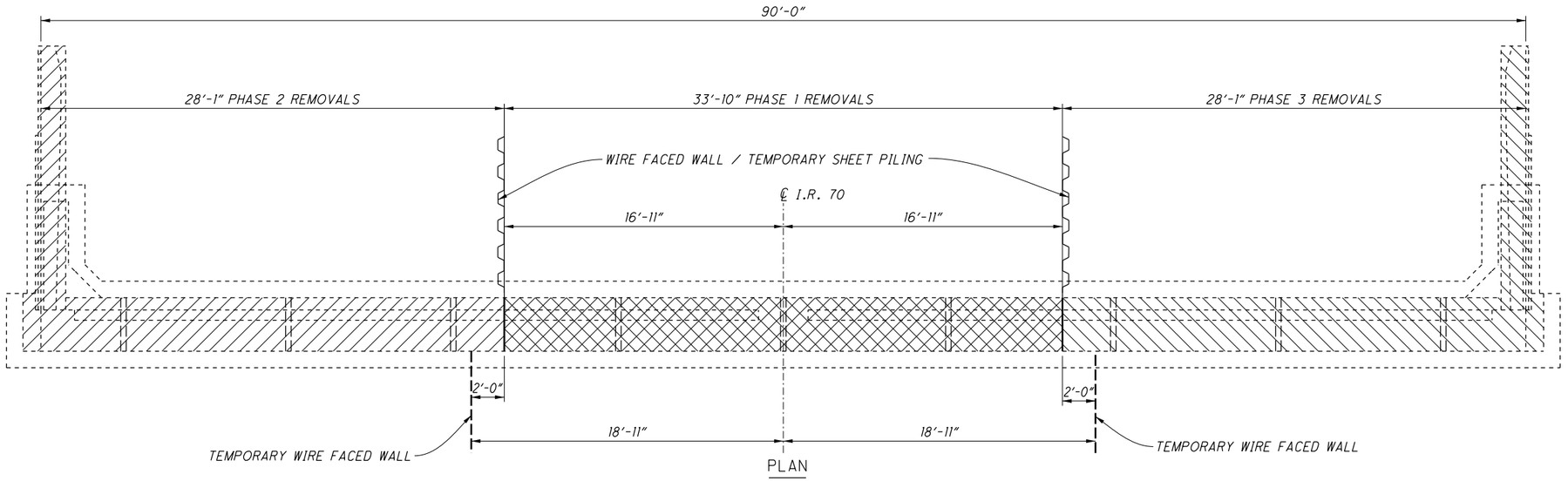
DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
TAG	TAG	TAG	11/20/20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JKS		6003036	

PROPOSED CROSS SECTIONS

BRIDGE NO. MUS-70-1306
I.R. 70 OVER ABANDONED RAILROAD

MUS-70-10.49
PID No. 93006

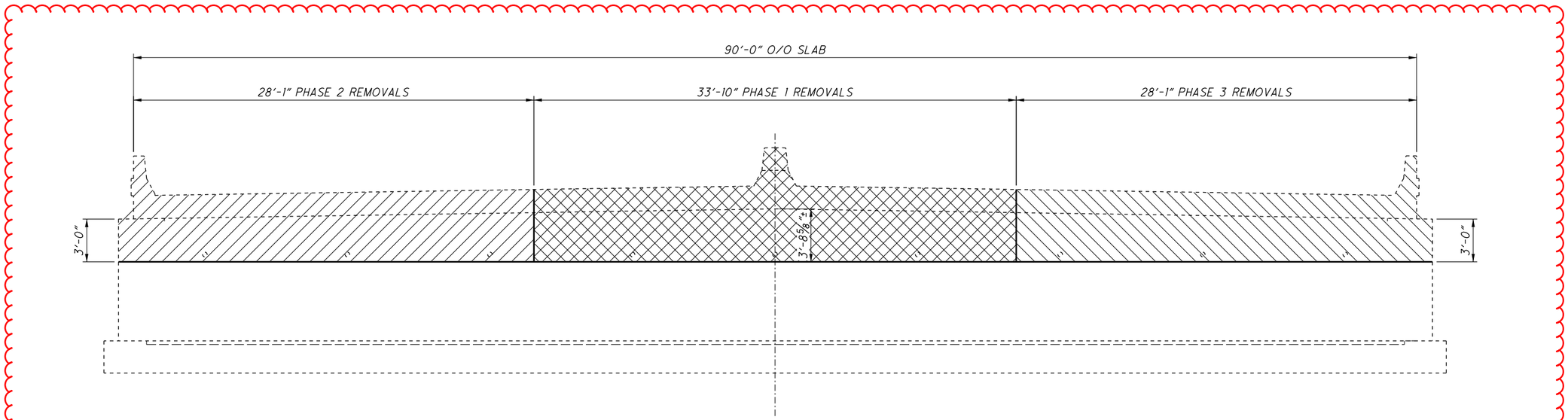


PLAN

PHASE 1 REMOVALS

PHASE 2 REMOVALS

PHASE 3 REMOVALS



ELEVATION

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED	DRAWN	REVIEWED	DATE
TAG	TAG	TAG	11/20/20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JKS	XXX	6003036	

EXISTING REAR & FORWARD ABUTMENT REMOVALS

BRIDGE NO. MUS-70-1306
I.R. 70 OVER ABANDONED RAILROAD

MUS-70-10.49
PID No. 93006

10 / 12

1916
2231

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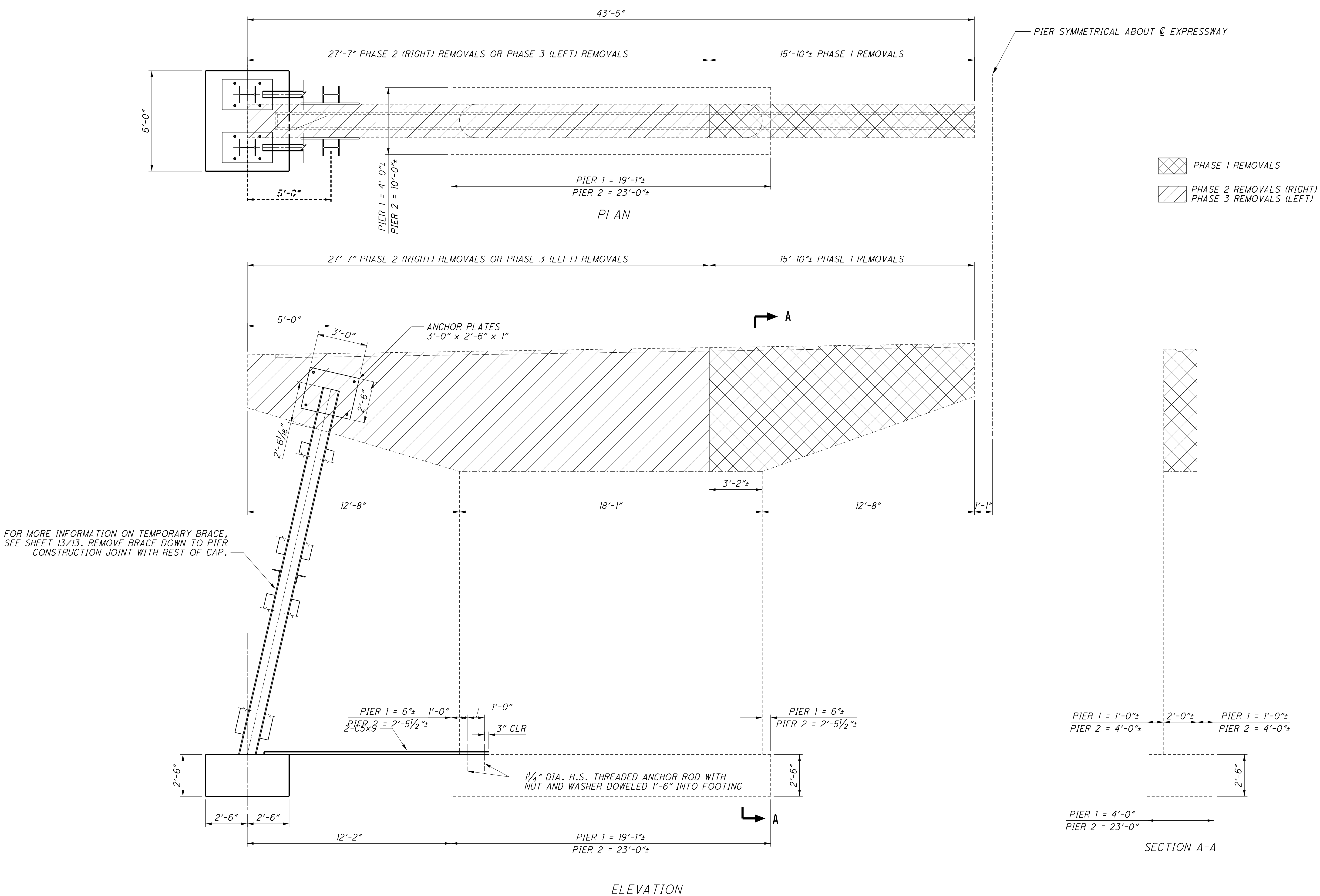


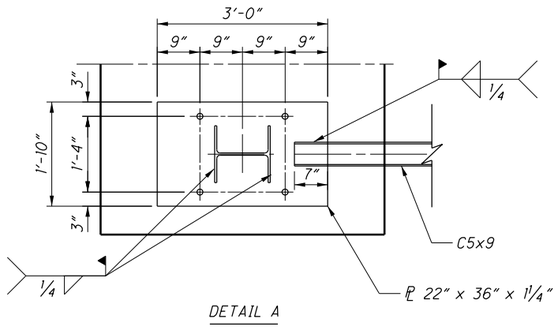
DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

REVIEWED XXX	DATE 11/20/20	STRUCTURE FILE NUMBER 6003036	
DRAWN TAG	REVISED XXX	DESIGNED TAG	CHECKED JKS

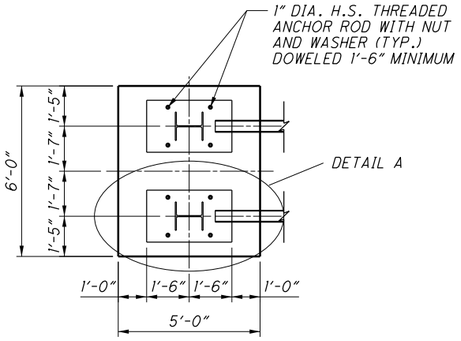
EXISTING PIER 1
BRIDGE NO. MUS-70-1306
I.R. 70 OVER ABANDONED RAILROAD

MUS-70-10.49
PID No. 93006

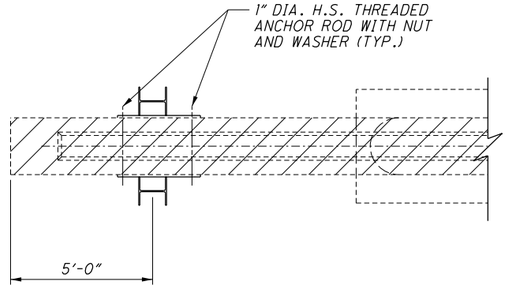
1917
2231



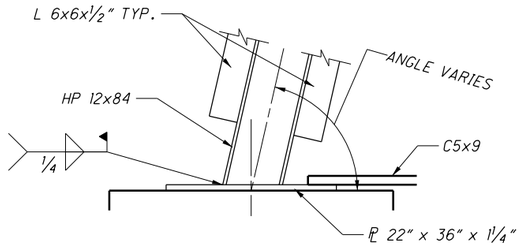
DETAIL A



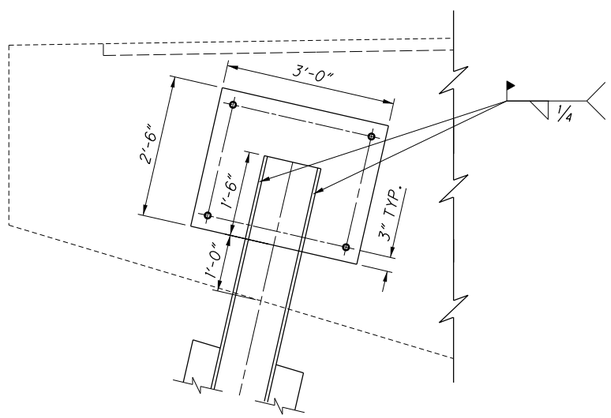
VIEW B-B



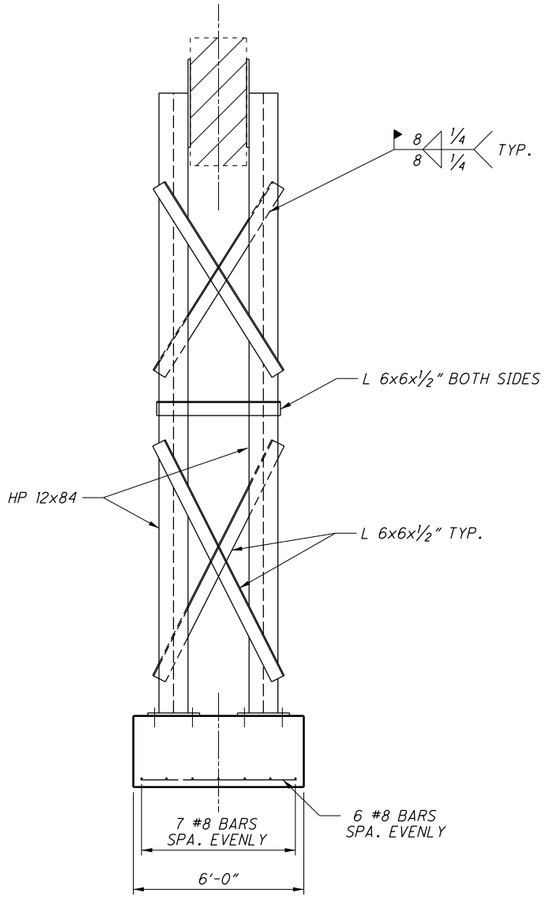
PLAN

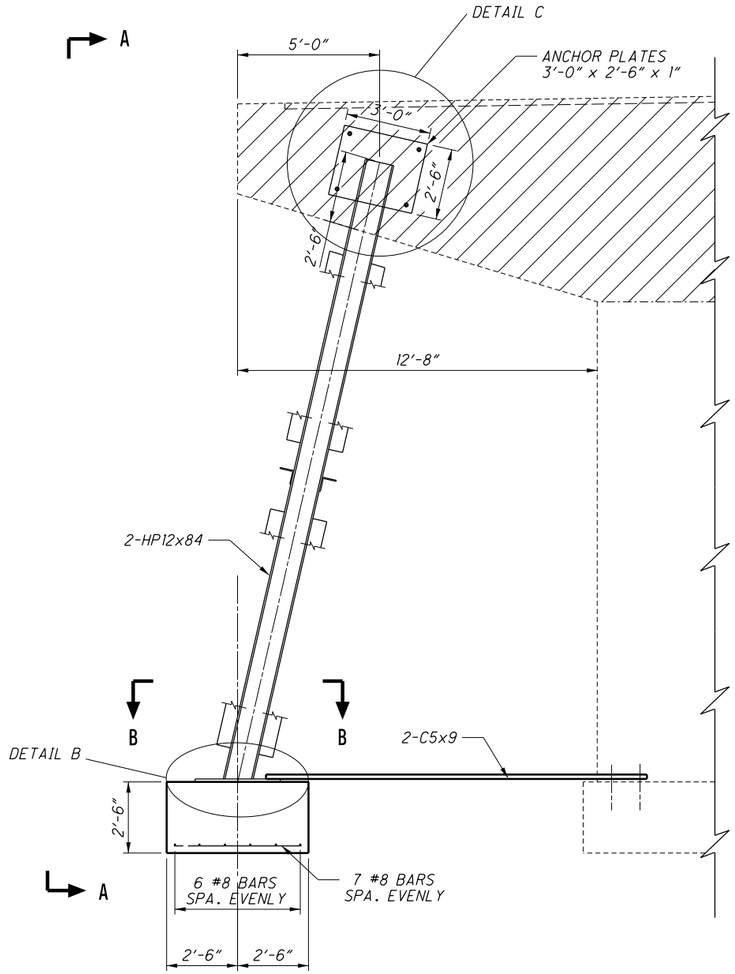


DETAIL B



DETAIL C





ELEVATION

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

DESIGNED JKS | DRAWN JKS | REVIEWED TAG | DATE 3/10/2021 | STRUCTURE FILE NUMBER 6003036

CHECKED CPS | REVISED

TEMPORARY PIER SUPPORT
BRIDGE NO. MUS-70-1306
I.R. 70 OVER ABANDONED RAILROAD

MUS-70-10.49
PID No. 93006

12 / 12

1918
2231

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MUS-70-1142 (RAMP E) BRIDGE SUMMARY - 06/IMS/BR

CALC: RSN | CHECK: AH

ITEM	ITEM EXT.	TOTAL QUANTITY	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER	GENERAL	APP/REF SHEET NO.
202	11003	LS	LS	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	3
202	22900	150	SY	APPROACH SLAB REMOVED	150				
204	30010	2,580	CY	GRANULAR MATERIAL, TYPE B	2,580				
204	30020	210	CY	GRANULAR MATERIAL, TYPE C	210				
204	50000	591	SY	GEOTEXTILE FABRIC	591				
503	11100	LS	LS	COFFERDAMS AND EXCAVATION BRACING				LS	
503	21100	140	CY	UNCLASSIFIED EXCAVATION		140			
503	21301	LS	LS	UNCLASSIFIED EXCAVATION, AS PER PLAN	LS				4
505	11100	LS	LS	PILE DRIVING EQUIPMENT MOBILIZATION				LS	
507	00100	2,170	FT	STEEL PILES HP10X42, FURNISHED	2,170				
507	00150	1,940	FT	STEEL PILES HP10X42, DRIVEN	1,940				
507	00200	540	FT	STEEL PILES HP12X53, FURNISHED		540			
507	00250	450	FT	STEEL PILES HP12X53, DRIVEN		450			
507	93300	64	EACH	STEEL POINTS OR SHOES	46	18			
509	10001	110,224	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	25,532	18,786	65,906		4
511	33501	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN			2		12
511	34446	230	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			230		
511	34463	80	CY	CLASS QC SSC CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN			80		3
511	40512	90	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		90			
511	44112	80	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	80				
511	46512	204	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	145	59			
512	10050	1392	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	694	153	545		
512	10300	20	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN			20		
513	10301	256,298	LB	STRUCTURAL STEEL MEMBERS, LEVEL 5, AS PER PLAN			256,298		3
513	20000	2,148	EACH	WELDED STUD SHEAR CONNECTORS			2,148		
514	00061	16,900	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN			16,900		4
514	00067	16,900	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			16,900		4
514	10000	12	EACH	FINAL INSPECTION REPAIR			12		
516	13601	20	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN			20		4
516	13901	156	SF	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	156				4
516	14020	109	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	109				
516	14600	76	FT	STRUCTURE JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB			76		40
518	21200	45	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	45				
518	40000	645	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	645				
518	40010	20	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	20				
526	30010	200	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")	200				
530	00200	LS	LS	STRUCTURES - VIBRATION MONITORING				LS	3
530	00200	LS	LS	STRUCTURES - PRECONSTRUCTION CONDITION SURVEY				LS	4
530	00600	7,275	SF	STRUCTURES - AESTHETIC TREATMENT (CONCRETE FORMLINER/STAIN)	5,720		1,555		3
613	41201	240	CY	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	240				4
840	20000	5,720	SF	MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN	5,720				43
840	21000	5,649	CY	WALL EXCAVATION	5,649				
840	22000	595	SY	FOUNDATION PREPARATION	595				
840	23000	3,435	CY	SELECT GRANULAR BACKFILL	3,435				
840	26000	345	FT	CONCRETE COPING	345				
840	27000	5	DAY	ON-SITE ASSISTANCE	5				
869	00101	12	EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARINGS, AS PER PLAN	8	4			21, 22

DESIGN AGENCY
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ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

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AH	AH	EFD	12/2020
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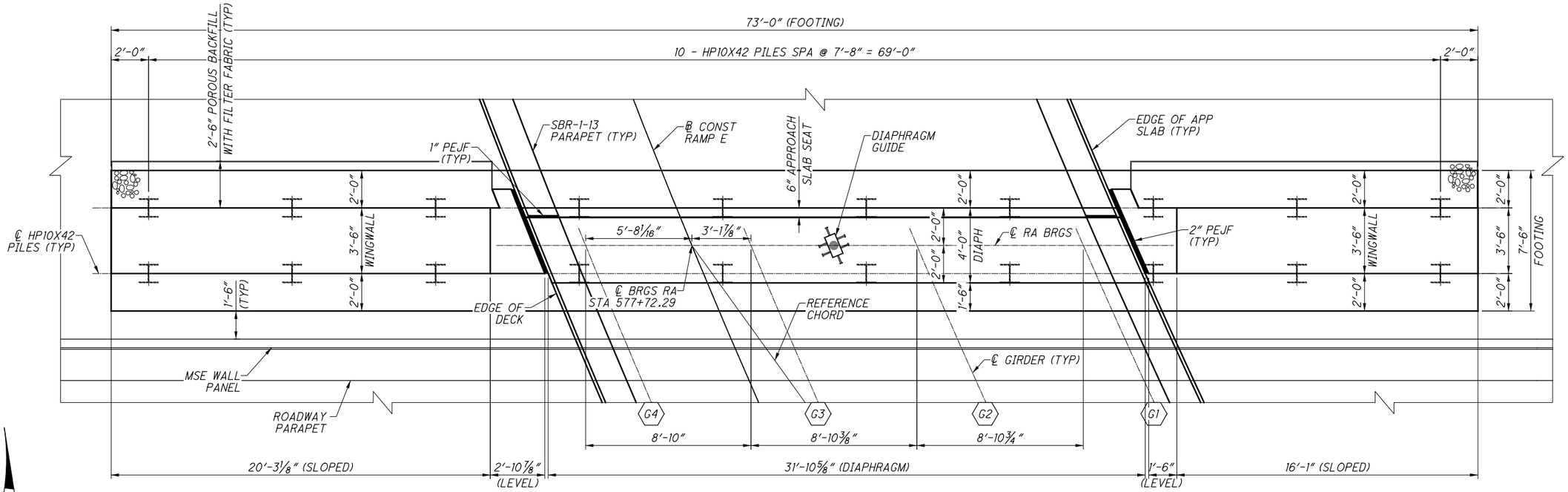
CTM		6002766	

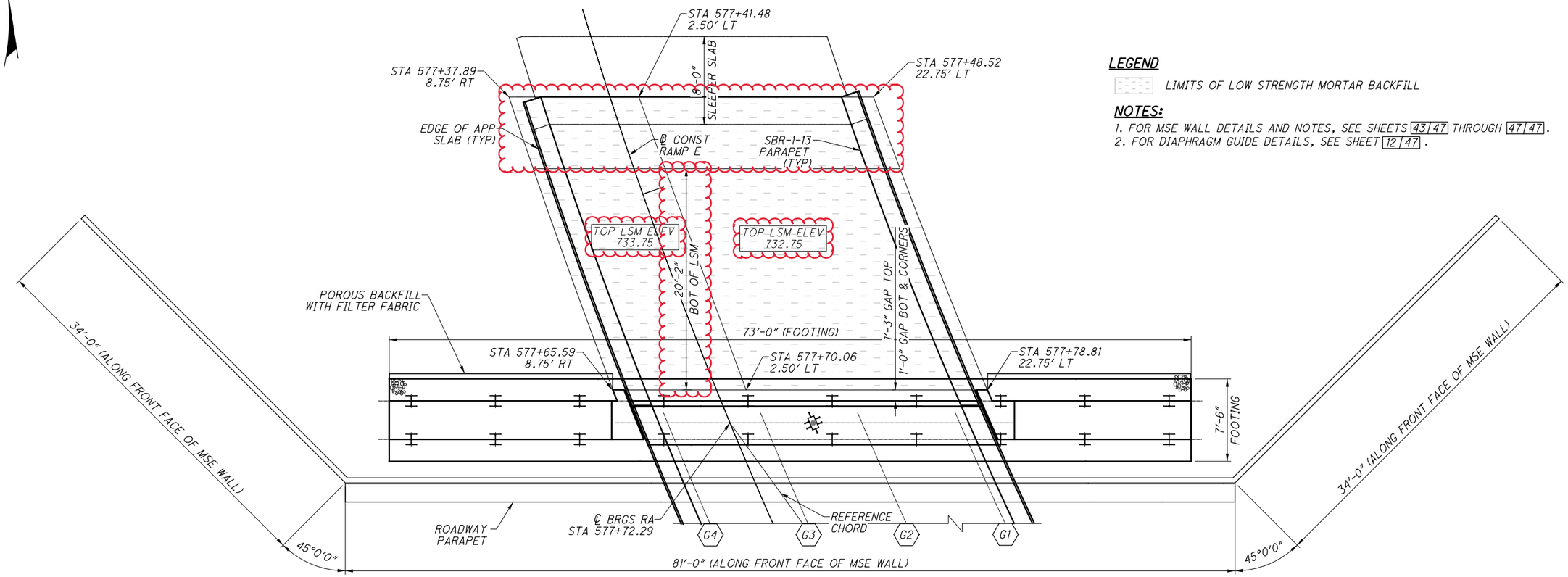
BRIDGE SUMMARY
BRIDGE NO. MUS-70-1142
UNDER RAMP E

MUS-70-10.49
PID No. 93006

2012
2231



REAR ABUTMENT PLAN



REAR ABUTMENT PLAN - OVERALL VIEW

LEGEND

LIMITS OF LOW STRENGTH MORTAR BACKFILL

NOTES:

1. FOR MSE WALL DETAILS AND NOTES, SEE SHEETS 43/47 THROUGH 47/47.
2. FOR DIAPHRAGM GUIDE DETAILS, SEE SHEET 12/47.

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DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

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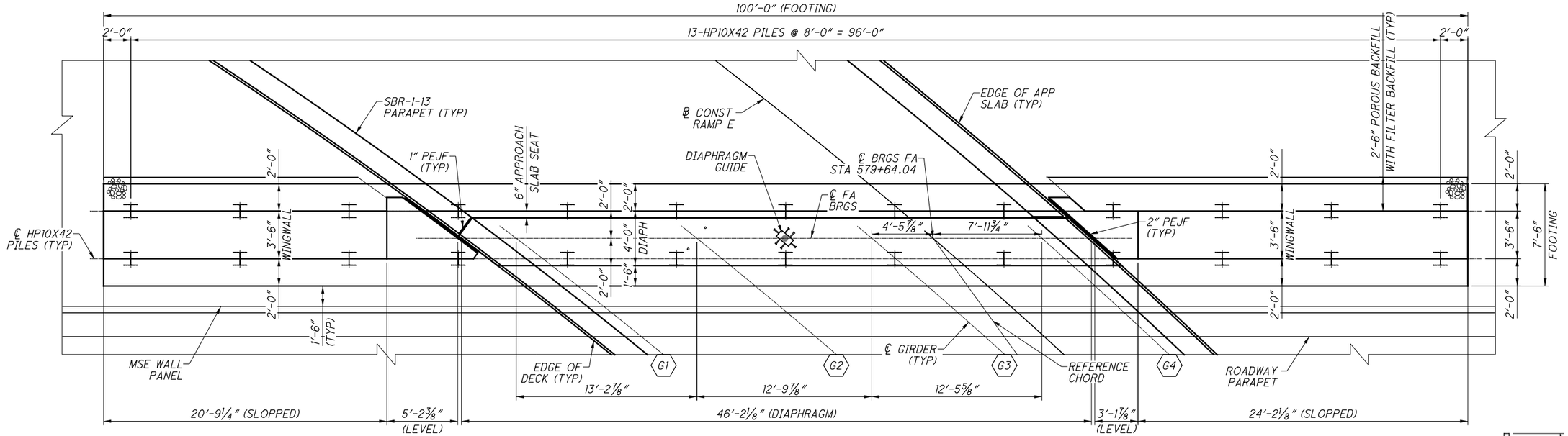
OVERALL REAR ABUTMENT PLAN

BRIDGE NO. MUS-70-1142
UNDER RAMP E

MUS-70-10.49
PID No. 93006

2014
2231



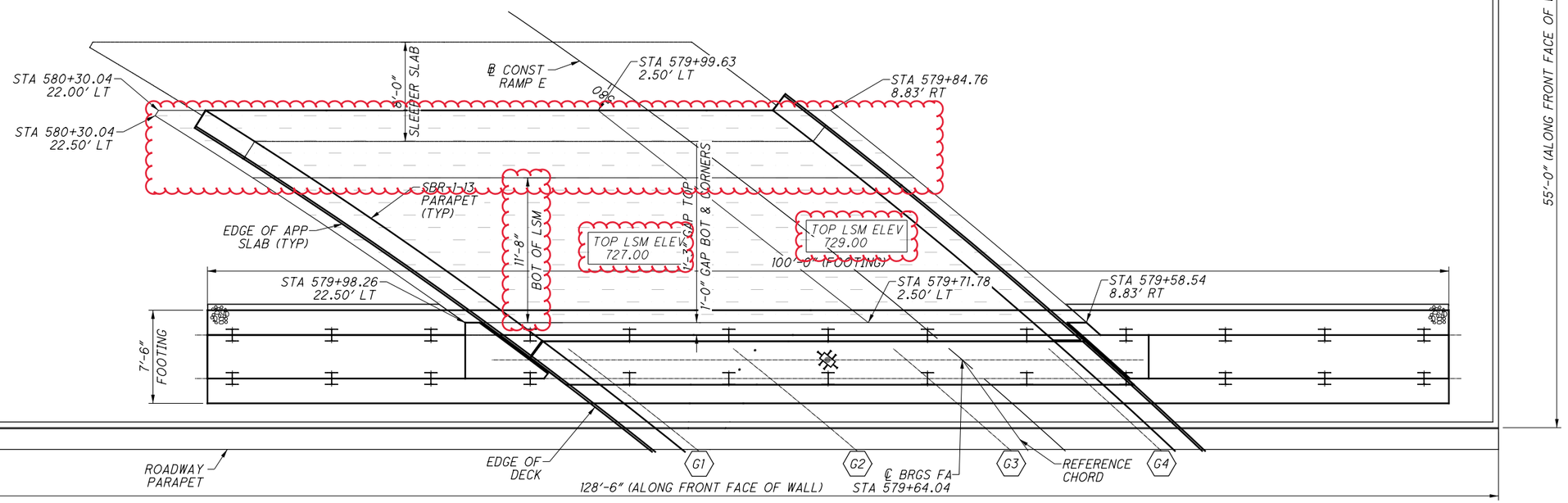
FORWARD ABUTMENT PLAN

LEGEND

LIMITS OF LOW STRENGTH MORTAR BACKFILL

NOTES:

1. FOR MSE WALL DETAILS AND NOTES, SEE SHEETS 43|47 THROUGH 47|47.
2. FOR DIAPHRAGM GUIDE DETAILS, SEE SHEET 12|47.



FORWARD ABUTMENT PLAN - OVERALL VIEW

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

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FORWARD ABUTMENT PLAN
BRIDGE NO. MUS-70-1142
UNDER RAMP E

MUS-70-10.49
PID No. 93006

13 / 47

2020
2231

SUBMITTAL: Stage 3
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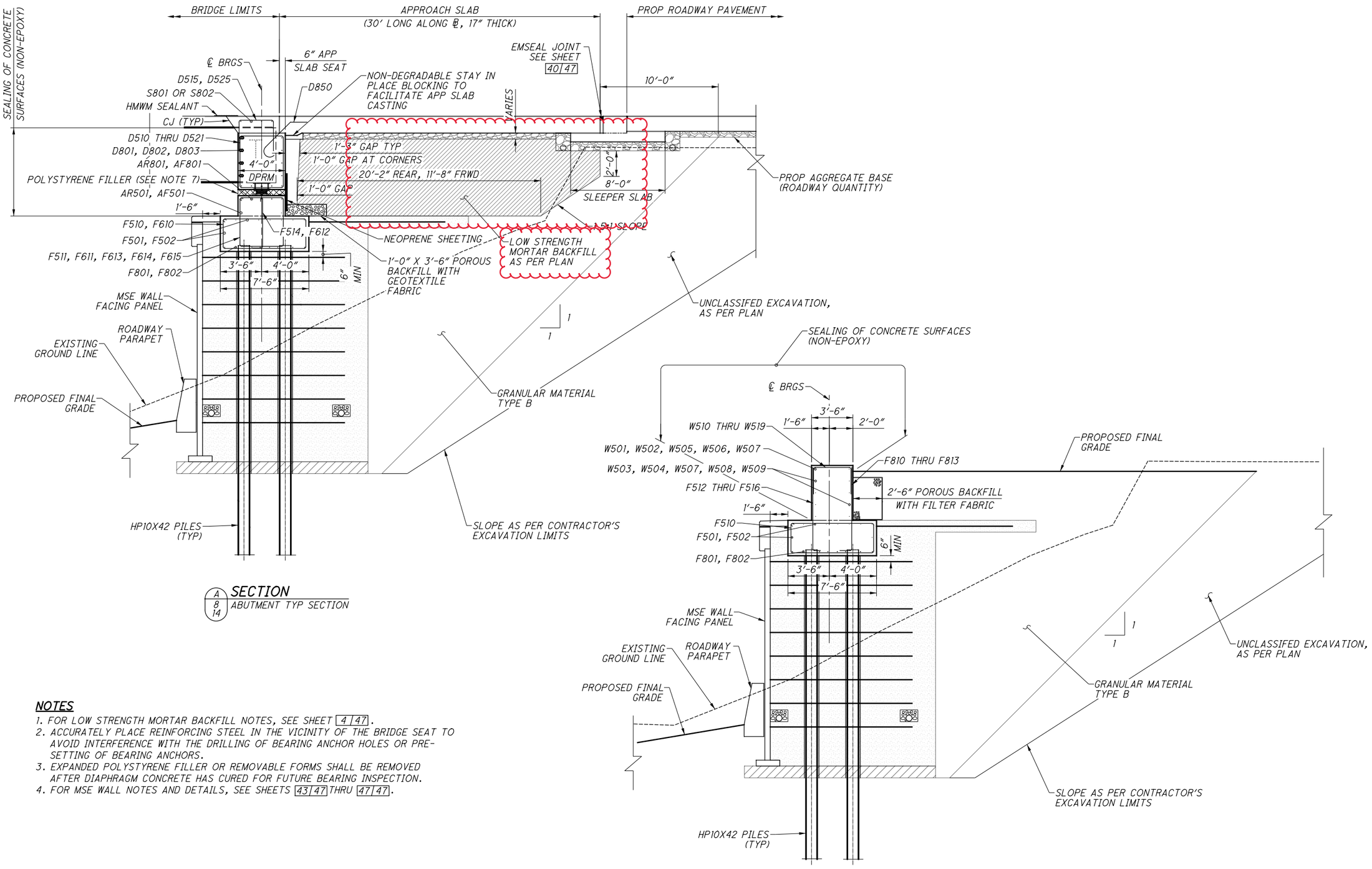

A 8 14 **SECTION**
ABUTMENT TYP SECTION

B 8 14 **SECTION**
WINGWALL TYP SECTION

NOTES

1. FOR LOW STRENGTH MORTAR BACKFILL NOTES, SEE SHEET 41|47.
2. ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR PRE-SETTING OF BEARING ANCHORS.
3. EXPANDED POLYSTYRENE FILLER OR REMOVABLE FORMS SHALL BE REMOVED AFTER DIAPHRAGM CONCRETE HAS CURED FOR FUTURE BEARING INSPECTION.
4. FOR MSE WALL NOTES AND DETAILS, SEE SHEETS 43|47 THRU 47|47.

DESIGN AGENCY
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ENGINEERS & ARCHITECTS, P.C.
2560 CORPORATE EXCHANGE DRIVE SUITE 230
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AH	AH	EFD	12/2020
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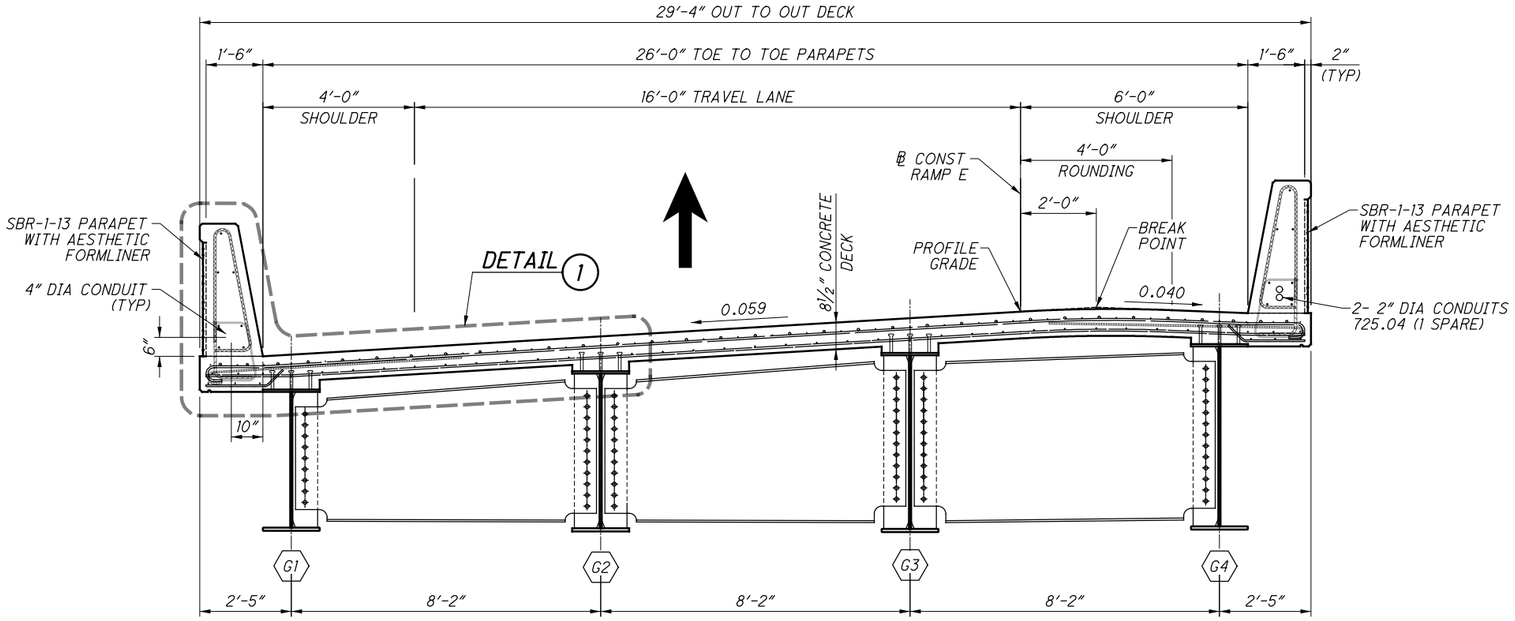
ABUTMENT AND WINGWALL TYPICAL SECTION
BRIDGE NO. MUS-70-1142
UNDER RAMP E

MUS-70-10.49
PID No. 93006

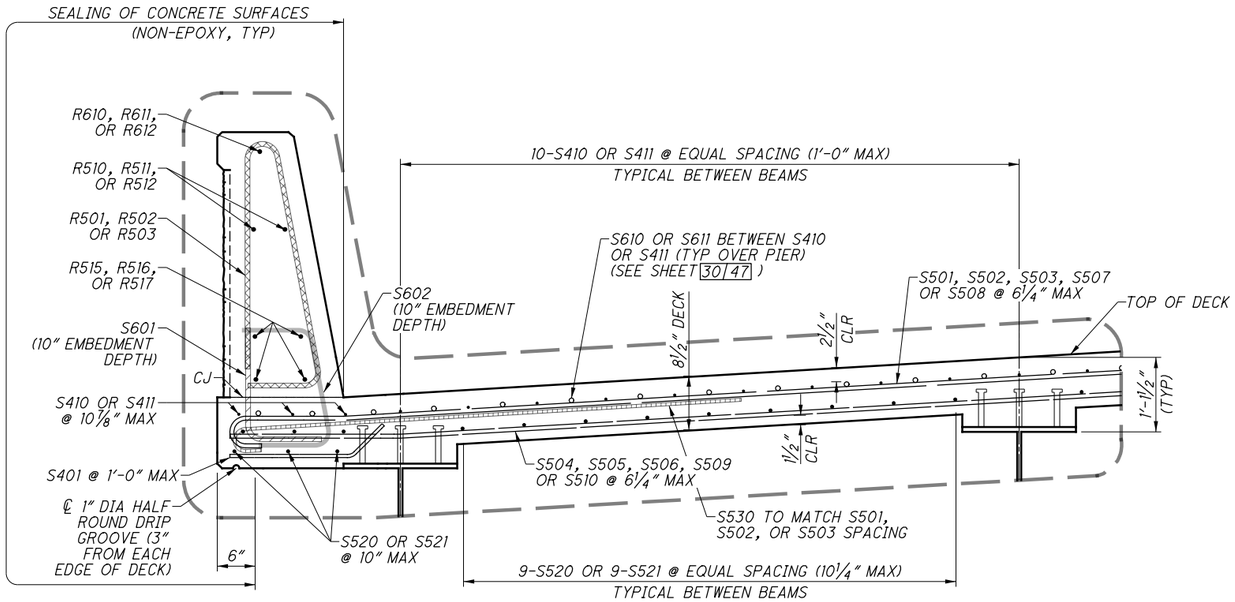
17 / 47

2024
2231

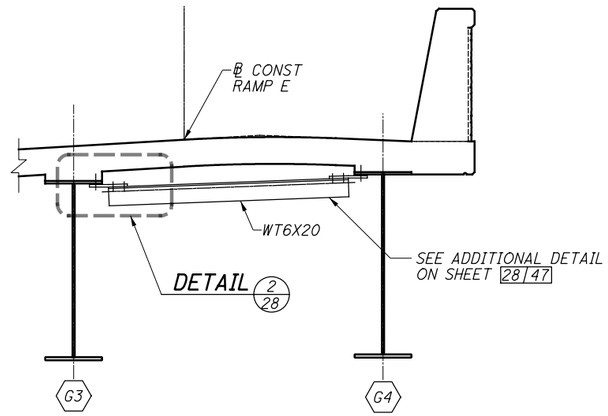


TRANSVERSE SECTION

DIMENSIONS NORMAL TO ℄ CONST RAMP E (RADIALLY DIMENSIONED)
(TOP FLANGE LATERAL BRACING NOT SHOWN FOR CLARITY)



1 DETAIL
TYPICAL REINFORCING PATTERN



TOP FLANGE LATERAL BRACING

PLACED IN POSITIVE FLEXURE REGIONS OF BAY 3; SEE FRAMING PLAN SHEET 23 47
(DIAPHRAGM NOT SHOWN FOR CLARITY)

NOTES

1. DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 5" AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE.

   THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH CMS 511.23.

2. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

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DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

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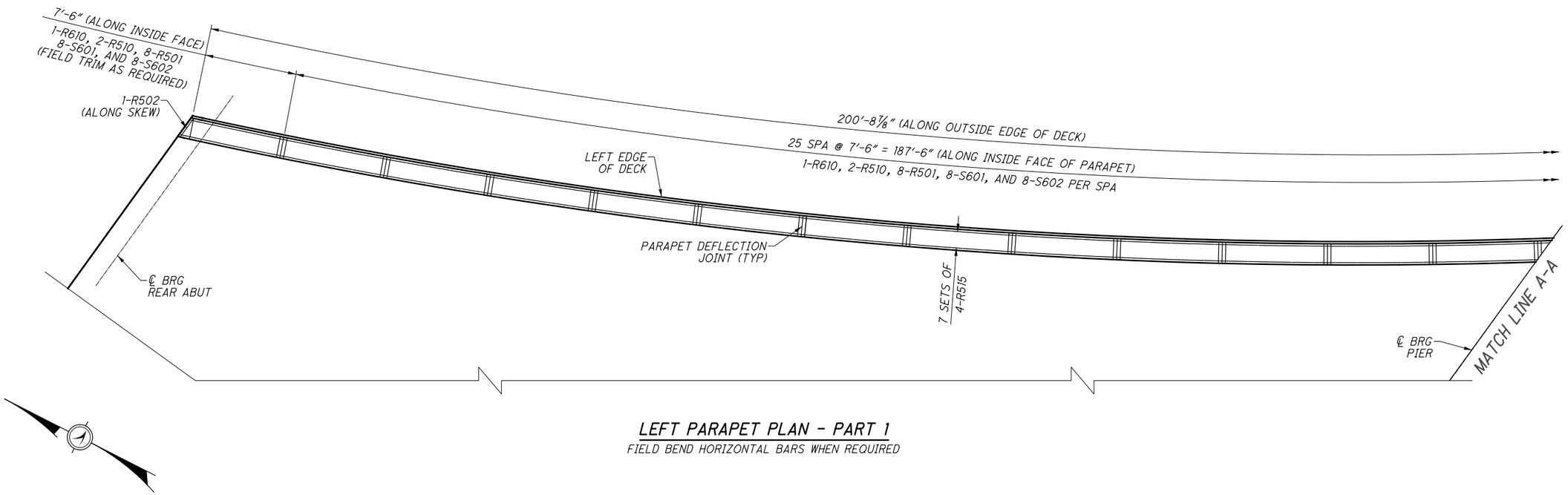
AE		6002766	

TRANSVERSE SECTION AND DETAILS
BRIDGE NO. MUS-70-1142
UNDER RAMP E

MUS-70-10.49
PID No. 93006

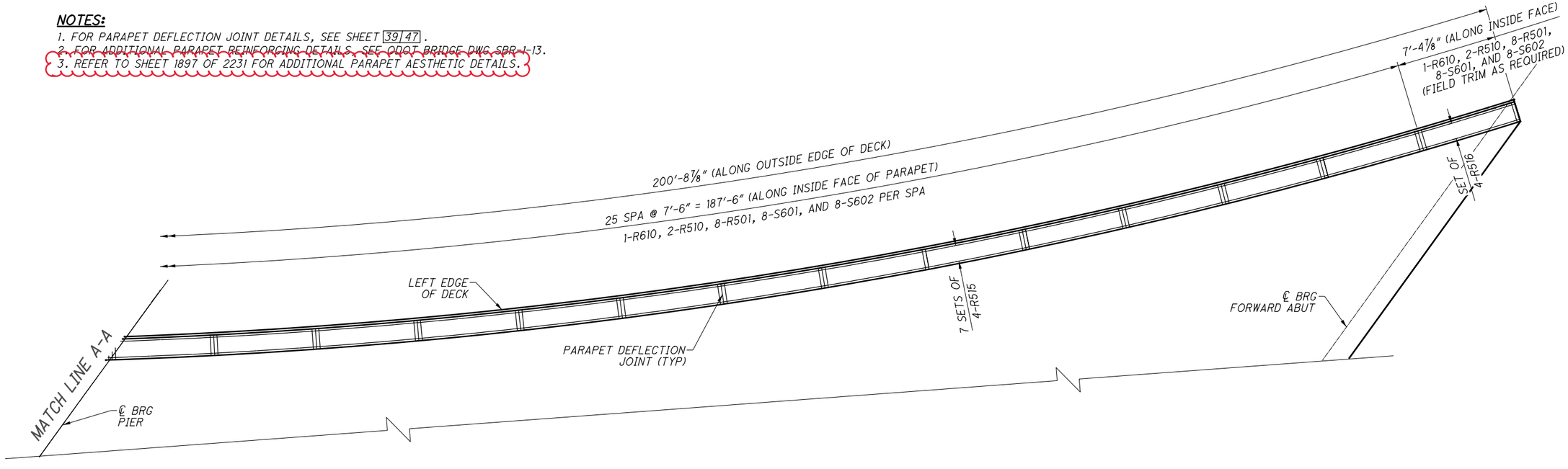


LEFT PARAPET PLAN - PART 1

FIELD BEND HORIZONTAL BARS WHEN REQUIRED

NOTES:

1. FOR PARAPET DEFLECTION JOINT DETAILS, SEE SHEET 39/47.
2. FOR ADDITIONAL PARAPET REINFORCING DETAILS, SEE ODOT BRIDGE DWG SBR-1-13.
3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.



LEFT PARAPET PLAN - PART 2

FIELD BEND HORIZONTAL BARS WHEN REQUIRED

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Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2600 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

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LEFT PARAPET PLAN AND DETAILS
BRIDGE NO. MUS-70-1142
UNDER RAMP E

MUS-70-10.49
PID No. 93006

35 / 47

2042
2231

SUBMITTAL: Stage 3
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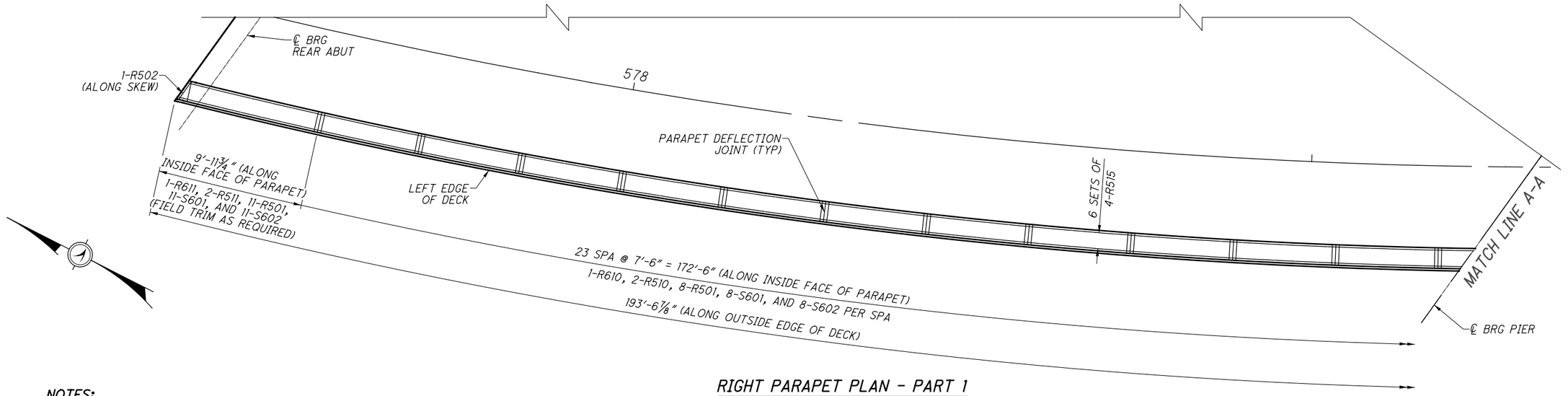
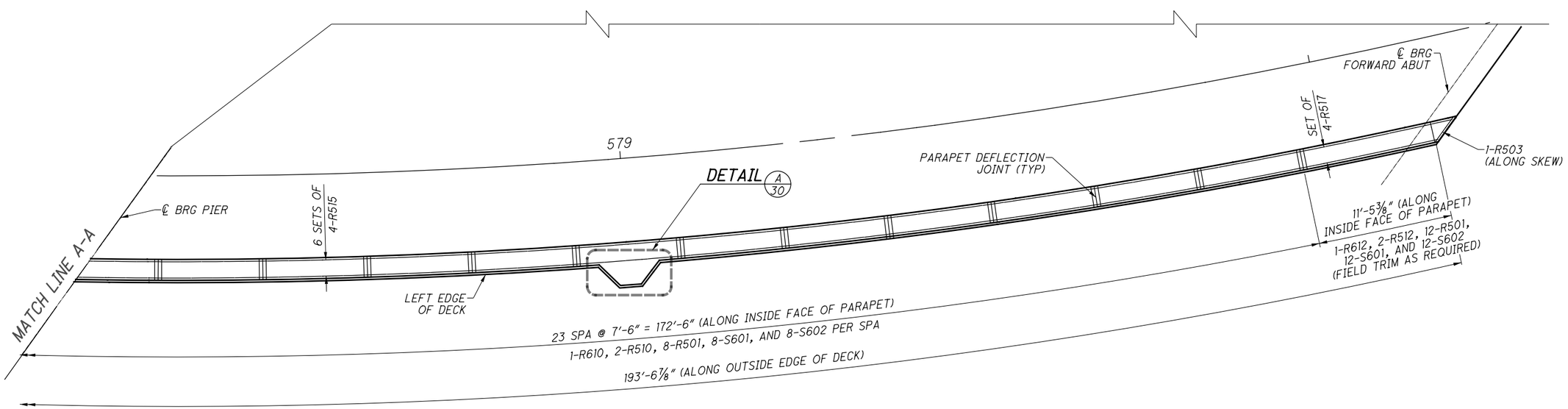


NOTES:

1. FOR PARAPET DEFLECTION JOINT DETAILS, SEE SHEET 39|47 .
2. FOR ADDITIONAL PARAPET REINFORCING DETAILS, SEE ODOT BRIDGE DWG SBR-1-13.
3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

RIGHT PARAPET PLAN - PART 1

FIELD BEND HORIZONTAL BARS AS REQUIRED



RIGHT PARAPET PLAN - PART 2

FIELD BEND HORIZONTAL BARS AS REQUIRED

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

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RIGHT PARAPET PLAN AND DETAILS
BRIDGE NO. MUS-70-1142
UNDER RAMP E

MUS-70-10.49
PID No. 93006

36 / 47

2043
2231

SUBMITTAL: Stage 3
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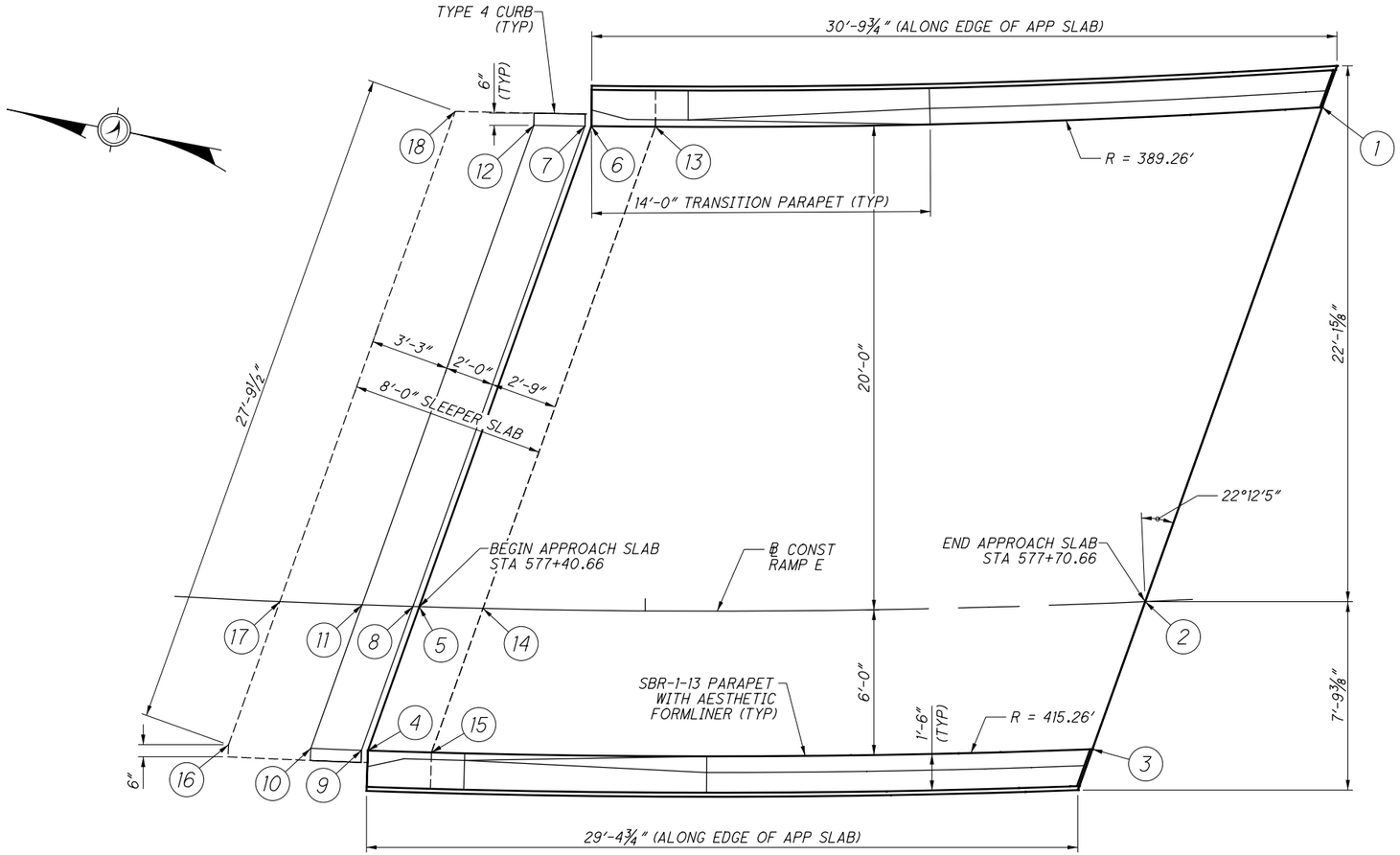
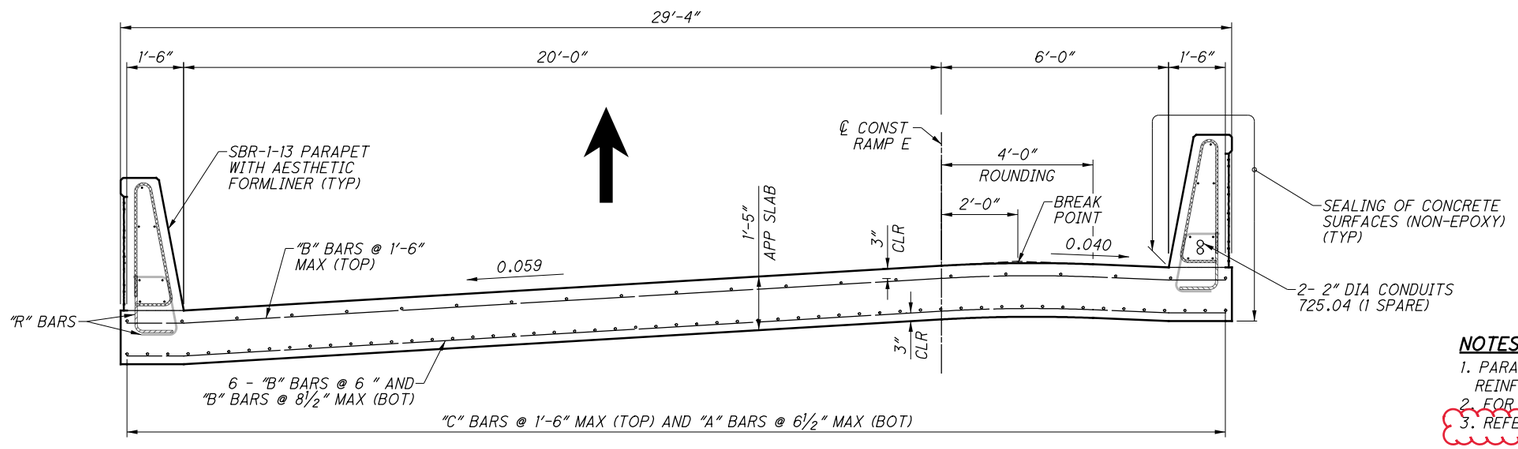


REAR APPROACH SLAB PLAN



REAR APPROACH SLAB SECTION

APPROACH SLAB SURFACE			
	STATION	OFFSET	ELEVATION
1	STA 577+79.19	20.00' L	734.77
2	STA 577+70.66	0.00'	736.04
3	STA 577+68.26	6.00' R	736.02
4	STA 577+38.75	6.00' R	736.26
5	STA 577+40.66	0.00'	736.29
6	STA 577+47.52	20.00' L	735.06
7	STA 577+47.24	20.00' L	735.06
8	STA 577+40.40	0.00'	736.29
9	STA 577+38.49	6.00' R	736.26
10	STA 577+36.42	6.00' R	736.27
11	STA 577+38.30	0.00'	736.30
12	STA 577+45.02	20.00' L	735.08

SLEEPER SLAB SURFACE			
	STATION	OFFSET	ELEVATION
13	STA 577+50.30	20.00' L	733.62
14	STA 577+43.30	0.00'	734.85
15	STA 577+41.33	6'.00 R	734.82
16	STA 577+35.07	6'.00 R	735.30
17	STA 577+34.89	0.00'	735.35
18	STA 577+41.59	20.50' L	734.09

NOTES:

1. PARAPET "R" REINFORCING SHOWN ARE INCLUDED WITH THE PARAPET REINFORCING TABLE, BUT IS PLACED WITH APPROACH SLAB CONCRETE.
2. FOR PARAPET REINFORCING DETAILS, SEE SHEET 2947
3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

DESIGN AGENCY
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ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBUS, OHIO 43231

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AH	AH	EFD	12/2020
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GB		6002766	

REAR APPROACH SLAB DETAILS
BRIDGE NO. MUS-70-1142
UNDER RAMP E

MUS-70-10.49
PID No. 93006

SUBMITTAL: Stage 3
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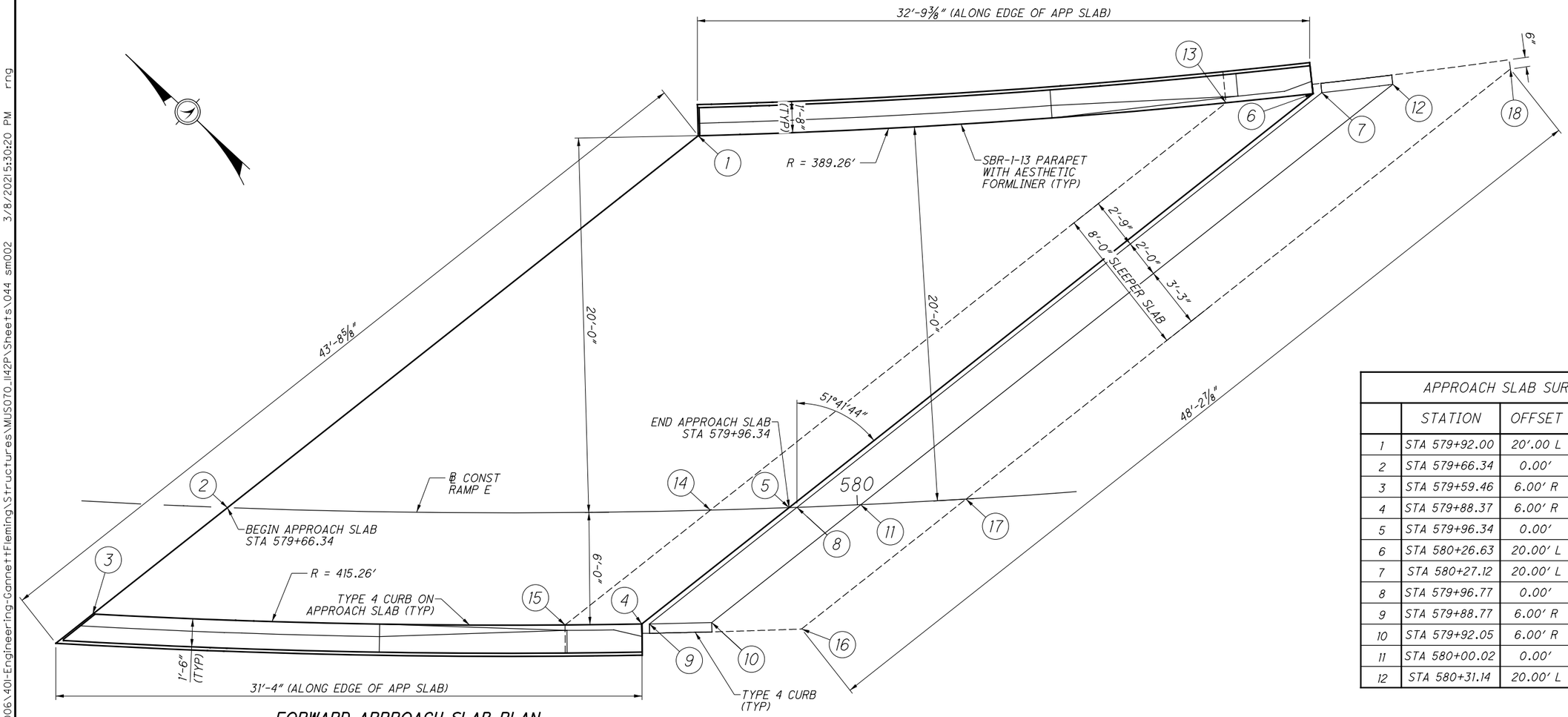
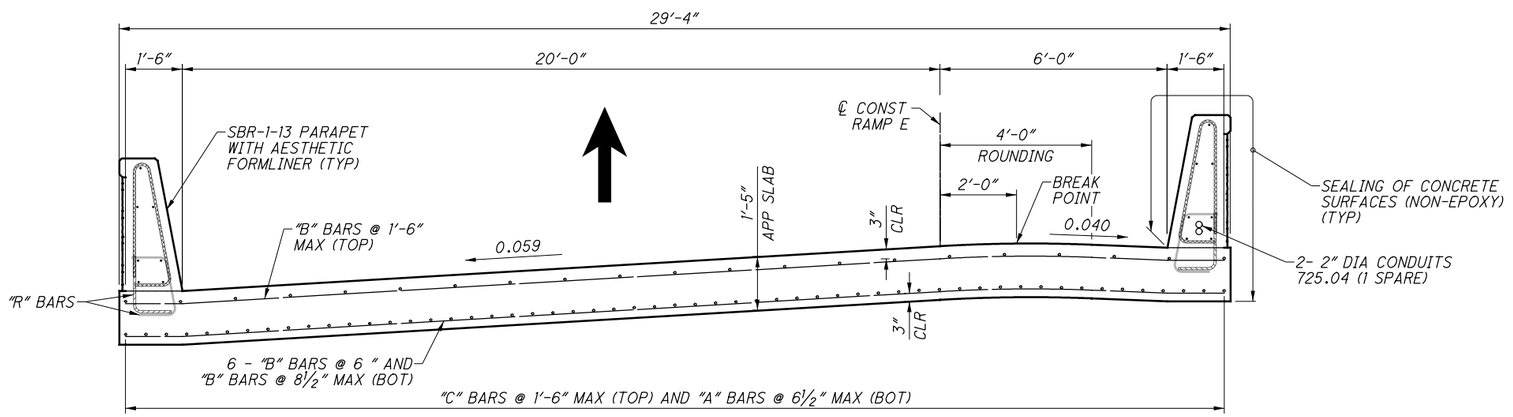


FORWARD APPROACH SLAB PLAN



FORWARD APPROACH SLAB SECTION

APPROACH SLAB SURFACE			
	STATION	OFFSET	ELEVATION
1	STA 579+92.00	20'.00 L	730.59
2	STA 579+66.34	0.00'	732.48
3	STA 579+59.46	6.00' R	732.62
4	STA 579+88.37	6.00' R	731.83
5	STA 579+96.34	0.00'	731.64
6	STA 580+26.63	20.00' L	729.53
7	STA 580+27.12	20.00' L	729.52
8	STA 579+96.77	0.00'	731.63
9	STA 579+88.77	6.00' R	731.82
10	STA 579+92.05	6.00' R	731.72
11	STA 580+00.02	0.00'	731.53
12	STA 580+31.14	20.00' L	729.39

SLEEPER SLAB SURFACE			
	STATION	OFFSET	ELEVATION
13	STA 580+21.71	20.00' L	728.27
14	STA 579+92.14	0.00'	730.35
15	STA 579+84.33	6.00' R	730.53
16	STA 579+96.77	6.50' R	730.59
17	STA 580+05.80	0.00'	730.38
18	STA 580+37.80	20.00' L	728.19

NOTES:

1. PARAPET "R" REINFORCING SHOWN ARE INCLUDED WITH THE PARAPET REINFORCING TABLE, BUT IS PLACED WITH APPROACH SLAB CONCRETE.
2. ~~FOR PARAPET REINFORCING DETAILS, SEE SHEET 2047~~
3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE SUITE 230
COLUMBUS, OHIO 43231

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GB		6002766	

FORWARD APPROACH SLAB DETAILS
BRIDGE NO. MUS-70-1142
UNDER RAMP E

MUS-70-10.49
PID No. 93006

38 / 47

2045
2231

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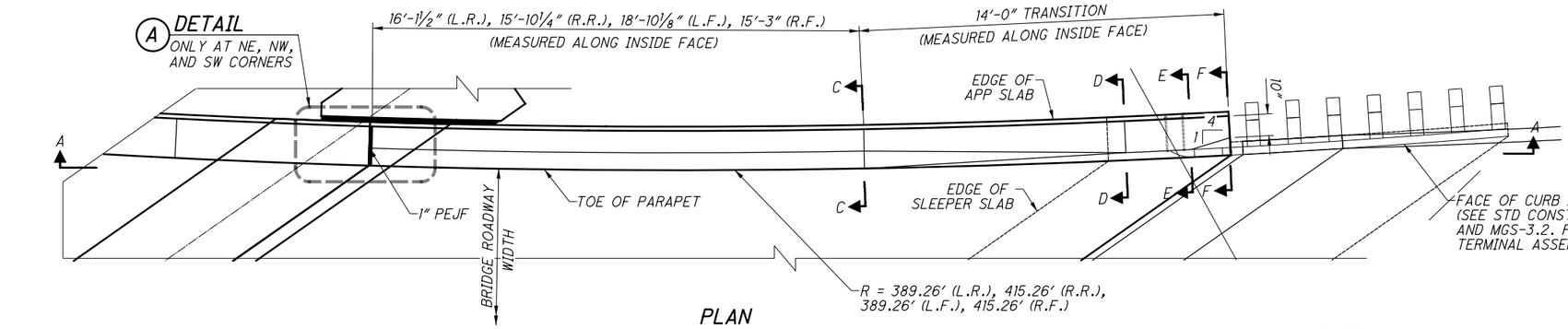
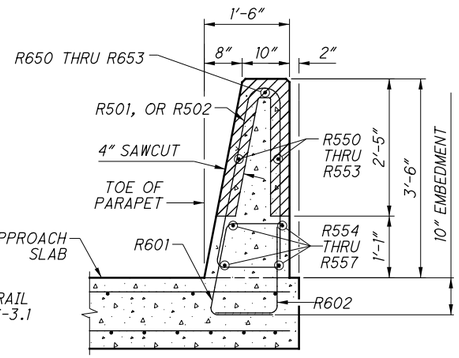


PLAN

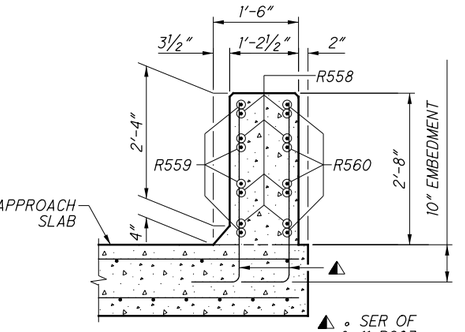
42″ SBR-1-13 TRANSITION MOUNTED ON APPROACH SLAB WITH SEMI-INTEGRAL ABUTMENT, SE CORNER SHOWN



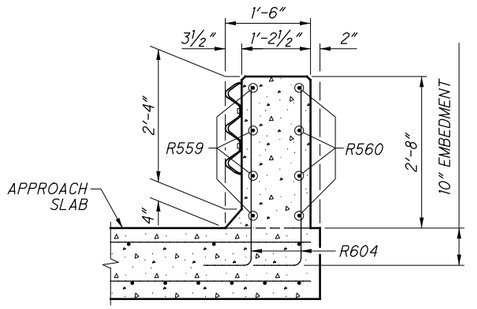
C SECTION

LEGEND:

L.R.	LEFT REAR
R.R.	RIGHT REAR
L.F.	LEFT FORWARD
R.F.	RIGHT FORWARD



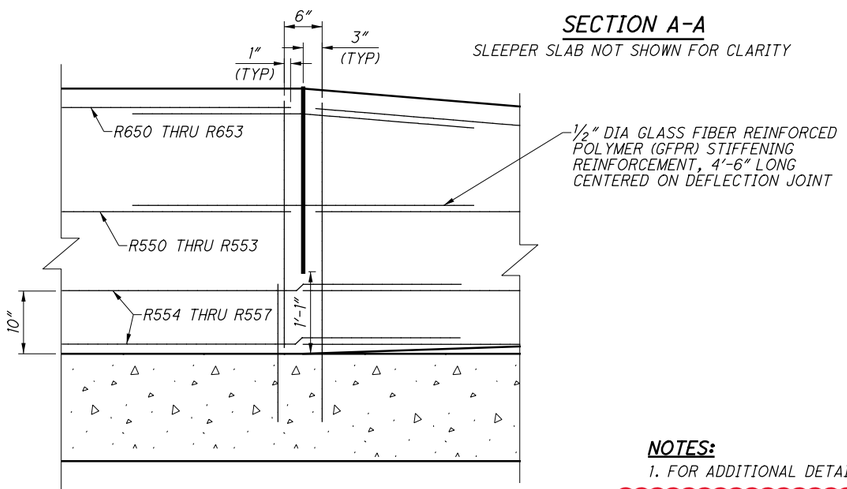
D SECTION



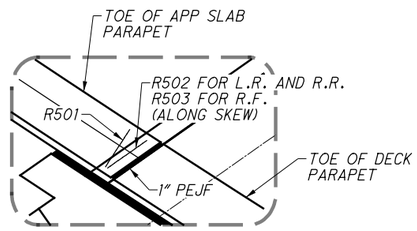
E SECTION

SECTION A-A

SLEEPER SLAB NOT SHOWN FOR CLARITY

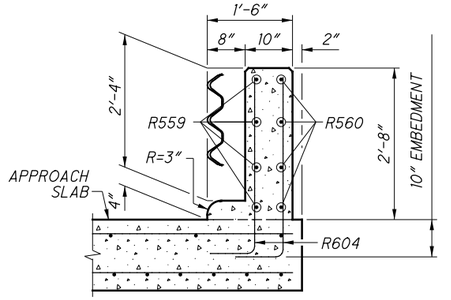


DEFLECTION JOINT DETAIL



A DETAIL

ONLY AT NE, NW, AND SW CORNERS
NW SHOWN, OTHERS SIMILAR



F SECTION

NOTES:

1. FOR ADDITIONAL DETAILS, SEE STD DWG SBR-1-13.
2. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2500 CORPORATE EXCHANGE DRIVE, SUITE 230
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DESIGNED	DRAWN	REVIEWED	DATE
AH	AH	EFD	12/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GB		6002766	

APPROACH SLAB PARAPET TRANSITION
BRIDGE NO. MUS-70-1142
UNDER RAMP E

MUS-70-10.49
PID No. 93006

39 / 47

2046
2231

SUBMITTAL: Stage 3
PID: 93006
PLOT DRIVER: ODOTcadd_PDF.pltcfg
PENTABLE: 93006_ODOTV8i_Pen.tbl
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