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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).

CONSTRUCT 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 CONCRETE 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.

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MAINTENANCE OF TRAFFIC GENERAL NOTES

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 MARKINGS 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 QUANTITIES 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
NEW YEAR'S
MEMORIAL DAY
FOURTH OF JULY
LABOR 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.

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MAINTENANCE OF TRAFFIC GENERAL NOTES

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 ASSISTANCE. 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, SOFTWARE, 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 1, 6", 642 PAINT 2 MILE
614, WZ EDGE LINE, CLASS 1, 6", 642 PAINT 8 MILE
614, WZ CHANNELIZING LINE, CLASS 1, 12" 642 PAINT 2,000 FT

LONG TERM NEEDS (GREATER THAN 14 DAYS):

614, WZ LANE LINE, CLASS 1, 6", 807 PAINT 10 MILE
614, WZ EDGE LINE, CLASS 1, 6", 807 PAINT 40 MILE
614, WZ CHANNELIZING LINE, CLASS 1, 12", 807 PAINT 10,000 FT
614, WZ DOTTED LINE, CLASS 1, 6", 807 PAINT 5,000 FT

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MAINTENANCE OF TRAFFIC GENERAL NOTES

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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 NECESSARY 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

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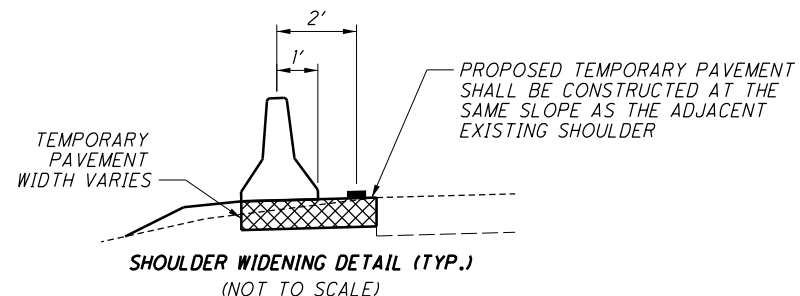
MAINTENANCE OF TRAFFIC GENERAL NOTES

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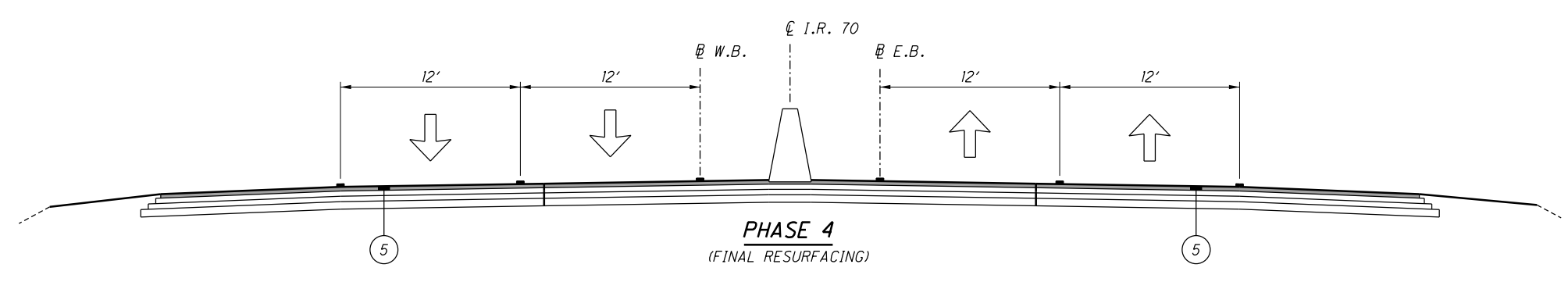
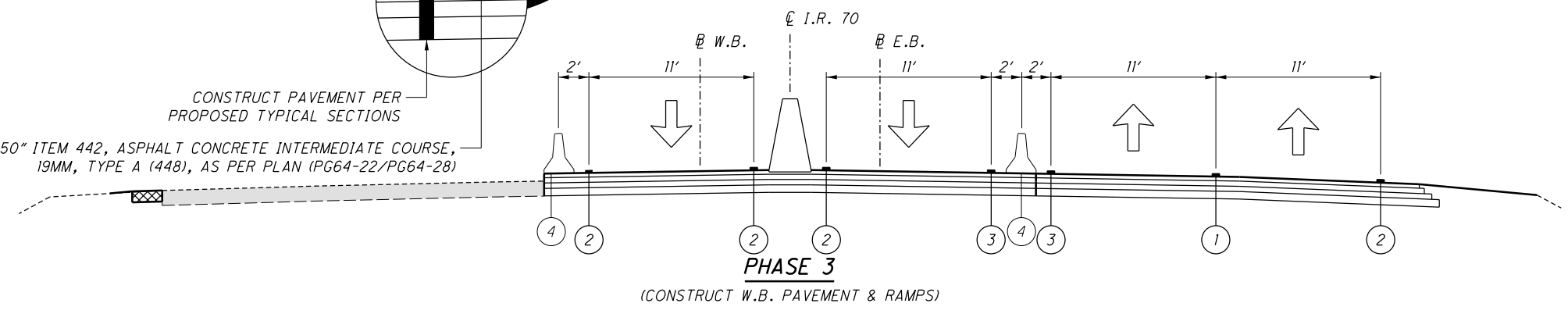
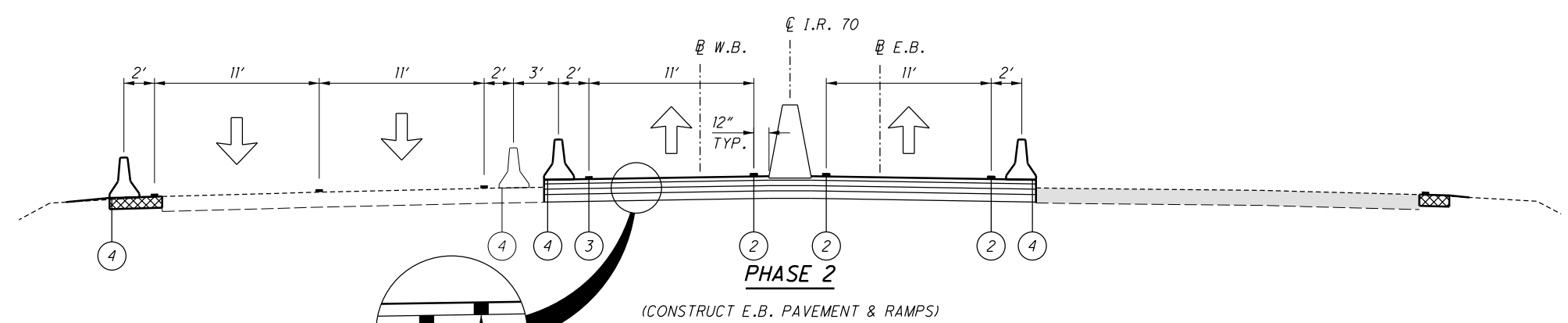
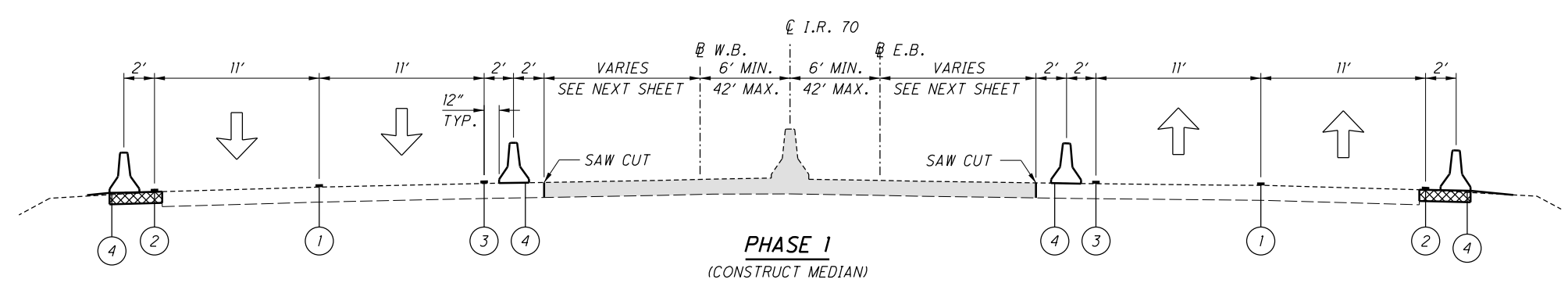
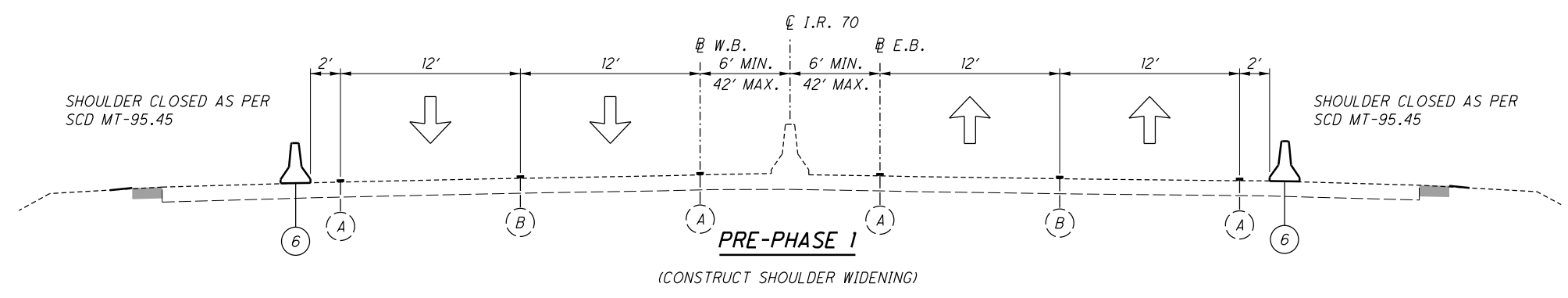
NOTES

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



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



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	BARRIER 4
SHAPE	NEW JERSEY
ANCHORING	<p>NEW JERSEY SHAPE:</p> <ol style="list-style-type: none"> USE THE PCB AS DETAILED ON SCD PCB-91 (NJ SHAPE SEGMENTS WITH ANCHORING HOLES) ANCHOR THE PCB WITH 4 ANCHORING BOLTS PER BARRIER SEGMENT, ONE LOCATED AT EACH CORNER OF THE PCB. EACH ANCHORING BOLT SHALL BE 1 INCH DIAMETER HIGH-STRENGTH STEEL WITH A NUT AND WASHER AS SPECIFIED IN SCD PCB-91. ANCHORING BOLTS WILL BE A MINIMUM OF 36 INCHES LONG

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SHEET NO.	PHASE	254	254		407	407		441		614	614	614		615		622		625		630	630		
		PAVEMENT PLANING, ASPHALT CONCRETE (1.50") SY	PAVEMENT PLANING, PORTLAND CEMENT CONCRETE (1.50") SY		NON-TRACING TACK COAT (0.09 GAL/SY) GAL	NON-TRACING TACK COAT (0.08 GAL/SY) GAL		ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 (1.50") CY		WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	BARRIER REFLECTOR, TYPE 1 (ONE WAY) EACH	OBJECT MARKER, ONE WAY EACH		PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN SY		PORTABLE BARRIER, UNANCHORED FT		REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN EACH		SIGN, FLAT SHEET SF	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			

CALCULATED	BRH	SUBSUMMARY
	CHECKED	
CMY		
MUS-70-10.49		
96 2231		

SHEET NO.	PHASE	254	407	411	441	614	614	614	615	622										
		PAVEMENT PLANING, ASPHALT CONCRETE (1.50") SY	NON-TRACING TACK COAT (0.09 GAL/SY) GAL	STABILIZED CRUSHED AGGREGATE CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 (1.50") CY	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	BARRIER REFLECTOR, TYPE 1 (ONE WAY) EACH	OBJECT MARKER, ONE WAY EACH	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN SY	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										

MUS-70-10.49	CALCULATED
	BRH CHECKED CMY

SHEET NO.	PHASE	254	407	411	441	614	614	614	615	622									
		PAVEMENT PLANING, ASPHALT CONCRETE (1.50") SY	NON-TRACING TACK COAT (0.09 GAL/SY) GAL	STABILIZED CRUSHED AGGREGATE CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 (1.50") CY	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	BARRIER REFLECTOR, TYPE 1 (ONE WAY) EACH	OBJECT MARKER, ONE WAY EACH	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN SY	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														
243	PRE-PHASE 3			26.3															
244	PRE-PHASE 3																		
245	PRE-PHASE 3																		
246	PRE-PHASE 3	108.3	9.8		6.1														
247	PRE-PHASE 3	122.3	11.1	17.5	6.8														
248	PRE-PHASE 3	103.4	9.4	21.3	5.8														
EST. QTY'S FOR CONSTRUCTING TEMP. PAVEMENT						4	120	120											
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

SHEET NO.



PHASE

	254	254	407	411	441	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	615	622	622	622	625	630	630		
	SY	SY	GAL	CY	CY	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	SY	FT	FT	FT	EACH	SF	SF	
96	6,126	995	634		397		12							500	500								8,304	25,000			46	8	1,150		
97						5,625	11		737	235	894		981		13.1	15.0	15.1	15,252	8,130						49,550	31,400					
98	1,345		122	83	75		4						200	200									3,945	10,000							
99						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	512		47	74	29		4						120	120									2,561	6,000							
101						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	86,680	66,900	46	8	2,118

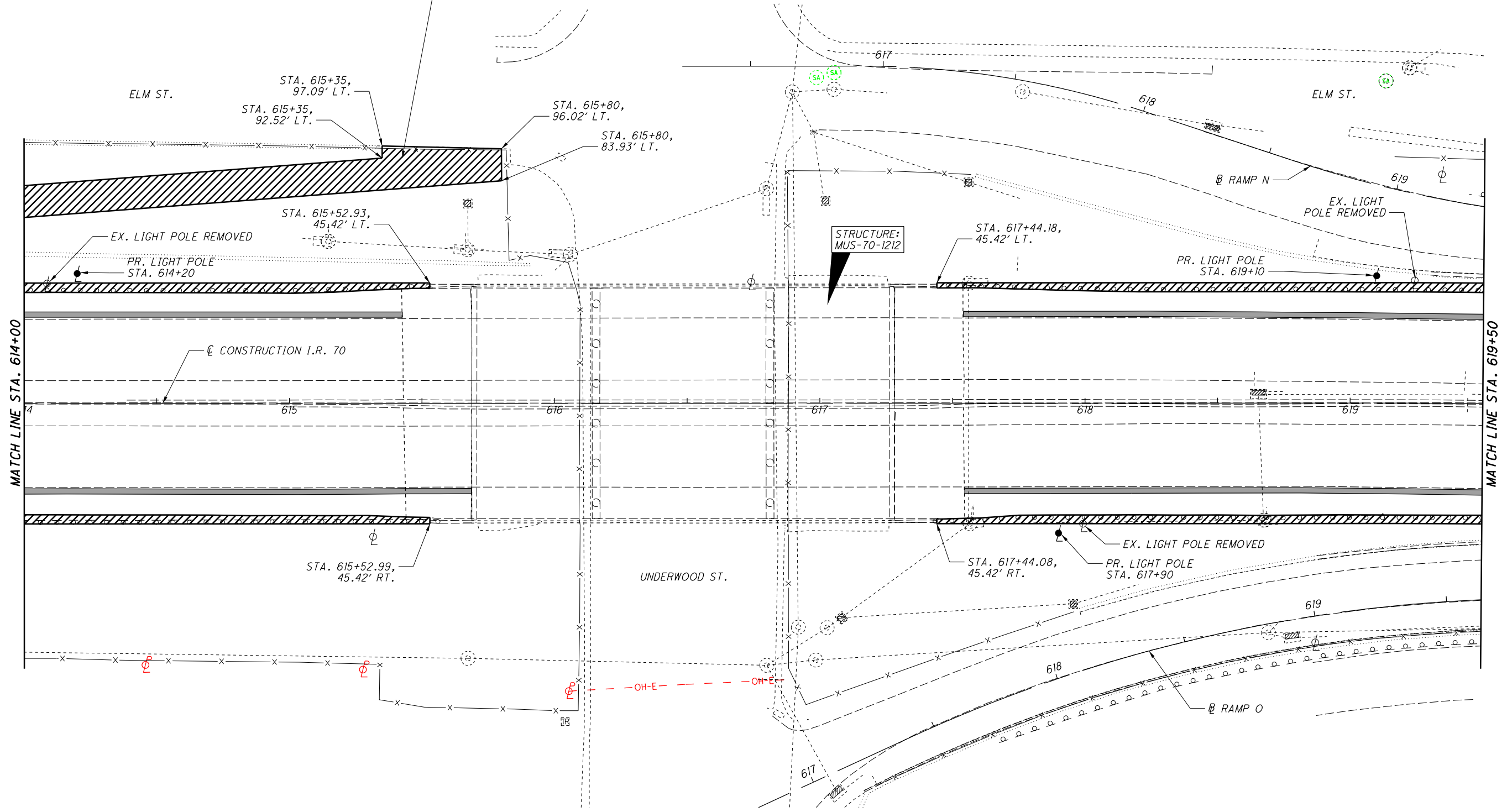
MUS-70-10.49	CALCULATED
	BRH CHECKED CMY

MAINTENANCE OF TRAFFIC SUBSUMMARY

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 MAINTAINING 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.



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FOR MOT SEQUENCE, SEE SHEET 58
FOR MOT QUANTITIES SEE SHEET 96
FOR EXISTING LIGHTING DETAILS, SEE SHEET 1252

I:\ProjectData\MUS_93006_400-Engineering\Roadway\Sheets\93006_GG001.dgn Sheet 2/17/2021 12:22:20 PM tgreenwa

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/B R	03/IMS/C V	04/S<2/O T	05/SAF/O T									
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	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	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	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	202	75000	7,668	FT		FENCE REMOVED		
																		9	202	75250	9	EACH		GATE REMOVED		
																		17	202	98100	17	EACH		REMOVAL MISC.:BARRIER REFLECTOR	44	
																		3	SPECIAL	20307520	3	EACH		SETTLEMENT CELLS	44	
																		58,310	203	10000	58,310	CY		EXCAVATION		
																		36,960	203	20000	46,305	CY		EMBANKMENT		
											9,345							4,977	204	10000	4,977	SY		SUBGRADE COMPACTION		
											4,977							1,000	204	13000	1,000	CY		EXCAVATION OF SUBGRADE		
																		1,000	204	30010	1,000	CY		GRANULAR MATERIAL, TYPE B		
																		57	204	45000	57	hour		PROOF ROLLING		
																		3,000	204	50000	3,000	SY		GEOTEXTILE FABRIC		
																		5,154	206	10500	5,154	TON		CEMENT		
																		170,714	206	11000	170,714	SY		CURING COAT		
																		170,714	206	15020	170,714	SY		CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP		
																		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	606	15050	17,286	FT		GUARDRAIL, TYPE MGS		
																		425	606	15100	425	FT		GUARDRAIL, TYPE MGS WITH LONG POSTS		
																		25	606	15150	25	FT		GUARDRAIL, TYPE MGS HALF POST SPACING		
																		38	606	15250	38	FT		GUARDRAIL, TYPE MGS QUARTER POST SPACING		
																		125	606	16500	125	FT		GUARDRAIL REBUILT, TYPE 5		
																		1	606	26050	1	EACH		ANCHOR ASSEMBLY, MGS TYPE B		
																		5	606	26100	5	EACH		ANCHOR ASSEMBLY, TYPE E		
																		20	606	26150	20	EACH		ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)		
																		5	606	26500	5	EACH		ANCHOR ASSEMBLY, TYPE T		
																		18	606	26550	18	EACH		ANCHOR ASSEMBLY, MGS TYPE T		
																		1	606	27900	1	EACH		ANCHOR ASSEMBLY REBUILT, TYPE T		
																		27	606	35002	27	EACH		MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1		
																		22	606	35102	22	EACH		MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2		

GENERAL SUMMARY

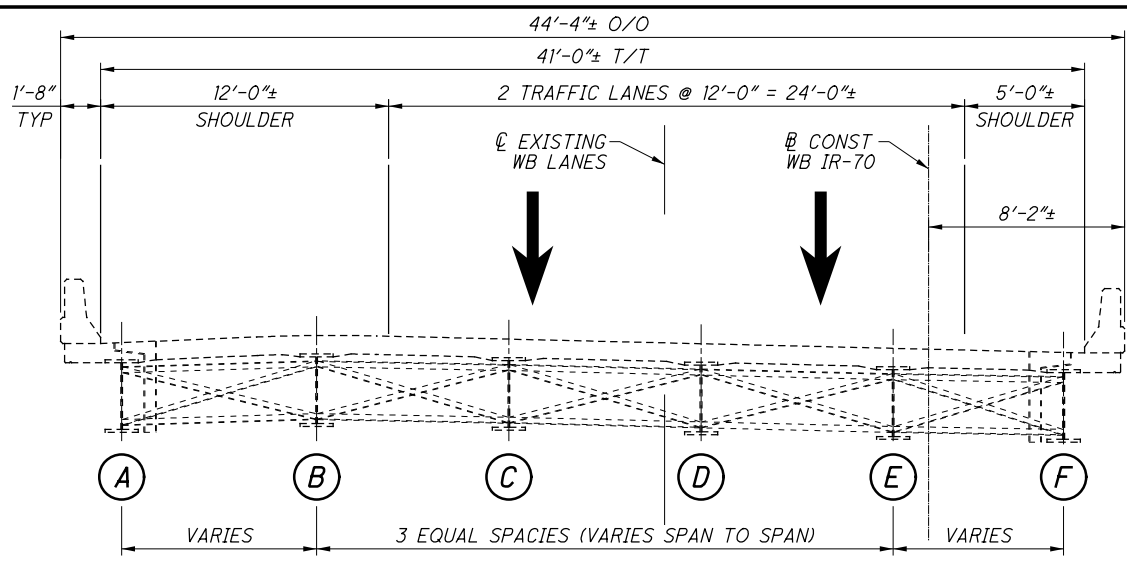
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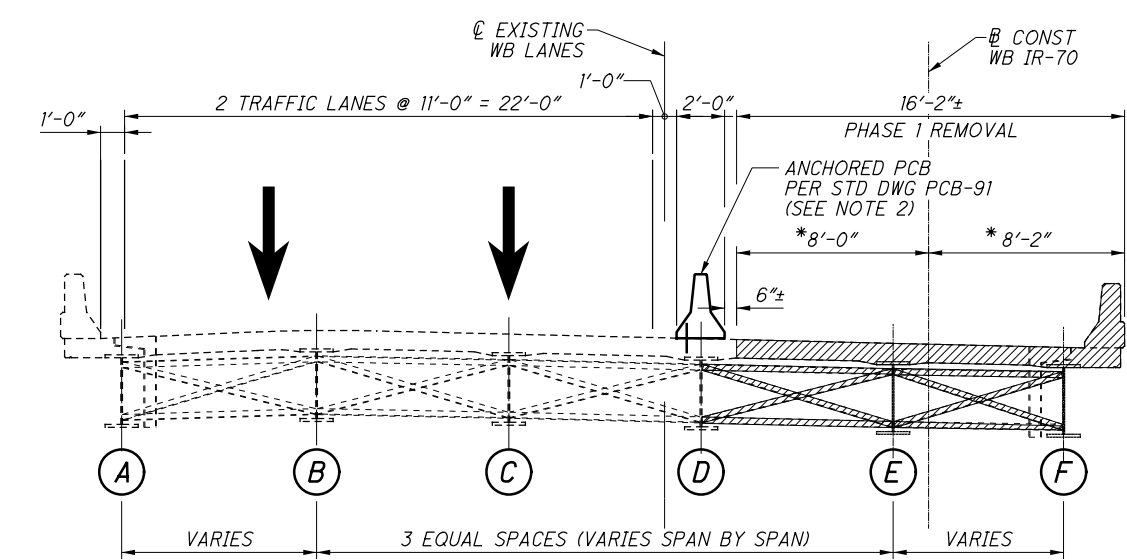
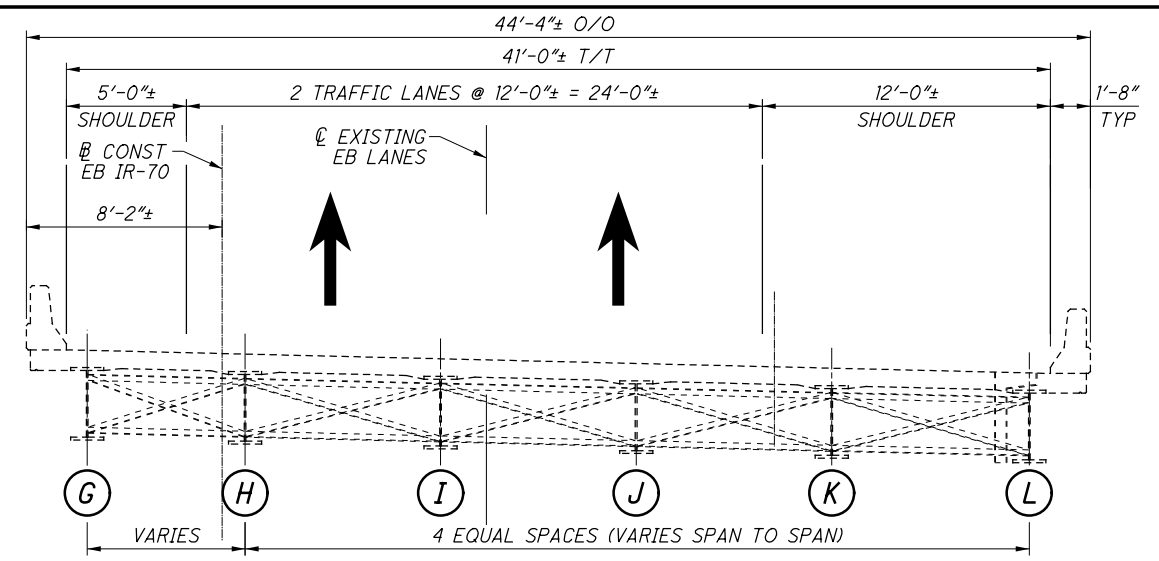
SHEET NUM.										PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
59	60	61	62	63	64	65	66	102	1220	01/IMS/P V	02/IMS/B R	03/IMS/C V	04/S<2/O T	05/SAF/O T						
																		MAINTENANCE OF TRAFFIC		
		1,000								1,000					410	13000	1,000	CY	TRAFFIC COMPACTED SURFACE, TYPE C	
			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, (UNIDIRECTIONAL), AS PER PLAN	65
										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					614	13312	250	EACH	BARRIER REFLECTOR, TYPE 2 (ONE WAY)	
									250	2,587					614	13350	2,587	EACH	OBJECT MARKER, ONE WAY	
		500							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	

GENERAL SUMMARY

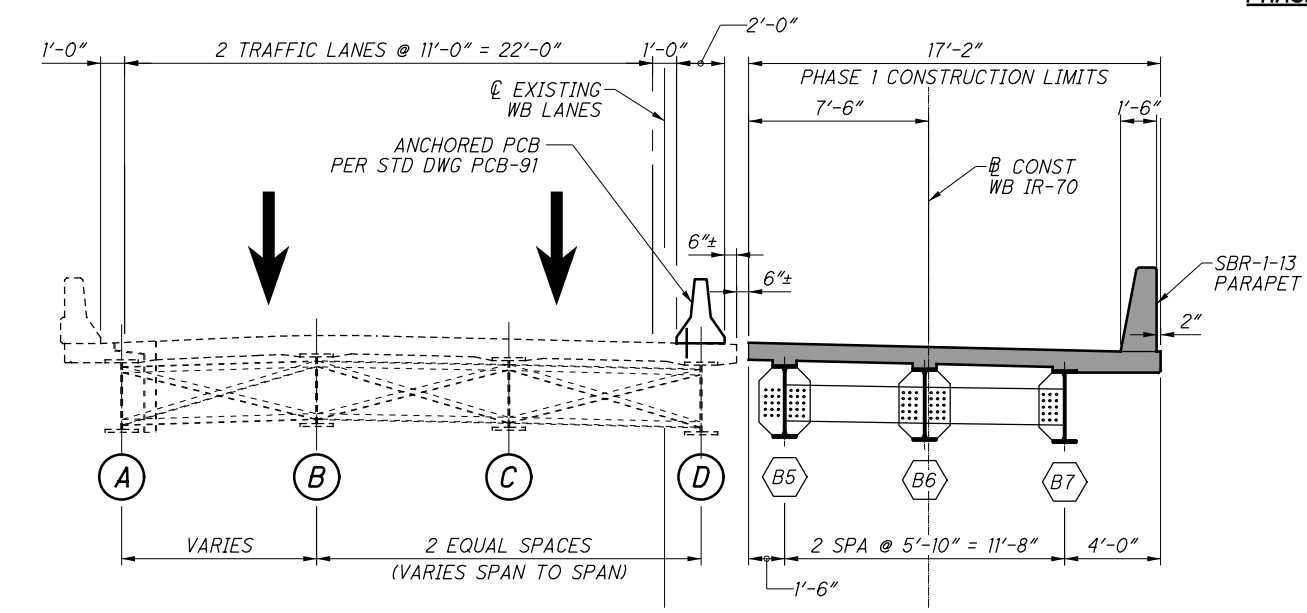
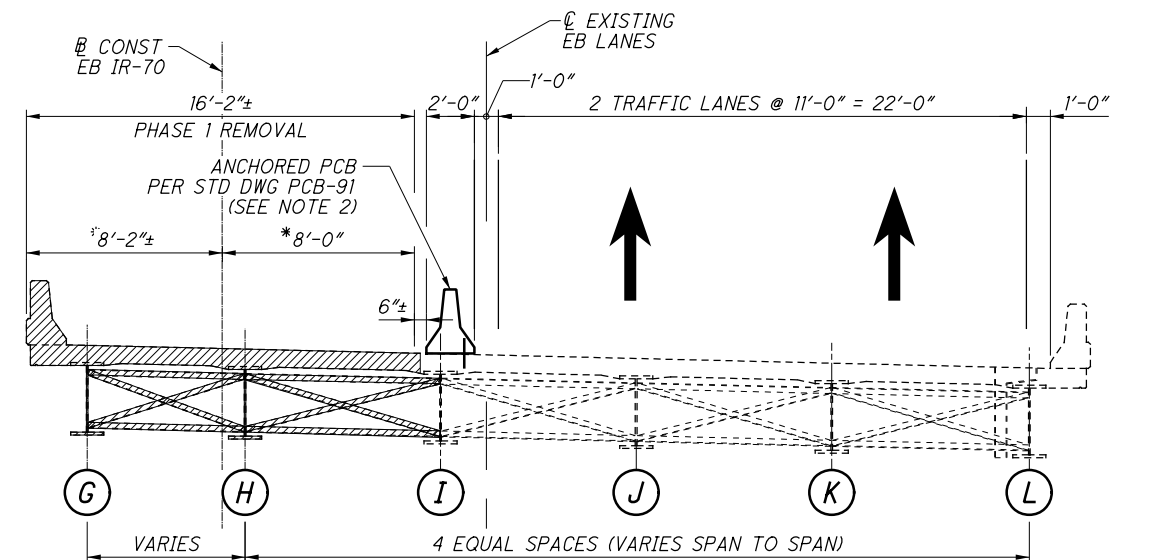
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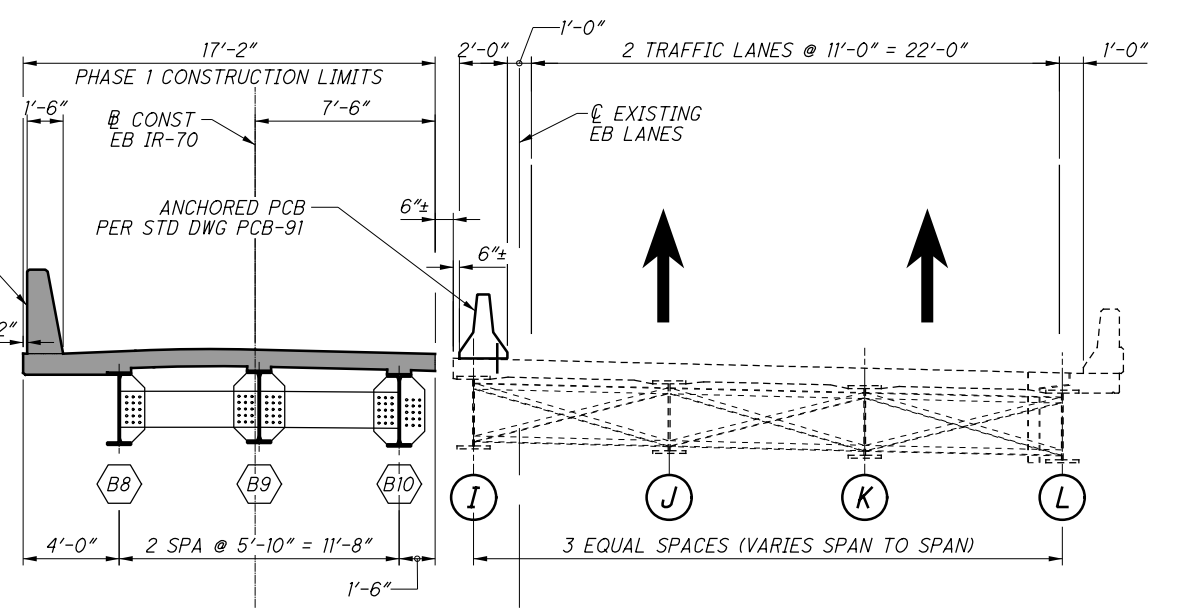
EXISTING TYPICAL SECTION



PHASE 1 - REMOVAL



PHASE 1 - CONSTRUCTION



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. ANCHORS ARE TO REMAIN IN PLACE UNTIL AFTER PHASE 1 OR PHASE 2 IS COMPLETE, AS REQUIRED

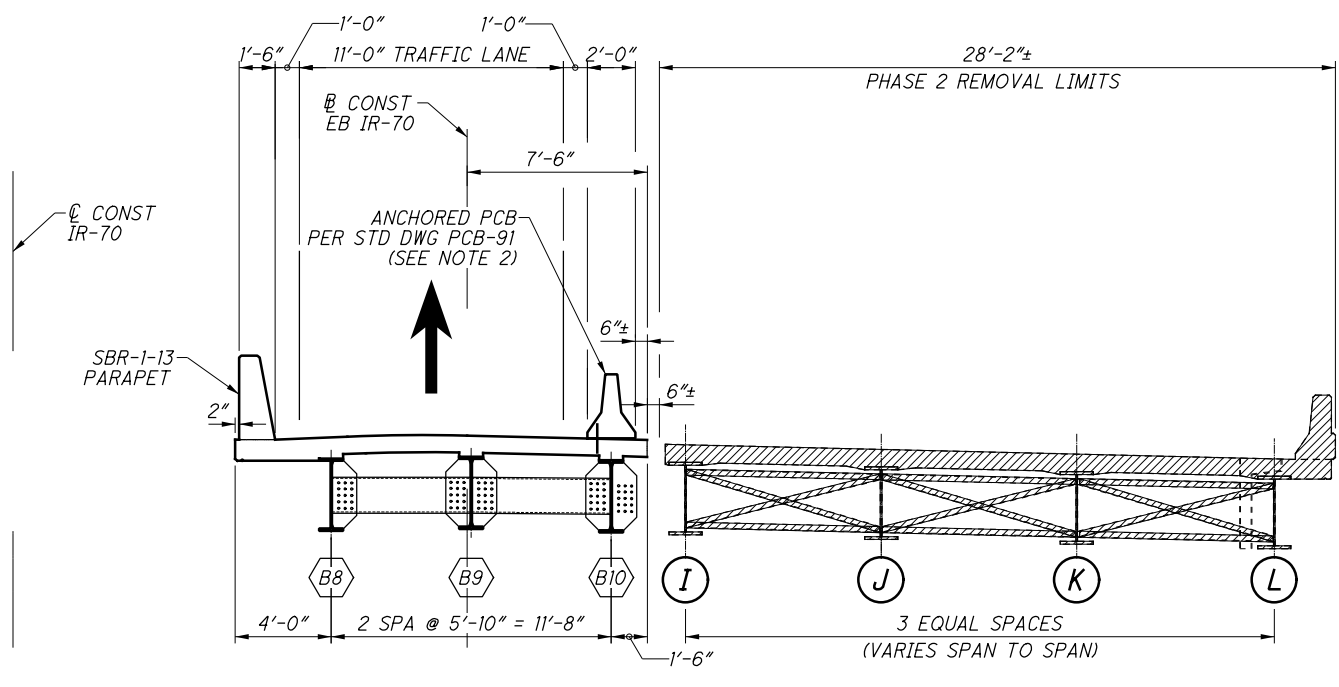
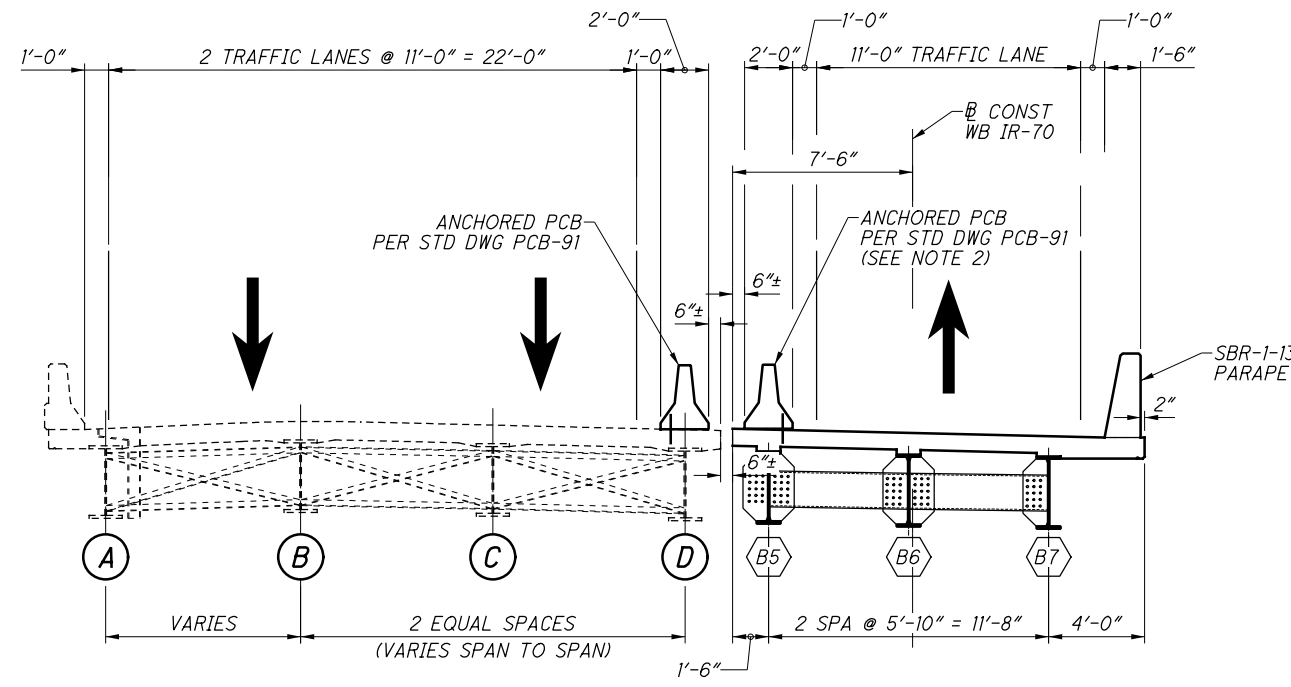
LEGEND
 PROPOSED CONSTRUCTION
 REMOVAL LIMITS

* 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.

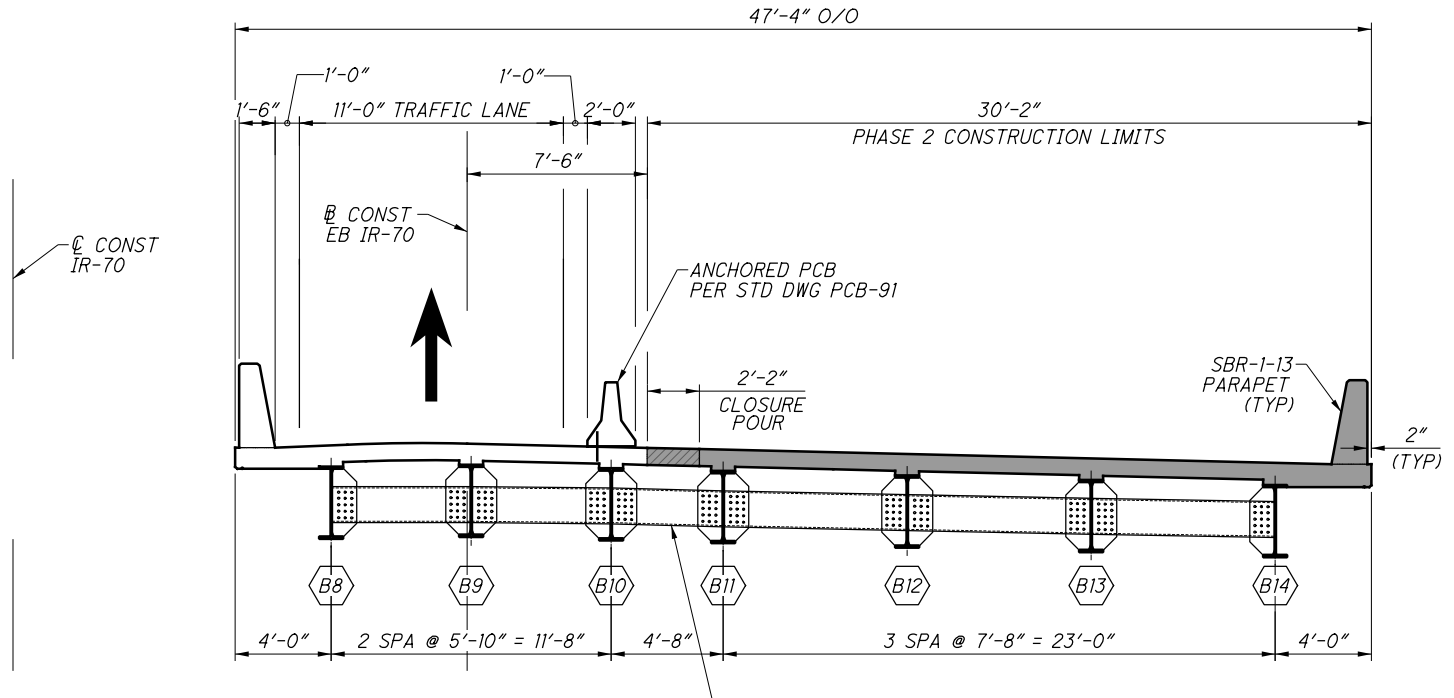
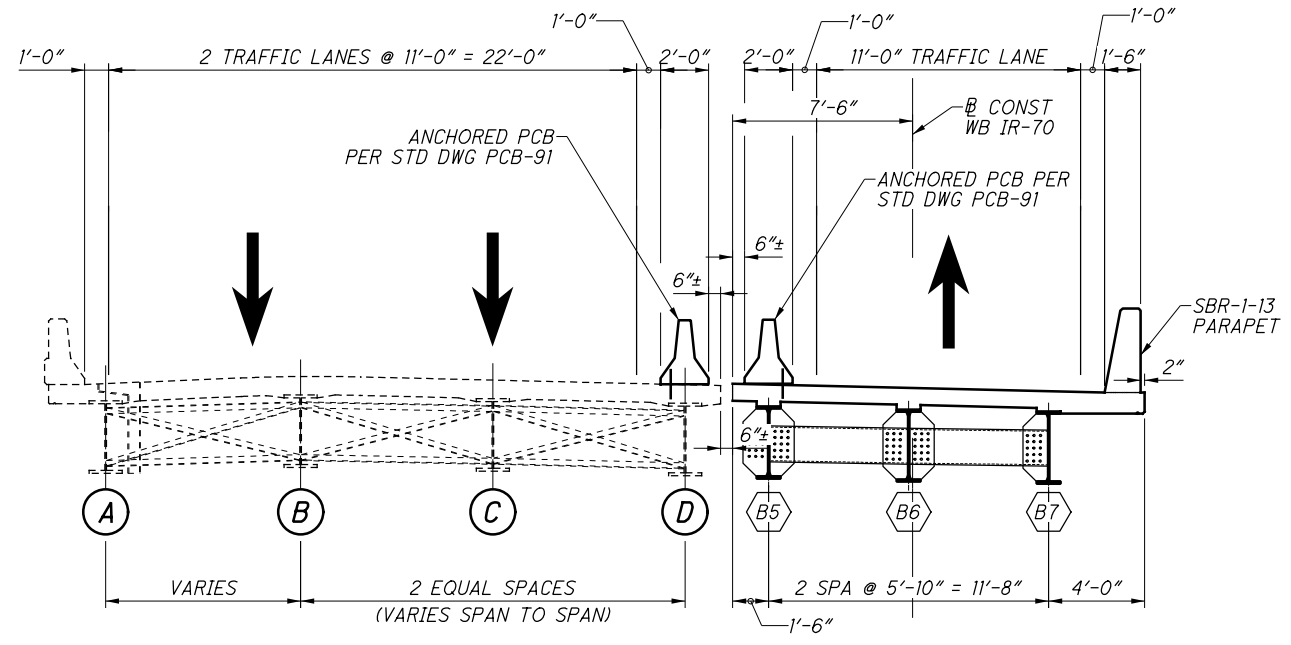
Gannett Fleming
 ENGINEERS & ARCHITECTS, P.C.
 2500 CORPORATE EXCHANGE DRIVE SUITE 230
 COLUMBUS, OHIO 43231

DESIGNED	CTM	DATE	12/2020	REVIEWED	CTM
CHECKED	DF	STRUCTURE FILE NUMBER	6002641	DRAWN	RSN
PHASED CONSTRUCTION SECTIONS 1 OF 3		BRIDGE NO. MUS-70-1066L		DESIGN AGENCY	
OVER LICKING ROAD & CUOH RAILROAD		PID No. 93006		ENGINEERS & ARCHITECTS, P.C.	
				2500 CORPORATE EXCHANGE DRIVE SUITE 230	
				COLUMBUS, OHIO 43231	
				MUS-70-10.49	
				8 / 54	

SUBMITTAL: Stage 3
 PID: 93006
 PLOT DRIVER: 000Tcodd_PDF.pltcf9
 PENTABLE: 93006_0001V81_Pen.tbl
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PHASE 2 - REMOVAL



PHASE 2 - CONSTRUCTION

NOTES

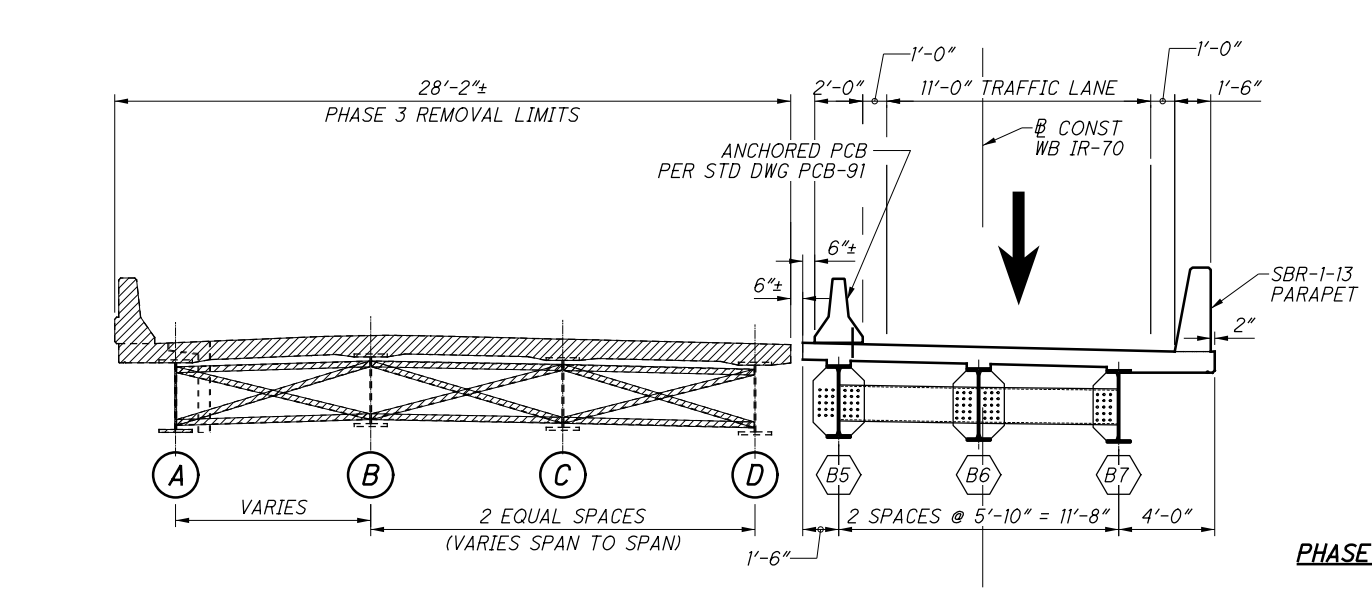
- PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.
- A MINIMUM OF FOUR ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED AFTER PHASE 3 IS COMPLETE, REMOVE ANCHORS AS DIRECTED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

LEGEND

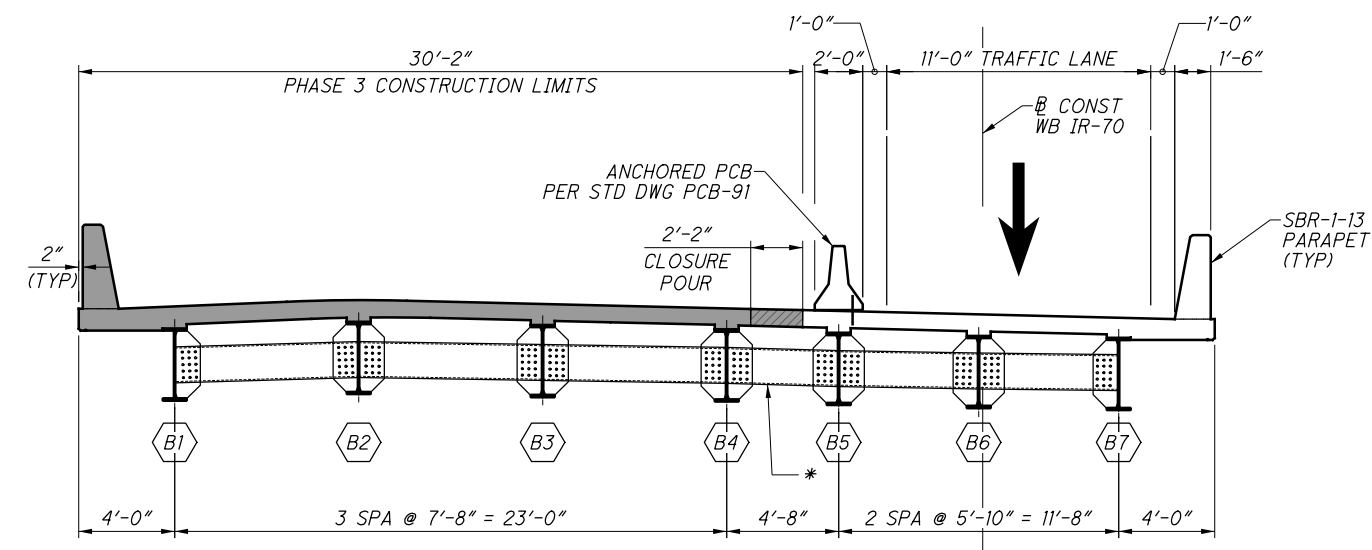
- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

DESIGN AGENCY: **Gannett Fleming**
 ENGINEERS & ARCHITECTS, P.C.
 2500 CORPORATE EXCHANGE DRIVE, SUITE 230
 COLUMBIUS, OHIO 43231
 DATE: 12/2020
 REVIEWED: CTM
 DRAWN: RSN
 DESIGNED: CTM
 CHECKED: DF
 STRUCTURE FILE NUMBER: 6002641
PHASED CONSTRUCTION SECTIONS 2 OF 3
 BRIDGE NO. MUS-70-1066L
 OVER LICKING ROAD & CUOH RAILROAD
MUS-70-10.49
 PID No. 93006
 9 / 54
 1296
 2231

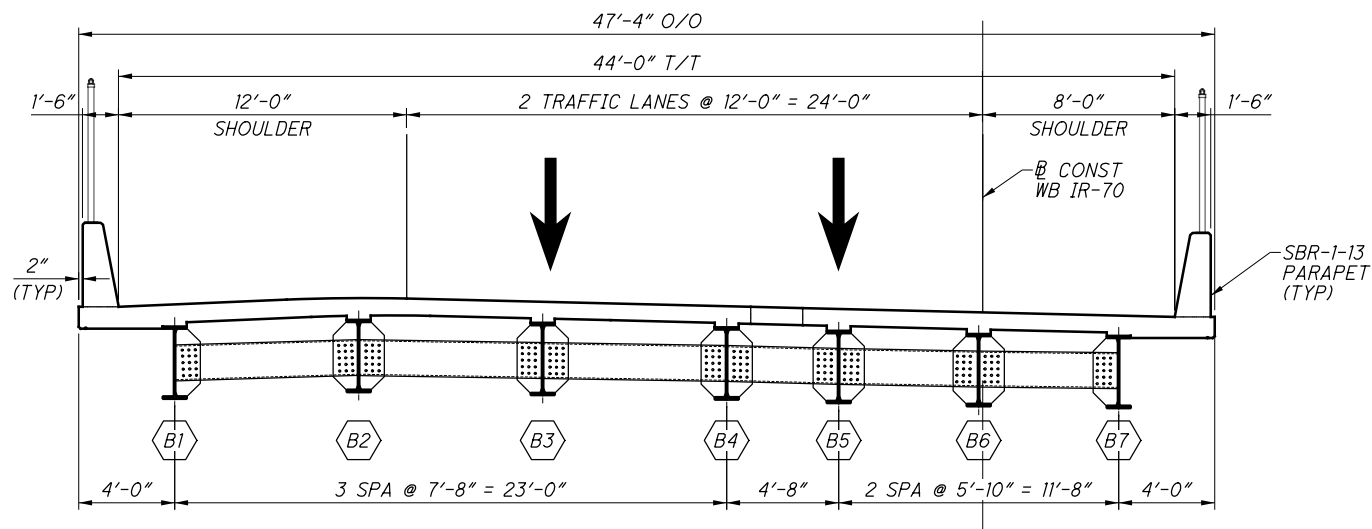
SUBMITTAL: Stage 3
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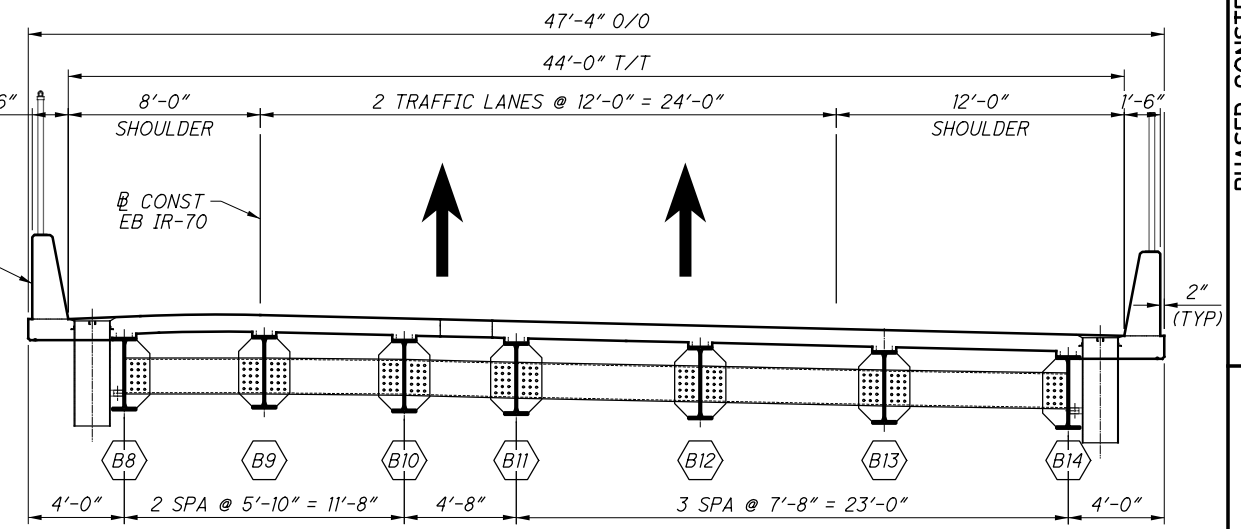
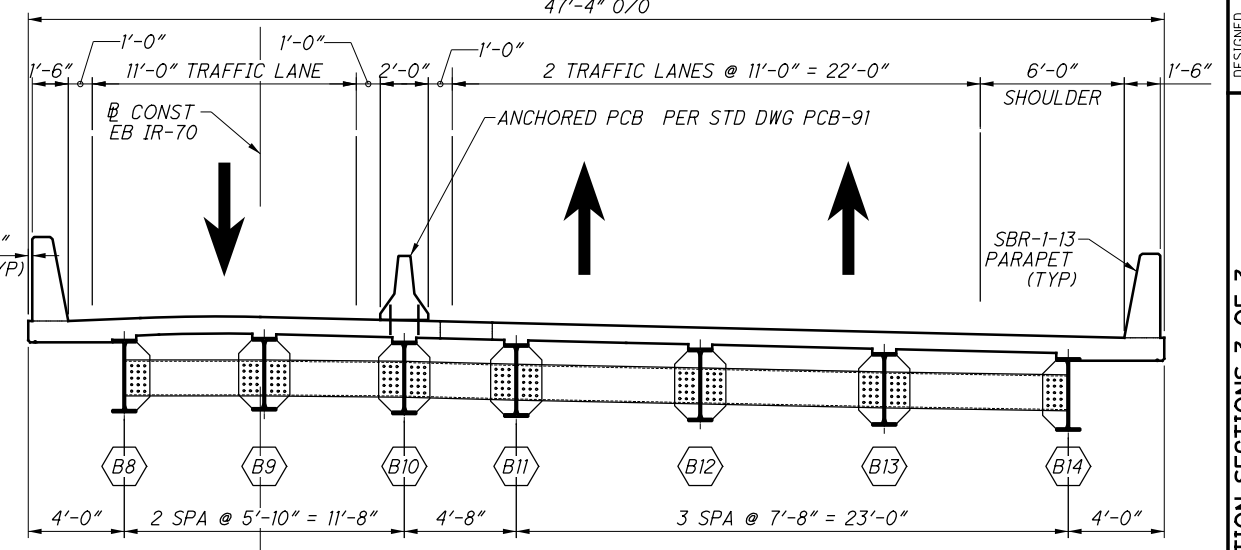
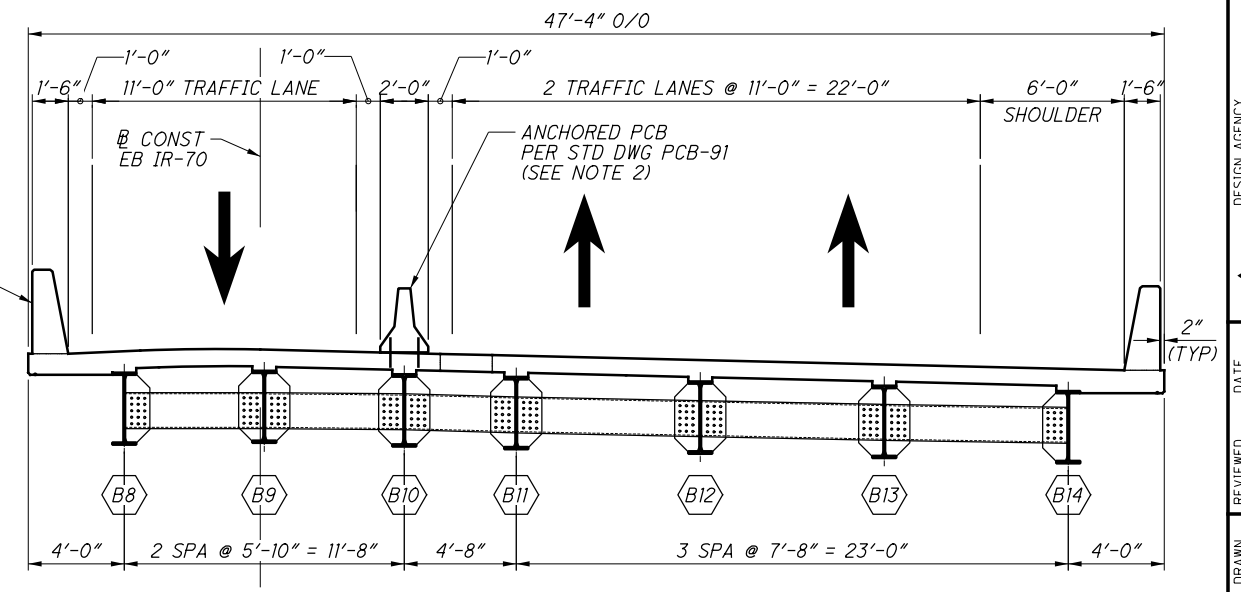
PHASE 3-REMOVAL



PHASE 3-CONSTRUCTION



FINAL TRANSVERSE SECTION



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

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

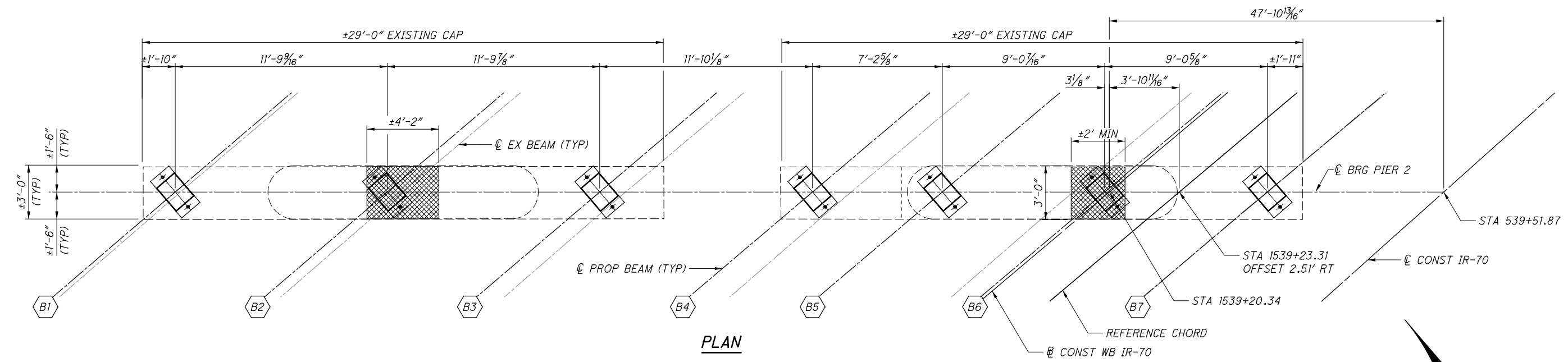
MUS-70-10.49
 PID No. 93006

10 / 54
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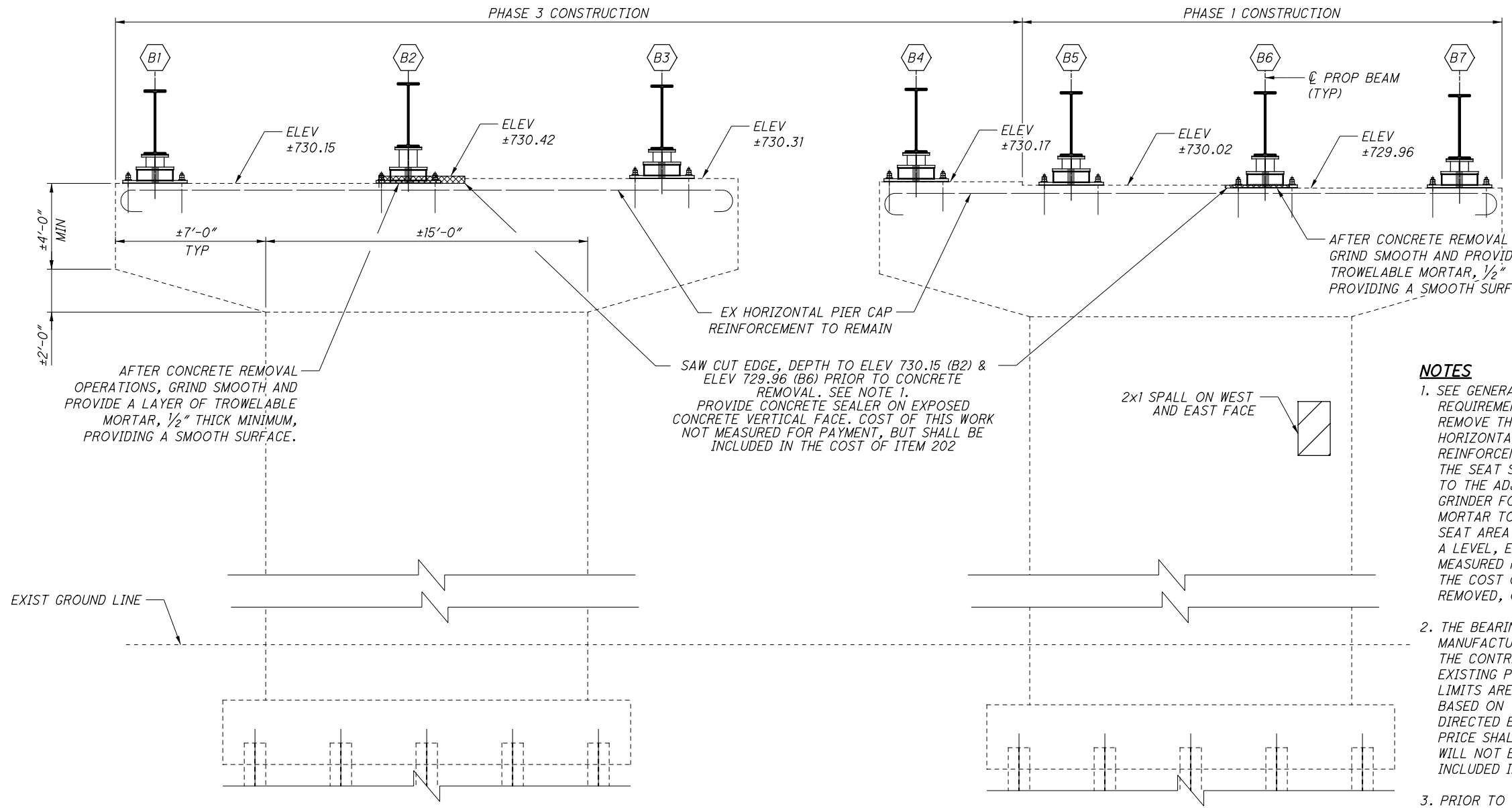
LEGEND

- 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.



PLAN



ELEVATION

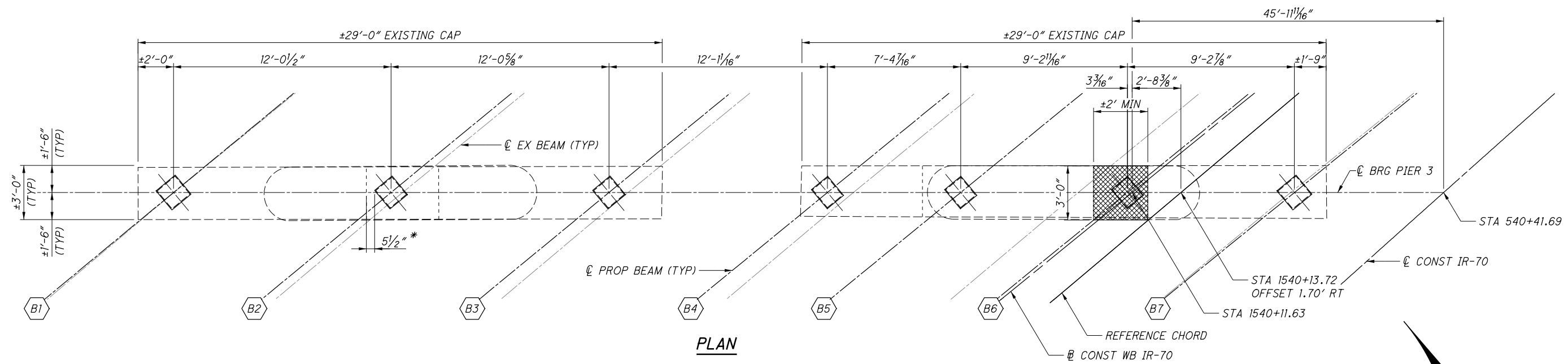
LEGEND

- CONCRETE DEFICIENCY
- PIER SEAT REMOVAL

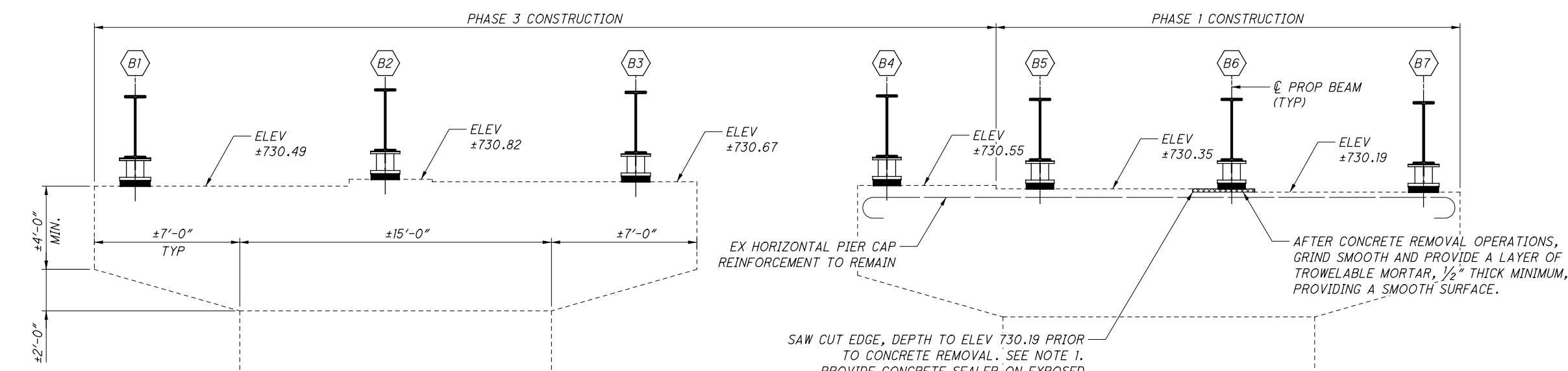
- NOTES**
- SEE GENERAL NOTES ON SHEET [4] [54] FOR ADDITIONAL REQUIREMENTS. THE CONTRACTOR SHALL CAREFULLY REMOVE THE CONCRETE AND NOT DAMAGE EXISTING HORIZONTAL PIER CAP REINFORCEMENT. REINFORCEMENT (VERTICAL) WITHIN THE PORTION OF THE SEAT STEP TO BE REMOVED SHALL BE CUT FLUSH TO THE ADJACENT CAP (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.
 - 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.
 - 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.



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



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.

SAW CUT EDGE, DEPTH TO ELEV 730.19 PRIOR TO CONCRETE REMOVAL. SEE NOTE 1. PROVIDE CONCRETE SEALER ON EXPOSED CONCRETE VERTICAL FACE. COST OF THIS WORK NOT MEASURED FOR PAYMENT, BUT SHALL BE INCLUDED IN THE COST OF ITEM 202

- NOTES**
- 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.
 2600 CORPORATE EXCHANGE DRIVE SUITE 230
 COLUMBUS, OHIO 43231

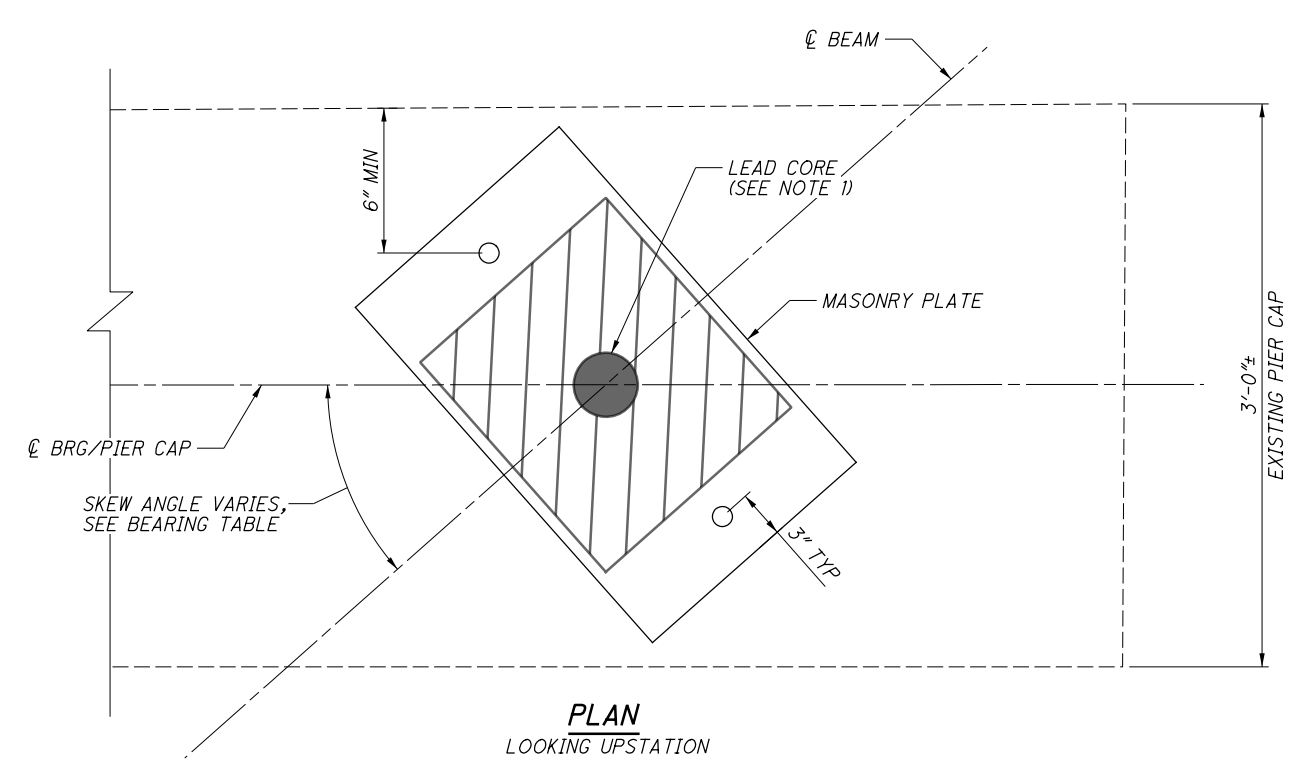
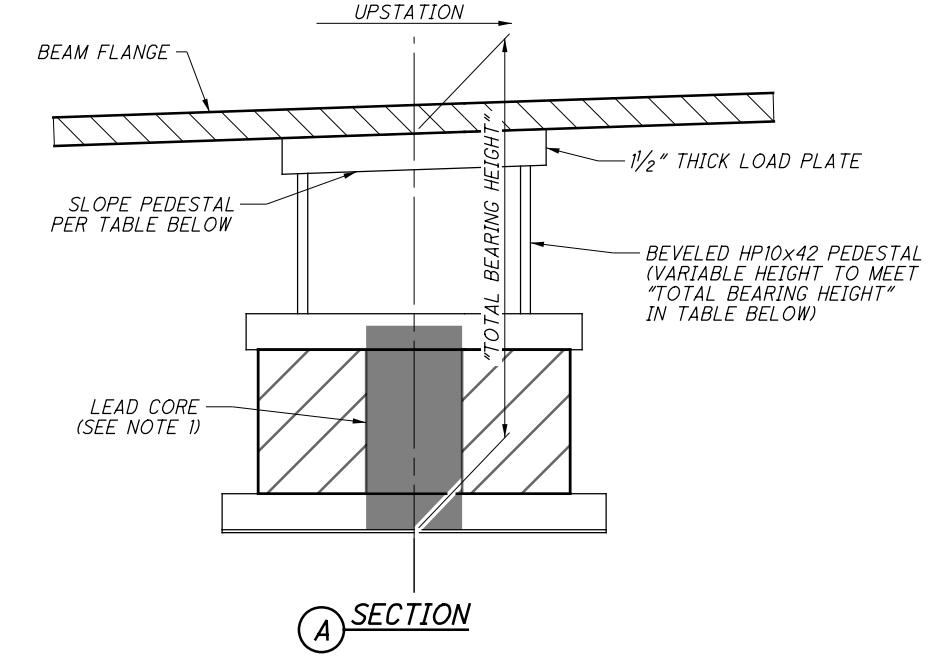
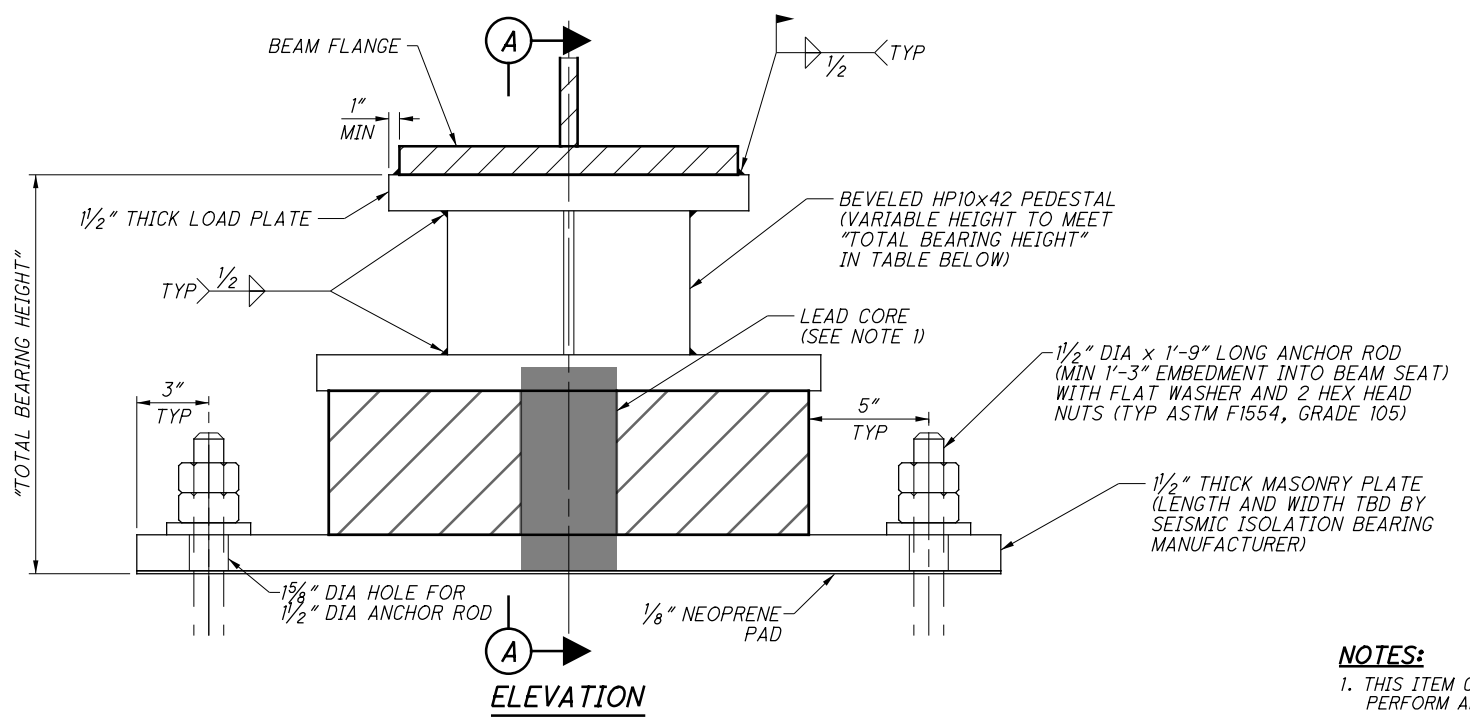
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DRAWN	LAM	REVISED	
REVIEWED	CTM	STRUCTURE FILE NUMBER	6002641
DATE	12/2020		

PIER 3 PATCHING & MODIFICATION
 BRIDGE NO. MUS-70-1066L
 OVER LICKING ROAD & CUOH RAILROAD

MUS-70-10.49
 PID No. 93006

29 / 54

1316
 2231



NOTES:

- 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.

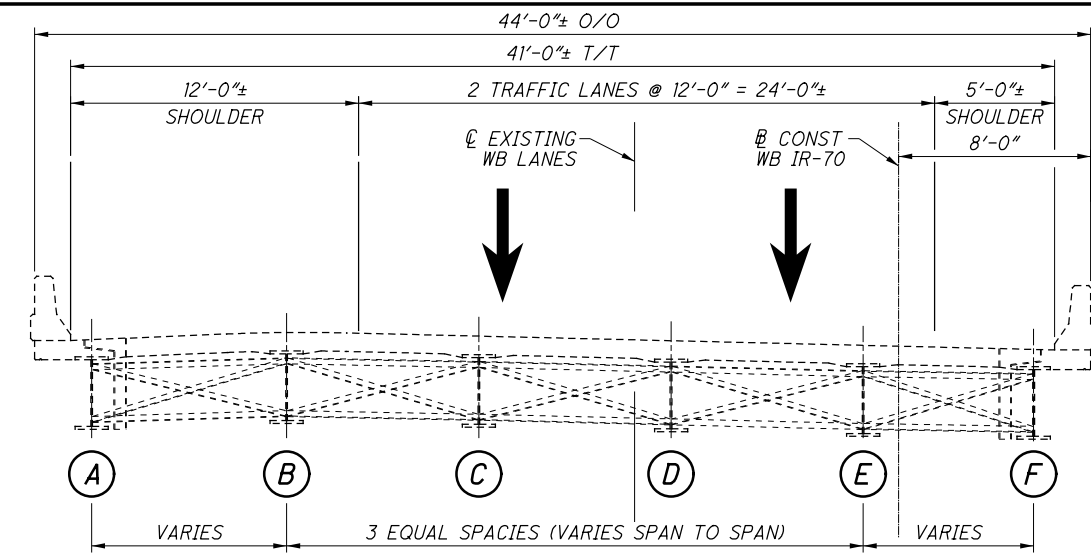
ALL BEARINGS SHALL BE TESTED AND EVALUATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "AASHTO GUIDE SPECIFICATIONS FOR SEISMIC ISOLATION DESIGN". TEST THE BEARINGS AT A TESTING FACILITY, POSSESSING THE PROPER TESTING EQUIPMENT AND TRAINED PERSONNEL, CAPABLE OF PERFORMING ALL TESTS REQUIRED BY THE "AASHTO 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.

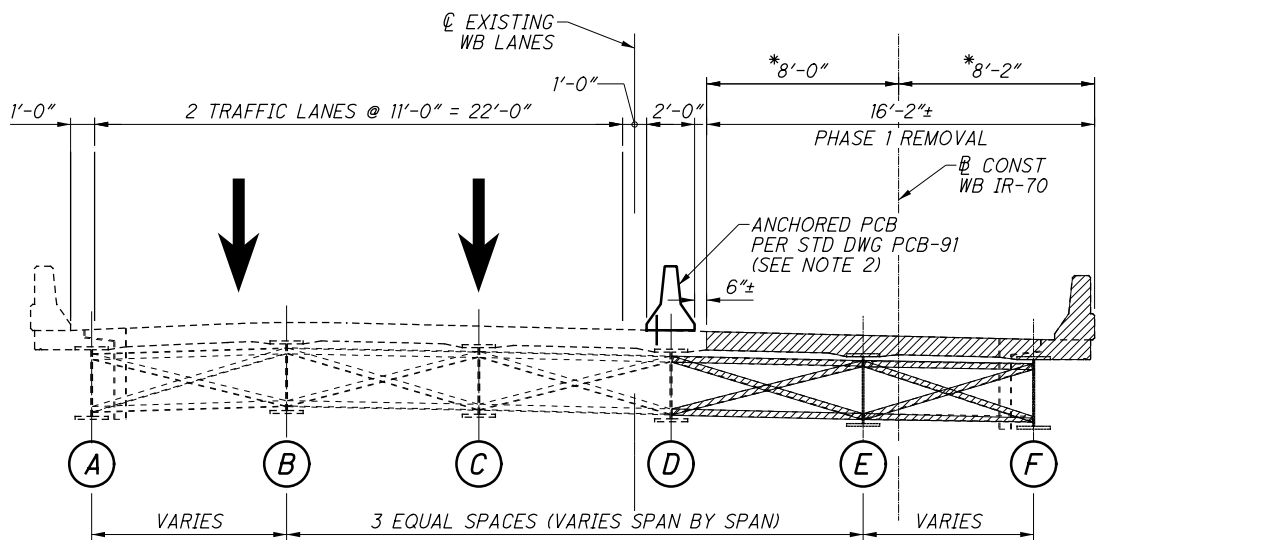
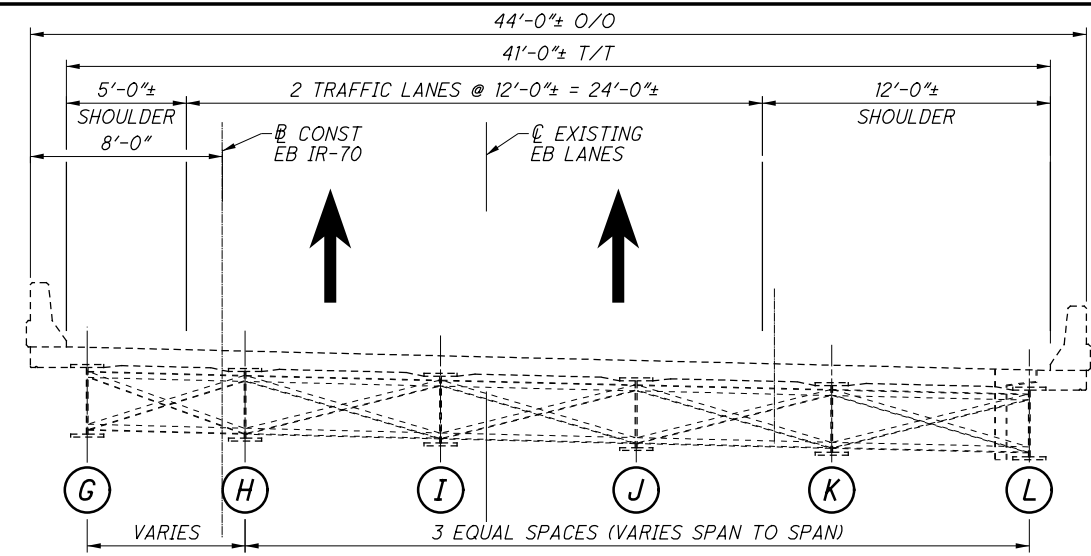
THE FABRICATOR SHALL DELIVER THE BEARINGS TO THE JOBSITE IN MOISTURE PROOF AND DUST PROOF MATERIAL TO PROTECT AGAINST SHIPPING AND JOB SITE CONDITIONS. STORE THE BEARINGS AT THE JOB SITE IN A DRY, SHELTERED AREA FREE FROM DIRT OR DUST UNTIL INSTALLATION. HAVE A REPRESENTATIVE FROM THE BEARING MANUFACTURER ON SITE TO ENSURE PROPER INSTALLATION OF THE BEARINGS.
- 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.
- FURNISHING AND INSTALLING ANCHOR RODS AND ALL ASSOCIATED NUTS/WASHERS SHALL BE INCLUDED FOR PAYMENT WITH THE BEARINGS.
- 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.
- 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.
- 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.
- IN ADDITION TO THE PRIMARY AXIS ROTATIONS LISTED IN THE TABLE, THE BEARING DESIGN SHALL INCLUDE ALLOWANCE FOR 0.01 RADIAN OF TRANSVERSE ROTATION (INCLUDING CONSTRUCTION TOLERANCE).

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

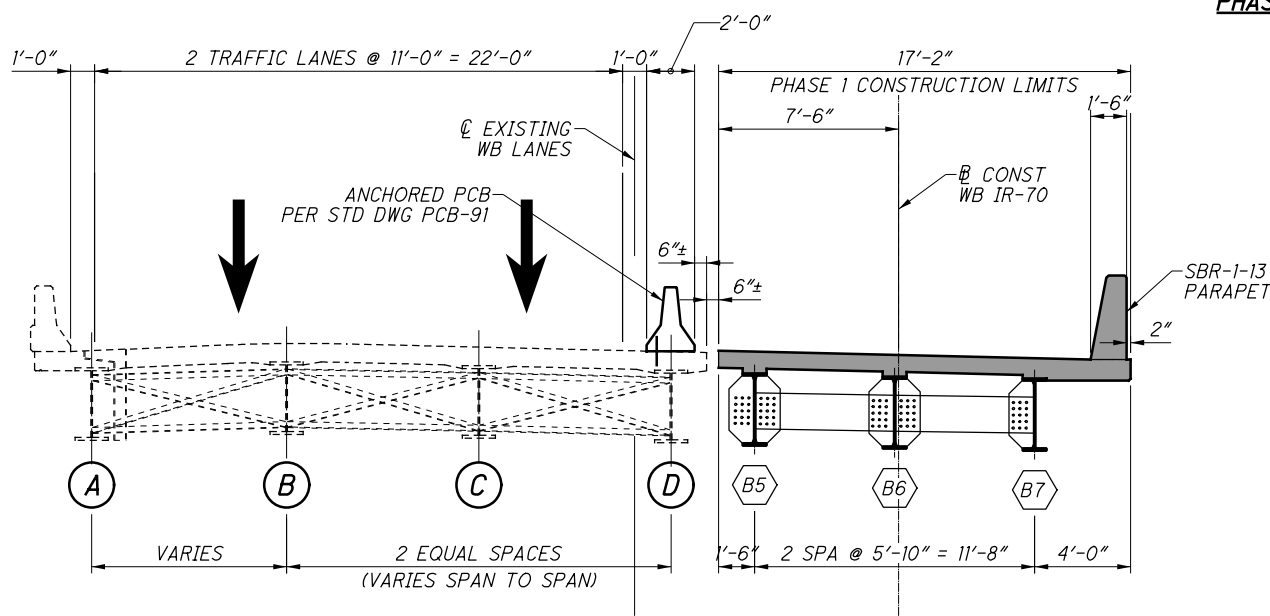
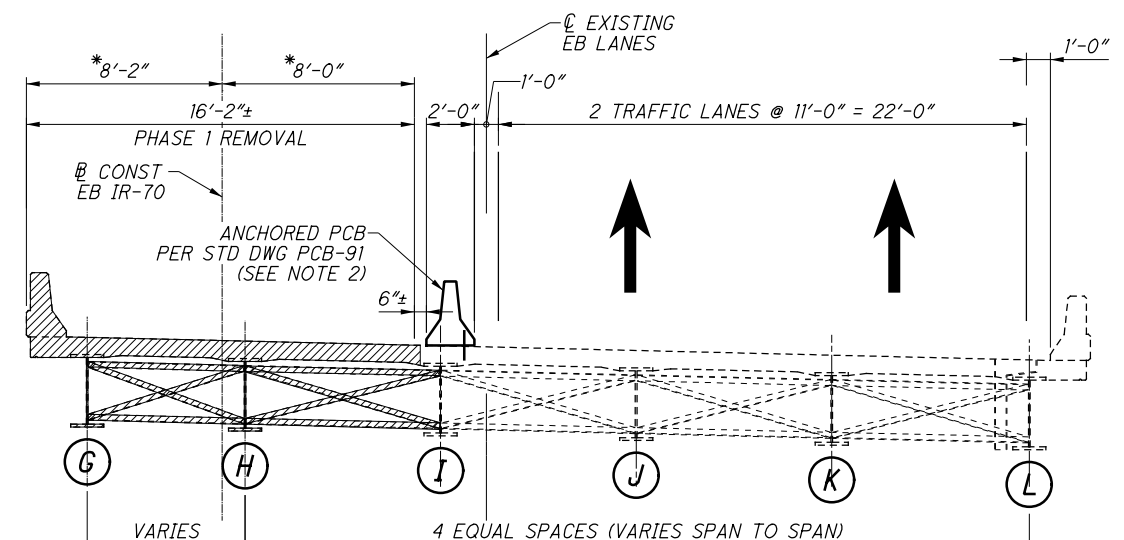
BEAM	TOTAL BEARING HEIGHT (INCHES)	PEDESTAL SLOPE (REAR TO FORWARD)	SERVICE LOADS (KIPS)						STRENGTH LOADS (KIPS)						ROTATION REQUIREMENTS - PRIMARY AXIS (RADIAN)			MOVEMENT (INCHES)		EXTREME EVENT HORIZONTAL FORCE GOAL (KIPS)		SKEW ANGLE (DEGREES)
			VERTICAL			HORIZONTAL			VERTICAL			HORIZONTAL			LOADING	CONST. TOLERANCE	TOTAL	LONGITUDINAL	TRANSVERSE	LONGITUDINAL	TRANSVERSE	
			DEAD	LIVE	TOTAL	LONGITUDINAL	TRANSVERSE	DEAD	LIVE	TOTAL	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		



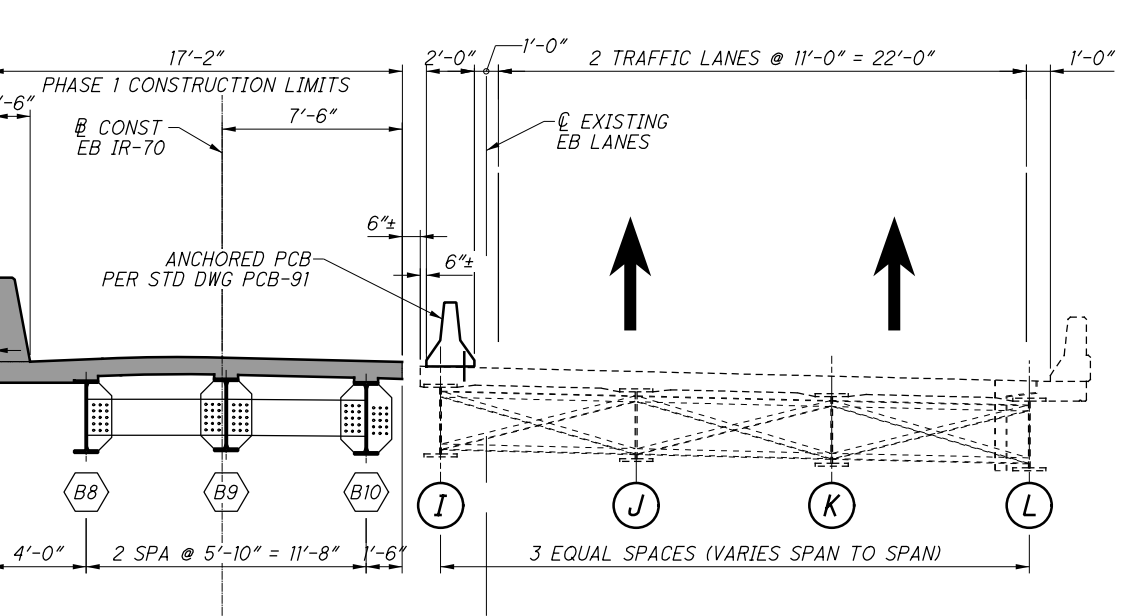
EXISTING TYPICAL SECTION



PHASE 1 - REMOVAL



PHASE 1 - CONSTRUCTION



NOTES

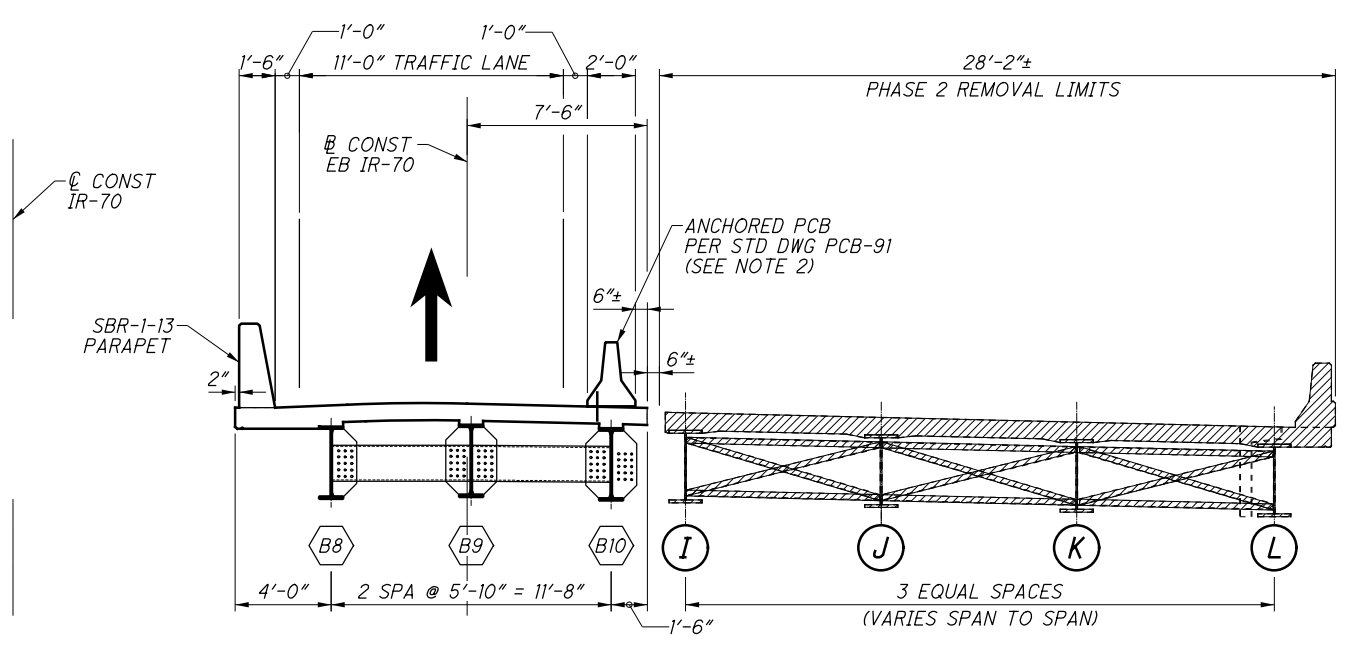
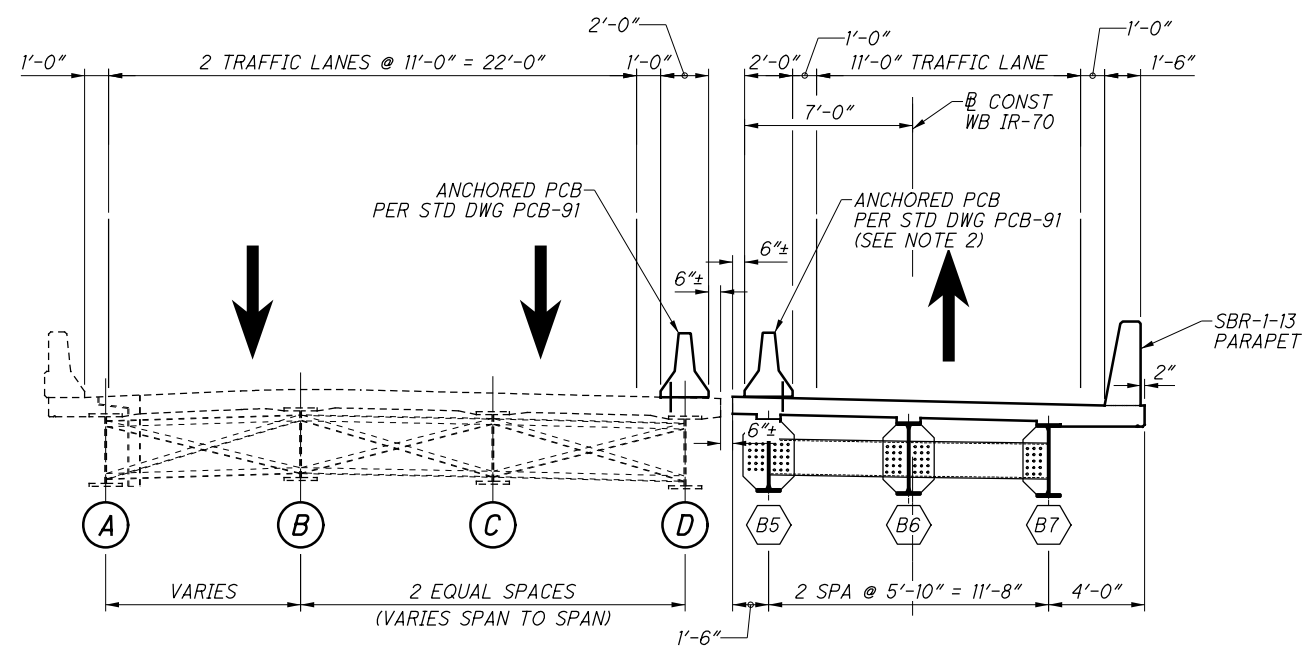
1. PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.
2. A MINIMUM OF FOUR ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. ANCHORS ARE TO REMAIN IN PLACE UNTIL AFTER PHASE 1 OR PHASE 2 IS COMPLETE,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

LEGEND

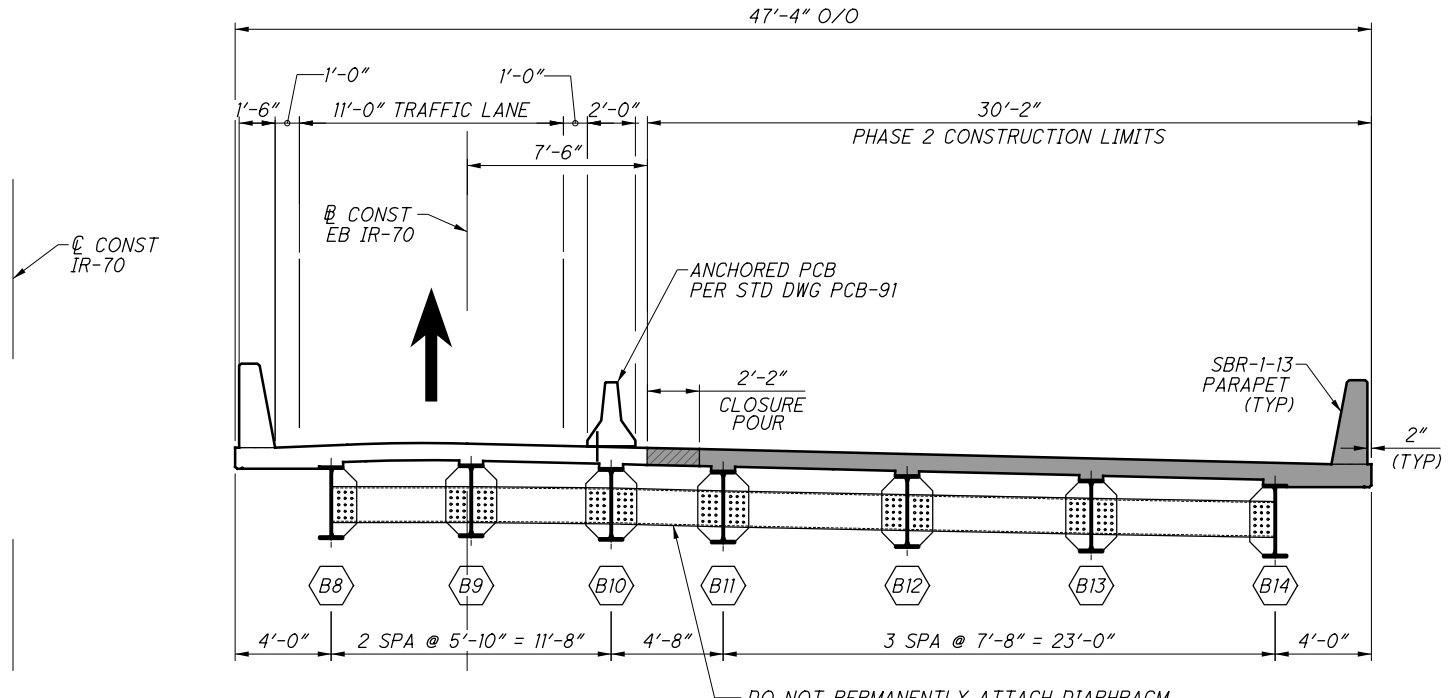
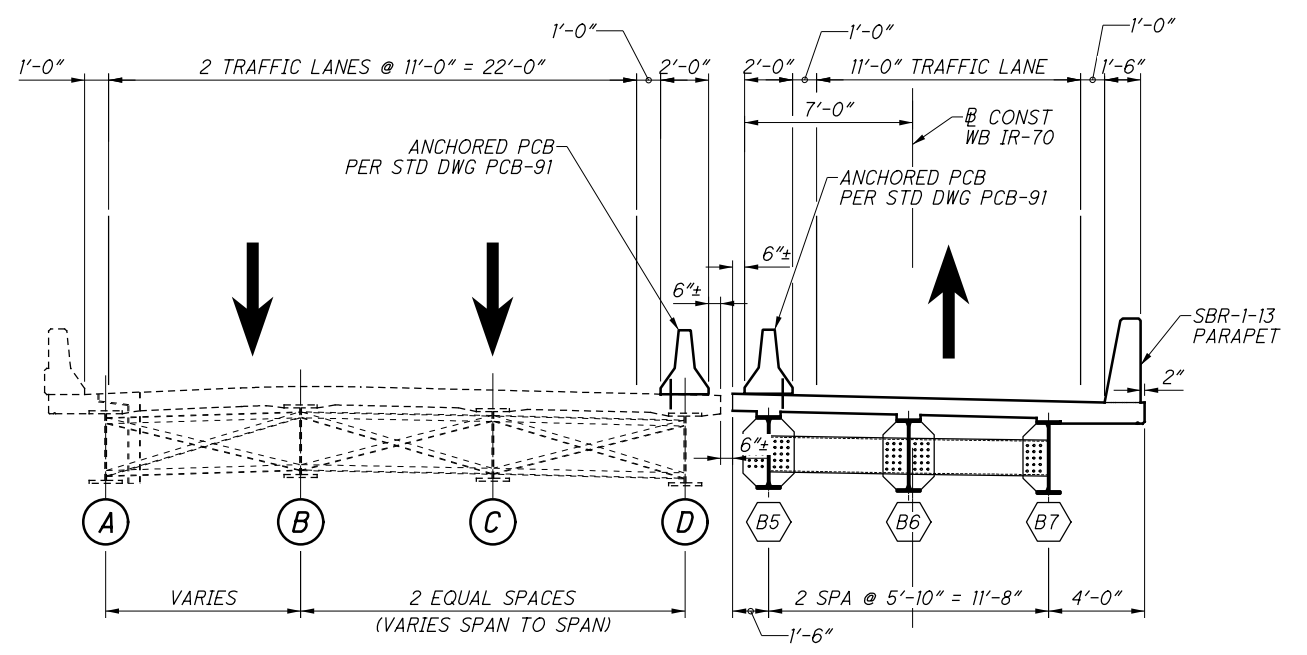
- PROPOSED CONSTRUCTION
- ▨ REMOVAL LIMITS

* 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.

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PHASE 2 - REMOVAL



PHASE 2 - CONSTRUCTION

LEGEND

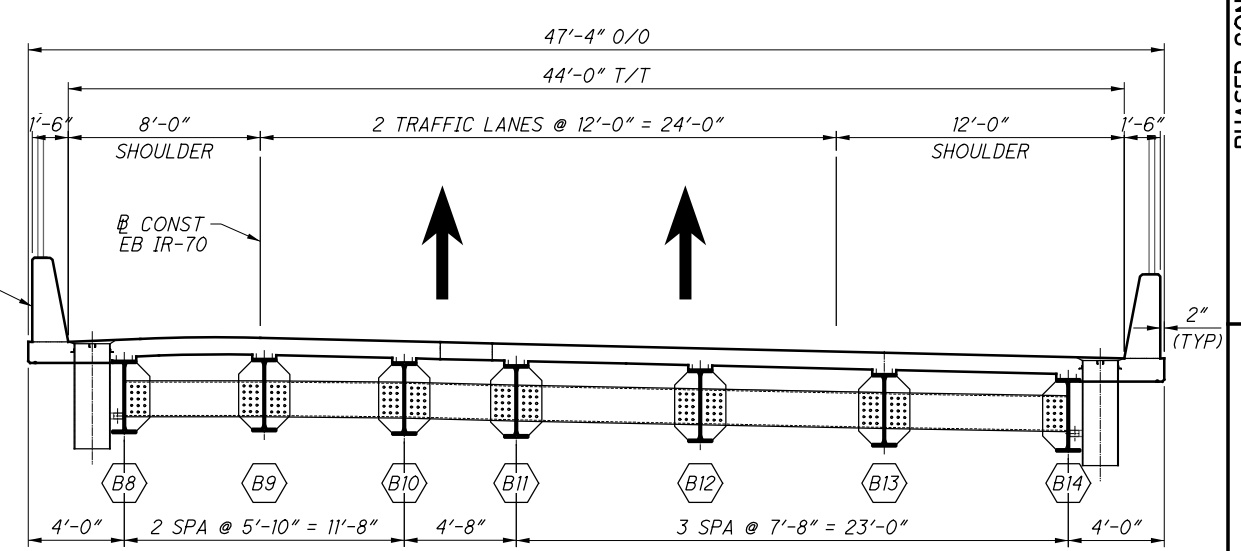
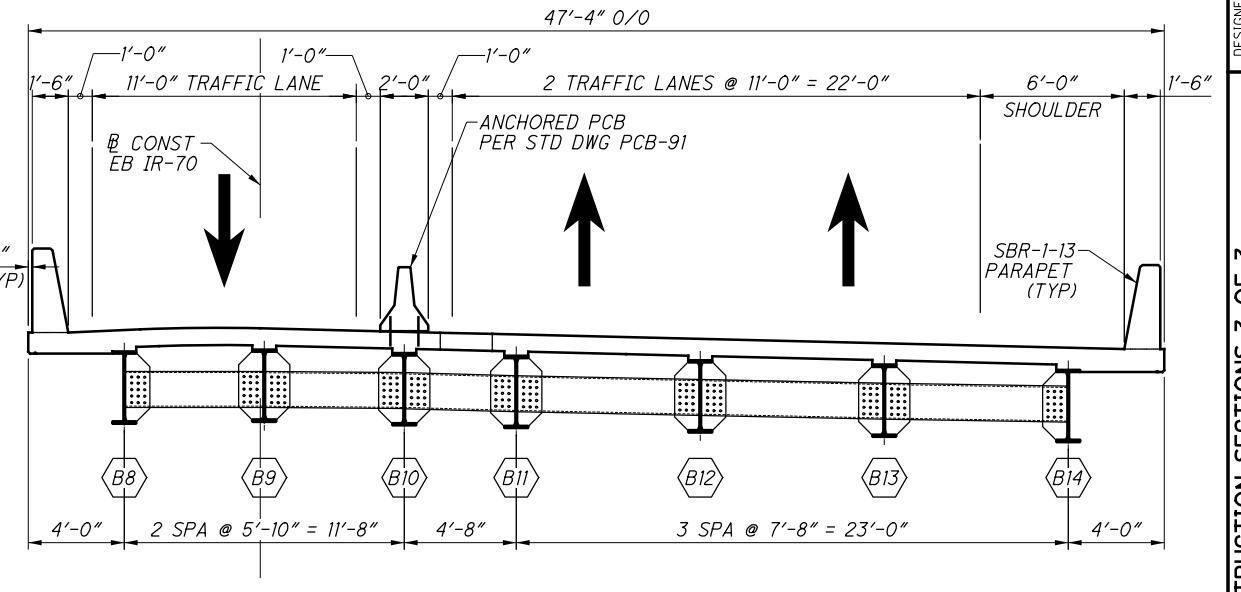
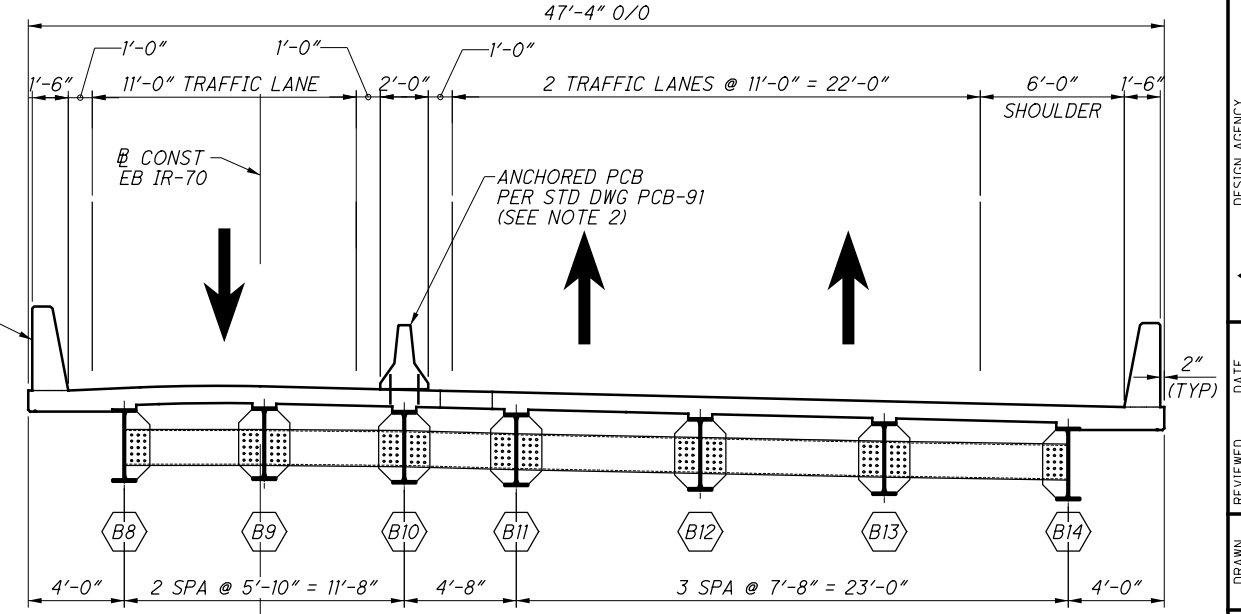
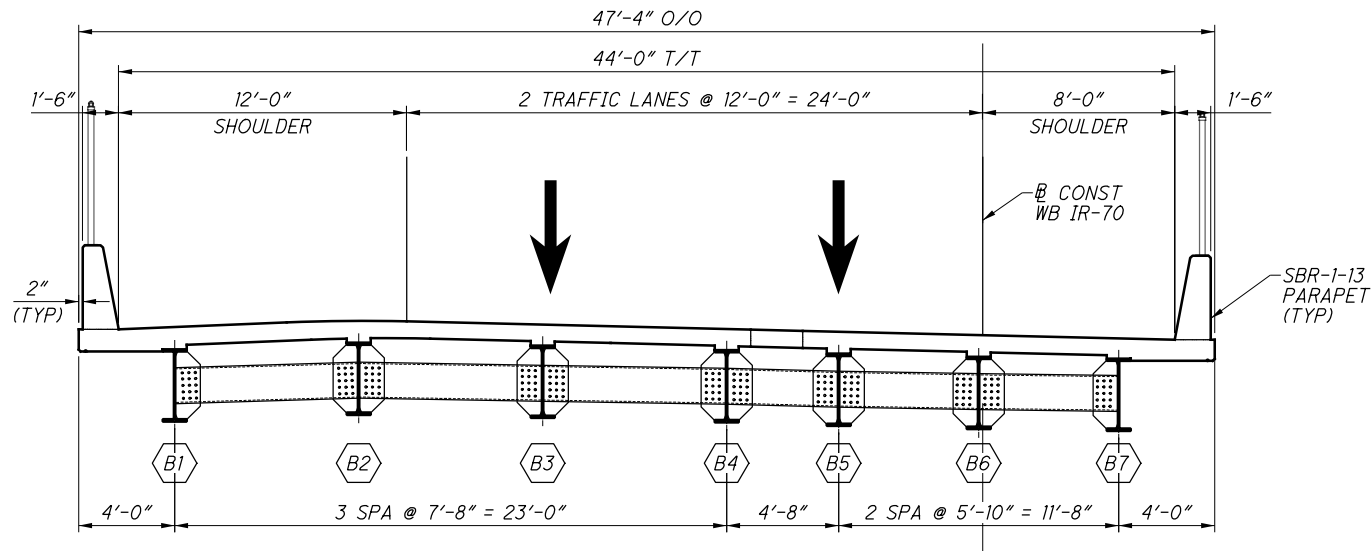
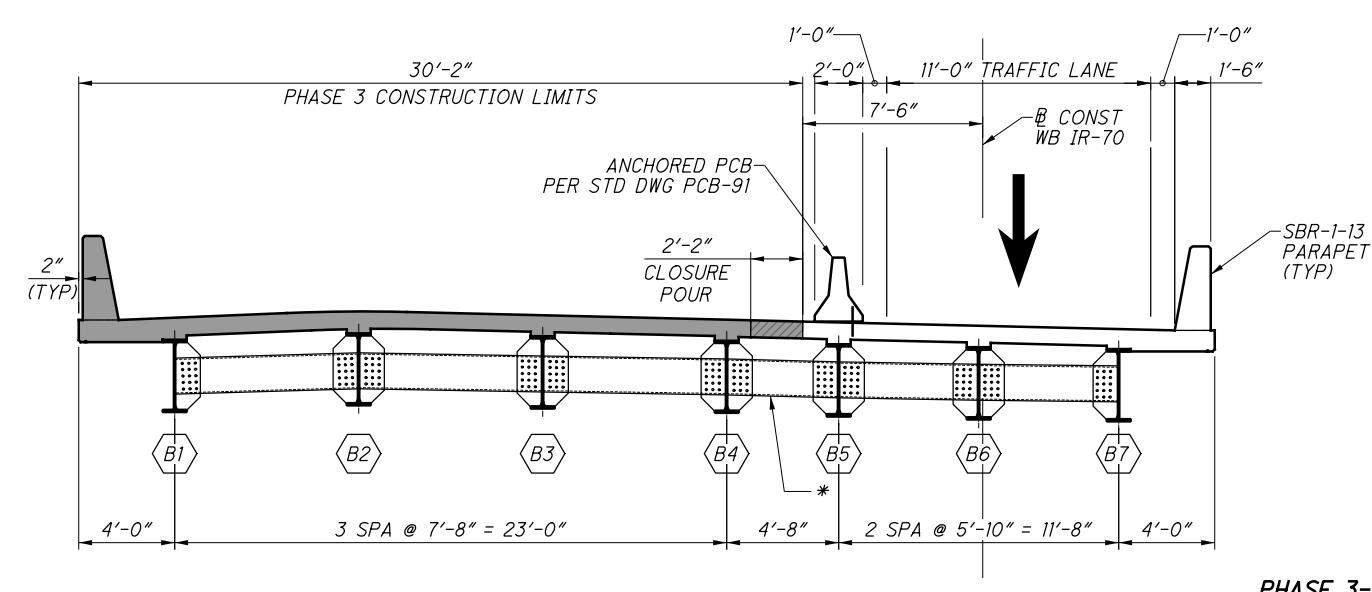
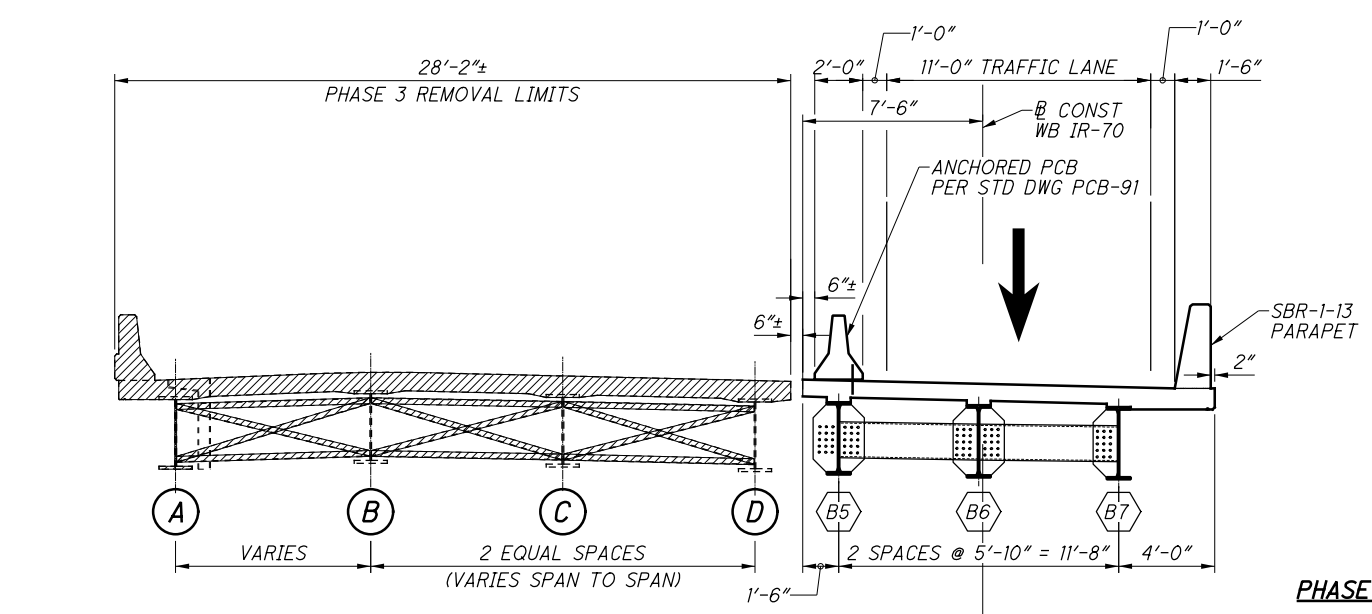
PROPOSED CONSTRUCTION
 REMOVAL LIMITS

NOTES

- PCB IS INCLUDED AND PAID FOR WITH THE ROADWAY MOT QUANTITIES.
- 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.

GannettFleming <small>ENGINEERS & ARCHITECTS, P.C. 2500 CORPORATE EXCHANGE DRIVE SUITE 230 COLUMBIUS, OHIO 43231</small>	DESIGN AGENCY	DATE 12/2020	REVIEWED CTM	STRUCTURE FILE NUMBER 6002676	DRAWN RSN	REVISIONS	DESIGNED CTM	CHECKED DF	
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									

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LEGEND
 [Hatched Box] PROPOSED CONSTRUCTION
 [Dashed Box] 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.

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

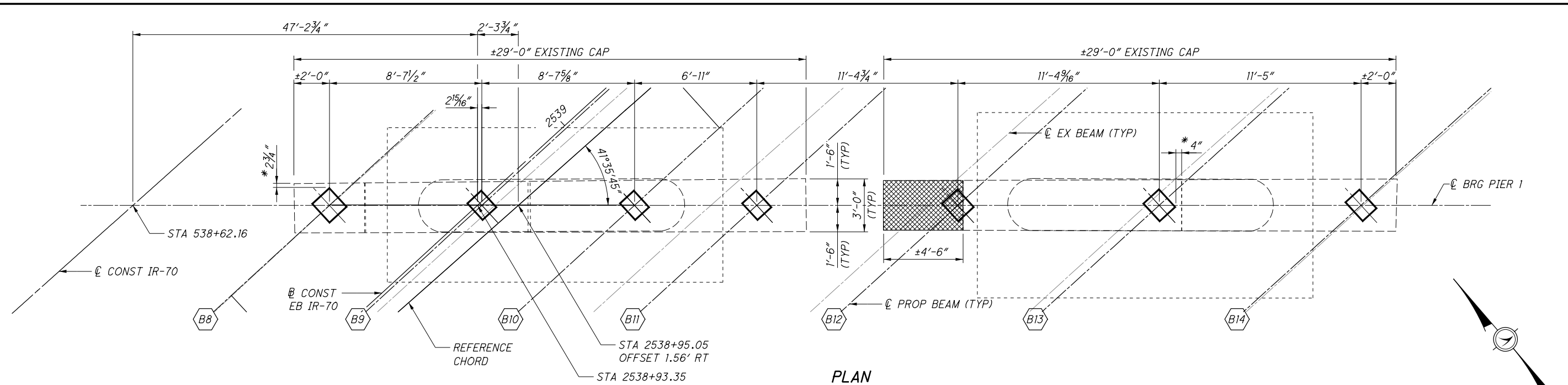
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DRAWN	RSN	REVISED	
REVIEWED	CTM	STRUCTURE FILE NUMBER	6002676
DATE	12/2020		

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

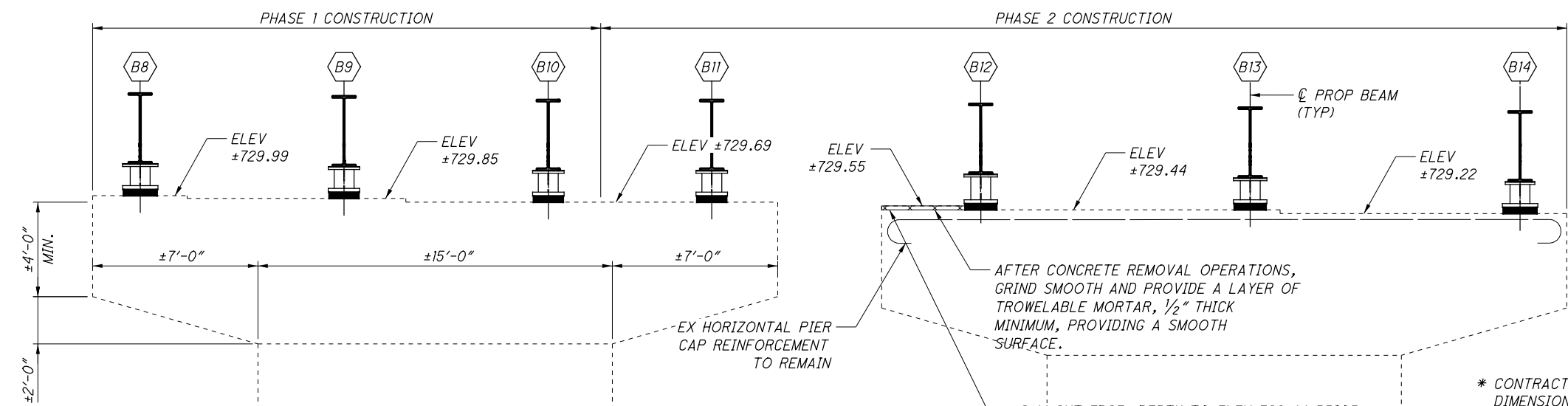
MUS-70-10.49
 PID No. 93006

10 / 53
 1351
 2231

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PLAN



EXIST. GROUND SLOPE

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.

AFTER CONCRETE REMOVAL OPERATIONS, GRIND SMOOTH AND PROVIDE A LAYER OF TROWELABLE MORTAR, 1/2" THICK MINIMUM, PROVIDING A SMOOTH SURFACE.

SAW CUT EDGE, DEPTH TO ELEV 729.44 PRIOR TO CONCRETE REMOVAL. SEE NOTE 1. PROVIDE CONCRETE SEALER ON EXPOSED CONCRETE VERTICAL FACE. COST OF THIS WORK NOT MEASURED FOR PAYMENT, BUT SHALL BE INCLUDED IN THE COST OF ITEM 202

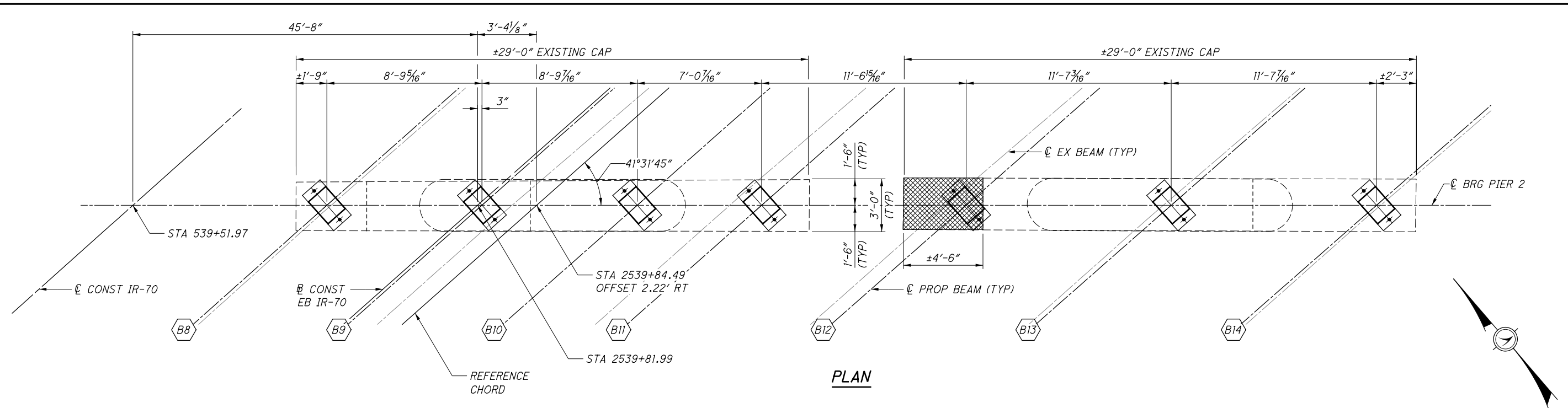
* CONTRACTOR SHALL NOTIFY THE ENGINEER IF DIMENSION IS LESS THAN 2" FROM EDGE OF ELASTOMERIC BEARING TO EXISTING SEAT EDGE. DIMENSION SHOWN IS AT MINIMUM LOCATION AND BASED ON EXISTING PLAN DIMENSIONS, ACTUAL MINIMUM EDGE DISTANCE SHALL BE FIELD VERIFIED AT ALL BEARINGS.

LEGEND

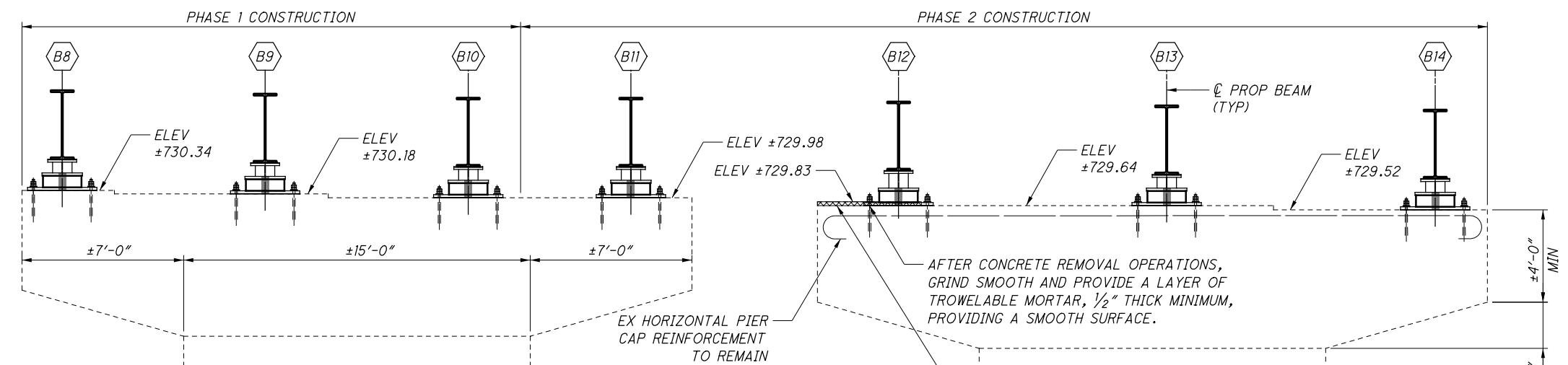
PIER SEAT REMOVAL

DESIGN AGENCY Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2800 CORPORATE EXCHANGE DRIVE SUITE 230 COLUMBUS, OHIO 43231	
DATE 12/2020	REVIEWED CTM
STRUCTURE FILE NUMBER 6002676	LAM REVISED
DESIGNED JGC	DRAWN LAM
CHECKED DF	PROJECT REVISED
PIER 1 PATCHING & MODIFICATION	
BRIDGE NO. MUS-70-1066R OVER LICKING ROAD & CUOH RAILROAD	
MUS-70-10.49 PID No. 93006	
27 / 53	
1368 2231	

SUBMITTAL: Stage 3
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PLAN



ELEVATION

NOTES

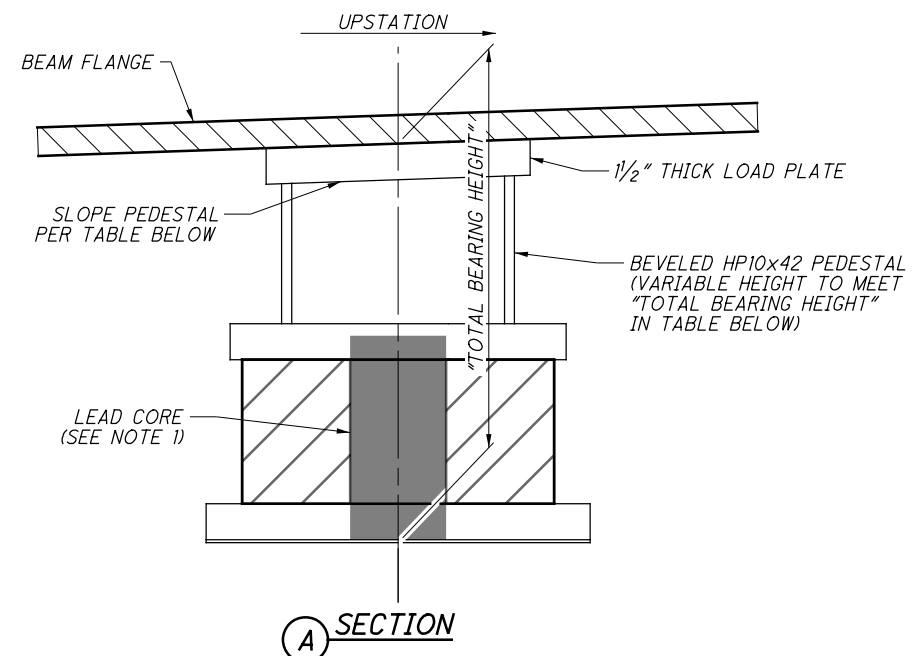
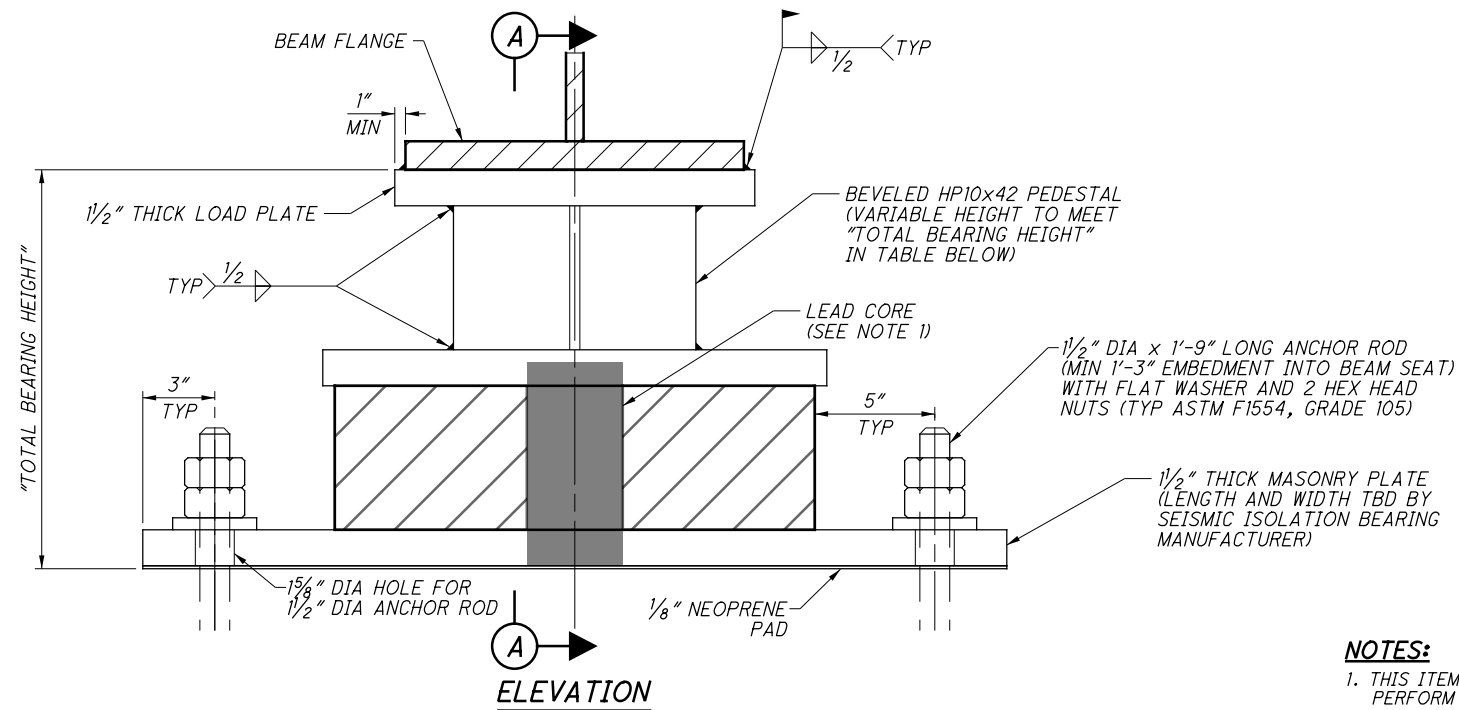
- SEE GENERAL NOTES ON SHEET [4/53] FOR ADDITIONAL REQUIREMENTS. THE CONTRACTOR SHALL CAREFULLY REMOVE THE CONCRETE AND NOT DAMAGE EXISTING HORIZONTAL PIER CAP REINFORCEMENT. REINFORCEMENT (VERTICAL) WITHIN THE PORTION OF THE SEAT STEP TO BE REMOVED SHALL BE CUT FLUSH TO THE ADJACENT CAP (SEAT) ELEVATION. 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.
- 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.
- 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

DESIGNED JGC	CHECKED DF	DRAWN LAM	REVIEWED CTM	DATE 12/2020	Design Agency Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2800 CORPORATE EXCHANGE DRIVE, SUITE 230 COLUMBUS, OHIO 43231
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

SUBMITTAL: Stage 3
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NOTES:

- 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.

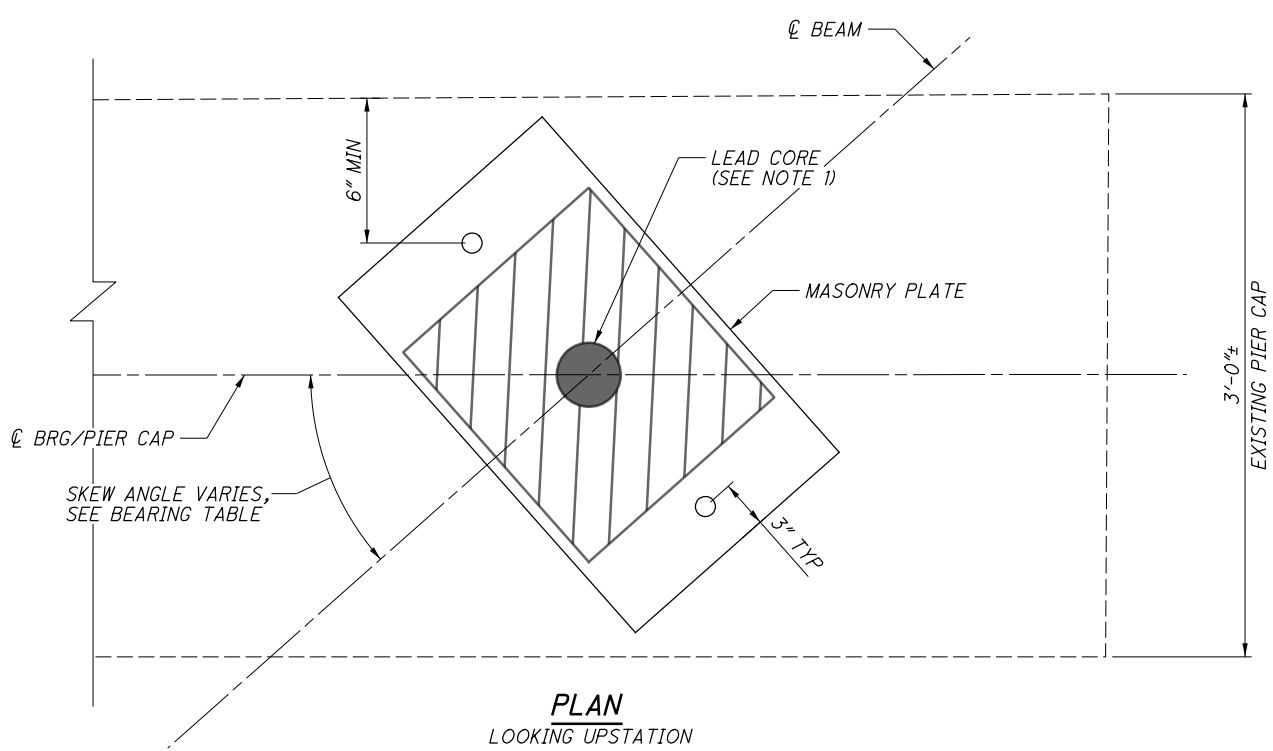
DESIGN BEARINGS ACCORDING TO ALL APPLICABLE SECTIONS OF THE CURRENT EDITION OF THE "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS" INCLUDING ALL PUBLISHED INTERIM REVISIONS; THE CURRENT EDITION OF THE "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS" INCLUDING ALL PUBLISHED INTERIM REVISIONS; THE CURRENT EDITION 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.
- 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.
- FURNISHING AND INSTALLING ANCHOR RODS AND ALL ASSOCIATED NUTS/WASHERS SHALL BE INCLUDED FOR PAYMENT WITH THE BEARINGS.
- 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.
- 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.
- 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.
- IN ADDITION TO THE PRIMARY AXIS ROTATIONS LISTED IN THE TABLE, THE BEARING DESIGN SHALL INCLUDE ALLOWANCE FOR 0.01 RADIAN 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 (RADIAN)			MOVEMENT (INCHES)		EXTREME EVENT HORIZONTAL FORCE GOAL (KIPS)		SKEW ANGLE (DEGREES)
			VERTICAL			HORIZONTAL			VERTICAL			HORIZONTAL			LOADING	CONST. TOLERANCE	TOTAL	LONGITUDINAL	TRANSVERSE	LONGITUDINAL	TRANSVERSE	
			DEAD	LIVE	TOTAL	LONGITUDINAL	TRANSVERSE	DEAD	LIVE	TOTAL	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		

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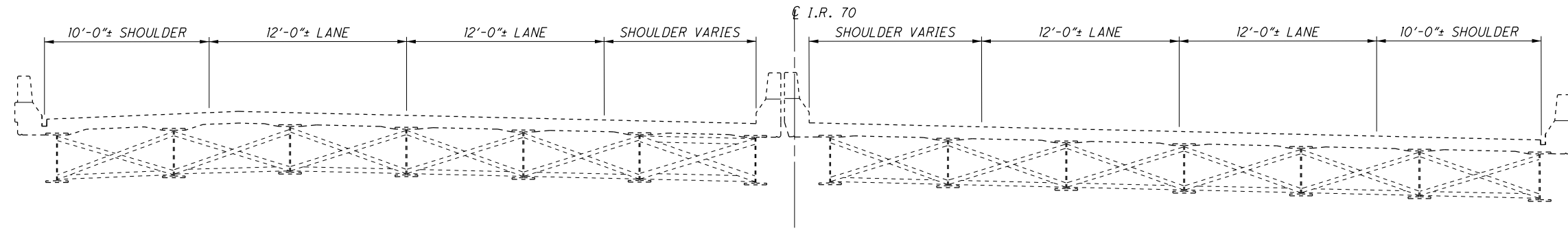
ABUT.	PIERS	SUPER.	GENERAL	PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
				01/IMS/PV	02/IMS/BR	03/IMS/CV	04/S<2/OT	05/SAE/O T						
			LS		LS				202	11203	LS	STRUCTURE OVER 20 FOOT SPAN (MUS-70-1089)		
			506		506				202	22900	506	SY	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	3
			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 OC2 CONCRETE WITH QC/OA, SUPERSTRUCTURE	
		336			336				511	34450	336	CY	CLASS OC2 CONCRETE WITH QC/OA, BRIDGE DECK (PARAPET)	
	104				104				511	43212	104	CY	CLASS OC1 CONCRETE WITH QC/OA, PIER	
49					49				511	45712	49	CY	CLASS OC1 CONCRETE WITH QC/OA, 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/OA (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.
			530	204	10000	530	SY	ROADWAY SUBGRADE COMPACTION	
			2	601	20010	2	CY	EROSION CONTROL CRUSHED AGGREGATE SLOPE PROTECTION	
			52	601	21001	52	SY	CONCRETE SLOPE PROTECTION, AS PER PLAN	3
			89	304	20000	89	CY	PAVEMENT AGGREGATE BASE	

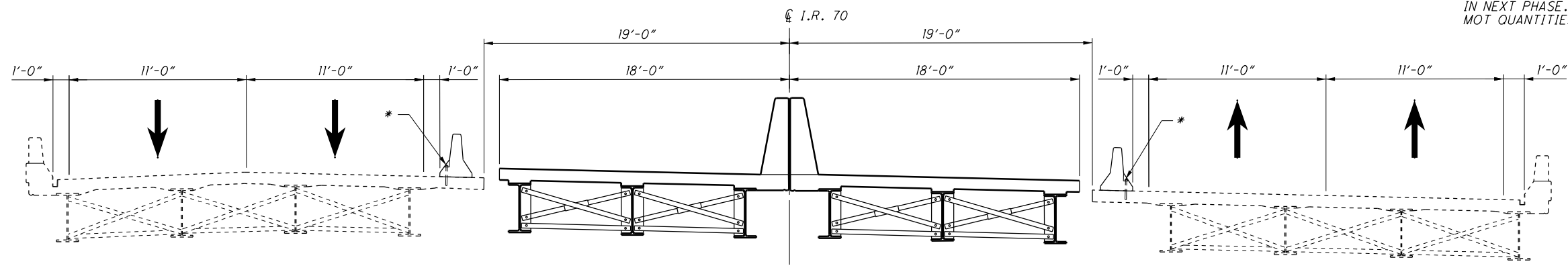
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REVIEWED DATE JPH 12/2/2020 STRUCTURE FILE NUMBER 6002706
DRAWN JPH REVISED
DESIGNED MJB CHECKED TAG
BRIDGE SUMMARY BRIDGE NO. MUS-70-1089 OVER LICKING RIVER & NEWARK RD.
MUS-70-10.49 PID No. 93006
4 / 52
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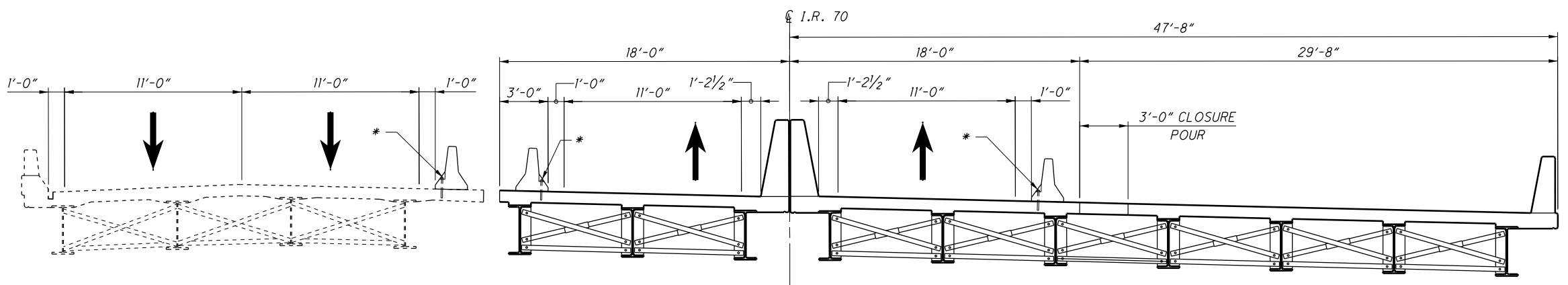


EXISTING TRANSVERSE SECTION

* - 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

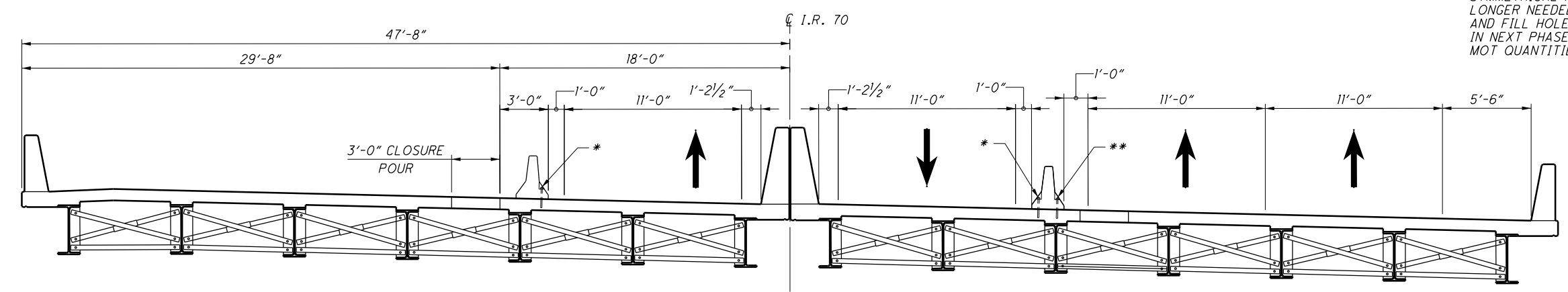


PHASE 1 CONSTRUCTION



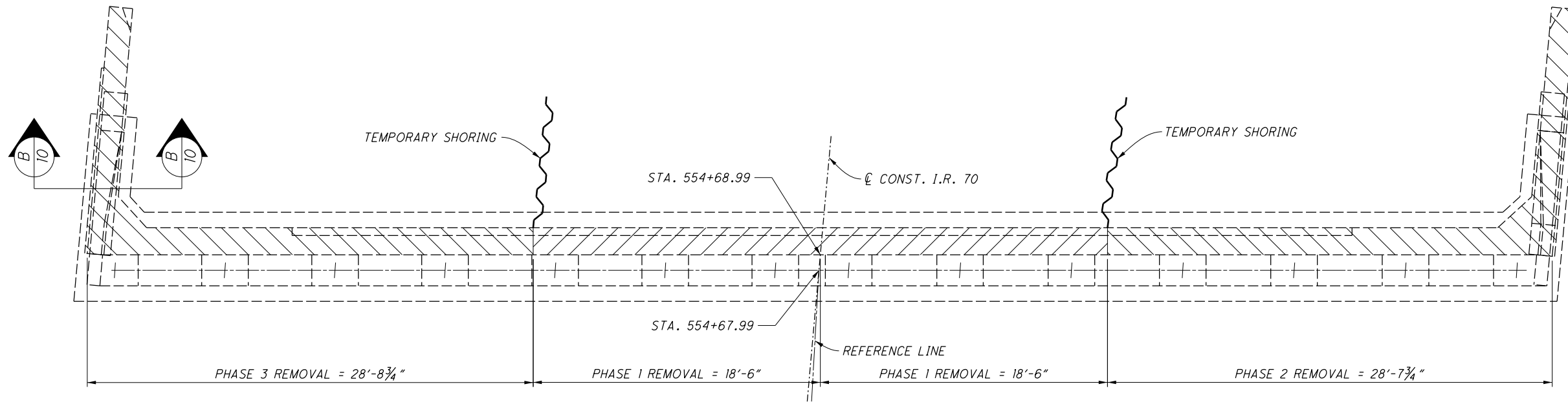
PHASE 2 CONSTRUCTION

** - 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

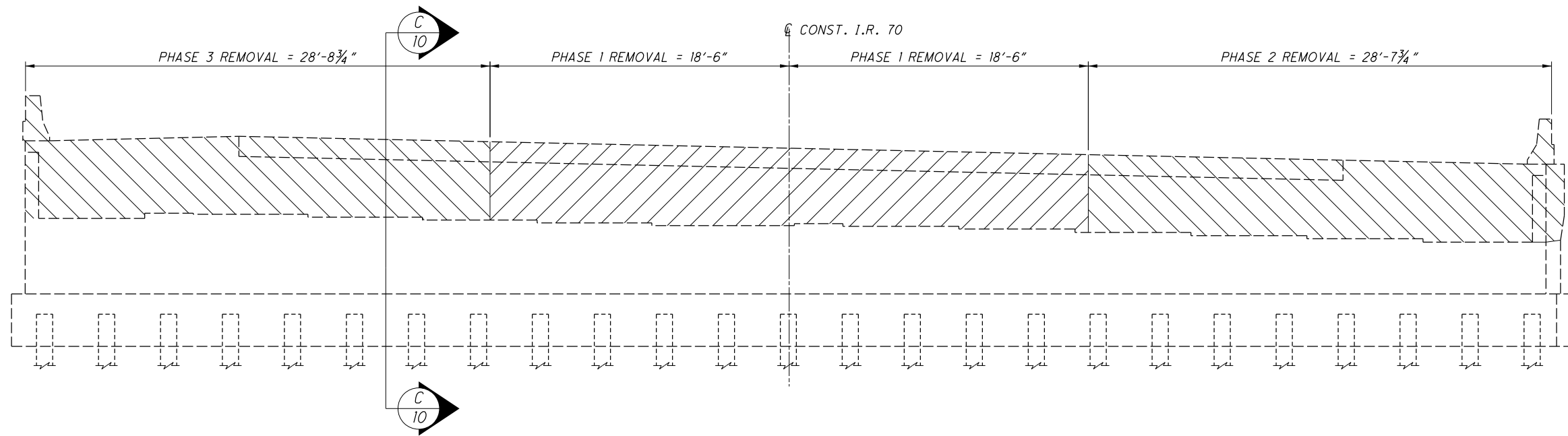


PHASE 3 CONSTRUCTION

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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

REVIEWED
JPH 12/2/2020
STRUCTURE FILE NUMBER
6002706

DRAWN
JPH
REVIS
DESIGNED
MJB
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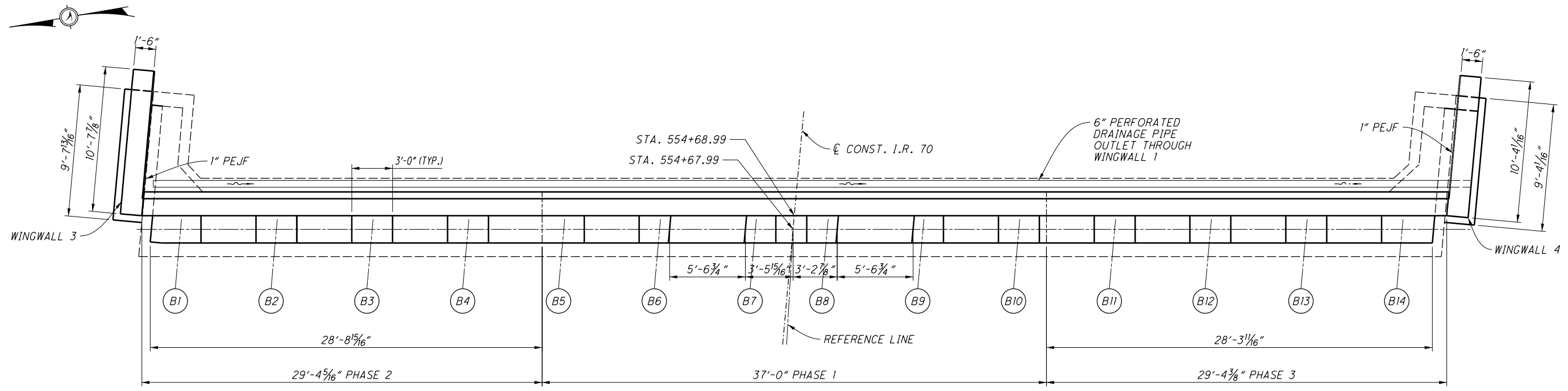
EXISTING FORWARD ABUTMENT
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

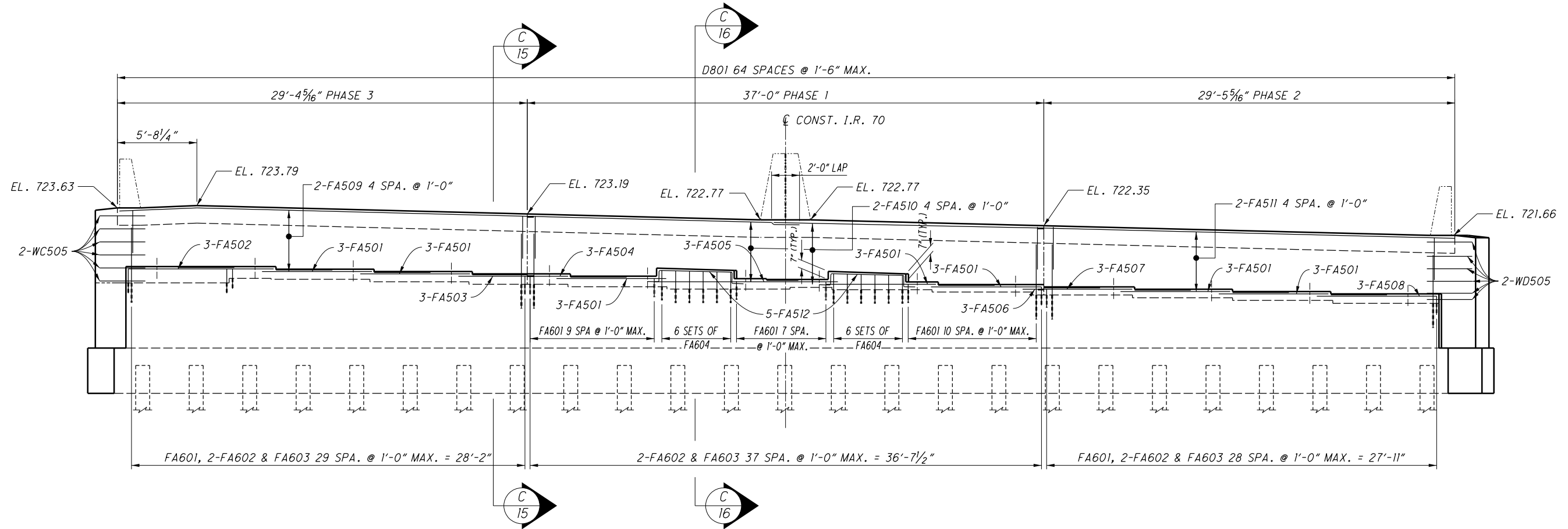
9 / 52

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PROPOSED FORWARD ABUTMENT



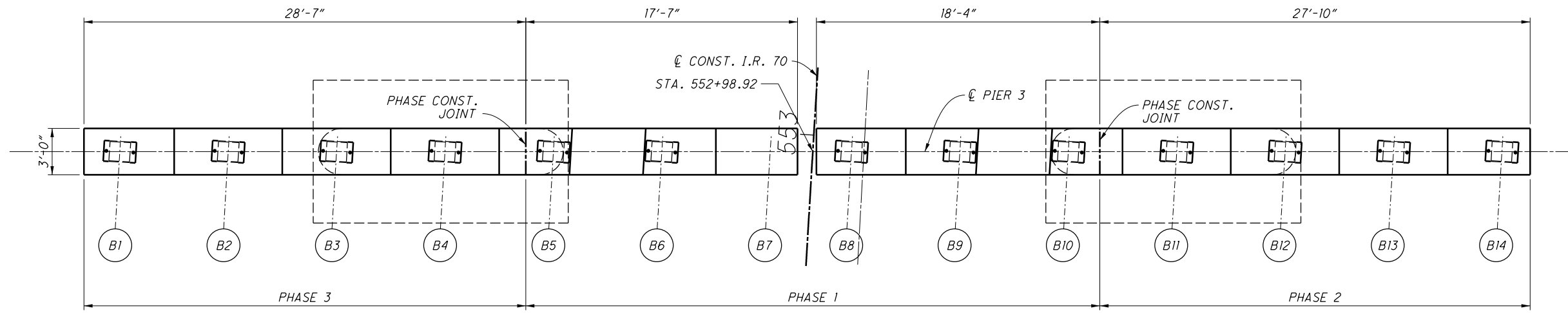
PROPOSED FORWARD ELEVATION

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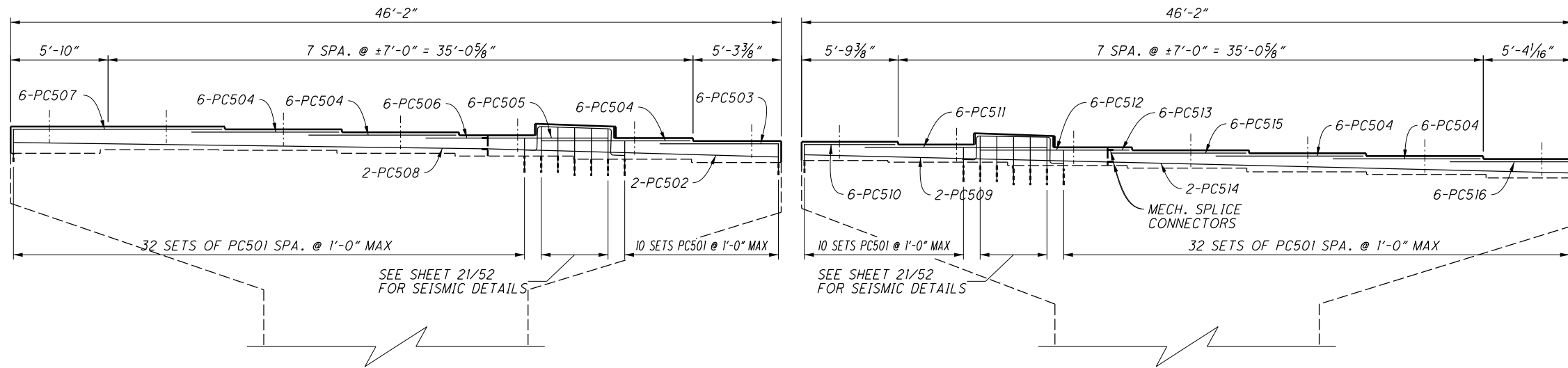
- i: MINIMUM DOWEL LENGTHS:
- FA502 = 1'-0"
- FA601 = 6"
- FA602 = 1'-0"
- FA604 = 1'-0"

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

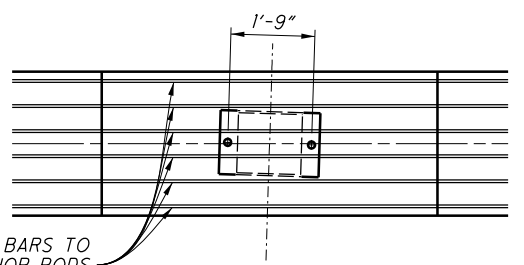
DESIGN AGENCY: OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
 DATE: 12/2/2020
 REVIEWED: JPH
 DRAWN: JPH
 CHECKED: MJB
 TAG: JPH
 STRUCTURE FILE NUMBER: 6002706
PROPOSED FORWARD ABUTMENT
 BRIDGE NO. MUS-70-1089
 OVER LICKING RIVER & NEWARK RD.
MUS-70-10.49
 PID No. 93006
 14 / 52
 1408
 2231



PIER 3 PLAN



PIER 3 ELEVATION



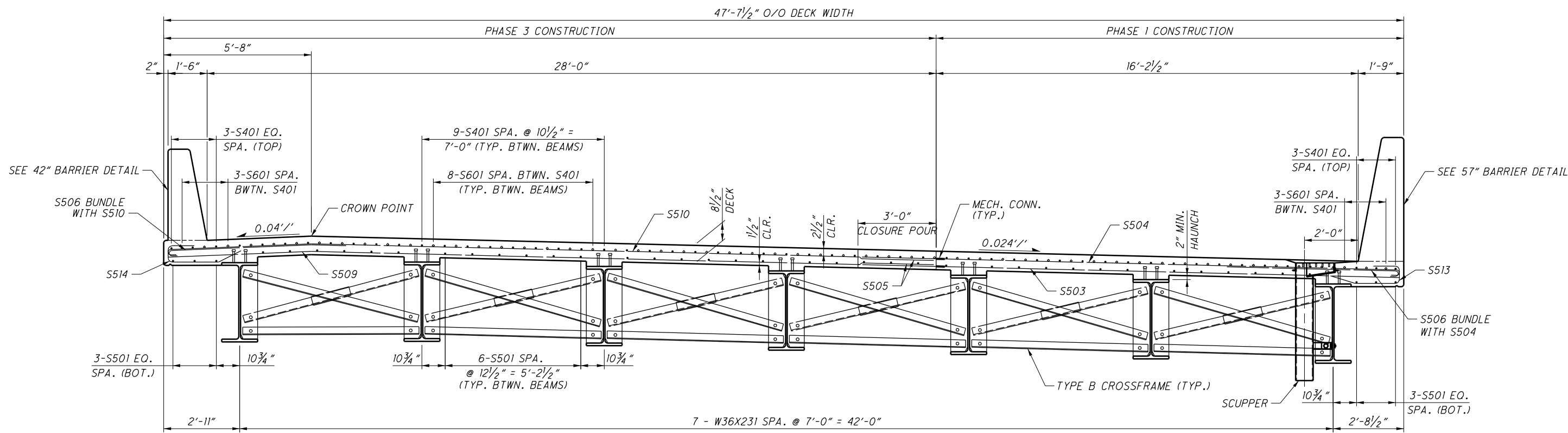
ANCHOR BOLT PLAN

PIER 1 BEAM SEAT ELEVATIONS

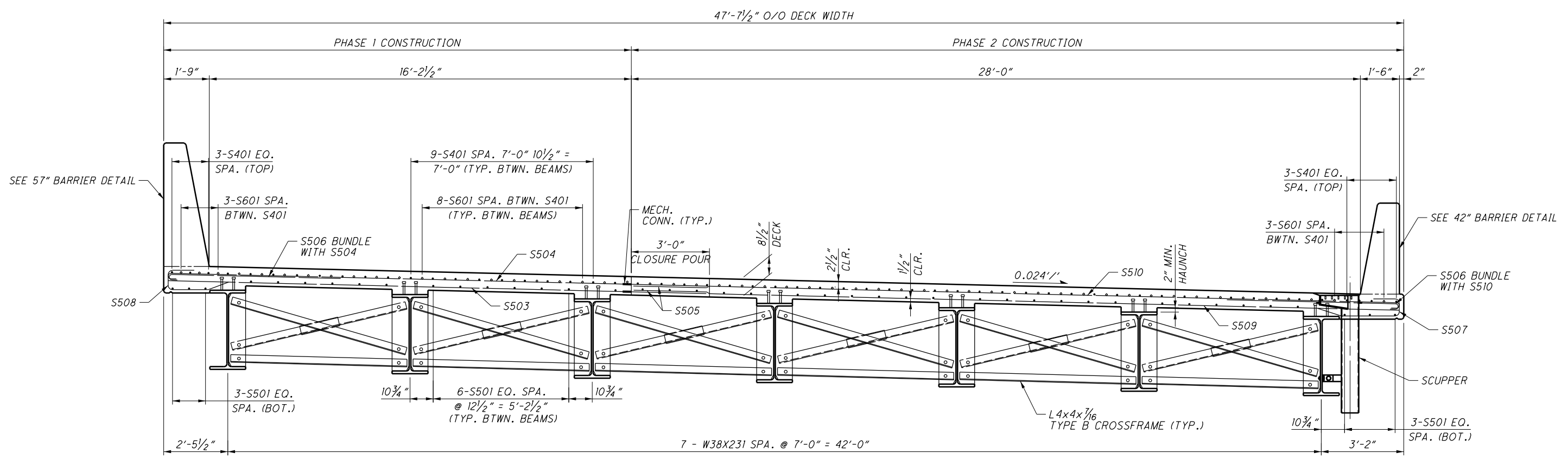
B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14
721.47	721.47	721.30	721.12	720.95	720.78	720.60	720.56	720.39	720.22	720.04	719.87	719.70	719.52

\\d05fsi05\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6002706\Sheets\070_089C_S1002.dgn 93006S1003 2/26/2021 12:43:32 PM jhuffmc3

\\d05fsi05\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6002706\Sheets\070_089C-ST001.dgn 93006ST001 3/5/2021 10:17:24 AM jnuufmc3



WESTBOUND TRANSVERSE SECTION

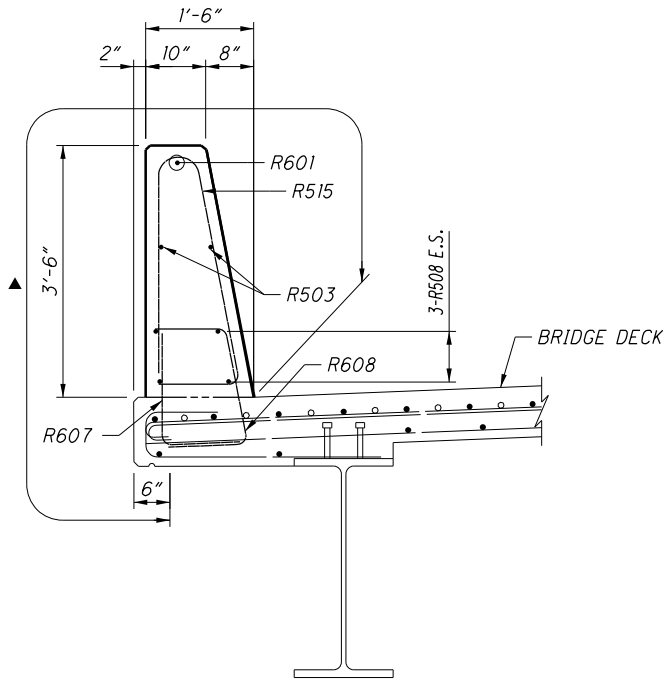


EASTBOUND TRANSVERSE SECTION

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

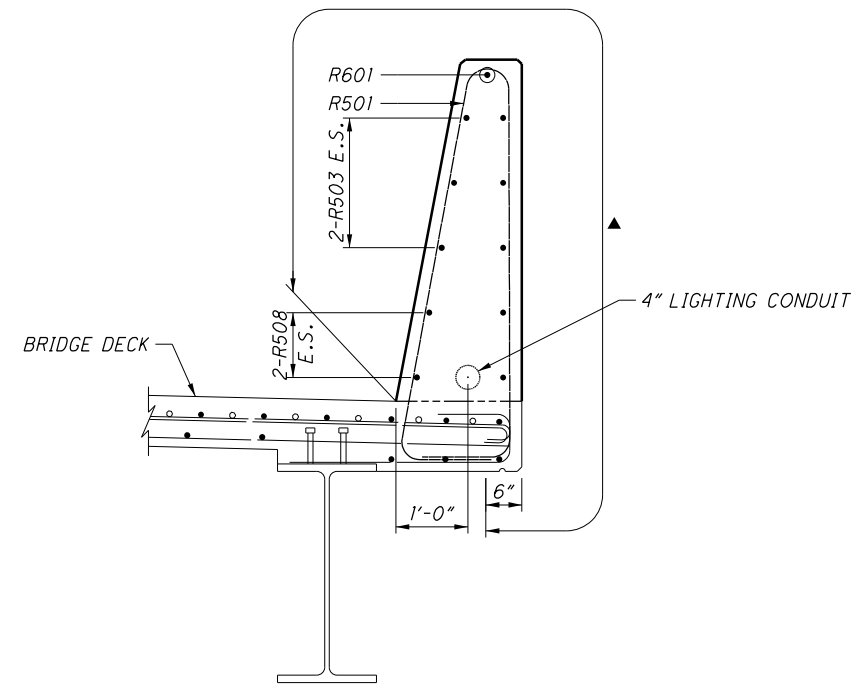
DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
DATE	12/2/2020
REVIEWED	JPH
STRUCTURE FILE NUMBER	6002706
DRAWN	MJB
REVISOR	JMH
DESIGNED	MJB
CHECKED	JMH
TRANSVERSE SECTION	
BRIDGE NO. MUS-70-1089	
OVER LICKING RIVER & NEWARK RD.	
MUS-70-10.49	PID No. 93006
34	52
1428	2231

\\d05fsi05\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6002706\Sheets\070_1089C_ST001.dgn 93006ST002 2/26/2021 12:35:45 PM jhuffma3



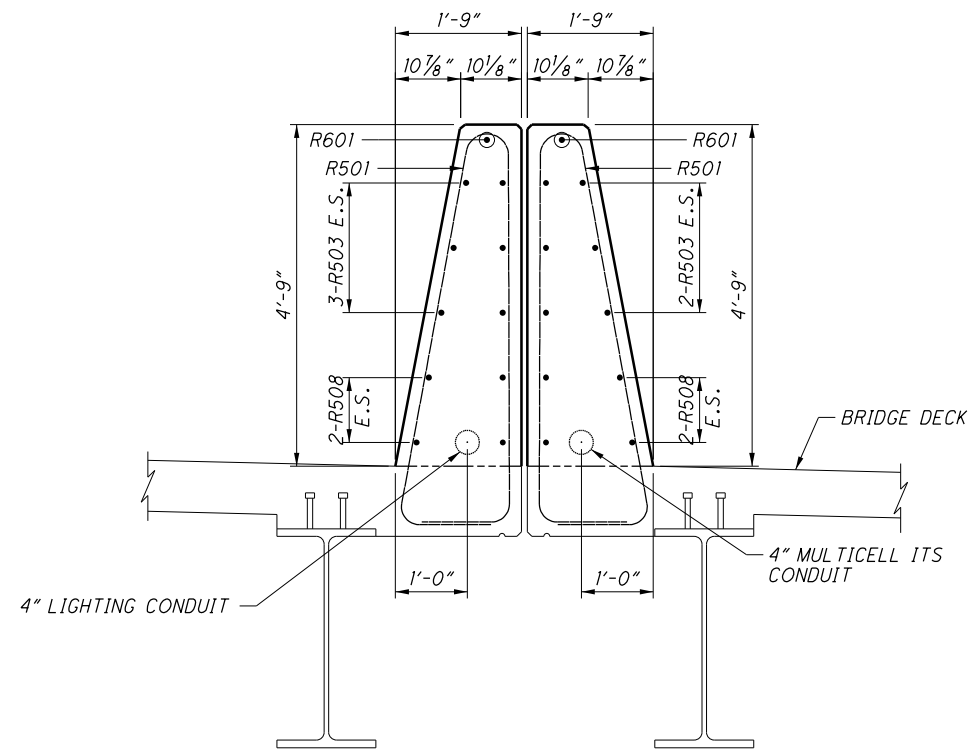
SECTION A-A
42" CONCRETE BARRIER DETAIL

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

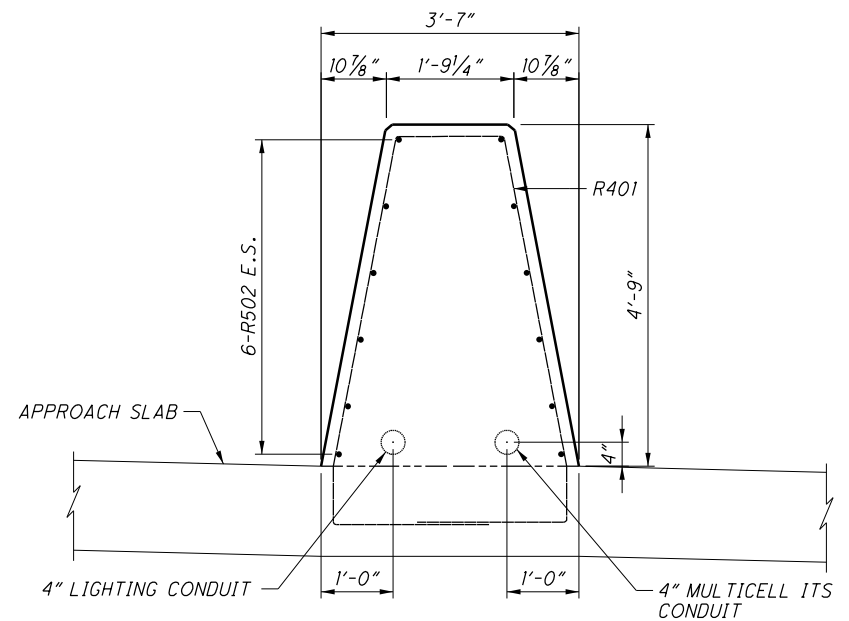


SECTION C-C (REINFORCING)
57" CONCRETE BARRIER DETAIL

▲ - 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

REVIEWED
JPH 12/2/2020
STRUCTURE FILE NUMBER
6002706

DRAWN
MJB
REVIS

DESIGNED
MJB
CHECKED
JMH

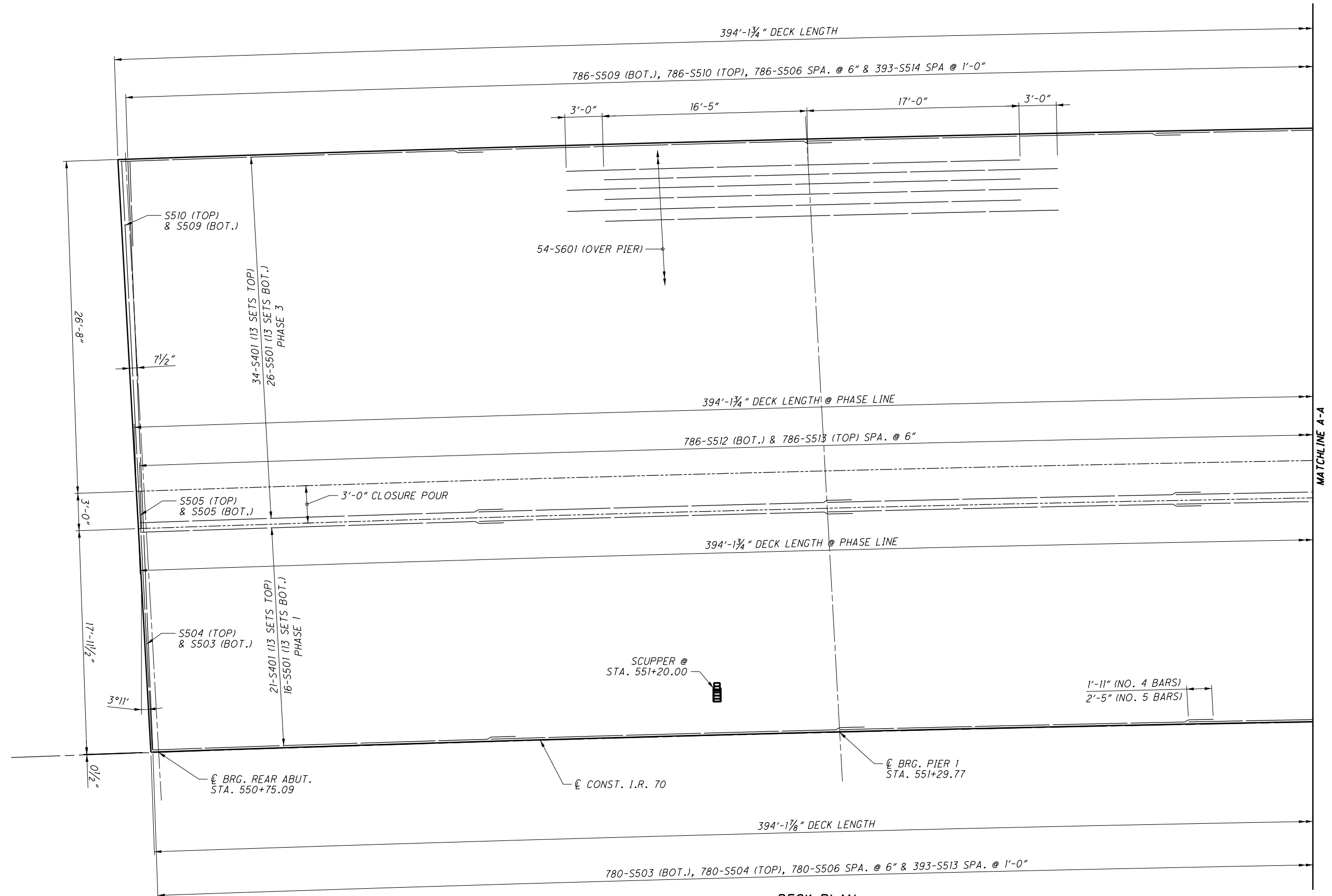
BARRIER DETAILS
BRIDGE NO.: MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

35/52

1429
2231

\\d05f105\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6002706\Sheets\070_1089C_DP001.dgn 93006DP001 3/4/2021 7:48:24 AM jhuffma3



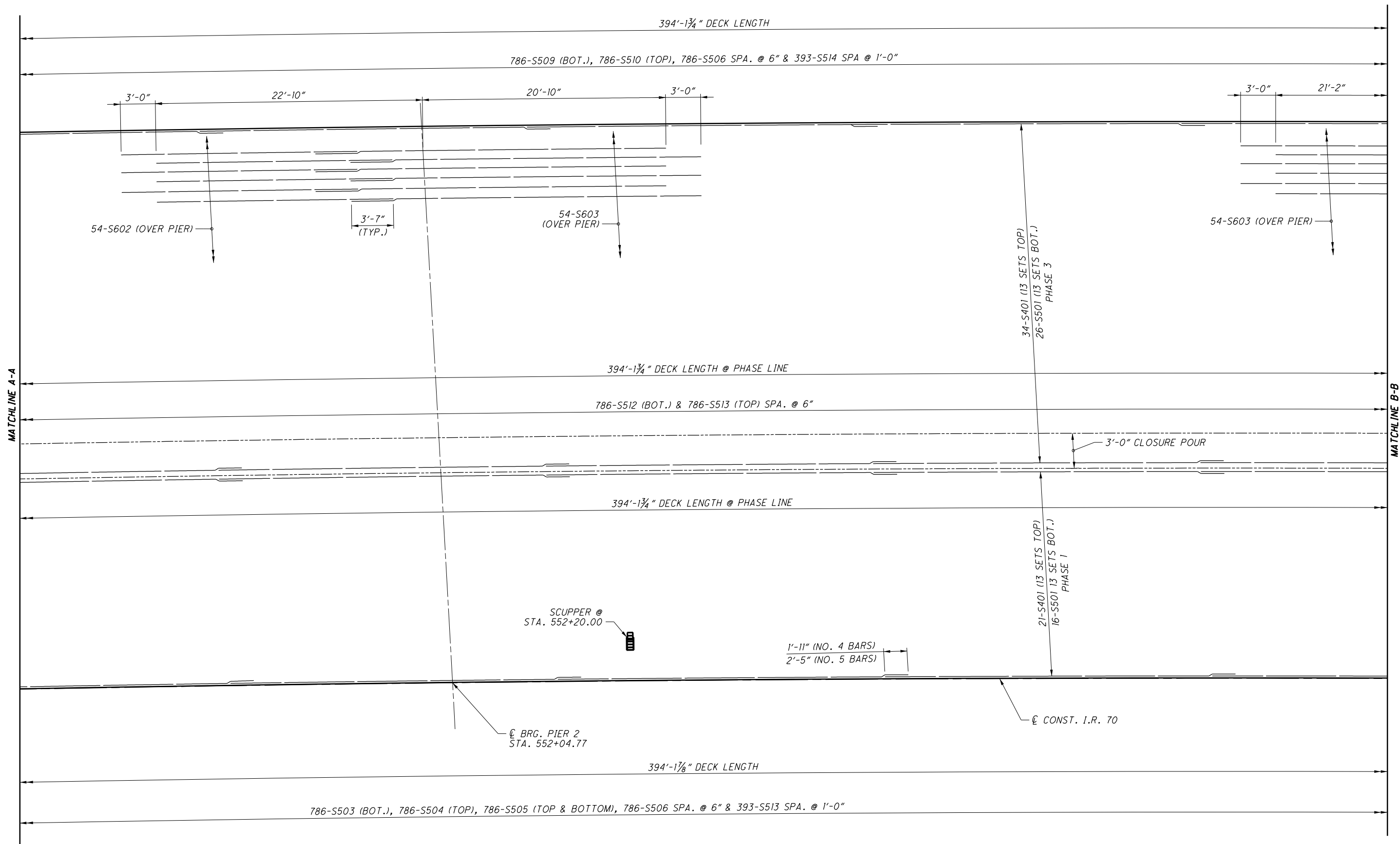
NOTES:

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

DECK PLAN

<p>MUS-70-10.49 PID No. 93006</p>	<p>DECK PLAN (WESTBOUND) BRIDGE NO.: MUS-70-1089 OVER LICKING RIVER & NEWARK RD.</p>	<p>DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5</p>
<p>36 / 52</p>	<p>1430 2231</p>	<p>DESIGNED MJB CHECKED JMH</p>
<p>DRAWN MJB REVISED</p>	<p>REVIEWED JPH STRUCTURE FILE NUMBER 6002706</p>	<p>DATE 12/2/2020</p>

\\d05fsi05\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6002706\Sheets\070_089C_DP001.dgn 93006DP002 3/4/2021 7:49:19 AM jhurfma3



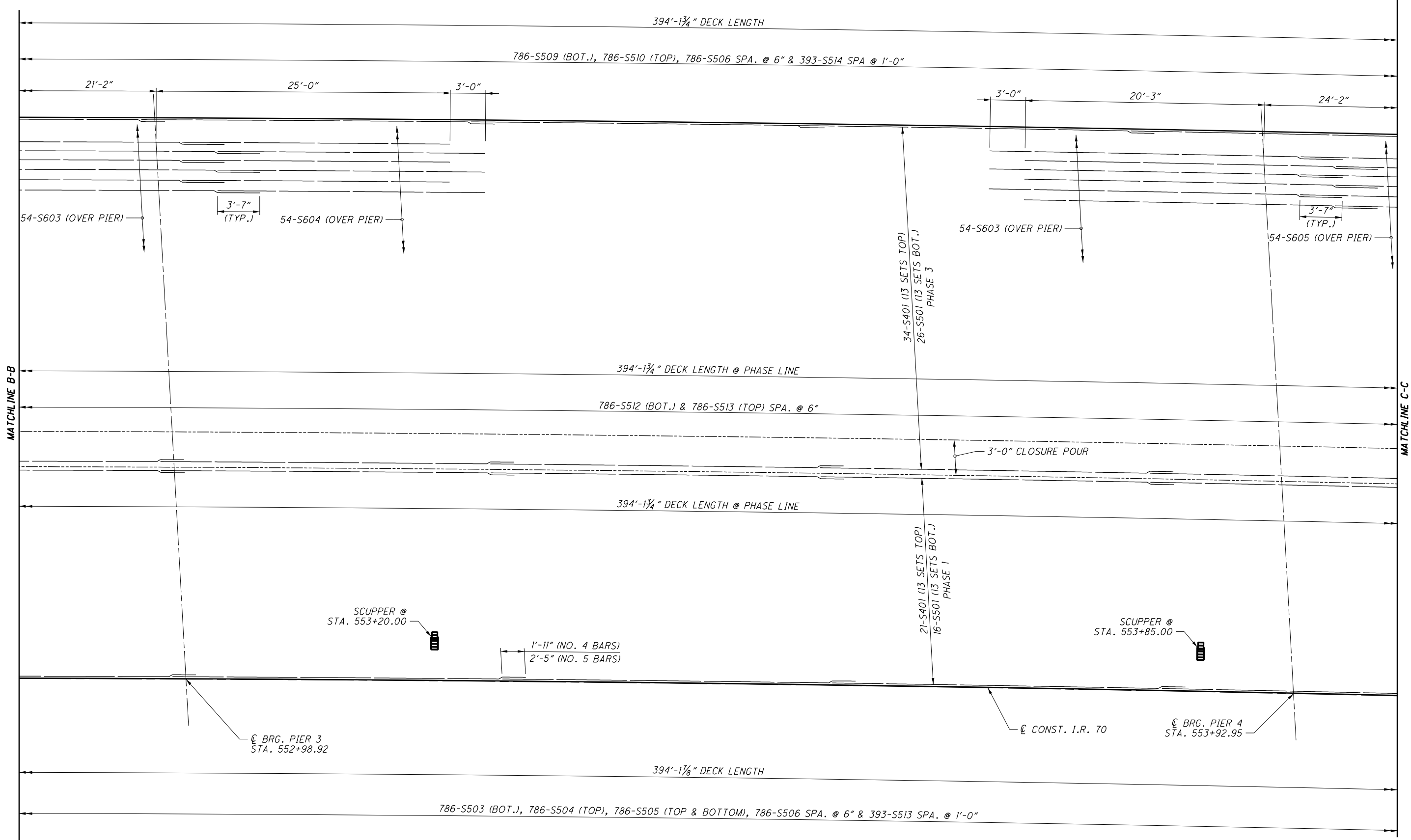
DECK PLAN

NOTES:

- FOR MATCH LINE A, SEE SHT. NO. [36/52].
- FOR MATCH LINE B, SEE SHT. NO. [38/52].
- FOR ADDITIONAL NOTES, SEE SHT. NO. [39/52].

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5	
REVIEWED JPH	DATE 12/2/2020
DRAWN MJB	STRUCTURE FILE NUMBER 6002706
DESIGNED MJB	CHECKED JMH
DECLPLAN (WESTBOUND) BRIDGE NO.: MUS-70-1089 OVER LICKING RIVER & NEWARK RD.	
MUS-70-10.49 PID No. 93006	
37/52	
1431 2231	

\\d05fsi05\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6002706\Sheets\070_1089C_DP001.dgn 93006DP003 3/4/2021 7:49:57 AM jhuffma3



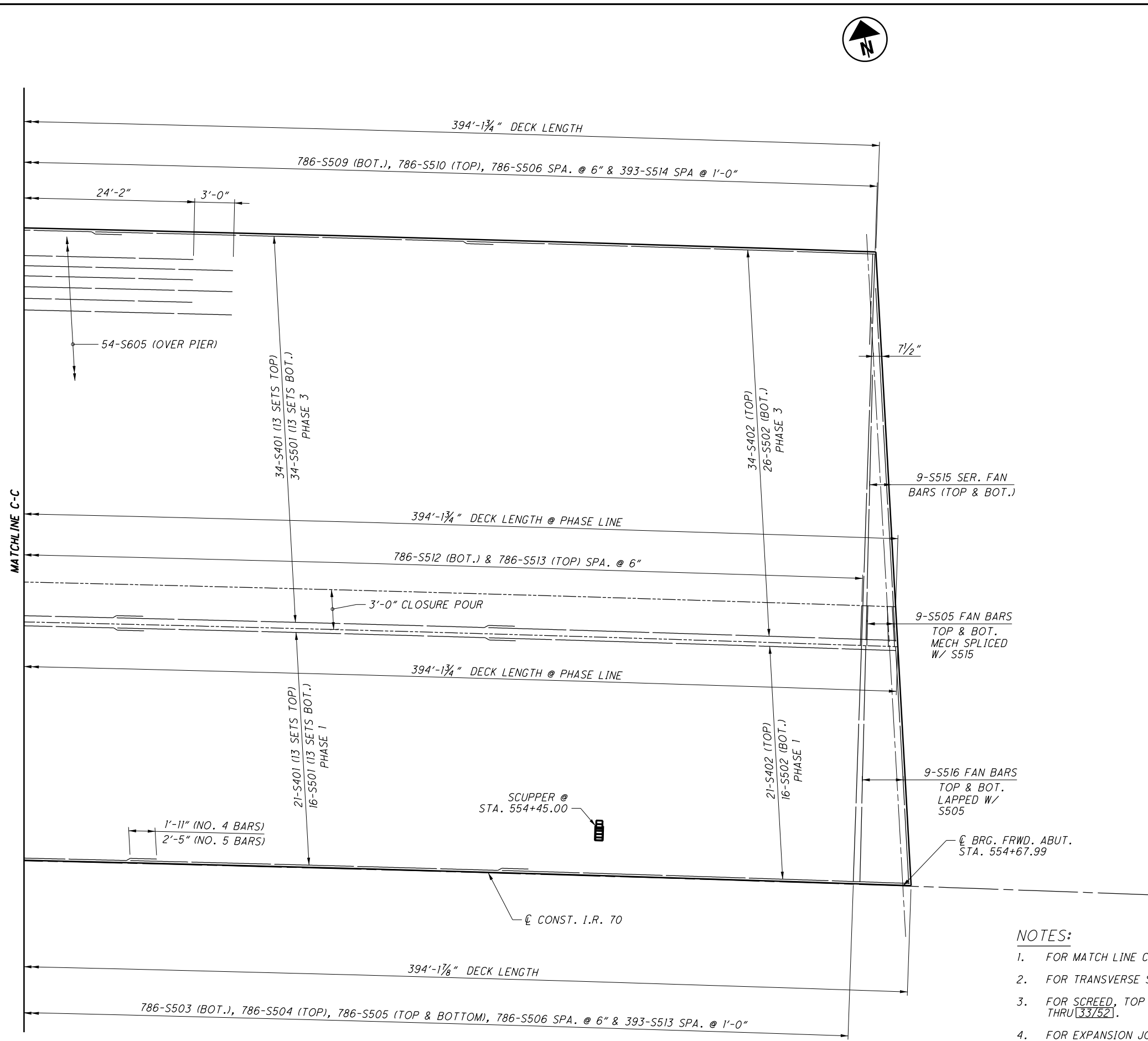
NOTES:

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

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5	
REVIEWED JPH	DATE 12/2/2020
DRAWN MJB	STRUCTURE FILE NUMBER 6002706
DESIGNED MJB	CHECKED JMH
DECK PLAN (WESTBOUND) BRIDGE NO.: MUS-70-1089 OVER LICKING RIVER & NEWARK RD.	
MUS-70-10.49 PID No. 93006	
38 / 52	
1432 2231	

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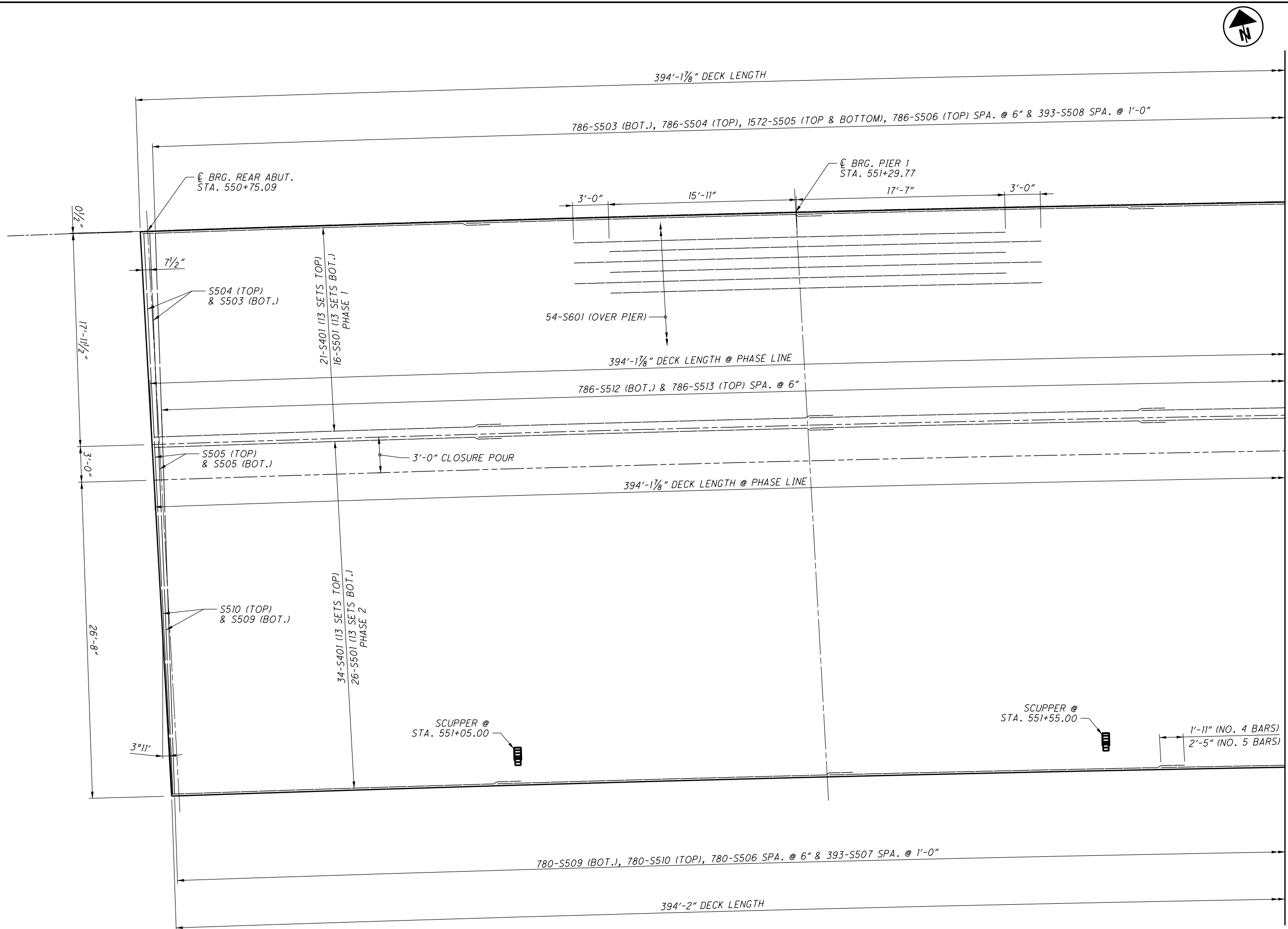
DECK PLAN

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.

<p>DECK PLAN (WESTBOUND) BRIDG NO. MUS-70-1089 OVER LICKING RIVER & NEWARK RD.</p>	<p>DESIGNED MJB</p> <p>CHECKED JMH</p>	<p>DRAWN MJB</p> <p>REVISER</p>	<p>REVIEWED JPH</p> <p>DATE 12/2/2020</p> <p>STRUCTURE FILE NUMBER 6002706</p>	<p>DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5</p>
<p>MUS-70-10.49 PID No. 93006</p>	<p>39 / 52</p>			
<p>1433 2231</p>				

\\d05fsi05\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6002706\Sheets\070_1089C_DP001.dgn 93006DP005 3/4/2021 7:51:47 AM jhufma3



NOTES:

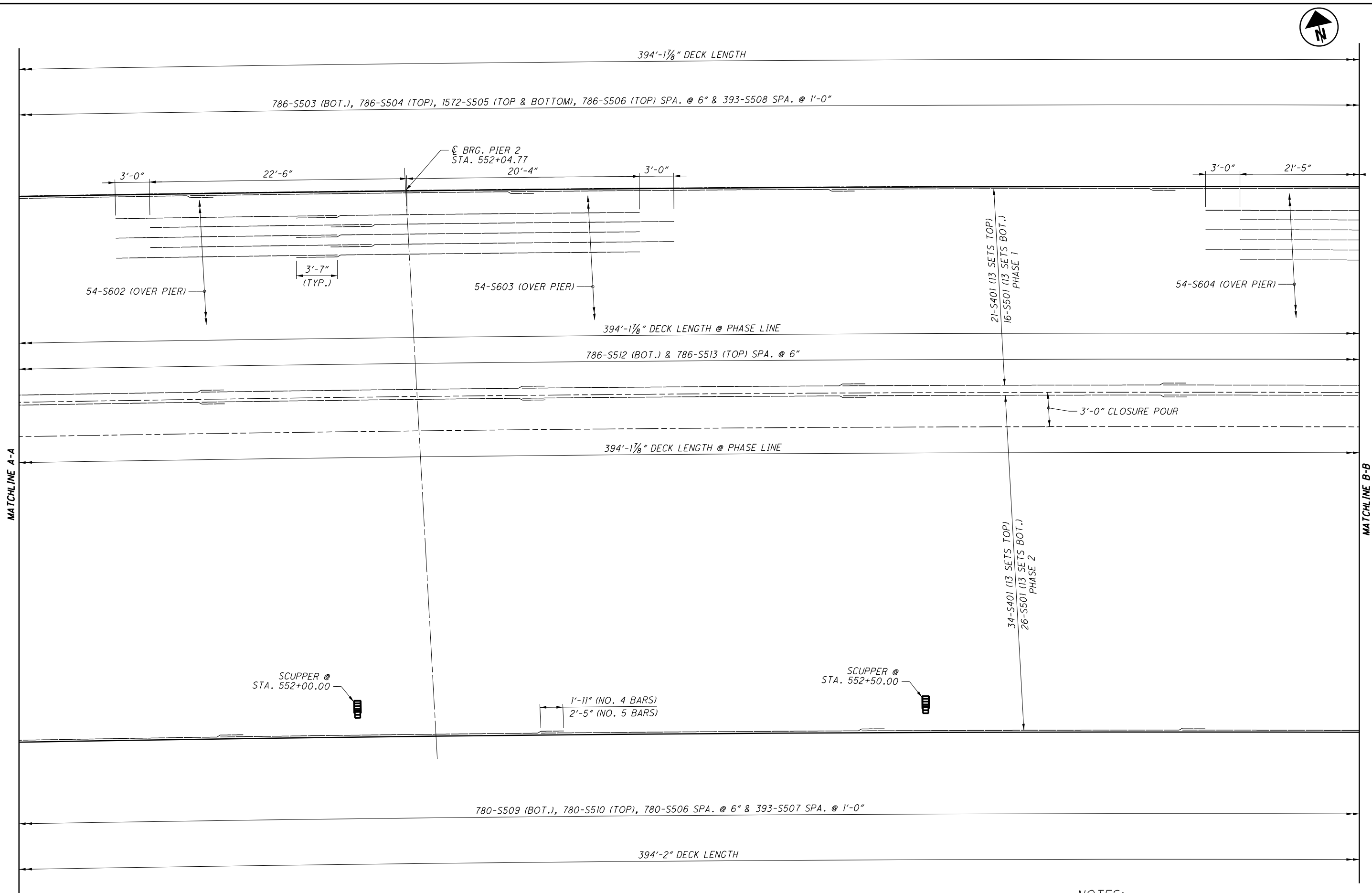
- FOR MATCH LINE A, SEE SHT. NO. 37/52.
- FOR ADDITIONAL NOTES, SEE SHT. NO. 39/52.

DECK PLAN

MATCHLINE A-A

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5	
DESIGNED MJB	DATE 12/2/2020
DRAWN MJB	STRUCTURE FILE NUMBER 6002706
CHECKED JMH	REVISER
DECK PLAN (EASTBOUND) BRIDGE NO. MUS-70-1089 OVER LICKING RIVER & NEWARK RD.	
MUS-70-10.49 PID No. 93006	
40/52	
1434 2231	

\\d05fsi05\ProjectData\MUS\93006\400-Engineering\Structures\SFN_6002706\Sheets\070_1089C_DP001.dgn 93006DP006 3/4/2021 7:52:27 AM jhuffma3

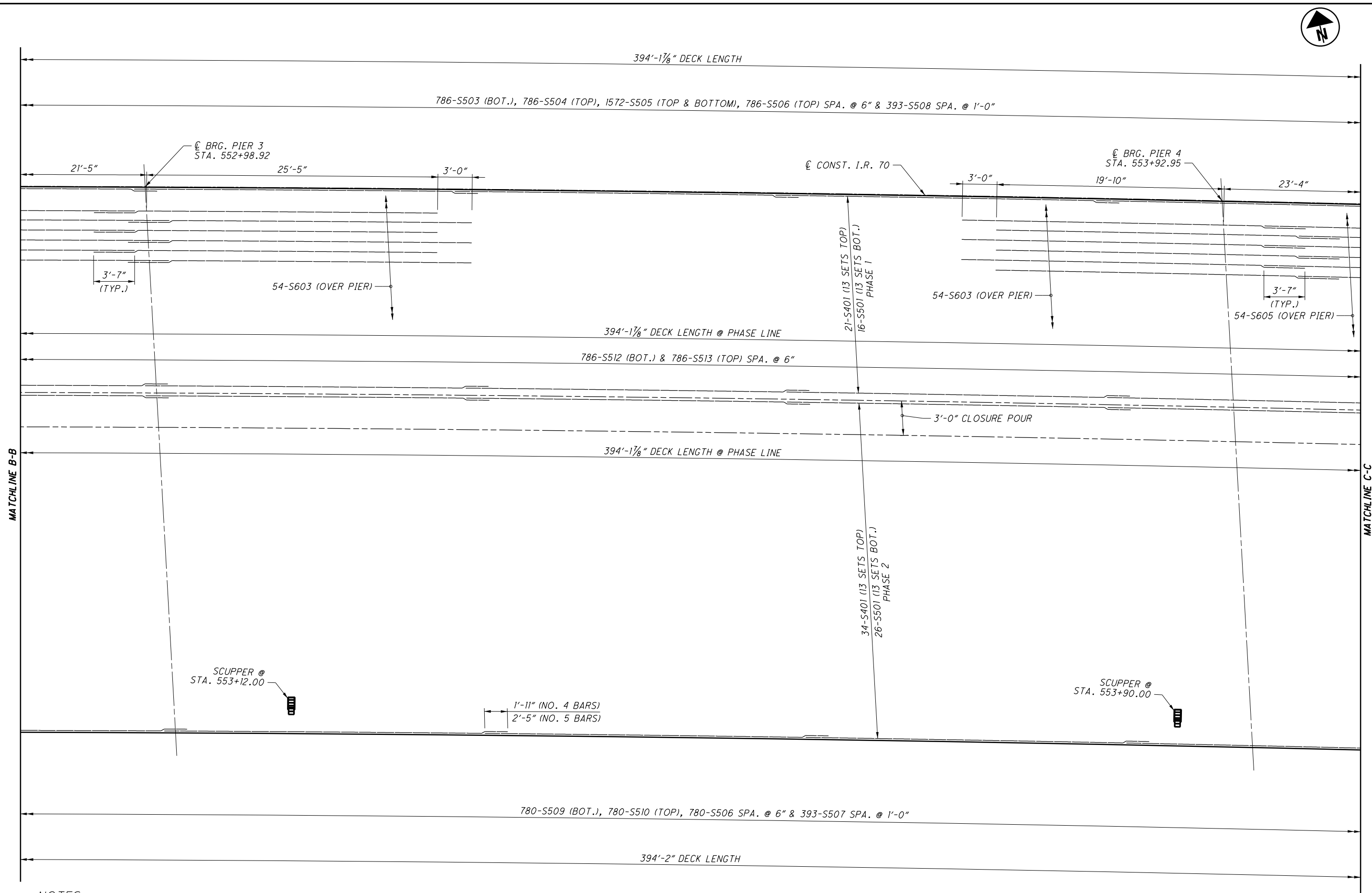


DECK PLAN

- NOTES:**
- FOR MATCH LINE A, SEE SHT. NO. [36/52].
 - FOR MATCH LINE B, SEE SHT. NO. [38/52].
 - FOR ADDITIONAL NOTES, SEE SHT. NO. [39/52].

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5	
DESIGNED MJB	DATE 12/2/2020
DRAWN MJB	REVIEWED JPH
CHECKED JMH	STRUCTURE FILE NUMBER 6002706
DECK PLAN (EASTBOUND) BRIDGE NO. MUS-70-1089 OVER LICKING RIVER & NEWARK RD.	
MUS-70-10.49 PID No. 93006	
41 / 52	
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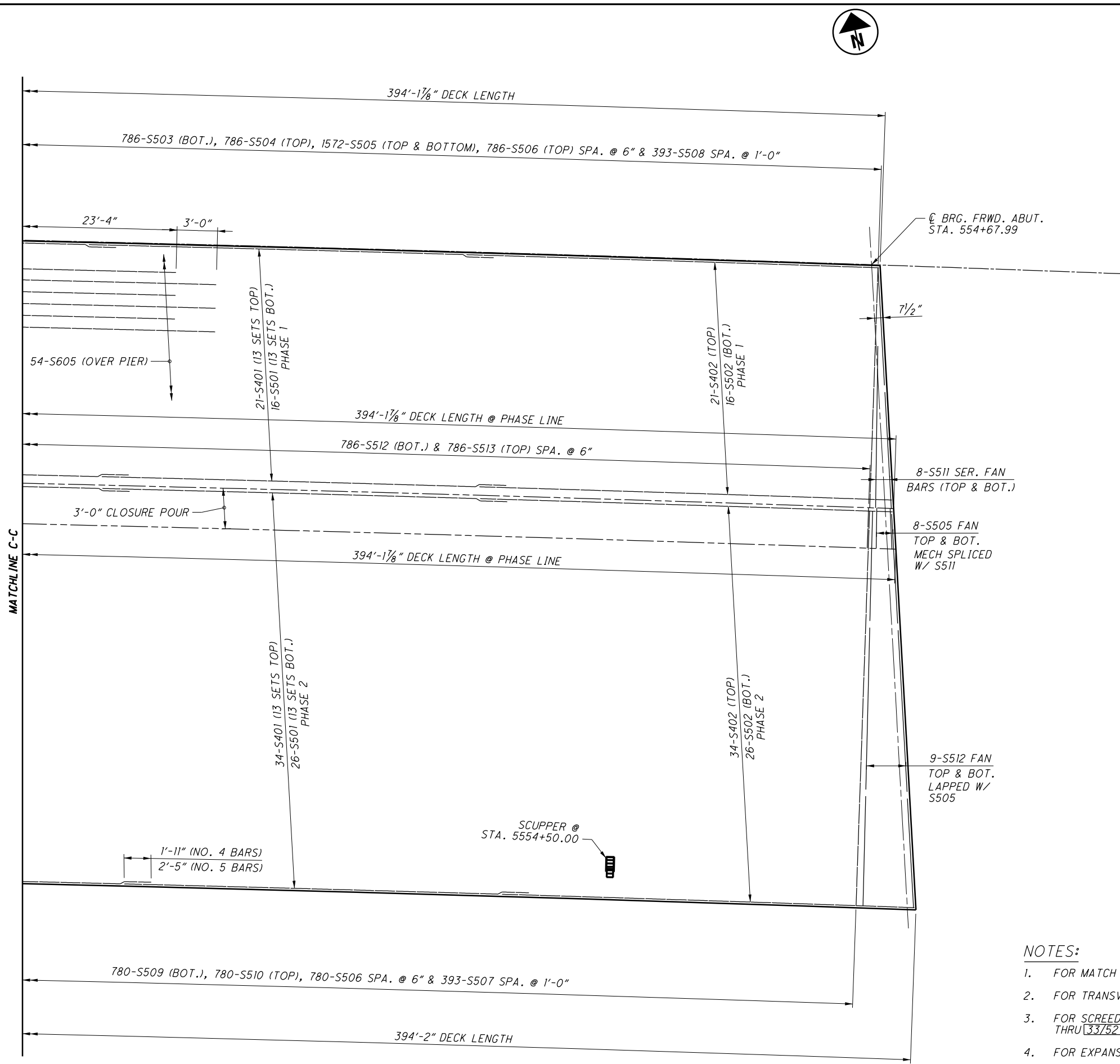
NOTES:

- FOR MATCH LINE B, SEE SHT. NO. [37/52].
- FOR MATCH LINE C, SEE SHT. NO. [39/52].
- FOR ADDITIONAL NOTES, SEE SHT. NO. [39/52].

DECK PLAN

DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5	
REVIEWED JPH	DATE 12/2/2020
DRAWN MJB	STRUCTURE FILE NUMBER 6002706
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	
<div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;"> 1436 2231 </div>	

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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

REVIEWED
JPH 12/2/2020
STRUCTURE FILE NUMBER
6002706

DRAWN
MJB
REVIS
CHECKED
JMH

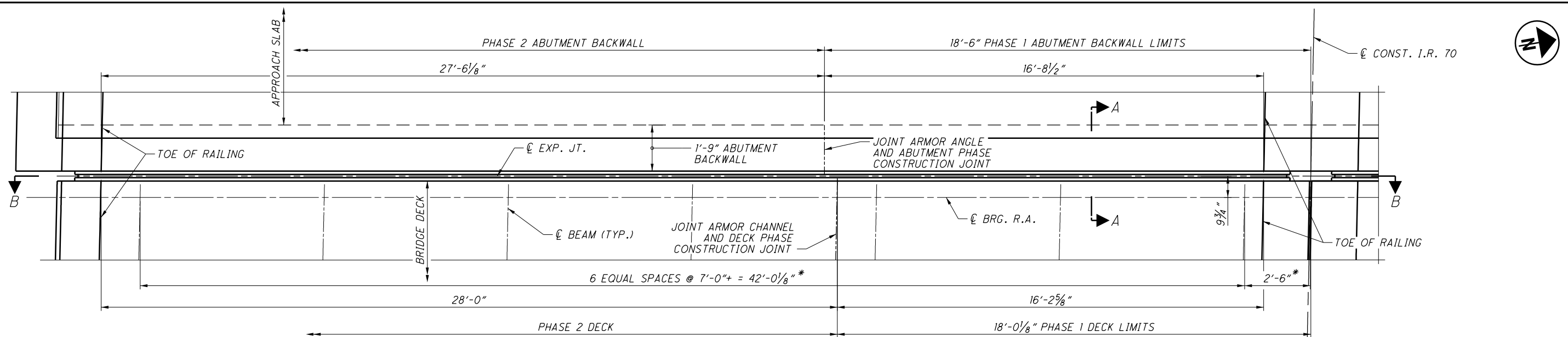
DECK PLAN (EASTBOUND)
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

43 / 52

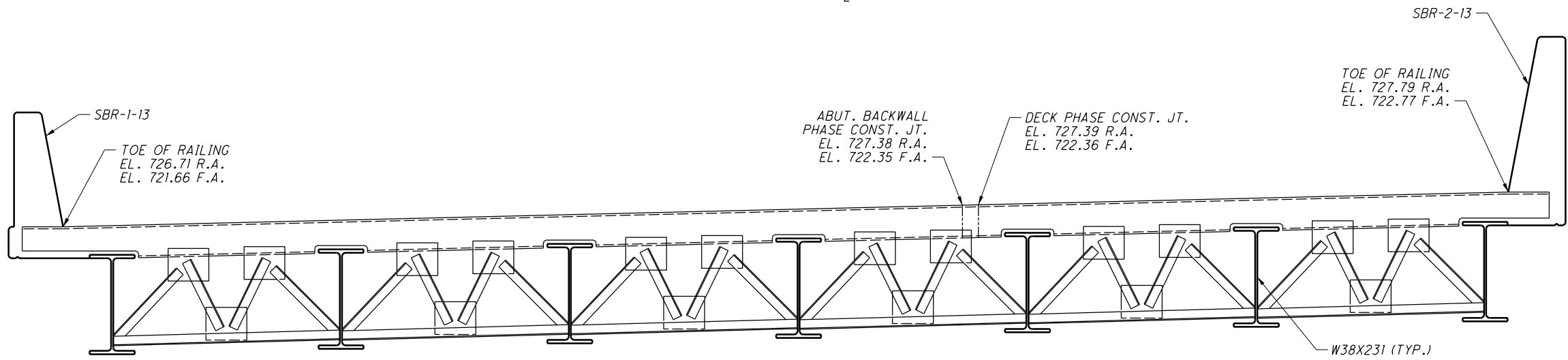
1437
2231

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PARTIAL PLAN ABUTMENT - EASTBOUND
 REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR
 (DIMENSIONS MEASURED AT ϕ EXP. JT. UNLESS NOTED OTHERWISE)

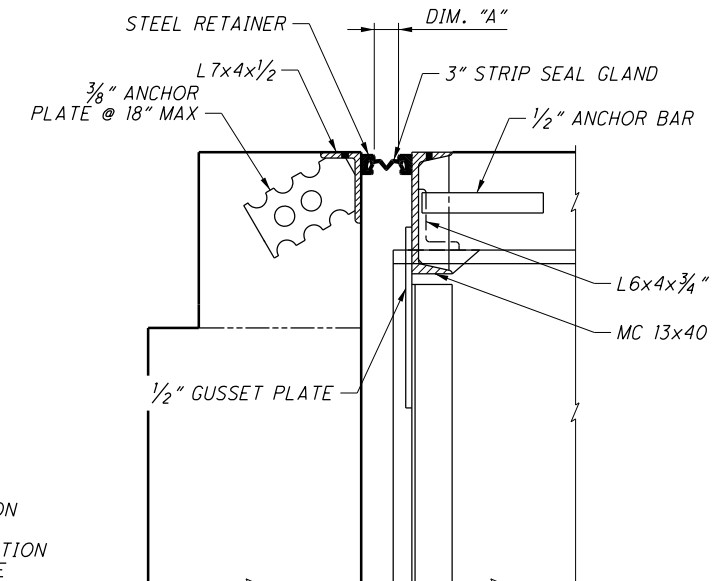
* - MEASURED AT ϕ BEARING



SECTION B-B
 ELEVATIONS PROVIDED AT THE ϕ OF EXP. JT.

AMBIENT TEMP, °F	3" SEAL	
	REAR	FORWARD
90°	1 5/16"	1 1/8"
80°	1 1/8"	1 5/16"
70°	1 5/16"	1 1/16"
60°	1 1/2"	1 9/16"
50°	1 11/16"	1 1/16"
40°	1 3/16"	1 3/16"
30°	2"	1 9/16"

NOTE:
 THE MINIMUM JOINT OPENING (DIMENSION "A") AT THE TIME OF THE SEAL GLAND INSTALLATION SHALL NOT BE LESS THAN 1/2". IF THE JOINT OPENING IS LESS, THE INSTALLATION SHALL BE POSTPONED UNTIL THE TEMPERATURE DROPS A SUFFICIENT AMOUNT TO ALLOW THE MINIMUM 1/2" OPENING.



SECTION A-A

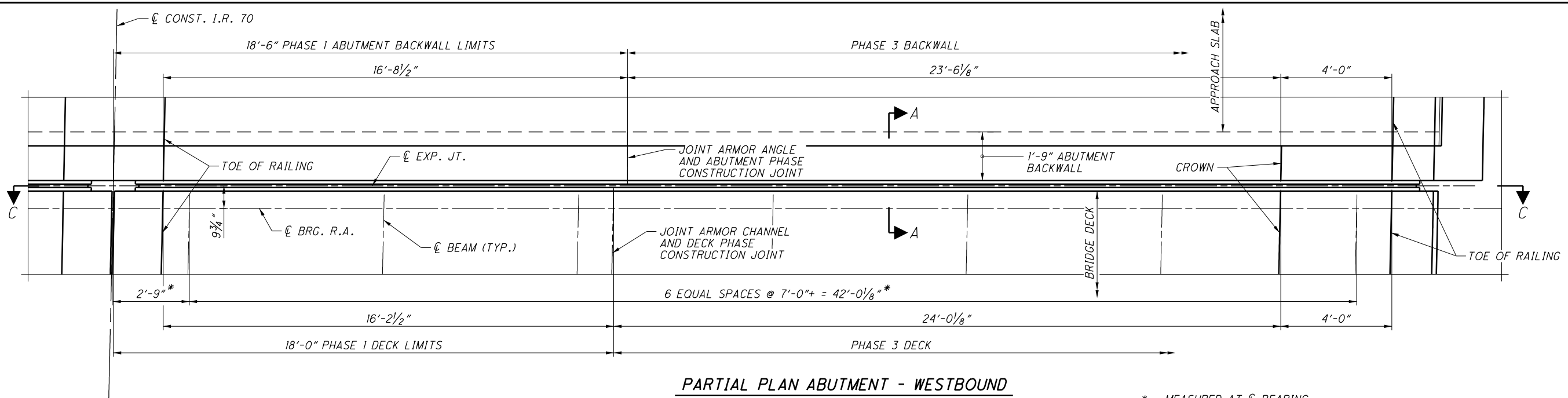
NOTES:

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



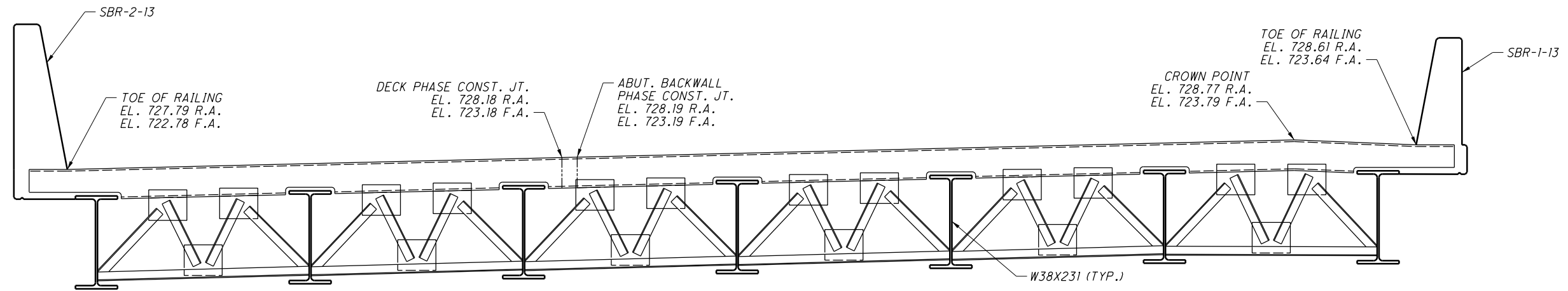
DESIGN AGENCY: OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
 DATE: 12/2/2020
 TAG: 6002706
 STRUCTURE FILE NUMBER: 6002706
 DRAWN: MJB
 MJB REVISOR: JMH
 DESIGNED: JMH
 CHECKED: JMH
MUS-70-10.49
 BRIDGE NO. MUS-70-1089
 OVER LICKING RIVER & NEWARK RD.
 PID No. 93006
 44A/52
 1438A
 2231

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PARTIAL PLAN ABUTMENT - WESTBOUND
 REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR
 (DIMENSIONS MEASURED AT \varnothing EXP. JT. UNLESS NOTED OTHERWISE)

* - MEASURED AT \varnothing BEARING



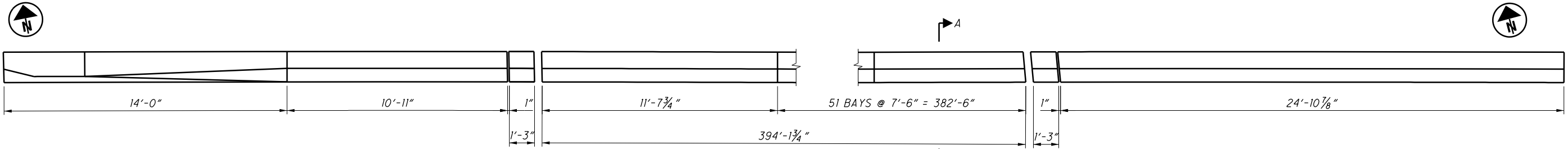
SECTION C-C
 ELEVATIONS PROVIDED AT THE \varnothing OF EXP. JT.

NOTES:

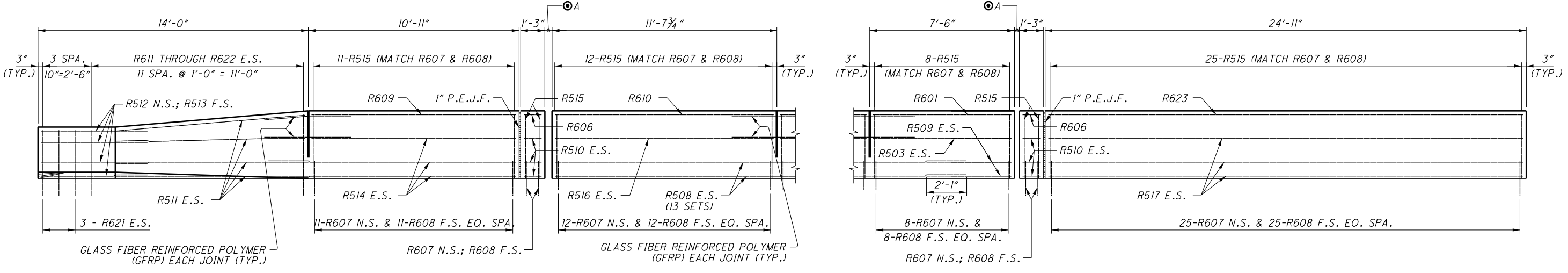
1. FOR SECTION A-A & EXPANSION JOINT OPENING INFORMATION, SEE SHT. NO. [44A/52].
2. FOR ADDITIONAL INFORMATION AND DETAILS NOT SHOWN, REFER TO BRIDGE STANDARD DRAWING EXJ-4-84.
3. THE STRIP SEAL GLAND SHALL BE ONE PIECE ACROSS THE TOTAL WIDTH OF EACH STRUCTURE
4. DECK DIMENSIONS ARE BASED ON A 1/2" STEEL 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
REVIEWED DATE	TAG 12/2/2020 STRUCTURE FILE NUMBER 6002706
DRAWN	MJB REVISED
DESIGNED	JMH CHECKED JMH
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	

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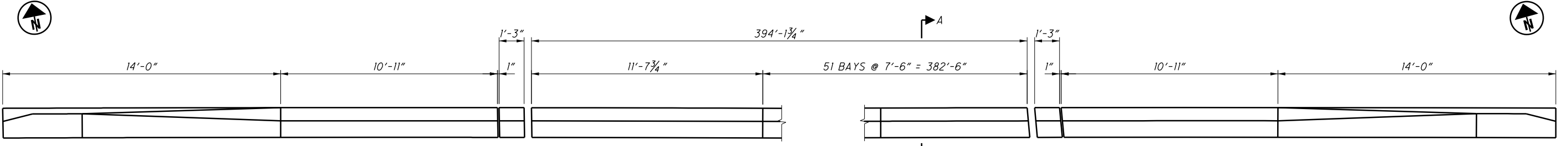


PLAN
WESTBOUND - NORTH RAILING
(RAILING MEASURED ALONG THE CURVE
AT TOE OF THE RAILING)

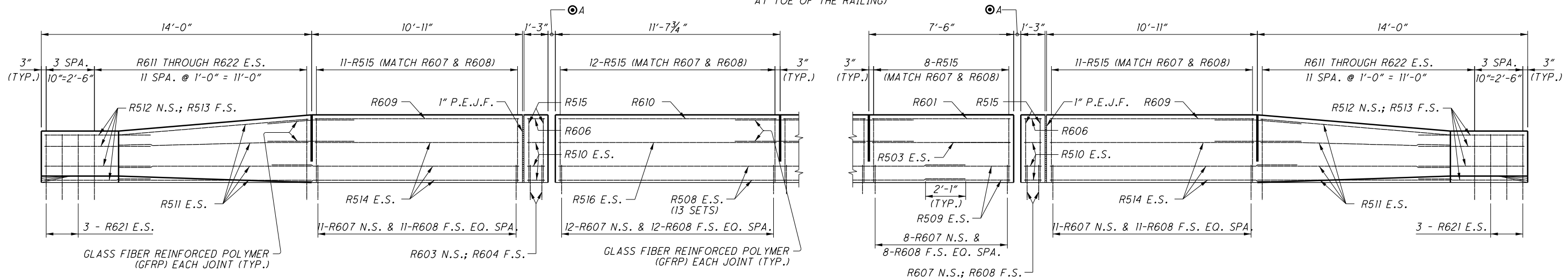


ELEVATION
WESTBOUND - NORTH RAILING

⊙ A - DECK EXPANSION JOINT OPENING



PLAN
EASTBOUND - SOUTH RAILING
(RAILING MEASURED ALONG THE CURVE
AT TOE OF THE RAILING)



ELEVATION
EASTBOUND - SOUTH RAILING

⊙ A - DECK EXPANSION JOINT OPENING

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION DISTRICT 5

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

DRAWN BY
MJB
CHECKED BY
JMH

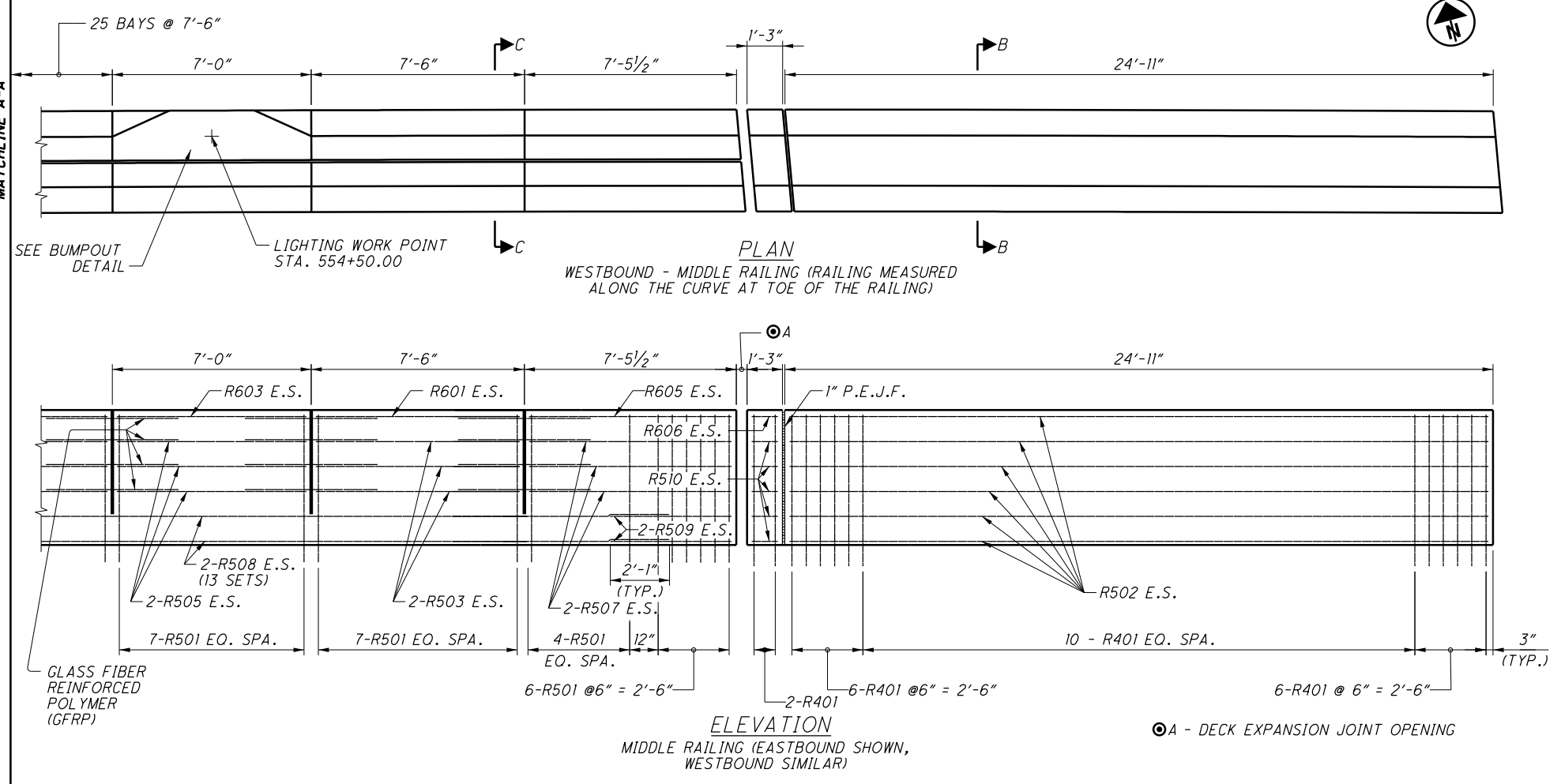
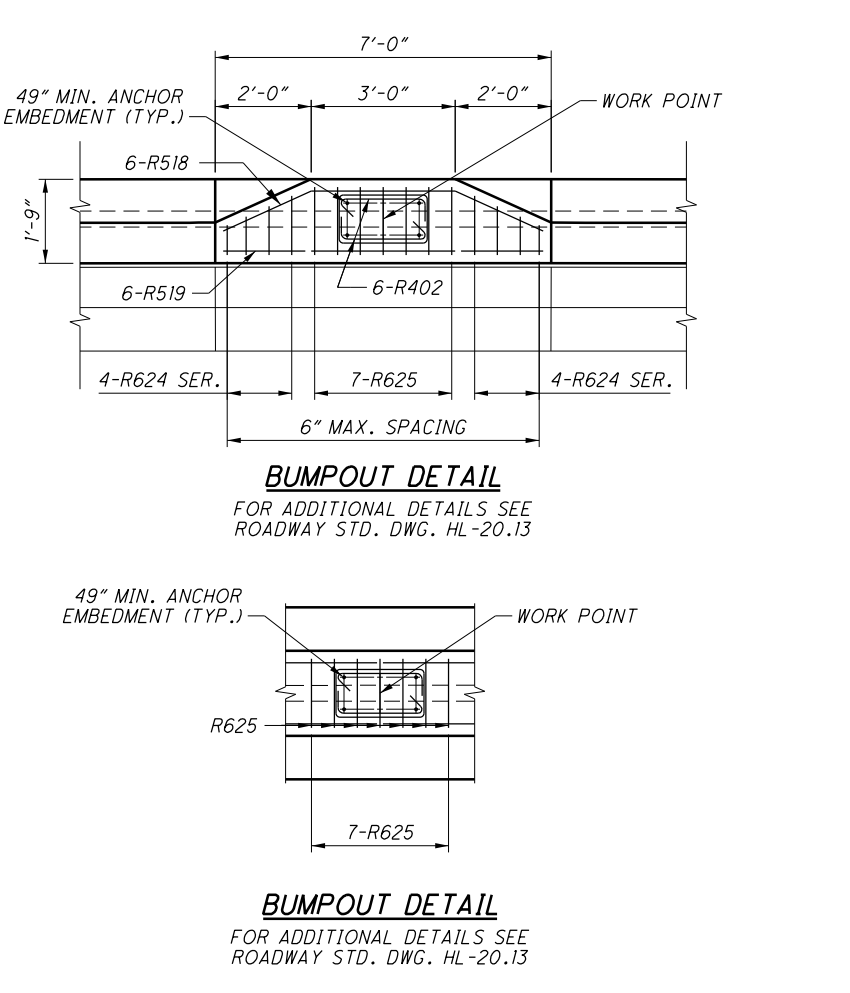
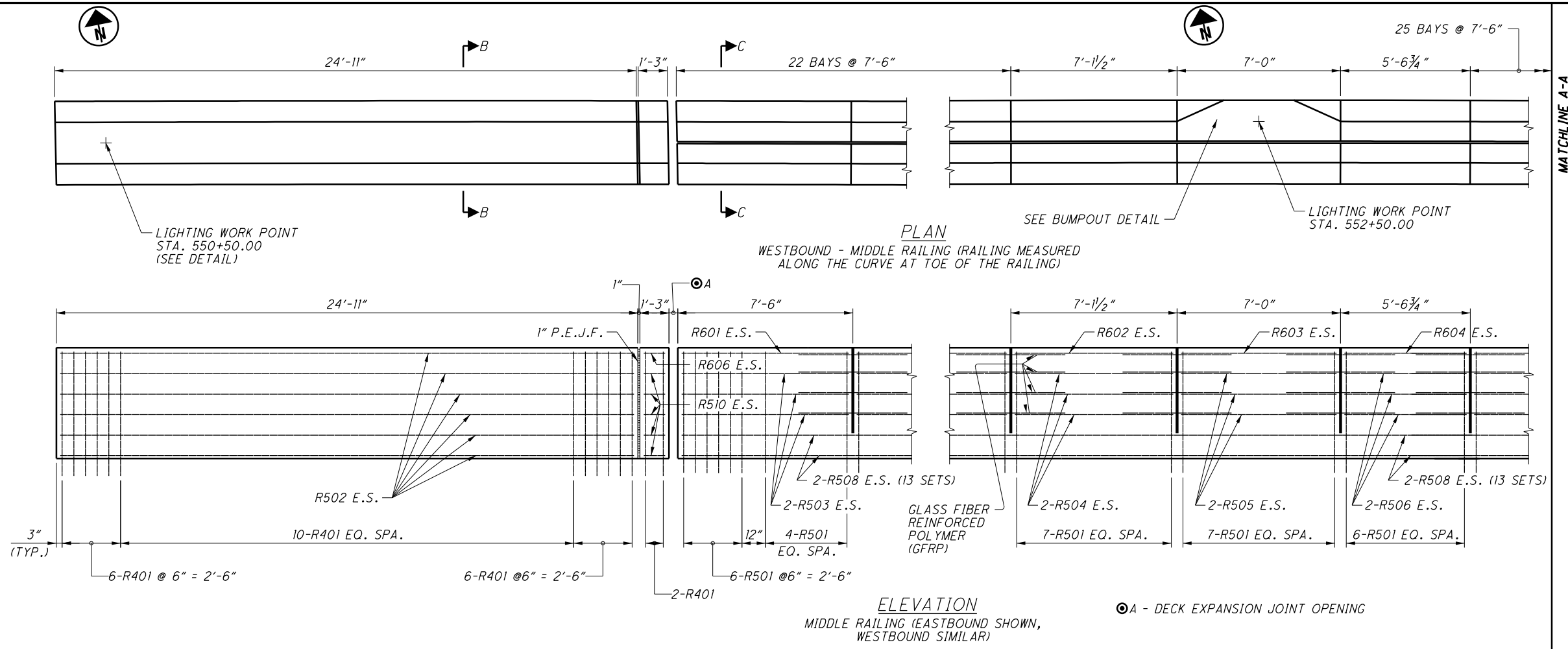
PARAPET DETAILS
BRIDGE NO. MUS-70-1089
OVER LICKING RIVER & NEWARK RD.

MUS-70-10.49
PID No. 93006

45 / 52

1439
2231

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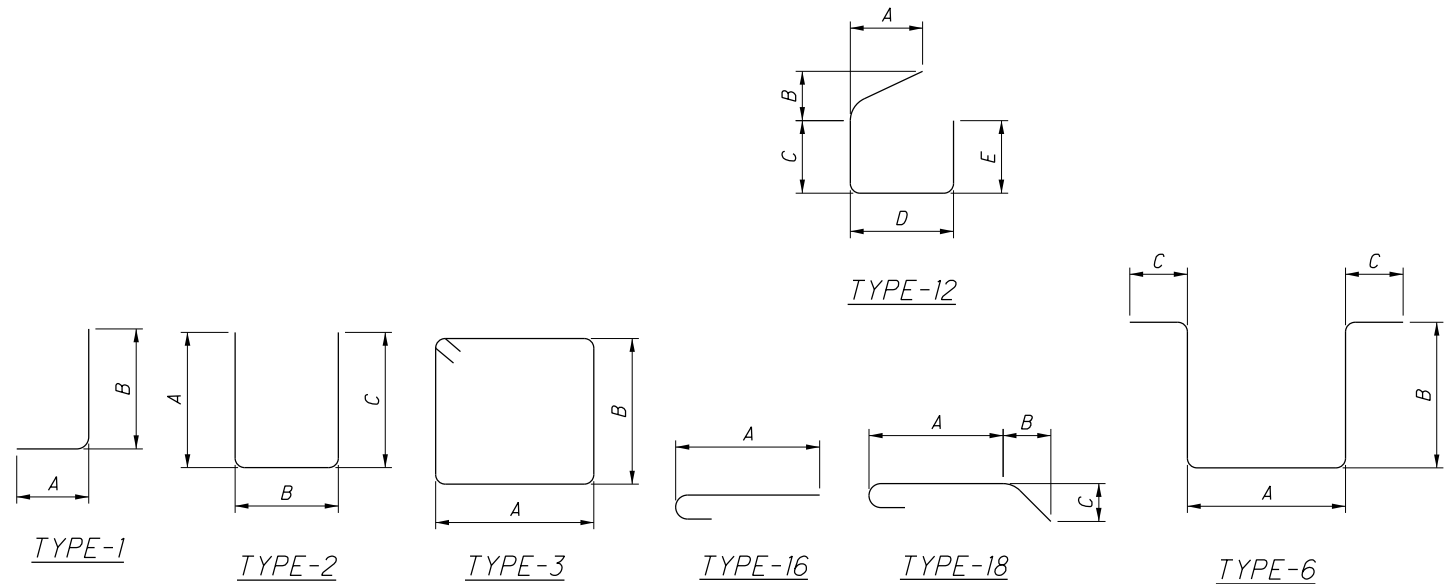


DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
DATE 12/2/2020
REVIEWED JPH
STRUCTURE FILE NUMBER 6002706
DRAWN MJB
REVISOR JMH
DESIGNED MJB
CHECKED JMH
PARAPET DETAILS BRIDGE NO. MUS-70-1089 OVER LICKING RIVER & NEWARK RD.
MUS-70-10.49 PID No. 93006
46/52
1440 2231

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MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				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	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
DECK											
S401	1430	30'-0"	28657	STR							
S402	110	31'-0"	2278	STR							
S501	1092	30'-0"	34169	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	3132	7'-2"	23411	16	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								



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

MUS-70-10.49
 PID No. 93006

DESIGN AGENCY
 OHIO DEPARTMENT OF
 TRANSPORTATION DISTRICT 5

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

DRAWN
 MJB
 REVISION

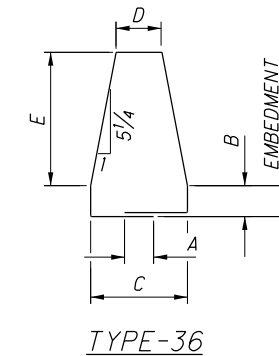
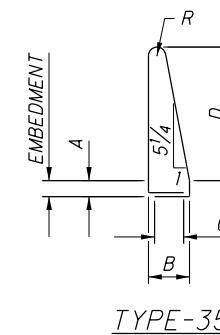
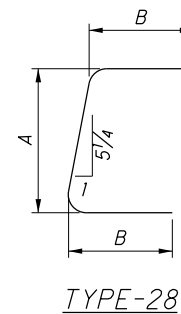
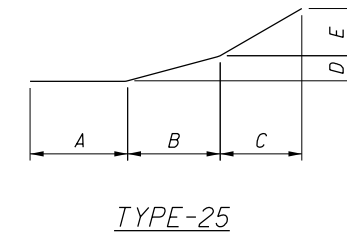
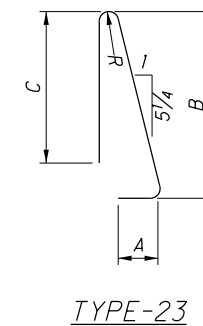
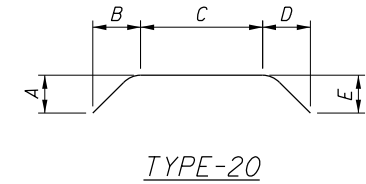
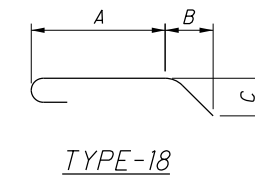
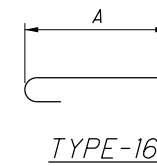
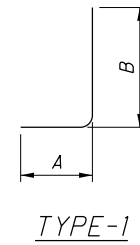
DESIGNED
 MJB
 CHECKED
 JMH

48/52

1442
 2231

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MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL				A	B	C	D	E	R
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'-0"	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'-4"	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'-0"	45	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	0'-8"								0'-2.4"
	SERIES OF									
	24	1'-3"	93	STR						
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							
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REINFORCING STEEL SCHEDULE
 BRIDGE NO. MUS-70-1089
 OVER LICKING RIVER & NEWARK RD.

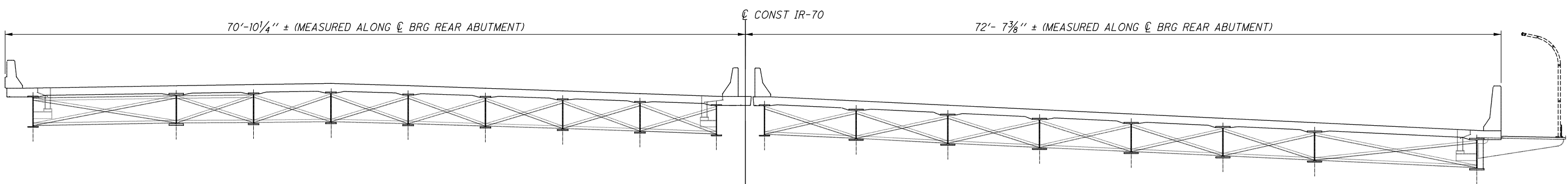
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CHECKED JMH	REVISED	STRUCTURE FILE NUMBER 6002706	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5

MUS-70-10.49
PID No. 93006

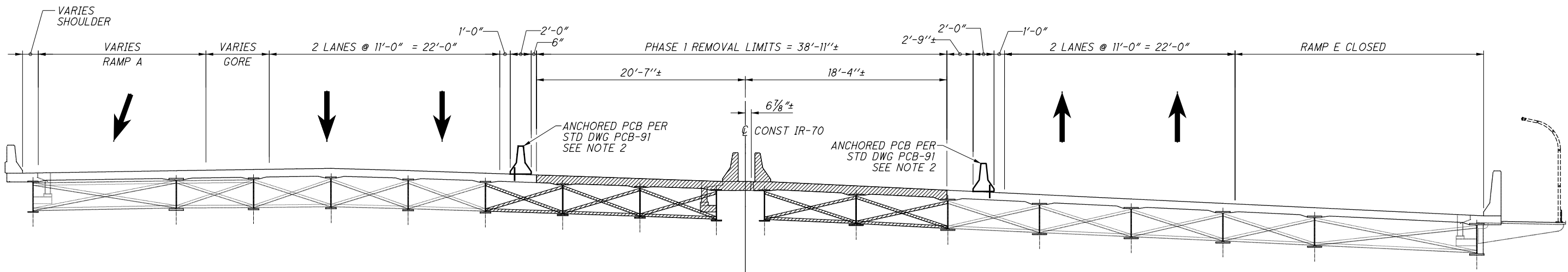
49/52

1443
2231

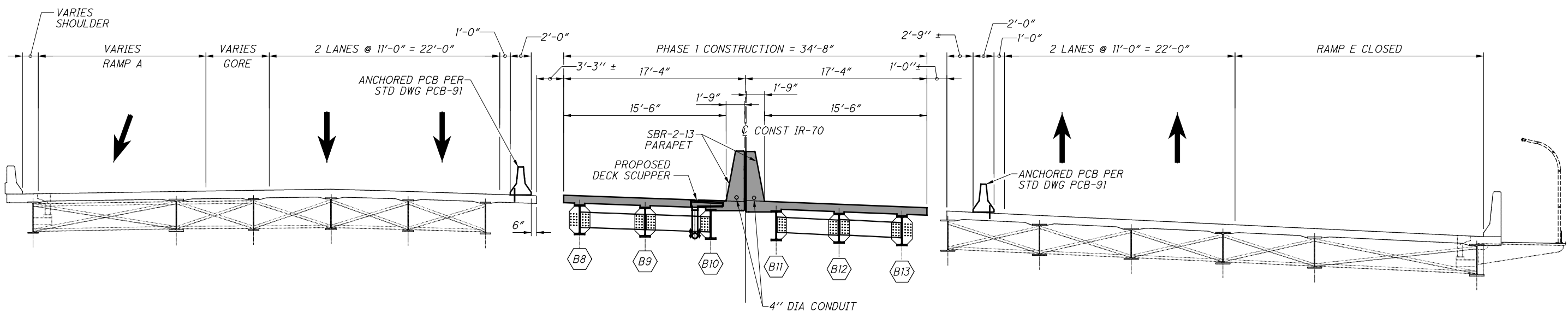
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EXISTING TRANSVERSE SECTION AT REAR ABUTMENT
LOOKING UPSTATION



PHASE 1 REMOVAL AT REAR ABUTMENT
LOOKING UPSTATION



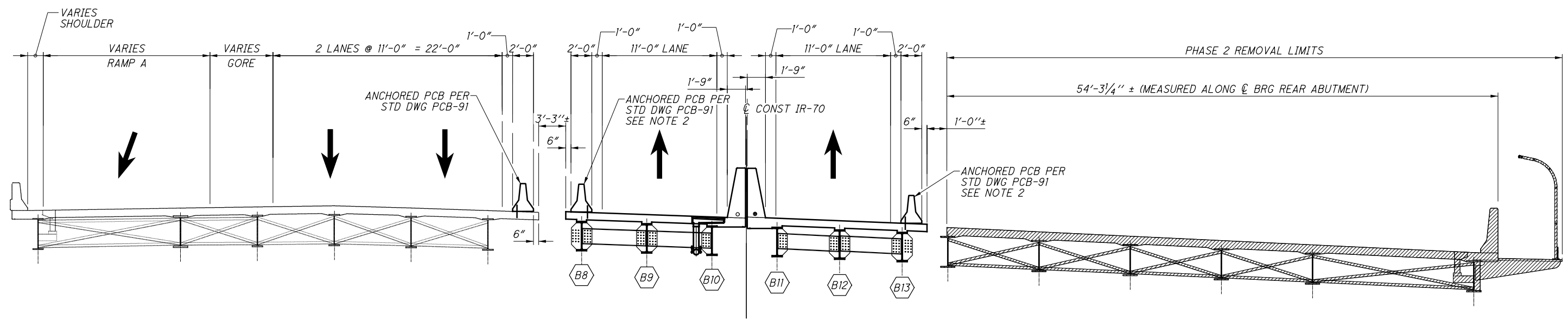
PHASE 1 CONSTRUCTION AT REAR ABUTMENT
LOOKING UPSTATION

LEGEND

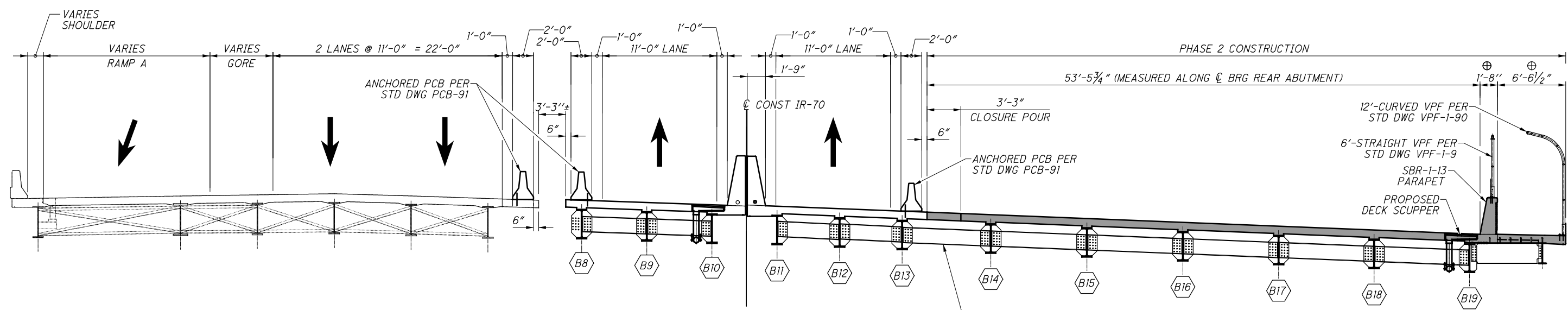
 PROPOSED CONSTRUCTION
 REMOVAL LIMITS

NOTES:
 1. DIMENSIONS ARE MEASURED PERPENDICULAR TO C 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.

MUS-70-10.49	BRIDGE NO. MUS-70-1159	DESIGN AGENCY Gannett Fleming	ENGINEERS & ARCHITECTS, P.C. 2800 CORPORATE EXCHANGE DRIVE, SUITE 230 COLUMBUS, OHIO 43231
PID No. 93006	OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER	DRAWN JM	REVIEWED MTO
25 / 160	PHASE 1 REMOVAL & CONSTRUCTION AT REAR ABUTMENT	DESIGNED CTM	DATE 12/2020
1471 2231	RAMP E CLOSED	CHECKED JAY	STRUCTURE FILE NUMBER 6002854



PHASE 2 REMOVAL AT REAR ABUTMENT
LOOKING UPSTATION



PHASE 2 CONSTRUCTION AT REAR 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.

LEGEND

- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

⊕ DIMENSION MEASURED PERPENDICULAR TO C CONST RAMP E.

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO C 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.

PHASE 2 REMOVAL & CONSTRUCTION AT REAR ABUTMENT

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

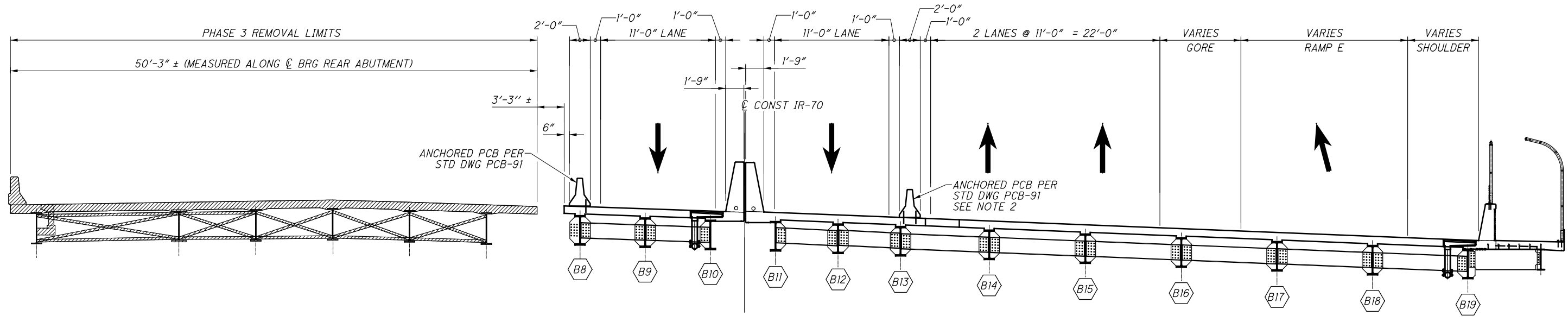
DESIGNED CTM	DRAWN JM	REVIEWED MTO	DATE 12/2020
CHECKED JAY	REVISED	STRUCTURE FILE NUMBER 6002854	DESIGN AGENCY Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2800 CORPORATE EXCHANGE DRIVE SUITE 230 COLUMBUS, OHIO 43231

MUS-70-10.49
PID No. 93006

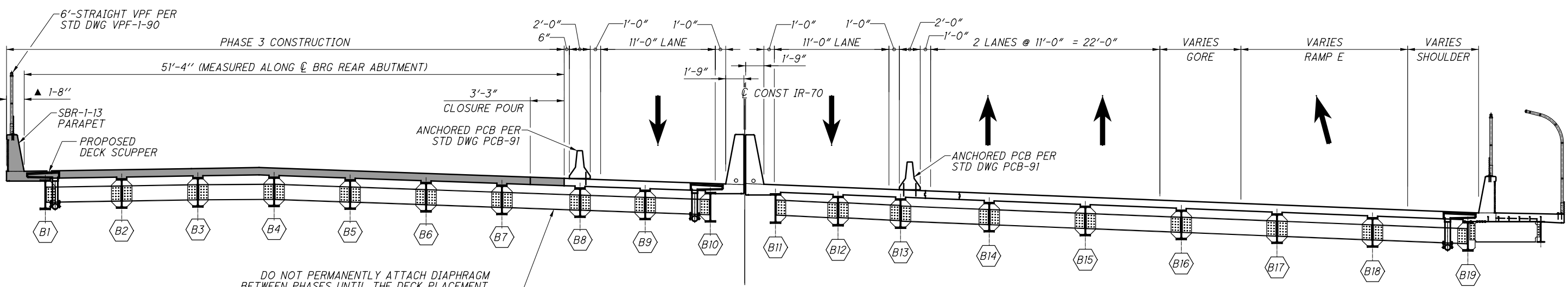
26 / 160

1472
2231

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PHASE 3 REMOVAL AT REAR ABUTMENT
LOOKING UPSTATION



PHASE 3 CONSTRUCTION AT REAR 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.

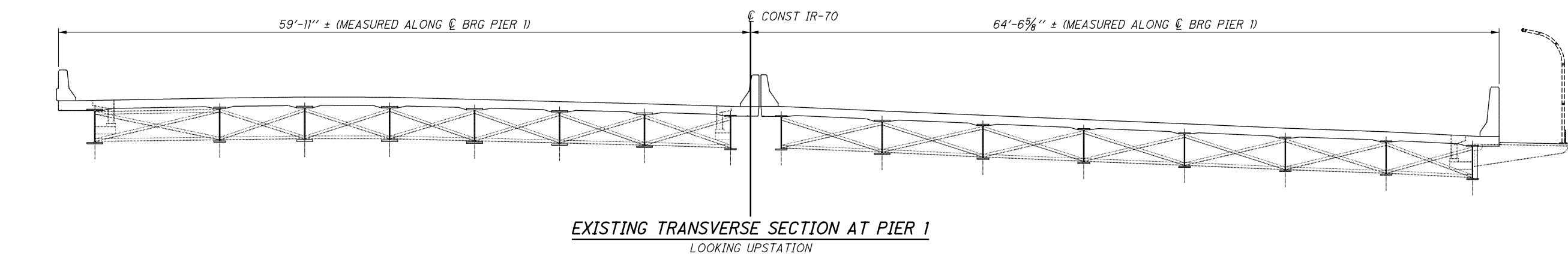
LEGEND
 PROPOSED CONSTRUCTION
 REMOVAL LIMITS

▲ DIMENSION MEASURED PERPENDICULAR TO CL CONST RAMP A.

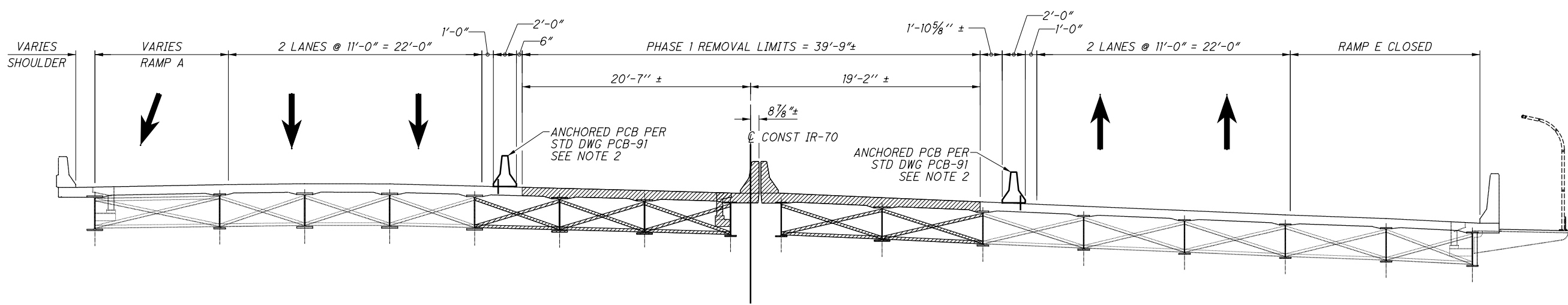
- NOTES:**
- DIMENSIONS ARE MEASURED PERPENDICULAR TO CL CONST IR-70 UNLESS NOTED OTHERWISE.
 - A MINIMUM OF TWO ANCHORS SHALL BE PROVIDED ON THE EASTBOUND (SOUTH) TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED AFTER PHASE 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.

 Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2500 CORPORATE EXCHANGE DRIVE, SUITE 230 COLUMBUS, OHIO 43231	DATE 12/2020	REVIEWED MTO	STRUCTURE FILE NUMBER 6002854	PHASE 3 REMOVAL & CONSTRUCTION AT REAR ABUTMENT BRIDGE NO. MUS-70-1159 OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER
DESIGNED CTM	CHECKED JAY	DRAWN JIM	REVISED	MUS-70-10.49 PID No. 93006
				27 / 160 1473 2231

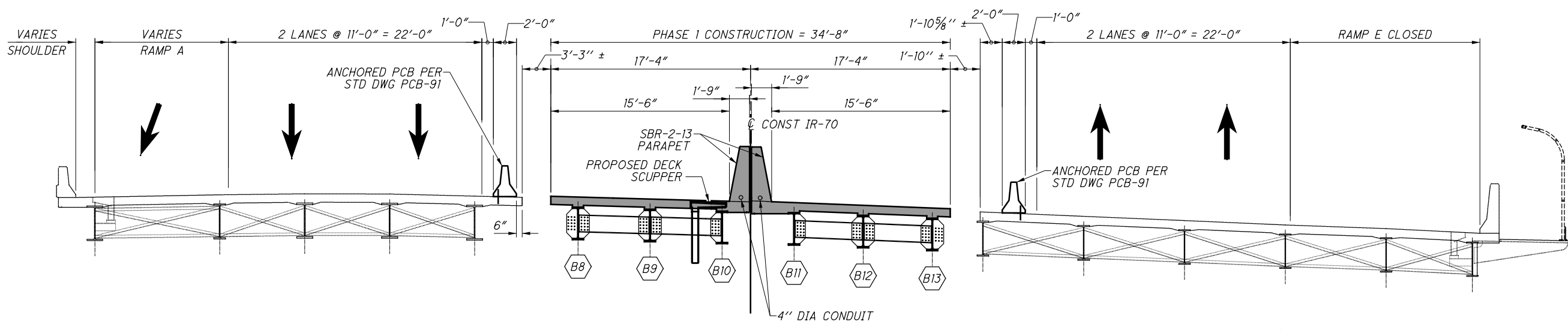
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EXISTING TRANSVERSE SECTION AT PIER 1
LOOKING UPSTATION



PHASE 1 REMOVAL AT PIER 1
LOOKING UPSTATION



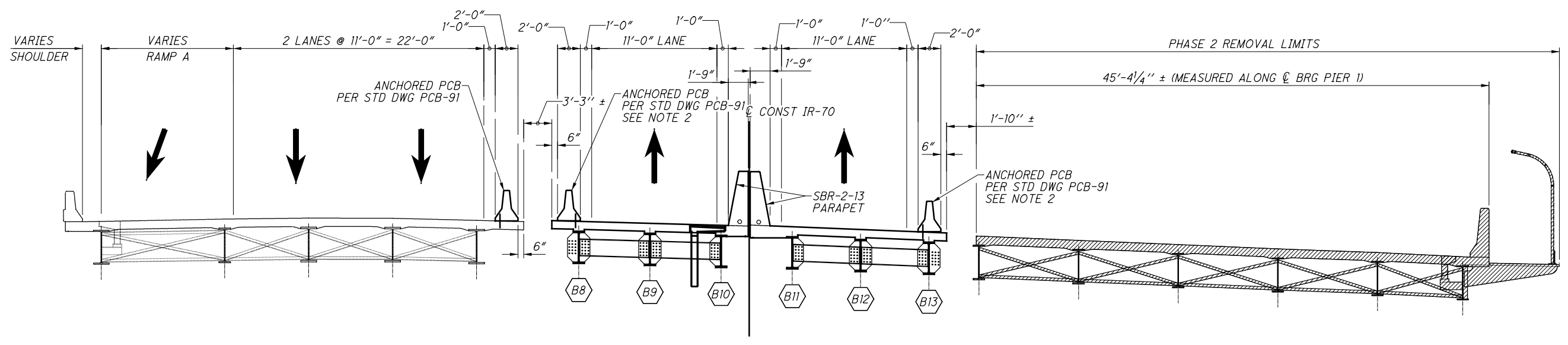
PHASE 1 CONSTRUCTION AT PIER 1
LOOKING UPSTATION

LEGEND

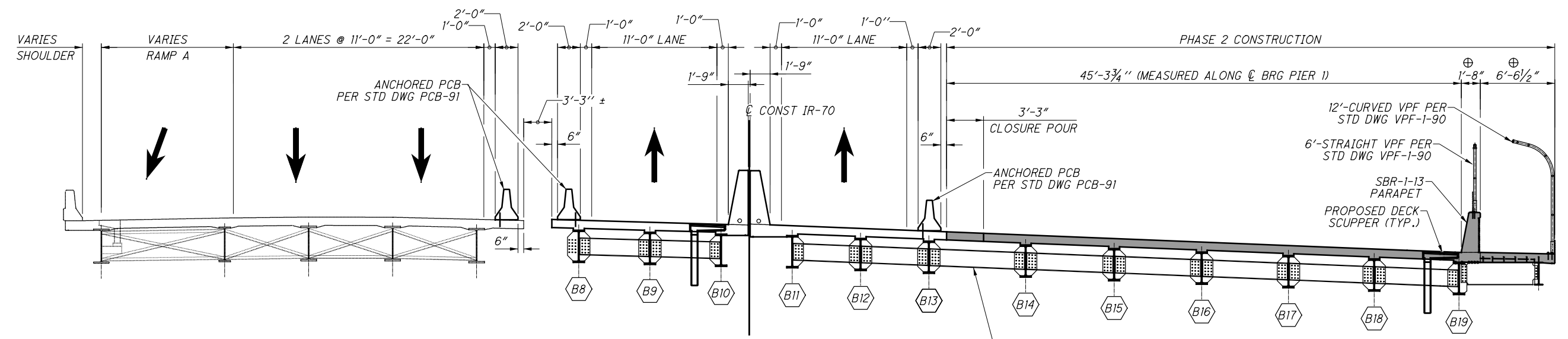
 PROPOSED CONSTRUCTION
 REMOVAL LIMITS

- NOTES:**
- DIMENSIONS ARE MEASURED PERPENDICULAR TO C CONST IR-70 UNLESS NOTED OTHERWISE.
 - 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.

 Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2500 CORPORATE EXCHANGE DRIVE, SUITE 230 COLUMBUS, OHIO 43231	DESIGN AGENCY DATE: 12/2020 REVIEWED: MTO DRAWN: JMM CHECKED: JAY	STRUCTURE FILE NUMBER: 6002854 BRIDGE NO.: MUS-70-1159 OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER	PHASE 1 REMOVAL & CONSTRUCTION AT PIER 1	MUS-70-10.49 PID No. 93006
28 / 160				1474 2231



PHASE 2 REMOVAL AT PIER 1
LOOKING UPSTATION



PHASE 2 CONSTRUCTION AT PIER 1
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.

LEGEND

 PROPOSED CONSTRUCTION
 REMOVAL LIMITS

⊕ DIMENSION MEASURED PERPENDICULAR TO \bar{C} CONST RAMP E.

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO \bar{C} 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.
 2800 CORPORATE EXCHANGE DRIVE, SUITE 230
 COLUMBUS, OHIO 43231

DATE: 12/2020
 REVIEWED: MTO
 DRAWN: JIM
 DESIGNED: CTM
 CHECKED: JAY

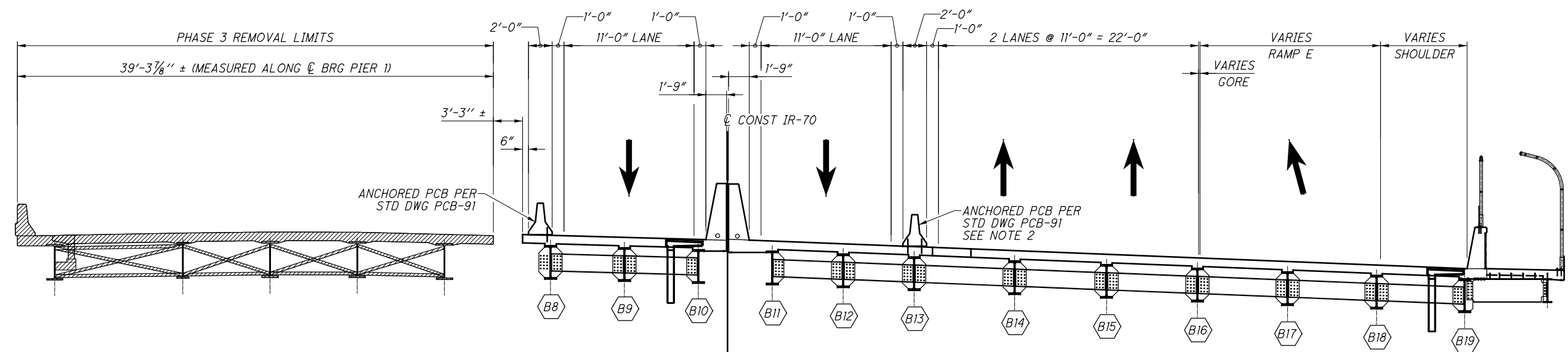
BRIDGE NO. MUS-70-1159
 OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

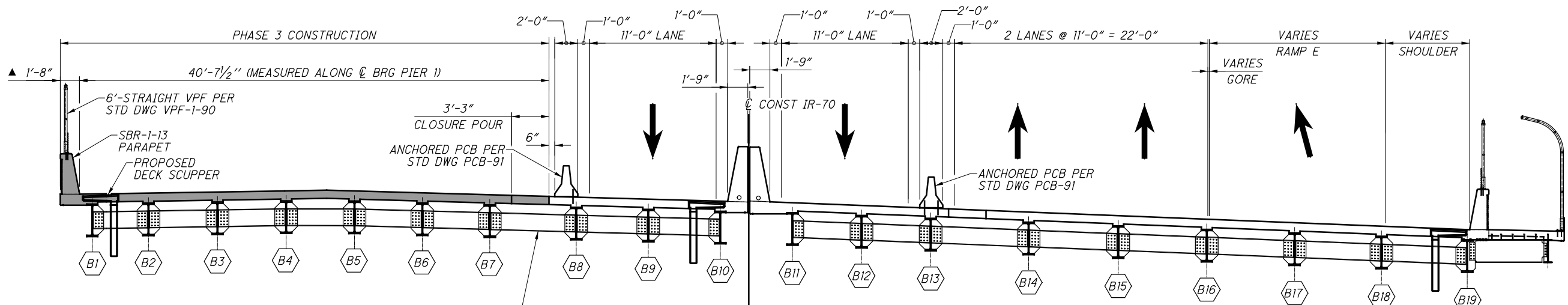
29 / 160

1475
 2231

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PHASE 3 REMOVAL AT PIER 1
LOOKING UPSTATION



PHASE 3 CONSTRUCTION AT PIER 1
LOOKING UPSTATION

LEGEND

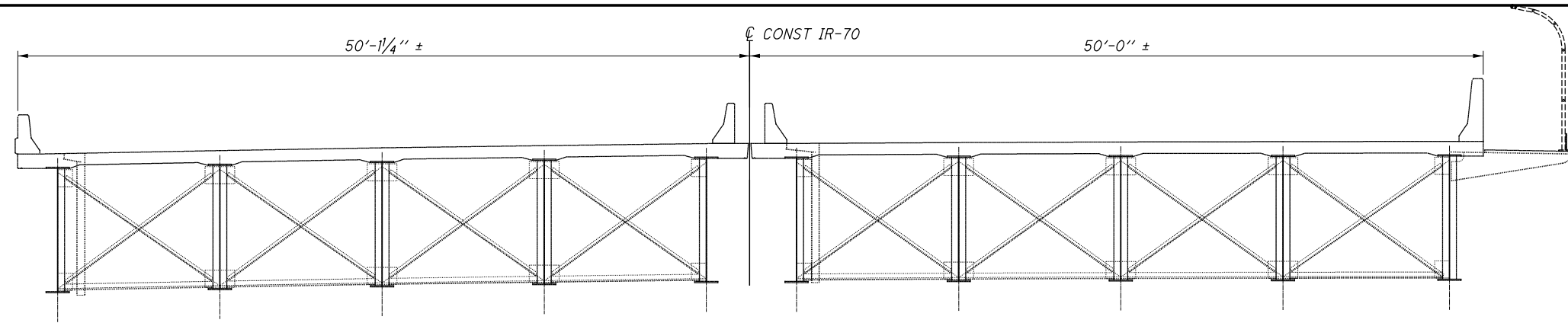
 PROPOSED CONSTRUCTION
 REMOVAL LIMITS

▲ DIMENSION MEASURED PERPENDICULAR TO CL CONST RAMP A.

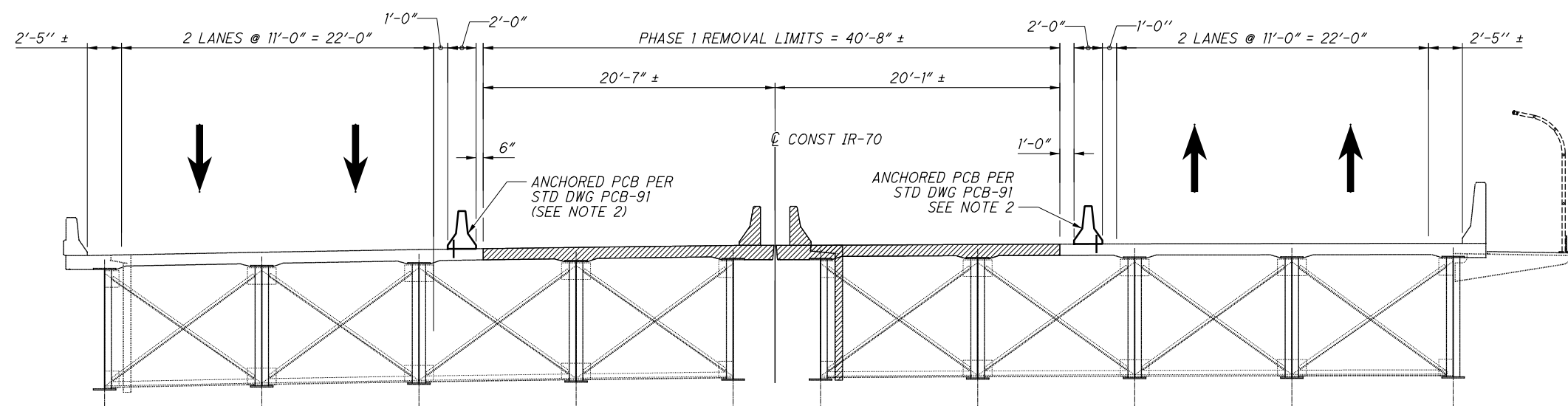
- NOTES:**
- DIMENSIONS ARE MEASURED PERPENDICULAR TO CL CONST IR-70 UNLESS NOTED OTHERWISE.
 - A MINIMUM OF TWO ANCHORS SHALL BE PROVIDED ON THE EASTBOUND (SOUTH) TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED AFTER PHASE 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.

MUS-70-10.49 PID No. 93006	PHASE 3 REMOVAL & CONSTRUCTION AT PIER 1 BRIDGE NO. MUS-70-1159 OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER	DESIGN AGENCY Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2500 CORPORATE EXCHANGE DRIVE, SUITE 230 COLUMBUS, OHIO 43231
DESIGNED CTM	DRAWN JM	REVIEWED MTO
CHECKED JAY	REVISED	STRUCTURE FILE NUMBER 6002854
DATE 12/2020	DATE 12/2020	

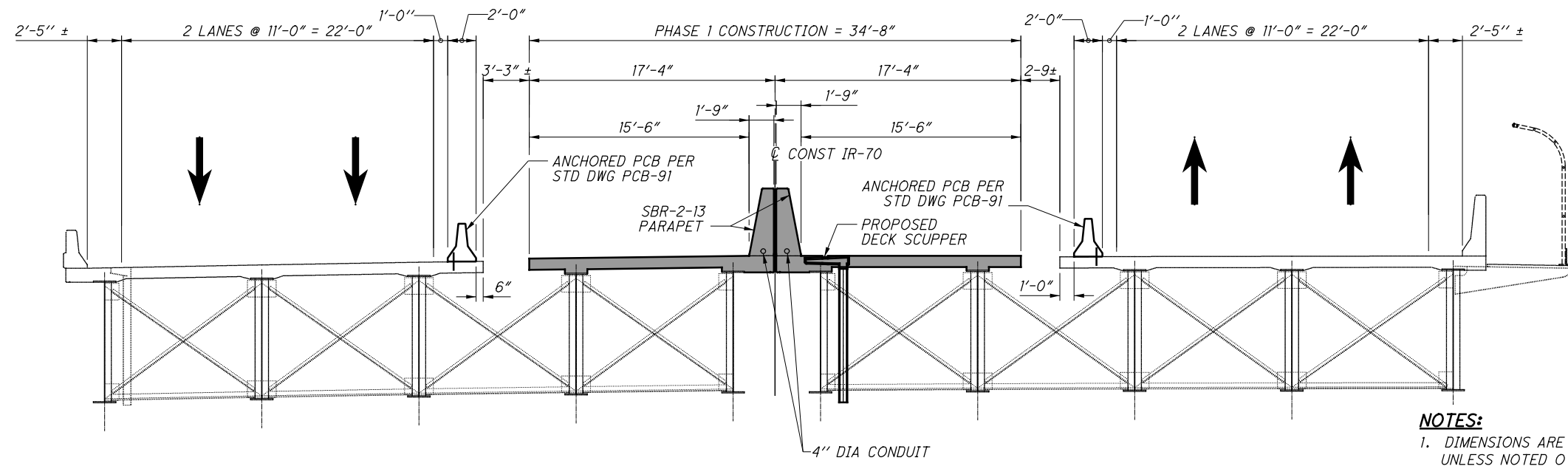
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EXISTING TRANSVERSE SECTION AT PIER 5
LOOKING UPSTATION



PHASE 1 REMOVAL AT PIER 5
LOOKING UPSTATION



PHASE 1 CONSTRUCTION AT PIER 5
LOOKING UPSTATION

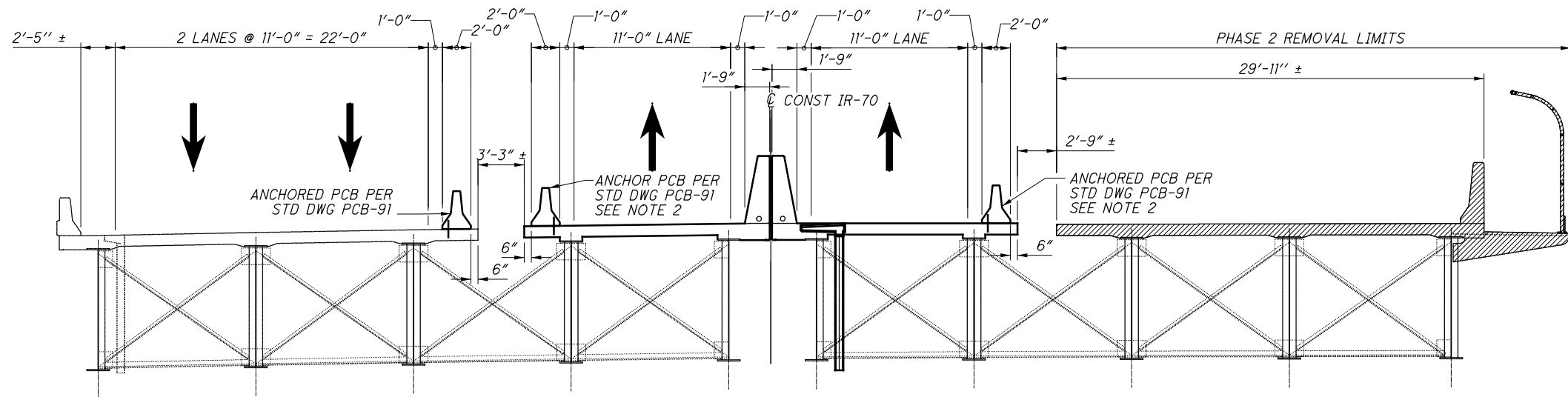
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 PROPOSED CONSTRUCTION
 REMOVAL LIMITS

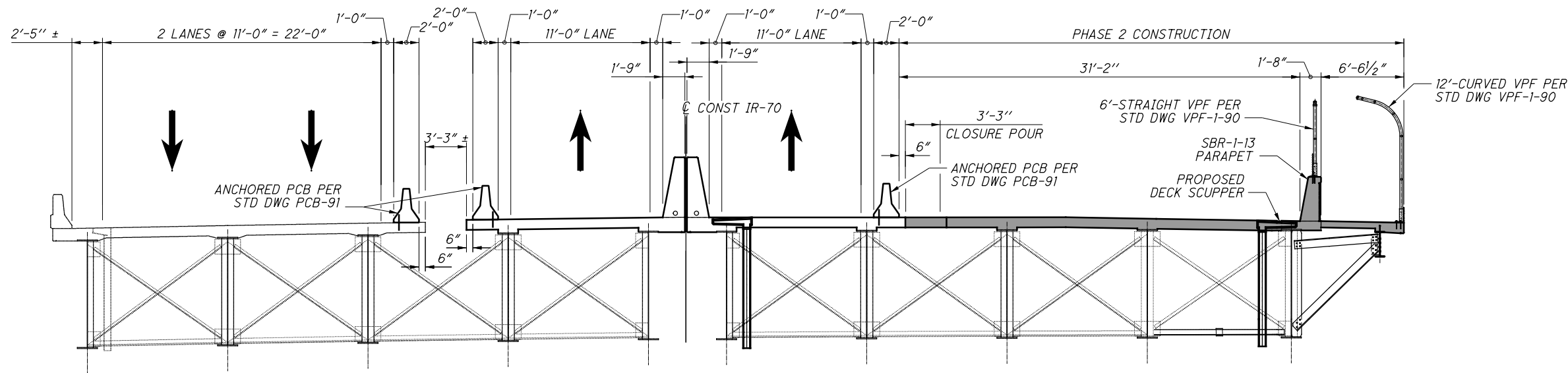
- NOTES:**
- DIMENSIONS ARE MEASURED PERPENDICULAR TO \varnothing CONST IR-70 UNLESS NOTED OTHERWISE.
 - A MINIMUM OF FOUR ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. ANCHORS ARE TO REMAIN IN PLACE UNTIL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

 Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2600 CORPORATE EXCHANGE DRIVE, SUITE 230 COLUMBUS, OHIO 43231	DESIGN AGENCY DATE: 12/2020 REVIEWED: MTO STRUCTURE FILE NUMBER: 6002854	PHASE 1 REMOVAL & CONSTRUCTION AT PIER 5 BRIDGE NO. MUS-70-1159 OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER
DRAWN: JM CHECKED: JAY DESIGNED: CTM	REVISIONS: REVISED: JAY REVISED: MTO	MUS-70-10.49 PID No. 93006
		31 / 160 1477 2231

SUBMITTAL: Stage 3
 PID: 93006
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PHASE 2 REMOVAL AT PIER 5
LOOKING UPSTATION



PHASE 2 CONSTRUCTION AT PIER 5
LOOKING UPSTATION

LEGEND

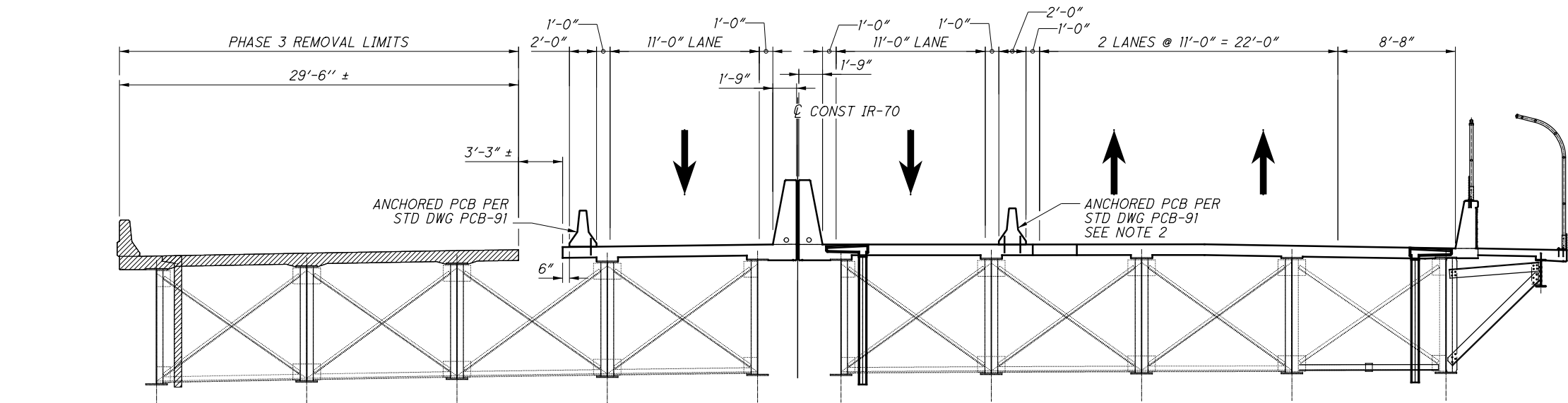
- PROPOSED CONSTRUCTION
- REMOVAL LIMITS

NOTES:

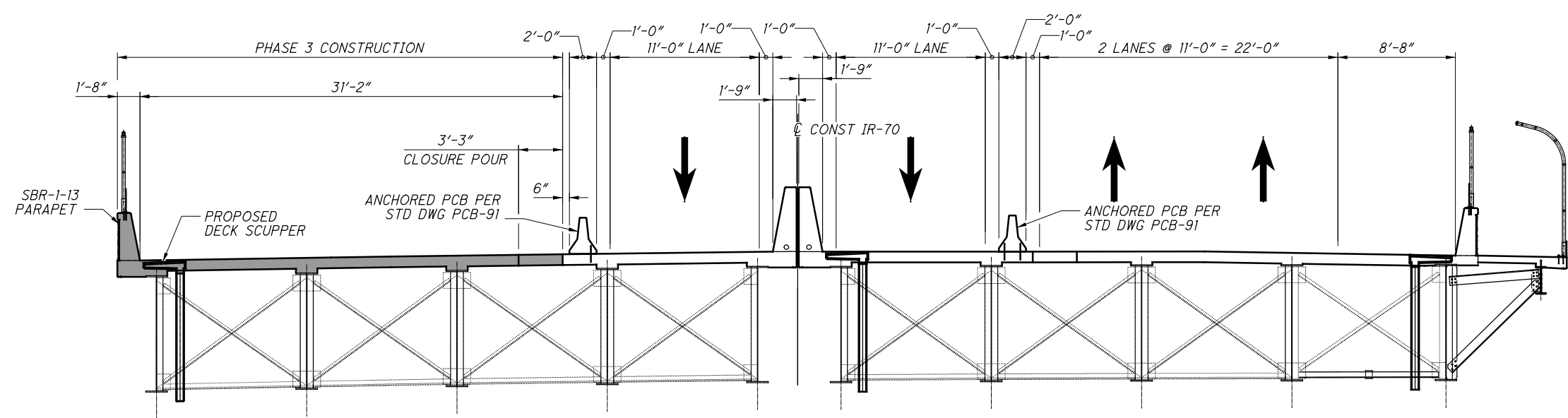
1. DIMENSIONS ARE MEASURED PERPENDICULAR TO C CONST IR-70 UNLESS NOTED OTHERWISE.
2. A MINIMUM OF FOUR ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED AFTER PHASE 3 IS COMPLETE, REMOVE ANCHORS 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.

MUS-70-10.49 PID No. 93006	PHASE 2 REMOVAL & CONSTRUCTION AT PIER 5 BRIDGE NO. MUS-70-1159 OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER	DESIGN AGENCY Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2500 CORPORATE EXCHANGE DRIVE, SUITE 230 COLUMBUS, OHIO 43231
DESIGNED CTM	DRAWN JM	REVIEWED MTO
CHECKED JAY	REVISED	DATE 12/2020
STRUCTURE FILE NUMBER 6002854		FILE NUMBER 6002854

SUBMITTAL: Stage 3
 PID: 93006
 PLOT DRIVER: 000Tcodd_PDF.pltcf9
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PHASE 3 REMOVAL AT PIER 5
LOOKING UPSTATION



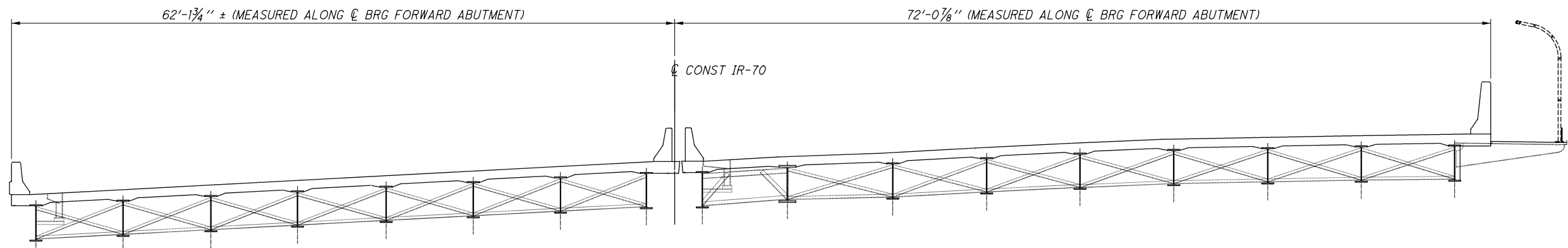
PHASE 3 CONSTRUCTION AT PIER 5
LOOKING UPSTATION

LEGEND

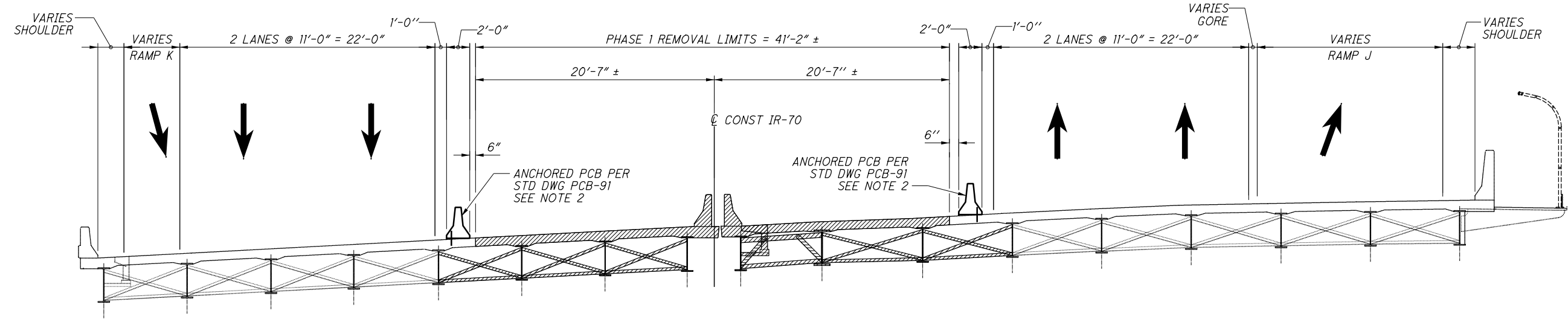
 PROPOSED CONSTRUCTION
 REMOVAL LIMITS

- NOTES:**
- DIMENSIONS ARE MEASURED PERPENDICULAR TO $\text{C} \text{ CONST IR-70}$ UNLESS NOTED OTHERWISE.
 - 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.

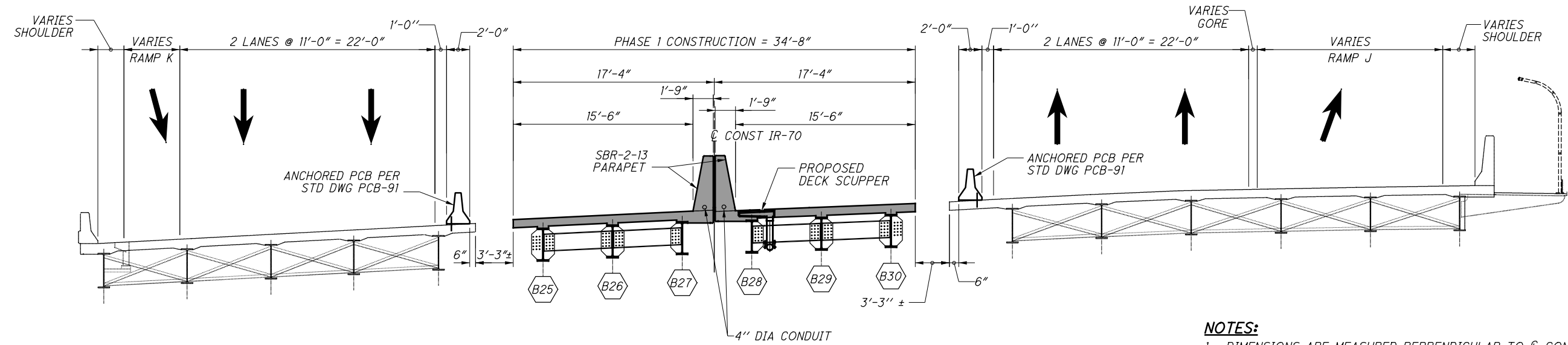
MUS-70-10.49	PHASE 3 REMOVAL & CONSTRUCTION AT PIER 5	DESIGN AGENCY Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2800 CORPORATE EXCHANGE DRIVE, SUITE 230 COLUMBUS, OHIO 43231
PID No. 93006	BRIDGE NO. MUS-70-1159 OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER	DATE 12/2020
33 / 160	DRAWN JM	REVIEWED MTO
	CHECKED JAY	STRUCTURE FILE NUMBER 6002854



EXISTING TRANSVERSE SECTION AT FORWARD ABUTMENT
LOOKING UPSTATION



PHASE 1 REMOVAL AT FORWARD ABUTMENT
LOOKING UPSTATION



PHASE 1 CONSTRUCTION AT FORWARD ABUTMENT
LOOKING UPSTATION

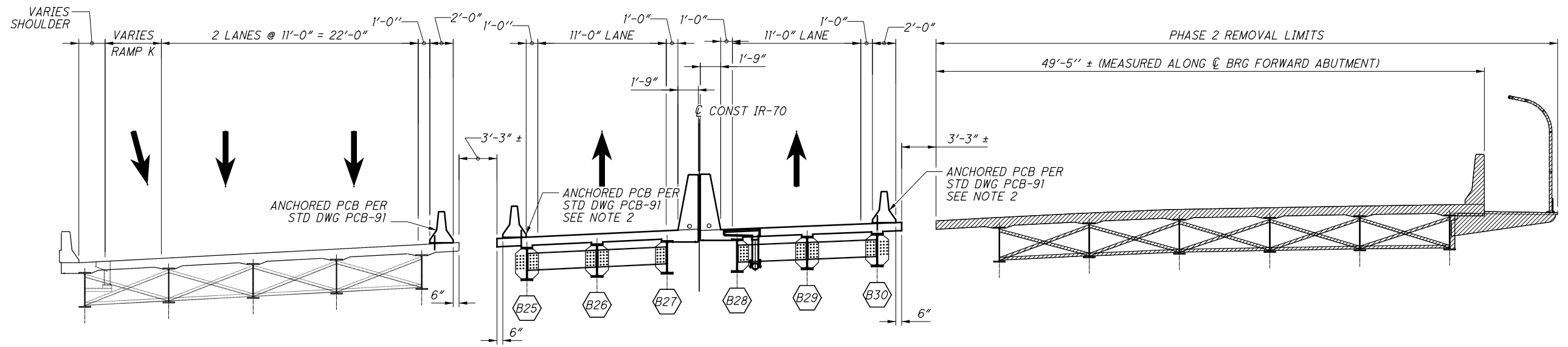
LEGEND

 PROPOSED CONSTRUCTION
 REMOVAL LIMITS

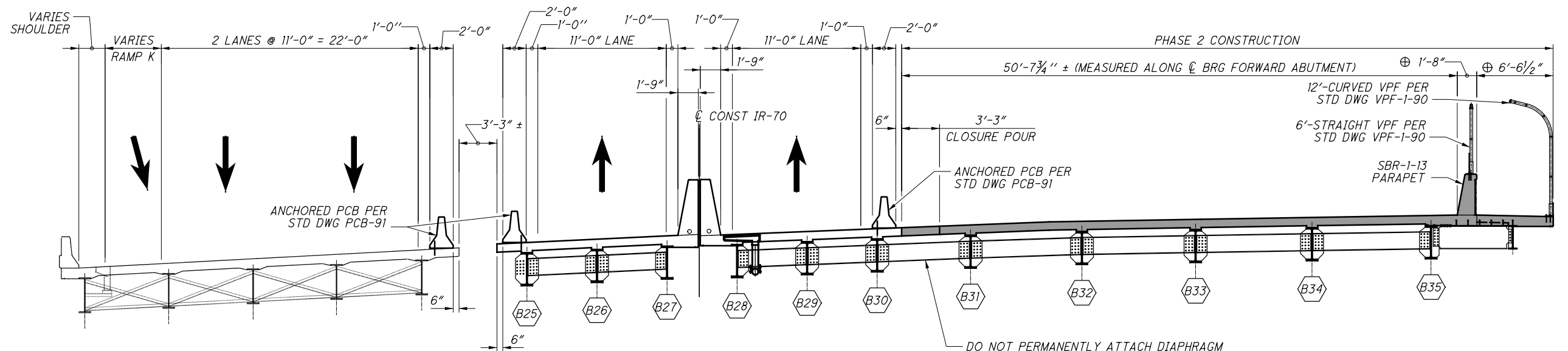
NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO C 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.

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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 C CONST RAMP J.

NOTES:

1. DIMENSIONS ARE MEASURED PERPENDICULAR TO C 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.
 2800 CORPORATE EXCHANGE DRIVE SUITE 230
 COLUMBUS, OHIO 43231

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

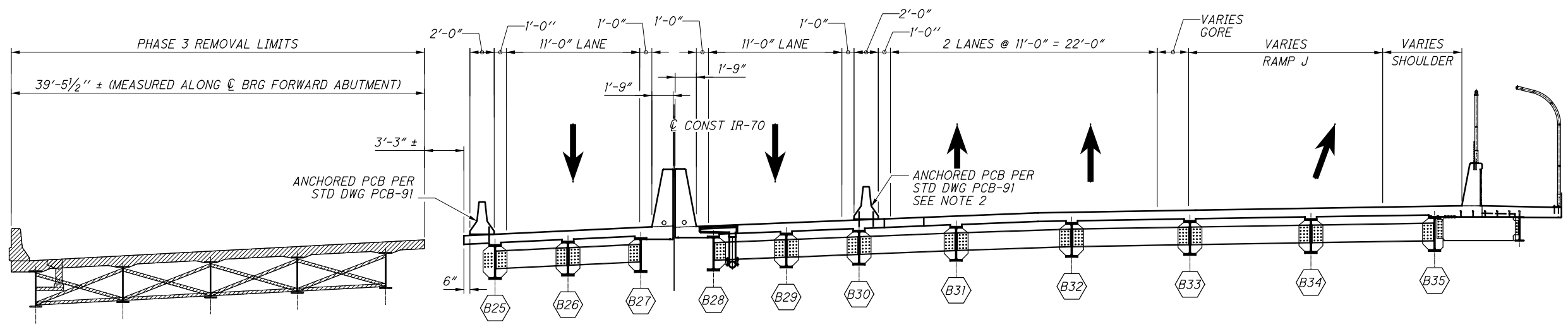
PHASE 2 REMOVAL & CONSTRUCTION AT FORWARD ABUTMENT
 BRIDGE NO. MUS-70-1159
 OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER

MUS-70-10.49
PID No. 93006

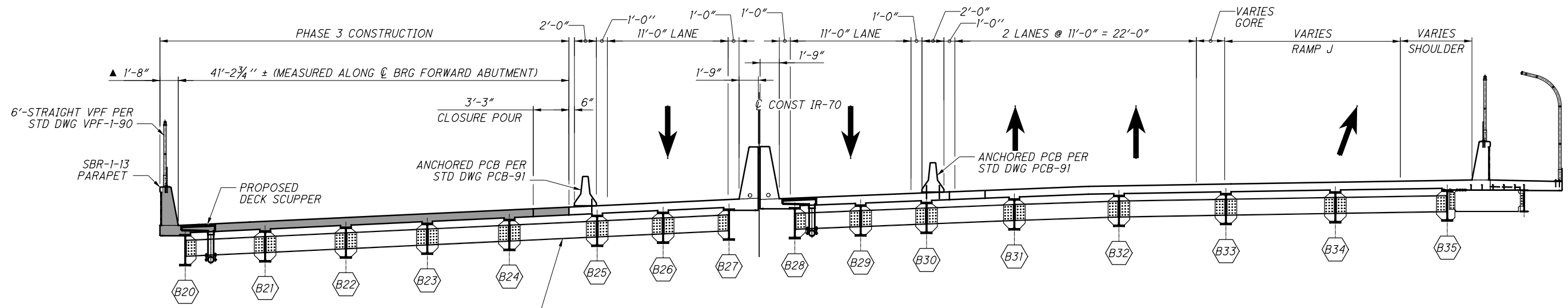
35 / 160

1481
2231

SUBMITTAL: Stage 3
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PHASE 3 REMOVAL AT FORWARD ABUTMENT
LOOKING UPSTATION



PHASE 3 CONSTRUCTION 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.

LEGEND
 ■ PROPOSED CONSTRUCTION
 ▨ REMOVAL LIMITS

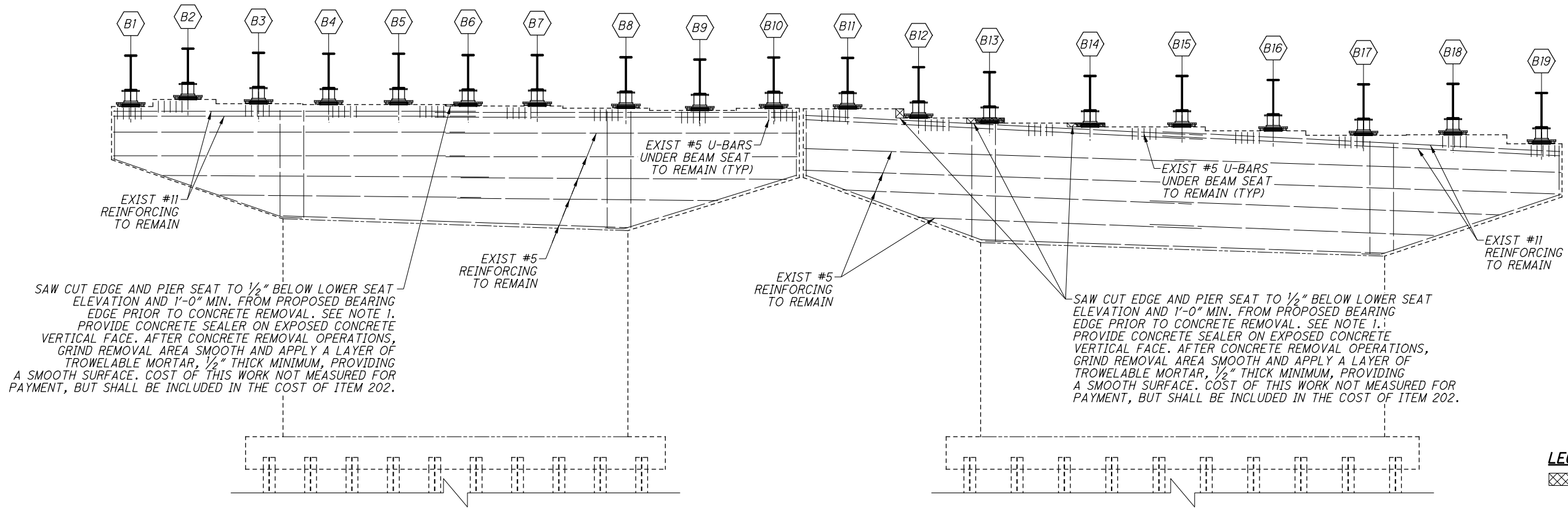
▲ DIMENSION MEASURED PERPENDICULAR TO CL CONST RAMP K.

NOTES:

- DIMENSIONS ARE MEASURED PERPENDICULAR TO CL CONST IR-70 UNLESS NOTED OTHERWISE.
- 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.

 Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2800 CORPORATE EXCHANGE DRIVE, SUITE 230 COLUMBIUS, OHIO 43231	DESIGN AGENCY	DATE 12/2020	REVIEWED MTO	STRUCTURE FILE NUMBER 6002854	DRAWN JM	REVISIONS
PHASE 3 REMOVAL & CONSTRUCTION AT FORWARD ABUTMENT BRIDGE NO. MUS-70-1159 OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER						
SUBMITTAL: Stage 3 PID: 93006	MUS-70-10.49	PID No. 93006	36 / 160	1482 2231		

SUBMITTAL: Stage 3
 PID: 93006
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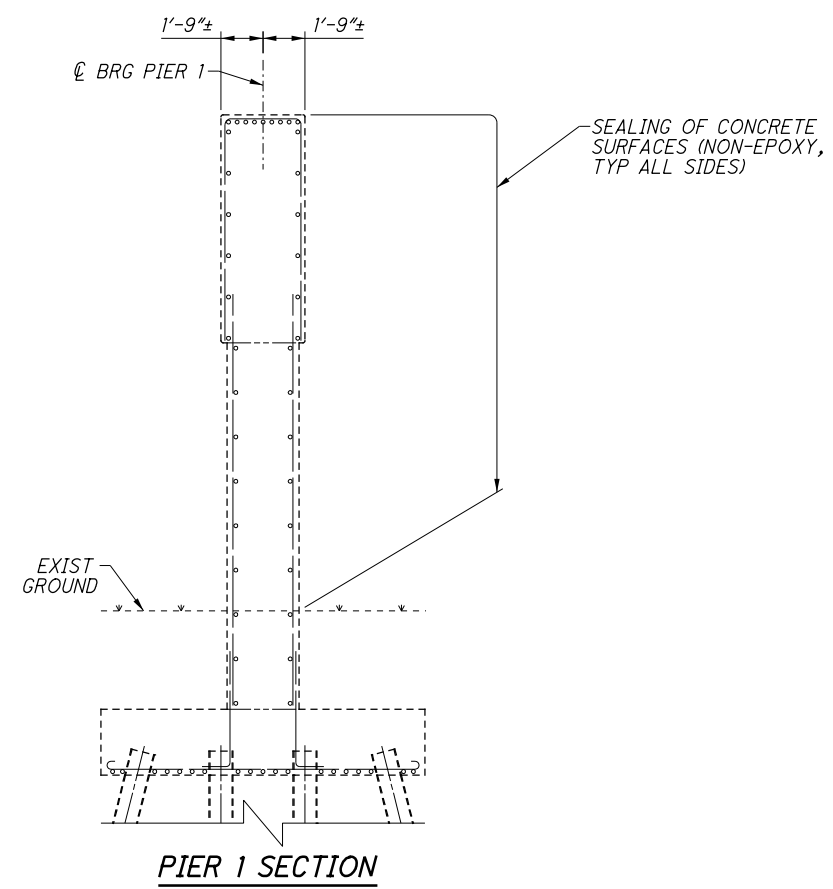


LEGEND
 [Symbol] PIER SEAT REMOVAL

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	



- NOTES**
- SEE GENERAL NOTES ON SHEET 131160 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.
 - THE BEARING DIMENSIONS ARE DETERMINED BY THE MANUFACTURER (SEE SHEET 131160 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.
 - 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.
 - 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.
 2800 CORPORATE EXCHANGE DRIVE, SUITE 230
 COLUMBUS, OHIO 43231

DATE: 12/2020
 REVIEWED: MTO
 DRAWN: RSN
 DESIGNED: ST
 CHECKED: JHJ

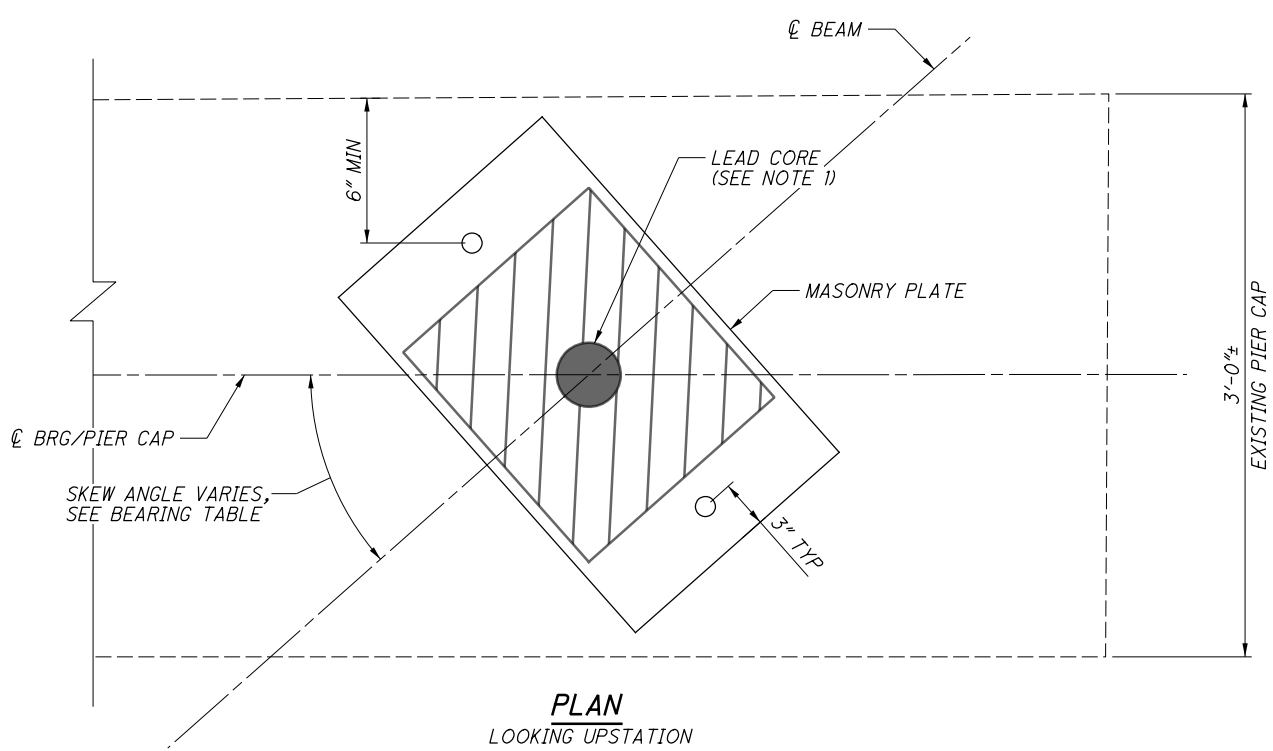
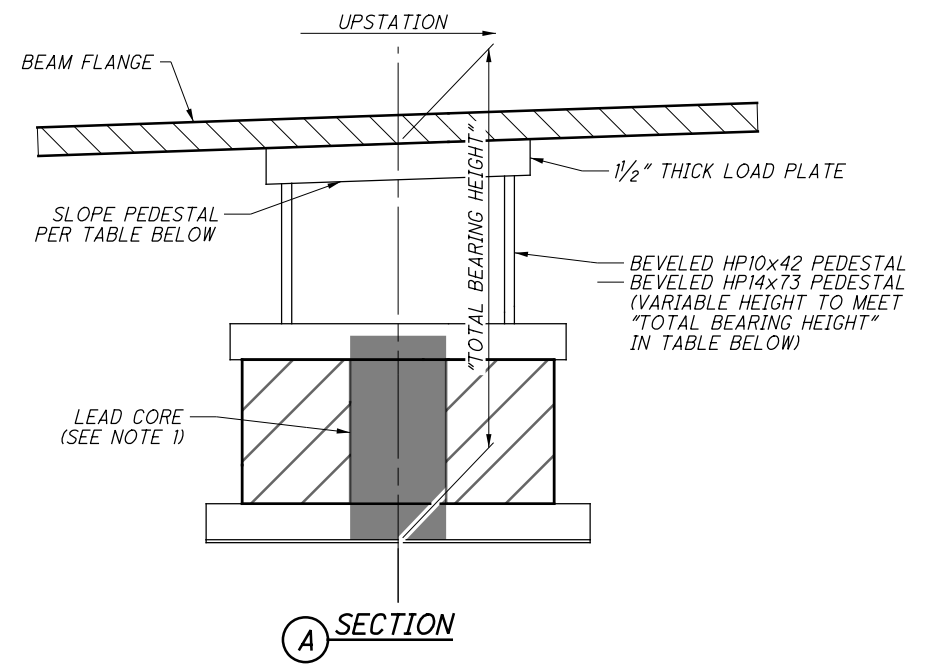
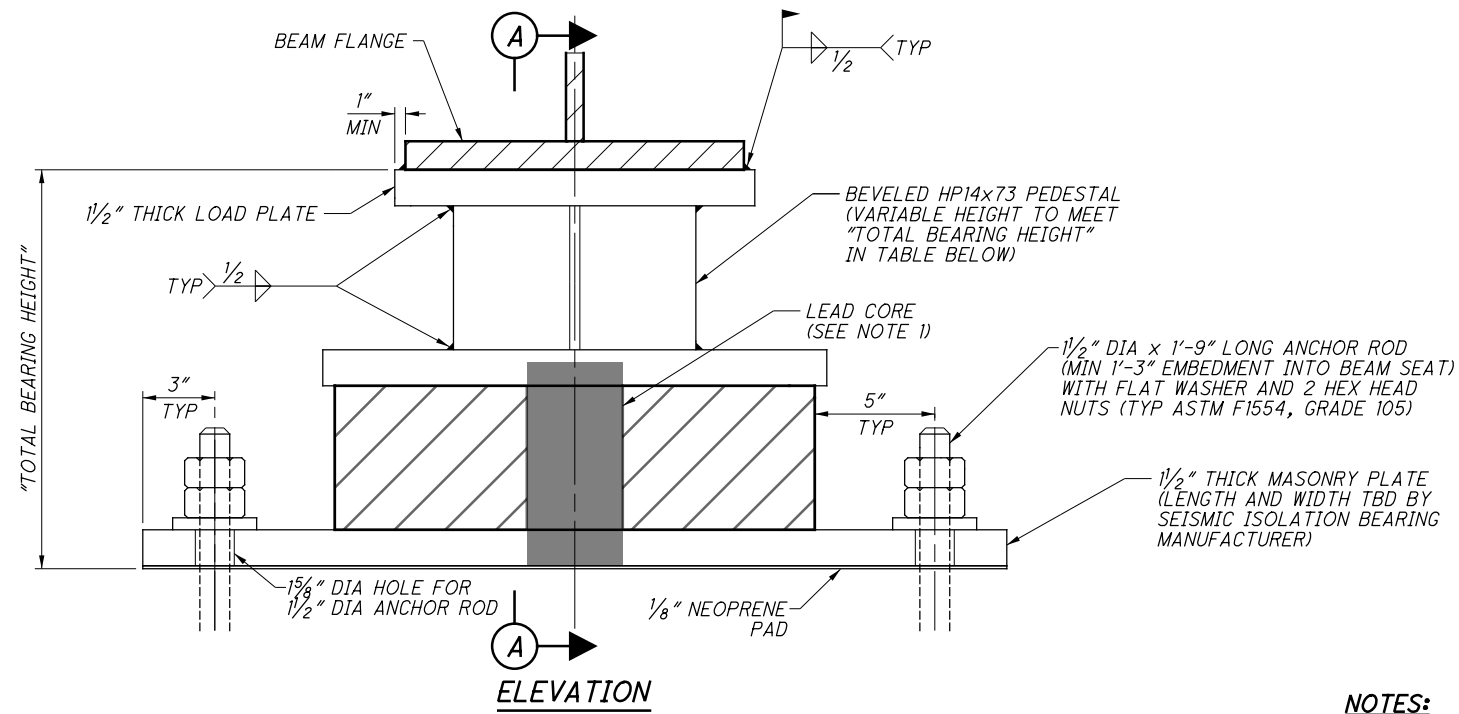
STRUCTURE FILE NUMBER: 6002854

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

MUS-70-10.49
 PID No. 93006

61 / 160
 1507
 2231

SUBMITTAL: Stage 3
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NOTES:

- 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.

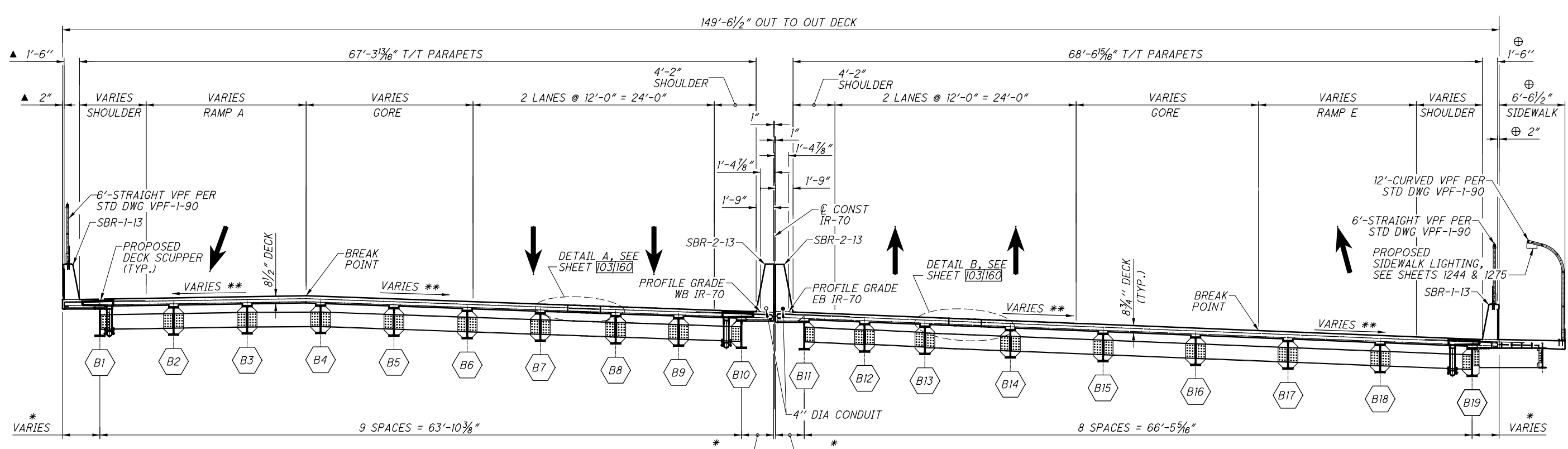
THE FABRICATOR SHALL DELIVER THE BEARINGS TO THE JOBSITE IN MOISTURE PROOF AND DUST PROOF MATERIAL TO PROTECT AGAINST SHIPPING AND JOB SITE CONDITIONS. STORE THE BEARINGS AT THE JOB SITE IN A DRY, SHELTERED AREA FREE FROM DIRT OR DUST UNTIL INSTALLATION. HAVE A REPRESENTATIVE FROM THE BEARING MANUFACTURER ON SITE TO ENSURE PROPER INSTALLATION OF THE BEARINGS.
- 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.
- FURNISHING AND INSTALLING ANCHOR RODS AND ALL ASSOCIATED NUTS/WASHERS SHALL BE INCLUDED FOR PAYMENT WITH THE BEARINGS.
- 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.
- 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.
- 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.
- IN ADDITION TO THE PRIMARY AXIS ROTATIONS LISTED IN THE TABLE, THE BEARING DESIGN SHALL INCLUDE ALLOWANCE FOR 0.01 RADIAN OF TRANSVERSE ROTATION (INCLUDING CONSTRUCTION TOLERANCE).

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

 Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2800 CORPORATE EXCHANGE DRIVE, SUITE 230 COLUMBUS, OHIO 43231	DATE 12/2020	REVIEWED MTO	DRAWN CTM	CHECKED DSF	STRUCTURE FILE NUMBER 6002854	BRIDGE NO. MUS-70-1159 OVER LINDEN AVE, OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER
SEISMIC ISOLATION BEARING DETAILS 1 OF 2 (PIERS 1, 4, 5 & 8)						
MUS-70-10.49 PID No. 93006						
73 / 160						
1519 2231						

SUBMITTAL: Stage 3

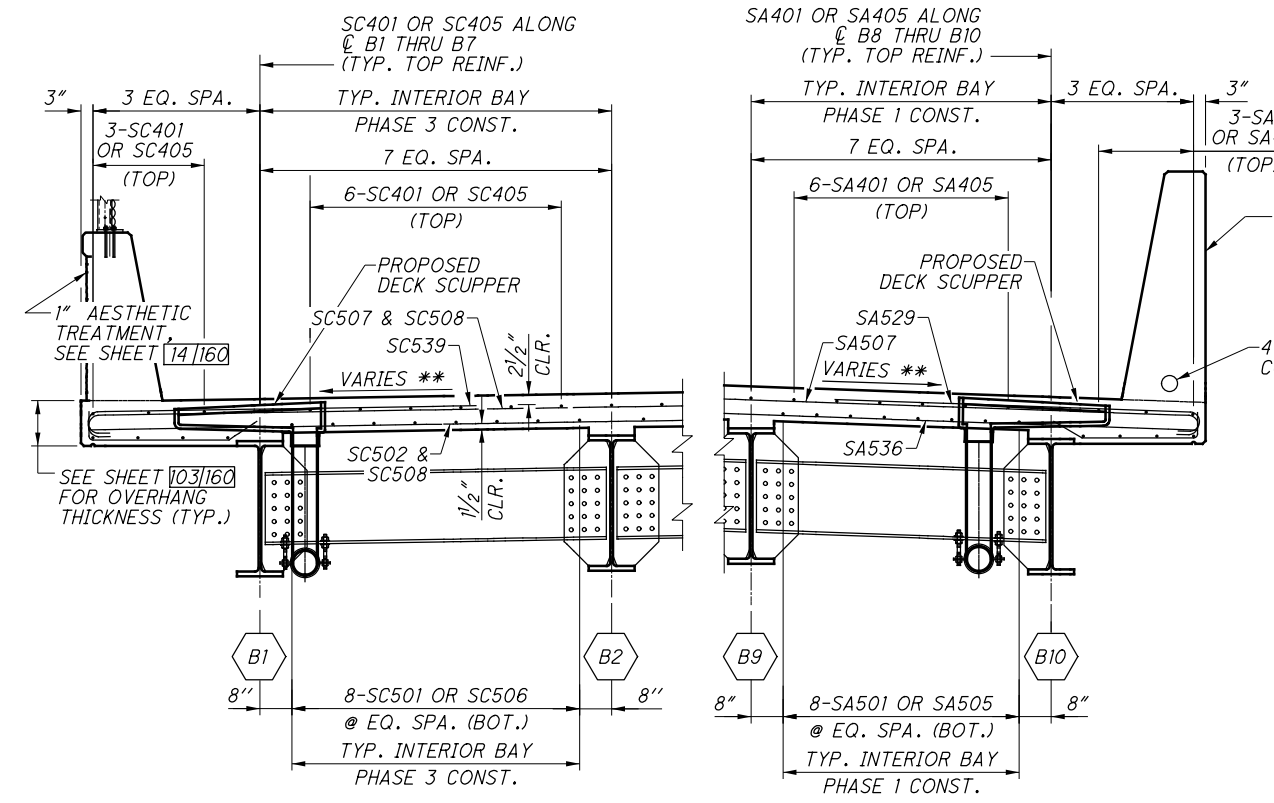
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* SEE SHEET 114/160 FOR HORIZONTAL OVERHANG OFFSETS.

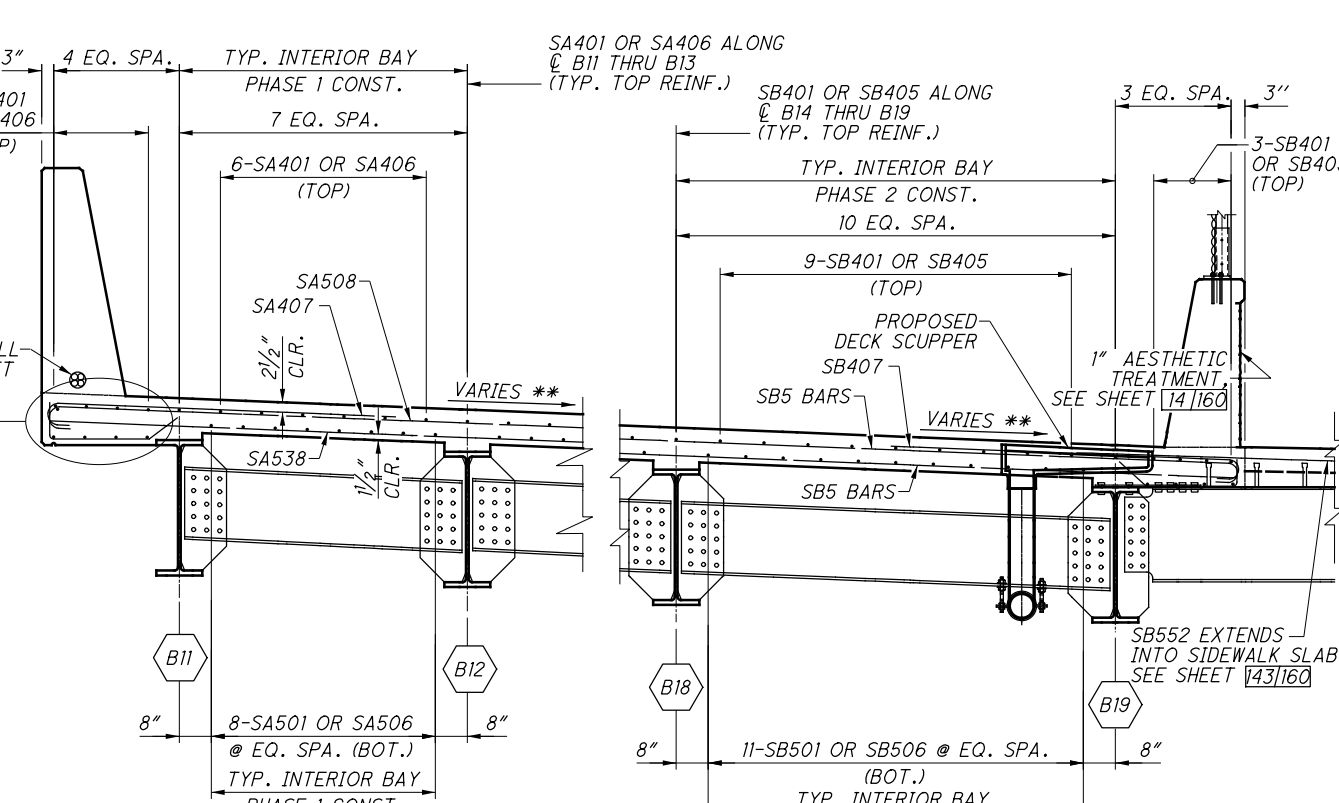
** SEE SHEET 9/160 TO 11/160 FOR SUPERELEVATION DIAGRAMS.

TRANSVERSE SECTION AT REAR ABUTMENT
 LOOKING UPSTATION



REINFORCING DETAILS-WEST BOUND STRUCTURE

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



REINFORCING DETAILS-EAST BOUND STRUCTURE

- ▲ 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.

GannettFleming
 ENGINEERS & ARCHITECTS, P.C.
 2800 CORPORATE EXCHANGE DRIVE, SUITE 230
 COLUMBIAS, OHIO 43231

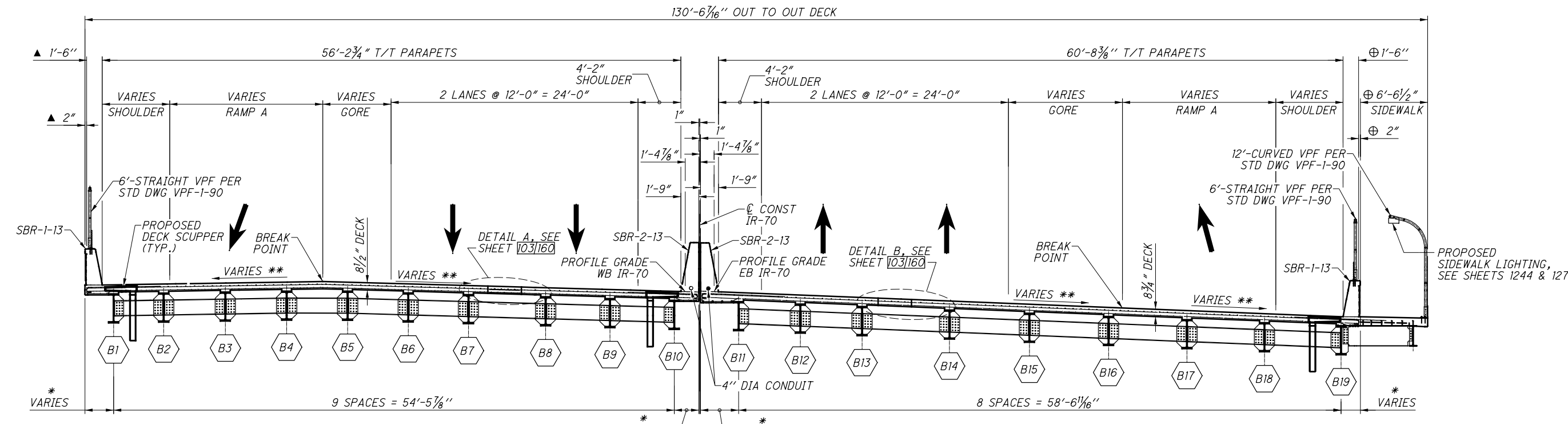
DESIGN AGENCY: GannettFleming
 DATE: 12/2020
 REVIEWED: MTO
 DRAWN: JMM
 DESIGNED: TMM
 CHECKED: JAY

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

MUS-70-10-49
 PID No. 93006

98/160
 1544
 2231

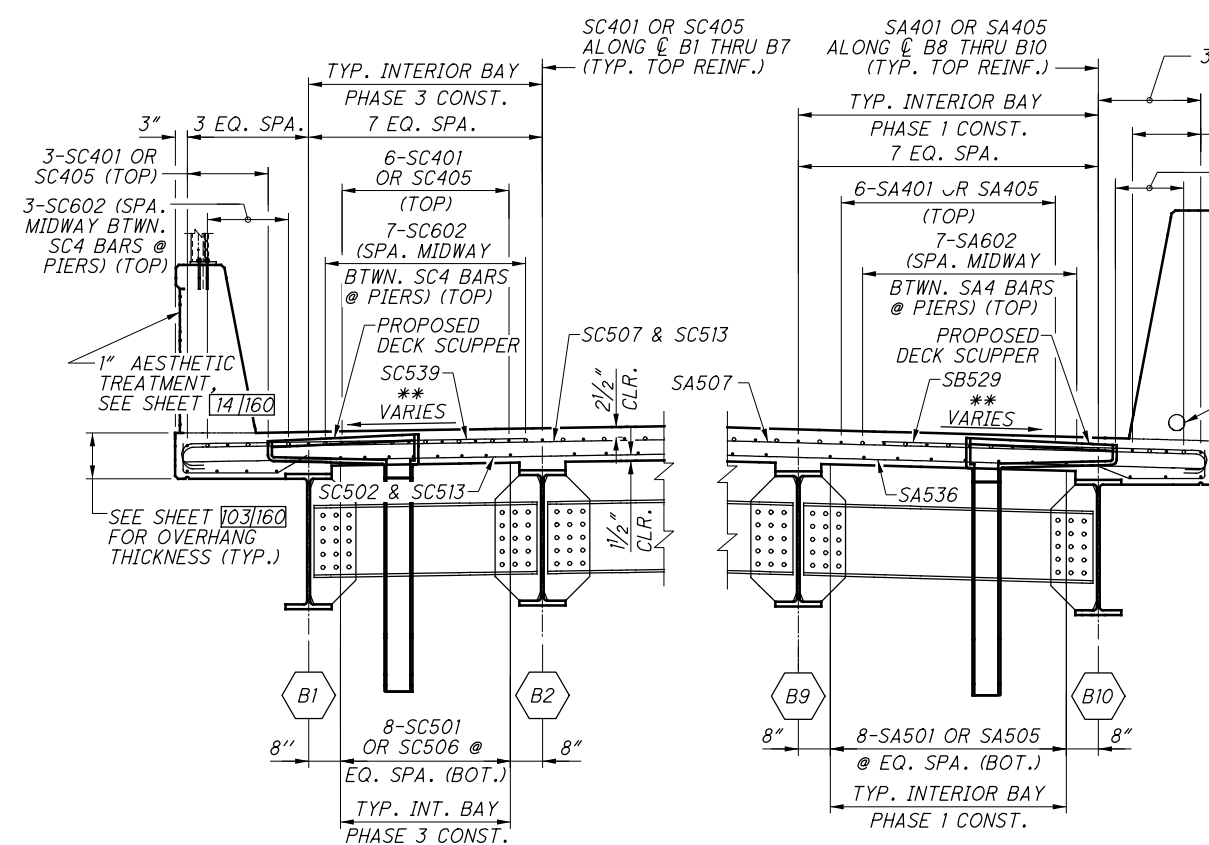
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TRANSVERSE SECTION AT PIER 1
LOOKING UPSTATION

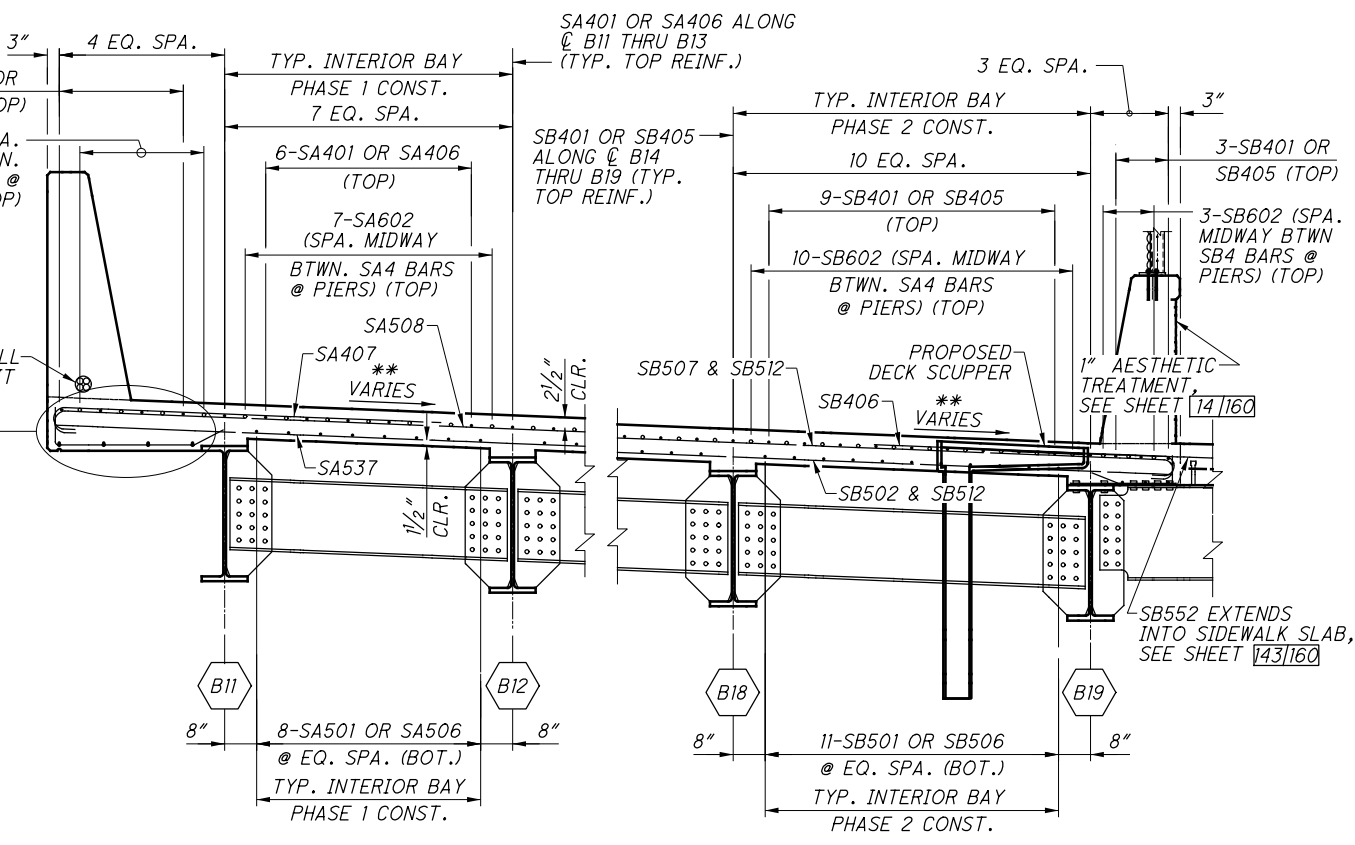
* SEE SHEET 1141160 FOR HORIZONTAL OVERHANG OFFSETS.

** SEE SHEET 91160 TO 111160 FOR SUPERELEVATION DIAGRAMS.



REINFORCING DETAILS-WEST BOUND STRUCTURE

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



REINFORCING DETAILS-EAST BOUND STRUCTURE

- NOTES:**
- DIMENSIONS ARE MEASURED PERPENDICULAR TO \varnothing CONST IR-70 UNLESS NOTED OTHERWISE.
 - SEE SHEET 1031160 FOR CLOSURE POUR DETAILS AND ADDITIONAL NOTES.
 - REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

DESIGN AGENCY
Gannett Fleming
ENGINEERS & ARCHITECTS, P.C.
2800 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBIUS, OHIO 43231

DATE
12/2020

REVIEWED
MTO

STRUCTURE FILE NUMBER
6002854

DESIGNED
TMF

CHECKED
JAY

DRAWN
JM

REVISED

BRIDGE NO. MUS-70-1159

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

MUS-70-10.49

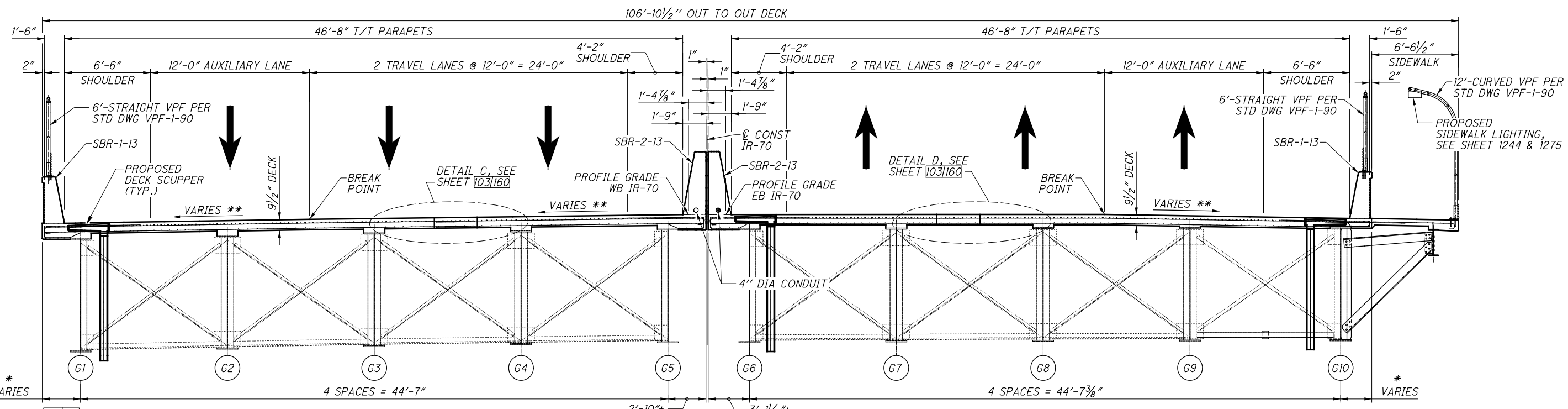
PID No. 93006

TRANSVERSE SECTION AT PIER 1

99/160

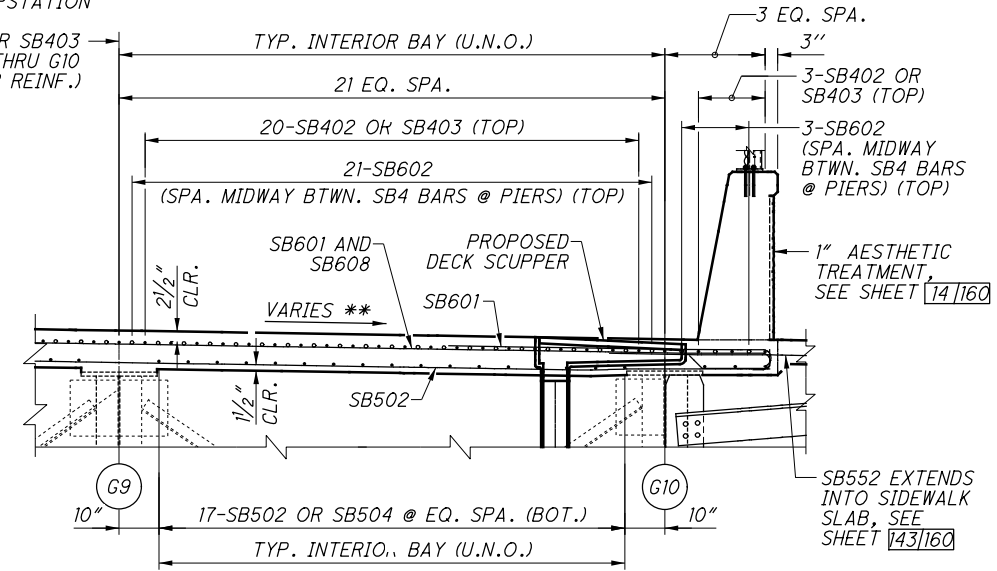
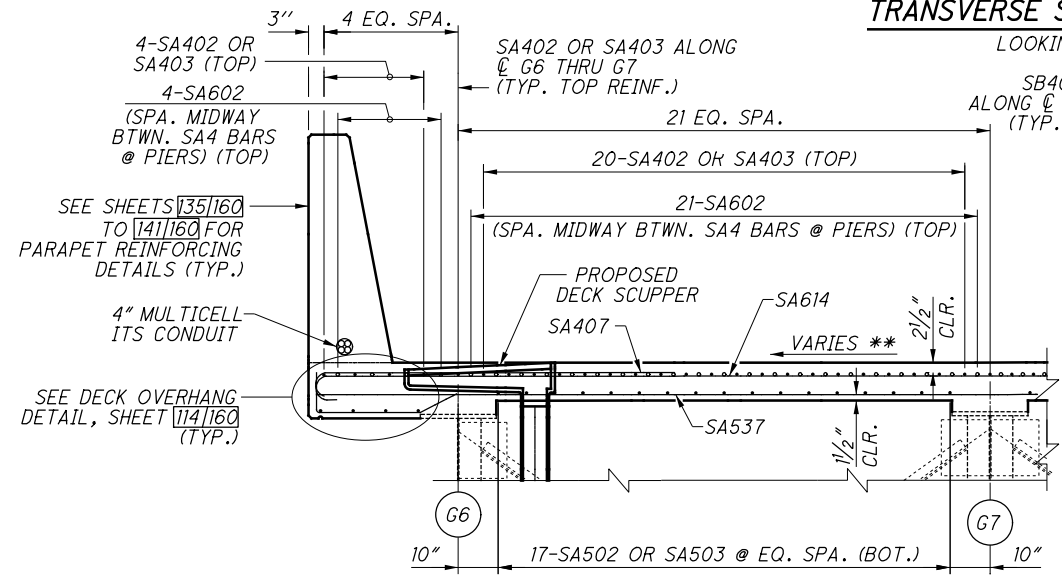
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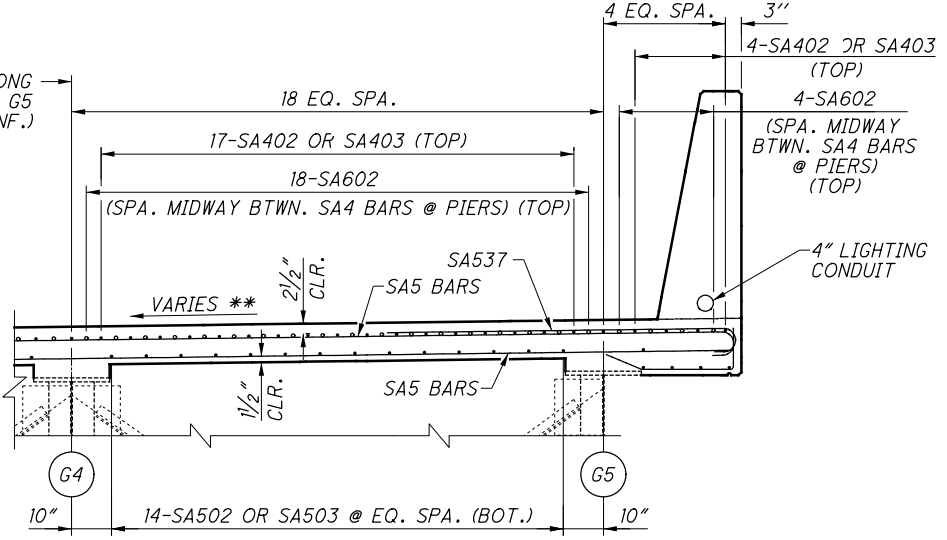
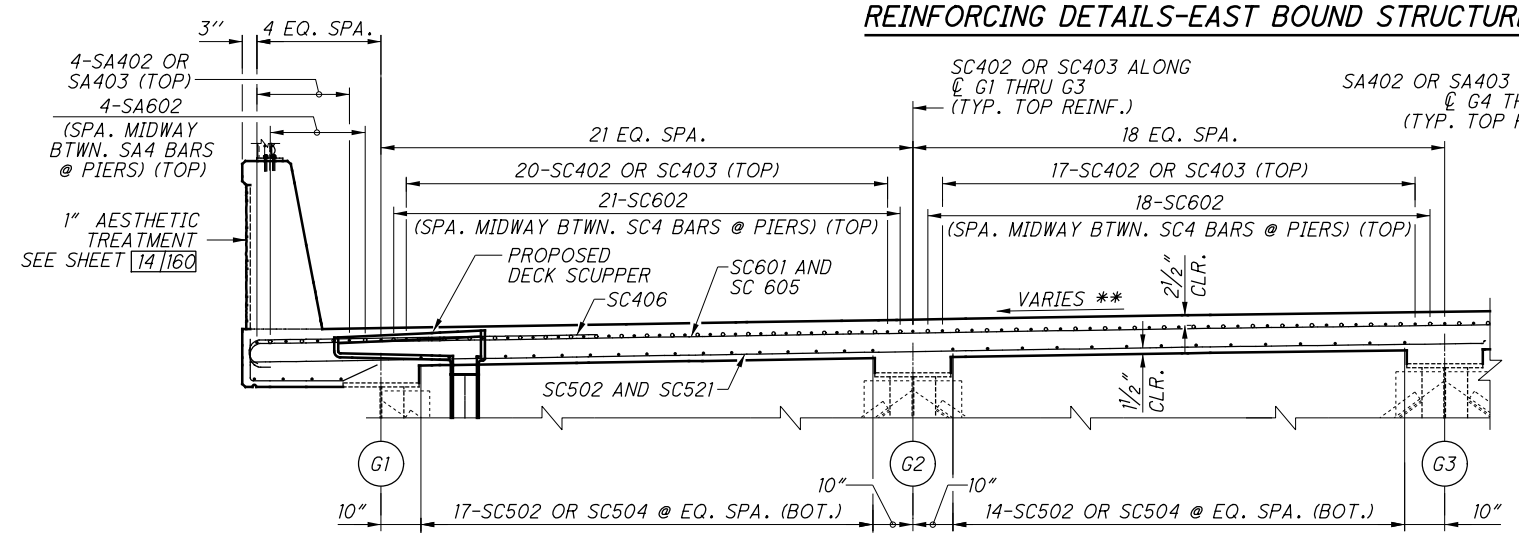
* SEE SHEET 1141160 FOR HORIZONTAL OVERHANG OFFSETS.

** SEE SHEET 91160 TO 111160 FOR SUPERELEVATION DIAGRAMS.

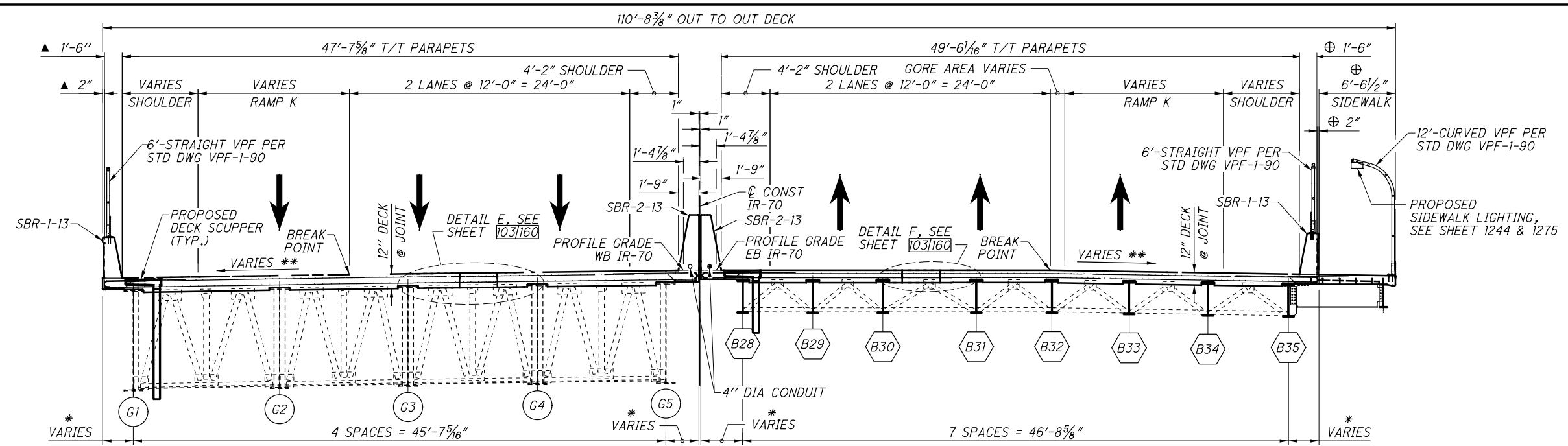


MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"

- NOTES:**
- DIMENSIONS ARE MEASURED PERPENDICULAR TO C CONST IR-70 UNLESS NOTED OTHERWISE.
 - SEE SHEET 1031160 FOR CLOSURE POUR DETAILS AND ADDITIONAL NOTES.
 - REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

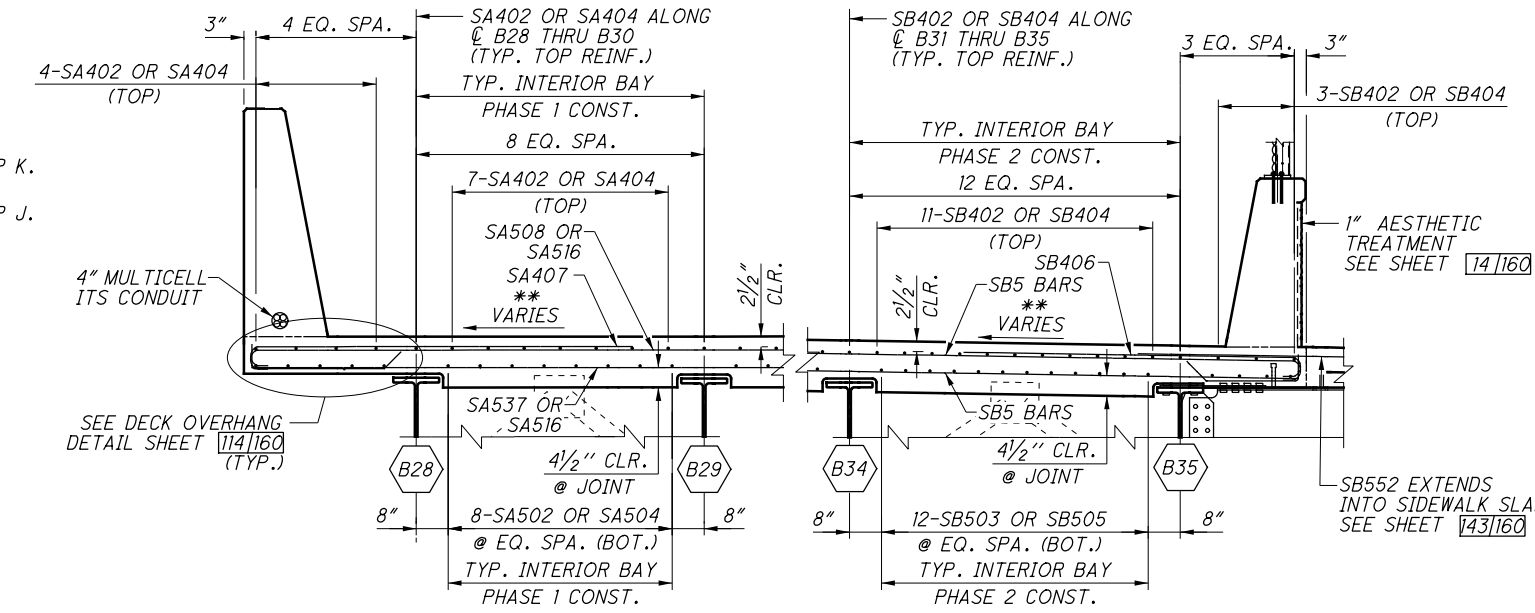


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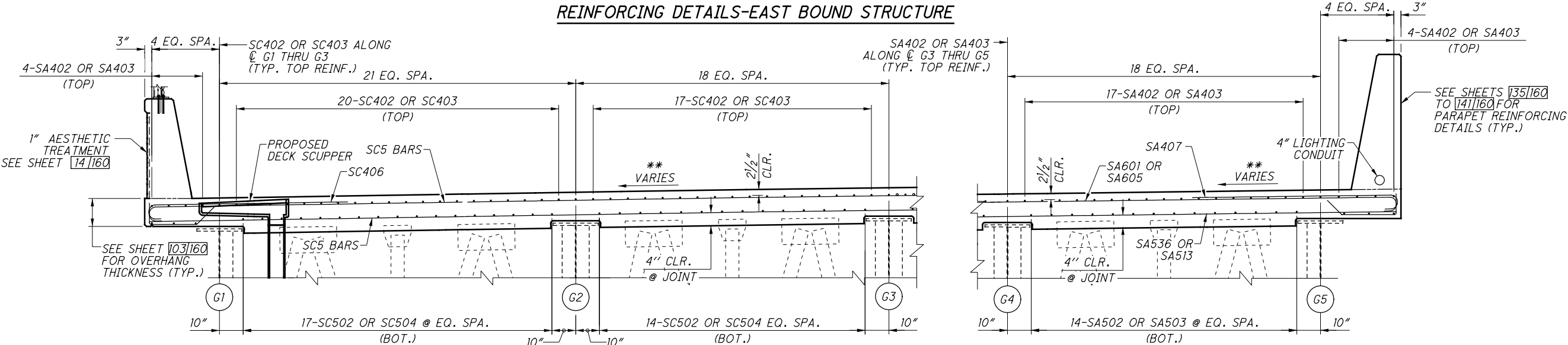
TRANSVERSE SECTION AT PIER 7 (REAR)
 LOOKING UPSTATION
TRANSVERSE SECTION AT PIER 7 (FORWARD)
 LOOKING UPSTATION

** SEE SHEET [9/160] TO [11/160] FOR SUPERELEVATION DIAGRAMS.



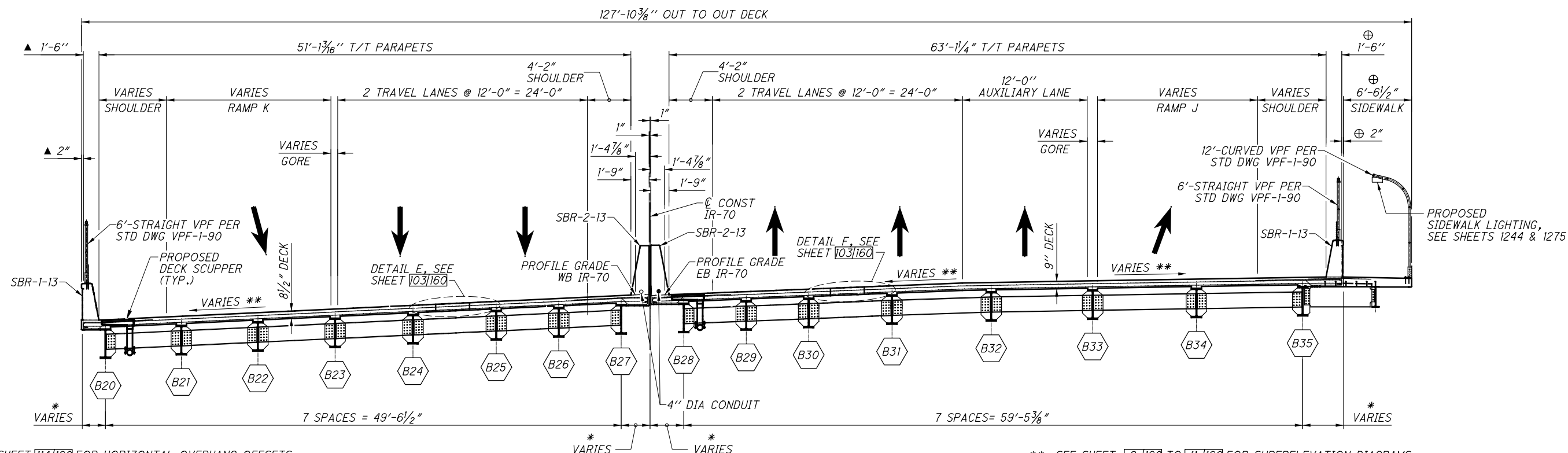
MINIMUM REINFORCEMENT LAP LENGTHS (TYP. U.N.O.)	
#4	2'-0"
#5	2'-5"
#6	3'-0"

- NOTES:**
- DIMENSIONS ARE MEASURED PERPENDICULAR TO @ CONST IR-70 UNLESS NOTED OTHERWISE.
 - SEE SHEET [103/160] FOR CLOSURE POUR DETAILS AND ADDITIONAL NOTES.
 - REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.



REINFORCING DETAILS-EAST BOUND STRUCTURE
REINFORCING DETAILS-WEST BOUND STRUCTURE

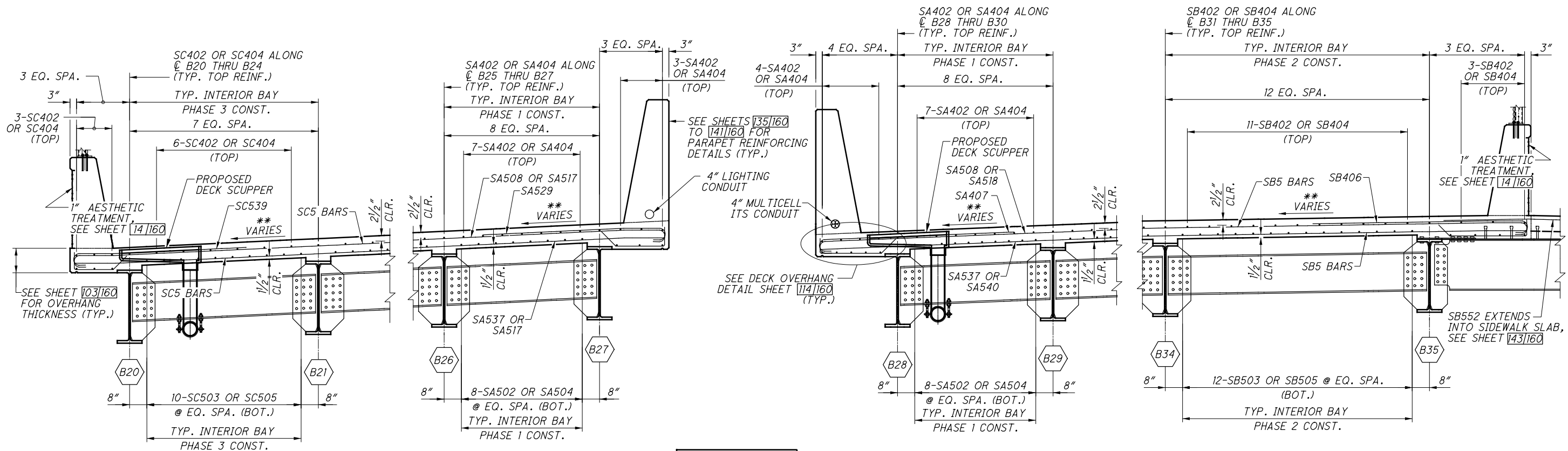
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* SEE SHEET 114/160 FOR HORIZONTAL OVERHANG OFFSETS.

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

TRANSVERSE SECTION AT FORWARD 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 K.
- ⊕ DIMENSION MEASURED PERPENDICULAR TO @ CONST RAMP J.

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.
2800 CORPORATE EXCHANGE DRIVE, SUITE 230
COLUMBIUS, OHIO 43231

DATE
12/2020

REVIEWED
MTO

DRAWN
JM

DESIGNED
TMF

CHECKED
JAY

STRUCTURE FILE NUMBER
6002854

BRIDGE NO. MUS-70-1159

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

MUS-70-10.49

PID No. 93006

102/160

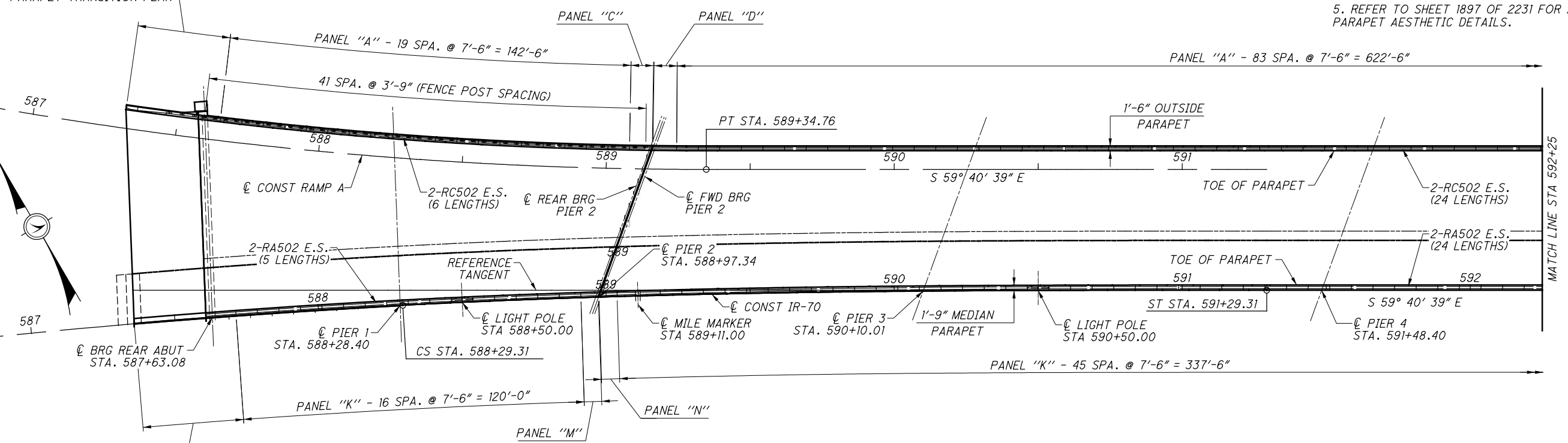
1548
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- NOTES:**
- FOR PARAPET DETAILS AND NOTES NOT SHOWN, SEE STD DWG SBR-1-13 AND SBR-2-13.
 - FOR REINFORCING STEEL LIST, SEE SHEET 152/160 AND 155/160.
 - FOR PANEL INFORMATION, SEE SHEET 139/160.
 - FOR ADDITIONAL DETAILS AND NOTES, SEE SHEET 141/160.
 - REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

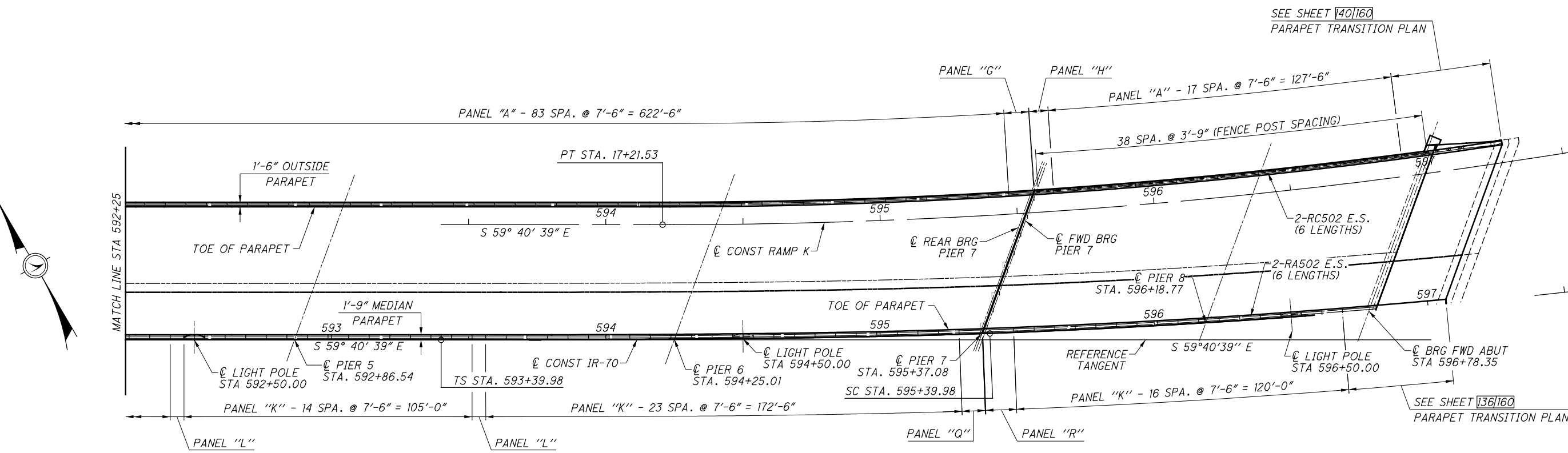
SEE SHEET 137/160
PARAPET TRANSITION PLAN

SEE SHEET 136/160
PARAPET TRANSITION PLAN



LEFT BRIDGE PARAPET PLAN
SPAN 1 THROUGH SPAN 4 1/2

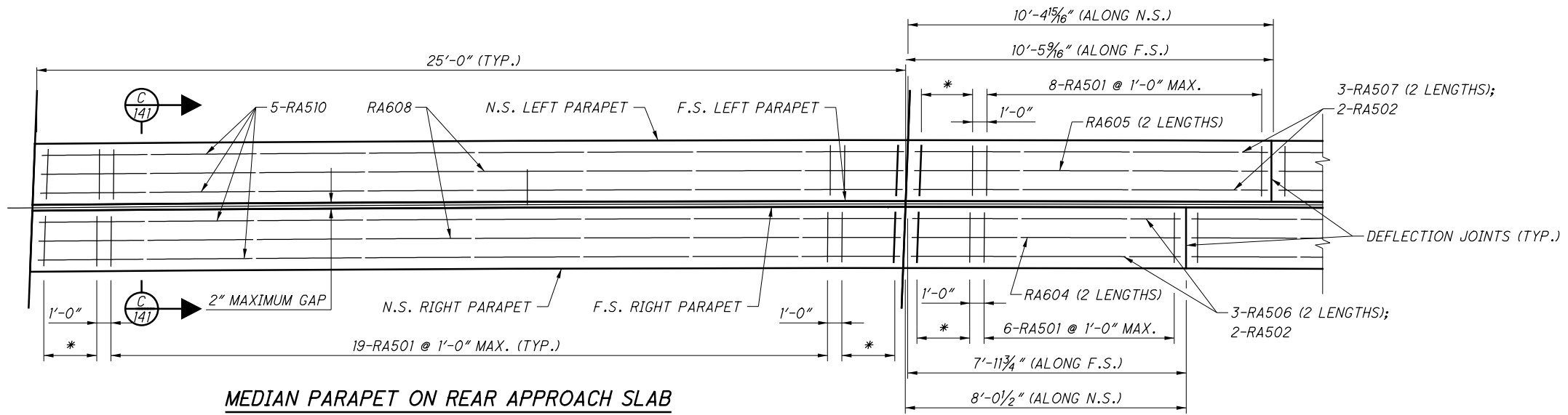
SEE SHEET 140/160
PARAPET TRANSITION PLAN



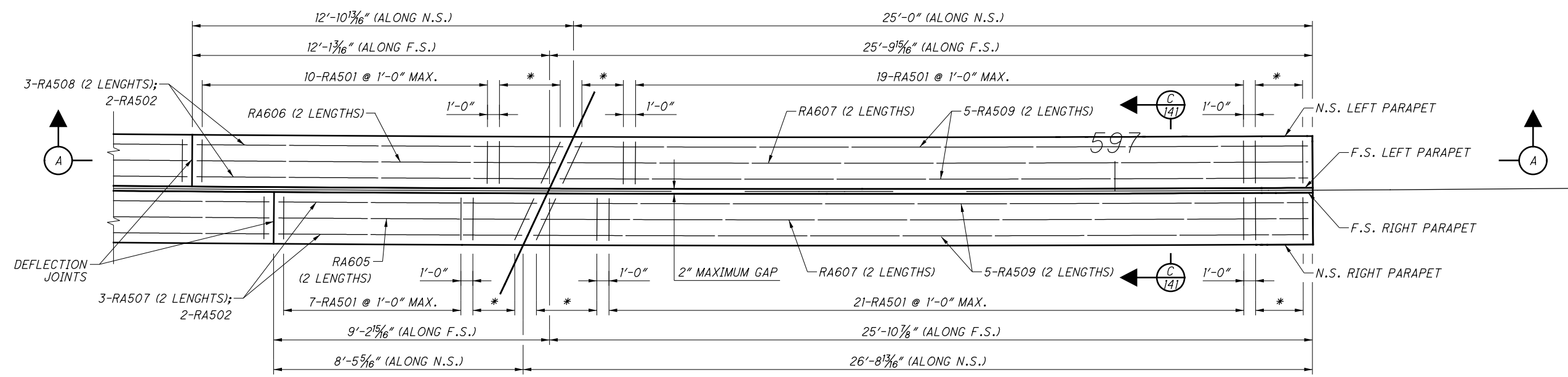
LEFT BRIDGE PARAPET PLAN
SPAN 4 1/2 THROUGH SPAN 9

 Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2500 CORPORATE EXCHANGE DRIVE SUITE 230 COLUMBUS, OHIO 43231	DESIGN AGENCY	DATE 12/2020	REVIEWED MTO	STRUCTURE FILE NUMBER 6002854	DRAWN ECT	REVISIONS MAL	CHECKED TMF
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
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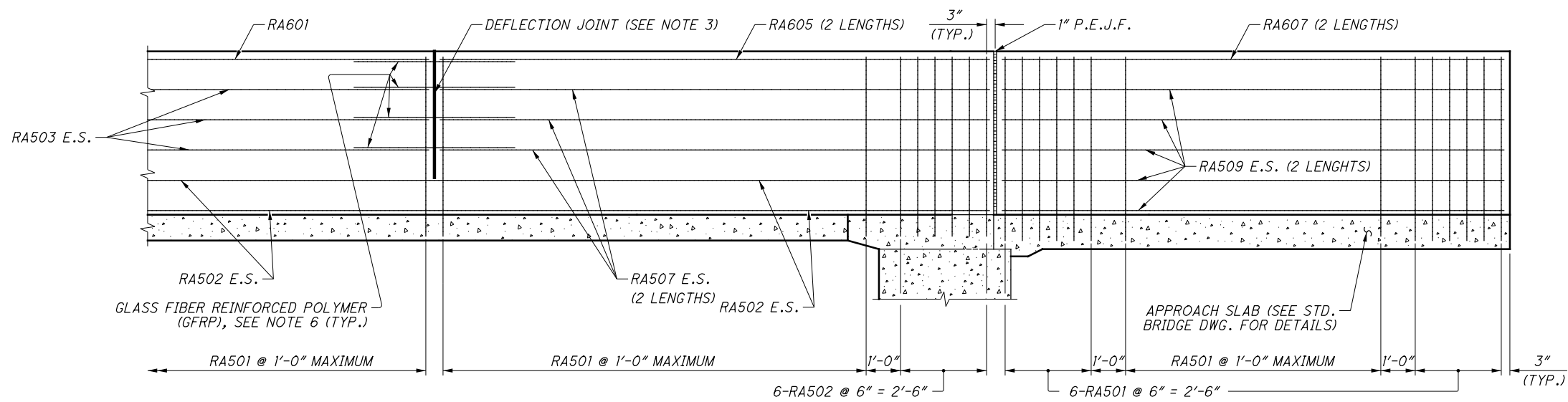


MEDIAN PARAPET ON REAR APPROACH SLAB



MEDIAN PARAPET ON FORWARD APPROACH SLAB

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

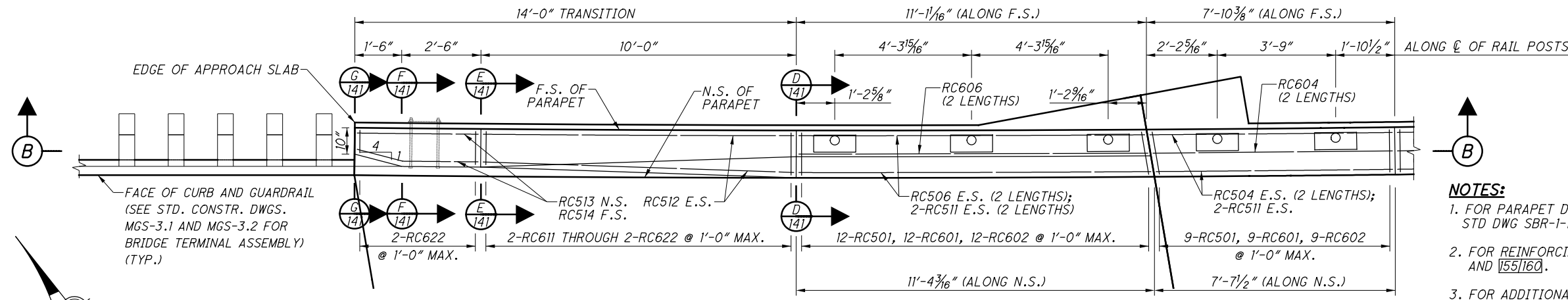


SECTION A-A
(RIGHT FORWARD PARAPET SHOWN, ALL OTHERS SIMILAR)

- 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.

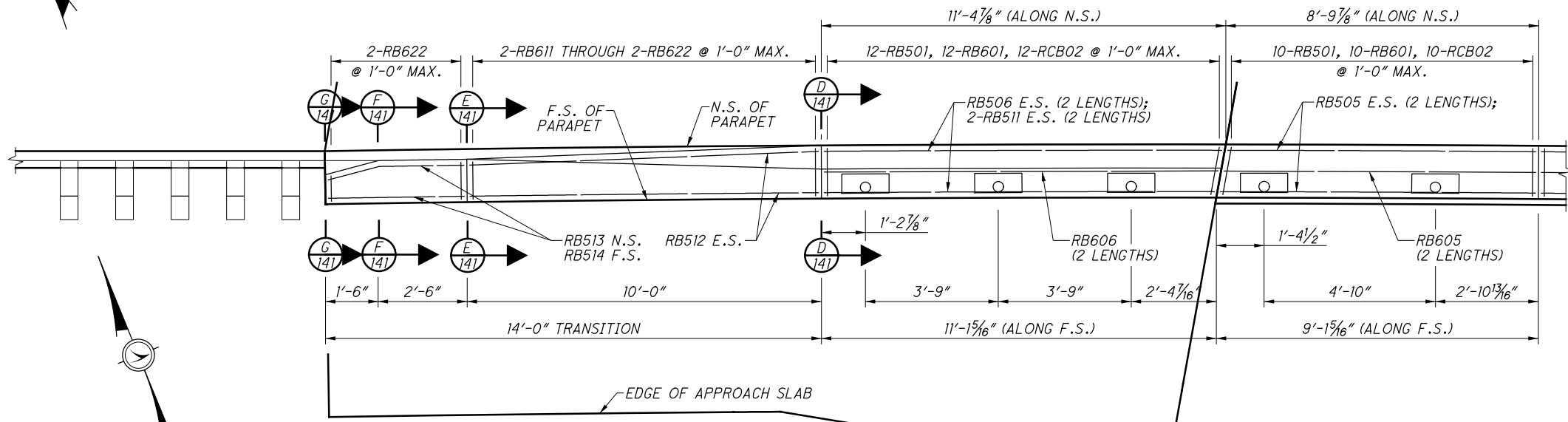
 GannettFleming ENGINEERS & ARCHITECTS, P.C. 2500 CORPORATE EXCHANGE DRIVE - SUITE 230 COLUMBUS, OHIO 43231	DESIGN AGENCY DATE 12/2020	REVIEWED MTO STRUCTURE FILE NUMBER 6002854	DRAWN ECT REVISED MAL	DESIGNED ECT CHECKED TMF
MEDIAN BRIDGE PARAPET TRANSITION PLANS BRIDGE NO. MUS-70-1159 OVER LINDEN AVE., OHCR & CUOH RAILROADS, AND MUSKINGUM RIVER				
MUS-70-10.49 PID No. 93006				
136/160 1582 2231				

SUBMITTAL: Stage 3
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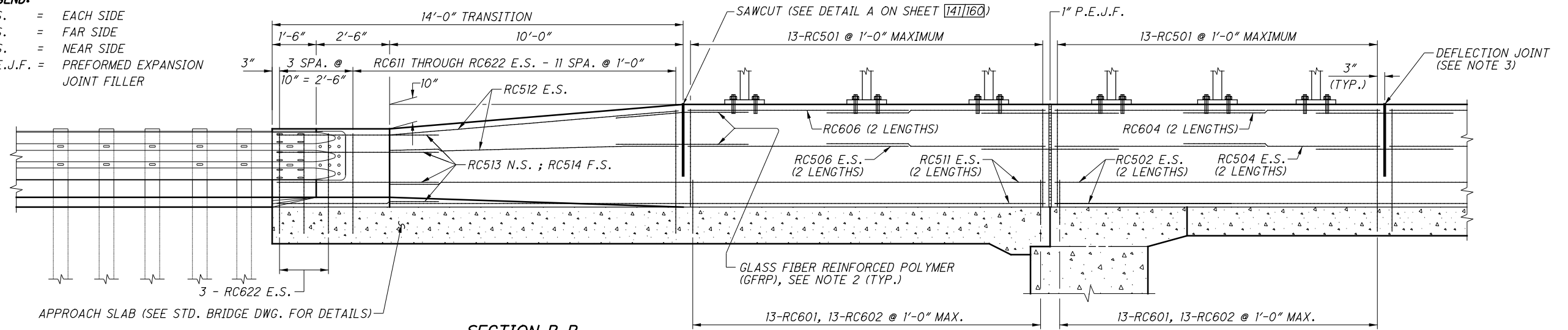
LEFT OUTSIDE PARAPET ON REAR APPROACH SLAB

- NOTES:**
1. FOR PARAPET DETAILS AND NOTES NOT SHOWN, SEE STD DWG SBR-1-13.
 2. FOR REINFORCING STEEL LIST, SEE SHEETS 1541160 AND 1551160.
 3. FOR ADDITIONAL DETAILS, NOTES, AND SECTIONS D-D, E-E, F-F, AND G-G, SEE SHEET 1411160.
 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)

 Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2500 CORPORATE EXCHANGE DRIVE, SUITE 230 COLUMBUS, OHIO 43231	DESIGN AGENCY Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2500 CORPORATE EXCHANGE DRIVE, SUITE 230 COLUMBUS, OHIO 43231	DATE 12/2/2020	STRUCTURE FILE NUMBER 6002954
DESIGNED ECT	DRAWN ECT	REVIEWED MTO	DATE 12/2/2020
CHECKED TMF	REVISED MAL	STRUCTURE FILE NUMBER 6002954	DATE 12/2/2020

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

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

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

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

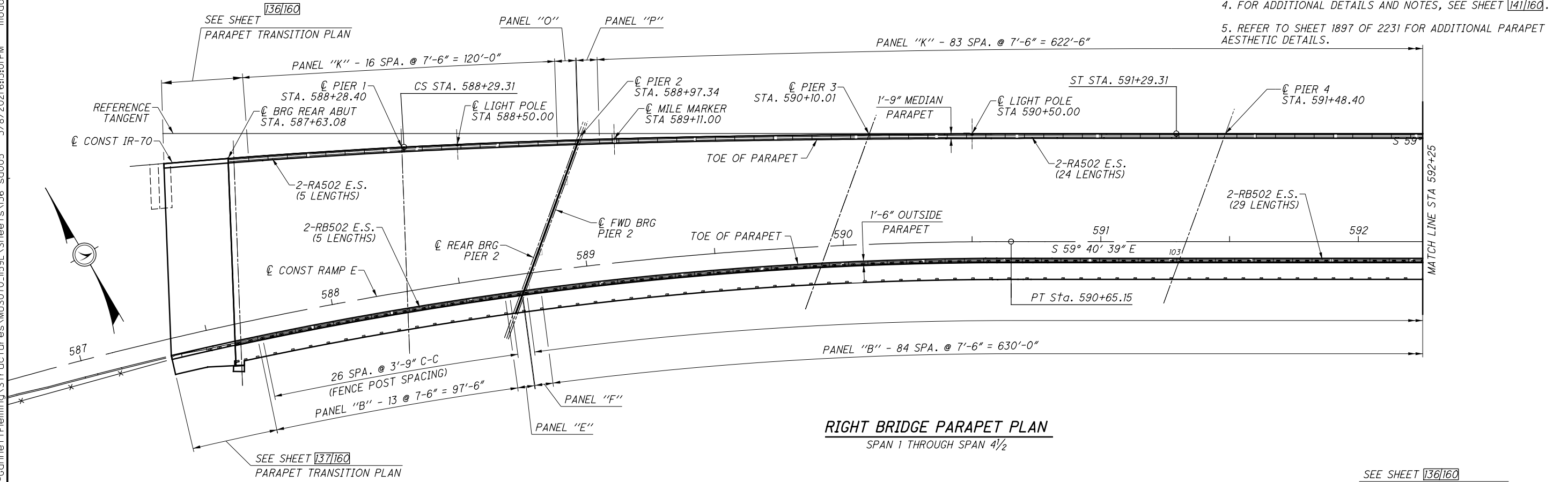
RIGHT BRIDGE PARAPET PLAN VPF POST SPACINGS

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

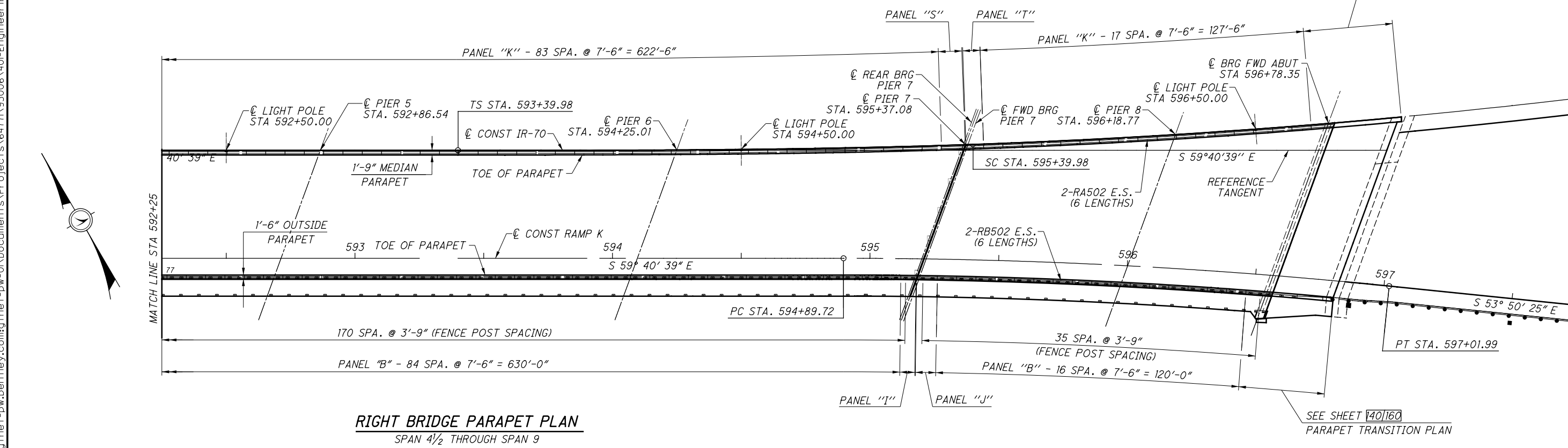
MUS-70-10.49
 PID No. 93006

138/160

1584
2231

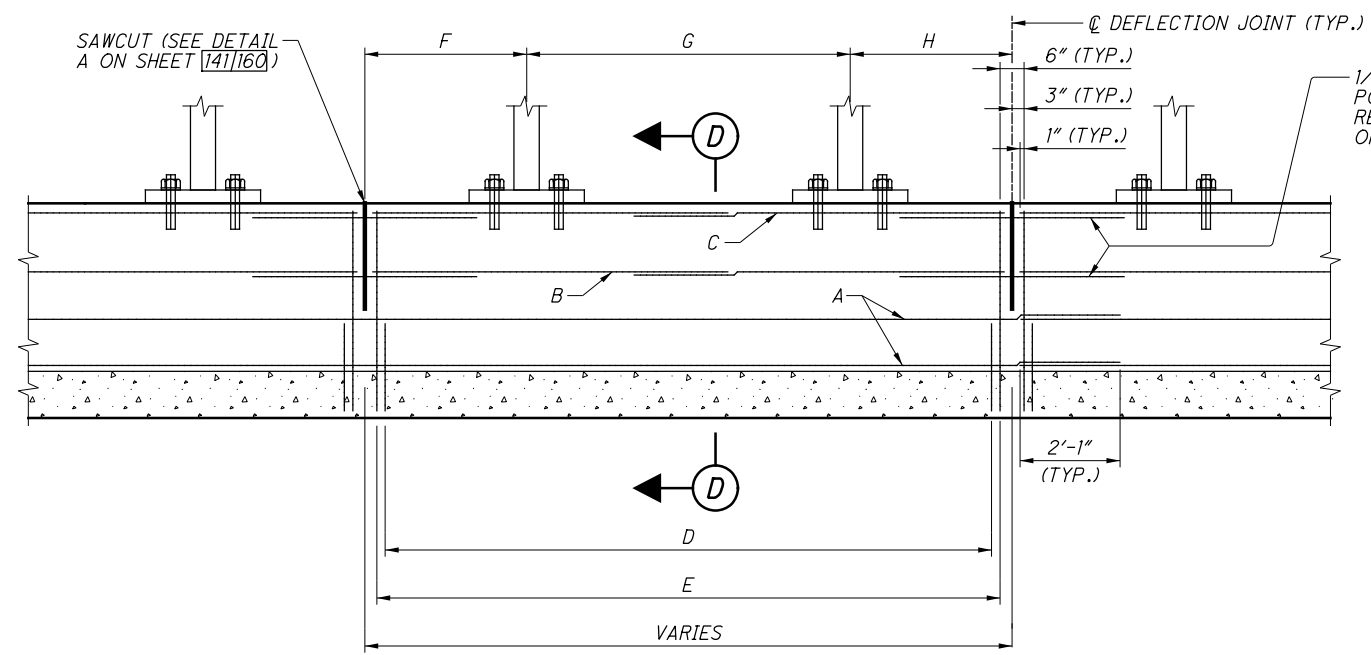


RIGHT BRIDGE PARAPET PLAN
 SPAN 1 THROUGH SPAN 4 1/2



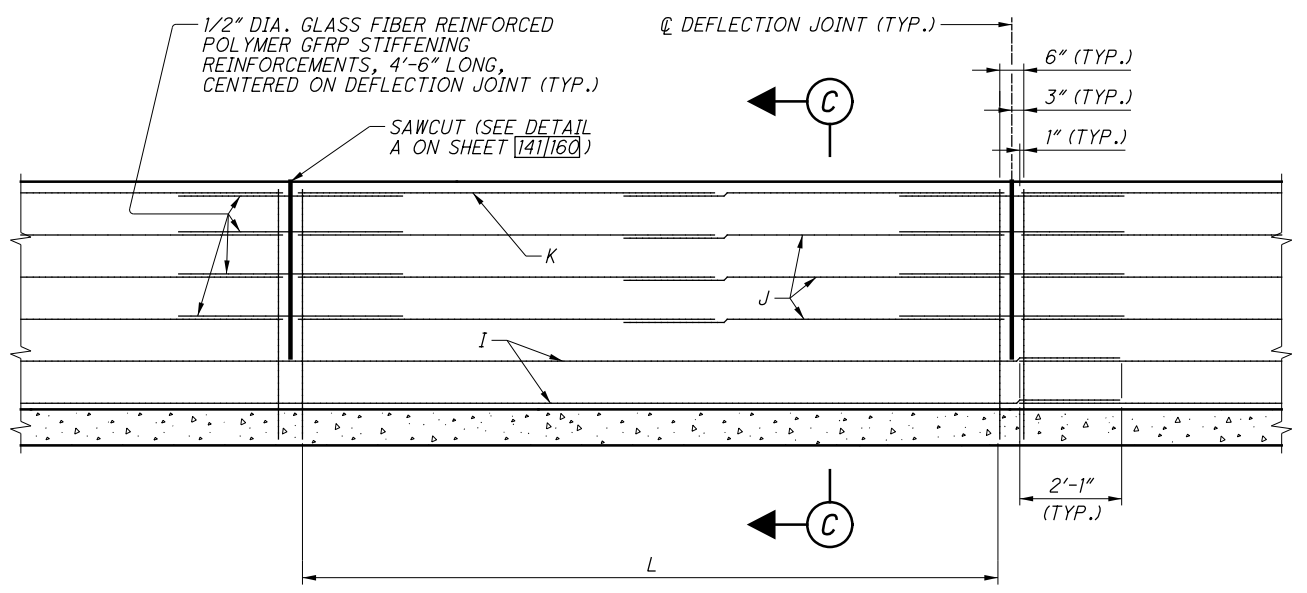
RIGHT BRIDGE PARAPET PLAN
 SPAN 4 1/2 THROUGH SPAN 9

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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'-10 1/2"	3'-9"	1'-10 1/2"
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'-10 1/2"	3'-9"	1'-10 1/2"
PANEL "C"	7'-6"	7'-11 1/8"	RC502 E.S.	RC504 E.S.	RC604	9-RC601, RC602 @ 1'-0" MAX.	9-RC501 @ 1'-0" MAX.	1'-10 1/2"	3'-9"	2'-3 1/16"
PANEL "D"	8'-7 3/16"	8'-2 1/2"	RC502 E.S.	RC505 E.S.	RC605	10-RC601, RC602 @ 1'-0" MAX.	10-RC501 @ 1'-0" MAX.	-	-	-
PANEL "E"	7'-6"	6'-8 1/2"	RB502 E.S.	RB504 E.S.	RB604	8-RB601, RB602 @ 1'-0" MAX.	8-RB501 @ 1'-0" MAX.	1'-10 1/2"	3'-7 7/16"	1'-2 9/16"
PANEL "F"	6'-5 9/16"	7'-2 7/8"	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'-10 1/2"
PANEL "G"	8'-7 1/16"	9'-2 1/4"	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'-3 7/8"	3'-9"	1'-10 1/2"
PANEL "I"	6'-5 3/4"	5'-11 3/8"	RB502 E.S.	RB504 E.S.	RB604	7-RB601, RB602 @ 1'-0" MAX.	7-RB501 @ 1'-0" MAX.	1'-10 1/2"	2'-10"	1'-2 5/16"
PANEL "J"	7'-6"	8'-0 1/4"	RB502 E.S.	RB505 E.S.	RB605	9-RB601, RB602 @ 1'-0" MAX.	9-RB501 @ 1'-0" MAX.	2'-4 3/16"	3'-9"	1'-10 1/2"



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 1/16"	6'-0 1/2"	RA502 E.S.	RA505 E.S.*	RA603*	8-RA501 @ 1'-0" MAX.
PANEL "N"	5'-8 7/16"	6'-3 1/16"	RA502 E.S.	RA505 E.S.*	RA603*	7-RA501 @ 1'-0" MAX.
PANEL "O"	7'-6"	8'-1 1/4"	RA502 E.S.	RA506 E.S.*	RA604*	9-RA501 @ 1'-0" MAX.
PANEL "P"	8'-7 3/16"	8'-0 1/16"	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'-7 3/4"	11'-3 1/8"	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'-10 5/8"	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

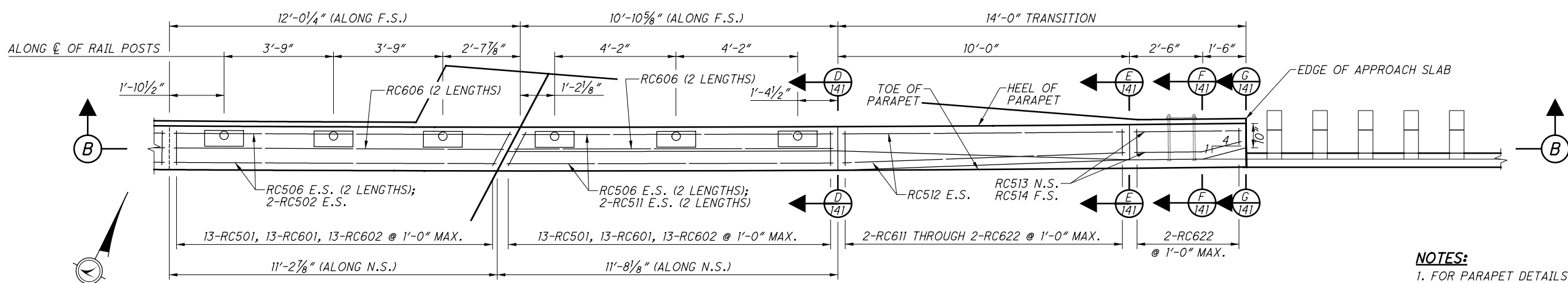
DATE 12/2020
REVIEWED MTO
STRUCTURE FILE NUMBER 6002854
DESIGNED ECT
CHECKED TMF
DRAWN ECT
REVISED MAL

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

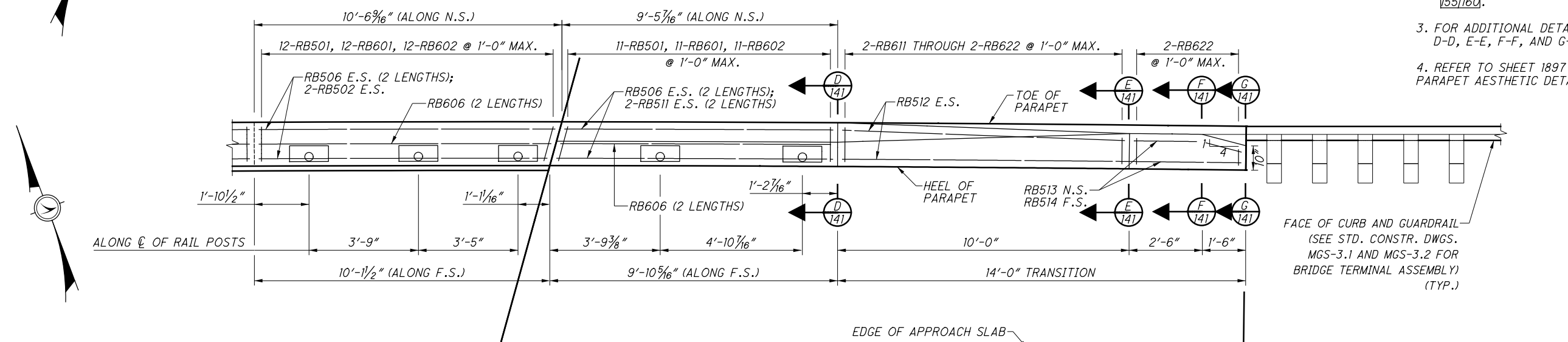
MUS-70-10-49
PID No. 93006

139/160
 1585
 2231

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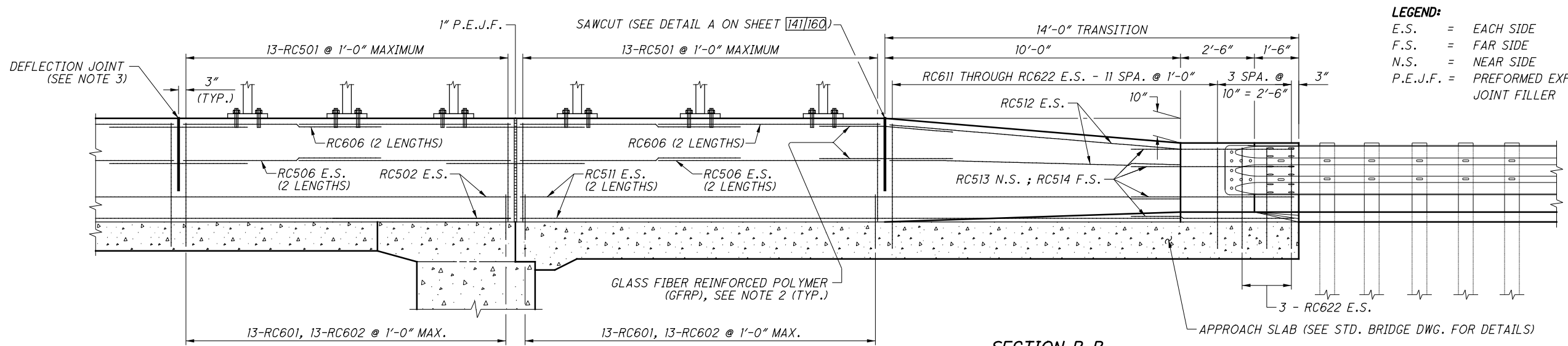


LEFT OUTSIDE PARAPET ON FORWARD APPROACH SLAB



RIGHT 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 1541160.
 - 3. FOR ADDITIONAL DETAILS, NOTES, AND SECTIONS D-D, E-E, F-F, AND G-G, SEE SHEET 1411160.
 - 4. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.



SECTION B-B
(LEFT SIDE SHOWN, RIGHT SIDE SIMILAR)

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

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

REVIEWED	DATE
MTD	12/2020

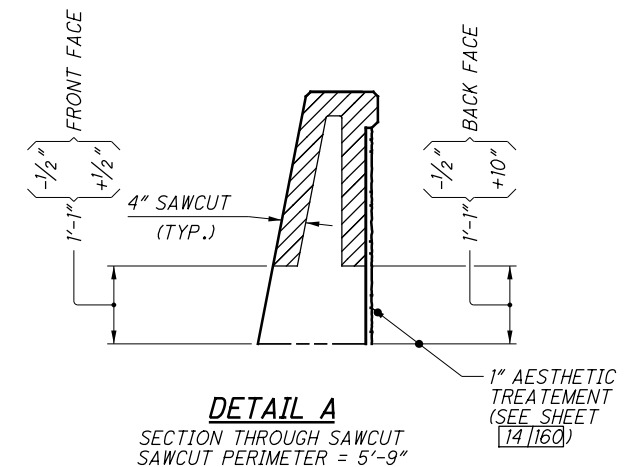
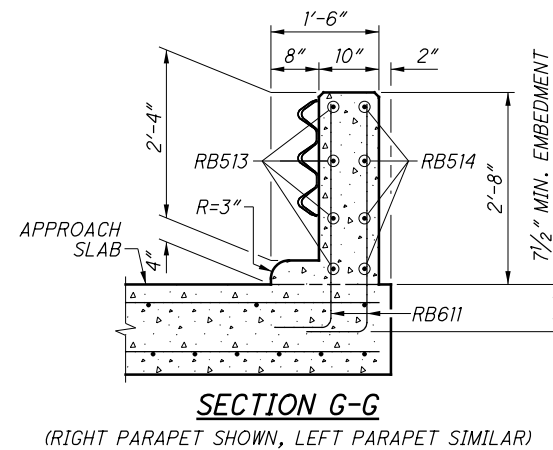
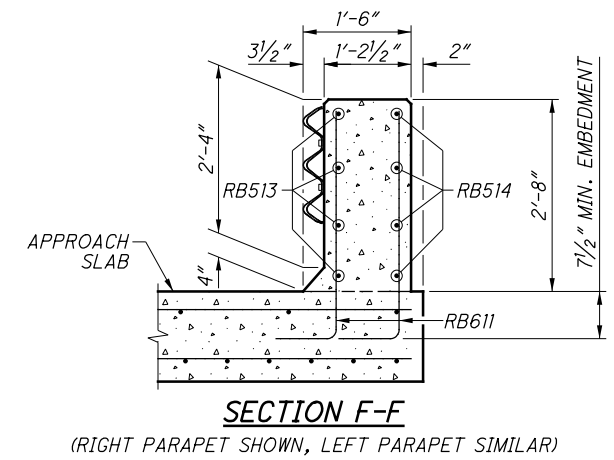
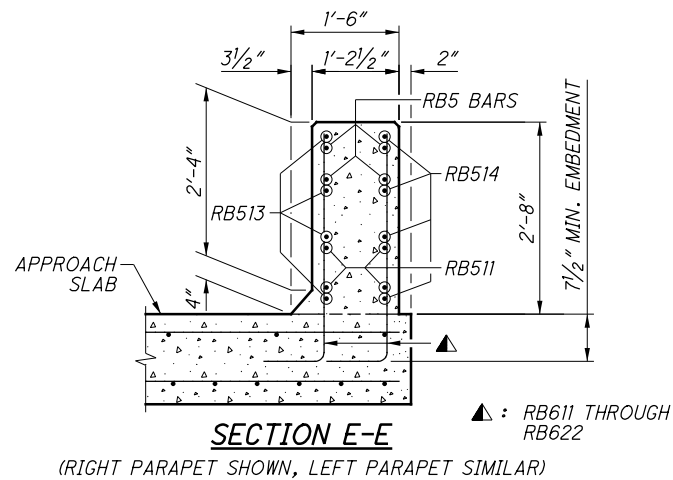
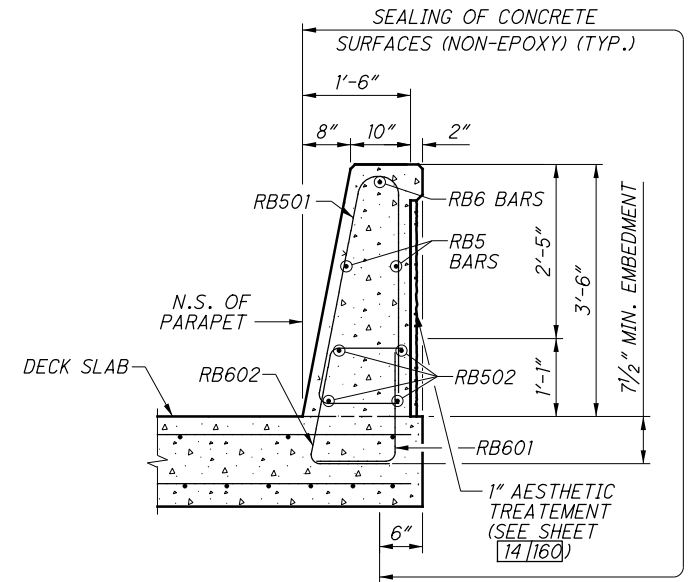
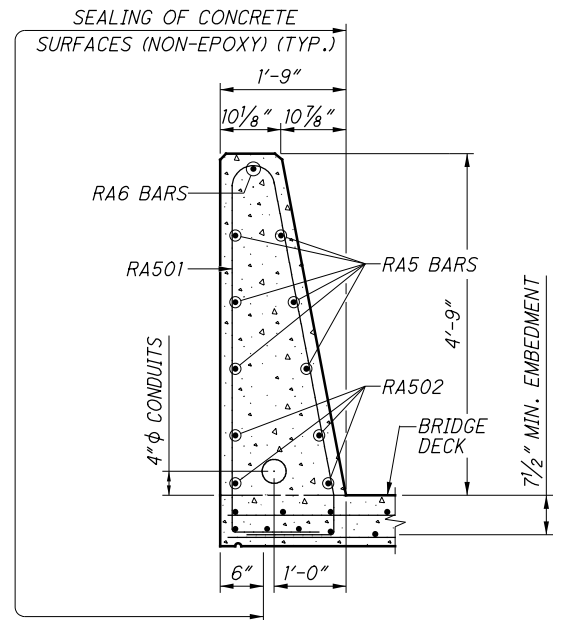
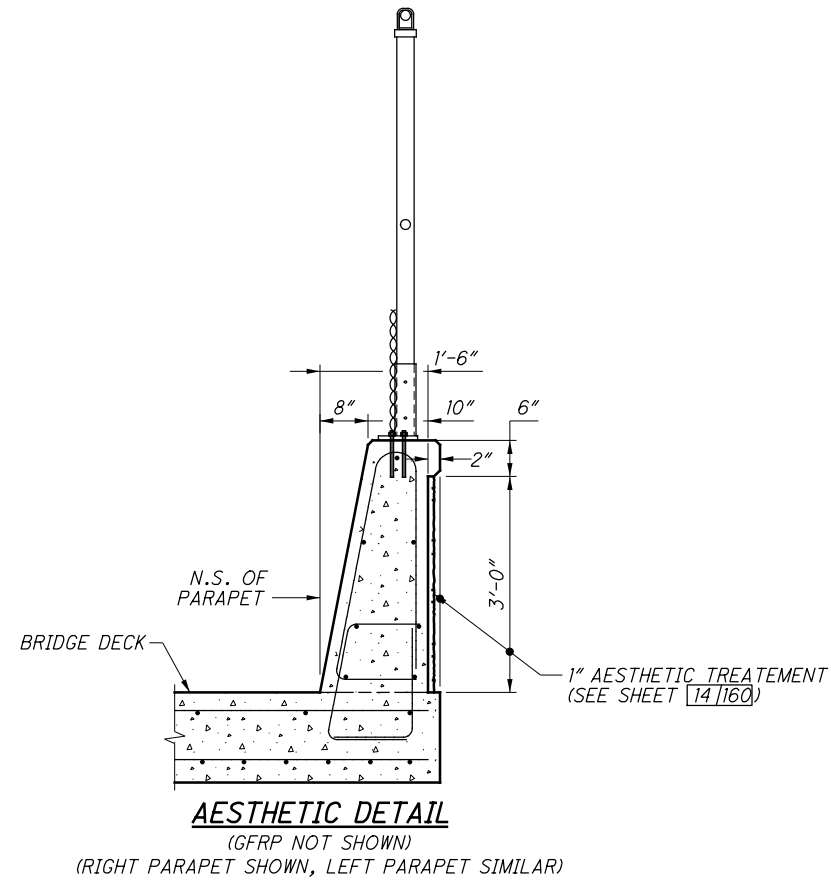
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DESIGNED	ECT	CHECKED	TMF

STRUCTURE FILE NUMBER
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



NOTES:

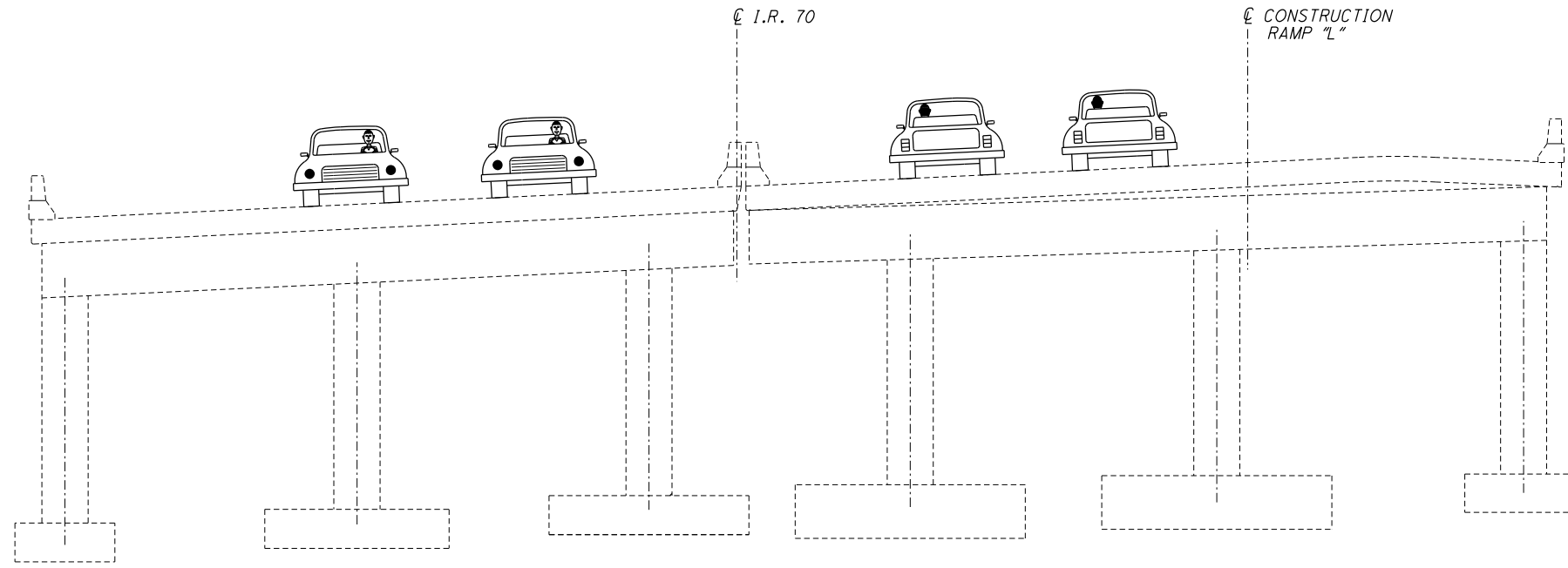
1. FOR REINFORCING STEEL LIST, SEE SHEET 14/1160 & 155/160.
2. RAIL POSTS ARE ABSENT BETWEEN PIERS 2 AND 7 ON THE LEFT EXTERIOR RAIL
3. PAYMENT FOR 1/2" DIA. GLASS FIBER REINFORCED POLYMER (GFRP) STIFFENING REINFORCEMENT SHALL BE INCLUDED WITH CONTRACT PRICE FOR ITEM 509 - EPOXY COATED REINFORCING STEEL.
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.

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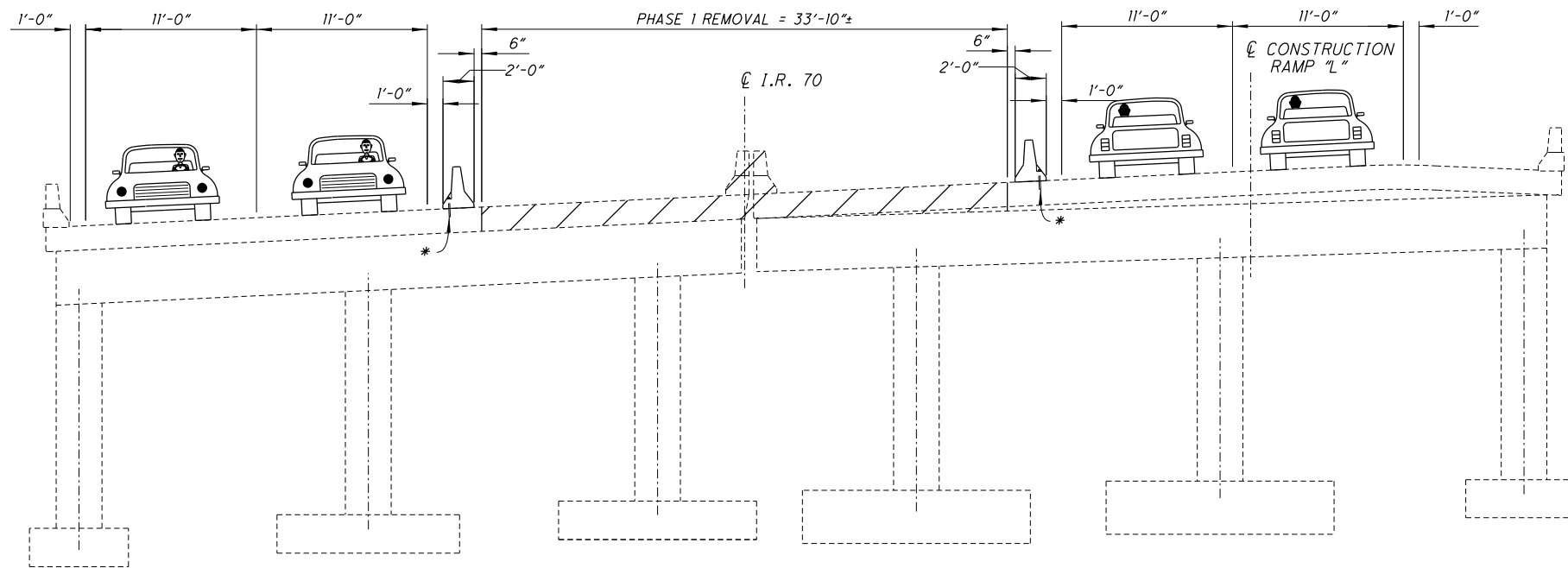
SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
PHASE 1	PHASE 2	PHASE 3	02/IMS/B R	ITEM	EXT	TOTAL										
															PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUPERSTRUCTURE)	3
															PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (SUBSTRUCTURE)	3
															APPROACH SLAB REMOVED, AS PER PLAN	3
															COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	3
															UNCLASSIFIED EXCAVATION, AS PER PLAN	3
															PILE DRIVING EQUIPMENT MOBILIZATION	
															12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	3
															12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	3
															EPOXY COATED REINFORCING STEEL	
															REINFORCING STEEL, MISC.: GALVANIZED	3
															DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
															CLASS OC2 CONCRETE WITH OC/QA, SUPERSTRUCTURE, AS PER PLAN	3
															CLASS OC SCC CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN	64-66
															CLASS OC1 CONCRETE WITH OC/QA, PIER ABOVE FOOTINGS	
															CLASS OC1 CONCRETE WITH OC/QA, ABUTMENT INCLUDING FOOTING	
															CLASS OC1 CONCRETE WITH OC/QA, FOOTING	
															CLASS OC2 CONCRETE, MISC.: MEDIAN BARRIER	62
															SEALING OF CONCRETE SURFACES (NON-EPOXY)	
															SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
															1/2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
															1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
															2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	3
															SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
															STRUCTURAL JOINT OR JOINT SEALER, MISC.: EMSEAL WITH SLEEPER SLAB	81
															2" DEEP JOINT SEALER, AS PER PLAN	4
															ELASTOMERIC BEARING PAD, MISC.: (34'-9" x 8" x 1-1/2")	3
															ELASTOMERIC BEARING PAD, MISC.: (34'-6" x 8" x 1-1/2")	3
															ELASTOMERIC BEARING PAD, MISC.: (47'-10" x 8" x 1-1/2")	3
															ELASTOMERIC BEARING PAD, MISC.: (41'-9" x 8" x 1-1/2")	3
															ELASTOMERIC BEARING PAD, MISC.: (29'-6" x 8" x 1-1/2")	3
															ELASTOMERIC BEARING PAD, MISC.: (29'-4" x 8" x 1-1/2")	3
															SCUPPERS, INCLUDING SUPPORTS	
															POROUS BACKFILL WITH GEOTEXTILE FABRIC	
															6" PERFORATED CORRUGATED PLASTIC PIPE	
															6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
															COMPOSITE FIBER WRAP SYSTEM	4
															DYNAMIC LOAD TESTING	3
															REINFORCED CONCRETE APPROACH SLABS (T=15"), AS PER PLAN	4
															STRUCTURES (PRECONSTRUCTION CONDITION SURVEY)	4
															STRUCTURES (VIBRATION MONITORING)	4
															STRUCTURES (AESTHETIC TREATMENT CONCRETE FORMLINER/STAIN)	4

DESIGN AGENCY	OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5
DATE	11/23/2020
REVIEWED TAG	6002889
DRAWN TDF	REVIS
DESIGNED TDF	CPS
BRIDGE SUMMARY	
BRIDGE NO. MUS-70-11.86	
OVER N. 5TH STREET	
MUS-70-10.49	
PID No. 93006	
5	81
1611	2231

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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

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

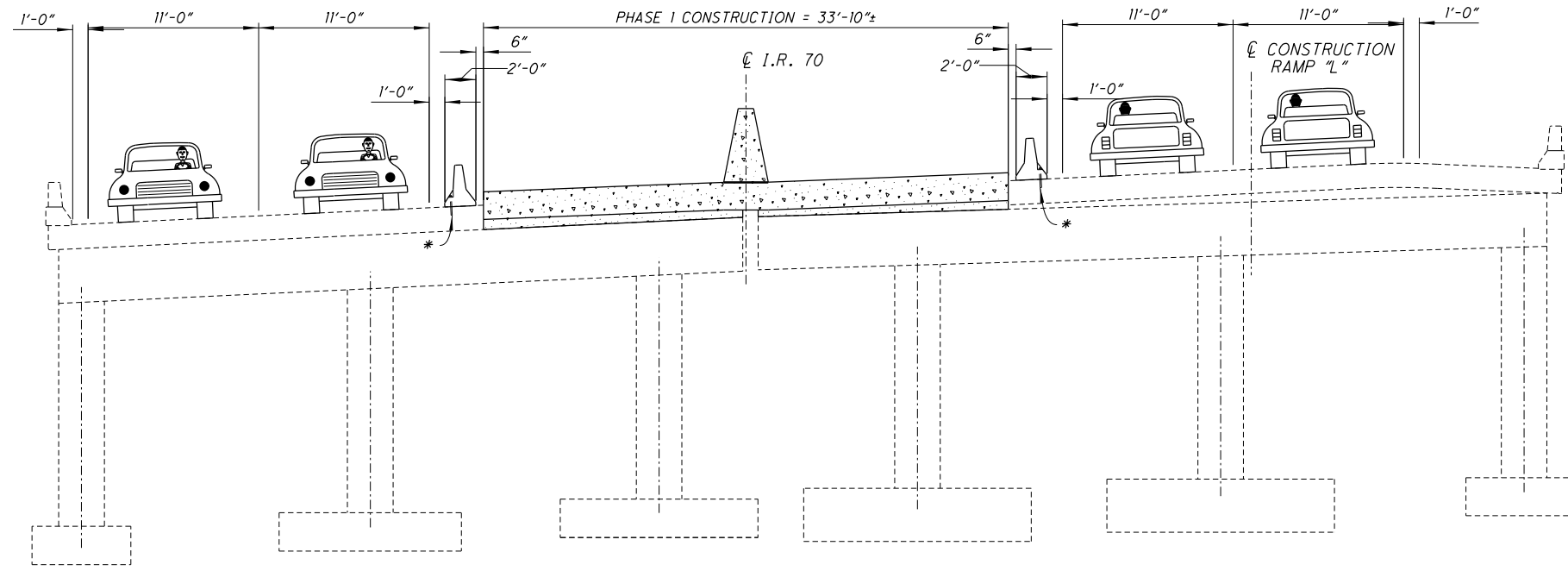
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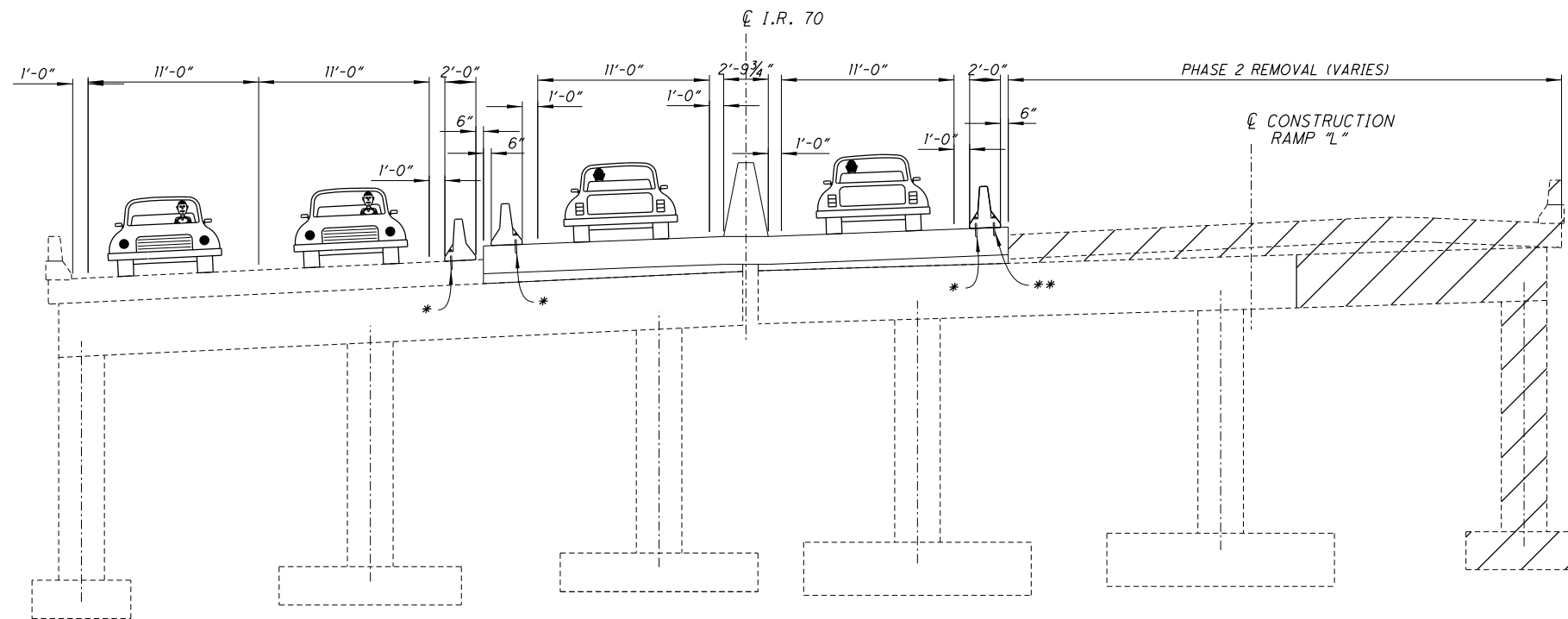
MAINTENANCE OF TRAFFIC
BRIDGE NO. MUS-70-11.86
OVER N. 5TH STREET

MUS-70-10.49
PID No. 93006

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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

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

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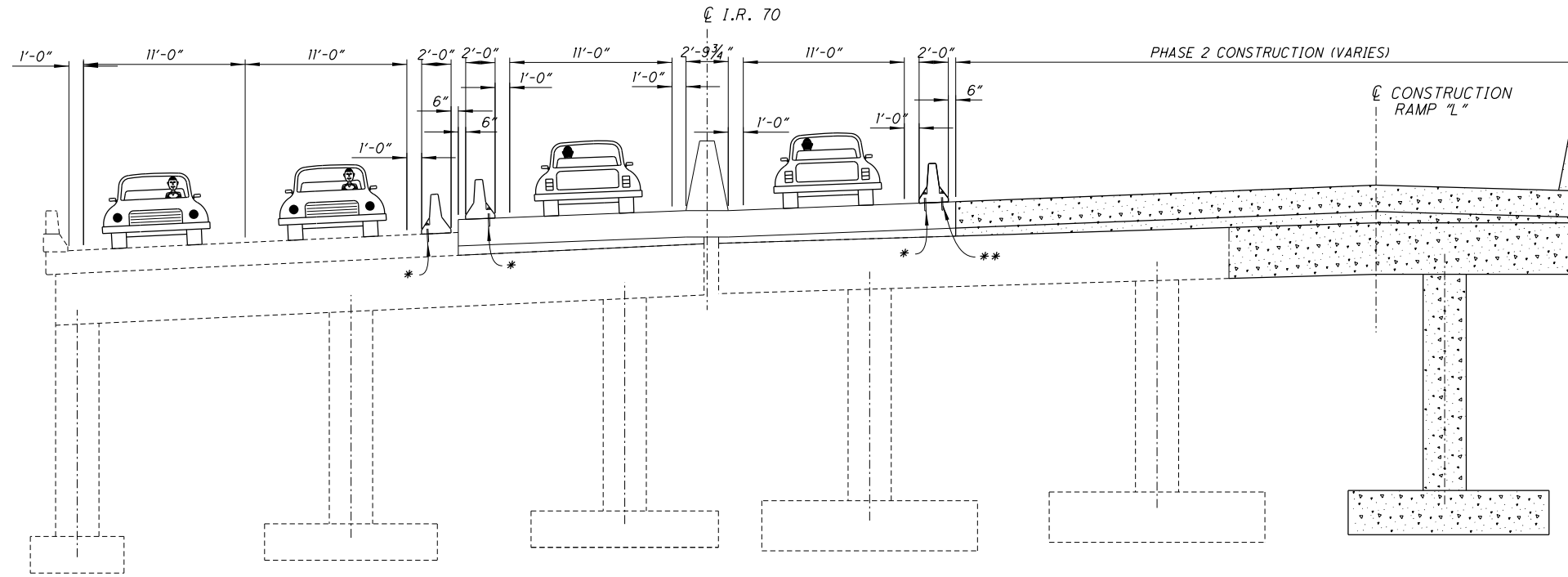
MAINTENANCE OF TRAFFIC
BRIDGE NO. MUS-70-11.86
OVER N. 5TH STREET

MUS-70-10.49
PID No. 93006

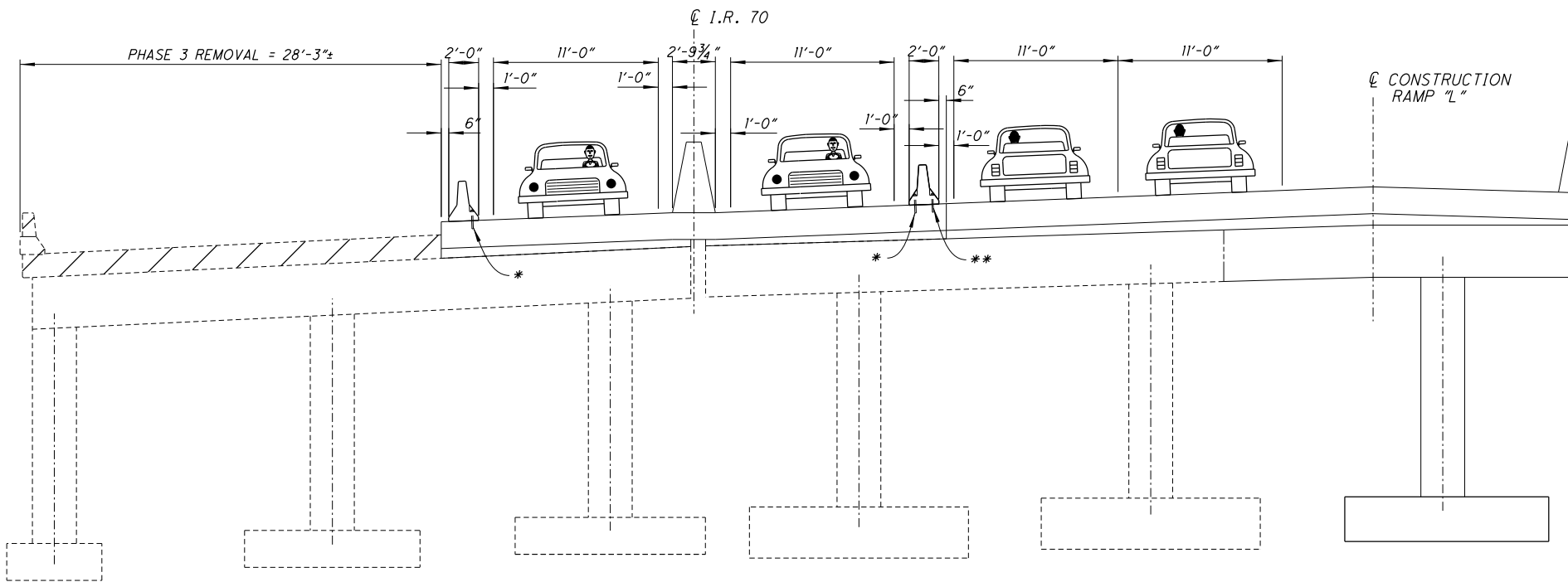
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PHASE 2 REPLACEMENT



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

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION, DISTRICT 5

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

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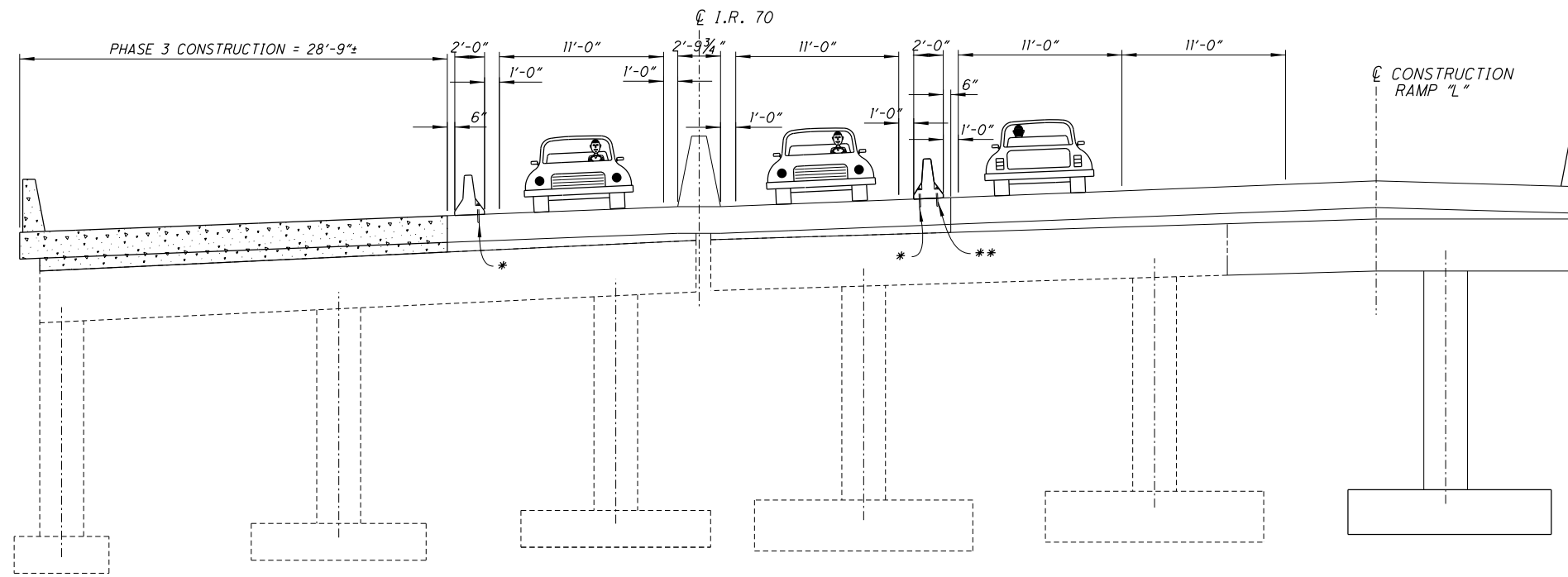
MAINTENANCE OF TRAFFIC
BRIDGE NO. MUS-70-11.86
OVER N. 5TH STREET

MUS-70-10.49
PID No. 93006

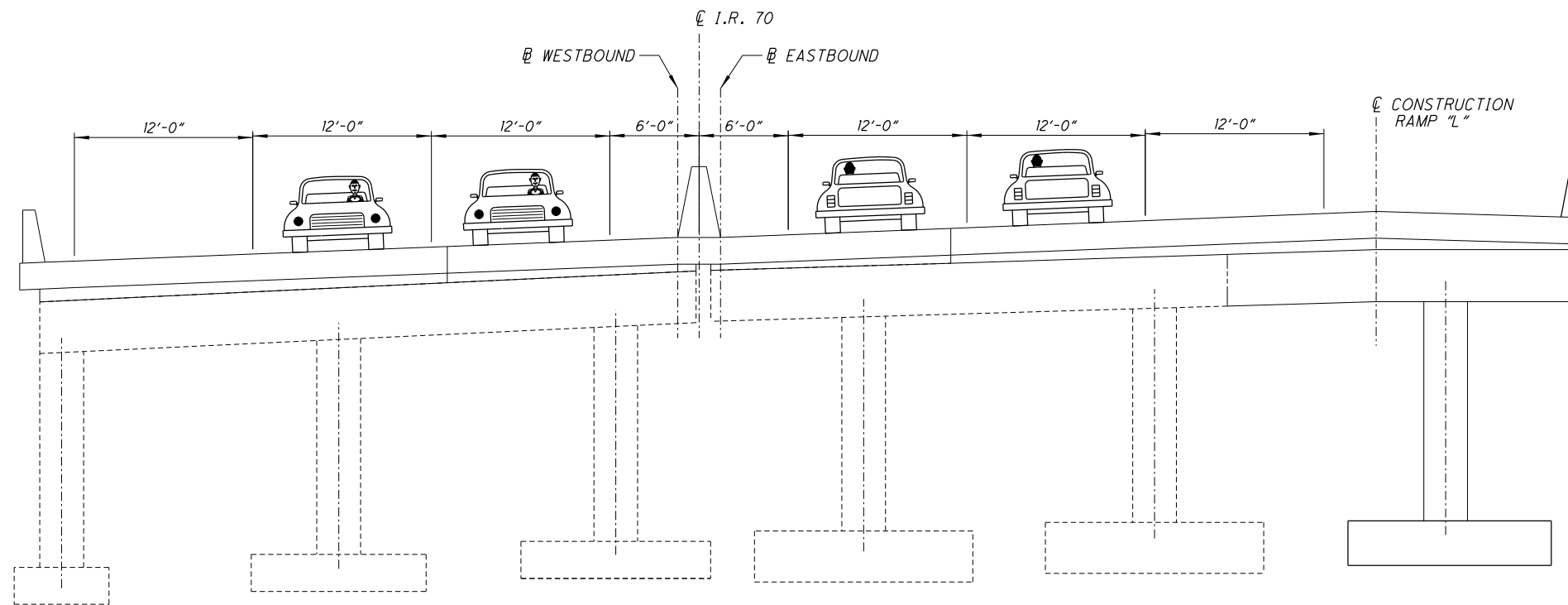
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2231

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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

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

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DESIGNED TAG
TAG
CHECKED
CPS

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

MUS-70-10.49
PID No. 93006

9 / 81

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2231

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MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				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 TO 26'-3"	24'-1"	551	3	2'-2"	TO 9'-7"					0'-1.3"
P2R504	1 SERIES OF 11 TO 25'-5"	26'-3"	296	3	2'-2"	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 TO 25'-1"	22'-5"	619	3	2'-2"	8'-9"					0'-1.3"
P2F503	1 SERIES OF 11 TO 24'-3"	25'-1"	283	3	2'-2"	TO 9'-8"					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	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				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 TO 32'-9"	26'-8"	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 TO 19'-7"	5'-6"	39	STR.							7'-0.5"
P2S601	1 SERIES OF 99 TO 32'-9"	26'-8"	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 TO 27'-0"	14'-10"	112	STR.							12'-2"
P2S804	1 SERIES OF 5 TO 46'-2"	9'-0"	368	STR.							9'-3.5"
P2S805	1 SERIES OF 5 TO 35'-9"	6'-5"	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 TO 30'-1"	8'-10"	198	STR.							10'-7.5"
P2S903	1 SERIES OF 4 TO 34'-0"	9'-9"	298	STR.							8'-1"
DECK SUB-TOTAL			68923								

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MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				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								

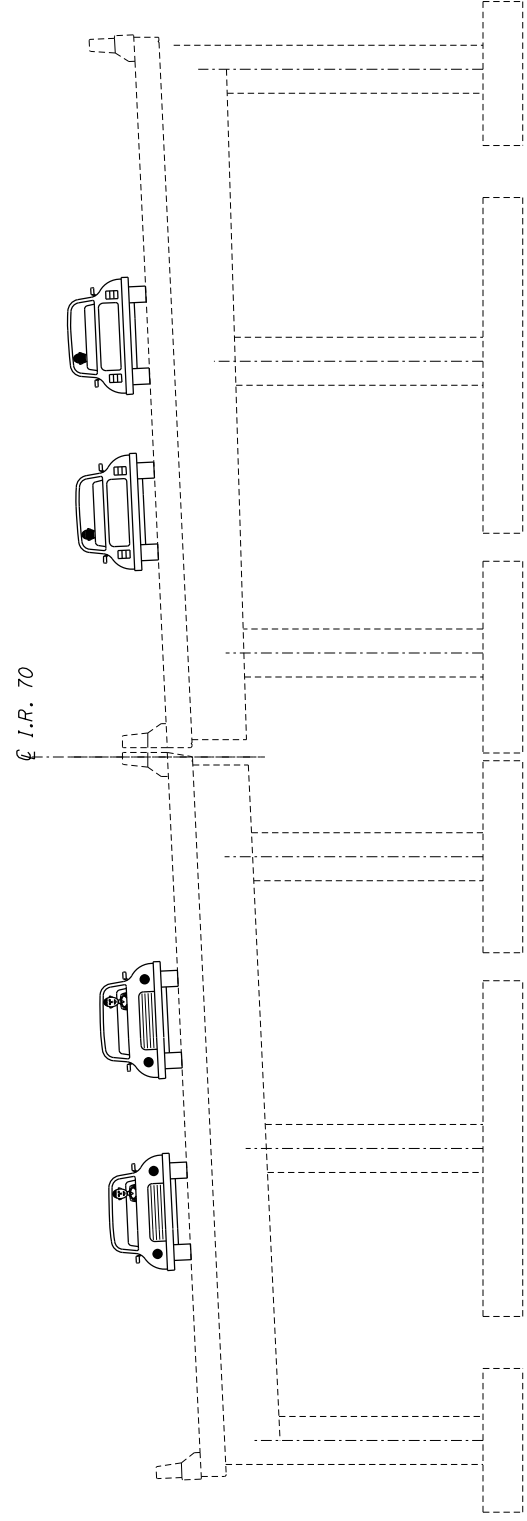
MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
PIERS											
P3P501	58	2'-7"	156	16	2'-0"						
P3P502	38	7'-0"	277	6	2'-8"	1'-5"	1'-0"				
P3P801	8	27'-9"	593	STR.							
PIERS SUB-TOTAL			1026								
DECK											
P3S401	91	3'-8"	223	2	1'-3"	1'-3.5"	1'-3"				
P3S402	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
 DATE: 11/23/2020
 TAG: 11/23/2020
 STRUCTURE FILE NUMBER: 6002889
 DRAWN: TDF
 CHECKED: CPS
 REVISIONS: .
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
 2231

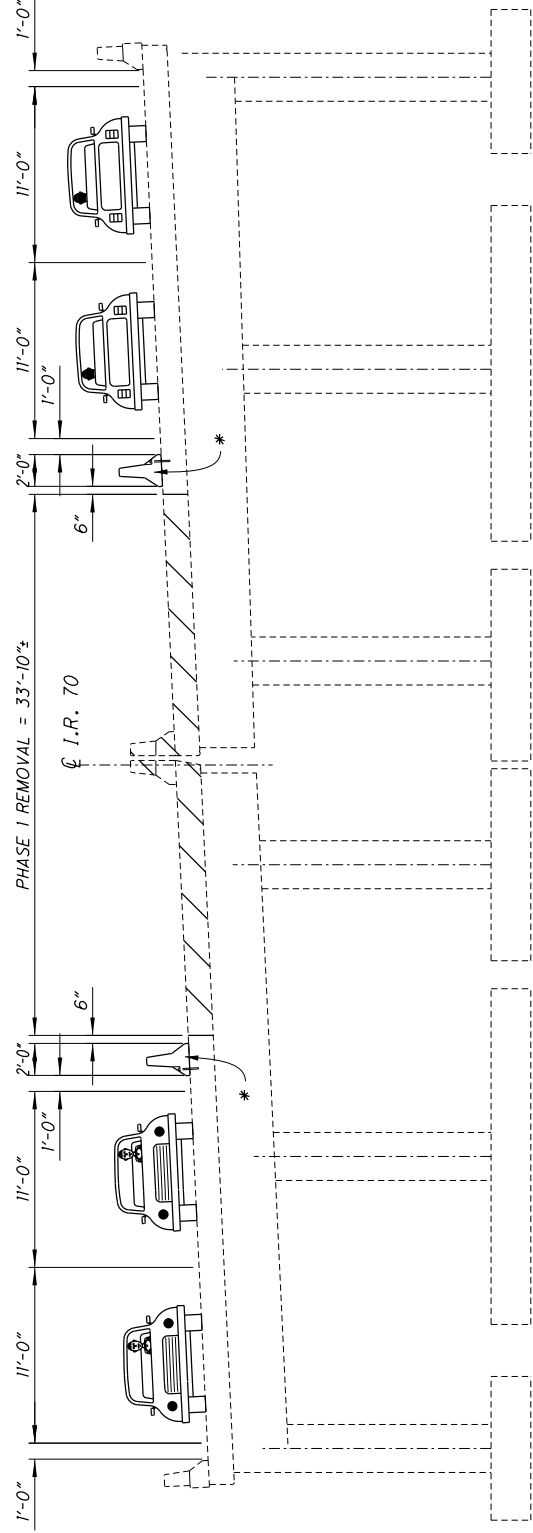
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SHEET NUM.													PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.			
													02/IMS/B R	EXT	TOTAL							
													PHASE 1	PHASE 2	PHASE 3							
													STRUCTURE OVER 20 FOOT SPAN (MUS-70-1192)									
													0.34 LS	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 OC2 CONCRETE WITH OC/OA, SUPERSTRUCTURE, AS PER PLAN	3
													57	29	31	60	511	34461	60	CY	CLASS OC SCC CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN	58-60
													66	74	59	190	511	43512	190	CY	CLASS OC1 CONCRETE WITH OC/OA, ABUTMENT INCLUDING FOOTING	
													66			66	511	53012	66	CY	CLASS OC2 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

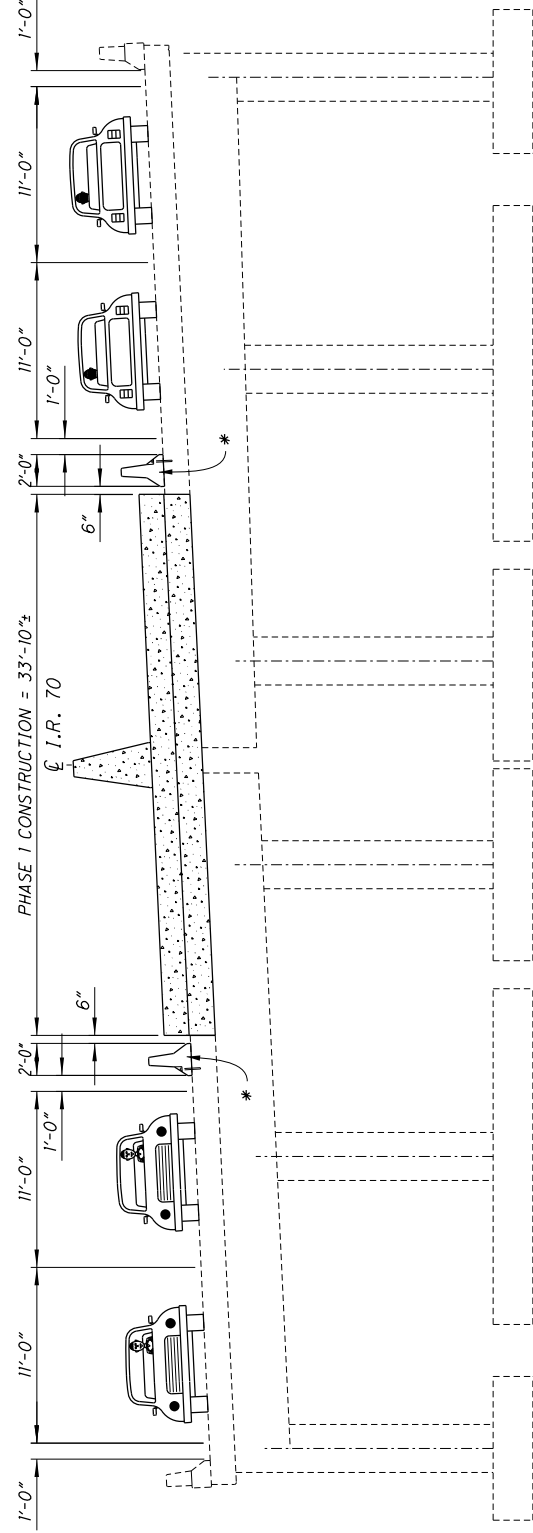
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DATE	11/24/2020
REVIEWED TAG	11/24/2020
STRUCTURE FILE NUMBER	6002919
DRAWN	TDF
REVISIONS	REVISED
DESIGNED	TDF
CHECKED	CPS
BRIDGE SUMMARY	
BRIDGE NO. MUS-70-11.92	
OVER N. 6TH STREET	
MUS-70-10.49	
PID No. 93006	
5 / 72	
1692	
2231	



EXISTING TRANSVERSE SECTION



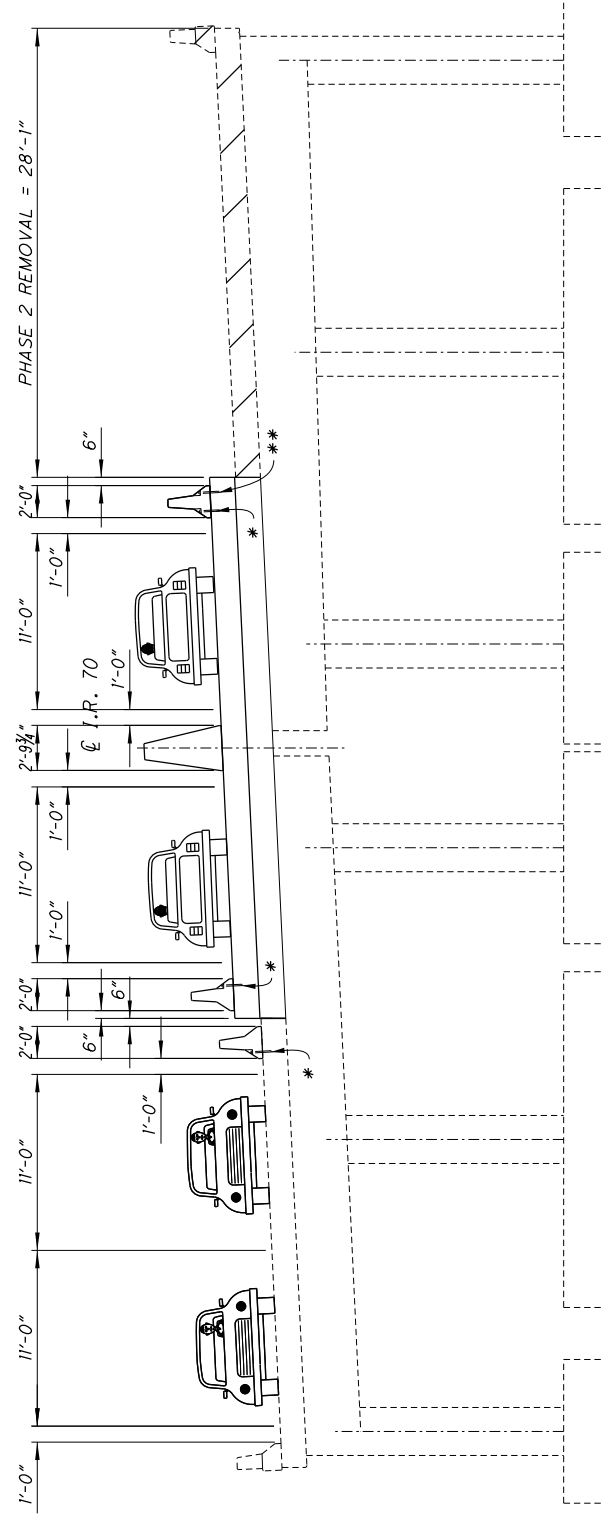
PHASE I REMOVAL



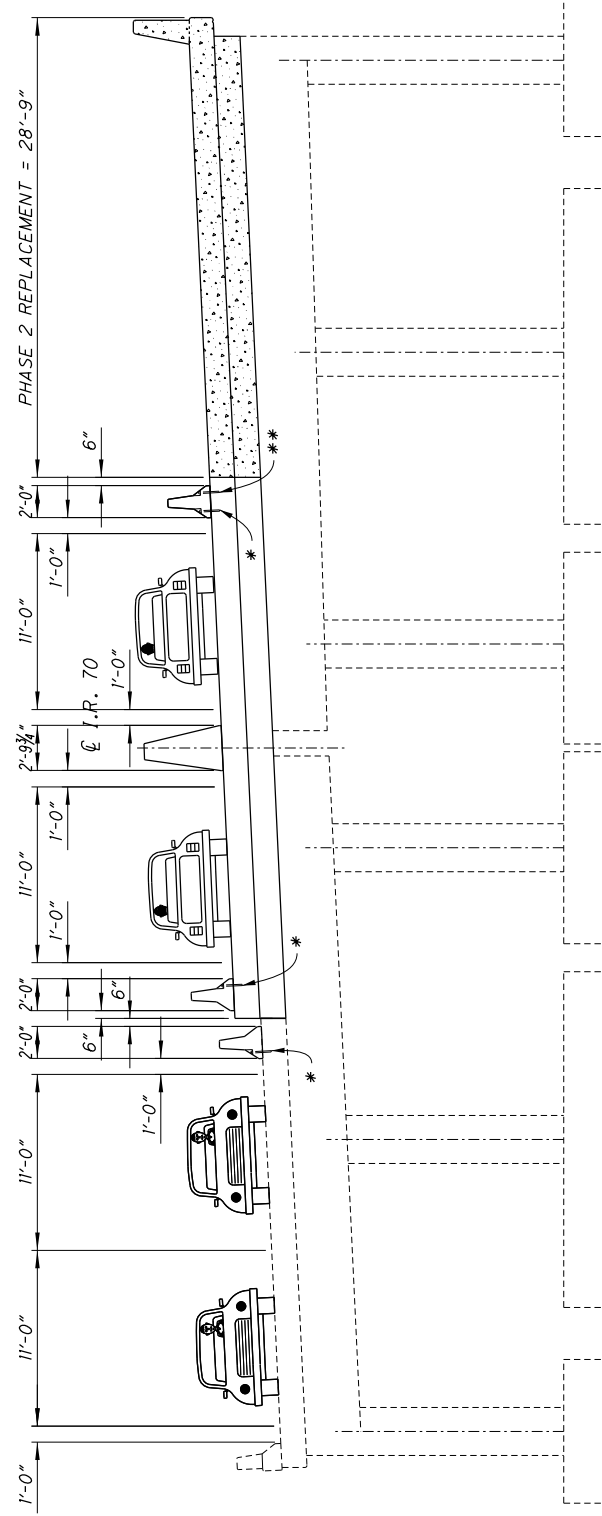
PHASE I REPLACEMENT

* - 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.

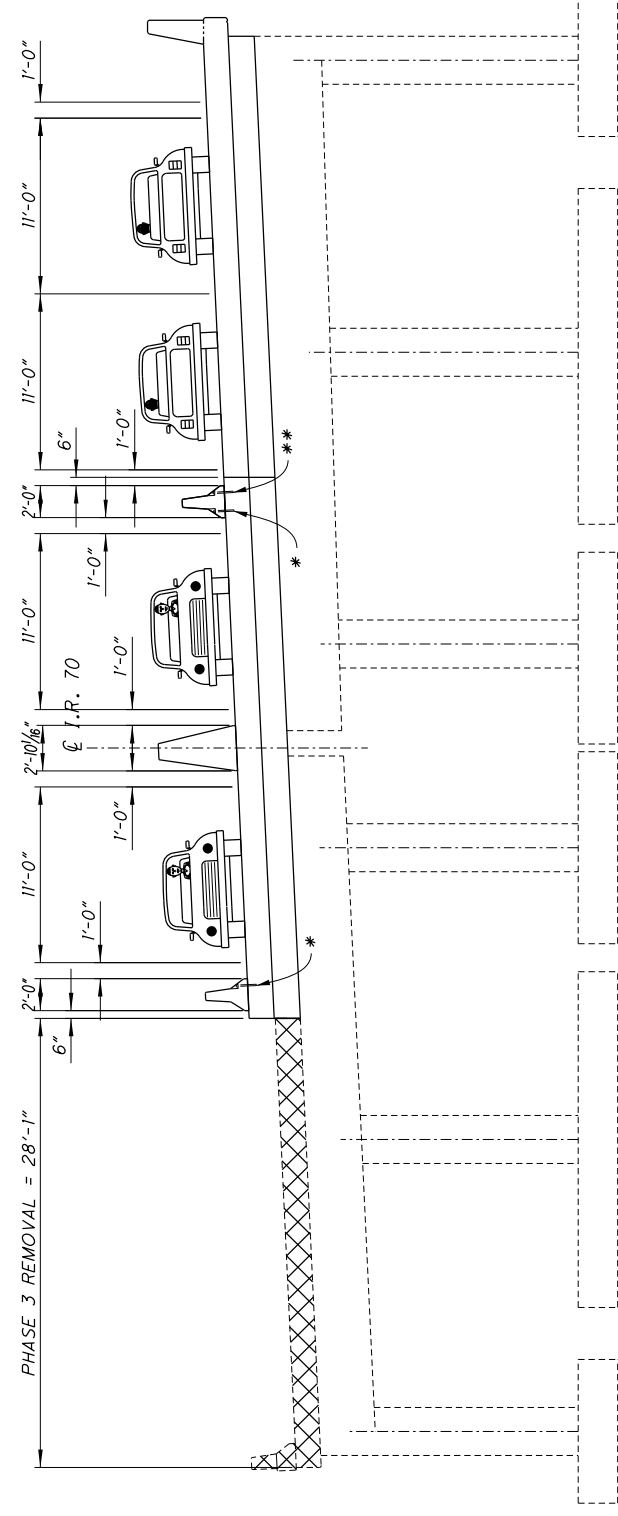


PHASE 2 REMOVAL



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

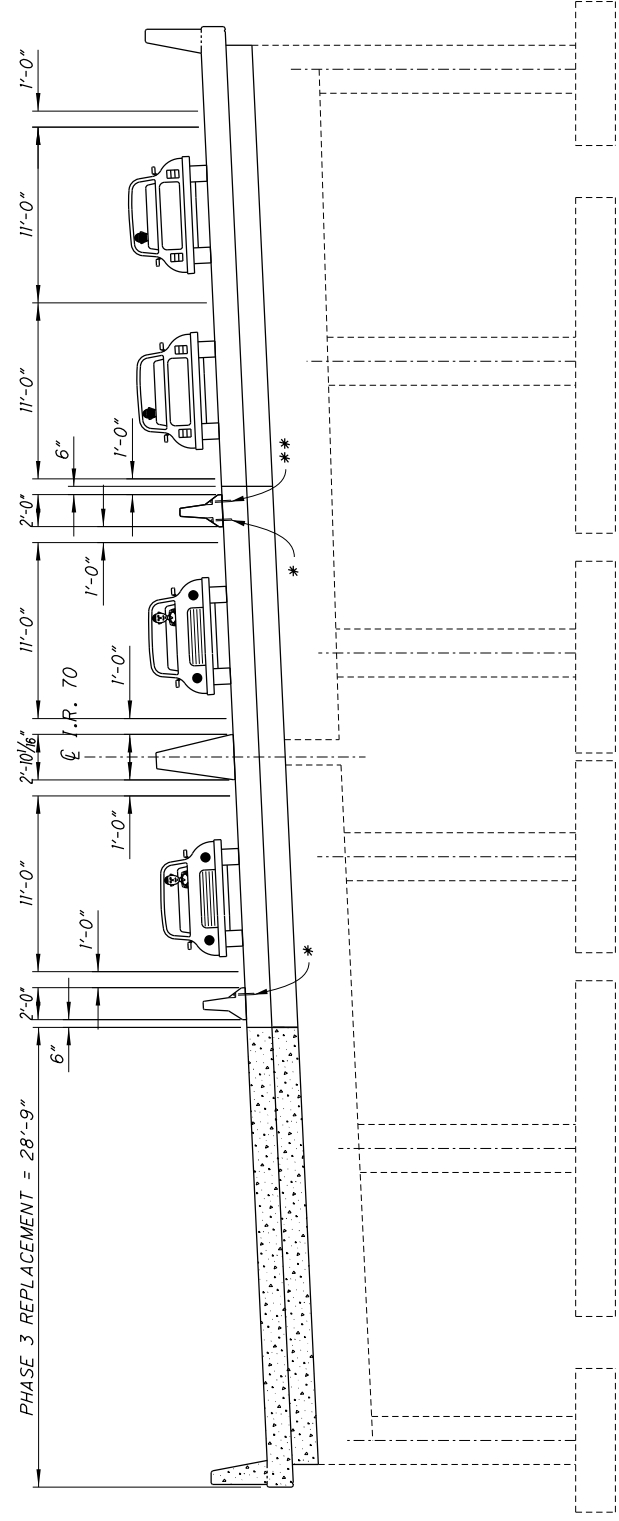


PHASE 3 REMOVAL

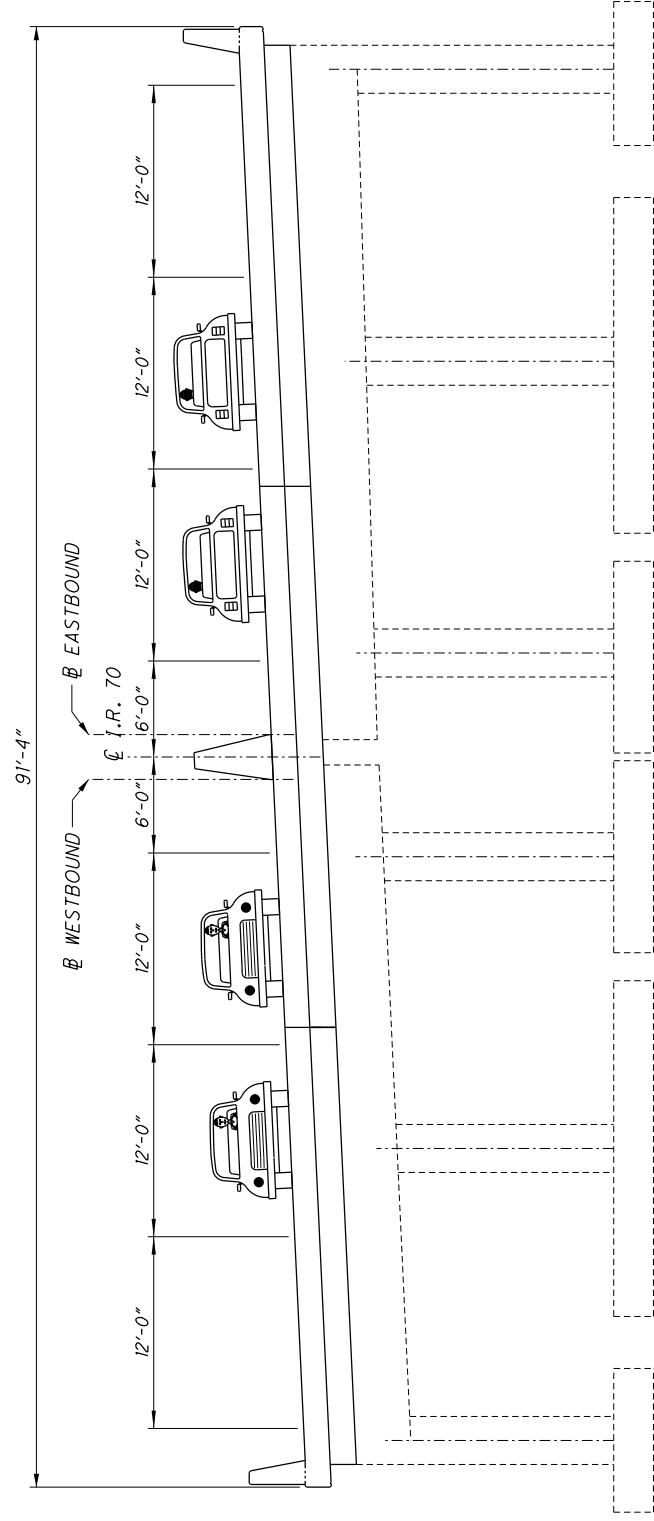
** - A MINIMUM OF 2 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE. 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 I229/2231.

	MUS-70-10.49 PID No. 93006	MAINTENANCE OF TRAFFIC BRIDGE NO. MUS-70-11.92 OVER N. 6TH STREET	DESIGNED TDF CHECKED CPS	DRAIN TDF CHECKED CPS	REVIEWED TAG STRUCTURE FILE NUMBER 6002919	DATE 11/24/2020	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
	7 / 72						



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.

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MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				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	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				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								

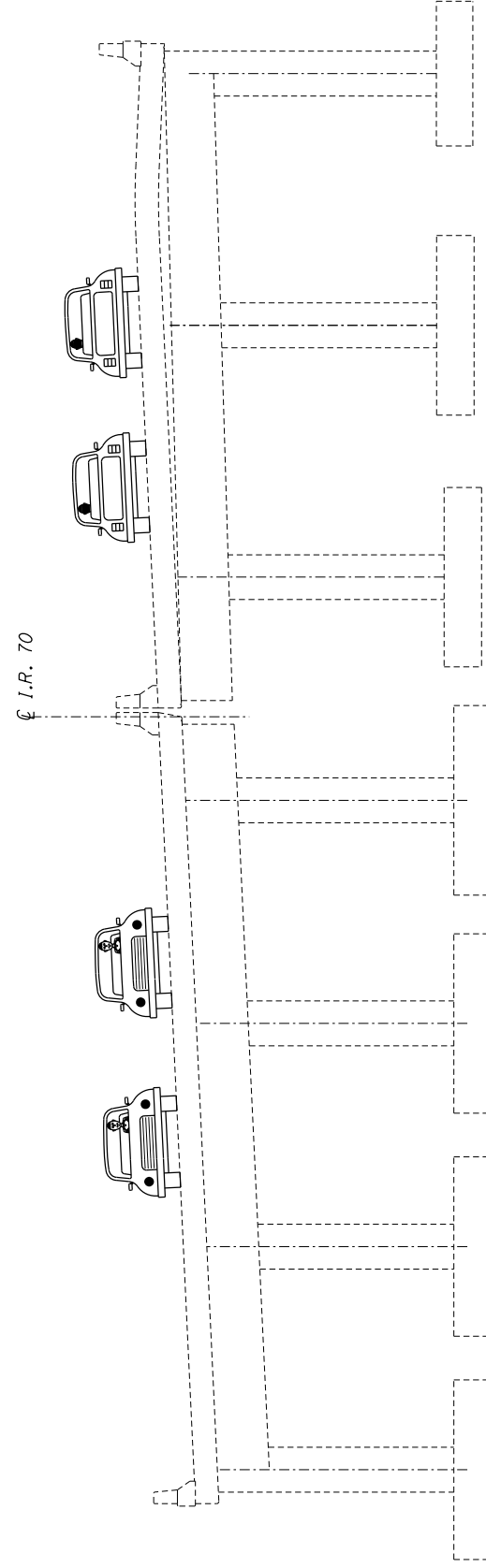
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DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5		TAG 6002919	DATE 11/24/2020
REINFORCEMENT STEEL SCHEDULE - PHASE 2			
BRIDGE NO. MUS-70-11.92 OVER N. 6TH STREET			
MUS-70-10.49		PID No. 93006	
63/72		1750 2231	

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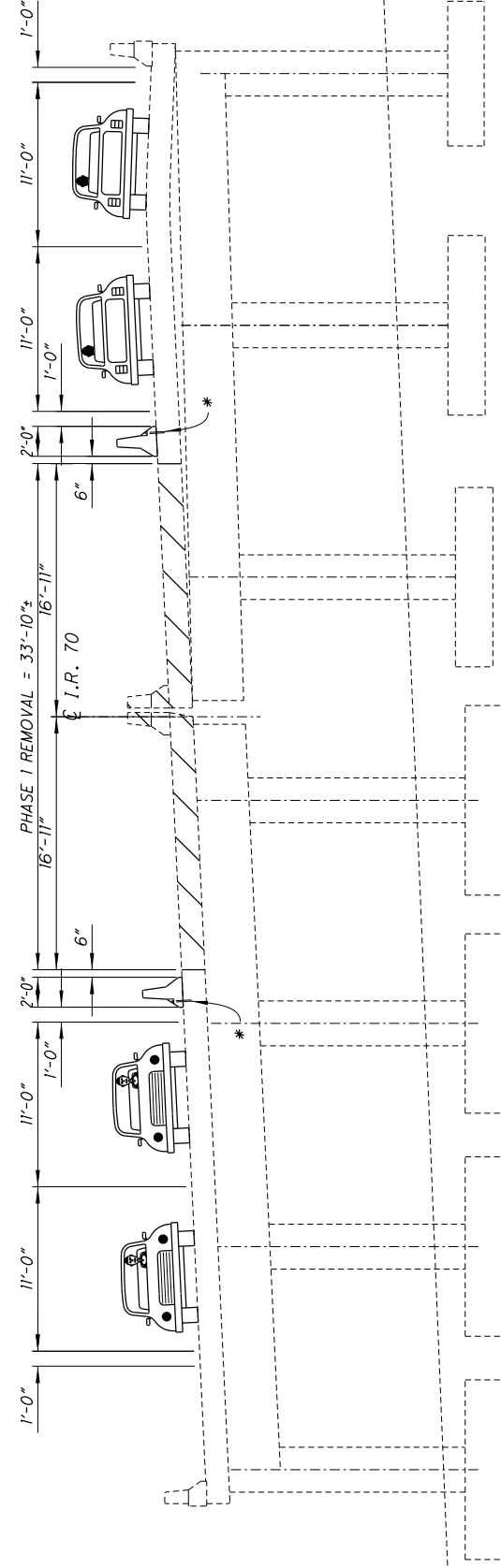
MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
PHASE 3											
REAR ABUTMENT											
P3R401	14	10'-0"	94	3	1'-9"	3'-0"					
P3R501	27	12'-1"	340	3	3'-2"	2'-7"					
P3R502	5	15'-9"	82	3	5'-0"	2'-7"					
P3R503	1 SERIES OF 26 TO	13'-11"	409	3	2'-2"	4'-6"				0'-1.1"	
P3R504	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 TO	14'-1"	427	3	2'-2"	4'-7"				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	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				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 TO	4'-0"	292	1	1'-0"	3'-2"				0'-1"	
P3Y606	16	4'-10"	94	1	1'-0"	4'-0"					
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								

REINFORCEMENT STEEL SCHEDULE - PHASE 3	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
BRIDGE NO. MUS-70-11.92 OVER N. 6TH STREET	REVIEWED DATE TAG 11/24/2020 STRUCTURE FILE NUMBER 6002919
MUS-70-10.49 PID No. 93006	DRAWN TDF CHECKED CPS
64/72	1751 2231

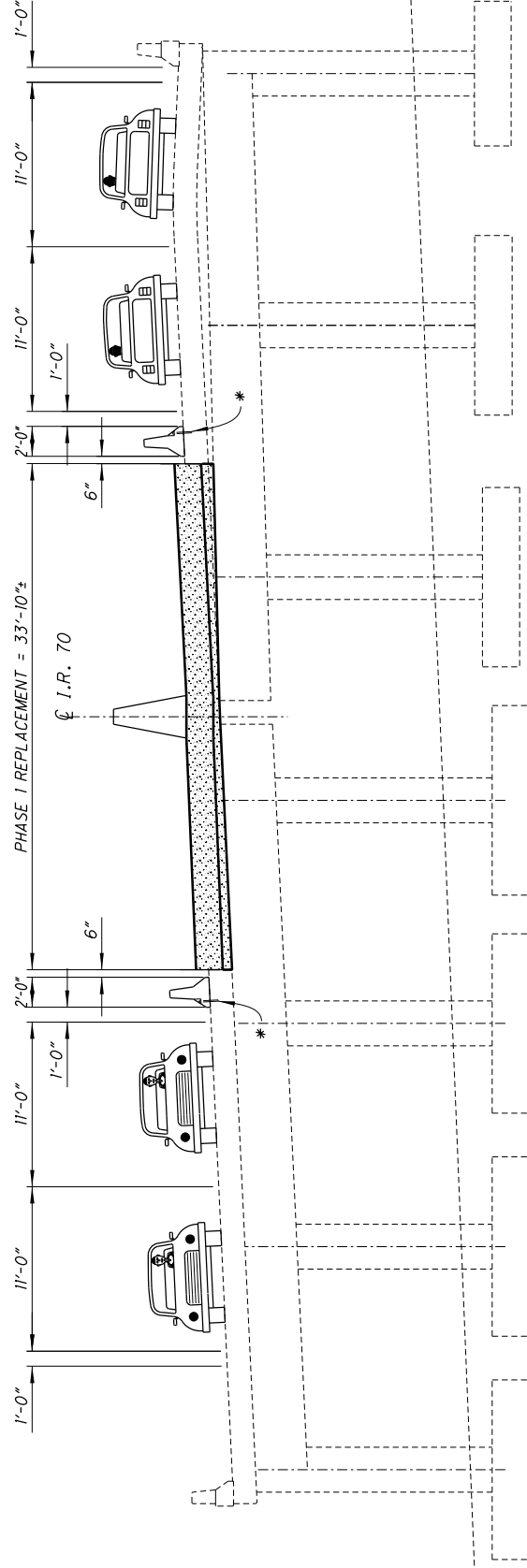


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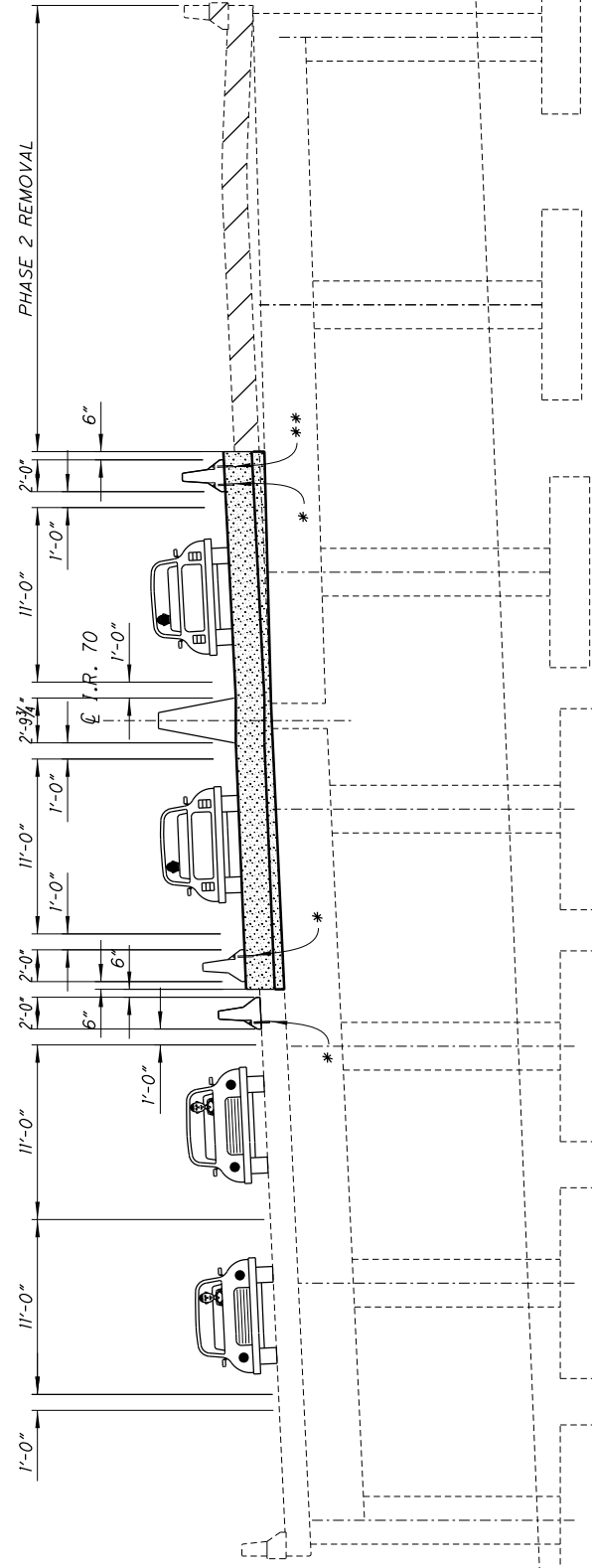


PHASE 1 REMOVAL

* - 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

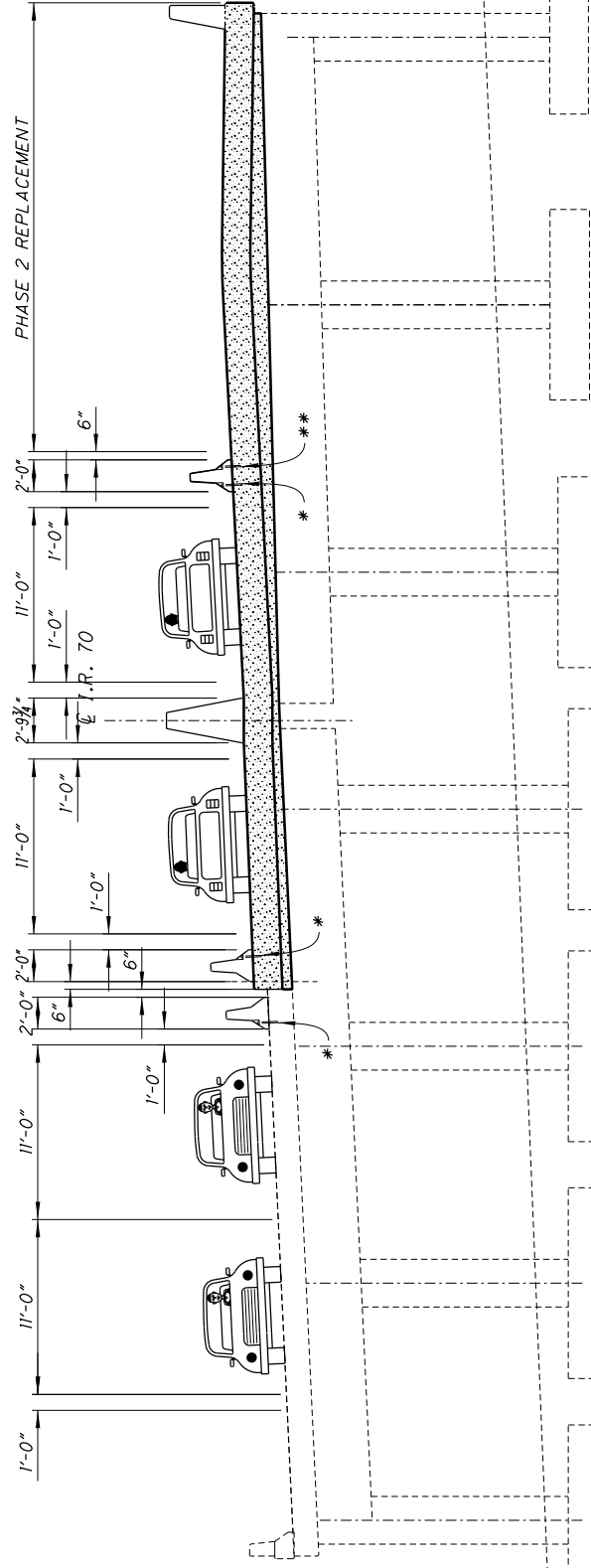


PHASE 1 REPLACEMENT



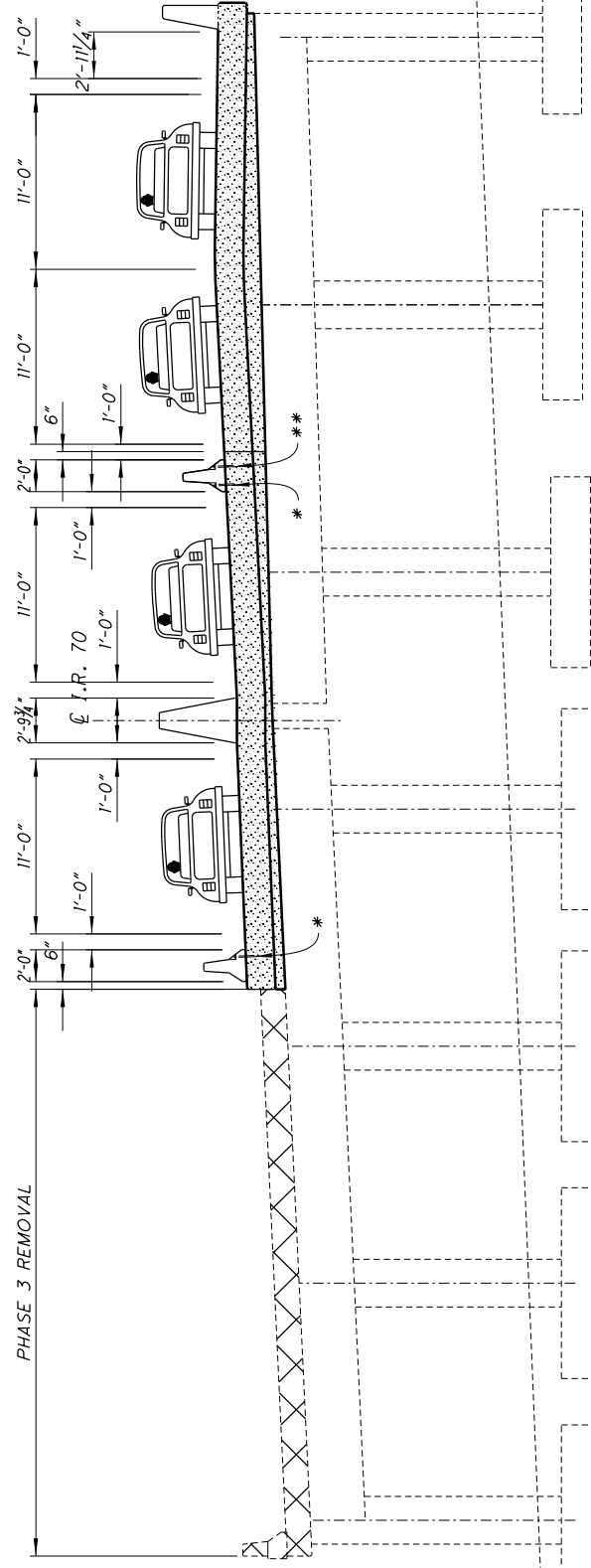
PHASE 2 REMOVAL

* - 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

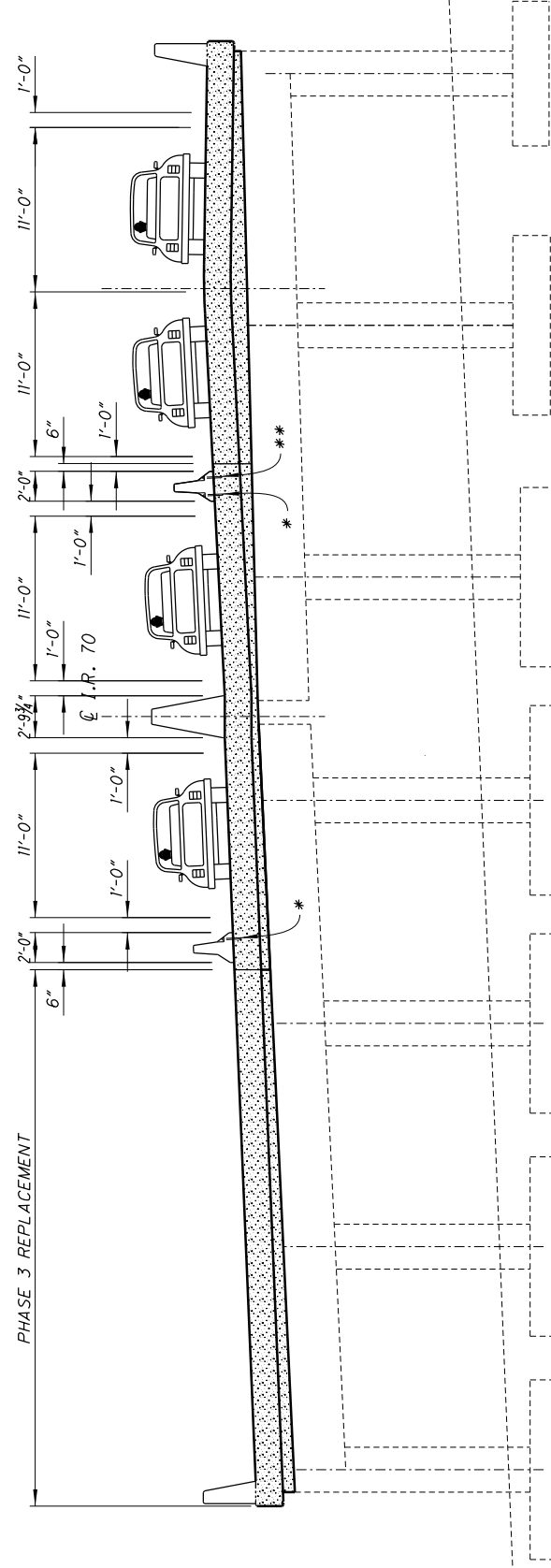


PHASE 2 REPLACEMENT

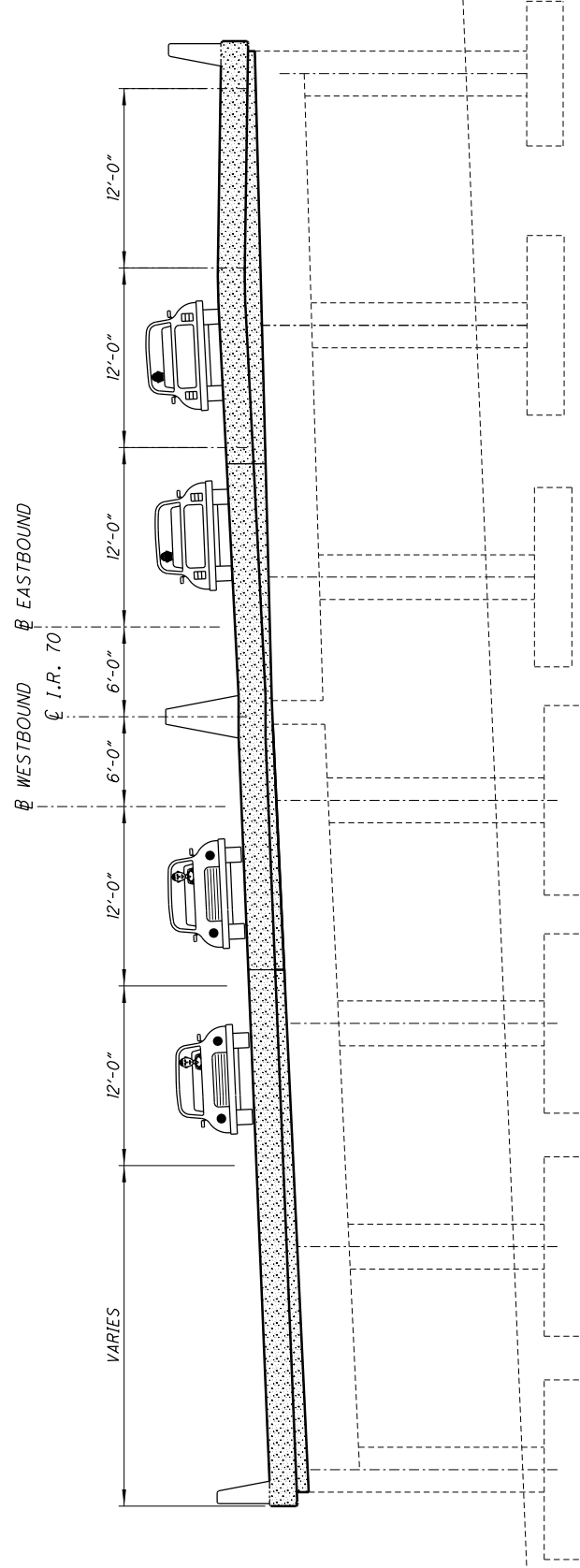
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PHASE 3 REMOVAL



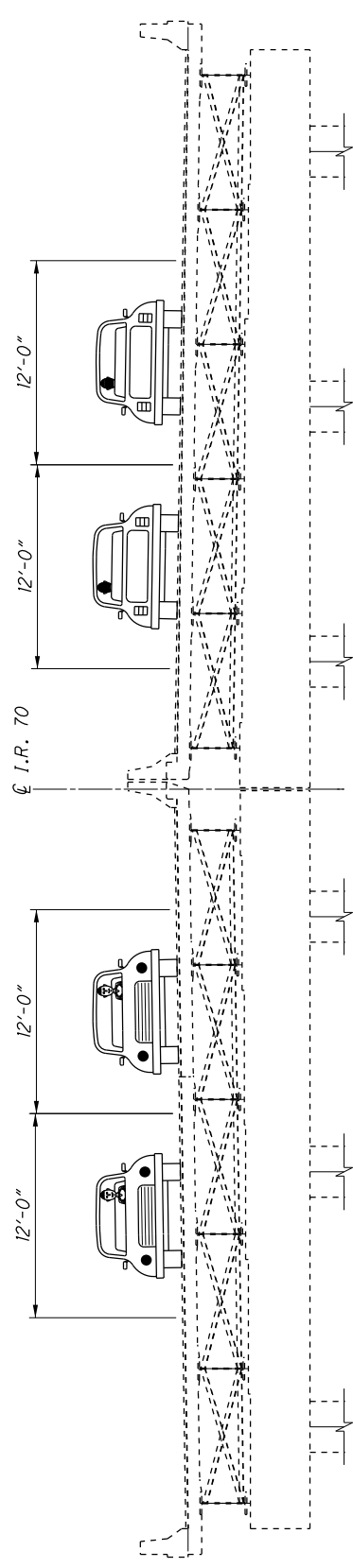
PHASE 3 REPLACEMENT



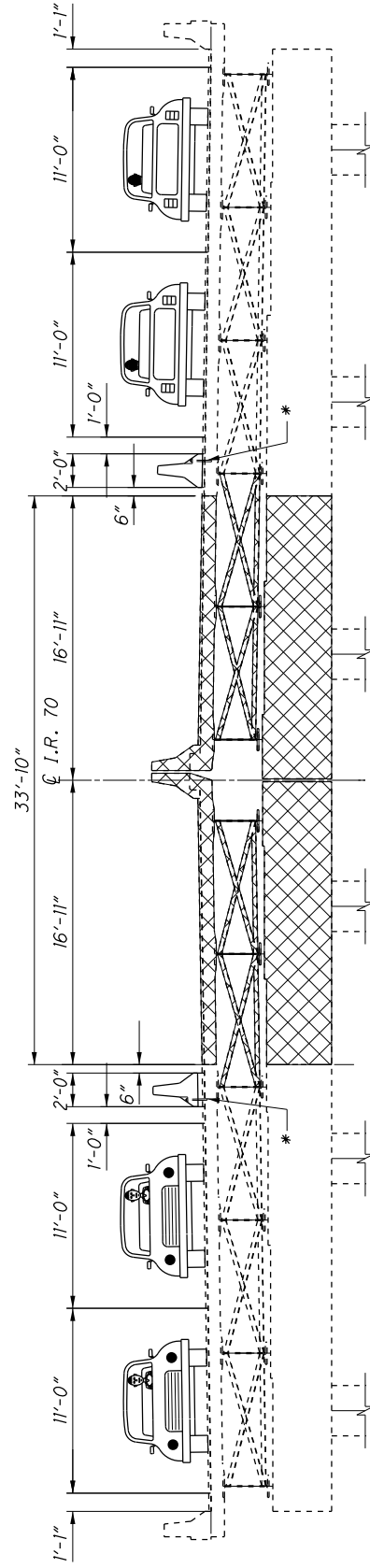
PROPOSED TRANSVERSE SECTION

* - 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

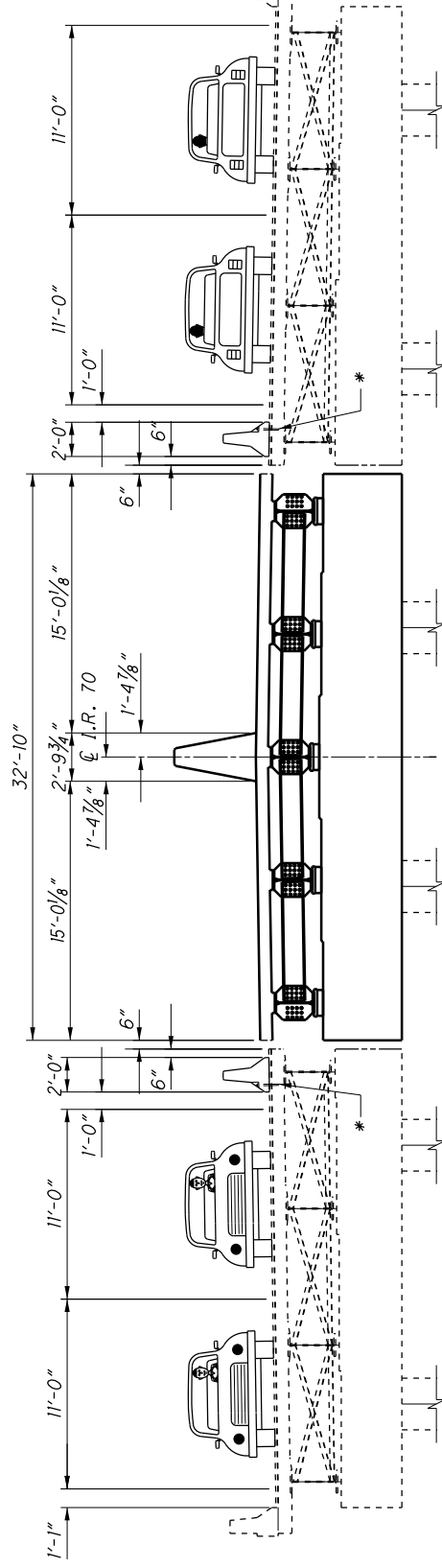
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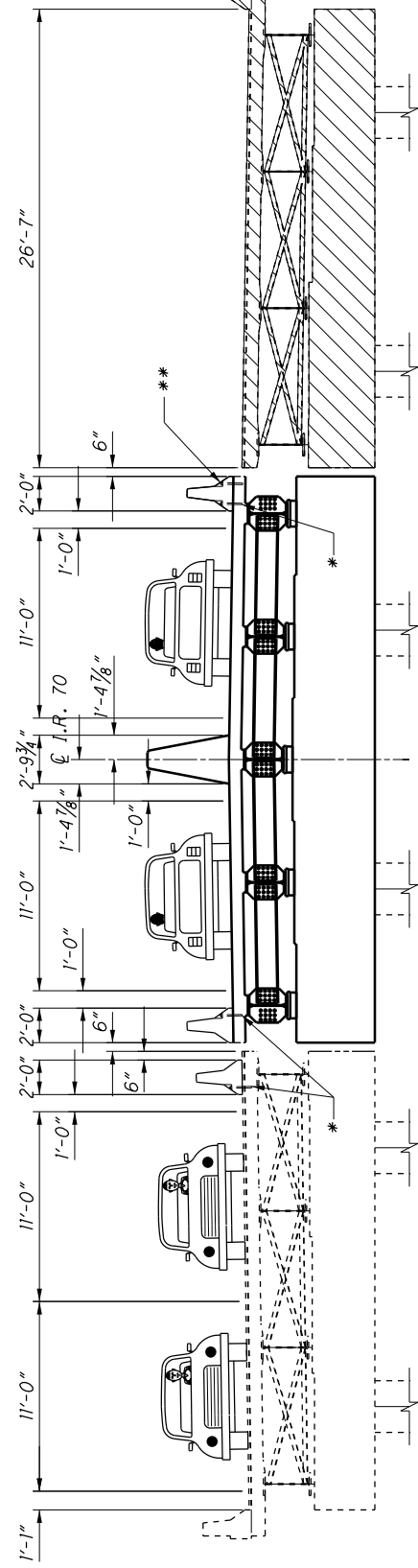
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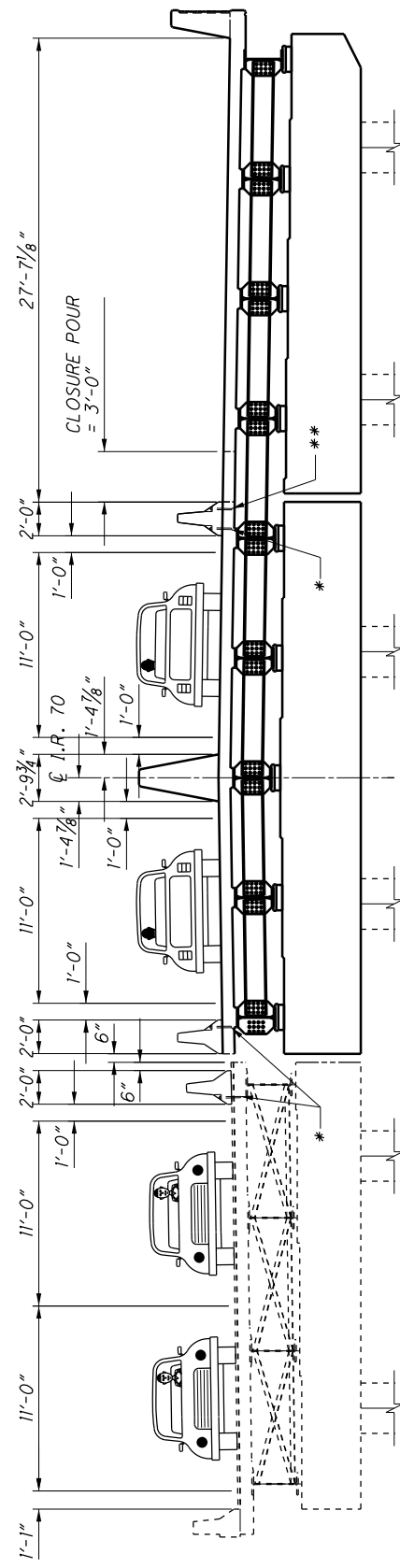
PHASE 1 REMOVAL



PHASE 1 REPLACEMENT



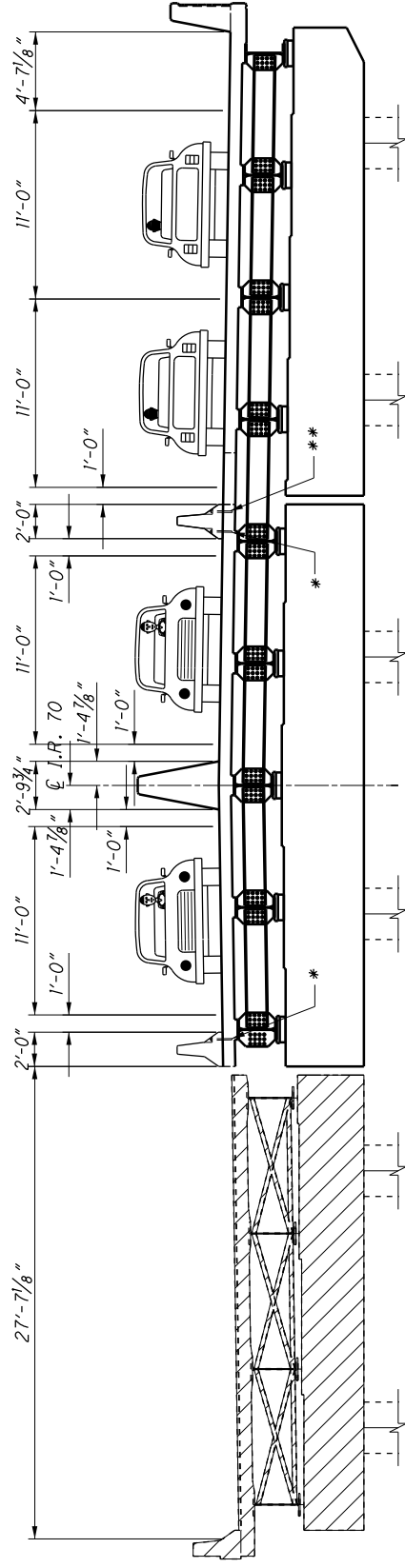
PHASE 2 REMOVAL



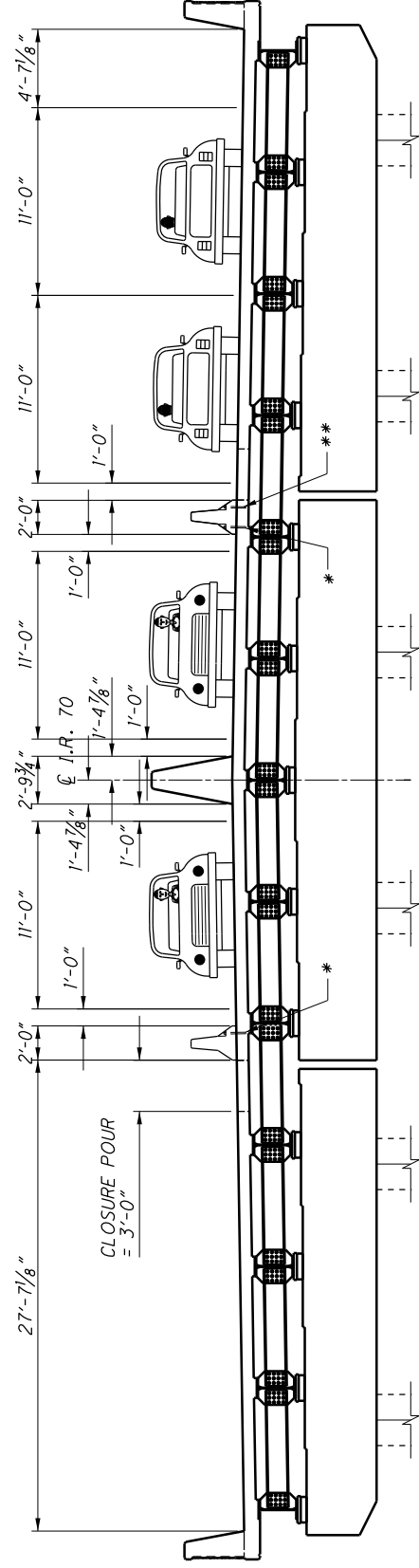
PHASE 2 REPLACEMENT

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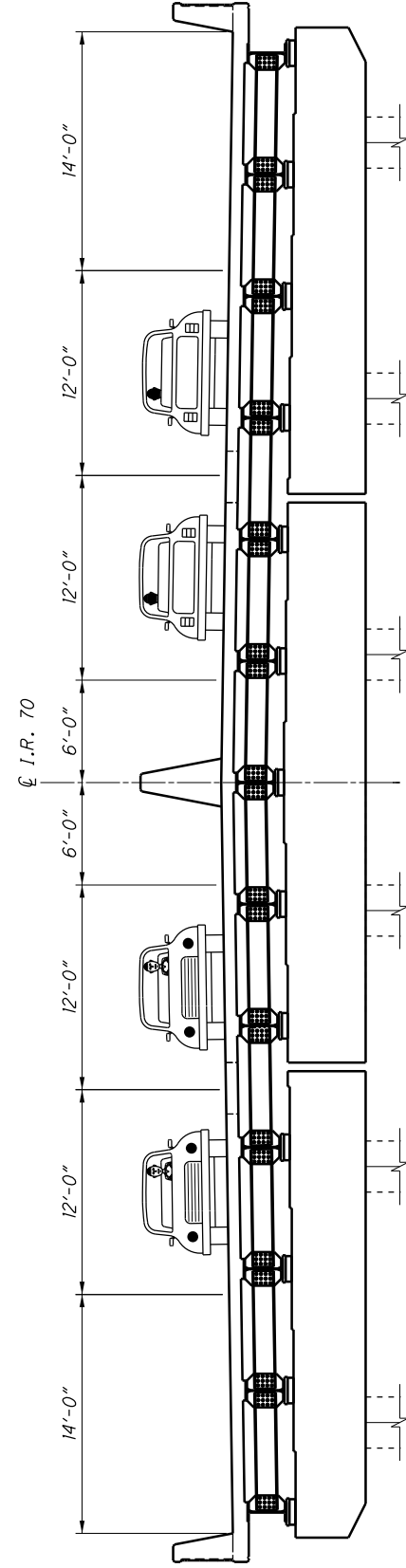
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PHASE 3 REMOVAL



PHASE 3 REPLACEMENT

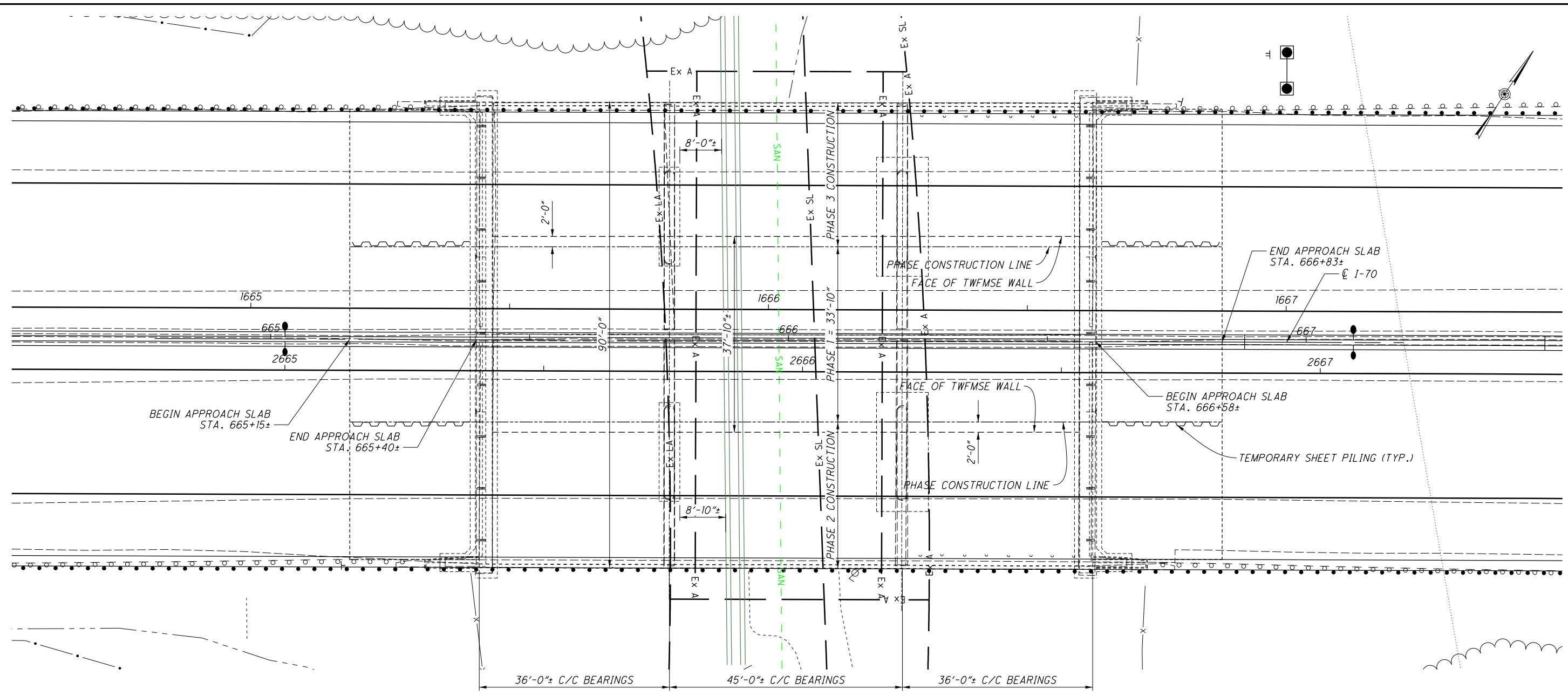


PROPOSED TRANSVERSE SECTION

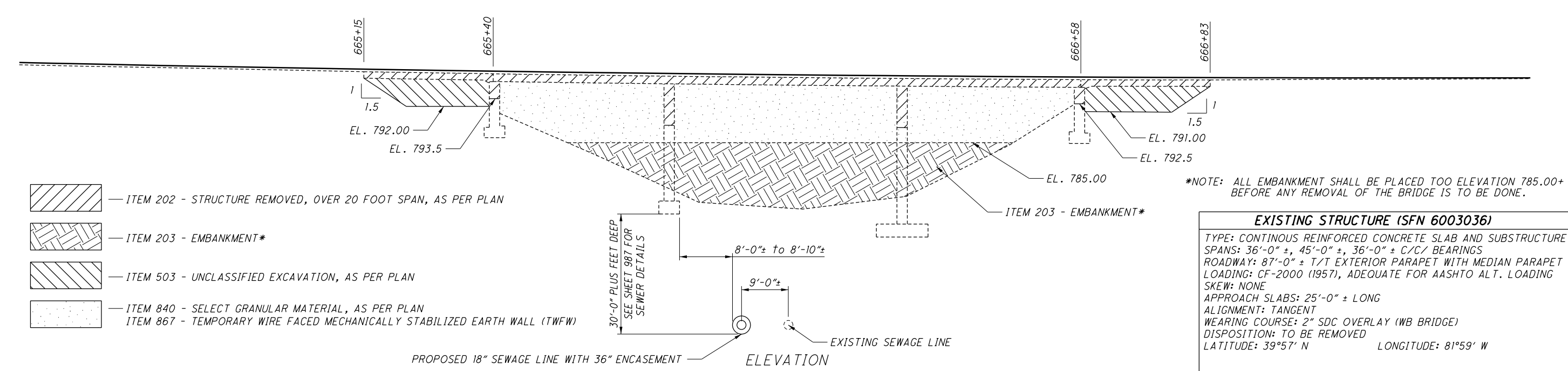
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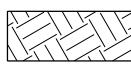
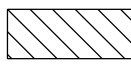
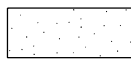
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PLAN



ELEVATION

-  — 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 (TWF)

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

EXISTING STRUCTURE (SFN 6003036)
 TYPE: CONTINUOUS 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

DESIGNED TAG CHECKED JKS	DRAWN TAG REVISED	REVIEWED TAG STRUCTURE FILE NUMBER 6003036	DATE 11/20/20	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
GENERAL PLAN AND ELEVATION				PID No. 93006
BRIDGE NO. MUS-70-1306				1 / 12
I.R. 70 OVER ABANDONED RAILROAD				1907 2231

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 1 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 INCLUDED 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 1 1/4" DIA. ASTM A325. ALL BOLTS AND ANCHOR RODS SET IN EXISTING CONCRETE SHALL BE PLACED AS PER C&M 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	SO.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	SO.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	SO.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	

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

MUS-70-10.49
PID No. 93006

2 / 12

1908
2231

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION DISTRICT 5

REVIEWED DATE
TAG 11/20/20
STRUCTURE FILE NUMBER
6003036

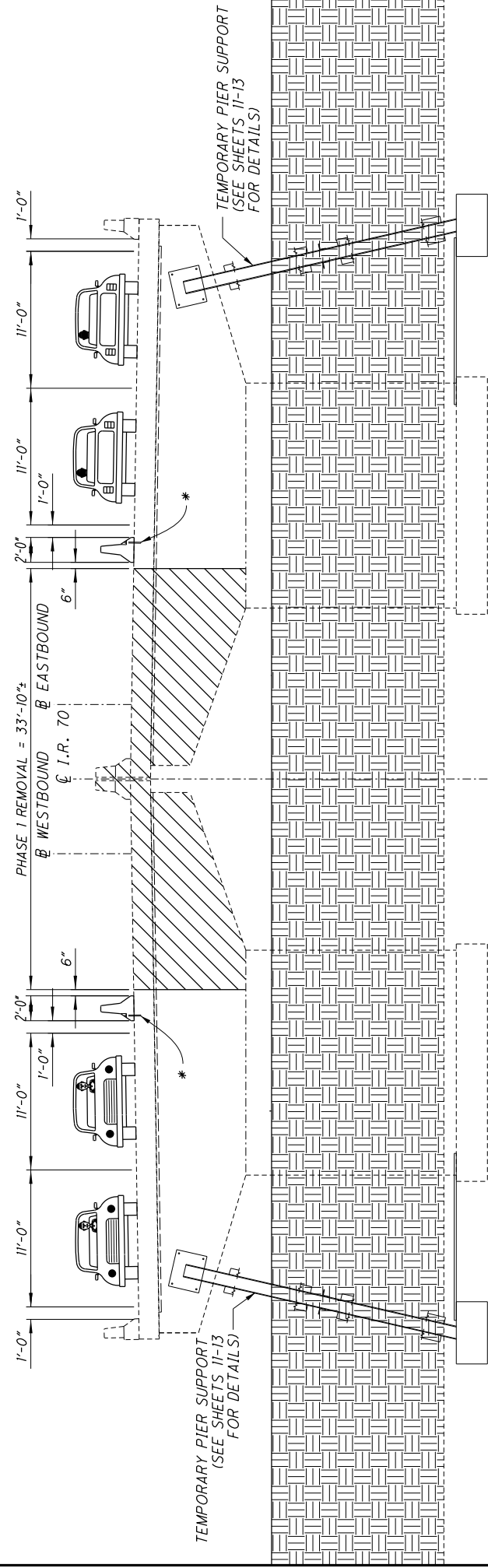
DRAIN JKS
REVISOR

DESIGNED JKS
CHECKED CPS

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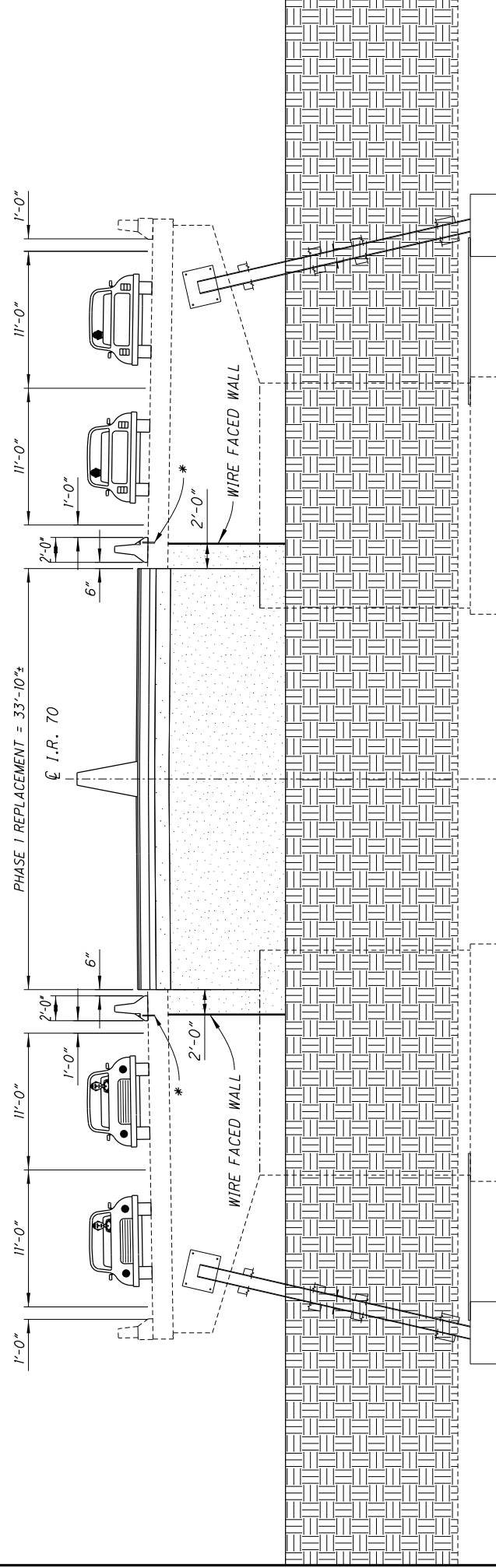
SHEET NUM.						PART.						ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
SUPER.	ABUT.	PIER	GEN.			01/IMS/PV	02/IMS/B R	03/IMS/C V	04/S<2/O T	05/SAE/O T	06/IMS/B R							
																	STRUCTURE OVER 20 FOOT SPAN (MUS-70-1306)	
			LS				LS					202	11003	LS			STRUCTURE REMOVED, OVER 20 FOOT 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	REVIEWED TAG	DATE
	JKS REVIS	11/20/20
DESIGNED JKS	CHECKED CPS	STRUCTURE FILE NUMBER 6003036
BRIDGE SUMMARY		
BRIDGE NO. MUS-70-1306		
I.R. 70 OVER ABANDONED RAILROAD		
MUS-70-10.49		
PID No. 93006		
3 / 12		
1909 2231		

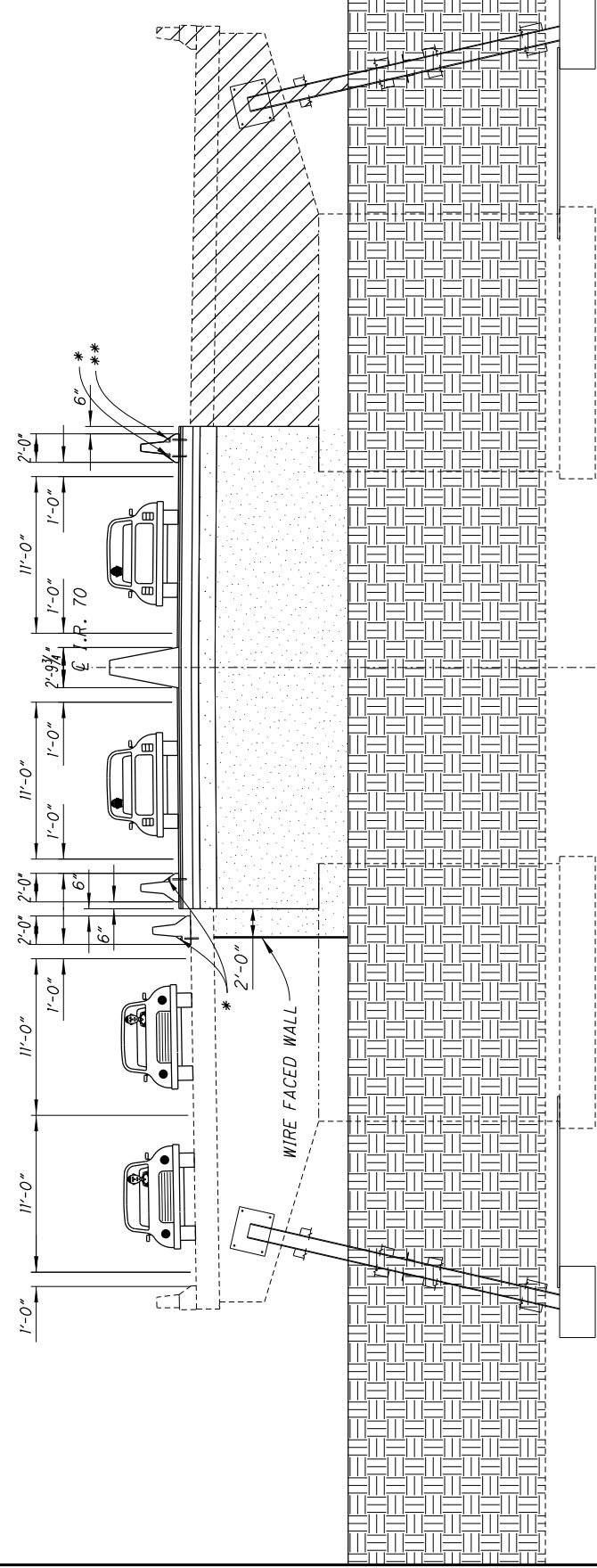


PHASE 1 REMOVAL

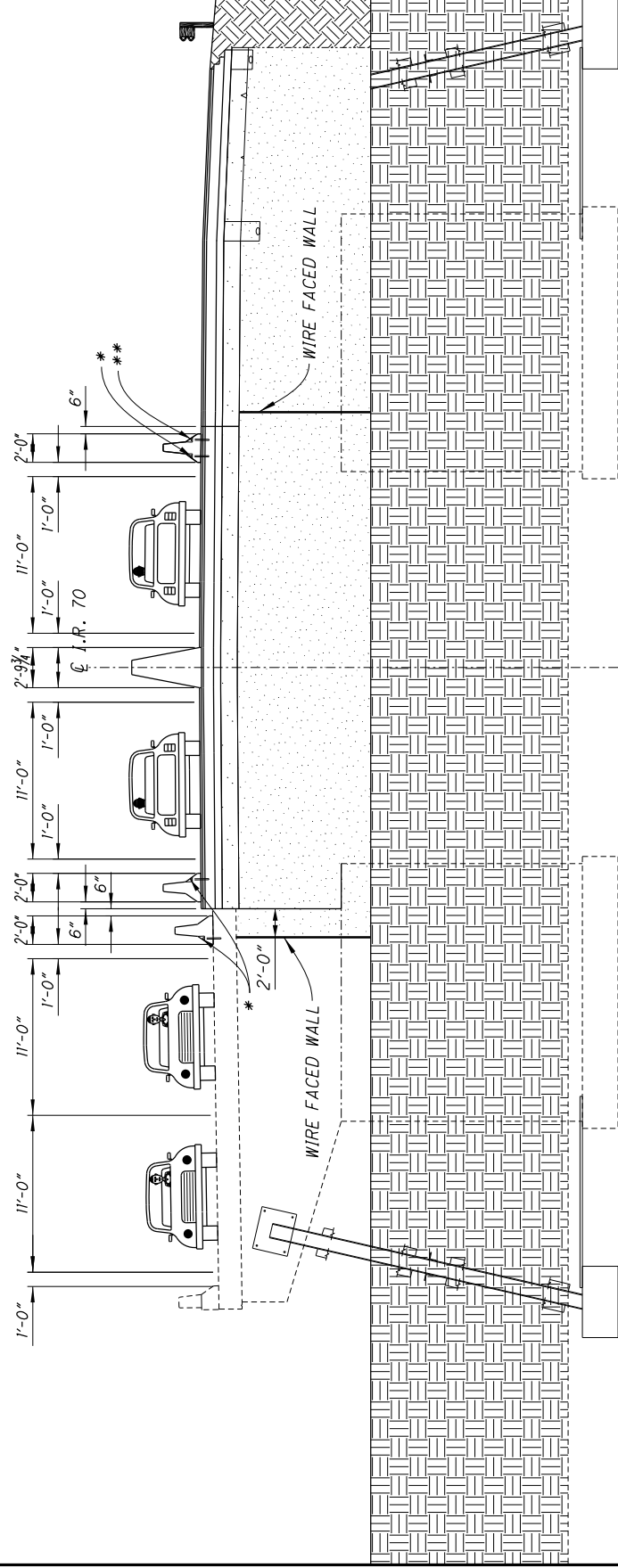
* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE.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



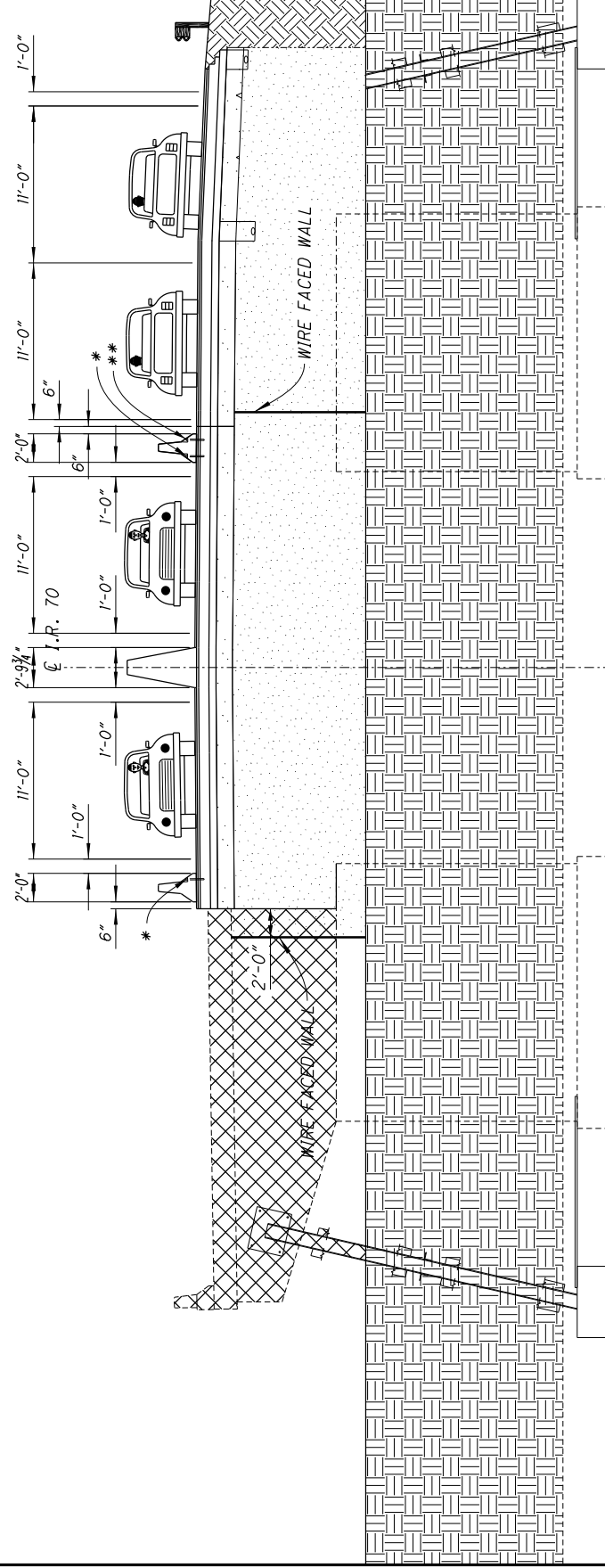
PHASE 1 REPLACEMENT



PHASE 2 REMOVAL



PHASE 2 REPLACEMENT

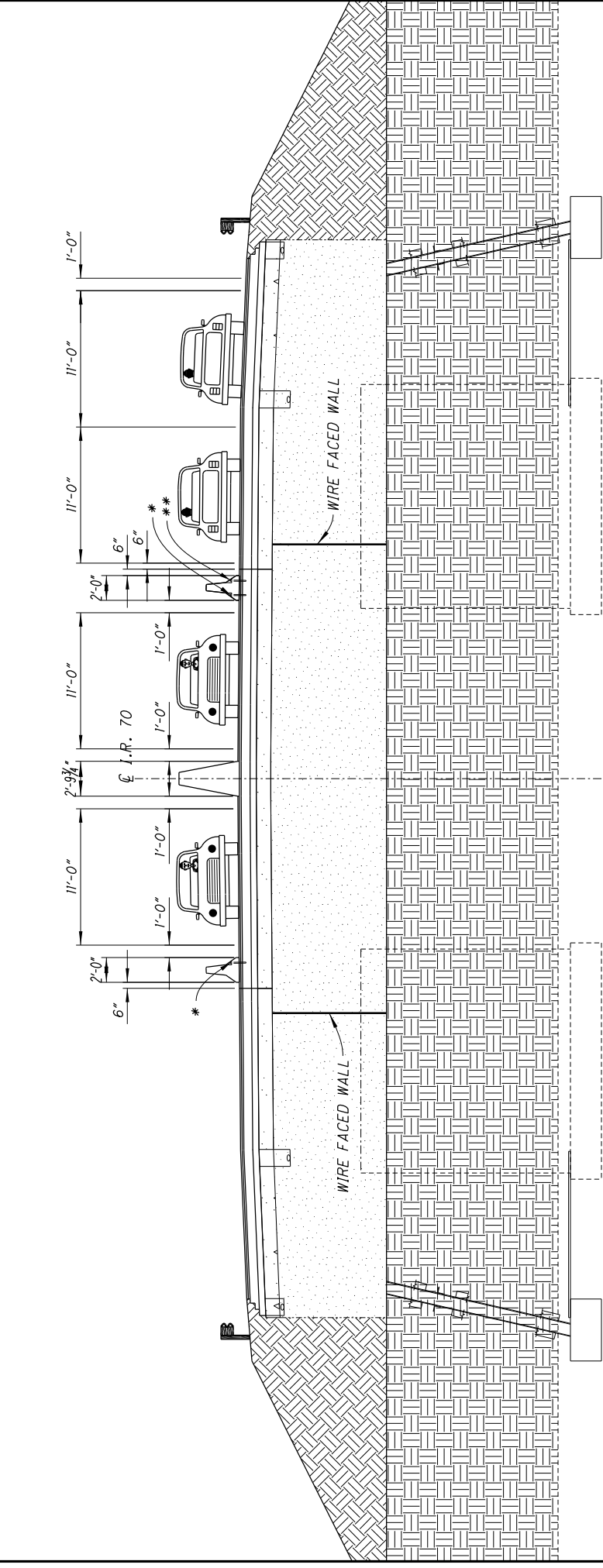


* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE.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

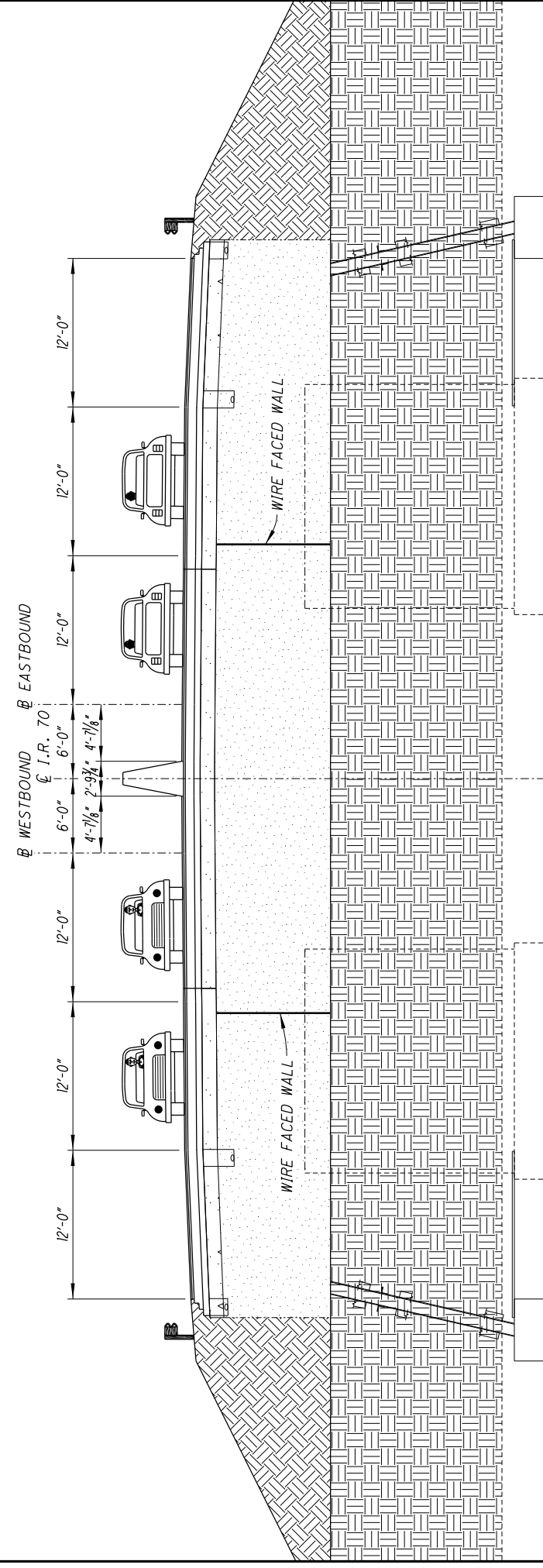
PHASE 3 REMOVAL

** - 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.

	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 JKS CHECKED TAG JKS DRAWN TAG JKS REVIEWED TAG JKS DATE 11/20/20 STRUCTURE FILE NUMBER 6003036	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
	<p style="text-align: center;">PHASE 3 REMOVAL</p>				



PHASE 3 REPLACEMENT

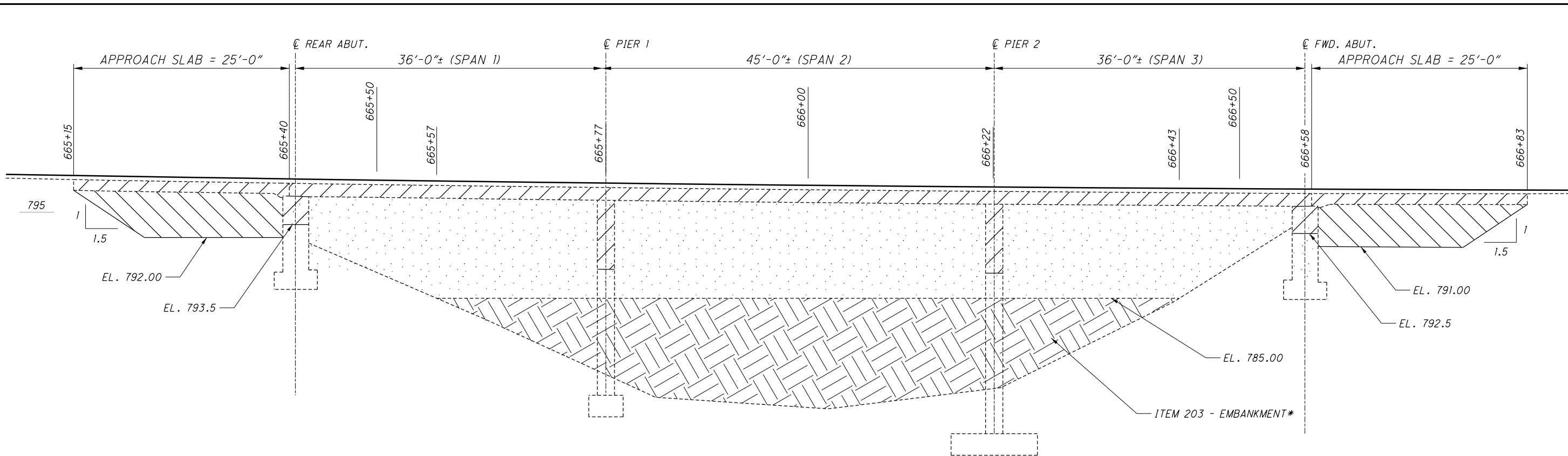


PROPOSED TYPICAL SECTION

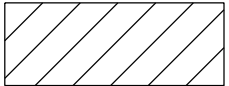


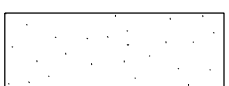

* - A MINIMUM OF 4 ANCHORS SHALL BE PROVIDED ON THE TRAFFIC SIDE OF EACH BARRIER SEGMENT, WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. WHEN NO LONGER NEEDED, REMOVE ANCHORS AS DIRECTED BY THE ENGINEER AND FILL HOLES WITH GROUT PER CMS 705.20 IF DECK IS TO REMAIN IN NEXT PHASE.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

** - 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

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*NOTE: ALL EMBANKMENT SHALL BE PLACED TO 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

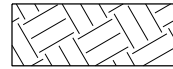
CALCULATION

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.

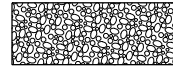
NOTE: ITEM 867 - TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL QUANTITY IS FOR ESTIMATION PURPOSES ONLY. THIS QUANTITY IS INCLUDED IN THE LUMP SUM PAYMENT FOR THE WALL.

DESIGN AGENCY: OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
 DATE: 11/20/20
 TAG: 6003036
 STRUCTURE FILE NUMBER: 6003036
 DRAWN TAG: JKS
 REVISIONS: JKS
 DESIGNED TAG: JKS
 CHECKED: JKS
TYPICAL PROFILE
 BRIDGE NO. MUS-70-1306
 I.R. 70 OVER ABANDONED RAILROAD
MUS-70-10.49
 PID No. 93006
 7 / 12
 1913
 2231

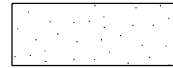
LEGEND:



F = ITEM 203 EMBANKMENT

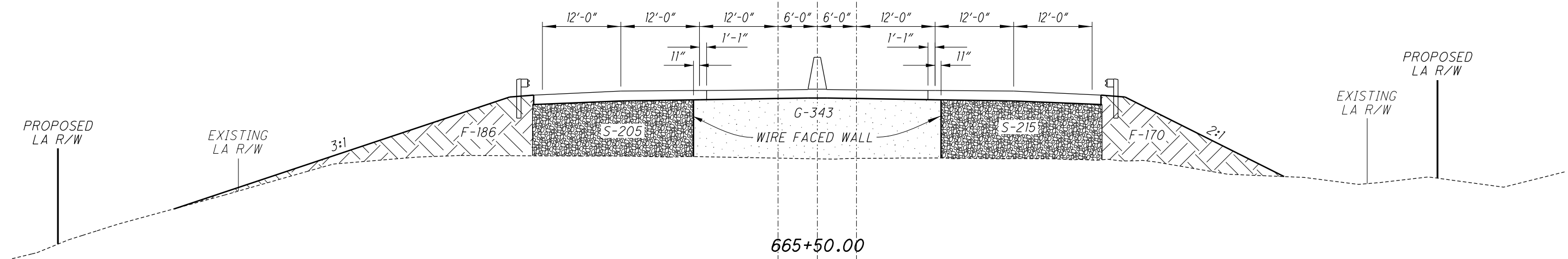
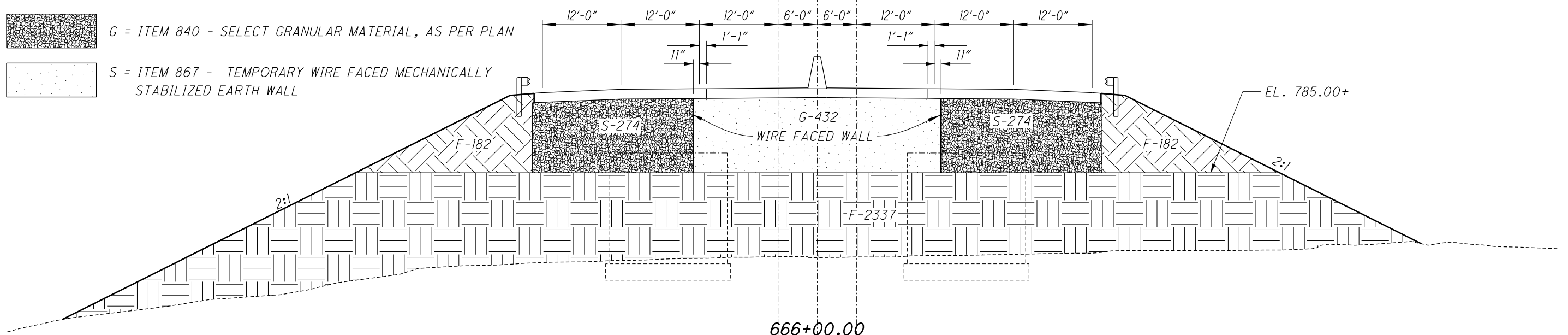


G = ITEM 840 - SELECT GRANULAR MATERIAL, AS PER PLAN

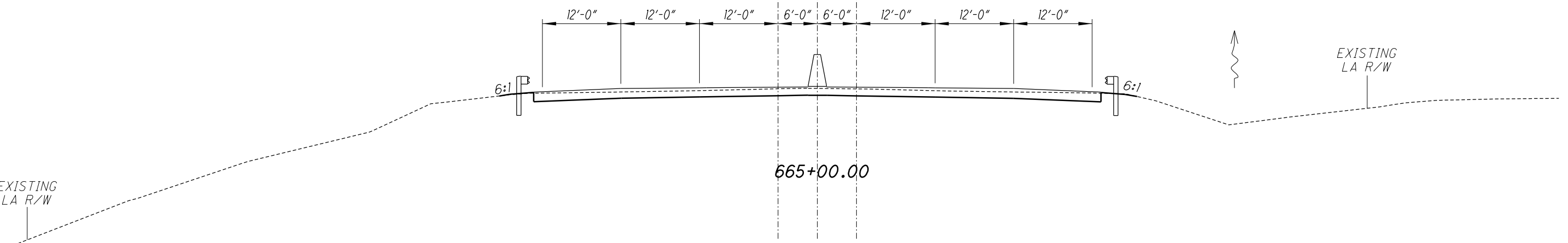


S = ITEM 867 - TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL

WESTBOUND
I.R. 70
EASTBOUND



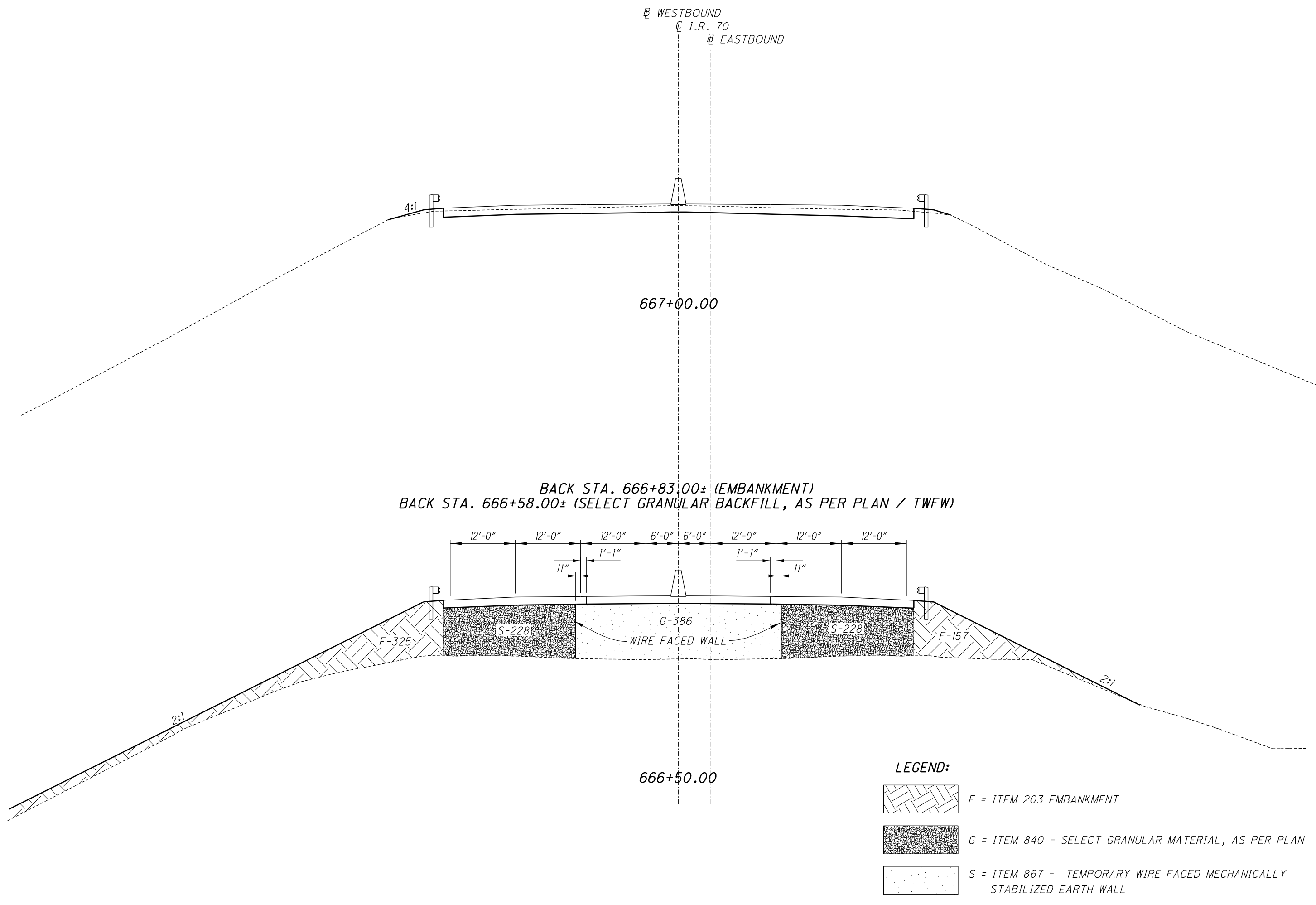
AHEAD STA. 665+40.00± (SELECT GRANULAR BACKFILL, AS PER PLAN / TFWW)
AHEAD STA. 665+15.00± (EMBANKMENT)



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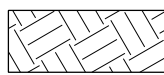
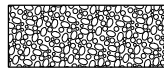

DESIGN AGENCY		OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5	
REVIEWED	DATE	TAG	STRUCTURE FILE NUMBER
JKS	11/20/20		6003036
DESIGNED	TAG	CHECKED	JKS
PROPOSED CROSS SECTIONS			
BRIDGE NO. MUS-70-1306			
I.R. 70 OVER ABANDONED RAILROAD			
MUS-70-10.49		PID No. 93006	
8 / 12		1914 2231	

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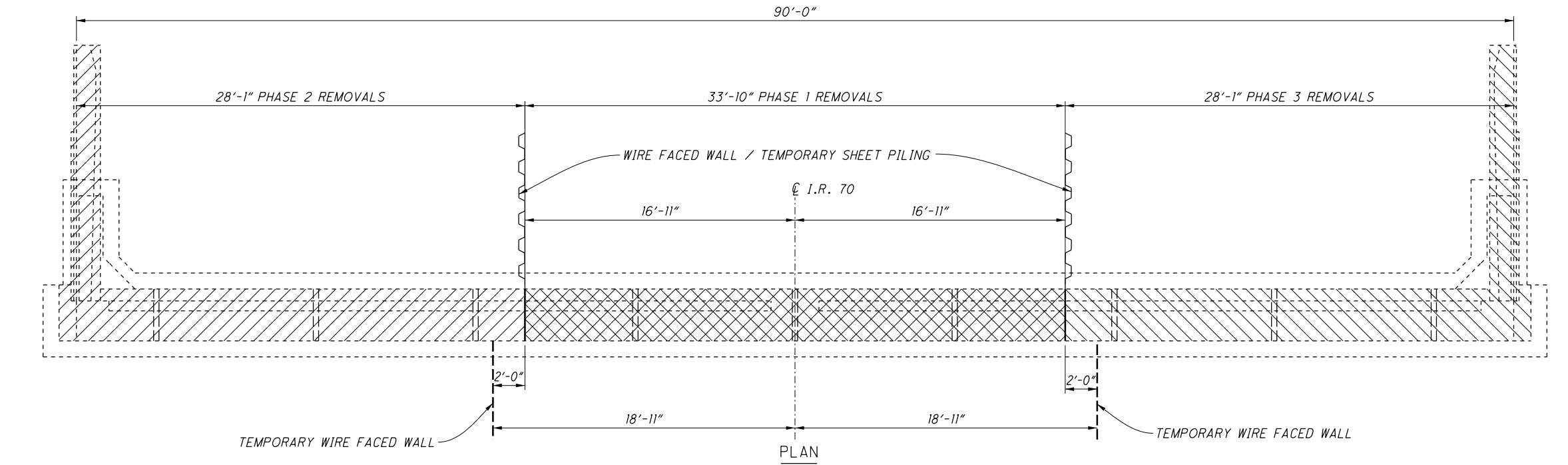
BACK STA. 666+83.00± (EMBANKMENT)
 BACK STA. 666+58.00± (SELECT GRANULAR BACKFILL, AS PER PLAN / TFWW)

LEGEND:




-  F = ITEM 203 EMBANKMENT
-  G = ITEM 840 - SELECT GRANULAR MATERIAL, AS PER PLAN
-  S = ITEM 867 - TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL

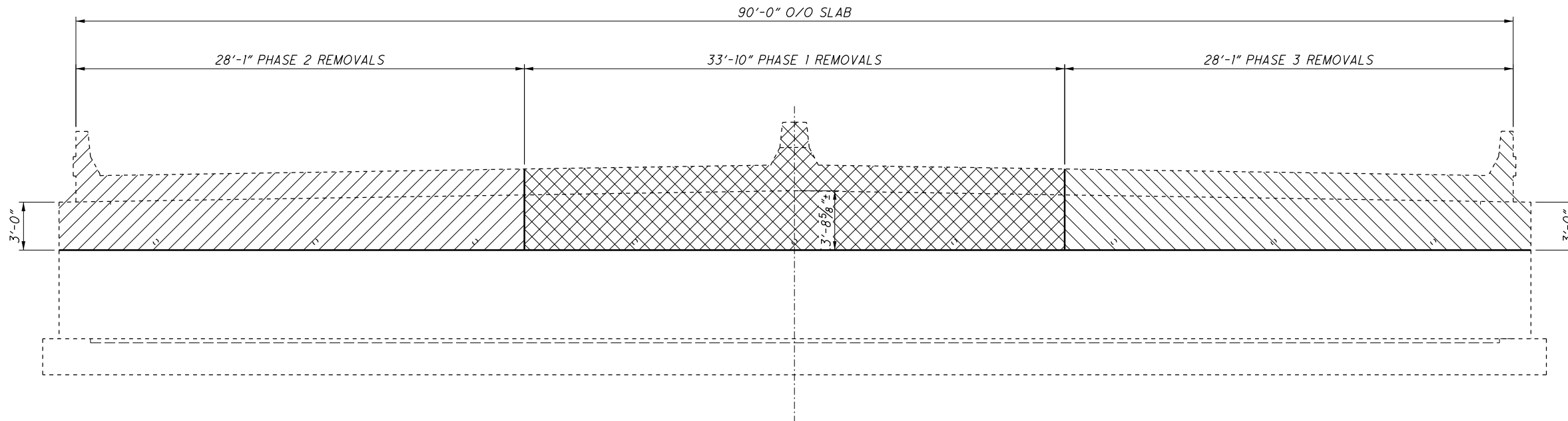
DESIGNED TAG JKS		DRAIN TAG REVISED		REVIEWED TAG STRUCTURE FILE NUMBER 6003036	DATE 11/20/20	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
PROPOSED CROSS SECTIONS						
BRIDGE NO. MUS-70-1306						
I.R. 70 OVER ABANDONED RAILROAD						
MUS-70-10.49						
PID No. 93006						
9 / 12						
1915 2231						

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PLAN

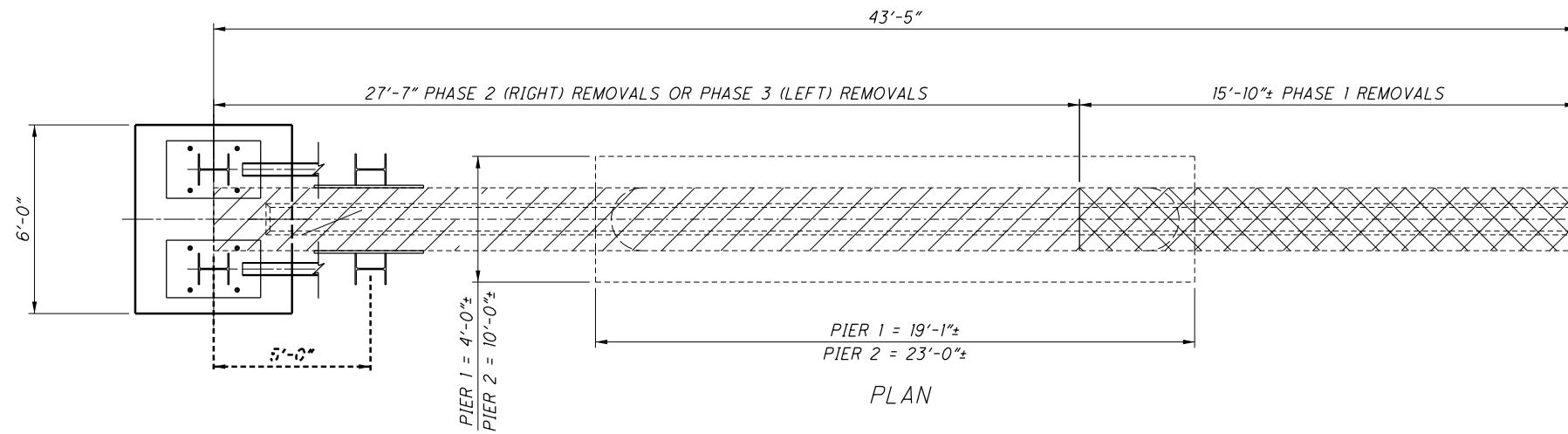
-  PHASE 1 REMOVALS
-  PHASE 2 REMOVALS
-  PHASE 3 REMOVALS



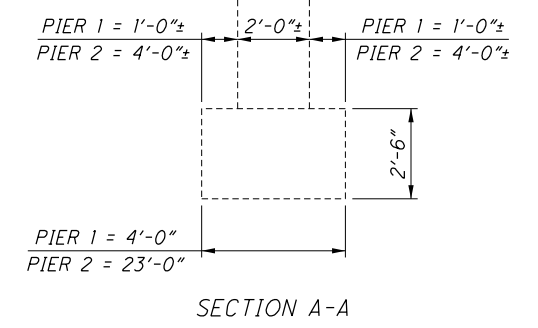
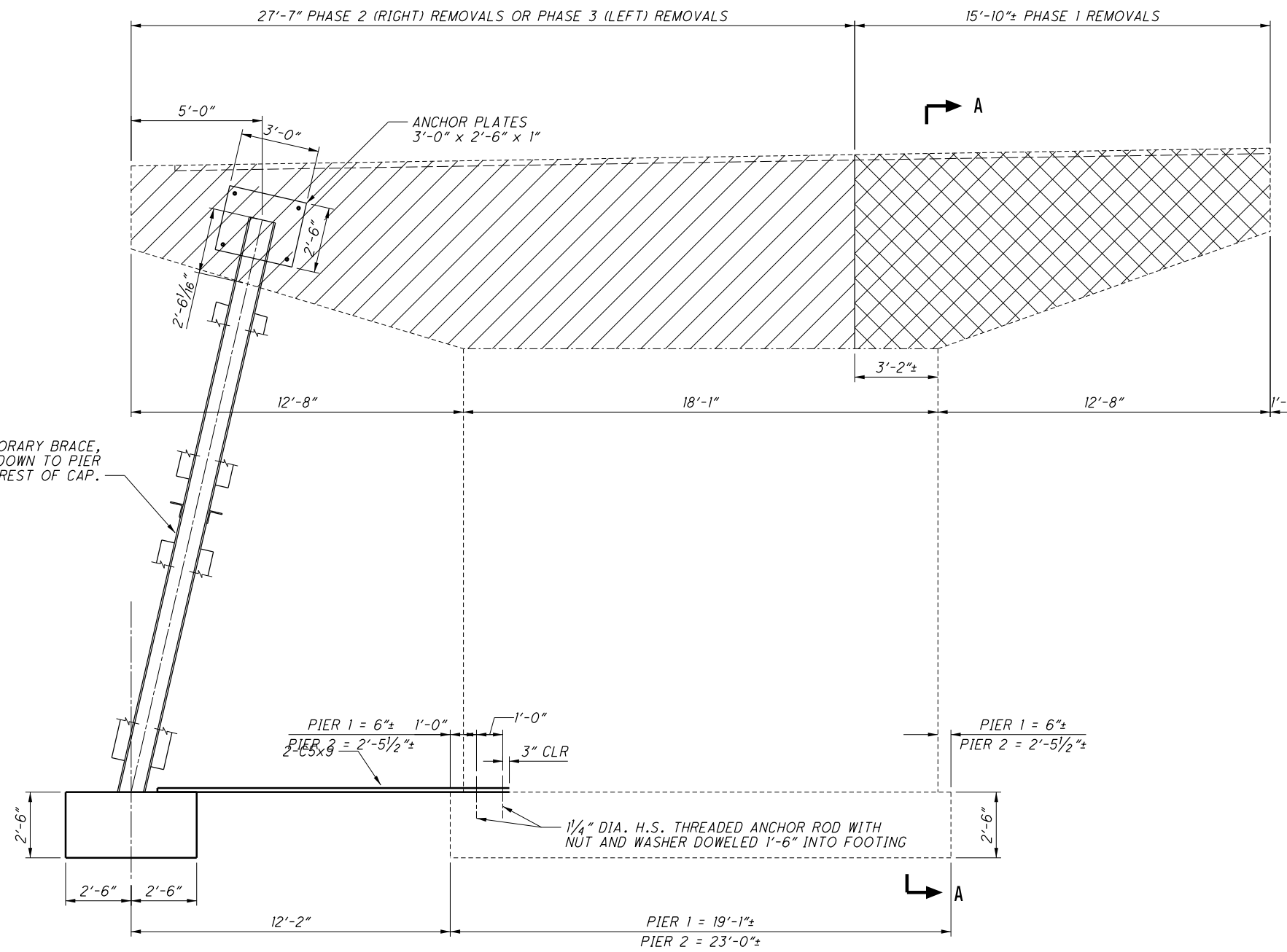
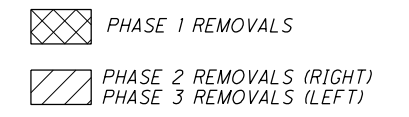
ELEVATION

EXISTING REAR & FORWARD ABUTMENT REMOVALS		DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5	
BRIDGE NO. MUS-70-1306 I.R. 70 OVER ABANDONED RAILROAD	DATE 11/20/20	REVIEWED TAG 11/20/20	STRUCTURE FILE NUMBER 6003036
DESIGNED TAG JKS	DRAWN TAG XXX	CHECKED XXX	REVISED XXX
MUS-70-10.49			
PID No. 93006			
10 / 12			
			

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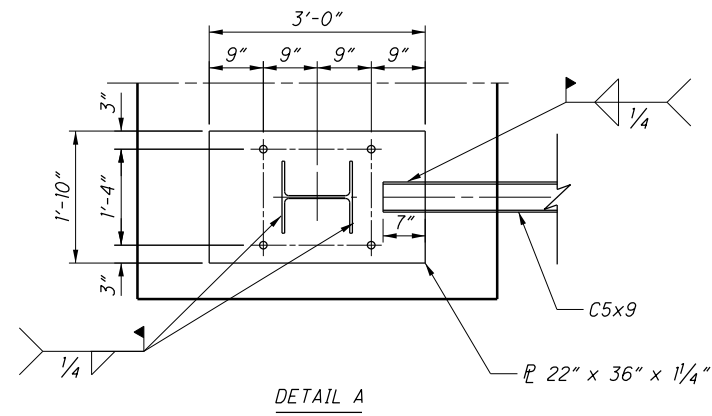


PIER SYMMETRICAL ABOUT \bar{C} EXPRESSWAY

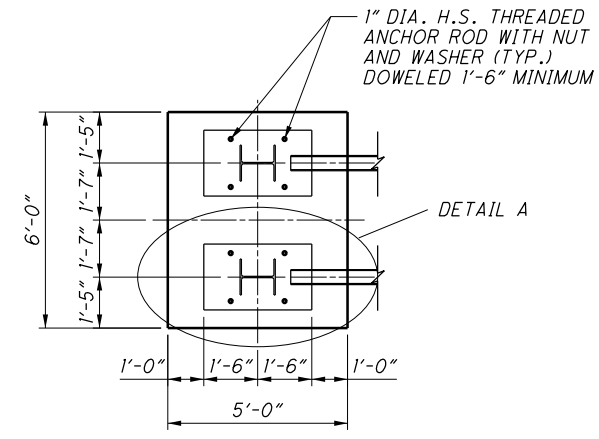


DESIGNED TAG JKS		DRAWN TAG XXX		REVIEWED TAG XXX		DATE 11/20/20	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
CHECKED JKS		TAG XXX		REVISI XXX		STRUCTURE FILE NUMBER 6003036	
MUS-70-10.49 BRIDGE NO. MUS-70-1306 I.R. 70 OVER ABANDONED RAILROAD				EXISTING PIER 1			
PID No. 93006				1917 2231			
11/12							

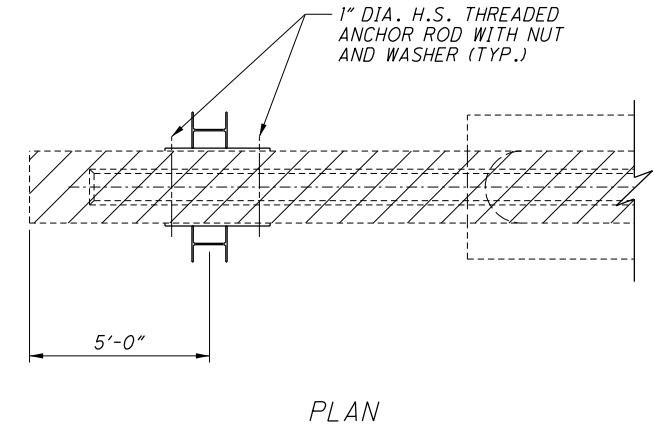
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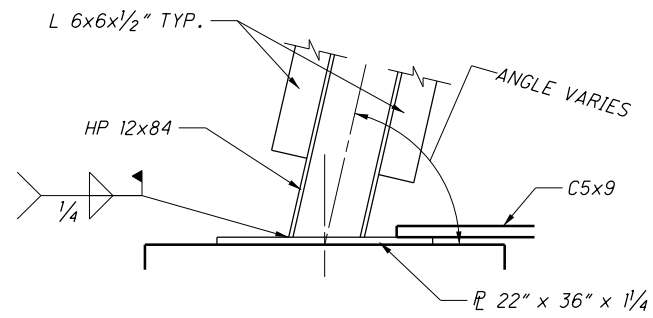
DETAIL A



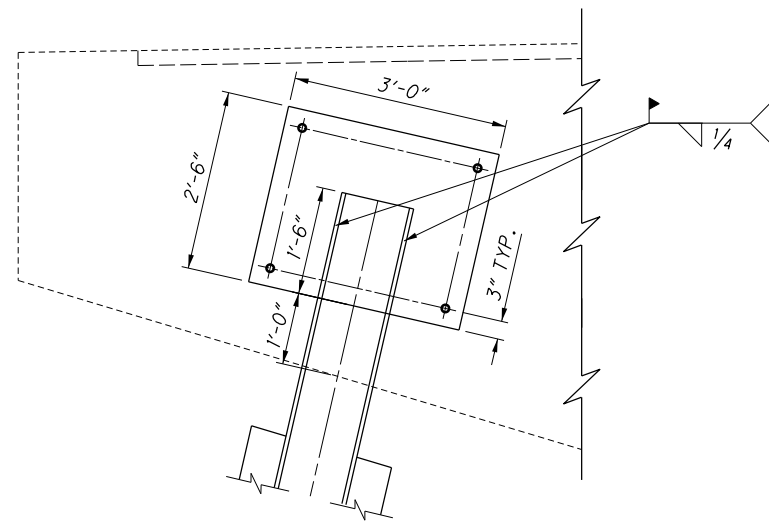
VIEW B-B



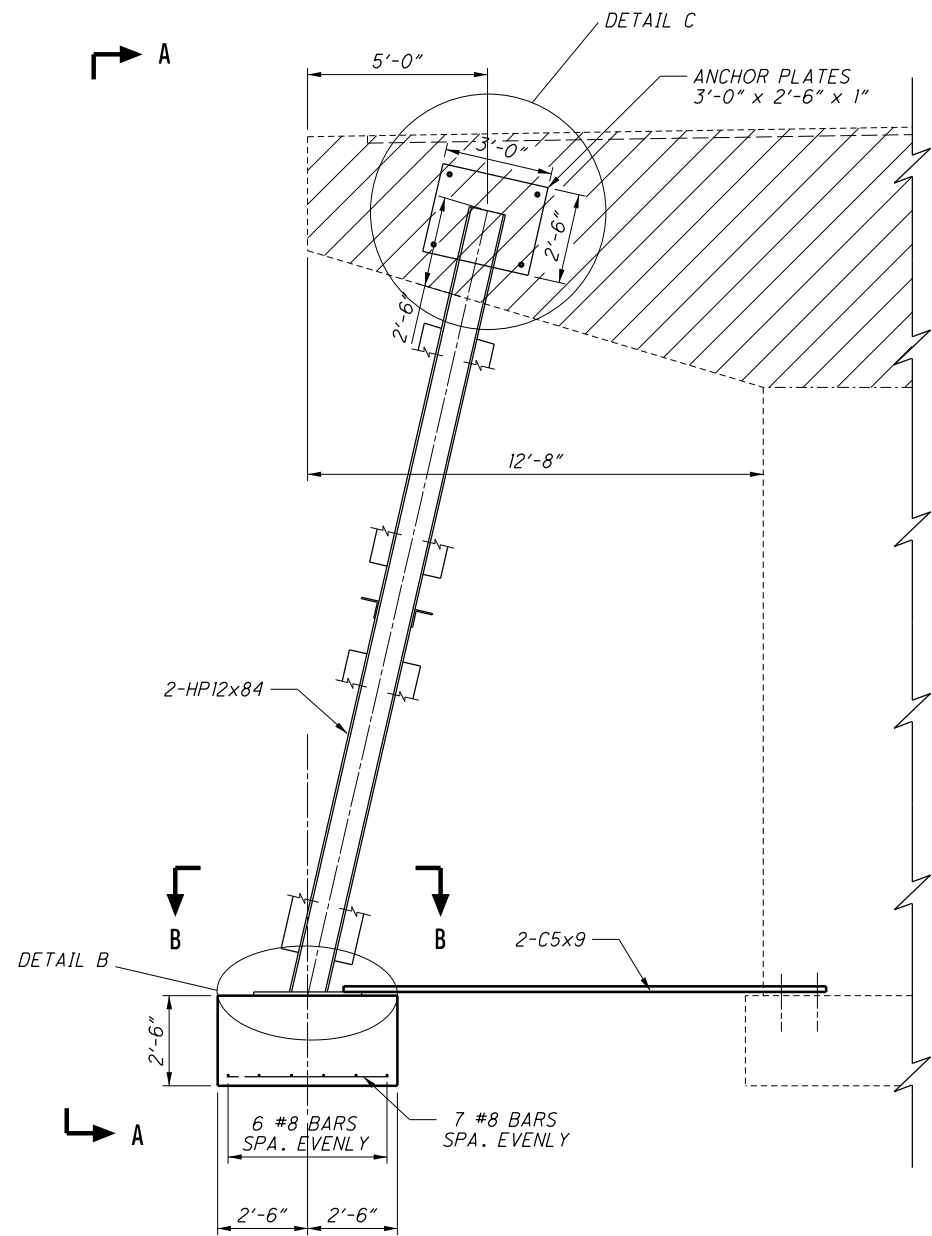
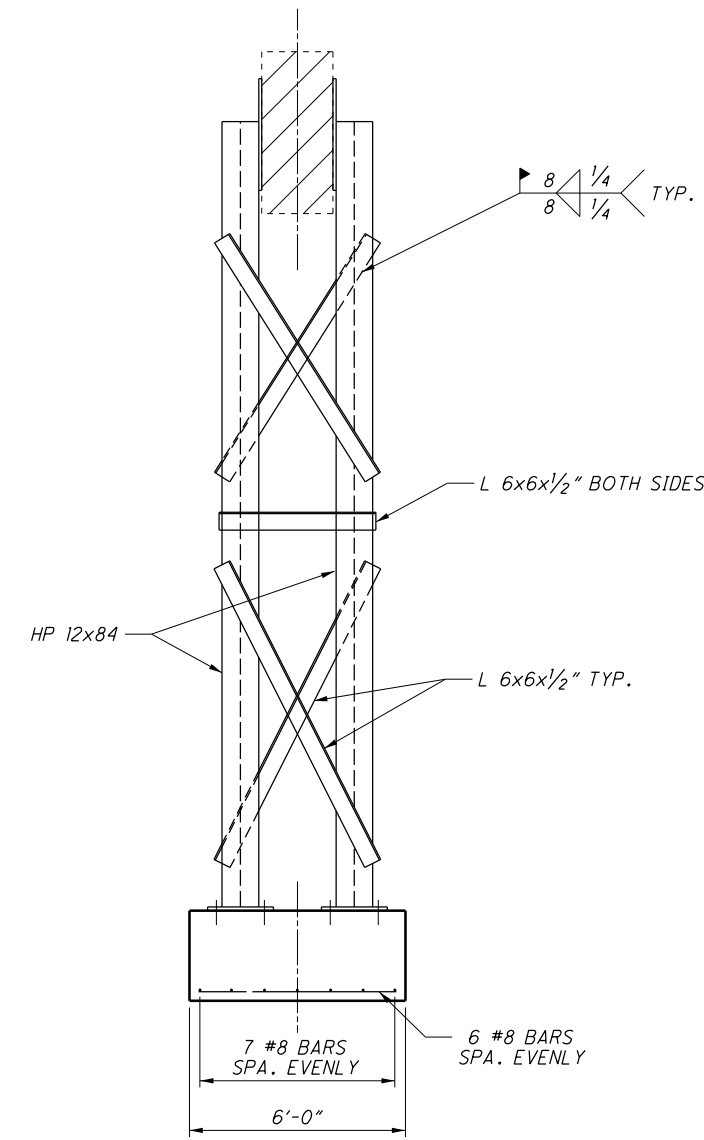
PLAN



DETAIL B



DETAIL C



ELEVATION

DESIGNED JKS	CHECKED CPS	DRAWN JKS	REVIEWED TAG	DATE 3/10/2021	DESIGN AGENCY OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
TEMPORARY PIER SUPPORT		BRIDGE NO. MUS-70-1306		STRUCTURE FILE NUMBER 6003036	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		

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

MUS-70-10.49
 PID No. 93006

5 / 47

2012
2231

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

DATE
12/2020

REVIEWED
EFD

DRAWN
AH

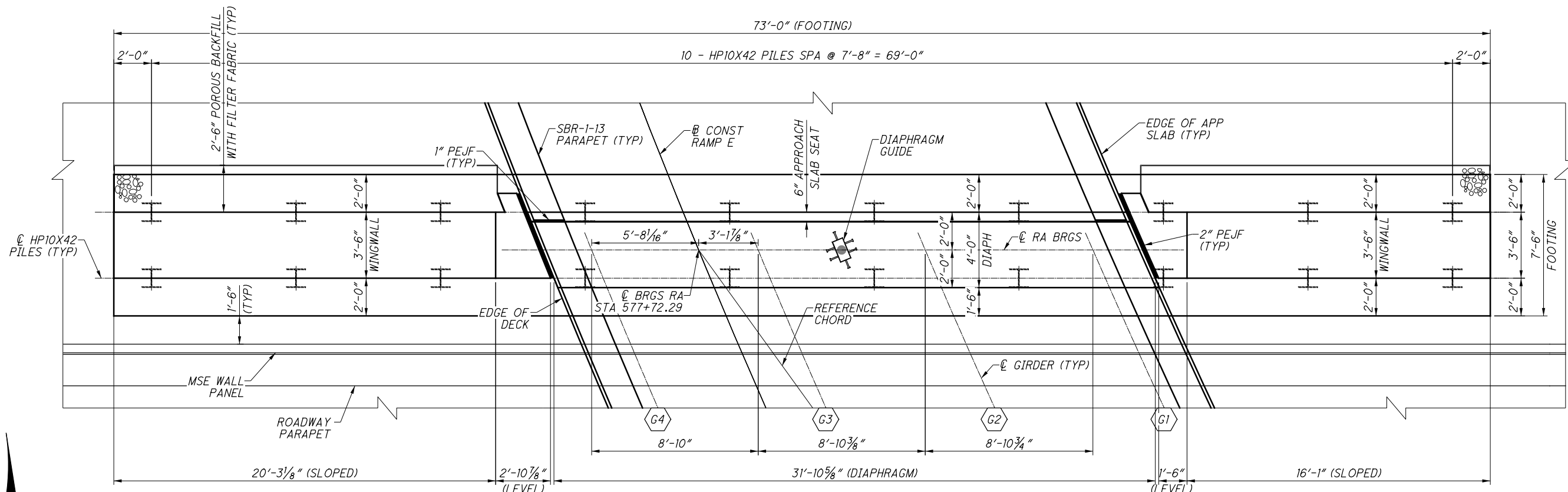
DESIGNED
AH

CHECKED
CTM

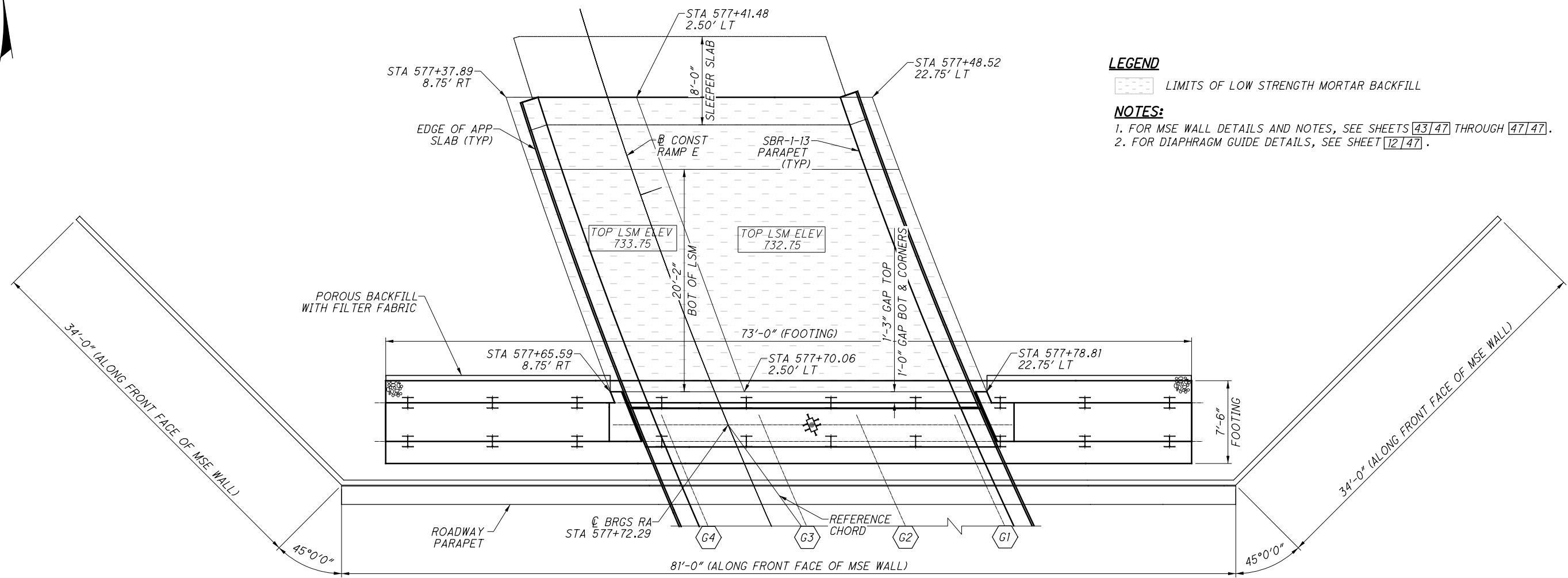
REVISER

STRUCTURE FILE NUMBER
6002766

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REAR ABUTMENT PLAN



REAR ABUTMENT PLAN - OVERALL VIEW

LEGEND

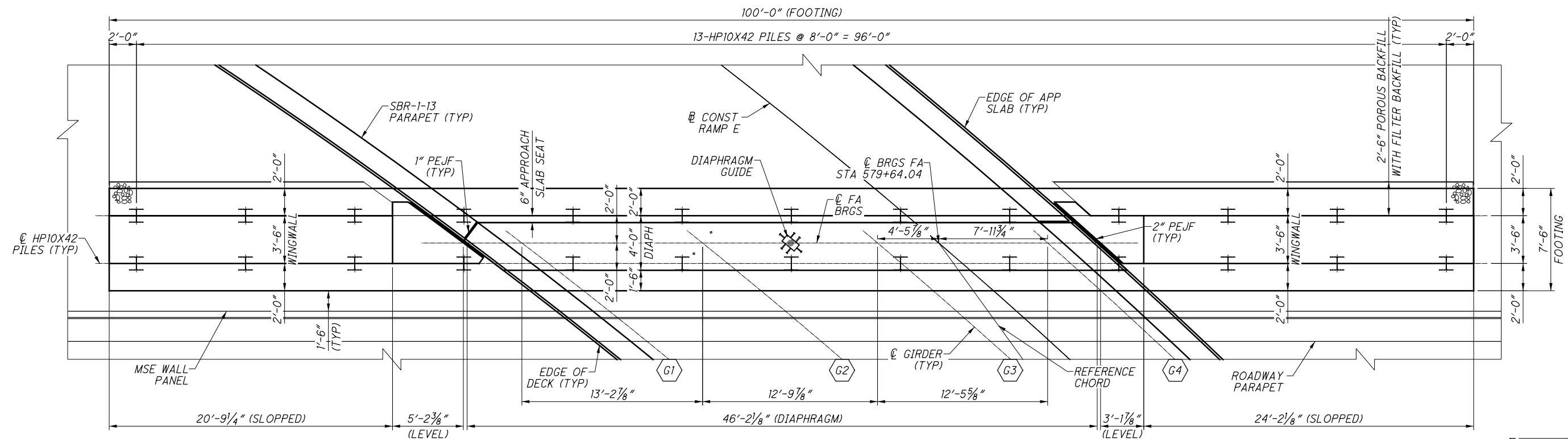
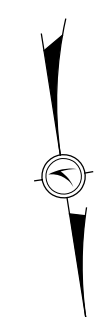
LIMITS OF LOW STRENGTH MORTAR BACKFILL

NOTES:

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

 DESIGN AGENCY GannettFleming ENGINEERS & ARCHITECTS, P.C. 2800 CORPORATE EXCHANGE DRIVE, SUITE 230 COLUMBUS, OHIO 43231			
DESIGNED	DATE	REVIEWED	DATE
AH	12/2020	EFD	12/2020
CHECKED	FILE NUMBER	STRUCTURE FILE NUMBER	6002766
GB			
OVERALL REAR ABUTMENT PLAN BRIDGE NO. MUS-70-1142 UNDER RAMP E			
MUS-70-10.49 PID No. 93006			
7 / 47			

SUBMITTAL: Stage 3
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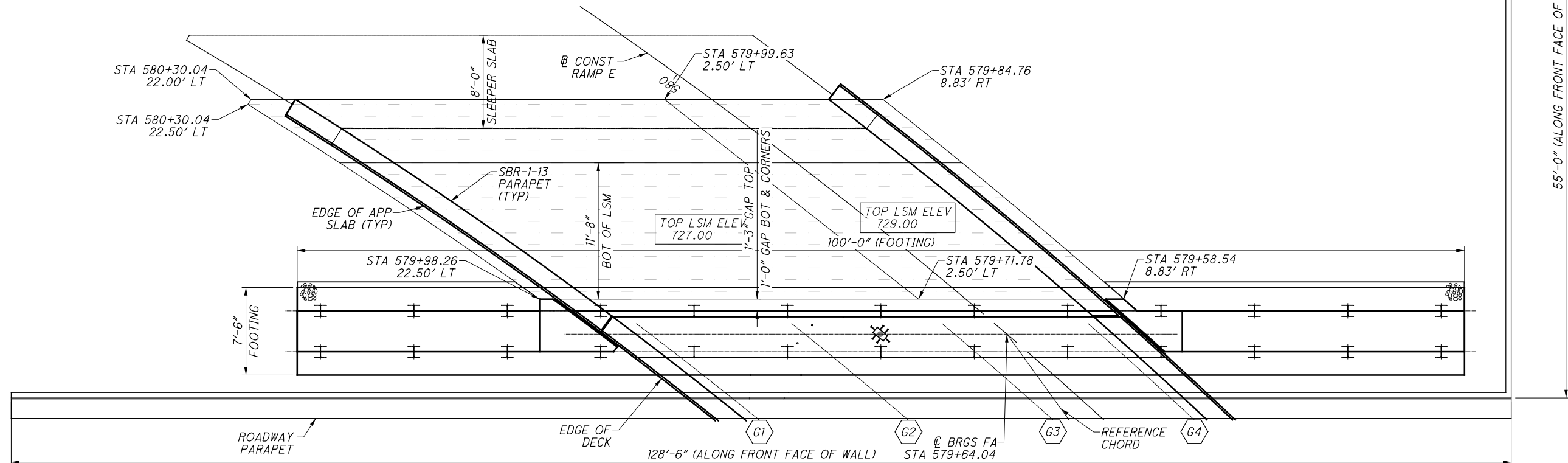
FORWARD ABUTMENT PLAN

LEGEND

[Symbol] 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

55'-0" (ALONG FRONT FACE OF WALL)

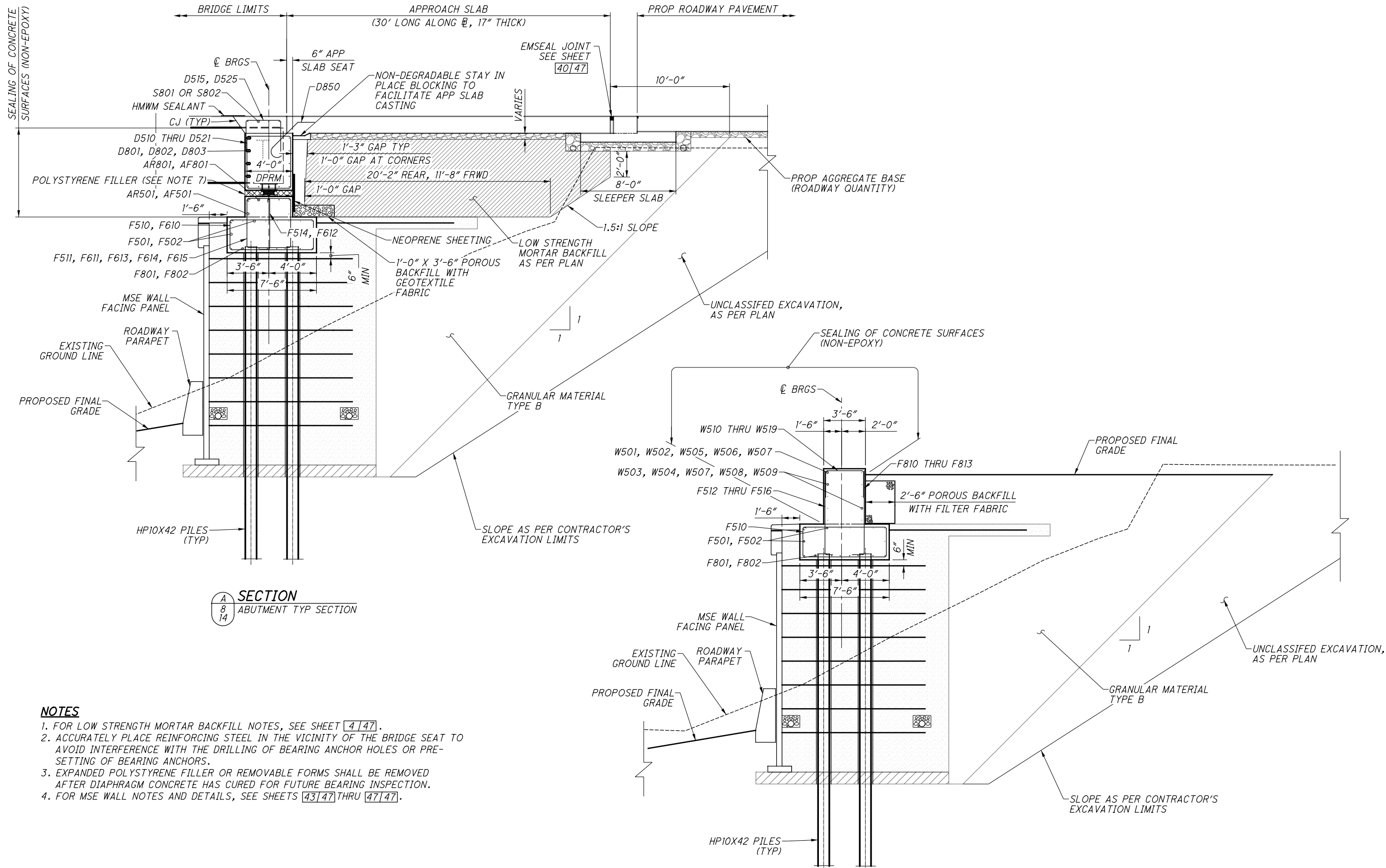
FORWARD ABUTMENT PLAN BRIDGE NO. MUS-70-1142 UNDER RAMP E		 Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2800 CORPORATE EXCHANGE DRIVE, SUITE 230 COLUMBUS, OHIO 43231					
DESIGNED	AH	CHECKED	GB	DRAWN	AH	REVISED	REVISOR
DATE		12/2020		REVIEWED		EFD	
STRUCTURE FILE NUMBER		6002766		DATE		12/2020	
DESIGN AGENCY		Gannett Fleming		DATE		12/2020	
ENGINEERS & ARCHITECTS, P.C.		2800 CORPORATE EXCHANGE DRIVE, SUITE 230		COLUMBUS, OHIO 43231			

MUS-70-10.49
 PID No. 93006

13 / 47

2020
 2231

SUBMITTAL: Stage 3
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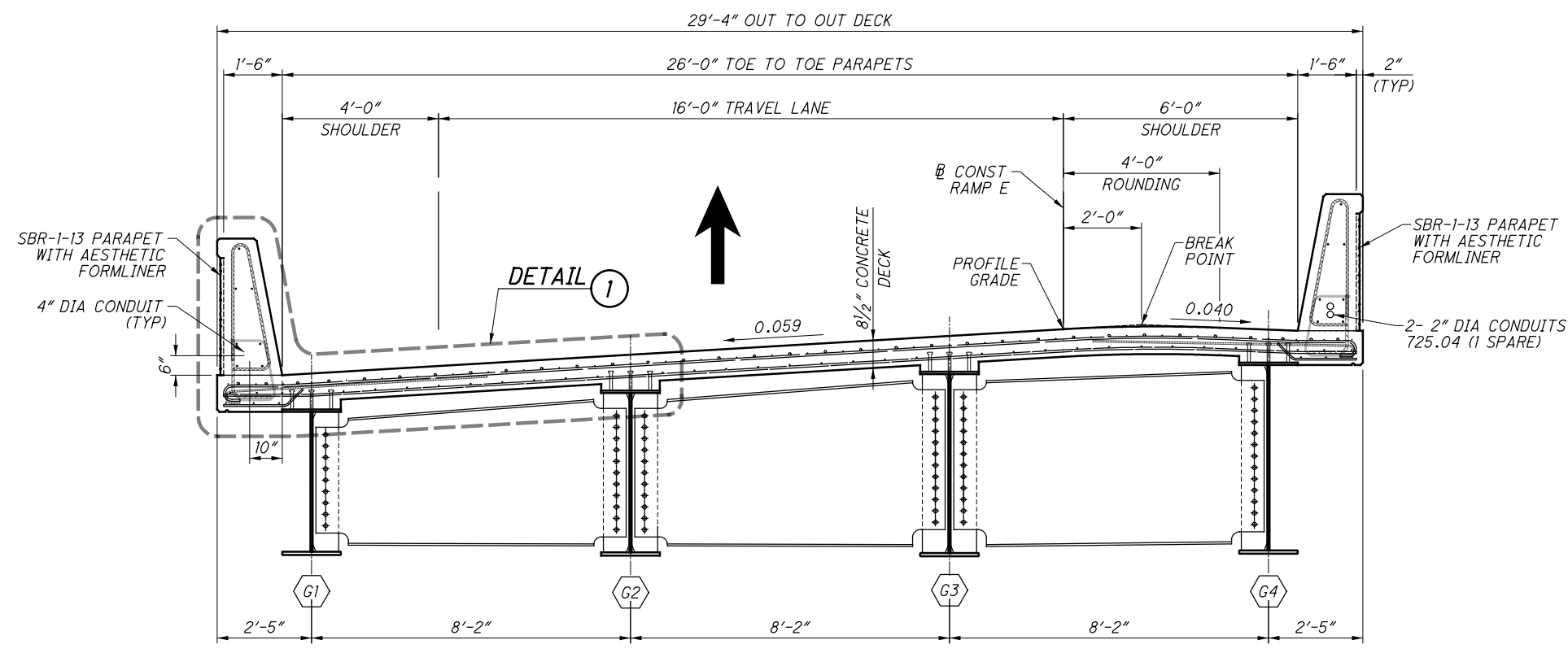
SECTION A
 8
 14
SECTION
 ABUTMENT TYP SECTION

SECTION B
 8
 14
SECTION
 WINGWALL TYP SECTION

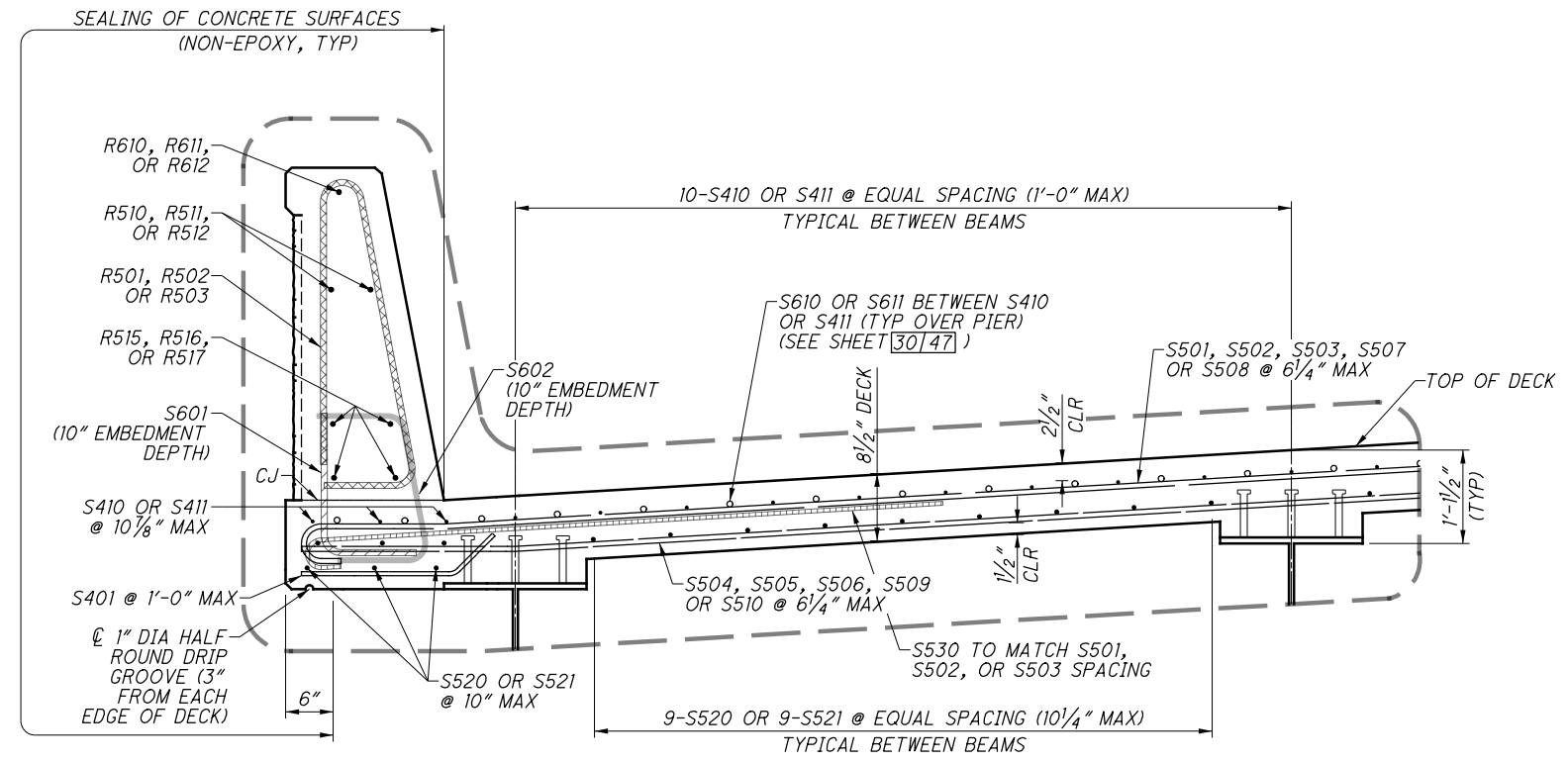
- NOTES**
1. FOR LOW STRENGTH MORTAR BACKFILL NOTES, SEE SHEET [4]47.
 2. ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR PRE-SETTING OF BEARING ANCHORS.
 3. EXPANDED POLYSTYRENE FILLER OR REMOVABLE FORMS SHALL BE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

Gannett Fleming <small>ENGINEERS & ARCHITECTS, P.C. 2500 CORPORATE EXCHANGE DRIVE SUITE 230 COLUMBUS, OHIO 43231</small>	DESIGN AGENCY DATE 12/2020 REVIEWED EFD STRUCTURE FILE NUMBER 6002766	ABUTMENT AND WINGWALL TYPICAL SECTION BRIDGE NO. MUS-70-1142 UNDER RAMP E
DESIGNED AH CHECKED GB	DRAWN AH REVISED	MUS-70-10.49 PID No. 93006
		17 / 47 2024 2231

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

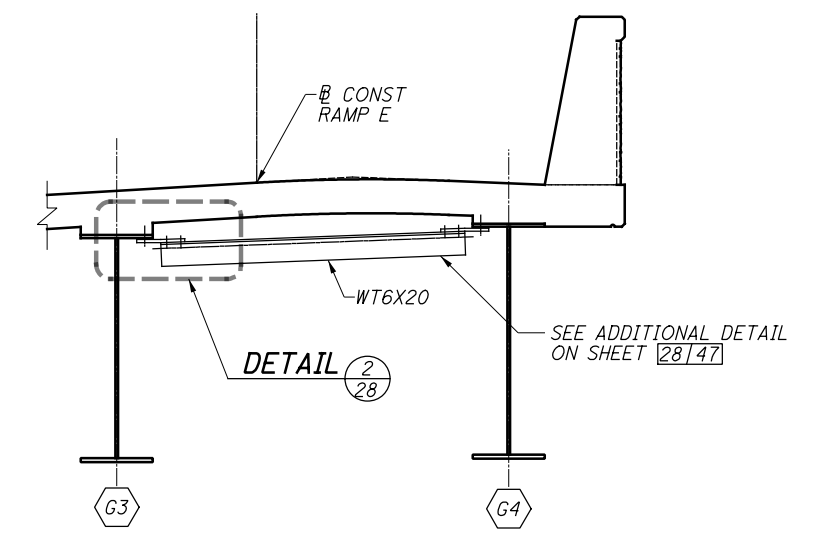


1 **DETAIL**
 TYPICAL REINFORCING PATTERN

NOTES

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



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

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

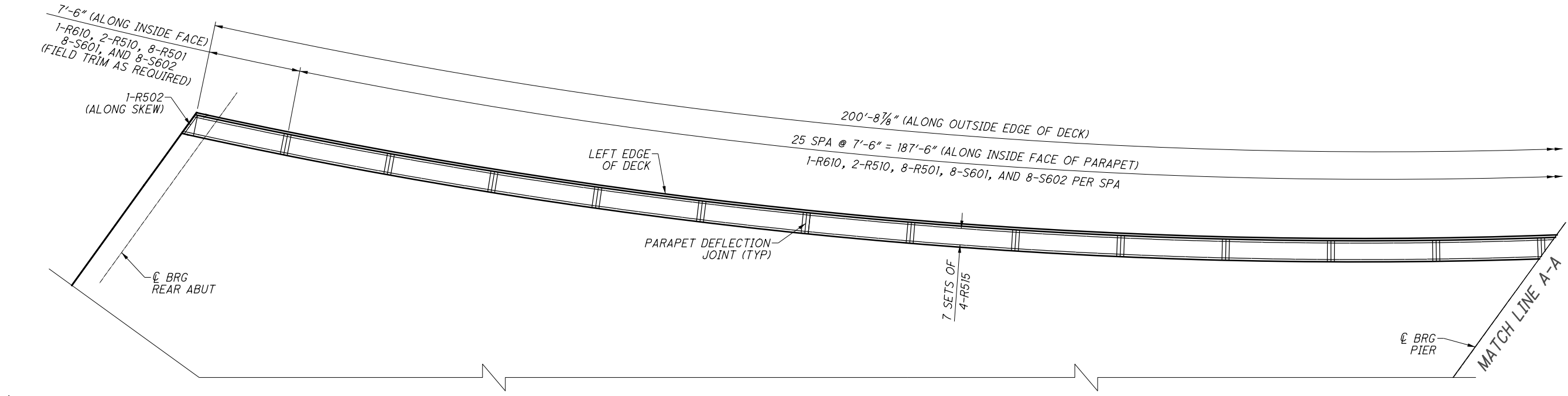
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AH	12/2020	EFD	12/2020
CHECKED	FILE NUMBER	STRUCTURE FILE NUMBER	6002766
AE			

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

MUS-70-10.49
PID No. 93006

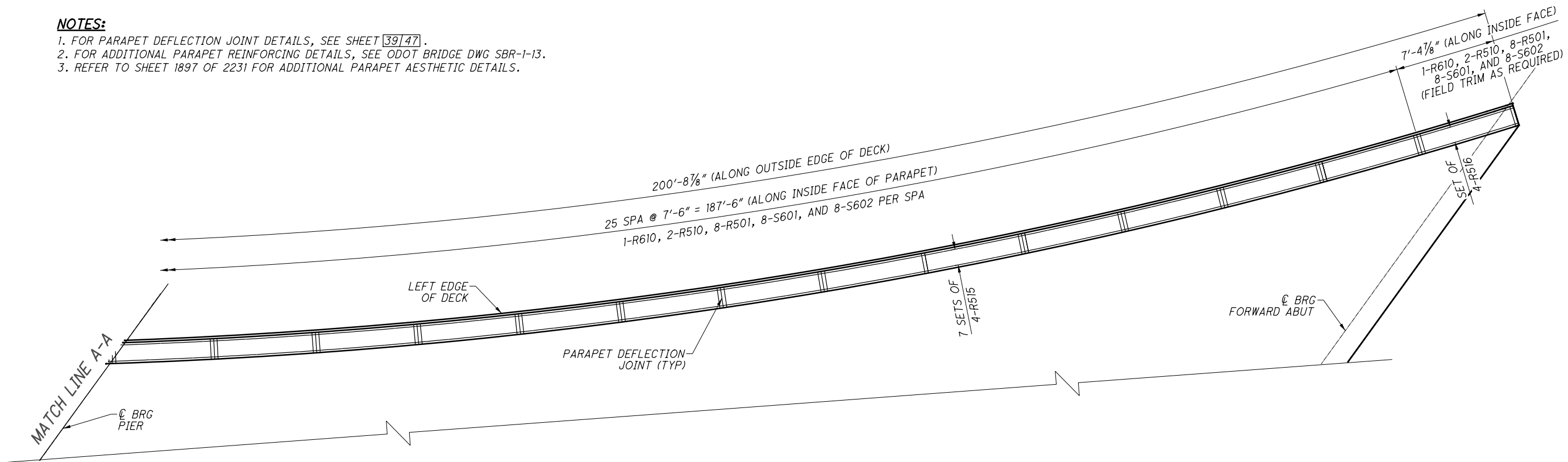
29 / 47
 2036
 2231

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LEFT PARAPET PLAN - PART 1
FIELD BEND HORIZONTAL BARS WHEN REQUIRED

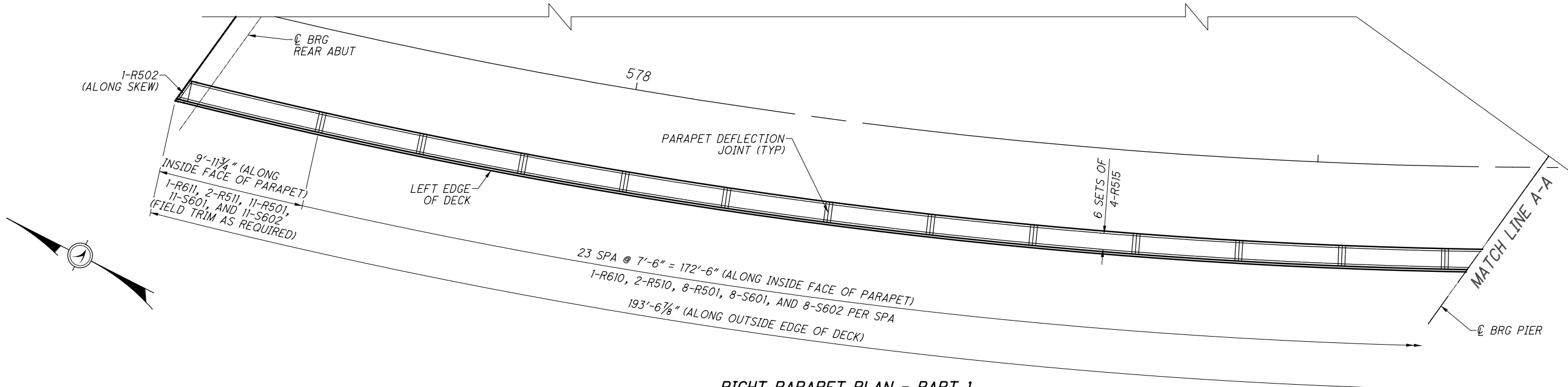
- NOTES:**
1. FOR PARAPET DEFLECTION JOINT DETAILS, SEE SHEET 39/47.
 2. FOR ADDITIONAL PARAPET REINFORCING DETAILS, SEE ODOT BRIDGE DWG SBR-1-13.
 3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.



LEFT PARAPET PLAN - PART 2
FIELD BEND HORIZONTAL BARS WHEN REQUIRED

Gannett Fleming ENGINEERS & ARCHITECTS, P.C. <small>2500 CORPORATE EXCHANGE DRIVE SUITE 230 COLUMBUS, OHIO 43231</small>			
DESIGNED	AH	DATE	12/2020
CHECKED	AE	REVIEWED	EFD
DRAWN		STRUCTURE FILE NUMBER	
AH		6002766	
REVISED			
LEFT PARAPET PLAN AND DETAILS BRIDGE NO. MUS-70-1142 UNDER RAMP E			
MUS-70-10.49 PID No. 93006			
35 / 47		2042 2231	

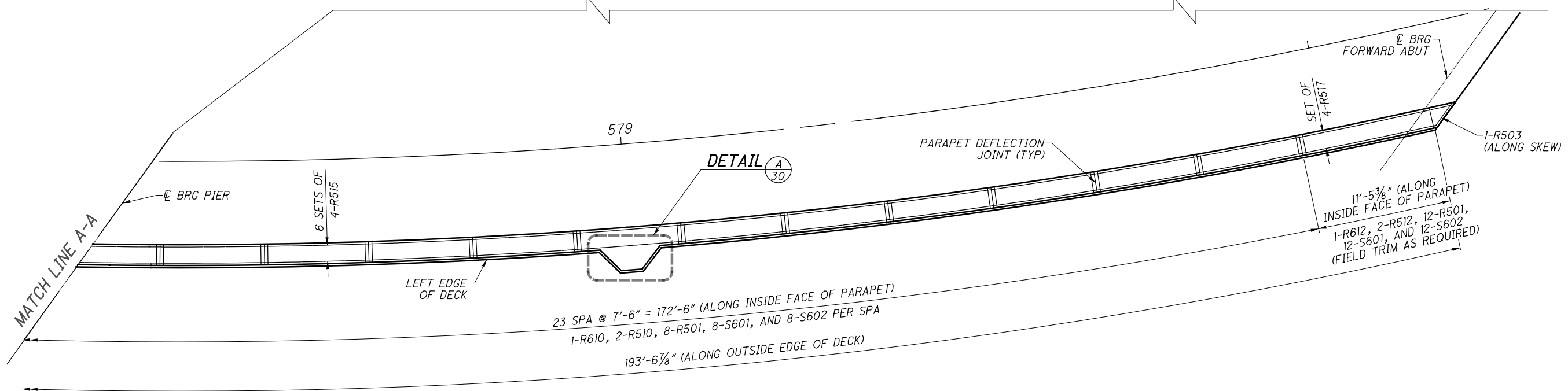
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NOTES:

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.

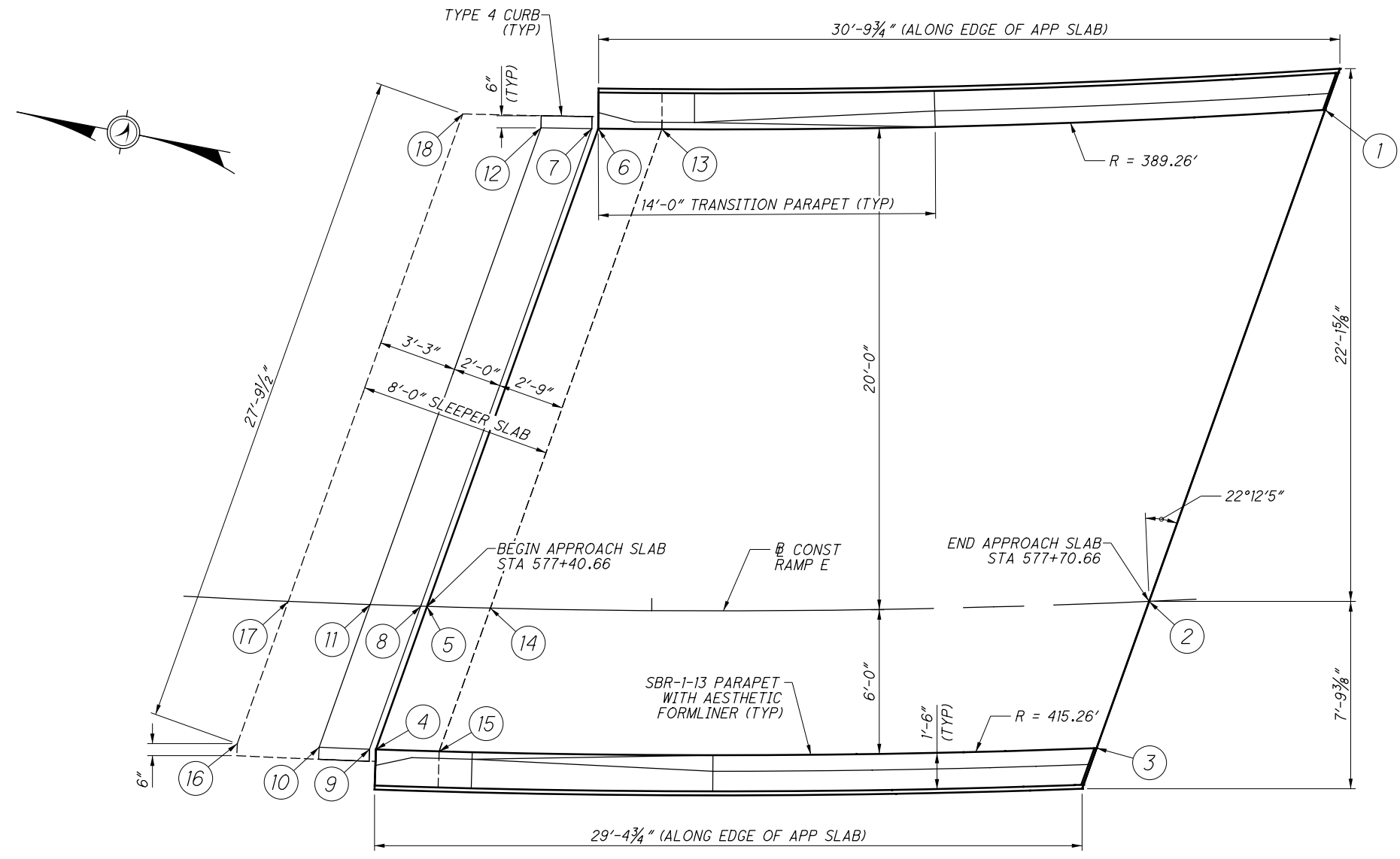
RIGHT PARAPET PLAN - PART 1
FIELD BEND HORIZONTAL BARS AS REQUIRED



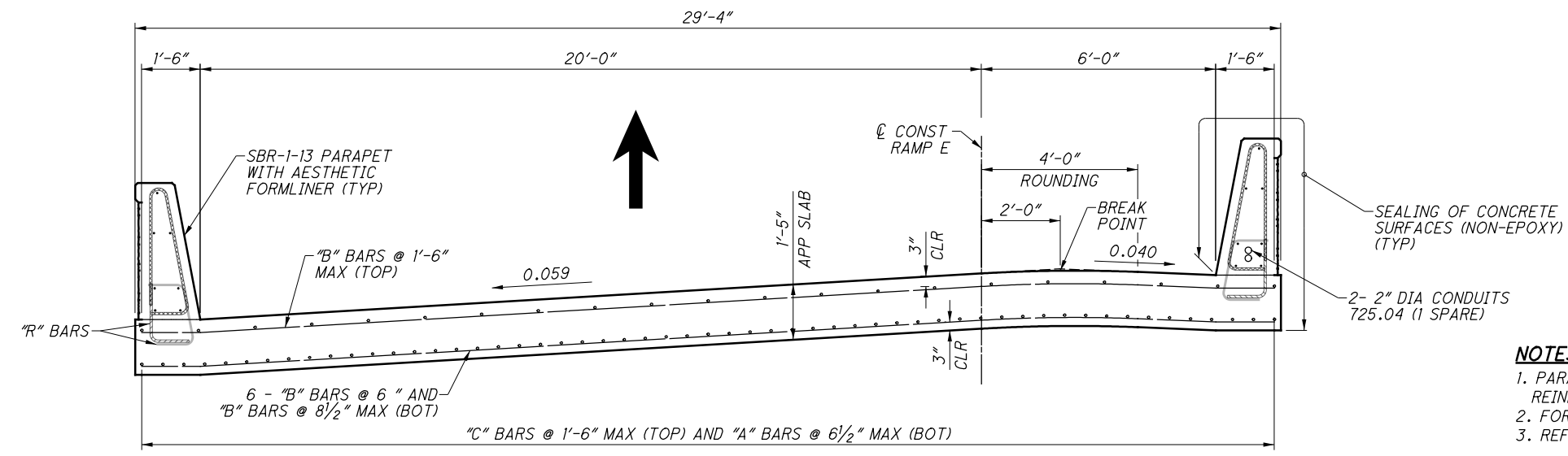
RIGHT PARAPET PLAN - PART 2
FIELD BEND HORIZONTAL BARS AS REQUIRED

DESIGNED	DATE	REVIEWED	DATE
AE	12/2020	EFD	12/2020
CHECKED	FILE NUMBER	STRUCTURE FILE NUMBER	FILE NUMBER
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REAR APPROACH SLAB PLAN



REAR APPROACH SLAB SECTION

- 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 29/47.
 3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

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

DESIGN AGENCY: **Gannett Fleming**
 ENGINEERS & ARCHITECTS, P.C.
 2800 CORPORATE EXCHANGE DRIVE, SUITE 230
 COLUMBIUS, OHIO 43231

DESIGNED: AH
 CHECKED: GB

DRAWN: AH
 REVISED:

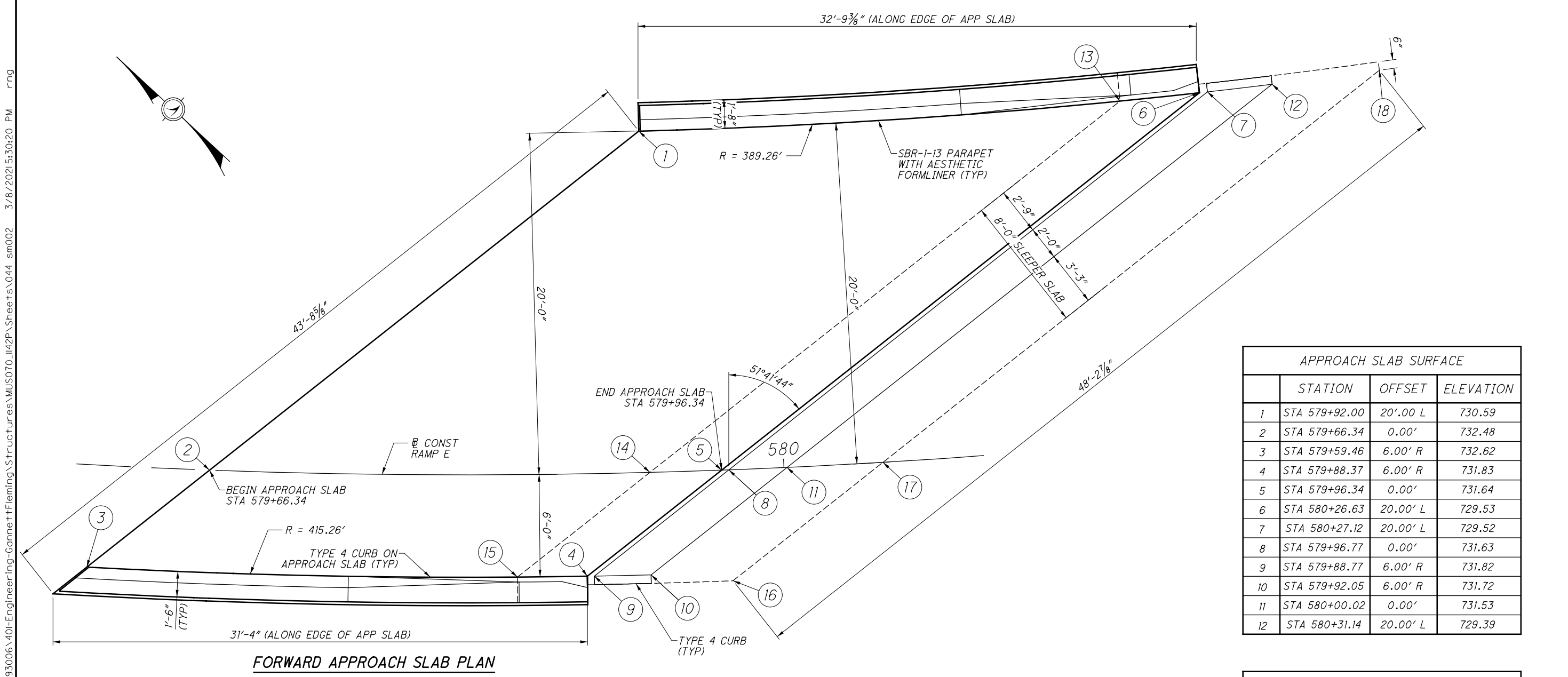
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 DATE: 12/2020
 STRUCTURE FILE NUMBER: 6002766

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

MUS-70-10.49
 PID No. 93006

37 / 47
 2044
 2231

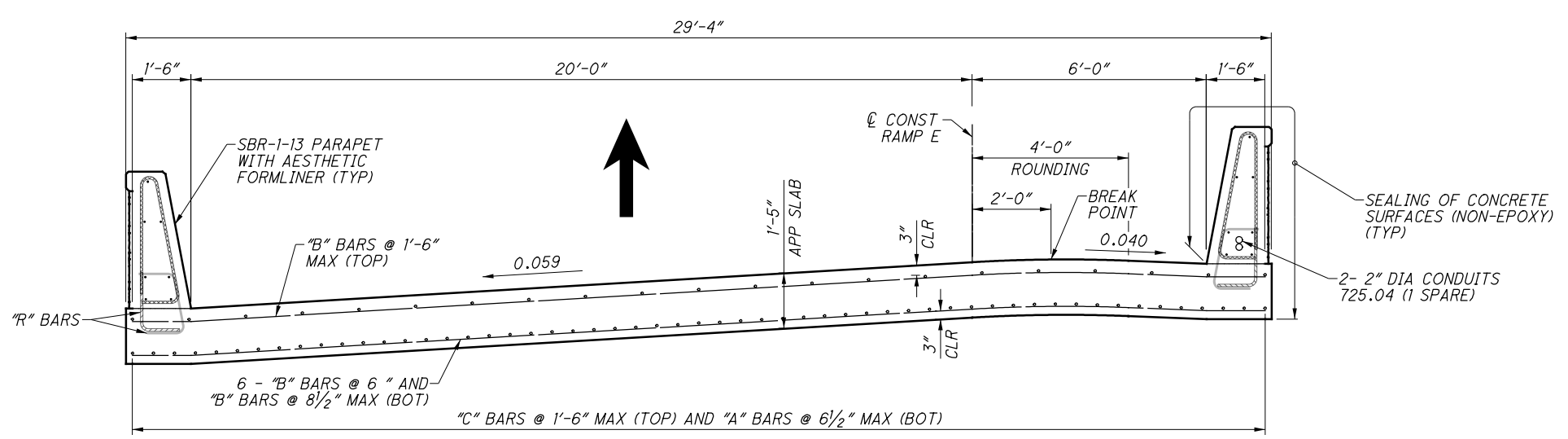
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FORWARD APPROACH SLAB PLAN

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

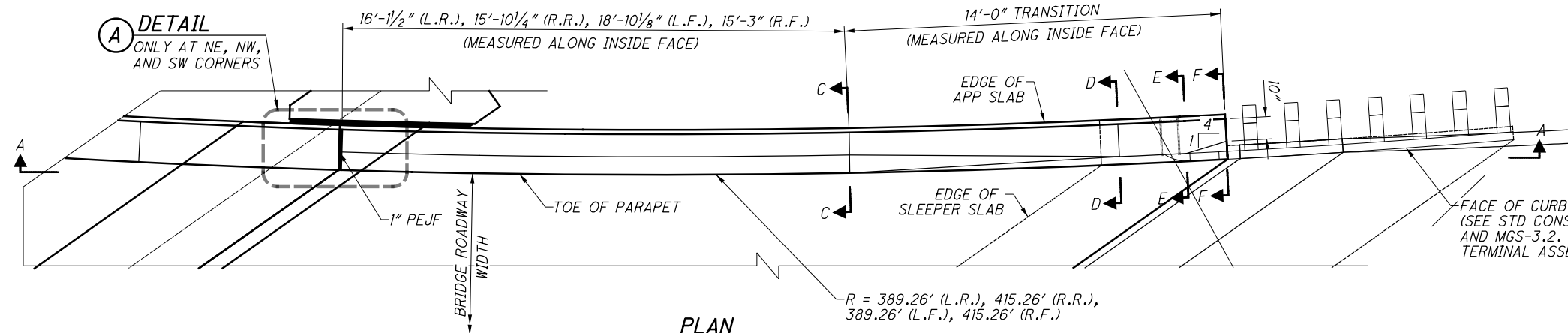
SLEEPER SLAB SURFACE			
	STATION	OFFSET	ELEVATION
13	STA 580+21.71	20.00' L	728.27
14	STA 579+92.14	0.00'	730.35
15	STA 579+84.33	6.00' R	730.53
16	STA 579+96.77	6.50' R	730.59
17	STA 580+05.80	0.00'	730.38
18	STA 580+37.80	20.00' L	728.19



FORWARD APPROACH SLAB SECTION

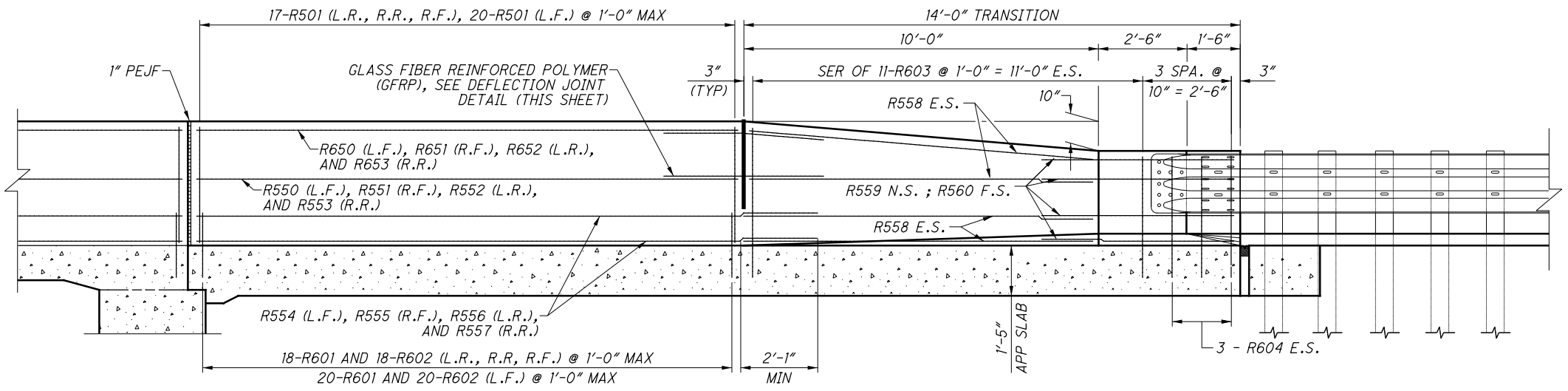
- NOTES:**
1. PARAPET "R" REINFORCING SHOWN ARE INCLUDED WITH THE PARAPET REINFORCING TABLE, BUT IS PLACED WITH APPROACH SLAB CONCRETE.
 2. FOR PARAPET REINFORCING DETAILS, SEE SHEET 29147.
 3. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.

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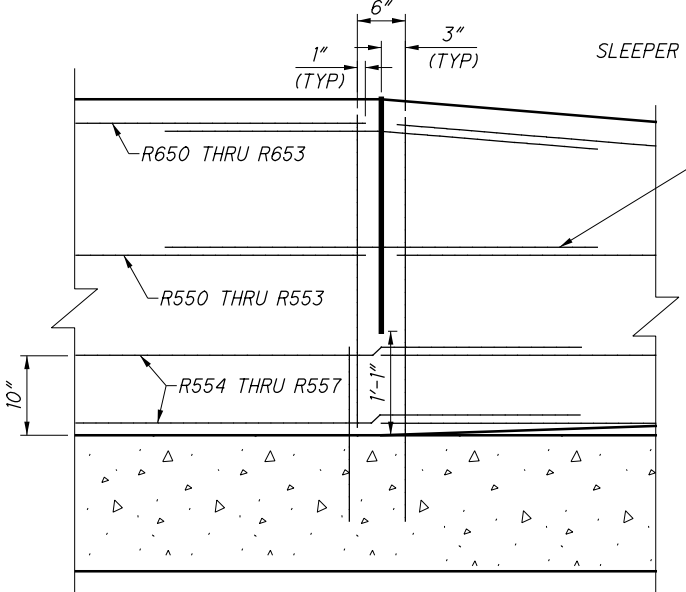


PLAN
 42" SBR-1-13 TRANSITION MOUNTED ON APPROACH SLAB WITH SEMI-INTEGRAL ABUTMENT, SE CORNER SHOWN

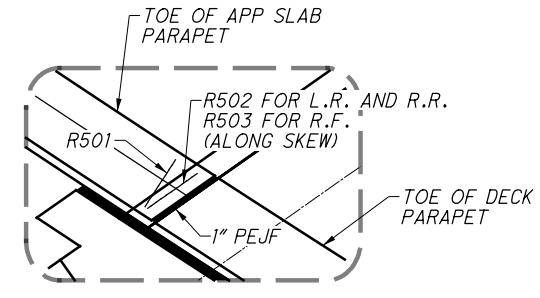
LEGEND:
 L.R. LEFT REAR
 R.R. RIGHT REAR
 L.F. LEFT FORWARD
 R.F. RIGHT FORWARD



SECTION A-A
 SLEEPER SLAB NOT SHOWN FOR CLARITY

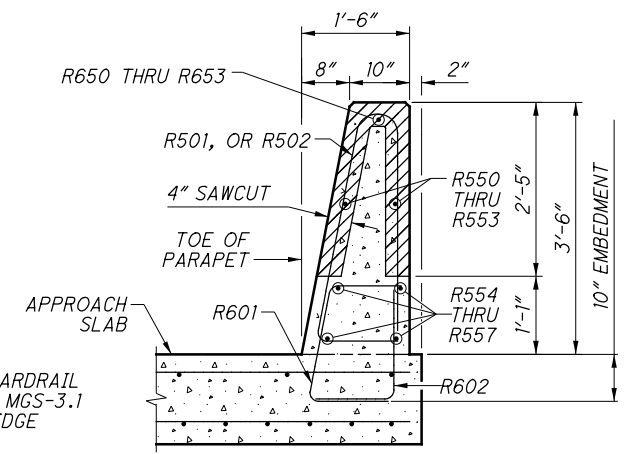


DEFLECTION JOINT DETAIL

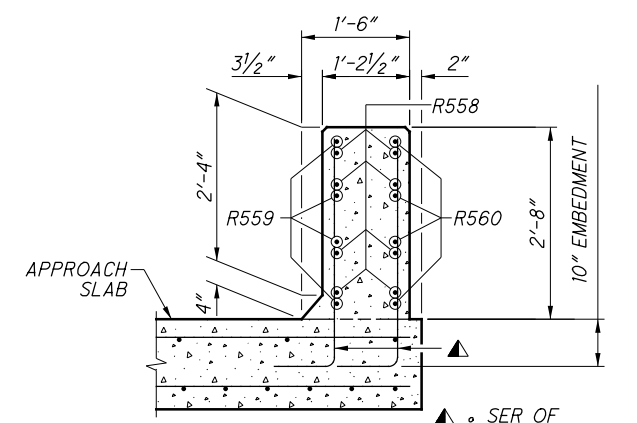


DETAIL A
 ONLY AT NE, NW, AND SW CORNERS
 NW SHOWN, OTHERS SIMILAR

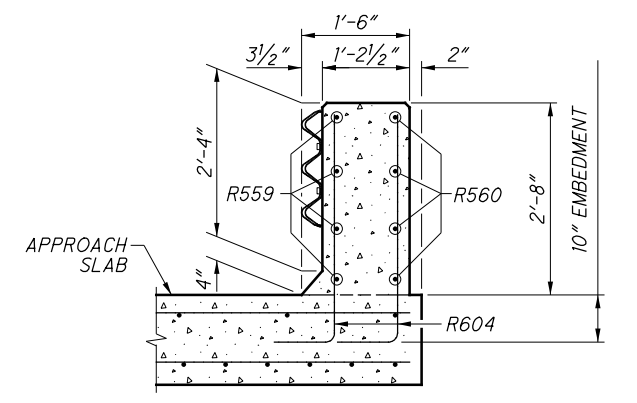
NOTES:
 1. FOR ADDITIONAL DETAILS, SEE STD DWG SBR-1-13.
 2. REFER TO SHEET 1897 OF 2231 FOR ADDITIONAL PARAPET AESTHETIC DETAILS.



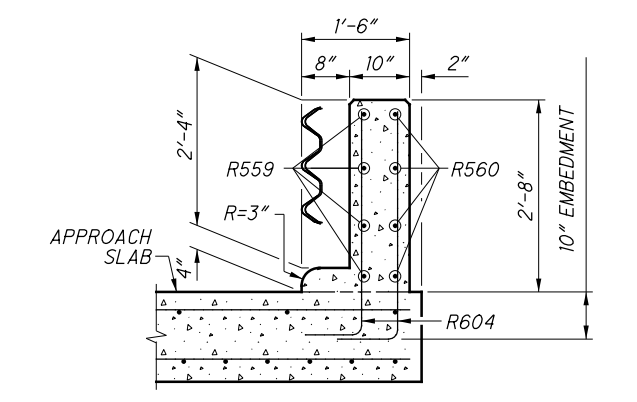
SECTION C



SECTION D



SECTION E



SECTION F

 Gannett Fleming ENGINEERS & ARCHITECTS, P.C. 2500 CORPORATE EXCHANGE DRIVE SUITE 230 COLUMBUS, OHIO 43231	DESIGN AGENCY DATE 12/2020 REVIEWED EFD STRUCTURE FILE NUMBER 6002766	DRAWN AH CHECKED GB DESIGNED AH REVISIONS	APPROACH SLAB PARAPET TRANSITION BRIDGE NO. MUS-70-1142 UNDER RAMP E
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