

ITEM 619 - FIELD OFFICE, TYPE C, AS PER PLAN (CONT.)

THE CONTRACTOR SHALL FURNISH AND MAINTAIN A BROADBAND INTERNET CONNECTION CAPABLE OF MINIMUM DOWNLOAD SPEEDS OF 1.0 GB/S ALONG WITH A WIRELESS ROUTER THAT SUPPORTS WI-FI STANDARD 802.11AX (WIFI 6) AND A MINIMUM WIRELESS DATA TRANSFER RATE OF 4000 MB/S – ALL FOR THE EXCLUSIVE USE OF THE DEPARTMENT. PROVIDE PRE-WIRED ETHERNET ACCESS FOR ALL INDIVIDUAL OFFICES AND THE GENERAL OFFICE AREA.

REQUESTS FOR ADDITIONAL OFFICE SUPPLIES, PAPER SUPPLIES, COPIER SUPPLIES, AND MAINTENANCE OF COPIER SHALL BE ACCOMODATED IN A TIMELY MANNER AT ANY POINT DURING THE OCCUPANCY OF THE FIELD OFFICE.

THE FIELD OFFICE WILL BE APPROVED IN ADVANCE BY THE ENGINEER AND FULLY OPERATIONAL WITHIN 30 DAYS AFTER THE SIGNING AND EXECUTION OF THE CONTRACT OR PRIOR TO THE START OF ANY CONSTRUCTION WORK, WHICHEVER COMES FIRST.

THE DEPARTMENT WILL MEASURE FIELD OFFICE, TYPE C, AS PER PLAN BY THE NUMBER OF MONTHS THE OFFICE IS MAINTAINED. A PARTIAL MONTH AT THE END OF THE PROJECT WILL BE PAID AS A FULL MONTH.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS FOLLOWS:

ITEM 619 – FIELD OFFICE, TYPE C, AS PER PLAN 36 MONTHS

ROADWAY

ITEM 622 – BARRIER, MISC.: CONCRETE BARRIER, TYPE B50

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING TYPE B50 CONCRETE BARRIER ACCORDING TO THE DETAILS SHOWN ON P.5 OF THIS PLAN WITH THE FOLLOWING MODIFICATIONS:

1. INSTALL THE NO. 8 DOWEL BARS BETWEEN THE CONCRETE FOUNDATION AND THE CONCRETE BARRIER. THE SIZE, LENGTH AND PLACEMENT OF THE DOWEL BARS SHALL FOLLOW THE DOWELING DETAILS SHOWN FOR THE 32" NORMAL SECTIONS.
2. THE COST OF THE MIN. 9" THICK, 4' WIDE FOUNDATION SHALL BE INCLUDED IN THIS PAY ITEM.
3. THE COST OF THE 5.5" THICK, 4' WIDE AGGREGATE BASE COURSE SHALL BE INCLUDED IN THIS PAY ITEM.

ALL COSTS FOR THIS ITEM OF WORK, INCLUDING SAWCUTTING OF EXISTING SHOULDER ASPHALT, LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR:

ITEM 622 - BARRIER, MISC.: CONCRETE BARRIER, TYPE B50.

ITEM 622 – CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING TYPE D CONCRETE BARRIER ACCORDING TO THE CMS AND STANDARD CONSTRUCTION DRAWING RM-4.5 WITH THE FOLLOWING MODIFICATIONS:

1. THE COST OF THE MIN. 9" THICK CONCRETE FOUNDATION WITH AN APPROXIMATE WIDTH OF 2.5' AS SHOWN IN THE TYPICAL SECTIONS SHALL BE INCLUDED IN THIS PAY ITEM.
2. THE COST OF THE 5.5" THICK, 2.5' WIDE AGGREGATE BASE COURSE SHALL BE INCLUDED IN THIS PAY ITEM.

ALL COSTS FOR THIS ITEM OF WORK, INCLUDING SAWCUTTING OF EXISTING SHOULDER ASPHALT, LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR:

ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN.

ITEM 202 – CONCRETE BARRIER REMOVED, AS PER PLAN

REMOVAL OF THE EXISTING CONCRETE BARRIER FOUNDATION SHALL BE INCLUDED IN THIS ITEM OF WORK. THE CONTRACTOR MAY ELECT TO SAWCUT THE PAVEMENT AT THE BARRIER FOUNDATION EDGE PRIOR TO THE CONCRETE BARRIER AND CONCRETE BARRIER FOUNDATION REMOVAL AS TO PREVENT ADJACENT PAVEMENT FROM BEING DISTURBED. REMOVAL OF THE EXISTING CONDUIT AND DISTRIBUTION CABLE SHALL ALSO BE INCLUDED IN THIS ITEM.

ALL COSTS FOR THIS ITEM OF WORK, INCLUDING SAWCUTTING, LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH MANUFACTERER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

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

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE GROUND.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL

RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

PAVEMENT

ITEM 441 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING ITEM 209 – RESHAPING UNDER GUARDRAIL, AS PER PLAN AND PAVING UNDER THE GUARDRAIL USING ITEM 441 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1,(449), (UNDER GUARDRAIL), AS PER PLAN.

HERBICIDE SHALL BE EPA APPROVED FOR PAVING UNDER GUARDRAIL. IT SHALL BE APPLIED TO THE PREPARED AREA AFTER FINAL LEVELING AND GRADING HAS BEEN COMPLETED. THE APPLICATION SHALL BE JUST PRIOR TO PAVING AND SHALL STRICTLY ADHERE TO THE MANUFACTURER'S INSTRUCTIONS.

EACH SUCCESSFUL BIDDER MUST BE LICENSED BY THE OHIO DEPARTMENT OF AGRICULTURE AS A COMMERCIAL APPLICATOR AND ALL PERSONS INVOLVED IN THE ACTUAL SPRAYING SHALL BE LICENSED AS COMMERCIAL OPERATORS IN THE APPROPRIATE SPRAY CATEGORY.

HERBICIDE LABEL, MATERIAL SAFETY DATA SHEET AND COPY OF APPLICATORS LICENSES SHALL BE SUBMITTED TO THE ENGINEER FOR VERIFICATION PRIOR TO COMMENCING WORK.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 441 TO A DEPTH OF 3" AND A MAXIMUM WIDTH OF 4' USING ONE OF THE FOLLOWING METHODS:

METHOD A:
1.SET GUARDRAIL POSTS
2.PLACE ITEM 441

METHOD B:
1.PLACE ITEM 441
2.BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
3.SET GUARDRAIL POSTS
4.PATCH AROUND POSTS.

THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 441 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN. THE FOLLOWING ESTIMATED QTY'S ARE CARRIED TO GENERAL SUMMARY:

ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN 25 CY

ITEM 209 – RESHAPING UNDER GUARDRAIL, AS PER PLAN

THIS ITEM OF WORK SHALL BE USED TO PREPARE PROPOSED AND EXISTING GUARDRAIL RUNS FOR PAVING UNDER GUARDRAIL, INCLUDING THE REMOVAL AND DISPOSAL OF EXISTING ASPHALT UNDER GUARDRAIL.

A SAWCUT WILL BE PERFORMED, WHEN APPLICABLE, TO ASSIST THE REMOVAL OF EXISTING ASPHALT UNDER GUARDRAIL AND MINIMIZE DAMAGE TO EXISTING SHOULDER ASPHALT. PAYMENT FOR SAWCUTTING WILL BE INCLUDED IN THE BID PRICE FOR ITEM 209 – RESHAPING UNDER GUARDRAIL, AS PER PLAN.

FILL ALL HOLES REMAINING AFTER REMOVAL OF GUARDRAIL POSTS AND ANCHOR ASSEMBLIES WITH GRANULAR MATERIAL. DO NOT USE FILL MATERIAL CONTAINING SOD. ALL FILL MATERIAL SHALL BE APPROVED BY THE ENGINEER AND SHALL BE COMPACTED AS DIRECTED BY THE ENGINEER. PAYMENT FOR THE ABOVE IS INCLUDED IN THE APPLICABLE GUARDRAIL ITEM.

RESHAPE AND COMPACT SUBGRADE TO ENSURE POSITIVE DRAINAGE. ESTABLISH A CROSS-SLOPE OF 0.042 (HALF INCH PER FOOT). GRADE TO A MAXIMUM WIDTH OF 6' TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE TRAVEL LANES.

ALL COLLECTED DEBRIS AND TOPSOIL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN SECTION 105.17 OF THE CMS.

IN AREAS WHERE ASPHALT UNDER GUARDRAIL WILL NOT BE REPLACED, THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 AND PLACED TO GRADE AS APPROVED BY THE ENGINEER. SEED AND MULCH THESE AREAS ACCORDING TO SECTION 659.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 209 – RESHAPING UNDER GUARDRAIL, AS PER PLAN AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO PERFORM THE WORK.

IN AREAS WHERE ASPHALT UNDER GUARDRAIL WILL NOT BE REPLACED, THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 AND PLACED TO GRADE AS APPROVED BY THE ENGINEER. SEED AND MULCH THESE AREAS ACCORDING TO SECTION 659.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 209 – RESHAPING UNDER GUARDRAIL, AS PER PLAN AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO PERFORM THE WORK.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 209 - RESHAPING UNDER GUARDRAIL, AS PER PLAN 9 STA

SHOULDER RESTORATION ON IR-480.

THE REMOVAL AND CONSTRUCTION OF PIERS MAY REQUIRE THE MEDIAN/ADJACENT SHOULDERS TO BE REBUILT. CONTRACTOR MAY ELECT TO SAWCUT THE PAVEMENT AT THE EDGE OF PAVEMENT PRIOR TO THE PIER REMOVAL AS TO PREVENT ADJACENT PAVEMENT FROM BEING DISTURBED.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG64-22 (THICKNESS = 1.5")	12 CY
ITEM 442 - ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448), (THICKNESS = 1.75")	14 CY
ITEM 302 - ASPHALT CONCRETE BASE, PG64-22, (449) (THICKNESS = 8.5", 2 LIFTS REQUIRED)	70 CY
ITEM 304 - AGGREGATE BASE (THICKNESS = 10")	84 CY
ITEM 202 - PAVEMENT REMOVED	287 SY
ITEM 605 - 6" UNDERDRAIN	335 LF
ITEM 204 - SUBGRADE COMPACTION	287 SY
ITEM 407 - NON-TRACKING TACK COAT	22 GAL

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

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

PAYMENT FOR RESURFACING WITHIN THE TRANSITION AREA SHALL BE INCIDENTAL TO WORK ZONE RAISED PAVEMENT MARKER. FOR THE WORK REQUIRED, AS PROVIDED FOR IN THE PLANS.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO ACCOUNT FOR THE DAMAGE OR DISTURB OF THE WZ RPMs THROUGHOUT PROJECT.

ITEM 614	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	325 EACH
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RUMBLE STRIP REMOVAL AND REPLACEMENT

ALL EXISTING RUMBLE STRIPS THAT ARE IN CONFLICT WITH THE PROPOSED MOVEMENT OF TRAFFIC DURING THE MOT OPERATIONS SHALL BE REMOVED BY PAVEMENT PLANING. THE REMOVED RUMBLE STRIP AREAS SHALL BE FILLED WITH ASPHALT CONCRETE SURFACE COURSE. THE RUMBLE STRIP REMOVAL AND REPLACEMENT AREA SHALL BE 2.5 FEET WIDE AND 1.5 INCHES DEEP, CENTERED ON THE RUMBLE STRIP. THE PAVEMENT PLANING AND PLACEMENT OF ASPHALT CONCRETE SURFACE COURSE SHOULD BE COMPLETED IN THE SAME OPERATION. THE ESTIMATED REMOVAL AND REPLACEMENT LENGTH IS 6000 FT.

IMMEDIATELY FOLLOWING COMPLETION OF MOT OPERATIONS AND RESTORING THE TRAFFIC TO ITS ORIGINAL POSITION, NEW RUMBLE STRIPS SHALL BE INSTALLED AT THE LOCATION WHERE THE EXISTING RUMBLE STRIPS WERE REMOVED.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE 1.5" DEPTH	1667 SY
ITEM 407 - NON-TRACKING TACK COAT	125 GAL
ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG64-22, 1-1/2"	70 CY
ITEM 618 - RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	1.14 MILE

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG64-22

THE COARSE VIRGIN AGGREGATE AND AT LEAST 50% OF FINE VIRGIN AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO.

TABLE 442.02-2 APPLIES EXCEPT NO. 4 SIEVE REQUIREMENTS ARE 52 TO 60 TOTAL PERCENT PASSING. FOR THE NO. 4 SIEVE DO NOT EXCEED 63 IN PRODUCTION.

IN ADDITION TO THE JOINT SEALING REQUIREMENTS SPECIFIED IN 401.17, THE CONTRACTOR SHALL SEAL THE PERIMETER OF ALL RUMBLE STRIP PAVEMENT REPLACEMENT AREAS. THE MATERIAL USED SHALL BE A CERTIFIED 702.01 PG BINDER. THE WIDTH OF THE SEALER SHALL BE 2-3 INCHES.

PAYMENT FOR ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO PERFORM THE ABOVE WORK SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG64-22.

PHASE 3/PHASE 4 LANE CLOSURE ON RAMP R FOR STAGING OF EQUIPMENT

CONTRACTOR MAY ELECT TO CLOSE ONE- LANE OF RAMP R AS PER MT-095.40 IN ORDER TO STAGE PAINTING EQUIPMENT REQUIRED FOR THE PAINTING OPERATIONS OF SFN 1814249 DURING PHASE 3/PHASE 4.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO PERFORM THE LANE CLOSURE AND RESTORATION TO EXISTING CONDITION :

ITEM 614	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (YELLOW)	0.33 MILE
ITEM 614	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	720 FT
ITEM 614	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	1 EACH
ITEM 614	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	80 EACH
ITEM 622	PORTABLE BARRIER, UNANCHORED	900 FT
ITEM 646	LANE LINE, 6"	0.31 MILE
ITEM 621	RPM	21 EACH

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

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

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

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

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

FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:

ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND, AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

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

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF: THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR THE ACTIVE WORK AREA Laterally CLOSEst TO THE OPEN TRAVELED LANE; OR OTHER LOCATION AS APPROVED BY THE ENGINEER.

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

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

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

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

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

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 160 HOURS

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

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

WORK ZONE INCREASED PENALTIES SIGN (R11-H5a)

R11-H5A-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUT-DOWNS.

(THE SIGNS ON THE MAINLINE SHALL BE DUAL MOUNTED UNLESS NOT PHYSICALLY POSSIBLE. THE FIRST SIGN SHALL BE PLACED BETWEEN THE ROAD WORK AHEAD (W20-1) SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS. SIGNS ON THE MAINLINE SHALL BE R11-H5A-48. SIGNS USED ON THE RAMPS SHALL BE R11-H5A-24. R11-H5A-24 SIGNS MAY BE USED IN THE MEDIAN IN LIEU OF R11-H5A-48 SIGNS IF IT IS NOT PHYSICALLY POSSIBLE TO PROVIDE R11-H5A-48 SIGNS IN THE MEDIAN.) THE R11-H5A-48 SIGNS SHALL BE MOUNTED ON 2 NO. 3 POSTS WHEN LOCATED WITHIN CLEAR ZONES.

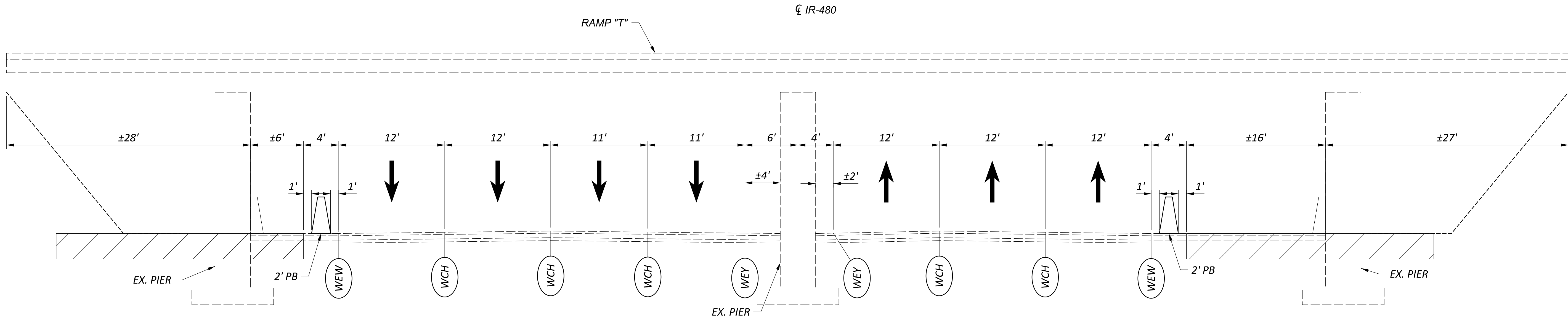
THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS.

WORK ZONE INCREASED PENALTIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

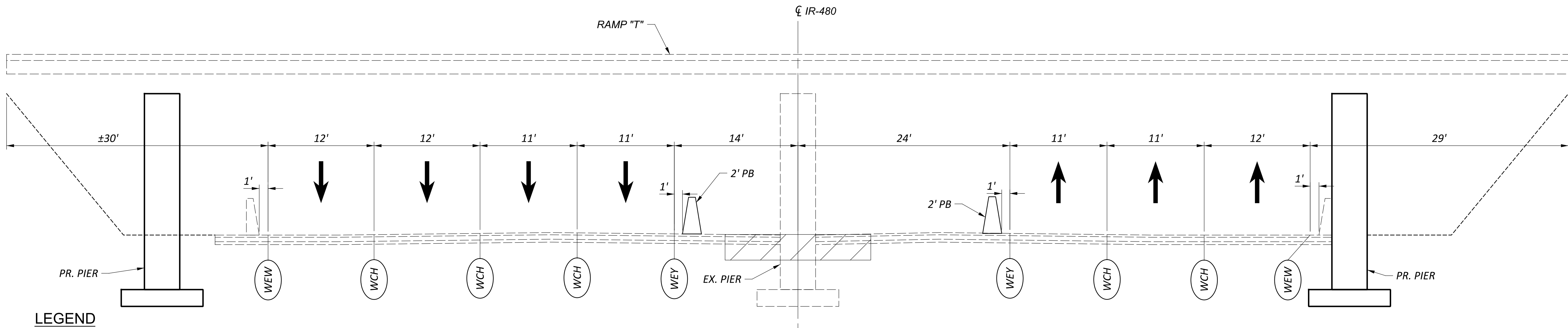
PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614 - WORK ZONE INCREASED PENALTIES SIGN 6 EACH

MAINTENANCE OF TRAFFIC SUBSUMMARY



IR-480
PHASE 1A, 2B

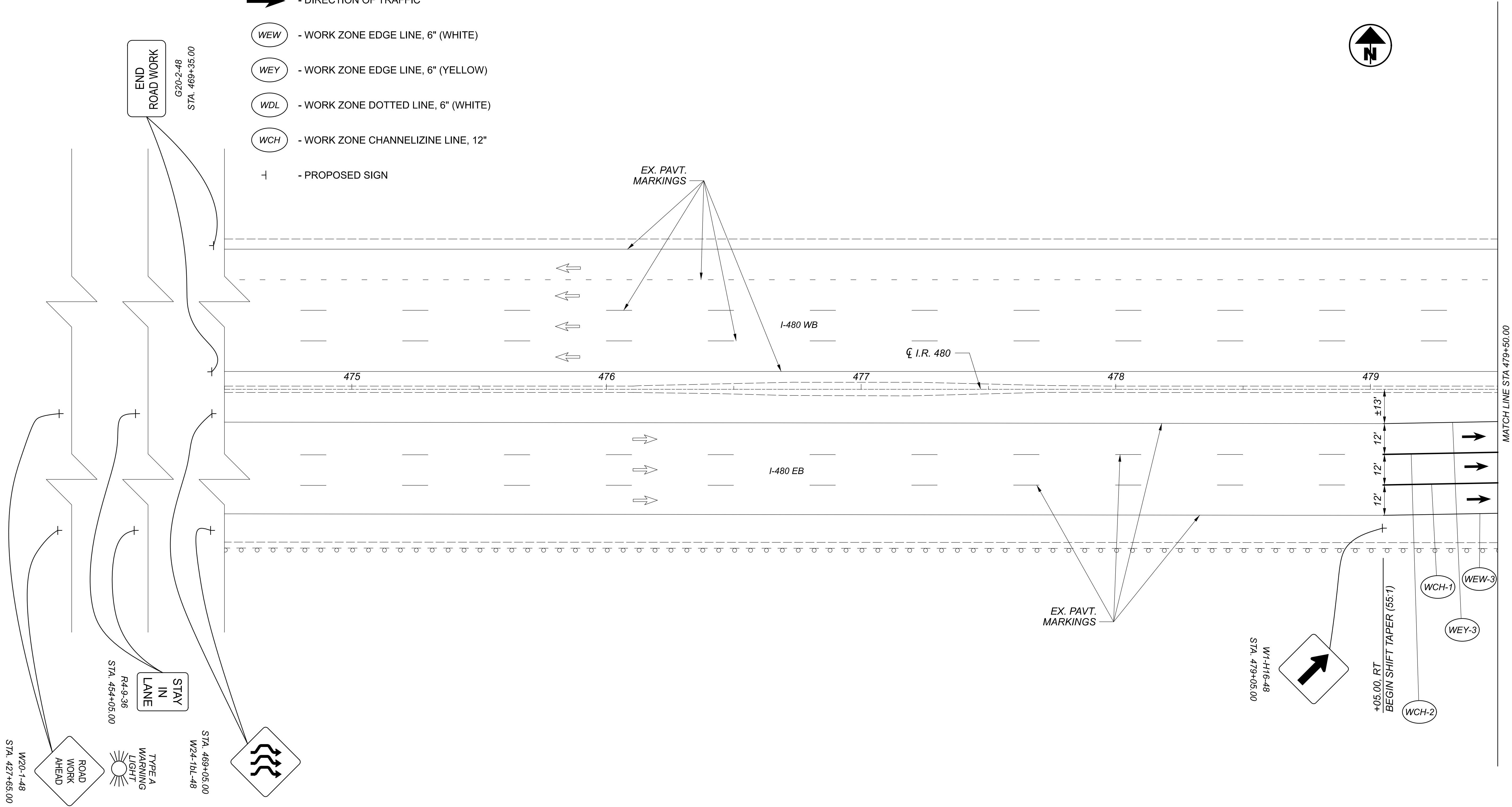


IR-480
PHASE 1B, 2A

LEGEND

- AREA TO BE CONSTRUCTED
- DIRECTION OF TRAFFIC
- WORK ZONE EDGE LINE, 6" (WHITE)
- WORK ZONE EDGE LINE, 6" (YELLOW)
- WORK ZONE CHANNELIZING LINE, 12" (WHITE)

NOTE:
ALL WORK ZONE MARKINGS ON IR-480 TO BE WET REFLECTIVE, 873, PER TRAFFIC ENGINEERING MANUAL (TEM) SECTION 605-11.11.1. (WET REFLECTIVE, 807 PAINT TO BE USED FOR WINTER MONTHS)



NOTES:

1. FOR IR-71 NB RAMP T MOT, SEE SHEETS P.21 TO P.28
2. I-480 WB LANES DEPICT RECENTLY CONSTRUCTED CUY-71-7.14WB CONFIGURATION.
3. ALL WORK ZONE MARKINGS ON IR-480 TO BE WET REFLECTIVE, 873, PER TRAFFIC ENGINEERING MANUAL (TEM) SECTION 605-11.11.1. (WET REFLECTIVE, 807 PAINT TO BE USED FOR WINTER MONTHS)

MAINTENANCE OF TRAFFIC - I-480 - PHASE 1A,2B
STA 474+50 TO STA 479+50

DESIGN AGENCY

M M
MOTT MACDONALD
20445 EMERALD PKWY
SUITE 100
CLEVELAND, OH 44135

DESIGNER

SMS

REVIEWER

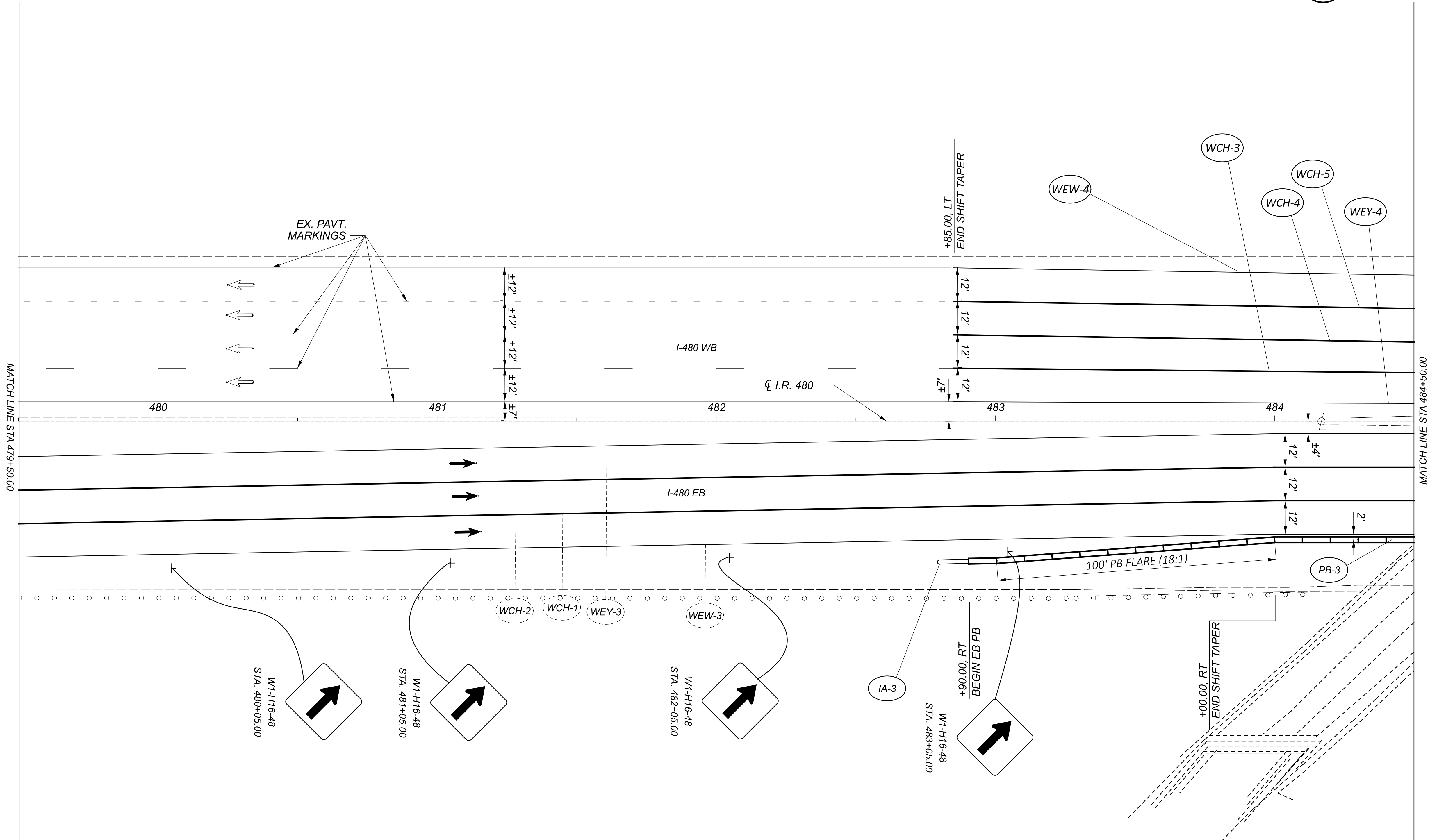
SJP 09/17/25

PROJECT ID

114536

SHEET TOTAL

P.29 167



NOTES:

1. FOR LEGEND SEE SHEET P.29
2. FOR IR-71 NB RAMP T MOT, SEE SHEETS P.21 TO P.28
3. I-480 WB LANES DEPICT RECENTLY CONSTRUCTED CUY-71-7.14WB CONFIGURATION.
4. ALL WORK ZONE MARKINGS ON IR-480 TO BE WET REFLECTIVE, 873, PER TRAFFIC ENGINEERING MANUAL (TEM) SECTION 605-11.11.1. (WET REFLECTIVE, 807 PAINT TO BE USED FOR WINTER MONTHS)



MAINTENANCE OF TRAFFIC - I-480 - PHASES 1A, 2B
STA 479+50.00 TO STA 484+50.00



DESIGN AGENCY



DESIGNER

SMS

REVIEWER

SJP 09/17/25

PROJECT ID

114536

SHEET

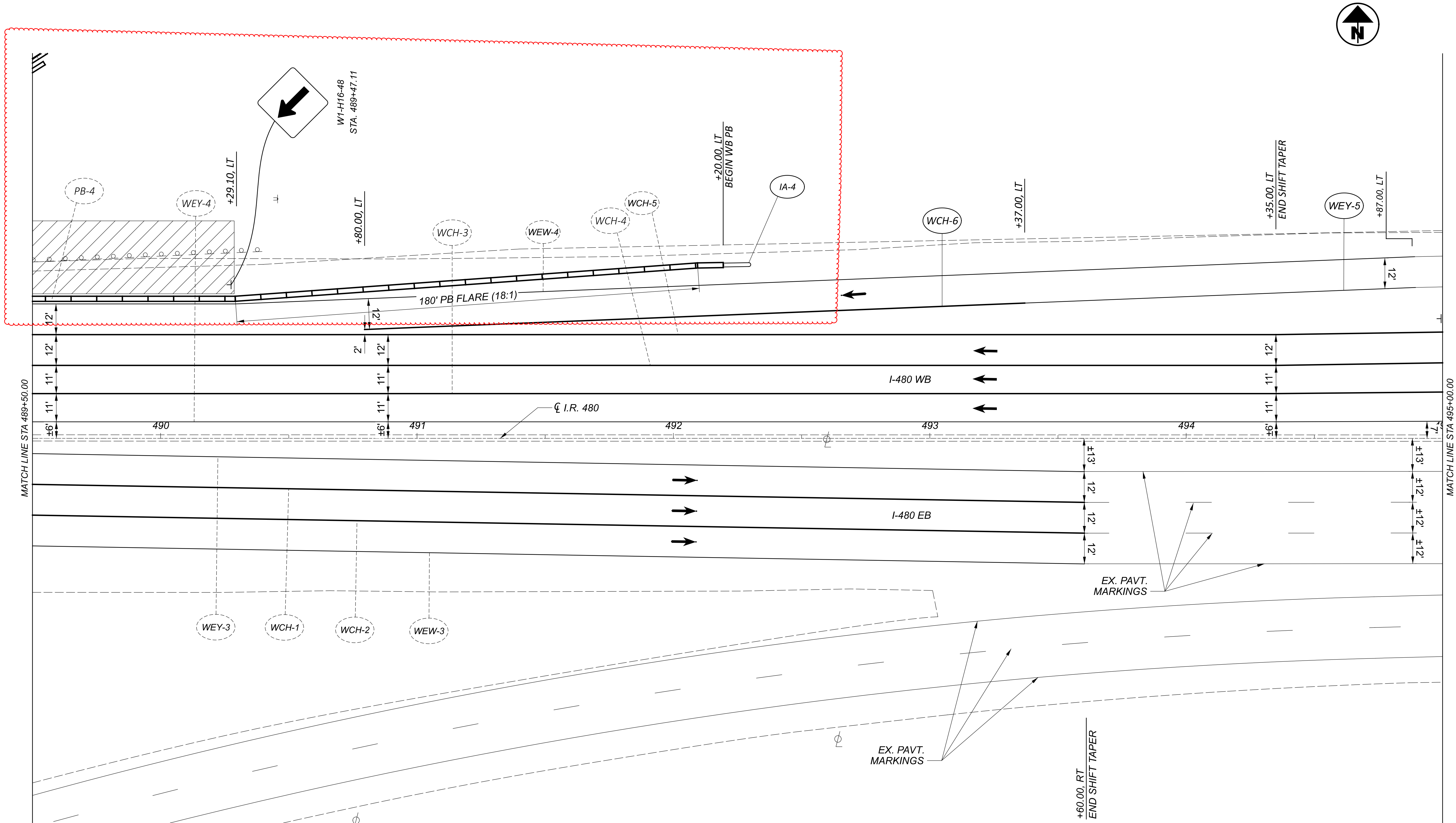
P.30

TOTAL

167



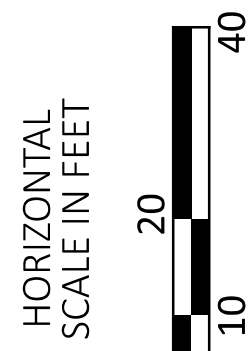
1. FOR LEGEND SEE SHEET P.29
2. FOR IR-71 NB RAMP T MOT, SEE SHEETS P.21 TO P.28
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NOTES:

1. FOR LEGEND SEE SHEET P.29
2. FOR IR-71 NB RAMP T MOT, SEE SHEETS P.21 TO P.28
3. I-480 WB LANES DEPICT RECENTLY CONSTRUCTED CUY-71-7.14WB CONFIGURATION.
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MAINTENANCE OF TRAFFIC - I-480 - PHASES 1A, 2B
STA 489+50.00 TO STA. 495+00.00



DESIGN AGENCY

M M
MOTT MACDONALD

20445 EMERALD PKWY
SUITE 100
CLEVELAND, OH 44135

DESIGNER

SMS

REVIEWER

SJP 09/17/25

PROJECT ID

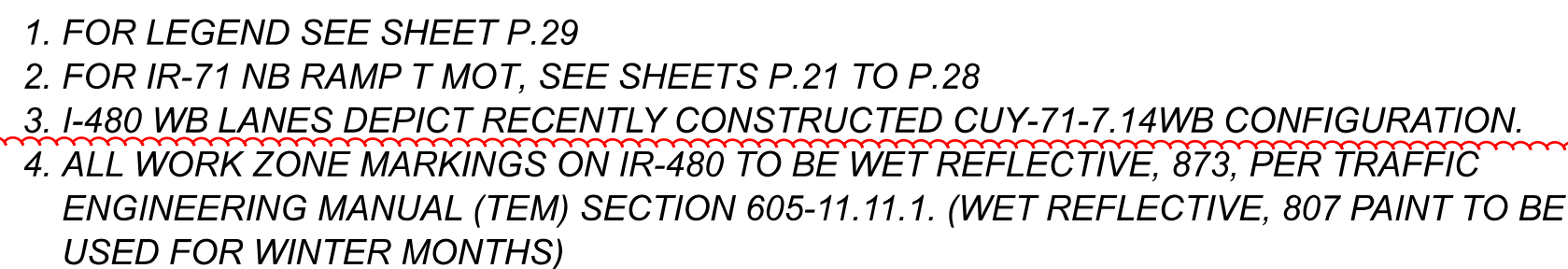
114536

SHEET

P.32

TOTAL

167

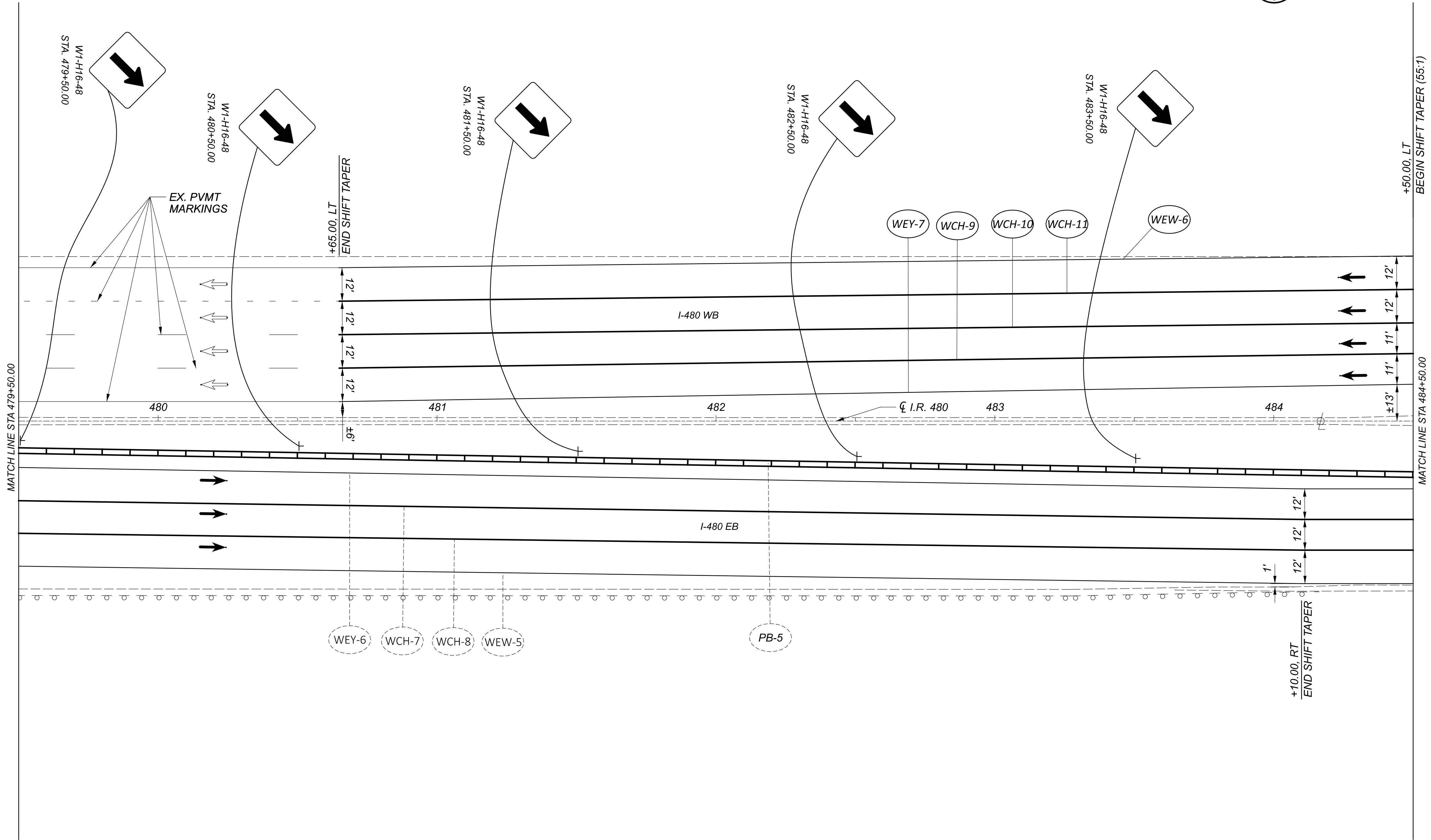


MODEL: I-480 IB2B - Plan 2 PAPER SIZE: 34x22 (in.) DATE: 1/16/2026 TIME: 12:10:11 PM USER: KC112955
pw: \\mott-use-pw.bentley.com:mott-use-pw-20\Documents\507106271-ODOT CUY-07110.07 SW\CUY-07110.07



HORIZONTAL
SCALE IN FEET

A horizontal scale bar with a black background and white markings. The scale is marked at 0, 10, 20, and 40 feet. The bar is divided into four equal segments of 10 feet each. The first segment (0-10) is black with a white vertical line at 10. The second segment (10-20) is white with a black vertical line at 20. The third segment (20-30) is black with a white vertical line at 30. The fourth segment (30-40) is white with a black vertical line at 40. The numbers 0, 10, 20, and 40 are printed in white below the bar.

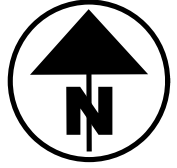


NOTES:

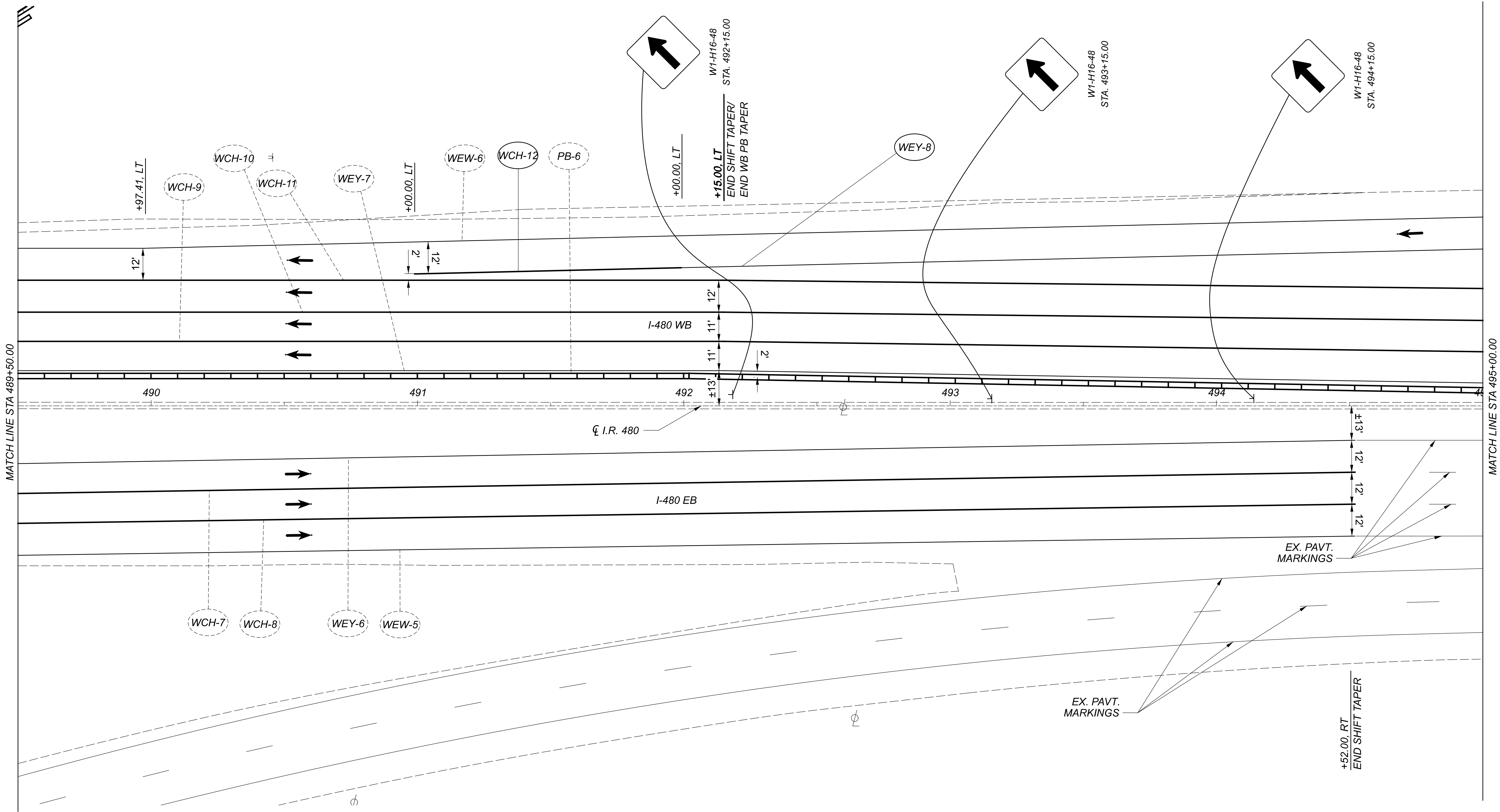
1. FOR LEGEND, SEE SHEET P.29
2. FOR IR-71 NB RAMP T MOT, SEE SHEETS P.21 TO P.28
3. I-480 WB LANES DEPICT RECENTLY CONSTRUCTED CUY-71-7.14 WB CONFIGURATION
4. ALL WORK ZONE MARKINGS ON IR-480 TO BE WET REFLECTIVE, 873, PER TRAFFIC ENGINEERING MANUAL (TEM) SECTION 605-11.11.1. (WET REFLECTIVE, 807 PAINT TO BE USED FOR WINTER MONTHS).
5. IR-71 SB RAMP R NOT SHOWN FOR CLARITY.

MAINTENANCE OF TRAFFIC - I-480 - PHASES 1B, 2A
STA 479+50.00 TO STA 484+50.00

DESIGN AGENCY	
M M	
MOTT MACDONALD	
20445 EMERALD PKWY SUITE 100 CLEVELAND, OH 44135	
DESIGNER	
SMS	
REVIEWER	
SJP 09/17/25	
PROJECT ID	
114536	
SHEET	TOTAL
P.35	167

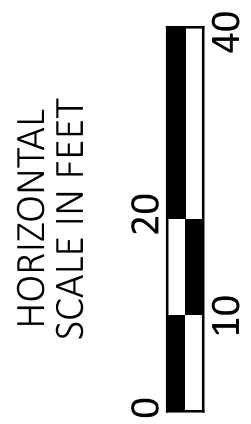


1. FOR LEGEND, SEE SHEET P.29
2. FOR IR-71 NB RAMP T MOT, SEE SHEETS P.21 TO P.28
3. I-480 WB LANES DEPICT RECENTLY CONSTRUCTED CUY-71-7.14 WB CONFIGURATION
4. ALL WORK ZONE MARKINGS ON IR-480 TO BE WET REFLECTIVE, 873, PER TRAFFIC ENGINEERING MANUAL (TEM) SECTION 605-11.11.1. (WET REFLECTIVE, 807 PAINT TO BE USED FOR WINTER MONTHS)
5. IR-71 SB RAMP R NOT SHOWN FOR CLARITY.



NOTES:

1. FOR LEGEND, SEE SHEET P.29
2. FOR IR-71 NB RAMP T MOT, SEE SHEETS P.21 TO P.28
3. I-480 WB LANES DEPICT RECENTLY CONSTRUCTED CUY-71-7.14 WB CONFIGURATION
4. ALL WORK ZONE MARKINGS ON IR-480 TO BE WET REFLECTIVE, 873, PER TRAFFIC ENGINEERING MANUAL (TEM) SECTION 605-11.11.1. (WET REFLECTIVE, 807 PAINT TO BE USED FOR WINTER MONTHS)

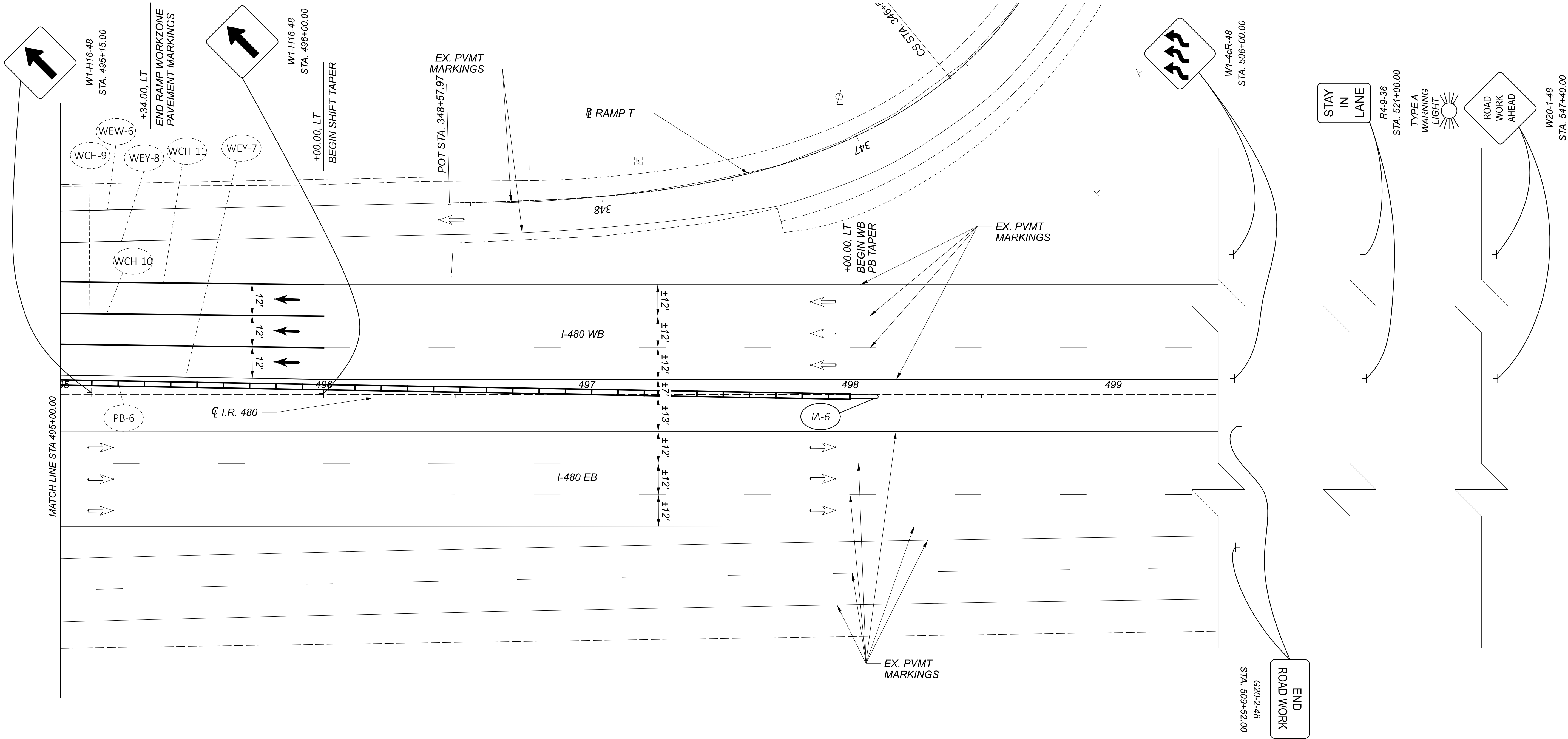


MAINTENANCE OF TRAFFIC - I-480 - PHASES 1B, 2A
STA 489+50.00 TO STA 495+00.00

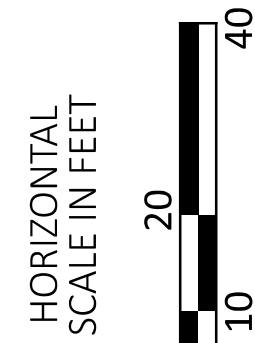
DESIGN AGENCY	
M M MOTT MACDONALD	
20445 EMERALD PKWY SUITE 100 CLEVELAND, OH 44135	
DESIGNER	
SMS	
REVIEWER	
SJP 09/17/25	
PROJECT ID	
114536	
SHEET	TOTAL
P.37	167

NOTES:

1. FOR LEGEND, SEE SHEET P.29
2. FOR IR-71 NB RAMP T MOT, SEE SHEETS P.21 TO P.28
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4. ALL WORK ZONE MARKINGS ON IR-480 TO BE WET REFLECTIVE, 873, PER TRAFFIC ENGINEERING MANUAL (TEM) SECTION 605-11.11.1. (WET REFLECTIVE, 807 PAINT TO BE USED FOR WINTER MONTHS)



MAINTENANCE OF TRAFFIC - I-480 - PHASES 1B, 2A
STA 495+00.00 TO STA 499+40.00



DESIGN AGENCY	
MOTT MACDONALD	
20445 EMERALD PKWY SUITE 100 CLEVELAND, OH 44135	
DESIGNER	
SMS	
REVIEWER	
SJP 09/17/25	
PROJECT ID	
114536	
SHEET	TOTAL
P.38	167

SHEET NUM.								PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION
6	7	8	11	42	43	44	45	01/BRO	02/IMS					
LS	287				1,355			LS		201	11000	LS		ROADWAY
				500				1,642		202	23000	1,642	SY	CLEARING AND GRUBBING
				1,179				500		202	30701	500	FT	PAVEMENT REMOVED
				3				1,179		202	38000	1,179	FT	CONCRETE BARRIER REMOVED, AS PER PLAN
								3		202	42206	3	EACH	GUARDRAIL REMOVED
				5										ANCHOR ASSEMBLY REMOVED
								5		202	47000	5	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED
						4,494		4,494		203	10000	4,494	CY	EXCAVATION
	287				3,826			3,826		203	20000	3,826	CY	EMBANKMENT
					2,357			2,644		204	10000	2,644	SY	SUBGRADE COMPACTION
		100						100		204	13000	100	CY	EXCAVATION OF SUBGRADE
		100						100		204	30010	100	CY	GRANULAR MATERIAL, TYPE B
		5						5		204	45000	5	hour	PROOF ROLLING
		300						300		204	50000	300	SY	GEOTEXTILE FABRIC
	9							9		209	15001	9	STA	RESHAPING UNDER GUARDRAIL, AS PER PLAN
				950				950		606	15050	950	FT	GUARDRAIL, TYPE MGS
				2				2		606	26150	2	EACH	ANCHOR ASSEMBLY, MGS TYPE E
				1				1		606	26550	1	EACH	ANCHOR ASSEMBLY, MGS TYPE T
				3				3		606	35002	3	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
				2				2		606	35102	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2
				360				360		622	10161	360	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
				2				2		622	25050	2	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D
				180				180		622	90000	180	FT	BARRIER, MISC.: CONCRETE BARRIER, TYPE B50
														EROSION CONTROL
2								2		659	00100	2	EACH	SOIL ANALYSIS TEST
248						2,233		248		659	00300	248	CY	TOPSOIL
								2,233		659	10000	2,233	SY	SEEDING AND MULCHING
112								112		659	14000	112	SY	REPAIR SEEDING AND MULCHING
112								112		659	15000	112	SY	INTER-SEEDING
0.31								0.31		659	20000	0.31	TON	COMMERCIAL FERTILIZER
0.46								0.46		659	31000	0.46	ACRE	LIME
12.1								12.1		659	35000	12.1	MGAL	WATER
15								15		659	40000	15	MSF	MOWING
								10,000		832	30000	10,000	EACH	EROSION CONTROL
														DRAINAGE
							0.25	0.25		511	46610	0.25	CY	CLASS QC1 CONCRETE, HEADWALL
	335						34	34		601	21060	34	SY	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT
							734	1,069		605	14020	1,069	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC
							40	40		611	00510	40	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS
							43	43		611	06700	43	FT	15" CONDUIT, TYPE F
							1	1		611	98180	1	EACH	CATCH BASIN, NO. 3A
							4	4		611	99710	4	EACH	PRECAST REINFORCED CONCRETE OUTLET
														PAVEMENT
	70			1,667				1,667		254	01000	1,667	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.5" DEPTH
	84							70		302	56000	70	CY	ASPHALT CONCRETE BASE, PG64-22, (449)
	22				396			480		304	20000	480	CY	AGGREGATE BASE
	25		125					147		407	20000	147	GAL	NON-TRACKING TACK COAT
								25		441	70801	25	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN
	14							14		442	20200	14	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448)
	12		70					82		442	22101	82	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG64-22
					1,920			1,920		451	14010	1,920	SY	9" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P
				26				26		609	24510	26	FT	CURB, TYPE 4-C
			1.14					1.14		618	40600	1.14	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)

GENERAL SUMMARY

DESIGN AGENCY

M

M

MOTT
MACDONALD

20445 EMERALD PKWY
SUITE 100
CLEVELAND, OH 44135

DESIGNER

SMS

REVIEWER

SJP 09/17/25

PROJECT ID

114536

SHEET

P.39

TOTAL

167

SHEET NUM.								PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
11	42	76		86		99		01/BRO	02/IMS						
														LIGHTING	
				10				10		625	00450	10	EACH	CONNECTION, FUSED PULL APART	
				15				15		625	00480	15	EACH	CONNECTION, UNFUSED PERMANENT	
				2				2		625	10490	2	EACH	LIGHT POLE, CONVENTIONAL, DESIGN A15B40	
				3				3		625	10490	3	EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT15B40	
				2				2		625	10614	2	EACH	LIGHT POLE ANCHOR BOLTS ON STRUCTURE	86
				3				3		625	14000	3	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP	
				5				5		625	18200	5	EACH	BRACKET ARM, 15'	
				3,834				3,834		625	23302	3,834	FT	NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	
				750				750		625	23400	750	FT	NO. 10 AWG POLE AND BRACKET CABLE	
				668				668		625	25400	668	FT	CONDUIT, 2", 725.04	
				580				580		625	25402	580	FT	CONDUIT, 2", 725.05	
				5				5		625	26252	5	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED) TYPE II, 125W	
				768				768		625	29002	768	FT	TRENCH, 24" DEEP	
				2				2		625	29900	2	EACH	JUNCTION BOX, HL-30.31	
				2				2		625	29920	2	EACH	STRUCTURE JUNCTION BOX	
				3				3		625	30700	3	EACH	PULL BOX, 725.08, 18"	
				2				2		625	31510	2	EACH	PULL BOX REMOVED	
				5				5		625	32000	5	EACH	GROUND ROD	
				768				768		625	36010	768	FT	UNDERGROUND WARNING/MARKING TAPE	
				1				1		625	39520	1	EACH	PULL BOX CLEANED	86
				LS				LS		SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	86
				5				5		625	75400	5	EACH	LIGHT POLE REMOVED	
				3				3		625	75500	3	EACH	LIGHT POLE FOUNDATION REMOVED	
														TRAFFIC CONTROL	
21		76						97		621	00100	97	EACH	RPM	
	29							29		626	00110	29	EACH	BARRIER REFLECTOR, TYPE 2, (BI-DIRECTIONAL)	
		40						40		630	02100	40	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
		29						29		630	03100	29	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
		35						35		630	80100	35	SF	SIGN, FLAT SHEET	
		5						5		630	86002	5	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
		0.38						0.38		646	10010	0.38	MILE	EDGE LINE, 6"	
0.31								0.31		646	10110	0.31	MILE	LANE LINE, 6"	
		123						123		646	10310	123	FT	CHANNELIZING LINE, 12"	
		715						715		646	10620	715	FT	CHEVRON MARKING	
		1.21						1.21		807	12010	1.21	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"	
		1.23						1.23		807	12110	1.23	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	
		1,738						1,738		807	12310	1,738	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12"	
		633						633		807	12430	633	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 12"	
														STRUCTURE OVER 20 FOOT SPAN (SFN 1814258)	
						LS		LS		202	11003	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	96
						87		87		202	22900	87	SY	APPROACH SLAB REMOVED	
						LS		LS		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	96
						1,540		1,540		503	21100	1,540	CY	UNCLASSIFIED EXCAVATION	
						LS		LS		505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
						6,705		6,705		507	00100	6,705	FT	STEEL PILES HP10X42, FURNISHED	
						6,100		6,100		507	00150	6,100	FT	STEEL PILES HP10X42, DRIVEN	
						555		555		507	92201	555	FT	PREBORED HOLES, AS PER PLAN	97
						287,336		287,336		509	10000	287,336	LB	EPOXY COATED STEEL REINFORCEMENT	
						14,644		14,644		509	30020	14,644	FT	NO. 4 DEFORMED GFRP REINFORCEMENT	
						564		564		511	34447	564	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN	97
						137		137		511	34450	137	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
						177		177		511	41012	177	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS	
						253		253		511	44112	253	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	
						422		422		511	46512	422	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	
						1,647		1,647		512	10100	1,647	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
						70		70		512	10300	70	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	

DESIGN AGENCY

M M

**MOTT
MACDONALD**

20445 EMERALD PKWY
SUITE 100
CLEVELAND, OH 44135

DESIGNER

SMS

REVIEWER

SJP 09/17/21

PROJECT ID

114536

SHEET	TOTAL
P.41	167

SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	202							606					609		622				626		
							GUARDRAIL REMOVED	ANCHOR ASSEMBLY REMOVED	BRIDGE TERMINAL ASSEMBLY REMOVED	CONCRETE BARRIER REMOVED, AS PER PLAN					GUARDRAIL, TYPE MGS	ANCHOR ASSEMBLY, MGS TYPE E	ANCHOR ASSEMBLY, MGS TYPE T			MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	CURB, TYPE 4-C		BARRIER MISC. CONCRETE BARRIER TYPE B50		CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
			FROM	TO			FT	EACH	EACH	FT					FT	EACH	EACH			EACH	EACH	FT		FT		FT
42-43	GR-1	RAMP T	326+81.25	329+83.15	RT							225	1		1								4			
43	GR-2	RAMP T	328+43.50	329+45.40	LT							75			1								2			
43	R-1	RAMP T	327+26.31	329+96.31	RT		270	1	1																	
43	R-2	RAMP T	328+43.50	329+74.00	LT		131		1																	
43	C-1	RAMP T	329+62.88	329+81.02	RT											18										
44	GR-3	RAMP T	333+75.83	335+38.33	LT							162.5				1							3			
44-45	GR-4	RAMP T	334+45.80	338+58.30	RT							412.5		1		1							6			
44	C-2	RAMP T	334+47.80	334+55.30	RT												8									
44	R-3	RAMP T	333+21.50	335+38.33	LT		217		1																	
44-45	R-4	RAMP T	333+81.79	338+68.79	RT		487	1	1																	
46	B-1	IR-480	485+25.00	487+15.00	RT																175	1		3		
46	B-2	IR-480	486+26.00	488+06.00	CL													180					6			
46	B-3	IR-480	487+06.22	488+90.00	LT															185	1		3			
46	R-5	IR-480	485+25.00	486+60.00	RT					135																
46	R-6	IR-480	486+26.00	488+06.00	CL					180																
46	R-7	IR-480	487+06.22	488+90.00	LT					185																
46	R-8	IR-480	488+88.40	490+38.74	LT		75	1	1																	
46	GR-5	IR-480	488+88.40	490+38.74	LT							75	1		1								2			
TOTALS CARRIED TO GENERAL SUMMARY							1179	3	5	500		950	2	1	3	2	26		180	360	2		29			

DESIGN AGENCY

M

M

MOTT
MACDONALD

20445 EMERALD PKWY
SUITE 100
CLEVELAND, OH 44135

DESIGNER

SMS

REVIEWER

SJP 09/17/25

PROJECT ID

114536

SHEET

P.42

TOTAL

167

ROADWAY SUBSUMMARY

EARTHWORK QUANTITIES								
STA	CUT	FILL	ADD'L CUT FOR BENCHING	ADD'L FILL FOR BENCHING	TOTAL CUT	TOTAL FILL	203	
							EXCAVATION	EMBANKMENT
	SQ FT	SQ FT	SQ FT	SQ FT	SQ FT	SQ FT	CU YD	CU YD
326+00.00	0	0			0	0		
326+10.00	3	1			3	1	1	0
326+25.00	3	1			3	1	2	1
326+50.00	5	1			5	1	4	1
326+75.00	6	1			6	1	5	1
327+00.00	7	1			7	1	6	1
327+25.00	7	2			7	2	6	1
327+50.00	9	2			9	2	7	2
327+75.00	10	3			10	3	9	2
328+00.00	12	5			12	5	10	4
328+25.00	8	20	95	92	103	112	53	54
328+50.00	1	25	87	77	88	102	89	99
328+75.00	0	35	104	91	104	126	89	106
329+00.00	6	55	114	109	120	164	104	134
329+25.00	5	109	241	234	246	343	170	235
329+42.45	8	153	176	172	184	325	139	216
329+60.76	3	272	317	311	320	583	171	308
329+81.00	2	310	271	263	273	573	222	433
333+80.28	4	6			4	6		
334+10.28	15	6			15	6	11	7
334+47.80	6	120	185	182	191	302	143	214
334+75.00	8	151	183	181	191	332	192	319
335+00.00	7	99	152	150	159	249	162	269
335+25.00	8	83	87	86	95	169	118	193
335+33.40	8	92	72	71	80	163	27	52
335+50.00	5	64	57	52	62	116	44	86
335+75.00	2	73	94	88	96	161	73	128
336+00.00	1	78	93	86	94	164	88	150
336+25.00	0	71	116	108	116	179	97	159
336+50.00	0	61	112	104	112	165	105	159
336+75.00	0	49	77	71	77	120	88	132
337+00.00	2	38	81	78	83	116	74	109
337+25.00	0	17	58	53	58	70	65	86
337+50.00	3	16	74	71	77	87	62	73
337+75.00	5	11	43	43	48	54	58	65
338+00.00	5	2			5	2	24	26
338+28.89	3	0			3	0	4	1
338+50.00	2	0			2	0	2	0
338+75.00	1	0			1	0	1	0
338+85.30	0	0			0	0	1	0
339+00.00	0	0			0	0	0	0
339+25.00	0	0			0	0	0	0
Slope Between Rear Abutment to Pier 1							386	0
Slope Between Pier 3 to Forward Abutment							1581	0
TOTALS CARRIED TO GENERAL SUMMARY							4494	3826

SEEDING QUANTITIES			
STA	WIDTH	SF	SY
326+00.00	0		
326+10.00	6	30	3
326+25.00	6	90	10
326+50.00	6	150	17
326+75.00	6	150	17
327+00.00	6	150	17
327+25.00	7	163	18
327+50.00	8	188	21
327+75.00	10	225	25
328+00.00	13	288	32
328+25.00	25	475	53
328+50.00	27	650	72
328+75.00	28	688	76
329+00.00	36	800	89
329+25.00	52	1100	122
329+42.45	60	977	109
329+60.76	82	1300	144
329+81.00	54	1376	153
333+80.28	9		
334+10.28	7	240	27
334+47.80	37	825	92
334+75.00	44	1102	122
335+00.00	39	1038	115
335+25.00	33	900	100
335+33.50	31	272	30
335+50.00	24	454	50
335+75.00	27	638	71
336+00.00	29	700	78
336+25.00	31	750	83
336+50.00	29	750	83
336+75.00	25	675	75
337+00.00	23	600	67
337+25.00	16	488	54
337+50.00	23	488	54
337+75.00	20	538	60
338+00.00	10	375	42
338+28.89	6	231	26
338+50.00	5	116	13
338+75.00	5	125	14
338+85.30	0	0	0
339+00.00	0	0	0
339+25.00	0	0	0
TOTALS CARRIED TO GENERAL SUMMARY			2233

EARTHWORK SUBSUMMARY

CUY-71-10.07 SW

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/16/2026 TIME: 3:48:22 PM USER: PIA81677
pw://molt-use-pw.bentley.com/molt-use-pw-20/Documents/507106271-ODOT CUY-071-10.07 SW/CUY-071-10.07 SW/114536400-Engineering/Roadway/Sheets/114536_GS004.dgn

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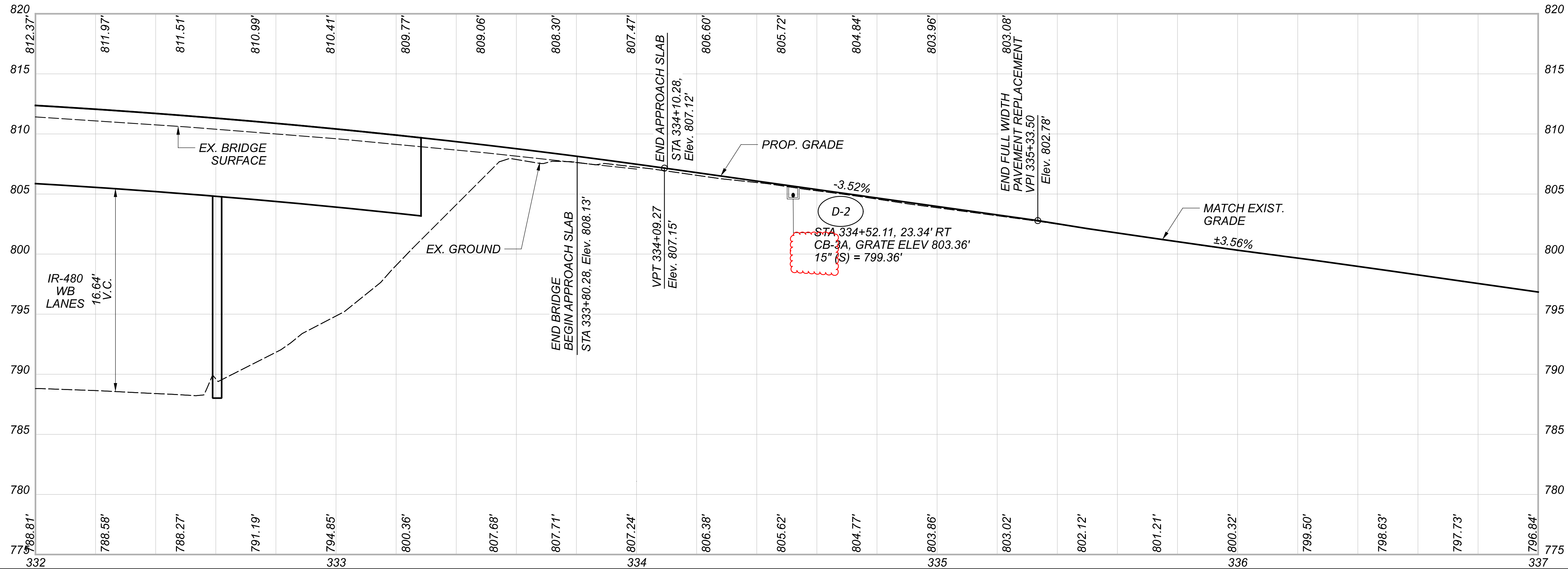
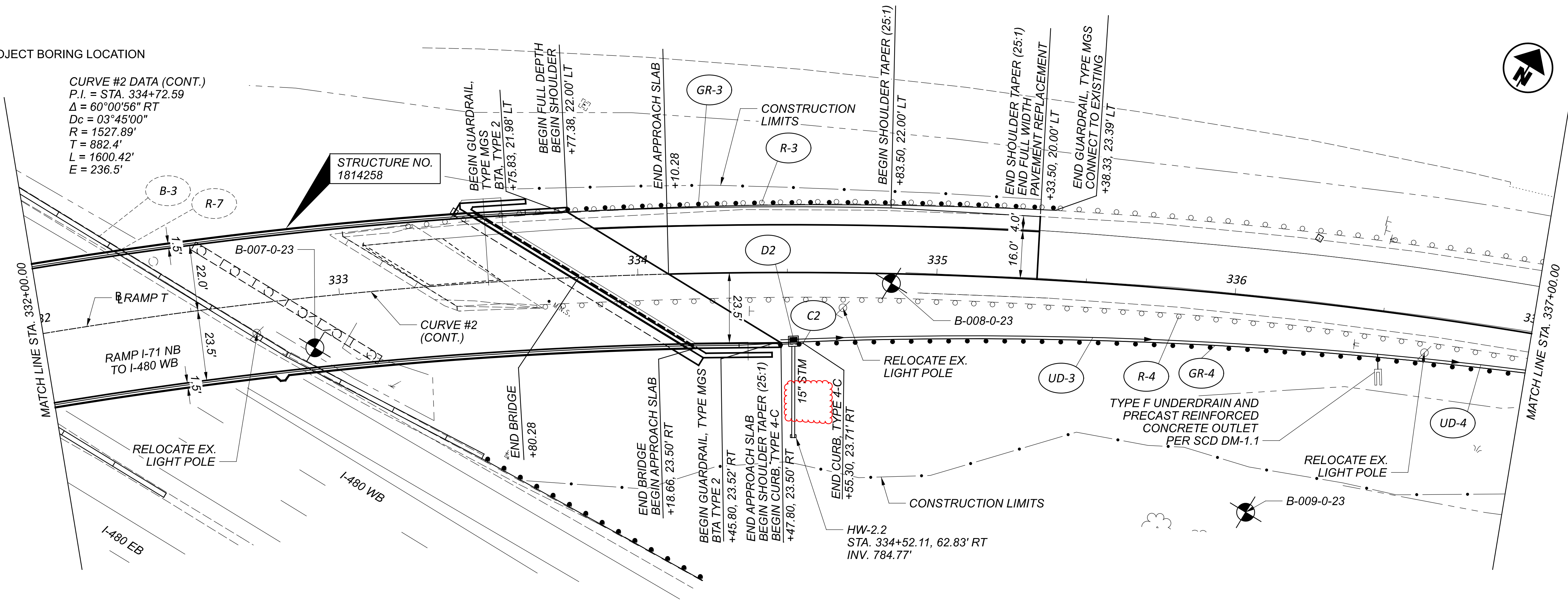
The logo for Mott MacDonald is displayed, featuring a large stylized 'M' and the company name 'MOTT MACDONALD'. Below the logo, the address '20445 EMERALD PKWY SUITE 100 CLEVELAND, OH 44135' is listed. Further down, the roles 'DESIGNER' and 'REVIEWER' are indicated, followed by the initials 'SJS' and the date '09/17/25'. At the bottom, the project ID '114536' is shown, along with a table for sheet and total counts: 'SHEET P.45' and 'TOTAL 167'.

LEGEND

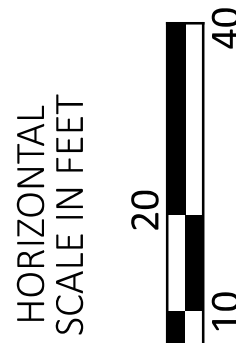


- PROJECT BORING LOCATION

CURVE #2 DATA (CONT.)
P.I. = STA. 334+72.59
 $\Delta = 60^{\circ}00'56''$ RT
 $D_c = 03^{\circ}45'00''$
 $R = 1527.89'$
 $T = 882.4'$
 $L = 1600.42'$
 $E = 236.5'$



PLAN AND PROFILE - RAMP I-71 NB TO I-480 WB
STA. 332+00.00 TO STA. 337+00.00



DESIGN AGENCY



20445 EMERALD PKWY
SUITE 100
CLEVELAND, OH 44135

DESIGNER

SMS

REVIEWER

SJP 09/17/25

PROJECT ID

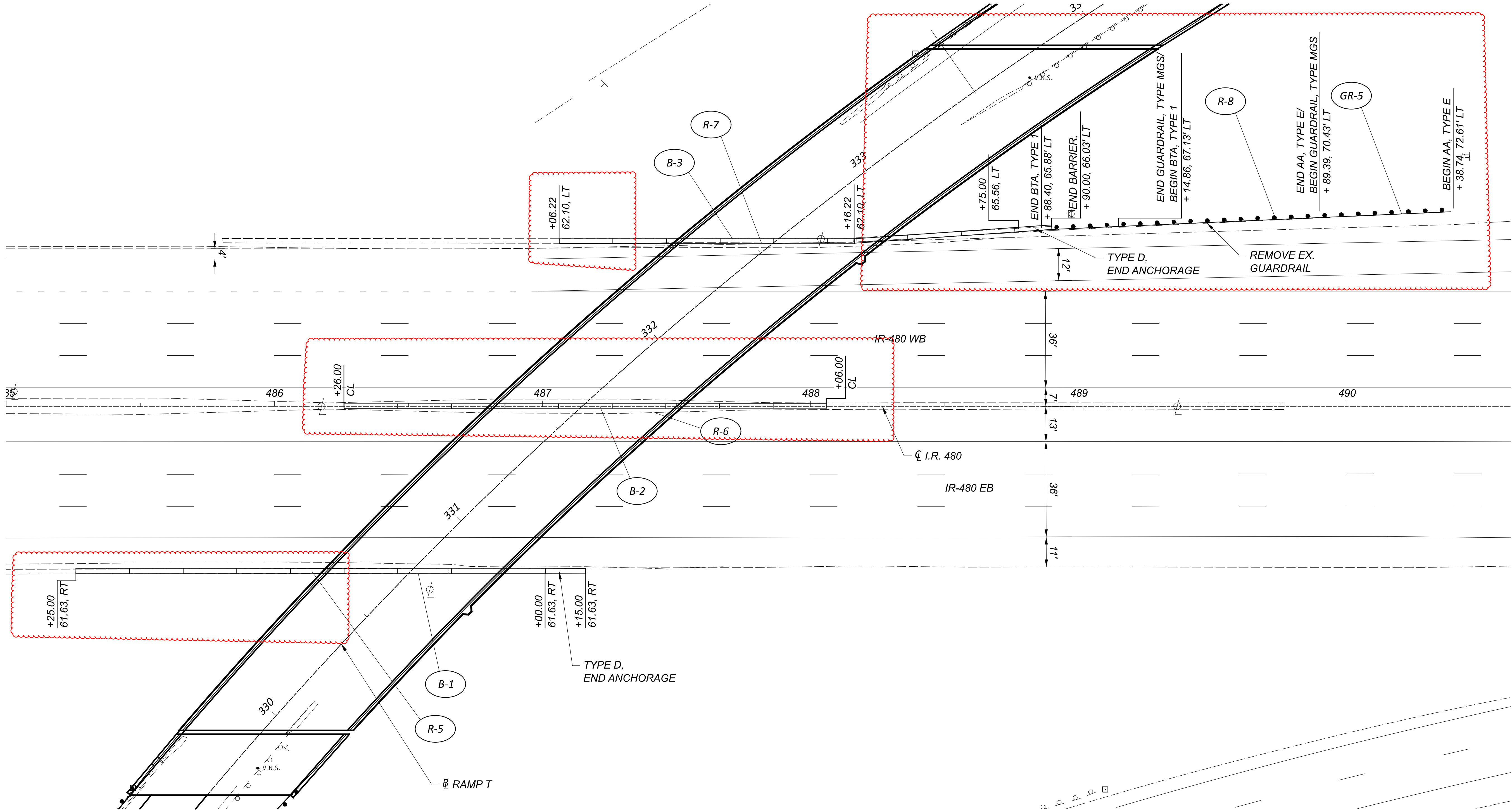
114536

SHEET

P.48

TOTAL

167



NOTE:
FOR CONCRETE BARRIER DETAILS, SEE SHEET P.5



PLAN
IR-480

DESIGN AGENCY

M M
MOTT
MACDONALD

20445 EMERALD PKWY
SUITE 100
CLEVELAND, OH 44135

DESIGNER

SMS

REVIEWER

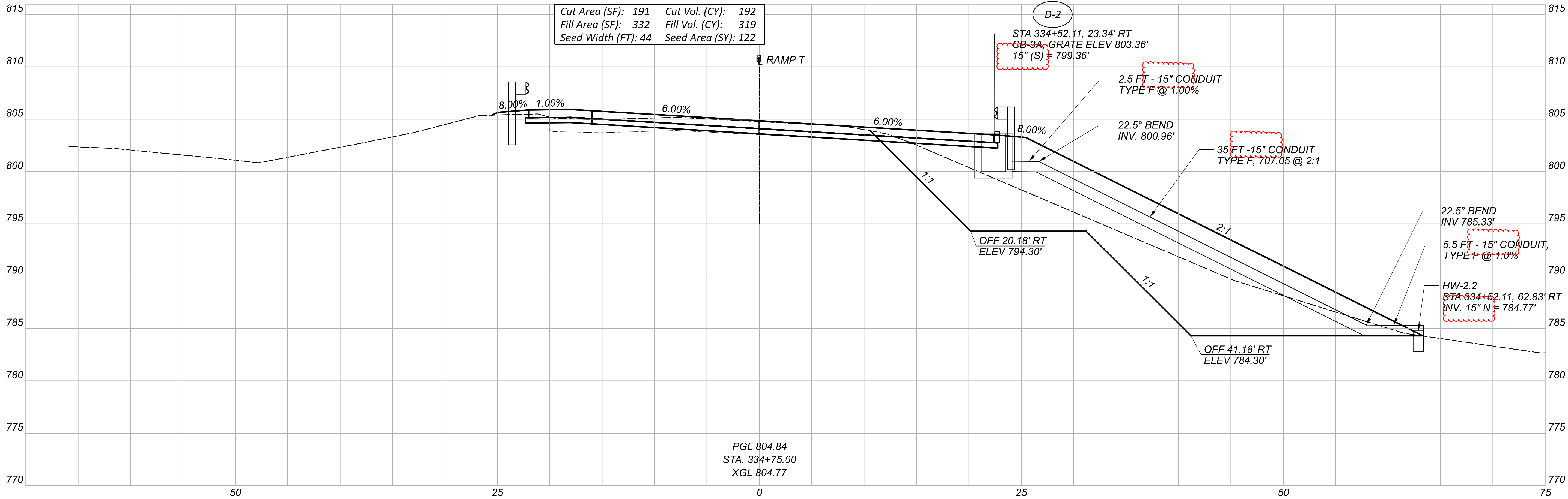
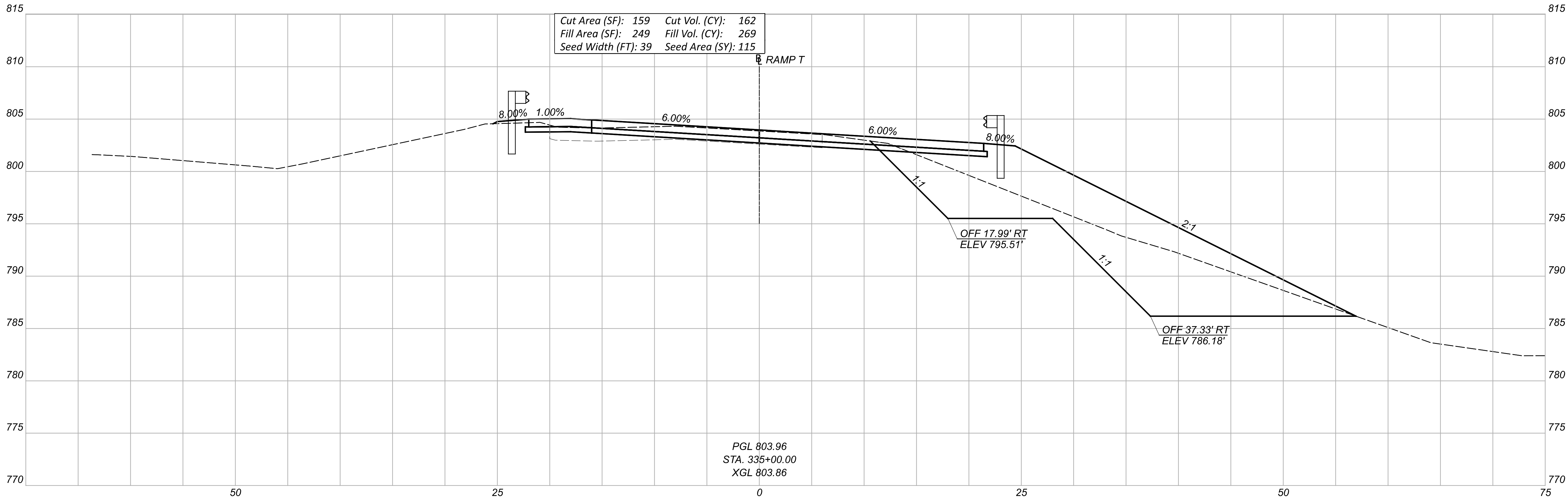
SJP 09/17/25

PROJECT ID

114536

SHEET TOTAL

P.50 167



CROSS SECTIONS
STA. 334+75.00 TO STA. 335+00.00

DESIGN AGENCY
M M
MOTT MACDONALD
20445 EMERALD PKWY
SUITE 100
CLEVELAND, OH 44135

DESIGNER
SMS

REVIEWER
SJP 09/17/25

PROJECT ID
114536

Sheet Totals		
Seeding	Cut	Fill
237	354	588

SHEET	TOTAL
P.65	167

[illegible]