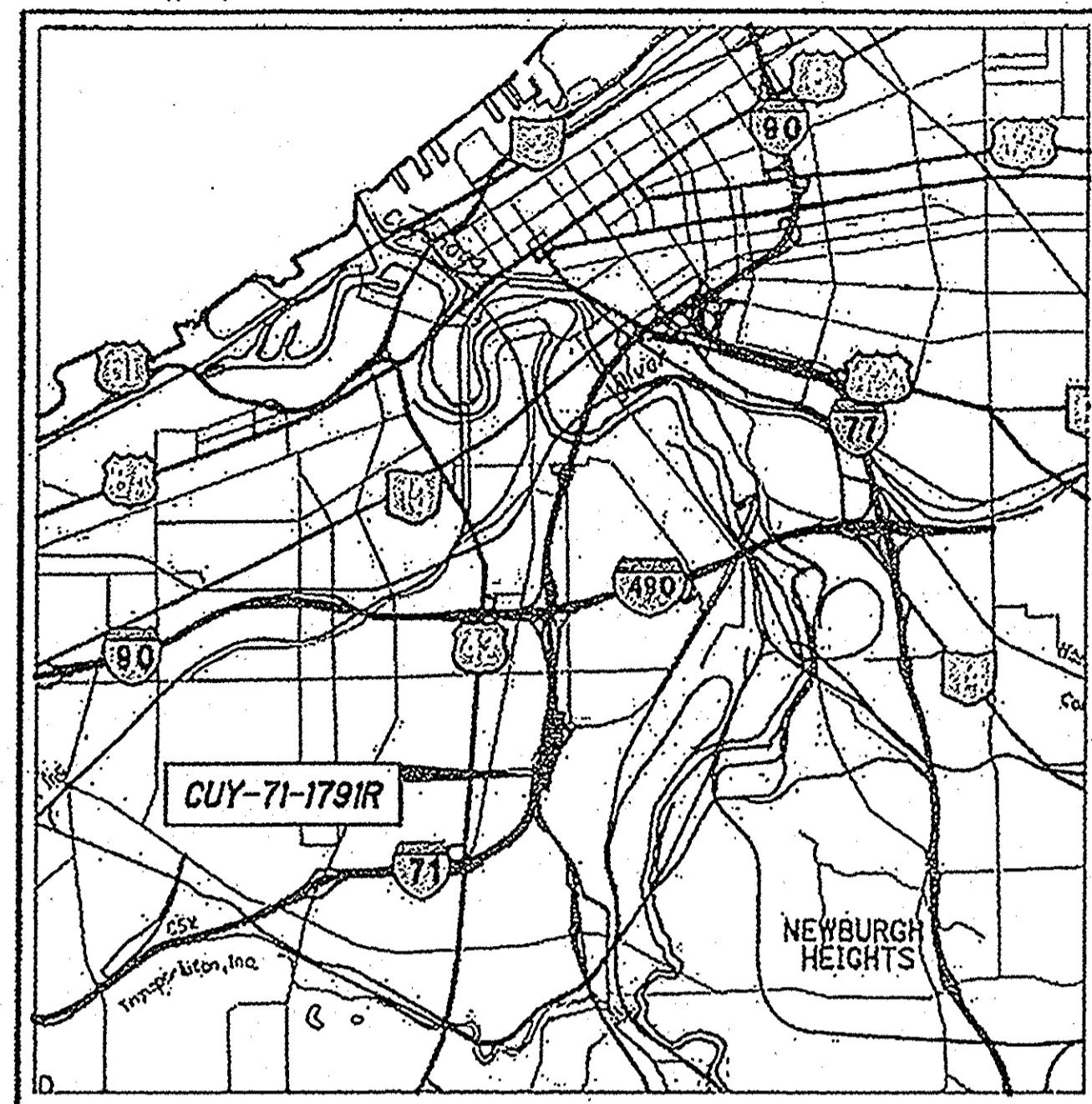


STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

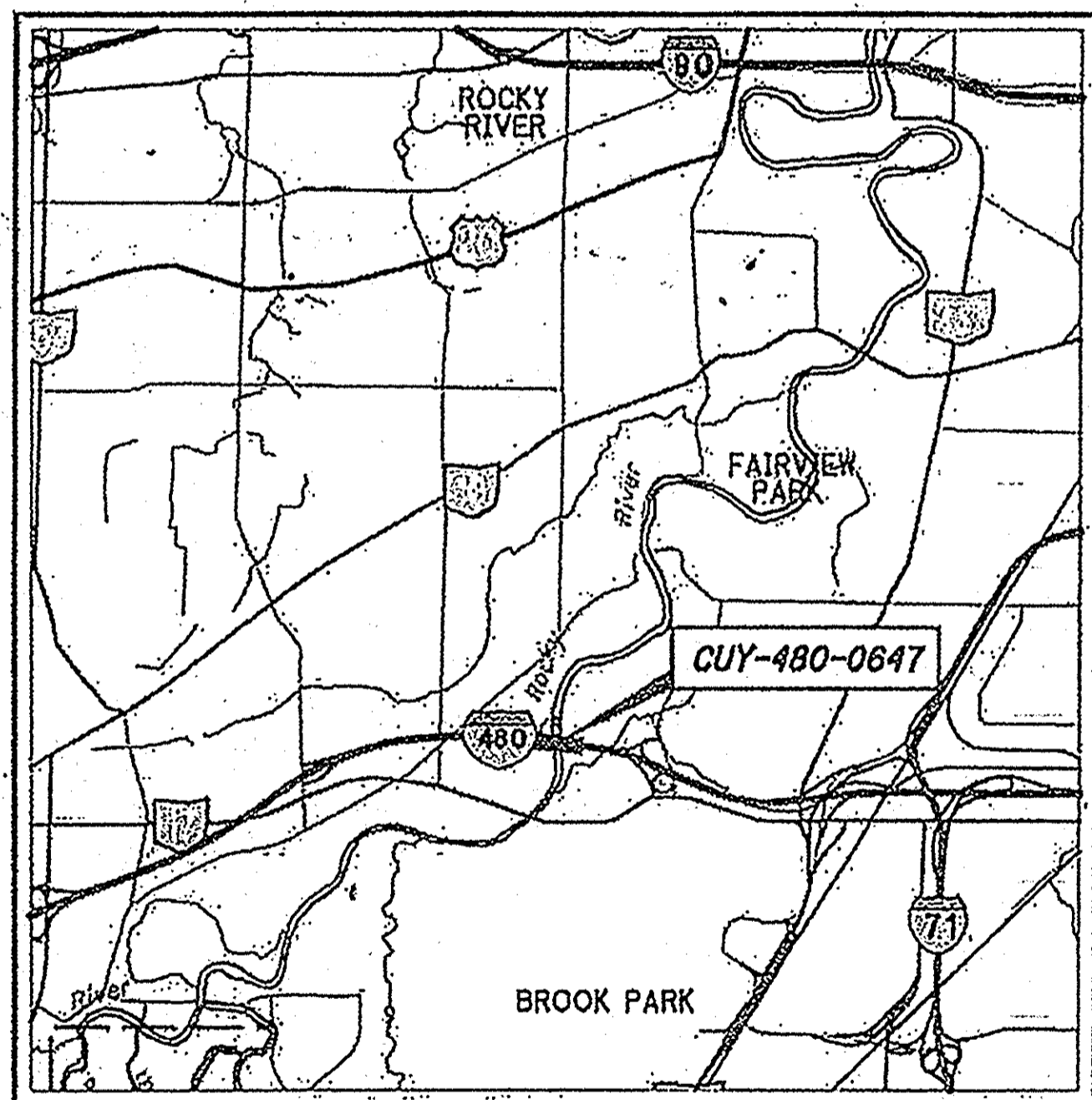
CUY-071-17.91R/ VAR Overlay

CITY OF CLEVELAND
CUYAHOGA COUNTY



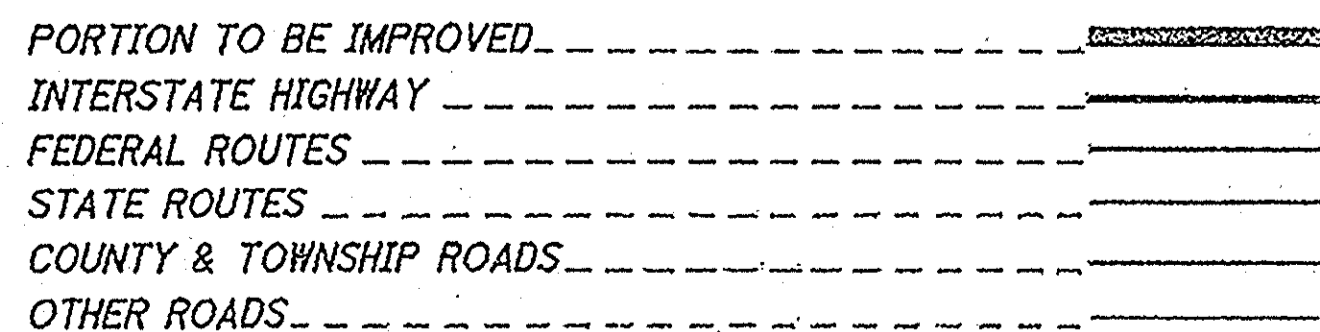
LOCATION MAP

LATITUDE: N41°16'25" LONGITUDE: W81°24'50"



LOCATION MAP

LATITUDE: N41°15'10" LONGITUDE: W81°30'40"



FOR DESIGN DESIGNATION SEE SHEET 2

INDEX OF SHEETS:

TITLE SHEET ----- 1
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 (CUY-71-1791R)
 WEARING SURFACE REPLACEMENT --- 21
 (CUY-71-1791R)
 WEARING SURFACE REPLACEMENT --- 22
 (CUY-480-0647)

PLAN PREPARED BY:



AKRON CLEVELAND COLUMBUS
564 WHITE POND DRIVE
AKRON, OHIO 44320-1100
(330) 836-9111

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS UNDERGROUND
PROTECTION SERVICE CALL: 1-800-925-0988

ENGINEERS SEAL	STANDARD CONSTRUCTION DRAWINGS	SUPPLEMENTAL SPECIFICATIONS
<p>SIGNED: <i>[Signature]</i> DATE: 3-19-15</p>	MT-95.30 7/18/14	800 4-17-15
	MT-95.50 7/19/13	821 4-20-12
	MT-98.20 7/18/14	848 4-18-14
	MT-98.28 7/18/14	
	MT-98.29 7/19/13	
	MT-99.50 7/19/13	
	MT-101.60 7/19/13	
	MT-101.70 1/17/14	
	MT-105.70 7/19/13	
	TC-72.20 7/18/14	

PROJECT DESCRIPTION

CUY-71-1791R

- REPLACE EXISTING CONCRETE OVERLAY WITH MICROSILICA MODIFIED CONCRETE OVERLAY.

CUY-480-0647

- REPLACE EXISTING CONCRETE OVERLAY IN THE EAST BOUND #2 AND #3 LANES WITH MICROSILICA MODIFIED CONCRETE OVERLAY.

EARTH DISTURBED AREA:

PROJECT EARTH DISTURBED AREA - N/A *
 ESTIMATED CONTRACTOR EARTH DISTURBED AREA - N/A *
 NOTICE OF INTENT EARTH DISTURBED AREA - N/A *
 * ROUTINE MAINTENANCE PROJECT

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2013 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

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

APPROVED *[Signature]*
DATE 03-20-15 DISTRICT DEPUTY DIRECTOR

APPROVED *[Signature]*
DATE 3-31-15 DIRECTOR, DEPARTMENT OF TRANSPORTATION

CUY - IR 71-17.91R/VAR Overlay
150374 PID - 98727
Dist 12 6/18/2015

Contract Proposal Available
@ www.contracts.dot.state.oh.us/home

L:\Projects\100110\ODOT\CUY-71-17.91R Task Order 9\Sheets\98727_G1001.dgn - 3/19/2015 10:41:42 AM - Chris Atwood

FEDERAL PROJECT NO. E141026
 PID NO. 98727
 CONSTRUCTION PROJECT NO.
 RAILROAD INVOLVEMENT NONE
 CUY-71-17.91R/
 CUY-480-6.47
 1/22

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

LISTED ON THE TITLE SHEET.

AND TO SUPPLEMENTAL SPECIFICATIONS:

LISTED ON THE TITLE SHEET.

DESCRIPTION OF WORK:

CUY-71-1791R

- REPLACE EXISTING CONCRETE OVERLAY WITH MICROSILICA MODIFIED CONCRETE OVERLAY.

CUY-480-0647

- REPLACE EXISTING CONCRETE OVERLAY IN THE EAST BOUND #2 AND #3 LANES WITH MICROSILICA MODIFIED CONCRETE OVERLAY.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT ARE CONSIDERED TENTATIVE AND APPROXIMATE. REFER TO CMS SECTIONS 102.05 AND 105.02. THE ORIGINAL CONSTRUCTION PLANS AND PREVIOUS REHABILITATION PLANS OF THE EXISTING BRIDGES ARE AVAILABLE UPON REQUEST AT THE DISTRICT 12 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, GARFIELD HEIGHTS, OHIO.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURES. HOWEVER, BASE ALL PROJECT WORK ON ACTUAL DETAILS AND DIMENSIONS VERIFIED IN THE FIELD.

UTILITIES:

THERE ARE NO UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UTILITIES IN THE WORK AREA.

MAINTENANCE OF TRAFFIC:

THE CONTRACTOR'S ACTIVITIES AND WORK SCHEDULE ARE CONSTRAINED. REFER TO THE MAINTENANCE OF TRAFFIC SHEETS IN THIS PLAN.

CONTINGENCY QUANTITIES:

DO NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS WILL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

COOPERATION BETWEEN CONTRACTORS:

COOPERATE AND COORDINATE ALL OPERATIONS WITH THE CONTRACTORS ON OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THE CONTRACT. ONE ONGOING PROJECT TO COORDINATE WITH IS CUY-90-14.90 E.B. DESIGN-BUILD (PID 82119); I.E., CCG2. NO WAIVER OF ANY PROVISIONS OF 105.08 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS IS INTENDED.

ITEM SPECIAL - PATCHING CONCRETE STRUCTURE, MISC.: TOP OF BACKWALL REPAIR

THIS PAY ITEM IS INTENDED FOR REPAIRING THE TOP OF THE EXISTING BRIDGE BACKWALLS FROM ABOVE (RIDING SURFACE), AS DETAILED IN THE PLANS. THIS ITEM SHALL BE AS DIRECTED BY THE ENGINEER.

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

CONCRETE FOR THIS ITEM SHALL BE MICRO-SILICA MODIFIED CONCRETE AS SPECIFIED WITH THE 848 ITEMS.

ALL EQUIPMENT, LABOR, MATERIALS AND INCIDENTALS NECESSARY TO PERFORM THE ABOVE WORK SHALL BE INCLUDED FOR PAYMENT PER LIN. FT. UNDER ITEM SPECIAL - PATCHING CONCRETE STRUCTURE, MISC.: TOP OF BACKWALL REPAIR.

ITEM SPECIAL - STRUCTURE MISC.: EMERGENCY ASPHALT PAVING OPERATION ON STANDBY

MAKE ARRANGEMENTS TO HAVE AN ASPHALT CONCRETE SUPPLIER AND ASPHALT PAVING COMPANY ON CALL ON SUNDAYS WHEN THE BRIDGE DECK OVERLAY IS SCHEDULED. IF THE CONCRETE OVERLAY POUR IS NOT COMPLETED BY 3 AM SUNDAY, THE PROJECT ENGINEER WILL DIRECT THE CONTRACTOR TO STOP OPERATIONS AND PAVE THE BRIDGE WITH ASPHALT. THE ASPHALT CONTRACTOR WILL HAVE THE ABILITY TO MOBILIZE OPERATIONS WITHIN 12 HOURS. THIS INCLUDES PROVIDING 448 ASPHALT AND A PAVING CREW WITH COMPACTION EQUIPMENT.

THE PAVING AND ALL ORIGINAL TRAFFIC CONTROL MUST BE IN PLACE BY THE TIMES LISTED IN THE MAINTENANCE OF TRAFFIC PLANS.

USE THE FOLLOWING ITEMS FOR THIS OPERATION:
614 CU. YD. ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
848 SQ. YD. WEARING COURSE REMOVED, ASPHALT

THE STATE WILL PAY FOR ALL COSTS ASSOCIATED WITH PLACING AND REMOVING THE ASPHALT ONLY IF THE CONTRACTOR WAS NOT RESPONSIBLE FOR THE DELAY. IF THE CONTRACTOR WAS RESPONSIBLE FOR THE DELAY, NO PAYMENT WILL BE MADE.

PAYMENT FOR ALL OF THE ABOVE WILL BE MADE AT THE LUMP SUM BID PRICE FOR ITEM SPECIAL - STRUCTURE, MISC.: EMERGENCY ASPHALT PAVING OPERATION ON STANDBY, WHICH INCLUDES ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 848 - MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2 3/4" THICK)

ITEM 848 - SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN

ITEM 848 - MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN

ITEM 848 - EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (1 3/4" THICK)

ITEM 848 - REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY, AS PER PLAN

PERFORM THESE ITEMS PER SUPPLEMENTAL SPECIFICATION 848 "BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE USING HYDRODEMOLITION" WITH THE FOLLOWING REVISIONS:

CONSTRUCTION JOINTS WILL NOT BE PERMITTED IN THE WHEEL LINE.

(SEE 848.12) THE COMPONENTS OF THE MICROSILICA MODIFIED CONCRETE SHALL BE PROPORTIONED AS FOLLOWS:

CONCRETE TABLE
QUANTITIES PER CUBIC YARD
AGGREGATES (SSD)

MICRO SILICA OVERLAY CONCRETE, AS PER PLAN

AGGRE TYPE	FINE AGGR (lb)	**#8 COARSE AGGR (lb)	AGGR TOTAL (lb)	CEMENT CONT (lb)	MICRO-SILICA (lb)	WATER TO CEMENTITIOUS RATIO	AIR CONT +/- 2%	**FIBER (1/4" POLY-PROPYLENE) (lb)
GRAVEL	1410	1430	2840	600	50	0.40	8	1
LIMESTONE	1410	1450	2860	600	50	0.40	8	1
SLAG	1300	1350	2650	600	50	0.40	8	1

* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127

** FIBER MESH SHALL BE 100% VIRGIN POLYPROPYLENE IN A FIBRILLATED-NETWORK FORM AND SHALL BE 1/4" IN LENGTH.

THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE WERE CALCULATED FOR MATERIALS OF THE FOLLOWING BULK SPECIFIC GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, MICROSILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED. (FIBER MESH WEIGHTS NOT INCLUDED IN MIX DESIGN)

(SEE 848.18) DO NOT BEGIN REMOVAL OPERATIONS IF SUSTAINED RAINS (5 HOURS OR MORE WITH BREAKS BETWEEN SHOWERS LESS THAN 1/2 HOURS) ARE PREDICTED WITHIN 48 HOURS OF COMMENCEMENT.

(SEE 848.21) THE FINAL DECK SOUNDING MAY TAKE PLACE WITHIN 24 HOURS OF A RAIN, AND THE DECK DOES NOT HAVE TO BE COMPLETELY DRY.

(SEE 848.23) FULL DEPTH REPAIR IS NOT REQUIRED IF LESS THAN ONE HALF OF THE DECK ORIGINAL CONCRETE THICKNESS IS SOUND.

(SEE 848.29) THE WET CURE TIME IS REDUCED FROM 72 HOURS TO 24 HOURS OR UNTIL A BEAM BREAK OF 600 PSI IS ACHIEVED, WHICHEVER IS GREATER. AFTER THE 24 HOUR WET CURE, CURE THE FINISHED OVERLAY SURFACE BY SPRAYING A UNIFORM APPLICATION OF CURING MATERIAL OF 705.07, TYPE 1 OR 1D, AS PER CMS 511.17 METHOD (B) MEMBRANE CURING. IF THE CURING COMPOUND CANNOT BE PLACED WITHIN THE SAME SHORT TERM CLOSURE PERIOD AS THE OVERLAY, ALLOW TRAFFIC ONTO THE OVERLAY AND, AT THE NEXT AVAILABLE SHORT TERM CLOSURE PERIOD, APPLY THE MEMBRANE CURING COMPOUND.

(SEE 848.29) DO NOT PERMIT TRAFFIC ON THE FINISHED OVERLAY SURFACE UNTIL AFTER THE COMPLETION OF THE 24 HOUR WET CURE AND AFTER TWO TEST BEAMS HAVE ATTAINED AN AVERAGE MODULUS OF RUPTURE OF 600 PSI (4.2 MPA).

(SEE 848.30) THE OVERLAY SURFACE EVAPORATION RATE REQUIREMENTS ARE IN EFFECT FROM 9:30 AM TO 11:00 PM. THEY ARE NOT IN EFFECT FROM 11:00 PM TO 9:30 AM.

(SEE 848.31) FOR EACH PHASE, PROVIDE ENOUGH MATERIAL FOR TWO BEAM BREAKS EACH AT 12 HOURS, 24 HOURS, 36 HOURS, AND 48 HOURS. THE DEPARTMENT WILL PERFORM THE BEAM BREAK TESTS AND DOCUMENT THE TIME OF THE POUR, THE TIME OF THE BEAM BREAK TESTS, AND THE MODULUS OF RUPTURE FOR EACH BEAM UNTIL THE MODULUS OF RUPTURE OF THE TWO TESTS IS NOT LESS THAN 650 PSI (4.5 MPA). TRAFFIC IS ALLOWED ON THE OVERLAY AT 600 PSI (4.5 MPA) AS LONG AS THE 24 HOUR WET CURE PERIOD HAS ELAPSED.

IF THE CONCRETE POUR CANNOT COMPLETE BY 3 A.M. SUNDAY, FOLLOW ITEM SPECIAL STRUCTURE, MISC.: EMERGENCY ASPHALT PAVING OPERATION ON STANDBY.

ALL OTHER REQUIREMENTS OF SUPPLEMENTAL SPECIFICATION 848 REMAIN IN EFFECT.

DESIGN DESIGNATION:

	CUY-71	CUY-480
CURRENT ADT (2015)	39,000	108,000
DESIGN YEAR ADT (2035)	41,000	114,000
DESIGN HOURLY VOLUME (2035)	4,370	10,000
DIRECTIONAL DISTRIBUTION	100%	59%
TRUCKS (24 HOUR B&C)	7%	5%
DESIGN SPEED	60 MPH	60 MPH
LEGAL SPEED	55 MPH	55 MPH
FUNCTIONAL CLASSIFICATION	URBAN FREEWAY	URBAN FREEWAY
NHS PROJECT	YES	YES

ITEM 518 - STRUCTURE DRAINAGE, MISC.: CLEANING BRIDGE DRAINAGE SYSTEM

THIS ITEM SHALL CONSIST OF REMOVING AND DISPOSING OF ALL OBSTRUCTIONS, INCLUDING DIRT AND DEBRIS, FROM THE STRUCTURE DRAINAGE SYSTEM ("DRAINAGE SYSTEM") FOR THE PURPOSE OF RESTORING THE DRAINAGE SYSTEM TO ITS HYDRAULIC DESIGN CAPACITY. THE DRAINAGE SYSTEM INCLUDES, BUT IS NOT LIMITED TO, SCUPPERS, DRAINAGE TROUGHS, DRAINAGE PIPES, AND UNDERGROUND SEWERS FROM THE INLET THAT RECEIVES THE BRIDGE DRAINAGE TO THE FIRST DOWNSTREAM MANHOLE.

THIS ITEM MAY REQUIRE REMOVAL AND REINSTALLATION OF EXPANSION JOINT PLATES TO PROPERLY CLEAN DRAINAGE TROUGHS AND UTILIZATION OF INSPECTION ACCESS EQUIPMENT, SUCH AS SNOOPERS AND MANLIFTS, TO PHYSICALLY REMOVE OBSTRUCTIONS FROM THE DRAINAGE SYSTEM.

THE DRAINAGE SYSTEM SHALL BE FLUSHED WITH CLEAN WATER AFTER THE DRAINAGE SYSTEM HAS BEEN CLEANED TO ENSURE WATER FLOWS SMOOTHLY THROUGH THE DRAINAGE SYSTEM WITHOUT OVERFLOWING. THE ENGINEER SHALL BE PRESENT DURING THIS PROCESS.

THIS ITEM ALSO INCLUDES ALL EQUIPMENT AND LABOR NECESSARY TO PROVIDE ACCESS FOR THE ENGINEER TO INSPECT THE DRAINAGE SYSTEM BEFORE AND AFTER CLEANING.

THE DRAINAGE SYSTEM WILL BE CONSIDERED CLEANED ONLY AFTER THE ENGINEER AND A REPRESENTATIVE OF THE DISTRICT 12 BRIDGE MAINTENANCE DEPARTMENT HAVE VERIFIED THE DRAINAGE SYSTEM IS FREE FROM ALL OBSTRUCTIONS DURING THE FINAL INSPECTION.

THE COST OF ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY TO COMPLETE THE ABOVE DESCRIBED WORK SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 518 - STRUCTURE DRAINAGE, MISC.: CLEANING BRIDGE DRAINAGE SYSTEM.

ITEM 509 - REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN

REPLACE ALL EXISTING REINFORCING STEEL BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE NEW REINFORCING STEEL BARS SHALL BE EPOXY COATED AND OF THE SAME SIZE AS THE REINFORCING STEEL BARS BEING REPLACED. THE DEPARTMENT WILL MEASURE AND PAY FOR THE REPLACEMENT OF THESE REINFORCING STEEL BARS BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BECAUSE OF CONCRETE REMOVAL OPERATIONS. THE NEW REINFORCING STEEL BARS SHALL BE EPOXY COATED AND OF THE SAME SIZE AS THE REINFORCING STEEL BARS BEING REPLACED. THIS WORK SHALL BE PERFORMED AT NO COST TO THE DEPARTMENT.

DESIGN AGENCY: ARKON CLEVELAND COLUMBUS
564 WHITE POND DRIVE
ARKON, OHIO 44320-1100
(330) 836-8111

URSR

DATE: 12/22/14
REVIEWED: ZRD
DRAWN: CMA
DESIGNED: CRG
CHECKED: SAM

STRUCTURE FILE NUMBER: 1805371/1812831

GENERAL NOTES: CUY-71-1791R AND CUY-480-0647

CUY-71-17-91R/
CUY-480-6.47
PID No. 98727

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22

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ITEMS TO BE USED AS DIRECTED BY ENGINEER

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER. ALL OR A PORTION OF THESE QUANTITIES ARE SUBJECT TO NON-PERFORMANCE WITHOUT PENALTY TO THE STATE OF OHIO.

ROADWAY	I-71	I-480	
ITEM 251, PARTIAL DEPTH PAVEMENT REPAIR	56	45	SQ YD
STRUCTURE REPAIR			
ITEM 848, FULL DEPTH REPAIR	140	45	CU YD
ITEM SPECIAL, STRUCTURE MISC.: EMERGENCY ASPHALT PAVING ON STANDBY	LS	LS	LUMP

ITEM 619, FIELD OFFICE, TYPE B, AS PER PLAN

A TYPE B FIELD OFFICE IS REQUIRED FOR THIS PROJECT.

THE FOLLOWING REVISIONS TO EQUIPMENT SUPPLIED WITH THE TYPE B FIELD OFFICE, AS SPECIFIED IN TABLE 619.02-1, FIELD OFFICE, SHALL APPLY:

THE COPIER SUPPLIED MUST MEET THE REQUIREMENTS OF COPIER SUPPLIED WITH THE TYPE C FIELD OFFICE.

THE BROADBAND INTERNET CONNECTION MUST MEET A MINIMUM DOWNLOAD SPEED OF 10MB PER SECOND AND A MINIMUM UPLOAD SPEED OF 5MB PER SECOND.

ALL OTHER FIELD OFFICE ITEMS SUPPLIED SHALL MEET THE REQUIREMENTS OF A TYPE B, FIELD OFFICE.

I:\PROJECTS\CUY\98727\roadway\sheet\98727GN002.dgn 19-MAR-2015 11:00AM jmasters

CALCULATED
JGM
CHECKED
AJS

GENERAL NOTES

CUY-71-17.91R/
CUY-480-6.47

ITEM 614, MAINTAINING TRAFFIC

WORK CONSISTS OF HYDRO DEMOLITION OF AN EXISTING OVERLAY ON THE EXISTING BRIDGE DECK AND REPLACEMENT WITH A MICROSILICA MODIFIED CONCRETE OVERLAY. WORK IS INTENDED TO BE PERFORMED ONE LANE AT A TIME ACROSS THE ENTIRE LENGTH OF THE BRIDGE BEFORE WORK ON ANOTHER LANE IS STARTED. A LANE IS DEFINED AS ONE VEHICULAR TRAVEL LANE, AND INCLUDES THE RIGHT SHOULDER ADJACENT TO THE RIGHT LANE AND THE LEFT SHOULDER ADJACENT THE LEFT LANE.

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (CURRENT EDITION). COPIES ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF CONTRACTS, 1980 WEST BROAD STREET, COLUMBUS, OHIO 43216. NOTE: ALL DEVICES SHALL COMPLY, FOR CONDITION AND LOCATION, WITH THE CURRENT EDITION OF THE NCHRP 350 CRASH TESTING GUIDELINES AND WITH THE CRITERIA PUBLISHED IN QUALITY STANDARDS FOR TEMPORARY TRAFFIC CONTROL DEVICES AND ACCEPTABLE DELINEATION METHODS FOR VEHICLES, AVAILABLE ON LINE AT http://www.dot.state.oh.us/Divisions/Engineering/Roadway/DesignStandards/Traffic/qualityguidelines/Documents/QualityStandards_October2010_101410.PDF

HOURS OF WORK

LANE CLOSURES SHOWN ON THE PLANS SHALL ONLY BE PERMITTED WITHIN THE FOLLOWING TIME PERIODS:

- * BETWEEN 7:00 PM ON A FRIDAY TO 6:00 AM ON A MONDAY

FOR PHASES 1, 2 AND 3, THESE TIME PERIODS SHALL INCLUDE ALL WORK AND SUFFICIENT CURING TIME TO PERMIT OPENING THE LANE TO TRAFFIC AT THE END OF THE WORK PERIOD.

DURING PHASE 4, ALL WORK ACTIVITY SHALL TAKE PLACE WITHIN THE ABOVE TIME PERIODS. DURING NON-WORKING AND CURING PERIODS, THE BUFFER AREA AND SECOND LANE CLOSURE MAY BE MOVED BACK INTO THE LEFT LANE, LEAVING THE LEFT LANE CLOSED INTO THE CCG2 LEFT LANE CLOSURE AT THE CLARK AVE OVERPASS.

SCHEDULE OF THROUGH LANES TO BE MAINTAINED

ALL NOTES ON THE DISTRICT 12 PERMITTED LANE CLOSURE TIMES WEBSITE, WHICH IS LOCATED ON ODOT'S WEBSITE AT THE FOLLOWING LOCATION, SHALL APPLY: <http://www.dot.state.oh.us/Districts/D12/HighwayManagement/Pages/PermittedLaneClosures.aspx>

THE LATEST REVISION, 14 DAYS PRIOR TO THE BID DATE, WILL BE IN EFFECT FOR THIS JOB.

CLOSING OF SR-176 UNDER I-71 DURING HYDRODEMOLITION OPERATIONS

CLOSURE OF SR-176 DURING THE HOURS OF 11 PM FRI. TO 8 AM SAT.

1. CLOSE 176 NORTH AT DENISON/ HARVARD. DETOUR TO EAST ON HARVARD TO 77 NORTH.
2. CLOSE THE OFF RAMP FROM 71 SOUTH TO 176 SOUTH. WHEN NEEDED. DETOUR TO WEST 25 ST. SOUTH TO DENISON. EAST ON DENISON TO 176 SOUTH.
3. CLOSE THE RAMP FROM 71 SOUTH/490 WEST TO 176 SOUTH. DETOUR TO 71 SOUTH TO WEST 25. W 25 SOUTH TO DENISON. EAST ON DENISON TO 176 SOUTH. WHEN NEEDED.
4. CLOSE THE RAMP FROM JENNINGS RD. TO 176 NORTH, DETOUR TO STEELYARD DR. TO QUIGLEY RD. TO W 7TH TO 490 EAST.
5. CLOSE THE RAMP FROM DENISON TO SR 176 NORTH. DETOUR TRAFFIC TO HARVARD EAST TO 77 NORTH.

CLOSURE OF SR-176 NORTH DURING THE HOURS OF 8 AM SAT TO 10 PM SAT.

1. ALL OF THE ABOVE PLUS THE FOLLOWING:
2. CLOSE THE RAMP FROM 480 EAST TO 176 NORTH. DETOUR TRAFFIC 480 EAST TO 77 NORTH.
3. CLOSE THE RAMP FROM SR 17 TO 176 NORTH. DETOUR TRAFFIC TO 17 EAST TO 480 EAST TO 77 NORTH.

CLOSURES SHALL BE PER STANDARD DRAWINGS: MT 98.29, MT 99.50 AND THE ODOT. LANE CLOSURES WILL BE NEEDED FOR SOME OF THE RAMPS. DEDICATED TURN LANES MAY HAVE TO BE CLOSED. CONTRACTOR SHALL POST A DETOUR FOR THE ABOVE CLOSURES TO BE APPROVED BY THE ENGINEER.

MAINTENANCE OF RAMP TRAFFIC

1. THE NORTHBOUND ENTRANCE RAMP FROM WEST 25TH STREET SHALL BE CLOSED DURING PHASE 1, PHASE 2 AND PHASE 3. TRAFFIC SHALL BE DETOURED OVER DENISON AVE AND SR-176 (JENNINGS FREEWAY) AS SHOWN.
2. THE NORTHBOUND EXIT RAMP TO WEST 14TH ST SHALL REMAIN OPEN AT ALL TIMES. THIS MAY REQUIRE A SUBPHASE IN THE AREA SHOWN ON THE PLANS.

COORDINATION WITH ADJACENT PROJECTS

THE LEFT LANE OF NORTHBOUND I-71 IS CURRENTLY CLOSED AT THE CLARK AVE OVERPASS, WITH ALL TRAFFIC BEING MAINTAINED IN A SINGLE LANE NORTH OF THAT POINT.

THIS CLOSURE IS PART OF THE CLEVELAND INNERBELT PROJECT (CCG2), WHICH IS MAINTAINED BY THE TRUMBULL-GREAT LAKES-RUHLIN JOINT VENTURE (TGR). ANY TIME I-71 NORTHBOUND TRAFFIC IS REDUCED TO ONE LANE, THE LANE CLOSURE SHALL BE CARRIED TO THE EXISTING TGR CLOSURE AND SHIFTED AS NEEDED TO PROVIDE A CONTINUOUS FLOW OF NORTHBOUND TRAFFIC AT A 50 MPH DESIGN SPEED. ANY TIME A SINGLE LANE OF TRAFFIC TIES INTO THE CCG2 LANE CLOSURE, THE SIGNS AND FLASHING ARROW PANEL FOR THE CCG2 CLOSURE SHALL BE TURNED, COVERED OR OTHERWISE RENDERED NOT VISIBLE TO APPROACHING TRAFFIC. THE CONTRACTOR SHALL RESTORE ALL CCG2 TRAFFIC CONTROL WHEN MORE THAN ONE NORTHBOUND LANE IS OPEN ON I-71 NORTH OF CUY-71-17.91R IS OPEN TO TRAFFIC. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE RESTORATION OF ANY CCG2 TRAFFIC CONTROL DEVICES THAT HAVE BEEN MOVED, MODIFIED OR OTHERWISE ALTERED DURING THE COURSE OF HIS WORK.

ALL MODIFICATIONS TO THE CCG2 TRAFFIC CONTROL SHALL BE COORDINATED WITH THE TGR TRAFFIC COORDINATOR, MIKI CHASE, (216)-701-4941.

COORDINATION WITH THE FREEWAY MANAGEMENT CENTER

ONE HOUR PRIOR TO CLOSING ANY LANES, AND IMMEDIATELY UPON OPENING ALL LANES, THE CONTRACTOR SHALL CONTACT THE ODOT STATEWIDE TRAFFIC MANAGEMENT CENTER IN COLUMBUS:

- * PHONE: (614)-466-4224
- * FAX: (614)-887-4107
- * E-MAIL: STATEWIDETMC@DOT.STATE.OH.US

THEY SHALL BE PROVIDED WITH THE FOLLOWING INFORMATION:

- * LOCATION: CUYAHOGA COUNTY, I-71 NORTHBOUND AT MILE MARKER 246.4, BRIDGE OVER JENNINGS FREEWAY
- * TIME OF LANE CLOSURE
- * EXPECTED TIME OF REOPENING
- * TYPE OF WORK: BRIDGE REPAIR

THE ABOVE INFORMATION WILL PERMIT THE MANAGEMENT CENTER TO POST APPROPRIATE MESSAGES ON THE FREEWAY SIGNS AND HIGHWAY ADVISORY RADIOS APPROACHING THE PROJECT, GIVING MOTORISTS THE OPPORTUNITY TO USE AN ALTERNATE ROUTE.

MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

THE CONTRACTOR SHALL NOT CLOSE LANES (EXCEPT FOR LONG-TERM STATIONARY CLOSURES) DURING HOLIDAYS AND HOLIDAY WEEKENDS. HOLIDAYS INCLUDE NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING, CHRISTMAS, AND EASTER.

A HOLIDAY WEEKEND, FOR TRAFFIC MAINTENANCE PURPOSES, BEGINS AT NOON ON THE LAST NORMAL WEEKDAY PRECEDING THE WEEKEND. THE HOLIDAY WEEKEND IS CONSIDERED TO END AT 12:00 A.M. (MIDNIGHT) ON THE FIRST NORMAL WEEKDAY FOLLOWING THE HOLIDAY. A DAY BETWEEN THE HOLIDAY AND SATURDAY OR SUNDAY IS CONSIDERED PART OF THE HOLIDAY WEEKEND.

SPECIAL EVENTS SHALL BE CONSIDERED EVENTS AT VENUES WITH A SEATING CAPACITY GREATER THAN 15,000. THE CONTRACTOR SHALL NOT HAVE ANY LANE CLOSURE FROM TWO HOURS BEFORE AN EVENT STARTS TO ONE-HALF HOUR AFTER IT STARTS. FOR CLEVELAND BROWNS GAMES, THE CONTRACTOR SHALL NOT HAVE ANY LANE CLOSURES FROM FOUR HOURS BEFORE THE EVENT TO ONE-HALF HOUR AFTER IT STARTS.

ODOT RESERVES THE RIGHT TO PROHIBIT CLOSURES DURING OTHER SPECIAL EVENTS THAT WILL ATTRACT LARGE VOLUMES OF TRAFFIC TO THE AREA, SUCH AS PLAYOFF GAMES, POLITICAL CONVENTIONS, ETC.

CUY-480-6.47

ITEM 614, MAINTAINING TRAFFIC

WORK CONSISTS OF HYDRO DEMOLITION OF THE EXISTING BRIDGE DECK AND REPLACEMENT WITH A MICROSILICA MODIFIED CONCRETE OVERLAY. TWO LANES OF THE BRIDGE SHALL BE CLOSED DURING WORKING HOURS IN ACCORDANCE WITH THE ATTACHED STANDARD DRAWING AND NOTES. ONE LANE SHALL BE OVERLAID AND THE ADJACENT LANE SHALL BE USED AS A WORK AREA AND BUFFER AREA. WORK IS INTENDED TO BE PERFORMED ONE LANE AT A TIME ACROSS THE ENTIRE LENGTH OF THE BRIDGE BEFORE WORK ON THE OTHER LANE IS STARTED. A LANE IS DEFINED AS ONE VEHICULAR TRAVEL LANE, AND INCLUDES THE RIGHT SHOULDER ADJACENT TO THE RIGHT LANE AND THE LEFT SHOULDER ADJACENT THE LEFT LANE.

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (CURRENT EDITION). COPIES ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF CONTRACTS, 1980 WEST BROAD STREET, COLUMBUS, OHIO 43216. NOTE: ALL DEVICES SHALL COMPLY, FOR CONDITION AND LOCATION, WITH THE CURRENT EDITION OF THE NCHRP 350 CRASH TESTING GUIDELINES AND WITH THE CRITERIA PUBLISHED IN QUALITY STANDARDS FOR TEMPORARY TRAFFIC CONTROL DEVICES AND ACCEPTABLE DELINEATION METHODS FOR VEHICLES, AVAILABLE ON LINE AT http://www.dot.state.oh.us/Divisions/Engineering/Roadway/DesignStandards/Traffic/qualityguidelines/Documents/QualityStandards_October2010_101410.PDF

HOURS OF WORK

LANE CLOSURES SHALL ONLY BE PERMITTED WITHIN THE FOLLOWING TIME PERIODS:

- * 2 LANE CLOSURES ON 480 EAST WILL BE ALLOWED BETWEEN THE HOURS OF 7:00 PM FRIDAY TO 6:00 AM MONDAY.
- * 2 LANE CLOSURES OF 480 ALL WEEKEND LONG WILL ONLY BE ALLOWED FOR 4 WEEKENDS.
- * 3 LANE CLOSURES OF 480 EAST WILL BE ALLOWED DURING THE FOLLOWING TIMES: 11PM FRIDAY TO 8AM SATURDAY AND 10PM SATURDAY TO 10 AM SUNDAY. 3 LANE CLOSURES WILL BE ALLOWED ON 2 WEEKENDS AT THE TIMES SPECIFIED. 3 LANE CLOSURES ARE INTENDEND TO TAKE PLACE WHEN THE CENTER LANES ARE BEING POURED.

THESE TIME PERIODS SHALL INCLUDE ALL WORK AND SUFFICIENT CURING TIME TO PERMIT OPENING THE LANE TO TRAFFIC AT THE END OF THE WORK PERIOD.

SCHEDULE OF THROUGH LANES TO BE MAINTAINED

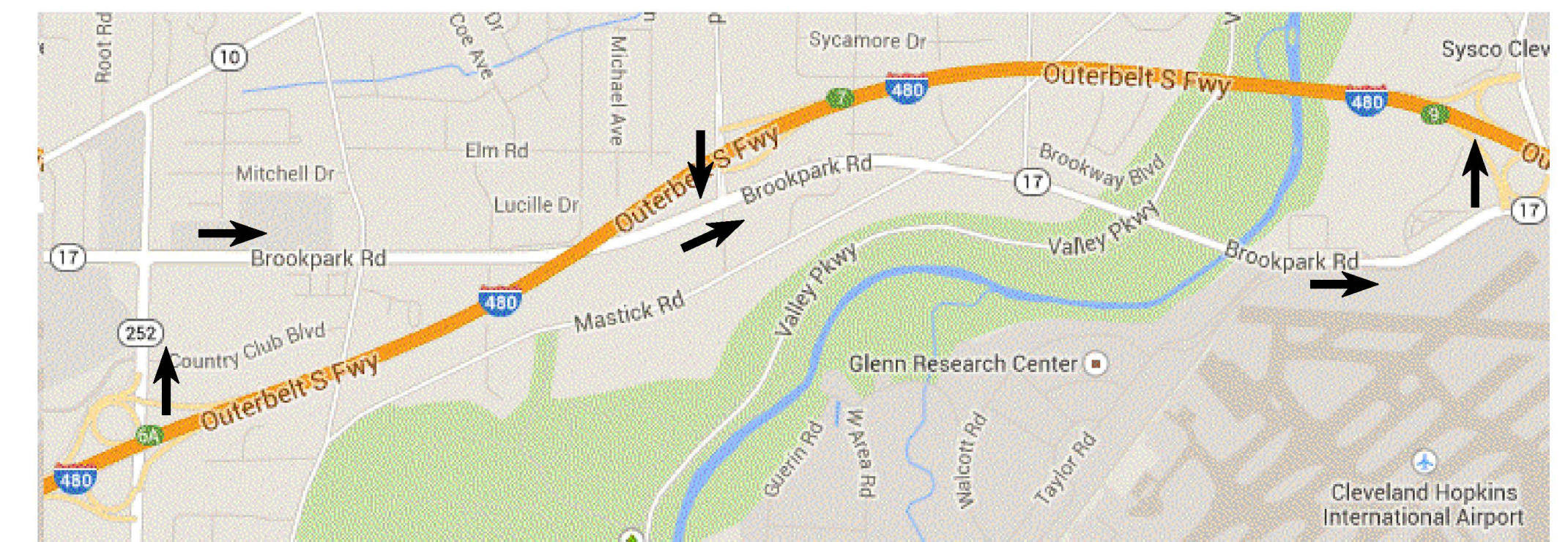
ALL NOTES ON THE DISTRICT 12 PERMITTED LANE CLOSURE TIMES WEBSITE, WHICH IS LOCATED ON ODOT'S WEBSITE AT THE FOLLOWING LOCATION, SHALL APPLY:

<http://www.dot.state.oh.us/Districts/D12/HighwayManagement/Pages/PermittedLaneClosures.aspx>

THE LATEST REVISION, 14 DAYS PRIOR TO THE BID DATE, WILL BE IN EFFECT FOR THIS JOB.

MAINTENANCE OF RAMP TRAFFIC

1. THE NORTHBOUND ENTRANCE RAMP FROM CLAGUE ROAD SHALL BE CLOSED AND DETOURED TO GRAYTON ROAD ENTRANCE RAMP.
2. THE 252 NORTHBOUND ENTRANCE RAMP TO I 480 EAST WILL BE CLOSED FROM 11:00 AM SATURDAY TO 11:00 PM SATURDAY. A DETOUR USING 252 NORTH TO 17 EAST TO GRAYTON ROAD ENTRANCE RAMP SHALL BE POSTED. 480 EAST SHIELDS MUST BE USED.



3. CONTRACTOR SHALL BE RESPONSIBLE FOR REQUIRED DETOURS AS DESCRIBED ABOVE. THE CONTRACTOR SHALL PRESENT A DETOUR PLAN TO THE ENGINEER FOR APPROVAL OF SEVEN(7) DAYS PRIOR TO THE ANTICIPATED RAMP CLOSURES.

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

COORDINATION WITH THE FREEWAY MANAGEMENT CENTER

ONE HOUR PRIOR TO CLOSING ANY LANES, AND IMMEDIATELY UPON OPENING ALL LANES, THE CONTRACTOR SHALL CONTACT THE ODOT STATEWIDE TRAFFIC MANAGEMENT CENTER IN COLUMBUS:

- * PHONE: (614)-466-4424
- * FAX: (614)-887-4107
- * E-MAIL: STATEWIDETMC@DOT.STATE.OH.US

THEY SHALL BE PROVIDED WITH THE FOLLOWING INFORMATION:

- * LOCATION: CUYAHOGA COUNTY, I-480 EASTBOUND AT MILE MARKER 8.6, BRIDGE OVER ROCKY RIVER
- * TIME OF LANE CLOSURE
- * EXPECTED TIME OF REOPENING
- * TYPE OF WORK: BRIDGE REPAIR

THE ABOVE INFORMATION WILL PERMIT THE MANAGEMENT CENTER TO POST APPROPRIATE MESSAGES ON THE FREEWAY SIGNS AND HIGHWAY ADVISORY RADIOS APPROACHING THE PROJECT, GIVING MOTORISTS THE OPPORTUNITY TO USE AN ALTERNATE ROUTE.

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EXTRA ADVANCE WARNING SIGNS - BOTH LOCATIONS

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

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

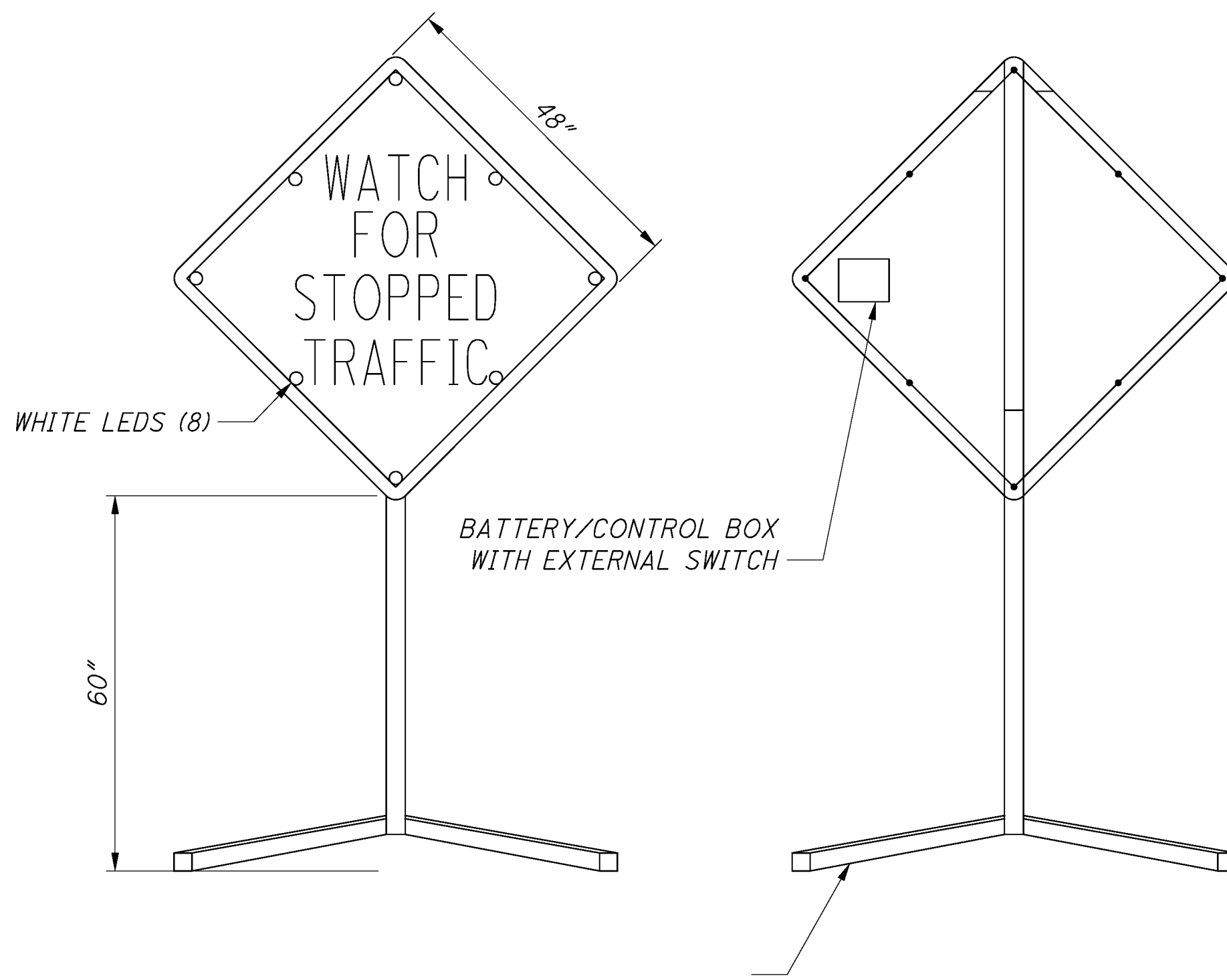
- 1) 6420' FROM THE START OF THE INITIAL LANE TAPER, ALL PHASES, PROVIDE SIGN GROUP AT 2 MILES.

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

LED LIGHTS ON ADVANCE WARNING SIGNS

WHEN LANES ARE CLOSED OUTSIDE THE PERMITTED LANE CLOSURE SCHEDULE OR WHEN TRAFFIC HAS BACKED UP DURING PERMITTED TIMES THE FOLLOWING ADDITIONAL ADVANCE WARNING SIGNS SHALL BE USED PER SD MT. 95.50. IN ADDITION THE "WATCH FOR STOPPED TRAFFIC" SIGNS SHALL HAVE 8 LED AMBER OR RED FLASHING LIGHTS THAT BLINK ON AND OFF DURING THE TIME THE SIGN IS UP. THESE ARE TO BE DUAL MOUNTED. THESE SIGNS SHALL BE REMOVED OR COVERED DURING THE WEEK, WHEN ALL LANES ARE OPEN AND NO WORK IS IN PROGRESS.

THE LED WHITE FLASHING LIGHT SIGNS CAN BE PURCHASED AT TAPCO, TRAFFIC AND PARKING CONTROL CO. THE SIGN IS CALLED BLINKERSIGNS. THE WEB SITE IS:
[HTTP://WWW.TAPCONET.COM/STORE/CATEGORY/2F75B275-A044-4B1F-9F4BB86F9C6B192 /BLINKERSIGNS.ASPX](http://www.tapconet.com/store/category/2f75b275-a044-4b1f-9f4bb86f9c6b192/blinkersigns.aspx)



AN APPROVED EQUAL CAN BE SUBSTITUTED.

ITEM 614, MAINTAINING TRAFFIC - BOTH LOCATIONS

HYDRO DEMOLITION SHALL NOT TAKE PLACE WHEN, IN THE OPINION OF THE ENGINEER, AN ICE HAZARD COULD OCCUR IN THE LANE OPEN TO TRAFFIC OR IN THE LANE BEING WORKED UPON AT THE TIME IT IS SCHEDULED TO BE REOPENED.

WORK TO BE COMPLETED: REMOVE EXISTING OVERLAY AND UPPER INCH OF EXISTING DECK, PLACE MICROSILICA MODIFIED CONCRETE OVERLAY.

ALL LONGITUDINAL JOINTS BETWEEN THE PROPOSED OVERLAY AND THE EXISTING BRIDGE DECK SHALL BE LOCATED ALONG THE EXISTING LANE LINES AND EDGE LINES. WHENEVER A TEMPORARY LONGITUDINAL JOINT IS PRESENT BETWEEN OPEN LANES, A PCMS SHALL BE PLACED APPROXIMATELY 500 FEET IN ADVANCE OF THE STRUCTURE, CONTAINING THE FOLLOWING MESSAGE:



THE DIFFERENCE IN ELEVATIONS BETWEEN THE PROPOSED OVERLAY AND EXISTING DECK SHOULD BE KEPT TO A MINIMUM.

WHEN THE CONTRACTOR IS PLACING THE NEW MICRO SILICA MODIFIED CONCRETE OVERLAY ADJACENT TO THE EXISTING BRIDGE DECK SURFACE, THE NEW MICRO SILICA MODIFIED CONCRETE OVERLAY SHALL BE PLACED NEXT TO THE EXISTING BRIDGE DECK WITH NO OPEN GAPS. PRIOR TO THE REMOVAL OF THE EXISTING BRIDGE OVERLAY DURING THE NEXT PHASE THE CONTRACTOR SHALL PERFORM A STRAIGHT SAWCUT ALONG THE EDGE OF THE PREVIOUSLY PLACED MICRO SILICA MODIFIED CONCRETE OVERLAY, SACRIFICING A PORTION OF THE PREVIOUSLY PLACED OVERLAY TO PROVIDE A 2 3/4" VERTICAL FACE.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER:

	I-71	I-480	
ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	20	10	CU.YD.

WORK ZONE MARKINGS - BOTH LOCATIONS

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

	I-71	I-480	
ITEM 614, WORK ZONE EDGE LINE, CLASS III, 642 PAINT	1.49		MILE
ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	2058		FT
ITEM 614, WORK ZONE DOTTED LINE, CLASS III, 642 PAINT	1440		FT
ITEM 614, WORK ZONE LANE LINE, CLASS III, 642 PAINT	0.84	0.86	MILE

FLOODLIGHTING - BOTH LOCATIONS

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

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

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN - BOTH LOCATIONS

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FEET AND 475 FEET, RESPECTIVELY.

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

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

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

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

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

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

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

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

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 10 SNMT

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MAINTENANCE OF TRAFFIC - GENERAL NOTES

CUY-71-17.91R

ITEM 614, DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL AND ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

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

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

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

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

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

ITEM 614, BARRIER REFLECTOR, TYPE B	70	EACH
ITEM 614, OBJECT MARKER, ONE-WAY	70	EACH
ITEM 614, INCREASED BARRIER DELINEATION	3389	FT

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

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

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:

* 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 LONGTERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

* WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

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.

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. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. 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 QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	800 HOURS
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THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

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

ALTERNATE MAINTENANCE OF TRAFFIC PLANS

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 INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED IN WRITING BY THE ENGINEER. AT LEAST TEN (10) WORKING DAYS WILL BE REQUIRED FOR THE ENGINEER TO REVIEW THE ALTERNATE MAINTENANCE OF TRAFFIC PLAN.

ROCKY RIVER RESERVATION MULTI-USE TRAIL

THE FOLLOWING MEASURES WILL BE USED TO MINIMIZE THE EFFECTS OF THE PROJECT ON THE TOWPATH TRAIL:

- A FLAGGER WILL BE STATIONED ON THE MULTI-USE TRAIL DURING THE NIGHT TIME OPERATIONS TO STOP PEDESTRIAN AND BICYCLE TRAFFIC WHEN HEAVY MACHINERY IS WORKING OVERHEAD.
- THE FLAGGER WILL BE STATIONED ON THE TRAIL FOR APPROXIMATELY TWO SEPARATE TWO WEEK PERIODS FOR THE EASTBOUND IR-480 BRIDGE.
- THE CONTRACTOR WILL NOTIFY ODOT AND THE CLEVELAND METROPARKS 14 DAYS PRIOR TO BEGINNING CONSTRUCTION.
- ADVANCE NOTICE OF THE PROJECT'S CONSTRUCTION SCHEDULE AND POTENTIAL FOR USERS TO ENCOUNTER FLAGGERS ON THE TRAIL WILL BE PROVIDED NO LESS THAN 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. NOTICES SHALL BE POSTED IN AN AREA THAT CAN BE SEEN BY USERS OF THE EXISTING TRAIL AND ON THE CLEVELAND METROPARK'S WEBSITE.
- THE CONTRACTOR WILL INSTALL APPROPRIATE CONSTRUCTION WARNING SIGNS IN AREAS THAT WILL BE VISIBLE TO USERS OF THE TRAIL PRIOR TO CONSTRUCTION.
- NO STAGING AND/OR STORAGE OF CONSTRUCTION EQUIPMENT WILL OCCUR WITHIN THE EXISTING BOUNDARIES OF THE SECTION 4(F) PROPERTY.

THE COST OF ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY TO MEET ALL MEASURES LISTED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 – MAINTAINING TRAFFIC.

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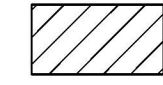
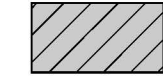





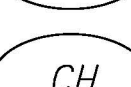

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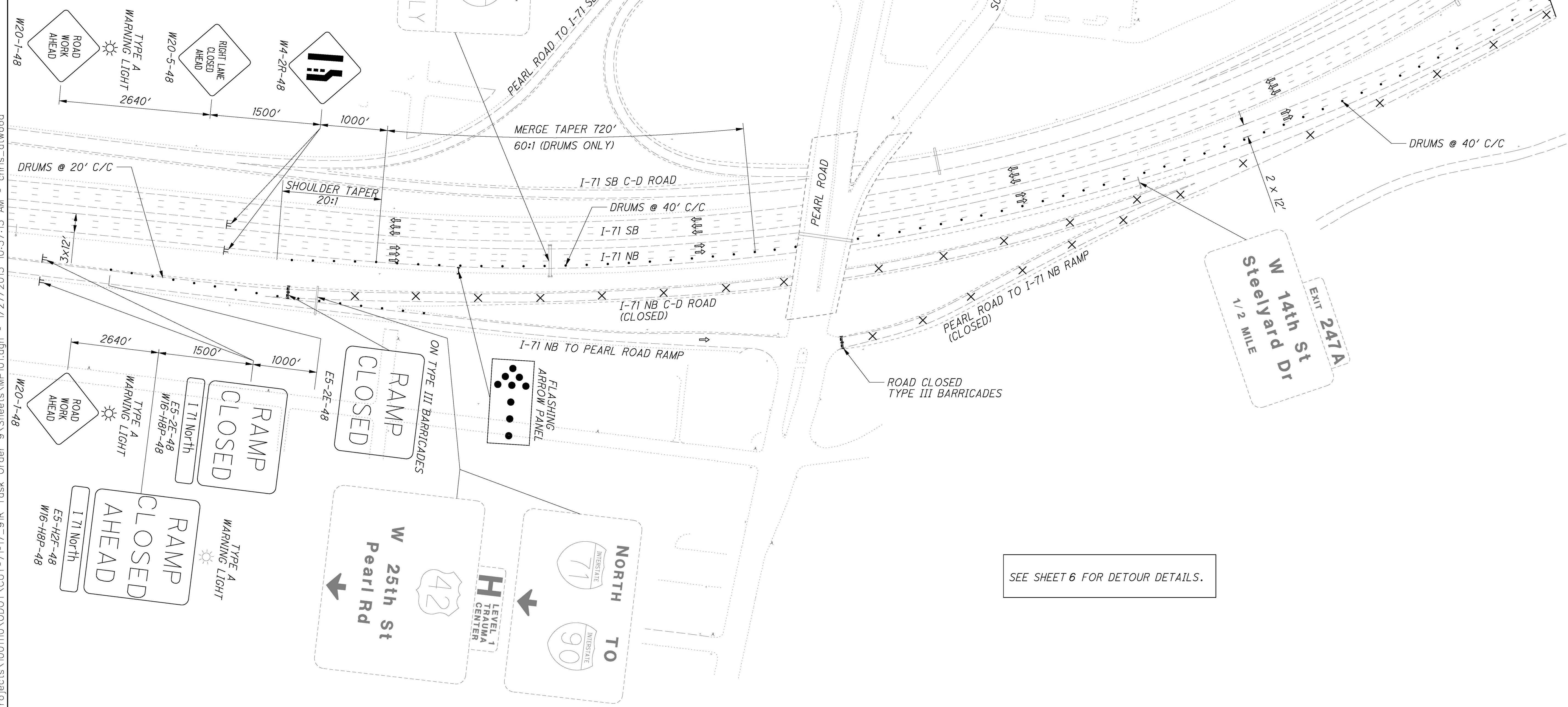
MAINTENANCE OF TRAFFIC - GENERAL NOTES

CUY-71-17.91R

5
22

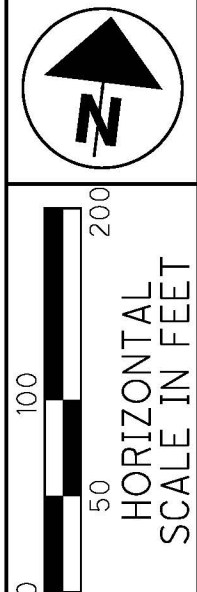
LEGEND

-  WORK AREA - LANE CLOSURE (BUFFER AREA)
-  WORK AREA - BRIDGE OVERLAY
-  DIRECTION OF TRAFFIC
-  DRUMS
-  ITEM 614, WORK ZONE EDGE LINE - WHITE
-  ITEM 614, WORK ZONE EDGE LINE - YELLOW
-  ITEM 614, WORK ZONE DOTTED LINE - WHITE
-  ITEM 614, WORK ZONE CHANNELIZING LINE
-  ROAD/RAMPS CLOSED



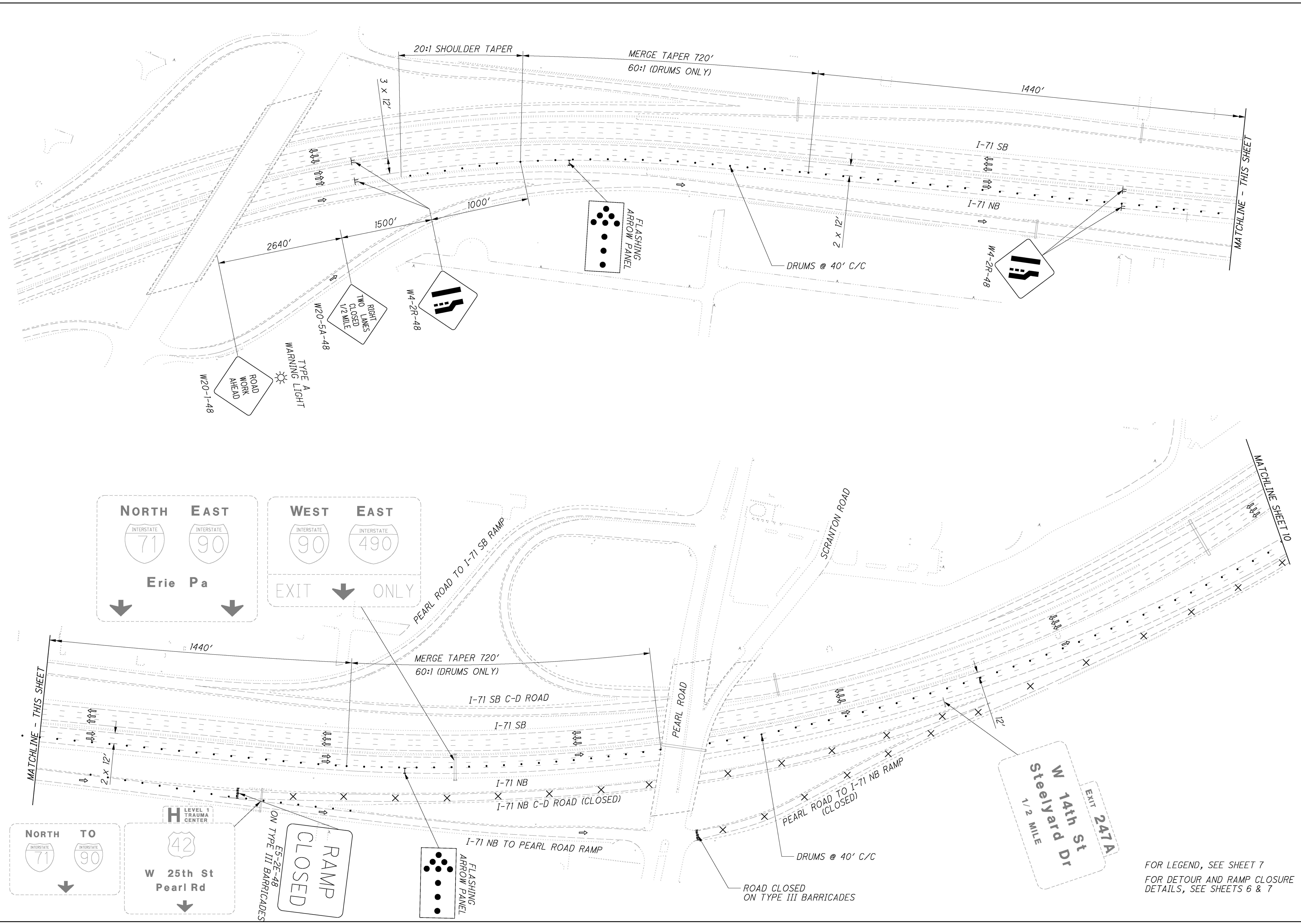
SEE SHEET 6 FOR DETOUR DETAILS.

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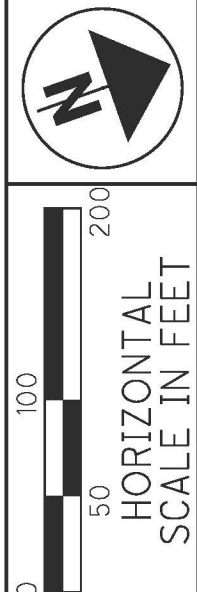


CUY-71-17.91R **MAINTENANCE OF TRAFFIC PLAN - PHASE 2**

9
22

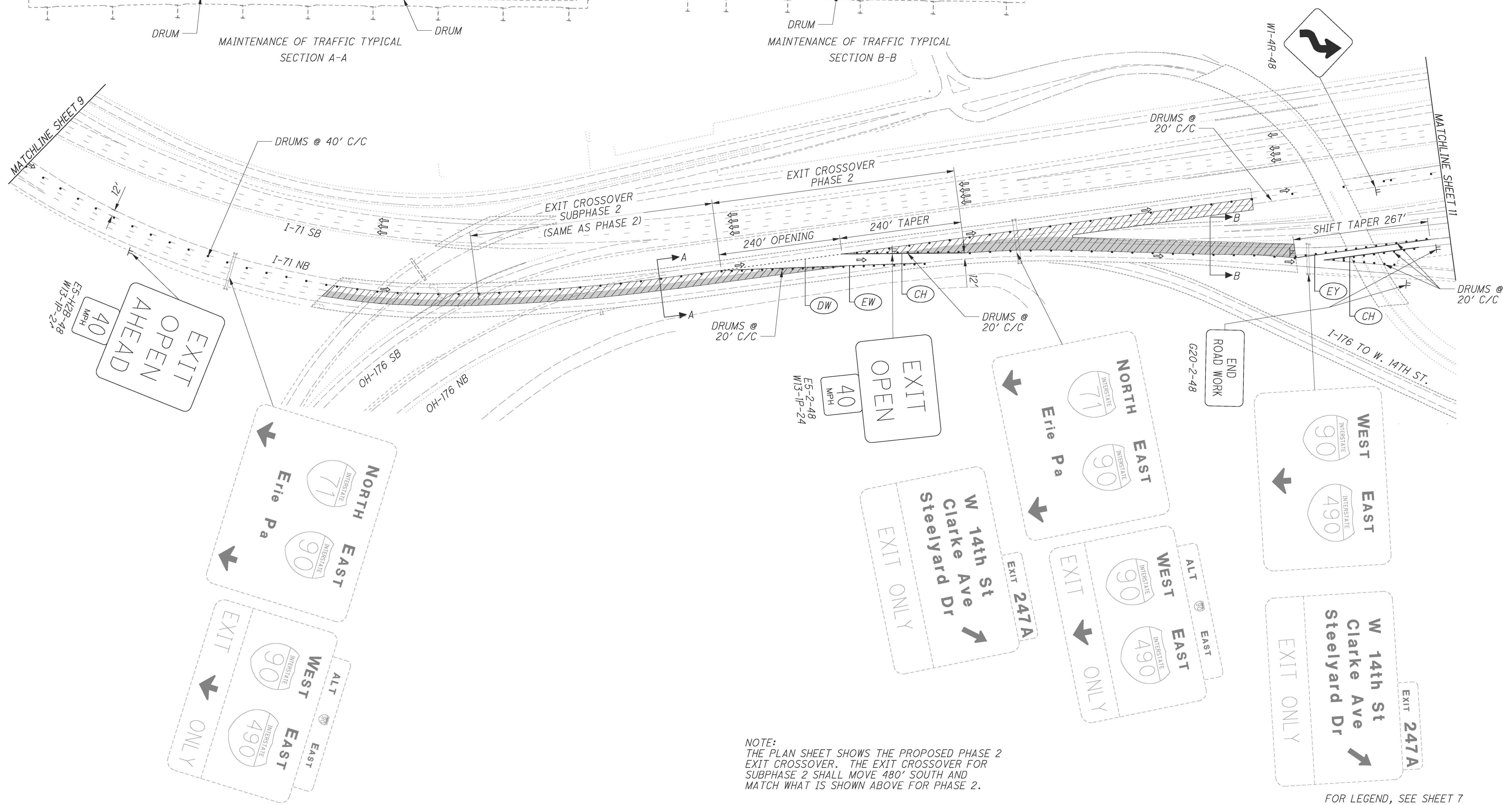
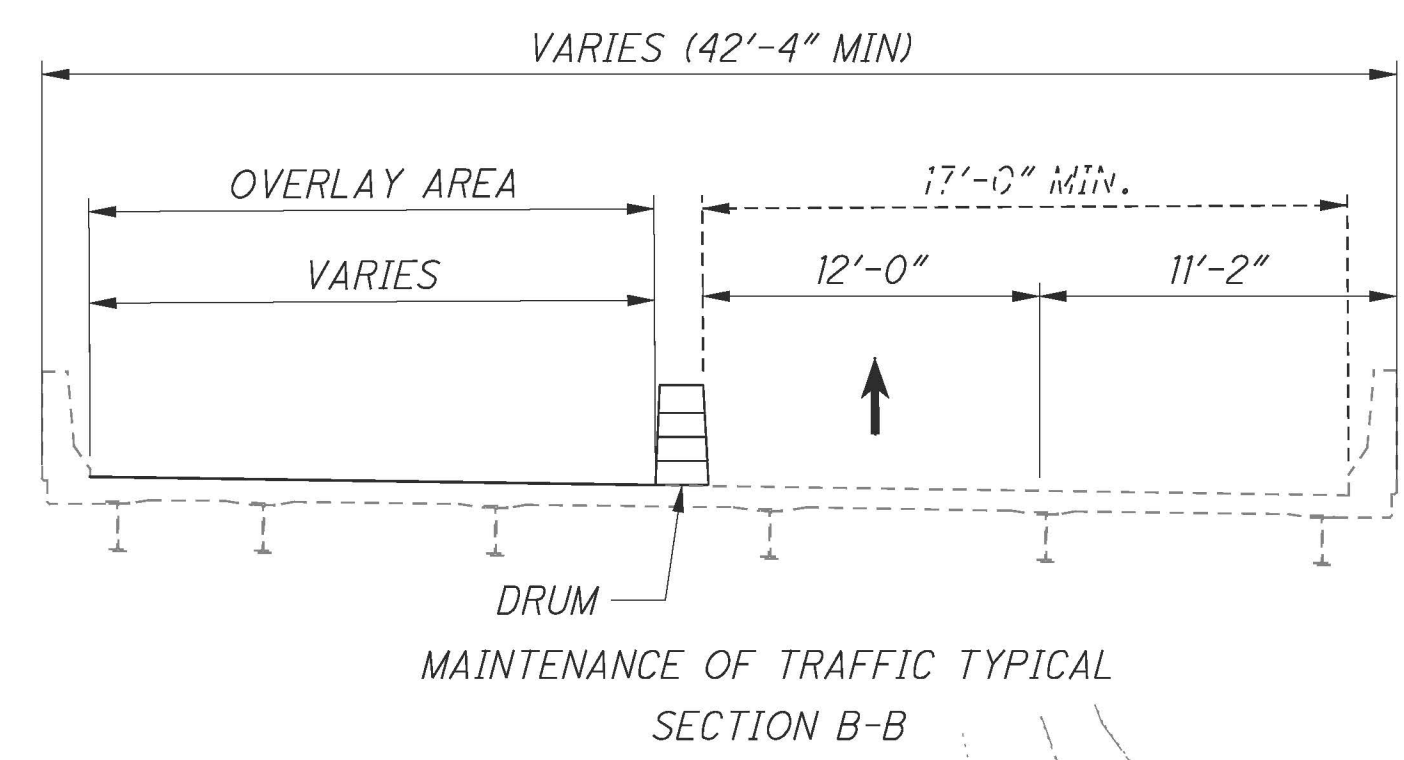
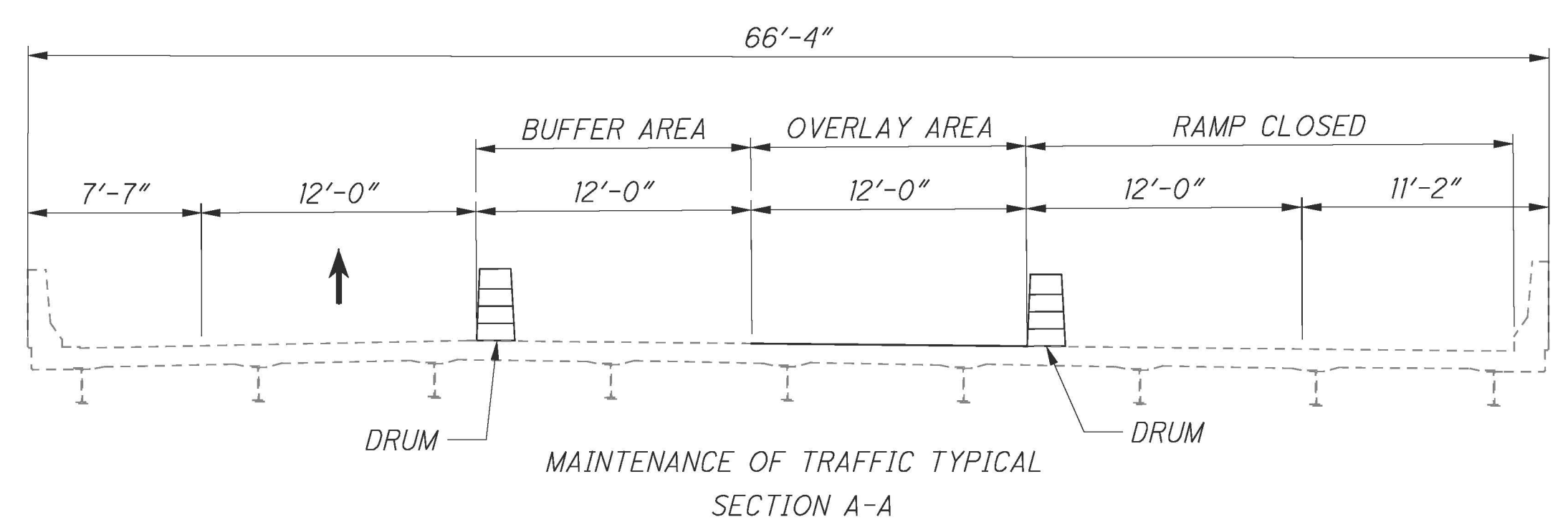


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MAINTENANCE OF TRAFFIC PLAN - PHASE 2

CUY-71-17-YUY

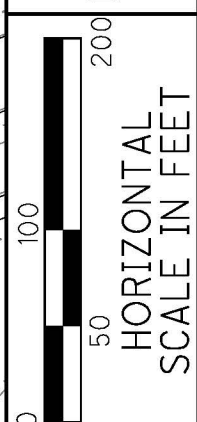
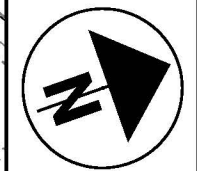


NOTE:
THE PLAN SHEET SHOWS THE PROPOSED PHASE 2
EXIT CROSSOVER. THE EXIT CROSSOVER FOR
SUBPHASE 2 SHALL MOVE 480' SOUTH AND
MATCH WHAT IS SHOWN ABOVE FOR PHASE 2.

FOR LEGEND, SEE SHEET 7

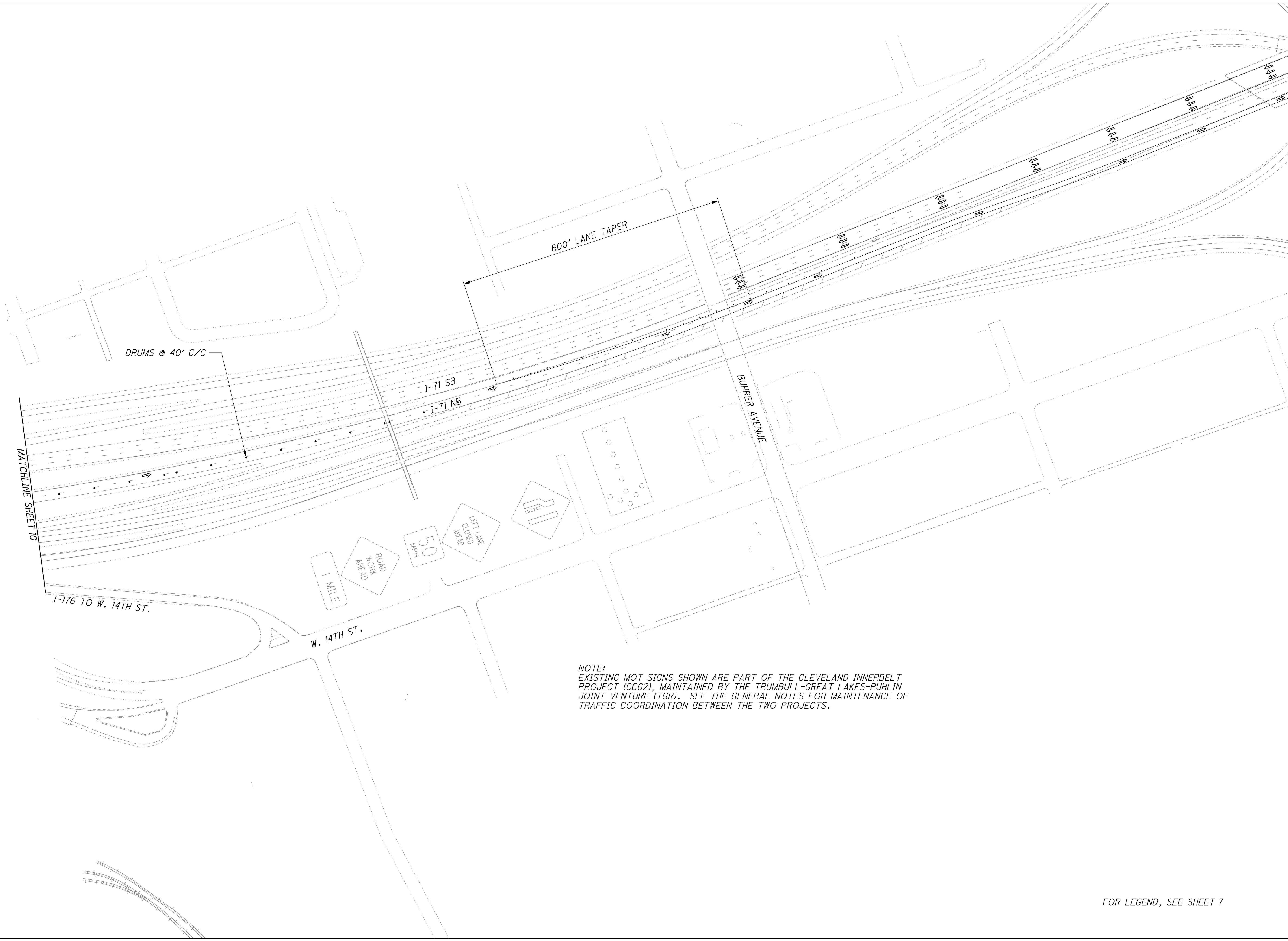
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CUY-71-17.91R
MAINTENANCE OF TRAFFIC PLAN - PHASE 2

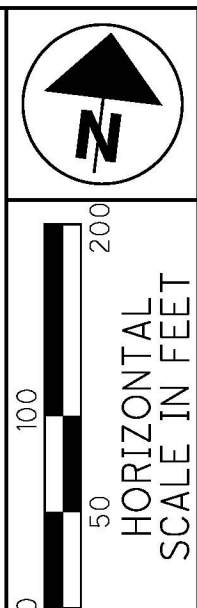
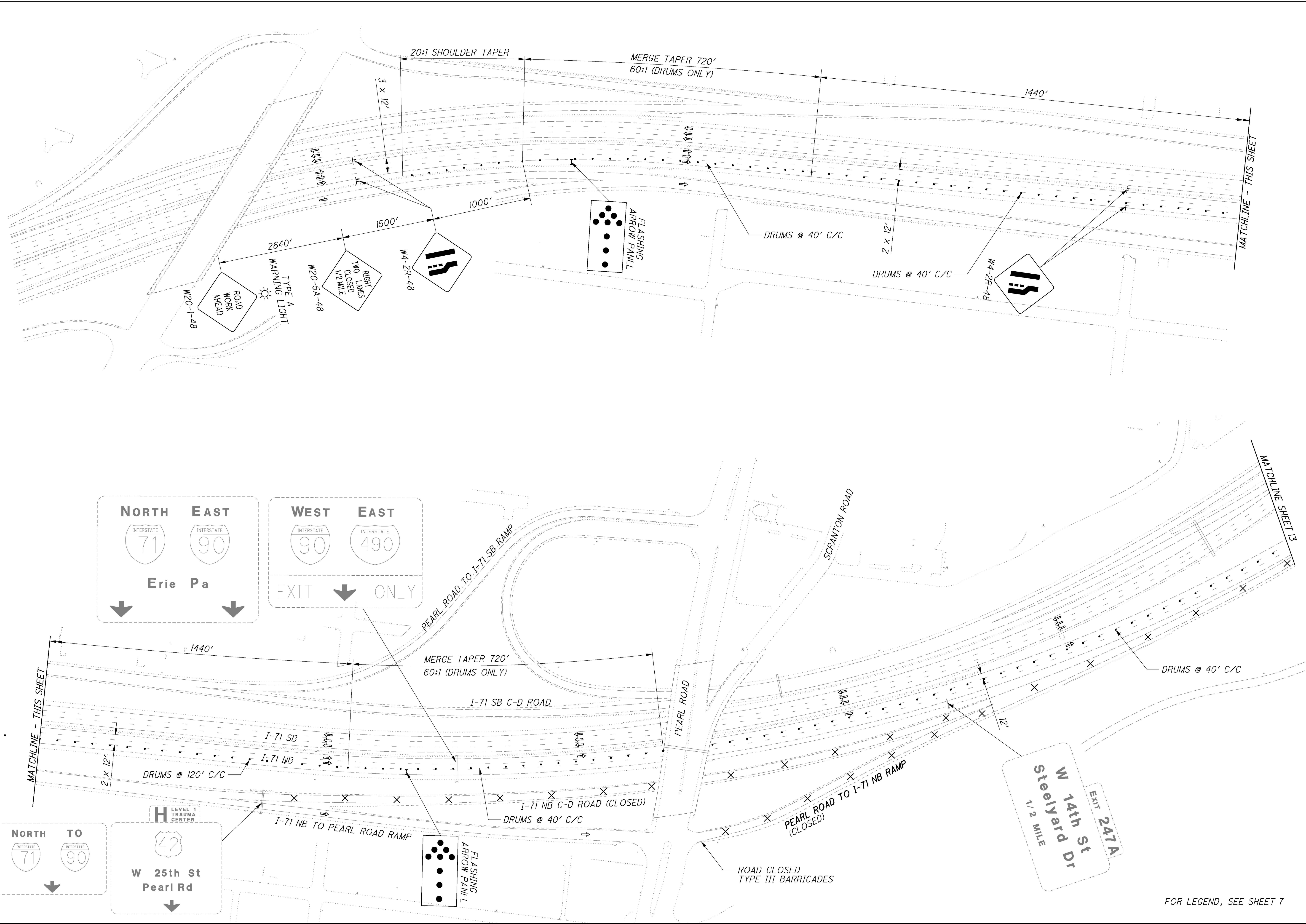
CUY-71-17.91R



NOTE:
 EXISTING MOT SIGNS SHOWN ARE PART OF THE CLEVELAND INNERBELT PROJECT (CCG2), MAINTAINED BY THE TRUMBULL-GREAT LAKES-RUHLIN JOINT VENTURE (TGR). SEE THE GENERAL NOTES FOR MAINTENANCE OF TRAFFIC COORDINATION BETWEEN THE TWO PROJECTS.

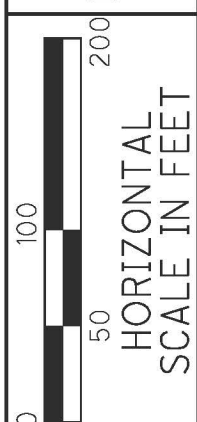
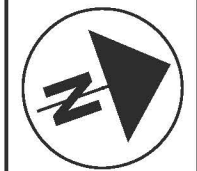
FOR LEGEND, SEE SHEET 7

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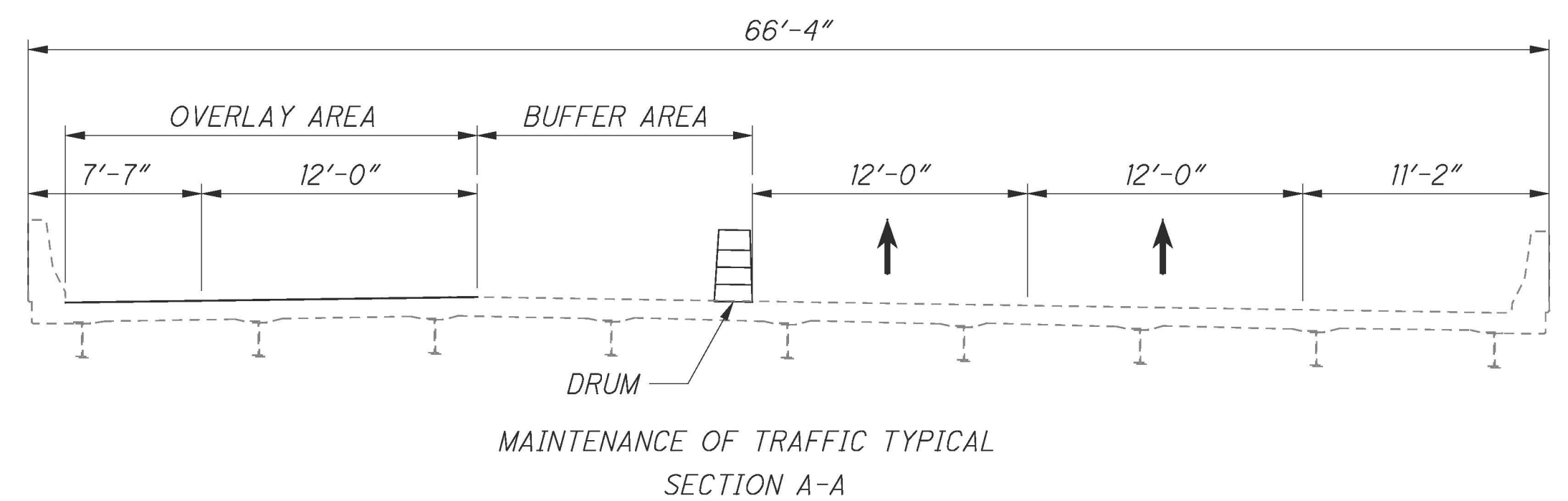


CUY-71-17.91R **MAINTENANCE OF TRAFFIC PLAN - PHASE 3**

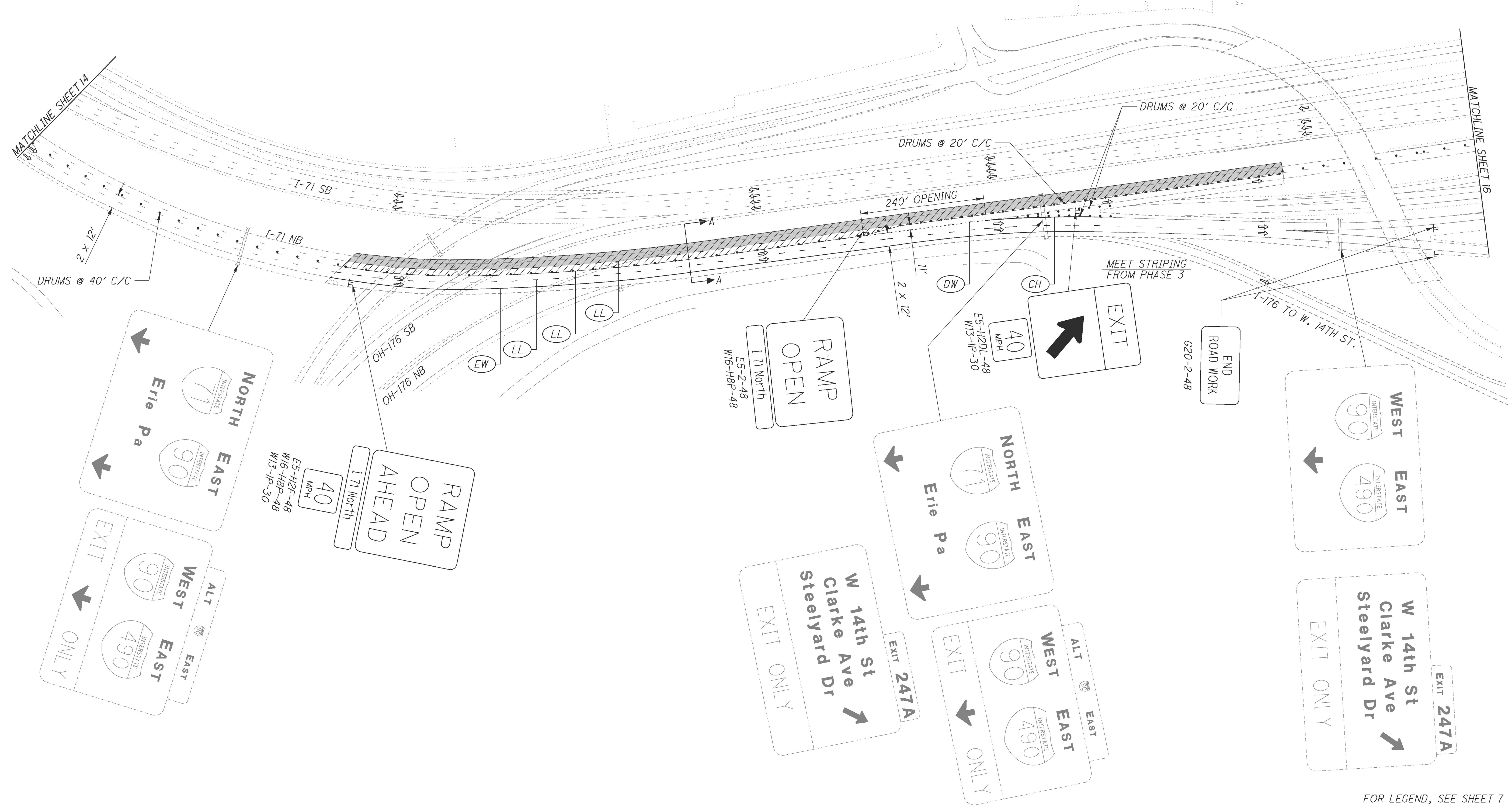
FOR LEGEND, SEE SHEET 7



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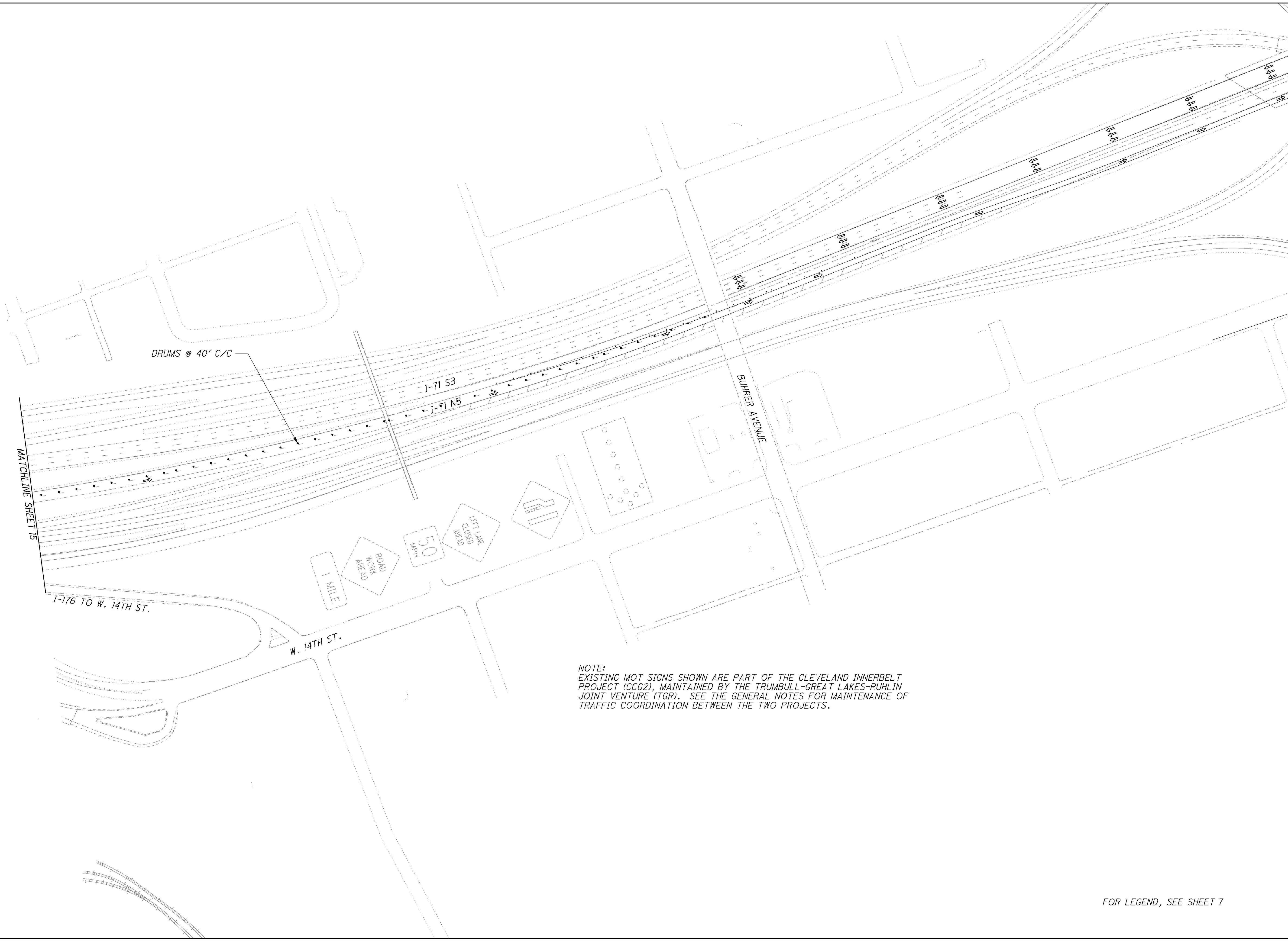
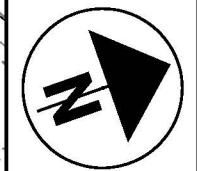


NOTE:
 CONTRACTOR SHALL PLACE REMAINING REQUIRED TEMPORARY STRIPING AFTER COMPLETING THE PHASE 4 OVERLAY. TEMPORARY STRIPING SHALL REMAIN IN PLACE UNTIL PERMANENT STRIPING CAN BE PUT DOWN. A QUANTITY FOR THE STRIPING NOT SHOWN HAS BEEN ACCOUNTED FOR AND CARRIED TO THE GENERAL SUMMARY.



FOR LEGEND, SEE SHEET 7

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DRUMS @ 40' C/C

MATCHLINE SHEET 15

I-176 TO W. 14TH ST.

W. 14TH ST.

BURHER AVENUE

I-71 SB

I-71 NB

1 MILE

ROAD WORK AHEAD

50 MPH

LEFT LANE CLOSED AHEAD

NOTE:
EXISTING MOT SIGNS SHOWN ARE PART OF THE CLEVELAND INNERBELT PROJECT (CCG2), MAINTAINED BY THE TRUMBULL-GREAT LAKES-RUHLIN JOINT VENTURE (TGR). SEE THE GENERAL NOTES FOR MAINTENANCE OF TRAFFIC COORDINATION BETWEEN THE TWO PROJECTS.

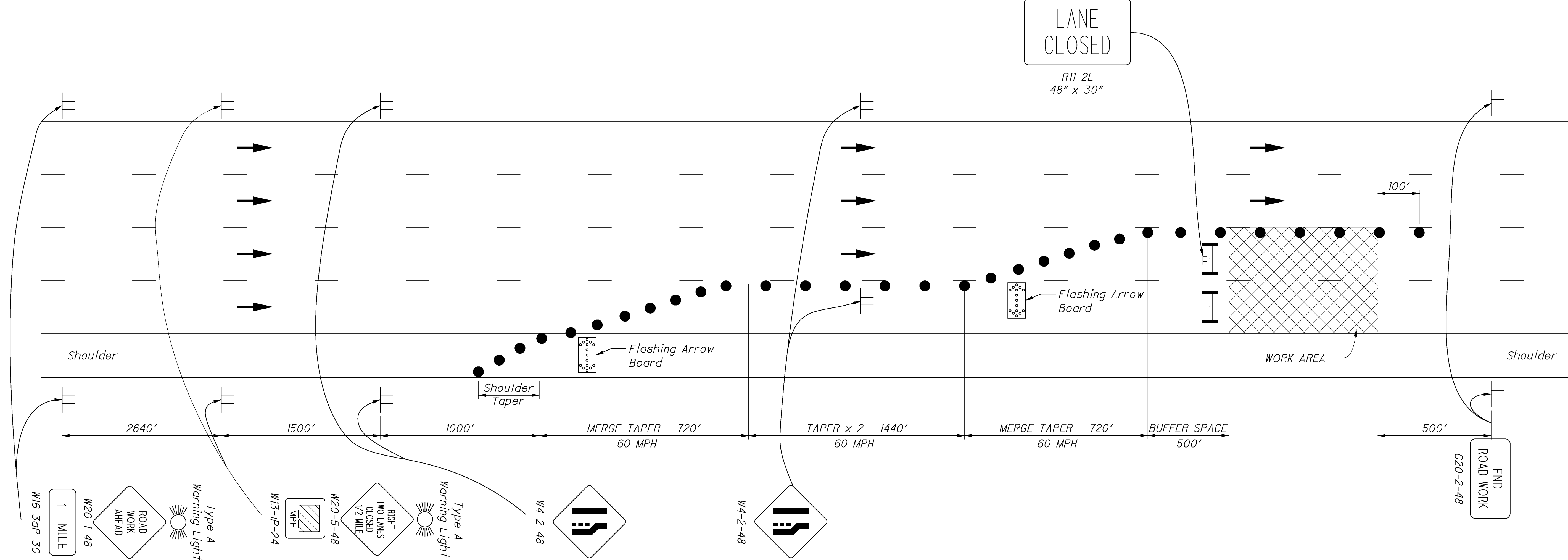
FOR LEGEND, SEE SHEET 7

CUY-71-17.91R MAINTENANCE OF TRAFFIC PLAN - PHASE 4

CUY-71-17.91R

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(PLACE 2 BARRICADES AND A "LANE CLOSED" SIGN APPROX. EVERY 1/4 MILE ACROSS THE CLOSED LANES)



GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OF EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1 AND G20-2 SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

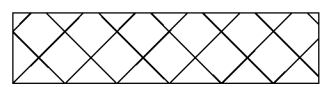

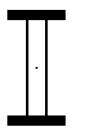
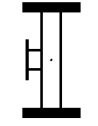
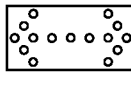

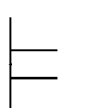
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

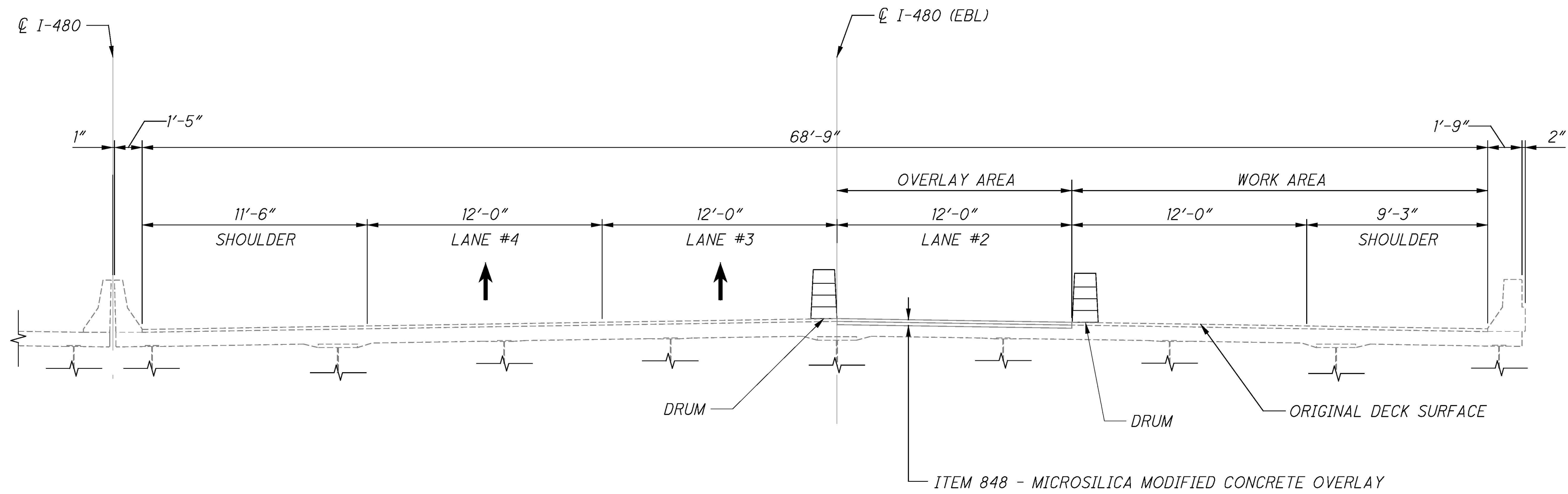
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED ID THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

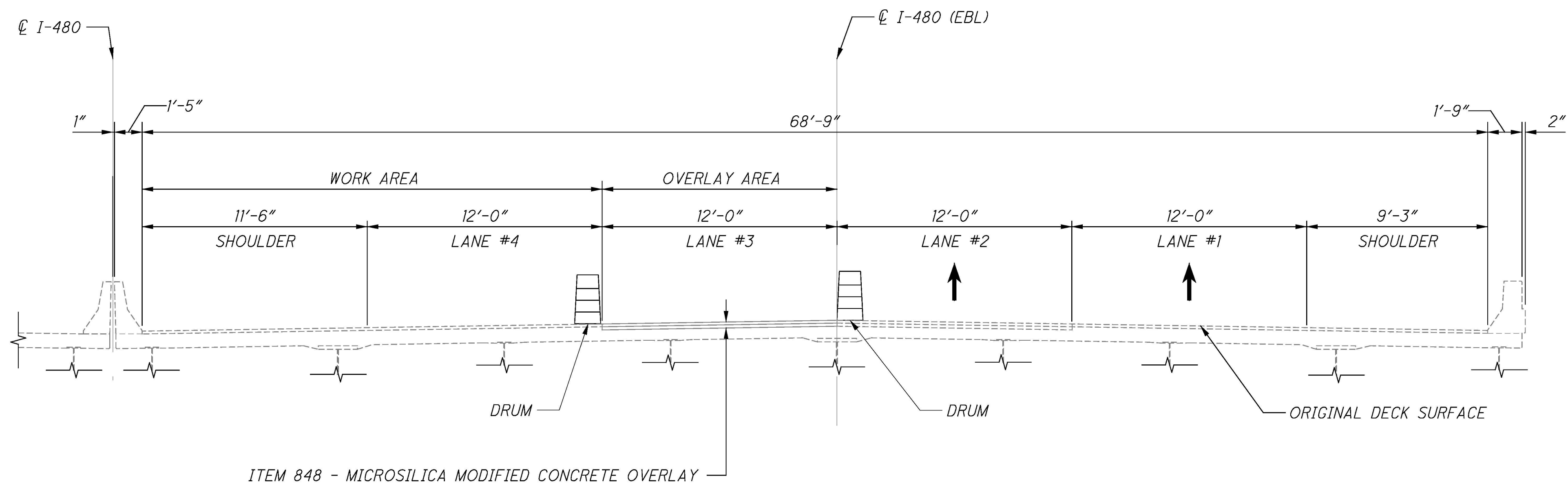
LEGEND

- WORK AREA 
- DRUMS/CONES 
- TYPE III BARRICADE 
- TYPE III BARRICADE WITH ATTACHED SIGN 
- FLASHING ARROW BOARD 
- DIRECTION OF TRAVEL 
- SIGN ON TEMPORARY SUPPORT 

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TYPICAL SECTION - PHASE 1
I-480 EAST BOUND



TYPICAL SECTION - PHASE 2
I-480 EAST BOUND

CALCULATED
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CHECKED
RAM

MAINTENANCE OF TRAFFIC - I-480 TYPICAL SECTIONS

CUY-71-17.91R

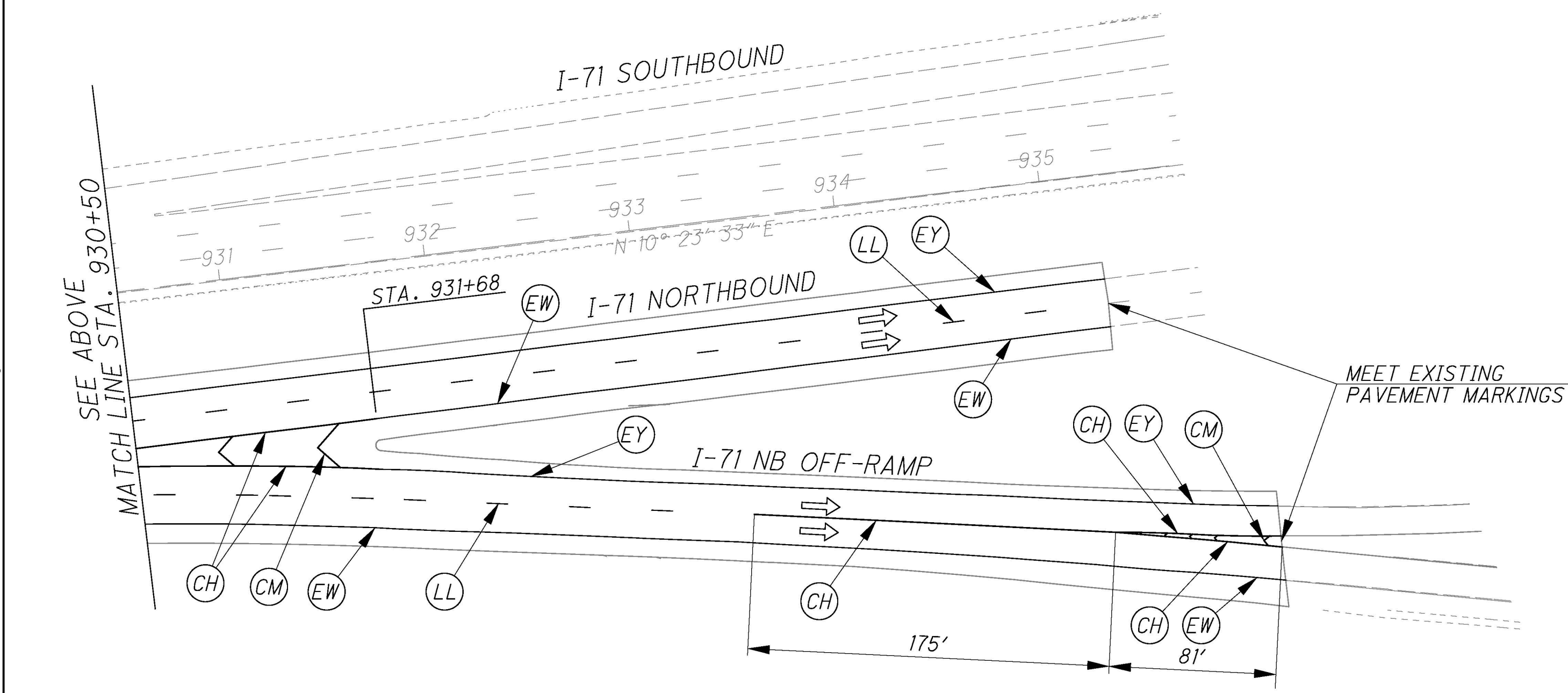
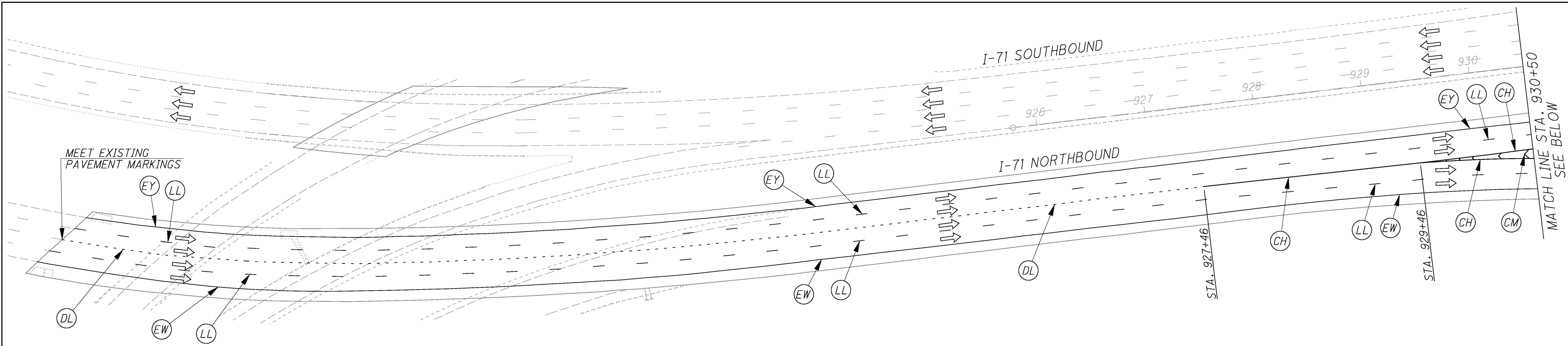
I:\PROJECTS\CUY\98727\roadway\sheet\98727G001.dgn 19-MAR-2015 8:24AM jmasters

SHEET NUMBER								PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
2A	4	5	20	22	01/BRO/B R	02/IMS/B R									
													ROADWAY		
101								56	45	251	01000	101	SY	PARTIAL DEPTH PAVEMENT REPAIR	
														TRAFFIC CONTROL	
								80	18	621	54000	98	EACH	RAISED PAVEMENT MARKER REMOVED	
				0.86				0.86		646	10010	0.86	MILE	EDGE LINE, 6"	
				0.66	0.89			0.66	0.89	646	10110	1.55	MILE	LANE LINE, 6"	
				981				981		646	10310	981	FT	CHANNELIZING LINE, 12"	
				96				96		646	10620	96	FT	CHEVRON MARKING	
				1053				1053		646	20510	1053	FT	DOTTED LINE, 12"	
														STRUCTURE REPAIR CUY-71-1791 (SFN 1805371)	
								400		509	20001	400	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	2
								LUMP		518	63300	LS		STRUCTURE DRAINAGE, MISC.: CLEANING BRIDGE DRAINAGE SYSTEM	2
								169		SPECIAL	51911720	169	FT	PATCHING CONCRETE STRUCTURE, MISC.: TOP OF BACKWALL REPAIR	21-22
								14022		848	10001	14022	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2-3/4" THICK)	2
								14022		848	20001	14022	SY	SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN	2
								265		848	30001	265	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	2
								625		848	50000	625	SY	HAND CHIPPING	
								LUMP		848	50100	LS		TEST SLAB	
140								140		848	50200	140	CY	FULL-DEPTH REPAIR	
								14022		848	50321	14022	SY	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (1-3/4" +/- THICK)	2
								6250		848	50341	6250	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY, AS PER PLAN	2
LUMP								LUMP		SPECIAL	53000200	LS		STRUCTURE, MISC.: EMERGENCY ASPHALT PAVING OPERATION ON STANDBY	2
														STRUCTURE REPAIR CUY-480-0647 (SFN 1812831)	
								200		509	20001	200	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	2
								134		SPECIAL	51911720	134	FT	PATCHING CONCRETE STRUCTURE, MISC.: TOP OF BACKWALL REPAIR	21-22
								4189		848	10001	4189	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2-3/4" THICK)	2
								4189		848	20001	4189	SY	SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN	2
								90		848	30001	90	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	2
								210		848	50000	210	SY	HAND CHIPPING	
								LUMP		848	50100	LS		TEST SLAB	
45								45		848	50200	45	CY	FULL-DEPTH REPAIR	
								4189		848	50321	4189	SY	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (1-3/4" +/- THICK)	2
								2100		848	50341	2100	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY, AS PER PLAN	2
LUMP								LUMP		SPECIAL	53000200	LS		STRUCTURE, MISC.: EMERGENCY ASPHALT PAVING OPERATION ON STANDBY	2
														MAINTENANCE OF TRAFFIC	
								800		540	260	800	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
								3389		2260	1129	3389	FT	INCREASED BARRIER DELINEATION	
		30						20	10	614	13000	30	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
								70	23	614	13300	70	EACH	BARRIER REFLECTOR, TYPE B	
								70	23	614	13350	70	EACH	OBJECT MARKER, ONE WAY	
								10		7	3	10	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	4
								1.7	0.86	614	20550	1.7	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT	
								1.49		614	22350	1.49	MILE	WORK ZONE EDGE LINE, CLASS III, 642 PAINT	
								2058		614	23680	2058	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	
								1440		614	24610	1440	FT	WORK ZONE DOTTED LINE, CLASS III, 642 PAINT	
														INCIDENTALS	
								LUMP	LUMP	614	11000	LS		MAINTAINING TRAFFIC	
								3	1	619	16011	4	MNTH	FIELD OFFICE, TYPE B, AS PER PLAN	2A
								LUMP	LUMP	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
								LUMP	LUMP	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY
 CUY-71-17.91R/
 CUY-480-6.47

CALCULATED
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 CHECKED
 SAM

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ESTIMATED QUANTITIES CARRIED TO GENERAL SUMMARY

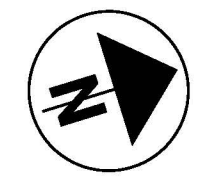
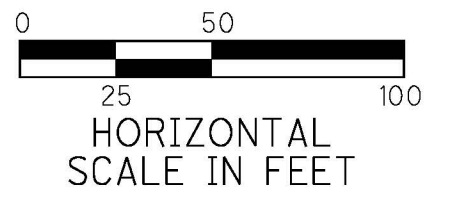
ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
646	10010	0.86	MILE	EDGE LINE, 6"
646	10110	0.66	MILE	LANE LINE, 6"
646	10310	981	FT	CHANNELIZING LINE, 12"
646	10620	96	FT	CHEVRON MARKING
646	20510	1053	FT	DOTTED LINE, 12"

PAVEMENT MARKING LEGEND

- (EW) 646 EDGE LINE, WHITE, 6"
- (EY) 646 EDGE LINE, YELLOW, 6"
- (LL) 646 LANE LINE, 6"
- (DL) 646 DOTTED LINE, WHITE, 12", 3' LINE 9' GAP
- (CH) 646 CHANNELIZING LINE, 12"
- (CM) 646 CHEVRON MARKING

NOTES

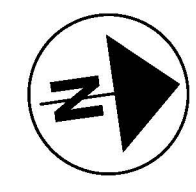
1. ALL LANES ARE 12' WIDE, TYPICAL.
2. DUE TO HEAVY TRAFFIC VOLUME, COMPLETE ITEM 646 PAVEMENT MARKINGS WITHIN 2 WEEKS AFTER THE OVERLAY PLACEMENT.



CALCULATED
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JMB

PAVEMENT MARKING PLAN

CUY-71-17.91R



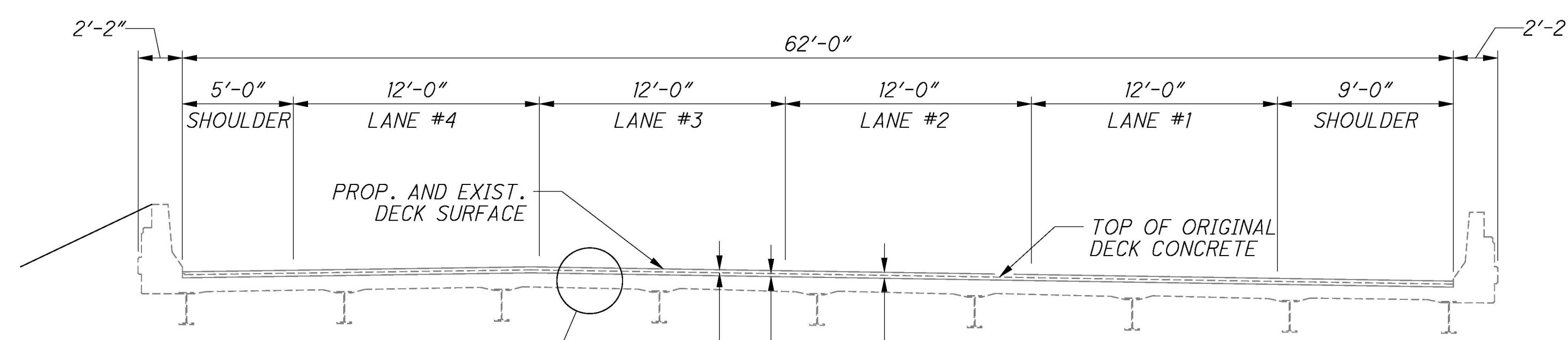
BRIDGE LIMITS MEASURED ALONG @ I-71 NBL = 1811'-2"

BEARING REAR ABUTMENT

BEARING FORWARD ABUTMENT (AW)

BEARING FORWARD ABUTMENT (AE)

PLAN



TYPICAL SECTION

ITEM 848 - MICROSILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2 3/4" THICK)

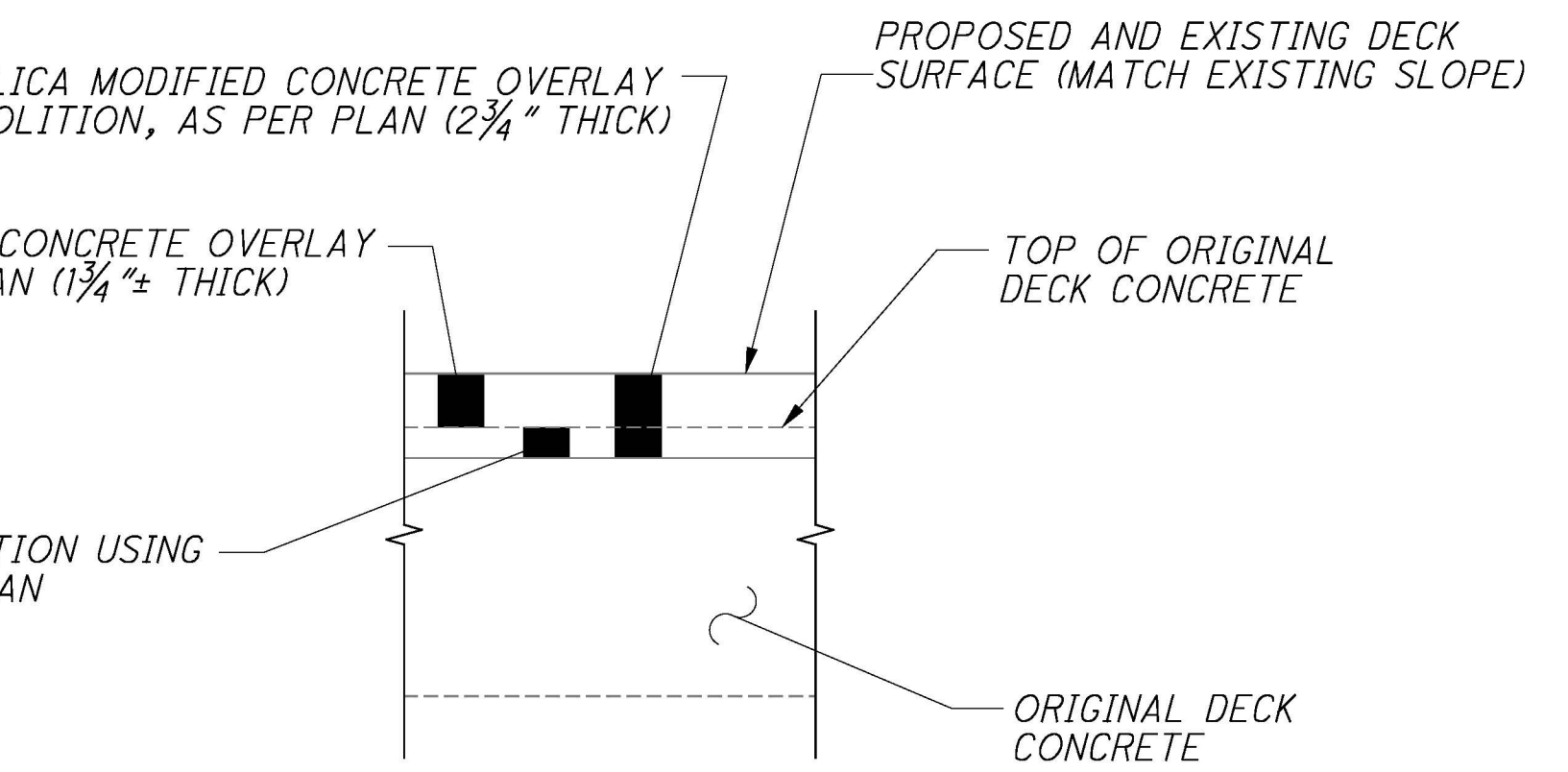
ITEM 848 - EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (1 1/4" THICK)

ITEM 848 - SURFACE PREPARATION USING HYDRODEMOLITION, AS PER PLAN

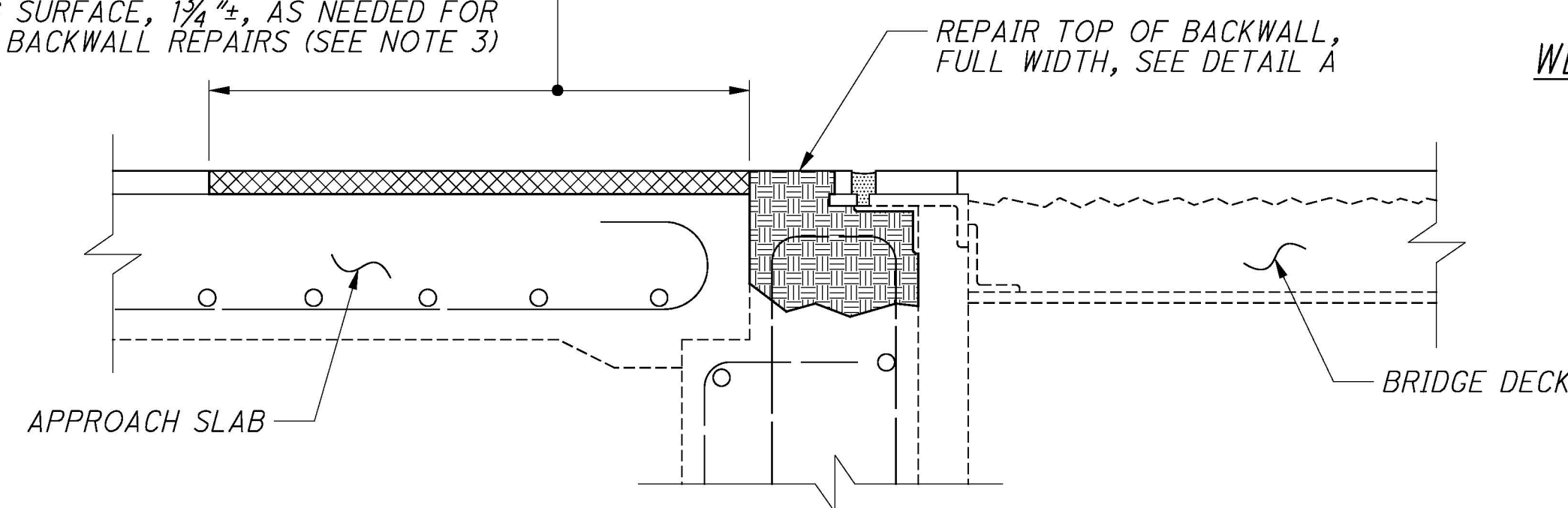
ITEM 848 - EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (1 1/4" THICK)

ITEM 848 - SURFACE PREPARATION USING HYDRODEMOLITION, AS PER PLAN

3'-0"± MEASURED PERPENDICULAR TO JOINT:
- REMOVE & REPLACE EXISTING ASPHALT WEARING SURFACE, 1 1/4"±, AS NEEDED FOR TOP OF BACKWALL REPAIRS (SEE NOTE 3)



WEARING SURFACE REPLACEMENT DETAIL



ROADWAY ELEVATION AT ABUTMENT

LEGEND:

- WEARING SURFACE REPLACEMENT

NBL = NORTHBOUND LANES
AW = ABUTMENT WEST
AE = ABUTMENT EAST

PROPOSED WORK:

1. REMOVE ALL RAISED PAVEMENT MARKINGS ON THE STRUCTURE
2. REPLACE ENTIRE WEARING SURFACE. SAWCUT ALL LONGITUDINAL JOINT EDGES PRIOR TO SUBSEQUENT POURS TO PROVIDE CLEAN JOINTS TO POUR AGAINST. SEE MAINTENANCE OF TRAFFIC PLANS FOR ADDITIONAL PHASE CONSTRUCTION INFORMATION.
3. APPLY PAVEMENT MARKING ON STRUCTURE.
4. REINSTALL ALL RAISED PAVEMENT MARKINGS ON THE STRUCTURE.

NOTES:

1. CONCRETE FOR THE TOP OF BACKWALL REPAIR SHALL BE FINISHED FLUSH WITH THE TOP OF EXISTING EXPANSION JOINT BAR.
2. ALL LABOR, MATERIAL, EQUIPMENT & INCIDENTALS REQUIRED TO PERFORM THE TOP OF THE BACKWALL REPAIR SHALL BE PAID UNDER ITEM SPECIAL - PATCHING CONCRETE STRUCTURE, MISC.: TOP OF BACKWALL REPAIR.
3. ALL LABOR, MATERIAL, EQUIPMENT & INCIDENTALS REQUIRED TO REMOVE & REPLACE ASPHALT WEARING SURFACE SHALL BE PAID UNDER ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR.
4. PLAN VIEW AND TYPICAL SECTION ARE TAKEN FROM THE PREVIOUS SET OF PLANS. ONLY DO WORK LISTED UNDER PROPOSED WORK.

EXISTING EXPANSION JOINT BAR TO REMAIN

1/2" DIA. x 4" SHEAR STUD @ 9" C/C MAX. WELDED TO AVOID EXISTING STEEL

REMOVE AND REPLACE ALL UNSOUND CONCRETE

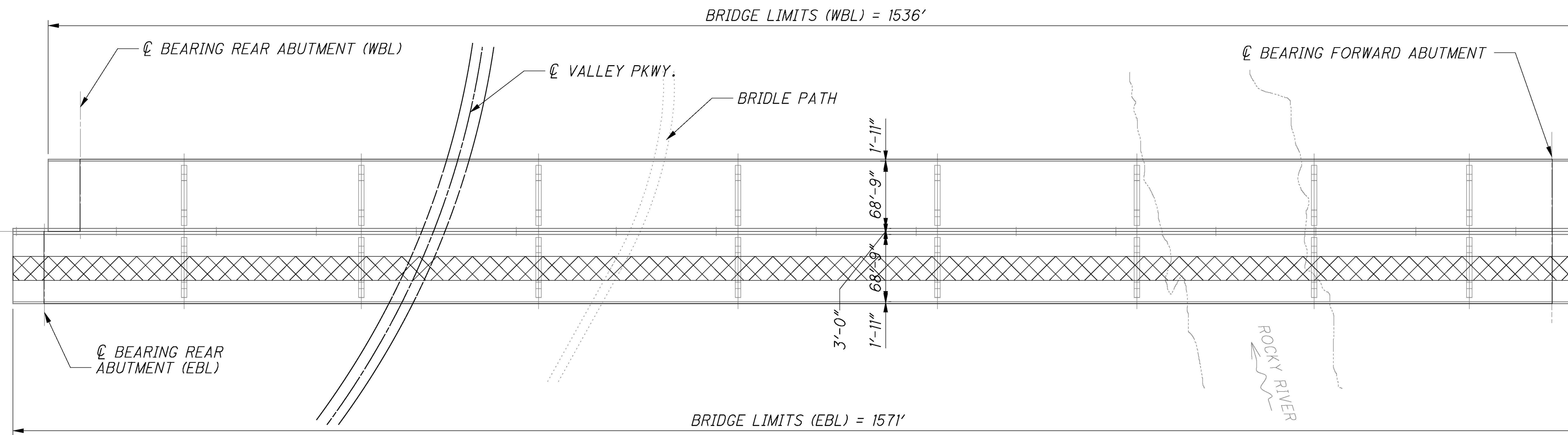
EXISTING REBAR TO REMAIN, LOCATIONS ARE APPROXIMATE

DETAIL A

BRIDGE DATA	CUY-71-1791R I-71 NB OVER SR-176		RAMP TO 14th STREET & I-490	CUY-480-6.47 I-480 OVER ROCKY RIVER (EASTBOUND ONLY)
	MAINLINE			
BRIDGE LIMITS (FT)	1811.16		430.91	1571
ROADWAY WIDTH (FT)	62		38 **	68.75
ESTIMATED REPAIR DECK AREA (SY)	12027		1995	4189
NUMBER OF LANES	4/2		2	4
DIVIDED HIGHWAY	Y		Y	Y

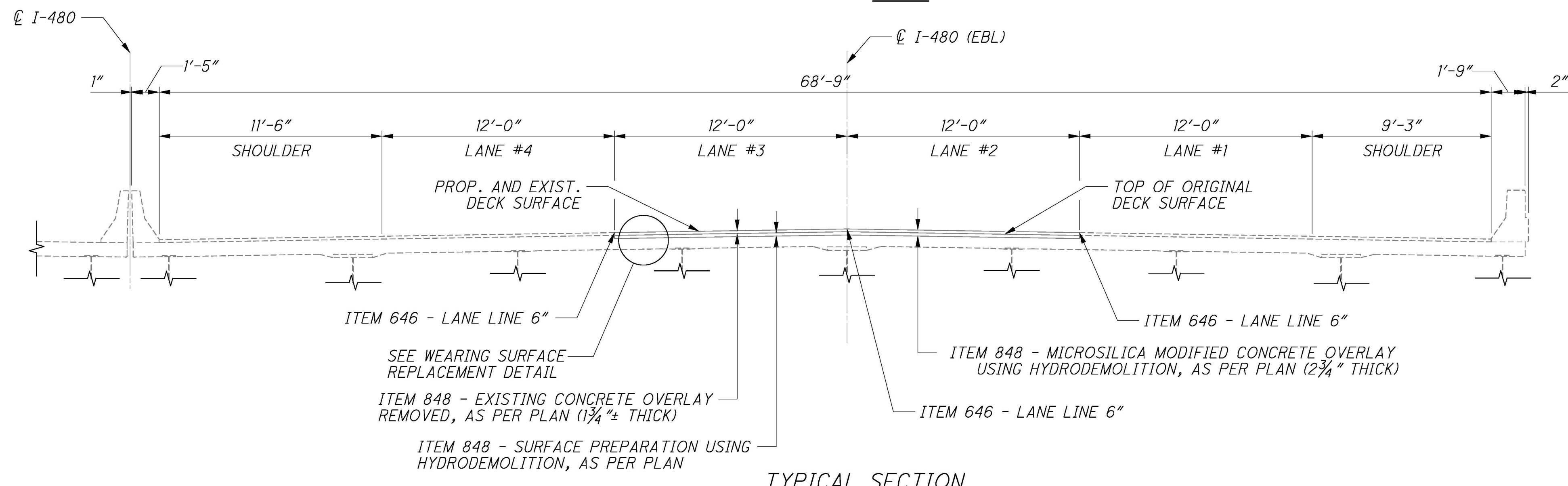
** - WIDTHS VARY DUE TO EXIT AND ENTRANCE RAMP ON THE STRUCTURE. SEE PREVIOUS CONSTRUCTION PLANS FOR MORE DETAILED DIMENSIONS. THESE PLANS CAN BE VIEWED AT ODOT'S DISTRICT 12 OFFICE.

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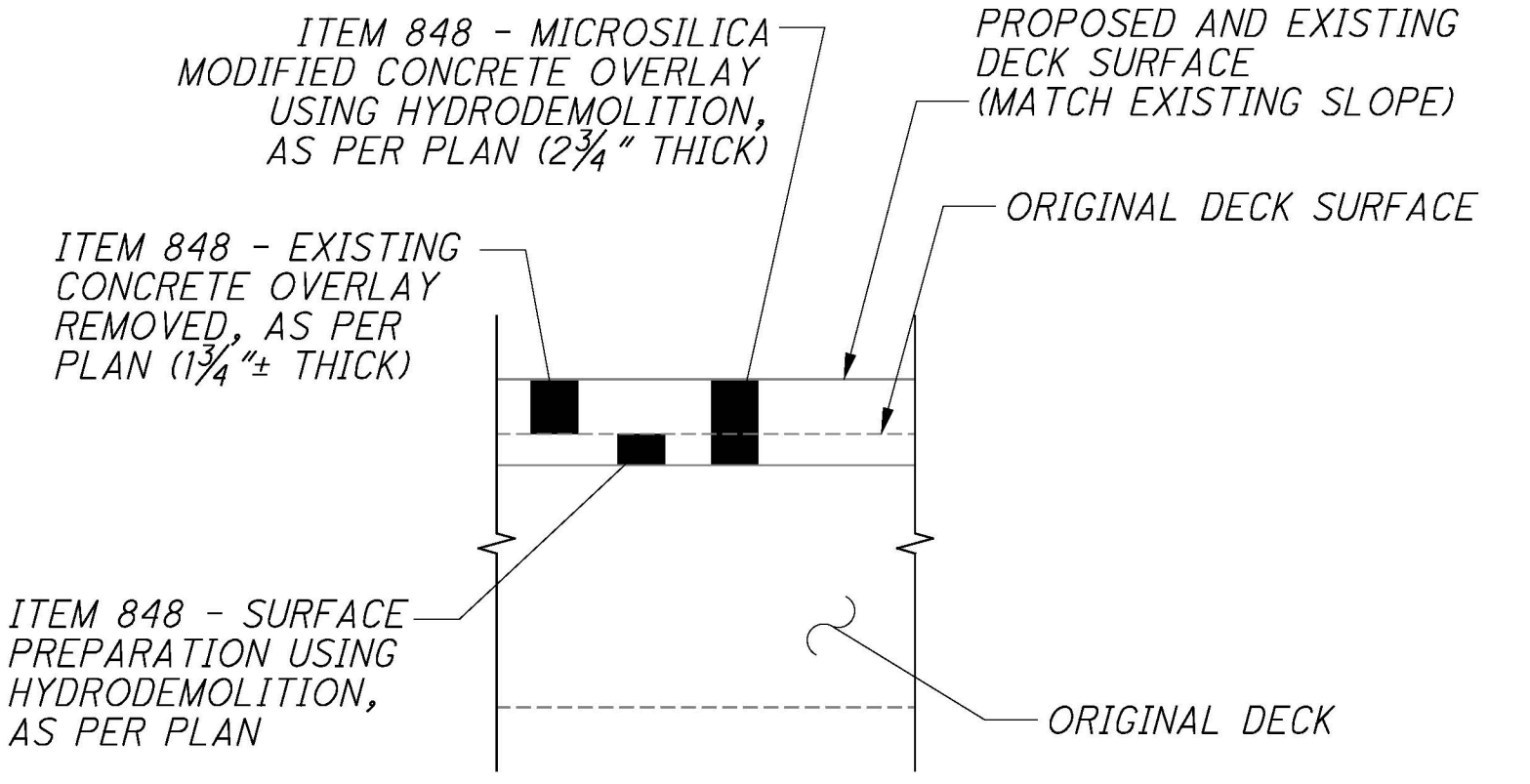


ESTIMATED QUANTITIES CARRIED TO GENERAL SUMMARY				
ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
646	10110	0.89	MILE	LANE LINE, 6"

PLAN



TYPICAL SECTION



WEARING SURFACE REPLACEMENT DETAIL

LEGEND:

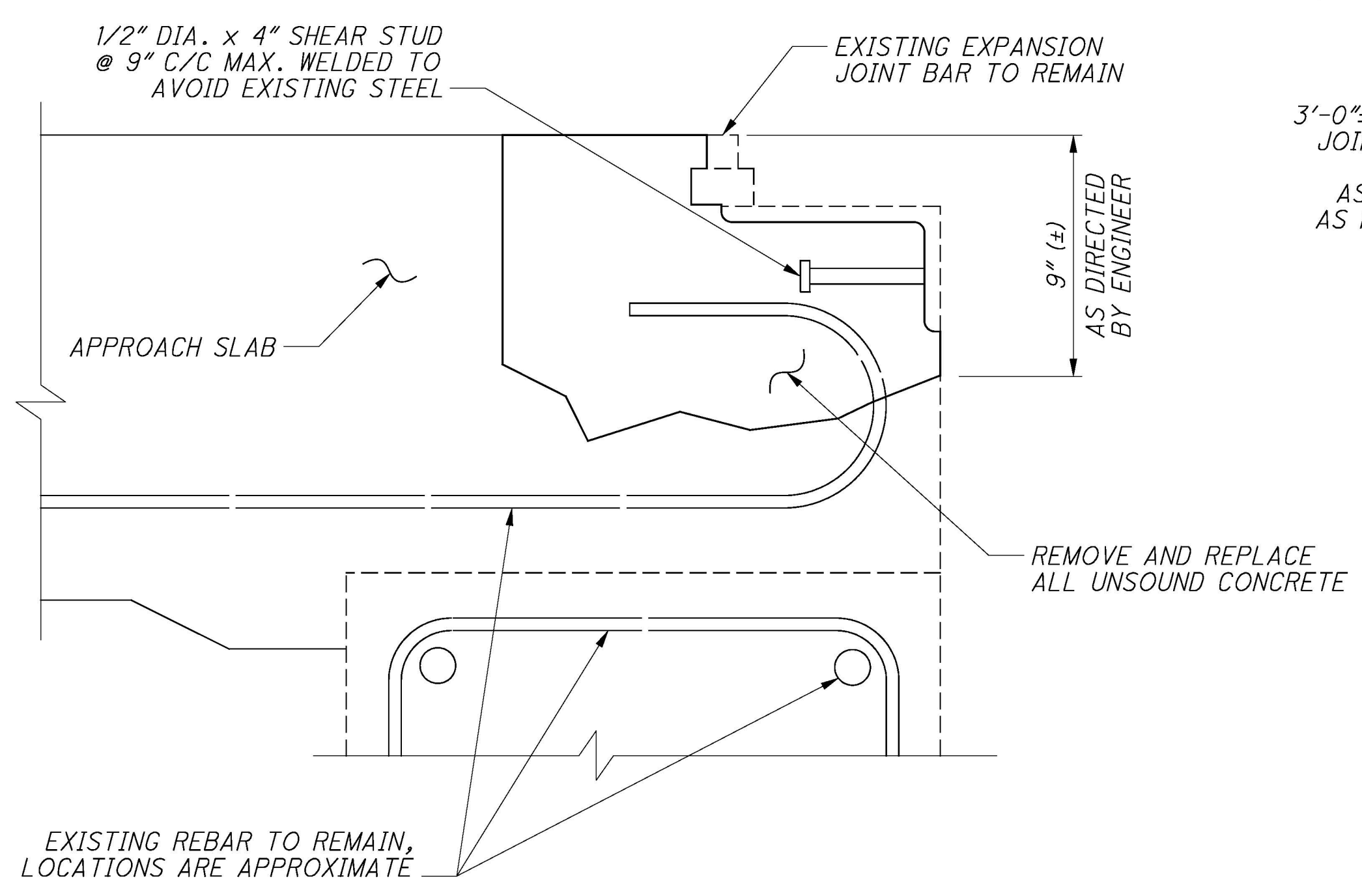
- WEARING SURFACE REPLACEMENT
- EBL = EASTBOUND LANES
- WBL = WESTBOUND LANES

PROPOSED WORK:

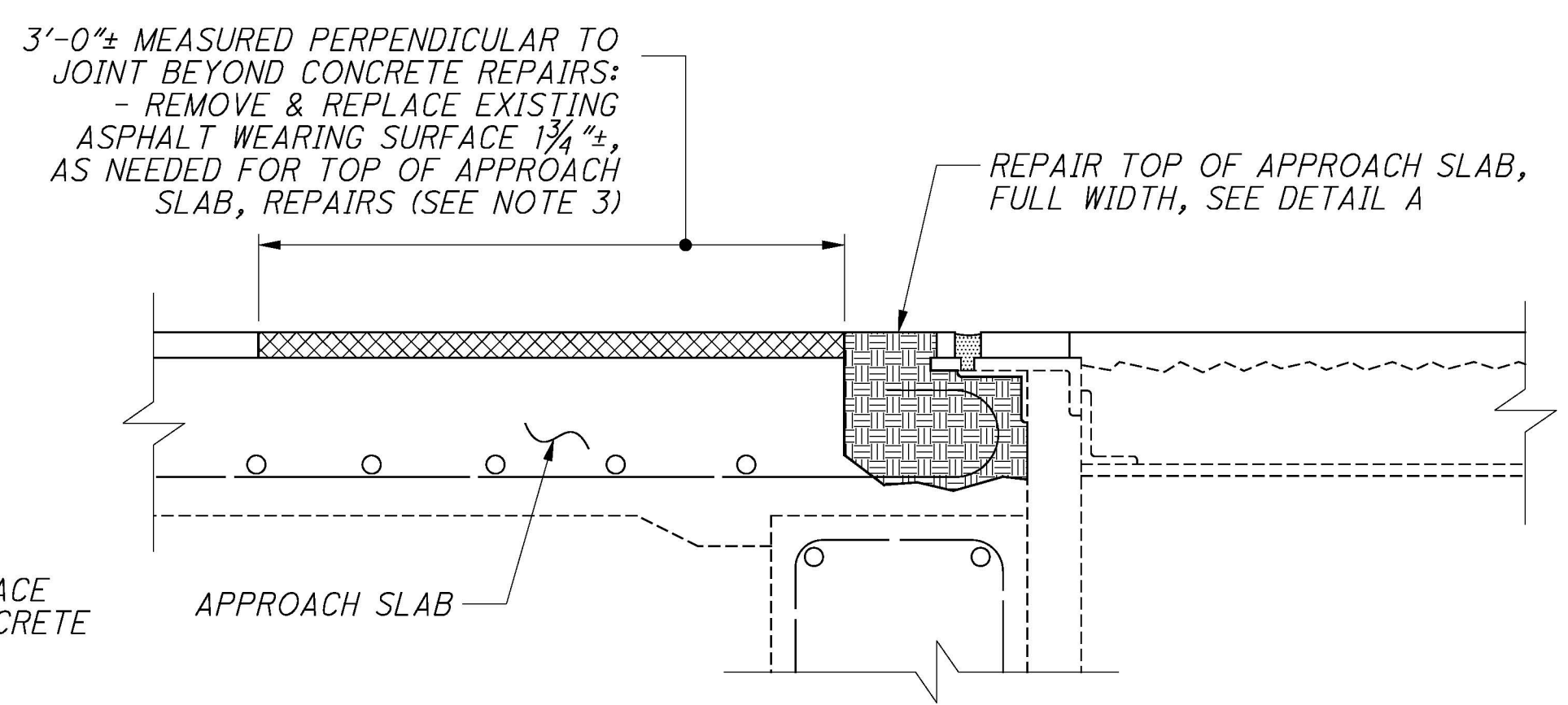
1. REMOVE ALL RAISED PAVEMENT MARKERS ON THE STRUCTURE THAT INTERFERE WITH THE PROPOSED WEARING SURFACE REPLACEMENT.
2. REPLACE WEARING SURFACE OF EASTBOUND LANES #2 AND #3. SEE MAINTENANCE OF TRAFFIC PLANS FOR ADDITIONAL PHASE CONSTRUCTION INFORMATION. SAWCUT ALL LONGITUDINAL JOINT EDGES PRIOR TO SUBSEQUENT POURS TO PROVIDE CLEAN JOINTS TO POUR AGAINST.
3. APPLY PAVEMENT MARKING ON STRUCTURE.
4. REINSTALL ALL RAISED PAVEMENT MARKERS REMOVED IN STEP #1 ABOVE.

NOTES:

1. CONCRETE FOR THE TOP OF APPROACH SLAB REPAIR SHALL BE FINISHED FLUSH WITH THE TOP OF EXISTING EXPANSION JOINT BAR.
2. ALL LABOR, MATERIAL, EQUIPMENT & INCIDENTALS REQUIRED TO PERFORM THE TOP OF THE APPROACH SLAB REPAIR SHALL BE PAID UNDER ITEM SPECIAL - PATCHING CONCRETE STRUCTURE, MISC.: TOP OF BACKWALL REPAIR.
3. ALL LABOR, MATERIAL, EQUIPMENT & INCIDENTALS REQUIRED TO REMOVE & REPLACE ASPHALT WEARING SURFACE SHALL BE PAID UNDER ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR.
4. PLAN VIEW AND TYPICAL SECTION ARE TAKEN FROM THE PREVIOUS SET OF PLANS. ONLY DO WORK LISTED UNDER PROPOSED WORK.



DETAIL A



ROADWAY ELEVATION AT ABUTMENT

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