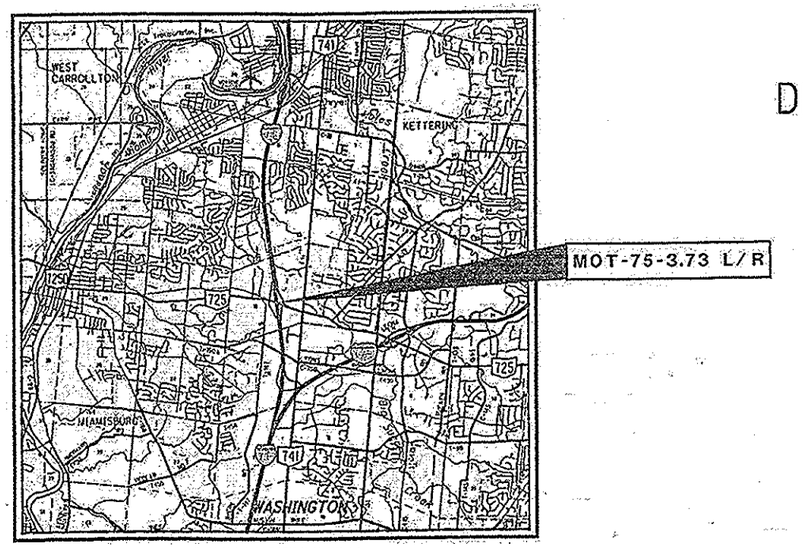
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MOT-75-3.73

WASHINGTON TOWNSHIP
MONTGOMERY COUNTY



LOCATION MAP

LATITUDE: N 39°38'21" LONGITUDE: W 84°13'54"

SCALE IN MILES
0 1 2 3 4

N

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

DESIGN DESIGNATION

CURRENT ADT (2015)	90000
DESIGN YEAR ADT (2035)	111000
DESIGN HOURLY VOLUME (2035)	10000
DIRECTIONAL DISTRIBUTION	53%
TRUCKS (24 HOUR B&C)	21%
DESIGN SPEED	70 mph
LEGAL SPEED	65 mph
DESIGN FUNCTIONAL CLASSIFICATION: URBAN INTERSTATE	
NHS PROJECT	YES

DESIGN EXCEPTIONS

NONE

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

PLAN PREPARED BY:

OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 7
1001 ST MARYS AVENUE
SIDNEY, OHIO

ENGINEERS SEAL:

STATE OF OHIO
MATTHEW R. BLYTHE
E-72376
REGISTERED
PROFESSIONAL ENGINEER

SIGNED: [signature]
DATE: 3-25-15

STANDARD CONSTRUCTION DRAWINGS					SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
					800	4-17-15	
MT-95.30	7-18-14				821	4-20-12	
MT-95.40	7-18-14						
MT-95.50	7-19-13				832	1-17-14	
MT-98.10	7-18-14						
MT-98.11	7-18-14				921	4-20-12	
MT-98.20	7-18-14						
MT-99.20	7-19-13						
MT-102.20	7-18-14						
MT-105.10	7-19-13						

PROJECT DESCRIPTION

REHABILITATE BRIDGE DECKS ON MOT-75-0373 L/R BY PATCHING DELAMINATED DECK AREAS WITH QUICK SETTING CONCRETE AND PLACING A FLEXIBLE EPOXY OVERLAY.

PROJECT EARTH DISTURBED AREA: N/A ACRES *
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A ACRES

* 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 APPROVED 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 OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED Randy Chivalley P.E. P.S. per
DATE 3-25-15 DISTRICT DEPUTY DIRECTOR

APPROVED [signature]
DATE 4-9-15 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E140(089)

PID NO. 97105

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT: NONE

MOT-75-3.73

1/23

MOT - IR 75-3.73
150411 PID - 97105
Dist 7 7/2/2015

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

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UTILITIES

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

EXISTING BRIDGE PLANS

EXISTING BRIDGE PLANS MAY BE INSPECTED AT THE OFFICE OF STRUCTURAL ENGINEERING IN COLUMBUS, OHIO OR IN THE DISTRICT 7 OFFICE IN SIDNEY, OHIO.

WORK LIMITS

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

NOTIFICATION

THE CONTRACTOR SHALL NOTIFY THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 7 CONSTRUCTION ENGINEER TWO (2) WEEKS PRIOR TO BEGINNING WORK.

PHONE: (937) 497-6722

CONTROL OF SPILLS

ON-SITE STORAGE OF PETROLEUM PRODUCTS/CHEMICALS IS TO BE MINIMIZED. A SPILL CONTAINMENT KIT IS TO BE MAINTAINED ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. SPILLS OF FUELS, OILS, CHEMICALS, OR OTHER MATERIALS WHICH COULD POSE A THREAT TO GROUNDWATER SHALL BE CLEANED UP IMMEDIATELY. IF THE SPILL A REPORTABLE AMOUNT, THE LOCAL FIRE DEPARTMENT IS TO BE CONTACTED.

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GENERAL NOTES

MOT-75-3.73

GENERAL REQUIREMENTS

IT IS THE INTENTION TO PERFORM THE REQUIRED WORK WITHIN THESE PLANS WITH THE LEAST INCONVENIENCE TO AND THE MAXIMUM SAFETY OF THE CONTRACTOR AND THE TRAVELING PUBLIC. THE REQUIREMENTS FOR MAINTAINING TRAFFIC AS SPECIFIED IN THE "OHIO MANUAL OF UNIFORMED TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (CURRENT ADDITION, LATEST REVISION), PERTINENT PROVISIONS OF THE "OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS" (INCLUDING SUPPLEMENTAL SPECIFICATIONS), AND APPLICABLE STANDARD CONSTRUCTION DRAWINGS SHALL APPLY TO THIS PROJECT IN ADDITION TO THE FOLLOWING NOTES AND DETAILS. ANY VARIANCES FROM THE INTENT OF THE MAINTENANCE OF TRAFFIC PLANS SHALL BE APPROVED IN ADVANCE IN WRITING BY THE ENGINEER.

SEQUENCE OF CONSTRUCTION

PHASE 1:
THE OUTSIDE PORTION OF MOT-75-3.73 STRUCTURES SHALL HAVE UNSOUND CONCRETE REMOVED AND PATCH WITH ITEM SPECIAL 519 PATCHING CONCRETE BRIDGE DECK - TYPE B. PROPOSAL NOTE 512 - ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECKS, SECTION C, STATES "CONSTRUCTION JOINTS SHALL ONLY BE PLACED ON THE PERIMETER OF THE REMOVAL AREA ELIMINATING A LONGITUDINAL JOINT IN THE PATCHED AREA. BOTH THE NORTHBOUND AND SOUTHBOUND PHASE 1 STRUCTURES MAY BE CONSTRUCTED AT THE SAME TIME.

PHASE 2:
THE INSIDE PORTION OF MOT-75-3.73 STRUCTURES SHALL HAVE UNSOUND CONCRETE REMOVED AND PATCH WITH ITEM SPECIAL 519 PATCHING CONCRETE BRIDGE DECK - TYPE B. PROPOSAL NOTE 512 - ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECKS.

PHASE 3:
THE OUTSIDE PORTION OF MOT-75-3.73 STRUCTURES SHALL BE OVERLAYED WITH ITEM SPECIAL-EPOXY WATERPROOFING OVERLAY (1/4" INCH THICK), PLACED USING A TWO LAYER SYSTEM AS DESCRIBED ON SHEETS 19 AND 20. BOTH THE NORTHBOUND AND SOUTHBOUND PHASE 3 STRUCTURES MAY BE CONSTRUCTED AT THE SAME TIME.

PHASE 4:
THE INSIDE PORTION OF MOT-75-3.73 STRUCTURES SHALL BE OVERLAYED WITH ITEM SPECIAL- EPOXY WATERPROOFING OVERLAY (1/4" INCH THICK), PLACED USING A TWO LAYER SYSTEM AS DESCRIBED ON SHEETS 19 AND 20. BOTH THE NORTHBOUND AND SOUTHBOUND PHASE 4 STRUCTURES MAY BE CONSTRUCTED AT THE SAME TIME.

PHASE 5:
AFTER THE COMPLETION OF PHASE 4 ACTIVITIES, THE CONTRACTOR SHALL PLACE ALL PERMANENT PAVEMENT MARKINGS FOR THE I-75 STRUCTURES AS SHOWN ON THE PAVEMENT MARKING PLANS PER SCD MT-99.20.

ITEM 614, MAINTAINING TRAFFIC

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFE AND EFFECTIVE TRAFFIC CONTROL 24 HOURS A DAY FOR THE DURATION OF THIS PROJECT. THIS INCLUDES PROVIDING, PLACING, MAINTAINING, AND SUBSEQUENTLY REMOVING ALL NECESSARY TRAFFIC CONTROL MEASURES FOR ALL PROPOSED CONSTRUCTION OPERATIONS.

THE CONTRACTOR SHALL CONTACT THE ODOT DISTRICT 7 ROADWAY SERVICE OFFICE (937) 497-6891 A MINIMUM OF 21 CALENDAR DAYS PRIOR TO INTENDED LANE RESTRICTIONS/ROAD CLOSURES TO ALLOW SUFFICIENT TIME FOR THE NECESSARY COORIDINATION.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY INTENDED CHANGES TO ANY EXISTING OR WORK ZONE TRAFFIC CONTROL DEVICES AND SHALL OBTAIN THE ENGINEERS APPROVAL PRIOR TO MAKING THE CHANGES. THE CONTRACTOR SHALL ALSO NOTIFY THE ENGINEER FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY INTENDED LANE CLOSURES, OR LANE SHIFTS.

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	NEW YEARS
MEMORIAL DAY	FOURTH OF JULY
LABOR DAY	THANKSGIVING

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

WEEK DAY	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00AM MONDAY
THURSDAY (THANKSGIVING ONLY)	12:00N WEDNESDAY THROUGH 6:00AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $100 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORMED TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS OTHERWISE SEPARATELY ITEMIZED IN THE PLAN.

DISTRICT 7 PERMITTED LANE CLOSURE

LANES CLOSURES SHALL ONLY BE IMPLEMENTED AT THE TIMES LISTED ON THE OHIO DEPARTMENT OF TRANSPORTATION'S PERMITTED LANE CLOSURE WEBSITE WHICH IS LOCATED AT: HTTP://PLCM.DOT.STATE.OH.US

THE PERMITTED CLOSURE TIMES LISTED ON THE WEBSITE, 14 CALENDAR DAYS PRIOR TO THE BID LETTING DATE, SHALL BE IN EFFECT FOR THIS PROJECT.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $100 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

NO WORK WITHIN ACTIVE TRAVEL LANES OR WHICH WILL SLOW TRAFFIC IS PERMITTED AT ANY OTHER TIMES.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING QUANTITY HAS BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER - 1 M. GAL.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING 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 (SECTION 642-2).

EXTRA ADVANCE WARNING SIGNS (NOTE B)

AN 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 FLASHING LIGHTS.

THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN AND REMOVE AN EXTRA ADVANCE WARNING SIGN GROUP AS SHOWN ON SCD MT-95.50. THE W16-3 DISTANCE PLATES SHALL READ "2 MILES". THE RIGHT (LEFT) LANE CLOSED AHEAD SIGNS SHALL BE LOCATED 2 MILES FROM THE BEGINNING OF THE LANE TAPER. SPACING OF THE OTHER SIGNS SHALL BE AS SHOWN ON SCD MT-95.40.

THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN AND REMOVE AN ADDITIONAL EXTRA ADVANCE WARNING SIGN GROUP TO PROVIDE ADDITIONAL WARNING FOR THE ANTICIPATED TRAFFIC INCREASE DURING THE FOLLOWING NATIONAL HOLIDAYS: (APPROPRIATE HOLIDAYS TO BE FILLED IN AS DEFINED BY POLICY AND THE SPECIFIC NEEDS OF THE PROJECT). THESE SIGNS SHALL BE ERECTED NO LATER THAN 1:00 P.M. THE THIRD DAY PRECEDING THE HOLIDAY OR HOLIDAY WEEKEND AND NOT REMOVED BEFORE 9:00 A.M. THE THIRD DAY SUBSEQUENT TO THE HOLIDAY OR HOLIDAY WEEKEND. THE SIGNS SHALL BE REMOVED DURING THE PERIODS BETWEEN HOLIDAYS. THE W16-3A DISTANCE PLATES SHALL READ "2 MILES" WITH THE W20-5 SIGNS LOCATED 2 MILES FROM THE BEGINNING OF THE LANE TAPER. SPACING OF THE OTHER SIGNS SHALL BE AS SHOWN ON SCD MT 95.30 OR 95.40.

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.

CALCULATED MEF
CHECKED BAB

MAINTENANCE OF TRAFFIC NOTES (1 OF 2)

MOT-75-3.73

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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).

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

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

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE 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.

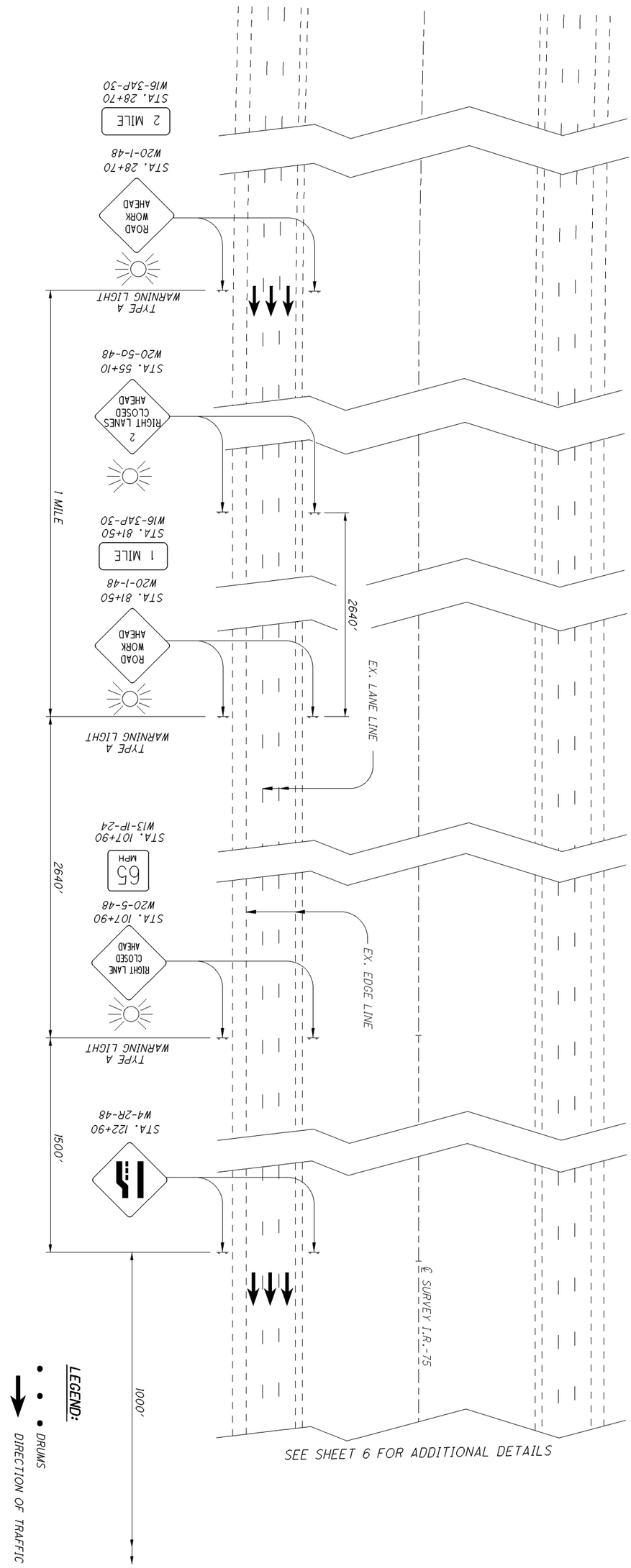
THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE 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 120 HOURS

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

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



5 / 23	MOT-75-3.73	PHASE 1 MAINTENANCE OF TRAFFIC (1 OF 6)

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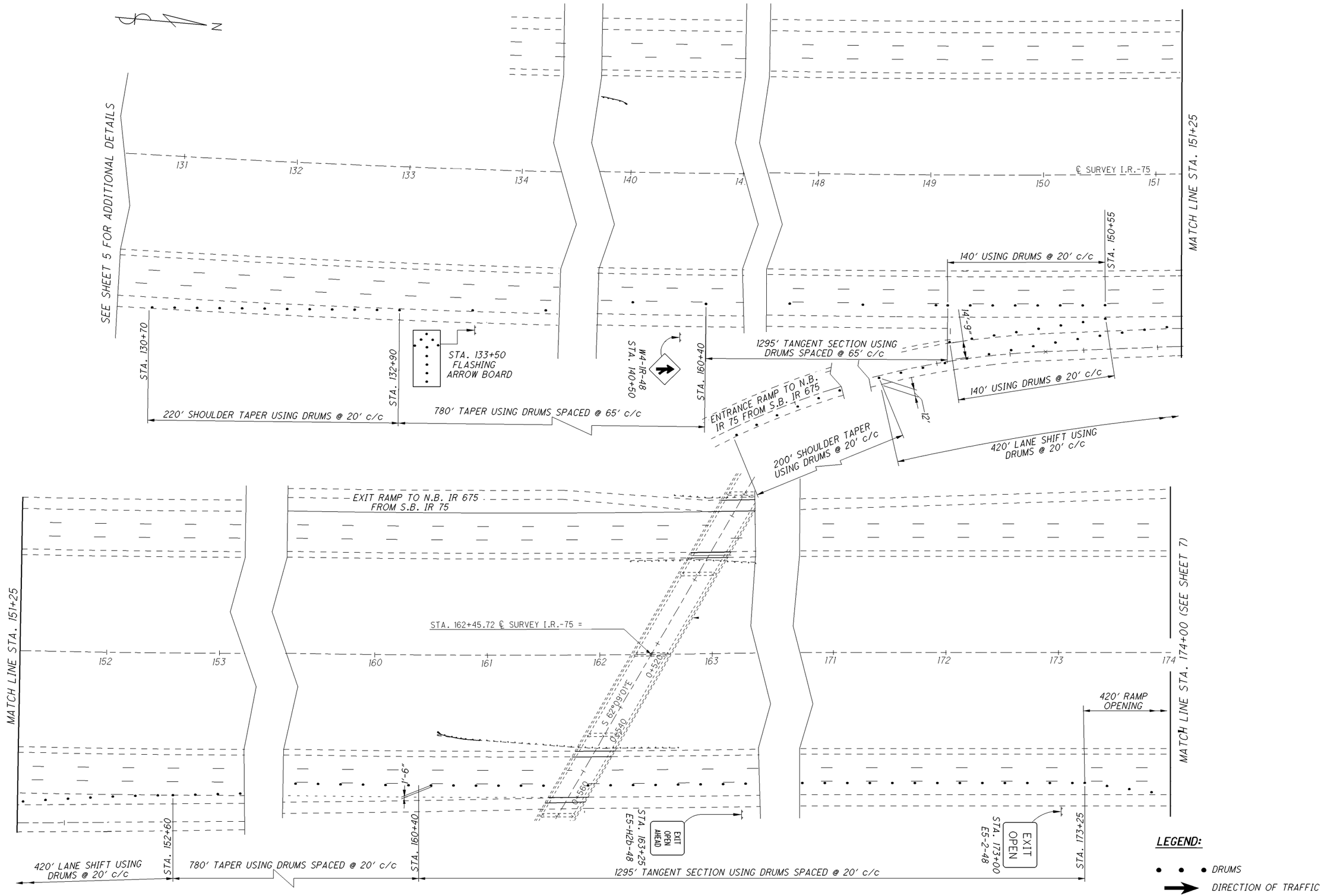

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PHASE 1 MAINTENANCE OF TRAFFIC (2 OF 6)

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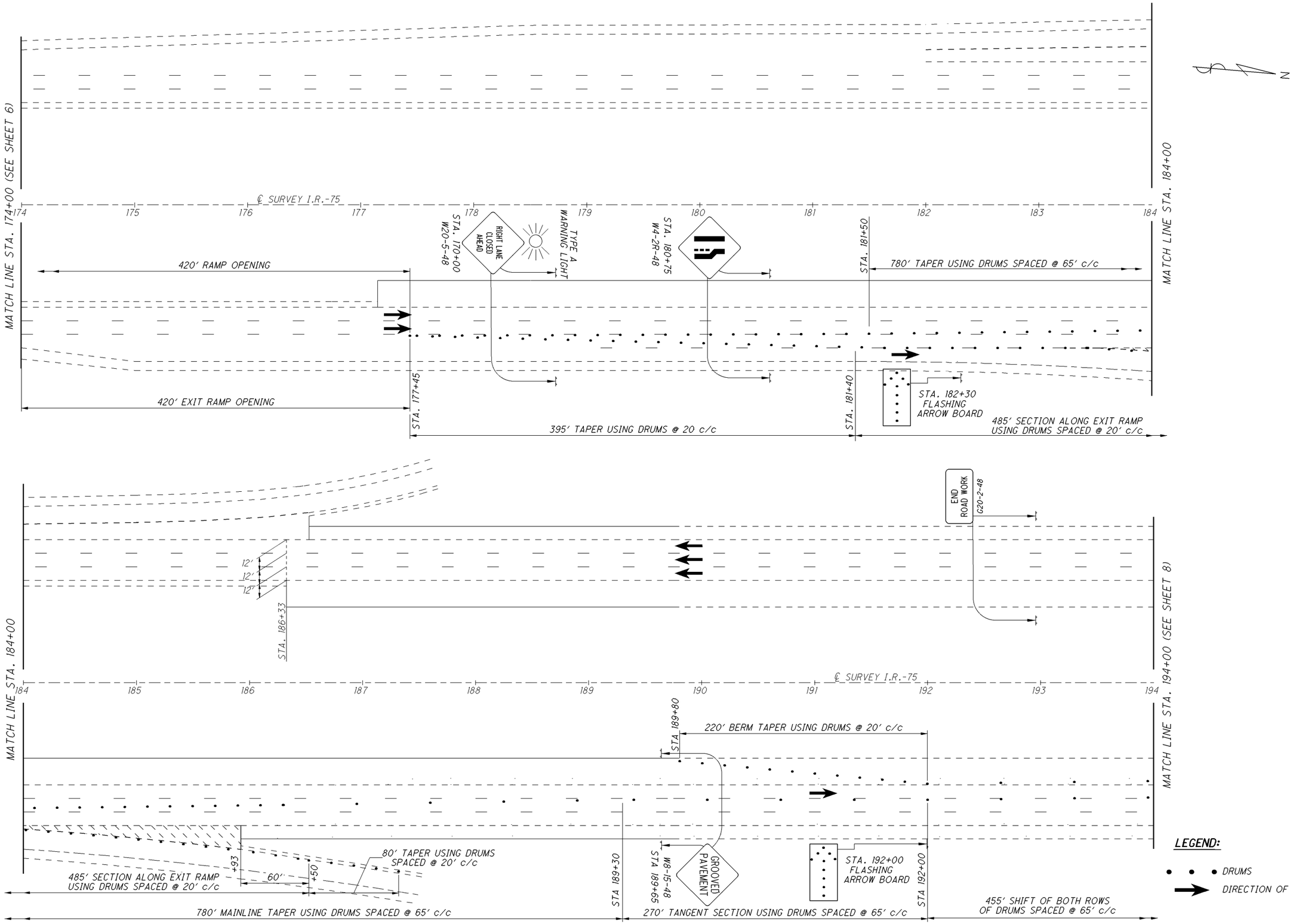

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PHASE 1 MAINTENANCE OF TRAFFIC (3 OF 6)

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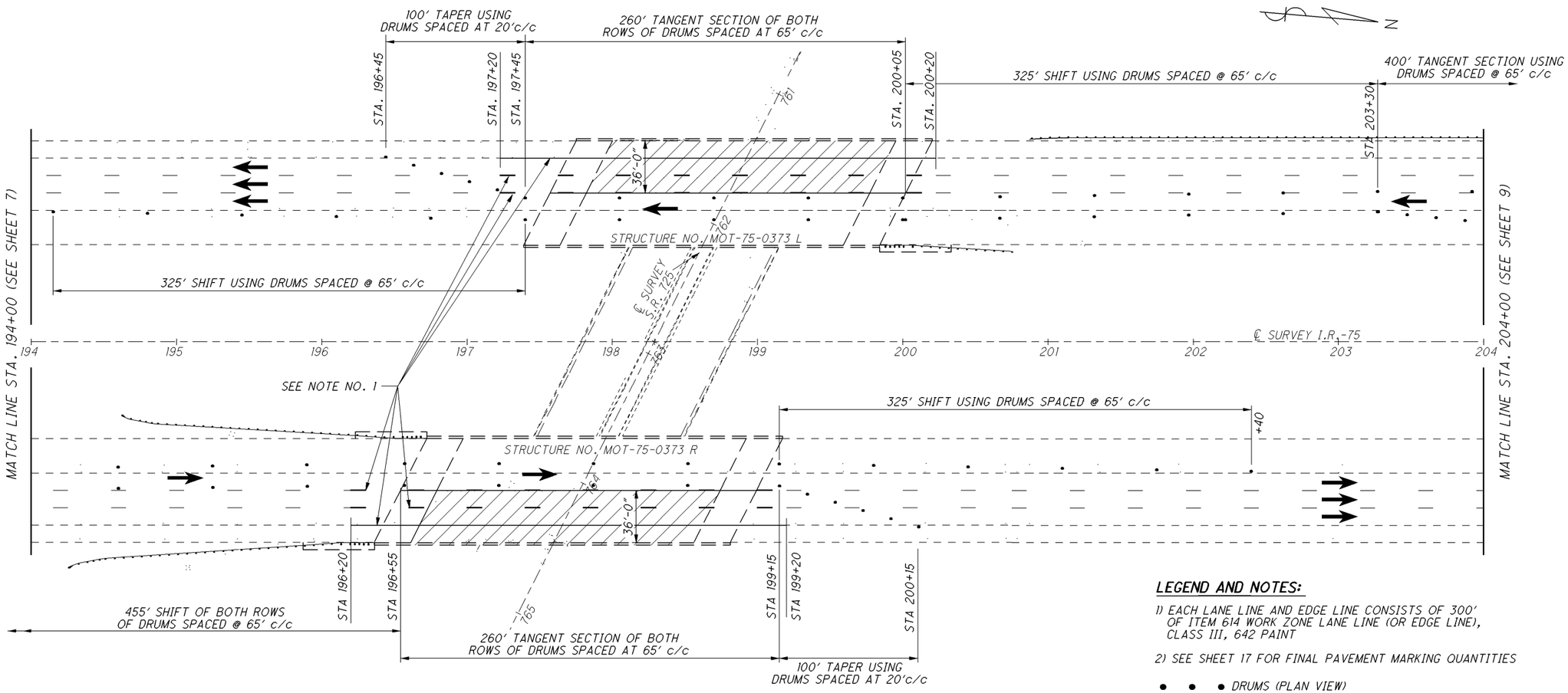
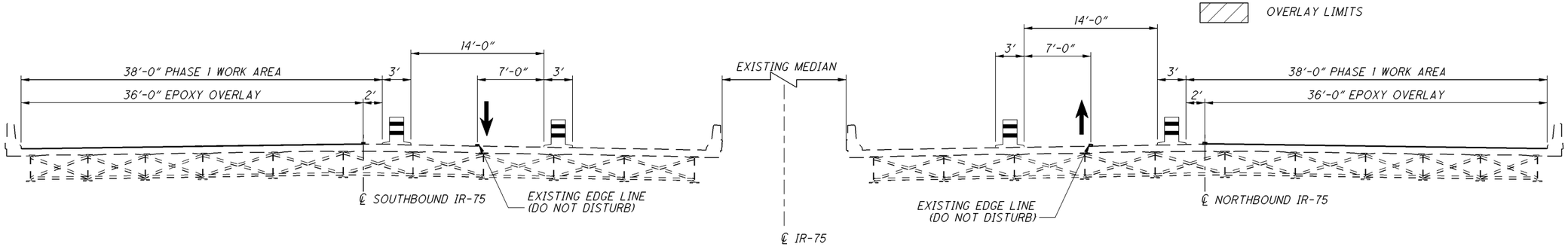


LEGEND AND NOTES:

1) EACH LANE LINE AND EDGE LINE CONSISTS OF 300' OF ITEM 614 WORK ZONE LANE LINE (OR EDGE LINE), CLASS III, 642 PAINT

2) SEE SHEET 17 FOR FINAL PAVEMENT MARKING QUANTITIES

- DRUMS (PLAN VIEW)
- DIRECTION OF TRAFFIC
- DRUMS (TRANSVERSE SECTION)
- OVERLAY LIMITS



TRANSVERSE SECTION

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PHASE 1 MAINTENANCE OF TRAFFIC (4 OF 6)

MOT-75-3.73

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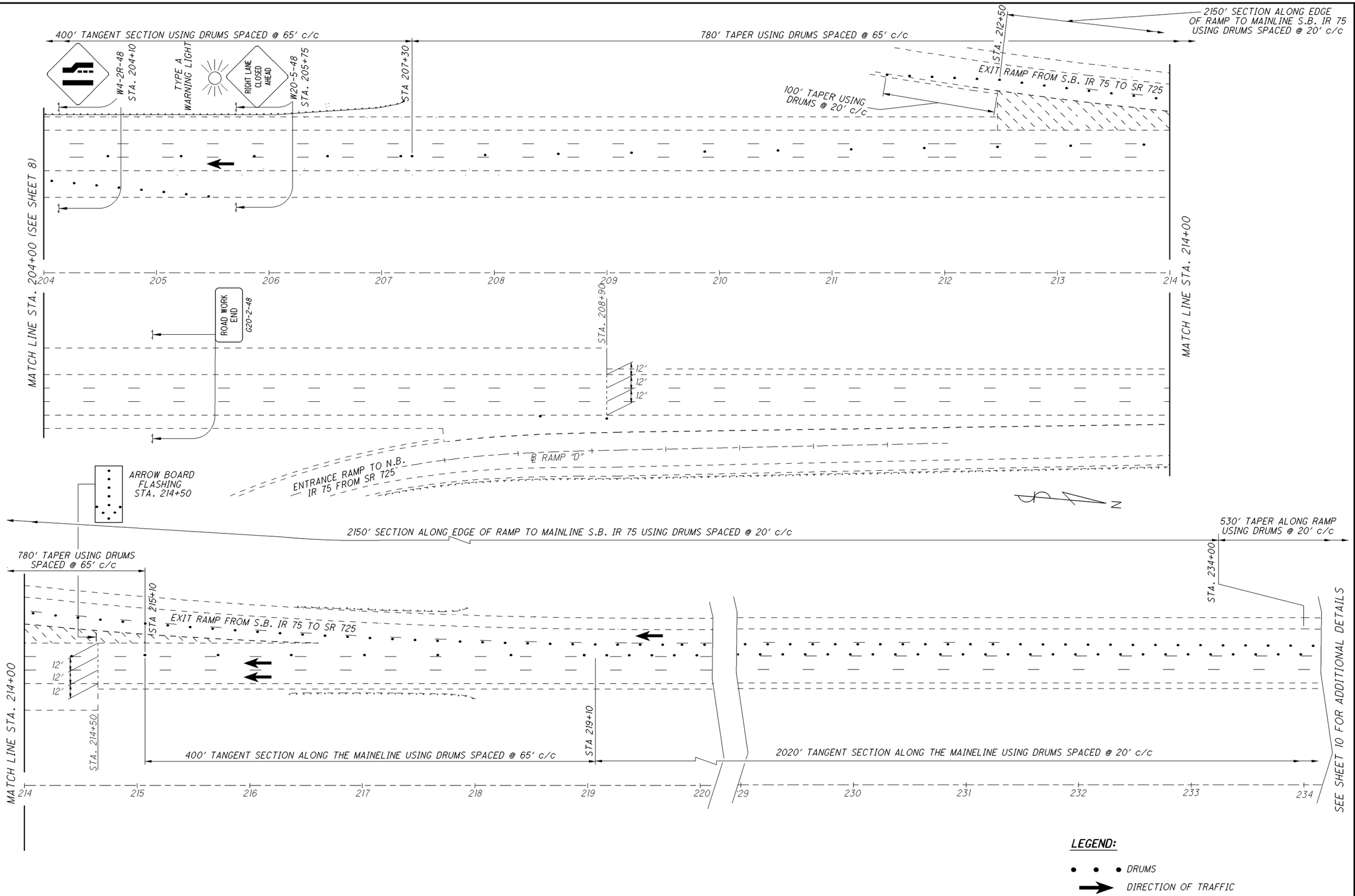

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PHASE 1 MAINTENANCE OF TRAFFIC (5 OF 6)

MOT-75-3.73

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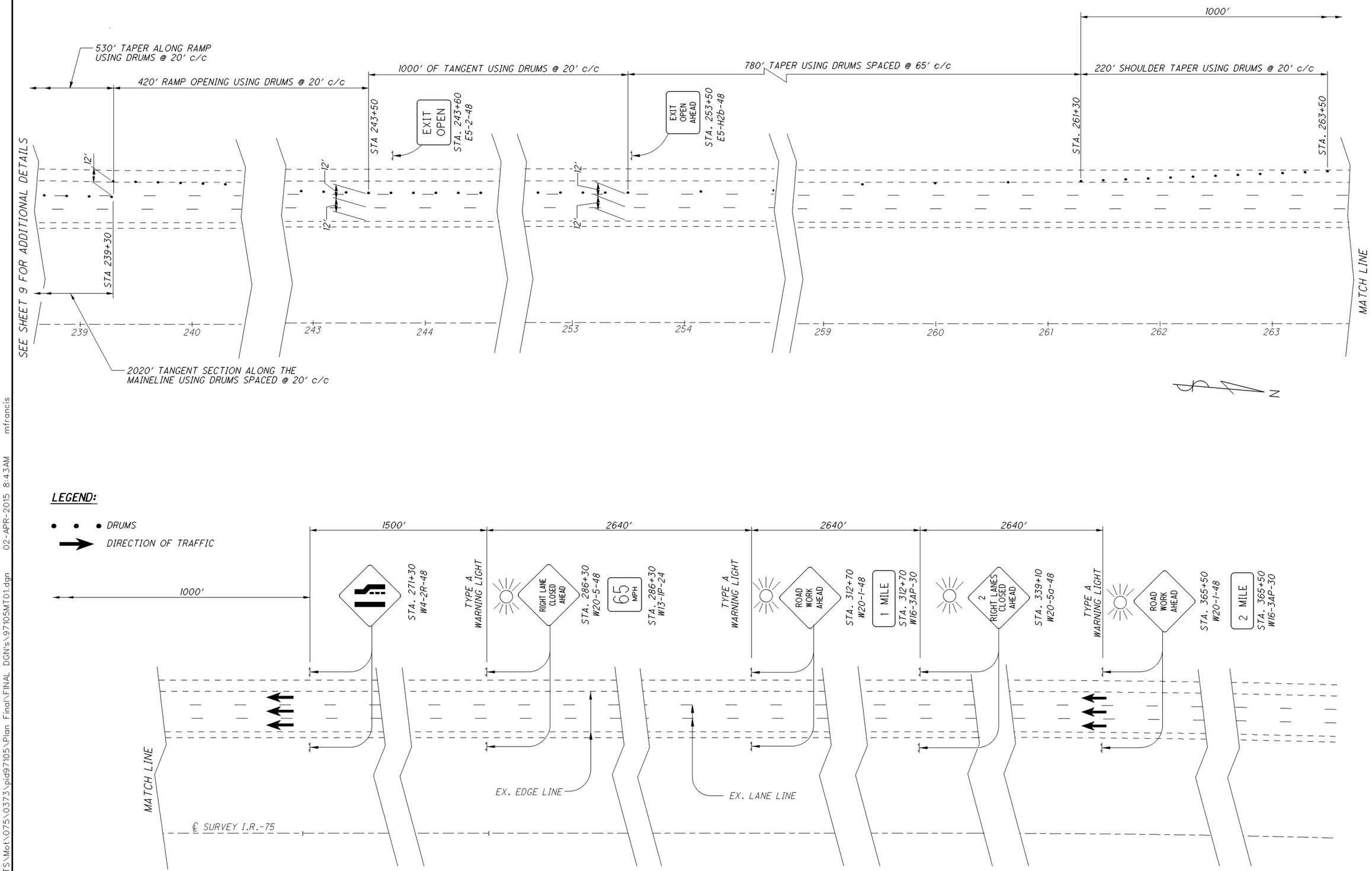

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PHASE 1 MAINTENANCE OF TRAFFIC (6 OF 6)

MOT-75-3.73

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LEGEND:

- DRUMS
- DIRECTION OF TRAFFIC

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PHASE 2 MAINTENANCE OF TRAFFIC (1 OF 5)

MOT-75-3.73

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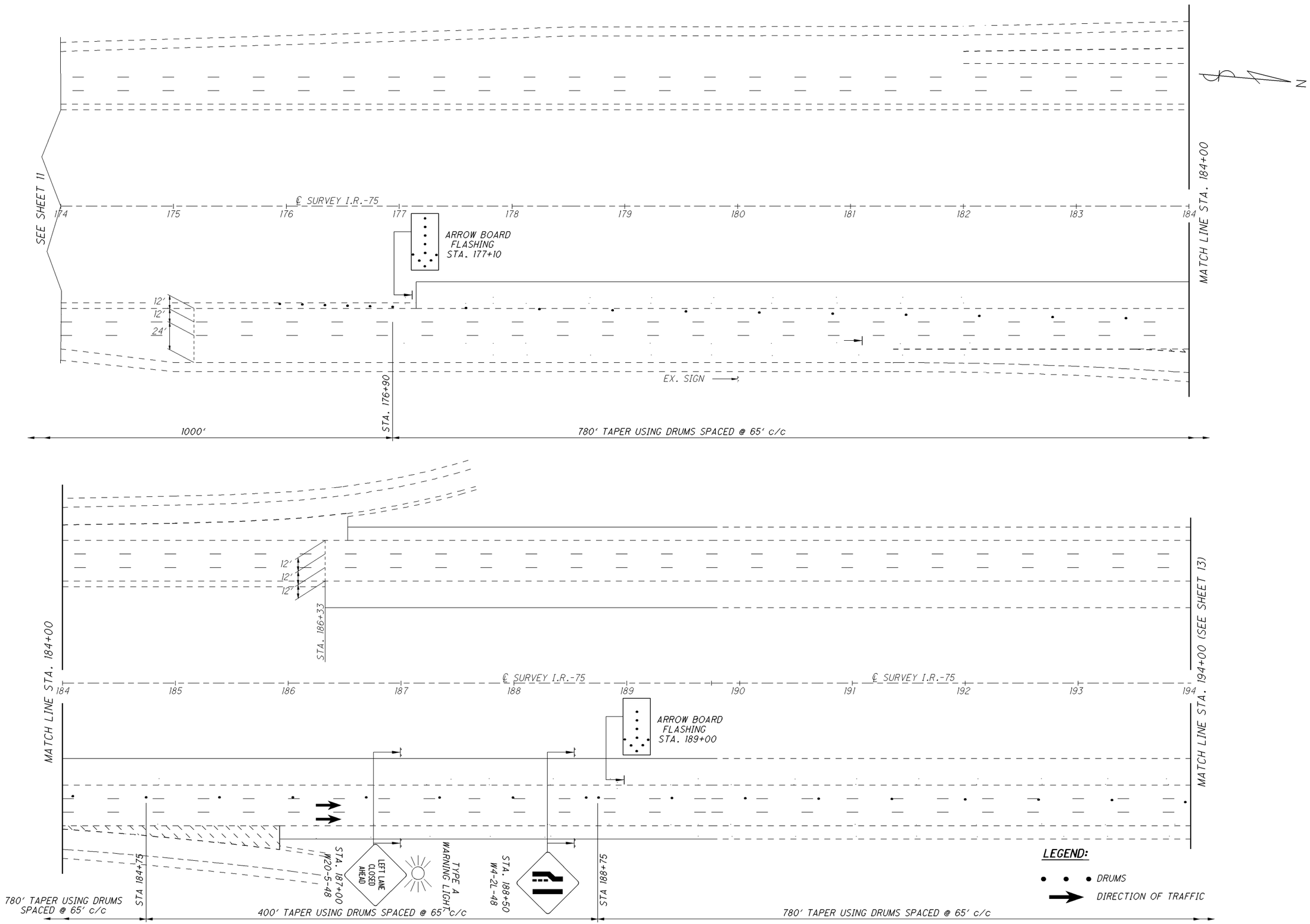

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PHASE 2 MAINTENANCE OF TRAFFIC (2 OF 5)

MOT-75-3.73

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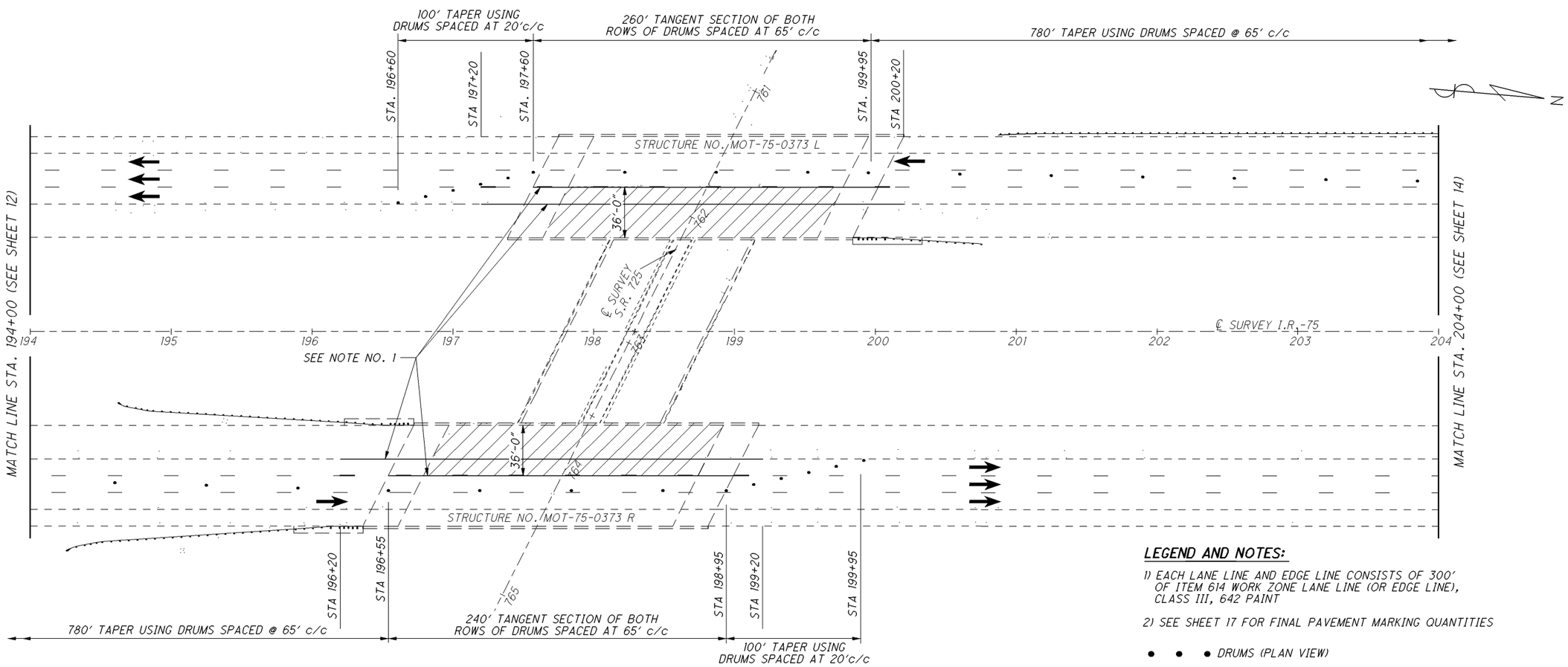
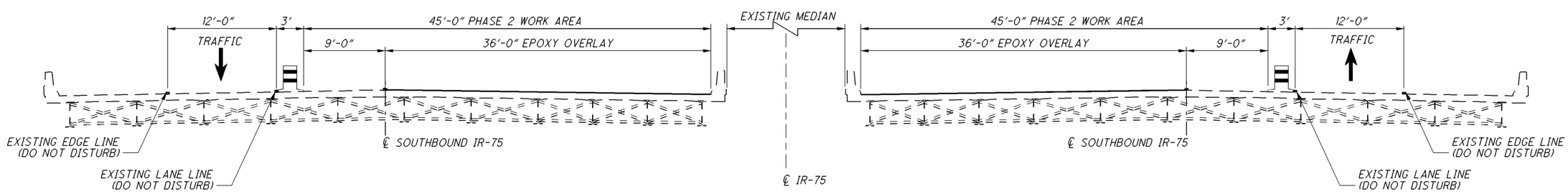


LEGEND AND NOTES:

1) EACH LANE LINE AND EDGE LINE CONSISTS OF 300' OF ITEM 614 WORK ZONE LANE LINE (OR EDGE LINE), CLASS III, 642 PAINT

2) SEE SHEET 17 FOR FINAL PAVEMENT MARKING QUANTITIES

- DRUMS (PLAN VIEW)
- DIRECTION OF TRAFFIC
- AREA TO BE EPOXY OVERLAYED
- DRUMS (TRANSVERSE SECTION)



TRANSVERSE SECTION

CALCULATED MEF
CHECKED PNS

PHASE 2 MAINTENANCE OF TRAFFIC (3 OF 5)

MOT-75-3.73

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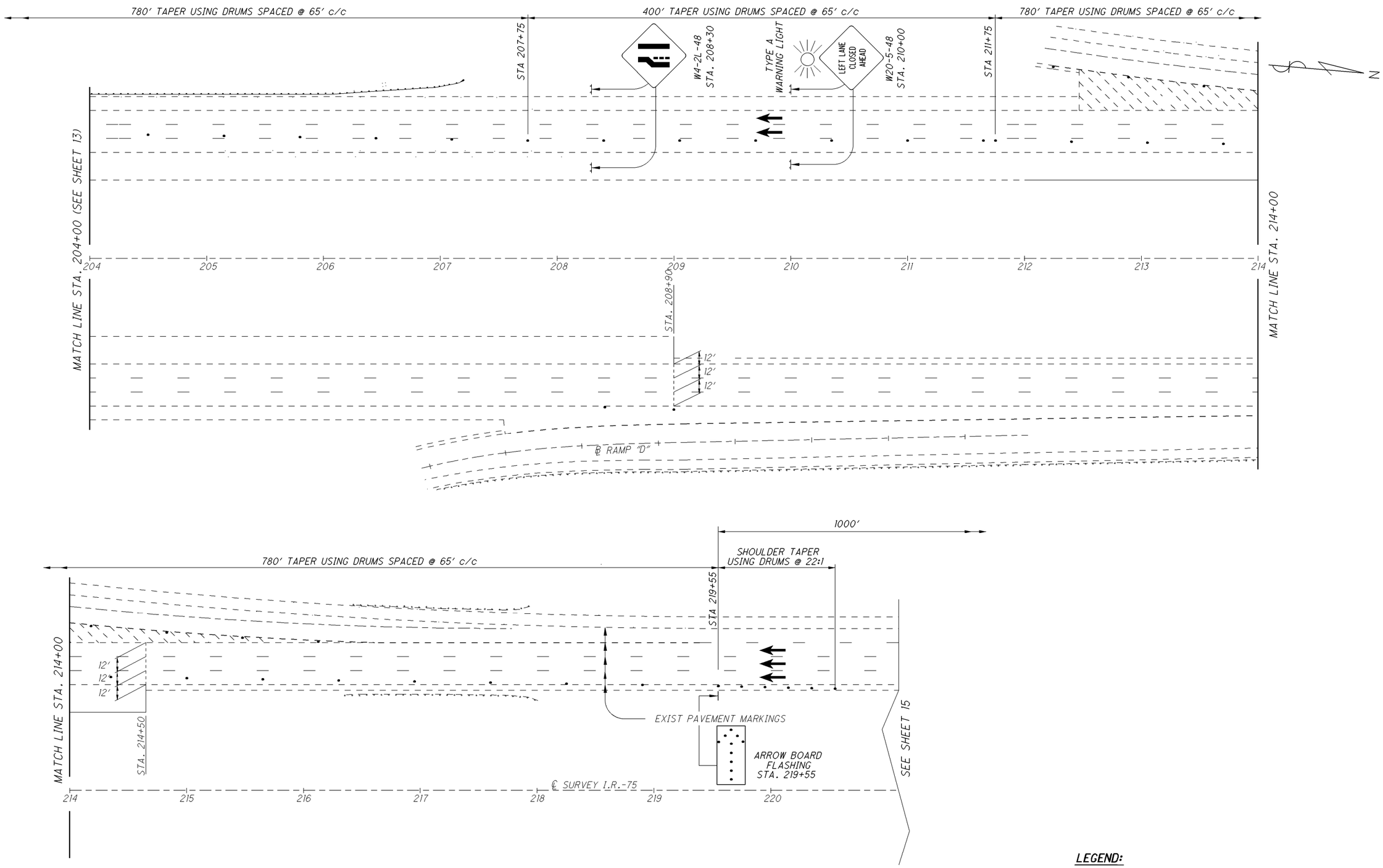

LEGEND:

- • • • DRUMS
- → DIRECTION OF TRAFFIC

CALCULATED MEF
CHECKED PNS

PHASE 2 MAINTENANCE OF TRAFFIC (4 OF 5)

MOT-75-3.73

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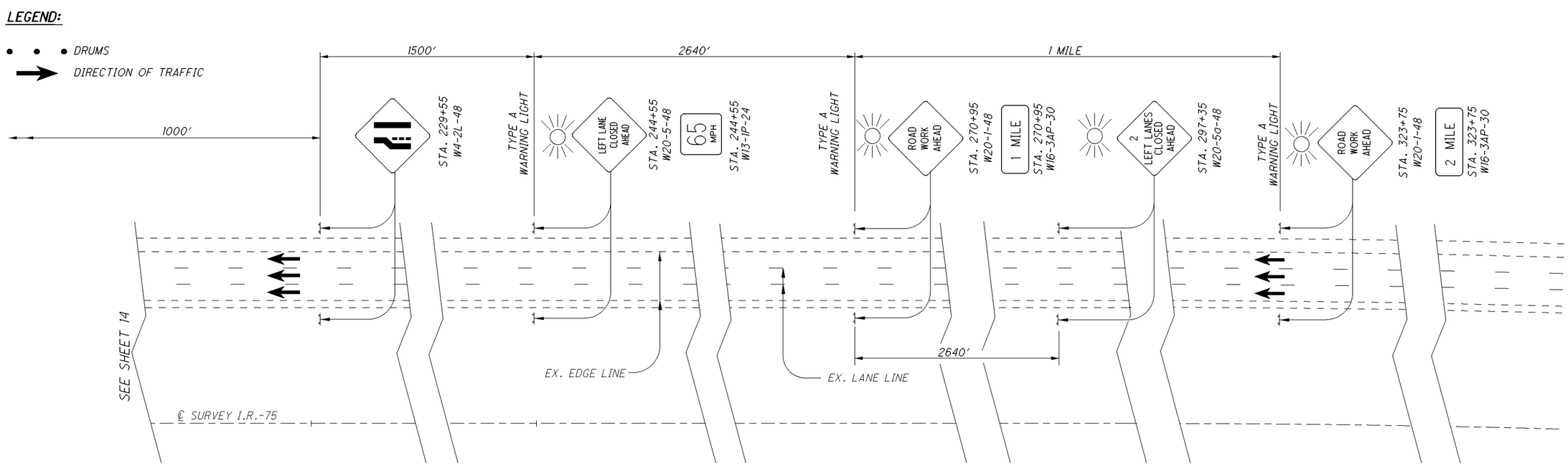

LEGEND:

- DRUMS
- DIRECTION OF TRAFFIC

CALCULATED MEF
CHECKED PNS

PHASE 2 MAINTENANCE OF TRAFFIC (5 OF 5)

MOT-75-3.73

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SHEET NUMBER											PARTICIPATION			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	3	4				17					01/IMS/BR								
																		TRAFFIC CONTROL	
						0.23					0.23			646	10010	0.23	MILE	EDGE LINE, 6"	
						0.23					0.23			646	10110	0.23	MILE	LANE LINE, 6"	
																		STRUCTURE 20 FOOT SPAN AND OVER (MOT-75-0373 L&R)	
																		STRUCTURE MOT-75-0373 L&R ESTIMATED QUANTITIES	20
																		MAINTENANCE OF TRAFFIC	
		120									120			614	11110	120	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
											0.34			614	20550	0.34	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT	
											0.34			614	22350	0.34	MILE	WORK ZONE EDGE LINE, CLASS III, 642 PAINT	
	1										1			616	10000	1	MGAL	WATER	
																		INCIDENTALS	
	LUMP										LUMP			614	11000	LS		MAINTAINING TRAFFIC	
											LUMP			623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
											LUMP			624	10000	LS		MOBILIZATION	

CALCULATED MEF
CHECKED CWW

GENERAL SUMMARY

MOT-75-3.73

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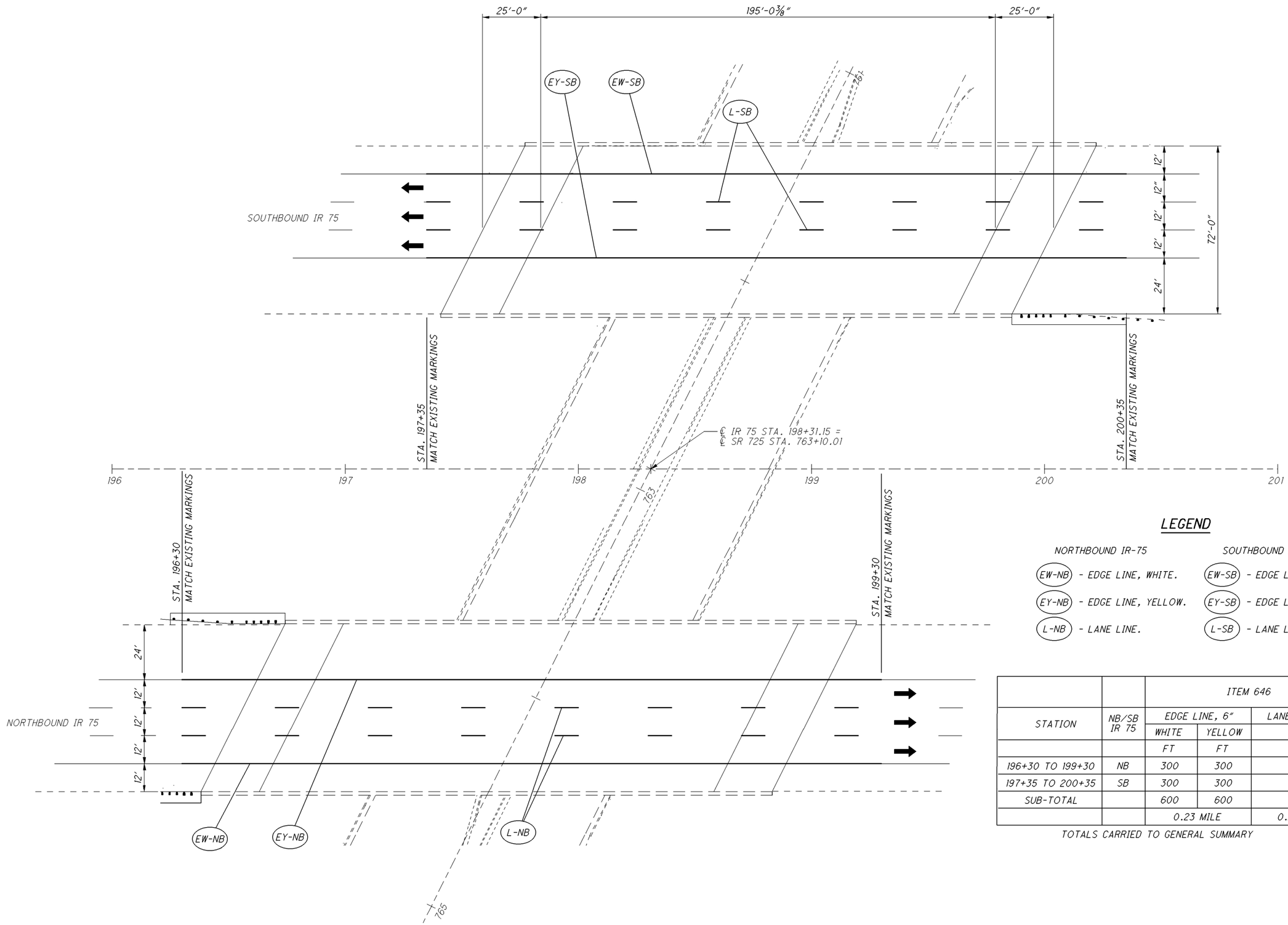

LEGEND

NORTHBOUND IR-75		SOUTHBOUND IR-75	
EW-NB	- EDGE LINE, WHITE.	EW-SB	- EDGE LINE, WHITE.
EY-NB	- EDGE LINE, YELLOW.	EY-SB	- EDGE LINE, YELLOW.
L-NB	- LANE LINE.	L-SB	- LANE LINE.

STATION	NB/SB IR 75	ITEM 646		
		EDGE LINE, 6"		LANE LINE, 6"
		WHITE	YELLOW	
		FT	FT	FT
196+30 TO 199+30	NB	300	300	600
197+35 TO 200+35	SB	300	300	600
SUB-TOTAL		600	600	1200
		0.23 MILE		0.23 MILE

TOTALS CARRIED TO GENERAL SUMMARY

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED MEF
CHECKED TMK

TRAFFIC CONTROL
IR-75 STA. 196+00 TO 201+00

MOT-75-3.73

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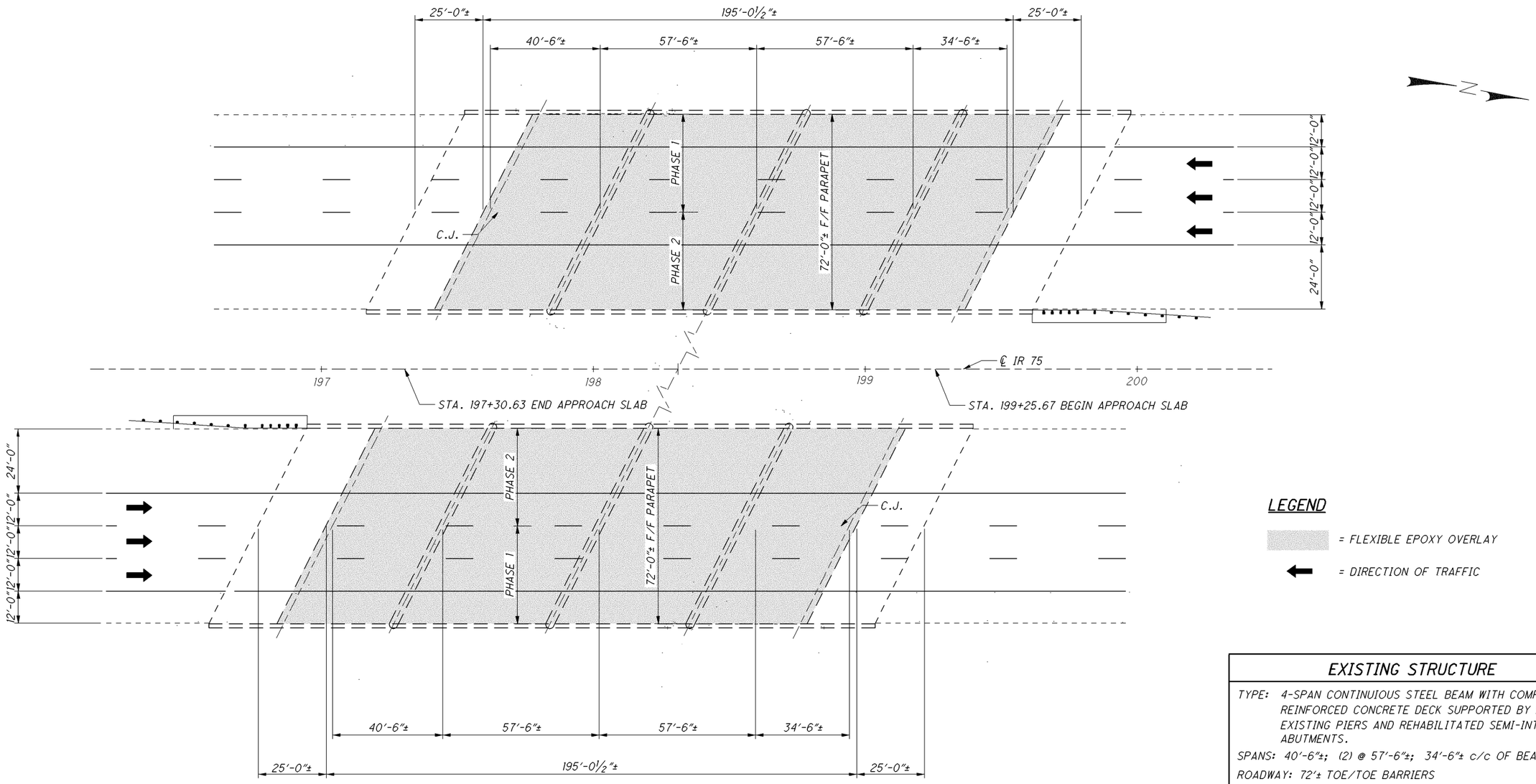
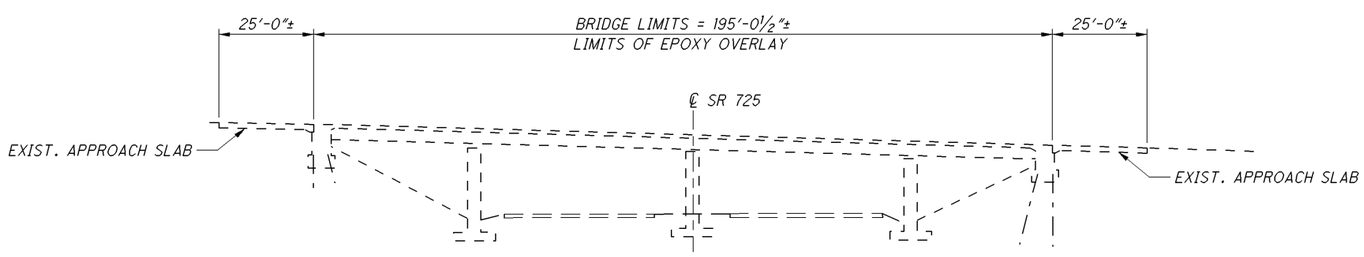


PLAN VIEW

LEGEND

= FLEXIBLE EPOXY OVERLAY

= DIRECTION OF TRAFFIC



ELEVATION VIEW

SCALE = 20:1

EXISTING STRUCTURE

TYPE: 4-SPAN CONTINUIOUS STEEL BEAM WITH COMPOSITE REINFORCED CONCRETE DECK SUPPORTED BY NEW AND EXISTING PIERS AND REHABILITATED SEMI-INTERGRAL ABUTMENTS.

SPANS: 40'-6"±; (2) @ 57'-6"±; 34'-6"± c/c OF BEARINGS

ROADWAY: 72'± TOE/TOE BARRIERS

LOADING: HS20 (CASE 1) AND THE ALTERNATE MILITARY LOADING

SKEW: 26°39'00" L.F.

APPROACH SLABS: AS-1-81 (25' LONG)

ALIGNMENT: TANGENT

CROWN: 0.016

STRUCTURAL FILE NUMBERS: 5706483/5706513

DATE BUILT: 1960, REHABILITATED 1999

DISPOSITION: REHABILITATE THE DECK SURFACE

PROPOSED WORK

1) SOUND AND PATCH ALL DELAMINATED CONCRETE ON THE DECK SURFACE

2) CLEAN THE DECK SURFACE OF ALL DIRT AND OIL INCLUDING ANYTHING THAT WILL INTERFERE WITH THE EPOXY OVERLAY

3) PLACE A ¼" FLEXIBLE EPOXY OVERLAY ON THE DECK

DESIGN AGENCY
ODOT - DISTRICT 7
PLANNING & ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
MEF	MEF	MRB	10-8-14
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CWW		5706483/5706513	

MONTGOMERY COUNTY
STA. 197+30.63
STA. 199+25.67

SITE PLAN
BRIDGE NO.: MOT-75-0373 L & R
IR 75 OVER SR 725

MOT-75-3.73
PID No. 97105

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ITEM SPECIAL - EPOXY WATERPROOFING OVERLAY (1/4 INCH THICK)

THIS SPECIFICATION DESCRIBES A TWO COMPONENT 100% SOLID, FLEXIBLE EPOXY SYSTEM AND A SPECIAL AGGREGATE DESIGNED TO PROVIDE A MINIMUM 1/4" (6MM) THICK BRIDGE DECK OVERLAY FOR THE PURPOSE OF PROVIDING A WATERPROOFING SYSTEM WHICH REMAINS FLEXIBLE AT ALL OPERATING TEMPERATURES AND A NON-SKID SURFACE.

MATERIALS

FORMULATION:

THE MATERIAL SHALL BE A TWO COMPONENT EPOXY OR AN EPOXY DERIVED CO-POLYMER SYSTEM CONSISTING OF SIMPLE VOLUMETRIC MIXING RATIOS SUCH AS ONE TO ONE OR TWO TO ONE. FOR THE REMAINDER OF THIS SPECIFICATION, THE MATERIAL SYSTEMS SHALL BE REFERRED TO AS "EPOXY".

THE EPOXY SYSTEM SHALL BE FORMULATED TO PROVIDE FLEXIBILITY IN THE SYSTEM WITHOUT ANY SACRIFICE OF THE HARDNESS, CHEMICAL RESISTANCE OR STRENGTH OF THE EPOXY SYSTEM.

PROPERTIES:

ADHESION TO CONCRETE: WHEN THE FINISHED SYSTEM (INCLUDING AGGREGATE) HAS BEEN APPLIED AS PER MANUFACTURERS RECOMMENDATION AND TESTED ACCORDING TO ACI METHOD 503R-30, IT SHALL HAVE 100% FAILURE IN CONCRETE. THE PREPARED SPECIMENS, (MINIMUM OF 3) SHALL BE CONDITIONED FOR 7 DAYS AT 75 +/- 2 °F (24 +/- 1 °C) PRIOR TO TESTING.

HARDNESS: THE EPOXY MATERIAL, WHEN TESTED ACCORDING TO ASTM D 2240, SHALL HAVE A SHORE D HARDNESS BETWEEN 50 TO 75. THREE SAMPLES SHALL BE PREPARED ON A STRUCTURALLY SOUND SURFACE WITH A MINIMUM THICKNESS OF 0.12 INCH (3 MM) AND ALLOWED TO CURE FOR 7 DAYS AT 75 +/- 2 °F (24 +/- 1 °C) PRIOR TO PERFORMING THE INDICATED TESTS.

ABRASION RESISTANCE: ABRASION RESISTANCE SHALL BE EVALUATED ON TABOR ABRADER WITH A 1000 GRAM LOAD AND CS-17 WHEEL. DURATION OF THE TEST SHALL BE 1000 CYCLES. THE WEAR INDEX SHALL BE CALCULATED BASED ON ASTM C 501 AND WEAR INDEX OF THE CATALYZED MATERIALS SHALL BE UNDER 80. THE TEST SHALL BE RUN ON CURED SAMPLES OF MATERIAL WHICH SHALL BE APPLIED AT A FILM THICKNESS OF 15 TO 20 MIL TO A STAINLESS STEEL (316) PLATE. THE FILM SHALL BE ALLOWED TO CURE FOR 7 DAYS AT 75 +/- 2 °F (24 +/- 1 °C) PRIOR TO PERFORMING THE INDICATED TEST.

TENSILE STRENGTH: WHEN TESTED ACCORDING TO ASTM D 638, THE EPOXY MATERIAL SHALL HAVE A TENSILE STRENGTH NOT LESS THAN 2500 PSI (17.2 MPA). THE TYPE IV, SEMI-RIGID SPECIMENS, SHALL BE CAST IN THE SPECIFIED MOLD AND PULLED AT A RATE OF 0.20 INCHES (5MM) PER MINUTE BY A SUITABLE DYNAMIC TESTING MACHINE. THE SAMPLES (MINIMUM OF 3) SHALL BE ALLOWED TO CURE AT ROOM TEMPERATURE FOR AT LEAST 7 DAYS AT 75 +/- 2 °F (24 +/- 1 °C) PRIOR TO PERFORMING THE INDICATED TEST.

TENSILE ELONGATION: THE ELONGATION PRODUCED AT THE BREAK IN THE TENSILE STRENGTH TEST MUST BE A MINIMUM OF 30 PERCENT.

COMPRESSIVE STRENGTH: WHEN TESTED ACCORDING TO ASTM C 109, THE CURED EPOXY MATERIAL (INCLUDING AGGREGATE) SHALL HAVE A COMPRESSIVE STRENGTH NOT LESS THAN 5000 PSI.

THREE SAMPLES SHALL BE CAST AND TESTED USING THE SPECIFIED SIZE AND AMOUNT OF AGGREGATE. THE SAMPLES SHALL BE CONDITIONED FOR 7 DAYS AT 75 +/- 2 °F (24 +/- 1 °C) BEFORE PERFORMING THE INDICATED TEST. THE RATE OF COMPRESSION OF THESE SAMPLES SHALL BE NO MORE THAN 0.5 INCHES (12.7MM) PER MINUTE.

WATER ABSORPTION: WHEN TESTED AS PER ASTM D 570 THE CURED EPOXY SYSTEM SHALL NOT EXCEED THE WATER ABSORPTION OF 0.5 PERCENT. SAMPLE SPECIMENS SHALL BE PREPARED ACCORDING TO SECTION 4.1 AND ALLOWED TO CURE AT 73.4 +/- 3.6 °F (23 +/- 2 °C) AND 50 +/- 5% RELATIVE HUMIDITY. TESTS ARE THEN TO BE CARRIED OUT AS PER CMS 106.

AGGREGATE:

AGGREGATE FOR ALL LAYERS SHALL BE BAUXITE, CRUSHED GRANITE, ALUMINUM OXIDE, FLINT, WASHINGTON STEILACOOM, TUFF-GRANE TYPE A (FURNISHED BY EMERI-CRETE, INC., PORTSMOUTH, N.H.) OR OTHER AGGREGATE AS RECOMMENDED BY THE MANUFACTURER OF THE OVERLAY SYSTEM, PROVIDED IT HAS MOH SCALE HARDNESS OF 7 OR MORE AND MEETS THE FOLLOWING GRADATION:

SIEVE SIZE	% PASSING
NO. 6	95-100
NO. 10	10-35
NO. 20	0-3

ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECKS - TYPE B

DECK PATCHING SHALL BE PERFORMED AS OUTLINED IN PROPOSAL NOTE 512, ENTITLED "ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECKS" USING TYPE B, QUICK SETTING CONCRETE MORTAR TYPE 1 OR TYPE 2 (705.21).

THE PATCHING MATERIAL SHALL BE A QUICK SETTING CEMENTITIOUS MORTAR MEETING THE REQUIREMENTS OF 705.21, TYPE I (MAGNESIUM PHOSPHATE BASED MATERIALS WILL NOT BE ALLOWED).

ALL PATCHES SHALL BE ALLOWED TO CURE A MINIMUM OF 14 DAYS BEFORE THE OVERLAY IS PLACED. TRAFFIC SHALL BE ALLOWED TO USE THE BRIDGE DURING THE CURING PERIOD ONLY AFTER THE PATCH HAS HAD THE INITIAL CURING PERIOD PER THE MANUFACTURER SPECIFICATION FOR THE QUICK SET CEMANTITIOUS MORTAR.

THE BRIDGE SHALL BE OPEN TO TRAFFIC DURING ALL NON-WORKING HOURS, THEREFORE, PATCHING MUST BE SCHEDULED AND PERFORMED ACCORDINGLY.

MAXIMUM LIMITS OF REPAIR FOR SPALLED AREAS SHALL BE TO THE BOTTOM OF THE TOP MAT OF STEEL. ALL LABOR, MATERIALS, AND INCIDENTALS NEEDED TO REMOVE UNSOUND CONCRETE AND PATCH WITH CONCRETE SHALL BE INCLUDED IN UNIT BID PRICE PER SQUARE YARD FOR ITEM SPECIAL- 519 PATCHING CONCRETE BRIDGE DECK - TYPE B

PREPARATION:

AFTER ALL PATCHES HAVE CURED FOR A MINIMUM OF 14 DAYS, THE ENTIRE DECK SHALL BE CLEANED BY SHOTBLASTING TO REMOVE ANY OIL, DIRT, RUBBER OR ANY OTHER POTENTIALLY DETRIMENTAL MATERIAL SUCH AS CURING COMPOUND AND LAITANCES WHICH WOULD PREVENT BONDING AND CURING OF THE EPOXY MATERIAL.

ONLY AREAS THAT THE SHOTBLASTING EQUIPMENT CANNOT REACH (I.E., ALONG CURBS AND MEDIAN WALLS) WILL THE USE OF SAND-BLASTING BE PERMITTED TO AN EXTENT SATISFACTORY TO THE EPOXY MANUFACTURER AND ODOT ENGINEER. THIS SHOULD BE PERFORMED PRIOR TO THE SHOTBLASTING WHENEVER APPLICABLE AND PRACTICAL. ABRASIVES CONTAINING MORE THAN 1% FREE SILICA WILL NOT BE ALLOWED (NO SILICA SAND). IF IT RAINS ON THE PREPARED SURFACE, THE SURFACE SHALL BE REBLASTED.

TRAFFIC SHALL NOT BE ALLOWED ON ANY PORTION OF THE DECK THAT HAS BEEN SHOTBLASTED OR AREAS WHERE ALL OF THE FIRST OVERLAY APPLICATION HAS BEEN COMPLETED AND CURED. EQUIPMENT, HOWEVER, WILL BE ALLOWED TO DRIVE ON THE DECK SURFACE DURING APPLICATION, PROVIDED PLANKING OR SIMILAR PRECAUTION IS TAKEN TO INSURE THE DECK SURFACE WILL NOT BECOME CONTAMINATED OR OTHERWISE DAMAGED.

ITEM SPECIAL - TEST PATCH

PRIOR TO PLACING THE FIRST COURSE, THE CONTRACTOR SHALL USE THE TEST METHOD PRESCRIBED IN ACI 503R - APPENDIX A OF THE ACI MANUAL OF CONCRETE PRACTICE (MODIFIED AS PER VIRGINIA TRANSPORTATION RESEARCH COUNCIL. TO DETERMINE THE CLEANING PRACTICE (SIZE OF SHOT, FLOW OF SHOT, FORWARD SPEED OF SHOTBLAST MACHINE, AND NUMBER OF PASSES) NECESSARY TO PROVIDE A TENSILE BOND STRENGTH GREATER THAN OR EQUAL TO 250 PSI (1.7 MPA) OR A FAILURE AREA, AT A DEPTH OF 1/4 INCH (6MM) OR MORE INTO THE BASE CONCRETE, GREATER THAN 50% OF THE TEST AREA. A TEST RESULT SHALL BE THE AVERAGE OF THREE TESTS ON A TEST PATCH OF APPROXIMATELY 1 FT X 3 FT (0.3M X 0.9M), CONSISTING OF TWO COURSES.

ONE TEST RESULT MUST BE OBTAINED FROM EACH SPAN OR 200 SQUARE YARDS (167 M^2), WHICH EVER IS THE SMALLER AREA. THE ODOT ENGINEER WILL DESIGNATE THE LOCATION OF THESE TEST PATCHES. TO PROVIDE ASSURANCE THAT THE CLEANING PROCEDURE, MATERIALS, INSTALLATION PROCEDURE, AND CURING PERIOD WILL PROVIDE THE DESIRED OVERLAY, TEST PATCHES SHALL BE INSTALLED WITH THE SAME MATERIALS, EQUIPMENT, PERSONNEL, TIMING, SEQUENCE OF OPERATIONS, AND CURING PERIOD PRIOR TO OPENING TO TRAFFIC, THAT WILL BE USED FOR THE INSTALLATION OF THE OVERLAY. THE CLEANING PRACTICE, MATERIALS AND INSTALLATION PROCEDURE WILL BE APPROVED IF ONE PASSING TEST RESULT IS OBTAINED FROM EACH TEST AREA.

IF THE CLEANING PRACTICE, MATERIALS AND INSTALLATION PROCEDURE ARE NOT ACCEPTABLE, THE CONTRACTOR MUST REMOVE FAILED TEST PATCHES AND MAKE THE NECESSARY ADJUSTMENTS AND RE-TEST ALL AREAS AT NO ADDITIONAL COST TO THE DEPARTMENT UNTIL SATISFACTORY TEST RESULTS ARE OBTAINED.

ALL LABOR, MATERIALS, AND INCIDENTALS NEEDED FOR THIS ITEM OF WORK SHALL BE INCLUDED IN THE LUMP SUM PAY ITEM FOR ITEM SPECIAL - TEST PATCH

APPLICATION OF OVERLAY:

ALL SURFACES TO BE OVERLAID SHALL BE DRY AT THE TIME OF APPLICATION. IMMEDIATELY BEFORE APPLYING THE EPOXY MATERIAL, ALL PREPARED SURFACES SHALL BE CLEANED WITH COMPRESSED AIR TO REMOVE DUST AND DEBRIS.

THE APPLICATION OF THE EPOXY SYSTEM SHALL NOT BE MADE WHEN IT HAS RAINED OR SNOWED WITHIN 24 HOURS PRIOR TO APPLICATION AND RAIN OR SNOW IS FORECAST WITHIN 8 HOURS AFTER APPLICATION. IF RAIN OCCURS DURING THE APPLICATION, ALL OPERATIONS SHALL CEASE AND THE SURFACES ALLOWED TO DRY, BEFORE CONTINUING.

THE MINIMUM TEMPERATURE AT WHICH THE EPOXY CAN BE APPLIED IS TO BE 50 °F (10 °C) AND RISING. THE MAXIMUM TEMPATURE SHALL NO EXCEED 90 °F (32 °C)

THE EPOXY MANUFACTURER SHALL HAVE A REPRESENTATIVE ON THE JOB SITE AT ALL TIMES WHO, UPON CONSULTATION WITH THE ODOT ENGINEER, MAY SUSPEND ANY ITEM OF WORK THAT IS SUSPECT AND DOES NOT MEET THE REQUIREMENTS OF THIS SPECIFICATION. RESUMPTION OF WORK WILL OCCUR ONLY AFTER THE EPOXY MANUFACTURER'S REPRESENTATIVE AND THE ODOT ENGINEER ARE SATISFIED THAT APPROPRIATE REMEDIAL ACTION HAS BEEN TAKEN BY THE CONTRACTOR.

THE OVERLAY SYSTEM SHALL BE APPLIED ON ALL DECK AREAS USING METERING, MIXING AND DISTRIBUTION MACHINERY APPROVED BY THE EPOXY MANUFACTURER. THE APPLICATION MACHINE SHALL FEATURE POSITIVE DISPLACEMENT VOLUMETRIC METERING PUMPS. THE RESIN SHALL BE STORED IN TEMPERATURE CONTROLLED RESERVOIRS CAPABLE OF MAINTAINING 100 °F (38 °C) PLUS/MINUS 10 °F (4 °C) TO INSURE OPTIMUM MIXING. RATIO CHECK VERIFICATION AT THE PUMP OUTLETS AS WELL AS CYCLE COUNTING CAPABILITIES TO MONITOR OUTPUT WILL BE STANDARD FEATURES.

THE NUMBER OF LAYERS (MINIMUM OF TWO) AND THE APPLICATION RATES OF THE EPOXY IN THE VARIOUS LAYERS SHALL BE AS RECOMMENDED BY THE MANUFACTURER IN ORDER TO ACHIEVE A MINIMUM OVERLAY THICKNESS OF 1/4 INCHES (6MM) MEASURED FROM THE HIGHEST POINT ON THE DECK SURFACE TO THE TOP OF EPOXY (NOT THE PEAKS OF THE AGGREGATE).

APPLICATION OF THE EPOXY: AFTER MIXING OF THE COMPONENTS, THE EPOXY SHALL BE EVENLY DISTRIBUTED ON THE CLEAN, DRY DECK SURFACE AT THE RATE AS RECOMMENDED BY THE MANUFACTURER.

APPLICATION OF AGGREGATE: AFTER THE APPLICATION OF THE EPOXY, BROADCASTING OF THE AGGREGATE ON DECKS SHALL BE BY AUTOMATED DISPENSER DEPOSITING THE AGGREGATE ONTO THE DECK IN A UNIFORM MANNER AS DIRECTED BY THE EPOXY MANUFACTURER.

THE AGGREGATE SHALL BE BROADCAST AT A RATE IN EXCESS OF THAT NEEDED TO COVER THE SURFACE SO THAT NO WET SPOTS APPEAR. THE AGGREGATE MUST BE DROPPED VERTICALLY IN SUCH A MANNER THAT THE LEVEL OF THE EPOXY WILL NOT BE UNDULY DISTURBED.

WHEN WORKING WITHIN THE CONFINES OF ONE LANE, (I.E. AGGREGATE TRUCK DRIVING OVER FRESHLY PLACED EPOXY AND AGGREGATE) PLANKING OR 3/4" PLYWOOD SHALL BE PLACED UNDER THE WHEELS OF THE TRUCK OR ANY OTHER EQUIPMENT TO DISTRIBUTE THE LOAD AND PREVENT DISPLACEMENT OF THE FRESH EPOXY.

CONSOLIDATION: (IF REQUIRED BY MANUFACTURER) A HAND OPERATED ROLLER AS APPROVED BY THE EPOXY MANUFACTURER AND THE ODOT ENGINEER SHALL BE USED AT SURFACE TEMPERATURE BELOW 60 °F (16 °C) WITHIN TEN MINUTES AFTER THE APPLICATION OF THE AGGREGATE TO EVENLY CONSOLIDATE THE AGGREGATE INTO THE EPOXY.

CONTINUED ITEM SPECIAL - EPOXY WATERPROOFING OVERLAY (1/4 INCH THICK)

REMOVAL OF EXCESS AGGREGATE: AFTER THE OVERLAY HAS HARDENED, REMOVAL OF ALL LOOSE AND EXCESS AGGREGATE WITH A POWER VACUUM OR OTHER METHOD SHALL BE MADE PRIOR TO THE APPLICATION OF SUBSEQUENT COATS.

APPLICATION OF ADDITIONAL LAYERS: MAY BE MADE IMMEDIATELY AFTER THE PRECEDING LAYER HAS COMPLETELY HARDENED AND ALL EXCESS AGGREGATE HAS BEEN REMOVED. THE TIME BETWEEN EACH COAT WILL VARY DEPENDING ON THE TEMPERATURE AND CIRCUMSTANCES OF THE PROJECT.

JOINTS IN THE OVERLAY (I.E., BETWEEN TWO ADJACENT LANES) SHALL BE STAGGERED AND OVERLAPPED 76MM (3 INCH) MINIMUM BETWEEN SUCCESSIVE LAYERS SO THAT NO RIDGES APPEAR.

TRAFFIC SHALL BE ALLOWED ON THE FINAL LAYER AFTER THE SYSTEM HAS CURED (AS DETERMINED BY THE MANUFACTURER) AND AFTER REMOVAL OF ALL EXCESS, LOOSE AGGREGATE, UNLESS OTHER CONSTRUCTION ACTIVITIES PREVENT THE RE-OPENING TO TRAFFIC.

STORAGE AND HANDLING

EPOXY MATERIAL: EPOXY MATERIAL SHALL BE TRANSPORTED TO THE JOB SITE IN THEIR ORIGINAL CONTAINERS INSIDE A DRY, TEMPERATURE CONTROLLED FACILITY MAINTAINED AT A MINIMUM TEMPERATURE 60 °F (16 °C) AND NOT TO EXCEED 120 °F (49 °C). THE CONTAINERS SHALL BE IDENTIFIED AS "PART A - CONTAINS RESIN" AND "PART B - CONTAINS CURING AGENT" AND SHALL BE CLEARLY MARKED WITH THE NAME AND ADDRESS OF THE MANUFACTURER, NAME OF THE PRODUCT, MIXING PROPORTIONS AND INSTRUCTION, LOT AND BATCH NUMBERS, DATE OF MANUFACTURE, AND QUANTITY CONTAINED THEREIN. MATERIAL SAFETY DATA SHEETS SHALL ACCOMPANY EACH SHIPMENT AND THE DRIVER MUST HAVE A READY ACCESS TO THEM.

JOB SITE STORAGE: THE EPOXY MATERIAL SHALL BE STORED ON THE JOB SITE IN A DRY, TEMPERATURE CONTROLLED FACILITY WITHIN THE TEMPERATURE RANGE OF 60 °F (16 °C) TO 120 °F (49 °C). IF THE EPOXY MATERIAL IS TRANSPORTED OR STORED ON THE JOB IN THE APPLICATION MACHINE TANK, THE MATERIAL MUST ALSO BE MAINTAINED WITHIN THE ABOVE TEMPERATURE RANGE.

HANDLING OF EPOXY ON THE JOB: PROTECTIVE GLOVES, CLOTHING, BOOTS, AND GOGGLES SHALL BE PROVIDED BY THE CONTRACTOR TO WORKERS AND INSPECTORS DIRECTLY EXPOSED TO THE EPOXY MATERIAL. MATERIAL SAFETY DATA SHEETS SHALL BE PROVIDED TO ALL WORKERS AND INSPECTORS AS OBTAINED FROM THE MANUFACTURER. DISPOSAL OF ALL MATERIAL CONTAINERS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

AGGREGATE: ALL AGGREGATE SHALL BE STORED IN DRY, MOISTURE FREE ATMOSPHERE. THE AGGREGATE SHALL BE FULLY PROTECTED FROM ANY CONTAMINANTS ON THE JOB SITE AND SHALL BE STORED SO AS NOT TO BE EXPOSED TO RAIN OR OTHER MOISTURE SOURCES.

SAMPLING AND ACCEPTANCE

ACCEPTANCE: THE FOLLOWING ARE ACCEPTABLE MATERIALS, PENDING SUBMISSION OF APPROVED, CERTIFIED INDEPENDENT LABORATORY RESULTS:

FLEXOGRID, AS MANUFACTURED BY POLY-CARB, INC. 33095 BAINBRIDGE ROAD, CLEVELAND, OHIO 44139

FLEXOLITH, AS MANUFACTURED BY THE EUCLID CHEMICAL COMPANY 19218 REDWOOD ROAD, CLEVELAND, OHIO 44110

SIKADUR EPOXY BROADCAST OVERLAY SYSTEM AS MANUFACTURED BY: SIKA CORP. 201 POLITO AVENUE, LYNDHURST, NJ 07071.

UPON APPROVAL BY INDEPENDENT TESTING LABORATORY, OTHER PRODUCTS WILL BE CONSIDERED AS EQUAL, PROVIDING THEY:

- MEET OR EXCEED THE REQUIREMENTS OF THIS SPECIFICATION
- ARE SPECIFICALLY MARKETED AS BRIDGE DECK OVERLAYS
- HAVE BEEN SUCCESSFULLY USED ON BRIDGE DECKS IN THE CONTINENTAL UNITED STATES OR CANADA FOR AT LEAST THREE YEARS.

CERTIFIED TEST DATA:

LABORATORY SAMPLE: AT THE PRECONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL NOTIFY THE ODOT ENGINEER OF THE SOURCE OF MATERIAL HE EXPECTS TO USE. THE MATERIAL MANUFACTURER SHALL FURNISH CERTIFIED LABORATORY RESULTS OF THE EPOXY MATERIAL SAMPLES TO THE DEPARTMENT FOR REVIEW PER CMS 106.02.

THICKNESS VERIFICATION: THE CONTRACTOR SHALL ESTABLISH THAT THE OVERLAY IS AT LEAST 1/4 INCH (6MM) THICK (MEASURED FROM THE DECK SURFACE TO THE TOP OF THE EPOXY) AT THREE RANDOM LOCATIONS SELECTED BY THE ENGINEER FOR EVERY 1,000 SQUARE YARDS (836 M^2) OF DECK SURFACE. THIN AREAS SHALL BE RECOATED AS DESCRIBED ABOVE BY THE CONTRACTOR AND RETESTED AT NO ADDITIONAL COST TO THE STATE. THIS VERIFICATION MAY CONSIST OF CORES, HOLES, ETC., BUT IN ALL CASES ANY TESTED AREAS SHALL BE REPAIRED BY THE CONTRACTOR. REFER TO CMS 106 FOR ADDITIONAL INFORMATION.

THICKNESS VERIFICATION: THE CONTRACTOR SHALL ESTABLISH THE OVERLAY IS AT LEAST 1/4 INCH (6MM) THICK (MEASURED FROM THE DECK SURFACE TO THE TOP OF THE EPOXY) AT THREE RANDOM LOCATIONS ON THE SHOULDER AREA SELECTED BY THE ENGINEER FOR EVERY 1,000 SQUARE YARDS OF SURFACE. THIS VERIFICATION SHALL CONSIST OF USING A 1" DIAMETER MASONRY CORE BIT DRILLING TO THE SURFACE OF THE EXISTING DECK. ALL HOLES SHALL BE REPAIRED BY THE CONTRACTOR USING THE SAME EPOXY OVERLAY MATERIALS AND METHOD USED ON THE BRIDGE DECK. THE COST OF ALL REPAIRS SHALL BE INCLUDED IN THE UNIT BID PRICE PER SQ. YD. FOR ITEM SPECIAL - EPOXY WATERPROOFING OVERLAY (1/4 INCH THICK)

BASIS OF PAYMENT

PAYMENT FOR COMPLETED AND ACCEPTED QUANTITIES AS MEASURED ABOVE WILL BE MADE AT THE CONTRACT PRICE BID FOR:

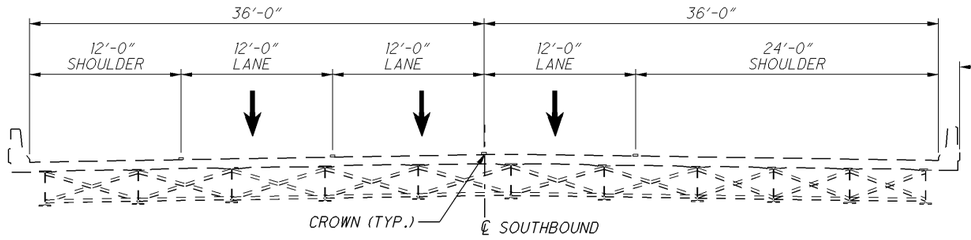
THIS ITEM OF WORK INCLUDES ALL LABOR, MATERIALS, AND INCIDENTALS NEEDED FOR THE UNIT BID PRICE PER SQUARE YARD FOR ITEM SPECIAL - EPOXY WATERPROOFING OVERLAY (1/4 INCH THICK). EXCLUDES ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECKS - TYPE B, AND ITEM - SPECIAL TEST PATCH WHICH ARE DESCRIBED AND PAID FOR SEPARATELY.

BRIDGE NO. MOT-75-0373 L — **ESTIMATED QUANTITIES**

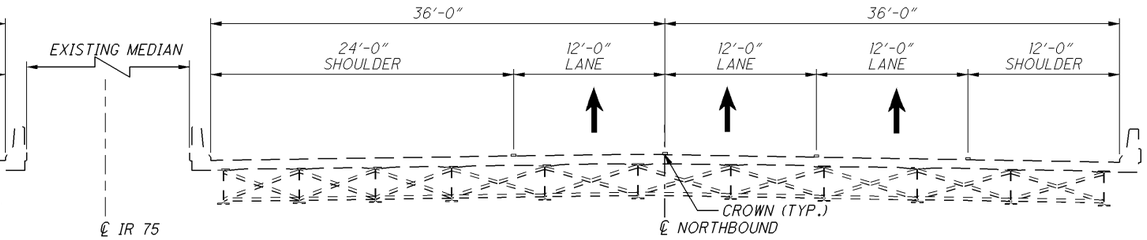
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #
SPECIAL	512E72000	1561	SQ YD	EPOXY WATERPROOFING OVERLAY (1/4" THICK)			1561		2/6 & 3/6
SPECIAL	512E72500	LUMP		TEST PATCH			LUMP		2/6
SPECIAL	51912300	38	SQ YD	PATCHING CONCRETE BRIDGE DECK - TYPE B			38		2/6

BRIDGE NO. MOT-75-0373 R — **ESTIMATED QUANTITIES**

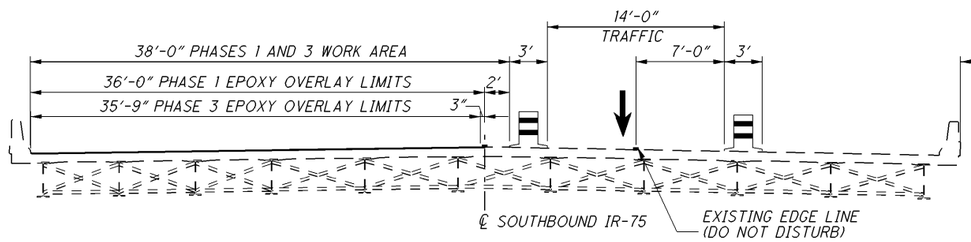
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #
SPECIAL	512E72000	1560	SQ YD	EPOXY WATERPROOFING OVERLAY (1/4" THICK)			1560		2/6 & 3/6
SPECIAL	512E72500	LUMP		TEST PATCH			LUMP		2/6
SPECIAL	51912300	37	SQ YD	PATCHING CONCRETE BRIDGE DECK - TYPE B			37		2/6

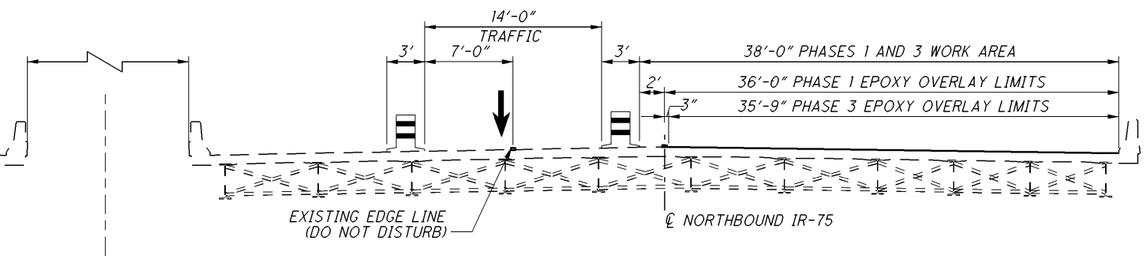


EXISTING CONDITION SOUTHBOUND IR-75



EXISTING CONDITION NORTHBOUND IR-75





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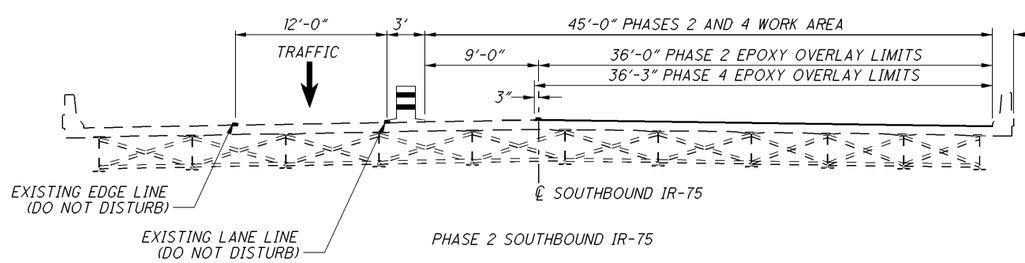

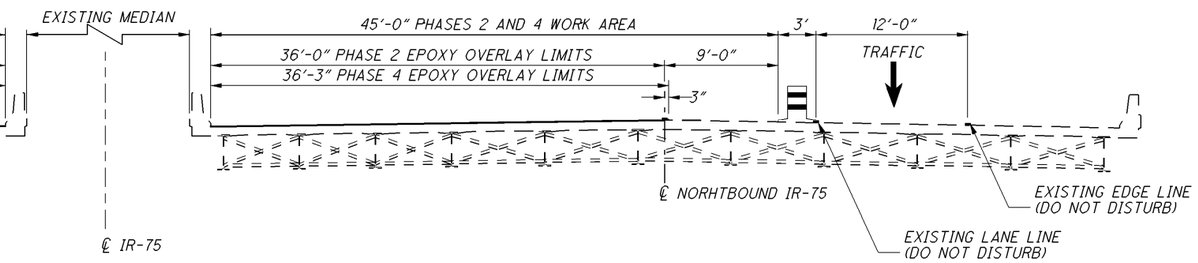

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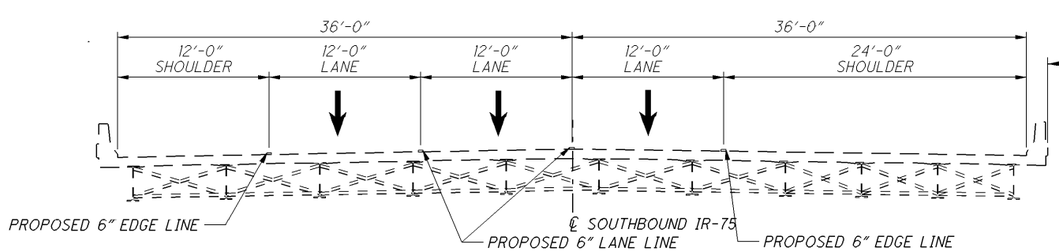
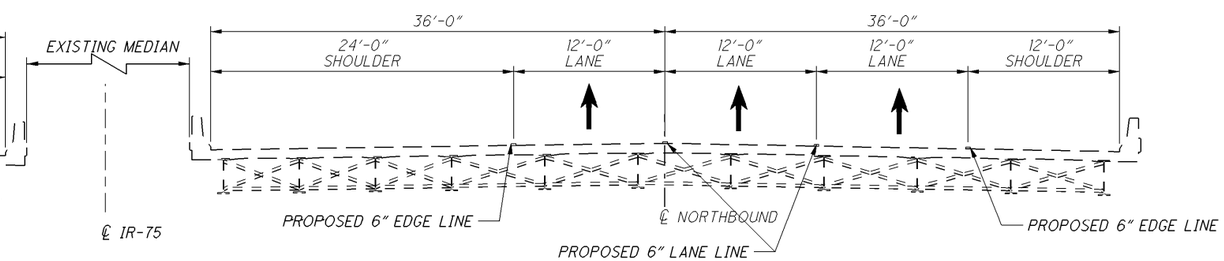


FINAL CONDITION SOUTHBOUND IR-75



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FINAL CONDITION NORTHBOUND IR-75

LEGEND

= DIRECTION OF TRAFFIC

= DRUMS

DESIGN AGENCY
ODOT - DISTRICT 7
PLANNING & ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
MEF	MEF	MRB	10-8-14
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CWW		5706483/5706513	

PHASE CONSTRUCTION DETAILS
BRIDGE NO.: MOT-75-0373 L & R
IR 75 OVER SR 725

MOT-75-3.73
PID No. 97105

4/6

21/23

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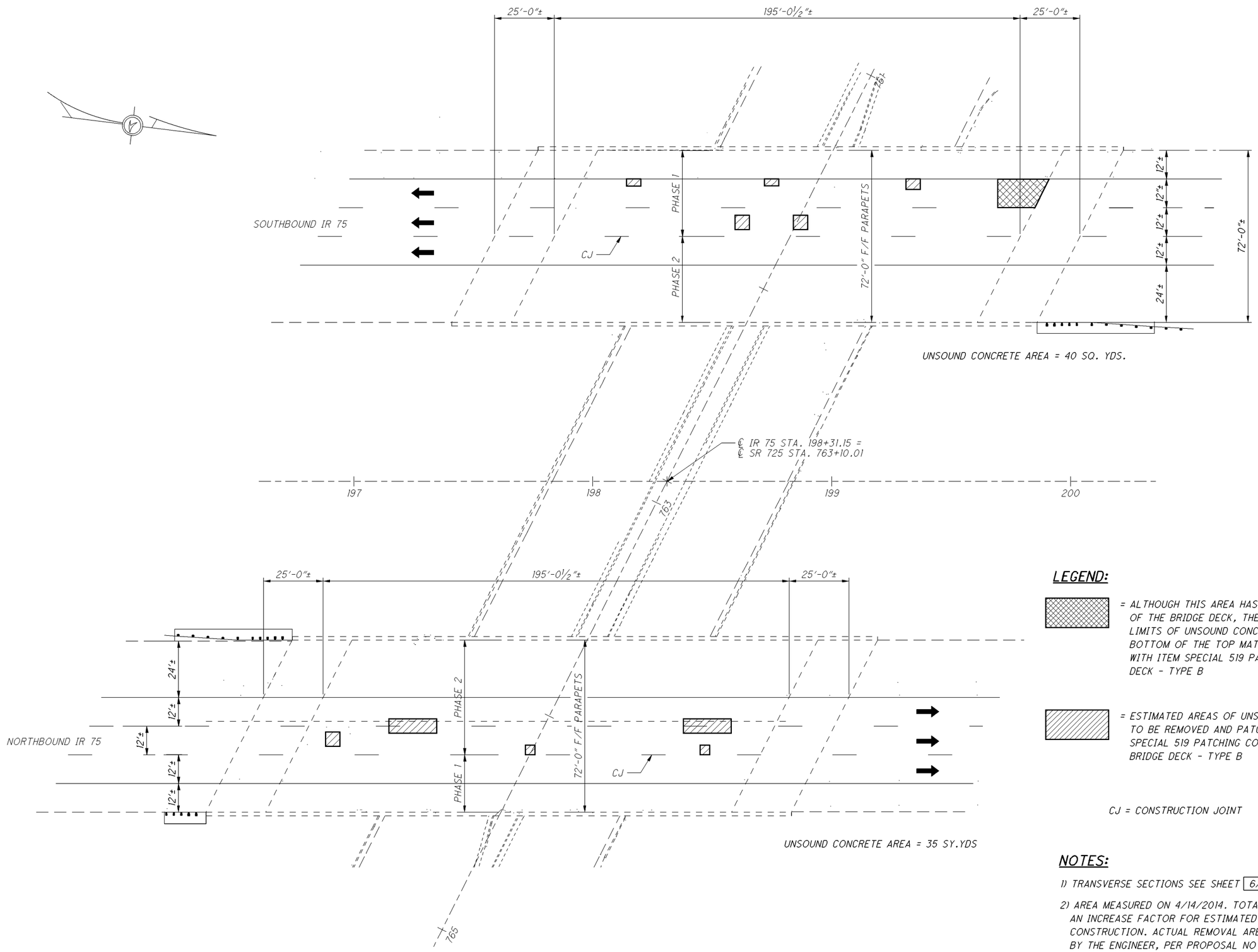

LEGEND:

= ALTHOUGH THIS AREA HAS EXTENSIVE DETERIOATION OF THE BRIDGE DECK, THE MAXIMUM REMOVAL LIMITS OF UNSOUND CONCRETE SHALL BE TO THE BOTTOM OF THE TOP MAT OF STEEL. PATCHED AREA WITH ITEM SPECIAL 519 PATCHING CONCRETE BRIDGE DECK - TYPE B

= ESTIMATED AREAS OF UNSOUND CONCRETE TO BE REMOVED AND PATCHED WITH ITEM SPECIAL 519 PATCHING CONCRETE BRIDGE DECK - TYPE B

CJ = CONSTRUCTION JOINT

NOTES:

1) TRANSVERSE SECTIONS SEE SHEET 6/6

2) AREA MEASURED ON 4/14/2014. TOTAL QUANTITY INCLUDES AN INCREASE FACTOR FOR ESTIMATED DETERIORATION AT TIME OF CONSTRUCTION. ACTUAL REMOVAL AREAS TO BE DETERMINED BY THE ENGINEER, PER PROPOSAL NOTE 512.

DESIGN AGENCY
ODOT - DISTRICT 7
PLANNING & ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
MEF	MEF	MRB	10-8-14
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CWW		5706483/5706513	

DECK PATCHING DETAILS

BRIDGE NO.: MOT-75-0373 L & R
IR 75 OVER SR 725

MOT-75-3.73
PID No. 97105

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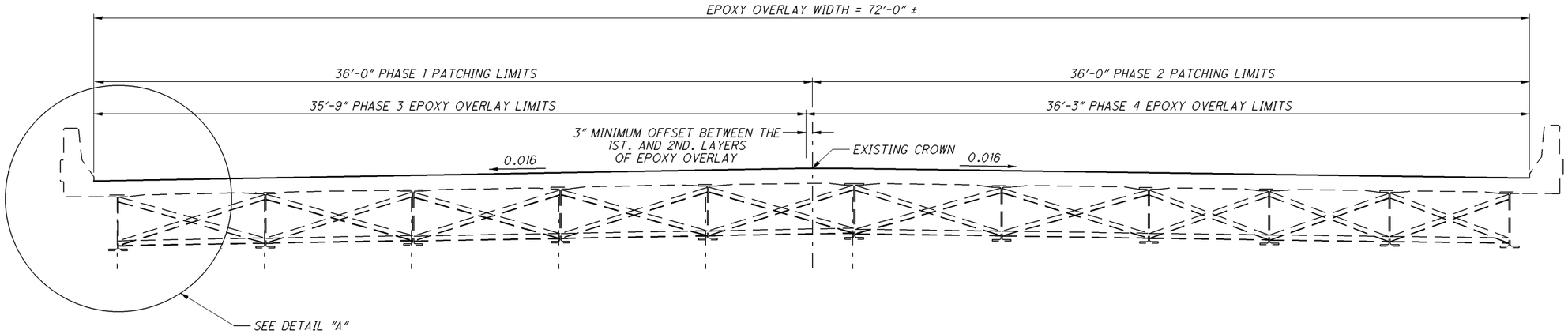
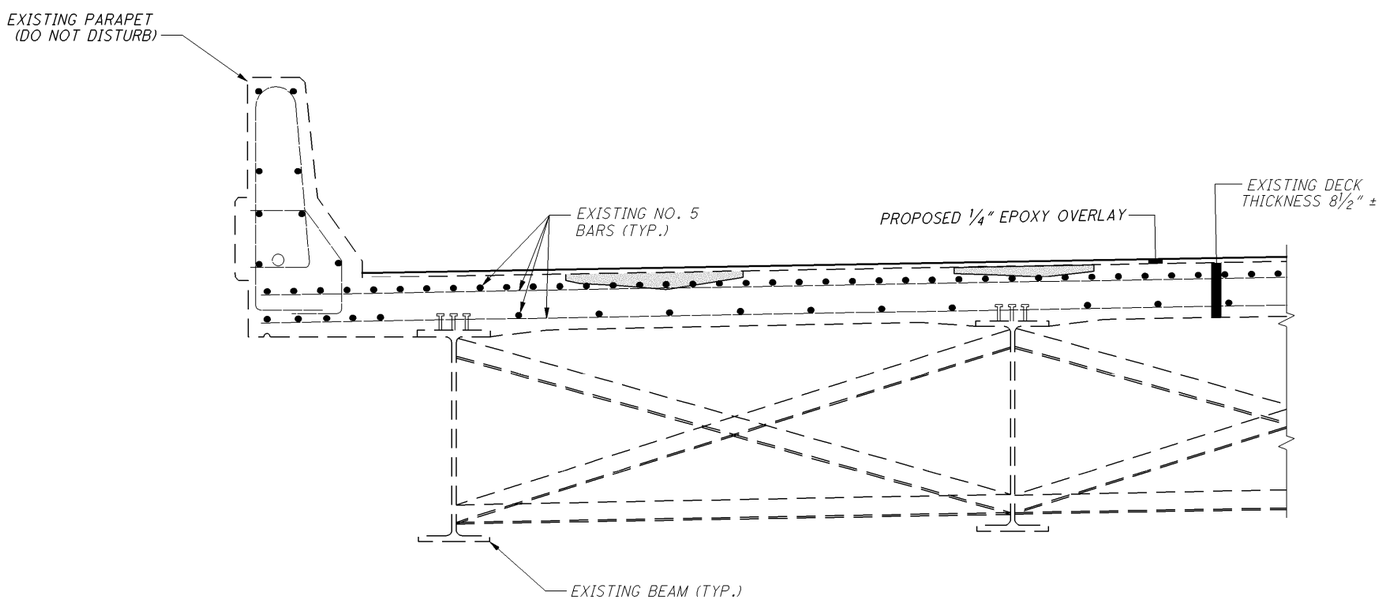


TRANSVERSE SECTION WITH EPOXY OVERLAY

LEFT BRIDGE SHOWN, RIGHT BRIDGE OPPOSITE HAND



DETAIL "A"

(NOT TO SCALE)

LEGEND:

= AREAS OF UNSOUND CONCRETE TO BE REMOVED AND PATCHED WITH ITEM SPECIAL- PATCHING CONCRETE BRIDGE DECKS, TYPE B

NOTES:

1) ESTIMATED AREAS OF UNSOUND CONCRETE DETAILS SEE SHEET 5/6

DESIGN AGENCY
ODOT - DISTRICT 7
PLANNING & ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
MEF	MEF	MRB	10-8-14
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CWW		5706483/5706513	

STRUCTURE DETAILS
BRIDGE NO.: MOT-75-0373 L & R
IR 75 OVER SR 725

MOT-75-3.73
PID No. 97105

6/6

23/23

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