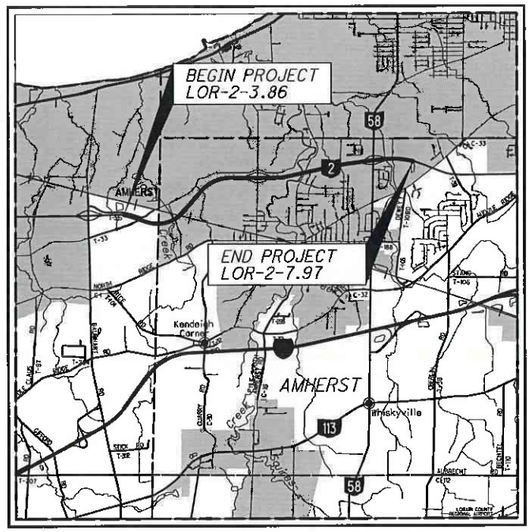
LOR - SR-SR 2-03.86
200445 PID - 77537
Dist 3 8/27/2020

Contract Proposal available @ www.contracts.dot.state.oh.us



LOCATION MAP

LATITUDE: 40°55'38"N LONGITUDE: 81°59'14"

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: SEE SHEET 2

DESIGN EXCEPTIONS

NONE REQUIRED

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

LOR-2-3.86

CITY OF AMHERST

BROWNHELM TOWNSHIP

LORAIN COUNTY

INDEX OF SHEETS:

PROJECT DESCRIPTION

THIS PROJECT WILL INCLUDE PAVEMENT REPAIRS, PLANING AND PAVING WITH ASPHALT CONCRETE, GUARDRAIL REPAIRS, PAVEMENT MARKINGS AND STRUCTURE MAINTENANCE.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: N/A ACRES (MAINTENANCE PROJECT)

ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A ACRES (MAINTENANCE PROJECT)

NOTICE OF INTENT EARTH DISTURBED AREA: N/A ACRES (MAINTENANCE PROJECT)

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES 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 OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED
DATE 05/27/2020 DISTRICT DEPUTY DIRECTOR

APPROVED
DATE 6/4/2020 DIRECTOR, DEPARTMENT OF TRANSPORTATION

CONFORMED SET

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

ENGINEERS SEAL:

STATE OF OHIO
KARLA R. BOHMER
E-76834
REGISTERED PROFESSIONAL ENGINEER

SIGNED: Karla R. Bohmer
DATE: 5/26/20

STANDARD CONSTRUCTION DRAWINGS

BP-2.5	7/19/13	MGS-1.1	1/19/18	MT-95.30	7/19/19	TC-41.20	10/18/13				
BP-3.1	1/17/20	MGS-2.1	1/19/18	MT-95.50	7/21/17	TC-42.20	10/18/13				
BP-5.1	1/18/19	MGS-3.1	1/19/18	MT-98.10	1/17/20	TC-52.10	10/18/13				
BP-9.1	1/18/19	MGS-3.2	1/18/13	MT-98.11	1/17/20	TC-52.20	7/20/18				
		MGS-4.2	7/19/13	MT-98.20	4/19/19	TC-61.30	7/19/19				
		MGS-6.1	1/19/18	MT-98.22	1/17/20	TC-65.10	1/17/14				
DM-4.3	1/15/16	MGS-6.2	7/19/19	MT-98.28	1/17/20	TC-65.11	7/21/17				
DM-4.4	1/15/16			MT-98.29	1/17/20	TC-71.10	1/19/18				
				MT-99.20	4/19/19	TC-72.20	7/20/18				
				MT-101.60	1/17/20	TC-82.10	7/19/19				
				MT-101.90	7/21/17						
				MT-104.10	10/16/15						
				MT-105.10	1/17/20						

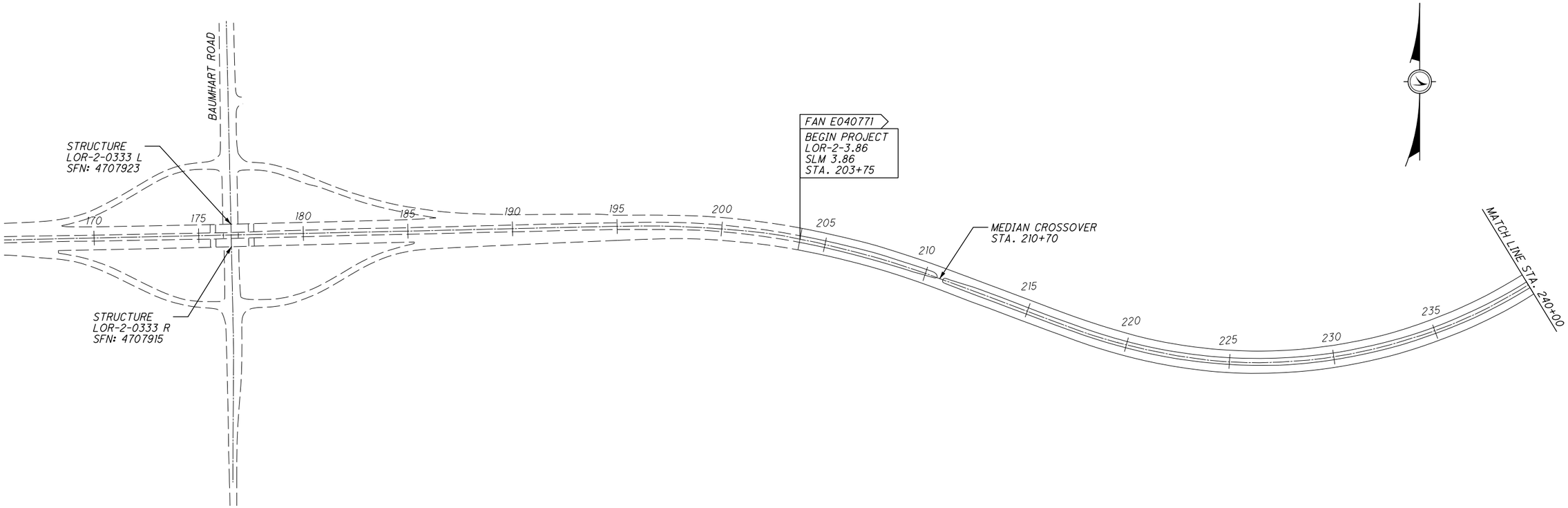
SUPPLEMENTAL SPECIFICATIONS

800	7/17/20
807	4/17/20
808	1/18/19
821	4/20/12
832	10/19/18
850	4/17/20
896	7/21/17
921	4/20/12

SPECIAL PROVISIONS

PLANS PREPARED BY:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT THREE ENGINEERING

FEDERAL PROJECT NO. E040771
PID NO. 77537
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NORFOLK SOUTHERN
LOR-2-3.86
1/37



DESIGN DESIGNATION
LOR-2-3.52 TO 5.86

CURRENT ADT (2021)	33,000
DESIGN YEAR ADT (2033)	35,500
DESIGN HOURLY VOLUME (2033)	4,300
DIRECTIONAL DISTRIBUTION	53%
TRUCKS (24 HOUR B&C)	9%
DESIGN SPEED/LEGAL SPEED	65 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
FREEWAYS AND EXPRESSWAYS

NHS PROJECT - YES

DESIGN DESIGNATION
LOR-2-5.86 TO 7.42

CURRENT ADT (2021)	40,000
DESIGN YEAR ADT (2033)	45,000
DESIGN HOURLY VOLUME (2033)	5,400
DIRECTIONAL DISTRIBUTION	53%
TRUCKS (24 HOUR B&C)	10%
DESIGN SPEED/LEGAL SPEED	65 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
FREEWAYS AND EXPRESSWAYS

NHS PROJECT - YES

DESIGN DESIGNATION
LOR-2-7.42 TO 7.97

CURRENT ADT (2021)	49,500
DESIGN YEAR ADT (2033)	56,500
DESIGN HOURLY VOLUME (2033)	5,600
DIRECTIONAL DISTRIBUTION	51%
TRUCKS (24 HOUR B&C)	10%
DESIGN SPEED/LEGAL SPEED	65 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
FREEWAYS AND EXPRESSWAYS

NHS PROJECT - YES

CALCULATED KRB
CHECKED ACM

SCHEMATIC PLAN & DESIGN DESIGNATION

LOR-2-3.86

CALCULATED KRB
CHECKED ACM

SCHEMATIC PLAN

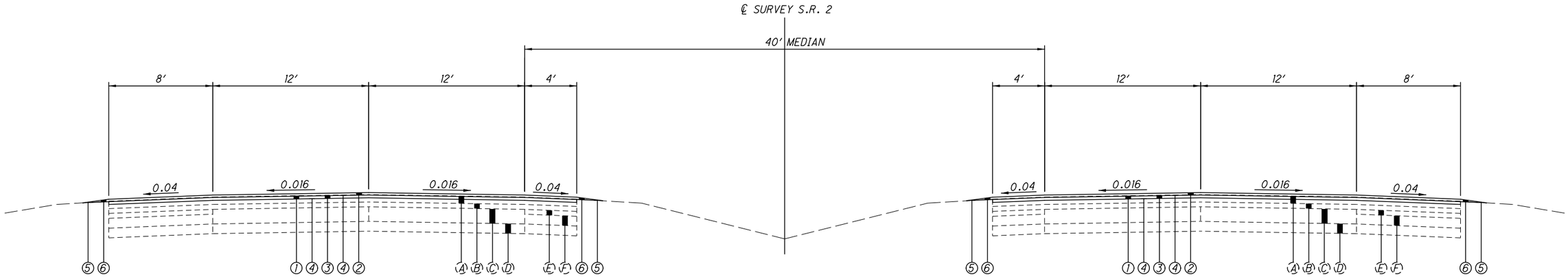
LOR-2-3.86

I:\ProjectData\77537\Design\Roadway\Sheets\77537_GB001.dgn

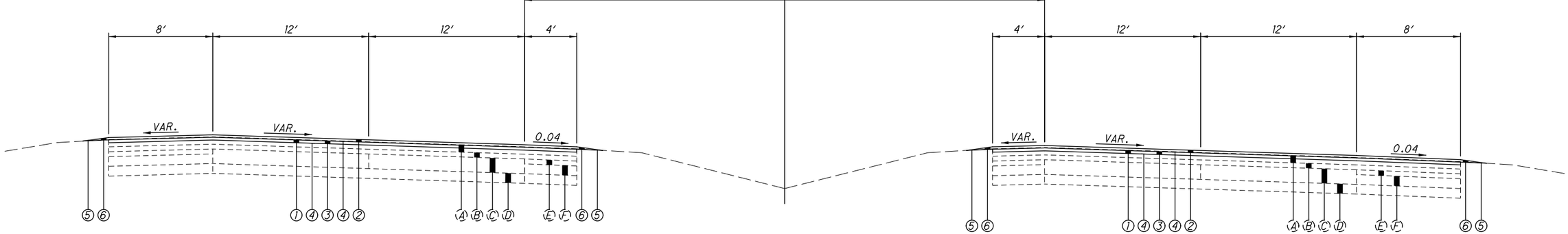
CALCULATED KRB
CHECKED ACM

SCHEMATIC PLAN

LOR-2-3.86



NORMAL SECTION



SUPERELEVATED SECTION

LEGEND - PROPOSED

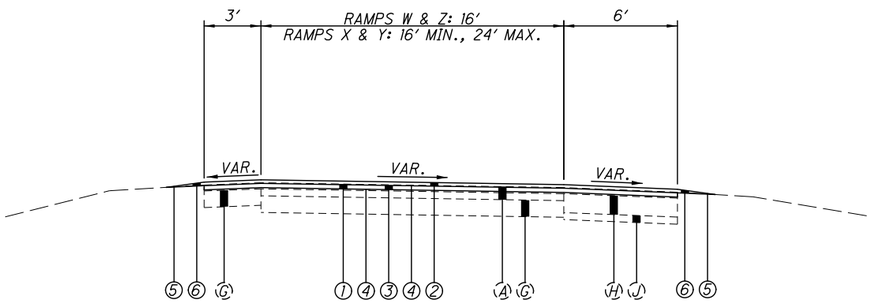
① ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (2")
② ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) (1.5")
③ ITEM 442 - ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), AS PER PLAN (1.75")
④ ITEM 407 - NON-TRACKING TACK COAT
⑤ ITEM 408 - PRIME COAT, AS PER PLAN
⑥ ITEM 617 - COMPACTED AGGREGATE

LEGEND - EXISTING

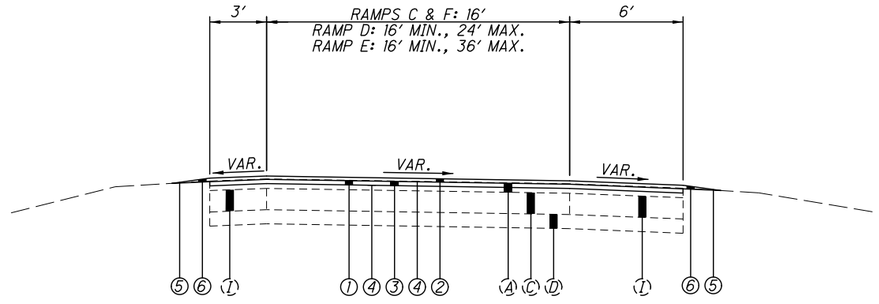
Ⓐ EXISTING ASPHALT CONCRETE VARIES, SEE PAVEMENT CORING INFORMATION
Ⓑ EXISTING 3" BITUMINOUS AGGREGATE BASE
Ⓒ EXISTING 9" REINFORCED CONCRETE
Ⓓ EXISTING 6" SUBBASE
Ⓔ EXISTING 3" ASPHALT BERM
Ⓕ EXISTING VARIABLE AGGREGATE BASE

TYPICAL SECTIONS

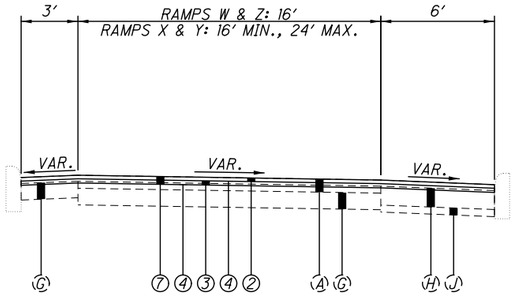
LOR-2-3.86



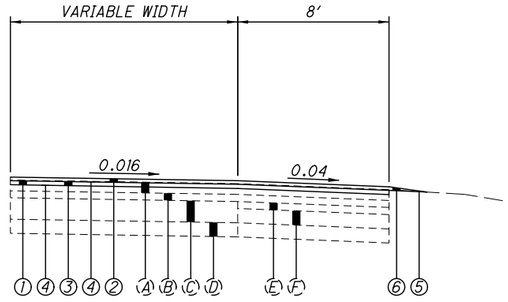
OAK POINT ROAD RAMPS



S.R. 58 RAMPS



OAK POINT ROAD RAMPS
CURBED SECTION



S.R. 2 ACCEL./DECEL. LANES

LEGEND - PROPOSED

1. ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (2")
2. ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) (1.5")
3. ITEM 442 - ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), AS PER PLAN (1.75")
4. ITEM 407 - NON-TRACKING TACK COAT
5. ITEM 408 - PRIME COAT, AS PER PLAN
6. ITEM 617 - COMPACTED AGGREGATE
7. ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (3.25")

LEGEND - EXISTING

- (A) EXISTING ASPHALT CONCRETE VARIES:
  - SEE PAVEMENT CORING INFORMATION FOR S.R. 2 MAINLINE
  - 3.5"± S.R. 58 RAMPS D AND E
  - 5.5"± S.R. 58 RAMPS C AND F
  - 5.5"± OAK POINT ROAD RAMPS W, X, Y AND Z
- (B) EXISTING 3" BITUMINOUS AGGREGATE BASE
- (C) EXISTING 9" REINFORCED CONCRETE
- (D) EXISTING 6" SUBBASE
- (E) EXISTING 3" ASPHALT BERM
- (F) EXISTING VARIABLE AGGREGATE BASE
- (G) EXISTING 7" BITUMINOUS AGGREGATE BASE
- (H) EXISTING 8" BITUMINOUS AGGREGATE BASE
- (I) EXISTING 9" BITUMINOUS AGGREGATE BASE
- (J) EXISTING 3" SUBBASE

TYPICAL SECTIONS

LOR-2-3.86

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS.

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CABLE
WIDE OPEN WEST
105 BLAZE INDUSTRIAL PKWY
BEREA, OH 44017
866.496.9669

CABLE
CHARTER COMMUNICATIONS
5520 WHIPPLE AVENUE NW
NORTH CANTON, OH 44720
330.494.9200

CITY
CITY OF AMHERST
206 SOUTH MAIN
AMHERST, OHIO 44001
440-984-4380

CITY
CITY OF LORAIN
200 W. ERIE AVENUE
LORAIN, OH 44052
440.204.2003

COMMUNICATION
CENTURYLINK
175 ASHLAND ROAD, P.O. BOX 3555
MANSFIELD, OH 44907
419.755.7956

COMMUNICATION
EVERSTREAM SOLUTIONS
800 W ST CLAIR, 2ND FLOOR
CLEVELAND, OH 44113
216.581.7972

COMMUNICATION
LEVEL 3 COMMUNICATIONS
106 SOUTH ARLINGTON STREET
AKRON, OH 44306
740.275.1133

COMMUNICATION
VERIZON BUSINESS
120 RAVINE STREET
AKRON, OH 44303
330.253.8267

ELECTRIC
OHIO EDISON
1717 ASHLAND ROAD
MANSFIELD, OH 44905
419.521.6213

GAS
COLUMBIA GAS OF OHIO
1021 N MAIN STREET
MANSFIELD, OH 44903
419.528.1137

GAS
KNOX ENERGY
11872 WORTHINGTON RD
PATASKALA, OH 43062
740.927.6731

GAS
TC ENERGY
589 N STATE ROAD
MEDINA, OH 44256
330.721.4163

TRAFFIC
ODOT DISTRICT THREE
906 CLARK AVENUE
ASHLAND, OH 44805
419.207.7045

WATER
NORTHERN OHIO RURAL WATER
P.O. BOX 96
COLLINS, OH 44826
419.668.7213

THE AFOREMENTIONED UTILITY COMPANIES AND AGENCIES HAVE VARIOUS FACILITIES IN THE AREA THAT WILL REMAIN IN PLACE DURING CONSTRUCTION.

EXTREME CAUTION SHOULD BE EXERCISED IN AREAS WITH UTILITIES. SECTIONS 105.07 AND 107.16 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS SPECIFICATIONS REQUIRE, AMONG OTHER THINGS, THAT THE CONTRACTOR COOPERATE WITH ALL UTILITIES LOCATED WITHIN THE LIMITS OF THIS CONSTRUCTION PROJECT AND TAKE RESPONSIBILITY FOR THE PROTECTION OF THE UTILITY PROPERTY AND SERVICES.

EXISTING PLANS

EXISTING PLANS ENTITLED LOR-254-0.00 B (LOR-2-3.31-7.97) (1964) MAY BE INSPECTED IN THE ODOT DISTRICT 3 OFFICE IN ASHLAND.

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.

ROUTINE MAINTENANCE

BETWEEN THE TIME THAT BIDS ARE TAKEN AND THE START OF CONSTRUCTION, THE MAINTAINING AGENCY MAY ENTER UPON THE PROJECT AND PERFORM ROUTINE MAINTENANCE SUCH AS CRACK SEALING, PATCHING, AND BERM AND SHOULDER REPAIR. THE EFFECTS, IF ANY, OF THE PERFORMANCE OF ROUTINE MAINTENANCE SHALL BE CONSIDERED AS INHERENT IN WORK OF THE CHARACTER PROVIDED FOR IN THE PLAN AND THE RESULTING CONDITIONS SHALL NOT BE CONSIDERED AS DIFFERING MATERIALLY FROM THOSE EXISTING AT THE TIME BIDS WERE TAKEN.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. (PREVIOUS CONSTRUCTION PLANS SHOWING THE ORIGINAL ALIGNMENT AND PROFILE, ARE AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT 3 OFFICE). PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

ITEM 209 - LINEAR GRADING

THE CONTRACTOR IS REQUIRED TO PERFORM LINEAR GRADING ON THE GRADED SHOULDER. IT IS ANTICIPATED THAT THERE ARE AREAS WHERE THE GRADED SHOULDER IS AT A HIGHER ELEVATION THAN THE ADJACENT PROPOSED PAVEMENT. A 10:1 SLOPE SHALL BE ESTABLISHED, OR AS DIRECTED BY THE ENGINEER, WHEN PERFORMING ITEM 209 LINEAR GRADING. THE INTENT IS TO PROVIDE AN UNOBSTRUCTED AND POSITIVE FLOW OF STORM WATER FROM THE PAVEMENT TO THE DITCH. THE LINEAR GRADING SHALL BE PERFORMED AFTER THE INTERMEDIATE COURSE HAS BEEN COMPLETED AND BEFORE THE SURFACE COURSE IS PLACED. ALL LABOR AND EQUIPMENT NECESSARY TO PERFORM THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER MILE FOR ITEM 209 - LINEAR GRADING.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE)
ITEM 253 - PAVEMENT REPAIR

THESE ITEMS OF WORK SHALL CONSIST OF THE REMOVAL OF THE EXISTING ASPHALT CONCRETE PAVEMENT IN AREAS OF EXISTING PAVEMENT FAILURE. CORING HAS BEEN PERFORMED TO HELP DETERMINE THE COMPONENTS THAT MAY BE ENCOUNTERED DURING THIS ITEM OF WORK. THE PAVEMENT CORING INFORMATION IS SHOWN ON THIS SHEET.

PAVEMENT REPAIR SHALL BE PERFORMED BEFORE PAVEMENT PLANING AND PLACEMENT OF THE INTERMEDIATE AND SURFACE COURSES. THE DEPTH OF REMOVAL SHALL BE SUFFICIENT TO REMOVE ALL DETERIORATED PAVEMENT WITH AN AVERAGE DEPTH OF 6" FOR ESTIMATING PURPOSES.

THE CONTRACTOR SHALL BE CAPABLE OF PERFORMING PAVEMENT REPAIRS 4 FEET WIDE FOR TRANSVERSE REPAIRS AND 2 FEET WIDE FOR LONGITUDINAL REPAIRS.

REPLACEMENT MATERIAL SHALL BE ITEM 301 AND SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT PAVEMENT SURFACE.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT REPAIR. FOR PAYMENT PURPOSES ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) IS TO BE A MAXIMUM OF 6" DEEP AND ITEM 253 PAVEMENT REPAIR IS FOR DEPTHS GREATER THAN 6". PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER CUBIC YARD, (BY TICKET WEIGHT CONVERSION), OF ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) OR ITEM 253 - PAVEMENT REPAIR.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE):
SEE SHEET 19 FOR ESTIMATED QUANTITIES AND LOCATIONS. THE FINAL LOCATION AND SIZE OF THE REPAIRS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER. IN ADDITION TO THE QUANTITIES PROVIDED ON SHEET 19, THE FOLLOWING ADDITIONAL ESTIMATED QUANTITIES ARE PROVIDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:
ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) (LONGITUDINAL): 325 CY
ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) (TRANSVERSE): 100 CY

ITEM 253 - PAVEMENT REPAIR:
THE FOLLOWING ESTIMATED QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:
ITEM 253 - PAVEMENT REPAIR: 100 CY

PAVEMENT CORING INFORMATION

COUNTY	ROUTE	SLM	ASPHALT	CONCRETE	BRICK	LOCATION	DIRECTION	YEAR CORED
LOR	2	4.0	9.0	8.0	0.0	LT. WHEEL PATH	EB	2019
LOR	2	4.0	7.5	9.0	0.0	RT. WHEEL PATH	EB	2019
LOR	2	4.0	13.0	0.0	0.0	SHOULDER	EB	2019
LOR	2	4.6	8.0	8.5	0.0	CENTER OF LANE	EB	2019
LOR	2	4.6	9.0	9.0	0.0	RT. WHEEL PATH	EB	2019
LOR	2	4.6	12.0	0.0	0.0	SHOULDER	EB	2019
LOR	2	5.0	8.0	9.0	0.0	CENTER OF LANE	EB	2019
LOR	2	5.0	10.0	6.0	0.0	RT. WHEEL PATH	EB	2019
LOR	2	5.0	10.0	0.0	0.0	SHOULDER	EB	2019
LOR	2	5.7	7.0	9.0	0.0	CENTER OF LANE	EB	2019
LOR	2	5.7	7.0	9.0	0.0	RT. WHEEL PATH	EB	2019
LOR	2	5.7	13.0	0.0	0.0	SHOULDER	EB	2019
LOR	2	6.0	7.5	8.0	0.0	CENTER OF LANE	EB	2019
LOR	2	6.0	6.0	8.0	0.0	RT. WHEEL PATH	EB	2019
LOR	2	6.0	13.0	0.0	0.0	SHOULDER	EB	2019
LOR	2	6.5	8.0	10.5	0.0	CENTER OF LANE	EB	2019
LOR	2	6.5	8.0	10.0	0.0	RT. WHEEL PATH	EB	2019
LOR	2	6.5	15.0	0.0	0.0	SHOULDER	EB	2019
LOR	2	7.1	7.0	8.5	0.0	CENTER OF LANE	EB	2019
LOR	2	7.1	6.5	9.0	0.0	RT. WHEEL PATH	EB	2019
LOR	2	7.1	9.0	0.0	0.0	SHOULDER	EB	2019
LOR	2	8.0	5.0	8.5	0.0	CENTER OF LANE	EB	2019
LOR	2	8.0	5.0	9.0	0.0	RT. WHEEL PATH	EB	2019
LOR	2	8.0	6.0	2.5	0.0	SHOULDER	EB	2019

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, AS PER PLAN

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, AS PER PLAN IS TO BE USED FOR FULL DEPTH RIGID PAVEMENT REPAIRS. PAVEMENT REPAIRS SHALL BE PERFORMED BEFORE PAVEMENT PLANING AND PLACEMENT OF THE INTERMEDIATE AND SURFACE COURSES. CLASS QC MS (OPTION A) OR CLASS RRCM (OPTION B) WILL BE ALLOWED FOR THE REPAIRS.

CONCRETE SHALL BE PLACED IN THE REPAIR AREA THE SAME DAY THAT THE EXISTING PAVEMENT IS REMOVED FROM THE REPAIR AREA.

SEAL THE PERIMETER SURFACE OF THE REPAIRED AREAS BY APPLYING A 2 TO 4 INCH WIDE STRIP OF APPROVED 705.04 MATERIAL OR 702.01 APPROVED PG BINDER.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD FOR THE ABOVE ITEM, AND WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

SEE SHEET 19 FOR ESTIMATED QUANTITIES AND LOCATIONS. THE FINAL LOCATION AND SIZE OF THE REPAIRS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER. IN ADDITION TO THE QUANTITIES PROVIDED ON SHEET 19, THE FOLLOWING ADDITIONAL ESTIMATED QUANTITIES ARE PROVIDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN (OPTION A):
160 SY

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS RRCM, AS PER PLAN (OPTION B):
160 SY

ITEM 255 - FULL DEPTH PAVEMENT SAWING:
600 SY

CALCULATED KRB
CHECKED ACM

GENERAL NOTES

LOR-2-3.86

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE

THE INTENT OF THE PLANING IS TO MILL THE SPECIFIED DEPTH AT THE CENTER OF PAVEMENT AT NON-CURBED AREAS. THE PAVEMENT SLOPE SHALL BE 0.010 MINIMUM AND 0.016 PREFERRED, CONTINUOUS BETWEEN THE CROWN AND THE PROPOSED EDGELINE/SHOULDER. THE MILLING DEPTH SHALL BE CONTROLLED FROM THE CENTER OF PAVEMENT IN CONFORMANCE WITH THE ABOVE GUIDELINES.

SPECIAL ATTENTION SHALL BE GIVEN TO SUPERELEVATED CURVES. THE SUPERELEVATION SHALL BE MAINTAINED AND/OR RESTORED, IF NECESSARY, AS DIRECTED BY THE ENGINEER. IF THERE IS NO INFORMATION IN THE PLANS TO CHANGE THE SUPERELEVATION, THE INTENT IS TO MAINTAIN THE EXISTING SUPERELEVATION.

THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE TO ALL CATCH BASINS AND INLETS.

FOR ANY LOCATIONS WHERE THE PLANING DEPTH WILL EXCEED 3", THE PLANING AND PAVING OPERATIONS SHALL OCCUR IN THE SAME DAY.

THE PROGRESSION OF THE PLANING SHALL PROCEED IN SUCH A MANNER THAT NORMAL TRAFFIC WILL NOT BE REQUIRED TO RUN OVER THE PLANED ROADWAY SURFACE MORE THAN SEVEN (7) CALENDAR DAYS. FOR EACH CALENDAR DAY BEYOND THE 7 DAYS THAT THE ROADWAY REMAINS EXPOSED TO THE PLANED SURFACE, THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE FEE of $8000 PER DAY.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT PLANING, ASPHALT CONCRETE. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER SQUARE YARD OF ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE.

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (CURBED SECTION)

THE INTENT OF THE PLANING IS TO MILL THE SPECIFIED DEPTH ALONG THE CURB CONTINGENT ON THE FOLLOWING: THE MAXIMUM CROSS SLOPE SHALL BE 0.02 WHILE THE MINIMUM CROSS SLOPE SHALL BE 0.01. THE PREFERRED CROSS SLOPE IS 0.016. THE CROWN OF THE PAVEMENT SHALL BE LOCATED BETWEEN THE TRAVELED LANES, OR AS DIRECTED BY THE ENGINEER. THE MILLING DEPTH SHALL BE CONTROLLED FROM THE CURB, TO PRODUCE A CROSS SLOPE IN CONFORMANCE WITH THE ABOVE GUIDELINES.

SPECIAL ATTENTION SHALL BE GIVEN TO SUPERELEVATED CURVES. THE SUPERELEVATION SHALL BE MAINTAINED AND/OR RESTORED, IF NECESSARY, AS DIRECTED BY THE ENGINEER. IF THERE IS NO INFORMATION IN THE PLANS TO CHANGE THE SUPERELEVATION, THE INTENT IS TO MAINTAIN THE EXISTING SUPERELEVATION.

THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE TO ALL CATCH BASINS AND INLETS.

FOR ANY LOCATIONS WHERE THE PLANING DEPTH WILL EXCEED 3", THE PLANING AND PAVING OPERATIONS SHALL OCCUR IN THE SAME DAY.

THE PROGRESSION OF THE PLANING SHALL PROCEED IN SUCH A MANNER THAT NORMAL TRAFFIC WILL NOT BE REQUIRED TO RUN OVER THE PLANED ROADWAY SURFACE MORE THAN SEVEN (7) CALENDAR DAYS. FOR EACH CALENDAR DAY BEYOND THE 7 DAYS THAT THE ROADWAY REMAINS EXPOSED TO THE PLANED SURFACE, THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE FEE OF $8000 PER DAY.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT PLANING, ASPHALT CONCRETE. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER SQUARE YARD OF ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE.

ITEM 254 - PATCHING PLANED SURFACE

AN ESTIMATED QUANTITY OF ITEM 254 - PATCHING PLANED SURFACE HAS BEEN SET UP TO BE USED AS DIRECTED BY THE ENGINEER AS DESCRIBED IN CMS 254.04. THE LIMIT OF THE PATCHING DEPTH IS 0 TO 2 IN.

ITEM 408 - PRIME COAT, AS PER PLAN

THE CONTRACTOR SHALL APPLY ONE COAT OF MC-70 (AS PER SECTION 702) AT A RATE OF 0.40 GAL/SY TO THE COMPLETED AGGREGATE SHOULDER (ITEM 617) AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE A SHIELD TO PREVENT THE SPRAYING OR DRIFTING OF LIQUID BITUMINOUS MATERIAL ONTO THE EDGE OF PAVEMENT OR EDGE LINE. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO 107.10 OF THE SPECIFICATIONS.

ITEM 442 - ASPHALT CONCRETE INTERMEDIATE COURSE, 19.0 MM, TYPE A (446), AS PER PLAN

ON THIS PROJECT SUPPLY A 19MM INTERMEDIATE COURSE MEETING THE REQUIREMENTS OF 442 EXCEPT AS MODIFIED BELOW.

MODIFY TABLE 442.02-2 AS FOLLOWS:

Sieve Size		9.5 mm mix	12.5 mm mix	19 mm mix
		Total Percent Passing		
1 1/2 inch	(37.5 mm)	–	–	100
3/4 inch	(19 mm)	–	100	95 to 100
1/2 inch	(12.5 mm)	100	95 to 100	90 to 100
3/8 inch	(9.5 mm)	90 to 100	96 max	96 max
No. 4	(4.75 mm)	70 max	52 to 65	60 max
No. 8	(2.36 mm)	34 to 52	34 to 45	34 to 45
No. 200	(75 µm)	2 to 8	2 to 8	2 to 8

MODIFY TABLE 442.02-3 AS FOLLOWS:
APPLY 14.0 FOR A VMA (PERCENT MINIMUM) FOR A 19MM MIX.

APPLY 5.3 PERCENT FOR THE MINIMUM TOTAL ASPHALT BINDER CONTENT FOR A 19MM MIX.

MODIFY THE 442 INTERMEDIATE COURSE REQUIREMENTS OF TABLES 401.04-1 AND 401.04-2 AS FOLLOWS:
APPLY 3.5 PERCENT FOR THE TOTAL VIRGIN ASPHALT BINDER CONTENT, MINIMUM.

USE A PG 64-22 IF USING 25 PERCENT OR LESS RAP. USE PG 64-28 IF USING GREATER THAN 25 PERCENT RAP.

ITEM 611 - CASTINGS ADJUSTED TO GRADE

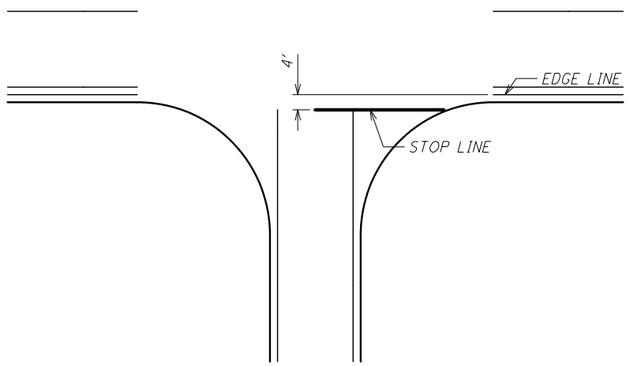
THE CASTING TO BE ADJUSTED MAY OR MAY NOT HAVE AN EXISTING FRAME. THE WORK SHALL CONSIST OF ADJUSTING THE EXISTING CASTING TO THE SATISFACTION OF THE ENGINEER. IT IS NOT INTENDED TO PLACE NEW FRAMES WHERE NONE CURRENTLY EXIST. THE CONTRACTOR IS REMINDED TO FIELD CHECK ALL ADJUSTMENT TO GRADE ITEMS PRIOR TO BIDDING, AS NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR LABOR AND MATERIALS REQUIRED TO SATISFACTORILY ADJUST CASTINGS WITHOUT FRAMES.

ITEM 611 - CATCH BASIN ADJUSTED TO GRADE
SR 2 EB, AT STRUCTURE 0459 R: 2 EACH
SR 2 EB, AT STRUCTURE 0646 R: 2 EACH
SR 2 EB, AT STRUCTURE 0742 R: 4 EACH
SR 2 EB, SR 58 DECEL. LANE: 1 EACH
SR 2 EB, SR 58 ACCEL. LANE: 1 EACH
SR 2 WB, AT STRUCTURE 0459 L: 2 EACH
SR 2 WB, AT STRUCTURE 0646 L: 2 EACH
SR 2 WB, AT STRUCTURE 0742 L: 4 EACH
TOTAL = 18 EACH

ITEM 611 - INLET ADJUSTED TO GRADE
OAK POINT ROAD RAMP W: 1 EACH
TOTAL = 1 EACH

ITEM 611 - MANHOLE ADJUSTED TO GRADE
SR 58 RAMP D: 1 EACH
SR 58 RAMP C: 1 EACH
TOTAL = 2 EACH

STOP BAR PLACEMENT



AT NORMAL STOP CONTROLLED INTERSECTIONS, THE STOP BAR SHOULD BE PLACED 4 FEET FROM THE EDGE LINE OF THE INTERSECTING ROADWAY IN ORDER TO ACHIEVE MAXIMUM INTERSECTION SIGHT DISTANCE.

ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

AFTER COMPLETION OF ALL WORK, BUT PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, AN OHIO PROFESSIONAL SURVEYOR SHALL DETERMINE THE MINIMUM VERTICAL CLEARANCES OF ALL EXISTING AND NEW BRIDGES WITHIN THE PROJECT LIMITS. AT A MINIMUM, MEASUREMENTS SHALL BE TAKEN ALONG EACH FASCIA BEAM AT THE EDGE OF SHOULDERS, EDGE LINES, LANE LINES, AND CROWN OF THE ROADWAY BELOW. THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM SHALL BE USED, WHERE APPLICABLE, TO DOCUMENT THE MEASUREMENTS. WHERE THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM IS NOT APPLICABLE, THE MEASUREMENTS SHALL BE DOCUMENTED ON A CONTRACTOR-DEVELOPED FORM THAT CLOSELY RESEMBLES THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM AND ACCURATELY DEPICTS THE BRIDGE AND BELOW LANE AND SHOULDER CONFIGURATION. THE COMPLETED FORM SHALL BEAR THE STAMP OR SEAL OF THE OHIO PROFESSIONAL SURVEYOR WHO HAS TAKEN THE MEASUREMENTS AND SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM CAN BE DOWNLOADED FROM THE FOLLOWING WEBSITE:

HTTP://WWW.DOT.STATE.OH.US/DISTRICTS/D12/HIGHWAYMANAGEMENT/PAGES/PERMITS.ASPX

CALCULATED KRB
CHECKED ACM

GENERAL NOTES

LOR-2-3.86

LOCATIONS OF GUARDRAIL

THE GUARDRAIL PROTECTION PROVIDED IN THIS PLAN SHALL BE LOCATED IN THE FIELD TO ASSURE THAT THE INSTALLATION WILL AFFORD THE MAXIMUM PROTECTION FOR TRAFFIC. THIS LOCATION SHALL BE POSITIONED AS FAR AS POSSIBLE FROM THE EDGE OF PAVEMENT WHILE MAINTAINING PROPER GRADE IN FRONT OF GUARDRAIL AS PER STANDARD DRAWINGS AND PLAN DETAILS.

ITEM 203 - EMBANKMENT, AS PER PLAN

AT SPECIFIED LOCATIONS AND LOCATIONS AS DIRECTED BY THE ENGINEER, EMBANKMENT SHALL BE PLACED AS TO PROVIDE A SUITABLE AREA TO CONSTRUCT GUARDRAIL AND TO PROVIDE STRUCTURAL INTEGRITY OF THE ROADWAY SHOULDER.

AREAS WHERE EMBANKMENT MATERIAL IS TO BE PLACED SHALL BE SCALPED. THE REQUIREMENTS FOR BENCHING SHALL BE WAIVED. THE DEPTH OF LAYERS IN WHICH THE EMBANKMENT IS PLACED SHALL BE LIMITED TO EIGHT (8) INCHES IN THICKNESS. THE METHOD OF COMPACTION AND EQUIPMENT USED SHALL BE PER C&MS 203.07 OR 98% MAXIMUM DRY DENSITY.

AFTER THE EMBANKMENT HAS BEEN PLACED, THE AREAS SHALL BE FERTILIZED, SEEDED, MULCHED, AND WATERED AS PER ITEM 659. THE COST SHALL BE INCLUDED IN THIS ITEM FOR PAYMENT.

THE METHOD OF MEASUREMENT FOR EMBANKMENT MATERIAL SHALL BE BY THE NUMBER OF CUBIC YARDS MEASURED BY LOOSE VOLUME IN THE CARRIER AT THE WORK SITE, IN LIEU OF THE REQUIREMENTS OF 203.09. PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT UNIT BID PRICE PER CUBIC YARD FOR ITEM 203 - EMBANKMENT, AS PER PLAN AND SHALL INCLUDE ALL WORK DESCRIBED ABOVE.

ITEM 209 - RESHAPING UNDER GUARDRAIL, AS PER PLAN

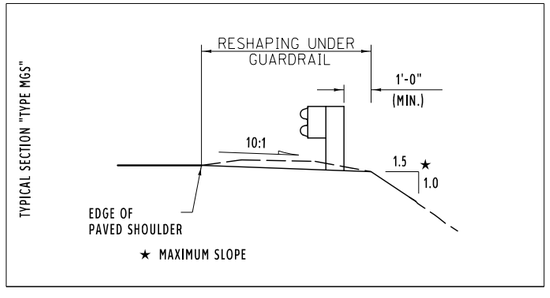
THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLANS.

THIS WORK SHALL BE COMPLETED AT LOCATIONS SPECIFIED FOR WORK AS WELL AS PER CMS 209.05 AND AS DESCRIBED HEREIN, AND SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER.

THE AREA IN FRONT OF, UNDER, AND BEHIND THE GUARDRAIL SHALL BE GRADED AND RESHAPED TO PROVIDE AN AREA THAT HAS A SLOPE OF 10:1 MAXIMUM (SEE DETAIL BELOW AS WELL AS THE GUARDRAIL DETAIL SHEETS FOR FURTHER DETAILS AND INFORMATION OF THE LIMITS OF THIS WORK). AFTER THE RESHAPING IS COMPLETED, THE AREAS SHALL BE FERTILIZIED, SEEDED, MULCHED, AND WATERED AS PER ITEM 659. THE COST SHALL BE INCLUDED IN THIS ITEM FOR PAYMENT.

EXCESS MATERIAL RESULTING SHALL BE USED ELSEWHERE FOR THIS ITEM IF SO DIRECTED OR DISPOSED OF PROPERLY. IF EXTRA MATERIAL IS REQUIRED IT SHALL BE PAID FOR WITH ITEM 203 - EMBANKMENT, AS PER PLAN. THIS WORK SHALL NOT BE STARTED UNTIL AFTER THE RESURFACING AND BERM WORK HAS BEEN COMPLETED.

THE ABOVE WORK SHALL BE PAID FOR PER STATION WITH ITEM 209, RESHAPING UNDER GUARDRAIL, AS PER PLAN WITH THE EXCEPTION OF ANY EXTRA MATERIAL REQUIRED TO MEET THE SLOPE REQUIREMENTS WHICH SHALL BE PAID BY ITEM 203 - EMBANKMENT, AS PER PLAN.



ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

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

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

THE CONTRACTOR MAY USE A SALVAGED EXTRUDER WHEN ASSEMBLING THE ITEM 606 ANCHOR ASSEMBLY, MGS TYPE E. ALL WELDS ON THE EXTERIOR OF THE SALVAGED EXTRUDER SHALL NOT BE DAMAGED AND THE FEEDER SHUTE SHALL NOT BE BENT.

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

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

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1

ITEM 606 - MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 WILL REQUIRE 15'-0½" LONG NESTED THRIE BEAM SECTIONS AT THE CONNECTION TO THE EXISTING BRIDGE PARAPETS. SEE SCD MGS-3.1 FOR ADDITIONAL DETAILS.

CALCULATED KRB
CHECKED ACM

GUARDRAIL NOTES

LOR-2-3.86

NOTIFICATIONS OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE LEAD TIME REQUIRED*
RAMP AND/OR ROAD CLOSURES	TWO WEEKS OR GREATER	21 CALENDAR DAYS
	12 HOURS TO TWO WEEKS	14 CALENDAR DAYS
	12 HOURS OR LESS	4 BUSINESS DAYS
LANE CLOSURES AND RESTRICTIONS	TWO WEEKS OR GREATER	14 CALENDAR DAYS
	LESS THAN TWO WEEKS	5 BUSINESS DAYS
START OF CONSTRUCTION AND TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

* - PRIOR TO CLOSURE DATE, UNLESS NOTED OTHERWISE

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

WORKING HOURS RESTRICTION

STATE ROUTE 2 IS A RESTRICTED LANE CLOSURE ROUTE DUE TO HIGH TRAFFIC VOLUME. DURING THE PROJECT DURATION, LANE CLOSURES SHALL BE PERMITTED AS LISTED ON THE ODOT PLCM WEB SITE AT http://plcm.dot.state.oh.us.

LANE CLOSURES ON SR 58 FOR THE STRUCTURE MAINTENANCE WORK ON STRUCTURES LOR-2-0742 L&R SHALL FOLLOW THE PERMITTED LANE CLOSURE RESTRICTIONS FOR SR 2.

RAMP WORK SHALL ONLY BE PERFORMED IN THE EVENINGS FROM 9 PM TO 6 AM. RAMP CLOSURES ARE PERMITTED.

THE ALLOWABLE LANE CLOSURE TIMES ARE TO INCLUDE ANY TIME NEEDED TO IMPLEMENT AND REMOVE ALL MAINTENANCE OF TRAFFIC MEASURES.

LANE CLOSURE DISINCENTIVE

A LANE CLOSURE IS DEFINED AS ANY RESTRICTION OF A LANE OF TRAFFIC INCLUDING, BUT NOT LIMITED TO, SET UP AND TEAR DOWN OF TRAFFIC CONTROL ZONES. THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE FEE IN THE AMOUNT OF $235 (FOR SR 2) AND $135 (FOR SR 58) PER MINUTE THAT LANES ARE CLOSED TO TRAFFIC DURING TIMES DESIGNATED AS "LANE CLOSURE NOT PERMITTED" AS STATED IN THESE PLANS AND ON THE ODOT PLCM WEB SITE AT http://plcm.dot.state.oh.us.

MAINTENANCE OF TRAFFIC FOR MARKING PAVEMENT REPAIRS

PROVIDE LANE CLOSURES AS PER THE MAINTENANCE OF TRAFFIC NOTES IN THESE PLANS A MINIMUM OF 24 HOURS PRIOR TO PERFORMING PAVEMENT REPAIRS TO ALLOW THE ENGINEER TO IDENTIFY AND MARK THE AREAS OF THE PAVEMENT IN NEED OF REPAIRS.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NEEDED TO PERFORM THE ABOVE LISTED WORK IS CONSIDERED INCIDENTAL TO MAINTAINING TRAFFIC ON THE PROJECT AND WILL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

BUTT JOINTS

DO NOT CUT BUTT JOINTS AND ALLOW THEM TO BE LEFT OPEN TO TRAFFIC. FILL THE BUTT JOINTS WITH A TEMPORARY ASPHALT CONCRETE WEDGE USING ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC IN ACCORDANCE WITH THE TAPER RATES SET FORTH IN SCD BP-3.1.

ERECT AND MAINTAIN CONSTRUCTION "BUMP" (W8-1-36) AND "ADVISORY SPEED" (W13-1-24) SIGNS DURING THE PERIOD THE BUTT JOINT IS LEFT OPEN. PAYMENT FOR THESE SIGNS WILL BE MADE UNDER THE LUMP SUM BID PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

ITEM 614 - MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

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

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING

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

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $235 (FOR SR 2) AND $135 (FOR SR 58) FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

ITEM 614 - MAINTAINING TRAFFIC: GENERAL

MAINTAIN ONE 11' LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES.

SUBMIT, IN WRITING, A SCHEDULE OF OPERATIONS TO THE ENGINEER AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT. PRIOR TO BEGINNING WORK, COORDINATE THE MAINTENANCE OF TRAFFIC OPERATIONS WITH THE LOCAL STATE HIGHWAY PATROL.

ITEM 614 - MAINTAINING TRAFFIC: GENERAL

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION WITH THE LATEST REVISIONS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

CONTRACTOR EQUIPMENT ACCESS AND WORK OPERATIONS

IN ADDITION TO THE REQUIREMENTS OF SECTION 614 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS THE FOLLOWING SHALL APPLY:

THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAVEL WHERE PRACTICAL.

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

ITEM 614 - MAINTAINING TRAFFIC LANE CLOSURE/REDUCTION REQUIRED

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

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 UNIT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

ITEM 614 - REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

THIS ITEM IS TO BE CONSIDERED INCIDENTAL TO MAINTAINING TRAFFIC ON THE PROJECT AND WILL BE PAID FOR UNDER THE LUMP SUM CONTRACT BID PRICE FOR ITEM 614 MAINTAINING TRAFFIC. IT SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

ITEM 614 - REPLACEMENT SIGN

FLAT SHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

THIS ITEM IS TO BE CONSIDERED INCIDENTAL TO MAINTAINING TRAFFIC ON THE PROJECT AND WILL BE PAID FOR UNDER THE LUMP SUM CONTRACT BID PRICE FOR ITEM 614 MAINTAINING TRAFFIC. IT SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED SIGNS, HARWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

ITEM 614 - MAINTAINING TRAFFIC (ESTIMATED QUANTITIES)

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR MAINTENANCE OF TRAFFIC. INCLUDE THE COST FOR THE REMOVAL OF ALL MAINTENANCE OF TRAFFIC MATERIALS IN THE CONTRACT BID PRICE FOR EACH ITEM BELOW. REMOVE THE MATERIALS AT THE DIRECTION OF THE ENGINEER WHEN NO LONGER OPERATIONALLY NEEDED.

ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
250 CU YD

RAMP WORK LIMITATIONS

RAMP WORK SHALL ONLY BE PERFORMED IN THE EVENINGS FROM 9 PM TO 6 AM. RAMP CLOSURES ARE PERMITTED. THE CONTRACTOR SHALL ONLY CLOSE ONE RAMP AT A TIME. A RAMP MAY BE CLOSED FOR ONE NIGHT, OPENED IN THE MORNING TO TRAFFIC WHILE MEETING THE DROP OFFS IN WORK ZONE REQUIREMENTS, AND THEN CLOSED AGAIN THE FOLLOWING NIGHT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE END OF THE WORK AREA AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

THE RAMPS ARE PERMITTED TO BE DETOURED AS FOLLOWS:

OAK POINT RD RAMPS
RAMP W: SR 2 EB TO SR 58 TO SR 2 WB
RAMP X: SR 2 EB TO SR 58 TO SR 2 WB TO OAK POINT RD
RAMP Y: SR 2 WB TO BAUMHART RD TO SR 2 EB TO OAK POINT RD
RAMP Z: SR 2 WB TO BAUMHART RD TO SR 2 EB

SR 58 RAMPS
RAMP C: SR 2 EB TO MIDDLE RIDGE RD TO SR 2 WB
RAMP D: SR 2 EB TO MIDDLE RIDGE RD TO SR 2 WB TO SR 58
RAMP E: SR 2 WB TO OAK POINT RD TO SR 2 EB TO SR 58
RAMP F: SR 2 WB TO OAK POINT RD TO SR 2 EB

THE FOLLOWING ESTIMATED QUANTITY BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER FOR THE RAMP CLOSURES:

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN
2 SIGN MONTHS

CALCULATED KRB CHECKED ACM

MAINTENANCE OF TRAFFIC NOTES

LOR-2-3.86

WORK ZONE SPEED ZONES (WZSZs)

THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISION(S) HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

WZSZ REVISION NUMBER	COUNTY, ROUTE, SECTION	DIRECTION
WZ-20614	LOR-2-3.86 TO 7.97	EB & WB

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF 55 MPH OR GREATER, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDIED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A WZSZ.

WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, APPROVED LIST, SUPPLEMENTAL SPECIFICATION (SS) 808 AND 908, AND TRAFFIC SCD MT-104.10.

ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES, AS DEFINED IN OMUTCD PART 6.

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRECONSTRUCTION, POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED, THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH) FOR WORK ZONES ON HIGH-SPEED (55 MPH OR GREATER) MULTI-LANE HIGHWAYS:

ORIGINAL POSTED SPEED LIMIT	WITH POSITIVE PROTECTION		WITHOUT POSITIVE PROTECTION	
	WORKERS PRESENT	WORKERS NOT PRESENT	WORKERS PRESENT	WORKERS NOT PRESENT
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 808, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY 25 SIGN MONTHS
ASSUMING 5 DSL SIGN ASSEMBLY(IES) FOR 5 MONTH(S) EACH.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

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 800 FEET AND 650 FEET, RESPECTIVELY.

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

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 SIGN MONTHS

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).
- ANY TIME TRAFFIC CONTROL FOR CONSTRUCTION ACTIVITIES IS NEEDED THROUGH AN ACTIVE SIGNALIZED INTERSECTION.

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.

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

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

CALCULATED KRB CHECKED ACM

MAINTENANCE OF TRAFFIC NOTES

LOR-2-3.86

ITEM 614 - WORKSITE TRAFFIC SUPERVISOR

SUBJECT TO APPROVAL OF THE ENGINEER, THE CONTRACTOR SHALL EMPLOY AND IDENTIFY (SOMEONE OTHER THAN THE SUPERINTENDENT) A PREQUALIFIED WORKSITE TRAFFIC SUPERVISOR (WTS) BEFORE STARTING WORK IN THE FIELD. THE WTS SHALL BE TRAINED IN ACCORDANCE WITH CMS 614.03, SHALL HAVE SUCCESSFULLY COMPLETED ODOT ADMINISTERED WTS TESTING (AND RE-TESTING WHEN APPLICABLE) AND BE LISTED ON THE ODOT PREQUALIFIED WTS ROSTER. PREQUALIFICATION EXPIRES EVERY 5 YEARS. RE-TESTING SHALL BE SUCCESSFULLY REPEATED EVERY 5 YEARS TO REMAIN PREQUALIFIED.

THE NAME OF THE PREQUALIFIED WTS AND RELATED 24-HOUR CONTACT INFORMATION SHALL BE PROVIDED TO THE ENGINEER AT THE PRECONSTRUCTION CONFERENCE. IF THE DESIGNATED WTS WILL NOT BE AVAILABLE FULL TIME (24/7), THE CONTRACTOR MAY DESIGNATE AN ALTERNATE (SECONDARY) WTS TO BE AVAILABLE WHEN THE PRIMARY IS OFF DUTY; HOWEVER THE PRIMARY WTS SHALL REMAIN THE POINT OF CONTACT AT ALL TIMES. ANY ALTERNATE (SECONDARY) WTS IS SUBJECT TO THE SAME TRAINING, PREQUALIFICATION AND OTHER REQUIREMENTS OUTLINED WITHIN THIS PLAN NOTE. AT ALL TIMES THE ENGINEER, OR ENGINEER'S REPRESENTATIVES, MUST BE INFORMED OF WHO THE PRIMARY WTS (AND SECONDARY WTS, IF APPLICABLE) IS AT THE CURRENT TIME.

THE WTS POSITION HAS THE PRIMARY RESPONSIBILITY OF IMPLEMENTING THE TRAFFIC MANAGEMENT PLAN (TMP), MONITORING THE SAFETY AND MOBILITY OF THE ENTIRE WORK ZONE, AND CORRECTING TEMPORARY TRAFFIC CONTROL (TTC) DEFICIENCIES FOR THE ENTIRE WORK ZONE. THE WTS, AND ALTERNATE WTS WHEN ON DUTY, SHALL HAVE SUFFICIENT AUTHORITY TO EFFECTIVELY CARRY OUT THE IDENTIFIED WTS RESPONSIBILITIES AND DUTIES. THE DUTIES OF THE WTS ARE AS FOLLOWS:

1. BE AVAILABLE ON A 24-HOUR PER DAY BASIS.

2. BE ON SITE FOR ALL EMERGENCY TTC NEEDS WITHIN ONE HOUR OF NOTIFICATION BY POLICE OR PROJECT STAFF, AND EFFECT CORRECTIVE MEASURES IMMEDIATELY ON EXISTING WORK ZONE TTC DEVICES.

3. ATTEND PRECONSTRUCTION MEETING AND ALL PROJECT MEETINGS WHERE TTC MANAGEMENT IS DISCUSSED.

4. BE AVAILABLE ON SITE FOR OTHER MEETINGS OR DISCUSSIONS WITH THE ENGINEER UPON REQUEST.

5. BE AWARE OF ALL EXISTING AND PROPOSED TTC OPERATIONS OF THE CONTRACTOR, SUBCONTRACTORS AND SUPPLIERS, AND ENSURE COORDINATION OCCURS BETWEEN THEM TO ELIMINATE CONFLICTING TEMPORARY AND/OR PERMANENT TRAFFIC CONTROL.

6. COORDINATE PROJECT ACTIVITIES WITH ALL LAW ENFORCEMENT OFFICERS (LEOS). THE WTS SHALL ALSO BE THE MAIN CONTACT PERSON WITH THE LEOS WHILE LEOS ARE ON THE PROJECT.

7. COORDINATE AND FACILITATE MEETINGS WITH ODOT PERSONNEL, LEOS AND OTHER APPLICABLE ENTITIES BEFORE EACH PLAN PHASE SWITCH TO DISCUSS THE WORK ZONE TTC FOR IMPLEMENTING THE PHASE SWITCH. SUBMIT A WRITTEN DETAIL OF MOT OPERATIONS AND SCHEDULE OF EVENTS TO IMPLEMENT THE SWITCH BETWEEN PHASE PLANS TO THE ENGINEER 5 CALENDAR DAYS PRIOR TO THIS MEETING.

8. BE PRESENT, ON SITE FOR, AND INVOLVED WITH, EACH TTC SET UP/TAKE DOWN AND EACH PHASE CHANGE IN ACCORDANCE WITH CMS 614.03.

9. ON A CONTINUAL BASIS ENSURE THAT THE TTC ZONE AND ALL RELATED DEVICES ARE INSTALLED, MAINTAINED AND REMOVED IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.

10. ON A CONTINUAL BASIS FACILITATE CORRECTIVE ACTION(S) NECESSARY TO BRING DEFICIENT TTC ZONES AND ALL RELATED DEVICES INTO COMPLIANCE WITH CONTRACT DOCUMENTS IN THE TIMEFRAME DETERMINED BY THE ENGINEER.

11. INSPECT, EVALUATE, PROPOSE NECESSARY MODIFICATIONS TO, AND DOCUMENT THE EFFECTIVENESS OF, THE TTC DEVICES AND TRAFFIC OPERATIONS ON A DAILY BASIS (7 DAYS A WEEK). IN ADDITION, PERFORM ONE WEEKLY NIGHT INSPECTION OF THE WORK ZONE SETUP FOR DAYTIME WORK OPERATIONS; AND ONE DAYTIME INSPECTION PER WEEK FOR NIGHTTIME PROJECTS. THIS SHALL INCLUDE (BUT NOT BE LIMITED TO) DOCUMENTATION ON THE FOLLOWING PROJECT EVENTS:

A. INITIAL TTC SETUP (DAY AND NIGHT REVIEW).
B. DAILY TTC SETUP AND REMOVAL.
C. WHEN CONSTRUCTION STAGING CAUSES A CHANGE IN THE TTC SETUP.
D. CRASH OCCURRENCES WITHIN THE CONSTRUCTION AREA AND WITHIN THE INFLUENCE AREA(S) APPROACHING THE WORK ZONE.
E. REMOVAL OF TTC DEVICES AT THE END OF A PHASE OR PROJECT.
F. ALL OTHER EMERGENCY TTC NEEDS.

ITEM 614 - WORKSITE TRAFFIC SUPERVISOR (CONTINUED)

12. COMPLETE THE DEPARTMENT APPROVED LONG TERM INSPECTION FORM (CA-D-8) AFTER EACH INSPECTION AS REQUIRED IN # 11 AND SUBMIT IT TO THE ENGINEER THE FOLLOWING WORKDAY. THESE REPORTS SHALL INCLUDE A CHECKLIST OF ALL TTC MAINTENANCE ITEMS TO BE REVIEWED. A COPY OF THE FORM WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING. ANY DEFICIENCIES OBSERVED SHALL BE NOTED, ALONG WITH RECOMMENDED OR COMPLETED CORRECTIVE ACTIONS AND THE DATES BY WHICH SUCH CORRECTIONS WERE, OR WILL BE, COMPLETED. A COPY OF THE CURRENT CA-D-8 DOCUMENT CAN BE FOUND ON THE OFFICE OF CONSTRUCTION ADMINISTRATION'S INSPECTION FORMS WEBSITE.

13. HAVE COPIES OF THE ODOT TEMPORARY TRAFFIC CONTROL MANUAL AND CONTRACT DOCUMENTS AVAILABLE AT ALL TIMES ON THE PROJECT.

THE DEPARTMENT WILL DEDUCT:

A. THE PRORATED DAILY AMOUNT OF ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY IN WHICH THE WTS FAILS TO PERFORM THE DUTIES SET FORTH ABOVE. THE PRORATED DAILY AMOUNT WILL BE EQUAL TO THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC DIVIDED BY THE DIFFERENCE BETWEEN THE ORIGINAL COMPLETION DATE AND THE FIRST DAY OF WORK, IN CALENDAR DAYS.

B. 1% OF THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY THAT A TTC ISSUE IS IDENTIFIED IN THE FIELD AND IS NOT CORRECTED IN THE GIVEN TIMEFRAME PER THE ENGINEER. DEDUCTION B SHALL NOT APPLY TO SITUATIONS COVERED BY DEDUCTION C.

C. 1% OF THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY THAT A LANE OR RAMP IS BLOCKED (FULLY OR PARTIALLY) WITHOUT TTC, AS DETERMINED BY THE ENGINEER. THIS DEDUCTION SHALL BE IN ADDITION TO ANY OTHER DISINCENTIVES ESTABLISHED FOR UNAUTHORIZED LANE USE.

FOR DAYS IN WHICH MORE THAN ONE DEDUCTION LISTED ABOVE OCCUR, THE HIGHEST DEDUCTION AMOUNT WILL APPLY.

IF THREE OR MORE TOTAL DAYS RESULT IN TTC ISSUES DESCRIBED IN DEDUCTION B OR C ABOVE, THE PRIMARY WTS SHALL BE IMMEDIATELY REMOVED FROM THE WORK IN ACCORDANCE WITH C&MS 108.05. UPON REMOVAL THE ENGINEER SHALL NOTIFY ODOT CENTRAL OFFICE (WTSPREQUALIFICATION@DOT.OHIO.GOV) TO REGISTER A REMOVAL AGAINST THE STATEWIDE PREQUALIFICATION FOR THE PRIMARY WTS. THREE REMOVALS SHALL CAUSE STATEWIDE DISQUALIFICATION FOR ANY PREVIOUSLY PREQUALIFIED WTS.

PAYMENT FOR THE ABOVE REQUIREMENTS, RESPONSIBILITIES AND DUTIES SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

INTERIM COMPLETION DATE (FOR FULL DEPTH RIGID REPAIRS EAST OF OAK POINT RD)

THE CONTRACTOR SHALL PERFORM ALL FULL-DEPTH CONCRETE JOINT REPAIRS EAST OF THE OAK POINT/LAKE RD INTERCHANGE PRIOR TO NOVEMBER 23, 2020. THIS DATE SHALL CONSTITUTE AN INTERIM COMPLETION DATE ON THE PROJECT. IF ALL FULL-DEPTH CONCRETE JOINT REPAIRS EAST OF OAK POINT/LAKE RD ARE NOT COMPLETED BY NOVEMBER 23, 2020, A DISINCENTIVE OF $1,000 PER DAY SHALL BE ASSESSED FOR EACH DAY AFTER NOVEMBER 23, 2020 THAT FULL-DEPTH CONCRETE JOINT REPAIRS ARE NOT COMPLETE. BECAUSE THE CONCRETE JOINT REPAIRS REQUIRE CURE TIME TO ACHIEVE STRENGTH PRIOR TO OPENING THE REPAIRS TO TRAFFIC, THE LANE CLOSURE SCHEDULE BELOW CAN BE USED FOR CONCRETE JOINT REPAIR WORK PERFORMED IN 2020 ONLY.

LOCATION	DIRECTION	ALLOWABLE LANE CLOSURE TIMES	
		WEEKNIGHT	WEEKEND
OAK POINT TO SR 58	EASTBOUND	4 PM - 7 AM	4 PM FRIDAY - 7 AM MONDAY
	WESTBOUND	7 PM - 3 PM	7 PM FRIDAY - 3 PM MONDAY
SR 58 TO MIDDLE RIDGE	EASTBOUND	6 PM - 6 AM	6 PM FRIDAY - 6 AM MONDAY
	WESTBOUND	7 PM - 2 PM	7 PM FRIDAY - 2 PM MONDAY

HOURLY DISINCENTIVES FOR LANE CLOSURE VIOLATIONS OF $235 PER MINUTE SHALL BE ASSESSED FOR EACH MINUTE ALL LANES ARE NOT OPEN TO TRAFFIC. THE ABOVE SCHEDULE ALSO APPLIES TO RAMP CLOSURE AND DETOUR TIMES FOR CONCRETE JOINT REPAIR WORK. JOINT REPAIRS MAY BE PERFORMED USING QC MS (OPTION A) OR RRCM (OPTION B) CONCRETE, BUT IN EITHER CASE, ADEQUATE STRENGTH AND/OR CURE TIME SHALL BE ACHIEVED PER THE REQUIREMENTS OF THE CMS PRIOR TO OPENING A CLOSED LANE TO TRAFFIC.

APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION

PORTIONS OF THE MOT PLANS AS DESCRIBED BELOW HAVE BEEN APPROVED BY THE MOT EXCEPTION COMMITTEE (MOTEC) PER TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

APPROVED MOT EXCEPTION(S) INCLUDE:
ALLOWABLE LANE CLOSURE TIMES AS DETAILED IN THE INTERIM COMPLETION DATE (FOR FULL DEPTH RIGID REPAIRS EAST OF OAK POINT RD) PLAN NOTE ON THIS SHEET.

A MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD A MINIMUM OF 7 CALENDAR DAYS PRIOR TO IMPLEMENTATION OF EACH APPROVED MOT EXCEPTION. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER AS WELL AS THE CONTRACTOR, WORKSITE TRAFFIC SUPERVISOR (WTS) AND ANY SUBCONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL.

IN ADDITION TO ANY NOTIFICATIONS REQUIRED IN OTHER NOTES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 3 BUSINESS DAYS IN ADVANCE OF IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE SO THAT THE PROJECT ENGINEER CAN SEND EMAIL NOTIFICATION TO THE OFFICE OF ROADWAY ENGINEERING, STATEWIDE TMC, DWZTM AND SPECIAL HAULING PERMITS AT LEAST 2 BUSINESS DAYS IN ADVANCE OF THE IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE. REFERENCE "EXCEPTION REQUEST APPROVAL DATED 08/27/2020 FOR PID 77537" IN THE NOTIFICATION AND OTHER CORRESPONDENCE.

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTION(S) LISTED ABOVE SHALL BE APPROVED IN WRITING BY THE APPLICABLE ODOT CENTRAL OFFICE COMMITTEE (MOTEC). IN THE EVENT THAT SUCH CHANGES ARE PROPOSED, THE REQUEST SHALL BE COORDINATED THROUGH THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE DESIRED IMPLEMENTATION DATE. IF THE DISTRICT AGREES WITH THE PROPOSED CHANGES THE DWZTM SHALL SEEK APPROVAL FROM THE APPLICABLE ODOT CENTRAL OFFICE COMMITTEE. IN THE EVENT THE PROPOSED CHANGES ARE APPROVED IN WRITING, THE CLOSURES ARE STILL SUBJECT TO NOTIFICATION REQUIREMENTS WITHIN THIS NOTE PRIOR TO IMPLEMENTATION.

WORK ZONE QUEUE DETECTION WARNING SYSTEM

IF THE CONTRACTOR ELECTS TO USE CLASS QC MS (OPTION A) FOR THE FULL DEPTH RIGID REPAIRS WITH A WEEKEND CLOSURE, THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN AN APPROVED WORK ZONE QUEUE DETECTION WARNING SYSTEM (WZQDWS) AS PER SUPPLEMENTAL SPECIFICATION 896.

IT IS EXPECTED THAT THE LOCATIONS OF THE WZQDWS DEVICES WILL VARY BASED ON PLANNED OR UNPLANNED PHASE AND TRAFFIC PATTERN CHANGES. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE DEVICES BY THE CONTRACTOR SHALL BE DIRECTED BY THE ENGINEER.

THE FOLLOWING TRAFFIC SENSOR THRESHOLDS AND PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) MESSAGES SHALL BE USED:

GREATER THAN OR EQUAL TO 50 MPH - USE FOUR CORNER FLASHING CAUTION MODE

BETWEEN 50 MPH AND 25 MPH - TRAFFIC AHEAD XX MPH / SLOW DOWN

BELOW OR EQUAL TO 25 MPH - TRAFFIC AHEAD XX MPH / PREPARE TO STOP

FOUR CORNER FLASHING CAUTION MODE SHALL CONSIST OF THE USE OF ONE ASTERISK IN EACH CORNER OF THE PCMS DISPLAY (4 TOTAL ASTERISKS).

XX SHALL BE ROUNDED UP TO THE NEAREST MULTIPLE OF 5 MPH MINUS 1. OCCUPANCY MAY BE DIRECTED TO BE USED BASED ON CERTAIN TRAFFIC CONDITIONS AND SCENARIOS. ODOT WILL DIRECT THE CONTRACTOR OF THE THRESHOLDS TO BE USED FOR THOSE AREAS WHERE OCCUPANCY IS DIRECTED TO BE USED.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR PAVEMENT OPTION A: QC MS FULL DEPTH REPAIRS:

ITEM 896 - PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS II
10 SIGN MONTHS (ASSUMING 5 SENSORS PER DIRECTION FOR 1 MONTH)

ITEM 896 - PORTABLE CHANGEABLE MESSAGE SIGN
4 SIGN MONTHS (ASSUMING 2 PCMS SIGNS PER DIRECTION FOR 1 MONTH)

CALCULATED KRB CHECKED ACM

MAINTENANCE OF TRAFFIC NOTES

LOR-2-3.86

SHEET NUM.												PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7	8	10	11	12	16	17	19	20	30	31	32	01/NHS/PV	02/NHS/BR	03/SAF/OT						
																			ROADWAY	
								12,556				12,556			202	38000	12,556	FT	GUARDRAIL REMOVED	
								1,531				1,531			202	38300	1,531	FT	GUARDRAIL REMOVED, BARRIER DESIGN	
								16				16			202	42010	16	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
								20				20			202	42040	20	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
								21				21			202	47000	21	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
								11				11			202	47800	11	EACH	IMPACT ATTENUATOR REMOVED	
								220				220			203	20001	220	CY	EMBANKMENT, AS PER PLAN	9
								154.95				154.95			209	15001	154.95	STA	RESHAPING UNDER GUARDRAIL, AS PER PLAN	9
					9.48	9.39						18.87			209	60500	18.87	MILE	LINEAR GRADING	
								12,556				12,556			606	15050	12,556	FT	GUARDRAIL, TYPE MGS	
								1,531				1,531			606	15550	1,531	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS	
								16				16			606	26150	16	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
								20				20			606	26550	20	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
								14				14			606	35002	14	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
								7				7			606	35102	7	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
								10				10			606	60012	10	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	
								1				1			606	60028	1	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) (65 MPH/24" WIDE)	
																			EROSION CONTROL	
												1,000			832	30000	1,000	EACH	EROSION CONTROL	
																			DRAINAGE	
	18											18			611	98630	18	EACH	CATCH BASIN ADJUSTED TO GRADE	
	1											1			611	99150	1	EACH	INLET ADJUSTED TO GRADE	
	2											2			611	99654	2	EACH	MANHOLE ADJUSTED TO GRADE	
																			PAVEMENT	
325							517					842			251	01042	842	CY	PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) (LONGITUDINAL)	
100							250					350			251	01042	350	CY	PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) (TRANSVERSE)	
100												100			253	02000	100	CY	PAVEMENT REPAIR	
					100,483	100,353						200,836			254	01000	200,836	SY	PAVEMENT PLANING, ASPHALT CONCRETE (2")	
					2,997	3,044						6,041			254	01000	6,041	SY	PAVEMENT PLANING, ASPHALT CONCRETE (TAPER 2" TO 3.25")	
					2,572	2,422						4,994			254	01000	4,994	SY	PAVEMENT PLANING, ASPHALT CONCRETE (3.25")	
					530	529						1,059			254	01600	1,059	SY	PATCHING PLANED SURFACE	
600							5,640					6,240			255	20000	6,240	FT	FULL DEPTH PAVEMENT SAWING	
					13,789	13,759						27,548			407	20000	27,548	GAL	NON-TRACKING TACK COAT	
					4,449	4,410						8,859			408	10001	8,859	GAL	PRIME COAT, AS PER PLAN	8
					6,630	6,618						13,248			442	00100	13,248	CY	ANTI-SEGREGATION EQUIPMENT	
					5,157	5,146						10,303			442	10101	10,303	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), AS PER PLAN (PG 64-28)	8
					4,416	4,404						8,820			442	10300	8,820	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) (PG 70-22)	
					614	610						1,224			617	10100	1,224	CY	COMPACTED AGGREGATE	
					11,114	11,015						22,129			617	20000	22,129	SY	SHOULDER PREPARATION	
					7.99	7.99						15.98			618	40600	15.98	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
																			PAVEMENT OPTION A: QC MS FULL DEPTH REPAIRS	
160							1,504					1,664			255	10161	1,664	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN	7
				10								10			896	00012	10	SNMT	PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS II	
				4								4			896	00020	4	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN	
																			PAVEMENT OPTION B: RRCM FULL DEPTH REPAIRS	
160							1,504					1,664			255	10501	1,664	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS RRCM, AS PER PLAN	7
																			TRAFFIC CONTROL	
										709		709			621	00100	709	EACH	RPM	
										16		16			621	00300	16	EACH	RPM REFLECTOR	
										709		709			621	54000	709	EACH	RAISED PAVEMENT MARKER REMOVED	
								201				201			626	00110	201	EACH	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	
									240			240			644	00500	240	FT	STOP LINE	
									683			683			644	00600	683	FT	CROSSWALK LINE	
									1,250			1,250			644	00700	1,250	FT	TRANSVERSE/DIAGONAL LINE	
									21			21			644	01300	21	EACH	LANE ARROW	
									0.56					0.56	807	12010	0.56	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"	
									0.28					0.28	807	12110	0.28	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	
									19.64					19.64	807	14010	19.64	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	

CALCULATED KRB
CHECKED ACM

GENERAL SUMMARY

LOR-2-3.86

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3.7

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SHEET NUM.													PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7	8	10	11	16	17	19	20	30	31	32	33		01/NHS/PV	02/NHS/BR	03/SAF/OT						
								8.37							8.37	807	14110	8.37	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	
								3,870							3,870	807	14310	3,870	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"	
								3,450							3,450	807	14410	3,450	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	
								28.01							28.01	850	10010	28.01	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
								3,450							3,450	850	10110	3,450	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
								3,870							3,870	850	10130	3,870	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	
								0.84							0.84	850	20010	0.84	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
																				TRAFFIC SIGNALS	
										7			7			632	26501	7	EACH	DETECTOR LOOP, AS PER PLAN	32
																				STRUCTURE REPAIR (LOR-2-0459 L)	
											94			94		202	98200	94	FT	REMOVAL MISC.: JOINT SEALER	34
											94			94		409	30000	94	FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS	
											414			414		512	10100	414	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
											1,483			1,483		512	73500	1,483	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
											414			414		512	74000	414	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
											1,062			1,062		512	74500	1,062	FT	REMOVAL OF EXISTING PAVEMENT MARKING	
											94			94		516	31000	94	FT	JOINT SEALER	
											2			2		SPECIAL	51912510	2	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B OR C	34
																				STRUCTURE REPAIR (LOR-2-0459 R)	
											94			94		202	98200	94	FT	REMOVAL MISC.: JOINT SEALER	34
											94			94		409	30000	94	FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS	
											409			409		512	10100	409	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
											1,465			1,465		512	73500	1,465	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
											409			409		512	74000	409	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
											1,050			1,050		512	74500	1,050	FT	REMOVAL OF EXISTING PAVEMENT MARKING	
											94			94		516	31000	94	FT	JOINT SEALER	
											1			1		SPECIAL	51912510	1	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B OR C	34
																				STRUCTURE REPAIR (LOR-2-0646 L)	
											80			80		202	98200	80	FT	REMOVAL MISC.: JOINT SEALER	34
											76			76		409	30000	76	FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS	
											206			206		512	10100	206	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
											659			659		512	73500	659	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
											206			206		512	74000	206	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
											468			468		512	74500	468	FT	REMOVAL OF EXISTING PAVEMENT MARKING	
											80			80		516	31000	80	FT	JOINT SEALER	
											130			130		519	11100	130	SF	PATCHING CONCRETE STRUCTURE	
											1			1		SPECIAL	51912510	1	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B OR C	34
																				STRUCTURE REPAIR (LOR-2-0646 R)	
											10			10		202	32000	10	FT	CURB REMOVED	
											80			80		202	98200	80	FT	REMOVAL MISC.: JOINT SEALER	34
											76			76		409	30000	76	FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS	
											206			206		512	10100	206	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
											659			659		512	73500	659	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
											206			206		512	74000	206	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
											468			468		512	74500	468	FT	REMOVAL OF EXISTING PAVEMENT MARKING	
											80			80		516	31000	80	FT	JOINT SEALER	
											110			110		519	11100	110	SF	PATCHING CONCRETE STRUCTURE	
											1			1		SPECIAL	51912510	1	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B OR C	34
											10			10		609	14000	10	FT	CURB, TYPE 2-A	
																				STRUCTURE REPAIR (LOR-2-0742 L)	
											78			78		202	98200	78	FT	REMOVAL MISC.: JOINT SEALER	34
											78			78		409	30000	78	FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS	
											342			342		512	10100	342	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
											954			954		512	73500	954	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
											179			179		512	74000	179	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
											684			684		512	74500	684	FT	REMOVAL OF EXISTING PAVEMENT MARKING	
											78			78		516	31000	78	FT	JOINT SEALER	
											5			5		SPECIAL	51912510	5	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B OR C	34

CALCULATED KRB
CHECKED ACM

GENERAL SUMMARY

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1.4
3.7

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SHEET NUM.													PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7	8	10	11	16	17	19	20	30	31	32	33		01/NHS/PV	02/NHS/BR	03/SAF/OT						
																				STRUCTURE REPAIR (LOR-2-0742 R)	
											78			78		202	98200	78	FT	REMOVAL MISC.: JOINT SEALER	34
											78			78		409	30000	78	FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS	
											341			341		512	10100	341	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
											954			954		512	73500	954	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
											341			341		512	74000	341	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
											684			684		512	74500	684	FT	REMOVAL OF EXISTING PAVEMENT MARKING	
											78			78		516	31000	78	FT	JOINT SEALER	
											8			8		SPECIAL	51912510	8	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B OR C	34
																				MAINTENANCE OF TRAFFIC	
			600										600			614	11110	600	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		250											250			614	13000	250	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
		2	10										12			614	18601	12	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	11
								25.94					25.94			614	20560	25.94	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
								60.58					60.58			614	22360	60.58	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
								11,610					11,610			614	23690	11,610	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
								3,750					3,750			614	25620	3,750	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS III, 642 PAINT	
								720					720			614	26610	720	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
								63					63			614	30650	63	EACH	WORK ZONE ARROW, CLASS III, 642 PAINT	
			25										25			808	18700	25	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
																				INCIDENTALS	
													LS	LS	LS	614	11000	LS		MAINTAINING TRAFFIC	
													4	1		619	16010	5	MNTH	FIELD OFFICE, TYPE B	
													LS	LS	LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LS			623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	8
													LS	LS	LS	624	10000	LS		MOBILIZATION	

CALCULATED KRB
CHECKED ACM

GENERAL SUMMARY

LOR-2-3.86

COUNTY	ROUTE	DIRECTION	LOG POINT TO LOG POINT		LENGTH		WIDTH		PAVEMENT	254				407	407	442	442	442	618		AGGREGATE SHOULDER PROPOSED WIDTH		AGGREGATE SHOULDER	209	408	617	617
					MILE	FEET	FEET		AREA	PAVEMENT PLANING, ASPHALT CONCRETE (2")	PAVEMENT PLANING, ASPHALT CONCRETE (TAPER 2" TO 3.25")	PAVEMENT PLANING, ASPHALT CONCRETE (3.25")	PATCHING PLANED SURFACE	NON-TRACKING TACK COAT @ 0.08 GAL/SY	NON-TRACKING TACK COAT @ 0.05 GAL/SY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) (1.5")	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), AS PER PLAN (1.75")	ANTI-SEGREGATION EQUIPMENT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)		SL	SR	AREA	LINEAR GRADING	PRIME COAT, AS PER PLAN @ 0.40 GAL/SY	COMPACTED AGGREGATE 2 INCHES AVG. THICKNESS	SHOULDER PREPARATION
			STATION				AVG.		SY	SY	SY	SY	SY	GAL	GAL	CY	CY	CY	MILE		FT	FT	SY	MILE	GAL	CY	SY
LOR	2	EB	203+75	204+25	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22
LOR	2	EB	204+25	241+14	0.70	3689	36.0		14,756	14,756			74	1,180	738	615	717	888	1.40		2.0	2.0	1,640	1.40	656	91	1,640
LOR	2	EB	241+14	241+64	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22
STRUCTURE: LOR-2-0459 R			241+64	245+16	0.07	352																					
LOR	2	EB	245+16	245+66	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22
LOR	2	EB	245+66	308+27	1.19	6261	36.0		25,044	25,044			125	2,004	1,252	1,044	1,217	1507	2.37		2.0	2.0	2,783	2.37	1,113	155	2,783
LOR	2	EB	308+27	308+77	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22
PAVING UNDER STRUCT. LOR-2-0586			308+77	310+35	0.03	158	36.0		632			632	3	51	32	26	31	38	0.06		2.0	2.0	70	0.06	28	4	70
LOR	2	EB	310+35	310+85	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22
LOR	2	EB	310+85	340+19	0.56	2934	36.0		11,736	11,736			59	939	587	489	571	706	1.11		2.0	2.0	1,304	1.11	522	72	1,304
LOR	2	EB	340+19	340+69	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22
STRUCTURE LOR-2-0646 R			340+69	342+24	0.03	155																					
LOR	2	EB	342+24	342+43	0.00	19	36.0		76			76	0	6	4	3	4	5	0.01		2.0	2.0	8	0.01	3	0	8
PAVING UNDER STRUCT. LOR-2-0649			342+43	343+91	0.03	148	36.0		592			592	3	47	30	25	29	36	0.06		2.0	2.0	66	0.06	26	4	66
LOR	2	EB	343+91	344+41	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22
LOR	2	EB	344+41	367+81	0.44	2340	36.0		9,360	9,360			47	749	468	390	455	563	0.89		2.0	2.0	1,040	0.89	416	58	1,040
LOR	2	EB	367+81	368+31	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22
PAVING UNDER STRUCT. LOR-2-0699			368+31	369+76	0.03	145	36.0		580			580	3	46	29	24	28	35	0.05		2.0	2.0	64	0.05	26	4	64
LOR	2	EB	369+76	370+26	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22
LOR	2	EB	370+26	391+06	0.39	2080	36.0		8,320	8,320			42	666	416	347	404	501	0.79		2.0	2.0	924	0.79	370	51	924
LOR	2	EB	391+06	391+56	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22
STRUCTURE LOR-2-0742 R			391+56	393+84	0.04	228																					
LOR	2	EB	393+84	394+34	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22
LOR	2	EB	394+34	421+50	0.51	2716	36.0		10,864	10,864			54	869	543	453	528	654	1.03		2.0	2.0	1,207	1.03	483	67	1,207
LOR	2	EB	421+50	422+00	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22
DECEL. LANE TO OAK POINT ROAD						800	16.3		1,449	1,449			7	116	72	60	70	131									
OAK POINT ROAD RAMP X						955	26.7		2,833	2,685	148		14	227	142	118	138	192			2.0	2.0	424	0.36	170	24	424
OAK POINT ROAD RAMP X (CURBED)						60	50.0		333			333	2	27	17	14	16	14									
OAK POINT ROAD RAMP Z						870	25.5		2,465	2,323	142		12	197	123	103	120	140			2.0	2.0	387	0.33	155	21	387
OAK POINT ROAD RAMP Z (CURBED)						95	34.0		359			359	2	29	18	15	17	15									
ACCEL. LANE FROM OAK POINT ROAD						1500	17.3		2,883	2,883			14	231	144	120	140	260									
DECEL. LANE TO S.R. 58						900	15.0		1,500	1,500			8	120	75	63	73	135									
S.R. 58 RAMP D						950	29.3		3,093	2,930	163		15	247	155	129	150	191			2.0	2.0	422	0.36	169	23	422
S.R. 58 RAMP F						1150	25.9		3,309	3,165	144		17	265	165	138	161	185			2.0	2.0	511	0.44	204	28	511
ACCEL. LANE FROM S.R. 58						1600	18.1		3,218	3,218			16	257	161	134	156	290									
EXTRA AREA FOR MEDIAN CROSSOVERS									250	250			1	20	13	10	12										
TOTALS (LOR-2 EASTBOUND)					4.13	21825			106,052	100,483	2,997	2,572	530	8,485	5,304	4,416	5,157	6,630	7.99				11,114	9.48	4,449	614	11,114

CALCULATED KRB CHECKED ACM

PAVEMENT & SHOULDER DATA (LOR-2 EB)

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COUNTY	ROUTE	DIRECTION	LOG POINT TO LOG POINT		LENGTH		WIDTH		PAVEMENT	254				407	407	442	442	442	618		AGGREGATE SHOULDER PROPOSED WIDTH		AGGREGATE SHOULDER	209	408	617	617	
					MILE	FEET	FEET		AREA	PAVEMENT PLANING, ASPHALT CONCRETE (2")	PAVEMENT PLANING, ASPHALT CONCRETE (TAPER 2" TO 3.25")	PAVEMENT PLANING, ASPHALT CONCRETE (3.25")	PATCHING PLANED SURFACE	NON-TRACKING TACK COAT @ 0.08 GAL/SY	NON-TRACKING TACK COAT @ 0.05 GAL/SY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) (1.5")	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), AS PER PLAN (1.75")	ANTI-SEGREGATION EQUIPMENT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)		SL	SR	AREA	LINEAR GRADING	PRIME COAT, AS PER PLAN @ 0.40 GAL/SY	COMPACTED AGGREGATE 2 INCHES AVG. THICKNESS	SHOULDER PREPARATION	
			STATION				AVG.		SY	SY	SY	SY	SY	GAL	GAL	CY	CY	CY	MILE		FT	FT	SY	MILE	GAL	CY	SY	
LOR	2	WB	203+75	204+25	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22	
LOR	2	WB	204+25	241+14	0.70	3689	36.0		14,756	14,756			74	1,180	738	615	717	888	1.40		2.0	2.0	1,640	1.40	656	91	1,640	
LOR	2	WB	241+14	241+64	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22	
STRUCTURE: LOR-2-0459 L			241+64	245+16	0.07	352																						
LOR	2	WB	245+16	245+66	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22	
LOR	2	WB	245+66	308+27	1.19	6261	36.0		25,044	25,044			125	2,004	1,252	1,044	1,217	1507	2.37		2.0	2.0	2,783	2.37	1,113	155	2,783	
LOR	2	WB	308+27	308+77	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22	
PAVING UNDER STRUCT. LOR-2-0586			308+77	310+35	0.03	158	36.0		632			632	3	51	32	26	31	38	0.06		2.0	2.0	70	0.06	28	4	70	
LOR	2	WB	310+35	310+85	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22	
LOR	2	WB	310+85	340+19	0.56	2934	36.0		11,736	11,736			59	939	587	489	571	706	1.11		2.0	2.0	1,304	1.11	522	72	1,304	
LOR	2	WB	340+19	340+69	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22	
STRUCTURE LOR-2-0646 L			340+69	342+24	0.03	155																						
LOR	2	WB	342+24	342+43	0.00	19	36.0		76			76	0	6	4	3	4	5	0.01		2.0	2.0	8	0.01	3	0	8	
PAVING UNDER STRUCT. LOR-2-0649			342+43	343+91	0.03	148	36.0		592			592	3	47	30	25	29	36	0.06		2.0	2.0	66	0.06	26	4	66	
LOR	2	WB	343+91	344+41	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22	
LOR	2	WB	344+41	367+81	0.44	2340	36.0		9,360	9,360			47	749	468	390	455	563	0.89		2.0	2.0	1,040	0.89	416	58	1,040	
LOR	2	WB	367+81	368+31	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22	
PAVING UNDER STRUCT. LOR-2-0699			368+31	369+76	0.03	145	36.0		580			580	3	46	29	24	28	35	0.05		2.0	2.0	64	0.05	26	4	64	
LOR	2	WB	369+76	370+26	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22	
LOR	2	WB	370+26	391+06	0.39	2080	36.0		8,320	8,320			42	666	416	347	404	501	0.79		2.0	2.0	924	0.79	370	51	924	
LOR	2	WB	391+06	391+56	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22	
STRUCTURE LOR-2-0742 L			391+56	393+84	0.04	228																						
LOR	2	WB	393+84	394+34	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22	
LOR	2	WB	394+34	421+50	0.51	2716	36.0		10,864	10,864			54	869	543	453	528	654	1.03		2.0	2.0	1,207	1.03	483	67	1,207	
LOR	2	WB	421+50	422+00	0.01	50	36.0		200		200		1	16	10	8	10	12	0.02		2.0	2.0	22	0.02	9	1	22	
ACCEL. LANE FROM OAK POINT ROAD						1500	17.7		2,950	2,950			15	236	148	123	143	266										
OAK POINT ROAD RAMP W						875	27.2		2,644	2,493	151		13	212	132	110	129	140			2.0	2.0	389	0.33	156	22	389	
OAK POINT ROAD RAMP W (CURBED)						100	33.0		367			367	2	29	18	15	18	16										
OAK POINT ROAD RAMP Y						1005	27.6		3,082	2,929	153		15	247	154	128	150	202			2.0	2.0	447	0.38	179	25	447	
OAK POINT ROAD RAMP Y (CURBED)						45	35.0		175			175	1	14	9	7	9	11										
DECEL. LANE TO OAK POINT ROAD						830	15.7		1,448	1,448			7	116	72	60	70	131										
ACCEL. LANE FROM S.R. 58						1500	16.7		2,783	2,783			14	223	139	116	135	251										
S.R. 58 RAMP C						900	26.0		2,600	2,456	144		13	208	130	108	126	144			2.0	2.0	400	0.34	160	22	400	
S.R. 58 RAMP E						920	35.3		3,608	3,412	196		18	289	180	150	175	240			2.0	2.0	409	0.35	164	23	409	
DECEL. LANE TO S.R. 58						925	15.1		1,552	1,552			8	124	78	65	75	140										
EXTRA AREA FOR MEDIAN CROSSOVERS									250	250			1	20	13	10	12											
	TOTALS (LOR-2 WESTBOUND)				4.13	21825			105,819	100,353	3,044	2,422	529	8,467	5,292	4,404	5,146	6,618	7.99				11,015	9.39	4,410	610	11,015	

CALCULATED KRB CHECKED ACM

PAVEMENT & SHOULDER DATA (LOR-2 WB)

LOR-2-3.86

17/37

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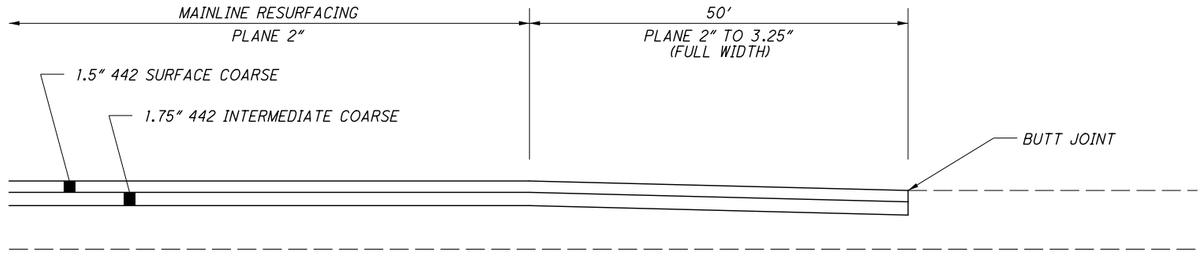
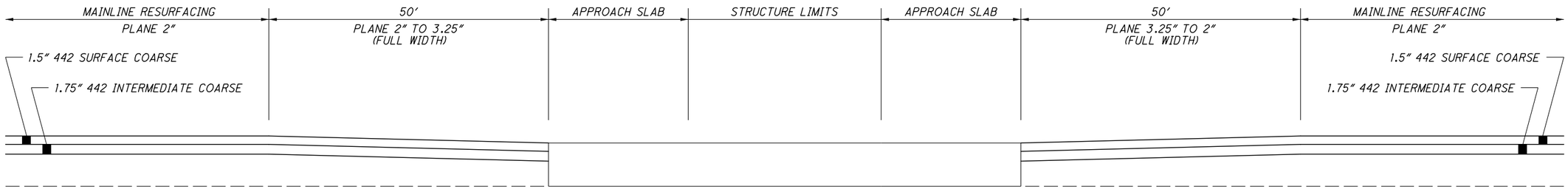
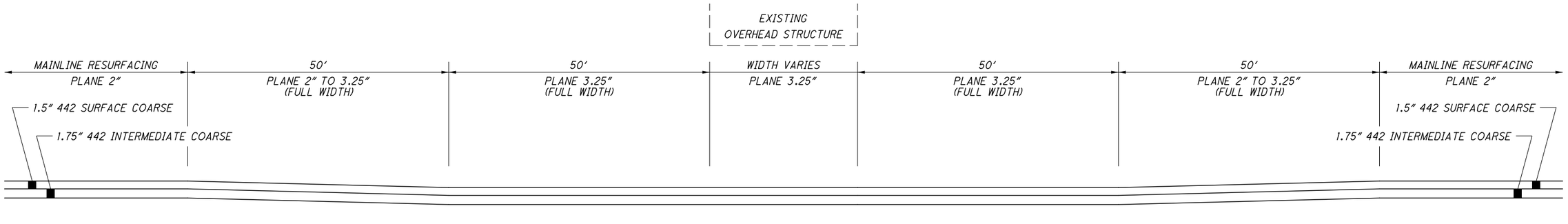


TRANSITIONING RESURFACING TO EXISTING PAVEMENT ON MAINLINE



TRANSITIONING RESURFACING TO MAINLINE STRUCTURES



TRANSITIONING RESURFACING TO MAINLINE PAVEMENT UNDER OVERHEAD STRUCTURES

CALCULATED KRB
CHECKED ACM

PAVEMENT TRANSITION DETAILS

LOR-2-3.86

LOR-2 EASTBOUND PAVEMENT REPAIRS

SLM		LANE	WIDTH	LENGTH	INDIVIDUAL REPAIR AREA	TYPE OF REPAIR	DEPTH	NUMBER OF REPAIRS	251 PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) (LONGITUDINAL)	251 PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) (TRANSVERSE)	255 FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN (15" CONCRETE) (OPTION A)	255 FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS RRCM, AS PER PLAN (15" CONCRETE) (OPTION B)	255 FULL DEPTH PAVEMENT SAWING
BEGIN	END		FT	FT	SY		INCH		CY	CY	SY	SY	FT
3.86	4.00	LT, RT	24	6	16.00	TRANS	15	1			16	16	60
		LT, RT	24	4	10.67	TRANS	6	4		7			
		LANE LINE	2	100	22.22	LONG	6	2	7				
4.00	5.00	LT, RT	24	6	16.00	TRANS	15	6			96	96	360
		LT, RT	24	4	10.67	TRANS	6	13		23			
		RT	4	20	8.89	LONG	6	3	4				
		RT	4	50	22.22	LONG	6	5	19				
		RT SHOULDER	4	50	22.22	LONG	6	2	7				
5.00	6.00	LT, RT	24	6	16.00	TRANS	15	15			240	240	900
		LT, RT	24	4	10.67	TRANS	6	21		37			
		RT	4	50	22.22	LONG	6	8	30				
		RT	12	20	26.67	LONG	6	1	4				
		LT	4	50	22.22	LONG	6	3	11				
		RT SHOULDER	4	50	22.22	LONG	6	2	7				
6.00	7.00	LT, RT	24	6	16.00	TRANS	15	10			160	160	600
		LT, RT	24	4	10.67	TRANS	6	19		34			
		LANE LINE	2	20	4.44	LONG	6	3	2				
		RT	4	20	8.89	LONG	6	5	7				
		RT	12	20	26.67	LONG	6	2	9				
		LT	4	20	8.89	LONG	6	2	3				
		LT	12	20	26.67	LONG	6	2	9				
		RT SHOULDER	4	50	22.22	LONG	6	4	15				
7.00	7.97	LT, RT	24	6	16.00	TRANS	15	15			240	240	900
		LT, RT	24	4	10.67	TRANS	6	16		28			
		LANE LINE	2	100	22.22	LONG	6	8	30				
		RT	4	50	22.22	LONG	6	6	22				
		RT	12	20	26.67	LONG	6	2	9				
		LT	12	20	26.67	LONG	6	2	9				
		RT SHOULDER	4	50	22.22	LONG	6	4	15				
OAK POINT ROAD RAMP X									10				
OAK POINT ROAD RAMP Z									10				
S. R. 58 RAMP D									8	8			
S. R. 58 RAMP F									12	8			
EASTBOUND SUB-TOTAL									259	145	752	752	2,820

LOR-2 WESTBOUND PAVEMENT REPAIRS

SLM		LANE	WIDTH	LENGTH	INDIVIDUAL REPAIR AREA	TYPE OF REPAIR	DEPTH	NUMBER OF REPAIRS	251 PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) (LONGITUDINAL)	251 PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) (TRANSVERSE)	255 FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN (15" CONCRETE) (OPTION A)	255 FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS RRCM, AS PER PLAN (15" CONCRETE) (OPTION B)	255 FULL DEPTH PAVEMENT SAWING
BEGIN	END		FT	FT	SY		INCH		CY	CY	SY	SY	FT
3.86	4.00	LT, RT	24	4	10.67	TRANS	6	4		7			
		LANE LINE	2	50	11.11	LONG	6	2	4				
4.00	5.00	LT, RT	24	6	16.00	TRANS	15	9			144	144	540
		LT, RT	24	4	10.67	TRANS	6	8		14			
		LANE LINE	2	50	11.11	LONG	6	5	9				
		LANE LINE	2	100	22.22	LONG	6	3	11				
		RT	4	20	8.89	LONG	6	6	9				
		RT	12	20	26.67	LONG	6	2	9				
		LT	12	20	26.67	LONG	6	2	9				
		RT SHOULDER	4	50	22.22	LONG	6	5	19				
5.00	6.00	LT, RT	24	6	16.00	TRANS	15	8			128	128	480
		LT, RT	24	4	10.67	TRANS	6	9		16			
		LANE LINE	2	50	11.11	LONG	6	3	6				
		RT	4	50	22.22	LONG	6	5	19				
		RT SHOULDER	4	50	22.22	LONG	6	2					
6.00	7.00	LT, RT	24	6	16.00	TRANS	15	14			224	224	840
		LT, RT	24	4	10.67	TRANS	6	11		20			
		LANE LINE	2	50	11.11	LONG	6	3	6				
		RT	4	50	22.22	LONG	6	4	15				
		RT	12	20	26.67	LONG	6	2	9				
		LT	12	20	26.67	LONG	6	2	9				
		RT SHOULDER	4	50	22.22	LONG	6	4	15				
7.00	7.97	LT, RT	24	6	16.00	TRANS	15	16			256	256	960
		LT, RT	24	4	10.67	TRANS	6	17		30			
		LANE LINE	2	50	11.11	LONG	6	4	7				
		LANE LINE	2	100	22.22	LONG	6	6	22				
		RT	4	50	22.22	LONG	6	5	19				
		RT	12	20	26.67	LONG	6	2	9				
		LT	12	20	26.67	LONG	6	2	9				
		RT SHOULDER	4	50	22.22	LONG	6	2	7				
OAK POINT ROAD RAMP W									10				
OAK POINT ROAD RAMP Y									10				
S. R. 58 RAMP C									8	8			
S. R. 58 RAMP E									8	10			
WESTBOUND SUB-TOTAL									258	105	752	752	2820
TOTALS CARRIED TO GENERAL SUMMARY									517	250	1,504	1,504	5,640

NOTE: QUANTITIES ARE FOR ESTIMATING PURPOSES ONLY. EXACT LOCATIONS AND QUANTITIES TO BE DETERMINED BY THE PROJECT ENGINEER.

CALCULATED KRB
CHECKED ACM

PAVEMENT REPAIR SUB-SUMMARY

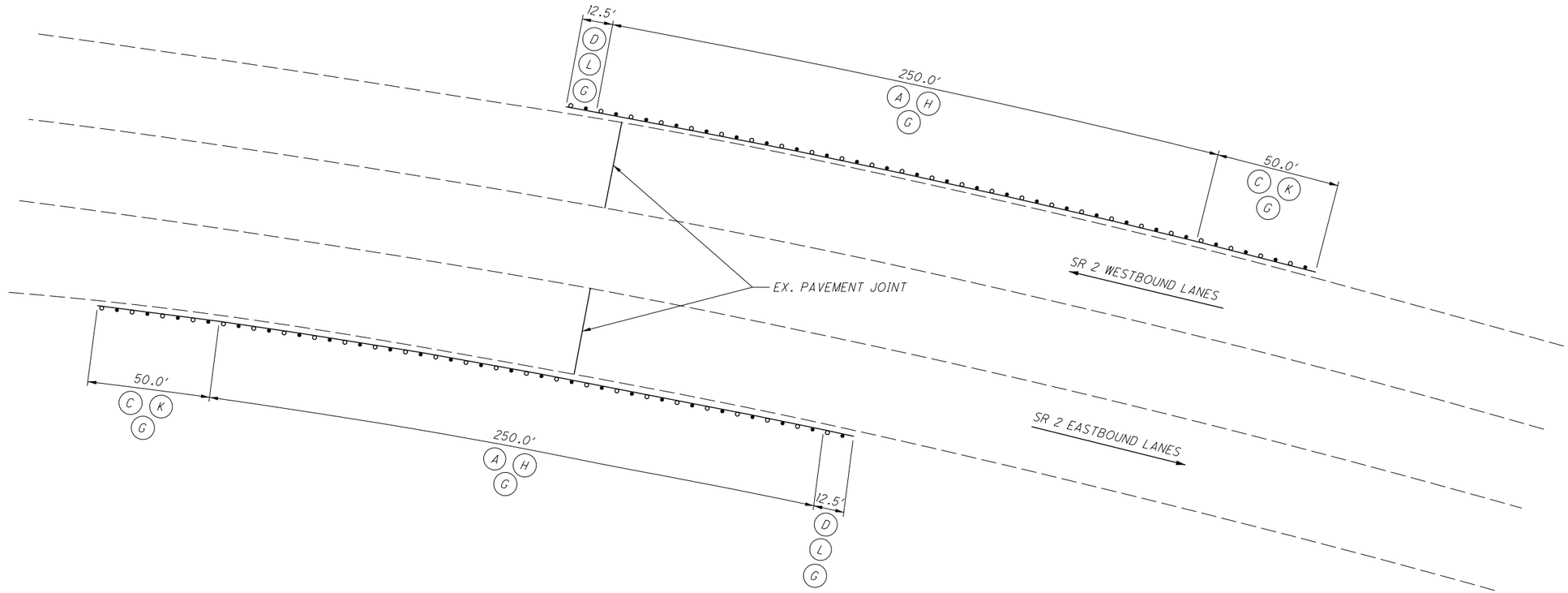
LOR-2-3.86

SHEET	LOCATION	A 202 GUARDRAIL REMOVED FT	B 202 GUARDRAIL REMOVED, BARRIER DESIGN FT	C 202 ANCHOR ASSEMBLY REMOVED, TYPE E EACH	D 202 ANCHOR ASSEMBLY REMOVED, TYPE T EACH	E 202 BRIDGE TERMINAL ASSEMBLY REMOVED EACH	F 202 IMPACT ATTENUATOR REMOVED EACH	203 EMBANKMENT, AS PER PLAN CY	G 209 RESHAPING UNDER GUARDRAIL, AS PER PLAN STATION	H 606 GUARDRAIL, TYPE MGS FT	J 606 GUARDRAIL, BARRIER DESIGN, TYPE MGS FT	K 606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) EACH	L 606 ANCHOR ASSEMBLY, MGS TYPE T EACH	M 606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH	N 606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2 EACH	P 606 IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL) EACH	Q 606 IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) (65 MPH/24" WIDE) EACH	626 BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL) EACH
21	LOR-2-3.86	500		2	2			10	6.25	500		2	2					8
22-23	LOR-2-4.59	3,412.5	300	2	2	6	2	50	39.01	3,412.5	300	2	2	4	2	2		48
24	LOR-2-5.86	362.5	250	1	3		2	15	7.63	362.5	250	1	3			2		12
25	LOR-2-6.46	1,393.75	350	2	2	8	2	35	19.32	1,393.75	350	2	2	5	3	2		30
26	LOR-2-6.99	250	250	2	3	1	2	20	7.01	250	250	2	3	1		2		12
27	LOR-2-7.42	3,843.75	206.25	4	5	3	2	45	43.86	3,843.75	206.25	4	5	2	1	1	1	51
28	LOR-2-7.42	1,268.75	175	1	1	3	1	25	15.38	1,268.75	175	1	1	2	1	1		20
29	LOR-2-7.42	1,525		2	2			20	16.50	1,525		2	2					20
TOTALS CARRIED TO THE GENERAL SUMMARY (01/NHS/PV)		12,556.25	1,531.25	16	20	21	11	220	154.95	12,556.25	1,531.25	16	20	14	7	10	1	201

CALCULATED JLL
CHECKED KRB

GUARDRAIL SUB-SUMMARY

LOR-2-3.86



LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL
				LEFT (WB)	RIGHT (EB)	
A	202	GUARDRAIL REMOVED	FT	250	250	500
C	202	ANCHOR ASSEMBLY REMOVED, TYPE E	EACH	1	1	2
D	202	ANCHOR ASSEMBLY REMOVED, TYPE T	EACH	1	1	2
	203	EMBANKMENT, AS PER PLAN	CY	5	5	10
G	209	RESHAPING UNDER GUARDRAIL, AS PER PLAN	STA	3.125	3.125	6.250
H	606	GUARDRAIL, TYPE MGS	FT	250	250	500
K	606	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	EACH	1	1	2
L	606	ANCHOR ASSEMBLY, MGS TYPE T	EACH	1	1	2
	626	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	EACH	4	4	8

ALL QUANTITIES CARRIED TO THE SUB-SUMMARY

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JLL
CHECKED KRB

GUARDRAIL DETAILS
LOR 2 - 3.86

LOR-2-3.86

21
37

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12.5'*
D L G

650'*
A H G

SR 2 WESTBOUND LANES

50'*
C K G

SR 2 EASTBOUND LANES

875'*
A H G

25'*
E N

SEE DETAIL A#

CROSSE RD

NORFOLK SOUTHERN RR

MATCH LINE

31.25'*
E M

STRUCTURE LOR-2-4.59 (R)

NOTES:
*SEE SHEET 23 FOR QUANTITIES.
#SEE SHEET 23 FOR DETAILS A AND B.

50'*
C K G

912.5'*
A H G

SEE DETAIL B#

STRUCTURE LOR-2-4.59 (L)

31.25'*
E M

SR 2 WESTBOUND LANES

SR 2 EASTBOUND LANES

MATCH LINE

NORFOLK SOUTHERN RR

25'*
E N

850'*
A H G

12.5'*
D L G

HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED JLL
CHECKED KRB

GUARDRAIL DETAILS
LOR 2 - 4.59

LOR-2-3.86

22
37

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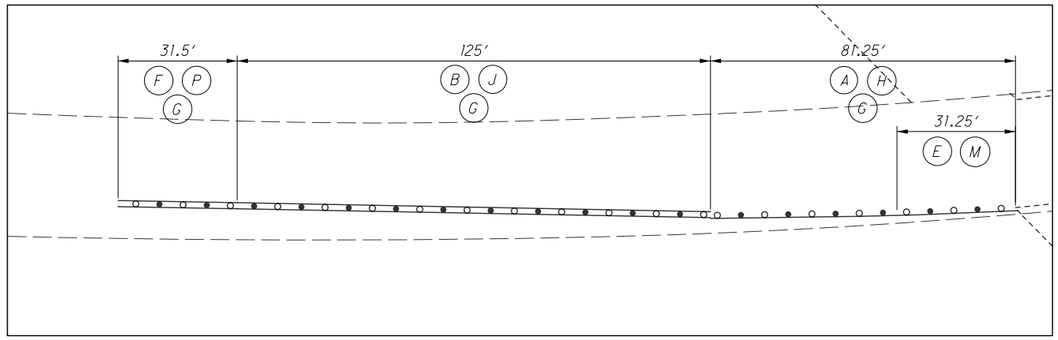
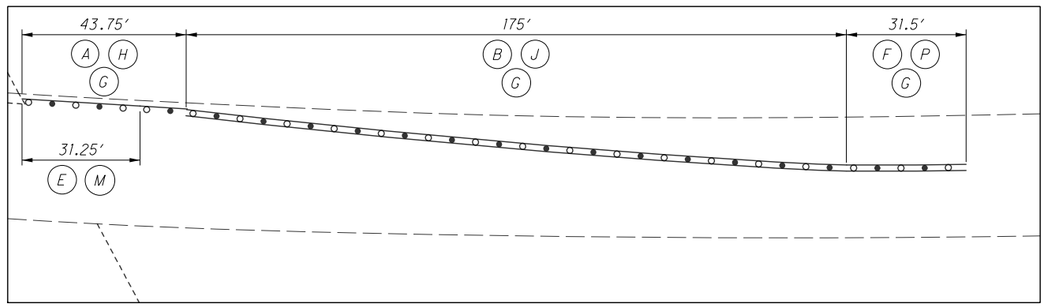


DETAIL A



DETAIL B

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY				TOTAL
				LEFT (WB)	RIGHT (EB)	DETAIL A	DETAIL B	
A	202	GUARDRAIL REMOVED	FT	1,562.5	1,725	81.25	43.75	3,412.5
B	202	GUARDRAIL REMOVED, BARRIER DESIGN	FT			125	175	300
C	202	ANCHOR ASSEMBLY REMOVED, TYPE E	EACH	1	1			2
D	202	ANCHOR ASSEMBLY REMOVED, TYPE T	EACH	1	1			2
E	202	BRIDGE TERMINAL ASSEMBLY REMOVED	EACH	2	2	1	1	6
F	202	IMPACT ATTENUATOR REMOVED	EACH			1	1	2
	203	EMBANKMENT, AS PER PLAN	CY	20	20	5	5	50
G	209	RESHAPING UNDER GUARDRAIL, AS PER PLAN	STA	16.250	17.875	2.378	2.503	39.005
H	606	GUARDRAIL, TYPE MGS	FT	1,562.5	1,725	81.25	43.75	3,412.5
J	606	GUARDRAIL, BARRIER DESIGN, TYPE MGS	FT			125	175	300
K	606	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	EACH	1	1			2
L	606	ANCHOR ASSEMBLY, MGS TYPE T	EACH	1	1			2
M	606	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	EACH	1	1	1	1	4
N	606	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	EACH	1	1			2
P	606	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	EACH			1	1	2
	626	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	EACH	19	21	4	4	48

ALL QUANTITIES CARRIED TO THE SUB-SUMMARY

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JLL
CHECKED KRB

GUARDRAIL DETAILS
LOR 2 - 4.59

LOR-2-3.86

23
37

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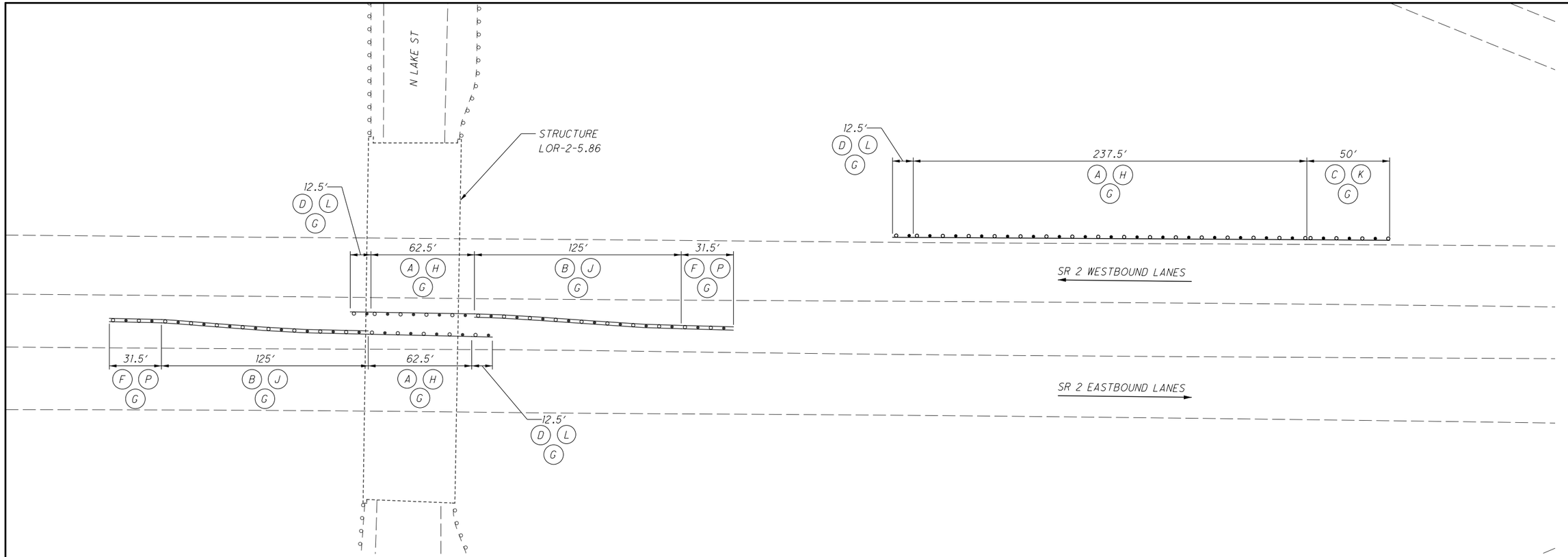


LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL
				LEFT (WB)	MEDIAN	
A	202	GUARDRAIL REMOVED	FT	237.5	125	362.5
B	202	GUARDRAIL REMOVED, BARRIER DESIGN	FT		250	250
C	202	ANCHOR ASSEMBLY REMOVED, TYPE E	EACH	1		1
D	202	ANCHOR ASSEMBLY REMOVED, TYPE T	EACH	1	2	3
F	202	IMPACT ATTENUATOR REMOVED	EACH		2	2
	203	EMBANKMENT, AS PER PLAN	CY	5	10	15
G	209	RESHAPING UNDER GUARDRAIL, AS PER PLAN	STA	3.000	4.630	7.630
H	606	GUARDRAIL, TYPE MGS	FT	237.5	125	362.5
J	606	GUARDRAIL, BARRIER DESIGN, TYPE MGS	FT		250	250
K	606	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	EACH	1		1
L	606	ANCHOR ASSEMBLY, MGS TYPE T	EACH	1	2	3
P	606	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	EACH		2	2
	626	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	EACH	4	8	12

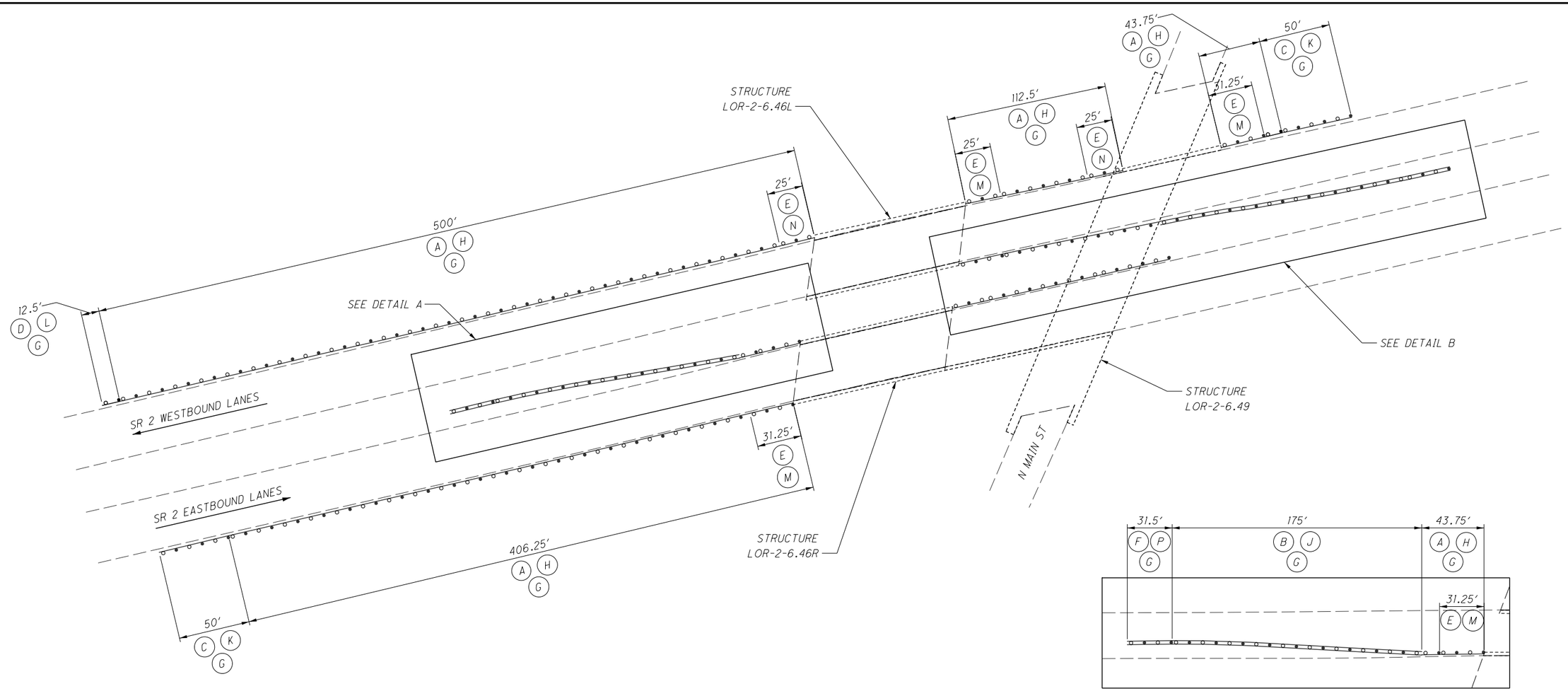
ALL QUANTITIES CARRIED TO THE SUB-SUMMARY

HORIZONTAL SCALE IN FEET
0 12.5 25 50

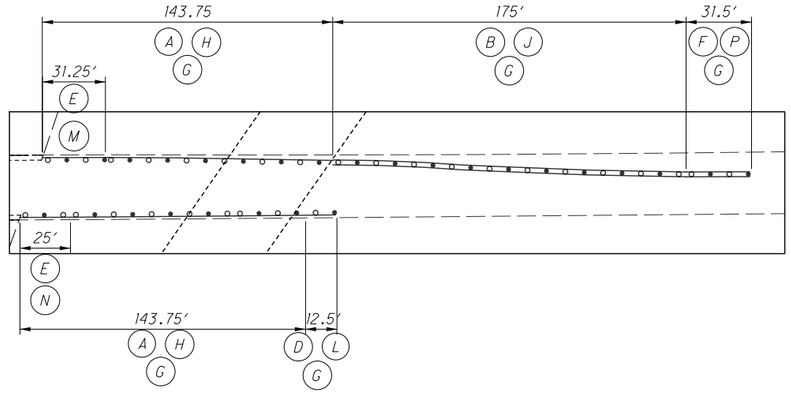
CALCULATED JLL
CHECKED KRB

GUARDRAIL DETAILS
LOR 2 - 5.86

LOR-2-3.86



DETAIL A



DETAIL B

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY				TOTAL
				LEFT (WB)	RIGHT (EB)	DETAIL A	DETAIL B	
A	202	GUARDRAIL REMOVED	FT	656.25	406.25	43.75	287.5	1,393.75
B	202	GUARDRAIL REMOVED, BARRIER DESIGN	FT			175	175	350
C	202	ANCHOR ASSEMBLY REMOVED, TYPE E	EACH	1	1			2
D	202	ANCHOR ASSEMBLY REMOVED, TYPE T	EACH	1			1	2
E	202	BRIDGE TERMINAL ASSEMBLY REMOVED	EACH	4	1	1	2	8
F	202	IMPACT ATTENUATOR REMOVED	EACH			1	1	2
	203	EMBANKMENT, AS PER PLAN	CY	15	10	5	5	35
G	209	RESHAPING UNDER GUARDRAIL, AS PER PLAN	STA	7.188	4.563	2.503	5.065	19.318
H	606	GUARDRAIL, TYPE MGS	FT	656.25	406.25	43.75	287.5	1,393.75
J	606	GUARDRAIL, BARRIER DESIGN, TYPE MGS	FT			175	175	350
K	606	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	EACH	1	1			2
L	606	ANCHOR ASSEMBLY, MGS TYPE T	EACH	1			1	2
M	606	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	EACH	2	1	1	1	5
N	606	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	EACH	2			1	3
P	606	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	EACH			1	1	2
	626	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	EACH	12	6	4	8	30

ALL QUANTITIES CARRIED TO THE SUB-SUMMARY

HORIZONTAL SCALE IN FEET
0 15 30 60

CALCULATED JLL
CHECKED KRB

GUARDRAIL DETAILS
LOR 2 - 6.46

LOR-2-3.86

25
37

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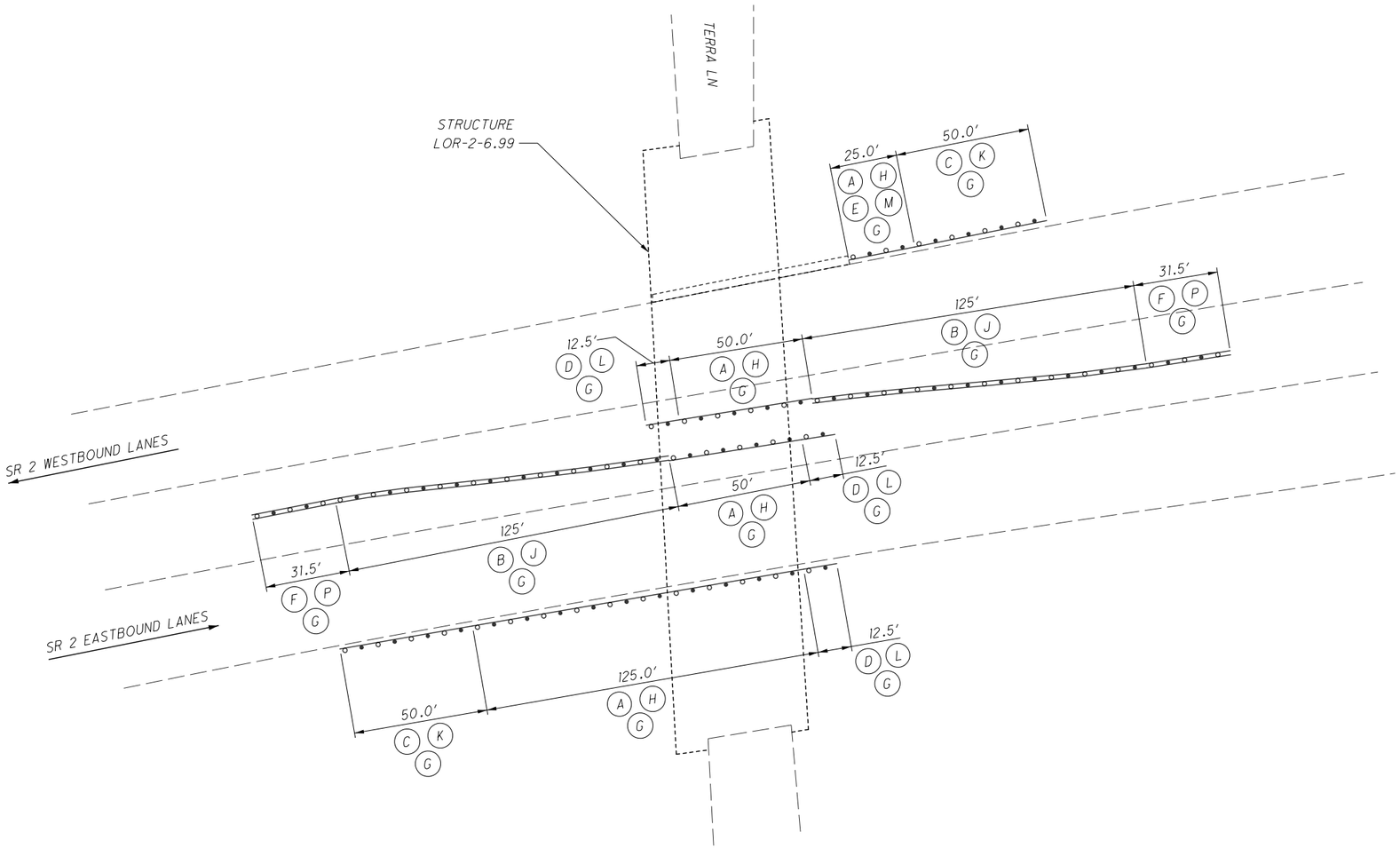

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY			TOTAL
				LEFT (WB)	RIGHT (EB)	MEDIAN	
A	202	GUARDRAIL REMOVED	FT	25	125	100	250
B	202	GUARDRAIL REMOVED, BARRIER DESIGN	FT			250	250
C	202	ANCHOR ASSEMBLY REMOVED, TYPE E	EACH	1	1		2
D	202	ANCHOR ASSEMBLY REMOVED, TYPE T	EACH		1	2	3
E	202	BRIDGE TERMINAL ASSEMBLY REMOVED	EACH	1			1
F	202	IMPACT ATTENUATOR REMOVED	EACH			2	2
	203	EMBANKMENT, AS PER PLAN	CY	5	5	10	20
G	209	RESHAPING UNDER GUARDRAIL, AS PER PLAN	STA	0.750	1.875	4.380	7.005
H	606	GUARDRAIL, TYPE MGS	FT	25	125	100	250
J	606	GUARDRAIL, BARRIER DESIGN, TYPE MGS	FT			250	250
K	606	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	EACH	1	1		2
L	606	ANCHOR ASSEMBLY, MGS TYPE T	EACH		1	2	3
M	606	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	EACH	1			1
P	606	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	EACH			2	2
	626	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	EACH	3	3	6	12

ALL QUANTITIES CARRIED TO THE SUB-SUMMARY

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JLL
CHECKED KRB

GUARDRAIL DETAILS
LOR 2 - 6.99

LOR-2-3.86

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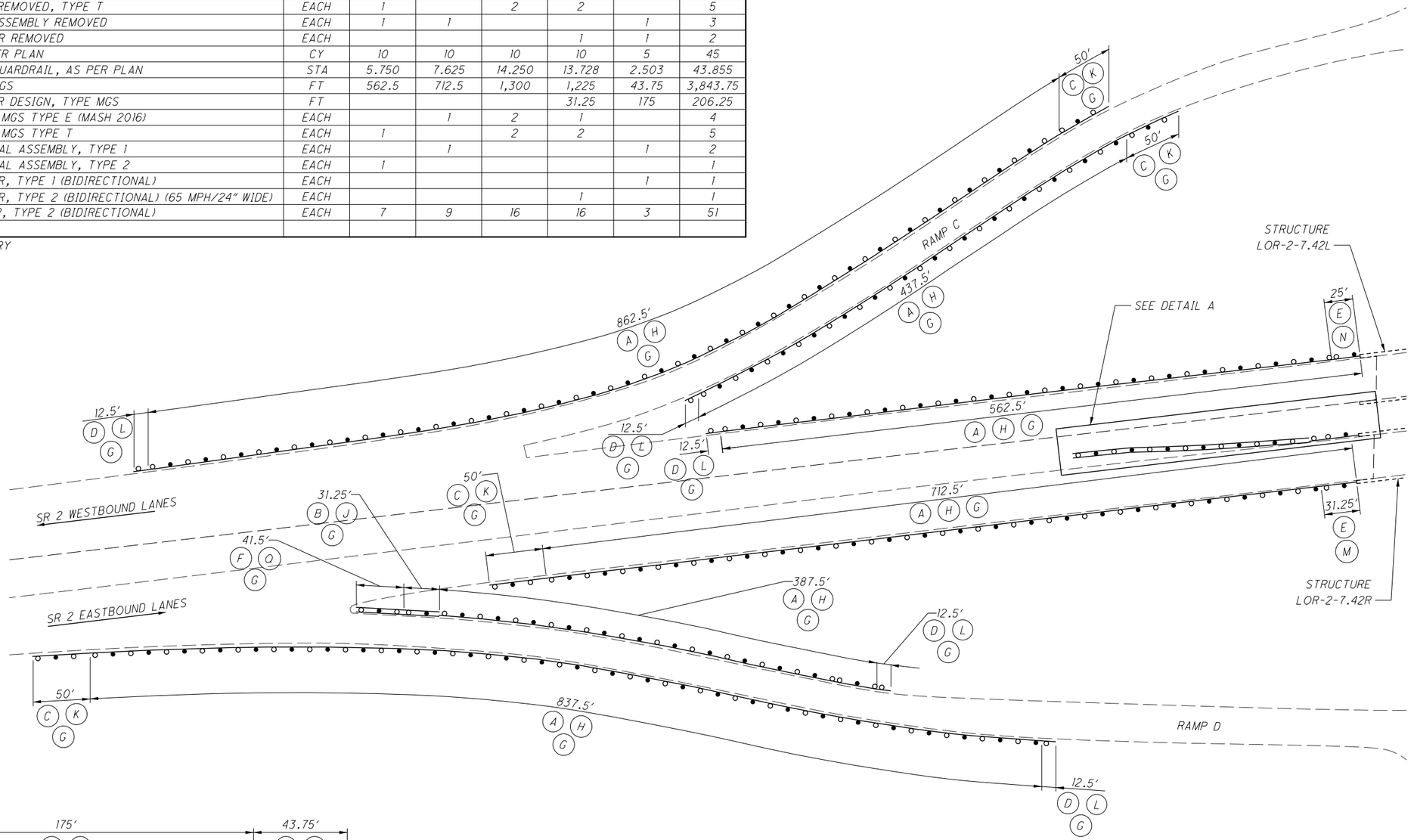
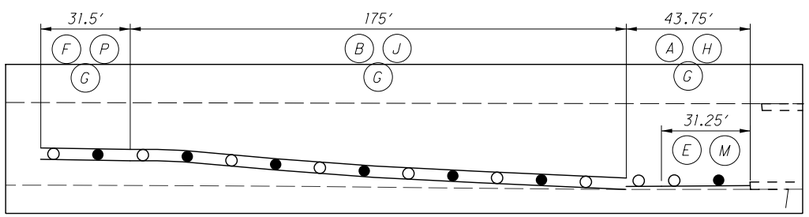
LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY					TOTAL
				LEFT (WB)	RIGHT (EB)	RAMP C	RAMP D	DETAIL A	
A	202	GUARDRAIL REMOVED	FT	562.5	712.5	1,300	1,225	43.75	3,843.75
B	202	GUARDRAIL REMOVED, BARRIER DESIGN	FT				31.25	175	206.25
C	202	ANCHOR ASSEMBLY REMOVED, TYPE E	EACH		1	2	1		4
D	202	ANCHOR ASSEMBLY REMOVED, TYPE T	EACH	1		2	2		5
E	202	BRIDGE TERMINAL ASSEMBLY REMOVED	EACH	1	1			1	3
F	202	IMPACT ATTENUATOR REMOVED	EACH				1	1	2
	203	EMBANKMENT, AS PER PLAN	CY	10	10	10	10	5	45
G	209	RESHAPING UNDER GUARDRAIL, AS PER PLAN	STA	5.750	7.625	14.250	13.728	2.503	43.855
H	606	GUARDRAIL, TYPE MGS	FT	562.5	712.5	1,300	1,225	43.75	3,843.75
J	606	GUARDRAIL, BARRIER DESIGN, TYPE MGS	FT				31.25	175	206.25
K	606	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	EACH		1	2	1		4
L	606	ANCHOR ASSEMBLY, MGS TYPE T	EACH	1		2	2		5
M	606	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	EACH		1			1	2
N	606	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	EACH	1					1
P	606	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	EACH					1	1
Q	606	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) (65 MPH/24" WIDE)	EACH				1		1
	626	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	EACH	7	9	16	16	3	51

ALL QUANTITIES CARRIED TO THE SUB-SUMMARY





DETAIL A

GUARDRAIL DETAILS
LOR 2 - 7.42

LOR-2-3.86

27
37

CALCULATED JLL
CHECKED KRB

HORIZONTAL SCALE IN FEET
0 25 50 100

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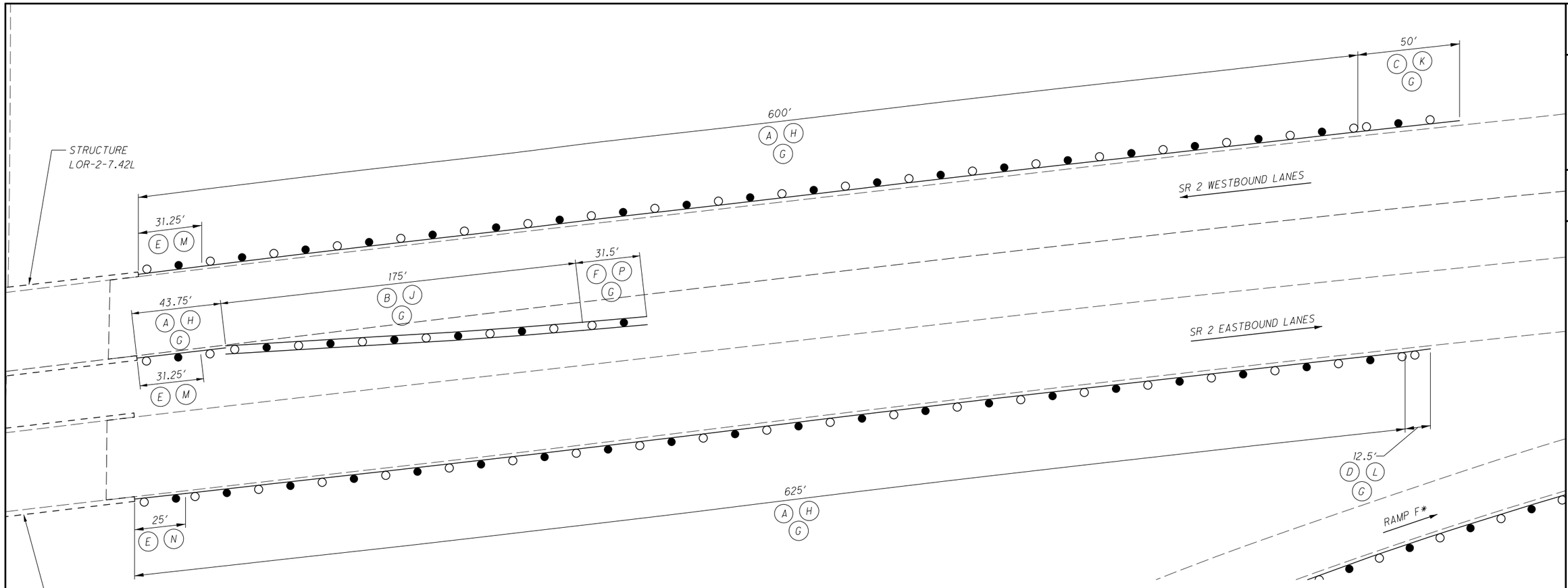


NOTES:
*SEE SHEET 29 FOR RAMP E ANF F QUANTITIES.

LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY			TOTAL
				LEFT (WB)	RIGHT (EB)	MEDIAN	
A	202	GUARDRAIL REMOVED	FT	600	625	43.75	1,268.75
B	202	GUARDRAIL REMOVED, BARRIER DESIGN	FT			175	175
C	202	ANCHOR ASSEMBLY REMOVED, TYPE E	EACH	1			1
D	202	ANCHOR ASSEMBLY REMOVED, TYPE T	EACH		1		1
E	202	BRIDGE TERMINAL ASSEMBLY REMOVED	EACH	1	1	1	3
F	202	IMPACT ATTENUATOR REMOVED	EACH			1	1
	203	EMBANKMENT, AS PER PLAN	CY	10	10	5	25
G	209	RESHAPING UNDER GUARDRAIL, AS PER PLAN	STA	6.500	6.375	2.503	15.378
H	606	GUARDRAIL, TYPE MGS	FT	600	625	43.75	1,268.75
J	606	GUARDRAIL, BARRIER DESIGN, TYPE MGS	FT			175	175
K	606	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	EACH	1			1
L	606	ANCHOR ASSEMBLY, MGS TYPE T	EACH		1		1
M	606	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	EACH	1		1	2
N	606	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	EACH		1		1
P	606	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	EACH			1	1
	626	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	EACH	8	8	4	20

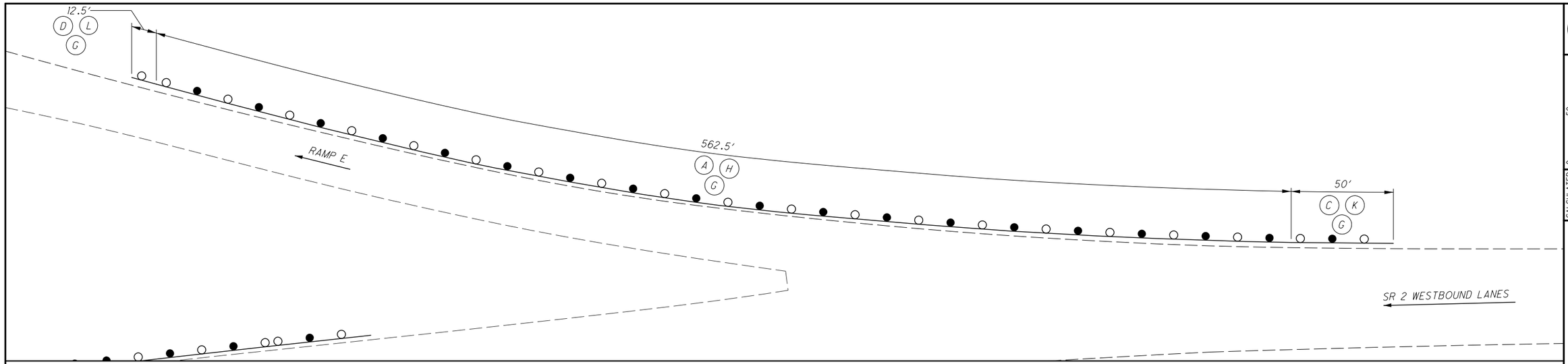
ALL QUANTITIES CARRIED TO THE SUB-SUMMARY

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED JLL
CHECKED KRB

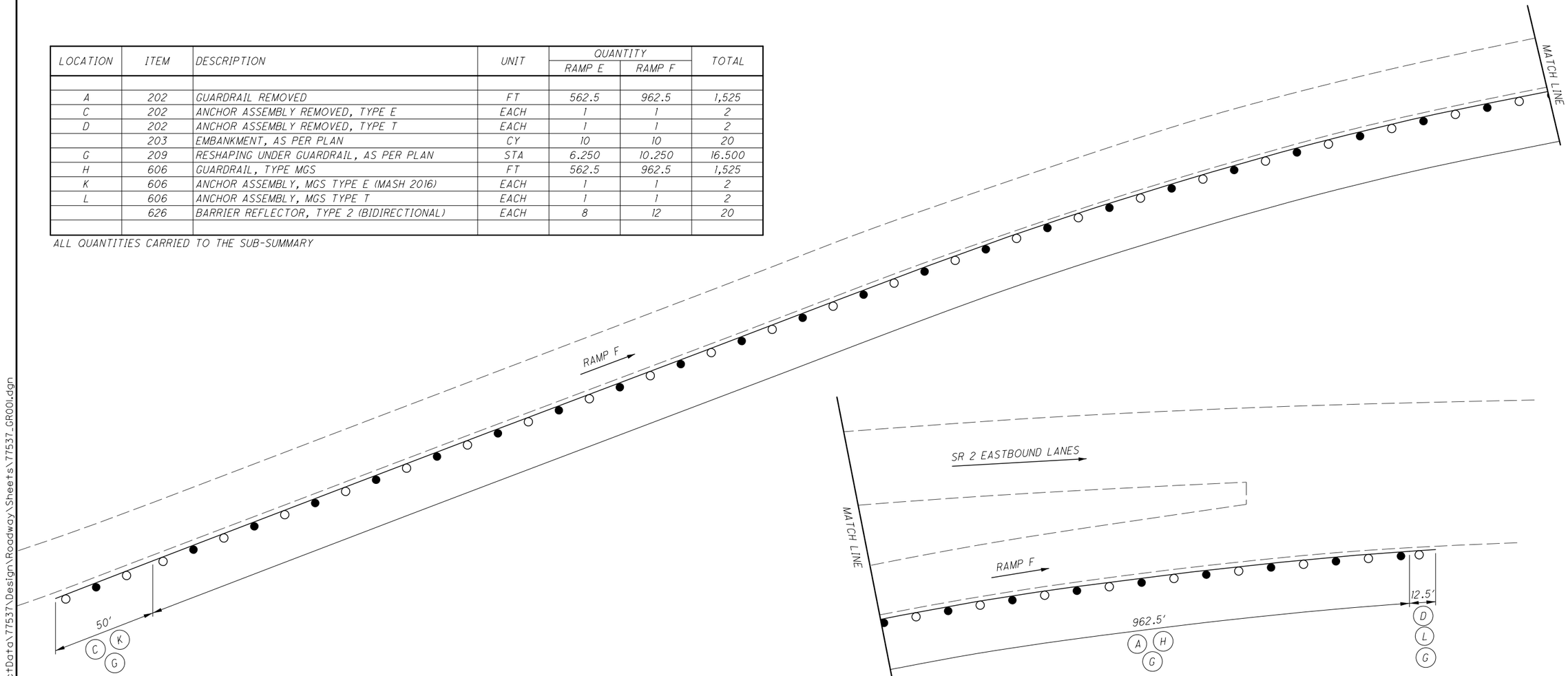
GUARDRAIL DETAILS
LOR 2 - 7.42

LOR-2-3.86



LOCATION	ITEM	DESCRIPTION	UNIT	QUANTITY		TOTAL
				RAMP E	RAMP F	
A	202	GUARDRAIL REMOVED	FT	562.5	962.5	1,525
C	202	ANCHOR ASSEMBLY REMOVED, TYPE E	EACH	1	1	2
D	202	ANCHOR ASSEMBLY REMOVED, TYPE T	EACH	1	1	2
	203	EMBANKMENT, AS PER PLAN	CY	10	10	20
G	209	RESHAPING UNDER GUARDRAIL, AS PER PLAN	STA	6.250	10.250	16.500
H	606	GUARDRAIL, TYPE MGS	FT	562.5	962.5	1,525
K	606	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	EACH	1	1	2
L	606	ANCHOR ASSEMBLY, MGS TYPE T	EACH	1	1	2
	626	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	EACH	8	12	20

ALL QUANTITIES CARRIED TO THE SUB-SUMMARY



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HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED JLL
CHECKED KRB

GUARDRAIL DETAILS
LOR 2 - 7.42

LOR-2-3.86

29
37

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AUXILIARY & LONG LINE MARKINGS

COUNTY	ROUTE	STATION / SLM FROM	STATION / SLM TO	DIRECTION	HIGHWAY MILES	DESCRIPTION	614						807					850			644						807			850
																					AUXILIARY MARKINGS (740.04)									
																								LANE ARROW					
							WORK ZONE LANE LINE, CLASS III, 642 PAINT	WORK ZONE EDGE LINE, CLASS III, 642 PAINT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS III, 642 PAINT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	WORK ZONE ARROW, CLASS III, 642 PAINT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (WHITE)	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (YELLOW)	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, LANE LINE, 6"	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	GROOVING FOR 6" RECESSED PAVEMENT MARKINGS, ASPHALT	GROOVING FOR 12" RECESSED PAVEMENT MARKINGS, ASPHALT	GROOVING FOR 6" RECESSED PAVEMENT MARKINGS, ASPHALT	STOP LINE	CROSSWALK LINE	TRANSVERSE/ DIAGONAL LINE	LEFT	RIGHT	COMBINATION	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (WHITE)	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (YELLOW)	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	GROOVING FOR 6" RECESSED PAVEMENT MARKINGS, CONCRETE
		FROM	TO		MILE		MILE	MILE	FT	FT	FT	EACH	MILE	MILE	MILE	FT	FT	MILE	FT	FT	24"	12"	24"	EACH			MILE	MILE	MILE	MILE
LOR	2	203+75	422+00	EB	4.13	EASTBOUND LONG LINE MARKINGS	12.40	24.80					4.13	4.13	4.13			12.40												
LOR	2	203+75	422+00	WB	4.13	WESTBOUND LONG LINE MARKINGS	12.40	24.80					4.13	4.13	4.13			12.40												
OAK POINT ROAD INTERCHANGE																														
LOR	2	RAMP X		EB	0.19	EB EXIT RAMP TO OAK POINT RD	0.12	1.14	1767	1155	219	6	0.19	0.19	0.04	589	300	0.42	589	300	73		385	2							
LOR	2	RAMP Z		EB	0.27	EB ENTRANCE RAMP FROM OAK POINT RD	0.12	1.62	738				0.27	0.27	0.04	246	500	0.58	246	500		110									
LOR	2	RAMP Y		WB	0.20	WB EXIT RAMP TO OAK POINT RD	0.12	1.2	2295	900	210	6	0.2	0.2	0.04	765	275	0.44	765	275	70	92	300	2						
LOR	2	RAMP W		WB	0.27	WB ENTRANCE RAMP FROM OAK POINT RD	0.18	1.62	660				0.27	0.27	0.06	220	500	0.60	220	500										
S.R. 58 INTERCHANGE																														
LOR	2	RAMP D		EB	0.18	EB EXIT RAMP TO S.R. 58	0.21	1.08	2250	930	123	12	0.18	0.18	0.07	750	250	0.43	750	250	41	133	310	4						
LOR	2	RAMP F		EB	0.32	EB ENTRANCE RAMP FROM S.R. 58	0.09	1.92	720				0.32	0.32	0.03	240	700	0.67	240	700		108									
LOR	2	RAMP E		WB	0.16	WB EXIT RAMP TO S.R. 58	0.21	0.96	2460	765	168	39	0.16	0.16	0.07	820	275	0.39	820	275	56	132	255	4	5	4				
LOR	2	RAMP C		WB	0.24	WB ENTRANCE RAMP FROM S.R. 58	0.09	1.44	720				0.24	0.24	0.03	240	650	0.51	240	650		108									
CONCRETE STRUCTURE MARKINGS																														
LOR	2	241+64	245+16	EB	0.07	STRUCTURE LOR-2-0459 R							-0.07	-0.07	-0.07			-0.20									0.07	0.07	0.07	0.20
LOR	2	241+64	245+16	WB	0.07	STRUCTURE LOR-2-0459 L							-0.07	-0.07	-0.07			-0.20									0.07	0.07	0.07	0.20
LOR	2	340+69	342+24	EB	0.03	STRUCTURE LOR-2-0646 R							-0.03	-0.03	-0.03			-0.09									0.03	0.03	0.03	0.09
LOR	2	340+69	342+24	WB	0.03	STRUCTURE LOR-2-0646 L							-0.03	-0.03	-0.03			-0.09									0.03	0.03	0.03	0.09
LOR	2	391+56	393+84	EB	0.04	STRUCTURE LOR-2-0742 R							-0.04	-0.04	-0.04			-0.13									0.04	0.04	0.04	0.13
LOR	2	391+56	393+84	WB	0.04	STRUCTURE LOR-2-0742 L							-0.04	-0.04	-0.04			-0.13									0.04	0.04	0.04	0.13
TOTALS TO GENERAL SUMMARY							25.94	60.58	11,610	3,750	720	63	9.82	9.82	8.37	3,870	3,450	28.01	3,870	3,450	240	683	1,250	12	5	4	0.28	0.28	0.28	0.84

CALCULATED KRB
CHECKED ACM

PAVEMENT MARKING SUB-SUMMARY

LOR-2-3.86

RAISED PAVEMENT MARKERS

COUNTY	ROUTE	STATION/SLM FROM	STATION/SLM TO	DIRECTION	DETAIL	621 RAISED PAVEMENT MARKER REMOVED EACH	621 RPM EACH	621 RPM REFLECTOR EACH	PRISMATIC RETRO-REFLECTOR TYPES ONE-WAY WHITE EACH	TWO-WAY YELLOW / YELLOW	TWO-WAY WHITE / RED	TWO-WAY YELLOW / RED	TWO-WAY BLUE / BLUE	REMARKS
LOR	2	3.86	4.31	BOTH	5	40	40		40					4 LANE DIVIDED
LOR	2	4.31	7.68	BOTH	2/3/5	640	640		296		144	200		4 LANE DIVIDED WITH PARTIAL GORES/RAMPS
LOR	2	7.68	7.97	BOTH	5	29	29		29					4 LANE DIVIDED
CONCRETE BRIDGE DECKS AND APPROACH SLABS								16	16					
TOTALS TO GENERAL SUMMARY						709	709	16						

DETAIL	DESCRIPTION
1	MULTILANE UNDIVIDED TYPICAL SPACING
2	TAPERED ACCEL. LANE
3	DECELERATION LANE
4	PARALLEL ACCEL LANE
5	MULTILANE DIVIDED/EXPRESSWAY
6	STOP APPROACH
7	2 LANE APPR. WITH TURN LANE
8	THROUGH APPROACH
9	3 LANE APPR. WITH TURN LANE
10	3 LANE DIVIDED TO 2 LANE TRANSITION
11	3 LANE UNDIVIDED TO 2 LANE TRANSITION
12	TWO LANE NARROW BRIDGE
13	TWO WAY LEFT TURN LANE
14	ONE LANE BRIDGE
15	HORIZONTAL CURVE
16	HORIZONTAL CURVE ALT.
17	STOP APPROACH ALT.
18	FIRE HYDRANT
GAP	CENTER LINE AT 80 FT. TYP.

NOTES

1) DO NOT REPLACE RPMS ON CONCRETE BRIDGE DECKS OR APPROACH SLABS. FOR ANY EXISTING RPMS ON CONCRETE BRIDGE DECKS AND APPROACH SLABS, ONLY REPLACE THE RPM REFLECTOR.

CALCULATED KRB
CHECKED ACM

RPM SUB-SUMMARY

LOR-2-3.86

ITEM 632- DETECTOR LOOP, AS PER PLAN

AN ESTIMATED QUANTITY OF ITEM 632, DETECTOR LOOP, AS PER PLAN, HAS BEEN PROVIDED FOR THE PURPOSE OF REPLACING DAMAGED DETECTOR LOOPS AND/OR UPGRADING DETECTOR LOOPS TO IMPROVE MOTORCYCLE DETECTION. IT IS IMPERATIVE THAT REPLACEMENT OF DETECTOR LOOPS BE INSTALLED AND FULLY FUNCTIONAL IN THE SHORTEST POSSIBLE TIME. THE CONTRACTOR SHALL HAVE REPLACEMENT DETECTOR LOOPS INSTALLED AND FULLY FUNCTIONAL WITHIN 7 CALENDAR DAYS OF DESTRUCTION OF THE EXISTING DETECTOR LOOPS.

THE CONTRACTOR SHALL NOTIFY THE CITY OF AMHERST 5 WORKING DAYS IN ADVANCE OF ANY PLANING OPERATIONS OR PAVEMENT REPAIR WORK THAT WILL DAMAGE DETECTOR LOOP INSTALLATIONS. THIS NOTIFICATION IS NEEDED FOR THE CITY TO SCHEDULE TEMPORARY SIGNAL TIMING MODIFICATIONS FOR THE TIME PERIOD WHEN THE DETECTOR LOOPS ARE OUT OF OPERATION. THE CONTRACTOR SHALL THEN RENOTIFY THE CITY OF AMHERST WITHIN 2 WORKING DAYS AFTER THE DAMAGED DETECTOR LOOPS ARE REPLACED SO THAT HE CAN RESCHEDULE CREWS TO RESTORE SIGNAL TIMINGS TO THE ORIGINAL SETTINGS.

FAILURE TO COMPLY WITH THE ABOVE STATED REQUIREMENTS WILL RESULT IN THE ASSESSMENT OF A DISINCENTIVE FEE OF $500.00 PER DAY TO THE CONTRACTOR FOR EACH CALENDAR DAY BEYOND THE SPECIFIED LIMIT.

THE NEW DETECTOR LOOPS SHALL BE PLACED AFTER THE PLANING AND PAVEMENT REPAIR OPERATIONS ARE COMPLETED WITHIN THE AFFECTED AREAS. THE DETECTOR LOOPS SHALL NOT BE CUT INTO THE SURFACE COURSE.

IN ADDITION TO THE REQUIREMENTS OF CMS 632.11, THE CONTRACTOR SHALL PROVIDE A POSITIVE AND EFFECTIVE MEANS FOR REMOVAL OF SOLID RESIDUE RESULTING FROM THE DRY SAW BLADE CUTTING OF LOOP DETECTOR SLOTS IN THE PAVEMENT. THE RESIDUE SHALL BE REMOVED BY VACUUM OR OTHER EFFECTIVE MEANS, BEFORE IT IS BLOWN BY TRAFFIC ACTION OR WIND. RESIDUE FROM DRY CUTTING SHALL NOT BE REMOVED BY COMPRESSED AIR. AS AN ALTERNATE, THE CONTRACTOR MAY USE WET CUTTING.

LOOP DETECTOR WIRE TO LEAD-IN CABLE SPLICES WITHIN EPOXY ENCAPSULATED SPLICE ENCLOSURES SHALL BE JOINED BY AN APPROVED CONNECTOR AND SOLDERED PER CMS 632.23 & 725.15. THE CONNECTOR KIT USED SHALL BE UNFUSED CONFORMING TO 725.15E. IN ADDITION, THE CONNECTOR KIT SHALL HAVE TWO (2) FILL OPENINGS AND THE SPLICE ENCLOSURE SHALL BE A CLEAR TRANSPARENT MATERIAL. THE EPOXY SHALL BE NON-SHRINKING. ALL COSTS ASSOCIATED WITH THIS CONNECTION SHALL BE INCLUDED WITH THIS PAY ITEM.

IF THE PULL BOX IS NOT SPECIFIED IN THE PLANS, THE SPLICE SHALL BE MADE IN THE FIRST ENTERED POLE OR PEDESTAL, EXCEPT WHERE THE CONTROLLER CABINET IS MOUNTED ON THE POLE OR PEDESTAL, IN WHICH CASE THE LOOP WIRES SHALL BE ROUTED DIRECTLY INTO THE CABINET UNLESS SPECIFIED DIFFERENTLY IN THE PLANS. LOOP DETECTOR WIRE ROUTED THROUGH CONDUIT, PULL BOXES, POLES, AND PEDESTALS SHALL BE TWISTED PER CMS 632.23.

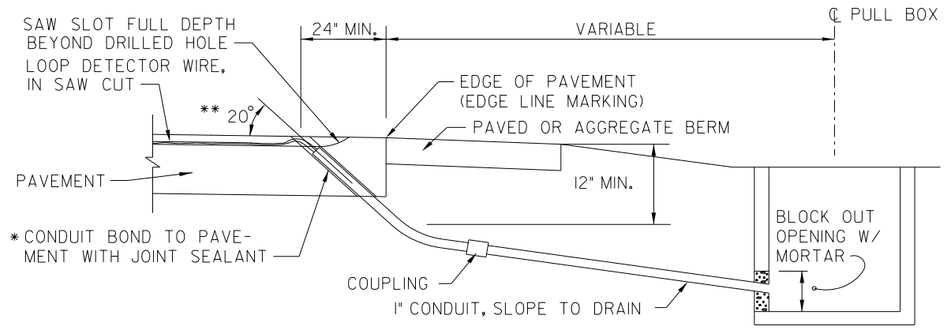
FURNISH ALL MATERIALS ACCORDING TO THE DEPARTMENT'S QUALIFIED PRODUCTS LIST (QPL).

SEE DETAILS ON THIS SHEET FOR ADDITIONAL REQUIREMENTS.

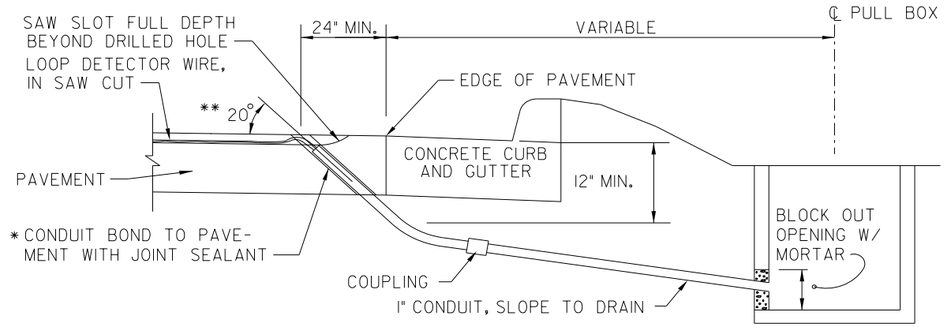
PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH FOR ITEM 632, DETECTOR LOOP, AS PER PLAN.

SR 2 & SR 58 INTERCHANGE:

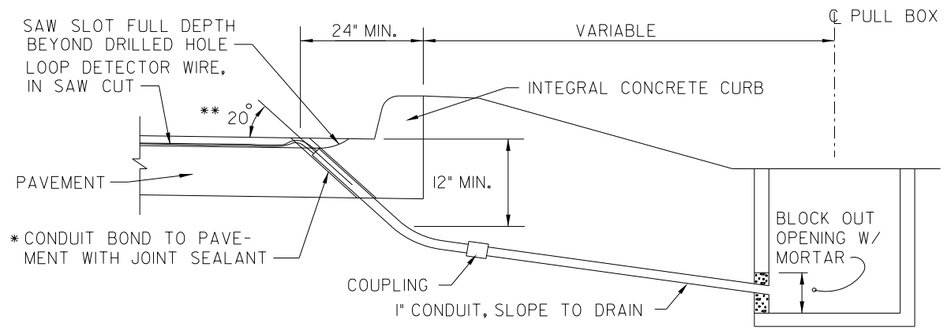
RAMP D	3 EACH
RAMP E	4 EACH
ITEM 632 DETECTOR LOOP, AS PER PLAN	7 EACH



DRILLED HOLE LOCATION DETAIL WITH PAVED OR AGGREGATE BERM



DRILLED HOLE LOCATION DETAIL WITH CONCRETE CURB AND GUTTER



DRILLED HOLE LOCATION DETAIL WITH INTEGRAL CONCRETE CURB

* CONDUIT SHALL BE 1" DIAMETER 725.04.

** THE RANGE OF THIS ANGLE SHALL BE FROM 15 TO 30 DEGREES.

NOTE: SEE STANDARD DRAWING TC-82.10 FOR ADDITIONAL NOTES AND DETAILS

CALCULATED KRB
CHECKED ACM

LOOP DETECTOR NOTES & DETAILS

LOR-2-3.86

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				STRUCTURE DESCRIPTION & QUANTITY					
				LOR-2-0459 (L)	LOR-2-0459 (R)	LOR-2-0646 (L)	LOR-2-0646 (R)	LOR-2-0742 (L)	LOR-2-0742 (R)
				SFN: 4700031	SFN: 4700066	SFN: 4700090	SFN: 4700120	SFN: 4700279	SFN: 4700309
				OVER NORFOLK SOUTHERN RR AND T.R. 178	OVER NORFOLK SOUTHERN RR AND T.R. 178	OVER BEAVER CREEK	OVER BEAVER CREEK	OVER S.R. 58	OVER S.R. 58
ITEM	ITEM DESCRIPTION	TOTAL	UNIT						
202	CURB REMOVED	10	FT				10		
202	REMOVAL MISC.: JOINT SEALER	504	FT	94	94	80	80	78	78
409	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS	496	FT	94	94	76	76	78	78
512	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	1918	SY	414	409	206	206	342	341
512	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	6174	SY	1483	1465	659	659	954	954
512	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	1755	SY	414	409	206	206	179	341
512	REMOVAL OF EXISTING PAVEMENT MARKING	4416	FT	1062	1050	468	468	684	684
516	JOINT SEALER	504	FT	94	94	80	80	78	78
519	PATCHING CONCRETE STRUCTURE	240	SF			130	110		
SPECIAL	PATCHING CONCRETE BRIDGE DECK, TYPE B OR C	18	SY	2	1	1	1	5	8
609	CURB, TYPE 2-A	10	FT				10		

CALCULATED KRB
CHECKED ACM

STRUCTURE SUB-SUMMARY

LOR-2-3.86

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 THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURES. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

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.

ROUTINE MAINTENANCE

BETWEEN THE TIME THAT BIDS ARE TAKEN AND THE START OF CONSTRUCTION, THE MAINTAINING AGENCY MAY ENTER UPON THE PROJECT AND PERFORM ROUTINE MAINTENANCE SUCH AS CRACK SEALING, PATCHING AND OTHER REPAIRS. THE EFFECTS, IF ANY, OF THE PERFORMACE OF ROUTINE MAINTENANCE SHALL BE CONSIDERED AS INHERINT IN WORK OF THE CHARACTER PROVIDED FOR IN THE PLAN AND THE RESULTING CONDITIONS SHALL NOT BE CONSIDERED AS DIFFERING MATERIALLY FROM THOSE EXISTING AT THE TIME BIDS WERE TAKEN.

EXISTING PLANS

THE FOLLOWING EXISTING PLANS MAY BE INSPECTED IN THE ODOT DISTRICT 3 OFFICE IN ASHLAND, OHIO:

STRUCTURE NAME:	EXISTING PLAN NAME:	DATE:
LOR-2-0459 L&R	LOR-2-3.50	1994
LOR-2-0586	LOR-2-5.86	1976
LOR-2-0646 L&R	LOR-2-3.50	1994
LOR-2-0649	LOR-254-0.00-B	1964
LOR-2-0699	LOR-254-0.00-B	1964
LOR-2-0742 L&R	LOR-254-0.00-B	1964
LOR-2-0761	LOR-254-0.00-B	1964

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DECK PROTECTION METHOD

TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN

PLACING ASPHALT CONCRETE FEATHERING ON APPROACHES TO BRIDGES

SPECIAL CARE SHALL BE TAKEN, WHEN PLACING THE ASPHALT CONCRETE BUTT JOINT TO CREATE A SMOOTH TRANSITION FROM THE EXISTING APPROACH PAVEMENT TO THE BRIDGE DECK OR APPROACH SLAB. THE CONTRACTOR'S ATTENTION IS CALLED TO STANDARD DRAWING BP-3.1 FOR REQUIRED TOLERANCES.

IN-STREAM WORK RESTRICTION

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID CONSTRUCTION IN AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING STREAMS OR WETLANDS. ANY MATERIAL THAT DOES FALL INTO STREAMS OR WETLANDS SHALL BE REMOVED AS SOON AS POSSIBLE.

ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. IT IS ANTICIPATED THAT NO IN-STREAM WORK, OR WORK UNDER THE STREAM'S ORDINARY HIGH WATER MARK (OHWM) WILL BE NEEDED. THEREFORE NO WATERWAY PERMITS HAVE BEEN GRANTED AND NO IN-STREAM WORK IS ALLOWED.

SHOULD WORK (EITHER TEMPORARY OR PERMANENT) IN THE STREAM BE NEEDED; IT WILL REQUIRE A PERMIT AND AUTHORIZATION BY THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE). THE CONTRACTOR SHALL NOT UTILIZE FILLS BELOW OHWM UNTIL SUCH ACTIVITY IS AUTHORIZED BY THE USACE. DETAILS OF THIS REQUIREMENT ARE DESCRIBED IN ODOT'S SUPPLEMENTAL SPECIFICATION 832.09.

USACE DEFINITION OF OHWM - THE ORDINARY HIGH WATER MARK IS THE LINE ON THE SHORES ESTABLISHED BY THE FLUCTUATIONS OF WATER AND INDICATED BY PHYSICAL CHARACTERISTICS SUCH AS A CLEAR, NATURAL LINE IMPRESSED ON THE BANK; SHELVING; CHANGES IN THE CHARACTER OF THE SOIL; DESTRUCTION OF TERRESTRIAL VEGETATION; THE PRESENCE OF LITTER AND DEBRIS; OR THE APPROPRIATE MEANS THAT CONSIDER THE CHARACTERISTICS OF THE SURROUNDING AREAS.

ITEM 202 - REMOVAL MISC.: JOINT SEALER

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING JOINT SEALER LOCATED BETWEEN THE APPROACH SLAB AND THE DECK OR BACKWALL.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR THE ABOVE ITEM, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECK, TYPE B OR C

USE THIS ITEM AT THE LOCATIONS INDICATED IN THE PLANS. QUANTITIES SHOWN IN THE PLANS ARE FOR ESTIMATING PURPOSES ONLY. EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER.

SEE PROPOSAL NOTE 512 FOR ADDITIONAL DETAILS.

PAYMENT FOR ALL THE ABOVE ITEMS WILL BE MADE AT THE UNIT BID PRICE PER SQUARE YARD AND IS TO INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NEEDED TO COMPLETE THE ABOVE WORK.

ITEM 409 - SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS

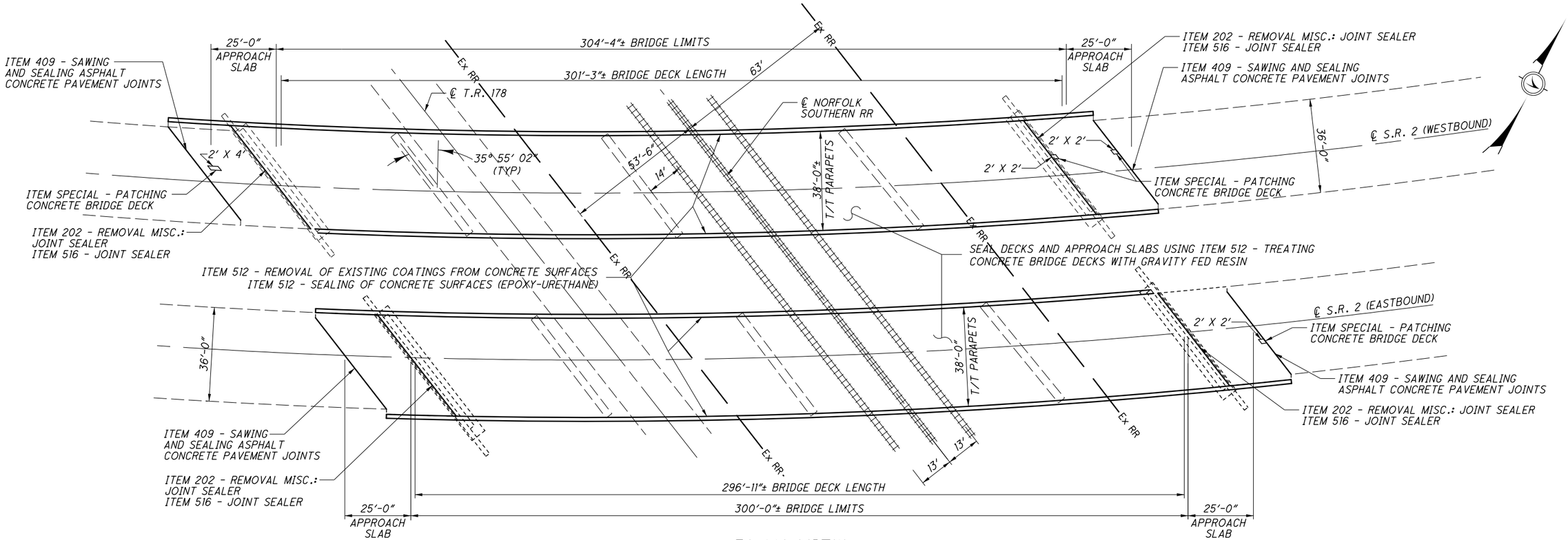
THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLAN AND CONSISTS OF SAW CUTTING AND SEALING THE FINISHED SURFACE OF THE ASPHALT CONCRETE PAVEMENT.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE ABOVE ITEM.

CALCULATED KRB
CHECKED ACM

STRUCTURE NOTES

LOR-2-3.86



PLAN VIEW

NOTES:
1) THE EXISTING APPROACH GUARDRAIL IS NOT SHOWN FOR CLARITY.

2) THE CONCRETE REPAIRS SHOWN ARE APPROXIMATE. EXACT LOCATIONS AND DIMENSIONS OF REPAIRS ARE TO BE DETERMINED BY THE ENGINEER.

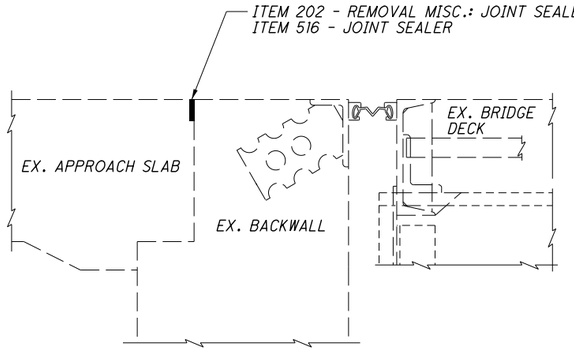
3) THE EXISTING, PROPOSED AND TEMPORARY MINIMUM VERTICAL CLEARANCE FOR THE RAILROAD TRACK IS 23'. THE PROPOSED WORK WILL NOT AFFECT RAILROAD OPERATIONS.

4) SEAL ENTIRE BRIDGE DECK AND APPROACH SLABS WITH ITEM 512 - TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN. REMOVE EXISTING PAVEMENT MARKINGS WITH ITEM 512 - REMOVAL OF EXISTING PAVEMENT MARKING.

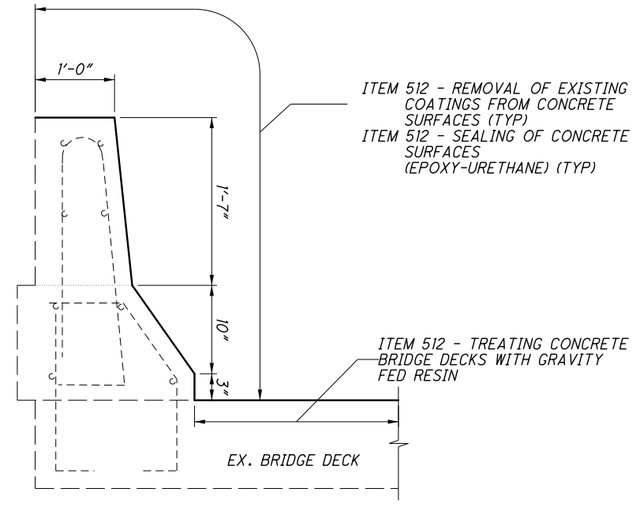
5) PERFORM ITEM 409 - SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS AFTER PROPOSED PAVEMENT IS PLACED AND ACCEPTED BY THE DEPARTMENT. ANY SAWED AND SEALED JOINTS REMOVED BY NEED OF UNSATISFACTORILY PLACED AND UNACCEPTED SURROUNDING ASPHALT CONCRETE WILL NOT BE PAID FOR BY THE DEPARTMENT, INCLUDING THE COST OF REMOVAL OF THE JOINT.

ESTIMATED QUANTITIES

ITEM	QUANTITY LOR-2-0459L	QUANTITY LOR-2-0459R	UNIT	DESCRIPTION
202	94	94	FT	REMOVAL MISC.: JOINT SEALER
409	94	94	FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS
512	414	409	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	1483	1465	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN
512	414	409	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES
512	1062	1050	FT	REMOVAL OF EXISTING PAVEMENT MARKING
516	94	94	FT	JOINT SEALER
SPECIAL	2	1	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B OR C



JOINT SEALER DETAIL



PARAPET SEALING DETAIL

ODOT DISTRICT THREE
OFFICE OF ENGINEERING
ASHLAND, OHIO

DESIGNED AGM | DRAWN AGM | REVIEWED KRB | DATE 05/2020
CHECKED . | REVISED . | STRUCTURE FILE NUMBER 47000314700066

STRUCTURE DETAILS
LOR-2-0459L&R
STATE ROUTE 2 OVER NORFOLK SOUTHERN RR AND CROSSE RD (T.R. 178)

LOR-2-3.86
PID No.: 77537

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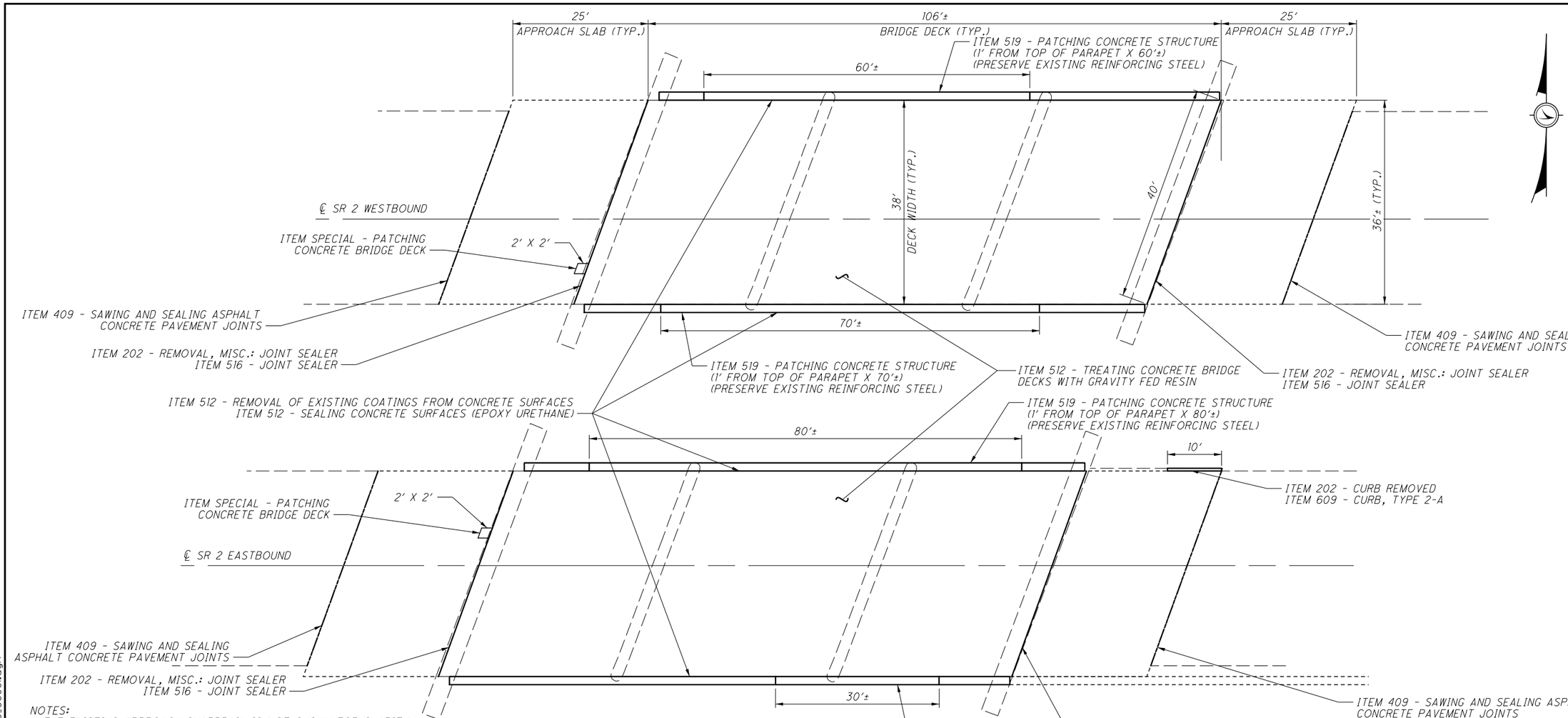


PLAN VIEW

NOTES:
1) THE EXISTING APPROACH GUARDRAIL IS NOT SHOWN FOR CLARITY.

2) THE CONCRETE REPAIRS SHOWN ARE APPROXIMATE. EXACT LOCATIONS AND DIMENSIONS OF REPAIRS ARE TO BE DETERMINED BY THE ENGINEER.

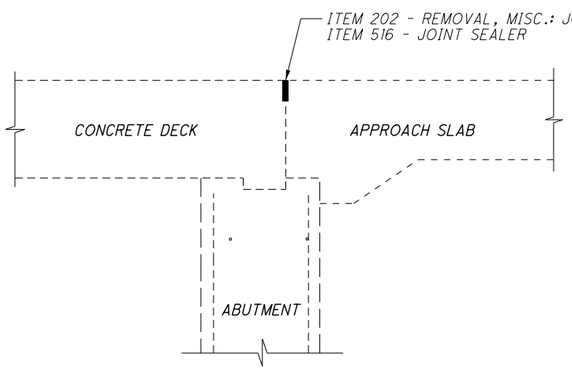
3) SEAL ENTIRE BRIDGE DECK AND APPROACH SLABS WITH ITEM 512 - TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN. REMOVE EXISTING PAVEMENT MARKINGS WITH ITEM 512 - REMOVAL OF EXISTING PAVEMENT MARKING.

4) THE CURB REPAIR AT STRUCTURE LOR-2-0646 R SHALL BE PEFORMED BEFORE THE SEALING WITH GRAVITY FED RESIN.

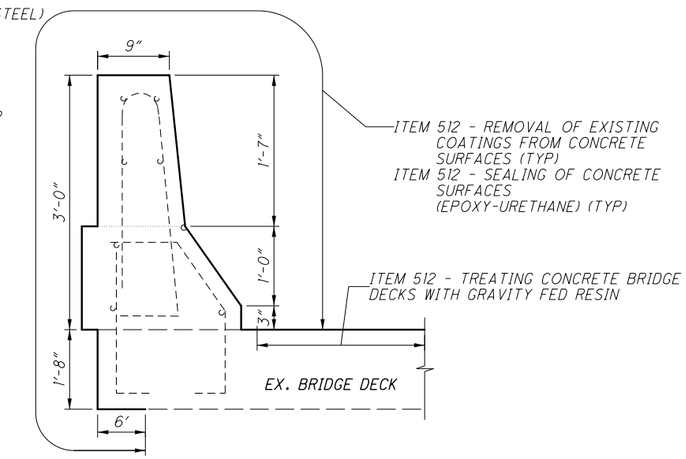
5) PERFORM ITEM 409 - SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS AFTER PROPOSED PAVEMENT IS PLACED AND ACCEPTED BY THE DEPARTMENT. ANY SAWED AND SEALED JOINTS REMOVED BY NEED OF UNSATISFACTORILY PLACED AND UNACCEPTED SURROUNDING ASPHALT CONCRETE WILL NOT BE PAID FOR BY THE DEPARTMENT, INCLUDING THE COST OF REMOVAL OF THE JOINT.

ESTIMATED QUANTITIES

ITEM	QUANTITY		UNIT	DESCRIPTION
	LOR-2-0646L	LOR-2-0646R		
202		10	FT	CURB REMOVED
202	80	80	FT	REMOVAL MISC.: JOINT SEALER
409	76	76	FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS
512	206	206	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	659	659	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN
512	206	206	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES
512	468	468	FT	REMOVAL OF EXISTING PAVEMENT MARKING
516	80	80	FT	JOINT SEALER
519	130	110	SF	PATCHING CONCRETE STRUCTURE
SPECIAL	1	1	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B OR C
609		10	FT	CURB, TYPE 2-A



JOINT SEALER DETAIL



PARAPET SEALING DETAIL

DESIGN AGENCY
ODOT DISTRICT THREE
OFFICE OF ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
JLL	JLL	KRB	05/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ACM		4700090/4700120	

STRUCTURE DETAILS
STRUCTURE LOR-2-6.46L&R
OVER BEAVER CREEK

LOR-2-3.86
PID No. 77537

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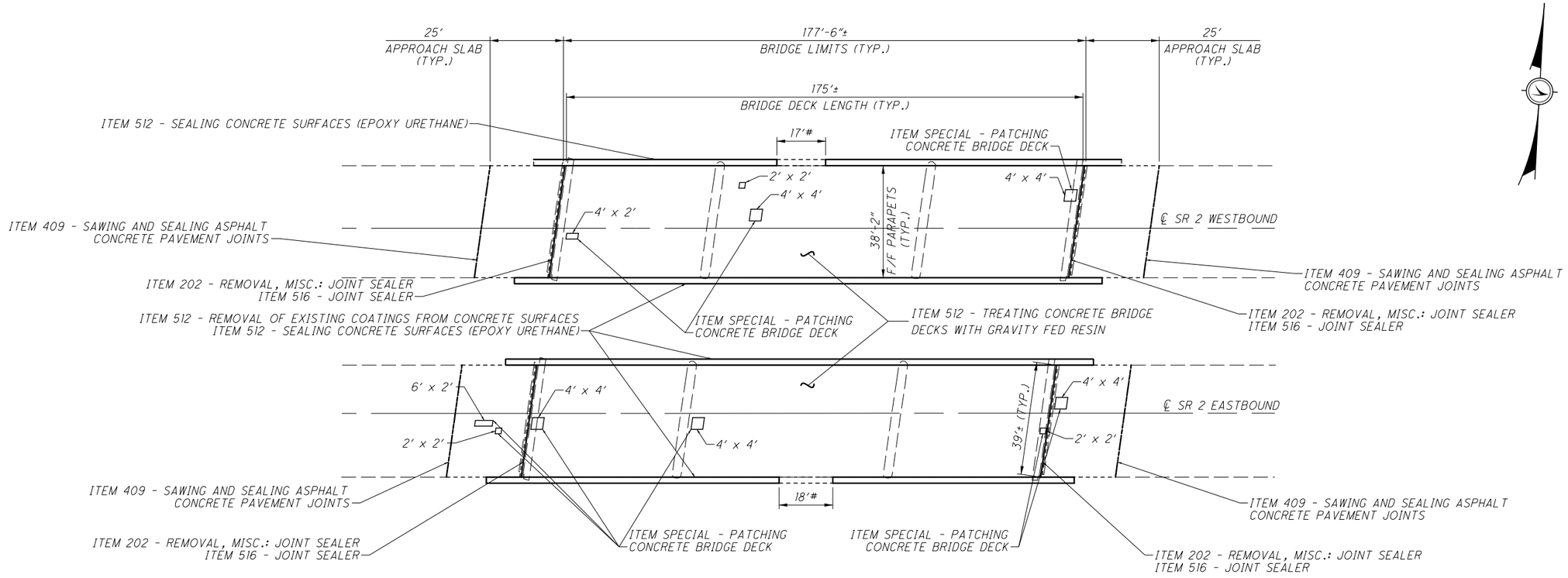


PLAN VIEW

NOTES:
1) THE EXISTING APPROACH GUARDRAIL IS NOT SHOWN FOR CLARITY.

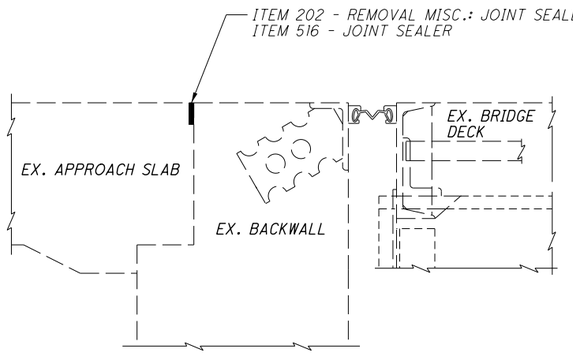
2) THE CONCRETE REPAIRS SHOWN ARE APPROXIMATE. EXACT LOCATIONS AND DIMENSIONS OF REPAIRS ARE TO BE DETERMINED BY THE ENGINEER.

3.) # SUSPEND AND RESUME PARAPET SEALING AT OVERHEAD SIGN.

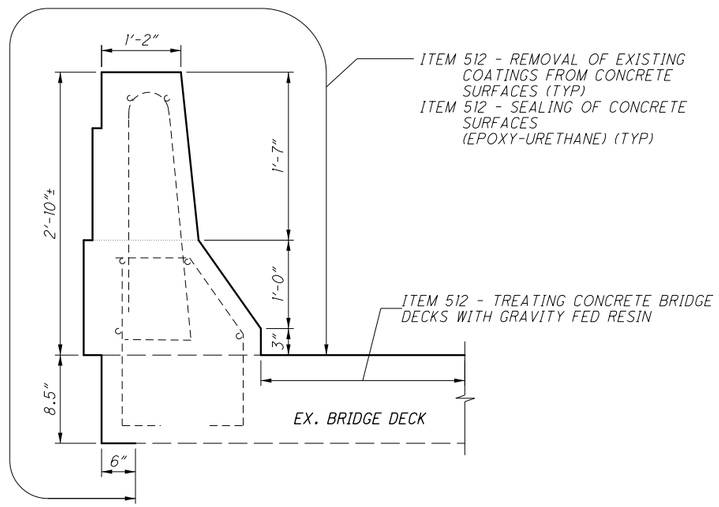
4.) SEAL ENTIRE BRIDGE DECK AND APPROACH SLABS WITH ITEM 512 - TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN. REMOVE EXISTING PAVEMENT MARKINGS WITH ITEM 512 - REMOVAL OF EXISTING PAVEMENT MARKING.

5.) PERFORM ITEM 409 - SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS AFTER PROPOSED PAVEMENT IS PLACED AND ACCEPTED BY THE DEPARTMENT. ANY SAWED AND SEALED JOINTS REMOVED BY NEED OF UNSATISFACTORILY PLACED AND UNACCEPTED SURROUNDING ASPHALT CONCRETE WILL NOT BE PAID FOR BY THE DEPARTMENT, INCLUDING THE COST OF REMOVAL OF THE JOINT.

ESTIMATED QUANTITIES				
ITEM	QUANTITY		UNIT	DESCRIPTION
	LOR-2-0742L	LOR-2-0742R		
202	78	78	FT	REMOVAL MISC.: JOINT SEALER
409	78	78	FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS
512	342	341	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	954	954	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN
512	179	341	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES
512	684	684	FT	REMOVAL OF EXISTING PAVEMENT MARKING
516	78	78	FT	JOINT SEALER
SPECIAL	5	8	SY	PATCHING CONCRETE BRIDGE DECK, TYPE B OR C



JOINT SEALER DETAIL



PARAPET SEALING DETAIL

DESIGN AGENCY
ODOT DISTRICT THREE
OFFICE OF ENGINEERING

DATE 05/2020
STRUCTURE FILE NUMBER 47002791470030 9

REVIEWED KRB
DRAWN JLL
REVISED .
DESIGNED JLL
CHECKED AGM

STRUCTURE DETAILS
STRUCTURE LOR-2-7.42L&R
OVER LOR-58

LOR-2-3.86
PID No. 77537

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