

STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

**GUE-77-2.50**  
**GUE-209-14.57**

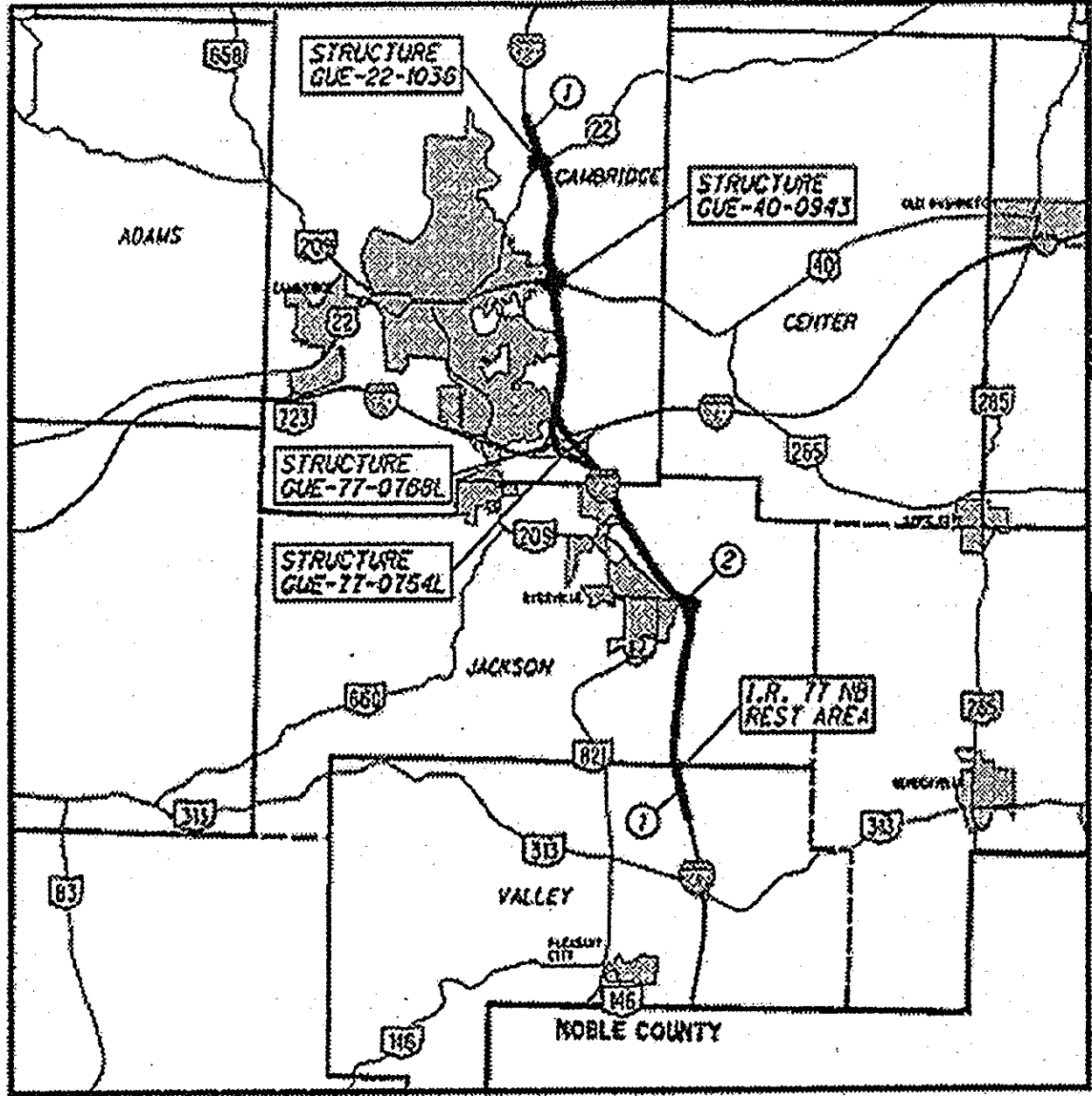
**CAMBRIDGE, JACKSON, AND VALLEY  
TOWNSHIPS**  
**GUERNSEY COUNTY**

PROJECT DESCRIPTION

ASPHALT CONCRETE RESURFACING ON I.R. 77 IN GUERNSEY COUNTY WITH ASPHALT OVERLAY OF CONCRETE PAVEMENT AT I.R. 77 NORTHBOUND REST AREA AND S.R. 209 RAMP ALONG WITH PARTIAL INTERCHANGE LIGHTING AND BRIDGE DECK SEALING ON STRUCTURES GUE-22-1036, GUE-40-0943, GUE-77-0754L, AND GUE-77-0768L.

PROJECT EARTH DISTURBED AREA = 0.4 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA = 0.2 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA = 0.6 ACRES

LOCATION	COUNTY	ROUTE	BEGIN SLM	END SLM	LENGTH MILES	CITY/VILLAGE
1	GUERNSEY	77	2.50	11.70	9.20	
2	GUERNSEY	209	14.57	14.79	0.22	



LOCATION MAP

LATITUDE: 39° 59' 55" LONGITUDE: 81° 33' 30"

PORTION TO BE IMPROVED

DESIGN DESIGNATION	I.R. 77	S.R. 209
Functional Classification	INTERSTATE	RPA
Opening Year ADT (2016)	24,000	4,500
Design Year ADT (2028)	27,000	4,600
Design Hourly Volume (2028)	2,700	460
Directional Distribution	53%	100%
Trucks (24 Hour B&C)	18%	4%
Design Speed	70mph	35mph
Legal Speed	70mph	35mph

RPA = RURAL PRINCIPAL ARTERIAL

DESIGN EXCEPTIONS

NONE

**UNDERGROUND UTILITIES**

CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.

**OHIO Utilities Protection SERVICE**

Call Before You Dig  
1-800-362-2764

(Non-members must be called directly)

**OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE**

1-800-925-0986

PLAN PREPARED BY:  
OHIO DEPARTMENT OF TRANSPORTATION  
DISTRICT 5 PLANNING & ENGINEERING

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2013 SPECIFICATIONS

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

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

ENGINEER'S SEAL		STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	
		BP-2.1	7/17/15	HL-20.11	1/16/15	TC-52.10	10/18/13	800	1/15/16
		BP-2.2	7/18/08	HL-30.11	1/16/15	TC-52.20	7/18/14	806	3/2/15
		BP-2.5	7/19/13	HL-30.21	1/17/14	TC-64.10	7/17/15	808	10/16/15
		BP-3.1	7/18/14	HL-30.22	1/17/14	TC-65.10	1/17/14	813	4/17/15
		BP-4.1	7/19/13	HL-40.10	1/17/14	TC-65.11	7/18/14	832	1/17/14
		BP-5.1	7/19/13	HL-60.11	1/17/14	TC-71.10	1/17/14		
		BP-9.1	7/19/13	HL-60.12	1/17/14	TC-72.20	7/18/14		
				HL-60.31	7/17/15				
		DM-4.4	7/20/12						
				MT-95.30	7/18/14				
		RM-3.1	7/19/13	MT-95.31	7/18/14				
				MT-95.32	7/18/14				
		HL-10.11	1/17/14	MT-97.10	7/18/14				
		HL-10.12	1/17/14	MT-98.10	7/18/14				
		HL-10.13	7/17/15	MT-98.29	7/19/13				
								SPECIAL PROVISIONS	

APPROVED: Dave Ray  
DATE: 1-8-16 DISTRICT DEPUTY DIRECTOR

APPROVED: Steve Wray  
DATE: 2-2-16 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO.  
**E130(417)**

PID NO.  
**91893**

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT  
**NONE**

**GUE-77-2.50**  
**GUE-209-14.57**

**1**  
**42**

GUE - IR 77-02.50/GUE-SR 209-14.57  
160184 PID - 91893  
Dist 5 4/7/2016

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

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## UTILITIES

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

## NOTIFICATION OF ROAD CLOSURE OR RESTRICTION

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF TWENTY ONE (21) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE RESTRICTIONS, LANE CLOSURES, AND OR ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY FAX AT (614) 887-4510 OR EMAIL AT [D05.PIO@DOT.STATE.OH.US](mailto:D05.PIO@DOT.STATE.OH.US)

DISTRICT PERMIT SECTION BY FAX AT (614) 887-4525 OR EMAIL AT [BRIAN.BOSCH@DOT.STATE.OH.US](mailto:BRIAN.BOSCH@DOT.STATE.OH.US)

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY FAX AT (614) 728-4099 OR EMAIL AT [HAULING.PERMITS@DOT.STATE.OH.US](mailto:HAULING.PERMITS@DOT.STATE.OH.US)

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

## CONTINGENCY QUANTITIES

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

## ITEM 209, LINEAR GRADING

IN ORDER TO PROVIDE POSITIVE DRAINAGE FROM THE ROADWAY SURFACE TO THE SHOULDER BREAK, THE EXISTING ROADWAY SHOULDERS SHALL BE GRADED AND SHAPED USING A GRADER OF ADEQUATE SIZE, TO PERFORM THE WORK, TO THE SATISFACTION OF THE ENGINEER.

ALL EXCESS MATERIAL REMAINING AROUND GUARDRAIL AND OTHER AREAS AFTER THE GRADER WORK IS COMPLETED AND NOT DISPOSED OF ON THE SITE, SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. ALL EQUIPMENT, LABOR, OR INCIDENTALS REQUIRED TO COMPLETE THIS ITEM SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICE BID FOR ITEM 209 LINEAR GRADING.

THIS WORK MAY BE INTERMITTENT AND SPREAD THROUGHOUT THE PROJECT LIMITS, AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL ONLY BE PAID FOR INTERSECTIONS AND GAPS IF THEY ARE WITHIN THE LIMITS OF A SECTION MARKED BY THE ENGINEER FOR GRADING.

AREAS WITH GUARDRAIL SHALL NOT BE EXCLUDED FROM LINEAR GRADING.

ALL LINEAR GRADING WORK SHALL BE DONE BEFORE PLACING THE ASPHALT SURFACE COURSE.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE LOCATION SUB-SUMMARY FOR THE ABOVE PURPOSES AND TO REPAIR EXISTING AGGREGATE SHOULDERS AS DIRECTED BY THE ENGINEER.

ITEM 209, LINEAR GRADING  
LOCATION 1 - 36.80 MILE

## ITEM 253, PAVEMENT REPAIR

ALL REPAIRS SHALL TAKE PLACE PRIOR TO THE PLANING/PAVING OPERATIONS. THE INTENT OF THIS OPERATION IS TO REPAIR THOSE AREAS OF PAVEMENT WHICH HAVE COMPLETELY FAILED (PUMPING OF SUB-BASE MATERIAL) AND NOT TO CORRECT SURFACE IRREGULARITIES. DEPTH OF EXCAVATION SHALL BE 6" OR TO THE TOP OF CONCRETE BASE. AFTER EXCAVATION HAS BEEN COMPLETED, THE FACE OF THE REPAIR SHALL BE COATED WITH ITEM 407 TACK COAT. REPLACEMENT MATERIAL WILL BE 6" OF ITEM 301 ASPHALT CONCRETE BASE, PG64-22 (PLACED AND COMPACTED AS DIRECTED).

REPAIR QUANTITIES MAY BE USED ON THE MAINLINE PAVEMENT OR ON PAVED SHOULDERS. ALL EXCAVATION, MATERIALS, LABOR, EQUIPMENT, TOOLS, TRAFFIC CONTROL AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE PAID FOR UNDER ITEM 253 PAVEMENT REPAIR.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE LOCATION SUB-SUMMARY FOR THE ABOVE DESCRIBED PURPOSE.

ITEM 253, PAVEMENT REPAIR  
LOCATION 1 - 100 CY

## ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE

DEPTH OF PLANING SHALL BE 1.5" FULL WIDTH OF PAVEMENT FOR MAINLINE, INCLUDING PAVED SHOULDERS, UNLESS OTHERWISE SHOWN IN THE PLAN OR AS DIRECTED BY THE ENGINEER.

THE ROADWAY SHALL BE PLANED SUCH THAT POSITIVE DRAINAGE IS CREATED FROM THE LANE LINE TO THE EDGE OF PAVEMENT IN TANGENT SECTIONS AND SHALL FOLLOW EXISTING SUPERELEVATIONS WHERE APPLICABLE. ALL REQUIREMENTS OF ITEM 254 SHALL APPLY.

## ITEM 407, TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.075 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

## ITEM 407, TACK COAT FOR INTERMEDIATE COURSE

THE RATE OF APPLICATION OF THE 407 TACK COAT FOR INTERMEDIATE COURSE SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.05 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

## ITEM 516, 2" DEEP JOINT SEALER, AS PER PLAN (A)

THE CONTRACTOR SHALL PLACE A 1" X 2.0" DEEP BEAD OF JOINT SEALER (AS PER 705.04) AT THE LOCATIONS SHOWN IN PLANS. THE CONTRACTOR SHALL SAW CUT A CHANNEL FOR THE JOINT SEALER. THE COST FOR SAW CUTTING THE CHANNEL FOR THE JOINT SEALER SHALL BE INCLUDED FOR PAYMENT WITH ITEM 516, 2" DEEP JOINT SEALER, AS PER PLAN.

## ITEM 617, COMPACTED AGGREGATE, AS PER PLAN

ALL AGGREGATE SHALL BE 100% CRUSHED LIMESTONE. ALL QUALITY REQUIREMENTS EXCEPT SHALE SHALL BE WAIVED. OTHER GRADATION REQUIREMENTS SHALL BE AS SPECIFIED EXCEPT THE INDEX SHALL BE WAIVED. IF SO PERMITTED, THE CONTRACTOR MAY USE ASPHALT CONCRETE PAVEMENT (RACP MEETING REQUIREMENTS OF 617.02) IN LIEU OF CRUSHED LIMESTONE.

## ITEM 621, RAISED PAVEMENT MARKER REMOVED

RPM REMOVAL SHALL NOT OCCUR SOONER THAN 10 DAYS PRIOR TO RESURFACING OF THE ROADWAY. ALL RPM'S REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

## PAVEMENT MARKINGS

STOP LINES, CROSSWALK LINES, CHANNELIZING LINES, ETC., SHOWN IN THE PLANS ARE TAKEN FROM EXISTING MARKINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DOCUMENT EXISTING MARKING LOCATIONS (i.e. BY USE OF VIDEO, PICTURES) AND PLACE NEW PAVEMENT MARKINGS AS NEAR AS POSSIBLE TO THE EXISTING LOCATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DOCUMENTATION OF PAVEMENT MARKING SHALL BE SUPPLIED TO THE ENGINEER BEFORE COMMENCEMENT OF ANY OPERATION WHICH WILL REMOVE/OBLITERATE MARKINGS.

## ITEM SPECIAL - MISC.: REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS

THIS ITEM SHALL BE USED TO REINFORCE TRANSVERSE JOINT CRACKS. PLACE REINFORCING MESH ON PLANED SURFACE, 5.0' WIDE FROM EDGE LINE TO EDGE LINE (24' LENGTH) CENTERED OVER TRANSVERSE JOINT CRACK. THE ENTIRE ROADWAY SHALL BE OVERLAYED WITH 3.25" ASPHALT CONCRETE AFTER PLACING OF THE REINFORCING MESH. THIS WORK SHALL BE PERFORMED ON ALL JOINTS THROUGHOUT THE PROJECT LIMITS AS DIRECTED BY THE PROJECT ENGINEER. THE PROJECT ENGINEER SHALL SELECT TRANSVERSE JOINT CRACKS UNTIL ALL OF THE MATERIAL SHOWN BELOW HAS BEEN UTILIZED. REINFORCING MATERIAL SHALL BE GLASGRID CG100 OR EQUIVALENT AND SHALL BE PLACED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND THIS NOTE.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, TRAFFIC CONTROL AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICE BID FOR ITEM SPECIAL - MISC.: REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS.

2 NB LANES - SLM 2.50 TO SLM 11.70 =  $9.20 \times 5280' = 48,576'$   
2 SB LANES - SLM 2.50 TO SLM 11.70 =  $9.20 \times 5280' = 48,576'$   
97,152' / 60' SPACING = 1,620 JOINTS  
1,620 JOINTS X 24' X 5' WIDE / 9 = 21,600 SQ. YD.

ITEM 690 SPECIAL - MISC.: REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS  
LOCATION 1 - 21,600 SY

## ITEM 611, INLET RECONSTRUCTED TO GRADE ITEM 611, CATCH BASIN ADJUSTED TO GRADE

THESE ITEMS SHALL BE USED TO ADJUST OR RECONSTRUCT EXISTING CATCH BASINS AND INLETS DUE TO ASPHALT CONCRETE OVERLAY AT THE LOCATIONS SHOWN ON SHEET 29. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED SHALL BE INCLUDED FOR PAYMENT WITH THE ITEMS LISTED BELOW.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE LOCATION SUB-SUMMARIES FOR THE ABOVE PURPOSES

ITEM 611, INLET RECONSTRUCTED TO GRADE  
LOCATION 1 - 1 EACH

ITEM 611, CATCH BASIN ADJUSTED TO GRADE  
LOCATION 2 - 1 EACH

## SURVEYING PARAMETERS

USE THE FOLLOWING VERTICAL AND HORIZONTAL POSITIONING PARAMETERS FOR SURVEYING AT THE I.R. 77 N.B REST AREA. SEE TABLE ON SHEET 25 FOR CONTROL POINTS FOR THE PROJECT:

VERTICAL POSITIONING  
ORTHOMETRIC HEIGHT DATUM: NAVD88 GEOID: GEOID12A(OHIO)

HORIZONTAL POSITIONING  
REFERENCE FRAME: NAD83(CORS96) ELLIPSOID: GRS80  
MAP PROJECTION: LAMBERT CONFORMAL CONIC  
COORDINATE SYSTEM: OHIO STATE PLANE - SOUTH ZONE  
COMBINED SCALE FACTOR: 1.000000000

UNITS ARE IN U.S. SURVEY FEET.

# ITEM 255, FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN

CONCRETE JOINT REPAIRS SHALL CONFORM TO CMS 255, SCD BP-2.5 AND THE DETAILS ON THIS SHEET. APPROXIMATE LOCATIONS ARE SHOWN IN THE PLANS AND SHALL BE APPROVED BY THE ENGINEER. ADDITIONAL LOCATIONS MAY BE NECESSARY.

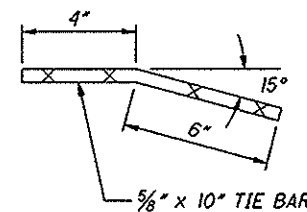
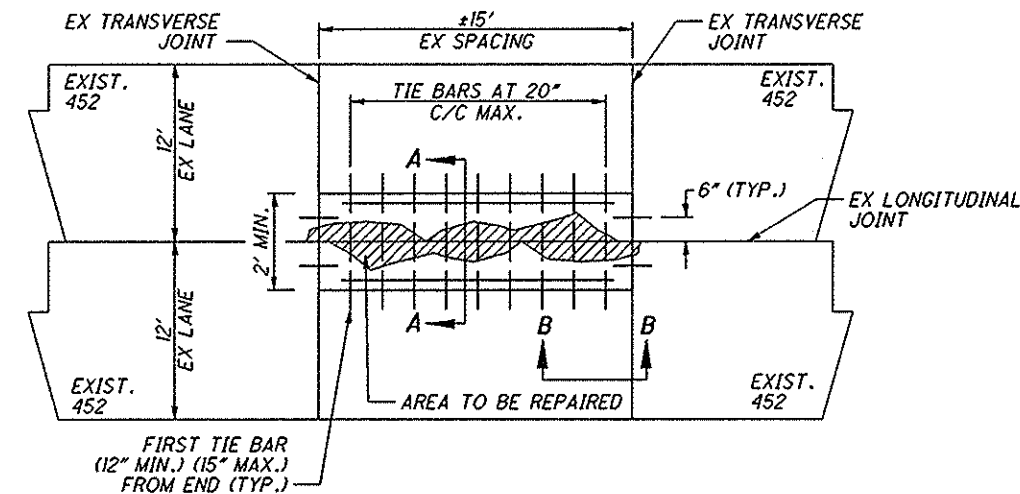
LONGITUDINAL JOINT REPAIRS SHALL CONFORM TO THE DETAILS ON THIS SHEET AND EXTEND THE ENTIRE CONCRETE PANEL LENGTH BETWEEN TWO EXISTING TRANSVERSE JOINTS. IF CONSECUTIVE CONCRETE PANELS NEED REPAIRED THEN A NEW TRANSVERSE JOINT SHALL BE INSTALLED PER BP-2.2. ANY WIDTH OVER THE 2' MINIMUM, WILL BE DETERMINED BY THE ENGINEER DURING LAYOUT.

TRANSVERSE JOINT REPAIRS SHALL CONFORM TO STANDARD CONSTRUCTION DRAWING BP-2.5.

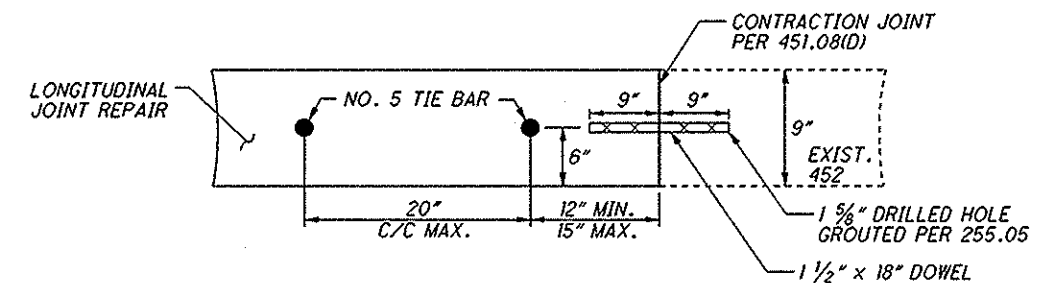
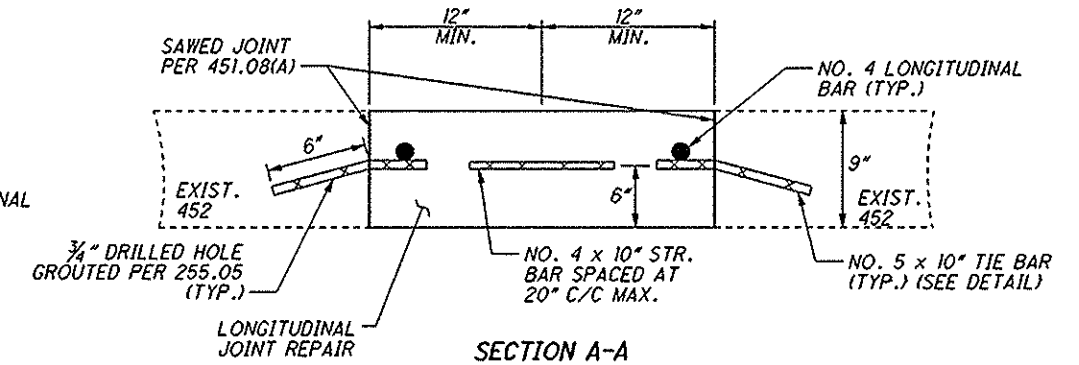
ALL REINFORCING STEEL SHALL BE EPOXY COATED AND CONFORM TO CMS 709. ALL CONCRETE SHALL BE CLASS QC MS AND CONFORM TO CMS 499.03 AND SUPPLEMENT I126.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM.

## CONCRETE PAVEMENT LONGITUDINAL JOINT REPAIR



TIE BAR DETAIL



SECTION B-B

## ITEM SPECIAL, VOID REDUCING ASPHALT MEMBRANE (VRAM)

AS PART OF THIS PROJECT AND FOR TESTING PURPOSES, THE CONTRACTOR WILL BE REQUIRED TO CONSTRUCT A SECTION OF COLD LONGITUDINAL JOINT USING VOID REDUCING ASPHALT MEMBRANE (VRAM) MATERIAL. THE SECTION SHALL BE ON THE CENTERLINE JOINT (LANE LINE) OF I.R. 77 NORTHBOUND FROM SLM 8.11 TO 9.27. THE MEMBRANE SHALL BE APPLIED TO THE SURFACE COURSE ONLY.

THE VRAM MATERIAL SHALL CONFROM TO THE SPECIFICATIONS FOUND IN THE SPECIAL PROVISIONS AT THE LINK BELOW:

FTP://FTP.DOT.STATE.OH.US/PUB/DISTRICTS/D05/PROJECTS/GUE/91893/

JOINT CORING AS PER 806.06 WILL NOT BE REQUIRED FOR ALL ASPHALT CONCRETE PLACED WITH COLD LONGITUDINAL JOINTS USING VRAM MATERIAL. THE CONTRACTOR WILL BE REQUIRED TO USE THE SAME COLD JOINT CONSTRUCTION TECHNIQUES, EQUIPMENT, AND ROLLER PATTERNS USED ON THE REMAINDER OF THE PROJECT WHEN CONSTRUCTING ASPHALT CONCRETE IN THE VRAM SECTIONS. OBTAIN 10 MAT CORES FOR EACH LOT OF MATERIAL PER 806.05. PAY FACTORS FOR EACH LOT OF MATERIAL WILL BE DETERMINED PER TABLE 806.05-1.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM. THE FOLLOWING QUANTITY IS BEING CARRIED TO THE GENERAL SUMMARY FOR THE WORK STATED WITHIN THIS NOTE:

ITEM SPECIAL, VOID REDUCING ASPHALT MEMBRANE (VRAM)..... 6,125 FT

GENERAL NOTES

GUE-77-2.50  
GUE-209-14.57

3  
42

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF TWO LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON I.R. 77, EXCLUDING THE CLOSURE TIMES STATED IN THE LANE VALUE CONTRACT TABLE BELOW.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON S.R. 209, U.S. 22, AND U.S. 40 EXCLUDING THE CLOSURE TIMES STATED IN THE LANE VALUE CONTRACT TABLE BELOW.

TRAFFIC SHALL BE MAINTAINED ON I.R. 77/ S.R. 209 RAMPS AT ALL TIMES, EXCLUDING THE CLOSURE TIMES SHOWN IN THE A + B BIDDING CONTRACT TABLE BELOW WHEN CONCRETE REPAIRS SHALL BE COMPLETED.

THE I.R. 77 NORTHBOUND REST AREA SHALL BE CLOSED DURING CONSTRUCTION. WHEN REST AREA WORK IS COMPLETED, CONTACT FACILITIES MANAGER BOB ROAHRIG AT 740.323.5150 FOR ACCEPTANCE OF WORK.

NOTE: ALL DECK SEALING AND PAVING ON I.R. 77 SHALL BE COMPLETED DURING NIGHT TIME HOURS AS SHOWN IN THE LANE VALUE CONTRACT TABLE BELOW.

LANE VALUE CONTRACT TABLE

LOCATION	CRITICAL WORK: TIME WHEN ONE (1) LANE MAY BE CLOSED	TIME UNIT	DISINCENTIVE (\$ PER TIME UNIT)
BRIDGE NO. GUE-22-1036 GUE-40-0943	**7:00 P.M. - 7:00 A.M.	1 HOUR	\$1,000
I.R 77 NB & S.B.	7:00 P.M. - 7:00 A.M.	15 MIN.	\$2,500
BRIDGE NO. GUE-77-0754L GUE-77-0768L			

\*\*RAMP CLOSURES PERMITTED ON U.S. 22 AND U.S. 40 FOR DECK SEALING AT APPROVAL OF ENGINEER

A + B BIDDING CONTRACT TABLE

CRITICAL WORK - TIME WHEN RAMP MAY BE CLOSED	RAMP A (77/209)	RAMP B (77/209)	RAMP C (77/209)	RAMP D (77/209)
MINIMUM DAYS	4	4	4	4
MAXIMUM DAYS	6	6	6	6
MAX. INCENTIVE DAYS	2	2	2	2
INCENTIVE PER DAY	\$7,500	\$7,500	\$7,500	\$7,500
MAXIMUM INCENTIVE	\$15,000	\$15,000	\$15,000	\$15,000
FUNDING SPLIT	01/IMS/PV			

AT NO TIME SHALL ANY OF THE RAMPS BE CLOSED CONCURRENTLY

THE PERMITTED CLOSURE TIMES LISTED IN THE LANE VALUE AND A+B BIDDING CONTRACT TABLES WILL BE IN EFFECT 14 CALENDAR DAYS PRIOR TO THE BID LETTING DATE FOR THIS PROJECT. NO WORK WITHIN ACTIVE TRAVEL LANES OR WHICH WILL SLOW TRAFFIC IS PERMITTED AT ANY OTHER TIMES.

LANE/ RAMP CLOSURES WILL BE ACCOMPLISHED IN ACCORDANCE WITH THE STANDARD DRAWINGS MT-95.30, MT-95.31, MT-95.32, MT-97.10, MT-98.10, AND MT-98.29. THE WORK ZONE CLOSURES SHALL BE NO LONGER THAN 2 MILES OR AS DIRECTED BY THE ENGINEER IN CONSIDERATION OF THE TRAFFIC FLOW. LANE CLOSURES SHALL ONLY OCCUR DURING CONTRACTOR WORK HOURS.

ITEM 614, MAINTAINING TRAFFIC (CONT'D.)

OVERNIGHT CLOSURES MUST MEET SPECIFICATIONS AS OUTLINED IN THE CONSTRUCTION AND MAINTENANCE OPERATIONS SECTION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. THE ROADWAY SHALL NOT BE OPENED TO TRAFFIC WITHOUT EITHER THE PERMANENT OR WORK ZONE MARKINGS IN PLACE.

PAVEMENT THAT IS PLANED SHALL NOT BE OPENED TO TRAFFIC. ALL PLANED AREAS MUST BE INLAID WITH A PROPOSED COURSE OF ITEM 442 ASPHALT CONCRETE PRIOR TO BEING OPENED TO TRAFFIC.

LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES ON I.R. 77 & RAMPS SHALL BE OPENED 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 WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00AM FRIDAY
THURSDAY (THANKSGIVING)	12:00N WEDNESDAY THROUGH 6:00AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE OF \$75 FOR EACH MINUTE THE ABOVE DESCRIBED LANE AND RAMP CLOSURE RESTRICTIONS ARE VIOLATED.

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.

THE CONTRACTOR WILL HAVE ON SITE AND IN WORKING AND OR SUITABLE CONDITION; ALL EQUIPMENT, TOOLS, LABORERS, LEO'S, TRAFFIC CONTROL DEVICES AND INCIDENTALS NECESSARY TO EFFICIENTLY PERFORM THE CLOSURE BEFORE INITIALIZING THE LANE CLOSURE.

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

DROP-OFFS IN WORK ZONES

DROP-OFFS THAT DEVELOP DURING CONSTRUCTION OPERATIONS AND THAT ARE NOT OTHERWISE PROVIDED FOR IN THE PLANS SHALL BE TREATED AS SHOWN ON STANDARD DRAWING MT-101.90. WHERE THE PLANS DO NOT PROVIDE SPECIFIC ITEMS FOR LABOR, EQUIPMENT, OR MATERIALS TO IMPLEMENT THE DROP-OFF TREATMENTS SPECIFIED, THEY SHALL BE INCLUDED FOR PAYMENT IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

NOTICE OF CLOSURE SIGN

THE CONTRACTOR SHALL PROVIDE NOTICE OF CLOSURE TO ALL RAMP TRAFFIC AT LEAST 7 CALENDAR DAYS IN ADVANCE THROUGH THE USE OF PORTABLE CHANGEABLE MESSAGE SIGNS. THE SIGNS MAY BE ERECTED ANYWHERE ON THE RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

COOPERATION BETWEEN CONTRACTORS

THE STATE OF OHIO HAS CONTRACTED PROJECT GUE-77-7.07 PID 93194, WHICH MAY BE CONSTRUCTED CONCURRENTLY WITH THIS PROJECT. IT IS IMPERATIVE THAT THE CONTRACTORS COOPERATE FULLY WITH EACH OTHER AS OUTLINED IN SECTION 105.08 OF THE CMS MANUAL. ALL MAINTENANCE OF TRAFFIC SHALL BE COORDINATED BETWEEN PROJECTS AND NOT CONFLICT WITH ONE ANOTHER.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHT TIME 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, MATERIAL AND INCIDENTALS TO PERFORM THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614, WORK ZONE PAVEMENT MARKINGS

THE CONTRACTOR SHALL PLACE ALL WORK ZONE PAVEMENT MARKINGS IN ACCORDANCE WITH THE CURRENT CMS MANUAL AND STANDARD CONSTRUCTION DRAWINGS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE LOCATION 1 SUMMARY:

ITEM 614, WORK ZONE LANE LINE, CLASS II - 18.40 MILE  
ITEM 614, WORK ZONE LANE LINE, CLASS III, 642 PAINT - 18.40 MILE

ITEM 614, WORK ZONE EDGE LINE, CLASS II - 36.80 MILE  
ITEM 614, WORK ZONE EDGE LINE, CLASS III, 642 PAINT - 36.80 MILE

**BUTT JOINT**

A BUTT JOINT WILL BE REQUIRED AT LOCATIONS SPECIFIED BELOW AND AT THE EXTRA AREAS WITH WEARING COURSE REMOVED.

**BUTT JOINTS SHALL BE AS PER STANDARD CONSTRUCTION DRAWING BP-3.1 UNLESS OTHERWISE SHOWN IN THE PLANS. PAYMENT FOR GRINDING BUTT JOINTS SHALL BE INCLUDED WITH PAVEMENT PLANING.**

MINIMUM 10' WEDGE LENGTH FOR ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC AT ALL BUTT JOINTS.

LOCATION	ROUTE	DESCRIPTION	S.L.M.	ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
				CU. YD.
1	I.R. 77	BEGIN WORK	2.50	2.0
		BRIDGE: GUE-77-0754L	7.54	5.6
		BRIDGE: GUE-77-0768L	7.68	4.2
		BRIDGE: GUE-77-0900L	9.00	4.8
		BRIDGE: GUE-77-0900R	9.00	4.8
		BRIDGE: GUE-77-0926L	9.26	4.8
		BRIDGE: GUE-77-0926L	9.26	4.8
		END WORK	11.70	2.0
		TOTAL		33.0

**GRINDING FOR BUTT JOINTS SHALL BE INCLUDED WITH ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE.**

**ITEM 614, DETOUR SIGNING, AS PER PLAN**

THE CONTRACTOR SHALL SUPPLY, ERECT, MAINTAIN, AND REMOVE THE DETOUR SIGNING. ALL **ROUTE SIGNS** DESIGNATED IN THIS PLAN WILL BE ODOT SUPPLIED AND CAN BE PICKED UP FROM AND RETURNED TO THE **ODOT DISTRICT FIVE OFFICE LOCATED AT 9600 JACKSONTOWN ROAD, JACKSONTOWN, OH 43030** BY THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE DISTRICT FIVE ROADWAY SERVICES MANAGER AT **740-323-4400** A MINIMUM OF SEVEN DAYS PRIOR TO PICK UP OF ALL ROUTE SIGNS DESIGNATED IN THIS PLAN AS ODOT SUPPLIED.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIAL AND INCIDENTALS TO PERFORM THIS WORK SHALL BE INCLUDED IN THE **LUMP SUM** BID FOR **ITEM 614, DETOUR SIGNING, AS PER PLAN.**

**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.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND 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.

**AN ESTIMATED QUANTITY OF 50 EACH HAS BEEN PROVIDED IN THE LOCATION 1 SUB-SUMMARY.**

**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, ON SITE, FOR THE DURATION OF THE PROJECT. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FEET AND 475 FEET, RESPECTIVELY.

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

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

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

THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 2 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.

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

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

THE PCMS 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.

**ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN (CONT'D.)**

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.

A TOTAL OF **6 PCMS** SHALL BE REQUIRED FOR THIS PROJECT.

6 SIGNS x 60 DAYS = 360 DAY

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE **LOCATION 1 SUB-SUMMARY:**

**ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN – 360 DAY**

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED IN THIS NOTE WILL NOT GENERALLY BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (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) SHOULD BE PROVIDED FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS:

- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED. IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.
- WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

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

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

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LAW ENFORCEMENT OFFICERS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE LOCATION 1 SUMMARY:

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE - 500 HOURS

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

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

ITEM 614, 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 DIRECTION  
WZ-30533 GUE-77-2.50-11.70 NB/SB

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF  $\geq 55$  MPH, 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 DIVIDED 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. THE PRIMARY SIGNING STRATEGY USES DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLIES. THE SECONDARY STRATEGY USES TEMPORARY FLATSHEET SPEED LIMIT SIGNS (R2-1) FOR WHEN THERE ARE NO DSL SIGN ASSEMBLIES ON THE APPROVED LIST, OR DSL SIGN ASSEMBLIES ARE NOT AVAILABLE.

WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, SUPPLEMENTAL SPECIFICATION (SS) 808, AND TRAFFIC SCD MT-104.10. WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS SHALL BE IN ACCORDANCE WITH THIS NOTE AND SCD MT-104.10. ADDITIONALLY PAYMENT MAY BE REMOVED, OR A DISINCENTIVE APPLIED, FOR WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS THE SAME AS DESCRIBED IN THE MOST RECENT PUBLICATION OF SS 808 IN REGARDS TO WZSZS USING DSL SIGN ASSEMBLIES (SEE SS 808.06 PARAGRAPHS 4 THROUGH 7, INCLUDING TABLE 1).

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.

ITEM 614, WORK ZONE SPEED ZONES (WZSZS) (CONT'D.)

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRE-CONSTRUCTION, 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 ZOE 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 ( $\geq 55$  MPH) 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 QUANTITIES HAS BEEN CARRIED TO THE LOCATION 1 SUB-SUMMARY:

ITEM 614, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY - 40 SIGN MNTH

(11.70-2.50 MILES / 1 MILE = 10 DSL SIGN ASSEMBLIES FOR 2 MONTHS FOR BOTH NORTHBOUND AND SOUTHBOUND DIRECTIONS OF I.R. 77)

SEQUENCE OF OPERATIONS

IT IS THE INTENT OF THIS SEQUENCE OF OPERATIONS TO PROVIDE A WORK AREA FOR THE CONTRACTOR WHILE ALSO MAINTAINING TRAFFIC IN A MANNER WHICH IS SAFE FOR THE TRAVELING PUBLIC. IT MAY BE NECESSARY FOR THE CONTRACTOR TO ALTERNATE BETWEEN PHASES IN ORDER TO MEET WORK RESTRICTIONS FOUND IN ODOT'S "DROP-OFFS IN WORK ZONES" STANDARD DRAWING MT-101.90.

IF THE CONTRACTOR SO ELECTS, HE/SHE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS ARE FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE ENGINEER.

ALL FULL DEPTH PAVEMENT REPAIRS SHALL BE COMPLETED PRIOR TO PLANING, DURING THE SEQUENCE OF OPERATIONS FOR PAVING OR PRIOR TO THE PAVING OPERATION USING A SIMILAR SEQUENCE OF OPERATIONS AS SHOWN BELOW.

ALL WORK NOT SPECIFIED IN THE SEQUENCE OF OPERATIONS CAN BE COMPLETED ANYTIME DURING THE DURATION OF THE PROJECT AT THE APPROVAL OF THE ENGINEER.

PHASE 1: BEGIN PROJECT TO END PROJECT

- INSTALL NECESSARY TRAFFIC CONTROL DEVICES, CLOSE OUTSIDE LANE AND MAINTAIN TRAFFIC BY USE OF THE INSIDE LANE AND PAVED SHOULDER.
- FILL IN RUMBLE STRIPS ON OUTSIDE SHOULDER WITH ITEM 442 INTERMEDIATE COURSE TO ALLOW FOR MAINTAINING TRAFFIC ON SHOULDER.
- REMOVE TRAFFIC CONTROL DEVICES FOR CLOSING INSIDE LANE.

PHASE 2: BEGIN PROJECT TO END PROJECT

- INSTALL NECESSARY TRAFFIC CONTROL DEVICES, CLOSE INSIDE LANE AND MAINTAIN TRAFFIC BY USE OF THE OUTSIDE LANE AND PAVED SHOULDER.
- PLANE INSIDE LANE AND SHOULDER AT DEPTHS DETAILED IN PLANS.
- PLACE JOINT/CRACK REINFORCING MATERIAL
- IMMEDIATELY PLACE ITEM 442, ASPHALT CONCRETE INTERMEDIATE COURSE FOR INSIDE LANE AND SHOULDER. COMPLETE ALL OTHER RELATED WORK AS PER TYPICAL SECTION.
- REMOVE TRAFFIC CONTROL DEVICES FOR CLOSING INSIDE LANE.

PHASE 3: BEGIN PROJECT TO END PROJECT

- INSTALL NECESSARY TRAFFIC CONTROL DEVICES, CLOSE OUTSIDE LANE, AND MAINTAIN TRAFFIC BY USE OF THE INSIDE LANE AND PAVED SHOULDER.
- PLANE OUTSIDE LANE AND SHOULDER AT DEPTHS DETAILED IN PLANS.
- PLACE JOINT/CRACK REINFORCING MATERIAL
- IMMEDIATELY PLACE ITEM 442, ASPHALT CONCRETE INTERMEDIATE COURSE FOR OUTSIDE LANE AND SHOULDER, RAMP AREAS WHERE APPLICABLE, COMPLETE ALL OTHER RELATED WORK AS PER TYPICAL SECTION.
- REMOVE TRAFFIC CONTROL DEVICES FOR CLOSING OUTSIDE LANE.

PHASE 4: BEGIN PROJECT TO END PROJECT

- INSTALL NECESSARY TRAFFIC CONTROL DEVICES, CLOSE INSIDE LANE, AND MAINTAIN TRAFFIC BY USE OF THE OUTSIDE LANE AND PAVED SHOULDER.
- PLACE ITEM 806, ASPHALT CONCRETE SURFACE COURSE ON INSIDE LANE AND SHOULDER AS PER TYPICAL SECTION.
- REMOVE TRAFFIC CONTROL DEVICES FOR CLOSING INSIDE LANE.

PHASE 5: BEGIN PROJECT TO END PROJECT

- INSTALL NECESSARY TRAFFIC CONTROL DEVICES, CLOSE OUTSIDE LANE, AND MAINTAIN TRAFFIC BY USE OF THE INSIDE LANE AND PAVED SHOULDER.
- PLACE ITEM 806, ASPHALT CONCRETE SURFACE COURSE ON OUTSIDE LANE, PAVED SHOULDER AND RAMP AREAS, WHERE APPLICABLE, AS PER TYPICAL SECTION.
- REMOVE TRAFFIC CONTROL DEVICES FOR CLOSING OUTSIDE LANE.

PHASE 6: BEGIN PROJECT TO END PROJECT

- INSTALL RUMBLE STRIPS, PLACE ALL PERMANENT PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS. OPEN ROADWAY TO UNRESTRICTED TRAFFIC.

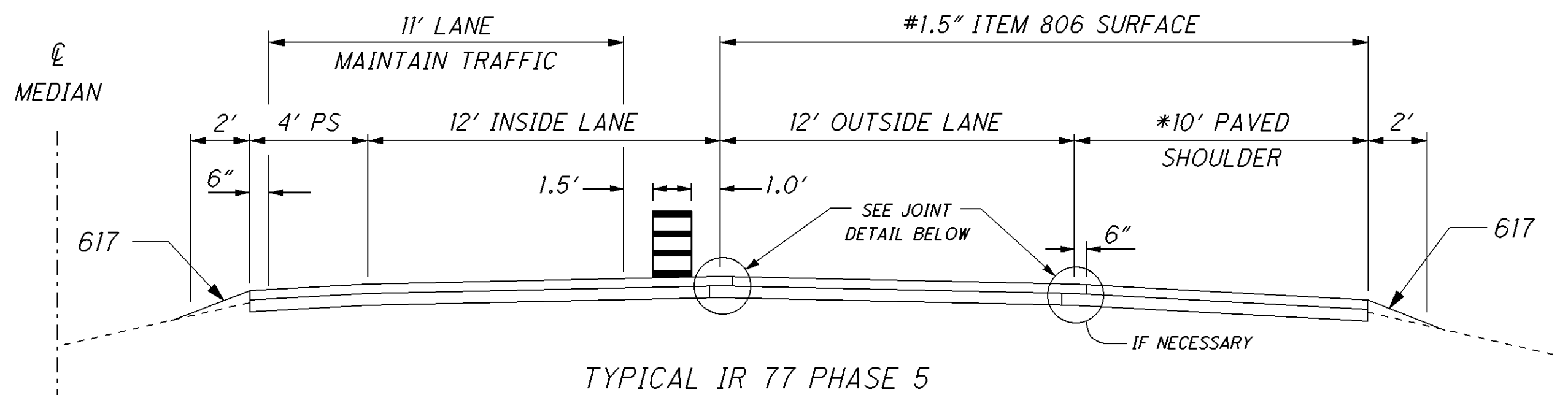
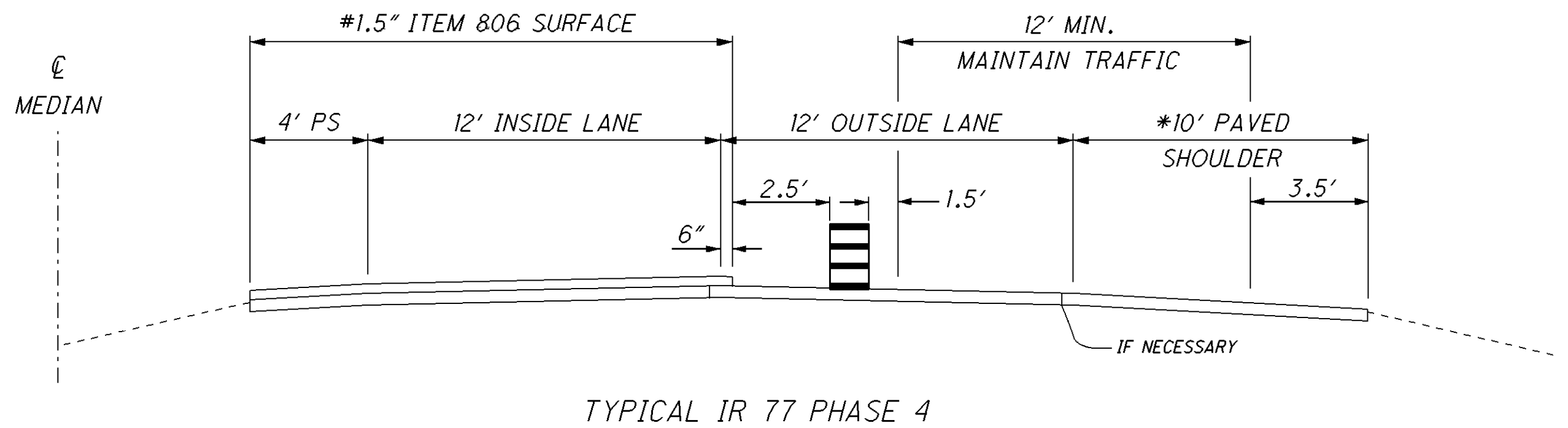
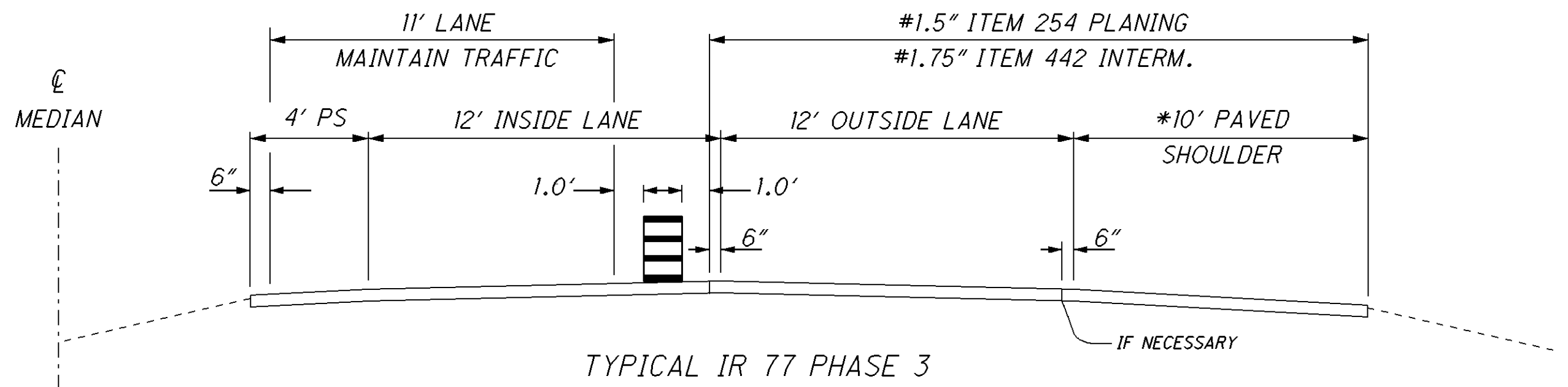
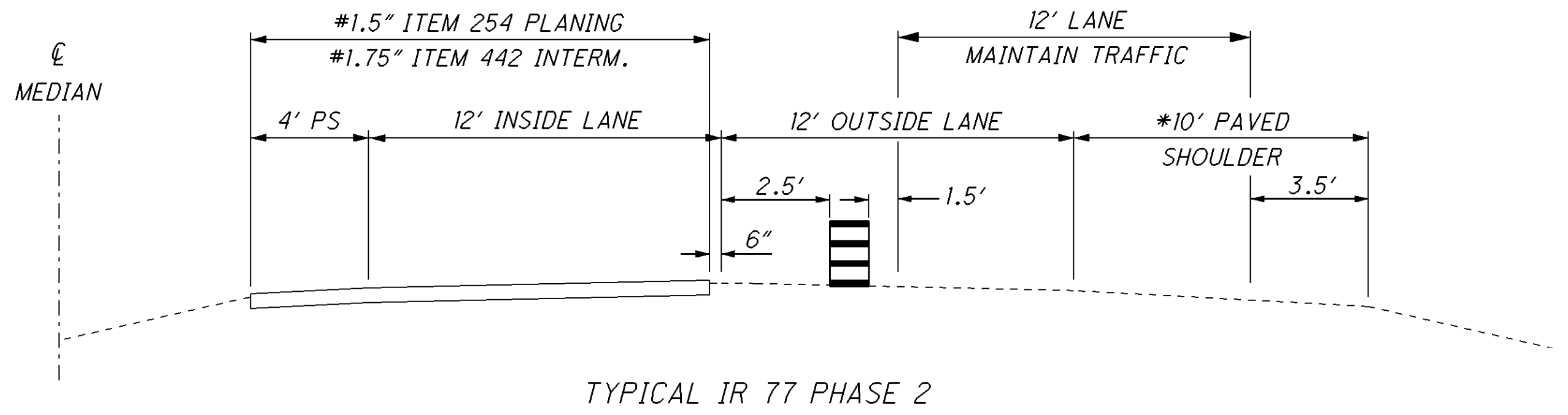
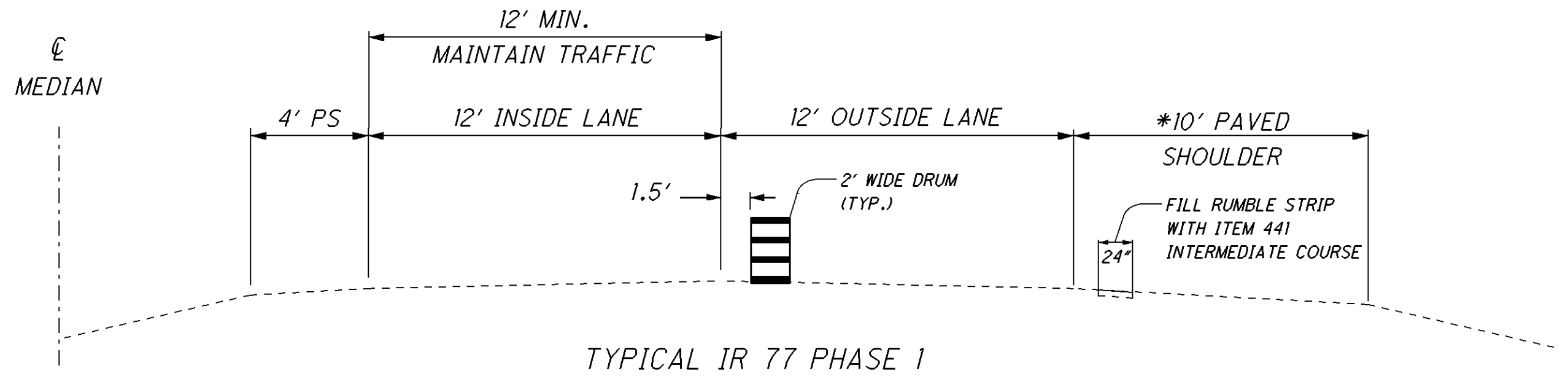
ALL TEMPORARY OR PERMANENT PAVEMENT MARKINGS SHALL BE IN PLACE BEFORE ANY PAVEMENT IS OPENED TO TRAFFIC.

ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)

THIS ITEM SHALL BE USED TO FILL IN RUMBLE STRIPS FOR MAINTAINING TRAFFIC AS DESCRIBED IN PHASE 1 ABOVE. AVERAGE THICKNESS FOR CALCULATION PURPOSES IS 0.75". THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

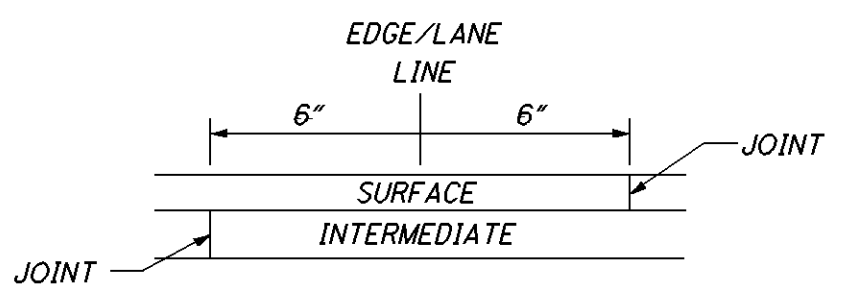
ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)

LOCATION 1:  $(2.50 - 11.70) \times 5280 = 48,576 \text{ ft} - (2(48,576 \times 2.0' \times (0.75"/12)))/27 = 449.8 = 450 \text{ CU.YD.}$



\* MILL AND FILL AT BRIDGE OVERPASSES SURFACE COURSE ONLY FROM SLM 7.63 TO 7.83

\* SHOULDER WIDTH VARIES IN RAMP AREAS



1

PORTABLE CHANGEABLE MESSAGE SIGN

77/209 CLOSED	USE 70/209
SCREEN 1	SCREEN 2

(PLACE APPROX. 1 MILE)  
FROM I.R. 77S/I.R. 70 INTERCHANGE  
FROM I.R. 70W/I.R. 77 INTERCHANGE  
FROM I.R. 70/S.R. 209 INTERCHANGE

2

PORTABLE CHANGEABLE MESSAGE SIGN

S.R. 209 CLOSED	USE S.R. 313
SCREEN 1	SCREEN 2

(PLACE APPROX. 1 MILE)  
FROM I.R. 77/S.R. 209 INTERCHANGE  
FROM I.R. 77/S.R. 313 INTERCHANGE

3

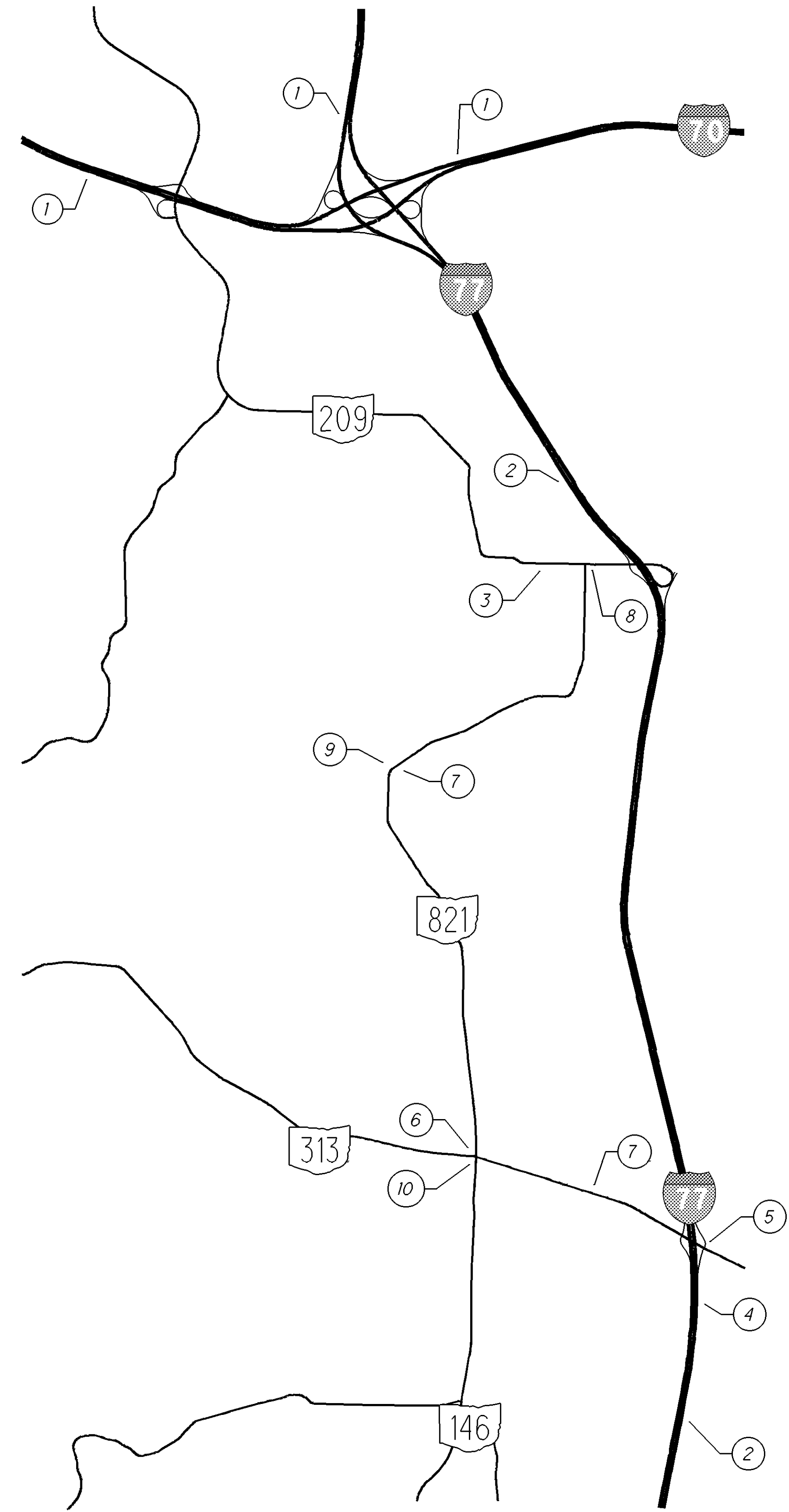
PORTABLE CHANGEABLE MESSAGE SIGN

I.R. 77 NB/SB CLOSED	USE S.R. 313
SCREEN 1	SCREEN 2

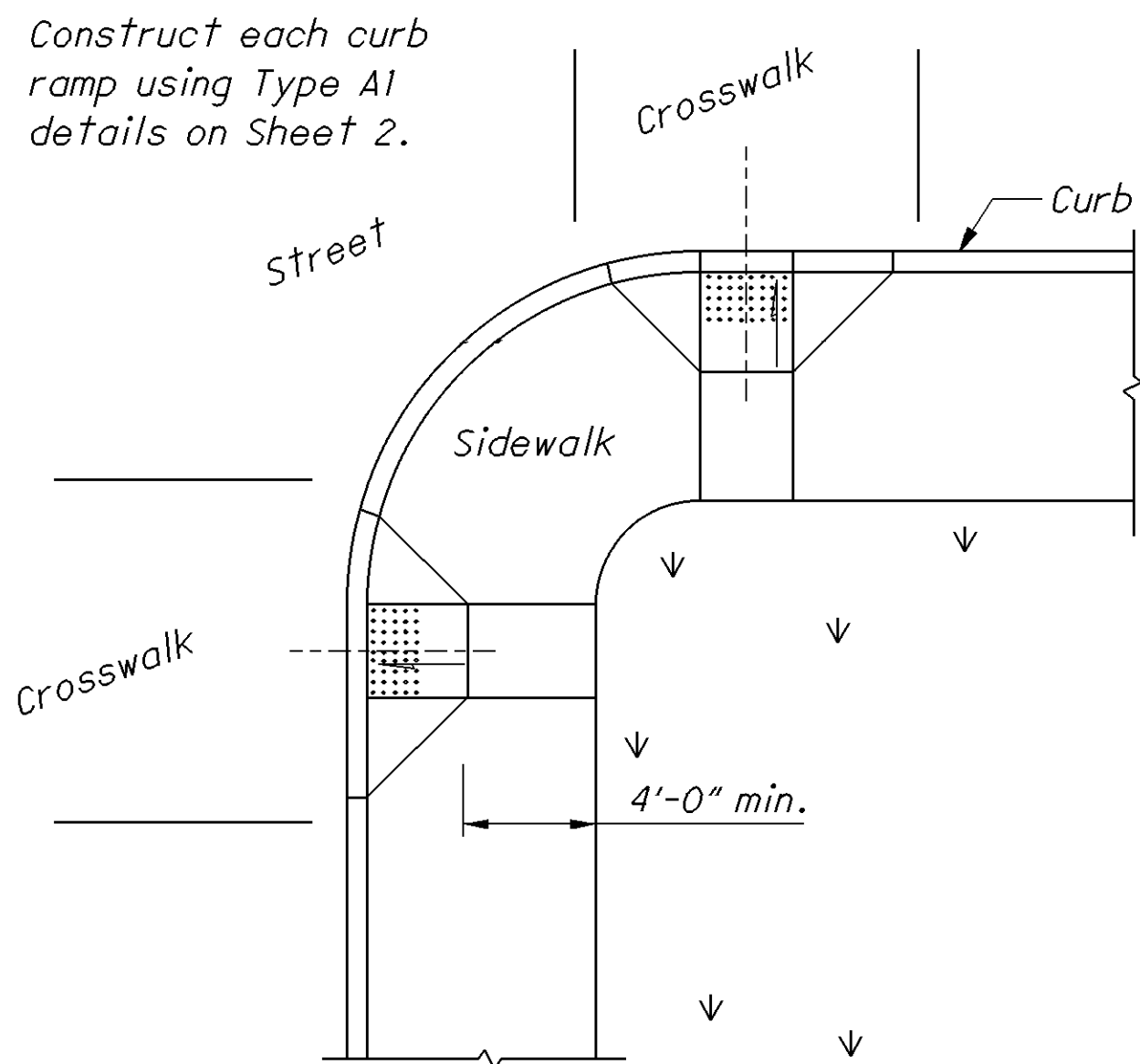
PLACE ON S.R. 209  
BEFORE S.R. 821

4	8
M4-8-30	M4-8-30
MI-5-36-3 (*)	MI-1-36-2 (*)
M6-2R-30	M6-1R-30
5	9
M4-8-30	M4-8-30
MI-5-36-3 (*)	MI-1-36-2 (*)
M6-1L-30	
6	10
M4-8-30	M4-8-30
MI-5-36-3 (*)	MI-1-36-2 (*)
M6-1R-30	M6-1L-30
7	
M4-8-30	
MI-5-36-3 (*)	

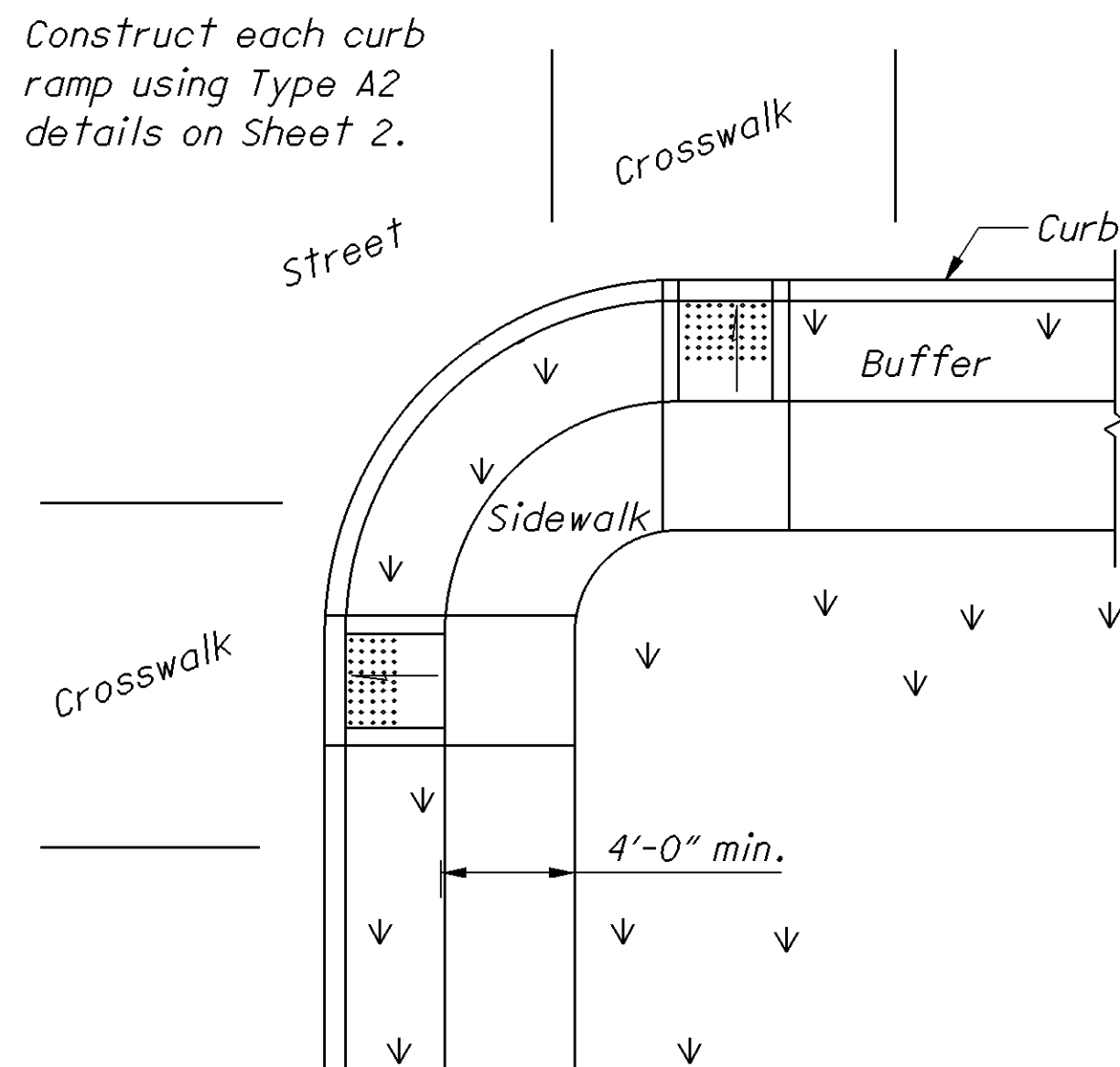
(\*) - SIGN TO BE SUPPLIED BY O.D.O.T.



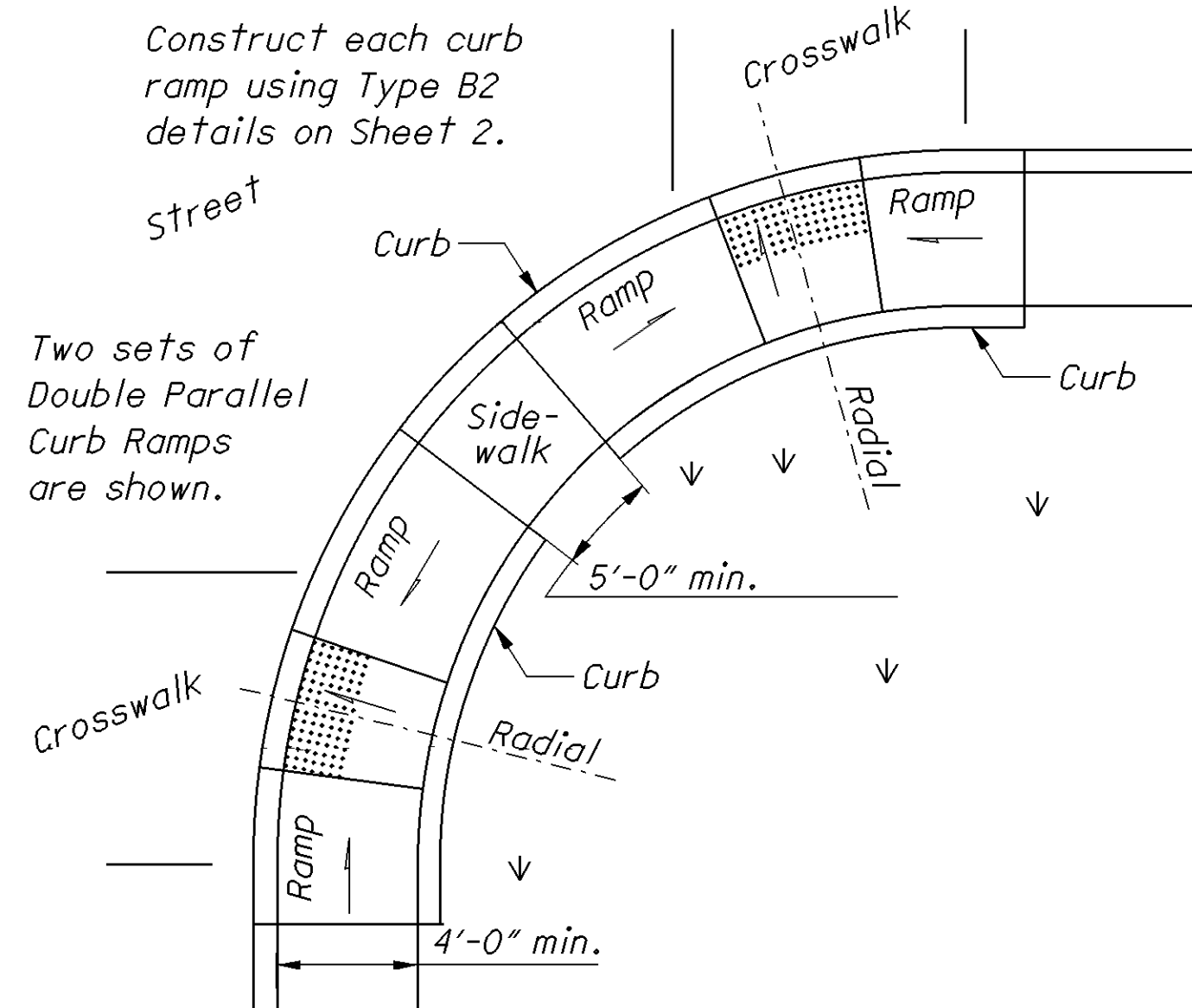
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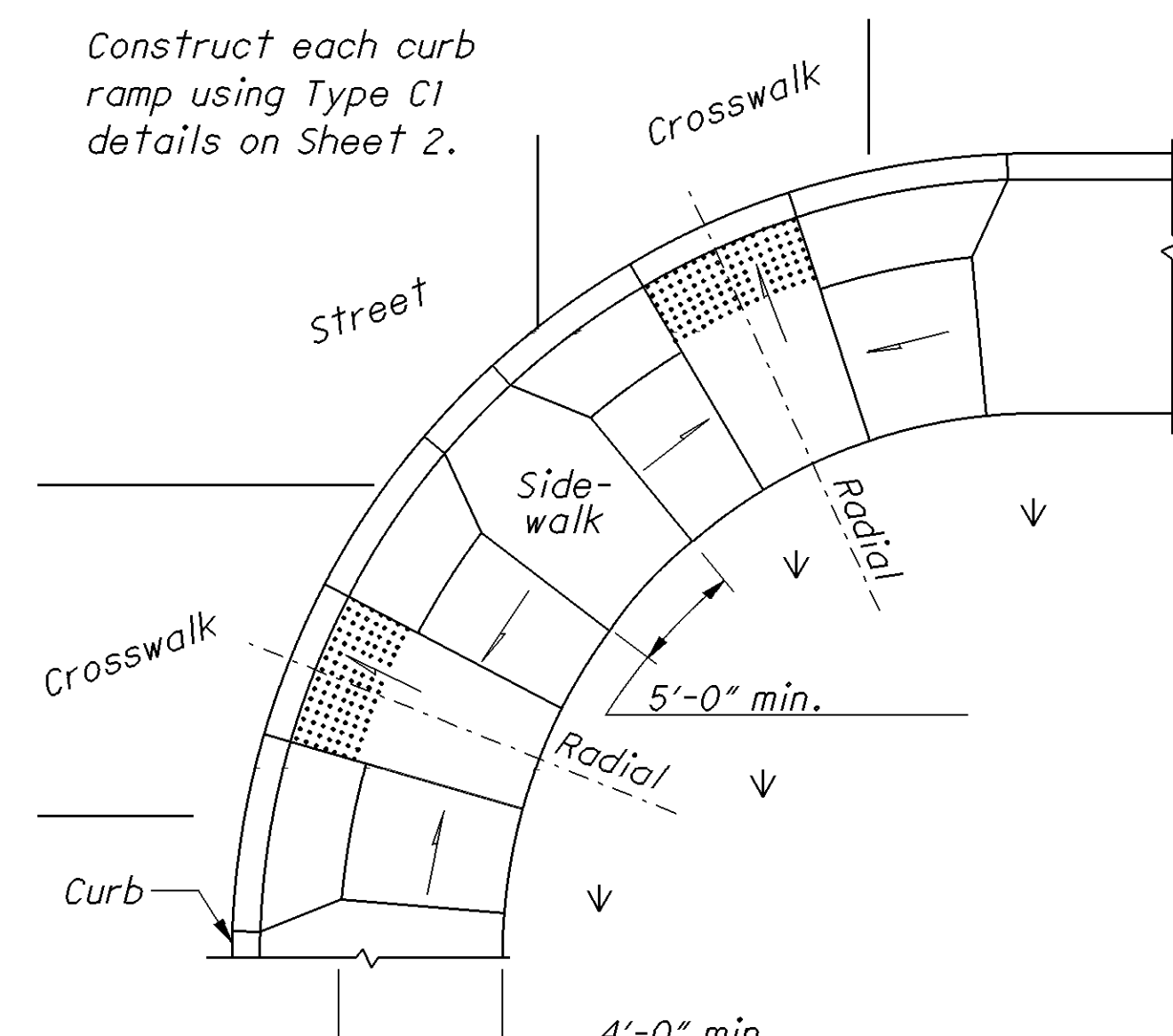
Use curb ramps with flared sides at locations with wide sidewalks.



Use curb ramps with returned curbs where buffer is wide enough to accommodate ramp slope.



Place on streets having wide turning radius and where sidewalks are narrow.

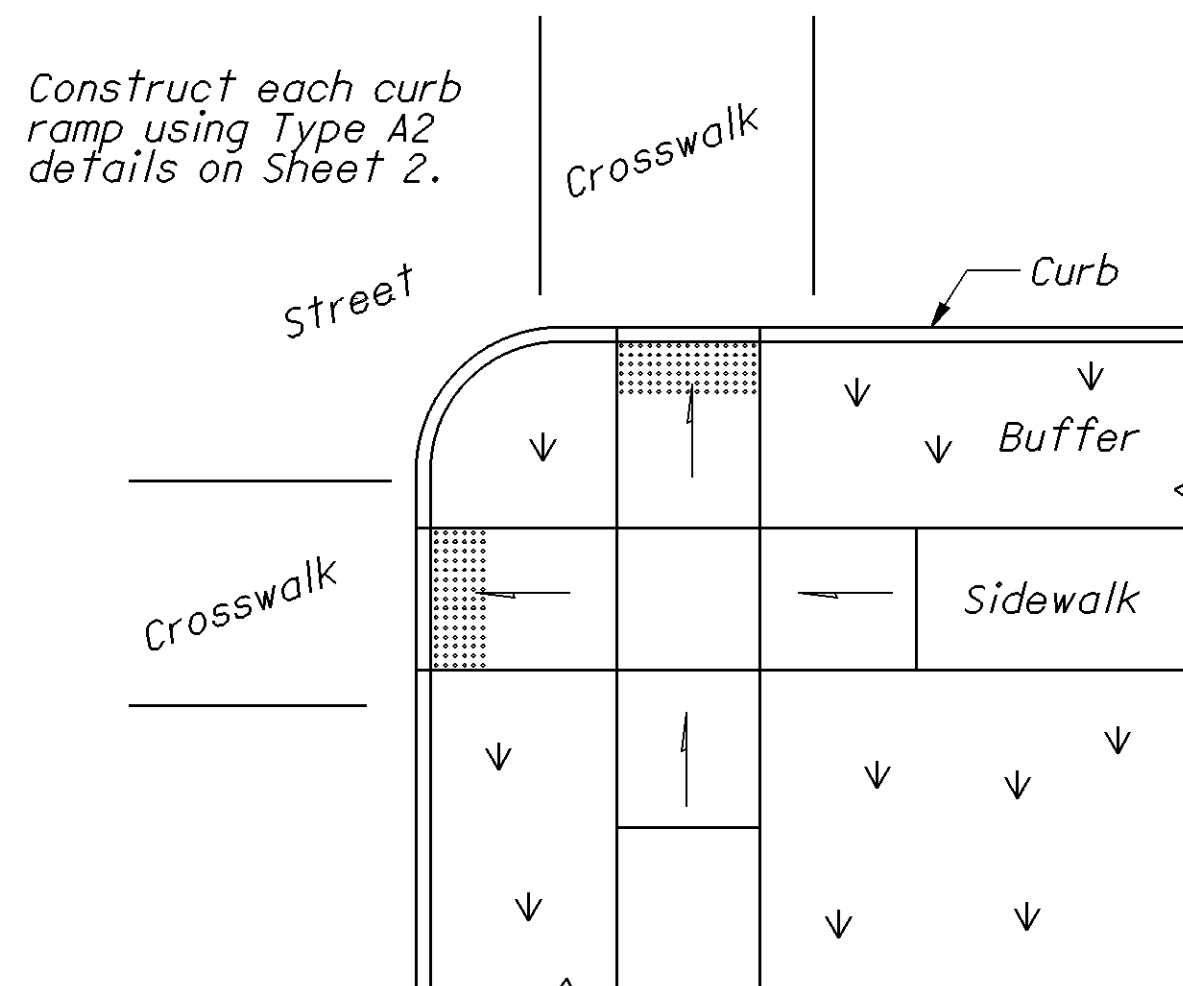


Curb ramp placement where streets have wide turning radius, and sufficient sidewalks width.

### PERPENDICULAR CURB RAMPS

### PARALLEL CURB RAMPS

### COMBINATION CURB RAMPS



### LEGEND

- 1 May be reduced to 3'-4" in existing sidewalks to better fit the walk configuration or where site conditions are restricted by narrow walks, pole foundations, drainage inlets, etc. The width may be tapered.

### NOTES

**GENERAL:** This drawing shows curb ramp types details and placement examples for curb ramp construction, including the installation of detectable warnings.

Curb ramp types are shown on Sheet 2 and include Perpendicular, Parallel, and Combined types as specified to be constructed in the locations shown on the project plans.

Curb ramps added to an existing intersection or walk should be individually detailed on the project plans to assure that the design is appropriate for site constraints and all items can be constructed to ADA standards. The contractor may adjust the placement of curb ramps if existing field conditions warrant with the approval of the Engineer.

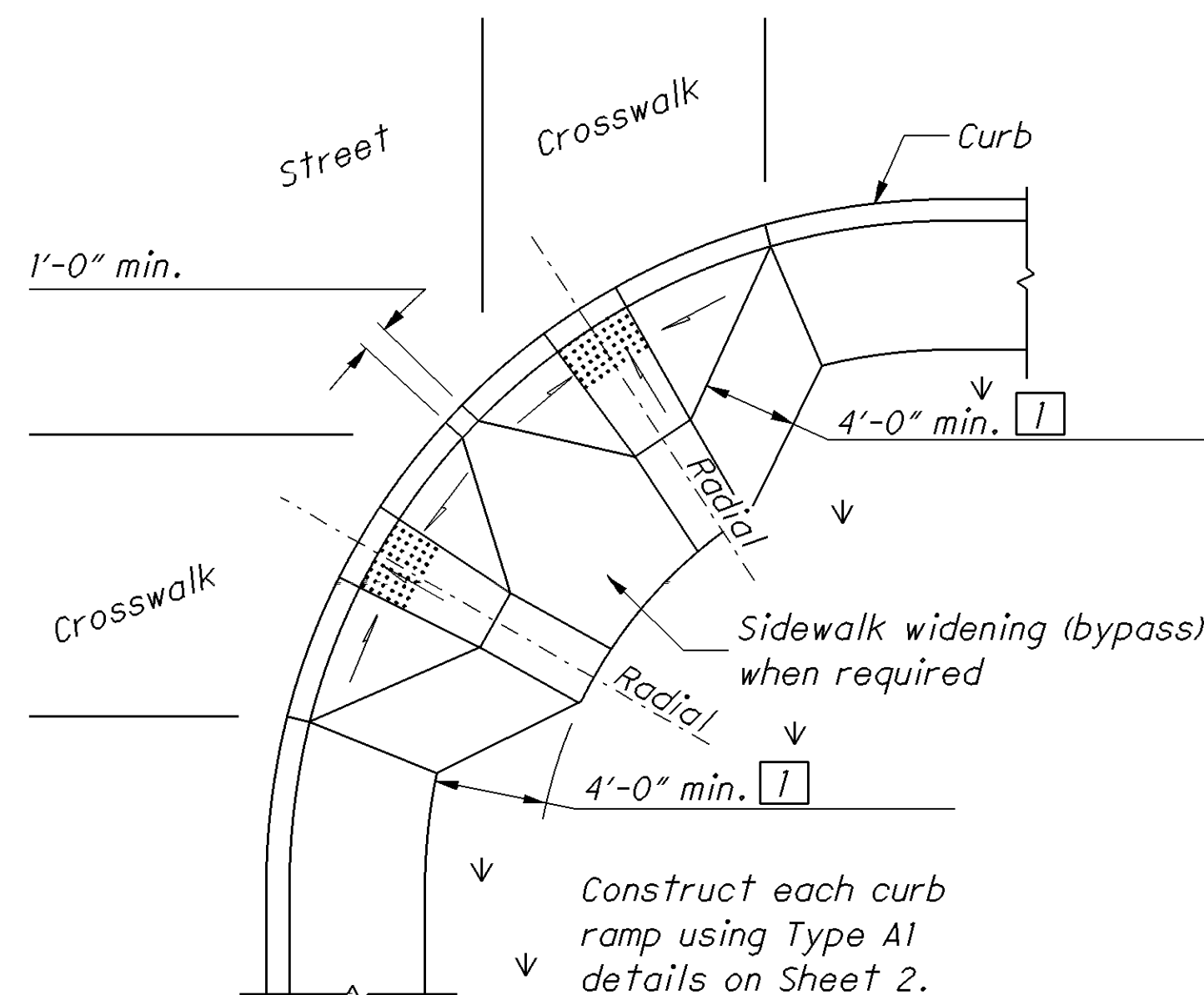
**METHOD OF MEASUREMENT:** The Department will measure Curb Ramps by the number of each completed curb ramp. The Department will measure Detectable Warnings in existing curb ramps and at grade crossings by the number of square feet completed.

Concrete Walk and Curb, Item 608 and 609, will be measured through out the curb ramp area and paid for under their respective Items.

**METHOD OF PAYMENT:** New Curb Ramps constructed in new or existing Walk are paid for under Item 690 Special Misc.: Curb Ramp, Type -- (A1, A2, B1, B2, B3, C1, C2, or D) each, and includes the cost of any additional materials and installation (including detectable warnings), grading, forming and finishing.

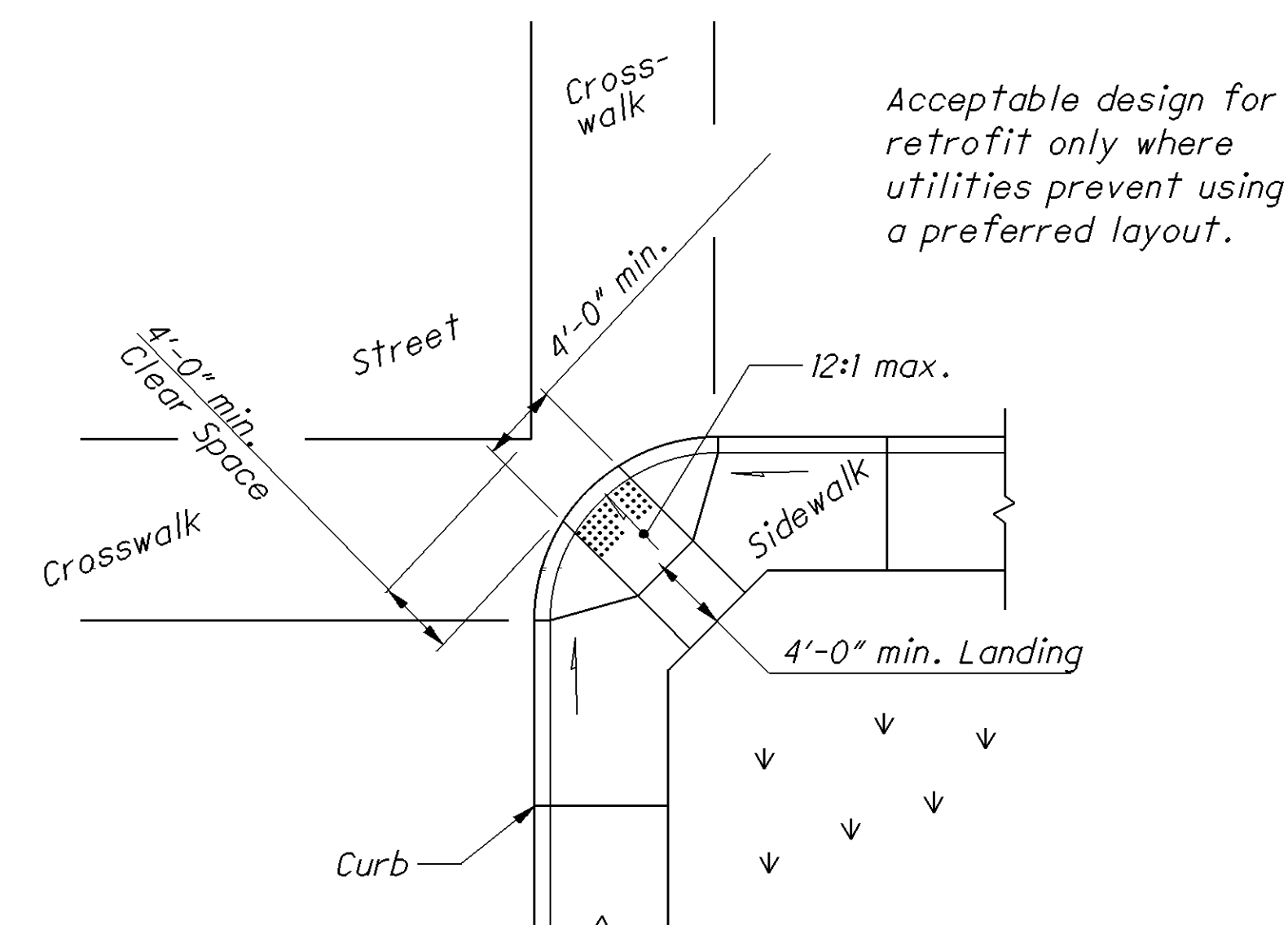
Detectable Warnings constructed in existing curb ramps or for at-grade crossing locations are paid for under Item 690-Special Misc.: Detectable Warning (Sq. Ft.) and is full compensation for excavation, backfill, base course material, reinforcing steel, expansion joint materials, and any incidentals required to complete the installation as specified. The work to cast the tiles in place will also require removal of existing pavement or sidewalk (Item 202) to the nearest joint, or if no joint exists, a minimum of 4 feet.

Removal of existing curb, pavement, walk (or existing curb ramps) are paid under Item 202.



Acceptable design on corners with wide turning radius where user is able to maneuver within crosswalk limits so as not to encroach into adjacent traveled lanes.

### PERPENDICULAR RAMPS



Use this design only for existing walks, and when site constraints prohibit other designs. The diagonal Type D ramp may be constructed as either a Perpendicular, Parallel or Combination curb ramp type. Avoid using where curb radii are less than 20'-0" .

### DIAGONAL RAMP (Type D)

### ACCEPTABLE CONSTRUCTION PLACEMENT

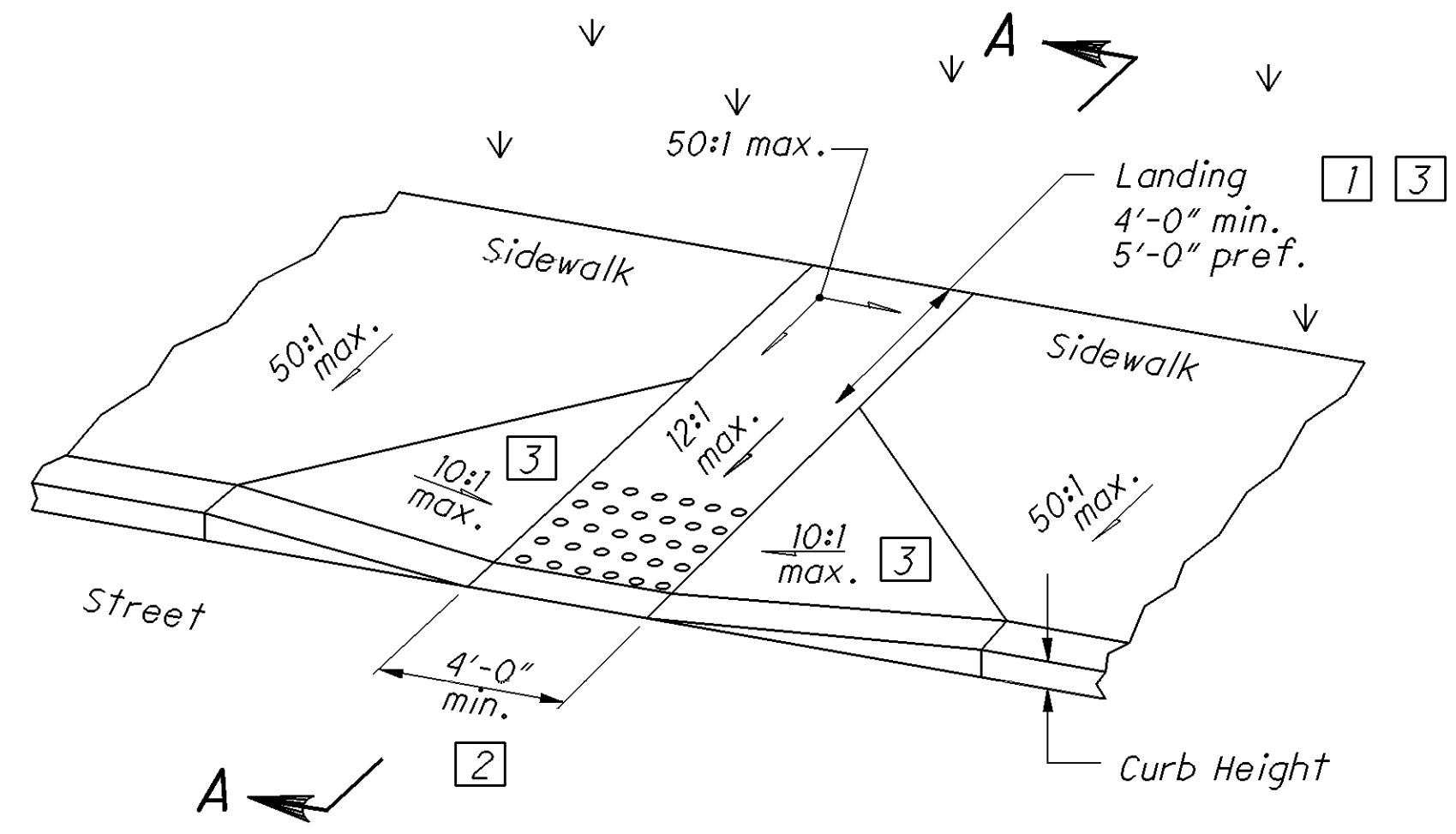
CALCULATED  
LME  
CHECKED  
JSJ

## CURB RAMP AND DETECTABLE WARNING DETAILS

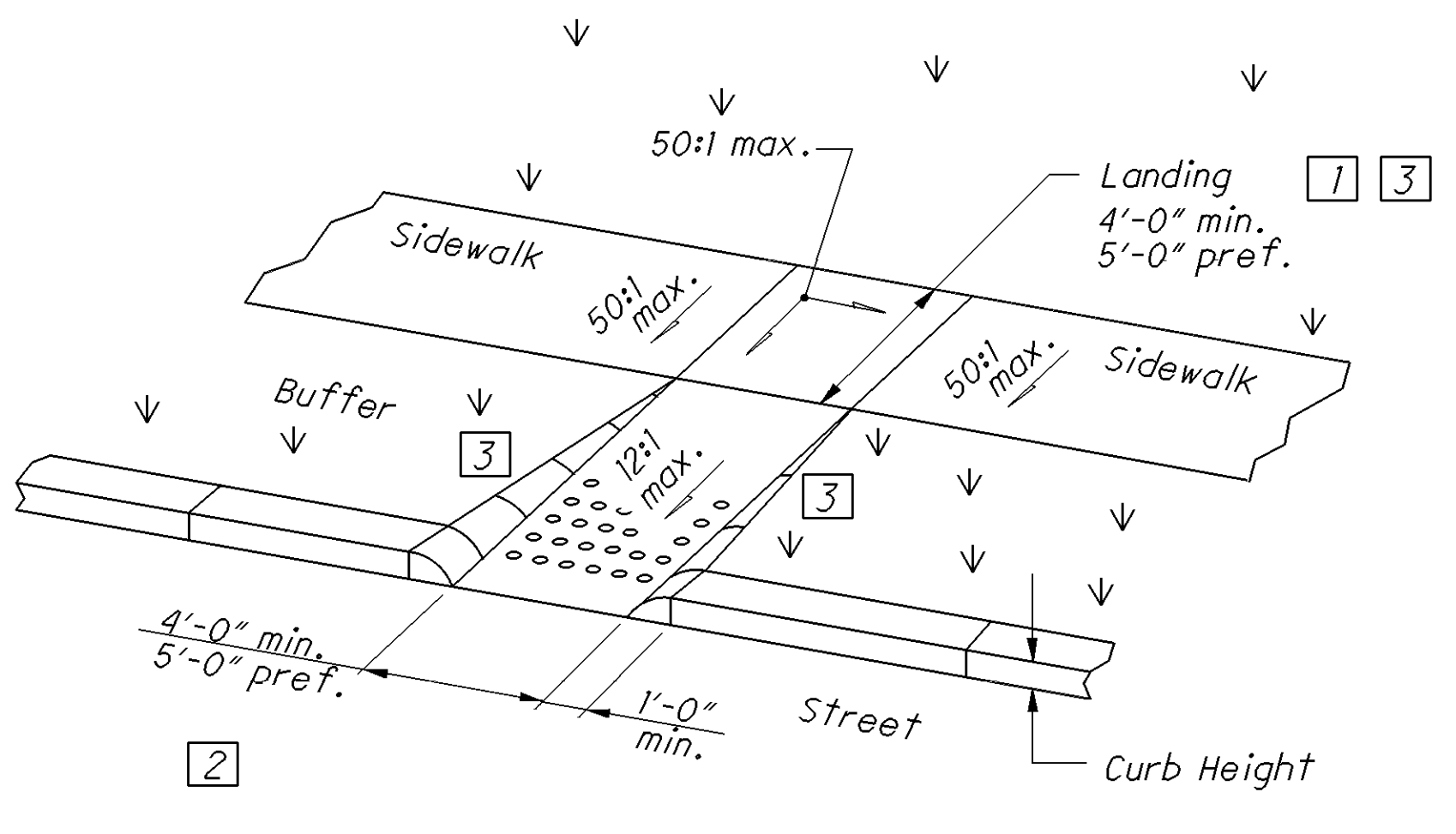
GUE-77-2.50  
GUE-209-14.57

1 / 3  
9  
42

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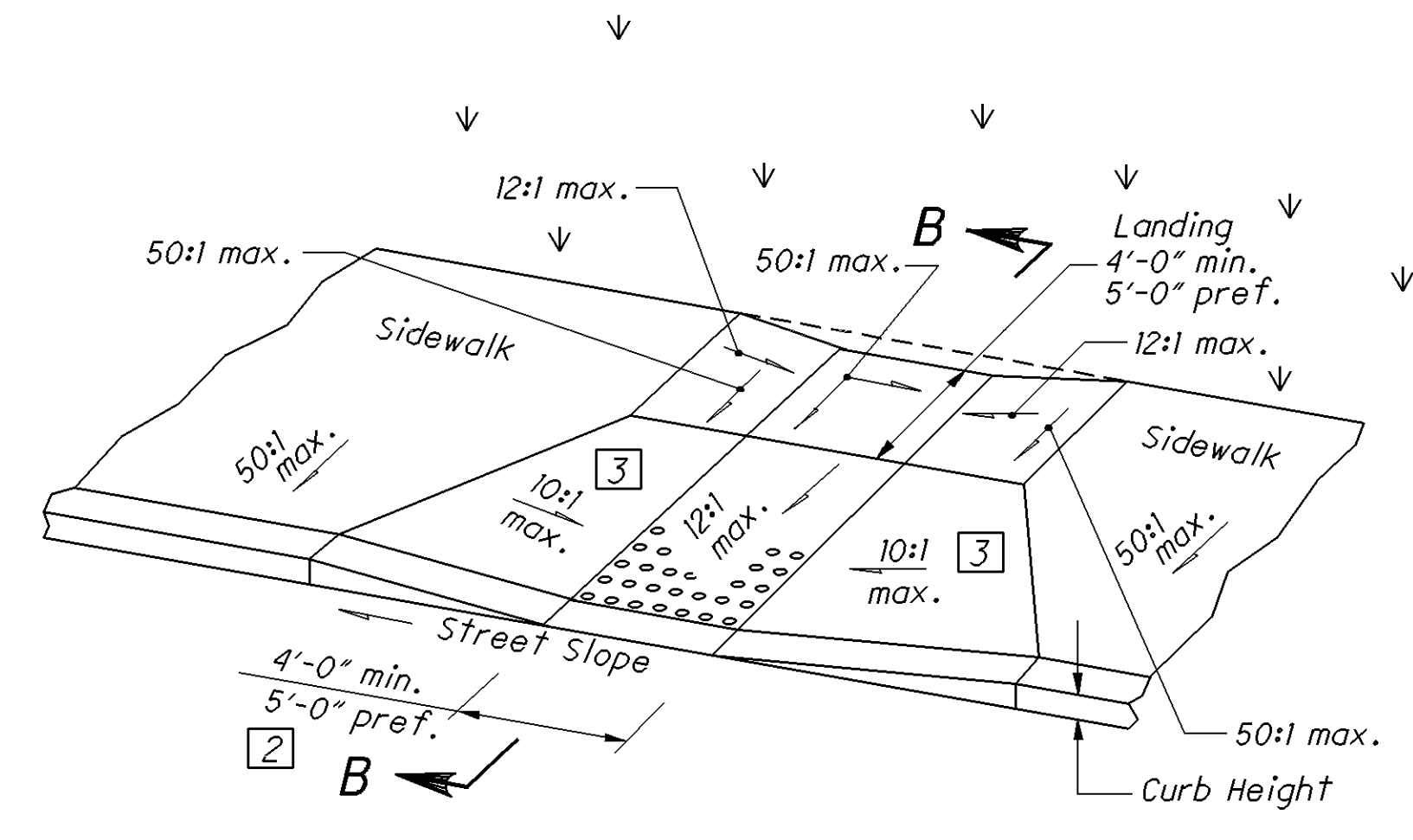


Type A1 (Perpendicular with flared sides)

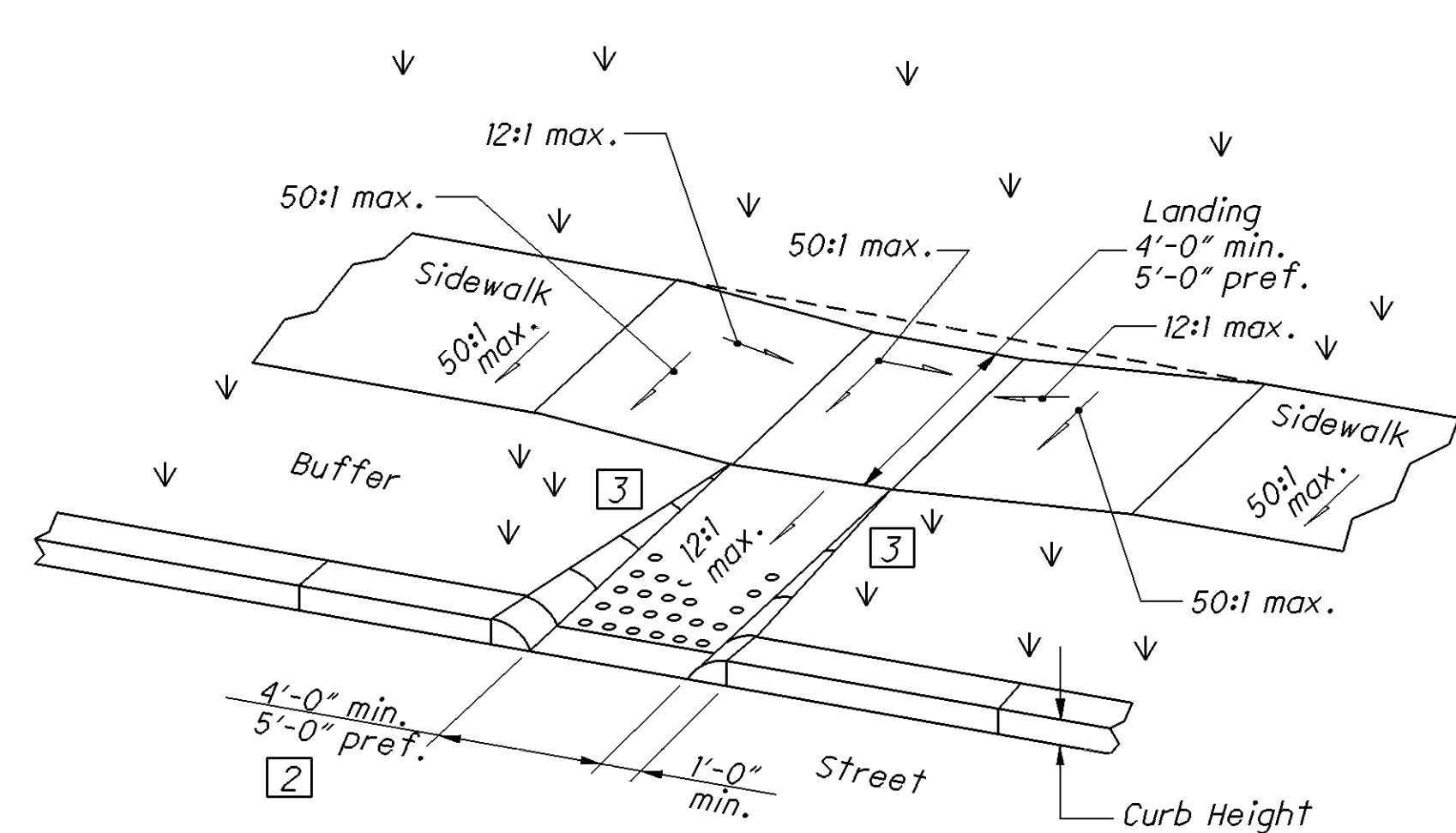


Type A2 (Perpendicular with returned curb)

PERPENDICULAR CURB RAMP DETAILS

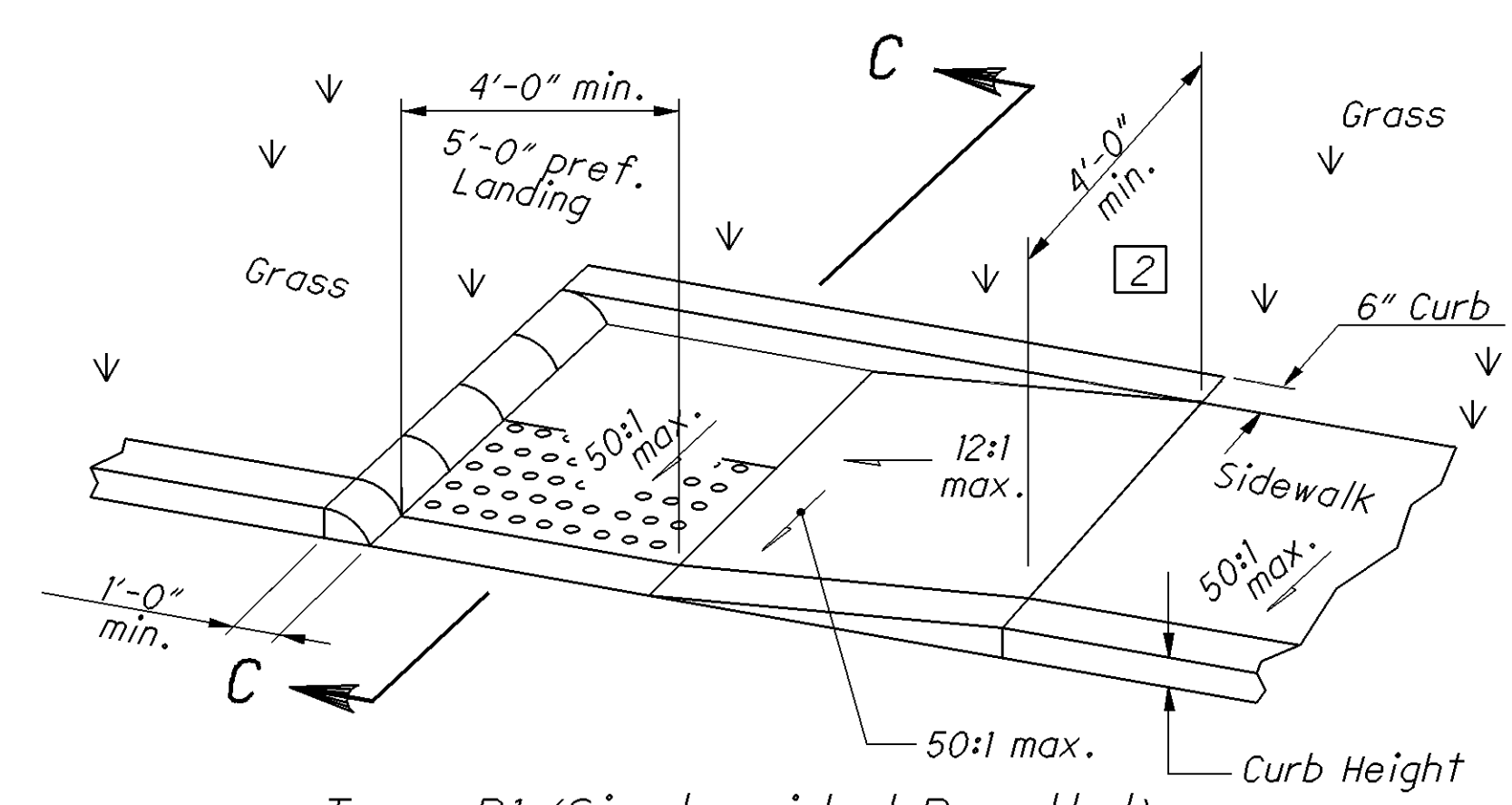


Type C1 (Combined with flared sides)

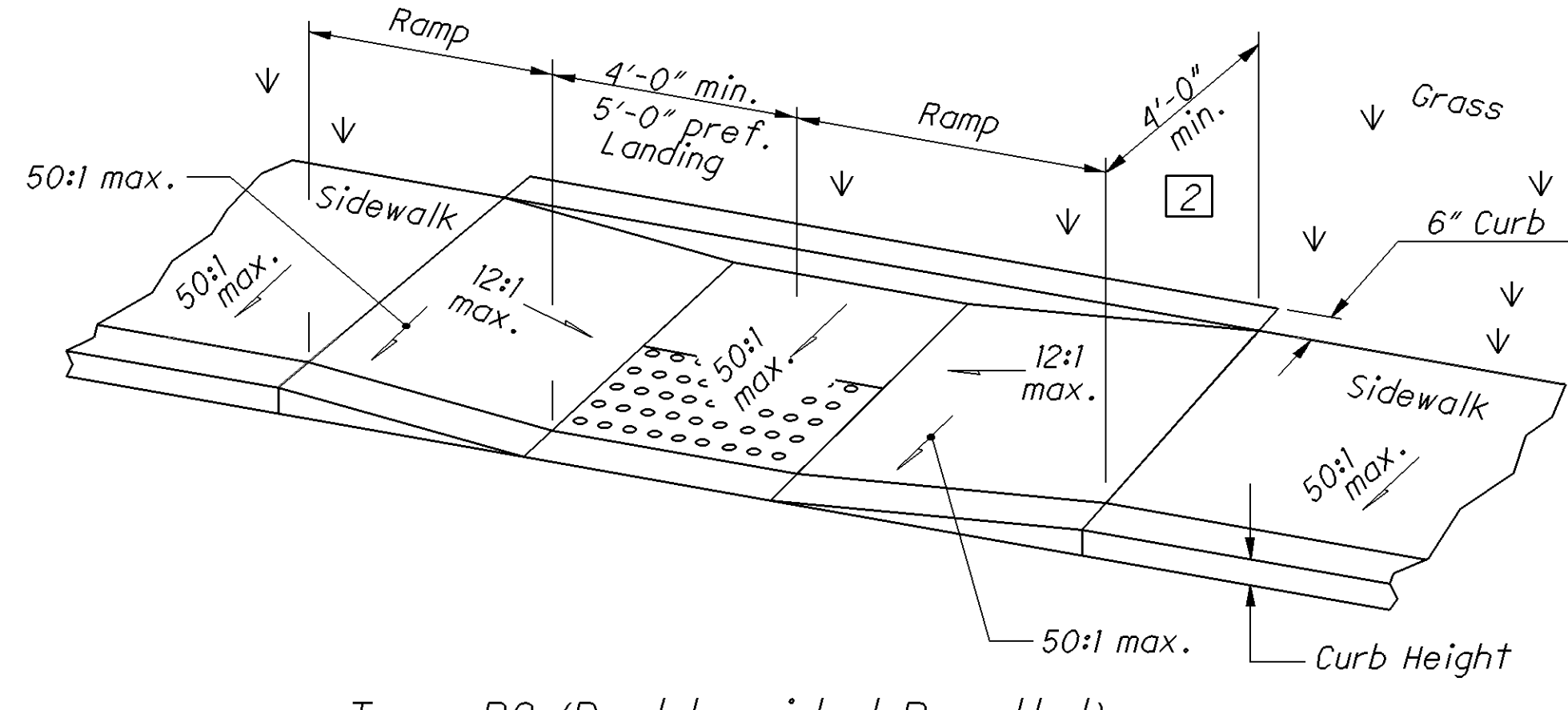


Type C2 (Combined with returned curb)

COMBINED CURB RAMP DETAILS

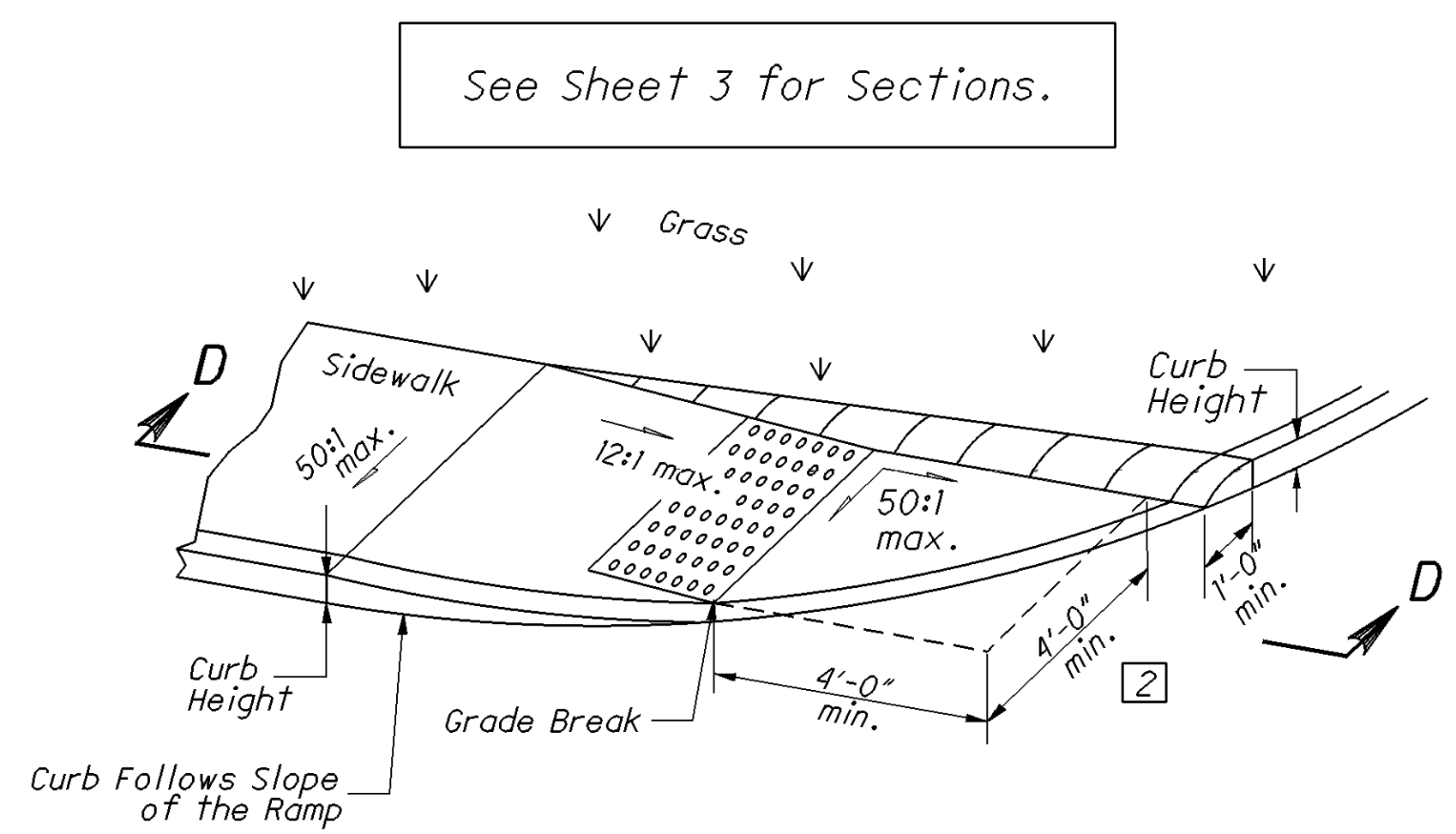


Type B1 (Single sided Parallel)



Type B2 (Double sided Parallel)

PARALLEL CURB RAMP DETAILS



Type B3 (Single sided Parallel)

NOTES CONTINUED

The running slope of the ramp is preferred to be 12:1 or flatter. In existing sidewalks, where the maximum ramp slope is not feasible due to site constraints (e.g. utility poles or vaults, right-of-way limits) it may be reduced as follows:

- A) 10:1 for a max. rise of 6",
- B) 8:1 for a max. rise of 3",
- C) 6:1 over a max. run of 2'-0" for historic areas where a flatter slope is not feasible.

To prevent chasing the grade indefinitely, the transition from existing sidewalk to the curb ramp area is not required to exceed 15 feet in length.

While ramps may be skewed to the crosswalk, the entire lower landing area must fall within the cross walk that the ramp serves and cannot be located in the traveled lane of opposing traffic.

The counter slope of the gutter or street at the foot of a curb ramp, landing, or blended transitions shall be 20:1 or flatter.

The bottom edge of the ramp shall change planes perpendicular to the landing.

The edge of the curb shall be flush with the edge of the adjacent pavement and gutter and surface slopes that meet grade breaks shall also be flush.

Ramp landings shall be 4' min. x 4' min. with a 50:1 or flatter cross slope and running slope, unless otherwise shown.

DETECTABLE WARNINGS: Install Detectable warnings on each curb ramp with approved materials as shown on Sheet 3. Install these proprietary products as per manufacturer's written instructions.

DRAINAGE: Contractor is to ensure the base of each constructed ramp allows for proper drainage, without exceeding allowable cross slope or ramp slope. Vertical change in level exceeding 1/8" between the 1) pavement and gutter, and 2) gutter and ramp, are not allowed.

JOINTS: Provide expansion joints in the curb ramp as extensions of walk joints and consistent with Item 608.03 requirements for a new concrete walk. Provide a 1/2" Item 705.03 expansion joint filler around the edge of ramps built in existing concrete walks. Lines shown on this drawing indicate the ramp edges and slope changes and do not necessarily indicate joint lines.

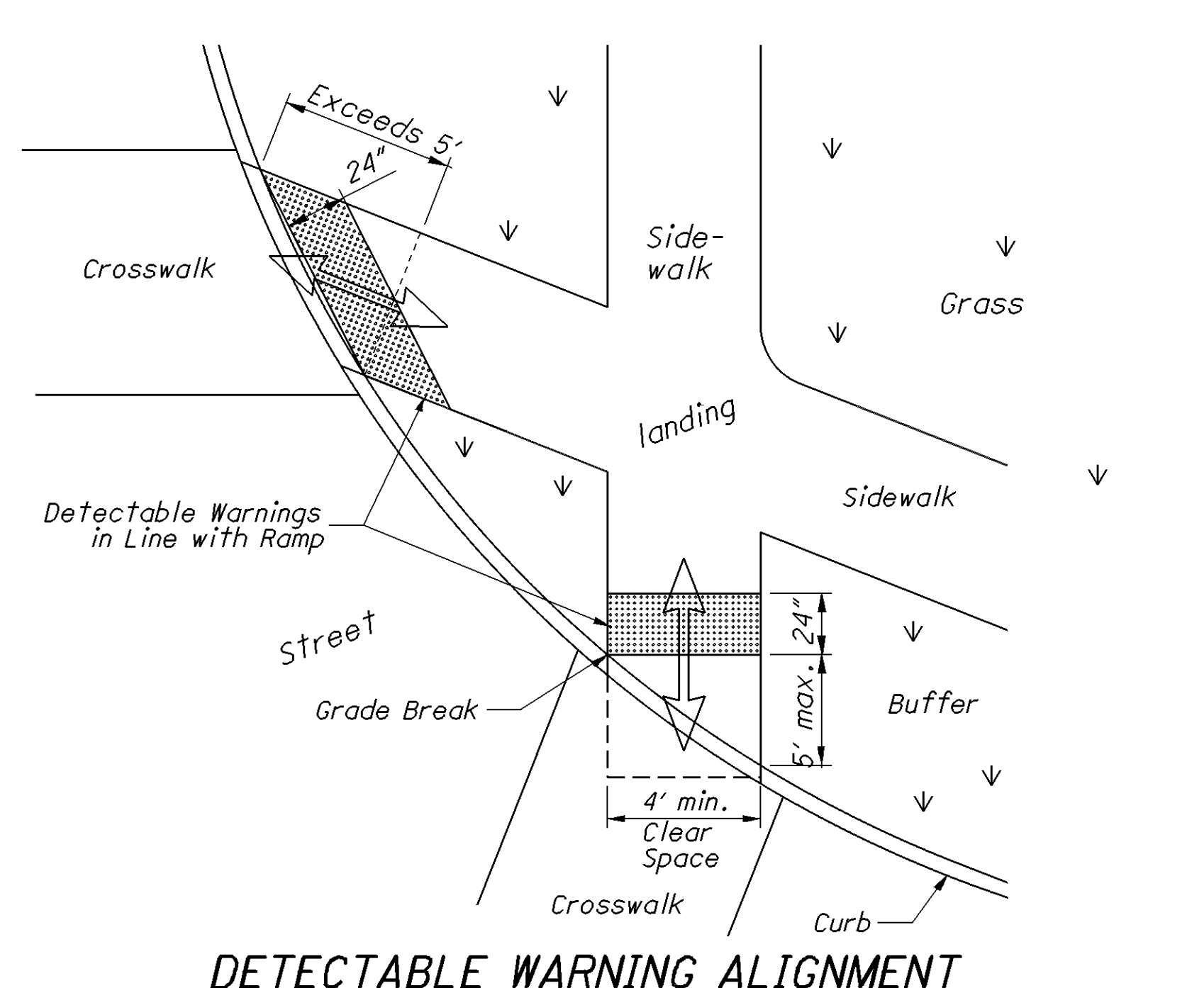
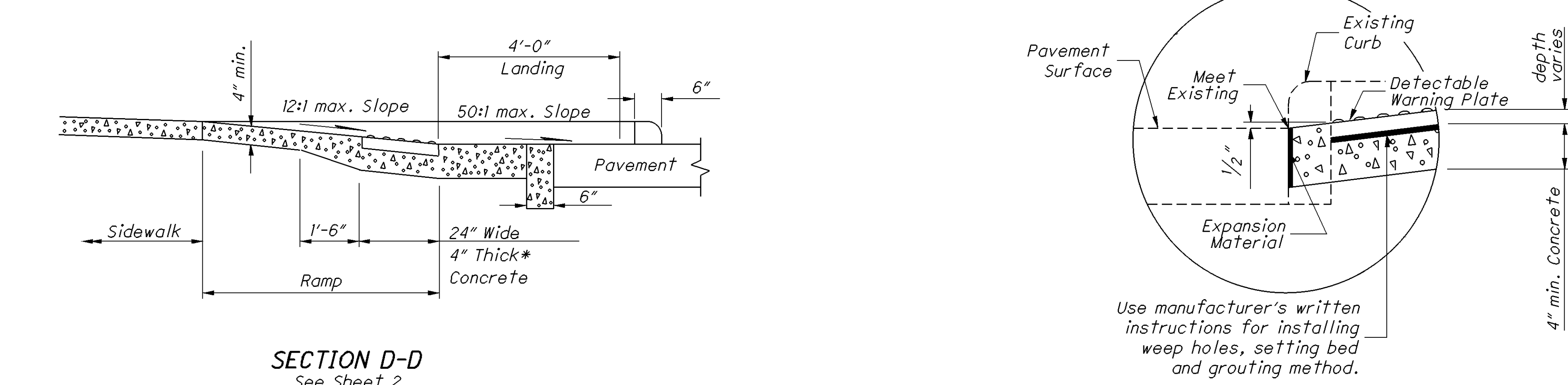
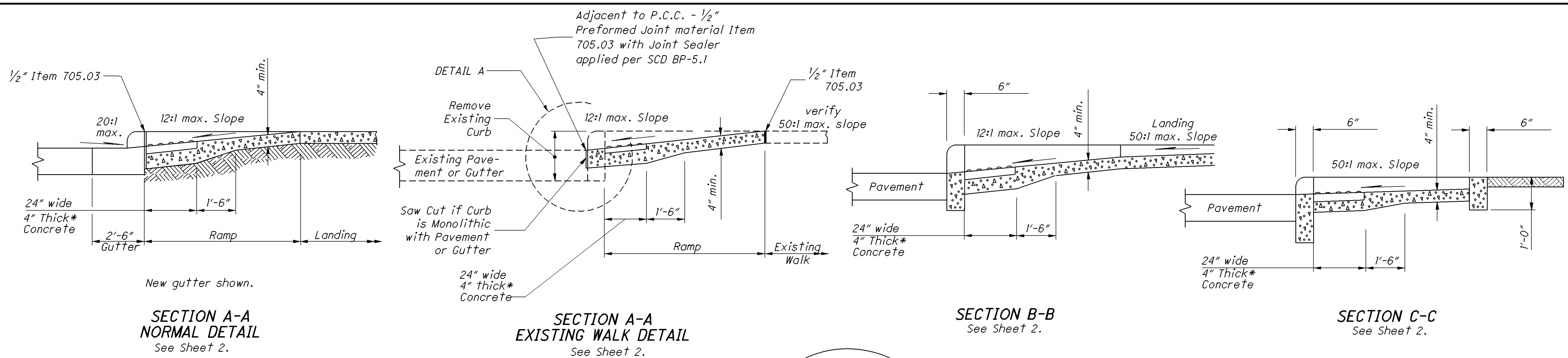
SURFACE TEXTURE: Texture concrete surfaces by coarse brooming transverse to the ramp slopes to be rougher than the adjacent walk.

LEGEND

- 1 Dimension may be reduced to 3'-0" in existing sidewalks if the landing is unconstrained along the back edge.
- 2 May be reduced to 3'-4" in existing sidewalks to better fit the walk configuration or where site conditions are restricted by narrow walks, pole foundations, drainage inlets, etc. The width may be tapered.
- 3 Where landing width (D) has been reduced to 3'-0" the flared sides shall have a maximum slope of 12:1. Flared sides are not required where the edges of a curb ramp are protected by landscaping or other barriers to travel by wheelchair users or pedestrians across the edge of the curb ramp. However, if the flared sides are used in these areas, they may be of any slope.

See Sheet 3 for Sections.

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**DETECTABLE WARNINGS NOTES**

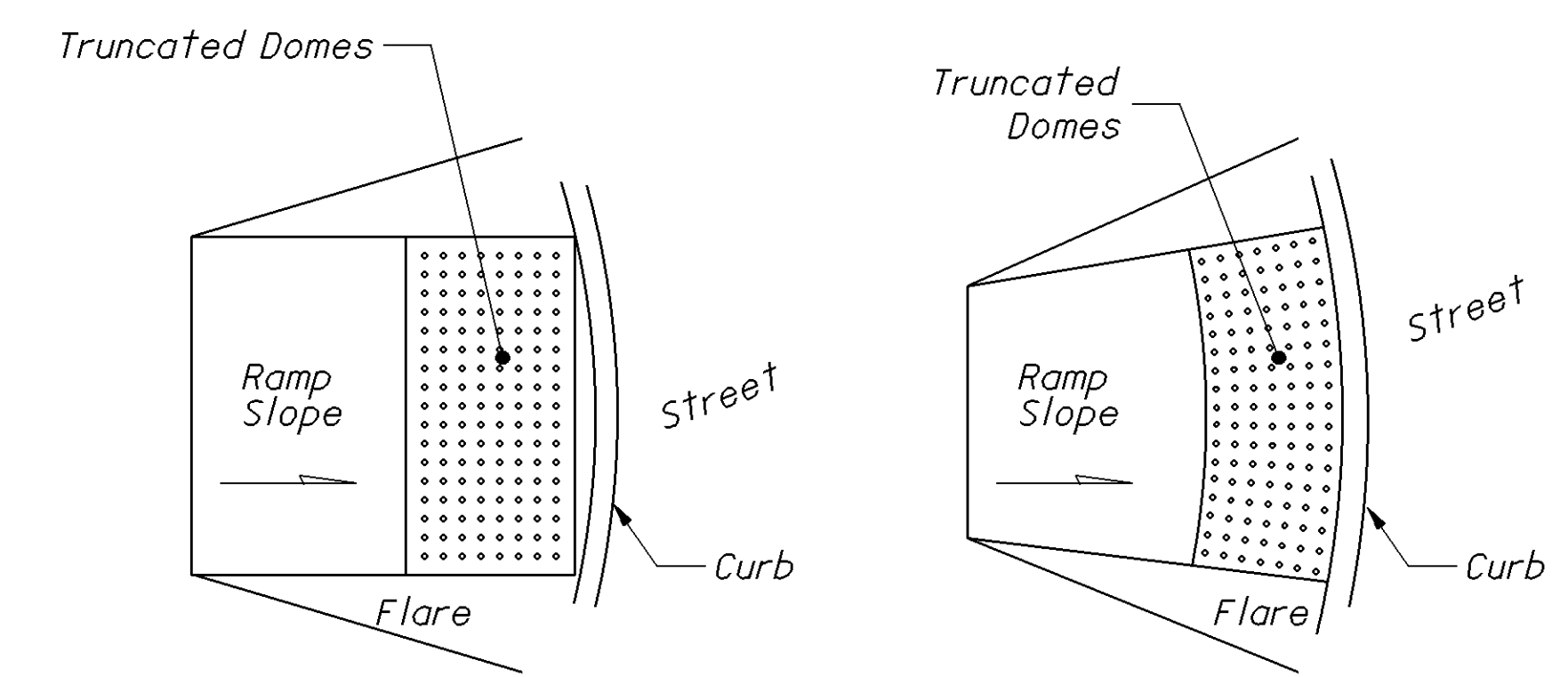
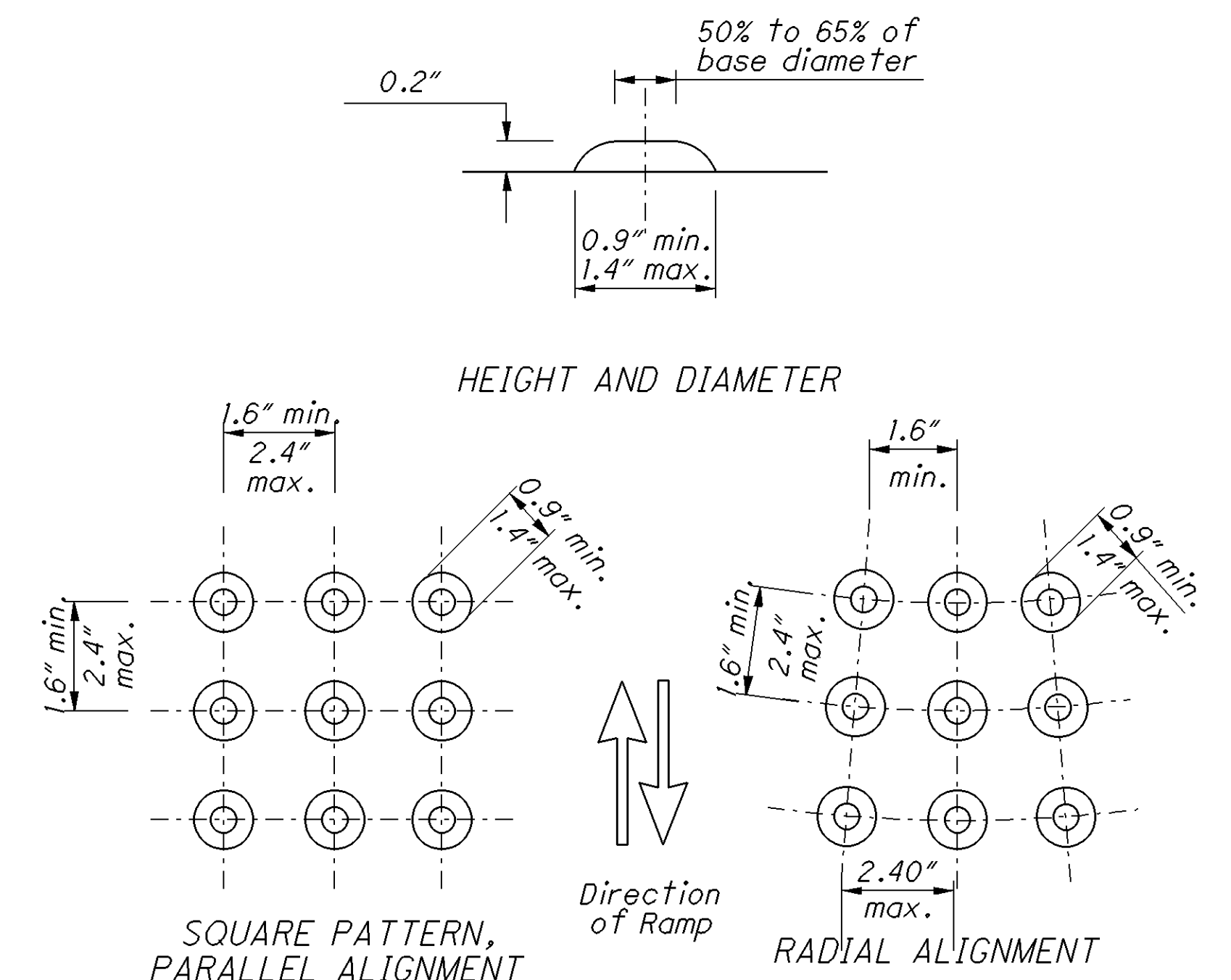
**GENERAL:** Detectable Warnings are a distinctive surface pattern of truncated domes which are detectable by cane or underfoot to alert people with vision impairments of their approach to streets and hazardous drop-offs.

**PLACEMENT:** Detectable warnings are to be installed at any location where pedestrians might cross paths with vehicular traffic lanes, such as the base of curb ramps or at blended curbs. A 24" strip of domes is to be installed for the full width of the ramp or walk. Typical street corner placement locations are shown on Sheet 2.

The depth of concrete underneath detectable warning products shall be a minimum of 4". See DETAIL A.

**ALIGNMENT:** Truncated domes should be aligned with the primary direction of the ramp as shown on the DETECTABLE WARNING ALIGNMENT Detail. Normally the detectable warnings should be flush with the back of the curb, but in skewed conditions see DETECTABLE WARNING ALIGNMENT DETAIL. For non-standard layouts, detectable warning materials may have to be mitered and placed segmentally.

**PRODUCTS & COLORS:** Color of the detectable warnings should contrast with surrounding concrete walk and ramp. Black is not an acceptable color. Approved products and guidance on color may be found on the Office of Roadway Engineering Service's Detectable Warnings Approved List. Install products as per manufacturer's printed instructions.

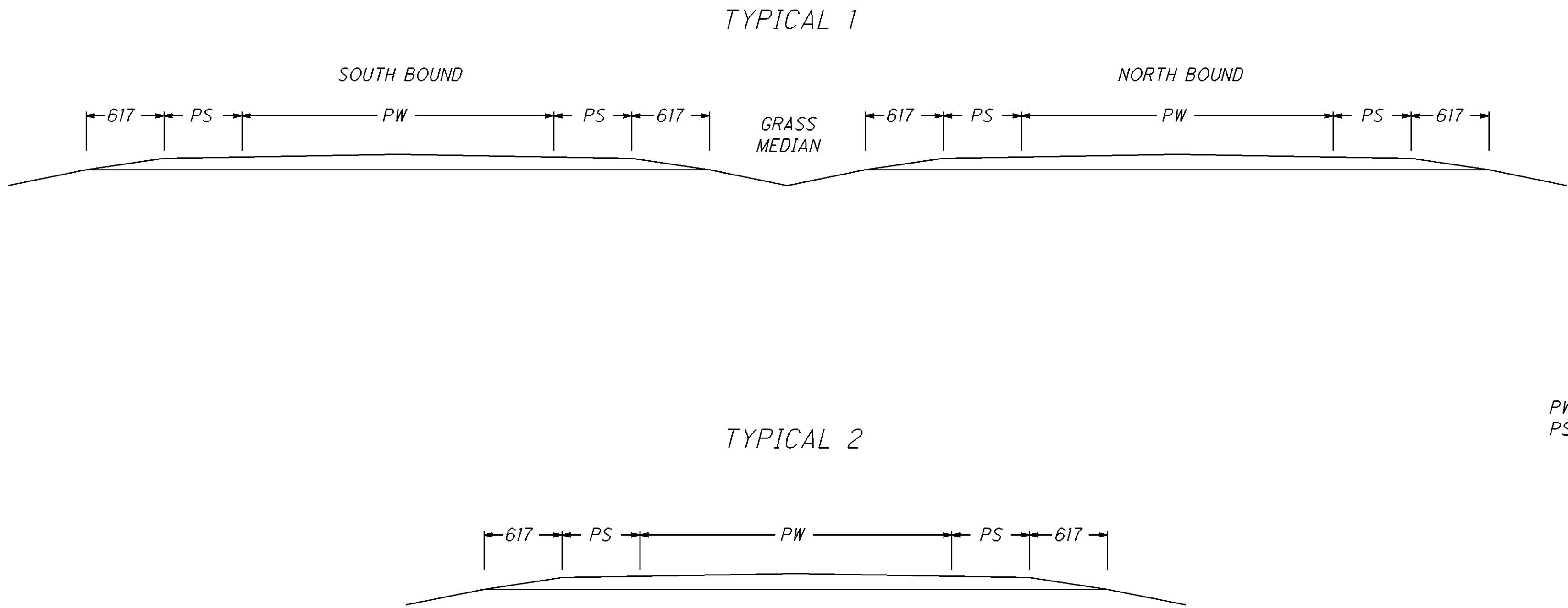


TRUNCATED DOMES DETAILS

DOMES ALIGNMENT ON RADIUS CURB

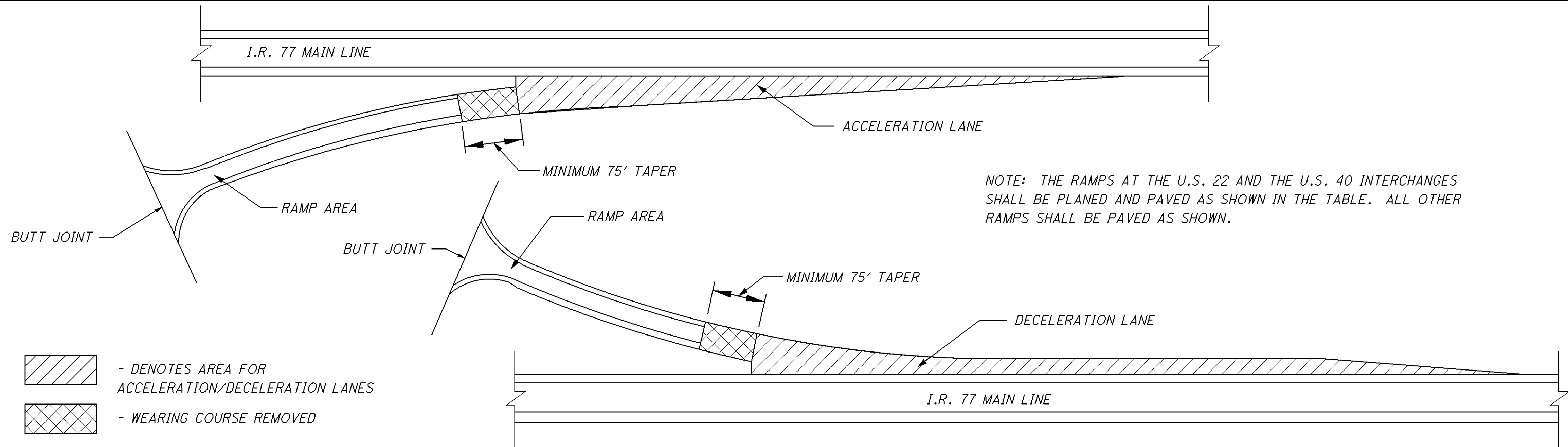


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SHOULDER DATA																										
LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		TYPICAL	PROPOSED WIDTH (FT.)				SHOULDER AREA	254		407		442				806		617			618
													THICKNESS	PAVEMENT PLANING, ASPHALT CONCRETE	TACK COAT @ 0.075 GAL./S.Y.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y.	THICKNESS	INTERMEDIATE COURSE, 19 MM, TYPE A (446)	THICKNESS	SURFACE COURSE, 12.5 MM, TYPE A (446)	THICKNESS	SURFACE COURSE, 12.5 MM, TYPE A (446)	THICKNESS	COMPACTED AGGREGATE, AS PER PLAN (2' WIDE)	SHOULDER PREPARATION (2' WIDE)	RUMBLE STRIPS (ASPHALT CONCRETE)
					MILES	LIN. FT.		A	B	C	D															
1	GUE	I.R. 77 N.B.	2.50	7.53	5.03	26,558	1			4	10	41,312.4	1.50	41,312.4	3,098.5	2,065.7	1.75	2,008.3			1.50	1,721.4	2.00	655.8	11,803.6	10.06
1	GUE	I.R. 77 N.B.	7.53	7.63	0.10	528	1			4	10	821.3	3.25	821.3	61.6	41.1	1.75	40.0			1.50	34.3	2.00	13.0	234.7	0.20
1	GUE	I.R. 77 N.B.	7.63	7.83	0.20	1,056	1			4	10	1,642.7	3.25	1,642.7	123.3					1.50	68.5	2.00	26.1	469.3	0.40	
1	GUE	I.R. 77 N.B.	7.83	11.70	3.87	20,434	1			4	10	31,786.2	1.50	31,786.2	2,384.0	1,589.4	1.75	1,545.2			1.50	1,324.5	2.00	504.5	9,081.8	7.74
1	GUE	I.R. 77 S.B.	2.50	11.70	9.20	48,576	1	10	4			75,562.7	1.50	75,562.7	5,667.3	3,778.2	1.75	3,673.2			1.50	3,148.5	2.00	1199.4	21,589.3	18.40
BRIDGE DEDUCTIONS (FROM SHEET 16)												(1,354.9)		(1354.9)	(101.6)	(33.8)	1.75	(32.9)			1.50	(56.4)	2.00	(8.0)	(144.0)	(0.06)
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)														149,770.4	11,233.1	7,440.6		7,233.8			6,240.8		2,390.8	43,034.7	36.74	
2	GUE	S.R. 209	14.57	14.76	0.19	1,003	2		3			334.3		334.3	25.1	16.8	1.75	16.3	1.50	14.0			4.00	49.5	445.8	
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)														334.3	25.1	16.8		16.3		14.0				49.5	445.8	

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EXTRA AREA DATA														
LOCATION	COUNTY	ROUTE	DESCRIPTION	RAMP LENGTH	RAMP WIDTH	AREA	254		407		442		806	
							THICKNESS	PAVEMENT PLANING, ASPHALT CONCRETE	TACK COAT @ 0.075 GAL./SQ. YD.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./SQ. YD.	THICKNESS	INTERMEDIATE COURSE, 19 MM, TYPE A (446)	THICKNESS	SURFACE COURSE, 12.5 MM, TYPE A
				FT.	FT.	SQ. YD.	IN.	S.Y.	GAL.	GAL.	IN.	C.Y.	IN.	C.Y.
1	GUE	I.R. 77 N.B.	DECELERATION LANE TO REST AREA	VAR	VAR	1,697.0	1.50	1,697.0	128.0	85.0	1.75	82.5	1.50	70.8
1	GUE	I.R. 77 N.B.	ACCELERATION LANE FROM REST AREA	VAR	VAR	3,200.0	1.50	3,200.0	240.0	160.0	1.75	155.6	1.50	133.4
1	GUE	I.R. 77	MEDIAN CROSS-OVER @ SLM 4.49	VAR	VAR	530.0			40.0				1.50	22.1
1	GUE	I.R. 77 N.B.	DECELERATION LANE TO S.R. 209	VAR	VAR	1,697.0	1.50	1,697.0	128.0	85.0	1.75	82.5	1.50	70.8
1	GUE	I.R. 77 N.B.	ACCELERATION LANE FROM S.R. 209	VAR	VAR	3,200.0	1.50	3,200.0	240.0	160.0	1.75	155.6	1.50	133.4
1	GUE	I.R. 77	MEDIAN CROSS-OVER @ SLM 5.81	VAR	VAR	530			40.0				1.50	22.1
1	GUE	I.R. 77	MEDIAN CROSS-OVER @ SLM 6.81	VAR	VAR	530.0			40.0				1.50	22.1
1	GUE	I.R. 77 N.B.	DECELERATION LANE TO I.R. 70 E.B.	VAR	VAR	1,381.0	1.50	1,381.0	104.0	70.0	1.75	67.2	1.50	57.6
1	GUE	I.R. 77 N.B.	DECELERATION LANE TO I.R. 70 W.B. (LEFT)	VAR	VAR	1,464.0	1.50	1,464.0	110.0	74.0	1.75	71.2	1.50	61.0
1	GUE	I.R. 77 N.B.	ACCELERATION LANE FROM I.R. 70 E.B.	VAR	VAR	3,261.0	1.50	3,261.0	245.0	164.0	1.75	158.6	1.50	135.9
1	GUE	I.R. 77 N.B.	ACCELERATION LANE FROM I.R. 70 W.B.	VAR	VAR	3,200.0	1.50	3,200.0	240.0	160.0	1.75	155.6	1.50	133.4
1	GUE	I.R. 77	MEDIAN CROSS-OVER @ SLM 8.58	VAR	VAR	530.0			40.0				1.50	22.1
1	GUE	I.R. 77 N.B.	DECELERATION LANE TO U.S. 40 E.B.	VAR	VAR	1,697.0	1.50	1,697.0	128.0	85.0	1.75	82.5	1.50	70.8
1	GUE	I.R. 77 N.B.	DECELERATION LANE TO U.S. 40 W.B.	VAR	VAR	1,697.0	1.50	1,697.0	128.0	85.0	1.75	82.5	1.50	70.8
1	GUE	I.R. 77 N.B.	ACCELERATION LANE FROM U.S. 40	VAR	VAR	3,679.0	1.50	3,679.0	276.0	184.0	1.75	178.9	1.50	153.3
1	GUE	I.R. 77	MEDIAN CROSS-OVER @ SLM 10.34	VAR	VAR	530.0			40.0				1.50	22.1
1	GUE	I.R. 77 N.B.	DECELERATION LANE TO U.S. 22	VAR	VAR	1,697.0	1.50	1,697.0	128.0	85.0	1.75	82.5	1.50	70.8
1	GUE	I.R. 77	MEDIAN CROSS-OVER @ SLM 11.06	VAR	VAR	530.0			40.0				1.50	22.1
1	GUE	I.R. 77 N.B.	ACCELERATION LANE FROM U.S. 22	VAR	VAR	3,462.0	1.50	3,462.0	260.0	174.0	1.75	168.3	1.50	144.3
1	GUE	I.R. 77 S.B.	DECELERATION LANE TO U.S. 22	VAR	VAR	1,450.0	1.50	1,450.0	109.0	73.0	1.75	70.5	1.50	60.5
1	GUE	I.R. 77 S.B.	ACCELERATION LANE FROM U.S. 22	VAR	VAR	2,750.0	1.50	2,750.0	207.0	138.0	1.75	133.7	1.50	114.6
1	GUE	I.R. 77 S.B.	DECELERATION LANE TO U.S. 40	VAR	VAR	1,697.0	1.50	1,697.0	128.0	85.0	1.75	82.5	1.50	70.8
1	GUE	I.R. 77 S.B.	ACCELERATION LANE FROM U.S. 40	VAR	VAR	1,667.0	1.50	1,667.0	126.0	84.0	1.75	81.1	1.50	69.5
1	GUE	I.R. 77 S.B.	DECELERATION LANE TO I.R. 70 W.B.	VAR	VAR	1,376.0	1.50	1,376.0	104.0	69.0	1.75	66.9	1.50	57.4
1	GUE	I.R. 77 S.B.	DECELERATION LANE TO I.R. 70 E.B. (LEFT)	VAR	VAR	1,787.0	1.50	1,787.0	135.0	90.0	1.75	86.9	1.50	74.5
1	GUE	I.R. 77 S.B.	ACCELERATION LANE FROM I.R. 70 W.B.	VAR	VAR	3,411.0	1.50	3,411.0	256.0	171.0	1.75	165.9	1.50	142.2
1	GUE	I.R. 77 S.B.	ACCELERATION LANE FROM I.R. 70 E.B.	VAR	VAR	2,782.0	1.50	2,782.0	209.0	140.0	1.75	135.3	1.50	116.0
1	GUE	I.R. 77 S.B.	DECELERATION LANE TO S.R. 209	VAR	VAR	1,697.0	1.50	1,697.0	128.0	85.0	1.75	82.5	1.50	70.8
1	GUE	I.R. 77 S.B.	ACCELERATION LANE FROM S.R. 209	VAR	VAR	3,200.0	1.50	3,200.0	240.0	160.0	1.75	155.6	1.50	133.4
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)								53,149.0	4,237.0	2,666.0		2,584.4		2,348.6

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PROJECT LOCATIONS						
LOCATION	COUNTY	ROUTE	BRIDGE NUMBER	SFN	LATITUDE	LONGITUDE
1	GUE	SR 22	1036	3000273	40.025841	-81.334784
2	GUE	IR 77	0754L	3002764	39.594781	-81.332138
3	GUE	IR 77	0768L	3002829	39.595232	-81.332921
4	GUE	SR 40	0943	3003094	40.014098	-81.335586

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE 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 STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

ITEM 512 SEALING CONCRETE BRIDGE DECKS WITH SRS

THIS WORK CONSISTS OF SEALING CONCRETE DECKS WITH SRS AS PER CMS 512.05 AND 705.24. CONTRACTOR SHALL ENSURE ALL DIRT AND DEBRIS IS CLEARED FROM BRIDGE AND EXPANSION JOINTS PRIOR TO SEALING AND ALL OTHER WORK SHALL BE DONE PRIOR TO SEALING THE BRIDGE DECK. REMOVE ALL PERMENANT PAVEMENT MARKINGS PRIOR TO SEALING THE DECK. PERFORM ALL CONCRETE PATCHING REQUIREMENTS PRIOR TO SEALING THE DECK. CONTRACTOR SHALL ENSURE THAT SRS IS NOT APPLIED TO THE EXPANSION JOINTS OF THE BRIDGE. THE ABOVE WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR ITEM 512 SEALING CONCRETE BRIDGE DECKS WITH SRS RESIN.

THE FOLLOWING TABLE SHOWS THE ESTIMATED QUANTIES OF ITEM 512 SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN, AS PER PLAN.

LOCATION	BRIDGE NO.	DECK/ BACKWALL AREA (SY)	APPROACH SLAB AREA (SY)
1	GUE-22-1038	1320	253
2	GUE-77-0754L	873	283
3	GUE-77-0768L	2135	500
4	GUE-40-0943	2310	364
SUB-TOTAL		6638	1400
TOTAL		8038	

ITEM 511 - CLASS QC2 CONCRETE, MISC.: ACCELERATING ADMIXTURE

TO EXPEDITE WORK, CLASS QC2 CONCRETE WITH AN ACCELERATING ADMIXTURE SIKA RAPID-1 OR ANY APPROVED EQUIVALENT ADMIXTURE SHALL BE USED IN **ALL REPAIR LOCATIONS** TO ACHIEVE 3,000 PSI COMPRESSVE STRENGTH IN 12 HRS. USE A NON-CHLORIDE ACCELERATING ADMIXTURE AND PROVIDE DOCUMENTATION THAT THE MIX WILL PROVIDE THE STRENGTH IN THE SPECIFIED TIME.

THIS ITEM SHALL CONFORM TO CMS 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

AT LEAST 5 DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A SCHEDULE OF REPAIR WORK ITEMS TO BE COMPLETED. THE SCHEDULE SHALL INCLUDE A BREAKDOWN OF ALL MAJOR WORK ACTIVITIES ON AN HOURLY BASIS. REPAIR WORK SHALL NOT BEGIN UNTIL THE SCHEDULE IS APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL CONTINUE THE WET CURE FOR THE MAXIMUM NUMBER OF HOURS POSSIBLE DURING THE PERMITTED LANE CLOSURE. THE CLOCK STARTS FOR THE WET CURE WHEN THE CONCRETE PLACEMENT IS COMPLETE.

TRAFFIC WILL NOT BE PERMITTED ON THE FINISHED CONCRETE SURFACE UNTIL AFTER COMPLETION OF A 12 HOUR MINIMUM WET CURE AND AFTER TWO TEST BEAMS HAVE ATTAINED AN AVERAGE MODULUS OF RUPTURE OF 400 PSI.

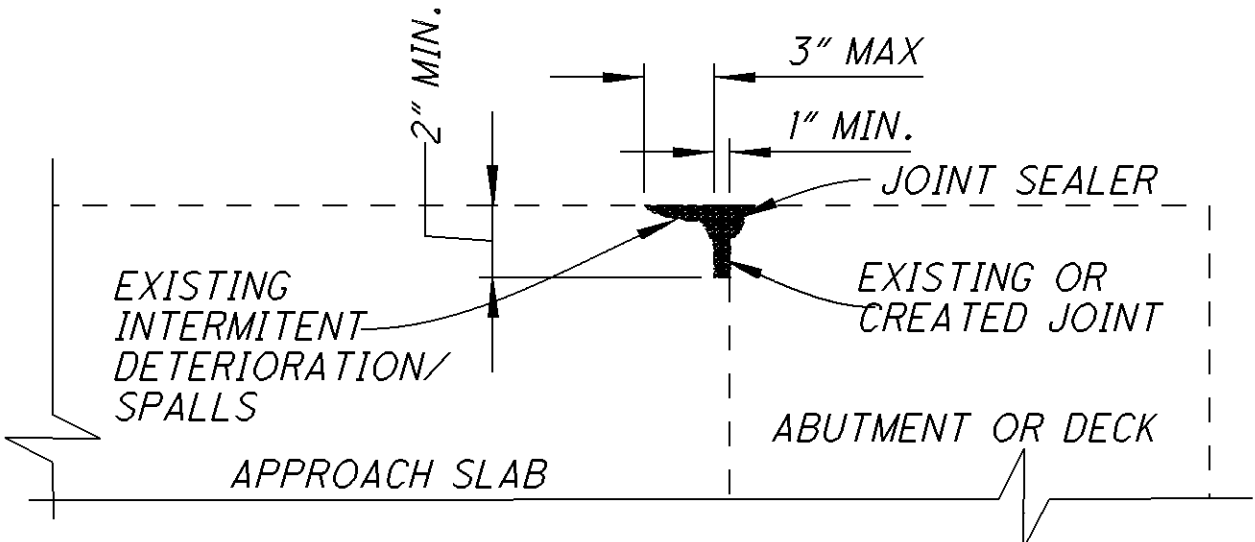
PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR, EQUIPMENT, AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 511 - CLASS QC2 CONCRETE, MISC.: ACCELERATING ADMIXTURE.

ESTIMATED QUANTITIES FOR BRIDGE NO.'S:

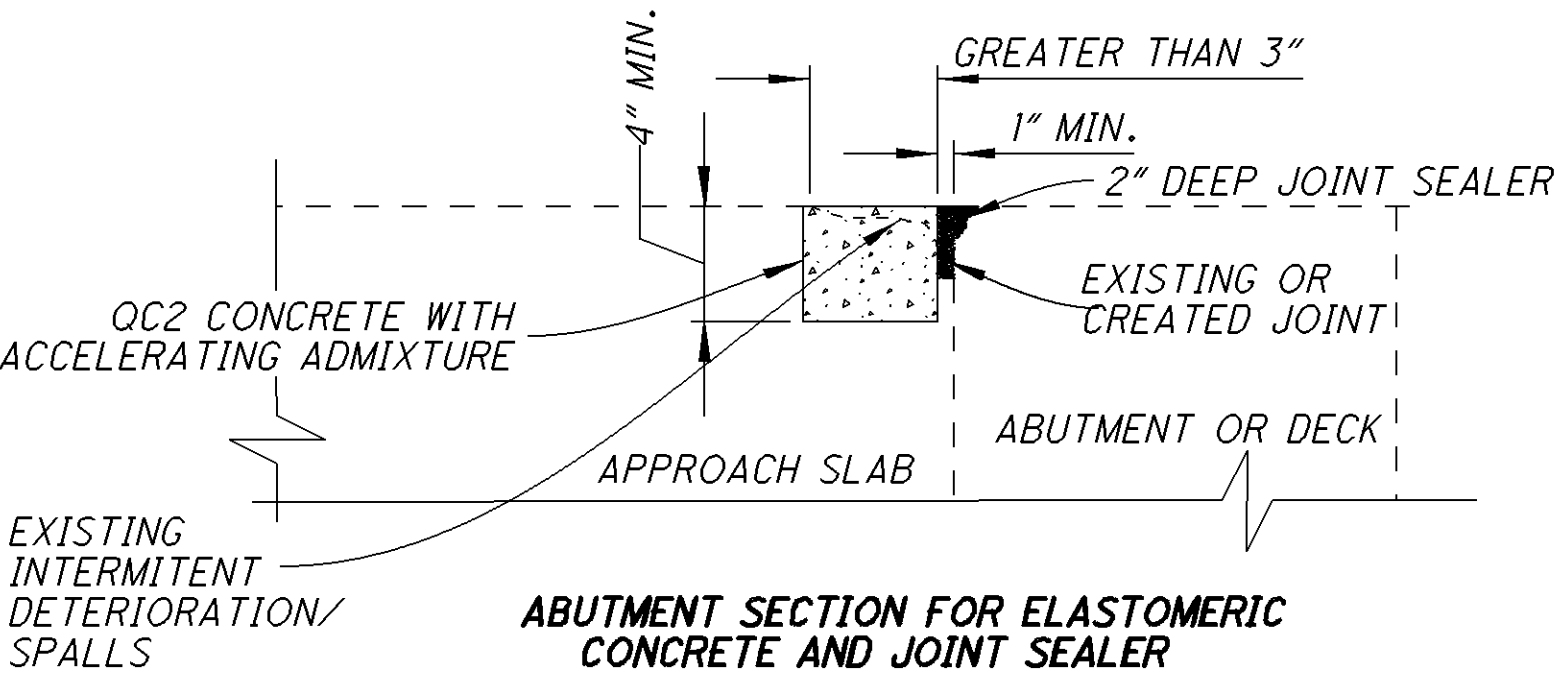
GUE-22-1036 = 1.0 CU YD  
GUE-77-0754L = 1.0 CU YD

ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN (B)

PERFORM THE FOLLOWING WORK PRIOR TO THE SEALING HAS BEEN PERFORMED ON THE BRIDGE DECK. FOR THE LOCATIONS PROVIDED REMOVE ANY COMPRESSION SEAL, FOREIGN MATERIAL, AND DEBRIS FROM THE EXISTING JOINT BETWEEN THE APPROACH SLAB AND ABUTMENT BACKWALL. ANY SPALLS ADJACENT TO THE JOINT LESS THAN OR EQUAL TO 3" SHALL BE CLEANED AND SEALED WITH THE JOINT. FOR SPALLS GREATER THAN 3" SEE ITEM 511 - CLASS QC2 CONCRETE, MISC.: ACCELERATING ADMIXTURE NOTE. IF ONLY A SAWCUT EXISTS AT THIS LOCATION, PERFORM A NEW SAWCUT TO ESTABLISH A 1" WIDE BY 2" DEEP JOINT ALONG THIS INTERFACE. ONCE THE JOINT HAS BEEN OPENED OR CREATED, AIRBLAST THOROUGHLY PRIOR TO PLACEMENT OF HOT APPLIED JOINT SEALER AS PER 705.04 AS DIRECTED BY THE ENGINEER. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 516 - JOINT SEALER, AS PER PLAN.



ABUTMENT SECTION FOR JOINT SEAL ONLY



ABUTMENT SECTION FOR ELASTOMERIC CONCRETE AND JOINT SEALER

FOR THE FOLLOWING BRIDGES REMOVE THE COMPRESSION SEAL AND REPLACE WITH JOINT SEALER

FOR BRIDGE NO. GUE-22-1036 REAR AND FORWARD ABUTMENT COMPRESSION SEALS.

FOR BRIDGE NO. GUE-77-0754L REAR AND FORWARD ABUTMENT COMPRESSION SEALS

FOR BRIDGE NO. GUE-77-0768L REAR AND FORWARD ABUTMENT COMPRESSION SEALS.

ESTIMATED QUANTITIES FOR BRIDGE NO.'S:

GUE-22-1036 = 94.5 FT TOTAL  
GUE-77-0754L = 118 FT TOTAL  
GUE-77-0768L = 176 FT TOTAL

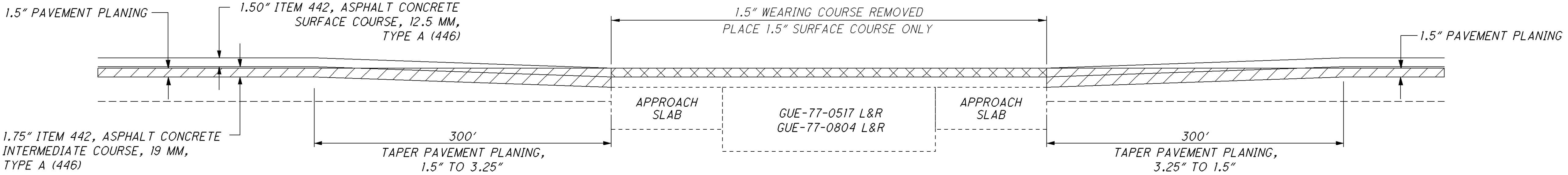
LOCATION	BRIDGE NO.	646	646	646	646	646	646	646	646	646	646
		EDGE LINE, 4"	LANE LINE, 4"	CENTERLINE	DOTTED LINE, 4"	LANE ARROW	CHANNELIZING, 8"	TRANSVERSE/ DIAGONAL LINE	REMOVAL OF PAVEMENT MARKING	REMOVAL OF PAVEMENT MARKING	REMOVAL OF PAVEMENT MARKING
		MILE	MILE	MILE	FEET	EACH	FEET	FEET	MILE	EACH	FEET
1	GUE-22-1036	0.12	0.06	0.06					0.24		
2	GUE-77-0754L	0.08	0.04						0.12		
3	GUE-77-0768L	0.20					804	200	0.20		1004
4	GUE-40-0943	0.14	0.07	0.07	255	2			0.35	2	
TOTAL CARRIED TO GENERAL SUMMARY		0.54	0.17	0.13	255	2	804	200	0.91	2	1004

BRIDGE TREATMENT

GUE-77-0517L: REMOVE AND REPLACE 1.5" ASPHALT CONCRETE SURFACE COURSE.  
GUE-77-0517R: REMOVE AND REPLACE 1.5" ASPHALT CONCRETE SURFACE COURSE.  
GUE-77-0599: OVERHEAD - MILL AND FILL ROADWAY.  
GUE-77-0708: OVERHEAD - MILL AND FILL ROADWAY.  
GUE-77-0754L: BUTT JOINT AT APPROACH SLABS.  
GUE-77-0754R: OVERHEAD - MILL AND FILL ROADWAY.  
GUE-77-0768L: BUTT JOINT AT APPROACH SLABS.  
GUE-77-0768R: OVERHEAD - MILL AND FILL ROADWAY.  
GUE-77-0804L: REMOVE AND REPLACE 1.5" ASPHALT CONCRETE SURFACE COURSE.  
GUE-77-0804R: REMOVE AND REPLACE 1.5" ASPHALT CONCRETE SURFACE COURSE.  
GUE-77-0900L: BUTT JOINT AT APPROACH SLABS.  
GUE-77-0900R: BUTT JOINT AT APPROACH SLABS.  
GUE-77-0926L: BUTT JOINT AT APPROACH SLABS.  
GUE-77-0926R: BUTT JOINT AT APPROACH SLABS.  
GUE-77-0966: OVERHEAD - MILL AND FILL ROADWAY.  
GUE-77-1120: OVERHEAD - MILL AND FILL ROADWAY.

BRIDGE DECK TREATMENT DATA																		
L O C A T I O N	COUNTY, ROUTE, BRIDGE NO.	LENGTH (BRIDGE LIMITS)	WIDTH	AREA	APPROACH SLAB LENGTH	APPROACH SLAB WIDTH	APPROACH SLAB AREA (INCLUDES BOTH APPROACH SLABS)	DETAILS (SEE SHEET 17)	PAVEMENT DEDUCTIONS (CARRIED TO SHEET 12)	SHOULDER DEDUCTIONS (CARRIED TO SHEET 13)	202	407		442				516
		LIN. FT.	LIN. FT.	SQ. YD.	LIN. FT.	LIN. FT.	SQ. YD.				WEARING COURSE REMOVED	TACK COAT @ 0.075 GAL./S.Y.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y.	T H I C K N E S S	INTERMEDIATE COURSE, 19 MM, TYPE A (446)	T H I C K N E S S	SURFACE COURSE, 12.5 MM, TYPE A (446)	2" DEEP JOINT SEALER, AS PER PLAN
		LIN. FT.	LIN. FT.	SQ. YD.	LIN. FT.	LIN. FT.	SQ. YD.		SQ.YD.	SQ.YD.	S.Y.	GAL.	GAL.	IN.	C.Y.	IN.	C.Y.	FT.
1	GUE-77-0517L	148.00	42.30	695.6	25.0	42.3	235.0	1	528.0	308.0	930.6	69.8				1.50	38.8	
1	GUE-77-0517R	148.00	62.30	1,024.5	25.0	62.3	346.2	1	528.0	308.0	1,370.7	102.8				1.50	57.1	
1	GUE-77-0599	OVERHEAD - MILL AND FILL ROADWAY						2										
1	GUE-77-0708	OVERHEAD - MILL AND FILL ROADWAY						2										
1	GUE-77-0754L	157.00	52.00	907.2	25.0	52.0	288.9	3	552.0	322.0								104.0
1	GUE-77-0754R	OVERHEAD - MILL AND FILL ROADWAY						2										
1	GUE-77-0768L	218.00	86.60	2,097.7	25.0	39.0	216.7	3	714.7	416.9								78.0
1	GUE-77-0768R	OVERHEAD - MILL AND FILL ROADWAY						2										
1	GUE-77-0804L	93.00	44.3	457.8	25.0	44.0	244.5	1	381.3	222.4	702.3	52.7				1.50	29.3	
1	GUE-77-0804R	93.00	52.2	539.4	25.0	44.0	244.5	1	381.3	222.4	783.9	58.8				1.50	32.7	
1	GUE-77-0900L	267.00	43.0	1,275.7	25.0	44.0	244.5	3	845.3	493.1								88.0
1	GUE-77-0900R	267.00	43.0	1,275.7	25.0	44.0	244.5	3	845.3	493.1								88.0
1	GUE-77-0926L	146.00	43.0	697.6	25.0	44.0	244.5	3	522.7	304.9								88.0
1	GUE-77-0926R	146.00	44.2	717.1	25.0	44.0	244.5	3	522.7	304.9								88.0
1	GUE-77-0966	OVERHEAD - MILL AND FILL ROADWAY						2										
1	GUE-77-1120	OVERHEAD - MILL AND FILL ROADWAY						2										
	BRIDGE DEDUCTIONS								2,322.7	1,354.9								
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)											3,787.5	284.1					157.9	534.0

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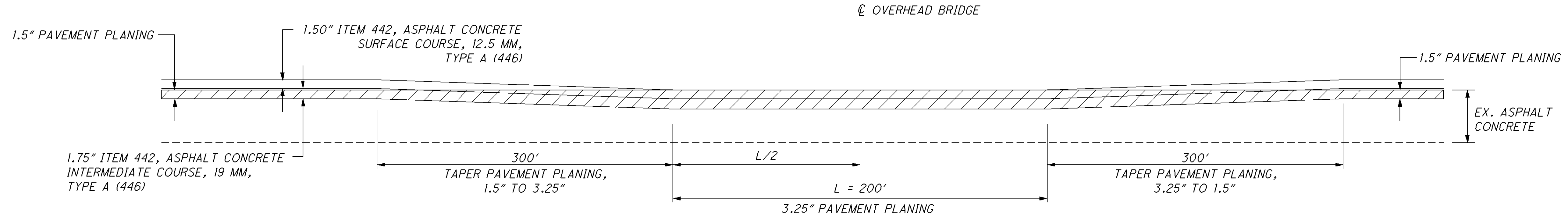


- ITEM 202, WEARING COURSE REMOVED
- ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE

DETAIL 1

REMOVE AND REPLACE 1.5" ASPHALT CONCRETE SURFACE COURSE

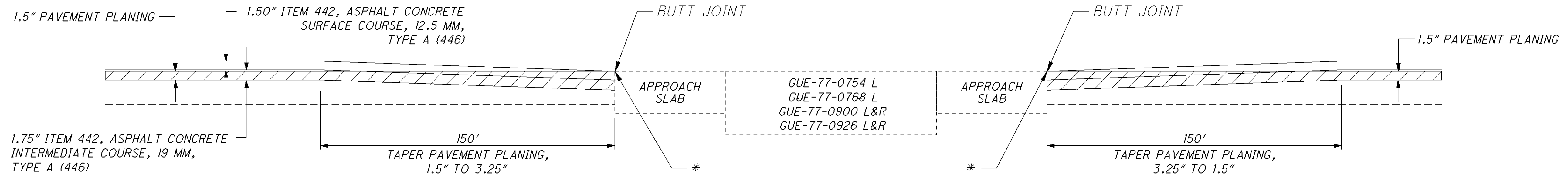
NOTE: BRIDGES GUE-77-0754R AND GUE-77-0768R ARE LOCATED IN A SECTION OF ROADWAY THAT WE ARE PLANING 3.25", THEREFORE, THE L DIMENSION AND 300' TAPERS AS SHOWN IN THIS DETAIL DO NOT APPLY TO THIS BRIDGE.



- ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE

DETAIL 2

GUE-77-0599, GUE-77-0708, GUE-77-0754R, GUE-77-0768R, GUE-77-0966, GUE-77-1120



\* 2" DEEP JOINT SEALER, AS PER PLAN

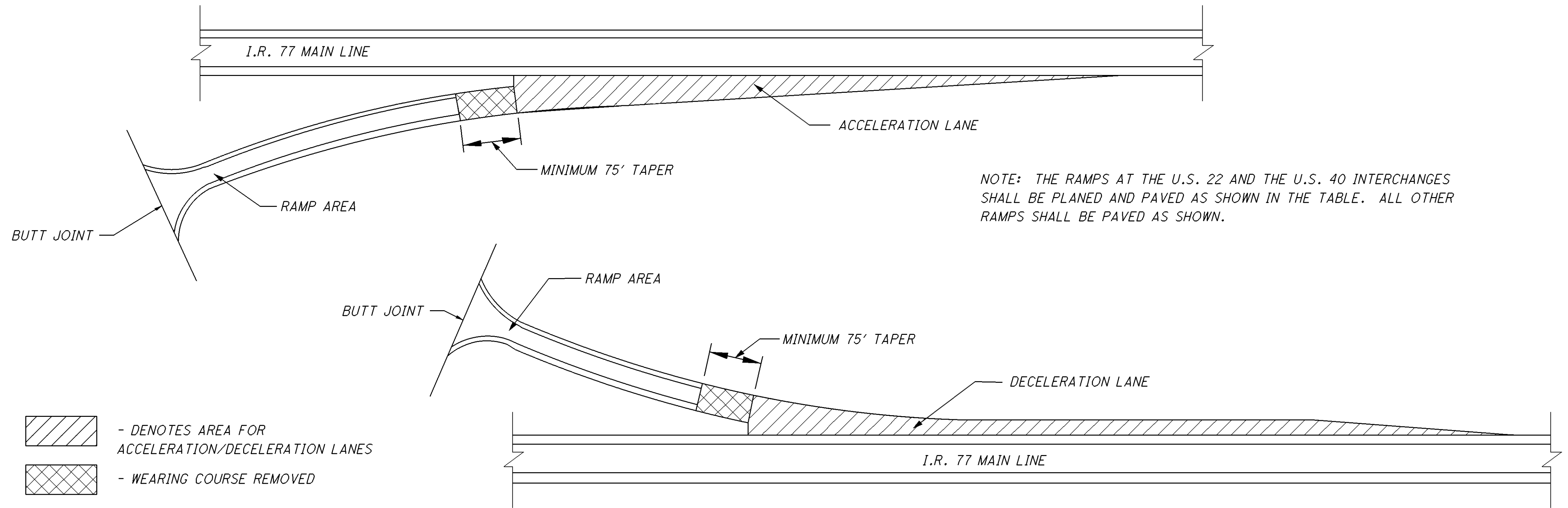
- ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE

DETAIL 3

BUTT JOINT AT APPROACH SLABS

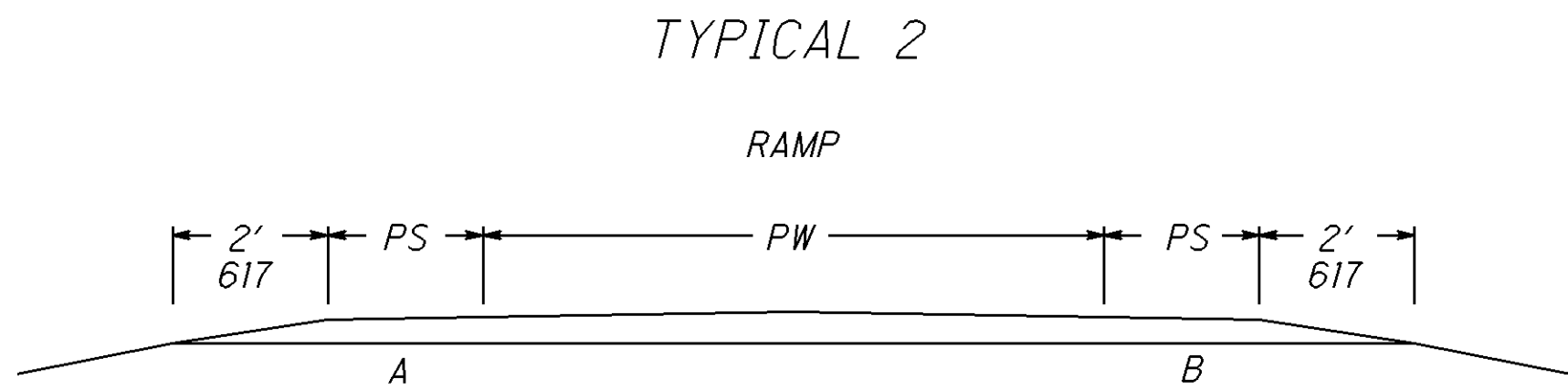
REST AREA PAVEMENT DATA

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RAMP PAVEMENT DATA																
LOCATION	COUNTY	ROUTE	DESCRIPTION	RAMP LENGTH	RAMP WMDTH	AREA	202	254		407			442			
							WEARING COURSE REMOVED (FOR TRANSITIONS)	THICKNESS	PAVEMENT PLANING, ASPHALT CONCRETE	TACK COAT @ 0.075 GAL./SQ. YD.	TACK COAT, 702.13 @ 0.075 GAL./SQ. YD.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./SQ. YD.	THICKNESS	INTERMEDIATE COURSE, 19 MM, TYPE A (446)	THICKNESS	SURFACE COURSE, 12.5 MM, TYPE A (446)
				FT.	FT.	SQ. YD.	S.Y.	IN.	S.Y.	GAL.	GAL.	GAL.	IN.	C.Y.	IN.	C.Y.
1	GUE	I.R. 77 N.B.	NORTHBOUND OFF RAMP TO S.R. 209 (RAMP D)	1,207.00	16.0	2,145.8	183.0				161.0	108.0	1.75	104.4	1.50	89.5
1	GUE	I.R. 77 N.B.	NORTHBOUND ON (SLIP) RAMP FROM S.R. 209 (RAMP C-C)	155.00	20.0 (AVG.)	344.5					26.0	18.0	1.75	16.8	1.50	14.4
1	GUE	I.R. 77 N.B.	NORTHBOUND ON RAMP FROM S.R. 209 (RAMP C)	926.00	16.0	1,646.3	183.0				124.0	83.0	1.75	80.1	1.50	68.6
1	GUE	I.R. 77 N.B.	NORTHBOUND OFF RAMP TO U.S. 40 E.B.	1,000.00	16.0	1,777.8		1.50	1,777.8	134.0		89.0	1.75	86.5	1.50	74.1
1	GUE	I.R. 77 N.B.	NORTHBOUND OFF RAMP TO U.S. 40 W.B.	1,554.00	16.0	2,762.7		1.50	2,762.7	208.0		139.0	1.75	134.3	1.50	115.2
1	GUE	I.R. 77 N.B.	NORTHBOUND ON RAMP FROM U.S. 40	1,595.00	16.0	2,835.6		1.50	2,835.6	213.0		142.0	1.75	137.9	1.50	118.2
1	GUE	I.R. 77 N.B.	NORTHBOUND OFF RAMP TO U.S. 22	677.00	16.0	1,203.6		1.50	1,203.6	91.0		61.0	1.75	58.6	1.50	50.2
1	GUE	I.R. 77 N.B.	NORTHBOUND ON RAMP FROM U.S. 22	606.00	16.0	1,077.4		1.50	1,077.4	81.0		54.0	1.75	52.4	1.50	44.9
1	GUE	I.R. 77 S.B.	SOUTHBOUND OFF RAMP TO U.S. 22	1,635.00	16.0	2,906.7		1.50	2,906.7	219.0		146.0	1.75	141.3	1.50	121.2
1	GUE	I.R. 77 S.B.	SOUTHBOUND ON RAMP FROM U.S. 22	1,235.00	16.0	2,195.6		1.50	2,195.6	165.0		110.0	1.75	106.8	1.50	91.5
1	GUE	I.R. 77 S.B.	SOUTHBOUND OFF RAMP TO U.S. 40	709.00	16.0	1,260.5		1.50	1,260.5	95.0		64.0	1.75	61.3	1.50	52.6
1	GUE	I.R. 77 S.B.	SOUTHBOUND OFF (SLIP) RAMP TO U.S. 40	163.00	16.0	289.8		1.50	289.8	22.0		15.0	1.75	14.1	1.50	12.1
1	GUE	I.R. 77 S.B.	SOUTHBOUND ON RAMP FROM U.S. 40	984.00	16.0	1,749.4		1.50	1,749.4	132.0		88.0	1.75	85.1	1.50	72.9
1	GUE	I.R. 77 S.B.	SOUTHBOUND ON (SLIP) RAMP FROM U.S. 40	127.00	16.0	225.8		1.50	225.8	17.0		12.0	1.75	11.0	1.50	9.5
1	GUE	I.R. 77 S.B.	SOUTHBOUND OFF RAMP TO S.R. 209 (RAMP B)	867.00	16.0	1,541.4	183.0				116.0	78.0	1.75	75.0	1.50	64.3
1	GUE	I.R. 77 S.B.	SOUTHBOUND ON RAMP FROM S.R. 209 (RAMP A)	920.00	16.0	1,635.6	183.0				123.0	82.0	1.75	79.6	1.50	68.2
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)							732.0		18,284.9	1,377.0	550.0	1,289.0		1,245.2		1,067.4

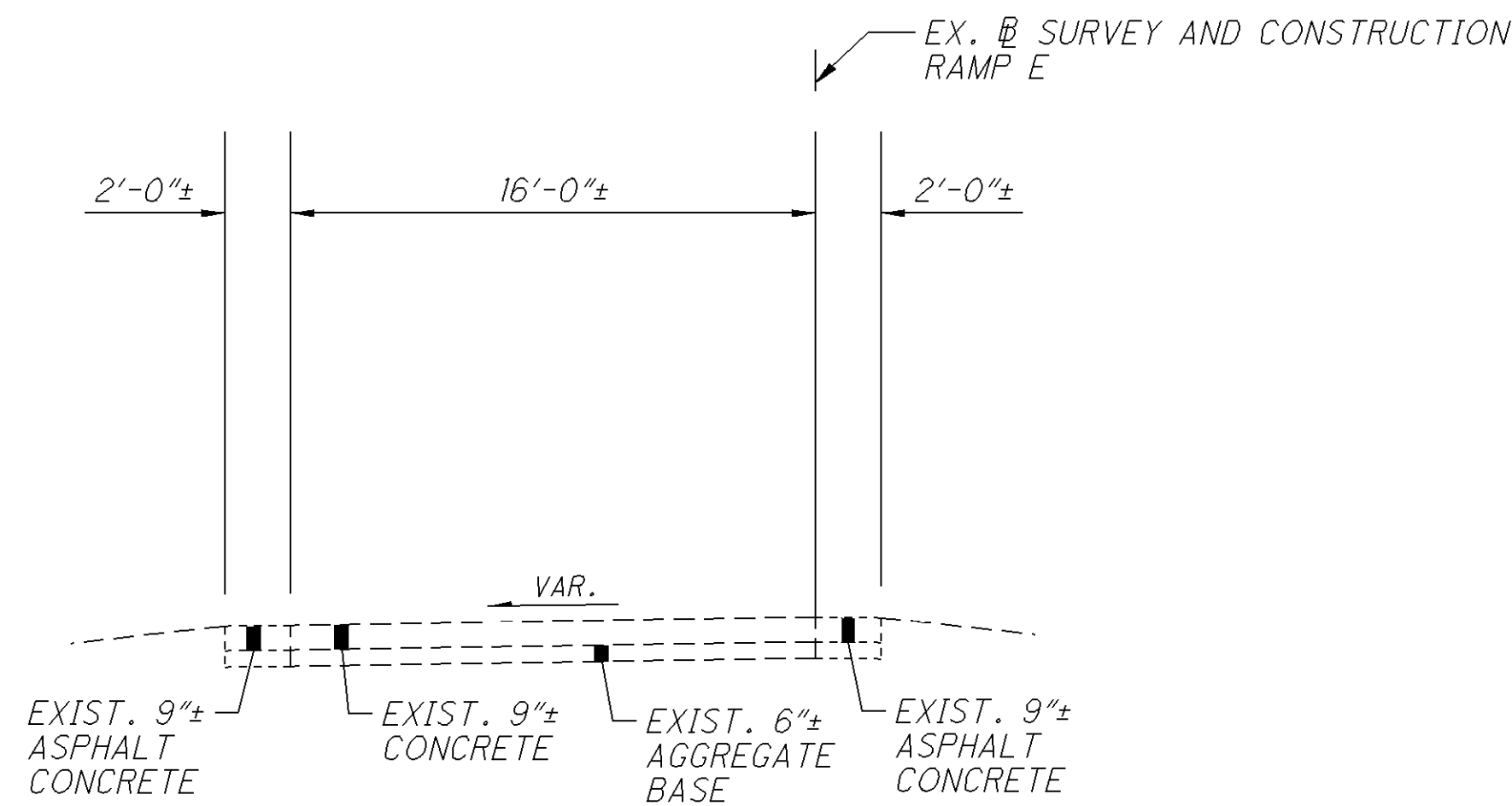
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RAMP SHOULDER DATA																								
L O C A T I O N	C O U N T Y	R O U T E	BEGIN LOG POINT SLM	END LOG POINT SLM	L E N G T H		T Y P I C A L	P R O P O S E D W I D T H (F T. )				S H O U L D E R  A R E A	254		407		442				617			
													T H I C K N E S S	P A V E M E N T P L A N I N G, A S P H A L T C O N C R E T E	T A C K C O A T  @ 0.075 G A L./S.Y.	T A C K C O A T F O R I N T E R M E D I A T E C O U R S E @ 0.05 G A L./S.Y.	T H I C K N E S S	I N T E R M E D I A T E C O U R S E, 19 M M, T Y P E A (446)	T H I C K N E S S	S U R F A C E C O U R S E, 12.5 M M, T Y P E A (446)	T H I C K N E S S	C O M P A C T E D A G G R E G A T E, A S P E R P L A N (2' W I D T H)	S H O U L D E R  P R E P A R A T I O N  (2' W I D T H)	
					M I L E S	L I N. F T.		A	B	C	D													S Q. Y D.
1	GUE	I.R. 77 N.B.	NORTHBOUND OFF RAMP TO S.R. 209 (RAMP D)			1,207.00	2	3.0	3.0			804.7				60.4	40.3	1.75	39.2	1.50	33.6	2.00	29.8	536.4
			NORTHBOUND ON (SLIP) RAMP FROM S.R. 209 (RAMP C-C)			155.00	2	3.0	6.0			155.0				11.7	7.8	1.75	7.6	1.50	6.5	2.00	3.8	68.9
			NORTHBOUND ON RAMP FROM S.R. 209 (RAMP C)			926.00	2	3.0	3.0			617.3				46.3	30.9	1.75	30.1	1.50	25.8	2.00	22.9	411.6
			NORTHBOUND OFF RAMP TO U.S. 40 E.B.			1,000.00	2	3.0	6.0			1,000.0	1.50	1,000.0	75.0	50.0	1.75	48.7	1.50	41.7	2.00	24.7	444.4	
			NORTHBOUND OFF RAMP TO U.S. 40 W.B.			1,554.00	2	3.0	6.0			1,554.0	1.50	1,554.0	116.6	77.7	1.75	75.6	1.50	64.8	2.00	38.4	690.7	
			NORTHBOUND ON RAMP FROM U.S. 40			1,595.00	2	3.0	6.0			1,595.0	1.50	1,595.0	119.7	79.8	1.75	77.6	1.50	66.5	2.00	39.4	708.9	
			NORTHBOUND OFF RAMP TO U.S. 22			677.00	2	3.0	6.0			677.0	1.50	677.0	50.8	33.9	1.75	33.0	1.50	28.3	2.00	16.7	300.9	
			NORTHBOUND ON RAMP FROM U.S. 22			606.00	2	3.0	6.0			606.0	1.50	606.0	45.5	30.3	1.75	29.5	1.50	25.3	2.00	15.0	269.3	
1	GUE	I.R. 77 S.B.	SOUTHBOUND OFF RAMP TO U.S. 22			1,635.00	2	3.0	6.0			1,635.0	1.50	1,635.0	122.7	81.8	1.75	79.5	1.50	68.2	2.00	49.4	726.7	
			SOUTHBOUND ON RAMP FROM U.S. 22			1,235.00	2	3.0	6.0			1,235.0	1.50	1,235.0	92.7	61.8	1.75	60.1	1.50	51.5	2.00	45.3	548.9	
			SOUTHBOUND OFF RAMP TO U.S. 40			709.00	2	3.0	6.0			709.0	1.50	709.0	53.2	35.5	1.75	34.5	1.50	29.6	2.00	45.3	315.1	
			SOUTHBOUND OFF (SLIP) RAMP TO U.S. 40			163.00	2	3.0	6.0			163.0	1.50	163.0	12.3	8.2	1.75	8.0	1.50	6.8	2.00	45.3	72.4	
			SOUTHBOUND ON RAMP FROM U.S. 40			984.00	2	3.0	6.0			984.0	1.50	984.0	73.8	49.2	1.75	47.9	1.50	41.0	2.00	45.3	437.3	
			SOUTHBOUND ON (SLIP) RAMP FROM U.S. 40			127.00	2	3.0	6.0			127.0	1.50	127.0	9.6	6.4	1.75	6.2	1.50	5.3	2.00	45.3	56.4	
			SOUTHBOUND OFF RAMP TO S.R. 209 (RAMP B)			867.00	2	3.0	3.0			578.0			43.4	28.9	1.75	28.1	1.50	24.1	2.00	49.4	385.3	
			SOUTHBOUND ON RAMP FROM S.R. 209 (RAMP A)			920.00	2	3.0	3.0			613.3			46.0	30.7	1.75	29.9	1.50	25.6	2.00	45.3	408.9	
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)															10,285.0	979.7	653.2		635.5		544.6		561.3	6,382.1

REST AREA/ RAMP ROADWAY DATA																				
L O C A T I O N	C O U N T Y	R O U T E	DESCRIPTION	202			203	204	255			608	609				613	659	690	
				WALK REMOVED	CONCRETE MEDIAN REMOVED	CURB REMOVED	EMBANKMENT	SUBGRADE COMPACTION	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN	FULL DEPTH PAVEMENT SAWING (SAW CUT LINE)	FULL DEPTH PAVEMENT SAWING (FOR REPAIRS)	4" CONCRETE WALK	CURB, TYPE 2-A	CURB, TYPE 6	CURB, TYPE 7	CONCRETE MEDIAN	LOW STRENGTH MORTAR BACKFILL (TYPE 2)	SEEDING AND MULCHING, CLASS 2	SPECIAL - MISC.: CURB RAMP, TYPE A1	SPECIAL - MISC.: DETECTABLE WARNING
				S.F.	S.Y.	FT.	C.Y.	S.Y.	S.Y.	FT.	FT.	S.F.	FT.	FT.	FT.	S.Y.	C.Y.	S.Y.	EACH	S.F.
1	GUE	I.R. 77 N.B.	NORTHBOUND OFF RAMP TO S.R. 209 (RAMP D)				7	81	390		672			241		81	11	700		
			NORTHBOUND ON (SLIP) RAMP FROM S.R. 209 (RAMP C-C)				13	30						435		30	19	570		
			NORTHBOUND ON RAMP FROM S.R. 209 (RAMP C)		45	931	8	16	274	1,190	512			256		16	11	52		
1	GUE	I.R. 77 S.B.	SOUTHBOUND OFF RAMP TO S.R. 209 (RAMP B)						260		320									
			SOUTHBOUND ON RAMP FROM S.R. 209 (RAMP A)						540		320									
LOCATION 1 SUB-TOTALS										1,190	1,824									
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)					45	931	28	127	1,464	3,014				932		127	41	1,322		
2	GUE	S.R. 209	SLM 14.57 TO SLM 14.79						280		616									
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)									280		616									
	GUE	I.R. 77 N.B.	NORTHBOUND OFF RAMP TO REST AREA (RAMP E)						60		144									
			REST AREA PARKING	405		160			1,070		2,650	555	50	150	50			1	60	
			NORTHBOUND ON RAMP FROM REST AREA (RAMP F)						70		302									
TOTALS (CARRIED TO GENERAL SUMMARY)				405		160			1,200		4,328	555	50	150	50			1	60	

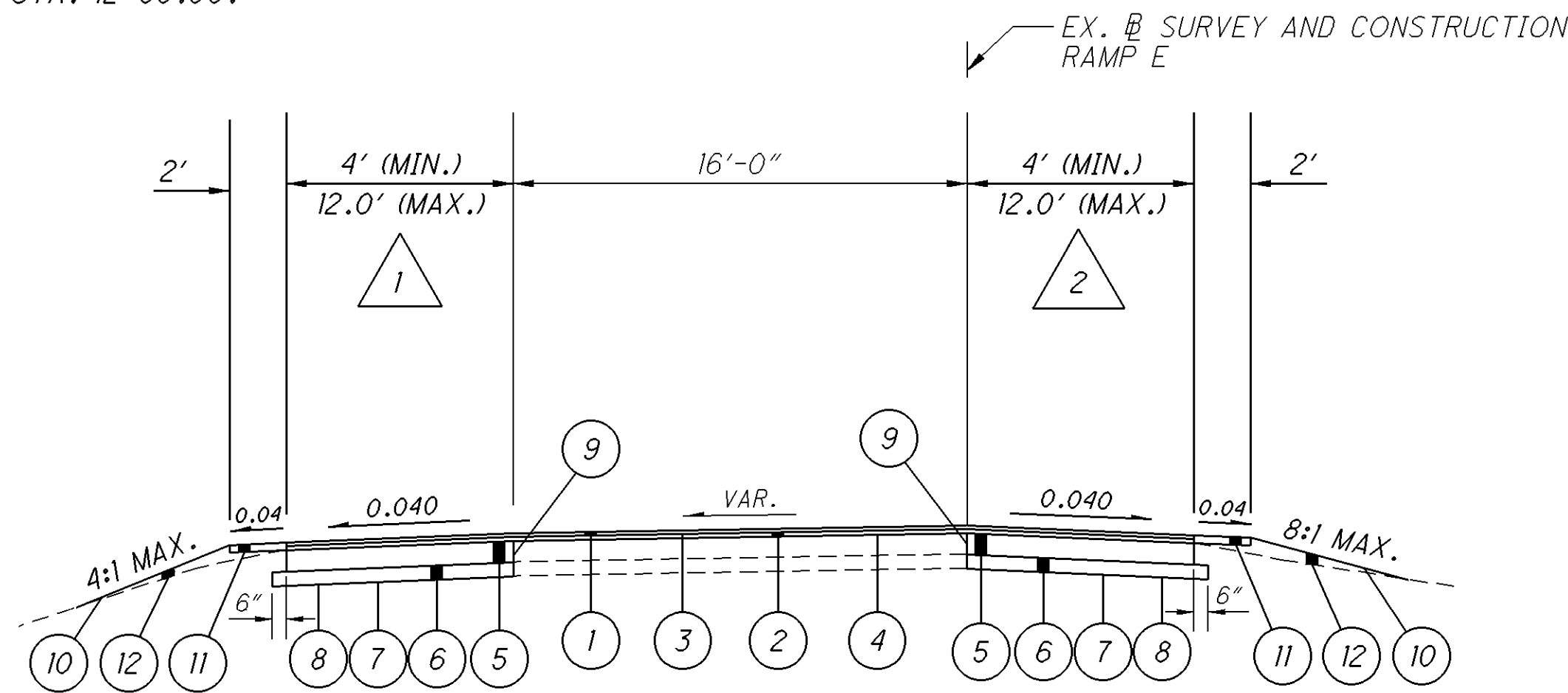
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RAMP E (EXISTING)  
NORMAL SECTION APPLIES:

STA. 2+99.82 TO STA. 12+80.00 = 980.18 FT.  
TOTAL 980.18 FT.

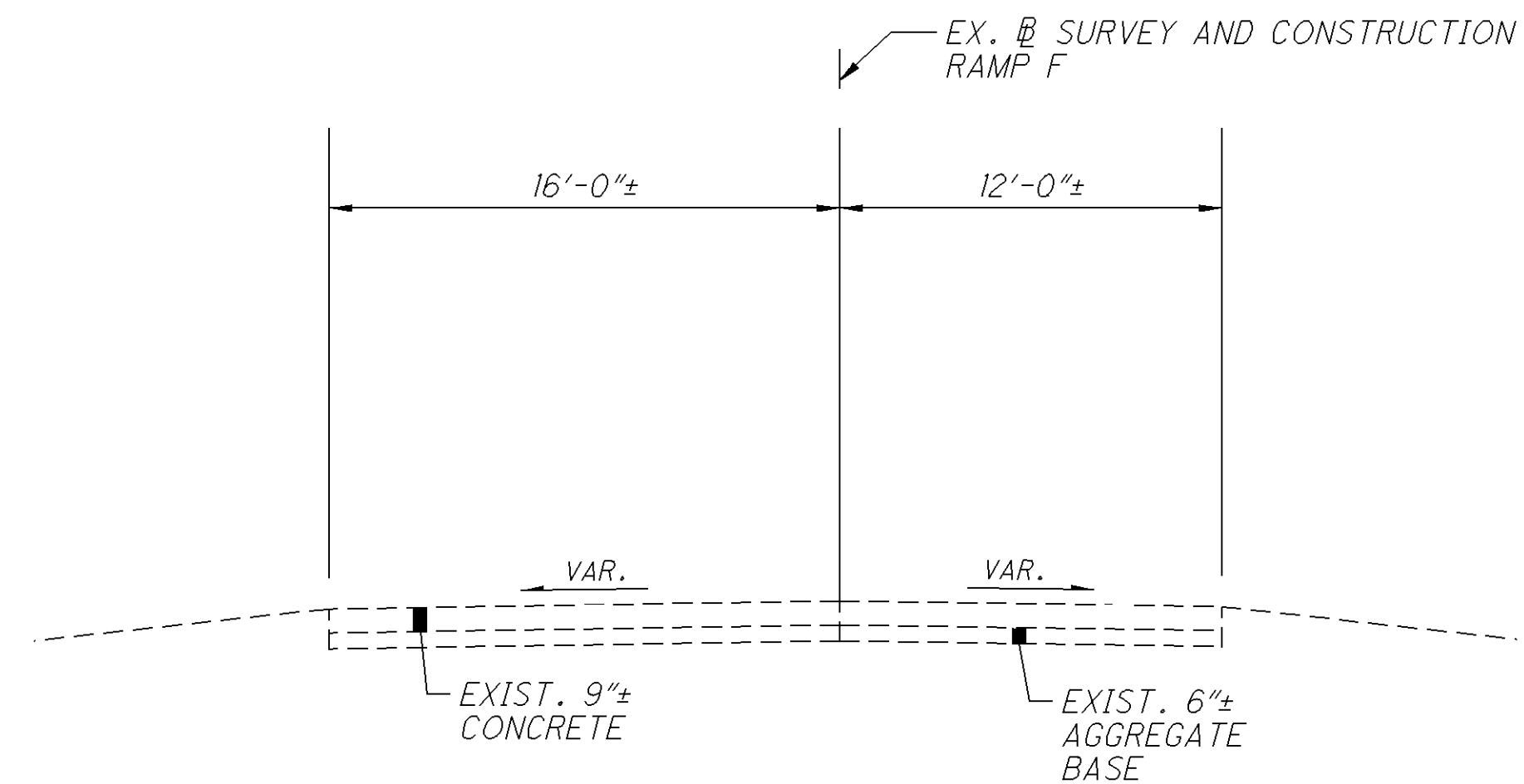
- 1 TAPERS FROM 4.0' @ STA. 9+00.00 TO 12.0' @ STA. 9+60.00.  
12.0' FROM STA. 9+60.00 TO STA. 12+20.00.  
TAPERS FROM 12.0' @ STA. 12+20.00 TO 4.0' @ STA. 12+80.00.



RAMP E (PROPOSED)  
NORMAL SECTION APPLIES:

STA. 2+99.82 TO STA. 12+80.00 = 980.18 FT.  
TOTAL 980.18 FT.

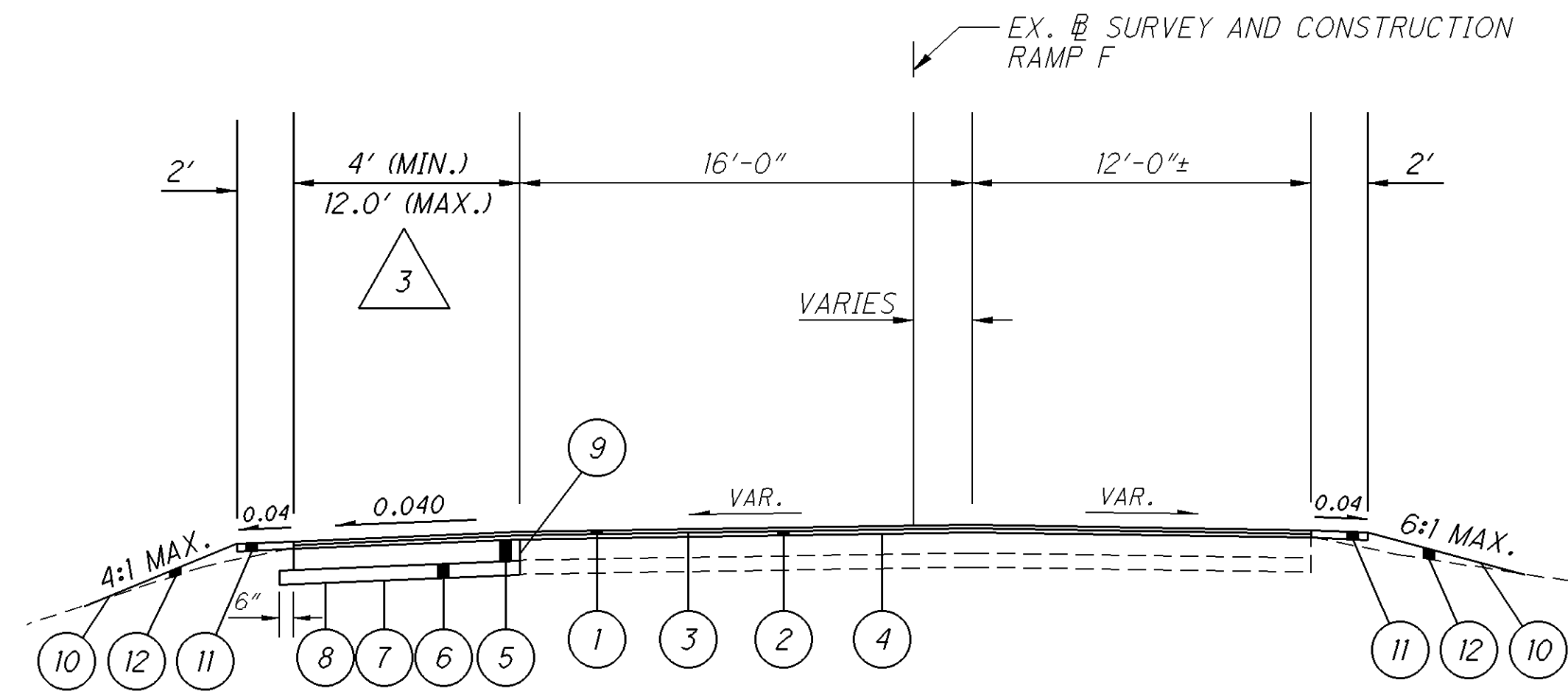
- 2 TAPERS FROM 4.0' @ STA. 7+60.00 TO 12.0' @ STA. 8+20.00.  
12.0' FROM STA. 8+20.00 TO STA. 12+20.00.  
TAPERS FROM 12.0' @ STA. 12+20.00 TO 4.0' @ STA. 12+80.00.



RAMP F (EXISTING)  
NORMAL SECTION APPLIES:

STA. 8+15.00 TO STA. 15+48.11 = 733.11 FT.  
TOTAL 733.11 FT.

- 3 TAPERS FROM 4.0' @ STA. 8+15.00 TO 12.0' @ STA. 8+75.00.  
12.0' FROM STA. 8+75.00 TO STA. 10+00.00.  
TAPERS FROM 12.0' @ STA. 10+00.00 TO 4.0' @ STA. 10+60.00.



RAMP F (PROPOSED)  
NORMAL SECTION APPLIES:

STA. 8+15.00 TO STA. 15+48.11 = 733.11 FT.  
TOTAL 733.11 FT.

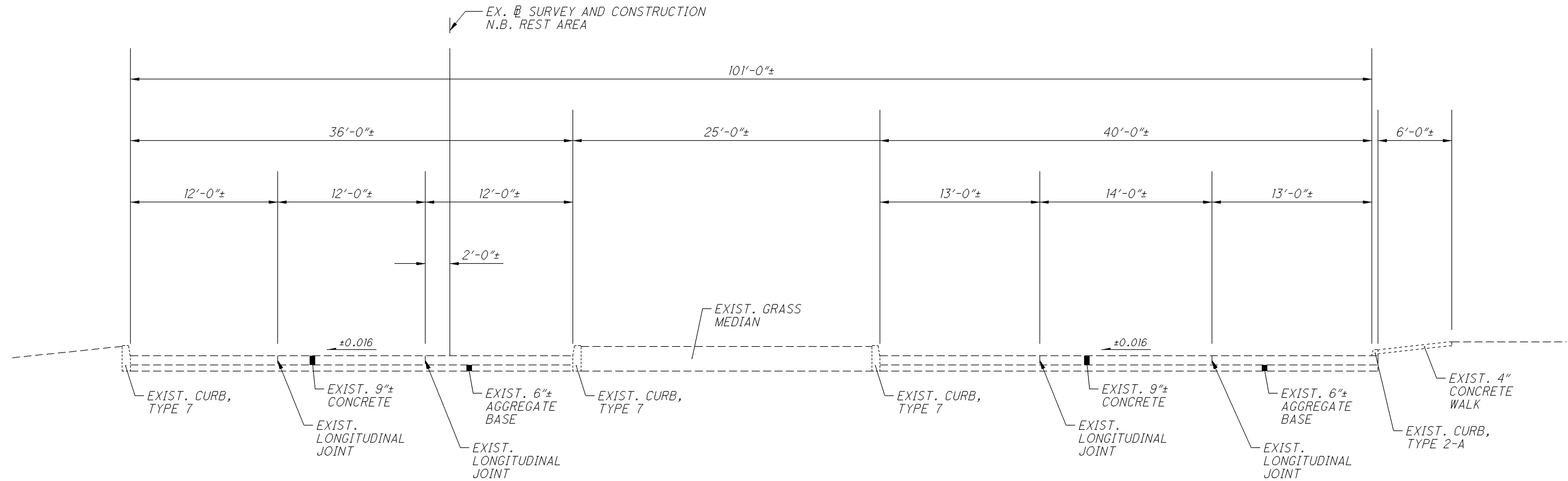
LEGEND

- 1 ITEM 442, 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, (446)  
2 ITEM 442, 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A, (446)  
3 ITEM 407, TACK COAT FOR INTERMEDIATE COURSE (@ 0.05 GAL./SQ. YD.)  
4 ITEM 407, TACK COAT, 702.13 (@ 0.075 GAL./SQ. YD.)

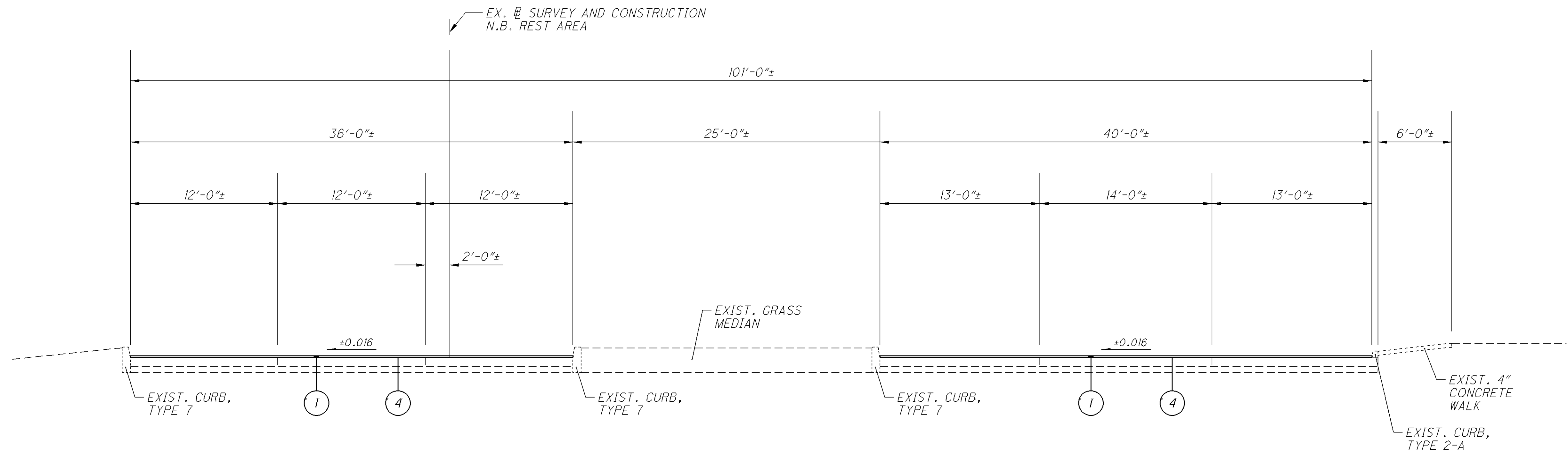
- 5 ITEM 451, 9" REINFORCED CONCRETE PAVEMENT, CLASS QC1  
6 ITEM 304, 6" AGGREGATE BASE  
7 ITEM 204, SUBGRADE COMPACTION  
8 ITEM 204, PROOF ROLLING

- 9 STANDARD LONGITUDINAL JOINT (AS PER BP-2.1)  
10 ITEM 659, SEEDING AND MULCHING, CLASS 2  
11 ITEM 617, COMPACTED AGGREGATE, AS PER PLAN  
12 ITEM 203, EMBANKMENT

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N.B. REST AREA (EXISTING)

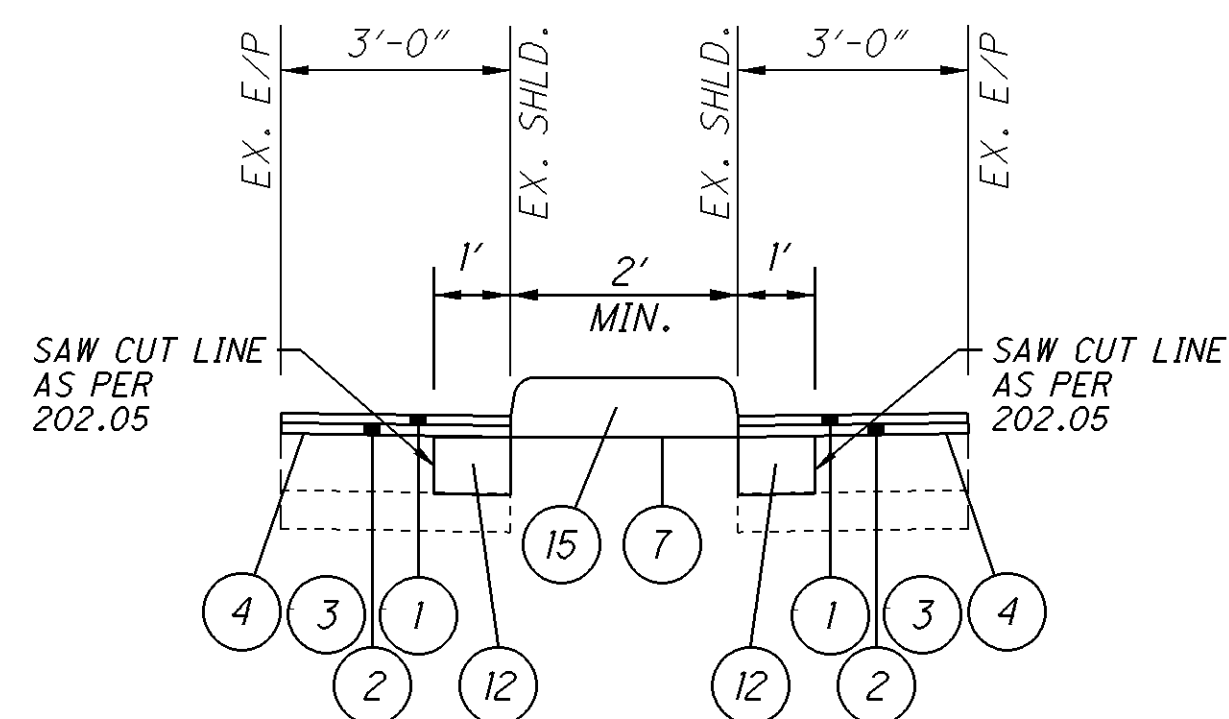


N.B. REST AREA (PROPOSED)

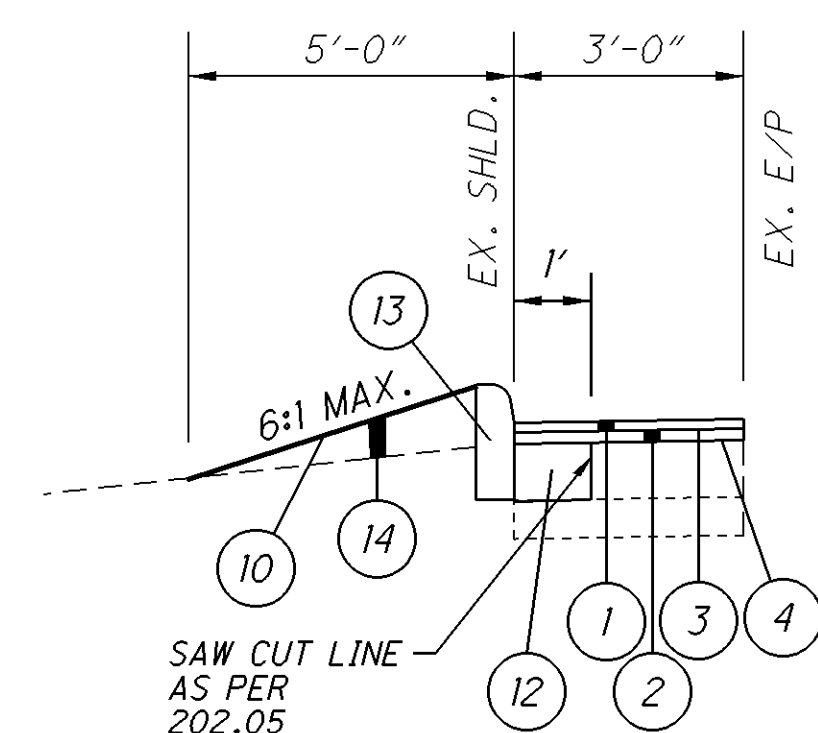
LEGEND

- 1 ITEM 442, 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, (446)
- 4 ITEM 407, TACK COAT, 702.13 (@ 0.075 GAL./SQ. YD.)

NOTE: SEE SCD RM-3.1 FOR CONCRETE MEDIAN DETAILS

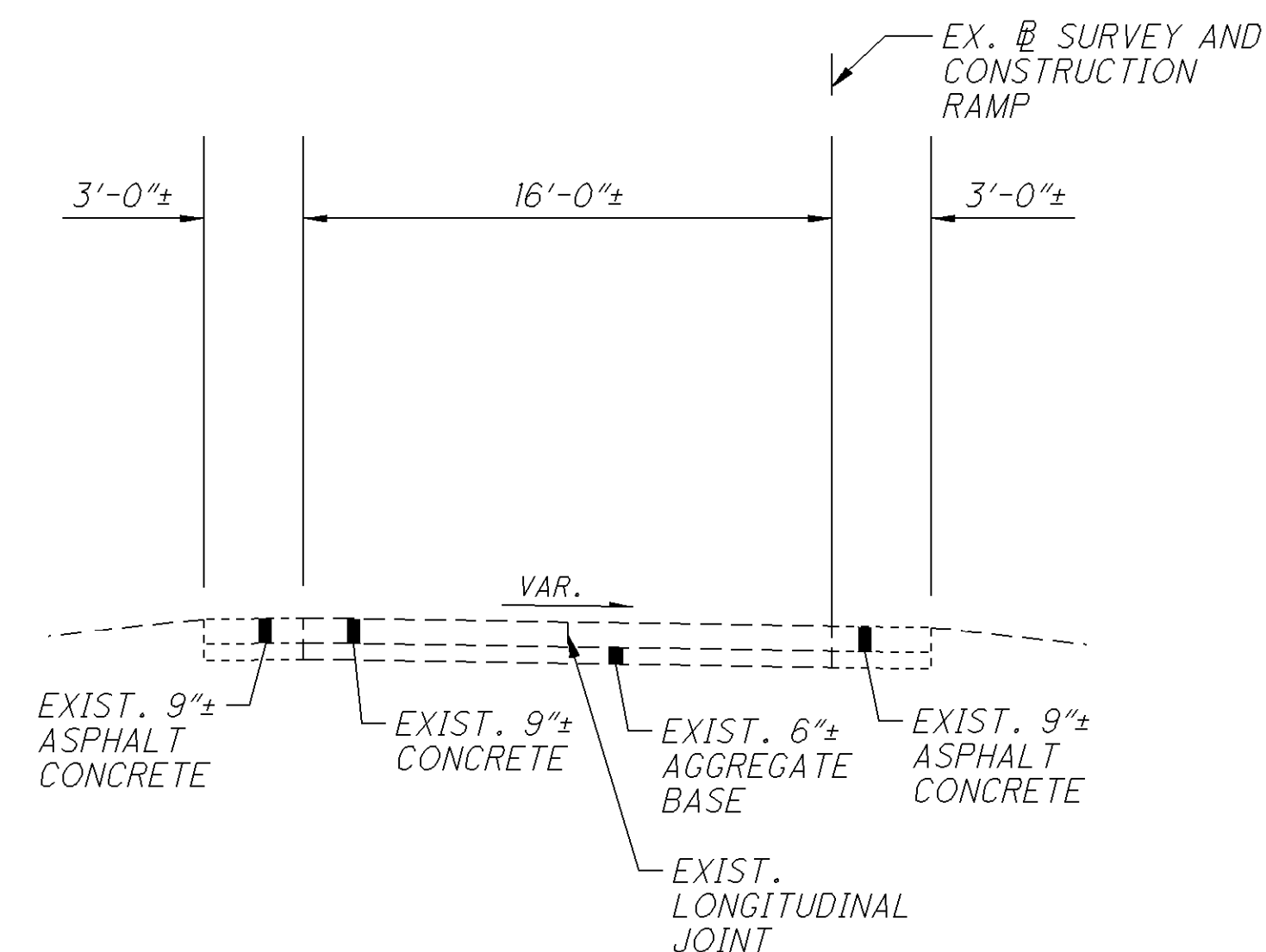


**CONCRETE MEDIAN DETAIL**  
S.R. 209/ RAMP C/ RAMP C-C/ RAMP D  
(SEE INTERSECTION DETAIL)



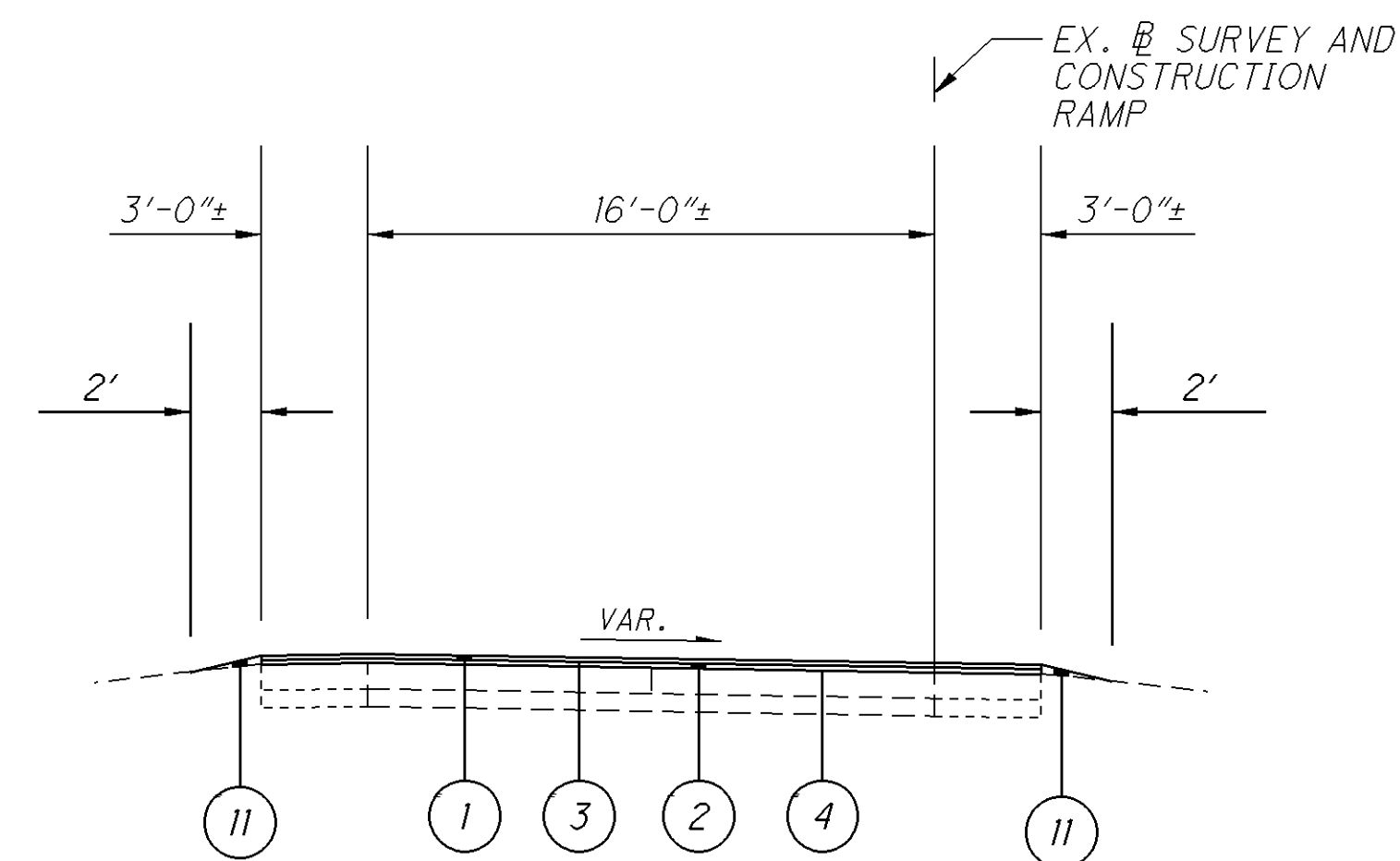
*CURB DETAIL*

*S.R. 209/ RAMP C/ RAMP C-C/ RAMP D*  
*(SEE INTERSECTION DETAIL)*



RAMP (EXISTING)  
SECTION APPLIES:

STA. 8+91.98 TO STA. 18+21.97 - RAMP A  
STA. 14+82.50 TO STA. 23+61.35 - RAMP B  
STA. 9+16.50 TO STA. 18+13.84 - RAMP C, RAMP C-C  
STA. 9+00.00 TO STA. 21+13.67 - RAMP D



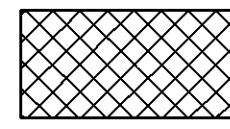
**RAMP (PROPOSED)  
SECTION APPLIES:**

STA. 8+91.98 TO STA. 18+21.97 - RAMP A  
STA. 14+82.50 TO STA. 23+61.35 - RAMP B  
STA. 9+16.50 TO STA. 18+13.84 - RAMP C, RAMP C-C  
STA. 9+00.00 TO STA. 21+13.67 - RAMP D

LEGEND

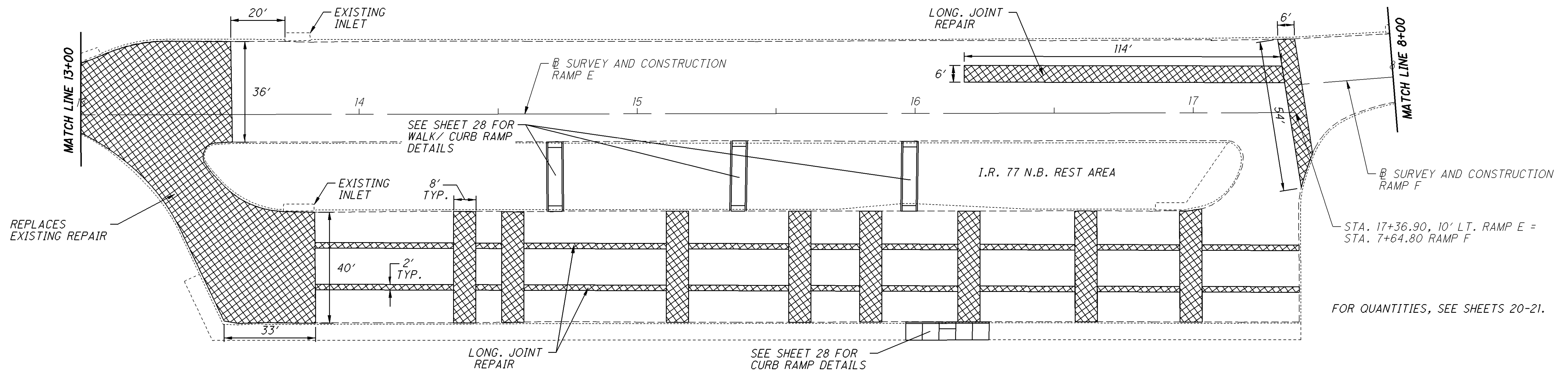
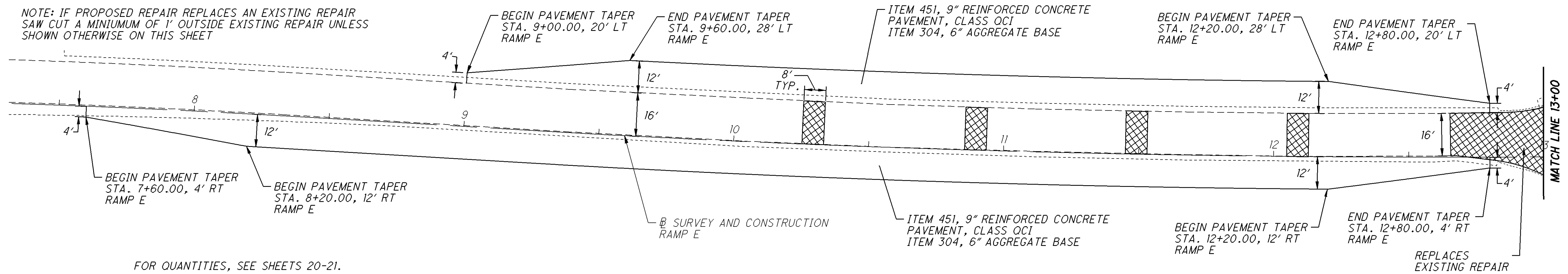
- |   |  |    |   |    |   |
|---|--|----|---|----|---|
| 1 | ITEM 442, 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, (446)    | 6  | ITEM 304, 6" AGGREGATE BASE                 | 11 | ITEM 617, COMPACTED AGGREGATE, AS PER PLAN      |
| 2 | ITEM 442, 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A, (446) | 7  | ITEM 204, SUBGRADE COMPACTION               | 12 | ITEM 613, LOW STRENGTH MORTAR BACKFILL (TYPE 2) |
| 3 | ITEM 407, TACK COAT FOR INTERMEDIATE COURSE (@ 0.05 GAL./SQ. YD.)          | 8  | ITEM 204, PROOF ROLLING                     | 13 | ITEM 609, CURB, TYPE 6                          |
| 4 | ITEM 407, TACK COAT, 702.13 (@ 0.075 GAL./SQ. YD.)                         | 9  | STANDARD LONGITUDINAL JOINT (AS PER BP-2.1) | 14 | ITEM 203, EMBANKMENT                            |
| 5 | ITEM 451, 9" REINFORCED CONCRETE PAVEMENT, CLASS QC1                       | 10 | ITEM 659, SEEDING AND MULCHING, CLASS 2     | 15 | ITEM 609, CONCRETE MEDIAN                       |

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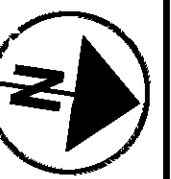
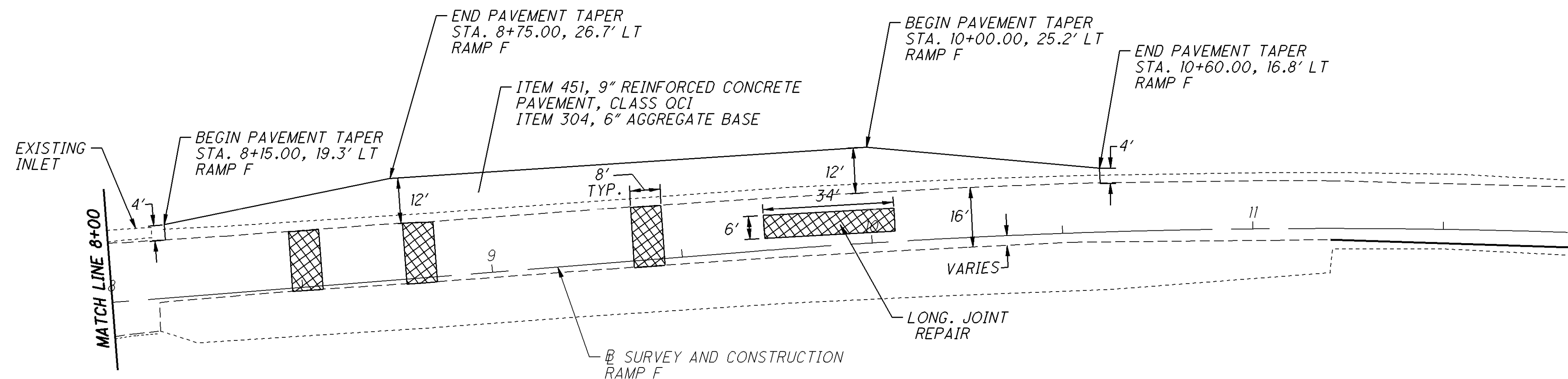


ITEM 255, FULL DEPTH PAVEMENT  
REMOVAL AND RIGID REPLACEMENT,  
CLASS OC MS, AS PER PLAN

NOTE: IF PROPOSED REPAIR REPLACES AN EXISTING REPAIR  
SAW CUT A MINIMUM OF 1' OUTSIDE EXISTING REPAIR UNLESS  
SHOWN OTHERWISE ON THIS SHEET



CN PT	NORTHING	EASTING	ELEVATION	FEATURE CODE
SV1	708151.958	2239811.268	814.281	1" REBAR W/ ALUM. ODOT CAP
SV2	708597.291	2239727.038	815.042	1" REBAR W/ ALUM. ODOT CAP



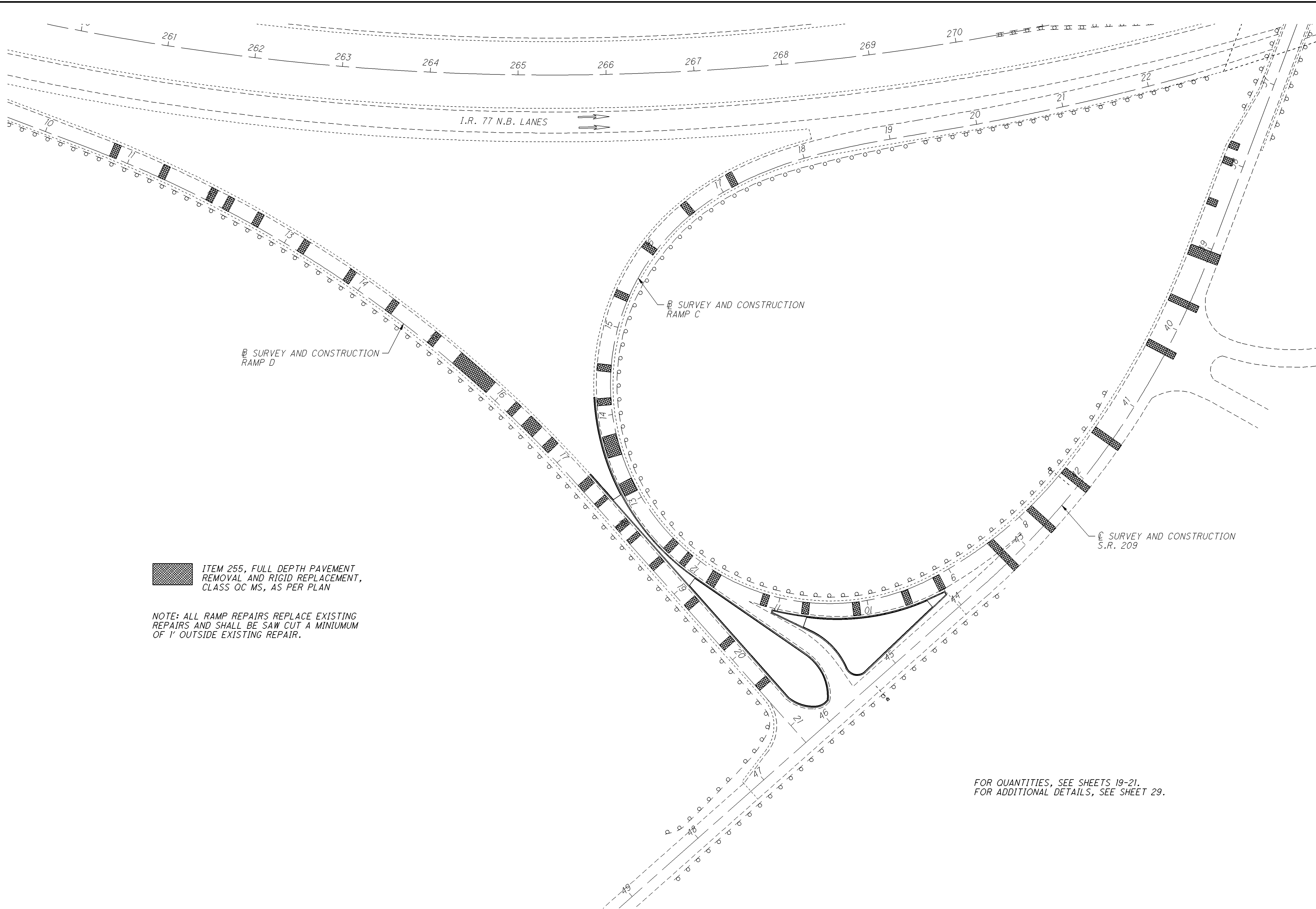
0 20 40  
HORIZONTAL  
SCALE IN FEET

CALCULATED  
JLS  
CHECKED  
JSL

PAVEMENT REPAIR DETAILS  
I.R. 77 N.B. REST AREA

GUE-77-2.50  
GUE-209-14.57


25  
42



ITEM 255, FULL DEPTH PAVEMENT  
REMOVAL AND RIGID REPLACEMENT,  
CLASS QC MS, AS PER PLAN

NOTE: ALL RAMP REPAIRS REPLACE EXISTING  
REPAIRS AND SHALL BE SAW CUT A MINIMUM  
OF 1' OUTSIDE EXISTING REPAIR.

FOR QUANTITIES, SEE SHEETS 19-21.  
FOR ADDITIONAL DETAILS, SEE SHEET 29.

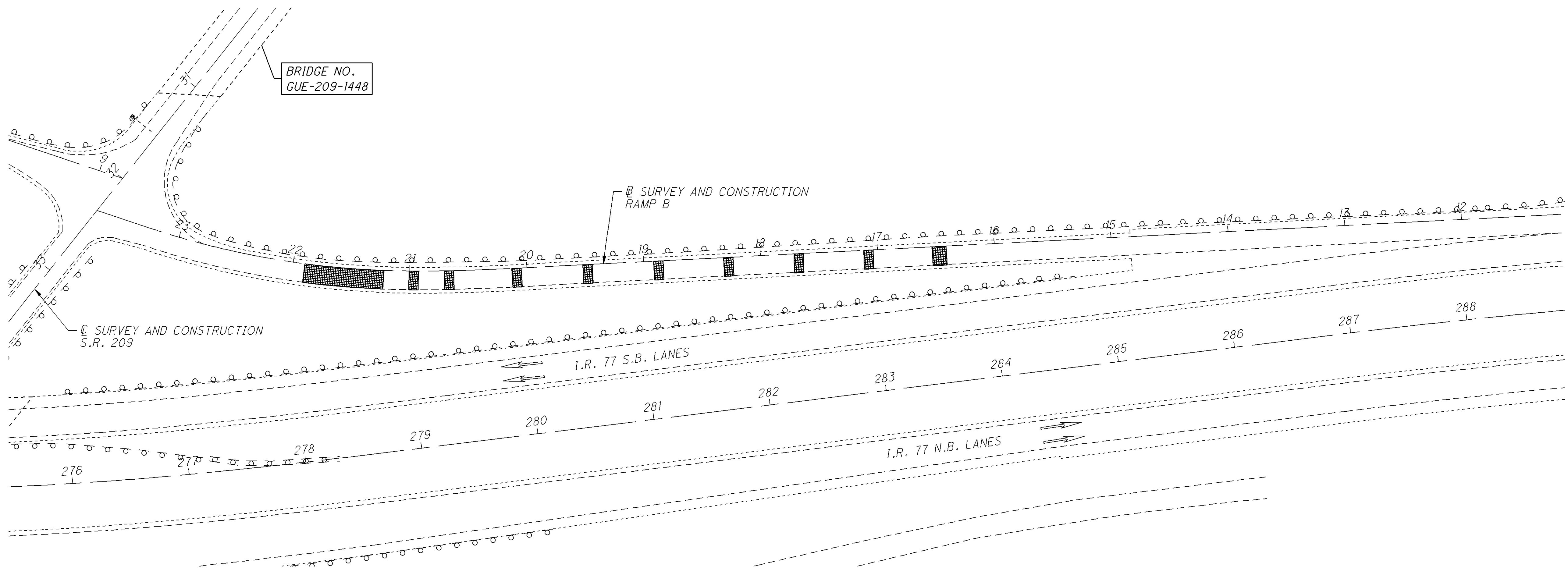
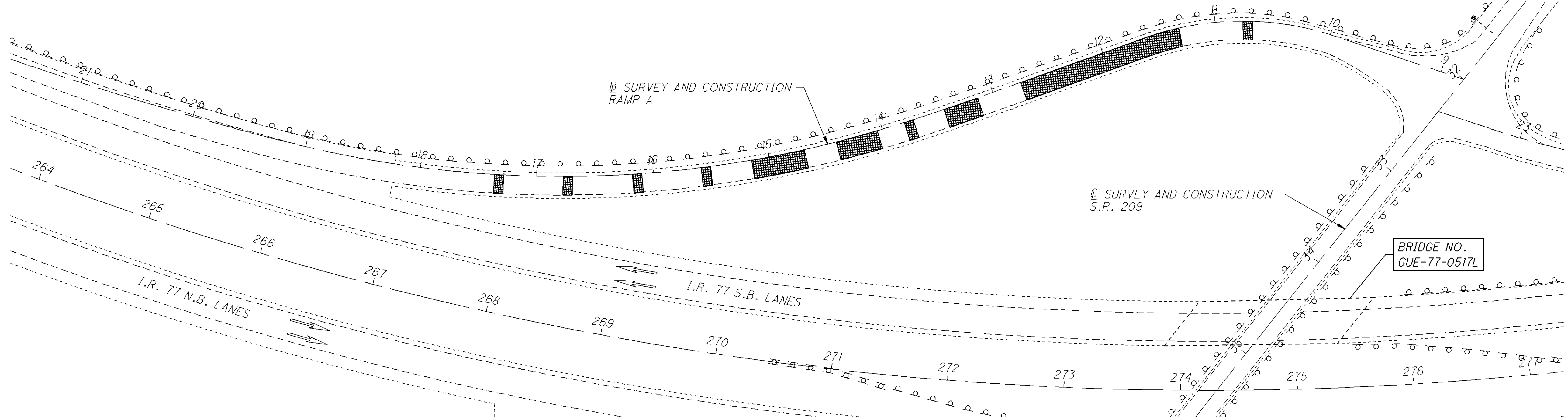
 0 50 100 HORIZONTAL SCALE IN FEET	<b>PAVEMENT REPAIR DETAILS</b>			
	<b>S.R. 209 / RAMP C / RAMP D</b>			
CALCULATED JLS	CHECKED JSL	<b>GUE-77-2.50</b> <b>GUE-209-14.57</b>		
		<table border="1"><tr><td>26</td></tr><tr><td>42</td></tr></table>	26	42
26				
42				

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ITEM 255, FULL DEPTH PAVEMENT  
REMOVAL AND RIGID REPLACEMENT,  
CLASS QC MS, AS PER PLAN

NOTE: ALL RAMP REPAIRS REPLACE EXISTING  
REPAIRS AND SHALL BE SAW CUT A MINIMUM  
OF 1' OUTSIDE EXISTING REPAIR

FOR QUANTITIES, SEE SHEETS 19-21.



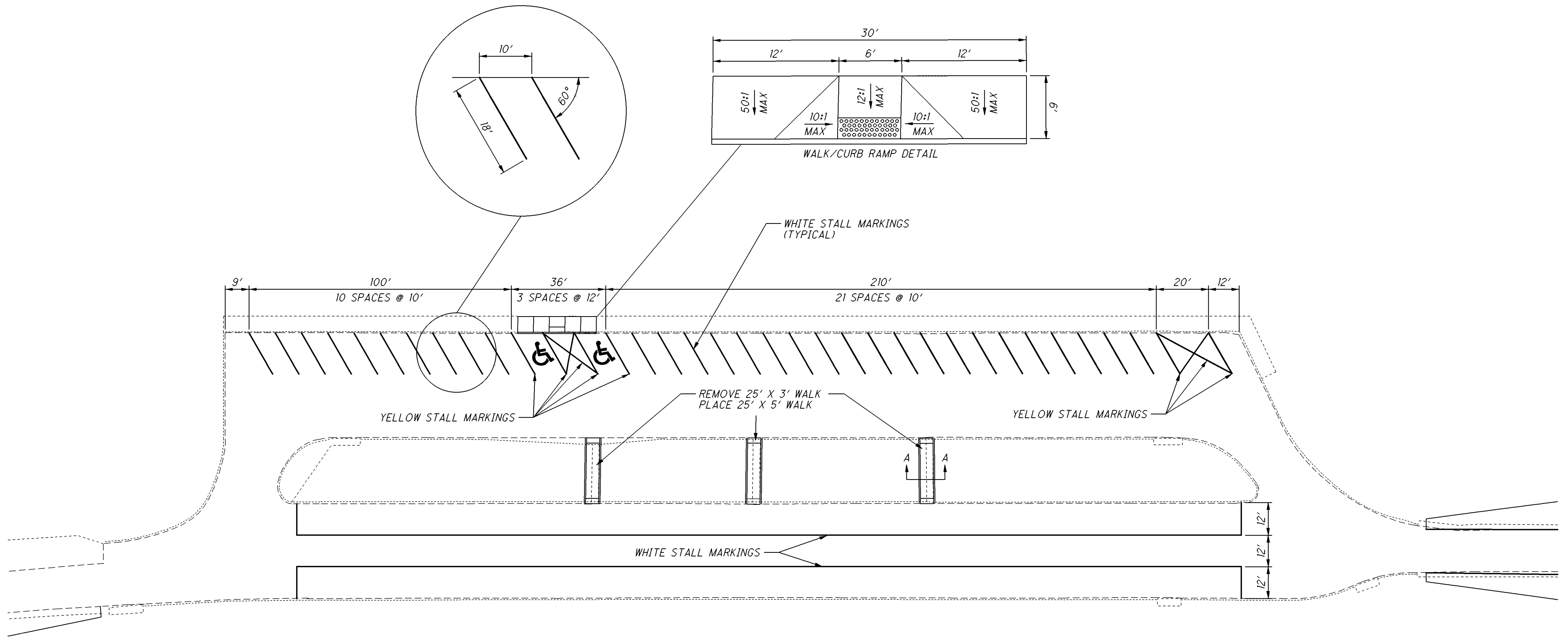
CALCULATED  
JLS  
CHECKED  
JSL

PAVEMENT REPAIR DETAILS  
S.R. 209 / RAMP A / RAMP B

GUE-77-2.50  
GUE-209-14.57

27  
42

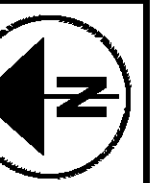
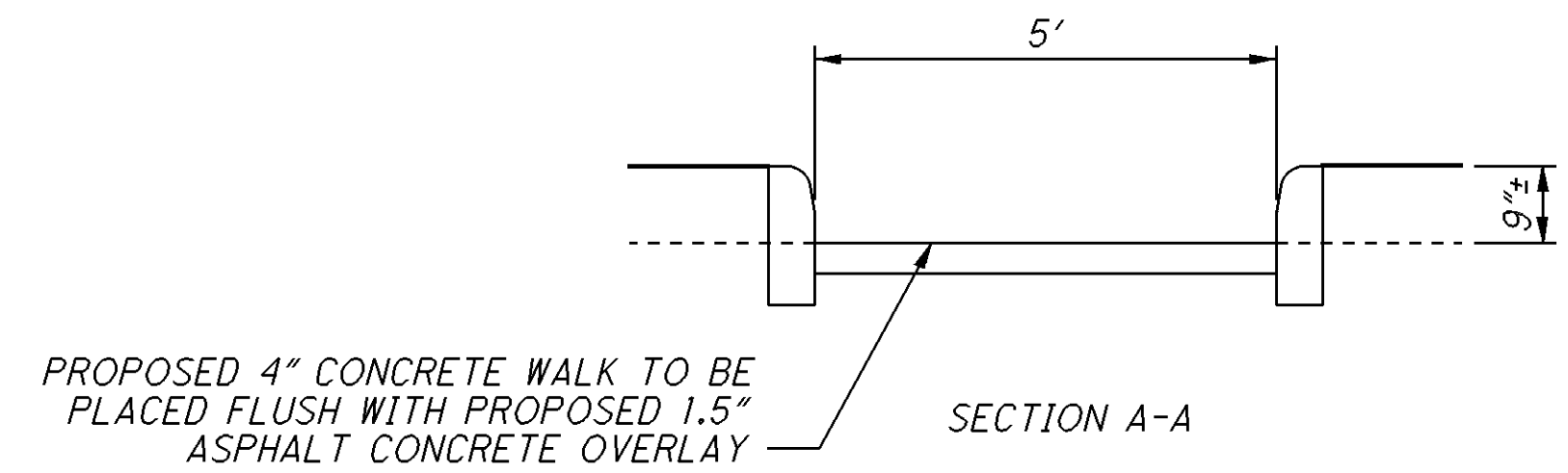
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ITEM 644 PARKING LOT STALL MARKING (WHITE) - 1,308 FEET  
ITEM 644 PARKING LOT STALL MARKING (YELLOW) - 202 FEET  
TOTAL = 1,510 FEET  
ITEM 644 HANDICAP SYMBOL MARKING - 2 EACH

QUANTITIES CARRIED TO GENERAL SUMMARY.

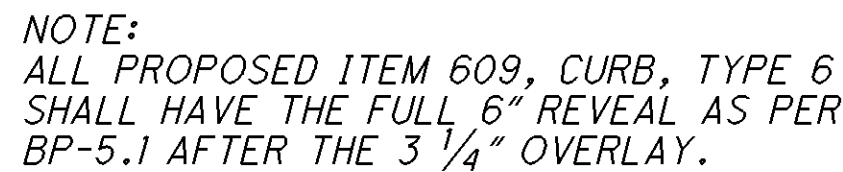
FOR RESURFACING QUANTITIES, SEE SHEET 20.  
FOR CURB RAMP QUANTITIES, SEE SHEET 21.



CALCULATED JLS  
CHECKED JSL

DETAIL SHEET  
I.R. 77 N.B. LANES REST AREA

GUE-77-2.50  
GUE-209-14.57



CALCULATED	
JLS	
CHECKED	
JSL	

**INTERSECTION DETAIL**  
**S.R. 209 / RAMP C / RAMP D**

**GUE-77-2.50**  
**GUE-209-14.57**

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ITEM 625, POWER SERVICE, AS PER PLAN

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

AMERICAN ELECTRIC POWER  
SOLUTION CENTER  
PHONE: 1-800-672-2231

A POLE MOUNTED POWER SERVICE SHALL BE INSTALLED AS SPECIFIED IN **CMS 625.15 & 725.19** AND **SCD HL-40.10** AT THE LOCATION SHOWN IN THE PLANS. THE CONTRACTOR WILL BE RESPONSIBLE FOR SUPPLYING OR REQUESTING FROM POWER COMPANY A WOOD POLE BE INSTALLED FOR OVERHEAD POWER SERVICE CONNECTION.

THE CONTRACTOR SHALL SUPPLY **240/480 VOLT SERVICE** FOR THE CONNECTED LOAD(S) SHOWN IN THE PLANS.

THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR THE POWER SERVICE HOOK UP. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE SERVICE CABLE INTO THE POWER COMPANY'S CIRCUITS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND THE PAYING OF ALL FEES ASSOCIATED WITH THE SERVICE. THE CONTRACTOR SHALL PAY ALL POWER CHARGES UNTIL THE LIGHTING SERVICE IS ACCEPTED BY THE MAINTAINING AGENCY.

THE PHOTO-CELL SHALL ADHERE TO **CMS 725.19E** AND BE MOUNTED PER **SCD HL-40.10**. THE PHOTO-CELL SHALL BE PLACED CLEAR OF ALL OBSTRUCTIONS INCLUDING TREE BRANCHES. ALL INTEGRAL PHOTO-CELLS ON LUMINAIRE FIXTURES SHALL BE COVERED.

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH **CMS 631.06**. EACH ENCLOSURE SHALL HAVE A SAFETY SWITCH DISCONNECT.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR EACH POWER SERVICE, COMPLETE IN PLACE INCLUDING WOOD POLE, PHOTO-CELL, CONDUIT RISER, ALL CABLE, CONDUIT, FITTINGS, CONNECTIONS, CLAMPS, DISCONNECT SWITCH WITH ENCLOSURE, METER BASE, GROUND RODS, PADLOCK AND KEY, AND ALL OTHER INCIDENTALS NECESSARY FOR COMPLETE SERVICE, ALL CONNECTIONS TESTED AND ACCEPTED.

TRANSFORMER BASES

ALL TRANSFORMER BASES FOR CONVENTIONAL LIGHT POLES SHALL BE ALUMINUM CAST AND QUALIFY AS A BREAKAWAY SUPPORT PER NCHRP-350. SEE **SCD HL-10.13** FOR DETAILS.

LIGHT POLES SHALL BE NUMBERED PER **SCD HL-10.11**.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE LIGHTING SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF **180 DAYS** FOLLOWING COMPLETION OF THE TEN DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY. EQUIPMENT, MATERIAL, AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE LIGHTING SYSTEM: LIGHT POLES/ARMS, LUMINAIRES, CABLES, CONNECTIONS AND ALL ASSOCIATED EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE STATE OR THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE LIGHTING SYSTEM SHALL BE INCIDENTAL TO AND INCLUDED IN THE UNIT PRICE BID OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

UNDERDRAINS FOR PULL BOXES

SEE **SCD HL-30.11** FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED WHERE FEASIBLE, AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 611, 4" CONDUIT, TYPE E = 250 FT

ITEM 625, LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN (150W, LED, 480V, TYPE II)

LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL CONFORM TO **SS 813** AND SHALL BE SPEC GRADE (PART# SL-160-4000K-T2-480), AMERICAN ELECTRIC LIGHTING (PART# ATBM-F-480-R2-4B-4000K), LEOTEK (PART# EC7-18M-HV-4000K-2-GY-700-RPB-WL) OR APPROVED EQUAL.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM.

ITEM 625, DUCT CABLE MISC.: 1-1/2" DUCT CABLE WITH FOUR NO.6 AWG 5000 VOLT CABLES

THE DUCT CABLE FOR THIS ITEM SHALL BE A 4-WIRE, 3-CONDUCTOR, WITH GROUND SYSTEM AND ADHERE TO THE REQUIREMENTS OF **CMS 725.03**.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE FURNISHING AND INSTALLING THE DUCT CABLE AND ANY INCIDENTALS NECESSARY TO COMPLETE THE ITEM.

ITEM 625, LIGHT POLE REMOVED, AS PER PLAN

THIS ITEM OF WORK CONSISTS OF THE REMOVAL OF EXISTING LUMINAIRE, CONVENTIONAL LIGHT POLE, BRACKET ARM, AND ALL ASSOCIATED WIRING AND CONNECTIONS AT EACH LOCATION SHOWN IN THE PLANS.

THE CONTRACTOR SHALL SALVAGE ALL CONVENTIONAL LIGHT POLES AND BRACKET ARMS AND CONTACT **RON MILLER AT 740.323.5286** TO ARRANGE FOR PICKUP. ALL OTHER MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR PROPER DISPOSAL OFF THE PROJECT SITE.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM.

ITEM 625, DISTRIBUTION CABLE REMOVED, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING ALL BURIED DUCT CABLE AND DISTRIBUTION CABLE WITH CONDUIT (UNLESS CONDUIT IS BEING REUSED) FROM THE EXISTING LIGHTING SYSTEM. ALL MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR PROPER DISPOSAL OFF OF THE PROJECT SITE.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM.

SHEET NO.	LOCATION	625																						631
		CONNECTION, FUSED PULL APART	CONNECTION, UNFUSED PULL APART	CONNECTION, UNFUSED PERMANENT	LIGHT POLE, CONVENTIONAL (35' MOUNTING HEIGHT W/15' ARM)	LIGHT POLE, CONVENTIONAL (35' MOUNTING HEIGHT W/DUAL 15' ARMS)	LIGHT POLE FOUNDATION, 24" X 6' DEEP	NO. 6 AWG 5000 VOLT DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	DUCT CABLE, MISC.: 1-1/2" DUCT CABLE WITH FOUR NO. 6 AWG 5000 VOLT CABLES	CONDUIT, 3", JACKED OR DRILLED, 725.04	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN (150W,LED,480V,TYPE II)	TRENCH, 24" DEEP	LIGHTING	PULL BOX REMOVED	GROUND ROD	POWER SERVICE, AS PER PLAN	PLASTIC CAUTION TAPE	LIGHT POLE REMOVED, AS PER PLAN	LIGHT POLE FOUNDATION REMOVED	POWER SERVICE REMOVED	DISTRIBUTION CABLE REMOVED, AS PER PLAN	REMOVAL OF SIGN SERVICE	
														PULL BOX, 725.08, 18"										
		EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	EACH	FT	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH	FT	EACH	
	CIRCUIT A																							
32	A-1 TO A-2	2	1		1		1		55	305		1	300			1		300	1	1		165		
32	A-2 TO PB-1	2	1		1		1		55	155		1	150			1		150	1	1		150		
32	A-3 TO PB-1	2	1		1		1		55	155		1	150			1		150	2	2		150		
32	PB-1 TO PB-2			3				760			185			1	1									
32	PB-2 TO PB-3			3				200			45			1	1									
32	A-4 TO A-5	2	1		1		1		55	305		1	300			1		300						
32	A-5 TO A-6	2	1		1		1		55	305		1	300			1		300	1	1		70		
32	A-6 TO PB-3	2	1		1		1		55	68		1	63		1	1		63				63		
32-33	PB-3 TO PB-4			3						1,055			1,050	1				1,050	1	1				
33	PB-4 TO PB-5			3				228			52			1										
33	A-7 TO A-8	2	1			1	1		85	135		2	130			1		130						
33	A-8 TO PB-5	2	1			1	1		85	30		2	25			1		25						
33	PB-5 TO PB-6			3				292			68			1										
33	A-9 TO PB-6	2	1		1		1		55	25		1	20			1		20	1	1		40		
33	PB-6 TO PB-7			3				340			80			1	1							40		
33	A-10 TO A-11	2	1		1		1		55	155		1	150			1		150	2	2		80		
33	A-11 TO PB-7	2	1		1		1		55	28		1	23			1		23				23	1	
33	PB-7 TO A-12			3						132			127	1	1			127				127		
33	A-12 TO A-13	2	1		1		1		55	155		1	150			1		150	1	1		150		
33	A-13 TO A-14	2	1		1		1		55	155		1	150			1		150	1	1		150	1	
33	A-14 TO PS-1	2	1		1		1		55	55		1	50		1	1		50						
	CIRCUIT B																							
33	PS-1 TO PB-8							400			95						1				1			
33	PB-8 TO B-1			3						55			50	1					1	1				
33	B-1 TO B-2	2	1		1		1		55	140		1	135			1		135				135		
33	B-2 TO PB-9	2	1		1		1		55	140		1	135			1		135				135		
33	B-3 TO PB-10	2	1		1		1		55	55		1	50			1		50						
33-34	PB-10 TO PB-11			3				940						1	1				1			230		
34	B-5 TO B-4	2	1		1		1		55	305		1	300			1		300	2	2		330		
34	B-4 TO PB-11	2	1		1		1		55	40		1	35			1		35	1	1		35		
33-34	PB-11 TO PB-9			3						110			105	1	1			105				105		
33-34	PB-9 TO B-6			3						340			335					335				335		
34	B-6 TO PB-12	2	1		1		1		55	100		1	95		1	1		95	1	1		45		
34	PB-12 TO PB-13			3				320			75			1										
34	B-7 TO PB-14	2	1		1		1		55	85		1	80			1		80					1	
34	PB-14 TO PB-13			3				328			77			1										
34	B-8 TO PB-13	2	1		1		1		55	40		1	35			1		35	1	1		35		
34	PB-13 TO B-9			3						835			830	1	1			830	1	1		830		
34	B-9 TO B-10	2	1		1		1		55	305		1	300			1		300	1	1		40		
34	B-10 TO B-11	2	1		1		1		55	305		1	300			1		300						
34	B-11	2	1		1		1		55			1				1								
TOTALS CARRIED TO GENERAL SUMMARY		50	25	42	23	2	25	3,808	1,435	6,073	677	27	5,923	13	10	25	1	5,873	20	19	1	3,463	3	

LIGHTING DATA

GUE-77-2.50  
GUE-209-14.57

CALCULATED  
JSL  
CHECKED  
JSL

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CONVENTIONAL LIGHT POLE

EX CONVENTIONAL LIGHT POLE  
(TO BE REMOVED)

PULLBOX

EX PULLBOX (TO BE REMOVED IF  
ENCOUNTERED)

POWER SERVICE

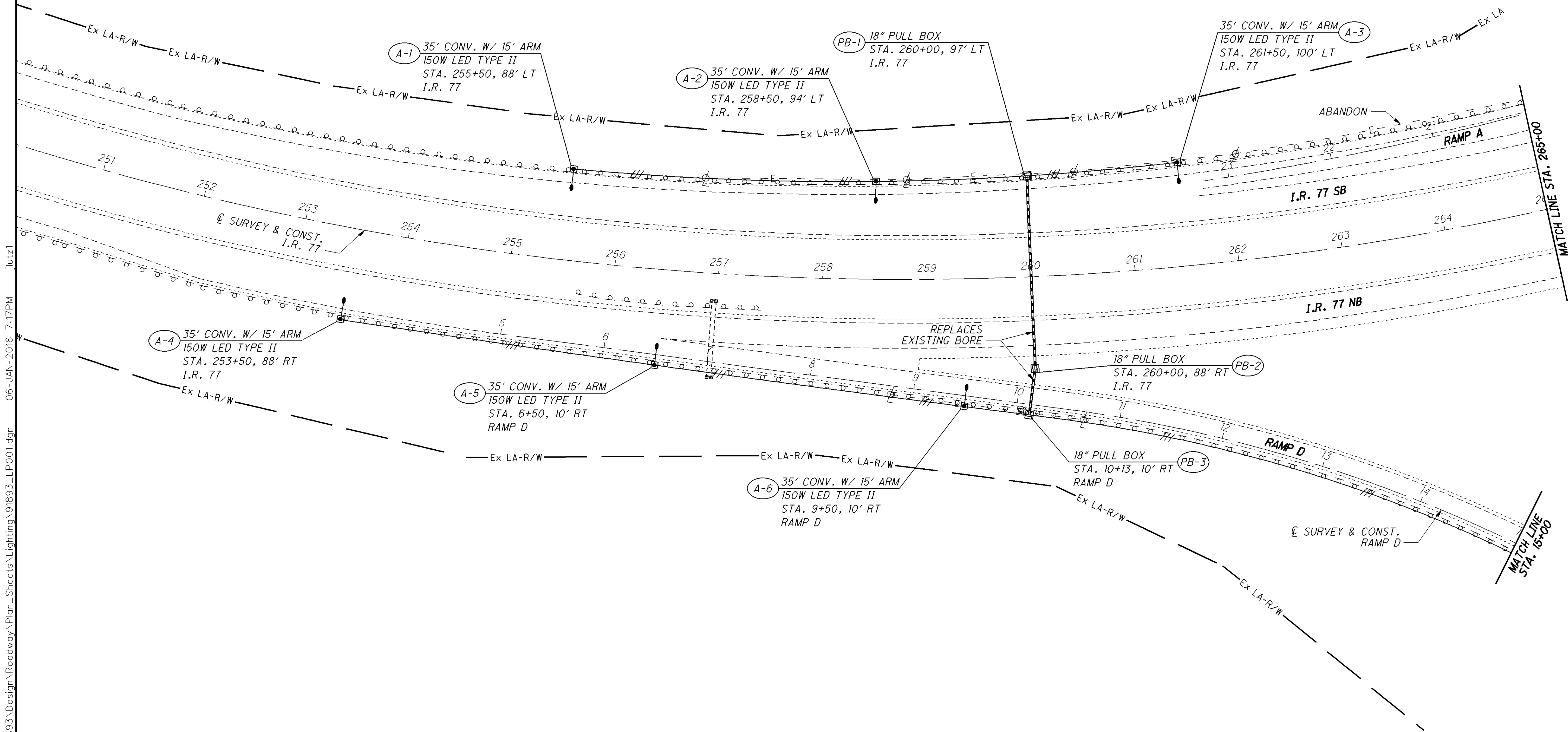
EX DUCT CABLE (TO BE REMOVED IF  
ENCOUNTERED)

///

1 1/2" DUCT-CABLE WITH 4 NO. 6 AWG 5000  
VOLT CABLES

3" CONDUIT WITH 4 NO. 6 AWG 5000 VOLT  
DISTRIBUTION CABLES

SEE SHEET 31 FOR LIGHTING QUANTITIES



N

0

50

100

HORIZONTAL  
SCALE IN FEET

CALCULATED  
JSL

CHECKED  
JSL

LIGHTING PLAN SHEET - I.R. 77  
STA. 251+00 TO STA. 265+00

GUE-77-2.50  
GUE-209-14.57

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CONVENTIONAL LIGHT POLE

EX CONVENTIONAL LIGHT POLE  
(TO BE REMOVED)

PULLBOX

EX PULLBOX (TO BE REMOVED IF  
ENCOUNTERED)

1 1/2" DUCT-CABLE WITH 4 NO. 6 AWG 5000  
VOLT CABLES

3" CONDUIT WITH 4 NO. 6 AWG 5000 VOLT  
DISTRIBUTION CABLES

EX DUCT CABLE (TO BE REMOVED IF  
ENCOUNTERED)

POWER SERVICE

SEE SHEET 31 FOR LIGHTING QUANTITIES

POWER SERVICE DATA										MAINTAINING AGENCY	
POWER SERVICE	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE NO. (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD (AMPS)	CIRCUIT FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE NO. (AWG)			
1	240/480V 1 PHASE 4-WIRE 3-COND. W/ GND.	4	4	60	A	5	20	6	ODOT		
					B	3	20	6			

0

25

50

100

CALCULATED JSL

CHECKED JSL

HORIZONTAL SCALE IN FEET

LIGHTING PLAN SHEET - I.R. 77  
STA. 265+00 TO STA. 274+50

GUE-77-2.50  
GUE-209-14.57

33  
42

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CONVENTIONAL LIGHT POLE

EX CONVENTIONAL LIGHT POLE  
(TO BE REMOVED)

PULLBOX

EX PULLBOX (TO BE REMOVED IF  
ENCOUNTERED)

POWER SERVICE

1 1/2" DUCT-CABLE WITH 4 NO. 4 AWG 5000  
VOLT CABLES

3" CONDUIT WITH 4 NO. 4 AWG 5000 VOLT  
DISTRIBUTION CABLES

EX DUCT CABLE (TO BE REMOVED IF  
ENCOUNTERED)

SEE SHEET 31 FOR LIGHTING QUANTITIES

CALCULATED  
JSL

CHECKED  
JSL

LIGHTING PLAN SHEET - I.R. 77

STA. 274+50 TO STA. 292+00

GUE-77-2.50

GUE-209-14.57

34

42

0 50 100

HORIZONTAL  
SCALE IN FEET

EDGE LINE PAVEMENT MARKING DATA														
L O C A T I O N	C O U N T Y	R O U T E	S.L.M.		TOTAL LENGTH (MILES)	ITEM 648								REMARKS
						EDGE LINE, 6" (WHITE)			EDGE LINE, 6" (YELLOW)			TOTAL EDGE LINE MILES  4"	TOTAL EDGE LINE MILES  6"	
			FROM	TO		TOTAL MILES	HIGHWAY MILES	RAMP MILES	TOTAL MILES	HIGHWAY MILES	RAMP MILES			
1	GUE	I.R. 77 N.B.	2.50	11.70	9.20	9.20	9.20		9.20	9.20			18.40	4-LANE DIVIDED
			NORTHBOUND OFF RAMP TO S.R. 209 (RAMP D)			0.23		0.23	0.23		0.23		0.46	
			NORTHBOUND ON (SLIP) RAMP FROM S.R. 209 (RAMP C-C)			0.01		0.01	0.01		0.01		0.02	
			NORTHBOUND ON RAMP FROM S.R. 209 (RAMP C)			0.18		0.18	0.18		0.18		0.36	
			NORTHBOUND OFF RAMP TO U.S. 40 E.B.			0.19		0.19	0.19		0.19		0.38	
			NORTHBOUND OFF RAMP TO U.S. 40 W.B.			0.29		0.29	0.29		0.29		0.58	
			NORTHBOUND ON RAMP FROM U.S. 40			0.30		0.30	0.30		0.30		0.60	
			NORTHBOUND OFF RAMP TO U.S. 22			0.13		0.13	0.13		0.13		0.26	
			NORTHBOUND ON RAMP FROM U.S. 22			0.11		0.11	0.11		0.11		0.22	
1	GUE	I.R. 77 S.B.	2.50	11.70	9.20	9.20	9.20		9.20	9.20			18.40	4-LANE DIVIDED
			SOUTHBOUND OFF RAMP TO U.S. 22			0.31		0.31	0.31		0.31		0.62	
			SOUTHBOUND ON RAMP FROM U.S. 22			0.23		0.23	0.23		0.23		0.46	
			SOUTHBOUND OFF RAMP TO U.S. 40			0.13		0.13	0.13		0.13		0.26	
			SOUTHBOUND OFF (SLIP) RAMP TO U.S. 40			0.03		0.03	0.03		0.03		0.06	
			SOUTHBOUND ON RAMP FROM U.S 40			0.19		0.19	0.19		0.19		0.38	
			SOUTHBOUND ON (SLIP) RAMP FROM U.S 40			0.02		0.02	0.02		0.02		0.04	
			SOUTHBOUND OFF RAMP TO S.R. 209 (RAMP B)			0.16		0.16	0.16		0.16		0.32	
			SOUTHBOUND ON RAMP FROM S.R. 209 (RAMP A)			0.17		0.17	0.17		0.17		0.34	
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)													42.16	
2	GUE	S.R. 209	14.57	14.79	0.22							0.44		
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)												0.44		
			NORTHBOUND OFF RAMP TO REST AREA (RAMP E)			0.10		0.10	0.10		0.10		0.20	
			NORTHBOUND ON RAMP FROM REST AREA (RAMP F)			0.10		0.10	0.10		0.10		0.20	
TOTALS (CARRIED TO GENERAL SUMMARY)													0.40	

PAVEMENT MARKING DATA										
L O C A T I O N	C O U N T Y	R O U T E	S.L.M.		ITEM 648				ITEM 644	C O M M E N T S
					LANE LINE, 6"	CHANNELIZING LINE, 12"	DOTTED LINE, 6"	CENTER LINE	LANE ARROW (THRU)	
			FROM	TO	MILE	FT.	FT.	MILE	EACH	
1	GUE	I.R. 77 N.B.	2.50	11.70	9.20					4-LANE DIVIDED
			NORTHBOUND OFF RAMP TO REST AREA			558	525			DECELERATION LANE
			NORTHBOUND ON RAMP FROM REST AREA			784	1,292			ACCELERATION LANE
			NORTHBOUND OFF RAMP TO S.R. 209			556	533			DECELERATION LANE
			NORTHBOUND ON RAMP FROM S.R. 209			566	1,327			ACCELERATION LANE
			OFF RAMP TO I.R. 70 E.B. (RAMP "E")			638	468			DECELERATION LANE
			OFF RAMP TO I.R. 70 W.B. (RAMP "D")			642	498			DECELERATION LANE
			ON RAMP FROM I.R. 70 E.B. (RAMP "F")			708	1,127			ACCELERATION LANE
			ON RAMP FROM I.R. 70 W.B. (RAMP "C")			826	985			ACCELERATION LANE
			NORTHBOUND OFF RAMP TO U.S. 40 E.B.			656	487		1	DECELERATION LANE AND RAMP
			NORTHBOUND OFF RAMP TO U.S. 40 W.B.			516	580		1	DECELERATION LANE AND RAMP
			NORTHBOUND ON RAMP FROM U.S. 40			1070	1,241			ACCELERATION LANE
			NORTHBOUND OFF RAMP TO U.S. 22			576	509		2	DECELERATION LANE AND RAMP
			NORTHBOUND ON RAMP FROM U.S. 22			1026	1,157			ACCELERATION LANE
1	GUE	I.R. 77 S.B.	2.50	11.70	9.20					4-LANE DIVIDED
			SOUTHBOUND OFF RAMP TO U.S. 22			556	537		3	DECELERATION LANE AND RAMP
			SOUTHBOUND ON RAMP FROM U.S. 22			820	1,187			ACCELERATION LANE
			SOUTHBOUND OFF RAMP TO U.S. 40			610	490		2	DECELERATION LANE AND RAMP
			SOUTHBOUND ON RAMP FROM U.S 40			737	1,020			ACCELERATION LANE
			OFF RAMP TO I.R. 70 W.B. (RAMP "A")			562	453			DECELERATION LANE
			OFF RAMP TO I.R. 70 E.B. (RAMP "H")			906	418			DECELERATION LANE
			ON RAMP FROM I.R. 70 W.B. (RAMP "B")			848	1,042			ACCELERATION LANE
			ON RAMP FROM I.R. 70 E.B. (RAMP "G")			700	1,046			ACCELERATION LANE
			SOUTHBOUND OFF RAMP TO S.R. 209			740	377			DECELERATION LANE
			SOUTHBOUND ON RAMP FROM S.R. 209			736	1,060			ACCELERATION LANE
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)					18.40	16,337	18,359		9	
2	GUE	S.R. 209	14.57	14.79	0.22	216	600	0.22		
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)					0.22	216	600	0.22		

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DETAIL	SEE STD. DWG. TC-65.11
1	ENTRANCE RAMP
2	EXIT RAMP
3	MULTI-LANE DIVIDED HIGHWAY

DETAIL	SEE STD. DWG. TC-65.11
4	4 LANE DIVIDED TO 2 LANE TRANSITION
5	4 LANE UNDIVIDED TO 2 LANE TRANSITION
6	ONE-LANE BRIDGE
7	STOP APPROACH
8	THROUGH APPROACH
9	TWO-WAY LEFT TURN LANE

DETAIL	SEE STD. DWG. TC-65.11
10	APPROACH WTH LEFT-TURN LANE
11	HORIZONTAL CURVE 40'
12	HORIZONTAL CURVE ALT.
GAP	CENTERLINE AT 80' TYP.

REM=REMARKS

RPM DATA															
L O C A T I O N	C O U N T Y	R O U T E	B E G I N L O G P O I N T S L M	E N D L O G P O I N T S L M	L E N G T H		D E T A I L	621		P R I S M A T I C R E T R O - R E F L E C T O R C O L O R S					R E M A R K S
								R P M	R A I S E D P A V E M E N T M A R K E R R E M O V E D	I N F O R M A T I O N O N L Y					
										O N E - W A Y		T W O - W A Y			
			M I L E S	L I N F T.											
								E A C H	E A C H	W H I T E	Y E L L O W	Y E L L O W / Y E L L O W	W H I T E / R E D	Y E L L O W / R E D	
1	GUE	I.R. 70 E.B.	2.50	11.70	9.20	48,576	3	405	405	405					120' SPACING ON LANE LINE
			NORTHBOUND OFF RAMP TO REST AREA				2	22	22				15	7	GORE AREA AND RAMP
			NORTHBOUND ON RAMP FROM REST AREA				1	28	28				21	7	GORE AREA AND RAMP
			NORTHBOUND OFF RAMP TO S.R. 209				2	46	46	16			15	15	GORE AREA AND RAMP
			NORTHBOUND ON RAMP FROM S.R. 209				1	27	27				15	12	GORE AREA AND RAMP
			OFF RAMP TO I.R. 70 E.B. (RAMP "E")				2	17	17				17		GORE AREA
			OFF RAMP TO I.R. 70 W.B. (RAMP "D")				2	17	17				17		GORE AREA
			ON RAMP FROM I.R. 70 E.B. (RAMP "F")				1	19	19				19		GORE AREA
			ON RAMP FROM I.R. 70 W.B. (RAMP "C")				1	21	21				21		GORE AREA
			NORTHBOUND OFF RAMP TO U.S. 40 E.B.				2	30	30				17	13	GORE AREA AND RAMP
			NORTHBOUND OFF RAMP TO U.S. 40 W.B.				2	34	34				14	20	GORE AREA AND RAMP
			NORTHBOUND ON RAMP FROM U.S. 40				1	48	48				28	20	GORE AREA AND RAMP
			NORTHBOUND OFF RAMP TO U.S. 22				2	25	25				16	9	GORE AREA AND RAMP
			NORTHBOUND ON RAMP FROM U.S. 22				1	35	35				27	8	GORE AREA AND RAMP
1	GUE	I.R. 70 W.B.	2.50	11.70	9.20	48,576	3	405	405	405					120' SPACING ON LANE LINE
			SOUTHBOUND OFF RAMP TO U.S. 22				2	52	52	16			15	21	GORE AREA AND RAMP
			SOUTHBOUND ON RAMP FROM U.S. 22				1	37	37				21	16	GORE AREA AND RAMP
			SOUTHBOUND OFF RAMP TO U.S. 40				2	25	25				16	9	GORE AREA AND RAMP
			SOUTHBOUND OFF (SLIP) RAMP TO U.S. 40				2	3	3					3	RAMP
			SOUTHBOUND ON RAMP FROM U.S 40				1	32	32				19	13	GORE AREA AND RAMP
			SOUTHBOUND ON (SLIP) RAMP FROM U.S 40				1	2	2					2	RAMP
			OFF RAMP TO I.R. 70 W.B. (RAMP "A")				2	15	15				15		GORE AREA
			OFF RAMP TO I.R. 70 E.B. (RAMP "H")				2	23	23				23		GORE AREA
			ON RAMP FROM I.R. 70 W.B. (RAMP "B")				1	22	22				22		GORE AREA
			ON RAMP FROM I.R. 70 E.B. (RAMP "G")				1	19	19				19		GORE AREA
			SOUTHBOUND OFF RAMP TO S.R. 209				2	46	46	16			19	11	GORE AREA AND RAMP
			SOUTHBOUND ON RAMP FROM S.R. 209				1	31	31				19	12	GORE AREA AND RAMP
SUBTOTALS										858			430	198	
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)								1,486	1,486						

RAISED PAVEMENT MARKER DATA

GUE-77-2.50  
GUE-209-14.57

LOCATION 1 SHEET TOTALS															ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
2	4	5	6	7	12	13	14	16	19	20	21	35	36	37					
								3,788	732						202	23500	4,520	SY	WEARING COURSE REMOVED
											45				202	30600	45	SY	CONCRETE MEDIAN REMOVED
											931				202	32000	931	FT	CURB REMOVED
											28				203	20000	28	CY	EMBANKMENT
											127				204	10000	127	SY	SUBGRADE COMPACTION
36.80															209	60500	36.80	MILE	LINEAR GRADING
100															253	02000	100	CY	PAVEMENT REPAIR
					256,750	149,771	53,149		18,285	10,285					254	01000	488,240	SY	PAVEMENT PLANING, ASPHALT CONCRETE
											1,464				255	10161	1,464	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN
											3,014				255	20000	3,014	FT	FULL DEPTH PAVEMENT SAWING
					19,257	11,234	4,237	285	1,377	980					407	10000	37,370	GAL	TACK COAT
									550						407	13900	550	GAL	TACK COAT, T02.13
					12,755	7,441	2,666		1,289	664					407	14000	24,805	GAL	TACK COAT FOR INTERMEDIATE COURSE
				450											441	50200	450	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
								158	1,068	545					442	10000	1,771	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)
					12,401	7,234	2,585		1,246	636					442	10100	24,102	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
								534							516	31011	534	FT	2" DEEP JOINT SEALER, AS PER PLAN (A)
											932				609	26000	932	FT	CURB, TYPE 6
											127				609	72000	127	SY	CONCRETE MEDIAN
1															611	99154	1	EACH	INLET RECONSTRUCTED TO GRADE
											41				613	41200	41	CY	LOW STRENGTH MORTAR BACKFILL
	Lump														614	11000	LUMP		MAINTAINING TRAFFIC
			500												614	11110	500	HOURL	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
		Lump													614	12421	LUMP		DETOUR SIGNING, AS PER PLAN
		50													614	12600	50	EACH	REPLACEMENT DRUM
		33													614	13000	33	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
		360													614	18401	360	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
		40													614	18700	40	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY
18.40															614	20400	18.40	MILE	WORK ZONE LANE LINE, CLASS II
18.40															614	20550	18.40	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT
															614				
36.80															614	22310	36.80	MILE	WORK ZONE EDGE LINE, CLASS II
36.80															614	22350	36.80	MILE	WORK ZONE EDGE LINE, CLASS III, 642 PAINT
						2,391				562					617	10101	2,953	CY	COMPACTED AGGREGATE, AS PER PLAN
					43,035					6,383					617	20000	49,418	SY	SHOULDER PREPARATION
						36.74									618	40600	36.74	MILE	RUMBLE STRIPS, (ASPHALT CONCRETE)
														1,486	621	00100	1,486	EACH	RPM
														1,486	621	54000	1,486	EACH	RAISED PAVEMENT MARKER REMOVED
													9		644	01300	9	EACH	LANE ARROW
												42.16			648	00104	42.16	MILE	EDGE LINE, 6"
													18.40		648	00204	18.40	MILE	LANE LINE, 6"
													16,337		648	00404	16,337	FT	CHANNELIZING LINE, 12"
													18,359		648	01510	18,359	FT	DOTTED LINE, 6"
											1,322				659	00510	1,322	SY	SEEDING AND MULCHING, CLASS 2
21,600															690	98300	21,600	SY	SPECIAL - MISC.: REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS
					10,699	6,241	2,349								806	00100	19,289	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A

LOCATION 2 SHEET TOTALS										ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
2		12	13	21	35	36								
		552	335							254	01000	887	SY	PAVEMENT PLANING, ASPHALT CONCRETE
				280						255	10161	280	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN
				616						255	20000	616	FT	FULL DEPTH PAVEMENT SAWING
			26							407	10000	26	GAL	TACK COAT
		314								407	13900	314	GAL	TACK COAT, 702.13
		209	17							407	14000	226	GAL	TACK COAT FOR INTERMEDIATE COURSE
		175	14							442	10000	189	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)
		204	17							442	10100	221	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
1										611	98630	1	EACH	CATCH BASIN ADJUSTED TO GRADE
			50							617	10101	50	CY	COMPACTED AGGREGATE, AS PER PLAN
			446							617	20000	446	SY	SHOULDER PREPARATION
					0.44					648	00100	0.44	MILE	EDGE LINE, 4"
						0.22				648	00204	0.22	MILE	LANE LINE, 6"
						0.22				648	00300	0.22	MILE	CENTER LINE
						216				648	00404	216	FT	CHANNELIZING LINE, 12"
						600				648	01510	600	FT	DOTTED LINE, 6"

LOCATION TOTALS					FUNDING PARTICIPATION					ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION	SEE SHEET
BRIDGE	REST AREA	LIGHTING	LOC. 1	LOC. 2	01/MS/PV	02/NHS/PV	03/MS/OT	04/MS/BR	05/MS/PV						
			4,520		4,520					202	23500	4,520	SY	WEARING COURSE REMOVED	
	405								405	202	30000	405	SF	WALK REMOVED	
			45		45					202	30600	45	SY	CONCRETE MEDIAN REMOVED	
	160		931		931				160	202	32000	1,091	FT	CURB REMOVED	
	518								518	203	10000	518	CY	EXCAVATION	
	381		28		28				381	203	20000	409	CY	EMBANKMENT	
	1,368		127		127				1,368	204	10000	1,495	SY	SUBGRADE COMPACTION	
			36.80		36.80					209	60500	36.80	MILE	LINEAR GRADING	
	555								555	608	10000	555	SF	4" CONCRETE WALK	
	1								1	690	98000	1	EACH	SPECIAL - MISC.: CURB RAMP, TYPE 1A	9,10,11
			6,125		6,125					690	98100	6,125	FT	SPECIAL - MISC.: VOID REDUCING ASPHALT MEMBRANE (VRAM)	3
	60								60	690	98200	60	SF	SPECIAL - MISC.: DETECTABLE WARNING	9,10,11
			21,600		21,600					690	98300	21,600	SY	SPECIAL - MISC.: REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS	2
				1		1				611	98630	1	EACH	CATCH BASIN ADJUSTED TO GRADE	
			1		1					611	99154	1	EACH	INLET RECONSTRUCTED TO GRADE	
	1,873		1,322		1,322				1,873	659	00510	3,195	SY	SEEDING AND MULCHING, CLASS 2	
					5,000					832	30000	5,000	EACH	EROSION CONTROL	
			100		100					253	02000	100	CY	PAVEMENT REPAIR	
			488,240	887	488,240	887				254	01000	489,127	SY	PAVEMENT PLANING, ASPHALT CONCRETE	
	1,200		1,464	280	1,464	280			1,200	255	10161	2,944	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN	3
	4,328		3,014	616	3,014	616			4,328	255	20000	7,958	FT	FULL DEPTH PAVEMENT SAWING	
	239								239	304	20000	239	CY	AGGREGATE BASE	
			37,370	26	37,370	26				407	10000	37,396	GAL	TACK COAT	
	560		550	314	550	314			560	407	13900	1,424	GAL	TACK COAT, 702.13	
	372		24,805	226	24,805	226			372	407	14000	25,403	GAL	TACK COAT FOR INTERMEDIATE COURSE	
	306		1,771	189	1,771	189			306	442	10000	2,266	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)	
	356		24,102	221	24,102	221			356	442	10100	24,679	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)	
	1,368								1,368	451	14010	1,368	SY	9" REINFORCED CONCRETE PAVEMENT, CLASS QC1	
			534		534					516	31011	534	FT	2" DEEP JOINT SEALER, AS PER PLAN (A)	2
	50								50	609	14000	50	FT	CURB, TYPE 2-A	
	150		932		932				150	609	26000	1,082	FT	CURB, TYPE 6	
	50								50	609	28000	50	FT	CURB, TYPE 7	
			127		127					609	72000	127	SY	CONCRETE MEDIAN	
			41		41					613	41200	41	CY	LOW STRENGTH MORTAR BACKFILL	
	26		2,953	50	2,953	50			26	617	10101	3,029	CY	COMPACTED AGGREGATE, AS PER PLAN	2
	471		49,418	446	49,418	446			471	617	20000	50,335	SY	SHOULDER PREPARATION	
			36.74		36.74					618	40600	36.74	MILE	RUMBLE STRIPS, (ASPHALT CONCRETE)	
			19,289		19,289					806	00100	19,289	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A	

GENERAL SUMMARY

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LOCATION TOTALS					FUNDING PARTICIPATION					ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION	SEE SHEET
BRIDGE	REST AREA	LIGHTING	LOC. 1	LOC. 2	01/IMS/PV	02/NHS/PV	03/IMS/OT	04/IMS/BR	05/IMS/PV						
		250					250			611	00400	250	FT	LIGHTING	
														4" CONDUIT, TYPE E	
		50					50			625	00450	50	EACH	CONNECTION, FUSED PULL APART	
		25					25			625	00460	25	EACH	CONNECTION, UNFUSED PULL APART	
		42					42			625	00480	42	EACH	CONNECTION, UNFUSED PERMANENT	
		23					23			625	10490	23	EACH	LIGHT POLE, CONVENTIONAL (35' MOUNTING HEIGHT W/ 15' ARM)	
		2					2			625	10490	2	EACH	LIGHT POLE, CONVENTIONAL (35' MOUNTING HEIGHT W/ DUAL 15' ARMS)	
		25					25			625	14000	25	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP	
		3,808					3,808			625	23302	3,808	FT	NO. 6 AWG 5000 VOLT DISTRIBUTION CABLE	
		1,435					1,435			625	23400	1,435	FT	NO. 10 AWG POLE AND BRACKET CABLE	
		6,073					6,073			625	24400	6,073	FT	DUCT CABLE, MISC.: 1-1/2" DUCT CABLE WITH FOUR NO. 6 AWG 5000 VOLT CABLES	30
		677					677			625	25902	677	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3"	
		27					27			625	26253	27	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN (150W, LED, 480V, TYPE II)	30
		5,923					5,923			625	29002	5,923	FT	TRENCH, 24" DEEP	
		13					13			625	30700	13	EACH	PULL BOX, 725.08, 18"	
		10					10			625	31510	10	EACH	PULL BOX REMOVED	
		25					25			625	32000	25	EACH	GROUND ROD	
		1					1			625	34001	1	EACH	POWER SERVICE, AS PER PLAN	30
		5,873					5,873			625	36000	5,873	FT	PLASTIC CAUTION TAPE	
		20					20			625	75401	20	EACH	LIGHT POLE REMOVED, AS PER PLAN	30
		19					19			625	75500	19	EACH	LIGHT POLE FOUNDATION REMOVED	
		1					1			625	75510	1	EACH	POWER SERVICE REMOVED	
		3,463					3,463			625	75551	3,463	FT	DISTRIBUTION CABLE REMOVED, AS PER PLAN	30
		3					3			631	94470	3	EACH	REMOVAL OF SIGN SERVICE	
														TRAFFIC CONTROL	
			1,486		1,486					621	00100	1,486	EACH	RPM	
			1,486		1,486					621	54000	1,486	EACH	RAISED PAVEMENT MARKER REMOVED	
	1,510								1,510	644	01200	1,510	FT	PARKING LOT STALL MARKING	
			9		9					644	01300	9	EACH	LANE ARROW	
	2								2	644	01600	2	EACH	HANDICAP SYMBOL MARKING	
0.54								0.54		646	10000	0.54	MILE	EDGE LINE, 4"	
0.17								0.17		646	10010	0.17	MILE	EDGE LINE, 6"	
0.13								0.13		646	10200	0.13	MILE	CENTER LINE	
804								804		646	10300	804	FT	CHANNELIZING LINE, 8"	
200								200		646	10600	200	FT	TRANSVERSE/DIAGONAL LINE	
2								2		646	20300	2	EACH	LANE ARROW	
255								255		646	20502	255	FT	DOTTED LINE, 4"	
2								2		646	50000	2	EACH	REMOVAL OF PAVEMENT MARKING	
1,004								1,004		646	50100	1,004	FT	REMOVAL OF PAVEMENT MARKING	
0.91								0.91		646	50300	0.91	MILE	REMOVAL OF PAVEMENT MARKING	
				0.44		0.44				648	00100	0.44	MILE	EDGE LINE, 4"	
	0.40		42.16		42.16				0.40	648	00104	42.56	MILE	EDGE LINE, 6"	
			18.40	0.22	18.40	0.22				648	00204	18.62	MILE	LANE LINE, 6"	
				0.22		0.22				648	00300	0.22	MILE	CENTER LINE	
			16,337	216	16,337	216				648	00404	16,553	FT	CHANNELIZING LINE, 12"	
			18,359	600	18,359	600				648	01510	18,959	FT	DOTTED LINE, 6"	

<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; flex-direction: column; justify-content: space-around; align-items: center;"> <span>42</span> <span>42</span> </div> <div style="text-align: center;"> <p><b>GUE-77-2.50</b></p> <p><b>GUE-209-14.57</b></p> </div> </div>	<h2 style="margin: 0;">GENERAL SUMMARY</h2>			<div style="border-bottom: 1px solid black; padding-bottom: 2px;">CALCULATOR</div> <div style="border-bottom: 1px solid black; padding-bottom: 2px;">JLS</div> <div style="border-bottom: 1px solid black; padding-bottom: 2px;">CHECKED</div> <div style="padding-bottom: 2px;">JSL</div>