

MUS - /MUS-SR 93/SR 208 VAR
158042 PID - 92978
Dist 5 12/17/2015
Contract Proposal Available @ www.
contracts.dot.state.oh.us/home

SEE SHEET 2

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
COS/MUS-93/208-VAR
VILLAGE OF ADAMSVILLE
LINTON, MONROE, SALEM
AND WASHINGTON TOWNSHIPS

COSHOCTON AND
MUSKINGUM COUNTIES

LOCATION MAP

LATITUDE: 40° 4' 25" LONGITUDE: 81° 50' 37"

PORTION TO BE IMPROVED

DESIGN DESIGNATION	LOC. 1	LOC. 2	LOC. 3	LOC. 4	LOC. 5	LOC. 6
Functional Classification	RMAC	RPA	RMAC	RMAC	RMAC	RMIC
Opening Year ADT (2016)	420	13,000	7,000	1,000	330	770
Design Year ADT (2028)	450	15,000	7,400	1,000	390	770
Design Hourly Volume (2028)	40	1,500	670	90	40	90
Directional Distribution	51%	70%	52%	67%	52%	69%
Trucks (24 Hour B&C)	8%	10%	11%	8%	6%	5%
Design Speed	55mph	55mph	55mph	55mph	55mph	55mph
Legal Speed	55mph	45mph	45mph	55mph	55mph	55mph

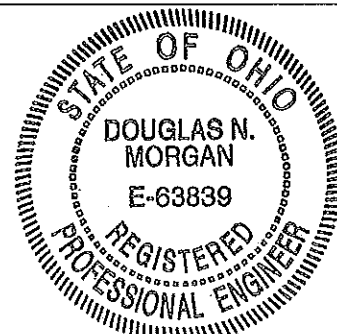
RMAC = RURAL MAJOR COLLECTOR
RMIC = RURAL MINOR COLLECTOR
RPA = RURAL PRINCIPAL ARTERIAL

DESIGN EXCEPTIONS: NONE

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG
CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY
OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: 1-800-925-0988

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

ENGINEER'S SEAL



SIGNED: *Douglas N. Morgan*
DATE: 9-16-2015

INDEX OF SHEETS:

TITLE SHEET	1
LOCATION MAP	2
GENERAL NOTES	3-5
MAINTENANCE OF TRAFFIC NOTES	6, 6A
SAFETY EDGE DETAIL	7
CURB RAMP DETAILS	8-10
ASPHALT CONCRETE DATA	11-13
PAVED SHOULDER DATA	14-15
EXTRA AREA DATA	16-17
BRIDGE DECK TREATMENT DATA	18-20, 19A
CURB RAMP DATA/PLAN SHEET	21-22
PAVEMENT MARKING DATA/DETAILS	23-28
RAISED PAVEMENT MARKER DATA	29-31
LOCATION SUB-SUMMARIES	32-37, 35A
GENERAL SUMMARY	38-39

PROJECT DESCRIPTION:

ASPHALT CONCRETE RESURFACING AND RELATED
WORK ON S.R. 93 AND S.R. 208 IN COSHOCTON AND
MUSKINGUM COUNTIES.

Project Earth Disturbed Area =
N/A (Maintenance Project)
Estimated Contractor Earth Disturbed Area =
N/A (Maintenance Project)
Notice of Intent Earth Disturbed Area =
N/A (Maintenance Project)

LOCATION	COUNTY	ROUTE	BEGIN SLM	END SLM	LENGTH MILES	CITY/VILLAGE
1	COS	93	0.00	3.50	3.50	
2	MUS	93	12.78	12.85	0.07	
3	MUS	93	12.85	13.92	1.07	
4	MUS	93	13.92	30.97	17.05	ADAMSVILLE
5	MUS	93	31.28	34.58	3.30	
6	MUS	208	11.06	11.19	0.13	

2013 SPECIFICATIONS

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

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

APPROVED: *Dave Ray*
DATE 9-16-15 DISTRICT DEPUTY DIRECTOR

APPROVED: *James H. Hays*
DATE 9-25-15 DIRECTOR, DEPARTMENT OF
TRANSPORTATION

FEDERAL PROJECT NO.
E120(947)

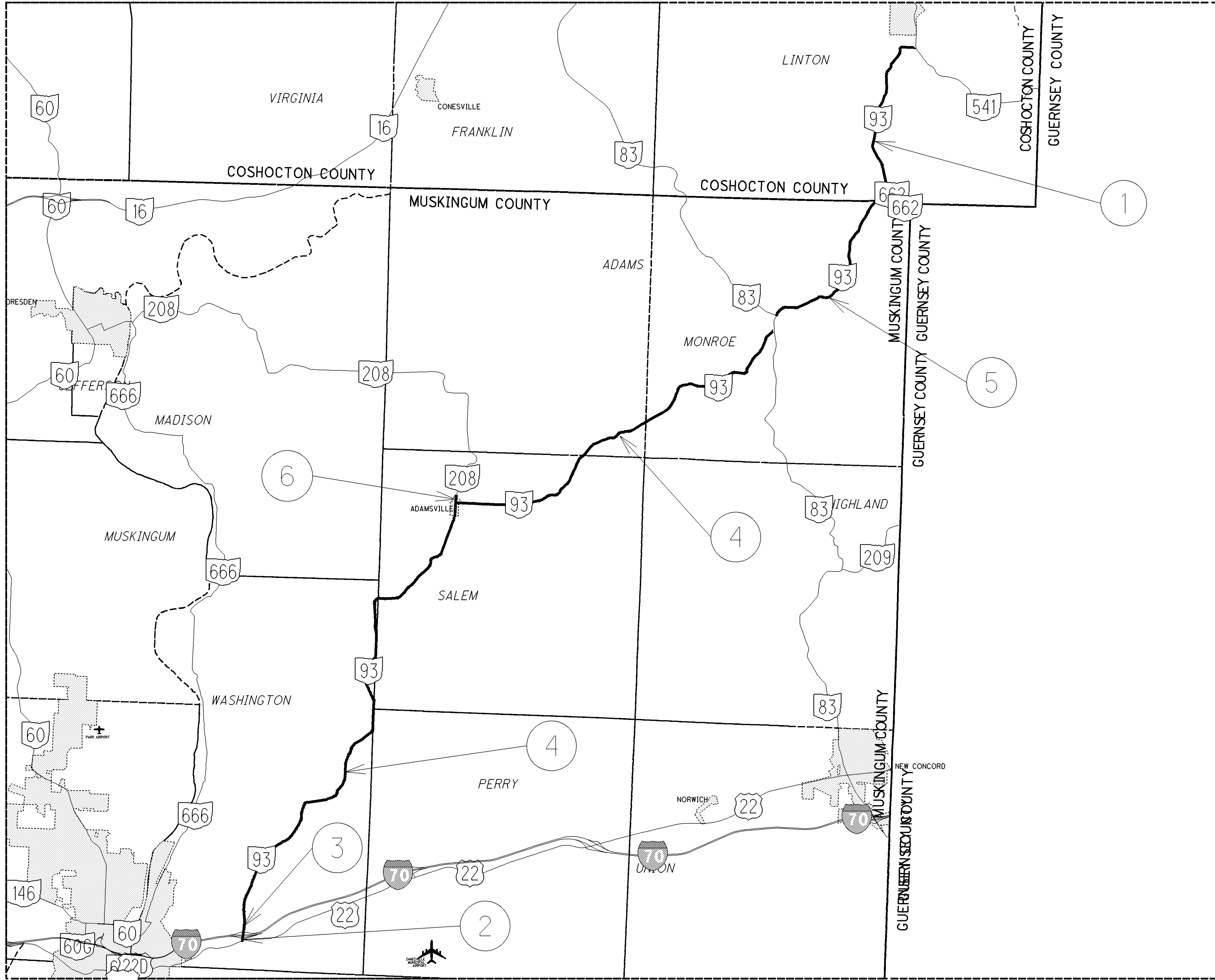
PID NO.
92978

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
N/A

COS/MUS-93/208-VAR

1
39



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.

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.

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

DISTRICT PERMIT SECTION BY FAX AT (614) 887-4525 OR EMAIL AT 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

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.

PAVEMENT MARKING

STOP LINES, CROSSWALK LINES, CHANNELIZING LINES, ETC., SHOWN IN THE PLANS ARE TAKEN FROM EXISTING MARKINGS. THE CONTRACTOR SHALL DOCUMENT ALL OF THE EXISTING AUXILIARY PAVEMENT MARKING LOCATIONS THAT WILL BE REMOVED/OBLITERATED DURING THIS PROJECT. THE CONTRACTOR SHALL PLACE NEW PAVEMENT MARKINGS AT THE LOCATION OF THE EXISTING MARKINGS 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. THE METHOD OF DOCUMENTATION SHALL BE APPROVED BY THE ENGINEER IN ORDER TO PROVIDE AN ACCEPTABLE TOLERANCE BETWEEN THE EXISTING AND PROPOSED PAVMENT MARKINGS. **LONG LINE PAVEMENT MARKINGS SHALL BE PLACED PER SECTION 301-4 OF ODOT'S TRAFFIC ENGINEERING MANUAL AND DETAIL ON SHEET 30.**

PART WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSE. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PREVIOUS CONSTRUCTION PLANS, SHOWING THE ORIGINAL ALIGNMENT AND PROFILE, ARE AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT 5 OFFICE.

ITEM 209 PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN

PREPARE THE SHOULDER FOR PAVING A CONSISTENT SAFETY EDGE IN BOTH THICKNESS AND WIDTH ACCORDING TO 209.06 OF THE CMS.

PRIOR TO PAVING THE SAFETY EDGE, GRADE AN AREA 10 INCHES WIDE, BEGINNING AT THE EDGE OF THE PAVED ROADWAY, TO PROVIDE A LEVEL SURFACE FREE OF VEGETATION FOR CONSTRUCTION OF THE SAFETY EDGE. IF NECESSARY, EXCAVATE THE GRADED AREA TO THE DEPTH NECESSARY TO CONSTRUCT THE SAFETY EDGE. COMPACT THE GRADED SHOULDER ACCORDING TO 617.05, OR AS DIRECTED BY THE ENGINEER.

IN ADDITION TO PREPARING THE SHOULDER FOR PAVING, THE CONTRACTOR SHALL 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 PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN.

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.

ALL LINEAR GRADING WORK BEYOND THE 10 INCH WIDE STRIP FOR THE SAFETY EDGE, SHALL BE DONE BEFORE PLACING THE ASPHALT SURFACE COURSE.

ITEM 253 PAVEMENT REPAIR

AN ESTIMATED QUANTITY FOR PAVEMENT REPAIR HAS BEEN INCLUDED IN THE PLAN TO BE USED AS DIRECTED BY THE ENGINEER. REPAIRS SHALL TAKE PLACE PRIOR TO ANY PLANING OPERATIONS OR PLACING OF CHIP SEAL COURSE. 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 7". THE MINIMUM WIDTH SHALL BE 4 FT. AFTER EXCAVATION HAS BEEN COMPLETED, THE FACE OF THE REPAIR SHALL BE COATED WITH 407 TACK COAT. REPLACEMENT MATERIAL WILL BE 7" OF ITEM 301 ASPHALT CONCRETE BASE, PG64-22 (PLACED AND COMPACTED IN TWO LIFTS).

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 QUANTITIES HAVE BEEN CARRIED TO THE SUB-SUMMAR-IES FOR THE ABOVE DESCRIBED PURPOSE.

ITEM 253 PAVEMENT REPAIR
LOCATION 1 – 121 CU YD
LOCATION 4 – 400 CU YD

LOCATION 3 – 10 CU YD
LOCATION 5 – 100 CU YD

ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE

DEPTH OF PLANING ON S.R. 93 AND S.R. 208 SHALL BE EITHER 2.25" OR 1.25" AS SHOWN ON THE ASPHALT CONCRETE DATA SHEET. PLANING SHALL BE FULL WIDTH OF PAVEMENT, INCLUDING PAVED SHOULDERS.

THE ROADWAY SHALL BE PLANED SUCH THAT POSITIVE DRAINAGE IS CREATED FROM THE CENTER 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 408 PRIME COAT, AS PER PLAN

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

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT, SHALL EXCEED A HEIGHT OF 35 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. A COPY OF THE SUBMISSION AND TWO COPIES OF FORM 7460-1 SHALL BE FORWARDED TO THE ODOT OFFICE OF AVIATION. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

EXPRESS PROCESSING CENTER
THE FEDERAL AVIATION ADMINISTRATION
SOUTHWEST REGIONAL OFFICE
AIR TRAFFIC AIRSPACE BRANCH ASW-520
2601 MEACHAN BLVD.
FORT WORTH, TX 76137-4298

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION
2829 WEST DUBLIN-GRANVILLE ROAD
COLUMBUS, OHIO 43235
614-387-2346

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_MGN_002.dgn 17-SEP-2015 2:15PM dmorgan

ITEM SPECIAL, TACK COAT, TRACKLESS TACK
ITEM SPECIAL, TACK COAT, TRACKLESS TACK FOR INTERMEDIATE
COURSE

DESCRIPTION: THIS WORK CONSISTS OF PREPARING AND TREATING A PAVED SURFACE WITH A TRACKLESS TACK ASPHALT EMULSION. FURNISH MATERIALS ACCORDING TO THE DEPARTMENT'S APPROVED LIST. MEET ALL REQUIREMENTS OF ITEM 407 TACK COAT IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS REQUIRED BY THE CONTRACT, EXCEPT AS NOTED BELOW.

MATERIAL: MEET ALL PROPERTIES OF THE APPROVED MANUFACTURER'S TRACKLESS TACK SPECIFICATION REQUIREMENTS ON FILE WITH THE LABORATORY AT TIME OF PLACEMENT.

ACCEPTANCE AND SAMPLING OF MATERIALS:

SUPPLY CERTIFIED TEST DATA TO THE ENGINEER AND TO THE DISTRICT LABORATORY DEMONSTRATING THE TRACKLESS TACK SUPPLIED WAS TESTED FOR AND MEETS ALL MATERIAL PROPERTIES SHOWN ON THE DEPARTMENT'S APPROVED LIST. DURING CONSTRUCTION, ODOT PERSONNEL WILL SAMPLE FROM THE DISTRIBUTOR AND SUPPLY TO THE DISTRICT TEST LAB A MINIMUM OF ONE QUART OF TRACKLESS TACK FOR EVERY 25,000 GALLONS USED ON THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING THE PROPER PLASTIC QUART SAMPLING CONTAINER. CLEARLY MARK ON THE SAMPLE WITH THE MANUFACTURER'S NAME, PROJECT NUMBER, AND THE WORDS "TRACKLESS TACK".

EQUIPMENT: FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR CORRECT DISTRIBUTOR SETTINGS. THOROUGHLY CLEAN ALL EQUIPMENT IF PREVIOUSLY USED MATERIAL CHARGE IS DIFFERENT THAN THE PROPOSED MATERIAL.

APPLICATION OF ASPHALT MATERIAL: UNIFORMLY APPLY THE TRACKLESS TACK WITH A DISTRIBUTOR ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. IF TRACKLESS TACK IS STORED FOR AN EXTENDED PERIOD OF TIME, PRIOR TO APPLICATION, AGITATE OR GENTLY CIRCULATE THE MATERIAL. ENSURE ALL NOZZLES AND SPRAY PATTERNS ARE IDENTICAL TO ONE ANOTHER ALONG THE DISTRIBUTOR SPRAY BAR. PLACE THE ANGLE OF THE NOZZLE AT A 15 TO 30 DEGREE ANGLE TO THE SPRAY BAR AXIS TO MAXIMIZE OVERLAP OR AS RECOMMENDED BY THE NOZZLE MANUFACTURER. CONTACT THE MANUFACTURER'S REPRESENTATIVE FOR REQUIRED SPRAY NOZZLE SIZE AND DISTRIBUTOR AND NOZZLE SETTINGS. APPLY AT A RATE OF 0.04 TO 0.1 GALLONS PER SQUARE YARD. DO NOT DILUTE TRACKLESS TACK. RECOMMENDED APPLICATION TEMPERATURE IS 160 °F TO 180 °F. DO NOT EXCEED 180 °F. THE ENGINEER WILL APPROVE THE QUANTITY, RATE OF APPLICATION, TEMPERATURE, DISTRIBUTOR SETTINGS, AND AREAS TO BE TREATED BEFORE APPLICATION OF THE TRACKLESS TACK COAT. THE ENGINEER WILL DETERMINE THE ACTUAL APPLICATION IN GALLONS PER SQUARE YARD BY A CHECK ON THE PROJECT.

PERFORMANCE OF TRACKLESS TACK: DETERMINE THE TIME TO SET FOR THE MATERIAL TO BECOME TRACKLESS. THE ENGINEER WILL REPORT ANY ISSUES WITH EXCESSIVE TIME TO SET, OR AFTER SET ISSUES WITH STICKINESS, OR PICKUP OF THE TACK TO THE DISTRICT TESTING ENGINEER AND NEW PRODUCT ENGINEER, BRAD YOUNG 614-351-2882. IF THE CERTIFIED TEST DATA FAILS TO MEET THE LAB TESTING CRITERIA, OR FIELD SAMPLES FAIL TO MEET THE LAB TEST CRITERIA, OR THE TRACKLESS TACK FAILS TO PERFORM SATISFACTORILY IN THE FIELD, AS NOTED ABOVE, THE CONTRACTOR WILL BE REQUIRED TO REPLACE AND SUPPLY ANOTHER APPROVED TRACKLESS TACK PRODUCT FOR THE REMAINDER OF THE PROJECT AT NO ADDITIONAL COST TO THE DEPARTMENT. ANY FAILING TRACKLESS TACK PRODUCT WILL BE REMOVED FROM THE DEPARTMENT'S APPROVED LIST.

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

ITEM	UNIT	DESCRIPTION
SPECIAL	GALLON (LITER)	TACK COAT, TRACKLESS TACK
SPECIAL	GALLON (LITER)	TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE

MAILBOX TURN OUTS

A QUANTITY OF ASPHALT CONCRETE HAS BEEN PROVIDED IN THE PLAN TO COVER MAILBOX TURN-OUTS. TURN-OUTS SHALL BE PAVED AS SHOWN IN THE DETAIL IN DRAWING BP-4.1. ANY EXTRA GRADING OF THE SHOULDERS, PRIME OR TACK COAT, MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE MAILBOX TURN OUTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEMS LISTED BELOW.

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

ITEM 202 WEARING COURSE REMOVED

LOCATION 1 – 190 SQ YD	LOCATION 3 – 10 SQ YD
LOCATION 4 – 1770 SQ YD	LOCATION 5 – 90 SQ YD

ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 70-22M

LOCATION 1 – 7 CU YD	LOCATION 3 – 1 CU YD
LOCATION 4 – 62 CU YD	LOCATION 5 – 3 CU YD

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

LOCATION 1 – 6 CU YD	LOCATION 3 – 1 CU YD
LOCATION 4 – 50 CU YD	LOCATION 5 – 3 CU YD

RESIDENTIAL AND COMMERCIAL DRIVES

AN ESTIMATED QUANTITY OF ITEM 441 ASPHALT CONCRETE, HAS BEEN INCLUDED IN THE PLAN TO BE USED AS DIRECTED BY THE ENGINEER TO PAVE APPROACH AREAS TO EXISTING DRIVEWAYS. PAVING SHALL EXTEND AN AVERAGE OF 4' INTO THE DRIVEWAY (MEASURED FROM THE EDGE OF PAVEMENT OR PAVED SHOULDER IF PRESENT). THE ENGINEER MAY EXTEND PAVING DISTANCE IN ORDER TO PROVIDE A SMOOTH TRANSITION AND/OR ELIMINATE SHORT DISTANCES OF UNDESIRABLE PROFILE. ABRUPT CHANGES IN DRIVEWAY PROFILE ARE NOT PERMITTED, THEREFORE, A QUANTITY OF ITEM 304 AGGREGATE BASE HAS BEEN PROVIDED TO BE USED AS DIRECTED BY THE ENGINEER TO PROVIDE A SMOOTH TRANSITION FOR AGGREGATE DRIVES.

FIELD DRIVES AND OIL WELL DRIVES SHALL NOT BE PAVED. GRAVEL DRIVES SHALL BE PAVED BACK AN AVERAGE OF 4' UNLESS OTHERWISE DIRECTED BY THE ENGINEER. BUTT ASPHALT UP TO CONCRETE DRIVES/APRONS. ASPHALT DRIVES SHALL HAVE BUTT JOINTS OR AS SHORT AN ASPHALT TAPER AS POSSIBLE (AVERAGE OF 4') AS DIRECTED BY THE ENGINEER SO AS TO PROVIDE A SMOOTH TRANSITION. GRAVEL DRIVES WITH ASPHALT APRONS SHALL ALSO HAVE BUTT JOINTS OR AS SHORT AN ASPHALT TAPER AS POSSIBLE (AVERAGE OF 4') BUT ONLY IF THE EXISTING ASPHALT APRON IS IN AN ACCEPTABLE CONDITION TO BE PAVED OVER AS DIRECTED BY THE ENGINEER. IF THE ASPHALT APRON CANNOT BE PAVED OVER (FOR EXAMPLE, BROKEN INTO SMALL PIECES) AS DETERMINED BY THE ENGINEER, IT SHALL BE REMOVED BEFORE BEING PAVED BACK 4' INTO THE DRIVEWAY. ALL GRADING, PRIME OR TACK COAT, MATERIALS, LABOR, EQUIPMENT TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE DRIVES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEMS LISTED BELOW.

BUTT JOINT AT THE END OF ALL DRIVEWAYS SHALL BE 1.25" IN DEPTH TO ACCOMMODATE 1.25" SURFACE COURSE.

NO WORK SHALL BE PERFORMED ON DRIVEWAYS LOCATED IN CURB SECTIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE SUB-SUMMARIES FOR THE ABOVE DESCRIBED PURPOSE.

ITEM 202 WEARING COURSE REMOVED

LOCATION 1 – 220 SQ YD	LOCATION 3 – 28 SQ YD
LOCATION 4 – 2270 SQ YD	LOCATION 5 – 110 SQ YD

RESIDENTIAL AND COMMERCIAL DRIVES, (CONT'D)

ITEM 304 AGGREGATE BASE

LOCATION 1 – 3 CU YD	LOCATION 3 – 1 CU YD
LOCATION 4 - 23 CU YD	LOCATION 5 – 3 CU YD

ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 70-22M

LOCATION 1 – 8 CU YD	LOCATION 3 – 1 CU YD
LOCATION 4 – 79 CU YD	LOCATION 5 – 4 CU YD

SAFETY EDGE PLAN NOTE

IN ADDITION TO THE REQUIREMENTS OF 401.12, ATTACH A DEVICE TO THE SCREED OF THE PAVER THAT CONFINES THE MATERIAL AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A COMPACTED WEDGE SHAPE PAVEMENT EDGE OF APPROXIMATELY 30 DEGREES (NOT STEEPER THAN 40 DEGREES). ENSURE THE DEVICE MAINTAINS CONTACT WITH THE EXISTING SURFACE, AND ALLOW FOR AUTOMATIC TRANSITION TO CROSS ROADS, DRIVEWAYS AND OBSTRUCTIONS. DO NOT USE CONVENTIONAL SINGLE PLATE STRIKE OFF.

CONSTRUCTION OF SAFETY EDGE CAN BE OMITTED AT LOCATIONS WHERE EXISTING WIDTH OF GRADED SHOULDER OR BERM IS LESS THAN 12". PROJECTS WITH VARYING CONDITIONS SHOULD USE SAFETY EDGE WHERE POSSIBLE. PLAN PREPARATION HAS MADE EVERY REASONABLE ATTEMPT TO IDENTIFY POSSIBLE SAFETY EDGE LOCATIONS.

USE THE TRANS TECH SHOULDER WEDGE MAKER, THE CARLSON SAFETY EDGE END GATE, THE ADVANT-EDGER, THE TROXLER SAFET SloPE OR A SIMILAR APPROVED-EQUAL DEVICE THAT PRODUCES THE SAME WEDGE CONSOLIDATION RESULTS. CONTACT INFORMATION FOR THESE WEDGE SHAPE COMPACTION DEVICES IS THE FOLLOWING:

TransTech Systems, Inc.
1594 State Street
Schenectady, NY 12304
1-800-724-6306
www.transtechsys.com

Advant-Edge Paving Equipment, LLC.
P.O. Box 9163
Niskayuna, NY 12309-0163
518-280-6090
www.advantaedgепaving.com

Carlson Safety Edge End Gate
18425 50th Avenue East
Tacoma, WA 98446
253-875-8000

Troxler Electronics Laboratories, Inc.
3008 E. Cornwallis Rd.
Research Triangle Park, NC 27709
1-877-TROXLER
www.troxlerlabs.com

IF ELECTING TO USE A SIMILAR DEVICE, PROVIDE PROOF THAT THE DEVICE HAS BEEN USED ON PREVIOUS PROJECTS WITH ACCEPTABLE RESULTS OR CONSTRUCT A TEST SECTION PRIOR TO THE BEGINNING OF WORK AND DEMONSTRATE WEDGE COMPACTION TO THE SATISFACTION OF THE ENGINEER. SHORT SECTIONS OF HANDWORK WILL BE ALLOWED WHEI NECESSARY FOR TRANSITIONS AND TURNOUTS OR OTHERWISE AUTHORIZED BY THE ENGINEER.

IN ADDITION TO THE REQUIREMENTS OF 401.16, MAKE THE FIRST ROLLER PASS 8 TO 12 INCHES (200 TO 300 mm) AWAY FROM TAPERED EDGE. DO NOT ROLL THE TAPER.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE SUB-SUMMARIES TO PROVIDE EXTRA ASPHALT FOR CONSTRUCTION OF THE SAFETY EDGE:

ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 70-22M

LOCATION 1 – 36 CU YD	LOCATION 2 – 1 CU YD
LOCATION 3 – 2 CU YD	LOCATION 4 – 182 CU YD
LOCATION 5 – 45 CU YD	

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_MGN_003.dgn 17-SEP-2015 2:17PM dmorgan

SPOT LEVELING

THE FOLLOWING QUANTITIES SHALL BE USED AS DIRECTED BY THE ENGINEER TO CORRECT PROFILE/CROSS SLOPES ON S.R. 93. THE LEVELING COURSE SHALL BE PLACED AFTER PAVEMENT PLANING OPERATION.

ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, TRAFFIC CONTROL AND INCIDENTALS NECESSARY TO PERFORM THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)

LOCATION 4 – 4 CU.YD. (SLM 28.14 AT BELL RD. TO IMPROVE DRAINAGE)

LOCATION 5 – 25 CU.YD. (SLM 34.25 TO SLM 34.58 NORTH BOUND LANE)

ITEM 516, 2" DEEP JOINT SEALER, AS PER PLAN

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 PLASTICITY INDEX SHALL BE WAIVED. IF SO PERMITTED, THE CONTRACTOR MAY USE RECYCLED ASPHALT CONCRETE PAVEMENT (RACP MEETING REQUIREMENTS OF 617.02) IN LIEU OF CRUSHED LIMESTONE.

ITEM 621 RAISED PAVEMENT MARKER REMOVED

AN ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE PLANS TO REMOVE RAISED PAVEMENT MARKERS FOR DISPOSAL BY THE CONTRACTOR. 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.

ITEM 611 CATCH BASIN ADJUSTED TO GRADE

ITEM 638 VALVE BOX ADJUSTED TO GRADE

THESE ITEMS SHALL BE USED TO ADJUST CATCH BASINS AND WATER VALVES LOCATED THROUGHOUT THE PROJECT AS DIRECTED BY THE ENGINEER. **THERE ARE 6 INSPECTION WELLS LOCATED ON S.R. 93 IN ADAMSVILLE, THEY HAVE BEEN INCLUDED WITH VALVE BOX QUANTITY.** UTILITIES ARE CURRENTLY TO GRADE AND ARE LOCATED IN MILL AND FILL SECTIONS, THE ENGINEER MAY NON-PERFORM ITEMS AT THEIR DISCRETION. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED SHALL BE INCLUDED FOR PAYMENT WITH THE ITEMS LISTED BELOW.

ANY GAS VALVE BOXES AND TELEPHONE COMPANY MANHOLES ON THIS PROJECT SHALL BE ADJUSTED TO GRADE BY THE RESPECTIVE OWNERS.

ITEM 611 – CATCH BASIN ADJUSTED TO GRADE

LOCATION 3 – 6 EACH

LOCATION 4 – 20 EACH

LOCATION 6 – 6 EACH

ITEM 638 – VALVE BOX ADJUSTED TO GRADE

LOCATION 4 – 9 EACH

ITEM 632 DETECTOR LOOP, AS PER PLAN

ALL STOP LINE INDUCTANCE DETECTOR LOOPS SHALL BE THE POWER HEAD CONFIGURATION SHOWN ON TC-82.10. THE WIDTH SHALL BE AS SPECIFIED ON TC-82.10 AND THE LENGTH SHALL BE 20' OR AS DIRECTED. THE STOP LINE DETECTOR LOOPS SHALL NOT BE WIRED TO ANY OTHER LOOPS AND SHALL HAVE ITS OWN DETECTOR CHANNEL. ALL STOP LINE DETECTION SHALL BE TESTED FOR A BICYCLE TARGET AND ALL DILEMMA DETECTION ZONES SHALL BE TESTED FOR A MOTORCYCLE TARGET.

ALL DILEMMA ZONE INDUCTANCE DETECTOR LOOPS CALLED FOR IN THE PLANS SHALL BE THE ANGULAR DESIGN DETECTION (ADD) LOOP AS SHOWN ON TC-82.10. DIMENSIONS SHALL BE AS SPECIFIED ON TC-82.10.

ALL DETECTOR LOOPS SHALL BE CUT INTO THE PLANED SURFACE OR THE PROPOSED INTERMEDIATE COURSE AT A DEPTH OF 4" FROM THE PROPOSED SURFACE ELEVATION. THE CONTRACTOR SHALL TEST ALL LEAD-IN CABLES PRIOR TO MAKING THE FINAL SPLICE. PLACEMENT SHALL BE AS PER SPECIFICATION 632.10. FINAL LOCATIONS, SIZE AND ORIENTATION SHALL BE PROVIDED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.

FINAL LOCATIONS AND ORIENTATION SHALL BE PROVIDED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.

ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, TRAFFIC CONTROL AND INCIDENTALS NECESSARY TO PERFORM THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 632, DETECTOR LOOP, AS PER PLAN.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE SUB-SUMMARY FOR THE ABOVE PURPOSES.

ITEM 632 DETECTOR LOOP, AS PER PLAN

LOCATION 2 – 4 EACH

SIGNAL AT U.S. 40 – 2 PRESENCE, 2 POWERHEAD

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS (CURB RAMP INSTALLATION):

LOCATION 4:

ITEM 659, SEEDING AND MULCHING, CLASS 1 200 SQ. YD.

ITEM 659, REPAIR SEEDING AND MULCHING 10 SQ. YD.
(5% OF THE PERMANENT SEEDING AREA)
 $0.05 \times 200 = 10$

ITEM 659, INTER-SEEDING 10 SQ. YD.
(5% OF THE PERMANENT SEEDING AREA)
 $0.05 \times 200 = 10$

ITEM 659, COMMERCIAL FERTILIZER 0.03 TON
(ONE TON PER 7,410 SQ.YD. OF THE PERMANENT SEEDED AREA)
 $(200 \div 7,410) = 0.027$

ITEM 659, LIME 0.04 ACRE
(PERMANENT SEEDED AREA)
 $200 \text{ SQ.YD.} \times 9 \text{ SQ.FT./SQ.YD.} \div 43,560 \text{ SQ. FT. /ACRE} = 0.041 \text{ ACRE}$

ITEM 659, WATER 2 M. GAL.
(0.0027 M. GAL. PER SQ.YD. OF THE PERMANENT SEEDED AREA)
 $3 \times (200 \times 0.0027) = 1.62$

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

CALCULATED	JKN	CHECKED	DNM
GENERAL NOTES			
COS / MUS -93/ 208 -VAR			
5 39			

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_MGN_004.dgn 17-SEP-2015 2:52PM dmorgan

MAINTAINING TRAFFIC

A MINIMUM OF 1 LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON S.R. 93 AND S.R. 208 BY USE OF THE EXISTING PAVEMENT AND STANDARD DRAWING MT-97.10 OR MT-97.12.

AT NO TIME SHALL TRAFFIC BE MAINTAINED ON THE PLANED SURFACE, AT LEAST ONE COURSE OF ASPHALT CONCRETE SHALL BE IN PLACE BEFORE OPENING TO TRAFFIC.

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.

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.

ITEM 614, WORK ZONE MARKING SIGN

IN ACCORDANCE WITH CMS SECTION 614.04, THE QUANTITIES OF WORK ZONE MARKING SIGN HAVE BEEN CARRIED TO THE SUB-SUMMARIES TO BE USED AS DIRECTED BY THE ENGINEER.

W8-H12a (NO EDGE LINES):

LOCATION 1 - 5 EACH LOCATION 2 - 1 EACH
LOCATION 3 - 9 EACH LOCATION 4 - 51 EACH
LOCATION 5 - 6 EACH LOCATION 6 - 2 EACH

R4-1 (DO NOT PASS):

LOCATION 1 - 9 EACH LOCATION 2 - 1 EACH
LOCATION 3 - 7 EACH LOCATION 4 - 67 EACH
LOCATION 5 - 6 EACH LOCATION 6 - 2 EACH

R4-2 (PASS WITH CARE):

LOCATION 1 - 4 EACH LOCATION 3 - 2 EACH
LOCATION 4 - 20 EACH

ITEM 614, WORK ZONE MARKING SIGN

LOCATION 1 - 18 EACH LOCATION 2 - 2 EACH
LOCATION 3 - 18 EACH LOCATION 4 - 138 EACH
LOCATION 5 - 12 EACH LOCATION 6 - 4 EACH

IN ADDITION, THE CONTRACTOR SHALL ERECT A "GROOVED PAVEMENT" SIGN 250 FEET IN ADVANCE OF ANY SECTION OF ROADWAY WHERE TRAFFIC MUST TRAVEL ON A PLANED SURFACE. ENSURE THESE SIGNS ARE IN PLACE BEFORE OPENING THE ROADWAY TO TRAFFIC. ERECT THESE SIGNS AT INTERSECTIONS OF THROUGH ROUTES TO WARN TRAFFIC OF THIS SURFACE CONDITION. "GROOVED PAVEMENT" SIGNS SHALL BE INCLUDED FOR PAYMENT WITH THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC AS PER CMS SECTION 614.055.

DROPOFFS IN WORK ZONES

DROPOFFS 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.

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.

ITEM 614 WORK ZONE CENTER LINE, CLASS II AND CLASS III HAVE BEEN ITEMIZED IN THE PLAN FOR USE ON THE PLANED SURFACE, THE INTERMEDIATE COURSE AND ON THE SURFACE COURSE FOR PAVING OPERATIONS. TEMPORARY MARKINGS SHALL BE PLACED AS PER SPECIFICATIONS, ALL OTHER WORK ZONE PAVEMENT MARKINGS REQUIRED SHALL BE INLCUDED IN THE LUMP SUM BID FOR MAINTAINING TRAFFIC.

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.

MINIMUM LENGTH FOR ASPHALT WEDGE AT BUTT JOINTS SHALL BE 10'.

LOCATION	ROUTE	DESCRIPTION	S.L.M.	ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC CU. YD.
2	S.R. 93	BEGIN PROJECT	12.78	1.5
		MUS-93-1285 (SOUTH)	12.85	0.9
2	S.R. 93	TOTAL		2.4
3	S.R. 93	MUS-93-12.85 (NORTH)	12.91	0.9
4	S.R. 93	MUS-93-1615	16.15	1.4
		MUS-93-2853	28.53	1.4
		AT S.R. 83 (OVERLAP)	30.97	0.7
4	S.R. 93	TOTAL		3.5
5	S.R. 93	AT S.R. 83 (OVERLAP)	31.28	0.7
1	S.R. 93	END WORK	3.50	1.4
6	S.R. 208	BEGIN LOCATION	11.06	1.2

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

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

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

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

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

• FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

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

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

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT,

THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

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

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

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE SUB-SUMMARIES.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
LOCATION 2 - 40 HRS

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_MGN_004A.dgn 21-SEP-2015 12:24PM dmorgan

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, 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 MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THE APPROVED LIST OF PORTABLE CHANGEABLE MESSAGE SIGNS CAN BE FOUND ON THE ODOT WEBSITE BY CLICKING ON THE SERVICES MENU, THEN CLICKING ON MATERIALS MANAGEMENT. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 475 FT. AND 650 FT. 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. PCMS TRAILERS SHALL BE DELINEATED ON A PERMANENT BASIS BY AFFIXING CONSPICUITY TAPE CONFORMING TO CMS 614.03, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

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, AND SHALL DISPLAY ONE OR MORE TYPE G YELLOW RETROREFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

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

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

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

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 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 CONTRACTORS NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

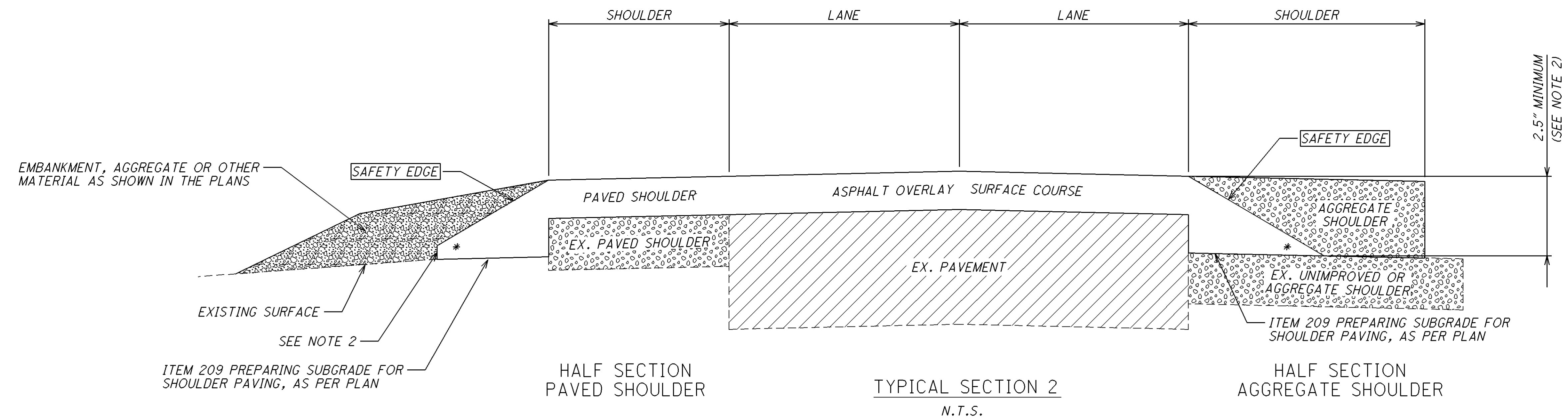
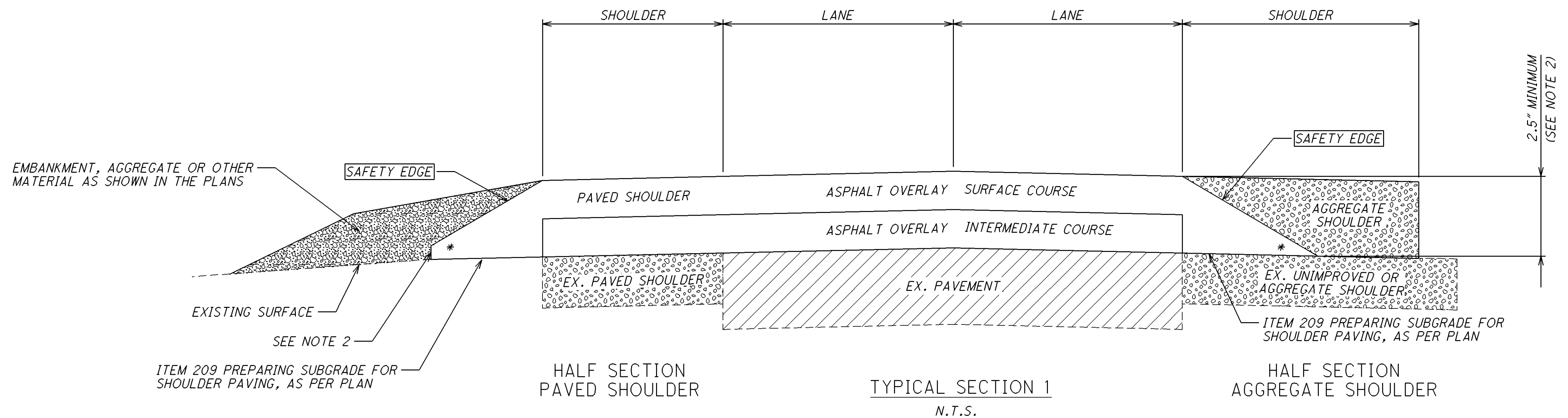
ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN
(cont'd)

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. THE CONTRACTOR SHALL ONLY BE PAID FOR PCMS UNITS WHEN THEY ARE IN OPERATION ON THE PROJECT AS SPECIFIED IN THE PLANS OR BY THE ENGINEER.

1 PCMS FOR 90 DAYS

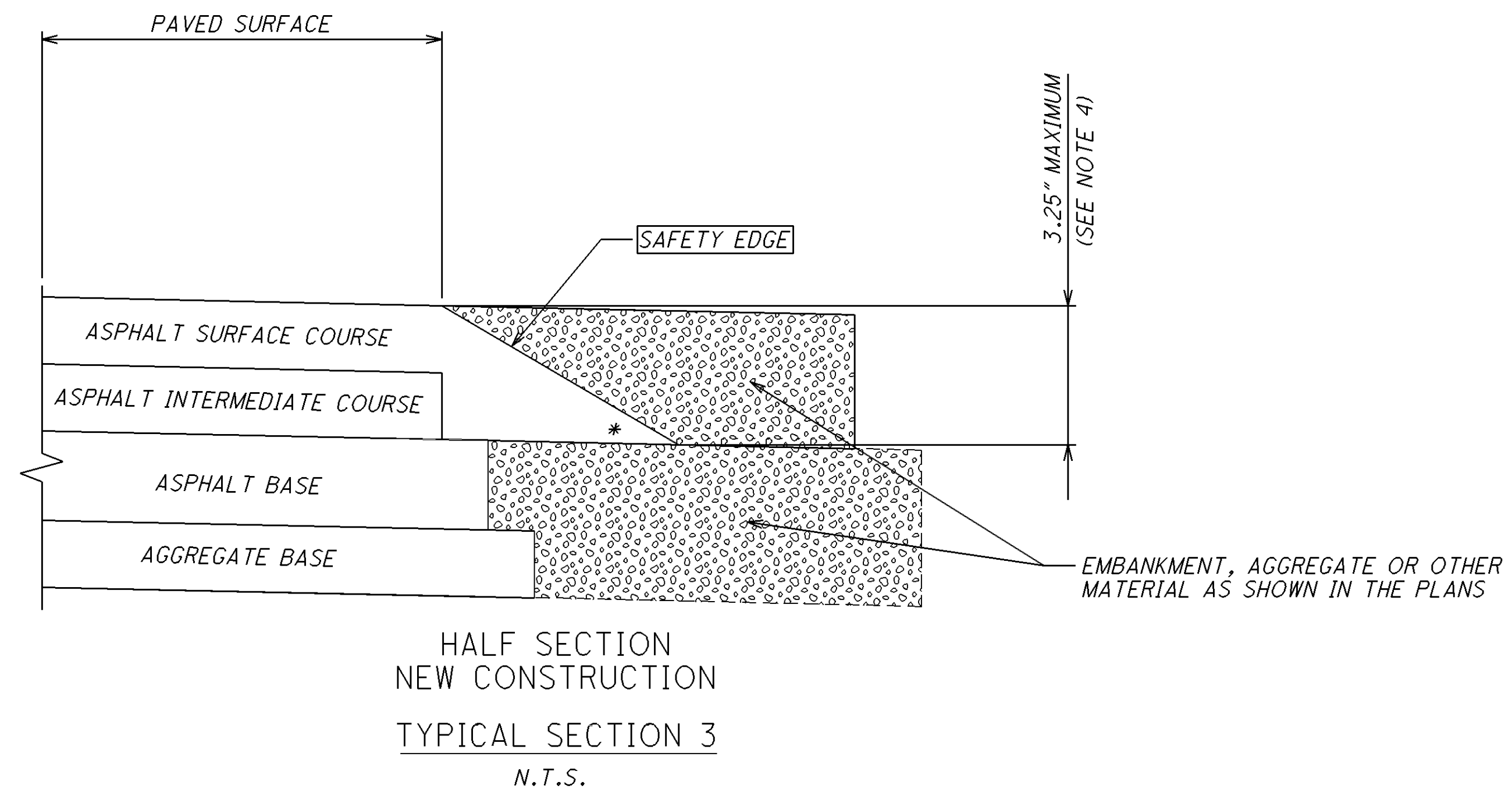
ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN,
AS PER PLAN
LOCATION 2 - 30 DAY
LOCATION 3 - 60 DAY



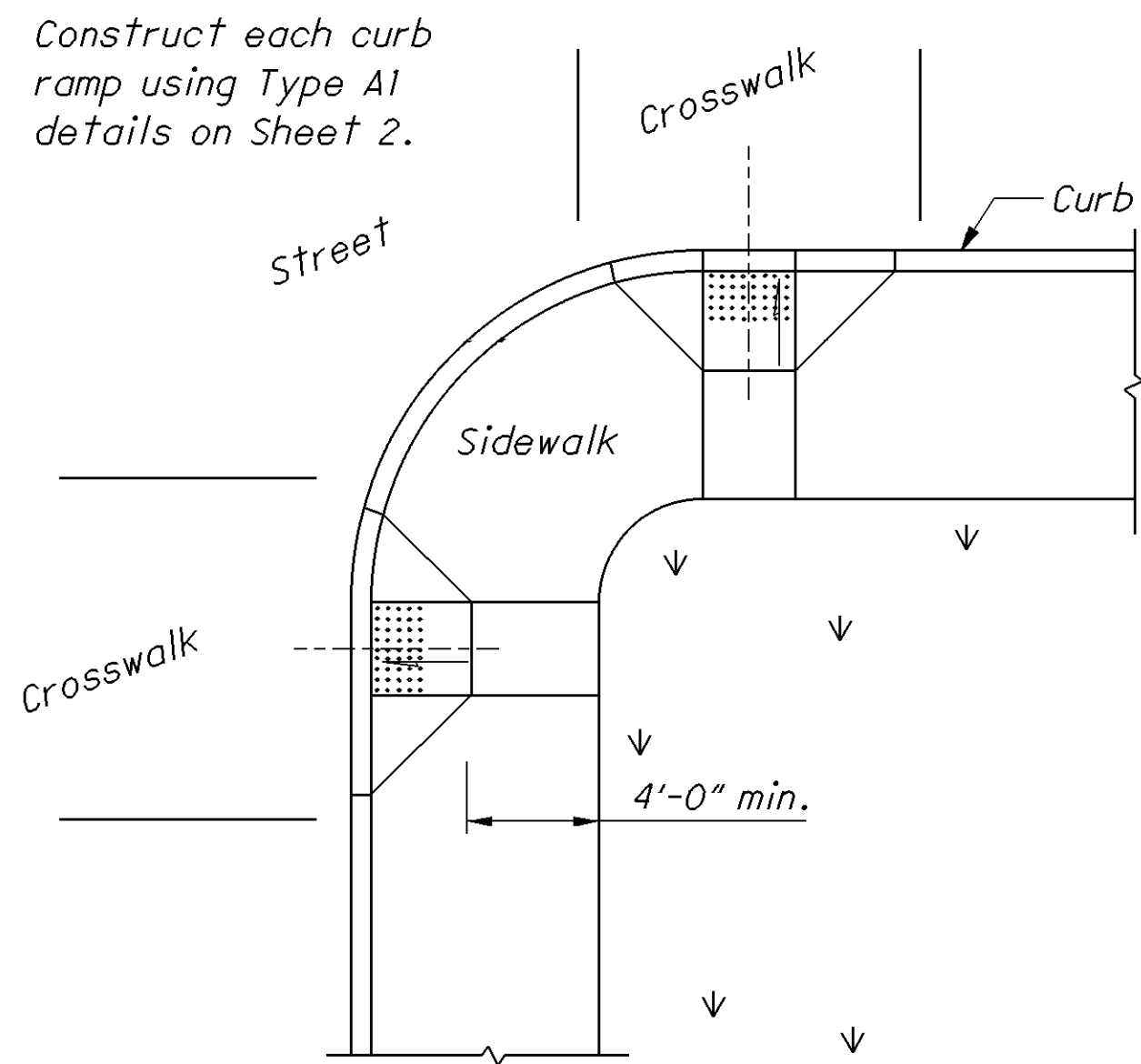
NOTES:

- 1.) SAFETY EDGES ARE REQUIRED AT THE OUTSIDE EDGES OF THE PAVED ROADWAY (EDGE OF TRAVEL LANE OR EDGE OF PAVED SHOULDER).
- 2.) CONSTRUCT THE SAFETY EDGE THE FULL ASPHALT CONCRETE OVERLAY THICKNESS OR 2.5" (63MM) WHICHEVER IS GREATER, NOT TO EXCEED THE MAXIMUM SAFETY EDGE THICKNESS OF 6" (150MM). CONSTRUCT A NEAR-VERTICAL FACE BELOW THE SAFETY EDGE FOR THICKNESS GREATER THAN 6" (150 MM).
- 3.) BLADE AND SHAPE EXISTING SHOULDER MATERIAL TO FORM A UNIFORM SURFACE UNDER THE SAFETY EDGE PRIOR TO PLACEMENT OF THE ASPHALT CONCRETE OVERLAY.
- 4.) FOR NEW PAVEMENT CONSTRUCT THE SAFETY EDGE THE FULL THICKNESS OF THE SURFACE AND INTERMEDIATE COURSES, NOT TO EXCEED 3.25" (82 MM).

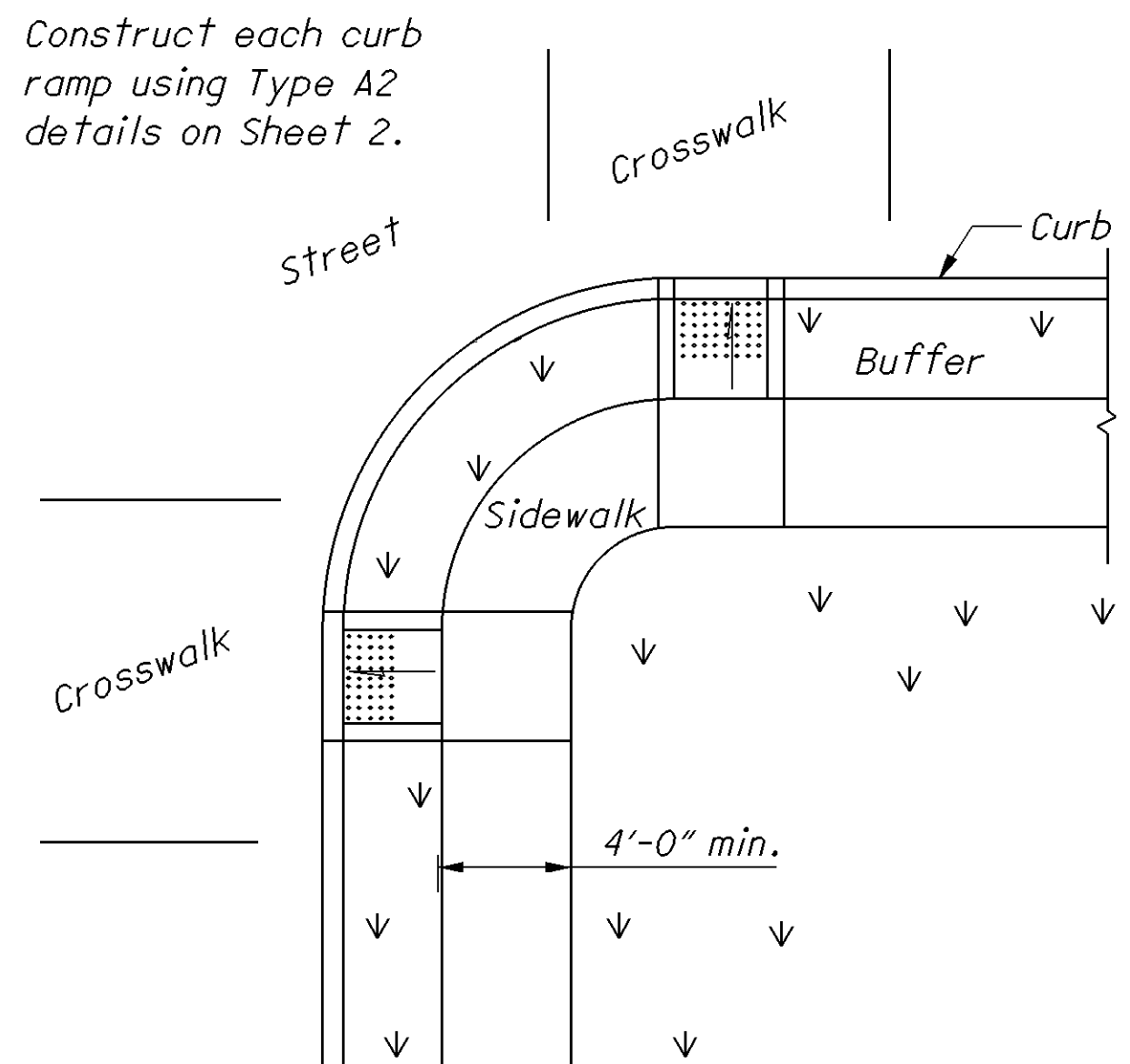
* 40° MAX



P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_crd_001.dgn 15-SEP-2015 4:22PM dnmorgan

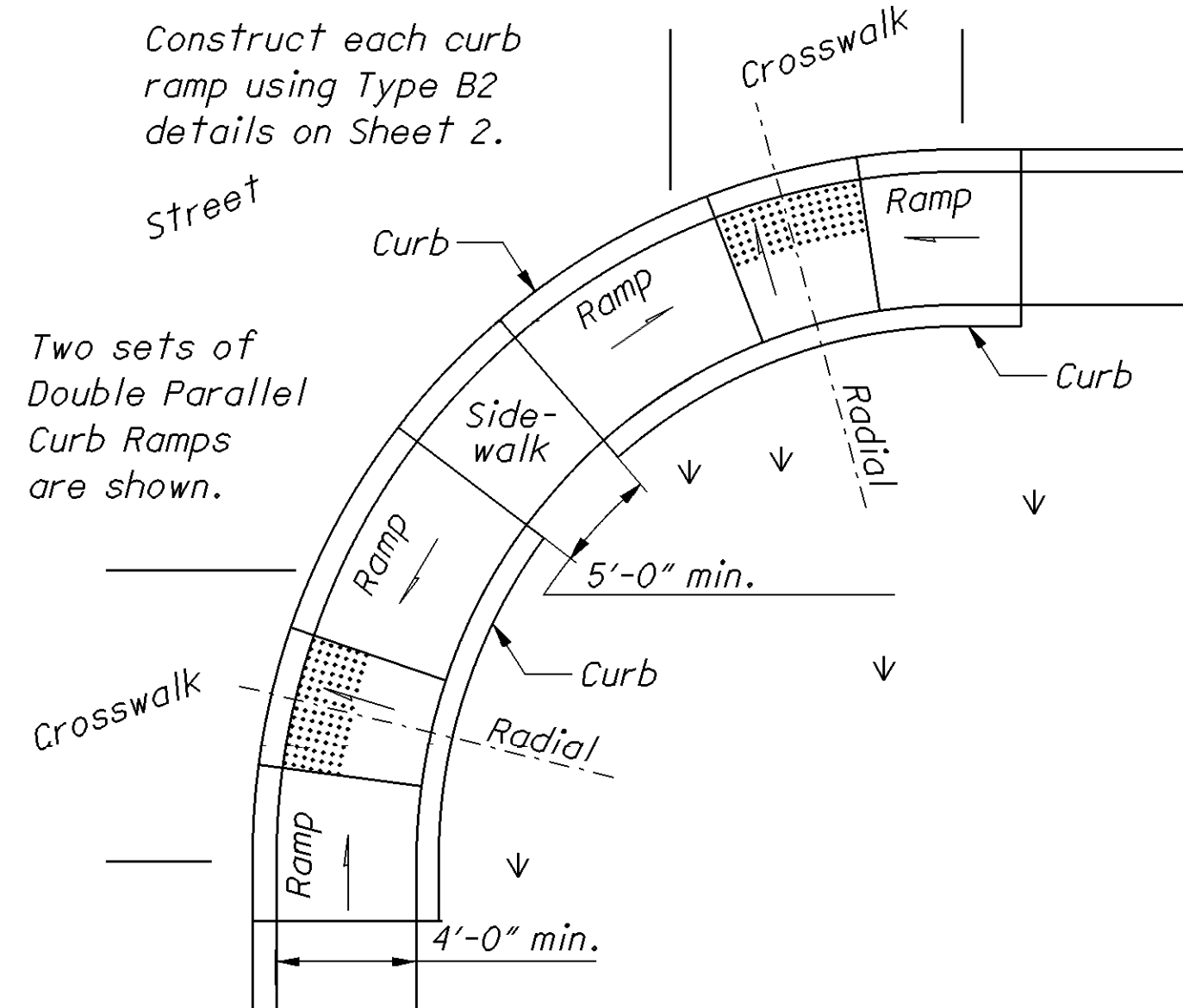
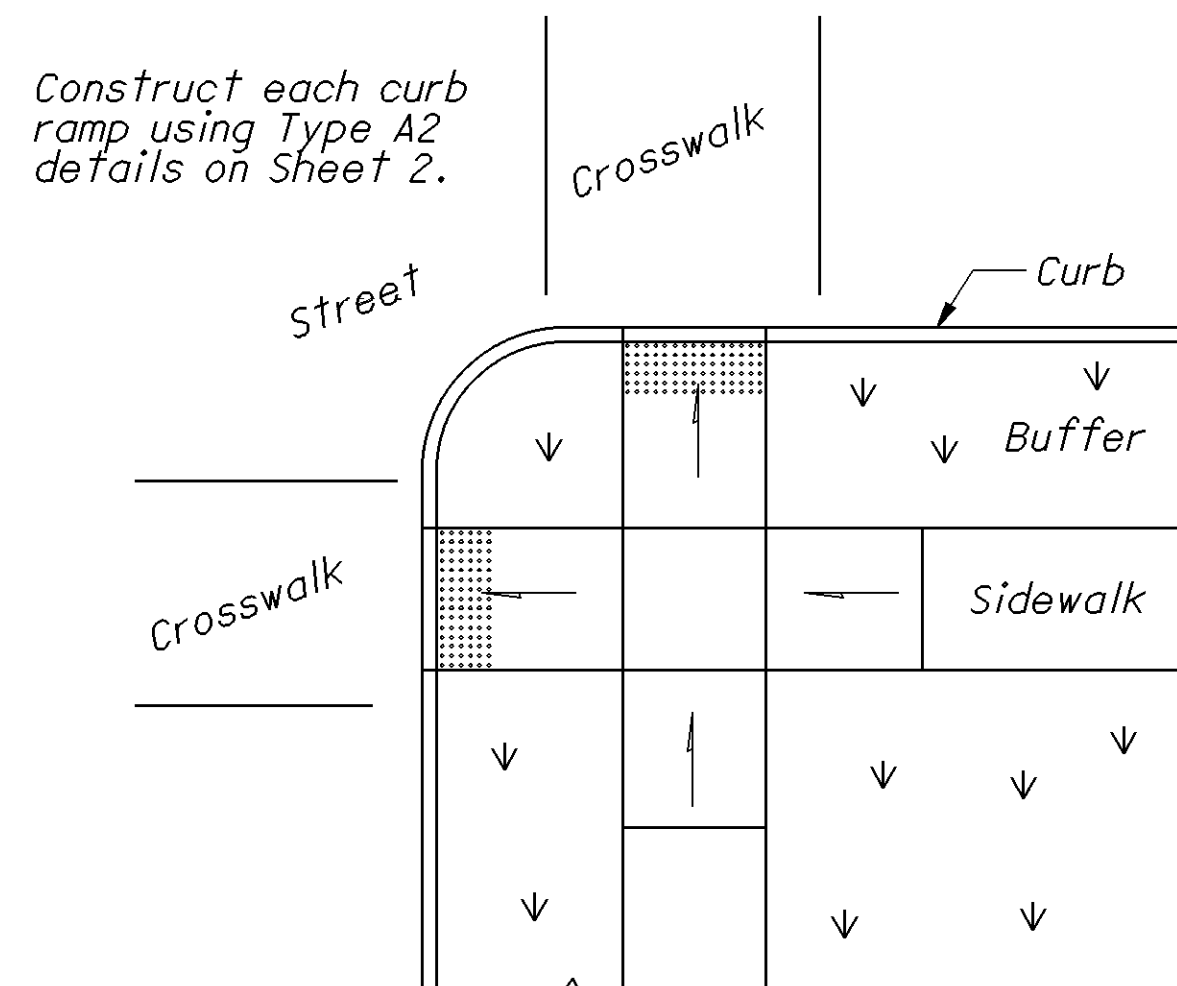


Use curb ramps with flared sides at locations with wide sidewalks.



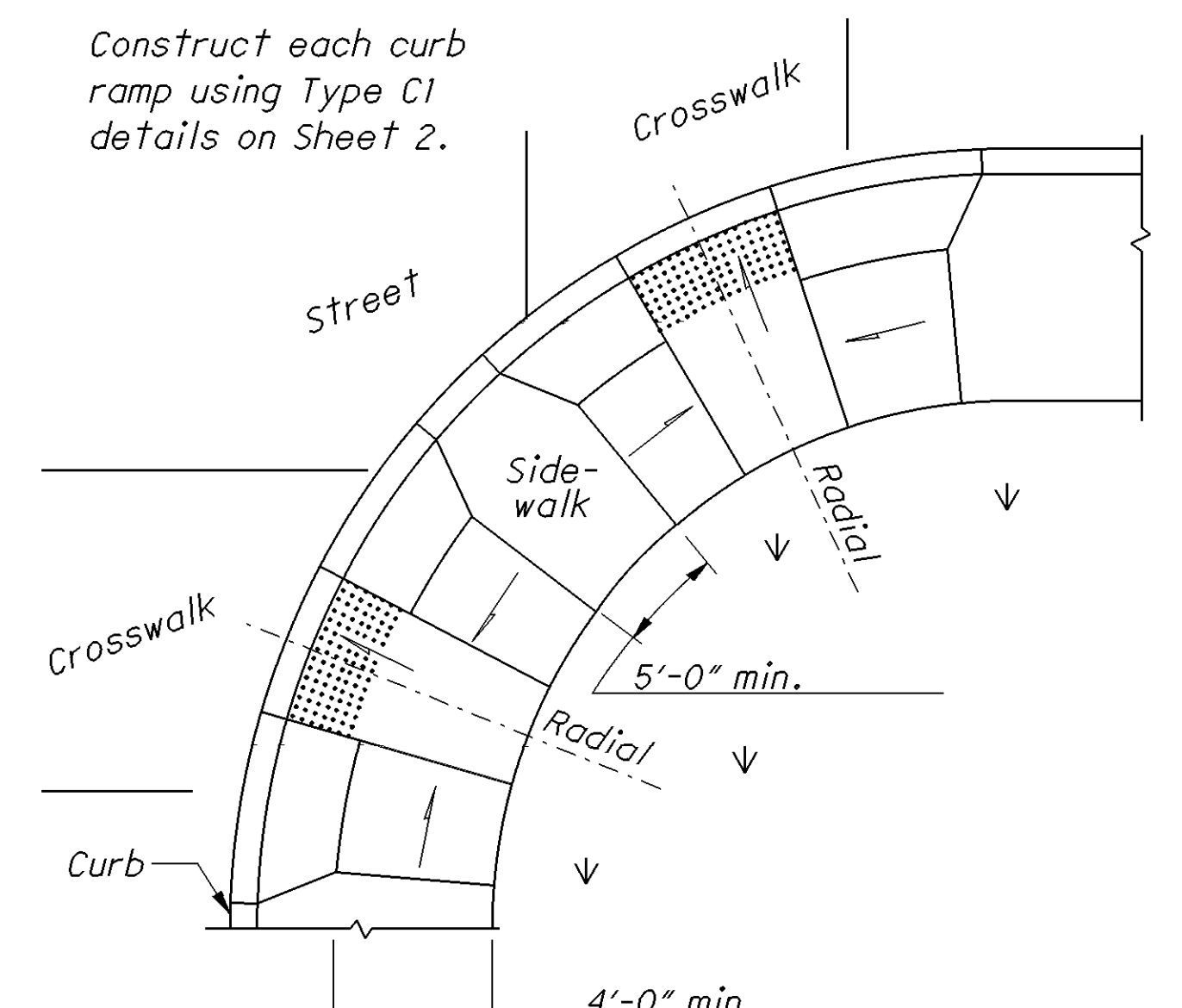
Use curb ramps with returned curbs where buffer is wide enough to accommodate ramp slope.

PERPENDICULAR CURB RAMPS



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

PARALLEL CURB RAMPS



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

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.

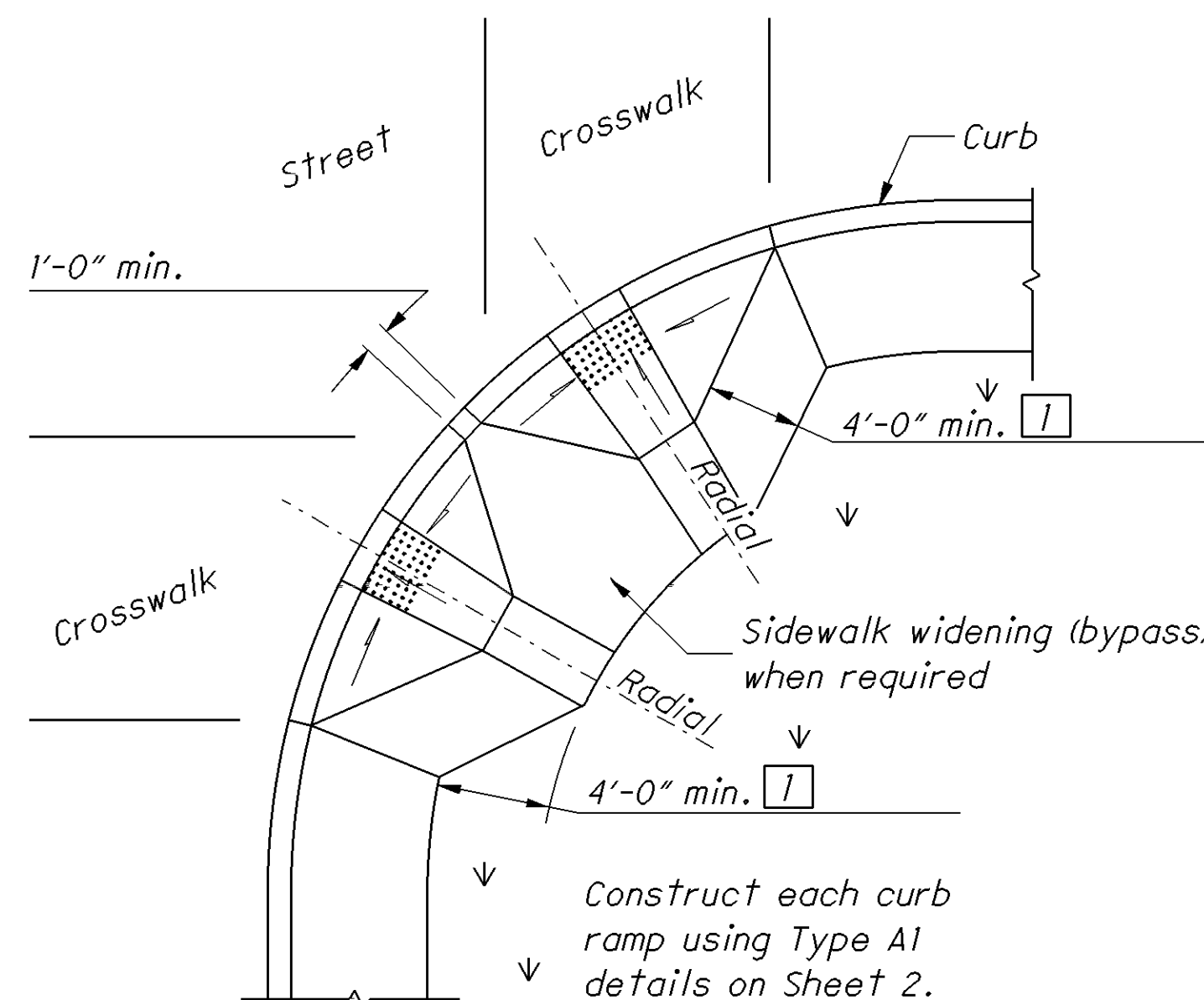
METHOD OF MEASUREMENT: The Department will measure Curb Ramps by the number of each completed curb ramp. The Department will measure Detectable Warnings in existing curb ramps and at grade crossings by the number of square feet completed.

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.

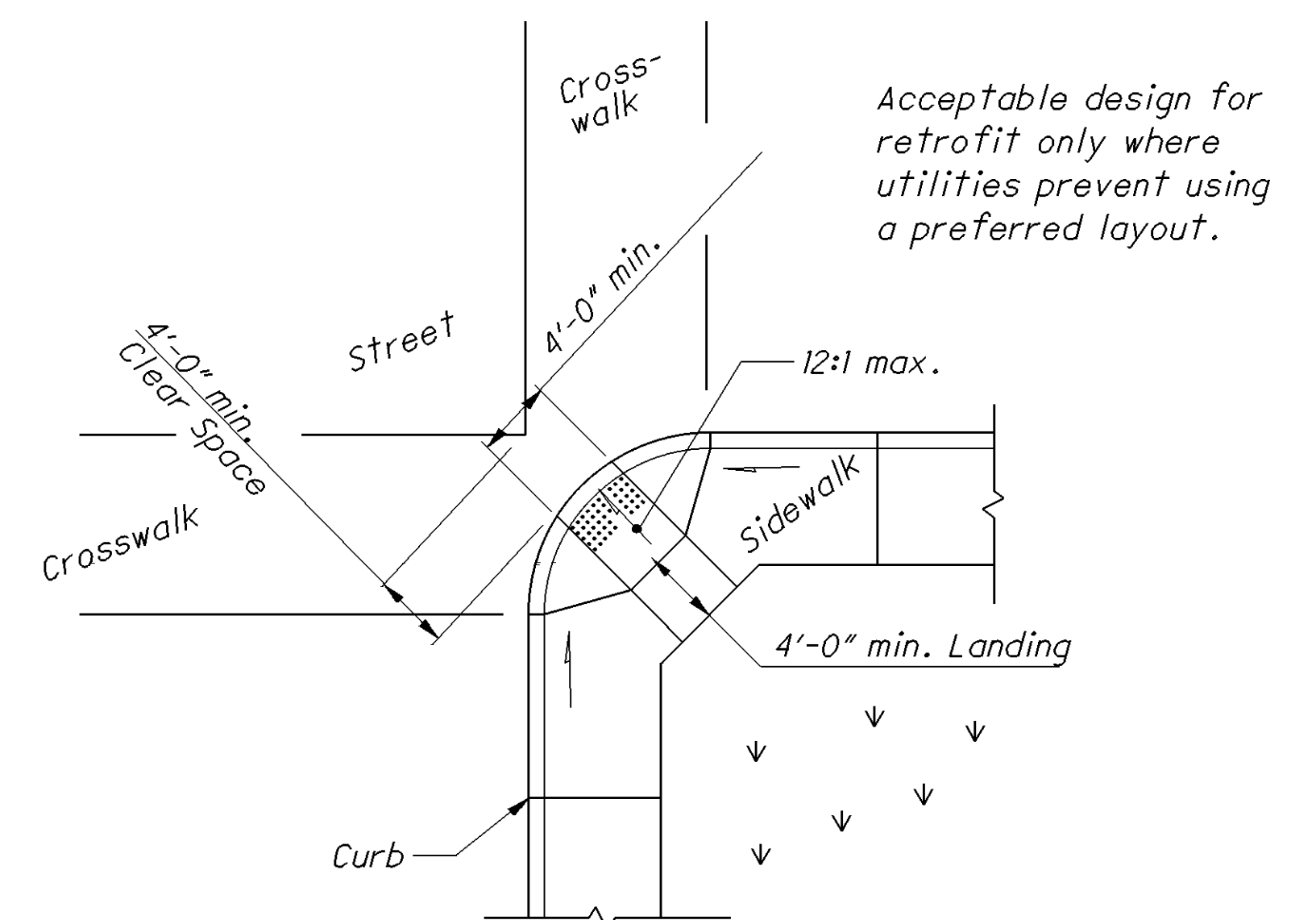
Detectable Warnings constructed in existing curb ramps or for at-grade crossing locations are paid for under Item 690-Special Misc.: Detectable Warning (Sq. Ft.) and is full compensation for excavation, backfill, base course material, reinforcing steel, expansion joint materials, and any incidentals 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



Acceptable design for retrofit only where utilities prevent using a preferred layout.

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

CHECKED

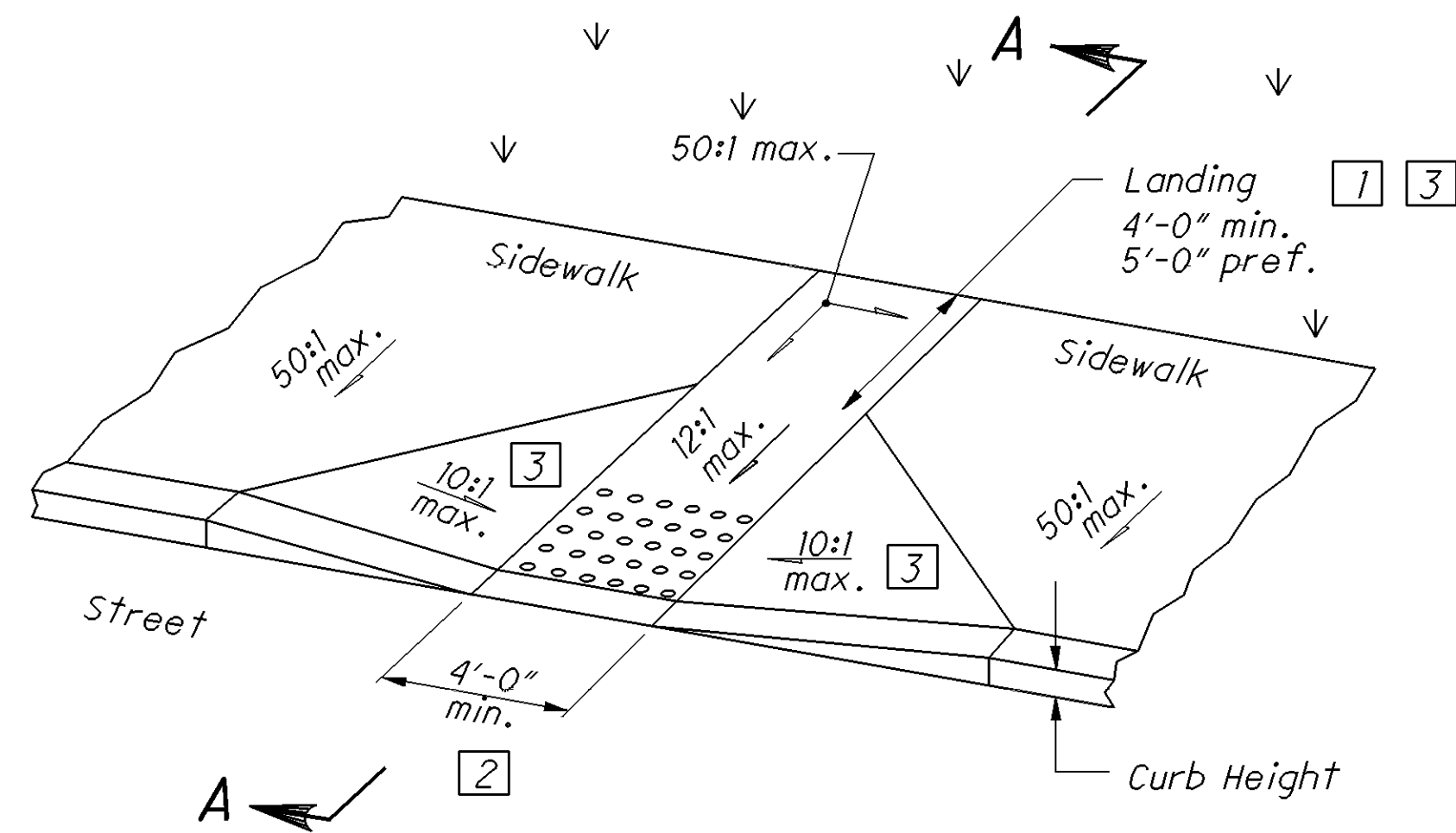
CURB RAMP AND DETECTABLE WARNING DETAILS

COS / MUS-93/208-VAR

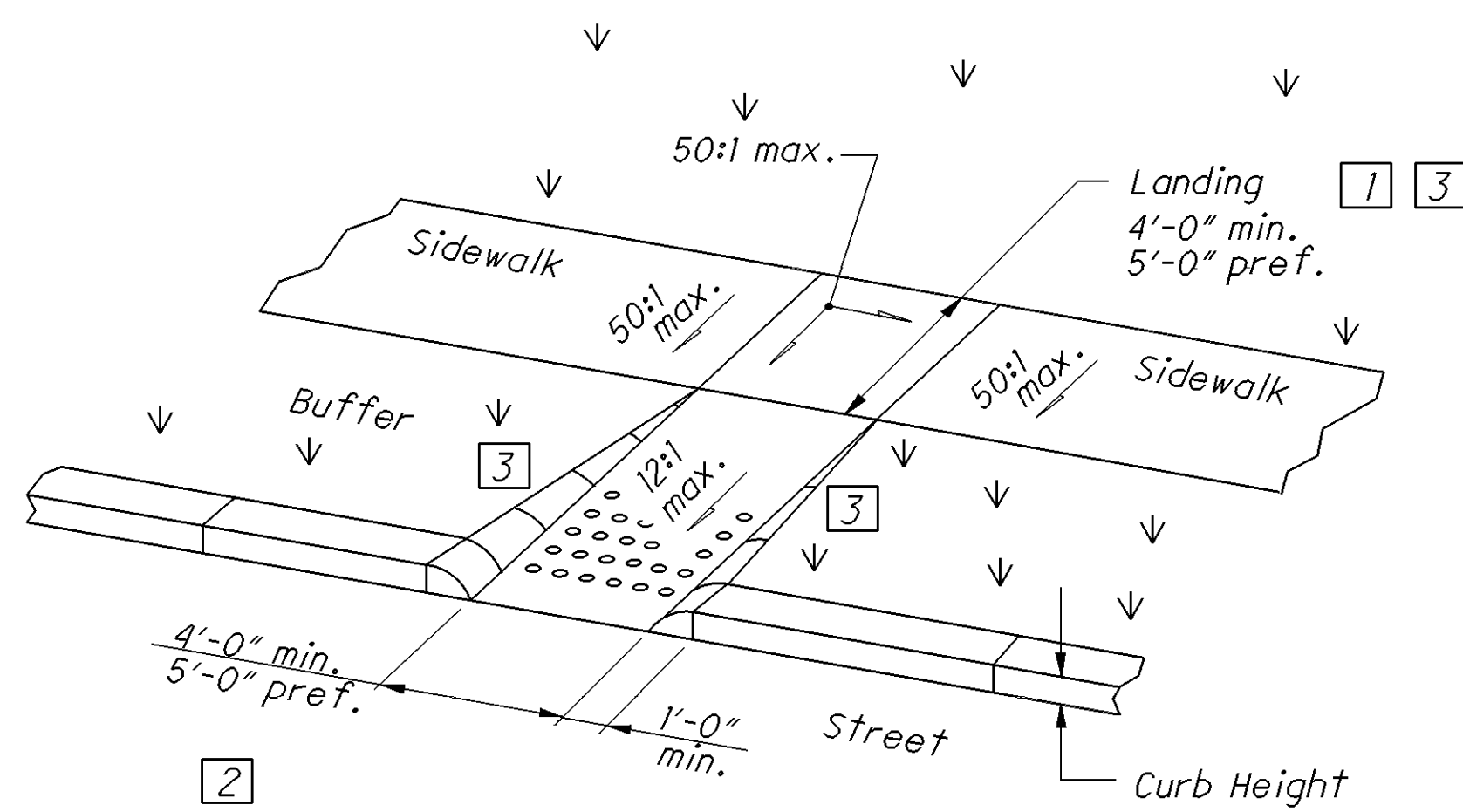
1/3

8/39

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_crd_002.dgn 15-SEP-2015 4:22PM dmorgan

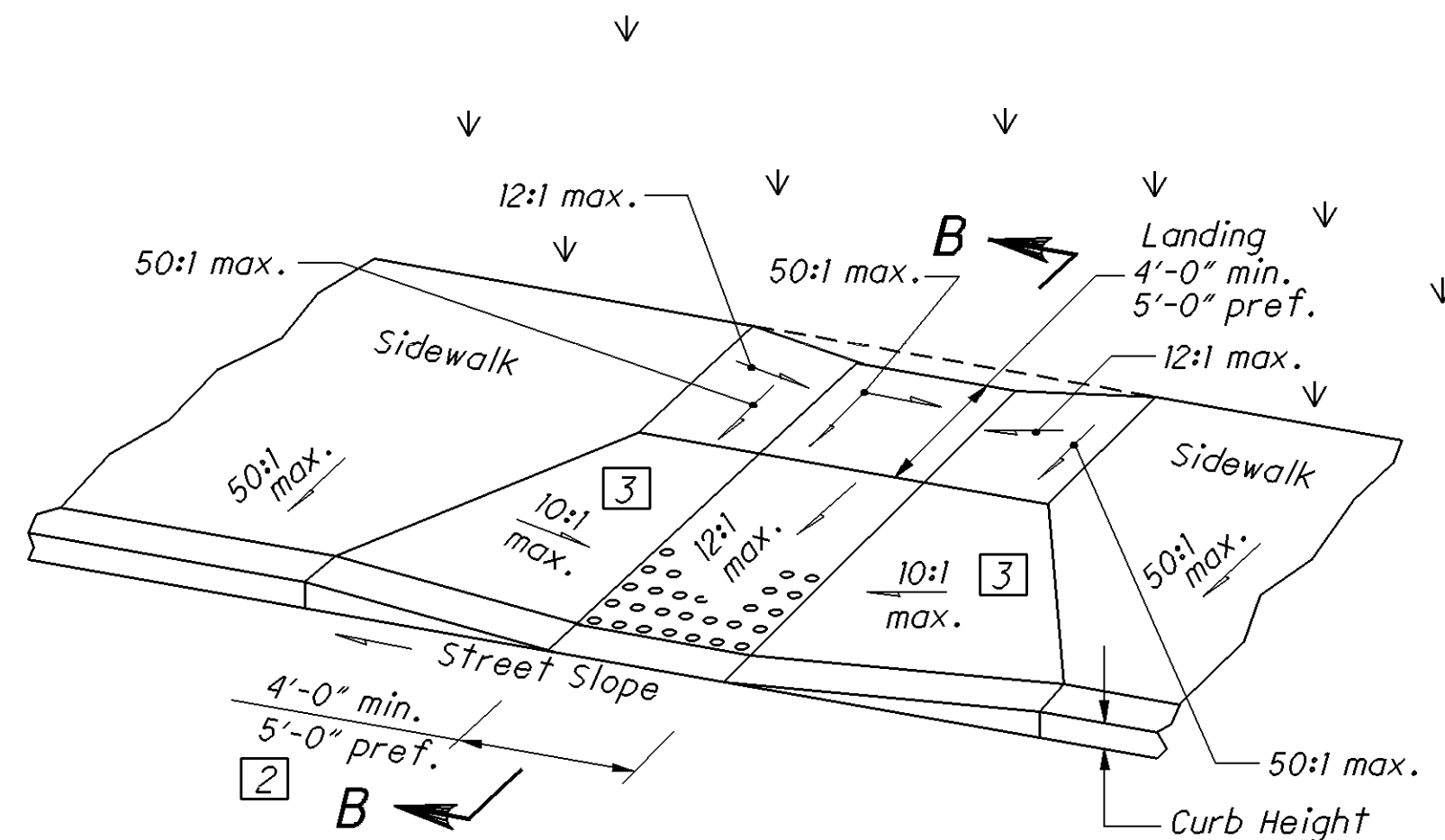


Type A1 (Perpendicular with flared sides)

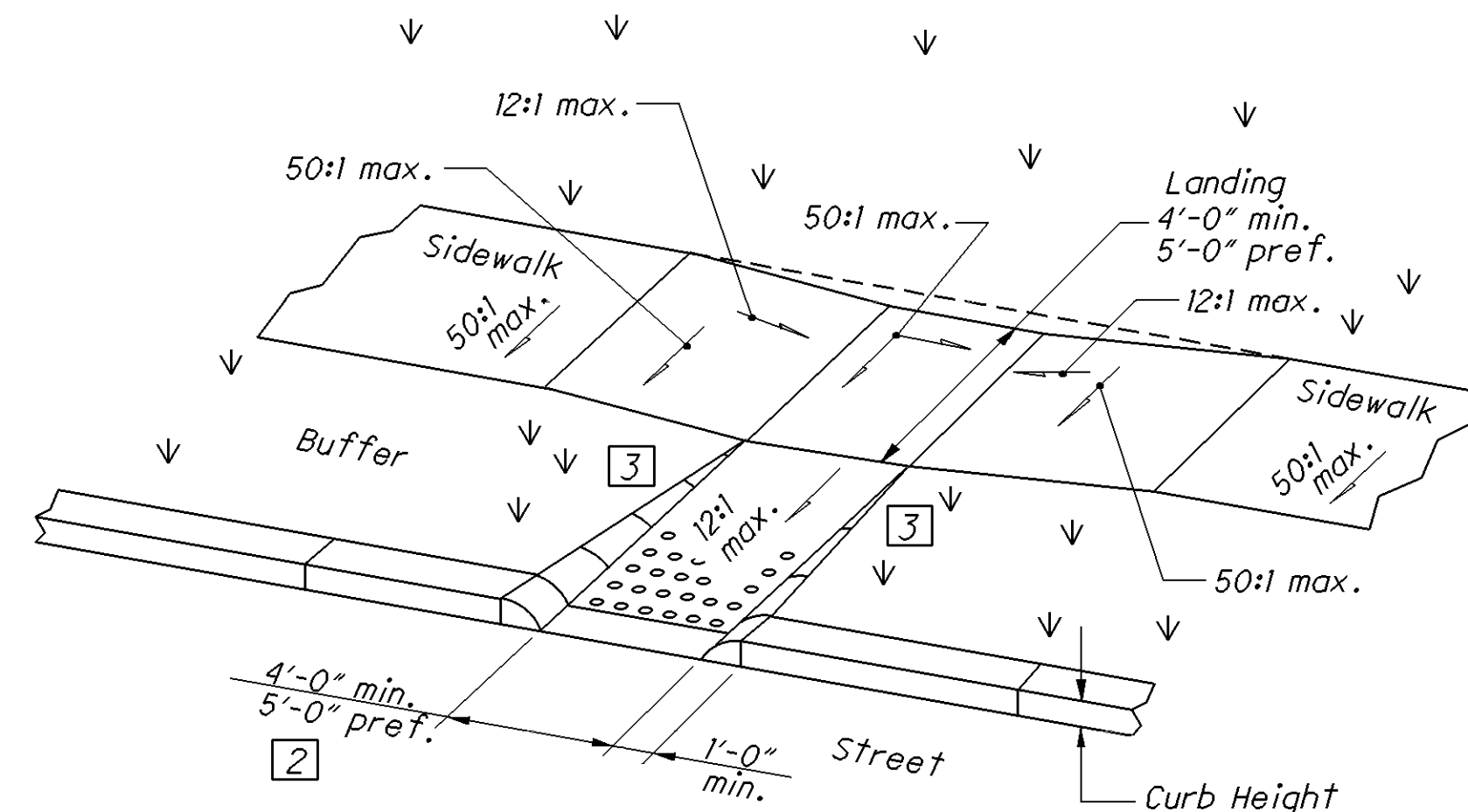


Type A2 (Perpendicular with returned curb)

PERPENDICULAR CURB RAMP DETAILS

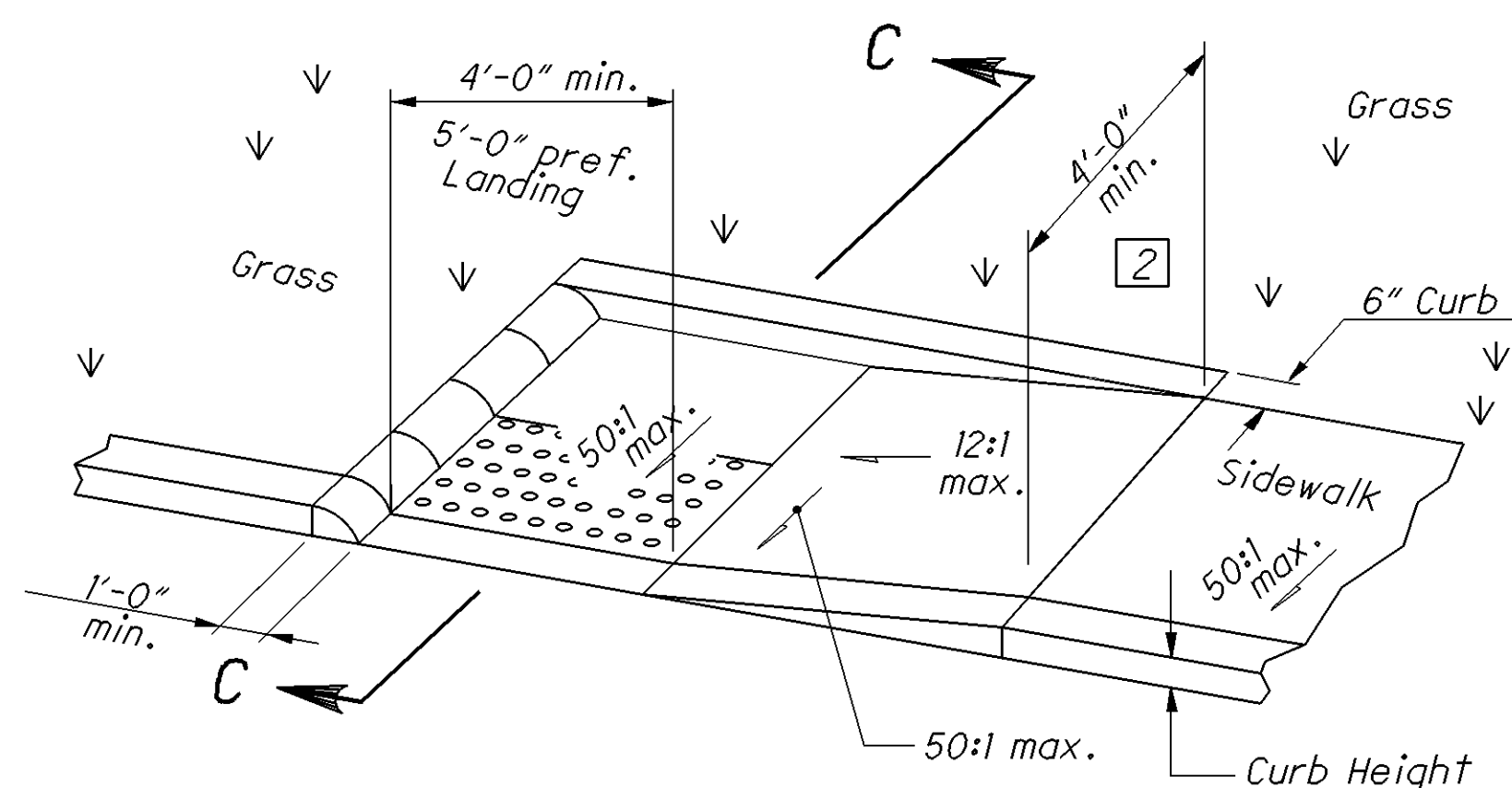


Type C1 (Combined with flared sides)

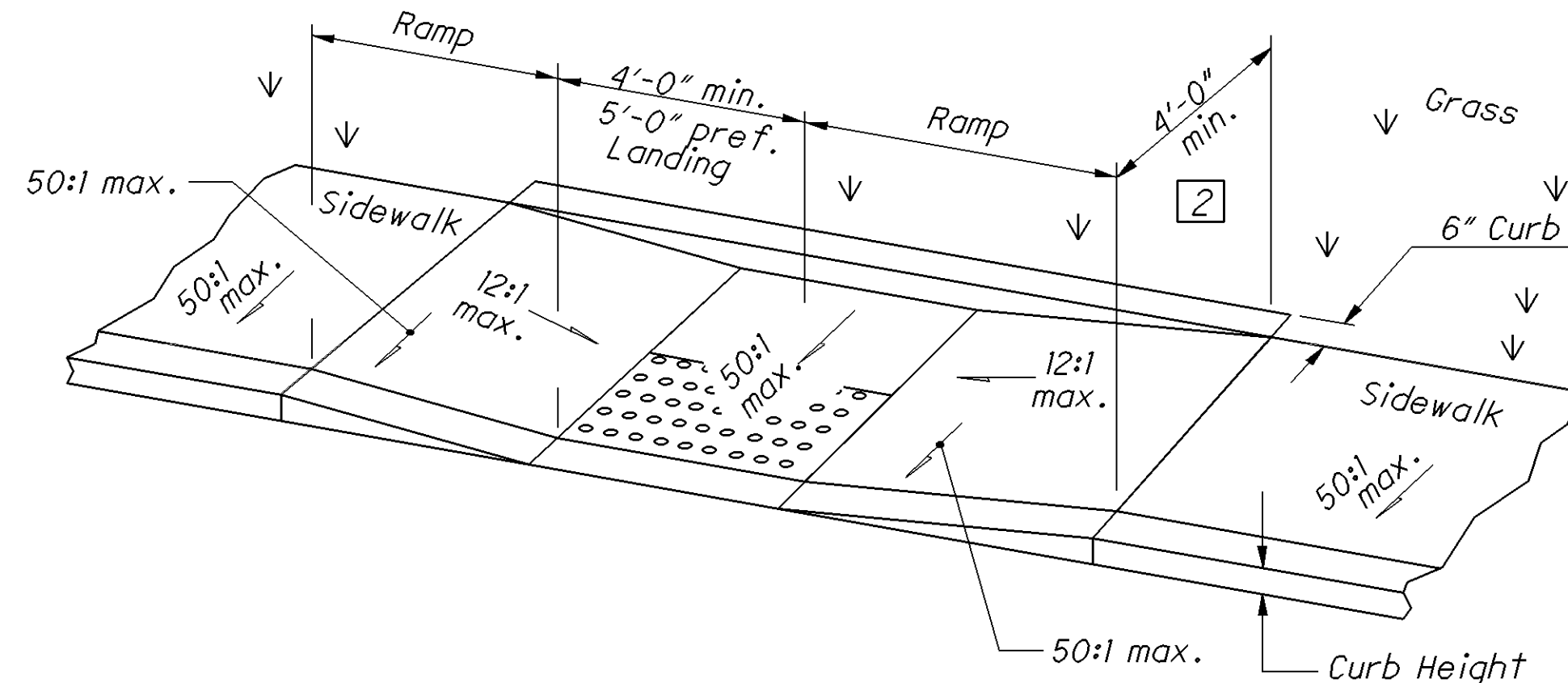


Type C2 (Combined with returned curb)

COMBINED CURB RAMP DETAILS

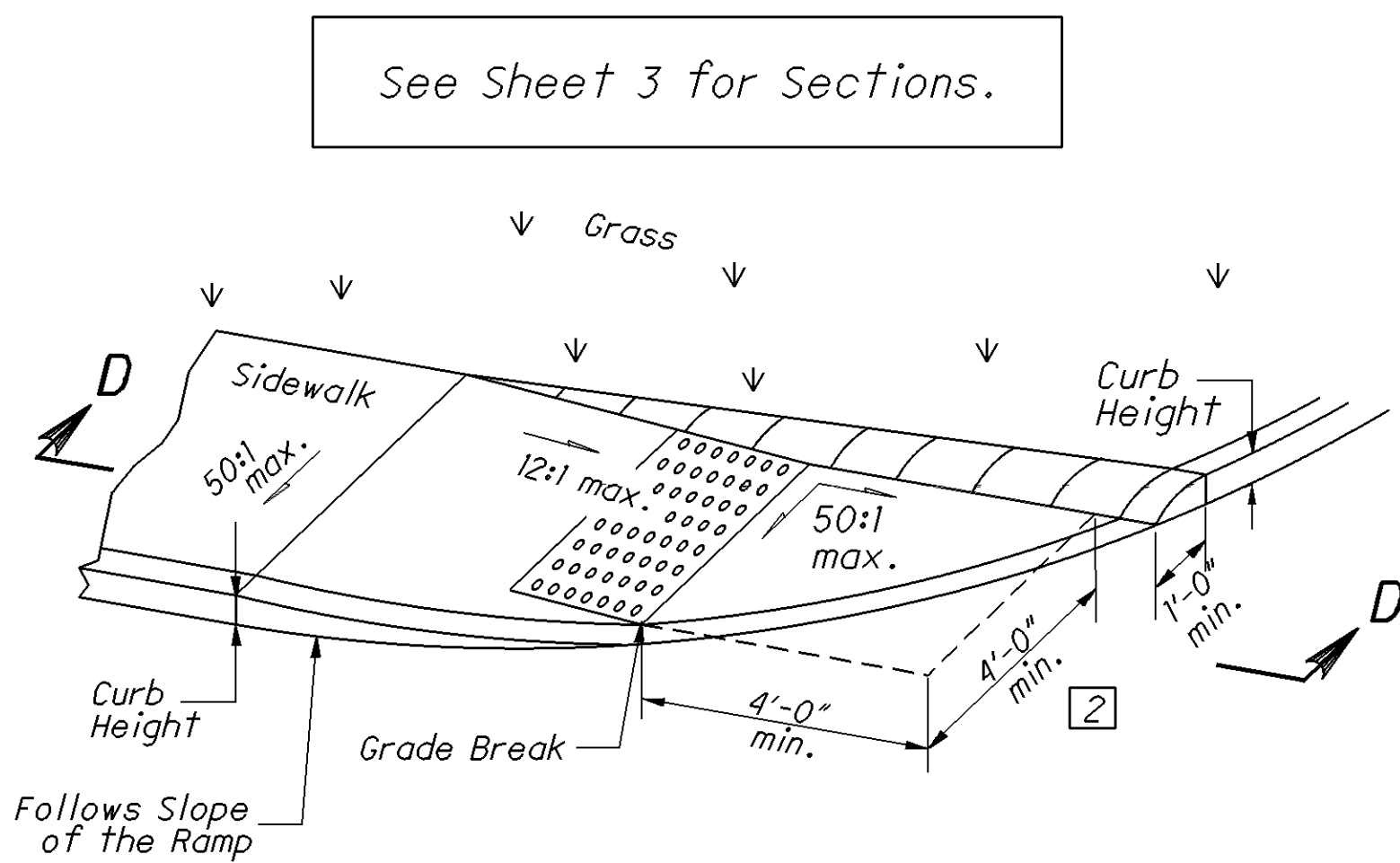


Type B1 (Single sided Parallel)



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 reamp 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.

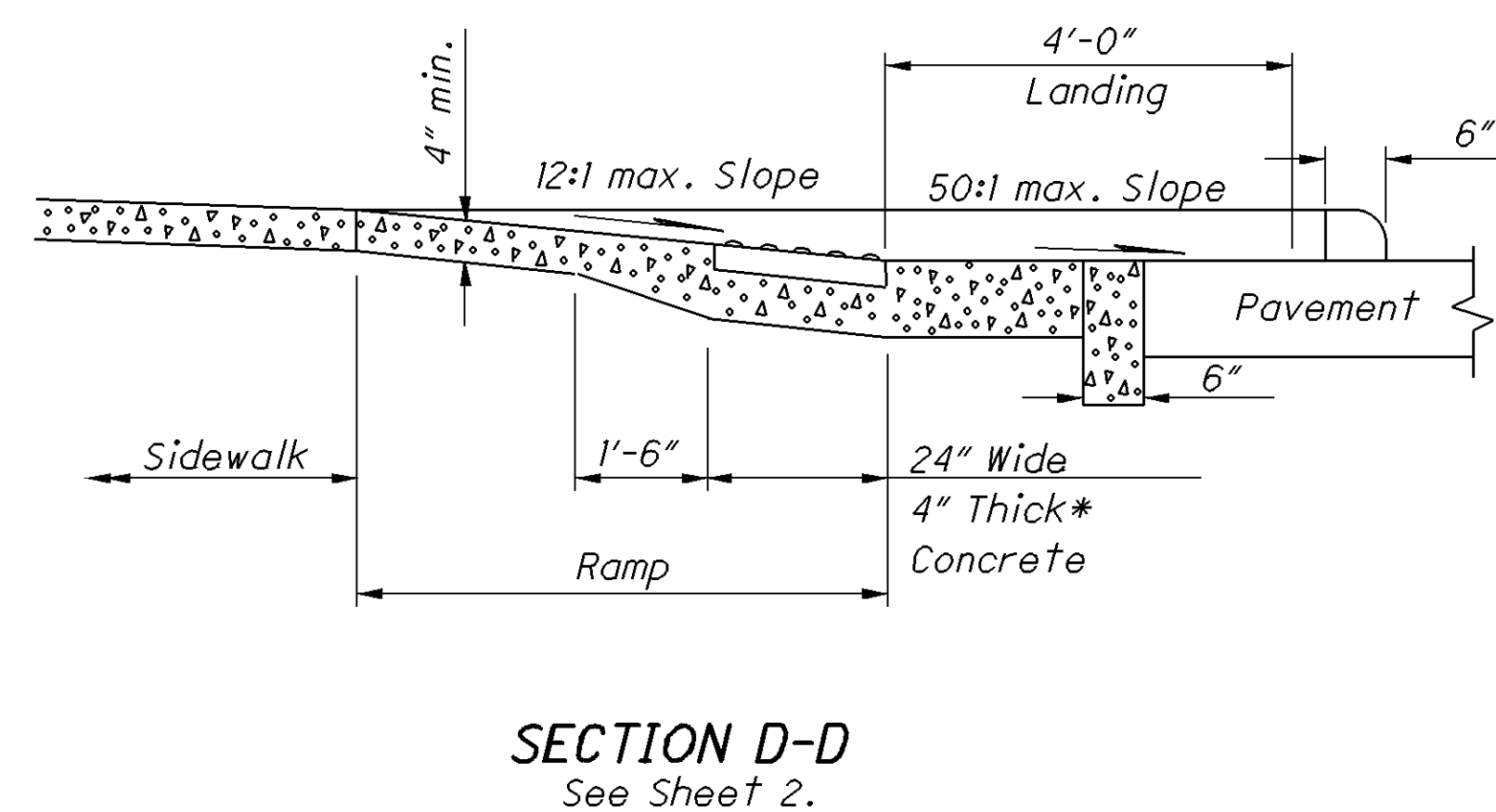
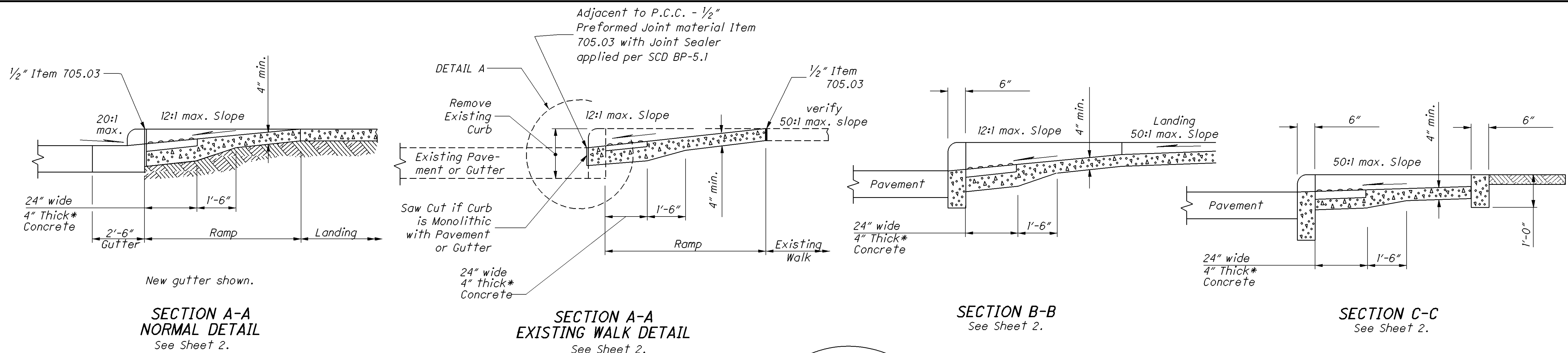
CALCULATED
CHECKED

CURB RAMP AND DETECTABLE WARNING DETAILS

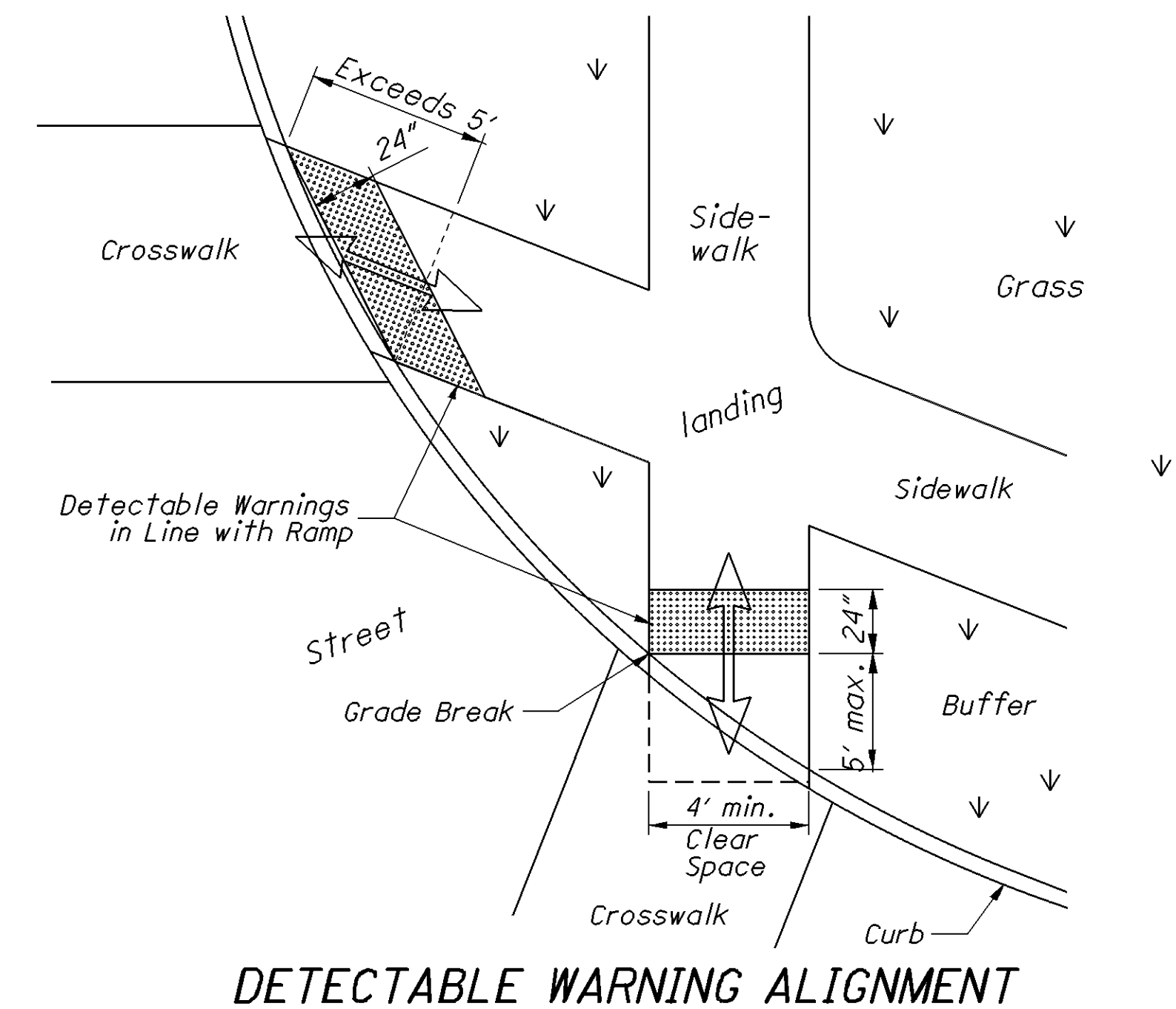
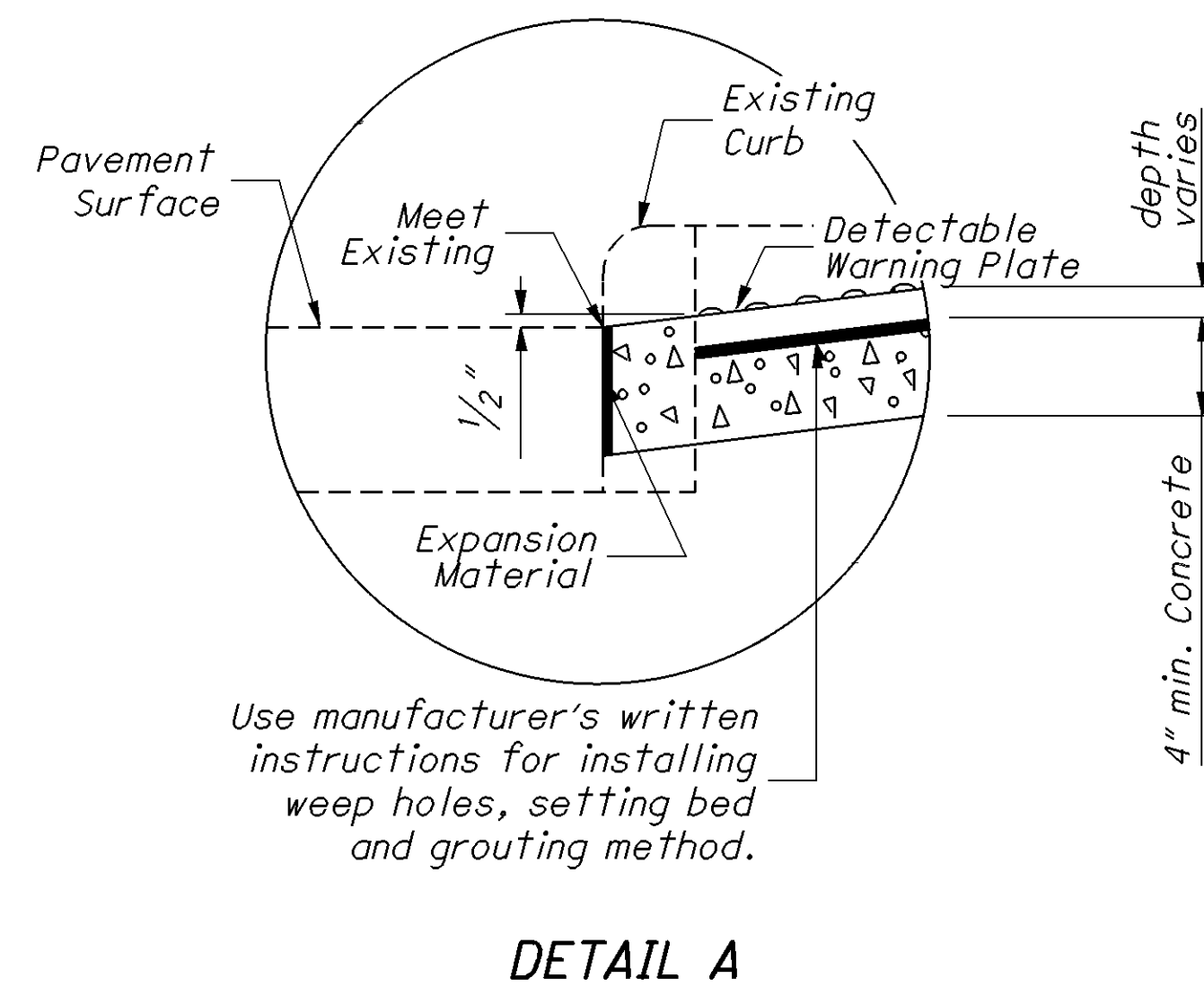
COS / MUS-93 / 208-VAR

2 / 3

9
39



*Where possible, pour ramp area integral with the curb, otherwise use 6" thick walk.



DETECTABLE WARNINGS NOTES

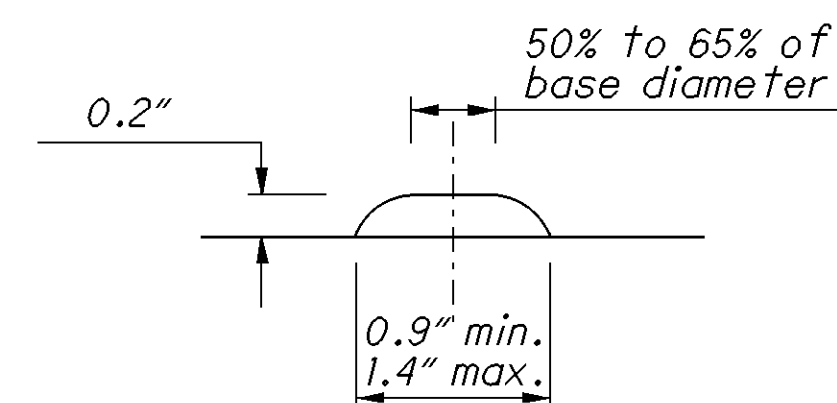
GENERAL: Detectable Warnings are a distinctive surface pattern of truncated domes which are detectable by cane or underfoot to alert people with vision impairments of their approach to streets and hazardous drop-offs.

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.

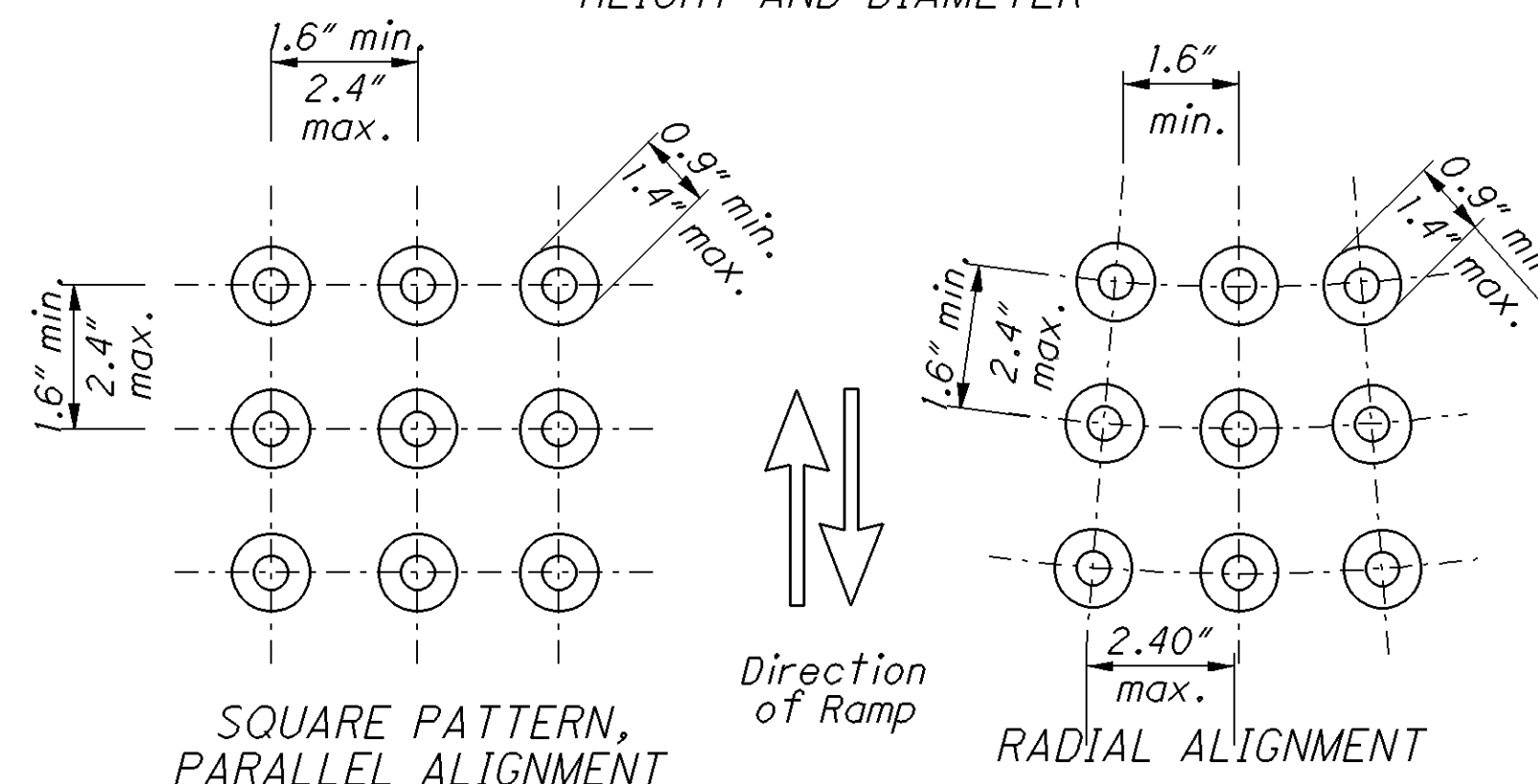
The depth of concrete underneath detectable warning products shall be a minimum of 4". See DETAIL A.

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.

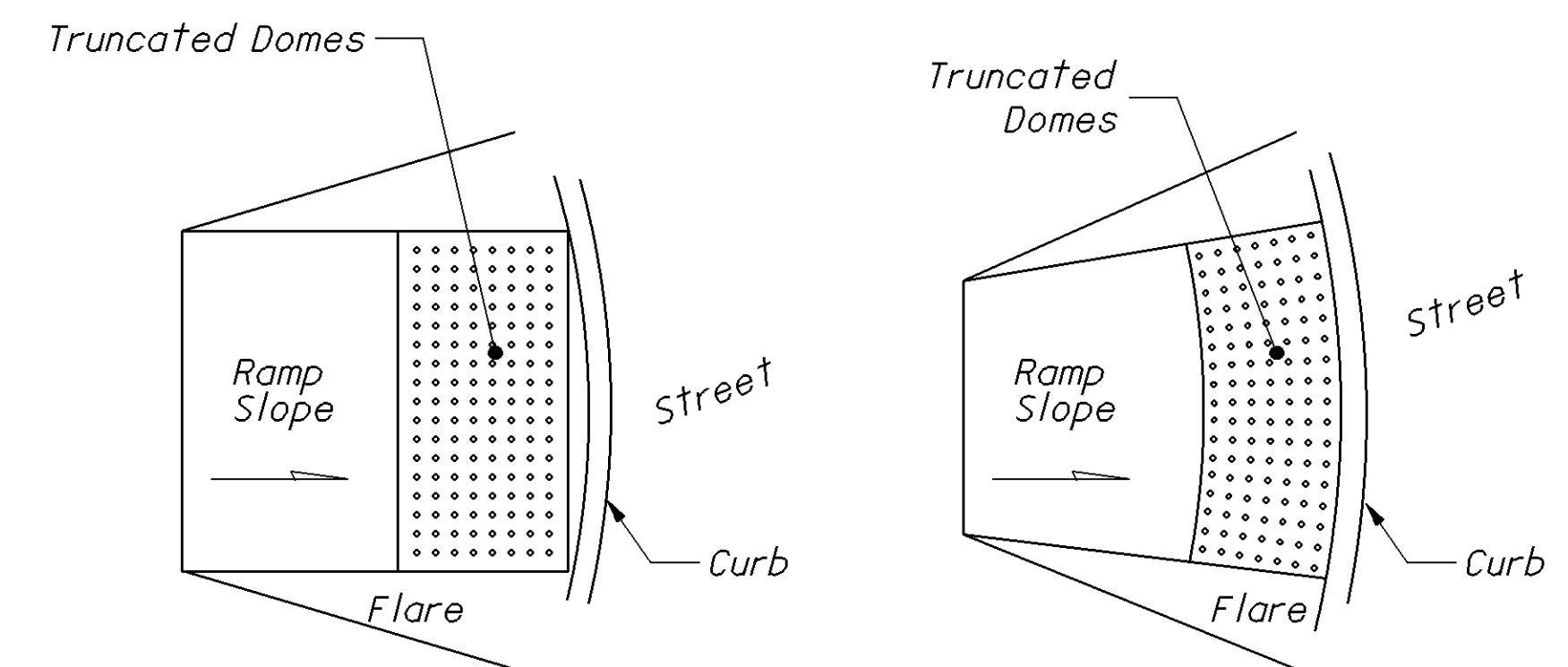
PRODUCTS & COLORS: Color of the detectable warnings should contrast with surrounding concrete walk and ramp. Black is not an acceptable color. Approved products and guidance on color may be found on the Office of Roadway Engineering Service's Detectable Warnings Approved List. Install products as per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



HEIGHT AND DIAMETER



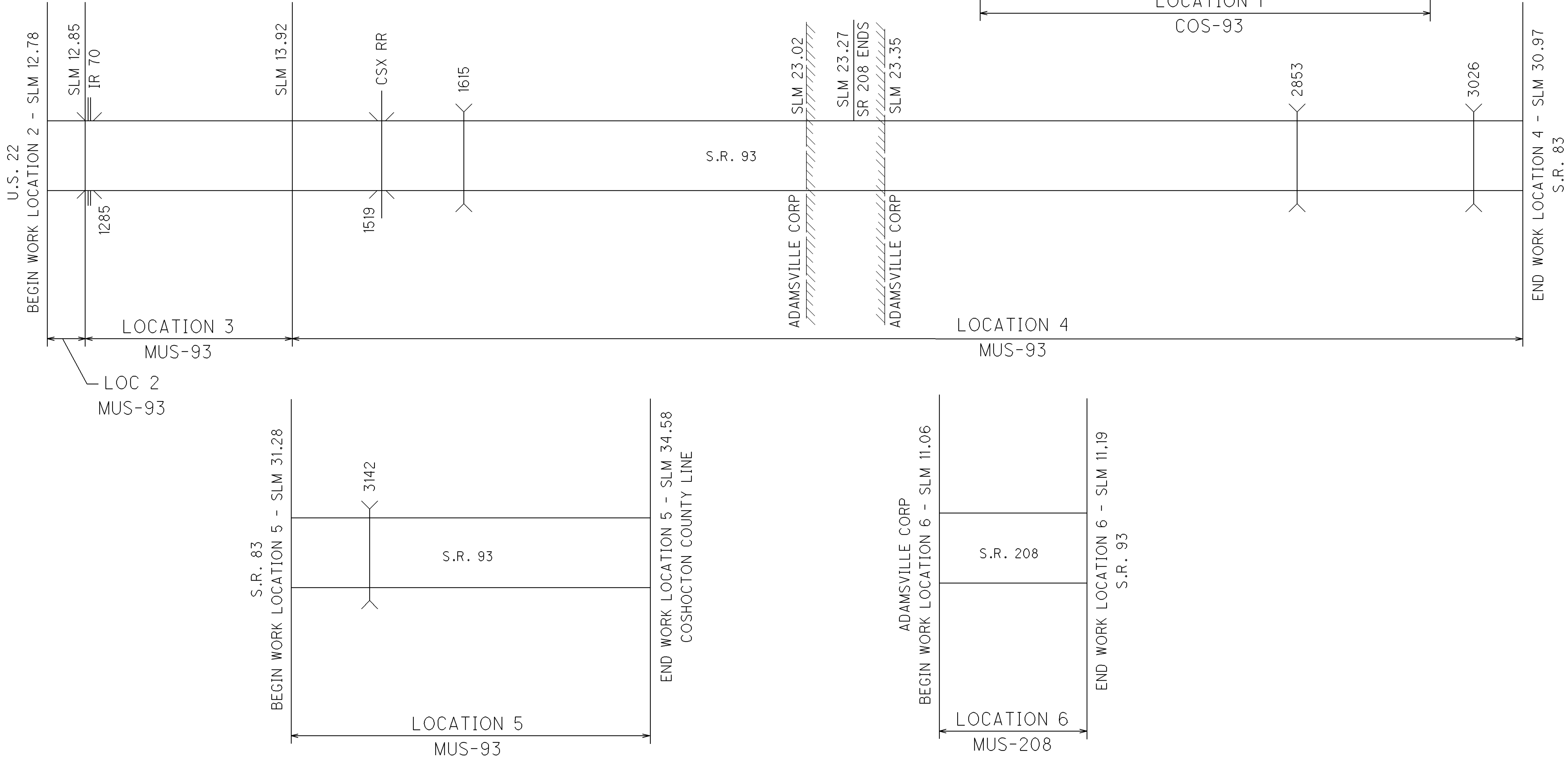
TRUNCATED DOMES DETAILS



DOMES ALIGNMENT ON RADIUS CURB

NOTE:

THE PAVEMENT WIDTHS SHOWN IN THE "PAVEMENT DATA" TABLE ON THE NEXT SHEET ARE THE WIDTHS WHICH HAVE BEEN DETERMINED TO HAVE SUFFICIENT ROADWAY BASE FOR PAVING. IF THE ACTUAL ROADWAY WIDTH IS GREATER THAN WHAT THE PAVEMENT DATA SHEET SHOWS, THE CONTRACTOR SHALL PAVE ONLY THE WIDTH SHOWN IN THE AFOREMENTIONED TABLE, UNLESS THE WIDER PAVEMENT IS IN A CURVED ROADWAY SECTION. DO NOT REDUCE THE WIDTH OF WIDENED PAVEMENT IN CURVED ROADWAY SECTIONS. PAVING SHALL BE CENTERED ABOUT THE FULL WIDTH OF THE ROADWAY AND ANY EXCESS EXISTING PAVEMENT ON THE EDGES SHALL BE REMOVED WITH SHOULDER PREPARATION BEFORE PLACING ITEM 617 COMPACTED AGGREGATE. PAVING IN CURBED ROADWAY SECTIONS SHALL BE FROM CURB TO CURB.

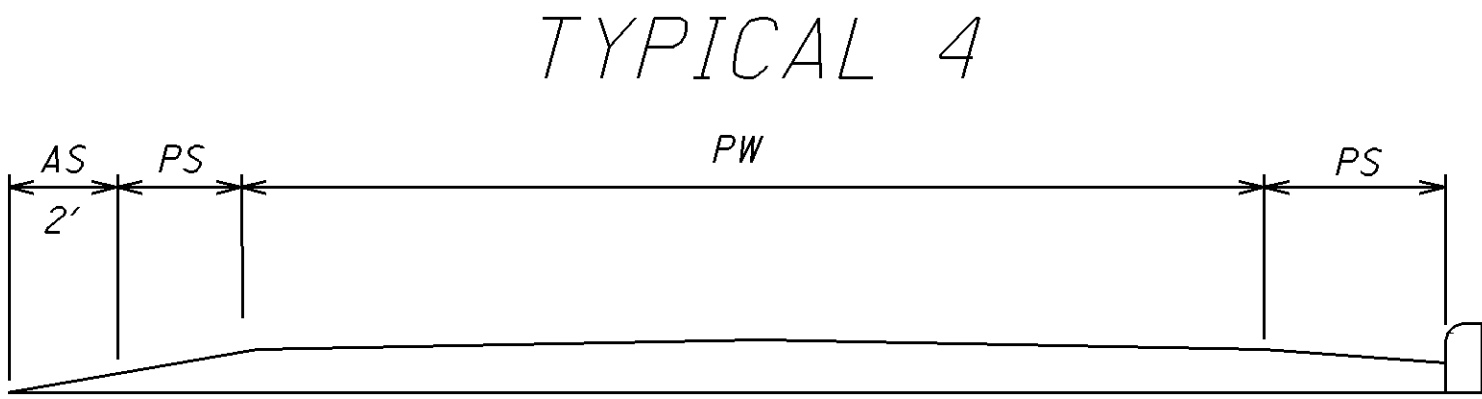
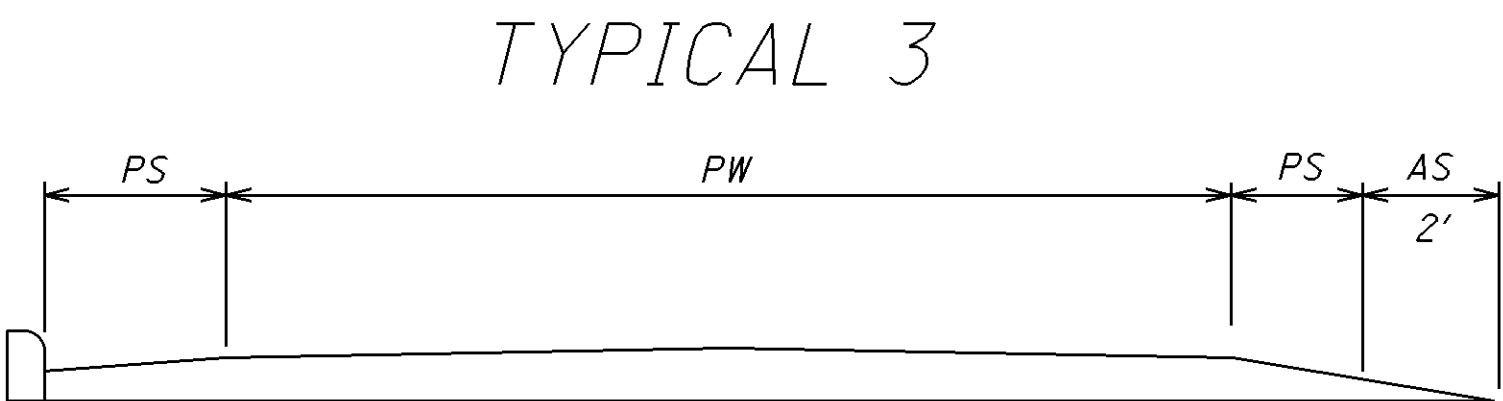
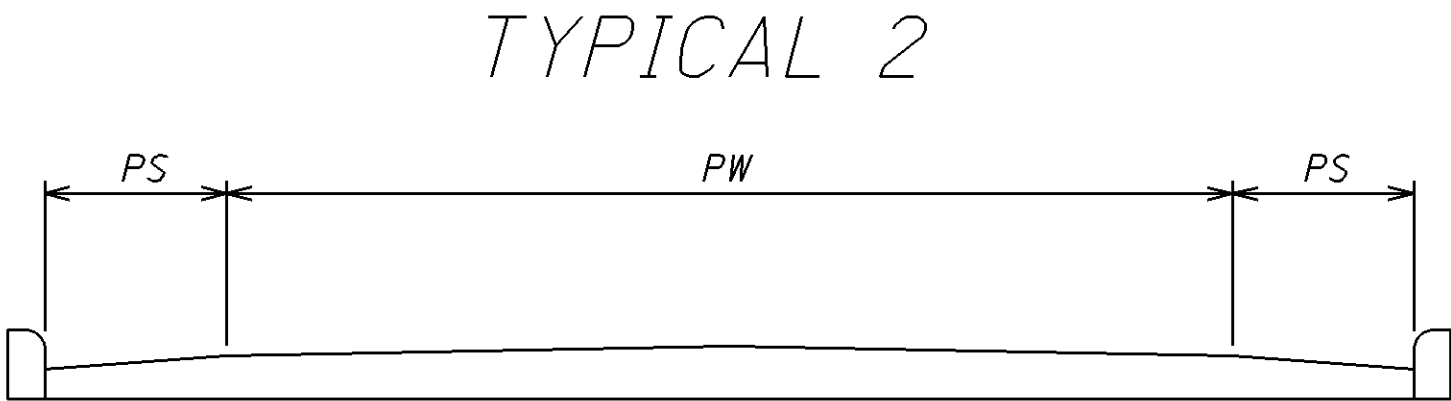
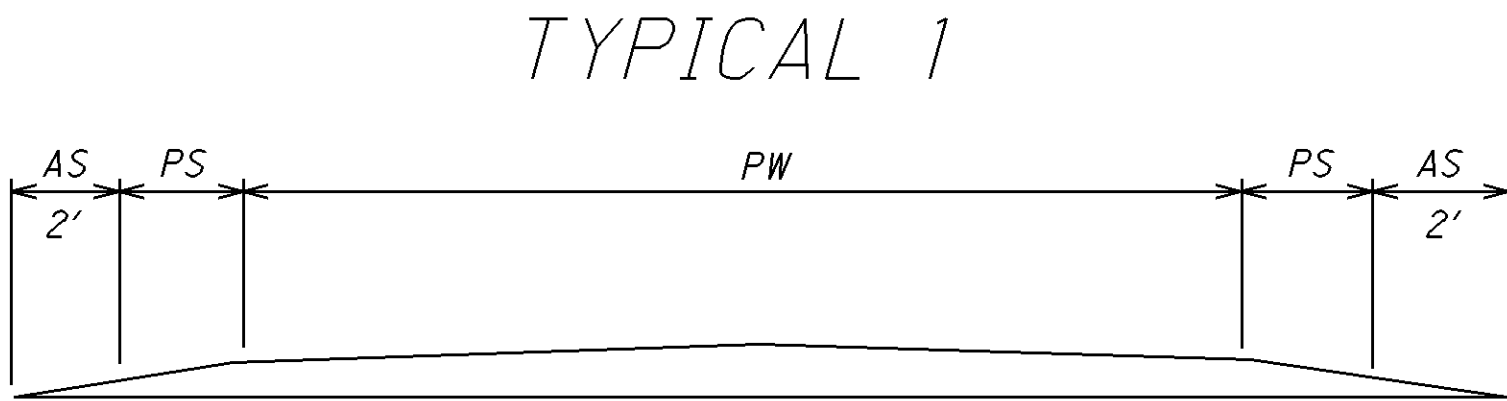


PAVEMENT DATA																					
LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		PAVEMENT WIDTH	TYPICAL	PAVEMENT AREA	254		407				441 ASPHALT CONCRETE				614	
										THICKNESS	PAVEMENT PLANING, ASPHALT CONCRETE	TACK COAT, TRACKLESS TACK @ 0.075 GAL./S.Y.	TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y.	TACK COAT @ 0.075 GAL./S.Y.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y.	THICKNESS	SURFACE COURSE, TYPE 1, (448), PG 70-22M	THICKNESS	INTERMEDIATE COURSE, TYPE 1, (448)	WORK ZONE CENTER LINE, CLASS II	WORK ZONE CENTER LINE, CLASS III, 642 PAINT
					MILES	LIN. FT.	FT.		SQ. YD.	INCHES	SQ. YD.	GAL.	GAL.	GAL.	GAL.	INCHES	CU. YD.	INCHES	CU. YD.	MILE	MILE
1	COS	S.R. 93	0.00	1.94	1.94	10,243.2	20.0	1	22,762.7	1.25	22,762.7			1,707.3	1,138.2	1.25	790.4	1.00	632.3	3.88	1.94
			1.94	1.97	0.03	158.4	20.0	1	352.0	1.25	352.0			26.4	17.6	1.25	12.3	1.00	9.8	0.06	0.03
			1.97	3.50	1.53	8,078.4	20.0	1	17,952.0	1.25	17,952.0			1,346.4	897.6	1.25	623.4	1.00	498.7	3.06	1.53
BRIDGE DEDUCTIONS (SEE SHEET 18)									(408.9)		(408.9)			(30.6)	(20.4)	1.25	(14.1)	1.00	(11.3)	(0.07)	(0.03)
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)											40,657.8			3,049.5	2,033.0		1,412.0		1,129.5	6.93	3.47
2	MUS	S.R. 93	12.78	12.81	0.03	158.4	36.0 AVG	1	633.6	2.25	633.6	47.6	31.7			1.25	22.0	1.00	17.6	0.06	0.03
			12.81	12.83	0.02	105.6	24.0	1	281.6	2.25	281.6	21.2	14.1			1.25	9.8	1.00	7.9	0.04	0.02
			12.83	12.85	0.02	105.6	24.0	1	281.6	2.25	281.6	21.2	14.1			1.25	9.8	1.00	7.9	0.04	0.02
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)											1,196.8	90.0	59.9				41.6		33.4	0.14	0.07
3	MUS	S.R. 93	12.85	12.96	0.11	580.8	24.0	1	1,548.8	2.25	1,548.8	116.2	77.5			1.25	53.8	1.00	43.1	0.22	0.11
			12.96	13.77	0.81	4,276.8	24.0	2	11,404.8	2.25	11,404.8	855.4	570.3			1.25	396.0	1.00	316.8	1.62	0.81
			13.77	13.86	0.09	475.2	22.0	3	1,161.6	2.25	1,161.6	87.2	58.1			1.25	40.4	1.00	32.3	0.18	0.09
			13.86	13.92	0.06	316.8	22.0	1	774.4	1.25	774.4	58.1	38.8			1.25	26.9	1.00	21.6	0.12	0.06
BRIDGE DEDUCTIONS (SEE SHEET 18)									(888.0)		(888.0)	(66.6)	(44.4)			1.25	(30.8)	1.00	(24.6)	(0.13)	(0.06)
LOCATION 3 TOTALS (CARRIED TO SUB-SUMMARY)											14,001.6	1,050.3	700.3				486.3		389.2	2.01	1.01
4	MUS	S.R. 93	13.92	14.53	0.61	3,220.8	20.0	1	7,157.4	1.25	7,157.4			536.9	357.9	1.25	248.6	1.00	198.9	1.22	0.61
			14.53	14.67	0.14	739.2	28.0 AVG	3	2,299.8	2.25	2,299.8			172.5	115.0	1.25	79.9	1.00	63.9	0.28	0.14
			14.67	14.74	0.07	369.6	36.0	3	1,478.4	2.25	1,478.4			110.9	74.0	1.25	51.4	1.00	41.1	0.14	0.07
			14.74	14.88	0.14	739.2	28.0 AVG	3	2,299.8	2.25	2,299.8			172.5	115.0	1.25	79.9	1.00	63.9	0.28	0.14
			14.88	15.48	0.60	3,168.0	20.0	1	7,040.0	1.25	7,040.0			528.0	352.0	1.25	244.5	1.00	195.6	1.20	0.60
			15.48	15.58	0.10	528.0	25.0 AVG	1	1,466.7	1.25	1,466.7			110.1	73.4	1.25	51.0	1.00	40.8	0.20	0.10
			15.58	15.65	0.07	369.6	30.0	1	1,232.0	1.25	1,232.0			92.4	61.6	1.25	42.8	1.00	34.3	0.14	0.07
			15.65	15.79	0.14	739.2	25.0 AVG	1	2,053.4	1.25	2,053.4			154.1	102.7	1.25	71.3	1.00	57.1	0.28	0.14
			15.79	23.02	7.23	38,174.4	20.0	1	84,832.0	1.25	84,832.0			6,362.4	4,241.6	1.25	2,945.6	1.00	2,356.5	14.46	7.23
			23.02	23.06	0.04	211.2	20.0	3	469.4	2.25	469.4			35.3	23.5	1.25	16.3	1.00	13.1	0.08	0.04
			23.06	23.22	0.16	844.8	20.0	2	1,877.4	2.25	1,877.4			140.9	93.9	1.25	65.2	1.00	52.2	0.32	0.16
			23.22	23.27	0.05	264.0	20.0	2	586.7	2.25	586.7			44.1	29.4	1.25	20.4	1.00	16.3	0.10	0.05
			23.27	23.30	0.03	158.4	20.0	4	352.0	2.25	352.0			26.4	17.6	1.25	12.3	1.00	9.8	0.06	0.03
			23.30	30.97	7.67	40,497.6	20.0	1	89,994.7	1.25	89,994.7			6,749.7	4,499.8	1.25	3,124.9	1.00	2,499.9	15.34	7.67
BRIDGE DEDUCTIONS (SEE SHEET 18)									(284.5)		(284.5)			(21.3)	(14.2)	1.25	(9.8)	1.00	(7.9)	(0.05)	(0.02)
LOCATION 4 TOTALS (CARRIED TO SUB-SUMMARY)											202,855.2			15,214.9	10,143.2		7,044.3		5,635.5	34.05	17.03

SEE PREVIOUS SHEET FOR STRAIGHT LINE DIAGRAM, SEE NEXT SHEET FOR TYPICAL DETAILS

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_MAC_003.dgn 17-SEP-2015 3:18PM dmorgan

PAVEMENT DATA																			
LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		PAVEMENT WIDTH	TYPICAL	PAVEMENT AREA	254		407		441 ASPHALT CONCRETE				614	
					MILES	LIN. FT.	FT.			THICKNESS	PAVEMENT PLANING, ASPHALT CONCRETE	TACK COAT @ 0.075 GAL./S.Y.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y.	THICKNESS	SURFACE COURSE, TYPE 1, (448), PG 70-22M	THICKNESS	INTERMEDIATE COURSE, TYPE 1, (448)	WORK ZONE CENTER LINE, CLASS II	WORK ZONE CENTER LINE, CLASS III, 642 PAINT
									SQ. YD.	INCHES	SQ. YD.	GAL.	GAL.	INCHES	CU. YD.	INCHES	CU. YD.	MILE	MILE
5	MUS	S.R. 93	31.28	34.58	3.30	17,424.0	20.0	1	38,720.0	1.25	38,720.0	2,904.0	1,936.0	1.25	1,344.5	1.00	1,075.6	6.60	3.30
LOCATION 5 TOTALS (CARRIED TO SUB-SUMMARY)											38,720.0	2,904.0	1,936.0		1,344.5		1,075.6	6.60	3.30
6	MUS	S.R. 208	11.06	11.19	0.13	686.4	20.0	2	1,525.4	2.25	1,525.4	114.5	76.3	1.25	53.0	1.00	42.4	0.26	0.13
LOCATION 6 TOTALS (CARRIED TO SUB-SUMMARY)											1,525.4	114.5	76.3		53.0		42.4	0.26	0.13

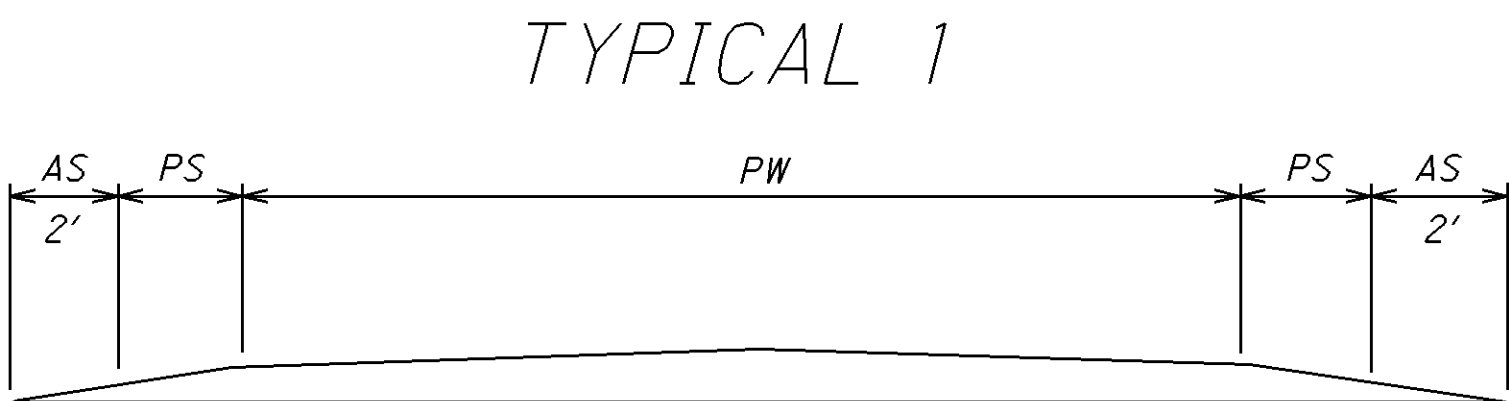


PW = PAVEMENT WIDTH
PS = PAVED SHOULDER
AS = AGGREGATE SHOULDER

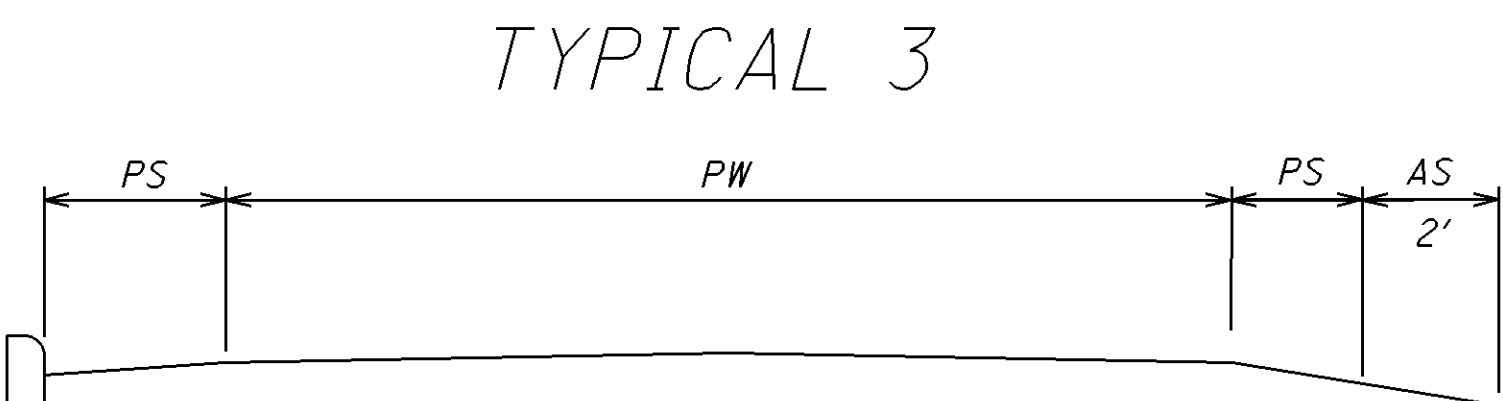
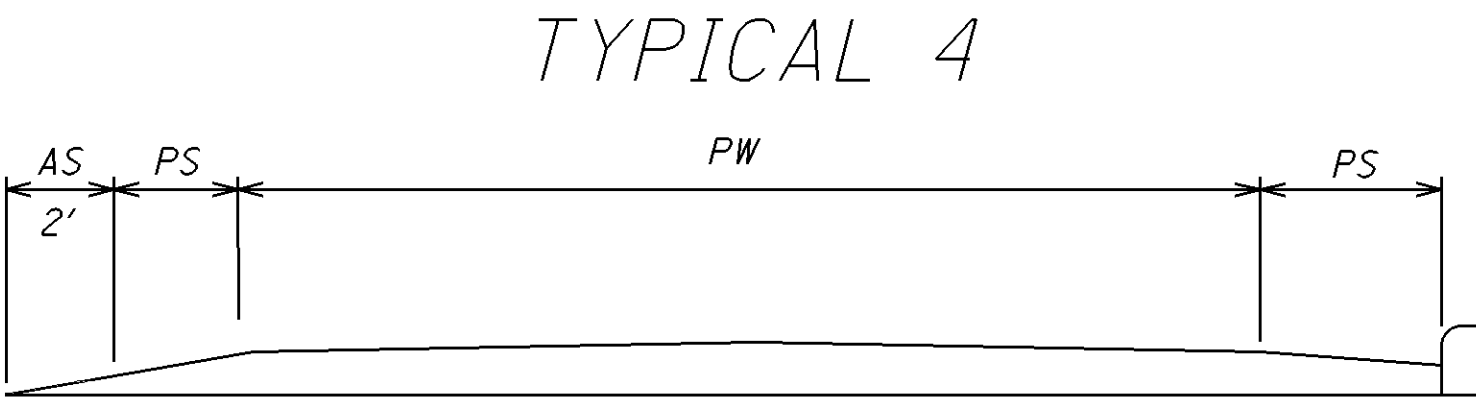
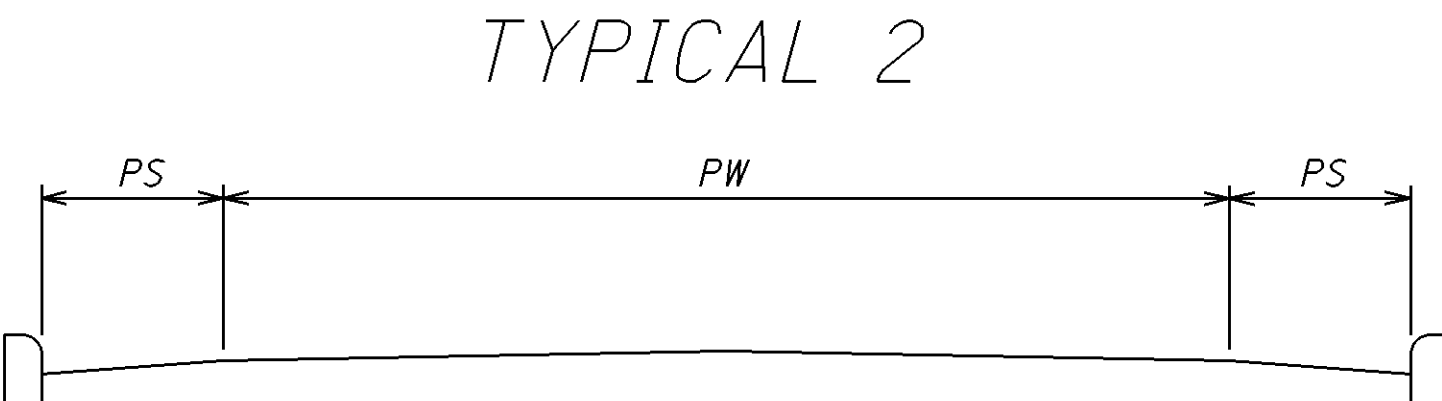
SEE SHEET 11 FOR
STRAIGHT LINE DIAGRAM

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_MPS_001.dgn 17-SEP-2015 3:25PM dmorgan

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	LENGTH		T Y P I C A L	PROPOSED WIDTH (FT.)		SHOULDER AREA	209	254		407				408	441 ASPHALT CONCRETE				617		
											PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	THICKNESS	PAVEMENT PLANING, ASPHALT CONCRETE	TACK COAT, TRACKLESS TACK @ 0.075 GAL./S.Y.	TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y.	TACK COAT @ 0.075 GAL./S.Y.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y.	PRIME COAT, AS PER PLAN @ 0.4 GAL./S.Y.	THICKNESS	SURFACE COURSE, TYPE 1, (448), PG 70-22M	THICKNESS	INTERMEDIATE COURSE, TYPE 1, (448)	COMPACTED AGGREGATE, AS PER PLAN (AVG. THICKNESS 2.50")		SHOULDER PREPARATION (2.0' WIDTH)
					A	B		SQ. YD.	MILE	INCHES	SQ. YD.	GAL.	GAL.	GAL.	GAL.	GAL.	INCHES	CU. YD.	INCHES	CU. YD.	WIDTH	CU YD	SQ. YD.		
1	COS	S.R. 93	0.00	0.51	0.51	2,692.8	1	2	2	1,196.8	1.02	1.25	1,196.8			89.8	59.9	478.8	1.25	41.6	1.00	33.3	2.0	83.2	1,196.8
			0.51	0.60	0.09	475.2	1	10	10	1,056.0	0.18	1.25	1,056.0			79.2	52.8	84.5	1.25	36.7	1.00	29.4	2.0	14.7	211.2
			0.60	1.94	1.34	7,075.2	1	2	2	3,144.5	2.68	1.25	3,144.5			235.9	157.3	1,257.9	1.25	109.2	1.00	87.4	2.0	218.4	3,144.6
			1.94	1.97	0.03	158.4	1	2	2	70.4	0.06	1.25	70.4			5.3	3.6	28.2	1.25	2.5	1.00	2.0	2.0	4.9	70.4
			1.97	3.50	1.53	8,078.4	1	2	2	3,590.4	3.06	1.25	3,590.4			269.3	179.6	1,436.2	1.25	124.7	1.00	99.8	2.0	249.4	3,590.4
BRIDGE DEDUCTIONS (SEE SHEET 18)										(81.8)	(0.07)		(81.8)			(6.1)	(4.0)	(32.7)	1.25	(2.8)	1.00	(2.2)	2.0	(4.0)	(81.8)
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)											6.93		8,976.3			673.4	449.2	3,252.9		311.9		249.7		566.6	8,131.6
2	MUS	S.R. 93	12.78	12.81	0.03	158.4	1	8	8	281.6	0.06	2.25	281.6	21.2	14.1			28.2	1.25	9.8	1.00	7.9	2.0	4.9	70.4
			12.83	12.85	0.02	105.6	1	2	2	46.9	0.04	2.25	46.9	3.6	2.4			18.8	1.25	1.7	1.00	1.4	2.0	3.3	47.0
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)											0.10		328.5	24.8	16.5			47.0		11.5		9.3		8.2	117.4
3	MUS	S.R. 93	12.85	12.96	0.11	580.8	1	2	2	258.1	0.22	2.25	258.1	19.4	13.0			103.3	1.25	9.0	1.00	7.2	2.0	18.0	258.2
			12.96	13.79	0.83	4,382.4	2	6	6	5,843.2		2.25	5,843.2	438.3	292.2				1.25	202.9	1.00	162.4			
			13.79	13.89	0.10	528.0	4	2	6	469.3	0.10	2.25	469.3	35.2	23.5			47.0	1.25	16.3	1.00	13.1	2.0	8.2	117.4
			13.86	13.92	0.06	316.8	1	2	2	140.8	0.12	1.25	140.8	10.6	7.1			56.4	1.25	4.9	1.00	4.0	2.0	9.8	140.8
BRIDGE DEDUCTIONS (SEE SHEET 18)										(148.0)	(0.13)		(148.0)	(11.1)	(7.4)			(59.2)	1.25	(5.1)	1.00	(4.1)	2.0	(8.0)	(148.0)
LOCATION 3 TOTALS (CARRIED TO SUB-SUMMARY)											0.31		6,563.4	492.4	328.4			147.5		228.0		182.6		28.0	368.4

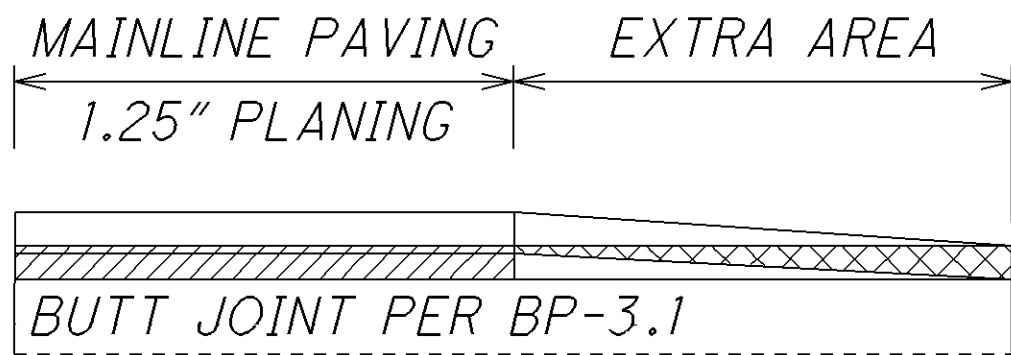
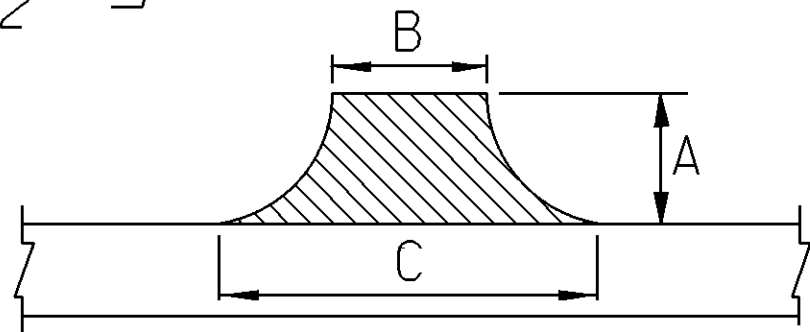


PW = PAVEMENT WIDTH
PS = PAVED SHOULDER
AS = AGGREGATE SHOULDER



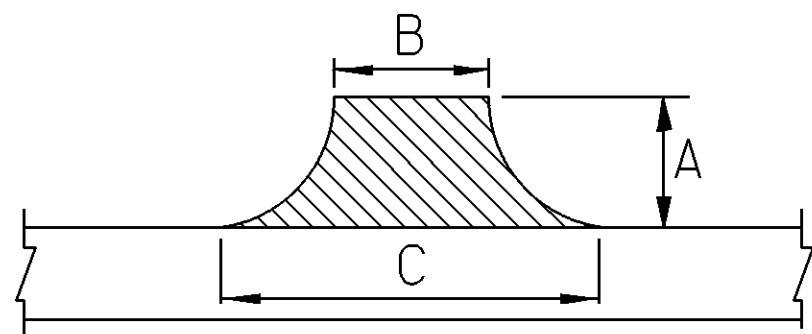
SHOULDER DATA																							
L O C A T I O N	C O U N T Y	R O U T E	B E G I N L O G P O I N T S L M	E N D L O G P O I N T S L M	L E N G T H		T Y P I C A L	P R O P O S E D W I D T H (FT.)		S H O U L D E R A R E A	209	254		407		408	441 ASPHALT CONCRETE				617		
											P R E P A R I N G S U B G R A D E F O R S H O U L D E R P A V I N G, A S P E R P L A N	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 GAL./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 GAL./S.Y.	P R I M E C O A T, AS PER P L A N @ 0.4 GAL./S.Y.	T H I C K N E S S	S U R F A C E C O U R S E, T Y P E 1, (448), P G 70-22M	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, T Y P E 1, (448)	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 (AVG. THICKNESS 1.75")		S H O U L D E R P R E P A R A T I O N (2.0' WIDTH)
					M I L E S	L I N. FT.		A	B	SQ. YD.	MILE	INCHES	SQ. YD.	GAL.	GAL.	GAL.	INCHES	CU. YD.	INCHES	CU. YD.	WIDTH	CU YD	SQ. YD.
			13.92	14.53	0.61	3,220.8	1	2	2	1,431.5	1.22	1.25	1,431.5	107.4	71.6	572.6	1.25	49.8	1.00	39.8	2.0	69.6	1,431.5
			14.53	14.88	0.35	1,848.0	3	5	5	2,053.3	0.35	2.25	2,053.3	154.0	102.7	164.3	1.25	71.3	1.00	57.1	2.0	20.0	410.7
			14.88	15.19	0.31	1,636.8	1	2	2	727.5	0.62	1.25	727.5	54.6	36.4	291.0	1.25	25.3	1.00	20.3	2.0	35.4	727.5
			15.19	15.23	0.04	211.2	1	4	4	187.7	0.08	1.25	187.7	14.1	9.4	37.6	1.25	6.6	1.00	5.3	2.0	4.6	93.9
			15.23	15.48	0.25	1,320.0	1	2	2	586.7	0.50	1.25	586.7	44.1	29.4	234.7	1.25	20.4	1.00	16.3	2.0	28.6	586.7
			15.48	15.79	0.31	1,636.8	1	3.5	3.5	1,273.1	0.62	1.25	1,273.1	95.5	63.7	291.0	1.25	44.3	1.00	35.4	2.0	35.4	727.5
			15.79	23.02	7.23	38,174.4	1	2	2	16,966.4	14.46	1.25	16,966.4	1272.5	848.4	6,786.6	1.25	589.2	1.00	471.3	2.0	824.8	16,966.4
			23.02	23.06	0.04	211.2	2	4	8	281.6		2.25	281.6	21.2	14.1		1.25	9.8	1.00	7.9			
			23.06	23.22	0.16	844.8	2	9	9	1,689.6		2.25	1,689.6	126.8	84.5		1.25	58.7	1.00	47.0			
			23.22	23.27	0.05	264.0	2	13	13	762.7		2.25	762.7	57.3	38.2		1.25	26.5	1.00	21.2			
			23.27	23.30	0.03	158.4	4	2	2	70.4	0.03	2.25	70.4	5.3	3.6	14.1	1.25	2.5	1.00	2.0	2.0	1.8	35.2
			23.30	25.30	2.00	10,560.0	1	2	2	4,693.3	4.00	1.13	4,693.3	352.0	234.7	1,877.4	1.25	163.0	1.00	130.4	2.0	228.2	4,693.4
			25.30	25.35	0.05	264.0	1	4	4	234.7	0.10	1.13	234.7	17.7	11.8	47.0	1.25	8.2	1.00	6.6	2.0	5.8	117.4
			25.35	27.90	2.55	13,464.0	1	2	2	5,984.0	5.10	1.13	5,984.0	448.8	299.2	2,393.6	1.25	207.8	1.00	166.3	2.0	290.9	5,984.0
			27.90	28.02	0.12	633.6	1	4	13	1,196.8	0.24	1.13	1,196.8	89.8	59.9	112.7	1.25	41.6	1.00	33.3	2.0	13.7	281.6
			28.02	28.04	0.02	105.6	1	2	13	176.0	0.04	1.13	176.0	13.2	8.8	18.8	1.25	6.2	1.00	4.9	2.0	2.3	47.0
			28.04	28.96	0.92	4,857.6	1	2	2	2,158.9	1.84	1.13	2,158.9	162.0	108.0	863.6	1.25	75.0	1.00	60.0	2.0	105.0	2,159.0
			28.96	29.06	0.10	528.0	1	4	4	469.3	0.20	1.25	469.3	35.2	23.5	93.9	1.25	16.3	1.00	13.1	2.0	11.5	234.7
			29.06	30.25	1.19	6,283.2	1	2	2	2,792.5	2.38	1.25	2,792.5	209.5	139.7	1,117.1	1.25	97.0	1.00	77.6	2.0	135.8	2,792.6
			30.25	30.28	0.03	158.4	1	5	5	176.0	0.06	1.25	176.0	13.2	8.8	28.2	1.25	6.2	1.00	4.9	2.0	3.5	70.4
			29.06	30.97	1.91	10,084.8	1	2	2	4,482.1	3.82	1.25	4,482.1	336.2	224.2	1,792.9	1.25	155.7	1.00	124.6	2.0	311.3	4,482.2
BRIDGE DEDUCTIONS (SEE SHEET 18)										(56.9)	(0.05)		(56.9)	(4.2)	(2.8)	(22.8)	1.25	(1.9)	1.00	(1.5)	2.0	(2.8)	(56.9)
LOCATION 4 TOTALS (CARRIED TO SUB-SUMMARY)											35.61		48,337.2	3,626.2	2,417.8	16,714.3		1,679.5		1,343.8		2,125.4	41,784.8
5	MUS	S.R. 93	31.28	34.19	2.91	15,364.8	1	2	2	6,828.8	5.82	1.25	6,828.8	512.2	341.5	2,731.6	1.25	237.2	1.00	189.7	2.0	332.0	6,828.8
			33.13	34.19	1.06	5,596.8	1	1	1	1,243.7	2.12	1.25	1,243.7	93.3	62.2	995.0	1.25	43.2	1.00	34.6	2.0	121.0	2,487.5
			34.19	34.21	0.02	105.6	1	1	6	82.1	0.04	1.25	82.1	6.2	4.2	18.8	1.25	2.9	1.00	2.3	2.0	2.3	47.0
			34.22	34.58	0.36	1,900.8	1	1	1	422.4	0.72	1.25	422.4	31.7	21.2	338.0	1.25	14.7	1.00	11.8	2.0	41.1	844.8
LOCATION 5 TOTALS (CARRIED TO SUB-SUMMARY)											8.70		8,577.0	643.4	429.1	4,083.4		298.0		238.4		496.4	10,208.1
6	MUS	S.R. 208	11.06	11.19	0.13	686.4	2	9	9	1,372.8		2.25	1,372.8	103.0	68.7		1.25	47.7	1.00	38.2			
LOCATION 6 TOTALS (CARRIED TO SUB-SUMMARY)													1,372.8	103.0	68.7			47.7		38.2			

AREA = [A (B + C) / 2] x 9

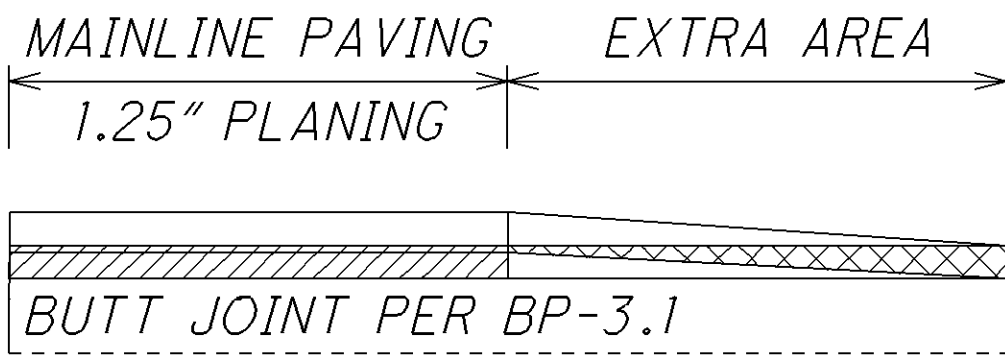


- NOTES:
- ONLY PLACE SURFACE COURSE IN EXTRA AREAS EXCEPT ON INTERSECTING STATE ROUTES WHERE FULL DEPTH BUTT JOINT AND 2 COURSES OF ASPHALT SHALL BE PLACED

EXTRA AREAS																
LOCATION	COUNTY	ROUTE	SIDE	DESCRIPTION	SLM	INTERSECTIONS			AREA	202	407		441 ASPHALT CONCRETE			
						DETAIL DIMENSION				WEARING COURSE REMOVED	TACK COAT @ 0.075 GAL./S.Y.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y.	THICKNESS	SURFACE COURSE, TYPE 1, (448), PG 64-22	THICKNESS	INTERMEDIATE COURSE, TYPE 1, (448)
						A	B	C								
						FT.	FT.	FT.								
1	COS	S.R. 93	RT	S.R. 662	0.375	50	20	185	569.5	569.5	42.8	28.5	1.25	19.8	1.00	15.9
			RT	TWP RD 145	1.563	28	18	62	124.5	124.5	9.4		1.25	4.4		
			LT	TWP RD 145	1.599	30	23	73	160.0	160.0	12.0		1.25	5.6		
			CL	S.R. 541/ S.R. 93 RIGHT FORK	3.470	23	90		230.0	230.0	17.3	11.5	1.25	8.0	1.00	6.4
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)										1,084.0	81.5	40.0		37.8		22.3
3	MUS	S.R. 93	LT	TWP RD 670 - WEDGEWOOD DR	13.028	40	26	92	262.3	262.3	19.7		1.25	9.2		
			RT	CO RD 108 - BOGGS RD	13.106	50	28	113	391.7	391.7	29.4		1.25	13.7		
			LT	TWP RD 1415 - PLEZZA DR	13.309	40	21	100	268.9	268.9	20.2		1.25	9.4		
			RT	TWP RD 1416 - E LAWNDALE PL	13.353	35	26	98	241.2	241.2	18.1		1.25	8.4		
			RT	OLVIA'S WAY	13.698	25	34	79	157.0	157.0	11.8		1.25	5.5		
			LT	CO RD 694 - ADAMSVILLE RD	13.781	40	28	103	291.2	291.2	21.9		1.25	10.2		
			RT	TWP RD 482 - LOVERS LN	13.876	40	22	76	217.8	217.8	16.4		1.25	7.6		
LOCATION 3 TOTALS (CARRIED TO SUB-SUMMARY)										1,830.1	137.5			64.0		
4	MUS	S.R. 93	LT	INNOVATION WAY	14.757	25	54	115	234.8	234.8	17.7		1.25	8.2		
			LT	CO RD 110 - CHURCH HILL RD	15.882	113	52		326.5	326.5	24.5		1.25	11.4		
			RT	CO RD 64 - NORFIELD RD	16.595	60	20	125	483.4	483.4	36.3		1.25	16.8		
			LT	TWP RD 190 - CULBERTSON RD	17.279	25	22	55	107.0	107.0	8.1		1.25	3.8		
			RT	CO RD 109 - DOSCH DR	18.173	25	17	65	113.9	113.9	8.6		1.25	4.0		
			LT	TWP RD 393 - BURWELL RD	18.173	25	20	60	111.2	111.2	8.4		1.25	3.9		
			LT	TWP RD 1525 - EDWARD DR	18.550	25	24	70	130.6	130.6	9.8		1.25	4.6		
			LT	TWP RD 111 - E GREENWOOD RD	19.428	50	16	80	266.7	266.7	20.1		1.25	9.3		
			RT	TWP RD 111 - TUCKER RD	19.483	40	21	84	233.4	233.4	17.6		1.25	8.2		
			LT	CO RD 154 - BIG B RD	20.450	30	20	63	138.4	138.4	10.4		1.25	4.9		
			LT	TWP RD 330 - FERRELL RD	20.612	45	20	90	275.0	275.0	20.7		1.25	9.6		
			RT	CO RD 67 - PIPER RD	21.150	60	19	90	363.4	363.4	27.3		1.25	12.7		
			LT	TWP RD 156 - VALLEY RD	21.720	25	22	74	133.4	133.4	10.1		1.25	4.7		
			RT	TWP RD 81 - FRENCH RD	22.337	25	20	65	118.1	118.1	8.9		1.25	4.2		
			LT	TWP 1291 - GRAPE ALLEY	22.747	15	15	35	41.7	41.7	3.2		1.25	1.5		
			LT	TWP 1292A - PEACH ST	22.793	15	15	35	41.7	41.7	3.2		1.25	1.5		
			LT	TWP 1293 - CHERRY ST	22.834	15	15	35	41.7	41.7	3.2		1.25	1.5		
			LT	TWP 1294 - PLUM ALLEY	22.874	25	22	47	95.9	95.9	7.2		1.25	3.4		
			LT	TWP 1296 - WINE ALLEY	22.914	18	11	40	51.0	51.0	3.9		1.25	1.8		
			LT	TWP 1295 - HEDGE ST	22.957	25	15	40	76.4	76.4	5.8		1.25	2.7		
LOCATION 4 TOTALS (CARRIED TO NEXT SHEET)										3,384.2	255.0			118.7		



AREA = $\left[A \frac{(B + C)}{2} \right] / 9$



- NOTES:
1. ONLY PLACE SURFACE COURSE IN EXTRA AREAS EXCEPT ON INTERSECTING STATE ROUTES WHERE FULL DEPTH BUTT JOINT AND 2 COURSES OF ASPHALT SHALL BE PLACED

EXTRA AREAS																
L O C A T I O N	C O U N T Y	R O U T E	S I D E	D E S C R I P T I O N	S L M	I N T E R S E C T I O N S			A R E A	202	407		441 ASPHALT CONCRETE			
						D E T A I L D I M E N S I O N				W E A R I N G C O U R S E R E M O V E D	T A C K C O A T @ 0.075 GAL./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 GAL./S.Y.	T H I C K N E S S	S U R F A C E C O U R S E, T Y P E 1,(448), P G 64-22	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, T Y P E 1,(448)
						A	B	C								
						FT.	FT.	FT.								
LOCATION 4 TOTALS (CARRIED FROM PREVIOUS SHEET)										3,384.2	255.0			118.7		
4	MUS	S.R. 93	LT	MADISON ST	23.051	25	13	35	66.7	66.7	5.1		1.25	2.4		
			LT	JEFFERSON ST	23.104	18	13	30	43.0	43.0	3.3		1.25	1.5		
			LT	WASHINGTON ST	23.212	18	13	33	46.0	46.0	3.5		1.25	1.6		
			LT	NORTH ST	23.269	20	35	50	94.5	94.5	7.1		1.25	3.3		
			LT	S.R. 208	23.269	SEE LOCATION 6 FOR INFORMATION										
			LT	MADISON ST	23.304	18	13	19	32.0	32.0	2.4		1.25	1.2		
			RT	MADISON ST	23.304	14	14	41	42.8	42.8	3.3		1.25	1.5		
			LT	DRESDEN ST	23.346	18	15	40	55.0	55.0	4.2		1.25	2.0		
			RT	TWP RD 356 - KNICELY RD	23.862	30	18	74	153.4	153.4	11.6		1.25	5.4		
			LT	CO RD 18 - YOUNG AMERICA RD	24.716	25	30	80	152.8	152.8	11.5		1.25	5.4		
			RT	CO RD 18 - SALEM CHURCH RD	24.716	55	20	100	366.7	366.7	27.6		1.25	12.8		
			RT	CO RD 19 - NEW HOPE RD	24.921	35	20	70	175.0	175.0	13.2		1.25	6.1		
			LT	TWP RD 338 - BRADFORD RD	26.129	55	20	108	391.2	391.2	29.4		1.25	13.6		
			RT	TWP RD 180 - SAURBAUGH RD	26.180	50	26	130	433.4	433.4	32.6		1.25	15.1		
			RT	CO RD 103 - MERCER RD	28.046	35	24	90	221.7	221.7	16.7		1.25	7.7		
			LT	TWP RD 169 - BELL RD	28.145	30	15	50	108.4	108.4	8.2		1.25	3.8		
			RT	TWP RD 170 - MCCORT RD	28.613	40	18	80	217.8	217.8	16.4		1.25	7.6		
			RT	TWP RD 339 - DENT RD	29.495	25	20	50	97.3	97.3	7.3		1.25	3.4		
			LT	TWP RD 171 - CASTOR RD	30.338	25	19	62	112.5	112.5	8.5		1.25	4.0		
LOCATION 4 TOTALS (CARRIED TO SUB-SUMMARY)										6,194.4	466.9			217.1		
5	MUS	S.R. 93	LT	CO RD 15 - PARKS RD	31.353	48	16		42.7	42.7	3.3		1.25	1.5		
			LT	CORD 15A - PARKS RD	31.393	20	12	50	68.9	68.9	5.2		1.25	2.4		
			RT	TWP RD 174 - WATERS LN	32.062	25	18	40	80.6	80.6	6.1		1.25	2.8		
			RT	TWP RD 173 - HOUTS RD	33.139	25	35	50	118.1	118.1	8.9		1.25	4.2		
LOCATION 5 TOTALS (CARRIED TO SUB-SUMMARY)										310.3	23.5			10.9		
6	MUS	S.R. 208	RT	MILLER ST	11.074	15	12	14	21.7	21.7	1.7		1.25	0.8		
			LT	DRESDEN ST	11.156	20	15	40	61.2	61.2	4.6		1.25	2.2		
			RT	MOLLIES ROCK RD.	11.156	15	15	45	50.0	50.0	3.8		1.25	1.8		
LOCATION 6 TOTALS (CARRIED TO SUB-SUMMARY)										132.9	10.1			4.8		

P:\MUS-92978\Design\Roadway\Plan_Sheets\General\92978_MBT_001.dgn 21-SEP-2015 8:40AM dmorgan

BRIDGE TREATMENT

LOCATION 1

DETAIL ① COS-93-0023: BUTT JOINT AT APPROACH SLABS, FULL DEPTH REPAIRS 25' ON EACH SIDE, PATCHING ON REAR APPROACH, 2" DEEP JOINT SEALER BETWEEN DECK AND APPROACH SLABS.

LOCATION 3

DETAIL ③ MUS-93-1285: BUTT JOINT AT APPROACH SLABS

LOCATION 4

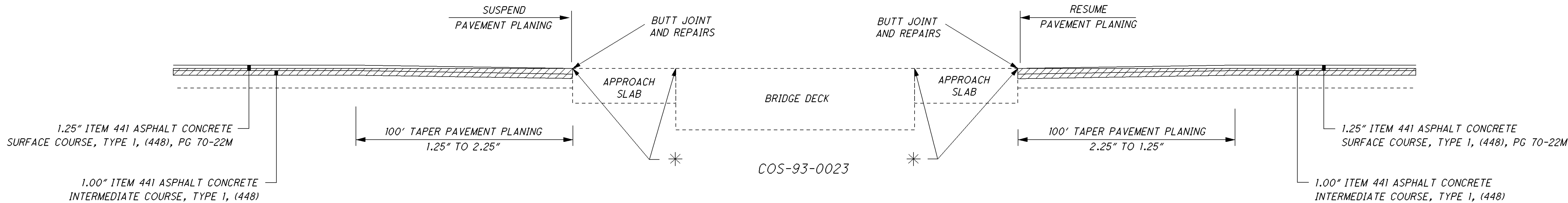
MUS-93-1519: MILL/FILL SAME AS ROADWAY (EXTRA WIDTH IS CARRIED IN SHOULDER DATA)
DETAIL ④ MUS-93-1615: REMOVE 1.25" ASPHALT CONCRETE, PLACE 1.25" SURFACE COURSE
DETAIL ② MUS-93-2853: BUTT JOINT AT BACKWALLS
MUS-93-3026: MILL/FILL SAME AS ROADWAY (EXTRA WIDTH IS CARRIED IN SHOULDER DATA)

LOCATION 5

MUS-93-3142: MILL/FILL SAME AS ROADWAY

DEDUCTIONS = PAVEMENT/SHOULDER WIDTHS X (BRIDGE LENGTH + APPROACH SLABS)

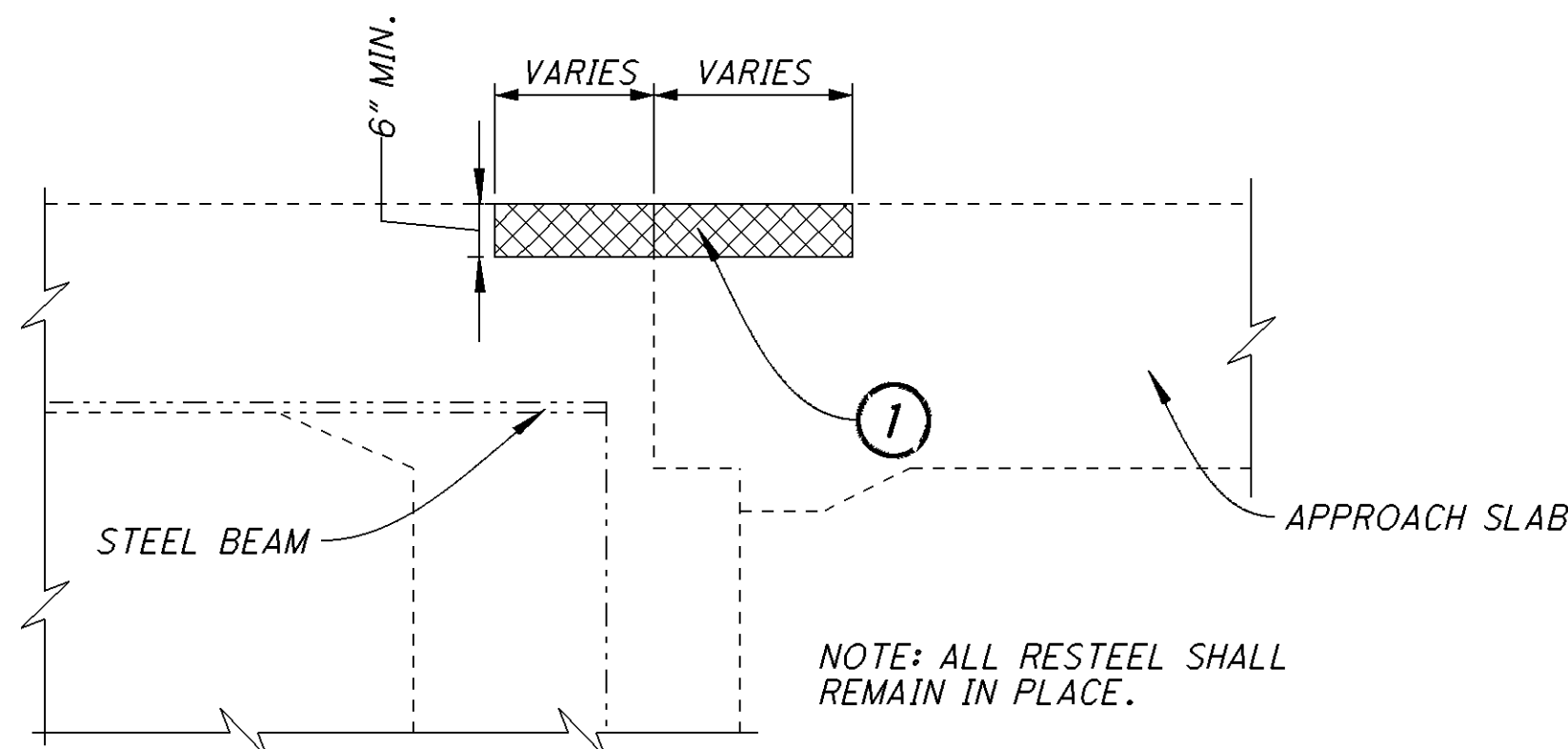
BRIDGE DATA																			
LOCATION	COUNTY, ROUTE, BRIDGE NO.	LENGTH (BRIDGE LIMITS)	WIDTH	DECK AREA	APPROACH SLAB LENGTH	APPROACH SLAB WIDTH	APPROACH SLAB AREA (INCLUDES BOTH APPROACH SLABS)	DETAIL (SHEETS 19,20)	MAINLINE DEDUCTIONS (CARRIED TO SHEETS 12,13)	SHOULDER DEDUCTIONS (CARRIED TO SHEETS 14,15)	202		253	407	441		511	516	
		LIN. FT.	LIN. FT.	SQ. YD.	LIN. FT.	LIN. FT.	SQ. YD.		SQ. YD.	SQ. YD.	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	WEARING COURSE REMOVED	PAVEMENT REPAIR (25' BEFORE & AFTER)	TACK COAT @ 0.075 GAL./S.Y.	THICKNESS	ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, (448), PG 70-22M	CLASS QC2 CONCRETE, MISC.: ACCELERATING ADMIXTURE	2" DEEP JOINT SEALER, AS PER PLAN (A)	2" DEEP JOINT SEALER, AS PER PLAN (B)
1	COS-93-0023	134.0	32.0	476.5	25.0	32.0	177.8	1	408.9	81.8	4.0		26.0				4.0	128.0	66.0
									(408.9)	(81.8)									
	BRIDGE DEDUCTIONS																		
	LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)										4.0		26.0				4.0	128.0	66.0
3	MUS-93-1285	283.0	37.0	1,163.5	25.0	37.0	205.6	3	888.0	148.0								74.0	
									(888.0)	(148.0)									
	BRIDGE DEDUCTIONS																		
	LOCATION 3 TOTALS (CARRIED TO SUB-SUMMARY)																	74.0	
4	MUS-93-1615	60.0	32.0	213.4	25.0	32.0	177.8	4	244.5	48.9		391.2		29.3	1.25	13.6		128.0	
	MUS-93-2853	18.0	31.0	62.0				2	40.0	8.0								48.0	
									(284.5)	(56.9)									
	BRIDGE DEDUCTIONS																		
	LOCATION 4 TOTALS (CARRIED TO SUB-SUMMARY)											391.2		29.3		13.6		176.0	



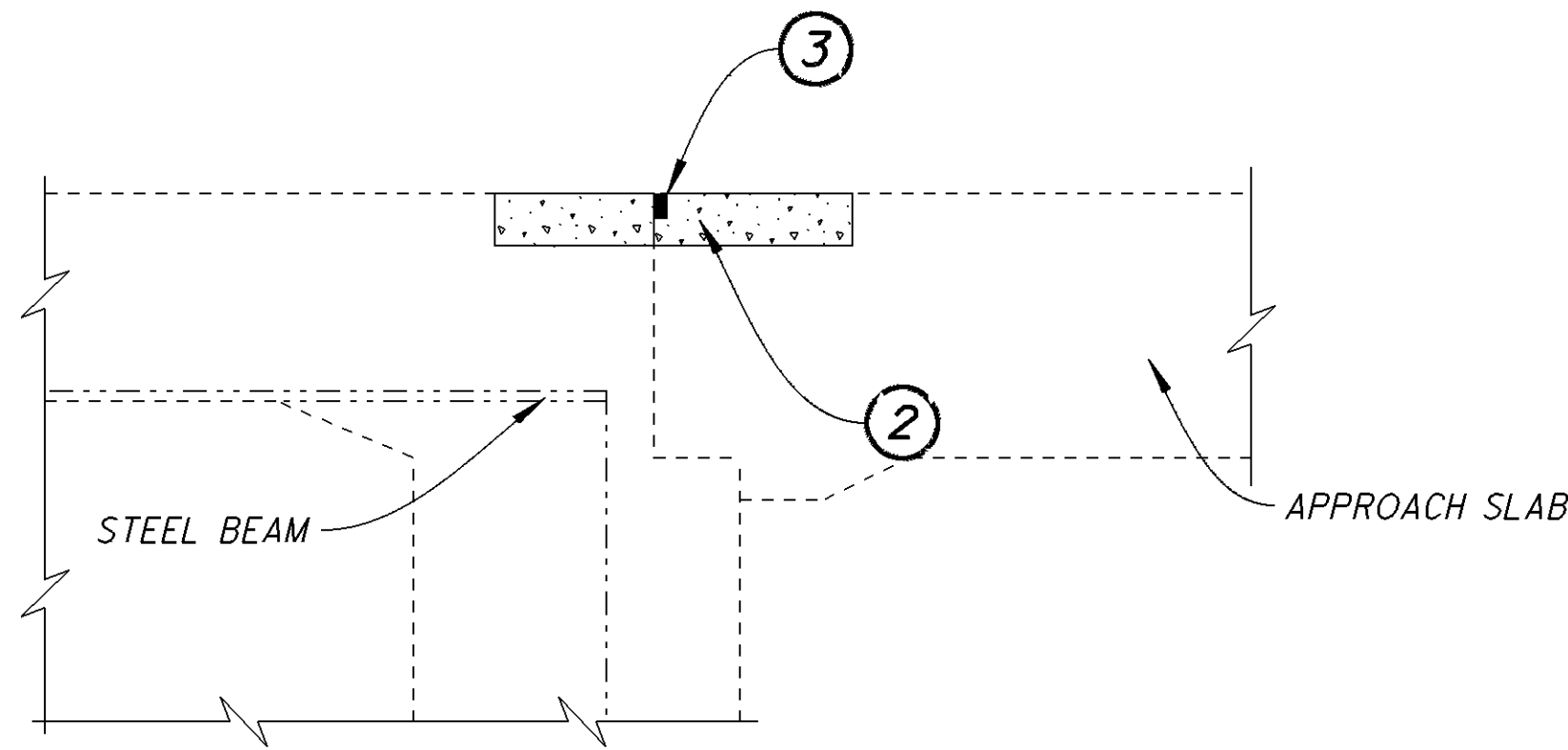
BUTT JOINT AT APPROACH SLABS, REPAIRS AT ROADWAY INTERFACE, PATCHING ON APPROACH SLABS

① ITEM 202 - PORTION OF STRUCTURE REMOVED, AS PER PLAN,

ALL CONCRETE REMOVED SHALL BE REMOVED BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.



COS-93-0023



COS-93-0023

② 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 TO ACHIEVE 3,000 PSI COMPRESSIVE 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

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

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

QUANTITIES CARRIED TO THE SUMMARY SHEET FOR BRIDGE NO.:

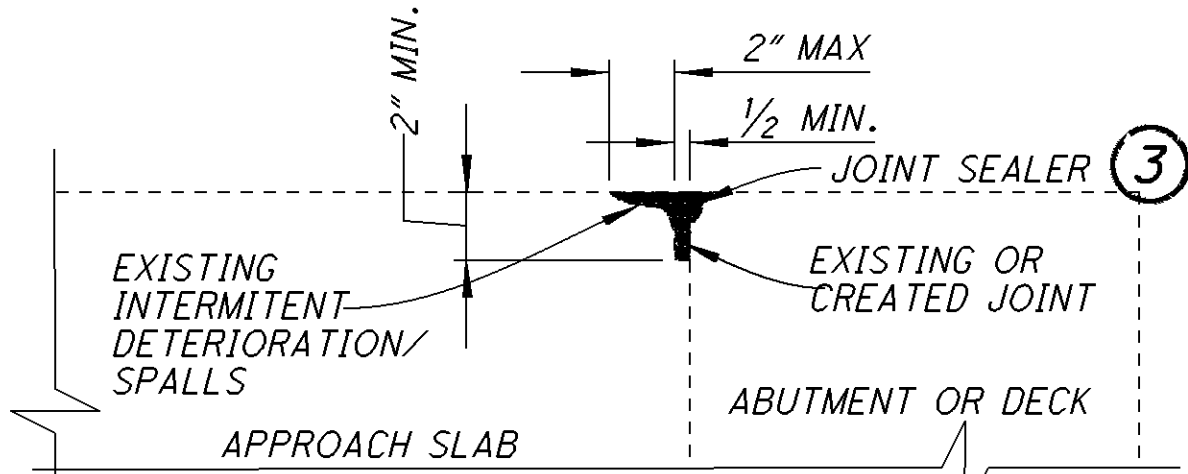
COS-93-0023

PORTIONS OF STRUCTURE REMOVED, AS PER PLAN = 4 CU YD

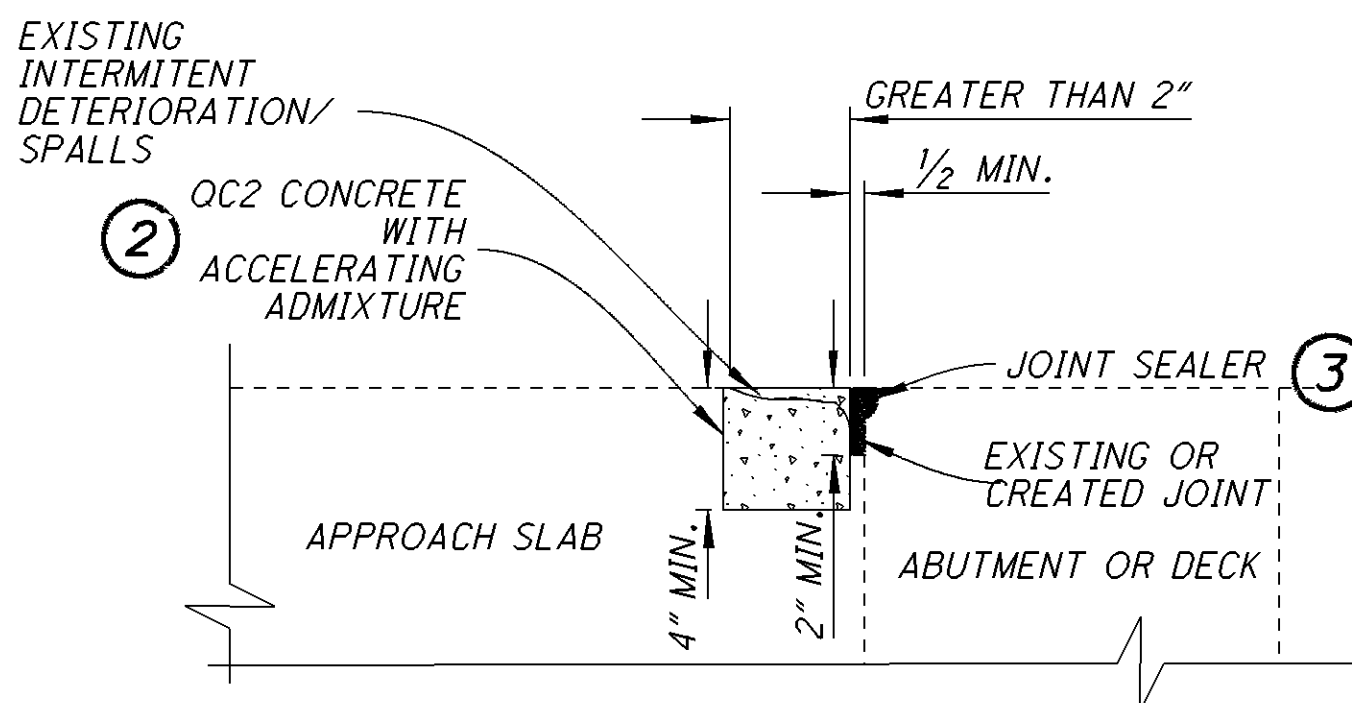
CLASS QC2 CONCRETE, MISC.: ACCELERATING ADMIXTURE = 4 CU YD

③ ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN (B)

FOR THE LOCATIONS PROVIDED REMOVE ANY EXISTING SEAL MATERIAL, 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 2" SHALL BE CLEANED AND SEALED WITH THE JOINT. FOR SPALLS GREATER THAN 2" 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 (B).



ABUTMENT SECTION FOR JOINT SEAL ONLY



ABUTMENT SECTION FOR CONCRETE REPAIRS AND JOINT SEALER

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

QUANTITIES CARRIED TO THE SUMMARY SHEET FOR BRIDGE NO.:

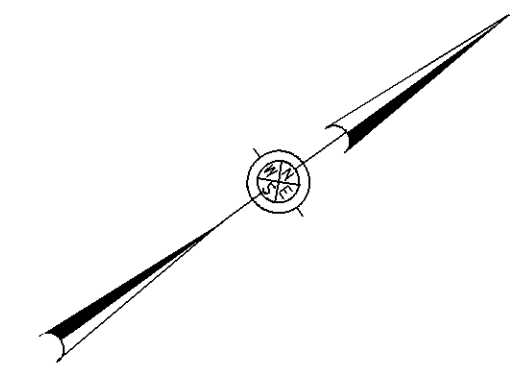
COS-93-0023 = 66 FT TOTAL

ITEM 202 WEARING COURSE REMOVED

ITEM 254 PAVEMENT PLANING

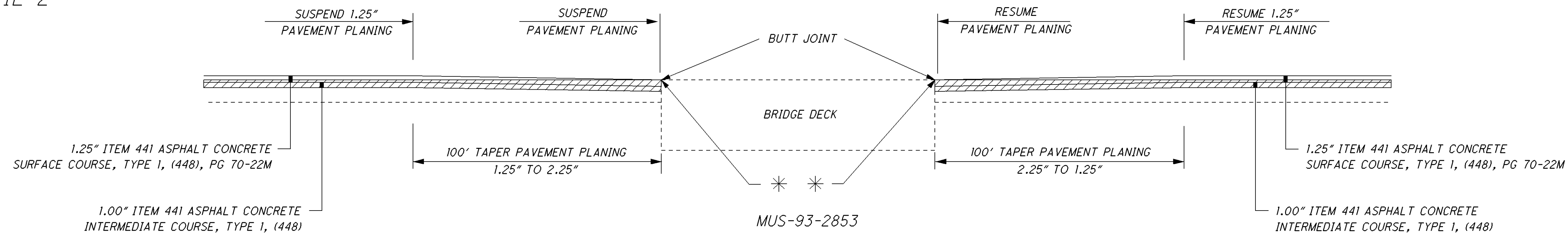
* ITEM 516 2" DEEP JOINT SEALER, AS PER PLAN (A)

DETAILS NOT TO SCALE



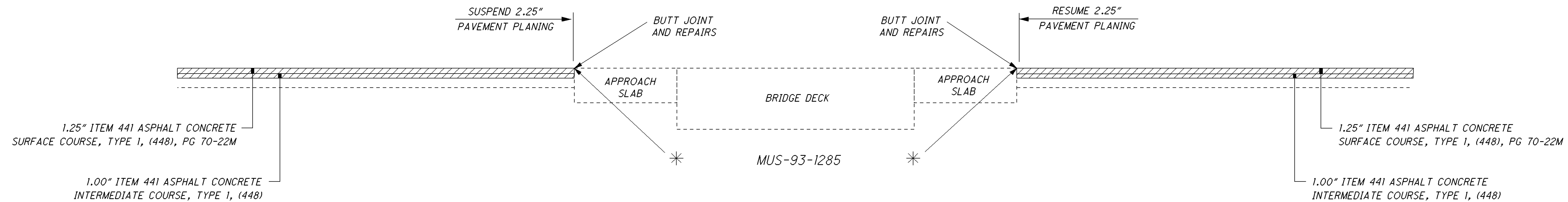
19A
39

DETAIL 2



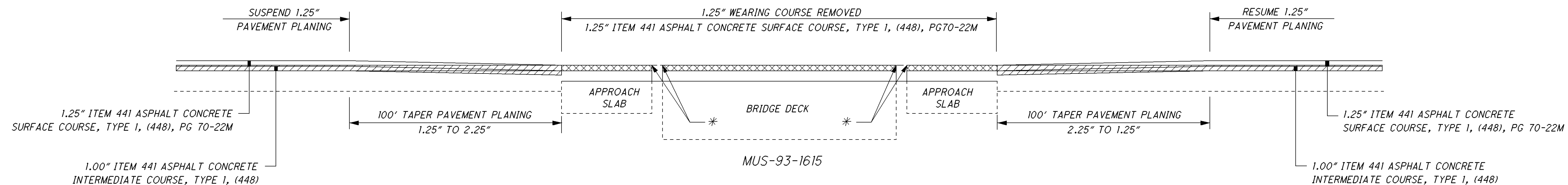
BUTT JOINT AT BRIDGE DECK

DETAIL 3

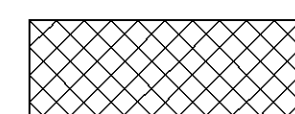


BUTT JOINT AT APPROACH SLABS

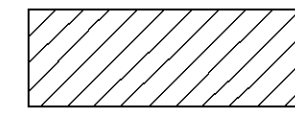
DETAIL 4



MILL OFF 1.25" EXISTING ASPHALT, PLACE 1.25" SURFACE COURSE



ITEM 202 WEARING COURSE REMOVED



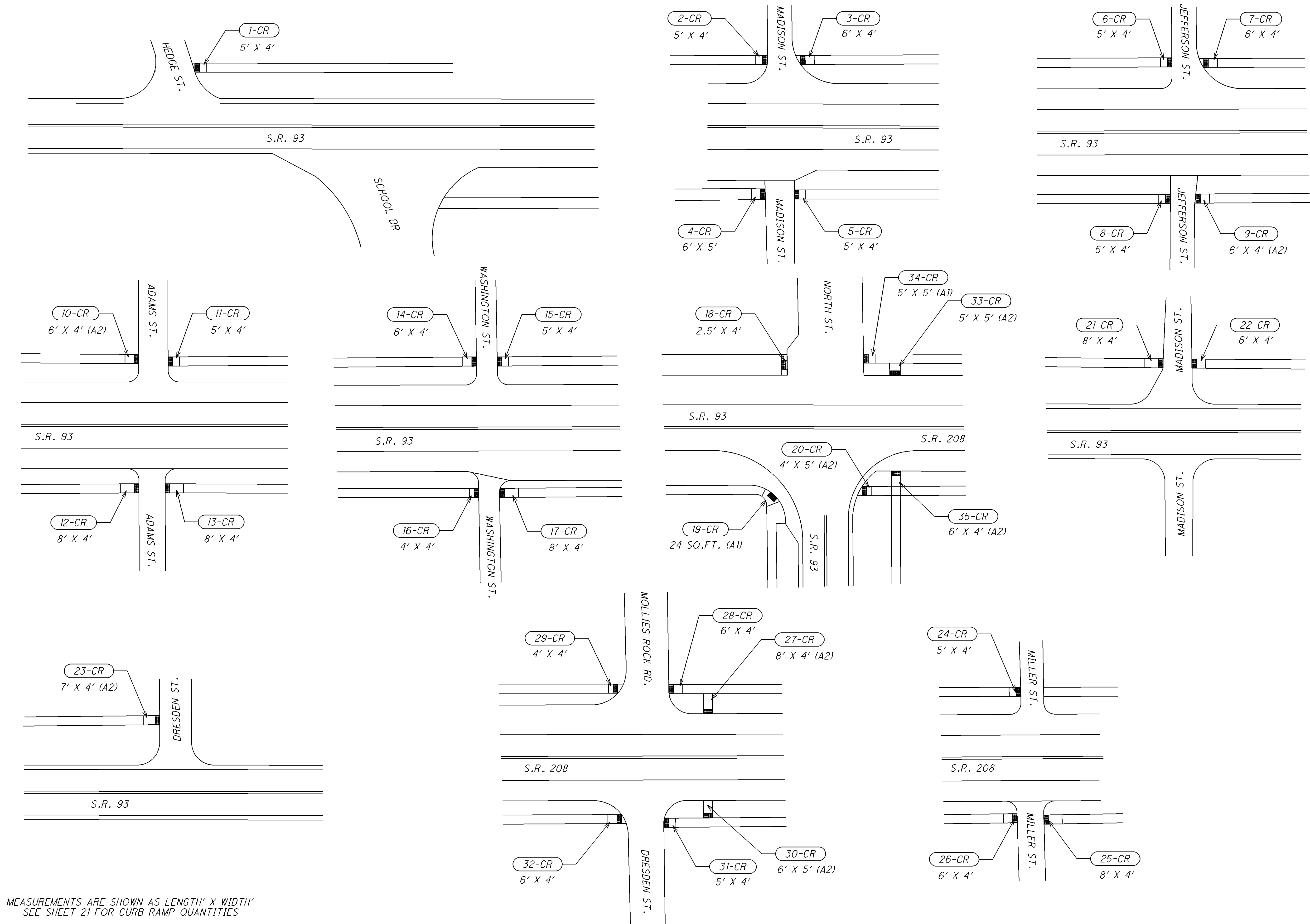
ITEM 254 PAVEMENT PLANING

* ITEM 516 2" DEEP JOINT SEALER, AS PER PLAN

DETAILS NOT TO SCALE

CURB RAMP CALCULATIONS														
REFERENCE NO.	SHEET NO.	LOCATION	SIDE	202			608		609	690 SPECIAL-MISC.:			COMMENTS	
				CURB AND GUTTER REMOVED	WALK REMOVED	CURB REMOVED	4" CONCRETE WALK, (CURB RAMP AREA)	4" CONCRETE WALK, (EXTRA WALK AREA)	CURB, TYPE 6	DETECTABLE WARNING	CURB RAMPS,			
											TYPE A1	TYPE A2		TYPE B3
		CL./LT./RT.	SQ. YD.								SQ. FT.	FT.		SQ. FT.
		S.R. 93 - ADAMSVILLE												
1-CR	22	HEDGE ST.	LT		20.0		12.0			8				
2-CR	22	MADISON ST.	LT		20.0		12.0			8				
3-CR	22	MADISON ST.	LT		24.0		16.0			8				
4-CR	22	MADISON ST.	RT		30.0		22.0			8				
5-CR	22	MADISON ST.	RT		20.0		12.0			8				
6-CR	22	JEFFERSON ST.	LT		20.0		12.0			8				
7-CR	22	JEFFERSON ST.	LT		24.0		16.0			8				
8-CR	22	JEFFERSON ST.	RT		20.0		12.0			8				
9-CR	22	JEFFERSON ST.	RT		24.0		24.0		16		1			
10-CR	22	ADAMS ST.	LT		24.0		24.0		16		1			
11-CR	22	ADAMS ST.	LT		20.0		12.0			8				
12-CR	22	ADAMS ST.	RT		32.0		24.0			8				
13-CR	22	ADAMS ST.	RT		32.0		24.0			8				
14-CR	22	WASHINGTON ST.	LT		24.0		16.0			8				
15-CR	22	WASHINGTON ST.	LT		20.0		12.0			8				
16-CR	22	WASHINGTON ST.	RT		16.0		8.0			8				
17-CR	22	WASHINGTON ST.	RT		32.0		24.0			8				
18-CR	22	NORTH ST.	LT		10.0		2.0			8				
19-CR	22	S.R. 93	RT		24.0	8	24.0		8		1			
20-CR	22	S.R. 93	LT		20.0		20.0		13			1		
21-CR	22	MADISON ST.	LT		32.0		24.0			8				
22-CR	22	MADISON ST.	LT		24.0		16.0			8				
23-CR		DRESDEN ST.	LT		28.0		28.0		18			1		
SUB-TOTALS							396.0							
TOTALS (CARRIED TO LOCATION 4 SUB-SUMMARY)					540.0	8.0	396.0		71.0	144.0	1	4		
		S.R. 208 - ADAMSVILLE												
24-CR	22	MILLER ST.	LT		20.0		12.0			8				
25-CR	22	MILLER ST.	RT		32.0		24.0			8				
26-CR	22	MILLER ST.	RT		24.0		16.0			8				
27-CR	22	MOLLIES ROCK RD.	RT		32.0		32.0		16			1		DO NOT DISTURB CURB ALONG ROADWAY
28-CR	22	MOLLIES ROCK RD.	RT		24.0		16.0			8				
29-CR	22	MOLLIES ROCK RD.	RT		16.0		8.0			8				
30-CR	22	DRESDEN ST.	LT		30.0		30.0		12			1		DO NOT DISTURB CURB ALONG ROADWAY
31-CR	22	DRESDEN ST.	LT		20.0		12.0			8				
32-CR	22	DRESDEN ST.	LT		24.0		16.0			8				
33-CR	22	NORTH ST.	RT		25.0		25.0		10			1		DO NOT DISTURB CURB ALONG ROADWAY
34-CR	22	NORTH ST.	RT		25.0		25.0				1			
35-CR	22	ON S.R. 208 AT S.R. 93	LT		24.0		24.0		12			1		DO NOT DISTURB CURB ALONG ROADWAY
SUB-TOTALS							240.0							
TOTALS (CARRIED TO LOCATION 6 SUB-SUMMARY)					296.0		240.0		50.0	56.0	1	4		

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_CRD_004.dgn 17-SEP-2015 4:25PM dmo:gan



MEASUREMENTS ARE SHOWN AS LENGTH' X WIDTH'
SEE SHEET 21 FOR CURB RAMP QUANTITIES

ITEM 648 EDGE LINE, 4"									
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)	INFORMATION ONLY		TOTAL EDGE LINE (4")	REMARKS
						WHITE EDGE LINE QUANTITIES			
			FROM	TO		TOTAL MILES	HIGHWAY MILES	MILES	
1	COS	S.R. 93	0.00	3.50	3.50	7.00	7.00	7.00	
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)								7.00	
2	MUS	S.R. 93	12.78	12.85	0.07	0.14	0.14	0.14	
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)								0.14	
3	MUS	S.R. 93	12.85	13.92	1.07	2.14	2.14	2.14	
LOCATION 3 TOTALS (CARRIED TO SUB-SUMMARY)								2.14	
4	MUS	S.R. 93	13.92	30.97	17.05	34.10	34.10	34.10	
LOCATION 4 TOTALS (CARRIED TO SUB-SUMMARY)								34.10	
5	MUS	S.R. 93	31.28	34.58	3.30	6.60	6.60	6.60	
LOCATION 5 TOTALS (CARRIED TO SUB-SUMMARY)								6.60	
6	MUS	S.R. 208	11.06	11.19	0.13	0.26	0.26	0.26	
LOCATION 6 TOTALS (CARRIED TO SUB-SUMMARY)								0.26	

ITEM 648 CENTER LINE									
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)	INFORMATION ONLY		TOTAL CENTER LINE MILES	REMARKS
						CENTER LINE QUANTITIES			
			FROM	TO		TOTAL MILES	EQUIVALENT SOLID LINE		
1	COS	S.R. 93	0.00	3.50	3.50	3.50	6.419	3.50	COUNTY LINE TO S.R. 541
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)								3.50	
2	MUS	S.R. 93	12.78	12.85	0.07	0.07	0.150	0.07	
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)								0.07	
3	MUS	S.R. 93	12.85	13.92	1.07	1.07	1.829	1.07	
LOCATION 3 TOTALS (CARRIED TO SUB-SUMMARY)								1.07	
4	MUS	S.R. 93	13.92	30.97	17.05	17.05	30.965	17.55	TOTAL INCLUDES EXTRA FOR TURN LANES (0.50 MILE)
									AT INNOVATION WAY AND EAST POINT DR.
LOCATION 4 TOTALS (CARRIED TO SUB-SUMMARY)								17.55	
5	MUS	S.R. 93	31.28	34.58	3.30	3.30	6.551	3.30	
LOCATION 5 TOTALS (CARRIED TO SUB-SUMMARY)								3.30	
6	MUS	S.R. 208	11.06	11.19	0.13	0.13	0.260	0.13	
LOCATION 6 TOTALS (CARRIED TO SUB-SUMMARY)								0.13	

NOTES
1. AS STATED ON SHEET 2, THE CONTRACTOR SHALL DOCUMENT AND LOCATE EXISTING PAVEMENT MARKINGS. REPLACEMENT MARKINGS SHALL BE PLACED IN THE SAME LOCATIONS UNLESS OTHERWISE NOTED.

ITEM 644 AUXILARY MARKING															
LOCATION	COUNTY	ROUTE	SIDE	DESCRIPTION	SLM	CHANNELIZING LINE, 8"	STOP LINE (24")	CROSSWALK LINE	TRANSVERSE/ DIAGONAL LINE (YELLOW)	ISLAND MARKING	SCHOOL SYMBOL MARKING, 96"	LANE ARROW		WORD ON PAVEMENT, 96"	REMARKS
												LEFT	RIGHT		
						FT.	FT.	FT.	FT.	SF	EACH	EACH	EACH		
1	COS	S.R. 93	RT	S.R. 662	0.375		20								PLACE AS DIRECTED
			RT	TWP RD 145	1.563		23								PLACE AS DIRECTED
			LT	TWP RD 145	1.599		15								PLACE AS DIRECTED
			CL	S.R. 541/ S.R. 93 RIGHT FORK	3.470		20								PLACE AS DIRECTED, 2 STOP BARS
			CL	S.R. 541/ S.R. 93 LEFT FORK	3.500		10								PLACE AS DIRECTED
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)							88								
2	MUS	S.R. 93	CL	S.R. 93 @ U.S. 22 RIGHT TURN LANE	12.780	50	24					1	1	2	PLACE AS DIRECTED
SUBTOTALS												1	1		
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)						50	24					2		2	
3	MUS	S.R. 93	LT	TWP RD 670 - WEDGEWOOD DR	13.028		16								PLACE 25' FROM CL
			RT	CO RD 108 - BOGGS RD	13.106		23								PLACE 22' FROM CL
			LT	TWP RD 1415 - PLEZZA DR	13.309		15								PLACE 21' FROM CL
			RT	TWP RD 1416 - E LAWNDALE PL	13.353		15								PLACE 22' FROM CL
			RT	OLIVIA'S WAY	13.698		21								PLACE AS DIRECTED
			LT	CO RD 694 - ADAMSVILLE RD	13.781		32								PLACE 22' FROM CL
			RT	TWP RD 482 - LOVERS LN	13.876		17								PLACE 21' FROM CL
LOCATION 3 TOTALS (CARRIED TO SUB-SUMMARY)							139								
4	MUS	S.R. 93	CL	ON S.R. 93 BEFORE INNOVATION WAY	14.530 - 14.757	245			215			2		1	SEE DETAIL SHEET 27
			CL	ON S.R. 93 AFTER INNOVATION WAY	14.757 - 14.880				215	60					SEE DETAIL SHEET 27
			CL	ON S.R. 93 BEFORE EAST POINTE RD	15.480 - 15.644	205			165			2		1	SEE DETAIL SHEET 28
			CL	ON S.R. 93 AFTER EAST POINTE RD	15.644 - 15.780				105	45					SEE DETAIL SHEET 28
			LT	CO RD 110 - CHURCH HILL RD	15.882		28								PLACE 22' FROM CL
			RT	CO RD 64 - NORFIELD RD	16.595		23								PLACE 22' FROM CL
			LT	TWP RD 190 - CULBERTSON RD	17.279		19								PLACE 17' FROM CL
			RT	CO RD 109 - DOSCH DR	18.173		15								PLACE 16' FROM CL
			LT	TWP RD 393 - BURWELL RD	18.173		11								PLACE 17' FROM CL
			LT	TWP RD 1525 - EDWARD DR	18.550		18								PLACE 18' FROM CL
			LT	TWP RD 111 - E GREENWOOD RD	19.428		26								PLACE 18' FROM CL
			RT	TWP RD 111 - TUCKER RD	19.483		23								PLACE 18' FROM CL
			LT	CO RD 154 - BIG B RD	20.450		19								PLACE 18' FROM CL
			LT	TWP RD 330 - FERRELL RD	20.612		20								PLACE 18' FROM CL
			RT	CO RD 67 - PIPER RD	21.150		24								PLACE 16' FROM CL
			LT	TWP RD 156 - VALLEY RD	21.720		21								PLACE 18' FROM CL
			RT	TWP RD 81 - FRENCH RD	22.337		19								PLACE 16' FROM CL
			LT	TWP 1291 - GRAPE ALLEY	22.747		14								PLACE 16' FROM CL
			LT	TWP 1292A - PEACH ST	22.793		12								PLACE 16' FROM CL
			LT	TWP 1293 - CHERRY ST	22.834		14								PLACE 16' FROM CL
LOCATION 4 SUB-TOTALS (CARRIED TO NEXT SHEET)						450	306		700	105		4		2	

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_PMS_004.dgn 17-SEP-2015 4:42PM dmorgan

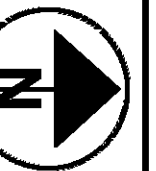
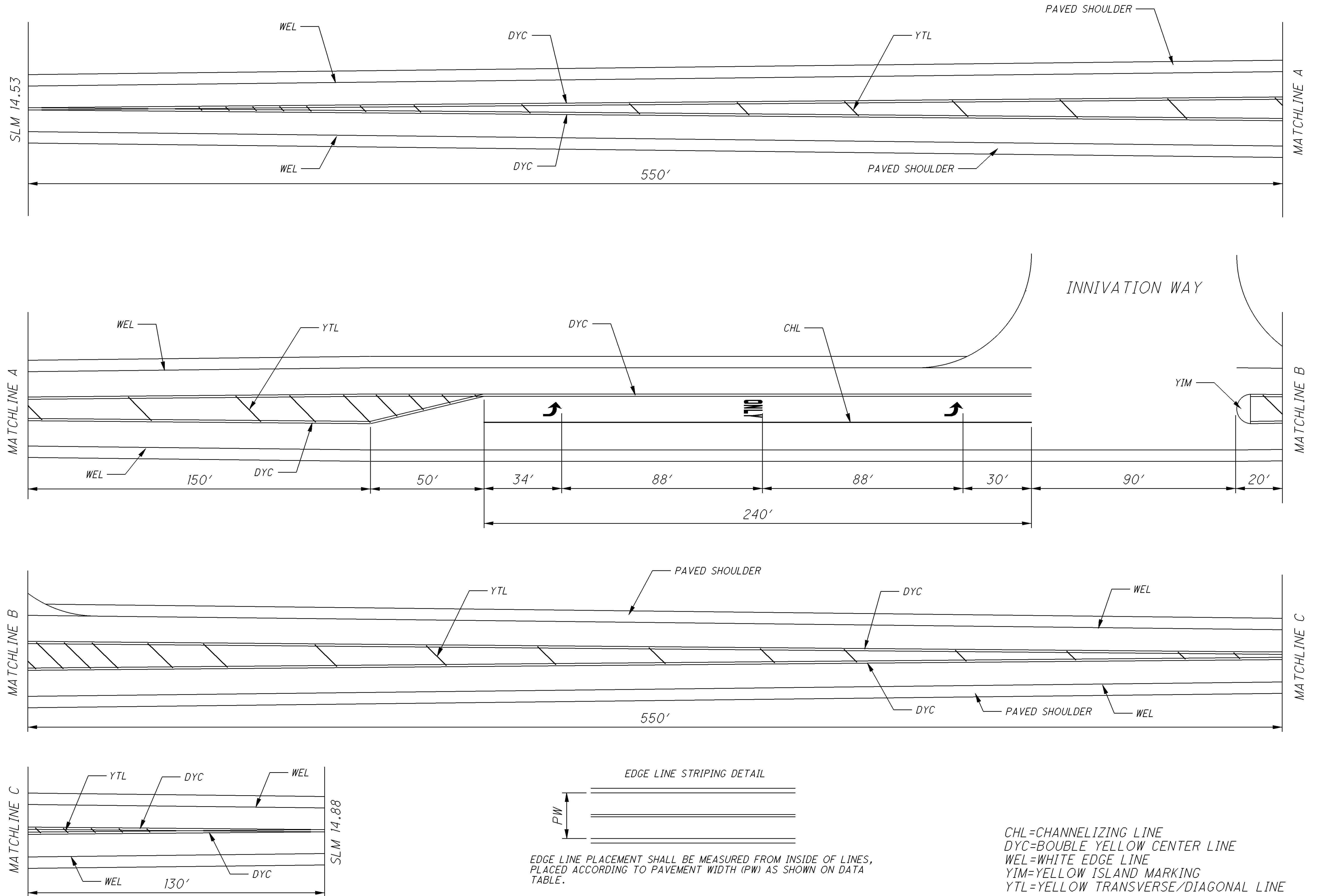
NOTES
1. AS STATED ON SHEET 2, THE CONTRACTOR SHALL DOCUMENT AND LOCATE EXISTING PAVEMENT MARKINGS. REPLACEMENT MARKINGS SHALL BE PLACED IN THE SAME LOCATIONS UNLESS OTHERWISE NOTED.

ITEM 644 AUXILIARY MARKING															
LOCATION	COUNTY	ROUTE	SIDE	DESCRIPTION	SLM	CHANNELIZING LINE, 8"	STOP LINE (24")	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE (YELLOW)	ISLAND MARKING	SCHOOL SYMBOL MARKING, 96"	LANE ARROW		WORD ON PAVEMENT, 96"	REMARKS
												LEFT	RIGHT		
						FT.	FT.	FT.	FT.	SF	EACH	EACH	EACH	FT.	
LOCATION 4 TOTALS FROM PREVIOUS SHEET						450	306		700	105		4		2	
4	MUS	S.R. 93	CL	ON S.R. 93	22.855						1				PLACE AS DIRECTED
			LT	TWP 1294 - PLUM ALLEY	22.874		19								PLACE 16' FROM CL
			LT	TWP 1296 - WINE ALLEY	22.914		14								PLACE 16' FROM CL
			LT	TWP 1295 - HEDGE ST	22.957		11								PLACE 16' FROM CL
			CL	ON S.R. 93 AT MADISON ST	23.051			62							PLACE AS DIRECTED
			CL	ON S.R. 93	23.145						1				PLACE AS DIRECTED
			LT	NORTH ST	23.269		17	70							PLACE 28' FROM CL
			LT	AT S.R. 208	23.269		12	70							PLACE AS DIRECTED
			LT	MADISON ST.	23.304			26							PLACE AS DIRECTED
			RT	MADISON ST.	23.304			28							PLACE AS DIRECTED
			LT	DRESDEN ST.	23.346		10								PLACE 16' FROM CL
			RT	TWP RD 356 - KNICELY RD	23.862		14								PLACE 19' FROM CL
			LT	CO RD 18 - YOUNG AMERICA RD	24.716		24								PLACE 21' FROM CL
			RT	CO RD 18 - SALEM CHURCH RD	24.716		31								PLACE 16' FROM CL
			RT	CO RD 19 - NEW HOPE RD	24.921		16								PLACE 17' FROM CL
			LT	TWP RD 338 - BRADFORD RD	26.129		32								PLACE 20' FROM CL
			RT	TWP RD 180 - SAURBAUGH RD	26.180		28								PLACE 17' FROM CL
			RT	CO RD 103 - MERCER RD	28.046		17								PLACE 18' FROM CL
			LT	TWP RD 169 - BELL RD	28.145		20								PLACE 20' FROM CL
			RT	TWP RD 170 - MCCORT RD	28.613		18								PLACE 20' FROM CL
			RT	TWP RD 339 - DENT RD	29.495		12								PLACE 20' FROM CL
			LT	TWP RD 171 - CASTOR RD	30.338		14								PLACE 20' FROM CL
			CL	ON S.R. 93 AT S.R. 83	30.970		16								PLACE AS DIRECTED
SUBTOTALS												4			
LOCATION 4 TOTALS (CARRIED TO SUB-SUMMARY)						450	631	256	700	105	2	4		2	
5	MUS	S.R. 93	CL	ON S.R. 93 AT S.R. 83	31.28		14								PLACE AS DIRECTED
			LT	CO RD 15 - PARKS RD	31.353		9								PLACE 16' FROM CL
			LT	CO RD 15A - PARKS RD	31.393		13								PLACE 16' FROM CL
			RT	TWP RD 174 - WATERS LN	32.062		14								PLACE 16' FROM CL
			RT	TWP RD 173 - HOUTS RD	33.139		32								PLACE 16' FROM CL
LOCATION 5 TOTALS (CARRIED TO SUB-SUMMARY)							82								
6	MUS	S.R. 208	RT	MILLER ST	11.074			20							PLACE AS DIRECTED
			CL	AT DRESDEN ST	11.156			76							PLACE AS DIRECTED
			LT	DRESDEN ST	11.156		8	44							PLACE AS DIRECTED
			RT	MOLLIES ROCK RD.	11.156		10	46							PLACE AS DIRECTED
			CL	AT S.R. 93	11.190			80							PLACE AS DIRECTED
LOCATION 6 TOTALS (CARRIED TO SUB-SUMMARY)							18	266							

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_PMD_001.dgn 17-SEP-2015 4:43PM dmorgan

FOR QUANTITIES, SEE SHEET 25

5' PAVED SHOULDERS LEFT & RIGHT THROUGHOUT SECTION



HORIZONTAL
SCALE IN FEET

CALCULATED
LME
CHECKED
DNM

PAVEMENT MARKING DETAIL
S.R. 93 AT INNOVATION WAY

COS / MUS-93 / 208-VAR

27
39



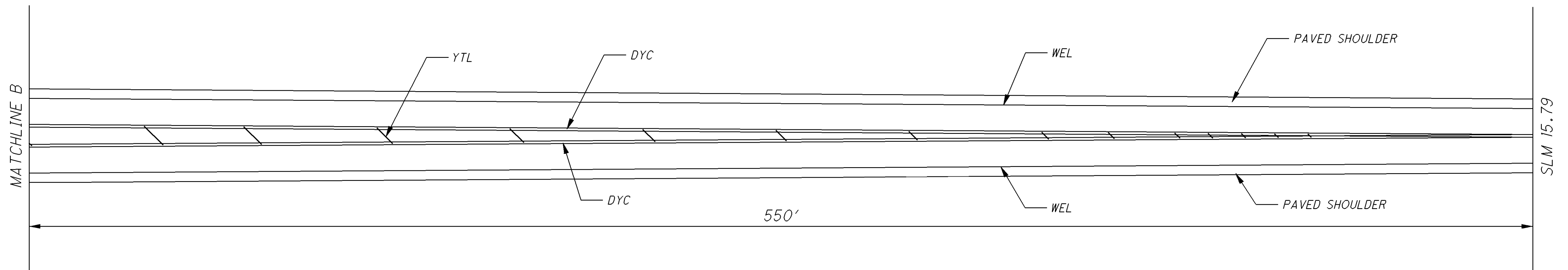
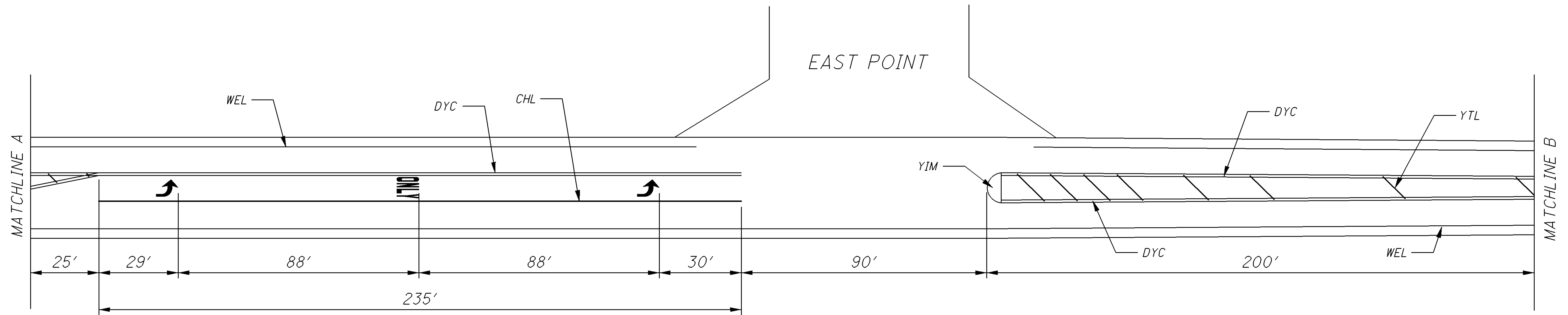
HORIZONTAL
SCALE IN FEET

CALCULATED	
LME	
CHECKED	
DNM	

PAVEMENT MARKING DETAIL
S.R. 93 AT EAST POINT DR.

COS / MUS-93 / 208-VAR

28
39



CHL=CHANNELIZING LINE
DYC=BOUBLE YELLOW CENTER LINE
WEL=WHITE EDGE LINE
YIM=YELLOW ISLAND MARKING
YTL=YELLOW TRANSVERSE/DIAGONAL LINE

3.5' PAVED SHOULDERS LEFT & RIGHT THROUGHOUT SECTION

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_PMD_002.dgn 17-SEP-2015 4:44PM dmorgan

DETAIL	SEE STD. DWG. TC-65.II
1	ENTRANCE RAMP
2	EXIT RAMP
3	MULTI-LANE DIVIDED HIGHWAY

DETAIL	SEE STD. DWG. TC-65.II
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.II
10	APPROACH WITH LEFT-TURN LANE
11	HORIZONTAL CURVE 40'
12	HORIZONTAL CURVE ALT.
GAP	CENTERLINE AT 80' TYP.

REM=REMARKS

ITEM 621 RPM SUB-SUMMARY													
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		D E T A I L	621		I N F O R M A T I O N O N L Y			R E M A R K S
								RPM	RAISED PAVEMENT MARKER REMOVED	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			
					MILES	LIN.FT.				EACH	EACH	WHITE	
1	COS	S.R. 93	0.00	0.29	0.29	1,531	GAP	20	20			20	
			0.29	0.43	0.14	739	11	18	18			18	PC 0.29 PT 0.43 L= 739' DEG 6
			0.43	0.78	0.35	1,848	GAP	24	24			24	
			0.78	0.82	0.04	211	11	5	5			5	PC 0.78 PT 0.82 L= 211' DEG 9
			0.82	1.06	0.24	1,267	GAP	16	16			16	
			1.06	1.30	0.24	1,267	12	40	40			40	PC 1.15 PT 1.21 L= 317' DEG 12
			1.30	1.90	0.60	3,168	GAP	40	40			40	
			1.90	1.96	0.06	317	11	8	8			8	PC 1.90 PT 1.96 L= 317' DEG 9
			1.96	2.07	0.11	581	GAP	8	8			8	
			2.07	2.11	0.04	211	11	5	5			5	PC 2.07 PT 2.11 L= 211' DEG 6
			2.11	2.24	0.13	686	12	22	22			22	PC 2.14 PT 2.17 L= 158' DEG 11
			2.24	2.31	0.07	370	11	9	9			9	PC 2.24 PT 2.31 L= 370' DEG 7
			2.31	2.53	0.22	1,162	GAP	15	15			15	
			2.53	2.72	0.19	1,003	12	32	32			32	PC 2.62 PT 2.67 L= 264' DEG 15
			2.72	2.79	0.07	370	11	9	9			9	PC 2.72 PT 2.79 L= 370' DEG 9
			2.79	2.94	0.15	792	12	26	26			26	PC 2.81 PT 2.85 L= 211' DEG 14
			2.94	3.06	0.12	634	GAP	8	8			8	
			3.06	3.13	0.07	370	11	9	9			9	PC 3.06 PT 3.13 L= 370' DEG 8
			3.13	3.32	0.19	1,003	12	35	35			35	PC 3.16 PT 3.23 L= 370' DEG 34
			3.32	3.50	0.18	950	GAP / 7	28	28	16		12	
SUBTOTALS FOR INFORMATION ONLY										16		361	
LOCATION 1 TOTALS (CARRIED TO SUB-SUMMARY)								377	377				
2	MUS	S.R. 93	12.78	12.85	0.07	370	GAP / 7	21	21	9	4	8	
SUBTOTALS FOR INFORMATION ONLY										9	4	8	
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)								21	21				
3	MUS	S.R. 93	12.85	13.92	1.07	5,650	GAP / 7	78	78	7		71	
SUBTOTALS FOR INFORMATION ONLY										7		71	
LOCATION 3 TOTALS (CARRIED TO SUB-SUMMARY)								78	78				
4	MUS	S.R. 93	13.92	14.54	0.62	3,274	GAP	41	41			41	
			14.54	14.89	0.35	1,848	10	54	54		7	47	INNOVATION WAY TURN LANE
			14.89	15.04	0.15	792	GAP	10	10			10	
			15.04	15.23	0.19	1,003	12	32	32			32	PC 15.13 PT 15.18 L= 264' DEG 20
			15.23	15.28	0.05	264	11	7	7			7	PC 15.23 PT 15.28 L= 264' DEG 9
			15.28	15.42	0.14	739	GAP	10	10			10	
			15.42	15.63	0.21	1,109	12	32	32			32	PC 15.51 PT 15.54 L= 158' DEG 14
			15.48	15.80	0.32	1,690	10	29	29		7	22	EAST POINT TURN LANE
SUBTOTALS FOR INFORMATION ONLY											14	201	
LOCATION 4 SUB-TOTALS (CARRIED TO NEXT SHEET)								215	215				

DETAIL	SEE STD. DWG. TC-65.II
1	ENTRANCE RAMP
2	EXIT RAMP
3	MULTI-LANE DIVIDED HIGHWAY

DETAIL	SEE STD. DWG. TC-65.II
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.II
10	APPROACH WTH LEFT-TURN LANE
11	HORIZONTAL CURVE 40'
12	HORIZONTAL CURVE ALT.
GAP	CENTERLINE AT 80' TYP.

REM=REMARKS

ITEM 621 RPM SUB-SUMMARY													
LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		DETAIL	621		INFORMATION ONLY			REMARKS
								RPM	RAISED PAVEMENT MARKER REMOVED	PRISMATIC RETRO-REFLECTOR COLORS			
					MILES	LIN.FT.				EACH	EACH	WHITE	
LOCATION 4 SUB-TOTALS (CARRIED FROM PREVIOUS SHEET)								215	215				
			15.63	15.71	0.08	422	GAP	6	6			6	
			15.71	15.96	0.25	1,320	12	43	43			43	PC 15.80 PT 15.87 L= 370' DEG 15
			15.96	16.35	0.39	2,059	GAP	26	26			26	
			16.35	16.57	0.22	1,162	12	41	41			41	PC 16.44 PT 16.53 L= 475' DEG 10
			16.57	16.69	0.12	634	12	20	20			20	PC 16.57 PT 16.60 L= 158' DEG 14
			16.69	16.83	0.14	739	12	24	24			24	PC 16.70 PT 16.74 L= 211' DEG 10
			16.83	16.87	0.04	211	11	6	6			6	PC 16.84 PT 16.87 L= 158' DEG 8
			16.87	17.05	0.18	950	GAP	12	12			12	
			17.05	17.26	0.21	1,109	12	32	32			32	PC 17.14 PT 17.17 L= 158' DEG 13
			17.26	17.32	0.06	317	GAP	4	4			4	
			17.32	17.35	0.03	158	11	4	4			4	PC 17.32 PT 17.35 L= 158' DEG 9
			17.35	17.46	0.11	581	12	18	18			18	PC 17.37 PT 17.39 L= 106' DEG 14
			17.46	17.57	0.11	581	12	18	18			18	PC 17.46 PT 17.48 L= 106' DEG 14
			17.57	17.69	0.12	634	12	20	20			20	PC 17.57 PT 17.60 L= 158' DEG 10
			17.69	17.85	0.16	845	GAP	11	11			11	
			17.85	18.11	0.26	1,373	12	45	45			45	PC 17.94 PT 18.02 L= 422' DEG 13
			18.11	18.45	0.34	1,795	GAP	23	23			23	
			18.45	18.68	0.23	1,214	12	37	37			37	PC 18.54 PT 18.59 L= 264' DEG 11
			18.68	18.91	0.23	1,214	GAP	16	16			16	
			18.91	18.94	0.03	158	11	4	4			4	PC 18.91 PT 18.94 L= 158' DEG 9
			18.94	19.15	0.21	1,109	12	33	33			33	PC 19.02 PT 19.06 L= 211' DEG 12
			19.15	19.32	0.17	898	GAP	12	12			12	
			19.32	19.37	0.05	264	11	7	7			7	PC 19.32 PT 19.37 L= 264' DEG 9
			19.37	19.60	0.23	1,214	12	40	40			40	PC 19.44 PT 19.51 L= 370' DEG 11
			19.60	20.43	0.83	4,382	GAP	55	55			55	
			20.43	20.75	0.32	1,690	12	61	61			61	PC 20.52 PT 20.66 L= 739' DEG 13
			20.75	20.90	0.15	792	GAP	10	10			10	
			20.90	21.13	0.23	1,214	12	37	37			37	PC 20.99 PT 21.04 L= 264' DEG 13
			21.13	21.29	0.16	845	GAP	11	11			11	
			21.29	21.32	0.03	158	11	4	4			4	PC 21.29 PT 21.32 L= 158' DEG 9
			21.32	21.52	0.20	1,056	12	31	31			31	PC 21.40 PT 21.43 L= 158' DEG 13
			21.52	21.86	0.34	1,795	GAP	23	23			23	
			21.86	21.94	0.08	422	11	11	11			11	PC 21.86 PT 21.94 L= 422' DEG 9
			21.94	22.09	0.15	792	12	28	28			28	PC 22.00 PT 22.06 L= 317' DEG 18
			22.09	22.11	0.02	106	11	3	3			3	PC 22.09 PT 22.11 L= 106' DEG 9
			22.11	22.21	0.10	528	12	18	18			18	PC 22.14 PT 22.17 L= 158' DEG 16
			22.21	22.36	0.15	792	12	28	28			28	PC 22.21 PT 22.27 L= 317' DEG 11
			22.36	23.02	0.66	3,485	GAP	44	44			44	SUSPEND AT ADAMSVILLE CORP.
			23.35	25.05	1.70	8,976	GAP	113	113			113	RESUME AT ADAMSVILLE CORP.
			25.05	25.09	0.04	211	11	6	6			6	PC 25.05 PT 25.09 L= 211' DEG 9
			25.09	25.12	0.03	158	GAP	2	2			2	
			25.12	25.39	0.27	1,426	12	49	49			49	PC 25.21 PT 25.31 L= 528' DEG 10
			25.39	25.41	0.02	106	11	3	3			3	PC 25.39 PT 25.41 L= 106' DEG 9
SUBTOTALS FOR INFORMATION ONLY												1,039	
LOCATION 4 SUB-TOTALS (CARRIED TO NEXT SHEET)								1,254	1,254				

DETAIL	SEE STD. DWG. TC-65.II
1	ENTRANCE RAMP
2	EXIT RAMP
3	MULTI-LANE DIVIDED HIGHWAY

DETAIL	SEE STD. DWG. TC-65.II
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.II
10	APPROACH WTH LEFT-TURN LANE
11	HORIZONTAL CURVE 40'
12	HORIZONTAL CURVE ALT.
GAP	CENTERLINE AT 80' TYP.

REM=REMARKS

ITEM 621 RPM SUB-SUMMARY														
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	LENGTH		D E T A I L	621		INFORMATION ONLY			R E M A R K S	
								RPM	RAISED PAVEMENT MARKER REMOVED	PRISMATIC RETRO-REFLECTOR COLORS				
			MILES	LIN.FT.	EACH	EACH								WHITE
LOCATION 4 SUB-TOTALS (CARRIED FROM PREVIOUS SHEET)									1,254	1,254				
			25.41	25.56	0.15	792	GAP	10	10			10		
			25.56	25.61	0.05	264	11	7	7			7	PC 25.56 PT 25.61 L= 264' DEG 9	
			25.61	26.04	0.43	2,270	GAP	29	29			29		
			26.04	26.08	0.04	211	11	6	6			6	PC 26.04 PT 26.08 L= 211' DEG 9	
			26.08	26.45	0.37	1,954	GAP	25	25			25		
			26.45	26.50	0.05	264	11	7	7			7	PC 26.45 PT 26.50 L= 264' DEG 9	
			26.50	26.86	0.36	1,901	GAP	24	24			24		
			26.86	26.96	0.10	528	11	14	14			14	PC 26.86 PT 26.96 L= 528' DEG 9	
			26.96	27.15	0.19	1,003	12	31	31			31	PC 27.02 PT 27.06 L= 211' DEG 17	
			27.15	27.38	0.23	1,214	12	36	36			36	PC 27.25 PT 27.29 L= 211' DEG 11	
			27.38	28.44	1.06	5,597	GAP	70	70			70		
			28.44	28.72	0.28	1,478	12	51	51			51	PC 28.53 PT 28.63 L= 528 DEG 10	
			28.72	28.91	0.19	1,003	12	33	33			33	PC 28.76 PT 28.82 L= 317' DEG 10	
			28.91	29.03	0.12	634	12	20	20			20	PC 28.91 PT 28.94 L= 158' DEG 13	
			29.03	29.26	0.23	1,214	GAP	16	16			16		
			29.26	29.30	0.04	211	11	6	6			6	PC 29.26 PT 29.30 L= 211' DEG 9	
			29.30	29.33	0.03	158	GAP	2	2			2		
			29.33	29.58	0.25	1,320	12	43	43			43	PC 29.42 PT 29.49 L= 370' DEG 12	
			29.58	29.61	0.03	158	GAP	2	2			2		
			29.61	29.64	0.03	158	11	4	4			4	PC 29.61 PT 29.64 L= 158' DEG 9	
			29.64	29.87	0.23	1,214	12	40	40			40	PC 29.71 PT 29.78 L= 370' DEG 11	
			29.87	30.05	0.18	950	12	39	39			39	PC 29.94 PT 30.05 L= 581' DEG 16	
			30.05	30.10	0.05	264	11	7	7			7	PC 30.05 PT 30.10 L= 264' DEG 9	
			30.10	30.29	0.19	1,003	GAP	13	13			13		
			30.29	30.33	0.04	211	11	6	6			6	PC 30.29 PT 30.33 L= 211' DEG 9	
			30.33	30.76	0.43	2,270	GAP	29	29			29		
			30.76	30.82	0.06	317	11	8	8			8	PC 30.76 PT 30.82 L= 317' DEG 9	
			30.82	30.97	0.15	792	GAP / 7	26	26	16		10	STOP AT S.R. 83	
SUBTOTALS FOR INFORMATION ONLY											16		588	
LOCATION 4 TOTALS (CARRIED TO SUB-SUMMARY)									1,858	1,858				
5	MUS	S.R. 93	31.28	31.31	0.03	158	GAP / 7	18	18	16		2	STOP AT S.R. 83	
			31.31	31.35	0.04	211	11	6	6			6	PC 31.31 PT 31.35 L= 211' DEG 9	
			31.35	31.38	0.03	158	GAP	2	2			2		
			31.38	31.60	0.22	1,162	12	35	35			35	PC 31.47 PT 31.51 L= 211' DEG 18	
			31.60	31.65	0.05	264	GAP	4	4			4		
			31.65	31.87	0.22	1,162	12	35	35			35	PC 31.74 PT 31.78 L= 211' DEG 10	
			31.87	32.13	0.26	1,373	GAP	18	18			18		
			32.13	32.35	0.22	1,162	12	35	35			35	PC 32.22 PT 32.26 L= 211' DEG 21	
			32.35	32.56	0.21	1,109	GAP	14	14			14		
			32.56	32.74	0.18	950	12	31	31			31	PC 32.65 PT 32.70 L= 264' DEG 15	
			32.74	32.84	0.10	528	12	22	22			22	PC 32.74 PT 32.80 L= 317' DEG 14	
			32.84	32.96	0.12	634	12	20	20			20	PC 32.84 PT 32.87 L= 158' DEG 14	
			32.96	33.11	0.15	792	12	26	26			26	PC 32.98 PT 33.02 L= 211' DEG 10	
			33.11	33.29	0.18	950	12	32	32			32	PC 33.14 PT 33.20 L= 317' DEG 18	
			33.29	33.35	0.06	317	GAP	4	4			4		
			33.35	33.39	0.04	211	11	6	6			6	PC 33.35 PT 33.39 L= 211' DEG 9	
			33.39	33.61	0.22	1,162	GAP	15	15			15		
			33.61	33.68	0.07	370	11	10	10			10	PC 33.61 PT 33.68 L= 370' DEG 9	
			33.68	33.90	0.22	1,162	GAP	15	15			15		
			33.90	33.95	0.05	264	11	7	7			7	PC 33.90 PT 33.95 L= 264' DEG 9	
			33.95	34.58	0.63	3,326	GAP	42	42			42		
SUBTOTALS FOR INFORMATION ONLY										16		381		
LOCATION 5 TOTALS (CARRIED TO SUB-SUMMARY)									397	397				

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_LSS_001.dgn 21-SEP-2015 3:30PM dmorgan

LOCATION 1 SHEET TOTALS											ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
3	4	6	12	14	16	18	23	24	25	29					
						4					202	11301	4	CY	ROADWAY
	410				1,084						202	23500	1,494	SY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
															WEARING COURSE REMOVED
				6.93							209	72051	6.93	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN
100						26					253	02000	126	CY	PAVEMENT
			40,658	8,977							254	01000	49,635	SY	PAVEMENT REPAIR
	3										304	20000	3	CY	PAVEMENT PLANING, ASPHALT CONCRETE
															AGGREGATE BASE
			3,050	674	82						407	10000	3,806	GAL	TACK COAT
			2,033	450	40						407	14000	2,523	GAL	TACK COAT FOR INTERMEDIATE COURSE
				3,253							408	10001	3,253	GAL	
					38						441	50000	38	CY	PRIME COAT, AS PER PLAN
	51		1,412	312	23						441	50100	1,798	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
	6		1,130	250							441	50200	1,386	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
															ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
						4					511	53012	4	CY	
															CLASS QC2 CONCRETE, MISC.: ACCELERATING ADMIXTURE
						128					516	31011	128	FT	
						66					516	31011	66	FT	2" DEEP JOINT SEALER, AS PER PLAN (A)
															2" DEEP JOINT SEALER, AS PER PLAN (B)
				567							617	10101	567	CY	
				8,132							617	20000	8,132	SY	COMPACTED AGGREGATE, AS PER PLAN
															SHOULDER PREPARATION
										377	621	00100	377	EACH	TRAFFIC CONTROL
										377	621	54000	377	EACH	RPM
															RAISED PAVEMENT MARKER REMOVED
									88		644	00500	88	FT	
							7.00				648	00100	7.00	MILE	STOP LINE
							3.50				648	00300	3.50	MILE	EDGE LINE, 4"
															CENTER LINE
		18									614	12460	18	EACH	
		1.5									614	13000	1.5	CY	MAINTENANCE OF TRAFFIC
			6.93								614	21400	6.93	MILE	WORK ZONE MARKING SIGN
			3.47								614	21550	3.47	MILE	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
															WORK ZONE CENTER LINE, CLASS II
															WORK ZONE CENTER LINE, CLASS III, 642 PAINT

CALCULATED
JKIN
CHECKED
DNM

LOCATION 1 SUB-SUMMARY

COS / MUS - 93 / 208 - VAR

32
39

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_LSS_002.dgn 21-SEP-2015 3:37PM dmorgan

LOCATION 2 SHEET TOTALS										ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
4	5	6	6A	12	14	23	24	25	29					
					0.10					209	72051	0.10	MILE	ROADWAY
														PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN
				1,197	329					254	01000	1,526	SY	PAVEMENT
														PAVEMENT PLANING, ASPHALT CONCRETE
				90	25					407	20500	115	GAL	SPECIAL - TACK COAT, TRACKLESS TACK
				60	17					407	20510	77	GAL	SPECIAL - TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE
					47					408	10001	47	GAL	PRIME COAT, AS PER PLAN
1				42	12					441	50100	55	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
				34	10					441	50200	44	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
					9					617	10101	9	CY	COMPACTED AGGREGATE, AS PER PLAN
					118					617	20000	118	SY	SHOULDER PREPARATION
														TRAFFIC CONTROL
									21	621	00100	21	EACH	RPM
									21	621	54000	21	EACH	RAISED PAVEMENT MARKER REMOVED
								50		644	00400	50	FT	CHANNELIZING LINE, 8"
								24		644	00500	24	FT	STOP LINE
								2		644	01300	2	EACH	LANE ARROW
								2		644	01410	2	EACH	WORD ON PAVEMENT, 96"
						0.14				648	00100	0.14	MILE	EDGE LINE, 4"
							0.07			648	00300	0.07	MILE	CENTER LINE
														TRAFFIC SIGNALS
	4									632	26501	4	EACH	DETECTOR LOOP, AS PER PLAN
														MAINTENANCE OF TRAFFIC
		40								614	11110	40	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
		2								614	12460	2	EACH	WORK ZONE MARKING SIGN
		2.5								614	13000	2.5	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
			30							614	18401	30	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
				0.14						614	21400	0.14	MILE	WORK ZONE CENTER LINE, CLASS II
				0.07						614	21550	0.07	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_LSS_003.dgn 21-SEP-2015 4:15PM dmorgan

LOCATION 3 SHEET TOTALS													ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
3	4	5	6	6A	12	14	16	18	23	24	25	29					
	38						1,831						202	23500	1,869	SY	ROADWAY WEARING COURSE REMOVED
						0.31							209	72051	0.31	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN
		6											611	98630	6	EACH	DRAINAGE CATCH BASIN ADJUSTED TO GRADE
10													253	02000	10	CY	PAVEMENT PAVEMENT REPAIR
					14,002	6,564							254	01000	20,566	SY	PAVEMENT PLANING, ASPHALT CONCRETE
	1												304	20000	1	CY	AGGREGATE BASE
							138						407	10000	138	GAL	TACK COAT
					1,051	493							407	20500	1,544	GAL	SPECIAL - TACK COAT, TRACKLESS TACK
					701	329							407	20510	1,030	GAL	SPECIAL - TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE
						148							408	10001	148	GAL	PRME COAT, AS PER PLAN
							64						441	50000	64	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
4					487	228							441	50100	719	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
1					390	183							441	50200	574	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
								74					516	31011	74	FT	2" DEEP JOINT SEALER, AS PER PLAN
						28							617	10101	28	CY	COMPACTED AGGREGATE, AS PER PLAN
					369								617	20000	369	SY	SHOULDER PREPARATION
																	TRAFFIC CONTROL
												78	621	00100	78	EACH	RPM
												78	621	54000	78	EACH	RAISED PAVEMENT MARKER REMOVED
											139		644	00500	139	FT	STOP LINE
									2.14				648	00100	2.14	MILE	EDGE LINE, 4"
										1.07			648	00300	1.07	MILE	CENTER LINE
																	MAINTENANCE OF TRAFFIC
			18										614	12460	18	EACH	WORK ZONE MARKING SIGN
			1.0										614	13000	1.0	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
				60									614	18401	60.0	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
					2.01								614	21400	2.01	MILE	WORK ZONE CENTER LINE, CLASS II
					1.01								614	21550	1.01	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT

LOCATION 4 SHEET TOTALS													ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
3	4	5	6	12	15	17	18	21	23	24	26	31					
																	ROADWAY
	4,040					6,195	392						202	23500	10,627	SY	WEARING COURSE REMOVED
								540					202	30000	540	SF	WALK REMOVED
								8					202	32000	8	FT	CURB REMOVED
					35.61								209	72051	35.61	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN
								396					608	10000	396	SF	4" CONCRETE WALK
								1					690	98000	1	EACH	SPECIAL - MISC.: CURB RAMP, TYPE A1
								4					690	98000	4	EACH	SPECIAL - MISC.: CURB RAMP, TYPE A2
								144					690	98200	144	SF	SPECIAL - MISC.: DETECTABLE WARNING
																	EROSION CONTROL
		200											659	00500	200	SY	SEEDING AND MULCHNG, CLASS 1
		10											659	14000	10	SY	REPAIR SEEDING AND MULCHNG
		10											659	15000	10	SY	INTER-SEEDING
		0.03											659	20000	0.03	TON	COMMERCIAL FERTILZER
		0.04											659	31000	0.04	ACRE	LIME
		2											659	35000	2	MGAL	WATER
																	DRAINAGE
		20											611	98630	20	EACH	CATCH BASIN ADJUSTED TO GRADE
																	PAVEMENT
400													253	02000	400	CY	PAVEMENT REPAIR
				202,656	48,338								254	01000	251,194	SY	PAVEMENT PLANING, ASPHALT CONCRETE
	23												304	20000	23	CY	AGGREGATE BASE
				15,215	3,627	467	30						407	10000	19,339	GAL	TACK COAT
				10,144	2,418								407	14000	12,562	GAL	TACK COAT FOR INTERMEDIATE COURSE
					16,715								408	10001	16,715	GAL	PRIME COAT, AS PER PLAN
						218							441	50000	218	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
	323			7,045	1,680		14						441	50100	9,062	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
	50	4		5,636	1,344								441	50200	7,034	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
							176						516	31011	176	FT	2" DEEP JOINT SEALER, AS PER PLAN
								71					609	26000	71	FT	CURB, TYPE 6
					2,126								617	10101	2,126	CY	COMPACTED AGGREGATE, AS PER PLAN
					41,785								617	20000	41,785	SY	SHOULDER PREPARATION

LOCATION 4 SHEET TOTALS													ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
3	4	5	6	12	15	17	18	21	23	24	26	31					
																	WATER WORK
		9											638	10800	9	EACH	VALVE BOX ADJUSTED TO GRADE
																	TRAFFIC CONTROL
												1,858	621	00100	1,858	EACH	RPM
												1,858	621	54000	1,858	EACH	RAISED PAVEMENT MARKER REMOVED
											450		644	00400	450	FT	CHANNELIZING LINE, 8"
											631		644	00500	631	FT	STOP LINE
											256		644	00600	256	FT	CROSSWALK LINE
											700		644	00700	700	FT	TRANSVERSE/DIAGONAL LINE
											105		644	00900	105	SF	ISLAND MARKING
											2		644	01110	2	EACH	SCHOOL SYMBOL MARKING, 96"
											4		644	01300	4	EACH	LANE ARROW
											2		644	01410	2	EACH	WORD ON PAVEMENT, 96"
									34.10				648	00100	34.10	MLE	EDGE LINE, 4"
										17.55			648	00300	17.55	MLE	CENTER LINE
																	MAINTENANCE OF TRAFFIC
			138										614	12460	138	EACH	WORK ZONE MARKING SIGN
			3.5										614	13000	3.5	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
				34.05									614	21400	34.05	MLE	WORK ZONE CENTER LINE, CLASS II
				17.03									614	21550	17.03	MLE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_LSS_005.dgn 21-SEP-2015 4:42PM dmorgan

LOCATION 5 SHEET TOTALS											ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
3	4	5	6	13	15	17	23	24	26	31					
															ROADWAY
	200					311					202	23500	511	SY	WEARING COURSE REMOVED
					8.70						209	72051	8.70	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN
															PAVEMENT
100											253	02000	100	CY	PAVEMENT REPAIR
				38,720	8,577						254	01000	47,297	SY	PAVEMENT PLANING, ASPHALT CONCRETE
	3										304	20000	3	CY	AGGREGATE BASE
				2,904	644	24					407	10000	3,572	GAL	TACK COAT
				1,936	430						407	14000	2,366	GAL	TACK COAT FOR INTERMEDIATE COURSE
					4,084						408	10001	4,084	GAL	PRIME COAT, AS PER PLAN
						11					441	50000	11	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
	52			1,345	298						441	50100	1,695	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
	3	25		1,076	239						441	50200	1,343	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
					497						617	10101	497	CY	COMPACTED AGGREGATE, AS PER PLAN
					10,209						617	20000	10,209	SY	SHOULDER PREPARATION
															TRAFFIC CONTROL
										397	621	00100	397	EACH	RPM
										397	621	54000	397	EACH	RAISED PAVEMENT MARKER REMOVED
									82		644	00500	82	FT	STOP LINE
							6.60				648	00100	6.60	MILE	EDGE LINE, 4"
								3.30			648	00300	3.30	MILE	CENTER LINE
															MAINTENANCE OF TRAFFIC
			12								614	12460	12	EACH	WORK ZONE MARKING SIGN
			1.0								614	13000	1.0	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
				6.60							614	21400	6.60	MILE	WORK ZONE CENTER LINE, CLASS II
				3.30							614	21550	3.30	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_LSS_006.dgn 21-SEP-2015 4:48PM dmorgan

									ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
5	6	13	15	17	21	23	24	26					
													ROADWAY
				133					202	23500	133	SY	WEARING COURSE REMOVED
					296				202	30000	296	SF	WALK REMOVED
					240				608	10000	240	SF	4" CONCRETE WALK
					1				690	98000	1	EACH	SPECIAL - MISC.: CURB RAMP, TYPE A1
					4				690	98000	4	EACH	SPECIAL - MISC.: CURB RAMP, TYPE A2
					56.0				690	98200	56	SF	SPECIAL - MISC.: DETECTABLE WARNING
													DRAINAGE
6									611	98630	6	EACH	CATCH BASIN ADJUSTED TO GRADE
													PAVEMENT
		1,525	1,373						254	01000	2,898	SY	PAVEMENT PLANING, ASPHALT CONCRETE
		115	103	11					407	10000	229	GAL	TACK COAT
		77	69						407	14000	146	GAL	TACK COAT FOR INTERMEDIATE COURSE
				5					441	50000	5	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
		53	48						441	50100	101	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
		43	39						441	50200	82	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
					50				609	26000	50	FT	CURB, TYPE 6
													TRAFFIC CONTROL
								18	644	00500	18	FT	STOP LINE
								266	644	00600	266	FT	CROSSWALK LINE
						0.26			648	00100	0.26	MILE	EDGE LINE, 4"
							0.13		648	00300	0.13	MILE	CENTER LINE
													MAINTENANCE OF TRAFFIC
	4								614	12460	4	EACH	WORK ZONE MARKING SIGN
	1.5								614	13000	1.5	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
		0.26							614	21400	0.26	MILE	WORK ZONE CENTER LINE, CLASS II
		0.13							614	21550	0.13	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT

P:\MUS\92978\Design\Roadway\Plan_Sheets\General\92978_MGS_001.dgn 21-SEP-2015 3:21PM dmorgan

LOCATION TOTALS						PARTICIPATION				ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION	SEE SHEET
1	2	3	4	5	6	LOC 1, 4, & 5	LOC 3	LOC 6	LOC 2						
						01/STR/PV	02/S<2/PV	03/NFA/PV	04/NHS/PV						
														ROADWAY	
4						4				202	11301	4	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	19
1,494		1,869	10,627	511	133	12,632	1,869	133		202	23500	14,634	SY	WEARING COURSE REMOVED	
			540		296	540		296		202	30000	836	SF	WALK REMOVED	
			8			8				202	32000	8	FT	CURB REMOVED	
6.93	0.10	0.31	35.61	8.70		51.24	0.31		0.10	209	72051	51.65	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	3
			396		240	396		240		608	10000	636	SF	4" CONCRETE WALK	
			1		1	1		1		690	98000	2	EACH	SPECIAL - MISC.: CURB RAMP, TYPE A1	
			4		4	4		4		690	98000	8	EACH	SPECIAL - MISC.: CURB RAMP, TYPE A2	
			144		56	144		56		690	98200	200	SF	SPECIAL - MISC.: DETECTABLE WARNING	
														EROSION CONTROL	
			200			200				659	00500	200	SY	SEEDING AND MULCHING, CLASS 1	
			10			10				659	14000	10	SY	REPAIR SEEDING AND MULCHING	
			10			10				659	15000	10	SY	INTER-SEEDING	
			0.03			0.03				659	20000	0.03	TON	COMMERCIAL FERTILIZER	
			0.04			0.04				659	31000	0.04	ACRE	LIME	
			2			2				659	35000	2	MGAL	WATER	
														DRAINAGE	
		6	20		6	20	6	6		611	98630	32	EACH	CATCH BASIN ADJUSTED TO GRADE	
														PAVEMENT	
126		10	400	100		626	10			253	02000	636	CY	PAVEMENT REPAIR	
49,635	1,526	20,566	251,194	47,297	2,898	348,126	20,566	2,898	1,526	254	01000	373,116	SY	PAVEMENT PLANING, ASPHALT CONCRETE	
3		1	23	3		29	1			304	20000	30	CY	AGGREGATE BASE	
3,806		138	19,339	3,572	229	26,717	138	229		407	10000	27,084	GAL	TACK COAT	
2,523			12,562	2,366	146	17,451		146		407	14000	17,597	GAL	TACK COAT FOR INTERMEDIATE COURSE	
	115	1,544					1,544		115	407	20500	1,659	GAL	SPECIAL - TACK COAT, TRACKLESS TACK	
	77	1,030					1,030		77	407	20510	1,107	GAL	SPECIAL - TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE	
3,253	47	148	16,715	4,084		24,052	148		47	408	10001	24,247	GAL	PRIME COAT, AS PER PLAN	3
38		64	218	11	5	267	64	5		441	50000	336	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
1,798	55	719	9,062	1,695	101	12,555	719	101	55	441	50100	13,430	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M	
1,386	44	574	7,034	1,343	82	9,763	574	82	44	441	50200	10,463	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)	
4						4				511	53012	4	CY	CLASS QC2 CONCRETE, MISC.: ACCELERATING ADMXTURE	
128		74	176			304	74			516	31011	378	FT	2" DEEP JOINT SEALER, AS PER PLAN (A)	5
66						66				516	31011	66	FT	2" DEEP JOINT SEALER, AS PER PLAN (B)	19
			71		50	71		50		609	26000	121	FT	CURB, TYPE 6	
567	9	28	2,126	497		3,190	28		9	617	10101	3,227	CY	COMPACTED AGGREGATE, AS PER PLAN	5
8,132	118	369	41,785	10,209		60,126	369		118	617	20000	60,613	SY	SHOULDER PREPARATION	

CALCULATED
JKN
CHECKED
DNM

GENERAL SUMMARY

COS / MUS - 93 / 208 - VAR

38
39

LOCATION TOTALS						PARTICIPATION				ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION	SEE SHEET
1	2	3	4	5	6	LOC 1, 4, & 5	LOC 3	LOC 6	LOC 2						
						01/STR/PV	02/S<2/PV	03/NFA/PV	04/NHS/PV						
			9			9				638	10800	9	EACH	WATER WORK VALVE BOX ADJUSTED TO GRADE	
														TRAFFIC CONTROL	
377	21	78	1,858	397		2,632	78		21	621	00100	2,731	EACH	RPM	
377	21	78	1,858	397		2,632	78		21	621	54000	2,731	EACH	RAISED PAVEMENT MARKER REMOVED	
	50		450			450			50	644	00400	500	FT	CHANNELIZNG LINE, 8"	
88	24	139	631	82	18	801	139	18	24	644	00500	982	FT	STOP LINE	
			256		266	256		266		644	00600	522	FT	CROSSWALK LINE	
			700			700				644	00700	700	FT	TRANSVERSE/DIAGONAL LINE	
			105			105				644	00900	105	SF	ISLAND MARKING	
			2			2				644	01110	2	EACH	SCHOOL SYMBOL MARKING, 96"	
	2		4			4			2	644	01300	6	EACH	LANE ARROW	
	2		2			2			2	644	01410	4	EACH	WORD ON PAVEMENT, 96"	
7.00	0.14	2.14	34.10	6.60	0.26	47.70	2.14	0.26	0.14	648	00100	50.24	MILE	EDGE LINE, 4"	
3.50	0.07	1.07	17.55	3.30	0.13	24.35	1.07	0.13	0.07	648	00300	25.62	MILE	CENTER LINE	
														TRAFFIC SIGNALS	
	4								4	632	26501	4	EACH	DETECTOR LOOP, AS PER PLAN	5
														MAINTENANCE OF TRAFFIC	
	40								40	614	11110	40	HOURL	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
18	2	18	138	12	4	168	18	4	2	614	12460	192	EACH	WORK ZONE MARKING SIGN	
1.5	2.5	1.0	3.5	1.0	1.5	6.0	1.0	1.5	2.5	614	13000	11	CY	ASPHALT CONCRETE FOR MAINTAINNG TRAFFIC	
	30	60					60		30	614	18401	90	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	6A
6.93	0.14	2.01	34.05	6.60	0.26	47.58	2.01	0.26	0.14	614	21400	49.99	MILE	WORK ZONE CENTER LINE, CLASS II	
3.47	0.07	1.01	17.03	3.30	0.13	23.80	1.01	0.13	0.07	614	21550	25.01	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
														INCIDENTALS	
						93%	5%	1%	1%	103	05000	1	LS	PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND	
						93%	5%	1%	1%	614	11000	1	LS	MAINTAINNG TRAFFIC	
						4.65	0.25	0.05	0.05	619	16000	5	MNTH	FIELD OFFICE, TYPE A	
						93%	5%	1%	1%	623	10000	1	LS	CONSTRUCTION LAYOUT STAKES AND SURVEYING	
						93%	5%	1%	1%	624	10000	1	LS	MOBILIZATION	

GENERAL SUMMARY