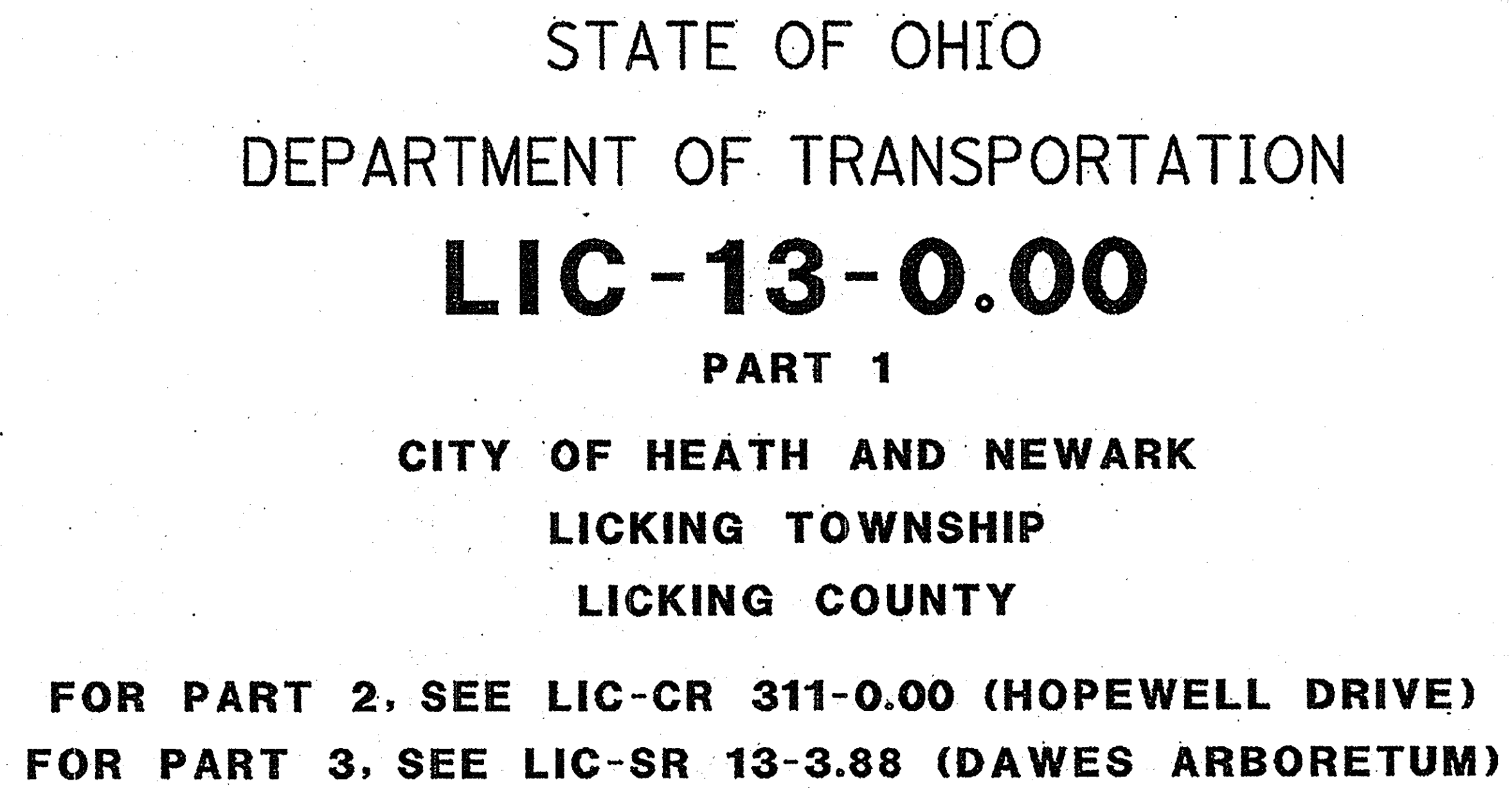




DEPARTMENT OF TRANSPORTATION

LIC-13-0.00

PART 1

CITY OF HEATH AND NEWARK

LICKING TOWNSHIP

LICKING COUNTY

FOR PART 2, SEE LIC-CR 311-0.00 (HOPEWELL DRIVE)
FOR PART 3, SEE LIC-SR 13-3.88 (DAWES ARBORETUM)

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PROJECT DESCRIPTION

ASPHALT CONCRETE RESURFACING ON S.R. 13 AND
THE ODOT DISTRICT 5 COMPLEX IN LICKING COUNTY
WITH PAVED GUTTER WORK ON THE S.R. 13 HILL,
GUARDRAIL INSTALLTION IN DAWES ARBETUM, AND
DRAINAGE WORK IN THE VILLAGE OF JACKSONTOWN

PROJECT EARTH DISTURBED AREA = 0.80 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA = 0.15 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA = 0.95 ACRES

LOCATION	PLAN SPLIT	COUNTY	ROUTE	BEGIN SLM	END SLM	LENGTH MILES	CITY/ VILLAGE
1A	1	LIC	13	0.00	0.54	0.54	
1B	2	LIC	13	0.54	6.48	5.94	
1C	1	LIC	13	6.48	7.76	1.28	
1D	3	LIC	13	7.76	8.37	0.61	HEATH
1E	4	LIC	13	8.37	9.10	0.73	NEWARK
	6	LIC	ODOT - D05 COMPLEX				

2016 SPECIFICATIONS

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

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

APPROVED: Mark D. Johns
DATE 5/18/16 CITY OF HEATH
MAYOR

APPROVED *Don R. Mahoney*
DATE 7/6/2016 CITY ENGINEER
CITY OF NEWARK

APPROVED [Signature]
DATE 7/11/16 DISTRICT DEPUTY DIRECTOR

APPROVED Jerry Whayl
DATE 7-20-16 DIRECTOR, DEPARTMENT OF
TRANSPORTATION

LOCATION MAP

LATITUDE: 39° 59' 28" LONGITUDE: 82° 24' 24"

PORTION TO BE IMPROVED -----

DESIGN DESIGNATION	LOCATIONS				
	1A	1B	1C	1D	1E
Functional Classification	MA	MA	MA	MA/PA	PA
Opening Year ADT (2015)	13,000	9,900	7,500	13,000	8,700
Design Year ADT (2027)	14,000	11,000	7,800	14,000	9,200
Design Hourly Volume (2027)	1,700	1,100	780	1,400	830
Directional Distribution	70%	66%	64%	64%	59%
Trucks (24 Hour B&C)	3%	3%	4%	3%	4%
Design Speed	55mph	55mph	55mph	55mph	55mph
Legal Speed	55mph	55mph	55mph	55mph	55mph

MA = MINOR ARTERIAL
PA = PRINCIPAL ARTERIAL

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES
 CONTACT BOTH SERVICES TWO WORKING DAYS
 BEFORE YOU DIG.



**OHIO
 Utilities Protection
 SERVICE**

Call Before You Dig
 1-800-362-2764

(Non-members must be called directly)

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

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

[illegible]

FEDERAL PROJECT NO.
E120(890)

PID NO.: 92958

CONSTRUCTION PROJECT NO.:

NONE

LIC-13-0.00

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LIC - SR 13-00.00 (PART 1, 2 AND 3
160533 PID - 92958
Dist 5 10/6/2016

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

Conformed Set

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UTILITIES

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

AMERICAN ELECTRIC POWER CO.
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
ATTN: PAUL PAXTON
614-883-6831

AT&T OHIO
160 NORTH SIXTH STREET
ZANESVILLE, OHIO 43701
ATTN: BARRETT TAMASOVICH
740-454-3574

CENTURYLINK TELEPHONE
441 WEST BROAD STREET
PATASKALA, OHIO 43062
ATTN: DEE REED
74-927-8282

COLUMBIA GAS OF OHIO
2429 NORTH LINDEN AVENUE
ZANESVILLE, OHIO 43701
ATTN: MICHAEL DIBENEDETTO
740-260-0370

LICKING COUNTY WATER/WASTE WATER
4455 WALCUTT ROAD
BUCKEYE LAKE, OHIO 43008
ATTN: KEVIN EBY
740-928-0349

WINDSTREAM
66 NORTH FOURTH STREET
NEWARK, OHIO 43055
ATTN: DAVE HOLTON
740-349-8804

TIME WARNER CABLE
111 NORTH 11TH STREET
NEWARK, OHIO 43055
ATTN: BRIAN AMENDE
740-322-6703

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.

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.

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 COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

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 254, PAVEMENT PLANING, ASPHALT CONCRETE

DEPTH OF PLANING VARIES BETWEEN 1.5" AND 3.25" AS SHOWN ON PAVEMENT DATA TABLE. 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 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 THE PAVEMENT PLANING OPERATION.

THE INTENT OF THIS OPERATION IS TO REPAIR THOSE AREAS OF PAVEMENT WHICH HAVE COMPLETELY FAILED. DEPTH OF EXCAVATION SHALL BE APPROXIMATELY 7". THE MINIMUM WIDTH OF THE REPAIRS SHALL BE 4'. 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.

REPAIR QUANTITIES MAY BE USED ON 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-SUMMARIES FOR THE ABOVE DESCRIBED PURPOSE.

ITEM 253, PAVEMENT REPAIR
LOCATION 1A - 100 CU.YD.
LOCATION 1B – 700 CU.YD.
LOCATION 1C – 120 CU.YD.
LOCATION 1D – 60 CU.YD.
LOCATION 1E – 220 CU.YD.

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.

ITEM 617, COMPACTED AGGREGATE, AS PER PLAN

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

ITEM 621, RAISED PAVEMENT MARKER REMOVED

THE FOLLOWING 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 644 PARKING LOT STALL MARKING

AN ESTIMATED QUANTITY OF PARKING LOT STALL MARKINGS HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE IN THE CITY OF NEWARK. PLACEMENT SHALL BE AS PER PLAN SHEETS OR AS DIRECTED BY THE CITY ENGINEER.

THE CONTRACTOR SHALL CONTACT THE CITY OF NEWARK ENGINEER BEFORE PLACING FINAL MARKINGS SO AS TO CONFIRM FINAL LOCATIONS.

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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 16.**

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 FOR ASPHALT DRIVEWAYS 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' WITHOUT CREATING A BUTT JOINT, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. CREATE A BUTT JOINT FOR EXISTING ASPHALT/CONCRETE DRIVES/APRONS. GRAVEL DRIVES WITH ASPHALT APRONS SHALL NOT HAVE BUTT JOINTS, BUT ONLY IF THE EXISTING ASPHALT APRON IS IN AN ACCEPTABLE CONDITION TO BE PAVED OVER. 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 1.5" IN DEPTH TO ACCOMMODATE 1.5" 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 1A - 230 SQ.YD.
LOCATION 1B – 1110 SQ.YD.
LOCATION 1C – 290 SQ.YD.
LOCATION 1D – 110 SQ.YD.

ITEM 304, AGGREGATE BASE
LOCATION 1A - 1 CU.YD.
LOCATION 1B – 4 CU.YD.
LOCATION 1C – 1 CU.YD.
LOCATION 1D – 1 CU.YD.

ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 70-22M
LOCATION 1A - 10 CU.YD.
LOCATION 1B – 46 CU.YD.
LOCATION 1C – 12 CU.YD.
LOCATION 1D – 5 CU.YD.

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 1A - 100 SQ.YD.
LOCATION 1B – 610 SQ.YD.
LOCATION 1C – 110 SQ.YD.
LOCATION 1D – 60 SQ.YD.

ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 70-22M
LOCATION 1A - 5 CU.YD.
LOCATION 1B - 26 CU.YD.
LOCATION 1C – 5 CU.YD.
LOCATION 1D – 3 CU.YD.

ITEM 611, CATCH BASIN ADJUSTED TO GRADE
ITEM 611, MANHOLE ADJUSTED TO GRADE
ITEM 638, VALVE BOX ADJUSTED TO GRADE

THESE ITEMS SHALL BE USED TO ADJUST TO GRADE CATCH BASINS, MANHOLES, AND WATER VALVE BOXES LOCATED THROUGH OUT THE PROJECT LIMITS AS DIRECTED BY THE ENGINEER.

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 1E - 3 EACH
ODOT D05 COMPLEX – 24 EACH

ITEM 611, MANHOLE ADJUSTED TO GRADE
LOCATION 1D - 1 EACH
LOCATION 1E – 12 EACH
ODOT D05 COMPLEX – 4 EACH

ITEM 638, VALVE BOX ADJUSTED TO GRADE
LOCATION 1E - 5 EACH

ITEM 606, ANCHOR ASSEMBLY, MGS TYPE B

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

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

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

THE FACE OF THE TYPE B IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

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

ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E

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

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

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

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

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

CALCULATED	GENERAL NOTES	LIC-13-0.00	3 90	LME
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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.

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

ITEM 632, DETECTOR LOOP, AS PER PLAN

LOCATION 1B – 12 EACH

ON S.R. 13 N.B. BEFORE U.S. 40 – 1 DILEMMA
ON U.S. 40 W.B. AT S.R. 13 – 1 POWERHEAD
ON S.R. 13 S.B. BEFORE U.S. 40 – 1 DILEMMA

ON S.R. 13 N.B. AT DORSEY MILL RD. – 1 POWERHEAD, 4 DILEMMA
DORSEY MILL RD. (LEFT) – 2 POWERHEAD
DORSEY MILL RD. (RIGHT) – 2 POWERHEAD

LOCATION 1C – 5 EACH

ON S.R. 13 S.B. AT DORSEY MILL RD. – 1 POWERHEAD, 4 DILEMMA

LOCATION 1D – 3 EACH

ON S.R. 13 N.B. AT HOPEWELL DR. – 1 POWERHEAD
ON S.R. 13 S.B. AT HOPEWELL DR. – 1 POWERHEAD
ON HOPEWELL DR. (RIGHT) – 1 POWERHEAD

LOCATION 1E – 3 EACH

ON S.R. 13 N.B. AT WILWOOD AVE. – 1 POWERHEAD, 1 DILEMMA
ON S.R. 13 S.B. AT WILWOOD AVE. – 1 DILEMMA

SAFETY EDGE

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 SAFETSLOPE 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

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

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 WHEN NECESSARY FOR TRANSITIONS AND TUENOUTS 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 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M

LOCATION 1A - 8 CU.YD.
LOCATION 1B - 83 CU.YD.
LOCATION 1C - 18 CU.YD.
LOCATION 1D – 9 CU.YD.

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

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

CURB REPAIR (ODOT D-5 COMPLEX)

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY AND SHALL BE USED TO REPLACE BROKEN/DEFICIENT CURB WITHIN THE ODOT D-5 COMPLEX **AS DIRECTED BY THE ENGINEER.**

ODOT D-5 COMPLEX:
ITEM 202, CURB REMOVED – 100 FT
ITEM 609, CURB, TYPE 6 – 100 FT

SIDEWALK REPAIR (VILLAGE OF JACKSONTOWN)

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE LOCATION 1B SUB-SUMMARY AND SHALL BE USED TO REPAIR DETERIORATED CONCRETE WALK WITHIN THE VILLAGE OF JACKSONTOWN **AS DIRECTED BY THE ENGINEER.**

LOCATION 1B (JACKSONTOWN):
ITEM 202, WALK REMOVED – 400 SF
ITEM 608, 4" CONCRETE WALK – 400 SF

PAVED GUTTER REPAIR (S.R. 13 HILL)

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE LOCATION 1B SUB-SUMMARY AND SHALL BE USED TO REPAIR THE PAVED CONCRETE GUTTER PRIOR TO RESURFACING **AS DIRECTED BY THE ENGINEER.**

LOCATION 1B (GUTTER):
ITEM 613, LOW STRENGTH MORTAR BACKFILL, TYPE 2, AS PER PLAN - 10 CU. YD.

THE GUTTER SHALL BE CLEANED OF ALL DIRT, LOOSE CONCRETE, AND ALL OTHER DEBRIS PRIOR TO APPLYING LOW STRENGTH MORTAR. THE ADDITIONAL WORK SHALL BE INCLUDED IN PAYMENT FOR LOW STRENGTH MORTAR BACKFILL, TYPE 2, AS PER PLAN.

ITEM SPECIAL - REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS

THIS ITEM SHALL BE USED TO REINFORCE LONGITUDINAL WIDENING JOINT FOR TURN LANE CONSTRUCTION AT DAWES ARBORETUM ON S.R. 13. PLACE REINFORCING MESH ON PLANED SURFACE, 5.0' WIDE CENTERED OVER LONGITUDINAL JOINT. REINFORCING MATERIAL SHALL BE GLASGRID CG100 OR EQUIVALENT AND SHALL BE PLACED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND THIS NOTE.

THIS PROJECT IS EVALUATING THE EFFECTIVENESS OF REINFORCED MESH OVER LONGITUDINAL JOINTS. THEREFORE, **ONLY PLACE THE REINFORCED MESH FROM STA. 215+60 TO STA. 224+60.**

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, TRAFFIC CONTROL AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICE BID FOR ITEM 690 SPECIAL - REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS.

LOCATION 1B:
ITEM 690 SPECIAL - REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS - 500 SQ.YD.

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ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND THE STANDARD DRAWINGS **MT-97.10 AND MT-97.12**.

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

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. THIS RULE DOES NOT APPLY TO PLANING AT BRIDGES OR ACROSS BRIDGES UNLESS THE BRIDGE IS BEING TREATED THE SAME AS THE ADJACENT ROADWAY.

RESURFACING OF THE ODOT D-5 FACILITY SHALL BE COORDINATED WITH ODOT D-5 FACILITIES. **CONTACT FACILITIES MANAGER BOB ROAHRIG AT 740.323.5150** FOR COORDINATION AND ACCEPTANCE OF WORK.

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.

TIME RESTRICTIONS

ALL LANES OF TRAFFIC ON **S.R. 13** SHALL BE OPEN BY **3:30 PM** EACH DAY FOR THE FOLLOWING WORK:

- DRAINAGE WORK IN THE VILLAGE OF JACKSONTOWN
- PAVED GUTTER WORK ON THE S.R. 13 HILL

ANY EXTENSION OF WORK BEYOND 3:30 PM SHALL BE AT THE APPROVAL OF THE ENGINEER. WORK ZONE LENGTHS SHOULD BE LIMITED TO THE AMOUNT OF WORK THE CONTRACTOR FEELS CAN BE COMPLETED IN A GIVEN DAY.

DROP-OFFS IN WORK ZONES

DROP-OFFS THAT DEVELOP DURING CONSTRUCTION OPERATIONS AND THAT ARE NOT OTHERWISE PROVIDED FOR IN THE PLANS SHALL BE TREATED AS SHOWN ON STANDARD DRAWING **MT-101.90** EXCEPT AS STATED BELOW.

A MAXIMUM DROP-OFF OF **TWELVE (12) INCHES** WILL BE PERMITTED FOR THE TIME RESTRICTED WORK NOTED ABOVE. THE FOLLOWING PRECAUTIONS SHALL OCCUR PRIOR TO ACCEPTANCE OF THE 12" DROP-OFF:

- TEN (10) FOOT DRUM SPACING PLACED ON THE SHOULDER BETWEEN TRAFFIC AND THE ADJACENT DROP-OFF
- 35 MPH SPEED ADVISORY PLATES (W13-1P-30) SHALL BE PLACED APPROXIMATELY 500 FEET PRIOR TO THE DROP-OFF

WHERE THE PLANS DO NOT PROVIDE SPECIFIC ITEMS FOR LABOR, EQUIPMENT, OR MATERIALS TO IMPLEMENT THE DROP-OFF TREATMENTS SPECIFIED ABOVE, THEY SHALL BE INCLUDED FOR PAYMENT IN THE LUMP SUM BID FOR ITEM 614, 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.
1A	S.R. 13	BEGIN WORK	0.00	2
1B	S.R. 13	BRIDGE: LIC-13-0513	5.13	3
1E	S.R. 13	BRIDGE: LIC-13-0880	8.80	3
1E	S.R. 13	CHURCH AND 3 RD ST.	9.78	3
1E	S.R. 13	TOTAL		6
2	LOCUST	LOCUST AND 3 RD ST.	0.18	2
3	S.R. 13D	BEGIN WORK	0.31	3

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

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 1A: 2 EACH
LOCATION 1B: 31 EACH
LOCATION 1C: 1 EACH
LOCATION 1D: 2 EACH

R4-1 (DO NOT PASS):
LOCATION 1A: 5 EACH
LOCATION 1B: 36 EACH
LOCATION 1C: 5 EACH
LOCATION 1D: 2 EACH
LOCATION 1E: 4 EACH

R4-2 (PASS WITH CARE):
LOCATION 1B: 14 EACH
LOCATION 1C: 3 EACH
LOCATION 1D: 1 EACH

ITEM 614, WORK ZONE MARKING SIGN

LOCATION 1A: 7 EACH
LOCATION 1B: 81 EACH
LOCATION 1C: 9 EACH
LOCATION 1D: 5 EACH
LOCATION 1E: 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.

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

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

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

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

• 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 TI CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH TI 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 1B - 80 HRS, LOCATION 1D - 16 HRS, LOCATION 1E - 40 HR

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ITEM 614. PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, TWO CHANGEABLE MESSAGE SIGNS, 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.

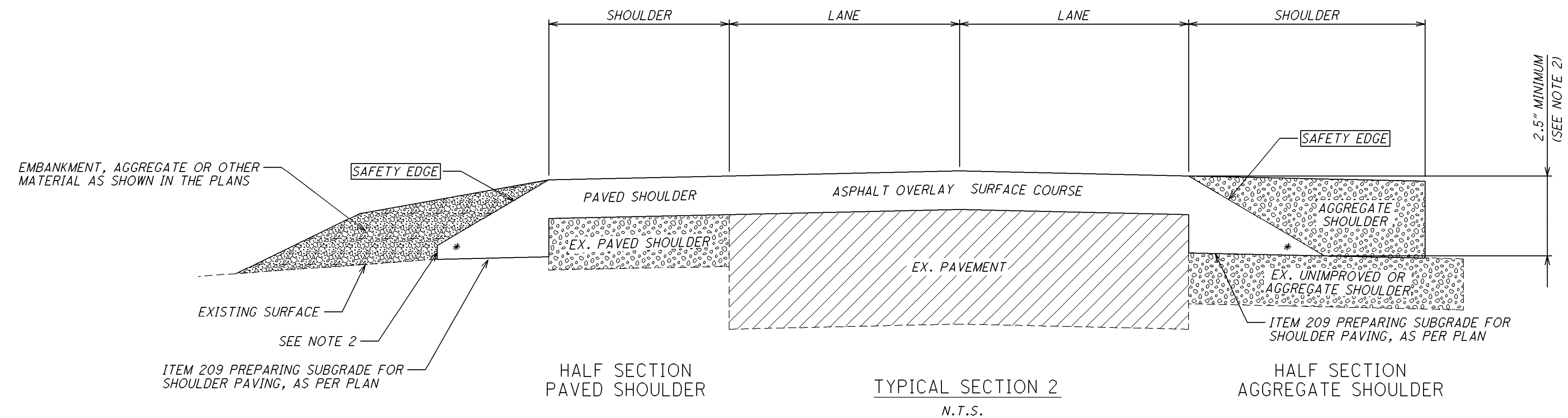
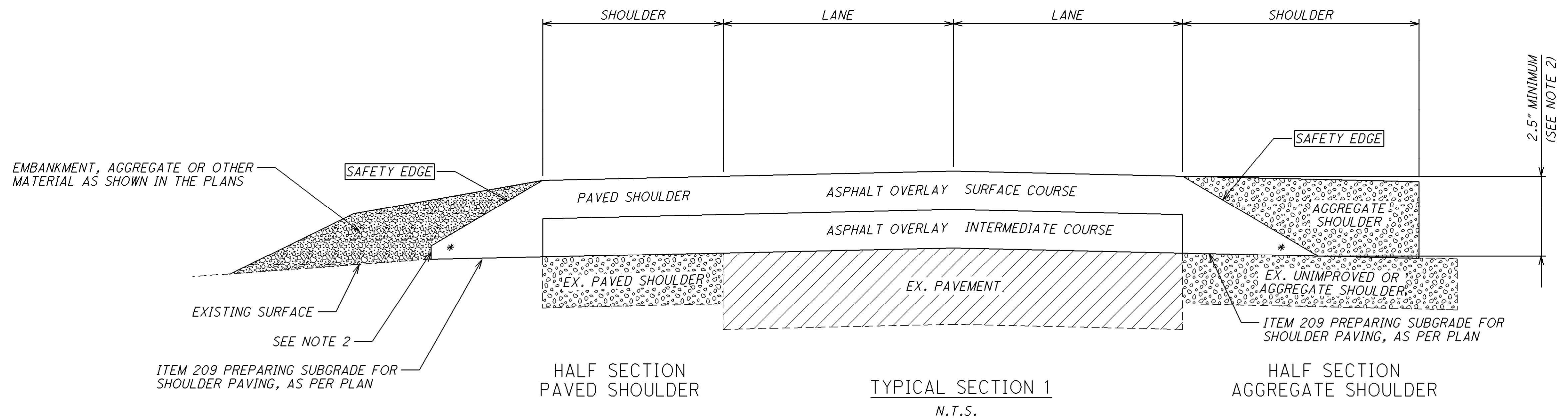
A TOTAL OF 4 PCMS WILL BE REQUIRED FOR THIS PROJECT (4 SIGNS X 45 DAYS = 180 DAY)

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE LOCATION SUB-SUMMARIES:

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

LOCATION 1A - 60 DAY
LOCATION 1B - 60 DAY
LOCATION 1E - 60 DAY

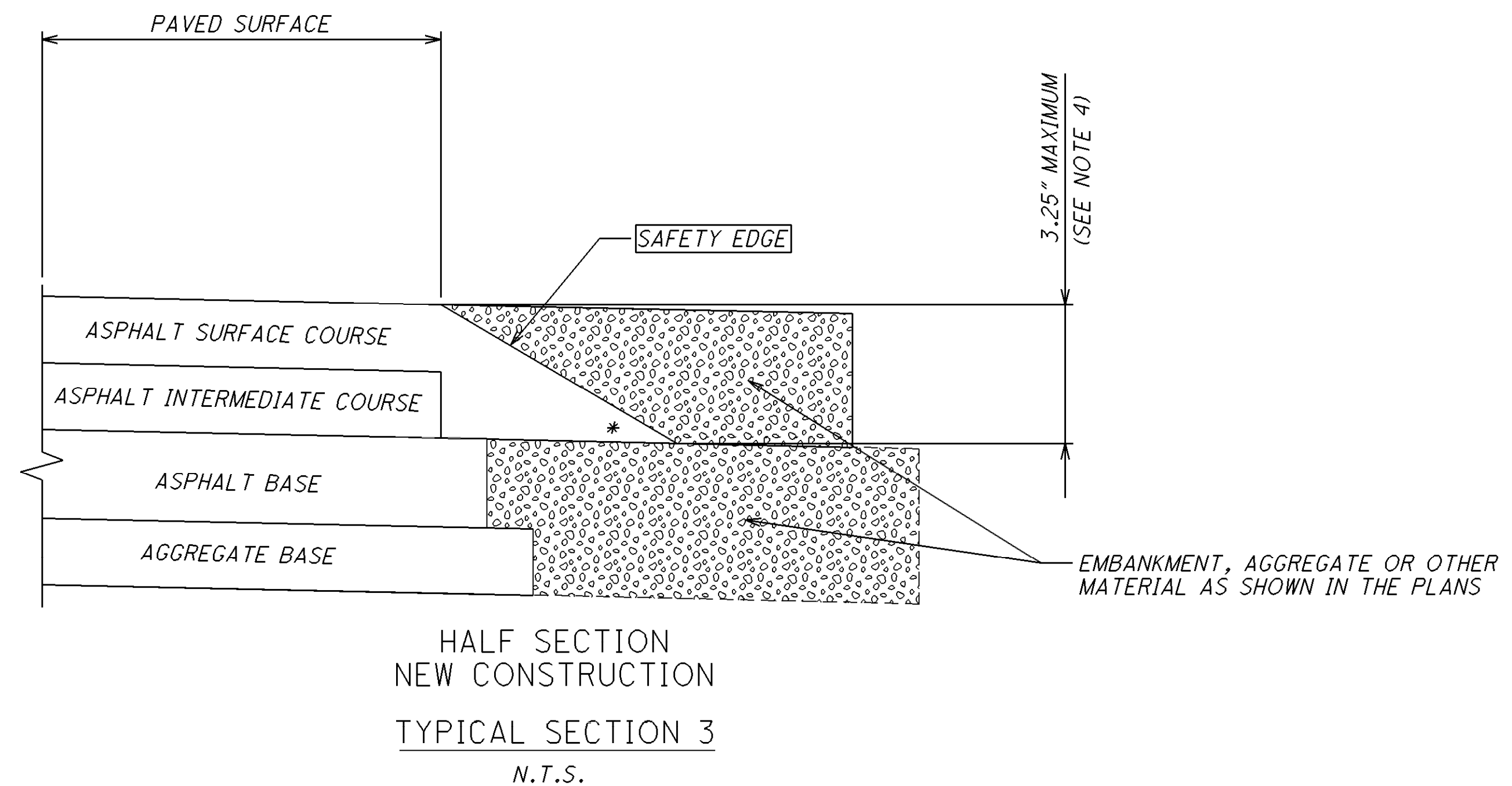
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NOTES:

- 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



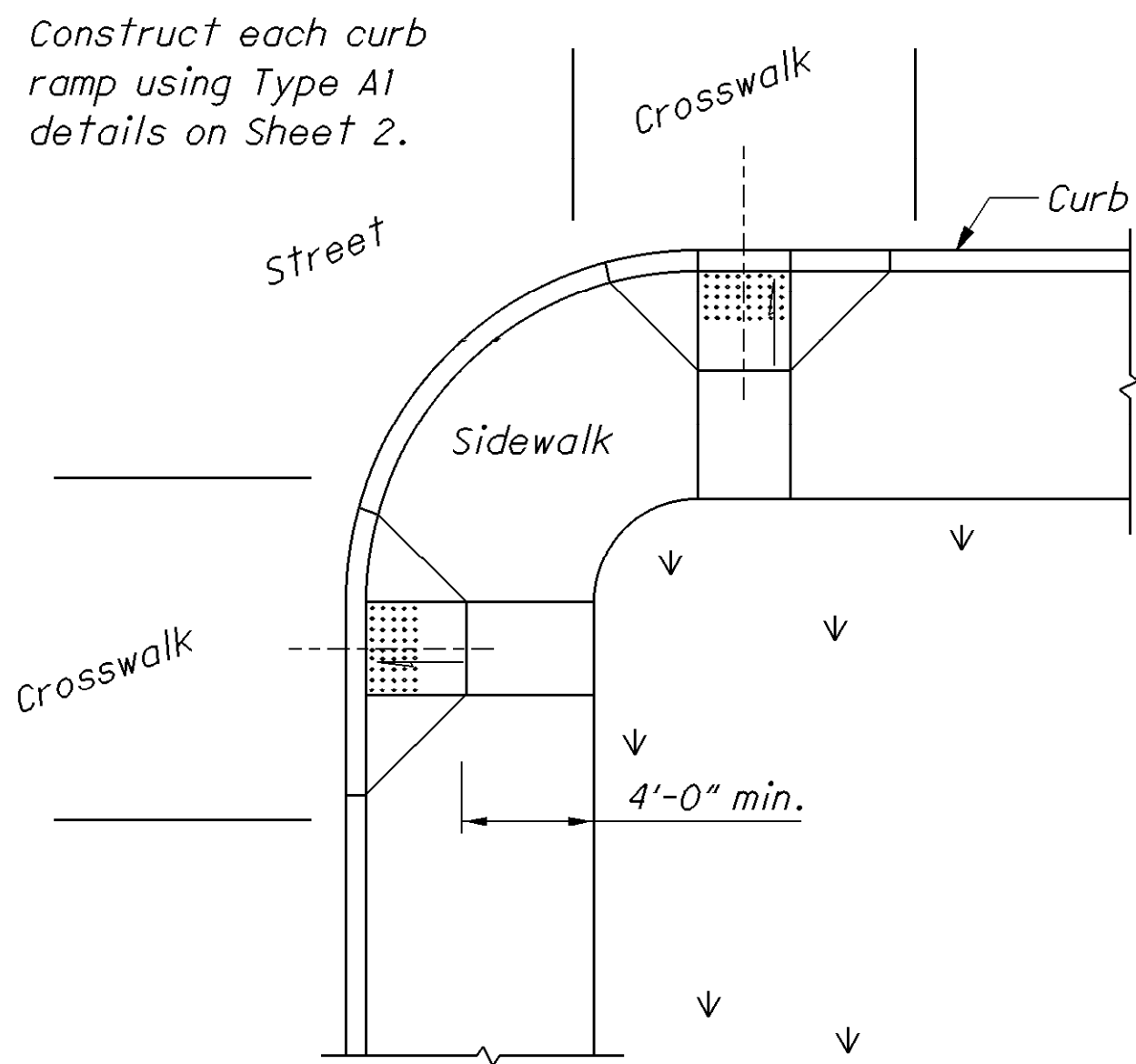
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SAFETY EDGE DETAIL

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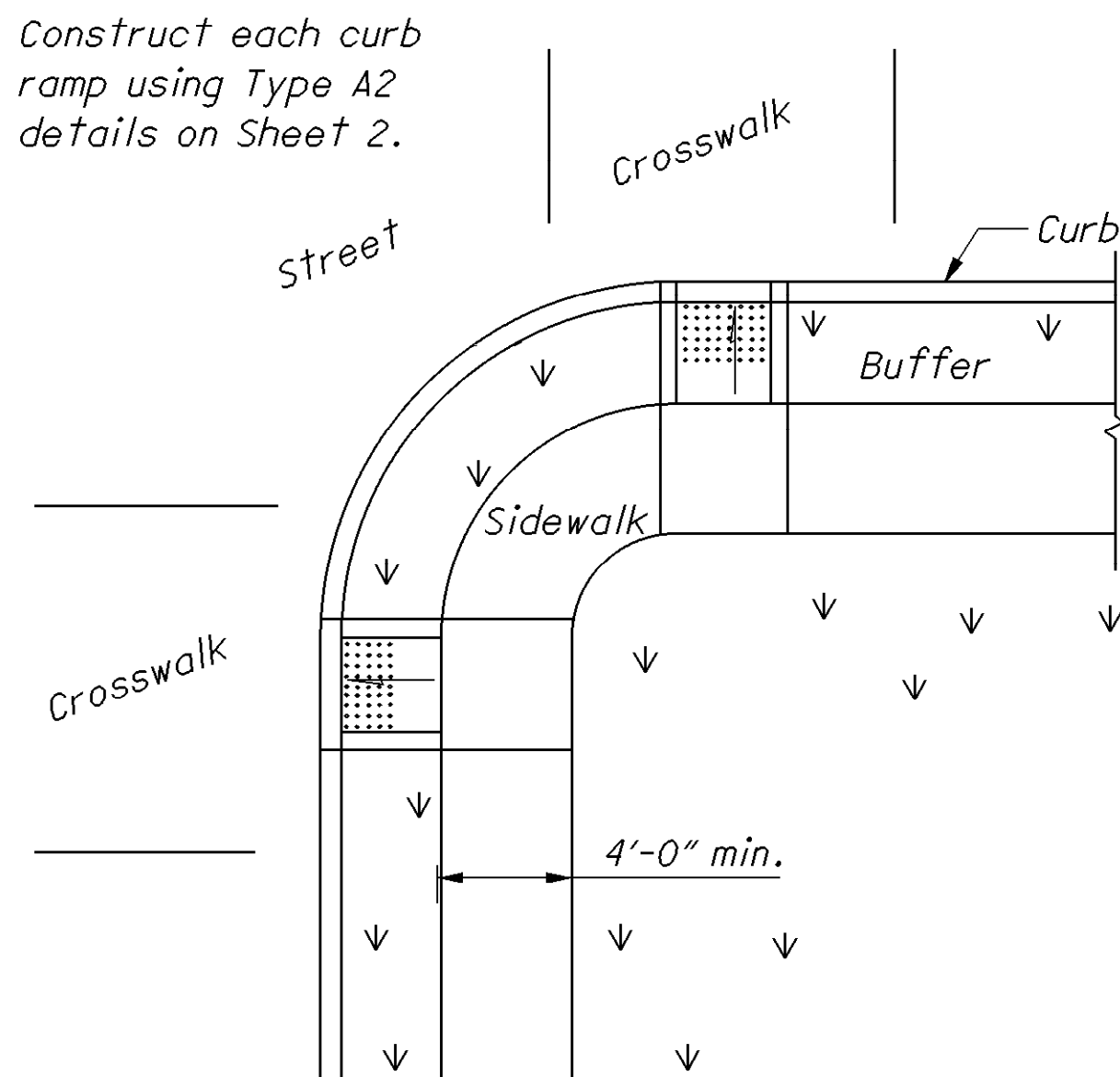
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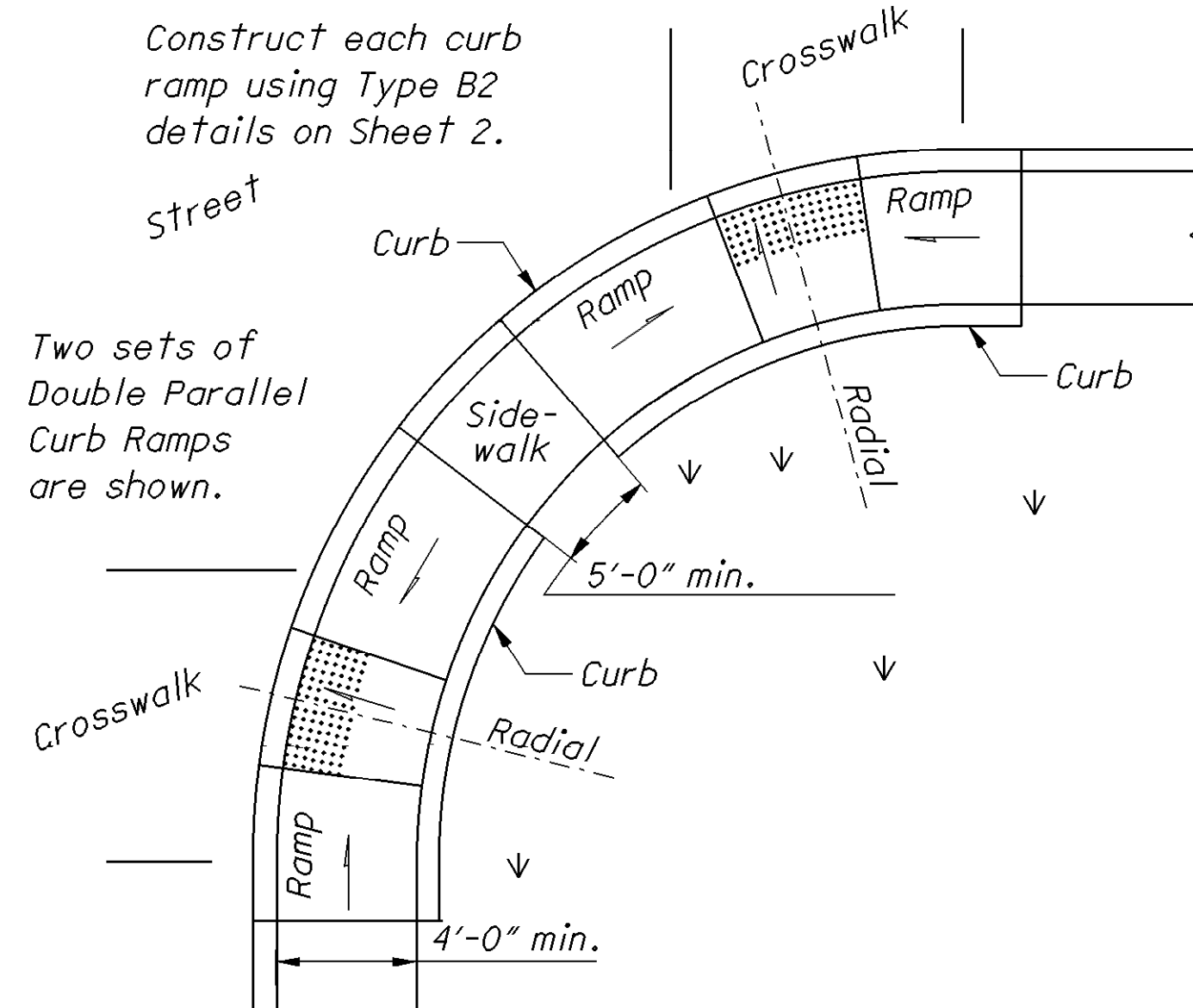


Use curb ramps with flared sides at locations with wide sidewalks.

PERPENDICULAR CURB RAMPS

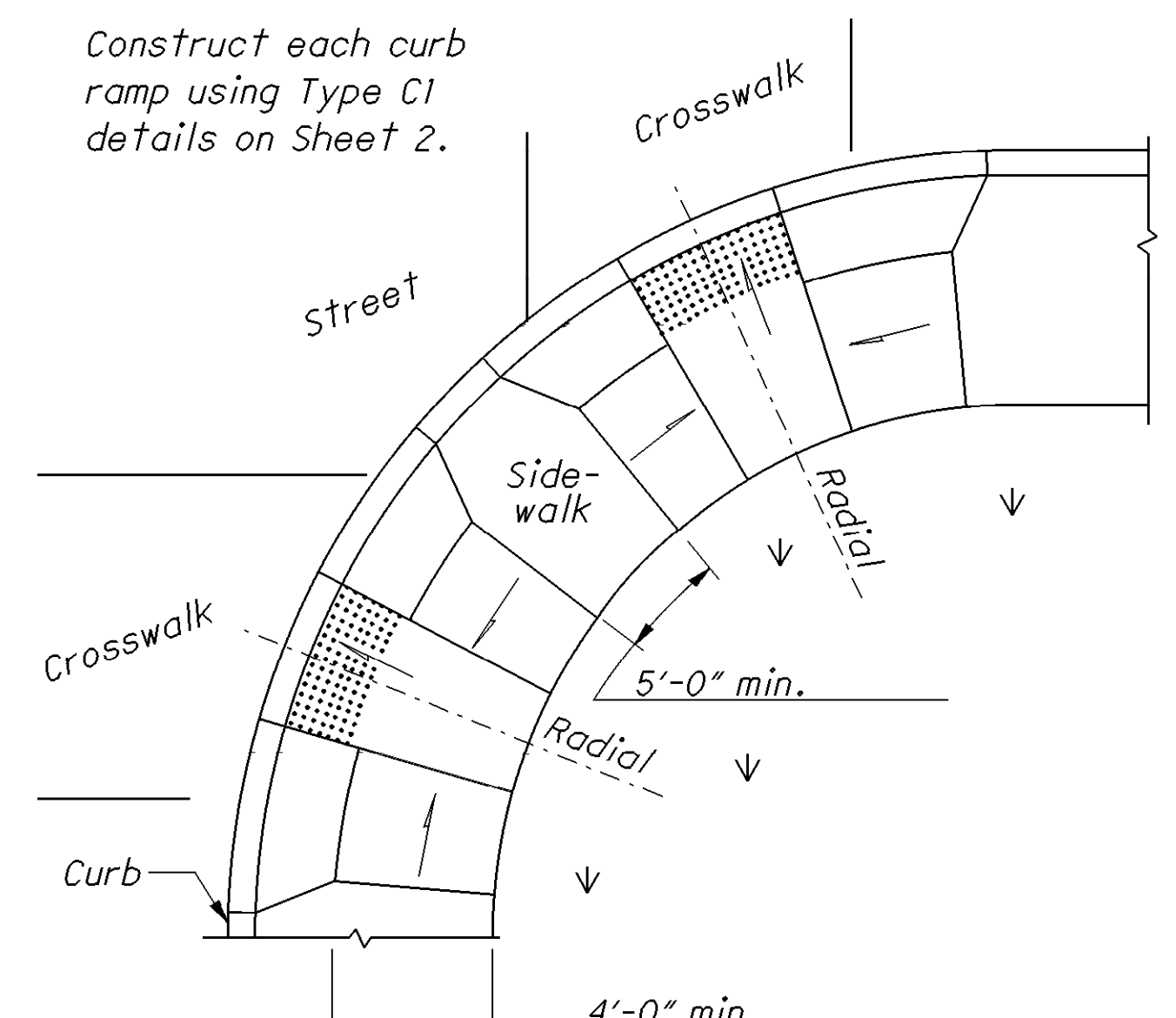


Use curb ramps with returned curbs where buffer is wide enough to accommodate ramp slope.



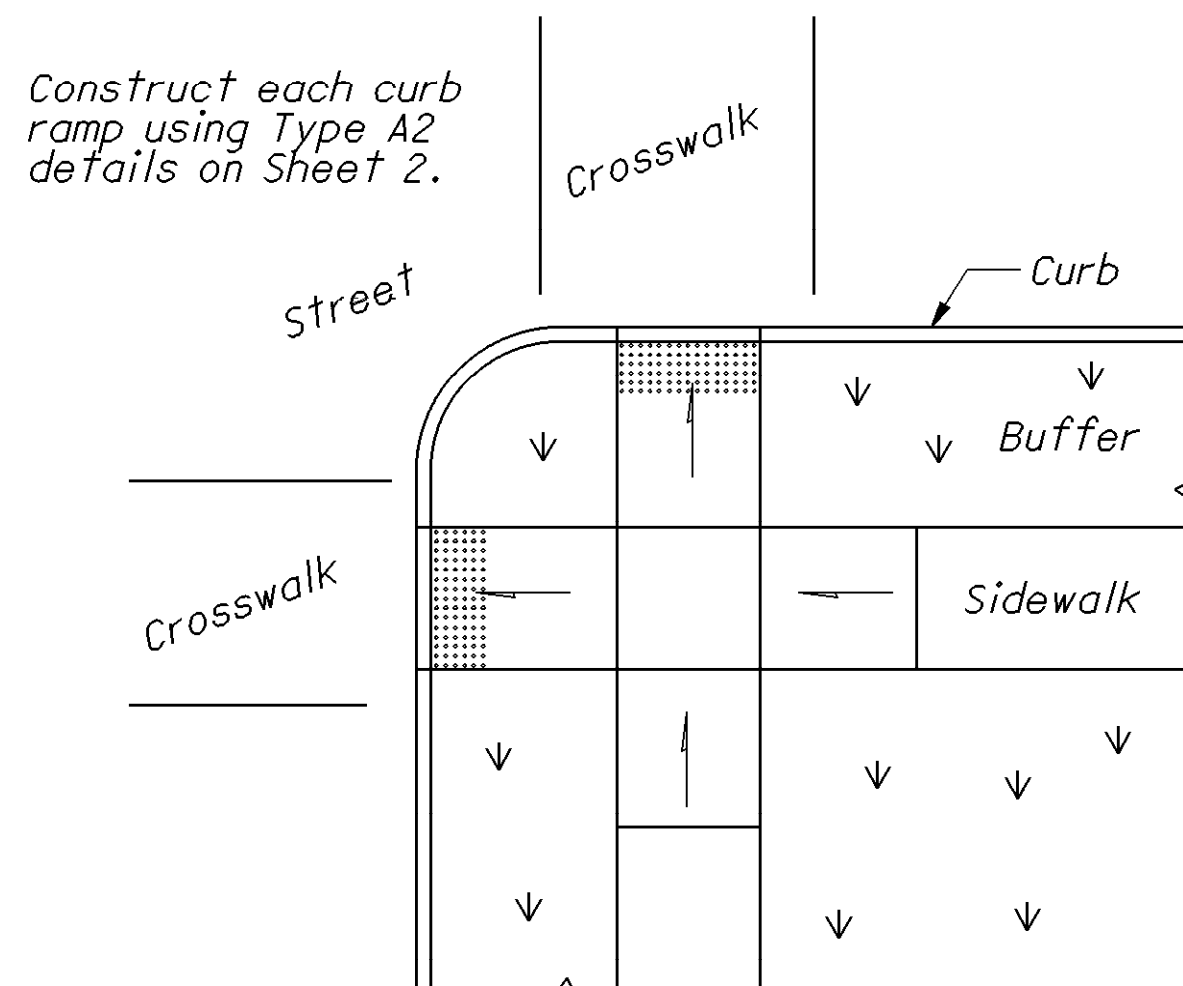
Place on streets having wide turning radius and where sidewalks are narrow.

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.

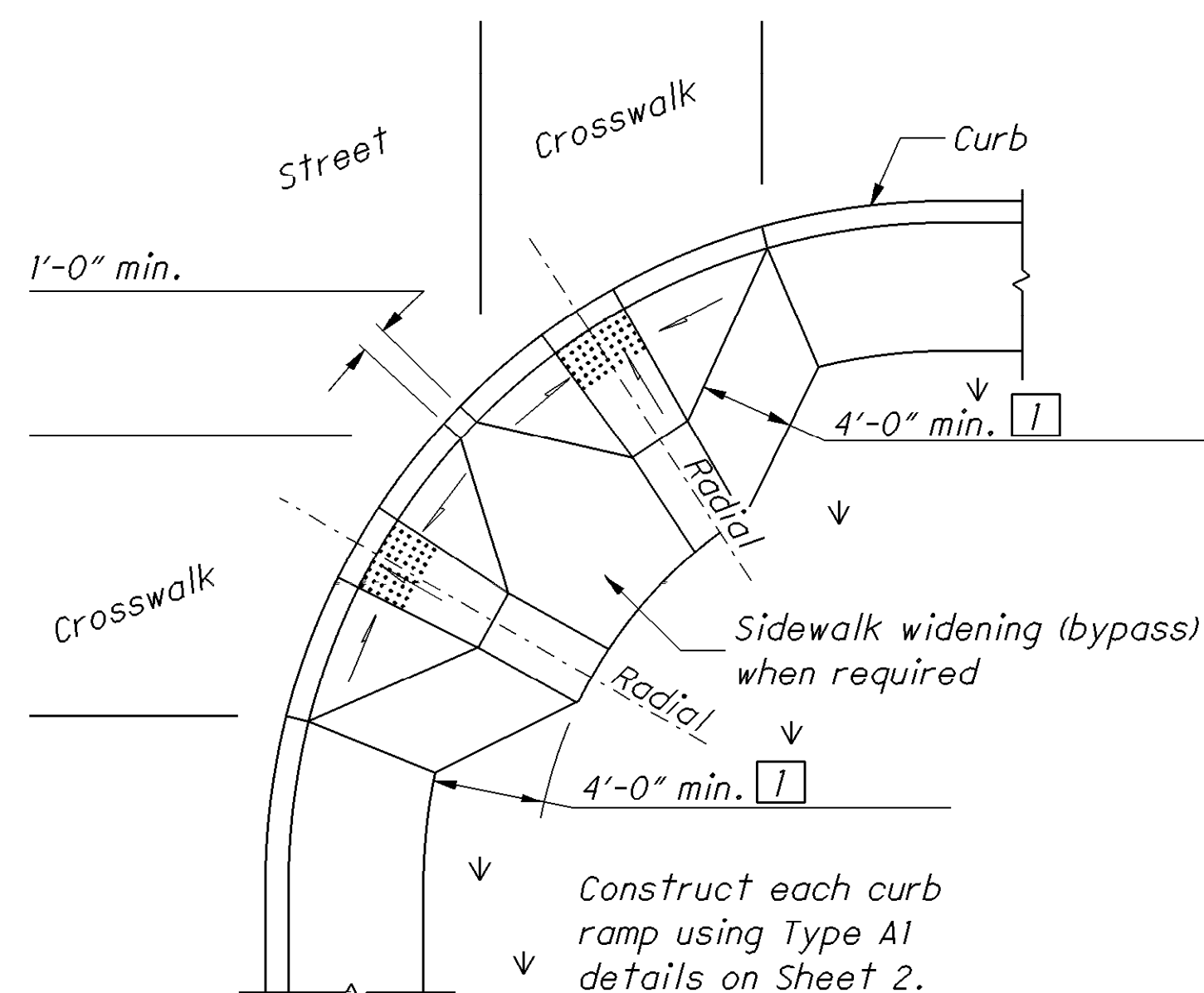
METHOD OF MEASUREMENT: The Department will measure Curb Ramps by the number of each completed curb ramp. The Department will measure Detectable Warnings in existing curb ramps and at grade crossings by the number of square feet completed.

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.

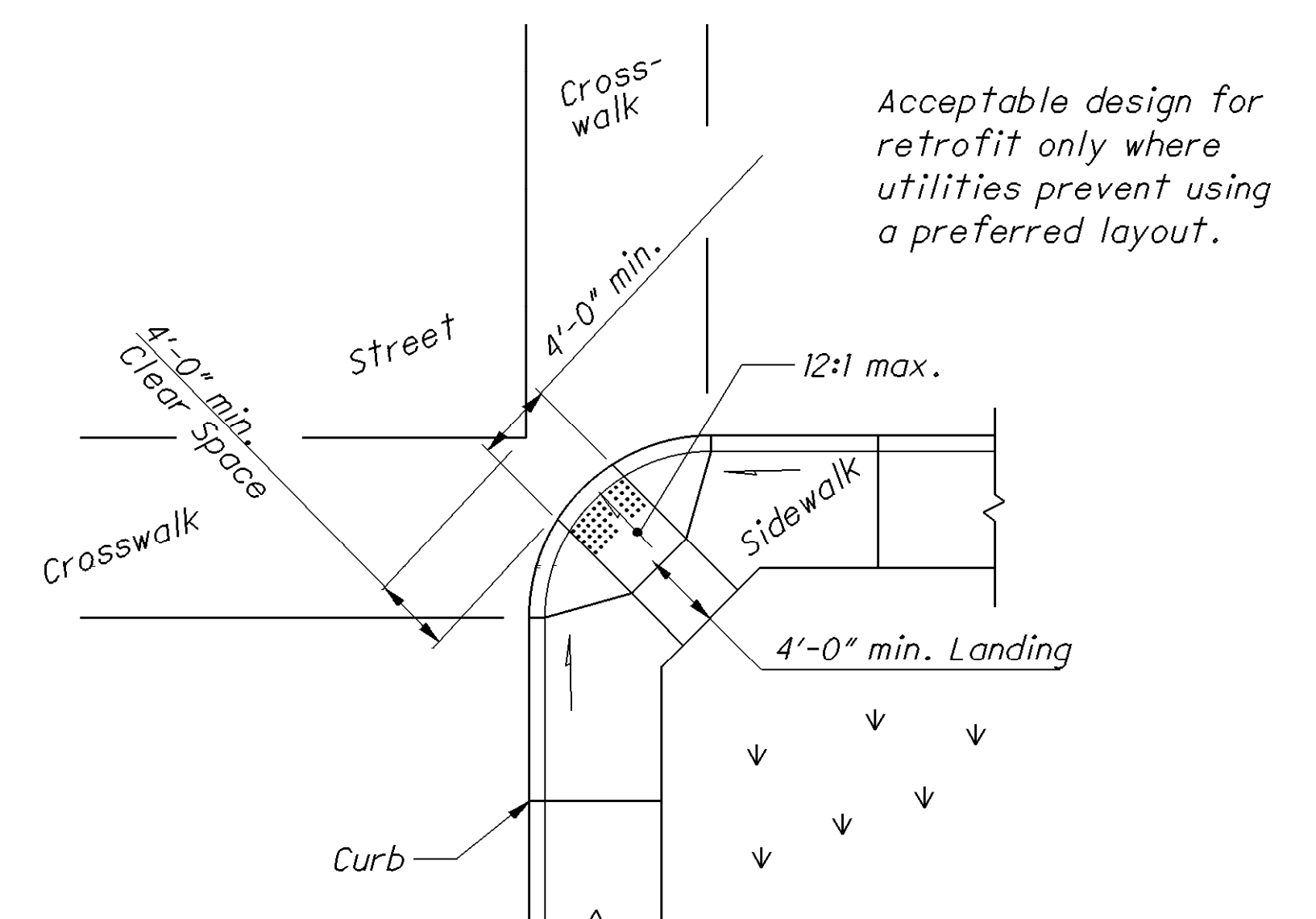
Detectable Warnings constructed in existing curb ramps or for at-grade crossing locations are paid for under Item 690-Special Misc.: Detectable Warning (Sq. Ft.) and is full compensation for excavation, backfill, base course material, reinforcing steel, expansion joint materials, and any incidentals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

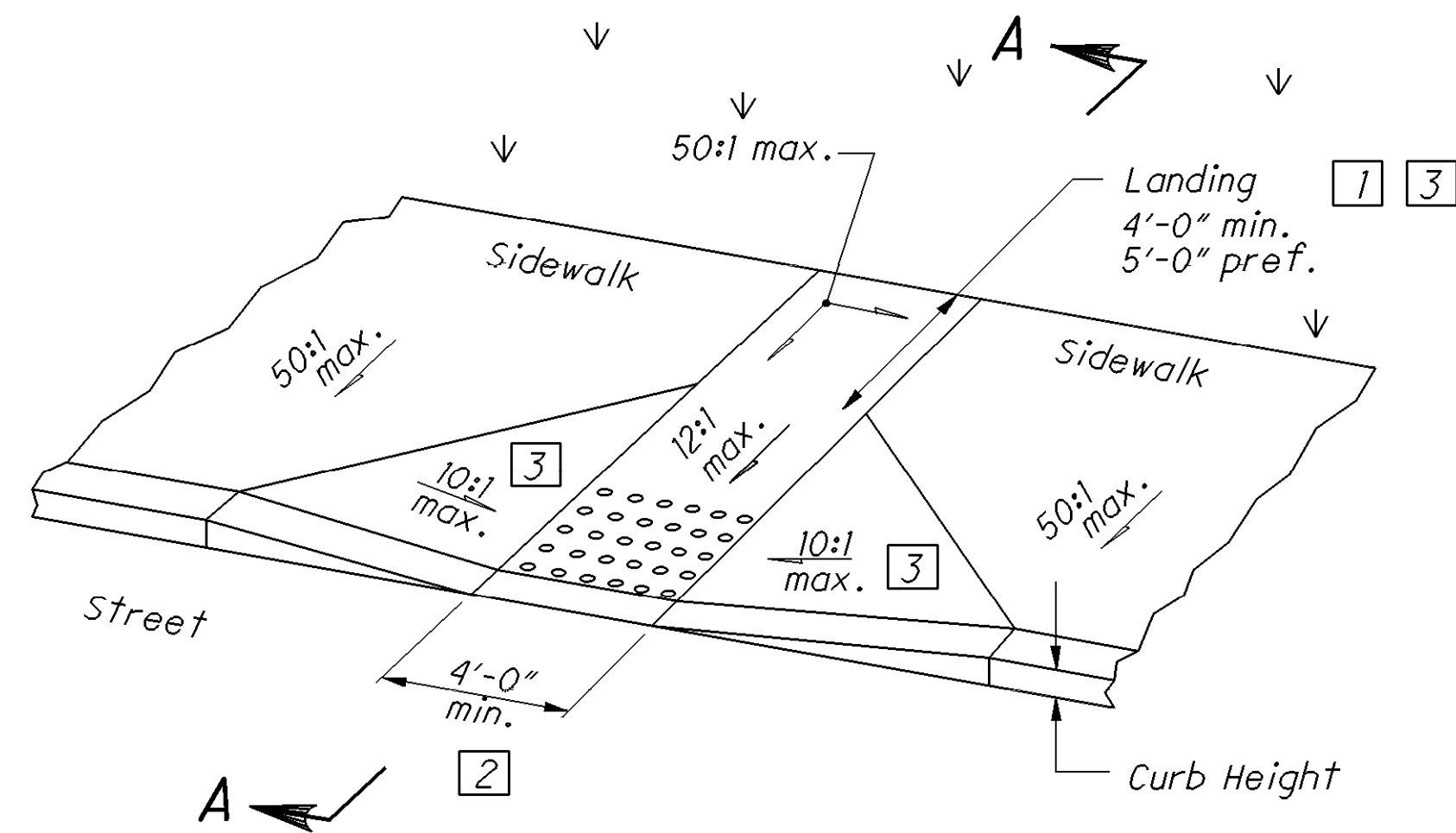


Use this design only for existing walks, and when site constraints prohibit other designs. The diagonal Type D ramp may be constructed as either a Perpendicular, Parallel or Combination curb ramp type. Avoid using where curb radii are less than 20'-0" .

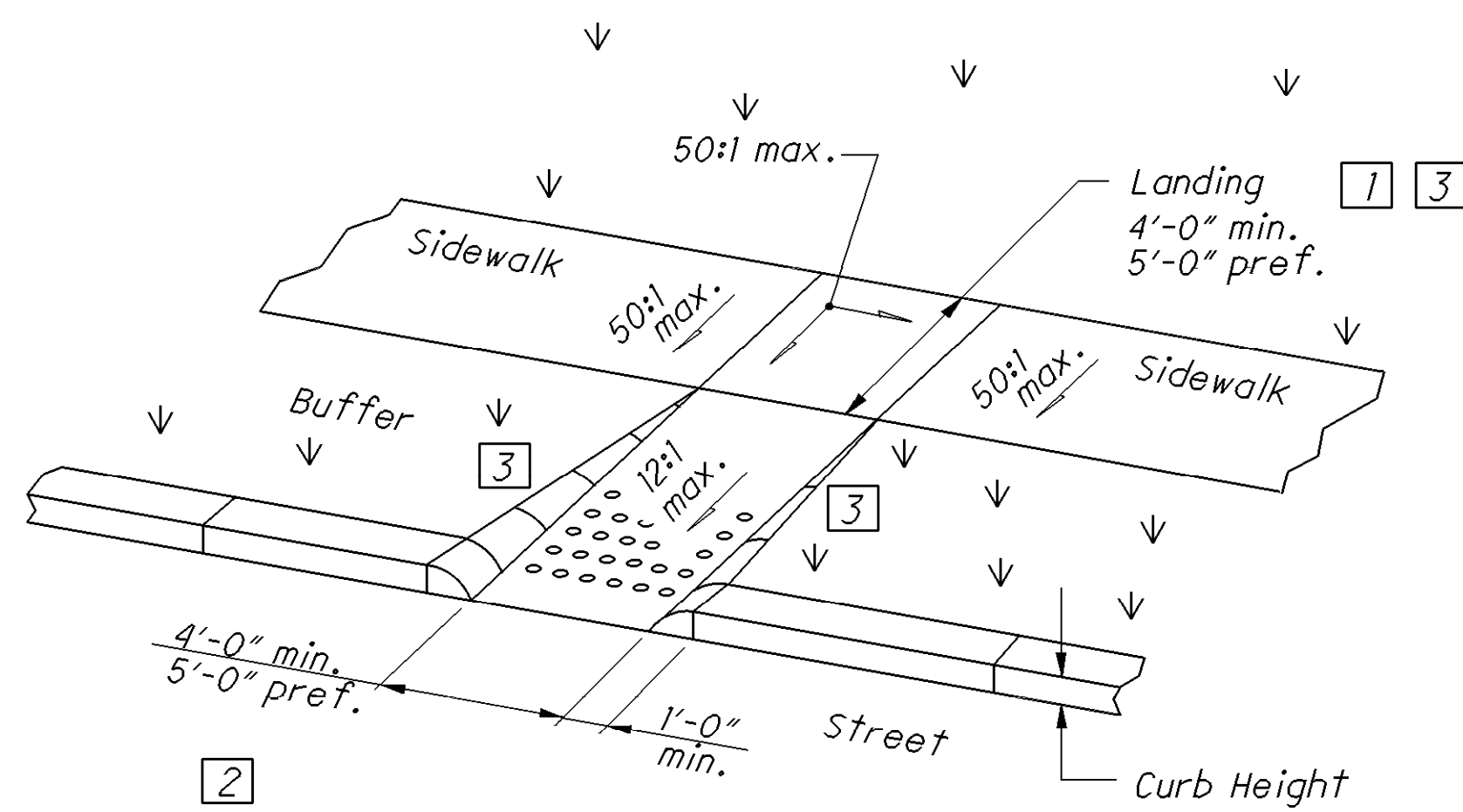
DIAGONAL RAMP (Type D)

ACCEPTABLE CONSTRUCTION PLACEMENT

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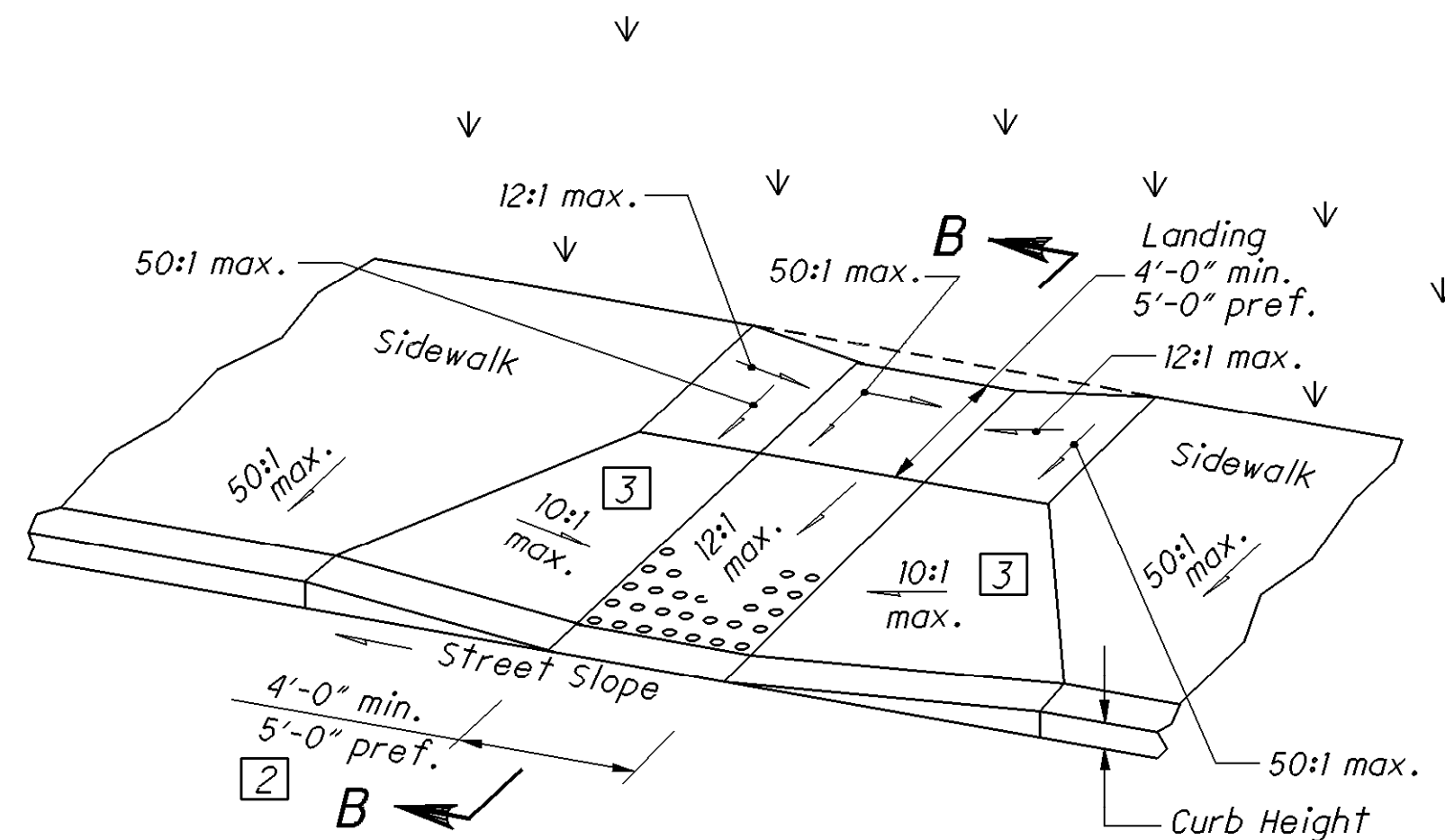


Type A1 (Perpendicular with flared sides)

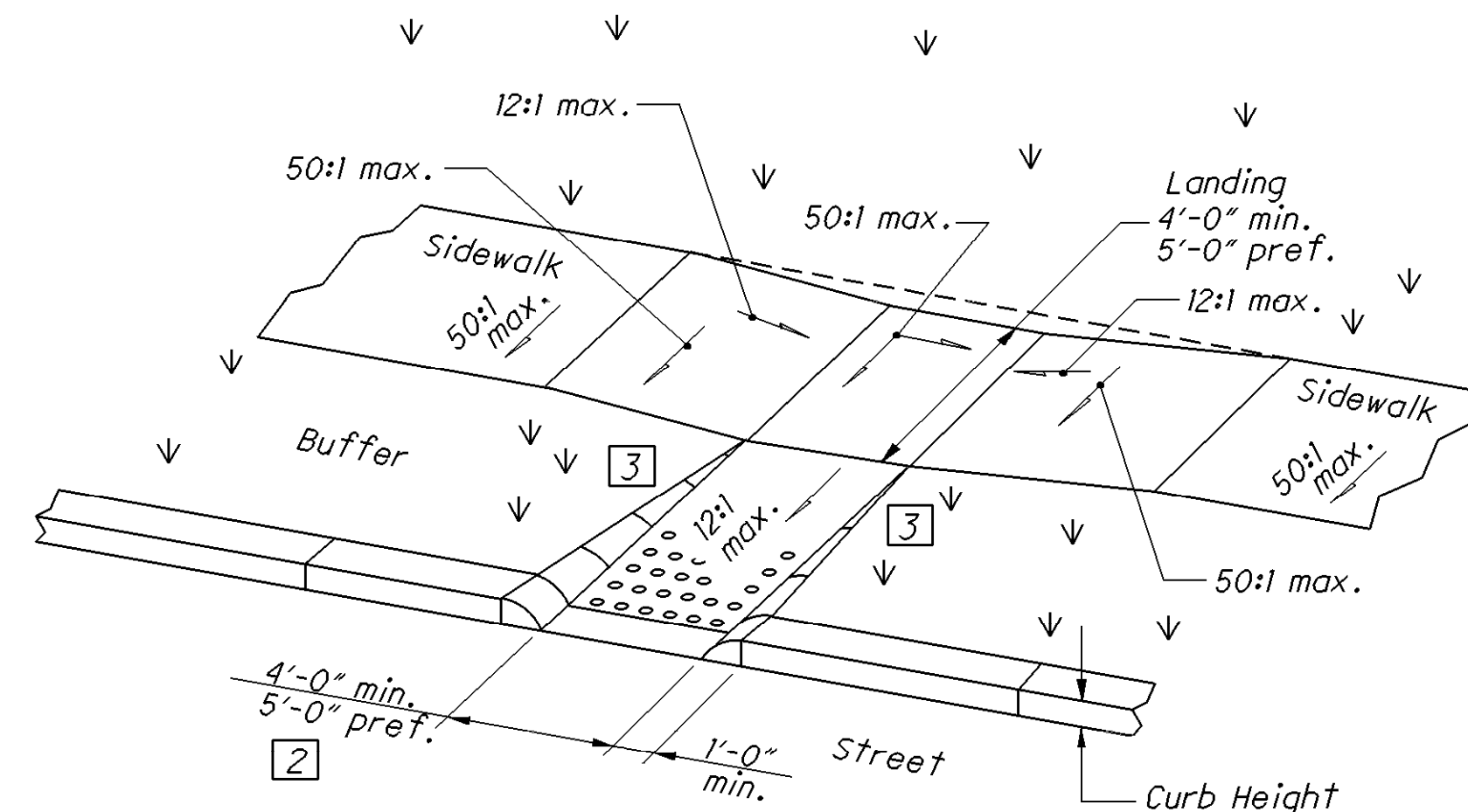


Type A2 (Perpendicular with returned curb)

PERPENDICULAR CURB RAMP DETAILS

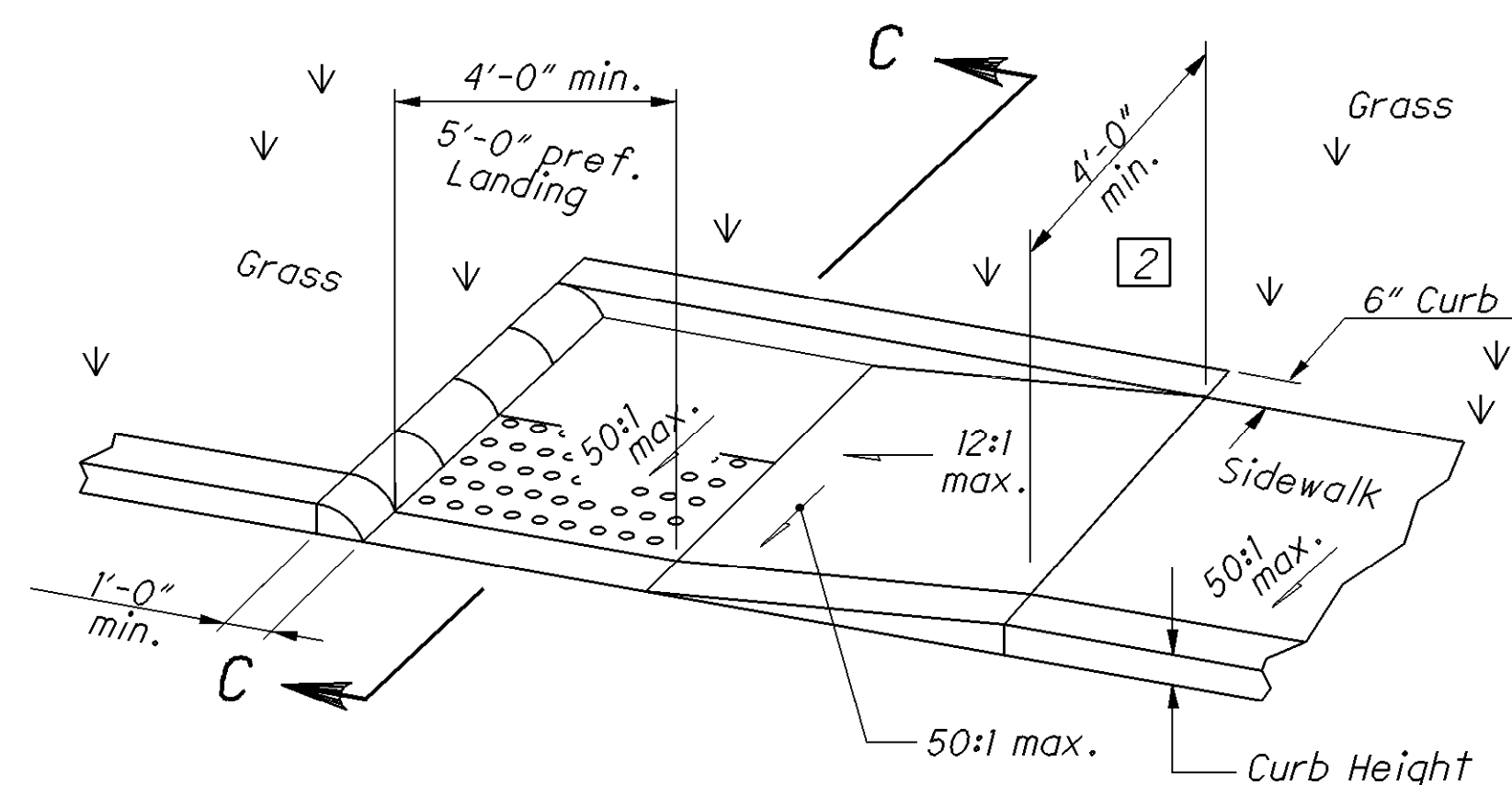


Type C1 (Combined with flared sides)

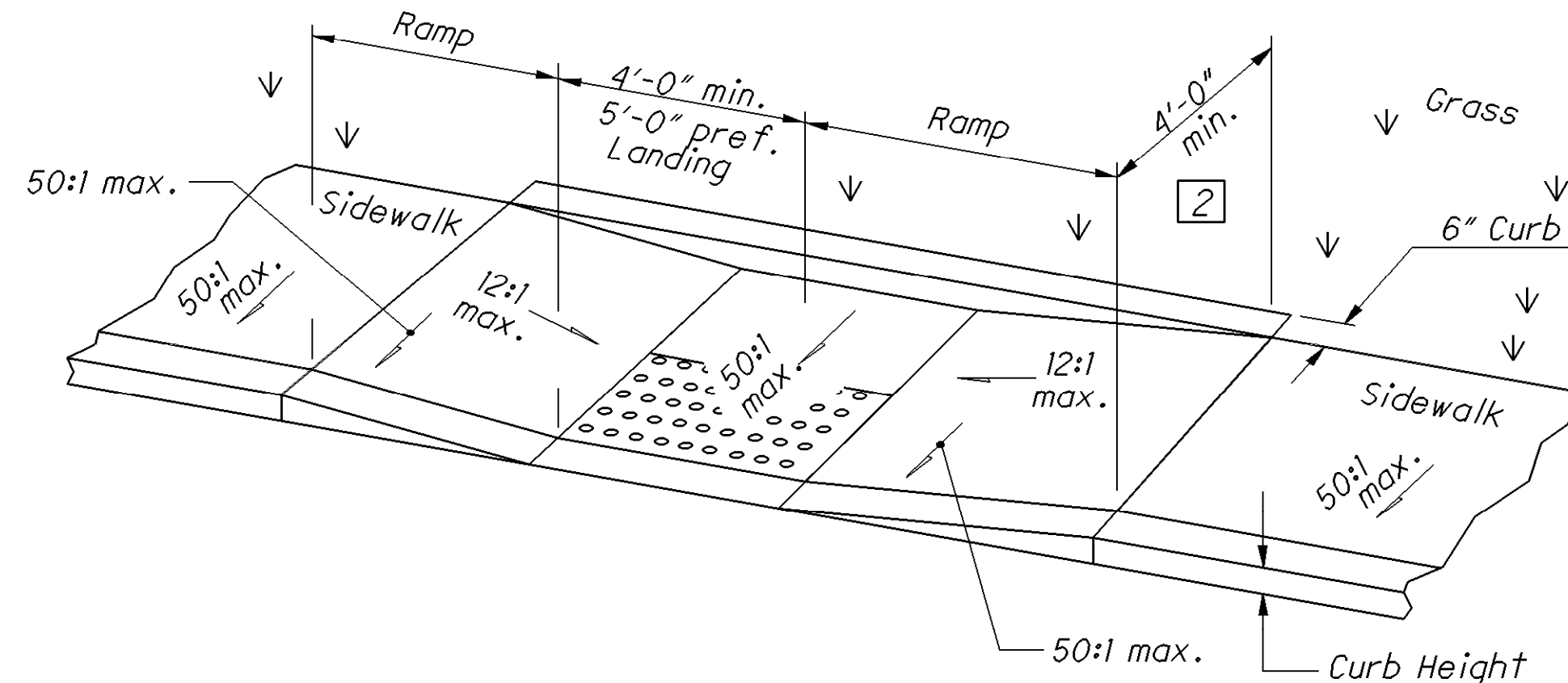


Type C2 (Combined with returned curb)

COMBINED CURB RAMP DETAILS

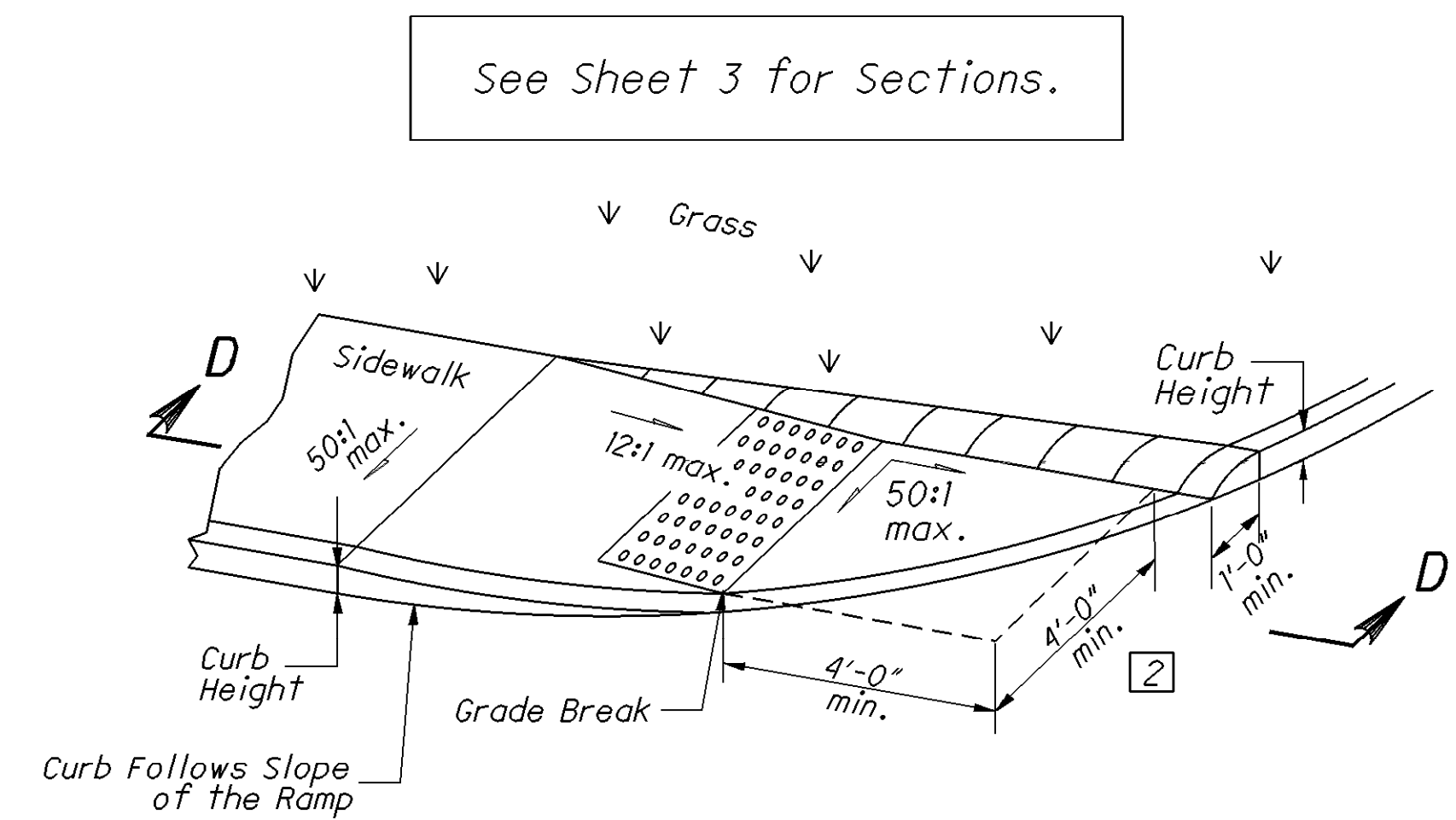


Type B1 (Single sided Parallel)



Type B2 (Double sided Parallel)

PARALLEL CURB RAMP DETAILS



Type B3 (Single sided Parallel)

NOTES CONTINUED

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

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

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

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

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

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

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

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

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

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

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

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

LEGEND

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

See Sheet 3 for Sections.

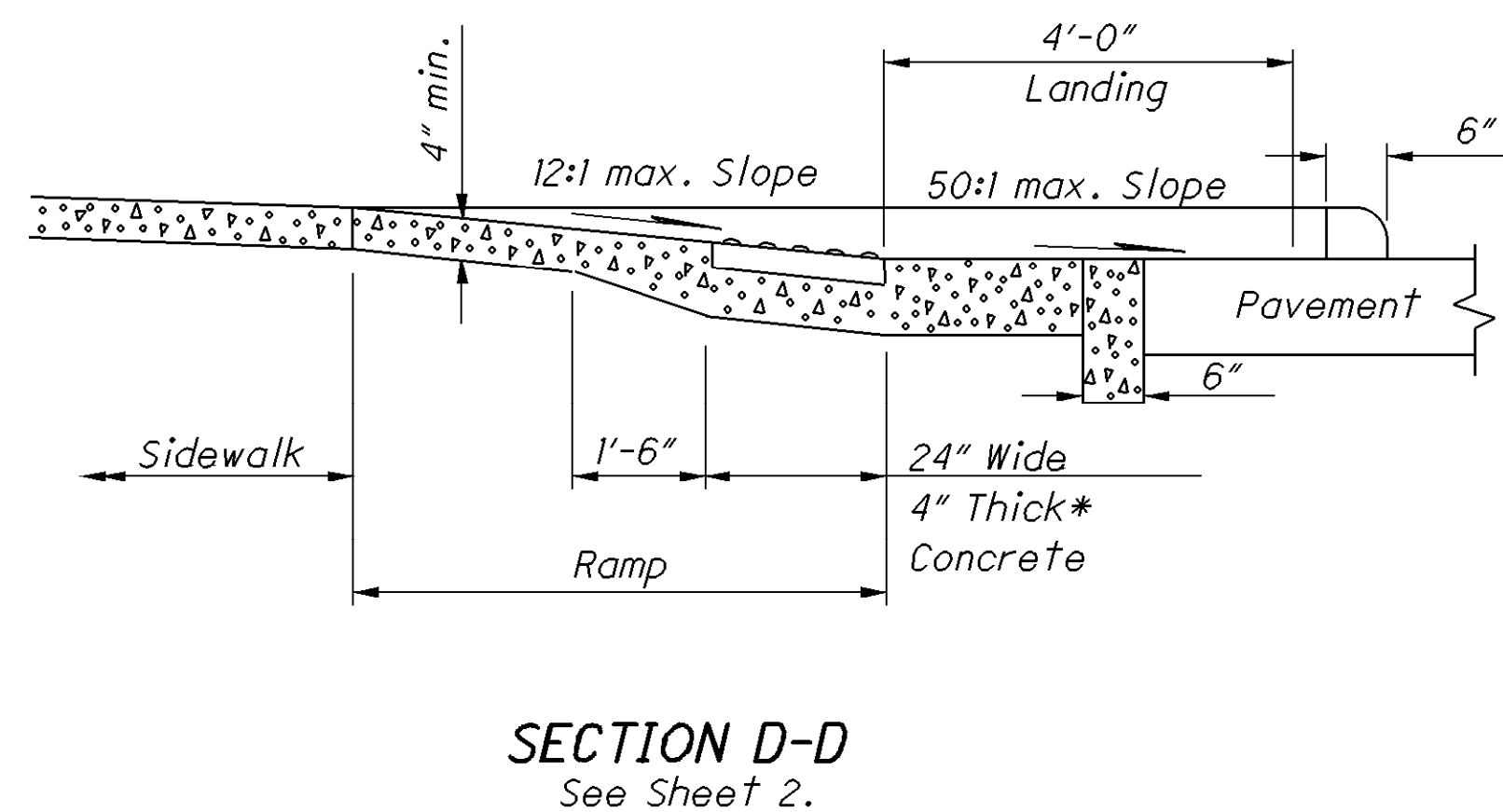
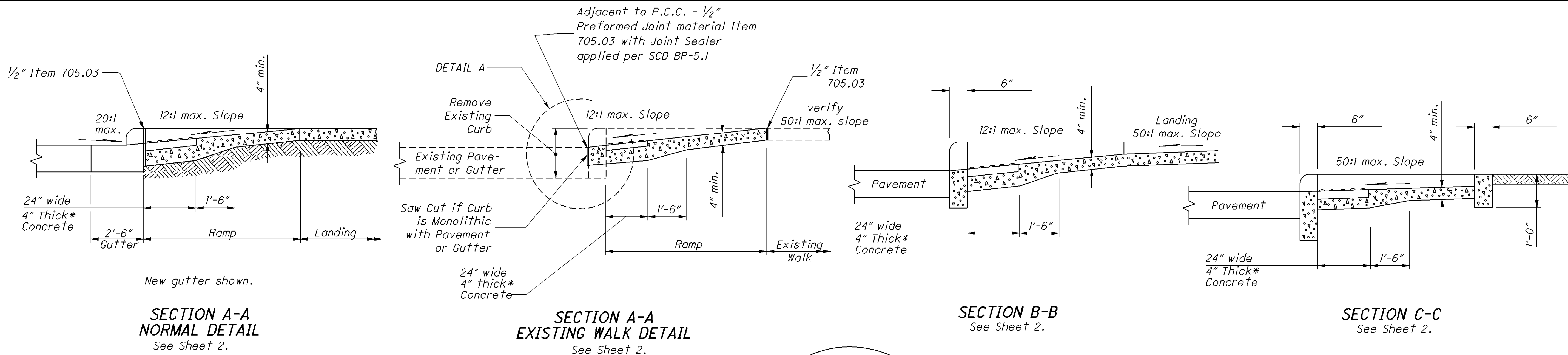
CALCULATED
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CURB RAMP AND DETECTABLE WARNING DETAILS

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

DETECTABLE WARNINGS NOTES

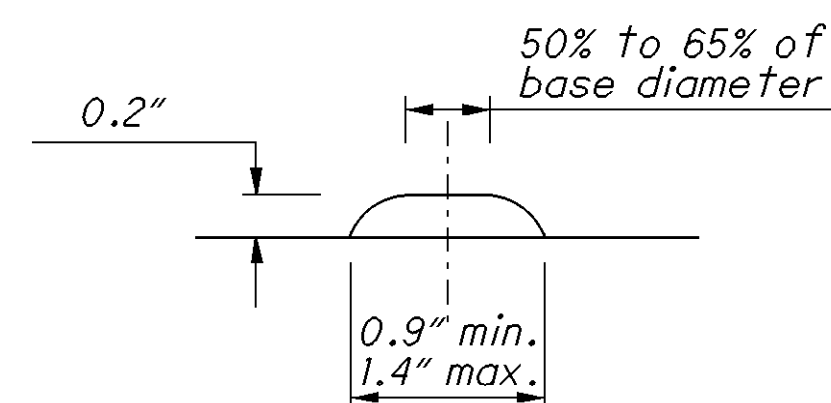
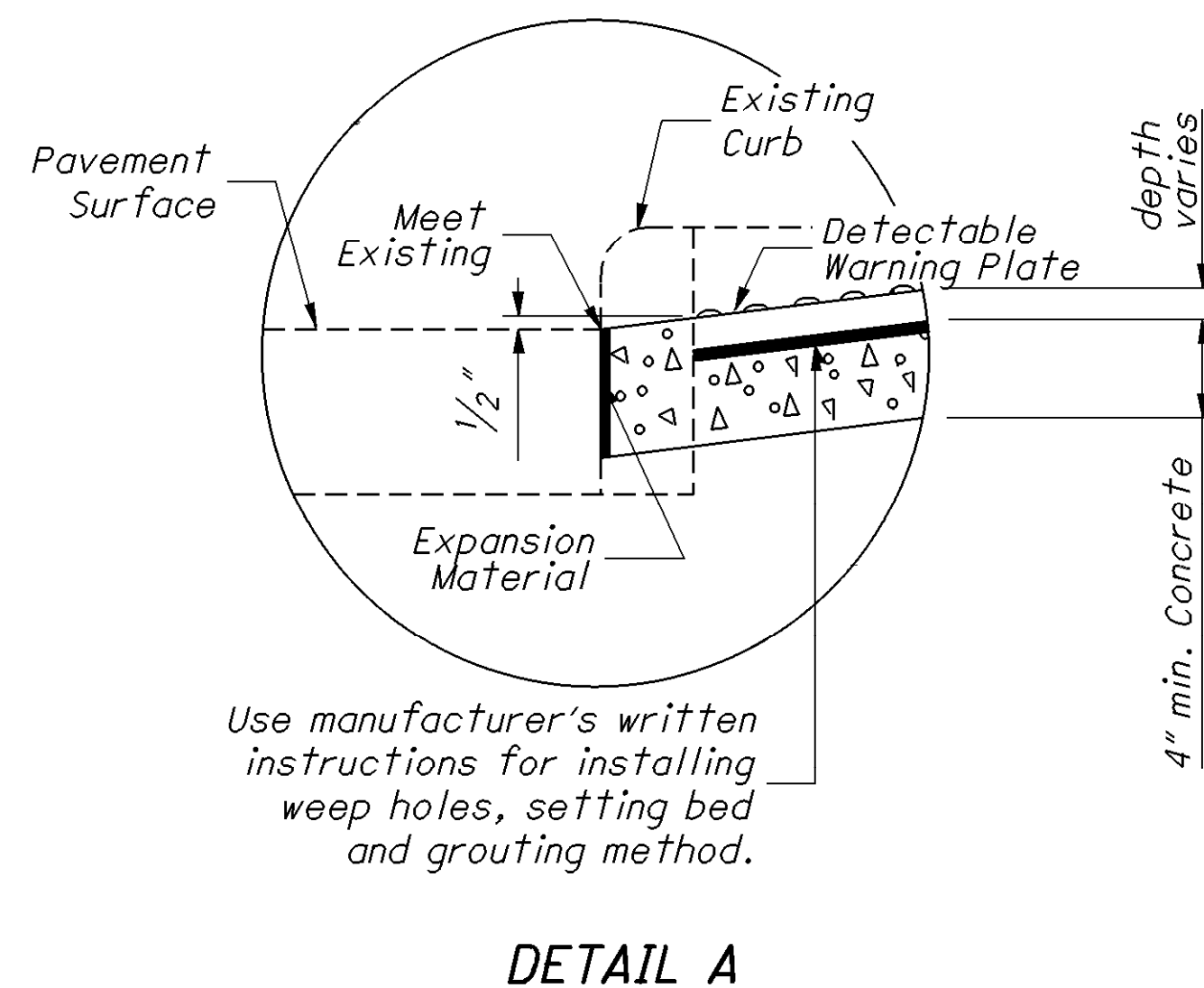
GENERAL: Detectable Warnings are a distinctive surface pattern of truncated domes which are detectable by cane or underfoot to alert people with vision impairments of their approach to streets and hazardous drop-offs.

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.

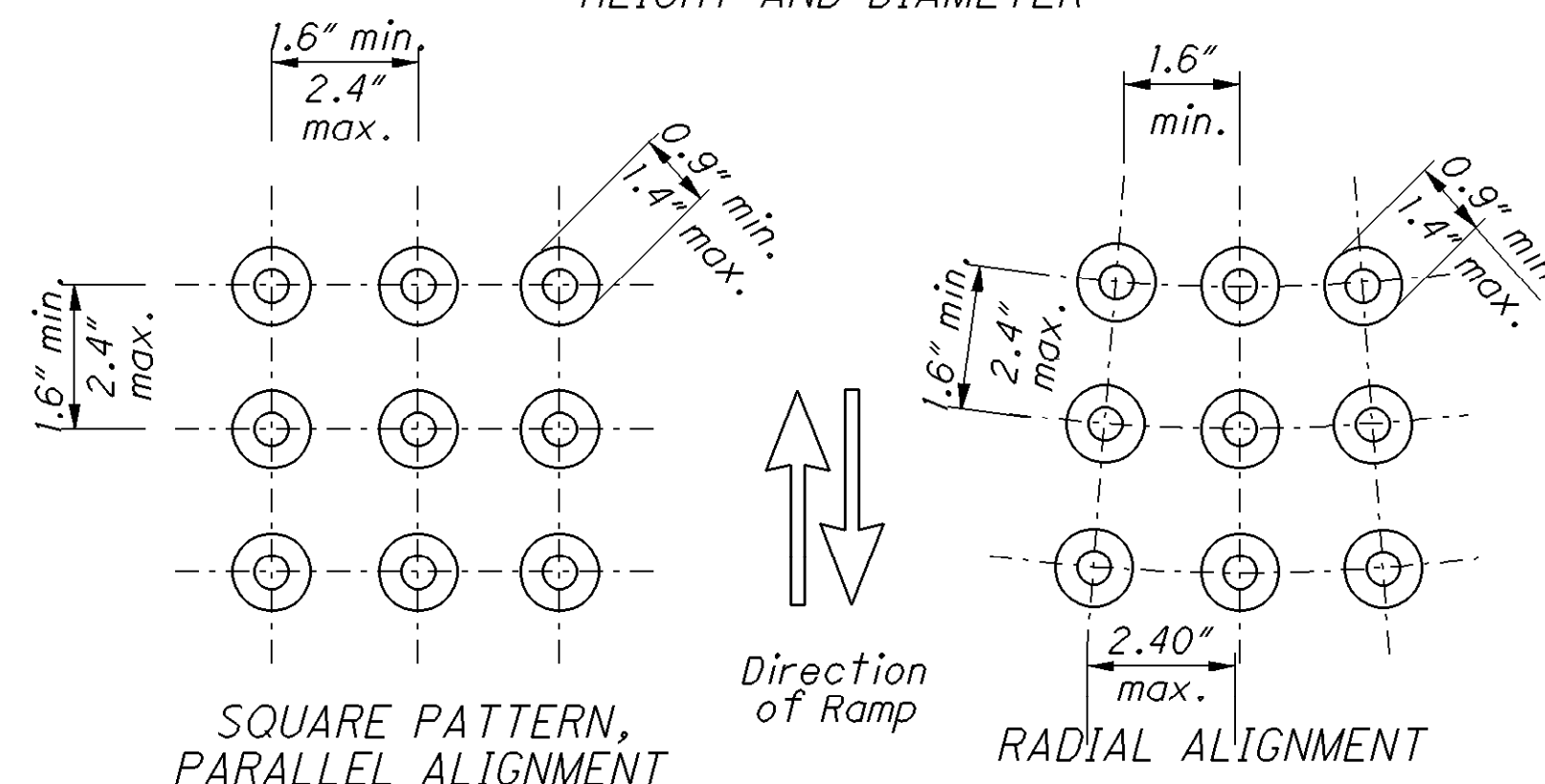
The depth of concrete underneath detectable warning products shall be a minimum of 4". See DETAIL A.

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.

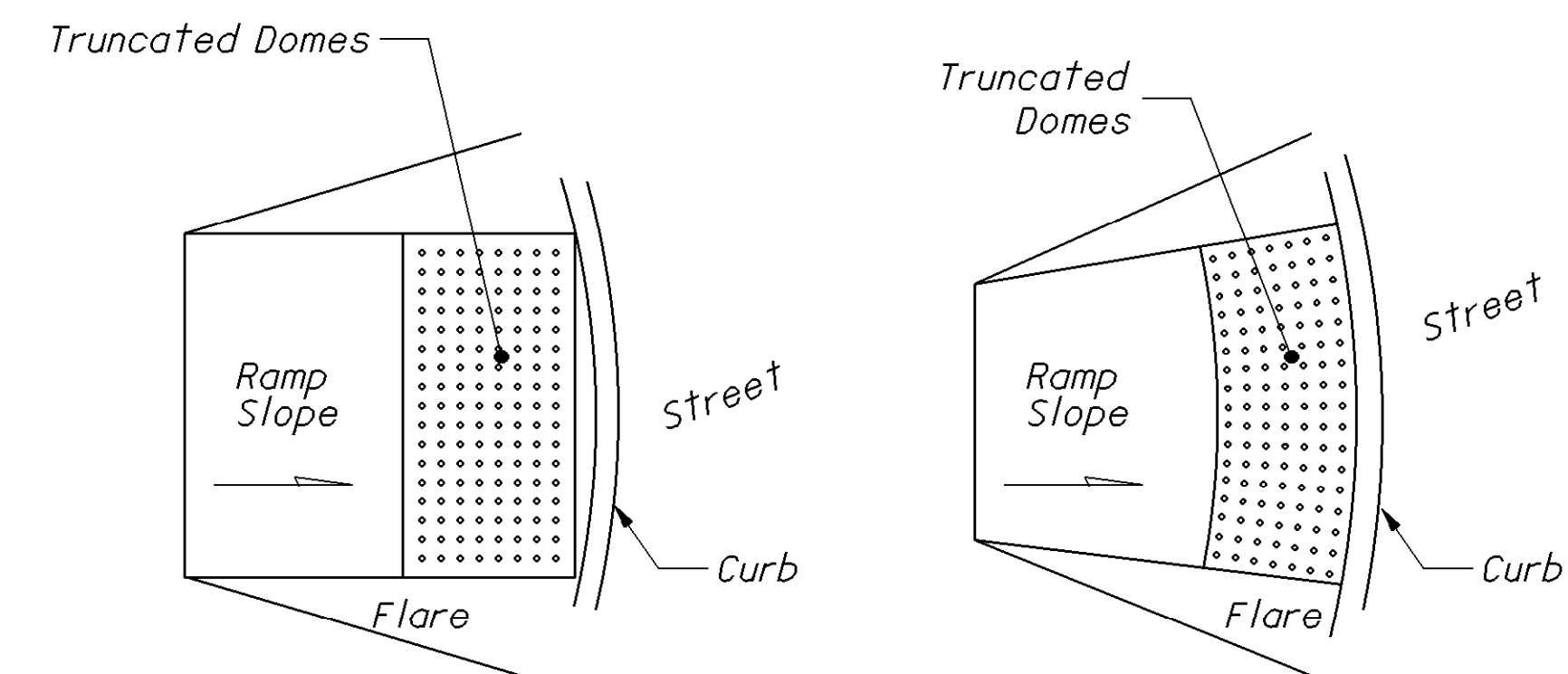
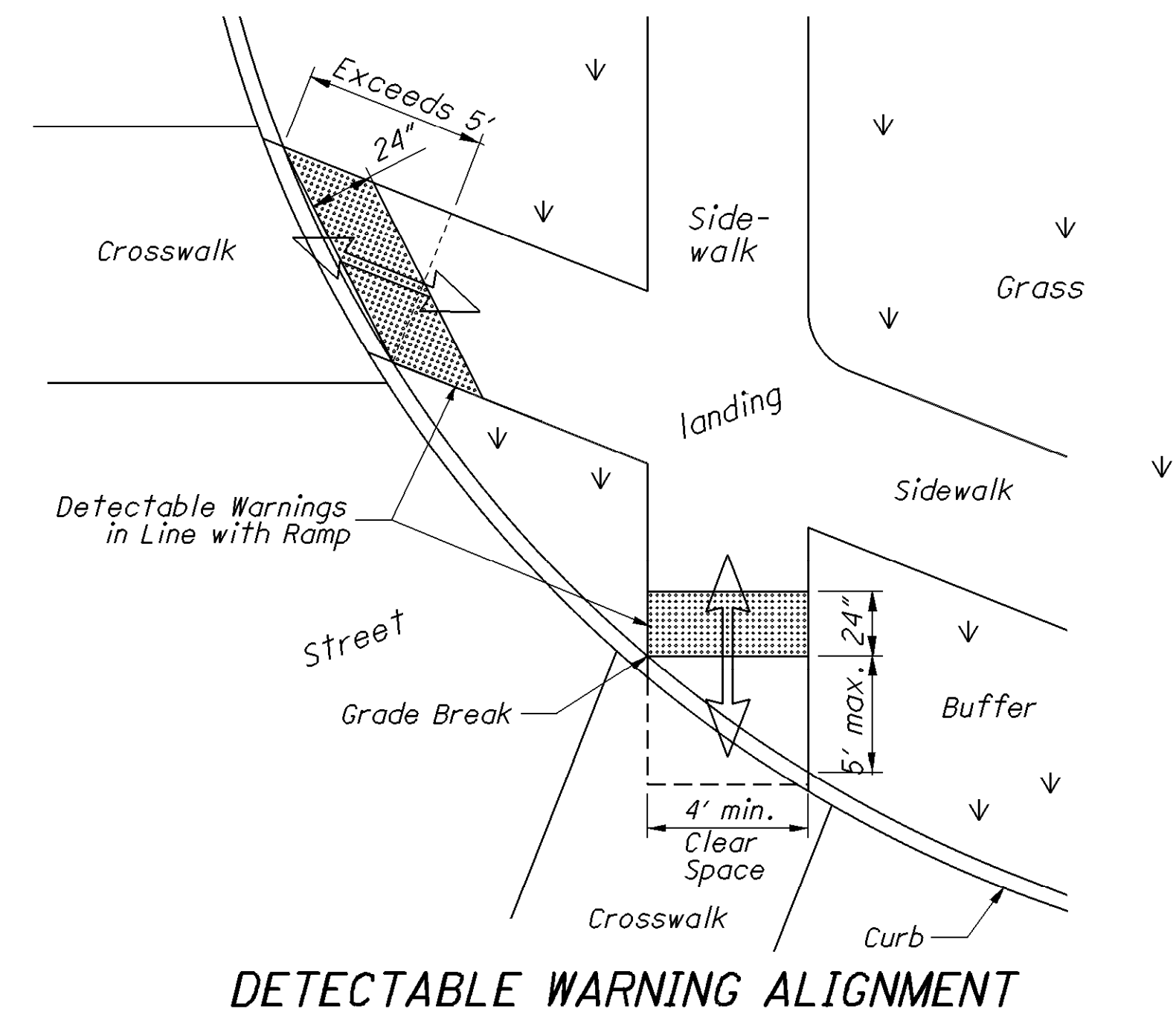
PRODUCTS & COLORS: Color of the detectable warnings should contrast with surrounding concrete walk and ramp. Black is not an acceptable color. Approved products and guidance on color may be found on the Office of Roadway Engineering Service's Detectable Warnings Approved List. Install products as per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



HEIGHT AND DIAMETER



TRUNCATED DOMES DETAILS



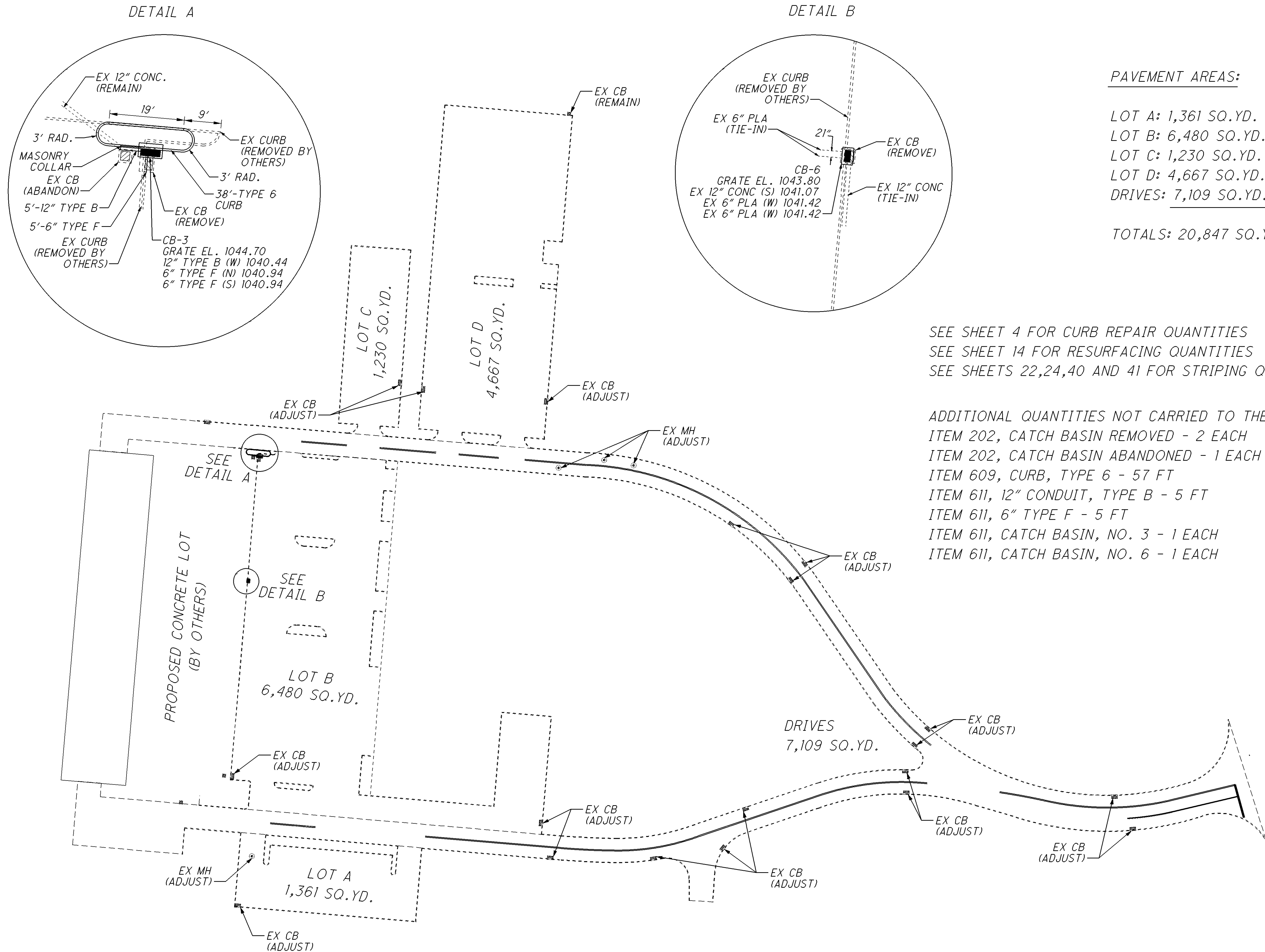
DOMES ALIGNMENT ON RADIUS CURB

CALCULATED
LME
CHECKED
JSL

CURB RAMP AND DETECTABLE WARNING DETAILS

LIC-13-0.00

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PAVEMENT AREAS:

LOT A: 1,361 SQ.YD.
LOT B: 6,480 SQ.YD.
LOT C: 1,230 SQ.YD.
LOT D: 4,667 SQ.YD.
DRIVES: 7,109 SQ.YD.

TOTALS: 20,847 SQ.YD.

SEE SHEET 4 FOR CURB REPAIR QUANTITIES
SEE SHEET 14 FOR RESURFACING QUANTITIES
SEE SHEETS 22,24,40 AND 41 FOR STRIPING QUANTITIES/DETAILS

ADDITIONAL QUANTITIES NOT CARRIED TO THE GENERAL SUMMARY
ITEM 202, CATCH BASIN REMOVED - 2 EACH
ITEM 202, CATCH BASIN ABANDONED - 1 EACH
ITEM 609, CURB, TYPE 6 - 57 FT
ITEM 611, 12" CONDUIT, TYPE B - 5 FT
ITEM 611, 6" TYPE F - 5 FT
ITEM 611, CATCH BASIN, NO. 3 - 1 EACH
ITEM 611, CATCH BASIN, NO. 6 - 1 EACH

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S.R. 13 CURVE AT DAWES ARBORETUM																	
LEFT EDGE OF SHOULDER	LEFT SHOULDER WIDTH	LEFT SHOULDER SLOPE	LEFT EDGE CORRECTION (INCHES)	LEFT EDGE OF PAVEMENT	LEFT PAVEMENT WIDTH	LEFT PAVEMENT SLOPE	PROPOSED CENTERLINE SURVEY & CONSTRUCTION	PROPOSED PROFILE GRADE	RIGHT PAVEMENT SLOPE	RIGHT PAVEMENT WIDTH	RIGHT EDGE OF PAVEMENT	SAW CUT LINE WIDTH	SAW CUT EDGE OF PAVEMENT	RIGHT SHOULDER SLOPE	RIGHT SHOULDER WIDTH	RIGHT EDGE OF SHOULDER	COMMENTS
1014.72	2.0	-0.040	0.00	1014.80	11.77	0.006	206+40.38	1014.74	-0.043	11.77	1014.23	11.48	1014.24	-0.043	2.0	1014.14	MATCH EXISTING
1014.57	2.0	-0.040	0.28	1014.65	11.80	0.008	206+50.00	1014.56	-0.044	11.89	1014.03	11.44	1014.05	-0.044	2.0	1013.94	
1014.20	2.0	-0.040	1.23	1014.28	11.90	0.016	206+75.00	1014.10	-0.048	12.22	1013.51	11.29	1013.55	-0.048	2.0	1013.41	
1013.86	2.0	-0.040	2.93	1013.94	12.00	0.023	207+00.00	1013.67	-0.056	12.54	1012.96	11.01	1013.05	-0.056	2.0	1012.85	
1013.55	2.2	-0.039	3.40	1013.63	12.00	0.031	207+25.00	1013.27	-0.059	12.86	1012.51	11.12	1012.61	-0.059	2.0	1012.39	
1013.20	2.3	-0.032	2.77	1013.27	12.00	0.038	207+50.00	1012.82	-0.060	13.19	1012.03	10.99	1012.16	-0.060	2.0	1011.91	
1012.95	2.4	-0.027	2.22	1013.02	12.00	0.043	207+65.38	1012.51	-0.063	13.39	1011.66	10.98	1011.81	-0.063	2.0	1011.53	PC
1012.79	2.5	-0.024	1.79	1012.85	12.00	0.046	207+75.00	1012.31	-0.065	13.51	1011.43	10.86	1011.60	-0.065	2.0	1011.30	
1012.32	2.9	-0.017	0.67	1012.37	12.00	0.053	208+00.00	1011.74	-0.071	13.83	1010.76	10.12	1011.02	-0.071	2.0	1010.62	
1012.14	3.6	0.061	0.35	1011.92	12.00	0.061	208+25.00	1011.20	-0.076	14.16	1010.12	9.82	1010.45	-0.076	2.0	1009.97	
1011.62	4.5	4' ROUNDING	0.35	1011.51	12.00	0.068	208+50.00	1010.70	-0.080	14.48	1009.54	10.23	1009.88	-0.080	2.0	1009.38	
1011.25	5.0	4' ROUNDING	-0.02	1011.13	12.00	0.075	208+75.00	1010.23	-0.083	14.80	1009.00	10.05	1009.39	-0.083	2.0	1008.83	
1011.05	5.1	4' ROUNDING	0.23	1010.93	12.00	0.080	208+90.38	1009.97	-0.081	15.00	1008.75	9.97	1009.16	-0.081	2.0	1008.59	BEGIN FULL SUPER LT
1010.90	5.2	4' ROUNDING	-0.07	1010.78	12.00	0.080	209+00.00	1009.82	-0.082	15.16	1008.58	9.86	1009.01	-0.082	2.0	1008.41	
1010.53	5.2	4' ROUNDING	-0.51	1010.41	12.00	0.080	209+25.00	1009.45	-0.079	15.59	1008.21	9.65	1008.68	-0.079	2.0	1008.05	
1010.30	4.8	4' ROUNDING	0.07	1010.17	12.00	0.080	209+50.00	1009.21	-0.077	16.02	1007.98	9.71	1008.46	-0.077	2.0	1007.82	
1010.26	4.6	4' ROUNDING	0.43	1010.13	12.00	0.080	209+56.95	1009.17	-0.077	16.14	1007.93	9.99	1008.40	-0.077	2.0	1007.78	END FULL SUPER LT
1010.07	4.3	4' ROUNDING	1.47	1009.95	12.00	0.075	209+75.00	1009.05	-0.074	16.45	1007.83	10.53	1008.27	-0.074	2.0	1007.69	
1009.97	3.6	0.068	1.76	1009.73	12.00	0.068	210+00.00	1008.91	-0.068	16.88	1007.75	11.17	1008.14	-0.068	2.0	1007.61	
1009.64	3.0	0.062	3.32	1009.46	12.00	0.062	210+25.00	1008.72	-0.056	17.31	1007.75	10.29	1008.14	-0.056	2.0	1007.64	
1009.11	2.5	-0.015	4.33	1009.14	12.00	0.055	210+50.00	1008.49	-0.046	17.74	1007.67	10.79	1007.99	-0.046	2.0	1007.58	
1008.78	2.5	-0.022	5.82	1008.83	12.00	0.048	210+75.00	1008.26	-0.037	18.17	1007.58	11.20	1007.84	-0.040	2.0	1007.50	
1008.68	2.5	-0.024	5.79	1008.74	12.00	0.046	210+81.95	1008.19	-0.036	18.28	1007.53	11.26	1007.78	-0.040	2.0	1007.45	PT
1008.44	2.5	-0.028	5.92	1008.51	12.00	0.042	211+00.00	1008.02	-0.032	18.59	1007.42	11.35	1007.65	-0.040	2.0	1007.34	
1008.06	2.6	-0.035	6.01	1008.15	12.00	0.035	211+25.00	1007.74	-0.023	19.02	1007.30	11.14	1007.48	-0.040	2.0	1007.22	
1007.73	2.4	-0.040	6.51	1007.82	12.00	0.028	211+50.00	1007.49	-0.020	19.45	1007.10	11.31	1007.26	-0.040	2.0	1007.02	
1007.41	2.3	-0.040	6.71	1007.50	12.00	0.021	211+75.00	1007.25	-0.024	19.88	1006.76	11.35	1006.97	-0.040	2.0	1006.68	
1007.12	2.0	-0.040	6.67	1007.20	12.00	0.015	212+00.00	1007.03	-0.026	20.31	1006.50	11.70	1006.72	-0.040	2.0	1006.42	
1006.80	2.0	-0.040	5.36	1006.88	12.00	0.008	212+25.00	1006.79	-0.025	20.74	1006.26	11.67	1006.49	-0.040	2.0	1006.18	
1006.48	2.0	-0.040	4.54	1006.56	12.00	0.001	212+50.00	1006.55	-0.024	21.17	1006.05	11.68	1006.27	-0.040	2.0	1005.97	
1006.13	2.0	-0.040	3.86	1006.21	12.00	-0.006	212+75.00	1006.28	-0.022	21.59	1005.81	11.73	1006.02	-0.040	2.0	1005.73	
1005.79	2.0	-0.040	2.55	1005.87	12.00	-0.012	213+00.00	1006.02	-0.019	22.02	1005.80	11.61	1005.80	-0.040	2.0	1005.72	
1005.44	2.0	-0.040	0.33	1005.52	12.00	-0.019	213+25.00	1005.75	-0.014	22.45	1005.43	11.69	1005.58	-0.040	2.0	1005.35	
1005.15	2.0	-0.040	0.00	1005.23	12.00	-0.026	213+50.00	1005.54	-0.016	22.88	1005.17	11.52	1005.35	-0.040	2.0	1005.09	MATCH EXISTING

NOTES:

THE SUPERELEVATION CORRECTION FOR THE S.R. 13 CURVE AT DAWES ARBORETUM SHALL BE DONE BY PAVEMENT PLANING AND VARIABLE DEPTH ASPHALT PAVEMENT. THE CONTRACTOR SHALL COME AS CLOSE AS POSSIBLE TO MEETING THE ELEVATIONS IN THE TABLE ABOVE.

THE RIGHT SIDE OF TABLE WAS CALCULATED FROM THE PART 3 DAWES ARBORETUM TURN LANE WIDENING.

THE STATIONING IN THE TABLE ABOVE REFLECTS APPROXIMATE SLM 3.87-4.04.

THE PROPOSED PROFILE GRADE IS APPOXIMATELY 1.5" BELOW THE EXISTING PROFILE GRADE

CALCULATED
JSL

CHECKED
JSL

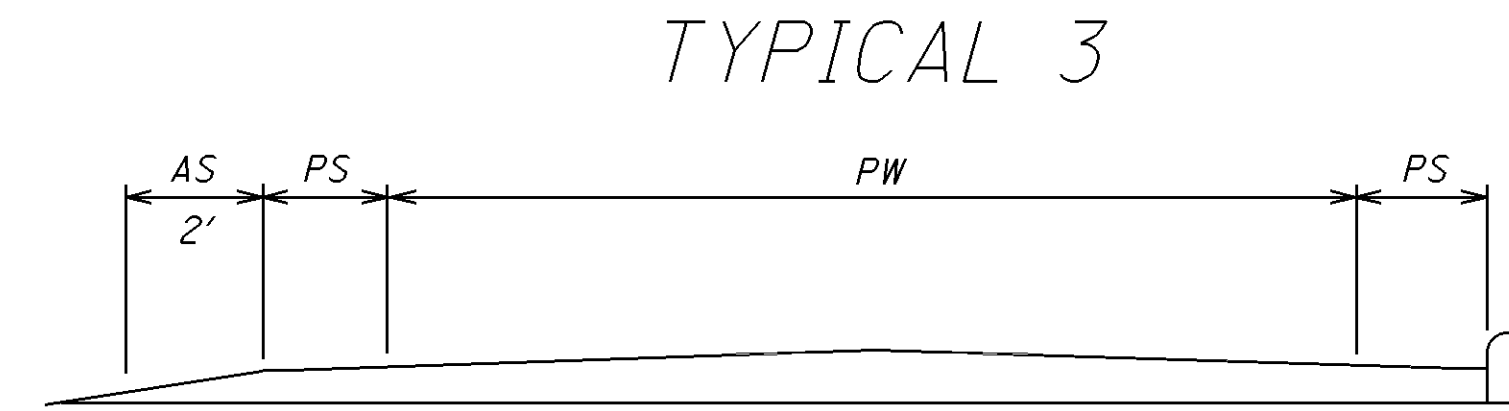
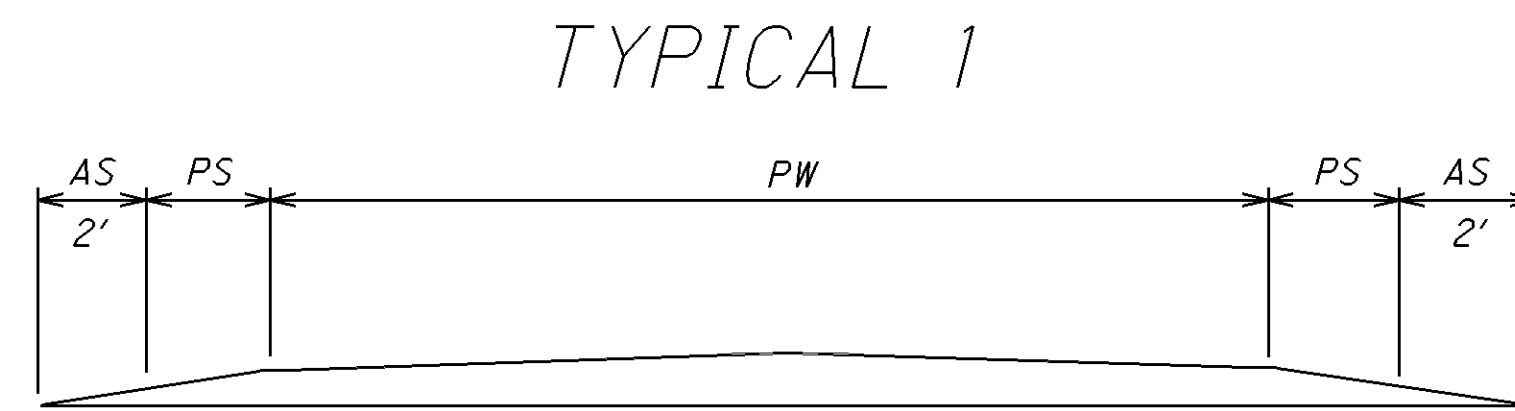
SUPERELEVATION DATA - S.R. 13 CURVE AT DAWES

LIC-13-0.00

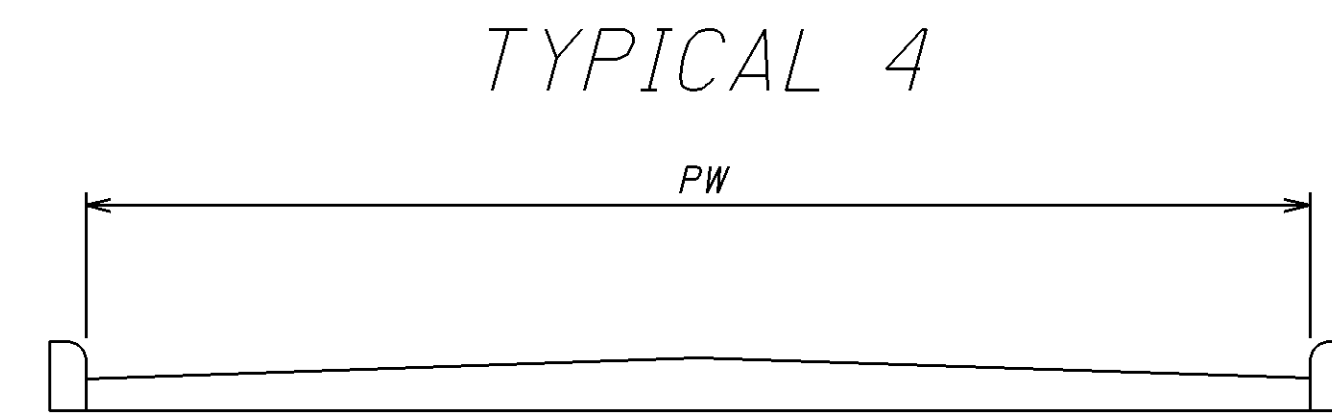
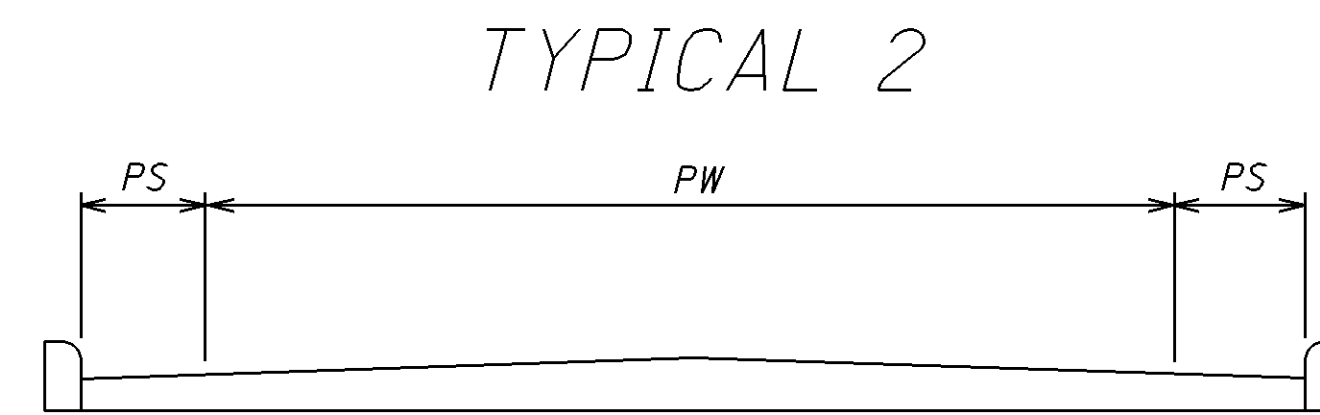
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PAVEMENT DATA																				
LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		PAVEMENT WIDTH (FEET)	TYPICAL	PAVEMENT AREA	254			407		441				614	
										DEPTH OF PAVEMENT PLANING	PAVEMENT PLANING, ASPHALT CONCRETE, 1.50"	PAVEMENT PLANING, ASPHALT CONCRETE, 3.25"	NON-TRACKING TACK COAT @ 0.075 GAL./S.Y.	NON-TRACKING TACK COAT @ 0.05 GAL./S.Y.	SURFACE	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	SURFACE	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 70-22M	WORK ZONE CENTER LINE, CLASS II	WORK ZONE CENTER LINE, CLASS III, 642 PAINT
					SQ. YD.	INCHES														
1A	LIC	S.R. 13	0.00	0.10	0.10	528.0	36.0	1	2,112.0	1.50	2,112.0		158.4				1.50	88.0		0.10
1A	LIC	S.R. 13	0.10	0.22	0.12	633.6	30.0 AVG	1	2,112.0	1.50	2,112.0		158.4				1.50	88.0		0.12
1A	LIC	S.R. 13	0.22	0.54	0.32	1,689.6	24.0	1	4,505.6	1.50	4,505.6		337.9				1.50	187.7		0.32
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)											8,729.6		654.7					363.7		0.54
1B	LIC	S.R. 13	0.54	1.15	0.61	3,220.8	24.0	1	8,588.8	1.50	8,588.8		644.2				1.50	357.9		0.61
1B	LIC	S.R. 13	1.15	1.23	0.08	422.4	30.0 AVG	2	1,408.0	1.50	1,408.0		105.6				1.50	58.7		0.08
1B	LIC	S.R. 13	1.23	1.28	0.05	264.0	36.0	2	1,056.0	1.50	1,056.0		79.2				1.50	44.0		0.05
1B	LIC	S.R. 13	1.28	1.39	0.11	580.8	36.0	3	2,323.2	1.50	2,323.2		174.2				1.50	96.8		0.11
1B	LIC	S.R. 13	1.39	1.41	0.02	105.6	36.0	1	422.4	1.50	422.4		31.7				1.50	17.6		0.02
1B	LIC	S.R. 13	1.41	1.46	0.05	264.0	48.0 AVG	1	1,408.0	1.50	1,408.0		105.6				1.50	58.7		0.05
1B	LIC	S.R. 13	1.46	1.75	0.29	1,531.2	60.0	1	10,208.0	1.50	10,208.0		765.6				1.50	425.3		0.29
1B	LIC	S.R. 13	1.75	1.87	0.12	633.6	48.0 AVG	1	3,379.2	1.50	3,379.2		253.4				1.50	140.8		0.12
1B	LIC	S.R. 13	1.87	2.12	0.25	1,320.0	36.0	1	5,280.0	1.50	5,280.0		396.0				1.50	220.0		0.25
1B	LIC	S.R. 13	2.12	2.18	0.06	316.8	48.0	1	1,689.6	1.50	1,689.6		126.7				1.50	70.4		0.06
1B	LIC	S.R. 13	2.18	2.31	0.13	686.4	30.0 AVG	1	2,288.0	1.50	2,288.0		171.6				1.50	95.3		0.13
1B	LIC	S.R. 13	2.31	2.64	0.33	1,742.4	24.0	1	4,646.4	1.50	4,646.4		348.5				1.50	193.6		0.33
1B	LIC	S.R. 13	2.64	2.81	0.17	897.6	24.0	2	2,393.6	3.25		2,393.6	179.5	119.7	1.75	116.4	1.50	99.7	0.17	0.17
1B	LIC	S.R. 13	2.81	3.87	1.06	5,596.8	24.0	1	14,924.8	1.50	14,924.8		1,119.4				1.50	621.9		1.06
1B	LIC	S.R. 13	3.87	4.04	0.17	897.6	30.0 AVG	1	2,992.0	VAR		2,992.0	224.4	149.6	4.25 AVG	353.3	1.50	124.7	0.17	0.17
1B	LIC	S.R. 13	4.04	4.10	0.06	316.8	36.0	1	1,267.2	3.25		1,267.2	95.0	63.4	1.75	61.6	1.50	52.8	0.06	0.06
1B	LIC	S.R. 13	4.10	4.24	0.14	739.2	30.0 AVG	1	2,464.0	3.25		2,464.0	184.8	123.2	1.75	119.8	1.50	102.7	0.14	0.14
1B	LIC	S.R. 13	4.24	6.30	2.06	10,876.8	24.0	1	29,004.8	1.50	29,004.8		2,175.4				1.50	1,208.5		2.06
1B	LIC	S.R. 13	6.30	6.36	0.06	316.8	30.0 AVG	1	1,056.0	1.50	1,056.0		79.2				1.50	44.0		0.06
1B	LIC	S.R. 13	6.36	6.48	0.12	633.6	36.0	1	2,534.4	1.50	2,534.4		190.1				1.50	105.6		0.12
			BRIDGE DEDUCTIONS						(352.0)		(352.0)		(26.4)				1.50	(14.7)		(0.03)
			SUB-TOTALS										7,423.7	455.9						
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)											89,865.6	9,116.8	7,879.6			651.1		4,124.3	0.54	5.91
1C	LIC	S.R. 13	6.48	6.56	0.08	422.4	36.0	1	1,689.6	1.50	1,689.6		126.7				1.50	70.4		0.08
1C	LIC	S.R. 13	6.56	6.64	0.08	422.4	30.0 AVG	1	1,408.0	1.50	1,408.0		105.6				1.50	58.7		0.08
1C	LIC	S.R. 13	6.64	7.76	1.12	5,913.6	24.0	1	15,769.6	1.50	15,769.6		1,182.7				1.50	657.1		1.12
LOCATION 1C TOTALS (CARRIED TO SUB-SUMMARY)											18,867.2		1,415.0					786.2		1.28
1D	LIC	S.R. 13	7.76	8.15	0.39	2,059.2	24.0	1	5,491.2	1.50	5,491.2		411.8				1.50	228.8		0.39
1D	LIC	S.R. 13	8.15	8.20	0.05	264.0	30.0 AVG	1	880.0	3.25		880.0	66.0	44.0	1.75	42.8	1.50	36.7	0.05	0.05
1D	LIC	S.R. 13	8.20	8.26	0.06	316.8	36.0	1	1,267.2	3.25		1,267.2	95.0	63.4	1.75	61.6	1.50	52.8	0.06	0.06
1D	LIC	S.R. 13	8.26	8.30	0.04	211.2	30.0 AVG	1	704.0	3.25		704.0	52.8	35.2	1.75	34.3	1.50	29.3	0.04	0.04
1D	LIC	S.R. 13	8.30	8.37	0.07	369.6	24.0	1	985.6	1.50	985.6		73.9				1.50	41.1		0.07
SUB-TOTALS													699.5	142.6						
LOCATION 1D TOTALS (CARRIED TO SUB-SUMMARY)											6,476.8	2,851.2	842.1			138.7		388.7	0.15	0.61

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

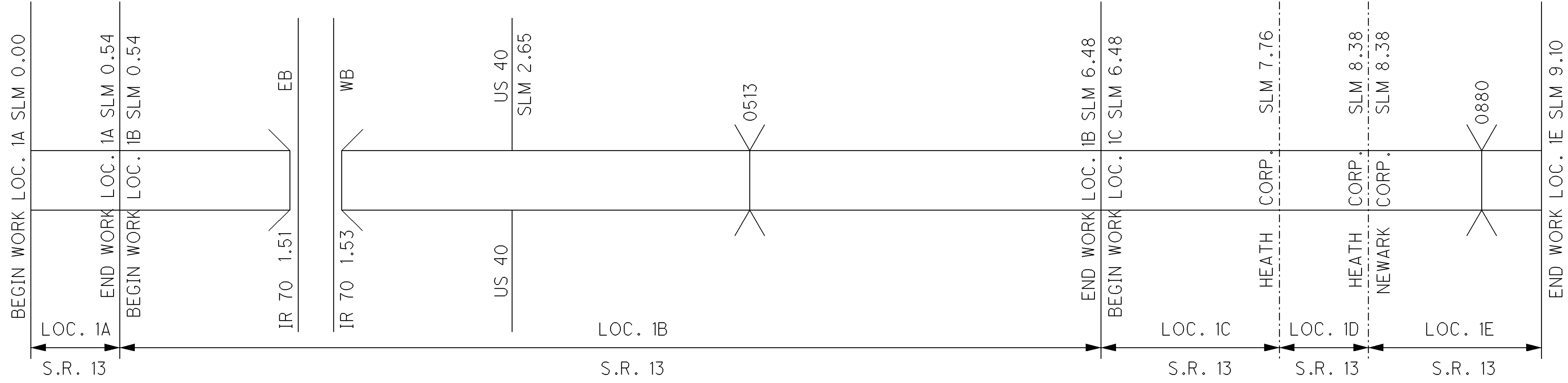


SEE NEXT SHEET FOR STRAIGHT LINE DIAGRAMS



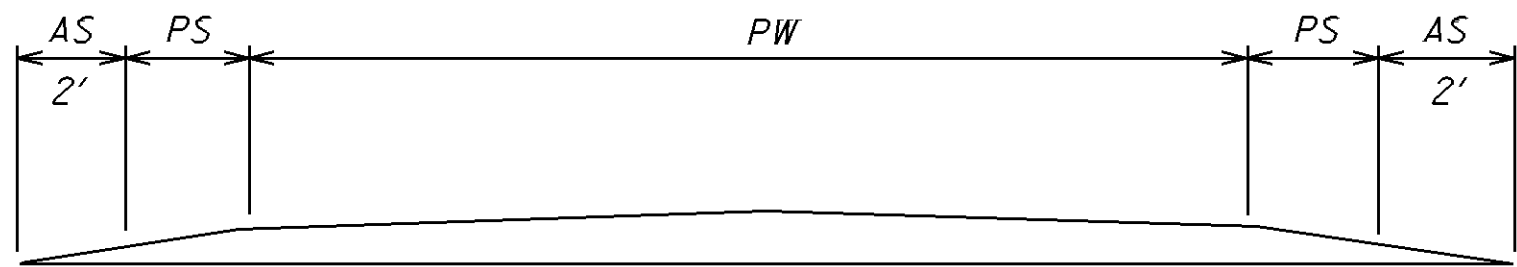
PAVEMENT DATA																				
L O C A T I O N	C O U N T Y	R O U T E	B E G I N L O G P O I N T S L M	E N D L O G P O I N T S L M	L E N G T H		P A V E M E N T W I D T H (F E E T)	T Y P I C A L	P A V E M E N T A R E A	254			407		441			614		
					D E P T H O F P A V E M E N T P L A N I N G	P A V E M 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, 1.50"				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, 3.25"	N O N - T R A C K I N G T A C K C O A T @ 0.075 G A L./S. Y.	N O N - T R A C K I N G T A C K C O A T @ 0.05 G A L./S. Y.	I N C H E S	A S P H A L T C O N C R E T E I N T E R M E D I A T E C O U R S E, T Y P E 2, (448)	I N C H E S	A S P H A L T C O N C R E T E S U R F A C E C O U R S E, T Y P E 1, (448), PG 70-22M	W O R K Z O N E C E N T E R L I N E, CLASS II	W O R K Z O N E C E N T E R L I N E, CLASS III, 642 PAINT		
																			M I L E S	L I N. F T.
1E	LIC	S.R. 13	8.37	8.44	0.07	369.6	30.0 AVG	4	1,232.0	1.50	1,232.0		92.4			1.50	51.3		0.07	
1E	LIC	S.R. 13	8.44	8.76	0.32	1,689.6	35.0	4	6,570.7	1.50	6,570.7		492.8			1.50	273.8		0.32	
1E	LIC	S.R. 13	8.76	8.84	0.08	422.4	28.0	4	1,314.1	1.50	1,314.1		98.6			1.50	54.8		0.08	
1E	LIC	S.R. 13	8.84	8.90	0.06	316.8	35.0	4	1,232.0	3.25		1,232.0	92.4	61.6	1.75	59.9	1.50	51.3	0.06	0.06
1E	LIC	S.R. 13	8.90	9.10	0.20	1,056.0	35.0	4	4,106.7	1.50	4,106.7		308.0			1.50	171.1		0.20	
	BRIDGE DEDUCTIONS								(537.8)		(537.8)		(40.3)			1.50	(22.4)		(0.04)	
SUB-TOTALS													1,043.9	61.6						
LOCATION 1E TOTALS (CARRIED TO SUB-SUMMARY)											12,685.7	1,232.0	1,105.5			59.9		579.9	0.06	0.69
ODOT DISTRICT 5 COMPLEX							VAR	4	20,847.0	1.50	20,847.0		1,563.5			1.50	868.6			
DISTRICT 5 COMPLEX TOTALS (CARRIED TO GENERAL SUMMARY)											20,847.0		1,563.5				868.6			

STRAIGHT LINE DIAGRAMS

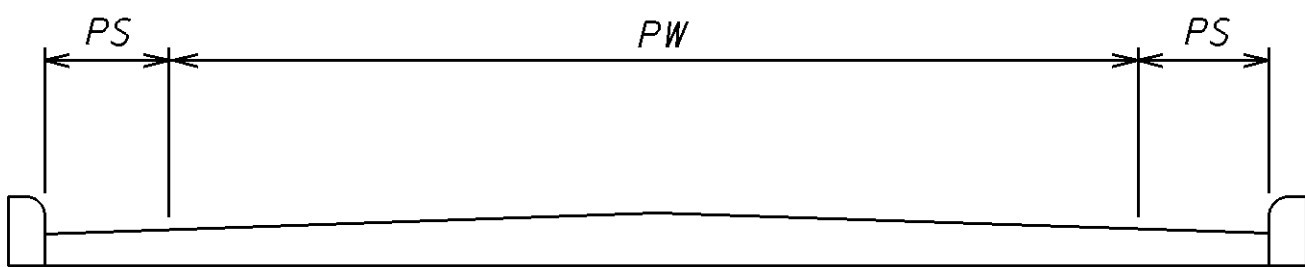


PW = PAVEMENT WIDTH
PS = PAVED SHOULDER
AS = AGGREGATE SHOULDER

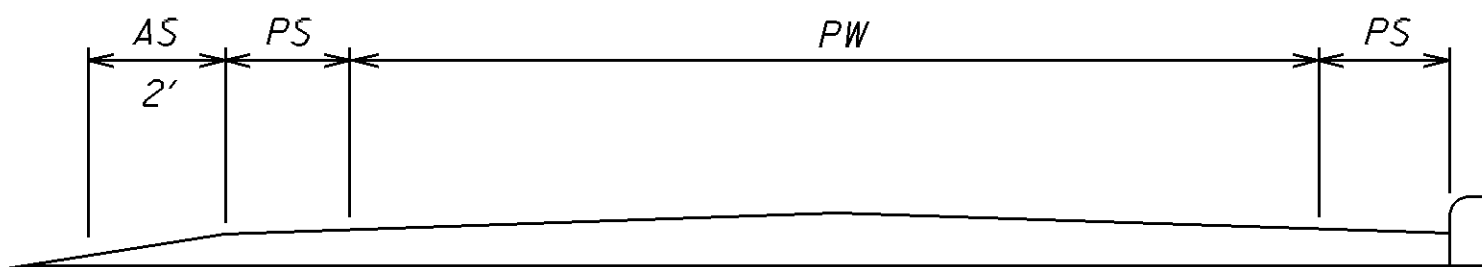
TYPICAL 1



TYPICAL 2



TYPICAL 3



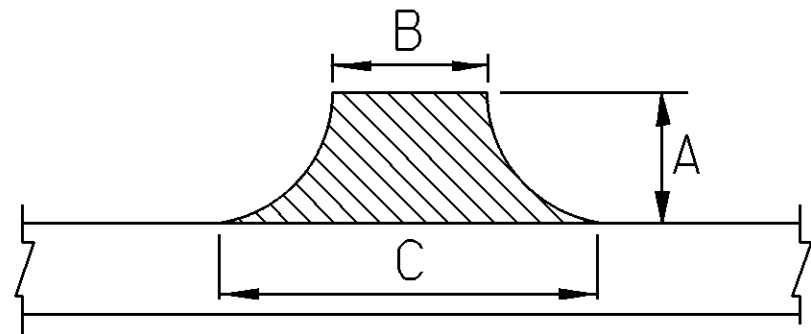
SHOULDER DATA																								
LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		TYPICAL	PROPOSED SHOULDER WMDTH (FT.) (WIDTHS ARE AVERAGE THROUGHOUT SECTION)		SHOULDER AREA	209	254			407		408	441				617		
											PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	DEPTH OF PAVEMENT PLANING	PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"	PAVEMENT PLANING, ASPHALT CONCRETE, 3.25"	NON-TRACKING TACK COAT @ 0.075 GAL./S.Y.	NON-TRACKING TACK COAT @ 0.05 GAL./S.Y.	PRIME COAT, AS PER PLAN	THICKNESS	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	THICKNESS	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 70-22M	THICKNESS	COMPACTED AGGREGATE, AS PER PLAN (2' WIDTH)	SHOULDER PREPARATION
					MILES	LIN. FT.		A	B		SQ. YD.	MI	INCHES	SQ. YD.	SQ. YD.	GAL.	GAL.	GAL.	INCHES	CU. YD.	INCHES	CU. YD.	INCHES	CU. YD.
1A	LIC	S.R. 13	0.00	0.54	0.54	2851.2	1	3	3	1,900.8	1.08	1.50	1900.8		142.6		506.9			1.50	79.2	2.00	1,267.2	
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)											1.08		1900.8		142.6		506.9			79.2		70.4	1267.2	
1B	LIC	S.R. 13	0.54	1.15	0.61	3220.8	1	3	3	2,147.2	1.22	1.50	2147.2		161.0		572.6			1.50	89.5	2.00	1,431.5	
1B	LIC	S.R. 13	1.15	1.28	0.13	686.4	2	4	4	610.1	0.26	1.50	610.1		45.8		122.0			1.50	25.4	2.00	305.1	
1B	LIC	S.R. 13	1.28	1.39	0.11	580.8	3	4	4	516.3	0.22	1.50	516.3		38.7		103.2			1.50	21.5	2.00	258.1	
1B	LIC	S.R. 13	1.39	1.46	0.07	369.6	1	4	4	328.5	0.14	1.50	328.5		24.6		65.7			1.50	13.7	2.00	164.3	
1B	LIC	S.R. 13	1.46	2.28	0.82	4329.6	1	6	6	5,772.8	1.64	1.50	5772.8		433.0		769.7			1.50	240.5	2.00	1,924.3	
1B	LIC	S.R. 13	2.28	2.64	0.36	1900.8	1	3	3	1,267.2	0.72	1.50	1267.2		95.0		337.9			1.50	52.8	2.00	844.8	
1B	LIC	S.R. 13	2.64	2.81	0.17	897.6	2	3	3	598.4	0.34	3.25		598.4	44.9	29.9	159.6	1.75	29.1	1.50	24.9	2.00	398.9	
1B	LIC	S.R. 13	2.81	3.26	0.45	2376.0	1	3	3	1,584.0	0.90	1.50	1584.0		118.8		422.4			1.50	66.0	2.00	1,056.0	
1B	LIC	S.R. 13	3.26	3.87	0.61	3220.8	1	2	2	1,431.5	1.22	1.50	1431.5		107.4		572.6			1.50	59.6	2.00	79.5	1,431.5
1B	LIC	S.R. 13	3.87	4.04	0.17	897.6	1	2	2	398.9	0.34	VAR		398.9	29.9	19.9	159.6	1.75 AVG	19.4	1.50	16.6	2.00	22.2	398.9
1B	LIC	S.R. 13	4.04	4.24	0.20	1056.0	1	2	2	469.3	0.40	3.25		469.3	35.2	23.5	187.7	1.75	22.8	1.50	19.6	2.00	26.1	469.3
1B	LIC	S.R. 13	4.24	5.07	0.83	4382.4	1	2	2	1,947.7	1.66	1.50	1947.7		146.1		779.1			1.50	81.2	2.00	108.2	1,947.7
1B	LIC	S.R. 13	5.07	5.18	0.11	580.8	1	8	8	1,032.5	0.22	1.50	1032.5		77.4		103.2			1.50	43.0	2.00	14.3	258.1
1B	LIC	S.R. 13	5.18	6.23	1.05	5544.0	1	2	2	2,464.0	2.10	1.50	2464.0		184.8		985.6			1.50	102.7	2.00	136.9	2,464.0
1B	LIC	S.R. 13	6.23	6.48	0.25	1320.0	1	10	10	2,933.3	0.50	1.50	2933.3		220.0		234.7			1.50	122.2	2.00	32.6	586.7
	BRIDGE DEDUCTIONS									(234.7)	(0.10)		(234.7)		(17.6)		(93.9)			1.50	(9.78)	2.00	(13.0)	(234.7)
SUB-TOTALS																1745.0	73.3							
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)											11.78		21800.4	1466.6	1818.3		5481.7		71.3		969.4		761.3	13704.5
1C	LIC	S.R. 13	6.48	6.68	0.20	1056.0	1	10	10	2,346.7	0.40	1.50	2346.7		176.0		187.7			1.50	97.8	2.00	26.1	469.3
1C	LIC	S.R. 13	6.68	7.76	1.08	5702.4	1	2	2	2,534.4	2.16	1.50	2534.4		190.1		1,013.8			1.50	105.6	2.00	140.8	2,534.4
LOCATION 1C TOTALS (CARRIED TO SUB-SUMMARY)											2.56		4881.1		366.1		1201.5				203.4		166.9	3003.7
1D	LIC	S.R. 13	7.76	8.15	0.39	2059.2	1	2	2	915.2	0.78	1.50	915.2		68.6		366.1			1.50	38.1	2.00	50.8	915.2
1D	LIC	S.R. 13	8.15	8.30	0.15	792.0	1	2	2	352.0	0.30	3.25		352.0	26.4	17.6	140.8	1.75	17.1	1.50	14.7	2.00	19.6	352.0
1D	LIC	S.R. 13	8.30	8.37	0.07	369.6	1	2	2	164.3	0.14	1.50	164.3		12.3		65.7			1.50	6.8	2.00	9.1	164.3
SUB-TOTALS																107.3	17.6							
LOCATION 1D TOTALS (CARRIED TO SUB-SUMMARY)											1.22		1079.5	352.0	124.9		572.6		17.1		59.6		79.5	1,431.5

CALCULATED
LME
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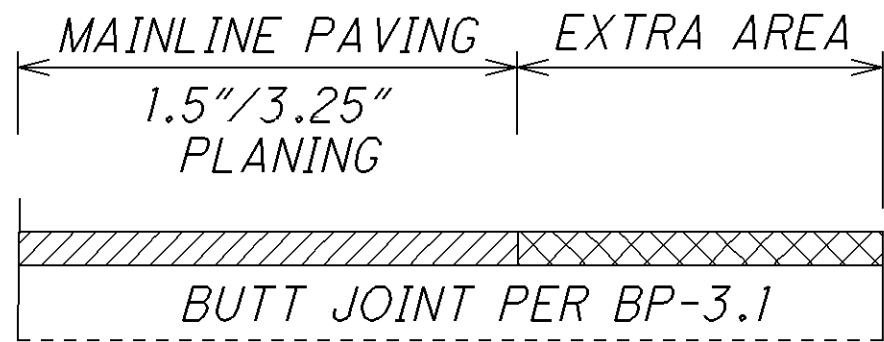
SHOULDER DATA

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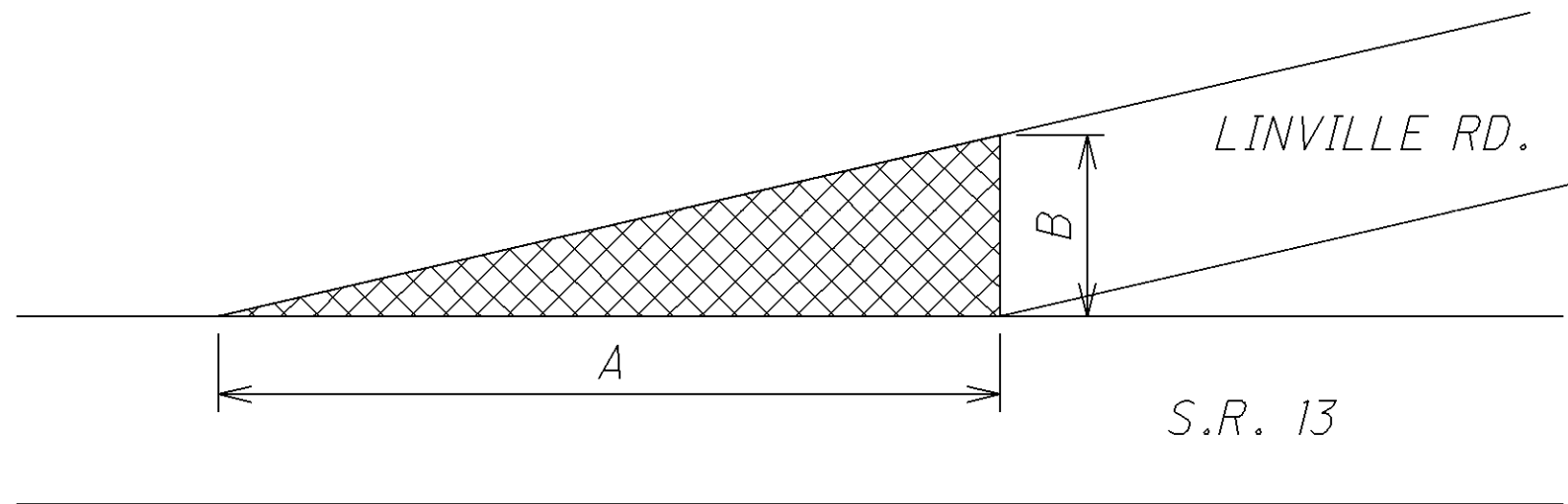
EXTRA AREAS															
LOCATION	COUNTY	ROUTE	SIDE	DESCRIPTION	INTERSECTIONS DIMENSIONS			AREA	202	407		441			
					A	B	C		WEARING COURSE REMOVED	NON-TRACKING TACK COAT @ 0.075 GAL./S.Y.	NON-TRACKING TACK COAT @ 0.05 GAL./S.Y.	THICKNESS	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	THICKNESS	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-22
					FT.	FT.	FT.								
1A	LIC	S.R. 13	RT	BOUNDARIES RD (CR 9)	50	35	113	411.2	411.2	30.9				1.50	17.2
1A	LIC	S.R. 13	LT	LAKE SHORE BLVD (TWP 196)	23	21	58	101.0	101.0	7.6				1.50	4.3
1A	LIC	S.R. 13	LT	PARK DRIVE (TWP 197)	25	16	61	107.0	107.0	8.1				1.50	4.5
1A	LIC	S.R. 13	LT	MAPLE AVE (TWP 433)	19	19	55	78.2	78.2	5.9				1.50	3.3
1A	LIC	S.R. 13	LT	MILLER AVE	20	11	39	55.6	55.6	4.2				1.50	2.4
1A	LIC	S.R. 13	LT	EDGEWATER (TWP 196)	22	20	58	95.4	95.4	7.2				1.50	4.0
1A	LIC	S.R. 13	LT	CRISTLAND HILL RD (CR 596)	41	25	79	236.9	236.9	17.8				1.50	9.9
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)									1,085.3	81.7					45.6
1B	LIC	S.R. 13	RT	KINDLE RD (TWP 325)	15	21	46	55.9	55.9	4.2				1.50	2.4
1B	LIC	S.R. 13	LT	SOUTH ST	15	21	46	55.9	55.9	4.2				1.50	2.4
1B	LIC	S.R. 13	LT	SECOND ST	21	17	42	68.9	68.9	5.2				1.50	2.9
1B	LIC	S.R. 13	LT	US 40 (WEST SIDE)	32	28	84	199.2	199.2	15.0	10.0	1.75	9.7	1.50	8.3
1B	LIC	S.R. 13	RT	US 40 (EAST SIDE)	50	38	100	383.4	383.4	28.8	19.2	1.75	18.7	1.50	16.0
1B	LIC	S.R. 13	LT	STADDEN ALLEY	10	12	20	17.8	17.8	1.4				1.50	0.8
1B	LIC	S.R. 13	LT	LARASON AVE	24	12	42	72.0	72.0	5.4				1.50	3.0
1B	LIC	S.R. 13	LT	NORTH AVE	31	15	52	115.4	115.4	8.7				1.50	4.9
1B	LIC	S.R. 13	LT	COOPER RD	32	18	49	119.2	119.2	9.0				1.50	5.0
1B	LIC	S.R. 13	LT	RIDGELY TRACT RD (TWP 308)	24	11	30	54.7	54.7	4.2				1.50	2.3
1B	LIC	S.R. 13	RT	ONE MILE RD	22	20	42	75.8	75.8	5.7				1.50	3.2
1B	LIC	S.R. 13	RT	WOODLAND DRIVE	19	34	43	81.3	81.3	6.1				1.50	3.4
1B	LIC	S.R. 13	RT	HUPP RD (TWP 309)	35	17	71	171.2	171.2	12.9				1.50	7.2
1B	LIC	S.R. 13	LT	DAVIS DRIVE (TWP 309)	27	20	49	103.5	103.5	7.8				1.50	4.4
1B	LIC	S.R. 13	RT	HIRST RD (CR 310)	35	20	50	136.2	136.2	10.3				1.50	5.7
1B	LIC	S.R. 13	LT	WHITE CHAPEL RD (TWP 306)	32	21	53	131.6	131.6	9.9				1.50	5.5
1B	LIC	S.R. 13	RT	WHITE CHAPEL RD (TWP 306)	23	16	46	79.3	79.3	6.0				1.50	3.4
1B	LIC	S.R. 13	LT	SANDY LANE	25	19	47	91.7	91.7	6.9				1.50	3.9
1B	LIC	S.R. 13	LT	KIRBY RD	21	20	44	74.7	74.7	5.7				1.50	3.2
1B	LIC	S.R. 13	RT	AT TRAILER PARK	19	31	65	101.4	101.4	7.7				1.50	4.3
1B	LIC	S.R. 13	LT	DORSEY MILL RD (CR 343)	75	40	190	958.4	958.4	71.9				1.50	40.0
1B	LIC	S.R. 13	RT	DORSEY MILL RD (CR 343)	75	40	190	958.4	958.4	71.9				1.50	40.0
SUB-TOTALS										308.9	29.2				
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)									4,105.9	338.1			28.4		172.2
1D	LIC	S.R. 13	RT	HOPEWELL DR.	50	24	98	338.9	338.9	25.5				1.50	14.2
LOCATION 1D TOTALS (CARRIED TO SUB-SUMMARY)									338.9	25.5					14.2



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



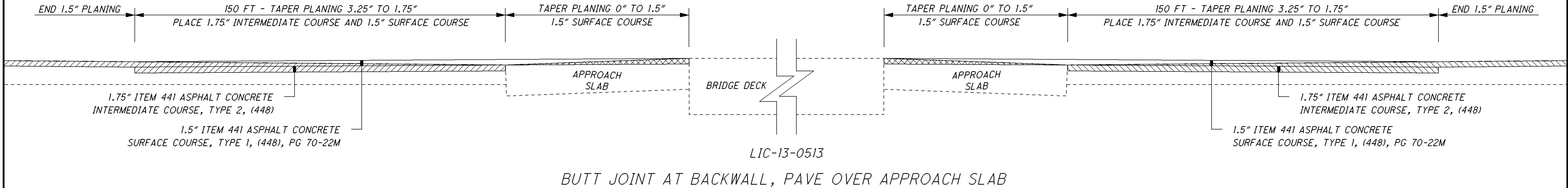
NOTES:
1. AREAS SHOWN IN THE TABLE
WITH INTERMEDIATE COURSE
SHALL HAVE 3.25" DEPTH BUTT
JOINT AND 2 COURSES OF
ASPHALT SHALL BE PLACED.



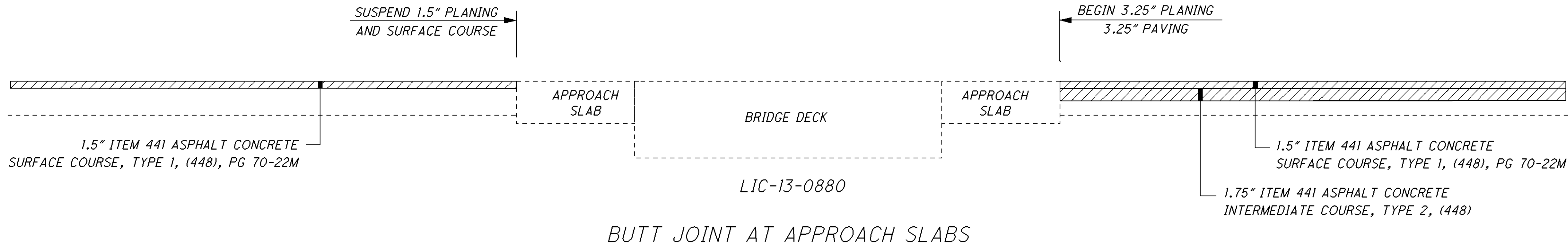
EXTRA AREAS															
L O C A T I O N	C O U N T Y	R O U T E	S I D E	D E S C R I P T I O N	I N T E R S E C T I O N S D I M E N S I O N S			A R E A	202	407		441			
									W E A R I N G C O U R S E R E M O V E D	N O N - T R A C K I N G T A C K C O A T @ 0.075 G A L./S.Y.	N O N - T R A C K I N G T A C K C O A T @ 0.05 G A L./S.Y.	T H I C K N E S S	A S P H A L T C O N C R E T E I N T E R M E D I A T E C O U R S E, T Y P E 1, (448)	T H I C K N E S S	A S P H A L T C O N C R E T E S U R F A C E C O U R S E, T Y P E 1, (448),PG 64-22
					A	B	C								
											FT.	FT.	FT.	SQ. YD.	SQ. YD.
1E	LIC	S.R. 13	RT	LINVILLE RD.	82	53		241.5	241.5	18.2				1.50	10.1
1E	LIC	S.R. 13	LT	ORCHARD ST.	15	24	45	57.5	57.5	4.4				1.50	2.4
1E	LIC	S.R. 13	RT	BONER ST.	20	24	45	76.7	76.7	5.8				1.50	3.2
1E	LIC	S.R. 13	LT	GAINOR AVE.	12	23	40	42.0	42.0	3.2				1.50	1.8
1E	LIC	S.R. 13	RT	ISABELL RD.	20	40	50	100.0	100.0	7.5				1.50	4.2
1E	LIC	S.R. 13	LT	PROSPECT ST.	16	24	36	53.4	53.4	4.1				1.50	2.3
1E	LIC	S.R. 13	LT	WILWOOD AVE.	40	24	60	186.7	186.7	14.1				1.50	7.8
1E	LIC	S.R. 13	LT	S. 5TH ST.	36	38	70	216.0	216.0	16.2				1.50	9.0
1E	LIC	S.R. 13	RT	W. NATIONAL DR.	30	34	64	163.4	163.4	12.3				1.50	6.9
LOCATION 1E TOTALS (CARRIED TO SUB-SUMMARY)									1,137.2	85.8					47.7

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DETAIL 1



DETAIL 2



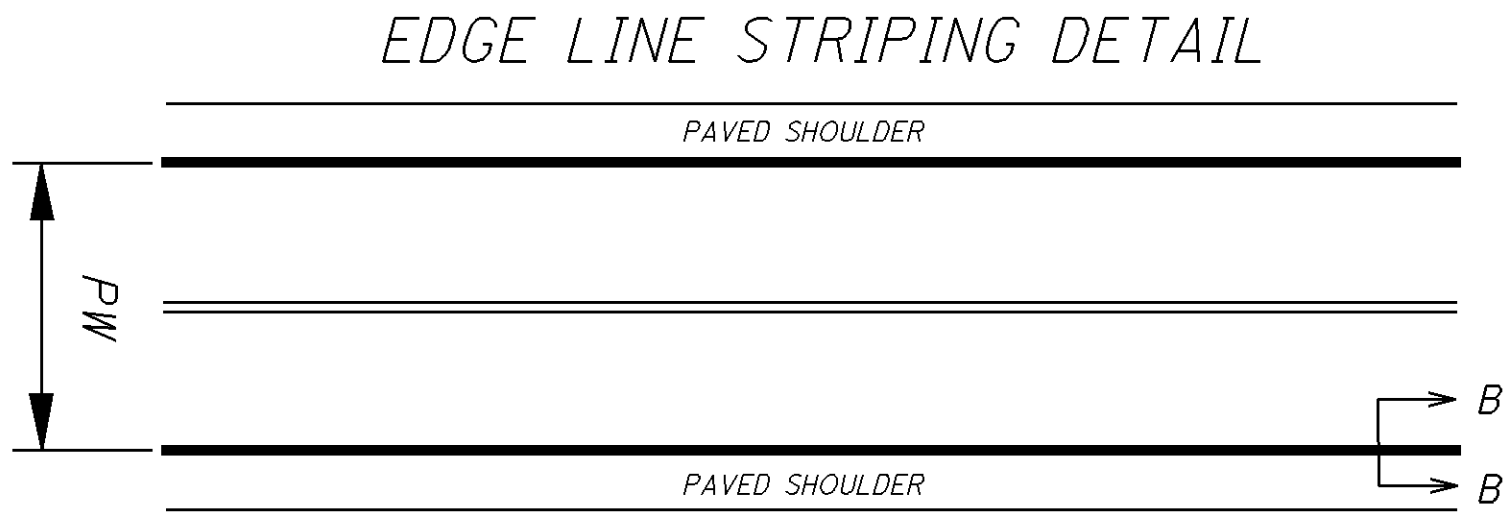
BRIDGE TREATMENT DATA																				
Z O N E - I D	COUNTY, ROUTE, BRIDGE NO.	LENGTH (BRIDGE LIMITS)	WIDTH	AREA	APPROACH SLAB LENGTH	APPROACH SLAB WIDTH	APPROACH SLAB AREA (INCLUDES BOTH APPROACH SLABS)	BRIDGE DECK DETAIL (SEE THIS SHEET)	MAINLINE DEDUCTIONS (CARRIED TO SHEETS 13,14)	SHOULDER DEDUCTIONS (CARRIED TO SHEET 16)	202		407		441				512	516
		LIN. FT.	LIN. FT.	SQ. YD.	LIN. FT.	LIN. FT.	SQ. YD.		SQ. YD.	SQ. YD.	DEPTH OF WEARING COURSE REMOVED	WEARING COURSE REMOVED	TACK COAT @ 0.075 GAL./S.Y.	TACK COAT @ 0.05 GAL./S.Y.	THICKNESS	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)	THICKNESS	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 70-22M	TYPE 3 WATERPROOFING	2" DEEP JOINT SEALER, AS PER PLAN
1B	LIC-13-0151	OVERHEAD - MILL AND FILL ROADWAY																		
1B	LIC-13-0513	92.0	43.3	442.7	20.0	43.0	191.1	1	352.0	234.7			14.3				1.50	8.0		86
	BRIDGE DEDUCTIONS								352.0	234.7										
	LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)												14.3					8.0		86
1E	LIC-13-0880	202.0	35.8	803.6	20.0	28.0	124.4	2	537.8											56
	BRIDGE DEDUCTIONS								537.8											
	LOCATION 1E TOTALS (CARRIED TO SUB-SUMMARY)																			56

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,		
			CL./LT./RT.								SQ. YD.	SQ. FT.	
		S.R. 13 - NEWARK											
1-CR	X	ISABELLE RD.	RT		184.0	5	56.0	120.0		8			LANDING PLUS 15' WALK IN EACH DIRECTION
2-CR	X	ON S.R. 13 AT ISABELLE RD.	LT			5	20.0		10			1	
3-CR	X	S. 5TH ST.	LT		70.0	10	70.0		10		1		
4-CR	X	S. 5TH ST.	LT		82.0	17	60.0	22.0	17		1		
SUB-TOTALS							206.0	142.0					
TOTALS (CARRIED TO LOCATION 1B SUB-SUMMARY)					336.0	37	348.0		37	8	2	1	

SEE SHEET 36 FOR CURB RAMP PLAN SHEET

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ITEM 648 EDGE LINE, 6"											
L O C A T I O N	C O U N T Y	R O U T E	S.L.M.		T O T A L L E N G T H (MILES)	I N F O R M A T I O N O N L Y			648	618	R E M A R K S
						W H I T E E D G E L I N E Q U A N T I T I E S			T O T A L E D G E L I N E (6")	E D G E L I N E, R U M B L E S T R I P E (A S P H A L T C O N C R E T E)	
			F R O M	T O							
1A	LIC	S.R. 13	0.00	0.54	0.54	1.08	1.08		1.08	1.08	PERRY COUNTY TO SLM
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)									1.08	1.08	
1B	LIC	S.R. 13	0.54	6.48	5.94	11.88	11.88		11.88	11.88	SLM TO DORSEY MILL RD.
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)									11.88	11.88	
1C	LIC	S.R. 13	6.48	7.76	1.28	2.56	2.56		2.56	2.56	DORSEY MILL RD. TO HEATH CORP.
LOCATION 1C TOTALS (CARRIED TO SUB-SUMMARY)									2.56	2.56	
1D	LIC	S.R. 13	7.76	8.37	0.61	1.22	1.22		1.22		HEATH CORP. TO NEWARK CORP.
LOCATION 1D TOTALS (CARRIED TO SUB-SUMMARY)									1.22		



EDGE LINE PLACEMENT SHALL BE MEASURED FROM CENTER OF LINES, PLACED ACCORDING TO PAVEMENT WIDTH (PW) AS SHOWN ON DATA TABLE (SHEET 13).

ITEM 644/648 CENTER/LANE 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		644	648	644	648	REMARKS
						CENTER LINE QUANTITIES		TOTAL CENTER LINE	TOTAL CENTER LINE	TOTAL LANE LINE (4")	TOTAL LANE LINE (6")	
			TOTAL MILES	EQUIVALENT SOLID LINE								
			FROM	TO		MILES	MILES	MILES	MILES			
1A	LIC	S.R. 13	0.00	0.54	0.54	0.54	1.300		0.54			PERRY COUNTY TO SLM
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)									0.54			
1B	LIC	S.R. 13	0.54	6.48	5.94	5.94	10.856		6.29			SLM TO DORSEY MILL RD.(EXTRA FOR TURN LANES)
1B	LIC	S.R. 13 N.B.	1.42	1.49	0.07						0.07	
1B	LIC	S.R. 13	1.49	1.74	0.25						0.50	NORTHBOUND AND SOUTHBOUND
1B	LIC	S.R. 13 N.B.	1.74	1.88	0.14						0.14	SOUTHBOUND
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)									6.29		0.71	
1C	LIC	S.R. 13	6.48	7.76	1.28	1.28	2.425		1.37			DORSEY MILL RD. TO HEATH CORP.
LOCATION 1C TOTALS (CARRIED TO SUB-SUMMARY)									1.37			
1D	LIC	S.R. 13	7.76	8.37	0.61	0.61	1.281		0.74			HEATH CORP. TO NEWARK CORP.
LOCATION 1D TOTALS (CARRIED TO SUB-SUMMARY)									0.74			
1E	LIC	S.R. 13	8.37	9.10	0.73	0.73	2.012		0.73			NEWARK CORP. TO 4TH ST.
LOCATION 1E TOTALS (CARRIED TO SUB-SUMMARY)									0.73			
O.D.O.T. D05 COMPLEX					0.30	0.30	0.600	0.30				
TOTALS (CARRIED TO GENERAL SUMMARY)								0.30				

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ITEM 644 AUXILARY MARKING																		
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	T R A N S E R V E/ D I A G O N A L L I N E (24")		S T O P L I N E (24")	12" C R O S S W A L K L I N E	W O R D O N P A V E M E N T		L A N E A R R O W S			8" C H A N N E L I Z I N G L I N E	I S L A N D M A R K I N G (Y E L L O W)	L A N E R E D U C T I O N A R R O W	R E M A R K S
						W H I T E	Y E L L O W			O N L Y		T U R N						
										72"	96"	T H R U	L T.	R T.				
						FT.	FT.	FT.	FT.	EACH	EACH	EACH	EACH	EACH	FEET	SQ.FT.	EACH	
1A	LIC	S.R. 13		ON S.R. 13 BEFORE LAKESHORE BLVD.						1		1		123			SEE SHEET 25	
1A	LIC	S.R. 13	RT	BOUNDARIES RD				15									PLACE 25' FROM SR 13 EOP	
1A	LIC	S.R. 13	LT	LAKESHORE BLVD				14									PLACE 16' FROM SR 13 EOP	
1A	LIC	S.R. 13		ON S.R. 13 BEFORE BOUNDARIES RD.			200			1		2		200			SEE SHEET 25	
1A	LIC	S.R. 13	LT	DELL AVE				9									PLACE 20' FROM SR 13 CENTERLINE	
1A	LIC	S.R. 13	LT	PARK DR				20									PLACE 22' FROM SR 13 CENTERLINE	
1A	LIC	S.R. 13	LT	MAPLE AVE				14									PLACE 24' FROM SR 13 CENTERLINE	
1A	LIC	S.R. 13	LT	MILLER AVE				9									PLACE 23' FROM SR 13 CENTERLINE	
1A	LIC	S.R. 13	LT	EDGEWATER BEACH BLVD				14									PLACE 23' FROM SR 13 CENTERLINE	
1A	LIC	S.R. 13	LT	CRISTLAND HILL RD				29									PLACE 23' FROM SR 13 CENTERLINE	
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)							200	124			2		3		323			
1B	LIC	S.R. 13	RT	KINDLE RD				10										PLACE 20' FROM SR 13 CENTERLINE
1B	LIC	S.R. 13		SLM 1.15-1.45			358			2		6		160	114		SEE SHEETS 26-27	
1B	LIC	S.R. 13		SLM 1.46-1.62		217	60	69		2		4		560			BETWEEN RAMPS, SEE SHEET 28	
1B	LIC	S.R. 13		SLM 1.62-1.88			386	24							57	1	SEE SHEETS 29-30	
1B	LIC	S.R. 13		SLM 1.88-2.13			276			1		2		280			BEFORE ODOT SEE SHEETS 30-31	
1B	LIC	S.R. 13		SLM 2.13-2.30			250			1		2		180	57		AFTER ODOT SEE SHEET 31	
1B	LIC	S.R. 13	LT	SOUTH ST				13									PLACE 22' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13	LT	SECOND ST				13									PLACE 22' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13		SR 13 AT US 40				16									SOUTH SIDE PLACE 90' FROM US 40 CL	
1B	LIC	S.R. 13		SR 13 AT US 40				12									NORTH SIDE PLACE 45' FROM US 40 CL	
1B	LIC	S.R. 13	RT	ON US 40 W.B.				13									PLACE 45' FROM SR 13 CL	
1B	LIC	S.R. 13	LT	STADDEN ALLEY				10									PLACE 22' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13	LT	LARASON AVE				10									PLACE 22' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13	LT	NORTH AVE				20									PLACE 18' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13	LT	COOPER RD				18									PLACE 20' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13	LT	RIDGLEY TRACK RD				13									PLACE 20' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13	RT	ONE MILE RD				13									PLACE 17' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13	RT	WOODLAND				20									PLACE 21' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13		ON S.R. 13 - DAWES TURN LANE			358			1		2		215	57		SEE SHEET 32	
1B	LIC	S.R. 13	RT	HUPP RD				24									PLACE 21' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13	LT	DAVIS DR				16									PLACE 23' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13	RT	HIRST RD				22									PLACE 20' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13	RT	WHITE CHAPEL RD				19									PLACE 20' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13	LT	WHITE CHAPEL RD				15									PLACE 19' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13	LT	SANDY LA				15									PLACE 19' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13	LT	KIRBY RD				14									PLACE 22' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13	RT	TRAILER PK				24									PLACE 20' FROM SR 13 CENTERLINE	
1B	LIC	S.R. 13		ON SR 13 BEFORE DORSEY MILL RD.			121	27		2		3		450			AT DORSEY MILL SEE SHEETS 33-34	
1B	LIC	S.R. 13	LT	DORSEY MILL RD				23									SEE SHEET 33	
SUB-TOTALS						217	1809											
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)						2,026		473			9		19		1,845	285	1	

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ITEM 644 AUXILIARY MARKING																			
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	T R A N S E R S E/ D I A G O N A L L I N E (24")		S T O P L I N E (24")	12" C R O S S W A L K L I N E	W O R D O N P A V E M E N T		L A N E A R R O W S			8" C H A N N E L I Z I N G L I N E	H A N D I C A P S Y M B O L M A R K I N G	S H A R E D L A N E M A R K I N G	P A R K I N G S T A L L M A R K I N G	R E M A R K S
						W H I T E	Y E L L O W			O N L Y		T U R N							
										72"	96"	L T / T H R U	L T.	R T.					
						FT.	FT.	FT.	FT.	E A C H	E A C H	E A C H	E A C H	E A C H	F E E T	E A C H	E A C H	F E E T	
1C	LIC	S.R. 13	RT	DORSEY MILL RD.				24										SEE SHEET 33	
1C	LIC	S.R. 13		ON S.R. 13 AFTER DORSEY MILL RD.			169	28			1		3		290			SEE SHEET 34	
LOCATION 1C TOTALS (CARRIED TO SUB-SUMMARY)							169	52			1		3		290				
1D	LIC	S.R. 13		ON S.R. 13 BEFORE HOPEWELL DR.			117	24					2		70			SEE SHEET 35	
			RT	HOPEWELL DR.				13										SEE SHEET 35	
				ON S.R. 13 AFTER HOPEWELL DR.			112						2		70			SEE SHEET 35	
LOCATION 1D TOTALS (CARRIED TO SUB-SUMMARY)							229	37					4		140				
1E	LIC	S.R. 13	RT	LINVILLE RD				28										PLACE 19' FROM CL SR 586	
1E	LIC	S.R. 13	LT	ORCHARD ST					64									PLACE 21' FROM CL SR 586	
1E	LIC	S.R. 13	RT	BONNER ST					50									PLACE 18' FROM CL SR 586	
1E	LIC	S.R. 13	LT	GANOR AVE					50									PLACE 20' FROM CL SR 586	
1E	LIC	S.R. 13	RT	ISABELLE RD					80									PLACE 19' FROM CL SR 586	
1E	LIC	S.R. 13		SR 13 AT ISABELLE RD				35	72				2		75			SEE SHEET 36	
1E	LIC	S.R. 13	LT	PROSPECT ST					54									PLACE 20' FROM CL SR 586	
1E	LIC	S.R. 13		SR 13 AT WILWOOD AVE.				41	72			1		2	63			SEE SHEET 36	
1E	LIC	S.R. 13	LT	S. 5TH ST.				20	95									SEE SHEET 36	
SUB-TOTALS												1	2	2					
LOCATION 1E TOTALS (CARRIED TO SUB-SUMMARY)								124	537			5			138				
				O.D.O.T. D05 COMPLEX				70	48				2		115	5	5,995	SEE SHEETS 40-41	
TOTALS (CARRIED TO GENERAL SUMMARY)						122		70	48				2		115	5	5,995		

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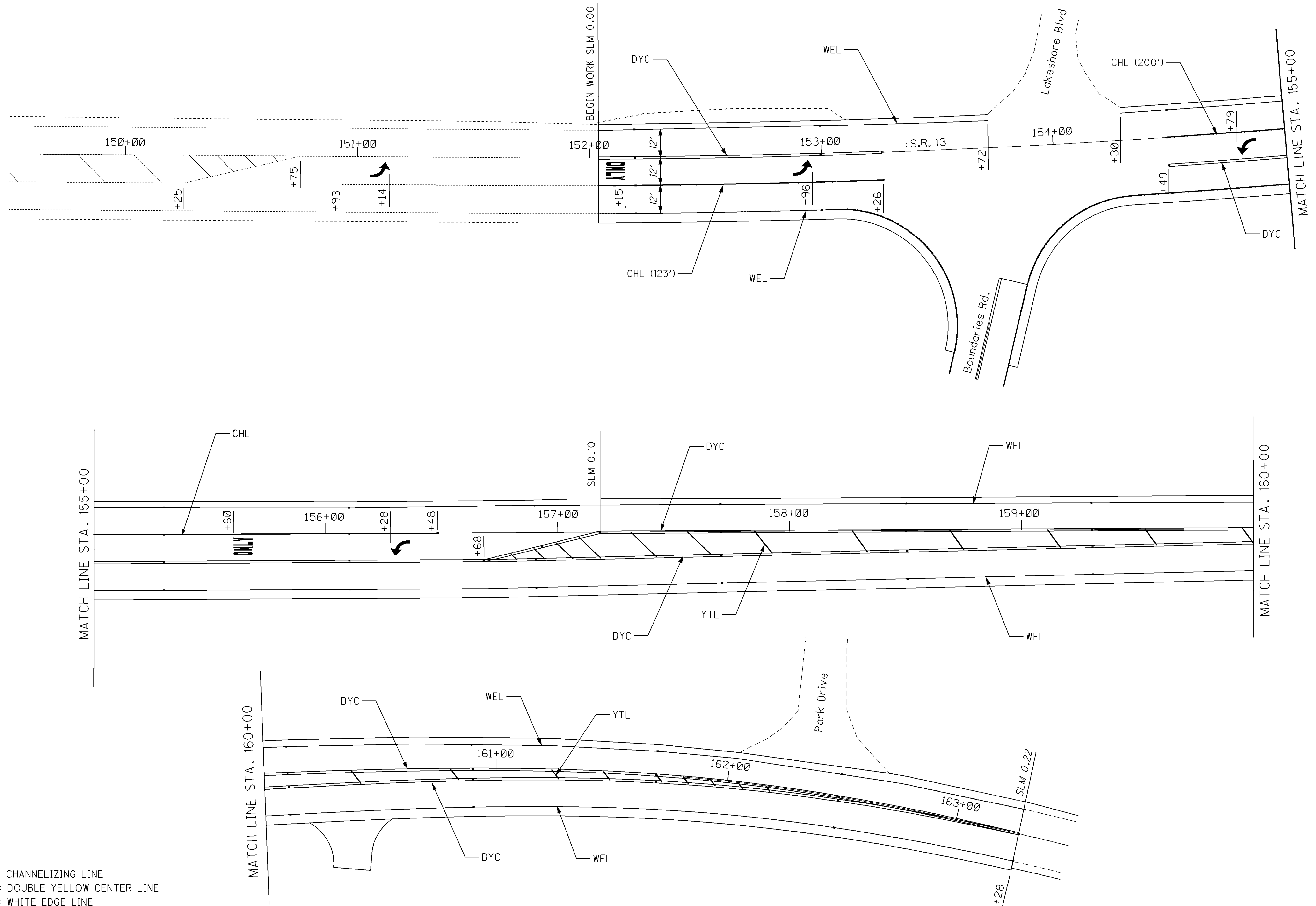
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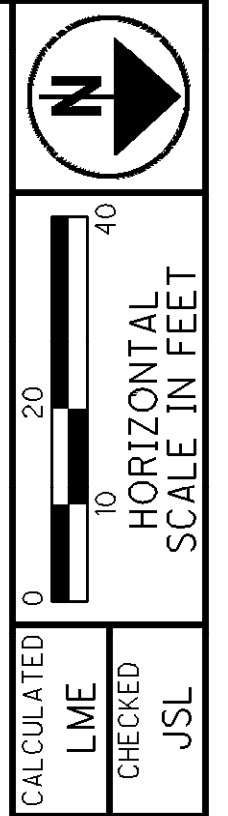
CHL = CHANNELIZING LINE
DYC = DOUBLE YELLOW CENTER LINE
WEL = WHITE EDGE LINE
YTL = YELLOW TRANSVERSE/DIAGONAL LINE

SEE SHEET 21-24 FOR PAVEMENT MARKING QUANTITIES



LIC-13-0.00

PAVEMENT MARKING DETAIL
BOUNDARIES RD. TURN LANE



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○

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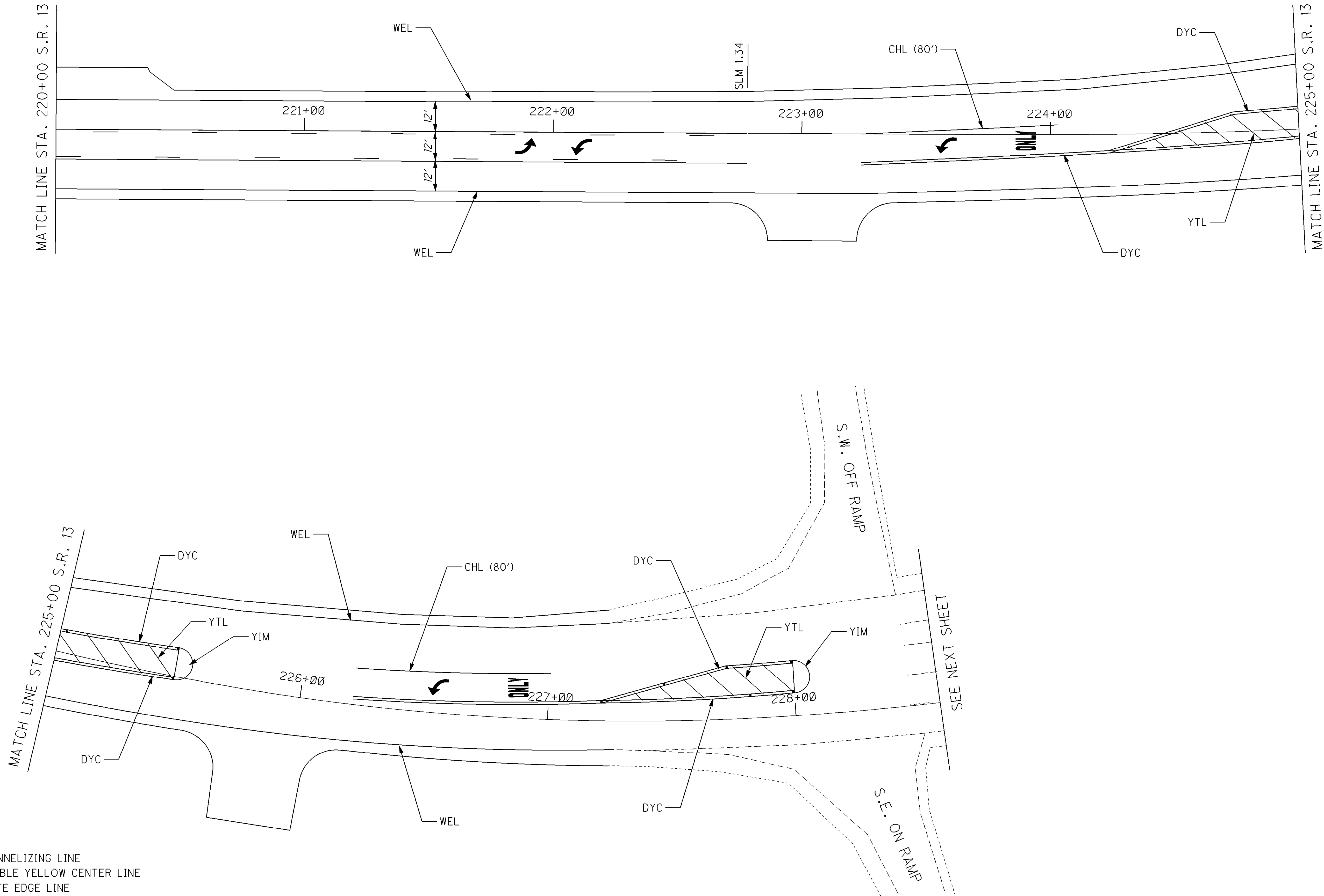


HORIZONTAL
SCALE IN FEET

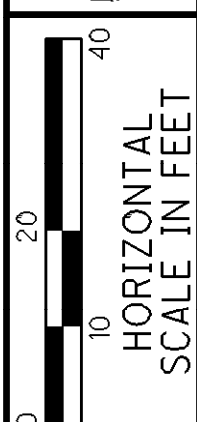
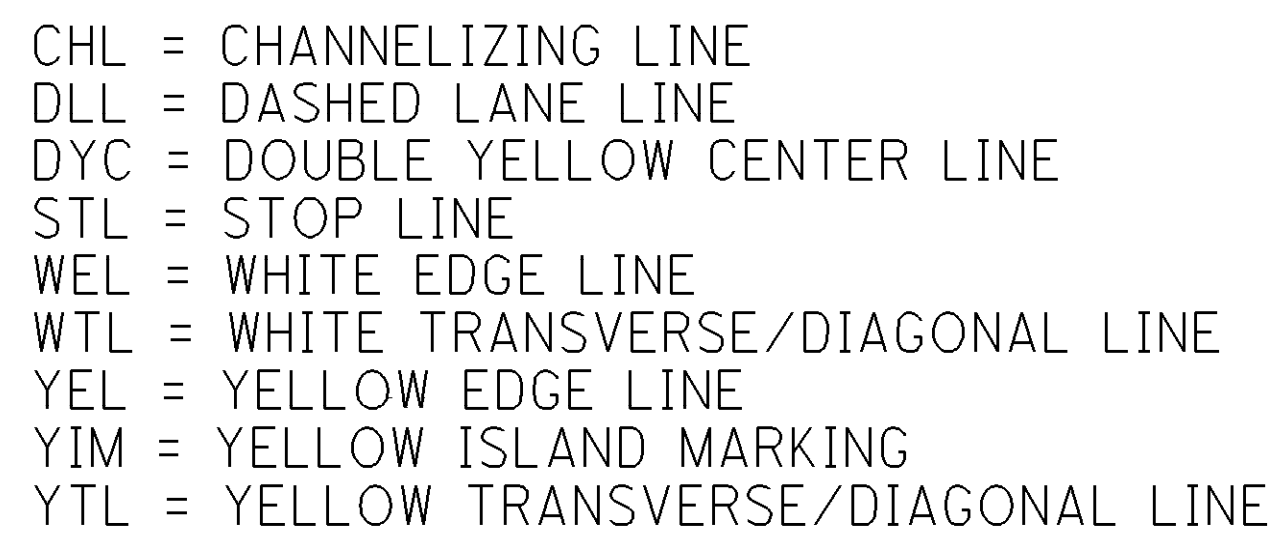
PAVEMENT MARKING DETAIL
S.R. 13 SOUTH OF I.R. 70



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



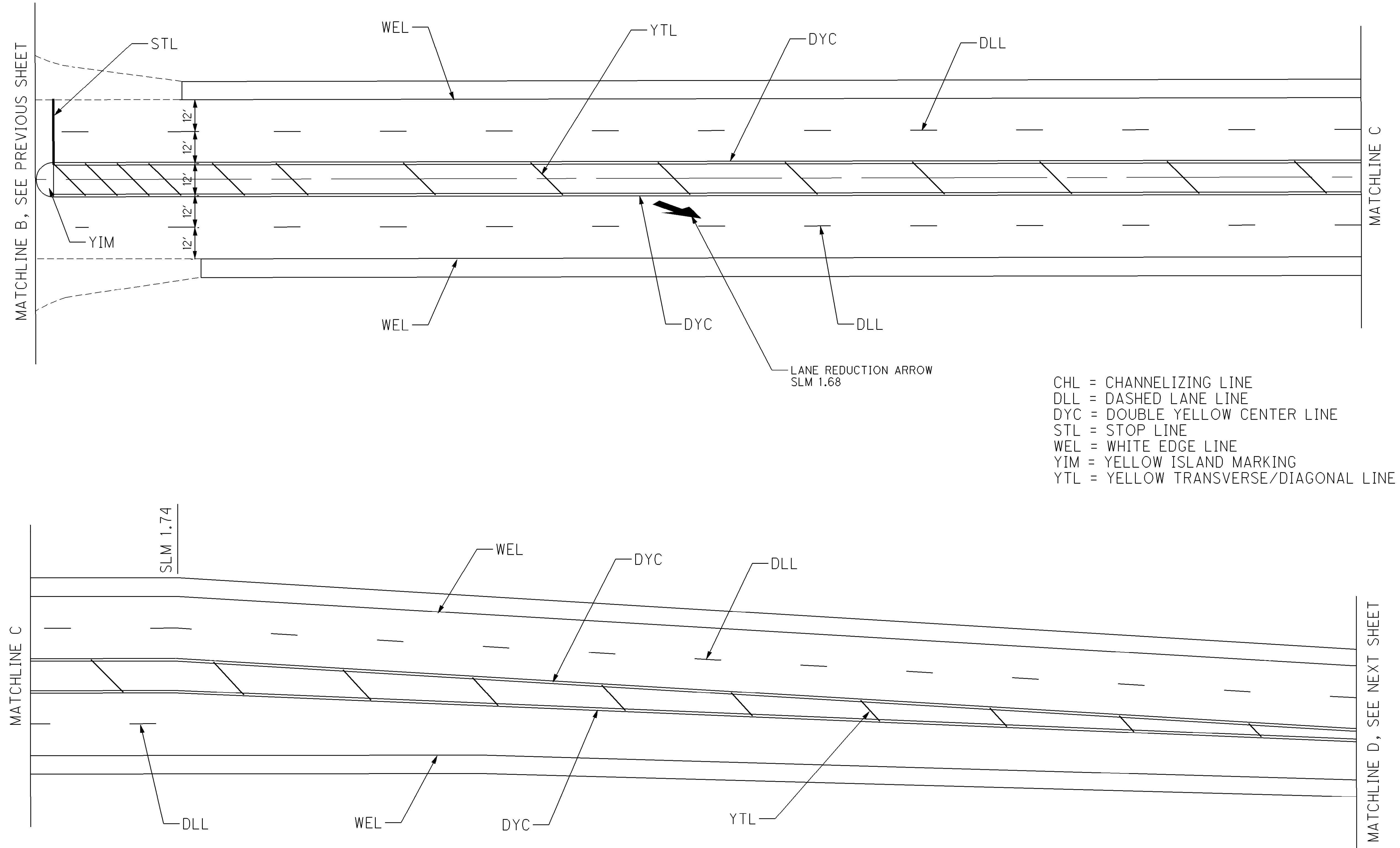
SEE SHEET 21-24 FOR PAVEMENT MARKING QUANTITIES



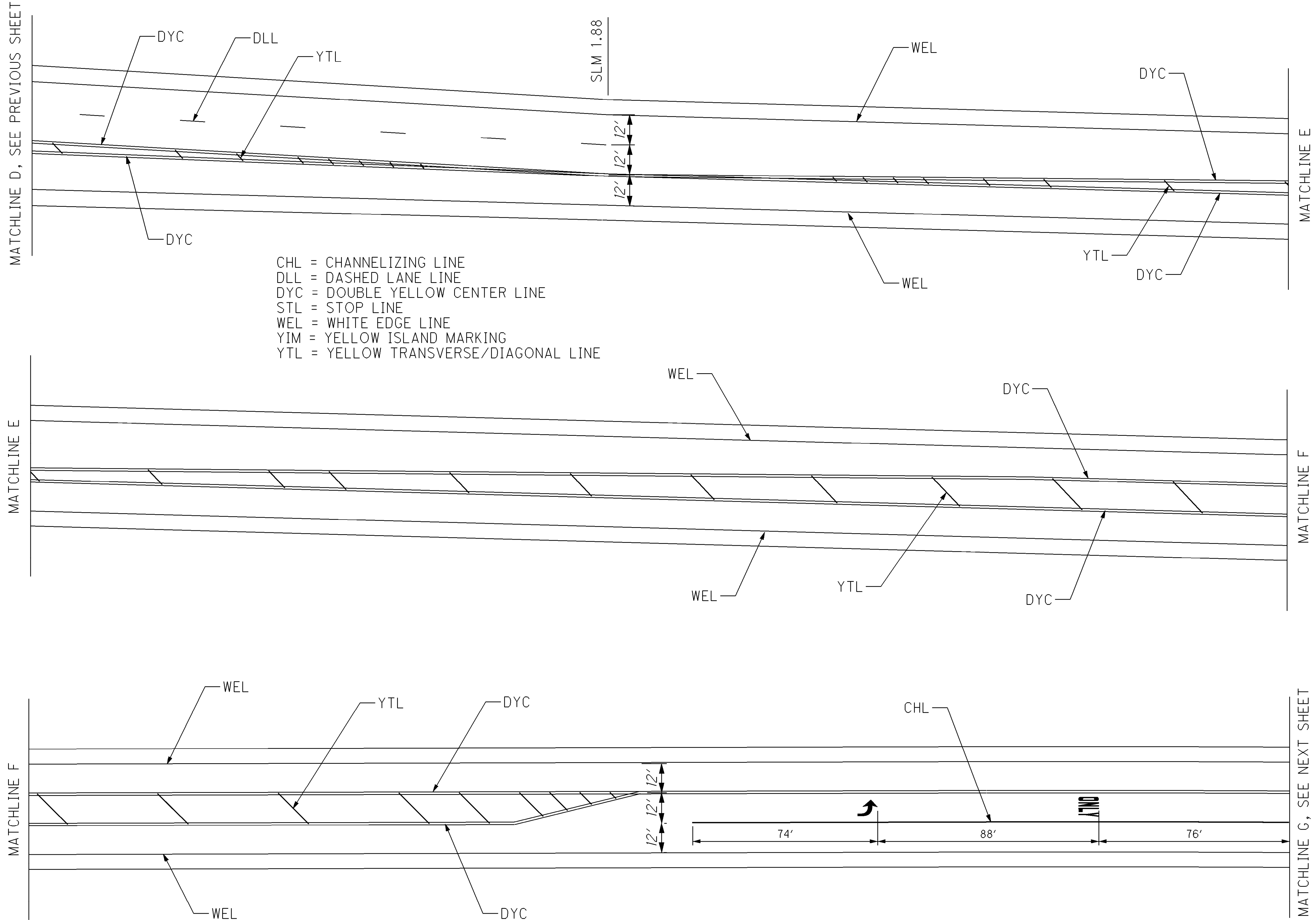
CALCULATED	CHECKED
LME	JSL

**PAVEMENT MARKING DETAIL
S.R. 13 AT I.R. 70 INTERCHANGE**

LIC-13-0.00



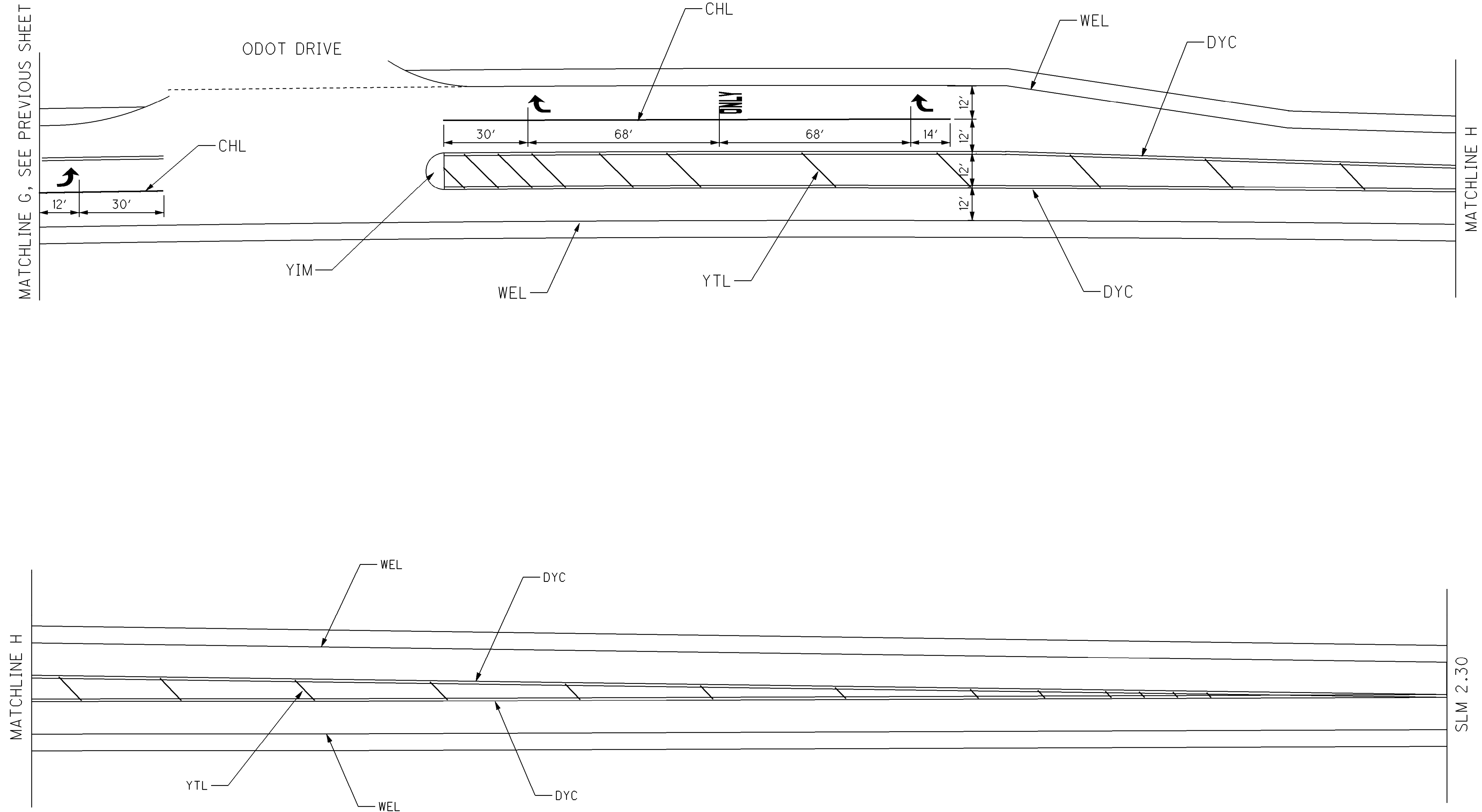
SEE SHEET 21-24 FOR PAVEMENT MARKING QUANTITIES



SEE SHEET 21-24 FOR PAVEMENT MARKING QUANTITIES

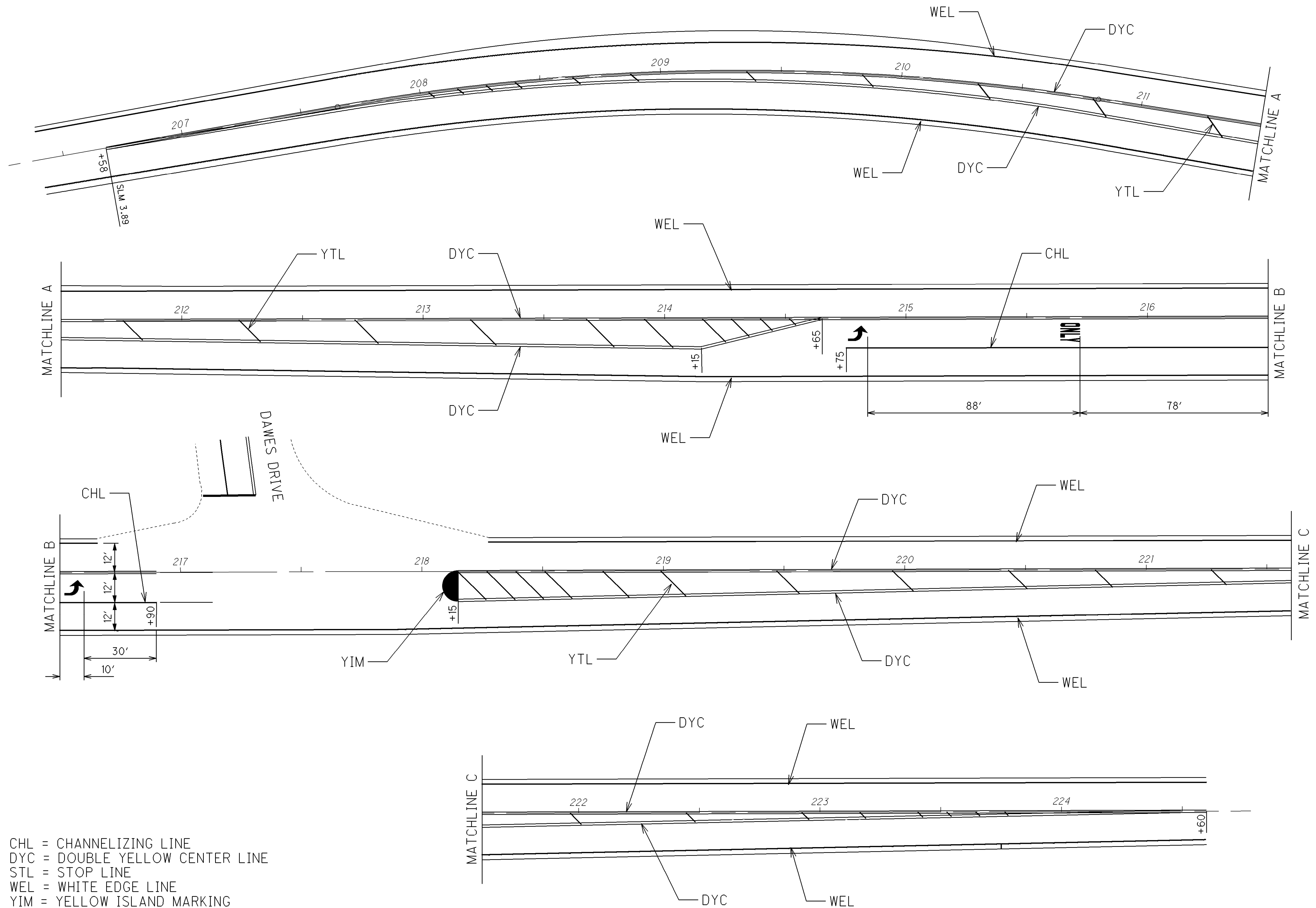
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CHL = CHANNELIZING LINE
DYC = DOUBLE YELLOW CENTER LINE
STL = STOP LINE
WEL = WHITE EDGE LINE
YIM = YELLOW ISLAND MARKING
YTL = YELLOW TRANSVERSE/DIAGONAL LINE

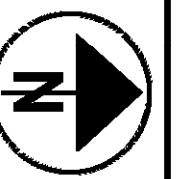


SEE SHEET 21-24 FOR PAVEMENT MARKING QUANTITIES

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



SEE SHEET 21-24 FOR PAVEMENT MARKING QUANTITIES



0 10 20 40
HORIZONTAL
SCALE IN FEET

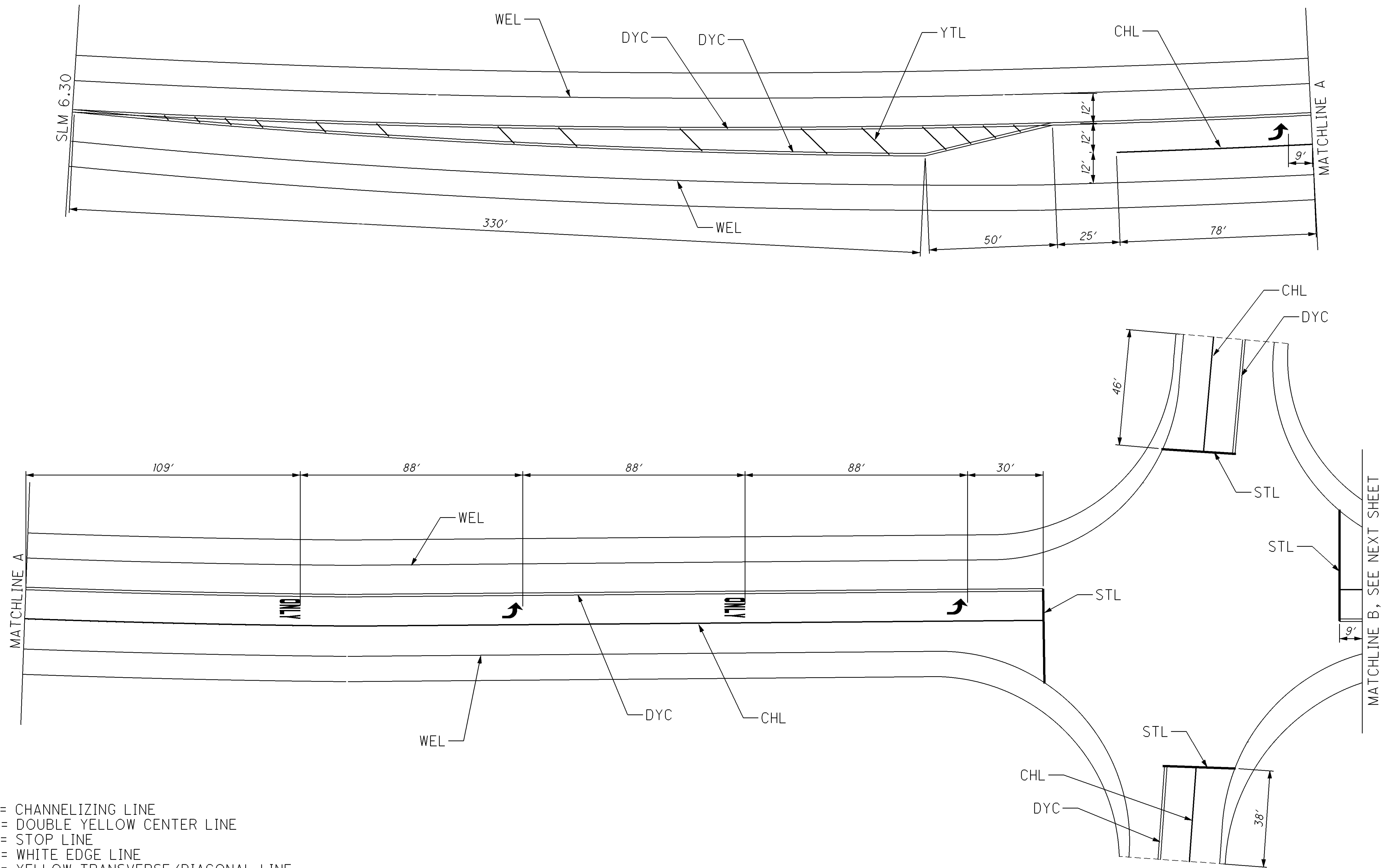
CALCULATED
LME
CHECKED
JSL

PAVEMENT MARKING DETAIL
S.R. 13 AT DAWES ARBORETUM

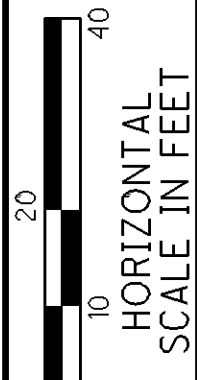
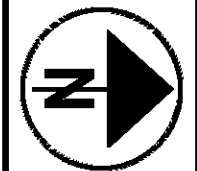
LIC-13-0.00

32
90

CHL = CHANNELIZING LINE
DYC = DOUBLE YELLOW CENTER LINE
STL = STOP LINE
WEL = WHITE EDGE LINE
YTL = YELLOW TRANSVERSE/DIAGONAL LINE



SEE SHEET 21-24 FOR PAVEMENT MARKING QUANTITIES

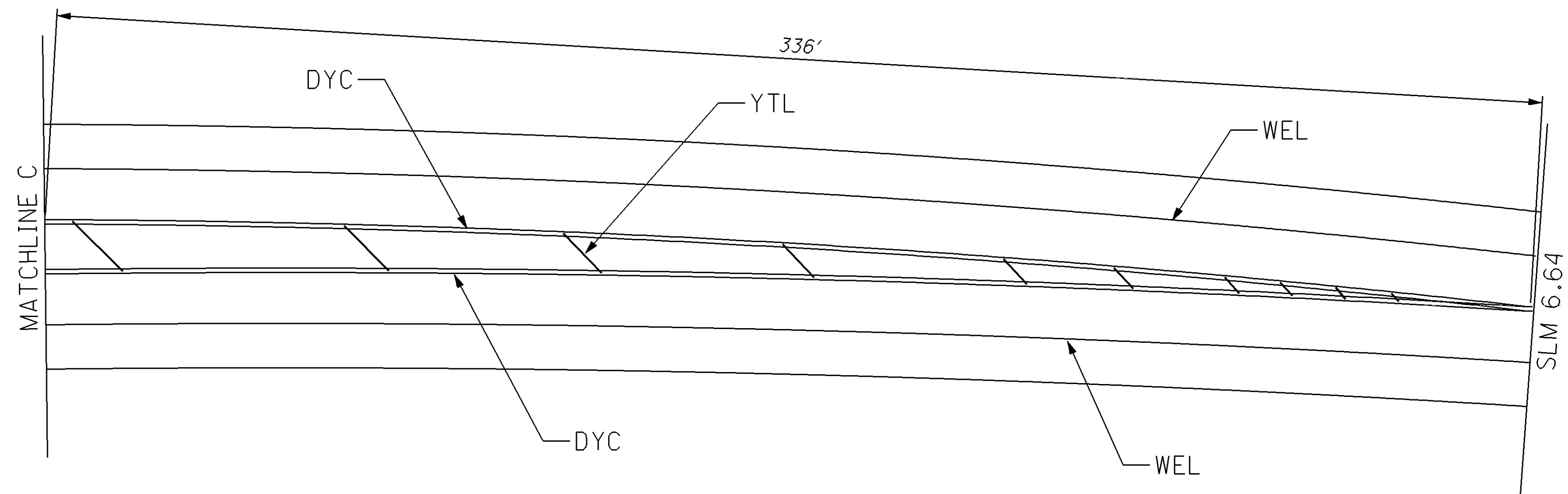
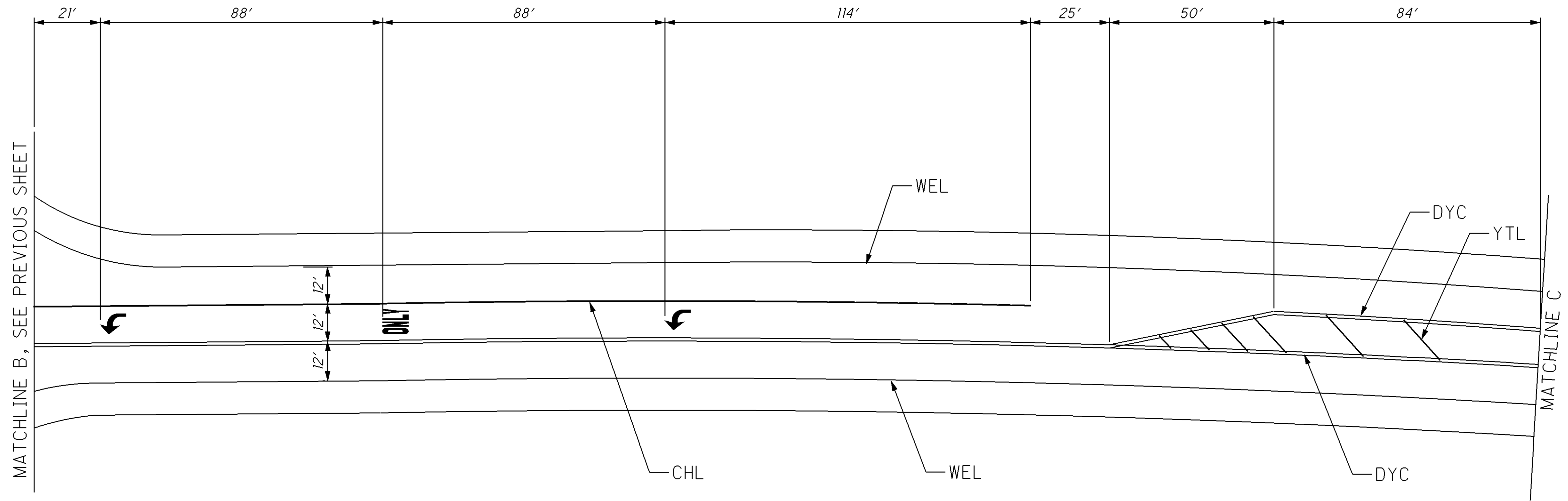


CALCULATED
LME
CHECKED
JSL

PAVEMENT MARKING DETAIL
S.R. 13 AT DORSEY MILL RD.

LIC-13-0.00

CHL = CHANNELIZING LINE
DYC = DOUBLE YELLOW CENTER LINE
STL = STOP LINE
WEL = WHITE EDGE LINE
YTL = YELLOW TRANSVERSE/DIAGONAL LINE

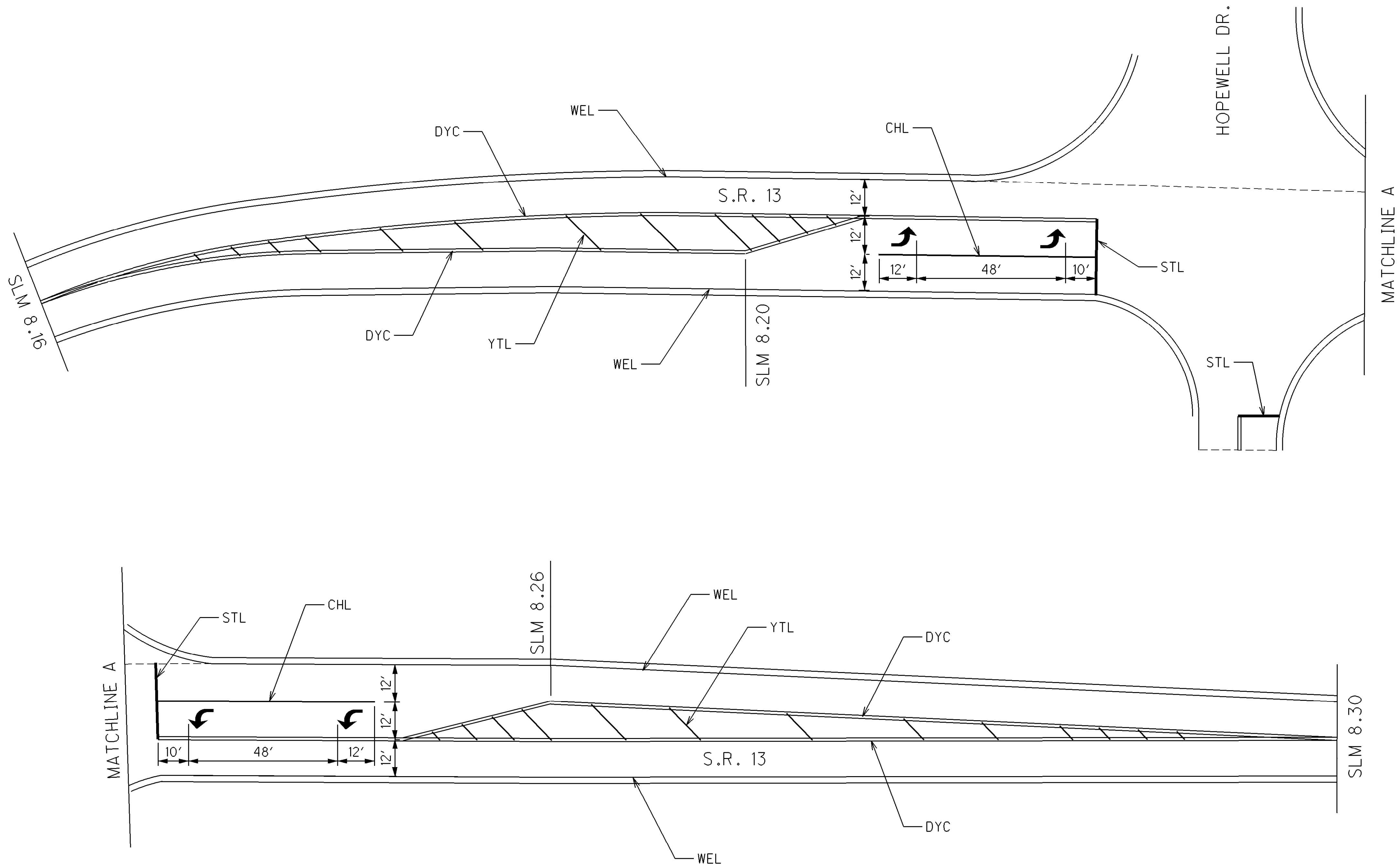


SEE SHEET 21-24 FOR PAVEMENT MARKING QUANTITIES

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CHL = CHANNELIZING LINE
DYC = DOUBLE YELLOW CENTER LINE
STL = STOP LINE
WEL = WHITE EDGE LINE
YTL = YELLOW TRANSVERSE/DIAGONAL LINE

SEE SHEET 21-24 FOR PAVEMENT MARKING QUANTITIES



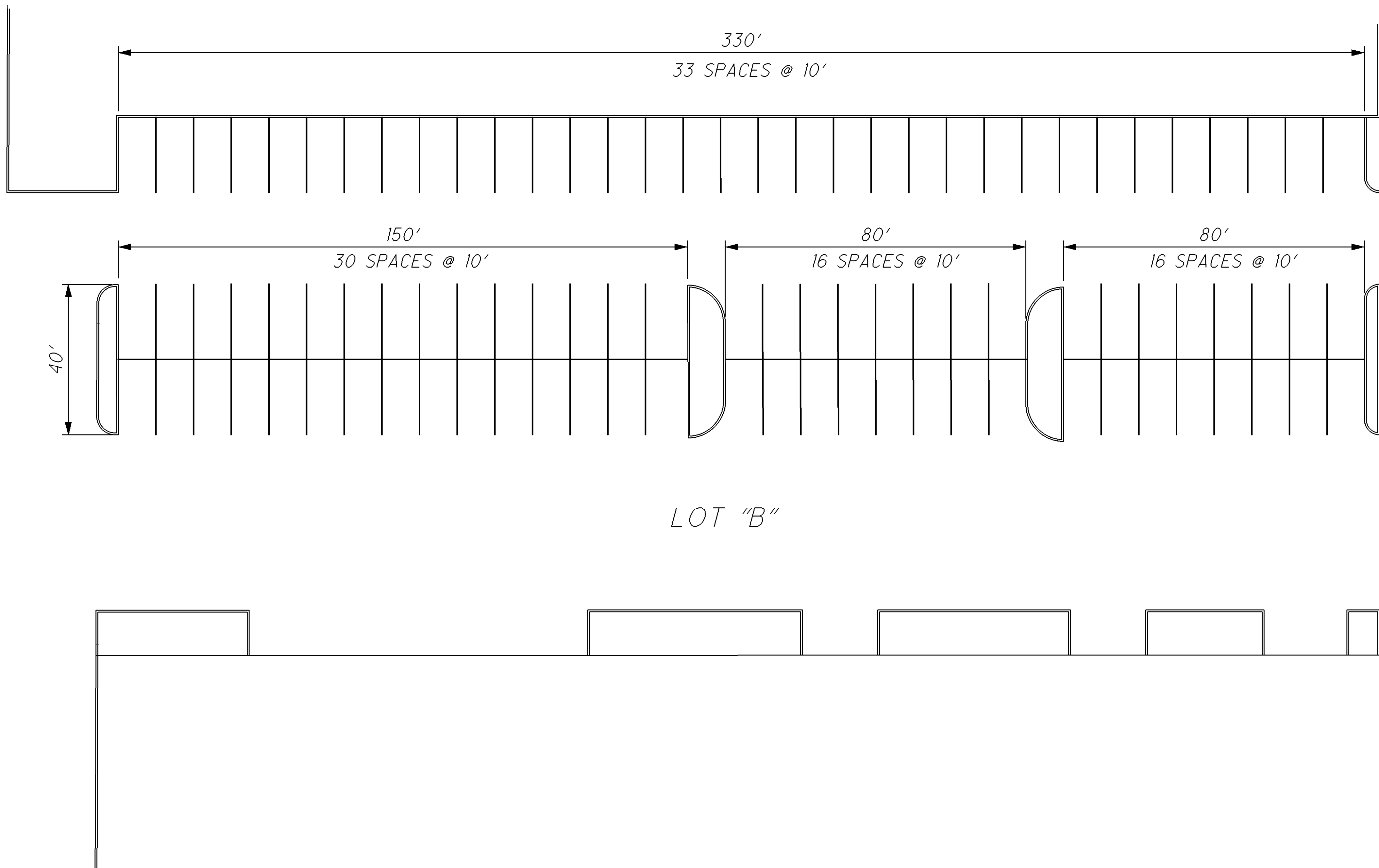
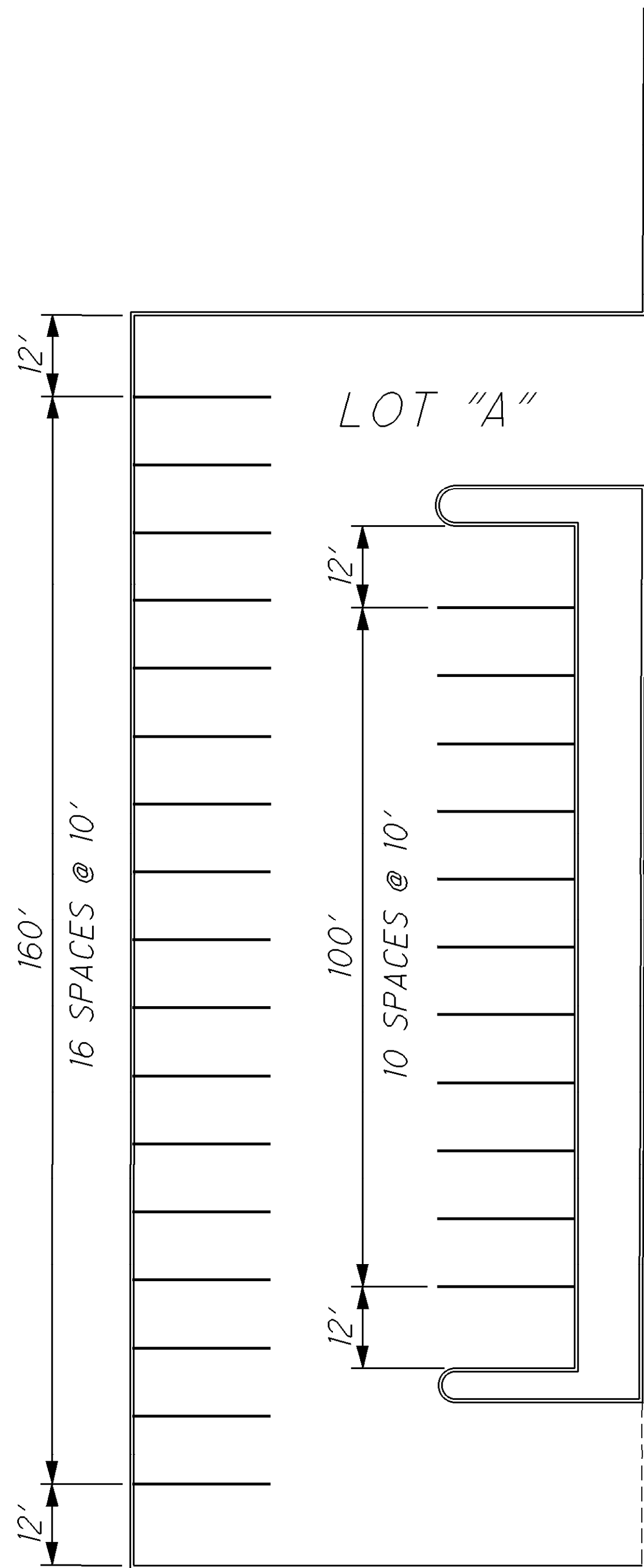


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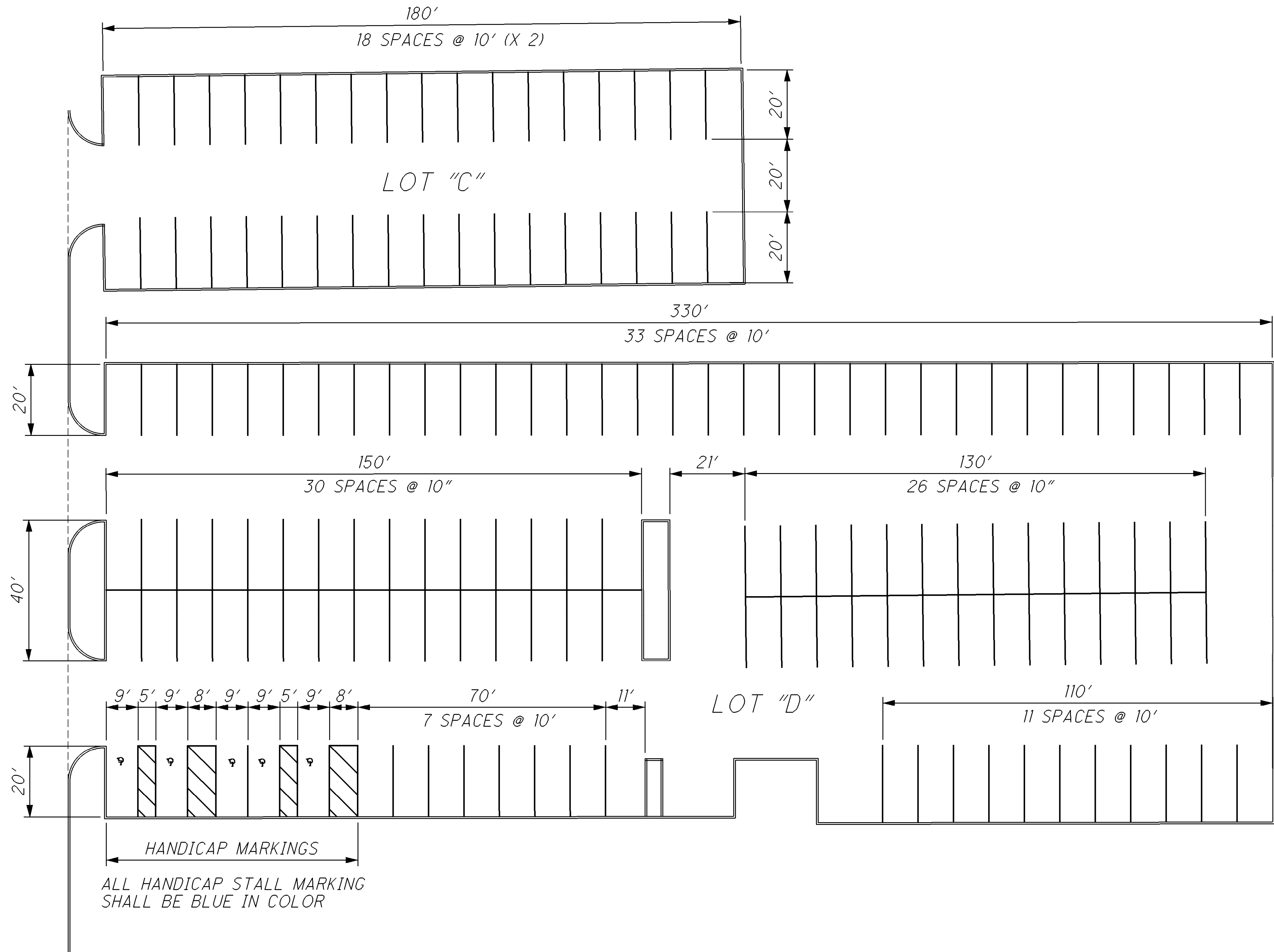
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SEE SHEET 24 FOR PAVEMENT MARKING QUANTITIES



SEE SHEET 24 FOR PAVEMENT MARKING QUANTITIES

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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		PRISMATIC RETRO-REFLECTOR COLORS					REMARKS	
								RAISED PAVEMENT MARKER REMOVED	RPM	INFORMATION ONLY						
					ONE-WAY	TWO-WAY										
					MILES	LIN.FT.		EACH	EACH	WHITE	YELLOW	YELLOW / YELLOW	WHITE / RED	YELLOW / RED		
1A	LIC	S.R. 13	0.00	0.16	0.16	845	GAP / 10	28	28			18	10		START PER. CO.	
1A	LIC	S.R. 13	0.16	0.21	0.05	264	11	14	14			14			PC 0.16 PT 0.21 L=317' DEG 6	
1A	LIC	S.R. 13	0.21	0.54	0.33	1,742	GAP	22	22			22				
SUB-TOTALS												54	10			
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)								64	64							
1B	LIC	S.R. 13	0.54	0.71	0.17	898	GAP	12	12			12				
1B	LIC	S.R. 13	0.71	0.76	0.05	264	11	7	7			7			PC 0.71 PT 0.76 L=264' DEG 6	
1B	LIC	S.R. 13	0.76	1.15	0.39	2,059	GAP	26	26			26				
1B	LIC	S.R. 13	1.15	1.23	0.08	422	REM	12	12			12			2 LANE TO 3 LANE TRANSITION	
1B	LIC	S.R. 13	1.23	1.34	0.11	581	9	16	16			16			2 WAY LEFT TURN	
1B	LIC	S.R. 13	1.34	1.46	0.12	634	10 / 7	38	38	16		16	6			
1B	LIC	S.R. 13	1.46	1.63	0.17	898	REM	82	82	32		14	36		DIVIDED AND UNDIVIDED WITH LEFT TURN LANES	
1B	LIC	S.R. 13	1.63	1.74	0.11	581	REM	48	48	16		16	16		SEPARATED 4 LANE	
1B	LIC	S.R. 13	1.74	2.30	0.56	2,957	REM	96	96			74	22		SEPARATION/TRANSITION WITH TURN LANES	
1B	LIC	S.R. 13	2.30	2.65	0.35	1,848	7	40	40	16		24			AT US 40	
1B	LIC	S.R. 13	2.65	2.81	0.16	845	7	38	38	16		22			AT US 40	
1B	LIC	S.R. 13	2.81	3.89	1.08	5,702	GAP	72	72			72				
1B	LIC	S.R. 13	3.89	3.93	0.04	211	10	6	6			6			TURN LANE TRANSITION	
1B	LIC	S.R. 13	3.93	3.97	0.04	211	10 / 11	6	6			6			PC 3.93 PT 3.97 L=211' DEG 9, TURN LANE TRANSITION	
1B	LIC	S.R. 13	3.97	4.23	0.26	1,373	10	42	42			36	6		LEFT TURN AT DAWES	
1B	LIC	S.R. 13	4.23	4.31	0.08	422	GAP	6	6			6				
1B	LIC	S.R. 13	4.31	4.35	0.04	211	11	6	6			6			PC 4.31 PT 4.35 L=211' DEG 6	
1B	LIC	S.R. 13	4.35	4.93	0.58	3,062	GAP	39	39			39				
1B	LIC	S.R. 13	4.93	4.97	0.04	211	11	6	6			6			PC 4.93 PT 4.97 L=211' DEG 5	
1B	LIC	S.R. 13	4.97	5.57	0.60	3,168	GAP	40	40			40				
1B	LIC	S.R. 13	5.57	5.60	0.03	158	11	4	4			4			PC 5.57 PT 5.60 L=158' DEG 9	
1B	LIC	S.R. 13	5.60	6.30	0.70	3,696	GAP	47	47			47				
1B	LIC	S.R. 13	6.30	6.48	0.18	950	10	52	52	16		24	12		AT DORSEY MILL ROAD	
SUB-TOTALS										112		531	98			
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)								741	741							

SEE NEXT SHEET FOR DETAILS

CALCULATED
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RAISED PAVEMENT MARKER DATA

LIC-13-0.00

42
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DETAIL	SEE STD. DWG. TC-65.11
1	ENTRANCE RAMP
2	EXIT RAMP
3	MULTI-LANE DIVIDED HIGHWAY

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

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

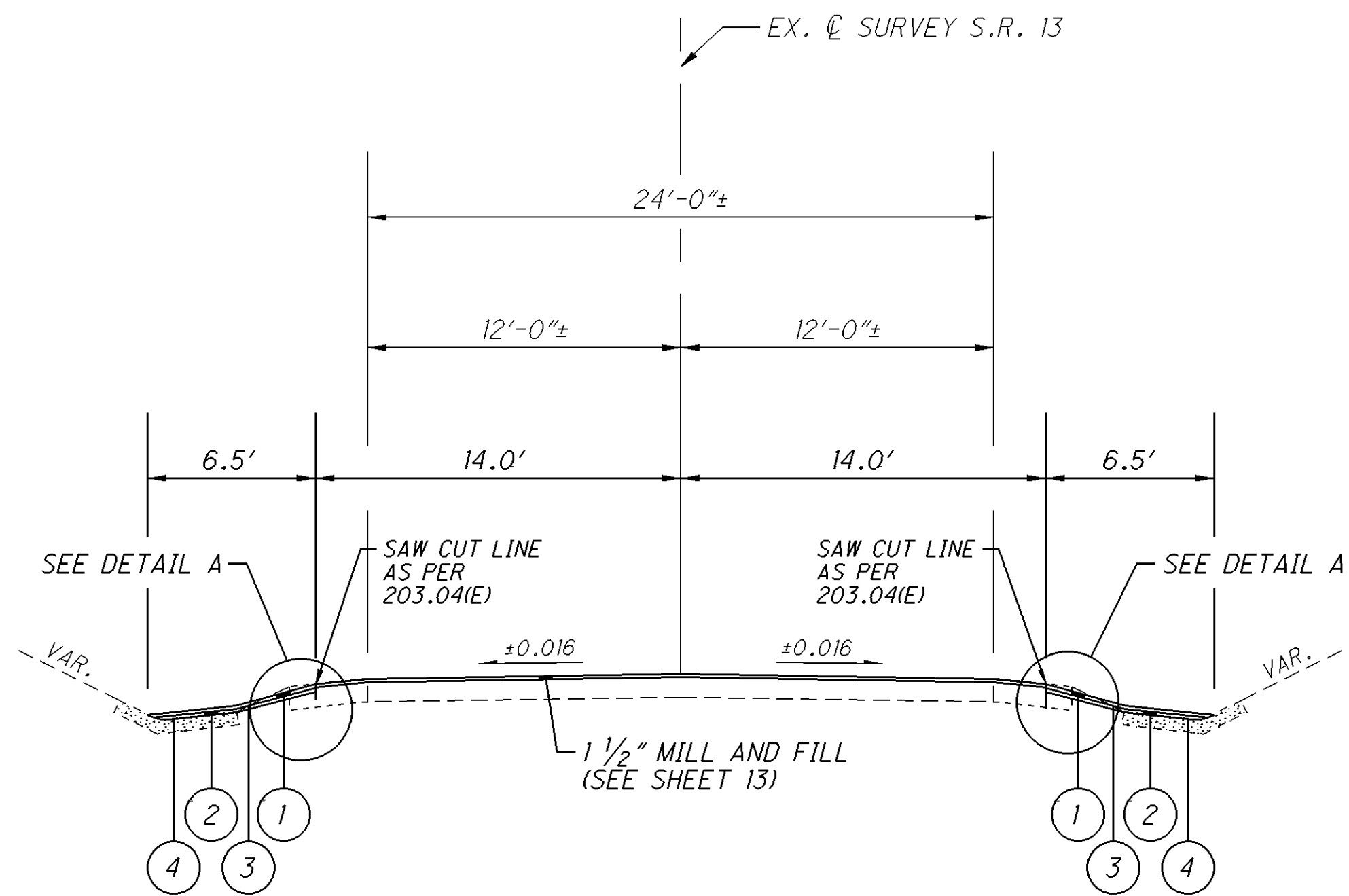
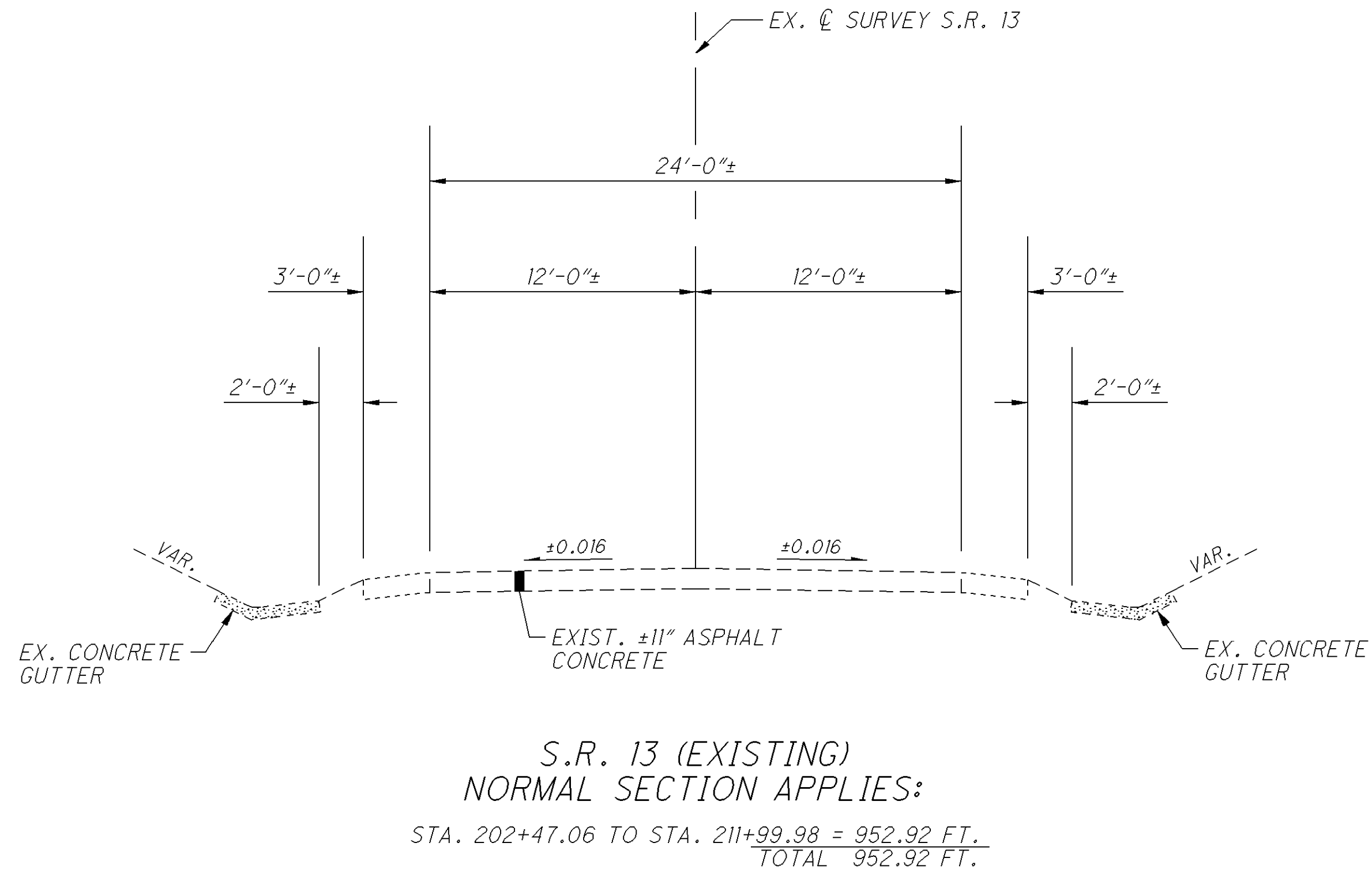
REM=REMARKS

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		PRISMATIC RETRO-REFLECTOR COLORS					REMARKS	
								RAISED PAVEMENT MARKER REMOVED	RPM	INFORMATION ONLY						
					ONE-WAY	TWO-WAY										
					MILES	LIN.FT.		EACH	EACH	WHITE	YELLOW	YELLOW / YELLOW	WHITE / RED	YELLOW / RED		
1C	LIC	S.R. 13	6.48	6.64	0.16	845	10	49	49	16		22	11		AT DORSEY MILL ROAD	
1C	LIC	S.R. 13	6.64	7.12	0.48	2,534	GAP	32	32			32				
1C	LIC	S.R. 13	7.12	7.29	0.17	898	12	28	28			28			PC 7.21 PT 7.25 L=211' DEG 10	
1C	LIC	S.R. 13	7.29	7.32	0.03	158	11	4	4			4			PC 7.29 PT 7.32 L=158' DEG 6	
1C	LIC	S.R. 13	7.32	7.48	0.16	845	12	28	28			28			PC 7.38 PT 7.43 L=264' DEG 11	
1C	LIC	S.R. 13	7.48	7.62	0.14	739	12	25	25			25			PC 7.48 PT 7.53 L=264' DEG 13	
1C	LIC	S.R. 13	7.62	7.76	0.14	739	GAP	10	10			10			HEATH CORP	
SUB-TOTALS										16		149	11			
LOCATION 1C TOTALS (CARRIED TO SUB-SUMMARY)									176	176						
1D	LIC	S.R. 13	7.76	7.81	0.05	264	GAP	4	4			4				
1D	LIC	S.R. 13	7.81	8.03	0.22	1,162	12	28	28			28			PC 7.90 PT 7.95 L=264' DEG 11	
1D	LIC	S.R. 13	8.03	8.14	0.11	581	12	28	28			28			PC 8.03 PT 8.14 L=581' DEG 11	
1D	LIC	S.R. 13	8.14	8.23	0.09	475	10 / 11	31	31	16		12	3		PC 8.14 PT 8.23 L=475' DEG 9, TURN LANE AT HOPEWELL DR.	
1D	LIC	S.R. 13	8.23	8.30	0.07	370	10	29	29	16		10	3		TURN LANE AT HOPEWELL DR.	
1D	LIC	S.R. 13	8.30	8.37	0.07	370	GAP	5	5			5				
SUB-TOTALS										32		87	6			
LOCATION 1D TOTALS (CARRIED TO SUB-SUMMARY)									125	125						

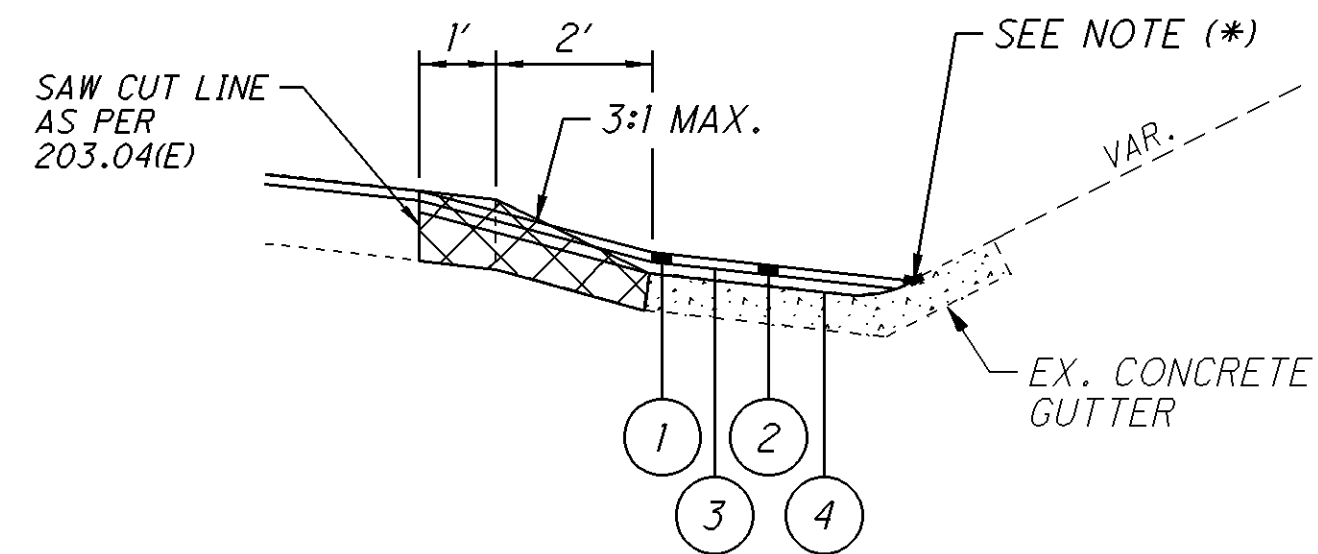
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LEGEND

- 1 ITEM 441, 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
- 2 ITEM 441, 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
- 3 ITEM 407, NON-TRACKING TACK COAT (@ 0.05 GAL/SY)
- 4 ITEM 407, NON-TRACKING TACK COAT (@ 0.075 GAL/SY)

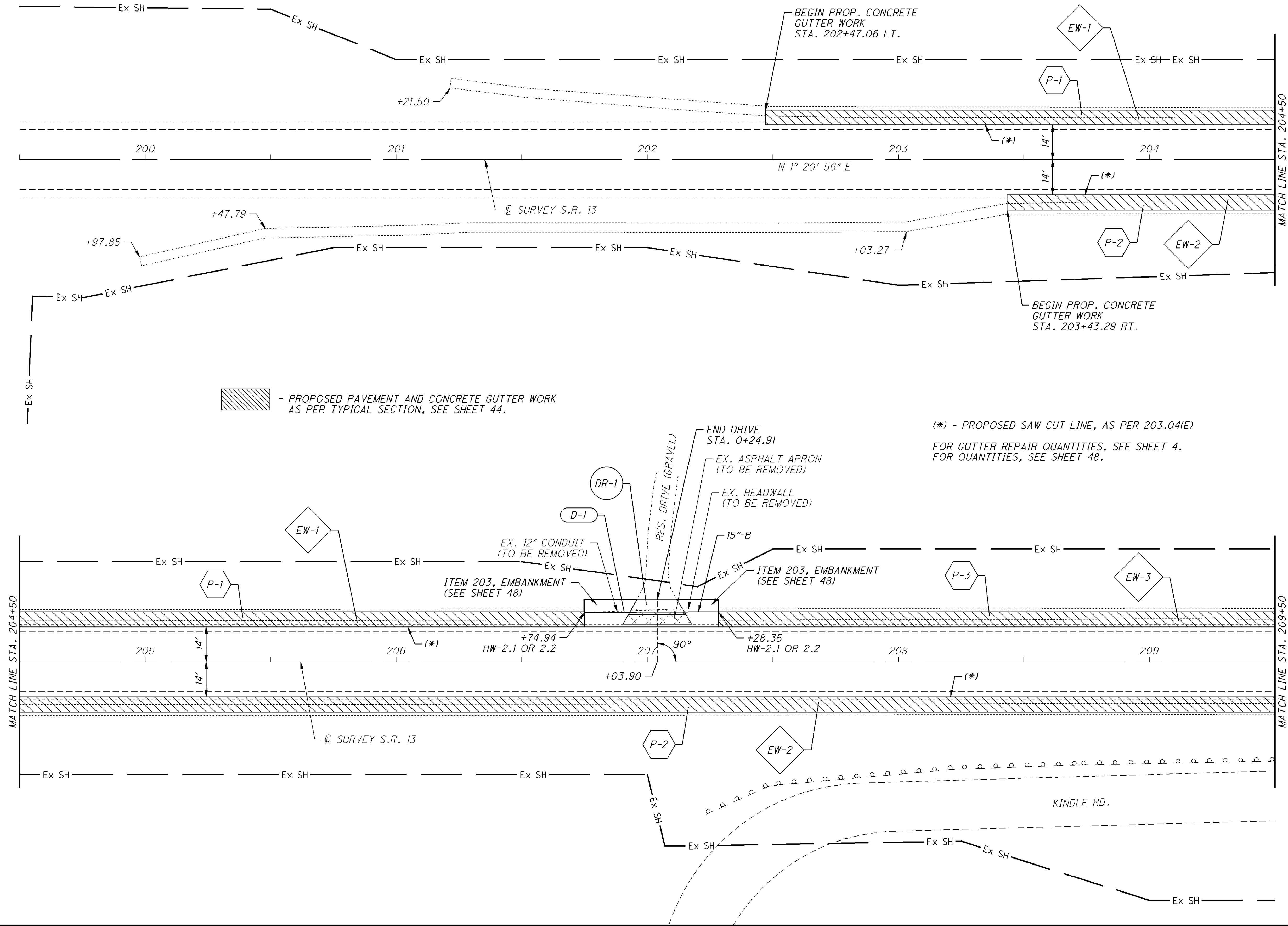


DETAIL A



- ITEM 203, EXCAVATION (6" AVG.)
- ITEM 203, EMBANKMENT (4.5" AVG.)

(*) - SEAL THE JOINT BETWEEN THE PROP. ASPHALT CONCRETE AND EXIST. CONCRETE GUTTER WITH 4" BAND OF ITEM 407, NON-TRACKING TACK COAT (@ 0.075 GAL/SY).



- PROPOSED PAVEMENT AND CONCRETE GUTTER WORK AS PER TYPICAL SECTION, SEE SHEET 44.

(*) - PROPOSED SAW CUT LINE, AS PER 203.04(E)
FOR GUTTER REPAIR QUANTITIES, SEE SHEET 4.
FOR QUANTITIES, SEE SHEET 48.



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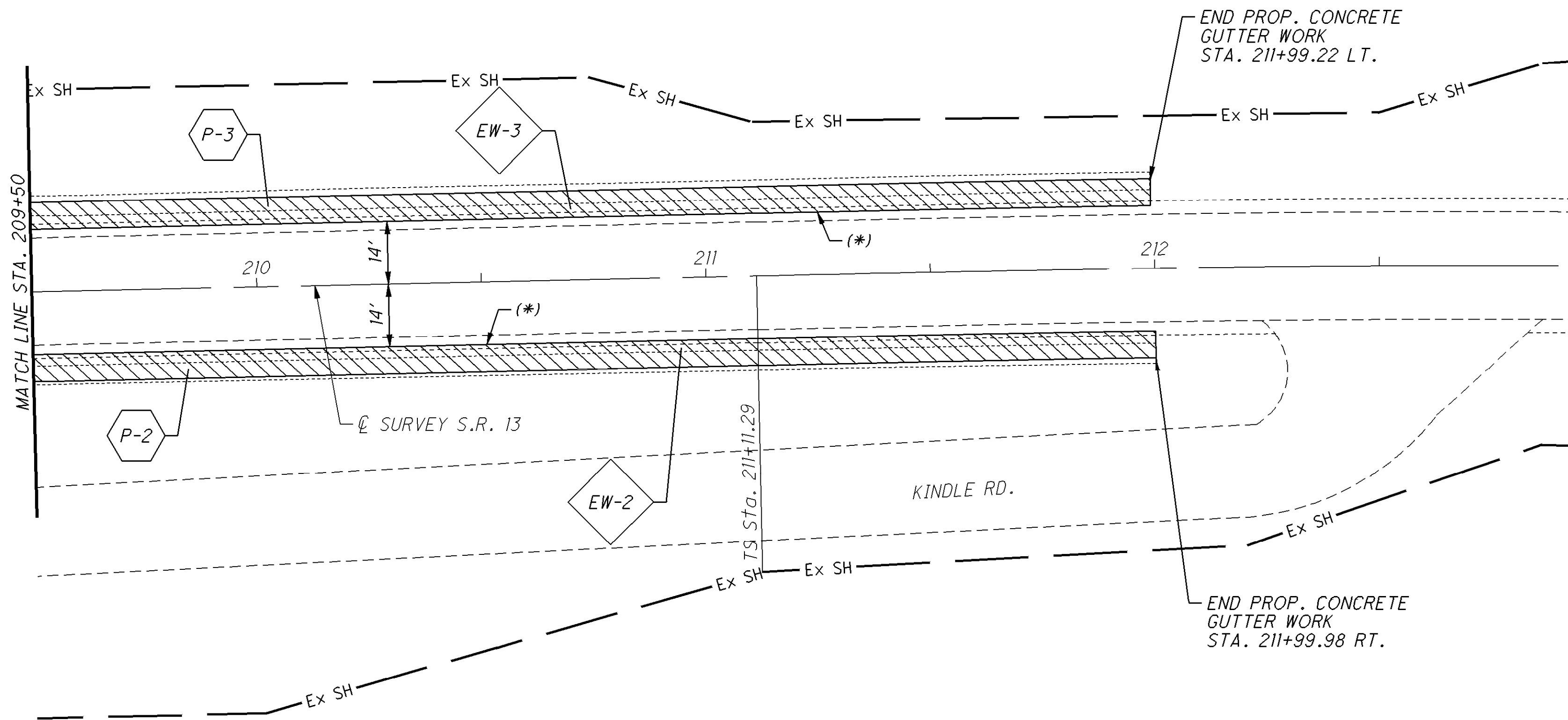
PAVED GUTTER PLAN (S.R. 13)
STA. 202+47.06 TO STA. 209+50

LIC-13-0.00

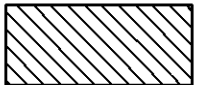
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CN PT	LOCATION	STATION & OFFSET	NORTHING	EASTING	ELEVATION	FEATURE CODE
SV3015	S.R. 13	STA. 211+11.41, 32.97' LT.	705841.421	1994151.578	1085.78	1" REBAR W/ ALUM. ODOT CAP



(*) - PROPOSED SAW CUT LINE, AS PER 203.04(E)
FOR GUTTER REPAIR QUANTITIES, SEE SHEET 4.
FOR QUANTITIES, SEE SHEET 48.

 - PROPOSED PAVEMENT AND CONCRETE GUTTER WORK
AS PER TYPICAL SECTION, SEE SHEET 44.

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HORIZONTAL
SCALE IN FEET

CALCULATED
JLS

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JSL

PAVED GUTTER PLAN (S.R. 13)
STA. 209+50 TO STA. 211+99.98

LIC-13-0.00

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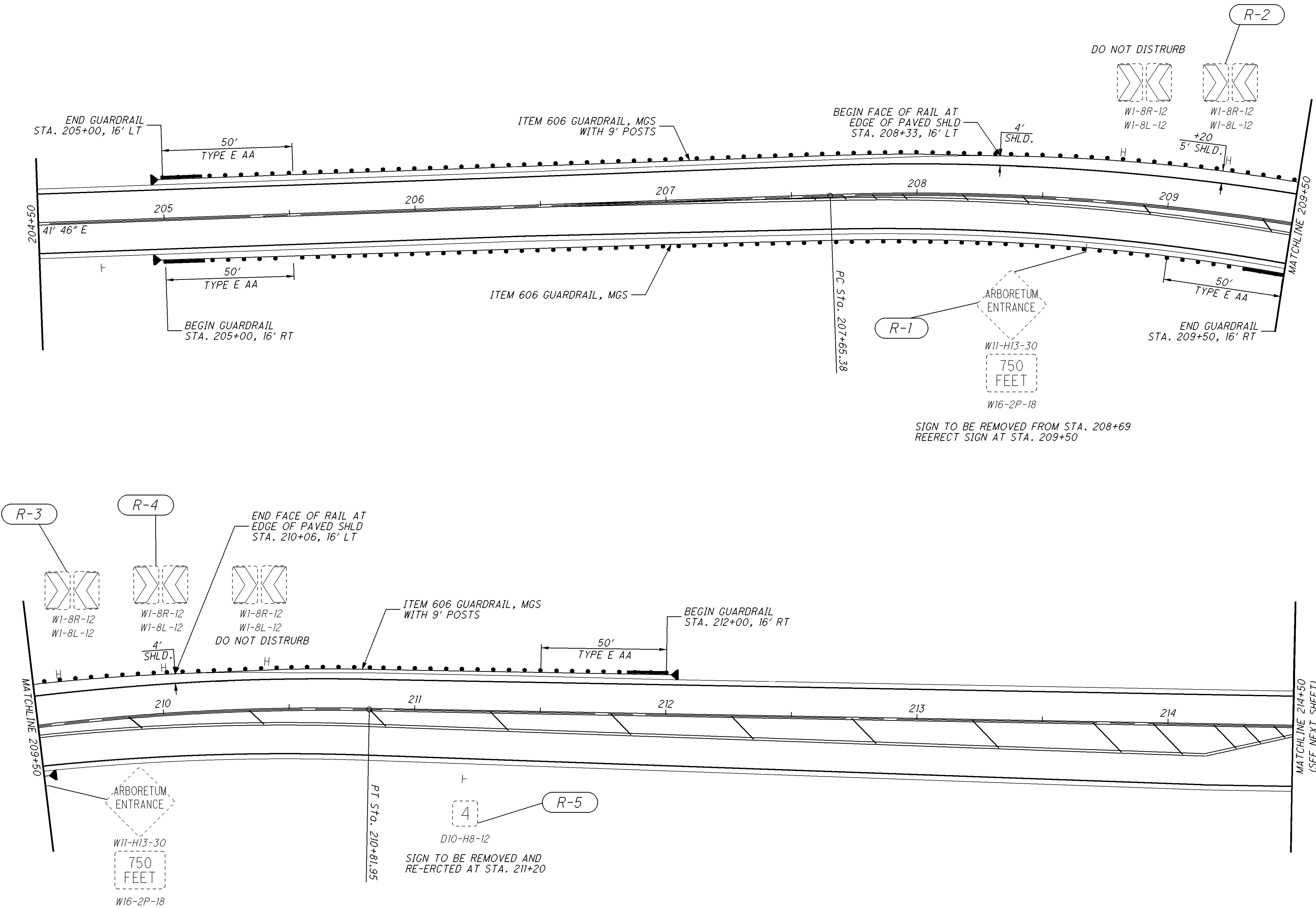
Reference No.	Sheet No.	Location	Side	Length	Width	Area	202		203		407		441		602	611
							HEADWALL REMOVED	PIPE REMOVED, 24" AND UNDER	6.00" (Avg.)	4.50" (Avg.)	NON-TRACKING TACK COAT (@0.05 Gal/SY)	NON-TRACKING TACK COAT (@0.075 Gal/SY)	1.50"	1.75"		
			Lt./Rt.	Lin. Ft.	Ft.	Sq. Yd.			EXCAVATION	EMBANKMENT			ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)		
		S.R. 13														
P-1	45	Sta. 202+47.06 to Sta. 206+74.94	Lt.	427.88	6.5	309.1					15.5	23.2	12.9	15.0		
P-2	45-46	Sta. 203+43.29 to Sta. 211+99.98	Rt.	856.69	6.5	618.8					30.9	46.4	25.8	30.1		
P-3	45-46	Sta. 207+28.35 to Sta. 211+99.22	Lt.	470.87	6.5	340.1					17.0	25.5	14.2	16.5		
EW-1	45	Sta. 202+47.06 to Sta. 206+74.94	Lt.	427.88	3.0	142.7			23.8	17.8		0.9(*)				
EW-2	45-46	Sta. 203+43.29 to Sta. 211+99.98	Rt.	856.69	3.0	285.6			47.6	35.7		1.8(*)				
EW-3	45-46	Sta. 207+28.35 to Sta. 211+99.22	Lt.	470.87	3.0	157.0			26.2	19.6		1.0(*)				
D-1	45, 47	Sta. 206+74.94 to Sta. 207+28.35	Lt.				1	40							0.54	54
Totals (Carried to Location 1b Sub-Summary)							1	40	98	74	64	99	53	62	0.54	54

(*) - Additonal for sealing Proposed Pavement and Existing Gutter

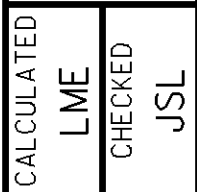
Reference No.	Sheet No.	Location	Side	Description	Exist. Surface	Apron Area (Calculated By Computer)	Treated Area (Calculated By Computer)	Total Area (Apron Area + Treated Area)	202	203	204	301	304	407	441
									PAVEMENT REMOVED, ASPHALT	EMBANKMENT	SUBGRADE COMPACTION	4.75"	8.00"	NON-TRACKING TACK COAT, @ 0.040 GAL./SQ. YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), (DRNEWAYS)
			Lt./Rt.									ASPHALT CONCRETE BASE, PG64-22 (DRNEWAYS)	AGGREGATE BASE		
		S.R. 13													
DR-1	45, 47	Sta. 207+03.9	Lt.	Residential	Aggregate	11.2	12.8	24.0	16.1	10(*)	11.2	1.5	1.7	0.5	0.4
Totals (Carried to Location 1b Sub-Summary)									17	10	12	2	2	1	1

(*) - Quantity to be used for the grading of the adjacent drive areas

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SEE NEXT SHEET FOR SIGN QUANTITIES
SEE NEXT SHEET FOR GUARDRAIL QUANTITIES



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LOCATION 1A SHEET TOTALS												ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
2	3	4	5	6	13	16	17	21	22	23	42					
																ROADWAY
	330						1,086					202	23500	1,416	SY	WEARING COURSE REMOVED
						1.08						209	72501	1.08	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN
																PAVEMENT
100												253	02000	100	CY	PAVEMENT REPAIR
					8,730	1,901						254	01000	10,631	SY	PAVEMENT PLANING, ASPHALT CONCRETE , 1.50"
	1											304	20000	1	CY	AGGREGATE BASE
					655	143	82					407	20000	880	GAL	NON-TRACKING TACK COAT
						507						408	10001	507	GAL	PRIME COAT, AS PER PLAN
							46					441	50000	46	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
	15	8			364	80						441	50100	467	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
												441	50300		CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
						71						617	10101	71	CY	COMPACTED AGGREGATE, AS PER PLAN
						1,268						617	20000	1,268	SY	SHOULDER PREPARATION
								1.08				618	41000	1.08	MILE	EDGE LINE, RUMBLE STRIPE (ASPHALT CONCRETE)
																TRAFFIC CONTROL
											64	621	00100	64	EACH	RPM
											64	621	54000	64	EACH	RAISED PAVEMENT MARKER REMOVED
										323		644	00400	323	FT	CHANNELIZING LINE, 8"
										124		644	00500	124	FT	STOP LINE
										200		644	00700	200	FT	TRANSVERSE/DIAGONAL LINE
										3		644	01300	3	EACH	LANE ARROW
										2		644	01410	2	EACH	WORD ON PAVEMENT, 96"
								1.08				648	00104	1.08	MILE	EDGE LINE, 6"
									0.54			648	00300	0.54	MILE	CENTER LINE
																MAINTENANCE OF TRAFFIC
			7									614	12460	7	EACH	WORK ZONE MARKING SIGN
			2									614	13000	2	CY	ASPHALT CONCRETE FOR MANTANING TRAFFIC
				60								614	18401	60	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
					0.54							614	21550	0.54	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT

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LOCATION 1B SHEET TOTALS														ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
2	3	4	5	6	13	16	17	19	21	22	23	42	50					
																		ROADWAY
	1,720						4,106	1,333						202	23500	7,159	SY	WEARING COURSE REMOVED
													300	202	38000	300	FT	GUARDRAIL REMOVED
						11.78								209	72501	11.78	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN
													350.0	606	15050	350.0	FT	GUARDRAIL, TYPE MGS
													600.0	606	15100	600.0	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS
													4	606	26150	4	EACH	ANCHOR ASSEMBLY, MGS TYPE E
																		PAVEMENT
700														253	02000	700	CY	PAVEMENT REPAIR
					89,866	21,801								254	01000	111,667	SY	PAVEMENT PLANING, ASPHALT CONCRETE ,1.50"
					9,117	1,467								254	01000	10,584	SY	PAVEMENT PLANING, ASPHALT CONCRETE , 3.25"
	4													304	20000	4	CY	AGGREGATE BASE
					7,880	1,819	339	15						407	20000	10,053	GAL	NON-TRACKING TACK COAT
						5,482								408	10001	5,482	GAL	PRIME COAT, AS PER PLAN
							173							441	50000	173	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
72	83				4,125	970		8						441	50100	5,258	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
					652	72	28	65						441	50300	817	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
								86						516	31011	86	FT	2" DEEP JOINT SEALER, AS PER PLAN
						762								617	10101	762	CY	COMPACTED AGGREGATE, AS PER PLAN
						13,705								617	20000	13,705	SY	SHOULDER PREPARATION
									11.88					618	41000	11.88	MILE	EDGE LINE, RUMBLE STRIPE (ASPHALT CONCRETE)
		500												690	12050	500	SY	SPECIAL - REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS
												741		621	00100	741	EACH	TRAFFIC CONTROL
												741		621	54000	741	EACH	RPM
													16	626	00110	16	EACH	RAISED PAVEMENT MARKER REMOVED
													34.5	630	03100	34.5	EACH	BARRIER REFLECTOR, TYPE 2
													6.25	630	80100	6.25	SF	GROUND MOUNTED SUPPORT, NO. 3 POST
													6	630	84900	6	EACH	SIGN, FLAT SHEET
													3	630	85100	3	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL
													5	630	86002	5	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION
																		REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
		12												632	26501	12	EACH	
																		DETECTOR LOOP, AS PER PLAN
											1,845			644	00400	1,845	FT	
											473			644	00500	473	FT	CHANNELIZING LINE, 8"
											2,026			644	00700	2,026	FT	STOP LINE
											285			644	00900	285	SF	TRANSVERSE/DIAGONAL LINE
											19			644	01300	19	EACH	ISLAND MARKING
											1			644	01350	1	EACH	LANE ARROW
											9			644	01410	9	EACH	LANE REDUCTION ARROW
									11.88					648	00104	11.88	MILE	WORD ON PAVEMENT, 96"
										0.71				648	00204	0.71	MILE	EDGE LINE, 6"
										6.29				648	00300	6.29	MILE	LANE LINE, 6"
																		CENTER LINE
																		MAINTENANCE OF TRAFFIC
			80											614	11110	80	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
			81											614	12460	81	EACH	
			3											614	13000	3	CY	WORK ZONE MARKING SIGN
				60										614	18401	60	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
					0.54									614	21400	0.54	MILE	MAINTAINING TRAFFIC, MISC.:
					5.91									614	21550	5.91	MILE	WORK ZONE CENTER LINE, CLASS II
																		WORK ZONE CENTER LINE, CLASS III, 642 PAINT

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Location 1b Sheet Totals											ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
4	48	63	64	65	83	84									
															ROADWAY
	1										202	20010	1	EACH	HEADWALL REMOVED
	17		433			117					202	23010	567	SY	PAVEMENT REMOVED, ASPHALT
400						513					202	30000	913	SF	WALK REMOVED
	40			1,514							202	35100	1,554	FT	PIPE REMOVED, 24" AND UNDER
				10							202	58100	10	EACH	CATCH BASIN REMOVED
				1							202	58500	1	EACH	CATCH BASIN ABANDONED
				165							202	70000	165	FT	SPECIAL - FILL AND PLUG EXISTING CONDUIT
	98				190						203	10000	288	CY	EXCAVATION
	84		36		42	9					203	20000	171	CY	EMBANKMENT
	12					160					204	10000	172	SY	SUBGRADE COMPACTION
400											608	10000	400	SF	4" CONCRETE WALK
						539					608	13000	539	SF	6" CONCRETE WALK
															EROSION CONTROL
				6							601	32100	6	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
					171						653	10000	171	CY	TOPSOIL FURNISHED AND PLACED
					2,994						659	00500	2,994	SY	SEEDING AND MULCHING, CLASS 1
		150									659	14000	150	SY	REPAIR SEEDING AND MULCHING
		150									659	15000	150	SY	INTER-SEEDING
		0.42									659	20000	0.42	TON	COMMERCIAL FERTILIZER
		0.62									659	31000	0.62	ACRE	LIME
		17									659	35000	17	MGAL	WATER
															DRAINAGE
	0.54			0.81							602	20000	1.35	CY	CONCRETE MASONRY
				45							611	02000	45	FT	8" CONDUIT, TYPE C
				5							611	04400	5	FT	12" CONDUIT, TYPE B
54				2,423							611	05900	2,477	FT	15" CONDUIT, TYPE B
				11							611	98180	11	EACH	CATCH BASIN, NO. 3A
				2							611	98370	2	EACH	CATCH BASIN, NO. 6
				7							611	98470	7	EACH	CATCH BASIN, NO. 2-2B
				1							611	99574	1	EACH	MANHOLE, NO. 3
				1							611	99710	1	EACH	PRECAST REINFORCED CONCRETE OUTLET
															PAVEMENT
	2		19			22					301	46000	19	CY	ASPHALT CONCRETE BASE, PG64-22
											301	48000	24	CY	ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS)
	2	15				13					304	20000	30	CY	AGGREGATE BASE
	164					7					407	20000	171	GAL	NON-TRACKING TACK COAT
	53										441	50000	53	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
	62										441	50300	62	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
	1					7					441	50400	8	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), (DRIVEWAYS)
			1,376								609	26000	1,376	FT	CURB, TYPE 6
		25	93								613	41300	118	CY	LOW STRENGTH MORTAR BACKFILL (TYPE 2)
10											613	41301	10	CY	LOW STRENGTH MORTAR BACKFILL (TYPE 2), AS PER PLAN

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LOCATION 1C SHEET TOTALS										ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
2	3	4	5	13	16	21	22	24	43					
	400									202	23500	400	SY	ROADWAY WEARING COURSE REMOVED
					2.56					209	72501	2.56	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN
														PAVEMENT
120										253	02000	120	CY	PAVEMENT REPAIR
				18,868	4,882					254	01000	23,750	SY	PAVEMENT PLANING, ASPHALT CONCRETE ,1.50"
	1									304	20000	1	CY	AGGREGATE BASE
				1,415	367					407	20000	1,782	GAL	NON-TRACKING TACK COAT
					1,202					408	10001	1,202	GAL	PRIME COAT, AS PER PLAN
										441	50000		CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
	17	18		787	204					441	50100	1,026	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
										441	50300		CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
					167					617	10101	167	CY	COMPACTED AGGREGATE, AS PER PLAN
					3,004					617	20000	3,004	SY	SHOULDER PREPARATION
						2.56				618	41000	2.56	MILE	EDGE LINE, RUMBLE STRIPE (ASPHALT CONCRETE)
														TRAFFIC CONTROL
									176	621	00100	176	EACH	RPM
									176	621	54000	176	EACH	RAISED PAVEMENT MARKER REMOVED
		5								632	26501	5	EACH	DETECTOR LOOP, AS PER PLAN
								290		644	00400	290	FT	CHANNELIZING LINE, 8"
								52		644	00500	52	FT	STOP LINE
								169		644	00700	169	FT	TRANSVERSE/DIAGONAL LINE
								3		644	01300	3	EACH	LANE ARROW
								1		644	01410	1	EACH	WORD ON PAVEMENT, 96"
						2.56				648	00104	2.56	MILE	EDGE LINE, 6"
							1.37			648	00300	1.37	MILE	CENTER LINE
														MAINTENANCE OF TRAFFIC
			9							614	12460	9	EACH	WORK ZONE MARKING SIGN
				1.28						614	21550	1.28	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT

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LOCATION 1D SHEET TOTALS											ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
2	3	4	5	13	16	17	21	22	24	43					
															ROADWAY
	170					339					202	23500	509	SY	WEARING COURSE REMOVED
					1.22						209	72501	1.22	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN
															DRAINAGE
	1										611	99654	1	EACH	MANHOLE ADJUSTED TO GRADE
															PAVEMENT
60											253	02000	60	CY	PAVEMENT REPAIR
				6,477	1,080						254	01000	7,557	SY	PAVEMENT PLANING, ASPHALT CONCRETE , 1.50"
				2,852	352						254	01000	3,204	SY	PAVEMENT PLANING, ASPHALT CONCRETE , 3.25"
	1										304	20000	1	CY	AGGREGATE BASE
				843	125	26					407	20000	994	GAL	NON-TRACKING TACK COAT
					573						408	10001	573	GAL	PRIME COAT, AS PER PLAN
						12					441	50000	12	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
	7	9		389	60						441	50100	465	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
				139	18						441	50300	157	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
					80						617	10101	80	CY	COMPACTED AGGREGATE, AS PER PLAN
					1,432						617	20000	1,432	SY	SHOULDER PREPARATION
															TRAFFIC CONTROL
										125	621	00100	125	EACH	RPM
										125	621	54000	125	EACH	RAISED PAVEMENT MARKER REMOVED
		3									632	26501	3	EACH	DETECTOR LOOP, AS PER PLAN
										140	644	00400	140	FT	CHANNELIZING LINE, 8"
										37	644	00500	37	FT	STOP LINE
										229	644	00700	229	FT	TRANSVERSE/DIAGONAL LINE
										4	644	01300	4	EACH	LANE ARROW
							1.22				648	00104	1.22	MILE	EDGE LINE, 6"
								0.74			648	00300	0.74	MILE	CENTER LINE
															MAINTENANCE OF TRAFFIC
			16								614	11110	16	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
			5								614	12460	5	EACH	WORK ZONE MARKING SIGN
				0.15							614	21400	0.15	MILE	WORK ZONE CENTER LINE, CLASS II
				0.61							614	21550	0.61	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT

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LOCATION 1E SHEET TOTALS												ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
2	3	4	5	6	14	7	17	19	20	22	24					
							1,138					202	23500	1,138	SY	ROADWAY
									336			202	30000	336	SF	WEARING COURSE REMOVED
									37			202	32000	37	FT	WALK REMOVED
																CURB REMOVED
									348			608	10000	348	SF	
																4" CONCRETE WALK
									2			690	98000	2	EACH	
									1			690	98000	1	EACH	SPECIAL - CURB RAMP, TYPE A1
									8			690	98200	8	SF	SPECIAL - CURB RAMP, TYPE A2
																SPECIAL - DETECTABLE WARNING
																DRAINAGE
	3											611	98630	3	EACH	CATCH BASIN ADJUSTED TO GRADE
	12											611	99654	12	EACH	MANHOLE ADJUSTED TO GRADE
	5											638	10800	5	EACH	VALVE BOX ADJUSTED TO GRADE
																PAVEMENT
220												253	02000	220	CY	PAVEMENT REPAIR
					12,686							254	01000	12,686	SY	
					1,232							254	01000	1,232	SY	PAVEMENT PLANING, ASPHALT CONCRETE , 1.50"
																PAVEMENT PLANING, ASPHALT CONCRETE , 3.25"
					1,106		86					407	20000	1,192	GAL	
																NON-TRACKING TACK COAT
							48					441	50000	48	CY	
					580							441	50100	580	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
					60							441	50300	60	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
																ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
								56				516	31011	56	FT	
																2" DEEP JOINT SEALER, AS PER PLAN
									37			609	26000	37	FT	
																CURB, TYPE 6
		3										632	26501	3	EACH	TRAFFIC CONTROL
																DETECTOR LOOP, AS PER PLAN
											138	644	00400	138	FT	
											124	644	00500	124	FT	CHANNELZING LINE, 8"
											537	644	00600	537	FT	STOP LINE
																CROSSWALK LINE
											5	644	01300	5	EACH	
																LANE ARROW
										0.73		648	00300	0.73	MILE	
																CENTER LINE
																MAINTENANCE OF TRAFFIC
			40									614	11110	40	hour	
			4									614	12460	4	EACH	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
			6									614	13000	6	CY	WORK ZONE MARKING SIGN
				60								614	18401	60	DAY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
					0.06							614	21400	0.06	MILE	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
					0.69							614	21550	0.69	MILE	WORK ZONE CENTER LINE, CLASS II
																WORK ZONE CENTER LINE, CLASS III, 642 PAINT

SHEET
NOT
USED

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LOCATION TOTALS									FUNDING SPLITS						ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION	SEE SHEET
1A	1B	1B GJ	1C	1D	1E			D05 COMPLEX	01/S<2/PV	02/STR/PV	03/NHS/PV/HEAT	04/NHS/PV/NEWA	05/NHS/OT/NEWA	06/STR/PV						
		1								1					202	20010	1	EACH	ROADWAY	
		567								567					202	23010	567	SY	HEADWALL REMOVED	
1,416	7,159		400	509	2,471				1,816	7,159	509	2,471			202	23500	11,955	SY	PAVEMENT REMOVED, ASPHALT	
		913			336					913			336		202	30000	1,249	SF	WEARING COURSE REMOVED	
					37			100					37	100	202	32000	137	FT	WALK REMOVED	
		1,554								1,554					202	35100	1,554	FT	CURB REMOVED	
	300									300					202	38000	300	FT	PIPE REMOVED, 24" AND UNDER	
		10								10					202	58100	10	EACH	GUARDRAIL REMOVED	
		1								1					202	58500	1	EACH	CATCH BASIN REMOVED	
		165								165					202	70000	165	FT	CATCH BASIN ABANDONED	
																			SPECIAL - FILL AND PLUG EXISTING CONDUIT	63
		288								288					203	10000	288	CY	EXCAVATION	
		175								175					203	20000	175	CY	EMBANKMENT	
		172								172					204	10000	172	SY	SUBGRADE COMPACTION	
1.08	11.78		2.56	1.22					3.64	11.78	1.22				209	72051	16.64	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	2
	350.0									350.0					606	15050	350.0	FT	GUARDRAIL, TYPE MGS	
	600.0									600.0					606	15100	600.0	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
	4									4					606	26150	4	EACH	ANCHOR ASSEMBLY, MGS TYPE E	
		400			348					400			348		608	10000	748	SF		
		539								539					608	13000	539	SF	4" CONCRETE WALK	
																			6" CONCRETE WALK	
					2								2		690	98000	2	EACH		8,9,10
					1								1		690	98000	1	EACH	SPECIAL - CURB RAMP, TYPE A1	
					8								8		690	98200	8	SF	SPECIAL - CURB RAMP, TYPE A2	8,9,10
																			SPECIAL - DETECTABLE WARNING	8,9,10
		6								6					601	32100	6	CY	EROSION CONTROL	
																			ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
		171								171					653	10000	171	CY		
																			TOPSOIL FURNISHED AND PLACED	
		2,994								2,994					659	00500	2,994	SY		
		150								150					659	14000	150	SY	SEEDING AND MULCHING, CLASS 1	
		150								150					659	15000	150	SY	REPAIR SEEDING AND MULCHING	
		0.42								0.42					659	20000	0.42	TON	INTER-SEEDNG	
		0.62								0.62					659	31000	0.62	ACRE	COMMERCIAL FERTILIZER	
		17								17					659	35000	17	MGAL	LIME	
																			WATER	

GENERAL SUMMARY

LIC-13-0.00

CALCULATED	LIME	CHECKED	JSL
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LOCATION TOTALS									FUNDING SPLITS						ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION	SEE SHEET
1A	1B	1B GJ	1C	1D	1E			D05 COMPLEX	01/S<2/PV	02/STR/PV	03/NHS/PV/HEAT	04/NHS/PV/NEWA	05/NHS/OT/NEWA	06/STR/PV						
		1.35								1.35					602	20000	1.35	CY	DRAINAGE	
		45								45					611	02000	45	FT	8" CONDUIT, TYPE C	
		5								5					611	04400	5	FT	12" CONDUIT, TYPE B	
		2,475								2,475					611	05900	2,475	FT	15" CONDUIT, TYPE B	
		11								11					611	98180	11	EACH	CATCH BASIN, NO. 3A	
		2								2					611	98370	2	EACH	CATCH BASIN, NO. 6	
		7								7					611	98470	7	EACH	CATCH BASIN, NO. 2-2B	
					3			24				3		24	611	98630	27	EACH	CATCH BASIN ADJUSTED TO GRADE	
		1								1					611	99574	1	EACH	MANHOLE, NO. 3	
				1	12			4			1	12		4	611	99654	17	EACH	MANHOLE ADJUSTED TO GRADE	
		1								1					611	99710	1	EACH	PRECAST REINFORCED CONCRETE OUTLET	
					5							5			638	10800	5	EACH	VALVE BOX ADJUSTED TO GRADE	
100	700		120	60	220				220	700	60	220			253	02000	1,200	CY	PAVEMENT	
10,631	111,667		23,750	7,557	12,686			20,847	34,381	111,667	7,557	12,686		20,847	254	01000	187,138	SY	PAVEMENT PLANING, ASPHALT CONCRETE , 1.50"	
	10,584			3,204	1,232					10,584	3,204	1,232			254	01000	15,020	SY	PAVEMENT PLANING, ASPHALT CONCRETE , 3.25"	
		19								19					301	46000	19	CY	ASPHALT CONCRETE BASE, PG64-22	
		24								24					301	48000	24	CY	ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS)	
1	4	30	1	1					2	34	1				304	20000	37	CY	AGGREGATE BASE	
880	10,053	171	1,782	994	1,207			1,564	2,662	10,224	994	1,207		1,564	407	20000	16,651	GAL	NON-TRACKING TACK COAT	
507	5,482		1,202	573					1,709	5,482	573				408	10001	7,764	GAL	PRIME COAT, AS PER PLAN	2
46	173	53		12	48				46	226	12	48			441	50000	332	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
467	5,258		1,026	465	588			869	1,493	5,258	465	588		869	441	50100	8,673	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M	
	752	62		157	60					814	157	60			441	50300	1,031	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
		8								8					441	50400	8	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), (DRMEWAYS)	
	86				56					86		56			516	31011	142	FT	2" DEEP JOINT SEALER, AS PER PLAN	2
		1,376			37			100		1,376			37	100	609	26000	1,513	FT	CURB, TYPE 6	
		118								118					613	41300	118	CY	LOW STRENGTH MORTAR BACKFILL (TYPE 2)	
		10								10					613	41301	10	CY	LOW STRENGTH MORTAR BACKFILL (TYPE 2), AS PER PLAN	4
71	762		167	80					238	762	80				617	10101	1,080	CY	COMPACTED AGGREGATE, AS PER PLAN	2
1,268	13,705		3,004	1,432					4,272	13,705	1,432				617	20000	19,409	SY	SHOULDER PREPARATION	
1.08	11.88		2.56						3.64	11.88					618	41000	15.52	MILE	EDGE LINE, RUMBLE STRIPE (ASPHALT CONCRETE)	
	500									500					690	12050	500	SY	SPECIAL - REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS	5

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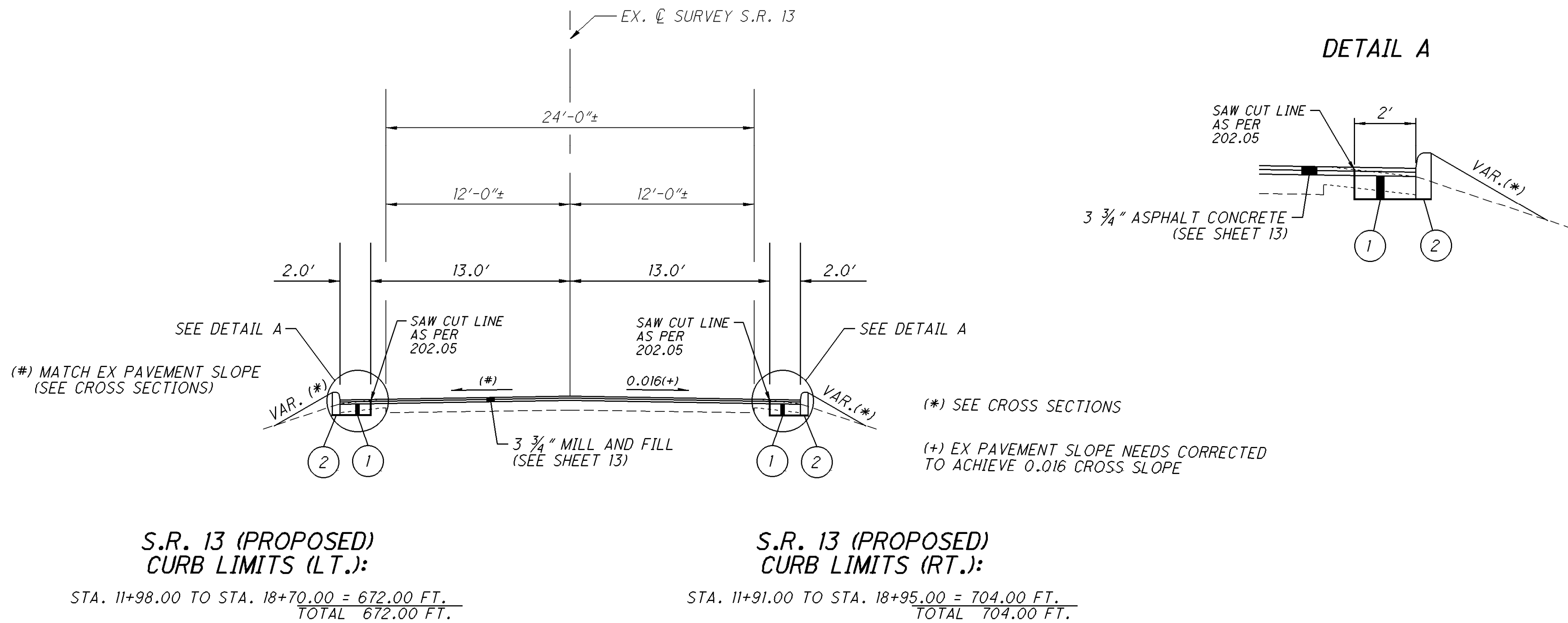
LOCATION TOTALS									FUNDING SPLITS						ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION	SEE SHEET
1A	1B	1B GJ	1C	1D	1E			D05 COMPLEX	01/S<2/PV	02/STR/PV	03/NHS/ PV/HEAT	04/NHS/ PV/NEWA	05/NHS/ OT/NEWA	06/STR/PV						
64	741		176	125					240	741	125				621	00100	1,106	EACH	TRAFFIC CONTROL	
64	741		176	125					240	741	125				621	54000	1,106	EACH	RPM	
	16									16					626	00110	16	EACH	RAISED PAVEMENT MARKER REMOVED	
	34.5									34.5					630	03100	34.5	EACH	BARRIER REFLECTOR, TYPE 2	
	6.25									6.25					630	80100	6.25	SF	GROUND MOUNTED SUPPORT, NO. 3 POST	
	6									6					630	84900	6	EACH	SIGN, FLAT SHEET	
	3									3					630	85100	3	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
	5									5					630	86002	5	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
																			REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
	12		5	3	3				5	12	3	3			632	26501	23	EACH	DETECTOR LOOP ,AS PER PLAN	4
								0.30						0.30	644	00300	0.30	MILE	CENTER LINE	
	1,845		290	140	138			115	290	1,845	140	138		115	644	00400	2,528	FT	CHANNEL ZING LINE, 8"	
124	473		52	37	124			70	176	473	37	124		70	644	00500	880	FT	STOP LINE	
200					537			48	200			537		48	644	00600	785	FT	CROSSWALK LINE	
	2,026		169	229				122	169	2,026	229			122	644	00700	2,546	FT	TRANSVERSE/DIAGONAL LINE	
	285									285					644	00900	285	SF	ISLAND MARKING	
								5,995						5,995	644	01200	5,995	EACH	PARKING LOT STALL MARKING	
	19		3	4	5			2	3	19	4	5		2	644	01300	33	EACH	LANE ARROW	
	1									1					644	01350	1	EACH	LANE REDUCTION ARROW	
	9		1						1	9					644	01410	10	EACH	WORD ON PAVEMENT, 96"	
				1				5				1		5	644	01600	6	EACH	HANDICAP SYMBOL MARKING	
1.08	11.88		2.56	1.22					3.64	11.88	1.22				648	00104	16.74	MILE	EDGE LINE, 6"	
	0.71									0.71					648	00204	0.71	MILE	LANE LINE, 6"	
0.54	6.29		1.37	0.74	0.73				1.91	6.29	0.74	0.73			648	00300	9.67	MILE	CENTER LINE	
																			MAINTENANCE OF TRAFFIC	
	80			16	40					80	16	40			614	11110	136	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	5
7	81		9	5	4				16	81	5	4			614	12460	106	EACH	WORK ZONE MARKING SIGN	
2	3				6				2	3		6			614	13000	11	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
60	60				60				60	60		60			614	18401	180	CY	MAINTAINNG TRAFFIC, MISC.:	6
	0.54			0.15	0.06					0.54	0.15	0.06			614	21400	0.75	MILE	WORK ZONE CENTER LINE, CLASS II	
0.54	5.91		1.28	0.61	0.69				1.82	5.91	0.61	0.69			614	21550	9.03	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
									LUMP	LUMP	LUMP	LUMP			103	05000		LS	PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND	
									LUMP	LUMP	LUMP	LUMP			614	11000		LS	MAINTAINNG TRAFFIC	
										6					619	16000	6	MNTH	FIELD OFFICE, TYPE A	
									LUMP	LUMP	LUMP	LUMP			623	10000		LS	CONSTRUCTION LAYOUT STAKES AND SURVEYING	
									LUMP	LUMP	LUMP	LUMP			624	10000		LS	MOBILIZATION	

GENERAL SUMMARY

CALCULATED LME	CHECKED JSL	LIC-13-0.00

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- LEGEND
- ① ITEM 613, LOW STRENGTH MORTAR BACKFILL (TYPE 2)
 - ② ITEM 609, CURB, TYPE 6

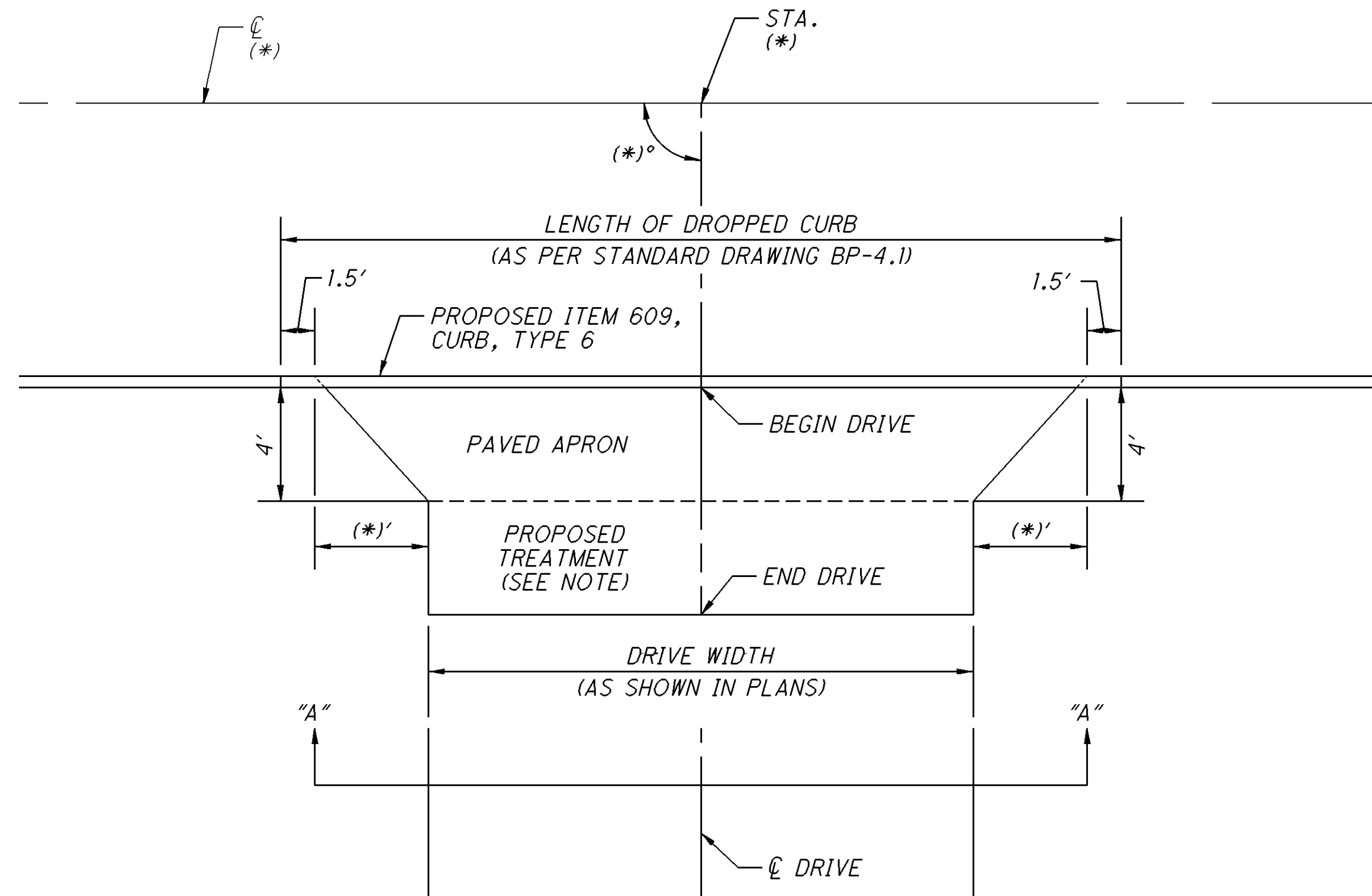


CALCULATED	JLS
CHECKED	JSL

TYPICAL SECTIONS

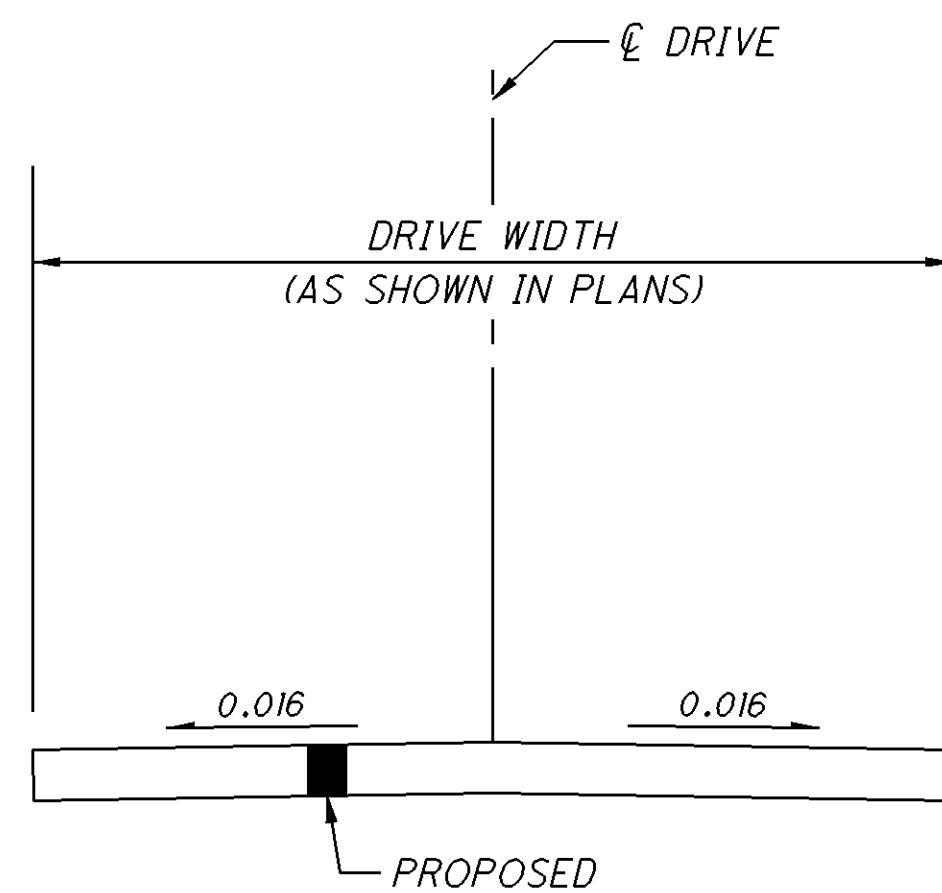
LIC-13-0.00

61
90



(*) - AS SHOWN IN PLANS

NOTE:
PROPOSED DRIVE SURFACE BEYOND PAVED APRON
SHALL MATCH EXISTING DRIVE SURFACE (i.e. REPLACE
EXISTING AGGREGATE WITH PROPOSED AGGREGATE, etc.).



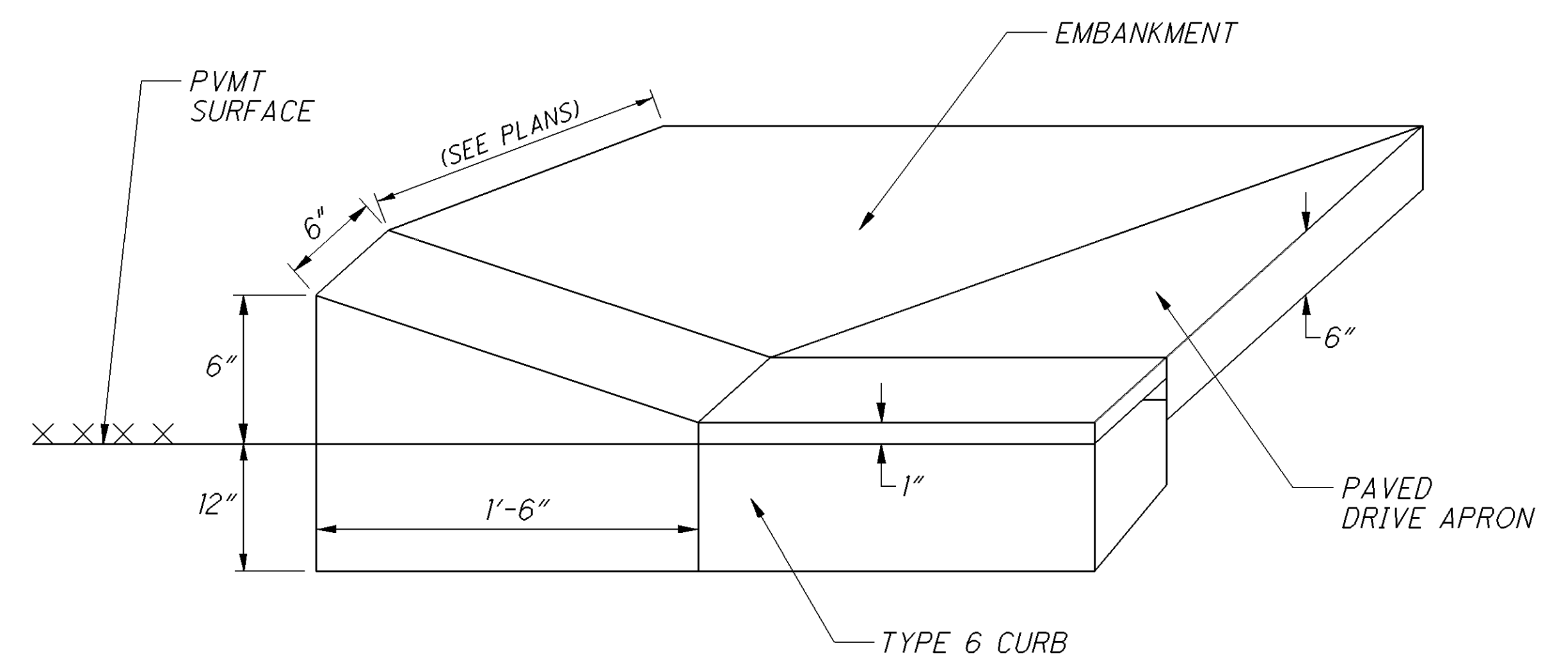
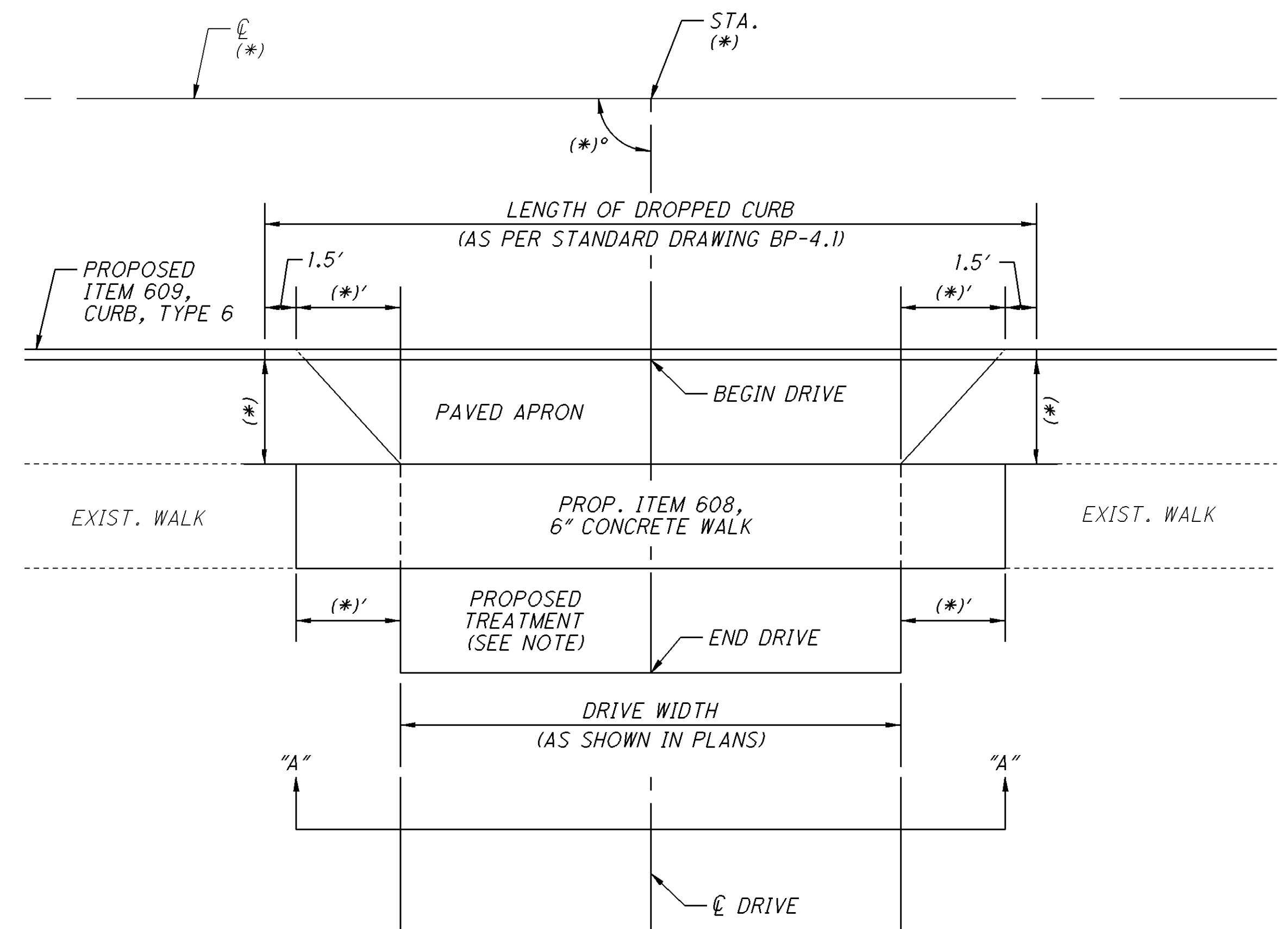
SECTION A-A

RESIDENTIAL DRIVE

- 1 1/4" OF ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448) PG64-22 (DRIVEWAYS)
- ITEM 407 NON-TRACKING TACK COAT, SURFACE COURSE @ (0.040 GAL./SQ. YD.)
- 4 3/4" OF ITEM 301, ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS)

AND/OR

- 8" ITEM 304, AGGREGATE BASE



DEPRESSED CURB AT DRIVE

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UTILITIES

SEE SHEET 3 FOR UTILITY LISTING IN THE VILLAGE OF JACKSONTOWN.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

LOCATION 1B (JACKSONTOWN):

ITEM 659, SEEDING AND MULCHING, CLASS 1 SEE SHEET 83

ITEM 659, REPAIR SEEDING AND MULCHING 150 SQ. YD.
(5% OF THE PERMANENT SEEDING AREA)
0.05 x 2,994 = 149.7

ITEM 659, INTER-SEEDING 150 SQ. YD.
(5% OF THE PERMANENT SEEDING AREA)
0.05 x 2,994 = 149.7

ITEM 659, COMMERCIAL FERTILIZER 0.42 TON
(ONE TON PER 7,410 SQ.YD. OF THE PERMANENT SEEDED AREA)
(2,994 ÷ 7,410) = 0.42

ITEM 659, LIME 0.62 ACRE
(PERMANENT SEEDED AREA)
2,994 SQ.YD. x 9 SQ.FT./SQ.YD. ÷ 43,560 SQ. FT. /ACRE = 0.62 ACRE

ITEM 659, WATER 17 M. GAL.
(0.0027 M. GAL. PER SQ.YD. OF THE PERMANENT SEEDED AREA)
2 x (2,994 x 0.0027) = 16.17

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.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

RESTORATION FOR PIPE INSTALLATIONS

THE QUANTITIES BELOW SHALL BE USED FOR RESTORATION FROM OPEN CUT STORM SEWER INSTALLATION. PAVEMENT SHALL BE RESTORED USING LOW STRENGTH MORTAR BACKFILL, TYPE 2 FROM THE TOP OF PIPE UP TO THE EXISTING PAVEMENT SURFACE. 8 INCHES OF AGGREGATE BASE SHALL BE USED WHEN OPEN CUTTING THROUGH AGGREGATE DRIVEWAYS. THE TRENCH WIDTH SHALL BE 1.5 TIMES THE DIAMETER OF THE PIPE.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE LOCATION 1B SUB-SUMMARY FOR THE WORK DESCRIBED ABOVE:

ITEM 304, AGGREGATE BASE..... 15 CU.YD.
ITEM 613, LOW STRENGTH MORTAR BACKFILL, TYPE 2..... 25 CU.YD.

NOTE: AGGREGATE BASE MAY BE USED FOR PAVEMENT RESTORATION FOR THE STORM SEWER UNDER THE NORTH SHOULDER ON U.S. 40 DUE TO THE WIDE VARYING SHOULDER.

SPECIAL, FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING 12 INCH DIAMETER CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED IN ACCORDANCE WITH THE PROVISIONS OF 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

SURVEYING PARAMETERS

USE THE FOLLOWING VERTICAL POSITIONING AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING AND SEE TABLES IN PLANS FOR CONTROL POINTS FOR THE PROJECT.

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID12A

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83(2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE – SOUTH ZONE
COMBINED SCALE FACTOR: 1.000000000

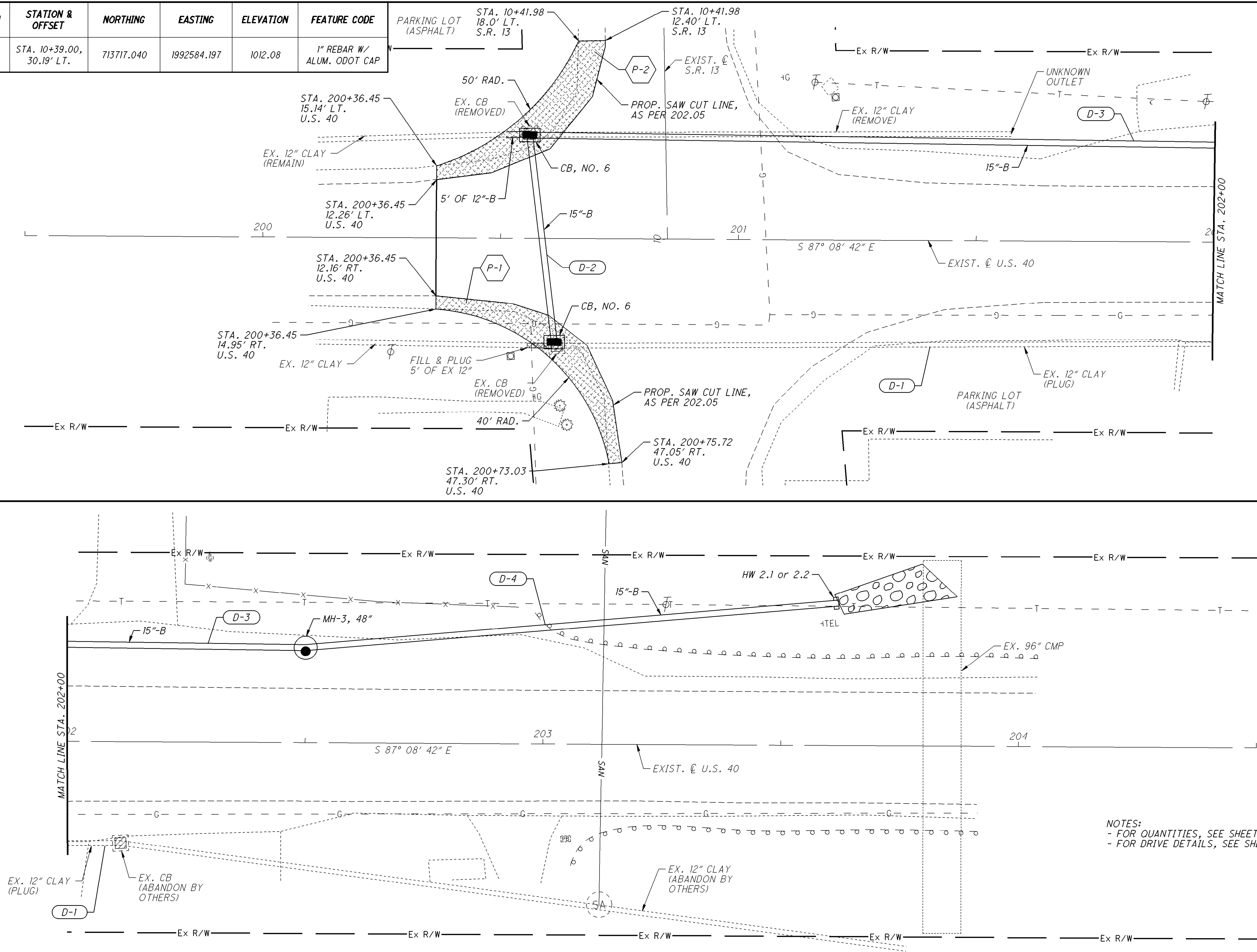
UNITS ARE IN U.S. SURVEY FEET.

Reference No.	Sheet No.	Location	Side	202	203	301	609	613
			Lt/Rt	PAVEMENT REMOVED, ASPHALT SY	EMBANKMENT (10" Depth) CY	ASPHALT CONCRETE BASE, PG64-22 (10" Avg. Depth) CY	CURB, TYPE 6 FT	LOW STRENGTH MORTAR BACKFILL (TYPE 2) (12" Depth) CY
		U.S. 40						
P-1	66	S.R. 13/U.S. 40 Southwest Quadrant		12.7		8.6		
P-2	66	S.R. 13/U.S. 40 Northwest Quadrant		16.1		9.6		
		S.R. 13						
C-1	70, 72	Sta. 11+91.0 to Sta. 18+95.0	Rt.	186.7			704	62.3
C-2	70, 72	Sta. 11+98.0 to Sta. 18+70.0	Lt.	90.9			672	30.3
R-1	70	Sta. 11+91.89 to Sta. 12+55.68	Lt.	37.0	10.3			
R-2	70	Sta. 12+67.28 to Sta. 13+24.84	Lt.	47.5	13.2			
R-3	70	Sta. 13+42.87 to Sta. 13+90.73	Lt.	41.6	11.6			
Totals (Carried to Location 1b Sub-Summary)				433	36	19	1,376	93

Reference No.	Sheet No.	Location (Station to Station)		Side	202				601	602	611							
					PIPE REMOVED, 24" AND UNDER	CATCH BASIN REMOVED	CATCH BASIN ABANDONED	SPECIAL - FILL AND PLUG EXISTING CONDUIT	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	CONCRETE MASONRY	8" CONDUIT, TYPE C	12" CONDUIT, TYPE B	15" CONDUIT, TYPE B	CATCH BASIN, NO. 3A	CATCH BASIN, NO. 6	CATCH BASIN, NO. 2-2B	MANHOLE, NO. 3	PRECAST REINFORCED CONCRETE OUTLET
		From	To	Lt./Rt.	FT	EACH	EACH	FT	CY	CY	FT	FT	FT	EACH	EACH	EACH	EACH	EACH
		U.S. 40																
D-1	66	200+52.0	202+11.31	Rt.		1	1	160										
D-2	66	200+56.0	200+61.36	Lt./Rt.		1							44		1			
D-3	66	200+56.0	202+50.0	Lt.	194	1					5	5	194		1			
D-4	66	202+50.0	203+62.0	Lt.					5.2	0.27			112				1	
		S.R. 13																
D-5	70	12+86.0	13+90.0	Rt.									104	1				
D-6	70	13+14.0	13+82.0	Lt.	68			5					68	1				
D-7	70	13+14.0	13+16.18	Lt.	10						10							
D-8	70	13+82.00	14+76.00	Lt.	94								94	1				
D-9	70	13+82.00	13+82.63	Lt.	9						9							
D-10	70	13+90.00	14+87.00	Rt.									97	1				
D-11	70	14+75.93	14+76.00	Lt.	9						9							
D-12	70	14+76.00	15+75.00	Lt.	99								99	1				
D-13	70	14+87.00	16+00.00	Rt.									113	1				
D-14	70, 72	15+75.00	17+48.00	Lt.	178	1							174	1				
D-15	70, 72	16+00.00	17+48.00	Rt.									148	1				
D-16	72	17+48.00		Lt./Rt.									30	1				
D-17	72	17+48.00	18+50.00	Lt.	102	1							102	1				
D-18	72	18+50.00		Lt.							12					1		
D-19	72	18+50.00	20+25.00	Lt.	175	1							175	1				
D-20	72, 74	20+25.00	22+00.00	Lt.	175	1							175			1		
D-21	72	20+35.00	20+75.00	Rt.	35					0.54			40					
D-22	74	22+00.00	24+00.00	Lt.	200	3							200			1		
D-23	74	22+17.00	23+65.00	Rt.									148			1		
D-24	74	23+65.00	25+45.90	Rt.	41								181			1		
D-25	74	24+00.00	25+19.57	Lt.	120								120			1		
D-26	74	25+33.11		Rt.														1
D-27	74	25+45.90		Rt.	5								5			1		
Totals (Carried to Location 1b Sub- Summary)					1,514	10	1	165	6	0.81	45	5	2,423	11	2	7	1	1

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CN PT	LOCATION	STATION & OFFSET	NORTHING	EASTING	ELEVATION	FEATURE CODE
SV2	S.R. 13	STA. 10+39.00, 30.19' LT.	713717.040	1992584.197	1012.08	1" REBAR W/ ALUM. ODOT CAP



NOTES:
- FOR QUANTITIES, SEE SHEETS 64-65.
- FOR DRIVE DETAILS, SEE SHEETS 84-90.


0 10 20
HORIZONTAL
SCALE IN FEET

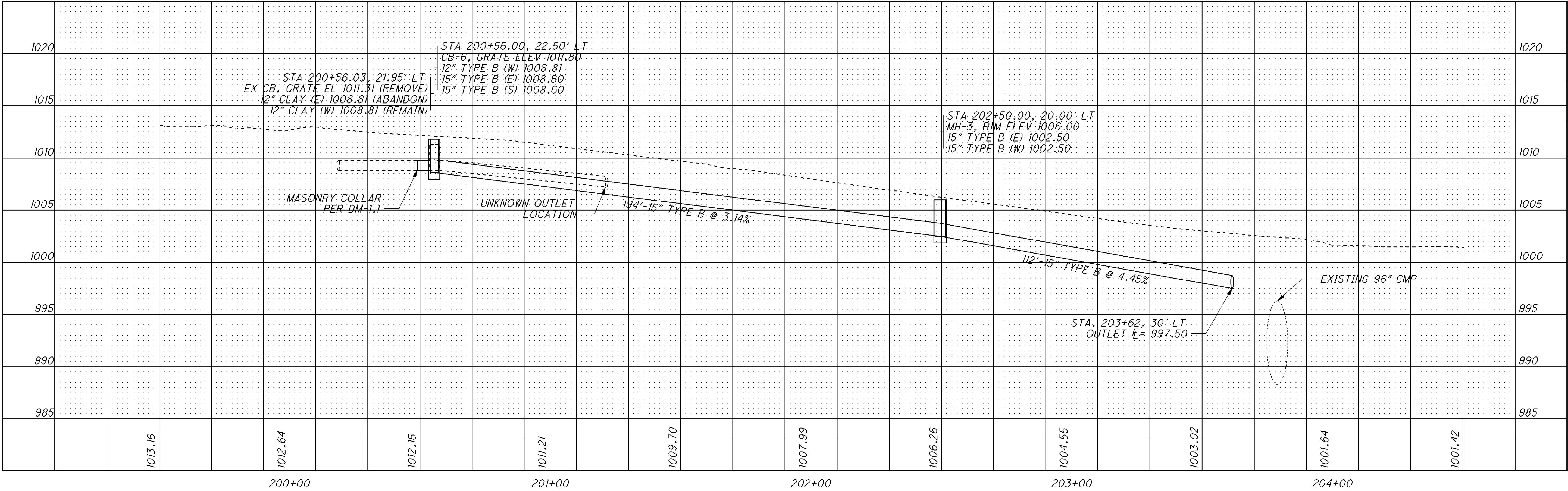
CALCULATED
JSL
CHECKED
JSL

PLAN SHEET (U.S. 40)
STA. 199+50 TO STA. 204+50

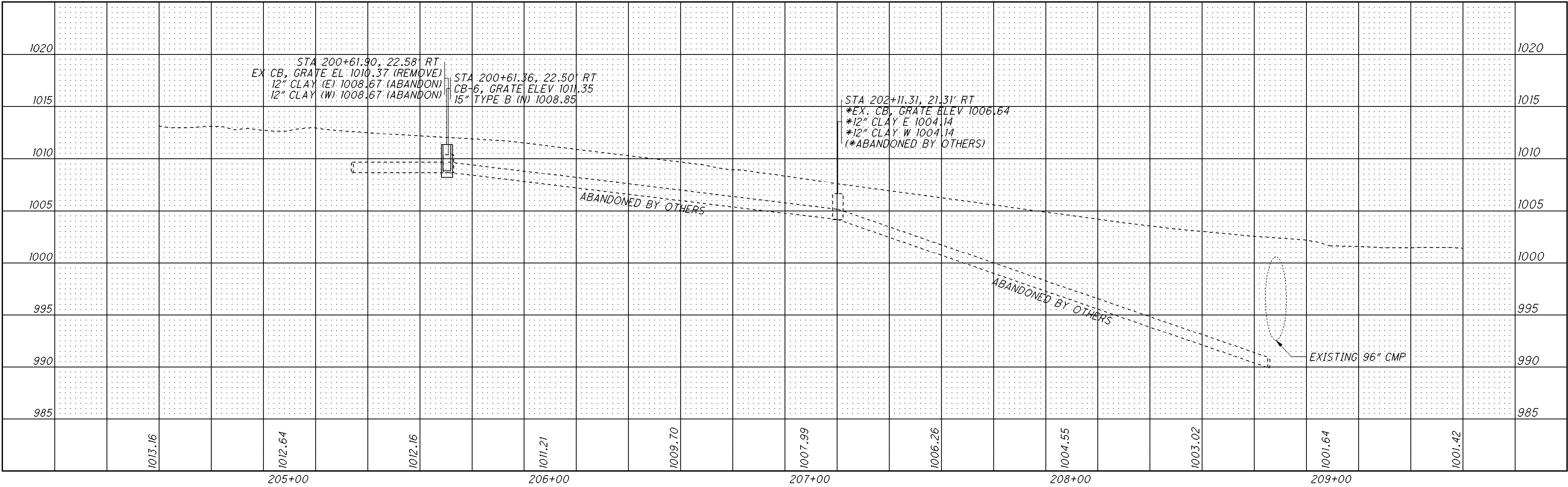
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66
90

LEFT SIDE PROFILE



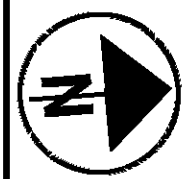
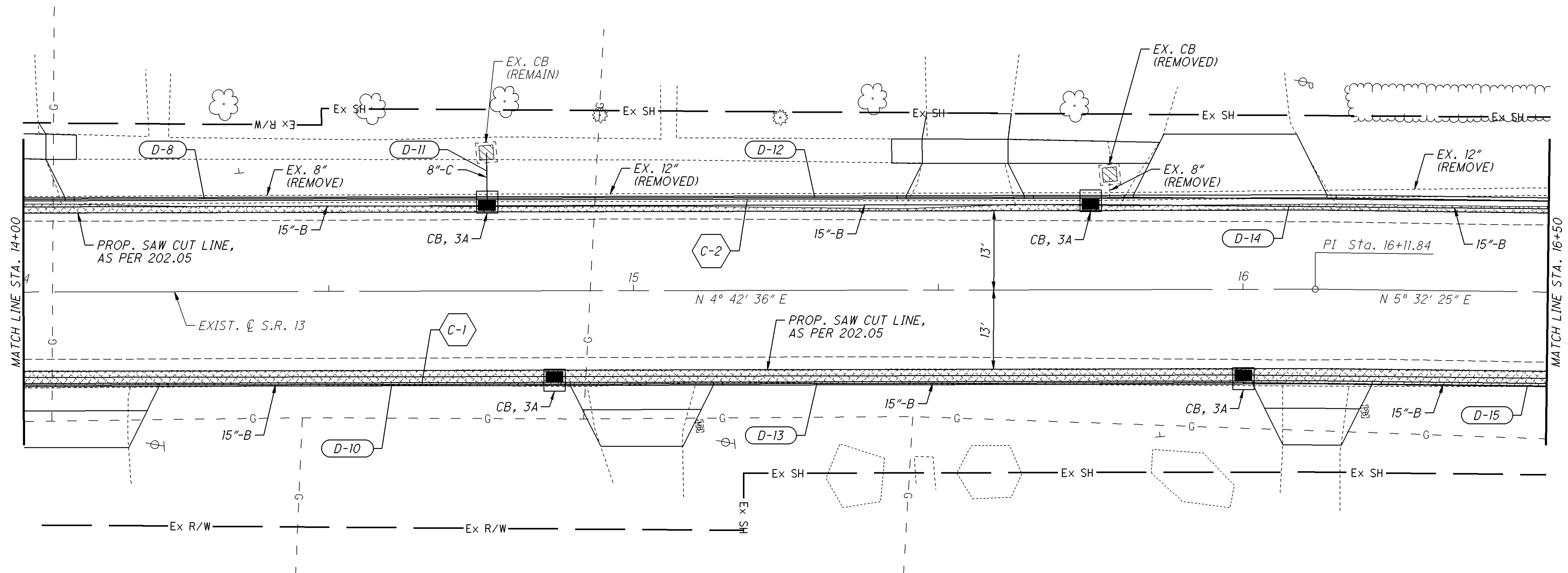
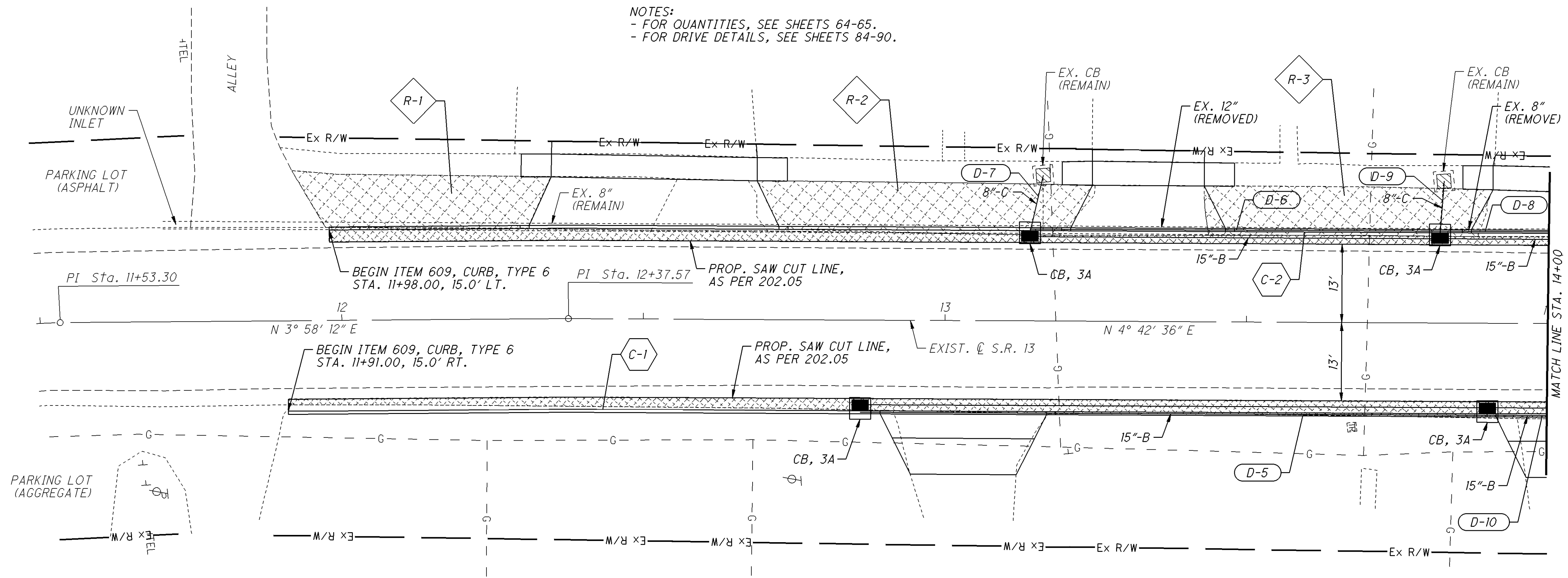
RIGHT SIDE PROFILE



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[illegible]

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CALCULATED
JLS
CHECKED
JSL

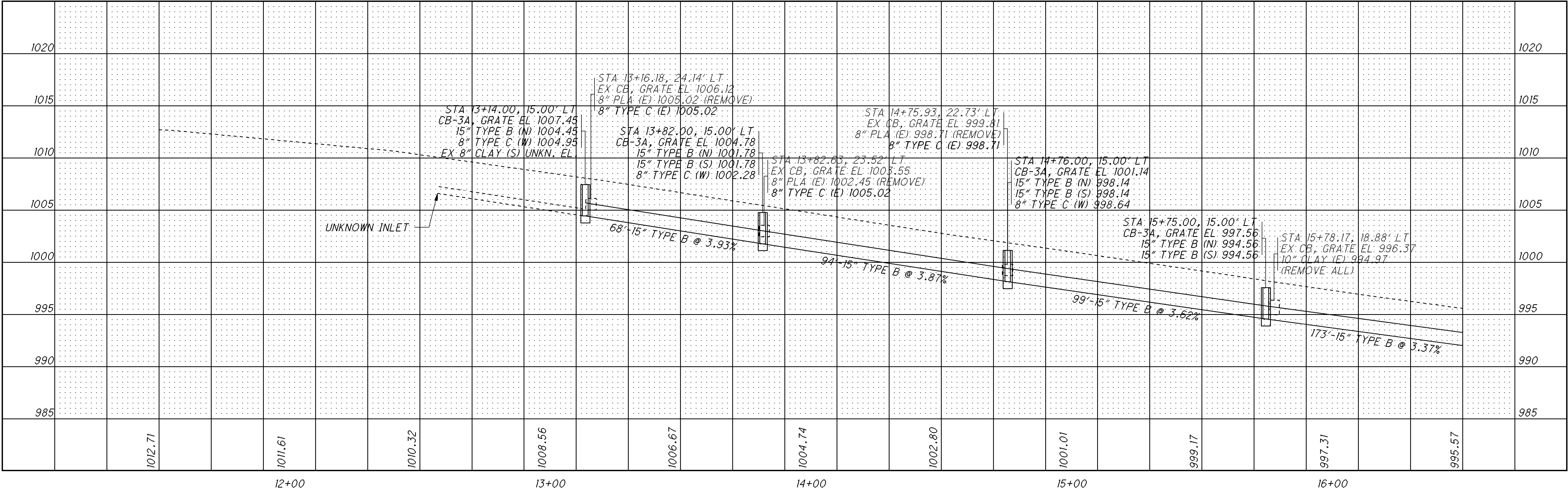
PLAN SHEET (S.R. 13)
STA. 11+50 TO STA. 16+50

LIC-13-0.00

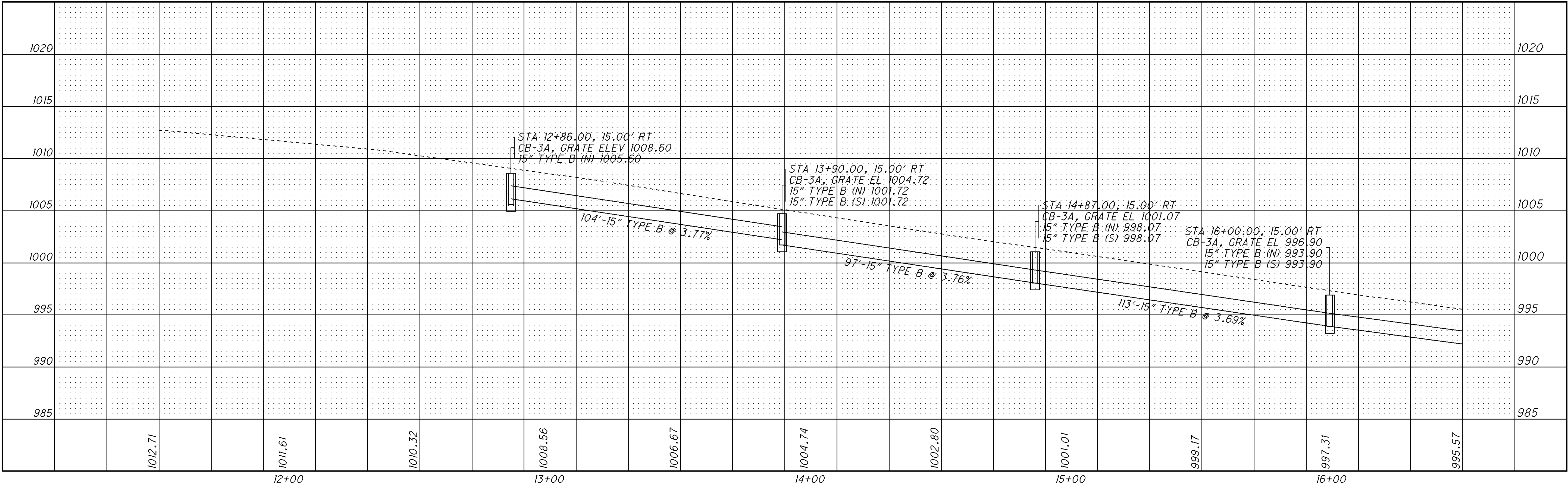
70
90

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LEFT SIDE PROFILE

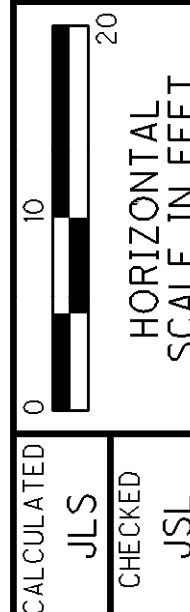
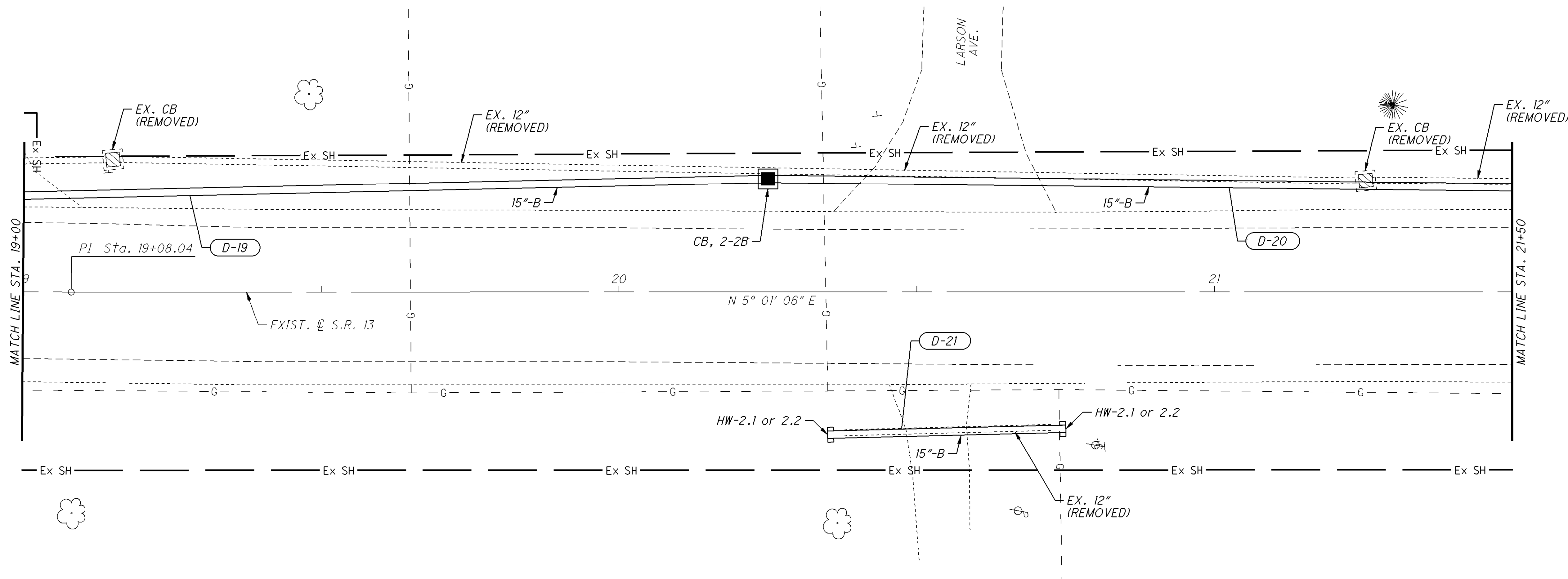
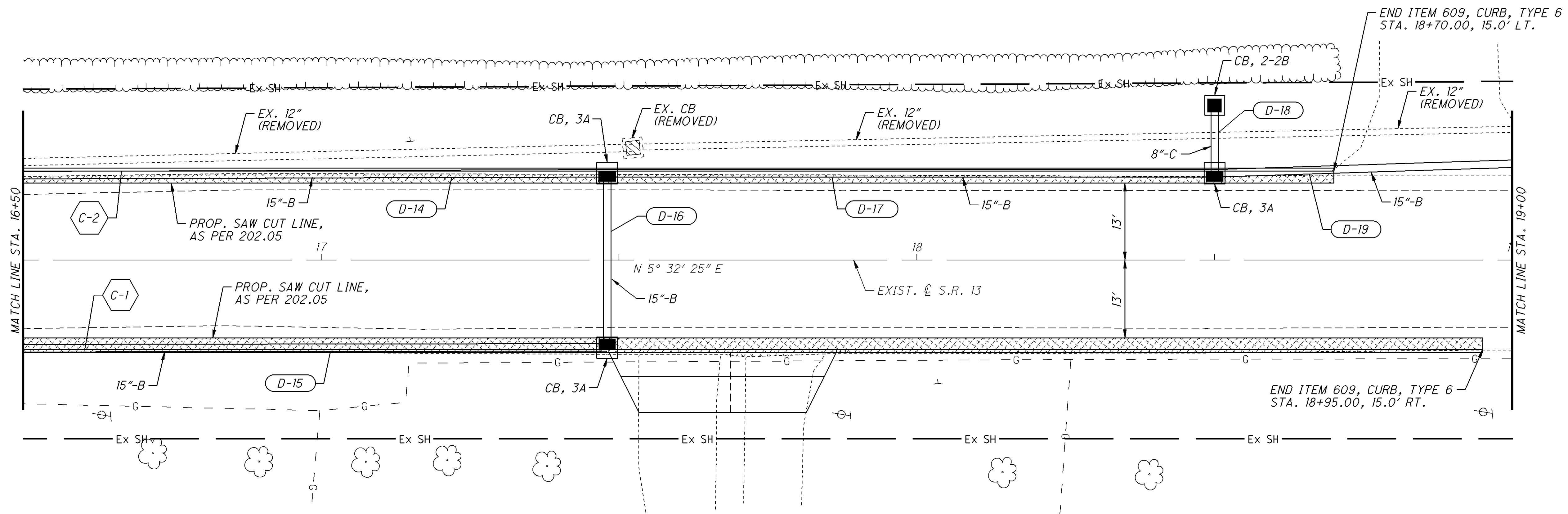


RIGHT SIDE PROFILE



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NOTES:
- FOR QUANTITIES, SEE SHEETS 64-65.
- FOR DRIVE DETAILS, SEE SHEETS 84-90.

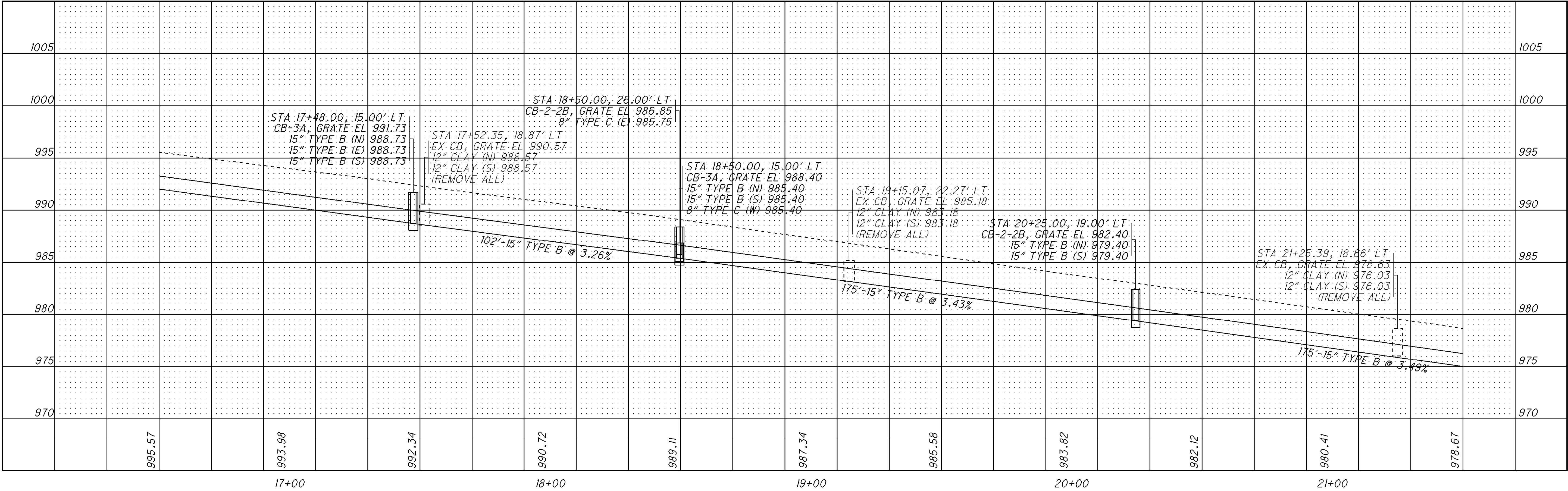


PLAN SHEET (S.R. 13)
STA. 16+50 TO STA. 21+50

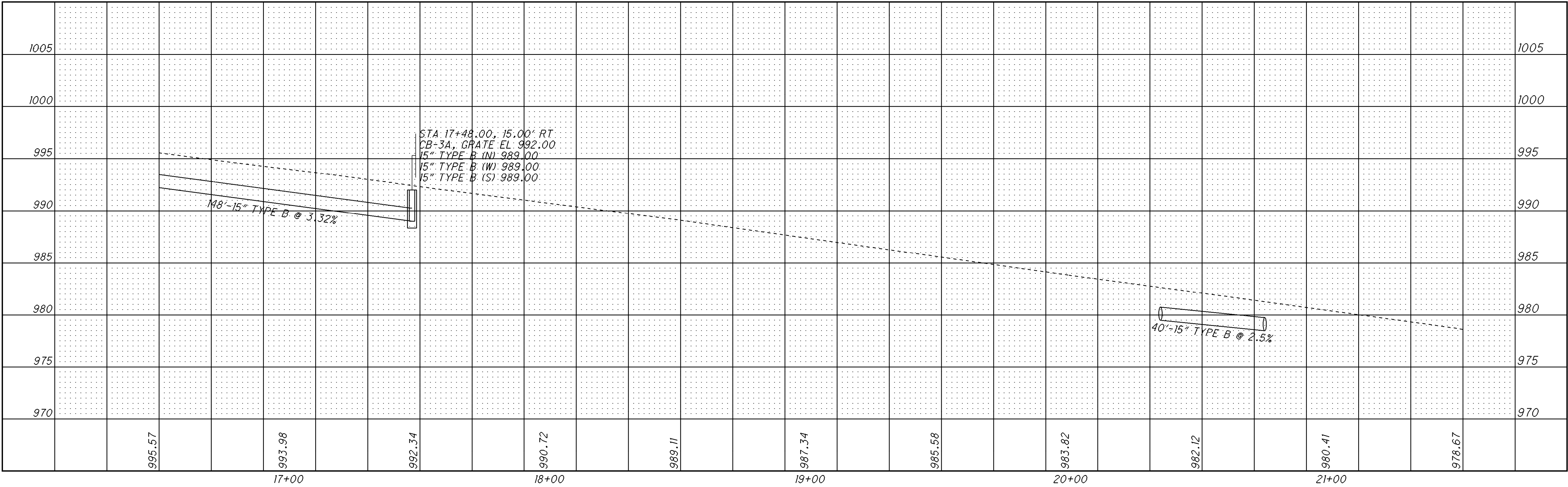
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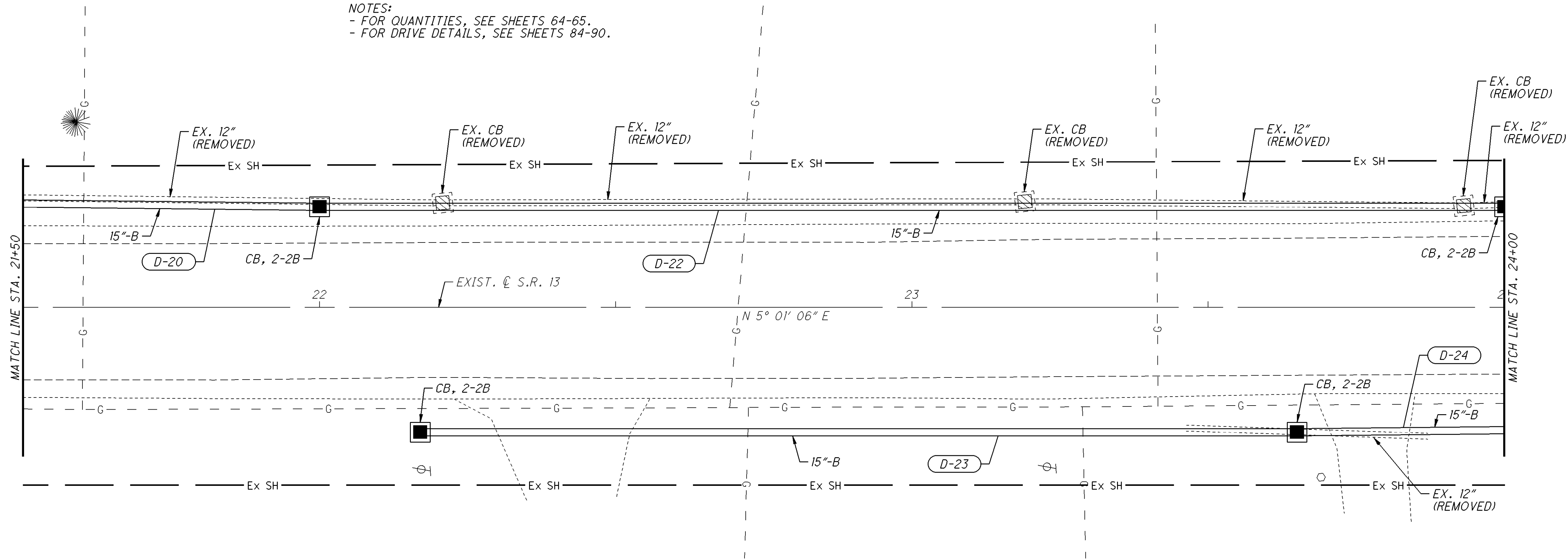
LEFT SIDE PROFILE



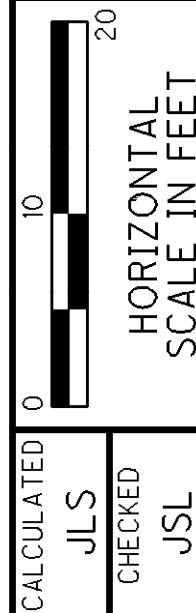
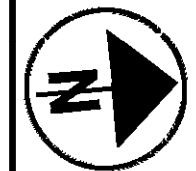
RIGHT SIDE PROFILE



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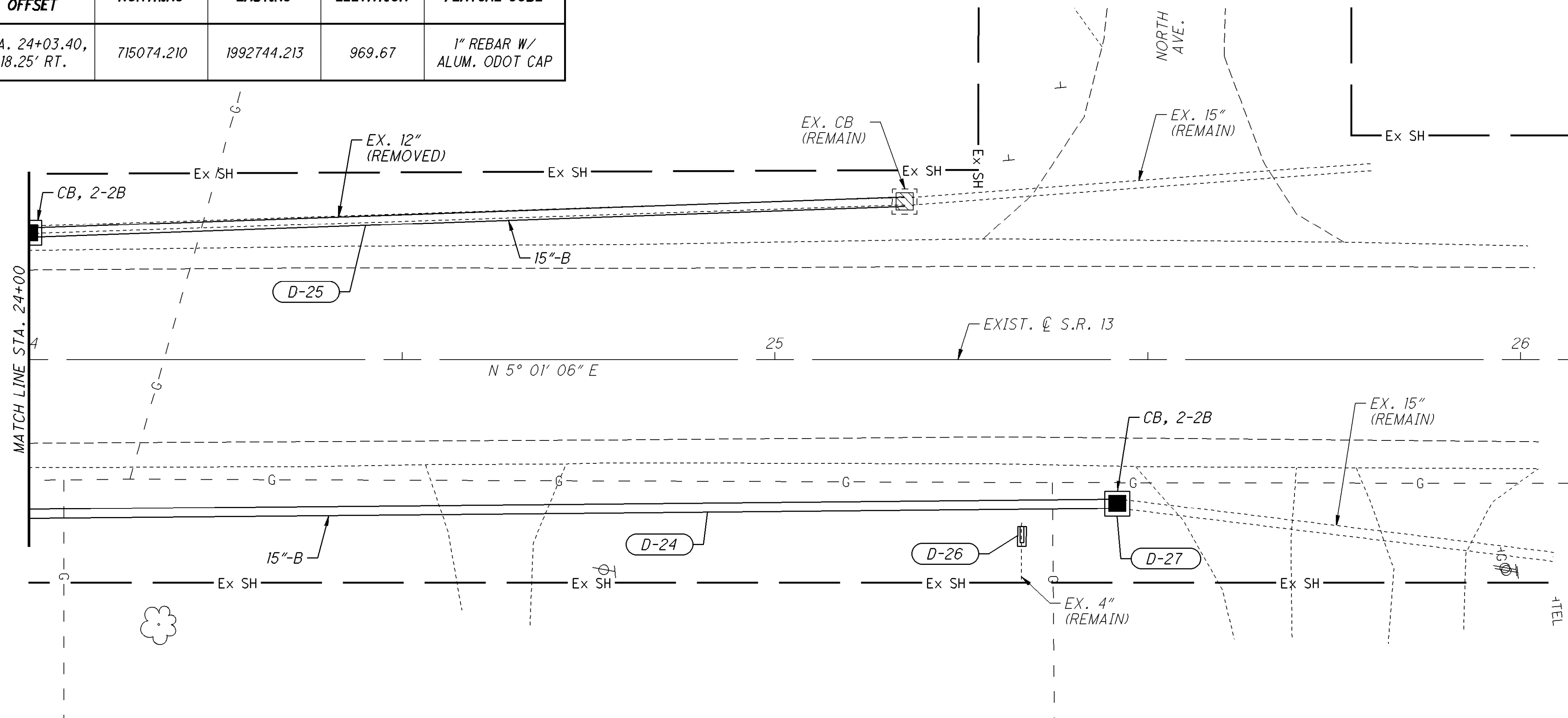
NOTES:
- FOR QUANTITIES, SEE SHEETS 64-65.
- FOR DRIVE DETAILS, SEE SHEETS 84-90.



PLAN SHEET (S.R. 13)
STA. 21+50 TO STA. 26+00

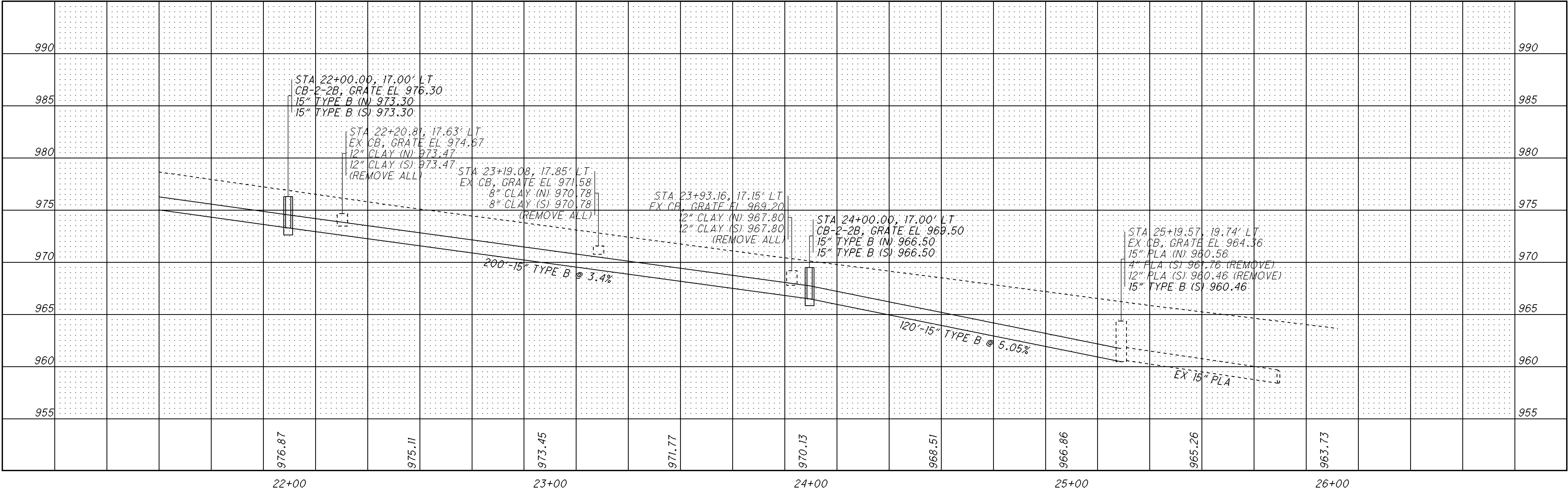
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CN PT	LOCATION	STATION & OFFSET	NORTHING	EASTING	ELEVATION	FEATURE CODE
SV5	S.R. 13	STA. 24+03.40, 18.25' RT.	715074.210	1992744.213	969.67	1" REBAR W/ ALUM. ODOT CAP

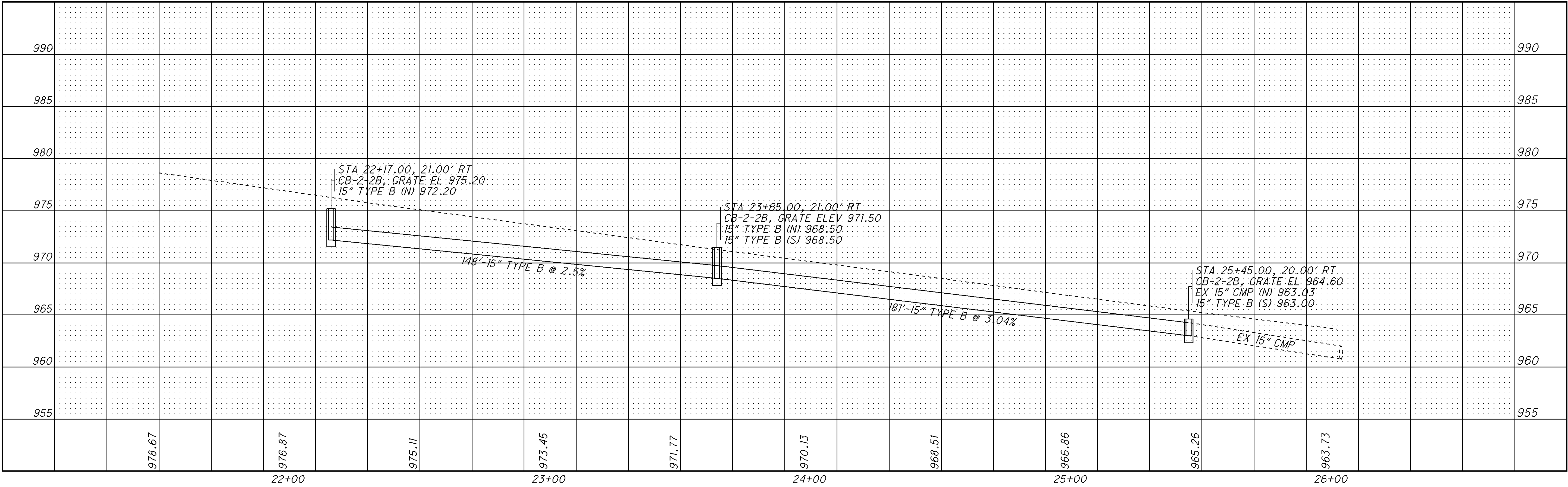


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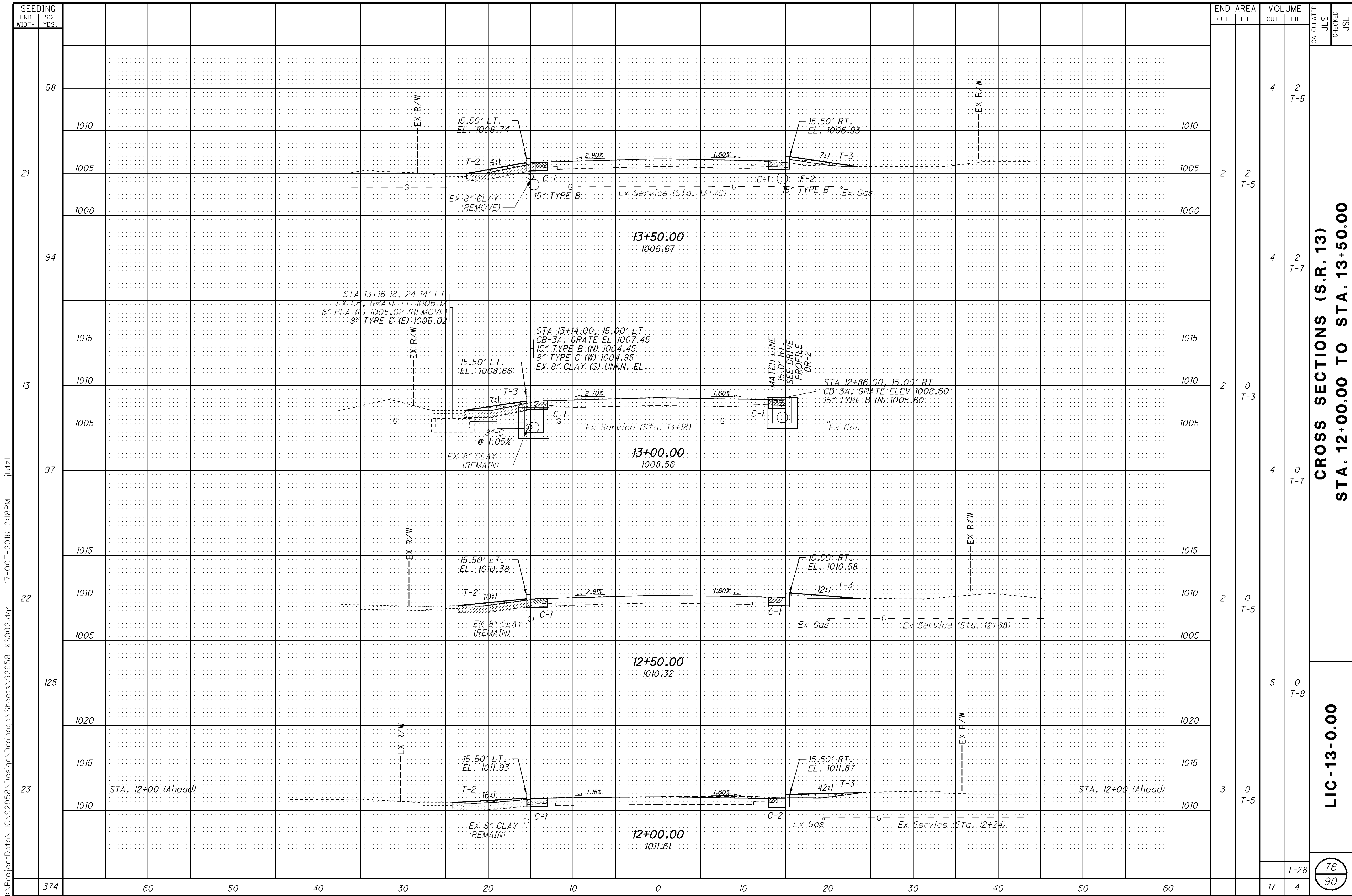
LEFT SIDE PROFILE



RIGHT SIDE PROFILE



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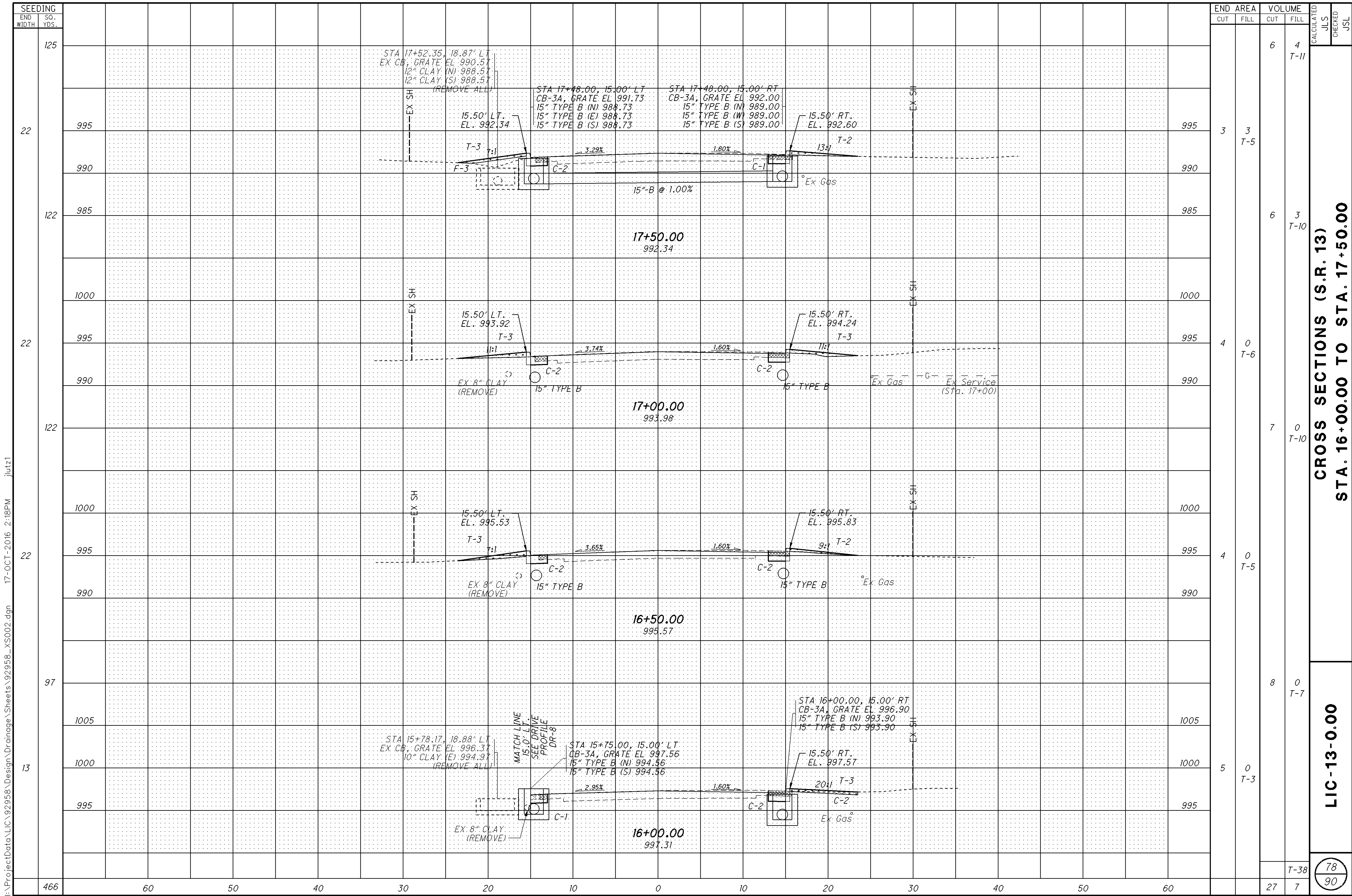


CROSS SECTIONS (S.R. 13)
STA. 12+00.00 TO STA. 13+50.00

LIC-13-0.00



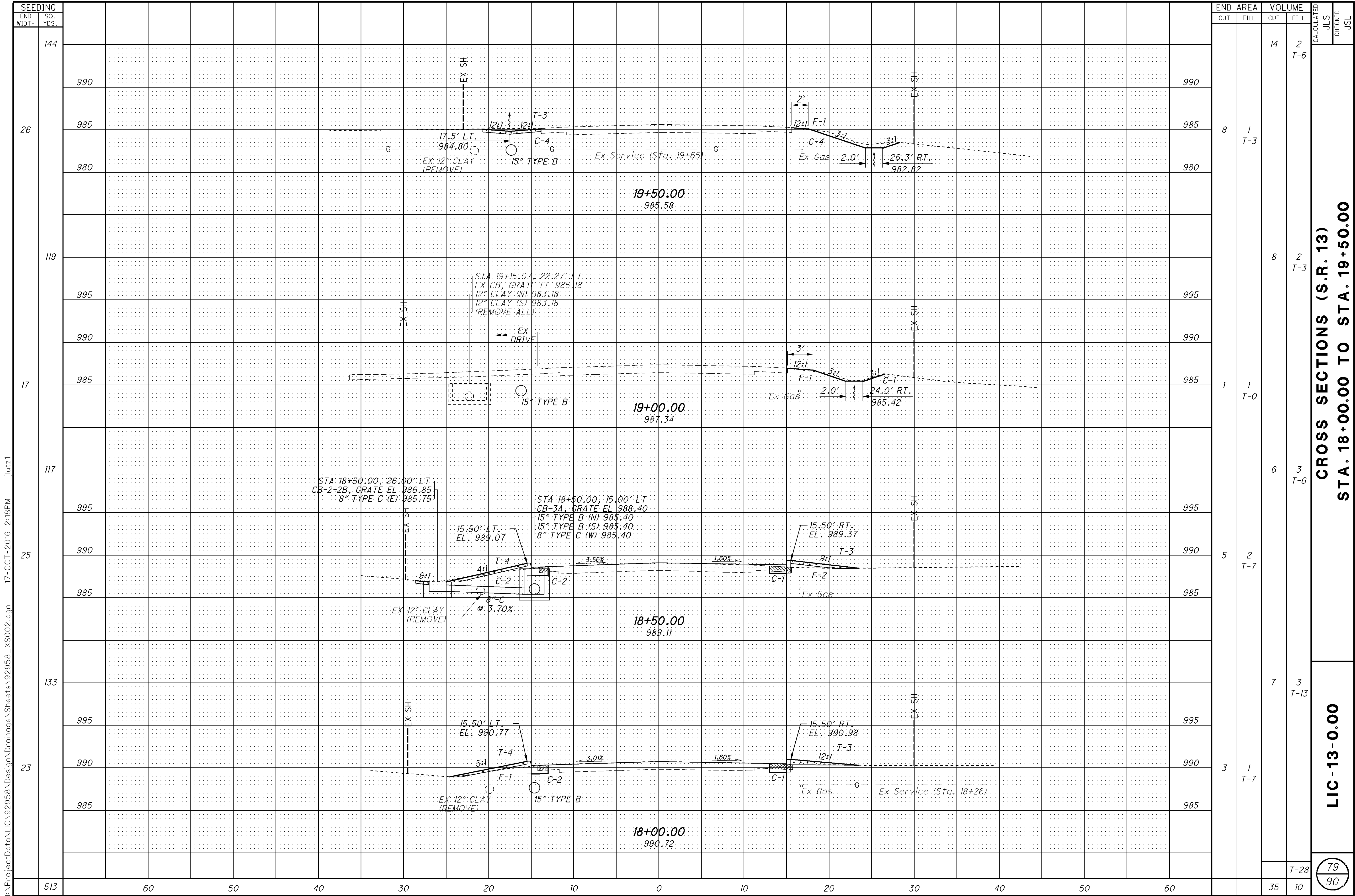
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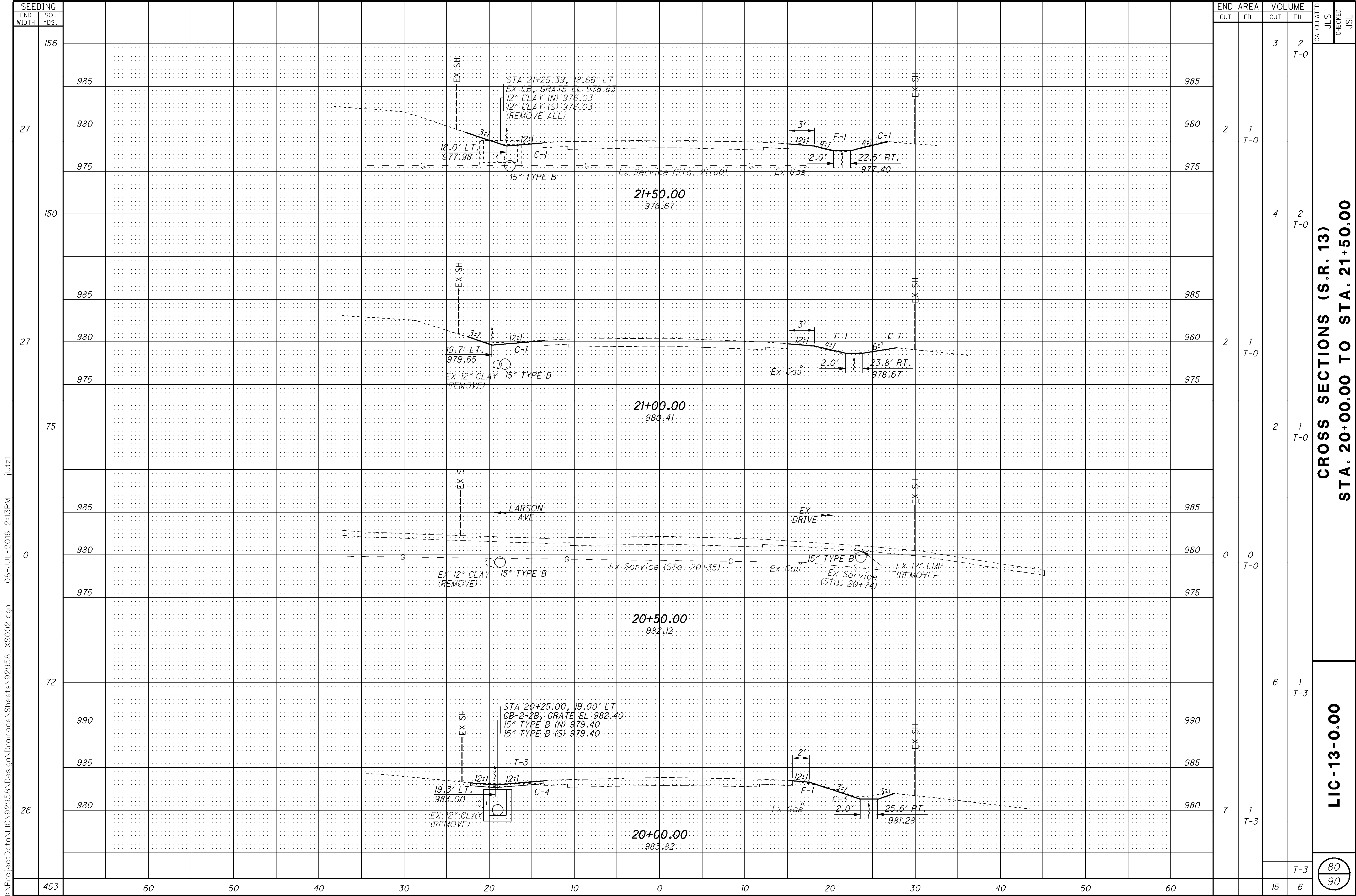


CROSS SECTIONS (S.R. 13)
STA. 16+00.00 TO STA. 17+50.00

LIC-13-0.00

78
90

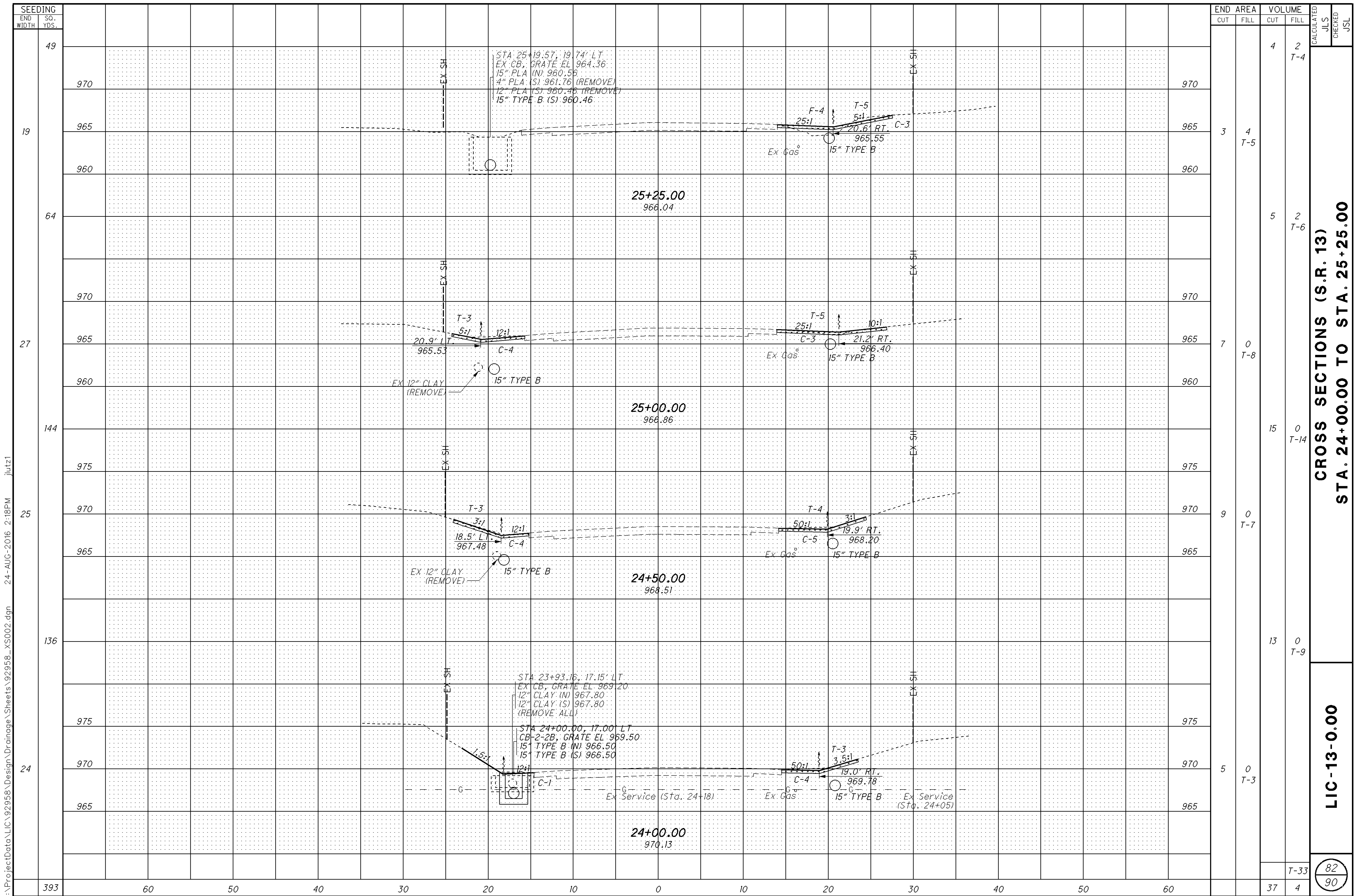


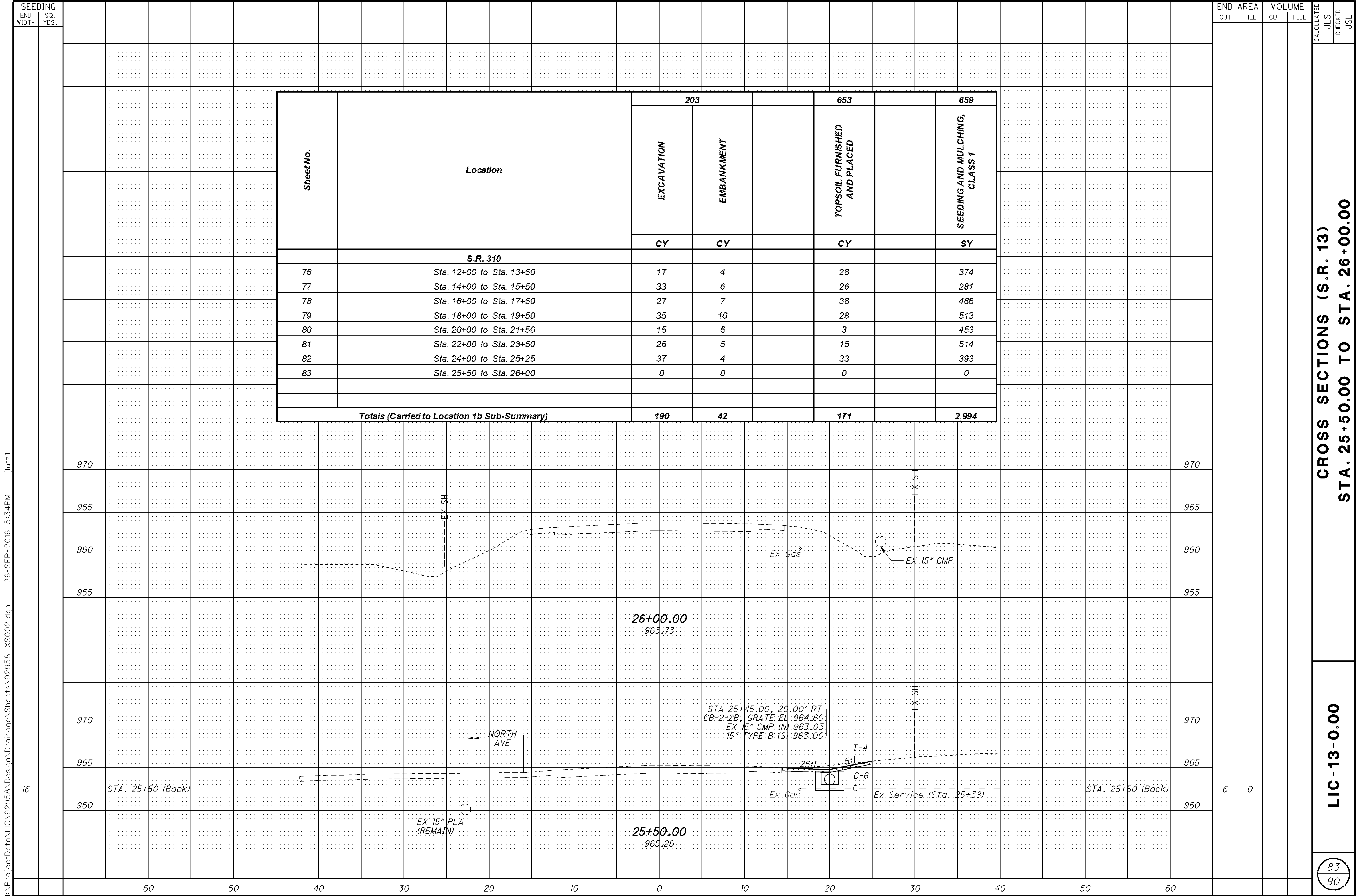


CROSS SECTIONS (S.R. 13)
STA. 20+00.00 TO STA. 21+50.00

LIC-13-0.00

[illegible]





CROSS SECTIONS (S.R. 13)

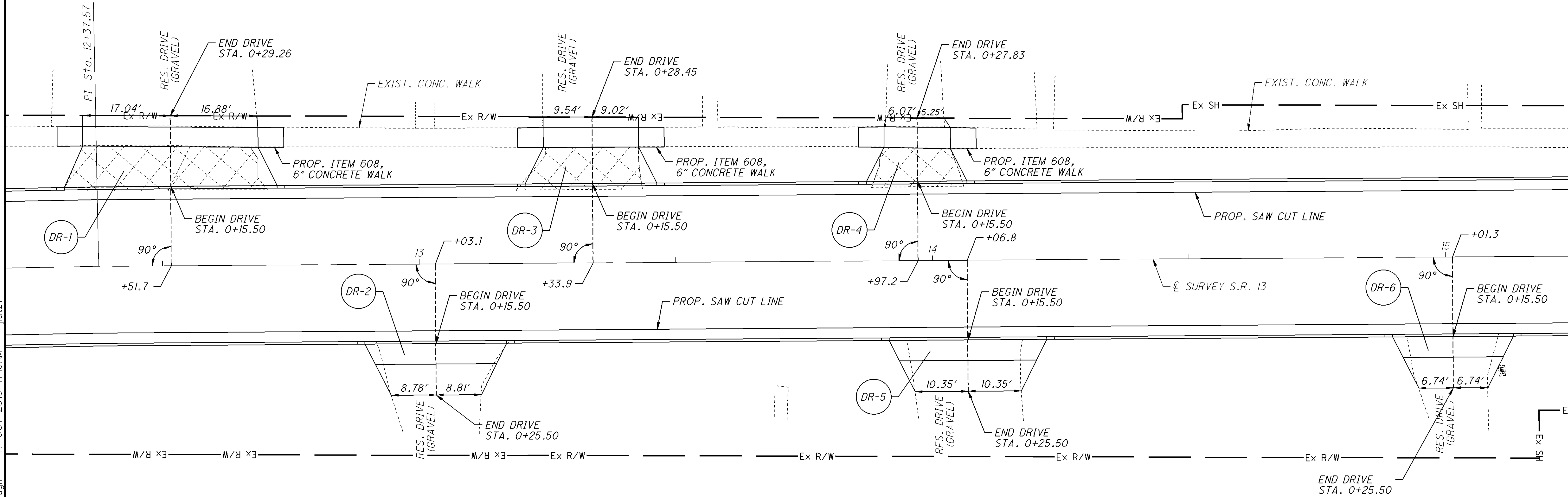
STA. 25+50.00 TO STA. 26+00.00

LIC-13-0.00

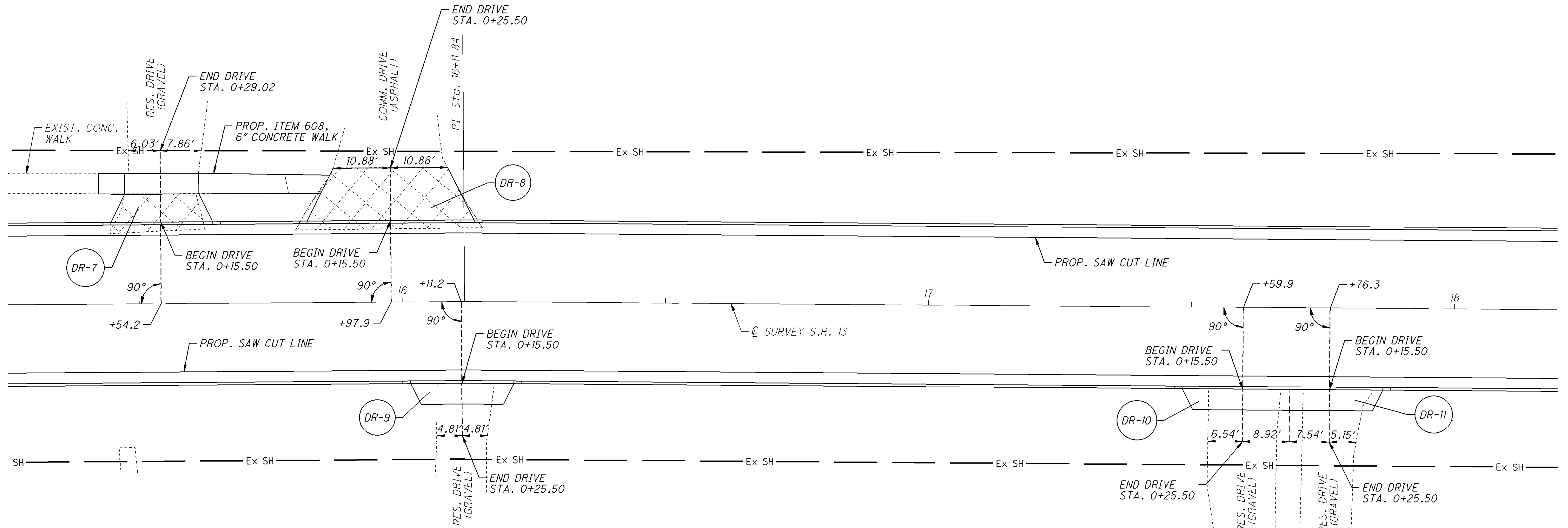
83

90

Reference No.	Sheet No.	Location	Side	Description	Exist. Surface	Apron Area (Calculated By Computer)	Treated Area (Calculated By Computer)	Total Area (Apron Area + Treated Area)	202		203	204	301	304	407	441	608
									PAVEMENT REMOVED, ASPHALT	WALK REMOVED	4.00"		ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS)	AGGREGATE BASE		NON-TRACKING TACK COAT, @ 0.040 GAL./SQ. YD.	
			CY								CY						
		S.R. 13	Lt./Rt.			Sq. Yd.	Sq. Yd.	Sq. Yd.	SY	SF	CY	SY	CY	CY	GAL	CY	SF
DR-1	85	Sta. 12+51.7	Lt.	Residential	Asph./Agg.	32.6	8.3	40.9	35.5	168.6	4.0	32.6	4.4	1.1	1.4	1.2	168.6
DR-2	85	Sta. 13+03.1	Rt.	Residential	Aggregate	11.4	13.8	25.2				11.4	1.6	1.9	0.5	0.4	
DR-3	85	Sta. 13+33.9	Lt.	Residential	Asph./Agg.	17.3	4.1	21.4	18.9	112.2	2.1	17.3	2.3	0.6	0.7	0.7	112.2
DR-4	85	Sta. 13+97.2	Lt.	Residential	Asph./Agg.	11.7	2.5	14.2	13.1	93.3	1.5	11.7	1.6	0.4	0.5	0.5	93.3
DR-5	85	Sta. 14+06.8	Rt.	Residential	Aggregate	12.8	15.9	28.7				12.8	1.7	2.1	0.6	0.5	
DR-6	85	Sta. 15+01.3	Rt.	Residential	Aggregate	9.6	11.1	20.7				9.6	1.3	1.5	0.4	0.4	
DR-7	86	Sta. 15+54.2	Lt.	Residential	Asph./Agg.	9.9	6.7	16.6	12.4	138.4	1.4	9.9	1.4	0.9	0.4	0.4	164.7
DR-8	86	Sta. 15+97.9	Lt.	Commercial	Asphalt	29.8	0.0	29.8	36.9			29.8	4.0		1.2	1.1	
DR-9	86	Sta. 16+11.2	Rt.	Residential	Aggregate	7.9	8.5	16.4				7.9	1.1	1.2	0.4	0.3	
DR-10	86	Sta. 17+59.9	Rt.	Residential	Aggregate	8.7	11.4	20.1				8.7	1.2	1.6	0.4	0.4	
DR-11	86	Sta. 17+76.3	Rt.	Residential	Aggregate	7.5	9.5	17.0				7.5	1.0	1.3	0.3	0.3	
Totals (Carried to Location 1b Sub- Summary)									117	513	9	160	22	13	7	7	539



FOR DRIVE QUANTITIES, SEE SHEET 84.
FOR ITEM 608, 6" CONCRETE WALK DETAILS, SEE SHEET 87.



FOR DRIVE QUANTITIES, SEE SHEET 84.
FOR ITEM 608, 6" CONCRETE WALK DETAILS, SEE SHEET 87.

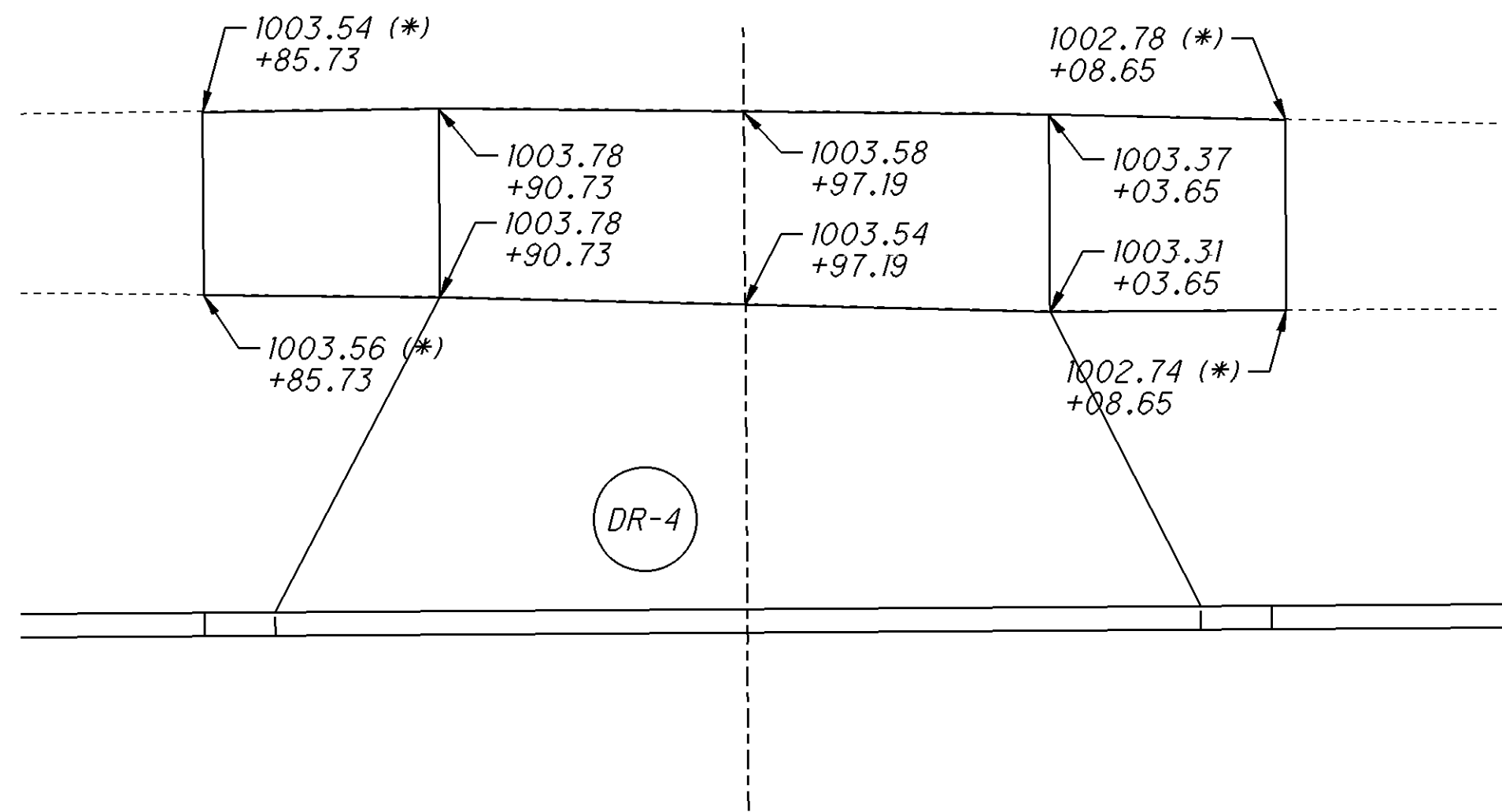
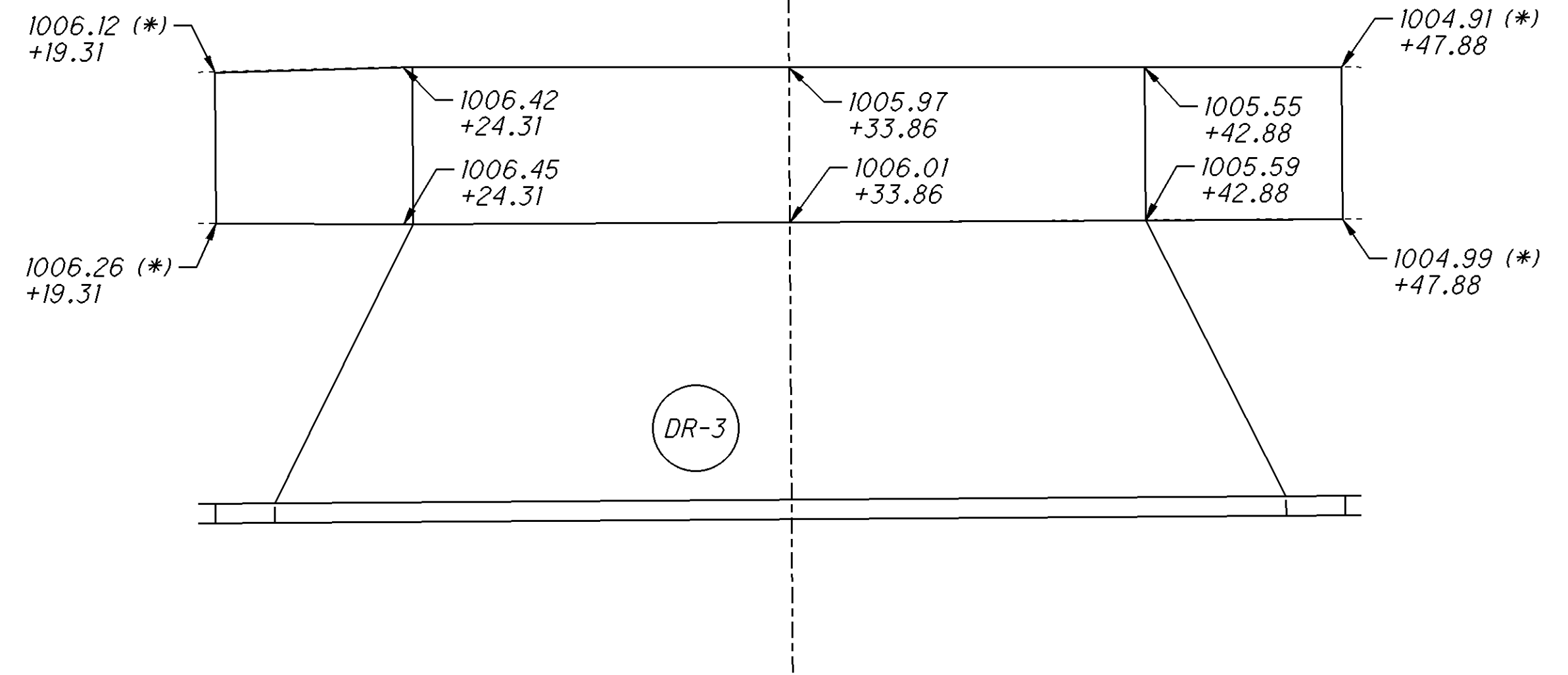
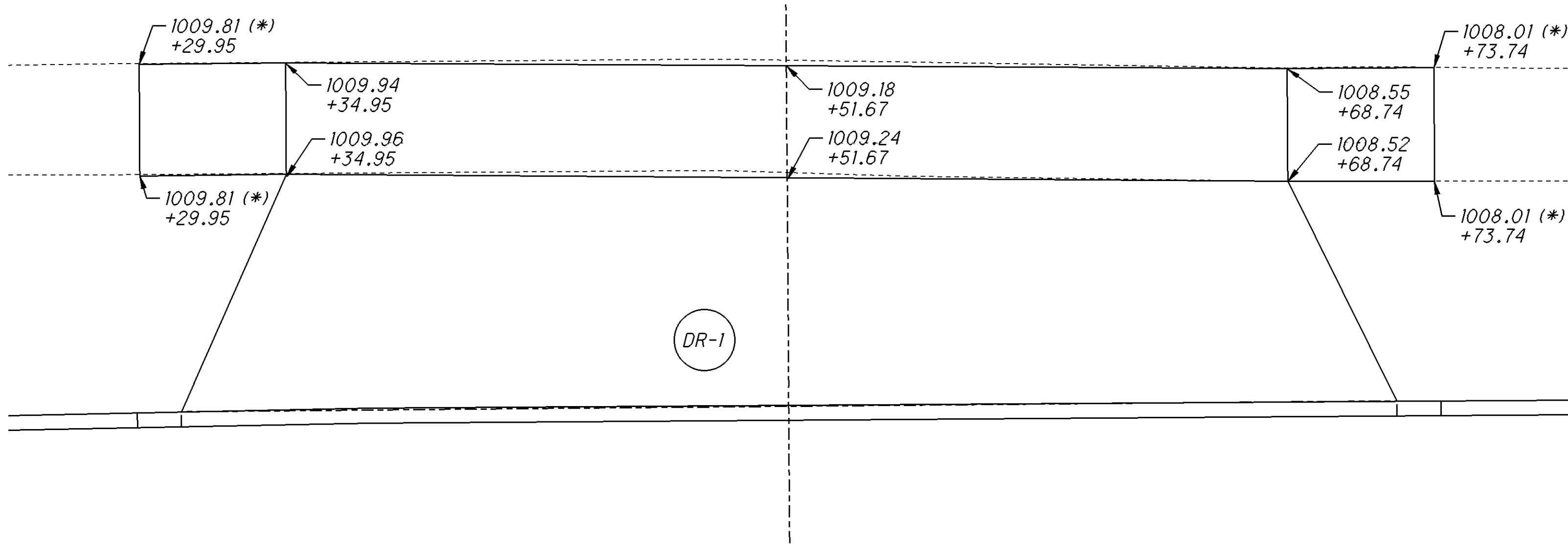


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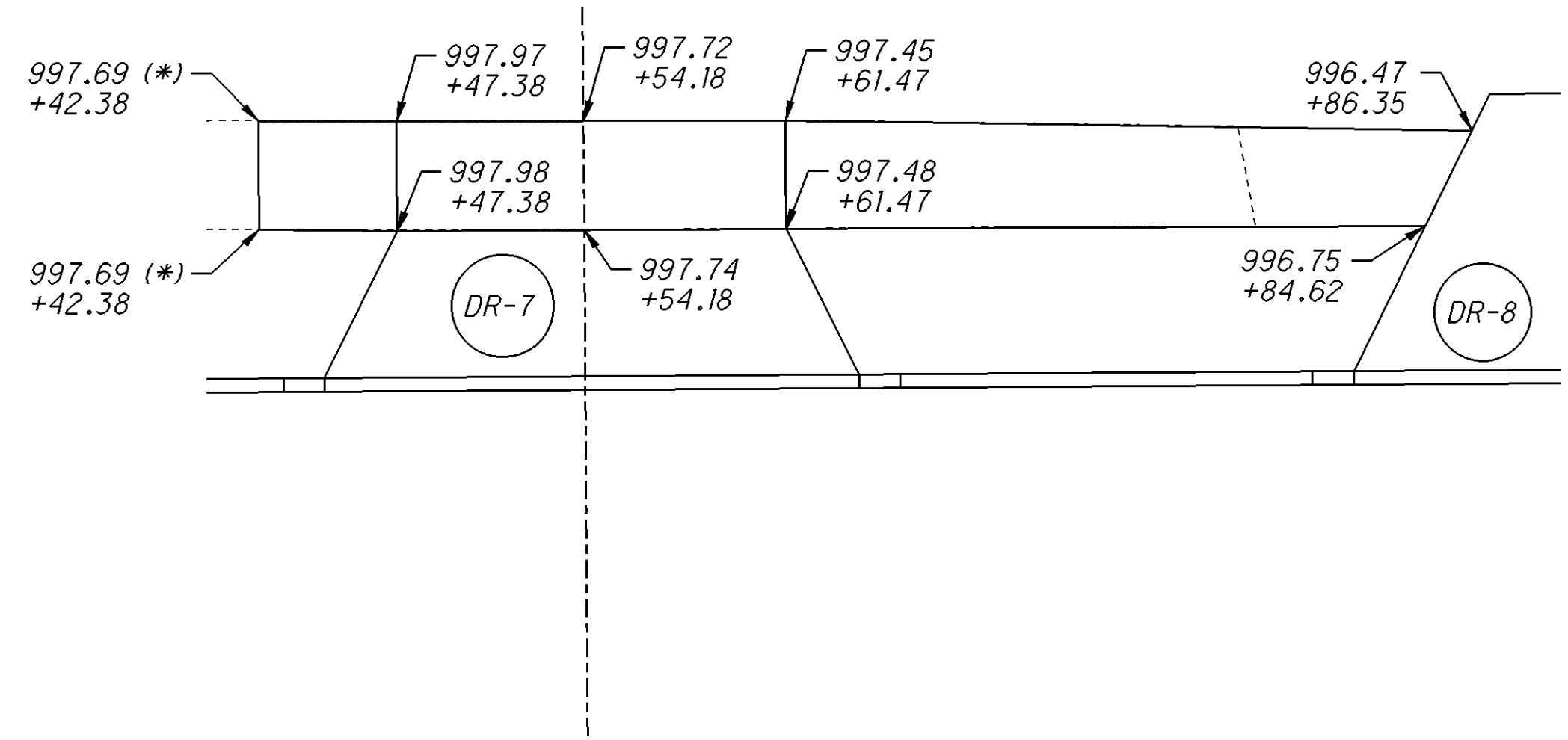
DRIVE DETAIL SHEET
STA. 15+54.2 TO STA. 17+76.3

LIC-13-0.00

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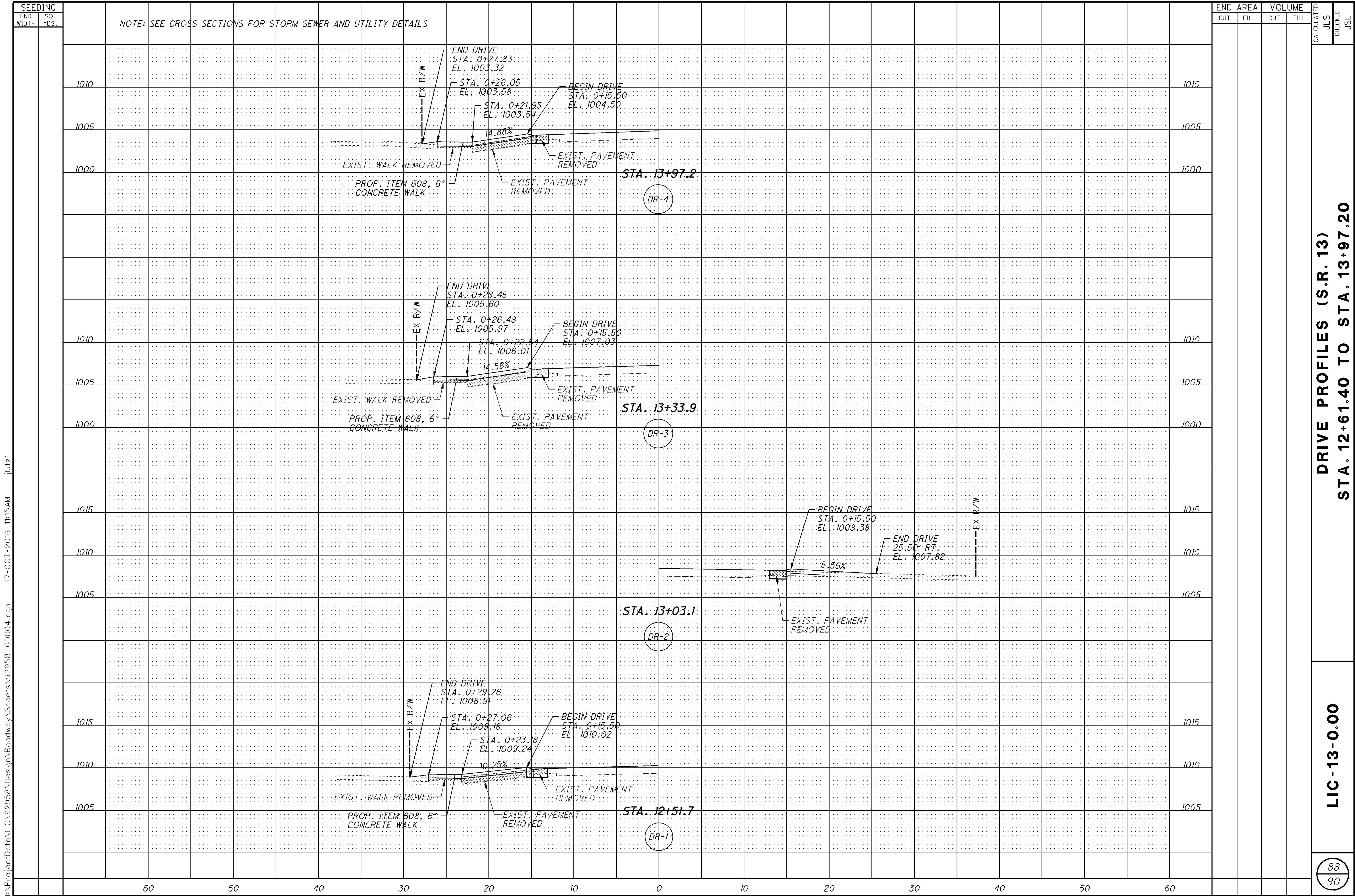


(*) MEET EXISTING WALK ELEVATION.
FOR ITEM 608, 6" CONCRETE WALK QUANTITIES, SEE SHEET 84.

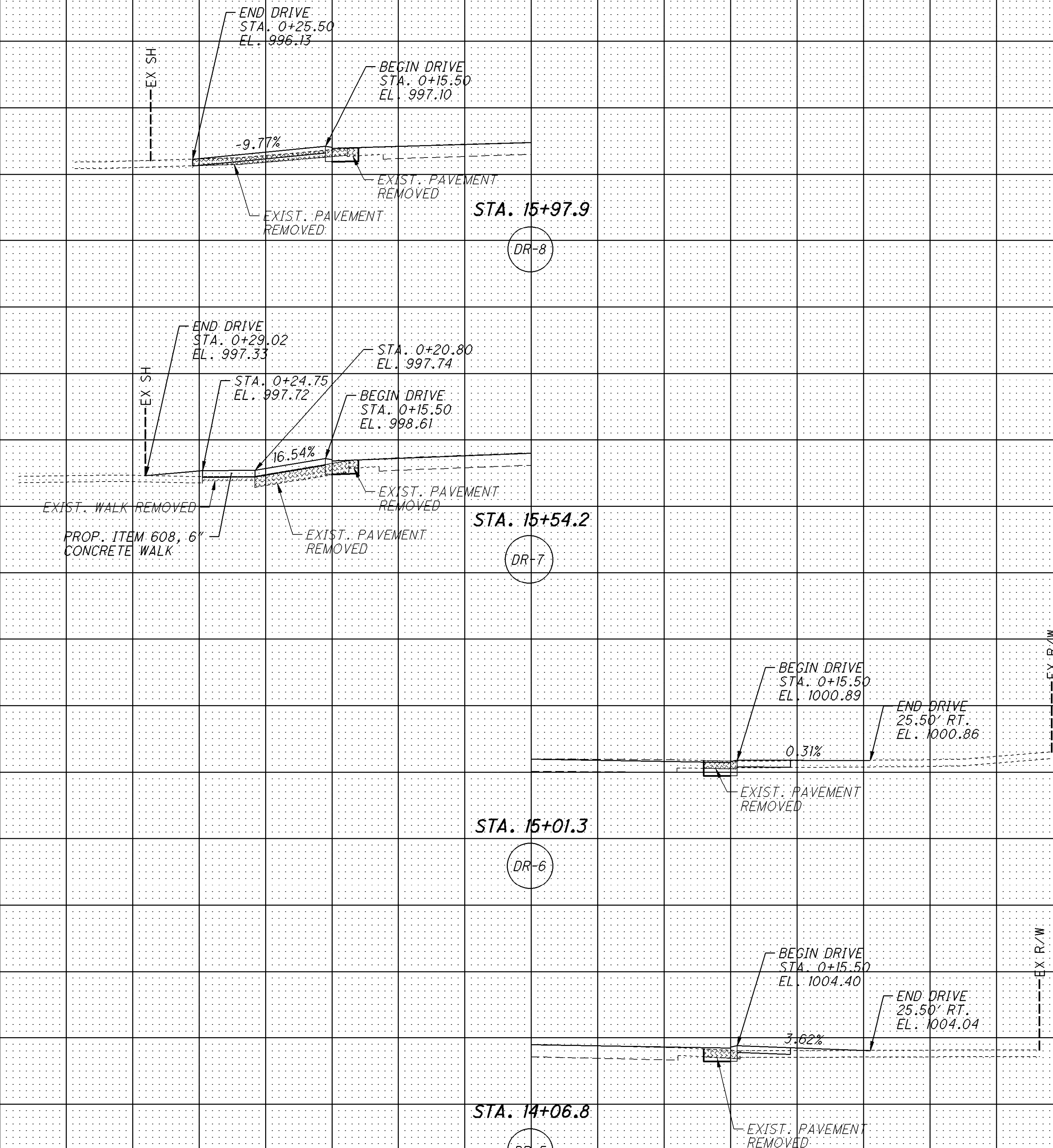


PROPOSED SIDEWALK DETAIL SHEET
AT PROPOSED DRIVES

LIC-13-0.00



NOTE: SEE CROSS SECTIONS FOR STORM SEWER AND UTILITY DETAILS



END		AREA		VOLUME		CALCULATED	
CUT	FILL	CUT	FILL	CUT	FILL	JLS	CHECKED JSL
						DRIVE PROFILES (S.R. 13)	
						STA. 12+06.80 TO STA. 15+97.90	
						LIC-13-0.00	($\frac{89}{90}$)

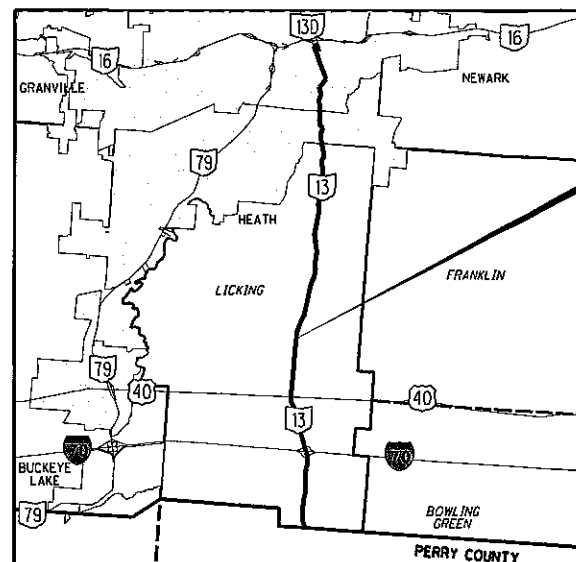
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STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY
LEGEND SHEET

LIC-13-0.00

4TH QTR., T1N, R12W, LOT27, U.S.M.L.
LICKING TOWNSHIP
LICKING COUNTY



LOCATION MAP

LATITUDE: 39° 59' 28" LONGITUDE: 82° 24' 24"



NOTE:

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

INDEX OF SHEETS:

PROPERTY MAP, SUMMARY OF ADDITIONAL RIGHT OF WAY & DETAIL SHEET . . . 2

UTILITY OWNERS

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

TIME WARNER CABLE 111 NORTH 11TH STREET NEWARK, OHIO 43055 ATTN: BRIAN AMENDE 740-322-6703	CENTURYLINK TELEPHONE 441 WEST BROAD STREET PATASKALA, OHIO 43062 ATTN: DEE REED 740-927-8282	AMERICAN ELECTRIC POWER 850 TECH CENTER DRIVE GAHANNA, OHIO 43230 ATTN: PAUL PAXTON 614-883-6831	WINDSTREAM 66 NORTH FOURTH STREET NEWARK, OHIO 43055 ATTN: DAVE HOLTON 740-349-8804
AT&T OHIO 160 NORTH SIXTH STREET ZANESVILLE, OHIO 43701 ATTN: BARRETT TAMASOVICH 740-454-3574	COLUMBIA GAS OF OHIO 2429 NORTH LINDEN AVENUE ZANESVILLE, OHIO 43701 ATTN: MICHAEL DIBENEDETTO 740-260-0370	LICKING COUNTY WATER/WASTE WATER 4455 WALCUTT ROAD BUCKEYE LAKE, OHIO 43008 ATTN: KEVIN EBY 740-928-0349	

CONVENTIONAL SYMBOLS

County Line	Edge of Shoulder (Ex)
Township Line	Edge of Shoulder (Pr)
Section Line	Ditch / Creek (Ex)
Corporation Line	Ditch / Creek (Pr)
Fence Line (Ex)	Tree Line (Ex)
Center Line	Ownership Hook Symbol
Right of Way (Ex)	Property Line Symbol
Right of Way (Pr)	Break Line Symbol
Standard Highway Ease. (Ex)	Tree (Pr)
Standard Highway Ease. (Pr)	Tree (Remove)
Slope Ease. (Ex)	Shrub (Ex)
Slope Ease. (Pr)	Shrub (Remove)
Temporary Right of Way	Evergreen (Ex)
Channel Ease. (Pr)	Stump
Utility Ease. (Ex)	Evergreen (Remove)
Railroad	Stump (Remove)
Guardrail (Ex)	Wetland (Pr)
Construction Limits	Grass (Pr)
Edge of Pavement (Ex)	Aerial Target
Edge of Pavement (Pr)	Post (Ex)
	Mailbox (Ex)
	Mailbox (Pr)
	Light (Ex)
	Telephone Marker (Ex)
	Fire Hydrant (Ex)
	Water Meter (Ex)
	Water Valve (Ex)
	Utility Valve Unknown (Ex)
	Telephone Pole (Ex)
	Power Pole (Ex)
	Light Pole (Ex)

STRUCTURE KEY

	RESIDENTIAL
	COMMERCIAL
	OUT-BUILDING

LEGEND:
SH = STANDARD HIGHWAY EASEMENT
SL = SLOPE EASEMENT
T = TEMPORARY EASEMENT
CH = CHANNEL EASEMENT

PROJECT DESCRIPTION

ASPHALT CONCRETE RESURFACING ON S.R. 13 AND THE ODOT DISTRICT 5 COMPLEX IN LICKING COUNTY WITH DRAINAGE WORK IN THE VILLAGE OF JACKSONTOWN

PROJECT CONTROL

NORTH AMERICAN VERTICAL DATUM (NAVD 88)
OHIO STATE PLANE GRID COORDINATE SYSTEM,
SOUTH ZONE, GRID COORDINATES, NAD 1983
(CONUS), GEOID 12A (OHIO).

PLAN PREPARED BY:

FIRM NAME: ODOT, DISTRICT 5
PLANS PREPARED BY: CANDY SHOEMAKER
FIELD REVIEW BY: CHARLES PRICE, JR. & CANDY SHOEMAKER
OWNERSHIP VERIFIED BY: CHARLES PRICE, JR.
DATE COMPLETED: 11/21/16

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

I, Charles W. Price, Jr., P. S. have conducted a survey of the existing conditions for the Ohio Department of Transportation in September, 2012. The results of that survey are contained herein.

The horizontal coordinates expressed herein are based on North American Vertical Datum (NAVD 88) Ohio State Plane Grid Coordinate System, South Zone, Grid Coordinates, NAD 83 (Conus), Geoid 12A (Ohio).

As a part of this project I have reestablished the locations of the existing property lines and centerline of existing Right of Way for property takes contained herein.

As a part of this project I have established the proposed property lines, calculated the Gross Take, present roadway occupied (PRO), Net Take and Net Residue; as well as prepared the legal descriptions necessary to acquire the parcels as shown herein.

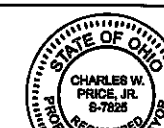
As a part of this work I have set monuments at the proposed property corners, and other points shown herein. The iron pins and caps will be 3/4" x 30" rebar with aluminum cap stamped "Odor R/W District 5". All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "A Minimum Standards for Boundary Surveys in the State of Ohio" unless so noted.

The words I and my as used herein are to mean that either myself or someone working under my direct supervision.

Charles W. Price, Jr., Professional Land Surveyor # 7825

Date: 11/21/16

SURVEYORS SEAL



SIGNED:
DATE: 11/21/16

FEDERAL PROJECT NO. X

RAILROAD INVOLVEMENT NONE

PID NO. 92958

R/W DESIGNER CS
R/W REVIEWER CP

RIGHT OF WAY
LEGEND SHEET

LIC-13-0.00

1/2

NOTES:

ALL EXISTING FENCE LOCATED INSIDE OF PROPOSED RIGHT OF WAY IS TO BE REMOVED.

THE DISPOSITION OF EXISTING CONSTRUCTION ITEMS WITHIN WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLANS.

ALL STATIONS AND OFFSETS ARE FROM THE CENTERLINE OF SURVEY AND CONSTRUCTION, S.R. 13 UNLESS OTHERWISE STATED.

NOTE:

THE EXISTING RIGHT OF WAY WIDTH AND LOCATION WERE DETERMINED USING DOCUMENTATION ON FILE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 5 OFFICE, JACKSONTOWN, OHIO.

CO. RD. AND TWP RD. RIGHT OF WAY DETERMINED FROM THE LICKING COUNTY ENGINEERS OFFICE LICKING COUNTY, OHIO

4TH QTR., T1N, R12W, LOT27, U.S.M.L.
LICKING TOWNSHIP
LICKING COUNTY



0 25 50 100
CALCULATED
C.S.
CHECKED
C.P.
HORIZONTAL
SCALE IN FEET

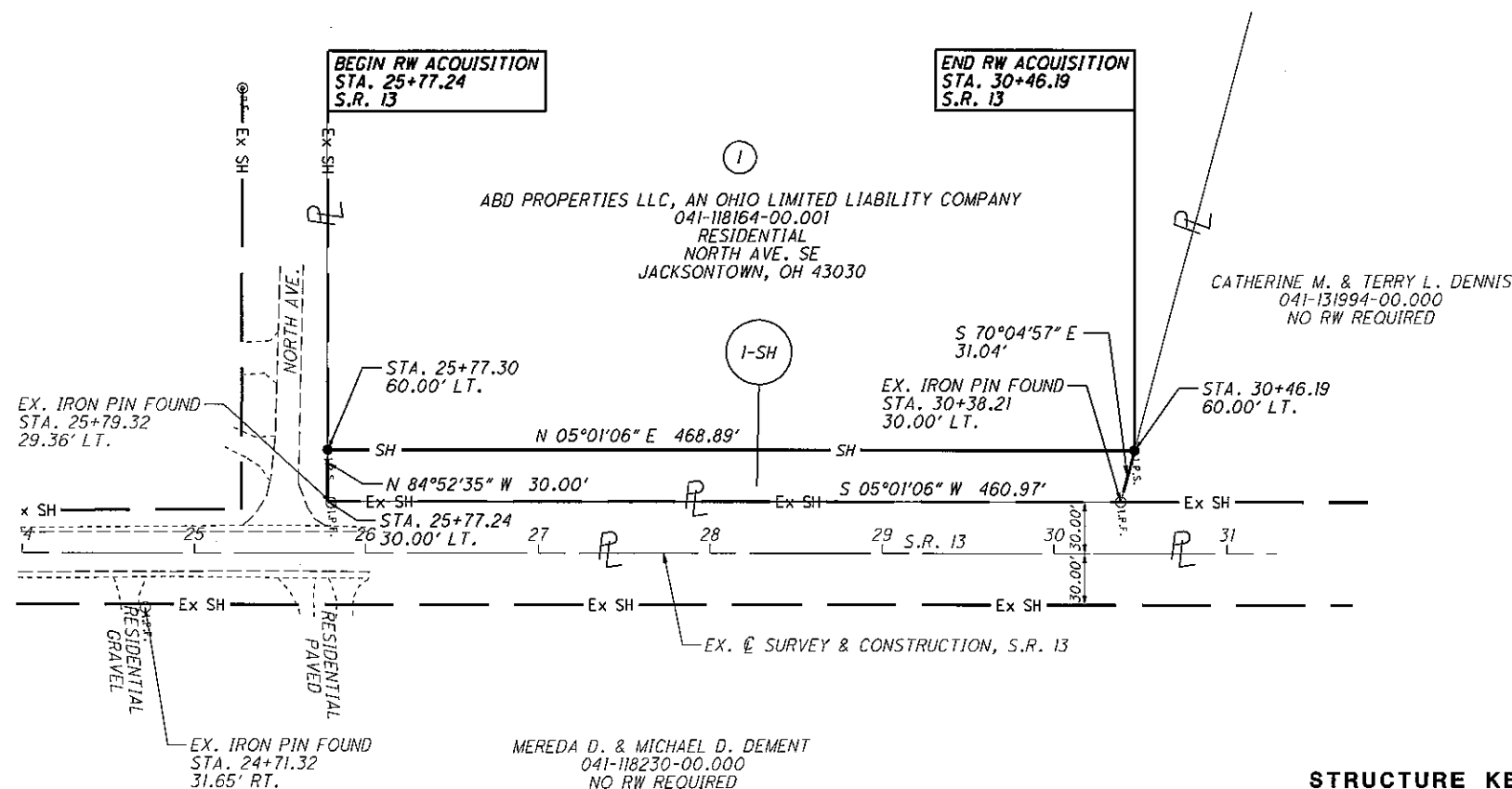
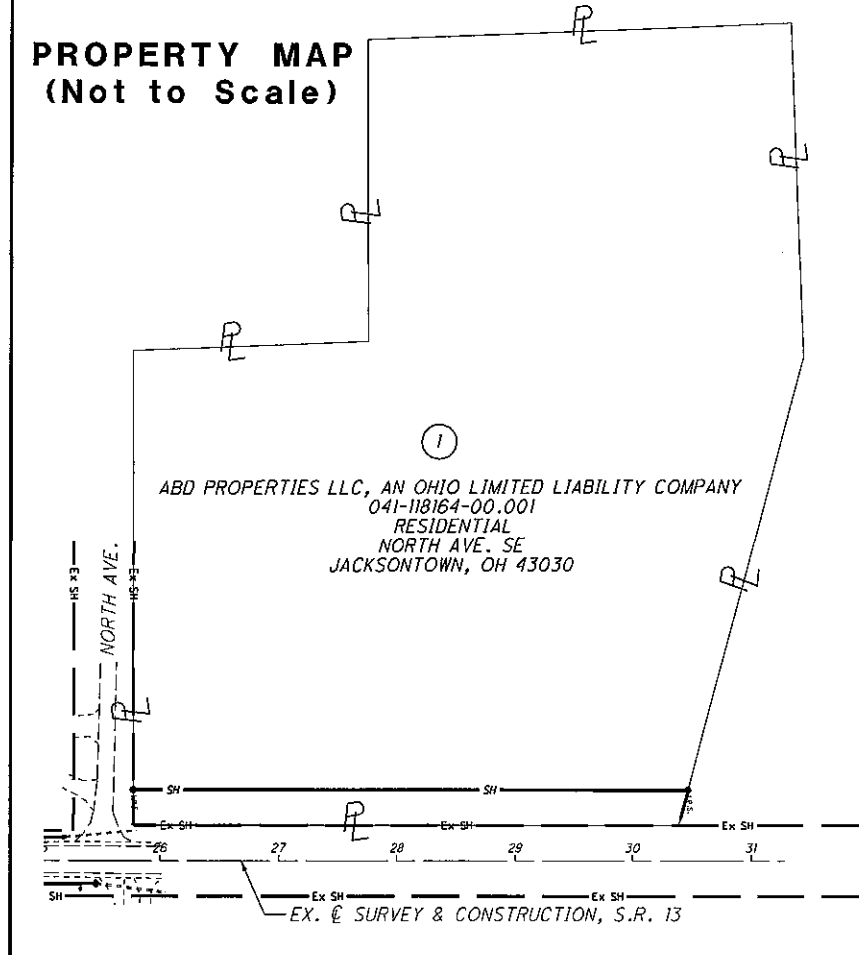
PID NO.
92958

RIGHT OF WAY DETAIL SHEET
STA. 24+00 TO STA. 31+28.89 S.R. 13

LIC-13-0.00

2 / 2

PROPERTY MAP
(Not to Scale)



MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- IRON PIN FOUND
- IRON PIN FOUND W/ ID CAP
- IRON PIN SET W/ ID CAP
- IRON PIPE FOUND
- IRON PIPE SET
- P.K. NAIL FOUND
- P.K. NAIL SET

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

REV. BY DATE DESCRIPTION

FIELD REVIEW BY: CS & CP
OWNERSHIP VERIFIED BY: CP
DATE COMPLETED: 11/21/16

TOTAL NUMBER OF :

1 OWNERSHIPS 0 TOTAL TAKES
1 PARCELS 0 OWNERSHIPS W/ STRUCTURES INVOLVED

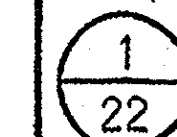
RECORD AREA - TOTAL PRO - NET TAKE = NET RESIDUE

ALL AREAS IN ACRES

PARCEL NO.	OWNER	OWNERS RECORD DEED BOOK & PG.	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS	AS ACQUIRED DEED BOOK & PG.
I-SH	ABD PROPERTIES LLC, AN OHIO LIMITED LIABILITY COMPANY	201412110024554	041-118164-00.001	7.007	0.000	0.320	0.000	0.320	NO	6.687		STATE		
												STATE		

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION.

I:\PROJECTDATA\LIC\92958\DESIGN\RW\SHEETS\92958-RD001.dgn 11/14/16



SPECIFICATIONS

THE CONSTRUCTION AND MATERIALS SPECIFICATIONS OF THE OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING ALL SUPPLEMENTS THERETO, AS WELL AS THE MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION SHALL GOVERN THE MATERIALS AND WORKMANSHIP TO COMPLETE THE IMPROVEMENTS SET FORTH IN THESE PLANS.

UTILITY OWNERS

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THE PROJECT:

WATER: CITY OF HEATH WATER DISTRIBUTION 60 DORSEY MILL RD. EAST HEATH, OH 43056 (740) 522-6282	SANITARY SEWER: CITY OF HEATH SEWAGE TREATMENT PLANT 719 LICKING VIEW DR. HEATH, OH 43056 (740) 522-4802
WATER: CITY OF HEATH WATER TREATMENT 70 DORSEY MILL RD. EAST HEATH, OH 43056 (740) 522-1677	STORM CITY OF HEATH STREET DEPARTMENT 550 DOG LEG ROAD HEATH, OH 43056 (740) 522-4858

GAS: THE ENERGY COOPERATIVE 120 O'NEIL DRIVE HEBRON, OHIO 43025 (740) 348-1254 ATTN: GREG WILSON	POWER: AMERICAN ELECTRIC POWER 777 HOPEWELL DRIVE HEATH, OHIO 43056 (740) 349-4029 ATTN: TERRY WISEMAN
---	---

GAS: COLUMBIA GAS OF OHIO, INC. 2429 LINDEN AVENUE ZANESVILLE, OHIO 43701 (740) 450-1216 ATTN: ERIC MORRISON	TELEPHONE: AT&T OHIO 111 N. 4TH STREET COLUMBUS, OHIO 43215 (614) 223-7276 ATTN: GARY VAN ALMSICK
---	--

CABLE TV:
TIME WARNER CABLE
3760 INTERCHANGE RD.
COLUMBUS, OHIO 43204
(614) 255-6349
ATTN: JOHN MOHLER

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

SURVEYS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL DETAIL SURVEYS NEEDED FOR CONSTRUCTION.

MODIFICATIONS

ANY MODIFICATIONS OR CHANGES TO THE WORK, AS SHOWN ON THE DRAWINGS, MUST HAVE PRIOR WRITTEN APPROVAL BY OHIO DEPARTMENT OF TRANSPORTATION (ODOT) AND THE CITY OF HEATH.

REVIEW OF PROJECT SITE

PRIOR TO BIDDING THE CONTRACTOR SHALL, BY PERSONAL EXAMINATION, SATISFY HIMSELF AS TO THE LOCATION OF THE PROPOSED WORK AND TO ACQUAINT HIMSELF THOROUGHLY WITH THE EXISTING CONDITIONS AND THE DIFFICULTIES THAT ARE LIKELY TO BE ENCOUNTERED IN THE PERFORMANCE OF THE PROPOSED WORK.

IRON PINS AND MONUMENTS

THE CONTRACTOR SHALL REFERENCE ALL IRON PINS AND MONUMENTS BEFORE EXCAVATING AT OR NEAR THEM. IF ANY IRON PINS OR MONUMENTS ARE DESTROYED OR DAMAGED BY THE CONTRACTOR, THEY SHALL BE ACCURATELY REPLACED BY A REGISTERED SURVEYOR EMPLOYED BY THE CONTRACTOR AT THE COMPLETION OF THE PROJECT AND AT NO EXPENSE TO ODOT, THE CITY, OR THE PROPERTY OWNER.

SANITARY FACILITIES

THE CONTRACTOR SHALL FURNISH AND MAINTAIN SANITARY CONVENIENCE FACILITIES FOR THE WORKERS AND INSPECTORS FOR THE DURATION OF THE WORK.

SAFETY

THE CONTRACTOR SHALL SOLELY BE RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS INCLUDING EMPLOYEES AND PROPERTY. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SECURING THE PROJECT SITE FROM THE GENERAL PUBLIC BOTH DURING AND AFTER HIS WORKING HOURS. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN ALL LIGHTS, SIGNS, FENCES OR ANY OTHER SAFETY DEVICE TO PREVENT UNAUTHORIZED PERSONNEL FROM HAZARDOUS OR DANGEROUS CONDITIONS ON THE PROJECT SITE. THE COST OF SUCH WORK SHALL BE INCLUDED IN THE VARIOUS ITEMS BID FOR FURNISHING AND INSTALLING MATERIALS ON THIS PROJECT.

PRIOR TO COMMENCEMENT OF WORK:

A PRECONSTRUCTION CONFERENCE SHALL BE HELD WITH THE CONTRACTOR, THE CITY OF HEATH, ODOT, AND THE PROJECT ENGINEER BEFORE ANY CONSTRUCTION BEGINS. AT THE PRECONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL SUBMIT A PROPOSED SCHEDULE REFLECTING ALL WORK THAT IS TO BE CONDUCTED.

THE CONTRACTOR SHALL NOTIFY ODOT A MINIMUM OF FIVE (5) DAYS BEFORE BEGINNING WORK, HOLIDAYS AND WEEKENDS EXCLUDED. WHEN THE CONTRACTOR SUSPENDS OPERATIONS FOR TWO (2) OR MORE WORKING DAYS, HE SHALL NOTIFY ODOT A MINIMUM OF TWENTY-FOUR(24) HOURS BEFORE RESUMING WORK.

AT LEAST SEVENTY-TWO HOURS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGISTERED UTILITY PROTECTION SERVICE AND THE OWNERS OF EACH UTILITY FACILITY SHOWN IN THE PLANS.

USE OF FIRE HYDRANTS

THE CONTRACTOR IS HEREBY NOTIFIED THAT THE USE OF FIRE HYDRANTS WILL NOT BE PERMITTED AND THAT THE USE OF FIRE HYDRANTS WILL RESULT IN THE CONTRACTOR'S PROSECUTION FOR THEFT OF A PUBLIC UTILITY. THE CONTRACTOR SHALL COORDINATE WITH THE DIVISION OF WATER TO ACCESS THE CITY'S WATER SUPPLY. CONTACT: JOHN GELLER (740)522-1677

WORKING HOURS

WORKING HOURS ARE LIMITED TO 7:00AM TO 7:00PM MONDAY THROUGH FRIDAY & 7:00AM TO 5:00PM ON SATURDAY. NO WORK SHALL BE PERFORMED ON SUNDAY OR ODOT HOLIDAYS WITHOUT PRIOR WRITTEN APPROVAL. IF THE CONTRACTOR NEEDS TO WORK ON A SUNDAY OR A HOLIDAY, HE SHALL SUBMIT HIS REQUEST STATING THE REASONS FOR WORKING THOSE DAYS TO ODOT AND THE CITY A MINIMUM OF TWO BUSINESS DAYS PRIOR TO THE HOLIDAY OR SUNDAY.

LEGAL DIMENSION AND WEIGHT LIMITS

PURSUANT TO SECTIONS 5577.04 AND 5577.05 OHIO REVISED CODE (ORC), LEGAL LIMITS FOR DIMENSIONS AND WEIGHTS FOR HIGHWAY VEHICLES WERE AMENDED EFFECTIVE OCTOBER 1, 1992. THE AMENDED ORC MAY AFFECT THE CONTRACTOR'S COST FOR PERFORMING THE VARIOUS ITEMS OF WORK ON THIS PROJECT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FACTOR ANY ADDITIONAL COSTS RESULTING FROM THE AMENDED ORC INTO THE UNIT BID PRICE FOR THE VARIOUS ITEMS OF WORK TO BE PERFORMED ON THIS PROJECT. NO ADDITIONAL REIMBURSEMENT FOR THE COSTS WILL BE PAID BY ODOT OR THE CITY.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS NOR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER." PAYMENT FOR THESE ITEMS WILL BE MADE ONLY WHEN THE WORK UNDER THE PARTICULAR ITEM HAS BEEN PERFORMED.

EMERGENCY PHONE NUMBER

THE CONTRACTOR SHALL PROVIDE ODOT AND THE CITY OF HEATH WITH A 24 HOUR TELEPHONE NUMBER TO READILY CONTACT A RESPONSIBLE PARTY IN THE CASE OF AN EMERGENCY. COSTS AND/OR DAMAGES INCURRED RELATED TO WORK PERFORMED BY THE CONTRACTOR IN SUCH EMERGENCIES ARE THE CONTRACTOR'S RESPONSIBILITY AND NOT THAT OF ODOT OR THE CITY OF HEATH.

FINAL CLEAN-UP

THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS AND MATERIALS RESULTING FROM HIS OPERATIONS AND RESTORE ALL SURFACES, STRUCTURES, DITCHES, AND PROPERTY TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER.

WORK LIMITS

THE CONTRACTOR SHALL CONFINE HIS ACTIVITIES TO THE PROJECT SITE UNDER DEVELOPMENT OR THE EXISTING RIGHT-OF-WAYS, CONSTRUCTION AND/OR PERMANENT EASEMENTS AND SHALL NOT TRESPASS UPON OTHER PRIVATE PROPERTY WITHOUT THE WRITTEN CONSENT OF THE OWNER.

NON-RUBBER TIRE VEHICLES

NO NONRUBBER TIRE VEHICLES SHALL BE MOVED ON ANY STREETS. EXCEPTIONS MAY BE GRANTED BY ODOT AND THE CITY WHERE SHORT DISTANCES AND SPECIAL CIRCUMSTANCES ARE INVOLVED. GRANTING OF EXCEPTIONS MUST BE IN WRITING AND ANY RESULTING DAMAGE MUST BE REPAIRED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL USE EXTREME CARE WHEN OPERATING NONRUBBER TIRE VEHICLES ON STREETS OR DRIVEWAYS TO AVOID MARKING OR DAMAGING THE PAVEMENT. PROTECTION OF THE PAVEMENT FROM DAMAGE RESULTING FROM THE TRACKS OF NON-RUBBER TIRE VEHICLES UTILIZED IN TRENCH EXCAVATION SHALL BE REQUIRED. A WOOD PLANK SYSTEM, USED TIRES, RUBBER MATS OR OTHER MEANS AS APPROVED BY ODOT AND THE CITY'S REPRESENTATIVE SHALL BE USED TO PROTECT THE PAVEMENT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

INCLUSIVE BID

THE CONTRACTOR'S BID SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE PROJECT. COMPENSATION FOR ANY WORK WHICH DOES NOT HAVE A SPECIFIC PAY ITEM WILL BE INCLUDED IN THE PRICE BID FOR THE INDIVIDUAL ITEMS.

PAVEMENT CLEANING

THE CONTRACTOR IS HEREBY NOTIFIED THAT HE/SHE SHALL BE RESPONSIBLE FOR CLEANING OF STREETS OR ANY MUD, DIRT, SAND, GRAVEL, STONES, OR ANY KIND OF MATERIAL THAT HAVE DEPOSITED AS A RESULT OF HIS/HER OR SUB-CONTRACTOR'S OPERATIONS. PAVEMENTS SHALL BE CLEANED AT THE END OF EACH WORK DAY OR MORE OFTEN AS DETERMINED BY ODOT OR THE CITY.

WEATHER CONDITIONS

ALL CONSTRUCTION AND MATERIAL USAGE SHALL BE IN ACCORDANCE WITH CLIMATIC CONDITIONS ADDRESSED IN CURRENT ISSUE OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS SPECIFICATIONS.

JOINTS AT INTERSECTIONS AND PROJECT LIMITS

ALL JOINTS AT INTERSECTIONS AND BEGIN/END LOCATIONS SHALL BE SEALED BUTT JOINTS AS PER ODOT SCD BP-3.1.

FEATHERING

FEATHERING OF THE ASPHALT CONCRETE SHALL BE DONE IN ACCORDANCE WITH ODOT SCD BP-3.1.

ALIGNMENT AND PROFILE

THE WORK PROPOSED BY THIS PROJECT IS FOR THE RESURFACING OF THE EXISTING PAVEMENT. THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT WILL NOT BE CHANGED.

6/24/2016 10:50:49 AM c:\yh M:\H01\138 Hopewell Paving\89501\Roadway\Sheets\89501GN002.dgn

PAVEMENT MARKING

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

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 40 FEET. 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

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 THE PAVEMENT PLANING AND PAVING OPERATIONS. THE INTENT OF THIS OPERATION IS TO REPAIR THOSE AREAS OF PAVEMENT WHICH HAVE COMPLETELY FAILED (PUMPING OF SUBBASE MATERIAL) AND NOT TO CORRECT SURFACE IRREGULARITIES. DEPTH OF EXCAVATION SHALL BE APPROXIMATELY 7". 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, PG 64-22 (PLACED AND COMPACTED AS DIRECTED). ALL EXCAVATION, MATERIALS, LABOR, EQUIPMENT, TOOLS, TRAFFIC CONTROL, AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE PAID FOR UNDER ITEM 253 PAVEMENT REPAIR

THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

253, PAVEMENT REPAIR 60 CU. YD.

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"

IN ADDITION TO THE WORK REQUIRED UNDER ITEM 254 PAVEMENT PLANING, THE DEPTH OF PAVEMENT PLANING SHALL BE AS DESCRIBED BELOW OR AS DIRECTED BY THE ENGINEER. 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. IN ADDITION THE MILLING WIDTH SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER AT CERTAIN DRIVEWAYS TO REMOVE ANY UNSOUND ASPHALT THAT WOULD BE LEFT BY A SHORT APRON. ANY ADDITIONAL PASSES WITH THE PLANING MACHINE OR VARIATIONS IN DEPTH OF THE PLANING TO MEET ALL OF THESE REQUIREMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE. ALL SPECIFICATIONS OF ITEM 254 SHALL APPLY.

PLANE 1.5" IN DEPTH FULL WIDTH OF PAVEMENT

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. ITEM 408 PRIME COAT, AS PER PLAN, SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT TO PERFORM THE ABOVE MENTIONED WORK.

RESIDENCE 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 TYPICALLY EXTEND 4' INTO THE DRIVEWAY (MEASURED FROM THE EDGE OF PAVEMENT OR PAVED SHOULDER IF PRESENT).

THERE ARE 5 TYPES OF DRIVES: CONCRETE, ASPHALT, GRAVEL, GRAVEL WITH ASPHALT APRON, AND FIELD/OIL WELL DRIVES. FIELD DRIVES AND OIL WELL DRIVES SHALL NOT BE PAVED, GRAVEL DRIVES SHALL BE PAVED BACK 4' INTO THE DRIVEWAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER. CONCRETE AND ASPHALT DRIVES SHALL HAVE BUTT JOINTS OR AS SHORT AN ASPHALT TAPER AS POSSIBLE (PREFERRED 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 (PREFERRED 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 ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 70-22M.

441, ASPHALT CONCRETE SURFACE COURSE, TYPE1, (448), PG 70-22M 7 CU YD

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 DIRECTED, THE CONTRACTOR MAY USE RECYCLED ASPHALT CONCRETE PAVEMENT (RACP MEETING REQUIREMENTS OF 617.02) IN LIEU OF CRUSHED LIMESTONE.

ITEM 611 MANHOLE ADJUSTED TO GRADE, AS PER PLAN
ITEM 638 VALVE BOX ADJUSTED TO GRADE, AS PER PLAN

THESE ITEMS SHALL BE USED TO ADJUST MANHOLES AND WATER VALVE BOXES LOCATED THROUGH OUT THE PROJECT LIMITS AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PLACE A CONCRETE COLLAR AROUND THE VALVE AS PER HEATH STANDARD. ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED SHALL BE INCLUDED FOR PAYMENT WITH THE ITEMS LISTED BELOW.

ANY GAS VALVE BOXES AND TELEPHONE MANHOLES LOCATED WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO GRADE BY THEIR RESPECTIVE OWNERS.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

611, MANHOLE ADJUSTED TO GRADE, AS PER PLAN 7 EACH

638, VALVE BOX ADJUSTED TO GRADE, AS PER PLAN 1 EACH

ITEM 423 - CRACK SEALING, MISC.: SEALING OF CURBS

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR CONTRACTOR'S USE TO SEAL THE JOINT BETWEEN CONCRETE CURB AND ASPHALT PAVEMENT ALONG HOPEWELL DRIVE. THE CONTRACTOR SHALL UTILIZE CRACK SEALING TYPE II OR III.

423, CRACK SEALING, MISC.: SEALING OF CURB 750 FT.

MAINTENANCE OF TRAFFIC

A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND/OR THE COMPLETED PAVEMENT.

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.

PLACING OF THE ASPHALT CONCRETE SURFACE COURSE SHALL OCCUR AS CLOSE BEHIND THE PLANING OPERATION AS POSSIBLE. TRAFFIC SHALL NOT BE PLACED ON THE PLANED SURFACE.

ALL WORK AND TRAFFIC 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 SIGNS

A QUANTITY OF WORK ZONE MARKING SIGNS HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

OW-167 (BEGIN ROAD CONSTRUCTION AHEAD) - 7

OC-8 (END ROAD CONSTRUCTION) - 7

ITEM 614 WORK ZONE PAVEMENT MARKINGS

ONE APPLICATION FOR PAVEMENT MARKINGS HAS BEEN INCLUDED IN THE GENERAL SUMMARY. THE CONTRACTOR SHALL APPLY THE FIRST APPLICATION FOLLOWING PLACEMENT OF THE SURFACE COURSE PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS.

WORK ZONE PAVEMENT MARKINGS SHALL BE IN PLACE AT THE END OF EACH WORK DAY.

ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC

A QUANTITY OF ASPHALT CONCRETE FOR MAINTAINING TRAFFIC HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS AS DIRECTED BY THE ENGINEER.

614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 1 CU. YD.

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ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, TWO CHANGEABLE MESSAGE SIGNS, ON SITE. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIAL 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 OR 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 HIGLY VISIBLE POSITION YET PROTECTED FORM 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 RETROFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

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

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN ONE HOUR FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CABABILITY 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.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN, CONT...

(THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PREPROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.)

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.

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.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MIS-ALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

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 THE OPERATION ON THE PROJECT AS SPECIFIED IN THE PLANS OR BY THE ENGINEER.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGNS 30 DAYS (2 SIGNS 15 DAYS)

ITEM 621 RAISED PAVEMENT MARKER REMOVED

THE CONTRACTOR SHALL REMOVE ALL EXISTING RAISED PAVEMENT MARKERS ON HOPEWELL DRIVE. ALL DEPRESSIONS CREATED BY THE REMOVAL SHALL BE FILLED WITH ASPHALT CONCRETE BY THE END OF THE NEXT WORKDAY AND SHALL BE FLUSH WITH THE PAVEMENT. REMOVED RAISED PAVEMENT MARKERS BECOME THE PROPERTY OF THE CONTRACTOR.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT TO PERFORM THE ABOVE DESCRIBED WORK. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 621 - RAISED PAVEMENT MARKER REMOVED 480 EACH

ITEM 209 LINEAR GRADING

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

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

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

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

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE SUB SUMMARY FOR THE ABOVE PURPOSES.

ITEM 209 LINEAR GRADING
LOCATION 1 - 2.5 MILE

ITEM 632 DETECTOR LOOP, AS PER PLAN, (ANGULAR)

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 AS CURRENTLY CALLED FOR IN THE PLANS. 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 MOTOR-CYCLE 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.

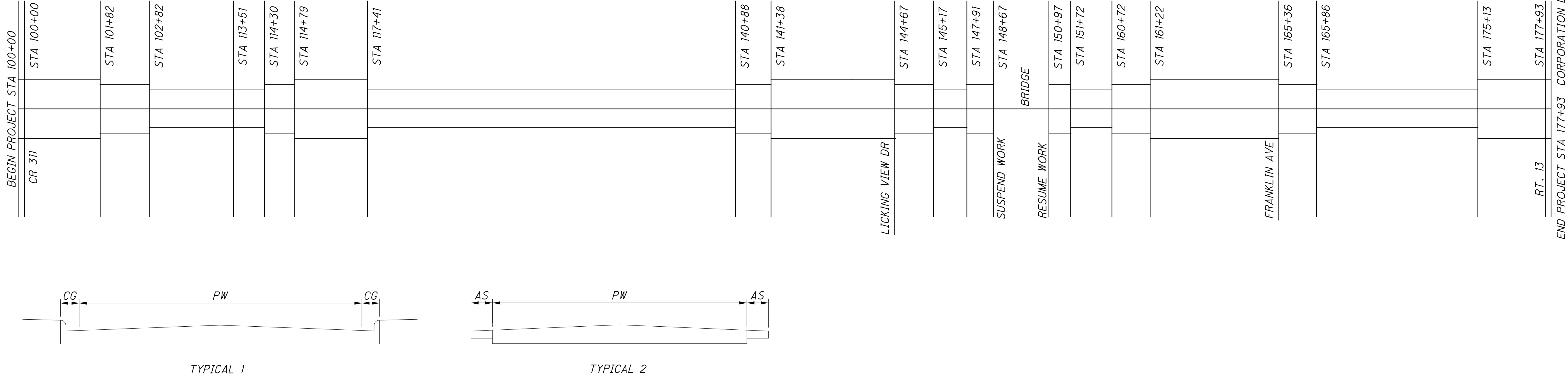
ALL DETECTOR LOOPS SHALL BE CUT INTO THE PLANED SURFACE OR THE PROPOSED INTERMEDIATE COURSE AT A DEPTH OF 4" FROM THE PROPOSED SURFACE ELEVATION. THE CONTRACTOR SHALL TEST ALL LEAD-IN CABLES PRIOR TO MAKING THE FINAL SPLICE. PLACEMENT SHALL BE AS PER SPECIFICATION 632.10. FINAL LOCATIONS, SIZE AND ORIENTATION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

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, (ANGULAR).

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

ITEM 632 DETECTOR LOOP, AS PER PLAN, (ANGULAR)
LOCATION 1 - 3 EACH

LOCATION	COUNTY	ROUTE	BEGIN POINT	LOG STA	END POINT	LOG STA	LENGTH		AVERAGE PAVEMENT WIDTH	TYPICAL	EXISTING PAVEMENT TYPE	PAVEMENT AREA	254	407	408	441		617				
													PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"	NON-TRACKING TACK COAT @ 0.085 GAL/SQ YD	PRIME COAT, AS PER PLAN	THICKNESS	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M	THICKNESS	COMPACTED AGGREGATE, AS PER PLAN (2.0 FT AVERAGE WIDTH)			
							SQ. YD.	SQ. YD.	GAL.				GAL.	INCHES	CU. YD.	INCHES	CU. YD.					
							MILES	FEET	FEET				SQ. YD.	SQ. YD.	GAL.	GAL.	INCHES	CU. YD.	INCHES	CU. YD.		
1	LIC	HOPEWELL DR	100+00		101+82			182	55.0	1	441	1112.3	1112.3	94.5		1.5	46.4					
1	LIC	HOPEWELL DR	101+82		102+82			100	45.5	1	441	505.6	505.6	43.0		1.5	21.1					
1	LIC	HOPEWELL DR	102+82		113+51			1,069	34.5	1	441	4097.9	4097.9	348.3		1.5	170.8					
1	LIC	HOPEWELL DR	113+51		114+30			79	33.1	2	441	290.6	290.6	24.7	14.1	1.5	12.1	2.0	2.0			
1	LIC	HOPEWELL DR	114+30		114+79			49	39.0	2	441	212.4	212.4	18.1	8.8	1.5	8.9	2.0	1.2			
1	LIC	HOPEWELL DR	114+79		117+41			262	39.7	2	441	1155.8	1155.8	98.2	46.6	1.5	48.2	2.0	6.5			
1	LIC	HOPEWELL DR	117+41		140+88			2,347	33.7	2	441	8788.3	8788.3	747.0	417.3	1.5	366.2	2.0	58.0			
1	LIC	HOPEWELL DR	140+88		141+38			49	39.4	2	441	214.6	214.6	18.2	8.8	1.5	9.0	2.0	1.2			
1	LIC	HOPEWELL DR	141+38		143+98			261	46.6	2	441	1351.4	1351.4	114.9	46.4	1.5	56.3	2.0	6.5			
1	LIC	HOPEWELL DR	143+98		144+67			69	47.1	2	441	361.1	361.1	30.7	12.3	1.5	15.1	2.0	1.7			
1	LIC	HOPEWELL DR	144+67		145+17			51	40.7	2	441	230.7	230.7	19.6	9.1	1.5	9.6	2.0	1.3			
1	LIC	HOPEWELL DR	145+17		147+91			273	34.6	2	441	1049.6	1049.6	89.2	48.6	1.5	43.8	2.0	6.8			
1	LIC	HOPEWELL DR	147+91		148+67			76	39.2	2	441	331.1	331.1	28.1	13.6	1.5	13.8	2.0	1.9			
1	LIC	HOPEWELL DR	150+97		151+72			266	43.3	2	441	1279.8	1279.8	108.8	47.3	1.5	53.4	2.0	6.6			
1	LIC	HOPEWELL DR	151+72		160+72			900	34.3	2	441	3430.0	3430.0	291.6	160.0	1.5	143.0	2.0	22.3			
1	LIC	HOPEWELL DR	160+72		161+22			50	40.3	2	441	223.9	223.9	19.0	8.9	1.5	9.4	2.0	1.3			
1	LIC	HOPEWELL DR	161+22		165+36			414	45.8	2	441	2106.8	2106.8	179.1	73.6	1.5	87.8	2.0	10.3			
1	LIC	HOPEWELL DR	165+36		165+86			49	39.7	2	441	216.2	216.2	18.4	8.8	1.5	9.0	2.0	1.2			
1	LIC	HOPEWELL DR	165+86		175+13			928	33.6	2	441	3464.6	3464.6	294.5	165.0	1.5	144.4	2.0	23.0			
1	LIC	HOPEWELL DR	175+13		177+93			280	33.0	2	441	1026.7	1026.7	87.3	49.8	1.5	42.8	2.0	7.0			
TOTALS CARRIED TO GENERAL SUMMARY													31,450	2,674	1,139		1,312		159			

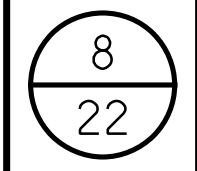


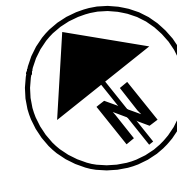
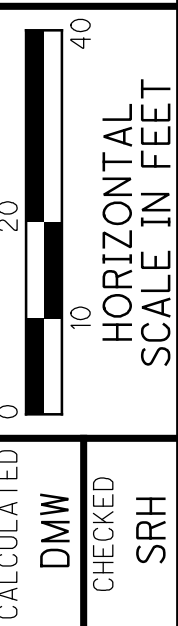
PW = PAVEMENT WIDTH
CG = CURB AND GUTTER
AS = AGGREGATE SHOULDER

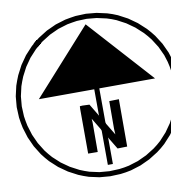
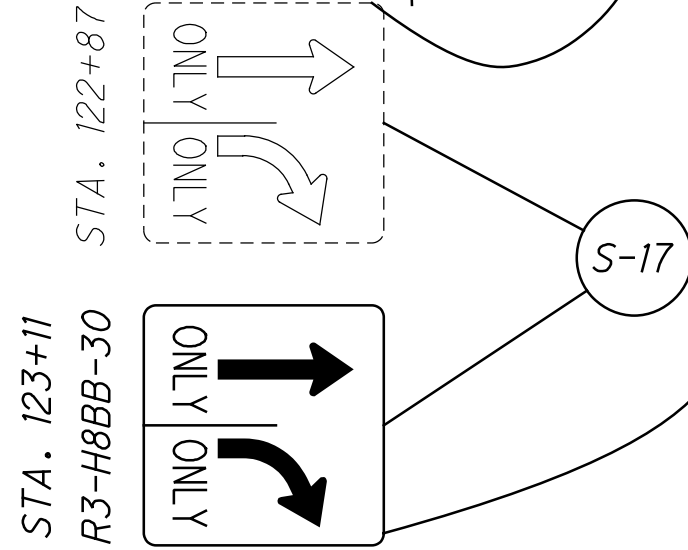
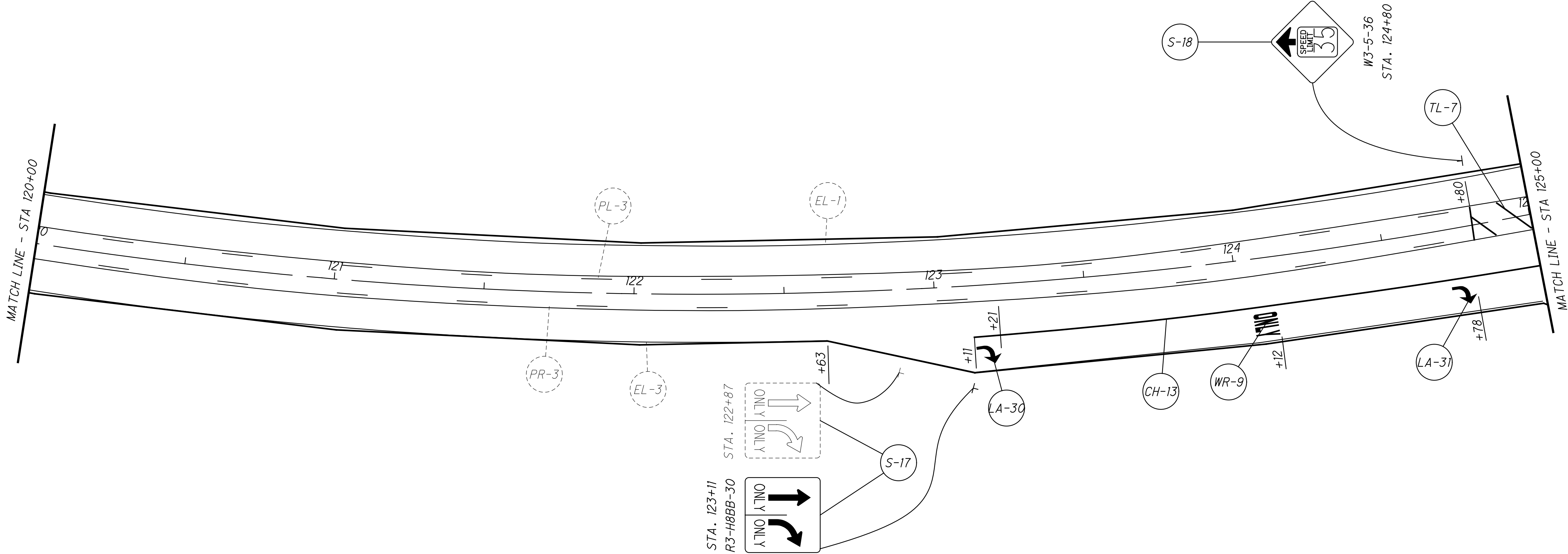
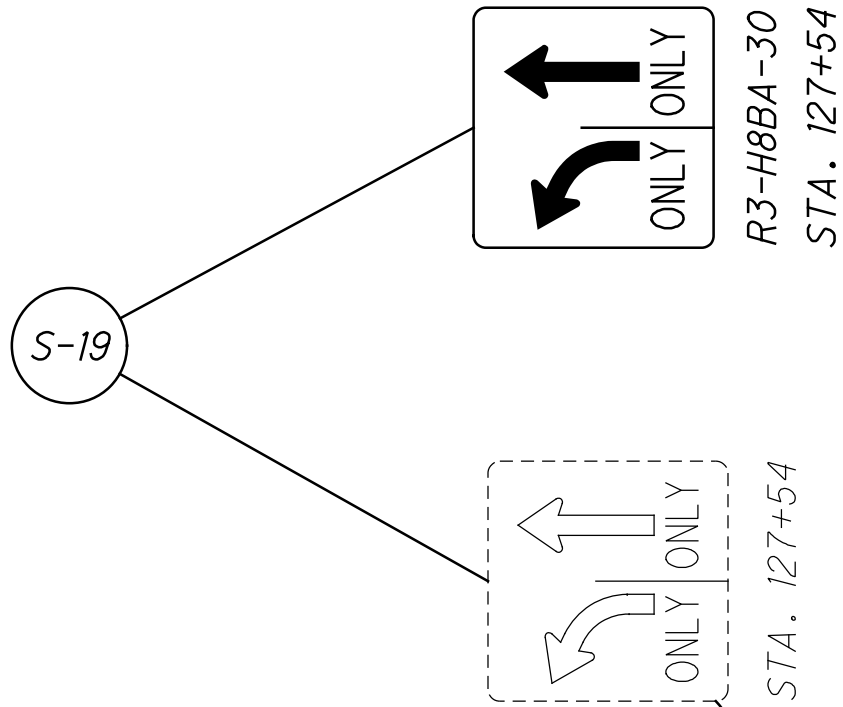
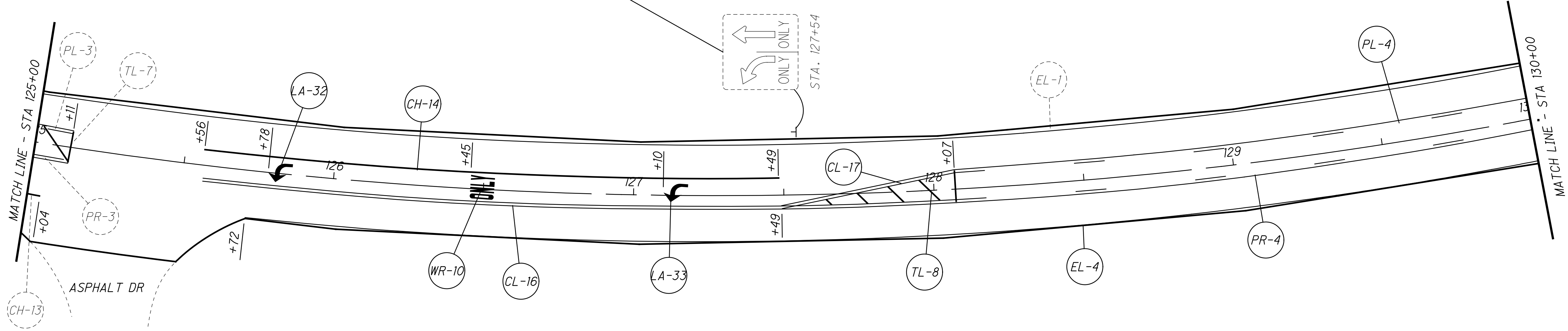
ASPHALT CONCRETE DATA

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(HOPEWELL DR)

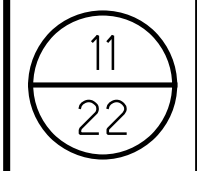
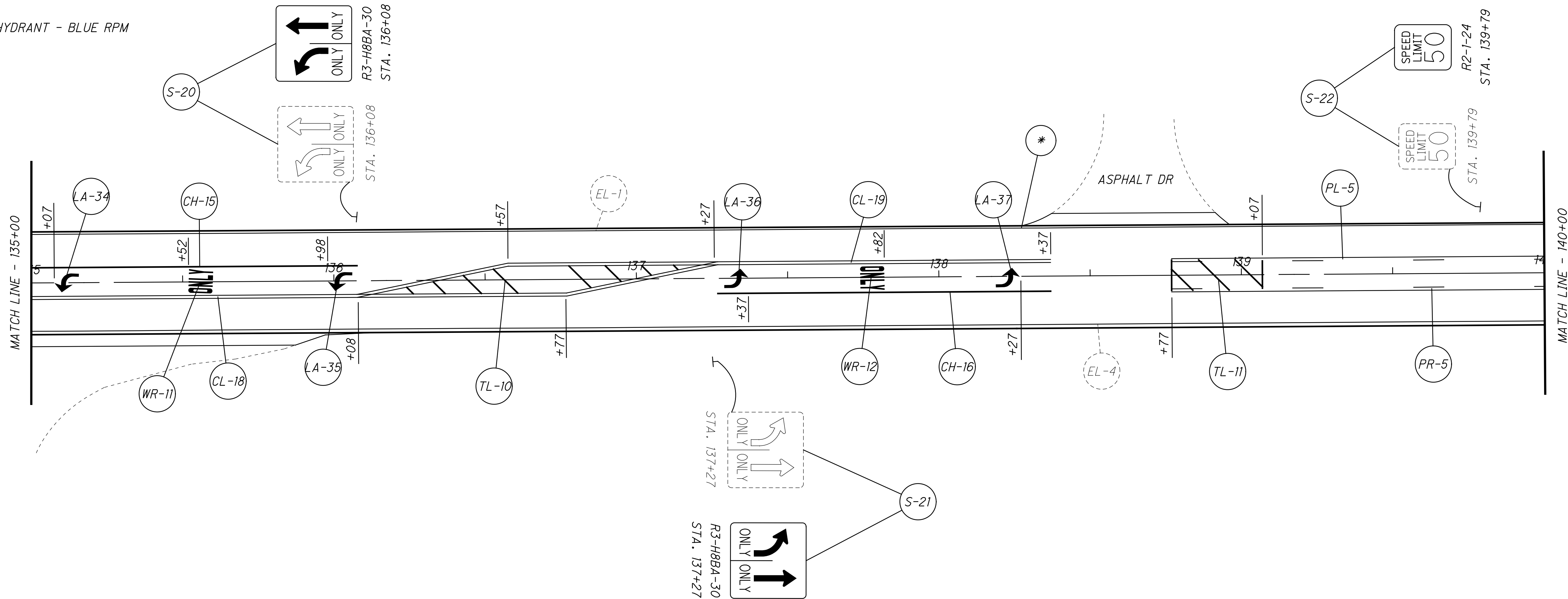

$$\frac{7}{22}$$

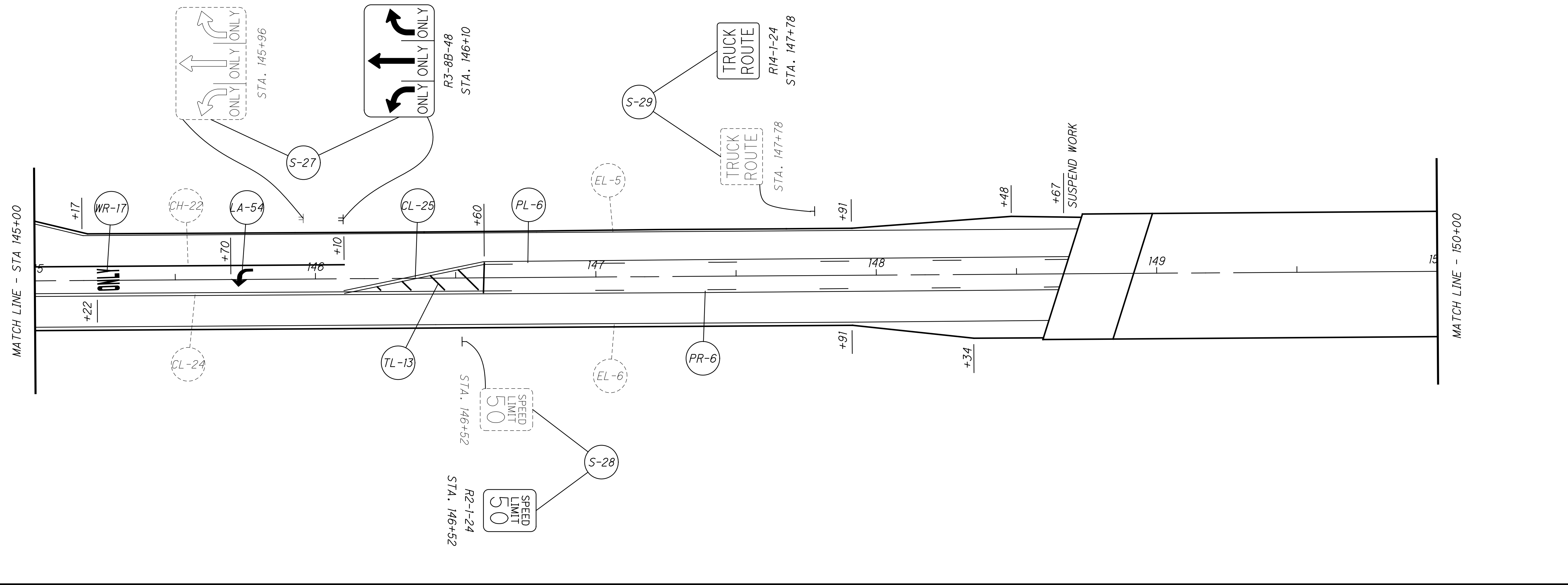
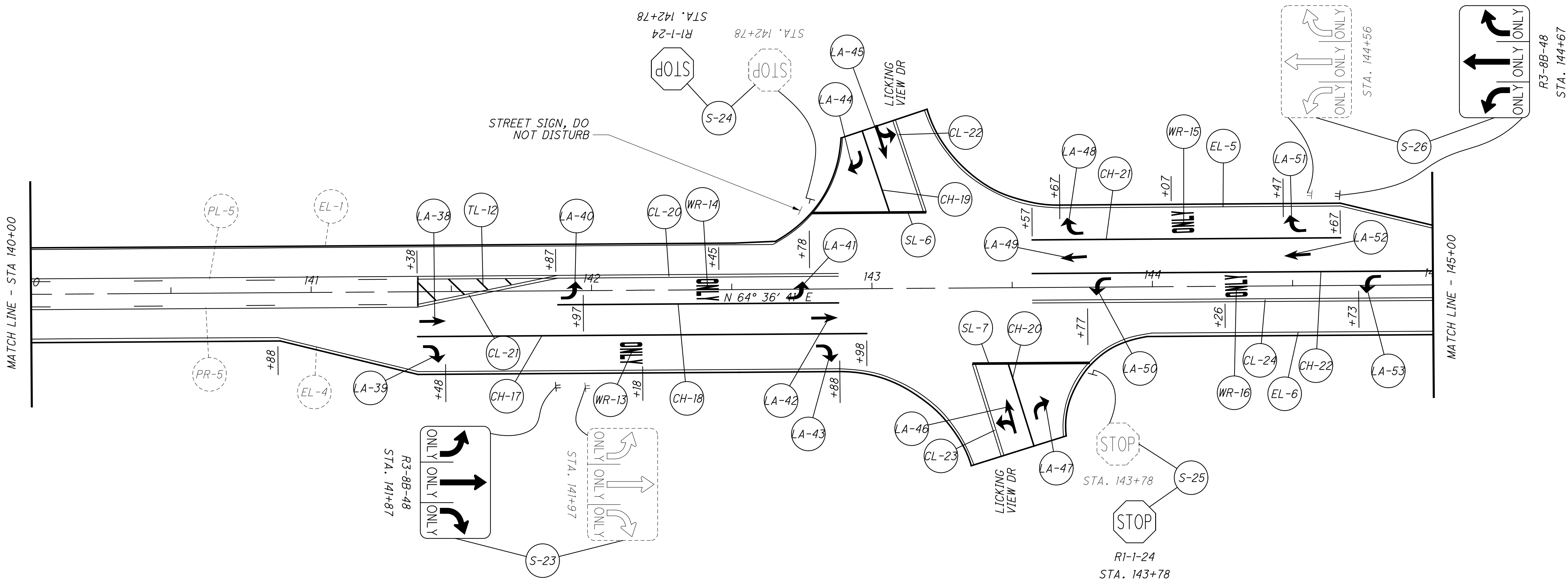


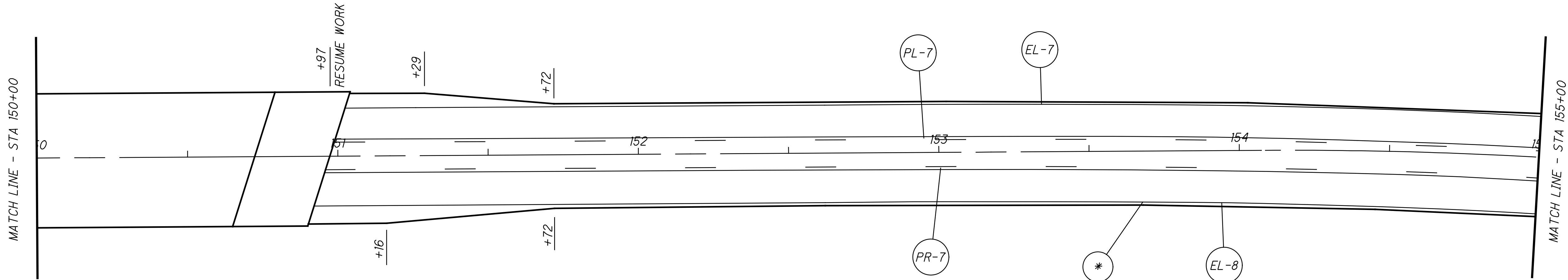
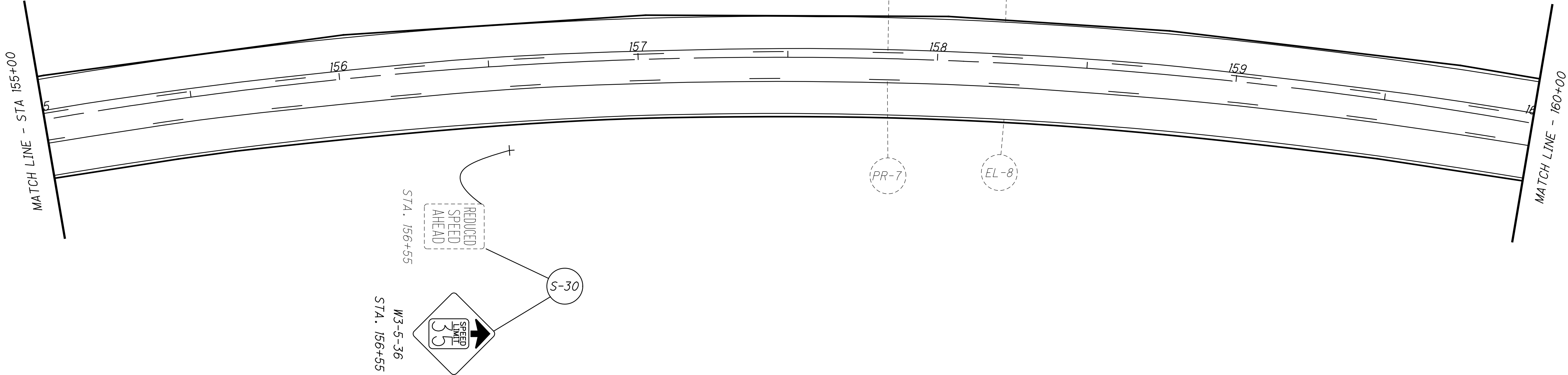




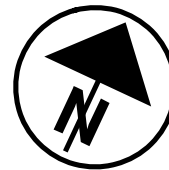
* FIRE HYDRANT - BLUE RPM

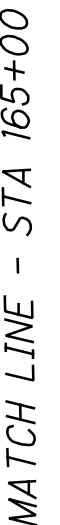
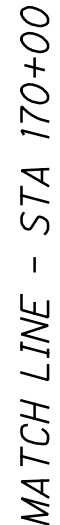


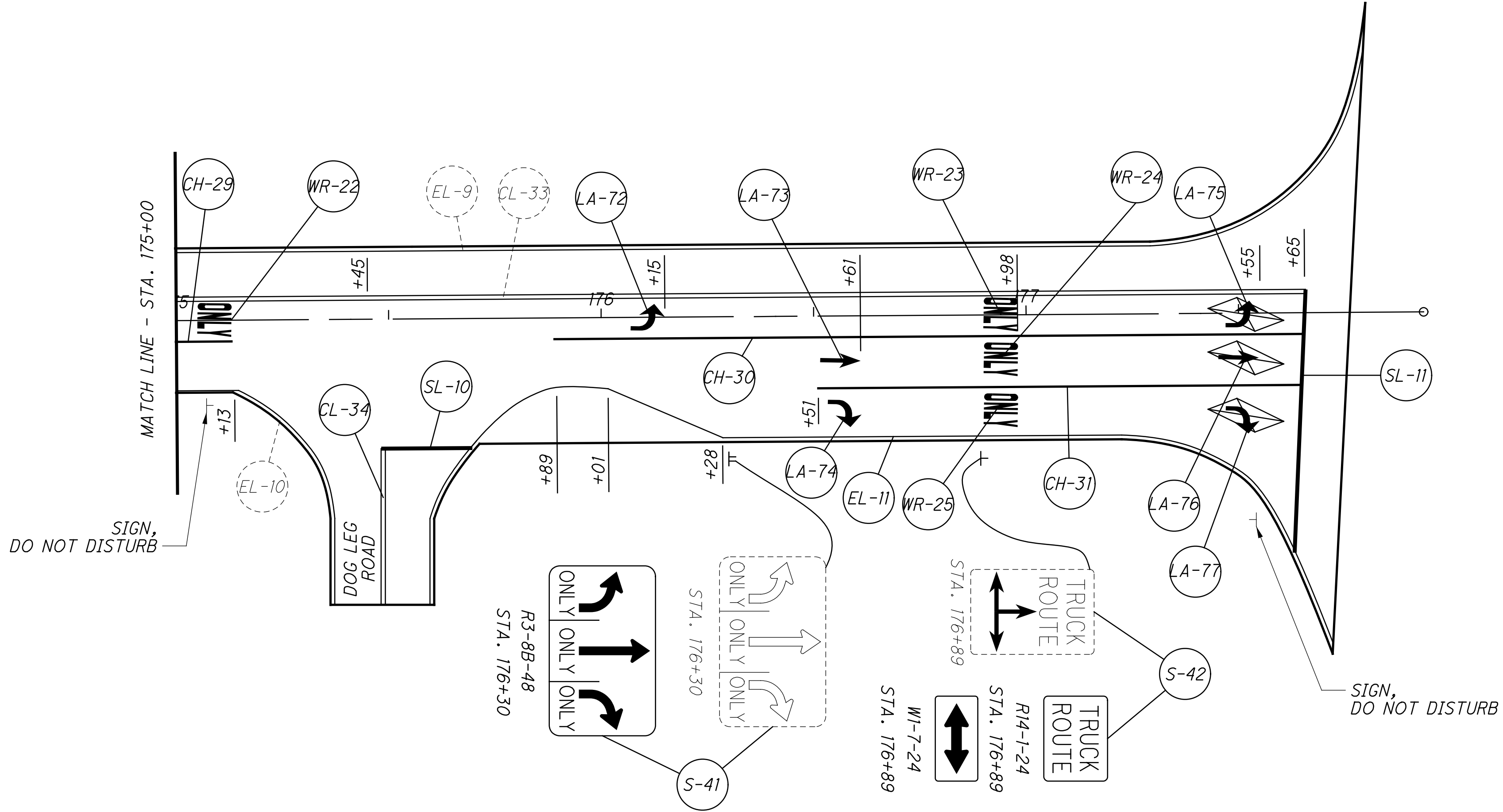




* FIRE HYDRANT - BLUE RPM







MATCH LINE - STA 170+00

STA. 171+48
R2-1-24
STA. 171+48

SPEED
LIMIT
35

S-38

EL-9

EL-10

PL-8

PR-8

S-39

SPEED
LIMIT
35

R2-1-24
STA. 174+19

STA. 174+19

TL-16

LA-71

CL-33

STA. 174+65

S-40

MATCH LINE - STA 175+00

SHEET NO.	REFERENCE NO.	ROUTE	STATION		LANE SIDE	614	614	614	644	644	644	644	644	644	644	644	621			SPACING			
						WORK ZONE CENTERLINE CLASS II	WORK ZONE CHANNELIZING LINE CLASS III	WORK ZONE STOP LINE CLASS III	EDGE LINE	CENTER LINE	CHANNELIZING LINE	STOP LINE	TRANSVERSE LINE	LANE ARROW	WORD ON PAVEMENT, 96 INCH	DOTTED LINE, 12 INCH	RAISED PAVEMENT MARKING						
			FROM	TO		MILE	FT	FT	MILE	MILE	FT	FT	FT	FT	EACH	EACH	FT		EACH				
																	W	Y/Y	W/R				
8	LA-1	HOPEWELL	100+23	100+23	LT										1								
8	LA-2	HOPEWELL	100+23	100+23	LT										1								
8	LA-3	HOPEWELL	100+53	100+53	LT										1								
8	LA-4	HOPEWELL	100+53	100+53	RT										1								
8	LA-5	HOPEWELL	101+60	101+60	LT										1								
8	LA-6	HOPEWELL	101+60	101+60	LT										1								
8	LA-7	HOPEWELL	101+60	101+60	LT										1								
8	LA-8	HOPEWELL	101+60	101+60	RT										1								
8	LA-9	HOPEWELL	103+01	103+01	℄										2								
8	LA-10	HOPEWELL	104+51	104+51	℄										2								
8	LA-11	HOPEWELL	106+01	106+01	℄										2								
8	LA-12	HOPEWELL	107+65	107+65	RT										1								
8	LA-13	HOPEWELL	107+65	107+65	RT										1								
8	LA-14	INDUSTRIAL	108+21	108+21	LT										1								
8	LA-15	INDUSTRIAL	108+23	108+23	RT										1								
8	LA-16	INDUSTRIAL	108+34	108+34	RT										1								
8	LA-17	HOPEWELL	108+83	108+83	LT										1								
8	LA-18	HOPEWELL	108+83	108+83	℄										1								
9	LA-19	HOPEWELL	110+08	110+08	℄										1								
9	LA-20	HOPEWELL	111+52	111+52	℄										1								
9	LA-21	HOPEWELL	112+48	112+48	℄										1								
9	LA-22	HOPEWELL	114+95	114+95	℄										1								
9	LA-23	HOPEWELL	114+95	114+95	RT										1								
9	LA-24	HOPEWELL	114+95	114+95	RT										1								
9	LA-25	HOPEWELL	116+41	116+41	RT										1								
9	LA-26	HOPEWELL	116+41	116+41	RT										1								
9	LA-27	HOPEWELL	116+41	116+41	℄										1								
9	LA-28	HOPEWELL	117+61	117+61	℄										1								
9	LA-29	HOPEWELL	119+22	119+22	℄										1								
10	LA-30	HOPEWELL	123+21	123+21	RT										1								
10	LA-31	HOPEWELL	124+78	124+78	RT										1								
10	LA-32	HOPEWELL	125+78	125+78	℄										1								
10	LA-33	HOPEWELL	127+10	127+10	℄										1								
11	LA-34	HOPEWELL	135+07	135+07	℄										1								
11	LA-35	HOPEWELL	135+98	135+98	℄										1								
11	LA-36	HOPEWELL	137+37	137+37	℄										1								
11	LA-37	HOPEWELL	138+27	138+27	℄										1								
12	LA-38	HOPEWELL	141+48	141+48	RT										1								
12	LA-39	HOPEWELL	141+48	141+48	RT										1								
12	LA-40	HOPEWELL	141+97	141+97	℄										1								
12	LA-41	HOPEWELL	142+78	142+78	℄										1								
12	LA-42	HOPEWELL	142+88	142+88	RT										1								
12	LA-43	HOPEWELL	142+88	142+88	RT										1								
12	LA-44	LICKING VIEW	142+95	142+95	LT										1								
12	LA-45	LICKING VIEW	143+05	143+05	LT										1								
12	LA-46	LICKING VIEW	143+47	143+47	RT										1								
12	LA-47	LICKING VIEW	143+59	143+59	RT										1								
12	LA-48	HOPEWELL	143+67	143+67	LT										1								
12	LA-49	HOPEWELL	143+67	143+67	LT										1								
12	LA-50	HOPEWELL	143+77	143+77	℄										1								
TOTALS CARRIED TO GENERAL SUMMARY															53								

CALCULATED

DMW

CHECKED

SRH

LIC-CR 311-0.000
(HOPEWELL DR)

16

22

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SHEET NO.	REFERENCE NO.	ROUTE	STATION		LANE SIDE	614	614	614	644	644	644	644	644	644	644	644	621	SPACING					CALCULATED	DWV CHECKED	SRH
						WORK ZONE CENTERLINE CLASS II	WORK ZONE CHANNELIZING LINE CLASS III	WORK ZONE STOP LINE CLASS III	EDGE LINE	CENTER LINE	CHANNELIZING LINE	STOP LINE	TRANSVERSE LINE	LANE ARROW	WORD ON PAVEMENT, 96 INCH	DOTTED LINE, 12 INCH	RAISED PAVEMENT MARKING								
			FROM	TO		MILE	FT	FT	MILE	MILE	FT	FT	FT	EACH	EACH	FT	B								
12	LA-51	HOPEWELL	144+47	144+47	LT									1											
12	LA-52	HOPEWELL	144+47	144+47	LT									1											
12	LA-53	HOPEWELL	144+73	144+73	℄									1											
12	LA-54	HOPEWELL	145+70	145+70	℄									1											
14	LA-55	HOPEWELL	161+32	161+32	RT									1											
14	LA-56	HOPEWELL	161+32	161+32	RT									1											
14	LA-57	HOPEWELL	161+99	161+99	℄									1											
14	LA-58	HOPEWELL	162+87	162+87	RT									1											
14	LA-59	HOPEWELL	162+87	162+87	RT									1											
14	LA-60	HOPEWELL	163+02	163+02	℄									1											
14	LA-61	FRANKLIN	163+56	163+56	LT									1											
14	LA-62	FRANKLIN	163+66	163+66	LT									1											
14	LA-63	FRANKLIN	163+68	163+68	RT									1											
14	LA-64	FRANKLIN	163+81	163+81	RT									1											
14	LA-65	HOPEWELL	164+23	164+23	℄									1											
14	LA-66	HOPEWELL	164+23	164+23	LT									1											
14	LA-67	HOPEWELL	164+23	164+23	LT									1											
14	LA-68	HOPEWELL	165+26	165+26	LT									1											
14	LA-69	HOPEWELL	165+26	165+26	LT									1											
14	LA-70	HOPEWELL	165+26	165+26	℄									1											
15	LA-71	HOPEWELL	174+75	174+75	℄									1											
15	LA-72	HOPEWELL	176+15	176+15	℄									1											
15	LA-73	HOPEWELL	176+61	176+61	RT									1											
15	LA-74	HOPEWELL	176+61	176+61	RT									1											
15	LA-75	HOPEWELL	177+55	177+55	℄									1											
15	LA-76	HOPEWELL	177+55	177+55	RT									1											
15	LA-77	HOPEWELL	177+55	177+55	RT									1											
8	WR-1	HOPEWELL	100+91	100+91	LT										1										
8	WR-2	HOPEWELL	100+91	100+91	LT										1										
8	WR-3	HOPEWELL	100+91	100+91	LT										1										
8	WR-4	HOPEWELL	100+91	100+91	℄										1										
9	WR-5	HOPEWELL	112+00	112+00	℄										1										
9	WR-6	HOPEWELL	115+71	115+71	℄										1										
9	WR-7	HOPEWELL	115+71	115+71	RT										1										
9	WR-8	HOPEWELL	118+42	118+42	℄										1										
10	WR-9	HOPEWELL	124+12	124+12	RT										1										
10	WR-10	HOPEWELL	126+45	126+45	℄										1										
11	WR-11	HOPEWELL	135+52	135+52	℄										1										
11	WR-12	HOPEWELL	137+82	137+82	℄										1										
12	WR-13	HOPEWELL	142+18	142+18	RT										1										
12	WR-14	HOPEWELL	142+45	142+45	℄										1										
12	WR-15	HOPEWELL	144+07	144+07	RT										1										
12	WR-16	HOPEWELL	144+26	144+26	℄										1										
12	WR-17	HOPEWELL	145+22	145+22	℄										1										
13	WR-18	HOPEWELL	161+89	161+89	RT										1										
13	WR-19	HOPEWELL	162+51	162+51	℄										1										
13	WR-20	HOPEWELL	164+73	164+73	LT										1										
TOTALS CARRIED TO GENERAL SUMMARY														27	20										

CALCULATED
DMW
CHECKED
SRH

PAVEMENT MARKING SUBSUMMARY

LIC-CR 311-0.000
(HOPEWELL DR)

17
22

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SHEET NO.	REFERENCE NO.	ROUTE	STATION		LANE SIDE	614	614	614	644	644	644	644	644	644	644	644	644	621			SPACING							CALCULATED DMW CHECKED SRH
						WORK ZONE CENTERLINE CLASS II	WORK ZONE CHANNELIZING LINE CLASS III	WORK ZONE STOP LINE CLASS III	EDGE LINE	CENTER LINE	CHANNELIZING LINE	STOP LINE	TRANSVERSE LINE	LANE ARROW	WORD ON PAVEMENT, 96 INCH	DOTTED LINE, 12 INCH		RAISED PAVEMENT MARKING										
			FROM	TO		MILE	FT	FT	MILE	MILE	FT	FT	FT	FT	EACH	EACH	FT		EACH									
						B	Y/Y	W/R																				
14	WR-21	HOPEWELL	164+73	164+73	℄											1												
15	WR-22	HOPEWELL	175+13	175+13	℄											1												
15	WR-23	HOPEWELL	176+98	176+98	℄											1												
15	WR-24	HOPEWELL	176+98	176+98	RT											1												
15	WR-25	HOPEWELL	176+98	176+98	RT											1												
8	SL-1	HOPEWELL	100+15	100+15	LT							25.4																
8	SL-2	HOPEWELL	100+49	100+49	LT							22.0																
8	SL-3	INDUSTRIAL	107+96	108+27	LT							31.2																
8	SL-4	INDUSTRIAL	108+17	108+47	RT							30.4																
9	SL-5	KENSINGTON	116+95	117+17	RT							30.4																
12	SL-6	LICKING VIEW	142+79	143+19	LT							40.0																
12	SL-7	LICKING VIEW	143+36	143+77	RT							41.0																
14	SL-8	FRANKLIN	163+42	163+70	LT							28.0																
14	SL-9	FRANKLIN	163+64	163+92	RT							28.0																
15	SL-10	DOG LEG	175+53	175+84	RT							30.9																
15	SL-11	HOPEWELL	177+65	177+65	RT							54.5																
8	CL-1	HOPEWELL	100+49	102+33	LT	.04				.04								3			80'							
8	CL-2	HOPEWELL	101+83	102+33	LT & RT	.01				.01								3			*							
8	CL-3	HOPEWELL	106+74	107+75	LT	.02				.02								3			80'							
8	CL-4	HOPEWELL	106+74	107+24	LT & RT	.01				.01								3			*							
8	CL-5	INDUSTRIAL	108+27	108+27	LT	.01				.01																		
8	CL-6	INDUSTRIAL	108+17	108+17	RT	.01				.01																		
8	CL-7	HOPEWELL	108+70	110+18	LT & RT	.03				.03								4			80'							
9	CL-8	HOPEWELL	110+37	110+83	LT	.01				.01								2			80'							
9	CL-9	HOPEWELL	110+37	1110+83	RT	.01				.01								2			80'							
9	CL-10	HOPEWELL	111+23	113+07	RT	.04				.04								3			80'							
9	CL-11	HOPEWELL	112+58	113+07	LT & RT	.01				.01								3			*							
9	CL-12	HOPEWELL	114+30	116+71	LT	.05				.05								4			80'							
9	CL-13	HOPEWELL	114+30	114+80	LT & RT	.01				.01								3			80' *							
9	CL-14	HOPEWELL	117+31	119+81	RT	.05				.05								4			80'							
9	CL-15	HOPEWELL	119+32	119+81	LT & RT	.01				.01								3			*							
10	CL-16	HOPEWELL	125+56	128+07	RT	.05				.05								4			80'							
10	CL-17	HOPEWELL	127+49	128+07	LT & RT	.01				.01								3			*							
11	CL-18	HOPEWELL	134+97	137+27	LT & RT	.09				.05								6			80' *							
11	CL-19	HOPEWELL	136+08	138+37	LT & RT	.05				.05								6			80' *							
12	CL-20	HOPEWELL	141+38	142+88	LT	.03				.03								2			80'							
12	CL-21	HOPEWELL	141+38	141+87	LT & RT	.01				.01								3			*							
12	CL-22	LICKING VIEW	143+08	143+19	LT	.01				.01																		
12	CL-23	LICKING VIEW	143+36	143+46	RT	.01				.01																		
12	CL-24	HOPEWELL	143+57	146+60	RT	.06				.06								4			80'							
12	CL-25	HOPEWELL	146+10	146+60	LT & RT	.01				.01								3			*							
14	CL-26	HOPEWELL	161+39	163+12	LT	.04				.04								3			80'							
14	CL-27	HOPEWELL	161+39	161+89	LT & RT	.01				.01								3			*							
14	CL-28	FRANKLIN	163+70	163+75	LT	.02				.02																		
14	CL-29	FRANKLIN	163+59	163+64	RT	.02				.02																		
14	CL-30	HOPEWELL	164+13	165+86	RT	.06				.06								3			80'							
14	CL-31	HOPEWELL	165+36	165+86	LT & RT	.01				.01								3			*							
15	CL-32	HOPEWELL	174+14	174+65	LT & RT	.01				.01								3			*							
15	CL-33	HOPEWELL	174+65	177+65	LT	.07				.07								5			80'							
15	CL-34	DOG LEG	175+53	175+53	RT	.01				.01																		
TOTALS CARRIED TO GENERAL SUMMARY						.86		362		.86		362			5			91										
																		91										

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SHEET NO.	REFERENCE NO.	ROUTE	STATION		LANE SIDE	614	614	614	644	644	644	644	644	644	644	644	644	621			SPACING				
						WORK ZONE CENTERLINE CLASS II	WORK ZONE CHANNELIZING LINE CLASS III	WORK ZONE STOP LINE CLASS III	EDGE LINE	CENTER LINE	CHANNELIZING LINE	STOP LINE	TRANSVERSE LINE	LANE ARROW	WORD ON PAVEMENT, 96 INCH	DOTTED LINE, 12 INCH	RAISED PAVEMENT MARKING								
			FROM	TO		MILE	FT	FT	MILE	MILE	FT	FT	FT	EACH	EACH	FT	B	Y/Y	W/R						
8	CH-1	HOPEWELL	100+15	101+83	LT		168				168								5	40'					
8	CH-2	HOPEWELL	100+15	101+83	LT		168				168								5	40'					
8	CH-3	HOPEWELL	100+49	101+83	LT		134				134								4	40'					
8	CH-4	HOPEWELL	107+24	107+75	RT		51				51								3	*					
8	CH-5	INDUSTRIAL	108+15	108+15	LT		25				25														
8	CH-6	INDUSTRIAL	108+29	108+29	RT		29				29														
8	CH-7	HOPEWELL	108+70	109+23	LT		53				53								3	*					
8	CH-8	HOPEWELL	109+68	110+18	RT		50				50								3	*					
9	CH-9	HOPEWELL	111+23	112+58	LT		135				135								4	40'					
9	CH-10	HOPEWELL	114+80	116+71	RT		191				191								5	40'					
9	CH-11	HOPEWELL	114+80	116+58	RT		178				178								5	40'					
9	CH-12	HOPEWELL	117+31	119+32	LT		201				201								5	40'					
10	CH-13	HOPEWELL	123+11	125+04	RT		193				193								5	40'					
10	CH-14	HOPEWELL	125+56	127+49	LT		193				193								5	40'					
11	CH-15	HOPEWELL	134+97	136+08	RT		111				111								3	40'					
11	CH-16	HOPEWELL	137+27	138+37	LT		110				110								3	40'					
12	CH-17	HOPEWELL	141+38	142+98	RT		160				160								3	40'					
12	CH-18	HOPEWELL	141+87	142+88	RT		101				101								3	40'					
12	CH-19	LICKING VIEW	142+97	143+07	LT		31				31														
12	CH-20	LICKING VIEW	143+49	143+57	RT		31				31														
12	CH-21	HOPEWELL	143+57	144+67	LT		110				110								3	40'					
12	CH-22	HOPEWELL	143+57	146+10	LT		253				253								7	40'					
14	CH-23	HOPEWELL	161+22	162+97	RT		175				175								3	40'					
14	CH-24	HOPEWELL	161+89	163+12	RT		123				123								3	40'					
14	CH-25	FRANKLIN	163+60	163+64	LT		31				31														
14	CH-26	FRANKLIN	163+71	163+74	RT		43				43														
14	CH-27	HOPEWELL	164+13	165+36	LT		123				123								3	40'					
14	CH-28	HOPEWELL	164+13	165+36	LT		123				123								3	40'					
15	CH-29	HOPEWELL	174+65	175+13	RT		48				48								7	40'					
15	CH-30	HOPEWELL	175+89	177+65	RT		176				176								7	40'					
15	CH-31	HOPEWELL	176+51	177+65	RT		114				114								3	40'					
8	PL-1	HOPEWELL	102+33	106+74	LT	.09				.09									6	80'					
9	PL-2	HOPEWELL	113+07	114+30	LT	.03				.03									2	80'					
9	PL-3	HOPEWELL	119+81	125+11	LT	.10				.10									7	80'					
10	PL-4	HOPEWELL	128+07	134+62	RT	.13				.13									9	80'					
11	PL-5	HOPEWELL	138+77	141+38	LT	.05				.05									4	80'					
12	PL-6	HOPEWELL	146+60	148+67	LT	.04				.04									4	80'					
13	PL-7	HOPEWELL	150+97	161+39	LT	.20				.20									14	80'					
14	PL-8	HOPEWELL	165+86	174+14	LT	.16				.16									11	80'					
8	PR-1	HOPEWELL	102+33	106+74	RT	.09				.09									6	80'					
9	PR-2	HOPEWELL	113+07	114+06	RT	.03				.03									2	80'					
9	PR-3	HOPEWELL	119+81	125+11	RT	.10				.10									7	80'					
10	PR-4	HOPEWELL	128+07	134+62	RT	.13				.13									9	80'					
11	PR-5	HOPEWELL	138+77	141+38	RT	.05				.05									4	80'					
12	PR-6	HOPEWELL	146+60	148+67	RT	.04				.04									20	80'					
13	PR-7	HOPEWELL	150+97	161+39	RT	.20				.20									14	80'					
14	PR-8	HOPEWELL	165+86	174+14	RT	.16				.16									11	80'					
TOTALS CARRIED TO GENERAL SUMMARY						1.60	3632			1.60	3632							130	96						
																		226							

19

22

PAVEMENT MARKING SUBSUMMARY

LIC-CR 311-0.000
(HOPEWELL DR)

CALCULATED

DMW
CHECKED

SRH

CALCULATED
DMW
CHECKED
SRH

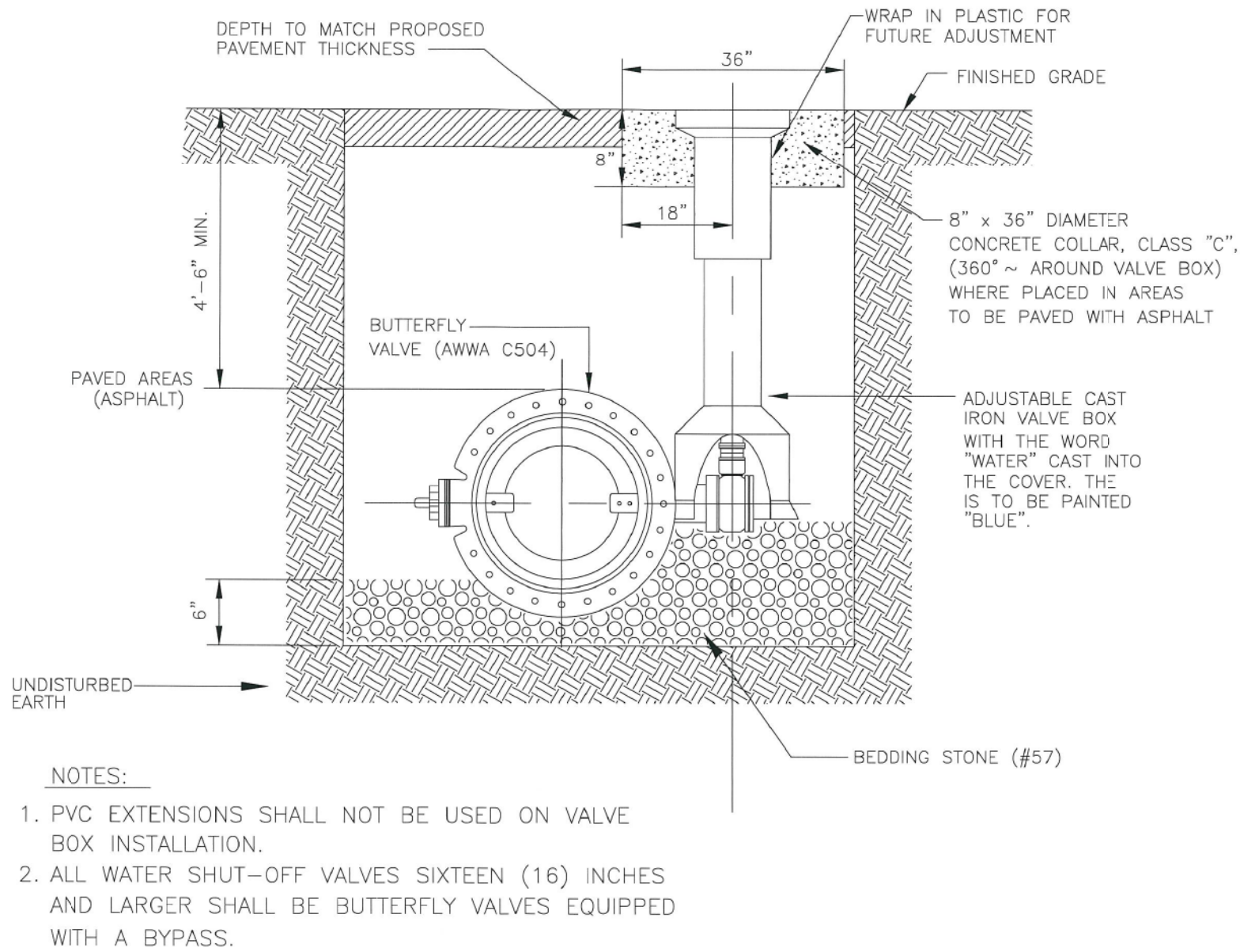
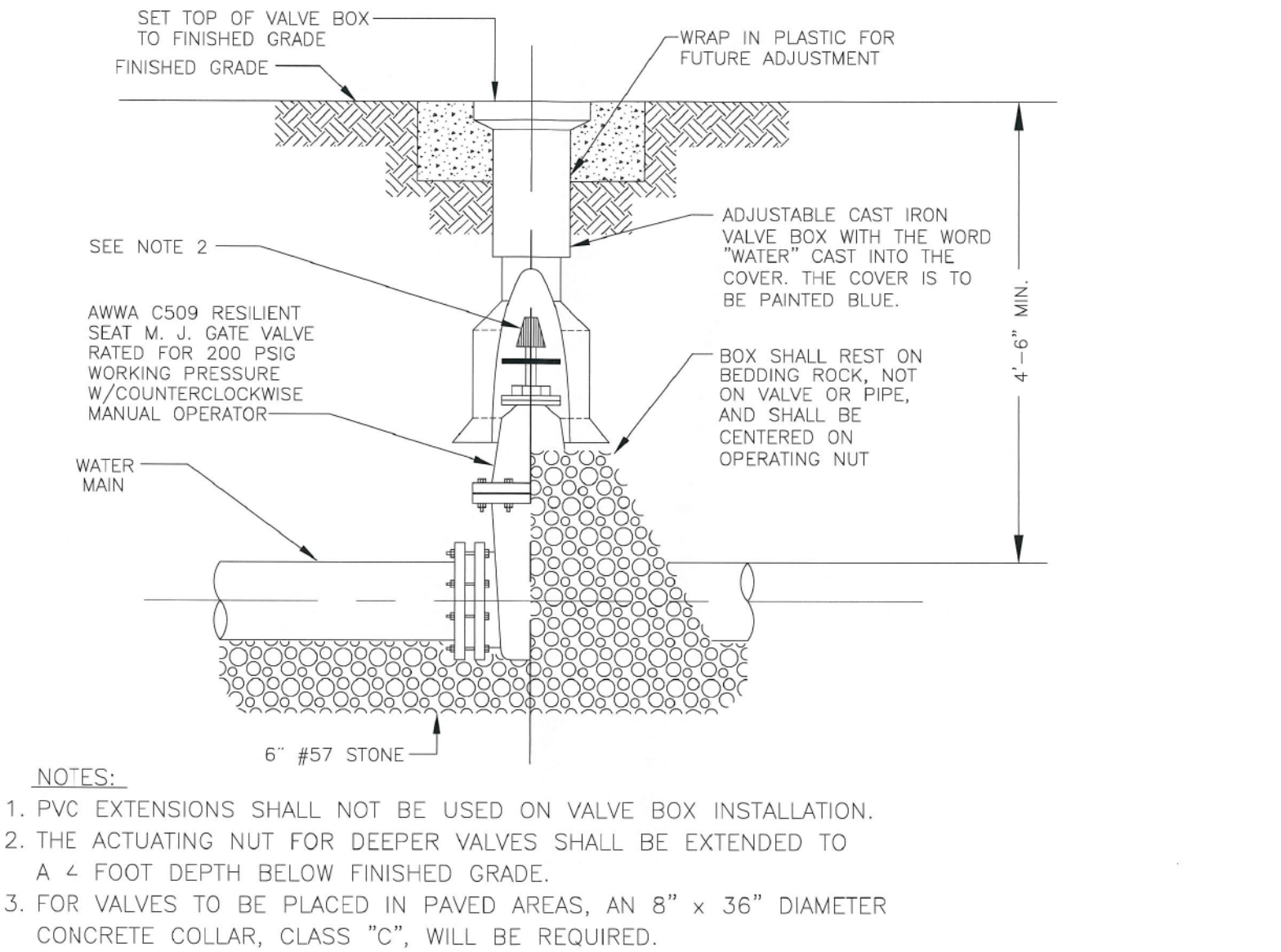
PAVEMENT MARKING SUBSUMMARY

LIC-CR 311-0.000
(HOPEWELL DR)

19
22

20	22
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$$\frac{21}{22}$$



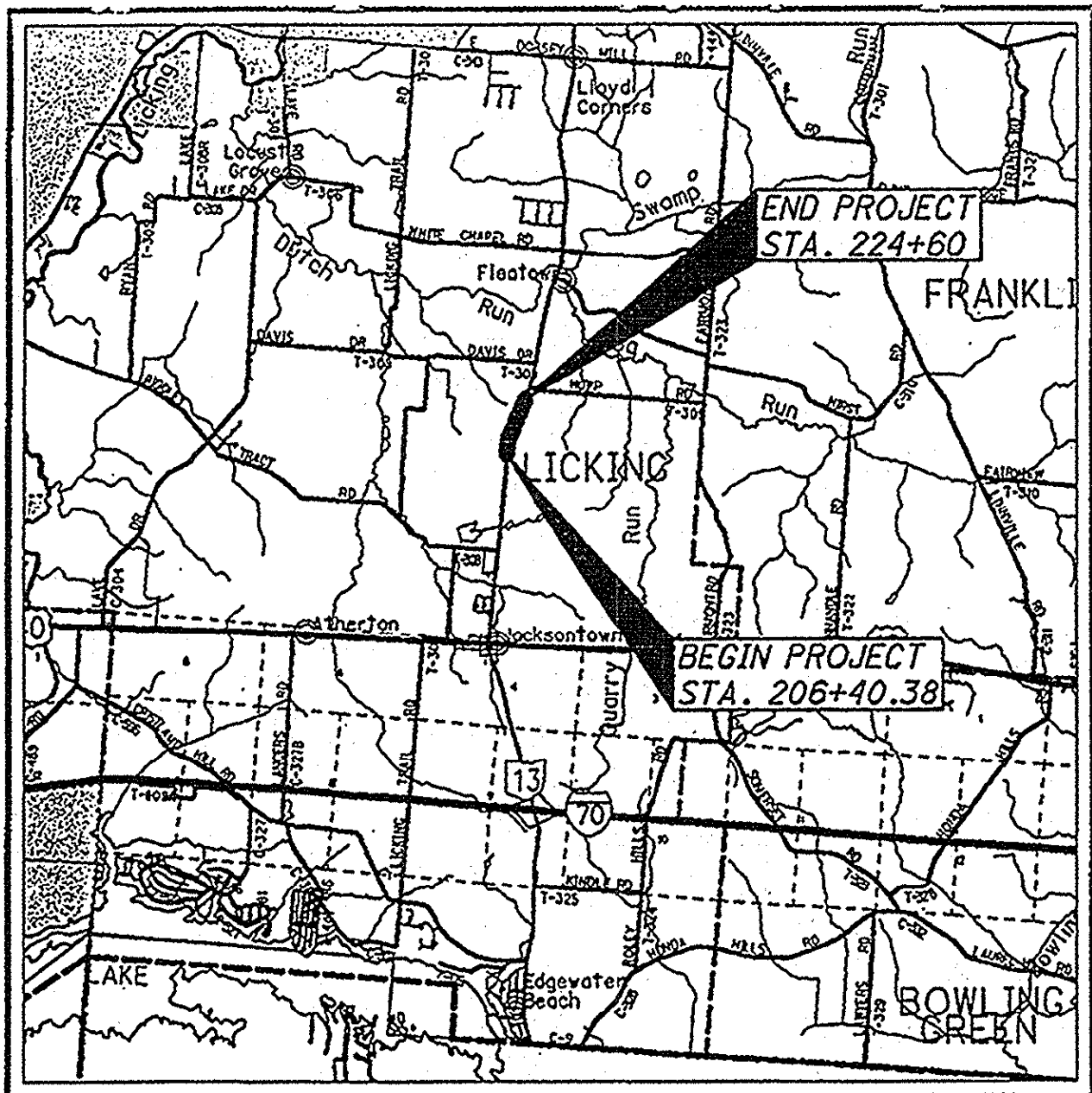
CITY OF HEATH Director of Utilities	DATE 05-1897 02-2012	STANDARD CONSTRUCTION DRAWING GATE VALVE WITH BOX FOR VALVES UP TO BUT NOT INCLUDING 8\" SIZED	NUMBER WA-3	1 / 1
CITY OF HEATH Director of Utilities	DATE 05-1897 02-2012	STANDARD CONSTRUCTION DRAWING BUTTERFLY VALVE WITH BOX FOR VALVES 16\" OR LARGER	NUMBER WA-4	1 / 1

CALCULATED TJE	CHECKED SRH	HEATH STANDARD DRAWINGS	LIC-CR 311-0.000 (HOPEWELL DR)	A1 A1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

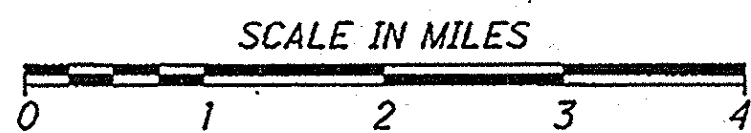
LIC SR 13 3.88 PART 3

DAWES ARBORETUM
LEFT TURN LANE



LOCATION MAP

LATITUDE: 39°58'49" LONGITUDE: 82°24'38"



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

DESIGN DESIGNATION

CURRENT ADT (2017)	9,900
DESIGN YEAR ADT (2037)	12,000
DESIGN HOURLY VOLUME (2037)	1,200
DIRECTIONAL DISTRIBUTION	66%
TRUCKS (24 HOUR B&C)	3%
DESIGN SPEED	55
LEGAL SPEED	55
DESIGN FUNCTIONAL CLASSIFICATION:	
RURAL ARTERIAL	
NHS PROJECT	NO

DESIGN EXCEPTIONS

SHOULDER WIDTH	4/1/16
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UNDERGROUND UTILITIES
CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.

Call Before You Dig
1-800-362-2764

(Non-members must be called directly)

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

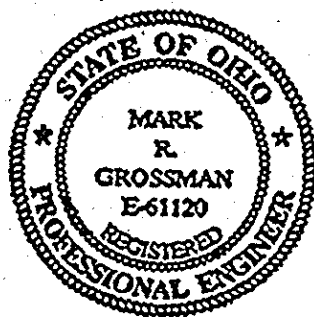
PLAN PREPARED BY:

GPD GROUP

520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax: 330.572.2102

Glenn Pyle, Schramm, Burns & DeHaven, Inc.
Copyright: Glenn Pyle, Schramm, Burns & DeHaven, Inc. 2015

ENGINEERS SEAL:



SIGNED: *[Signature]*
DATE: 6-30-16

INDEX OF SHEETS:

TITLE SHEET	1
SCHEMATIC PLAN	2
TYPICAL SECTIONS	3
GENERAL NOTES	4-5
MAINTENANCE OF TRAFFIC	6-20
GENERAL SUMMARY	21-22
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ROADWAY PLANS	25-28
CROSS SECTIONS	29-46
RIGHT OF WAY	47-55
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PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE WIDENING OF S.R. 13 FOR APPROXIMATELY 1800 FT. FOR THE INSTALLATION OF A NORTHBOUND LEFT TURN LANE AT DAWES ARBORETUM ENTRANCE.

PROJECT EARTH DISTURBED AREA:	1.37 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.25 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	4.90 ACRES

2016 SPECIFICATIONS

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

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

APPROVED *[Signature]*
DATE 7/11/16 DISTRICT DEPUTY DIRECTOR

APPROVED *[Signature]*
DATE 7-26-16 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO.
E120890

PID NO.
92958

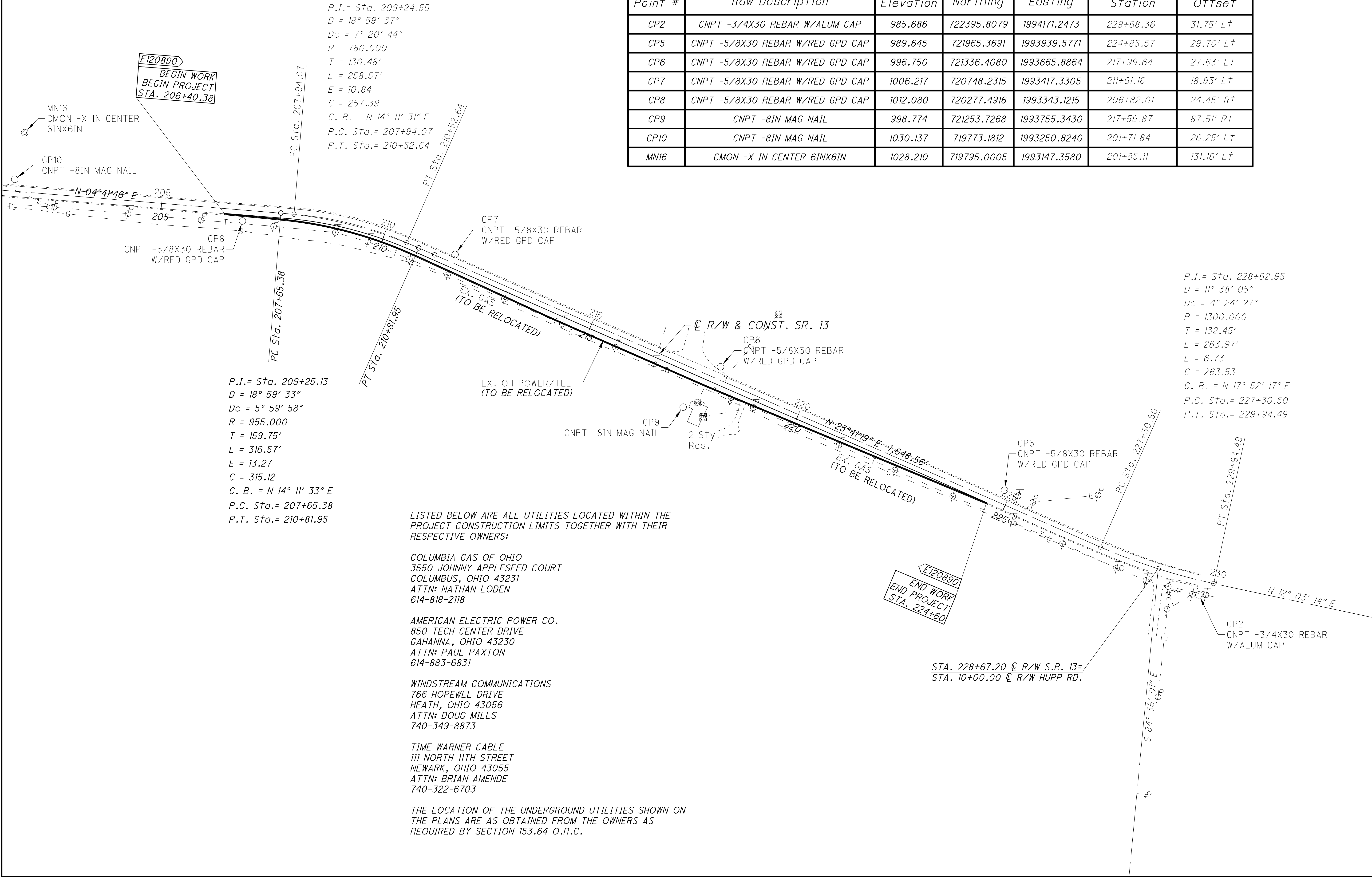
CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
NONE

LIC SR 13 3.88 PART 3

1
55

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

COLUMBIA GAS OF OHIO
3550 JOHNNY APPLESEED COURT
COLUMBUS, OHIO 43231
ATTN: NATHAN LODEN
614-818-2118

AMERICAN ELECTRIC POWER CO.
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
ATTN: PAUL PAXTON
614-883-6831

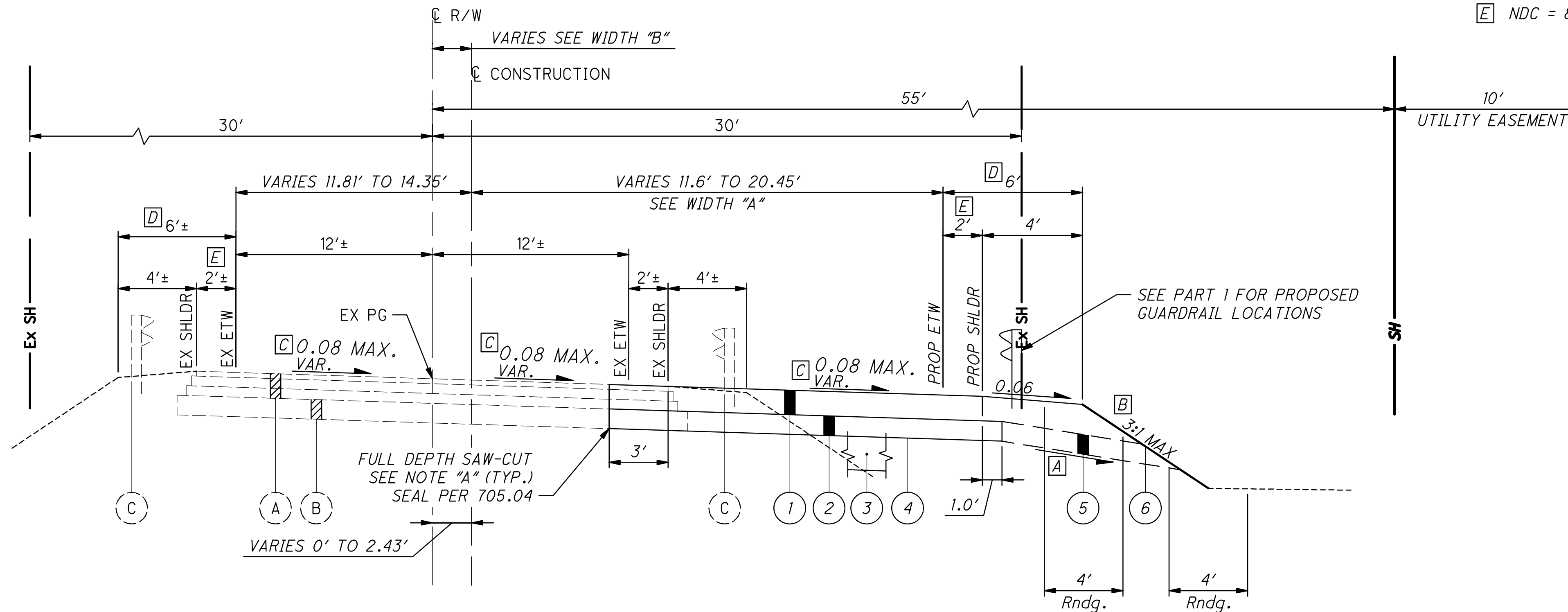
WINDSTREAM COMMUNICATIONS
766 HOPEWELL DRIVE
HEATH, OHIO 43056
ATTN: DOUG MILLS
740-349-8873

TIME WARNER CABLE
111 NORTH 11TH STREET
NEWARK, OHIO 43055
ATTN: BRIAN AMENDE
740-322-6703

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

Point Table						
Point #	Raw Description	Elevation	Northing	Easting	Station	Offset
CP2	CNPT -3/4X30 REBAR W/ALUM CAP	985.686	722395.8079	1994171.2473	229+68.36	31.75' Lt
CP5	CNPT -5/8X30 REBAR W/RED GPD CAP	989.645	721965.3691	1993939.5771	224+85.57	29.70' Lt
CP6	CNPT -5/8X30 REBAR W/RED GPD CAP	996.750	721336.4080	1993665.8864	217+99.64	27.63' Lt
CP7	CNPT -5/8X30 REBAR W/RED GPD CAP	1006.217	720748.2315	1993417.3305	211+61.16	18.93' Lt
CP8	CNPT -5/8X30 REBAR W/RED GPD CAP	1012.080	720277.4916	1993343.1215	206+82.01	24.45' Rt
CP9	CNPT -8IN MAG NAIL	998.774	721253.7268	1993755.3430	217+59.87	87.51' Rt
CP10	CNPT -8IN MAG NAIL	1030.137	719773.1812	1993250.8240	201+71.84	26.25' Lt
MN16	CMON -X IN CENTER 6INX6IN	1028.210	719795.0005	1993147.3580	201+85.11	131.16' Lt

$P.I. = Sta. 228+62.95$
 $D = 11^\circ 38' 05''$
 $Dc = 4^\circ 24' 27''$
 $R = 1300.000$
 $T = 132.45'$
 $L = 263.97'$
 $E = 6.73$
 $C = 263.53$
 $C.B. = N 17^\circ 52' 17'' E$
 $P.C. Sta. = 227+30.50$
 $P.T. Sta. = 229+94.49$



SUPERELEVATED SECTION - S.R. 13

STA. 206+40.38 TO STA. 213+50

NOTE "A"
The existing pavement edges shall be saw-cut to locate a sound pavement edge per sec. 203.04(f) of the CMS. The saw cut line shall be offset 3 ft. from the existing edge of paved shoulder. Cost for the pavement removed to be included in Item 203 Excavation.

WIDTH "B"			
BEGIN STATION	END STATION	BEGIN WIDTH	END WIDTH
204+40.39	207+65.38	0.00'	0.00'
207+65.38	209+23.66	0.00'	2.43'
209+23.66	210+81.95	2.43'	0.00'
210+81.95	224+60	0.00'	0.00'

- LEGEND***

 - ① ITEM 301 - 14" ASPHALT CONCRETE BASE, PG64-22 (6" MAX LIFT)
 - ② ITEM 204 - 6" GRANULAR MATERIAL, TYPE B
 - ③ SUBGRADE STABILIZATION PER NOTES AND DETAIL ON SHEET 5
 - ④ ITEM 204 - SUBGRADE COMPACTION / PROOF ROLLING
 - ⑤ ITEM 605 - AGGREGATE DRAINS
 - ⑥ ITEM 659 - SEEDING AND MULCHING

- (A) 14"± ASPHALT CONCRETE
- (B) 6"± AGGREGATE BASE
- (C) EXIST. GUARDRAIL

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ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

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

COLUMBIA GAS OF OHIO
3550 JOHNNY APPLESEED COURT
COLUMBUS, OHIO 43231
ATTN: NATHAN LODEN
614-818-2118

AMERICAN ELECTRIC POWER CO.
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
ATTN: PAUL PAXTON
614-883-6831

WINDSTREAM COMMUNICATIONS
766 HOPEWLL DRIVE
HEATH, OHIO 43056
ATTN: DOUG MILLS
740-349-8873

TIME WARNER CABLE
111 NORTH 11TH STREET
NEWARK, OHIO 43055
ATTN: BRIAN AMENDE
740-322-6703

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

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 2 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD: GPS
MONUMENT TYPE: ¾" IPIN w/ Alum Cap

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: GEOID12A

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83(2011)
ELLIPSOID: NAD83
MAP PROJECTION: Lambert
COORDINATE SYSTEM: Ohio State Plane South
COMBINED SCALE FACTOR: 1.000052373
ORIGIN OF COORDINATE SYSTEM: 0,0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

WORK LIMITS

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

CLEARING AND GRUBBING

ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED BY OTHERS PRIOR TO CONSTRUCTION.

A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING

ENDANGERED BAT HABITAT REMOVAL

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31 (BY OTHERS). THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, TOPSOIL	133 CU. YD.
659, SEEDING AND MULCHING	4865 SQ. YD.
659, REPAIR SEEDING AND MULCHING	244 SQ. YD.
659, COMMERCIAL FERTILIZER	0.7 TON
659, LIME	1 ACRES
659, WATER	13.1 M. GAL.

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

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

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 COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

AGGREGATE DRAINS

THE FOLLOWING TABLE SHOWS THE LOCATION AND LENGTHS OF AGGREGATE DRAINS TO BE CARRIED TO THE GENERAL SUMAMRY.

AGGREGATE DRAINS		AGGREGATE DRAINS	
STATION	LENGTH	STATION	LENGTH
206+50	15'	216+50	10'
207+00	10'	217+00	10'
207+50	10'	217+50	10'
208+00	10'	218+00	10'
208+50	10'	218+50	10'
209+00	10'	219+00	10'
209+50	10'	219+50	10'
210+00	10'	220+00	10'
210+50	10'	220+50	10'
211+00	10'	221+00	10'
211+50	10'	221+50	10'
212+00	10'	222+00	10'
212+50	10'	222+50	10'
213+00	10'	223+00	10'
213+50	10'	223+50	10'
214+00	10'	224+00	10'
214+50	10'	224+50	10'
215+00	10'		
215+50	10'		
216+00	10'	TOTAL	375'

EARTHWORK SUBSUMMARY					
SHEET NO.	203	203	204	204	204
	EXCAVATION	EMBANKMENT	EXCAVATION OF SUBGRADE	GRANULAR MATERIAL, TYPE B	GEOTEXTILE FABRIC
	CU. YD.	CU. YD.	CU. YD.	CU. YD.	SQ. YD.
29	6	0	0	0	0
30	33	17	0	0	0
31	21	21	0	0	0
32	36	45	0	0	0
33	44	61	36	36	57
34	78	101	58	58	91
35	65	99	46	46	71
36	142	216	96	105	156
37	248	221	44	49	75
38	264	269	0	0	0
39	245	292	62	90	178
40	539	82	115	135	267
41	535	0	86	86	167
42	220	318	0	0	0
43	383	694	22	26	53
44	257	471	58	60	125
45	113	195	17	17	37
46	0	0	0	0	0
TOTALS	3229	3102	640	708	1277

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ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING
CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.
2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05.

IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

3. COMPACT THE SUBGRADE ACCORDING TO 204.03.
4. APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSTABLE SUBGRADE. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06.

5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.

7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

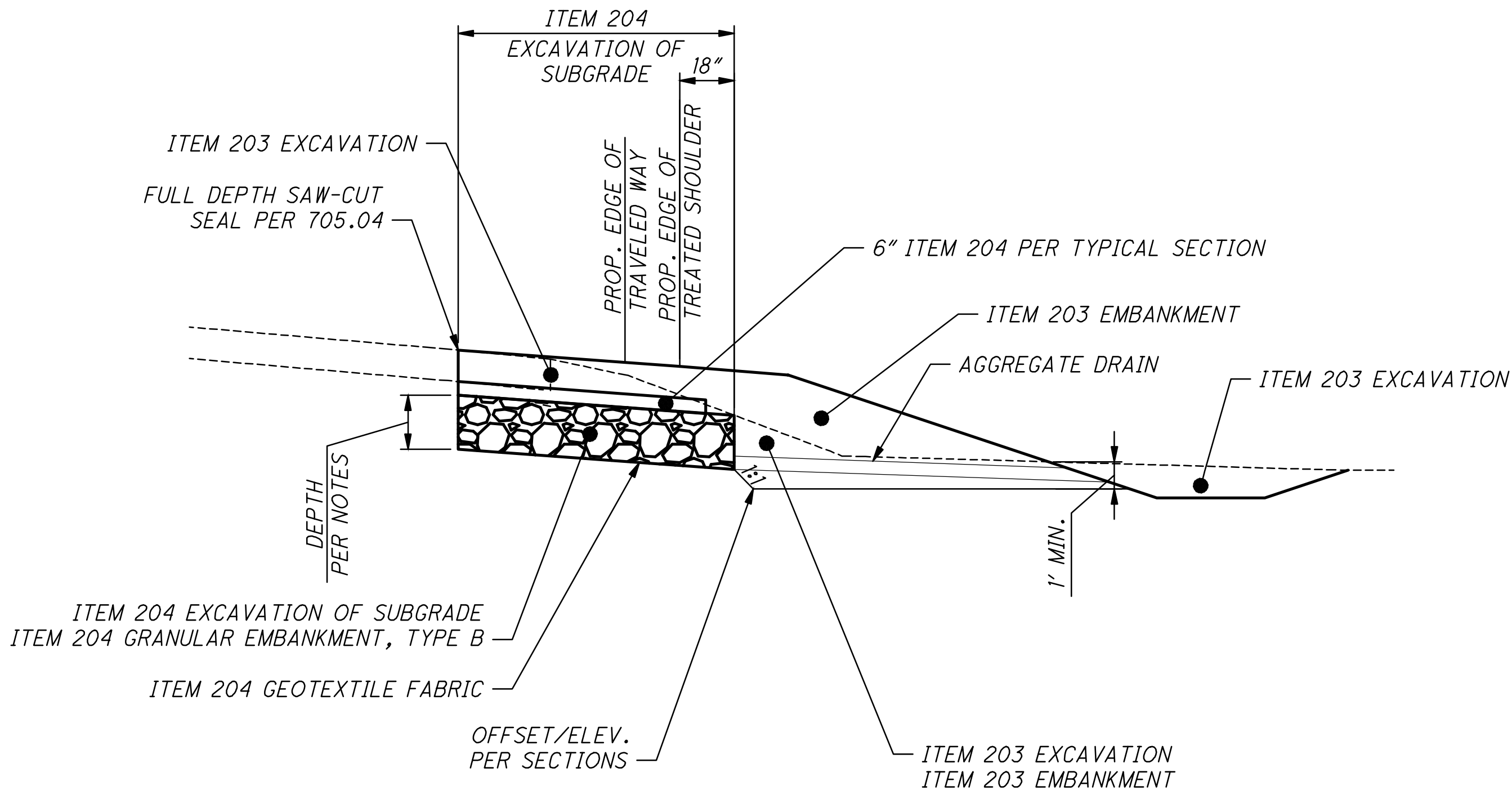
THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

UNSUITABLE SUBGRADE LIMITS:

STA: 209 + 00 to STA: 212 + 50 (2'-0")

UNSTABLE SUBGRADE LIMITS:

STA: 215+50 to STA: 219+00 (1'-6")
STA: 222+00 to STA: 224+60 (1'-6")



EXCAVATION OF UNSUITABLE OR UNSTABLE SOILS DETAIL

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SEQUENCE OF CONSTRUCTION

PHASE 1

THE CONTRACTOR SHALL CONSTRUCT THE TEMPORARY PAVEMENT ADJACENT TO THE EXISTING SHOULDER ON THE WEST SIDE OF S.R. 13 AT LOCATIONS SHOWN IN THE PLANS UNDER A TWO-WAY/ONE-LANE SCENARIO UTILIZING FLAGGER CONTROL AS PER MT-97.10. DURING ALL NON-WORKING HOURS THE CONTRACTOR SHALL OPEN THE ROAD TO TWO LANES OF TRAFFIC.

PHASE 2

THE EXISTING TRAFFIC SHALL BE SHIFTED TO THE WEST SIDE OF THE ROAD ON THE EXISTING AND TEMPORARY PAVEMENT. THE CONTRACTOR SHALL CONSTRUCT THE EAST SIDE OF THE ROAD.

PHASE 3

THE CONTRACTOR SHALL REMOVE ALL TEMPORARY PAVEMENT AND PLACE THE SIGNAGE AND TEMPORARY MARKINGS THROUGHOUT THE ENTIRE PROJECT. DURING FINAL PAVEMENT MARKING OPERATIONS, TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH MT-99.20. SEE PART 1 FOR INTERMEDIATE, SURFACE COURSE AND FINAL PAVEMENT MARKING INFORMATION.

NOTIFICATIONS

THE CONTRACTOR SHALL NOTIFY THE FOLLOWING ENTITIES IN WRITING AND VIA TELEPHONE AT LEAST EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION ACTIVITIES. INCLUDED IN THE NOTIFICATION SHALL BE THE PROJECTED DATES AND FRAMES OF ANY ROAD CLOSURES:

HEATH POLICE DEPARTMENT
1287 HEBRON ROAD
HEATH, OHIO 43056
(740) 522-2141

HEATH FIRE DEPARTMENT
1365 BLACKFOOT TRAIL
HEATH, OHIO 43056
(740) 522-5101

HEATH BOARD OF EDUCATION
107 LANCASTER DRIVE
HEATH, OHIO 43056
(740) 522-2816

LICKING COUNTY SHERIFF
155 EAST MAIN STREET
NEWARK, OHIO 43055
(740) 670-5546

OHIO DEPARTMENT OF TRANSPORATATION
DISTRICT 5
9600 JACKSON ROAD
JACKSONTOWN, OHIO 43030
(740) 323-4400

STATE HIGHWAY PATROL
3855 OUTVILLE ROAD SW
GRANVILLE, OH 43023
(740) 927-0065

SHOULD THE PROJECT DATES AND TIME FRAMES OF THE START AND END OF THE ROAD CLOSURES CHANGE THROUGHOUT THE DURATION OF THE PROJECT, THE AGENCIES LISTED ABOVE MUST BE NOTIFIED IMMEDIATELY OF SUCH CHANGES.

ITEM 614 - MAINTAINING TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF ONE ELEVEN FOOT LANE IN EACH DIRECTION DURING PHASE 2 SHALL BE MAINTAINED ON THE EXISTING AND TEMPORARY PAVEMENT.
2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (740) 323-4400, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.
3. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.
4. ONLY DURING OFF-PEAK PERIODS (ie ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.
5. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.
6. FOR EACH PHASE OF CONSTRUCTION THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, REMOVE, AND COVER PAVEMENT MARKINGS, DRUMS, SIGNS, BARRICADES, AND ANY OTHER TRAFFIC CONTROL DEVICES NEEDED IN ORDER TO MAINTAIN TRAFFIC AS SHOWN IN THESE PLANS.
7. RPM REMOVAL SHALL BE PERFORMED PRIOR TO THE SHIFTING OF TRAFFIC. SEE PART 1 FOR QUANTITIES.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. 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.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

DROP-OFFS THAT DEVELOP DURING CONSTRUCTION OPERATIONS THAT ARE NOT OTHERWISE PROVIDED FOR IN THE PLANS SHALL BE TREATED AS SHOWN ON SCD MT-101.90.

DUST CONTROL

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

ITEM 616 - WATER 30 MGAL

ITEM 614 - WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 622 - PORTABLE BARRIER PLACEMENT

DURING THE PLACEMENT OF THE PORTABLE BARRIER, TRAFFIC WILL BE PROHIBITED FROM OCCUPYING THE TRAVEL LANE ADJACENT TO THE BARRIER. THE BARRIER WILL BE PLACED AT NIGHT PER THE WORK HOUR RESTRICTION NOTE AND IN ACCORDANCE WITH THE PERMITTED LANE CLOSURE MAP. THE CLOSURE OF THE ADJACENT LANE WILL BE PER THE STANDARD DRAWING MT-95.30.

THE CONTRACTOR WILL SUBMIT A PLAN TO THE ENGINEER FOR APPROVAL SEVEN (7) DAYS IN ADVANCE OF THE PLANNED LANE CLOSURE. WORK WILL NOT BEGIN UNTIL APPROVAL OF THE PLANS HAS BEEN GRANTED.

ALL COSTS INVOLVED IN PLACING THE PORTABLE CONCRETE BARRIER WILL BE INCLUDED IN THE CONTRACT PRICE BID FOR ITEM 622 PORTABLE CONCRETE BARRIER.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) AND EXISTING GUARDRAIL LOCATED WITHIN FIVE (5) FEET OF THE EDGE OF THE WORK ZONE TRAVEL LANE.

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

THE ESTIMATED QUANTITIES HAVE BEEN PROVIDED IN THE MAINTENANCE OF TRAFFIC PHASE 2 SUBSUMMARY.

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

ITEM 615 - ROADS FOR MAINTAINING TRAFFIC. AS PER PLAN

THIS ITEM INCLUDES THE SHOULDER PREPARATION FOR ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, AS PER PLAN. THE TEMPORARY PAVEMENT SHALL BE INSTALLED TO THE DIMENSIONS SHOWN IN THE MOT PLANS. AFTER THE TEMPORARY PAVEMENT IS NO LONGER NEEDED IT SHALL BE REMOVED AND BACKFILLED WITH ITEM 203 EMBANKMENT. SUBGRADE COMPACTION SHALL CONFORM TO CMS 204.03.

EARTHWORK AND SEEDING QUANTITIES ARE GIVEN BELOW FOR ESTIMATING PURPOSES AND SHALL BE INCLUDED IN THE LUMP SUM BID.

EXCAVATION FOR MAINTAINING TRAFFIC 0.0 CY
EMBANKMENT FOR MAINTAINING TRAFFIC 4.9 CY
ITEM 659 - SEEDING AND MULCHING 520 SY

PAYMENT SHALL BE MADE AT THE LUMP SUM BID AND INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE DESCRIBED WORK.

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC. CLASS B. AS PER PLAN

THE FLEXIBLE BUILDUP FOR TEMPORARY PAVEMENT SHALL BE THE FOLLOWING:

ITEM 441 - 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE I, (448), PG64-22

ITEM 407 - TACK COAT

ITEM 301 - 7" ASPHALT CONCRETE BASE, PG64-22

THE CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE DRIVING SURFACE THROUGHOUT THE USE OF THE PAVEMENT, AT THE APPROVAL OF THE ENGINEER.

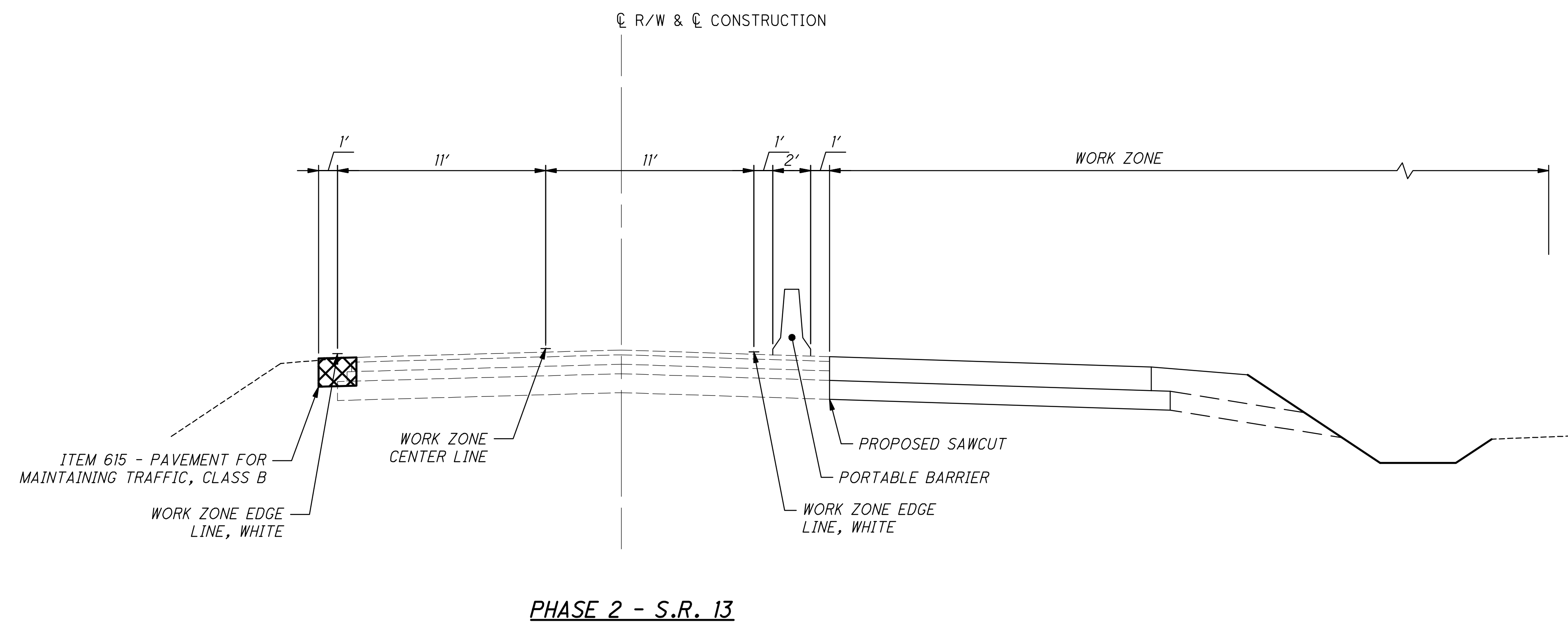
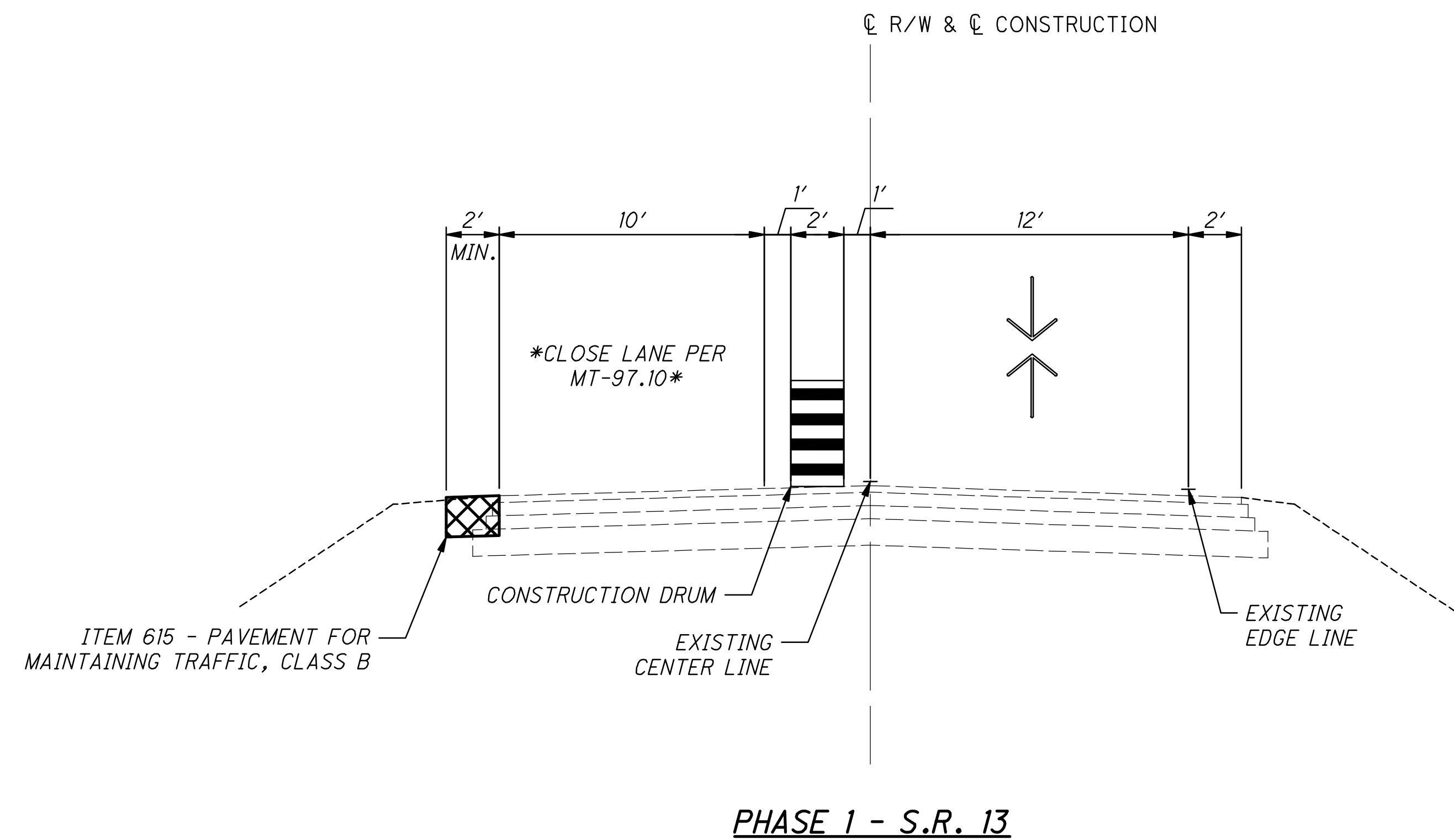
PAYMENT SHALL BE MADE AT THE UNIT PRICE BID AND INCLUDE ALL LABOR, EQUIPMENT AND ANY INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

ITEM 614 - MAINTAINING TRAFFIC (LANE CLOSURE/REDUCTION REQUIRED)

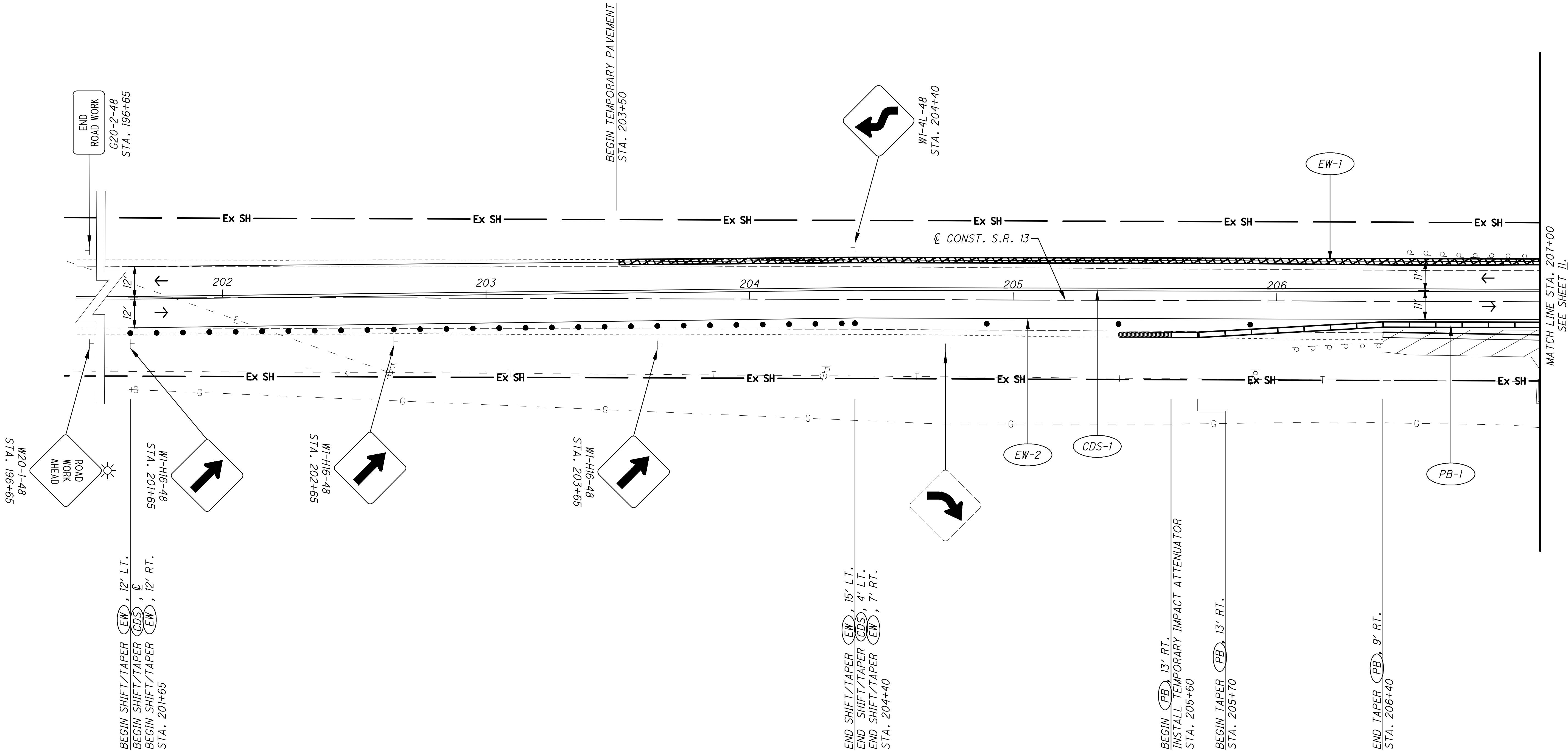
LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY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

CALCULATED	
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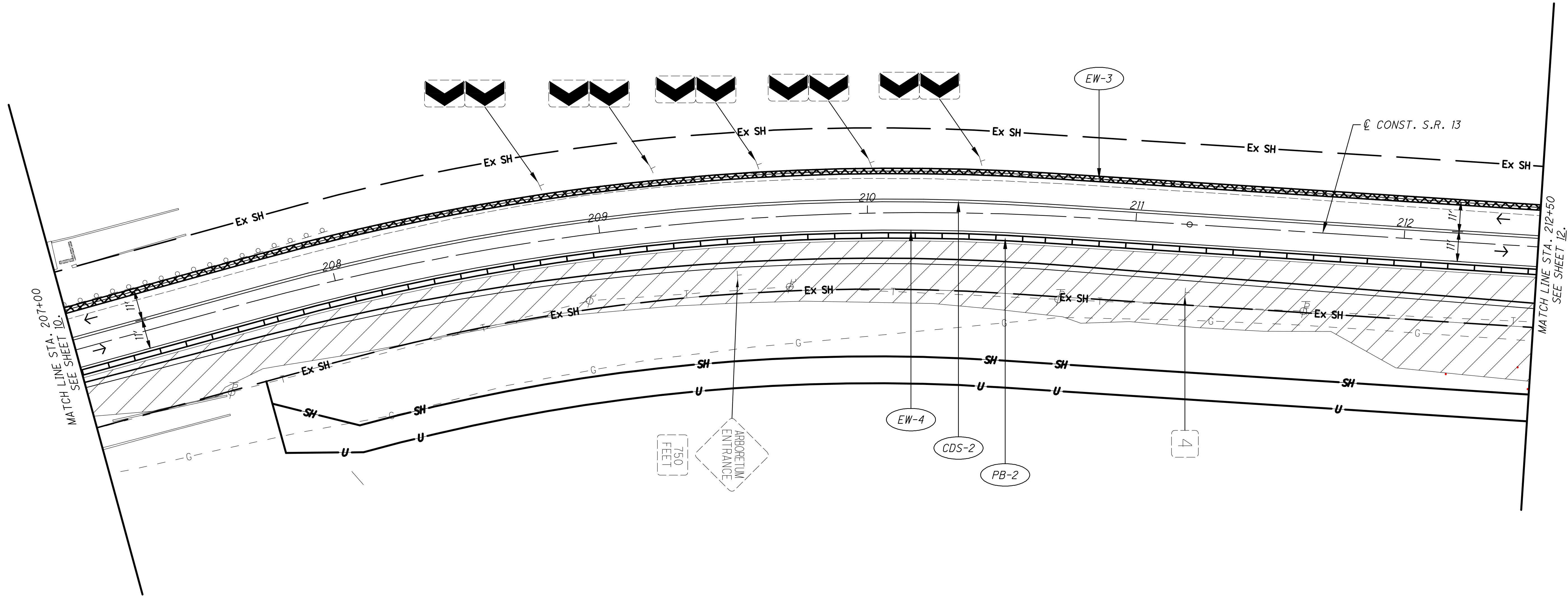




MAINTENANCE OF TRAFFIC LEGEND			
	WORK AREA		CONSTRUCTION DRUM SPACED AT 55' C/C UNLESS NOTED OTHERWISE (10' ON TAPER)
	TEMPORARY PAVEMENT		TEMPORARY PORTABLE BARRIER
	TRAFFIC FLOW		WORK ZONE EDGE LINE, WHITE
	MAINTENANCE OF TRAFFIC SIGN		WORK ZONE CENTER LINE, DOUBLE SOLID
	EXISTING OR PROPOSED TRAFFIC CONTROL SIGN		WORK ZONE CHANNELIZING LINE
	WORK ZONE IMPACT ATTENUATOR		WORK ZONE ARROW

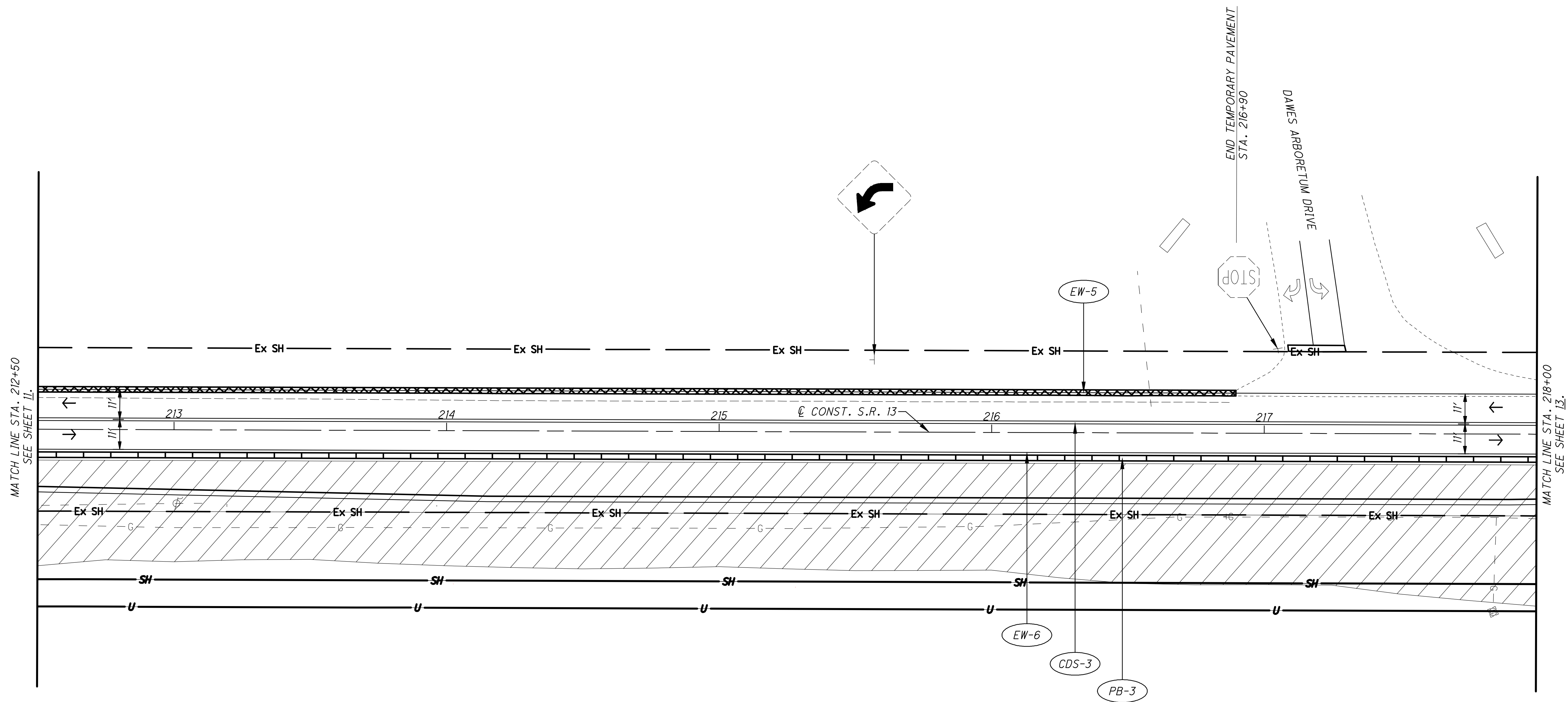


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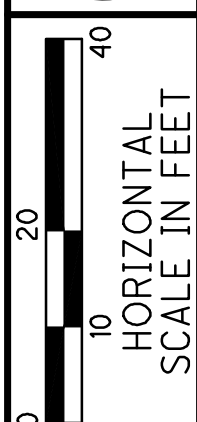
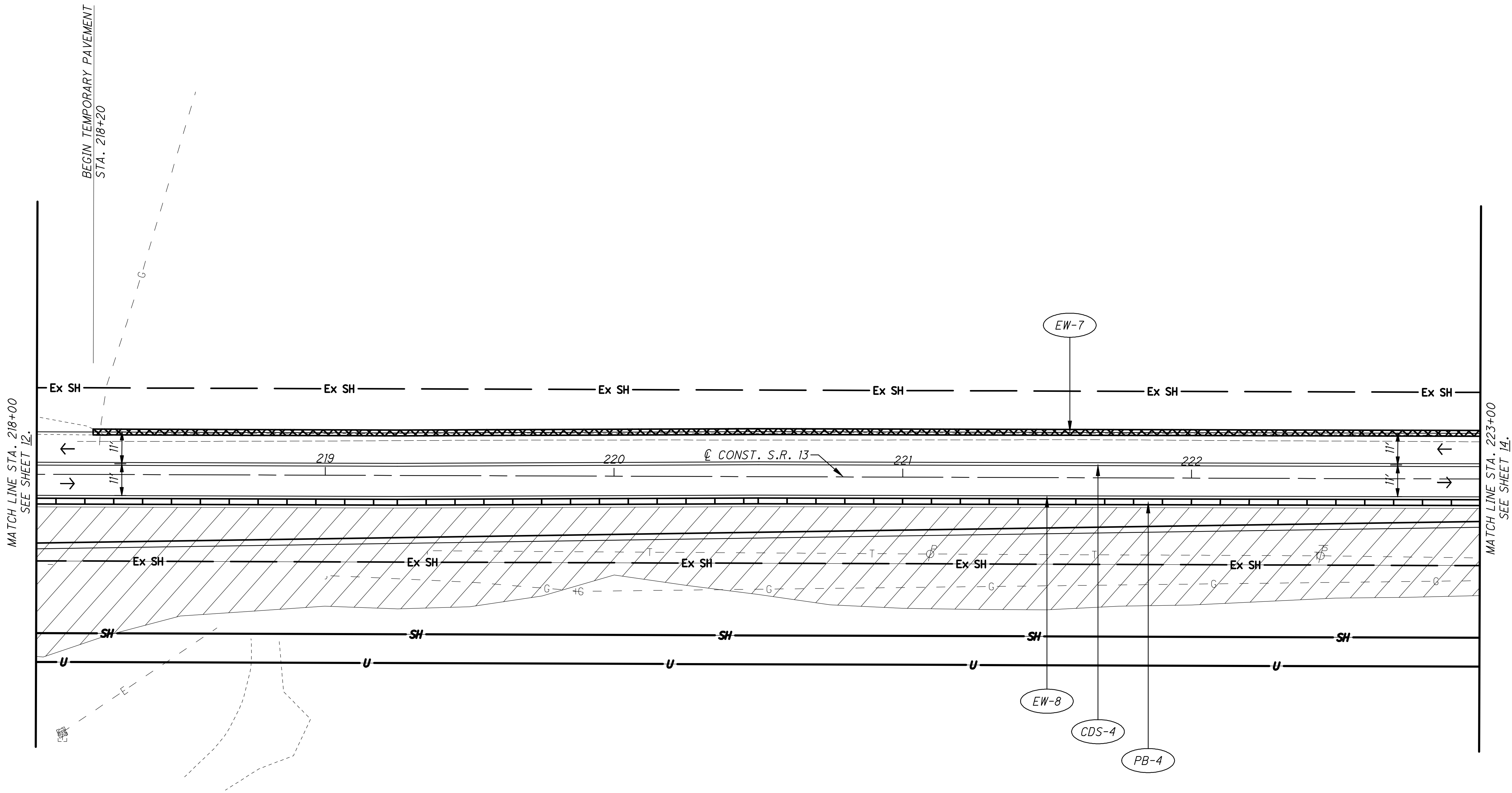


		MAINTENANCE OF TRAFFIC PLAN - PHASE 2	
		STA. 207+00 TO STA. 212+50	
LIC SR 13 3.88 PART 3		11 55	

FOR MAINTENANCE OF TRAFFIC LEGEND, SEE SHEET 10.



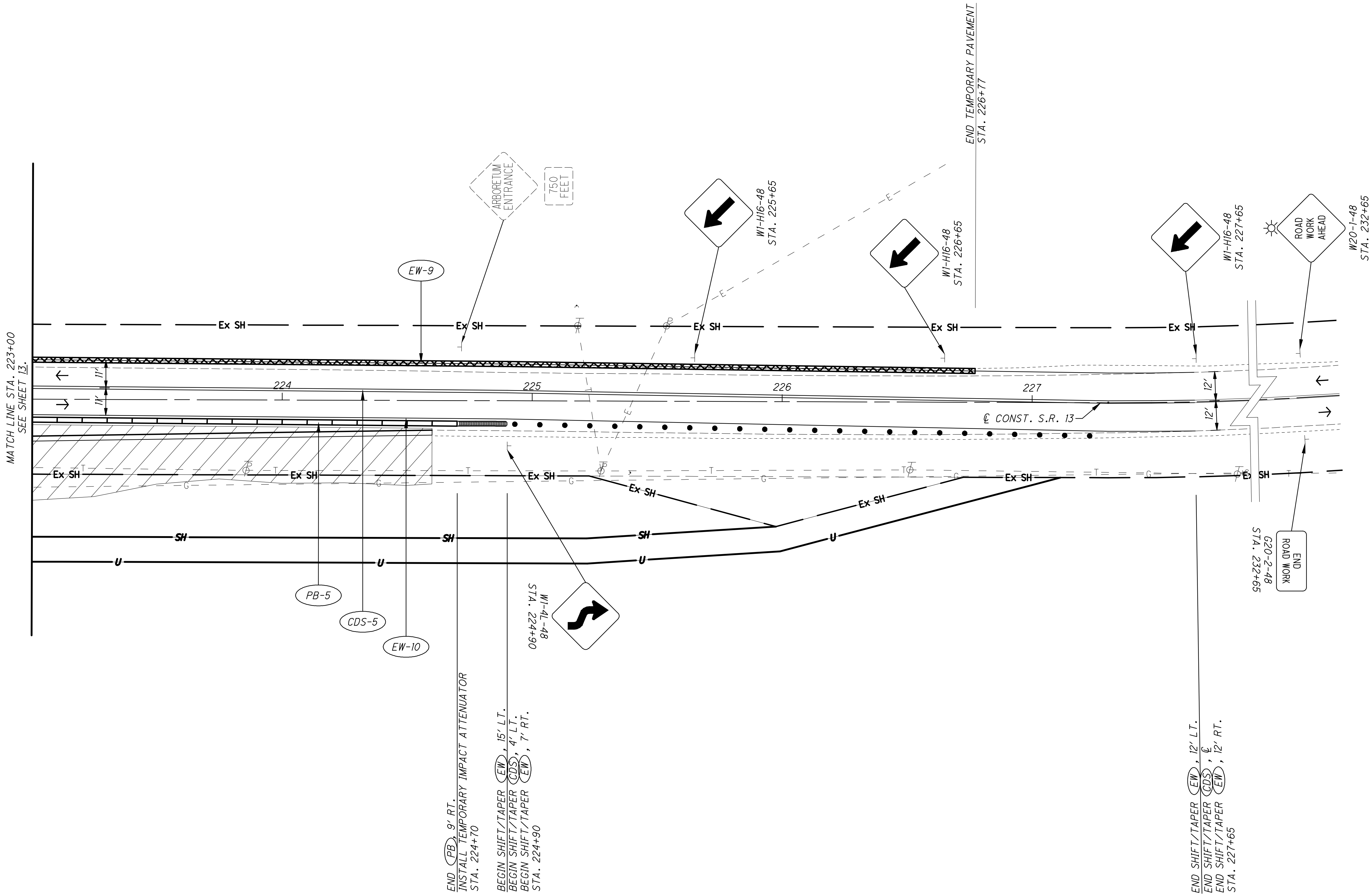
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MAINTENANCE OF TRAFFIC PLAN - PHASE 2
STA. 218+00 TO STA. 223+00

LIC SR 13 3.88 PART 3



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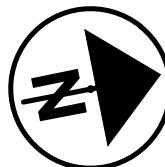
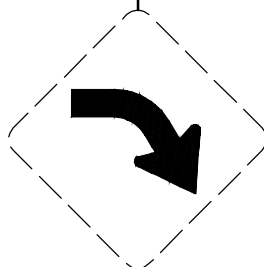
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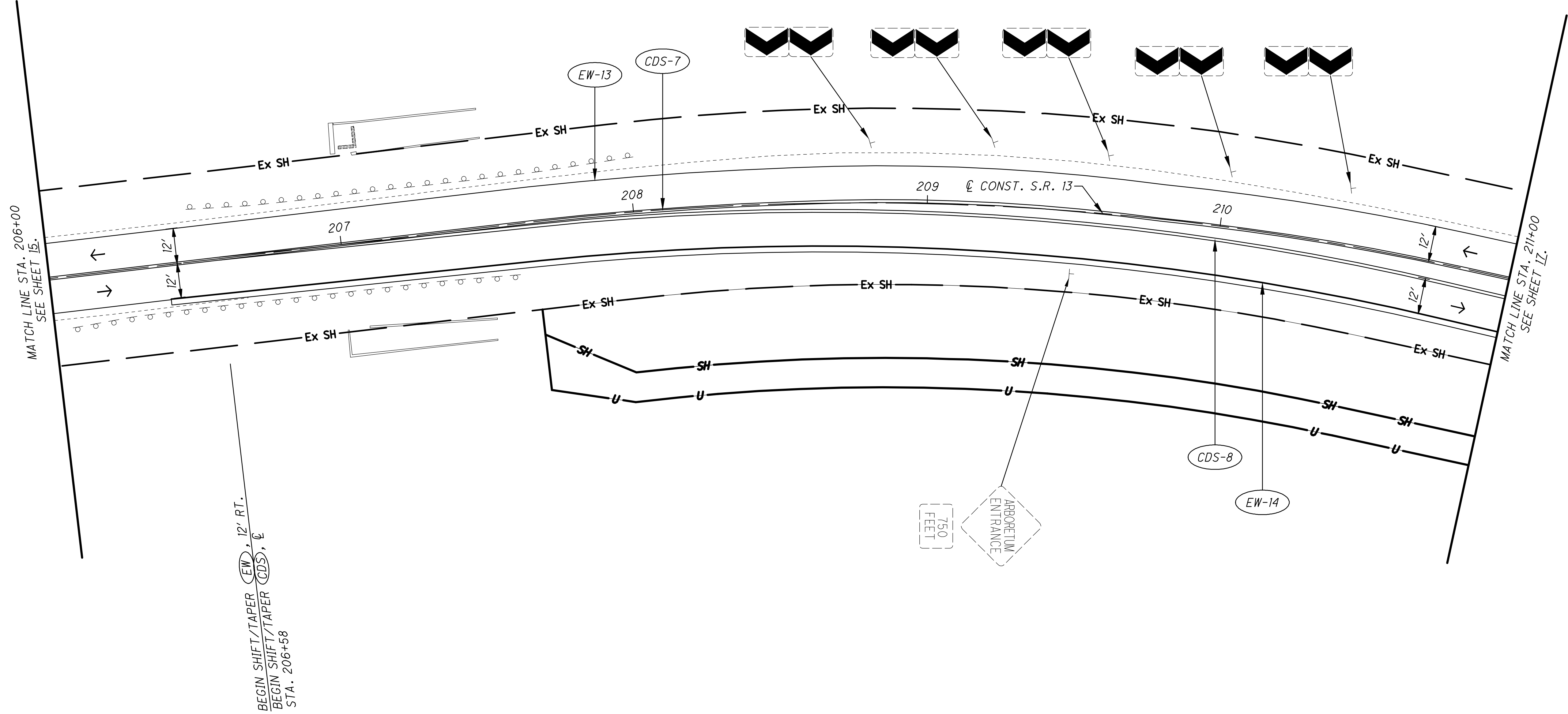
MATCH LINE STA. 206+00
SEE SHEET 16.

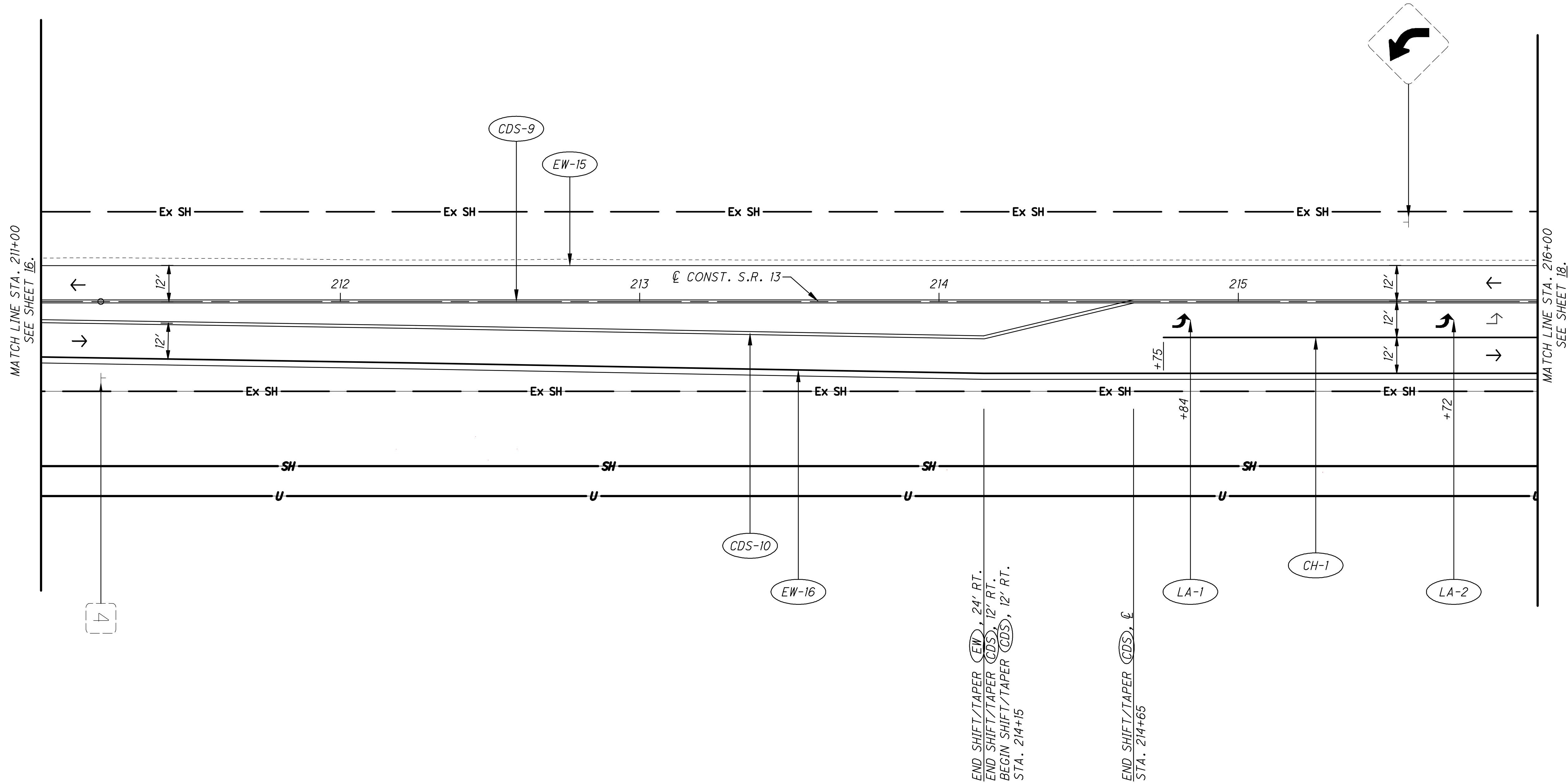
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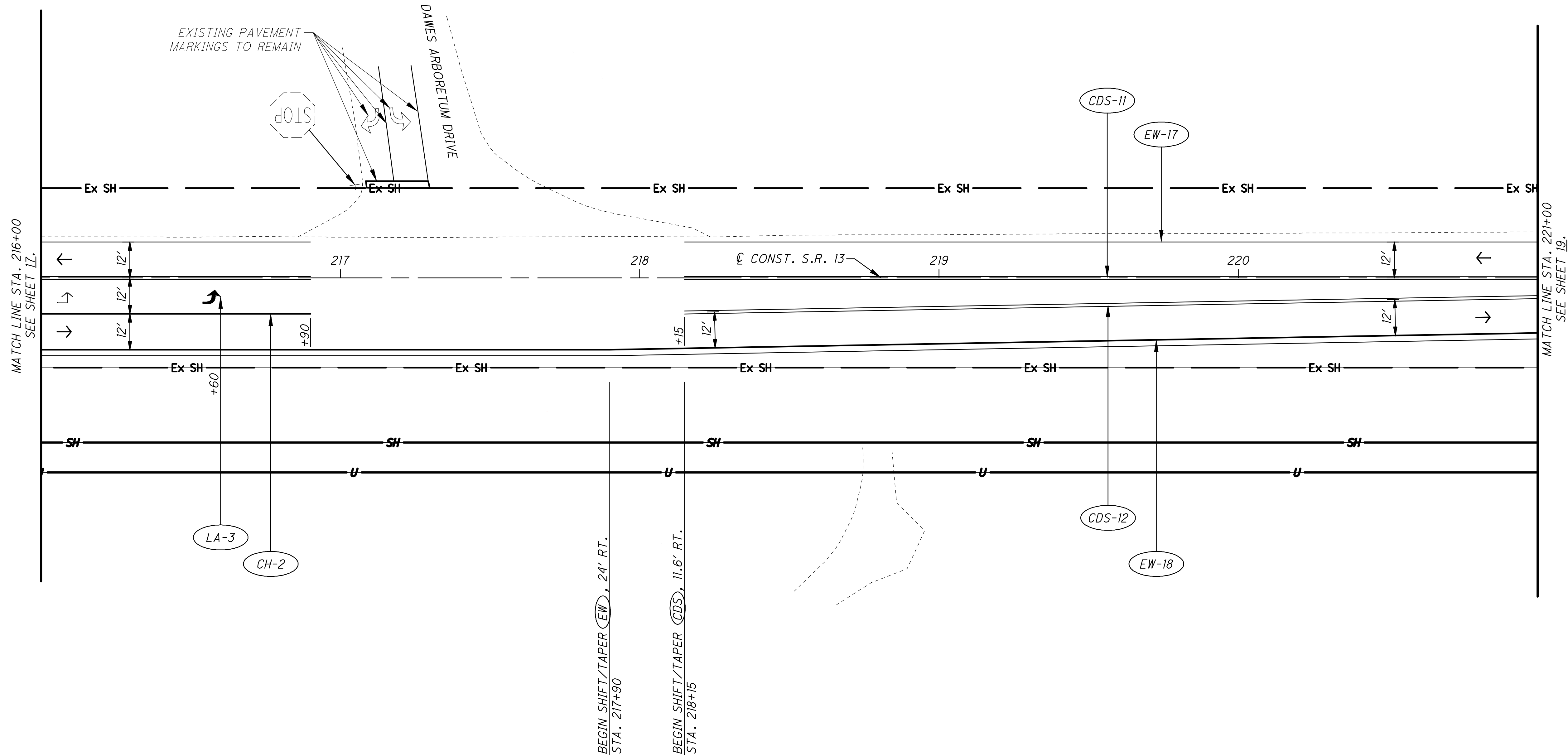
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EW-12



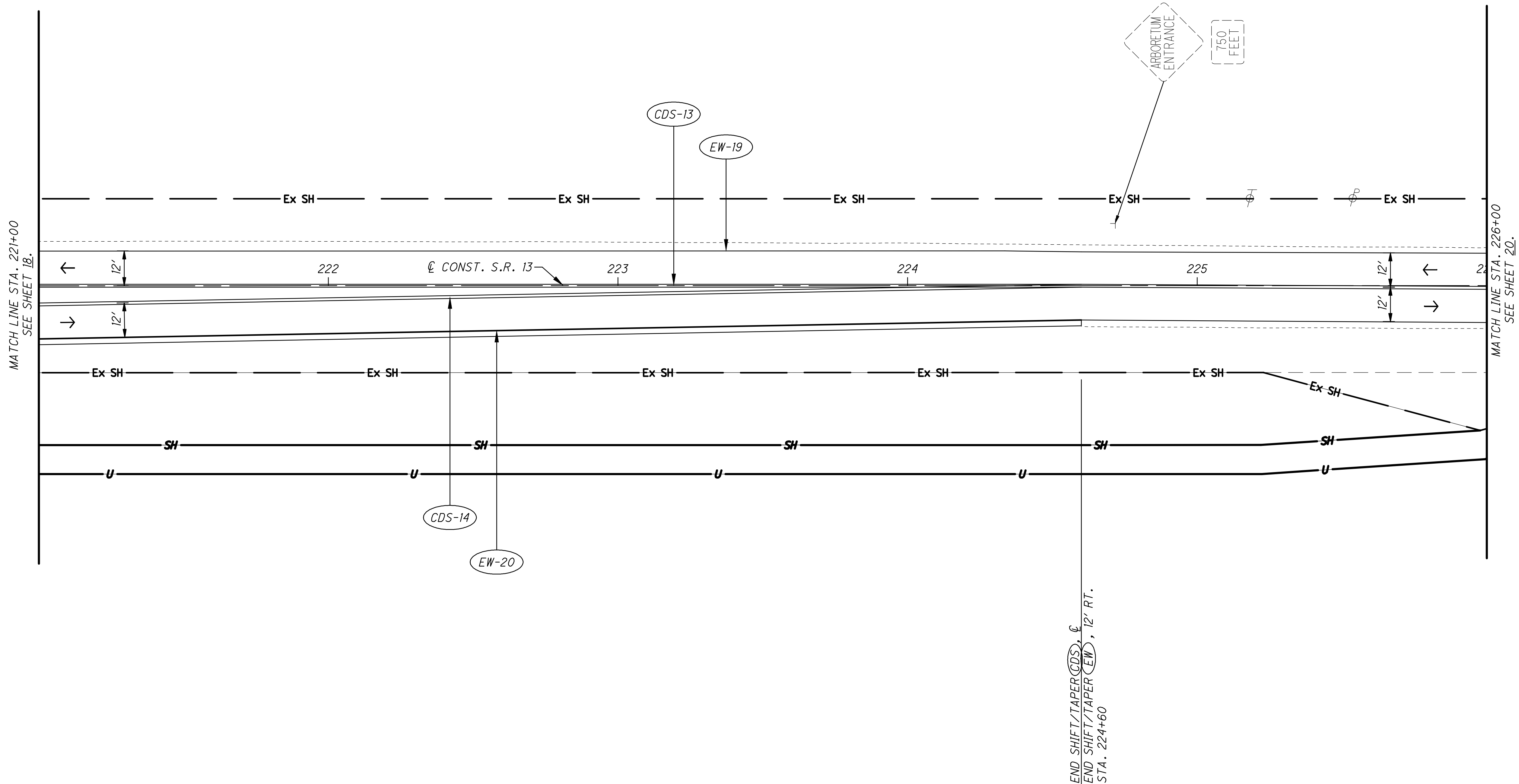






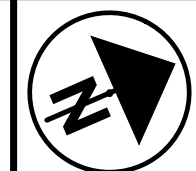
FOR MAINTENANCE OF TRAFFIC LEGEND, SEE SHEET 10.

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FOR MAINTENANCE OF TRAFFIC LEGEND, SEE SHEET 10.

19 55	LIC SR 13 3.88 PART 3	MAINTENANCE OF TRAFFIC PLAN - PHASE 3 STA. 221+00 TO STA. 226+00	CALCULATED SLB CHECKED AKF	0 20 40 HORIZONTAL SCALE IN FEET	
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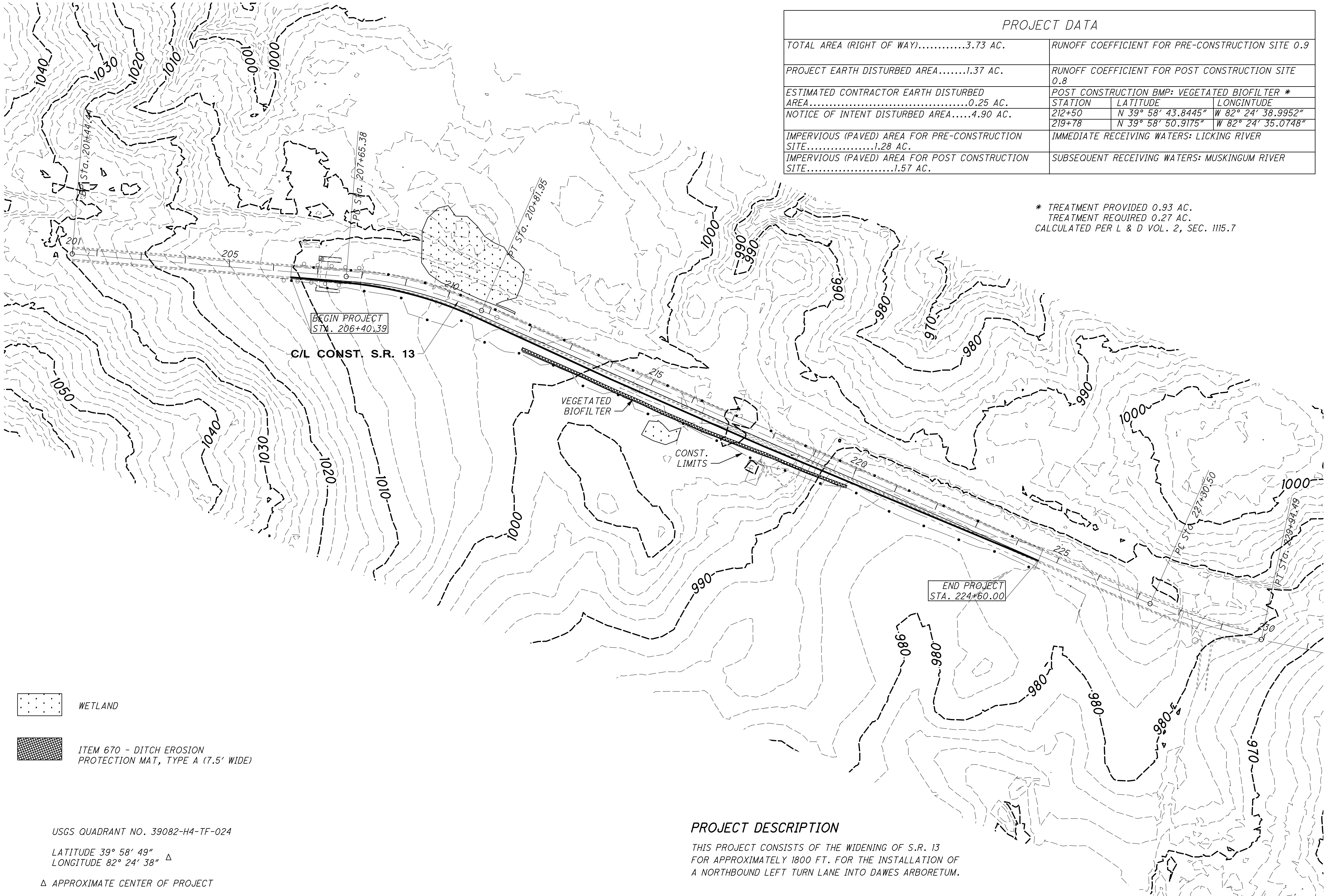


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22 55	LIC SR 13 3.88 PART 3	GENERAL SUMMARY			CALCULATED
					JES
					CHECKED
					MRG



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- WETLAND
- ITEM 670 - DITCH EROSION PROTECTION MAT, TYPE A (7.5' WIDE)

USGS QUADRANT NO. 39082-H4-TF-024
LATITUDE 39° 58' 49" Δ
LONGITUDE 82° 24' 38" Δ
Δ APPROXIMATE CENTER OF PROJECT

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE WIDENING OF S.R. 13 FOR APPROXIMATELY 1800 FT. FOR THE INSTALLATION OF A NORTHBOUND LEFT TURN LANE INTO DAWES ARBORETUM.

PROJECT DATA		
TOTAL AREA (RIGHT OF WAY).....3.73 AC.		RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE 0.9
PROJECT EARTH DISTURBED AREA.....1.37 AC.		RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE 0.8
ESTIMATED CONTRACTOR EARTH DISTURBED AREA.....0.25 AC.		POST CONSTRUCTION BMP: VEGETATED BIOFILTER *
NOTICE OF INTENT DISTURBED AREA.....4.90 AC.		STATION LATITUDE LONGITUDE
		212+50 N 39° 58' 43.8445" W 82° 24' 38.9952"
		219+78 N 39° 58' 50.9175" W 82° 24' 35.0748"
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE.....1.28 AC.		IMMEDIATE RECEIVING WATERS: LICKING RIVER
IMPERVIOUS (PAVED) AREA FOR POST CONSTRUCTION SITE.....1.57 AC.		SUBSEQUENT RECEIVING WATERS: MUSKINGUM RIVER

* TREATMENT PROVIDED 0.93 AC.
TREATMENT REQUIRED 0.27 AC.
CALCULATED PER L & D VOL. 2, SEC. 1115.7

HORIZONTAL SCALE IN FEET

CALCULATED
JES

CHECKED
MRG

PROJECT SITE PLAN

LIC SR 13 3.88 PART 3

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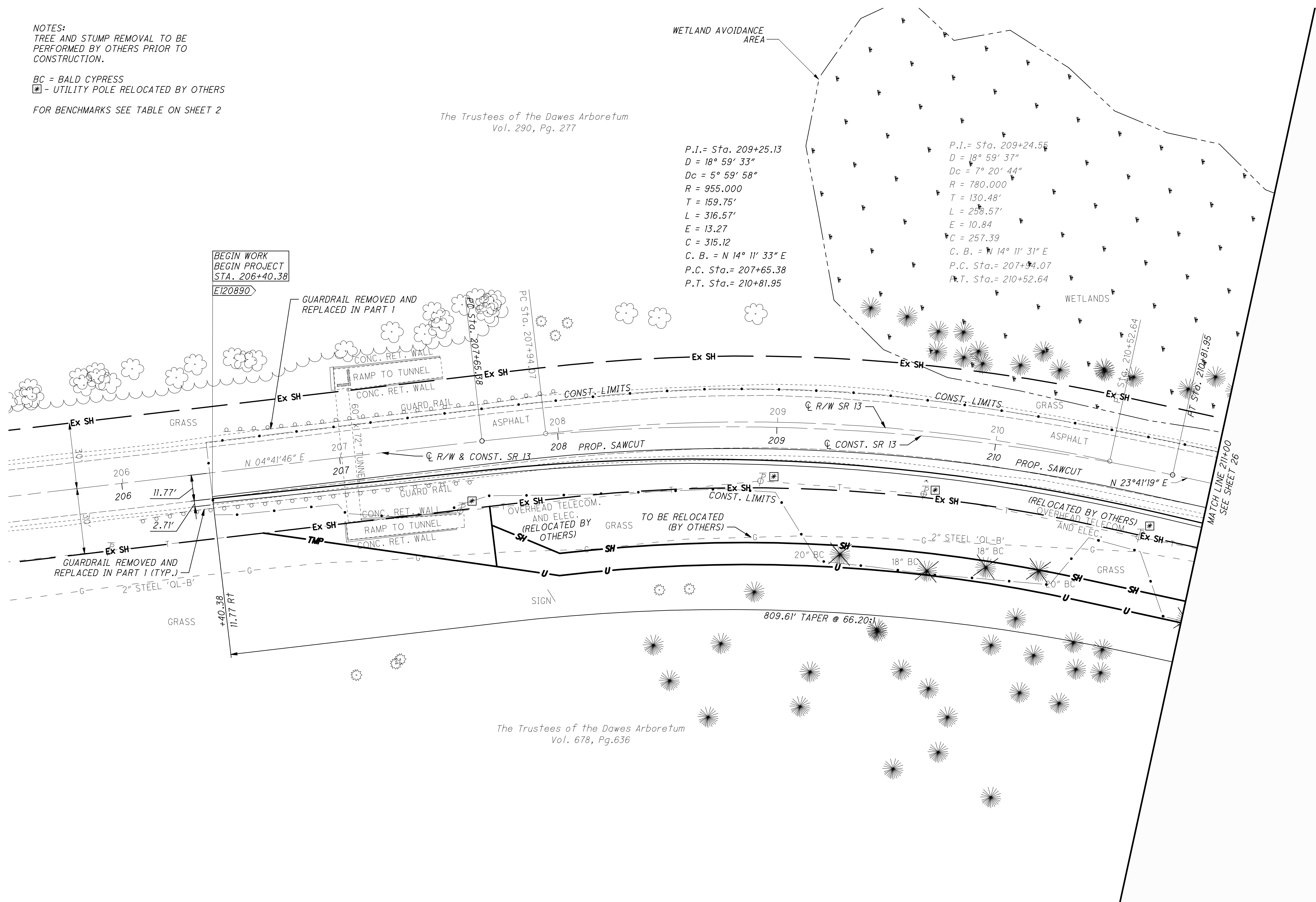
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NOTES:
TREE AND STUMP REMOVAL TO BE
PERFORMED BY OTHERS PRIOR TO
CONSTRUCTION.
BC = BALD CYPRESS
[*] - UTILITY POLE RELOCATED BY OTHERS
FOR BENCHMARKS SEE TABLE ON SHEET 2

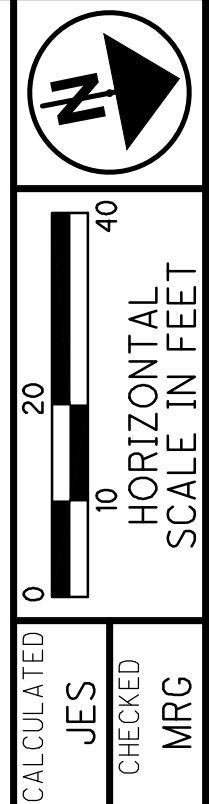
The Trustees of the Dawes Arboretum
Vol. 290, Pg. 277

P.I.= Sta. 209+25.13
D = 18° 59' 33"
Dc = 5° 59' 58"
R = 955.000
T = 159.75'
L = 316.57'
E = 13.27
C = 315.12
C. B. = N 14° 11' 33" E
P.C. Sta.= 207+65.38
P.T. Sta.= 210+81.95

P.I.= Sta. 209+24.55
D = 18° 59' 37"
Dc = 7° 20' 44"
R = 780.000
T = 130.48'
L = 258.57'
E = 10.84
C = 257.39
C. B. = N 14° 11' 31" E
P.C. Sta.= 207+64.07
P.T. Sta.= 210+52.64



The Trustees of the Dawes Arboretum
Vol. 678, Pg. 636

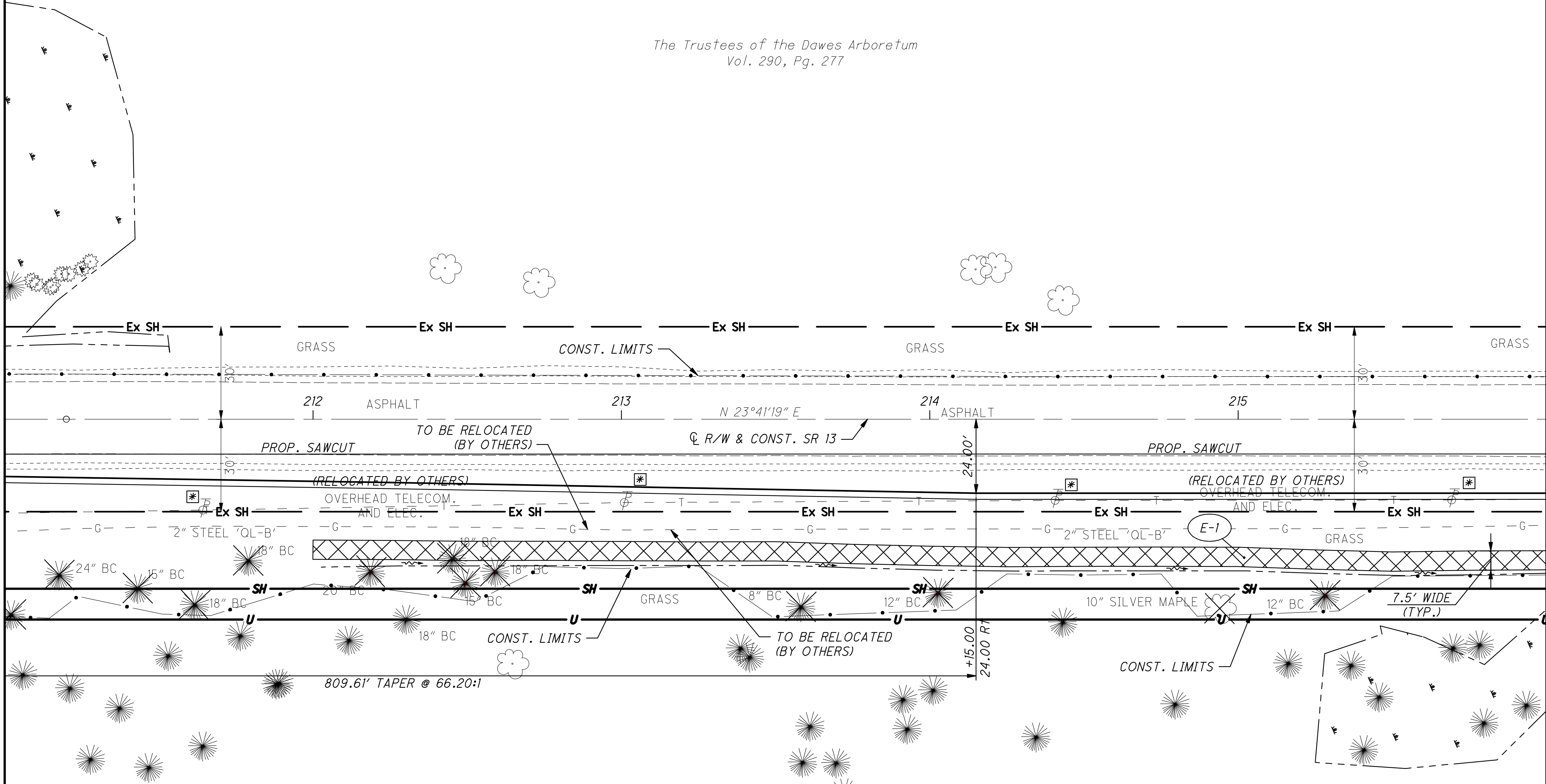


ROADWAY PLAN
BEGIN TO STA. 211+00

LIC SR 13 3.88 PART 3
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MATCH LINE 211+00
SEE SHEET 25



ITEM 670 - DITCH EROSION
PROTECTION MAT, TYPE A (7.5' WIDE)

NOTES:
TREE AND STUMP REMOVAL TO BE
PERFORMED BY OTHERS PRIOR TO
CONSTRUCTION.

BC = BALD CYPRESS
[*] - UTILITY POLE RELOCATED BY OTHERS

FOR BENCHMARKS SEE TABLE ON SHEET 2

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Vol. 678, Pg.636

MATCH LINE 216+00
SEE SHEET 27



EXISTING BUILDING, WALK, AND UTILITY
SERVICE LINES TO BE REMOVED BY
OTHERS PRIOR TO CONSTRUCTION

The Trustees of the Dawes Arboretum
Vol. 678, Pg.636

 ITEM 670 - DITCH EROSION
PROTECTION MAT, TYPE A (7.5' WIDE)

NOTES:
TREE AND STUMP REMOVAL TO BE
PERFORMED BY OTHERS PRIOR TO
CONSTRUCTION.

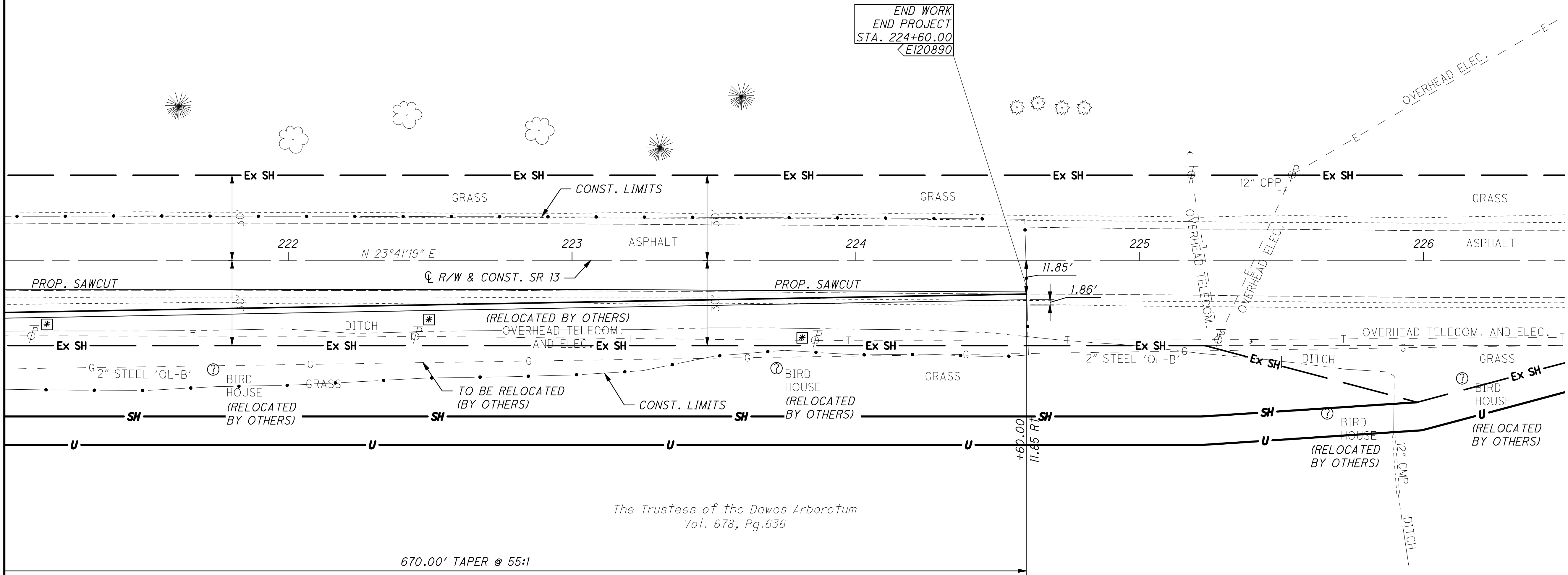
BC = BALD CYPRESS
 ☒ - UTILITY POLE RELOCATED BY OTHERS

FOR BENCHMARKS SEE TABLE ON SHEET 2

 *POTENTIAL ENDANGERED BAT ROOST TREE*

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MATCH LINE 221+00
SEE SHEET 27



The Trustees of the Dawes Arboretum
Vol. 290, Pg. 277

The Trustees of the Dawes Arboretum
Vol. 678, Pg.636

670.00' TAPER @ 55:1

NOTES:
TREE AND STUMP REMOVAL TO BE
PERFORMED BY OTHERS PRIOR TO
CONSTRUCTION.

BC = BALD CYPRESS
[*] - UTILITY POLE RELOCATED BY OTHERS

FOR BENCHMARKS SEE TABLE ON SHEET 2

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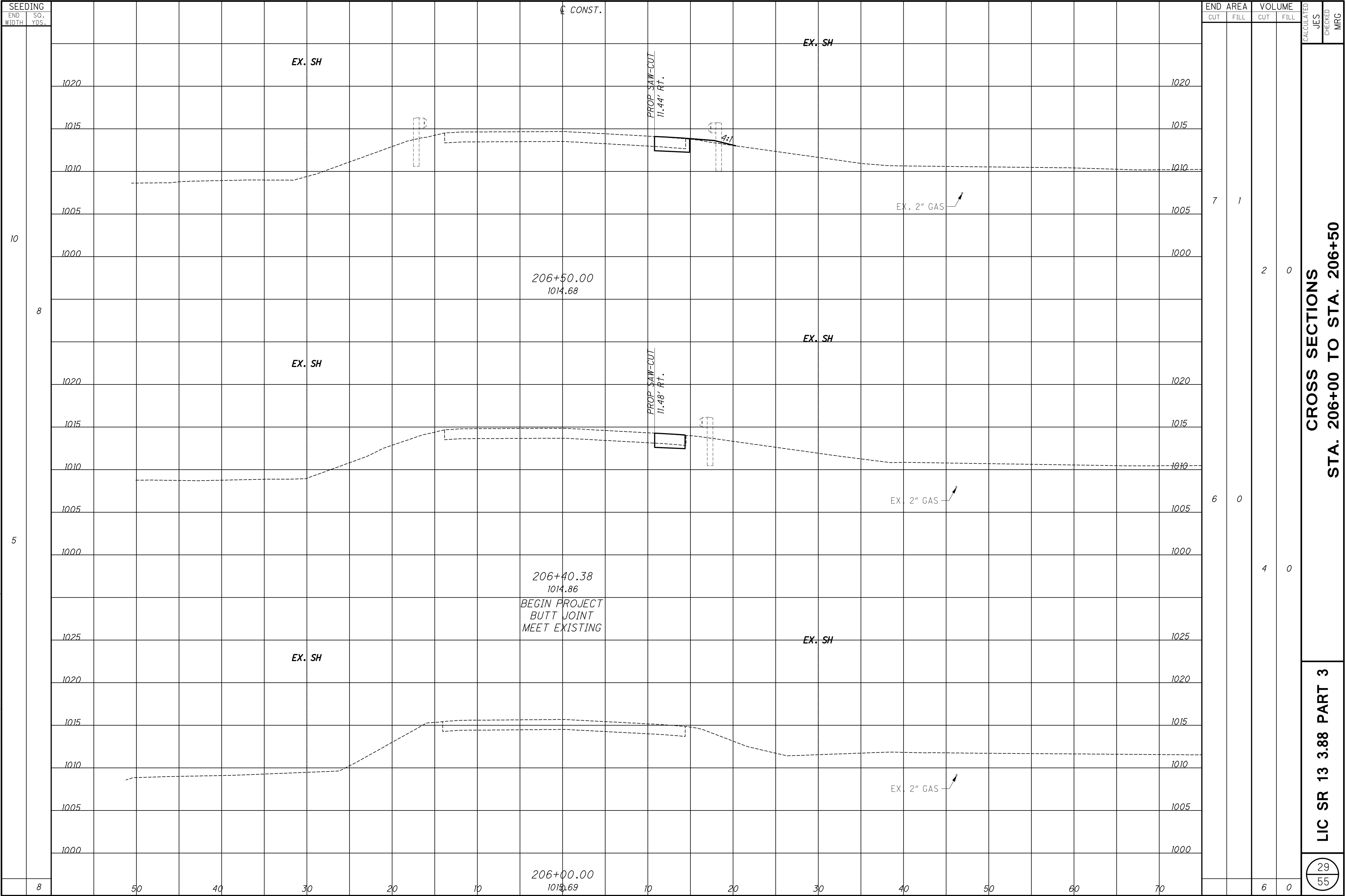
HORIZONTAL
SCALE IN FEET

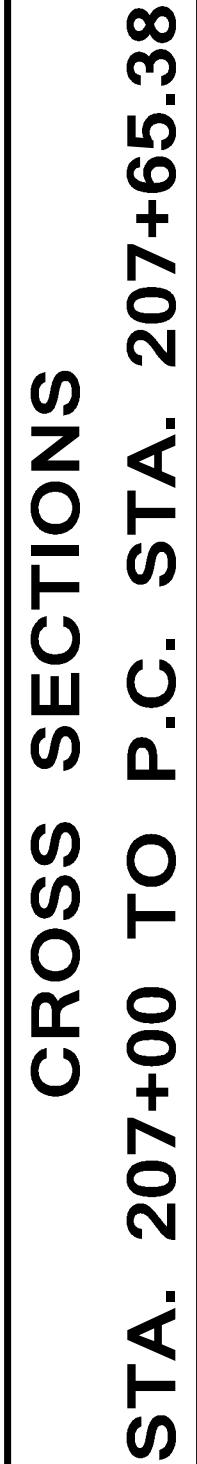
CALCULATED
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MRG

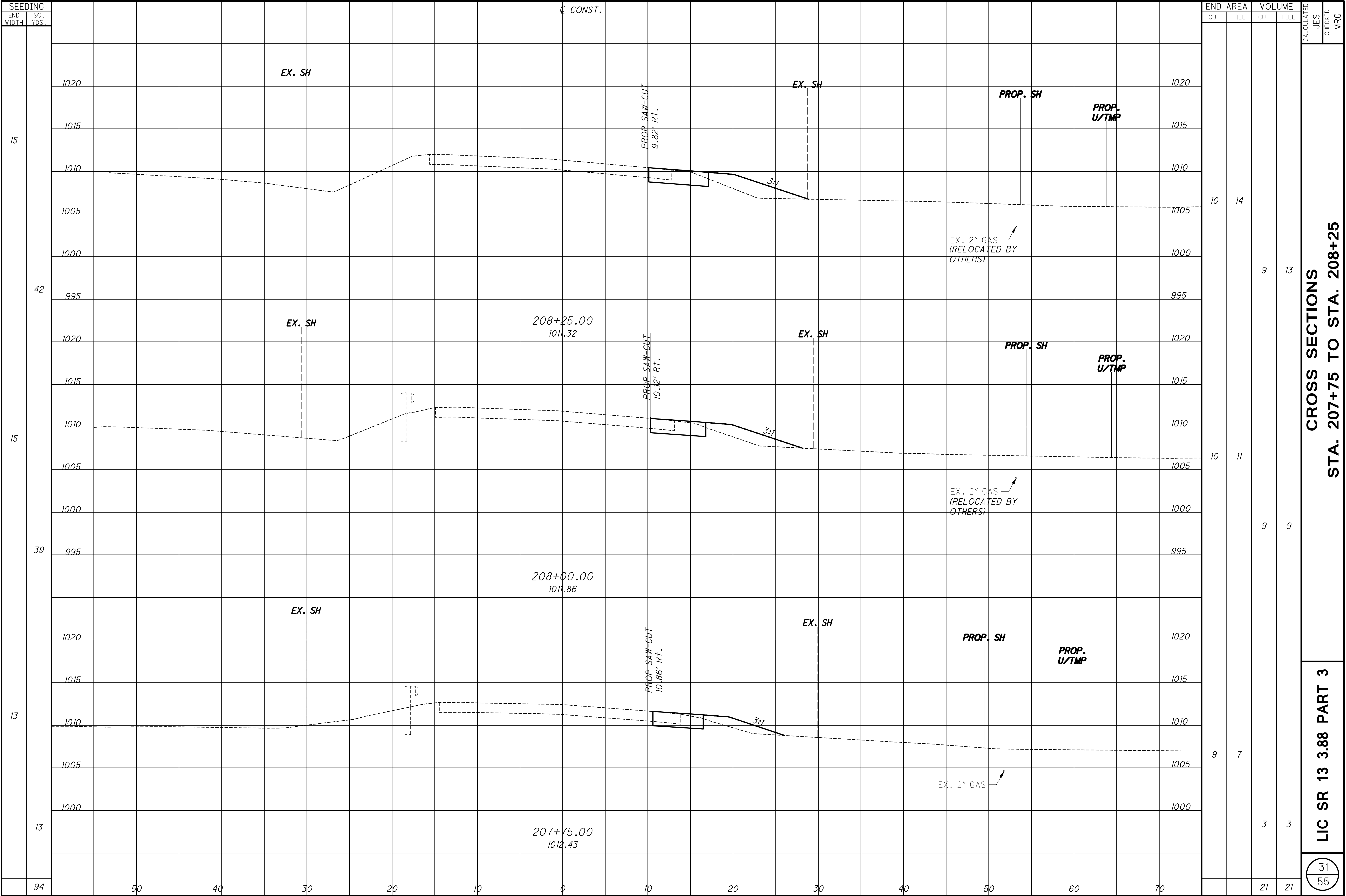
ROADWAY PLAN
STA. 221+00 TO END

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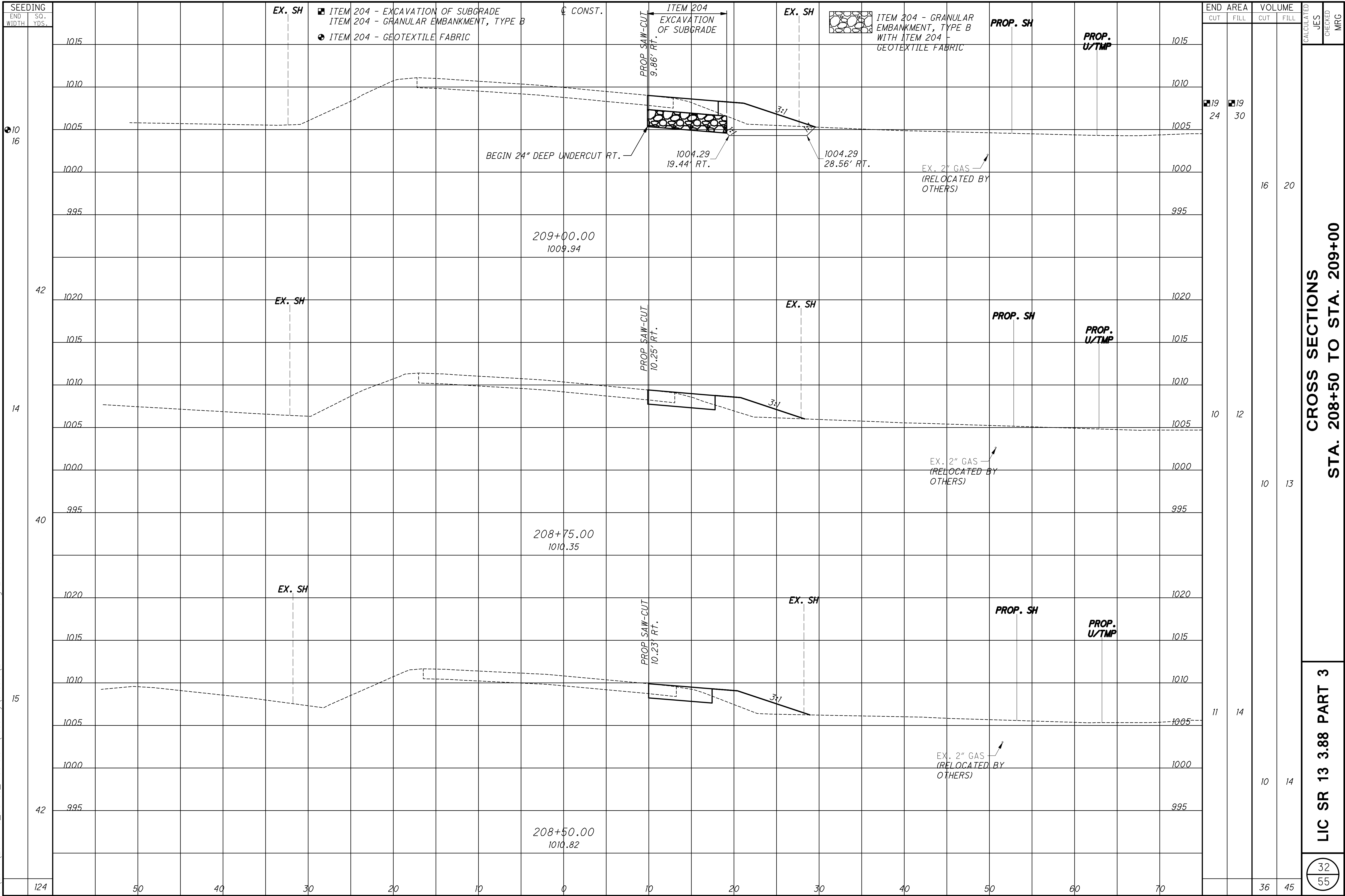




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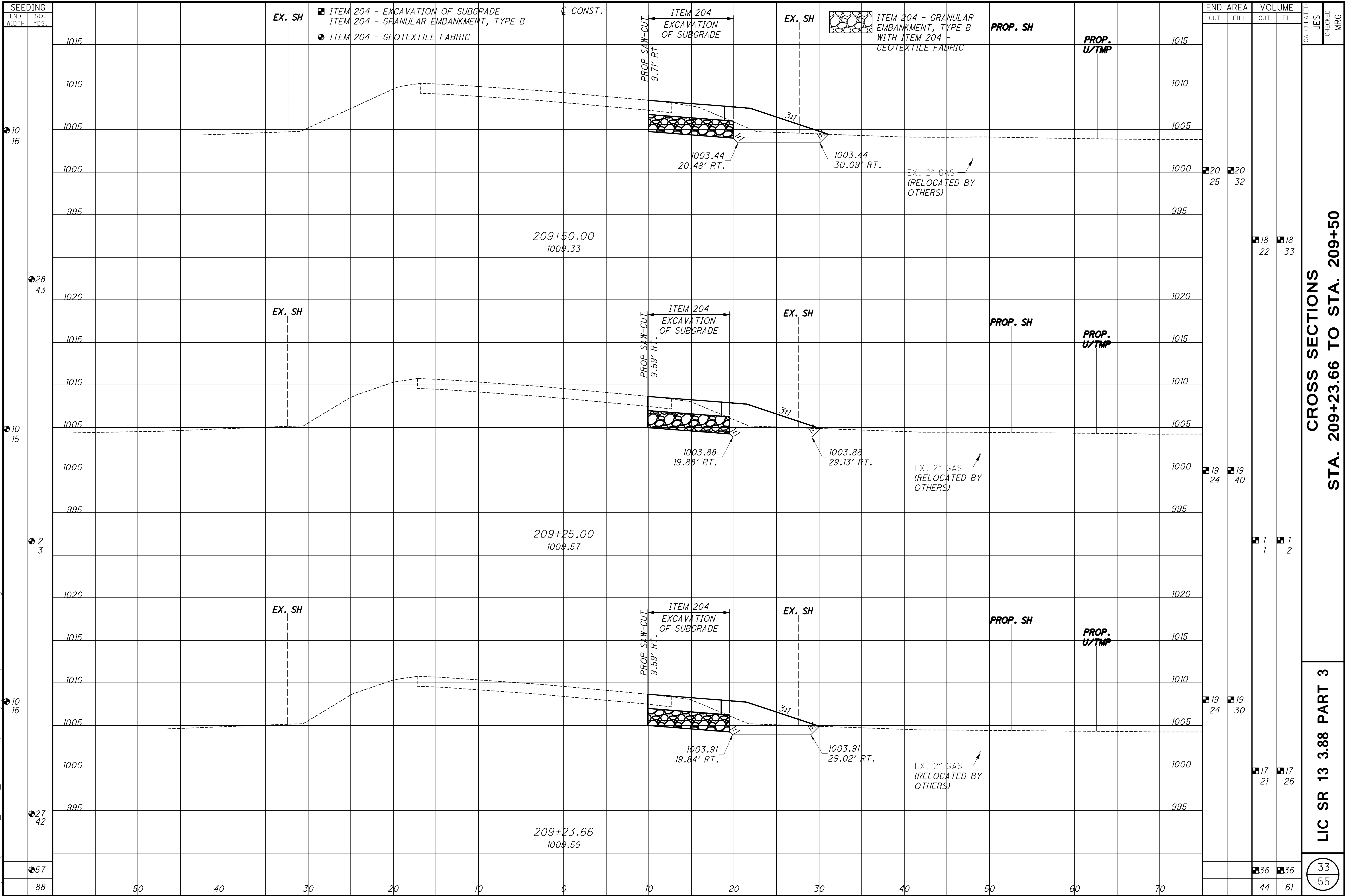


CROSS SECTIONS
STA. 208+50 TO STA. 209+00

LIC SR 13 3.88 PART 3

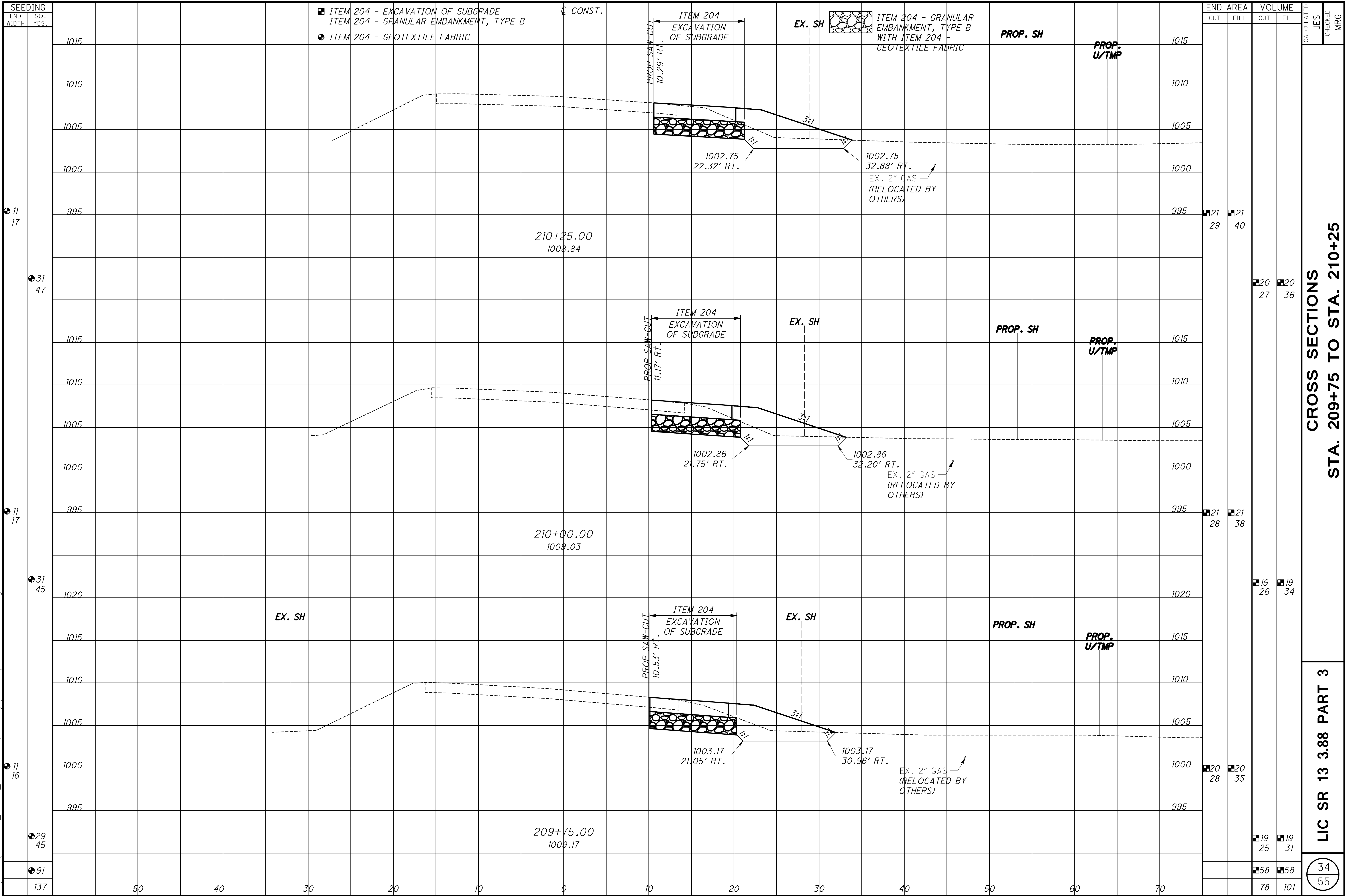
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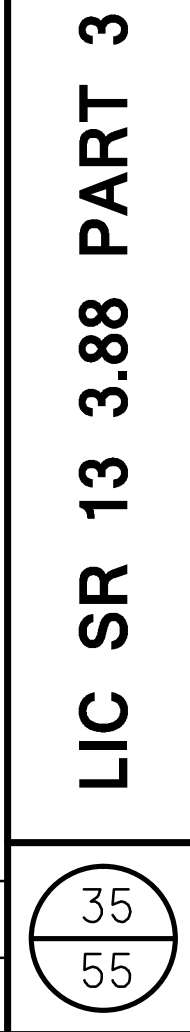
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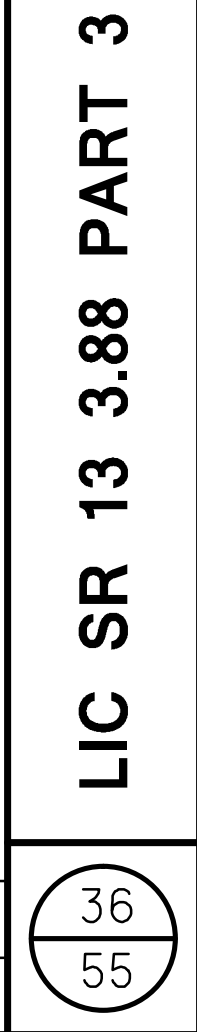


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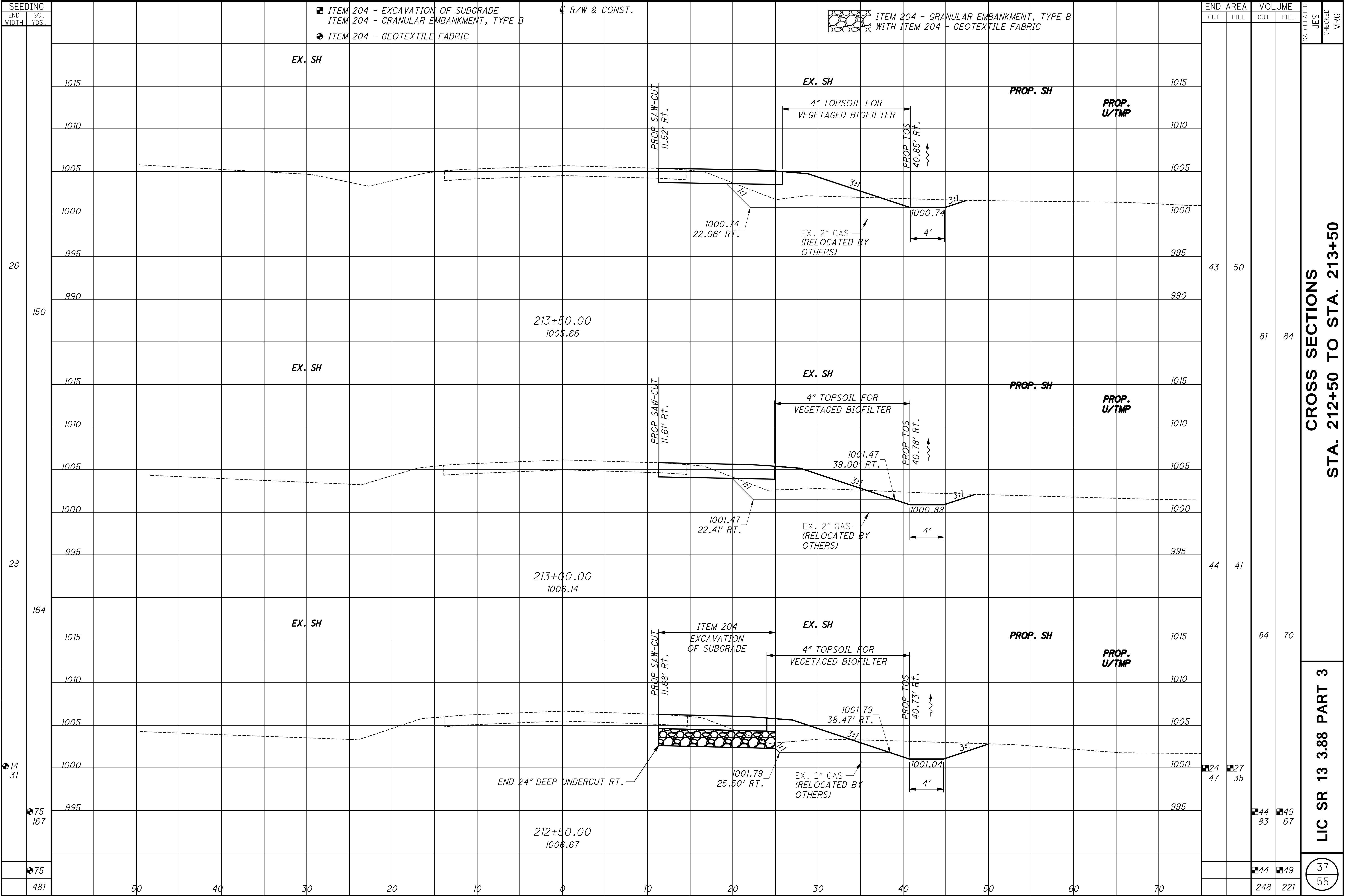
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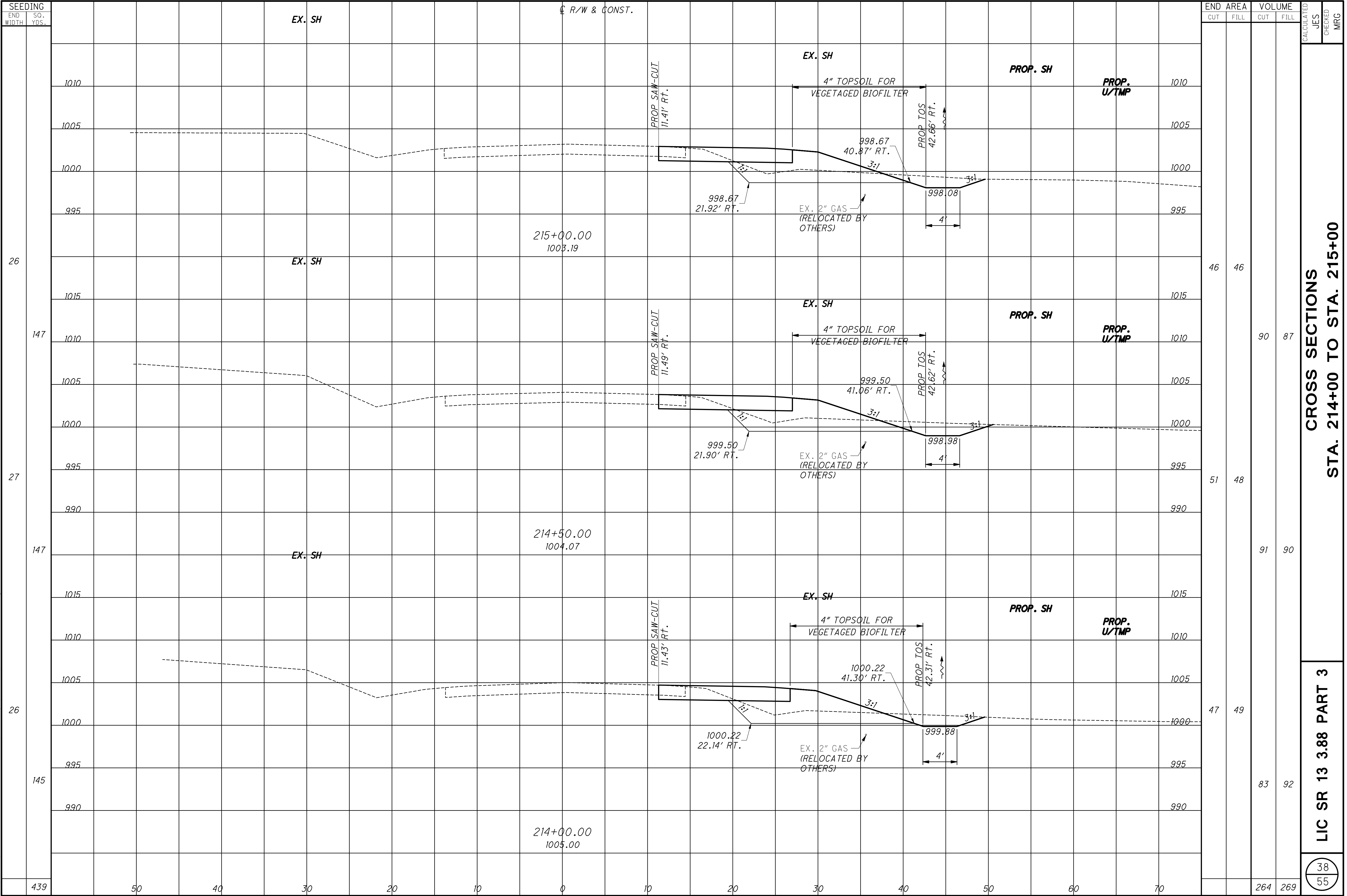


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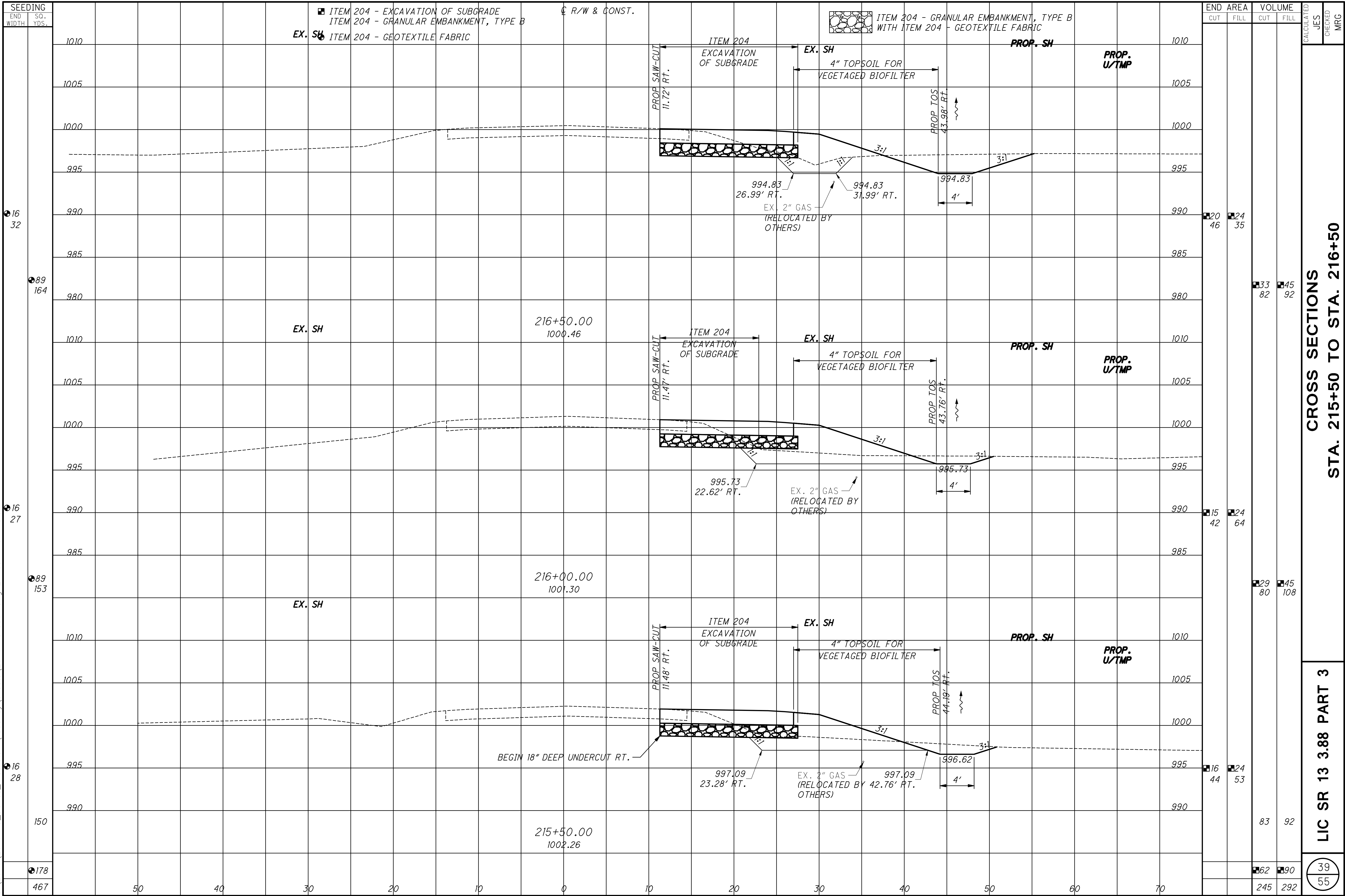
LIC SR 13 3.88 PART 3

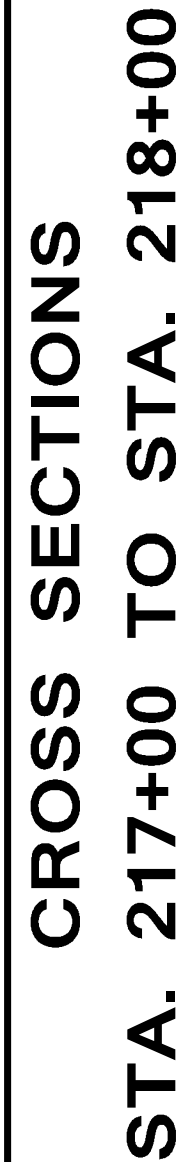
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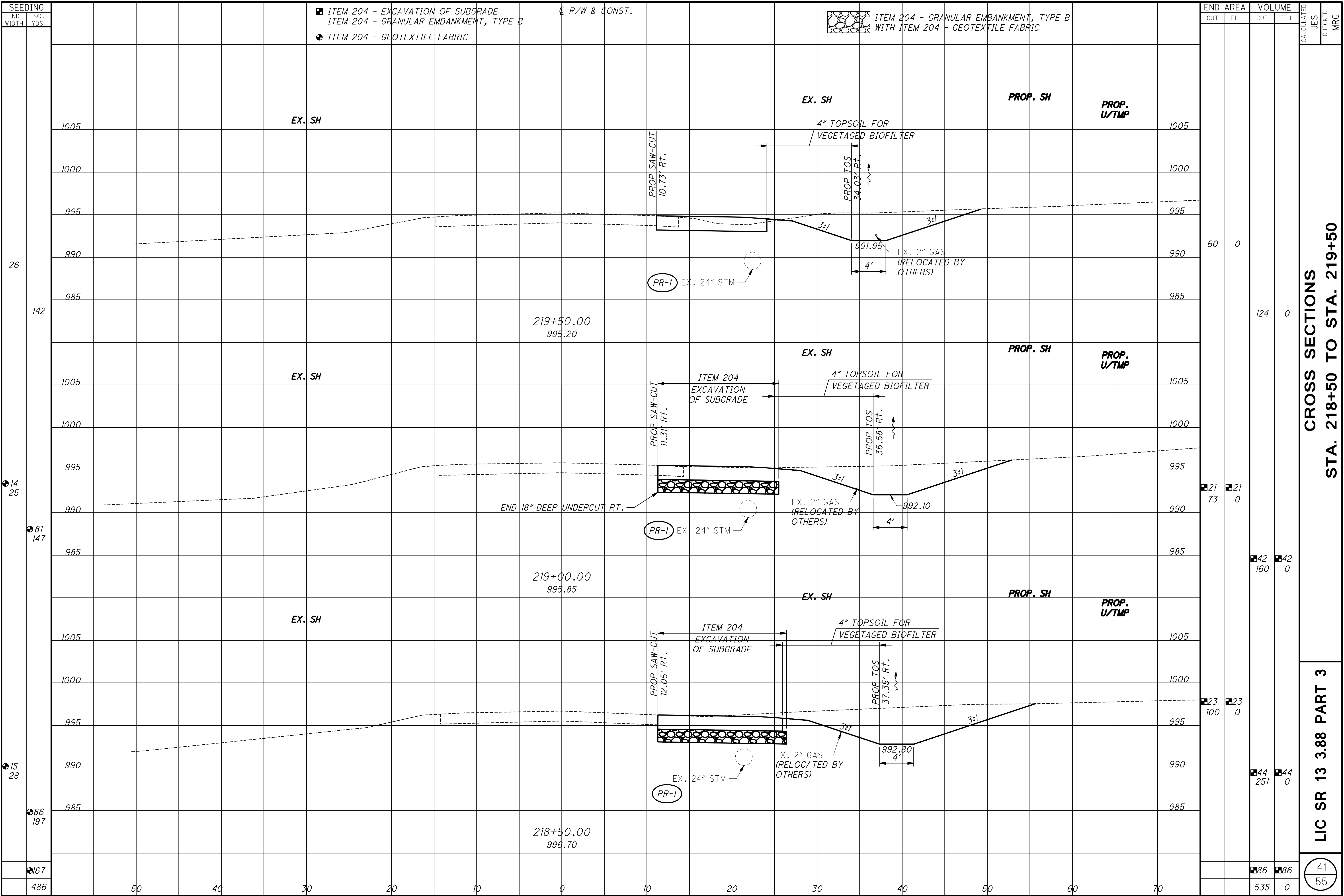


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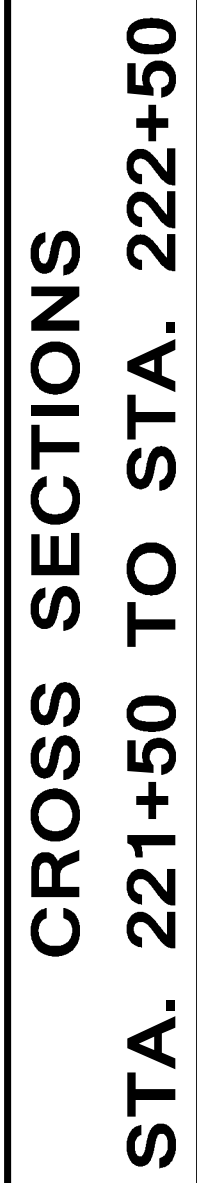


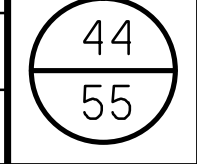


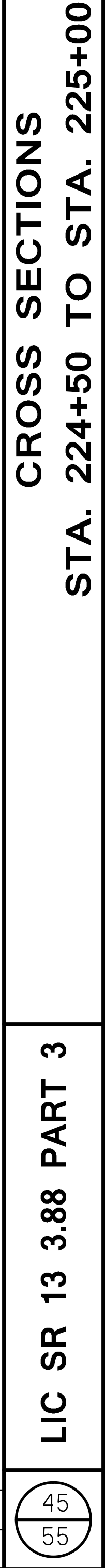
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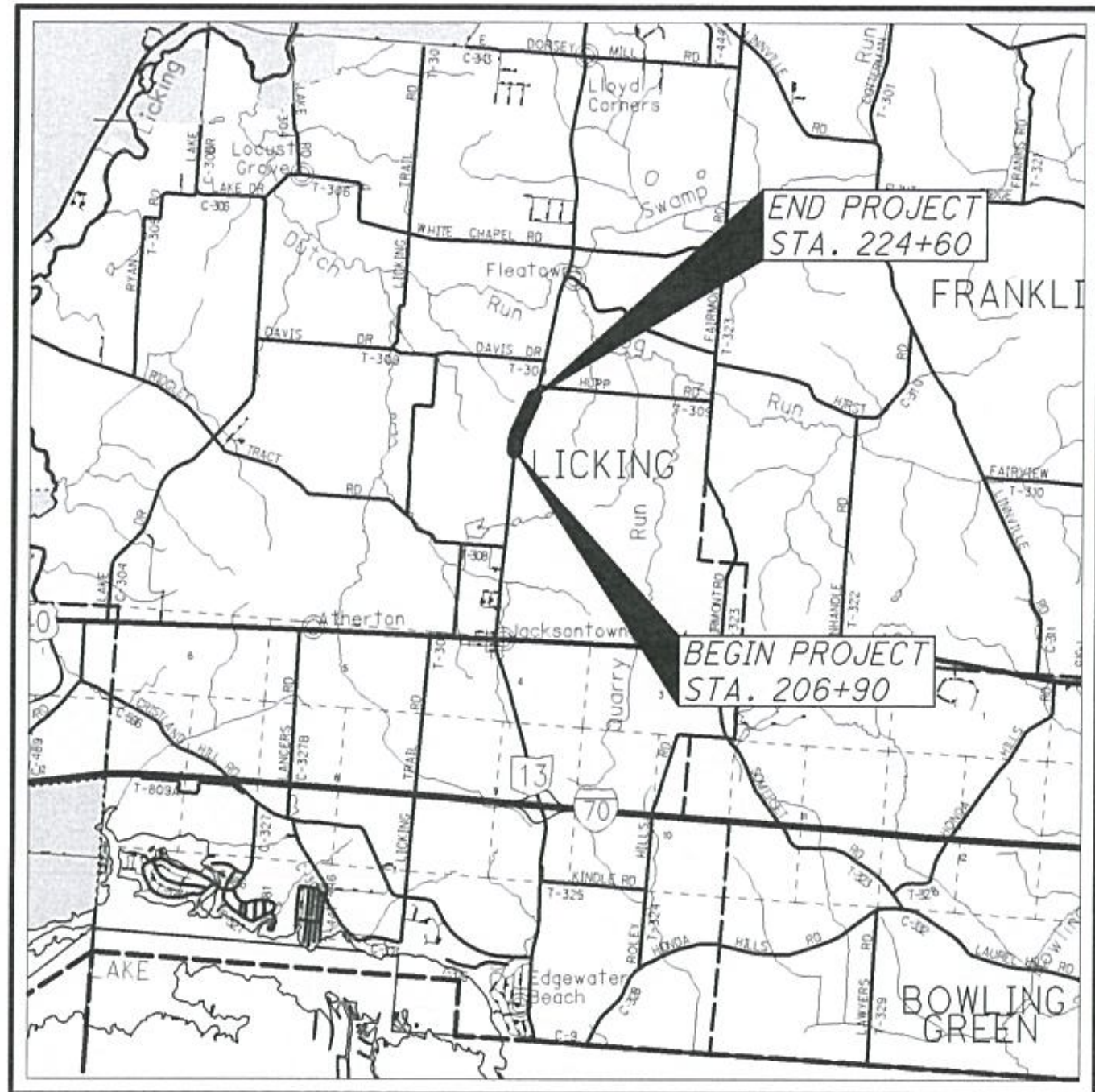








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LOCATION MAP

LATITUDE: 39°58'49" LONGITUDE: 82°24'38"



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

STRUCTURE KEY

	RESIDENTIAL
	COMMERCIAL
	OUT-BUILDING

TYPES OF TITLE LEGEND:
WL = FEE SIMPLE WITH LIMITATION OF ACCESS
WD = WARRANTY DEED
PRW = PROPERTY RIGHT FEE SIMPLE
SH = STANDARD HIGHWAY EASEMENT
LA = LIMITED ACCESS EASEMENT
T = TEMPORARY EASEMENT
CH = CHANNEL EASEMENT
A = AERIAL EASEMENT
SL = SLOPE EASEMENT
PRE = PROPERTY RIGHT EASEMENT

CONVENTIONAL SYMBOLS

County Line	Ditch / Creek (Ex)
Township Line	Ditch / Creek (Pr)
Section Line	Tree Line (Ex)
Corporation Line	Ownership Hook Symbol , Example
Fence Line (Ex)	Property Line Symbol , Example
Center Line	Break Line Symbol , Example
Right of Way (Ex)	Tree (Pr) , Tree (Ex) , Shrub (Ex)
Right of Way (Pr)	Tree (Remove) , Shrub (Remove)
Standard Highway Ease.(Ex)	Evergreen (Ex) , Stump
Standard Highway Ease.(Pr)	Evergreen (Remove) , Stump (Remove)
Temporary Right of Way	Wetland (Pr) , Grass (Pr) , Aerial Target
Channel Ease. (Pr)	Post (Ex) , Mailbox (Ex) , Mailbox (Pr)
Utility Ease. (Ex)	Light (Ex) , Telephone Marker (Ex)
Railroad	Fire Hydrant (Ex) , Water Meter (Ex)
Guardrail (Ex)	Water Valve (Ex) , Utility Valve Unknown (Ex.)
Construction Limits	Telephone Pole (Ex) , Power Pole (Ex)
Edge of Pavement (Ex)	Light Pole (Ex)
Edge of Pavement (Pr)	
Edge of Shoulder (Ex)	
Edge of Shoulder (Pr)	

RIGHT OF WAY LEGEND SHEET LIC-S.R.13-3.88

TOWNSHIP OF LICKING
COUNTY OF LICKING
STATE OF OHIO

LOT 16, 4TH QTR, T1N, R12W, U.S.M.L.

INDEX OF SHEETS:

LEGEND SHEET	1
CENTERLINE PLAT	2
PROPERTY MAP & SUMMARY SHEET	3-4
R/W DETAIL SHEETS	5-9

PROJECT CONTROL

STATE PLANE GRID SOUTH ZONE
PROJECT ADJUSTMENT FACTOR 0.99994763

MONUMENT LEGEND

	EXISTING R/W MONUMENT BOX
	PROPOSED R/W MONUMENT BOX
	EXISTING CONCRETE MONUMENT
	PROPOSED CONCRETE MONUMENT
	RAILROAD SPIKE FOUND
	RAILROAD SPIKE SET
	IRON PIN FOUND
	IRON PIN FOUND W/ ID CAP
	IRON PIN SET W/ ID CAP
	IRON PIPE FOUND
	IRON PIPE SET
	P.K. NAIL FOUND
	P.K. NAIL SET

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
(Non-members must be called directly)

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

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

COLUMBIA GAS OF OHIO
3550 JOHNNY APPLESEED COURT
COLUMBUS, OHIO 43231
ATTN: NATHAN LODEN
614-818-2118

AMERICAN ELECTRIC POWER CO.
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
ATTN: PAUL PAXTON
614-883-6831

WINDSTREAM
66 NORTH FOURTH STREET
NEWARK, OHIO 43055
ATTN: DAVE HOLTON
740-349-8804

TIME WARNER CABLE
111 NORTH 11TH STREET
NEWARK, OHIO 43055
ATTN: BRIAN AMENDE
740-322-6703

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

I, Steven L. Mullaney, P. S. have conducted a survey of the existing conditions for the Ohio Department of Transportation in February 2016. The results of that survey are contained herein. The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinate System, South Zone on NAD 83 (2011) datum. The Project Coordinates (US Survey feet) are relative to State Plane Grid Coordinates (meters or US Survey feet) by a Project Adjustment Factor multiplier of 0.99994763. As a part of this project I have reestablished the locations of the existing property lines and centerline of existing Right of Way for property takes contained herein. All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "A Minimum Standards for Boundary Surveys in the State of Ohio" unless noted. The words I and my as used herein are to mean either myself or someone working under my direct supervision.

Steven L. Mullaney, Professional Land Surveyor No. 7900

Date: 6/30/2016



PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE WIDENING OF S.R. 13
FOR APPROXIMATELY 1800 FT. FOR THE INSTALLATION OF
A NORTHBOUND LEFT TURN LANE INTO DAWES ARBORETUM.

PLANS PREPARED BY:



FIRM NAME : GPD GROUP
R/W DESIGNER: TRAVIS D. McCARTY
R/W REVIEWER: STEVEN L. MULLANEY
FIELD REVIEWER: DON QUINCEL
PRELIMINARY FIELD REVIEW DATE: 4-11-16
TRACINGS FIELD REVIEW DATE: 5-25-16
OWNERSHIP UPDATED BY: CODY SHAFFER
DATE COMPLETED: 5-25-16
PLAN COMPLETION DATE: 6-24-16

FEDERAL PROJECT NO.

PID NO.

92958

CALCULATED

TDM

CHECKED

SLM

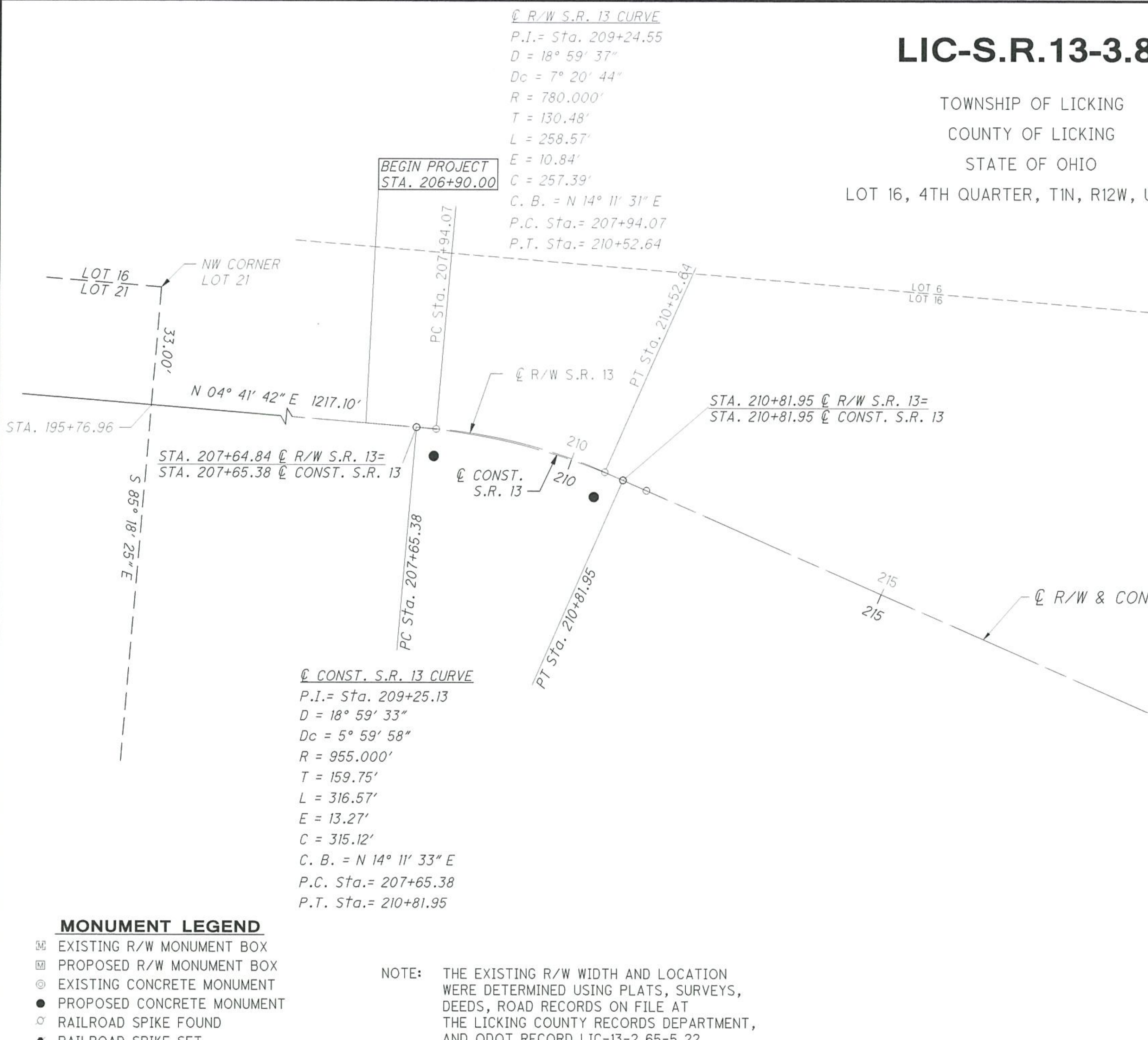
RIGHT OF WAY
LEGEND SHEET

LIC-S.R.13-3.88

1 / 9

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- MONUMENT LEGEND**
- EXISTING R/W MONUMENT BOX
 - PROPOSED R/W MONUMENT BOX
 - EXISTING CONCRETE MONUMENT
 - PROPOSED CONCRETE MONUMENT
 - RAILROAD SPIKE FOUND
 - RAILROAD SPIKE SET
 - IRON PIN FOUND
 - IRON PIN FOUND W/ ID CAP
 - IRON PIN SET W/ ID CAP
 - IRON PIPE FOUND
 - IRON PIPE SET
 - P.K. NAIL FOUND
 - P.K. NAIL SET

NOTE: THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING PLATS, SURVEYS, DEEDS, ROAD RECORDS ON FILE AT THE LICKING COUNTY RECORDS DEPARTMENT, AND ODOT RECORD LIC-13-2.65-5.22

BASIS FOR BEARINGS:

ALL BEARINGS SHOWN ARE FOR PROJECT USE ONLY. GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83 (2011).

I, Steven L. Mullaney, P. S. have conducted a survey of the existing conditions for the Ohio Department of Transportation in February 2016. The results of that survey are contained herein. The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinate System, South Zone on NAD 83 (2011) datum. The Project Coordinates (US Survey feet) are relative to State Plane Grid Coordinates (meters or US Survey feet) by a Project Adjustment Factor multiplier of 0.99994763. As a part of this project I have reestablished the locations of the existing property lines and centerline of existing Right of Way for property takes contained herein. All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "A Minimum Standards for Boundary Surveys in the State of Ohio" unless noted. The words I and my as used herein are to mean either myself or someone working under my direct supervision.

Steven L. Mullaney
Steven L. Mullaney, Professional Land Surveyor No. 7900

Date: 6/30/2016

LIC-S.R.13-3.88

TOWNSHIP OF LICKING
COUNTY OF LICKING
STATE OF OHIO
LOT 16, 4TH QUARTER, T1N, R12W, U.S.M.L.

MONUMENT TABLE							
of R/W S.R. 13		PROJECT COORDINATES SEE SURVEY CERTIFICATION		MONUMENTS TO BE SET DURING CONSTRUCTION		R/W MON. EXPECTED TO BE DISTURBED	
STATION	OFFSET	NORTH (Y)	EAST (X)	MON. ASSY.	REF. MON.	R/W MON.	DESCRIPTION
207+94.07	40.00' RT	720388.4379	1993367.8264		1		CMON AT PC OF S.R. 13
210+52.64	40.00' RT	720625.1751	1993427.6946		1		CMON AT PT OF S.R. 13
227+30.50	40.00' RT	722161.6677	1994101.8078		1		CMON AT PC OF S.R. 13
TOTAL CARRIED TO GENERAL SUMMARY SHEET					3		

END PROJECT
STA. 224+60.00

R/W S.R. 13 CURVE
P.I.= Sta. 228+62.95
D = 11° 38' 05"
Dc = 4° 24' 27"
R = 1300.000'
T = 132.45'
L = 263.98'
E = 6.73'
C = 263.53'
C. B. = N 17° 52' 17" E
P.C. Sta.= 227+30.50
P.T. Sta.= 229+94.49



PROJECT CONTROL
STATE PLANE GRID SOUTH ZONE
PROJECT ADJUSTMENT FACTOR 0.99994763

RECEIVED _____, 20____
RECORDED _____, 20____
BOOK _____ PAGE _____

COUNTY RECORDER

100

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HORIZONTAL
SCALE IN FEET

PID NO.

92958

R/W DESIGNER

TDM

R/W REVIEWER

SLM

CENTERLINE PLAT

LIC-S.R.13-3.88

2 / 9

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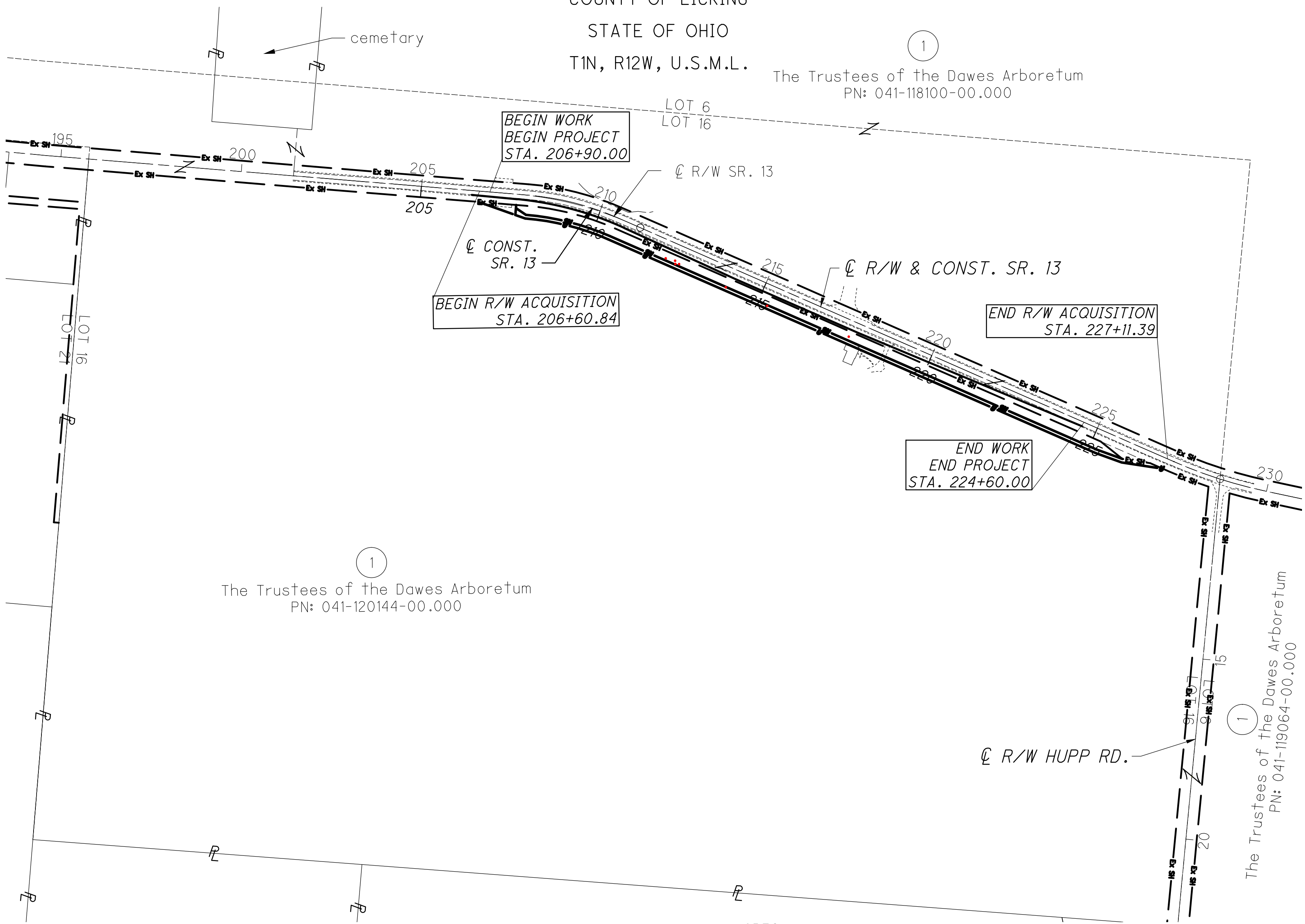
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LIC-S.R.13-3.88

TOWNSHIP OF LICKING
COUNTY OF LICKING
STATE OF OHIO
T1N, R12W, U.S.M.L.

The Trustees of the Dawes Arboretum
PN: 041-118100-00.000

NOTE: FOR PERIPHERY VIEW SHOWING ALL CONTIGUOUS
PARCELS OWNED BY "THE TRUSTEES OF THE DAWES
ARBORETUM" SEE SHEET 4.



TOTAL NUMBER OF :

- 1 OWNERSHIPS 0 TOTAL TAKES
3 PARCELS 1 OWNERSHIPS W/ STRUCTURES INVOLVED

ALL AREAS IN ACRES
NET TAKE = GROSS TAKE - PRO IN TAKE

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC TURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS	AS ACQUIRED INSTRUMENT NO.
1-SH	The Trustees of the Dawes Arboretum	5-8	Vol. 678, Pg. 636	041-120144-00.000	244.97	3.137	1.017	0.000	1.017	NO		240.815		roadway reconstruction, grading, take 42" maple, 15" BC (2), 18" BC (3), 20" BC, 24" BC	
			Vol. 290, Pg. 277	041-118100-00.000	338.28	3.161								no r/w required	
			Inst. 200609270028280	041-119064-00.000	46.772	2.330								no r/w required	
1-U		5-9		041-120144-00.000	244.97	3.138	0.442	0.000	0.442	NO				utility relocation	
1-T		5-9		041-120144-00.000	244.97	3.138	0.475	0.000	0.475	YES				grading, take 10" silver maple, 8" BC, 12" BC (2), 18" BC (3), 20" BC (2), 28" BC	

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

NOTE: ALL TEMPORARY PARCELS TO
BE OF 12 MONTH DURATION.

TYPES OF TITLE LEGEND:
SH = STANDARD HIGHWAY EASEMENT
U = UTILITY EASEMENT
T = TEMPORARY EASEMENT

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY
EASEMENTS TO BE USED FOR STORAGE OF
MATERIAL OR EQUIPMENT BY THE CONTRACTOR
UNLESS NOTED OTHERWISE.

GRANTEE:

ALL RIGHT OF WAY ACQUIRED IN THE NAME OF
THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION
UNLESS OTHERWISE SHOWN.

REV. BY
FIELD REVIEW BY DON QUINCEL DATE: 5-25-16
OWNERSHIP VERIFIED BY CODY SHAFFER DATE: 5-25-16
DATE COMPLETED 6-24-16



PID NO.
92958

R/W DESIGNER
TDM
R/W REVIEWER
SLM

PROPERTY MAP / SUMMARY

LIC-S.R.13-3.88

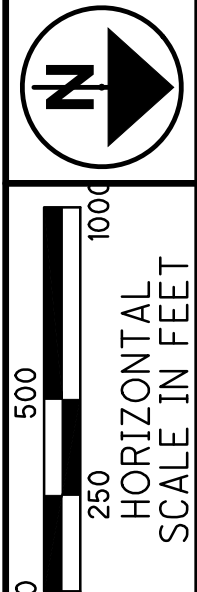
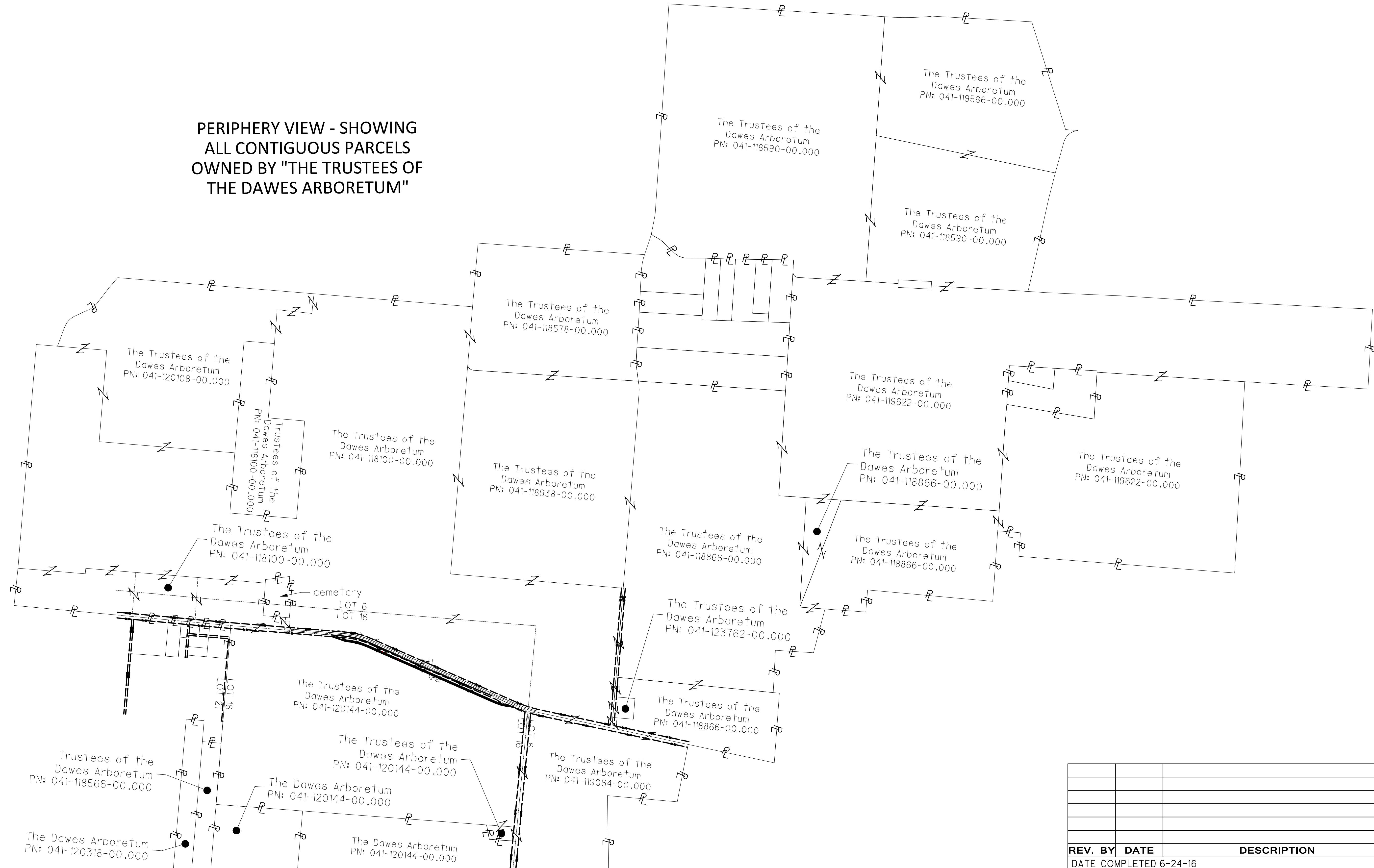
3 / 9

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LIC-S.R.13-3.88

TOWNSHIP OF LICKING
COUNTY OF LICKING
STATE OF OHIO

PERIPHERY VIEW - SHOWING
ALL CONTIGUOUS PARCELS
OWNED BY "THE TRUSTEES OF
THE DAWES ARBORETUM"



PID	NO.
	92958
R/W DESIGNER	TDM
R/W REVIEWER	SLM

PROPERTY MAP

LIC-S.R.13-3.88

4 / 9

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REV. BY	DATE	DESCRIPTION

DATE COMPLETED 6-24-16

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LOT 16, 4TH QUARTER, T1N, R12W, U.S.M.L.

 POTENTIAL ENDANGERED BAT ROOST TREE

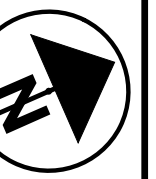
R/W DESIGNER
TDM
R/W REVIEWER
C.W.

LIC-S.R.13-3.88

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REV. BY	DATE	DESCRIPTION
DATE COMPLETED 6-24-16		

 *POTENTIAL ENDANGERED BAT ROOST TREE*

92958

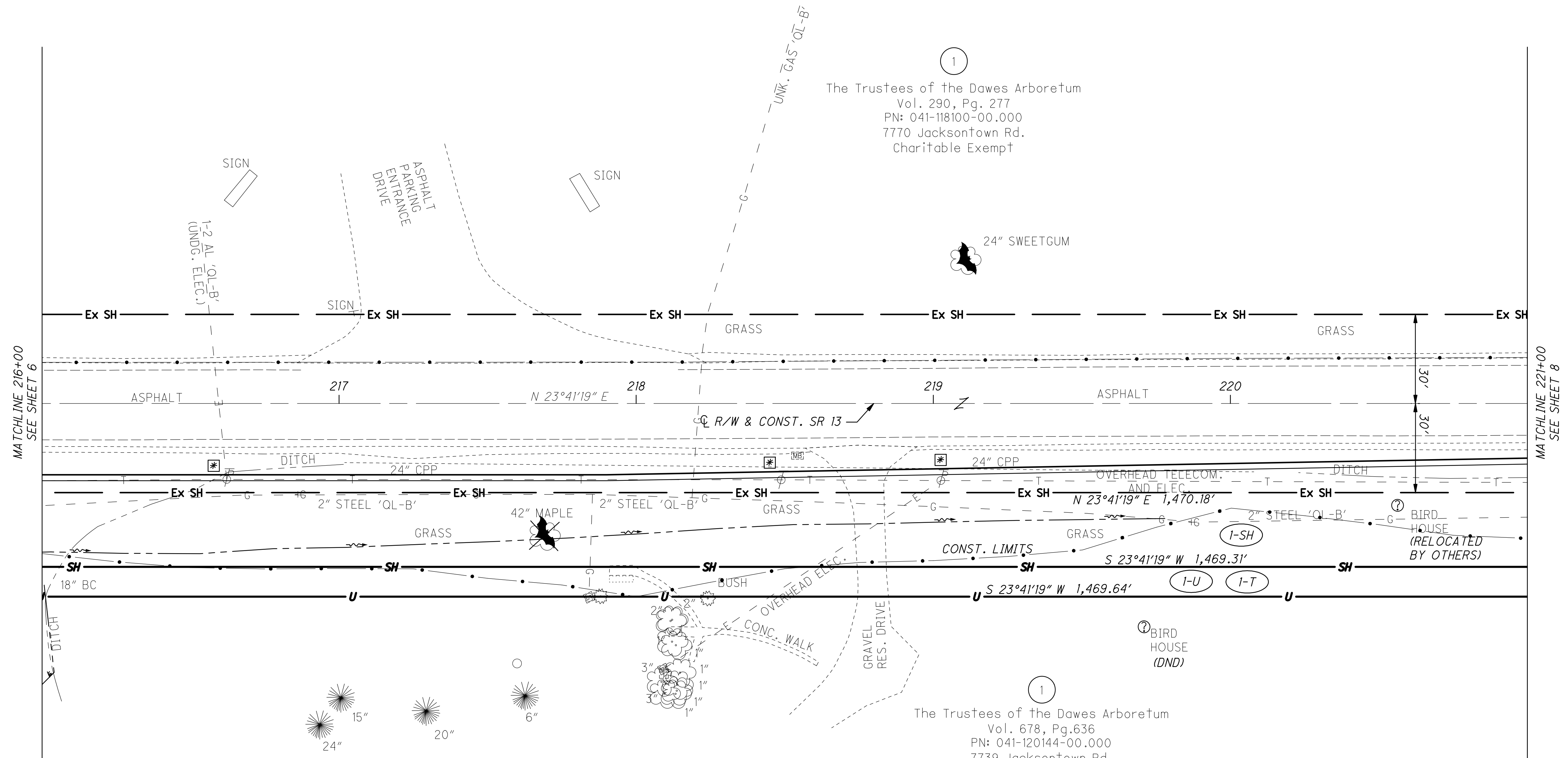
TDM	R/W REVIEW	SLM
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DETAIL SHEET
STA 216+00 TO STA. 221+00

LIC-S.R.13-3.88

7	9
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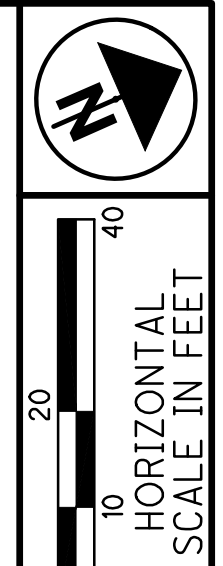


REV. BY	DATE	DESCRIPTION
DATE COMPLETED 6-24-16		

NOTES:
*TREE REMOVAL TO BE PERFORMED BY OTHERS
 PRIOR TO CONSTRUCTION. STUMPS MAY REMAIN.*

BC = BALD CYPRESS
 - *UTILITY POLE RELOCATED BY OTHERS*

 *POTENTIAL ENDANGERED BAT ROOST TREE*

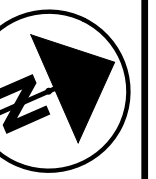


R/W DESIGNER	TDM
R/W REVIEWER	SLM

LIC-S.R.13-3.88

REV. BY	DATE	DESCRIPTION
DATE COMPLETED 6-24-16		

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 POTENTIAL ENDANGERED BAT ROOST TREE

TDM	R/W REVIEW	SLM
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LIC-S.R.13-3.88

9	9
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DATE COMPLETED	6-24-16
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J:\GEOTECH\Projects\2016\W-16-022 Daves Arboretum - SR 13 Widening\DWG\2016113\0001.dwg 13-Apr-16 3:13 PM

PROJECT DESCRIPTION

THE PROPOSED IMPROVEMENTS ALONG THE STATE ROUTE (SR) 13 AND ADDITION OF TURN LANES DEDICATED FOR DAWES ARBORETUM IN THE CITY OF HEATH, OHIO. IT IS UNDERSTOOD THAT THE ROADWAY WILL BE WIDENED TO THE EAST ALONG THE SR 13 BETWEEN STATION 206+90 AND STA. 224+60.

HISTORIC RECORDS

NO HISTORIC RECORDS WERE OBTAINED FOR THIS PROJECT.

GEOLOGY

THIS AREA IS CHARACTERIZED AS A ROLLING UPLAND, TRANSITIONING BETWEEN THE GENTLY ROLLING TILL PLAIN AND THE HILLY GLACIATED ALLEGHENY PLATEAU, AND IS TYPICALLY COMPRISED OF MEDIUM-TO LOW-LIME WISCONSINAN-AGE TILL OVERLYING MISSISSIPPIAN-AGE SHALES AND SANDSTONES. THE SOIL AT THE SITE CONSISTS OF SILTY LOAM TILL (DARBY, BELLEFONTAINE, CENTERBURG, GRAND LAKE, ARCANUM, KNIGHTSTOWN TILLS).

BASED ON BEDROCK GEOLOGY AND TOPOGRAPHY MAPS OBTAINED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), THE BEDROCK UNDERLYING THE GLACIAL DEPOSITS CONSISTS OF THE MISSISSIPPIAN-AGED LOGAN AND CUYAHOGA FORMATIONS UNDIVIDED. THE LOGAN FORMATION CONSISTS OF GRAY, YELLOW AND BROWN SANDSTONE AND SILTSTONE. THE SANDSTONE LAYERS CONTAIN LENSES AND BEDS OF COARSE SAND GRAINS TO FINE-PEBBLE CONGLOMERATE AND THE SILTSTONE CONTAINS SHALE INTERBEDS AND PARTINGS AND IS LOCALLY FOSSILIFEROUS. THE CUYAHOGA FORMATION CONSISTS OF GRAY, OLIVE, BROWN AND YELLOW SANDSTONE, SILTSTONE AND SHALE. THE SANDSTONE IS SILTY TO CONGLOMERATIC AND THE SILTSTONE AND SHALE ARE LOCALLY FOSSILIFEROUS AND INTERTONGUE AND INTERGRADE. THE ENTIRE UNDIVIDED FORMATION RANGES BETWEEN 250 TO 1,050 FEET THICK. ACCORDING TO BEDROCK TOPOGRAPHY MAPPING, THE BEDROCK SURFACE SLOPES DOWN TO THE NORTHWEST ACROSS THE SITE, WITH THE ELEVATION OF THE BEDROCK SURFACE APPROXIMATELY 985 TO 1015 FEET MSL (MEAN SEA LEVEL), WHICH IS APPROXIMATELY 65 TO 135 FEET BELOW THE GROUND SURFACE.

RECONNAISSANCE

THE PROJECT SITE IS LOCATED APPROXIMATELY 1.5 MILES NORTH OF JACKSONTOWN AND SOUTHEAST OF THE CITY OF HEATH, OHIO. WITHIN THE PROJECT CORRIDOR, SR 13 IS ALIGNED IN A PRIMARILY NORTH-TO-SOUTH ORIENTATION WITH HUPP ROAD ORIENTED IN EAST-TO-WEST ALIGNMENT AT THE END OF THE PROJECT. THE EXISTING SR 13 IS AN ASPHALT PAVED ROADWAY THAT CURRENTLY MAINTAINS TWO (2) THROUGH LANES IN BOTH THE NORTHBOUND AND SOUTHBOUND DIRECTION, WITH NO DEDICATED CENTRAL TURN LANE ALONG THE ENTIRE PROJECT ALIGNMENT. THE EXISTING PAVEMENT ALONG SR 13 IS IN FAIR CONDITION, WITH A SIGNIFICANT AMOUNT OF CRACK SEALING EVIDENT THROUGH THE ENTRANCE TO THE DAWES ARBORETUM. GAS AND PHONE UTILITIES ARE PRESENT AT THE SITE ALONG WITH OVERHEAD ELECTRIC WHICH RUNS ALONG THE EAST SIDE OF THE ROADWAY. TRAFFIC VOLUME IS ESTIMATED TO BE LOW TO MODERATE THROUGHOUT THE PROJECT CORRIDOR. LAND USE ALONG THE EAST SIDE OF THE PROJECT CORRIDOR CONSISTS PRIMARILY OF FARM AND AGRICULTURE AND AREAS TO THE WEST OF THE PROJECT APPEARS TO BE HEAVILY WOODED WITH SPARSELY POPULATED RESIDENTIAL UNITS AND THE PROPERTY OWNED BY DAWES ARBORETUM. THE EXISTING TERRAIN ACROSS THE SUBJECT SITE WAS OBSERVED TO BE RELATIVELY FLAT, WITH A GENTLE SLOPE TO THE NORTH. SURFACE DRAINAGE IS DIRECTED TO GRASS DITCHES THAT LINE BOTH SIDES OF SR 13.

SUBSURFACE EXPLORATION

A TOTAL OF EIGHT (8) BORINGS, DESIGNATED AS B-001-0-16 THROUGH B-008-0-16, WERE DRILLED TO COMPLETION DEPTHS RANGING FROM 7.0 TO 11.0 FEET BELOW THE EXISTING GROUND SURFACE. THE BORING LOCATIONS WERE DETERMINED AND LOCATED IN THE FIELD BY RII REPRESENTATIVES PRIOR TO THE DRILLING OPERATIONS. GEOGRAPHIC LATITUDE AND LONGITUDE COORDINATES WERE COLLECTED USING A HANDHELD GPS DEVICE, AND GROUND SURFACE ELEVATIONS AT THE BORING LOCATIONS WERE INTERPOLATED USING AVAILABLE TOPOGRAPHIC INFORMATION PROVIDED BY GPD GROUP .

THE BORINGS WERE DRILLED WITH A MOBILE B-53 TRUCK-MOUNTED ROTARY DRILLING MACHINE, UTILIZING A 4.5-INCH OUTSIDE DIAMETER, CONTINUOUS FLIGHT AUGER TO ADVANCE THE HOLES. RII UTILIZED A CALIBRATED AUTOMATIC DROP HAMMER TO GENERATE CONSISTENT ENERGY TRANSFER TO THE SAMPLER. THE HAMMER FOR THE MOBILE B-53 TRUCK-MOUNTED DRILL RIG USED FOR THIS PROJECT WAS CALIBRATED ON MAY 13, 2015 AND HAS A DRILL ROD ENERGY RATIO OF 77.1 PERCENT.

EXPLORATION FINDINGS

ALL BORINGS WERE PERFORMED WITHIN THE EXISTING PAVEMENT ALONG SR 13 AND ENCOUNTERED 12.0 TO 14.0 INCHES OF ASPHALT OVERLAYING 2.0 TO 5.5 INCHES OF AGGREGATE BASE AT THE GROUND SURFACE.

BENEATH THE PAVEMENT MATERIALS IN BORINGS B-003-0-16 AND B-004-0-16, MATERIAL IDENTIFIED AS POSSIBLE FILL WAS ENCOUNTERED EXTENDING TO A DEPTH OF 7.5 AND 4.5 FEET BELOW THE GROUND SURFACE, RESPECTIVELY. THE FILL MATERIAL CONSISTED OF MEDIUM STIFF TO VERY STIFF, BROWN AND BROWNISH GRAY SILT, SILT AND CLAY AND SILTY CLAY (ODOT A-4b, A-6a, A-6b) AND LOOSE, BROWN TO GRAY SANDY SILT (ODOT A-4b). ORGANICS AND WOOD FRAGMENTS WERE PRESENT AT THE BOTTOM OF THE FILL MATERIAL IN BORING B-003-0-16, AND SHALE FRAGMENTS WERE PRESENT THROUGHOUT THE FILL MATERIAL IN BORING B-004-0-16.

LEGEND				
	DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
	GRAVEL AND/OR STONE FRAGMENTS	A-2-4	1	-
	GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-2-6	2	2
	GRAVEL AND/OR STONE FRAGS. WITH SAND & SILT	A-4a	6	6
	GR. AND/OR ST. FRAGS. WITH SAND, SILT & CLAY	A-4b	1	-
	SANDY SILT	A-6a	6	6
	SILT	A-6b	-	4
	TOTAL		16	18
	PAVEMENT OR BASE = X = APPROXIMATE THICKNESS			
	BORING LOCATION - PLAN VIEW.			
	DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.			
	INDICATES WATER CONTENT IN PERCENT.			
	INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.			
	INDICATES FREE WATER ELEVATION.			
	INDICATES A PLASTIC MATERIAL WITH A MOISTURE CONTENT EQUAL TO OR GREATER THAN THE LIQUID LIMIT MINUS 3.			
	INDICATES A SAMPLE TAKEN WITHIN 3 FT OF PROPOSED GRADE.			
	INDICATES A SPLIT SPOON SAMPLE.			
	INDICATES A SHELBY TUBE SAMPLE.			
	INDICATES A NON-PLASTIC SAMPLE.			

EXPLORATION FINDINGS (CONTINUED)

UNDERLYING THE PAVEMENT MATERIALS AND EXISTING FILL, WHERE ENCOUNTERED, NATURAL COHESIVE SOILS WERE ENCOUNTERED WITH INTERMITTENT SEAMS OF GRANULAR MATERIAL. THE NATURAL COHESIVE WERE GENERALLY DESCRIBED AS MEDIUM STIFF TO VERY STIFF, BROWN, GRAYISH BROWN, BROWNISH GRAY AND DARK BROWN SANDY SILT, SILT AND CLAY AND SILTY CLAY (ODOT A-4a, A-6a, A-6b). THE NATURAL GRANULAR SOILS WERE GENERALLY DESCRIBED AS LOOSE TO DENSE, BROWN GRAVEL WITH SAND AND SILT AND GRAVEL WITH SAND, SILT AND CLAY (ODOT A-2-4, A-2-6).

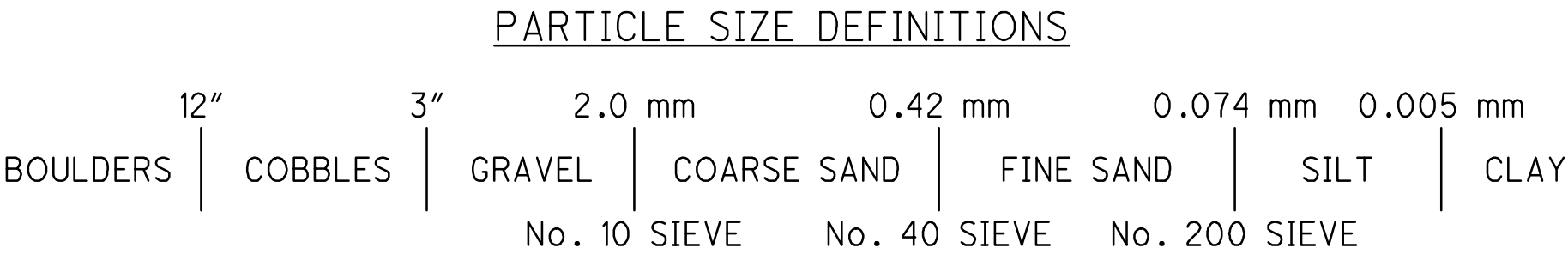
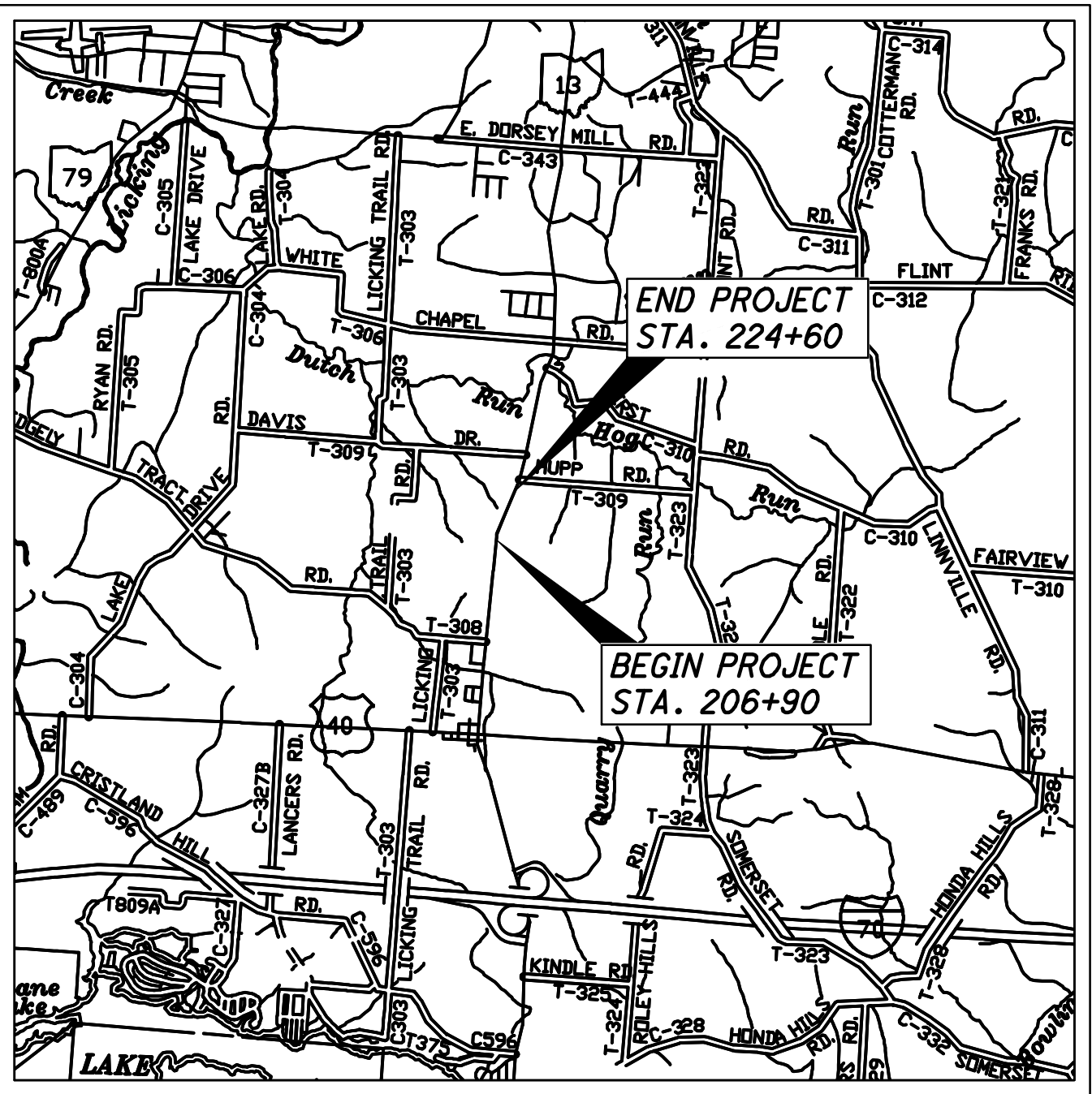
THE COHESIVE SOILS ENCOUNTERED ACROSS THE SITE RANGED FROM MEDIUM STIFF (0.5 < HP ≤ 1.0 TSF) TO VERY STIFF (2.0 < HP ≤ 4.0 TSF). THE UNCONFINED COMPRESSIVE STRENGTH OF THE COHESIVE SOIL SAMPLES TESTED, OBTAINED FROM THE HAND PENETROMETER, RANGED FROM 1.0 TSF TO 3.5 TSF. BASED ON THE SPT BLOW COUNTS OBTAINED, THE GRANULAR SOILS ENCOUNTERED RANGED FROM LOOSE (5 ≤ N60 ≤ 10 BLOWS PER FOOT [BPF]) TO DENSE (31 ≤ N60 ≤ 50 BPF). OVERALL BLOW COUNTS RECORDED FROM THE SPT SAMPLING RANGED FROM 5 TO 31 BLOWS PER FOOT.

NATURAL MOISTURE CONTENTS OF THE SOIL SAMPLES TESTED RANGED FROM 7 TO 26 PERCENT. THE NATURAL MOISTURE CONTENTS OF THE COHESIVE SOIL SAMPLES TESTED FOR PLASTICITY INDEX RANGED FROM 6 PERCENT BELOW TO 16 PERCENT ABOVE THEIR CORRESPONDING PLASTIC LIMITS. IN GENERAL, THE SOILS EXHIBITED NATURAL MOISTURE CONTENTS ESTIMATED TO BE MODERATELY BELOW TO SIGNIFICANTLY ABOVE OPTIMUM MOISTURE LEVELS.

SULFATE TESTING WAS PERFORMED IN ALL OF THE BORINGS IN ACCORDANCE WITH THE ODOT S1122 IN THE UPPER SOILS OF THE EXISTING SUBGRADE ALONG THE PROPOSED ALIGNMENT, AS OUTLINED IN THE CURRENT ODOT SGE AND GEOTECHNICAL BULLETIN GB1: PLAN SUBGRADES (GB1). BASED ON THE RESULTS OF THE TESTING, THE SULFATE CONTENTS OF THE SUBGRADE SOILS RANGE FROM 67 TO 153 PARTS PER MILLION (PPM OR MG/KG OF MATERIAL).

BEDROCK WAS NOT ENCOUNTERED IN ANY OF THE BORINGS PERFORMED FOR THIS EXPLORATION.

GROUNDWATER SEEPAGE WAS ENCOUNTERED DURING DRILLING IN BORINGS B-002-0-16 AND B_003_0-16 AT A DEPTH OF 4.8 AND 9.4 FEET BELOW THE EXISTING GROUND SURFACE, RESPECTIVELY. THE REMAINING BORINGS WERE OBSERVED TO BE DRY, MEANING THAT NO MEASURABLE AMOUNT OF WATER ACCUMULATED IN THE BOREHOLES DURING OR AT THE COMPLETION OF DRILLING PRIOR TO BACKFILLING THE BOREHOLES .



SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JANUARY 2016.

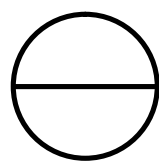
AVAILABLE INFORMATION

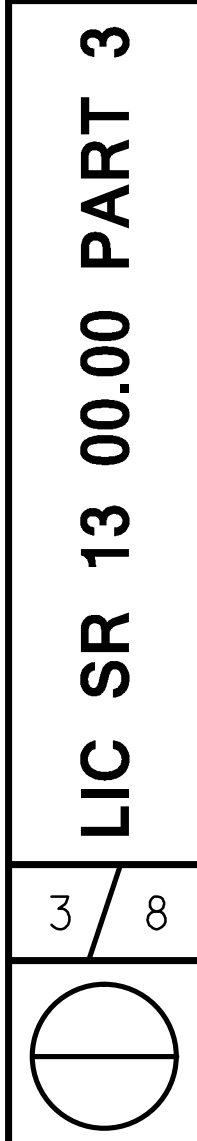
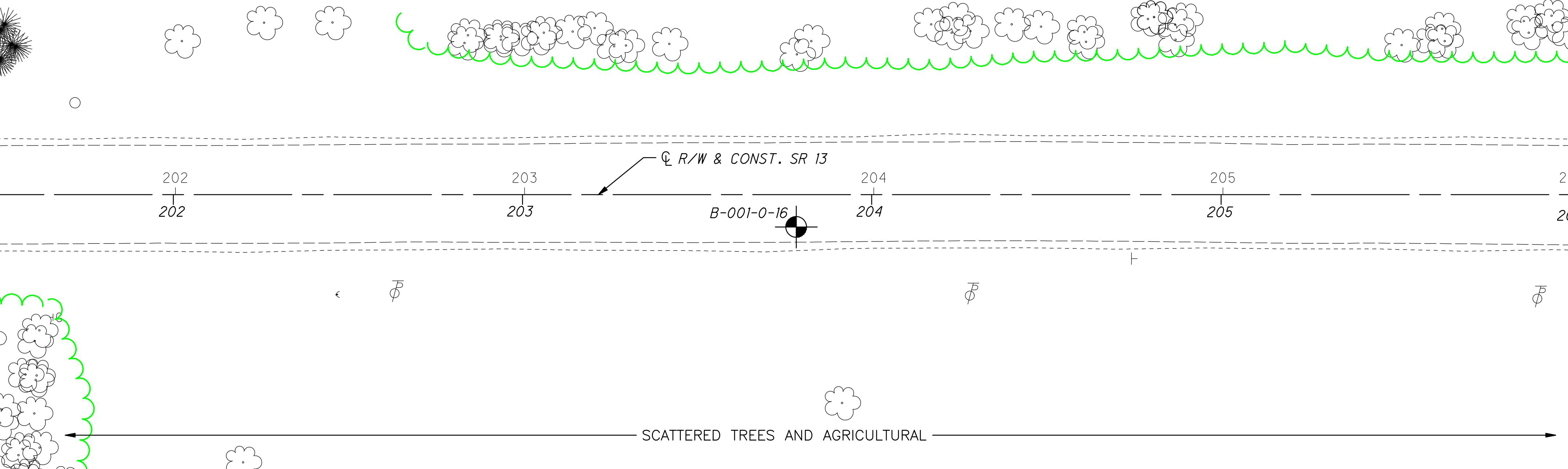
ALL AVAILABLE SOIL AND BEDROCK INFORMATION THAT CAN BE CONVENIENTLY SHOWN ON THE GEOTECHNICAL EXPLORATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL EXPLORATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE OR THE OFFICE OF GEOTECHNICAL ENGINEERING AT 1980 WEST BROAD STREET.

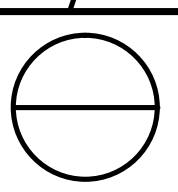
RECON. -	BKS	03/10/16
DRILLING -	BKS	03/18/16
DRAWN -	RRM	04/12/16
REVIEWED -	PSL	04/12/16

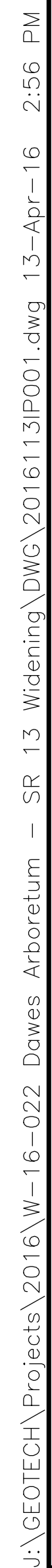
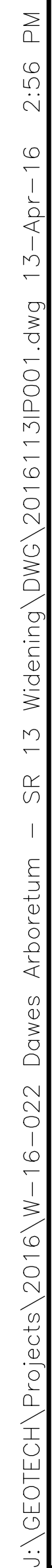
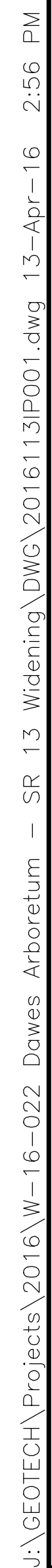
SUMMARY OF SOIL TEST DATA
C/L CONST. SR-13

EXPLORATION NO., STATION & OFFSET	FROM	TO	SAMPLE ID	N ₆₀	% REC	HP tsf	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% ODOT WC CLASS (GI)	SO4 ppm
B-001-0-16	01.20	- 02.70	SS-1	21	56	3.50	V. STIFF, BR. SILT AND CLAY, SM. C-F GRAVEL, LI. C-F SAND								12 A-6a (V) *	113
STA. 203+82.52, 12.2' RT.	02.70	- 04.20	SS-2	31	67	-	39	19	13	25	4	NP	NP	NP	11 A-2-4 (0) *	
LATITUDE = 39.976604063	04.20	- 05.70	SS-3	10	67	2.25	9	20	7	44	20	31	20	11	20 A-6a (6)	
LONGITUDE = -82.411859152	05.70	- 07.20	SS-4	17	78	2.00	SAME AS SS-3								17 A-6a (V)	
B-002-0-16	01.00	- 02.50	SS-1	13	67	3.50	29	11	6	33	21	31	20	11	14 A-6a (4) *	73
STA. 207+58.24, 12.6' RT.	02.50	- 04.00	SS-2	18	89	2.25	SAME AS SS-1								14 A-6a (V) *	
LATITUDE = 39.977631757	04.00	- 05.50	SS-3	9	67	-	45	17	6	24	8	31	20	11	14 A-2-6 (0)	
LONGITUDE = -82.411746592	05.50	07.00	SS-4	12	89	-	SAME AS SS-3								15 A-2-6 (V)	
B-003-0-16	01.50	03.00	SS-1	19	78	2.75	11	11	8	52	18	28	20	8	13 A-4b (7) *	67
STA. 210+43.50, 11.2' RT.	03.00	- 04.50	SS-2	10	78	-	SAME AS SS-3								18 A-4a (V)	
LATITUDE = 39.978383882	04.50	- 06.00	SS-3	9	100	-	6	19	12	49	14	NP	NP	NP	19 A-4a (6)	
LONGITUDE = -82.411527983	06.00	- 07.50	SS-4	6	100	1.00	POS. FILL: MD. ST., BR-GY SILTY CLAY, TR. C-F SA., TR. FINE GR.								24 A-6b (V)	
	07.50	- 09.50	ST-5	-	75	1.00	ST. TO V. ST., GY-BR SILTY CLAY, TR. C-F SAND, TR. FINE GRAVEL								23 A-6b (V)	
	09.50	- 11.00	SS-6	14	100	2.00	SAME AS ST-5								24 A-6b (V)	
B-004-0-16	01.50	03.00	SS-1	21	89	3.25	11	11	9	51	18	31	20	11	12 A-6a (7) *	120
STA. 214+05.81, 12.3' RT.	03.00	04.50	SS-2	12	100	2.50	SAME AS SS-1								16 A-6a (V)	
LATITUDE = 39.979292753	04.50	06.00	SS-3	13	100	2.25	8	9	9	57	17	30	18	12	21 A-6a (9)	
LONGITUDE = -82.411007121	06.00	- 07.50	SS-4	17	100	1.75	STIFF, BR-GY SANDY SILT, TRACE FINE GRAVEL, TRACE CLAY								21 A-4a (V)	
B-005-0-16	01.50	- 03.00	SS-1	14	78	-	SAME AS SS-2								12 A-2-6 (V) *	100
STA. 217+54.76, 12.2' RT.	03.00	- 04.50	SS-2	9	67	-	50	19	5	18	8	31	20	11	10 A-2-6 (0)	
LATITUDE = 39.980169593	04.50	- 06.00	SS-3	9	100	2.00	12	15	13	40	20	30	19	11	18 A-6a (5)	
LONGITUDE = -82.410505958	06.00	- 07.50	SS-4	17	100	3.00	SAME AS SS-3								20 A-6a (V)	
B-006-0-16	01.50	- 03.00	SS-1	24	44	-	30	27	6	24	13	26	18	8	7 A-4a (0) *	107
STA. 220+16.30, 10.5' RT.	03.00	04.50	SS-2	27	56	2.00	SAME AS SS-1								14 A-4a (V)	
LATITUDE = 39.980828634	04.50	- 06.00	SS-3	14	89	2.50	5	19	16	38	22	22	17	5	16 A-4a (5)	
LONGITUDE = -82.410135831	06.00	- 07.50	SS-4	15	56	1.25	STIFF, BROWN SILTY CLAY, TR. C-F SAND, TR. FINE GRAVEL								24 A-6b (V)	
B-007-0-16	01.50	- 03.00	SS-1	12	89	3.50	10	15	14	36	25	26	18	8	15 A-4a (5) *	153
STA. 223+62.26, 9.4' RT.	03.00	- 04.50	SS-2	5	33	0.75	SAME AS SS-1								19 A-4a (V)	
LATITUDE = 39.981699135	04.50	- 06.00	SS-3	14	89	3.50	6	18	11	39	26	21	17	4	16 A-4a (6)	
LONGITUDE = -82.409642329	06.00	- 07.50	SS-4	15	100	2.00	SAME AS SS-3								17 A-4a (V)	
B-008-0-16	01.50	- 03.00	SS-1	15	100	2.50	11	28	8	37	16	21	17	4	18 A-4a (4) *	87
STA. 227+20.79, 11.8' RT.	03.00	- 04.50	SS-2	13	100	2.00	SAME AS SS-1								26 A-4a (V)	
LATITUDE = 39.982597214	04.50	- 06.00	SS-3	12	100	1.25	25	19	12	23	21	30	18	12	22 A-6a (2)	
LONGITUDE = -82.409119039	06.00	- 07.50	SS-4	12	100	1.75	SAME AS SS-3								22 A-6a (V)	

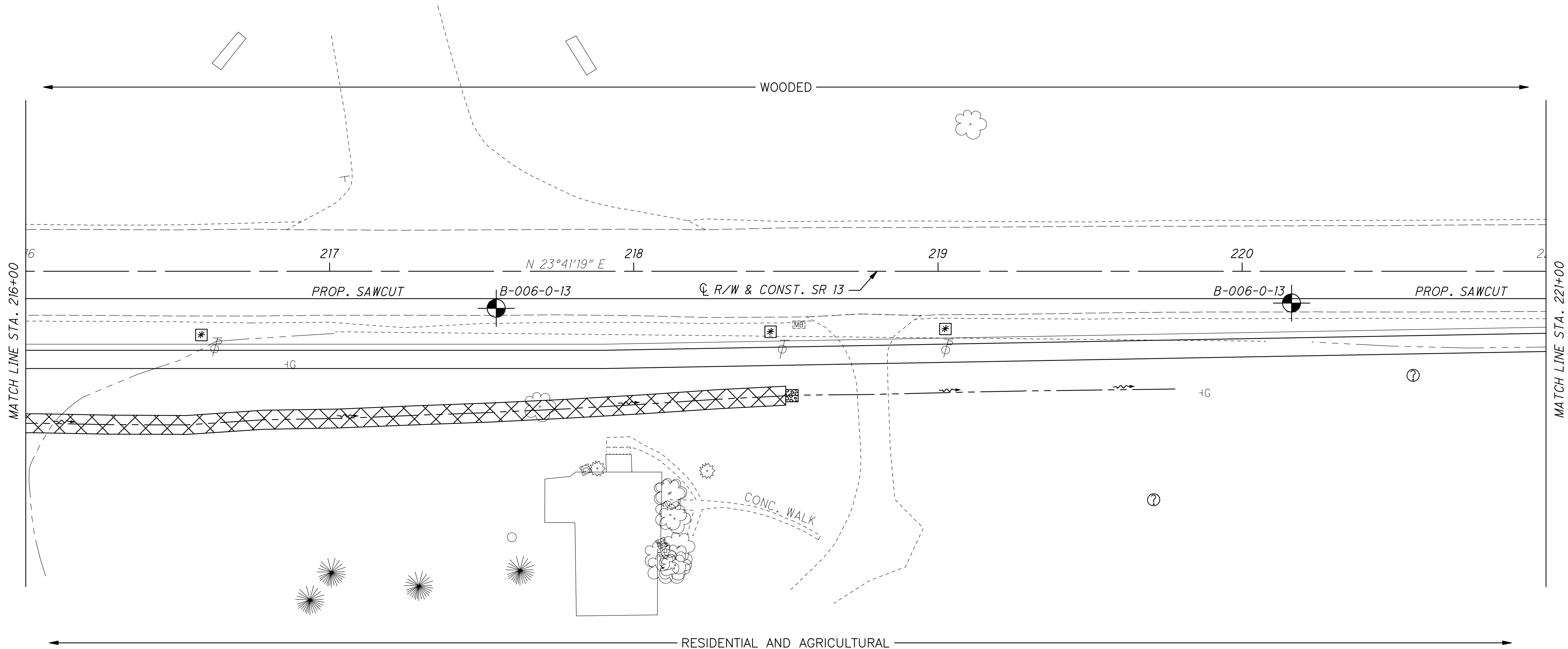
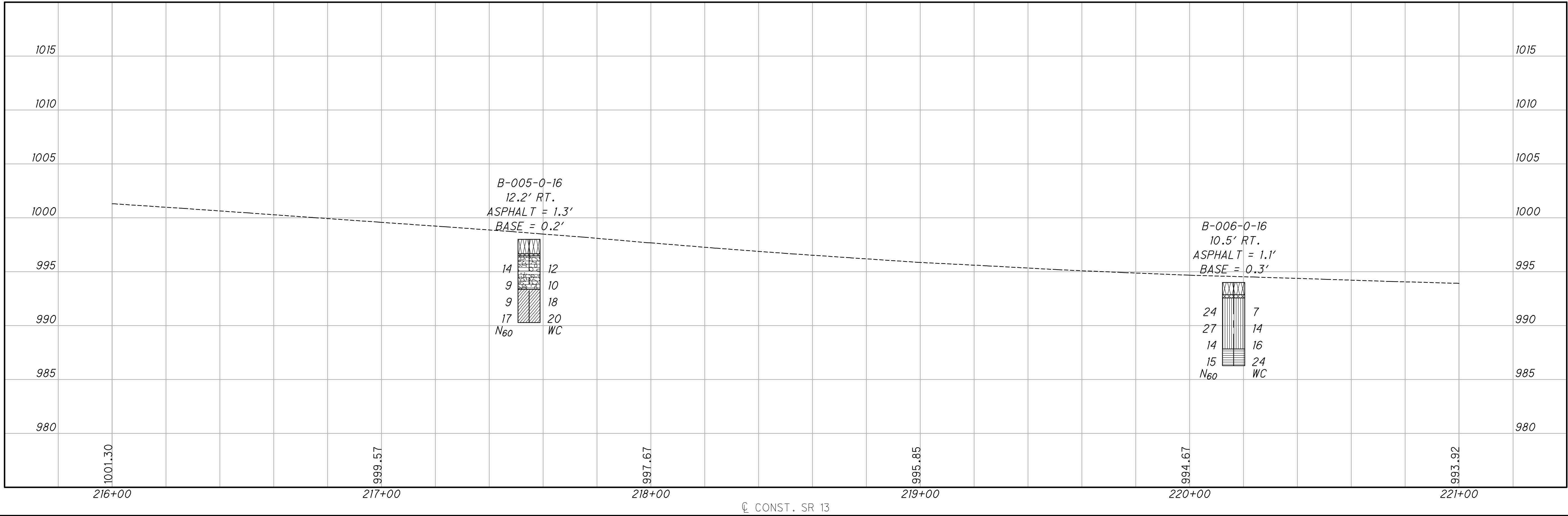








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HORIZONTAL SCALE IN FEET

DRAWN

RRM

CHECKED

BRT

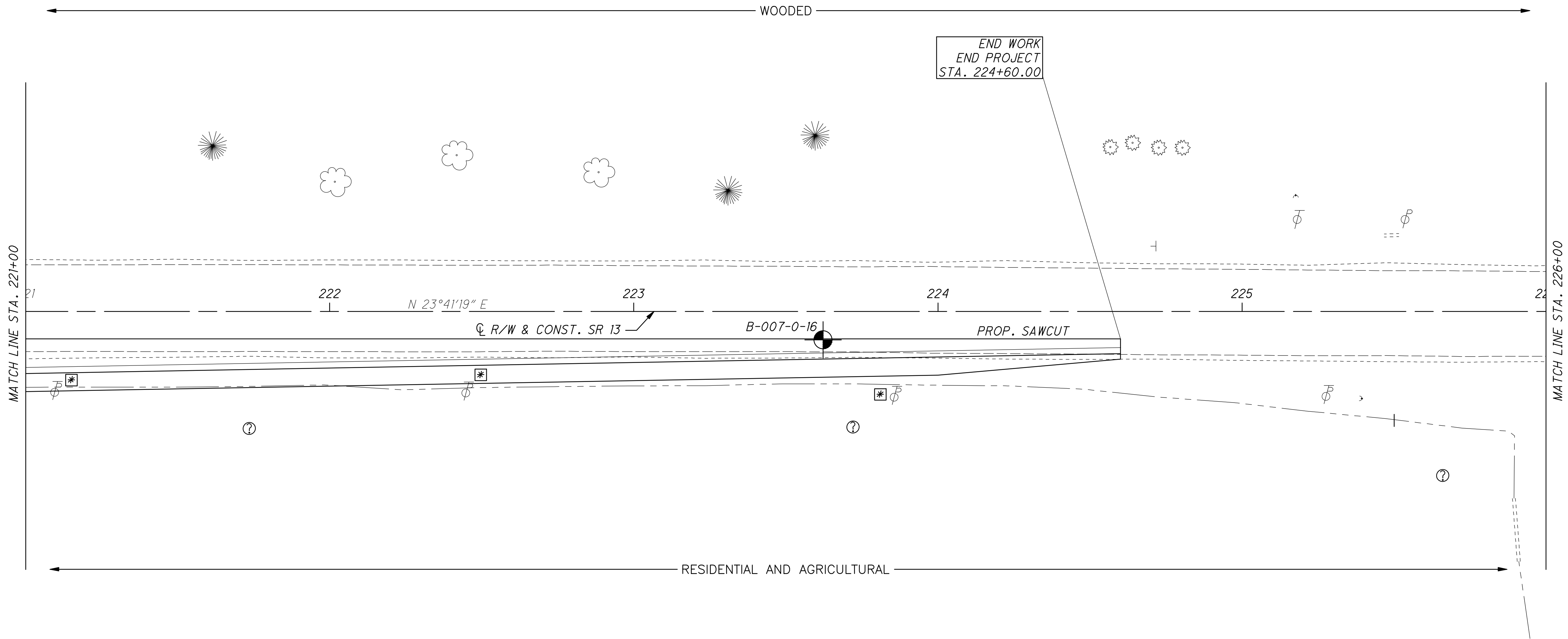
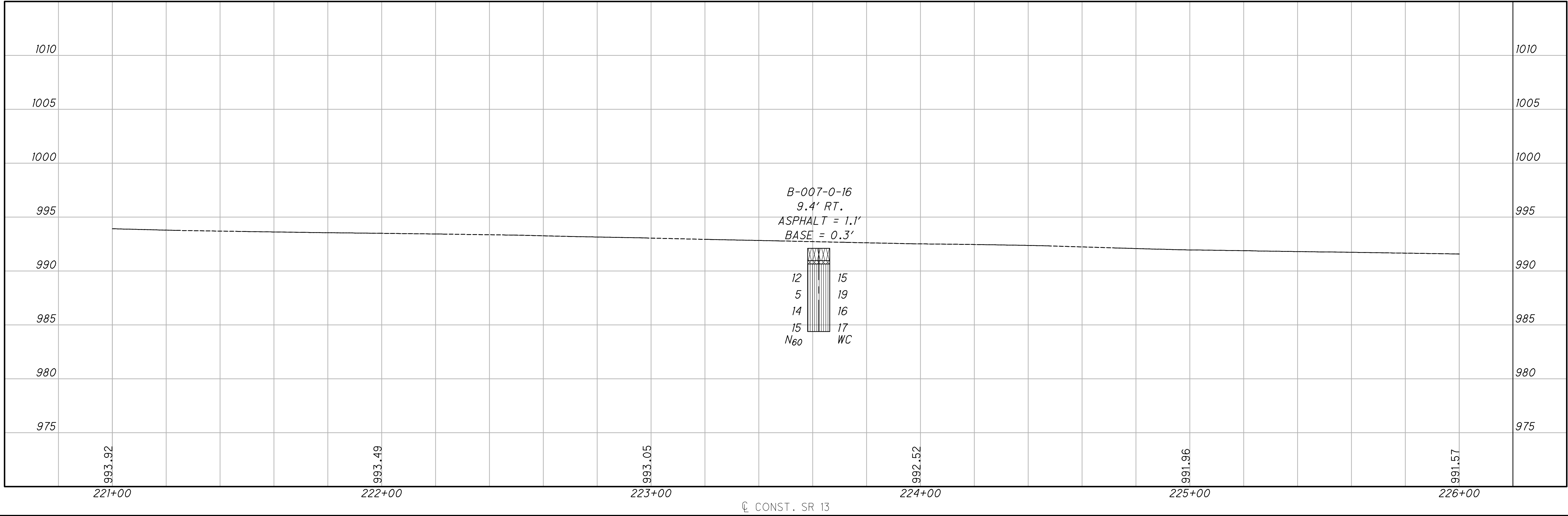
LIC SR 13 00.00 PART 3

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SOIL PROFILE

STA. 216+00 TO STA. 221+00 SR 13

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LIC SR 13 00.00 PART 3

SOIL PROFILE
STA. 221+00 TO STA. 226+00 SR 13

DRAWN
RRM

CHECKED
BRT

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HORIZONTAL
SCALE IN FEET

