

**LEGEND**

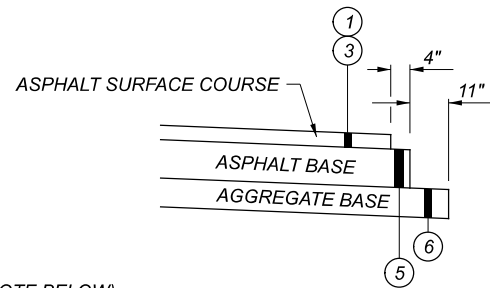
- ① ITEM 441, 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22
- ② ITEM 407, NON-TRACKING TACK COAT
- ③ ITEM 441, 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)
- ④ ITEM 301, 9" ASPHALT CONCRETE BASE, PG64-22 (449)
- ⑤ ITEM 301, 11" ASPHALT CONCRETE BASE, PG64-22 (449)
- ⑥ ITEM 304, 6" AGGREGATE BASE
- ⑦ ITEM 605, 6" SHALLOW PIPE UNDERDRAIN
- ⑧ ITEM 609, COMBINATION CURB AND GUTTER, TYPE 3
- ⑨ ITEM 609, 4" CONCRETE TRAFFIC ISLAND
- ⑩ ITEM 609, CURB, TYPE 4-C, AS PER PLAN
- ⑪ ITEM 644, GUARDRAIL, TYPE MGS
- ⑫ ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE, 3" (SEE NOTE BELOW)
- ⑬ ITEM 204, EXCAVATION OF SUBGRADE
- ⑭ ITEM 204, 12" GRANULAR MATERIAL, TYPE C
- ⑮ ITEM 204, GEOTEXTILE FABRIC
- ⑯ ITEM 605, 6" BASE PIPE UNDERDRAIN
- ⑰ ITEM 609, CURB, TYPE 6
- ⑱ ITEM 617, COMPACTED AGGREGATE
- ⑲ ITEM 617, SHOULDER PREPARATION
- ⑳ ITEM 617, WATER
- ㉑ ITEM 204, SUBGRADE COMPACTION
- ㉒ ITEM 204, PROOF ROLLING

- (A) EXISTING 1-1/4" ASPHALT CONCRETE SURFACE COURSE
- (B) EXISTING 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE
- (C) EXISTING 9" BITUMINOUS AGGREGATE BASE
- (D) EXISTING AGGREGATE BASE (THICKNESS VARIES)

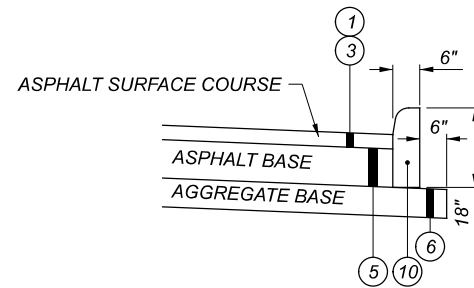
NOTE: ITEM 301 ASPHALT CONCRETE BASE COURSE SHALL BE PLACED IN TWO 3" LIFTS. ITEM 407 NON-TRACKING COAT TACK COAT SHALL BE PLACED BETWEEN LIFTS.

SAWCUT NOTE: THE EXISTING PAVEMENT EDGE SHALL BE SAWCUT TO LOCATE A SOUND PAVEMENT EDGE. FOR ESTIMATING PURPOSES, PAVEMENT CALCULATIONS INCLUDED IN THE PLANS INDICATE AN AVERAGE WIDTH OF 1 FOOT OF EXISTING PAVEMENT BEING REPLACED.

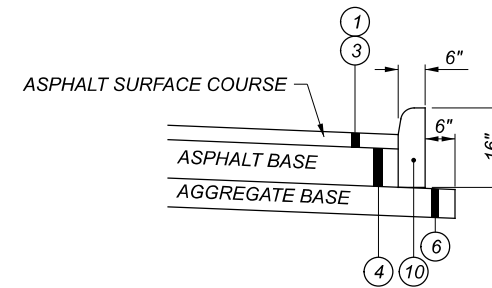
PLANING NOTE: SEE INTERSECTION DETAIL SHEETS FOR VARIABLE DEPTH PLANING AREA



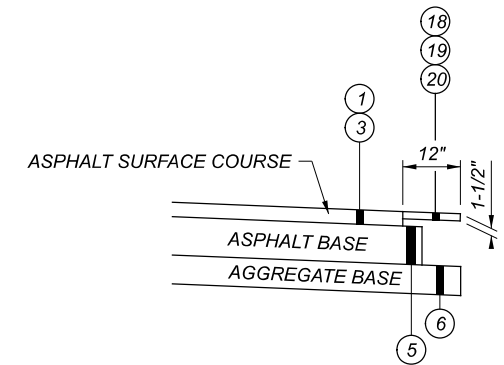
**STEP DETAIL**  
(S.R. 32)



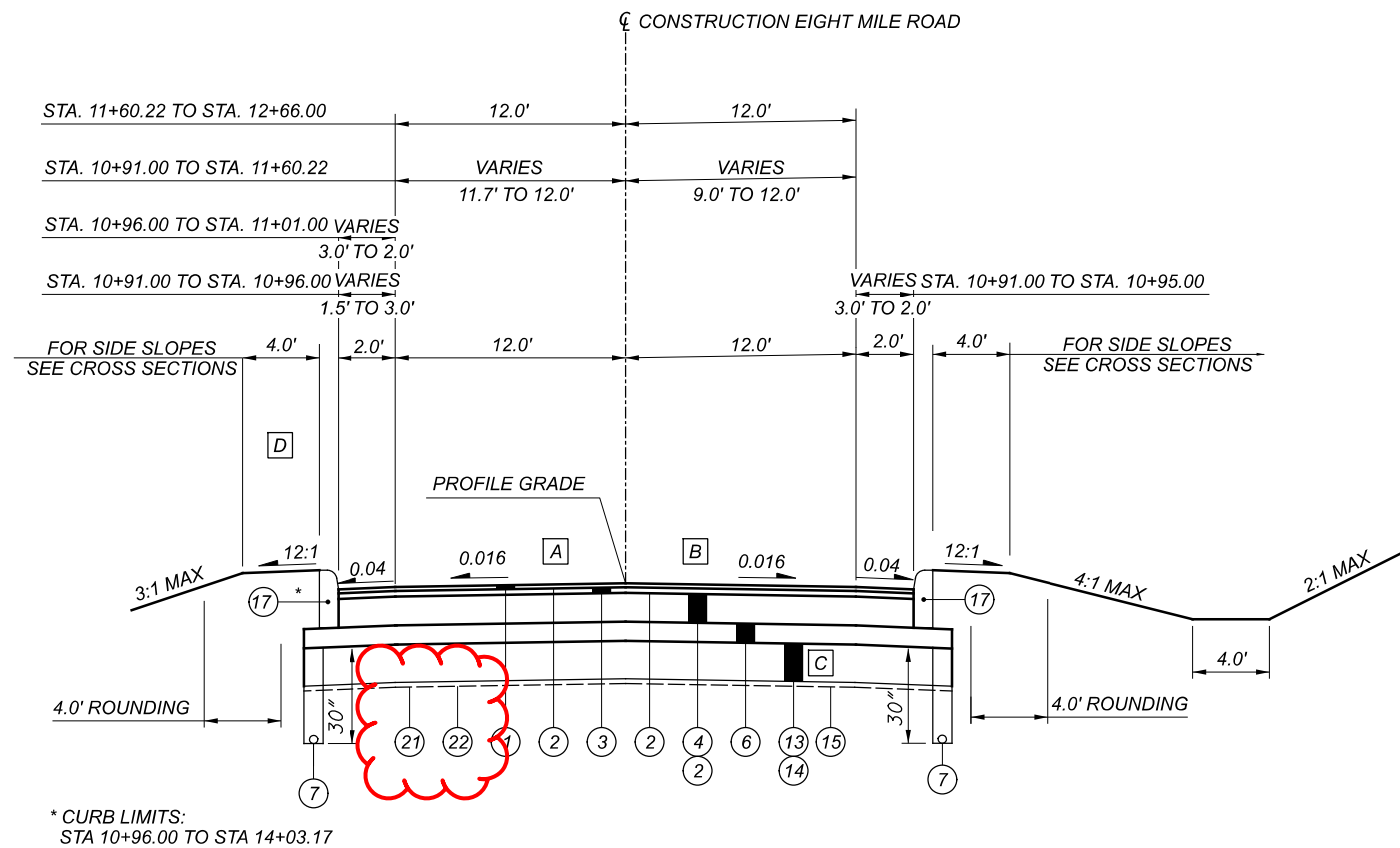
**STEP DETAIL WITH CURB**  
(S.R. 32)



**STEP DETAIL**  
(EIGHT MILE ROAD)



**STANDARD EDGE TREATMENT**  
(S.R. 32)

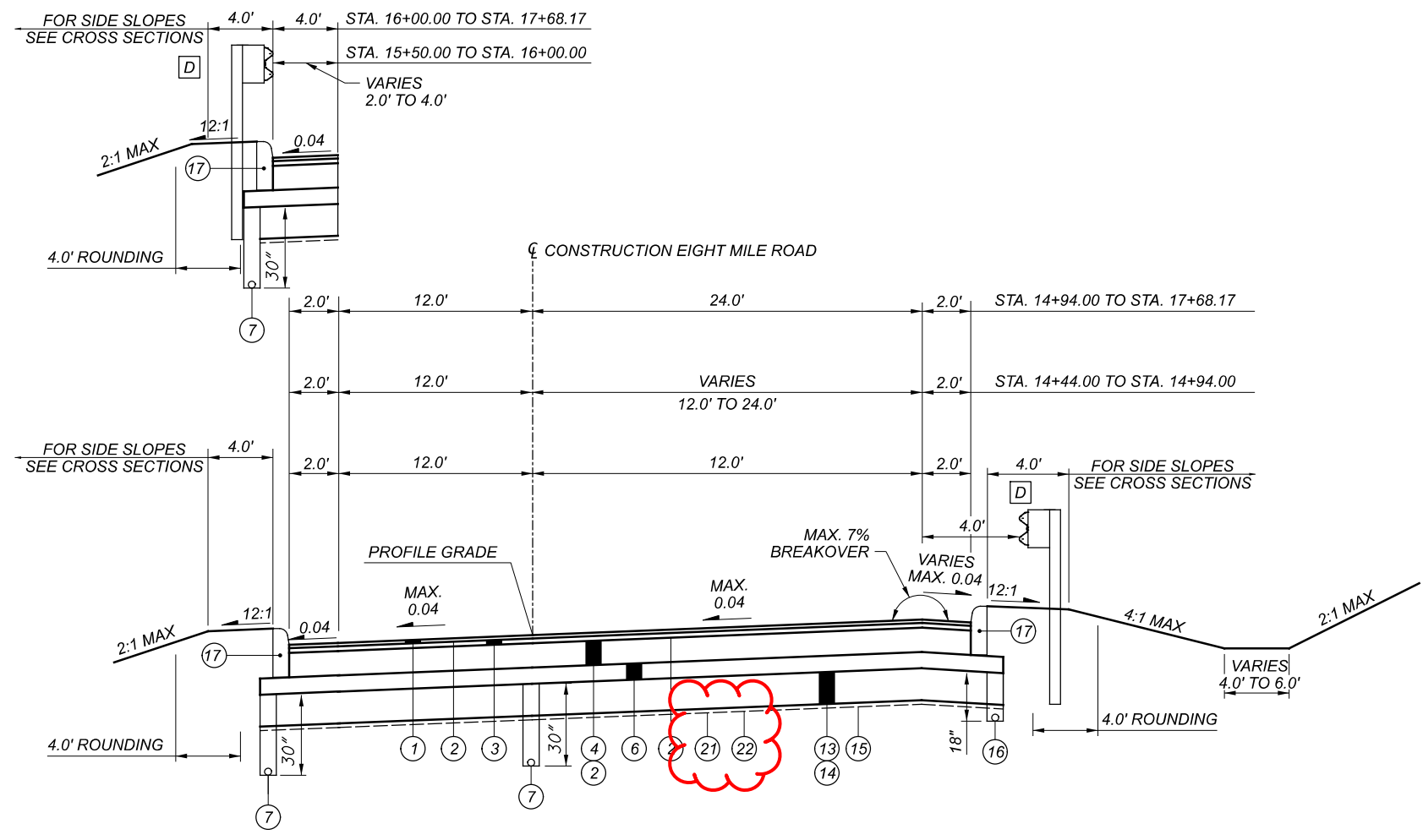


\* CURB LIMITS:  
STA 10+96.00 TO STA 14+03.17

**NORMAL TWO LANE SECTION EIGHT MILE ROAD**

STA 10+91.00 TO STA 10+98.53 (TRANS.)  
STA 10+98.53 TO STA 14+03.17 (0.016)

- (A) TRANSITION PAVEMENT SLOPE FROM -0.0144 AT STA. 10+91.00 TO -0.0160 AT STA. 10+94.09
- (B) TRANSITION PAVEMENT SLOPE FROM -0.0121 AT STA. 10+91.00 TO -0.0160 AT STA. 10+98.53
- (C) SUBGRADE STABILIZATION LIMITS: STA. 10+91.00 TO STA. 13+25.00

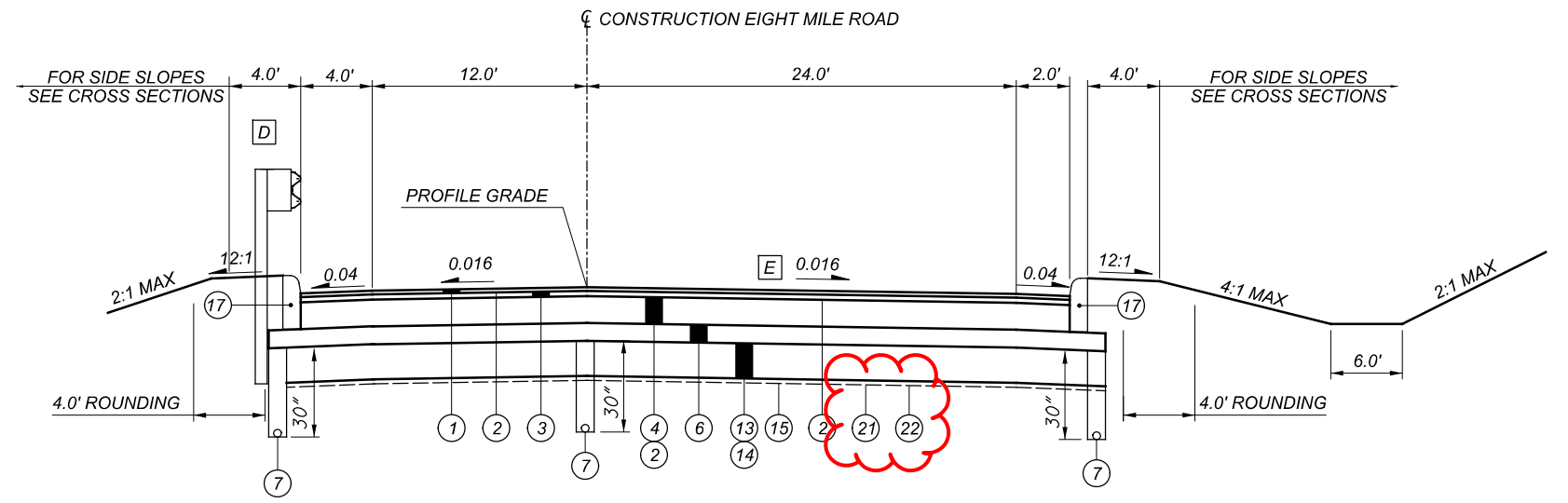


**SUPERELEVATED SECTION EIGHT MILE ROAD**

STA. 14+03.17 TO STA. 15+66.17 (TRANS.)  
STA. 15+66.17 TO STA. 16+99.17 (0.040)  
STA. 16+99.17 TO STA. 17+68.17 (TRANS.)

**D** GUARDRAIL LIMITS:  
STA 16+00.00 TO STA 20+00.00, LT  
STA 14+94.00 TO STA 16+50.00, RT

**E** TRANSITION PAVEMENT SLOPE FROM  
+0.016 AT STA. 18+00.00 TO  
+0.051 AT STA. 19+50.00



**NORMAL THREE LANE SECTION EIGHT MILE ROAD**

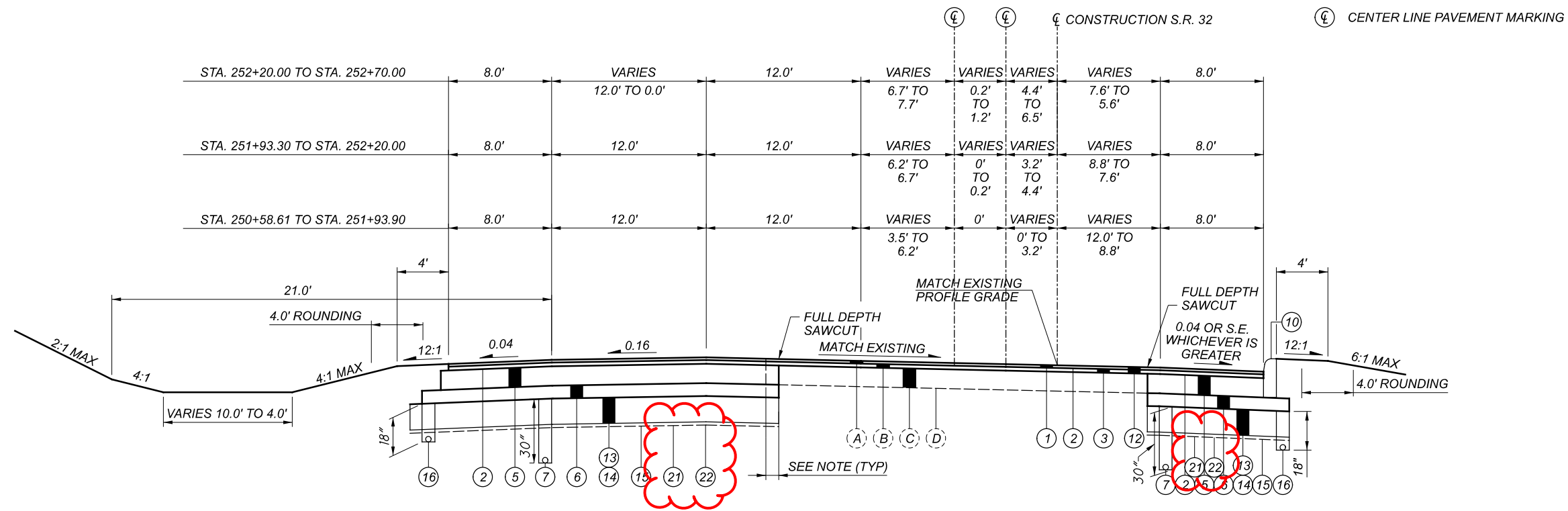
STA 17+68.17 TO STA 18+69.96

SAWCUT NOTE: THE EXISTING PAVEMENT EDGE SHALL BE SAWCUT TO LOCATE A SOUND PAVEMENT EDGE. FOR ESTIMATING PURPOSES, PAVEMENT CALCULATIONS INCLUDED IN THE PLANS INDICATE AN AVERAGE WIDTH OF 1 FOOT OF EXISTING PAVEMENT BEING REPLACED.

FOR LEGEND, SEE SHEET NO. P.4

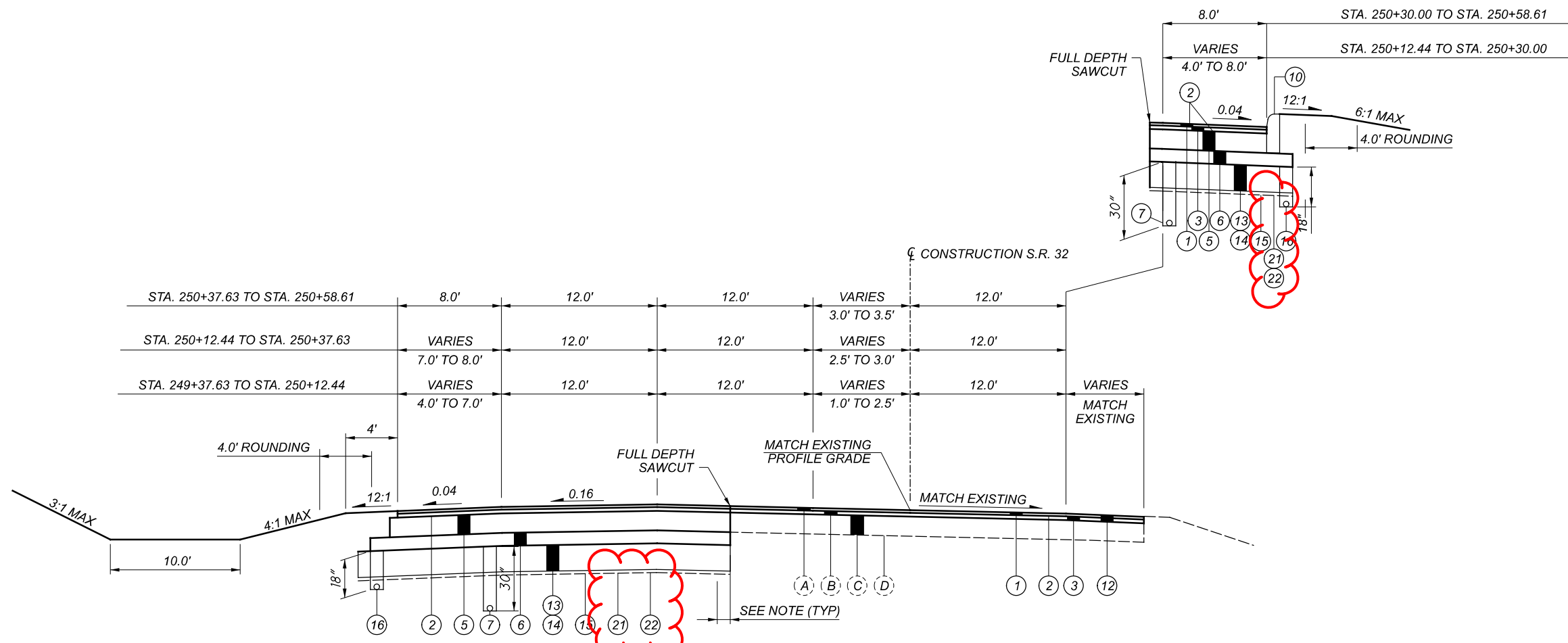


DESIGNER	PJD
REVIEWER	SNS 4-13-22
PROJECT ID	110991
SHEET	TOTAL
P.5	142



S.R. 32 WESTBOUND RIGHT TURN LANE ADDITION

STA. 250+58.61 TO STA. 252+70.00



S.R. 32 WESTBOUND RIGHT TURN LANE ADDITION

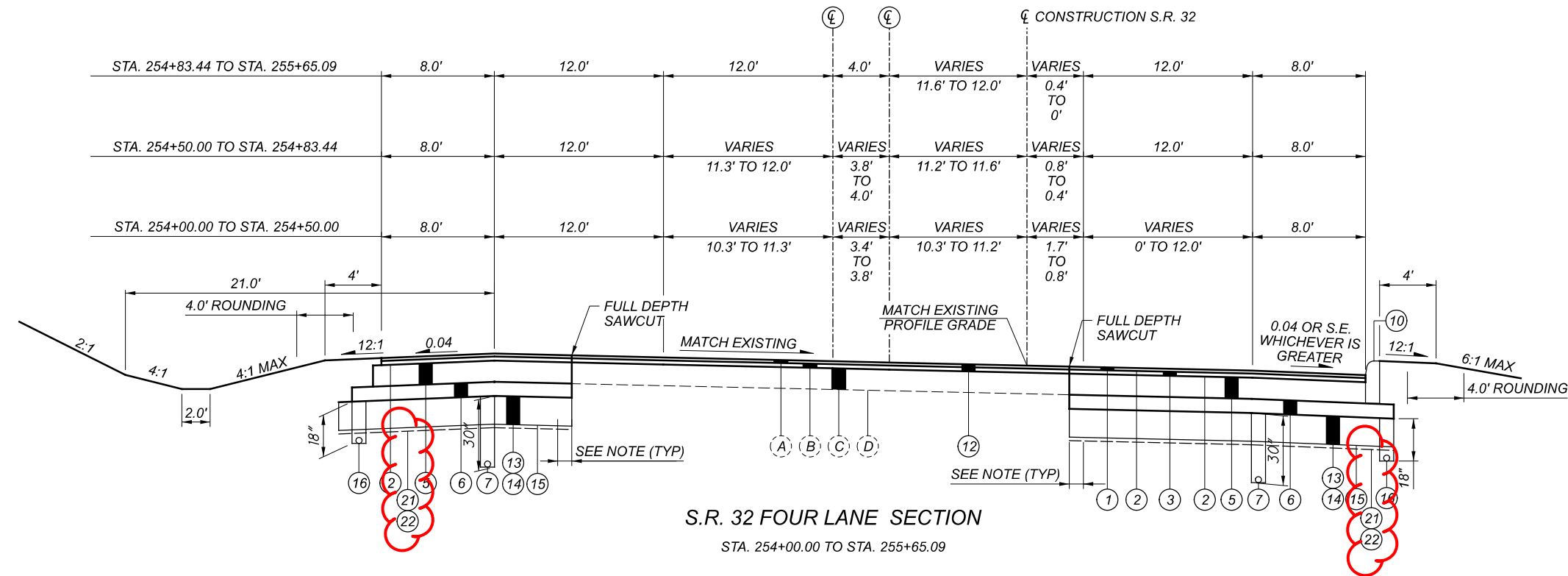
STA. 249+37.63 TO STA. 250+58.61

SAWCUT NOTE: THE EXISTING PAVEMENT EDGE SHALL BE SAWCUT TO LOCATE A SOUND PAVEMENT EDGE. FOR ESTIMATING PURPOSES, PAVEMENT CALCULATIONS INCLUDED IN THE PLANS INDICATE AN AVERAGE WIDTH OF 1 FOOT OF EXISTING PAVEMENT BEING REPLACED.

FOR LEGEND, SEE SHEET NO. P.4

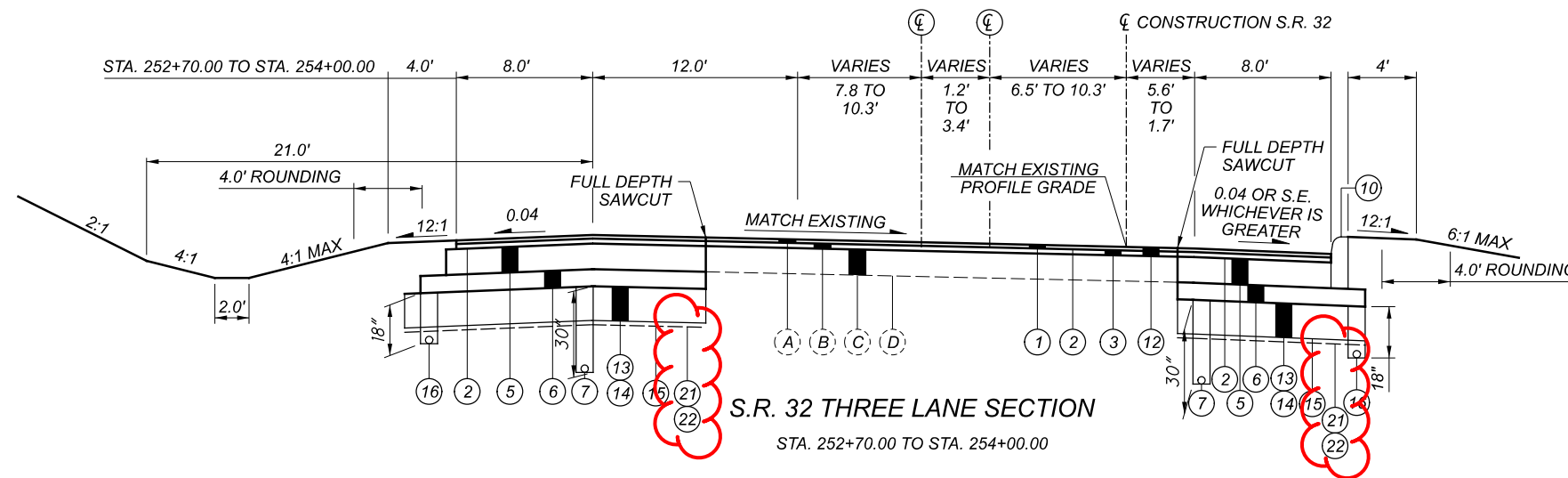
SAWCUT NOTE: THE EXISTING PAVEMENT EDGE SHALL BE SAWCUT TO LOCATE A SOUND PAVEMENT EDGE. FOR ESTIMATING PURPOSES, PAVEMENT CALCULATIONS INCLUDED IN THE PLANS INDICATE AN AVERAGE WIDTH OF 1 FOOT OF EXISTING PAVEMENT BEING REPLACED.

⊕ CENTER LINE PAVEMENT MARKING



S.R. 32 FOUR LANE SECTION

STA. 254+00.00 TO STA. 255+65.09



S.R. 32 THREE LANE SECTION

STA. 252+70.00 TO STA. 254+00.00

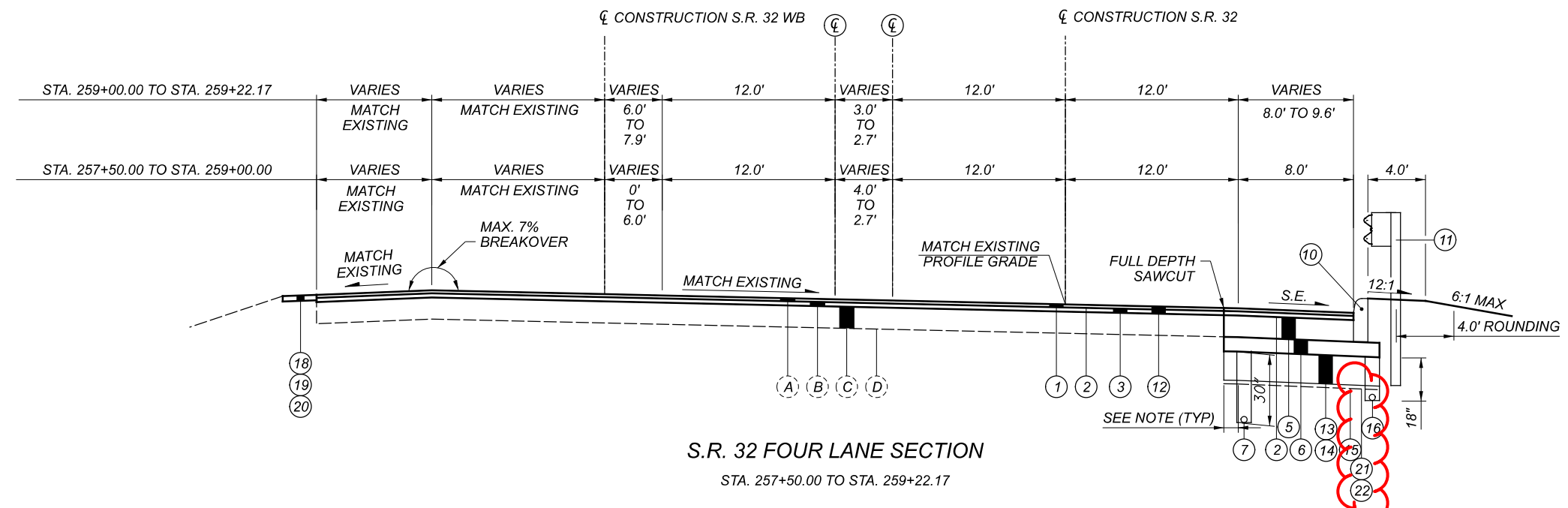
S.R. 32 TYPICAL SECTIONS



DESIGN AGENCY	PJD
DESIGNER	PJD
REVIEWER	SNS 4-13-22
PROJECT ID	110991
SHEET	TOTAL
P.7	142

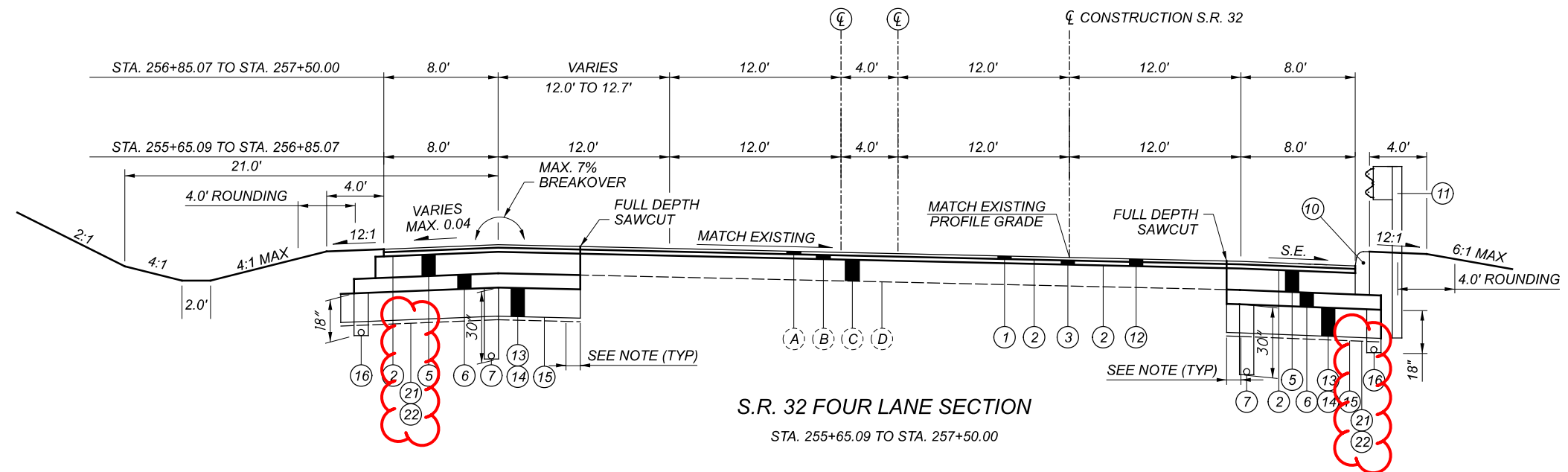
FOR LEGEND, SEE SHEET NO. P.4

⊕ CENTER LINE PAVEMENT MARKING



S.R. 32 FOUR LANE SECTION  
STA. 257+50.00 TO STA. 259+22.17

GUARDRAIL LIMITS:  
STA 255+85.00 TO  
STA 260+49.43, RT



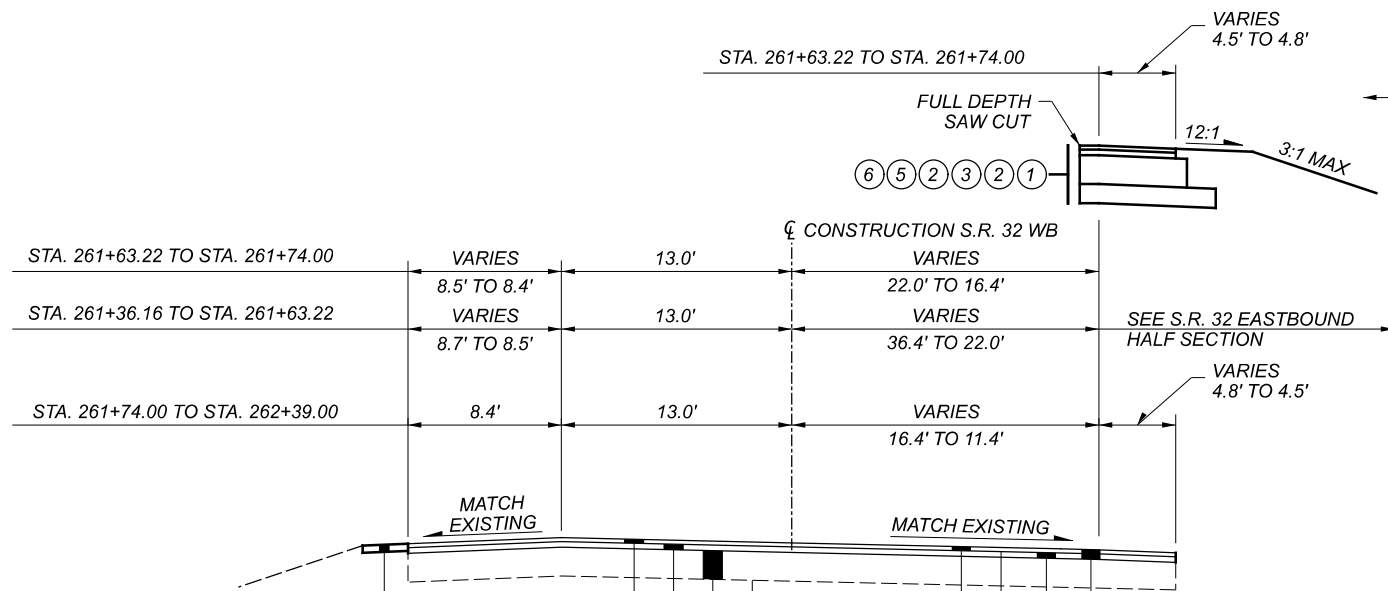
S.R. 32 FOUR LANE SECTION  
STA. 255+65.09 TO STA. 257+50.00

SAWCUT NOTE: THE EXISTING PAVEMENT EDGE SHALL BE SAWCUT TO LOCATE A SOUND PAVEMENT EDGE. FOR ESTIMATING PURPOSES, PAVEMENT CALCULATIONS INCLUDED IN THE PLANS INDICATE AN AVERAGE WIDTH OF 1 FOOT OF EXISTING PAVEMENT BEING REPLACED.

FOR LEGEND, SEE SHEET NO. P.4

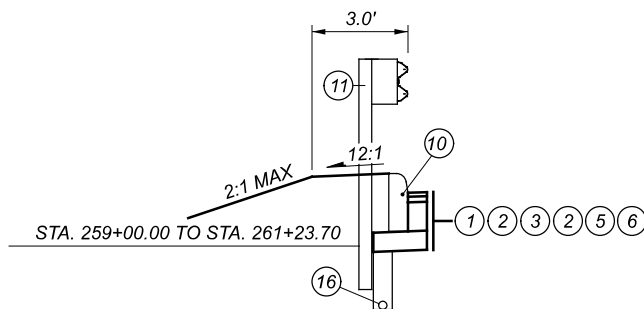


DESIGNER	PJD
REVIEWER	SNS 4-13-22
PROJECT ID	110991
SHEET	TOTAL
P.8	142



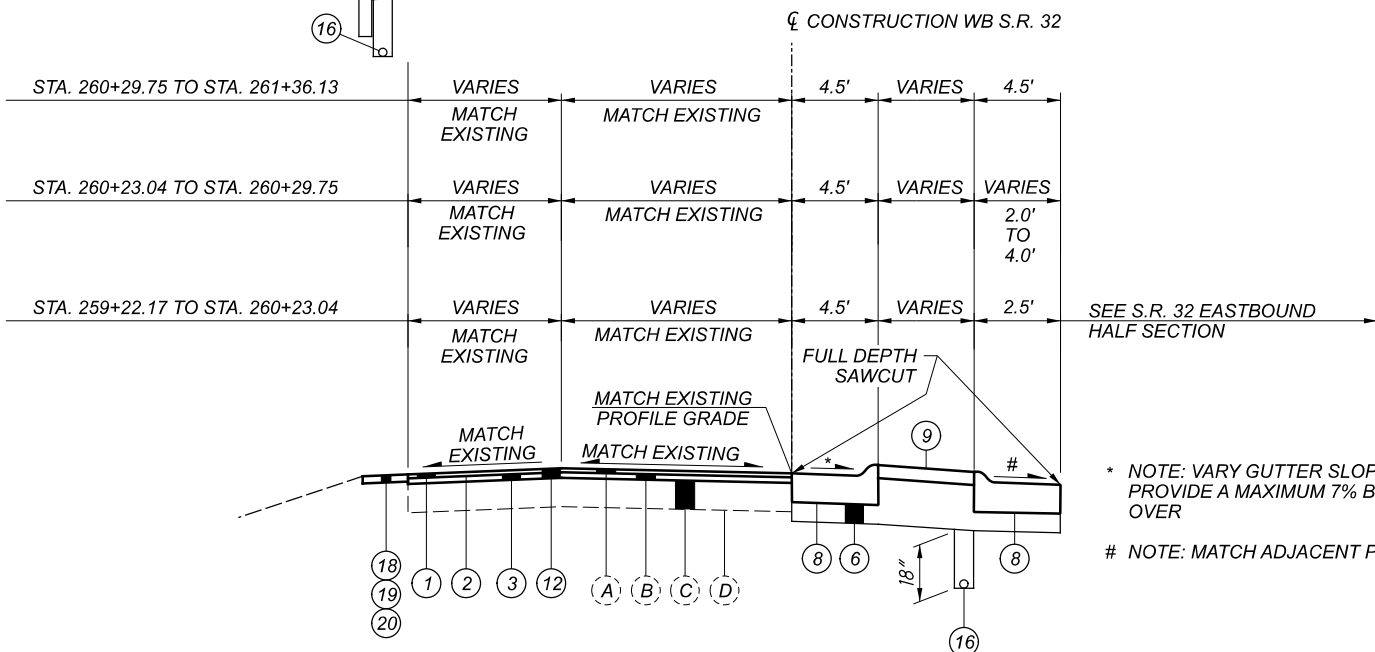
S.R. 32 WESTBOUND HALF SECTION

STA. 261+36.16 TO STA. 262+39.00



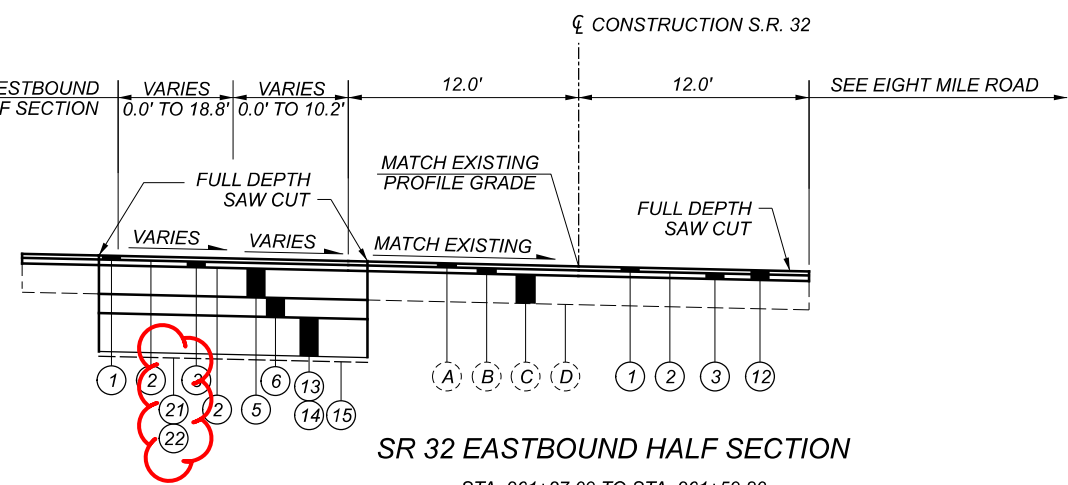
S.R. 32 WESTBOUND HALF SECTION

STA. 259+22.17 TO STA. 261+36.13



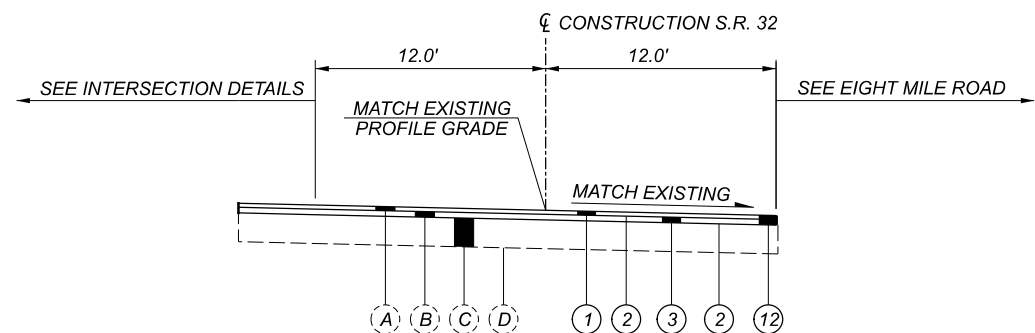
\* NOTE: VARY GUTTER SLOPE TO PROVIDE A MAXIMUM 7% BREAK OVER

# NOTE: MATCH ADJACENT PAVEMENT SLOPE



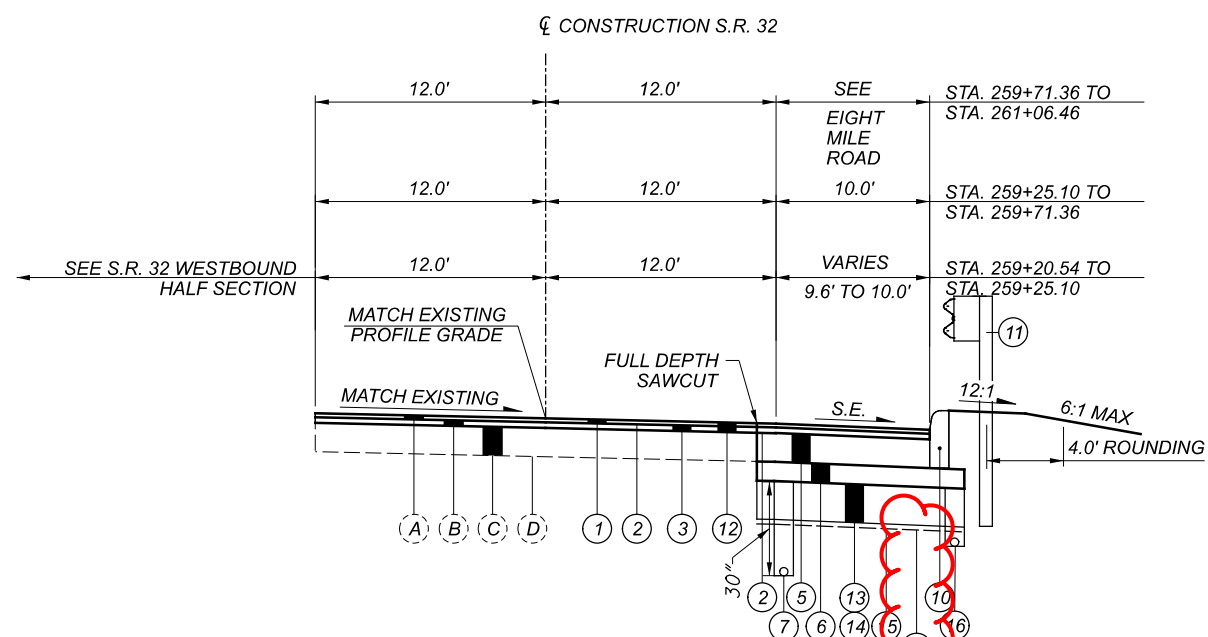
SR 32 EASTBOUND HALF SECTION

STA. 261+27.09 TO STA. 261+59.80



SR 32 EASTBOUND HALF SECTION

STA. 261+06.46 TO STA. 261+27.09



SR 32 EASTBOUND HALF SECTION

STA. 259+20.54 TO STA. 261+06.46

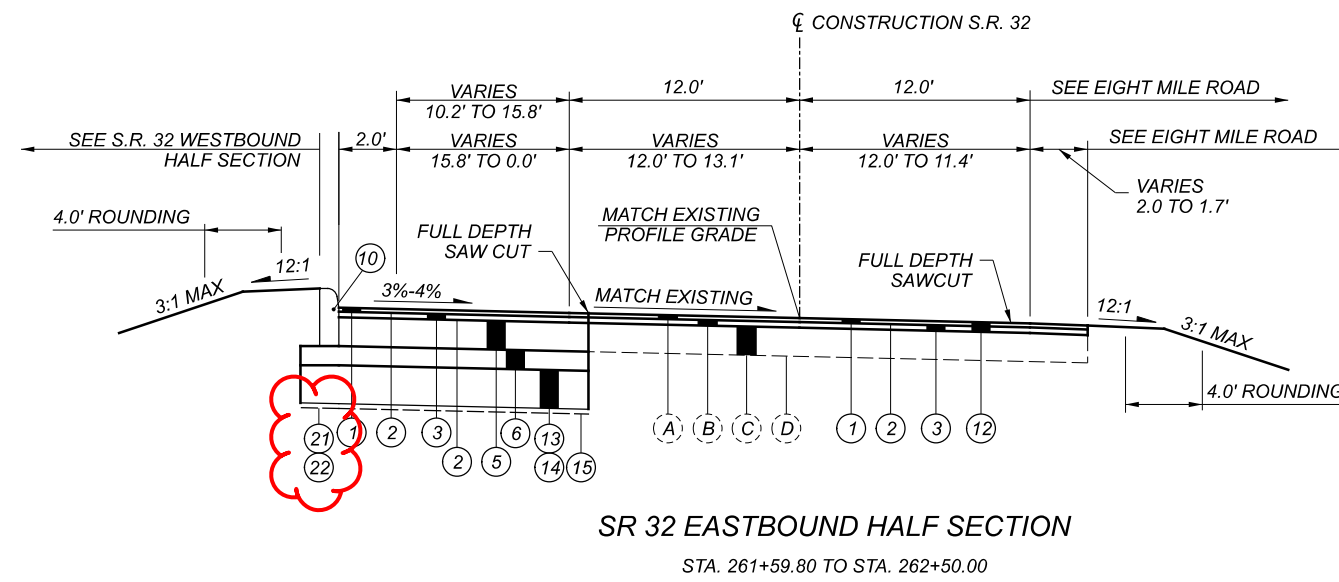
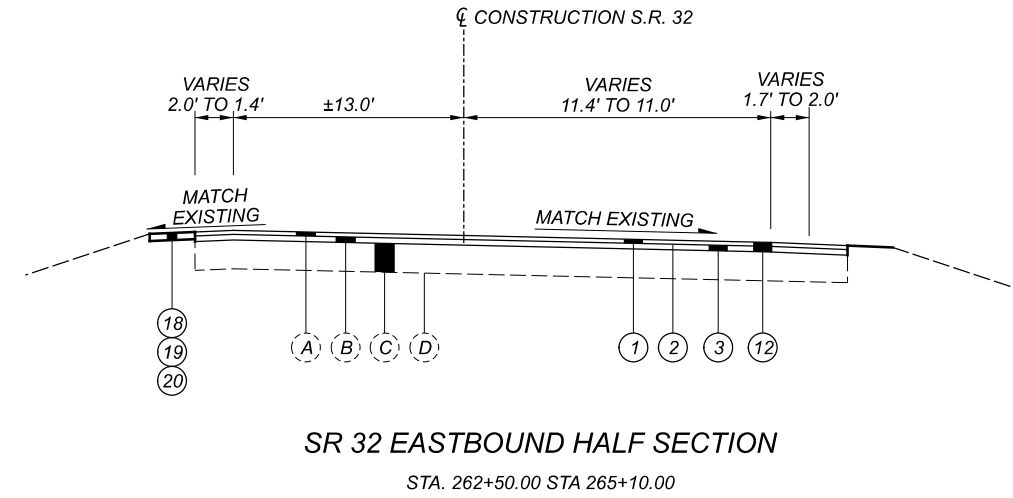
\*CURB FROM STA 259+22.17 TO STA 260+00.00

SAWCUT NOTE: THE EXISTING PAVEMENT EDGE SHALL BE SAWCUT TO LOCATE A SOUND PAVEMENT EDGE. FOR ESTIMATING PURPOSES, PAVEMENT CALCULATIONS INCLUDED IN THE PLANS INDICATE AN AVERAGE WIDTH OF 1 FOOT OF EXISTING PAVEMENT BEING REPLACED.

FOR LEGEND, SEE SHEET NO. P.4

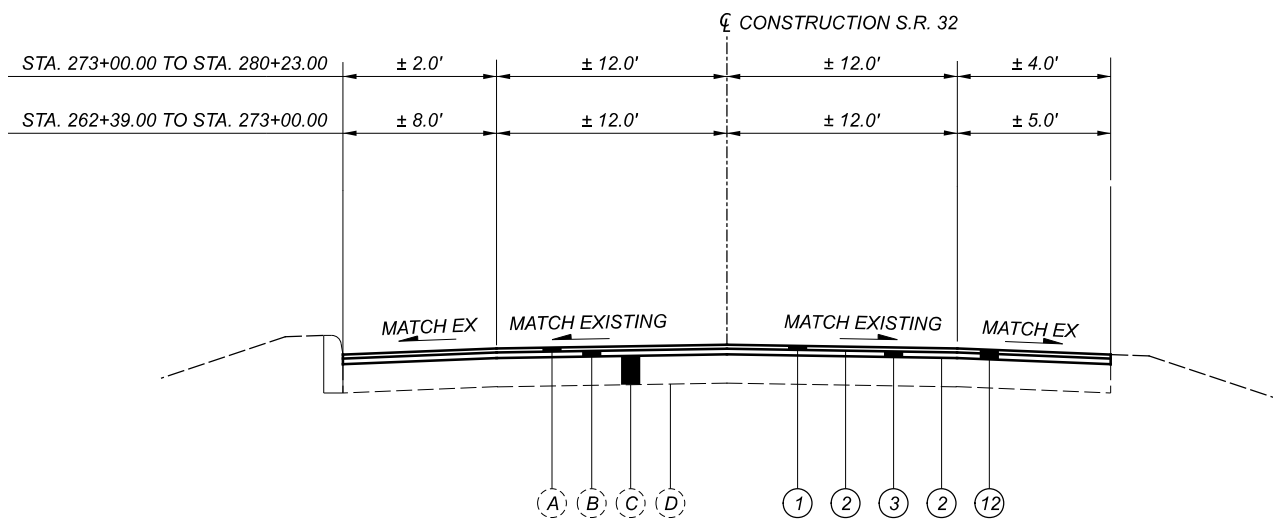


SAWCUT NOTE: THE EXISTING PAVEMENT EDGE SHALL BE SAWCUT TO LOCATE A SOUND PAVEMENT EDGE. FOR ESTIMATING PURPOSES, PAVEMENT CALCULATIONS INCLUDED IN THE PLANS INDICATE AN AVERAGE WIDTH OF 1 FOOT OF EXISTING PAVEMENT BEING REPLACED.

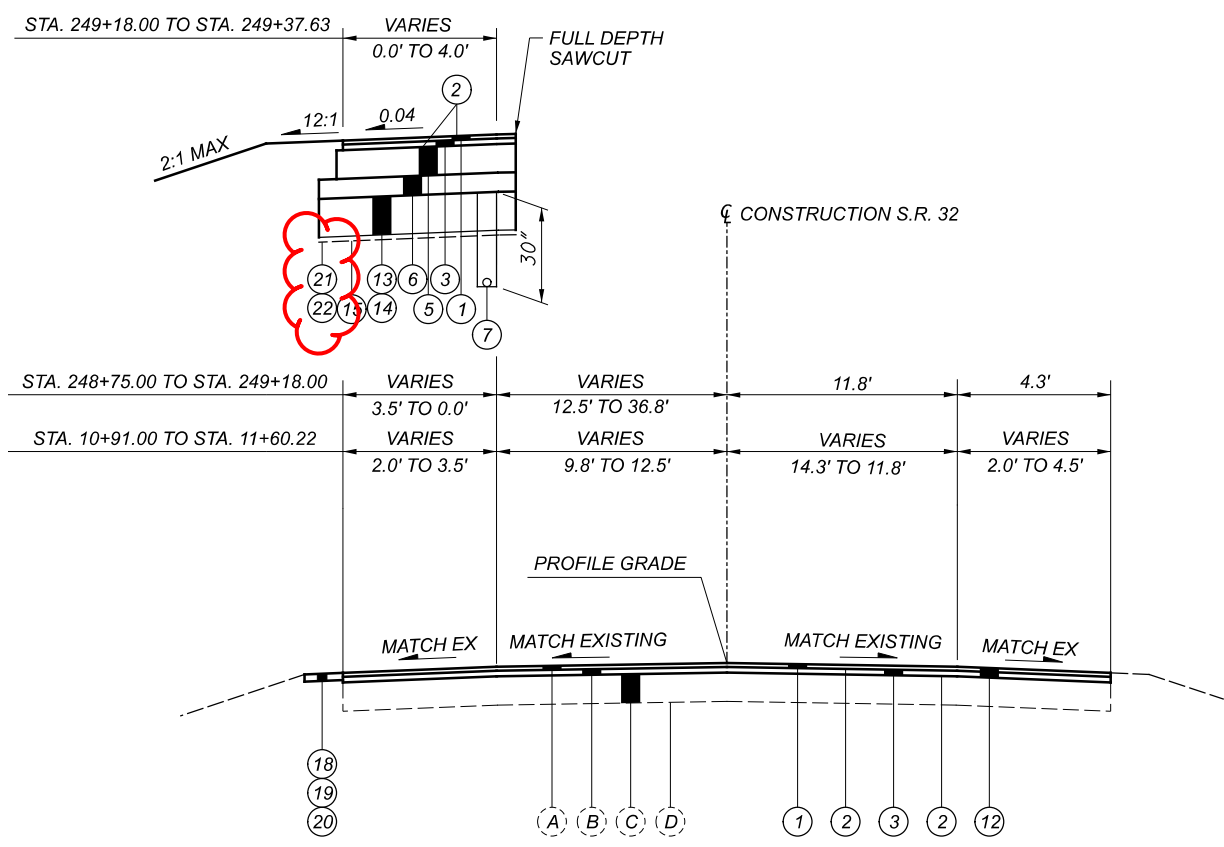


DESIGNER	PJD
REVIEWER	SNS 4-13-22
PROJECT ID	110991
SHEET	P.10
TOTAL	142

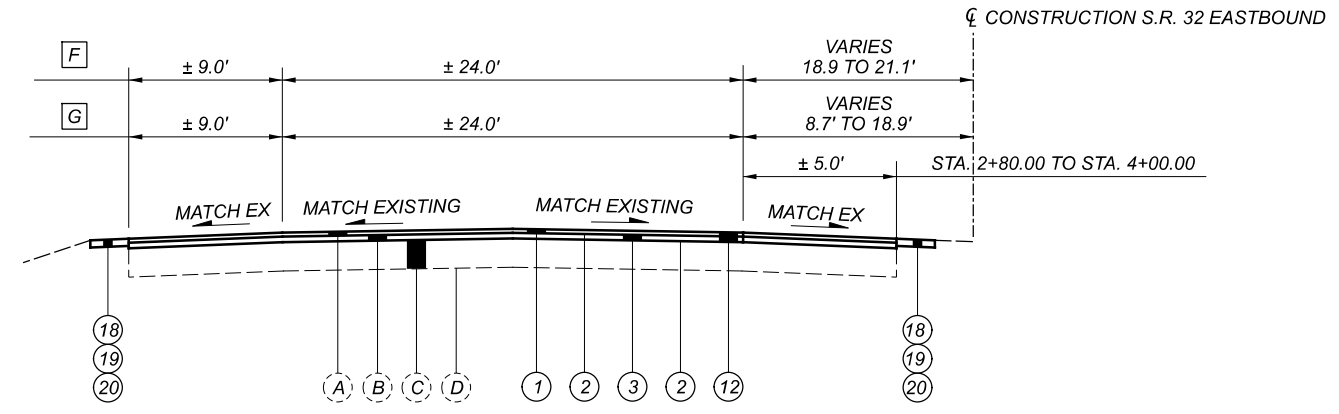
FOR LEGEND, SEE SHEET NO. P.4



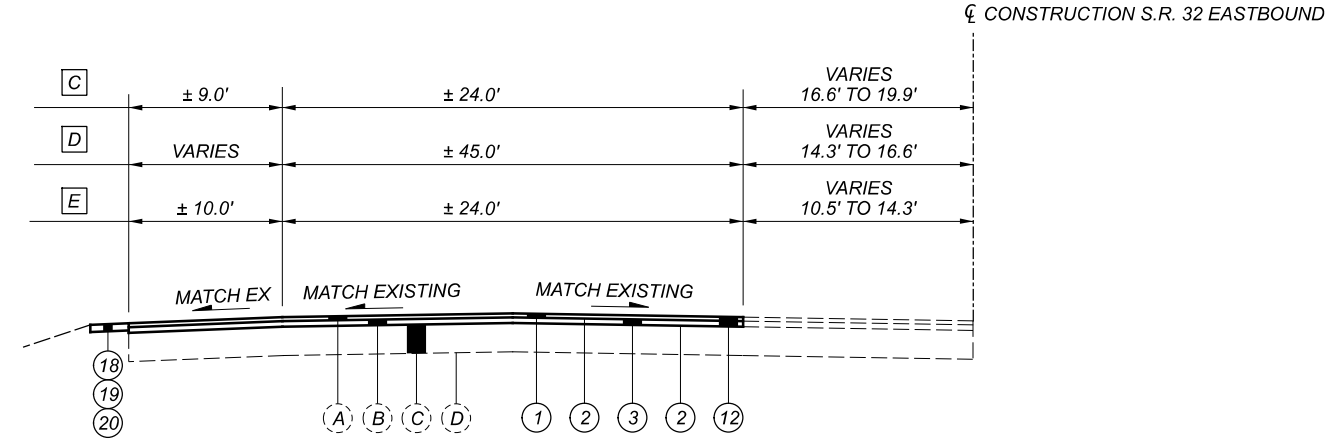
**TWO LANE RESURFACING S.R. 32 WESTBOUND**  
STA 262+39.00 TO STA 280+23.00



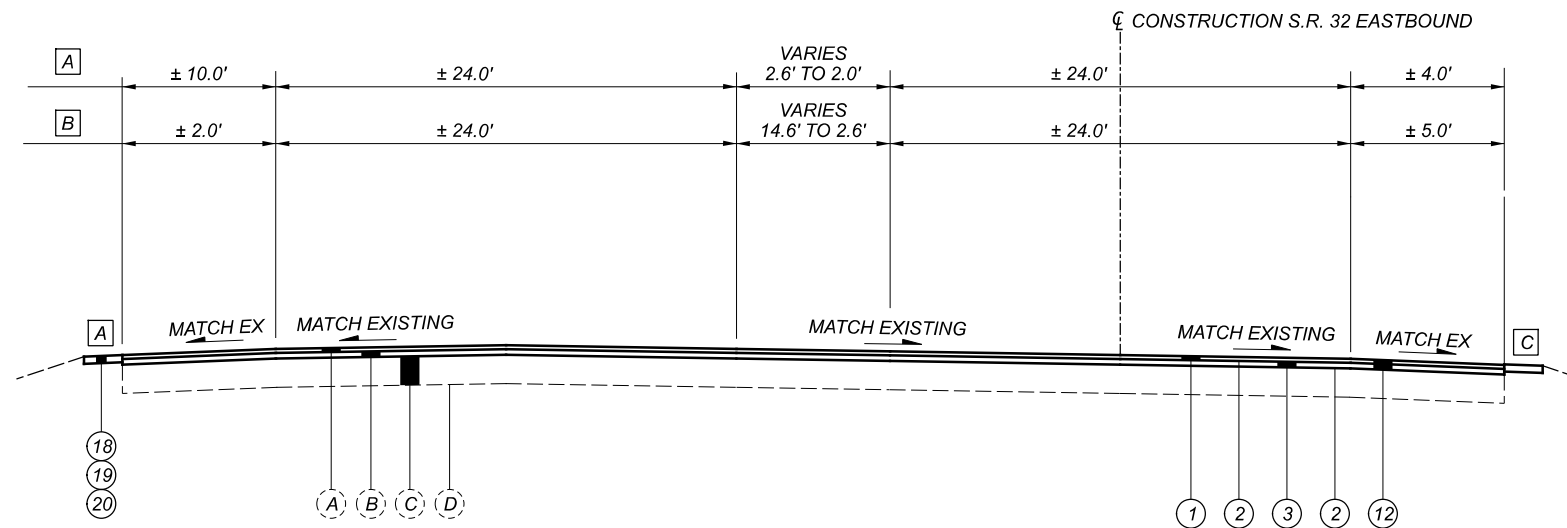
**NORMAL TWO LANE RESURFACING S.R. 32**  
STA 244+00.00 TO STA 249+37.63



**WESTBOUND RESURFACING S.R. 32**  
STA 0+00.00 TO STA 4+00.00



**WESTBOUND RESURFACING S.R. 32**  
STA 289+00.00 TO STA 296+23.84



**FOUR LANE RESURFACING S.R. 32**  
STA 284+62.00 TO STA 289+00.00

SAWCUT NOTE: THE EXISTING PAVEMENT EDGE SHALL BE SAWCUT TO LOCATE A SOUND PAVEMENT EDGE. FOR ESTIMATING PURPOSES, PAVEMENT CALCULATIONS INCLUDED IN THE PLANS INDICATE AN AVERAGE WIDTH OF 1 FOOT OF EXISTING PAVEMENT BEING REPLACED.

FOR LEGEND, SEE SHEET NO. P.4

DESIGN AGENCY  
  
 11687 Lebanon Road  
 Cincinnati OH 45241  
 (513) 842-8200

DESIGNER  
 PJD

REVIEWER  
 SNS 4-13-22

PROJECT ID  
 110991

SHEET TOTAL  
 P.11 | 142



**ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT**

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

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

PUMP THE FILL MATERIAL INTO PLACE OR 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 IS FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR IS 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 PER 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

**ITEM 611 - 15", SLOTTED DRAIN, TYPE 1**

THIS ITEM SHALL CONSIST OF 15 INCH DIAMETER SLOTTED DRAIN ALUMINUM COATED STEEL CONDUIT 707.01 WITH 6 INCH TRAPEZOIDAL GALVANIZED SOLID BAR GRATE AS APPROVED BY THE ENGINEER. ALL COSTS FOR LABOR AND MATERIALS, INCLUDING TYPE 2 BEDDING, AND BACKFILLING AS DETAILED ON STANDARD CONSTRUCTION DRAWING DM-1.3 SHALL BE INCLUDED IN THE PRICE BID PER FOOT FOR ITEM 611 - 15" SLOTTED DRAIN, TYPE 1.

**ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN**

THE CONTRACTOR SHALL CONTACT ALICE OLIVER OF MSD WASTEWATER ENGINEERING AT 513-244-1369 A MINIMUM OF FIVE (5) BUSINESS DAYS PRIOR TO STARTING CONSTRUCTION ON OR NEAR MSD SEWERS, INCLUDING ANY MANHOLE ADJUSTMENTS.

MANHOLES RECONSTRUCTED TO GRADE SHALL BE MADE IN ACCORDANCE WITH MSD STANDARD DRAWING ACCESSION NUMBERS 49058 OR 49058-A.

ALL OTHER ASPECTS OF ITEM 611 SHALL APPLY.

PAYMENT FOR ITEEM 611 MANHOLE RECONSTRUCTION TO GRADE, AS PER PLAN SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH AND SHALL INCLUDE ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

**ITEM 611 - CONDUIT BORED OR JACKED**

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING. PROVIDE A STEEL CASING PIPE CONFORMING TO 748.06. JOINTS WITH A CIRCUMFERENTIAL FULLY PENETRATING B- U4B WELD THAT IS PERFORMED BY A CERTIFIED WELDER FOR WELDING CODE AMERICAN WELDING SOCIETY (AWS) D1.1 OR MACHINED INTERLOCKING JOINTS ARE PERMITTED. THE INSTALLED CASING PIPE IS THE STORM WATER CONVEYANCE CARRIER UNLESS OTHERWISE SPECIFIED IN THE PLANS. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE.

**ITEM SPECIAL - CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION**

ALL CONCRETE SHALL BE TESTED. ALL TESTING, INSPECTION AND QUALITY CONTROL FOR CONCRETE, NOT INCLUDED UNDER QC/QA PAY ITEMS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A CONCRETE TESTING CONSULTANT WITH PREVIOUS EXPERIENCE AND FAMILIARITY IN ODOT PROCEDURES, CONCRETE TESTING REQUIREMENTS AND CONCRETE TESTING DOCUMENTATION. AT LEAST 30 DAYS PRIOR TO CONCRETE PLACEMENT, SUBMIT TO THE ENGINEER FOR APPROVAL, THE PROPOSED CONCRETE TESTING CONSULTANT ALONG WITH THE RESUMES OF THE PROPOSED TESTING PERSONNEL.

TESTING CONCRETE FOR STRUCTURES AND PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE PERFORMED AS OUTLINED IN CMS SPECIFICATIONS 455 RESPECTIVELY.

THROUGH THE CONTRACTOR, THE CONSULTANT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONCRETE PLACED IS IN ACCORDANCE WITH THE SPECIFICATIONS. SUCH WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE ODOT CONSTRUCTION INSPECTION MANUAL OF PROCEDURES FOR CONCRETE. THE CONCRETE CONSULTANT SHALL PROVIDE THE NECESSARY TRAINED TECHNICIAN(S), ALL EQUIPMENT, AND SHALL FURNISH THE PROJECT ENGINEER WITH TWO (2) COPIES OF ALL TEST RESULTS WITHIN 24 HOURS AFTER COMPLETION OF CONCRETE PLACEMENT.

THE TECHNICIAN SHALL BE ACI LEVEL 1 CERTIFIED AND WILL BE REQUIRED TO DEMONSTRATE HIS/HER COMPETENCE AND EXPERIENCE LEVELS TO THE ENGINEER PRIOR TO BEGINNING WORK. THE ENGINEER WILL ORDER THE CONTRACTOR TO REPLACE ANY TECHNICIAN THAT IS NOT VERSED IN THE REQUIRED TESTING PROCEDURE.

THE TECHNICIAN SHALL VERBALLY NOTIFY THE ODOT PROJECT ENGINEER OF ANY FAILING TEST AND SHALL SUBMIT FOLLOW-UP WRITTEN NOTIFICATION TO THE PROJECT ENGINEER OF REMEDIAL ACTION(S) TAKEN. TESTS SHALL BE TAKEN AS SPECIFIED WITHIN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, CONCRETE MANUAL OR APPROPRIATE SUPPLEMENTAL SPECIFICATION AS LISTED IN THE PROPOSAL GOVERNING THE PROJECT. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO MAKE IMMEDIATE CORRECTIONS OR ADJUSTMENTS TO THE CONCRETE MIX VIA DIRECT COMMUNICATION WITH THE CONCRETE SUPPLIER'S PLANT PERSONNEL TO MAINTAIN UNINTERRUPTED COMPLIANCE WITH THE SPECIFICATIONS UPON NOTIFICATION OF CONCRETE MIX NON-COMPLIANCE BY THE CONSULTANT TECHNICIAN. THE PROJECT ENGINEER MAY REQUIRE MORE FREQUENT TESTING AS CONDITIONS WARRANT.

UPON COMPLETION OF DAILY CONCRETE PLACEMENT(S), THE CONCRETE CONSULTANT SHALL PROVIDE THE PROJECT ENGINEER WITH DAILY TEST REPORTS, TE-45'S, INSPECTORS DAILY REPORT AND SUPPORTING DOCUMENTATION FOR EACH ITEM OF CONCRETE WORK PERFORMED SEPARATED BY MIX DESIGN. SUBSEQUENTLY, UPON COMPLETION OF AN ENTIRE CONCRETE SPECIFICATION ITEM, THE CONCRETE CONSULTANT SHALL ALSO PROVIDE THE PROJECT ENGINEER WITH TWO (2) COPIES OF AN ADDITIONAL INSPECTION REPORT BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHICH CONTAINS THE TESTING-RESULTS SUMMARY FOR EACH ITEM BY CONTRACT REFERENCE NUMBER AND THE CONSULTANT'S CONCLUSIONS RELATIVE TO SPECIFICATION COMPLIANCE FOR ALL CONCRETE-TESTING WORK.

THE ODOT PROJECT ENGINEER RESERVES THE RIGHT TO MAKE UNANNOUNCED QUALITY-CONTROL TESTS TO VERIFY PROCEDURES USED AND RESULTS BEING OBTAINED BY THE CONTRACTOR.

**ITEM SPECIAL - CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION CONTINUED**

THE CONCRETE TECHNICIAN SHALL WORK UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHO WILL MONITOR THE CONCRETE TEST RESULTS. THE FINAL INSPECTION REPORTS FOR EACH COMPLETED ITEM SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, CERTIFYING THAT ALL CONCRETE TESTS PROVIDED BY THE CONTRACTOR MET APPLICABLE CONTRACT REQUIREMENTS. A FINAL REPORT ISSUED BY THE CONSULTING FIRM SHALL CONTAIN A CERTIFIED STATEMENT OF COMPLIANCE WITH ODOT SPECIFICATIONS AND ANY OTHER CONCLUSIONS REGARDING THE CONCRETE MATERIALS INCORPORATED INTO THE PROJECT. SUCH STATEMENT SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO. AND, THE CONCRETE CONSULTANT SHALL BE REQUIRED TO ATTEND MONTHLY PROGRESS MEETINGS AS REQUIRED BY THE PROJECT ENGINEER.

ADDITIONALLY, THE CONTRACTOR SHALL BE REQUIRED TO KEEP A POSTED LIST OF BEAM AND CYLINDER IDENTIFICATION NUMBERS FOR THE PURPOSE OF IDENTIFYING THE CORRESPONDING PLACEMENT LOCATION AND CONCRETE SPECIFICATION ITEM.

PAYMENT SHALL BE BID AS LUMP SUM FOR ITEM SPECIAL MISC.: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION. THE ITEM WILL BE PAID FOR AS FOLLOWS:

- UPON APPROVAL OF CONSULTANT . . . . . 20%
- PROGRESSIVE EQUIVALENT PAYMENTS . . . . . 50%
- UPON SUBMISSION OF FINAL REPORT . . . . . 30%.

THE TECHNICIAN SHALL HAVE THE FULL EFFECT AND AUTHORITY OF AN ODOT PROJECT INSPECTOR IN DETERMINING ACCEPTABILITY OF MATERIAL AND CONCRETE PLACEMENT PRACTICES.

**INTERIM COMPLETION REQUIREMENTS**

THIS PROJECT HAS AN INTERIM COMPLETION DATE OF OCTOBER 15, 2023. ON OR BEFORE THE INTERIM COMPLETION DATE, S.R. 32 AND EIGHT MILE ROAD SHALL BE OPEN AND OPERATING IN THEIR FINAL CONFIGURATION. THIS INTERIM COMPLETION DATE DOES NOT APPLY TO THE FINAL SURFACE COURSE, FINAL PAVEMENT MARKING, OR ESTABLISHMENT OF PERMANENT SEEDING ON S.R. 32.

THIS PROJECT HAS A FINAL COMPLETION DATE OF JULY 31, 2024.

THE CONTRACT WILL BE SUBJECT TO DAILY DISINCENTIVES FOR FAILURE TO COMPLETE ALL THE REQUIRED WORK, AND ASSOCIATED INCIDENTALS RELATED TO THE WORK, AS OUTLINED IN THE TABLE INCLUDED IN THIS NOTE. APPLICATION OF THE DISINCENTIVES WILL BE BASED ON THE OVERALL CONTRACT AMOUNT. DAILY DISINCENTIVES ARE APPLICABLE TO THE WORK REQUIRED TO THE INTERIM COMPLETION DATE ONLY. THE CONTRACT IS STILL SUBJECT TO LIQUIDATED DAMAGES AS OUTLINED IN CMS 108.07 FOR THE REMAINDER OF THE CONTRACT.

SCHEDULE OF DAILY DISINCENTIVES FOR FAILURE TO MEET THE INTERIM COMPLETION REQUIREMENTS		
ORIGINAL CONTRACT AMOUNT (TOTAL AMOUNT AT TIME OF BIDDING)		DAILY DISINCENTIVE FOR EACH FULL OF PARTIAL CALENDAR DAY OF TIME OVERRUN BEYOND THE PLAN INTERIM COMPLETION DATE
FROM MORE THAN	TO AND INCLUDING	
\$0.00	\$500,000	\$800
\$500,000	\$1,000,000	\$1,200
\$1,000,000	\$5,000,000	\$2,500
\$5,000,000	\$10,000,000	\$3,500
\$10,000,000	\$50,000,000	\$5,000
OVER \$50,000,000		\$7,500

**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 SECTION 204.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS).
- 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 C&MS 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 C&MS 204.06.

5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO C&MS 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 C&MS 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.

DESIGN AGENCY



DESIGNER  
PJD

REVIEWER  
SNS 4-13-22

PROJECT ID  
110991

SHEET TOTAL  
P.15 | 142

**SEQUENCE OF CONSTRUCTION**

THE SEQUENCE OF CONSTRUCTION OUTLINED BELOW IS INTENDED TO MAINTAIN TRAFFIC ON S.R. 32 AND EIGHT MILE ROAD, PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE THAT ACCESS TO RESIDENTIAL AND COMMERCIAL DRIVES ARE MAINTAINED AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.

NOTE THAT FINAL SURFACE COURSE AND PERMANENT PAVEMENT MARKINGS ON S.R. 32 SHALL BE PLACED DURING PHASE 4.

**PHASE 1A** - RESTRIPE S.R. 32 TRAFFIC FROM STA. 244+65 TO STA. 289+95 SHIFTING TRAFFIC TO THE SOUTH IN THE AREA OF THE INTERSECTION WITH MAKERS CHURCH DRIVE, CLOSING THE INSIDE WESTBOUND LANE AND REDUCING THE LANE WIDTH OF THE OUTSIDE LANE TO 11'. CLOSE THE RIGHT TURN LANE TO MAKERS CHURCH WITH PORTABLE BARRIER AND WIDEN THE NORTH SIDE OF S.R. 32 FROM STA. 249+30 TO STA. 252+70. PLACE PORTABLE BARRIER ALONG THE WEST SIDE OF S.R. 32 WB STA. 261+80 TO STA. 273+40 AND REMOVE THE EXISTING GUARDRAIL AND CONSTRUCT THE TEMPORARY PAVEMENT ALONG THE WEST SIDE OF S.R. 32. WB

**PHASE 1** - RESTRIPE THE WESTBOUND ALIGNMENT TO ACCOMMODATE TWO-LANE TWO-WAY TRAFFIC AND TO TRANSITION TRAFFIC TO THE WESTBOUND SIDE OF S.R. 32 EAST, SHIFT PORTABLE BARRIERS TO ACCOMMODATE THE NEW TRAFFIC PATTERN AND PUT IN PLACE DETOUR SIGNING FOR EIGHT MILE ROAD AND MORAN ROAD. CLOSE EIGHT MILE ROAD AND THE EASTBOUND SPLIT OF S.R. 32 TO TRAFFIC AND REROUTE S.R. 32 EASTBOUND TRAFFIC ONTO THE WESTBOUND SPLIT. CONSTRUCT THE WIDENING ALONG THE SOUTH SIDE OF S.R. 32, THE EIGHT MILE ROAD ALIGNMENT, THE MEDIAN ISLAND IMPROVEMENTS AND ADDITIONAL TURN OUT PAVEMENT AT THE START OF THE S.R. 32 SPLIT AND COMPLETE THE LANDSLIDE REPAIRS ON S.R. 32 EASTBOUND LANES. INSTALL THE TWO PROPOSED SIGNAL MAST ARMS ON THE SOUTH SIDE OF S.R. 32 AND THE REQUIRED CONDUIT ON THE SOUTH SIDE OF S.R. 32. PLACE THE CONDUIT TO THE PROPOSED SIGNAL INSTALLATION ON THE NORTH SIDE OF S.R. 32 UNDER THE S.R. 32 PAVEMENT, INCLUDING A JACK AND BORE OPERATION TO INSTALL CONDUIT UNDER THE ACTIVE LANES OF S.R. 32 TRAFFIC.

**PHASE 2** – ESTABLISH A NEW TRAFFIC PATTERN RETURNING THE EASTBOUND TRAFFIC TO THE EASTBOUND PAVEMENT AND MAINTAINING ONE LANE OF TRAFFIC IN BOTH DIRECTIONS OF S.R. 32 AND SHIFTING TRAFFIC TO THE SOUTH SIDE OF THE WESTBOUND AND EASTBOUND ALIGNMENTS. PLACE PORTABLE BARRIERS AND COMPLETE THE WIDENING ON THE NORTH SIDE OF S.R. 32 FROM STA. 252+70 TO STA. 257+50. CONSTRUCT THE CURB ALONG THE NORTH SIDE OF S.R. 32 FROM STA. 258+38 TO STA. 261+26, INSTALL THE PROPOSED SIGNAL MAST ARM ON THE NORTH SIDE OF S.R. 32 AT STA. 260+88 AND CONSTRUCT A PORTION OF THE CENTER ISLAND AT EIGHT MILE ROAD.

**PHASE 3** – MAINTAIN AND EXTEND PORTABLE BARRIER OF THE EASTBOUND S.R. 32 ALIGNMENT IN PHASE 2, PLACE TEMPORARY PAVEMENT MARKINGS SHIFTING THE WESTBOUND S.R. 32 TO THE NORTH SIDE OF S.R. 32 AND PLACE PORTABLE BARRIER. COMPLETE THE FOLLOWING CONSTRUCTION ACTIVITIES: CONSTRUCT THE SLOTTED DRAIN FROM STA. 254+50 TO STA. 259+00, USE A JACK AND BORE OPERATION TO COMPLETE THE PIPE CROSSING UNDER S.R. 32 FROM STA. 259+50, COMPLETE CONSTRUCTION OF THE CENTER ISLAND AT EIGHT MILE ROAD AND REMOVE THE TEMPORARY PAVEMENT BETWEEN STA. 261+95 TO STA. 272+10 AND INSTALL THE PERMANENT GUARDRAIL.

**PHASE 3A** - RESTRIPE THE EASTBOUND TRAFFIC AND PLACE THE PORTABLE BARRIER ON THE SOUTH SIDE OF S.R. 32 FROM STA. 253+62 TO STA 255+11 AND SHIFT THE PORTABLE BARRIER ON THE NORTHSIDE OF THE EASTBOUND ALIGNMENT FROM STA. 256+99 TO STA. 262+56 AND CONSTRUCT THE REMAINING CONNECTION FROM THE SLOTTED DRAIN TO THE SOUTH SIDE OF S.R. 32.

**PHASE 4** - AFTER CONSTRUCTION ACTIVITIES ARE COMPLETE, STRIPE S.R. 32 TRAFFIC TO THE PROPOSED CONFIGURATION USING TEMPORARY PAVEMENT MARKINGS AND REOPEN EIGHT MILE ROAD TO TRAFFIC. THE FINAL SURFACE COURSE AND ALL PERMANENT PAVEMENT MARKINGS MUST BE IN PLACE ON EIGHT MILE ROAD BEFORE IT IS OPENED TO TRAFFIC. USE STANDARD CONSTRUCTION DRAWINGS MT-95.30 TO MILL AND RESURFACE AND STANDARD CONSTRUCTION DRAWING MT-99.20 TO COMPLETE PAVEMENT MARKING OPERATIONS ON S.R. 32 FROM STA. 244+00.00 TO STA. 4+00.00.

**ITEM 614, MAINTAINING TRAFFIC**

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON S.R. 32 BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410 AND 614.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON EIGHT MILE ROAD, EXCEPT FOR A PERIOD NOT TO EXCEED 240 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET P.20. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$ 6,584 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS AND SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE.

NOTICE OF CLOSURE SIGN TIME TABLE

ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
ROAD CLOSURES	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

- INTERSECTION OF S.R. 32 AND EIGHT MILE ROAD.
- INTERSECTION OF S.R. 32 AND MORAN ROAD.
- EIGHT MILE ROAD JUST NORTH OF BRIDLE ROAD INTERSECTION.
- STA. 271+00 ON EASTBOUND S.R. 32
- STA. 284+50 ON EASTBOUND S.R. 32

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.

**OVERNIGHT TRENCH CLOSING**

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 3 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

**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 113 M. GAL.

**EARTHWORK FOR MAINTAINING TRAFFIC**

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY.

- EXCAVATION FOR MAINTAINING TRAFFIC 112 CU. YD.
- EMBANKMENT FOR MAINTAINING TRAFFIC 125 CU. YD.

**ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS - UNIDIRECTIONAL OR 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.

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.

**DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL**

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL TEMPORARY GUARDRAIL USED FOR TRAFFIC CONTROL; AND, ON ALL PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTORS SHALL CONFORM TO C&MS 626 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET.

OBJECT MARKERS SHALL BE INSTALLED ON ALL TEMPORARY AND PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKERS SHALL CONFORM TO C&MS 614.03 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET WITH A 25 FOOT OFFSET FROM THE BARRIER REFLECTORS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

- ITEM 614, BARRIER REFLECTOR, TYPE 2 BI-DIRECTIONAL 13 EACH

- ITEM 614, OBJECT MARKER, TWO-WAY 13 EACH

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

**ITEM 614, LONGITUDINAL CHANNELIZER**

LONGITUDINAL CHANNELIZERS SHALL BE PROVIDED AS CALLED FOR IN THE PLANS. A LONGITUDINAL CHANNELIZER CONSISTS OF A COMBINATION OF VERTICAL COMPONENTS AND LONGITUDINAL BASE COMPONENTS, FIT TOGETHER TO CREATE A CONTINUOUS CHANNELIZING DEVICE, AS DETAILED IN TRAFFIC PIS 2010180, SEE SHEET 38. USE OF TUBULAR MARKERS, AS IDENTIFIED IN THE OMUTCD, FIGURE 6F-7, SHALL NOT QUALIFY FOR USE AS A LONGITUDINAL CHANNELIZER.

THE VERTICAL COMPONENT SHALL BE EQUIPPED WITH TWO 3-INCH WIDE RETROREFLECTIVE BANDS, PLACED A MAXIMUM OF 2 INCHES FROM THE TOP, WITH A MAXIMUM OF 6 INCHES BETWEEN THE BANDS. THE LONGITUDINAL BASE COMPONENTS SHALL BE EQUIPPED WITH REFLECTORS.

LONGITUDINAL CHANNELIZERS SHALL COMPLY WITH THE REQUIREMENTS CONTAINED WITHIN TRAFFIC PIS 2010180.

FURNISH LONGITUDINAL CHANNELIZERS FROM THE APPROVED LIST FOUND ON THE OFFICE OF MATERIALS MANAGEMENT WEBSITE. FOR INSTALLATION PROCEDURES, FOLLOW THE MANUFACTURER'S INSTRUCTIONS.

LONGITUDINAL CHANNELIZERS SHALL BE MONITORED TO DETERMINE WHETHER THERE IS SIGNIFICANT DAMAGE FROM ERRANT VEHICLES.

PAYMENT FOR PROVIDING, INSTALLING, MAINTAINING AND REMOVING LONGITUDINAL CHANNELIZERS WILL BE MADE AT THE UNIT PRICE PER FOOT FOR:

- ITEM 614, LONGITUDINAL CHANNELIZER 1020 FEET

DESIGN AGENCY  
  
**Stantec**  
 11487 Lebanon Road  
 Cincinnati OH 45241  
 (513) 842-8200  
 DESIGNER  
 STC  
 REVIEWER  
 PJD 4-13-22  
 PROJECT ID  
 110991  
 SHEET TOTAL  
 P.16 | 142

PHASE	SHEETS	614																				615		622					
		WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	WORK ZONE CENTER LINE, CLASS I, 6", 642 PAINT	WORK ZONE CENTER LINE, CLASS III, 6", 642 PAINT	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (WHITE)	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (YELLOW)	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT (WHITE)	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT (YELLOW)	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT (WHITE)	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT (WHITE)	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	WORK ZONE DOTTED LINE, CLASS I, 12", 642 PAINT	WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT	WORK ZONE DOTTED LINE, CLASS III, 12", 642 PAINT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS III, 642 PAINT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	WORK ZONE ARROW, CLASS I, 642 PAINT	WORK ZONE ARROW, CLASS III, 642 PAINT	WORK ZONE WORD ON PAVEMENT, 96", CLASS I, 642 PAINT	WORK ZONE WORD ON PAVEMENT, 96", CLASS III, 642 PAINT	ROADS FOR MAINTAINING TRAFFIC	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	PORTABLE BARRIER, UNANCHORED	PORTABLE BARRIER, ANCHORED
		EACH	EACH	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	LUMP	SY	FT	FT
PHASE 1A	20-21		3	0.03		0.39		0.53	0.45			418		1323												LUMP	561	1090	420
PHASE 1	22-26		4			0.43		1.32	0.89			965		359						10		3		1				1610	
PHASE 2	27-30	3	1	0.06		0.14		0.88	1.00			268										2		1				2650	100
PHASE 3	31-33	1	2			0.08		0.64	0.34													2		1				2440	
PHASE 3A						0.13		0.24	0.20																			710	
PHASE 4 - STEP 1				0.65		0.86		1.46	0.75			2065		988	973			219		44		14		2					
PHASE 4 - STEP 2				0.65		0.86		1.46	0.75			2065		988	973			219		44		14		2					
PHASE 4 - STEP 3					0.65		0.86			1.46	0.75		2065			988	973		219		44		14		2				
SUBTOTAL		4	10	1.40	0.65	2.89	0.86	6.53	4.38	1.46	0.75	5781	2065	3658	1946	988	973	3262	219	98	44	35	14	7	2	LUMP	561	8500	520
TOTALS CARRIED TO GENERAL SUMMARY		4	10	1.40	0.65	2.89	0.86	10.91	2.21	1.46	0.75	5781	2065	3658	1946	988	973	3262	219	98	44	35	14	7	2	LUMP	561	8500	520

MAINTENANCE OF TRAFFIC SUBSUMMARY

DESIGN AGENCY  
  
**Stantec**  
 11687 Lebanon Road  
 Cincinnati, OH 45241  
 (513) 842-8200

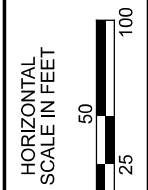
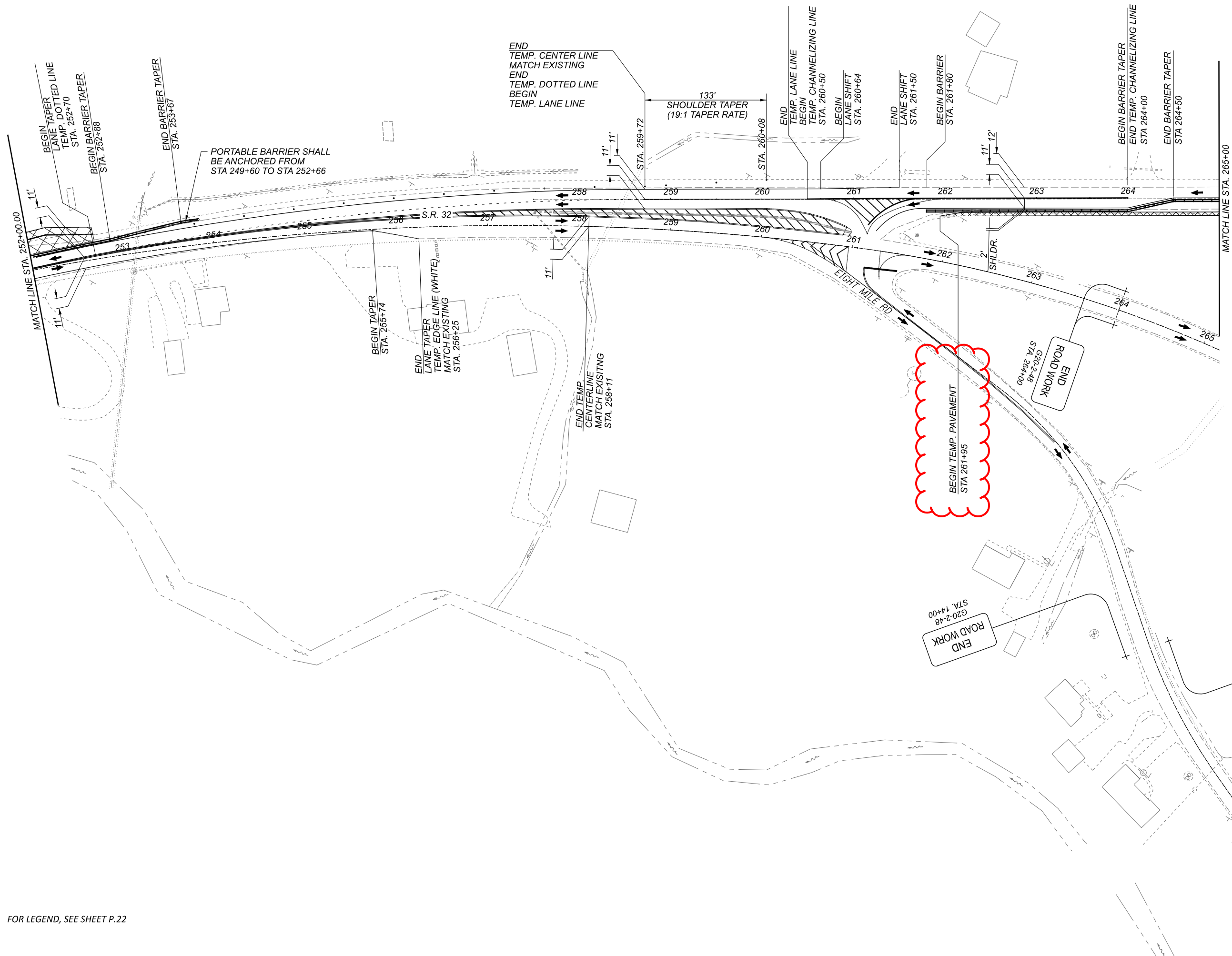
DESIGNER  
 STC

REVIEWER  
 PJD 4-13-22

PROJECT ID  
 110991

SHEET TOTAL  
 P.19 | 142

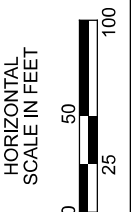
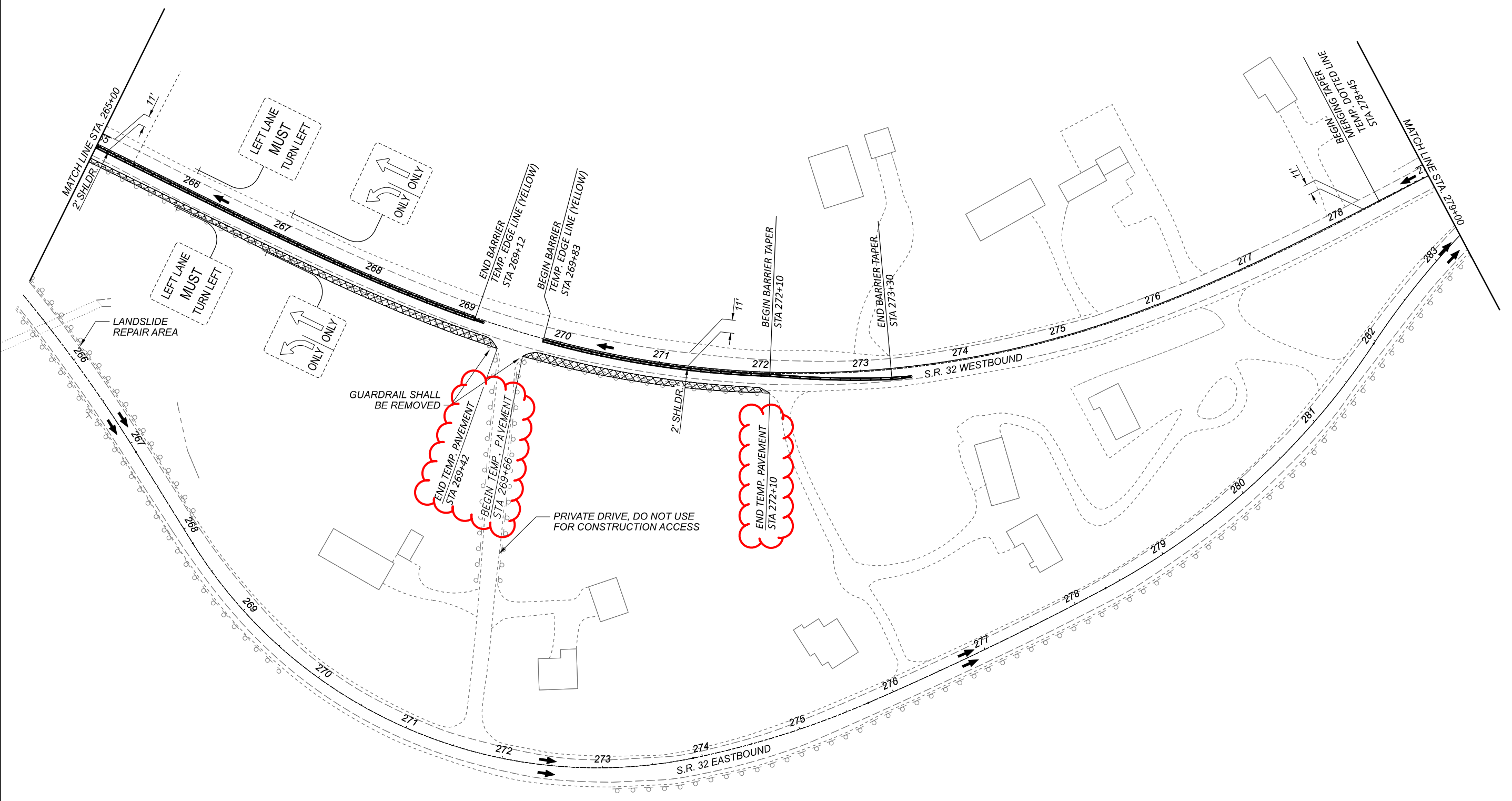
FOR LEGEND, SEE SHEET P.22



MAINTENANCE OF TRAFFIC PHASE 1A  
STA 252+00.00 TO END



DESIGNER	STC
REVIEWER	PJD 4-13-22
PROJECT ID	110991
SHEET	P.23
TOTAL	142

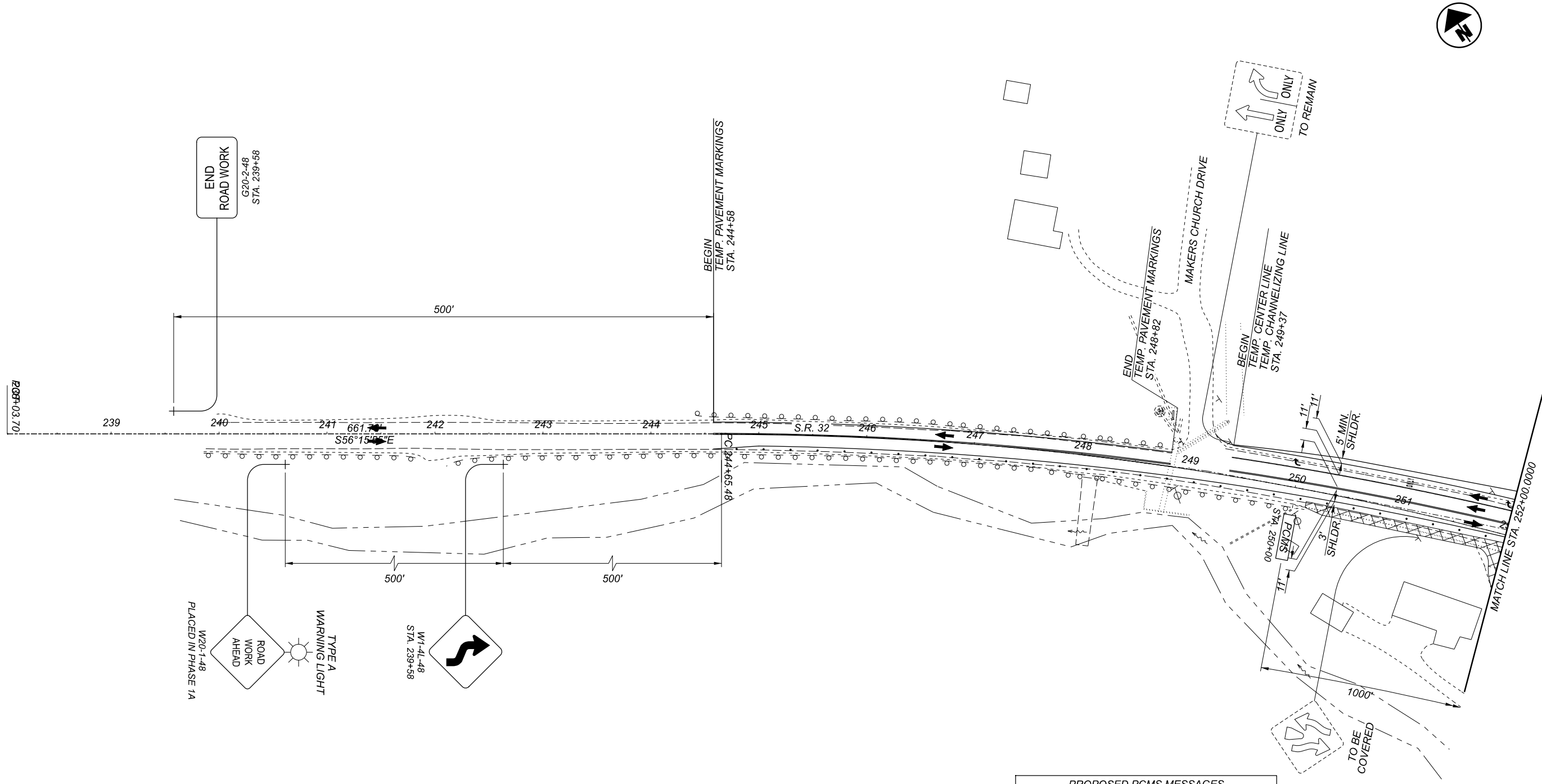


**MAINTENANCE OF TRAFFIC PHASE 1A**  
**STA. 265+00.00 STA. 279+00.00**



DESIGNER	STC
REVIEWER	PJD MM-DD-YY
PROJECT ID	110991
SHEET	TOTAL
P.24	142

FOR LEGEND, SEE SHEET P.22



END ROAD WORK  
 G20-2-48  
 STA. 239+58

BEGIN TEMP. PAVEMENT MARKINGS  
 STA. 244+58

END TEMP. PAVEMENT MARKINGS  
 STA. 248+82

BEGIN TEMP. CENTER LINE  
 TEMP. CHANNELIZING LINE  
 STA. 249+37

W20-1-48  
 ROAD WORK AHEAD  
 PLACED IN PHASE 1A

TYPE A  
 WARNING LIGHT

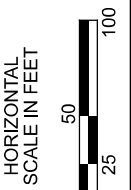
W1-4L-48  
 STA. 239+58

PROPOSED PCMS MESSAGES

8-MILERS	FOLLOW
CLOSED	DETOUR
ATSR32	

ADJUSTED WORK ZONE  
 HATCHING SCALE

FOR LEGEND, SEE SHEET NO. P.22  
 FOR TYPICAL, SEE SHEET NO. P.21



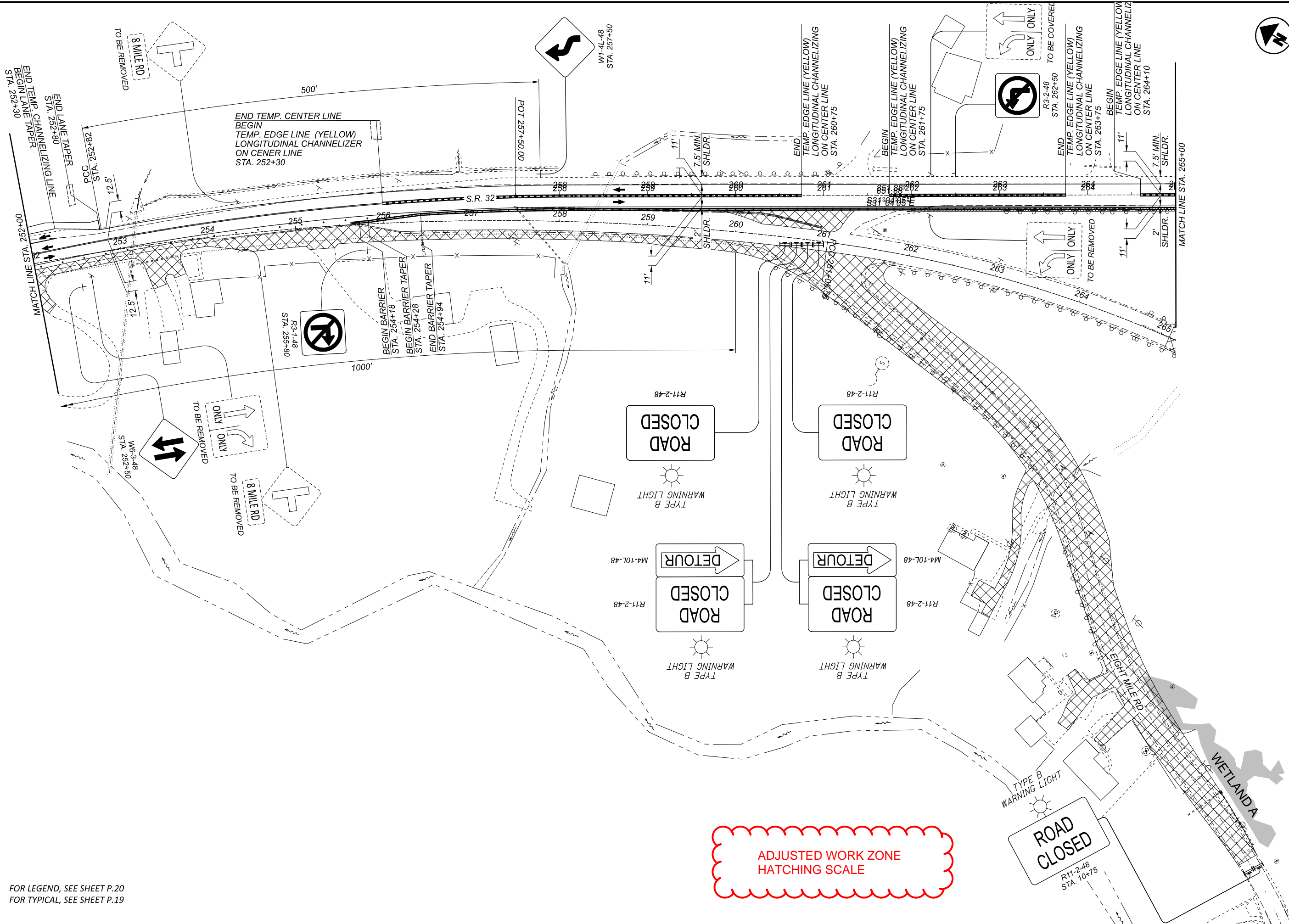
MAINTENANCE OF TRAFFIC PHASE 1  
 BEGINNING TO STA. 252+00.00



DESIGNER

STC
REVIEWER
PJD 4-13-22
PROJECT ID
110991
SHEET TOTAL
P.26 142

FOR LEGEND, SEE SHEET P.20  
FOR TYPICAL, SEE SHEET P.19

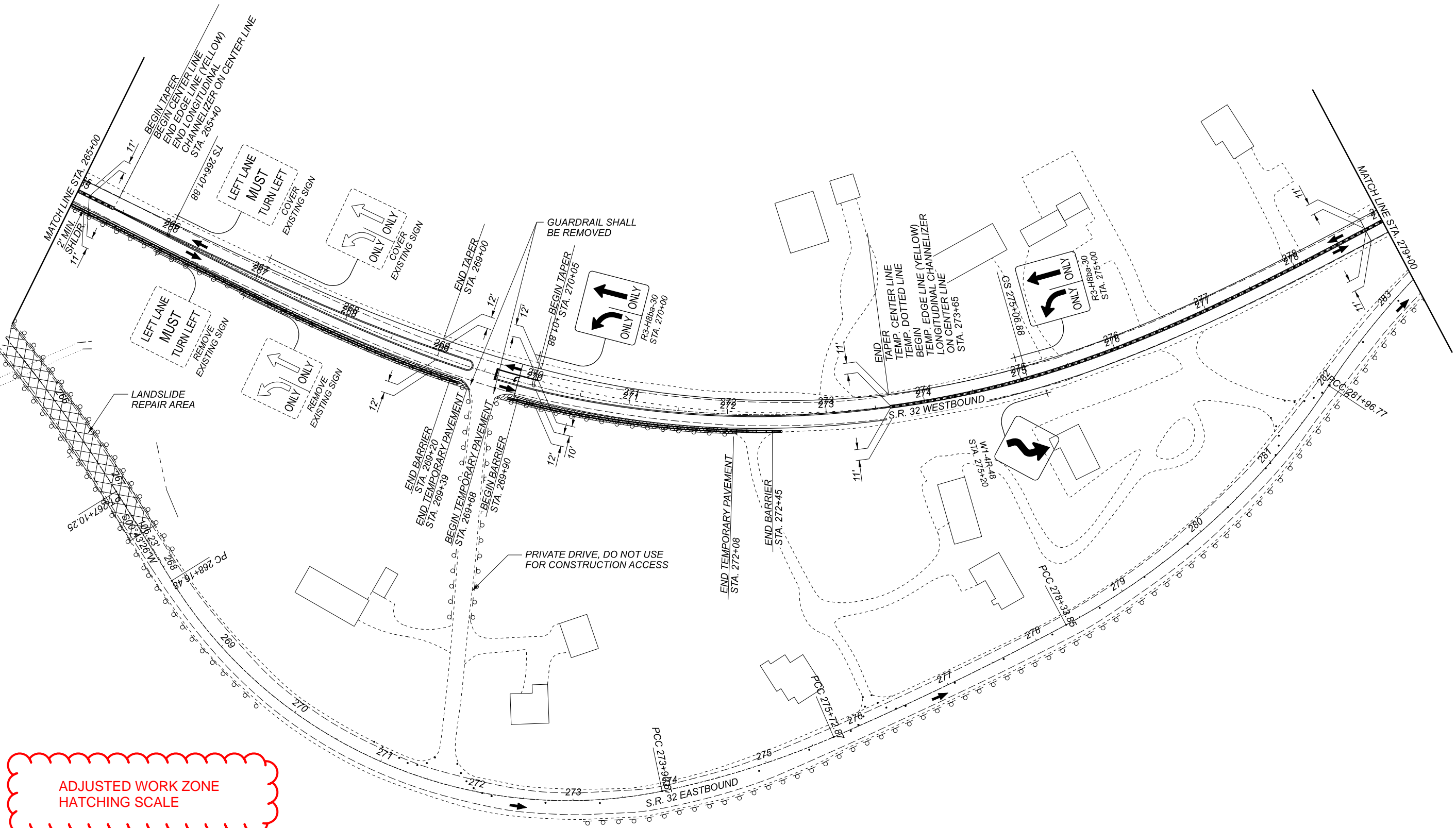


ADJUSTED WORK ZONE  
HATCHING SCALE

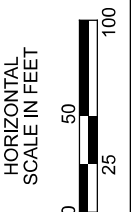
MAINTENANCE OF TRAFFIC PHASE 1  
STA. 252+00.00 TO STA. 265+00.00



DESIGNER	STC
REVIEWER	PJD 4-13-22
PROJECT ID	110991
SHEET	TOTAL
P.27	142



ADJUSTED WORK ZONE  
HATCHING SCALE



**MAINTENANCE OF TRAFFIC PHASE 1**  
STA. 265+00.00 STA. 279+00.00



DESIGNER	STC
REVIEWER	PJD 4-13-22
PROJECT ID	110991
SHEET	TOTAL
P.28	142

FOR LEGEND, SEE SHEET P.22  
FOR TYPICAL, SEE SHEET P.21



SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
13-15	43	44	45	46	47	48	49	99	124		01/SAE/ OT	02/S>2/ OT						
<b>ROADWAY</b>																		
LS											LS		201	11000	LS		CLEARING AND GRUBBING	
		1									1		202	20010	1	EACH	HEADWALL REMOVED	
		150									150		202	30000	150	SF	WALK REMOVED	
		1,352									1,352		202	32000	1,352	FT	CURB REMOVED	
		440									440		202	32600	440	FT	GUTTER REMOVED	
		319									319		202	35100	319	FT	PIPE REMOVED, 24" AND UNDER	
		62									62		202	35200	62	FT	PIPE REMOVED, OVER 24"	
		2,289									1,669	620	202	38000	2,289	FT	GUARDRAIL REMOVED	
		7									7		202	53100	7	EACH	MAILBOX REMOVED	
		3									3		202	58100	3	EACH	CATCH BASIN REMOVED	
		1									1		202	58200	1	EACH	INLET REMOVED	
		84									84		SPECIAL	20270000	84	FT	FILL AND PLUG EXISTING CONDUIT, 12"	15
		280									280		202	75000	280	FT	FENCE REMOVED	
		LS									LS		202	98000	LS		REMOVAL MISC.:LANDSCAPING BOULDERS (R3)	39
		LS									LS		202	98000	LS		REMOVAL MISC.:LANDSCAPING BOULDERS (R4)	39
		LS									LS		202	98000	LS		REMOVAL MISC.:BILLBOARD	39
		328									328		202	98200	328	FT	REMOVAL MISC.:TRENCH DRAIN	13
	16,787										7,624	9,163	203	10000	16,787	CY	EXCAVATION	
	19,767										10,733	9,034	203	20000	19,767	CY	EMBANKMENT	
	3,446										2,240	1,206	203	35001	3,446	CY	GRANULAR EMBANKMENT, AS PER PLAN	13
2											2		SPECIAL	20365000	2	EACH	SETTLEMENT PLATFORM	14
					6,671						6,671		204	10000	6,671	SY	SUBGRADE COMPACTION	
	2,502				2,502						2,502		204	13000	2,502	CY	EXCAVATION OF SUBGRADE	
					2,224						2,224		204	30000	2,224	CY	GRANULAR MATERIAL, TYPE C	
					4						4		204	45000	4	HOUR	PROOF ROLLING	
					1,991						6,671	1,991	204	30000	1,671	SY	GEOTEXTILE FABRIC	
					1,375						825	550	606	15050	1,375	FT	GUARDRAIL, TYPE MGS	
					800						800		606	15100	800	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
					4						3	1	606	26150	4	EACH	ANCHOR ASSEMBLY, MGS TYPE E, NCHRP 350/MASH 2016	
					8						7	1	606	26550	8	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
					40						104		608	10000	104	SF	4" CONCRETE WALK	
									6		6		623	38500	6	EACH	MONUMENT ASSEMBLY	
									4		4		623	40500	4	EACH	REFERENCE MONUMENT	
											1		625	75400	1	EACH	LIGHT POLE REMOVED	
											7		SPECIAL	69050100	7	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	13
LS											LS		SPECIAL	69098400	LS		SPECIAL - CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION	15
	7,413											7,413	863	00600	7,413	SY	GEOGRID, TYPE S1	
											LS		878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
<b>EROSION CONTROL</b>																		
											48		601	11000	48	SY	RIPRAP, TYPE D	
4											10	11	601	21050	21	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
											39		601	32000	39	CY	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	
											62		601	32100	62	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
											8		601	32200	8	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
												5	601	32300	5	CY	ROCK CHANNEL PROTECTION, TYPE D WITH FILTER	
											26		601	37500	26	FT	PAVED GUTTER, TYPE 1-2	
	2										2		659	00100	2	EACH	SOIL ANALYSIS TEST	
	2,465										2,465		659	00300	2,465	CY	TOPSOIL	
	22,206										22,206		659	10000	22,206	SY	SEEDING AND MULCHING	
											3		659	20000	3	TON	COMMERCIAL FERTILIZER	
											4.59		659	31000	4.59	ACRE	LIME	
											120		659	35000	120	MGAL	WATER	
											1,016		670	00500	1,016	SY	SLOPE EROSION PROTECTION	
											450		670	00700	450	SY	DITCH EROSION PROTECTION	
											LS		832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
											LS		832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
											LS		832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
											60,000		832	30000	60,000	EACH	EROSION CONTROL	
											568		836	10000	568	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1	
											2,048		836	10030	2,048	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 3	

GENERAL SUMMARY

DESIGN AGENCY



**Stantec**  
11687 Lebanon Road  
Cincinnati OH 45241  
(513) 842-8200

DESIGNER  
**LBA**

REVIEWER  
**PJD 4-13-22**

PROJECT ID  
**110991**

SHEET TOTAL  
**P.39 | 142**

SHEET NUM.										PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
13-15	43		45	46	47	48		99	100-102	01/SAE/ OT	02/S>2/ OT						
								LS		LS		503	1100	LS		<b>DRAINAGE</b>	
					9.42			23.3		22.5	0.27	609	20000	3279	CY	COFFERDAMS AND EXCAVATION BRACING	
						321				321		605	11000	321	FT	CONCRETE MASONRY	
						4,495				3,999	496	605	11000	4,495	FT	6" CONSTRUCTION UNDERDRAINS, 707.31 (PERFORATED)	
100						25				125		605	13300	125	FT	6" SHALLOW PIPE UNDERDRAINS	
						1,875				1,875		605	14000	1,875	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
																6" BASE PIPE UNDERDRAINS	
20						327				266	81	611	00510	347	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
					297					297		611	04400	297	FT	12" CONDUIT, TYPE B	
					296					296		611	05900	296	FT	15" CONDUIT, TYPE B	
					148					148		611	06100	148	FT	15" CONDUIT, TYPE C	
					203					203		611	06400	203	FT	15" CONDUIT, TYPE D	
						53					53	611	06700	53	FT	15" CONDUIT, TYPE F, 707.05 TYPE C OR 707.21	
						25				25		611	08900	25	FT	21" CONDUIT, TYPE B	
						98				98		611	09100	98	FT	21" CONDUIT, TYPE C	
						26				26		611	19600	26	FT	42" CONDUIT, TYPE C	
								169		169		611	26000	169	FT	72" CONDUIT, TYPE A, 707.04	
												611	96600	33	FT	CONDUIT, BORED OR JACKED, 15" TYPE B	
						33				452		611	97000	452	FT	SLOTTED DRAIN, TYPE 1, 15" TYPE B	
						6				6		611	98150	6	EACH	CATCH BASIN, NO. 3	
						5				5		611	98180	5	EACH	CATCH BASIN, NO. 3A	
						5				5		611	98370	5	EACH	CATCH BASIN, NO. 6	
						3				3		611	98470	3	EACH	CATCH BASIN, NO. 2-2B	
						1				1		611	98780	1	EACH	INLET, NO. 2-20	
						2				2		611	99574	2	EACH	MANHOLE, NO. 3	
2							9			5	6	611	99710	11	EACH	PRECAST REINFORCED CONCRETE OUTLET	
																<b>PAVEMENT</b>	
						21,369				21,369		254	01000	21,369	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 3"	
20						2,075				1,838	257	301	56000	2,095	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
						68				68		301	56100	68	CY	ASPHALT CONCRETE BASE, PG64-22, (449), (DRIVEWAYS)	
						1,303				1,154	149	304	20000	1,303	CY	AGGREGATE BASE	
						45				45		407	10000	45	GAL	TACK COAT	
						3,964				3,874	90	407	20000	3,964	GAL	NON-TRACKING TACK COAT	
						998				970	28	441	70000	998	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	
6						1,401				1,367	40	441	70300	1,407	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)	
						29				29		441	70500	29	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	
						9				9		452	10010	9	SY	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
								471		471		609	18000	471	FT	COMBINATION CURB AND GUTTER, TYPE 3	
						1,637				1,464	173	609	24511	1,637	FT	CURB, TYPE 4-C, AS PER PLAN	34
						1,594				1,594		609	26000	1,594	FT	CURB, TYPE 6	
						419				419		609	50000	419	SY	4" CONCRETE TRAFFIC ISLAND	
										27	1	617	10100	28	CY	COMPACTED AGGREGATE	
										627	28	617	20000	655	SY	SHOULDER PREPARATION	
										1		617	25000	1	MGAL	WATER	
																<b>WATER WORK</b>	
										2		202	75610	2	EACH	VALVE BOX REMOVED	
										5		203	98000	5	CY	ROADWAY, MISC.: ADDITIONAL EXCAVATION (CIN. 1119)	100
										5		203	98000	5	CY	ROADWAY, MISC.: EXPLORATORY EXCAVATION (CIN. 1120)	100
								3,000		3,000		509	25000	3,000	LB	UNCOATED REINFORCING STEEL	100
										20		602	98200	20	CY	MASONRY, MISC.: CONCRETE, CLASS "C" (CIN. 1110)	100
										3		638	10400	3	EACH	FIRE HYDRANT ADJUSTED TO GRADE	
3										2		638	10480	2	EACH	FIRE HYDRANT REMOVED	
										4		638	10800	4	EACH	VALVE BOX ADJUSTED TO GRADE	
										18		SPECIAL	63820064	18	FT	8" WATER MAIN DIP CLASS 55 MECHANICAL JOINTS AND FITTINGS (CIN. 1101)	100
										760		SPECIAL	63820200	760	FT	12" WATER MAIN DIP CLASS 56 MECHANICAL JOINTS AND FITTINGS (CIN. 1101)	100
										20		SPECIAL	63820466	20	FT	24" STEEL PIPE ENCASEMENT, OPEN CUT (CIN. 1108)	100
										4		SPECIAL	63820408	4	EACH	VALVE BOX (CIN. 1116)	100
										2		SPECIAL	63820742	2	EACH	1" AIR RELEASE VALVE WITH VALVE BOX (CIN. 1116)	100
										2		SPECIAL	63820750	2	EACH	6" FIRE HYDRANT (CIN. 1112)	100
										130		SPECIAL	63820766	130	FT	3/4" COPPER WATER SERVICE LINE, WITH AQUA SHIELD, (CIN. 1126)	100

GENERAL SUMMARY

DESIGN AGENCY  
  
**Stantec**  
 11687 Lebanon Road  
 Cincinnati OH 45241  
 (513) 842-8200

DESIGNER  
**LBA**

REVIEWER  
**PJD 4-13-22**

PROJECT ID  
**110991**

SHEET TOTAL  
**P.40 142**

SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
13-15	43	45	46	100-102	103	104	105	117	118		01/SAE/ OT	02/S>2/ OT						
								<b>WATER WORK CONTINUED</b>										
				2							2		SPECIAL	63821400	2	EACH	FIRE HYDRANT ADJUSTED TO GRADE (CIN. 1115)	100
				1							1		SPECIAL	63830002	1	MBF	SHEETING AND BRACING ORDERED LEFT IN PLACE (CIN. 637)	100
				1							1		638	98000	1	EACH	WATER WORK, MISC.: REMOVING EXISTING MANHOLE CURB AND COVER (CIN. 1122)	100
				4							4		638	98000	4	EACH	WATER WORK, MISC.: FURNISHING AND INSTALLING CURB AND ROADWAY BOX (RENEW) (CIN. 1131)	100
				10							10		638	98600	10	FT	WATER WORK, MISC.: CHANGING 10" THRU 24" PIPE SEWER (CIN. 1123)	100
								<b>SANITARY SEWER</b>										
		3									3		611	99661	3	EACH	MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN	15
		1									1		611	99690	1	EACH	MANHOLE, MISC.: SANITARY CLEANOUT RECONSTRUCTED TO GRADE	13
								<b>TRAFFIC CONTROL</b>										
				160							160		621	00100	160	EACH	RPM	
							134				134		621	54000	134	EACH	RAISED PAVEMENT MARKER REMOVED	
		27									27		626	00110	27	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL	
						296.7					296.7		630	03100	296.7	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
						2					2		630	08600	2	EACH	SIGN POST REFLECTOR	
						130.8					130.8		630	80100	130.8	SF	SIGN, FLAT SHEET	
						36					36		630	84900	36	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
						4					4		630	85100	4	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
						28					28		630	86002	28	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
						1					1		630	87500	1	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
						1					1		630	87520	1	EACH	REMOVAL OF POLE MOUNTED SIGN AND REERECTION	
					0.3						0.3		644	00100	0.3	MILE	EDGE LINE, 4"	
					2.21						2.21		644	00104	2.21	MILE	EDGE LINE, 6"	
					0.65						0.65		644	00204	0.65	MILE	LANE LINE, 6"	
					1.01						1.01		644	00300	1.01	MILE	CENTER LINE	
					376						376		644	00400	376	FT	CHANNELIZING LINE, 8"	
					2,065						2,065		644	00404	2,065	FT	CHANNELIZING LINE, 12"	
					68						68		644	00500	68	FT	STOP LINE	
					219						219		644	00700	219	FT	TRANSVERSE/DIAGONAL LINE	
					64						64		644	00720	64	FT	CHEVRON MARKING	
					22						22		644	01300	22	EACH	LANE ARROW	
					2						2		644	01350	2	EACH	LANE REDUCTION ARROW	
					2						2		644	01410	2	EACH	WORD ON PAVEMENT, 96"	
					988						988		644	01510	988	FT	DOTTED LINE, 6"	
					973						973		644	01520	973	FT	DOTTED LINE, 12"	
								<b>TRAFFIC SIGNALS</b>										
								4			4		625	00450	4	EACH	CONNECTION, FUSED PULL APART	
								4			4		625	00460	4	EACH	CONNECTION, UNFUSED PULL APART	
								6			6		625	00480	6	EACH	CONNECTION, UNFUSED PERMANENT	
								1			1		625	10490	1	EACH	LIGHT POLE, CONVENTIONAL: AT12B30	
								1			1		625	14000	1	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP	
								3			3		625	18100	3	EACH	BRACKET ARM, 12'	
								1,188			1,188		625	23200	1,188	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
								504			504		625	23410	504	FT	NO. 12 AWG POLE AND BRACKET CABLE	
								103			103		625	25408	103	FT	CONDUIT, 2", 725.051	
								152			152		625	25504	152	FT	CONDUIT, 3", 725.051	
								81			81		625	25606	81	FT	CONDUIT, 4", 725.052	
								94			94		625	25908	94	FT	CONDUIT, JACKED OR DRILLED, 725.052, 4"	
								4			4		625	26253	4	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN: 200 WATT EQUIVALENT	106
								336			336		625	29000	336	FT	TRENCH	
								2			2		625	30700	2	EACH	PULL BOX, 725.08, 18"	
								3			3		625	30706	3	EACH	PULL BOX, 725.08, 24"	
								5	1		6		625	32000	6	EACH	GROUND ROD	
								3			3		630	79200	3	EACH	SIGN ATTACHMENT ASSEMBLY, MAST ARM	
								15.5			15.5		630	80100	15.5	SF	SIGN, FLAT SHEET	
								2			2		632	04802	2	EACH	VEHICULAR SIGNAL HEAD, (LED), 1-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	

GENERAL SUMMARY

DESIGN AGENCY  
  
 11687 Lebanon Road  
 Cincinnati OH 45241  
 (513) 842-8200

DESIGNER  
 LBA

REVIEWER  
 PJD 4-13-22

PROJECT ID  
 110991

SHEET TOTAL  
 P.41 | 142

SHEET NUM.										PART.		ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
16-18	19		117	118							EXT	TOTAL					
<b>TRAFFIC SIGNALS CONTINUED</b>																	
			6								632	05006	6	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE		
			1								632	05086	1	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE		
			9								632	25001	9	EACH	COVERING OF VEHICULAR SIGNAL HEAD, AS PER PLAN		
			974								632	40700	974	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG		
			3								632	64010	3	EACH	SIGNAL SUPPORT FOUNDATION		
			39								632	67200	39	FT	POWER CABLE, 2 CONDUCTOR, NO. 8 AWG		
			37								632	69700	37	FT	SERVICE CABLE, 3 CONDUCTOR, NO. 8 AWG		
			1								632	70001	1	EACH	POWER SERVICE, AS PER PLAN	106	
			2								632	79130	2	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12		
			1								632	81700	1	EACH	COMBINATION SIGNAL SUPPORT, MISC.: TYPE TC-12.31, DESIGN 10,	111	
															WITH ARMS TC-81.22 DESIGN 13 & DESIGN 2		
			1								633	65521	1	EACH	CABINET, TYPE 332, AS PER PLAN	105	
			1								633	67100	1	EACH	CABINET FOUNDATION		
			1								633	67200	1	EACH	CONTROLLER WORK PAD		
			1								633	75001	1	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	105	
				1							809	60000	1	EACH	CCTV IP-CAMERA SYSTEM, DOME-TYPE		
				238							809	64550	238	FT	ETHERNET CABLE, OUTDOOR-RATED		
				1							809	69001	1	EACH	ADVANCE RADAR DETECTION, AS PER PLAN	106	
				2							809	69101	2	EACH	STOP LINE RADAR DETECTION, AS PER PLAN	106	
			1								809	69123	1	EACH	ATC CONTROLLER, AS PER PLAN	106	
<b>MAINTENANCE OF TRAFFIC</b>																	
400											614	11110	400	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE		
1,020											614	11630	1,020	FT	INCREASED BARRIER DELINEATION		
	4										614	12380	4	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)		
	10										614	12384	10	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)		
LS											614	12420	LS		DETOUR SIGNING		
1,440											614	12801	1,440	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	18	
173											614	13310	173	EACH	BARRIER REFLECTOR, TYPE 1 (BIDIRECTIONAL)		
173											614	13360	173	EACH	OBJECT MARKER, TWO WAY		
4											614	18601	4	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	16	
	1.4										614	20110	1.4	MILE	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT		
	0.65										614	20560	0.65	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT		
	2.89										614	21100	2.89	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT		
	0.86										614	21550	0.86	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT		
	10.91										614	22110	10.91	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT		
	2.21										614	22360	2.21	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT		
	5,781										614	23210	5,781	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT		
	2,065										614	23690	2,065	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT		
	3,658										614	24202	3,658	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT		
	1,946										614	24208	1,946	FT	WORK ZONE DOTTED LINE, CLASS I, 12", 642 PAINT		
	988										614	24612	988	FT	WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT		
	973										614	24618	973	FT	WORK ZONE DOTTED LINE, CLASS III, 12", 642 PAINT		
	3,262										614	25200	3,262	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT		
	219										614	25620	219	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS III, 642 PAINT		
	98										614	26200	98	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT		
	44										614	26610	44	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT		
	35										614	30200	35	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT		
	14										614	30650	14	EACH	WORK ZONE ARROW, CLASS III, 642 PAINT		
	7										614	31650	7	EACH	WORK ZONE WORD ON PAVEMENT, 96", CLASS I, 642 PAINT		
	2										614	31670	2	EACH	WORK ZONE WORD ON PAVEMENT, 96", CLASS III, 642 PAINT		
1,020											614	40000	1,020	FT	LONGITUDINAL CHANNELIZER		
	LS										615	10000	LS		ROADS FOR MAINTAINING TRAFFIC		
	561										615	23000	561	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B		
113											616	10000	113	MGAL	WATER		
	4,870										622	41100	4,870	FT	PORTABLE BARRIER, UNANCHORED		
	520										622	41110	520	FT	PORTABLE BARRIER, ANCHORED		
<b>INCIDENTALS</b>																	
LS											614	11000	LS		MAINTAINING TRAFFIC		
											619	16010	12	MNTH	FIELD OFFICE, TYPE B		
											623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING		
											624	10000	LS		MOBILIZATION		

GENERAL SUMMARY

DESIGN AGENCY  
  
**Stantec**  
 11687 Lebanon Road  
 Cincinnati OH 45241  
 (513) 842-8200

DESIGNER  
**LBA**

REVIEWER  
 PJD 4-13-22

PROJECT ID  
 110991

SHEET TOTAL  
 P.42 142

PAVEMENT EDGE TREATMENT SUBSUMMARY										
SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	LENGTH	617			
			FROM	TO			SF	COMPACTED AGGREGATE (LENGTH*0.125/27)	SHOULDER PREPARATION (LENGTH/9)	WATER (LENGTH*0.125/27*0.004)
50	P1	S.R. 32	244+00.00	247+00.00	LT/RT	600	2.78	66.67	0.011	
51	P2	S.R. 32	247+00.00	249+37.63	LT/RT	438	2.03	48.67	0.008	
51	P4	S.R. 32	249+37.63	250+12.44	RT	75	0.35	8.33	0.001	
53	P8	S.R. 32	257+50.00	259+00.00	LT	150	0.69	16.67	0.003	
			261+55.00	262+50.00	LT	95	0.44	10.56	0.002	
54	P9	S.R. 32	262+50.00	266+00.00	LT	250	1.16	27.78	0.005	
			262+50.00	267+50.00	RT	500	2.31	55.56	0.009	
55	P10	S.R. 32	267+50.00	272+50.00	RT	500	2.31	55.56	0.009	
56	P11	S.R. 32	272+50.00	277+50.00	RT	500	2.31	55.56	0.009	
57	P12	S.R. 32	277+50.00	284+62.00	RT	274	1.27	30.44	0.005	
			286+14.00	287+00.00	LT	86	0.4	9.56	0.002	
			284+62.00	286+91.00	RT	229	1.06	25.44	0.004	
58	P13	S.R. 32	287+00.00	292+00.00	LT	500	2.31	55.56	0.009	
59	P14	S.R. 32	292+00.00	1+00.00	LT	500	2.31	55.56	0.009	
60	P15	S.R. 32	1+00.00	4+00.00	LT	300	1.39	33.33	0.006	
			2+80.00	4+00.00	RT	120	0.56	13.33	0.002	
61	P16	S.R. 32 EASTBOUND	262+50.00	265+10.00	LT/RT	520	2.41	57.78	0.010	
61	P17	LANDSLIDE S.R. 32	265+10.00	267+60.00	LT	250	1.16	27.78	0.005	
SUBTOTAL							27.25	654.14	0.109	
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>							28	655	1	

EARTHWORK QUANTITIES									
STATION	203			204		836	863		
	EXCAVATION	EMBANKMENT	GRANULAR EMBANKMENT, AS PER PLAN	EXCAVATION OF SUBGRADE	GEOTEXTILE FABRIC, 712.09, TYPE D	SEEDING & EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 3	GEOGRID, TYPE S1		
								CU YD	CU YD
S.R. 32									
249+38.00	262+50.00			4114	756	2240	1433		
S.R. 32 LANDSLIDE REPAIR									
CROSS SECTIONS	STA 265+10.00 TO STA 267+60.00			9163	9034	1079	4477	2048	
END BENCHING	NORTH AND SOUTH ENDS					127	522		
EIGHT MILE ROAD									
10+91.00	18+50.00			3510	9977		1069		
SUBTOTAL				16787	19767	3446	2502	4999	2048
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>				16787	19767	3446	2502	4999	2048

**SEEDING AND MULCHING**

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

SEEDING AND MULCHING QUANTITIES	
(QUANTITIES CARRIED TO GENERAL SUMMARY)	
ITEM 659 SEEDING & MULCHING, AS PER PLAN 22206 SQ YD	
ITEM 659 SOIL ANALYSIS TEST 22206 SQ YD x 9 x 1/43560 ACRES x 1 EACH /10 ACRES = 0.46 EACH USE 2 EACH	
ITEM 659 TOPSOIL 22206 SQ YD x 111 CY/1000 SY = 2464.87 USE 2465 CY	
ITEM 659 COMMERCIAL FERTILIZER 22206 SQ YD x 1 TON/7410 SQ YD = 3.0 TONS	
ITEM 659 LIME 22206 SQ YD x 9 x 1/43560 = 4.59 ACRES	
ITEM 659 WATER 22206 SQ YD x 0.0027 M GAL/SQ YD x 2 = 119.91 M GAL USE 120 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.

**PROOF ROLLING**  
 THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.  
 ITEM 204 - PROOF ROLLING  
 QUANTITY OF SUBGRADE TO BE PROOF ROLLED:  
 6671 SQ YD x 1 HR/2000 SQ YD = 3.35 HOURS, USE 4 HOURS.  
 TOTALS CARRIED TO GENERAL SUMMARY

WATER QUANTITIES					
SHEET NO.	REFERENCE NO.	STATION		638	
		VALVE BOX ADJUSTED TO GRADE	FIRE HYDRANT ADJUSTED TO GRADE		
				EACH	EACH
S.R. 32					
51	W1	250+58.94		1	
51	W2	251+20.22	251+22.432	1	1
52	W3	255+47.33	255+50.10	1	1
62	W3	11+11.00		1	1
SUBTOTAL				4	3
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>				4	3

REF. NO.	SHEET NO.	STATION		SIDE	202															608	625	690
					HEADWALL REMOVED	WALK REMOVED	CURB REMOVED	GUTTER REMOVED	PIPE REMOVED, 24" AND UNDER	PIPE REMOVED, 24" AND OVER	GUARDRAIL REMOVED	MAILBOX REMOVED	CATCH BASIN REMOVED	INLET REMOVED	FENCE REMOVED	REMOVAL MISC.: LANDSCAPING BOULDERS	REMOVAL MISC.: TRENCH DRAIN	REMOVAL MISC.: BILLBOARD	SPECIAL - FILL AND PLUG EXISTING CONDUIT	4" CONCRETE WALK	LIGHT POLE REMOVED	SPECIAL - MAILBOX SUPPORT (SINGLE)
		FROM	TO		EACH	SQ FT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	EACH	EACH	EACH	FOOT	LUMP	FOOT	LUMP	FOOT	SQ FT	EACH
		S.R. 32																				
R1	51	250+12.51	260+02.50	RT			985															
R2	51	251+70.47		RT							1											1
R3	51	251+73.48	252+83.67	RT											LUMP							
R4	52	253+17.00	253+65.96	RT											LUMP							
R5		252+55.00		LT													LUMP					
R6	52	253+09.11	253+68.05	RT					60					1								
R7	52	253+23.54		LT	1																	
R8	52	253+72.53	253+90.77	RT		27														40		
R9	52	253+23.54		RT																		
R10	52	253+29.10	253+61.35	LT					34													
R11	52	253+61.35	257+99.47	LT				440														
R12	52	256+41.65		RT		15																
R13	52	256+45.28		RT							1											1
R14	53	257+50.59	258+07.06	LT/RT					22			1						84				
R15	53	255+45.83	257+96.62	RT										25								
R16	53	257+71.92	260+96.83	LT												328						
R17	53	258+36.26	261+21.41	LT						290												
R18	53	260+97.17		LT							1											1
R19	53	261+22.12	261+55.76	LT					36													
R20	53	261+67.57		LT								1										
R21	61	264+76.14	268+04.16	LT						332												
R22	61	264+87.50	267+75.00	RT						288												
		EIGHT MILE ROAD																				
R23	62	11+00.06	11+72.02	LT/RT					118			1										
R24	62	12+03.83	12+95.58	LT										94								
R25	62	12+42.99	12+55.84	LT/RT					49													
R26	62	13+20.41		LT							1											1
R27	62	13+14.03	13+32.08	LT										21								
R28	62	13+54.81	13+80.42	LT										56								
R29	62	13+61.42		LT							1											1
R30	62	13+83.15	15+10.44	LT						128												
R31	62	14+23.22	15+19.10	LT										84								
R32	62	15+29.33		LT																		
R33	62	13+44.69	13+61.62	LT		75																
R34	62	13+50.00	13+62.05	LT		33																
R35	62	15+47.99		LT							1											1
R36	63	15+38.60	15+73.43	LT/RT					62													
R37	63	16+01.70	19+82.59	LT						376												
R38	63	15+87.61	17+57.10	LT			164															
R39	63	16+98.46	18+94.75	RT			203															
R40	54,55	263+03	269+40	RT							637											
R41	55	269+69	272+07	RT							238											
TOTALS CARRIED TO GENERAL SUMMARY					1	150	1352	440	319	62	2289	7	3	1	280	LUMP	328	LUMP	84	40	1	7

ROADWAY SUBSUMMARY



DESIGNER: PJD  
 REVIEWER: SNS  
 PROJECT ID: 110991  
 SHEET TOTAL: P.44 | 142

PAVEMENT SUBSUMMARY

SHEET NO.	REFERENCE NO.	LOCATION	STATION		AREA (COMPUTER GENERATED) SF	SUBGRADE COMPACTION (AREA/9) SY	204 GEOTEXTILE FABRIC (AREA/9) SY	12" GRANULAR MATERIAL, TYPE C (AREA*1/27) CY	254 PAVEMENT PLANING, ASPHALT CONCRETE, 3" SY	301 9" ASPHALT CONCRETE BASE, (449), PG64-22 (AREA*0.75/27) CY	301 11" ASPHALT CONCRETE BASE, (449), PG64-22 (AREA*0.917/27) CY	304 3" ASPHALT CONCRETE BASE, (449), PG64-22 (DRIVEWAYS) (AREA*0.25/27) CY	304 6" AGGREGATE BASE (AREA*0.50/27) CY	407 TACK COAT 0.055 GAL/SY (AREA*0.055/9) GAL	407 NON-TRACKING TACK COAT 0.055 GAL/SY (AREA*2x0.055/9) GAL	407 NON-TRACKING TACK COAT 0.085 GAL/SY (AREA*2x0.085/9) GAL	441 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22 (DRIVEWAYS) (AREA*0.104/27) CY	441 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22 (DRIVEWAYS) (AREA*0.104/27) CY	441 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) (AREA*0.146/27) CY	452 6" NON-REINFORCED CONCRETE PAVEMENT (AREA*0.50/27) CY	REMARKS		
			FROM	TO																			
																						NOTE: TACK COATS PLACED BETWEEN ALL ASPHALT LIFTS	
50	P1	S.R. 32	244+00.00	247+00.00	8919				991.00						54.51	84.24		34.35					
50	P2	S.R. 32	247+00.00	249+37.63	8119				902.11						49.62	76.68		31.27					
51	P3	S.R. 32	249+37.63	252+00.00	5912	701.11	701.11	233.70		203.81		115.65		108.39				22.77					ADD 89 SF TO 301, ADD 333 SF TO 304, ADD, ADD 398 SF TO 204
51	P4	S.R. 32	249+37.63	252+00.00	6602				733.56					40.35	62.35			25.43					
52	P5	S.R. 32	252+00.00	257+00.00	14624	1653.11	1653.11	551.04		502.41		296.43		268.11				56.33					ADD 169 SF TO 301, ADD 1383 SF TO 304, ADD 254 SF TO 204
52	P6	S.R. 32	252+00.00	257+00.00	16099				1788.78					98.38	152.05			62.01					
53	P7	S.R. 32	257+00.00	262+50.00	5001	558.44	558.44	186.15		171.61		103.67		91.69				19.26					ADD 52 SF TO 301, ADD 597 SF TO 304, ADD 25 SF TO 204
53	P8	S.R. 32	257+00.00	262+50.00	30884				3431.56					188.74	291.68			118.96					
54	P9	S.R. 32	262+50.00	267+50.00	18956				2106.22					115.84	179.03			73.02					
55	P10	S.R. 32	267+50.00	272+50.00	19350				2150.00					118.25	182.75			74.53					NOTE: ONLY ONE APPLICATION OF TACK COAT AT 0.055 GAL/SY IS REQUIRED FOR RESURFACING AREAS
56	P11	S.R. 32	272+50.00	277+50.00	15585				1731.67					95.24	147.19			60.03					
57	P12	S.R. 32	277+50.00	287+00.00	22615				2512.78					138.20	213.59			87.11					
58	P13	S.R. 32	287+00.00	292+00.00	26216				2912.89					160.21	247.60			100.98					
59	P14	S.R. 32	292+00.00	1+00.00	18400				2044.44					112.44	173.78			70.87					
60	P15	S.R. 32	1+00.00	4+00.00	10353				1150.33					63.27	97.78			39.88					
61	P16	S.R. 32 EASTBOUND	262+50.00	265+10.00	7253				805.89					44.32	68.50			27.94					
61	P17	LANDSLIDE S.R. 32	265+10.00	267+60.00	7400					257.20		149.07		90.44				28.50					ADD 173 SF TO 301, ADD 650 SF TO 304
62	P18	EIGHT MILE ROAD	10+91.00	15+50.00	13750	1527.78	1527.78	509.26				260.26		168.06				52.96					
63	P19	EIGHT MILE ROAD	15+50.00	19+79.38	20072	2230.22	2230.22	743.41				377.33		245.32				77.31					ADD 1381 SF TO 304
51,52	P20	S.R. 32	251+98.15		704					6.52			4.30					2.71					
52	P21	S.R. 32	253+40.30		1392					12.89			8.51					5.36					
52	P22	S.R. 32	255+11.84		271					2.51			1.66					1.04					
53	P23	S.R. 32	261+39.84		541																8.7		
62	P24	EIGHT MILE ROAD	13+11.96		1191					11.03			7.28					4.59					
62	P25	EIGHT MILE ROAD	13+44.83		2055					19.03			12.56					7.92					
62,63	P26	EIGHT MILE ROAD	15+83.53		1679					15.55			10.26					6.47					
SUBTOTAL					6670.7	6670.7	2223.6	21368.1	939.5	1135.0	67.5	1302.4	44.6	2147.3	1816.3	997.9	28.1	1400.9	8.7				
TOTALS CARRIED TO GENERAL SUMMARY					6671	6671	2224	21369		2075	68	1303	45	3964		998	29	1401	9				

PAVEMENT SUBSUMMARY

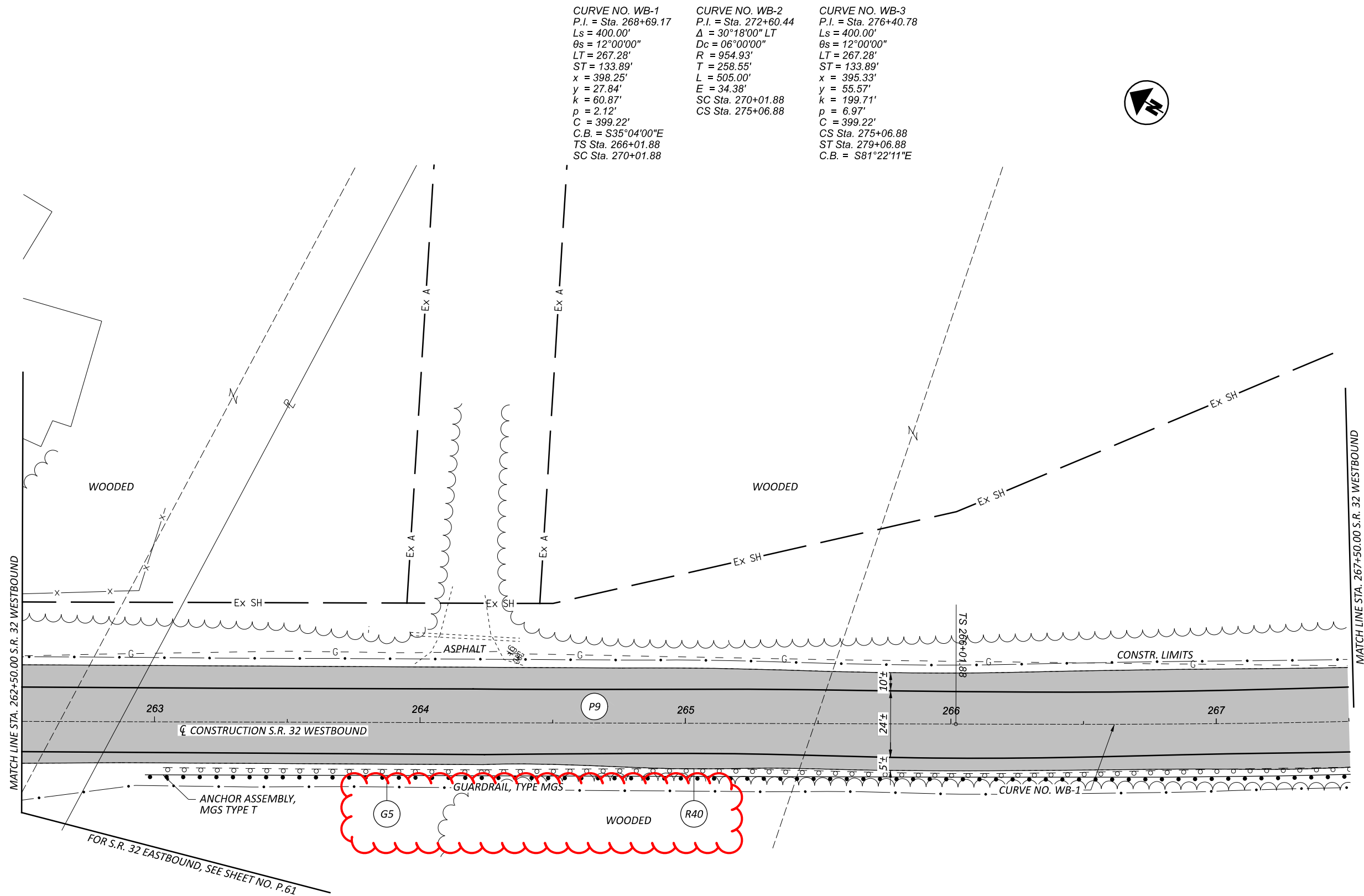
DESIGN AGENCY  
  
**Stantec**  
 11687 Lebanon Road  
 Cincinnati OH 45241  
 (513) 842-8200

DESIGNER  
 PJD

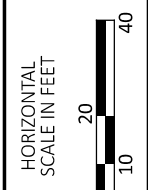
REVIEWER  
 SNS 4-13-22

PROJECT ID  
 110991

SHEET TOTAL  
 P.46 | 142



<p><b>CURVE NO. WB-1</b>                  P.I. = Sta. 268+69.17                  Ls = 400.00'                  Δs = 12°00'00"                  LT = 267.28'                  ST = 133.89'                  x = 398.25'                  y = 27.84'                  k = 60.87'                  p = 2.12'                  C = 399.22'                  C.B. = S35°04'00"E                  TS Sta. 266+01.88                  SC Sta. 270+01.88</p>	<p><b>CURVE NO. WB-2</b>                  P.I. = Sta. 272+60.44                  Δ = 30°18'00" LT                  Dc = 06°00'00"                  R = 954.93'                  T = 258.55'                  L = 505.00'                  E = 34.38'                  SC Sta. 270+01.88                  CS Sta. 275+06.88</p>	<p><b>CURVE NO. WB-3</b>                  P.I. = Sta. 276+40.78                  Ls = 400.00'                  Δs = 12°00'00"                  LT = 267.28'                  ST = 133.89'                  x = 395.33'                  y = 55.57'                  k = 199.71'                  p = 6.97'                  C = 399.22'                  CS Sta. 275+06.88                  ST Sta. 279+06.88                  C.B. = S81°22'11"E</p>
--	--	---



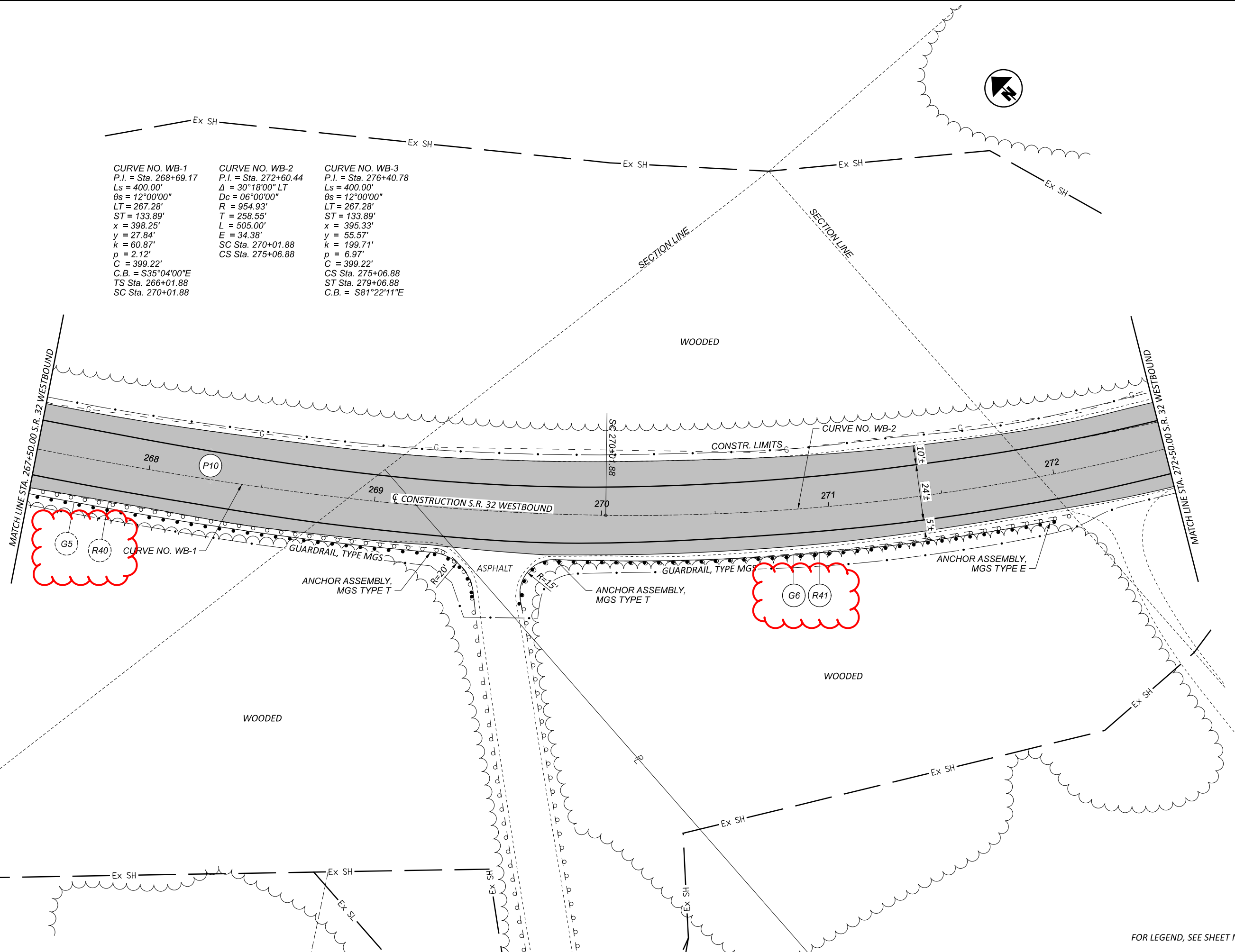
PLAN S.R. 32 WESTBOUND  
 STA 262+50.00 TO STA 267+50.00



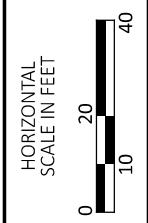
DESIGNER	PJD
REVIEWER	4-13-22
PROJECT ID	110991
SHEET	TOTAL
P.54	142

FOR LEGEND, SEE SHEET NO. P.50





<b>CURVE NO. WB-1</b> P.I. = Sta. 268+69.17 Ls = 400.00' $\theta_s = 12^\circ 00' 00''$ LT = 267.28' ST = 133.89' x = 398.25' y = 27.84' k = 60.87' p = 2.12' C = 399.22' C.B. = S35°04'00"E TS Sta. 266+01.88 SC Sta. 270+01.88	<b>CURVE NO. WB-2</b> P.I. = Sta. 272+60.44 $\Delta = 30^\circ 18' 00''$ LT Dc = 06°00'00" R = 954.93' T = 258.55' L = 505.00' E = 34.38' SC Sta. 270+01.88 CS Sta. 275+06.88	<b>CURVE NO. WB-3</b> P.I. = Sta. 276+40.78 Ls = 400.00' $\theta_s = 12^\circ 00' 00''$ LT = 267.28' ST = 133.89' x = 395.33' y = 55.57' k = 199.71' p = 6.97' C = 399.22' CS Sta. 275+06.88 ST Sta. 279+06.88 C.B. = S81°22'11"E
---	--	--



**PLAN S.R.32 WESTBOUND  
 STA 267+50.00 TO STA 272+50.00**



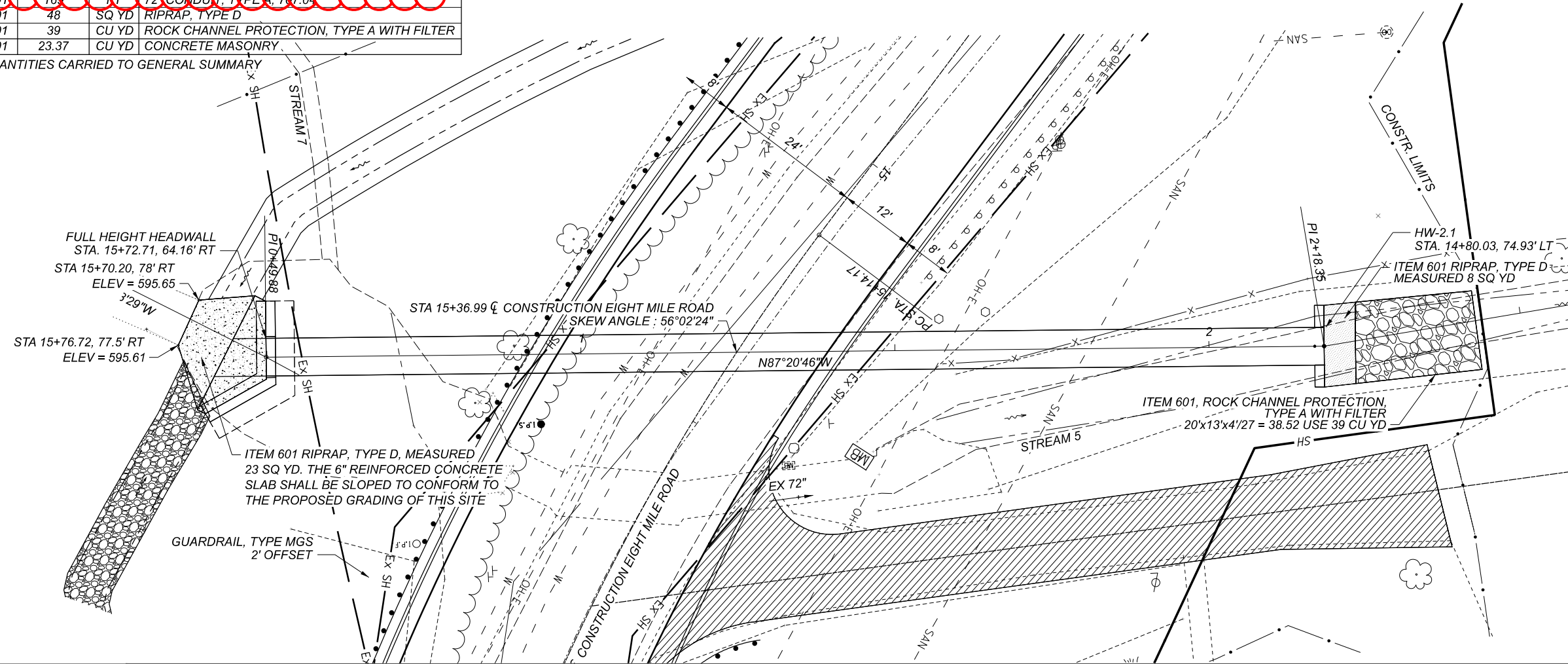
DESIGNER	PJD
REVIEWER	SNS
PROJECT ID	110991
SHEET	P.55
TOTAL	142

FOR LEGEND, SEE SHEET NO. P.50

CULVERT STA 15+36.99

ITEM	QUANTITY	UNIT	DESCRIPTION
503	LS	LS	COFFERDAMS AND EXCAVATION BRACING
601	169	FT	72" CONDUIT, TYPE A, 707.04
601	48	SQ YD	RIPRAP, TYPE D
601	39	CU YD	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER
601	23.37	CU YD	CONCRETE MASONRY

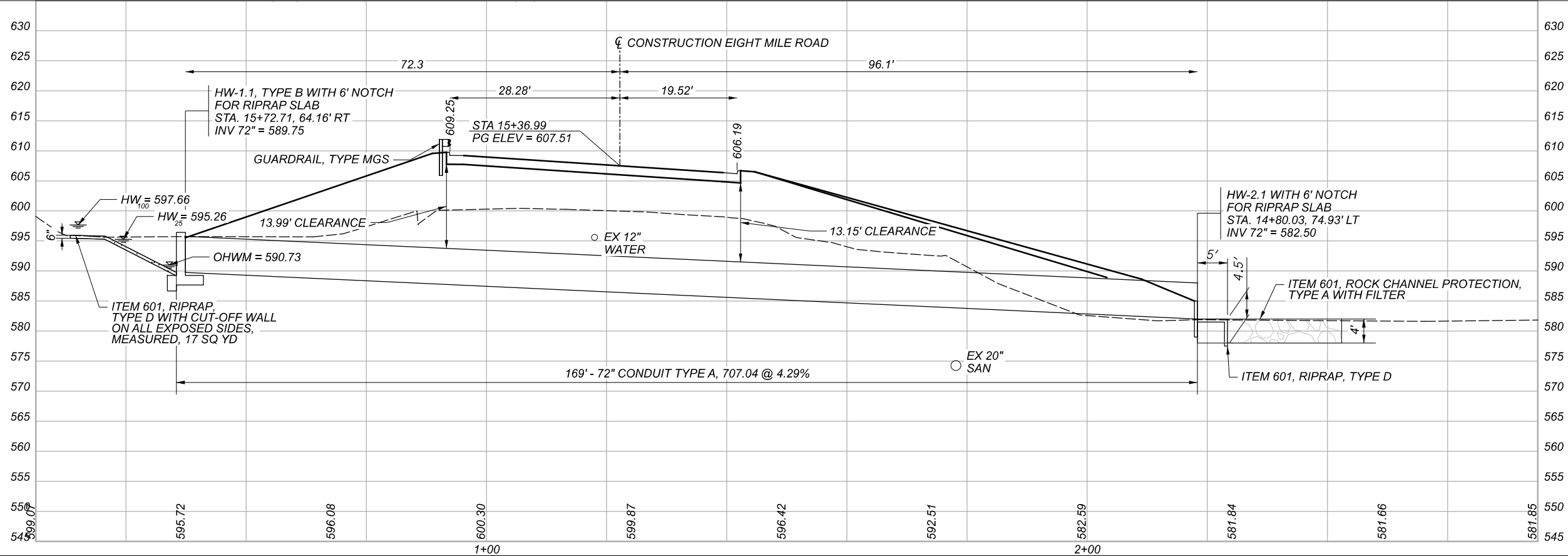
QUANTITIES CARRIED TO GENERAL SUMMARY



HYDRAULIC DATA	
CULVERT FILE NUMBER:	
DESIGN SERVICE LIFE: 75 YRS	
DRAINAGE AREA: 70.4 ACRES	
Q <sub>25</sub> : 185 CFS	Q <sub>100</sub> : 286 CFS
HW <sub>25</sub> : 595.26	HW <sub>100</sub> : 597.66
V <sub>25</sub> : 13.85 FPS	V <sub>100</sub> : 15.52 FPS
OHWM: 594.48	
ABRASION LEVEL: 5	
STREAM pH: 8.3	

EXISTING STRUCTURE	
TYPE: CONCRETE	
SIZE: 72"	
LENGTH: 62'	
SKEW: 24° 39' 27"	
DATE BUILT:	
CONDITION: GOOD	

PROPOSED STRUCTURE	
SIZE: 72"	
LENGTH: 169'	
SKEW: 56° 02' 24"	



CULVERT DETAIL SHEET  
EIGHT MILE ROAD STA 15+36.99

HAM-32-6.82

MODEL: Plan 2 [Sheet] PAPER SIZE: 17x11 (in.) DATE: 7/13/2022 TIME: 4:08:41 PM USER: pduurhcm  
V:\736\ac-five\7362018\engineer\10991\400-Engineer\ng\Drawings\Sheets\10991.DC004.dgn



DESIGNER	EDA
REVIEWER	PJD MM-DD-YY
PROJECT ID	110991
SHEET	TOTAL
P.99	142