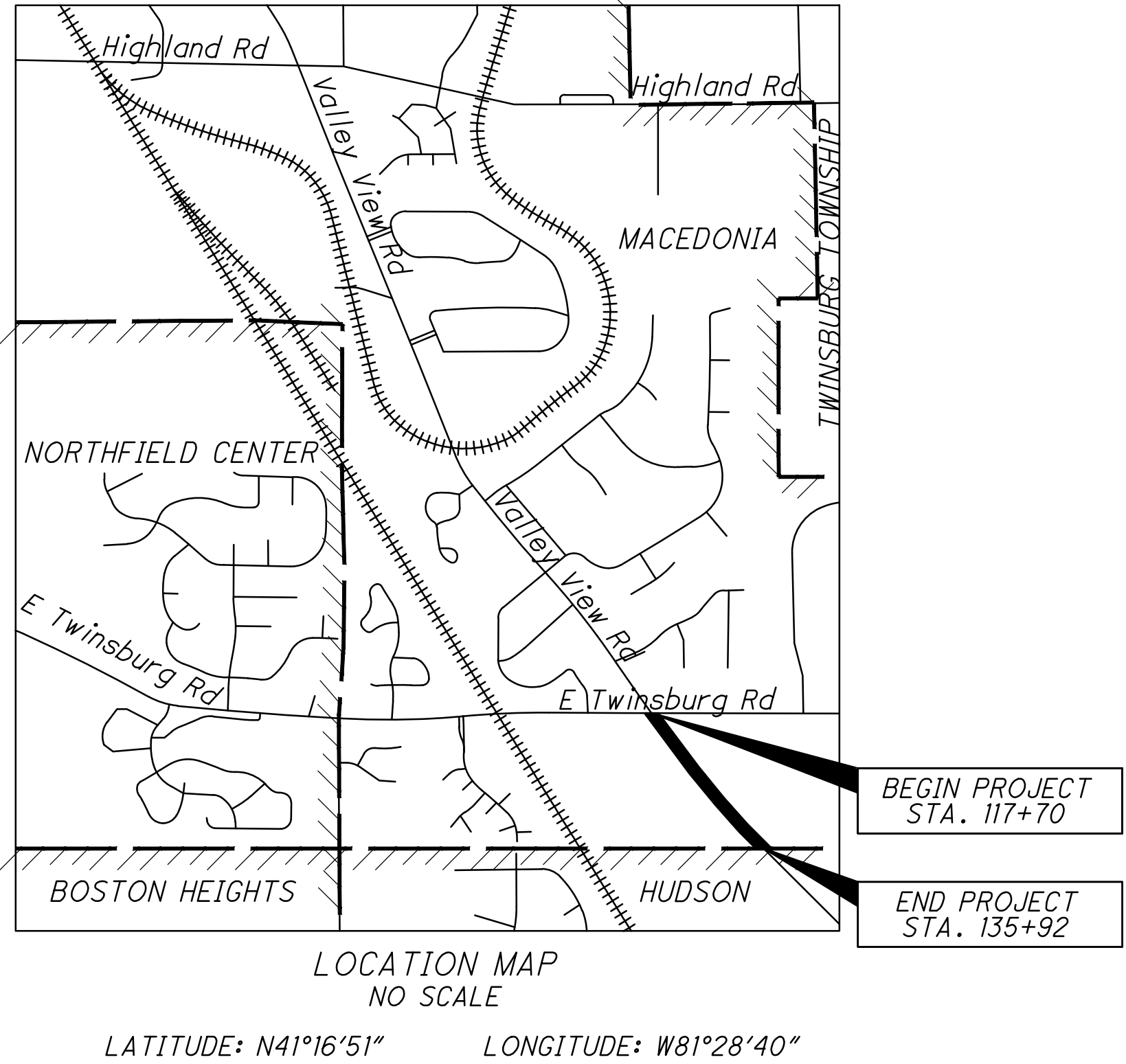


STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

**SUM-CR 25-2.34**  
**CITY OF MACEDONIA**  
**SUMMIT COUNTY**



FEDERAL PROJECT NUMBER  
E330310

RAILROAD INVOLVEMENT  
NONE

PROJECT DESCRIPTION  
THIS PROJECT INCLUDES PAVEMENT PLANING AND RESURFACING, PAVEMENT REPAIRS AND PAVEMENT MARKINGS ALONG 1,800 FEET (0.34 MILES) OF VALLEY VIEW ROAD FROM TWINSBURG ROAD TO THE HUDSON/MACEDONIA CORPORATION LINE.

EARTH DISTURBED AREA  
PROJECT EARTH DISTURBED AREA N/A (MAINTENANCE PROJECT)  
ESTIMATED CONTRACTOR EARTH DISTURBED N/A (MAINTENANCE PROJECT)  
NOTICE OF INTENT EARTH DISTURBED AREA N/A (NOI NOT REQUIRED)

2019 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.

INDEX OF SHEETS:

TITLE SHEET	1
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PAVEMENT MARKING AND SIGNING PLAN	15-16

- PORTION TO BE IMPROVED \_\_\_\_\_
- INTERSTATE & DIVIDED HIGHWAY \_\_\_\_\_
- STATE & FEDERAL ROUTES \_\_\_\_\_
- OTHER ROADS \_\_\_\_\_
- RAILROAD TRACKS \_\_\_\_\_
- CORPORATION LINE \_\_\_\_\_
- DESIGN DESIGNATION
- CURRENT ADT (2012) \_\_\_\_\_ 2,660
- DESIGN SPEED \_\_\_\_\_ 40
- LEGAL SPEED \_\_\_\_\_ 35
- FUNCTIONAL CLASSIFICATION \_\_\_\_\_ MAJOR COLLECTOR

DESIGN EXCEPTIONS  
NONE REQUIRED

ADA DESIGN WAIVER  
NONE REQUIRED

**UNDERGROUND UTILITIES**  
Contact Two Working Days Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764  
(Non-members must be called directly)

ENGINEERS SEAL

SIGNED: \_\_\_\_\_  
DATE: 11-22-2022

PLAN PREPARED BY:  
**CHAGRIN VALLEY ENGINEERING, LTD.**  
Creative Engineers. Intelligent Solutions.  
22999 Forbes Road, Suite B Cleveland, Ohio 44146-5667  
Phone • 440.439.1999 Fax • 440.439.1969 www.cvelimited.com

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	01/17/20	MT-97.10	04/19/19	TC-41.20	10/18/13	800	SEE PROPOSAL
BP-3.2	01/18/19	MT-97.12	01/20/17	TC-42.20	10/18/13	821	04/20/12
BP-4.1	07/19/13	MT-99.20	04/19/19	TC-52.10	10/18/13	832	07/15/22
		MT-101.90	07/17/20	TC-52.20	01/15/21	874	04/17/20
DM-4.3	01/15/16	MT-105.10	01/17/20	TC-71.10	07/16/21	921	04/20/12
DM-4.4	01/15/16			TC-82.10	07/19/19		
RM-1.1	07/18/14						
						SPECIAL PROVISIONS	

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

APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_ DISTRICT DEPUTY DIRECTOR

APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_ DIRECTOR, DEPARTMENT OF TRANSPORTATION

TITLE SHEET

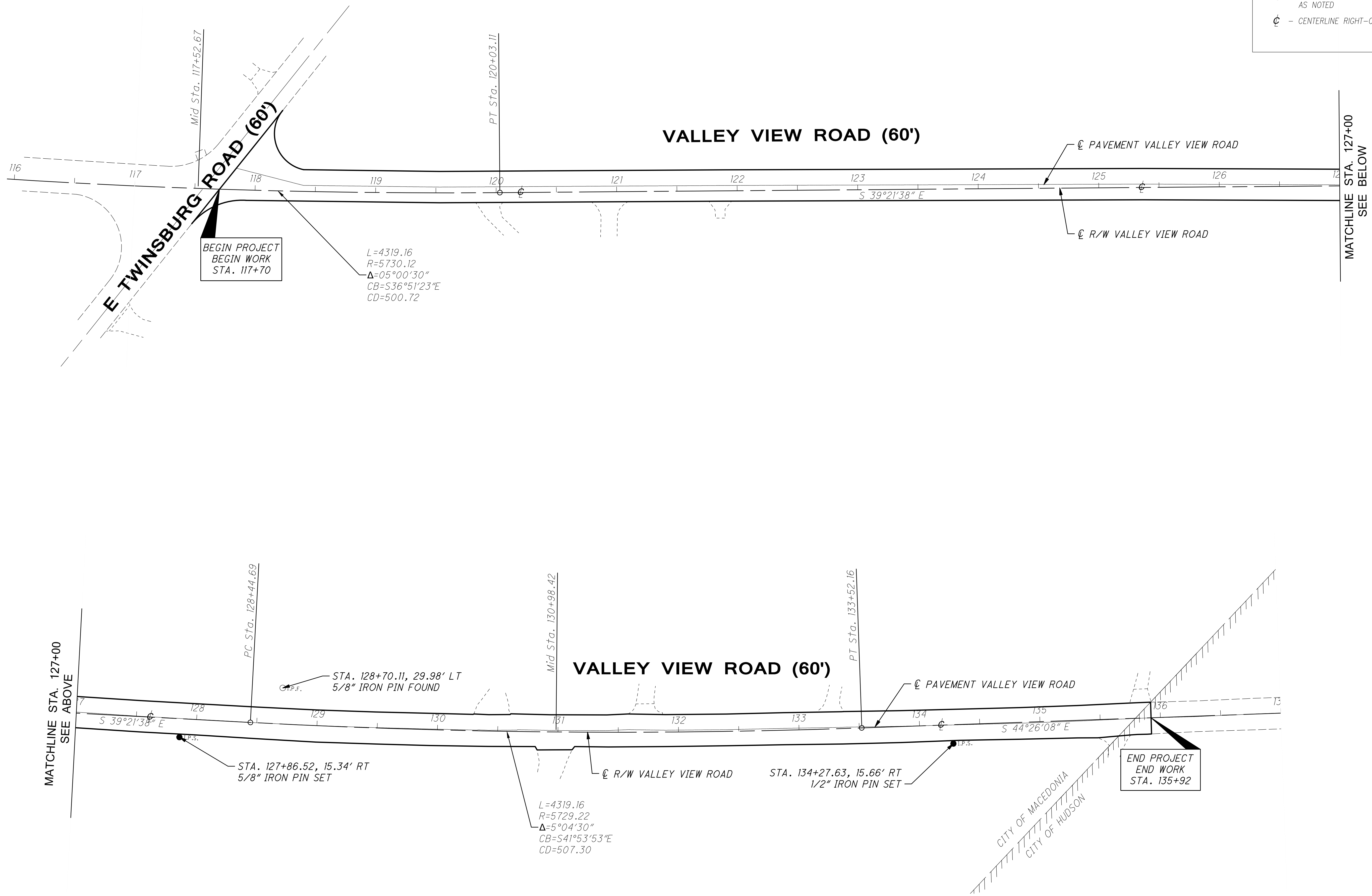
DESIGN AGENCY  
 CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER  
**RSW**

REVIEWER  
**JLG 11/22/22**

PROJECT ID  
**116540**

SHEET TOTAL  
**P.1 P.16**



**LEGEND**

- - EXISTING IRON PIN FOUND AS NOTED
- ⊕ - CENTERLINE RIGHT-OF-WAY

HORIZONTAL SCALE IN FEET

SCHEMATIC PLAN

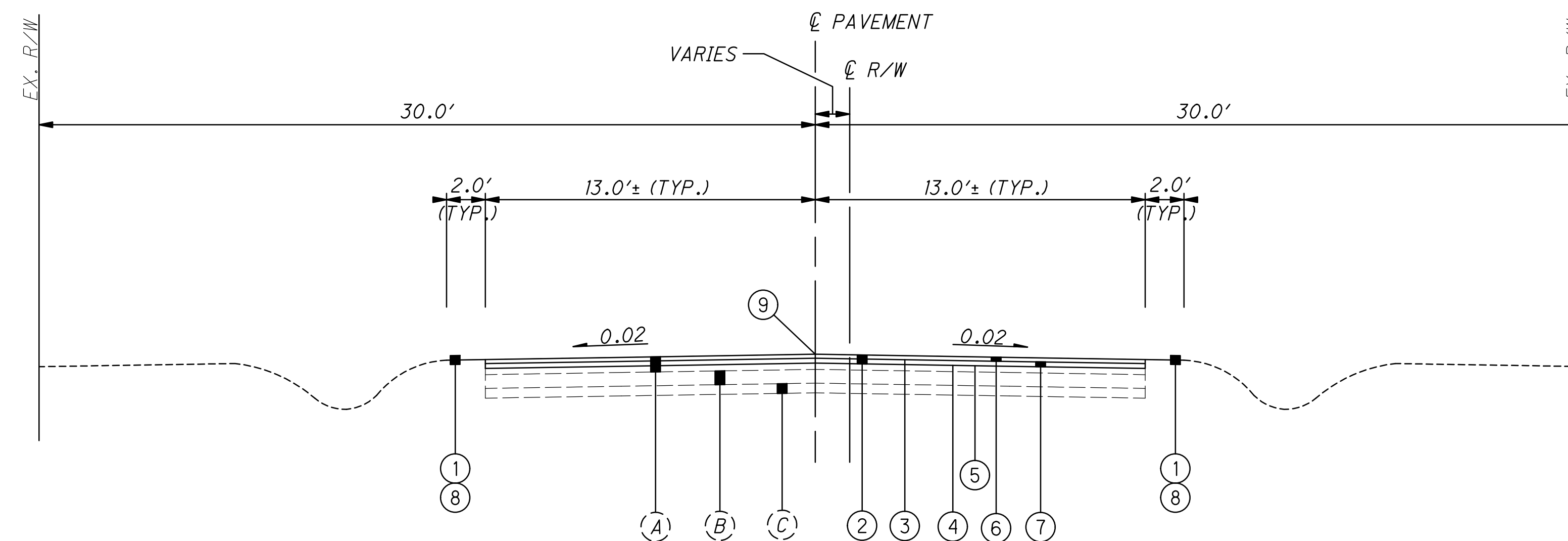
DESIGN AGENCY	
CHAGRIN VALLEY ENGINEERING, LTD.	
DESIGNER	RSW
REVIEWER	JLG 11/22/22
PROJECT ID	116540
SHEET	TOTAL
P.2	P.16

EXISTING LEGEND:

- (A) SURFACE AND INTERMEDIATE ASPHALT (4" TO 5.5")
- (B) BASE ASPHALT (8.5" TO 10.5")
- (C) AGGREGATE BASE

PROPOSED LEGEND:

- ① ITEM 209 - LINEAR GRADING
- ② ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, ROADWAY, (3" DEPTH AT PAVEMENT EDGES TO 2" DEPTH AT CENTERLINE ROADWAY PAVEMENT)
- ③ ITEM 407 - NON-TRACKING TACK COAT (0.06 GAL/SY)
- ④ ITEM 407 - NON-TRACKING TACK COAT (0.09 GAL/SY)
- ⑤ ITEM 422 - AGGREGATE, SINGLE CHIP SEAL, TYPE A AND ITEM 422 - EMULSION, CHIP SEAL
- ⑥ ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-22, AS PER PLAN, (1-1/4" DEPTH)
- ⑦ ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), AS PER PLAN, (1-3/4" DEPTH)
- ⑧ ITEM 659 - SEEDING AND MULCHING
- ⑨ ITEM 874 - LONGITUDINAL JOINT PREPARATION



TYPICAL SECTION - VALLEY VIEW ROAD  
 TWINSBURG ROAD TO HUDSON / MACEDONIA CORPORATION LINE = 1,822'

DESIGN AGENCY



DESIGNER  
 RSW

REVIEWER  
 JLG 11/22/22

PROJECT ID  
 116540

SHEET	TOTAL
P.3	P.16

GENERAL

UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS:

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, OHIO811, THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS (MICHELLE CHANEY AT 330-786-2267) AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

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.

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

BUCKEYE PIPELINE COMPANY, L.P.  
ATTN: NIC BORLING  
PHONE: (330) 221-0268  
EMAIL: NBORLING@BUCKEYE.COM

FIRST ENERGY  
1910 WEST MARKET STREET  
AKRON, OHIO 44313  
ATTN: AMANDA TURNER  
PHONE: (330) 436-4093  
CELL: (330) 388-5291  
EMAIL: TURNERA@FIRSTENERGYCORP.COM

AT&T  
13630 LORAIN AVENUE  
CLEVELAND, OHIO 44111  
ATTN: PETER JAMES JANIS - 2ND FLOOR  
EMAIL: PJ8191@ATT.COM

DOMINION ENERGY  
320 SPRINGSIDE DRIVE, SUITE 320  
AKRON, OHIO 44333  
ATTN: 2ND FLOOR RELOCATION DESIGN  
EMAIL: RELOCATION@DOMINIONENERGY.COM

CHARTER COIMMUNICATIONS  
8179 DOW CIRCLE  
STRONGSVILLE, OHIO 44136  
ATTN: RICK PALENCAR  
PHONE: (216) 575-8016  
MOBILE: (440) 343-6606  
EMAIL: RICK.PALENCAR@CHARTER.COM

DEPARTMENT OF SANITARY SEWER SERVICES  
1180 SOUTH MAIN STREET, SUITE 201  
AKRON, OHIO 44301  
ATTN: BOB HOLLIS  
PHONE: (330) 926-2406  
CELL: (330) 283-1512  
EMAIL: RHOLLIS@DOES.SUMMITOH.NET

CITY OF HUDSON  
1140 TEREX ROAD  
HUDSON, OHIO 44236  
ATTN: BRADLEY KOSCO  
PHONE: (330) 342-1197  
FX: (330) 342-8414  
EMAIL: BKOSCO@HUDSON.OH.US

CLEVELAND WATER DEPARTMENT  
1201 LAKESIDE AVENUE  
CLEVELAND, OHIO 44114  
ATTN: FRED ROBERTS  
PHONE: (216) 664-2444 X75590  
EMAIL: FRED.ROBERTS@CLEVELANDWATER.COM

HUDSON PUBLIC POWER  
1140 TEREX ROAD  
HUDSON, OHIO 44236  
ATTN: BRUCE BEE  
PHONE: (330) 342-1363

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, OPERATING OR PERMITTING THE OPERATION OF ANY TOOLS OTHER THAN DOMESTIC POWER TOOLS OR EQUIPMENT USED IN CONSTRUCTION, DRILLING OR DEMOLITION WORK, WILL NOT BE PERMITTED BETWEEN 9:00 P.M. AND 7:00 A.M. OR BETWEEN 7:00 P.M. AND 9:00 A.M. ON SUNDAYS AND HOLIDAYS, EXCEPT FOR EMERGENCY WORK OR BY SPECIAL PERMISSION OF THE MACEDONIA POLICE DEPT. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. 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.

CONSTRUCTION NOTIFICATION

THE CONTRACTOR SHALL ADVISE THE PROJECT ENGINEER A MINIMUM OF EIGHTEEN (18) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE RESTRICTIONS, AND ANY WORK TO BE COMPLETED WITHIN THE LIMITS OF THE BUCKEYE PIPELINE EASEMENT CROSSING VALLEY VIEW ROAD.

THE CONTRACTOR SHALL NOTIFY IN WRITING THE FOLLOWING AGENCIES AT LEAST TWO (2) WEEKS PRIOR TO THE START OF CONSTRUCTION, AND AT LEAST 72 HOURS BEFORE IMPLEMENTING ANY SUBSTANTIAL CHANGE IN TRAFFIC PATTERN OR CLOSING OF ANY STREET TO TRAFFIC:

THE OHIO DEPARTMENT OF TRANSPORTATION  
DISTRICT 4 - PUBLIC INFORMATION OFFICE (330) 786-2201

CITY OF MACEDONIA POLICE DEPARTMENT (330) 468-1234  
CITY OF MACEDONIA FIRE DEPARTMENT (330) 468-1234  
NORDONIA HILLS CITY SCHOOL DISTRICT (330) 467-0580  
CITY OF MACEDONIA SERVICE DEPARTMENT (330) 468-8330  
CITY OF NORTHFIELD POST OFFICE (330) 467-7145  
CITY OF HUDSON PUBLIC WORKS (330) 342-1750  
BUCKEYE PIPELINE - NIC BORLING (330) 221-0268

EXISTING PAVEMENT CORING REPORT

THE PAVEMENT CORING REPORT FOR THIS PROJECT IS AVAILABLE ON THE ODOT FTP SITE AT <https://ftp.dot.state.oh.us/pub/contracts/Attach/>

ROADWAY

ITEM 209- LINEAR GRADING

AREAS WHERE THE SHOULDER IS HIGHER THAN THE EDGE OF PAVEMENT WILL BE GRADED TO PROVIDE POSITIVE DRAINAGE. THIS WORK WILL ONLY BE PERFORMED IN AREAS NECESSARY AND WILL NOT BE PERFORMED ON THE ENTIRE PROJECT. AREAS FOR THE WORK WILL BE MARKED BY THE PROJECT ENGINEER. UNDER NO CIRCUMSTANCES WILL THIS WORK BE PERFORMED CONCURRENTLY WITH ANY OTHER OPERATION.

GRADING WILL BE ACCOMPLISHED BY THE REMOVAL OF MATERIAL TO PROVIDE A 0.08 POSITIVE SLOPE. THE GRADED AREAS WILL BE COMPACTED TO A SUFFICIENT DENSITY TO PREVENT EROSION UNTIL SEEDING AND MULCHING IS PERFORMED. ALL EXCESS MATERIAL WILL BE REMOVED FROM THE BERMS AND WILL BE DISPOSED OF OFF THE PROJECT BY THE CONTRACTOR.

SEEDING AND MUCHING, FERTILIZER AND LIME WILL BE PERFORMED WITHIN A PERIOD NOT TO EXCEED 10 DAYS AFTER THE LINEAR GRADING.

THE QUANTITY OF ITEM 209 IS NOT PERMITTED TO BE INCREASED. REDUCTIONS IN QUANTITIES ARE PERMITTED AS DETERMINED BY THE PROJECT ENGINEER.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK WILL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT BID ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 209 - LINEAR GRADING	36.44 STAT
ITEM 659 - SEEDING AND MULCHING	2025 SY
ITEM 659 - COMMERCIAL FERTILIZER	0.18 TON
ITEM 659 - LIME	0.42 ACRES
ITEM 659 - WATER	10.9 M. GAL.

DRAINAGE

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL EXISTING CONDUITS, INLETS, CATCH BASINS, AND MANHOLES WITHIN THE PROJECT AREA SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT PAVEMENT RESURFACING AND PROJECT RESTORATION ITEMS.

PAVEMENT

STREET CASTING PROTECTION

THE EXISTING ASPHALT PAVEMENT WEARING COURSE SHALL BE REMOVED AND DISPOSED BY THE CONTRACTOR. AFTER REMOVALS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DELINEATE ANY CASTINGS THAT MAY PROTRUDE ABOVE THE EXISTING SURFACE. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SUFFICIENT MATERIAL IN THE VICINITY OF THESE CASTINGS TO PROVIDE AN ADEQUATE RAMP AROUND THE CASTINGS. ALL TEMPORARY ASPHALT WEDGES ARE TO BE REMOVED AS DIRECTED BY THE ENGINEER. IN NO CASE SHALL THE CASTING REMAIN EXPOSED WITHOUT PROPER PROTECTION. ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

GENERAL NOTES



DESIGNER	RSW
REVIEWER	JLG 11/22/22
PROJECT ID	116540
SHEET	TOTAL
P.4	P.16

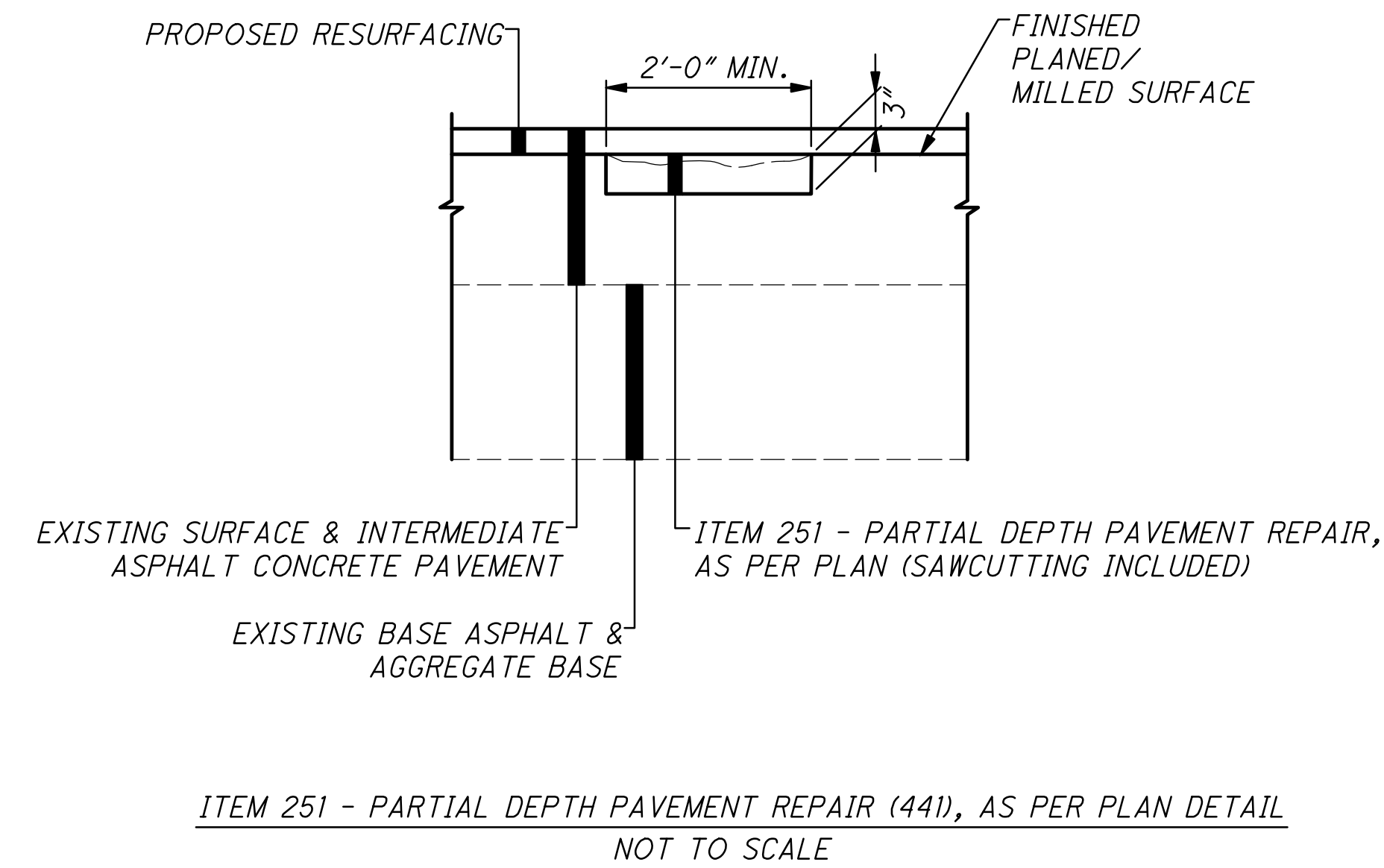
PAVEMENT (CONTINUED)

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441), AS PER PLAN

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 441 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. PAVEMENT REPAIRS WILL BE MARKED IN THE FIELD BY THE PROJECT ENGINEER ACCORDING TO CMS 251.02. MINIMUM WIDTH IS 2'. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING AND PRIOR TO THE PLACEMENT OF ASPHALT ON THE MILLED SURFACE. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR.

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

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN 545 SY



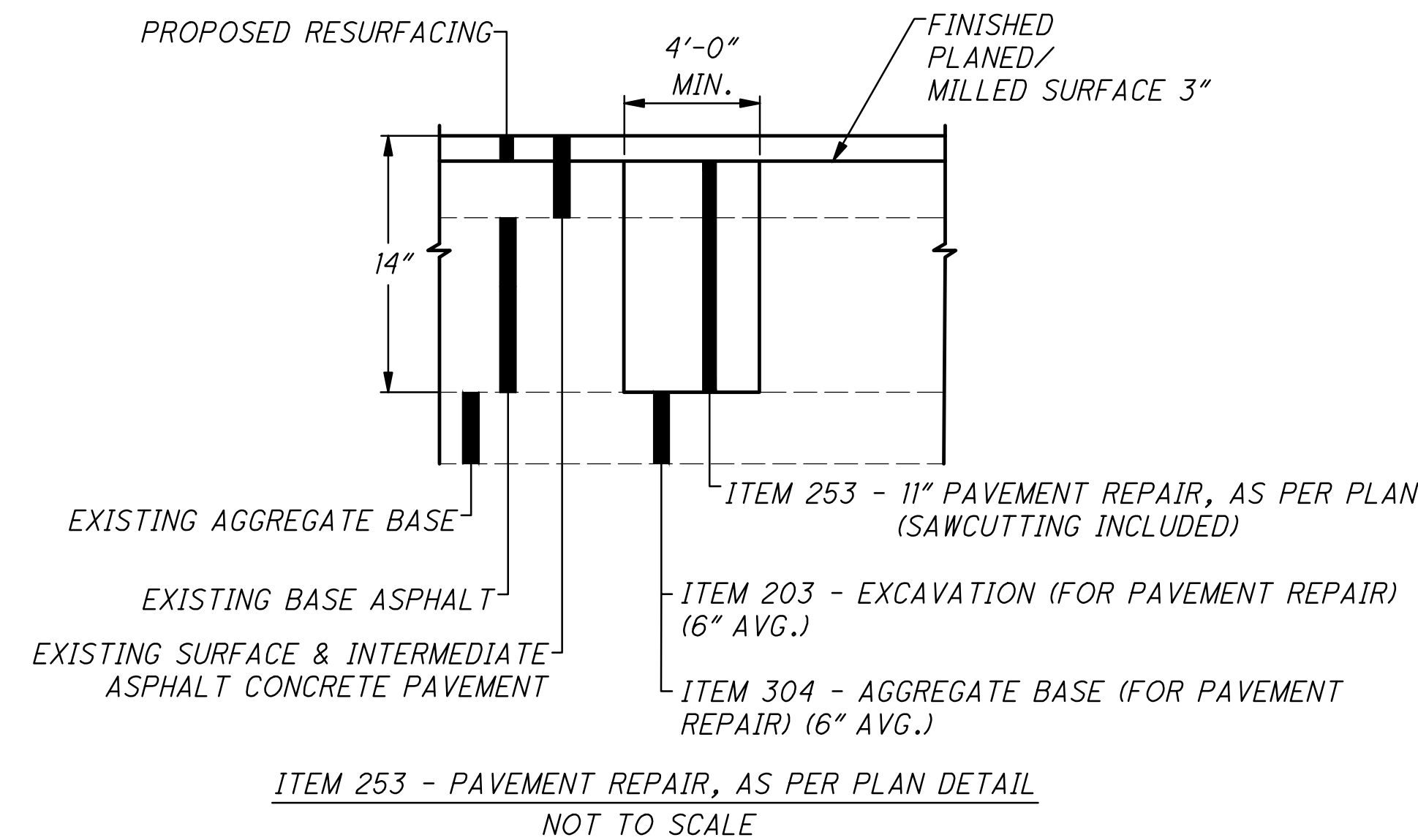
ITEM 253 - PAVEMENT REPAIR, AS PER PLAN

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 11"± 301 ASPHALT CONCRETE BASE, PG64-22. THE MAXIMUM COMPACTED DEPTH OF ANY ONE LAYER SHALL BE 6 INCHES. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING AND PRIOR TO THE PLACEMENT OF ASPHALT ON THE MILLED SURFACE.

IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER.

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

ITEM 203 - EXCAVATION, AS PER PLAN 91 CY  
 ITEM 253 - PAVEMENT REPAIR, AS PER PLAN 545 SY  
 ITEM 304 - AGGREGATE BASE, AS PER PLAN 91 CY



ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, (3" DEPTH)

THE PAVEMENT PLANING SHALL CONSIST OF A 3" MILL DEPTH ALONG EDGES OF THE ROADWAY PAVEMENT AND TAPERING TO A 2" MILL DEPTH AT THE CENTERLINE OF PAVEMENT. THE MILLING DEPTH WILL BE VARIABLE AND SHALL BE CONTROLLED FROM THE EDGE OF THE ROADWAY PAVEMENT.

PAVEMENT SAW CUTTING ALONG THE LENGTH OF ALL EXISTING ASPHALT DRIVEWAY APRONS AT THE LIMITS OF THE PAVEMENT PLANING SHALL BE CONSIDERED INCIDENTAL TO THESE ITEMS FOR PAYMENT.

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

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

ITEM 422 - SINGLE CHIP SEAL TIME RESTRICTIONS

THE CONTRACTOR IS REQUIRED TO HAVE A ONE (1) DAY WAITING PERIOD BETWEEN THE TIME THE INTERLAYER CHIP SEAL IS PLACED AND THE OVERLYING ASPHALT CONCRETE COURSE IS PLACED. AFTER THE WAITING PERIOD, THE CONTRACTOR HAS A MAXIMUM OF FIVE (5) DAYS TO COVER UP THE CHIP SEAL.

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-22 AS PER PLAN, (1-1/4" DEPTH)

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (448), AS PER PLAN, (1-3/4" DEPTH)

THIS ITEM SHALL BE USED FOR THE CORRECTION OF THE PAVEMENT CROWN, PROFILE AND EXISTING PAVEMENT IRREGULARITIES. THE ASPHALT CONCRETE INTERMEDIATE COURSE WILL BE VARIABLE IN DEPTH. A MINIMUM DEPTH OF 1-3/4" IS TO BE PROVIDED.

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

THIS ITEM OF WORK SHALL CONSIST OF ADJUSTING EXISTING SANITARY MANHOLE AND VALVE BOX CASTINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

IN ADDITION TO THE REQUIREMENTS OF CMS 611.10.D FOR MANHOLES, OR 638.18 FOR VALVE BOXES, THE CONTRACTOR WILL MAKE A CLEAN CIRCULAR CUT AROUND THE CASTING (48" DIAMETER FOR SANITARY MANHOLE CASTINGS, AND 24"-28" FOR VALVE BOXES, AND REMOVE AND DISCARD THE EXISTING CASTING. INSTALL A NEW CASTING TO GRADE (ACCORDING TO TOLERANCES AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1) AFTER THE PAVEMENT SURFACE COURSE HAS BEEN REPLACED.

CMS 499 CLASS QCMS CONCRETE (DYE THE CONCRETE SUCH THAT ITS COLOR CLOSELY MATCHES THE COLOR OF THE SURROUNDING PAVEMENT) WILL BE USED FOR BACKFILLING THE FULL PAVEMENT SECTION AND THE JOINT BETWEEN THE ASPHALT AND CONCRETE WILL BE SEALED WITH CMS 702.01 PG BINDER. EPOXY COATED REBAR SHALL BE PLACED IN THE CONCRETE AT 6" MAXIMUM ON CENTER AND A MINIMUM OF 3.5" CLEARANCE FROM THE TOP, BOTTOM AND SIDES. THE CONCRETE WILL BE VIBRATED SUFFICIENTLY TO ELIMINATE AIR POCKETS UNDER THE FRAME.

EXISTING FRAMES AND COVERS REMOVED ARE TO BE DELIVERED TO THE SUMMIT COUNTY DSSS. - MAINTENANCE DEPARTMENT, 33 COLE AVENUE, AKRON, OHIO 44301 (330) 643-2485

PAYMENT WILL INCLUDE REMOVAL OF THE EXISTING MATERIAL, INSTALLATION AND FURNISHING OF A NEW CASTING, AND ALL LABOR AND MATERIALS REQUIRED TO COMPLETE THIS ITEM OF WORK AS DESCRIBED.

**MAINTENANCE OF TRAFFIC**

ITEM 614 - MAINTAINING TRAFFIC

TWO-WAY DIRECTIONAL TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND THE COMPLETED PAVEMENT EXCEPT WHEN A LANE RESTRICTION IS REQUIRED FOR PAVING OPERATIONS. THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ALL ABUTTING PROPERTIES.

THE CONTRACTOR SHALL DIVERT TRAFFIC FROM NORMAL CHANNELS BY PLASTIC DRUMS, TRAFFIC SIGNS AND WORK ZONE PAVEMENT MARKINGS.

ALL CONSTRUCTION TRAFFIC CONTROL DEVICES USED FOR THIS PROJECT SHALL CONFORM TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AND BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY SAFEGUARDS, SUCH AS TYPE III BARRICADES, LIGHTING, FLAGGERS, AND OTHER SUCH TRAFFIC CONTROL DEVICES AS PROVIDED IN ITEM 614 - MAINTAINING TRAFFIC, SO AS TO AVOID DAMAGE AND/OR INJURY TO VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION.

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 RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES OF THE TYPE AND LOCATION AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

A MINIMUM OF ONE TEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING PAVEMENT OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.

THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

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.

ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PROTECTED AS PER STANDARD CONSTRUCTION DRAWING MT-101.90.

TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.

UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES RURAL OR ONE (1) MILE URBAN.

FOR ROUTES NOT ON THE PERMITTED LANE CLOSURE CHART, ONLY DURING OFFPEAK 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.

IN ADDITION TO THE REQUIREMENTS OF 614.11 WORK ZONE PAVEMENT MARKINGS, AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, CENTER, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.

A QUANTITY OF 10 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE INMAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

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.

THE CONTRACTOR SHALL SET A WORK ZONE AT THE REQUEST OF THE ENGINEER TO ALLOW THE LAYOUT OF THE PARTIAL/FULL DEPTH PAVEMENT REPAIR AREAS. THIS WORK IS INCIDENTAL TO ITEM 614 MAINTAINING TRAFFIC.

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.

CONSTRUCTION TRAFFIC

ALL CONSTRUCTION TRAFFIC SHALL USE ACCEPTABLE TRUCK ROUTES TO ACCESS THE CONSTRUCTION AREA. THE USE OF LOCAL RESIDENTIAL STREETS IS STRICTLY PROHIBITED UNLESS ALLOWED IN WRITING BY LOCAL ENFORCEMENT AUTHORITY.

PLACEMENT OF ASPHALT CONCRETE

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

LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS

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

CHRISTMAS	LABOR DAY
NEW YEAR'S	THANKSGIVING
MEMORIAL DAY	DAY AFTER THANKSGIVING (FRIDAY)
FOURTH OF JULY	

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

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

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT.

LANE VALUE CONTRACT TABLE

DESCRIPTION OF CRITICAL LANE TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$ PER TIME UNIT
NORTHBOUND LANE - VALLEY VIEW ROAD FROM HUDSON/MACEDONA CORP. LINE TO TWINSBURG ROAD	07:00-21:00	EACH HOUR	\$1,000
SOUTHBOUND LANE - VALLEY VIEW ROAD FROM TWINSBURG ROAD TO HUDSON/MACEDONIA CORP. LINE	07:00-21:00	EACH HOUR	\$1,000

TEMPORARY RAMPING OF VERTICAL SURFACES

IN ORDER TO PROVIDE FOR LOCAL ACCESS, LONGITUDINAL VERTICAL FACES ABUTTING DRIVES SHALL BE TEMPORARILY RAMPED. TRANSVERSE VERTICAL FACES SHALL BE TEMPORARILY RAMPED A MINIMUM OF TEN (10) FEET IN LENGTH AND TRAFFIC SHALL BE

WARNED WITH W8-1 "BUMP" SIGNS IN ADVANCE OF THE RAMPED AREAS. ALL CASTINGS ENCOUNTERED SHALL BE SET TO GRADE AND PAID FOR UNDER VARIOUS ITEMS DESCRIBED ELSEWHERE IN THE GENERAL NOTES OR SPECIFICATIONS. THE CASTING ELEVATION DIFFERENTIAL SHALL NOT BE GREATER THAN ONE (1) INCH WHEN EXPOSED TO TRAFFIC.

ALL TEMPORARY RAMPING SHALL BE INSTALLED, AT THE DIRECTION OF THE ENGINEER, USING ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

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

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 10 CY

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A PORTABLE CHANGEABLE MESSAGE SIGN, THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS

MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCE OF 800 FEET AND 650 FEET RESPECTIVELY.

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

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 PCMS SHOULD NOT BE LOCATED IN THE MEDIAN OF THE HIGHWAY UNLESS IT IS PROTECTED FROM BOTH DIRECTIONS OF TRAFFIC. 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 THE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE 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 REFLECTIVE 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 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 CONTRACTOR. A LIST OF ALL PROPOSED PREPROGRAMMED MESSAGES WILL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PREPROGRAMMED DISPLAYS SHALL NOT BE LOST AS A



MAINTENANCE OF TRAFFIC CONTINUED)

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 OF 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, DE-ACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL [IN ACTIVE CELLULAR AREAS] ALLOW REMOTE SIGN ACTIVATION, DEACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES.

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

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THEIR USE. THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES AS OUTLINED IN 614.02.

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 FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN 3 SNMT

CONSTRUCTION WARNING SIGNS

IMMEDIATELY PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL THE CONSTRUCTION WARNING SIGNS.

AS A MINIMUM, G20-1 SIGNS FACING TRAFFIC ENTERING THE PROJECT, AND G20-2 SIGNS FACING TRAFFIC LEAVING THE PROJECT, SHALL BE PLACED AS SHOWN IN THE MANUAL.

ADDITIONALLY, A W20-1 SIGN SHALL BE PLACED ON EACH INTERSECTING STREET A MINIMUM OF 200 FEET IN ADVANCE OF THE PROJECT, AND ON THE APPROACHES TO THE PROJECT A MINIMUM OF 500 FEET IN ADVANCE OF THE WORK LIMITS.

THE TRAFFIC CONTROL DEVICES SHOWN ON ALL APPLICABLE STANDARD CONSTRUCTION DRAWINGS SHALL BE IN ADDITION TO THOSE INDICATED ABOVE. IF DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL ALSO INSTALL W8-11 "UNEVEN LANES", W8-7 "LOOSE GRAVEL", AND/OR W21-2 "FRESH OIL/TAR" SIGNS.

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 - 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 C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND

COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

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

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE CITY OF MACEDONIA AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE CONTRACTOR SHALL SECURE THE LAW ENFORCEMENT SERVICES WITH THE CITY OF MACEDONIA A MINIMUM OF TWO (2) WEEKS PRIOR TO THE START OF THE SCHEDULED LEO WORK. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEO'S DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

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

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

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 80 HOURS

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

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

ESTIMATED QUANTITIES FOR MAINTAINING TRAFFIC

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 614 - WORK ZONE MARKING SIGN 2 EACH  
ITEM 614 - WORK ZONE CENTER LINE, CLASS I, 642 PAINT 1.05 MILES  
ITEM 614 - WORK ZONE STOP LINE, CLASS I, 642 PAINT 42 FT

SEQUENCE OF CONSTRUCTION

PRE-PHASE 1

WORK TO BE PERFORMED:

ALL CONSTRUCTION ZONE SIGNAGE AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE

IN PLACE 7 DAYS PRIOR TO ANY START OF CONSTRUCTION.

TRAFFIC MAINTENANCE:

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION THROUGH THE USE OF THE EXISTING PAVEMENT AND NEWLY INSTALLED PAVEMENT. CLOSING OF ONE-LANE OF THE TWO-LANE ROADWAY FOR THE MOVING PAVING AND PAVEMENT REPAIR OPERATIONS WILL BE LIMITED TO 800' SECTIONS OF THE ROADWAY WITH EACH SECTION TO BE APPROVED BY THE ENGINEER PRIOR TO THE START OF ANY WORK. THE ONE-LANE CLOSURE IS TO BE CONTROLLED THROUGH THE USE OF FLAGGER OPERATIONS IN ACCORDANCE WITH ODOT STANDARD CONSTRUCTION DRAWING MT-97.12. THE LIMITED CONSTRUCTION ZONE LENGTH OF 800' IS TO PROCEED IN A CONTINUOUS MANNER ALONG THE LENGTH OF THE PROJECT.

THE PROGRESSION OF THE PLANING SHALL PROCEED IN SUCH A MANNER THAT NORMAL TRAFFIC SHALL NOT BE REQUIRED TO RUN OVER THE PLANED ROADWAY SURFACE FOR MORE THAN SEVEN (7) CALENDAR DAYS. FOR EACH CALENDAR DAY BEYOND THE 7 DAYS THAT THE ROADWAY REMAINS EXPOSED TO THE PLANED SURFACE, THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE FEE OF \$1,000 PER DAY.

TIME LIMITATION, TRAFFIC ON A MILLED SURFACE:

THE MAXIMUM ALLOWABLE TIME FOR TRAFFIC TO BE PLACED ON A MILLED SURFACE SHALL BE 7 CONSECUTIVE CALENDAR DAYS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$1000 PER DAY THAT THE TRAFFIC IS PLACED ON A MILLED SURFACE BEYOND THE SPECIFIED LIMIT.

PHASE 1

- PERFORM ITEM 254-PAVEMENT PLANING, ASPHALT CONCRETE FOR THE FULL LANE WIDTH IN THE SOUTHEAST DIRECTION FOR THE LENGTH OF THE PROJECT WHILE MAINTAINING TRAFFIC ON THE NORTHBOUND LANE.
- PERFORM ITEM 254-PAVEMENT PLANING, ASPHALT CONCRETE FOR THE FULL LANE WIDTH IN THE NORTHWEST DIRECTION, WHILE MAINTAINING TRAFFIC ON THE SOUTHBOUND LANE.
- ITEM 254-PAVEMENT PLANING, ASPHALT CONCRETE, AND PAVEMENT SAWCUTTING FOR ALL DRIVEWAYS SHALL BE INCLUDED WITH THIS PHASE 1 WORK.
- INSTALL WORK ZONE PAVEMENT MARKINGS.

PHASE 2

- PERFORM PARTIAL DEPTH PAVEMENT REPAIRS AND PAVEMENT REPAIRS ALONG THE FULL LANE WIDTH IN THE SOUTHEAST DIRECTION, WHILE MAINTAINING TRAFFIC IN THE NORTHBOUND LANE.
- PERFORM PARTIAL DEPTH PAVEMENT REPAIRS AND PAVEMENT REPAIRS ALONG THE FULL LANE WIDTH IN THE NORTHWEST DIRECTION, WHILE MAINTAINING TRAFFIC IN THE SOUTHBOUND LANE.
- PERFORM ITEM 209-LINEAR GRADING ALONG THE SOUTHEAST AND NORTHWEST PAVEMENT SHOULDERS. TWO-WAY TRAFFIC IS TO BE MAINTAINED AS PREVIOUSLY NOTED ABOVE UNDER TRAFFIC MAINTENANCE.
- INSTALL ITEM 422 - AGGREGATE, SINGLE CHIP SEAL, TYPE A AND ITEM 422 - EMULSION, CHIP SEAL FOR FULL LANE WIDTH INCLUDING DRIVEWAYS IN THE SOUTHEAST DIRECTION, WHILE MAINTAINING TRAFFIC ON THE NORTHBOUND LANE
- INSTALL ITEM 422 - AGGREGATE, SINGLE CHIP SEAL, TYPE A AND ITEM 422 - EMULSION, CHIP SEAL FOR FULL LANE WIDTH INCLUDING DRIVEWAYS IN THE NORTHWEST DIRECTION, WHILE MAINTAINING TRAFFIC ON THE SOUTHBOUND LANE.

PHASE 3

- INSTALL ITEM 441-ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448) FOR FULL LANE WIDTH INCLUDING DRIVEWAYS IN THE SOUTHEAST DIRECTION, WHILE MAINTAINING TRAFFIC ON THE NORTHBOUND LANE.
- INSTALL ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448) FOR THE FULL LANE WIDTH INCLUDING DRIVEWAYS IN THE NORTHWEST DIRECTION, WHILE MAINTAINING TRAFFIC ON THE SOUTHBOUND LANE.
- INSTALL WORK ZONE PAVEMENT MARKINGS.
- CASTING ADJUSTMENTS.

PHASE 4

- INSTALL ITEM 441-ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-2 FOR THE FULL LANE WIDTH INCLUDING DRIVEWAYS IN THE SOUTHEAST DIRECTION, WHILE MAINTAINING TRAFFIC ON THE NORTHBOUND LANE.
- INSTALL ITEM 441-ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-22 FOR THE FULL LANE WIDTH INCLUDING DRIVEWAYS IN THE NORTHWEST DIRECTION, WHILE MAINTAINING TRAFFIC ON THE SOUTHBOUND LANE.
- INSTALL WORK ZONE PAVEMENT MARKINGS.

PHASE 5

- INSTALL PERMANENT PAVEMENT MARKINGS AND SIGNAGE.
- LOOP DETECTOR REPAIR.

DESIGN AGENCY



CHAGRIN VALLEY  
ENGINEERING, LTD.

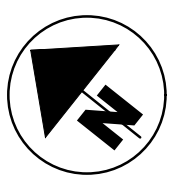
DESIGNER  
RSW

REVIEWER  
JLG 11/22/22


PROJECT ID  
116540

SHEET TOTAL  
P.7 P.16

REF. NO.	SHEET NUMBER						PARTICIPATION	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
	GEN. NOTES	MOT NOTES	9	10	13	14	01/MPO/05/MACE						
1	91						91	203	10001	91	CY	EXCAVATION, AS PER PLAN	5
2			36.44				36.44	209	60200	36.44	STA	LINEAR GRADING	
3							4	SPECIAL	69050000	4	EACH	MAILBOX SUPPORT	14
4							4	SPECIAL	69050100	4	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	14
5	2025						2025	659	10000	2025	SY	SEEDING AND MULCHING	
6	0.18						0.18	659	20000	0.18	TON	COMMERCIAL FERTILIZER	
7	0.42						0.42	659	31000	0.42	ACRE	LIME	
8	10.90						10.90	659	35000	10.90	MGAL	WATER	
9	5000						5000	832	30000	5000	EACH	EROSION CONTROL	
10			1				1	611	99655	1	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	5
11	545						545	251	01001	545	SY	PARTIAL DEPTH PAVEMENT REPAIR (441), AS PER PLAN	5
12	545						545	253	01001	545	SY	PAVEMENT REPAIR, AS PER PLAN	5
13			5358				5358	254	01001	5358	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, (3" DEPTH)	5
14	91						91	304	20001	91	CY	AGGREGATE BASE, AS PER PLAN	5
15			804				804	407	20000	804	GAL	NON-TRACKING TACK COAT	
16			5358				5358	422	11000	5358	SY	AGGREGATE, SINGLE CHIP SEAL, TYPE A	
17			2143				2143	422	25000	2143	GAL	EMULSION, CHIP SEAL	
18			187				187	441	50101	187	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN	5
19			261				261	441	50301	261	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), AS PER PLAN	5
20			1822				1822	874	20000	1822	FT	LONGITUDINAL JOINT PREPARATION	
21			1				1	638	10801	1	EACH	VALVE BOX ADJUSTED TO GRADE, AS PER PLAN	5
22				30			30	630	03100	30	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
23				1			1	630	84900	1	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
24				4			4	630	85100	4	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
25				2			2	630	86002	2	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
26				0.68			0.68	642	00100	0.68	MILE	EDGE LINE, 4", TYPE 1	
27				0.33			0.33	642	00300	0.33	MILE	CENTER LINE, TYPE 1	
28				14			14	642	00500	14	FT	STOP LINE, TYPE 1	
29					1		1	632	26501	1	EACH	DETECTOR LOOP, AS PER PLAN	13
30		80					80	614	11110	80	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
31		2					2	614	12460	2	EACH	WORK ZONE MARKING SIGN	
32		10					10	614	13000	10	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
33		3					3	614	18601	3	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	7
34		1.05					1.05	614	21100	1.05	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
35		42					42	614	26200	42	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
36	LS						LS	614	11000	LS	-	MAINTAINING TRAFFIC	
37	2						2	619	16000	2	MNTH	FIELD OFFICE, TYPE A	
38	LS						LS	623	10000	LS	-	CONSTRUCTION LAYOUT STAKES AND SURVEYING	
39	LS						LS	624	10000	LS	-	MOBILIZATION	

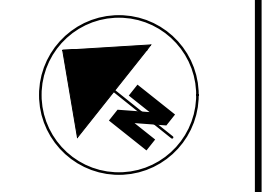


GENERAL SUMMARY

DESIGN AGENCY  
  
 CHAGRIN VALLEY ENGINEERING, LTD.  
 DESIGNER  
 RSW  
 REVIEWER  
 JLG 11/22/22  
 PROJECT ID  
 116540  
 SHEET TOTAL  
 P.8 P.16



SHEET NO.	REF NO.	STATION TO STATION		SIDE	WORK	LENGTH (L1)	WIDTH (W1)	ASPHALT PAVEMENT RESURFACING AREA (A1)	209	254	407	422	422	441	441	611	638	874		
		FROM	TO			FT	FT	SF	STA	SY	GAL	SY	GAL	CY	CY	EACH	EACH	FT		
						CADD	CADD	L1 x W1 OR CADD	$\frac{((L1)/100) \times 2}{2}$	(A1)/9	$\frac{(((A1)/9) \times 0.06) + (((A1)/9) \times 0.09)}{2}$	(A1)/9	(A1/9)*0.40	$\frac{((A1) \times (1.25/12))}{27}$	$\frac{((A1) \times (1.75/12))}{27}$			(L1)		
11		117+70	118+40	LT. & RT.	ROAD	70.00		2662.06	1.40	295.78	44.37	295.78	118.31	10.27	14.38			70.00		
11	MH-1	117+97		LT.	ADJUST TO GRADE										1					
11		118+40	122+00	LT. & RT.	ROAD	360.00	26.00	9360.00	7.20	1040.00	156.00	1040.00	416.00	36.11	50.56			360.00		
11		122+00	127+00	LT. & RT.	ROAD	500.00	26.00	13000.00	10.00	1444.44	216.67	1444.44	577.78	50.15	70.22			500.00		
12		127+00	132+00	LT. & RT.	ROAD	500.00	26.00	13000.00	10.00	1444.44	216.67	1444.44	577.78	50.15	70.22			500.00		
12		130+15		RT.	ADJUST TO GRADE											1				
		132+00	135+92	LT. & RT.	ROAD	392.00	26.00	10192.00	7.84	1132.44	169.87	1132.44	452.98	39.32	55.05			392.00		
<b>TOTAL CARRIED TO GENERAL SUMMARY</b>									36.44	5358	804	5358	2143	187	261	1	1	1822		



ROADWAY  
SUBSUMMARY

DESIGN AGENCY  
**CVE**  
CHAGRIN VALLEY  
ENGINEERING, LTD.

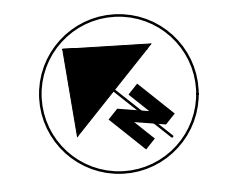
DESIGNER  
RSW

REVIEWER  
JLG 11/22/22

PROJECT ID  
116540


SHEET TOTAL  
P.9 P.16

SHEET NO.	REF NO.	STATION TO STATION		CODE	SIDE	SIZE	LENGTH (L)	630	630	630	630	642	642	642				
		FROM	TO					GROUND MOUNTED SUPPORT, NO. 3 POST	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	EDGE LINE, 4", TYPE 1	CENTER LINE, TYPE 1	STOP LINE, TYPE 1				
								FT	EACH	EACH	EACH	MILE	MILE	FT				
							STA.-STA. OR CADD					(L1)/5280						
15	ELW-1	117+53	118+40		RT.		87.00					0.02						
15	ELW-2	118+17	118+40		LT.		23.00					0.00						
15	ELW-3	118+40	122+00		RT.		360.00					0.07						
15	ELW-4	118+40	122+00		LT.		360.00					0.07						
15	ELW-5	122+00	127+00		RT.		500.00					0.09						
15	ELW-6	122+00	127+00		LT.		500.00					0.09						
15	CL-1	118+31	122+00		LT.		369.00						0.07					
15	CL-2	122+00	127+00		LT.		500.00						0.09					
15	SL-1	118+31			LT.										14			
16	ELW-7	127+00	132+00		RT.		500.00					0.09						
16	ELW-8	127+00	132+00		LT.		500.00					0.09						
16	ELW-9	132+00	135+92		RT.		392.00					0.07						
16	ELW-10	132+00	135+92		LT.		392.00					0.07						
16	CL-3	127+00	132+00		LT.		500.00						0.09					
16	CL-4	132+00	135+92		LT.		392.00						0.07					
16	S-1	134+54			LT.			13.50	1	1	1							
16	S-2	135+10			LT.			16.00		3	1							
<b>TOTAL CARRIED TO GENERAL SUMMARY</b>								30	1	4	2	0.68	0.33	14				



**PAVEMENT MARKING & SIGNING  
SUBSUMMARY**

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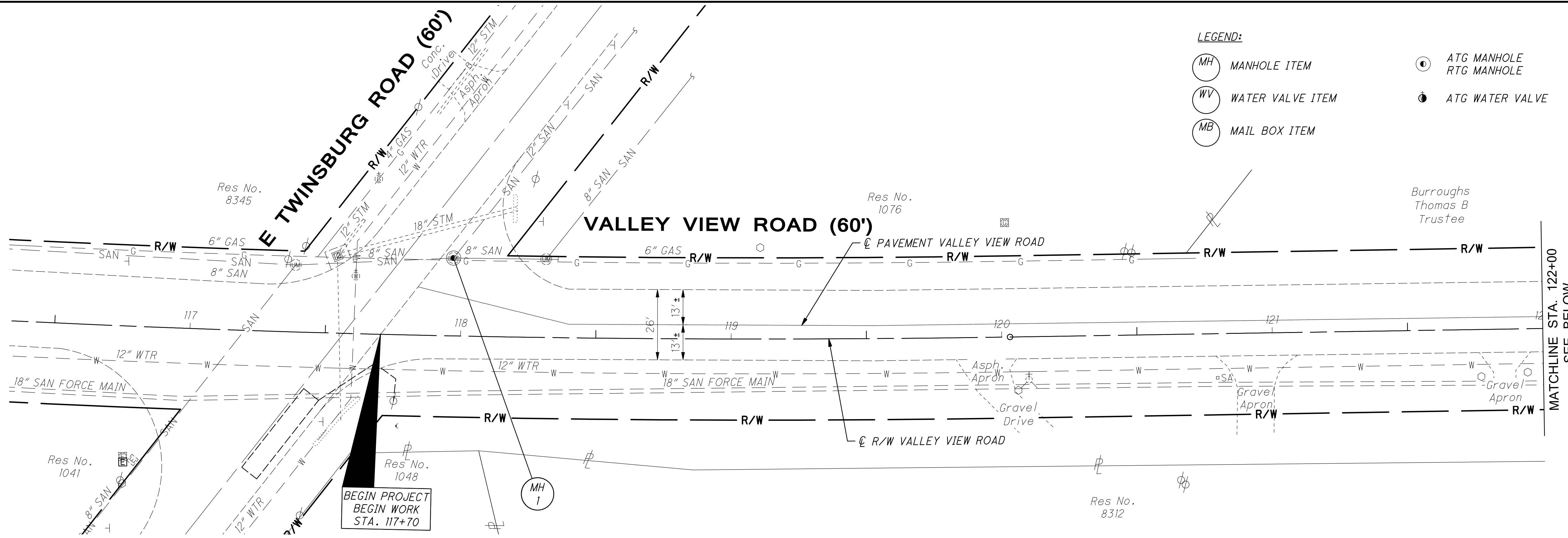
DESIGN AGENCY  
  
 CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER  
RSW

REVIEWER  
JLG 11/22/22

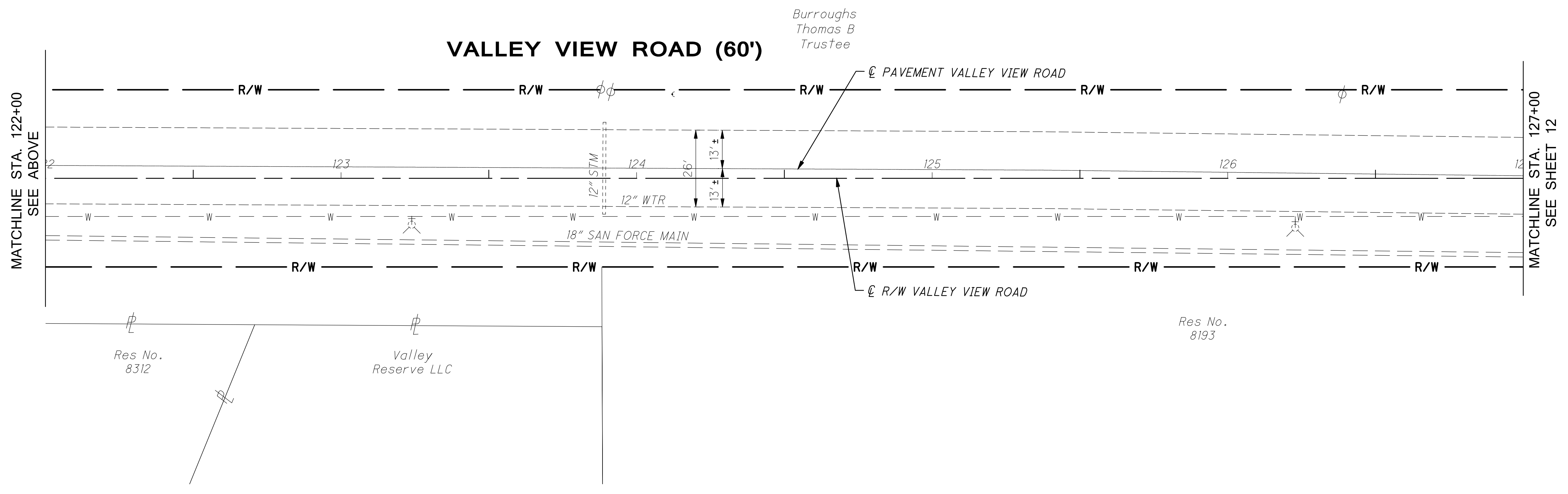
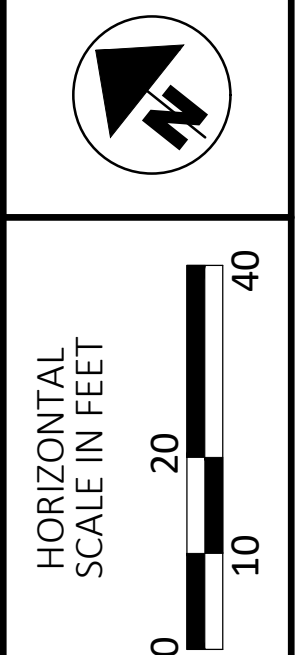
PROJECT ID  
116540

SHEET TOTAL  
P.10 P.16



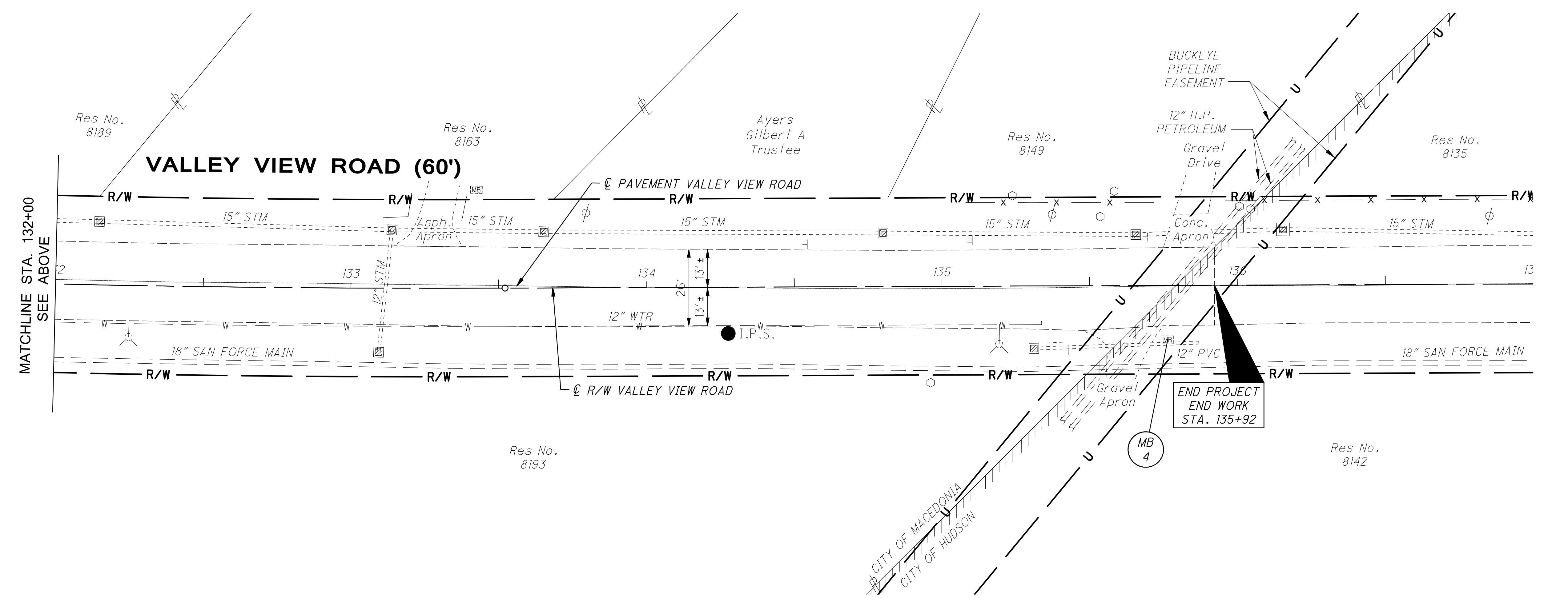
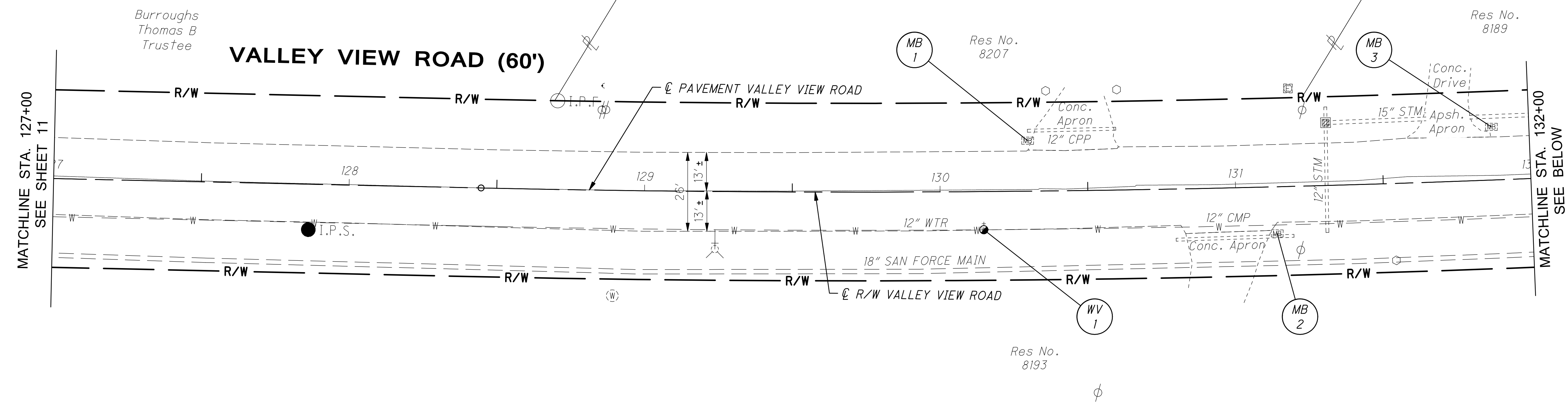
LEGEND:

- MANHOLE ITEM
- WATER VALVE ITEM
- MAIL BOX ITEM
- ATG MANHOLE
- RTG MANHOLE
- ATG WATER VALVE



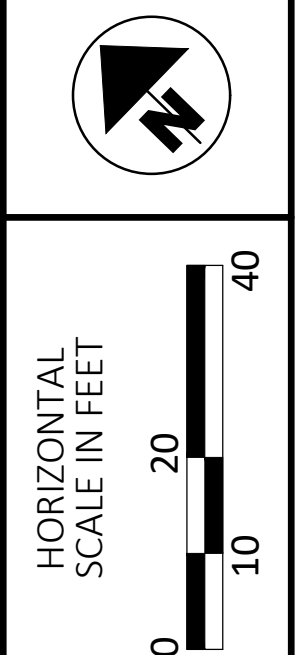
PLAN VIEW  
 BEGIN PROJECT TO STA. 127+00

DESIGN AGENCY	
CHAGRIN VALLEY ENGINEERING, LTD.	
DESIGNER	RSW
REVIEWER	JLG 11/22/22
PROJECT ID	116540
SHEET	TOTAL
P.11	P.16



LEGEND:

- (MH) MANHOLE ITEM
- (WV) WATER VALVE ITEM
- (MB) MAIL BOX ITEM
- (⊙) ATG MANHOLE
- (⊙) RTG MANHOLE
- (⊙) ATG WATER VALVE



PLAN VIEW  
STA. 127+00 TO END OF PROJECT

DESIGN AGENCY  
 CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER  
RSW

REVIEWER  
JLG 11/22/22

PROJECT ID  
116540

SHEET TOTAL  
P.12 P.16

**TRAFFIC SIGNALS**

**ITEM 632 - DETECTOR LOOP, AS PER PLAN**

AT ANY TIME THAT THE EXISTING LOOP DETECTOR IS CUT, BROKEN, OR DESTROYED, AN AUTOMATIC DEFAULT TIMER WILL BE ACTIVATED FOR THE EXISTING TRAFFIC SIGNAL. THE AUTOMATIC DEFAULT TIMER WILL REMAIN IN SERVICE UNTIL THE LOOP DETECTOR SYSTEM IS RESTORED. IN THE EVENT THAT THE AUTOMATIC DEFAULT TIMER IS NOT WORKING PROPERLY, THE CONTRACTOR IS TO CONTACT A TRAFFIC SIGNAL CONTRACTOR TO MAKE IMMEDIATE REPAIRS AND CORRECT THE TRAFFIC SIGNAL SYSTEM TO A PROPER WORKING CONDITION DURING THE CONSTRUCTION OF THE PROJECT.

AN ESTIMATED QUANTITY OF 632 DETECTOR LOOP, AS PER PLAN HAS BEEN PROVIDED WHEN WIRE IS CUT, BROKEN OR DESTROYED DUE TO PAVEMENT PLANING, PAVEMENT REPAIR OR BUTT JOINT OPERATIONS. IT IS IMPERATIVE THAT REPLACEMENT OF LOOP DETECTORS BE INSTALLED AND FULLY FUNCTIONAL IN THE SHORTEST POSSIBLE TIME. THE CONTRACTOR SHALL HAVE REPLACEMENT LOOP DETECTORS INSTALLED AND FULLY FUNCTIONAL WITHIN 7 CALENDAR DAYS OF DESTRUCTION OF THE ORIGINAL LOOP.

THE CONTRACTOR SHALL CONTACT JOE GIGLIOTTI, THE CITY OF MACEDONIA ENGINEER (440) 399-0821 WITH ANY QUESTIONS RELATED TO THE REPAIR OF THE TRAFFIC SIGNAL LOOP DETECTOR. THE CONTRACTOR SHALL REPAIR THE LOOP DETECTOR SUCH THAT THE DAMAGED DETECTOR LOOP IS REPLACED TO RESTORE SIGNAL TIMINGS TO THE ORIGINAL SETTINGS.

FAILURE TO COMPLY WITH THE ABOVE STATED REQUIREMENTS WILL RESULT IN THE ASSESSMENT OF LIQUIDATED DAMAGES ACCORDING TO SECTION 108.07 OF THE CMS FOR EACH CALENDAR DAY BEYOND THE SPECIFIED LIMIT.

THE NEW LOOP DETECTOR SHALL BE PLACED AFTER THE PLANING AND PAVEMENT REPAIR OPERATIONS ARE COMPLETED WITHIN THE LOOP DETECTOR AREAS.

NEW LOOP DETECTOR SHALL BE PLACED AT THE SAME LOCATIONS AND BE THE SAME SIZE AND TYPE AS THE EXISTING, OR AS DIRECTED BY THE CITY OF MACEDONIA. THE LOOP DETECTOR WIRE SHALL BE REPLACED TO THE PULL BOX OR POLE, WHICHEVER IS APPLICABLE, UNDER ITEM 632 AND TC-82.10.

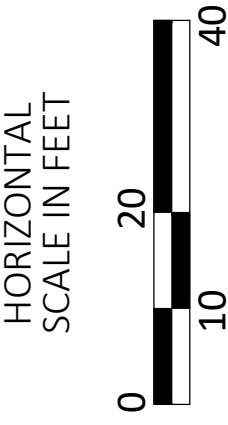
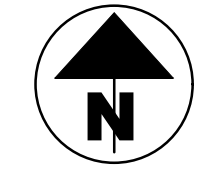
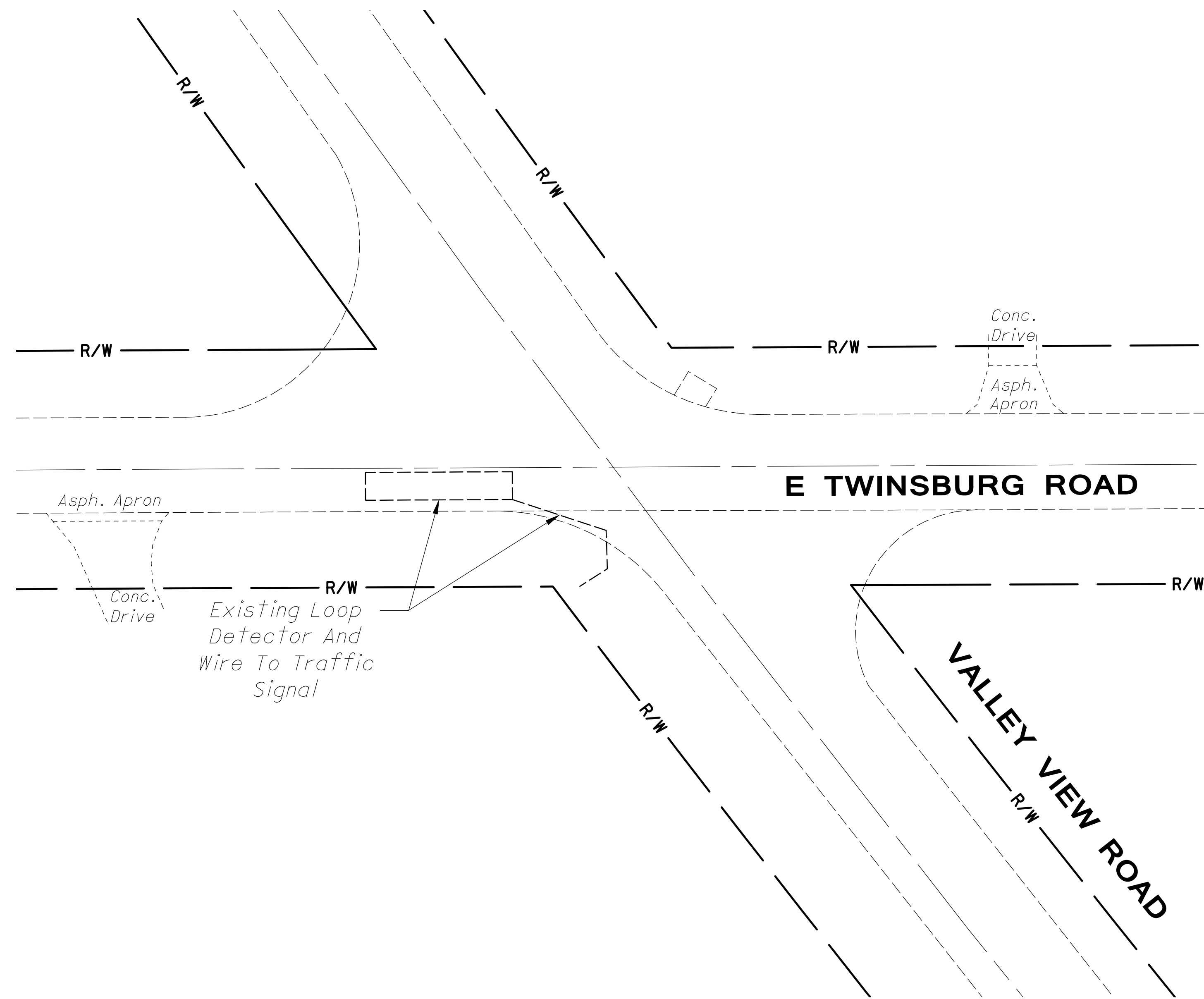
THIS WORK SHALL INCLUDE THE POURED EPOXY INSULATED SPLICE(S) REQUIRED TO CONNECT THE LOOP DETECTOR WIRE TO EXISTING LEAD-IN CABLE AT THE PULL BOX OR POLE. THE SPLICES SHALL BE IN ACCORDANCE WITH SECTION 725.15 OF THE CMS. PAYMENT SHALL BE MADE PER EACH LOOP DETECTOR CONNECTED TO THE LEAD-IN CABLE.

THE EXISTING LOOP DETECTOR LAYOUT FOR THE TWINSBURG ROAD/VALLEY VIEW ROAD INTERSECTION AS SHOWN ON THIS SHEET IS PROVIDED FOR THE PURPOSE OF ESTIMATING.

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

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 632 DETECTOR LOOP, AS PER PLAN 1 EACH



**LOOP DETECTOR NOTES AND DETAILS**

DESIGN AGENCY



CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER  
RSW

REVIEWER  
JLG 11/22/22

PROJECT ID  
116540

SHEET TOTAL  
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**ITEM SPECIAL - MAILBOX SUPPORT**

THIS WORK SHALL CONSIST OF THE REMOVAL OF THE EXISTING MAILBOX AND EXISTING MAILBOX SUPPORT AND FURNISHING AND ERECTING A TEMPORARY AND PERMANENT MAILBOX AND MAILBOX SUPPORT AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND AND CONFORM TO 710.14. STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D. AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO BOTH A TEMPORARY AND A NEW LOCATION.

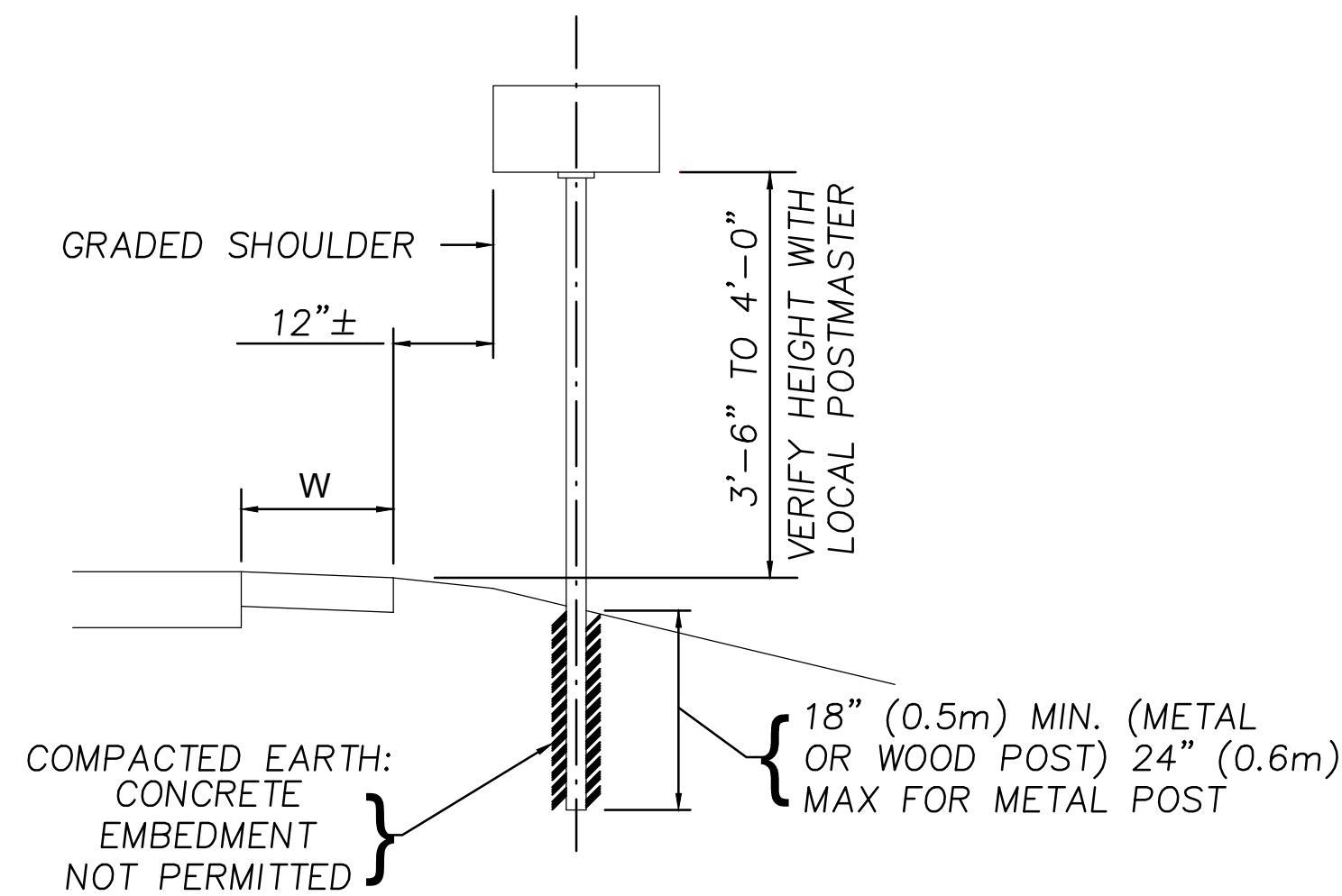
PAYMENT UNDER THIS ITEM SHALL BE FOR TEMPORARY AND FINAL PERMANENT INSTALLATIONS, TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

TEMPORARY MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL - MAILBOX SUPPORT (TEMPORARY INSTALLATION).

PERMANENT MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL - MAILBOX SUPPORT SYSTEM, (SINGLE).

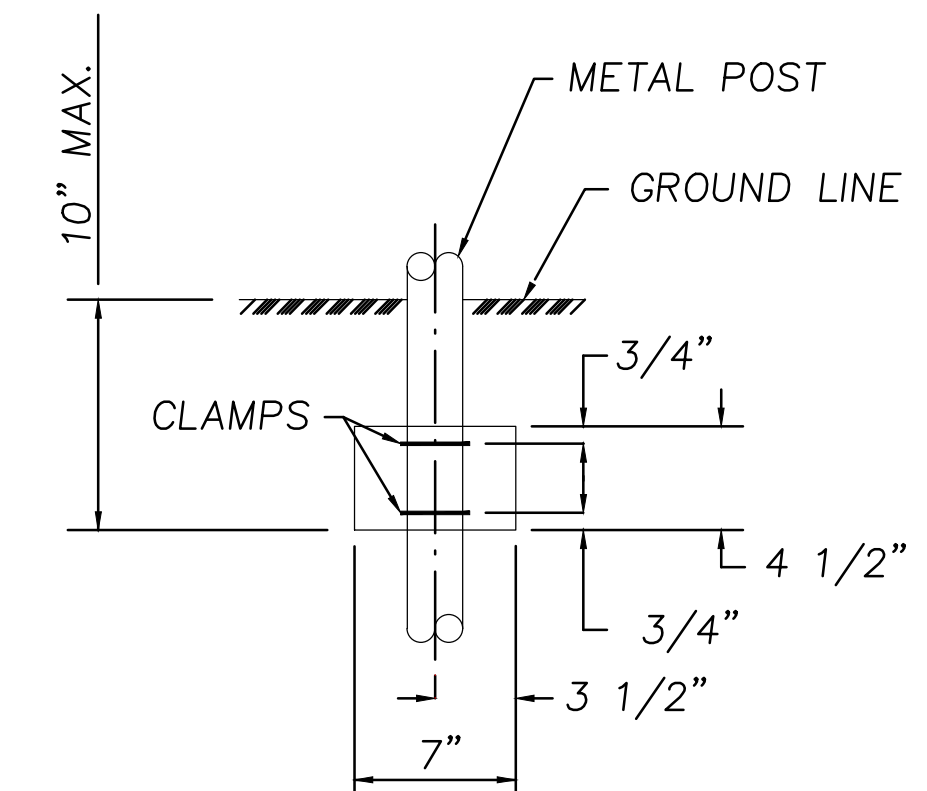
THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM SPECIAL - MAILBOX SUPPORT (TEMPORARY INSTALLATION) 4 EACH  
 ITEM SPECIAL - MAILBOX SUPPORT SYSTEM, (SINGLE) 4 EACH

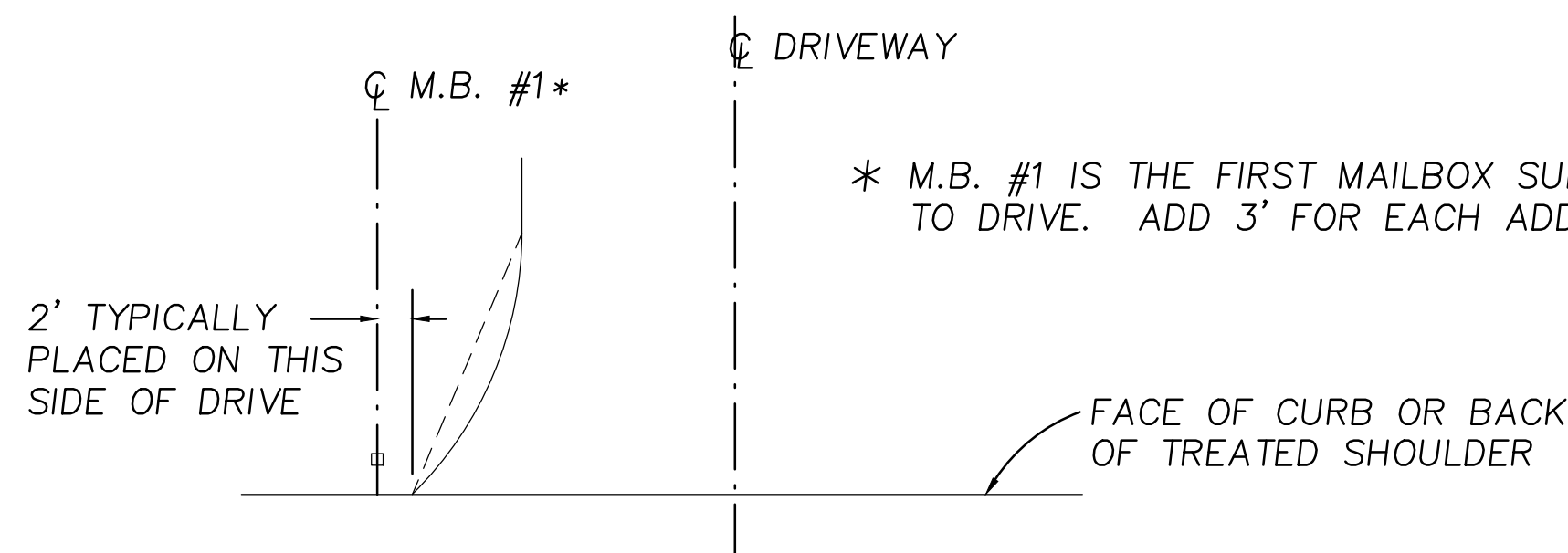


W = WIDTH OF TREATED SHOULDER.

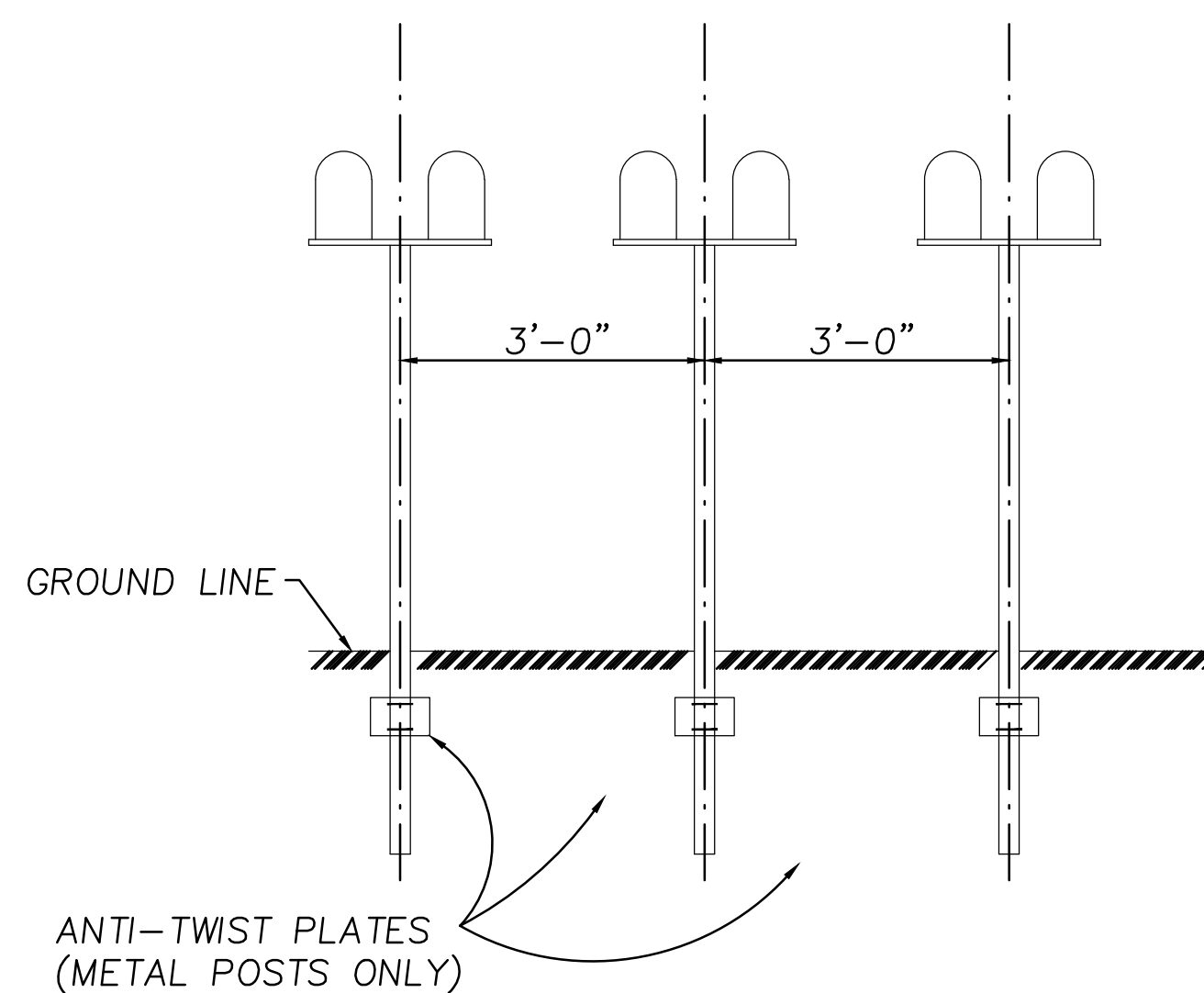
MAILBOX INSTALLATION DETAILS  
 (PAVED SHOULDERS/MAILBOX TURNOUTS)  
 NOT TO SCALE



ANTI-TWIST PLATE  
 NOT TO SCALE



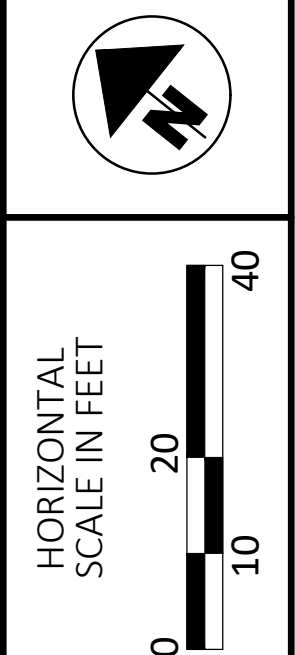
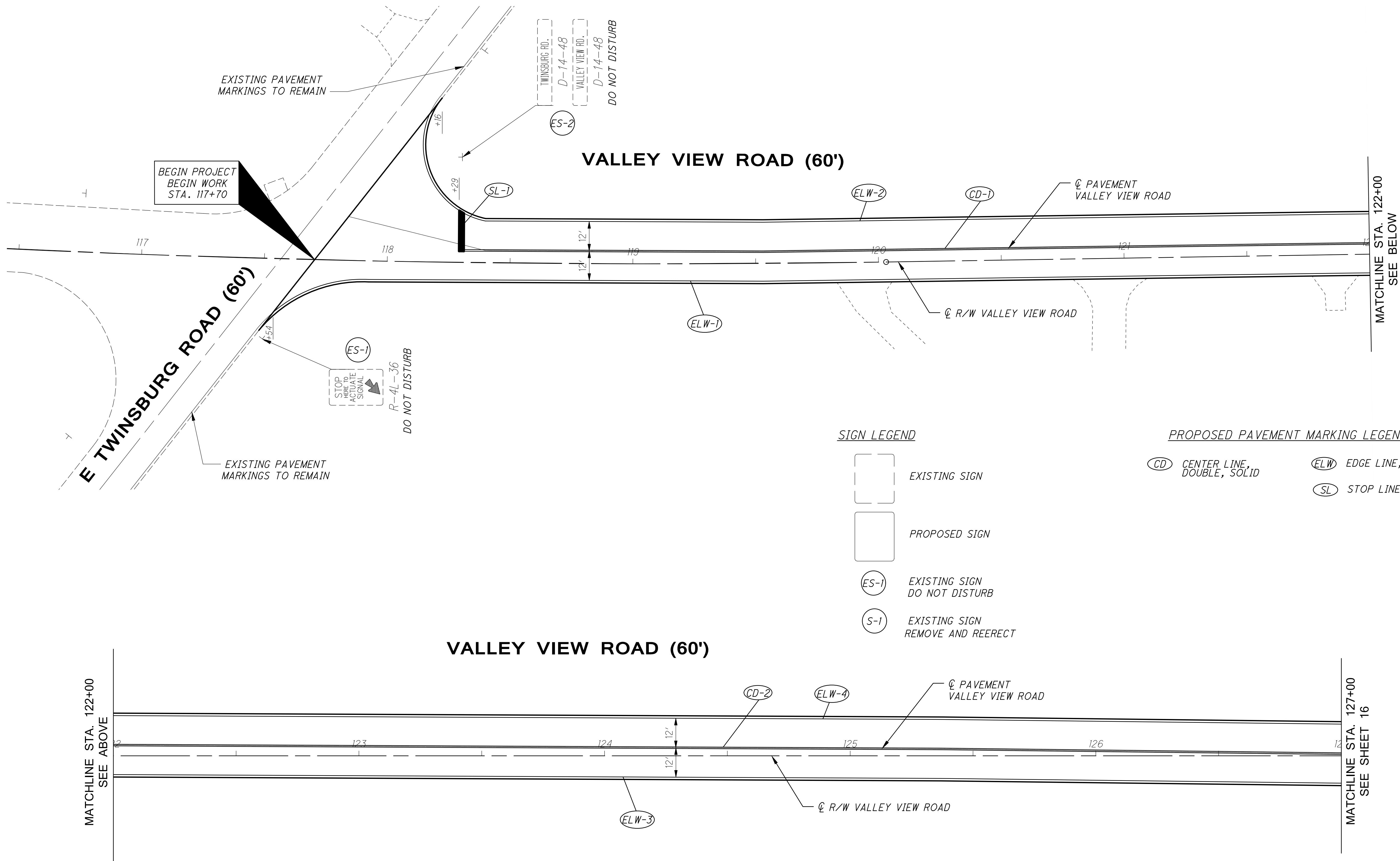
MAILBOX LOCATION AT DRIVEWAYS



GROUP MAILBOX INSTALLATION  
 NOT TO SCALE

MAILBOX SUBSUMMARY

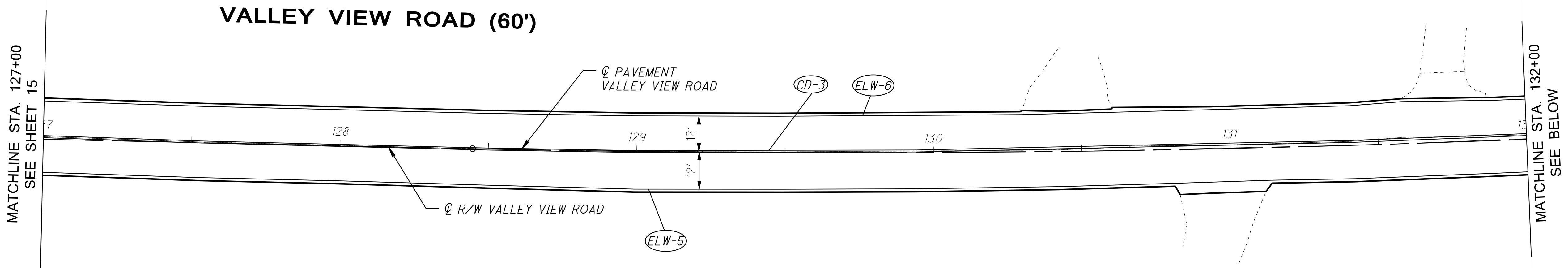
REF. NO.	STATION	SIDE	SPECIAL	SPECIAL
			MAILBOX SUPPORT	MAILBOX SUPPORT SYSTEM, SINGLE
			EACH	EACH
MB-1	130+30	17 LT.	1	1
MB-2	131+14	16 RT.	1	1
MB-3	131+87	18 LT.	1	1
MB-4	135+76	18 LT.	1	1
<b>TOTAL CARRIED TO GENERAL SUMMARY</b>			<b>4</b>	<b>4</b>



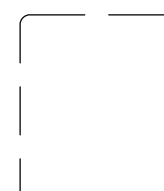
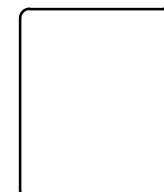
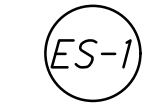

PAVEMENT MARKING AND SIGNING PLAN  
 BEGIN PROJECT TO STA. 127+00

DESIGN AGENCY  
  
 CHAGRIN VALLEY  
 ENGINEERING, LTD.


DESIGNER	RSW
REVIEWER	JLG 11/22/22
PROJECT ID	116540
SHEET	TOTAL
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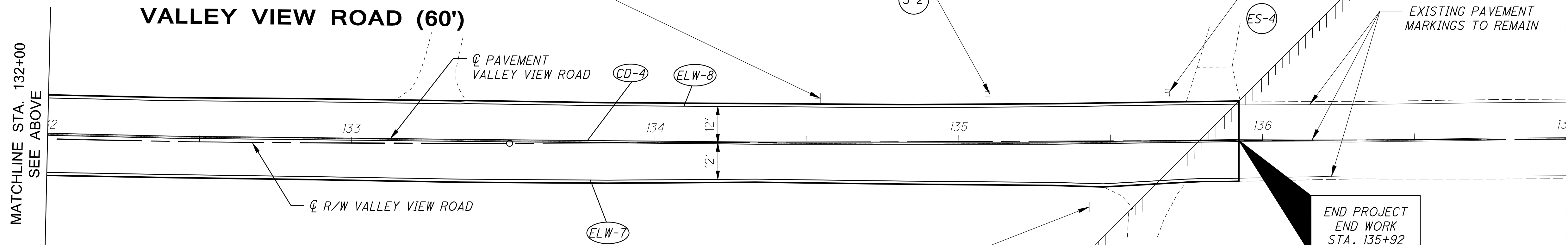


SIGN LEGEND

-  EXISTING SIGN
-  PROPOSED SIGN
-  EXISTING SIGN DO NOT DISTURB
-  EXISTING SIGN REMOVE AND REERECT

PROPOSED PAVEMENT MARKING LEGEND

-  CENTER LINE, DOUBLE, SOLID
-  EDGE LINE, WHITE
-  STOP LINE



PAVEMENT MARKING AND SIGNING PLAN  
STA. 127+00 TO END PROJECT

DESIGN AGENCY  
**eye**  
CHAGRIN VALLEY  
ENGINEERING, LTD.

DESIGNER  
RSW  
REVIEWER  
JLG 11/22/22  
PROJECT ID  
116540  
SHEET TOTAL  
P.16 P.16

END PROJECT  
END WORK  
STA. 135+92