

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

CUY-237-03.75

CITY OF BEREA CUYAHOGA COUNTY

INDEX OF SHEETS:

TITLE SHEET	1
TYPICAL SECTIONS	2-4
PAVEMENT REPAIR DETAILS	5-6
GENERAL NOTES	7-11
MAINTENANCE OF TRAFFIC	13-15
GENERAL SUMMARY	16-17
SUBSUMMARIES	18-20
PLAN VIEW - S.R. 237	21-26
INTERSECTION DETAILS	27
CURB RAMP DETAILS	28-30
DRIVE DETAILS	31

FEDERAL PROJECT NUMBER

E230828

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

THIS PROJECT INCLUDES ASPHALT RESURFACING AND PAVEMENT BASE REPAIR ALONG APPROXIMATELY 0.53 MILES OF SR 237 FROM BAKER STREET TO BAGLEY ROAD IN THE CITY OF BEREA. IMPROVEMENTS ALSO INCLUDE INSTALLATION OF ADA COMPLIANT CURB RAMPS, CASTING ADJUSTMENTS AND PAVEMENT MARKINGS.

EARTH DISTURBED AREAS


PROJECT EARTH DISTURBED AREA:	N/A ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	N/A ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A* ACRES


*ROUTINE MAINTENANCE PROJECT

2023 SPECIFICATIONS


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

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

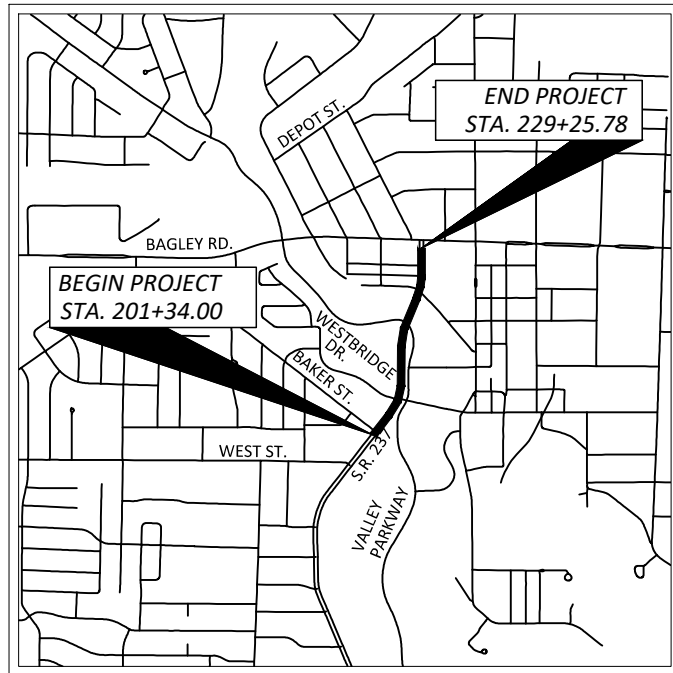

John Picuri, P.E., S.I.
DISTRICT 12 DEPUTY DIRECTOR


Jack Marchbanks, PhD
Director, Department of Transportation

PLAN PREPARED BY:

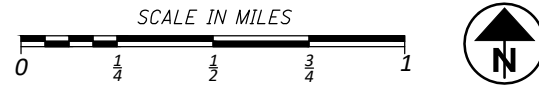


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LOCATION MAP

LATITUDE: 41°21'60" LONGITUDE: 81°51'31"



PORITION TO BE IMPROVED	_____
INTERSTATE HIGHWAY	===== =====
FEDERAL ROUTES	===== =====
STATE ROUTES	===== =====
COUNTY & TOWNSHIP ROADS	-----
OTHER ROADS	-----

DESIGN DESIGNATION	S.R. 237
CURRENT ADT (2023)	9,925
DESIGN YEAR ADT (2043)	9,925
DESIGN HOURLY VOLUME (2043)	1,007
DIRECTIONAL DISTRIBUTION	58%
TRUCKS (24 HOUR B&C)	3%
DESIGN SPEED	40 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	URBAN MINOR ARTERIAL
NHS PROJECT	NO

DESIGN EXCEPTIONS

NONE REQUIRED

ADA DESIGN WAIVERS

REQUIRED AT LOCATIONS INDICATED HEREIN:
SOUTHEAST CORNER OF S.R. 237 AND BAKER STREET
SOUTHEAST CORNER OF S.R. 237 AND NORTH ROCKY RIVER DRIVE

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig



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

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS	
BP-2.1	07/17/15	CB-3A	07/16/21	TC-71.10	07/16/21	MT-95.31	07/19/19	800-2023	SEE PROPOSAL
BP-2.2	01/15/21	MH-3	07/21/23	TC-74.10	07/21/23	MT-95.32	04/19/19	821	04/20/12
BP-2.5	07/19/13	DM-1.1	07/17/20	TC-82.10	07/19/19	MT-97.10	04/19/19	832	07/21/23
BP-3.1	01/17/20	DM-1.2	07/16/21			MT-97.12	01/20/17	872	01/21/22
BP-4.1	07/19/13	DM-4.4	01/15/16			MT-99.20	04/19/19	874	04/17/20
BP-5.1	07/16/21					MT-101.90	07/17/20	875	01/18/19
BP-7.1	07/21/23					MT-102.20	04/19/19	921	04/20/12
						MT-105.10	01/17/20		
						MT-110.10	07/19/13		

ENGINEERS SEAL
SPECIAL PROVISIONS

CUY-237-03.75

MODEL: 113161_G1001 - GT001 DATE: 2/19/2024 TIME: 8:30:32 AM USER: Chris Dunlap P:\23176 - Berea - SR 237 Resurfacing\113114\400-Engineering\Roadway\Sheets\23176_G1001.dwg

TITLE SHEET

DESIGN AGENCY



CHAGRIN VALLEY ENGINEERING, LTD.
22999 FORBES ROAD, UNIT B
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DESIGNER
CJD

REVIEWER
CWP 10/09/23

PROJECT ID
113114

SHEET	TOTAL
1	31

DRAINAGE

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

STRUCTURES ADJUSTED TO GRADE, RECONSTRUCTED TO GRADE OR REPLACED, AS PER PLAN

ALL ADJUSTMENT, RECONSTRUCTION OR REPLACED WORK, EXCEPT FOR THOSE STRUCTURES OWNED BY PRIVATE COMPANIES, SHALL BE PERFORMED BY THE CONTRACTOR, WHERE APPLICABLE. THE TIME BETWEEN RESETTING THE CASTINGS AND RESURFACING SHALL BE KEPT TO AN ABSOLUTE MINIMUM.

CASTINGS SHALL ADJUSTED OR RECONSTRUCTED TO GRADE IN ACCORDANCE WITH 611.10 USING CLAY BRICKS (704.01), CLASS C CONCRETE AND/OR CONCRETE MORTAR, OR PER 638.18 AND AS SPECIFIED BELOW FOR SERVICE BOX AND VALVE BOX ADJUSTMENTS. MAXIMUM CONCRETE MORTAR THICKNESS IS 1-1/2".

THE CONTRACTOR SHALL RESET EXISTING VALVE BOXES OR EXISTING CURB SHUT-OFF VALVE BOXES TO ESTABLISHED GRADE BY RAISING OR LOWERING THE EXISTING CASTINGS OR BY EITHER ADDING, DELETING OR CUTTING THE APPROPRIATE VALVE BOX STEM SELECTIONS. IN RAISING OF THE CASTINGS, NOT INSERTS WILL BE PERMITTED. ANY VALVE BOXES OR CURB SHUT-OFF VALVE BOXES FOUND TO BE DAMAGED OR UNSUITABLE FOR REUSE SHALL BE REPLACED BY THE CONTRACTOR AND PAID FOR UNDER ITEM SPECIAL - MISCELLANEOUS METAL. THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY AS REQUIRED OR AS ORDERED TO COMPLETE THE ITEM.

ALL EXISTING CASTINGS FOR STRUCTURES TO BE ADJUSTED OR RECONSTRUCTED TO GRADE SHALL BE FIELD CHECKED AT THE TIME OF CONSTRUCTION AND MARKED SUITABLE FOR SALVAGE AND REUSE OR REPLACED AS DIRECTED BY THE ENGINEER UNLESS OTHERWISE INDICATED ON THE PLAN. REPLACEMENT CASTINGS ARE PAID UNDER ITEM SPECIAL - MISCELLANEOUS METAL.

THE ENGINEER WILL STIPULATE THE WORK REQUIRED FOR ITEM 611 BASED ON THE GUIDELINES STIPULATED BELOW:

- 1. ADJUST TO GRADE, AS PER PLAN SHALL INCLUDE ALL WORK SPECIFIED IN 611.10 AS NECESSARY TO RAISE THE EXISTING/NEW CASTING NO MORE THAN ONE (1) FOOT FROM ITS EXISTING ELEVATION OR TO LOWER THE EXISTING CASTING/NEW CASTING NO MORE THAN SIX (6) INCHES FROM ITS EXISTING ELEVATION. IN ADDITION, THIS WILL INCLUDE ANY SUPPORTING WALL REPAIR WORK NECESSARY, UP TO ONE (1) FOOT BELOW THE TOP OF THE EXISTING SUPPORTING WALL.

PAYMENT SHALL BE MADE UNDER THE APPROPRIATE STRUCTURE (ITEM 611) ADJUSTED TO GRADE.

- 2. RECONSTRUCT TO GRADE, AS PER PLAN SHALL INCLUDE ALL WORK SPECIFIED IN 611.10 AS NECESSARY AND SHALL ALSO INCLUDE EXISTING/NEW CASTINGS RAISED MORE THAN ONE (1) FOOT FROM THEIR EXISTING ELEVATION OR LOWERED MORE THAN SIX (6) INCHES FROM THEIR EXISTING ELEVATION. IN ADDITION, THIS WILL INCLUDE ANY SUPPORTING WALL REPAIR WORK NECESSARY, MORE THAN ONE (1) FOOT BELOW THE TOP OF THE EXISTING SUPPORTING WALL.

THE WORK LIMIT SHALL BE SPECIFIED BY THE ENGINEER AND PAYMENT SHALL BE MADE UNDER THE APPROPRIATE STRUCTURE (ITEM 611) RECONSTRUCTED TO GRADE.

NO MORE THAN ONE (1) OF THE ABOVE PAYMENT ITEMS SHALL BE USED PER STRUCTURE.

STRUCTURES ADJUSTED TO GRADE, RECONSTRUCTED TO GRADE OR REPLACED, AS PER PLAN (CONT.)

ADDITIONALLY, WHILE ADJUSTING OR RECONSTRUCTING DRAINAGE MANHOLES TO GRADE, THE CONTRACTOR SHALL ROTATE ALL CASTINGS AWAY FROM CONFLICTS WITH THE PROPOSED CURBS.

RECONSTRUCT TO GRADE, AS PER PLAN SHALL NOT BE PERFORMED UNLESS SPECIFICALLY INDICATED IN THE PLANS OR OTHERWISE ORDERED BY THE ENGINEER. ANY SUCH WORK MADE NECESSARY DUE TO THE CONTRACTOR'S NEGLIGENT OPERATIONS, AS DETERMINED BY THE ENGINEER, SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

TOPSOIL, SEEDING AND MULCHING REQUIRED ADJACENT TO CATCH BASIN OR INLET CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. SEEDING MIX SHALL CONFORM TO ODOT CMS 659.08 HIGH QUALITY SEEDS, CLASS 1.

AT LOCATIONS MARKED ON THE PLANS AND AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF IMPACTED SIDEWALK ADJACENT TO CATCH BASINS BEING ADJUSTED OR RECONSTRUCTED TO GRADE AT NO ADDITIONAL COST.

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

ITEM 611 - CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN	11 EACH
ITEM 611 - CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	4 EACH
ITEM 611 - INLET ADJUSTED TO GRADE, AS PER PLAN	10 EACH
ITEM 611 - MANHOLE ADJUSTED TO GRADE, AS PER PLAN	27 EACH
ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN	9 EACH
ITEM 638 - VALVE BOX ADJUSTED TO GRADE, AS PER PLAN	12 EACH

THE FOLLOWING QUANTITY IS PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION OF ITEM 611, DRAINAGE STRUCTURES.

ITEM 305 - 8" CONCRETE BASE, CLASS QC 1P

3 SY

ITEM 611 - INLET RECONSTRUCTED TO GRADE, AS PER PLAN

THIS ITEM OF WORK INCLUDES THE REMOVAL AND REPLACEMENT OF THE UPPER BOX SECTION OF THE PAVEMENT INLET (INCLUDING CONCRETE APRON) AS IDENTIFIED IN THE PLANS AND/OR DIRECTED BY THE ENGINEER.

ANY DEBRIS AND SEDIMENT INSIDE EXISTING PAVEMENT INLETS SHALL BE REMOVED ONCE THE UPPER BOX SECTION HAS BEEN REMOVED AND PRIOR TO THE PLACEMENT OF THE NEW UPPER BOX SECTION.

ALL COSTS AS DESCRIBED IN THE WORK ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID PER ITEM 611 - INLET RECONSTRUCTED TO GRADE, AS PER PLAN.

IN ADDITION TO THE PLAN ESTIMATED QUANTITIES, THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 611 - INLET RECONSTRUCTED TO GRADE, AS PER PLAN	4 EACH
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ITEM SPECIAL - MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. FURNISH MATERIALS PER 611 WITH PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM SPECIAL - MISCELLANEOUS METAL	20,000 POUNDS
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REPLACE EXISTING CASTINGS DAMAGED BY CONTRACTOR NEGLIGENCE, AS DETERMINED BY THE ENGINEER, AS THE EXPENSE OF THE CONTRACTOR

PAVEMENT

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY (WITH A UNIFORM THICKNESS OF 2.5 INCHES).

PART-WIDTH CONSTRUCTION

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

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

WHEN THIS ITEM IS CALLED FOR ON THE PLANS OR IN THE PROPOSAL, ALL APPLICABLE PROVISIONS OF ITEM 251, AS SET FORTH IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, SHALL APPLY EXCEPT AS MODIFIED HEREIN.

251.02 REMOVAL OF EXISTING PAVEMENT

APPROVED REMOVAL METHODS SHALL SATISFACTORILY ESTABLISH A NEAT VERTICAL FACE ALONG THE ENTIRE PERIMETER OF THE REPAIR AREA IN ORDER TO SUBSEQUENTLY PERMIT THE PROPER PLACEMENT AND COMPACTION OF THE ASPHALT CONCRETE PATCHING MATERIAL. THE PARTIAL DEPTH REPAIR WIDTH SHALL BE NO LESS THAN TWO (2) FEET. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, REMOVAL DEPTHS SHALL VARY FROM A ONE AND A HALF (1-1/2) MINIMUM TO A THREE (3) INCH MAXIMUM.

PARTIALLY EMBEDDED STEEL MESH EXPOSED SHALL BE WIRE-BRUSHED OR OTHERWISE CLEANED TO REMOVE ALL LOOSE RUST. LOOSENED OR TOTALLY EXPOSED WIRE MESH REINFORCING SHALL BE CUT AND REMOVED AS REQUIRED WITHOUT DISPLACEMENT OF DISRUPTION TO THE REINFORCEMENT AND/OR PAVEMENT TO REMAIN.

251.05 BASIS OF PAYMENT

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441), AS PER PLAN	736 SQ YD
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ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN

CONTRACTOR SHALL BEGIN PAVEMENT PLANING OPERATION AT CENTERLINE AT PAVEMENT AND THEN PLANE OFF ALL OF THE EXISTING ASPHALT ON TOP OF THE CONCRETE BASE IN ACCORDANCE WITH ITEM 254.

AT THE APPROACH SLABS, WHERE THERE IS MORE THAN 2.5" OF ASPHALT, THE CONTRACTOR SHALL PLANE OFF ALL OF THE EXISTING ASPHALT.

THE INTENT OF THE PLANING IS TO MILL THE SPECIFIED DEPTH ALONG THE CURB CONTINGENT ON THE FOLLOWING: THE MAXIMUM CROSS SLOPE SHALL BE 0.02 WHILE THE MINIMUM CROSS SLOPE SHALL BE 0.01. THE PREFERRED CROSS SLOPE IS 0.016. THE CROWN OF THE PAVEMENT SHALL BE LOCATED BETWEEN THE TRAVELED LANES, OR WHERE DETERMINED BY THE ENGINEER. THE MILLING DEPTH SHALL BE CONTROLLED FROM THE CURB, TO PRODUCE A CROSS SLOPE IN CONFORMANCE WITH THE ABOVE GUIDELINES. THE MINIMUM CURB REVEAL SHALL BE 4" PREFERRED AND 3" MINIMUM.

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

THE DURATION OF TIME BETWEEN PLANING THE ASPHALT AND PLACING THE INTERMEDIATE COURSE SHALL BE KEPT TO A MINIMUM. IN NO INSTANCE SHALL THE TIME EXCEED 30-CALENDAR DAYS. THE LIMIT SHALL BEGIN ON THE FIRST DAY OF PLANING, AND SHALL CONTINUE BASED ON CALENDAR DAYS, MINUS ANY BAD WEATHER DAYS, UNTIL COMPLETION OF THE ASPHALT CONCRETE INTERMEDIATE COURSE. THIS IS TO ENSURE THAT THE POTENTIAL DEGRADATION OF THE EXPOSED PAVEMENT DUE TO TRAFFIC IS KEPT TO A MINIMUM.

IN THE EVENT THAT THE TIME BETWEEN EXPOSING THE PAVEMENT AND PLACING THE ASPHALT INTERMEDIATE COURSE EXCEEDS 7-CALENDAR DAYS, LIQUIDATED DAMAGES AS PER 108.07 OF THE C&MS SHALL BE ASSESSED.

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

GENERAL NOTES

CUY-237-03.75

MODEL: G:\0018 DATE: 2/19/2024 TIME: 8:30:35 AM USER: Chris Dunlap P:\237-03-75 - Berea - SR 237 Resurfacing\113114\400-Engineering\Roadway\Sheets\23176_GN001.dwg

DESIGN AGENCY

CVE
CHAGRIN VALLEY ENGINEERING, LTD.
22999 FORBES ROAD, UNIT B
CLEVELAND, OHIO 44146
PHONE: (440) 439-1999
FAX: (440) 439-1969

DESIGNER

CJD

REVIEWER

CWP 10/09/23

PROJECT ID

113114

SHEET TOTAL

9 | 31

PAVEMENT (CONTINUED)

ITEM 254 - PAVEMENT PLANING, PORTLAND CEMENT CONCRETE, AS PER PLAN

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER, TO GRIND THE EXISTING CONCRETE BASE IN ORDER TO ACHIEVE A 3" MINIMUM CURB REVEAL:

ITEM 254 - PAVEMENT PLANING, PORTLAND CEMENT CONCRETE, AS PER PLAN 488 SQ YD

ITEM 254 - PATCHING PLANED SURFACE

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER, TO PATCH PLANED SURFACES THAT HAVE SPALLING OR DISLODGED UNSOUND PAVEMENT:

ITEM 254 - PATCHING PLANED SURFACE 736 SQ YD

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1, AS PER PLAN

WORK FOR THIS ITEM IS CALLED FOR ON THE PLANS. ALL APPLICABLE PROVISIONS FOR ITEM 255, AS SET FORTH IN THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATION, SHALL APPLY EXCEPT AS MODIFIED HEREIN AND AS OTHERWISE DETAILED OR SPECIFIED.

AFTER THE WEARING COURSE IS REMOVED, THE CONTRACTOR SHALL CLEAN THE MILLED/PLANED SURFACE FOR INSPECTION BY THE ENGINEER. THE ENGINEER SHALL IDENTIFY THE AREAS REQUIRING FULL DEPTH REMOVAL AND RIGID REPLACEMENT. THE FULL DEPTH RIGID PAVEMENT REMOVAL WORK SHALL INCLUDE THE REMOVAL OF DETERIORATED ASPHALT, BRICK, AND/OR CONCRETE PAVEMENT UNDER MILLED SURFACE, INCLUDING OLD UTILITY TRENCH AREAS AND OTHER PAVEMENT PATCH AREAS ALONG THE MAILING OF VARIOUS PAVEMENT COMPOSITIONS, REGARDLESS OF SHAPE OR SIZE. SEE DETAIL ON SHEET 5.

FULL DEPTH SAW CUTS SHALL BE MADE ALONG THE ENTIRE PERIMETER OF THE GENERALLY RECTANGULAR SHAPED REMOVAL AREAS, IN ORDER TO ESTABLISH NEAT VERTICAL FACES. THE COST OF ALL SAW CUTTING WORK SHALL BE CONSIDERED INCIDENTAL TO THIS PAY ITEM. THE CONTRACTOR SHALL USE APPROVED METHODS FOR REMOVAL OF THE FULL DEPTH PAVEMENT REPLACEMENT AREAS, THAT WILL MINIMIZE DAMAGE TO THE SURROUNDING AREA.

THE SUBGRADE SHALL BE CORRECTED PER 255.04 TAKING CARE TO THOROUGHLY COMPACT WITH PROPER MOISTURE CONTROL, USING TAMPERS OR ROLLERS AS NECESSARY TO ACHIEVE ACCEPTABLE COMPACTION. THE COST OF THIS SUBGRADE WORK IS INCLUDED WITH THIS PAY ITEM.

THE FULL DEPTH RIGID REPLACEMENT SHALL INCLUDE 203 EXCAVATION, 204 SUBGRADE COMPACTION, SAW CUTTING, REMOVAL OF ASPHALT, BRICK, CONCRETE BASE, AND SUBBASE, PLACEMENT OF NEW 304 AGGREGATE BASE (IF NECESSARY), DOWELS PER ODOT SCD BP-2.2, AND PLACEMENT OF A CONCRETE PAVEMENT BASE COURSE AS SHOWN ON SHEET 5. IN ADDITION TO CMS SPECIFICATIONS, NO SLAG OF ANY KIND IS PERMITTED FOR USE AS 304 AGGREGATE BASE. THE TOP OF THE CONCRETE SHALL BE CONSTRUCTED TO THE SAME DEPTH AS THE CONCRETE BASE SURROUNDING THE REPAIR AREA, USING DOWEL BARS. #5X TIE BARS SHALL BE REQUIRED, AS PER ODOT SCD BP-2.1. IN ADDITION, DOWELS SHALL BE REQUIRE, AS PER ODOT SCD BP-2.2. NO EXPANSION ANCHORS WILL BE PERMITTED.

FULL DEPTH REPAIRS 10 FEET OR LONGER MUST CONTAIN MESH REINFORCING.

THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1, AS PER PLAN 1,700 SQ YD

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (449), AS PER PLAN (PG70-22M)

THE COURSE AGGREGATE FOR THIS ITEM SHALL BE A BLEND OF 60% MIN. AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE.

RECYCLED MATERIAL USED IN THE SURFACE COURSE SHALL BE LIMITED TO A MAXIMUM OF 10%.

ASPHALT CONCRETE SURFACE COURSE SEALING REQUIREMENTS

IN ADDITION TO THE GUTTER SEALING REQUIREMENTS SPECIFIED IN SCD BP-3.1 AND C&MS 401.15, THE CONTRACTOR SHALL SEAL THE FOLLOWING LOCATIONS:

- ALL CASTINGS INCLUDING BUT NOT LIMITED TO MONUMENTS, MANHOLES, WATER VALVES, CATCH BASINS, CURB INLETS.
- BUTT JOINTS AND FEATHER JOINTS INCLUDING BRIDGE APPROACHES.
- FORWARD JOINT FOR DRIVEWAY ASPHALT AND TRAILING JOINT WHEN BUTTING TO EXISTING ASPHALT DRIVE.
- PERIMETER OF ALL PAVEMENT REPAIRS OR OTHER ASPHALT INLAYS WHEN THE REPAIR/INLAYS ARE NOT OVERLAID WITH AN ASPHALT CONCRETE SURFACE COURSE.
- ALL COLD TRANSVERSE CONSTRUCTION JOINTS PER 401.17.
- ALL COLD LONGITUDINAL JOINTS BETWEEN PAVED SHOULDERS AND GUARDRAIL ASPHALT.

THE MATERIAL USED SHALL BE A CERTIFIED 702.01 BINDER. THE WIDTH OF THE SEALER SHALL BE 2 INCHES.

ANY ADDITIONAL COSTS ASSOCIATED WITH THE WORK IDENTIFIED IN THIS NOTE SHALL BE INCLUDED IN THE APPROPRIATE ASPHALT CONCRETE SURFACE COURSE ITEM OF WORK.

ITEM 609 - CURB, TYPE 6, AS PER PLAN

ITEM 609 - CURB, TYPE 6, AS PER PLAN SHALL CONFORM TO ALL REQUIREMENTS OF ITEM 609 EXCEPT THAT THE NOSING OF THE PROPOSED CURB SHALL MATCH ADJACENT EXISTING CURBING.

CAST-IN-PLACE CONCRETE SHALL BE PROVIDED IN ACCORDANCE WITH THE ODOT CMS, EXCEPT THE MINIMUM CEMENT CONTENT OF THE MIX SHALL BE 650 LBS. PER CUBIC YARD.

TOPSOIL, SEEDING AND MULCHING AND LINEAR GRADING REQUIRED ADJACENT TO CURB CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. SEEDING MIX SHALL CONFORM TO ODOT CMS 659.09-1 HIGH QUALITY SEEDS, CLASS 1.

THE FOLLOWING CONTINGENCY QUANTITY IS CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER TO REPLACE CURB.

ITEM 609 - CURB, TYPE 6, AS PER PLAN 1,876 FT

PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION AND/OR REMOVAL OF PIPES.

ITEM 305 - 8" CONCRETE BASE, CLASS QC 1P

3 SY

THE ABOVE QUANTITY IS BASED ON A 305 THICKNESS OF 8 INCHES AND A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

ITEM 451 - REINFORCED CONCRETE PAVEMENT, MISC.: 6" REINFORCED CONCRETE PAVEMENT, CLASS QC MS

THE PROPOSED LOCATIONS AND LIMITS OF DRIVE AND/OR DRIVE APRON REMOVALS/REPLACEMENTS ARE AS SHOWN ON THE PLANS.

IN ADDITION TO THE REQUIREMENTS OF 451, ALL CONCRETE FOR DRIVES AND WALKS SHALL HAVE RETRACED PICTURE FRAME TOOLED EDGE JOINTS OR AS DIRECTED BY THE ENGINEER FOR DRIVE APRON REPLACEMENTS.

THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE DESIGNATED PORTIONS OF EXISTING DRIVES AND/OR DRIVE APRONS PER 202.05 OR 203.04(E), AS APPLICABLE, AND BY METHODS THAT WILL NOT DISTURB, DAMAGE OR UNDERMINE THE ADJACENT PAVEMENT, CURB, SIDEWALK OR THE PORTIONS OF EXISTING DRIVES/DRIVE APRONS INTENDED TO REMAIN IN PLACE. ANY ADJACENT FACILITIES DAMAGED AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE, AS DETERMINED BY THE ENGINEER, AND WHICH ARE NOT OTHERWISE DESIGNATED FOR REPLACEMENT, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE, ALL AT THE DIRECTION OF THE ENGINEER.

THE CONTRACTOR SHALL STAGE HIS/HER OPERATIONS SUCH THAT THE MAXIMUM OUT OF SERVICE TIME FOR ANY RESIDENTIAL DRIVE IS FORTY-EIGHT (48) HOURS. THE CONTRACTOR SHALL NOTIFY EACH RESIDENT OF ANY RESTRICTED ACCESS TO THEIR PROPERTY NO LATER THAN ONE (1) WEEK IN ADVANCE. ACCESS TO COMMERCIAL AND HANDICAP PROPERTY SHALL BE MAINTAINED AT ALL TIMES.

TOPSOIL, SEEDING, AND MULCHING REQUIRED ADJACENT TO DRIVE APRON CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. SEEDING MIX SHALL CONFORM TO ODOT CMS 659.08, CLASS 1.

ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, MISC.: SURCHARGE FOR CLASS MS CONCRETE

AT VARIOUS LOCATIONS ALONG THE CORRIDOR AND TIMES DURING CONSTRUCTION CIRCUMSTANCES MAY REQUIRE THE USE OF CLASS MS CONCRETE. THE USE OF MS CONCRETE SHALL BE AT THE DISCRETION AND DIRECTION OF THE ENGINEER AND THE SPECIFICATIONS OUTLINED IN THESE NOTES. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, MISC.: SURCHARGE FOR CLASS MS CONCRETE 450 SY

CUY-237-03.75

MODEL: GN001C DATE: 2/19/2024 TIME: 8:30:35 AM USER: Chris Dunlap P:\237176 - Berea - SR 237 Resurfacing\113114\400-Engineering\Roadway\Sheets\23176_GN001.dwg

GENERAL NOTES

DESIGN AGENCY



CHAGRIN VALLEY ENGINEERING, LTD.
22999 FORBES ROAD, UNIT B
CLEVELAND, OHIO 44146
PHONE: (440) 439-1999
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DESIGNER
CJD

REVIEWER
CWP 10/09/23

PROJECT ID
113114


SHEET TOTAL
10 | 31

CUY-237-03.75

MODEL: G5001 DATE: 2/19/2024 TIME: 8:30:37 AM USER: Chris Dunlap
P:\237-Resurfacing\113114\400-Engineering\Roadway\Sheets\23176_G5001.dwg

SHEET NUM.												PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.	
8	9	10	11	14	15	18	19	20				01/MPO/05	EXT	TOTAL					
						115		44					159	202	23000	159	SY	ROADWAY	
2,261							27						2,288	202	30001	2,288	SF	PAVEMENT REMOVED	8
1,822													1,822	202	32001	1,822	FT	WALK REMOVED, AS PER PLAN	8
							40						40	202	75000	40	FT	CURB REMOVED, AS PER PLAN	8
LUMP													LUMP	202	98000	LS	FT	FENCE REMOVED	8
							3						3	203	10000	3	CY	REMOVAL MISC.: MURPHY TRAFFIC ISLAND REMOVED	8
						24	4						28	203	20000	28	CY	EXCAVATION	
								39					39	204	10000	39	SY	EMBANKMENT	
661							560						1,221	608	10001	1,221	SF	SUBGRADE COMPACTION	8
1,872													1,872	608	52001	1,872	SF	4" CONCRETE WALK, AS PER PLAN	8
																		CURB RAMP, AS PER PLAN	
150													150	608	53021	150	SF	DETECTABLE WARNING, AS PER PLAN	8
9							1						10	623	39501	10	EACH	MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN	8
1													1	623	40001	1	EACH	MONUMENT ASSEMBLY REMOVED AND RESET, AS PER PLAN	8
																		EROSION CONTROL	
2													2	659	00100	2	EACH	SOIL ANALYSIS TEST	8
16													16	659	00300	16	CY	TOPSOIL	8
139													139	659	10000	139	SY	SEEDING AND MULCHING	8
7													7	659	14000	7	SY	REPAIR SEEDING AND MULCHING	8
7													7	659	15000	7	SY	INTER-SEEDING	8
0.02													0.02	659	20000	0.02	TON	COMMERCIAL FERTILIZER	8
0.03													0.03	659	31000	0.03	ACRE	LIME	8
1													1	659	35000	1	MGAL	WATER	8
11,748													11,748	832	30001	11,748	EACH	EROSION CONTROL, AS PER PLAN	8
																		DRAINAGE	
							69						69	605	11110	69	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
							20						20	611	00510	20	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
							26						26	611	04400	26	FT	12" CONDUIT, TYPE B	
							2						2	611	98180	2	EACH	CATCH BASIN, NO. 3A	
	11												11	611	98631	11	EACH	CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN	9
	4												4	611	98635	4	EACH	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	9
	10												10	611	99151	10	EACH	INLET ADJUSTED TO GRADE, AS PER PLAN	9
	4												4	611	99155	4	EACH	INLET RECONSTRUCTED TO GRADE, AS PER PLAN	9
							1						1	611	99574	1	EACH	MANHOLE, NO. 3	9
	27												27	611	99655	27	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	9
	9												9	611	99661	9	EACH	MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN	9
	20,000												20,000	SPECIAL	61199820	20,000	LB	MISCELLANEOUS METAL	9
																		PAVEMENT	
	736												736	251	01001	736	SY	PARTIAL DEPTH PAVEMENT REPAIR (441), AS PER PLAN	9
						14,367							14,367	254	01001	14,367	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (2.5" UNIFORM PLANING)	9
						345							345	254	01001	345	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (VARIES 2.75" TO 3.75")	9
						77							77	254	01011	77	SY	PAVEMENT PLANING, PORTLAND CEMENT CONCRETE, AS PER PLAN (2.5" UNIFORM PLANING)	10
		488											488	254	01011	488	SY	PAVEMENT PLANING, PORTLAND CEMENT CONCRETE, AS PER PLAN (VARIES, 0.5" TYPICAL)	10
		736											736	254	01600	736	SY	PATCHING PLANED SURFACE	
		1,700											1,700	255	10011	1,700	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1, AS PER PLAN	10
	3	3											6	305	12010	6	SY	8" CONCRETE BASE, CLASS QC 1P	
						1							1	304	20000	1	CY	AGGREGATE BASE	
						1,039							1,039	407	13900	1,039	GAL	TACK COAT, 702.13	
						820							820	407	20000	820	GAL	NON-TRACKING TACK COAT	
						521							521	441	70100	521	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M	
						528							528	441	70200	528	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449)	
								31					31	451	20000	31	SY	REINFORCED CONCRETE PAVEMENT, MISC.: 6" REINFORCED CONCRETE PAVEMENT, CLASS QC MS	10
		450											450	452	19200	450	SY	NON-REINFORCED CONCRETE PAVEMENT, MISC.: SURCHARGE FOR CLASS MS CONCRETE	10
		1,876						92					1,968	609	26001	1,968	FT	CURB, TYPE 6, AS PER PLAN	10
													0.42	874	21000	0.42	MILE	LONGITUDINAL JOINT PREPARATION	
																		WATER WORK	
	12							1					13	638	10801	13	EACH	VALVE BOX ADJUSTED TO GRADE, AS PER PLAN	9

GENERAL SUMMARY

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