

**ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E**

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

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE J, ASTM D4956 TYPE XI REFLECTIVE SHEETING, PER CMS 730.193.

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

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

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

**ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 9, AS PER PLAN**

THIS ITEM SHALL CONSIST OF CONSTRUCTING A COMBINATION CURB AND GUTTER, TYPE 9, AS PER PLAN AT THE LOCATIONS SHOWN IN THE PLANS. ALL REQUIREMENTS FOR ITEM 609 SHALL APPLY IN ADDITION TO THE FOLLOWING:

THE CURB AND GUTTER SHALL BE CONSTRUCTED AS DETAILED ON SHEET P.07.

PAYMENT SHALL BE AT THE UNIT PRICE BID, FEET, FOR ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 9, AS PER PLAN. THE UNIT BID PRICE SHALL INCLUDE ALL LABOR, MATERIALS AND ALL PERTINENT ITEMS NEEDED TO PERFORM THE REQUIRED WORK.

**ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN**

THIS ITEM SHALL CONSIST OF CONSTRUCTING A COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN AT THE LOCATIONS SHOWN IN THE PLANS. ALL REQUIREMENTS FOR ITEM 609 SHALL APPLY IN ADDITION TO THE FOLLOWING:

THE CURB AND GUTTER SHALL BE CONSTRUCTED AS DETAILED ON SHEET P.07.

PAYMENT SHALL BE AT THE UNIT PRICE BID, FEET, FOR ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN. THE UNIT BID PRICE SHALL INCLUDE ALL LABOR, MATERIALS AND ALL PERTINENT ITEMS NEEDED TO PERFORM THE REQUIRED WORK.

**VEGETATED FILTER STRIP**

THIS PLAN UTILIZES VEGETATED FILTER STRIP(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AND ITEM 670, SLOPE EROSION PROTECTION TO ALL DISTURBED AREAS DESIGNATED AS VEGETATED FILTER STRIPS, THE EDGE OF SHOULDER, AND THE FORESLOPE AS SPECIFIED IN THE PLANS.

**ITEM 203 - ROADWAY, MISC.: TRASH RECEPTACLE**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A TRASH RECEPTACLE, AS PRESCRIBED BELOW, OR AN APPROVED EQUAL, AT THE LOCATIONS SHOWN IN THE PLANS.

THE CONTRACTOR SHALL HANDLE AND INSTALL THE TRASH RECEPTACLE AS PER THE MANUFACTURE'S RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS. FOR MORE PRODUCT INFORMATION, SEE BELOW.

MANUFACTURE: DuMOR, INC.  
MODEL #107-32, 32-GALLON STEEL RECEPTACLE 186lbs  
COLOR: JUNIPER GREEN

FOR FURTHER RECEPTACLE INFORMATION, SEE THE FOLLOWING WEBSITE; <https://dumor.com/products/receptacles/receptical-84>

PAYMENT SHALL BE AT THE UNIT PRICE BID, EACH, FOR ITEM ROADWAY, MISC.: TRASH RECEPTACLE. THE UNIT BID PRICE SHALL INCLUDE ALL LABOR, MATERIALS AND PERTINENT ITEMS NEEDED TO PERFORM THE ABOVE REQUIRED WORK.

**ITEM 203 - ROADWAY, MISC.: PARK BENCH**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A PARK BENCH AS PRESCRIBED BELOW, OR AN APPROVED EQUAL, AT THE LOCATIONS SHOWN IN THE PLANS.

THE CONTRACTOR SHALL HANDLE AND INSTALL THE PARK BENCH AS PER THE MANUFACTURE'S RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS. SEE BELOW FOR FURTHER PRODUCT INFORMATION.

MANUFACTURE: DuMOR, INC.  
MODEL #119-60  
6' CAST BENCH, STEEL SEAT, 2 ARMS  
COLOR: JUNIPER GREEN

FOR FURTHER PARK BENCH INFORMATION, SEE THE FOLLOWING WEBSITE; <https://dumor.com/products/bench-119>

PAYMENT SHALL BE AT THE UNIT PRICE BID, EACH, FOR ITEM ROADWAY, MISC.: PARK BENCH. THE UNIT BID PRICE SHALL INCLUDE ALL LABOR, MATERIALS AND PERTINENT ITEMS NEEDED TO PERFORM THE ABOVE REQUIRED WORK.

**PIPE CONNECTIONS TO CORRUGATED METAL STRUCTURES**  
PROVIDE CONNECTIONS OF PROPOSED LONGITUDINAL DRAINAGE TO CORRUGATED METAL STRUCTURES BY MEANS OF A SHOP FABRICATED OR FIELD WELDED STUB ON THE STRUCTURE. FURNISH A STUB MEETING THE REQUIREMENTS OF 707 WITH A MINIMUM LENGTH OF 2 FEET AND A MINIMUM WALL THICKNESS OF 0.064 INCHES.

THE LOCATION AND ELEVATION OF THE STUB ARE TO BE CONSIDERED APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER TO AVOID CUTTING THROUGH JOINTS IN THE STRUCTURE.

THOROUGHLY CLEAN AND REGALVANIZE OR OTHERWISE SUITABLY REPAIR THE FIELD WELDED JOINT, IF USED. MEET WELDING REQUIREMENTS OF 513.21.

PROVIDE A MASONRY COLLAR PER STANDARD CONSTRUCTION DRAWING DM-1.1, TO CONNECT THE LONGITUDINAL DRAINAGE TO THE STUB, WHEN PIPE OTHER THAN CORRUGATED METAL IS USED FOR THE LONGITUDINAL DRAINAGE.

PAYMENT FOR CUTTING INTO THE STRUCTURE AND PROVIDING THE CONNECTION DESCRIBED, IS INCLUDED IN THE CONTRACT PRICE FOR ITEM 611 OR 522.

**ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, MISC.: 8" CONCRETE SLAB, STAMPED AND INTEGRALLY COLORED**

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF A CONCRETE SLAB, EXTERIOR AND INTERIOR TRUCK APRONS STAMPED AND INTEGRALLY COLORED, AT THE LOCATIONS SHOWN IN THE PLANS. ALL REQUIREMENTS AND SPECIFICATIONS FOR ITEM 452 SHALL APPLY IN ADDITION TO THE FOLLOWING:

THE CONCRETE SLABS SHALL BE INSTALLED FOLLOWING THE INSTRUCTIONS FROM THE STAMPED COLORED CONCRETE PATTERN AND PIGMENT MANUFACTURER.

CONCRETE COLORANT SHALL BE INTEGRALLY ADDED TO THE CONCRETE TO PRODUCE THE FOLLOWING COLORS, FOUND ON [WWW.FEDERALSTANDARDCOLOR.COM](http://WWW.FEDERALSTANDARDCOLOR.COM): SLAB/BASE - #10115, RELEASE - #10055, AND HARDENER - #33275. THE CONTRACTOR SHALL SUBMIT THE TECHNICAL DATA AND COLOR SAMPLES OF EACH PIGMENT TO THE ENGINEER FOR APPROVAL NO LESS THAN 14 DAYS PRIOR TO USE. THE CONTRACTOR SHALL SUBMIT A TEST PATTERN TO THE VILLAGE FOR APPROVAL NO LESS THAN 45 DAYS PRIOR TO BEGINNING WORK. NO WORK SHALL PROCEED WITHOUT THE WRITTEN APPROVAL OF THE VILLAGE AND ENGINEER. THE LIQUID COLORANTS SHALL CONFORM TO ASTM C979.

THE PATTERN FOR THE STAMPED SURFACE SHALL CONFORM TO A RUNNING BOND STAMPED BRICK PATTERN AND SHALL PRODUCE A SIMULATED BRICK PATTERN AND TEXTURE. FOR THE CENTER ISLAND OF THE ROUNDABOUT, THIS PATTERN SHALL TAKE THE FORM OF CONCENTRIC CIRCLES, WITH LONGITUDINAL EDGES OF "BRICKS" ORIENTED PARALLEL TO ADJACENT CURB. FOR THE EXTERIOR APRONS, THE PATTERN SHALL BE ORIENTED SO THAT LONGTUDINAL EDGES OF "BRICK" ARE PARALLEL TO ADJACENT CURB. FOR SPLITTER ISLANDS, THE PATTERN SHALL BE ORIENTED SO THE LONGTUDINAL EDGES OF "BRICK" ARE PERPENDICULAR TO THE CENTER ISLAND. THE "BRICK" SHALL HAVE A STANDARD DIMENSION OF 4 INCH x 8 INCH.

RADIAL JOINTS HAVING A DEPTH OF 8 INCHES SHALL BE SAWED AT 18 FOOT SPACING WITHIN 24 HOURS OF CONCRETE PLACEMENT FOR THE INTERIOR TRUCK APRON (CENTRAL TRUCK ISLAND).

RADIAL JOINTS HAVING A DEPTH OF 8 INCHES SHALL BE SAWED AT 4 FOOT SPACING WITHIN 24 HOURS OF CONCRETE PLACEMENT FOR THE EXTERIOR TRUCK APRONS.

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE NOT BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER JOINT LAYOUT PLANS FOR BOTH THE INTERIOR AND EXTERIOR TRUCK APRONS 14 DAYS PRIOR TO BEGINNING OF WORK. NO WORK SHALL PROCEED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.

AFTER THE ABOVE WORK HAS BEEN COMPLETED, THE CONTRACTOR SHALL APPLY AN ACRYLIC BASED CONCRETE SEALER AND CURING AGENT. THE SEALER SHALL HAVE A MEDIUM TO HIGH GLOSS AND BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT THE BRAND NAME AND TECHNICAL DATA FOR THE CONCRETE SEALER TO THE ENGINEER FOR APPROVAL NO LESS THAN 14 DAYS PRIOR TO USE. THE CONTRACTOR SHALL SUBMIT A TEST PATTERN TO THE VILLAGE FOR APPROVAL NO LESS THAN 45 DAYS PRIOR TO BEGINNING WORK.

PAYMENT SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, MISC.: 8" CONCRETE SLAB STAMPED AND INTEGRALLY COLORED. THE UNIT BID PRICE SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND ALL PERTINENT ITEMS NEEDED TO PERFORM THE ABOVE WORK.

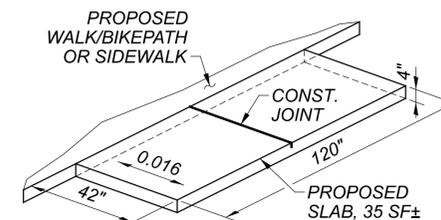
**ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, MISC.: 4" CONCRETE SLAB FOR THE INSTALLATION OF A PARK BENCH AND TRASH RECEPTACLE**

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF A CONCRETE SLAB, AT THE LOCATIONS SHOWN IN THE PLANS, FOR THE INSTALLATION OF A PROPOSED PARK BENCH AND TRASH RECEPTACLE.

ALL REQUIREMENTS AND SPECIFICATIONS FOR ITEM 452 SHALL APPLY.

THE SLAB SHALL BE 42" WIDE x 120" LONG x 4" THICK. A CONSTRUCTION JOINT SHALL BE PLACED IN THE MIDDLE OF THE SLAB OR AS APPROVED BY THE ENGINEER. THE LOCATION OF THE SLAB SHALL BE APPROVED BY THE ENGINEER, SEE PLAN SHEETS FOR LOCATIONS.

PAYMENT SHALL BE AT THE UNIT PRICE BID, SQUARE FEET, FOR ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, MISC.: 4" CONCRETE SLAB FOR THE INSTALLATION OF A PARK BENCH AND TRASH RECEPTACLE. THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR AND ALL PERTINENT ITEMS NEEDED TO PERFORM THE REQUIRED WORK.



**PARK BENCH AND TRASH RECEPTACLE  
SLAB DETAIL**  
NOT TO SCALE

**ITEM 611 - CATCH BASIN NO. 3, AS PER PLAN**

THIS ITEM SHALL CONTAIN, IN PLACE OF THE CASTING SHOWN IN SCD CB-2.1, A MOUNTABLE CASTING (NEENAH HEAVY DUTY GRATE R-3504-F OR APPROVED EQUAL).

PAYMENT SHALL BE AT THE UNIT PRICE BID, EACH, FOR ITEM 611 - CATCH BASIN NO. 3, AS PER PLAN, AND SHALL INCLUDE ALL LABOR, MATERIALS, AND PERTINENT ITEMS TO PERFORM THE REQUIRED WORK.

**ITEM 611 - CATCH BASIN NO. 3A, AS PER PLAN**

THIS ITEM SHALL CONTAIN, IN PLACE OF THE CASTING SHOWN IN SCD CB-2.1, A MOUNTABLE CASTING (NEENAH HEAVY DUTY GRATE R-3504-F OR APPROVED EQUAL).

PAYMENT SHALL BE AT THE UNIT PRICE BID, EACH, FOR ITEM 611 - CATCH BASIN NO. 3A, AS PER PLAN, AND SHALL INCLUDE ALL LABOR, MATERIALS, AND PERTINENT ITEMS TO PERFORM THE REQUIRED WORK.

**ITEM 608 - CURB RAMP, AS PER PLAN**

THIS WORK SHALL CONSIST OF CONSTRUCTING A CONCRETE CURB RAMP AT LOCATIONS SHOWN IN THE PLANS. ALL REQUIREMENTS FOR ITEM 608 SHALL APPLY IN ADDITION TO THE FOLLOWING:

THE CURB RAMP SLABS SHALL BE 8 INCHES IN THICKNESS. FOR ADDITIONAL CURB RAMP INFORMATION SEE SCD BP-7.1 AND THE C&MS, CURRENT YEAR, SECTION 608.

PAYMENT SHALL BE AT THE UNIT PRICE BID PER SQUARE FOOT FOR ITEM 608 - CURB RAMP, AS PER PLAN. THE UNIT BID PRICE SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND PERTINENT ITEMS NEEDED TO PERFORM THE ABOVE WORK.

NOTE: FOR LIST OF ABBREVIATIONS, SEE SHEET P.10.

**ITEM 614, MAINTAINING TRAFFIC**

THROUGH TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ALONG SR 661 BY THE USE OF PART WIDTH CONSTRUCTION AS SHOWN ON SHEETS P.16 - P.21. ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND TOOLS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLANS.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON NEW BURG STREET (TR 109), EXCEPT FOR A PERIOD NOT TO EXCEED 75 CONSECUTIVE CALENDAR DAYS (CORRESPONDING WITH PHASES 2 & 3 OF CONSTRUCTION), WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET P.11. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$ 10,000 PER DAY FOR EACH CALENDAR DAY NEW BURG STREET (TR 109) REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

NO WORK SHALL BE PERFORMED DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	LABOR DAY
NEW YEAR'S	THANKSGIVING
EASTER	DENISON UNIVERSITY MOVE-IN WEEKEND (8/24/24 - 8/25/24)
MEMORIAL DAY	GRANVILLE SCHOOLS FIRST DAY OF SCHOOL (8/21/24)
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 (PN 127).

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 [DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.]

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLAT SHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.]

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. THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

**ITEM 614, MAINTAINING TRAFFIC (CONTINUED)**

NOTICE OF CLOSURE SIGN TIME TABLE

ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
ROAD CLOSURES	> 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 "MM-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 SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES.

THE CONTRACTOR SHALL MAINTAIN SAFE AND ADEQUATE DRIVEWAYS IN ORDER TO PROVIDE CONTINUOUS ACCESS FOR PASSENGER VEHICLES, TRUCKS, AND SAFETY EQUIPMENT TO ALL ADJOINING PROPERTIES.

THE CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE STRUCTURES WITHIN THE WORK AREA, AS DETERMINED BY THE ENGINEER, TO PROMOTE POSITIVE FLOW THROUGHOUT THE CONSTRUCTION PROJECT. PROPOSED DRAINAGE STRUCTURES, PARTIALLY INSTALLED, SHALL BE PROTECTED. ONCE COMPLETED THE CONTRACTOR SHALL MAINTAIN THE STRUCTURE TO PROMOTE POSITIVE FLOW.

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

ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE A OR B	10 CU YD
ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE C	10 CU YD
ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	10 CU YD
ITEM 615, ROADS FOR MAINTAINING TRAFFIC	LS

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

**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.

**DETOUR ROUTE MAINTENANCE**

ONCE EACH DETOUR IS REMOVED AND TRAFFIC IS RETURNED TO ITS NORMAL PATTERN, THE LOCAL ROUTES THAT WERE PART OF THE DETOUR SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL WORK WILL BE AS AGREED BY INVOLVED PARTIES.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DETOUR ROUTES:

301, ASPHALT CONCRETE BASE, PG 64-22 (449)	9 CU. YD.
304, AGGREGATE BASE	14 CU. YD.
407, NON-TRACKING TACK COAT	6 GAL.
441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG 64-22	6 CU. YD.
441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)	3 CU. YD.
642, CENTER LINE, TYPE 1	0.10 MILE
642, EDGE LINE 4", TYPE 1	0.20 MILE

**ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARD (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 ATTENUATOR'S, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

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

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

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

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

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

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, 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 PORTABLE BARRIER**

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

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

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND CONCRETE PERMANENT BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE UNDER EITHER OF THE FOLLOWING CONDITIONS: ALONG TAPERS AND TRANSITION AREAS; OR ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.

**DELINEATION OF PORTABLE AND PERMANENT BARRIER (CONTINUED)**

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.

DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE "CRIMPED." PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT-101.70.

TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO CMS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.

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

ITEM 614, BARRIER REFLECTOR, TYPE 1 (BI-DIRECTIONAL)	30 EACH
ITEM 614, OBJECT MARKER, TWO-WAY	30 EACH
ITEM 614, INCREASED BARRIER DELINEATION	1650 FEET

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

**OVERNIGHT TRENCH CLOSING**

THE BASE WIDENING SHALL BE COMPLETED AS INDICATED IN SCD MT-101.90 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.

**REMOVAL OF CONFLICTING PAVEMENT MARKINGS**

THE REMOVAL OF CONFLICTING PAVEMENT MARKINGS SHALL BE AT LOCATIONS, BUT NOT LIMITED TO THE MOT PLANS. THE REMOVALS SHALL BE AS PER SECTION 614.11 G, CONFLICTING MARKINGS OF THE CMS, CURRENT YEAR.

ITEMS TO BE DISPOSED OF SHALL BE DONE SO AS PER SECTIONS 105.16 AND 105.17 OF THE CURRENT YEAR, CM&S.

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO PERFORM THE ABOVE WORK.

**DUST CONTROL**

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

ITEM 616, WATER	20 M GAL
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SHEET NUM.										PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.12	P.13	P.28	P.29	P.30	P.31	P.32	P.86	P.95		01/CMQ/04/GRAN	02/NFP/28/GRAN						
					1					1		625	75520	1	EACH	<b>LIGHTING CONTINUED</b>	
					1					1		625	75800	1	EACH	DISCONNECT CIRCUIT	
							20			20		621	54000	20	EACH	<b>TRAFFIC CONTROL</b>	
			291	22						313		630	03100	313	FT	RAISED PAVEMENT MARKER REMOVED	
			25	2						27		630	08601	27	EACH	GROUND MOUNTED SUPPORT, NO. 3 POST	P.86
			226	24						250		630	80100	250	SF	SIGN POST REFLECTOR, AS PER PLAN	
				23						23		630	84900	23	EACH	SIGN, FLAT SHEET	
																REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
			1	1						2		630	85100	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
				13						13		630	86002	13	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
			6							6		630	97700	6	EACH	SIGNING, MISC.: SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY	P.86
0.2										0.2		642	00100	0.2	MILE	EDGE LINE, 4", TYPE 1	
0.1										0.1		642	00300	0.1	MILE	CENTER LINE, TYPE 1	
		0.55								0.55		644	00104	0.55	MILE	EDGE LINE, 6"	
		0.32								0.32		644	00300	0.32	MILE	CENTER LINE	
		176								176		644	00630	176	FT	CROSSWALK LINE, 24"	
		262								262		644	00700	262	FT	TRANSVERSE/DIAGONAL LINE	
		3								3		644	01300	3	EACH	LANE ARROW	
		106								106		644	01510	106	FT	DOTTED LINE, 6"	
		50								50		644	20800	50	FT	YIELD LINE	
								6		6		661	20080	6	EACH	<b>LANDSCAPING</b>	
								1		1		661	40120	1	EACH	DECIDUOUS SHRUB, 4' HEIGHT/4' HEIGHT, (RHUS AROMATICA)	
								120		120		661	99930	120	SY	DECIDUOUS TREE, 3" CALIPER 3" CALIPER, (CRATAEGUS CRUS-GALLI VAR. INERMIS)	P.93
								67		67		662	31000	67	GAL	PLANTING, MISC.: 10" WASHED RIVER STONE MULCH	
																LANDSCAPE WATERING	
																<b>MAINTENANCE OF TRAFFIC</b>	
10										10		410	12000	10	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
10										10		410	13000	10	CY	TRAFFIC COMPACTED SURFACE, TYPE C	
	120									120		614	11110	120	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
						4				4		SPECIAL	61411300	4	EACH	WORK ZONE TRAFFIC SIGNAL	P.14
1,650										1,650		614	11630	1,650	FT	INCREASED BARRIER DELINEATION	
						8				8		614	12380	8	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
10										10		614	13000	10	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
30										30		614	13310	30	EACH	BARRIER REFLECTOR, TYPE 1 (BI-DIRECTIONAL)	
	10									10		614	13314	10	EACH	BARRIER REFLECTOR, TYPE 3 (BI-DIRECTIONAL)	
30	10									40		614	13360	40	EACH	OBJECT MARKER, TWO WAY	
										12		614	18601	12	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	P.13
						0.82				0.82		614	22110	0.82	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
						53				53		614	26200	53	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
						412				412		615	25000	412	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	
LS										LS		615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
20										20		616	10000	20	MGAL	WATER	
						1,650				1,650		622	41100	1,650	FT	PORTABLE BARRIER, UNANCHORED	
						2				2		809	69100	2	EACH	STOP LINE RADAR DETECTION	
										LS		614	11000	LS		<b>INCIDENTALS</b>	
										6		619	16010	6	MNTH	MAINTAINING TRAFFIC	
										LS		623	10000	LS		FIELD OFFICE, TYPE B	
										LS		624	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
																MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY  
  
 DESIGNER  
 JBT/AJV  
 REVIEWER  
 JAH 08/14/23  
 PROJECT ID  
 112799  
 SHEET TOTAL  
 P.24 111