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

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

ELECTRIC
DUKE ENERGY - ELECTRIC
2010 DANA AVE
CINCINNATI, OH 45207
CHRIS TEPE
513.458.3855
CHRIS.TEPE@DUKE-ENERGY.COM

GAS
DUKE ENERGY - GAS
139 E. FOURTH ST
RM 460A
CINCINNATI, OH 45202
JESSE ORTH
513.419.1525
JESSE.ORTH@DUKE-ENERGY.COM

TELECOM
FRONTIER COMMUNICATIONS
241 S. NELSON AVE.
WILMINGTON, OH 45177
DAVID LONGWORTH
937.283.5735
DAVID.M.LONGWORTH@FTR.COM

CHARTER COMMUNICATIONS
10920 KENWOOD RD
CINCINNATI, OH 45242
MR. JOSEPH ANGEL
513.233.5705
JOSEPH.ANGEL@CHARTER.COM

WATER, SEWER AND STORM
VILLAGE OF MT. ORAB
211 SOUTH HIGH STREET
P.O. BOX 466
ERIC STEPHAN
937.444.2657
ESTEPHAN@MTORABOH.US

CABLE TV
S BRYER CABLE TV
P.O. BOX 92
MUNCY VALLEY, PA 17758
SBRYERCABLE@GMAIL.COM
MATT BRYER 814-573-4382

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

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

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

PROJECT CONTROL
POSITIONING METHOD: ODOT VRS
MONUMENT TYPE: IRON PINS & MAGS

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID 18

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD 83 (2011)
ELLIPSOID: GRS88

OHIO STATE PLANE, SOUTH ZONE (3402)
SCALE FACTOR: 1.000085450

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

UNITS ARE IN U.S. SURVEY FEET.

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

CLEARING AND GRUBBING
ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

ITEM 204 - PROOF ROLLING
THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 - PROOF ROLLING, SEE SHEET NO35 36

ADDITIONAL SOIL INFORMATION
THE SOIL PROFILE AND/OR STRUCTURE FOUNDATION INVESTIGATIONS SHEETS CONTAIN ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN.

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

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

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

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

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 APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT 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

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 611 CONDUIT ITEMS.

MANHOLES, CATCH BASINS AND INLETS REMOVED OR ABANDONED
ALL CASTINGS SHALL BE CAREFULLY REMOVED AND STORED WITHIN THE RIGHT OF WAY FOR SALVAGE BY (STATE) (CITY) (VILLAGE) (COUNTY) FORCES.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 ITEM.

EXISTING SUBSURFACE DRAINAGE
PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE.

UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

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

601, TIED CONCRETE BLOCK MAT, TYPE 1 10 SQ. YD.
605, AGGREGATE DRAINS 80 FT.
611 4" CONDUIT, TYPE F 120 FT.
611, PRECAST REINFORCED CONCRETE OUTLET 4 EACH
605 4" UNCLASSIFIED PIPE UNDERDRAINS 160 FT.

TEMPORARY DRAINAGE ITEMS
TEMPORARY DRAINAGE ITEMS LABELED ON THE MAINTENANCE OF TRAFFIC PLAN ARE ITEMIZED ON THE MOT PLANS. PAYMENT FOR THE TEMPORARY DRAINAGE ITEMS ARE ITEMIZED AND CARRIED TO THE GENERAL SUMMARY.

SEEDING AND MULCHING

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

659, SOIL ANALYSIS TEST 1 EACH
659, TOPSOIL
659, SEEDING AND MULCHING
659, REPAIR SEEDING AND MULCHING
659, INTER-SEEDING
659, COMMERCIAL FERTILIZER
659, LIME
659, WATER

VALUES OF THESE QUANTITIES NOT NOTED ABOVE CAN BE FOUND ON SHEET NO.40

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

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.

CALCULATED LDW CHECKED JWL

GENERAL NOTES

BRO-68-30.82

BRO-68-30.82 MOT SEQUENCE OF CONSTRUCTION

CONSTRUCTION OF THE ROUNDABOUT (INCLUDING WIDENING OF US 68 NORTHBOUND) AND STERLING RUN SHALL OCCUR SIMULTANEOUSLY TO ENSURE CONSTRUCTION IS CONTAINED WITHIN ONE CONSTRUCTION SEASON.

MAINTENANCE OF TRAFFIC FOR THE ROUNDABOUT WILL BE COMPLETED USING PHASED CONSTRUCTION. EXISTING PAVEMENT WILL BE USED TO MAINTAIN TRAFFIC WHEN POSSIBLE AND WHILE CONSTRUCTION IS COMPLETED ON THE EAST AND WEST SIDES OF THE EXISTING INTERSECTION. BASE AND INTERMEDIATE PAVEMENT SHALL BE CONSTRUCTED ADJACENT TO THE EXISTING PAVEMENT TO ASSIST IN TRAFFIC SHIFTS AS NEEDED TO CONSTRUCT THE ROUNDABOUT.

WHILE NOT NOTED BELOW, ALL LIGHTING AND SIGNAGE FOR THE ROUNDABOUT SHALL BE CONSTRUCTED WHERE POSSIBLE PRIOR TO OPENING THE ROUNDABOUT TO TRAFFIC. CONFLICTING SIGNS SHALL BE COVERED UNTIL APPROPRIATE FOR TRAFFIC PATTERNS.

STERLING RUN BOULEVARD CONSTRUCTION WILL OCCUR WITH A SINGLE WIDENING PHASE UNDER REDUCED LANE WIDTHS AT THE INTERSECTION. EXISTING SIGNALS SHALL BE SHIFTED DURING CONSTRUCTION AS DETERMINED BY THE ENGINEER AND AS DETERMINED BY THE PROPOSED MOT PATTERNS.

PHASE 1 - REDUCE TRAFFIC TO TWO LANES AT THE INTERCHANGE AND SHIFT NORTHBOUND TRAFFIC TO THE WEST. SOUTHBOUND THROUGH AND LEFT (SR 32 ENTRANCE) MOVEMENTS WILL BE COMBINED.

RELOCATE THE EXISTING SR 32 EB EXIT RAMP SIGNAL IN THE SE QUADRANT TO A TEMPORARY FOUNDATION IN THE NE QUARDRANT WITHIN THE LIMITS OF THE PROPOSED ROUNDABOUT CENTER ISLAND. RECONFIGURE SIGNALS AS NEEDED.

CONSTRUCT EMBANKMENT ALONG THE NORTHBOUND SHOULDER OF US 68 FROM STERLING RUN BOULEVARD TO SR 32 ENTRANCE RAMP AND NORTHEAST QUADRANT TO SUBGRADE ELEVATION. PERFORM SAW CUTS ON EXISTING PAVEMENT TO EXISTING PARTIAL DEPTH SHOULDER/OUTER 2" OF EXISTING PAVEMENT AND ALLOW FOR CONSTRUCTION OF AGGREGATE BASE. CONSTRUCT OUTER CURB AND GUTTER AT THE ROUNDABOUT AND ASPHALT CONCRETE BASE PAVEMENT ALONG US 68 AND BETWEEN NEW CURB AND GUTTER AND SAWCUT OF EXISTING PAVEMENT. CONSTRUCT INTERMEDIATE PAVEMENT ALONG US 68 WIDENING AND AT ROUNDABOUT. PLACE TEMPORARY PAVEMENT WEDGES AS NEEDED TO UTILIZE WIDENED PAVEMENT AREA.

NOTE, ONLY ONE SIDE OF RAMPS B & C SHALL BE EXCAVATED AND CONSTRUCTED AT A TIME. BASE AND INTERMEDIATE PAVEMENT SHALL BE IN PLACE BEFORE CONSTRUCTION OF THE OPPOSITE SIDE.

FOR THE WIDENING OF STERLING RUN BOULEVARD, REDUCE LANE WIDTHS TO SHIFT TRAFFIC TO SOUTH. SET UP WORK ZONE ALONG NORTH SIDE FOR REMOVALS AND EXTENSION OF THE CULVERT.

PHASE 2 - SHIFT US 68 NORTHBOUND TRAFFIC TO EAST TO ALLOW FOR CONSTRUCTION OF THE WESTERN SIDE OF THE ROUNDABOUT. MAINTAIN COMBINED SOUTHBOUND THROUGH AND LEFT (SR 32 ENTRANCE) MOVEMENTS. CONSTRUCT EMBANKMENT ALONG THE SOUTHWEST AND NORTHWEST QUADRANT TO SUBGRADE ELEVATION. PERFORM SAW CUTS ON EXISTING PAVEMENT TO REMOVE OUTER 2" OF EXISTING PAVEMENT AND ALLOW FOR CONSTRUCTION OF AGGREGATE BASE. CONSTRUCT OUTER CURB AND GUTTER AT THE ROUNDABOUT AND ASPHALT CONCRETE BASE PAVEMENT BETWEEN NEW CURB AND GUTTER AND SAWCUT OF EXISTING PAVEMENT. CONSTRUCT INTERMEDIATE PAVEMENT AT ROUNDABOUT AS NEEDED. PLACE TEMPORARY PAVEMENT WEDGES AS NEEDED TO UTILIZE WIDENED PAVEMENT AREA.

AT STERLING RUN BOULEVARD, CONSTRUCT EMBANKMENT FOR WIDENING AND MAKE ADJUSTMENTS TO THE EXISTING DRAINAGE PERFORM ANY UTILITY RELOCATIONS NEEDED UNDER CONTRACT.

PHASE 3 - AT ROUNDABOUT ON US 68, MAINTAIN PHASE 2 TRAFFIC SHIFT TO EAST, REMOVE EXISTING PAVEMENT AND CONSTRUCT WESTERN HALF OF CENTER ISLAND.

AT STERLING RUN BOULEVARD, CONSTRUCT CURB AND GUTTER, SIDEWALK, CURB RAMPS AND PAVEMENT WIDENING UP TO THE INTERMEDIATE COURSE.

PHASE 4 - AT ROUNDABOUT ON US 68, SHIFT TRAFFIC FOR SOUTHBOUND US 68 TO WEST SIDE OF ROUNDABOUT AND UTILIZE MOVEMENT SOUTH TO EAST AROUND THE PARTIALLY COMPLETED CENTER ISLAND. FOR NORTHBOUND TRAFFIC, SHIFT ALL MOVEMENTS TO OUTSIDE LANE. BEGIN TRAFFIC MOVEMENTS PER PROPOSED ROUNDABOUT. REMOVE EXISTING SIGNALS. SET UP WORK ZONE IN INTERIOR NORTHBOUND LANE TO CONSTRUCT SPLINTER ISLAND AND EASTERN HALF OF CENTER ISLAND.

PHASE 5 - PERFORM RESURFACING AND INSTALL ASPHALT SURFACE COURSE AT THE ROUNDABOUT AND STERLING RUN BOULEVARD. RELOCATE EXISTING SR 32 SIGNALS TO STERLING RUN BOULEVARD INTERSECTION, COMPLETE INSTALLATION AND ACTIVATE SIGNAL AT STERLING RUN BOULEVARD AND US 68 AND REMOVE SIGNAGE COVERS REMAINING.

ITEM 614, MAINTAINING TRAFFIC (AT ALL TIMES)

A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION OF US 68 AND STERLING RUN BOULEVARD AS WELL ONE LANE OF TRAFFIC FOR THE US 32 EASTBOUND ENTRANCE AND EXIT RAMPS SHALL BE MAINTAINED AT ALL TIMES. TRAFFIC SHALL BE MAINTAINED AS SHOWN IN THE FOLLOWING MAINTENANCE OF TRAFFIC PLANS BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, AND TEMPORARY SURFACES USING ITEMS 410 AND 614.

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

TEMPORARY PAVEMENT MARKINGS PLACED ON BRIDGE NO. BRO-68-3094 SHALL BE TYPE 1 (REMOVABLE) WORK ZONE PAVEMENT MARKING IN ACCORDANCE WITH CMS 740.06. EXISTING PAVEMENT MARKINGS LOCATED ON THE BRIDGE SHALL BE COVERED PER CMS 614.11.g.1.B COVERING CONFLICTING MARKINGS.

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, INCLUDING PORTABLE BARRIER, SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION OF TRAFFIC RESTRICTIONS TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	4 CALENDAR DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

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

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:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT 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) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

- 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 APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

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. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 120 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 A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

DUST CONTROL

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

ITEM 616, WATER 14 M. GAL

CALCULATED LDW CHECKED JWL

MAINTENANCE OF TRAFFIC NOTES

BRO-US68-30.82

SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7	35	36	37	38	39	40						01/SAF/OT	02/NFA/PV						
																		ROADWAY	
												LS		201	11000	LS		CLEARING AND GRUBBING	
			19									19		202	32000	19	FT	CURB REMOVED	
				552								552		202	32500	552	FT	CURB AND GUTTER REMOVED	
			160	108								268		202	38000	268	FT	GUARDRAIL REMOVED	
						1,176						956	220	203	10000	1,176	CY	EXCAVATION	
						2,316						1,883	433	203	20000	2,316	CY	EMBANKMENT	
			113	63								176		606	15050	176	FT	GUARDRAIL, TYPE MGS	
			1	2								3		606	26550	3	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
			1									1		606	35000	1	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1	
				2,446									2,446	608	10000	2,446	SF	4" CONCRETE WALK	
			64	282								215	131	608	52000	346	SF	CURB RAMP	
			10	56								36	30	608	53020	66	SF	DETECTABLE WARNING	
			636									636		609	26000	636	FT	CURB, TYPE 6	
				110									110	609	28000	110	FT	CURB, TYPE 7	
			903									903		609	12000	903	FT	COMBINATION CURB AND GUTTER, TYPE 2	
				638								638		609	12001	638	FT	COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN	6
			325									325		609	18000	325	FT	COMBINATION CURB AND GUTTER, TYPE 3	
				2								2		625	31506	2	EACH	PULL BOX REMOVED AND REPLACED	
				1								1		638	10300	1	EACH	FIRE HYDRANT EXTENDED AND ADJUSTED TO GRADE	
				2								2		638	10800	2	EACH	VALVE BOX ADJUSTED TO GRADE	
																		EROSION CONTROL	
						1						1		659	00100	1	EACH	SOIL ANALYSIS TEST	
						524						524		659	00300	524	CY	TOPSOIL	
						3,501						3,501		659	10000	3,501	SY	SEEDING AND MULCHING	
						177						177		659	14000	177	SY	REPAIR SEEDING AND MULCHING	
						177						177		659	15000	177	SY	INTER-SEEDING	
						0.51						0.51		659	20000	0.51	TON	COMMERCIAL FERTILIZER	
						0.74						0.74		659	31000	0.74	ACRE	LIME	
						19.6						19.6		659	35000	19.6	MGAL	WATER	
						1,198						1,198		670	00500	1,198	SY	SLOPE EROSION PROTECTION	
												LS		832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
												LS		832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
												LS		832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
												20,000		832	30000	20,000	EACH	EROSION CONTROL	
																		DRAINAGE	
					3							3		202	58100	3	EACH	CATCH BASIN REMOVED	
10												10		601	21050	10	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
					1,081							1,081		605	05100	1,081	FT	4" SHALLOW PIPE UNDERDRAINS, 30" DEPTH	
120												120		605	05200	120	FT	4" UNCLASSIFIED PIPE UNDERDRAINS	
					668							668		605	06000	668	FT	4" BASE PIPE UNDERDRAINS, 18" DEPTH	
					592							592		605	06000	592	FT	4" BASE PIPE UNDERDRAINS, 30" DEPTH	
80												80		605	31100	80	FT	AGGREGATE DRAINS	
160												160		611	00406	160	FT	4" CONDUIT, TYPE F	
					35							35		611	04400	35	FT	12" CONDUIT, TYPE B	
					28							28		611	04400	28	FT	12" CONDUIT, TYPE B707.42	
					3							3		611	98150	3	EACH	CATCH BASIN, NO. 3	
					2							2		611	99654	2	EACH	MANHOLE ADJUSTED TO GRADE	
					1							1		611	99574	1	EACH	MANHOLE, NO. 3	
4												4		611	99710	4	EACH	PRECAST REINFORCED CONCRETE OUTLET	
																		PAVEMENT	
	2,812	85										2,897		202	23000	2,897	SY	PAVEMENT REMOVED	
	1.7	0.7										2.1	0.3	204	45000	2.4	HOUR	PROOF ROLLING	
	2,222	1,032										2,771	483	204	50000	3,254	SY	GEOTEXTILE FABRIC, 712.09, TYPE D	
	768	345										952	161	204	13000	1,113	CY	EXCAVATION OF SUBGRADE, 12" AS PER PLAN	8
	768	345										952	161	204	30020	1,113	CY	GRANULAR MATERIAL, TYPE C, 12"	
	818											818		252	01500	818	FT	FULL DEPTH PAVEMENT SAWING	
		16										16		253	01000	16	SY	PAVEMENT REPAIR	
		3,154										1,678	1,476	254	01000	3,154	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.25"	
	5,133											5,133		254	01000	5,133	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"	
	386	88										433	41	301	46000	474	CY	ASPHALT CONCRETE BASE, PG64-22	

CALCULATED NCB
CHECKED JWL

GENERAL SUMMARY

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SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
9	10	93	98									01/SAF/OT	02/NFA/PV						
																		TRAFFIC SIGNALS (CONT.)	
			1									1		809	65990	1	EACH	ITS DEVICE, MISC.: PREEMPTION, AS PER PLAN	90
		1										1		809	65990	1	EACH	ITS DEVICE, MISC.: PREEMPTION, AS PER PLAN (QUEUE)	90
		2										2		809	65990	2	EACH	ITS DEVICE, MISC.: PREEMPTION RECEIVING UNIT, AS PER PLAN (QUEUE)	91
		1										1		809	65990	1	EACH	ITS DEVICE, MISC.: PREEMPTION PHASE SELECTOR, AS PER PLAN (QUEUE)	91
			2									2		809	69001	2	EACH	ADVANCE RADAR DETECTION, AS PER PLAN	91
			1									1		809	69210	1	EACH	PREEMPT RECEIVING UNIT	
			710									710		809	69220	710	FT	PREEMPT DETECTOR CABLE	
			1									1		809	69240	1	EACH	PREEMPT CONFIRMATION LIGHT, LED	
																		STRUCTURE OVER 20 FOOT SPAN	
																		STERLING RUN BLVD. OVER LITTLE STERLING RUN GENERAL SUMMARY	105
																		MAINTENANCE OF TRAFFIC	
	150											150		410	12000	150	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
	150											150		410	13000	150	CY	TRAFFIC COMPACTED SURFACE, TYPE C	
120												120		614	11110	120	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
	180											180		614	13000	180	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
	LS											LS		614	18002	LS		MAINTAINING TRAFFIC, MISC.:PORTABLE TRAFFIC SIGNALS	10
	18											18		614	18601	18	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	10
	0.57											0.57		614	21000	0.57	MILE	WORK ZONE CENTER LINE, CLASS I	
	0.14											0.14		614	21200	0.14	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	
	1.17											1.17		614	22000	1.17	MILE	WORK ZONE EDGE LINE, CLASS I, 4"	
	0.13											0.13		614	22200	0.13	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 740.06, TYPE I	
	1,815											1,815		614	23000	1,815	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8"	
	144											144		614	26000	144	FT	WORK ZONE STOP LINE, CLASS I	
	30											30		614	30000	30	EACH	WORK ZONE ARROW, CLASS I	
	1											1		614	30400	1	EACH	WORK ZONE ARROW, CLASS I, 740.06, TYPE I	
	960											960		614	32700	960	SF	WORK ZONE ISLAND MARKING, CLASS I	
14	10											24		616	10000	24	MGAL	WATER	
																		INCIDENTALS	
												LS		108	10000	LS		CPM PROGRESS SCHEDULE	
												LS		614	11000	LS		MAINTAINING TRAFFIC	
												7		619	16000	7	MNTH	FIELD OFFICE, TYPE A	
												LS		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
												LS		624	10000	LS		MOBILIZATION	

CALCULATED NCB
CHECKED JWL

GENERAL SUMMARY

BRO-68-30.82

REF NO.	SHEET		STATION TO STATION		SIDE	CAD MEASURED AREA	202 PAVEMENT REMOVED	204 PROOF ROLLING HR/2000SY	204 GEOTEXTILE FABRIC, 712.09, TYPE D	204 EXCAVATION OF SUBGRADE, 12"	204 GRANULAR MATERIAL, TYPE C, 12"	252 FULL DEPTH PAVEMENT SAWING	254 PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"	301 6" ASPHALT CONCRETE BASE	304 6" AGGREGATE BASE	407 NON-TRACKING TACK COAT APPLIED AT 0.06 GAL/SY (NEW ASPHALT) (US 68)	407 NON-TRACKING TACK COAT APPLIED AT 0.09 GAL/SY (NEW ASPHALT) (US 68)	442 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A. (446)	442 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A. (446)	452 4" NON-REINFORCED CONCRETE PAVEMENT	452 6" NON-REINFORCE CONCRETE PAVMENT, CLASS QC1, AS PER PLAN	452 8" NON-REINFORCE CONCRETE PAVMENT, CLASS QC1, AS PER PLAN
						SF	SY	HOUR	SY	CY	CY	FT	SY	CY	CY	GAL	GAL	CY	CY	SY	SY	SY
	BEGIN	END	US 68																			
R-1	47	48	1742+47.13	1748+45.93	RT	7845	872															
R-2	48		1745+45.00	1748+39.53	LT/RT	3619	403					638										
R-3	48		1747+34.73	1749+03.51	LT	2608	290															
R-4	48	49	1748+56.67	1750+50.85	LT/RT	9172	1020					180										
PV-1	47	48	1741+47.69	1748+98.63	LT/RT	39325							4370				394	183				
PV-2	47	48	1742+40.00	1748+52.16	RT	9584		0.6	1065	355	355			178	178	64		45	52			
PV-3	48	49	1748+56.95	1750+50.85	LT/RT	7672		0.5	853	285	285			143	16	52		36	42			
PV-4	48	49	1749+55.75	1750+39.85	LT/RT	2228							248				23	11				
PV-5	48		1747+34.73	1749+07.12	LT	1380		0.1	154	52	52			26	3	10		7	8			
PV-6	48		1745+45.00	1748+41.12	LT/RT	641		0.1	72	24	24			12	2	5		3	4			
PV-7	48		1745+45.00	1748+41.12	CT	2915														324		
PV-8	48		1748+59.84	1749+79.74	LT/RT	7254									0						422	385
PV-15	49		1750+39.86	1750+92.49	LT/RT	1617							180				17	8				
			RAMP B																			
PV-9	53		275+80.00	276+96.36	LT	366		0.1	41	14	14			7	1	3		2	2			
PV-10	53		275+80.00	276+96.36	RT	581		0.1	11	22	22			11	1	4		3	4			
PV-11	53		275+80.00	276+96.36	LT/RT	2427							270			17	25	12				
R-5	53		275+80.00	276+95.90	LT	1037	116															
R-6	53		275+80.00	276+96.36	RT	728	81															
			RAMP C																			
PV-12	53		279+26.19	279+60.92	LT	218		0.1	5	9	9			5	1	2	3	2	2			
PV-13	53		279+26.19	279+60.92	RT	181		0.1	21	7	7			4	1	2	2	1	1			
PV-14	53		279+87.31	280+21.87	LT/RT	585							65				6	3				
R-7	53		279+87.36	280+21.87	RT	121	14															
R-8	53		279+87.19	280+22.05	LT	140	16															
TOTALS CARRIED TO GENERAL SUMMARY							2812	1.7	2222	768	768	818	5133	386	203	629		316	115	324	422	385

CALCULATED NCB
CHECKED JWB

PAVEMENT QUANTITIES

BRO-68-30.82

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REF NO.	SHEET	STATION TO STATION		SIDE	CAD MEASURED AREA	202 PAVEMENT REMOVED	204 PROOF ROLLING HR/2000SY	204 GEOTEXTILE FABRIC, 712.09, TYPE D	204 EXCAVATION OF SUBGRADE, 12"	204 GRANULAR MATERIAL, TYPE C, 12"	253 PAVEMENT REPAIR	254 PAVEMENT PLANING, 1.25"	301 3" ASPHALT CONCRETE BASE	304 6" AGGREGATE BASE	407 NON-TRACKING TACK COAT APPLIED AT 0.06 GAL/SY [NEW ASPHALT]	407 NON-TRACKING TACK COAT APPLIED AT 0.09 GAL/SY [NEW ASPHALT]	441 1.25" ASPHALT CONCRETE SURFACE COURSE,TYPE 1. (448) PG70-22M	441 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A. (446)	
		STERLING RUN BLVD			SF	SY	HOUR	SY	CY	CY	SY	SY	CY	CY	GAL	GAL	CY	CY	
R-20	50 51	3+57.62	5+24.33	LT	265	30													
R-21	51	5+57.28	7+45.03	LT	295	33													
R-22	51 52	7+91.45	10+49.65	LT	192	22													
PV-20	50 51	3+57.62	5+24.33	LT	435		0.1	49	17	17			5	9	3		2	3	
PV-21	51	5+57.28	7+43.99	LT	2125		0.2	237	79	79			20	40	15		9	12	
PV-22	51 52	7+88.52	10+49.64	LT	6712		0.4	746	249	249			63	125	45		26	37	
PV-23	50 52	3+57.62	10+47.49	RT/LT	28378							3154				284	110		
PV-24	51	7+13.31	7+29.95	LT	141						16						1		
TOTALS CARRIED TO GENERAL SUMMARY						85	0.7	1032	345	345	16	3154	88	174	63	284	148	52	

CALCULATED NCB
CHECKED JWB

PAVEMENT QUANTITIES

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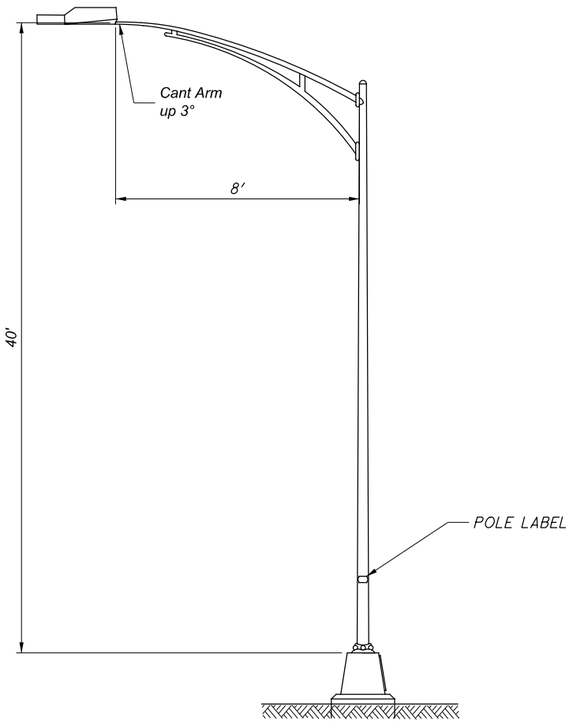
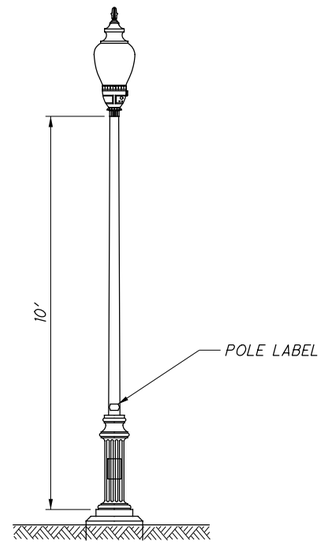


TRUSS ARM LOW RISE CONVENTIONAL LIGHT (AT8B40)



POST-TOP DECORATIVE LANTERN/ACORN (AON10)

CALCULATED DJB
CHECKED JWL

LIGHT POLE DETAILS

BRO-68-30.82

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