

**LOCATION MAP**

LATITUDE: 39°25'52" N LONGITUDE: 84°17'03" W



PORTION TO BE IMPROVED	—————	=====
INTERSTATE HIGHWAY	—————	=====
FEDERAL ROUTES	—————	=====
STATE ROUTES	—————	=====
COUNTY & TOWNSHIP ROADS	—————	=====
OTHER ROADS	—————	=====

**DESIGN DESIGNATION**

SEE SCHEMATIC PLAN, SHEET 2

**DESIGN EXCEPTIONS**

NONE

**ADA DESIGN WAIVERS**

REQUIRED - SEE SHEET 6

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

**OHIO811.org**  
Before You Dig

OHIO 811, 8-1-1, or 1-800-362-2764  
(Non members must be called directly)

PLAN PREPARED BY:  
DGL CONSULTING ENGINEERS, LLC.  
3455 BRIARFIELD BOULEVARD, SUITE E  
MAUMEE, OHIO 43537

ENGINEER'S SEAL:



# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## D08-TSG-SIGNALS W R/W

BATAVIA TOWNSHIP  
OHIO TOWNSHIP  
PIERCE TOWNSHIP  
CLERMONT COUNTY

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STANDARD CONSTRUCTION DRAWINGS					SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
TC-12.31	04/15/22	HL-10.11	07/21/23	ITS-12.50	07/16/21	800-2023 10/20/23
TC-21.21	01/20/23	HL-10.12	07/21/23			809 10/20/23
TC-22.10	04/21/23	HL-30.11	07/21/23			813 07/21/23
TC-41.20	10/18/13	HL-30.21	04/17/20			832 07/21/23
TC-41.40	10/18/13	HL-30.22	01/15/21			909 10/20/23
TC-41.41	07/19/19	HL-60.11	07/21/17			913 04/16/21
TC-42.20	10/18/13	HL-60.12	07/21/23			916 07/21/23
TC-52.10	10/18/13					
TC-52.20	01/15/21	BP-5.1	07/15/22			
TC-71.10	04/21/23	BP-7.1	07/21/23			
TC-74.10	07/21/23					
TC-81.22	07/21/23	MT-95.31	07/19/19			
TC-83.10	01/17/20	MT-95.32	04/19/19			
TC-83.20	07/15/22	MT-97.10	04/19/19			
TC-85.10	10/21/22	MT-105.10	01/17/20			
TC-85.20	04/21/23	MT-110.10	07/19/13			

**FEDERAL PROJECT NUMBER**

E210(528)

**RAILROAD INVOLVEMENT**

NONE

**PROJECT DESCRIPTION**

UPGRADE OF FIVE SIGNALS TO MAST ARM INSTALLATIONS, INCLUDING RADAR DETECTION, COMMUNICATIONS, AND PEDESTRIAN ACCOMMODATIONS, AS APPROPRIATE; PERFORMING RELATED SIGNING, PAVEMENT MARKING AND SIDEWALK MODIFICATIONS.

**EARTH DISTURBED AREAS**

PROJECT EARTH DISTURBED AREA:	0.4 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.5 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A

**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 EXCEPT AS NOTED, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED   
Tammy K. Campbell, P.E.  
08, District Deputy Director

APPROVED   
Jack Marchbanks, PhD  
Director, Department of Transportation

TITLE SHEET



DESIGN AGENCY	CMS
DESIGNER	CMS
REVIEWER	CML
PROJECT ID	11-1-23
	107871
SHEET	TOTAL
1	55

MODEL: Sheet PAPER: 34x22 (in.) DATE: 5/9/2024 TIME: 10:05:11 AM USER: CMS M:22126 (ODOT - VAR-District 8 Traffic Signal Replacements) 107871400-Engineering\SIGNALS\Sheets\107871\_CN001.dgn

**UTILITIES**

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

**ELECTRIC:**  
DUKE ELECTRIC (TRANSMISSION)  
139 E. 4TH STREET, ROOM 552A  
CINCINNATI, OH 45202  
TIM MEYER  
(513) 287-1266

**ELECTRIC:**  
DUKE ELECTRIC (DISTRIBUTION)  
2010 DANA AVENUE  
CINCINNATI, OH 45207  
SHANE ERHART  
(513) 508-9609

**TELEPHONE/CABLE:**  
ALTA FIBER - UNDERGROUND  
(FORMERLY CINCINNATI BELL)  
221 E. 4TH STREET, BLDG. 121-900  
CINCINNATI, OH 45202  
BRECK COWAN  
(513) 565-7187  
SEND ALL PLANS FOR REVIEW TO:  
ROADPROJECTS@CINBELL.COM

**TELEPHONE/CABLE:**  
ALTA FIBER - AERIAL  
(FORMERLY CINCINNATI BELL)  
209 W. 7TH STREET, BLDG. 121-900  
CINCINNATI, OH 45202  
ROBERT STROCHINSKY  
(513) 565-6014  
SEND ALL PLANS FOR REVIEW TO:  
ROADPROJECTS@CINBELL.COM

**SANITARY, STORM:**  
CLERMONT COUNTY WATER RESOURCES  
4400 HASKELL LANE  
BATAVIA, OH 45103  
TIM CHERRY  
(513) 479-4031

**WATER:**  
CLERMONT COUNTY WATER RESOURCES  
4400 HASKELL LANE  
BATAVIA, OH 45103  
TIM CHERRY  
(513) 479-4031

**GAS:**  
DUKE ENERGY  
139 E. 4TH STREET, ROOM 460A  
CINCINNATI, OH 45202  
MARK BRANSCUM  
(513) 287-2517  
SEND PLANS FOR REVIEW & DISTRIBUTION:  
OH/KYHOUSEBILL@DUKE-ENERGY.COM

**WATER:**  
TATE-MONROE WATER ASSOCIATION  
2599 SR-232  
NEW RICHMOND, OH 45157  
JEFF SMITH  
(513) 734-2236 EXT. 20

CLERMONT COUNTY ENGINEER'S OFFICE  
2381 CLERMONT CENTER DRIVE  
BATAVIA, OH 45103  
JEREMY EVANS  
(513) 732-8857

**COMMUNICATIONS:**  
VERIZON (FORMERLY MCI)  
8800 GOVERNORS HILL DRIVE  
CINCINNATI, OH 45129  
BRUCE TURKIEWICZ  
(254) 721-8977

**COMMUNICATIONS:**  
CHARTER COMMUNICATIONS/SPECTRUM  
(FORMERLY TIME WARNER)  
10920 KENWOOD ROAD  
BLUE ASH, OH 45242  
SEND PLANS FOR REVIEW & DISTRIBUTION:  
DL-SOUTHERN-OHIO-OUTSIDE-PLANT@CHARTER.COM

**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.

**PROTECTION OF RIGHT-OF-WAY LANDSCAPING**

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

CONSTRUCT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE CONSTRUCTION LIMITS ARE IDENTIFIED AS 30 FEET FROM THE EDGE OF PAVEMENT.

SUBMIT A WRITTEN REQUEST TO THE PROJECT ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. USE OF THESE AREAS FOR DISPOSAL OF WASTE MATERIAL AND CONSTRUCTION DEBRIS, EXCAVATION OF BORROW MATERIAL AND PLACEMENT OF PORTABLE PLANTS IS PROHIBITED. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA.

ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS, AS DEFINED ABOVE, WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

**SEEDING AND MULCHING**

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

659, TOPSOIL 100 CU. YD.  
659, SEEDING AND MULCHING 898 SQ. YD.  
659, REPAIR SEEDING AND MULCHING 45 SQ. YD.  
659, COMMERCIAL FERTILIZER 0.21 TON  
659, LIME 0.19 ACR  
659, WATER 8 M. GAL.

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

**AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS - PRIVATE USE**

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PRIVATE-USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT, AT MAXIMUM OPERATING HEIGHT, SHALL EXCEED A HEIGHT OF 69 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, COORDINATION WITH THE AIRPORT OWNER AND THE ODOT OFFICE OF AVIATION WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. FOR PRIVATE USE AIRPORTS OR HELIPORTS, COORDINATE WITH THE AIRPORT OWNER AND THE ODOT OFFICE OF AVIATION.

NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL COORDINATION IS MET AND DOCUMENTATION HAS BEEN FURNISHED TO THE PROJECT ENGINEER. IF COORDINATION IS NOT OBTAINED, THEN THE PROJECT ENGINEER WILL HAVE THE AUTHORITY TO PROVIDE RESTRICTIONS AS REQUIRED.

CARL A. BAUKNECHT  
BOOBER AIRPORT (450H)  
1638 C TWELVE MILE RD  
NEW RICHMOND, OH 45157  
(513) 532-5295

**AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS - PUBLIC USE**

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 87 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. NOTIFY THE ODOT OFFICE OF AVIATION WHEN SUBMITTING FAA FORM 7460-1.

NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND THE ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

FAA APPROVAL MAY TAKE UP TO 45 DAYS. ALL SUBMISSIONS SHALL BE DIRECTED TO THESE OFFICES:

FEDERAL AVIATION ADMINISTRATION  
SOUTHWEST REGIONAL OFFICE  
OBSTRUCTION EVALUATION GROUP  
10101 HILLWOOD PKWY  
FORT WORTH, TX 76177  
FAX: (817) 222-5920  
HTTP://CEAAA.FAA.GOV

OHIO DEPARTMENT OF TRANSPORTATION  
OFFICE OF AVIATION  
2829 WEST DUBLIN-GRANVILLE RD  
COLUMBUS, OHIO 43235  
OHIO.AIRPORT.PROTECTION@DOT.OHIO.GOV

CLERMONT COUNTY AIRPORT (I69)  
OWNER: CLERMONT COUNTY COMMISSIONERS  
101 E MAIN ST  
BATAVIA, OH 45103-2957  
(513)-735-9500  
MANAGER: CHUCK GALLAGHER  
2001 SPORTYS DR  
BATAVIA, OH 45103-9719  
(513)-735-9100 EXT 227

**PROPERTY OWNER NOTIFICATION**

THE CONTRACTOR SHALL CONTACT SPEEDWAY (ADDRESS: 51 W. MAIN ST, AMELIA, OH 45102) TEN (10) WORKING DAYS PRIOR TO ANY WORK OCCURRING ON OR NEAR PARCEL 22. CONTACT INFORMATION:

MATTHEW RASMUSSEN  
972-828-6417  
MATTHEW.RASMUSSEN2@7-11.COM

**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 UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT. THIS MAY ALSO INCLUDE ANY NECESSARY POTHOLING.

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 BID FOR THE PERTINENT CONDUIT OR FOUNDATION ITEM.

**SURVEYING PARAMETERS**

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

**PROJECT CONTROL**

POSITIONING METHOD: VRS ODOT CORS NETWORK & DIFFERENTIAL LEVELING

MONUMENT TYPE: IRON PINS & CAPS SET, MAG NAILS SET & CROSS CUTS SET

**VERTICAL POSITIONING**

ORTHOMETRIC HEIGHT DATUM: NAVD 88  
GEOID: 18

**HORIZONTAL POSITIONING**

REFERENCE FRAME: NAD83 (2011)  
ELLIPSOID: GRS80  
MAP PROJECTION: LAMBERT CONFORMAL CONIC  
COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE  
COMBINED SCALE FACTOR: 1.00000000  
PROJECT ADJUSTMENT FACTOR: 1 (PROJECT IS ON GRID COORDINATES)  
ORIGIN OF COORDINATE SYSTEM: NORTHING 0, EASTING 0

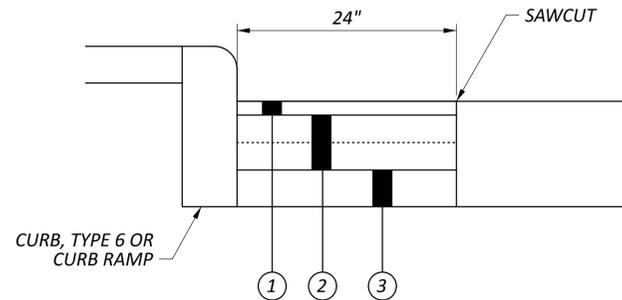
USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

**253 PAVEMENT REPAIR**

REPLACE A 2 FOOT WIDE SECTION OF THE EXISTING PAVEMENT IN FRONT OF ALL NEW CURB AND/OR CURB RAMPS TO ALLOW FOR FORMWORK.

PAYMENT WILL BE AT THE CONTRACT UNIT PRICE AND WILL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY TO PERFORM THIS WORK.



- ① ITEM 441 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22
- ② ITEM 301 - 6" ASPHALT CONCRETE BASE, PG64-22, (449), PLACED IN 2-3" LIFTS
- ③ ITEM 304 - 4" AGGREGATE BASE

PAVEMENT REPAIR DETAIL

**OHIO RIVER ZONE OF HIGH CONCERN**

THIS PROJECT IS LOCATED WITHIN OHIO RIVER ZONE OF HIGH CONCERN. USE PROPER CONTAINMENT AND DIKING IN REFUELING AREAS. DO NOT STORE FUELS, TOXIC/HAZARDOUS MATERIALS, AND CHEMICALS NEAR DRAINAGE WAYS, DITCHES, OR STREAMS. MAINTAIN A SPILL KIT ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. IMMEDIATELY MITIGATE ANY EVENT, SUCH AS A SPILL OF FUELS, OILS, OR CHEMICALS, THAT COULD THREATEN TO CONTAMINATE THE DRINKING WATER SUPPLY. REPORT ALL SPILLS OR EVENTS TO THE GREATER CINCINNATI WATER WORKS DIRECTOR AT 513-591-7970. IF THE SPILL IS A REPORTABLE AMOUNT (PER OHIO EPA'S RELEASE REPORTING REQUIREMENTS), CONTACT CENTRAL JOINT FIRE-EMS DISTRICT STATION 11 AT 513-797-4520 OR THE OHIO EPA'S SPILLS HOTLINE 1-800-282-9378 FOR CLEAN-UP OF THE SPILL.

**614 MAINTAINING TRAFFIC**

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON EXISTING PAVEMENT IN ACCORDANCE WITH ITEM 614 AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

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.

**614 MAINTAINING TRAFFIC (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 SPECIAL EVENTS:

NEW YEAR'S (OBSERVED) GENERAL/REGULAR ELECTION DAY (NOV)  
TOTAL SOLAR ECLIPSE (4/8/24) THANKSGIVING  
MEMORIAL DAY CHRISTMAS (OBSERVED)  
FOURTH OF JULY (OBSERVED) LABOR DAY

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

DAY OF HOLIDAY OR SPECIAL 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
MONDAY (TOTAL SOLAR ECLIPSE)	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY (GEN./REG. ELECTION)	5:00 AM TUESDAY THROUGH 12:00 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

DURING THE SAME PERIODS, MAINTAIN PEDESTRIAN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

DESCRIPTION OF CRITICAL LANE/RAMP TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$ PER TIME UNIT PER LANE
ALL LANES ON SR 125 OPEN TO TRAFFIC	EB: 10AM TO 8PM WB: 6AM TO 6PM	1 MINUTE	\$215
DE-ENERGIZING SIGNALS AND FLAGGING THE INTERSECTION	6AM TO 9PM	1 MINUTE	\$215



DESIGN AGENCY	CMS
DESIGNER	CMS
REVIEWER	BJJ 11-1-23
PROJECT ID	107871
SHEET	TOTAL
3	55

**DETECTION MAINTENANCE**

IF VEHICLE DETECTION BECOMES UNEXPECTEDLY DISABLED, REQUIRES MODIFICATION, OR IS SCHEDULED TO BE TEMPORARILY REMOVED DURING THE CONSTRUCTION PROJECT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER. IF THE LOSS OF VEHICLE DETECTION IS KNOWN PRIOR TO THE START OF CONSTRUCTION, IT SHALL BE DISCUSSED AT THE PRECONSTRUCTION MEETING. AT SUCH TIME, THE DISTRICT TRAFFIC ENGINEER SHALL ADVISE THE PROJECT ENGINEER AND CONTRACTOR ON THE APPROPRIATE ACTION TO RECTIFY ANY LOSS OF VEHICLE DETECTION. THIS MAY INCLUDE PLACING THE TRAFFIC SIGNAL ON MINIMUM OR MAXIMUM RECALL, MODIFYING THE MINIMUM GREEN TIMES, AND REMOVING THE MALFUNCTIONING DETECTION FROM SERVICE. WHERE NON-INTRUSIVE DETECTION ALREADY EXISTS, THE CONTRACTOR SHALL INSURE THAT DETECTION IS OPERATING AND MAINTAINED BY RECONFIGURING THE DETECTION UNITS ACCORDINGLY DURING ALL CONSTRUCTION PHASES. THIS IS TO AVOID THE SIGNAL FROM MAXING OUT THE EFFECTED SIGNAL PHASE AND CREATING UNNECESSARY DELAYS.

LOCATIONS WHERE NON-INTRUSIVE DETECTION IS PROPOSED AND THE EXISTING VEHICLE DETECTION IS TO BE ABANDONED, THE NON-INTRUSIVE VEHICLE DETECTION SHALL BE INSTALLED, CONFIGURED AND MADE FULLY FUNCTIONAL PRIOR TO THE EXISTING DETECTION BEING DISABLED. THE CONTRACTOR SHALL CONTINUE TO MAINTAIN AND MODIFY THE DETECTION UNTIL FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL. THIS IS TO ENSURE VEHICLE DETECTION REMAINS FULLY FUNCTIONAL THROUGHOUT CONSTRUCTION.

**SIGNAL ACTIVATION**

PRIOR TO ACTIVATING THE NEW TRAFFIC SIGNAL TO STOP-AND-GO MODE AND REMOVING THE EXISTING TRAFFIC SIGNAL FROM SERVICE, ALL ITEMS IN THE PROPOSED SIGNAL PLAN SHALL BE FULLY COMPLETED, (I.E., VEHICLE DETECTION, PEDESTRIAN SIGNAL HEADS, ETC.). IF THERE ARE CONSTRUCTABILITY ISSUES (I.E., ROADWAY WIDENING, ETC.) THAT PREVENT THE SIGNAL FROM BEING COMPLETED PRIOR TO ACTIVATION, IT SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER. THE DISTRICT TRAFFIC ENGINEER WILL THEN REVIEW, APPROVE OR REJECT PROPOSALS TO ACTIVATE THE TRAFFIC SIGNAL PRIOR TO COMPLETION.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER AT LEAST 10 WORKING DAYS PRIOR TO SCHEDULING THE FINAL INSPECTION OF THE SIGNAL INSTALLATION. FINAL INSPECTION IS NOT CONSIDERED COMPLETE UNTIL DESIGNATED DISTRICT TRAFFIC PERSONNEL INSPECT THE TRAFFIC SIGNAL AND ISSUE WRITTEN APPROVAL. IF ISSUES ARE FOUND DURING THE FINAL INSPECTION THAT EFFECT THE SAFETY OF THE TRAVELING PUBLIC AND/OR THE EFFICIENCY OF THE INTERSECTION, THE SIGNAL SHALL NOT BE ACTIVATED ON THE PROPOSED DATE. ANY PUNCH LIST ITEMS THAT ARE FOUND SHALL BE CORRECTED AND REINSPECTED BY DISTRICT TRAFFIC PERSONNEL PRIOR TO FINAL ACCEPTANCE. ODOT FORCES SHALL ONLY ASSUME DAY TO DAY MAINTENANCE OF THE TRAFFIC SIGNAL AFTER FINAL WRITTEN ACCEPTANCE HAS BEEN ISSUED.

**632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN**

TRAFFIC SIGNAL INSTALLATIONS, INCLUDING SIGNAL HEADS, CABLE, MESSENGER WIRE, STRAIN POLES, CABINET, CONTROLLER, ETC., SHALL BE REMOVED IN ACCORDANCE WITH C&MS 632.26 AND AS INDICATED ON THE PLANS. REMOVED ITEMS SHALL BE REUSED AS PART OF A NEW INSTALLATION ON THE PROJECT OR STORED ON THE PROJECT FOR SALVAGE BY THE OHIO DEPARTMENT OF TRANSPORTATION IN ACCORDANCE WITH THE LISTING GIVEN HEREIN.

ITEMS TO BE REUSED - MODEMS, AS SPECIFIED IN NOTE BELOW  
ITEMS TO BE REMOVED AND RETURNED TO ODOT - CABINETS, CONTROLLERS, RADAR DETECTION UNITS, AND UPS

REMOVED ITEMS SHALL BE DELIVERED TO THE ODOT FACILITY WHOSE ADDRESS IS LISTED BELOW:

ODOT DISTRICT 8, ATTN: JIM JUDD

505 S SR-741  
LEBANON, OH 45036  
(513) 933-6692

IN THE EVENT THE ITEMS STORED ON THE PROJECT FOR SALVAGE BY THE LOCAL AGENCY ARE NOT REMOVED, THE CONTRACTOR SHALL, WHEN DIRECTED BY THE ENGINEER IN WRITING, REMOVE AND DISPOSE OF THE ITEMS AT NO ADDITIONAL COST TO THE PROJECT.

**REUSE OF TRAFFIC CONTROL ITEM: MODEM**

IMMEDIATELY PRIOR TO REMOVING THE TRAFFIC SIGNAL INSTALLATION, THE CONTRACTOR SHALL CONFIRM THAT THE EXISTING MODEM IS OPERATIONAL, AND REMOVE IT FROM THE EXISTING CABINET. THE CONTRACTOR SHALL INSTALL THIS MODEM WITHIN THE NEW CABINET AS PART OF THE ACTIVATION PROCESS, ENSURING THAT ALL COMMUNICATIONS HAVE BEEN RESTORED.

**632 POWER SERVICE, AS PER PLAN**

POWER SERVICE SHALL BE AS PER SPECIFICATION 632 AND STANDARD CONSTRUCTION DRAWING TC-83.10 WITH THE FOLLOWING EXCEPTIONS:

1. THE METER BASE MOUNTING HEIGHT SHALL BE NO MORE THAN FIVE (5) FEET HIGH TO THE CENTER OF THE METER BASE FROM THE GROUND.
2. THE CONTRACTOR SHALL SUPPLY THE NECESSARY METER BASES.
3. ALL POWER SERVICES SHALL BE METERED. THE METER SHALL HAVE A LEVER OPERATED BYPASS.
4. THE POWER SERVICE BLIND HALF COUPLING SHALL BE TWENTY-SEVEN (27) INCHES ABOVE THE BOTTOM OF THE SIGNAL POLE BASE PLATE AND SHALL BE WELDED TO THE SIGNAL POLE.
5. CONDUIT FROM THE BOTTOM OF THE DISCONNECT SWITCH ENCLOSURE INTO THE BOTTOM OF THE CONTROLLER CABINET WILL NOT BE PERMITTED. POWER SERVICE WIRES FROM THE DISCONNECT SWITCH ENCLOSURE TO THE CONTROLLER CABINET SHALL BE ROUTED THROUGH THE SIGNAL POLE.
6. IF INTERSECTION LIGHTING IS SPECIFIED THEN SEPARATE DISCONNECT SWITCHES SHALL BE INSTALLED AND LABELED "LIGHTING" AND "TRAFFIC SIGNAL" WITH A WEATHER PROOF STICKER. MARKER ON THE OUTSIDE OF THE ENCLOSURE IS NOT ACCEPTABLE.
7. THE CONTRACTOR SHALL FURNISH AND INSTALL AN ADDRESS STICKER WITH 4-INCH LETTERING TO THE CABINET. ADDRESS MUST BE VISIBLE FROM THE STREET.

DISCONNECT SWITCH ENCLOSURES FURNISHED SHALL INCLUDE A PADLOCK EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNON 660, WITH LOCK BODY OF BRONZE OR BRASS AND KEYING SHALL BE TO THE STATE MASTER.

THE CONTRACTOR SHALL CONTACT THE METER SECTION OF THE POWER COMPANY FOR INFORMATION REGARDING THE METER BASE INSTALLATION PRIOR TO ORDERING POLES. THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR THE POWER SERVICE HOOK UP. THE CONTRACTOR SHALL CONTACT ODOT DISTRICT 8 TRAFFIC OPERATIONS TO OBTAIN THE POWER SERVICE ADDRESS TO BE USED FOR ON ALL INSPECTIONS. ONCE THE SIGNAL HAS PASSED INSPECTION, THE CONTRACTOR WILL NOTIFY THE PROJECT ENGINEER WHO WILL IN TURN NOTIFY ODOT DISTRICT 8 TRAFFIC OPERATIONS. ODOT DISTRICT 8 TRAFFIC OPERATIONS WILL THEN MAKE APPLICATION FOR POWER FROM THE UTILITY.

UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO THE POWER COMPANY'S CIRCUITS. THE VOLTAGE SUPPLIED SHALL BE NOMINALLY 120 VOLTS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND THE PAYING OF ALL FEES. THE EXISTING METER, IF APPLICABLE, IS THE PROPERTY OF THE POWER COMPANY AND SHALL NOT BE REMOVED BY THE CONTRACTOR. PRIOR TO THE EXISTING TRAFFIC SIGNAL REMOVAL ODOT DISTRICT 8 TRAFFIC OPERATIONS WILL REQUEST THE REMOVAL OF THE METER AND CLOSURE OF THE ACCOUNT.

THE DEPARTMENT WILL MEASURE ITEM 632, POWER SERVICE, AS PER PLAN, BY THE NUMBER OF COMPLETE UNITS AND WILL INCLUDE: WEATHERHEAD, FITTINGS, CLAMPS, AND OTHER NECESSARY HARDWARE, INSTALLATION OF METER BASE, GROUND WIRE CONNECTIONS, DISCONNECT SWITCH WITH ENCLOSURE, AND COORDINATION WORK WITH UTILITIES.

ANY ADDITIONAL CABLE OR WOOD POLES NECESSARY TO ESTABLISH A POWER SERVICE WITH THE UTILITY COMPANY SHALL BE COVERED UNDER THE PERTINENT PAY ITEMS.

**TEST HOLE PERFORMED**

IT IS ANTICIPATED THAT THE CONTRACTOR WILL ENCOUNTER UNDERGROUND UTILITIES WHILE EXCAVATING FOR SIGNAL SUPPORT FOUNDATIONS OR SIMILAR FOUNDATIONS. AFTER ACCURATELY IDENTIFYING THE PROPOSED LOCATION OF THE FOUNDATION, AS SHOWN IN THE PLANS AND AFTER MODIFYING THAT LOCATION, IF NECESSARY, BASED ON THE FIELD MARKING OF UNDERGROUND UTILITY LOCATION, THE CONTRACTOR DISCOVERS A UTILITY CONFLICT DURING THE EXCAVATION OPERATION, THE CONTRACTOR WILL BE COMPENSATED FOR EACH PARTIAL FOUNDATION EXCAVATION ACCORDING TO THE BID PRICE.

BEFORE THE CONTRACTOR BEGINS THE EXCAVATION AT THE MODIFIED LOCATION, THE CONTRACTOR SHALL VERIFY THAT THERE WILL BE NO OVERHEAD UTILITY CONFLICTS RESULTING FROM THE NEW SIGNAL SUPPORT LOCATION. NEW SUPPORT LOCATIONS ARE TO BE APPROVED BY THE ENGINEER.

THE WORK WILL INCLUDE BACKFILLING, COMPACTING, AND RESTORATION OF THE EXCAVATION TO THE SITES ORIGINAL CONDITION.

EXCAVATIONS SHALL NOT BE LEFT OPEN OVERNIGHT.

ITEM 632 - TEST HOLE PERFORMED 5 EACH

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID PER EACH ITEM 632 TEST HOLE PERFORMED TO BE USED AT THE DIRECTION OF THE ENGINEER.

**GROUNDING AND BONDING**

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

1. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH.
  - A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.
  - B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.
  - C. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.
  - D. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.
  - E. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.
  - F. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.
2. CONDUITS.
  - A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.
  - B. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.
  - C. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
  - D. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
3. WIRE FOR GROUNDING AND BONDING.
  - A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:
    - I. USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.
    - II. USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.
    - III. USE A MINIMUM 8 AWG BETWEEN THE "PREPARE TO STOP WHEN FLASHING" INSTALLATION (INCLUDING SUPPORT) AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.
    - IV. THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.
  - B. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.
4. GROUND ROD.
  - A. A 3/4-INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.
  - B. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.

**GROUNDING AND BONDING, CONT.**

5. THE GREEN CONDUCTOR IN SIGNAL CABLES (CONDUCTOR #4) SHALL NOT BE USED TO SUPPLY POWER TO A SIGNAL INDICATION. IT WILL BE CONNECTED TO THE SIGNAL BODY AS AN EQUIPMENT GROUND IN ALUMINUM HEADS AND IT WILL BE UNUSED IN PLASTIC HEADS. UNUSED CONDUCTORS SHALL BE GROUNDED IN THE CABINET. TYPICAL USE OF CONDUCTORS IS AS FOLLOWS:

COND. NO.	COLOR	VEHICLE SIGNAL	PEDESTRIAN SIGNAL
1	BLACK	GREEN BALL	#1 WALK
2	WHITE	AC NEUTRAL	AC NEUTRAL
3	RED	RED BALL	#1 DW/FDW
4	GREEN	EQUIPMENT GROUND	EQUIPMENT GROUND
5	ORANGE	YELLOW BALL	#2 DW/FDW
6	BLUE	GREEN ARROW	#2 WALK
7	WHITE/BLACK STRIPE	YELLOW ARROW	NOT USED

6. POWER SERVICE AND DISCONNECT SWITCH.

- A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPLICE.
- B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.
  - I. NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CONTROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.
  - II. IF SECONDARY DISCONNECT SWITCHES ARE CONNECTED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CONDUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SECONDARY AND PRIMARY SWITCHES.

7. PAYMENT - ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

**632 REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: FOUNDATION**

THIS ITEM OF WORK SHALL CONSIST OF REMOVING TWO (2) EXISTING CONCRETE FOUNDATIONS AT THE SR-125 AND KLINE AVENUE INTERSECTION. THE FOUNDATIONS ARE LOCATED ADJACENT TO SP-1. FOUNDATIONS SHALL BE REMOVED TO THE EXTENT NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED TRAFFIC SIGNAL. WORK FOR THIS ITEM SHALL BE COMPLETED PRIOR TO THE START OF CONSTRUCTION FOR THE PROPOSED TRAFFIC SIGNAL.

**POWER SUPPLY FOR TRAFFIC SIGNALS**

ELECTRIC POWER SHALL BE OBTAINED FROM DUKE ENERGY ELECTRIC AT THE LOCATIONS INDICATED ON THE PLANS. POWER SUPPLIED SHALL BE METERED, 120/240 VOLTS.

**TRAFFIC SIGNAL ALTERNATES**

THE TRAFFIC SIGNAL ALTERNATE BID ITEMS BELOW ARE IN REGARD TO THE SIGNALS AT CLE-125 & FAST TRACK/MCDONALD'S DRIVE, CLE-125 & CHAPEL ROAD/OAK STREET, CLE-125 & S. KLINE AVENUE, AND CLE-125 & CECELIA DRIVE/HUNTSMAN TRACE AND ARE INCLUSIVE OF THE SIGNAL SUPPORTS, PEDESTALS AND BRACKET ARMS ONLY.

ALL ITEMS SUPPLIED SHALL MEET THE REQUIREMENTS OF ITEM 632 AND SHALL ADDITIONALLY BE PAINTED USING A WET OR DRY COAT SYSTEM IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 916.

THE COLOR SHALL BE BLACK, WITH A COLOR CLOSELY RESEMBLING FEDSTD-595B 17038. A PAINT SAMPLE SHALL BE PROVIDED WITH THE SHOP DRAWINGS. THE COLOR SHALL BE APPROVED BY THE OHIO DEPARTMENT OF TRANSPORTATION AND PIERCE TOWNSHIP WITHIN 10 DAYS OF SAMPLE SUBMITTAL.

ITEM 625, BRACKET ARM, XX', AS PER PLAN

ITEM 632, SIGNAL SUPPORT, TYPE TC-12.31, DESIGN X WITH MAST ARMS TC-81.22 DESIGN X AND DESIGN X, AS PER PLAN

ITEM 632, SIGNAL SUPPORT, TYPE TC-81.22, DESIGN X, AS PER PLAN

ITEM 632, COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN X, AS PER PLAN

ITEM 632, COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN X WITH MAST ARMS TC-81.22 DESIGN X AND DESIGN X, AS PER PLAN

ITEM 632, PEDESTAL, 8', TRANSFORMER BASE, AS PER PLAN

ITEM 632, PEDESTAL, MISC.: PEDESTAL, 15', TRANSFORMER BASE, AS PER PLAN



DESIGN AGENCY  
  
 DESIGNER  
 CMS  
 REVIEWER  
 BJJ 11-1-23  
 PROJECT ID  
 107871  
 SHEET TOTAL  
 5 55

SHEET NUM.													PART.		ALT	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
3	4	5	9	12	19	22	29	32	38	41	47	49	01/SAF/21	02/SAF/21	(X)							
<b>ROADWAY</b>																						
														LUMP	LUMP		201	11000	LS	CLEARING AND GRUBBING	3	
							40							40			202	23000	40	SY	PAVEMENT REMOVED	
					220		358		240					818			202	30000	818	SF	WALK REMOVED	
					37		54		70					161			202	32000	161	FT	CURB REMOVED	
			23											23			209	10000	23	FT	DITCH CLEANOUT	
			2.5		2.6		4.6		3.9					13.6			253	02000	13.6	CY	PAVEMENT REPAIR	3
							3.3							3.3			304	20000	3.3	CY	AGGREGATE BASE	
							0.8							0.8			407	10000	0.8	GAL	TACK COAT	
							0.5							0.5			441	70500	0.5	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	
							0.7							0.7			441	70700	0.7	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), (DRIVEWAYS)	
				207			190		28					554			608	10000	554	SF	4" CONCRETE WALK	
				209			246		259					837			608	52000	837	SF	CURB RAMP	
					14		69		6					89			609	26000	89	FT	CURB, TYPE 6	
	100													80	20		611	00400	100	FT	4" CONDUIT, TYPE E	4
			36											36			611	04900	36	FT	12" CONDUIT, TYPE D	
<b>EROSION CONTROL</b>																						
100														80	20		659	00300	100	CY	TOPSOIL	3
898														718	180		659	10000	898	SY	SEEDING AND MULCHING	3
45														36	9		659	14000	45	SY	REPAIR SEEDING AND MULCHING	3
0.21														0.17	0.04		659	20000	0.21	TON	COMMERCIAL FERTILIZER	3
0.19														0.15	0.04		659	31000	0.19	ACRE	LIME	3
8														6.4	1.6		659	35000	8	MGAL	WATER	3
														6,000	1,500		832	30000	7,500	EACH	EROSION CONTROL	
<b>TRAFFIC CONTROL</b>																						
			52		39		13		26					130	24		630	03100	154	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
			8		12		4		12					36	4		630	79100	40	EACH	SIGN HANGER ASSEMBLY, MAST ARM	
					2		2		4					8	6		630	79500	14	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
			76		108		39		115					338	71		630	80100	409	SF	SIGN, FLAT SHEET	
			1				4		4					9			630	84900	9	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
			2				2		7					11			630	86002	11	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
					3				1					4			630	87500	4	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
			127		568		230		747					1,672	86		642	30000	1,758	FT	REMOVAL OF PAVEMENT MARKING	
					6				8					14			642	30020	14	EACH	REMOVAL OF PAVEMENT MARKING	
									0.04					0.04			644	00300	0.04	MILE	CENTER LINE	
									100					100			644	00400	100	FT	CHANNELIZING LINE, 8"	
			91		74		40		106			46		311	46		644	00500	357	FT	STOP LINE	
			208		208		91		189					696			644	00630	696	FT	CROSSWALK LINE, 24"	6
					2				4					6			644	01300	6	EACH	LANE ARROW	
<b>TRAFFIC SIGNALS</b>																						
								1		1				2			625	18000	2	EACH	BRACKET ARM, 10'	
					1		2		1					4	1		625	18200	5	EACH	BRACKET ARM, 15'	
					468		1,449		108					297	2,514	297	625	23306	2,811	FT	NO. 10 AWG 600 VOLT DISTRIBUTION CABLE	
					166		357		153					178	1,039	178	625	23400	1,217	FT	NO. 10 AWG POLE AND BRACKET CABLE	
					89		62		43					11	263	11	625	25408	274	FT	CONDUIT, 2", 725.051	
					67		45		30					48	187	48	625	25604	235	FT	CONDUIT, 4", 725.051	
					263		306		231					118	1,000	118	625	25908	1,118	FT	CONDUIT, JACKED OR DRILLED, 725.052, 4"	
					1		2		1					6	1		625	26253	7	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN	6
					124		81		47					33	339	33	625	29000	372	FT	TRENCH	
														40	10		625	29400	50	FT	TRENCH IN PAVED AREA	
					4		4		4					17	3		625	30706	20	EACH	PULL BOX, 725.08, 24"	
					10		8		6					33	4		625	32000	37	EACH	GROUND ROD	
					1		1		1					4	1		625	34001	5	EACH	POWER SERVICE, AS PER PLAN	5
					124		81		47					33	339	33	625	36010	372	FT	UNDERGROUND WARNING/MARKING TAPE	
					10		7		8					34	9		632	05006	43	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
					2		3		2					7			632	05086	7	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
					6		6		4					22			632	20731	22	EACH	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN	6
					6		6		4					22			632	20750	22	EACH	ACCESSIBLE PEDESTRIAN PUSHBUTTON	
					12		10		8				9	41	9		632	25000	50	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
					6		6		4					22			632	25010	22	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
					833		1,028		334					2,912			632	40200	2,912	FT	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG	

DESIGN AGENCY  
  
 DESIGNER: CMS  
 REVIEWER: CMS  
 PROJECT ID: 11-1-23  
 SHEET: 107871  
 TOTAL: 55

SHEET NUM.													PART.		ALT	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
3	4	5	9	12	19	22	29	32	38	41	47	49	01/SAF/21	02/SAF/21	(X)							
				2,696		2,565		1,467		2,237		1,483	8,965	1,483		632	40500	10,448	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG		
				458		475				370			1,303			632	40700	1,303	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG		
				3		3		2		4		3	12	3		632	64011	15	EACH	SIGNAL SUPPORT FOUNDATION, AS PER PLAN	6	
				6		4		3		4			17			632	64020	17	EACH	PEDESTAL FOUNDATION		
		5											4	1		632	64950	5	EACH	TEST HOLE PERFORMED	5	
				68		109		63		75		62	315	62		632	68300	377	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG		
				38		22		66		20		21	146	21		632	69800	167	FT	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG		
						1							1			632	71368	1	EACH	SIGNAL SUPPORT, TYPE TC-12.31 DESIGN 10 POLE, WITH MAST ARMS TC-81.22 DESIGN 13 AND DESIGN 12		
				1									1			632	71492	1	EACH	SIGNAL SUPPORT, TYPE TC-12.31 DESIGN 12 POLE, WITH MAST ARMS TC-81.22 DESIGN 14 AND DESIGN 13		
										1		1	1	1		632	72110	2	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 4		
				1						1		1	1	1		632	72130	2	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12		
													1			632	72140	1	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 13		
												1		1		632	78240	1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-12.31 DESIGN 6 POLE, WITH MAST ARMS TC-81.22 DESIGN 12 AND DESIGN 2		
				1						1			1			632	79100	1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 2		
						1				1			2			632	79110	1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 4		
						1				1			1			632	79130	2	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12		
						1							1			632	79140	1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 13		
								2					2			632	79300	2	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22 DESIGN 4 POLE, WITH MAST ARMS TC-81.22 DESIGN 2 AND DESIGN 2		
				5		4		3		4			16			632	89900	16	EACH	PEDESTAL, 8', TRANSFORMER BASE		
				1									1			632	90008	1	EACH	PEDESTAL, 15', TRANSFORMER BASE		
								2					2			632	90020	2	EACH	REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: FOUNDATION	5	
				1		1		1		1		1	4	1		632	90101	5	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	5	
				1		1		1		1		1	4	1		632	90104	5	EACH	REUSE OF TRAFFIC CONTROL ITEM: MODEM	5	
				1		1		1		1		1	4	1		633	65521	5	EACH	CABINET, TYPE 332, AS PER PLAN	6	
				1		1		1		1		1	4	1		633	67100	5	EACH	CABINET FOUNDATION		
				1		1		1		1		1	4	1		633	67200	5	EACH	CONTROLLER WORK PAD		
				1		1		1		1		1	4	1		633	75001	5	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	6	
				1		1		1		1		1	4	1		809	60000	5	EACH	CCTV IP-CAMEPTZ IOME-TYPE		
				2		2		2		2		4	8	4		809	69001	12	EACH	ADVANCE RADAR DETECTION, AS PER PLAN	6	
				4		4		2		4		4	14	4		809	69101	18	EACH	STOP LINE RADAR DETECTION, AS PER PLAN	6	
				1		1		1		1		1	4	1		809	69123	5	EACH	ATC CONTROLLER, AS PER PLAN	6	
								1		1			2		X	625	18001	2	EACH	TRAFFIC SIGNALS ALTERNATES		5
				1		2				1			4		X	625	18201	4	EACH	BRACKET ARM, 15', AS PER PLAN	5	
						1							1		X	632	71369	1	EACH	SIGNAL SUPPORT, TYPE TC-12.31 DESIGN 10 POLE, WITH MAST ARMS TC-81.22 DESIGN 13 AND DESIGN 12, AS PER PLAN	5	
				1									1		X	632	71493	1	EACH	SIGNAL SUPPORT, TYPE TC-12.31 DESIGN 12 POLE, WITH MAST ARMS TC-81.22 DESIGN 14 AND DESIGN 13, AS PER PLAN	5	
										1			1		X	632	72111	1	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 4, AS PER PLAN	5	
				1						1			1		X	632	72131	1	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12, AS PER PLAN	5	
										1			1		X	632	72141	1	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 13, AS PER PLAN	5	
										1			1		X	632	79101	1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 2, AS PER PLAN	5	
				1									1		X	632	79111	1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 4, AS PER PLAN	5	
						1				1			2		X	632	79131	2	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12, AS PER PLAN	5	
				1									1		X	632	79141	1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 13, AS PER PLAN	5	
								2					2		X	632	79301	2	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22 DESIGN 4 POLE, WITH MAST ARMS TC-81.22 DESIGN 2 AND DESIGN 2, AS PER PLAN	5	
				5		4		3		4			16		X	632	89901	16	EACH	PEDESTAL, 8', TRANSFORMER BASE, AS PER PLAN	5	
				1									1		X	632	90010	1	EACH	PEDESTAL, MISC.: PEDESTAL, 15' TRANSFORMER BASE, AS PER PLAN	5	
																				MAINTENANCE OF TRAFFIC		
		40											32	8		614	11110	40	HOURLY	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	4	
																				INCIDENTALS		
													LUMP	LUMP		614	11000	LS		MAINTAINING TRAFFIC	3, 4	
													LUMP	LUMP		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING		
													LUMP	LUMP		624	10000	LS		MOBILIZATION		

DESIGN AGENCY  
  
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