

ITEM 625 - POWER SERVICE, REPLACE, AS PER PLAN:

THIS WORK SHALL CONSIST OF REBUILDING THE EXISTING POWER SERVICE. THIS SHALL CONSIST OF REMOVING ALL EXISTING FACILITIES AND PROVIDING A NEW POWER SERVICE PER ITEM 625, POWER SERVICE, AS PER PLAN. THE AREA SHALL BE CLEARED OF GROWTH AND DEBRIS AT THE LOCATION(S). ANY RESULTANT OPENINGS SHALL BE BACKFILLED TO GRADE WITH SUITABLE COMPACTED SOIL AND RESTORED TO MATCH THE SURROUNDING AREA. ALL MATERIAL REMOVED SHALL BE DISPOSED OF BEYOND THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION WITH THE POWER COMPANY FOR THE REMOVAL AND CONVERSION OF THE POWER SERVICE. THIS INCLUDES NOTIFYING THE POWER COMPANY THAT THE POWER FEED MAY NEED TO BE MODIFIED TO ACCOUNT FOR THE POWER REQUIRED IN THE HIGHWAY LIGHTING CONTROL CENTER. THE POWER SERVICE SHALL MATCH THE EXISTING UNLESS AGREED UPON BY THE DISTRICT 6 TRAFFIC ENGINEER (740-833-8198).

THE NEW METERS WILL BE PROVIDED/INSTALLED BY THE POWER COMPANY AND THE METER BASES SHALL BE INSTALLED BY THE CONTRACTOR. CHANGEOVER SHALL BE PERFORMED IN A TIMELY FASHION SO THAT LIGHTING WILL BE PRESENT NIGHTLY. THE CONTRACTOR SHALL ASSURE THAT ALL CIRCUITS ARE IN OPERATION. PAYMENT SHALL BE MADE AT THE UNIT PRICE FOR THE ITEM INCLUDING ALL LABOR, MATERIAL, EQUIPMENT, INSPECTIONS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

ITEM 625 - CONTROL CENTER CABINET COMPLETE, 100 AMP, AS PER PLAN:

THIS ITEM SHALL CONSIST OF FURNISHING A COMPLETE CONTROL CENTER CABINET, INCLUDING DISCONNECTION SWITCH, LIGHTING CONTACTOR, H O A SWITCH, LIGHTING ARRESTOR, PHOTO CELL TRANSFORMER, STAINLESS STEEL CABINET, INCLUDING ALL NECESSARY WIRING, TESTING AND OTHER MISCELLANEOUS ITEMS REQUIRED TO RETURN THE SYSTEM TO NORMAL OPERATION. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER EACH.

ITEM 625 - REPAIR INTEGRAL LUMINAIRE LOWERING MECHANISM OF TOWER LIGHTING FIXTURE, AS PER PLAN, A:

A MAJOR REPAIR SHALL CONSIST OF ANY REPAIR OF A TOWER LIGHT LOWERING MECHANISM THAT REQUIRES THE LOWERING OF A TOWER. ALSO INCLUDED SHALL BE ANY CONNECTIONS, TESTING AND ANY OTHER INCIDENTALS REQUIRED TO RETURN THE UNIT TO NORMAL OPERATION. IF POWER CABLE REPLACEMENT IS NECESSARY, IT WILL BE PAID FOR UNDER ITS RESPECTIVE PAY ITEM. ANYTIME THE TOWER LAMPS ARE LOWERED FOR REPAIRS THE CONTRACTOR SHALL CLEAN AND RELAMP THE ENTIRE LAMP RING.

PAYMENT FOR THE RELAMPING SHALL BE INCIDENTAL TO AND INCLUDED IN THE BID FOR THIS ITEM. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER EACH MAJOR LOWERING MECHANISM REPAIR.

ITEM 625 - REPAIR INTEGRAL LUMINAIRE LOWERING MECHANISM OF TOWER LIGHTING FIXTURE, AS PER PLAN, B:

A MINOR REPAIR SHALL CONSIST OF ANY REPAIR OF A LUMINAIRE RING ASSEMBLY, A HEAD FRAME ASSEMBLY, THE WINCH ASSEMBLY AND CABLE RESPOOLING. ALSO INCLUDED SHALL BE ANY CONNECTIONS, TESTING AND ANY OTHER INCIDENTALS REQUIRED TO RETURN THE UNIT TO NORMAL OPERATION. IF POWER CABLE REPLACEMENT IS NECESSARY, IT WILL BE PAID FOR UNDER ITS RESPECTIVE PAY ITEM. ANYTIME THE TOWER LAMPS ARE LOWERED FOR REPAIRS THE CONTRACTOR SHALL CLEAN AND RELAMP THE ENTIRE LAMP RING.

PAYMENT FOR THE RELAMPING SHALL BE INCIDENTAL TO AND INCLUDED IN THE BID FOR THIS ITEM. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER EACH MINOR LOWERING MECHANISM REPAIR.

ITEM 625 - SECONDARY SURGE PROTECTOR, AS PER PLAN:

THIS ITEM SHALL CONSIST OF REMOVING AND DISPOSING OF A DEFECTIVE SECONDARY SURGE PROTECTOR, FURNISHING AND INSTALLING A NEW (OR NON EXISTENT) SECONDARY SURGE PROTECTOR, DELTA LA-602 LIGHTING ARRESTERS, OR EQUIVALENT, FOR HIGH MAST (TOWER) FIXTURES. ALSO INCLUDED SHALL BE ANY CONNECTIONS, TESTING AND INCIDENTALS REQUIRED TO RESTORE THE UNIT TO NORMAL OPERATION.

ITEM 625 - LIGHTING CONTACTOR, AS PER PLAN, 60 AMP:

THIS ITEM SHALL CONSIST OF REMOVING AND DISPOSING OF A DEFECTIVE LIGHTING CONTACTOR AND FURNISHING AND INSTALLING A NEW CONTACTOR, BY TYPE, IN AN EXISTING CONTROL CENTER. THIS WILL INCLUDE ALL NECESSARY WIRING, TESTING, AND OTHER MISCELLANEOUS ITEMS REQUIRED TO RETURN THE CONTROL CENTER TO NORMAL OPERATION. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER EACH.

ITEM 625 - LIGHTING MISC.: TROUBLESHOOTING (INCLUDES 2 LABORERS AND 60' TALL BUCKET TRUCK):

THIS ITEM SHALL CONSIST OF ENGINEER-DIRECTED TROUBLESHOOTING WITH TWO LABORERS AND A 60' BUCKET TRUCK. ONCE THE TROUBLESHOOTING HAS BEEN DIRECTED BY ODOT PERSONNEL, THE HOURS WILL THEN START AND BE TRACKED BY ODOT DISTRICT 6 ROADWAY SERVICES OR CONSTRUCTION PERSONNEL. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER HOUR.

TRAFFIC SIGNAL INSTALLATION:

THIS WORK CONSISTS OF FURNISHING AND INSTALLING TRAFFIC SIGNAL EQUIPMENT, COMPLETE AND READY FOR SERVICE. THIS WORK ALSO INCLUDES NECESSARY EXCAVATION AND BACKFILL, DISPOSAL OF DISCARDED MATERIALS, RESTORATION OF DISTURBED FACILITIES AND SURFACES TO A CONDITION EQUAL TO THAT EXISTING BEFORE THE WORK STARTED, AND ELECTRICAL TESTING AS SPECIFIED.

PULL BOXES, CONDUITS, GROUND RODS, AND CABLE SPLICING KITS REQUIRED FOR TRAFFIC SIGNAL EQUIPMENT INSTALLATIONS ARE SPECIFIED IN ITEM 625.

TRAFFIC SIGNAL INSTALLATION (CONT.):

BEFORE ANY WORK IS STARTED ON THE TRAFFIC SIGNAL, THE DISTRICT SIX TRAFFIC ENGINEER (740-833-8198) AND THE CONTRACTORS REPRESENTATIVE SHALL REVIEW AND RESOLVE ANY POTENTIAL PROBLEMS AT THE LOCATION WHERE THE NEW SIGNAL WILL BE CONSTRUCTED.

ALL OF THE REQUIRED PERMANENT SIGNS SHALL BE ERECTED AND THE REQUIRED PERMANENT PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO THE FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL.

PRIOR TO THE FINAL ACCEPTANCE OF THE COMPLETED TRAFFIC SIGNAL, THE DISTRICT SIX ROADWAY SERVICES REPRESENTATIVE AND THE CONTRACTORS REPRESENTATIVE, SHALL INSPECT AND RESOLVE ANY EXISTING PROBLEMS PRIOR TO THE ACCEPTANCE OF EACH NEW SIGNAL BY THE OHIO DEPARTMENT OF TRANSPORTATION.

EXISTING SIGNAL MAINTENANCE / MAJOR UPGRADE:

THIS PART OF THE CONTRACT SHALL BE USED TO MAINTAIN / MAJOR UPGRADES OF EXISTING TRAFFIC SIGNALS AT VARIOUS LOCATIONS WITHIN THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT SIX. THE CONTRACTOR WILL BE FURNISHED WITH A SKETCH / WORK ORDER FOR EACH LOCATION DETAILING THE REPAIRS OR EQUIPMENT REPLACEMENT TO BE PERFORMED. THE PROJECT ENGINEER HAS THE DISCRETION TO USE ANY ITEM OF WORK LISTED IN THE GENERAL SUMMARY IN LIEU OF ITEMS WHICH WERE NOT LISTED IN THE ESTIMATED QUANTITIES OF A SKETCH/WORK ORDER.

THERE SHALL BE A TWO HOUR RESPONSE TIME FOR ANY WORK ORDER THAT THE PROJECT ENGINEER CONSIDERS TO BE AN EMERGENCY SITUATION.

IT IS THE INTENT OF THIS CONTRACT THAT THE WORK IS TO BE PERFORMED AS QUICKLY AS POSSIBLE. FOR MAJOR UPGRADE WORK ON EXISTING TRAFFIC SIGNALS THE CONTRACTOR SHALL BE ALLOWED AN EIGHT WEEK PERIOD FROM THE TIME OF NOTIFICATION AND THE TIME THE WORK IS COMPLETED. FOR ALL OTHER SIGNAL MAINTENANCE WORK TO BE PERFORMED WITH THIS CONTRACT THE CONTRACTOR SHALL BE GIVEN A ONE WEEK PERIOD FROM THE TIME OF NOTIFICATION AND THE TIME THE WORK IS COMPLETED. THE PROJECT ENGINEER SHALL RECORD THE DATE AND TIME THAT THE SKETCH / WORK ORDER WAS RECEIVED BY THE CONTRACTOR. THIS DATE AND TIME WILL THEN BE USED TO ESTABLISH THE EIGHT WEEK PERIOD OR THE ONE WEEK PERIOD INTERIM COMPLETION DATE FOR EACH SKETCH / WORK ORDER.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER TWO WORKING DAYS BEFORE ANY WORK IS STARTED ON A SKETCH / WORK ORDER. THE PROJECT ENGINEER, THE DISTRICT SIX ROADWAY SERVICES REPRESENTATIVE AND THE CONTRACTORS REPRESENTATIVE, SHALL REVIEW AND RESOLVE ANY POTENTIAL PROBLEMS AT THE LOCATION WHERE THE EXISTING SIGNAL MAINTENANCE / MAJOR UPGRADE WORK WILL BE PERFORMED. IF ANY PROBLEMS ARISE IN THE FIELD, THEY MUST BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER AND THE DISTRICT SIX ROADWAY SERVICES DEPARTMENT FOR RESOLUTION PRIOR TO THE PERFORMANCE OF THE WORK SHOWN IN THE SKETCH / WORK ORDER.

THE CONTRACTOR SHALL SUBMIT IN WRITING AT THIS MEETING A REPORT SHOWING THE WORK TO BE PERFORMED AND COMPLETED, CERTIFIED COPIES OF THE COMPLETED TEST RECORDS LISTED UNDER 632.28 OF CONSTRUCTION AND MATERIALS SPECIFICATIONS, A COMPLETE INVENTORY AND ALL CATALOG CUTS OF THE MATERIALS THAT ARE TO BE USED TO PERFORM THE WORK DESCRIBED IN SKETCH / WORK ORDER IN A ADOBE READER FORMAT.

PRIOR TO THE FINAL ACCEPTANCE OF THE COMPLETED SKETCH / WORK ORDER, THE PROJECT ENGINEER, DISTRICT SIX ROADWAY SERVICES REPRESENTATIVE AND THE CONTRACTORS REPRESENTATIVE, SHALL INSPECT AND RESOLVE ANY EXISTING PROBLEMS PRIOR TO THE ACCEPTANCE OF THE WORK DESCRIBED IN THE SKETCH / WORK ORDER BY THE OHIO DEPARTMENT OF TRANSPORTATION. THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE OF \$100.00 PER DAY FOR EVERYDAY THAT THE WORK TO BE PERFORMED BY SKETCH / WORK ORDER, AND AS DIRECTED BY THE PROJECT ENGINEER REMAINS INCOMPLETE AFTER THE EIGHT WEEK WORK PERIOD OR THE ONE WEEK WORK PERIOD INTERIM COMPLETION DATE.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE IN WRITING THAT THE ELECTRICAL SYSTEMS INSTALLED SHALL OPERATE SATISFACTORILY FOR A PERIOD OF NINETY DAYS FOLLOWING COMPLETION OF THE TEN-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION, THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY. MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR. THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM, CONTROLLERS AND ASSOCIATED EQUIPMENT, DETECTOR UNITS, RADIOS, INTERCONNECTION ITEMS, AND MASTER CONTROL EQUIPMENT. CUSTOMARY MANUFACTURERS' GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT SIX ROADWAY SERVICES REPRESENTATIVE FOLLOWING ACCEPTANCE OF THE EQUIPMENT. THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

ITEM 632 - DETECTOR LOOP:

THE GENERAL SIZE OF LOOP DETECTORS INSTALLED BY THIS CONTRACT WILL BE INSTALLED AS SHOWN IN STANDARD CONSTRUCTION DRAWING TC-82.10 AND UTILIZED AS NECESSARY TO MEET OPERATIONAL NEEDS SUCH AS POWER HEADS AND OR OTHER TYPES OF LOOPS USED TO DETECT MOTORCYCLES. ALL LOOP WIRE SHALL BE IDENTIFIED WITH A PLASTIC TAG (WBLT, EBRT, ETC.) AT THE SPLICE POINT OR AT ENTRANCE TO THE CONTROL CABINET. THE CONTRACTOR SHALL ALSO PROTECT ANY INLET OR CATCH BASIN FROM FOREIGN MATERIAL OR CONSTRUCTION DEBRIS ENTERING THE INLET OR CATCH BASIN WHILE CUTTING DETECTOR LOOPS. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER PRIOR TO THE COMMENCEMENT OF WORK, A COPY OF THE IMSA CERTIFICATION PAPERS FOR ALL SIGNAL TECHNICIANS WORKING ON THIS PROJECT. THE CONTRACTOR SHALL ALSO CONTACT THE OHIO DEPARTMENT OF TRANSPORTATION ROADWAY SERVICES AT LEAST FORTY-EIGHT HOURS (EXCLUDING SAT & SUN) IN ADVANCE OF THIS ITEM OF WORK. ALL DETECTOR LOOPS SHALL BE REPLACED AND FUNCTIONAL WITHIN 48 HOURS OF BEING REMOVED.

ODOT - TRAFFIC ENGINEER
400 EAST WILLIAM STREET DELAWARE, OHIO 43015
1-740-833-8198 OFFICE

ITEM 632 - LOOP DETECTOR TIE IN:

THIS ITEM SHALL BE USED TO CONNECT AND SPLICE THE PROPOSED LOOP DETECTORS TO THE APPROPRIATE EXISTING LEAD IN CABLE INSIDE THE PULL BOX.

ITEM 625 - LIGHTING, MISC.: TEST PLUG:

THIS ITEM SHALL BE USED TO REPLACE THE EXISTING NEMA STD. L22-30 FLANGED LOCKING INLET ON THE LIGHT RING. THE INLET ALLOWS THE MAIN POWER CORD IN THE BASE OF THE TOWER TO CONNECT TO THE RING WHEN THE RING IS IN THE LOWERED POSITION.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM 625 - LIGHTING, MISC.: TEST PLUG, WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

DESIGN AGENCY



DESIGNER

VHP

REVIEWER

XXX MM-DD-YY

PROJECT ID

116469

SHEET TOTAL

P.5

P.13

SHEET NUMBER		ITEM	ITEM EXT.	GRAND TOTAL 01/NFP/OT	UNIT	DESCRIPTION	SEE SHEET NO.
2 - 6	7-9						
1		625	32001	1	EACH	GROUND ROD, AS PER PLAN	4
10		625	33101	10	EACH	CIRCUIT BREAKER, TOWER LIGHTING, AS PER PLAN	4
1		625	34000	1	EACH	POWER SERVICE, AS PER PLAN	4
6		625	34011	6	EACH	POWER SERVICE, REPLACE, AS PER PLAN	5
1		625	34451	1	EACH	CONTROL CENTER CABINET, COMPLETE, AS PER PLAN, 100 AMP	5
2		625	50401	2	EACH	REPAIR INTEGRAL LUMINAIRE LOWERING MECHANISM OF TOWER LIGHTING FIXTURE, AS PER PLAN, A	5
2		625	50401	2	EACH	REPAIR INTEGRAL LUMINAIRE LOWERING MECHANISM OF TOWER LIGHTING FIXTURE, AS PER PLAN, B	5
1		625	50451	1	EACH	SECONDARY SURGE PROTECTOR, AS PER PLAN	5
1		625	70001	1	EACH	LIGHTING CONTACTOR, AS PER PLAN, 100AMP	5
1		625	70001	1	EACH	LIGHTING CONTACTOR, AS PER PLAN, 60AMP	5
2		625	75400	2	EACH	LIGHT POLE REMOVED	
4		625	75502	4	EACH	PORTION OF LIGHT POLE FOUNDATION REMOVED	
1000		625	75550	1000	FT	DISTRIBUTION CABLE REMOVED	
40		625	98700	40	HR	LIGHTING MISC.: TROUBLESHOOTING (INCLUDES 2 LABORERS AND 60' TALL BUCKET)	5
20		625	98000	20	EACH	LIGHTING MISC.: FUSE (KTK-10, 10 AMP LIGHTING FUSE)	
1		625	98000	1	EACH	LIGHTING, MISC.: PHOTOCCELL (FOR CONTROL CENTER OR LUMINAIRE)	
5		625	98000	5	EACH	LIGHTING, MISC.: TEST PLUG	5
TRAFFIC SIGNALS							
1		632	05006	1	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
1		632	05086	1	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
1		632	25000	1	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
2		632	25010	2	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
4		632	26000	4	EACH	PEDESTRIAN PUSHBUTTON	
1		632	26500	1	EACH	DETECTOR LOOP	5
2		632	20730	2	EACH	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN	
1		632	27200	1	EACH	LOOP DETECTOR TIE IN	5
500		632	30200	500	FT	MESSENGER WIRE, 7 STRAND, 3/8" DIAMETER WITH ACCESSORIES	
500		632	30601	500	FT	TETHER WIRE, WITH ACCESSORIES, AS PER PLAN	6
2000		632	40701	2000	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG, AS PER PLAN	6
1		632	64020	1	EACH	PEDESTAL FOUNDATION	
1000		632	65200	1000	FT	LOOP DETECTOR LEAD-IN CABLE	
100		632	67190	100	FT	POWER CABLE, 1 CONDUCTOR, NO. 8 AWG	
100		632	69800	100	FT	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG	
1		632	70000	1	EACH	POWER SERVICE	
1		632	70400	1	EACH	CONDUIT RISER, 2" DIAMETER	
1		632	89300	1	EACH	WOOD POLE	
1		632	89400	1	EACH	DOWN GUY	
1		632	89900	1	EACH	PEDESTAL, 8', TRANSFORMER BASE	
1		632	90020	1	EACH	REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: CONTROLLER AND CABINET	6
1		632	90020	1	EACH	REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: STRAIN POLE	
1		632	90020	1	EACH	REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: STRAIN POLE FOUNDATION	
1		632	90020	1	EACH	REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: VEHICULAR SIGNAL HEAD	
500		632	90030	500	FT	REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: OVERHEAD CABLE/MESSENGER WIRE	

GENERAL SUMMARY

DESIGN AGENCY
DESIGNER VHP
REVIEWER XXX MM-DD-YY
PROJECT ID 116469
SHEET TOTAL P.11 P.13