

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6711	00-00164-00-SP	TAZEWELL	80	40
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

TRAFFIC SIGNAL AND HIGHWAY LIGHTING QUANTITIES

SIGNAL QUANTITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY
ALL QUANTITIES ARE INCLUDED IN THE SUMMARY OF QUANTITIES

PAY ITEM	UNIT	TOTAL QUANTITY
SERVICE INSTALLATION, TYPE B (MODIFIED)	EACH	1
CONDUIT IN TRENCH, 2" DIA, PVC	FOOT	2292
CONDUIT IN TRENCH, 3" DIA, PVC	FOOT	95
CONDUIT IN TRENCH, 3 1/2" DIA, PVC	FOOT	179
CONDUIT PUSHED, 3 1/2" DIA, PVC	FOOT	232
JUNCTION BOX (SPECIAL)	EACH	2
HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	3
DOUBLE HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	1
ELECTRICAL CABLE IN CONDUIT, 600 V (XLP-TYPE USE) 1/C NO. 6	FOOT	5018
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	2545
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	8
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	4
LIGHT POLE FOUNDATION	EACH	2
REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	EACH	6
LIGHTING FOUNDATION REMOVAL	EACH	2
RELOCATE EXISTING LIGHTING UNIT	EACH	10
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 3C	FOOT	357
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 5C	FOOT	558
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14, 7C	FOOT	2415
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 50 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 52 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 54 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	3.0
CONCRETE FOUNDATION, TYPE D	FOOT	3.0
CONCRETE FOUNDATION, TYPE E, 36-INCH DIAMETER	FOOT	60.0
SIGNAL HEAD, LED, 1 FACE, 3 SECTION, MAST ARM MOUNTED	EACH	8
SIGNAL HEAD, LED, 1 FACE, 4 SECTION, WITH ONE DUAL-INDICATION SECTION, MAST ARM MOUNTED	EACH	4
SIGNAL HEAD, POLYCARBONATE, LED, 1 FACE, 3 SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, POLYCARBONATE, LED, 1 FACE, 4 SECTION, WITH ONE DUAL-INDICATION SECTION, BRACKET MOUNTED	EACH	6
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	12
LIGHT DETECTOR, SPECIAL	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	L SUM	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	5
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
ELECTRIC CABLE IN CONDUIT, GROUND, NO. 6 1/C (GREEN)	FOOT	2395
VIDEO VEHICLE DETECTION SYSTEM, 4 CAMERAS	TRAFFIC SIGNALS	250
BATTERY BACK-UP UPS SYSTEM	L SUM	1

TRAFFIC SIGNAL CONSTRUCTION NOTES

- ALL TRAFFIC SIGNALS AND PEDESTRIAN SECTIONS SHALL HAVE 12" SINGLE LED LENSES.
- THE RED SECTIONS OF THE SIGNAL HEADS SHARING THE SAME MAST ARM SHALL BE LEVEL WITH ONE ANOTHER AND MAINTAIN A 16" MINIMUM CLEARANCE FROM THE HIGHEST POINT OF THE ROADWAY.
- THE PROPOSED MAST ARM MOUNTED TRAFFIC SIGNAL HEADS SHALL BE MOUNTED DIRECTLY OVER THE CENTER OF THEIR RESPECTIVE LANES.
- ALL TRAFFIC SIGNAL HEAD BRACKETS ARE TO BE ALUMINUM WITH A NATURAL FINISH.
- ALL TRAFFIC SIGNAL POSTS ARE TO BE GALVANIZED STEEL.
- ALL SIGNAL CABINETS TO BE UNPAINTED ALUMINUM.
- BACKPLATES SHALL BE POLYCARBONATE WITH A DEEP BACK LOUVERED FLANGE.
- PROPOSED HANDHOLES SHALL BE CAST IN PLACE CONCRETE HANDHOLES.
- ALL HANDHOLES SHALL BE CONSTRUCTED SO THAT THE TOP OF THE FRAME WILL BE FLUSH WITH THE SURFACE OF THE MEDIAN, SIDEWALK, OR GROUND LINE. THE CAST-IN-PLACE LEGEND ON THE COVER SHALL BE "TRAFFIC SIGNALS".
- THE LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY TRAFFIC SIGNAL COMPONENTS. CALL J.U.L.I.E. AT 800-892-0123.
- THE CONTRACTOR IS RESPONSIBLE FOR UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THE COST OF THIS WORK IS TO BE INCLUDED WITH THE TRENCH AND BACKFILL FOR ELECTRICAL WORK PAY ITEM.
- COILABLE POLYETHYLENE DUCT MAY BE SUBSTITUTED FOR PVC CONDUIT PUSHED OR TRENCHED.
- THE TRAFFIC SIGNAL CONTROLLER SHALL BE ORIENTED SO THAT THE DOOR IS FACING AWAY FROM TRAFFIC.
- THE DOUBLE HANDHOLE SHALL NOT BE USED IN LIEU OF THE CONTROLLER FOUNDATION PAD.
- TRAFFIC SIGNAL HEADS SHALL BE PROPERLY COVERED PRIOR TO INTERSECTION TURN-ON OR AS DIRECTED BY THE ENGINEER. THIS COST SHALL BE INCLUDED WITH THE COST OF THE ASSOCIATED SIGNAL PAY ITEMS.
- THE CONTRACTOR MAY ELECT TO PUSH A CONDUIT THAT IS SHOWN TO BE TRENCHED ON THE PLANS. HOWEVER, THIS WORK WILL BE MEASURED FOR PAYMENT AND PAID FOR AS CONDUIT IN TRENCH OF THE TYPE AND SIZE SPECIFIED AND TRENCH AND BACKFILL FOR ELECTRICAL WORK.
- NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN 24 INCHES MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
- THE ELECTRICAL CONDUCTORS FOR ALL TRAFFIC SIGNAL HEADS SHALL BE SOLID, SOFT COPPER.
- ALL MAST ARMS, POSTS, HANDHOLES (LIDS AND FRAMES), METALLIC CONDUIT AND CABINETS SHALL BE GROUNDED IN ACCORDANCE WITH NEC REQUIREMENTS. GROUND RODS SHALL BE SOLID COPPER ALLOY OR COPPER CLAD STEEL.
- ALL MAST ARM BASES SHALL BE PROTECTED BY A STAINLESS STEEL MESH SCREENING AROUND THE BASE BOLTS TO PREVENT RODENT ENTRY. THE MESH SHALL BE SECURED TO THE BASE BY STAINLESS STEEL BANDING. THIS WORK SHALL BE INCLUDED IN THE COST OF THE MAST ARM ASSEMBLY PAY ITEM.
- THE LOCATIONS FOR HANDHOLES, TRAFFIC SIGNAL POST FOUNDATIONS, AND MAST ARM FOUNDATIONS ARE PROVIDED FOR REFERENCE ONLY. THE ENGINEER OF TRAFFIC SHALL BE NOTIFIED FOR LOCATION VERIFICATION BEFORE INSTALLATION.
- THE CONTRACTOR SHALL CONTACT AMEREN PRIOR TO BEGINNING WORK TO OBTAIN THE UTILITY COMPANY REQUIREMENTS FOR THE SERVICE INSTALLATION.
- ALL SURPLUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS.
- ALL STEEL COMBINATION MAST ARM ASSEMBLIES AND POLES SHALL BE EQUIPPED WITH 12 FT. LUMINAIRE ARMS AND HAVE A 45 FT. LUMINAIRE MOUNTING HEIGHT.
- ALL GRASS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED BY SEEDING AND/OR SOD TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE PAY ITEM TRENCH AND BACKFILL FOR ELECTRICAL WORK.
- NEW R10-4B SIGNS (PUSH BUTTON FOR WALK SIGNAL) SHALL BE INSTALLED ABOVE EACH PEDESTRIAN PUSH BUTTON. THIS WORK SHALL BE INCLUDED IN THE COST OF PEDESTRIAN PUSH BUTTONS AND NO EXTRA COMPENSATION SHALL BE ALLOWED.

TEMPORARY TRAFFIC SIGNAL NOTES

- THE CONTRACTOR SHALL PROVIDE AND INSTALL EQUIPMENT WITH RESPECT TO THE TEMPORARY TRAFFIC SIGNAL INSTALLATION. THIS SHALL INCLUDE ALL CABLES, SIGNAL AND PEDESTRIAN HEADS, CONDUIT, PUSHBUTTONS, CONTROLLER, LUMINAIRES AND CABINET AND ALL OTHER PERIPHERAL EQUIPMENT.
- THE PROPOSED FOUR CAMERA VEHICLE VIDEO DETECTION SYSTEM AND TRAFFIC SIGNAL CONTROLLER SHALL BE USED TO PROVIDE DETECTION FOR THE TEMPORARY TRAFFIC SIGNAL INSTALLATION. THE CONTRACTOR SHALL FURNISH ALL CABLE, MOUNTING BRACKETS, AND ACCESSORIES REQUIRED FOR A COMPLETELY FUNCTIONAL SYSTEM.
- THE EXISTING TRAFFIC SIGNAL IS A NEMA TS-1 FULL ACTUATED, MICROPROCESSOR BASED CONTROLLER THAT CAPABLE OF SUPPLYING 225 SECONDS OF CYCLE LENGTH AND INDIVIDUAL PHASE LENGTH SETTINGS UP TO 99 SECONDS.
- ALL TRAFFIC SIGNAL EQUIPMENT SCHEDULED FOR REMOVAL CAN BE USED FOR TEMPORARY TRAFFIC SIGNALS. ANY MAINTENANCE OF THIS EQUIPMENT WHEN USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL EQUIPMENT SHALL BE DELIVERED IN GOOD WORKING CONDITION UPON REMOVAL OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- NEW AERIAL TRAFFIC SIGNAL CABLE SHALL BE FURNISHED AND INSTALLED AS SHOWN ON THE PLAN SHEETS. ALL EXISTING TRAFFIC SIGNAL CABLE WILL BE REMOVED.
- THE TEMPORARY TRAFFIC SIGNAL CABLE SHALL BE ATTACHED TO GUY-SECURED TEMPORARY WOOD POLES IN ACCORDANCE WITH STANDARD 880001. ALL CABLE SHALL MAINTAIN A 20 FT. CLEARANCE ABOVE THE HIGHEST POINT OF THE ROADWAY.
- ALL TRAFFIC SIGNALS AND PEDESTRIAN SECTIONS SHALL HAVE 12" LENSES.
- THE TEMPORARY TRAFFIC SIGNAL HEADS SHALL BE PLACED AS INDICATED ON THE PLANS OR DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL FURNISH ENOUGH SLACK CABLE TO RELOCATE THE HEADS TO ANY POSITION REQUIRED FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNALS SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS.
- THE TRAFFIC SIGNAL INSTALLATION SHALL CONFORM TO ALL APPLICABLE MUTCD AND NEC STANDARDS.
- ALL LABOR AND MATERIALS REQUIRED TO COMPLY WITH THESE REQUIREMENTS SHALL BE CONSIDERED INCLUDED IN THE PRICE FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION.

