

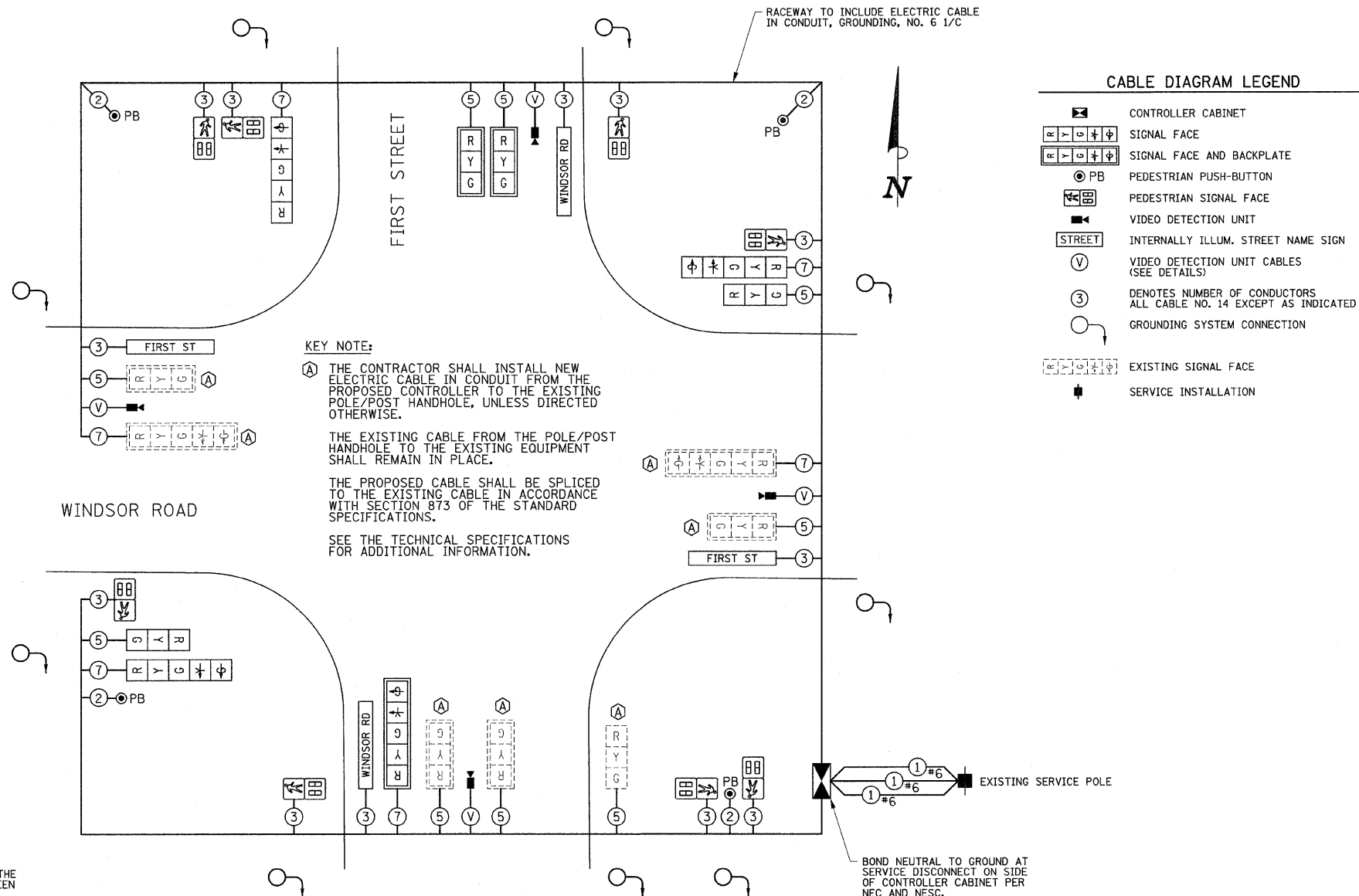
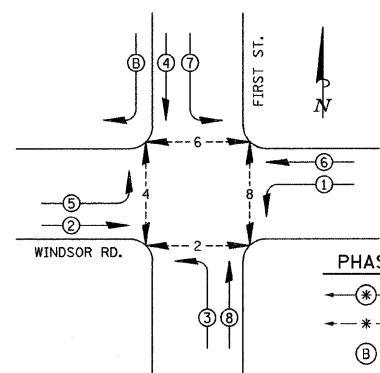
## BILL OF MATERIALS

ITEM	UNIT	QUANTITY
SERVICE INSTALLATION, TYPE A (MODIFIED)	EACH	1
CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	264
CONDUIT IN TRENCH, 3" DIA., PVC	FOOT	123
CONDUIT IN TRENCH, 5" DIA., PVC	FOOT	4
CONDUIT, AUGERED 2" DIA., PVC	FOOT	305
CONDUIT, AUGERED 4" DIA., PVC	FOOT	230
CONDUIT, AUGERED 5" DIA., PVC	FOOT	155
REMOVE EXISTING JUNCTION BOX	EACH	8
HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	2
DOUBLE HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	1015
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	70
TRENCH AND BACKFILL WITH SCREENINGS OR SAND	FOOT	321
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 250 WATT	EACH	2
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, STANDARD	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	810
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1690
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1835
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1410
TRAFFIC SIGNAL POST, ALUMINUM 10 FT.	EACH	1
TRAFFIC SIGNAL POST, ALUMINUM 16 FT.	EACH	2
PEDESTRIAN PUSH-BUTTON POST, TYPE II	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 54 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	9
CONCRETE FOUNDATION, TYPE D	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	18
DRILL EXISTING HANDHOLE	EACH	1
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	2
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED	EACH	8
TRAFFIC SIGNAL BACKPLATE	EACH	3
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING HANDHOLE	EACH	5
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
WIDE AREA VIDEO DETECTION SYSTEM COMPLETE	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	L SUM	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	770
ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 1/C	FOOT	245
INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT (SPECIAL)	L SUM	1
LIGHT POLE, ALUMINUM, 40 FT. M.H., 8 FT. MAST ARM	EACH	1
LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	8

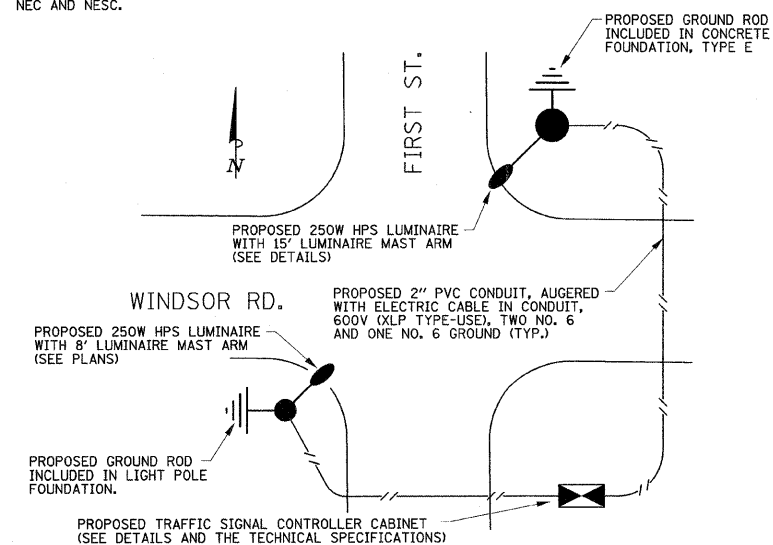
\*SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.

## TRAFFIC SIGNAL GENERAL NOTES

- THE ACTUAL LOCATIONS OF ALL SIGNAL FOUNDATIONS, HANDHOLES, AND THE TRAFFIC SIGNAL CONTROLLER WILL BE VERIFIED IN THE FIELD BY THE ENGINEER.
- POST MOUNTED SIGNAL HEADS SHALL BE INSTALLED SUCH THAT NO PART OF THE SIGNAL HEAD IS WITHIN TWO (2) FEET OF THE FACE OF CURB. MAST ARM POLES SHALL BE PLACED SUCH THAT A MINIMUM DISTANCE OF SIX (6) FEET IS MAINTAINED BETWEEN THE CENTER OF THE POLE AND THE FACE OF CURB (ON THE MAST ARM SIDE).
- THE TOP BRACKET FOR A SIGNAL HEAD MOUNTED TO A TAPERED LIGHT POLE SHALL BE SHIMMED AS REQUIRED FOR THE INSTALLATION.
- 12" LENSES SHALL BE USED ON ALL SIGNAL FACES.
- THE LUMINAIRE ARM, LUMINAIRE POLE WIRING, AND LUMINAIRE SHALL BE ERECTED WITH THE TRAFFIC SIGNAL MAST ARM POLE. THE LUMINAIRE SHALL HAVE A 250 WATT HIGH PRESSURE SODIUM LAMP AND AN M-C-III DISTRIBUTION. THE LUMINAIRE SHALL HAVE AN INDIVIDUAL PHOTOCELL.
- MAST ARM FOUNDATIONS SHALL INCLUDE A SEPARATE STUB AND CAP FOR ROADWAY LIGHTING CABLE. ROADWAY LIGHTING CABLE AND TRAFFIC SIGNAL CABLE SHALL NOT SHARE THE SAME CONDUIT. INTERNALLY ILLUMINATED STREET NAME SIGN CABLE SHALL BE INSTALLED IN THE SAME CONDUIT AS TRAFFIC SIGNAL CABLE.
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- A 1/4" CONTINUOUS NYLON ROPE SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES, FOUNDATIONS, AND CONTROLLERS. THE ROPE SHALL BE INCLUDED IN THE COST OF THE RESPECTIVE CONDUIT PAY ITEM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING/MODIFYING ELECTRICAL SERVICE FOR THE TRAFFIC SIGNALS AND ROADWAY LIGHTING. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY PRIOR TO COMMENCEMENT OF WORK TO OBTAIN UTILITY COMPANY REQUIREMENTS AND VERIFY EXISTING CONDITIONS OF THE SERVICE INSTALLATION.
- THE TRAFFIC SIGNAL CONTROLLER SHALL BE ORIENTED SUCH THAT INTERSECTION OPERATION AND CONTROLLER COMPONENTS CAN BE VIEWED SIMULTANEOUSLY.
- CONTROLLER PROGRAMMING OF SIGNAL TIMING WILL BE PROVIDED BY THE CITY OF CHAMPAIGN.
- THE NECESSARY CONNECTIONS FOR PROPER OPERATION OF THE VIDEO DETECTION SYSTEM, INCLUDING ALL INSTALLATION CABLES, SHALL BE INCLUDED IN THE COST OF THE WIDE AREA VIDEO DETECTION SYSTEM COMPLETE.
- THE COAXIAL CABLE FOR THE VIDEO CAMERA SHALL BE A CONTINUOUS UNBROKEN RUN FROM THE VIDEO CAMERA TO THE VIDEO DETECTION PROCESSOR. CABLE SPLICES SHALL NOT BE ALLOWED.
- THE NECESSARY CONNECTIONS FOR PROPER OPERATION OF THE INTERNALLY ILLUMINATED STREET NAME SIGN, INCLUDING ALL INSTALLATION CABLES, SHALL BE INCLUDED IN THE COST OF THE INTERNALLY ILLUMINATED STREET NAME SIGN.
- A PEDESTRIAN PUSH-BUTTON SIGN WILL BE MOUNTED ABOVE EACH PEDESTRIAN PUSH-BUTTON. THE PEDESTRIAN PUSH-BUTTON SIGNS WILL BE FURNISHED AND INSTALLED BY THE CITY OF CHAMPAIGN.
- THE CONCRETE FOUNDATION FOR THE PEDESTRIAN PUSH-BUTTON POST SHALL BE INCLUDED IN THE COST OF THE PEDESTRIAN PUSH-BUTTON POST, TYPE II.
- ALL ADAPTERS REQUIRED TO CONNECT THE PROPOSED CONDUIT TO THE EXISTING CONDUIT SHALL BE INCLUDED IN THE COST OF THE RESPECTIVE CONDUIT PAY ITEM. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

CABLE DIAGRAM  
NO SCALE

## PHASE DESIGNATION DIAGRAM

INTERSECTION LIGHTING PLAN  
NO SCALE

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2/6/2009 11:16:32 AM

DESIGNED - S.M.W.  
DRAWN - S.M.W.  
CHECKED - J.A.J.  
DATE - 2-09

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

## TRAFFIC SIGNAL PLANS - CABLE DIAGRAM

SCALE : NONE SHEET NO. 31 OF 44 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7170	08-00277-00-PV	CHAMPAIGN	44	31
CONTRACT NO. 91397				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT HD-5181 (044)				