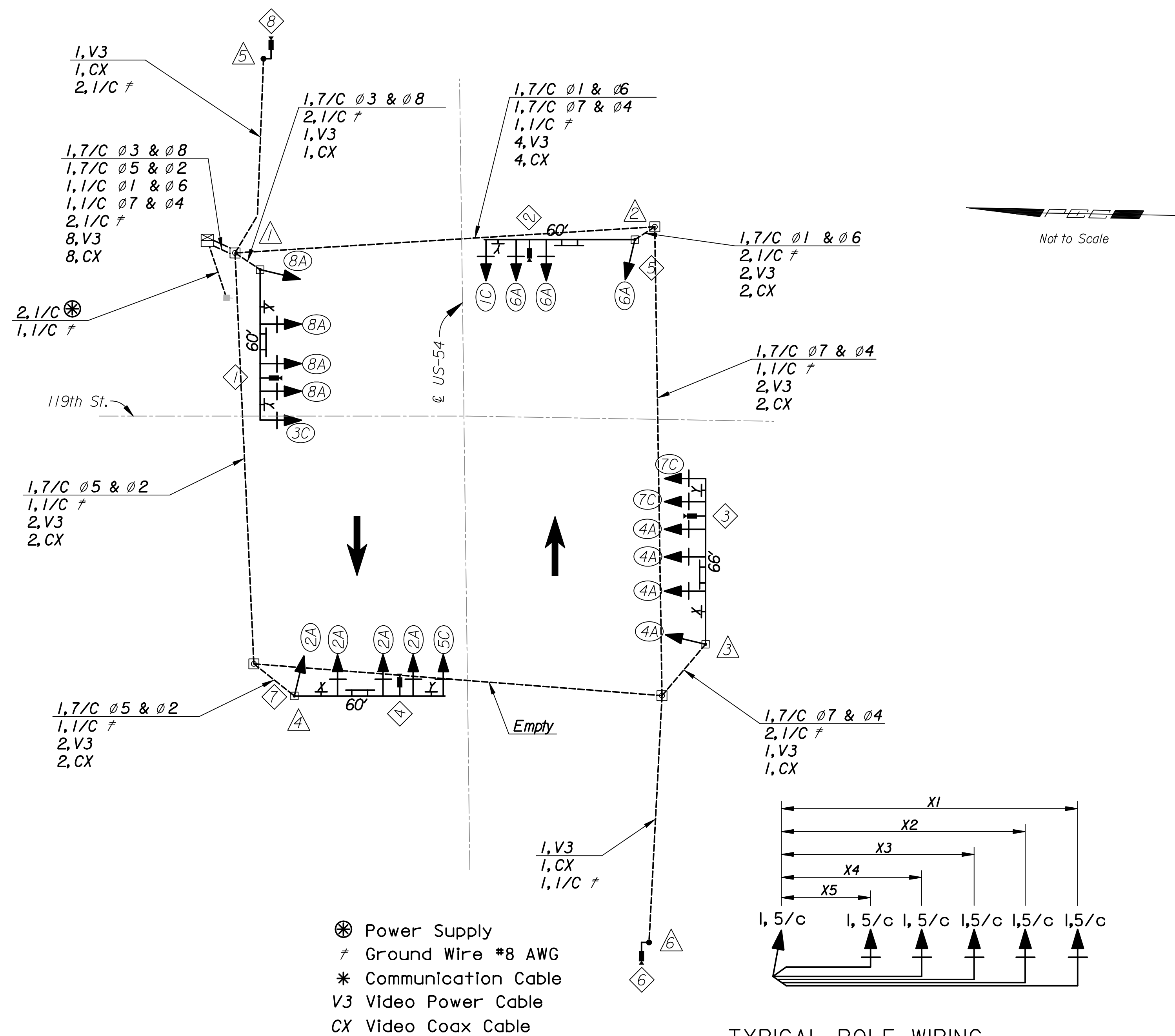


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⊗ Power Supply
 † Ground Wire #8 AWG
 * Communication Cable
 V3 Video Power Cable
 CX Video Coax Cable

WIRING DIAGRAM

SUMMARY OF TRAFFIC SIGNAL HEADS

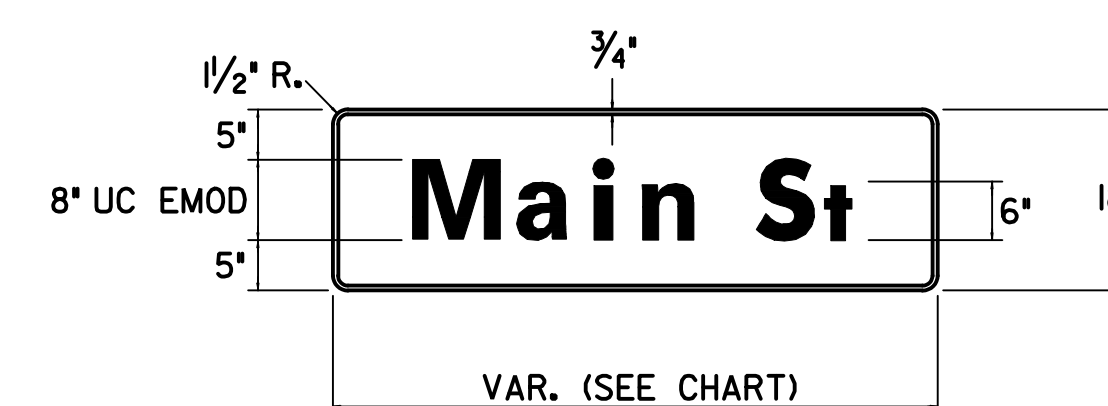
NUMBER	TYPE	SIZE	QUANTITY
2, 4, 6, 8	A	12"	15
1, 3, 5, 7	C	12"	5
TOTAL			20

SERVICE BOX SUMMARY

STATION	DIST.-SIDE
138+31 (119th)	65' Lt.
140+03 (119th)	110' Rt.
576+43 (US-54)	85' Lt.
578+15 (US-54)	77' Rt.

OVERHEAD STREET NAME SIGNS

LEGEND	LENGTH	QUANTITY
119th St	5'-0"	2
Kellogg	5'-0"	2



TYPICAL POLE WIRING

Note: Each Pushbutton to be wired with 1, 2/C to pole base connection.

All splices to be in pole base, no splices permitted within service box.

POLE AND EQUIPMENT FINISH:

Surface preparation
 The exterior steel surface shall be blasted clean in accordance with the requirements outlined in the Steel Structures Painting Council Surface Preparation Specification No. 6, (SSPCSP60) utilizing a dry abrasive, closed cycle, recirculating system with centrifugal wheels and abrasive. The abrasive used shall be steel shot conforming to the Society of Automotive Engineers (SAE) Recommended Practice No. J827 with particle size meeting SAE Shot No. S280.

Zinc Coating
 The pole assembly shall be hot-dip galvanized to the requirements of either ASTM A123 (Fabricated items) or ASTM A153 (Hardware items) by immersion in a molten bath of prime western grade zinc maintained between 810°F and 850°F. Maximum aluminum content of the bath shall not exceed 0.01%.

Top Coat
 All visually exposed exterior surfaces shall be coated with a urethane or triglycidyl isocyanurate (TGIC) polyester powder to a minimum dry film thickness (DFT) of 0.05mm (2.0 mils). Prior to application of the topcoat, the surface shall be mechanically etched and pre-heated to 450°F for a minimum of one hour. The coating shall be electrostatically applied and cured at a minimum temperature of 400°F and the color shall be black.

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
PAD MOUNTED CONTROLLER & CABINET	EACH	1
TRAFFIC SIGNAL HEAD W/MOUNTING HARDWARE	EACH	20
TRAFFIC SIGNAL POLE, STEEL (SEE POLE SUMMARY)	EACH	4
TRAFFIC SIGNAL PEDESTAL ALUM. (15')	EACH	-
TRAFFIC SIGNAL PEDESTAL (JOINT USE) ALUM. (30')	EACH	-
LUMINAIRE POLE W/15' ARM (SEE POLE SUMMARY)	EACH	2
CONCRETE CONTROLLER PAD	EACH	1
CONCRETE FOOTING - PEDESTAL	EACH	-
CONCRETE FOOTING - POLE	EACH	4
CONDUIT ELBOW 90°2"	EACH	AS REQ'D
CONDUIT ELBOW 90°3"	EACH	AS REQ'D
BACK PLATE 5' 3 SECTION	EACH	16
BACK PLATE 5' 5 SECTION	EACH	-
TERMINAL BLOCK	EACH	-
SERVICE BOX	EACH	4
JUNCTION BOX (PRE-FAB)	EACH	-
GROUND ROD & CLAMP	EACH	5
PEDESTRIAN INDICATIONS LED (16"x18" COMBINATION) (COUNTDOWN)	EACH	-
LED TRAFFIC SIGNAL LENS (12")	EACH	60
ENTRANCE HEAD	EACH	2
CIRCUIT BREAKER & BOX 50 AMP.	EACH	1
SURGE ARRESTOR - A.C.SERVICE	EACH	1
SURGE ARRESTOR - DETECTOR	EACH	-
PEDESTRIAN PUSHBUTTON W/SIGN	EACH	-
6 PR. COMMUNICATION CABLE	LIN.FT.	-
DETECTOR LOOP WIRE NO.14 AWG 1/c	LIN.FT.	-
LEAD-IN WIRE NO.6 AWG 1/c	LIN.FT.	AS REQ'D
MULTI-CONDUCTOR CABLE NO.14 AWG 7/c	LIN.FT.	1200
MULTI-CONDUCTOR CABLE NO.14 AWG 5/c	LIN.FT.	1250
MULTI-CONDUCTOR CABLE NO.14 AWG 3/c	LIN.FT.	-
SHEILDDED DETECTOR LEAD-IN NO.14 AWG 2/c	LIN.FT.	-
CONDUIT 1"(RGC)	LIN.FT.	AS REQ'D
CONDUIT 1 1/2"(RGC)	LIN.FT.	-
CONDUIT 2"(PVC)	LIN.FT.	-
CONDUIT 2"(RGC)	LIN.FT.	90
CONDUIT 3"(RGC)	LIN.FT.	760
#8 AWG GROUND (GREEN)	LIN.FT.	2240
STREET NAME SIGN	EACH	4
LEFT TURN SIGNAL (RIO-10) SIGN	EACH	4
RIGHT TURN ONLY (R3-5R) SIGN	EACH	3
VIDEO DETECTION CAMERA, MOUNTING HARDWARE AND SUNSHIELD	EACH	6
VIDEO DETECTION UNIT	EACH	1
VIDEO POWER CABLE #16 AWG 3/C	LIN. FT.	3030
VIDEO CABLE 75 OHM COAXIAL (BELDON #8281 OR APPROVED EQUAL)	LIN. FT.	3030
TV MONITOR	EACH	1
MAST ARM CAMERA RISER BRACKETS	EACH	6

⊗ 4 Modules Required.

TRAFFIC SIGNAL POLE SUMMARY

POLE NO.	POLE HEIGHT	ARM HEIGHT	ARM LENGTH	NO. OF SIGNALS ON ARM	BRACKET TYPE	X1	X2	X3	X4	X5	NO. OF SIGNALS ON POLE	BRACKET TYPE	NO. OF PUSH BUTTONS ON POLE	LUMINAIRE MOUNTING HEIGHT
1	22'	21'	60'	4	I	60'	48'	38'	25'	-	1	II	-	-
2	23'	22'	60'	3	I	59'	48'	36'	-	-	1	II	-	-
3	22'	21'	66'	5	I	65'	56'	45'	34'	21'	1	II	-	-
4	22'	21'	60'	4	I	60'	47'	35'	23'	-	1	II	-	-
5 *	35'	-	15'	-	-	-	-	-	-	-	-	-	-	40
6 *	35'	-	15'	-	-	-	-	-	-	-	-	-	-	40

* Luminaire Poles

RECAPITULATION OF TRAFFIC SIGNAL QUANTITIES

ITEM	UNIT	QUANTITY
TRAFFIC SIGNALIZATION (Kellogg and 119th Street)	LUMP SUM	1

[REVISED TRAFFIC SIGNAL POLES]

-QUANTITIES FOR INFORMATION ONLY-
 NOTE: The traffic signal system shall be complete and the contractor shall furnish and install all equipment and materials necessary for the satisfactory operation of electrical apparatus and for the complete operation of the traffic signal system whether specifically mentioned or not.

119TH STREET

WIRING AND QUANTITIES
 119TH STREET AND US-54

JAMES L. ARMOUR, P.E.-CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 472-84850

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Designed by: DRM Job No.: 05789
 Drawn by: GDR Date: August 2010 Sht. 85 of 152