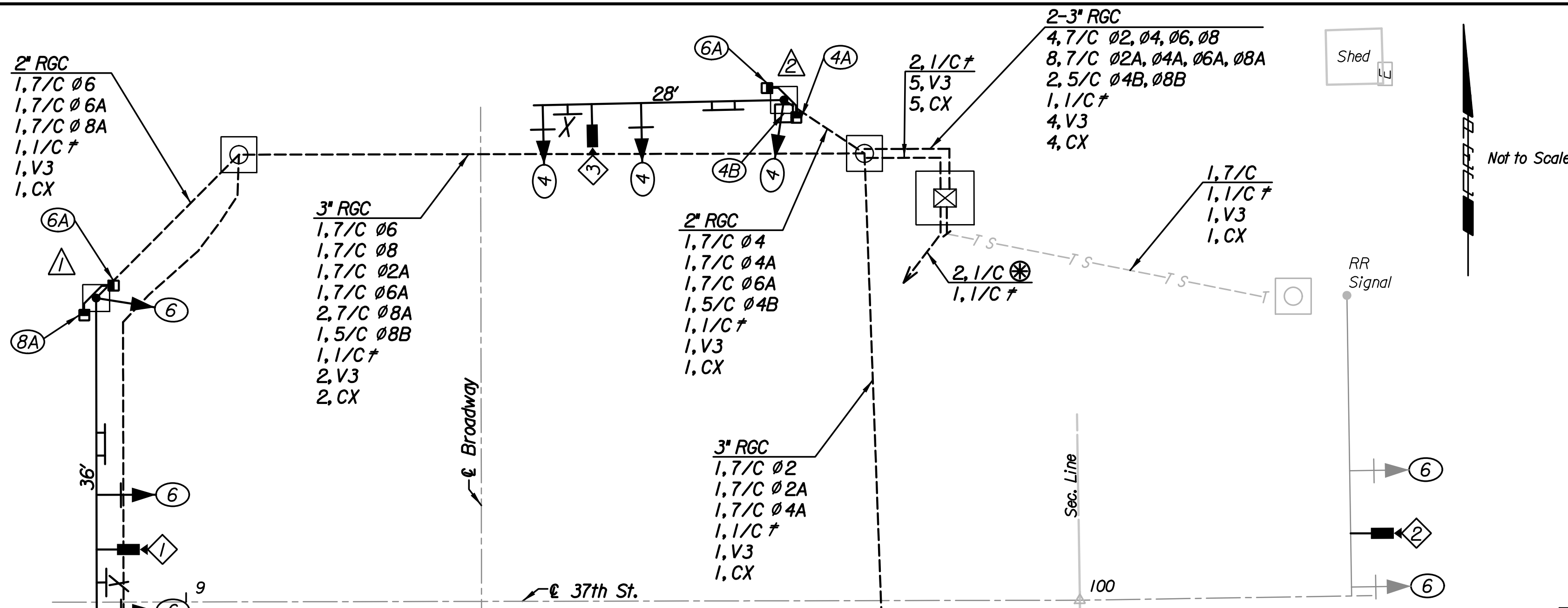


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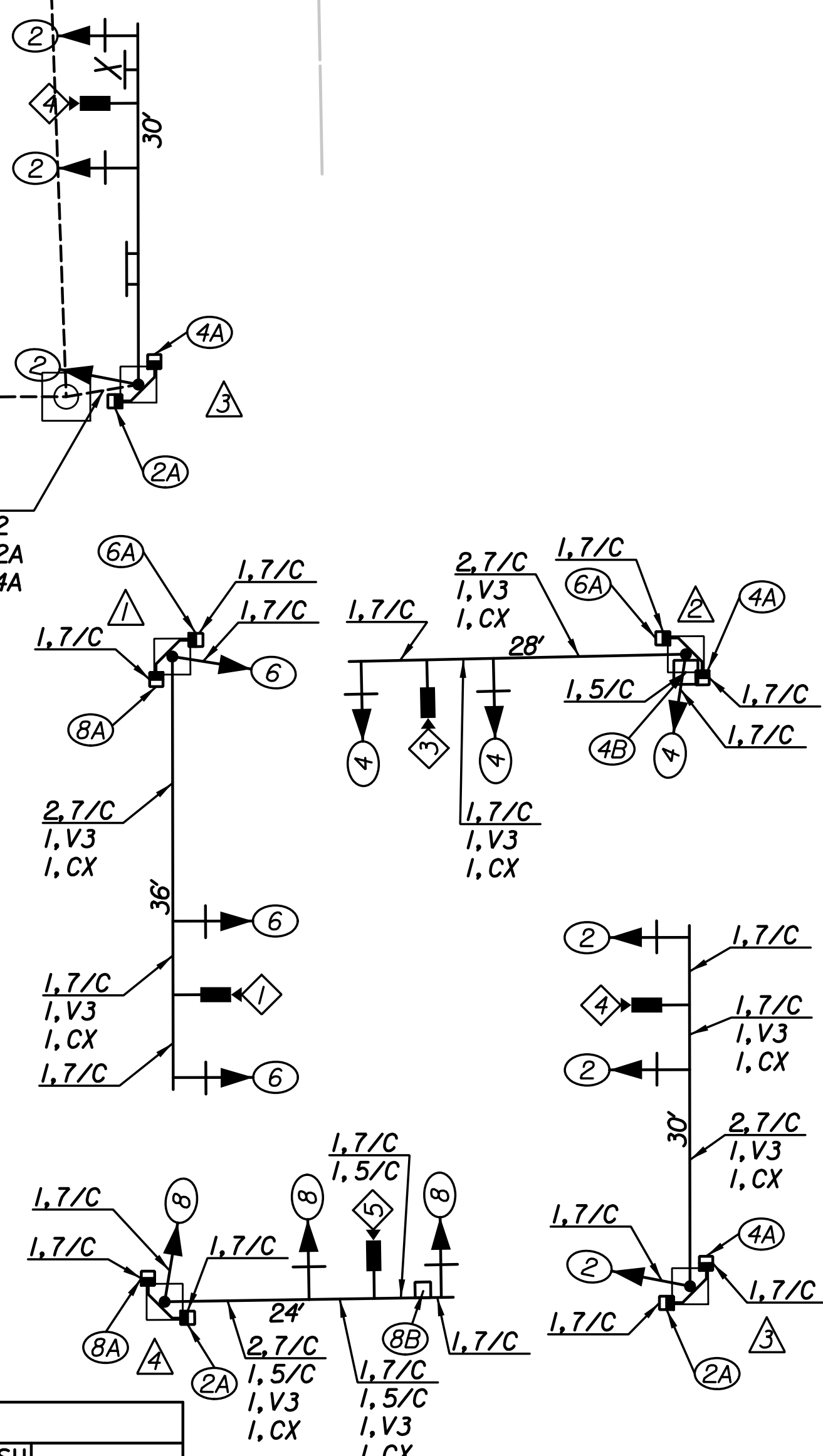


⊕ Power Supply
 † Ground Wire #8 AWG
 V3 Video Power Cable
 CX Video Coax Cable
 * Communication Cable

WIRING DIAGRAM

- ① A-10' Pedestal (Alum.)
- B-20' Steel with Mast Arm(s)
- C-30' Steel (Joint Use) with Mast Arm(s)
- D-40' Steel with Mast Arm

TRAFFIC SIGNAL POLE SUMMARY												
POLE NO.	TYPE ①	ARM LENGTH	NO. OF SIGNALS ON ARM	BRACKET TYPE	X1	X2	X3	X4	NO. OF SIGNALS ON POLE	BRACKET TYPE	NO. OF PUSH BUTTONS ON POLE	REMARKS
1	B	36'	2	I	35'	22'	-	-	3	III	2	
2	B	28'	2	I	27'	16'	-	-	4	II/III	2	
3	B	30'	2	I	29'	18'	-	-	3	II/III	2	
4	B	24'	3	I	23'	21'	12'	-	3	II/III	2	



POLE WIRING DIAGRAMS

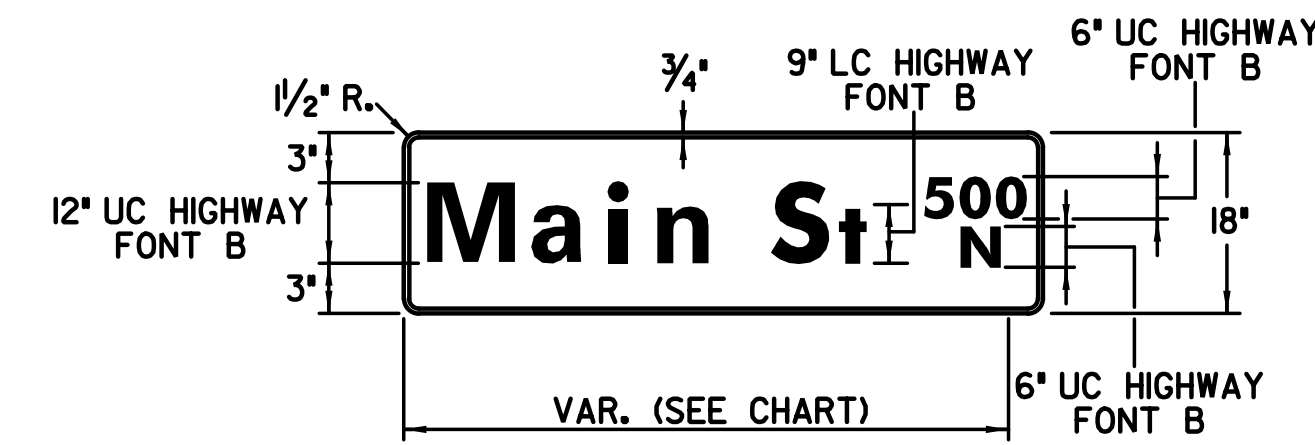
Note: Each Pushbutton to be wired with 1,2/C to pole base connection.

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

SUMMARY OF TRAFFIC SIGNAL HEADS			
NUMBER	TYPE	SIZE	QUANTITY
2, 4, 6, 8	A	12"	12
2A, 4A, 6A, 8A	K	16"x18"	8
4B, 8B ①			2
TOTAL			22

SERVICE BOX SUMMARY	
STATION	DIST.-SIDE
98+95	38' Rt.
99+06	50' Lt.
99+76	50' Lt.
99+79	36' Rt.

OVERHEAD STREET NAME SIGNS		
LEGEND	LENGTH	QUANTITY
Broadway ³⁷⁰⁰	7'-0"	1
Broadway ³⁸⁰⁰	7'-0"	1
37th St ²⁰⁰	5'-0"	1
37th St ³⁰⁰	5'-0"	1



RECAPITULATION OF TRAFFIC SIGNAL QUANTITIES		
ITEM	UNIT	QUANTITY
TRAFFIC SIGNAL INSTALLATION (37th St. and Broadway)	LUMP SUM	1

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	22 ①
TRAFFIC SIGNAL POLE STEEL (20')	EACH	4
TRAFFIC SIGNAL PEDESTAL ALUM. (10')	EACH	-
TRAFFIC SIGNAL PEDESTAL (JOINT USE) ALUM. (35')	EACH	-
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	8
BACK PLATE 5*5 SECTION	EACH	-
TERMINAL BLOCK	EACH	4
SERVICE BOX	EACH	4
JUNCTION BOX (PRE-FAB)	EACH	-
GROUND ROD & CLAMP	EACH	5
AUDIBLE PEDESTRIAN SIGNALS (POLARA 4-WIRE NAVIGATOR)	EACH	-
PEDESTRIAN INDICATIONS LED (16* COMBINATION) (COUNT DOWN)	EACH	8
LED TRAFFIC SIGNAL LENS (12")	EACH	36
ENTRANCE HEAD	EACH	1
CIRCUIT BREAKER & BOX 50 AMP.	EACH	1
SURGE ARRESTOR - A.C.SERVICE	EACH	1
SURGE ARRESTOR - DETECTOR	EACH	-
PEDESTRIAN PUSH BUTTON W/SIGN	EACH	8
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.	1630
MULTI-CONDUCTOR CABLE NO.14 AWG 5/c	LIN.FT.	320
MULTI-CONDUCTOR CABLE NO.14 AWG 3/c	LIN.FT.	40
SHEILDDED DETECTOR LEAD-IN NO.14 AWG 2/c	LIN.FT.	-
CONDUIT 3/4"(RGC)	LIN.FT.	AS REQ'D
CONDUIT 1/2"(RGC)	LIN.FT.	-
CONDUIT 2"(PVC)	LIN.FT.	-
CONDUIT 2"(RGC)	LIN.FT.	75
CONDUIT 3"(RGC)	LIN.FT.	360
*8 AWG GROUND (GREEN)	LIN.FT.	380
STREET NAME SIGN	EACH	4
LEFT TURN YIELD ON GREEN (R10-I2) SIGN	EACH	4
VIDEO DETECTION CAMERA, MOUNTING HARDWARE & SUNSHIELD	EACH	5
VIDEO DETECTION UNIT	EACH	1 ②
VIDEO POWER CABLE #16 A.W.G. 3/C	LIN.FT.	830
VIDEO CABLE 75 OHM COAXIAL (BELDON #8281 OR APPROVED EQUAL)	LIN.FT.	830
TV MONITOR	EACH	1
ITERIS LENS ADJUSTMENT UNIT	EACH	-
VIDEO SYSTEM PROGRAMMING UNIT	EACH	-

- ① Quantity includes Salvaging 2 Blank Signs.
- ② 5 Modules required

-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.

37TH STREET NORTH		By		Date	
WIRING AND QUANTITIES					
37TH ST. AND BROADWAY					
GARY JANZEN, P.E.-CITY ENGINEER CITY OF WICHITA PROJECT NO. 472-84692					
PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com					
Designed by	JPS	Job No.	08207	Sht. 110 of 193	
Drawn by	SVB	Date	August, 2013		