

**CHART A SIGNAL SUMMARY**

NO. WAYS	NO. SECTIONS (per face)	SIGNAL FACE ARRANGEMENT	MOUNTING TYPE	QUANTITY
1	3	A	RIGID MAST ARM	8
1	3	C	RIGID MAST ARM	2
1	5	I	RIGID MAST ARM	2
2	2	K	VERTICAL BRACKET	8
1	3	A	VERTICAL BRACKET	4

**MAJOR ITEMS OF ELECTRONIC EQUIPMENT**

ITEM	QTY
CONTROLLER, MODEL 170 WITH 400 MODEM	1
CONTROLLER, CABINET, PAD-MOUNTED	1
CONFLICT MONITOR 210P, MS OR ECL	1
FLASHER	2
FLASH TRANSFER RELAY	4
LOAD SWITCH	8
SURGE PROTECTOR	1
DC ISOLATOR	3
PROGRAM MODULE 412 B W/ WAPITI 56 OR LATEST REV	1

**CHART C**

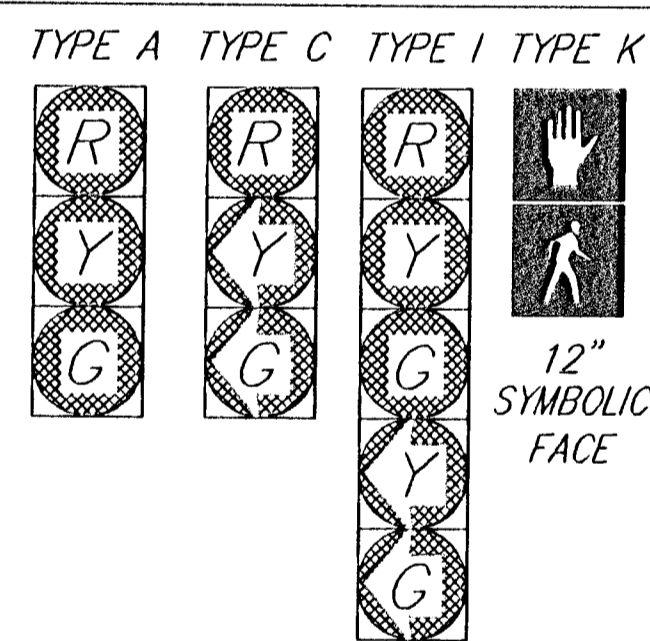
CONDUIT	TRENCHED	PUSHED
19mm		
25mm	15m	
32mm		
50mm	20m	
76mm	30m	

**CHART D**

LEGEND	STREET NAME SIGN SUMMARY
21st St	2
119th St	2

**SIGNAL FACE SUMMARY**

PHASE	TYPE	# REQ'D
1	C	1
2	A, K	3, 2
3	I	1
4	A, K	3, 2
5	C	1
6	A, K	3, 2
7	I	1
8	A, K	3, 2



**CHART B**

**TRAFFIC SIGNAL POLE SUMMARY**

STATION	OFFSET	POLE TYPE	MAST ARM LENGTH	NO. OF SIGNALS ON MAST ARM	BRACKET TYPE	NO. OF SIGNALS ON POLE	BRACKET TYPE	OTHER EQUIPMENT ON ARM
9+979.205	18.034 Lt.	A	17.25 m	3 - D	I	1-D, 2-E	//	C, F, G
9+979.803	23.244 Rt.	B	17 m	3 - D	I	1-D, 2-E	//	C, F, G
10+16.700	23.861 Lt.	A	14 m	3 - D	I	1-D, 2-E	//	C, F, G
10+017.084	23.580 Rt.	A	20 m	3 - D	I	1-D, 2-E	//	C, F, G

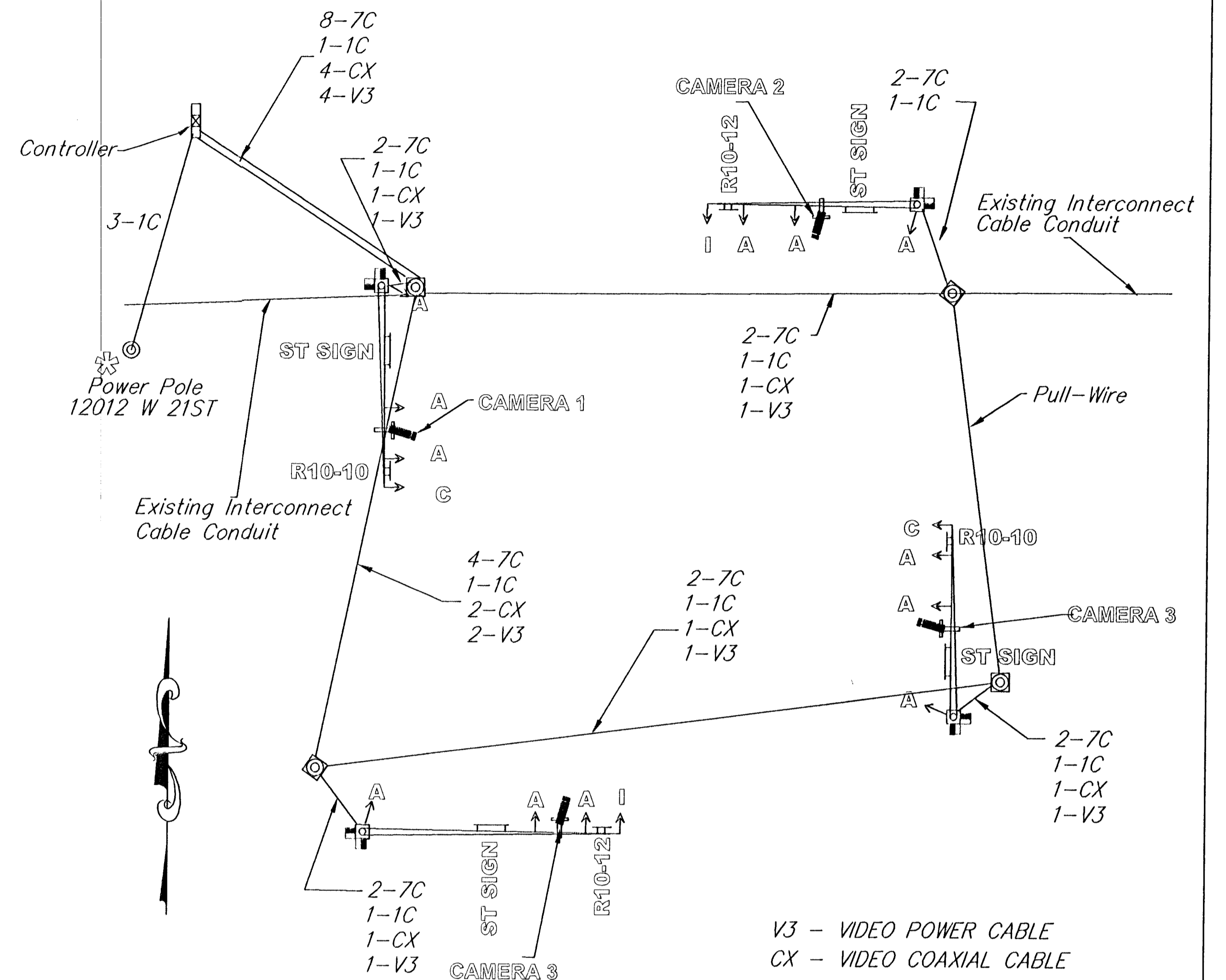
**LEGEND:**

- A. STANDARD STEEL POLE WITH MAST ARM
- B. STANDARD STEEL POLE WITH MAST ARM (JOINT USE)
- C. PROTECTED TURN SIGN (R10-12)

- D. TRAFFIC SIGNAL
- E. PEDESTRIAN SIGNAL WITH PUSH BUTTON
- F. STREET NAME SIGN
- G. VIDEO DETECTION CAMERA

**BILL OF MATERIALS**

ITEM	UNIT	QUANT.
POLE MOUNTED CONTROLLER & CABINET	EACH	
PEDESTAL MOUNTED CONTROLLER & CABINET	EACH	
PAD MOUNTED CONTROLLER & CABINET	EACH	1
TRAFFIC SIGNAL HEAD (SEE CHART A) W/MOUNTING HARDWARE	EACH	24
TRAFFIC SIGNAL POLE (SEE CHART B) STEEL	EACH	4
TRAFFIC SIGNAL POLE (SEE CHART B) ALUMINUM	EACH	
TRAFFIC SIGNAL PEDESTAL ALUMINUM 4.5m	EACH	
CONCRETE CONTROLLER PAD	EACH	1
CONCRETE FOOTING - PEDESTAL	EACH	
CONCRETE FOOTING - POLE	EACH	4
CONDUIT ELBOW 90	EACH	As Needed
CONDUIT ELBOW 90 3"	EACH	As Needed
BACK PLATE 5" 3 SECTION	EACH	10
BACK PLATE 5" 4 SECTION	EACH	
BACK PLATE 5" 5 SECTION	EACH	2
TERMINAL BLOCK	EACH	
SERVICE BOX	EACH	
JUNCTION BOX	EACH	
GROUND ROD & CLAMP	EACH	5
RED L.E.D. KIT	EACH	16
YELLOW L.E.D. KIT	EACH	14
GREEN L.E.D. KIT	EACH	14
YELLOW ARROW	EACH	4
GREEN ARROW	EACH	4
ORANGE/WHITE L.E.D. KIT(12" COMBINATION-"HAND/MAN" INDICAT.)	EACH	8
ENTRANCE HEAD	EACH	
CIRCUIT BREAKER & BOX 40 AMP	EACH	
GUY WIRE GUARD	EACH	
GUY WIRE CLAMP	EACH	
THIMBLE EYE ANCHOR ROD	EACH	
PEDESTRIAN PUSHBUTTON W/SIGN	EACH	8
PEDESTRIAN INDICATOR HEAD WITH MOUNTING HARDWARE	EACH	8
COMMUNICATION CABLE 6 PAIR NO. 19 A.W.G.	METER	
DETECTOR LOOP WIRE NO. 14 A.W.G 1/c (TYPE THHN)	METER	
LEAD-IN WIRE NO. 6 A.W.G. 1/c (TYPE THHN)	METER	50
MULTI-CONDUCTOR CABLE NO. 14 A.W.G. 5/c	METER	200
MULTI-CONDUCTOR CABLE NO. 14 A.W.G. 7/c	METER	600
MULTI-CONDUCTOR CABLE NO. 14 A.W.G. 2/c	METER	
SHIELDED DETECTOR LEAD-IN NO. 16 A.W.G. 2/c	METER	
CONDUIT 19mm	SEE CHART C	
CONDUIT 25mm	SEE CHART C	15
CONDUIT 32mm	SEE CHART C	
CONDUIT 50mm	SEE CHART C	20
CONDUIT 76mm	SEE CHART C	30
STANDARD IC #8 (GROUND)	METER	ISO
TETHER WIRE 6mm ASTM A475 Siemens-Martin Grade Min.	METER	
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT **	L. S.	1
STREET NAME SIGNS - SEE CHART D	EACH	4
LEFT TURN YIELD ON GREEN W/MOUNTING HARDWARE (R10-12)	EACH	2
LEFT TURN SIGNAL ON GREEN W/MOUNTING HARDWARE(R10-10)	EACH	2
VIDEO DETECTION SYSTEM (4 CAMERAS) & MOUNTING HARDWARE	EACH	1
COAX CABLE - 75 OHM (BELDEN 8281)	METER	325
VIDEO POWER CABLE #16 AWG 3/C	METER	325
VIDEO DETECTION PROCESSOR UNIT	EACH	1
CAMERA HOUSING	EACH	4
CAMERA CHARGED COUPLING DEVICE	EACH	4



NO SCALE

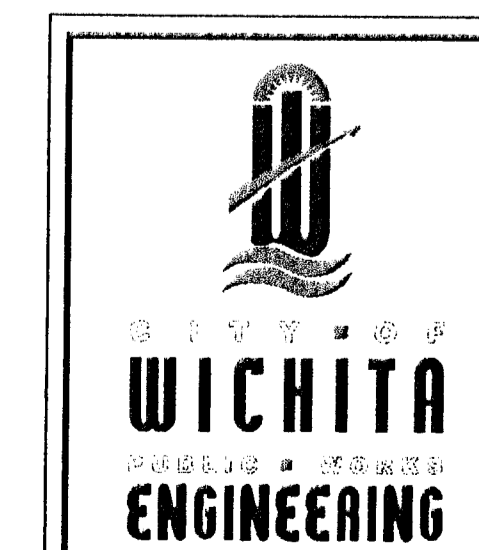
- Quantities For Information Only -

NOTE: The contractor shall supply and install all necessary materials and equipment for the complete installation and operation of the traffic signal system whether specifically mentioned or not.

\* Subscript "P" indicates programmed signals. Subscript "D" indicates dual-mode green/yellow arrow section.

\*\* Removal of existing traffic signal equipment shall include removal of foundations, service boxes, and junction boxes. See construction traffic control regarding removal of existing signals.

SIGNAL TIMING BY  
CITY OF WICHITA  
PAUL GUNZELMAN  
268-4448



**21st & 119th Streets Summary of Quantities**

NEIL CABLE, P.E.		
PROJECT NUMBER 472-83609		
O&A NUMBER 710216		DATE 09/2002
CITY ENGINEER'S OFFICE		
455 NORTH MAIN STREET WICHITA, KANSAS 67202-1520		
DESIGN PDG	DRAWN LRB	SHEET 4 OF 7