

COUNTY	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	87 N-0386-01	2009	148	255

BILL OF MATERIALS (FOR INFORMATION ONLY)		
LEGEND	UNITS	QTY.
PAD MOUNTED CONTROLLER AND CABINET	EACH	1
TRAFFIC SIGNAL HEAD (see chart A) WITH MOUNTING HARDWARE	EACH	18
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN (16"x18" COMB.) & APS WITH MOUNTING HARDWARE	EACH	8
TRAFFIC SIGNAL POLE (see chart B) STEEL	EACH	4
CONCRETE CONTROLLER PAD	EACH	1
CONCRETE FOOTING (16 FT) - POLE	EACH	4
CONDUIT ELBOW 90°	EACH	As Required
CONDUIT ELBOW 90° 3"	EACH	As Required
BACKPLATE 5' 3 SECTION	EACH	12
BACKPLATE 5' 5 SECTION	EACH	2
TRAFFIC MANHOLE	EACH	5
GROUND ROD & CLAMP	EACH	5
CONDUIT CLAMP	EACH	As Required
TRAFFIC SIGNAL LAMP RED LED KIT	EACH	18
TRAFFIC SIGNAL LAMP YELLOW LED KIT	EACH	14
TRAFFIC SIGNAL LAMP GREEN LED KIT	EACH	14
TRAFFIC SIGNAL LAMP GREEN ARROW LED KIT	EACH	6
TRAFFIC SIGNAL LAMP YELLOW ARROW LED KIT	EACH	6
WIND DAMPER (12"x36" SIGN BLANK) WITH MOUNTING HARDWARE	EACH	4
PEDESTRIAN PUSH BUTTON WITH SIGN	EACH	8
MULTI-CONDUCTOR CABLE NO. 14 A.W.G. 7/c	LIN. FT.	1202
MULTI-CONDUCTOR CABLE NO. 16 A.W.G. 3/c (V3)	LIN. FT.	601
COMMON GROUND WIRE NO. 8 A.W.G. 1/c	LIN. FT.	450
POWER LEAD-IN WIRE NO. 6 AWG 1/c (TYPE THHN)	LIN. FT.	XX
VIDEO CABLE 75 OHM COAXIAL (BELDON 8281) (CX)	LIN. FT.	601
CONDUIT 2" (RGC)	LIN. FT.	37
CONDUIT 3" (RGC)	LIN. FT.	507
CAMERA HOUSING	EACH	4
VIDEO DETECTION CAMERA & MOUNTING HARDWARE (RISE BRACKET)	EACH	4
VIDEO DETECTION PROCESSOR UNIT	EACH	1
VIDEO MONITOR	EACH	1
CONDUIT 1.5" (RGC)	LIN. FT.	XX
STREET NAME SIGNS WITH MOUNTING HARDWARE (D3-1)	EACH	4
LEFT TURN YIELD ON GREEN WITH MOUNTING HARDWARE (R10-12)	EACH	2
LEFT TURN SIGNAL WITH MOUNTING HARDWARE (R10-10L)	EACH	2

"XX" Quantity to be determined in the field.

TYPE 2070 CONTROLLER SETTINGS																	
INTERVAL	WAPITI PROGRAM								NOMINAL DISPLAY								
	PHASE								TIME CLOCK	FEATURES							
	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8
Max	0	30	60	30	60	30	60	30	60	0	Year	Veh Recall					
Max 2	1	30	60	30	60	30	60	30	60	1	Month	Ped Recall					
Walk	2		8		8		8		8	2	Day Month	Red Lock					
Fl. Dv.	3		25		25		25		25	3	Day Week	Yel Lock	X	X	X	X	X
Max Init.	4	6	10	6	10	6	10	6	10	4	Hour	0 Permit	X	X	X	X	X
Min. Green	5	5	8	5	8	5	8	5	8	5	Minute	Ped Phases	X	X	X	X	X
TBR	6	1	15	1	15	1	15	1	15	6	Second	Lead Phases	X	X	X	X	X
TTR	7	1	25	1	25	1	25	1	25	7		Dbl Entry					
	8									8		Sequential					
Passage	9	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	9		Start Up Yel	X			X	
Min. Gap	a	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	a		Overlap A					
Add Act	b	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	b		Overlap B					
Yellow	c	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0	c		Overlap C					
Red Clr	d	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	d		Overlap D					
Red Rev.	e									e		Exclusive					
Walk II	f									f		Sm Gap					

Note: The countdown pedestrian signal will count down during the pedestrian change interval (flashing "Upraised Hand") Countdown displays shall not be used during the "Walk" interval or during the yellow change interval of a concurrent vehicular phase.

Scale: 1" = 20'

LEGEND

- (40') ○ MAST ARM POLE (Length)
- 3" RIGID CONDUIT
- 2" RGC CONDUIT
- 1.5" RIGID CONDUIT
- VEHICLE DETECTION CAMERA (VCC)
- XX VEHICLE DETECTION AREA
- STREET NAME SIGN D3-1
- LEFT TURN YIELD ON GREEN (R10-10L)
- LEFT TURN SIGNAL ARROW ONLY (R10-5)
- SERVICE BOX
- TRAFFIC SIGNAL CONTROLLER
- TRAFFIC SIGNAL HEAD WITH BACKPLATE
- PEDESTRIAN PUSH BUTTON
- PEDESTRIAN SIGNAL HEAD
- WIND DAMPER
- PP Power Pole

GENERAL NOTES

- Signal timing by the City of Wichita. The Contractor shall be responsible for furnishing and installing the controller, cabinet concrete base, and for all equipment necessary for the complete and satisfactory operation of the traffic signal whether said equipment is specifically mentioned or not.
- Lengths given are to the centerline of pole/box and do not include lengths for elbows and risers.
- Signal heads, pedestrian signals, traffic signs, etc. shall include all brackets, hardware, & other incidentals necessary for installation.
- See City of Wichita Standard Specifications for additional wiring notes.
- Quantities are for information only.
- Traffic signal pole bases at Greenwich Rd and Harry St. will be 16 ft. deep. (See Steel Pole Assembly Details sheet).
- Install Wind Damper on mast arms at a location that does not interfere with other signs, signals or video detection.
- The Contractor shall install a 1.5 inch RGC from the controller to the power pole and continue up the power pole per the "Power Pole and Span Pole Assembly Details" sheet. The Contractor shall furnish and install the appropriate power cable in the 1.5 inch RGC per the plans. The Contractor will obtain the meter box from Westar and install the meter box to the power pole.

SPECIAL FINISH FOR TRAFFIC SIGNAL EQUIPMENT

The traffic signal controller cabinet, bracket, sign blank backs, signal backs and other exposed surfaces shall be shop painted with an aerosol lacquer cellulose color to match the traffic signal pole color. The contractor shall submit two copies of the proposed coating system to the City for approval prior to application.

TRAFFIC SIGNAL POLE & PEDESTAL EXTERIOR COATING

In addition to being galvanized, all exterior surfaces shall be coated with a zinc rich epoxy powder to a minimum dry film thickness of 2.0 mils. The coating shall be electrostatically applied and partially cured in a gas fired convection oven by heating the steel substrate to a minimum of 250 degrees Fahrenheit.

The powder primed surface shall be coated with an intermediate coat of polyester powder to a minimum dry film thickness of 2.0 mils. The coating shall be electrostatically applied and cured by heating the substrate in a convection oven to minimum of 350 degrees and a maximum of 400 degrees Fahrenheit.

The intermediate coat shall be top coated with one coat of high-build acrylic polyurethane enamel to a minimum dry film thickness of 2.0 mils. The coating shall be electrostatically applied and cured by heating the substrate in a convection oven to minimum of 225 degrees Fahrenheit. The final top coating color shall be BLACK.

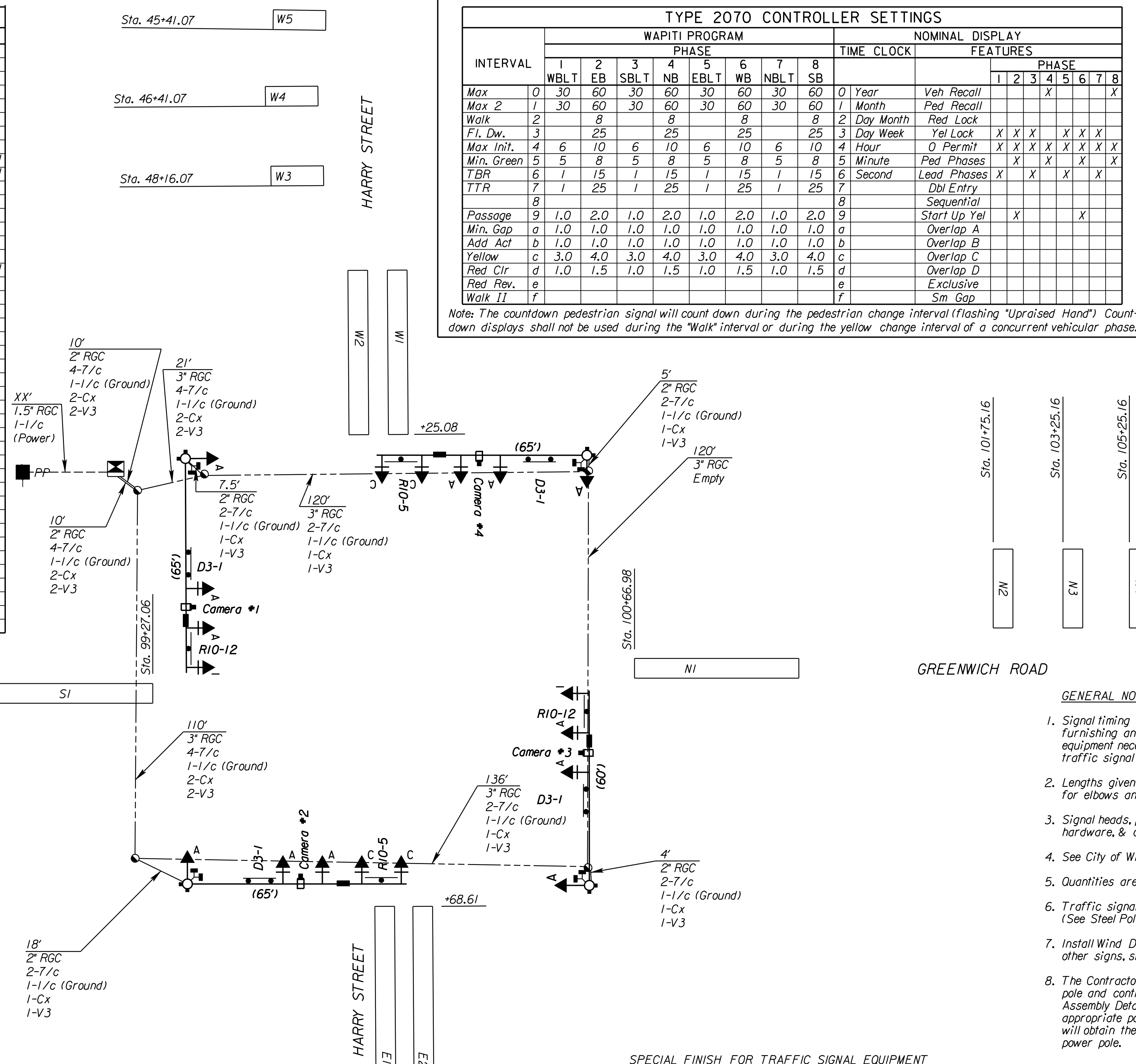


CHART "A" - SIGNAL INVENTORY

NO. WAYS	NO. SECTION (Per Face)	SIGNAL FACE ARRANGEMENT	MOUNTING TYPE	QTY.
1	3	A	TYPE I	8
1	5	I	TYPE I	2
1	3	C	TYPE I	4
1	1	K (SYMBOLIC)	TYPE II	8
1	3	A	TYPE III	4

CHART "B" - TRAFFIC SIGNAL POLES

STATION	DISTANCE	SIDE	ARM LENGTH	# OF SIGNAL ON ARM	SIGNAL SPACING	TYPE
99+37.00	68.00'	LT.	65'	3	40-12-8	STD.
99+37.50	61.50'	RT.	65'	4	28.5-12-8-12	STD.
100+60.00	62.00'	RT.	60'	3	33-12-8	J.U.
100+60.00	69.00'	LT.	65'	4	32.5-12-8-12	STD.

CHART "C" - CONDUIT

CONDUIT SIZE	TRENCHED	PUSHED
2" PVC	-	-
1.5" RGC	XX	-
2" RGC	37	-
3" RGC	507	-

TRAFFIC MANHOLE SUMMARY

STATION	DISTANCE	SIDE
99+22.00	52.00	RT.
99+22.00	57.50	LT.
99+43.00	63.00	LT.
100+60.00	64.00	LT.
100+59.00	57.00	RT.

CHART "D" - STREET NAME SIGN SUMMARY

LEGEND	TYPE	QTY.	UNITS	SIZE
GREENWICH	D3-1	2	EA.	18" x 60"
HARRY	D3-1	2	EA.	18" x 60"

TYPE 2070 CONTROLLER SYSTEM TO INCLUDE:

- Controller Unit: The 2070L controllers supplied shall meet the requirements outlined in CalTrans TEES 2002 (latest revision), and the following requirements:
 - The 2070L controllers shall have a 19" EIA rack mountable chassis (mated to the 170 cabinet).
 - 2070-1B CPU module with RJ-45 Ethernet port.
 - 2070-2A CI Field I/O module for compatibility with CalTrans style CI connector.
 - 2070-3B 8X40 front panel with LCD display.
 - 2070-4A 10 amp power supply.
 - 2070-7A asynchronous serial communications module (RS-232)
 - Any unused slot position shall have a cover plate.
- Conflict Monitor:

The Conflict Monitors supplied shall be 2010 ECL conflict monitors with ethernet port.

K:\35751A\CADD\SHEETS\TRAFFIC\HARRYWIRE.dgn SURV. PLOT CADD DES. RAN DR. JRI TR. CKD. JUR APP.

CITY OF WICHITA
JAMES ARMOUR, P.E., CITY ENGINEER
GREENWICH ROAD

WIRING PLAN

Greenwich Rd. and Harry St.

PB PARSONS
BRINCKERHOFF
Wichita, Kansas

SCALE 1"=20'	DATE 11/23/2009	DWG. NO. 35751A
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