BILL OF MATERIALS

ITEM		UNIT	QTY
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	10
TRAFFIC SIGNAL POLE (SEE CHART B) STEEL		EACH	2
TRAFFIC SIGNAL POLE (SEE CHART B) ALUMINUM		EACH	–
TRAFFIC SIGNAL PEDESTAL ALUMINUM 10'		EACH	2
CONCRETE CONTROLLER PAD		EACH	1
CONCRETE FOOTING – PEDESTAL		EACH	1
CONCRETE FOOTING – POLE		EACH	2
CONDUIT ELBOW 90°		EACH	As Req'd
CONDUIT ELBOW 90° 3"		EACH	As Req'd
BACK PLATE 5" – 3 SECTION		EACH	7
BACK PLATE 5" – 4 SECTION		EACH	–
BACK PLATE 5" – 5 SECTION		EACH	1
SERVICE BOX		EACH	5
JUNCTION BOX		EACH	7
GROUND ROD & CLAMP		EACH	4
CONDUIT CLAMP		EACH	As Req'd
TRAFFIC SIGNAL LAMP 135 WATT		EACH	32
TRAFFIC SIGNAL LAMP 60 WATT		EACH	–
CLASS 4 – WOOD POLE		EACH	–
ENTRANCE HEAD		EACH	–
CIRCUIT BREAKER & BOX		EACH	1
GUY WIRE GUARD		EACH	–
GUY WIRE CLAMP		EACH	–
THIMBLE EYE ANCHOR ROD		EACH	–
PEDESTRIAN PUSHBUTTON W/SIGN		EACH	–
DETECTOR LOOP WIRE No. 14 A.W.G. 1/C (TYPE THHN)	1758.7	LIN. Ft	1760
LEAD–IN WIRE No. 4 A.W.G. 1/C (TYPE THHN)	162.9	LIN. Ft	165
STANDARD 1C #8 (GROUND)	259.8	LIN. Ft	265
MULTI–CONDUCTOR CABLE No. 14 A.W.G. 5/C	998.3	LIN. Ft	1005
MULTI–CONDUCTOR CABLE No. 14 A.W.G. 7/C	230.8	LIN. Ft	235
MULTI–CONDUCTOR CABLE No. 14 A.W.G. 2/C		LIN. Ft	–
SHIELDED DETECTOR LEAD–IN No. 14 A.W.G. 2/C	1918.9	LIN. Ft	1925
6 Pr #19 AWG COMM CABLE (Interconnect)		LIN. Ft	–
CONDUIT 3/4"	87.3	LIN. Ft	90
CONDUIT 1–1/4"	657.9	LIN. Ft	660
CONDUIT 2"	61.0	LIN. Ft	65
CONDUIT 3"	406.9	LIN. Ft	410
CONDUIT 50mm PVC – KG&E LIGHTING (J.U. Poles)		LIN. Ft	0
CONDUIT 50mm PVC – (Light Columns)		LIN. Ft	0
TETHER WIRE 1/4" ASTM A475 SIEMENS–MARTIN GRADE MIN.		LIN. Ft	–
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT **		L.S.	–
STREET NAME SIGNS		EACH	0
LEFT TURN YIELD ON GREEN W/MOUNTING		EACH	1
HARDWARE (R10–12)		EACH	1
HARDWARE (R10–10)		EACH	0
SPLICE KIT (TRAFFIC INTERCONNECT)		EACH	0

CHART 'B' - TRAFFIC SIGNAL POLES

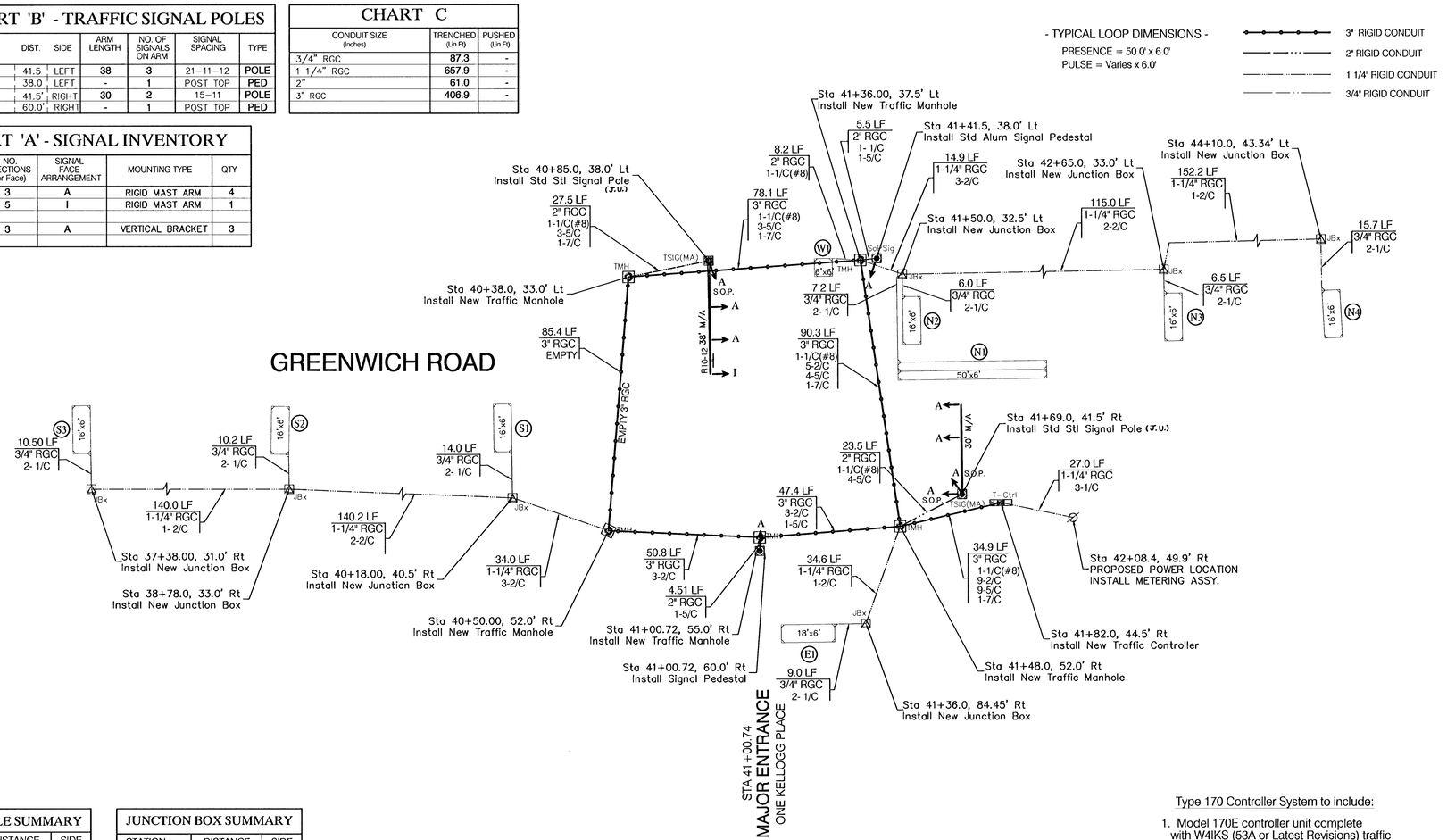
STATION	DIST.	SIDE	ARM LENGTH	NO. OF SIGNALS ON ARM	SIGNAL SPACING	TYPE
40+85.0	41.5	LEFT	38	3	21–11–12	POLE
41+41.5	38.0	LEFT	-	1	POST TOP	PED
41+69.0	41.5'	RIGHT	30	2	15–11	POLE
41+00.72	60.0'	RIGHT	-	1	POST TOP	PED

CHART 'A' - SIGNAL INVENTORY

NO. WAYS	NO. SECTIONS (Per Face)	SIGNAL FACE ARRANGEMENT	MOUNTING TYPE	QTY
1	3	A	RIGID MAST ARM	4
1	5	I	RIGID MAST ARM	1
1	3	A	VERTICAL BRACKET	3

CHART C

CONDUIT SIZE (Inches)	TRENCHED (Lin Ft)	PUSHED (Lin Ft)
3/4" RGC	87.3	-
1 1/4" RGC	657.9	-
2"	61.0	-
3" RGC	406.9	-



GENERAL NOTES

1. 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.
2. LENGTHS GIVEN ARE TO CENTERLINE OF POLE/BOX AND DO NOT INCLUDE LENGTHS FOR ELBOWS AND RISERS.
3. SIGNAL HEADS, PEDESTRIAN SIGNALS, TRAFFIC SIGNS & ETC. INCLUDE ALL BRACKETS, HARDWARE & OTHER INCIDENTALS NECESSARY FOR INSTALLATION.
4. SEE CITY OF WICHITA STANDARD SPECIFICATIONS FOR ADDITIONAL WIRING NOTES.

SPECIAL FINISH FOR TRAFFIC SIGNAL EQUIPMENT:

The traffic signal controller cabinet, brackets, sign blank backs, signal backs and other exposed surfaces shall be shop painted with an aerosol lacquer cellulose ester to match the traffic signal pole color. The contractor shall submit two copies of the proposed coating system to the City for approval 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 steel 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 a minimum of 225 degrees Fahrenheit. The final top coating color shall be BLACK

TRAFFIC MANHOLE SUMMARY

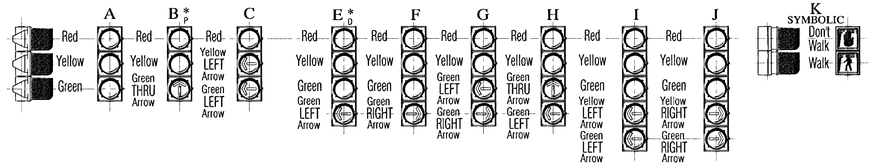
STATION	DISTANCE	SIDE
40+50.0	52.0'	Rt
41+00.72	55.0'	Rt
41+48.0	52.0'	Rt
40+38.0	33.0'	Lt
41+36.0	37.5'	Lt

JUNCTION BOX SUMMARY

STATION	DISTANCE	SIDE
37+38.0	31.0'	Rt
38+78.0	33.0'	Rt
40+18.0	40.5'	Rt
41+36.0	84.45'	Rt
41+50.0	32.5'	Lt
42+65.0	33.0'	Lt
44+10.0	43.34'	Lt

1. QUANTITIES ARE FOR INFORMATION ONLY. 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.
2. ** 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.

TYPICAL TRAFFIC SIGNAL HEADS



Type 170 Controller System to include:

1. Model 170E controller unit complete with W4IKS (53A or Latest Revisions) traffic program on 412B2 system memory module with a 400 modem
2. One (1) Model 332 Cabinet complete with all accessories & shall include:
   - A. One (1) Model 210ECL or 210MS Conflict Monitor with software.
   - B. Four (4) Model 430 Transfer Relays.
   - C. Two (2) Model 204 Flashing Units.
   - D. Twelve (12) Model 200 Switch Packs.
   - E. Two (2) Model 242 DC Isolators.
   - F. One (1) Surge Arrester.
   - G. Twelve (12) Model 222 (C-800) 2 Channel Loop Detectors

PROJECT NUMBER			SHEET NAME	ENGINEERING DIRECTORY	
472 - 83370			Wiring_gren	\Kelog_gr\greenwich\Traffic	
DESIGN	DRAWN	APPROVED	DATE	SCALE	BAUGHMAN NO
JFB/SS	SS/KWR	JFB	JUNE01		01 06 E045

ONE KELLOGG PLACE 2ND ADDN

INTERSECTION SIGNALIZATION WIRING PLAN

GREENWICH ROAD FROM GILBERT TO KELLOGG AVE

BAUGHMAN COMPANY, P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 * 315 ELLIS * WICHITA, KANSAS 67211

SHEET 18 OF 43

F:\Eng\KELOG_GR\greenwich\traffic\wiring_gren.dwg Tue Jul 17 11:07:37 2001