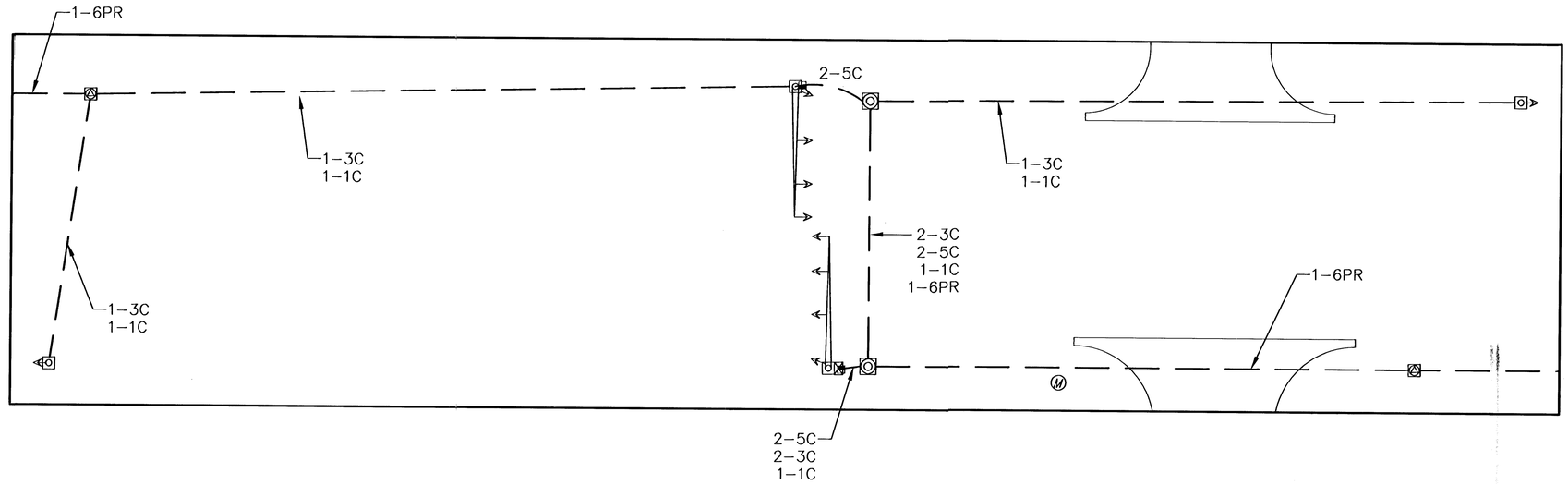
FHWA REGION NO.	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NUMBER	TOTAL SHEETS
7	KANSAS	CMQ-N022 (901)	2002	39	62

**BILL OF MATERIALS

	ITEM	UNIT	QUANT.
*	POLE MOUNTED CONTROLLER & CABINET	EACH	1
	TRAFFIC SIGNAL HEAD W/MOUNTING HARDWARE	EACH	8
	TRAFFIC SIGNAL POLE STEEL	EACH	2
	TRAFFIC SIGNAL PEDESTAL ALUMINUM 4.5m	EACH	2
	CONCRETE FOOTING – PEDESTAL	EACH	2
	CONCRETE FOOTING – POLE	EACH	2
	BACK PLATE 5" 3 SECTION	EACH	4
	SERVICE BOX	EACH	2
	JUNCTION BOX	EACH	14
	GROUND ROD & CLAMP	EACH	3
	RED L.E.D. KIT	EACH	6
	YELLOW L.E.D. KIT	EACH	6
	GREEN L.E.D. KIT	EACH	6
	ORANGE/WHITE L.E.D. KIT(12" COMBINATION–"HAND/MAN" INDICAT.)	EACH	2
	PEDESTRIAN PUSHBUTTON W/SIGN	EACH	2
	PEDESTRIAN INDICATOR HEAD WITH MOUNTING HARDWARE	EACH	2
	UNDERGROUND SPLICE KIT	EACH	2
	COMMUNICATION CABLE 6 PAIR NO. 19 A.W.G.	METER	726
	DETECTOR LOOP WIRE NO. 14 A.W.G 1/c (TYPE THHN)	METER	84
	LEAD–IN WIRE NO. 6 A.W.G. 1/c (TYPE THHN)	METER	158
	MULTI–CONDUCTOR CABLC NO. 14 A.W.G. 5/c	METER	
	MULTI–CONDUCTOR CABLE NO. 14 A.W.G. 7/c	METER	440
	MULTI–CONDUCTOR CABLE NO. 14 A.W.G. 3/c	METER	
	SHIELDED DETECTOR LEAD–IN NO. 16 A.W.G. 2/c	METER	
	CONDUIT 19mm	METER	
	CONDUIT 50mm	METER	814
	CONDUIT 76mm	METER	
	STANDARD IC #8 (GROUND)	METER	
	REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT **	METER	1

**INCLUDES DETECTORS @ B.W.B. AND COMM. SYSTEM



WIRING NOTES

* THE CONTROLLER AND CABINET SHALL INCLUDE THE FOLLOWNG:

- MODEL 170 CONTROLLER UNIT COMPLETE WITH W4IKS (53A OR LATEST REVISION) TRAFFIC PROGRAM ON 412B SYSTEM – MEMORY MODULE AND MODEL 400 MODEM
- ONE MODEL 336 CABINET (MEETING CITY OF WICHITA SPECIFICATIONS) COMPLETE WITH ALL ACCESSORIES INCLUDING:
- 1 – MODEL 210 ECL OR MS CONFLICT MONITOR.
- 4 – TRANSFER RELAYS
- 2 – MODEL 204 FLASHER UNITS.
- 2 – MODEL 242 TWO CHANNEL ISOLATERS
- 2 – MODEL 200 SWITCH PACKS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING THE CONTROLLER, CABINET AND SOFTWARE AND FOR ALL EQUIPMENT NECESSARY FOR THE COMPLETE AND SATISFACTORY OPERATION OF THE TRAFFIC SIGNAL, WHETHER OR NOT SAID EQUIPMENT IS SPECIFICALLY MENTIONED.

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL POWER SUPPLY CABLE AND TRAFFIC SIGNAL CABLE FOR THE COMPLETE OPERATION OF THE TRAFFIC SIGNAL. NO SPLICES WILL BE ALLOWED OUTSIDE POLE BASES, SERVICE BOXES, OR JUNCTION BOXES.

EACH SEPARATE MAST ARM MOUNTED SIGNAL HEAD SHALL HAVE ONE CONTINUOUS RUN OF FIVE–CONDUCTOR CABLE FROM THE POLE BASE TO THE SIGNAL HEAD. A ONE–CONDUCTOR #8 AWG (GREEN) SHALL BE INSTALLED TO CONNECT ALL GROUNDING LUGS IN POLE BASES AND CONTROLLER BASE.

ONE, SEVEN–CONDUCTOR CABLE SHALL BE RUN FROM THE CONTROLLER TO EACH POLE SUPPORTING A MAST ARM–MOUNTED VEHICLE INDICATION. THE FOLLOWNG COLOR CODE SHALL BE USED.

WHITE	COMMON
RED	RED BALL
GREEN	GREEN BALL
ORANGE	YELLOW BALL
WHITE/BLACK	DON'T WALK
BLUE	WALK
BLACK	PUSHBUTTON

ONE, FIVE–CONDUCTOR CABLE SHALL BE RUN FROM EACH 3–SECTION THRU SIGNAL HEAD TO THE POLE BASE.

ONE, FIVE–CONDUCTOR CABLE SHALL BE RUN FROM EACH 2–WAY SIDE–OF–POLE PEDESTRIAN SIGNAL TO THE POLE BASE. THE FOLLOWNG COLOR CODE SHALL BE USED.

RED	DON'T WALK
GREEN	WALK
WHITE	COMMON
ORANGE	SPARE
BLACK	SPARE

ONE, TWO–CONDUCTOR CABLE SHALL BE RUN FROM PUSHBUTTON TO POLE BASE.

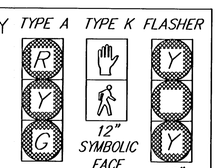
TRAFFIC SIGNAL POLE SUMMARY

STATION	OFFSET	POLE TYPE	MAST ARM LENGTH	NO. OF SIGNALS ON MAST ARM	BRACKET TYPE	NO. OF SIGNALS ON POLE	BRACKET TYPE
10+126.90	12.690 Lt.	M	7 m	2 – A	3–I	1–A, 1–K	IV
10+129.57	8.680 Rt.	M	8 m	2 – A	3–I	1–A, 1–K	IV
10+182.195	11.835 Lt.	P				FLASHER	III
10+070.195	8.687 Rt.	P				FLASHER	III

POLE TYPES:
M. STANDARD STEEL POLE WITH MAST ARM
P. PEDESTAL

SIGNAL FACE SUMMARY

TYPE	# REQ'D
A	6
K	2
FLASHER	2



LEGEND:
- Steel Traffic Signal Pole (Joint Use)
- Traffic Signal Indication
- Service Box
- Controller
- Pedestrian Indication
- Junction Box
- Rigid Galvanized Conduit (RGC)
- Meter Box and Power Disconnect



NO SCALE

SIGNAL TIMING BY
CITY OF WICHITA
PAUL GUNZELMAN
268-4448

Harry Street – I–135 to George Washington Blvd.
SIGNAL WIRING & QUANTITIES
WICHITA, KANSAS

Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning
924 North Main (316) 264–8008
Wichita, Kansas 67203 (316) 264–4621 fax
www.rbkansas.com E–mail: info@rbkansas.com

DESIGN	MWS
DRAWN	MWS
REVIEW	
UTILITY	
DRAWING FILE	SIGNAL_PLAN {Quanity}
PROJECT NUMBER	.
DATE	Apr. 30, 2004
RB JOB	1827T
SHEET	39
OF	62