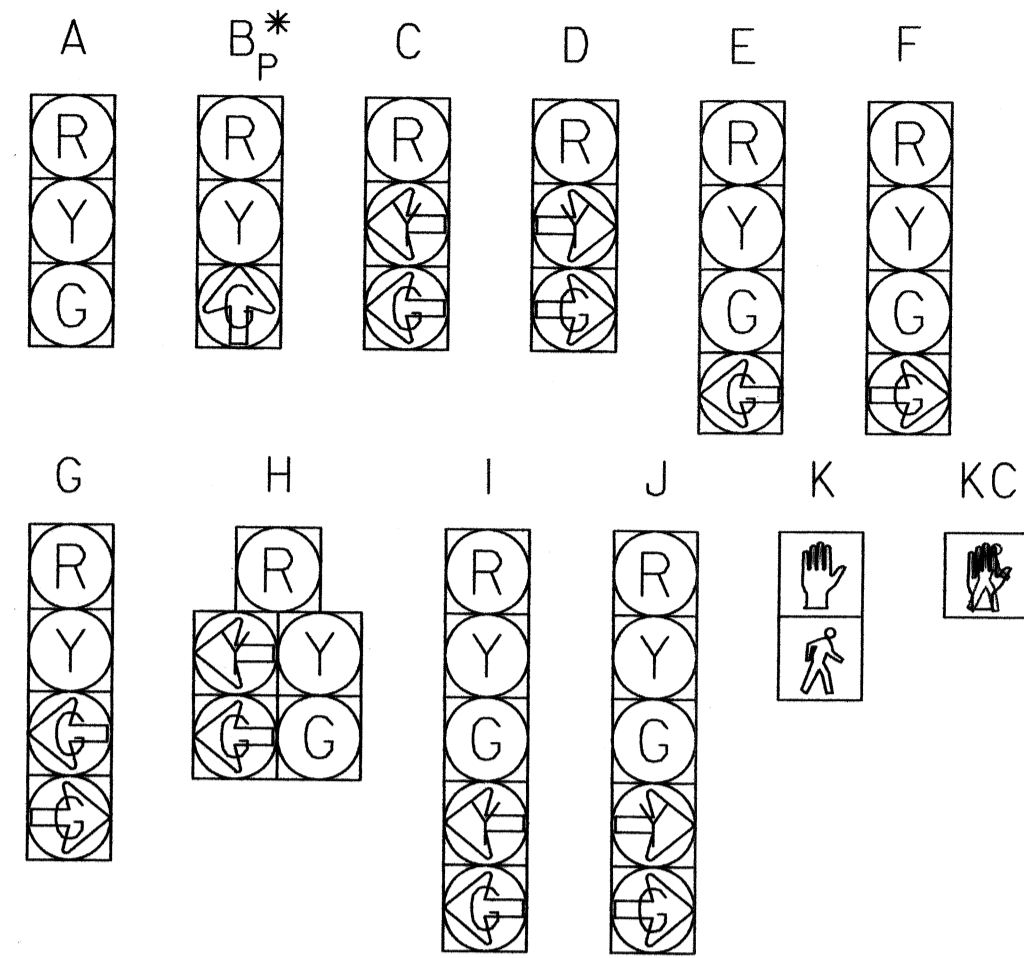


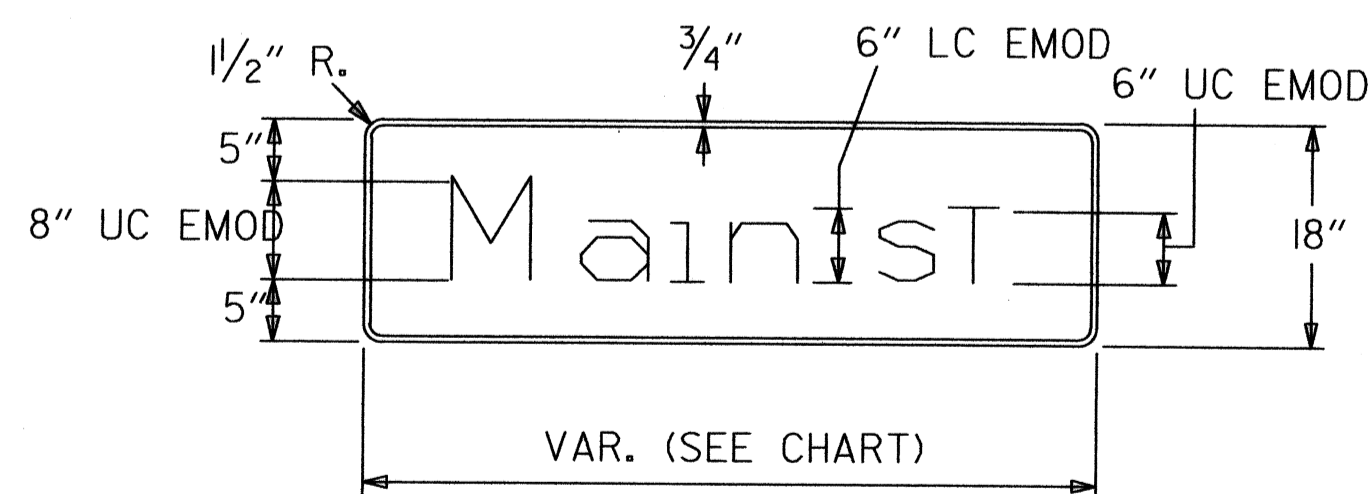
CHART A SIGNAL SUMMARY			
SIGNAL FACE ARRANGEMENT	NO. SECTIONS (PER FACE)	SIGNAL MOUNTING TYPE	QUANTITY
A	3	MAST ARM W/BACKPLATE	49
H I	5	MAST ARM W/BACKPLATE	2
		MAST ARM W/BACKPLATE	
A	3	SIDE-OF-POLE	4
K	2	SIDE-OF-POLE	8
		SIDE-OF-POLE	



* SUBSCRIPT "P" INDICATES PROGRAMMED SIGNALS.
NOTE: ALL LENSES ARE L.E.D. UNLESS OTHERWISE NOTED.

CHART B TRAFFIC SIGNAL POLES							
POLE HEIGHT	SIGNAL ARM LENGTH	SIGNAL ARM MOUNTING HEIGHT	NO. OF SIGNALS ON ARM	SIGNAL SPACING	LUMINAIRE ARM LENGTH	LUMINAIRE MOUNTING HEIGHT	QUANT.
1	45'	19'	2-3	25,35,45	N/A	N/A	1
2	15'	19'	1	15	N/A	N/A	1
3	45'	19'	2-3	20,35,45	N/A	N/A	1
4	25'	19'	+2	15,25	N/A	N/A	1

CHART C OVERHEAD STREET NAME SIGNS			
SIGN	LEGEND	LENGTH	QUANTITY
A	MERIDIAN AVE	9'-6"	2
B	54th ST	6'-0"	2



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 COMPLETE OPERATION OF THE TRAFFIC SIGNAL SYSTEM WHETHER SPECIFICALLY MENTIONED OR NOT.

BILL OF MATERIALS

ITEM	QUANT.	UNIT	SPEC. NO.	NOTE
CONTROLLER UNIT (I70E)	1	EACH	3.2.2.2	
MALFUNCTION MANAGEMENT UNIT (210 ELL)	1	EACH	3.2.2.3	
SURGE PROTECTOR	1	EACH	3.2.2.4.3	
LOAD SWITCH (SIGNAL PEDESTRIAN)	10	EACH	3.2.2.5.1	
FLASHER	1	EACH	3.2.2.5.2	
FLASH TRANSFER RELAY	4	EACH	3.2.2.5.3	
DETECTOR, 2-CHANNEL		EACH	3.2.2.5.4	
DETECTOR, 4-CHANNEL	2	EACH	3.2.2.5.4	
POLE MOUNTED CABINET		EACH	3.2.2.6	
PAD MOUNTED CABINET	1	EACH	3.2.2.6	
BUS INTERFACE LIST	2	EACH	3.2.2.7	
TRAFFIC SIGNAL HEAD	CHART A	EACH	3.2.4	
SIGNAL HEAD MOUNTING BRACKET	CHART A	EACH	3.2.6	
BACK PLATE	CHART A	EACH	3.2.7	
VEHICLE TRAFFIC SIGNAL LAMP	34	51 EACH	3.2.5	
PEDESTRIAN TRAFFIC SIGNAL LAMP	16	8 EACH	3.2.5	
L.E.D. LENS	50	59 EACH	3.2.4.4	
PEDESTRIAN PUSHBUTTON & SIGN	8	EACH	3.2.8, 3.2.9	
TRAFFIC SIGNAL POLE	CHART B	EACH	3.2.10	
TRAFFIC SIGNAL PEDESTAL ALUMINUM		EACH	3.2.11	
TERMINAL BLOCK		EACH	3.2.12	
JUNCTION BOX		EACH	3.2.13, 3.2.14	
SERVICE BOX	8	EACH	3.2.15	
LUMINAIRE		EACH	3.2.16	
LUMINAIRE LAMP WATT		EACH	3.2.17	
PHOTOCELL		EACH	3.2.18	
UNFUSED STREET LIGHT CONNECTOR KIT		EACH	3.2.19	
FUSED STREET LIGHT CONNECTOR KIT		EACH	3.2.20	
OVERHEAD STREET NAME SIGN	CHART C	EACH	3.2.21	
R10-10 SIGN (24" X 30")		EACH	3.2.22	
R10-12 SIGN (24" X 30")	2	EACH	3.2.22	
BLANK OUT SIGN		EACH	3.2.23	
ENTRANCE HEAD		EACH	3.2.24	
SERVICE ENCLOSURE, 50 AMP.	1	EACH	3.2.25	
CIRCUIT BREAKER, TRAFFIC SIGNAL, 20 AMP.	1	EACH	3.2.26	
CIRCUIT BREAKER, LUMINAIRE, AMP.		EACH	3.2.26	
GROUND ROD & CLAMP	5	EACH	3.2.27, 3.2.28	
SERVICE WIRE NO. 6 AWG 1/C	100	LIN FT	3.2.29	
LIGHTING DISTRIBUTION WIRE NO. 8 AWG 1/C		LIN FT	3.2.30	
POLE & BRACKET WIRE NO. 10 AWG 1/C	200	LIN FT	3.2.31	
GROUND WIRE NO. 6 AWG 1/C	530	LIN FT	3.2.32	
MULTI-CONDUCTOR CABLE NO. 14 AWG 5/C	#56	1500 LIN FT	3.2.33	
MULTI-CONDUCTOR CABLE NO. 14 AWG 7/C	141	LIN FT	3.2.33	
MULTI-CONDUCTOR CABLE NO. 14 AWG 9/C	369	LIN FT	3.2.33	
MULTI-CONDUCTOR CABLE NO. 14 AWG 15/C	341	LIN FT	3.2.33	
SHIELDED DETECTOR LEAD-IN CABLE NO. 14 AWG 2/C	1524	LIN FT	3.2.34	
DETECTOR LOOP WIRE NO. 14 AWG 1/C	3443	LIN FT	3.2.35	
LOOP SEALANT	AS REQ'D		3.2.36	
PRE-FORMED LOOP		EACH	3.2.37	
CONDUIT, 1" & FITTINGS		LIN FT	3.2.38	
CONDUIT, 1 1/2" & FITTINGS	580	LIN FT	3.2.38	
CONDUIT, 2" & FITTINGS		LIN FT	3.2.38	
CONDUIT, 3" & FITTINGS	340	LIN FT	3.2.38	
CONDUIT, 4" & FITTINGS		LIN FT	3.2.38	

FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	I78PPP (607879)		T8	

BID ITEM		
ITEM	UNIT	QUANTITY
TRAFFIC SIGNAL INSTALLATION	L.S.	L.S.

Traffic Engineering Consultants
 TODD E. BUTLER, P.E. # 18710
 C.A. # E-1150, RENEWAL 12-31-06
 9-26-07
 DATE
 6000 S. Western, Suite 300 - Oklahoma City, OK 73109, Ph: 406-728-7721, Fax: 406-728-9848, Web: www.tecokc.com

-QUANTITIES FOR INFORMATION ONLY-

3				
2				
1				
NO.	DATE	BY	APP'D	
KANSAS DEPARTMENT OF TRANSPORTATION				
NEMA SYSTEM				
TRAFFIC SIGNAL QUANTITIES SHEET				
TEI30A				03/26/03
DESIGNED	J.F.F.	DETAILED	J.F.F.	QUANTITIES
DESIGN CK.	G.J.O.	DETAIL CK.	G.J.O.	QUAN. CK.
				TRACE CK.

DATE: 12/13/06

Plotted By: \$USER\$
 Plot File: \$SYTIME\$
 Plot Date: \$SYTIME\$