FHWA REG NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	SHEETS
7	KANSAS	87N 0064-01	1997	79	130

BILL OF MATERIALS (FOR INFORMATION ONLY)

ITEM	UNIT	QUANTITY
CROSSWALK SIGNAL:		
TRAFFIC SIGNAL POLE STEEL W/ MAST ARM	EACH	2
TRAFFIC SIGNAL PEDESTAL	EACH	2
CONCRETE BASE – POLE	EACH	2
CONCRETE BASE – PEDESTAL	EACH	2
BACK PLATE 5" – 3 SECTION	EACH	4
SERVICE BOX – 36 IN. DIA.	EACH	2
GROUND ROD & CLAMP	EACH	5
TRAFFIC SIGNAL LAMP 135 WATT	EACH	22
TRAFFIC SIGNAL LAMP 60 WATT	EACH	4
ENTRANCE HEAD	EACH	1
CIRCUIT BREAKER & BOX	EACH	1
TRAFFIC SIGNAL HEAD – 12" (TYPE A) W/MOUNTING BRACKET	EACH	6
PEDESTRIAN SIGNAL HEAD – 12" (TYPE L) W/MOUNTING BRACKET	EACH	2
FLASHER SIGNAL HEAD – 8" W/MOUNTING BRACKET	EACH	2
PEDESTRIAN PUSHBUTTON W/SIGN	EACH	2
POLE MOUNTED CABINET & CONTROLLER SYSTEM–TYPE 170(SEE NOTE)	EACH	1
LEAD–IN WIRE NO. 8 AWG 1/c (TYPE THHN)	LIN. FT.	275
MULTI–CONDUCTOR CABLE NO. 14 AWG 5/c	LIN. FT.	445
MULTI–CONDUCTOR CABLE NO. 14 AWG 3/c	LIN. FT.	410
CONDUIT 1"	LIN. FT.	125
CONDUIT 1–1/4"	LIN. FT.	310
CONDUIT 2"	LIN. FT.	100
STANDARD 1C #8 (GROUND)	LIN. FT.	585
SCHOOL CROSSING SIGN (S2–1) W/MOUNTING HARDWARE	EACH	2
SCHOOL SPEED LIMIT SIGN (S5–1) W/MOUNTING HARDWARE	EACH	2
END SCHOOL ZONE SIGN (S5–2) W/MOUNTING HARDWARE	EACH	2
TRAFFIC COUNTER:		
CONDUIT 2"	LIN. FT.	65
SERVICE BOX – 36" DIA.	EACH	2

TYPE 170 TRAFFIC CONTROLLER SYSTEM TO INCLUDE:

ONE (1) MODEL 170 CONTROLLER UNIT COMPLETE WITH 412B2 SYSTEM MEMORY MODULE CAPABLE OF SUPPORTING WAPITI MICRO SYSTEM W4IKS (LATEST REVISION) TRAFFIC PROGRAM ON 27256 EPROM.

ONE (1) MODEL 336 CABINET COMPLETE WITH ALL ACCESSORIES INCLUDING FOUR (4) MODEL 430 TRANSFER RELAYS, TWO (2) MODEL 204 FLASHER UNITS AND ONE (1) MODEL 210PC CONFLICT MONITOR.

TWO (2) MODEL 242 TWO CHANNEL ISOLATORS.

TWO (2) MODEL 200 SWITCH PACKS.

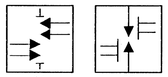
NOTE: THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY MATERIAL AND EQUIPMENT FOR THE COMPLETE INSTALLATION AND OPERATION OF THE TRAFFIC SIGNAL WHETHER SPECIFICALLY MENTIONED OR NOT.

CROSSWALK SIGNAL HEAD SUMMARY

SIGNAL NO.	TYPE	SIZE	MOUNTING BRACKET	QUANTITY
1	A	3–12"	TYPE I	4
2	A	3–12"	TYPE IV *	2
3	L	2–12"	TYPE IV *	
4	A.W.F.	3–8"	TYPE V	2

* ONE TYPE IV BRACKET WILL SUPPORT 1 TYPE A AND 1 TYPE L HEADS.

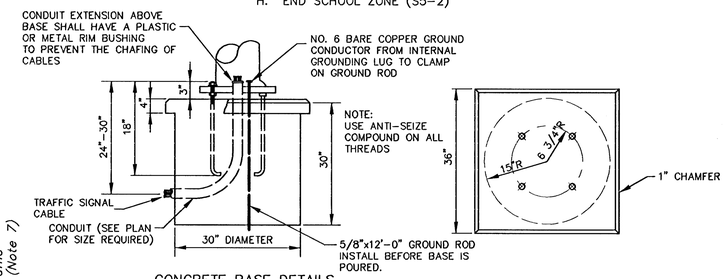
SIGNAL PHASING



CROSSWALK SIGNAL POLE SUMMARY

STATION	TYPE	ARM LENGTH	SIGNALS ON ARM	SIGNALS/EQUIP. ON POLE	SIGNS ON POLE
107+72 R	A				1–G 1–H
109+22 L	B	27'	2–D	1–D, 1–E, 1–C	1–F
109+32 R	B	27'	2–D	1–D, 1–E	1–F
110+78 L	A				1–G 1–H

A. STANDARD 10' POLE (ALUMINUM)
B. STANDARD STEEL POLE WITH MAST ARM
C. CONTROLLER WITH CABINET
D. TRAFFIC SIGNAL
E. PEDESTRIAN SIGNAL WITH PUSH BUTTON
F. SCHOOL CROSSING (S2–1)
G. SCHOOL SPEED LIMIT (20 MPH)(S5–1)
H. END SCHOOL ZONE (S5–2)



CONCRETE BASE DETAILS
ADVANCE WARNING FLASHER

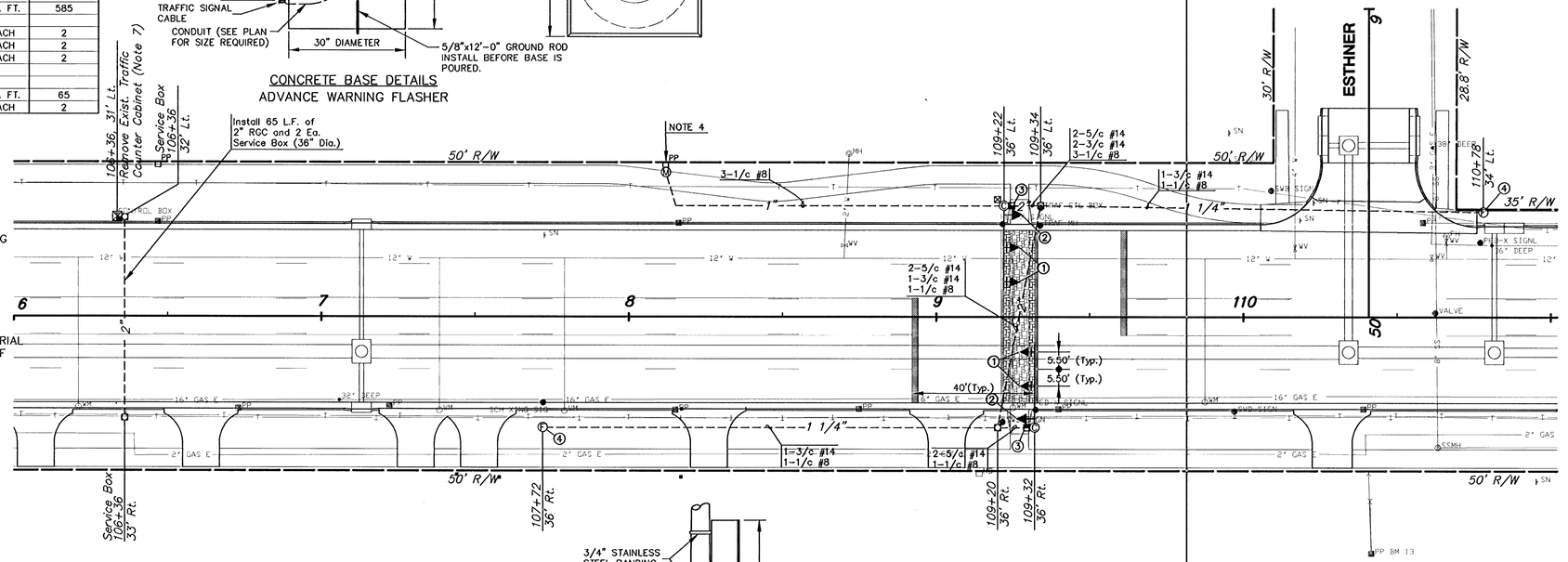
GENERAL NOTES

1. CONDUIT SHALL BE JACKED OR BORED IF NOT INSTALLED BEFORE PLACING OF NEW PAVEMENT.
2. PLACEMENT OF SERVICE/JUNCTION BOXES, CONDUIT RUNS AND CONTROLLER ARE TYPICAL AND MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER TO FACILITATE INSTALLATION.
3. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES WHICH MAY BE AFFECTED BY THE INSTALLATION OF TRAFFIC SIGNALIZATION PRIOR TO ANY CONSTRUCTION.
4. KG&E POWER POLE STA. 108+12±, LT. INSTALL METER AND POWER DISCONNECT. SEE POWER POLE DETAILS.
5. EXISTING SIGNAL APPURTENANCES, EXCEPT AS OTHERWISE NOTED ON THE PLANS, SHALL BE REMOVED BY CONTRACTOR AND TAKEN TO THE CITY YARD. NOTIFY TRAFFIC MAINTENANCE 14 DAYS PRIOR TO START OF CONSTRUCTION.
6. CONTRACTOR TO PROVIDE EITHER SCHOOL CROSSWALK SIGNAL OR ADULT CROSSING GUARD FOR SCHOOL CHILDREN CROSSING PROTECTION DURING SCHOOL CHILDREN CROSSING TIME PERIODS CONTACT ENGINEER FOR APPLICABLE SCHOOL CHILDREN CROSSING TIME PERIODS.
7. CONTRACTOR SHALL CONTACT MR. DENNIS BROOKS 913–296–3841 KDOT BUREAU OF TRANSPORTION PLANNING 3 WORKING DAYS PRIOR TO REMOVING THE EXISTING COUNTER. THE CONTRACTOR WILL REMOVE THE EXISTING COUNTER AND POST AND MR. BROOKS WILL TAKE AND STORE. TO BE REINSTALLED BY KDOT AND C.O.W. CONTRACTOR SHALL INSTALL 2" CONDUIT UNDER THE NEW STREET AND TWO SERVICE BOXES.

LEGEND

- Ⓕ Advance Flasher on Signal Pedestal with Signs S5–1, & S5–2
- Ⓒ Crosswalk Signal Pole, Mast Arm, and Sign S2–1
- Traffic Signal (Type A), 12" On Pole
- Traffic Signal With Backplate (Type A) 12" On Mast Arm
- Service Box
- Controller
- Pedestrian Indication, 12"
- Junction Box
- Vehicle Detector Loop (6'x6') 4 Turns
- Ⓣ Traffic Counter Station on Pedestal
- Rigid Galvanized Conduit (RGC)
- Ⓜ Meter Box and Power Disconnect

Scale: 1" = 20'

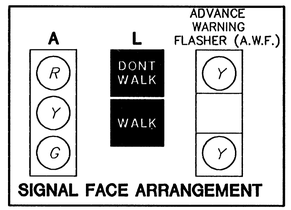


TYPE 170 CONTROLLER SETTINGS

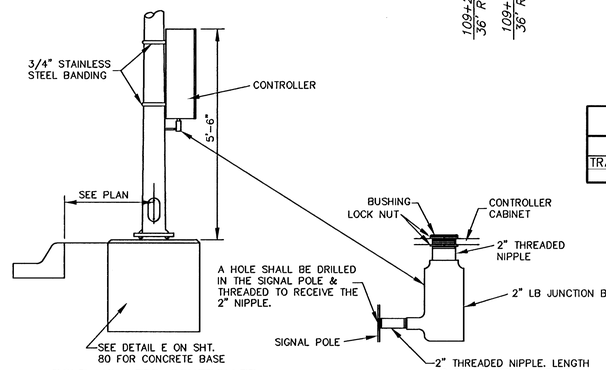
INTERVAL		"WAPITI PROGRAM" PHASE 1 WBLT	2 EB	3 SBLT	4 NB	5 –	6 WB	7 NBLT	8 SB
MAX	0		30		30				
MAX 2	1		30		30				
WALK	2				8				
FL. DW.	3				20				
MAX INIT.	4		30		28				
MIN GREEN	5		30		28				
TBR	6		10						
TTR	7		10						
	8								
PASSAGE	9								
MIN GAP	a								
ADD ACT	b								
YELLOW	c		4.0		3.0				
RED CLR.	d		1.5						
RED REV.	e								
WALK II	f								

NORMAL DISPLAY TIME CLOCK	FEATURES	1	2	3	4	5	6	7	8
0	YEAR								
1	MONTH								
2	DAY/MONTH								
3	DAY/WEEK								
4	HOUR								
5	MINUTE								
6	SECOND								
7									
8									
9									
a									
b									
c									
d									
e									
f									

FEATURES	1	2	3	4	5	6	7	8
VEH RECALL	X							
PED RECALL								
RED LOCK								
YEL LOCK	X	X						
ø PERMIT	X	X						
PED PHASES			X					
LEAD PHASES	X		X	X	X			
DBL ENTRY								
SEQUENTIAL								
START UP YEL								
OVERLAP A								
OVERLAP B								
OVERLAP C								
OVERLAP D								
EXCLUSIVE								
SIM GAP								



SIGNAL FACE ARRANGEMENT



POLE MOUNTED CONTROLLER

RECAPITULATION OF CROSSWALK SIGNAL QUANTITIES

BID ITEM	QUANTITY	UNIT
TRAFFIC SIGNAL INSTALLATION (PEDESTRIAN CROSSING)	LUMP SUM	LUMP SUM

KANSAS DEPARTMENT OF TRANSPORTATION
SENECA STREET
CROSSWALK SIGNALIZATION PLAN
STA. 109+25
TRAFFIC COUNTER STATION STA. 106+36
PROJECT NO. 87N 0064–01 SEDGWICK CO.

MID–KANSAS ENGINEERING CONSULTANTS, INC.
WICHITA, KANSAS

DESIGNED BY:	DCH	CHECKED BY:	DCH
DRAWN BY:	WNJ	DATE: NOV. 1995	SHEET 79 OF 130

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