BILL OF MATERIALS

ITEM	UNIT	QUANTITY
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	8
TRAFFIC SIGNAL POLE (SEE CHART B) STEEL	EACH	4
TRAFFIC SIGNAL POLE (SEE CHART B) ALUMINUM	EACH	–
TRAFFIC SIGNAL PEDESTAL ALUMINUM 10'	EACH	–
PEDESTRIAN SIGNAL HEAD W/MOUNTING HARDWARE	EACH	8
CONCRETE CONTROLLER PAD	EACH	1
CONCRETE FOOTING – PEDESTAL	EACH	–
CONCRETE FOOTING – POLE	EACH	4
CONDUIT ELBOW 90°	EACH	As Req'd.
CONDUIT ELBOW 90° 3"	EACH	As Req'd.
BACK PLATE 5" – 3 SECTION	EACH	
BACK PLATE 5" – 4 SECTION	EACH	–
BACK PLATE 5" – 5 SECTION	EACH	–
SERVICE BOX	EACH	4
JUNCTION BOX	EACH	5
GROUND ROD & CLAMP	EACH	6
CONDUIT CLAMP	EACH	As Req'd.
TRAFFIC SIGNAL LAMP 135 WATT	EACH	24
TRAFFIC SIGNAL LAMP 60 WATT	EACH	–
CLASS 4 – WOOD POLE	EACH	–
ENTRANCE HEAD	EACH	1
CIRCUIT BREAKER & BOX	EACH	1
GUY WIRE GUARD	EACH	–
GUY WIRE CLAMP	EACH	–
THIMBLE EYE ANCHOR ROD	EACH	–
PEDESTRIAN PUSHBUTTON W/SIGN	EACH	8
DETECTOR LOOP WIRE No. 14 A.W.G. 1/C (TYPE THHN)	LIN. FT.	2,980
LEAD-IN WIRE No. 6 A.W.G. 1/C (TYPE THNN)	LIN. FT.	60
MULTI-CONDUCTOR CABLE No. 14 A.W.G. 5/C	LIN. FT.	420
MULTI-CONDUCTOR CABLE No. 14 A.W.G. 7/C	LIN. FT.	750
SHIELDED DETECTOR LEAD-IN No. 14 A.W.G. 2/C	LIN. FT.	1,820
CONDUIT 3/4" (SEE CHART C)	LIN. FT.	540
CONDUIT 1" (SEE CHART C)	LIN. FT.	20
CONDUIT 1 1/4" (SEE CHART C)	LIN. FT.	230
CONDUIT 2" (SEE CHART C)	LIN. FT.	90
CONDUIT 3" (SEE CHART C)	LIN. FT.	310
STANDARD 1C #8 (GROUND)	LIN. FT.	330
TETHER WIRE 1/4" ASTM A475 SIEMENS-MARTIN GRADE MIN.	LIN. FT.	–
STREET NAME SIGNS – SEE CHART D	EACH	4

NOTES :

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. * Subscript "P" indicates programmed signals. Subscript "D" indicates dual-mode green/yellow arrow section.

CHART A SIGNAL INVENTORY

NO. WAYS	NO. SECTIONS (Per Face)	SIGNAL FACE ARRANGEMENT	MOUNTING TYPE	QUANTITY
1	3	A	RIGID MAST ARM	8
2	2	L	SIDE-OF-POLE TYPE II	4

CHART B TRAFFIC SIGNAL POLES

STATION, DIST. – SIDE	ARM SIZE	NO. OF SIGNALS ON ARM	SIGNAL SPACING	TYPE
14+54.4, 35.6' Lf	30	2	30 – 19	STD
14+58.7, 50.6' Rt	36	2	36 – 26	STD
15+33, 51.6' Lf	28	2	28 – 17	STD
15+38.8, 47.7' Rt	32	2	32 – 21	STD

CHART C

CONDUIT SIZE	TRENCHED	PUSHED
3/4"	490'	
1"	10'	
1 1/4"	230'	
2"	90'	
3"		300'

CHART D STREET NAME SIGN SUMMARY

LEGEND	SIZE
West	18"X60"
31st St	18"X60"

NOTE: A single conductor stranded No. 8 Green Wire shall carry the equipment ground from the grounding lug of all signal poles to the controller cabinet and the power disconnet box.

PAVEMENT MARKING QUANITIES

ITEMS	TOTAL	UNITS
PAVEMENT MARKING (PATTERNED COLD PLASTIC)(WHITE)(24")	420	LF
PAVEMENT MARKING (PATTERNED COLD PLASTIC)(WHITE)(12")	95	LF

SERVICE BOX SUMMARY

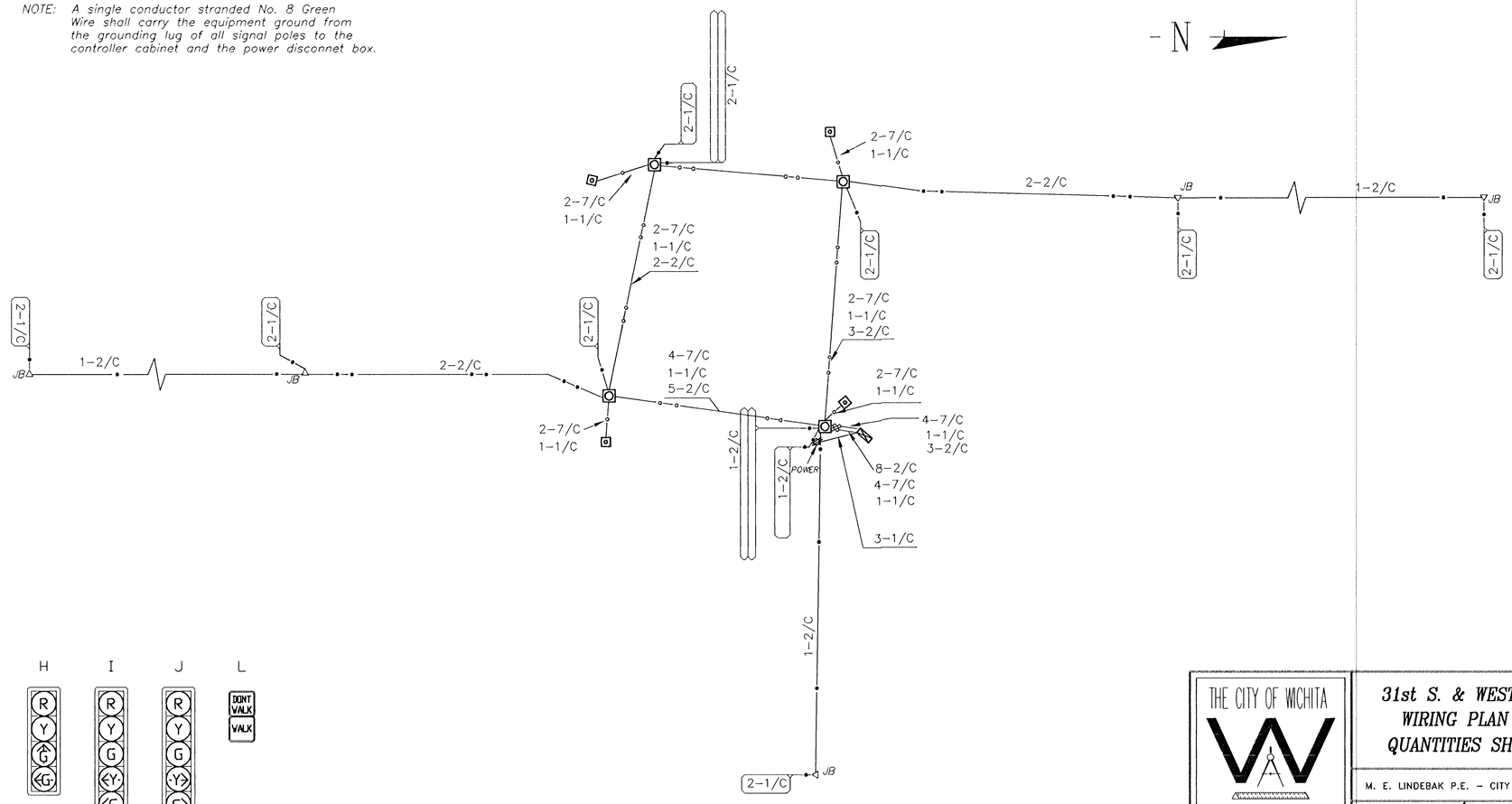
STATION	DIST. – SIDE
14+75	29' Lf.
14+59.8	35' Rt.
15+31	45.5' Rt.
15+37.4	35.2' Lt.

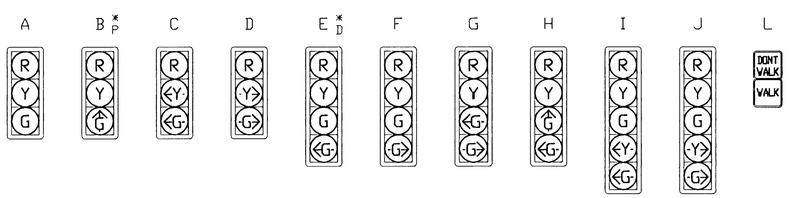
JUNCTION BOX SUMMARY

STATION	DIST. – SIDE
West St	
12.01	28' Rt.
13+59.5	28' Rt.
16+48	28' Lt.
17+98	28' Lt.
31st St	
11+59.6	27.5' Lf

Type 170 Controller System to include:

1. *One (1) Model 170E controller unit complete with 470i – VOSHM with WAPITI 48A (or Latest Revisions) Port 1 & 2 – non-isolated full handshake, Ports 3 & 4 – High speed split isolated.*
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. Eight (8) Model 200 Switch Packs.*
   - *E. Three (3) Model 242 DC Isolators.*
   - *F. One (1) Surge Arrester.*
   - *G. Eight (8) Model 222 (C-800) 2 Channel Loop Detectors*
   - *H. One (1) Stand alone 400 Modem. (Hayes Compatible)*





THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL – SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
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(316) 268-4114 FAX

31st S. & WEST St. WIRING PLAN & QUANTITIES SHEET

M. E. LINDEBAK P.E. – CITY ENGINEER

PROJECT NUMBER	INDEX CODE
472-82858	710210

DATE	
JUNE 98	SHEET 3 OF 7

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