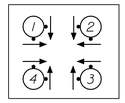
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-84295	2010	114	194

0 20 40 60
SCALE FEET
1" = 20'

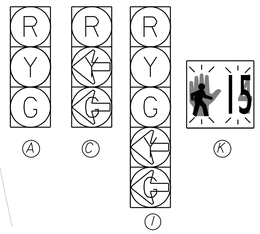
LEGEND

- METAL TRAFFIC SIGNAL POLE
- PEDESTRIAN SIGNAL INDICATION
- TRAFFIC SIGNAL INDICATION
- TRAFFIC SIGNAL WITH BACKPLATE
- (8') MAST ARM SUSPENDED TRAFFIC SIGNAL
- 36" SERVICE BOX
- J JUNCTION BOX
- CONDUIT (TRENCHED)
- CONDUIT (BORED)
- CONTROLLER AND CABINET (PAD MOUNTED)
- SECONDARY SERVICE POINT
- 00 DETECTOR NUMBER
- VIDEO DETECTION ZONE
- LED LUMINAIRE
- P.B. PEDESTRIAN PUSH BUTTON
- 0 POLE NUMBER
- SIGN (LARGE)
- SIGN (SMALL)
- VIDEO DETECTION CAMERA
- 0 SERVICE BOX NUMBER

PEDESTRIAN PUSH BUTTON LAYOUT

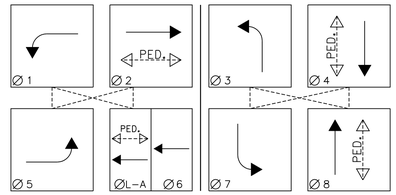


SIGNAL FACES



BLANK OUT SIGN
BLANK OUT SIGN ARROW MAY BE ORIENTED LEFT OR RIGHT DEPENDING ON LOCATION
(N) IL or RI

SIGNAL PHASING



----- INDICATES NON-CONFLICTING PHASES THAT MAY TIME CONCURRENTLY. OVERLAP "A" AND PHASE 1 WILL BE CALLED DIRECTLY BY THE RAILROAD PREEMPT. DURING RAILROAD PREEMPT OMIT PHASES 1, 2, 6 AND 7. SEE RAILROAD PRE-EMPTION SEQUENCE FOR MORE DETAILS. PEDESTRIAN INTERVALS TO OCCUR ONLY AFTER PUSHBUTTON ACTIVATION. DURING NORMAL OPERATION PHASE 1 SHALL BE A LAGGING LEFT TURN PHASE; PHASE FIVE SHALL BE A LEADING LEFT TURN PHASE.

SIGN LOCATIONS

SIGN TYPE	POLE NO.	SPACING ON ARM
1. Street Name	1	19.0'
2. R10-12	1	45.0'
3. Street Name	2	9.0
4. R10-12	2	39.0
5. Street Name	3	15.0'
6. R10-10	3	39.0'
7. Street Name	4	19.0'
8. R10-12	4	42.0'

POLE/CONTROLLER LOCATIONS

POLE NO.	STATION	OFFSET
1	49+43.00	57.0' LT.
2	50+41.00	69.0' LT.
3	50+46.00	39.0' RT.
4	49+54.00	45.0' RT.
*5	–	– LT.
CTRL.	50+72.00	38.0' RT.

* RELOCATED CANTILEVER ARM WILL BE USED AS POLE 5.

SERVICE BOX LOCATIONS

BOX NO.	STATION	OFFSET
1	49+39.00	47.0' LT.
2	50+35.00	78.0' LT.
3	50+52.00	27.0' RT.
4	50+39.00	67.0' RT.
5	49+63.00	67.0' RT.
6	51+65.00	27.0' RT.
7	51+65.00	36.0' LT.

RR PREEMPT SEQUENCE

Time (sec)

Terminate Active Phase (Complete Min. Green or Ped.)	6		R.R. Controller Sends Call to Traffic Controller
Clearance Time Active Phase (Y-R)	6	16	
Clearance time - OL A and Phase 1 Green. All other phases red. Blank out signs illuminated until train clears.	22	3	Railroad Signals Begin Flashing
		10	Railroad Gates Descend
Seperation Between Train Arrival, and Track Clearance	4	9	Railroad Gates Down / Train Arrives
Cycle during preempt, omitting phases 1, 2, 6 and 7			

NOTES

1. APPROXIMATE LOCATION OF PROPOSED RELOCATED CROSSING GATE AND FLASHING LIGHT CANTILEVER ARM (BY OTHERS).
2. EXISTING RAILROAD SIGNAL BUNGALOW, COORDINATE INTERCONNECT TO SIGNAL CONTROLLER WITH RAILROAD (CONTACT: BNSF ROADMASTER NATHAN ANDERSON; 316-284-3479).
3. INSTALL ADVANCE SIGNAL HEADS, AND VIDEO DETECTION SYSTEM ON RELOCATED CANTILEVER ARM. COORDINATE CONSTRUCTION WITH RAILROAD.
4. SERVICE AND JUNCTION BOXES AND CONDUIT RUNS ARE APPROXIMATE AND MAY BE FIELD ADJUSTED TO CLEAR OBSTRUCTIONS AND FACILITATE WIRING, AS APPROVED BY THE ENGINEER
5. VIDEO DETECTION ZONES SHALL BE CENTERED IN TRAFFIC LANES, EXCEPT AS INDICATED ON THE PLANS.
6. LUMINAIRE ARMS SHALL BE ORIENTED OVER AND PERPENDICULAR TO THE MAST ARM TYPICALLY. LUMINAIRE ON POLE 3 SHALL BE ORIENTED TO AVOID CONFLICTING WITH OVERHEAD ELECTRIC LINE.
7. ALL EQUIPMENT SHALL BE NEW UNLESS SHOWN OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT THAT IS NOT TO BE RE-USED. SIGNAL HEADS OR TRAFFIC SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL, SHALL BE COVERED OR REMOVED AND DELIVERED TO 1801 S. MCLEAN.
8. ALL EXISTING SIGNAL POLES FOUNDATIONS, BRACKETS, HARDWARE, SIGNS OR OTHER APPURTANENT ITEMS SHALL BE REMOVED IN SALVAGABLE CONDITION AND BECOME THE PROPERTY OF THE CITY AND DELIVERED TO 1801 S. MCLEAN. PAYMENT FOR THIS WORK SHALL BE SUBSIDIARY TO THE LUMP SUM BID ITEM "TRAFFIC SIGNAL SYSTEM".
9. A TEMPORARY SIGNAL SHALL BE USED DURING CONSTRUCTION. SEE TRAFFIC CONTROL PLANS FOR MORE DETAILS.
10. "A" HEADS ON POLE 1 FOR WESTBOUND TRAFFIC TO BE WIRED TO LOAD SWITCH FOR OVERLAP "A" WHICH IS CALLED BY PHASE 6 AND RAILROAD PREEMPT.
11. INSTALLATION OF CONDUIT UNDER RAILROAD MUST COMPLY WITH RAILROAD REQUIREMENTS. SEE http://www.bnsf.com/tools/fieldengineering/pdf/utilacc.pdf FOR MORE INFORMATION. CONDUIT WILL BE OWNED AND MAINTAINED BY THE CITY.
12. EXISTING FEATURES AND UTILITIES ARE SHOWN FROM AVAILABLE INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY UTILITIES AND THEIR EXACT LOCATION PRIOR TO CONSTRUCTION.
13. ALL CONDUIT RUNS SHALL BE STRAIGHT BETWEEN BOXES AND/OR FOUNDATIONS. CURVED LINES SHOWN ON PLAN FOR CLARITY ONLY.
14. POLE 1 SHALL BE EQUIPPED WITH STEERABLE BEAM TRAFFIC SIGNAL HEADS. HEADS SHALL BE INTELLILIGHT ELECTRONICALLY STEERABLE BEAM TRAFFIC SIGNAL HEADS OR APPROVED EQUAL.
15. THE SIGNAL SHALL BE EQUIPPED WITH A BATTERY BACKUP SYSTEM CAPABLE OF OPERATING THE SIGNAL FOR AT LEAST 8 HOURS WITHOUT ELECTRICITY.
16. TWO 1" CONDUITS SHALL BE STUBBED OUT OF EACH SIGNAL POLE BASE EQUIPPED WITH LUMINAIRES FOR THE PURPOSE OF LIGHTING WIRING WHICH WILL BE FED FROM A SEPARATE CIRCUIT THAN SIGNAL. SEE LIGHTING PLANS FOR MORE DETAILS.

DATE | BY | REFERENCES NOTED | REFERENCES CHECKED

CITY OF WICHITA

21ST STREET NORTH &
BROADWAY AVENUE INTERSECTION

TRAFFIC SIGNALS
21ST STREET NORTH & BROADWAY INTERSECTION

WICHITA, KANSAS

PROJECT NO. 472-84295

TranSystems

DESIGNED:	DRAWN:
M.D.B.	D.A.N.
CHECKED:	DATE:
B.A.L.	1/8/2010