

CONSULTANTS:

29TH STREET N & GREENWICH ROAD
 TRAFFIC SIGNALIZATION



DETECTOR SUMMARY

DETECTOR NUMBER	DETECTION ZONE SIZE	STOP BAR DETECTION	ADVANCED DETECTION	TIMINGS (SEC)		MODE		PHASE CALLED	DISTANCE FROM STOP BAR
				TOTAL STRETCH + EXTENSION	DELAY	PRESENCE	PULSE		
11	6'x55'	X			2.0		X	1	-10
21	6'x55'	X			10.0		X	2	-10
31	6'x55'	X			2.0		X	3	-10
32	6'x6'		X		2.0		X	3	-10
41,42	6'x55'	X			2.0		X	4	-10
43,44	6'x6'		X		2.0		X	4	-10
51	6'x55'	X			2.0	2.0	X	5	-10
61	6'x55'	X			2.0		X	6	-10
71	6'x55'	X			2.0		X	7	-10
72	6'x6'		X		2.0	2.0	X	7	-10
81,82	6'x55'	X			2.0		X	8	-10
83,84	6'x6'		X		2.0		X	8	-10

† TIMINGS SHOWN IN DETECTOR SUMMARY CHART INCLUDE THE TOTAL STRETCH + EXTENSION. DETECTOR TIMINGS SHALL BE PROGRAMMED INTO THE TRAFFIC SIGNAL CONTROLLER. SEE TRAFFIC SIGNAL GENERAL NOTES FOR ADVANCED DETECTION DISTANCE AND TIMING.

SUGGESTED TIMINGS (SEC.)

PHASE	MINIMUM INITIAL	*MAXIMUM GREEN SPLIT	**PEDESTRIAN			***CLEARANCE	
			WALK	FDW	SDW	YELLOW	ALL RED
1	7	20	-	-	-	4.0	2.0
2	10	38	7	24	-	4.0	2.0
3	7	25	-	-	-	4.0	2.0
4	10	37	7	20	-	4.0	2.0
5	7	20	-	-	-	4.0	2.0
6	10	38	7	23	-	4.0	2.0
7	7	28	-	-	-	4.0	2.0
8	10	34	7	20	-	4.0	2.0

CLEARANCE DESIGN SPEEDS:
 GREENWICH ROAD = 40 MPH
 29TH STREET NORTH = 30 MPH

*MAXIMUM GREEN SPLIT IS FOR NON-PEDESTRIAN CALLS ONLY. TIMING INCORPORATES YELLOW & ALL RED CLEARANCE TIMES.

***SIGNAL CLEARANCE TIMINGS ARE CALCULATED BASED ON RECOMMENDATIONS FROM NCHRP REPORT 731.

**PEDESTRIAN PHASING SHALL EXTEND PHASE WHEN CALLED IF APPROPRIATE. PEDESTRIAN CLEARANCE TIMES SHALL FOLLOW MUTCD GUIDELINES FOR PHASES.

NOTES:

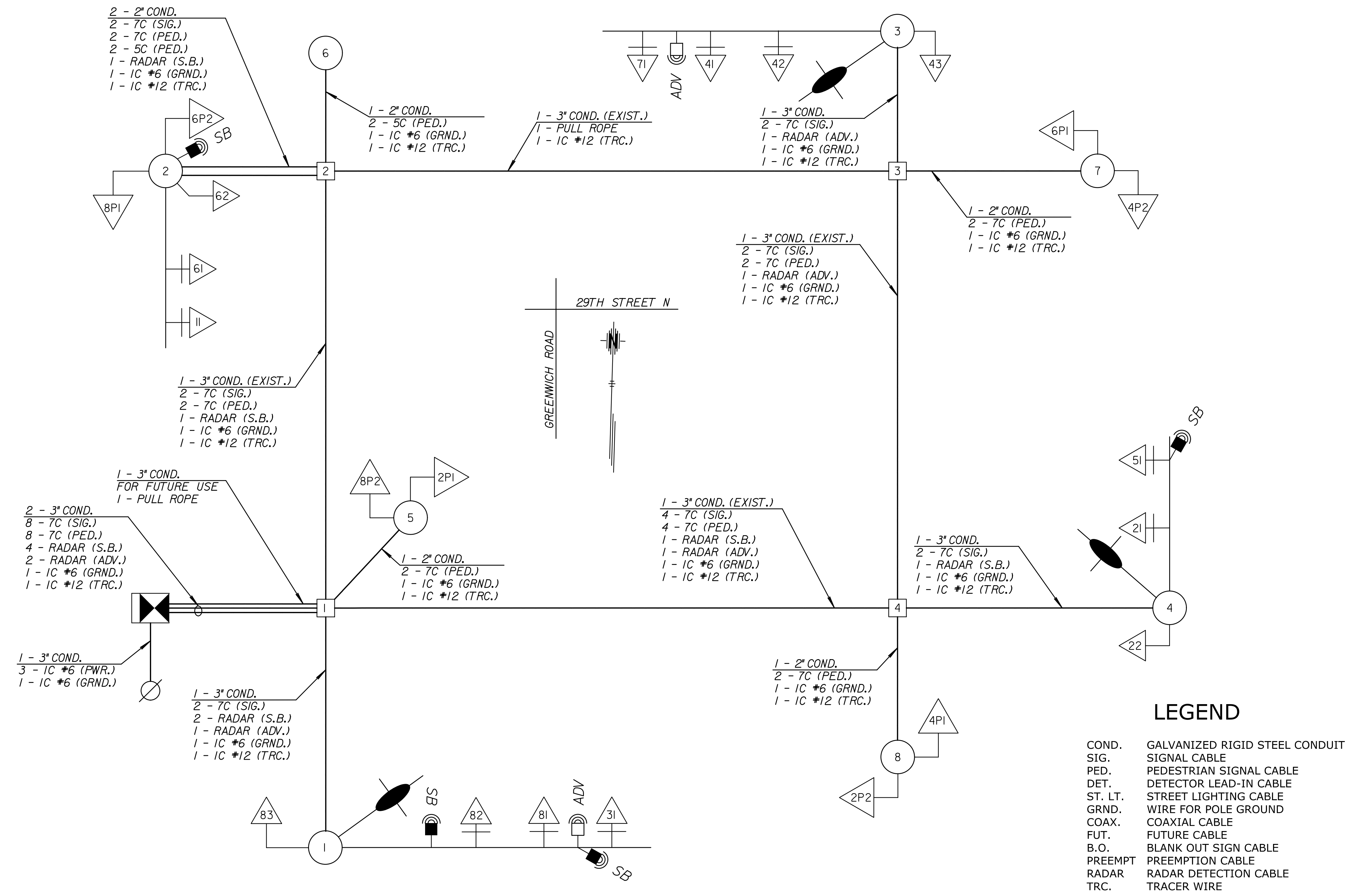
- ALL MULTI-CONDUCTOR WIRE SHALL BE AWG #14 SOLID UNLESS SPECIFIED OTHERWISE. LABEL EACH WIRE AS SHOWN IN PART 700 SPECIFICATIONS.
- ALL GROUND WIRE SHALL BE #6 AWG COPPER WIRE IN ACCORDANCE WITH ATM B-3. SOLID BARE COPPER WIRE SHALL BE USED FOR ALL EXTERIOR INSTALLATIONS INCLUDING SERVICE AND GROUND ROD BONDING. OTHERWISE, GREEN INSULATED STRANDED WIRE TYPE "THHN/THWN" SHALL BE USED.
- GROUND WIRE SHALL BE BONDED TO EACH GROUND ROD AT EVERY POLE, PEDESTAL, SERVICE BOX, AND CONTROLLER TO FORM ONE CONTINUOUS GROUND CIRCUIT.
- DETECTOR CABLES SHOULD RUN CONTINUOUS. SPLICES, IF REQUIRED, SHALL ONLY OCCUR IN THE POLE BASE AND MUST BE APPROVED BY THE CITY OF WICHITA TRAFFIC ENGINEER.
- IN NO CASE SHALL MORE THAN 60% OF ANY CONDUIT BE FILLED BY AREA.
- STREET LIGHTING CABLE SHALL BE SPLICED IN SERVICE BOXES. THE SPLICE SHALL BE MADE WATERPROOF.
- SPLICES AT POLE BASE SHALL BE LINEMAN SPLICES PER SECTION 702.21.11. TERMINAL BLOCKS WILL NOT BE USED.
- ALL CONDUIT SHALL BE HOT DIPPED GALVANIZED RIGID STEEL CONDUIT (G.R.C.) AS SHOWN IN THE PROJECT SPECIFICATIONS.
- DURING EMERGENCY FLASH OPERATIONS, ALL SIGNAL PHASES SHALL BE RED INDICATIONS. PEDESTRIAN PHASE SHALL BE DARK.

REVISIONS:	DESCRIPTION	MARK	DATE

PROJ NO: 472-085773
 SCALE: NTS
 DATE: 12/20/2022
 DESIGNED BY: SSP
 DRAWN BY: SSP
 CHECKED BY: SGE

SHEET TITLE:
TRAFFIC SIGNAL WIRING & TIMING DETAILS

SHEET NO.
4
 SHEET 4 OF 17

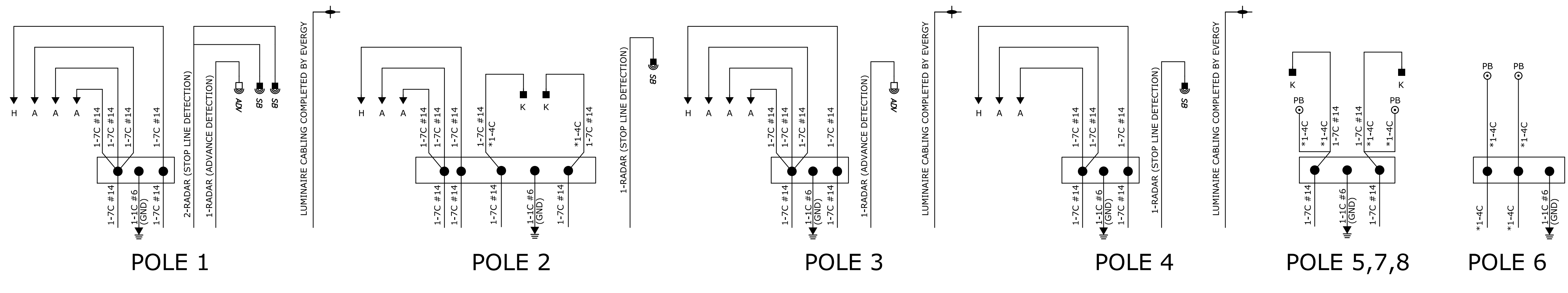


LEGEND

- COND. GALVANIZED RIGID STEEL CONDUIT
- SIG. SIGNAL CABLE
- PED. PEDESTRIAN SIGNAL CABLE
- DET. DETECTOR LEAD-IN CABLE
- ST. LT. STREET LIGHTING CABLE
- GRND. WIRE FOR POLE GROUND
- COAX. COAXIAL CABLE
- FUT. FUTURE CABLE
- B.O. BLANK OUT SIGN CABLE
- PREEMPT. PREEMPTION CABLE
- RADAR. RADAR DETECTION CABLE
- TRC. TRACER WIRE

*4-C FROM PEDESTRIAN SIGNAL HEAD (K) TO ADA PUSHBUTTON PROVIDED BY SUPPLIER

POLE WIRING DIAGRAM



- LEGEND**
- ▼ SIGNAL HEAD
 - ▶ VIDEO DETECTOR
 - ▶ RADAR DETECTOR
 - ▶ PTZ CCTV
 - ▶ LUMINAIRE
 - ▶ PED. HEAD
 - PUSHBUTTON
 - ▶ GROUND
 - ▶ ST.LT. CONNECTOR KIT
 - SPLICE CONNECTION