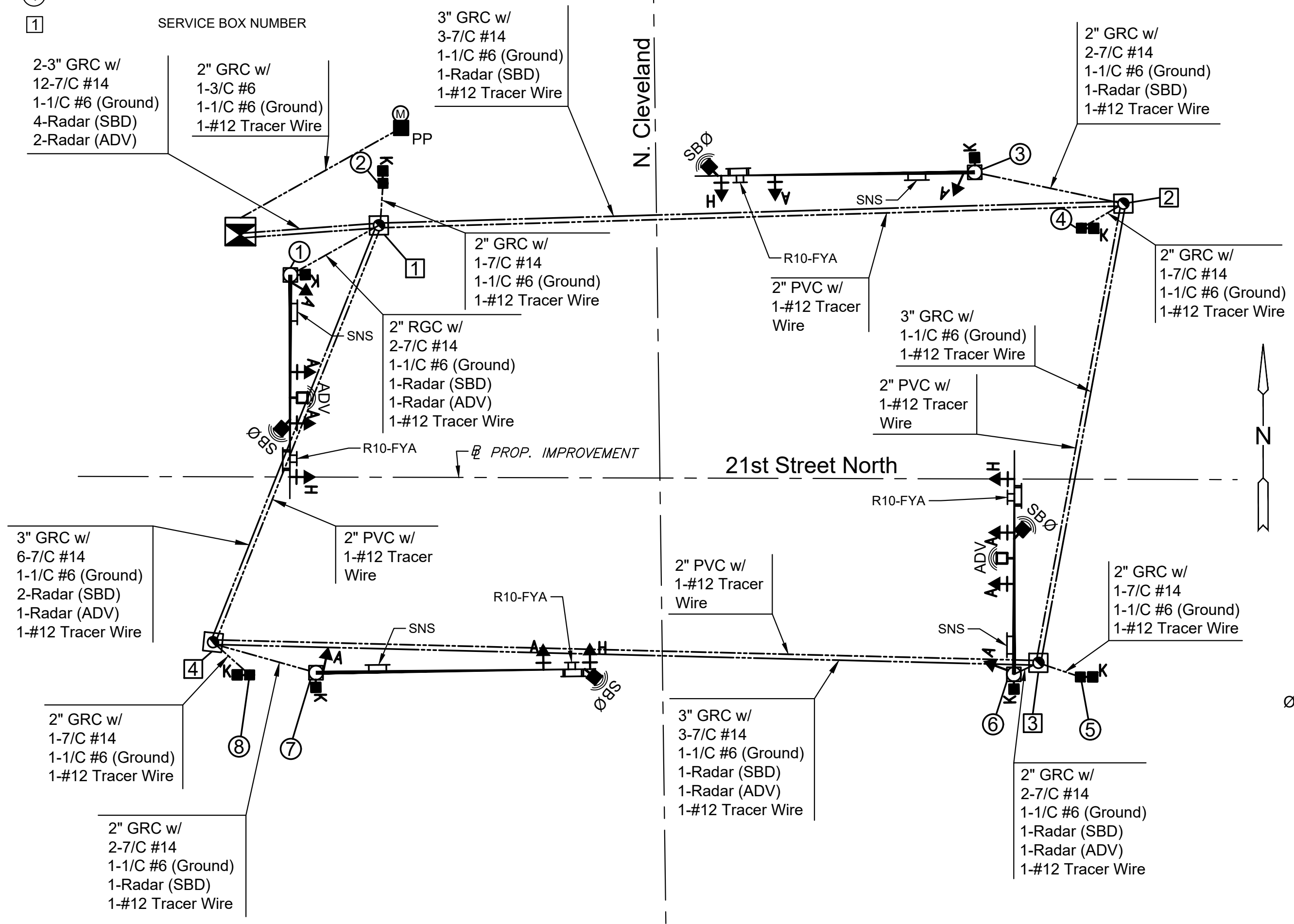
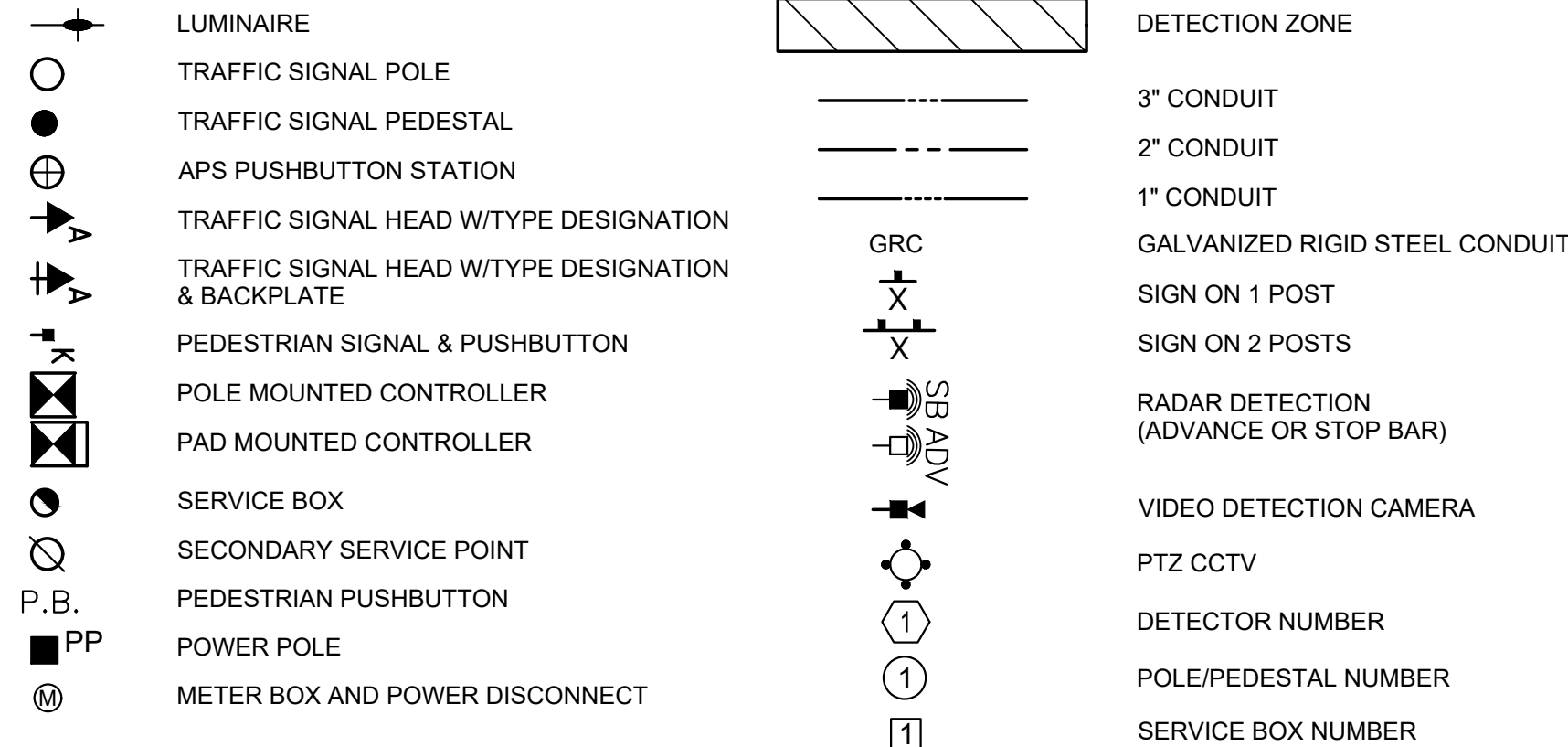
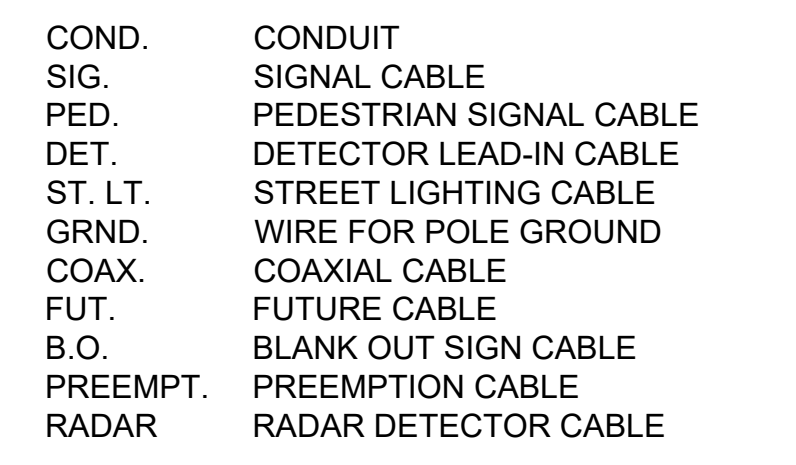


J:\PROJECTS\2021\1010465\_COW\_21ST STREET FROM MOSLEY TO I-135\00210465 CAD\SHITS\05 CIVIL\SIGNALS\210465-05-5510.DWG  
 PLOTTED: Wednesday, December 28, 2022 @ 11:10AM

### LEGEND

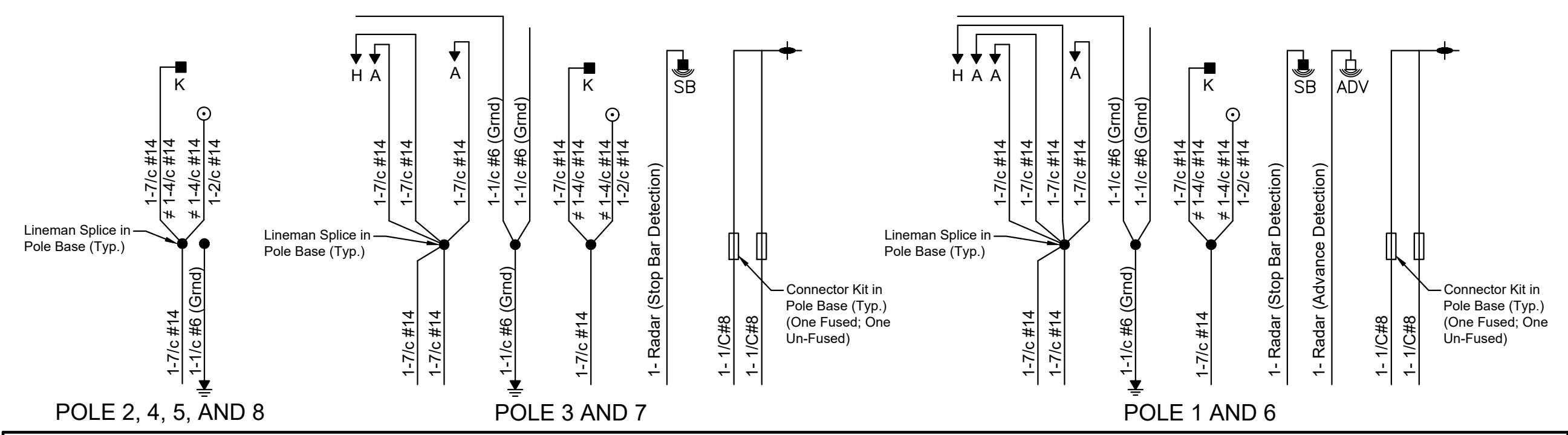


### LEGEND



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

### POLE WIRING DIAGRAMS



### DETECTOR SUMMARY

DETECTOR NUMBER	DETECTION ZONE SIZE	STOP BAR DETECTION	ADVANCED DETECTION	# TIMING (SEC)		MODE		PHASE CALLED	DISTANCE FROM STOP BAR
				TOTAL STRETCH + EXTENSION	DELAY	PRESENCE	PULSE		
1	6' x 50'	X		2.5	0	X		1	5'
2a, 2b	6' x 50'	X		3	0	X		6	5'
3a, 3b	6' x 6'		X	3	0		X	6	92'
4a, 4b	6' x 6'		X	3	0		X	6	210'
5	6' x 50'	X		2.5	0	X		7	5'
6	6' x 50'	X		2.5	0	X		4	5'
7	6' x 50'	X		2.5	0	X		5	5'
8a, 8b	6' x 50'	X		3	0	X		2	5'
9a, 9b	6' x 6'		X	3	0		X	2	92'
10a, 10b	6' x 6'		X	3	0		X	2	210'
11	6' x 50'	X		2.5	0	X		3	5'
12	6' x 50'	X		2.5	0	X		8	5'

# TIMINGS SHOWN IN DETECTOR SUMMARY CHART INCLUDE THE TOTAL STRETCH + EXTENSION. DETECTOR TIMING 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	5	25				3.2	2.3
2	5	40	7.0	18.0		4.1	2.3
3	5	25				2.8	2.3
4	5	30	7.0	23.0		3.7	2.3
5	5	25	-	-		3.2	2.3
6	5	40	7.0	25.0		4.1	2.3
7	5	25				2.8	2.3
8	5	30	7.0	25.0		3.7	2.3

CLEARANCE DESIGN SPEEDS:  
 21ST STREET = 35 MPH  
 N. CLEVELAND = 30 MPH

- \* MAXIMUM GREEN SPLIT IS FOR NON-PEDESTRIAN CALLS ONLY. TIMING INCORPORATES YELLOW & ALL RED CLEARANCE TIMES.
- \*\* PEDESTRIAN PHASING SHALL EXTEND PHASE WHEN CALLED IF APPROPRIATE. PEDESTRIAN CLEARANCE TIMES SHALL FOLLOW MUTCD GUIDELINES FOR PHASES.
- \*\*\* SIGNAL CLEARANCE TIMINGS ARE CALCULATED BASED ON RECOMMENDATIONS FROM NCHRP REPORT 731.

### 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 (GRC) AS SHOWN IN THE PROJECT SPECIFICATIONS.
- DURING EMERGENCY FLASH OPERATIONS, ALL SIGNAL PHASES SHALL BE RED INDICATIONS. PEDESTRIAN PHASE SHALL BE DARK.



STREET IMPROVEMENTS FOR  
**21ST STREET - MOSLEY TO I-135**  
 PHASE 1

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### TRAFFIC SIGNAL WIRING PLAN

PROJECT NO.	472-2021-085733	
DATE	12/28/2022	
SCALE	1"=20'	
DESIGNED	DRAWN	CHECKED
WNJ	WNJ	JRA
NO.	REVISION	DATE

SHEET NO.  
 59 OF 92