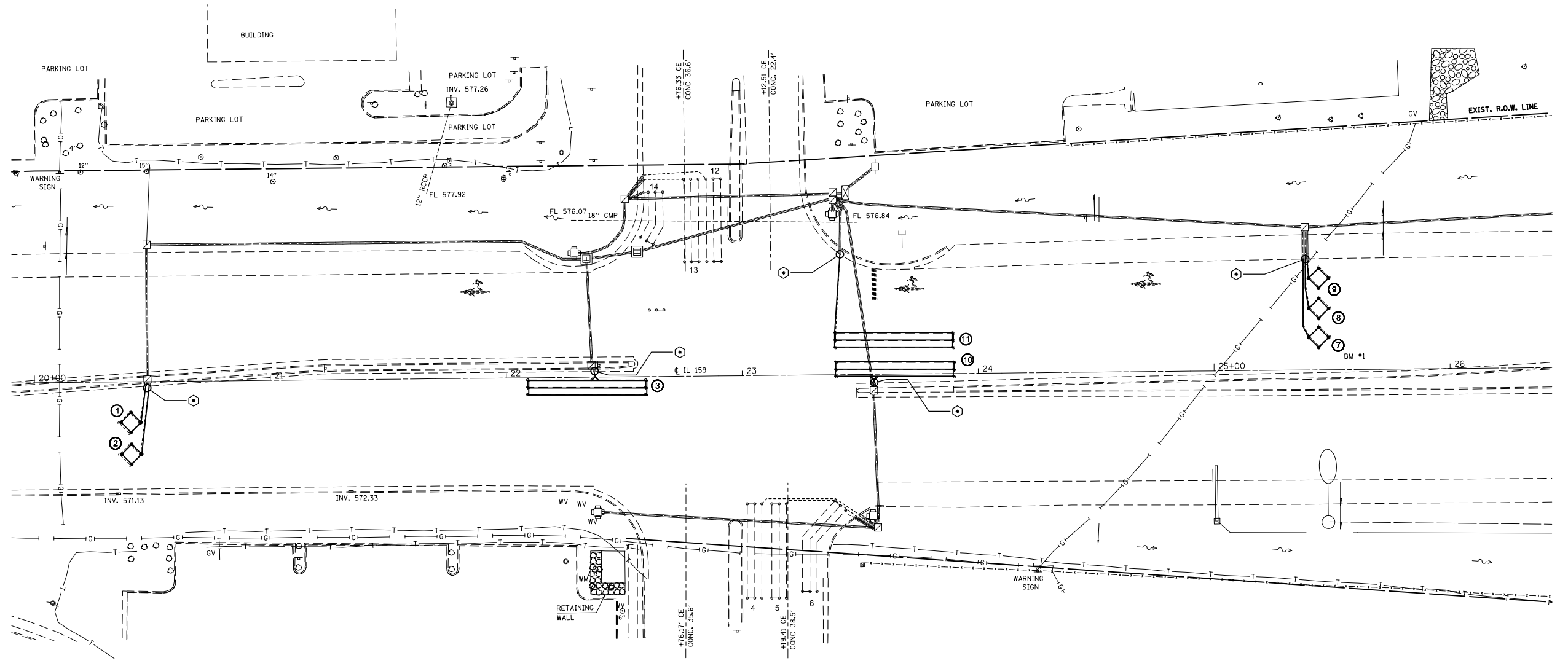


DETECTOR LOOP REQUIREMENTS AND CALCULATIONS  
FOR IL 159 & ST. CLAIR SQUARE-N.

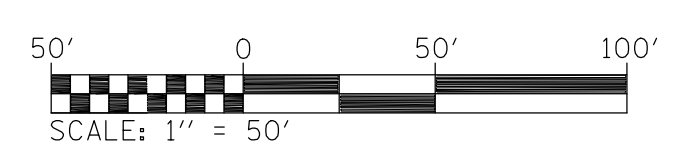
LOOP#	PHASE #	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES	CALCULATED RESISTANCE OHMS
1. NB CCO A	6	6 X 6	6	343.1	2.4
2. NB CCO B	6	6 X 6	6	346.0	2.4
3. NB LT CD	1	6 X 50-Q	3-6-3	827.6	2.5
4. WB LT CD	3	6 X 40-Q	3-6-3	677.6	2.2
5. WB THRU CD	3	6 X 40-Q	3-6-3	683.1	2.4
6. WB RT CD	3	6 X 40-Q	3-6-3	676.7	2.2
7. SB CCO A	2	6 X 6	6	314.5	1.7
8. SB CCO B	2	6 X 6	6	311.6	1.7
9. SB CCO C	2	6 X 6	6	306.8	1.6
10. SB LT CD	5	6 X 50-Q	3-6-3	812.0	2.2
11. SB THRU CD	2	6 X 50-Q	3-6-3	802.9	2.0
12. EB LT CD	4	6 X 40-Q	3-6-3	669.2	2.0
13. EB THRU CD	4	6 X 40-Q	3-6-3	666.8	2.0
14. EB RT CD	4	6 X 40-Q	3-6-3	662.8	1.9

THE ABOVE VALUES ARE CALCULATED OF COMBINED LOOP AND LEAD-IN INDUCTANCE AND RESISTANCE. ACTUAL MEASURED VALUES SHOULD BE WITHIN +/- 20% OF THESE VALUES.

Q=QUADRAPOLE  
-SEE DETAIL A



IL 159 & ST. CLAIR SQUARE-N.



FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -
et:\pw\work\p\dot\prestonme\d0344817\d876g95-sh-t-TS.dgn		DRAWN -	REVISED -
	PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/8/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP REPLACEMENT PLAN	
IL 159 & ST. CLAIR SQUARE-N.	
SCALE:	SHEET NO. 4 OF 10 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130-1, 130-2)RS-2	ST. CLAIR	36	30**
CONTRACT NO. 76G55				
ILLINOIS FED. AID PROJECT				