

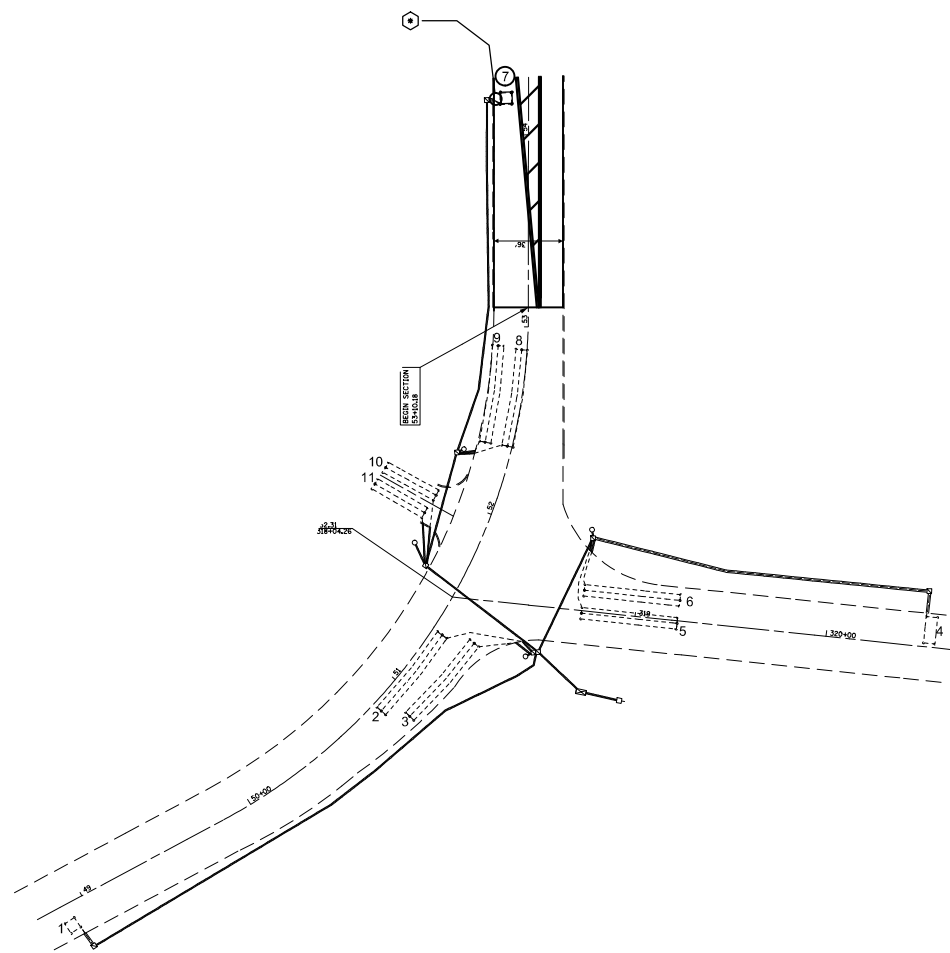
DETECTOR LOOP REQUIREMENTS AND CALCULATIONS
FOR IL 157 & SCHWARZ ST.

LOOP#	PHASE #	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES (μH)	CALCULATED RESISTANCE OHMS (Ω)
1. NB CCO	2	6 x 6	6	329.5	2.1
2. NB THRU CD	2	6 x 50(Q)	3-6-3	806.0	2.0
3. NB THRU CD	2	6 x 50(Q)	3-6-3	806.0	2.0
4. WB CCO	3	6 x 50(Q)	3-6-3	855.3	3.2
5. WB LT CD	3	6 x 50(Q)	3-6-3	804.0	2.0
6. WB RT CD	3	6 x 50(Q)	3-6-3	801.2	1.9
7. SB CCO	6	6 x 6	6	482.2	1.9
8. SB LT CD	1	6 x 50(Q)	3-6-3	832.2	2.6
9. SB THRU CD	6	6 x 50(Q)	3-6-3	830.2	2.6
10. EB LT CD	4	6 x 30(Q)	3-6-3	520.3	1.7
11. EB THRU CD	4	6 x 30(Q)	3-6-3	518.3	1.7

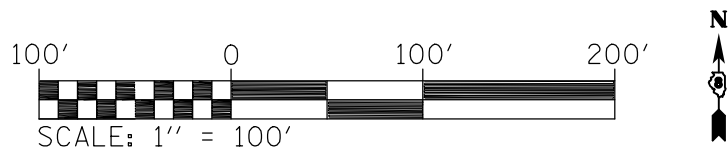
THE ABOVE VALUES ARE CALCULATED OF COMBINED LOOP AND LEAD-IN INDUCTANCE AND RESISTANCE. ACTUAL MEASURED VALUES SHOULD BE WITHIN +/- 20% OF THESE VALUES.

Q=QUADRAPOLE

⊙ =SEE DETAIL A



IL 157 & SCHWARZ ST.



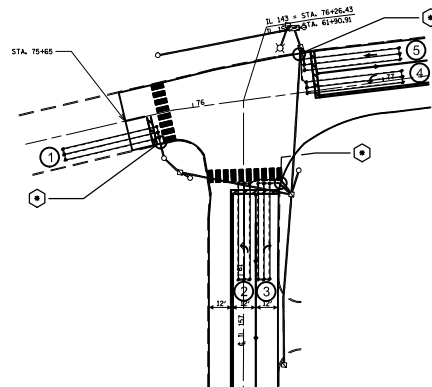
DETECTOR LOOP REQUIREMENTS AND CALCULATIONS
IL 157 & ST. LOUIS ST.

LOOP#	PHASE #	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES (μH)	CALCULATED RESISTANCE OHMS (Ω)
1. EB THRU CD	2	6 x 50(Q)	3-6-3	828.9	2.6
2. NB LT CD	4	6 x 50(Q)	3-6-3	815.0	2.3
3. NB RT CD	O.L.A.	6 x 50(Q)	3-6-3	812.4	2.2
4. WB LT CD	1	6 x 50(Q)	3-6-3	796.0	1.8
5. WB THRU CD	6	6 x 50(Q)	3-6-3	793.0	1.8

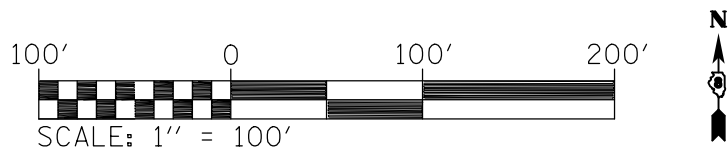
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IL 157 & ST. LOUIS ST.



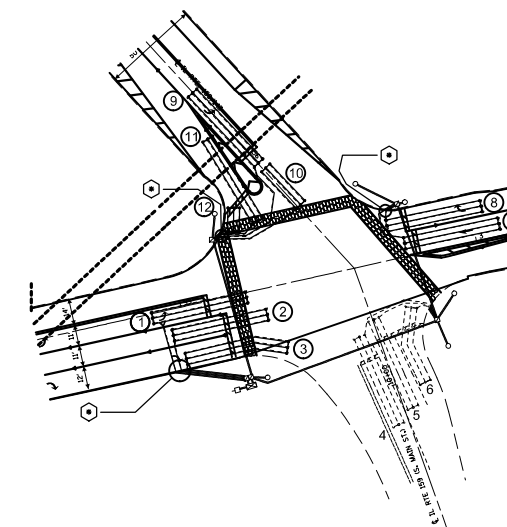
DETECTOR LOOP REQUIREMENTS AND CALCULATIONS
VANDALIA ST. & MAIN ST.

LOOP#	PHASE #	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES (μH)	CALCULATED RESISTANCE OHMS (Ω)
1. EB LT CD	1	6 x 50(Q)	3-6-3	804.3	2.0
2. EBTHRU CD	6	6 x 50(Q)	3-6-3	801.0	1.9
3. EB RT CD	6	6 x 50(Q)	3-6-3	797.8	1.9
4. NB LT CD	7	6 x 50(Q)	3-6-3	825.2	2.5
5. NBTHRU CD	4	6 x 50(Q)	3-6-3	821.9	2.4
6. NB RT CD	4	6 x 50(Q)	3-6-3	816.8	2.3
7. WB LT CD	O.L.A.	6 x 50(Q)	3-6-3	835.7	2.7
8. WB THRU CD	2	6 x 50(Q)	3-6-3	831.3	2.6
9. SB LT CD A	3	6 x 50(Q)	3-6-3	831.1	2.6
10. SB LT CD B	3	6 x 25(Q)	3-6-3	450.8	1.7
11. SB THRU CD	8	6 x 50(Q)	3-6-3	820.5	2.4
12. SB RT CD	8	6 x 12(Q)	3-6-3	247.5	1.2

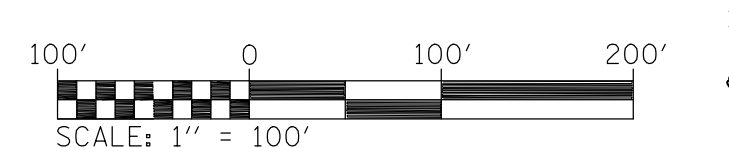
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VANDALIA ST. & MAIN ST.



FILE NAME =	USER NAME = prestonm	DESIGNED -	REVISED -
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	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -
	PLOT DATE = 3/21/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP REPLACEMENT PLAN
1 OF 2

SCALE: SHEET NO. 2 OF 7 SHEETS STA. TO STA.

F.A.P. RTE. 789 592	SECTION (7Z, 56)RS-1, 65-2RS-4	COUNTY MADISON	TOTAL SHEETS 74	SHEET NO. 37
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 76G71	