

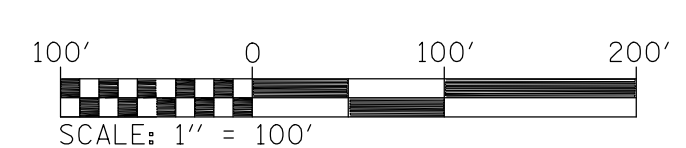
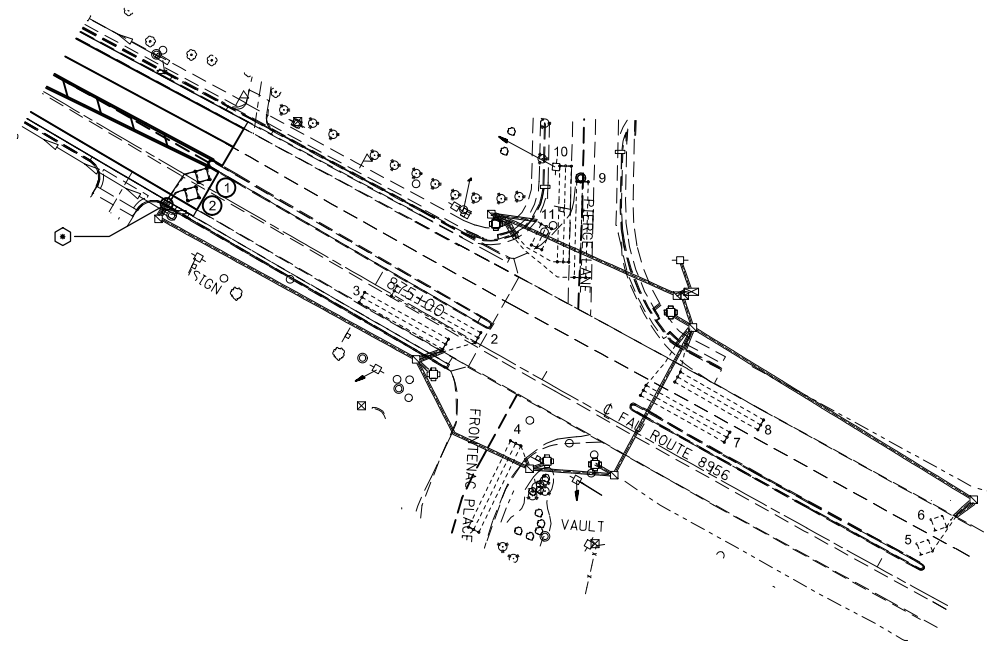
DETECTOR LOOP REQUIREMENTS AND CALCULATIONS  
FOR IL 003 & PIERCE LN.

LOOP#	PHASE #	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES (μH)	CALCULATED RESISTANCE OHMS (Ω)
1. EB CCO THRU		6 X 6	5	269.3	1.4
2. EB CCO LT		6 X 6	5	241.7	1.5
3. EB THRU CD		6 x 50(Q)	3-6-3	852.7	2.4
4. EB LT CD		6 x 50(Q)	3-6-3	855.1	2.4
5. NB THRU CD		6 x 50(Q)	3-6-3	828.0	2.1
6. WB CCO THRU		6 X 6	5	223.6	1.0
7. WB CCO LT		6 X 6	5	226.2	1.0
8. WB THRU CD		6 x 50(Q)	3-6-3	804.3	1.8
9. WB LT CD		6 x 50(Q)	3-6-3	808.2	1.9
10. SB THRU CD		6 x 50(Q)	3-6-3	823.2	2.0
11. SB LT CD		6 x 50(Q)	3-6-3	826.5	2.1
12. SB RT CD		6 x 12(Q)	3-6-3	250.0	1.2

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



FILE NAME =	USER NAME = harbaughrd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETECTOR LOOP REPLACEMENT PLAN IL 003 &amp; PIERCE LN.</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw\work\p\idot\harbaughrd\0349109\d076g60-TSp1en.dgn	PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -					8956	(59,60)RS-2	MADISON	27	26
	PLOT DATE = 1/31/2014	CHECKED -	REVISED -		SCALE: NA    SHEET NO. 2 OF 2 SHEETS    STA.    TO STA.			CONTRACT NO. 76G60				
		DATE -	REVISED -		FED. ROAD DIST. NO.    ILLINOIS FED. AID PROJECT							