



DETECTOR LOOP REQUIREMENTS AND CALCULATIONS FOR IL 111 AND ENGINEER'S RD.

LOOP#	PHASE #	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES (μH)	CALCULATED RESISTANCE OHMS (Ω)
1.NB CCO A	6	6 X 6	6	379.2	3.2
2.NB CCO B	6	6 X 6	5	376.8	3.1
3.NB LT CD	1	6 X 50-Q	3-6-3	831.8	2.6
4.NB THRU CD A	6	6 X 50-Q	3-6-3	828.5	2.6
5.NB THRU CD B	6	6 X 50-Q	3-6-3	825.6	2.5
6.WB LT-THRU CD	3	6 X 35-Q	3-6-3	NA	NA
7.SB CCO A	2	6 X 6	7	497.6	3.4
8.SB CCO B	2	6 X 6	7	494.7	3.3
9.SB LT CD	5	6 X 50-Q	3-6-3	836.2	2.7
10.SB THRU CD A	2	6 X 50-Q	3-6-3	832.6	2.7
11.SB THRU CD B	2	6 X 50-Q	3-6-3	829.8	2.6
12.EB LT-THRU CD	4	6 X 50-Q	3-6-3	NA	NA
13.EB RT CD	4	6 X 45-Q	3-6-3	NA	NA

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

FILE NAME =	USER NAME = milleraj	DESIGNED -	REVISED -
et:\pw\work\p\dtd\milleraj\d0260814\d876e96-sht-plan.dgn		DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/16/2011	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETECTOR LOOP REPLACEMENT PLAN
IL 111 & ENGINEER'S RD.**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
582	(6-3, 6-1)RS-3	MADISON	66	64
CONTRACT NO. 76E96				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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