



**DETECTOR LOOP REQUIREMENTS AND CALCULATIONS  
FOR HAWTHORNE ST, MADISON AVE, AND IL-111**

LOOP	LOOP SIZE(FT)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES (μH)	CALCULATED RESISTANCE OHMS (Ω)
① NB LT TURN CD	6 X 50	3-6-3	817.00	2.30
② NB LT TURN CD	6 X 50	3-6-3	834.00	2.67
③ NB LT TURN CD	6 X 50	3-6-3	848.00	3.00
④ NB CCO	6 X 6	5	247.00	2.10
⑤ NB CCO	6 X 6	5	247.00	2.10
⑥ SB LT TURN CD	6 X 50	3-6-3	843.00	2.90
⑦ SB CCO	6 X 6	6	370.00	2.98
⑧ SB CCO	6 X 6	6	370.00	2.98

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

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -
#FILE#		DRAWN -	REVISED -
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -
	PLOT DATE = #DATE#	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETECTOR LOOP REPLACEMENT-HAWTHORNE ST/MADISON AVE. & IL-111**

SCALE: 20'=1"    SHEET NO.    OF    SHEETS    STA.    TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
582	(4, 5) RS	MADISON	71 70
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	
		CONTRACT NO. 76D47	