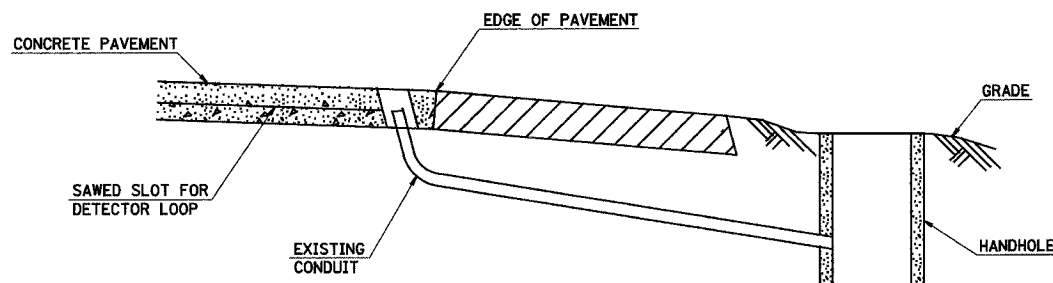
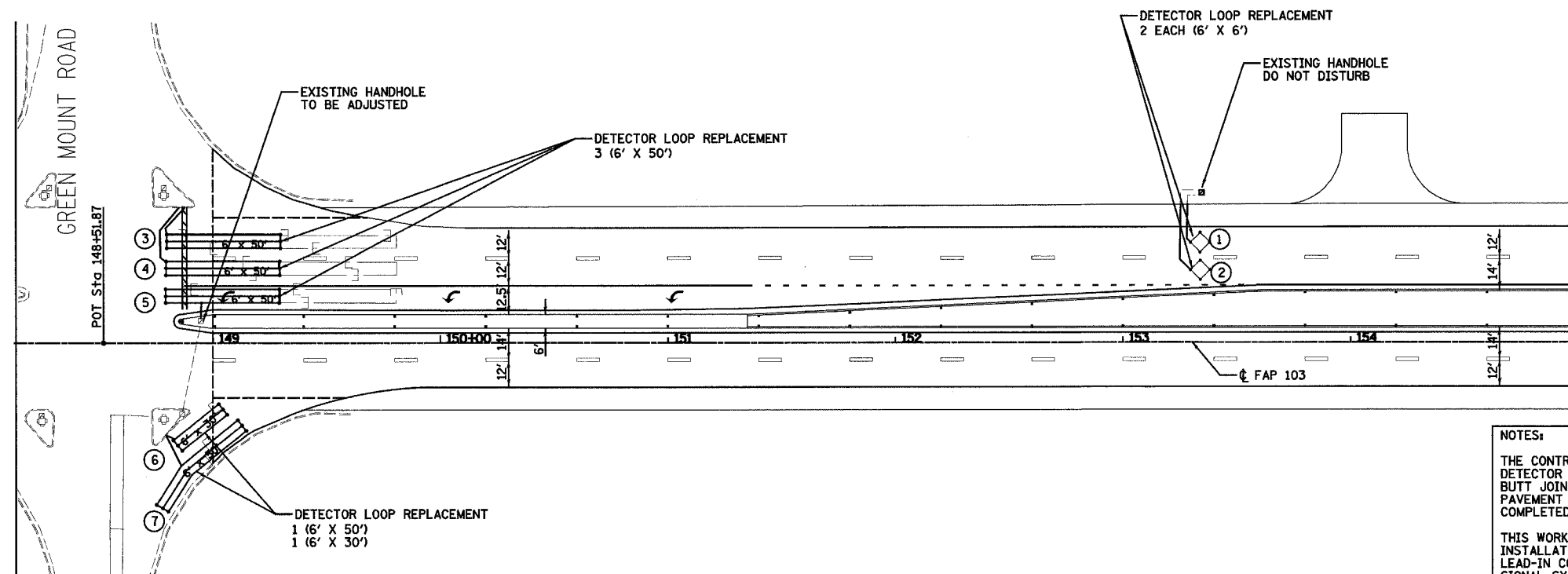


**DETECTOR LOOP REQUIREMENTS AND CALCULATIONS  
FOR IL 13/15 AND GREENMOUNT RD.**

LOOP	PHASE (Ø)	LOOP SIZE(FT)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES (µH)	CALCULATED RESISTANCE OHMS (Ω)
1. WB CCO	6	6' x 6'	6	364	2.8
2. WB CCO	6	6' x 6'	6	367	2.9
3. WB THRU	6	6' x 50'	3-6-3	821	2.4
4. WB THRU	6	6' x 50'	3-6-3	823	2.4
5. WB LT	1	6' x 50'	3-6-3	831	2.6
6. NB RT	3	6' x 30'	3-6-3	543	2.3
7. NB RT	3	6' x 50'	3-6-3	845	3.0

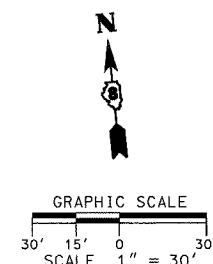
THE ABOVE VALUES ARE CALCULATED OF COMBINED LOOP AND LEAD-IN INDUCTANCE AND RESISTANCE. ACTUAL MEASURED VALUES SHOULD BE WITHIN +/- 20% OF THESE VALUES.



**DETAIL  
(NO SCALE)  
RE-USE EXISTING DETECTOR LOOP LEAD-IN CONDUIT**

- 1 DRILL OUT PAVEMENT SEALANT AND CLEAN EXISTING CONDUIT.
- 2 REMOVE EXISTING CABLE TO HANDHOLE.
- 3 INSTALL LOOP LEAD-IN CONDUCTORS IN CONDUIT.
- 4 SPLICE NEW DETECTOR LOOP LEAD-IN CONDUCTORS TO EXISTING LEAD-IN CABLE IN HANDHOLE.
- 5 FILL HOLE WITH APPROVED SEALER. PREVENT SEALER FROM ENTERING INTO CONDUIT.

NOT A PAY ITEM. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "DETECTOR LOOP REPLACEMENT"



**NOTES:**

THE CONTRACTOR SHALL CONSTRUCT NEW TYPE 1 DETECTOR LOOPS AFTER MILLING AS REQUIRED FOR BUTT JOINT CONSTRUCTION AT STA. 149+00 AND PAVEMENT RESTORATION NEAR STA. 153+25 IS COMPLETED.

THIS WORK WILL INCLUDE ALL SAW CUTTING, AND INSTALLATION OF THE NEW DETECTOR CABLES AND LEAD-IN CONNECTION TO THE EXISTING TRAFFIC SIGNAL SYSTEM. THIS WORK SHALL BE COMPLETED PRIOR TO PLACEMENT OF THE FINAL BITUMINOUS WEARING SURFACE AND AS DIRECTED BY THE ENGINEER.

THE EXISTING HANDHOLES AND CONDUITS SHALL BE REUSED. IF THEY HAVE BEEN DAMAGED, THEY SHALL BE REPLACED AT THE COST OF THE CONTRACTOR WITH NO ADDITIONAL COMPENSTION AND TO THE SATISFACTION OF THE ENGINEER.

THE TOTAL QUANTITY OF DETECTOR LOOPS, REPLACEMENT AT THIS INTERSECTION IS 798 FEET. ONLY THE DETECTOR LOOPS WHICH ARE DAMAGED SHALL BE REPLACED; THEREFORE, THE ACTUAL QUANTITY MAY VARY.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETECTOR LOOP DETAILS**

F.A.P. 103 (IL. RTE. 13/15)  
SECTION 27-1R - ST. CLAIR CO.

SCALE: 1" = 30'  
DATE: February 11, 2005

DRAWN BY: CRO  
CHECKED BY: RCY

3/10/2005 3:44:45 AM J:\2005\022958\000\civil\pdp\trf\trf.dgn 103.dgn