

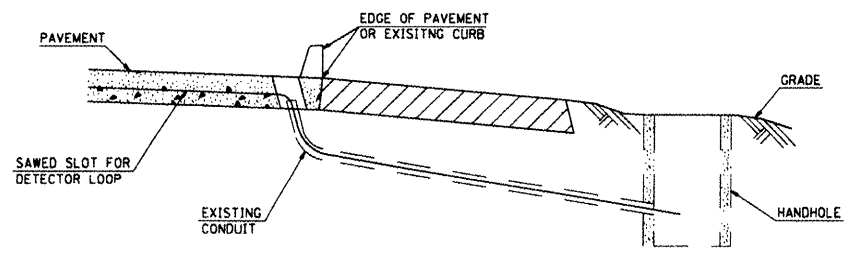
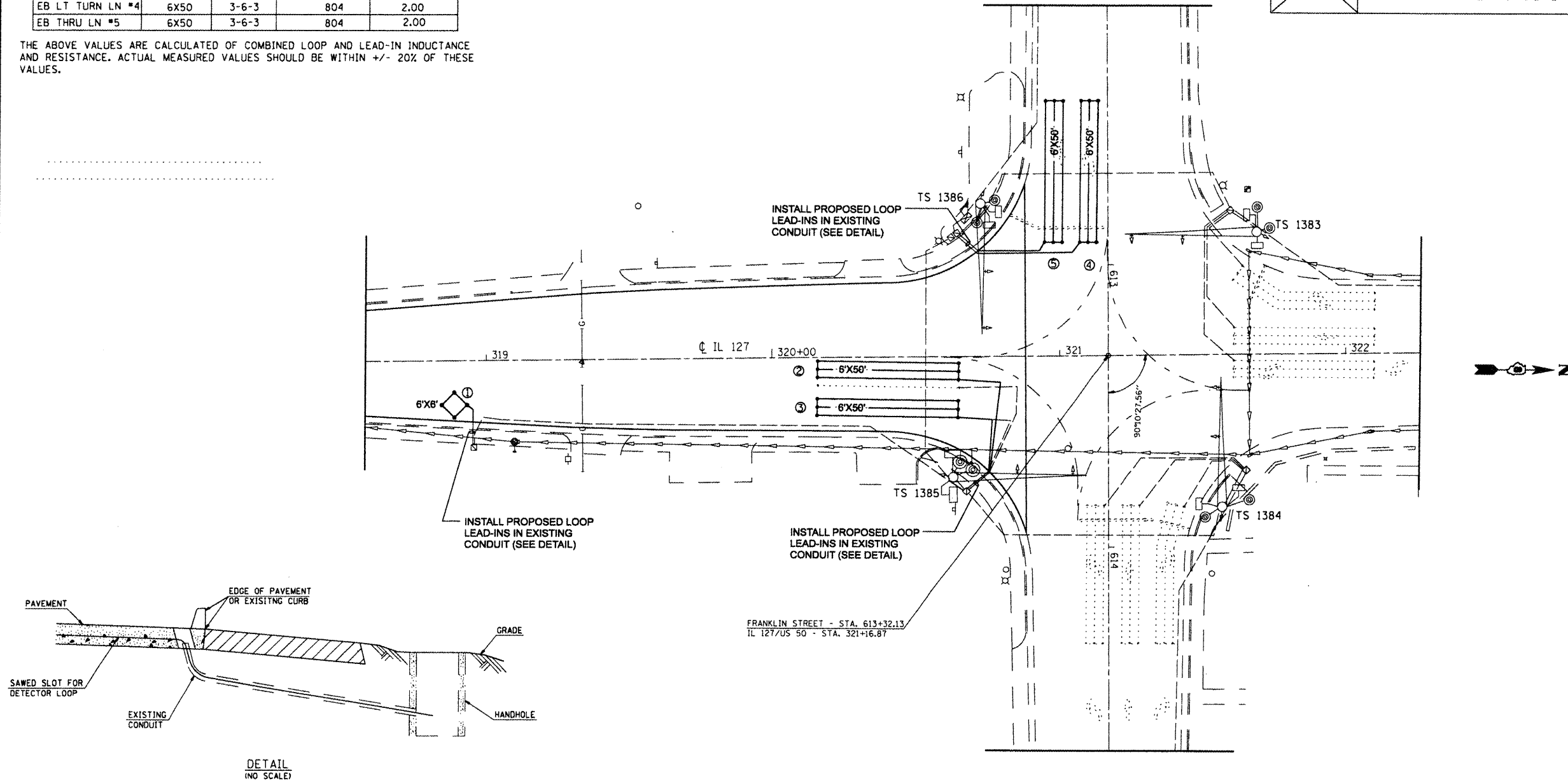
DETECTOR LOOP REQUIREMENTS AND CALCULATIONS
FOR US 50 AND IL 127, SOUTH JUNCTION-CARLYLE

LOOP	LOOP SIZE(FT)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES (μH)	CALCULATED RESISTANCE OHMS (Ω)
NB CCO #1	6X6	5	247	2.08
NB LT TURN LN #2	6X50	3-6-3	830	2.60
NB THRU LN #3	6X50	3-6-3	830	2.60
EB LT TURN LN #4	6X50	3-6-3	804	2.00
EB THRU LN #5	6X50	3-6-3	804	2.00

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

ELECTRICAL QUANTITIES:

CODE NO.	DESCRIPTION	UNIT	QUANTITY
88600600	DETECTOR LOOP REPLACEMENT	FOOT	810
80300100	LOCATING UNDER GROUND CABLE	FOOT	50



DETAIL
(NO SCALE)

RE-USE EXISTING DETECTOR LOOP LEAD-IN CABLE IN CONDUIT

- LOCATE UNDERGROUND CABLE FROM H.H. TO PAVEMENT.
- DRILL OUT PAVEMENT SEALANT AND CLEAN EXISTING CONDUIT.
- REMOVE EXISTING LEAD-IN CONDUCTORS TO HANDHOLE.
- INSTALL LOOP LEAD-IN CONDUCTORS IN EXISTING CONDUIT.
- SPLICE NEW DETECTOR LOOP LEAD-IN CONDUCTORS TO EXISTING LEAD-IN CABLE IN HANDHOLE.
- FILL HOLE WITH APPROVED SEALER. PREVENT SEALER FROM ENTERING INTO CONDUIT.

THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "DETECTOR LOOP REPLACEMENT", EXCEPT LOCATE UNDERGROUND CABLE IS A SEPARATE PAY ITEM.

ELECTRICAL GENERAL NOTE:

THE EXISTING DETECTOR LOOP CONDUIT FROM PAVEMENT TO THE HANDHOLE WILL BE RE-USED FOR THE REPLACED DETECTOR LOOP. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING THE EXISTING CONDUIT DURING THE CONSTRUCTION OPERATION. SHOULD ANY DAMAGE OCCURE DUE TO THE CONTRACTOR'S OPERATIONS, REPAIRS WILL BE MADE TO THE SATISFACTION OF THE ENGINEER AND WILL BE DONE AT THE CONTRACTOR'S EXPENSE.

FILE NAME : #FILE#	USER NAME : #USER#	DESIGNED - ---	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETECTOR LOOP REPLACEMENT	F.A.P. RTE. 42	SECTION (130-1)RS-5	COUNTY CLINTON	TOTAL SHEETS 26	SHEET NO. 21		
	PLOT SCALE : #SCALE#	CHECKED - ---	REVISED - ---			SCALE: 1:20	SHEET NO. 1 OF 1 SHEET	STA. _____ TO STA. _____	CONTRACT NO. 76E11			
	PLOT DATE : #DATE#	DATE - -----	REVISED - ---			FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT						