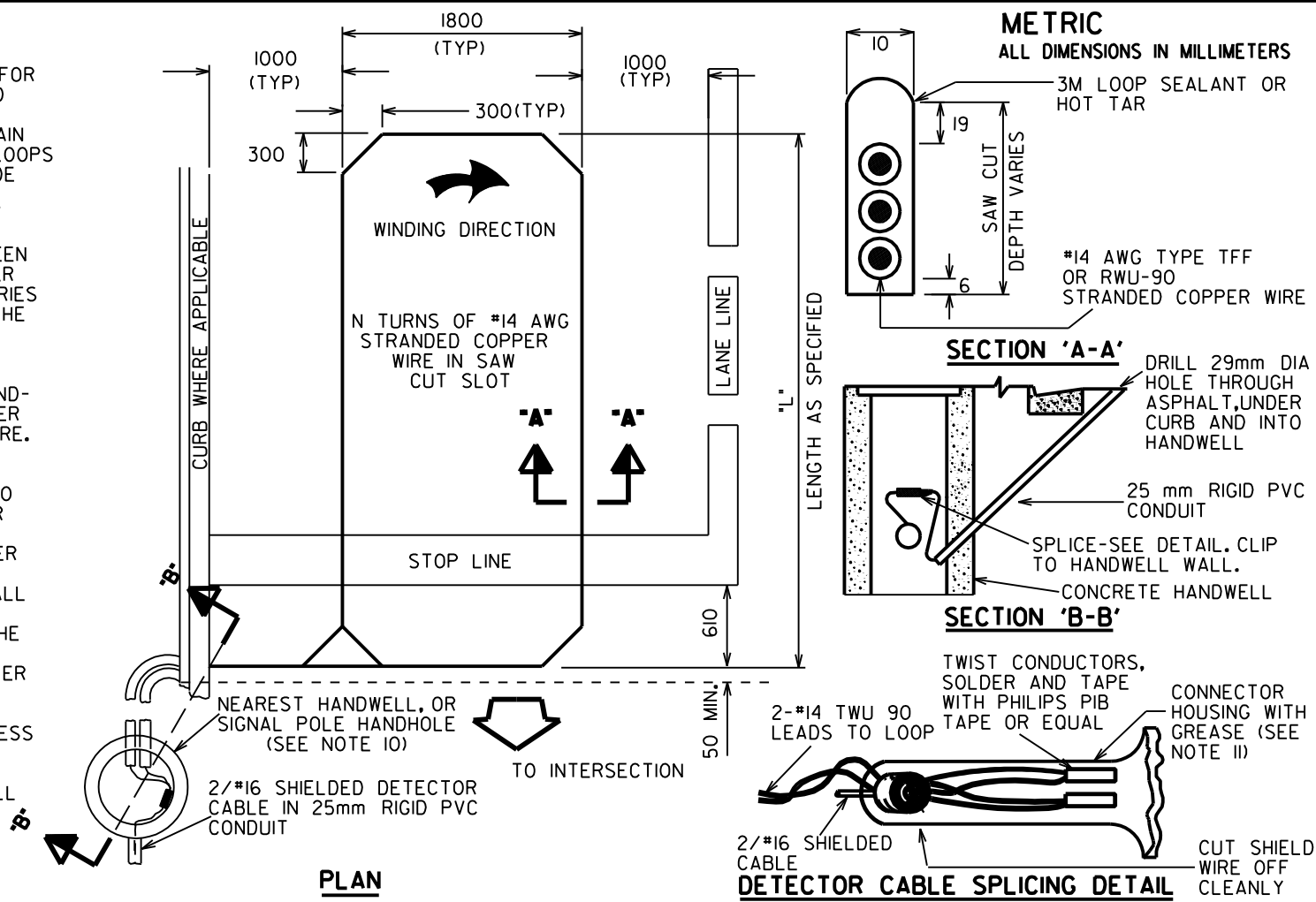
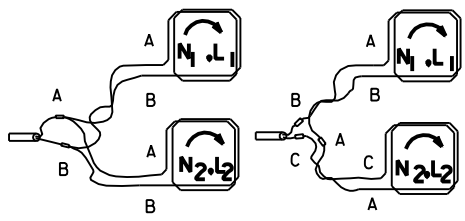


NOTES

1. LOOP WIDTH TO BE 1800 IN ALL CASES. FOR LOOP LENGTH "L", NUMBER OF LOOPS AND ORIENTATION, SEE LAYOUT DRAWINGS.
2. ON LANES NARROWER THAN 3600, MAINTAIN 1800 SEPARATION BETWEEN ADJACENT LOOPS BY MOVING THE OUTER LOOP TO THE SIDE OR MEDIAN OF THE ROADWAY.
3. SHIELDED CABLE HAS AN INDUCTANCE OF APPROXIMATELY 22 μH PER 30 000mm. TOTAL INDUCTANCE IS TO BE SET BETWEEN 100 AND 300μH BY CHOOSING THE PROPER NUMBER OF LOOP TURNS FOR EITHER SERIES OR PARALLEL CONNECTION AND ADDING THE SHIELDED CABLE INDUCTANCE. LEAD IN INDUCTANCE MUST BE LESS THAN LOOP INDUCTANCE.
4. LEADS BETWEEN THE LOOP AND THE HANDWELL SHALL BE TWISTED AT 3 TURNS PER 300mm WITH AN EQUAL LAY ON EACH WIRE.
5. NO SPLICES ALLOWED IN LOOP WIRING.
6. WIND ALL LOOPS IN ADJACENT LANES IN THE SAME DIRECTION. NO MORE THAN TWO LOOPS ARE TO BE CONNECTED TOGETHER IN EITHER SERIES OR PARALLEL.
7. GROUND SHIELD WIRE AT THE CONTROLLER AND DETECTOR UNIT ONLY.
8. POURING TEMPERATURE OF SEALANT SHALL NOT EXCEED 204°C. SEALANT SHALL BE POURED IN LAYERS TO AVOID BURNING THE WIRE INSULATION.
9. INDUCTANCE AND CONTINUITY TO BE METER CHECKED PRIOR TO SEALING LOOP.
10. LOOP CABLE AND RUN WIRES TO BE SPLICED AT SIGNAL POLE HANDHOLE UNLESS OTHERWISE SHOWN ON SIGNAL LAYOUT DRAWING.
11. CONNECTOR HOUSING TO BE USED FOR ALL UNDERGROUND SPLICING.



PLAN



PARALLEL LOOP CONNECTIONS

$$\text{TOTAL LOOP INDUCTANCE} = \frac{L_1 \times L_2}{(L_1 + L_2)}$$

SERIES LOOP CONNECTIONS

(USE ONLY WHERE LOOPS ARE EQUAL SIZE)

$$\text{TOTAL LOOP INDUCTANCE} = L_1 + L_2$$

TABLE OF APPROXIMATE LOOP INDUCTANCE (MICROHENRIES) FOR 1800 LOOPS

"N" TURNS \ "L"	1220	1830	2440	3050	3660	4570	6100	7620	9140	10670	12190	13720	15240
1	10	10	15	15	15	20	25	30	30	40	40	50	50
2	40	40	50	60	70	80	100	110	130	150	170	180	200
3	80	100	110	130	150	170	210	250	290	330	370	410	450
4	140	170	200	230	260	300	370	450	520	600	660	730	810
5	230	270	320	360	410	470	590	700	810	920	1040	1150	1260
6	320	390	450	520	580	680	840	1000	1170	1330	1490	1650	1810



TYPICAL LOOP VEHICLE DETECTOR LAYOUT

EFF. DATE	1994 09 01	SCALE	N.T.S.
REV.		STANDARD No.	2600.015