



# TECHNICAL BULLETIN

Ministry of Transportation  
and Highways

ENGINEERING BRANCH  
TRAFFIC & ELECTRICAL ENG. SECTION  
BULLETIN NUMBER: **TE-2000-12**

<b>Subject: Preformed Detector Loops</b>	
<b>Date:</b> November 30, 2000	<b>Author:</b> Ross Casey, Senior Electrical Standards Technologist
<b>Bulletin Number:</b> TE-2000-12 <b>Bulletin Type:</b> CHANGE TO STANDARD	<b>Action Required:</b> <b>Effective Date:</b> Immediately
<b>Distribution</b>	<b>Standards Affected</b>
Ministry Electrical Trades Supervisors and Managers All holders of the Electrical and Traffic Engineering Manual.	Electrical and Traffic Engineering Manual Standard Specifications for Highway Construction

### BACKGROUND:

Preformed detector loops are becoming more prevalent in Ministry installations, due to their longevity. They are cost effective, provided they are installed correctly; their location will be known; it is not anticipated that they will be dug up by utilities and, in cases of new construction, the exact location of lane lines and stop bars can be determined accurately, prior to loop installations.

### POLICY:

Preformed loops shall be used at signalized intersections, at the discretion of the Ministry Regional Manager responsible for the installation or revision of the traffic signal. Preformed loops shall be installed as per the most appropriate method specified in the **attached** Specification *Drawings No. SP635-2.8.15, 16 and 17*. The preformed loops used shall only be supplied from pre-approved suppliers.

The pre-approved supplier list is available from the Electrical Materials Manager, Delta (604-951-2111).

### PROCEDURE:

#### 1. Design

Preformed loops shall be designated on designs, if requested, by the Ministry Regional Manager (or the Regional Manager's designate) responsible for the installation or revision of the traffic signal.

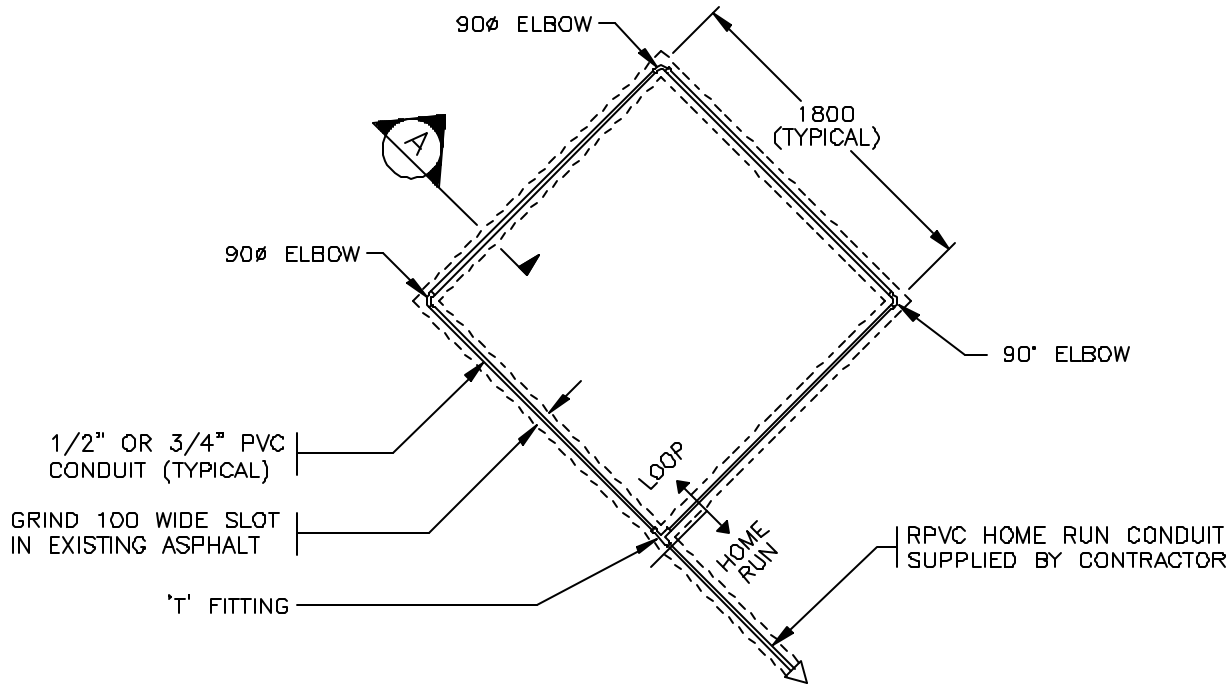
#### 2. Construction

Preformed loops shall be installed in accordance with Specification *Drawings no. SP635-2.8.15, 16 and 17*.

### CONTACT:

Ross Casey, Senior Electrical Standards Technologist  
Traffic/Electrical Engineering Section  
Engineering Branch

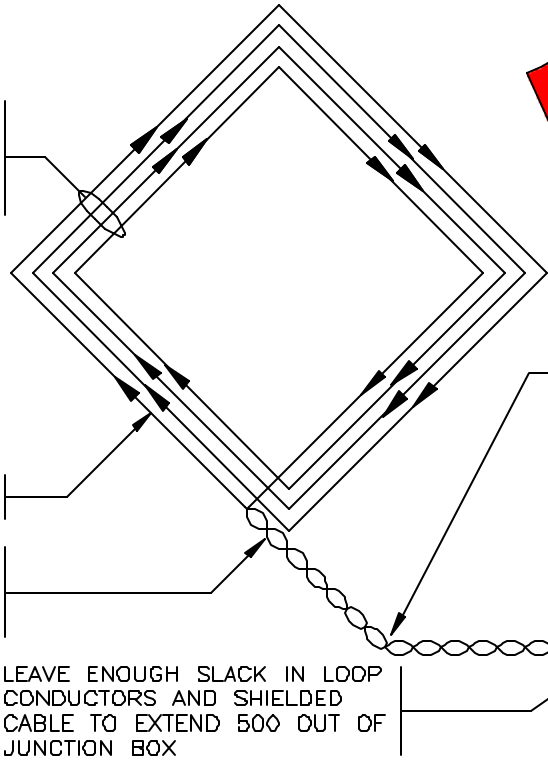
Phone: (250) 387-7688



PREFORMED LOOP LAYOUT

**DRAFT**

4 TURN LOOP SHOWN.  
NUMBER OF TURNS MAY VARY  
AS NOTED ON THE PLANS OR  
AS DIRECTED BY THE MINISTRY  
REPRESENTATIVE



LOOPS SUPPLIED WITH 25m  
OF TWISTED PAIR TAIL.

SHIELDED CABLE TO LOOP  
HOME RUN CONDUCTOR  
SPLICES IN JUNCTION BOX  
(SEE DRAWING SP635.2.8.7  
FOR DETAILS)

SHIELDED CABLE  
JUNCTION BOX

CONDUIT LAYOUT IN PREFORMED LOOP

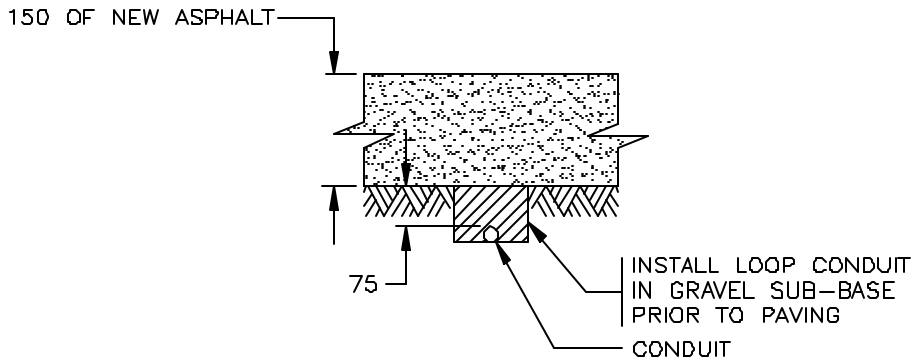
SEE DRAWING SP635-2.8.16 FOR NOTES

SEE DRAWING SP635-2.8.2 FOR LOOP INDUCTANCE TABLE



NOT TO SCALE

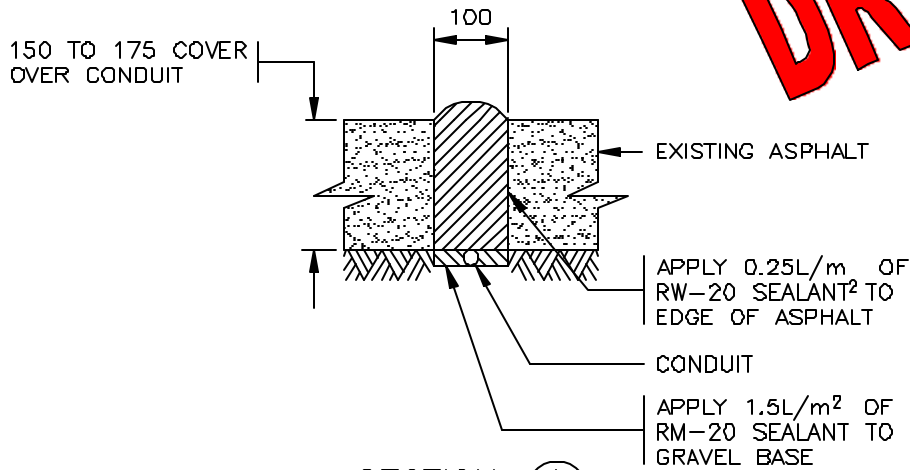
No.	Revision	Date	PRE-FORMED DIAMOND DETECTOR LOOP INSTALLATION DETAILS	
F			Date	Approved
E				
D				
C				
B				
A			Chief Highway Engineer	SPECIFICATION DRAWING No. SP635-2.8.15



SECTION (A)

NEW ROAD CONSTRUCTION

**DRAFT**



SECTION (A)

EXISTING ROAD SURFACE

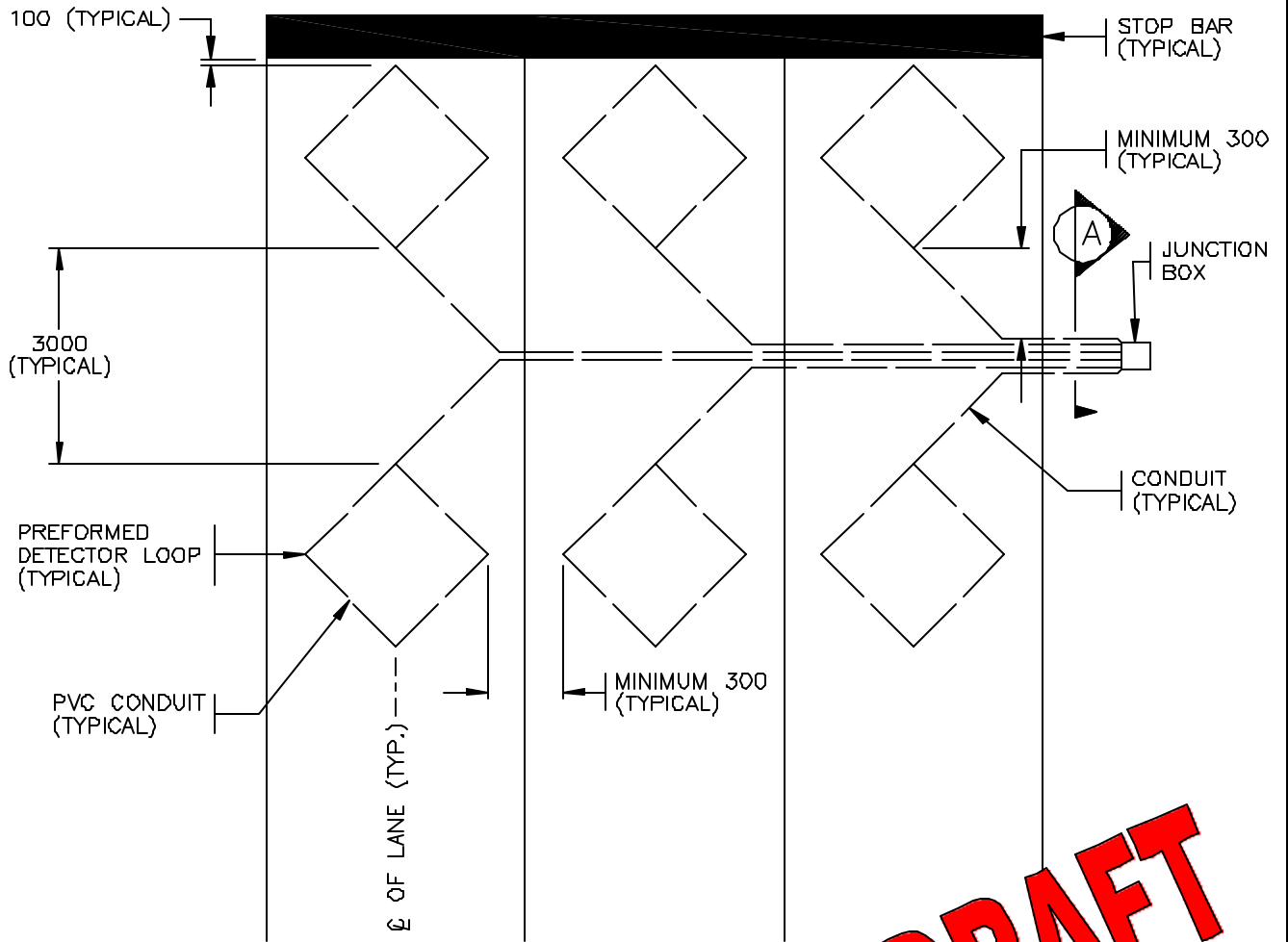
NOTES

1. SEE STANDARD SPECIFICATIONS & SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
3. WHERE INSTALLING PREFORMED LOOPS IN EXISTING ASPHALT GRIND OUT SLOT AND INSTALL PREFORMED LOOP. BACKFILL SLOT WITH HOT MIXED ASPHALT PAVEMENT. COMPACT ASPHALT WITH VIBRATING MECHANICAL COMPACTOR WITH 75mm SQUARE PLATE. WHERE INSTALLING PREFORMED LOOPS IN NEW ROAD CONSTRUCTION, PLACE CONDUIT IN GRAVEL SUB-BASE JUST BELOW ASPHALT. LAYOUT STOP BARS, CURB RETURNS, ISLANDS, MEDIANS, LANE LINES AND LOOPS AND VERIFY WITH MINISTRY REPRESENTATIVE PRIOR TO CONSTRUCTION. FAILURE TO CORRECTLY LOCATE THE LOOPS IN THEIR REQUIRED LOCATIONS WILL RESULT IN REINSTALLATION OF THE LOOPS AT THE CONTRACTORS EXPENSE
4. PREFORMED LOOPS SHALL MEET THE APPROVAL OF THE MINISTRY REPRESENTATIVE PRIOR TO INSTALLATION.
5. CONTRACTOR SHALL VERIFY LOOPS LOCATIONS (CUT INTO OVERLAYED OR NEW PAVED ROADWAYS) WITH THE MINISTRY REPRESENTATIVE AFTER INSTALLATION.
6. PRE-APPROVED LOOPS ARE NOTED ON THE MINISTRY "PRE-APPROVED PRODUCT LIST". PRE-FORMED LOOPS OR EITHER RIGID OR FLEXIBLE PVC TYPE AND COME COMPLETE WITH 25m HOME RUN OF CONDUCTOR. AS THE HOME RUN LENGTHS WILL VARY, THE CONTRACTOR SHALL SUPPLY PVC CONDUIT FOR HOME RUNS. TYPE OF LOOPS (FLEXIBLE OR RIGID) SHALL BE APPROVED BY THE MINISTRY ELECTRICAL TRADE SUPERVISOR.

NOT TO SCALE



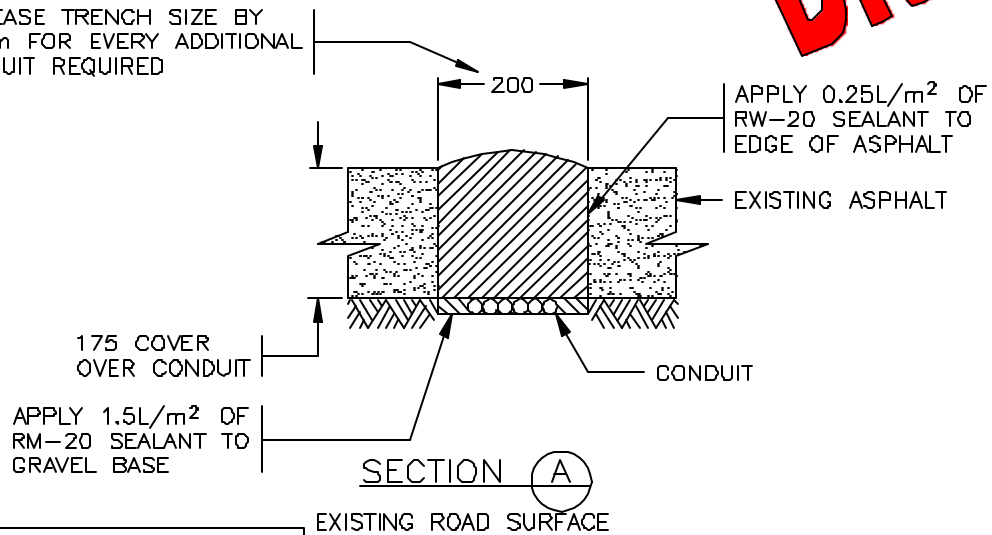
No	Revision	Date	PRE-FORMED DIAMOND DETECTOR LOOP INSTALLATION DETAILS	
F				
E				
D			Date	Approved
C				
B				
A			_____	Chief Highway Engineer
			SPECIFICATION DRAWING No. SP635-2.8.16	



TYPICAL PREFORMED LOOP LAYOUT

**DRAFT**

INCREASE TRENCH SIZE BY 20mm FOR EVERY ADDITIONAL CONDUIT REQUIRED



SECTION A

SEE DRAWING SP635-2.8.16 FOR NOTES

SEE DRAWING SP635-2.8.2 FOR LOOP INDUCTANCE TABLE

NOT TO SCALE



No.	Revision	Date	LAYOUT FOR PRE-FORMED TRAFFIC SIGNAL DETECTOR LOOPS		SPECIFICATION DRAWING No. SP635-2.8.17
F			Date	Approved	
E					
D					
C					
B					
A				Chief Highway Engineer	