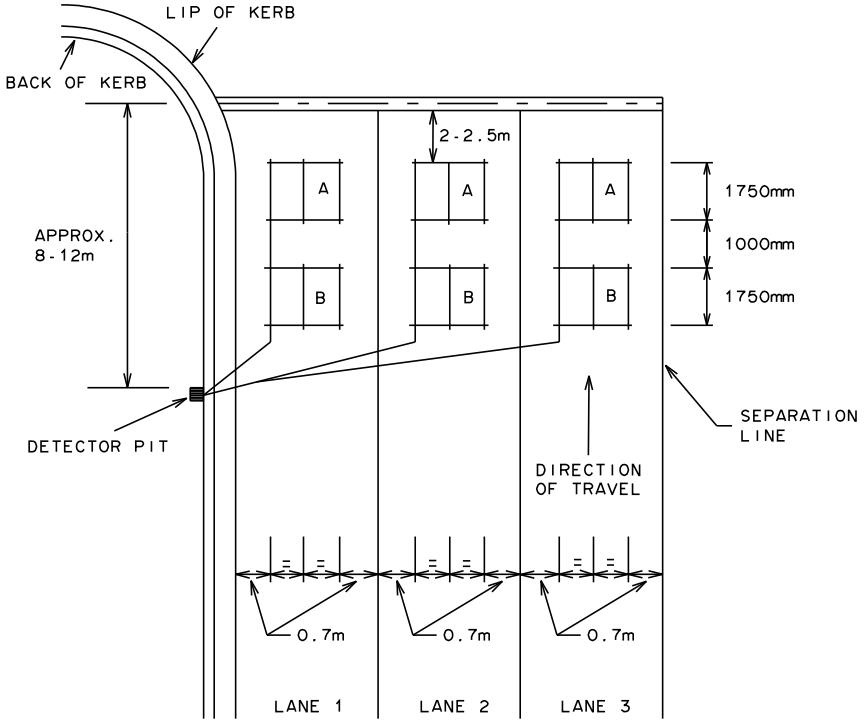
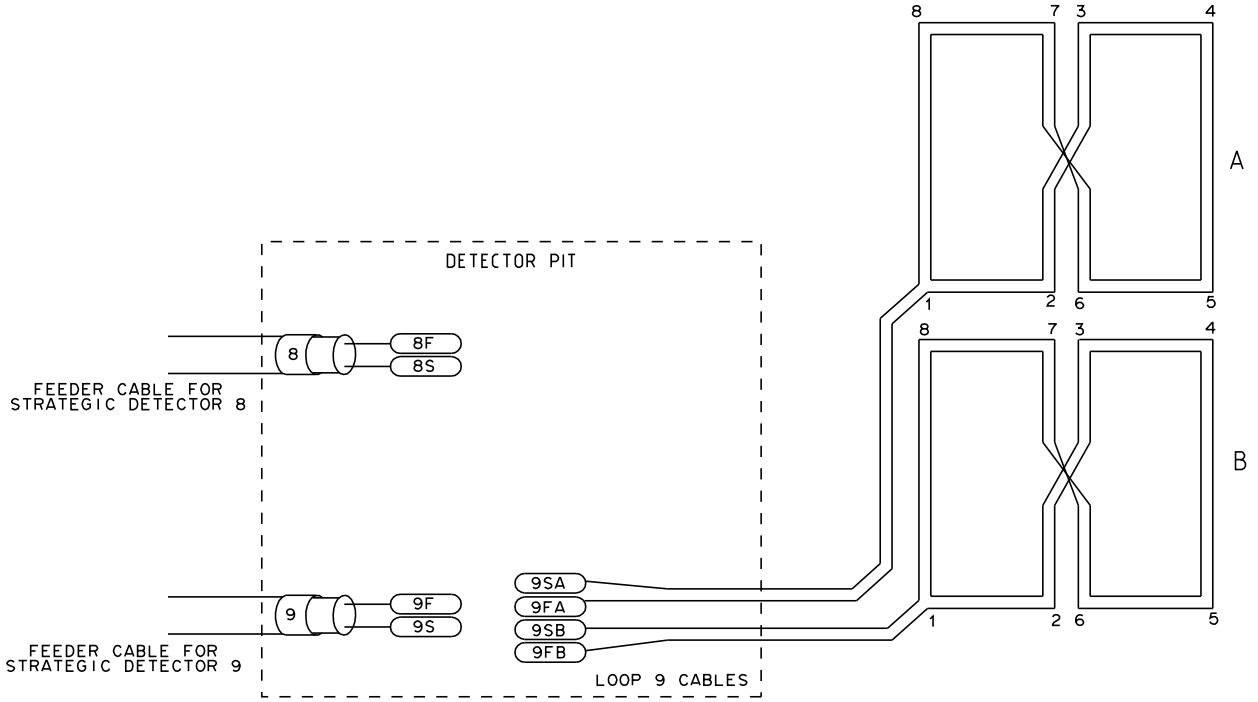
VicRoads Standard Drawings

Traffic signals – Detection (1300-1399)

Drawing No.		Title
TC-1300	A	Loop pattern and installation details – Symmetripole loops
TC-1301	B	Vehicle and tram detector loops along shared and exclusive lanes
TC-1302	A	Wheelchair detector loops
TC-1303		Infinity Inductive Loop for Tram Track Installations
TC-1310	A	Detector pit and lid
TC-1320	A	Detector pit – Installation details
TC-1332		Advance tram detection – Feeder cable details
TC-1380		Concrete slab for tram detectors

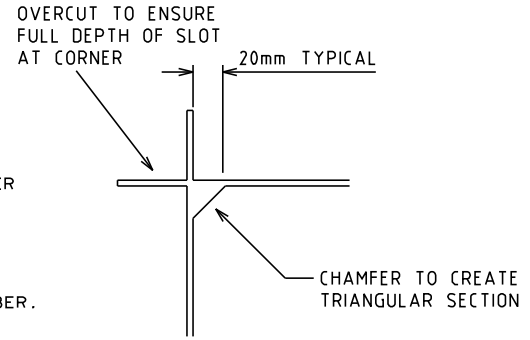
VICTORIA State Government | Department of Transport





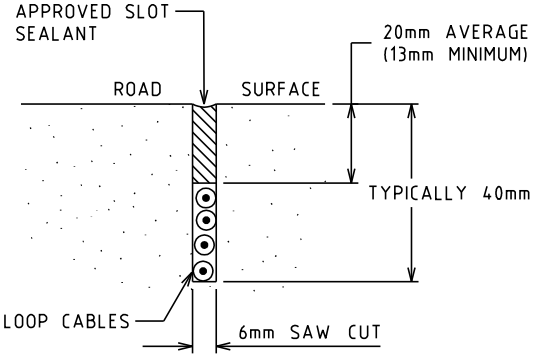
DETAIL A

LOOP WINDING AND TERMINAL DESIGNATION



DETAIL B

TYPICAL SAW-CUT AT CORNER



DETAIL C

NOTES

1. LOOP DETECTOR CABLE AND FEEDER CABLE SHALL BE JOINTED IN DETECTOR PIT. EACH JOINT MUST BE SEPARATELY INSULATED WITH AN APPROVED PERMANENT METHOD
2. ALL LOOP CABLE TERMINALS SHALL BE LABELLED WITH AN APPROVED PERMANENT MARKER IN THE FORMAT 9SA, 9FA, ETC. THE FIRST DIGITS OF THE LABEL MARK THE LOOP NUMBER AS SPECIFIED.
   THE LETTERS S AND F STAND FOR START AND FINISH RESPECTIVELY.
   THE LETTER A IDENTIFIES THE DOWNSTREAM LOOP AND THE LETTER B INDENTIFIES THE UPSTREAM LOOP.
3. ALL FEEDER CABLES SHALL BE LABELLED WITH APPROVED CABLE MARKERS WITH LOOP NUMBER.
4. THE LOOP CABLE SHALL BE CONTINUOUS BETWEEN TERMINALS.
5. LOOP CABLES SHALL BE INSTALLED IN NUMERIC ORDER AS SHOWN IN DETAIL A. ONE DOUBLE TURN OF CABLE SHALL BE INSTALLED FOR BOTH LOOP A AND LOOP B.
6. WHERE PAVEMENT SURFACE IS UNSUITABLE, LOOPS MAY BE SET BACK UP TO 4M FROM STOP LINE

AMEND.	Appd.	DATE	AMENDMENTS
E			
D			
C			
B			
A	S.B.	29/3/05	CHANGE CORNER OF SAWCUT & MODIFY SOME DIMENSIONS

GENERAL NOTES / CROSS REFERENCES
UNSPECIFIED DIMENSIONS ARE IN mm.

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INTELLIGENT TRANSPORT SYSTEMS GROUP

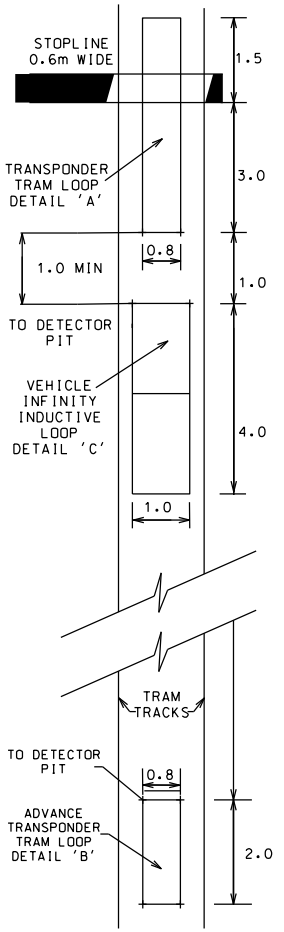
THIS DRAWING SUPERSEDES NO 85 5606B

STANDARD DRAWING

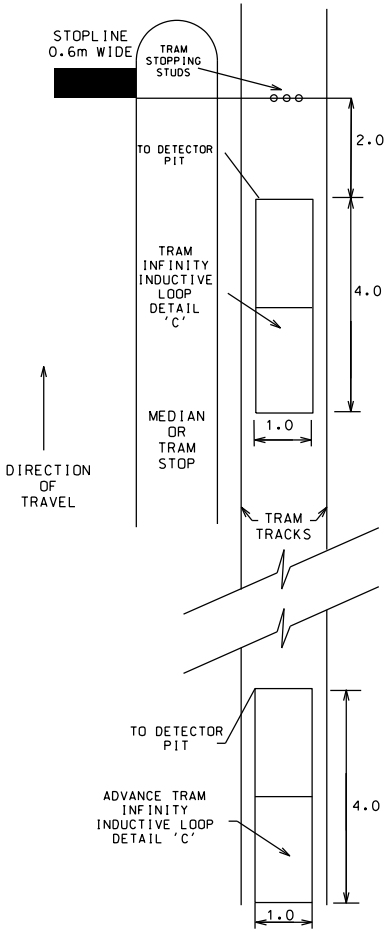
LOOP PATTERN AND INSTALLATION DETAILS

SYMMETRIPOLE

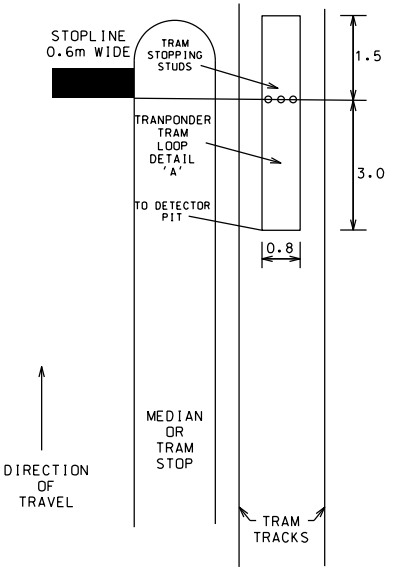
CHECKED DATE	APPROVED DATE	SPEC.REF.	SHEET No.	DRAWING No.	AMENDMENT
J. RANDALL 21/12/95	B. HEARN 21/12/95 MANAGER ITS			TC-1300	A



TYPE 1.
SHARED TRAM LANE
INFINITY INDUCTIVE & TRANSPONDER
LOOPS



TYPE 2.
EXCLUSIVE TRAM LANE
INFINITY INDUCTIVE LOOPS



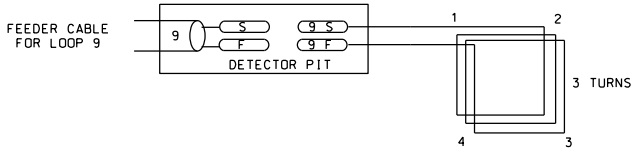
TYPE 3.
EXCLUSIVE TRAM LANE
TRANSPONDER LOOP

NOTES

1. FOR DETAIL 'C' INFINITY INDUCTIVE LOOP DETAILS REFER TO TC-1303
2. WHERE SYMMETRIPOLE LOOPS ARE INSTALLED ADJACENT TO TRAM DETECTION LOOPS,THE SYMMETRIPOLE LOOPS SHALL BE INSTALLED IN ACCORDANCE WITH TC-1300.
3. ALL LOOP LEAD-INS SHALL BE INSTALLED IN ACCORDANCE WITH TC-1300
4. FOR DETAILS OF DETECTOR PIT INSTALLATION REFER TO TC-1320
5. THE MAXIMUM LENGTH OF ANY INDIVIDUAL DETECTOR FEEDER CABLE SHALL NOT EXCEED 200 METRES

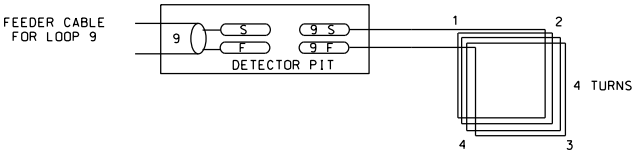
DETAIL A

TYPICAL CONNECTION AND WIRING OF LOOP
-FOR TYPE 1 AND TYPE 3 TRANSPONDER TRAM DETECTION LOOP
(SHARED & EXCLUSIVE TRAM LANE - STOPLINE)



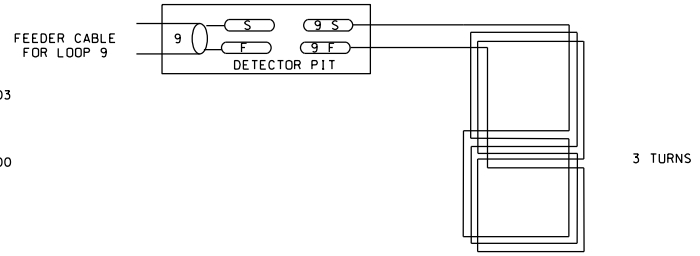
DETAIL B

TYPICAL CONNECTION AND WIRING OF LOOP
-FOR TYPE1 TRANSPONDER TRAM DETECTION LOOP
(ADVANCE TRAM LOOP)



DETAIL C

TYPICAL CONNECTION AND WIRING OF INFINITY INDUCTIVE LOOP
-FOR INDUCTIVE LOOP (SHARED & EXCLUSIVE TRAM LANE)



ISSUE	APP'D	DATE	AMENDMENT
E			
D			
C			
B	Z S	04 08 22	Include infinity loop
A	S B	29 03 05	Remove diagonal cut from corner of loop slot

GENERAL NOTES /CROSS REFERENCE
UNSPECIFIED DIMENSIONS ARE IN mm

DESIGNED
Z S JUL 22

APPROVED
C C AUG 22

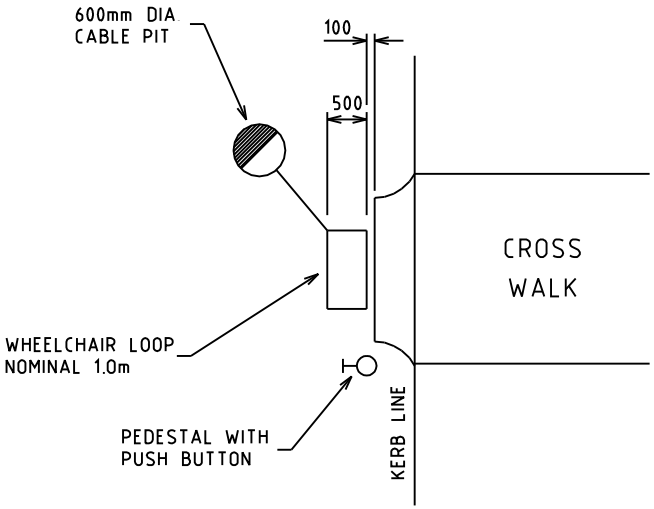
CAT:
PROJ:
FILE:

SCALE OF METRES
HOR
VER

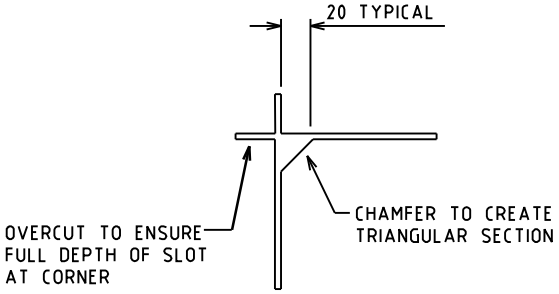
vicroads

VEHICLE AND TRAM DETECTOR LOOPS
ALONG SHARED AND EXCLUSIVE TRAM LANES

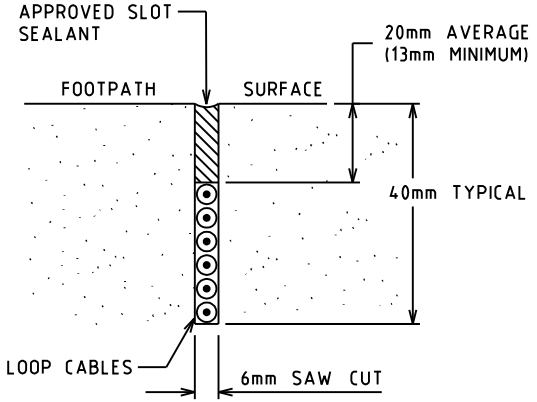
FILE NO.	CONTRACT NO.	SHEET NO.	DRAWING NO.	ISSUE
			TC-1301	B



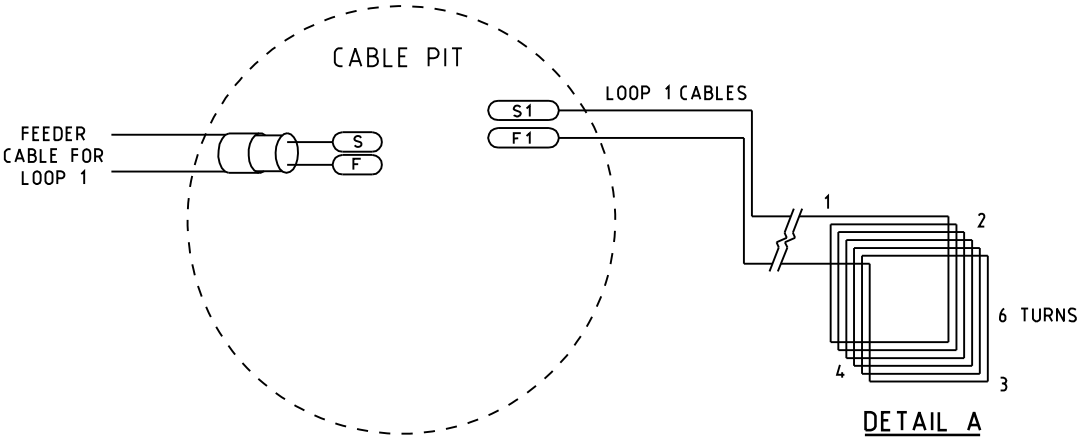
TYPICAL INSTALLATION



DETAIL B
TYPICAL SAW-CUT AT CORNER



DETAIL C



DETAIL A

NOTES:

1. LOOP DETECTOR CABLE AND FEEDER CABLE SHALL BE JOINTED IN THE NEAREST CABLE PIT (LOOP DETECTOR PIT MAY BE USED IF APPROPRIATE).
2. ALL LOOP CABLE TERMINALS SHALL BE LABELLED WITH CABLE MARKERS, S1, F1, ETC. THE DIGITS OF THE LABEL MARKS THE LOOP NUMBER AS SPECIFIED ON THE AUTHORITY PLAN. THE LETTERS S AND F STAND FOR START AND FINISH RESPECTIVELY.
3. ALL FEEDER CABLES SHALL BE LABELLED WITH HELAGRIP CABLE MARKERS AS PER LOOP NUMBER SPECIFIED ON THE AUTHORITY PLAN.
4. THE LOOP CABLE SHALL BE CONTINUOUS (I.E. NO JOINTS PERMITTED) BETWEEN TERMINALS.

TYPICAL WIRING AND CONNECTION OF LOOPS

LOOP CABLES SHALL BE INSTALLED AND FOLLOW THROUGH THE SAW CUTS IN NUMERIC ORDER AS SHOWN IN DETAIL A. TO CONNECT UP THE COMPLETE LOOP, THE FEEDER CABLE AND LOOP CABLE TERMINALS SHALL BE CONNECTED AS FOLLOWS.
6 TURN LOOP S1 TO S, F1 TO F.

E			
D			
C			
B			
A	S.B.	29/03/05	MODIFY REQUIREMENTS FOR CORNER OF SAW CUT
AMEND.	Appd.	DATE	AMENDMENTS

GENERAL NOTES / CROSS REFERENCES
UNSPECIFIED DIMENSIONS ARE IN mm.

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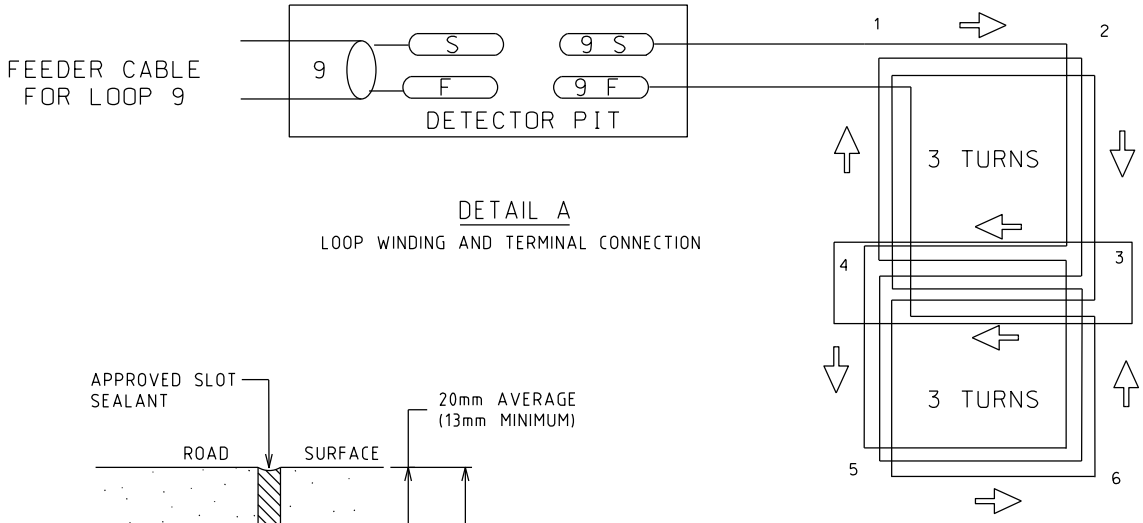
INTELLIGENT TRANSPORT SYSTEMS GROUP

STANDARD DRAWING

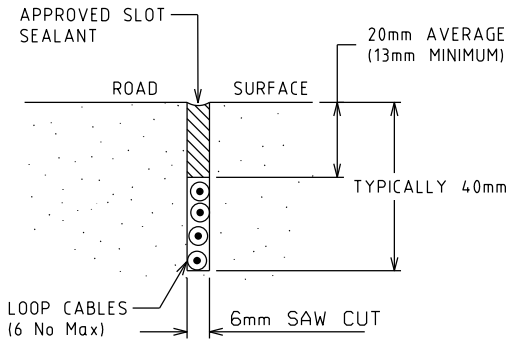
WHEELCHAIR DETECTOR LOOPS

CHECKED DATE	APPROVED DATE	SPEC. REF.	SHEET No.	DRAWING No.	AMENDMENT
S. Purtill 18/6/04	S. Bean 14/7/04 MANAGER ITS			TC-1302	A



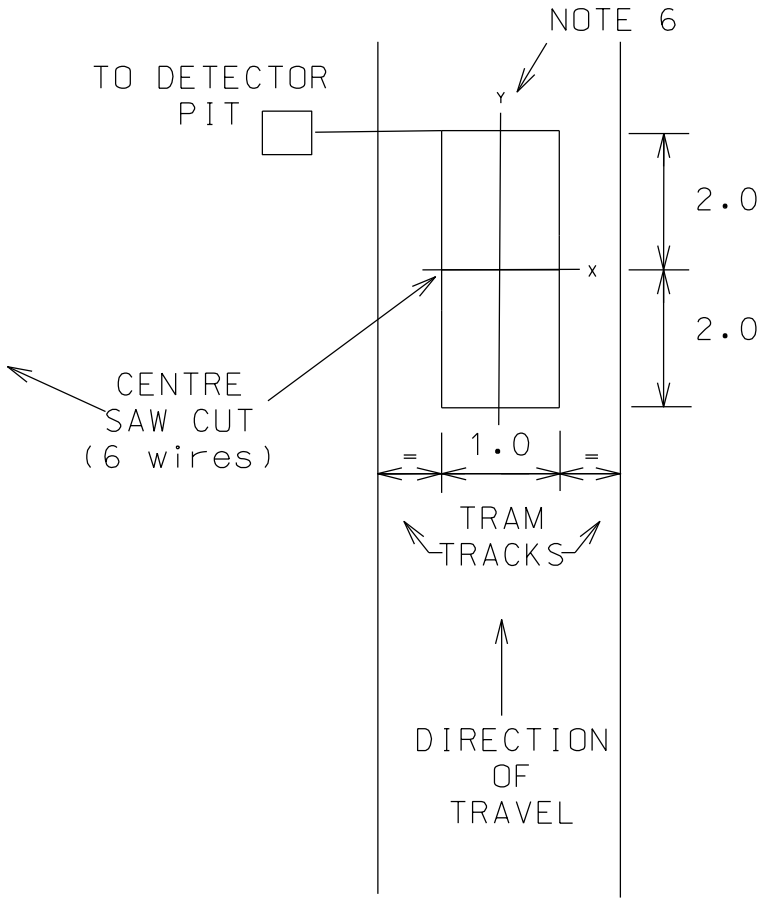
DETAIL A

LOOP WINDING AND TERMINAL CONNECTION



DETAIL C

SAW CUT ARRANGEMENT



NOTES

1. LOOP DETECTOR CABLE AND FEEDER CABLE SHALL BE JOINTED IN DETECTOR PIT.
   EACH JOINT MUST BE SEPARATELY INSULATED WITH AN APPROVED PERMANENT METHOD
2. ALL LOOP CABLE TERMINALS SHALL BE LABELLED WITH AN APPROVED PERMANENT MARKER
   IN THE FORMAT 9SA, 9FA, ETC. THE FIRST DIGITS OF THE LABEL MARK THE LOOP NUMBER
   AS SPECIFIED.
   THE LETTERS S AND F STAND FOR START AND FINISH RESPECTIVELY.
3. ALL FEEDER CABLES SHALL BE LABELLED WITH APPROVED CABLE MARKERS WITH LOOP NUMBER.
4. THE LOOP CABLE SHALL BE CONTINUOUS BETWEEN TERMINALS.
5. LOOPS SHALL BE CUT EQUIDISTANTLY FROM THE TWO TRAM TRACKS
6. LOOPS SHAL BE CUT SYMMETRICALY IN RELATION TO THE HORIZONTAL AND VERTICAL CENTRAL AXES
7. THIS LOOP SHALL BE USED FOR TRAM AND VEHICLE DETECTION ARANGEMENTS OUTLINED IN STANDARD
   DRAWING TC-1301
8. THIS LOOP SHALL BE USED AS CANCELLING LOOP FOR TRAMS

ISSUE	APP'D	DATE	AMENDMENT
E			
D			
C			
B			
A			

GENERAL NOTES /CROSS REFERENCES
UNSPECIFIED DIMENSIONS ARE IN mm

DESIGNED
Z S JUL 2022

APPROVED
C C AUG 2022

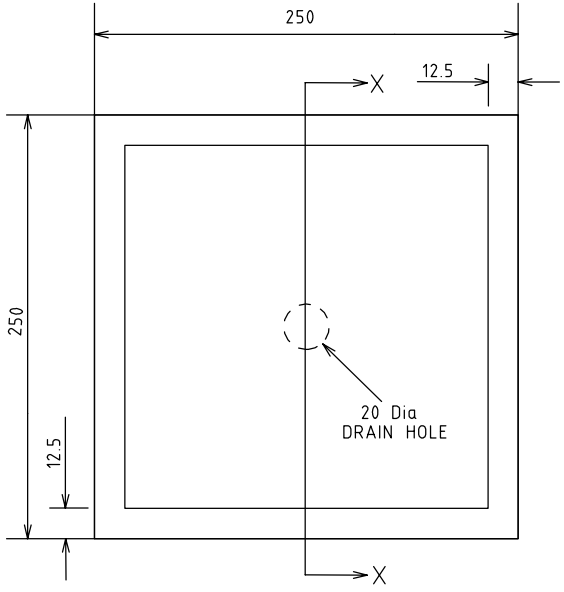
CAT:
PROJ:
FILE:

SCALE OF METRES
HOR
VER

vicroads

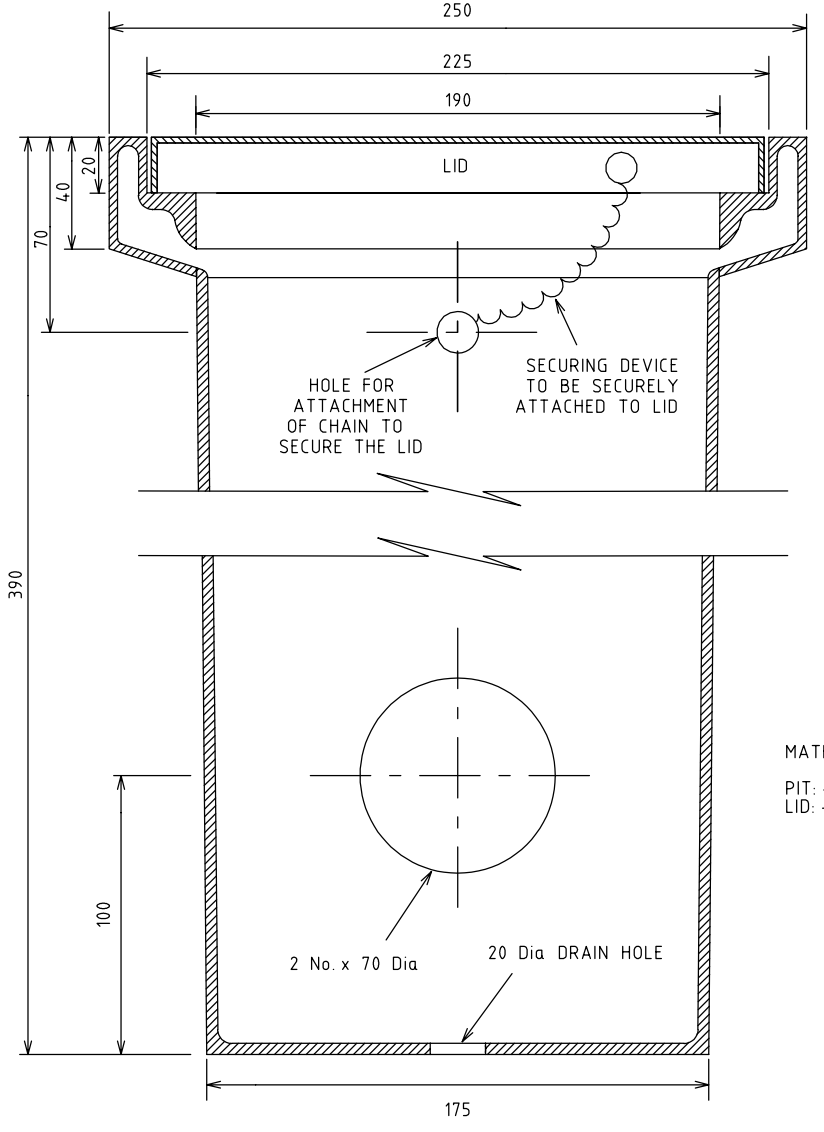
LOOP PATTERN AND INSTALLATION DETAILS
INFINITY INDUCTIVE LOOP FOR
TRAM TRACK INSTALLATIONS

FILE NO.	CONTRACT NO.	SHEET NO.	DRAWING NO.	ISSUE
			TC-1303	



PLAN

(REDUCED SCALE)



SECTION X - X

MATERIALS:

PIT: - BLACK POLYETHYLENE
LID: - ALUMINIUM

E			
D			
C			
B			
A	J.R.	27/8/96	MIN No. OF LUGS DELETED
AMEND.	Appd.	DATE	AMENDMENTS

GENERAL NOTES / CROSS REFERENCES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.

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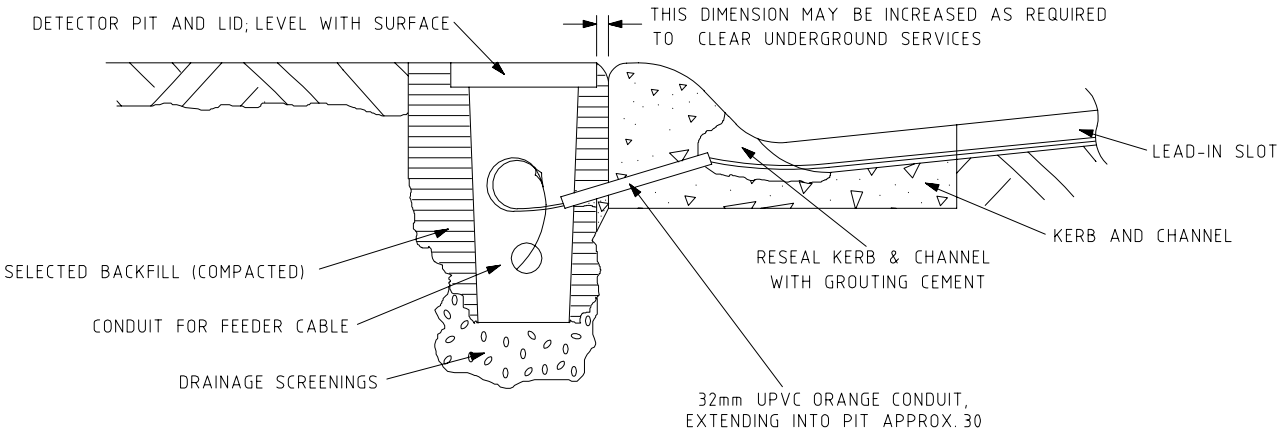
TRAFFIC AND ROAD USE MANAGEMENT DEPARTMENT

TRAFFIC SYSTEM OPERATION

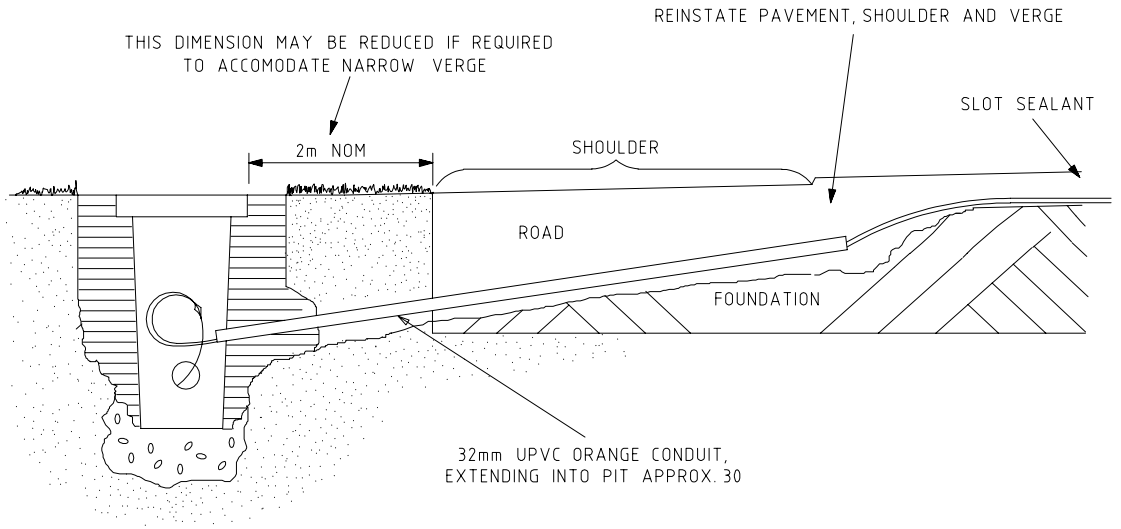
STANDARD DRAWING

DETECTOR PIT AND LID

CHECKED DATE	APPROVED DATE	SPEC. REF.	SHEET No.	DRAWING No.	AMENDMENT
J. RANDALL 14/8/96	B. HEARN 14/8/96 T.S.O. MANAGER			TC-1310	A



INSTALLATION BEHIND KERB



INSTALLATION IN VERGE

AMEND.	Appd.	Date	AMENDMENTS
E			
D			
C			
B			
A	JR	22/8/96	REDUCED SETBACK FOR NARROW VERGE

GENERAL NOTES / CROSS REFERENCES
UNSPECIFIED DIMENSIONS ARE IN mm.
THIS DRAWING MUST BE READ IN CONJUCTION WITH THE INSTALLATION SPECIFICATION.
TC-1310 DETECTOR PIT

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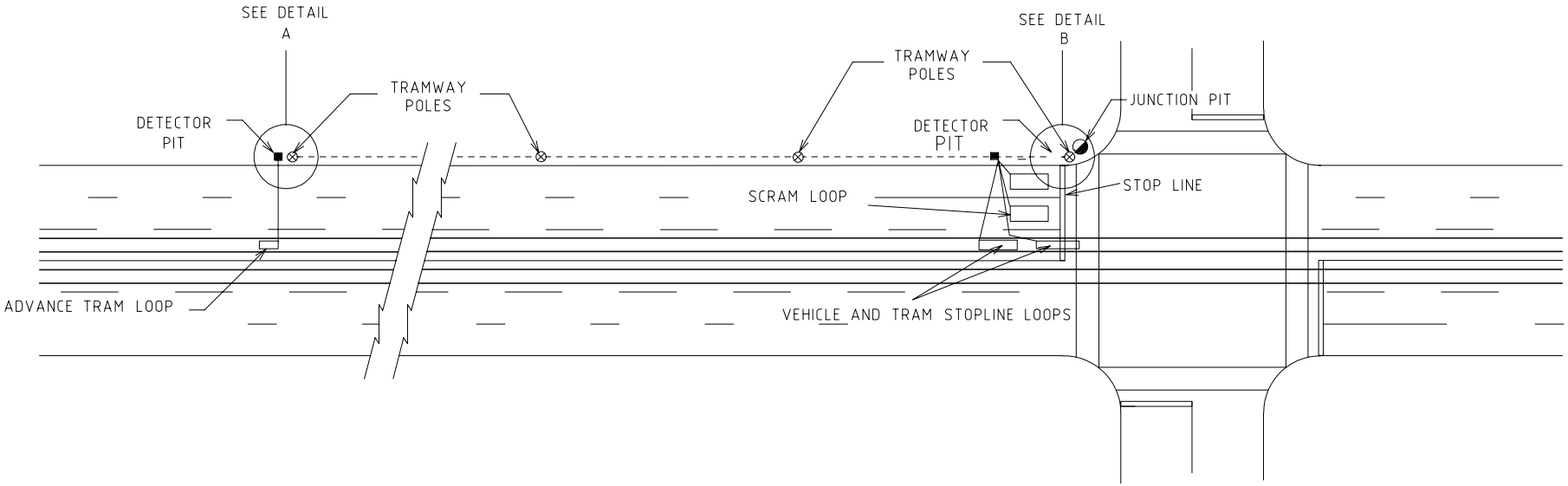
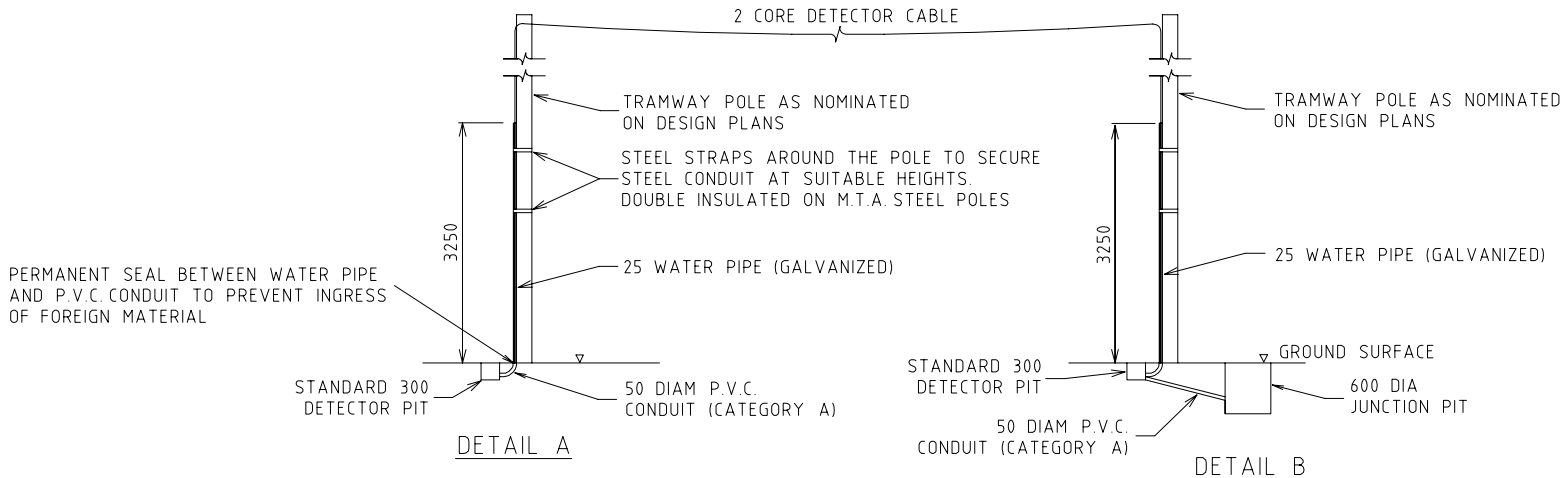
TRAFFIC AND ROAD USE MANAGEMENT DEPARTMENT

TRAFFIC SYSTEM OPERATION

STANDARD DRAWING FOR TRAFFIC SIGNALS
DETECTOR PIT
INSTALLATION DETAILS

CHECKED DATE	APPROVED DATE	SPEC. REF.	SHEET No.	DRAWING No.	AMENDMENT
J. RANDALL 21/12/95	B. HEARN 21/12/95 T.S.O. MANAGER			TC-1320	A





E			
D			
C			
B			
A	BH	22/05/2001	LEADINS REAR OF LOOPS
AMEND.	Appd.	DATE	AMENDMENTS

GENERAL NOTES / CROSS REFERENCES
UNSPECIFIED DIMENSIONS ARE IN mm.

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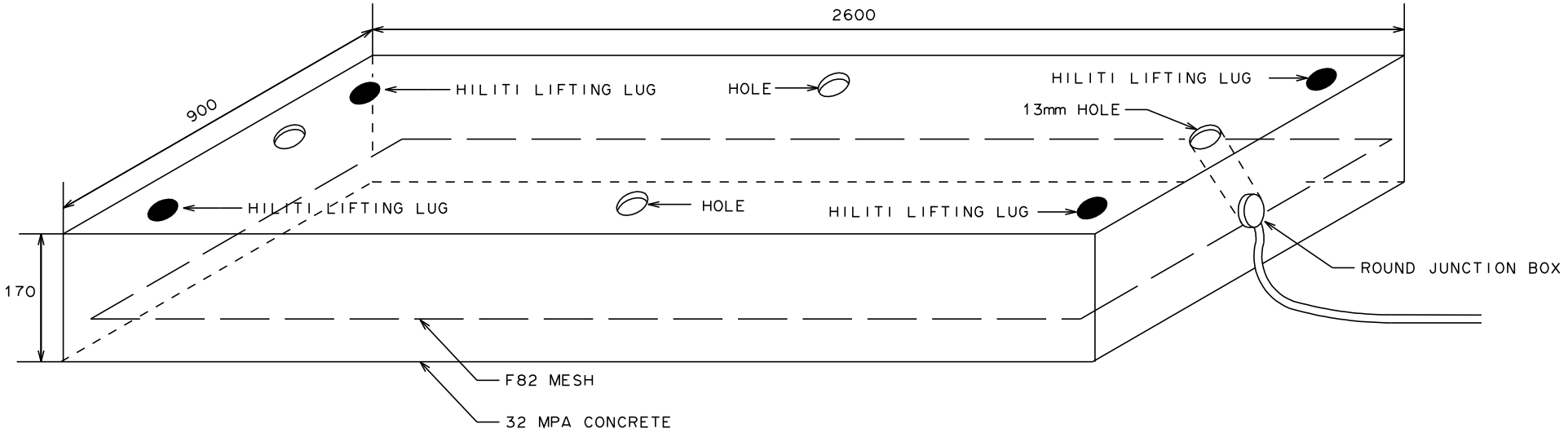
TRAFFIC AND ROAD USE MANAGEMENT DEPARTMENT

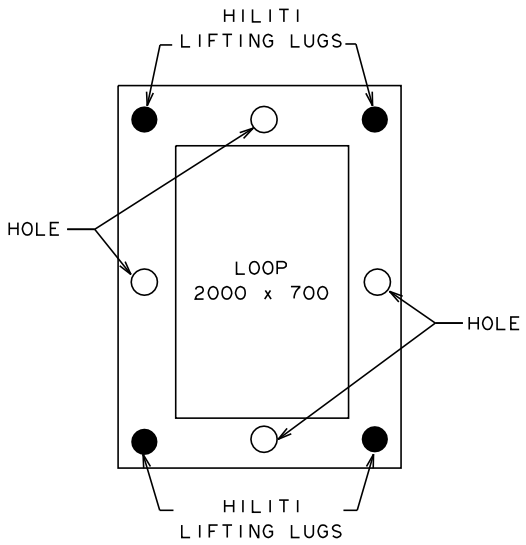
TRAFFIC SYSTEM OPERATION

STANDARD DRAWING

ADVANCE TRAM DETECTION (FEEDER CABLE DETAILS)

CHECKED DATE	APPROVED DATE	SPEC. REF.	SHEET No.	DRAWING No.	AMENDMENT
	T.S.O. MANAGER			TC-1332	





NOTE: LOOP CABLE IS PROTECTED
BY 20mm FLEX CONDUIT

E				GENERAL NOTES / CROSS REFERENCES UNSPECIFIED DIMENSIONS ARE IN mm.
D				
C				
B				
A				
AMEND.	Appd.	DATE	AMENDMENTS	

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INTELLIGENT TRANSPORT SYSTEMS GROUP

STANDARD DRAWING

CONCRETE SLAB FOR TRAM DETECTORS

CHECKED DATE	APPROVED DATE	SPEC.REF.	SHEET No.	DRAWING No.	AMENDMENT
S.P. 7/1/2002	K.W. 7/1/2002 MANAGER ITS			TC-1380	