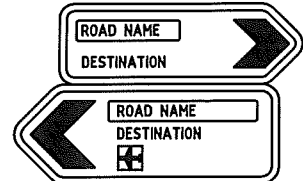
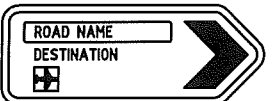
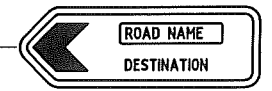
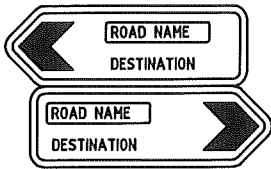
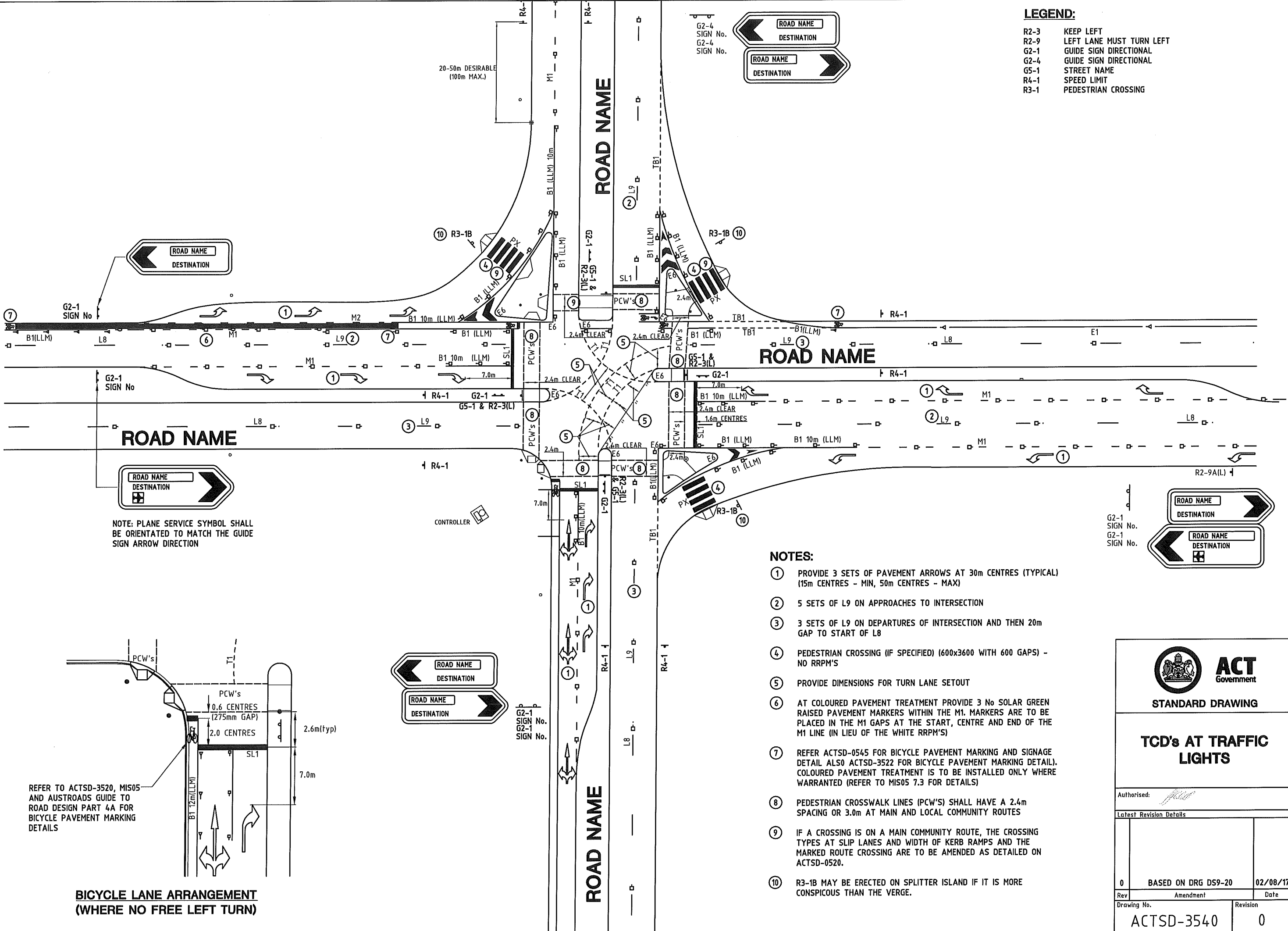
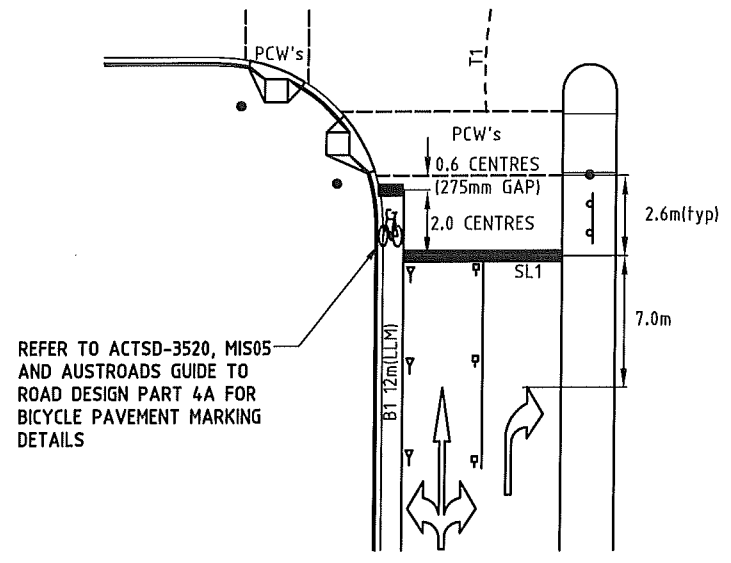


- LEGEND:**
- R2-3 KEEP LEFT
 - R2-9 LEFT LANE MUST TURN LEFT
 - G2-1 GUIDE SIGN DIRECTIONAL
 - G2-4 GUIDE SIGN DIRECTIONAL
 - G5-1 STREET NAME
 - R4-1 SPEED LIMIT
 - R3-1 PEDESTRIAN CROSSING




NOTE: PLANE SERVICE SYMBOL SHALL BE ORIENTATED TO MATCH THE GUIDE SIGN ARROW DIRECTION

- NOTES:**
- 1 PROVIDE 3 SETS OF PAVEMENT ARROWS AT 30m CENTRES (TYPICAL) (15m CENTRES - MIN, 50m CENTRES - MAX)
 - 2 5 SETS OF L9 ON APPROACHES TO INTERSECTION
 - 3 3 SETS OF L9 ON DEPARTURES OF INTERSECTION AND THEN 20m GAP TO START OF L8
 - 4 PEDESTRIAN CROSSING (IF SPECIFIED) (600x3600 WITH 600 GAPS) - NO RRPMS
 - 5 PROVIDE DIMENSIONS FOR TURN LANE SETOUT
 - 6 AT COLOURED PAVEMENT TREATMENT PROVIDE 3 No SOLAR GREEN RAISED PAVEMENT MARKERS WITHIN THE M1. MARKERS ARE TO BE PLACED IN THE M1 GAPS AT THE START, CENTRE AND END OF THE M1 LINE (IN LIEU OF THE WHITE RRPMS)
 - 7 REFER ACTSD-0545 FOR BICYCLE PAVEMENT MARKING AND SIGNAGE DETAIL ALSO ACTSD-3522 FOR BICYCLE PAVEMENT MARKING DETAIL. COLOURED PAVEMENT TREATMENT IS TO BE INSTALLED ONLY WHERE WARRANTED (REFER TO MIS05 7.3 FOR DETAILS)
 - 8 PEDESTRIAN CROSSWALK LINES (PCW'S) SHALL HAVE A 2.4m SPACING OR 3.0m AT MAIN AND LOCAL COMMUNITY ROUTES
 - 9 IF A CROSSING IS ON A MAIN COMMUNITY ROUTE, THE CROSSING TYPES AT SLIP LANES AND WIDTH OF KERB RAMPS AND THE MARKED ROUTE CROSSING ARE TO BE AMENDED AS DETAILED ON ACTSD-0520.
 - 10 R3-1B MAY BE ERECTED ON SPLITTER ISLAND IF IT IS MORE CONSPICUOUS THAN THE VERGE.



BICYCLE LANE ARRANGEMENT (WHERE NO FREE LEFT TURN)

REFER TO ACTSD-3520, MIS05 AND AUSTRADS GUIDE TO ROAD DESIGN PART 4A FOR BICYCLE PAVEMENT MARKING DETAILS



ACT Government

STANDARD DRAWING

TCD's AT TRAFFIC LIGHTS

Authorised: *[Signature]*

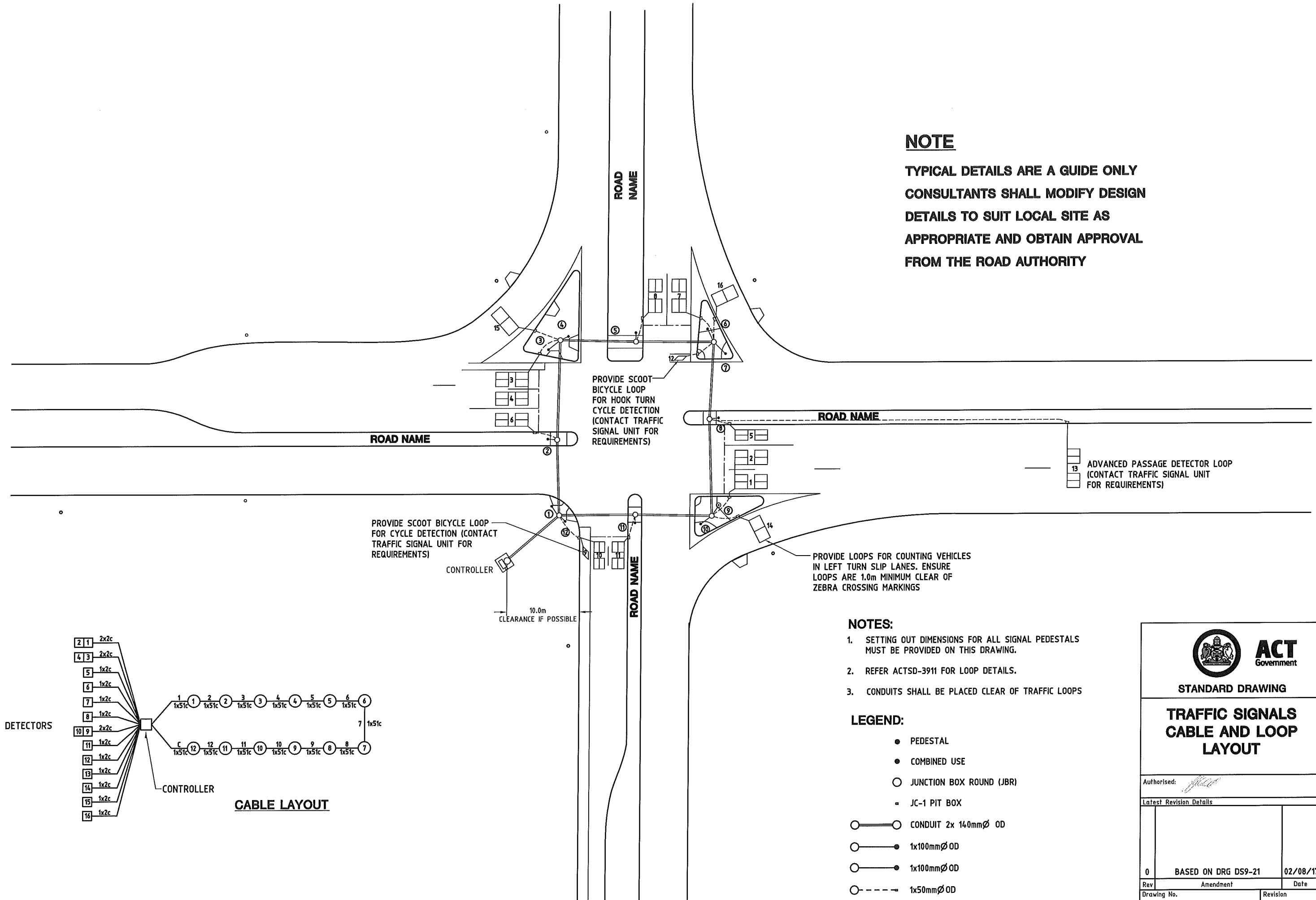
Latest Revision Details

Rev	Amendment	Date
0	BASED ON DRG DS9-20	02/08/17

Drawing No. **ACTSD-3540** Revision **0**

NOTE

TYPICAL DETAILS ARE A GUIDE ONLY
 CONSULTANTS SHALL MODIFY DESIGN
 DETAILS TO SUIT LOCAL SITE AS
 APPROPRIATE AND OBTAIN APPROVAL
 FROM THE ROAD AUTHORITY

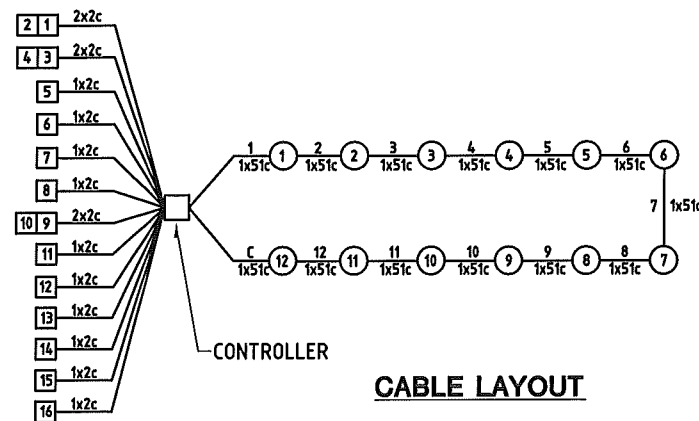



NOTES:

1. SETTING OUT DIMENSIONS FOR ALL SIGNAL PEDESTALS MUST BE PROVIDED ON THIS DRAWING.
2. REFER ACTSD-3911 FOR LOOP DETAILS.
3. CONDUITS SHALL BE PLACED CLEAR OF TRAFFIC LOOPS

LEGEND:

- PEDESTAL
- COMBINED USE
- JUNCTION BOX ROUND (JBR)
- JC-1 PIT BOX
- CONDUIT 2x 140mm \varnothing OD
- 1x100mm \varnothing OD
- 1x100mm \varnothing OD
- - - - - 1x50mm \varnothing OD





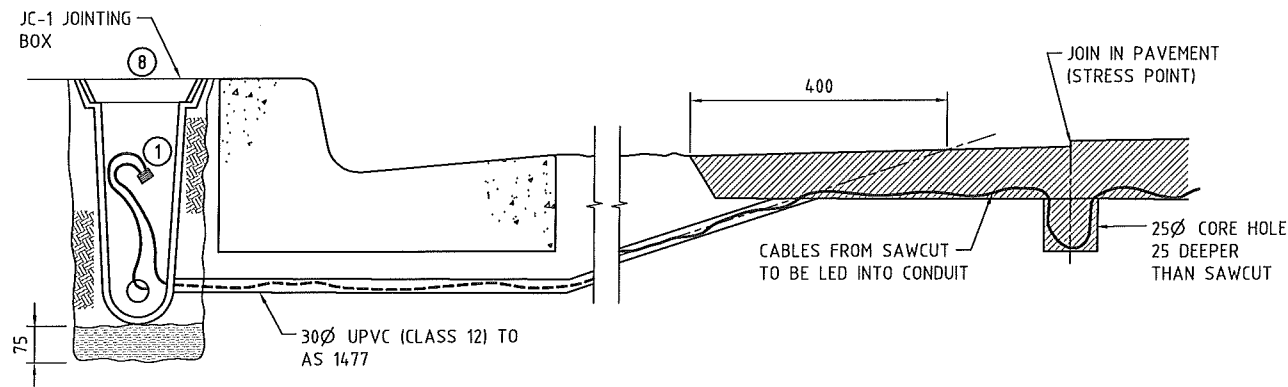
ACT
Government

STANDARD DRAWING

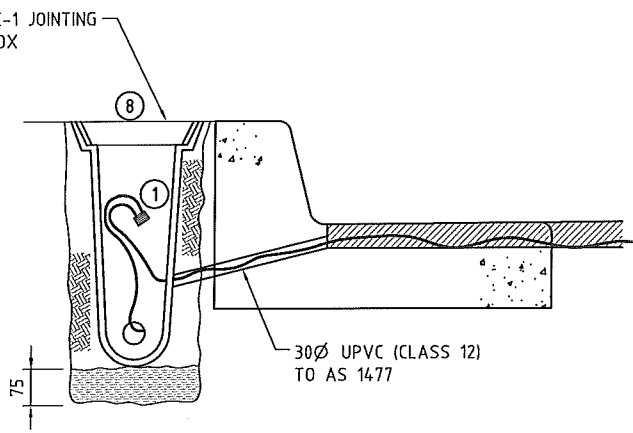
**TRAFFIC SIGNALS
CABLE AND LOOP
LAYOUT**

Authorised: *[Signature]*

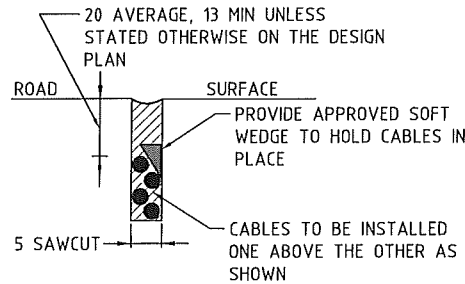
Latest Revision Details		
Rev	Amendment	Date
0	BASED ON DRG DS9-21	02/08/17
Drawing No.		Revision
ACTSD-3901		0



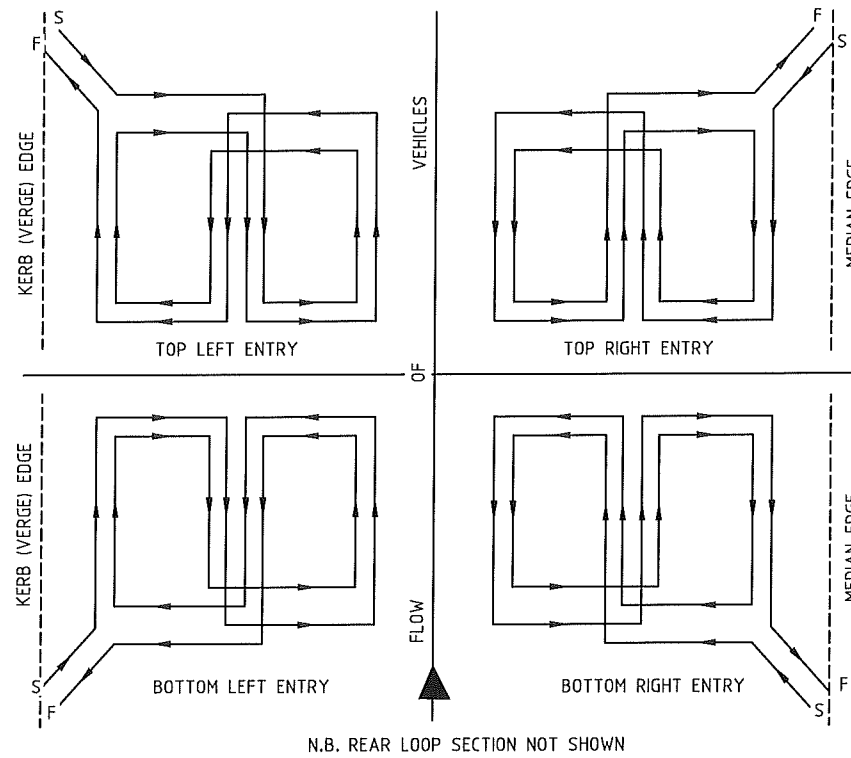
SECTION A-A UNSEALED SHOULDER



SECTION A-A SEALED SHOULDER



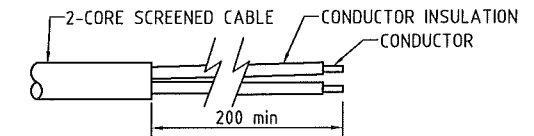
SECTION B-B



WIRING RULES:

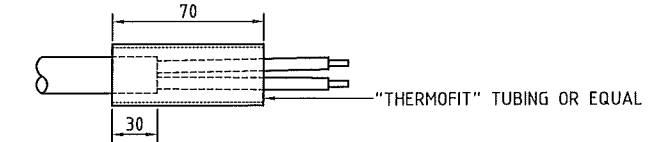
1. MARK "START" AT END OF CABLE.
2. ALWAYS START OFF IN A CLOCKWISE DIRECTION ON ENTRY FROM KERB.
3. ALWAYS CHANGE DIRECTION AT THE CENTRE (LONGITUDINAL) CUT TO MAKE "FIGURE 8" PATTERN.
4. ALWAYS FORM TWO "FIGURE 8" PATTERNS FOR EACH LOOP SECTION.

STEP 1



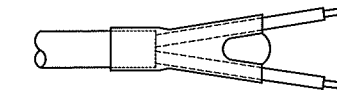
CUT BACK OUTER INSULATION AND METAL SCREEN AS REQUIRED TO REVEAL THE TWO CORES AND CLEAN WITH TRICHLOROETHANE CABLE CLEANING SOLUTION

STEP 2



SLIP 70 LENGTH OF APPROVED THERMOFIT HEAT SHRINKABLE POLYMERIC PRODUCT EQUAL TO RAYCHEM "THERMOFIT" ATUM 19/6 OVER THE CRUTCH AREA OF THE CABLE OR EQUIVALENT RESINCORE HEAT SHRINK

STEP 3



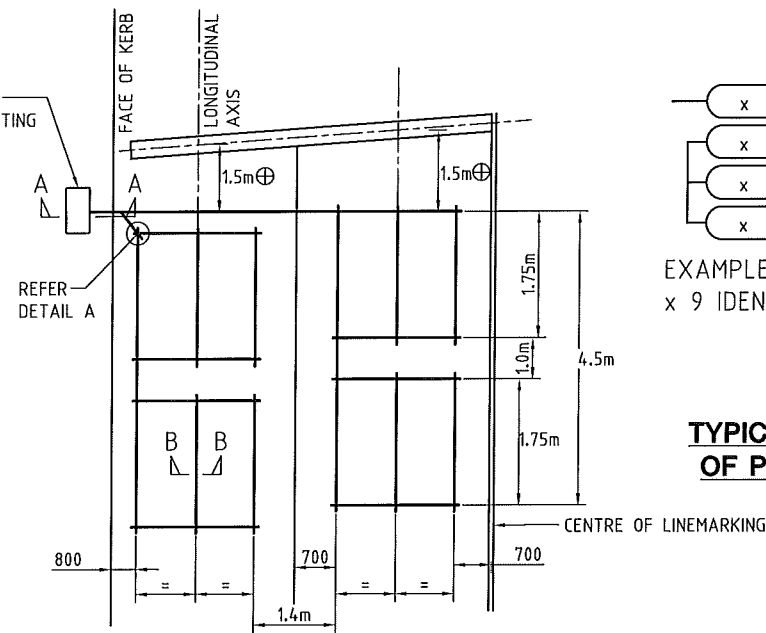
APPLY HEAT BY CONSTANTLY MOVING OVER THE TUBING SURFACE TO SHRINK AND CONFORM TUBING TO THE CABLE WHILST THE TUBING IS STILL VERY HOT. THE CRUTCH AREA IS TO BE SPREAD AND NIPPED WITH A PAIR OF POINTED NOSE PLIERS TO FORM THE "WEB" BETWEEN THE TWO CONDUCTORS. CARE IS TO BE TAKEN NOT TO DAMAGE THE CABLE CORES AND THE INSULATION WHEN FORMING THE "WEB".

NOTE: ABOVE APPLICATION IS SHOWN AS A TYPICAL EXAMPLE OTHER METHODS TO BE SUBJECT TO PRIOR APPROVAL BY THE ROAD AUTHORITY.

METHOD OF PROTECTION FOR 2-CORE SCREENED DETECTOR FEEDER CABLE

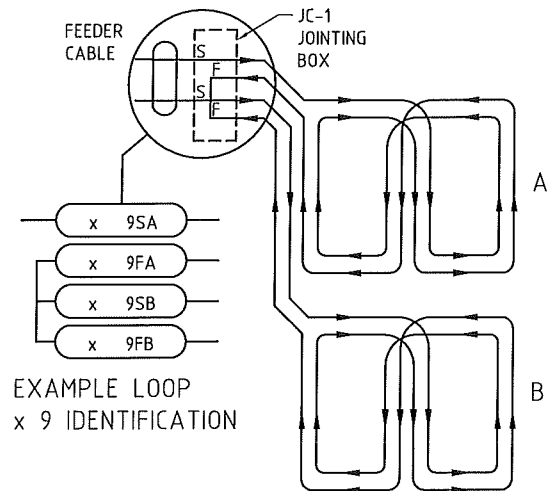
NOTES:

1. LOOP DETECTOR CABLE AND FEEDER CABLE SHALL BE JOINTED AND SWEATED IN JC-1 PITS (AS ABOVE). EACH JOINT SHALL BE SEPARATELY INSULATED WITH A 1/4" PD CAP APPROVED THERMOFIT HEAT SHRINKABLE POLYMERIC PRODUCT EQUAL TO RAYCHEM "THERMOFIT" ATUM 19/6 RAYCHEM (SEE DETAIL ABOVE).
2. LOOP FEEDER CABLE SHALL COMPLY WITH A.S. 2276, PART 2.
3. LOOP CABLE SHALL COMPLY WITH A.S. 2276, PART 3.
4. LOOPS USED FOR CATSS STRATEGIC DETECTORS MAY BE INSTALLED UP TO 5m FROM THE STOP LINE (EXCEPT FOR NON-LOCK AND PRESENCE TIMED DETECTORS) WHERE ROAD PAVEMENT CONDITION NEAR THE STOP LINE IS UNSATISFACTORY.
5. ALL LOOP CABLE ENDS TO BE LABELED START (S) AND FINISH (F) (WITH HELAGRIP CABLE MARKERS HG2-5 OR EQUIVALENT) AND NUMBERED AS PER THE CABLE INSTALLATION i.e. FROM FRONT TO REAR, LEFT TO RIGHT IN NUMERICAL ORDER REGARDLESS OF PHASE OR JC-1 JOINTING BOX POSITION.
6. ALL FEEDER CABLES TO BE LABELED (HELAGRIP HG4-9 OR APPROVED EQUIVALENT) AT EACH END AS PER DESIGN PLAN (i.e. 1,2,3,ETC)
7. THE LOOP CABLE SHALL BE CONTINUOUS (i.e. NO JOINTS PERMITTED) BETWEEN F AND S.
8. ALL LOOP CABLE LEADS SHALL RETURN TO A JC-1 JOINTING BOX IN THE VERGE (OR MEDIAN GREATER THAN 2.0m WIDE) EXCEPT ON AN APPROACH WITH FOUR OR MORE LANES WHERE THE LOOPS IN THE TWO MEDIAN LANES SHALL BE RETURNED TO A JC-1 JOINTING BOX IN THE MEDIAN
9. ALL DIMENSIONS SHOWN ARE IN mm UNLESS OTHERWISE SHOWN
10. PREFORMED LOOPS MAY BE INSTALLED WITH THE APPROVAL OF THE ROAD AUTHORITY

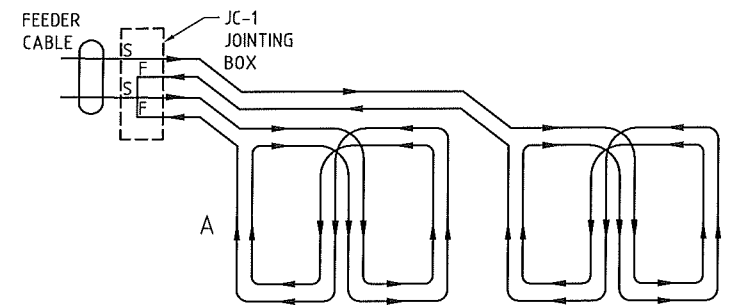


PRESENCE DETECTOR LOOPS

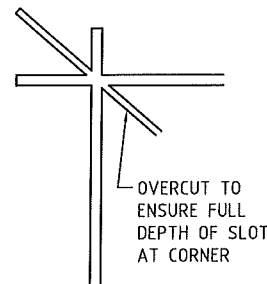
⊕ DISTANCE 1.5m FROM CENTRE OF STOPLINE UNLESS OTHERWISE STATED ON DESIGN PLAN



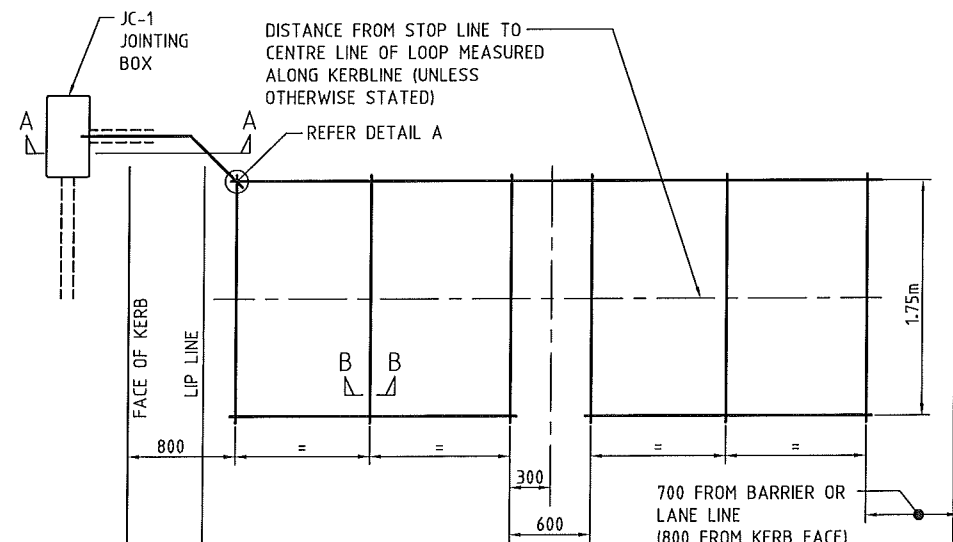
TYPICAL CONNECTION AND WIRING OF PRESENCE DETECTOR LOOPS



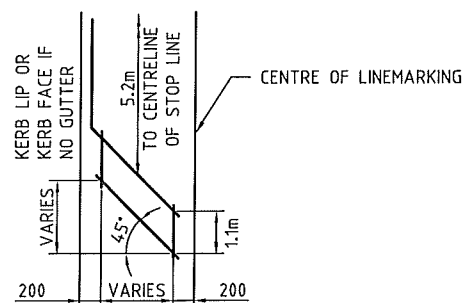
TYPICAL CONNECTION AND WIRING OF PASSAGE DETECTOR LOOPS



DETAIL A TYPICAL SAW-CUT AT CORNER



PASSAGE DETECTORS



CYCLE SCOOT LOOP

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Government

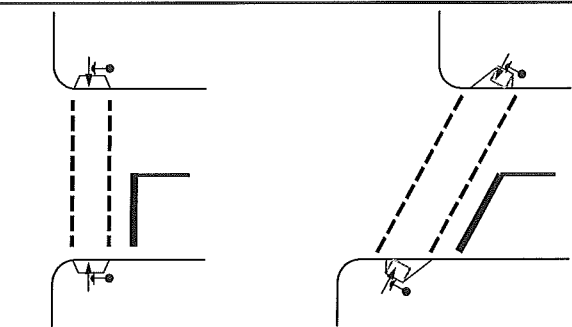
STANDARD DRAWING

**TRAFFIC SIGNALS
INSTALLATION OF
LOOP DETECTORS**

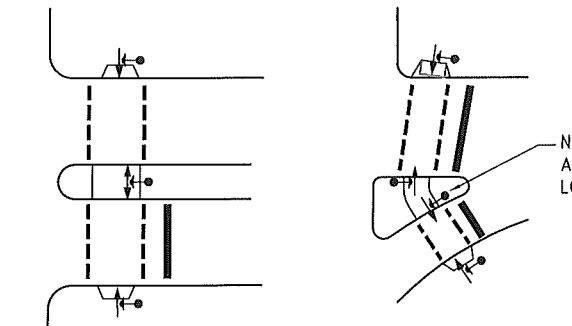
Authorised: _____

Latest Revision Details

0	BASED ON ACTPW DRG S/803/1	05/04/17
Rev	Amendment	Date
Drawing No.	Revision	
ACTSD-3911	0	



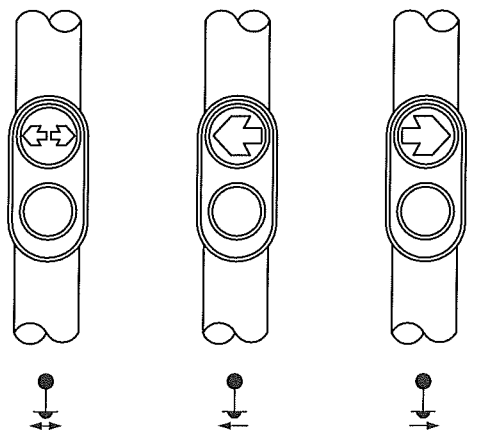
CROSSING AT RIGHT ANGLES TO KERB
SKEWED CROSSING



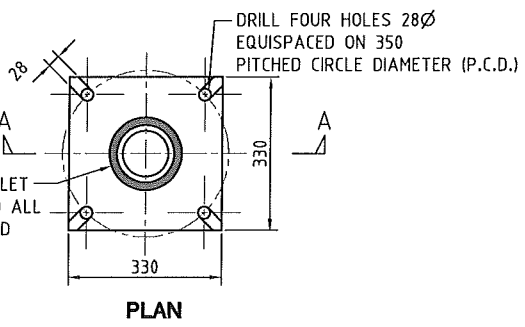
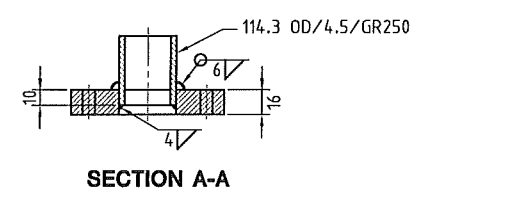
PUSH-BUTTON ON MEDIAN (NO STAGED CROSSING)
DUAL PUSH-BUTTON (STAGED CROSSING)

NOTE:
ALL PUSH-BUTTONS MUST BE LOCATED 2.0m MIN APART

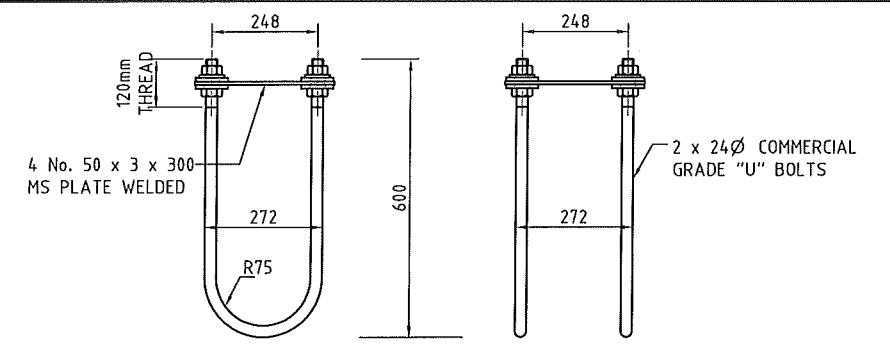
PUSH-BUTTON LOCATIONS



PUSH-BUTTON LEGEND



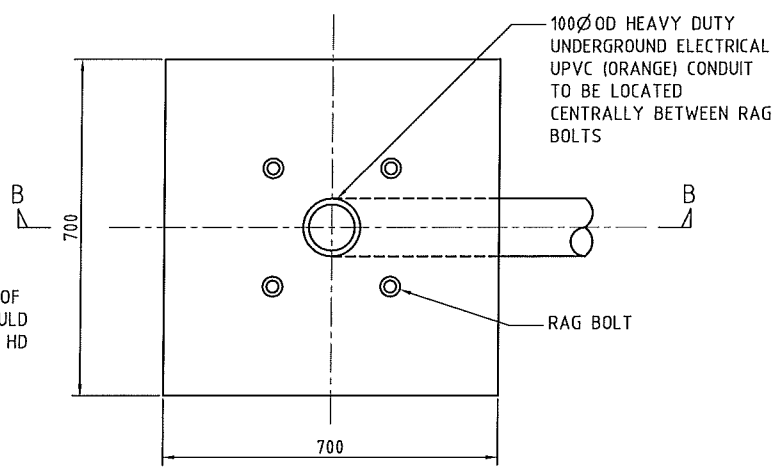
BASE PLATE



PEDESTAL RAG BOLT DETAIL

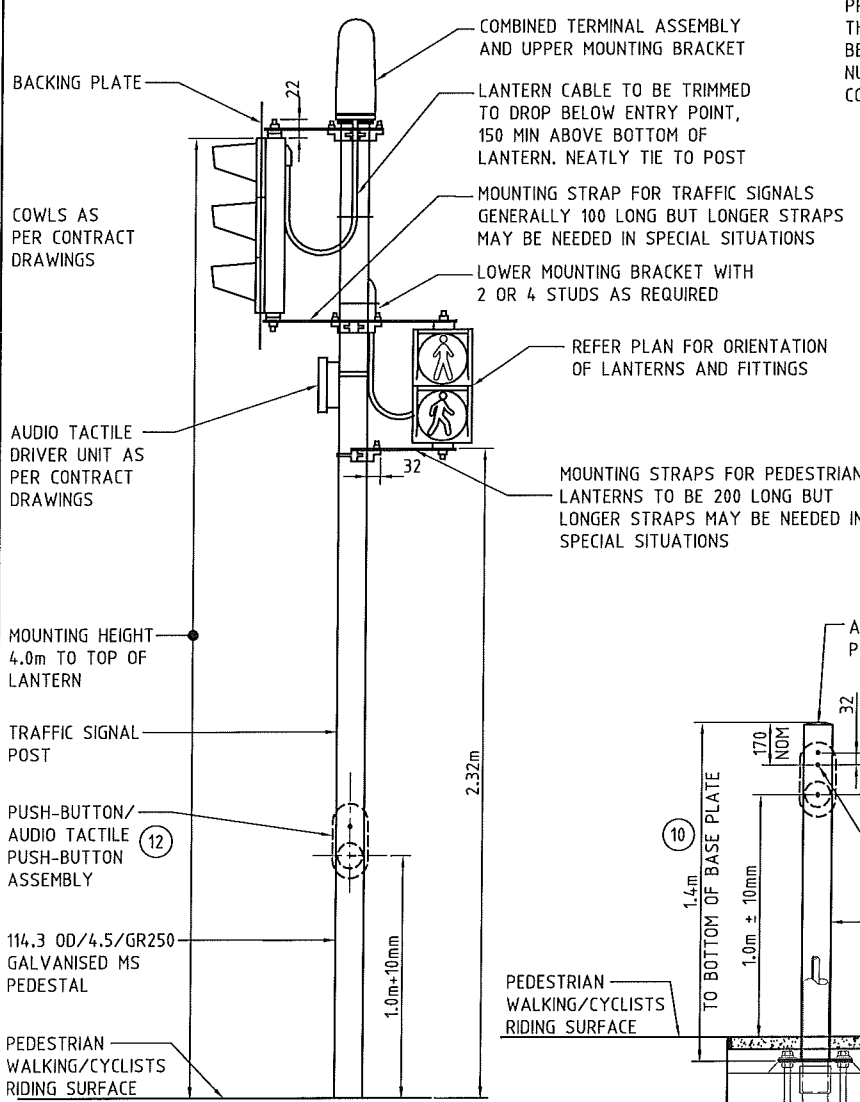
NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
- ALL CABLES SHALL TERMINATE INTO A NEARBY CONDUIT JUNCTION PIT WITH A MINIMUM OF 2.0m CABLE SLACK IN IT BEFORE CONTINUING INTO THE FOUNDATION.
- STRENGTH OF CONCRETE SHALL BE 32MPa AT 28 DAYS.
- CLEAR COVER TO REINFORCEMENT SHALL BE 50mm MINIMUM.
- ALL BOLTS SHALL BE COMMERCIAL GRADE AND HOT DIPPED GALVANIZED.
- THREADED PORTION OF ALL RAG BOLTS TO BE COATED WITH GRAPHITE, GREASE OR SIMILAR BEFORE ASSEMBLY.
- ALL PUSH-BUTTON ASSEMBLIES SHALL BE AUDIO TACTILE AND SHALL ONLY BE INSTALLED WHERE SPECIFIED ON THE DESIGN PLANS.
- WHERE SHORT PUSH-BUTTON POSTS ARE INSTALLED, THE AUDIO TACTILE DRIVER UNIT IS TO BE MOUNTED ON THE NEAREST SIGNAL POST CARRYING THE ASSOCIATED "WALK" SIGNAL ACTIVE.
- PROVISION IS TO BE MADE FOR A CONTINUOUS 240V ACTIVE AT THE TOP OF EVERY POST REQUIRING AN AUDIO TACTILE DRIVER UNIT. THIS 240V ACTIVE SUPPLY SHALL BE TAKEN FROM THE LOAD SIDE OF THE LAMP BLACK-OUT RELAY CONTACT (VIA THE FACILITY SWITCH AND LAMP FUSE) i.e. THE 240v SUPPLY MUST NOT BE TAKEN FROM THE DETECTOR OR CONTROLLER FUSE.
- REFER MIS05 FOR EQUESTRIAN PUSH-BUTTON PEDESTAL REQUIREMENTS.
- CYCLIST PUSH BUTTONS ARE TO BE INSTALLED ADJACENT TO THE BICYCLE LANE ON MAIN ON-ROAD CYCLING ROUTES AND ADJACENT THE ROADWAY ON ACTIVE TRAVEL STREETS (CONTACT TRAFFIC SIGNALS UNIT FOR REQUIREMENTS)
- PUSH BUTTONS ARE TO BE INSTALLED TO ALLOW FOR USE BY CYCLISTS ON MAIN AND LOCAL COMMUNITY ROUTES. THE POSITION OF THE PUSH BUTTON AND SHAPE OF REFUGE ISLAND AND KERB SLOT ARE TO BE DESIGNED TO ALLOW FOR A CYCLIST TO PUSH THE BUTTON WHILST REMAINING MOUNTED ON THE BICYCLE.

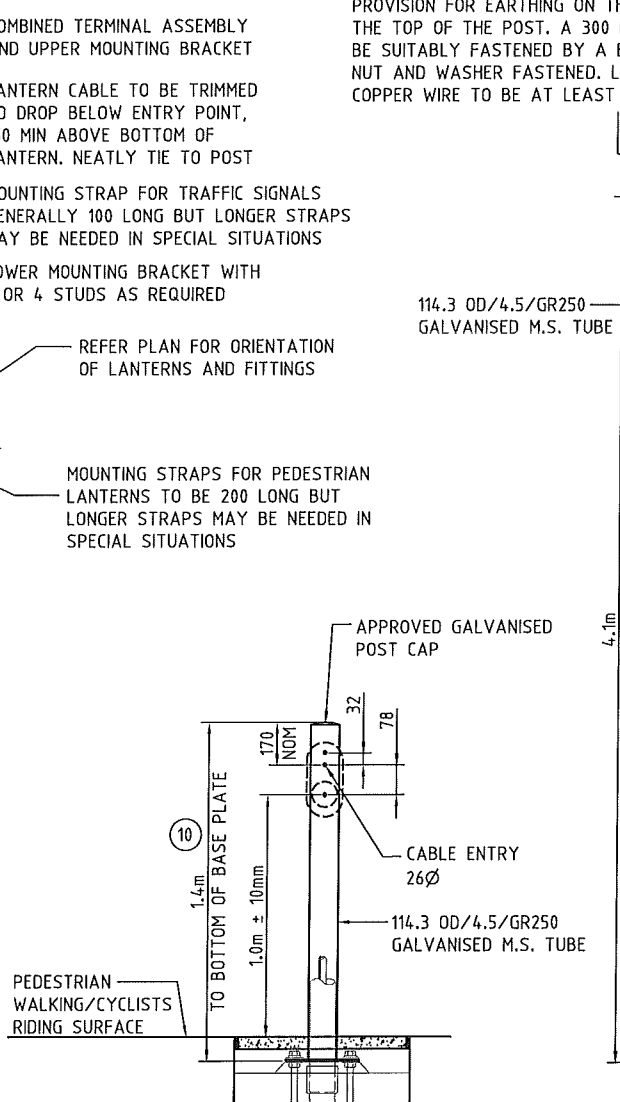


CONCRETE FOOTING PLAN

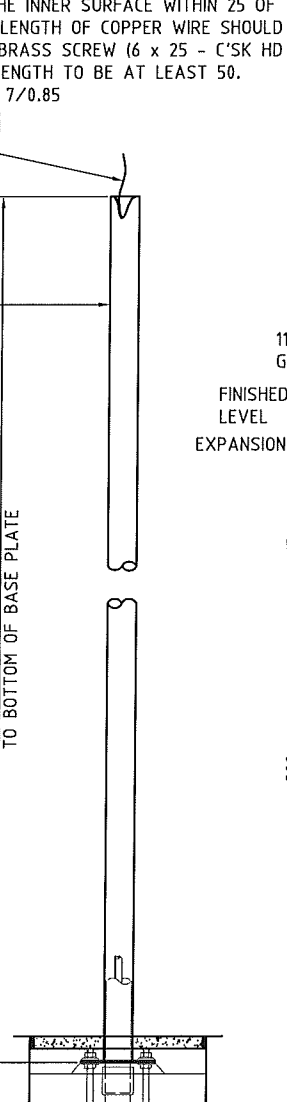
PROVISION FOR EARTHING ON THE INNER SURFACE WITHIN 25 OF THE TOP OF THE POST. A 300 LENGTH OF COPPER WIRE SHOULD BE SUITABLY FASTENED BY A BRASS SCREW (6 x 25 - C'SK HD NUT AND WASHER FASTENED. LENGTH TO BE AT LEAST 50. COPPER WIRE TO BE AT LEAST 7/0.85



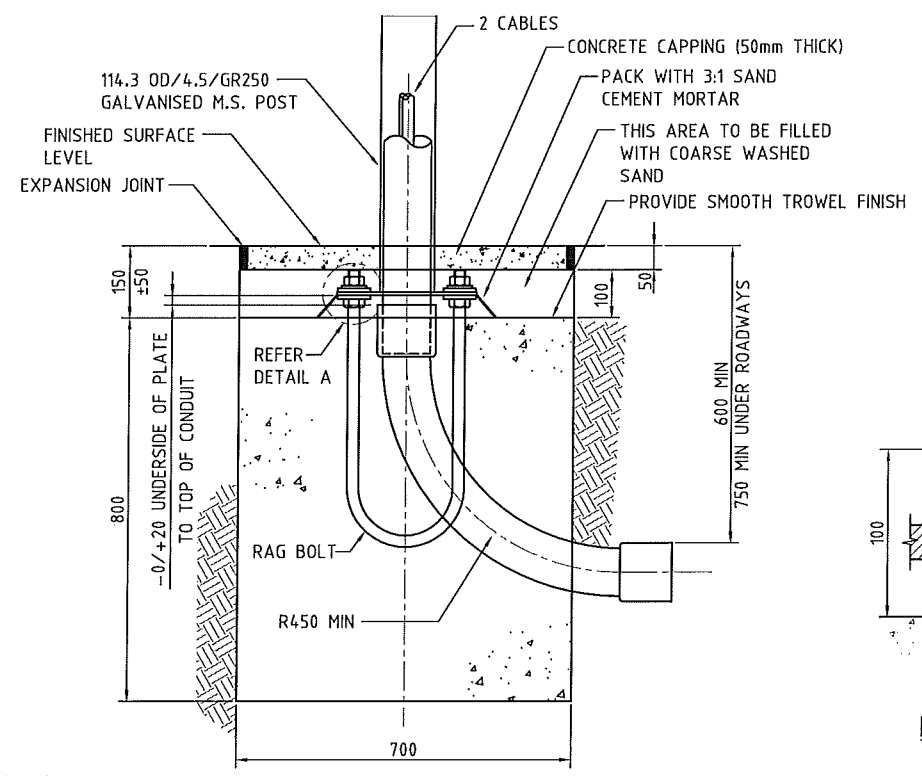
STANDARD PEDESTAL



PEDESTRIAN / CYCLIST PUSH-BUTTON PEDESTAL

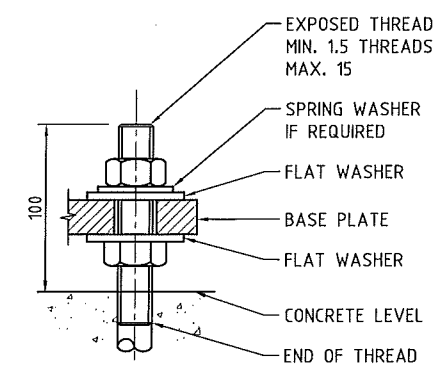


TRAFFIC SIGNAL PEDESTAL



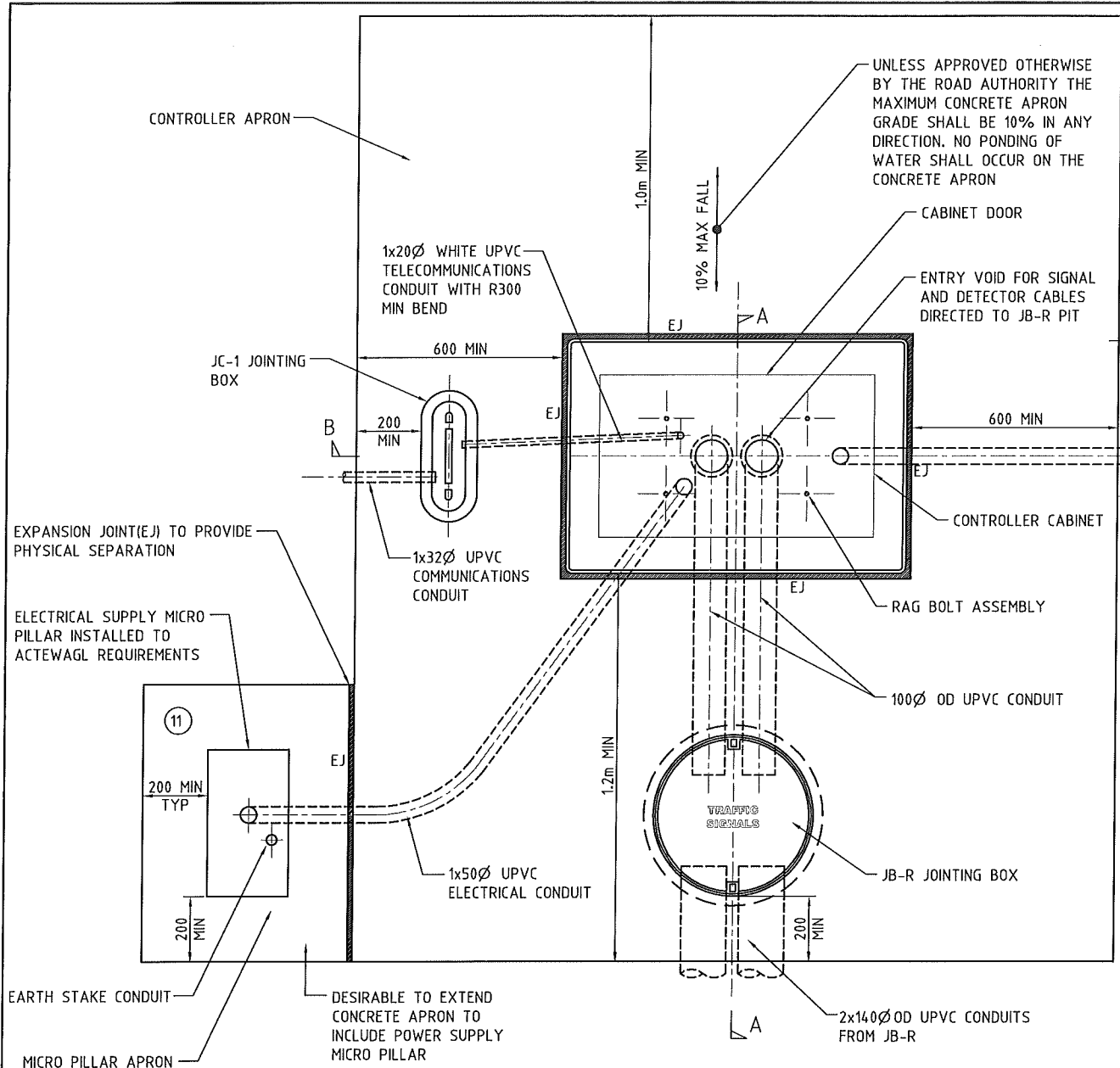
SECTION B-B

STANDARD AND PEDESTRIAN PUSH-BUTTON PEDESTAL FOUNDATION

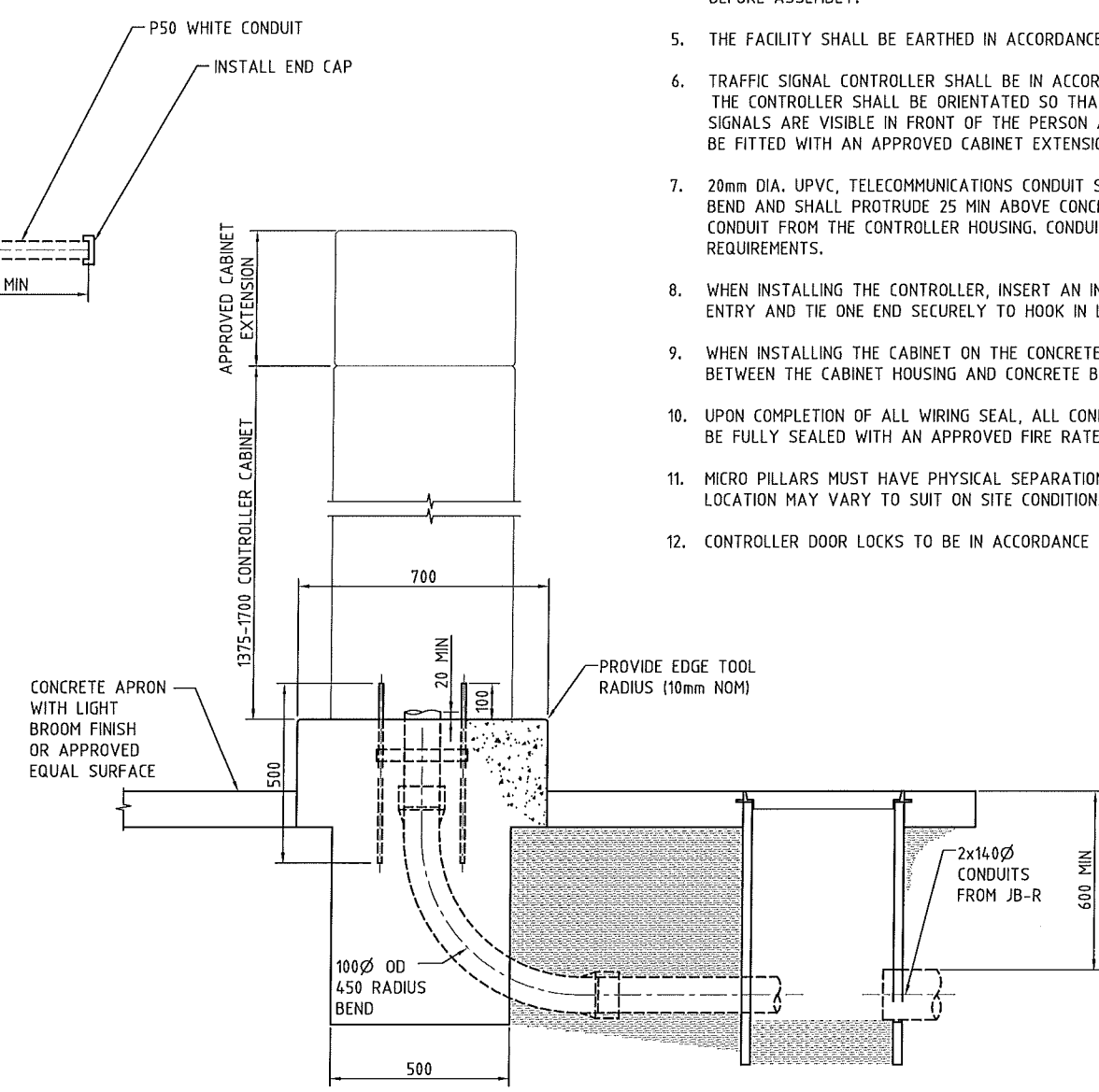


DETAIL A

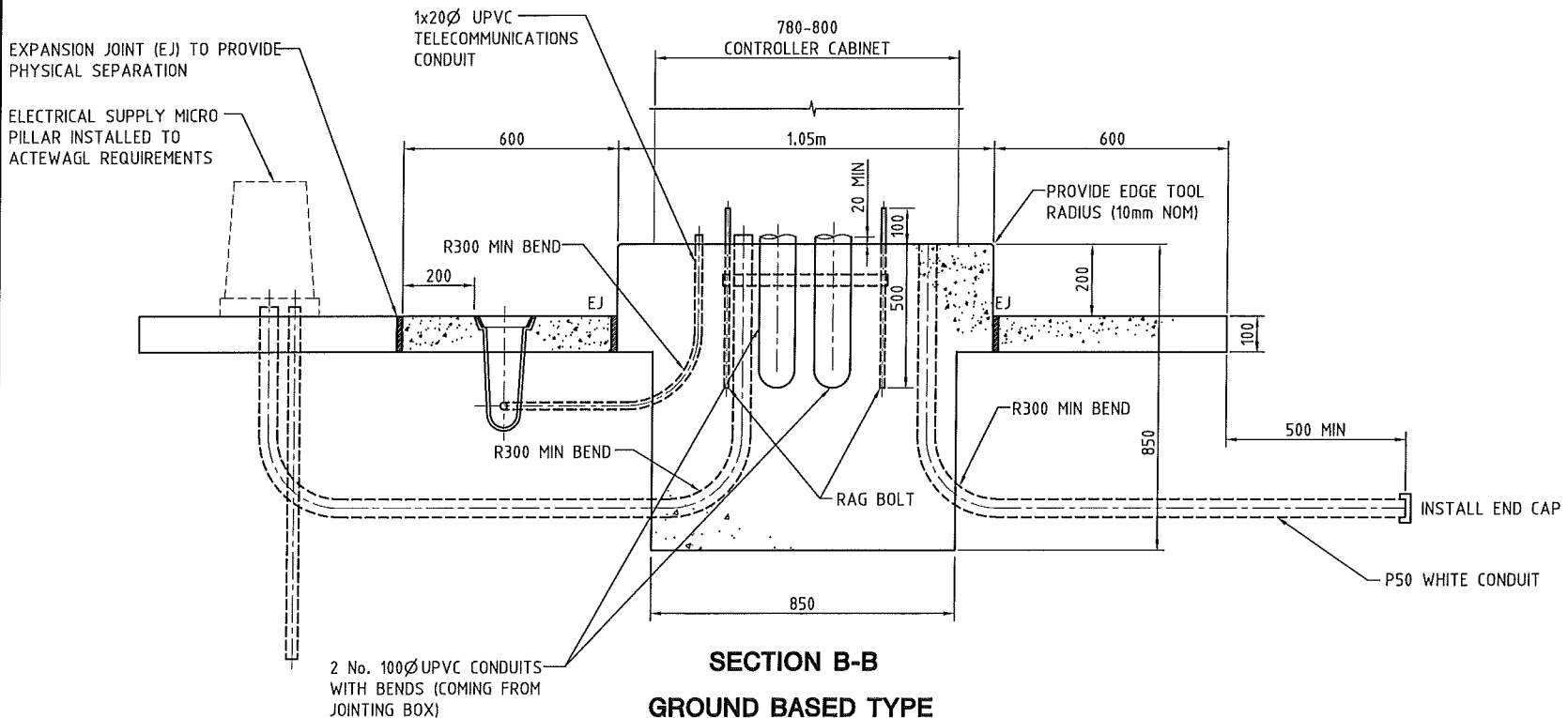
STANDARD DRAWING		
TRAFFIC SIGNALS STANDARD PEDESTAL ARRANGEMENT		
Authorised: <i>[Signature]</i>		
Latest Revision Details		
0	BASED ON ACTPW DRG S/803/2	05/04/17
Rev	Amendment	Date
Drawing No. ACTSD-3912		Revision 0



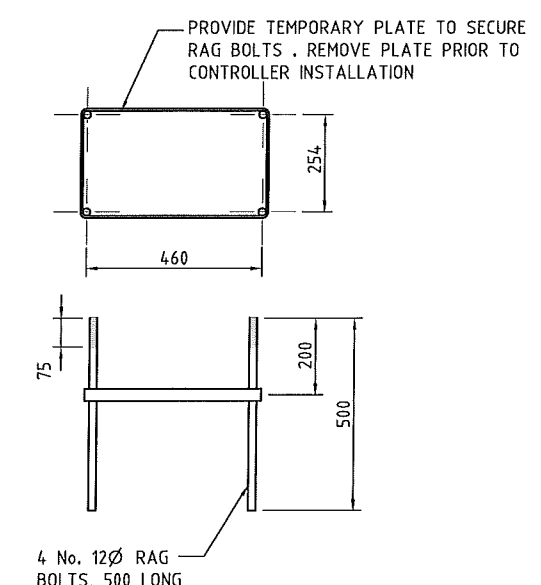
PLAN



SECTION A-A





**SECTION B-B
GROUND BASED TYPE**



CONTROLLER RAG BOLT ASSEMBLY

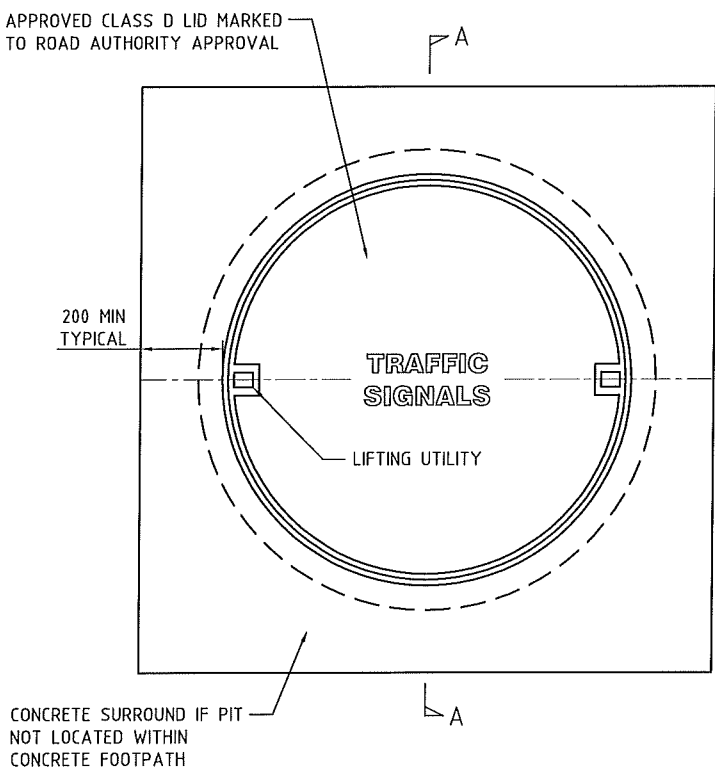
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
2. THE NEARBY CONDUIT JUNCTION PIT SHALL CONTAIN A MINIMUM OF 2.0m OF SPARE CABLE BEFORE CONTINUING INTO THE CONTROLLER BASE.
3. CONCRETE GRADE SHALL BE N32.
4. THREADED PORTION OF ALL RAG BOLTS TO BE COATED WITH GRAPHITE, GREASE OR SIMILAR BEFORE ASSEMBLY.
5. THE FACILITY SHALL BE EARTHED IN ACCORDANCE WITH A.S. 3000.
6. TRAFFIC SIGNAL CONTROLLER SHALL BE IN ACCORDANCE WITH AS 2578. THE CONTROLLER SHALL BE ORIENTATED SO THAT WHEN WORKING WITHIN THE CABINET THE SIGNALS ARE VISIBLE IN FRONT OF THE PERSON AT THE CONTROLLER DOOR. THE CABINET SHALL BE FITTED WITH AN APPROVED CABINET EXTENSION TO HOUSE COMMUNICATION AND ITS EQUIPMENT.
7. 20mm DIA. UPVC, TELECOMMUNICATIONS CONDUIT SHALL BE FIXED RIGIDLY INTO BELLMOUTH CONDUIT BEND AND SHALL PROTRUDE 25 MIN ABOVE CONCRETE FOOTING SURFACE TO FULLY ENGAGE THE CONDUIT FROM THE CONTROLLER HOUSING. CONDUIT AND BEND MUST COMPLY WITH SPECIFICATION REQUIREMENTS.
8. WHEN INSTALLING THE CONTROLLER, INSERT AN INSULATED DRAW WIRE INTO THE COMMUNICATIONS ENTRY AND TIE ONE END SECURELY TO HOOK IN LINK BOX.
9. WHEN INSTALLING THE CABINET ON THE CONCRETE BASE, PROVIDE AN APPROVED SILICON SEALANT BETWEEN THE CABINET HOUSING AND CONCRETE BASE.
10. UPON COMPLETION OF ALL WIRING SEAL, ALL CONDUITS ENTERING THE CONTROLLER HOUSING SHALL BE FULLY SEALED WITH AN APPROVED FIRE RATED CAULKED MATERIAL.
11. MICRO PILLARS MUST HAVE PHYSICAL SEPARATION FROM CONTROLLER APRON. MICRO PILLAR LOCATION MAY VARY TO SUIT ON SITE CONDITIONS.
12. CONTROLLER DOOR LOCKS TO BE IN ACCORDANCE WITH MITS13.

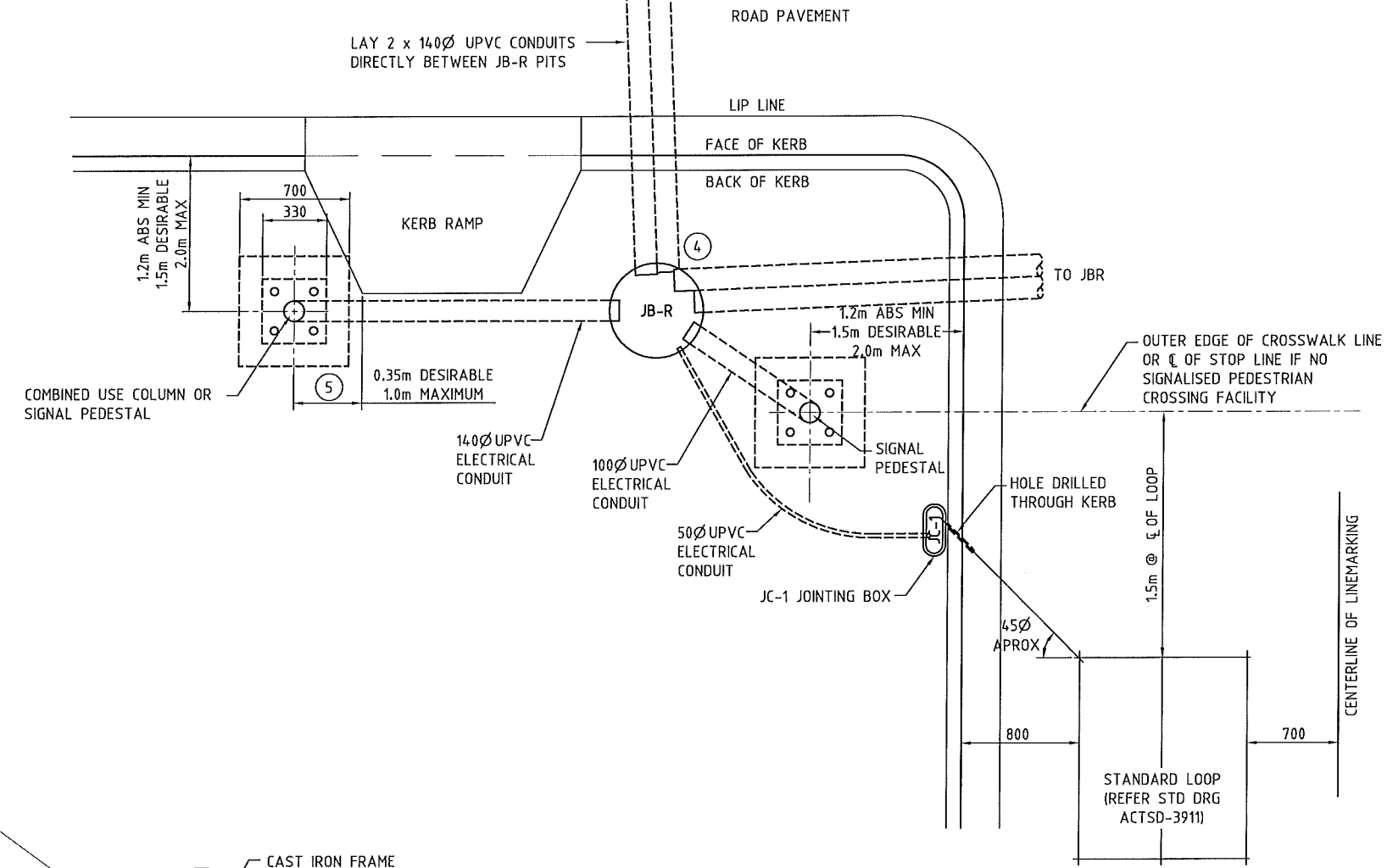
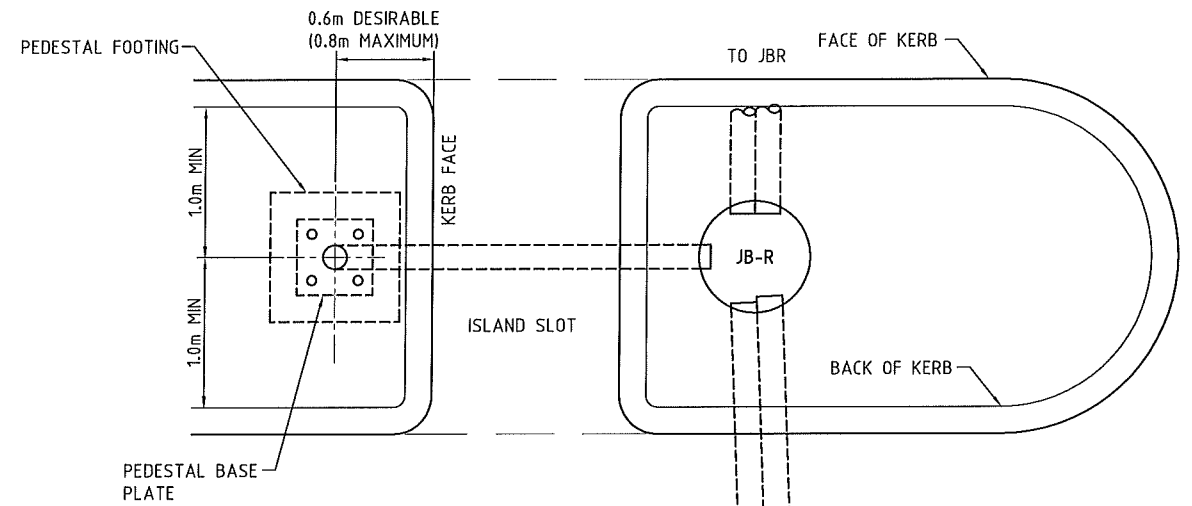
 ACT Government	
STANDARD DRAWING	
TRAFFIC SIGNALS CONTROLLER HOUSING FOOTING	
Authorised: 	
Latest Revision Details	
0 BASED ON ACTPW DRG S/803/3	05/04/17
Rev Drawing No.	Amendment Revision
ACTSD-3913	0

NOTES:

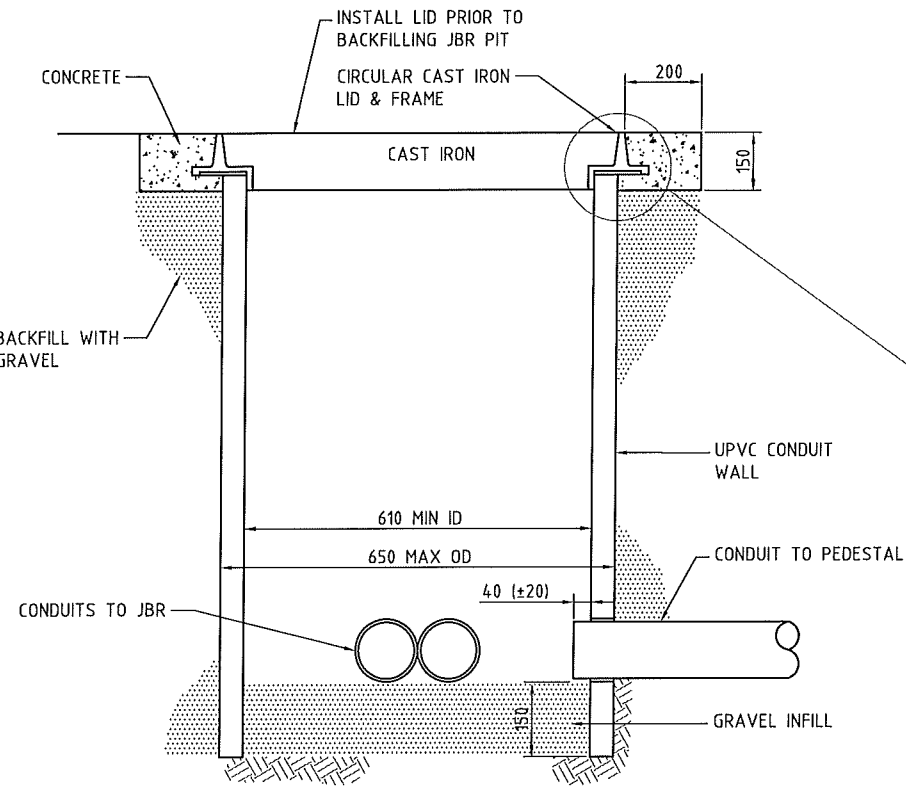
1. THE NUMBER AND SIZE OF CONDUITS INSTALLED INTO THE JOINTING BOX SHALL VARY TO SUIT INDIVIDUAL SITES.
2. INSIDE OF ALL PITS TO HAVE A SMOOTH FINISH.
3. ALL DIMENSION ARE SHOWN IN mm UNLESS SHOWN OTHERWISE.
- ④ WHERE PRACTICABLE JB-R PITS SHOULD BE LOCATED 1.2m MIN CLEAR OF KERB FACE.
- ⑤ THE PEDESTRIAN BUSH BUTTON SHALL BE LOCATED SO THAT IT IS ON THE UPPER LANDING AT THE REAR OF THE KERB RAMP.



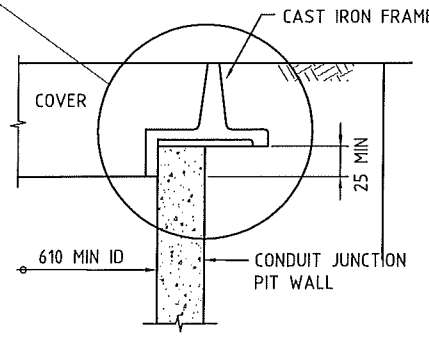
PLAN



TYPICAL PEDESTAL JC-1 JOINTING BOX AND CONDUIT LAYOUT




SECTION A-A



FRAME DETAILS

CABLE JOINTING PIT (JB-R)



ACT
Government

STANDARD DRAWING

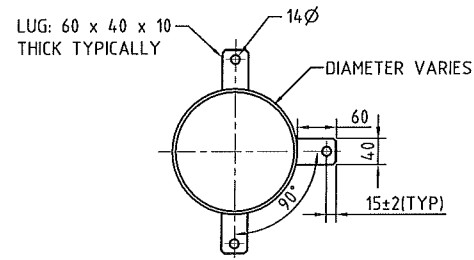
**TRAFFIC SIGNALS
PAVEMENT JUNCTION
BOX ARRANGEMENT**

Authorised: *[Signature]*

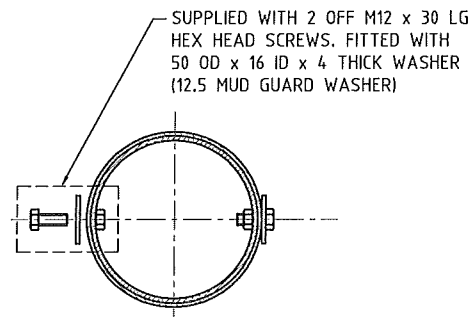
Latest Revision Details		
Rev	Amendment	Date
0	BASED ON ACTPW DRG S/803/4	05/04/17
Drawing No. ACTSD-3914		Revision 0

WHERE PRACTICABLE THE LANTERN SHOULD BE LOCATED VERTICALLY ABOVE THE TRAFFIC STREAM BEING CONTROLLED. LENGTHS ARE GENERALLY SUBJECT TO MANUFACTURERS STANDARD SIZES

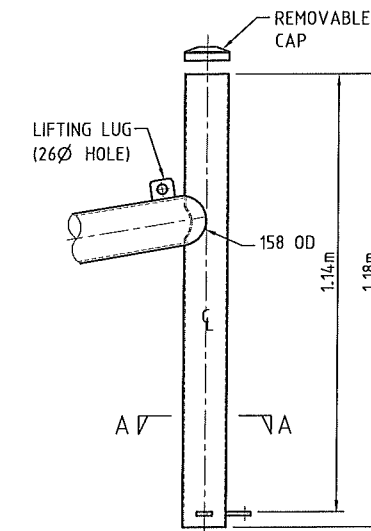
(REFER DETAIL D)



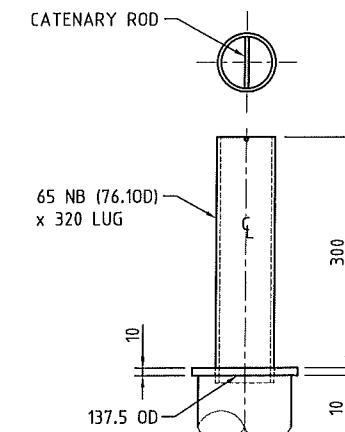
SECTION A-A



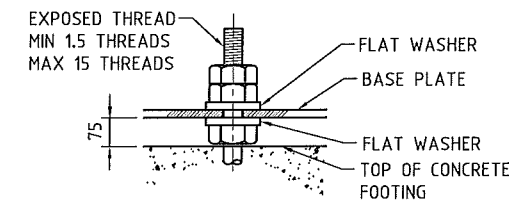
SECTION B-B



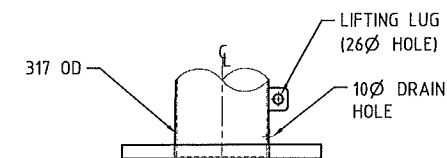
DETAIL E



DETAIL D



DETAIL C

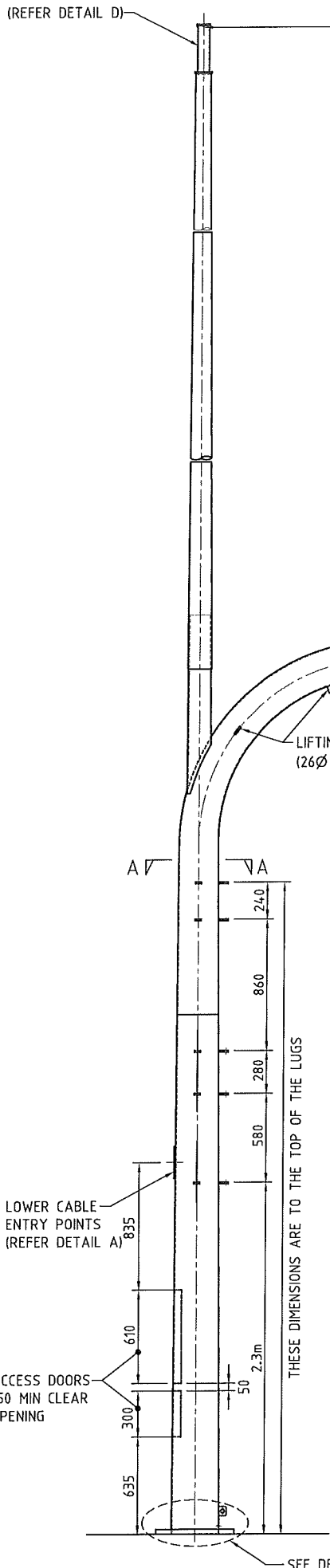


DETAIL B - BASE PLATE

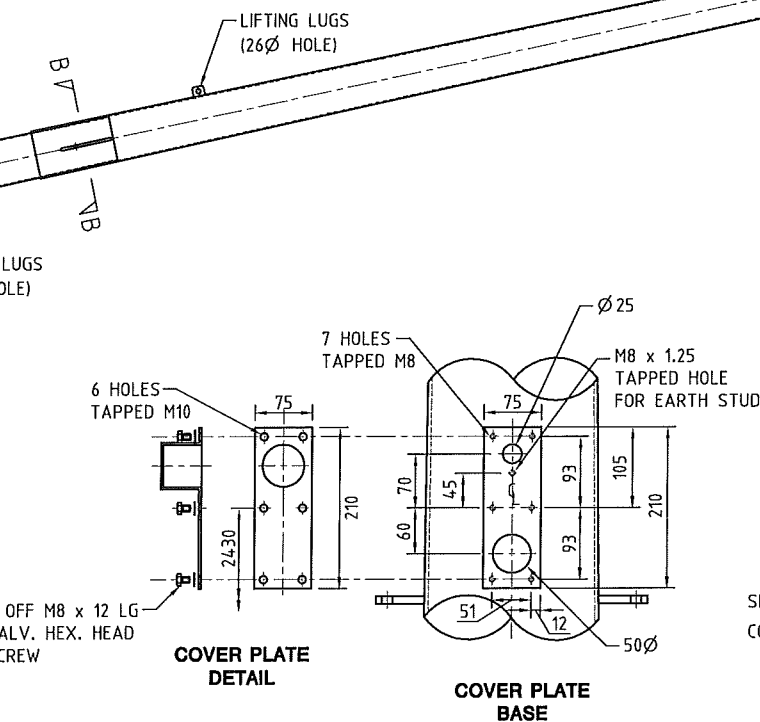
NOTES:

1. FINISH OF MAST ARM PEDESTALS TO BE FULLY HOT DIP GALVANIZED.
2. THE CONTRACTOR SHALL ENSURE THAT THE DOUBLE-DAVIT PEDESTAL SUPPLIED COMPLIES WITH THE ELECTRICAL AUTHORITY REQUIREMENTS, IS COMPATIBLE WITH THE SIGNAL HEAD FIXING REQUIREMENTS AND THAT ALL NECESSARY HOLES ARE PROPERLY LOCATED FOR THE SIGNAL AND STREET LIGHT CABLING
3. WHOLE RAG BOLT ASSEMBLY TO BE GALVANISED
4. MAST ARMS TO BE CONSTRUCTED IN ACCORDANCE WITH AS 2979-(LATEST EDITION)
5. AFTER LEVELLING POLE A NON SHRINKING GROUT IS TO BE APPLIED IN THE BASE SLOTS, AROUND THE BOLTS AND BETWEEN THE BASE PLATE AND FOOTING
6. MAST ARM OUTREACH TO BE DESIGNED TO SUPPORT TYP. LOADING OF 3 x 6 ASPECT LANTERNS. ADDITIONAL WIND LOADING REQUIREMENTS FOR TRAFFIC SIGNAGE TO BE CONSIDERED.
7. TRAFFIC SIGNAL MAST ARM POLE TO BE SUPPLIED WITH CAPPED SPIGOT AND BE ABLE TO BE CONVERTED TO COMBINED JOINT USE TRAFFIC SIGNAL/ROAD LIGHT MAST ARM BY REMOVING SPIGOT CAP AND INSTALLING LUMINAIRE TRANSITION PIECE AND LIGHTING OUTREACH.
8. ALL DIMENSIONS ARE IN mm UNLESS SHOWN OTHERWISE

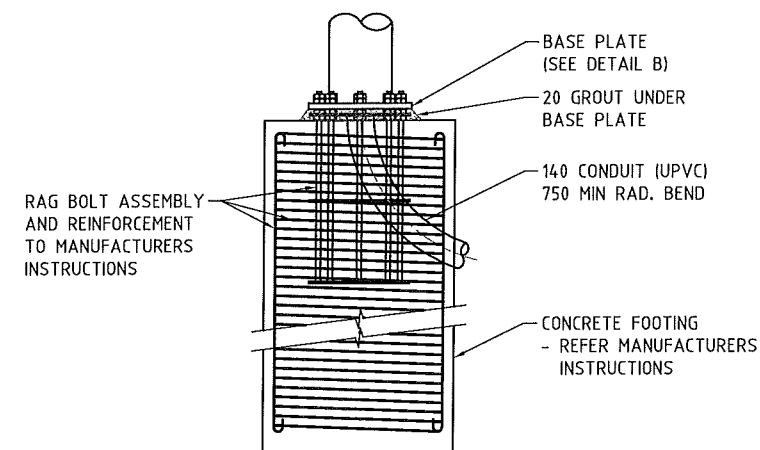
BASED ON 8.5m OUTREACH ARM
INGAL EPS DRAWINGS AD1494, AD1468, AD1469, AD1470, AD1471, AD1472, AD3491 AND GA1236, GA1237 AND GA1238 (OR APPROVED EQUIVALENT)



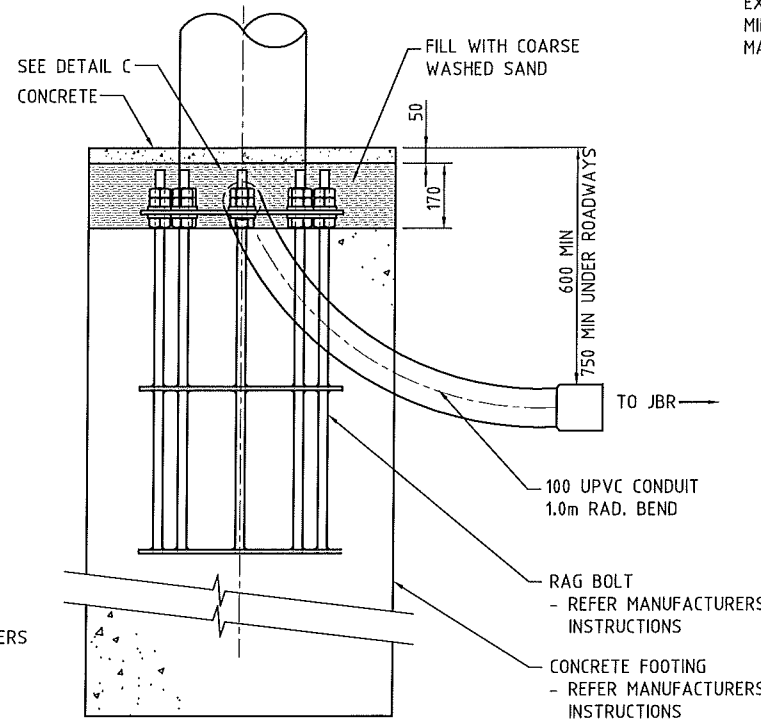
JOINT USE MAST ARM COLUMN



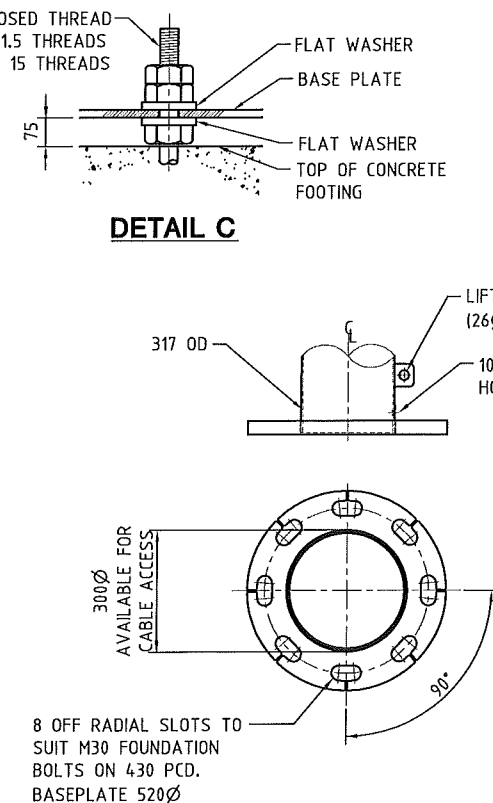
DETAIL A LOWER CABLE ENTRY POINT



MAST ARM FOOTING



COMBINED USE POLE FOOTING



ACT Government

STANDARD DRAWING

TRAFFIC SIGNALS

STANDARD OUTREACH

JOINT USE COLUMN AND FOOTING

Authorised: *[Signature]*

Latest Revision Details

0	BASED ON ACTPW DRG S/803/5	05/04/17
Rev	Amendment	Date
Drawing No.	Revision	
ACTSD-3915	0	