

**STANDARD DRAWINGS  
2016**

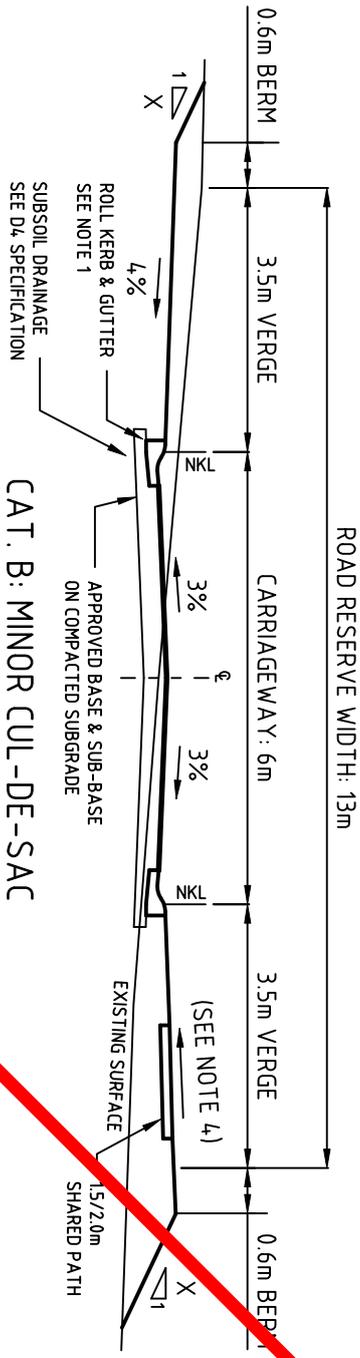


# **Wollondilly** Shire Council

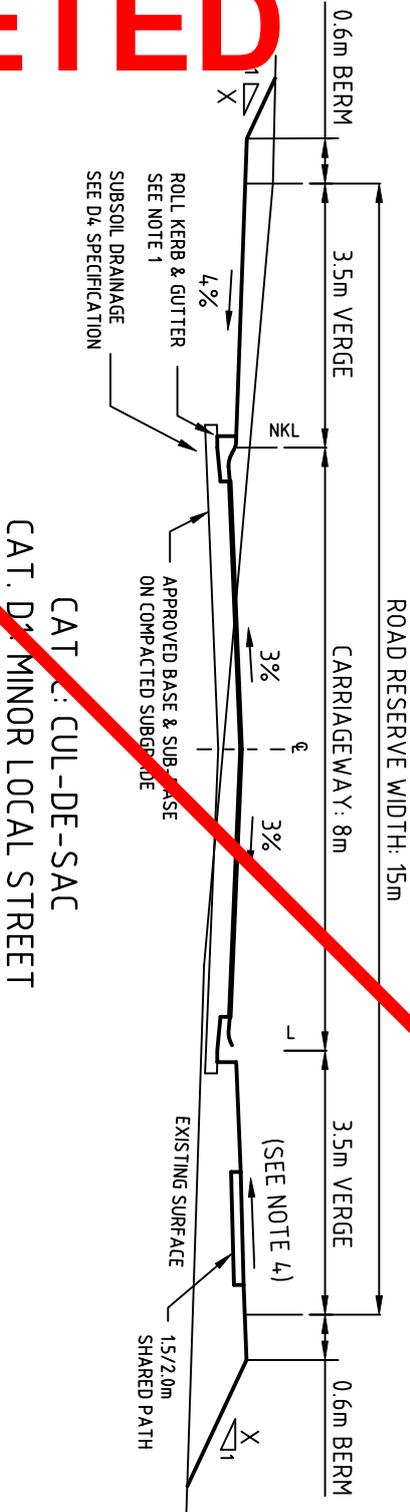
**SUBDIVISION & ENGINEERING STANDARD**



**AUS-SPEC #1**  
Development Specification Series



CAT. B: MINOR CUL-DE-SAC



CAT. C: CUL-DE-SAC  
CAT. D: MINOR LOCAL STREET

LEGEND:  
 NKL: NOMINAL KERB LINE  
 X: HORIZONTAL COMPONENT OF BATTER SLOPE AS PER NOTE 2

NOTES:

1. FOR KERB DETAILS REFER TO STANDARD DRAWING No. W:SC.D1.12.
2. BATTERS SHALL BE CONSTRUCTED TO THE FOLLOWING SPECIFICATIONS:
3. X = 4, WHEN THE VERTICAL DISTANCE AT THE PROPERTY LINE BETWEEN THE EXISTING SURFACE AND THE DESIGN SURFACE EXCEEDS 600mm. (i.e. ADOPT 1 IN 4 BATTER SLOPE).
4. X = 6 WHEN THIS VERTICAL DISTANCE IS LESS THAN 600mm. (i.e.) ADOPT A 1 IN 6 BATTER SLOPE).
5. X < 4 SHALL REQUIRE APPROVAL AND X < 2 SHALL REQUIRE A SUPPORTING GEOTECHNICAL REPORT.
6. WIDEN ACCESSWAY PAVEMENT AT INTERSECTIONS TO SUIT TURNING OR STACKED VEHICLES.
7. WIDEN ACCESSWAY PAVEMENT AT INTERSECTIONS TO SUIT TURNING OR STACKED VEHICLES.
8. VERGE CROSSFALL SHALL BE ADJUSTED AS REQUIRED TO PROVIDE 25% ON THE SHARED PATHWAY AND MAINTAIN 4% OVERALL.

**DELETED**



STANDARD ROAD SECTIONS  
 URBAN RESIDENTIAL  
 CATEGORIES A TO D

DRAWN

O.S.

DATE: 12/01/16

SCALE

1:100 @ A4

APPROVED BY

M. NELSON

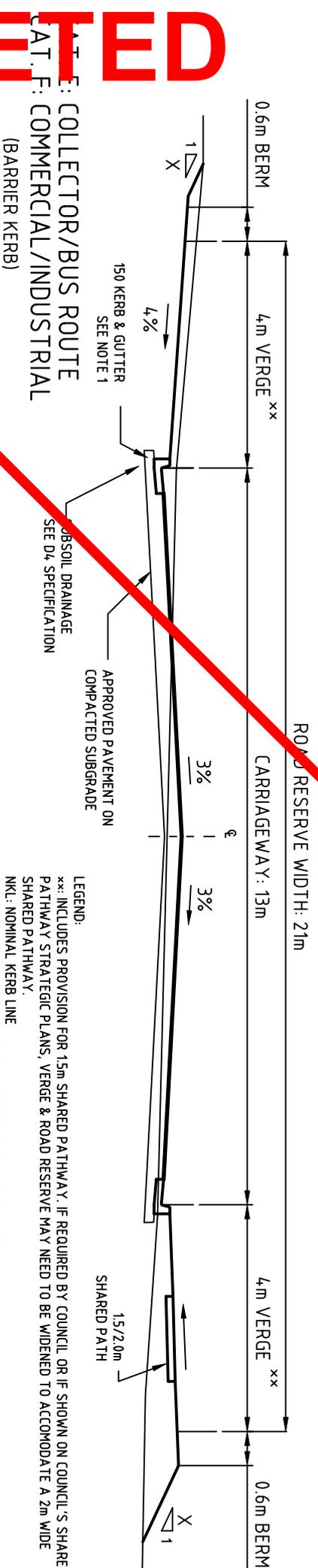
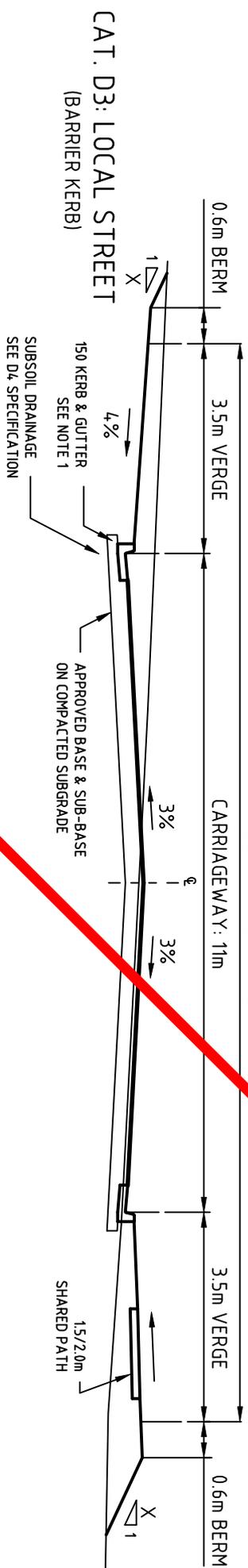
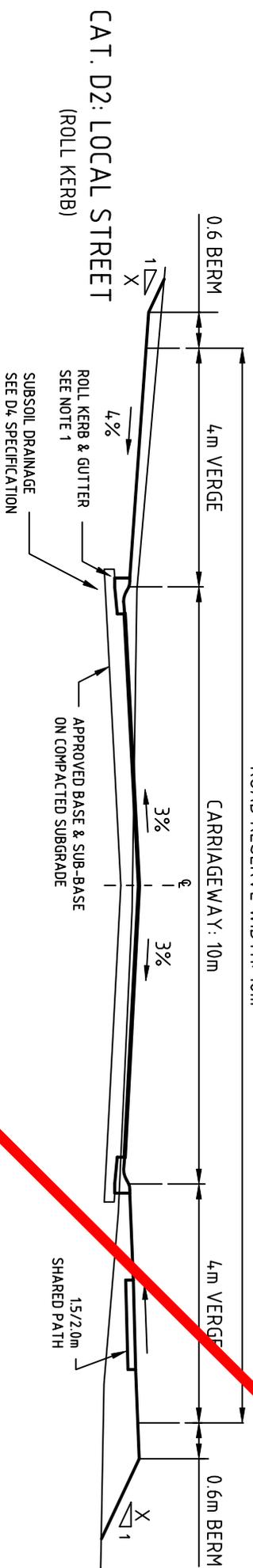
DRAWING NO.

W:SC.D1.1

DATE: 01.03.2016

SHEET 1 OF 4

ROAD RESERVE WIDTH: 18m



**DELETED**

NOTES:

1. KERB DETAILS REFER TO STANDARD DRAWING No. WSC.D1.12.
2. BATTERS SHALL BE CONSTRUCTED TO THE FOLLOWING SPECIFICATIONS:  
 X=4 WHEN THE VERTICAL DISTANCE AT THE PROPERTY LINE BETWEEN THE EXISTING SURFACE AND THE DESIGN SURFACE EXCEEDS 600mm. (i.e. ADOPT A 1 IN 4 BATTER SLOPE).  
 X=6 WHEN THIS VERTICAL DISTANCE IS LESS THAN 600mm. (i.e. ADOPT A 1 IN 6 BATTER SLOPE).  
 X=4 SHALL REQUIRE APPROVAL AND X=6 SHALL REQUIRE A SUPPORTING GEOTECHNICAL REPORT.
3. PASSING BAYS FOR ROAD CATEGORY G SHALL BE INSTALLED AT INTERVALS NOT GREATER THAN 100m.
4. VERGE CROSSFALL SHALL BE ADJUSTED AS REQUIRED TO PROVIDE 2.5% ON THE SHARED PATHWAY AND MAINTAIN 4% OVERALL.
5. GULLY DRAINS SHALL BE ADJUSTED AS REQUIRED TO PROVIDE 2.5% ON THE SHARED PATHWAY AND MAINTAIN 4% OVERALL.

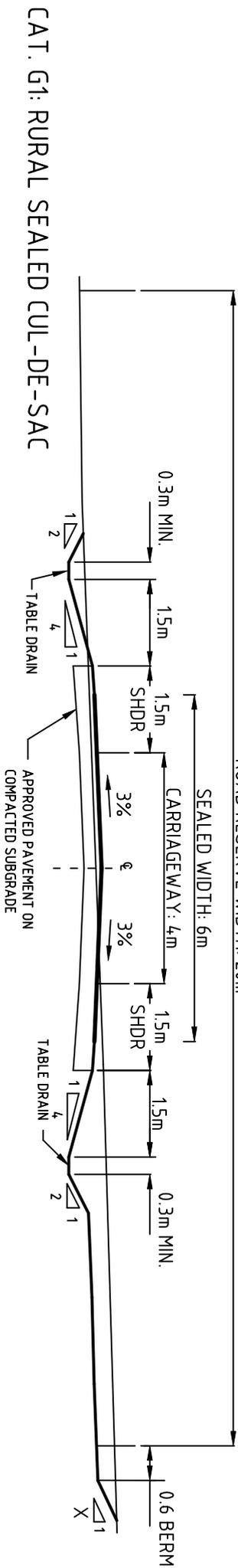
LEGEND:  
 \*\*\* INCLUDES PROVISION FOR 15m SHARED PATHWAY. IF REQUIRED BY COUNCIL OR IF SHOWN ON COUNCIL'S SHARED PATHWAY STRATEGIC PLANS, VERGE & ROAD RESERVE MAY NEED TO BE WIDENED TO ACCOMMODATE A 2m WIDE SHARED PATHWAY.  
 NKL: NOMINAL KERB LINE  
 X: HORIZONTAL COMPONENT OF BATTER SLOPE AS PER NOTE 2.  
 SHDR: SHOULDER



STANDARD ROAD SECTIONS  
 URBAN RESIDENTIAL  
 CATEGORIES D TO F

<b>DRAWN</b>	<b>SCALE</b>
O.S.	1:100 @ A4
<b>DATE:</b> 12/01/16	
<b>APPROVED BY</b>	<b>DRAWING NO.</b>
M.NELSON	WSC.D1.1
<b>DATE:</b> 01.03.2016	<b>SHEET</b> 2 OF 4

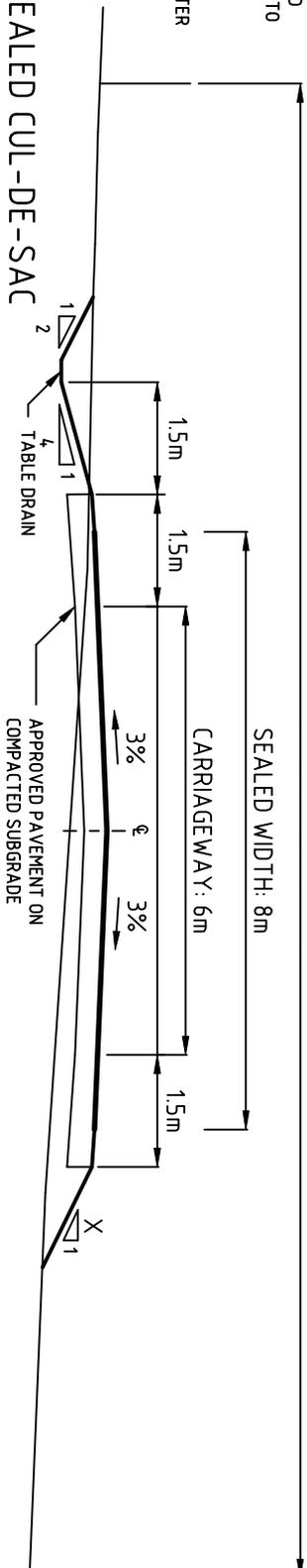
ROAD RESERVE WIDTH: 20m



\*\*\* INCLUDES PROVISION FOR A 1.5m SHARED PATHWAY. IF REQUIRED BY COUNCIL OR SHOWN ON COUNCIL'S SHARED PATHWAY STRATEGIC PLANS, VERGE AND ROAD RESERVE MAY NEED TO BE WIDENED TO ACCOMMODATE A 2.0m WIDE SHARED PATHWAY.

NKL: NOMINAL KERB LINE  
 X: HORIZONTAL COMPONENT OF BATTER SLOPES AS PER NOTE 2.  
 SHDR: SHOULDER

**CAT. G2: RURAL SEALED CUL-DE-SAC  
 MINOR THROUGH ROAD**



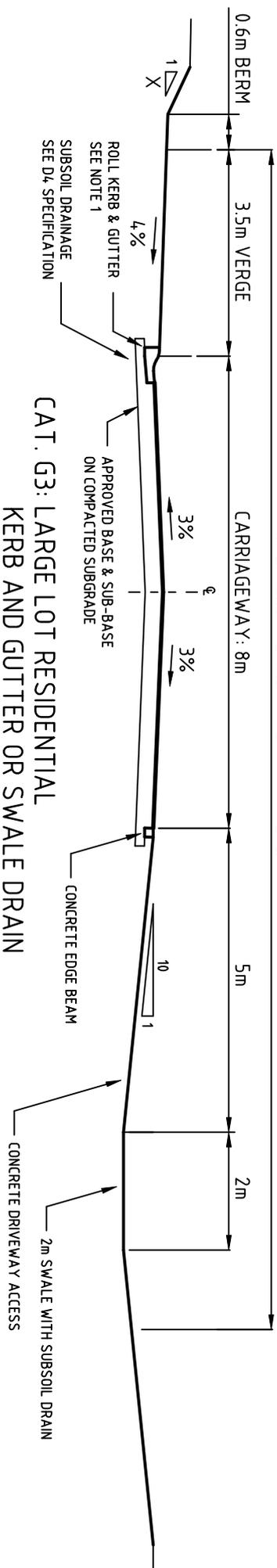
ROAD RESERVE WIDTH: 20m WITH SWALE  
 ROAD RESERVE WIDTH: 15m WITH KERB

CARRIAGEWAY: 8m

SEALED WIDTH: 8m

CARRIAGEWAY: 6m

**CAT. G3: LARGE LOT RESIDENTIAL  
 KERB AND GUTTER OR SWALE DRAIN**



CARRIAGEWAY: 8m

5m

2m

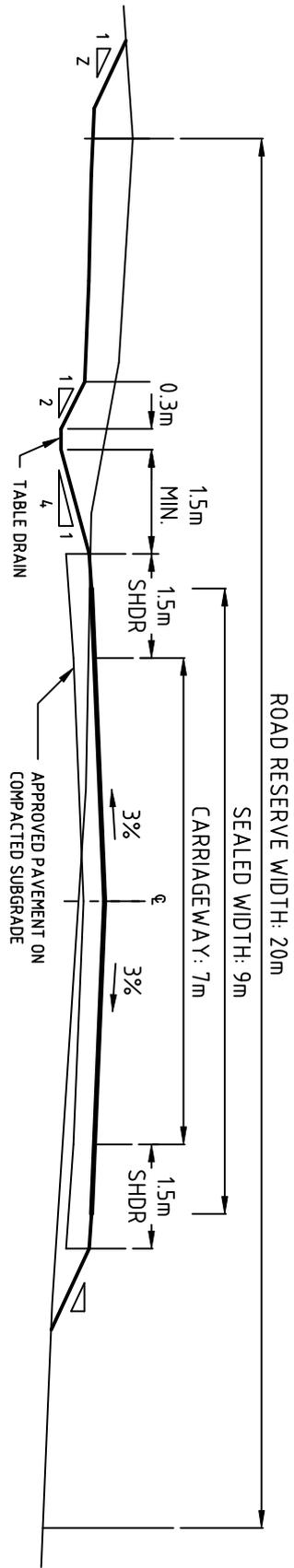
2m SWALE WITH SUBSOIL DRAIN  
 CONCRETE DRIVEWAY ACCESS

- NOTES:
- FOR KERB DETAILS REFER TO STANDARD DRAWING NO. WSC.D1.12.
  - BATTERS SHALL BE CONSTRUCTED TO THE FOLLOWING SPECIFICATIONS:
    - X<4 WHEN THE VERTICAL DISTANCE AT THE PROPERTY LINE BETWEEN THE EXISTING SURFACE AND THE DESIGN SURFACE EXCEEDS 600mm. (i.e. ADOPT 1 IN 4, BATTER SLOPE).
    - X=6 WHEN THIS VERTICAL DISTANCE IS LESS THAN 600mm. (i.e.) ADOPT A 1 IN 6 BATTER SLOPE).
    - X<4 SHALL REQUIRE APPROVAL AND X<2 SHALL REQUIRE A SUPPORTING GEOTECHNICAL REPORT.
  - PASSING BAYS FOR ROAD CATEGORY G1 SHALL BE INSTALLED AT INTERVALS NOT GREATER THAN 100m.
  - VERGE CROSSFALL SHALL BE ADJUSTED AS REQUIRED TO PROVIDE 2.5% ON THE SHARED PATHWAY AND MAINTAIN 4% OVERALL.
  - TABLE DRAINS SHALL BE ADJUSTED AS REQUIRED TO PROVIDE 2.5% ON THE SHARED PATHWAY AND MAINTAIN 4% OVERALL.

<p>STANDARD ROAD SECTIONS                  RURAL RESIDENTIAL                  CATEGORIES G</p>	<p><b>DRAWN</b>                  O.S.</p>	<p><b>SCALE</b>                  1:100 @ A4</p>
	<p>APPROVED BY                  M.NELSON</p>	<p>DRAWING NO.                  WSC.D1.1</p>
<p>DATE: 01.03.2016</p>	<p>SHEET 3 OF 4</p>	

xx: INCLUDES PROVISION FOR A 1.5m SHARED PATHWAY. IF REQUIRED BY COUNCIL OR SHOWN ON COUNCIL'S SHARED PATHWAY STRATEGIC PLANS, VERGE AND ROAD RESERVE MAY NEED TO BE WIDENED TO ACCOMMODATE A 2.0m WIDE SHARED PATHWAY.

NKL: NOMINAL KERB LINE  
 X: HORIZONTAL COMPONENT OF BATTER SLOPES AS PER NOTE 2.  
 SHDR: SHOULDER

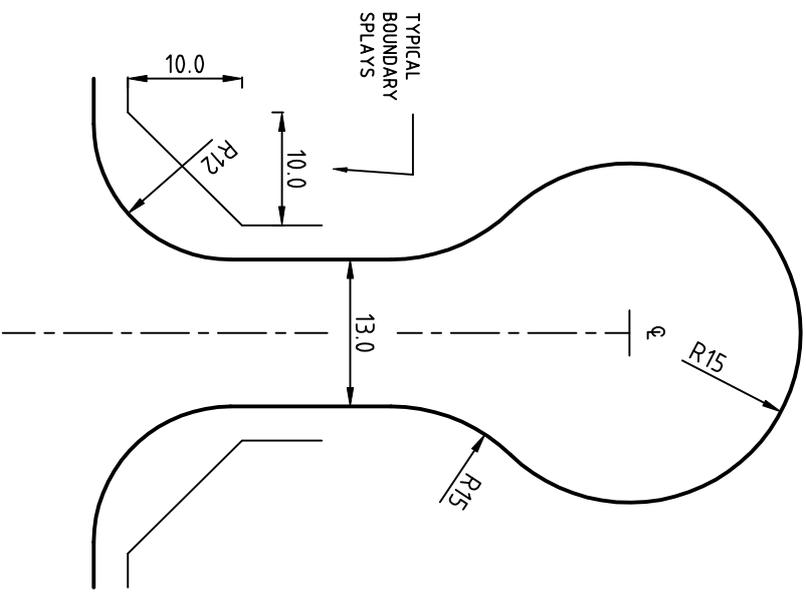


CAT. H: RURAL SEALED THROUGH ROAD

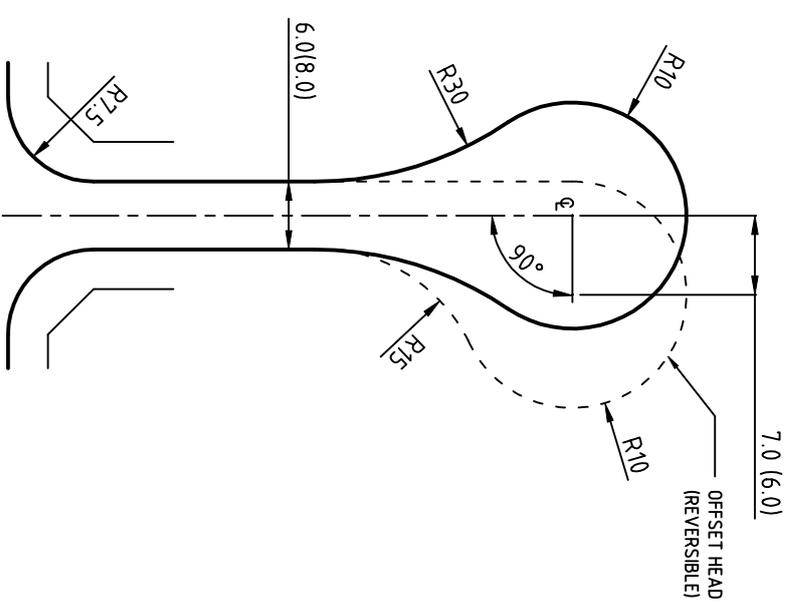
NOTES:

1. FOR KERB DETAILS REFER TO STANDARD DRAWING No. WSC.D1.12.
2. BATTERS SHALL BE CONSTRUCTED TO THE FOLLOWING SPECIFICATIONS:
  - 2.1. X=4 WHEN THE VERTICAL DISTANCE AT THE PROPERTY LINE BETWEEN THE EXISTING SURFACE AND THE DESIGN SURFACE EXCEEDS 600mm. (i.e. ADOPT 1 IN 4 BATTER SLOPE).
  - 2.2. X=6 WHEN THIS VERTICAL DISTANCE IS LESS THAN 600mm. (i.e.) ADOPT A 1 IN 6 BATTER SLOPE).
  - 2.3. X<4 SHALL REQUIRE APPROVAL AND X<2 SHALL REQUIRE A SUPPORTING GEOTECHNICAL REPORT.
3. PASSING BAYS FOR ROAD CATEGORY G1 SHALL BE INSTALLED AT INTERVALS NOT GREATER THAN 100m.
4. VERGE CROSSFALL SHALL BE ADJUSTED AS REQUIRED TO PROVIDE 2.5% ON THE SHARED PATHWAY AND MAINTAIN 4% OVERALL.
5. TABLE DRAINS SHALL BE ADJUSTED AS REQUIRED TO PROVIDE 2.5% ON THE SHARED PATHWAY AND MAINTAIN 4% OVERALL.

 <p><b>Wollondilly</b> Shire Council</p>	<b>DRAWN</b>	<b>SCALE</b>
	O.S.	1:100 @ A4
<p>STANDARD ROAD SECTIONS RURAL RESIDENTIAL GATEGORIES H</p>	<b>APPROVED BY</b>	<b>DRAWING NO.</b>
	M.NELSON	WSC.D1.1
	<b>DATE:</b> 01.03.2016	<b>SHEET</b> 4 OF 4



INDUSTRIAL/COMMERCIAL



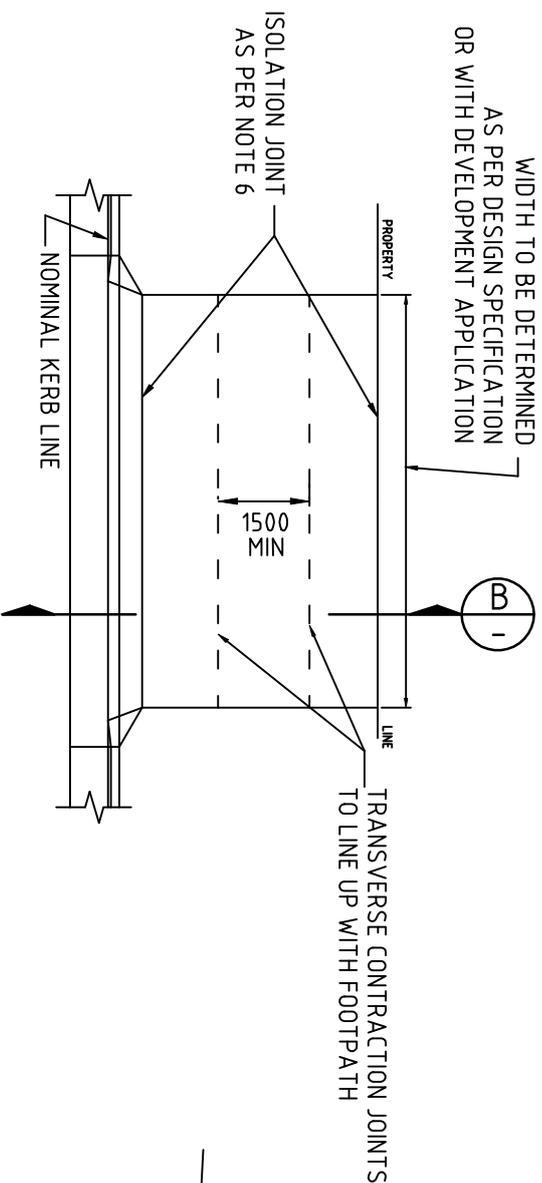
RESIDENTIAL

NOTES:

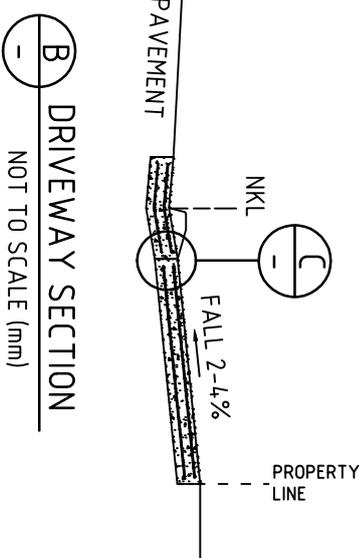
1. ALL UNITS ARE IN METRES (m) UNLESS OTHERWISE SPECIFIED.

	DRAWN	SCALE
	O.S. DATE: 12/01/16	1:100 @ A4
CUL-DE-SAC HEAD TYPICAL LAYOUT FOR CATEGORY A, B, C AND F ROADS	APPROVED BY	DRAWING NO.
	M.NELSON DATE: 01.03.2016	W.S.C.D1.2 SHEET 1 OF 1

WIDTH TO BE DETERMINED  
AS PER DESIGN SPECIFICATION  
OR WITH DEVELOPMENT APPLICATION



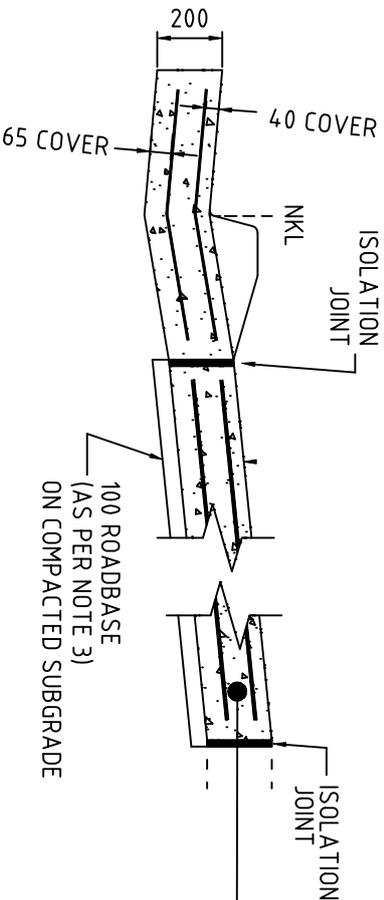
**A** PLAN VIEW



**B** DRIVEWAY SECTION  
NOT TO SCALE (mm)

**NOTES:**

1. DRIVEWAY CROSSING INSPECTIONS ARE SUBJECT TO AN INSPECTION FEE. FEES TO BE PAID PRIOR TO INSPECTION.
2. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS WILL BE 32 MPa. CONCRETE SLUMP 65-75mm.
3. SUB-BASE MATERIAL SHALL BE COMPACTED ROAD BASE DGB20 OR APPROVED EQUIVALENT.
4. PERMIT TO BE OBTAINED FROM COUNCIL PRIOR TO COMMENCEMENT OF ANY WORKS.
5. INSPECTION IS REQUIRED WHEN FORMWORK AND REINFORCING STEEL IS IN FINAL POSITION PRIOR TO CONCRETE PLACEMENT.
6. APPROVED BITUMINOUS JOINTING MATERIAL SHALL BE PLACED TO SEPARATE ALL NEW AND OLD CONCRETE EDGES.
7. ALL EXPOSED CONCRETE EDGED TO BE ROUNDED TO 10mm RADIUS UNLESS NOTED OTHERWISE.
8. CROSSING WIDTH (W) TO BE DETERMINED AT DEVELOPMENT APPLICATION STAGE.



**C** KERB CROSSING DETAIL  
NOT TO SCALE (mm)

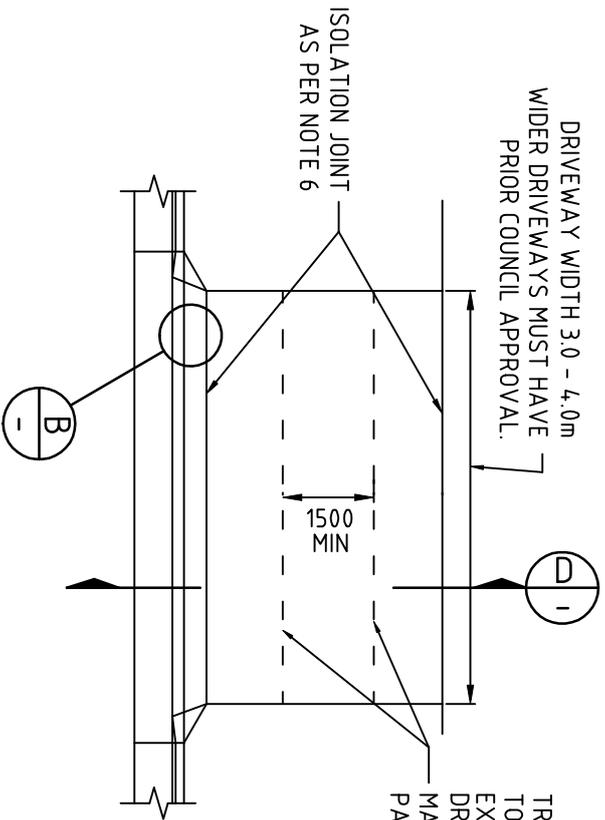
INDUSTRIAL DRIVEWAYS 200 THICK 32MPa CONCRETE REINFORCED WITH TWO LAYERS SL82 MESH 40 TOP COVER & 65 BOTTOM COVER.  
COMMERCIAL DRIVEWAYS 150 THICK 32MPa CONCRETE REINFORCED WITH SINGLE LAYER SL82 MESH 40 TOP COVER.



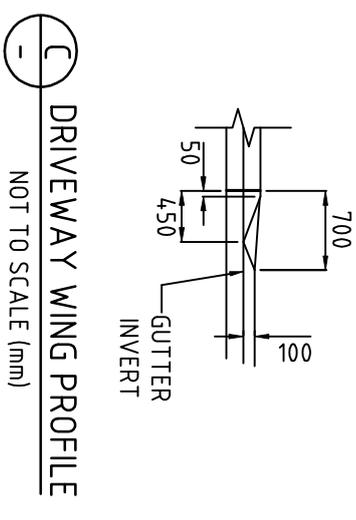
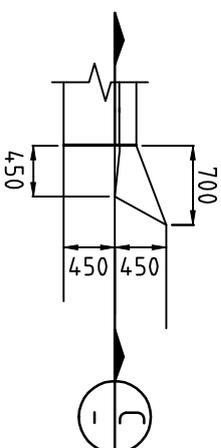
INDUSTRIAL AND COMMERCIAL  
VEHICULAR AND FOOTWAY CROSSING

<b>DRAWN</b> O.S. DATE: 12/01/16	<b>SCALE</b> 1:100 @ A4
<b>APPROVED BY</b> M.NELSON DATE: 01.03.2016	<b>DRAWING NO.</b> W.S.C.D1.5 SHEET 1 OF 1

DRIVEWAY WIDTH 3.0 - 4.0m  
WIDER DRIVEWAYS MUST HAVE  
PRIOR COUNCIL APPROVAL.

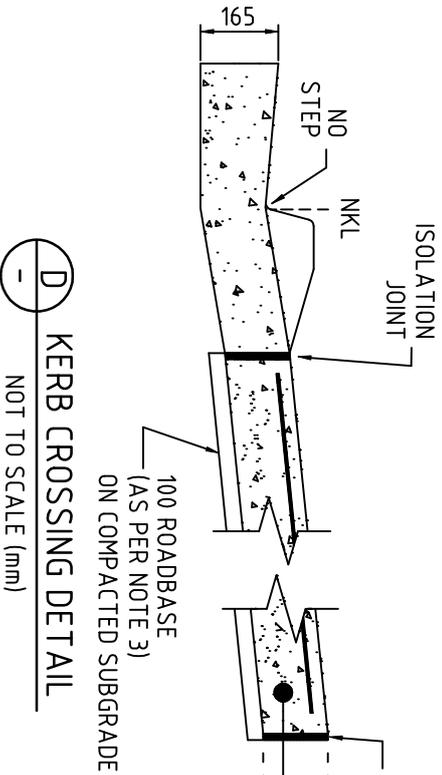


TRANSVERSE CONTRACTION JOINTS TO LINE UP WITH FOOTPATH. EXISTING FOOTPATHS BUILT TO DRIVEWAY STANDARD (NEW SUBDIVISIONS) MAY REMAIN AND DRIVEWAY ADJOIN PATH WITH ISOLATION JOINTS.



NOTES:

- 1.DRIVEWAY CROSSING INSPECTIONS ARE SUBJECT TO AN INSPECTION FEE. FEES TO BE PAID PRIOR TO INSPECTION.
- 2.MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS WILL BE 25 MPa. CONCRETE SLUMP 65-75mm.
- 3.SUB-BASE MATERIAL SHALL BE COMPACTED ROAD BASE DGB20 OR APPROVED EQUIVALENT.
- 4.PERMIT TO BE OBTAINED FROM COUNCIL PRIOR TO COMMENCEMENT OF ANY WORKS.
- 5.INSPECTION IS REQUIRED WHEN FORMWORK AND REINFORCING STEEL US IN FINAL POSITION PRIOR TO CONCRETE PLACEMENT.
- 6.APPROVED BITUMINOUS JOINTING MATERIAL SHALL BE PLACED TO SEPARATE ALL NEW AND OLD CONCRETE EDGES.
- 7.ALL EXPOSED CONCRETE EDGED TO BE ROUNDED TO 10mm RADIUS UNLESS NOTED OTHERWISE.
- 8.CROSSING WIDTH (W) TO BE DETERMINED AT DEVELOPMENT APPLICATION STAGE.



RESIDENTIAL DRIVEWAYS 125 THICK 20MPa CONCRETE REINFORCED WITH SINGLE LAYER SL72 MESH 40 TOP COVER.



DRAWN

O.S.

DATE: 12/01/16

SCALE

1:100 @ A4

APPROVED BY

M.NELSON

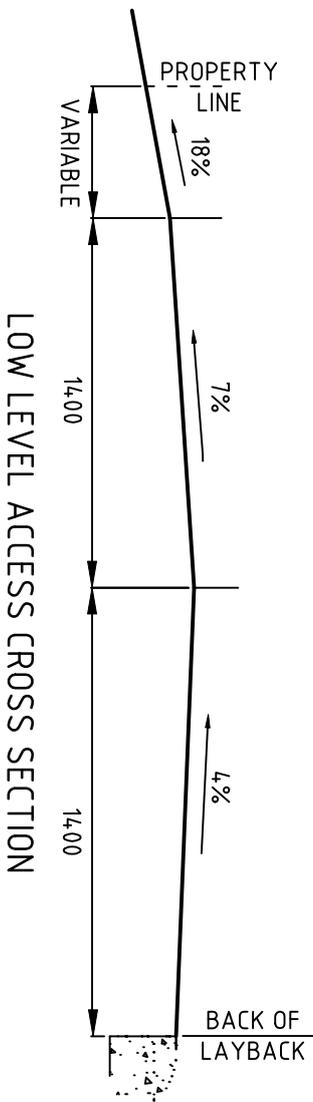
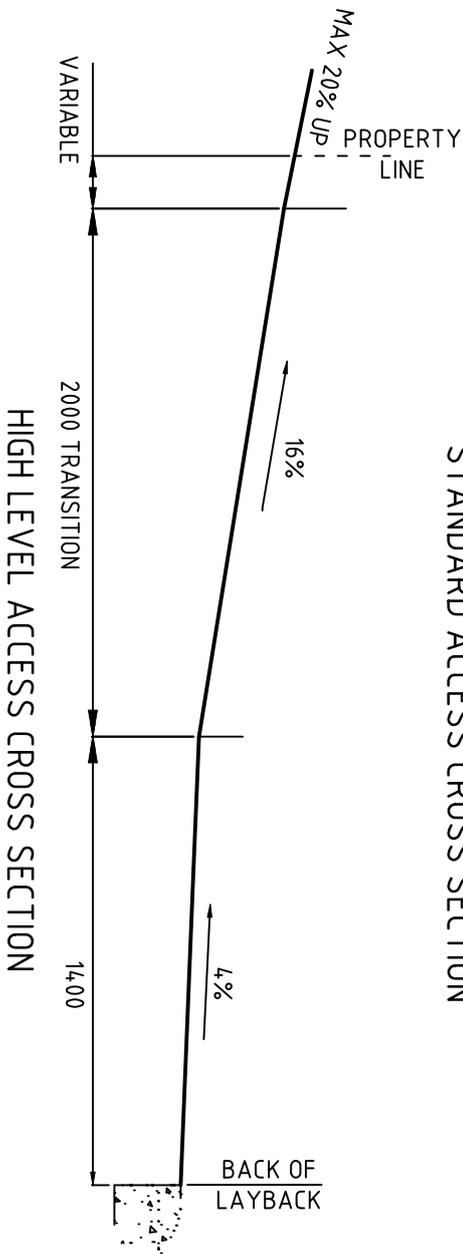
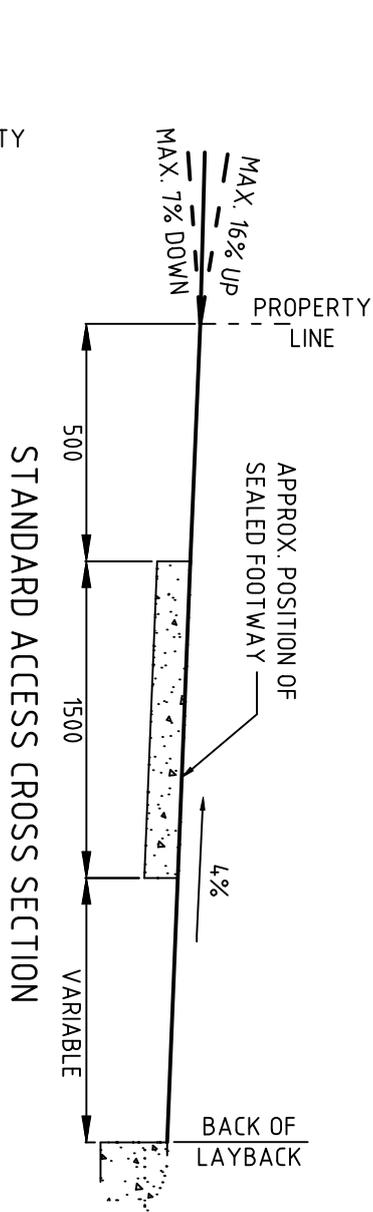
DRAWING NO.

W.S.C.D1.8

RESIDENTIAL  
VEHICULAR AND FOOTWAY CROSSING

DATE: 01.03.2016

SHEET 1 OF 1



DRAWN

O.S.

DATE: 12/01/16

SCALE

NO SCALE @ A4

APPROVED BY

M.NELSON

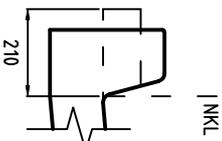
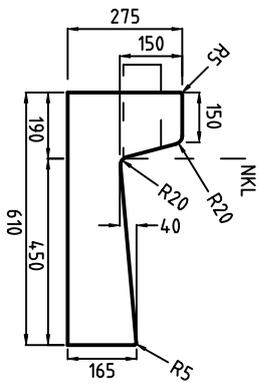
DRAWING NO.

W.S.C.D.11

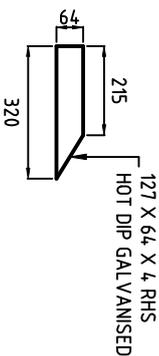
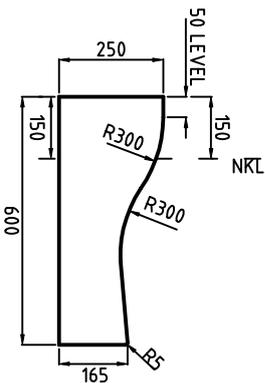
VEHICULAR ACCESS PROFILES

DATE: 01.03.2016

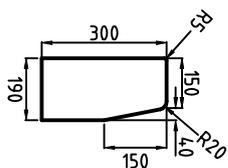
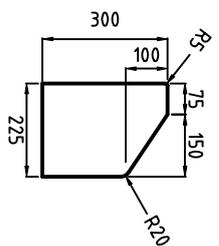
SHEET 1 OF 1



150mm KERB & GUTTER

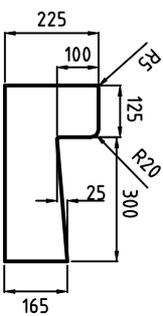


ROLL KERB & GUTTER/MS PIPE INSERT

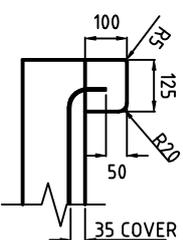


MOUNTABLE KERB

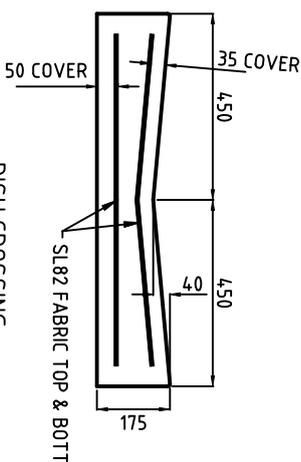
KERB ONLY



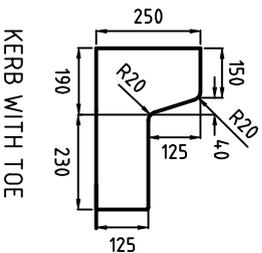
PATHWAY KERB & GUTTER



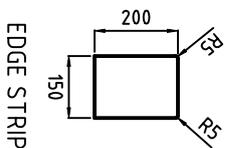
INTEGRAL KERB FOR PATHWAYS



DISH CROSSING



KERB WITH TOE



EDGE STRIP

NOTES:

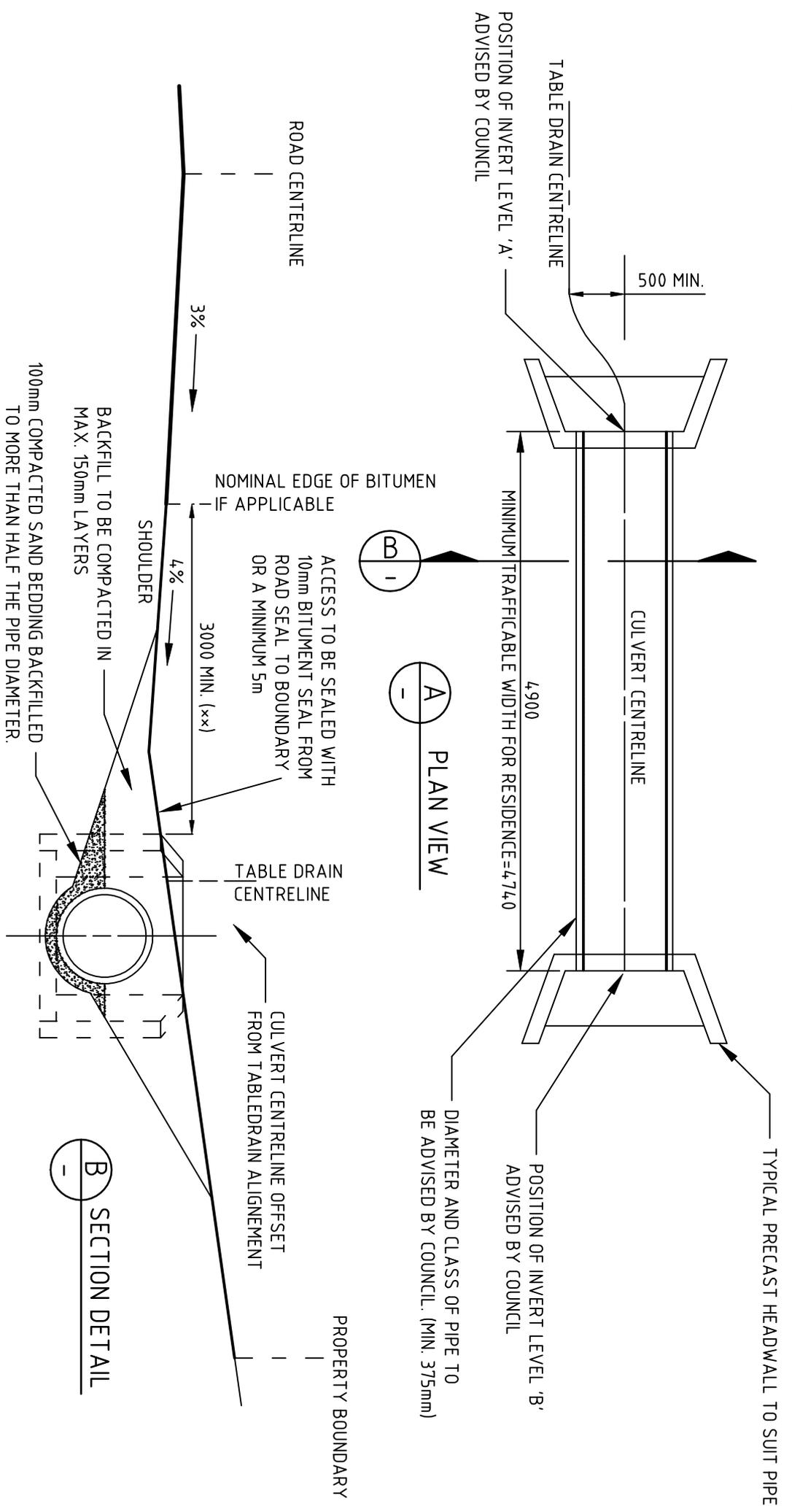
1. ROAD SUB-BASE TO EXTEND A MINIMUM 150mm BEHIND KERBS, GUTTERS AND DISH CROSSINGS.
2. FULL DEPTH PAVEMENT MUST BE PROVIDED UNDER DISH CROSSINGS AT INTERSECTIONS.
3. CONCRETE COMPRESSIVE STRENGTH (f'c) TO BE A MINIMUM 20MPa AT 28 DAYS FOR ALL KERB TYPES SHOWN.
4. REINFORCING FABRIC TO AS 1304 WELDED WIRE REINFORCING FABRIC FOR CONCRETE.
5. WHERE CONDUITS ARE PLACED PRIOR TO KERB CONSTRUCTION, KERB FACES SHALL BE MARKED FOR LOCATION WITH AN APPROVED TOOL.
6. ALTERNATIVE PRODUCTS SHALL BE SUBMITTED FOR COUNCILS APPROVAL BEFORE USE.



<b>DRAWN</b>	<b>SCALE</b>
O.S.	NO SCALE @ A4
<b>DATE:</b> 12/01/16	

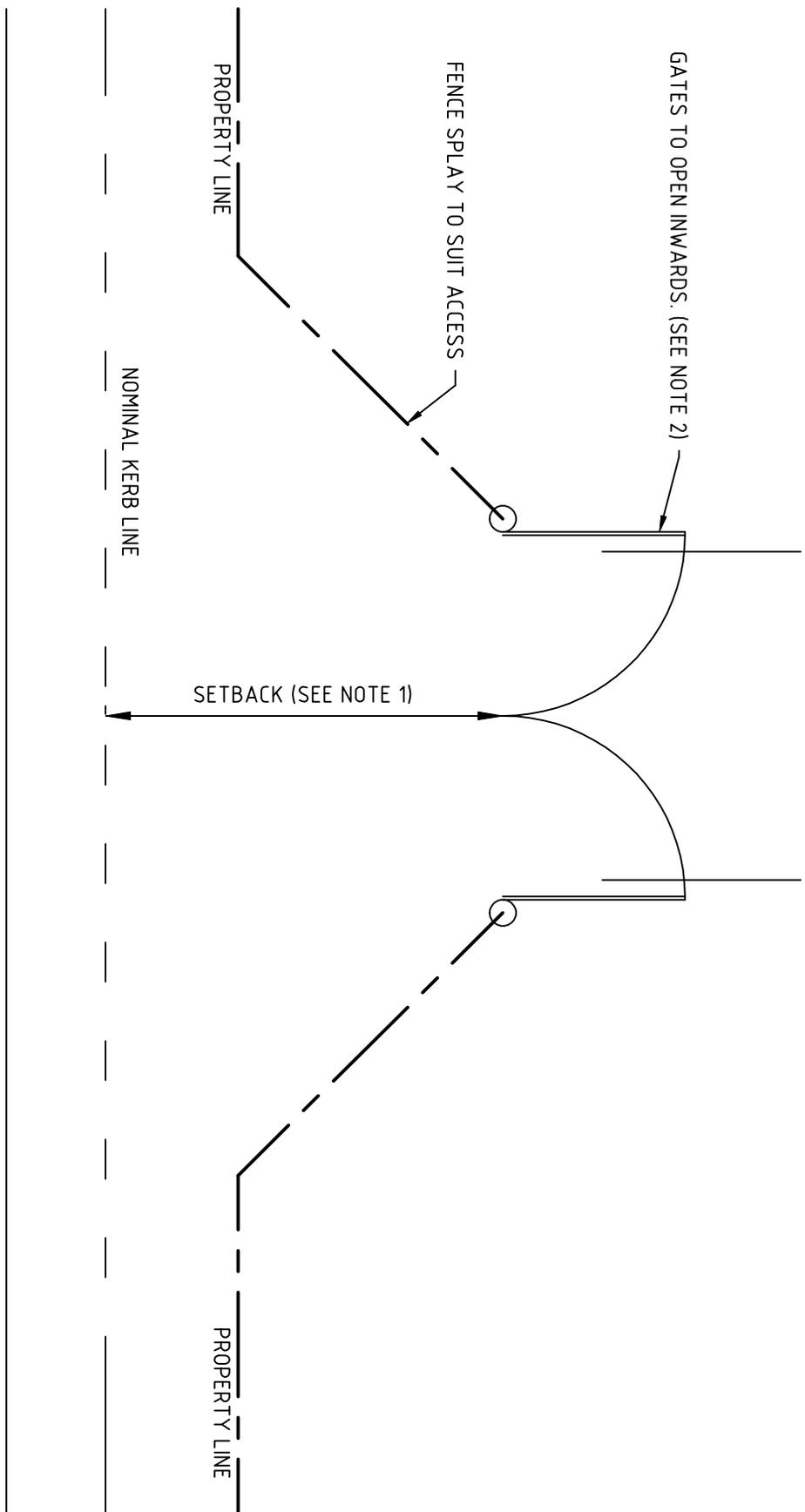
<b>STANDARD KERB AND GUTTERS</b>	<b>APPROVED BY</b>	<b>DRAWING NO.</b>
	M. NELSON	W.S.C.D.112
<b>DATE:</b> 01.03.2016		<b>SHEET</b> 1 OF 1





- NOTES:
1. THIS PLAN IS TO BE READ IN CONJUNCTION WITH "THE PROPERTY ENTRANCE APPLICATION FORM-PIPED CULVERT AND GRAVEL ENTRANCES".
  2. INSPECTIONS OF THE WORK BY COUNCIL OF THE WORK THE BE ARRANGED AS PER THE ABOVE FORM.
  3. ACCESS TO BE BITUMEN SEALED WITH 10MM SPRAY SEAL.
  4. \*\* INDICATES DIMENSIONS TO BE CONFIRMED BY COUNCIL.

 <p><b>Wollondilly</b> Shire Council</p>	<b>DRAWN</b>	<b>SCALE</b>
	O.S. DATE: 12/01/16	1:50 @ A4
<b>STANDARD RURAL PIPE CROSSING AND GATE SETBACK.</b>	<b>APPROVED BY</b> M.NELSON	<b>DRAWING NO.</b> W.S.C.D1.16
	DATE: 01.03.2016	SHEET 1 OF 2

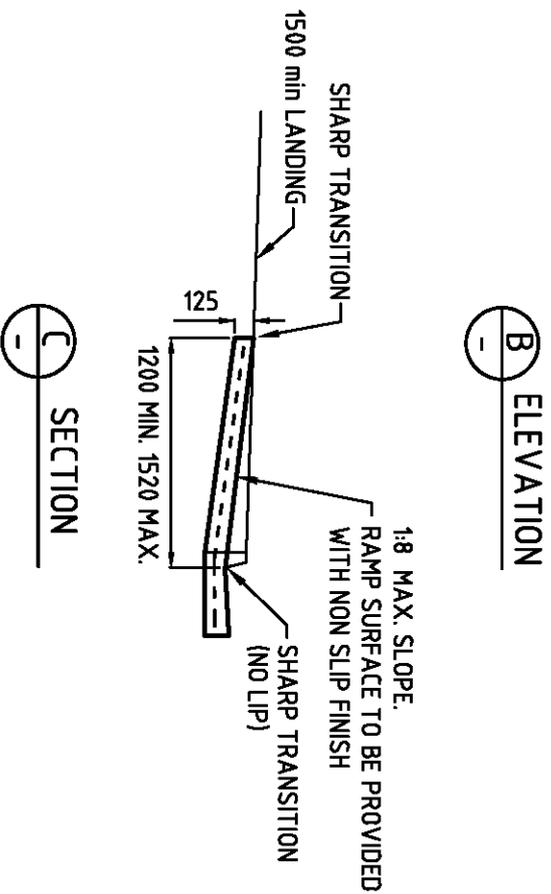
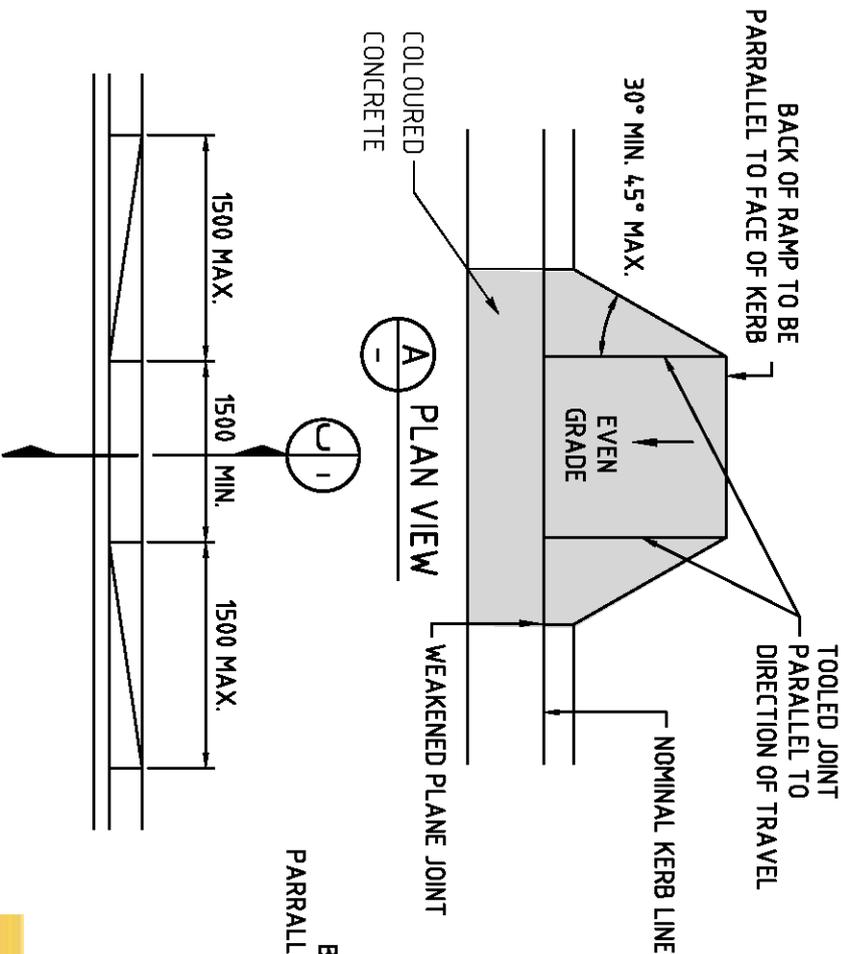


**PROPERTY GATE SETBACK FOR RURAL ACCESS**

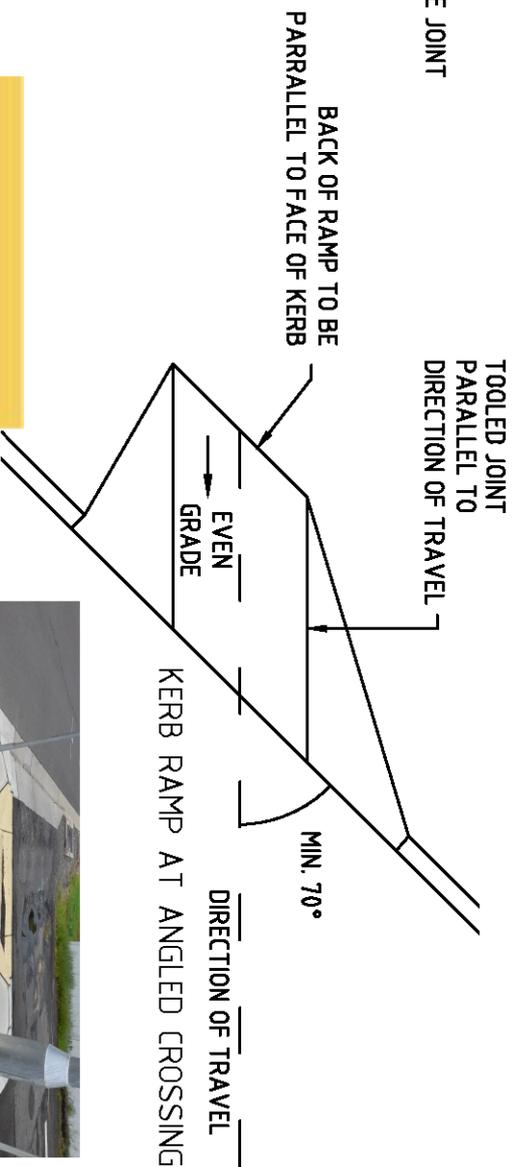
**NOTES:**

1. GATE SETBACK DISTANCES SHOULD BE PROVIDED AS FOLLOWS:  
 CAR: 6m  
 12.5m SUT: 15m  
 19m SEMI: 22m  
 B-DOUBLE: 28m
2. IF GATES MUST OPEN OUTWARDS, A MINIMUM OF 4m SHALL BE ADDED TO THE SETBACK DISTANCE OUTLINED IN NOTE 1.

 <p><b>Wollondilly</b> Shire Council</p>	<b>DRAWN</b>	<b>SCALE</b>
	O.S. DATE: 12/01/16	1:100 @ A4
<p>STANDARD RURAL PIPE CROSSING AND GATE SETBACK.</p>	<b>APPROVED BY</b>	<b>DRAWING NO.</b>
	M.NELSON DATE: 01.03.2016	WSC.D1.16 SHEET 2 OF 2

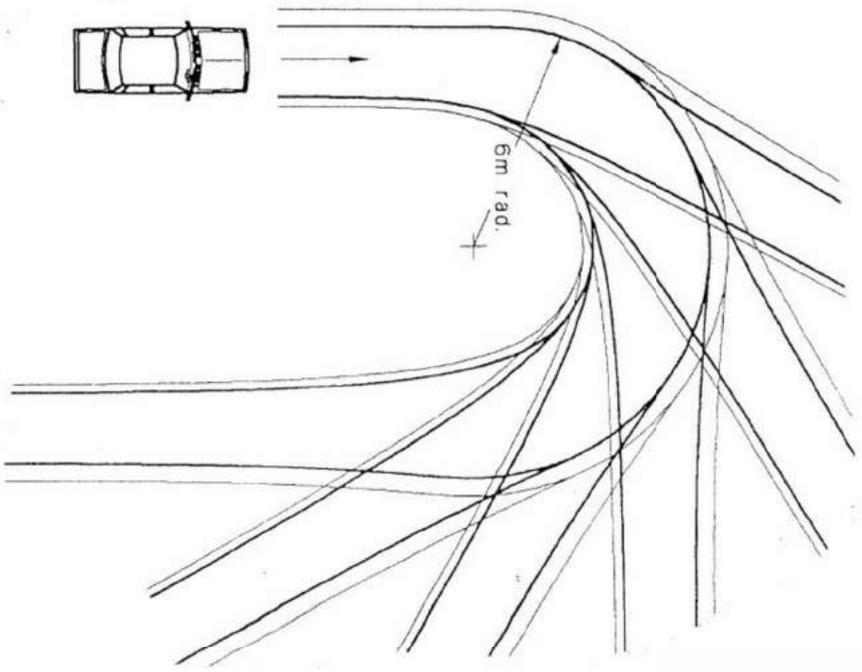


- NOTES:
1. CONCRETE TO OBTAIN A MINIMUM 28 DAY STRENGTH OF 25MPa.
  2. KERB RAMPS TO BE CONSTRUCTED AS A SINGLE POUR INTEGRATED WITH GUTTER.
  3. RAMP, WINGS AND GUTTER TO BE COLOURED YELLOW.
  4. COLOUR TO BE FULL DEPTH USING UV PROTECTED OXIDES, INTEGRATED INTO THE CONCRETE MIX BY ADDING UPTO 5% PIGMENT, BY WEIGHT OF CEMENT, TO GREY CONCRETE.
  5. YELLOW COLOUR TO BE SIMILAR TO AS2700-COLOUR STANDARDS FOR GENERAL PURPOSES, Y21 (PRIMROSE).

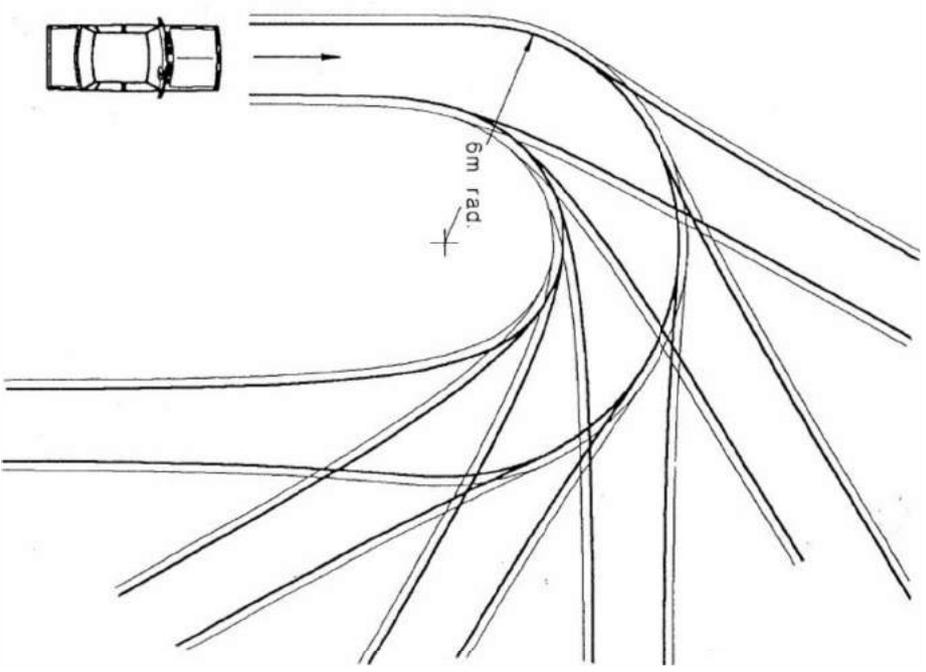


STANDARD KERB RAMP CROSSING

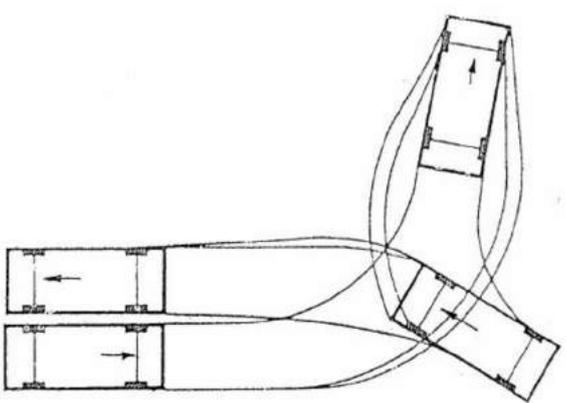
<b>DRAWN</b> O.S. DATE: 14/04/21	<b>SCALE</b> 1:50 @ A4
<b>APPROVED BY</b> M.NELSON DATE: 14/04/21	<b>DRAWING NO.</b> W.SCD.17.17
	<b>SHEET 1 OF 1</b>



DESIGN CAR (B99)



DESIGN CAR (B85)



TURN PATH FOR CARPARKS



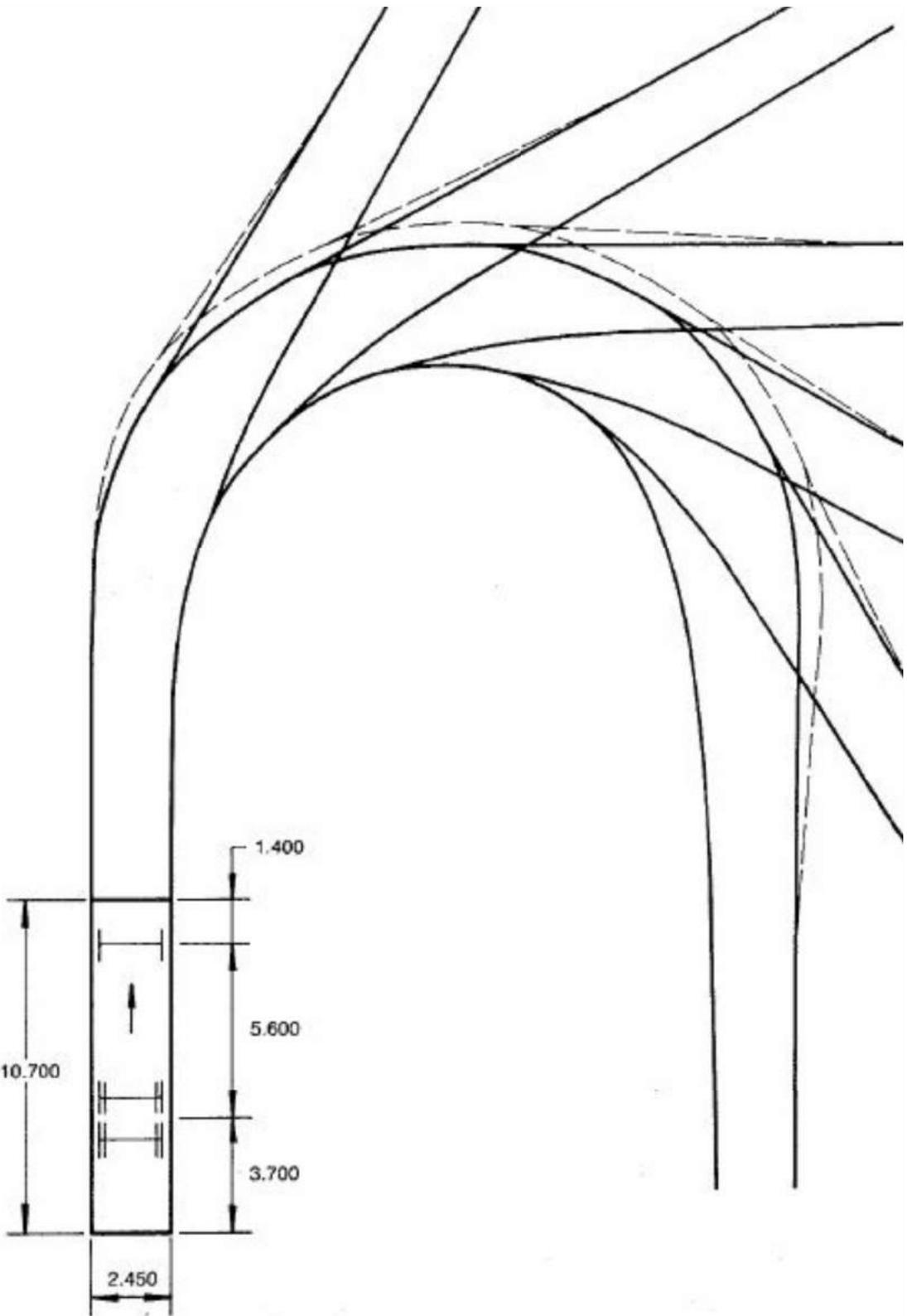
**DRAWN**  
DATE: 12/01/16

**SCALE**  
1:200 @ A4

TURNING TEMPLATE FOR DESIGN CARS

**APPROVED BY**  
M.NELSON  
DATE: 01.03.2016

**DRAWING NO.**  
WSC.D1.18  
SHEET 1 OF 1

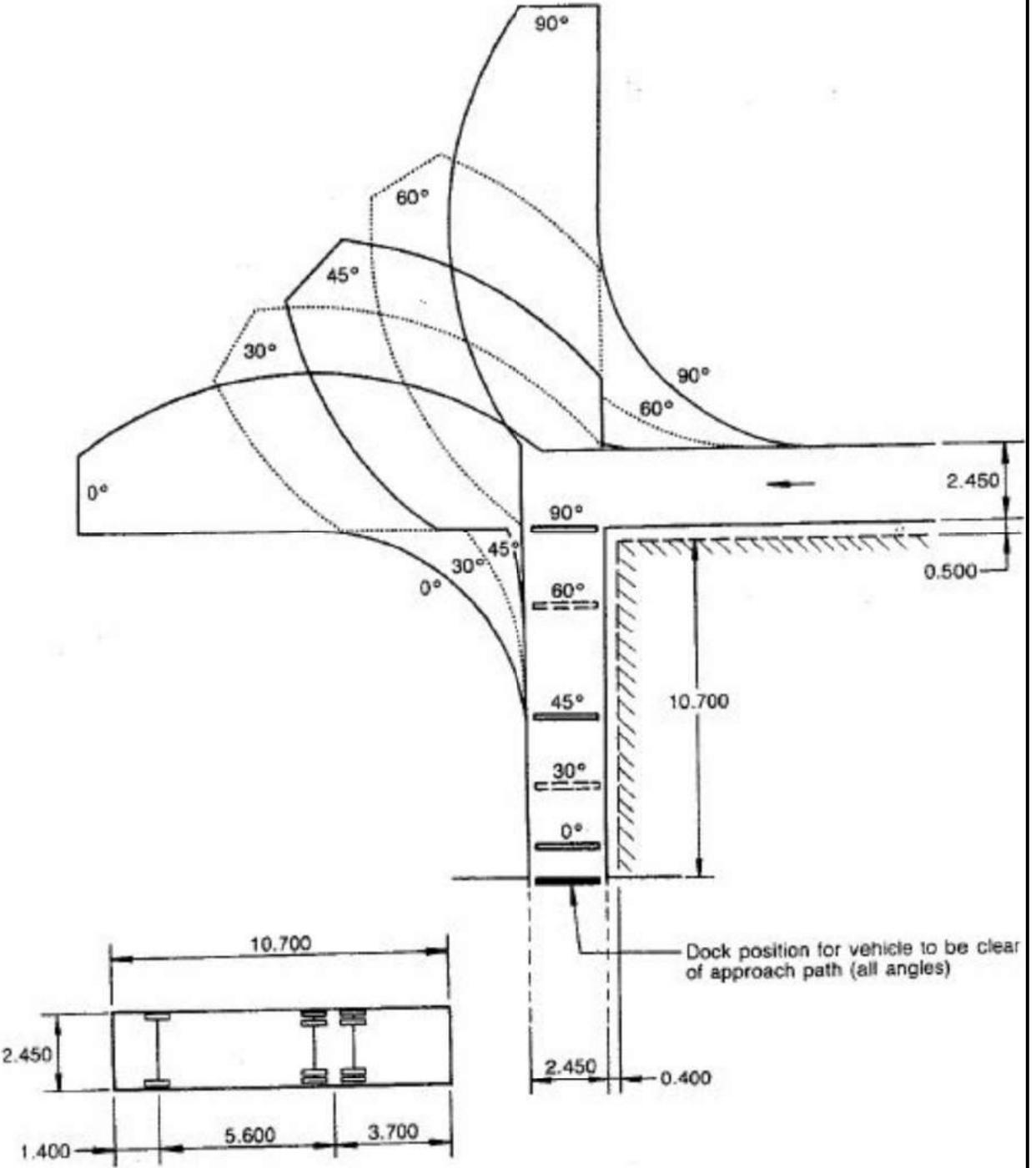


RIGID VEHICLE  
(WASTE RECOVERY VEHICLE)



TURNING TEMPLATE FOR RIGID VEHICLES  
(SERVICE AND WASTE RECOVERY VEHICLE)

<b>DRAWN</b>	<b>SCALE</b>
DATE: 12/01/16	1:200 @ A4
<b>APPROVED BY</b>	<b>DRAWING NO.</b>
M.NELSON	WSC.D121
DATE: 01.03.2016	SHEET 1 OF 1



RIGID VEHICLE  
 (WASTE RECOVERY VEHICLE)



MANOEUVRE TEMPLATE FOR RIGID  
 VEHICLES  
 (SERVICE AND WASTE RECOVERY VEHICLE)

DRAWN

DATE: 12/01/16

APPROVED BY

M.NELSON

SCALE

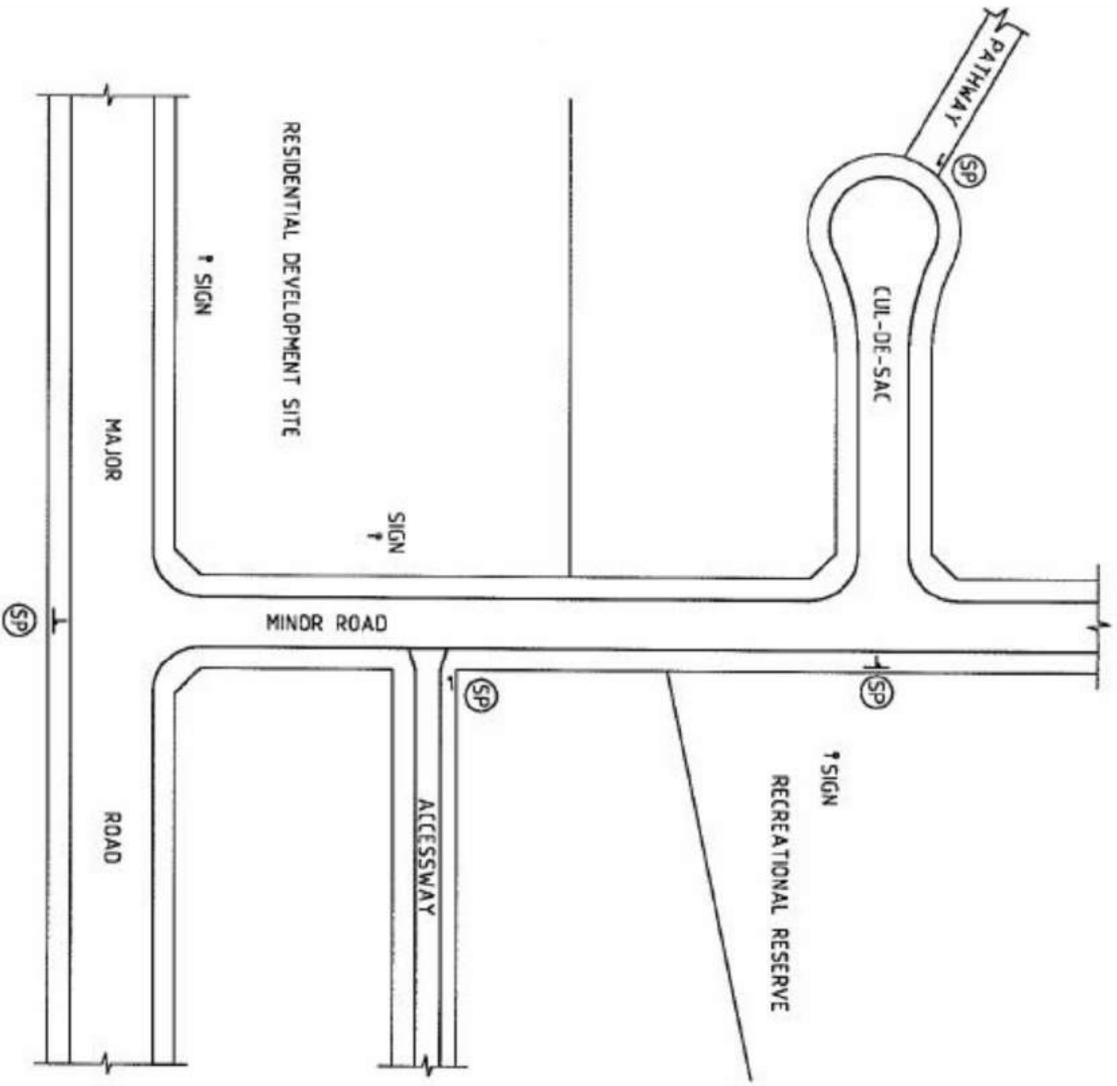
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DRAWING NO.

WSC.D1.22

DATE: 01.03.2016

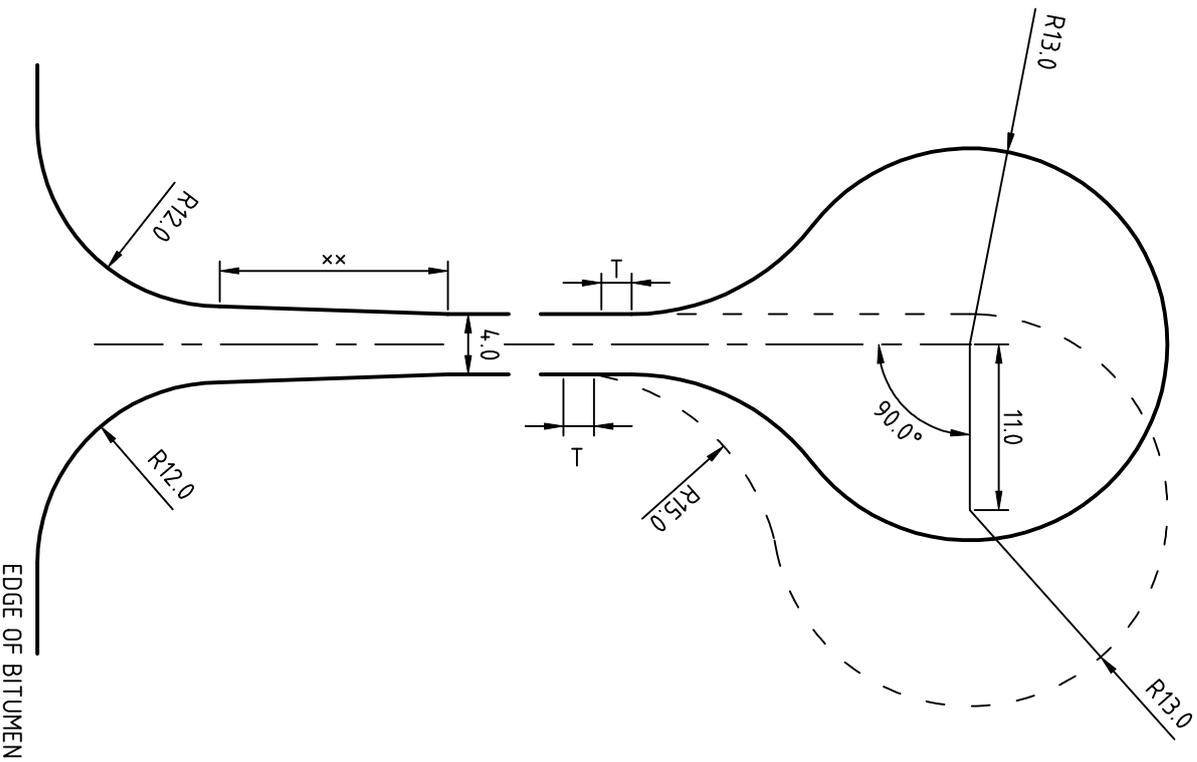
SHEET 1 OF 1



NOTES:

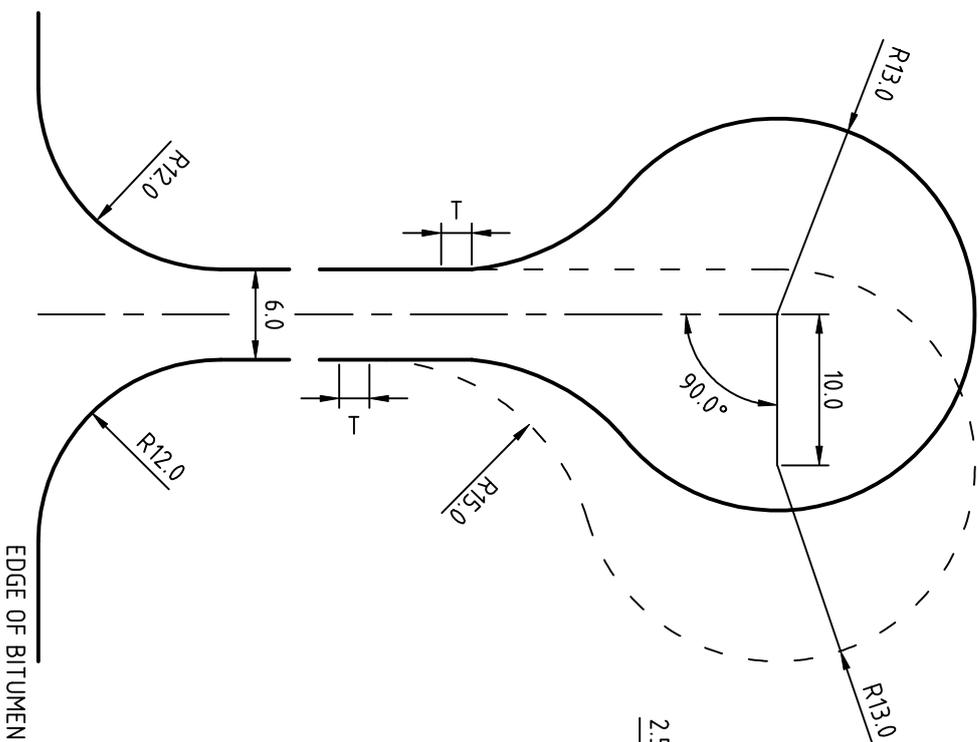
1. TYPE OF STREET AND PATH SIGN AND POST TO BE IN ACCORDANCE WITH WSC.D1.14.
2. 'SP' DENOTES SIGN POST LOCATION.

		<b>DRAWN</b> DATE: 12/01/16	<b>SCALE</b> 1:--- @ A4
SIGN POST LOCATIONS		<b>APPROVED BY</b> M.NELSON DATE: 01.03.2016	<b>DRAWING NO.</b> WSC.D1.24 SHEET 1 OF 1

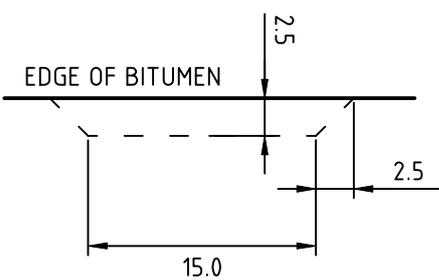


CATEGORY G2 (4m SEAL)

\*\* INDICATES TRANSITION WIDTH OVER MIN. 15m.  
T INDICATES KERB TRANSITION, MIN. LENGTH=2.0m.



CATEGORY G1 (6m SEAL) AND CATEGORY G2



TYPICAL PASSING BAY



**DRAWN**  
O.S.  
DATE: 12/01/16

**SCALE**  
1:500 @ A4

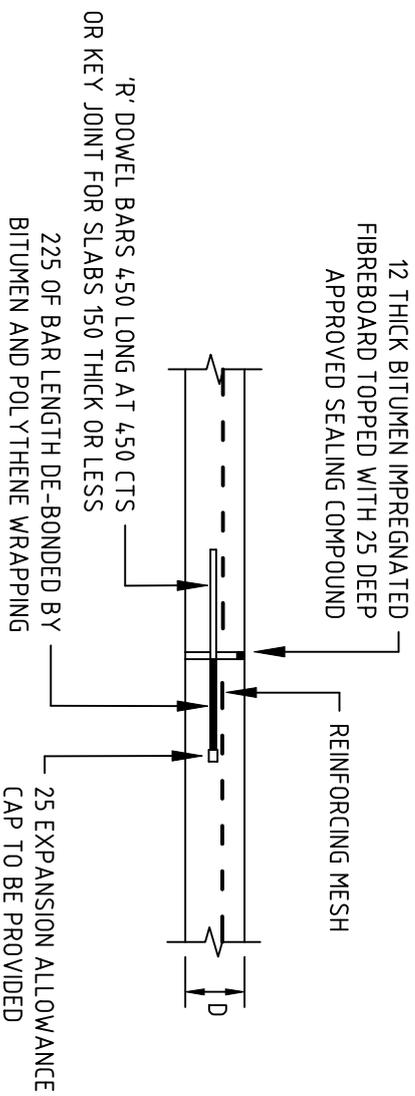
CUL-DE-SAC HEAD TYPICAL LAYOUT  
FOR CATEGORY G1 & G3 ROADS

**APPROVED BY**  
M. NELSON

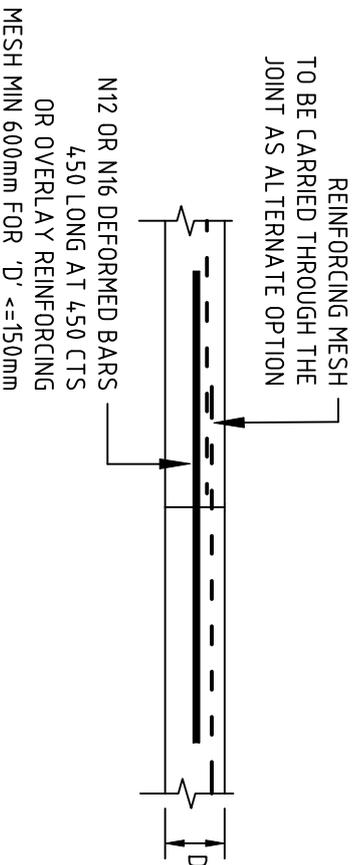
**DRAWING NO.**  
W.S.C.D1.25

DATE: 01.03.2016

SHEET 1 OF 1

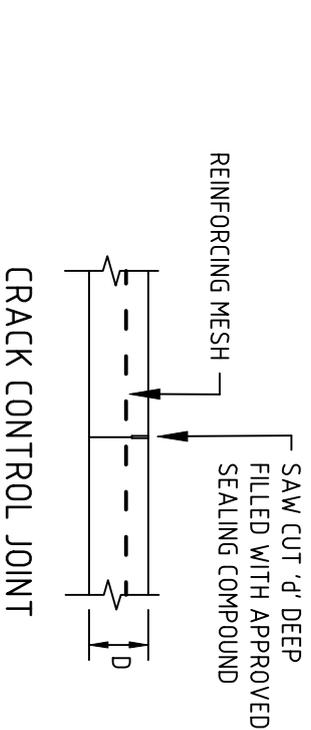


**EXPANSION JOINT**

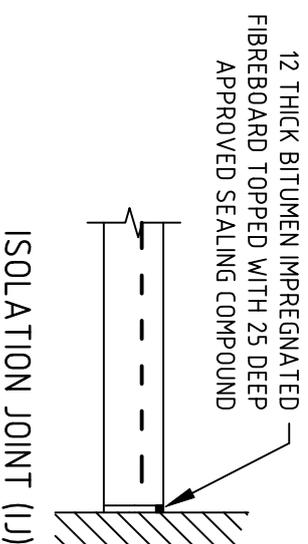


**CONSTRUCTION (BUTT) JOINT**

THICKNESS 'D'	REINFORCING MESH	DOWEL 'R'	SAW DEPTH 'D'
125mm	SL72	12mm	30mm
150mm	SL82	16mm	40mm
225mm	SL82 T & B	20mm	50mm



**CRACK CONTROL JOINT**



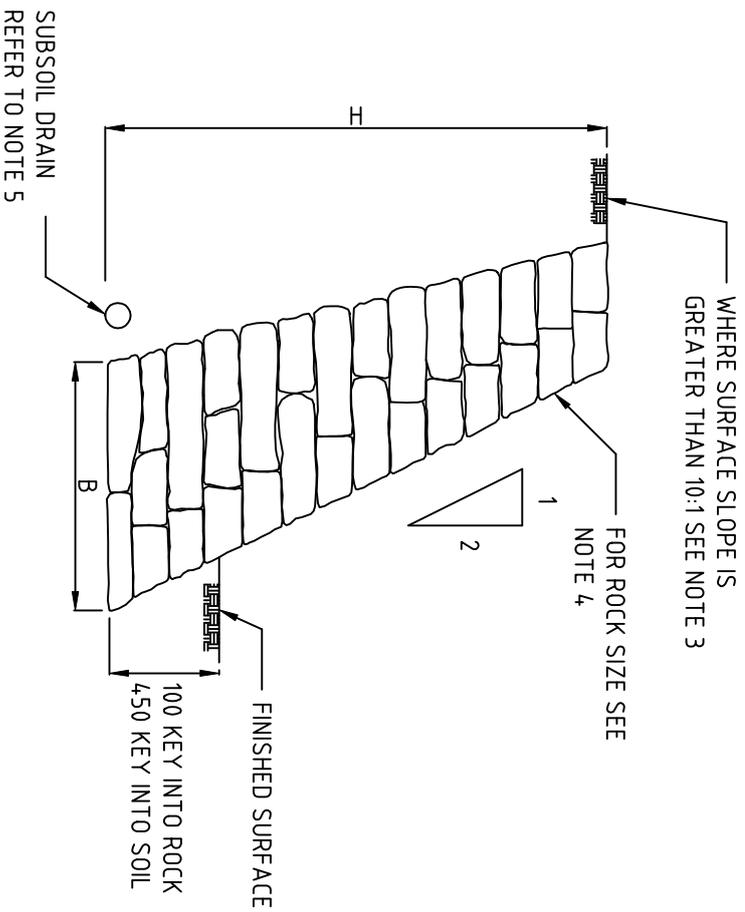
**NOTES:**

- WHERE CONSTRUCTION JOINTS ARE REQUIRED IN POSITIONS MORE THAN 3000mm FROM A CONTRACTION JOINT OR EXPANSION JOINT, A SEALING GROOVE, SIMILAR TO TRANSVERSE CONTRACTION JOINT SHALL BE INCORPORATED.
- ALL EXPOSED CONCRETE EDGES TO BE ROUNDED TO A 5mm RADIUS.
- FOR KERB DETAILS REFER TO DRG. No. W5C.D1.12
- FOR PAVEMENT WIDTH REFER TO DRG. No. W5C.D1.1, DRG. No. W5C.D1.2, TABLE D13.5 OF THE DEVELOPMENT CONTROL PLAN AND THE COUNCIL'S DESIGN SPECIFICATIONS.
- SUBGRADE TO BE COMPACTED AND APPROVED BASE AND SUBBASE COURSE/S LAID PRIOR TO CONCRETE WORK COMMENCING.



DRAWN	SCALE
O.S. DATE: 12/01/16	1: ---- @ A4

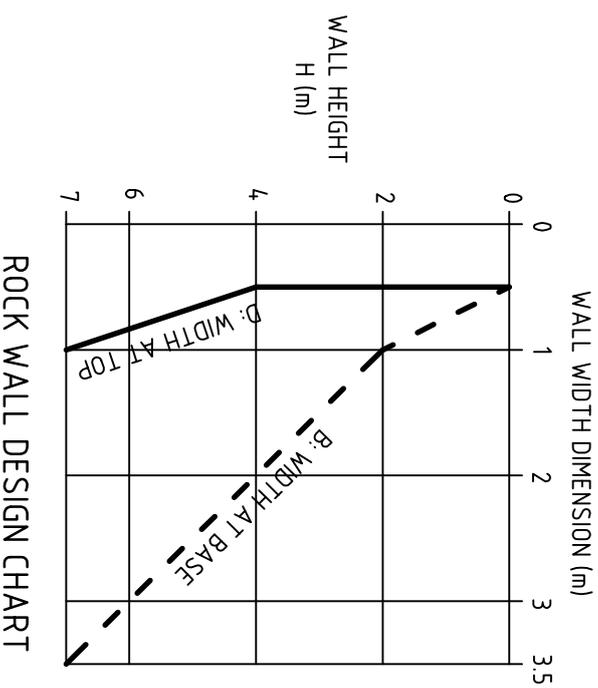
REINFORCED CONCRETE DRIVEWAY AND PATHWAY JOINTING DETAILS	APPROVED BY M.NELSON	DRAWING NO. W5C.D2.2
	DATE: 01.03.2016	SHEET 1 OF 1



**TYPICAL ROCK WALL GEOMETRY**

**NOTES:**

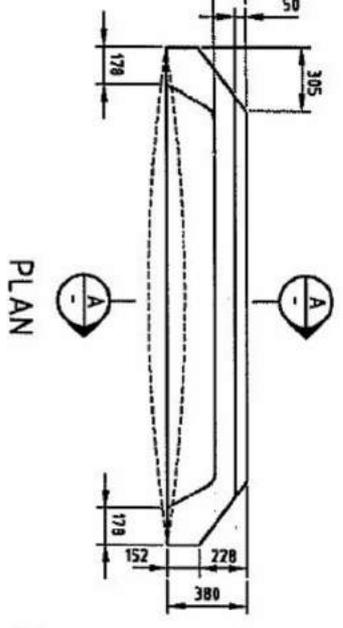
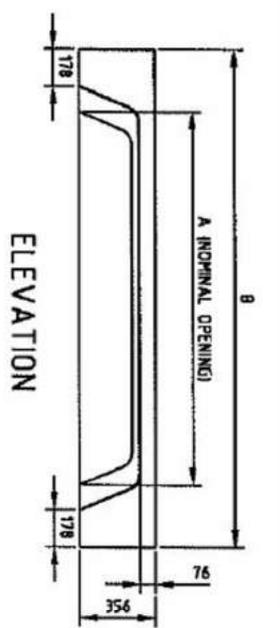
1. BACKFILL IS TO BE GRANULAR, FREE DRAINING AND COMPACTED.
2. FOUNDATION TO BE APPROVED FOR A SAFE BEARING CAPACITY OF 200kPa PRIOR TO CONSTRUCTION.
3. WHERE THE SURFACE IS SLOPE OF RETAINED MATERIAL IS BETWEEN 10:1 AND 4:1 THE WALL BASE DIMENSION IS TO BE INCREASED BY 0.5m.
4. ROCK IS TO BE SOUND, DURABLE SANDSTONE OR OTHER APPROVED MATERIAL AND AT LEAST 0.5<sup>2</sup> PLAN AREA.
5. A CONTINUOUS  $\phi$ 100 SUBSOIL DRAIN IS TO BE INSTALLED AT THE REAR OF THE WALL WHERE THE WALL HEIGHT EXCEEDS 3.0m OR WHERE THE WALL FOUNDATION IS A MATERIAL OTHER THAN ROCK.
6. ROCKS SHALL BE PLACED IN SUCH A MANNER THAT THEY ARE STABLE AND INTERLOCKING, LAID ROUGHLY COURSED AND BEDDED ON THEIR BROADEST BASE.



**ROCK WALL DESIGN CHART**

		<b>DRAWN</b> O.S. DATE: 12/01/16	<b>SCALE</b> NO SCALE @ A4
<b>ROCK RETAINING WALL</b>		<b>APPROVED BY</b> M.NELSON DATE: 01.03.2016	<b>DRAWING NO.</b> WSC.D3.1 SHEET 1 OF 1



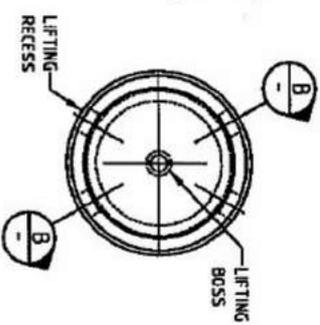
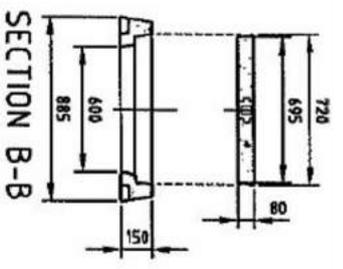
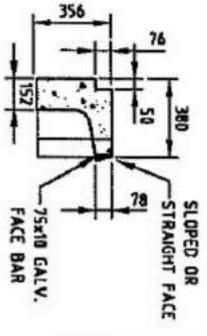


A	B	WEIGHT
1800	2400	0.457t
2400	3000	0.579t
3000	3600	0.791t

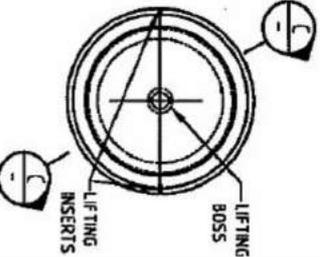
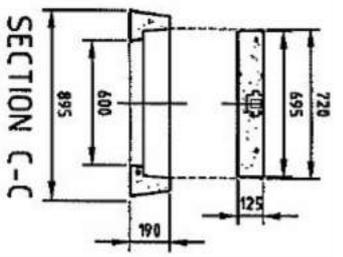
• STANDARD SIZE CONCAVE / CONVEX UNITS 8300 RADIUS ONLY

EXTENDED KERB INLET LINTEL

SECTION A-A

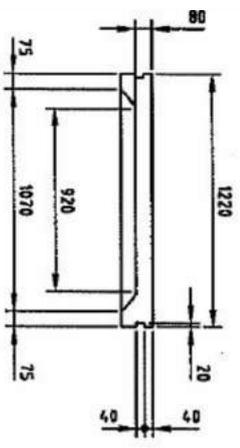
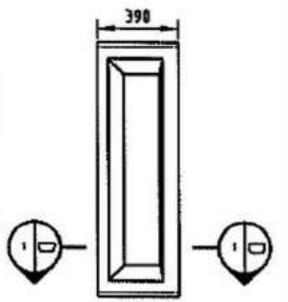


PLAN



PLAN

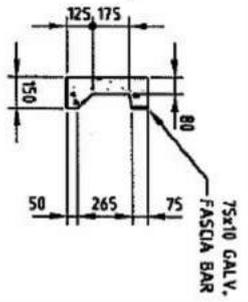
LIGHTWEIGHT TYPE HEAVY DUTY TYPE PRECAST MANHOLE COVER AND SURROUND REINFORCEMENT TO PWD STANDARDS



PLAN

ELEVATION

SECTION D-D



- NOTES:
1. ALL PRECAST COMPONENTS TO BE FACTORY PRODUCED OF VIBRATED CONCRETE AND STEAM CURED
  2. COMPRESSIVE STRENGTH OF CONCRETE (f<sub>c</sub>) AT 28 DAYS TO BE 30 MPa
  3. ALL EXPOSED EDGES TO BE ROUNDED TO 5 RADII
  4. PROVISIONS TO BE MADE FOR Ø15 LIFTING HOOKS BY INSERTION OF THREADED SOCKETS INTO LINTELS AND SURROUND AT POINT OF BALANCE
  5. GALVANIZING TO BE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3714 - 1983 AND TO BE 375g/m<sup>2</sup> FOR ALL EXPOSED COMPONENTS
  6. EXPOSED SURFACES TO BE OFF STEEL FORM FINISH OR OF HIGH QUALITY STEEL FLOAT FINISH.

1220 PATHWAY KERB INLET



DRAWN

SCALE

DATE: 12/01/16

1:--- @ A4

COMPONENTS FOR MISCELLANEOUS PITS

APPROVED BY

DRAWING NO.

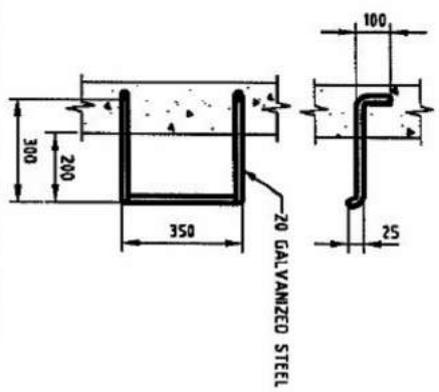
M.NELSON

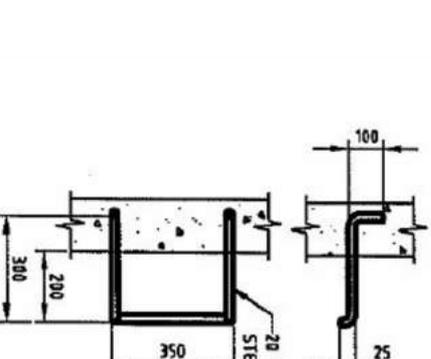
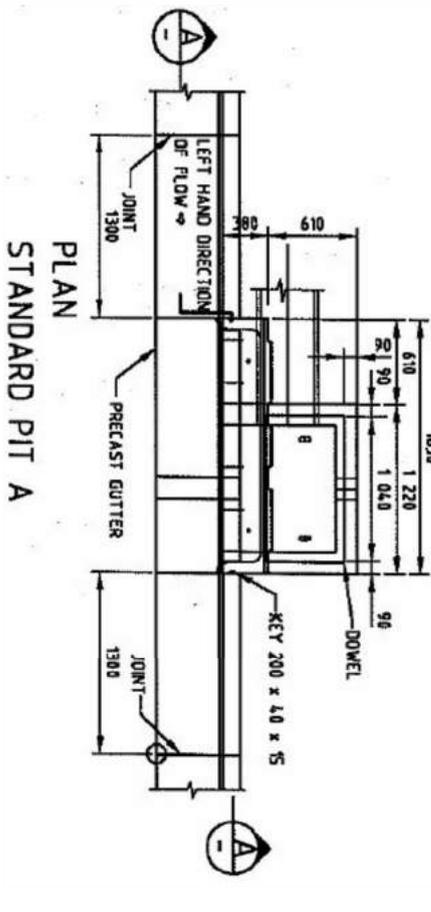
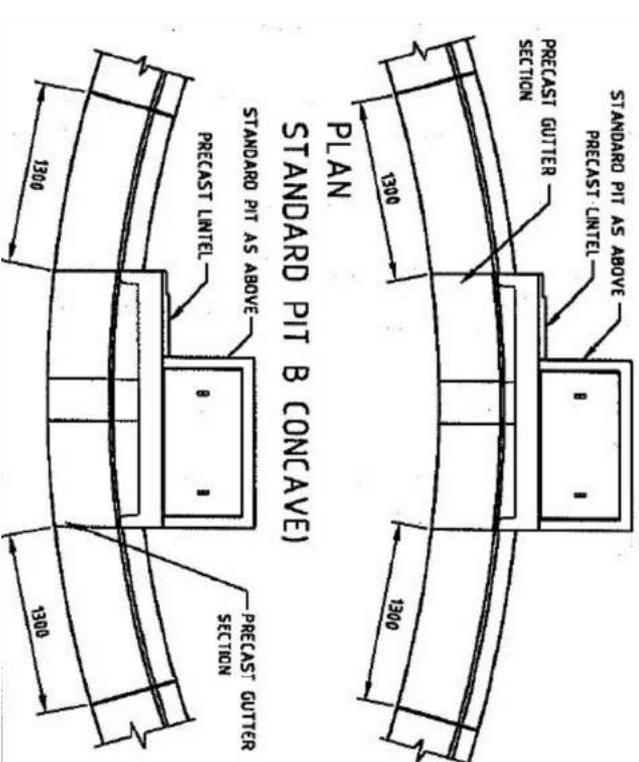
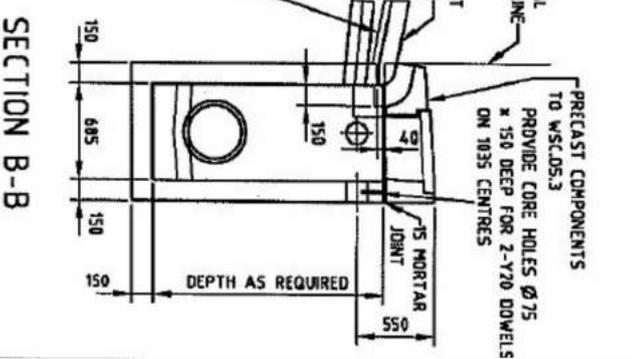
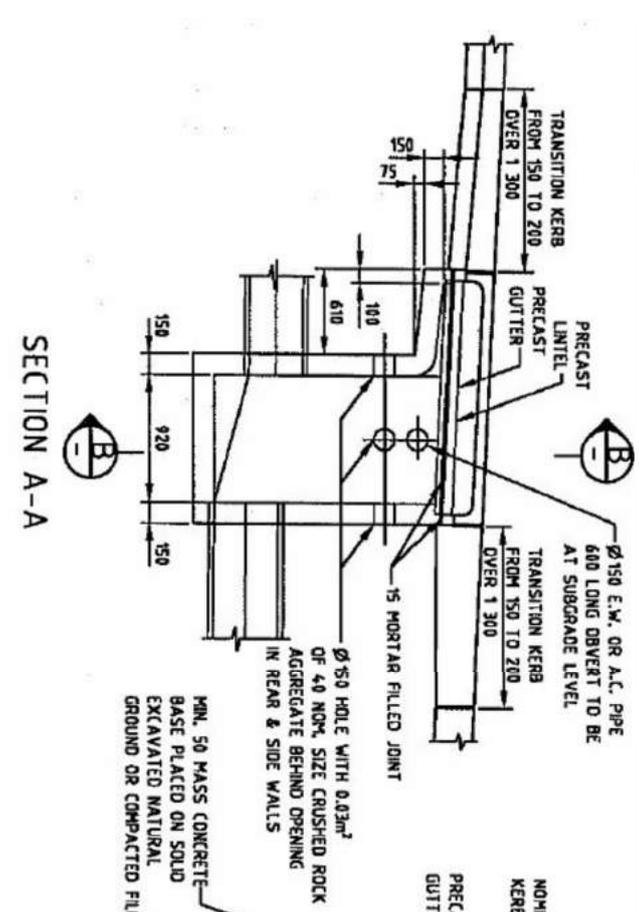
WSSC.D5.3

DATE: 01.03.2016

SHEET 1 OF 1

DETAIL OF CLIMB IRON  
CLIMB IRONS SHALL BE PROVIDED AT 450 CTS UNDER LID WHERE PIT IS DEEPER THAN 1 200 NOT TO SCALE





- NOTES:**
1. COMPRESSIVE STRENGTH: (F<sub>C</sub>) FOR CAST INSITU CONCRETE TO BE A MINIMUM OF 20 MPa AT 28 DAYS
  2. PRECAST GUTTERS ARE MANUFACTURED FOR GUTTER FLOWS FROM LEFT OR RIGHT HAND DIRECTIONS
  3. Ø100 SUBSOIL DRAINAGE PIPE 3000 LONG WRAPPED IN FABRIC SOCK TO BE PROVIDED ADJACENT TO INLET PIPES.

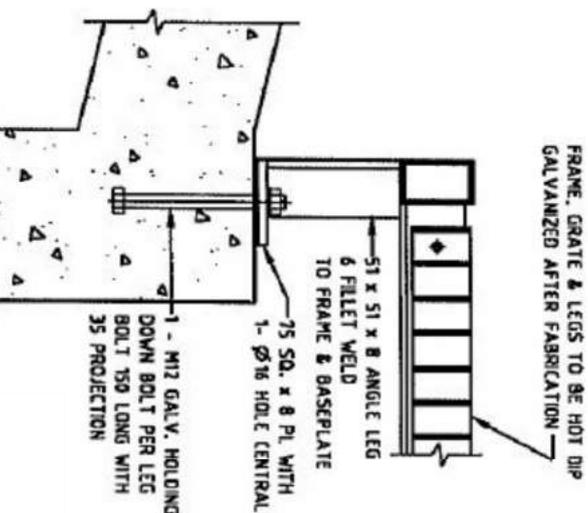
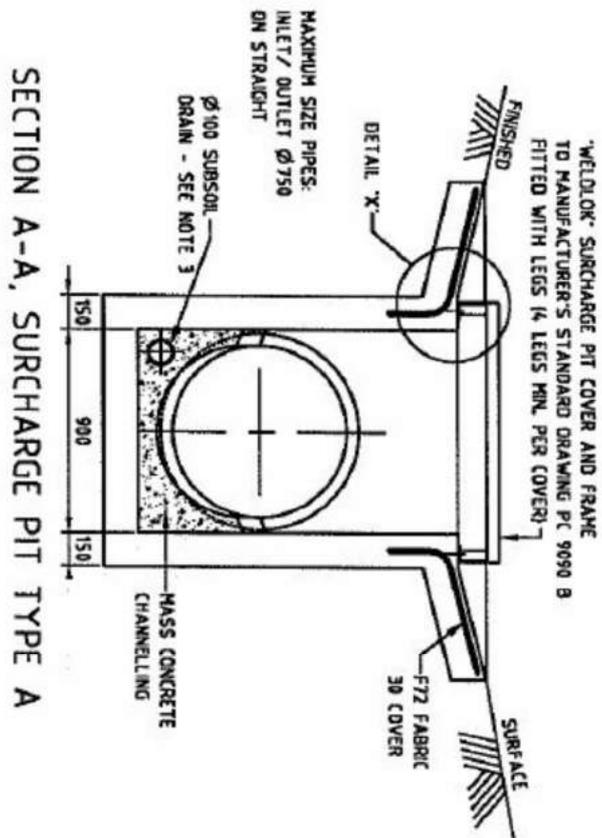
**DETAIL OF CLIMB IRON**  
CLIMB IRONS SHALL BE PROVIDED AT 450 CTS UNDER LID WHERE PIT IS DEEPER THAN 1 200 NOT TO SCALE



STANDARD KERB INLET PIT

DRAWN	SCALE
DATE: 12/01/16	1:--- @ A4
APPROVED BY	DRAWING NO.
M.NELSON	WSC.DS.5
DATE: 01/03/2016	SHEET 1 OF 1

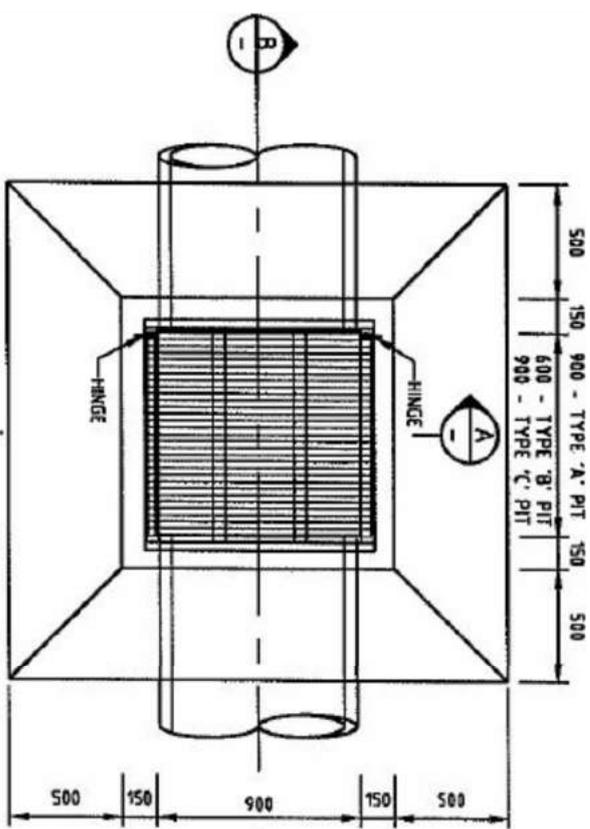




PIT	OPENING SIZE	GRATE TYPE
TYPE A	900 x 900	P.C. 9090 B *
TYPE B	600 x 900	P.C. 6090 A
TYPE C	900 x 900	P.C. 9090 B

\* GRATE FITTED WITH LEGS AS PER DETAIL 'X'

- NOTES:**
1. COMPRESSIVE STRENGTH OF CONCRETE  $f_c$  AT 28 DAYS TO BE 20 MPa
  2. TOP OF BENCHING TO BE HALF OF OUTLET PIPE DIAMETER
  3.  $\phi$ 100 SUBSOIL DRAINAGE PIPE 3000 LONG WRAPPED IN FABRIC SOCK TO BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES
  4. PROVIDE CLMB IRONS TO WSC.DS.3 WHERE PIT IS DEEPER THAN 1200.



STANDARD SURCHARGE PIT

**DRAWN** SCALE 1:--- @ A4  
 DATE: 12/01/16

**APPROVED BY** DRAWING NO. M.NELSON WSC.DS.11  
 DATE: 01/03/2016 SHEET 1 OF 1

