

**STANDARD DRAWINGS  
2016**

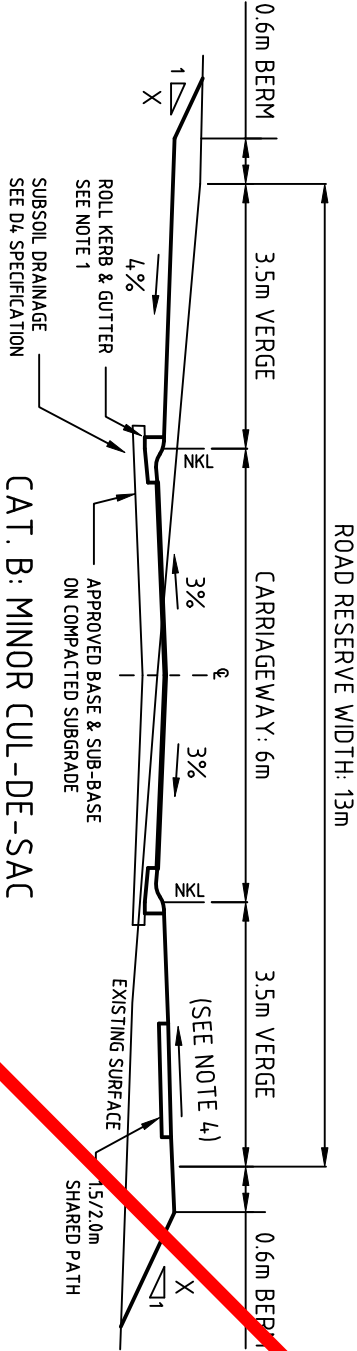


# **Wollondilly** Shire Council

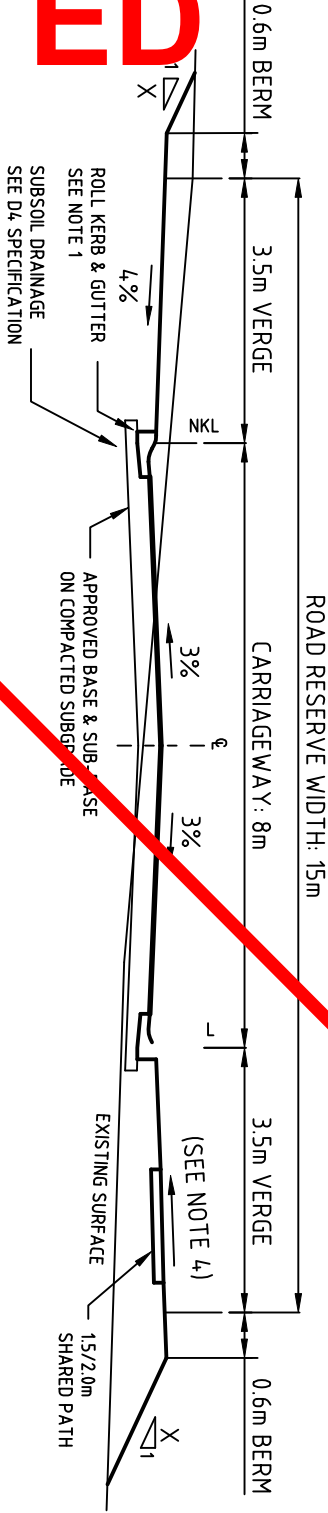
**SUBDIVISION & ENGINEERING STANDARD**



**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. WSC.D1.12.
2. BATTERS SHALL BE CONSTRUCTED TO THE FOLLOWING SPECIFICATIONS:
  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. X=6 WHEN THIS VERTICAL DISTANCE IS LESS THAN 600mm. (i.e.) ADOPT A 1 IN 6 BATTER SLOPE).
  3. X<4 SHALL REQUIRE APPROVAL AND X<2 SHALL REQUIRE A SUPPORTING GEOTECHNICAL REPORT.
  4. WIDEN ACCESSWAY PAVEMENT AT INTERSECTIONS TO SUIT TURNING OR STACKED VEHICLES.
  5. 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

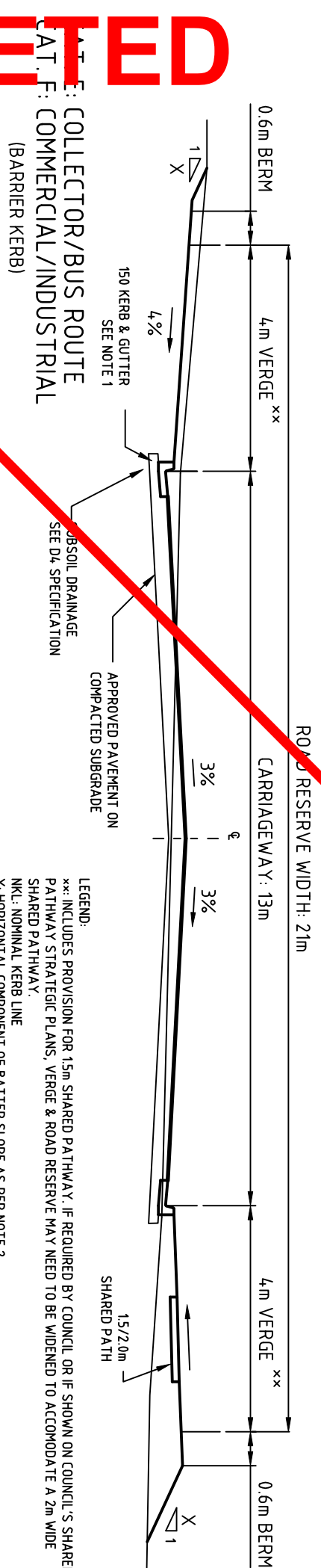
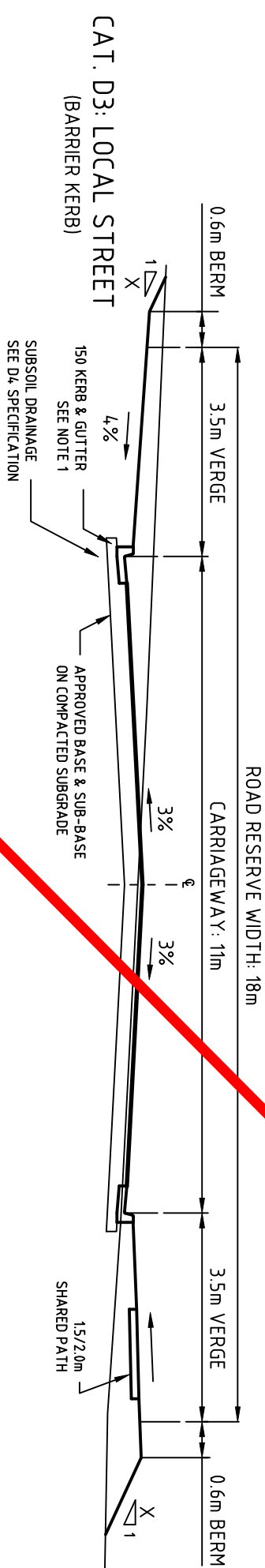
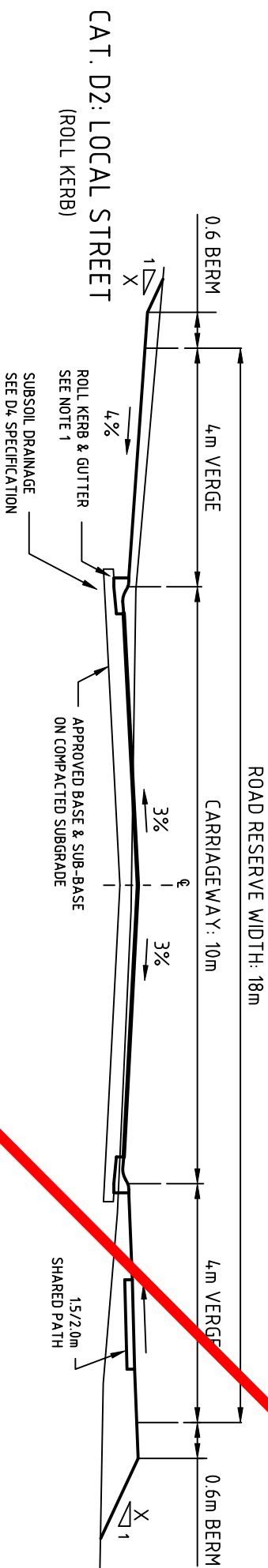
M.NELSON

DRAWING NO.

WSC.D1.1

DATE: 01/03/2016

SHEET 1 OF 4



LEGEND:  
xxx: 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

- 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).
  - 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=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 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.

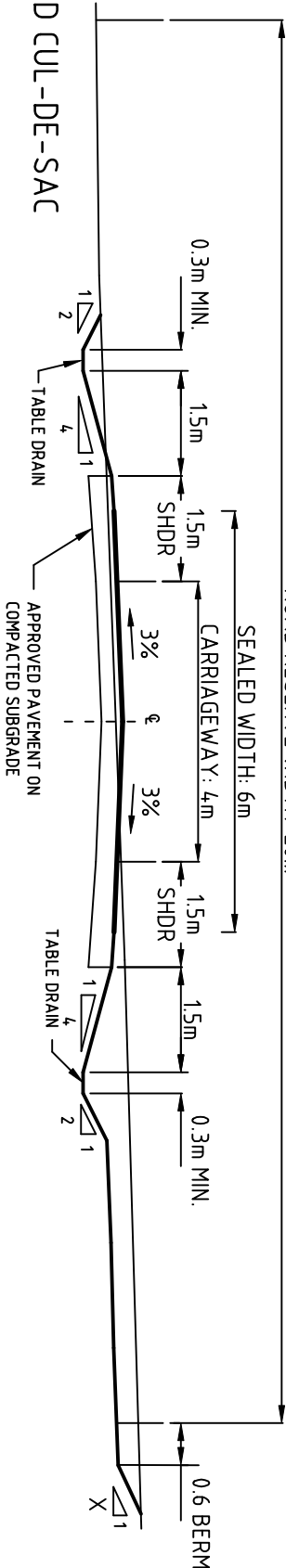
**Wollondilly**  
Shire Council

STANDARD ROAD SECTIONS  
URBAN RESIDENTIAL  
CATEGORIES D TO F

DRAWN	SCALE
O.S.	1:100 @ A4
DATE: 12/01/16	
APPROVED BY	DRAWING NO.
M.NELSON	WSC.D1.1
DATE: 01/03/2016	SHEET 2 OF 4

ROAD RESERVE WIDTH: 20m

CAT. G1: RURAL SEALED CUL-DE-SAC

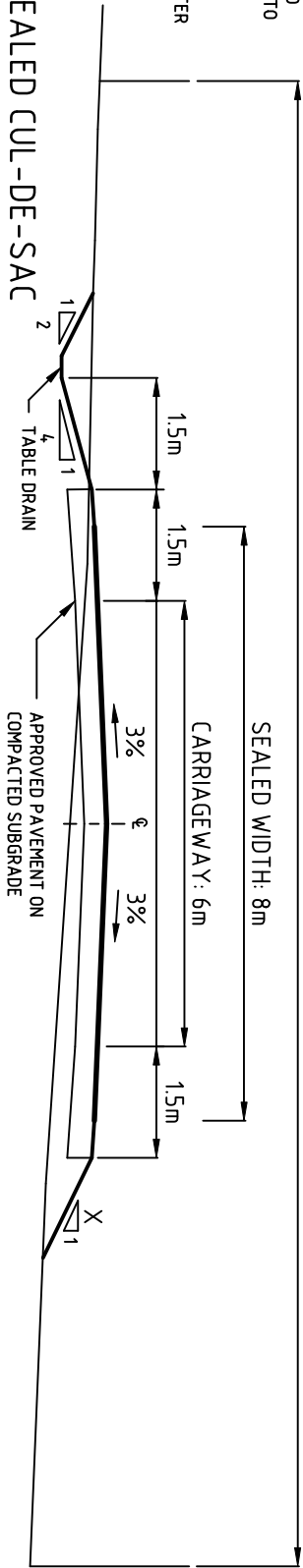


\*\*: INCLUDES PROVISION FOR A 1.5m SHARED PATHWAY. IF REQUIRED BY COUNCIL OR SHOWN ON COUNCIL'S SHARED PATHWAY STRATEGIC PLANS, VERGE AND ROAD RESERVE MAY NEED TO BE WIDENED TO ACCOMMODATE A 2.0m WIDE SHARED PATHWAY.

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

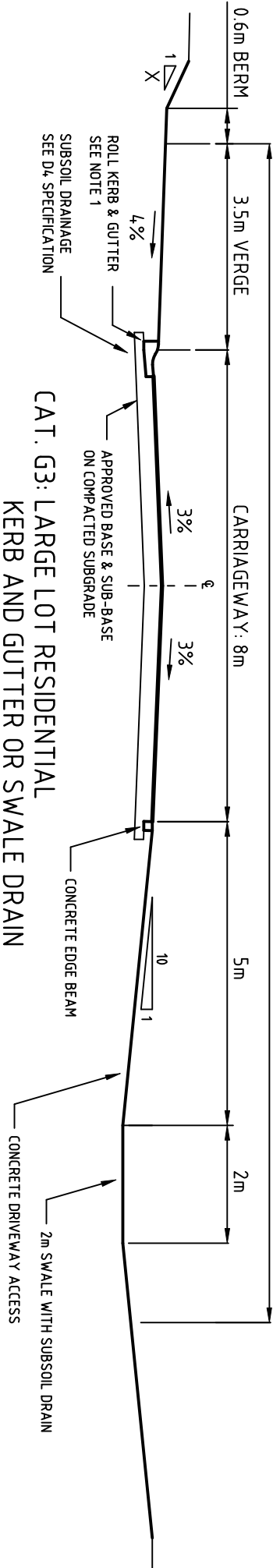
ROAD RESERVE WIDTH: 20m

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



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

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



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.



STANDARD ROAD SECTIONS  
RURAL RESIDENTIAL  
CATEGORIES G

DRAWN

O.S.

DATE: 12/07/16

SCALE

1:100 @ A4

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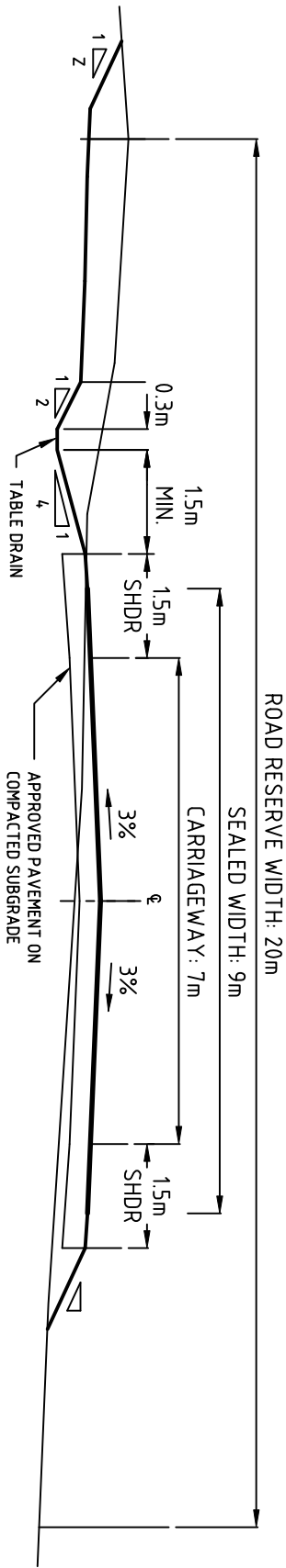
DRAWING NO.

WSC.D1.1

DATE: 01/03/2016


SHEET 3 OF 4

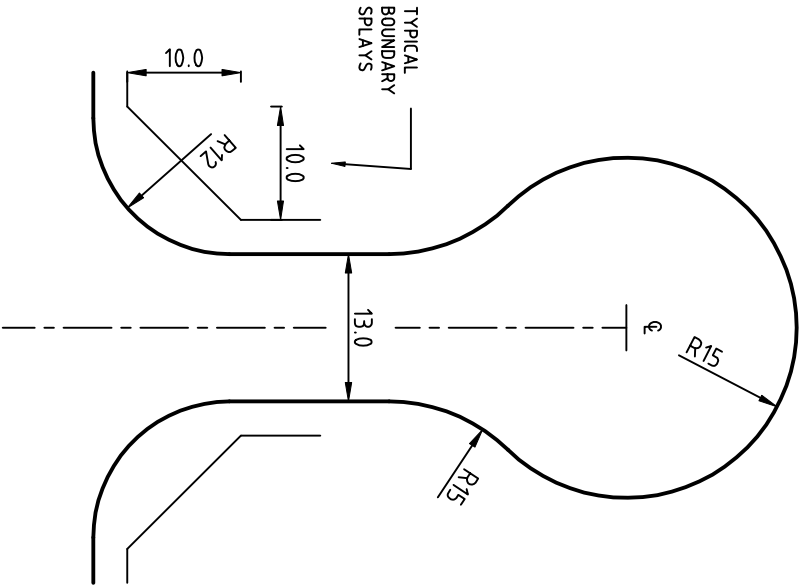
xx: INCLUDES PROVISION FOR A 1.5m SHARED PATHWAY. IF REQUIRED BY COUNCIL OR SHOWN ON COUNCIL'S SHARED PATHWAY STRATEGIC PLANS, VERGE AND ROAD RESERVE MAY NEED TO BE WIDENED TO ACCOMMODATE A 2.0m WIDE SHARED PATHWAY.  
NKL: NOMINAL KERB LINE  
X: HORIZONTAL COMPONENT OF BATTER SLOPES AS PER NOTE 2.  
SHDR: SHOULDER



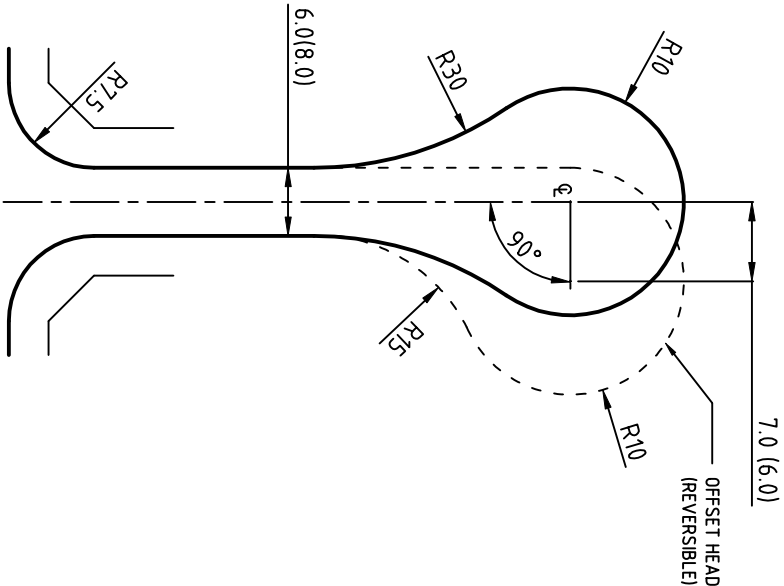
CAT. H: RURAL SEALED THROUGH ROAD

- NOTES:
- 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.

 <div>STANDARD ROAD SECTIONS RURAL RESIDENTIAL CATEGORIES H</div>	DRAWN O.S.	SCALE 1:100 @ A4
	APPROVED BY M.NELSON	DRAWING NO. WSC.D1.1
DATE: 01/03/2016		SHEET 4 OF 4



INDUSTRIAL/COMMERCIAL



RESIDENTIAL

NOTES:

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



CUL-DE-SAC HEAD TYPICAL LAYOUT  
FOR CATEGORY A, B, C AND F ROADS

DRAWN

O.S.

DATE: 12/01/16

SCALE

1:100 @ A4

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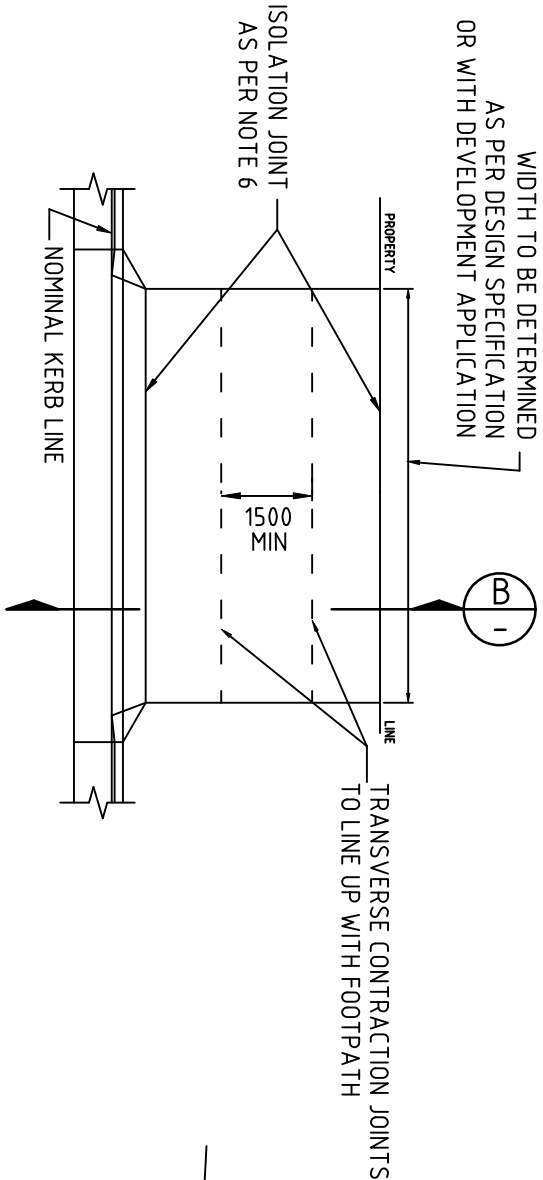
DRAWING NO.

WSC.D1.2

DATE: 01/03/2016

SHEET 1 OF 1

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

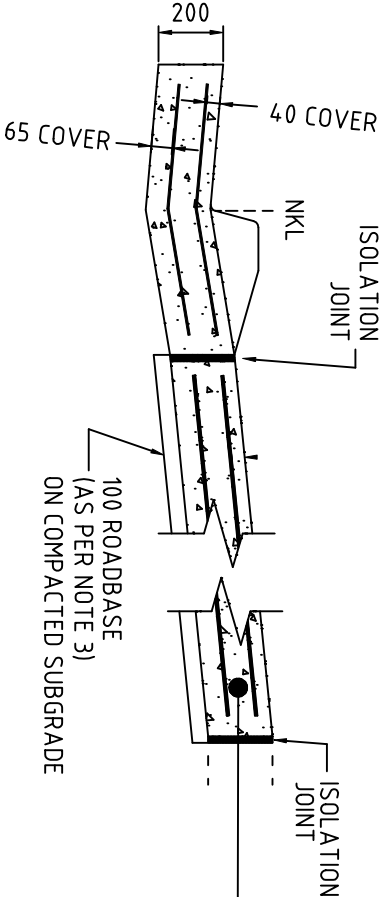
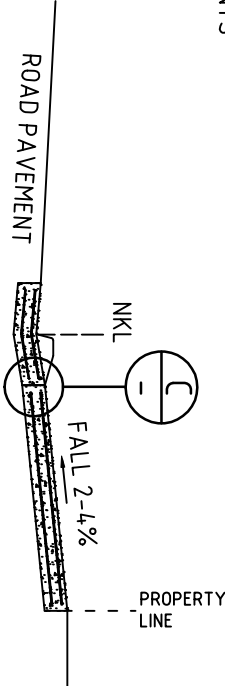


A  
PLAN VIEW

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 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.

B  
DRIVEWAY SECTION  
NOT TO SCALE (mm)



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

DRAWN

O.S.  
DATE: 12/01/16

SCALE

1:100 @ A4

APPROVED BY

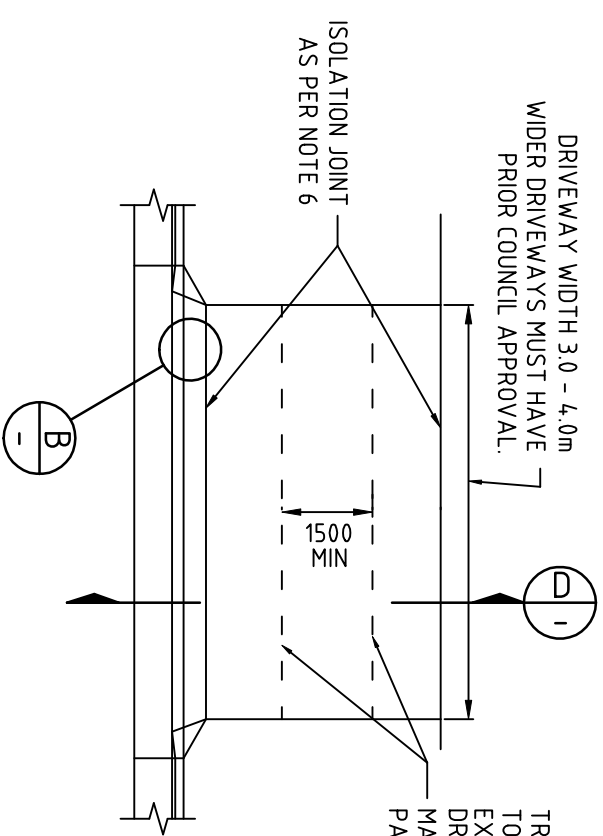
M.NELSON

DRAWING NO.

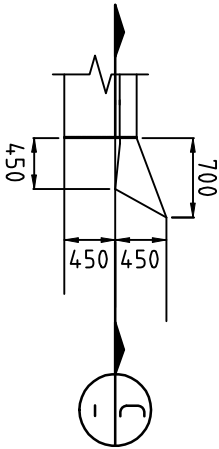
WSC.D1.5

DATE: 01/03/2016

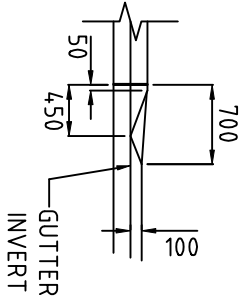
SHEET 1 OF 1



**B DRIVEWAY WING DETAIL**  
NOT TO SCALE (mm)

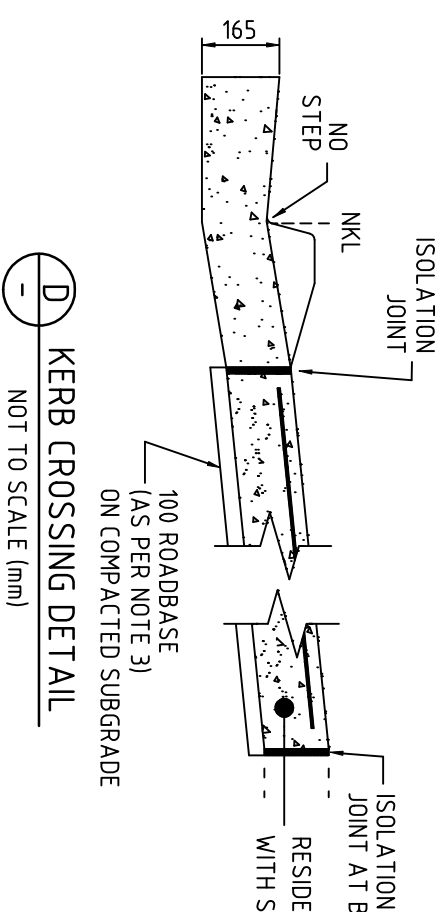


**C DRIVEWAY WING PROFILE**  
NOT TO SCALE (mm)



**A PLAN VIEW**

- 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.



DRAWN

O.S.

DATE: 12/01/16

SCALE

1:100 @ A4

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M.NELSON

DRAWING NO.

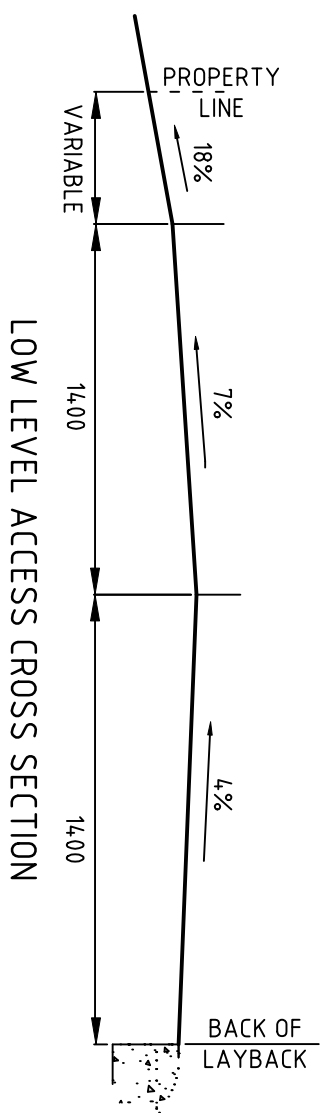
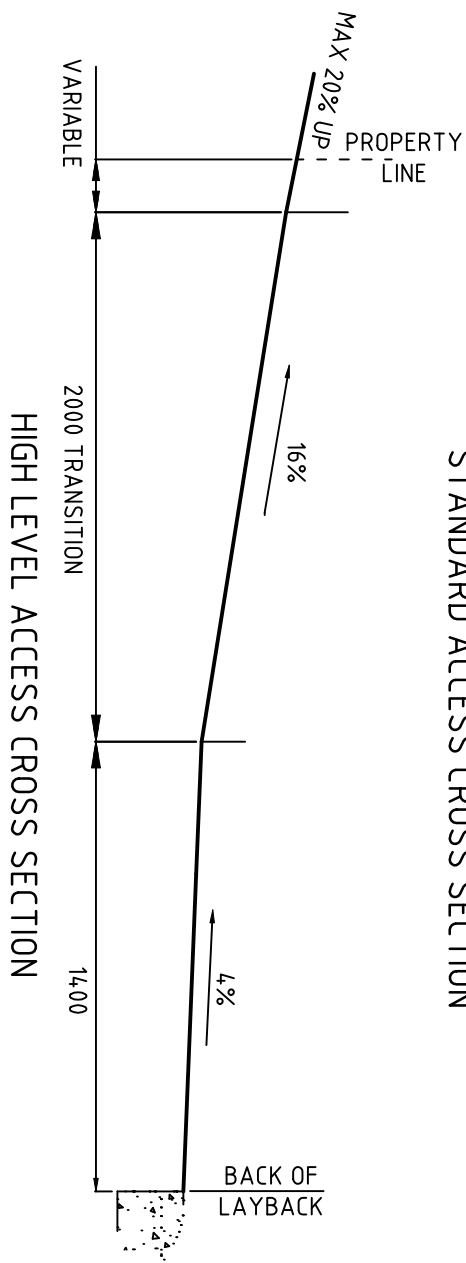
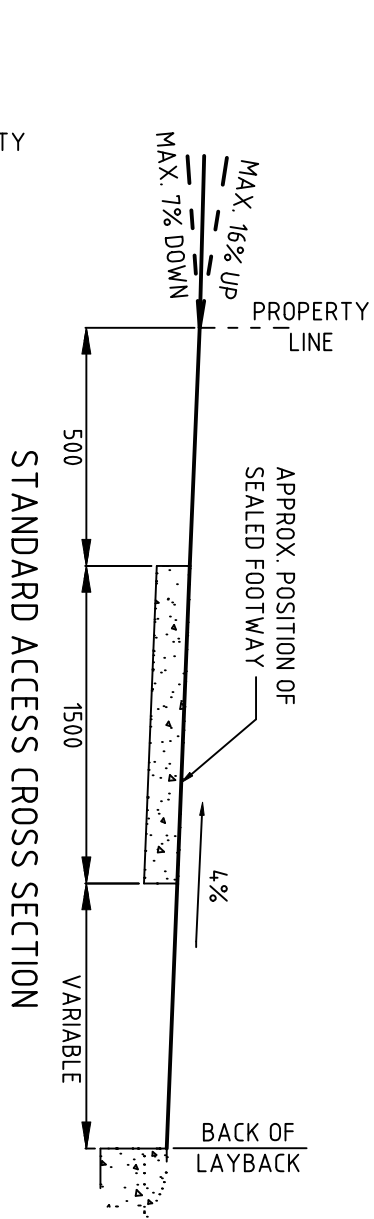
W.S.C.D1.8

RESIDENTIAL  
VEHICULAR AND FOOTWAY CROSSING

DATE: 01/03/2016

SHEET 1 OF 1





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

**SCALE**  
NO SCALE @ A4

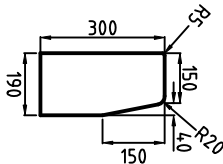
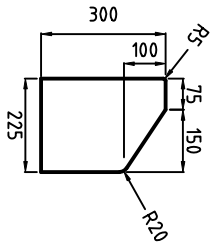
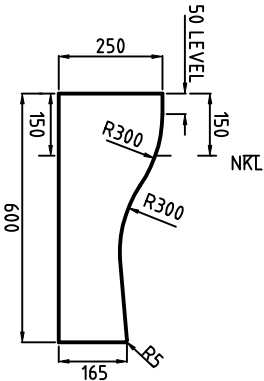
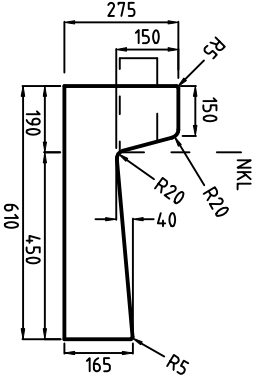
**VEHICULAR ACCESS PROFILES**

**APPROVED BY**  
M.NELSON

**DRAWING NO.**  
WSC.D1.11

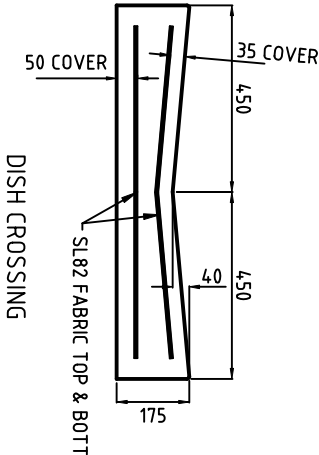
**DATE:** 01/03/2016

**SHEET 1 OF 1**

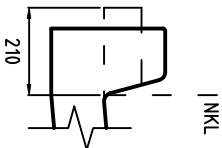


MOUNTABLE KERB

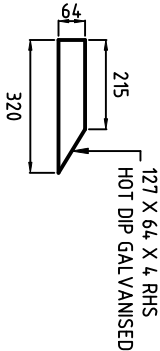
KERB ONLY



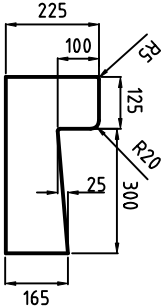
DISH CROSSING



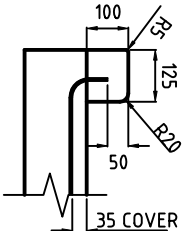
150mm KERB & GUTTER



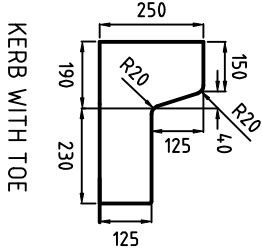
ROLL KERB & GUTTER/MS PIPE INSERT



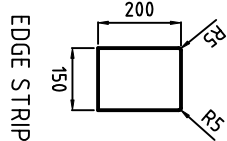
PATHWAY KERB & GUTTER



INTEGRAL KERB FOR PATHWAYS



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.



DRAWN

O.S.

DATE: 12/01/16

SCALE

NO SCALE @ A4

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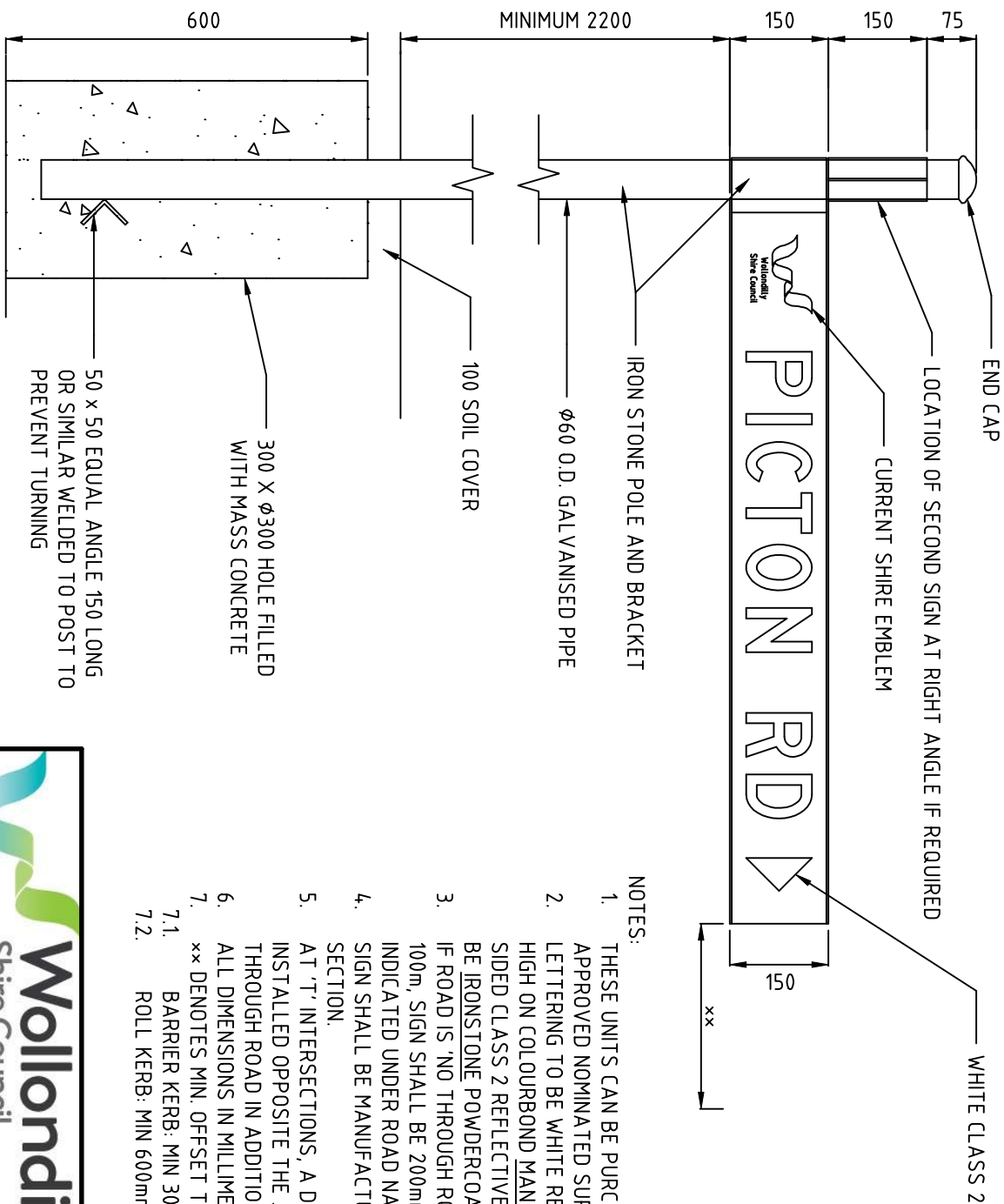
DRAWING NO.

WSC.D1.12

STANDARD KERB AND GUTTERS

DATE: 01.03.2016

SHEET 1 OF 1



NOTES:

1. THESE UNITS CAN BE PURCHASED COMPLETE FROM COUNCILS APPROVED NOMINATED SUPPLIER.
2. LETTERING TO BE WHITE REFLECTORISED, SERIES D 100mm HIGH ON COLOURBOND MANOR RED POWDERCOAT, DOUBLE SIDED CLASS 2 REFLECTIVE MATERIAL. POLE AND BRACKET TO BE IRONSTONE POWDERCOAT.
3. IF ROAD IS 'NO THROUGH ROAD' OF LENGTH IN EXCESS OF 100m, SIGN SHALL BE 200mm WIDE WITH 'NO THROUGH ROAD' INDICATED UNDER ROAD NAME IN LETTERING 25mm HIGH.
4. SIGN SHALL BE MANUFACTURED AS EXTRUDED ALUMINIUM 'I' SECTION.
5. AT 'T' INTERSECTIONS, A DOUBLE ENDED SIGN SHALL BE INSTALLED OPPOSITE THE JUNCTION TO INDICATE THE THROUGH ROAD IN ADDITION TO THE OFF-TAKE ROAD.
6. ALL DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.
7. \*\* DENOTES MIN. OFFSET TO FACE OF KERB
- 7.1. BARRIER KERB: MIN 300mm
- 7.2. ROLL KERB: MIN 600mm



DRAWN

O.S.

DATE: 12/01/16

SCALE

1:10 @ A4

STANDARD STREET SIGN DETAIL

APPROVED BY

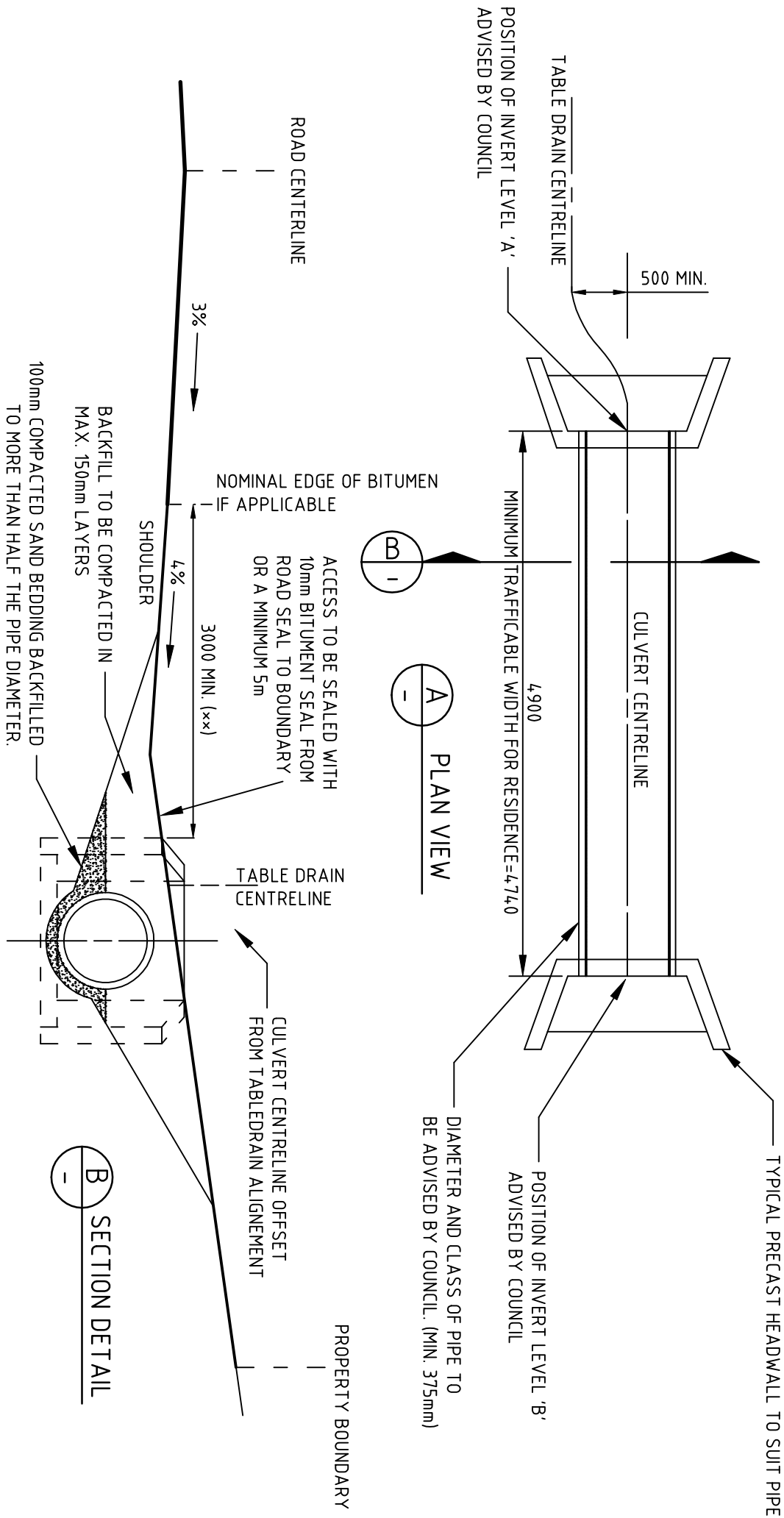
M.NELSON

DRAWING NO.


WSC.D1.14

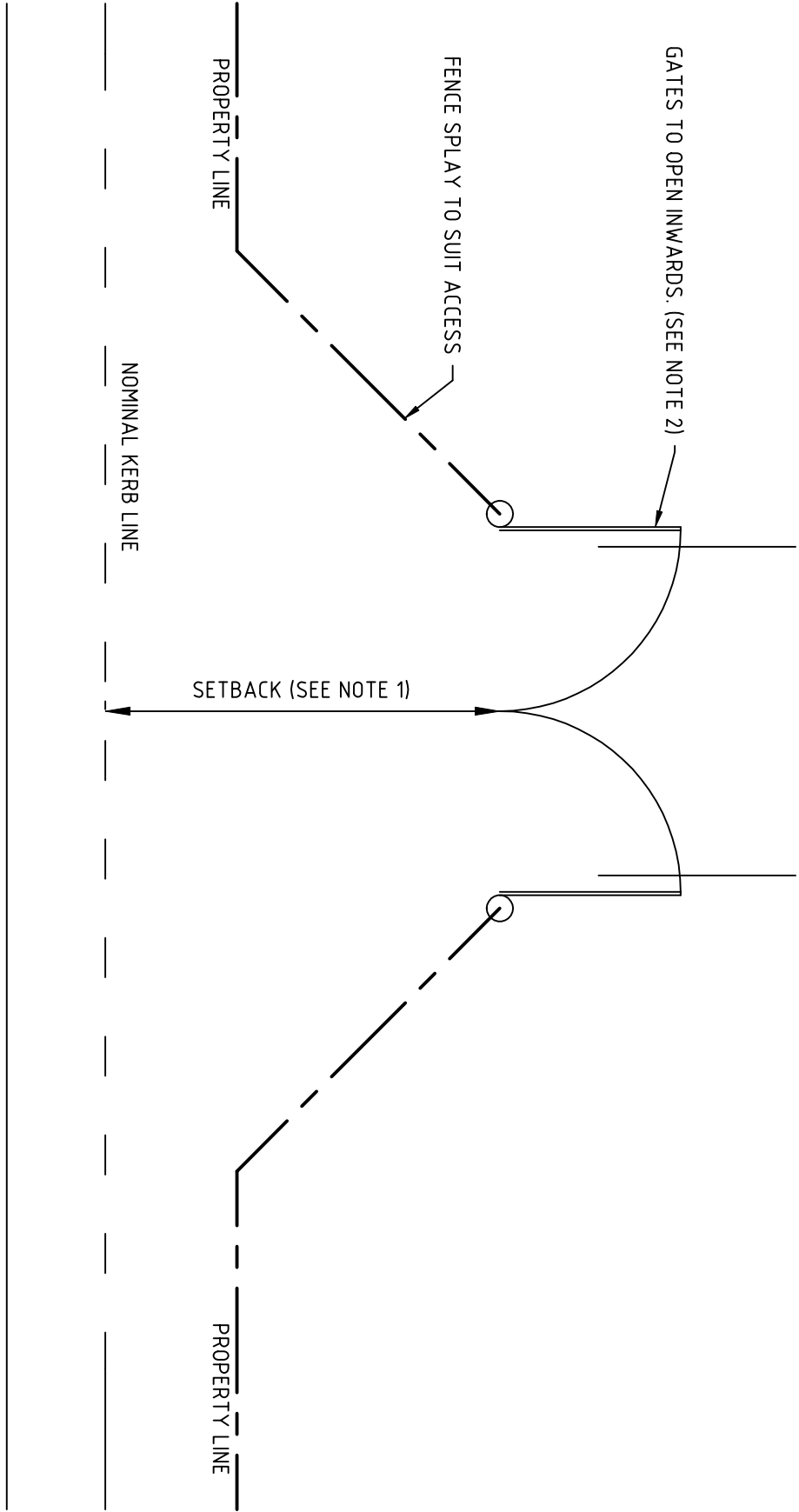
DATE: 01/03/2016

SHEET 1 OF 1



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

 <b>Wollondilly</b> Shire Council	<b>DRAWN</b> O.S. DATE: 12/01/16	<b>SCALE</b> 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



NOTES:

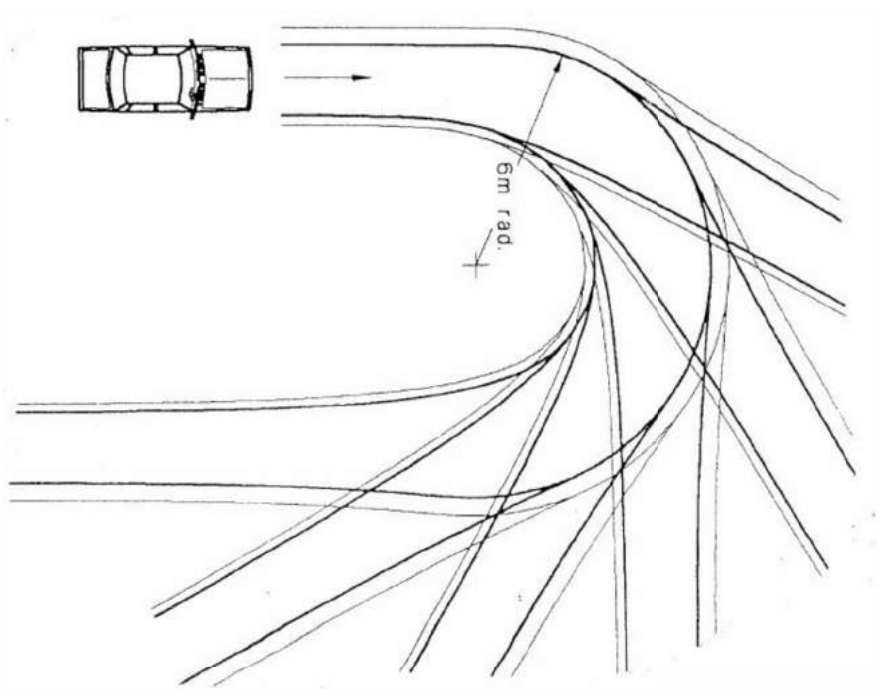
1. GATE SETBACK DISTANCES SHOULD BE PROVIDED AS FOLLOWS:  
CAR: 6m  
12.5m SUT: 15m  
19m SEMI: 22m  
B-DOUBLE: 28m
2. IF GATES MUST OPEN OUTWARDS, A MINIMUM OF 4m SHALL BE ADDED TO THE SETBACK DISTANCE OUTLINED IN NOTE 1.

PROPERTY GATE SETBACK FOR RURAL ACCESS

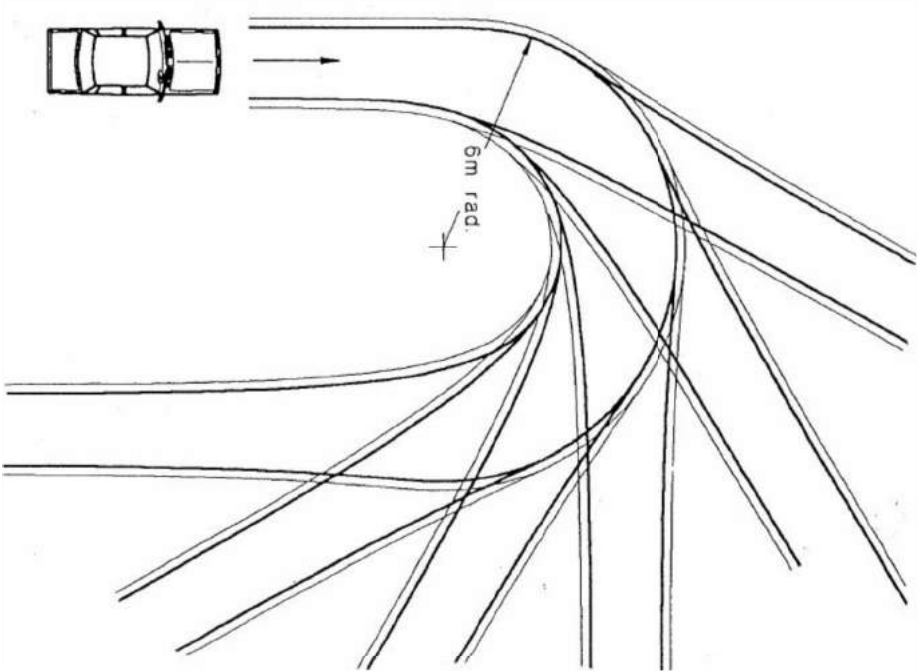


STANDARD RURAL PIPE CROSSING AND GATE SETBACK.	DRAWN O.S. DATE: 12/01/16	SCALE 1:100 @ A4
	APPROVED BY M.NELSON DATE: 01/03/2016	DRAWING NO. WSC.D1.16 SHEET 2 OF 2

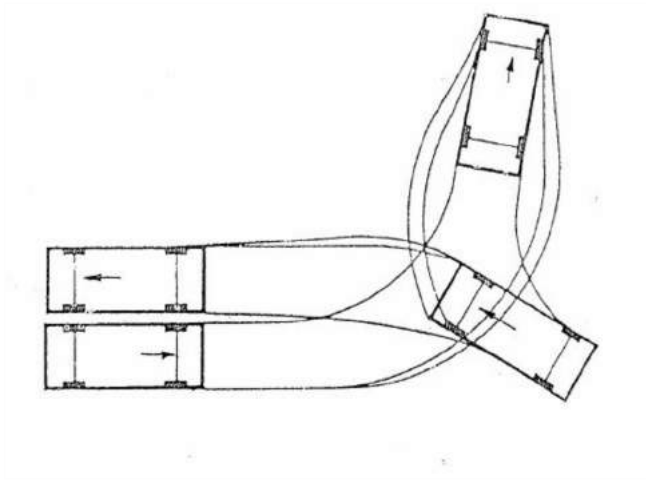




DESIGN CAR (B99)



DESIGN CAR (B85)



TURN PATH FOR CARPARKS



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

SCALE  
1:200 @ A4

**TURNING TEMPLATE FOR DESIGN CARS**

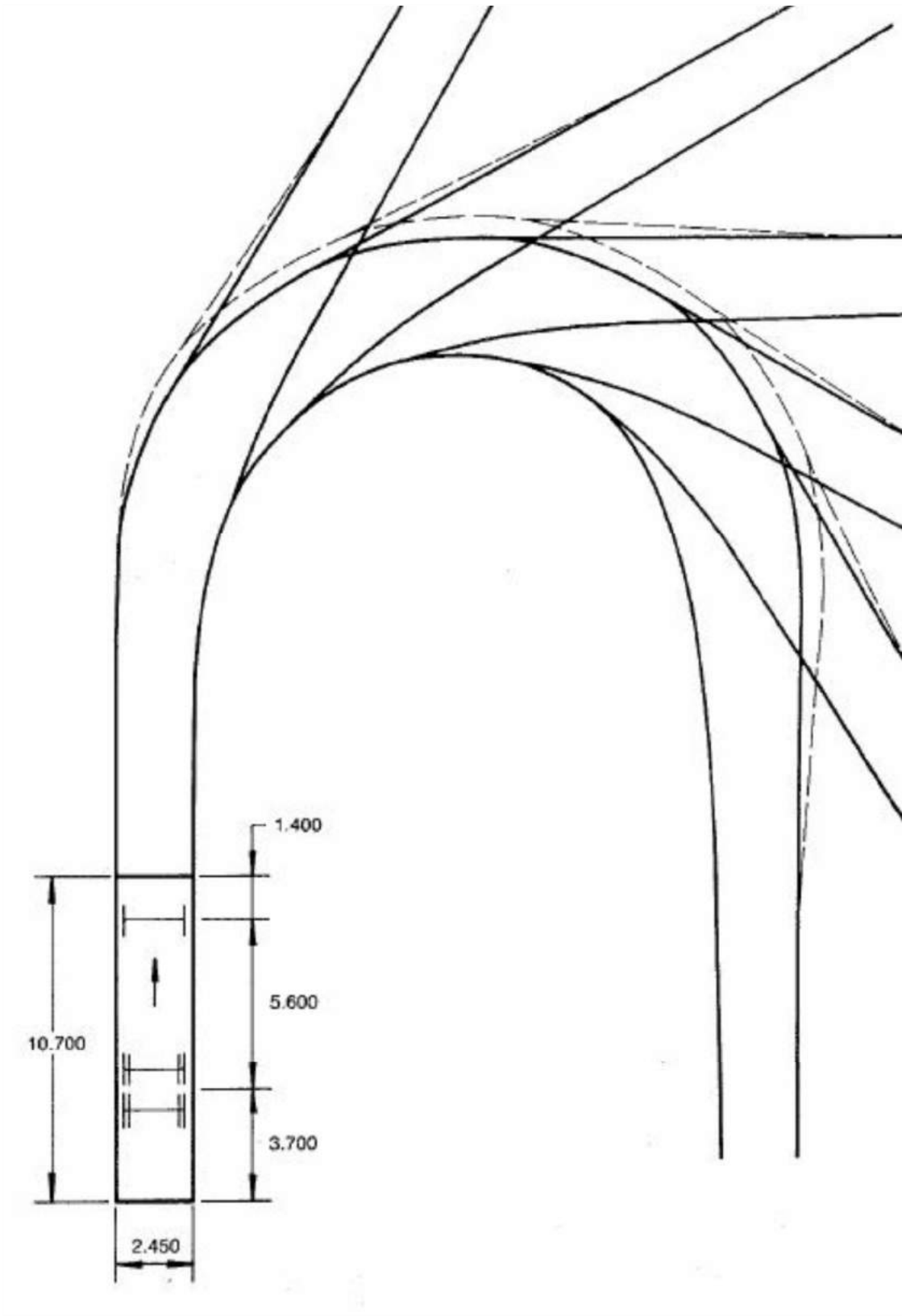
**APPROVED BY**  
M.NELSON

**DRAWING NO.**  
WSC.D1.18

DATE: 01/03/2016

SHEET 1 OF 1





RIGID VEHICLE  
(WASTE RECOVERY VEHICLE)



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

DRAWN

DATE: 12/01/16

APPROVED BY

M.NELSON

DATE: 01.03.2016

SCALE

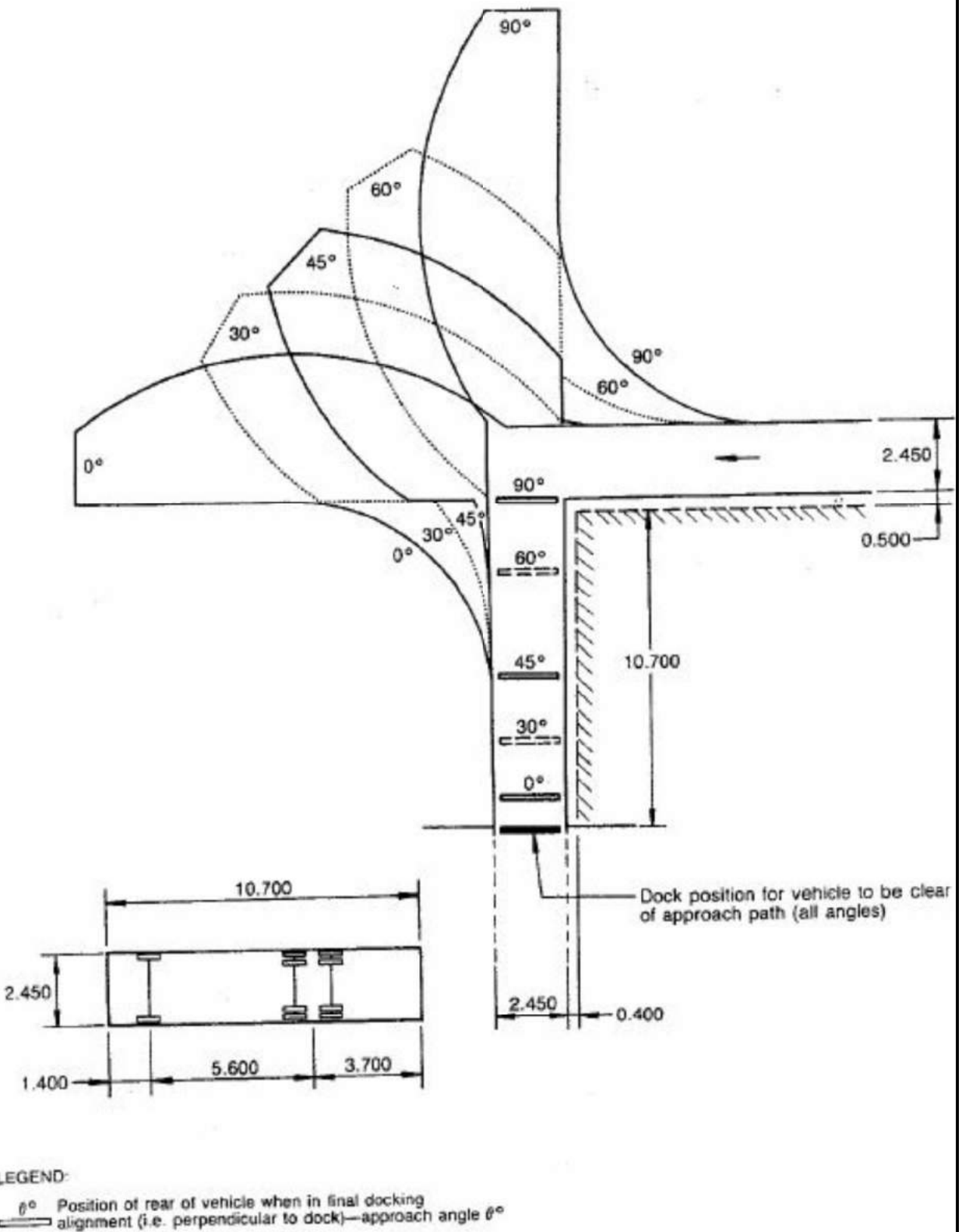
1:200 @ A4

DRAWING NO.

WSC.D1.21

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

DATE: 01.03.2016

SCALE

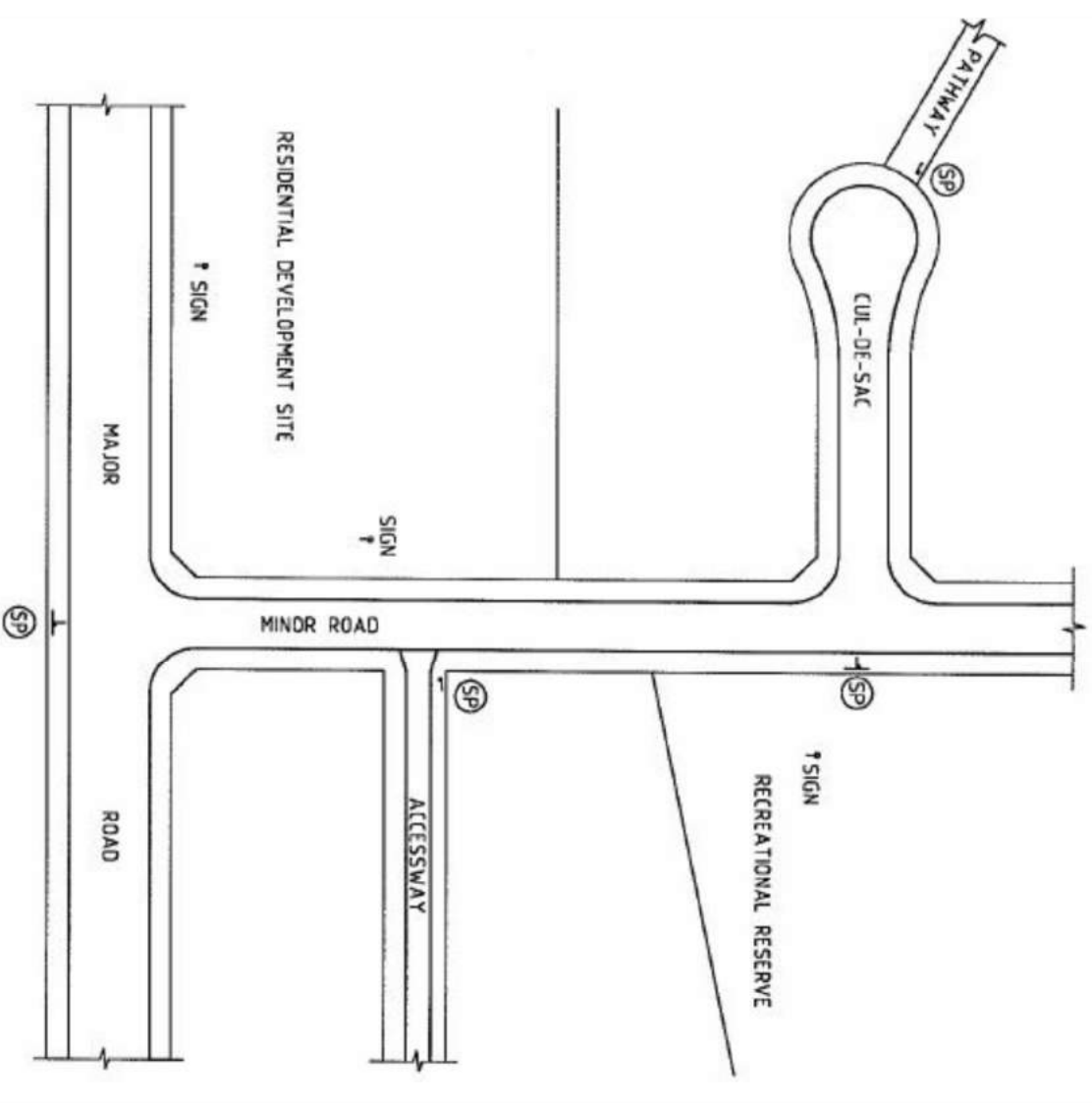
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DRAWING NO.

WSC.D1.22


SHEET 1 OF 1

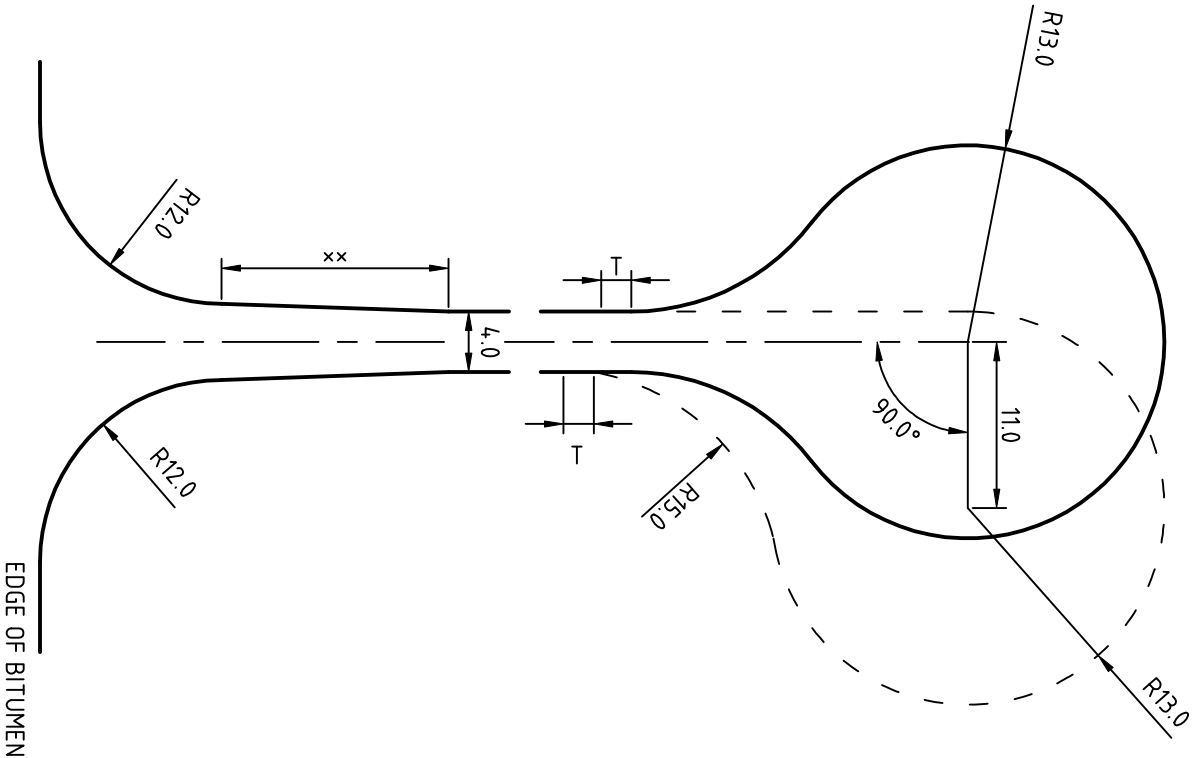




NOTES:

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

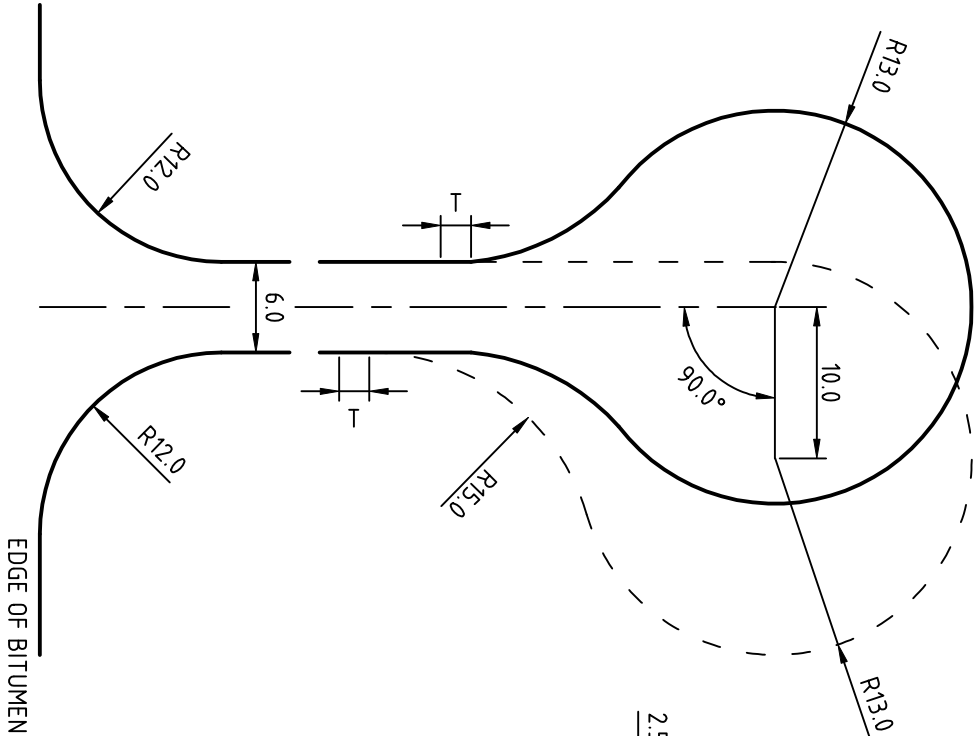
		DRAWN	SCALE
SIGN POST LOCATIONS		DATE: 12/01/16	1:--- @ A4
		APPROVED BY M.NELSON	DRAWING NO. WSC.D1.24
		DATE: 01.03.2016	SHEET 1 OF 1



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

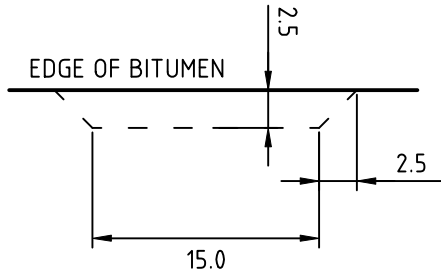
CATEGORY G2 (4m SEAL)

EDGE OF BITUMEN



CATEGORY G1 (6m SEAL) AND CATEGORY G2

EDGE OF BITUMEN



PASSING BAYS TO BE  
SPACED AT 100m MAX.



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

DRAWN

O.S.  
DATE: 12/01/16

SCALE

1:500 @ A4

APPROVED BY

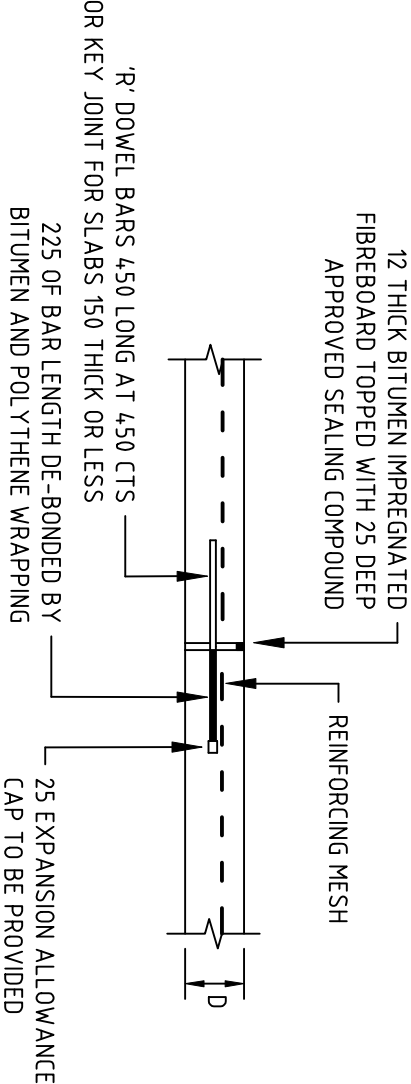
M.NELSON

DRAWING NO.

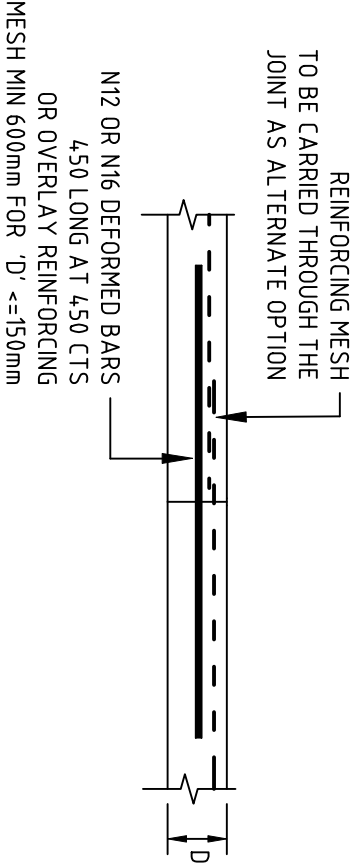
WSC.D1.25

DATE: 01/03/2016

SHEET 1 OF 1

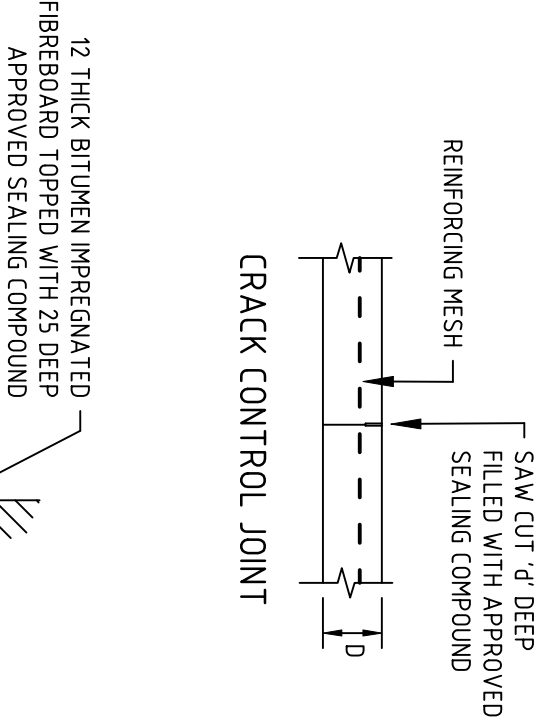


EXPANSION JOINT



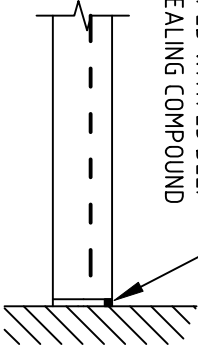
CONSTRUCTION (BUTT) JOINT

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

ISOLATION JOINT (I)

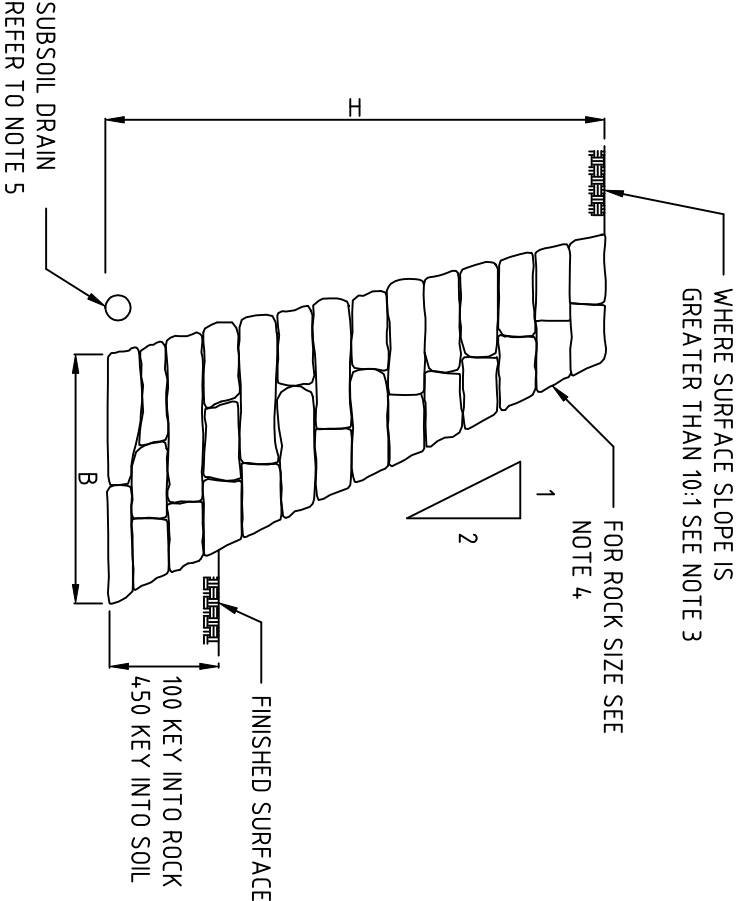


NOTES:

1. 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.
2. ALL EXPOSED CONCRETE EDGES TO BE ROUNDED TO A 5mm RADIUS.
3. FOR KERB DETAILS REFER TO DRG. No. WSC.D1.12
4. FOR PAVEMENT WIDTH REFER TO DRG. No. WSC.D1.1, DRG. No. WSC.D1.2, TABLE D13.5 OF THE DEVELOPMENT CONTROL PLAN AND THE COUNCIL'S DESIGN SPECIFICATIONS.
5. SUBGRADE TO BE COMPACTED AND APPROVED BASE AND SUBBASE COURSE/S LAID PRIOR TO CONCRETE WORK COMMENCING.

	<b>DRAWN</b> O.S.	<b>SCALE</b> 1: ---- @ A4
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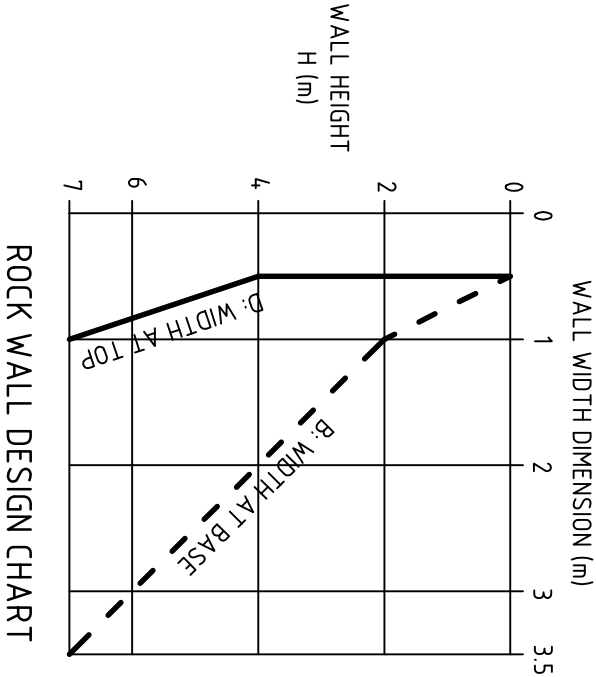
<b>REINFORCED CONCRETE DRIVEWAY AND PATHWAY JOINTING DETAILS</b>	<b>APPROVED BY</b> M.NELSON	<b>DRAWING NO.</b> WSC.D2.2
	DATE: 01/03/2016	SHEET 1 OF 1



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.



DRAWN

O.S.  
DATE: 12/01/16

SCALE  
NO SCALE @ A4

ROCK RETAINING WALL

APPROVED BY

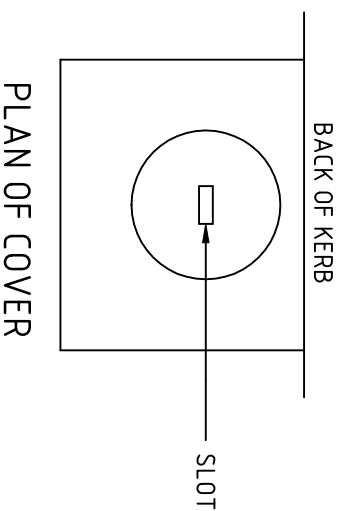
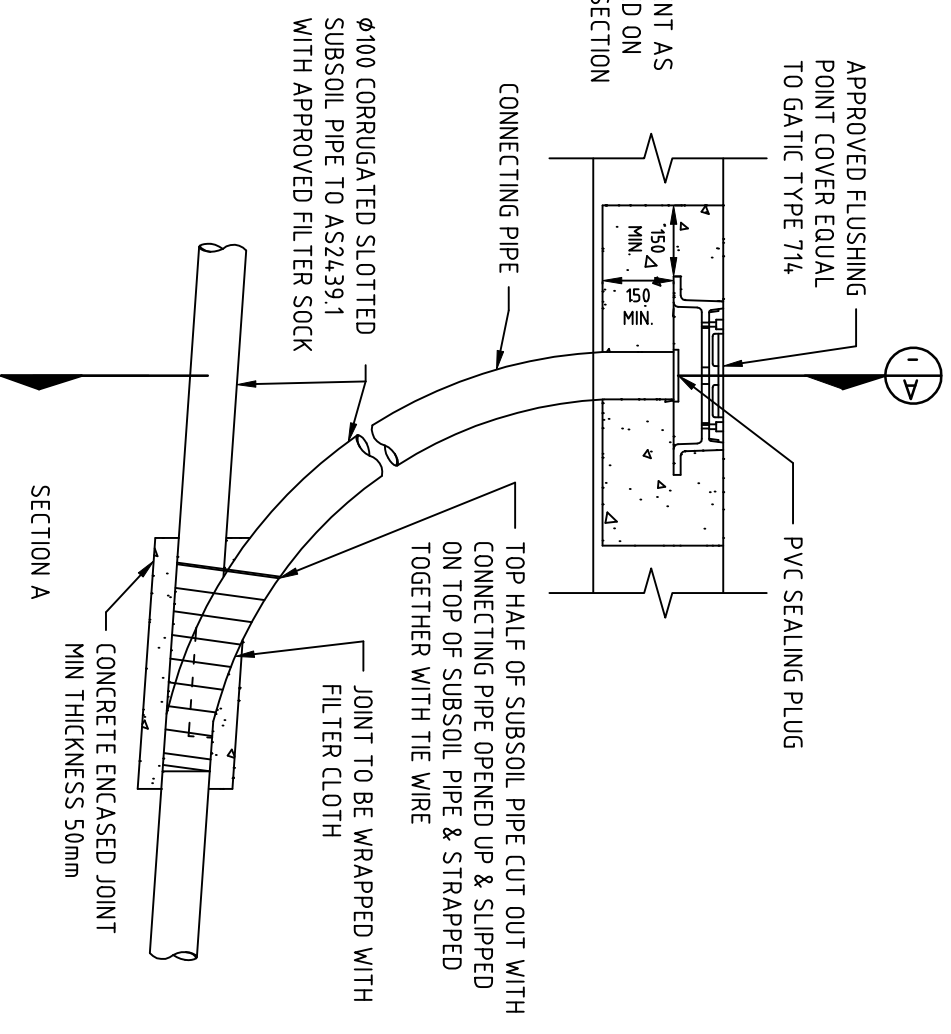
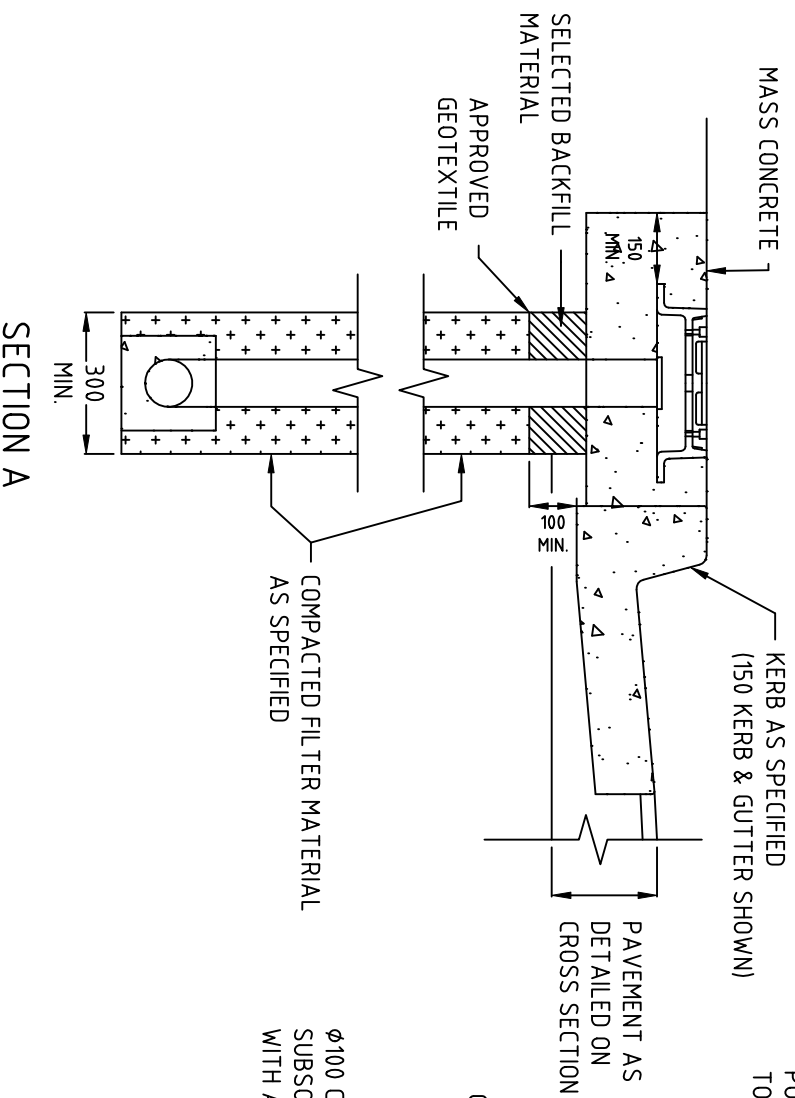
M.NELSON

DRAWING NO.

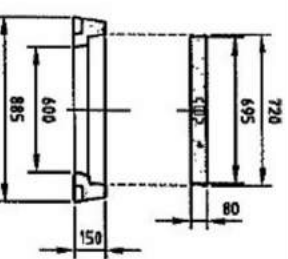
WSC.D3.1

DATE: 01/03/2016

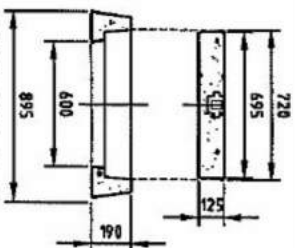
SHEET 1 OF 1



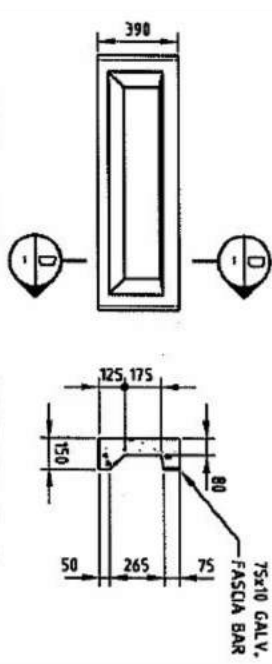
 <b>Wollondilly</b> Shire Council	<b>DRAWN</b>  O.S.  DATE: 12/01/16	<b>SCALE</b>  NO SCALE @ A4
	<b>APPROVED BY</b>  M.NELSON  DATE: 01.03.2016	<b>DRAWING NO.</b>  WSC.D4.1  SHEET 1 OF 1



SECTION B-B

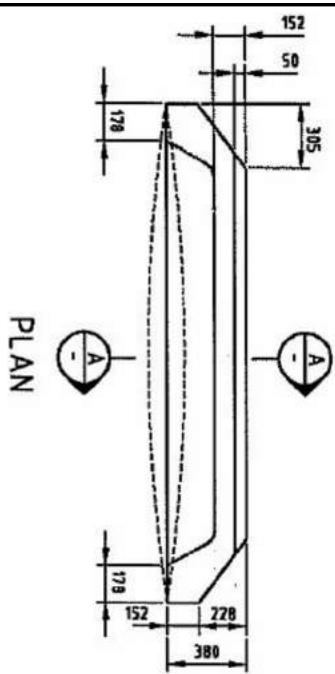


SECTION C-C

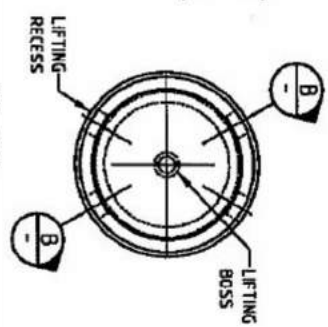


ELEVATION

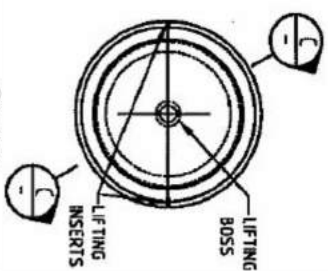
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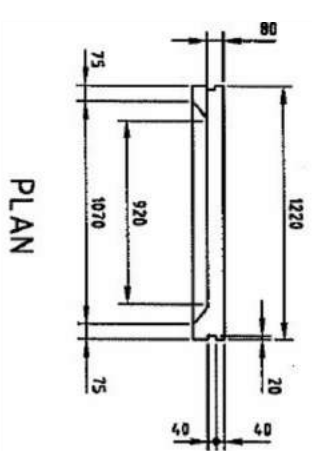
PLAN



PLAN



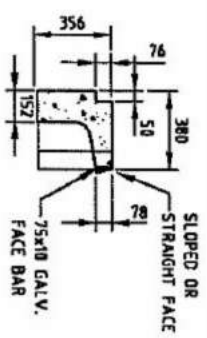
PLAN



PLAN

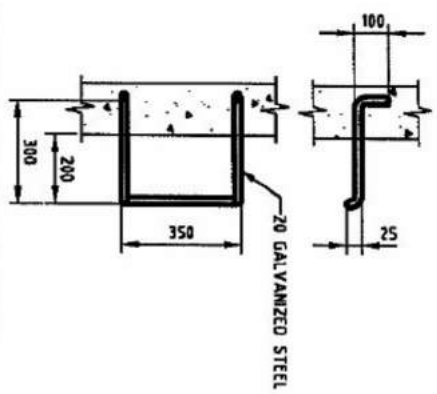
A	B	WEIGHT
1800	2400	0.457t
2400	3000	0.579t
3000	3600	0.791t

• STANDARD SIZE  
CONCAVE / CONVEX UNITS  
8300 RADIUS ONLY



SECTION A-A

EXTENDED KERB INLET LINTEL



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

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

1220 PATHWAY KERB INLET

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.



COMPONENTS FOR MISCELLANEOUS PITS

DRAWN

SCALE

DATE: 12/01/16

1:--- @ A4

APPROVED BY

DRAWING NO.

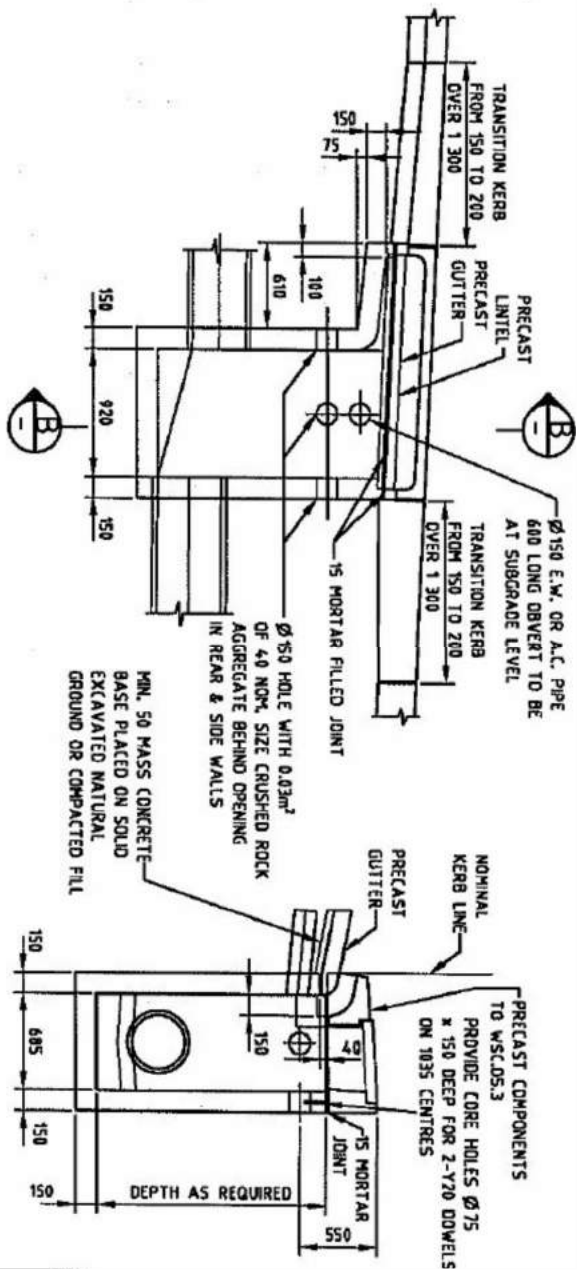
M.NELSON

WSC.D5.3

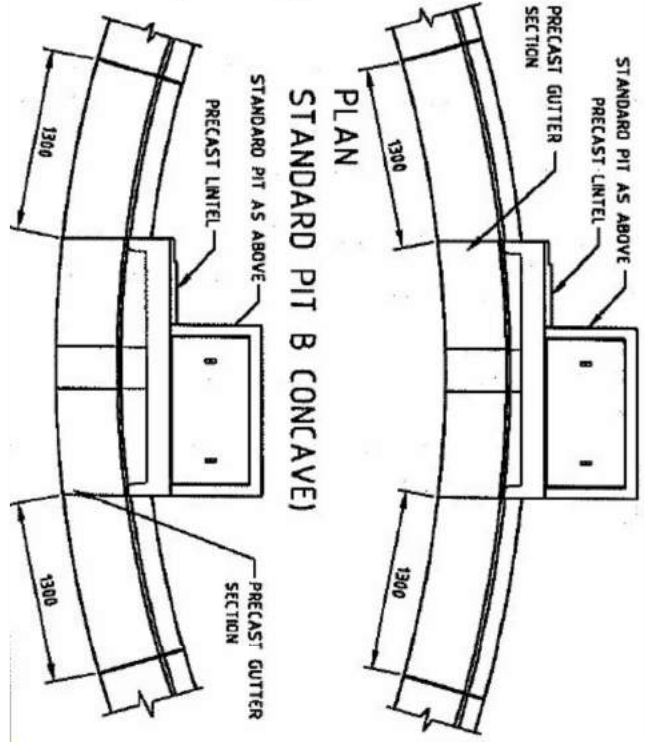
DATE: 01/03/2016

SHEET 1 OF 1

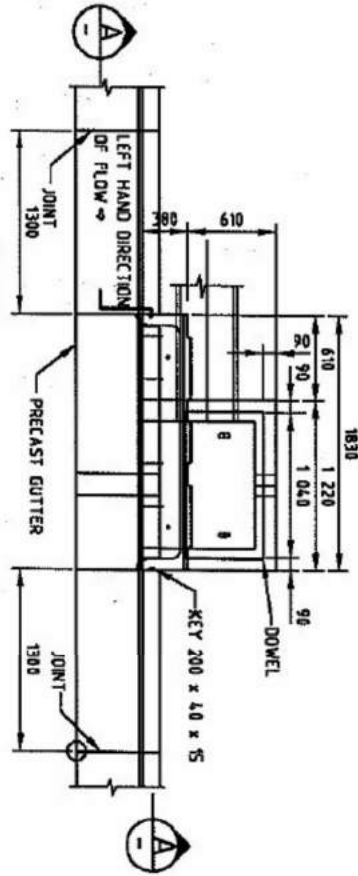




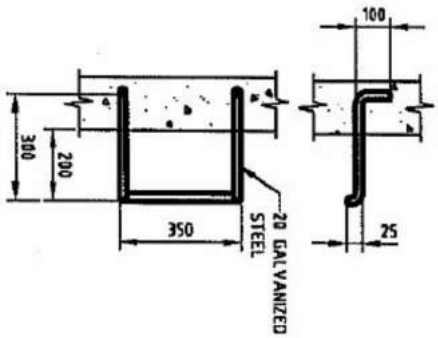
SECTION B-B



STANDARD PIT B CONCAVE



STANDARD PIT A



DETAIL OF CLIMB IRON



STANDARD PIT C (CONVEX)

- 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.



STANDARD KERB INLET PIT

DRAWN	SCALE
DATE: 12/01/16	1:--- @ A4
APPROVED BY	DRAWING NO.
M.NELSON	WSC.D5.5
DATE: 01/03/2016	SHEET 1 OF 1



300 WIDE FEATHERING WITH PREMIX-ALL AROUND PRIOR TO HOTMIX FOR PITS IN CARRIAGEWAY LOCATIONS. NO FEATHERING REQUIRED WHERE: (i) FLUSH SEAL IS THE FINAL SURFACE OF CARRIAGEWAY (ii) CONCRETE PAVEMENT

PRECAST MANHOLE COVER AND SURROUND  
HEAVY DUTY TYPE - ROADS  
LIGHTWEIGHT TYPE - FOOTPATH  
TO MATCH FINISHED SURFACE LEVELS AND SLOPE

15 MORTAR FILLED JOINT

600 SQUARE TURRET

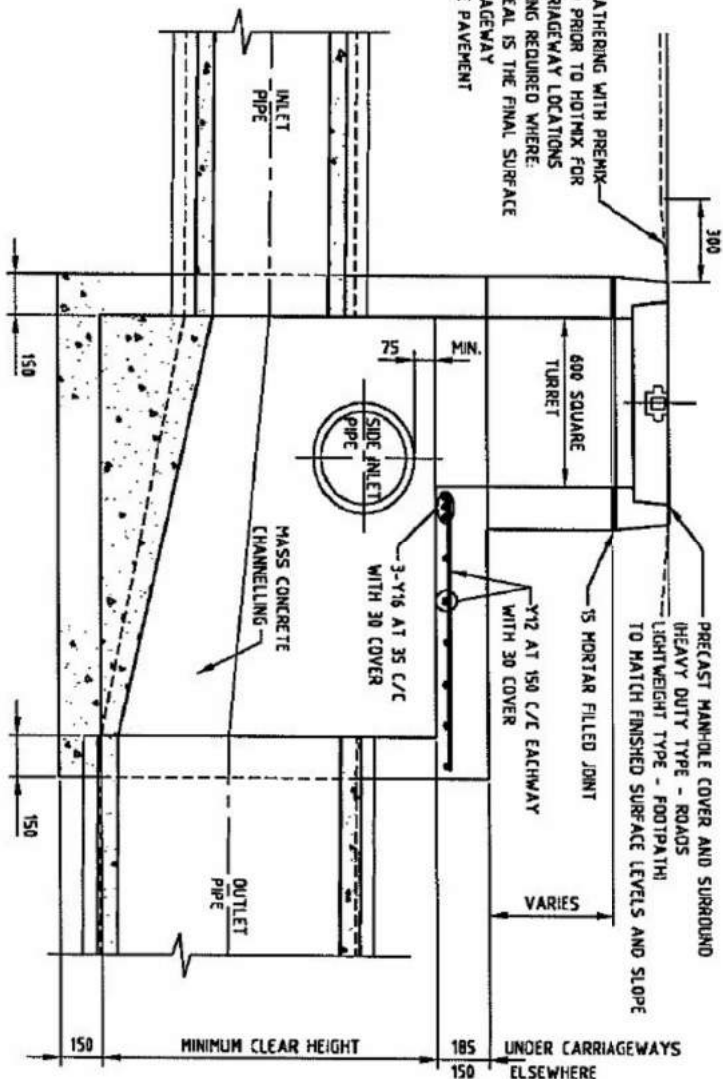
Y12 AT 150 C/C EACHWAY WITH 30 COVER

VARIES

UNDER CARRIAGEWAYS ELSEWHERE

MINIMUM CLEAR HEIGHT

185  
150

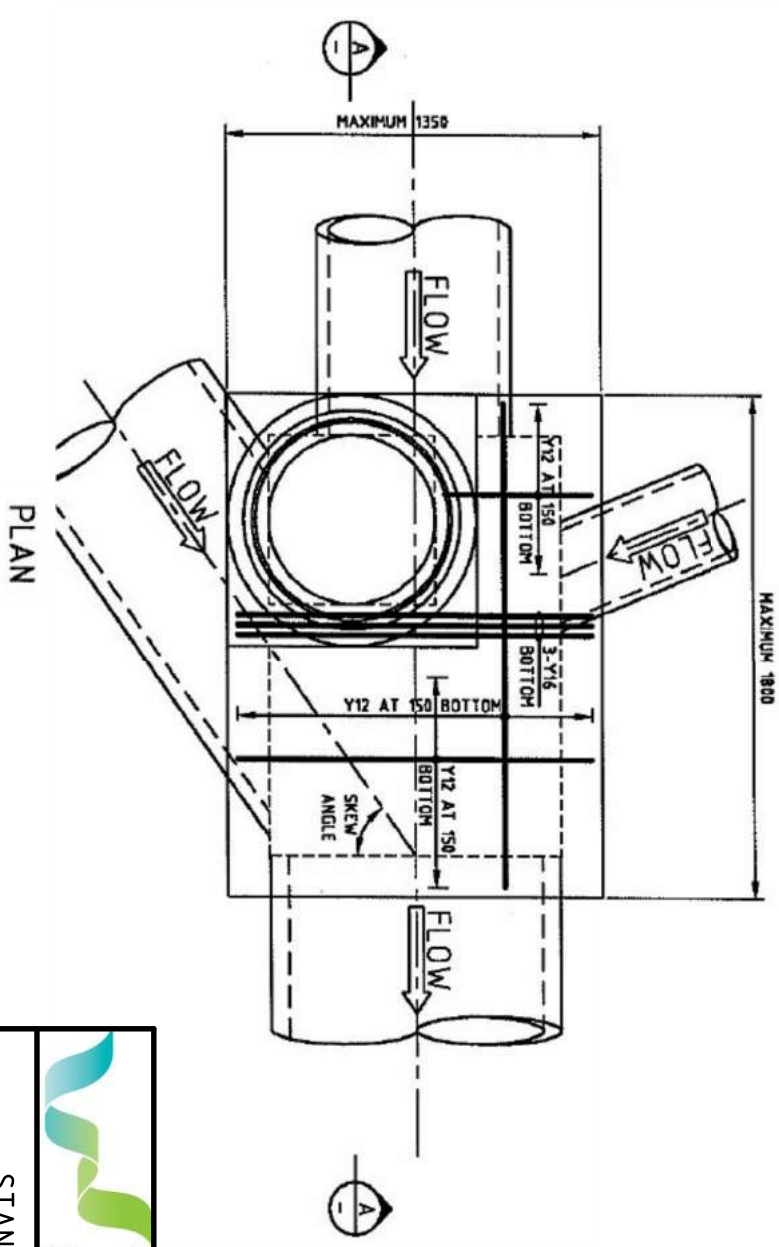


SECTION A-A

NOTES:

1. Ø100 SUBSOIL DRAINAGE PIPE 3000 LONG WRAPPED IN FABRIC SOCK TO BE PROVIDED ADJACENT TO INLET PIPES
2. MAXIMUM OUTLET PIPE ON STRAIGHT Ø900
3. MAXIMUM OUTLET PIPE ON SKEW Ø825
4. MAXIMUM SIDE ENTRY PIPE Ø825 AT APPROX. 40° SKEW
5. MINIMUM INTERNAL DIMENSIONS - LENGTH 900  
- WIDTH 700  
- HEIGHT 1000
6. COMPRESSIVE STRENGTH (f<sub>c</sub>) FOR CAST INSITU CONCRETE TO BE MINIMUM 20MPa AT 28 DAYS
7. PROVIDE CLIMB IRONS TO WSC.D5.3 WHERE PIT IS DEEPER THAN 1200

SCALE



PLAN



DRAWN

SCALE

DATE: 12/01/16

1:--- @ A4

STANDARD JUNCTION PIT

APPROVED BY

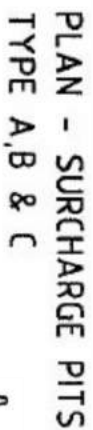
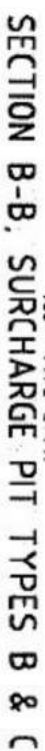
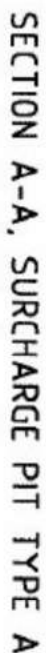
DRAWING NO.

M.NELSON

WSC.D5.6

DATE: 01.03.2016

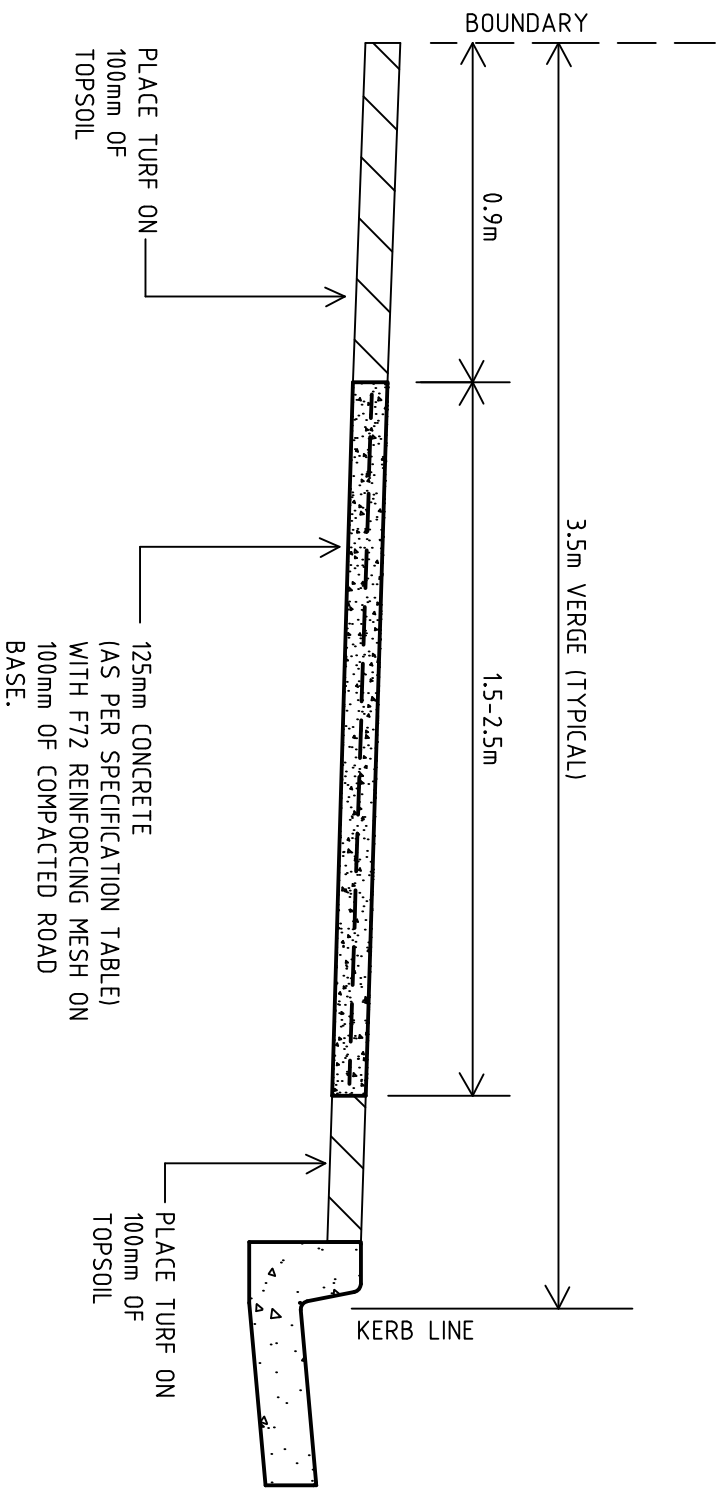
SHEET 1 OF 1



- ### SURCHARGE PIT SIZES TABLE

SURCHARGE PIT SIZES TABLE		
PIT	OPENING SIZE	GRATE TYPE
TYPE A	900 x 900	P.C. 9090 B *
TYPE B	650 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. CONCRETE STRENGTH 25MPa (N25).
2. SAWN OR FORMED CONTRACTION JOINTS AT 3.0m INTERVALS, 25mm DEEP AND 3mm WIDE.
3. FULL DEPTH EXPANSION JOINTS AT 12.0m INTERVALS.
4. LIGHT BRUSH FINISH.



STANDARD PATHWAY AND SHARED PATHWAY	DRAWN DATE: 12/01/16	SCALE 1:--- @ A4
	APPROVED BY M.NELSON DATE: 01.03.2016	DRAWING NO. WSC.D9.1 SHEET 1 OF 1