INFRASTRUCTURE SERVICES

TYPE 1 - HOUSE DRAIN CONNECTION TO KERB & CHANNEL

NOTES:
- GALVANISED PIPE TO BE AS FOLLOWS:
  * 100mm DIA. GALVANISED STEEL
  * 4.5mm WALL THICKNESS - AS1074
  * CIRCULAR HOLLOW SECTIONS 250 STEEL GRADE (TO AS1163)
- ANY ASBESTOS PIPE SHOULD BE REMOVED IN ACCORDANCE WITH "APPROVED CODE OF PRACTICE" (HOW TO SAFELY REMOVE ASBESTOS) UNDER SECTION 274 OF THE WORK HEALTH AND SAFETY ACT (THE WHS ACT).
- WIDTH OF SAWCUT JOINT AT LOCATION DENOTED VIA "W" TO REFLECT WIDTH OF PROPOSED HOUSE DRAIN KERB ADAPTOR
- PVC PIPES TO BE AS FOLLOWS:
  * PVC HOUSE DRAIN CONNECTION TO KERB & CHANNEL TO BE 100MM DIA "PRESSURE" GRADE, STIFFNESS CLASS 9 (SN9) OR 10 (SN10) OR 12 (SN12) & WITH KERB ADAPTOR CAN BE PVC STIFFNESS CLASS 9 OR CAST IRON
  * PVC PIPES LESS THAN 300MM COVER MUST NOT CONTAIN CLASS 6 PIPE

Type 1 - House Drain Pipe Connections (to Kerb)
NOTES:
1. NEW CONNECTIONS 150Ø AND ABOVE INTO COUNCIL DRAINS REQUIRE
   THE CONSTRUCTION OF A PIT TO COUNCIL STANDARDS
2. ALL DRAIN CONNECTIONS SHALL BE AT RIGHT ANGLES TO THE
   STREET ALIGNMENT

Type 2: House Drain Saddle Connection to Council Stormwater Drain
TYPE 3: HOUSE DRAIN CONNECTION TO UNDERGROUND BARREL DRAIN

Scale 1:25

NOTES:
- NEW CONNECTIONS 150# AND ABOVE INTO COUNCIL DRAINS LESS THAN 450# REQUIRE THE CONSTRUCTION OF A PIT TO COUNCIL STANDARDS.
- FOR NEW SUBDIVISIONS, PROPERTY DEVELOPMENTS, AND WHEN UPGRADING INTERNAL PROPERTY STORMWATER DRAINAGE, THE INSPECTION OPENING (I.O.) IS TO BE LOCATED WITHIN THE PROPERTY BOUNDARY.
- PVC PIPES AND FITTINGS TO REFLECT REQUIREMENTS STIPULATED IN AS/NZS 1252:2002
- TYPE 3 METHOD TO BE USED IF THE PIPE LEVELS ARE SUCH THAT TYPE 2 STANDARD METHOD CANNOT BE USED

TYPE 3 - HOUSE DRAIN PIPE CONNECTIONS (TO BE USED WHERE TYPE 2 CONNECTION CANNOT BE USED)
NOTE

ANY ASBESTOS PIPES SHOULD BE REMOVED
IN ACCORDANCE WITH “APPROVED CODE
OF PRACTICE” (HOW TO SAFELY REMOVE
ASBESTOS) UNDER SECTION 274 OF THE
WORK HEALTH AND SAFETY ACT (THE WHS ACT)

NOT TO SCALE
MAX. DEPTH NOT TO EXCEED 600mm

GRADE HOUSE DRAIN AT 1:100

SMOOTHLY SHAPE PIT BASE FROM THE INLETS TO THE OUTLET FOR A HEIGHT OF ONE-THIRD OF THE DIAMETER OF THE OUTLET PIPE WHERE THE DROPS BETWEEN INVERT LEVELS OF INLET & OUTLET PIPES ARE LESS THAN 100mm.

PIT TO BE POURED ON 75mm MINIMUM COMPACTED DEPTH OF 20mm CLASS 3 CRUSHED ROCK BEDDING

SECTION A–A

450x450 CAST IRON MANHOLE COVER CLASS A or B AS SPECIFIED

NOTES
- PIT TO BE 32 MPa CONCRETE
- USE SL 92 REINFORCEMENT WITH 300mm MINIMUM LAP LENGTH AND CLEAR COVER OF 65mm. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS

Scale 1:20

HOUSE DRAIN & PROPERTY JUNCTION PIT (450 x 450 INTERNAL DIMENSIONS)
INFRASTRUCTURE SERVICES

MAX. DEPTH NOT TO EXCEED 900mm

SMOOTHLY SHAPE PIT BASE FROM THE INLETS TO THE OUTLET FOR A HEIGHT OF ONE-THIRD OF THE DIAMETER OF THE OUTLET PIPE WHERE THE DROPS BETWEEN INVERT LEVELS OF INLET & OUTLET PIPES ARE LESS THAN 100mm.

SECTION A–A

PIT TO BE POURED ON 75mm MINIMUM COMPACTED DEPTH OF 20mm CLASS 3 CRUSHED ROCK BEDDING

NOTES
- PIT TO BE 32 MPa CONCRETE
- USE SL 92 REINFORCEMENT WITH 300mm MINIMUM LAP LENGTH AND CLEAR COVER OF 65mm. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS
- 600x600 CAST IRON MANHOLE COVER CLASS A, B, C, OR D AS SPECIFIED

Scale 1:20

STANDARD JUNCTION PIT (600 x 600 INTERNAL DIMENSIONS)

Maribyrnong CITY COUNCIL

DRAWN: I. VANIKIOTIS
APPROVED: T. LAM
DATE: DECEMBER 2014

S.D. D3 C
SMOOTHLY SHAPE PIT BASE FROM THE INLETS TO THE OUTLET FOR A HEIGHT OF ONE-THIRD OF THE DIAMETER OF THE OUTLET PIPE WHERE THE DROPS BETWEEN INVERT LEVELS OF INLET & OUTLET PIPES ARE LESS THAN 100mm.

PIT TO BE POURED ON 75mm MINIMUM COMPACTED DEPTH OF 20mm CLASS 3 CRUSHED ROCK BEDDING

NOTES
- PIT TO BE 32 MPa CONCRETE
- USE SL 92 REINFORCEMENT WITH 300mm MINIMUM LAP LENGTH AND CLEAR COVER OF 65mm. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS

600x600 COUNCIL APPROVED BIKE-SAFE WEAVE GRATE & SURROUND IN ACCORDANCE WITH AUSTRALIAN STANDARD AS. 3996 – 1992 CLASS C GRATE OR AS SPECIFIED

Scale 1:20

STANDARD GRATED PIT (600 x 600 INTERNAL DIMENSIONS)

Maribyrnong
CITY COUNCIL

INFRASTRUCTURE SERVICES

DRAWN: I. VANIKIOTIS
APPROVED: T. LAM
DATE: DECEMBER 2014

S.D. D4 C
DEPTH GREATER THAN 900mm

SL92

STIFIRON AS PER VICROADS STANDARD DRAWING SD 1041

SMOOTHLY SHAPE PIT BASE FROM THE INLETS TO THE OUTLET FOR A HEIGHT OF ONE-THIRD OF THE DIAMETER OF THE OUTLET PIPE WHERE THE DROPS BETWEEN INVERT LEVELS OF INLET & OUTLET PIPES ARE LESS THAN 100mm.

PIT TO BE POURED ON 75mm MINIMUM COMPACTED DEPTH OF 20mm CLASS 3 CRUSHED ROCK BEDDING

750x750 CAST IRON MANHOLE COVER CLASS A, B, C, or D AS SPECIFIED

NOTES
- PIT TO BE 32 MPa CONCRETE
- USE SL 92 REINFORCEMENT WITH 300mm MINIMUM LAP LENGTH AND CLEAR COVER OF 65mm. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS
- PIT DEPTHS GREATER THAN 2.0m DEPTH TO BE CONSTRUCTED AS PER VIC ROADS STANDARD DRAWINGS SD 1011, SD 1021 AND SD 1131.

LARGE JUNCTION PIT (750 x 750 INTERNAL DIMENSIONS)
NOTES

- PIT TO BE 32 MPa CONCRETE
- USE SL 92 REINFORCEMENT WITH 300mm MINIMUM LAP LENGTH AND CLEAR COVER OF 65mm. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS
- PIT DEPTHS GREATER THAN 2.0m DEPTH TO BE CONSTRUCTED AS PER VIC ROADS STANDARD DRAWINGS SD 1011, SD 1021 AND SD 1431.

750x750 COUNCIL APPROVED BIKE-SAFE WEAVE GRATE & SURROUND IN ACCORDANCE WITH AUSTRALIAN STANDARD AS 3996 – 1992 CLASS C GRATE OR AS SPECIFIED

SCALE 1:20

LARGE GRATED PIT (750 x 750 INTERNAL DIMENSIONS)
SECTION A–A

NOTES
- PIT TO BE 32 MPa CONCRETE
- USE SL 92 REINFORCEMENT WITH 300mm MINIMUM LAP LENGTH AND CLEAR COVER OF 65mm. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS
- PIT DEPTHS GREATER THAN 2.0m DEPTH OR CONTAINING PIPE DIAMETER >450mm TO BE CONSTRUCTED AS PER VIC ROADS STANDARD DRAWING SD 1021.

600x600 CAST IRON MANHOLE COVER CLASS A, B, C or D AS SPECIFIED

S.M. BARS 800mm LONG, 50mm COVER
3 - 20
150x100x13 ANGLE IRON LENGTH 800mm. ANGLE IRON TO EXTEND 100mm INTO PIT WALL.
STEP IRONS AS PER VICROADS STANDARD DRAWING SD 1041
SMOOTHLY SHAPE PIT BASE FROM THE INLETS TO THE OUTLET FOR A HEIGHT OF ONE–THIRD OF THE DIAMETER OF THE OUTLET PIPE WHERE THE DROPS BETWEEN INVERT LEVELS OF INLET & OUTLET PIPES ARE LESS THAN 100mm.
PIT TO BE Poured ON 75mm MINIMUM COMPACTED DEPTH OF 20mm CLASS 3 CRUSHED ROCK BEDDING

CORBELLED JUNCTION PIT (1000 x 600 INTERNAL DIMENSIONS)

Maribyrnong CITY COUNCIL

DRAWN: I. VANKIOTIS
APPROVED: T. LAM
DATE: DECEMBER 2014

DRAWING No. S.D. D7
Rev. E
NOTES
- PIT TO BE 32 MPa CONCRETE
- USE SL 92 REINFORCEMENT WITH 300mm MINIMUM LAP LENGTH AND CLEAR COVER OF 65mm. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS
- PIT DEPTHS GREATER THAN 2.0m DEPTH OR CONTAINING PIPE DIAMETER > 450mm TO BE CONSTRUCTED AS PER VIC ROADS STANDARD DRAWING SD 1021.

600x600 COUNCIL APPROVED BIKE—SAFE WEAVE GRATE & SURROUND IN ACCORDANCE WITH AUSTRALIAN STANDARD AS, 3996 – 1992 CLASS D GRATE OR AS SPECIFIED

SCALE: 1:20

CORBELLED GRATED PIT  (1000 x 600 INTERNAL DIMENSIONS)
STEP IRONS AS PER VICROADS
STANDARD DRAWING SD 1041

SMOOTHLY SHAPE PIT BASE FROM
THE INLETS TO THE OUTLET FOR
A HEIGHT OF ONE-THIRD OF THE
DIAMETER OF THE OUTLET PIPE
WHERE THE DROPS BETWEEN INVERT
LEVELS OF INLET & OUTLET PIPES
ARE LESS THAN 100mm.

PIT TO BE POURED ON 75mm
MINIMUM COMPACTED DEPTH OF
20mm CLASS 3 CRUSHED ROCK BEDDING

NOTES
- PIT TO BE 32 MPa CONCRETE
- USE SL 92 REINFORCEMENT WITH
  300mm MINIMUM LAP LENGTH AND
  CLEAR COVER OF 65mm. CORNER
  RETURN REINFORCEMENT MAY BE FABRIC
  OR EQUIVALENT BARS
- PIT DEPTHS GREATER THAN 2.0m DEPTH
  TO BE CONSTRUCTED AS PER VIC ROADS
  STANDARD DRAWING SD 1301.
NOTES
- PIT TO BE 32 MPa CONCRETE
- USE SL 92 REINFORCEMENT WITH 300mm MINIMUM LAP LENGTH AND CLEAR COVER OF 65mm. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS.
- PIT DEPTHS GREATER THAN 2.0m DEPTH TO BE CONSTRUCTED AS PER VIC ROADS STANDARD DRAWING SD 1301.

SMOOTHLY SHAPE PIT BASE FROM THE INLETS TO THE OUTLET FOR A HEIGHT OF ONE-THIRD OF THE DIAMETER OF THE OUTLET PIPE WHERE THE DROPS BETWEEN INVERT LEVELS OF INLET & OUTLET PIPES ARE LESS THAN 100mm.

PIT TO BE POURED ON 75mm MINIMUM COMPACTED DEPTH OF 20mm CLASS 3 CRUSHED ROCK BEDDING

SCALE 1:20

1200x900 PRECAST SIDE ENTRY PIT COVER FRAME

1300x150 DONCASTER BARRIER TYPE PRECAST KERB LINTEL

LARGE SIDE ENTRY PIT WITH LINTEL & COVER (900 x 750 INTERNAL DIMENSIONS)

INFRASSTRUCTURE SERVICES
Maribyrnong CITY COUNCIL

DRAWN: I. VAWINIKOTIS
APPROVED: T. LAM
DATE: DECEMBER 2014

DRAWING No. S.D. D10 Rev. D
125x75x10 ANGLE IRON
LENGTH 1100mm. ANGLE TO
EXTEND 100mm INTO WALL

2 – 20mm ø M.S.
BARS 1100mm LONG, 50mm Cover

STEP IRONS AS PER VICROADS
STANDARD DRAWING SD 1041

NOTES

– PIT TO BE 32 MPa CONCRETE
– USE SL 92 REINFORCEMENT
 WITH 300mm MINIMUM LAP
 LENGTH AND CLEAR COVER OF
 65mm. CORNER RETURN
 REINFORCEMENT MAY BE FABRIC
 OR EQUIVALENT BARS
– PIT DEPTHS GREATER THAN 2.0m
 DEPTH TO BE CONSTRUCTED AS
 PER VC ROADS STANDARD
DRAWING SD 1301.

SMOOTHLY SHAPE PIT BASE FROM
THE INLETS TO THE OUTLET FOR
A HEIGHT OF ONE-THIRD OF THE
DIAMETER OF THE OUTLET PIPE
WHERE THE DROPS BETWEEN INVERT
LEVELS OF INLET & OUTLET PIPES
ARE LESS THAN 100mm.

PIT TO BE Poured ON 75mm
MINIMUM COMPACTED DEPTH OF
20mm CLASS 3 CRUSHED ROCK BEDDING

CORBELLED SIDE ENTRY PIT WITH LINTEL & COVER (900 x 900 INTERNAL DIMENSIONS)

Scale 1:20
- PIT TO BE 32 MPa CONCRETE
- USE SL 92 REINFORCEMENT WITH 300mm MINIMUM LAP LENGTH AND CLEAR COVER
  OF 65mm. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS

NOTES

SECTION A-A

600x900 CAST IRON MANHOLE COVER
CLASS A, B, C, or D AS SPECIFIED

SMOothLY SHAPE PIT BASE FROM THE INLETS TO THE OUTLET FOR A HEIGHT OF ONE-THIRD OF THE DIAMETER OF THE OUTLET PIPE WHERE THE DROPS BETWEEN INVERT LEVELS OF INLET & OUTLET PIPES ARE LESS THAN 100mm.

PIT TO BE POURED ON 75mm MINIMUM COMPACTED DEPTH OF 20mm CLASS 3 CRUSHED ROCK BEDDING

Scale 1:20

LARGE JUNCTION PIT (600 x 900 INTERNAL DIMENSIONS)
NOTES

- PIT TO BE 32 MPa CONCRETE
- USE SL 92 REINFORCEMENT WITH 300mm MINIMUM LAP LENGTH AND CLEAR COVER OF 65mm. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS
- PIT DEPTHS GREATER THAN 2.0m DEPTH OR PITS REQUIRING WIDTHS > 600mm (DUE TO LARGE PIPE DIAMETER) TO BE CONSTRUCTED AS PER VIC ROADS STANDARD DRAWING SD 1301.

SMOOTHLY SHAPE PIT BASE FROM THE INLETS TO THE OUTLET FOR A HEIGHT OF ONE-THIRD OF THE DIAMETER OF THE OUTLET PIPE WHERE THE DROPS BETWEEN INVERT LEVELS OF INLET & OUTLET PIPES ARE LESS THAN 100mm.

PIT TO BE POURED ON 75mm MINIMUM COMPACTED DEPTH OF 20mm CLASS 3 CRUSHED ROCK BEDDING

SECTION A-A

1200x900 PRECAST SIDE ENTRY PIT COVER FRAME

1300x150 DONCASTER BARRIER TYPE PRECAST KERB LINTEL

Scale 1:20
1. ALL CONCRETE TO BE 32MPa.

2. ALL DIMENSIONS ARE IN mm's.

3. GRATE TO BE BIKE SAFE GRATE CLASS D, DIMENSIONS OF THE GRATE ARE FOR THE CLEAR OPENING. SUPPLIER AND GRATE TO BE APPROVED BY SUPERINTENDANT'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORKS.

EXISTING APPROVED SUPPLIER: R&S GRATING, BIKE SAFE GRATES 13 HEALY ROAD DANDENONG SOUTH Ph. 9238 5888 www.grating.com.au

4. THE FRONT WALL IS TO BE CORBELED FOR PIPES LARGER THAN 75mm Dia. RUNNING PARALLEL WITH THE KERB AND CHANNEL.

5. USE SL 92 REINFORCEMENT WITH 300mm MINIMUM LAP LENGTH AND CLEAR COVER OF 65mm. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS.

PLAN WIDE GRATED PIT UNDER CHANNEL

SECTION A-A

WIDE GRATED PIT UNDER CHANNEL.

Maribyrnong CITY COUNCIL

DRAWN: I. VANIKIOTIS
APPROVED: T. LAM
DATE: MAY 2015

DRAFTING No. S.D. D14
Rev.
NOTES

- PIT TO BE 32 MPa CONCRETE
- USE SL 92 REINFORCEMENT WITH 300mm MINIMUM LAP LENGTH AND CLEAR COVER OF 65mm. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS
- PIT DEPTHS GREATER THAN 2.0m DEPTH TO BE CONSTRUCTED AS PER VIC ROADS STANDARD DRAWING SD 1322

WEAVE GRATE
"BIKE SAFE" HOT DIP GALVANISED CLASS D GRATING AND FRAME TO SUIT B2 KERB

1300x150 DONCASTER BARRIER TYPE PRECAST KERB Lintel

THROAT OPENING
65mm MINIMUM

(Provide Council
ACKNOWLEDGED BIKE-SAFE
WEAVE GRATE & SURROUND
IN ACCORDANCE WITH AUSTRALIAN
CLASS D GRATE)

50 MINIMUM

SMOOTHLY SHAPE PIT BASE FROM THE INLETS TO THE OUTLET FOR A HEIGHT OF ONE-THIRD OF THE DIAMETER OF THE OUTLET PIPE WHERE THE DROPS BETWEEN INVERT LEVELS OF INLET & OUTLET PIPES ARE LESS THAN 100mm.

PIT TO BE POURED ON 75mm MINIMUM COMPACTED DEPTH OF 20mm CLASS 3 CRUSHED ROCK BEDDING

150x50x5 RHS

LOCK DOWN SYSTEM

75x50x5 RHS

1100

596

@12 DEFORM BAR

Scale 1:20

CLASS D HOT DIPPED GALVANISED GRATED SIDE ENTRY PIT WITH Lintel
NOTES
- PIT TO BE 32 MPa CONCRETE
- USE SL 92 REINFORCEMENT
  WITH 300mm MINIMUM LAP
  LENGTH AND CLEAR COVER OF
  65mm. CORNER RETURN
  REINFORCEMENT MAY BE FABRIC
  OR EQUIVALENT BARS
- PIT DEPTHS GREATER THAN 2.0m
  DEPTH TO BE CONSTRUCTED AS
  PER VIC ROADS STANDARD
  DRAWING SD 1301.

SMOOTHLY SHAPE PIT BASE FROM
THE INLETS TO THE OUTLET FOR
A HEIGHT OF ONE-THIRD OF THE
DIAMETER OF THE OUTLET PIPE
WHERE THE DROPS BETWEEN INVERT
LEVELS OF INLET & OUTLET PIPES
ARE LESS THAN 100mm.

PIT TO BE POURED ON 75mm
MINIMUM COMPACTED DEPTH OF
20mm CLASS 3 CRUSHED ROCK BEDDING

GRATE TO BE MADE TO SAME
SHAPE AS OPEN CHANNEL
- USING 50x20mm M.S. BARS
@70mm ORS IN RESERVES
- USING 50x20mm M.S. BARS
@50mm ORS IN CONCRETE
(WHERE REQUIRED COUNCIL APPROVED BIKE–SAFE
WEAVE GRATE & SURROUND IN ACCORDANCE
WITH AUSTRALIAN STANDARD AS. 3996 – 1992
CLASS C GRATE OR AS SPECIFIED)
AG DRAIN TO CONNECT TO NEARBY DOWNSTREAM DRAINAGE PIT VIA PROVISION OF AG PIPE INLET TO DOWNSTREAM PIT.

150mm THICK COMPACTED LAYER OF 20mm NOM SIZE CLASS 2 CRUSHED ROCK TO BE PLACED UNDER KERB AND CHANNEL AND EXTEND INTO THE ROAD PAVEMENT AT 500mm MINIMUM PAST THE KERB LIP (AS SHOWN).

75mm THICK COMPACTED 20mm CLASS 3 CRUSHED ROCK OR CLASS CC3 RECYCLED CRUSHED ROCK/CONCRETE

20mm NO FINES CONCRETE
100mm DIA. SUBSOIL DRAIN CLASS 1000 SLOTTED PVC WITH FILTER SOCK (DRAIN COIL OR SIMILAR)

AGRICULTRAL DRAINAGE DETAIL TYPE 1

INSTALL LAYER OF GEOFABRIC FILTER FABRIC.

100mm (min.) SANDY LOAM
150mm MIN. CONSOLIDATED DEPTH IMPERVIOUS FILL

600 (VARIABLE) 225 min.

20mm AGGREGATE FILTER MATERIAL
100mm DIA. SUBSOIL DRAIN CLASS 400 SLOTTED PVC WITH FILTER SOCK (DRAIN COIL OR SIMILAR)

75mm THICK COMPACTED 20mm CLASS 3 CRUSHED ROCK OR CLASS CC3 RECYCLED CRUSHED ROCK/CONCRETE

150mm THICK COMPACTED LAYER OF 20mm NOM SIZE CLASS 2 CRUSHED ROCK TO BE PLACED UNDER KERB AND CHANNEL AND EXTEND INTO THE ROAD PAVEMENT AT 500mm MINIMUM PAST THE KERB LIP (AS SHOWN).

AGRICULTRAL DRAINAGE DETAIL TYPE 2

Scale 1:10

AGRICULTRAL DRAINAGE DETAILS

DRAWN: I. VANIKIOTIS
APPROVED: T.LAM
DATE: DECEMBER 2014

S.D. D17 D
**INFRASTRUCTURE SERVICES**

**TYPE 1: TRENCH IN NATURE STRIP**

- Natural Surface
- 75mm topsoil and grass seed
- Approved backfill compacted as specified
- Backfill of size 20mm FCR Class 2 compacted in 150mm (max) layers to 95% modified dry density
- 75mm bedding of compacted 20mm FCR Class 2
- 150min

**REINSTATE ASPHALT WEARING COURSE**

- 300mm wider than asphalt base course
- 150 150

- Pavement surface
- Existing pavement
- Existing pavement
- Reinstall asphalt base course 300mm wider than trench width.

**TYPE 2: TRENCH UNDER EXISTING PAVEMENT**

- Natural surface
- 75mm topsoil and grass seed
- Proposed pavement subgrade
- Proposed pavement
- Backfill of size 20mm FCR Class 2 compacted in 150mm (max) layers to 95% modified dry density
- 75mm bedding of compacted 20mm FCR Class 2
- 150min

**TYPE 3: TRENCH BEHIND KERB AND CHANNEL**

- External D
- 150min

**TYPE 4: TRENCH UNDER PAVEMENT AND / OR KERB AND CHANNEL**

**NOTES:**

- Dimensions shown in millimeters
- Imported backfill to meet EPA ‘fill material’ specification, council specification & requirements and approved by council’s superintendent.
- Top soil backfill to be top soil previously stripped from the construction site, if approved to be suitable, otherwise imported top soil as per council specification and requirements.

**Scale 1:20**

**DRAINAGE BACKFILL DETAILS**

**DRAWD:** A.TURKER  **DRAWING No.:** S.D. D18  **REV.:** B

**APPROVED:** T.LAM  **DATE:** FEBRUARY 2014
**Plan Scale 1:50**

A 150mm AVAILABLE OPENING BETWEEN GATE POSTS

"A" 150mm AVAILABLE OPENING BETWEEN GATE POSTS

1.5m width variable REFER TO SPECIFICATION

CHANGE OF GRADE

DUMMY JOINTS. MAX. SLAB SIZES SHALL BE 1.5m

"R" 150mm

"R" 300mm

"A" 300mm

150mm

**Section A-A Scale 1:25**

4 x 450mm LONG Y12 BARS @ 300mm CENTRES EVENLY SPACED

150mm THICK 32 MPa CONCRETE

GRADE 1 in 50 min 1 in 20 max

4 x 450mm LONG Y12 BARS @ 300mm CENTRES.

F62 MESH WITH 40mm COVER

75mm THICK COMPACTED 20mm CLASS 3 CRUSHED ROCK OR CLASS CC3 RECYCLED CRUSHED ROCK/CONCRETE

MIN. 215mm THICK

150mm THICK COMPACTED 20mm CLASS 3 CRUSHED ROCK OR CLASS CC3 RECYCLED CRUSHED ROCK/CONCRETE

KERB RETURN

2 x 450mm LONG Y12 BARS @ 250mm CENTRES.

150mm

100mm

**Table of Variables "B" and "R" Given Variable "A"**

<table>
<thead>
<tr>
<th>&quot;A&quot; Condition</th>
<th>B Expression</th>
<th>R Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;A&quot; LESS THAN 2.25m</td>
<td>B = 2/3A</td>
<td>R = 1/3A</td>
</tr>
<tr>
<td>&quot;A&quot; BETWEEN 2.25m AND 3.00m</td>
<td>B = 1.50m</td>
<td>R = A-1.50m</td>
</tr>
<tr>
<td>&quot;A&quot; GREATER THAN 3.00m</td>
<td>B = A-1.50m</td>
<td>R = 1.50m</td>
</tr>
</tbody>
</table>

UNLESS NOTED OTHERWISE, CHARCOAL COLOURED CONCRETE IN HERITAGE AREAS TO CONSIST OF EITHER:

* 1 X 25 KG BAG OF BAYER BLACK POWDER PER CUBIC METRE OF CONCRETE, OR

* 1 X 25 KG BAG OF ABIOLEX BLACK CAF-X2 (4.15%) PER 2 CUBIC METRES OF CONCRETE.

**RESIDENTIAL VEHICULAR CROSSING (WITH RADIALS)**

**Drawn:** I. VANKIOTIS  
**Drawing No.:** S.D. X1  
**Approved:** T. LAM  
**Date:** MAY 2015  
**Rev.:** D
4 x 450mm LONG Y12 BARS @ 300mm CENTRES EVENLY SPACED

AVAILABLE OPENING
BETWEEN GATE POSTS

BUILDING LINE

WIDTH VARIABLE
REFER TO SPECIFICATION

CHANGE OF GRADE

"A"

"B"

"R"

1.5m

150mm

150mm

150mm

300mm

CHANNEL

300mm

PLAN  Scale 1:50

1.50m

VARIABLE

200mm THICK 32 MPa CONCRETE

GRADE 1 in 50 min
1 in 20 max

4 x 450mm LONG Y12 BARS @ 300mm CENTRES.

2 LAYERS F62 MESH WITH 40mm COVER

75mm THICK COMPACTED
20mm CLASS 3 CRUSHED ROCK OR CLASS C3 RECYCLED CRUSHED ROCK/CONCRETE

MIN. 215mm THICK

150mm THICK COMPACTED
20mm CLASS 3 CRUSHED ROCK OR CLASS C3 RECYCLED CRUSHED ROCK/CONCRETE

KERB RETURN

450mm

2 x 450mm LONG Y12 BARS @ 250mm CENTRES.

100mm

SECTION A-A  Scale 1:25

BULL NOSE PERMITTED IF AGREED BY COUNCIL

TABLE OF VARIABLES "B" AND "R" GIVEN VARIABLE "A"

| "A" LESS THAN 2.25m | B = 2/3A | R = 1/3A |
| "A" BETWEEN 2.25m AND 3.00m | B = 1.50m | R = A-1.50m |
| "A" GREATER THAN 3.00m | B = A-1.50m | R = 1.50m |

INDUSTRIAL VEHICULAR CROSSING

DRAWN: I. VANIKIOTIS  DRAWING No.: S.D. X2  Rev.: C
APPROVED: T. LAM  DATE: MAY 2015
**INFRASTRUCTURE SERVICES**

**PLAN Scale 1:50**

4 x 450mm LONG Y12 BARS @ 300mm CENTRES EVENLY SPACED

150mm AVAILABLE OPENING BETWEEN GATE POSTS

BUILDING LINE

WDTH VARIABLE REFER TO SPECIFICATION

DUMMY JOINTS, MAX. SLAB SIZES SHALL BE 1.5m

LOW POINT

600mm

HIGH POINT

300mm

A

"A" + "R"

"B"

SECTION A-A Scale 1:25

150mm THICK 32 MPa CONCRETE

150mm THICK COMPACTED 20mm CLASS 3 CRUSHED ROCK OR CLASS CC3 RECYCLED CRUSHED ROCK/CONCRETE

F62 MESH WITH 40mm COVER

4 x 450mm LONG Y12 BARS @ 300mm CENTRES.

2 x 450mm LONG Y12 BARS @ 250mm CENTRES.

KERB RETURN

50mm

LOW POINT

300mm

600mm

90mm (INVERT TO HIGH POINT)

100mm

150mm

450mm ROLLOVER

MIN. 215mm THICK

1.5m

150mm

75mm THICK COMPACTED 20mm CLASS 3 CRUSHED ROCK OR CLASS CC3 RECYCLED CRUSHED ROCK/CONCRETE

**TABLE OF VARIABLES "B" AND "R" GIVEN VARIABLE "A"**

<table>
<thead>
<tr>
<th>&quot;A&quot;</th>
<th>B</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>LESS THAN 2.25m</td>
<td>2/3A</td>
<td>1/3A</td>
</tr>
<tr>
<td>BETWEEN 2.25m AND 3.00m</td>
<td>1.50m</td>
<td>A-1.50m</td>
</tr>
<tr>
<td>GREATER THAN 3.00m</td>
<td>A-1.50m</td>
<td>1.50m</td>
</tr>
</tbody>
</table>

UNLESS NOTED OTHERWISE, CHARCOAL COLOURED CONCRETE IN HERITAGE AREAS TO CONSIST OF EITHER:

* 1 X 25 KG BAG OF BAYER BLACK POWDER PER CUBIC METRE OF CONCRETE, OR
* 1 X 25 KG BAG OF ABIOX BLACK CAF-X2 (4.15%) PER 2 CUBIC METRES OF CONCRETE.

**REVERSE FALL RESIDENTIAL VEHICULAR CROSSING**

**ABOUT**

**T. LAM**

**DATE:** MAY 2015

**DRAWN:** I. VANIKOTIS

**DRAWING No.** S.D. X3

**REV.** D
### TABLE OF VARIABLES "B" AND "R" GIVEN VARIABLE "A"

<table>
<thead>
<tr>
<th>Condition</th>
<th>B Value</th>
<th>R Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;A&quot; LESS THAN 2.25m</td>
<td>B = 2/3A</td>
<td>R = 1/3A</td>
</tr>
<tr>
<td>&quot;A&quot; BETWEEN 2.25m AND 3.00m</td>
<td>B = 1.50m</td>
<td>R = A−1.50m</td>
</tr>
<tr>
<td>&quot;A&quot; GREATER THAN 3.00m</td>
<td>B = A−1.50m</td>
<td>R = 1.50m</td>
</tr>
</tbody>
</table>

**SECTION A–A** Scale 1:25

**PLAN** Scale 1:50

**SECTION A–A** Scale 1:25

---

**REVERSE FALL INDUSTRIAL VEHICULAR CROSSING (WITH RADIALS)**

**DRAWN:** I. VANIKIOTIS

**APPROVED:** T. LAM

**DATE:** MAY 2015

---

**INFRASTRUCTURE SERVICES**

**Maribyrnong CITY COUNCIL**
INFRASTRUCTURE SERVICES

SECTION A—A Scale 1:25

NOTES
1) ALL SERVICE TRENCHES TO BE BACKFILLED UNDER VEHICLE CROSSINGS WITH CRUSHED ROCK AND COMPACTED IN 150mm LAYERS

2) IF LENGTH BETWEEN EDGE OF LAYBACK AND BUILDING LINE IS LESS THAN 2.7m REFER TO COUNCIL FOR DIRECTION ON LAYOUT OF VEHICLE CROSSING

3) UNLESS NOTED OTHERWISE, CHARCOAL COLOURED CONCRETE IN HERITAGE AREAS TO CONSIST OF EITHER:
   * 1 X 25 KG BAG OF BAYER BLACK POWDER PER CUBIC METRE OF CONCRETE, OR
   * 1 X 25 KG BAG OF ABILOX BLACK CAF-X2 (4.15%) PER 2 CUBIC METRES OF CONCRETE.

RESIDENTIAL VEHICULAR CROSSING (WITH SPLAYS)

DRAWN : I. VANIKIOTIS
APPROVED : T. LAM
DATE : MAY 2015

S.D. X5 E
INFRASTRUCTURE SERVICES

BUILDING LINE

FOOTPATH WIDTH
1.0m

CHANGE OF GRADE

400mm

CONSTRUCTION JOINT

KERB TRANSITION

1.5m

4 x 450mm LONG Y12 BARS @
300mm CENTRES EVENLY SPACED

150mm THICK CONCRETE
FOR SUBDIVISIONS ONLY. DO
NOT INCLUDE 1.5m SECTION
FOR RESIDENTIAL STREETS

DUMMY JOINTS.
MAXIMUM SLAB SIZES
SHALL BE 1.5m

PLAN Scale 1:50

FOOTPATH WIDTH

450mm

200mm THICK 32 MPa CONCRETE

1 in 33

VARIABLE

4 x 450mm LONG Y16 BARS @
450mm CENTRES

SECTION A-A Scale 1:25

400mm LONG Y16 BARS @
300mm CENTRES

250mm CENTRES, PLACED
BELOW MESH

2 LAYERS OF F62 MESH WITH
40mm COVER

230

75mm THICK COMPACTED
20mm CLASS 3 CRUSHED
ROCK OR CLASS CC3 RECYCLED
CRUSHED ROCK/CONCRETE

150mm THICK COMPACTED

2 x 450mm LONG Y12
BARS @
250mm CENTRES

SECTION B-B

TOP OF KERB

400

KERB INVERT

NOTE:

ALL SERVICE TRENCHES TO BE
BACKFILLED UNDER VEHICLE
CROSSINGS WITH CRUSHED ROCK
AND COMPACTED IN 150mm LAYERS

IF LENGTH BETWEEN EDGE OF LAYBACK
AND BUILDING LINE IS LESS THAN 2.7m
REFER TO COUNCIL FOR DIRECTION
ON LAYOUT OF VEHICLE CROSSING

20mm CLASS 3 CRUSHED
ROCK OR CLASS CC3 RECYCLED
CRUSHED ROCK/CONCRETE
OR APPROVED PAVEMENT BASE

INDUSTRIAL VEHICULAR CROSSING (WITH SPLAYS)

INFR. NGS.

Maribyrnong
City Council

DRAWN: I. VANKIOTIS
APPROVED: T. LAM
DATE: MAY 2015

DRAWING No. S.D. X6
Rev. E
RESIDENTIAL VEHICULAR CROSSING FOR BLUESTONE CHANNEL

NOTES

1) UNLESS NOTED OTHERWISE, CHARCOAL COLOURED CONCRETE IN HERITAGE AREAS TO CONSIST OF EITHER:
   * 1 x 25 KG BAG OF BAYER BLACK POWDER PER CUBIC METRE OF CONCRETE, OR
   * 1 x 25 KG BAG OF ABIOX BLACK CAF-X2 (4.15%) PER 2 CUBIC METRES OF CONCRETE.

2) ALL SERVICE TRENCHES TO BE BACKFILLED UNDER VEHICLE CROSSINGS WITH CRUSHED ROCK AND COMPACTED IN 150mm LAYERS

3) IF LENGTH BETWEEN EDGE OF LAYBACK AND BUILDING LINE IS LESS THAN 2.7m REFER TO COUNCIL FOR DIRECTION ON LAYOUT OF VEHICLE CROSSING

---

**SECTION A—A**

Scale 1:25

FOOTPATH WIDTH

150mm THICK 32 MPa CONCRETE

1 in 33

F62 MESH WITH 40mm COVER

75mm THICK COMPACTED 20mm CLASS 3 CRUSHED ROCK OR CLASS CC3 RECYCLED CRUSHED ROCK/CONCRETE

270mm

150mm THICK COMPACTED 20mm CLASS 3 CRUSHED ROCK OR CLASS CC3 RECYCLED CRUSHED ROCK/CONCRETE

---

**SECTION B—B**

Top of kerb

Kerb invert

---

**PLAN**

Scale 1:50

FOOTPATH WIDTH

150mm THICK 32 MPa CONCRETE

1 in 33

---

**BUILDING LINE**

**EXPANSION JOINTS**

**CHANGE OF GRADE**

**KERB**

**TRANSITION**

**CONSTRUCTION JOINT**

**BLUESTONE CHANNEL**

---

**INFRASTRUCTURE SERVICES**

Maribyrnong City Council

**DRAWN:** I. VANIKIOTIS  **DRAWING No.:** S.D. X7  **Rev.:**

**APPROVED:** T. LAM  **DATE:** MAY 2015
PLAN  Scale 1:25

ELEVATION  Scale 1:25

SECTION A—A  Scale 1:25

PRAM CROSSING

DRAWN: I. VANKIOTIS  DRAWING No. S.D. X9
APPROVED: T. LAM  Rev. A
DATE: MAY 2015
REINFORCED CONCRETE FOOTPATH

UNLESS NOTED OTHERWISE, CHARCOAL COLOURED CONCRETE IN HERITAGE AREAS TO CONSIST OF EITHER:
* 1 X 25 KG BAG OF BAYER BLACK POWDER PER CUBIC METRE OF CONCRETE, OR
* 1 X 25 KG BAG OF ABILOX BLACK CAF-X2 (4.15%) PER 2 CUBIC METRES OF CONCRETE.

ASPHALT FOOTPATH

100mm THICK
32MPa CONCRETE
(COLOUR TO BE SPECIFIED BY COUNCIL)

NOTES (FOR RECREATIONAL SHARED FOOTPATH ONLY)
1. SAWCUT EVERY 3m WITH A 20mm DEEP STRAIGHT CUT ACROSS PATH WITHIN 24 HOURS OF POURING (NO “DUMMY” JOINTS).
2. EXPANSION JOINT—EVERY 12m TO CONSIST OF 4xR12 PLAIN STEEL BARS (BOND BREAKER ON ONE SIDE OF JOINT). THIS JOINT WILL INCLUDE BITUMEN IMPREGNATED FIBRE OR APPROVED EQUIVALENT.

SHARED CONCRETE FOOTPATH
Scale 1:20

DETAILS OF VARIOUS FOOTPATHS

INFRASTRUCTURE SERVICES
Maribyrnong City Council

DRAWN : I. VAKNIKOTIS
APPROVED : T. LAM
DATE : MAY 2015
DRAWING No. S.D. X10
Rev. D
30mm MIN ASPHALT WEARING COURSE IS TO BE PROVIDED USING 10mm NOM SIZE, TYPE 'N' ASPHALT (UNLESS SPECIFIED OTHERWISE).

EXISTING PAVEMENT TO REMAIN.

SAW CUT EXISTING PAVEMENT.

CLASS 2 CRUSHED ROCK IN 50mm LAYERS.

CLASS 2 CRUSHED ROCK IN 50mm LAYERS.

500

50

150

150

SIZE 20mm REGULATION COURSE (DEPTH VARIES).

STANDARD KERB & CHANNEL (REFER TO STANDARD DRAWING S.D. K3).

PAVEMENT REHABILITATION DETAIL

Maribyrnong City Council
CONCRETE KERB & CHANNEL IN ACCORDANCE WITH S.D K3 A

30mm THICK COMPACTED LAYER OF 10MM NOM. SIZE TYPE N BC

30mm THICK COMPACTED LAYER OF 10MM NOM. SIZE TYPE N BC

BITUMINOUS PRIME

190mm THICK COMPACTED LAYER OF 20MM NOM. SIZE CLASS 2 CRUSHED ROCK, COMPACTED IN 2 SEPARATE LAYERS.

150mm THICK COMPACTED LAYER OF 20MM NOM. SIZE CLASS 3 CRUSHED ROCK

Scale N.T.S
NOTES:

1. All concrete to be 32 MPa.

2. All concrete kerbs & channels to be constructed on a 150mm thick layer of 20mm Class 2 FCR, unless otherwise indicated on design drawings or as directed by Council’s Infrastructure Planning and Construction representatives.

3. All grouted joints to be average 30mm wide by depth of pitcher. Flush joint finish only.

4. Grouting shall be pointed up with charcoal coloured cement mortar.

5. Cement mortar shall consist of: 1 part Bayern powder, 5 parts cement, 15 parts sand or approved grit, 15 parts stone dust.

<table>
<thead>
<tr>
<th>No. of pitchers (tray)</th>
<th>Channel crossfall &quot;A&quot;</th>
<th>Channel Width &quot;B&quot; (Width to be constant)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25mm</td>
<td>255mm</td>
</tr>
<tr>
<td>2</td>
<td>50mm</td>
<td>510mm</td>
</tr>
<tr>
<td>3</td>
<td>75mm</td>
<td>765mm</td>
</tr>
</tbody>
</table>

BLUESTONE PITCHER KERB & CHANNEL  Scale 1:10

DETAILS OF VARIOUS KERB & CHANNEL

Maribyrnong CITY COUNCIL

DRAWN : I. VANIKIOTIS  DRAWING No.  S.D. K3  C
APPROVED : T. LAM  DATE : DECEMBER 2014
OUTFALL TRAY KERB & CHANNEL

15 Rad

BARRIER KERB

15 Rad

FULLY - MOUNTABLE KERB (TYPE 1)

15 Rad

FULLY - MOUNTABLE KERB (TYPE 2)

CONCRETE CHANNEL

Scale 1:10

NOTES:

1. All concrete to be 32 MPa.

2. All concrete kerbs & channels to be constructed on a 150mm thick layer of 20mm Class 2 FCR, unless otherwise indicated on design drawings or as directed by Council’s Infrastructure Planning and Construction representatives.
**BLUESTONE PITCHER KERB & CHANNEL**

Not to Scale.
All measurements in millimeters

**NOTES**
1. Pitcher sizes (225 x 150 x 300 length) are an average size only.
2. All grouted mortar joints to be an average 15mm wide by depth of pitcher.
3. Grouting shall be flush joint finish only with charcoal coloured cement mortar, consisting of the following mix:
   * 1 part Bayern powder,
   * 5 parts cement
   * 15 parts sand or approved grit
   * 15 parts stone dust.
TYPICAL BLUESTONE LANEWAY PLAN (NOT TO SCALE)

NOTE: 1. BLUESTONE PITCHERS TO BE LAID IN A STREETCHECK BOND PATTERN WITH 15 mm WIDE (AVERAGE) GROUTED JOINTS.
2. GROUTING SHALL BE FLUSH WITH CHARCOAL COLOURED CEMENT MORTAR.

TYPICAL CONCRETE LANEWAY PLAN (NOT TO SCALE)

INVERT OF LANEWAY TO CONTAIN JOINT. PREFERABLY SAWCUT JOINT. REFERENCE STANDARD DRAWINGS C1 AND C2 FOR FURTHER DETAIL.

150 mm THICK 32 MPa CONCRETE
F72 MESH AT 50mm COVER
75 mm THICK COMPACTED CLASS 2 F.C.R
32 MPa concrete with one layer of mesh reinforcement with 50mm cover.

Cut joint as soon as possible after pouring slab without causing undue damage to edges.

**SAWCUT JOINT - SJ**

Proposed concrete pavement 50mm sealant.

Abutting pavement or other structure. Compressible filler. Edge thickening where appropriate.

**ISOLATION JOINT - IJ**

Field moulded silicone sealant with backing rod or an approved neoprene compression seal conforming to AS2628.

24mm polyethylene form or approved alternative backing rod.

Joint sealant detail.

**EXPANSION JOINT (CONNOLLY) SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Concrete Thickness</th>
<th>Dowel Diameter</th>
<th>Length Centres</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 - 124mm</td>
<td>12mm</td>
<td>300mm 335mm</td>
</tr>
<tr>
<td>125 - 149mm</td>
<td>16mm</td>
<td>450mm 450mm</td>
</tr>
<tr>
<td>150 - 199mm</td>
<td>16mm</td>
<td>450mm 450mm</td>
</tr>
<tr>
<td>200mm + 200mm</td>
<td>14mm</td>
<td>450mm 450mm</td>
</tr>
</tbody>
</table>

**EXPANSION JOINT (CONNOLLY)**

Note: Expansion joints to be provided every 12m.

Reinforced concrete.

Dowels (galvanised).

Full joint depth 10mm expansion foam. Vertical joint face with no key joints.

Roll formed steel profile for straighter joints.

Purpose-made dowel sleeve twist fix sleeve to steel profile.

Integral support leg.

Foam extends to full joint depth.

Connolly peg & wedge fixing system.

75mm thick compacted 20mm class 3 crushed rock or class C3 recycled crushed / concrete.

**CONCRETE JOINT DETAILS**

(Sawcut, Isolation & Expansion Joint)
REINSTATEMENT OF NATURESTRIP:
THE CONTRACTOR MUST MAKE ALLOWANCES TO ENSURE THAT ALL NATURESTRIPS
ADJACENT TO THE WORK ARE PROPERLY REINSTATED, SEEDED AND ROPED OFF.

THE CONTRACTOR WILL USE TOP SOIL WHICH:
A) IS LIGHT FRIABLE LOAM CONSISTING OF 3 PARTS SANDY LOAM, 2 PARTS MOUNTAIN
SOIL, 1 PART LIGNA PEAT;
B) IS FREE FROM WEEDS, STONE OR RUBBLE, CLODS OF TOPSOIL AND OTHER
EXTRANEOUS MATERIAL;
C) IS NOT DELIVERED WHILE IN A SATURATED CONDITION. TOPSOIL WILL HAVE THE
FOLLOWING CHARACTERISTICS:
- TEXTURE — LIGHT TO MEDIUM, I.E. CAPABLE OF HANDLING WHEN
MOIST, BUT LACKING IN COHESION SO THAT IT WILL
FALL APART EASILY;
- ACIDITY — SLIGHTLY ACID TO NEUTRAL. pH 5.5 TO 6.5; AND
- STONE CONTENT — LESS THAN 5% BY DRY WEIGHT WITH STONE SIZE
NOT EXCEEDING 25MM.

DISPOSAL OF SURPLUS MATERIAL:
THE CONTRACTOR MUST DISPOSE OF ALL SURPLUS MATERIAL.

TOP UP WITH 150MM OF SEEDED LIGHT FRIABLE LOAM TOP SOIL
(MATCH TO SURROUNDING TOP OF KERB OR PAVEMENT)

TYPICAL LAWN REINSTATEMENT
SCALE 1 : 20

LAWN REINSTATEMENT DETAIL
DRAWN: I. VANKIOTIS
APPROVED: T. LAM
DATE: MARCH 2014
INFRASTRUCTURE SERVICES

NOTES:

INSTALLATION OF GIB KEY SOCKETS:
- GIB KEY SOCKETS AND POST SHALL BE ERECTED VERTICALLY
- INTERNAL DIAMETER 60mm, 400 LONG GIB KEY SOCKETS SHALL BE USED FOR PARKING AND TRAFFIC SIGNS IN PAVED SURFACE

FABRICATION OF GIB KEY SOCKETS:
- GIB KEY SHALL BE GALVANISED IN ACCORDANCE WITH AS 1650
- AFTER GALVANISING ONE COAT OF POWDER COAT SHALL BE APPLIED. COLOUR CHARCOAL (75 MICRONS)
- ALL SMALL WELDS SHALL BE 4mm CONTINUOUS WITH ES 3xx WELDING ELECTRODE TO AS1554 PART 1 & 2 AS APPROPRIATE.
- BARE STEEL & WELDED AREAS SHALL BE CLEANED COATED WITH ZINCATE 880 OR EQUIVALENT
- ALL WORKMANSHIP & MATERIALS SHALL BE IN ACCORDANCE WITH AS 4100 STEEL STRUCTURES
- ALL BUTT WELDS SHALL BE FULL PENETRATION

DRAWN: I. VANIKIOTIS
APPROVED: T. LAM
DATE: MAY 2015

S.D. M1

GIB KEY SOCKET AND POST INSTALLATION/FABRICATION DETAILS.
INSTALL BETWEEN 30–50m BEFORE FIRST HUMP IN SERIES

GENERAL NOTE: ALL SIGNS TO BE 300mm BEHIND BACK OF KERB UNLESS SPECIFIED OTHERWISE

PLAN NTS

3.70

0.10 ASPHALT

EXISTING PAVEMENT LEVEL

REFER TO AS1742.13 FOR FURTHER WATTS PROFILE DETAIL

SECTION A–A Scale 1:50

STANDARD ASPHALT WATTS PROFILE ROAD HUMP

INFRASCTURE SERVICES

Maribyrnong CITY COUNCIL

DRAWN: I. VANIKIOTIS
APPROVED: T. LAM
DATE: MAY 2015

DRAWING No. S.D. M5
Rev. A
TYPICAL CROSS SECTION
(Measurements are in meters)
NOT TO SCALE

<table>
<thead>
<tr>
<th>ROAD HEIRARCHY</th>
<th>CATEGORY</th>
<th>MAX V.P.D.</th>
<th>A ROAD RESERVE</th>
<th>B CARRIAGEWAY</th>
<th>C NATURESTRIP</th>
<th>D VERGE WIDTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCESS LANE</td>
<td>2</td>
<td>—</td>
<td>6.5</td>
<td>6.5</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ACCESS PLACE</td>
<td>2</td>
<td>300</td>
<td>15.3</td>
<td>7.3</td>
<td>2.5</td>
<td>4.0</td>
</tr>
<tr>
<td>ACCESS STREET</td>
<td>3</td>
<td>1000</td>
<td>15.3</td>
<td>7.3</td>
<td>2.5</td>
<td>4.0</td>
</tr>
<tr>
<td>COLLECTOR STREET</td>
<td>3</td>
<td>3000</td>
<td>20.6</td>
<td>10.6*</td>
<td>3.5</td>
<td>5.0</td>
</tr>
<tr>
<td>TRUNK COLLECTOR</td>
<td>4</td>
<td>3000–6000</td>
<td>26.6</td>
<td>16.6**</td>
<td>3.5</td>
<td>5.0</td>
</tr>
</tbody>
</table>

(Minimum Width Requirements)

NOTES

1. FOOTPATH REQUIRED ON BOTH SIDES, 1.5m MINIMUM WIDTH
2. ROAD RESERVE WIDENING MAY BE REQUIRED FOR THE FOLLOWING :-
   (i) 2.5m SHARED FOOTPATH ON ONE OR BOTH SIDES.
   (ii) 1.5m CYCLE LANE MARKED ON THE CARRIAGEWAY.
   (iii) CENTRAL MEDIAN (2.5m wide) FOR TRUNK COLLECTOR (CATEGORY 4).
3. MINIMUM ROAD WIDTHS ALLOWS FOR UNRESTRICTED PARKING, (EXCEPT FOR ACCESS LANES).

* ALLOWS FOR A 3.0m wide CLEAR LANE IN EITHER DIRECTION
** ALLOWS FOR 2 x 3.0m wide CLEAR LANES IN EITHER DIRECTION

CONSULTANTS ARE TO ARRANGE A PRELIMINARY MEETING WITH INFRASTRUCTURE SERVICES TO DISCUSS THE PROPOSAL AND GAIN AN AGREEMENT IN PRINCIPLE TO THE INFRASTRUCTURE REQUIRED, PRIOR TO SUBMISSION OF DETAILED SUBDIVISIONAL ROAD DESIGN DRAWINGS.
PLAN  Scale 1:50

RAMP GRAD. 1 : 10
SIDE GRAD. 1 : 4

SECTION A–A  Scale 1:25

75mm ASPHALT

EXISTING  PAVEMENT  LEVEL

STANDARD ASPHALT ROAD CUSHION

INFRASTRUCTURE SERVICES
Maribyrnong CITY COUNCIL

DRAWN :  I. VANIKIOTIS
APPROVED :  T. LAM
DATE :  FEBRUARY 2014

DRAWNG No.  S.D. M7  Rev  A
NEW VEHICLE CROSSING

650
300

BREAK OUT TOP OF PIT WALL AS NECESSARY

150

SMOOTHLY SHAPE PIT BASE FROM THE INLETS TO THE OUTLET FOR A HEIGHT OF ONE-THIRD OF THE DIAMETER OF THE OUTLET PIPE WHERE THE DROPS BETWEEN INVERT LEVELS OF INLET & OUTLET PIPES ARE LESS THAN 100mm.

SECTION A-A

75 x 20 STEEL BAR

BREAK OUT PIT WALL AND BUILD NEW ENTRY CHUTE AS SHOWN

ALL PIT WALLS AND FLOOR TO BE 150mm THICK

Y12 BARS AT 300mm CENTRES 300mm LONG.

PIT TO BE Poured ON 75mm MINIMUM COMPACTED DEPTH OF 20mm CLASS 3 CRUSHED ROCK BEDDING

NOTICE:

—PIT DEPTHS GREATER THAN 2.0m DEPTH TO BE CONSTRUCTED AS PER VIC ROADS STANDARD DRAWING SD 1301.

—STEP IRONS AS PER VICROADS STANDARD DRAWING SD 1041

—PIT TO BE 32 MPa CONCRETE

NOTE: RECOMMENDATION IS LEAST PREFERRED DUE TO PREFERENCE IN NOT HAVING PITS IN DRIVEWAYS.

SIDE ENTRY PIT MODIFICATION AT VEHICLE CROSSING

INFRASCTURE SERVICES
Maribyrnong CITY COUNCIL

DRAWN: I.VANIKIOTIS
APPROVED: T.LAM
DATE: FEBRUARY 2014

DRAWING No. S.D. RU 1 —
Rev.
75mm THICK 25MPa CONCRETE (COLOUR TO BE SPECIFIED BY COUNCIL) NATURAL SURFACE LEVEL

75mm THICK COMPACTED 20mm CLASS 3 CRUSHED ROCK OR CLASS CC3 RECYCLED CRUSHED ROCK/CONCRETE

UNREINFORCED CONCRETE FOOTPATH TO BE USED FOR MAINTENANCE PURPOSES ONLY

NOTES
1. TOOL JOINT EVERY 1.5m WITH A 20mm DEEP STRAIGHT CUT ACROSS PATH
2. EXPANSION JOINT—EVERY 12m TO CONSIST OF 4xR12 PLAIN STEEL BARS (BOND BREAKER ON ONE SIDE OF JOINT). THIS JOINT WILL INCLUDE BITUMEN IMPREGNATED FIBRE OR APPROVED EQUIVALENT.