C: Standard Drawings

Version 4: June 2016
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EXISTING STONE

FOOTWAY AS SPECIFIED

EXISTING STONE KERB (TYP 600mm HIGH)

MASS CONCRETE BACKFILL

PRIOR TO KERB STONE BEING CUT CITY'S REPRESENTATIVE TO CONFIRM WIDTH

WIDTH TO MATCH EXISTING 200/300 NOM

180/280 CUT

450

CONCRETE GUTTER

ROADWAY

150mm THICK COMPACTED DGB 20

KERBSTONE BEDDING. 20MPa ZERO SLUMP

ROADWAY

CONCRETE GUTTER

NEW STONE

FOOTWAY AS SPECIFIED

NEW STONE KERB

MASS CONCRETE BACKFILL

MAX. 30mm THICK MORTAR SETTING

PRIOR TO KERB STONE BEING CUT CITY'S REPRESENTATIVE TO CONFIRM WIDTH

WIDTH TO MATCH EXISTING 200/300 NOM

450

150mm THICK COMPACTED DGB 20

MASS CONCRETE FOOTING - 25MPa

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SECTION 1:10
NOTES:
1. ALL KERBS TO BE MIN 25MPa CONCRETE UNLESS NOTED OTHERWISE.
2. ALL KERBS TO BE STEEL TROWEL FINISHED.
3. ALL EDGES SHALL BE TOOL FINISHED WITH 12mm RAD 50mm WIDE EDGING TOOL.
4. EXPANSION JOINTS SHALL BE PLACED AT 6m INTERVALS;

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
1. FOR KERB RADIUS OF LESS THAN 7.5m, STONE TO BE CUT TO MATCH ALIGNMENT.

USE RADIUS OF EITHER 750mm, 1m, 3m, 6m OR 7.5m WHERE POSSIBLE.
NOTES:

1. FOR SANDSTONE KERBS, A 25mm BULL NOSE ARRIS IS REQUIRED INSTEAD OF CHAMFERED CORNER.
2. ALL CORNERS TO HAVE 1mm ARRIS.

SECTION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
BARRIER KERB

KERB PROFILE:
- TYPE K(F) - FULL HEIGHT
- TYPE K(FR) - FULL HEIGHT/TO KERB RADIUS (SIMILAR)

MOUNTABLE KERB

KERB PROFILE:
- TYPE MK(F) - FULL HEIGHT (SHOWN)
- TYPE MK(FR) - FULL HEIGHT ON KERB RADIUS (SIMILAR)

KERB RAMP WINGS

KERB PROFILE:
- TYPE K(KRF) - PEDESTRIAN CHAMFERED TO FALL
- TYPE K(KRRF) - PEDESTRIAN CHAMFERED TO FALL/TO KERB RADIUS (SIMILAR)

KERB RAMP

KERB PROFILE:
- TYPE K(KR) - PEDESTRIAN CROSSOVER TYPE
- TYPE K(KRR) - PEDESTRIAN CROSSOVER TYPE/TO KERB RADIUS (SIMILAR)

NOTES

1. FOR KERB RADII OF LESS THAN 7.5m, STONE TO BE CUT TO MATCH ALIGNMENT.
USE RADII OF EITHER 3m, 6m OR 7.5m WHERE POSSIBLE.

SCALE 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
200mm WIDE KERB

300mm WIDE KERB

NOTES:
1. SANDSTONE KERBS ARE NOT TO BE USED.
2. ALL CORNERS TO HAVE 1mm ARRS.

SECTION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTES:
1. TOP TO HAVE EXFOLIATED FINISH.
2. VERTICAL EDGES TO HAVE SAWN FINISH.

SCALE 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
LAYBACK KERB 01 TO CYCLEWAY: LK1VC

15mm CHAMFER

15mm CHAMFER

K

J

300

300

225

250

50

300

LAYBACK KERB TO CYCLEWAY 02: LK2VC

15mm CHAMFER

15mm CHAMFER

M

L

400

50

450

175

300

450

300

15 mm CHAMFER

SECTION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
200/300
900
300
150
A
N
GUTTER LEVEL

100mm RADIUS

SECTION 1:20

200mm WIDE KERB

300mm WIDE KERB

KERB BEYOND

NOTES:
1. FOR SANDSTONE KERBS, A 25mm BULL NOSE ARRIS IS REQUIRED INSTEAD OF CHAMFERED CORNER.
2. ALL CORNERS TO HAVE 1mm ARRIS.

SECTION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

KERB & GUTTER
STONE KERB LAYBACK PROFILES
15mm CHAMFER SHALL BE APPLIED TO ALL EXPOSED EDGES IN CASE OF END PIECES

1. TOP TO HAVE EXFOLIATED FINISH.
2. VERTICAL EDGES TO HAVE SAWN FINISH.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
STONE KERB INSTALLED AS PER DRAWINGS

FOOTWAY AS SPECIFIED

SINGLE OR DOUBLE STONE TO MATCH EXISTING CONDITION

ROAD SURFACE

STONE KERB INSTALLED AS PER DRAWINGS

30mm THICK MORTAR SETTING

150mm THICK 25MPa CONCRETE FOOTING

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SECTION 1:10
NOTE:
1. LINTEL TO BE ONE COMPLETE STONE (IE. NO JOINTS).

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE:
1. Lintel to be one complete stone (i.e., no joints)

NOTE: All dimensions in millimetres unless otherwise stated
STONE KERB SECTION

- Footpath as specified
- Stormwater drainage line, Galv steel RHS discharge pipe
- End of pipe connecting into kerb
- Mass concrete around connection - min 100mm thick

CONCRETE KERB SECTION

- Footpath as specified
- Stormwater drainage line, Galv steel RHS discharge pipe
- End of pipe connecting into kerb
- Mass concrete around connection - min 100mm thick

ELEVATION

- From end of joint: 150 min
- Line of gutter: 150 min
- Invert of gutter
- Slot in kerb, TYP. 150x100mm Galv. RHS - 5mm thick

SCALE 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
FOR RAIN GARDEN DETAILS REFER TO RAIN GARDEN DRAWING

WIDTH TO MATCH EXISTING (200/300 NOM) BACK OF KERB TO BE FINISHED

CONCRETE EDGE TO BE COVERED WITH MULCH

2 x N12 LONGITUDINAL SCABBLE JOINT

N12 @ 400mm CENTRES

150mm THICK COMPACTED DGB20

CONCRETE EDGE TO BE COVERED WITH MULCH

150mm THICK MORTAR SETTING

NOTE:
1. DEEP EMBEDMENT KERB ONLY TO BE USED.

SECTION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
RIGID PAVEMENT RESTORATION

NEW KERB (TYPE AS SPECIFIED)

SAWCUT ROAD

EXISTING WEARING COURSE.

SAWCUT EXISTING CONCRETE BASE ALONG EDGE OF NEW GUTTER

EXISTING CONCRETE ROAD BASE

EXISTING ROAD BASE COURSE

NEW AC WEARING COURSE 40mm THICK AC14

FLEXIBLE PAVEMENT RESTORATION

NEW KERB (TYPE AS SPECIFIED)

SAWCUT ROAD

EXISTING WEARING COURSE

MATCH EXISTING BASE DEPTH

EXISTING 'FLEXIBLE' ROAD BASE.

NEW AC BACKFILL

EXISTING ROAD BASECOURSE

EXISTING ROAD SUB-BASECOURSE

NEW AC WEARING COURSE 40mm THICK AC14

SECTION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
SERVICE PITS NOT TO BE LOCATED IN RAMPS WHERE POSSIBLE

PEDESTRIAN RAMP TO BE ORIENTATED WITH THE OPPOSITE RAMP

RAMPS TO BE ALIGNED WITH BUILDING/PROPERTY LINE WHERE POSSIBLE

PEDESTRIAN RAMPS CONSTRUCTED AS PER RELEVANT MATERIAL

SERVICE PITS NOT TO BE LOCATED IN RAMPS WHERE POSSIBLE

PEDESTRIAN RAMP TO BE ORIENTATED WITH THE OPPOSITE RAMP

RAMPS NOT TO BE COMBINED INTO SINGLE RAMP

PLAN
1:200

NOTE:
1. FOR SIGNALISED INTERSECTION TYPE AND LOCATION OF THE POLES, DIRECTION OF THE PEDESTRIAN CROSSING AND RAMPS SHALL BE APPROVED BY CITY OF SYDNEY TRAFFIC OPERATION TEAM PRIOR TO ANY CHANGES. CONSULTATION AND OBTAINING APPROVAL FROM RMS ALSO MAY BE REQUIRED.
2. FOR ANY PEDESTRIAN CROSSING AT THE INTERSECTION SITE SPECIFIC LIGHTING DESIGN SHALL BE PREPARED AND APPROVAL SHALL BE OBTAINED FROM CITY OF SYDNEY'S TECHNICAL SERVICES.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

GENERAL FOOTPATH
PEDESTRIAN RAMPS IN RELATION TO INTERSECTIONS
REALIGN NEW PIT COVER TO MATCH NEW PAVING PATTERN (BY INCREASING PIT LID SIZE). MAXIMUM REALIGNMENT TO BE 10 DEG.

CUT PAVERS TO FIT INTO METAL PIT LID TO CONTINUE PATTERN OF SURROUNDING PAVING. LOCATION OF PIT COVER IN RELATION TO PAVING PATTERN VARIES

10mm SEALANT JOINT WITH BACKING ROD TO PERIMETER OF METAL FRAME COLOUR: BLACK

DUMMY CUT INFILL PAVERS AT EDGES OF LID TO AVOID DISLODGE OF SMALL PIECES (MAX 3 WIDE x 3 DEEP CUT) CONTINUE PAVING JOINTS ACROSS THE COVER REGARDLESS OF ITS ORIENTATION

NOTES:

1. OBTAIN APPROVAL FROM AUTHORITY FOR COVER REALIGNMENT.
2. CLEAN PIT LID WITH WIRE BRUSH AND THEN WITH SOFT BRUSH TO REMOVE RUST FROM LID.
3. MOISTEN PAVER AND LID TO AID HYDRATION OF MORTAR MIX.
4. USE CEMENT MORTAR WITH FORTIFYING COMPOUND (ARDEX OR APPROVED EQUIVALENT) AS JOINTING MATERIAL.
5. USE A RICHER MIX eg. 1:1 CEMENT:SAND THINNER (2-5mm) JOINTS AND 1:2.5 CEMENT:SAND MIX FOR THICKER (12-15mm) JOINT.
6. PIT LID INFILLS TO HAVE APPROX. 3mm GAP ON SIDES SO AS TO NOT TOUCH THE LID.
7. GAPS ON SIDES SHOULD BE GROUTED WITH RICH CEMENT SAND MIX WITH FORTIFYING COMPOUND.
8. TO ENSURE THE SERVICE PIT IS STILL ACCESSIBLE AND FIT FOR USE THE RELEVANT AUTHORITY IS TO PROVIDE SIGN OFF / APPROVAL.

PLAN 1:50

10mm SEALANT JOINT WITH BACKING ROD AROUND PERIMETER OF METAL FRAME. COLOUR: BLACK

CONCRETE SLAB TO ENG. DETAILS

EXISTING PIT WALLS

SECTION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

CITY OF SYDNEY

GENERAL FOOTPATH

TYPICAL ONE PART PIT COVER

FOOTWAYS

Rev B Date 22.03.13

Approved P S

Dwg No. 2.1.2
EXISTING SERVICES PIT
STAINLESS STEEL EXTENSION STRIPS TO EDGE OF LID AND FRAME (38mm PROJECTION HEIGHT)
DUMMY JOINT TO MAINTAIN PAVING PATTERN
30mm THICK PAVING ON MORTAR BED AS INFILL TO PIT COVER
10mm SEALANT JOINT WITH BACKING ROD. COLOUR : BLACK
FORM SET DOWN IN CONCRETE SLAB FOR FRAME OF PIT COVER. BED PIT COVER IN MORTAR
KEYHOLES WITH STAINLESS STEEL EXTENSION PIECES
STAINLESS STEEL EXTENSION PIECES TO EDGES OF LID AND FRAME TO ALIGN WITH TOP OF ADJACENT PAVERS
BEAM BELOW
CUT PAVERS TO FIT INTO METAL PIT LID TO CONTINUE PATTERN OF SURROUNDING PAVING. LOCATION OF PIT COVER IN RELATION TO PAVING PATTERN VARIES
NOTES:
1. IF REQUIRED EXTEND WALLS WITH NEW CONCRETE TO ENGINEER’S DETAILS TO RAISE TOP OF PIT TO SUIT NEW PAVING LEVEL
2. CLEAN PIT LID WITH WIRE BRUSH AND THEN WITH SOFT BRUSH TO REMOVE RUST FROM LID
3. MOISTEN PAVER AND LID TO AID HYDRATION OF MORTAR MIX
4. USE CEMENT MORTAR WITH FORTIFYING COMPOUND (ARDEX OR APPROVED EQUIVALENT) AS JOINTING MATERIAL
5. USE A RICHER MIX eg. 1:1 CEMENT:SAND THINNER (2-5mm) JOINTS AND 1:2.5 CEMENT:SAND MIX FOR THICKER (12-15mm) JOINTS
6. PIT LID INFILLS TO HAVE APPROX. 3mm GAP ON SIDES SO AS TO NOT TOUCH THE LID
7. GAPS ON SIDES SHOULD BE GROUTED WITH RICH CEMENT SAND MIX WITH FORTIFYING COMPOUND.
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE StATED

PLAN 1:20

SECTION 1:5
EXISTING SERVICES

NOTE:
1. TO ENSURE THE SERVICE PIT IS STILL ACCESSIBLE AND FIT FOR USE THE RELEVANT AUTHORITY IS TO PROVIDE SIGN OFF / APPROVAL

PLAN 1:10

1. CLEAN PIT LID WITH BRUSH AND THEN SOFT BRUSH TO CLEAR RUST FROM LID
2. MOISTEN PAVER AND LID TO AID HYDRATION OF MORTAR MIX
3. USE CEMENT MORTAR WITH FORTIFYING COMPOUND (ARDEX OR APPROVED EQUIVALENT) AS JOINTING MATERIALS
4. USE A RICHER MIX eg: 1:1 CEMENT:SAND FOR THINNER (3-5mm) JOINTS AND 1:2.5 CEMENT:SAND MIX FOR THICKER (12-15mm) JOINTS
5. PIT LID INFILLS TO HAVE APPROX. 3mm GAP ON SIDES SO AS NOT TO TOUCH THE LID
6. GAPS ON SIDES SHOULD BE GROUTED WITH RICH CEMENT SAND MIX WITH FORTIFYING COMPOUND.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
CAST IRON TO REQUIREMENTS OF RELEVANT AUTHORITY

FOOTPATH TO BE LAID UP TO EDGE OF COVER

MIN 150mm THICK MASS CONCRETE BASE AROUND VALVE COVER FRAME

COVER SET IN PLACE USING MORTAR

FOOTPATH IN ACCORDANCE WITH RELEVANT FOOTPATH DETAIL

NOTE:
1. TO ENSURE THE SERVICE VALVE IS STILL ACCESSIBLE, THE RELEVANT AUTHORITY IS TO PROVIDE SIGN OFF / APPROVAL

2. FOR FIRE FIGHTING OPERATIONS, SERVICE VALVE COVERS ARE TO BE REINSTATED IN ACCORDANCE WITH THE WATER SUPPLY CODE OF AUSTRALIA WSA 03-2002-2.2 SYDNEY WATER EDITION VERSION, AND SPECIFICALLY DRAWINGS WAT-1305-V AND WAT-1306-V. ON COMPLETION THE NSWFB ZONE COMMANDERS EAST ONE (TEL: 0419 993 065) SHOULD BE CONTACTED TO ARRANGE TESTING TO ENSURE COMPLIANCE. TYPICALLY, THE CBD HAS SCREW HYDRANTS WHILST OUTSIDE CBD, SPRING HYDRANTS ARE USED.

3. WHERE PIT LID IS GREATER THAN 300mm IN ANY DIRECTION, AN INFILL LID IS TO BE USED.

SECTION 1:5

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
TYPICAL PLAN

100mm DEEP SELF EXPANDING JOINT FILLER IN CASE OF SURROUNDING AREA BEING INFLEXIBLE PAVEMENT (eg CONCRETE)

SERVICE PIT

FOOTPATH / ROAD AREA

VARIES

VARIES

VARIES

FLEXIBLE PAVEMENT ELEVATION

FLEXIBLE PAVEMENT

VARIES

VARIES

VARIES

RIGID PAVEMENT ELEVATION

SELF EXPANDING JOINT FILLER TO DEPTH OF RIGID PAVEMENT

RIGID PAVEMENT

VARIES

VARIES

VARIES

SCALE 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
FOOTPATH

STRUCTURAL SOIL (REFER TO CITY OF SYDNEY STREET TREE MASTER PLAN)

EXTENT OF STRUCTURAL SOIL

100mm THICK COMPACTED DGB20 BASE

TREE

AG-DRAIN

Soil Mix (Refer to City of Sydney Street Tree Master Plan)

Structural Soil (Refer to City of Sydney Street Tree Master Plan)

100mm Thick Compacted DGB20 Base

FOOTPATH

KERB

GUTTER

ROAD

PLAN 1:50

SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
JUNCTION ALONG PROPERTY BOUNDARY

ROAD/FOOTWAY

PROPERTY/EASEMENT

30mm THICK MORTAR BED MAXIMUM

PAVER

M8 ANCHOR BOLTS AT 500mm SPACING

90x50x3 S/S ANGLE

FOOTPATH AS SPECIFIED

REINFORCED CONCRETE BASE

SECTION 1:5

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

GENERAL FOOTPATH PROPERTY OWNERSHIP INTERFACE LOCATION

FOOTWAYS

Rev A
Date 19.11.13
Approved P S
Dwg No. 2.1.8
CLASS D IRON TREE GRATE SIMILAR TO CITYGREEN 'CASTLE'. SIZE AND DEPTH TO BE COORDINATED WITH PAVING LAYOUT. INNER RINGS TO BE REMOVABLE TO ACCOMMODATE TREE GROWTH.

150MM SQ. GRATE EQUAL TO 'SPS SQUARE FLO SERIES' WITH HINGED LID (2NO.) OVER WATERING PIPE

REMOVABLE STAINLESS STEEL TREE GUARD TO BE COORDINATED WITH GRATE

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

1. MAINTAIN PAVER BAND WIDTH OF 450mm EXCEPT WHERE REQUIRED TO ADJUST PAVERS TO SUIT SITE CONDITIONS, THEN MIN 400mm BAND WIDTH OVER MIN 5 COURSES IS ACCEPTABLE.
2. 1-3mm GAP REQUIRED BETWEEN PAVERS.
3. 60MM THICK PAVERS WILL BE REQUIRED IN DISTINCTIVE PLACES AS SPECIFIED (REFER TO FOOTWAYS SPECIFICATION FOR FURTHER DETAILS)

TYPICAL PAVING MODULE 1:50

STONE SIZES:
- TYPE A: 900 x 450 x 50mm
- TYPE B: 600 x 450 x 50mm
- TYPE C: 450 x 450 x 50mm
- TYPE D: 300 x 450 x 50mm

CJ: CONTRACTION JOINT
EJ: EXPANSION JOINT
**PLAN 1:100**

**NOTE:**
1. 1-3mm GAP REQUIRED BETWEEN PAVERS.
2. 60MM THICK PAVERS WILL BE REQUIRED IN DISTINCTIVE PLACES AS SPECIFIED (REFER TO FOOTWAYS SPECIFICATION FOR FURTHER DETAILS)

**STONE SIZES:**
- **TYPE A:** 900 x 450 x 50mm
- **TYPE B:** 600 x 450 x 50mm
- **TYPE C:** 450 x 450 x 50mm
- **TYPE D:** 300 x 450 x 50mm

**CJ:** CONTRACTION JOINT
**EJ:** EXPANSION JOINT
**GP:** GRANITE PAVING
**GP(F):** GRANITE PAVING FACETTED

**NOTE:**
- **Closure units against building/property line vary in length as determined by pattern. Minimum unit length of 300mm**
- **Non-standard cut pavers**
- **Set out pavers at 90° from face of kerb**

**General Arrangement Plan (Facetted)**

**Typical Paving Module 1:50**

**City of Sydney**

**Footways**

**Date:** 22.03.13
**Approved:** P S

**Dwg No.:** 2.2.2
BUILDING/PROPERTY LINE
REFER TO 2.2.4 FOR BUILDING & BACK OF KERB JUNCTION DETAILS
FACE OF KERB
REFER TO 2.2.5
REFER TO POLE DETAIL FOR JOINT MATERIAL AND SPECIFICATION
PAVING PATTERN TO CONTINUE AS CLOSE TO MAKE UP ZONE AS POSSIBLE
EJ & CJ REFERENCE TO 2.2.5
REFER TO 2.2.4 FOR BUILDING & BACK OF KERB JUNCTION DETAILS
BUILDING/PROPERTY LINE
FACE OF KERB
REFER TO POLE DETAIL FOR JOINT MATERIAL AND SPECIFICATION
ALIGN KERB RAMP TO SUIT LINES OF PEDESTRIAN TRAVEL AND PEDESTRIAN CROSSINGS, REFER TO DETAIL FOR DIMENSION AND DETAILS
FOR NON 90° INTERSECTIONS - PAVERS IN MAKE UP ZONE ARE TO BE CUT TO ACCOMMODATE THE INTERSECTION ANGLE
MIN UNIT LENGTH TO BE 300mm IN MAKE UP ZONE
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
PLAN 1:100

GRANITE PAVING
CORNER ARRANGEMENT PLAN (TYPICAL)

FOOTWAYS
Rev B Date 22.03.13
Approved PS
Dwg No 2.2.3
110mm THICK 32MPa CONCRETE SLAB
APPROVED SELF EXPANDING JOINT FILLER
POLYURETHANE SEALANT SMOOTH AND RECESSED

JUNCTION WITH BUILDING

BUILDING / PROPERTY LINE

PAVER
30mm THICK MORTAR BED MAXIMUM

POLYURETHANE SEALANT SMOOTH AND RECESSED
APPROVED SELF EXPANDING JOINT FILLER
SL72 40mm COVER
110mm THICK 32MPa CONCRETE SLAB
COMPACTED SUB-BASE CBR4

JUNCTION WITH BACK OF KERB

POLYURETHANE SEALANT SMOOTH AND RECESSED
APPROVED SELF EXPANDING JOINT FILLER
SL72 40mm COVER
110mm THICK 32MPa CONCRETE SLAB
COMPACTED SUB-BASE CBR4

JUNCTION WITH EXISTING PAVEMENT

POLYURETHANE SEALANT SMOOTH AND RECESSED
RESTORE EXISTING PAVEMENT TO MATCH NEW LEVELS EXISTING PAVEMENT SURFACE
SAWCUT (UNLESS PAVING)
AS SPECIFIED IN CONSTRUCTION DOCUMENT (600 TYP)
APPROVED SELF EXPANDING JOINT FILLER
SL72 40mm COVER
110mm THICK 32MPa CONCRETE SLAB
COMPACTED SUB-BASE CBR4

SECTION 1:5

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

GRANITE PAVING JUNCTIONS

FOOTWAYS

Rev B Date 22.03.13
Approved P S
Dwg No. 2.2.4
EXPANSION JOINT

1-3mm GAP TO BE LEFT BETWEEN PAVERS

PAVER

30mm THICK MORTAR BED MAXIMUM

SL72 40mm COVER

APPROVED 10mm SELF EXPANDING JOINT FILLER

DOWEL JOINT, 400mm LONG
N16 @ 500mm CENTRES

COMPACTED SUB-BASE CBR4

110mm THICK 32MPa CONCRETE SLAB

CONTRACTION JOINT

1-3mm GAP TO BE LEFT BETWEEN PAVERS

PAVER

30mm THICK MORTAR BED MAXIMUM

3mm SAW CUT TO ONE THIRD OF SLAB THICKNESS

SL72 40mm COVER

COMPACTED SUB-BASE CBR4

110mm THICK 32MPa CONCRETE SLAB

SCALE 1:5

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
KERB TYPES:

TYPE K(F): FULL HEIGHT
TYPE K(KRF): PEDESTRIAN CHAMFERED TO FALL
TYPE K(KR): PEDESTRIAN CROSSOVER

MAINTAIN MIN DISTANCE OF 1200mm FROM TOP OF RAMP TO ANY OBSTRUCTION

CLOSURE UNITS VARY IN LENGTH AS DETERMINED BY RAMP SETOUT. MINIMUM UNIT LENGTH OF 300mm.

MIN 1350

MIN 2000 AT SHARED PATHS

FACE OF KERB

KERB TYPES:

PLAN 1:50

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

GRANITE PAVING

PEDESTRIAN RAMP (TYPICAL)
NOTE: 750mm MIN. WHERE RESTRICTED BY SITE CONDITION (TO AUTHORITY APPROVAL)

PLAN 1:50

NOTE:
1. ONLY TO BE USED IN COUNCIL APPROVED LOCATIONS.

SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
GRANITE PAVED KERB RAMP

1500 KERB FALL

GARDEN

EDGE KERB 100mm FILLET

BACK OF KERB

FRONT OF KERB

GUTTER LIP

GRANITE PAVE KERB RAMP

FOR STONE KERB DETAILS REFER TO STONE KERB SECTION

BACK OF KERB

PLAN 1:20

FOR JOINT DETAILS REFER BELOW

GRANITE PAVING

150-300 TO MATCH ADJACENT ROAD GUTTER KERB BEYOND

FALL

30mm THICK MORTAR BED MAXIMUM

110mm THICK 32MPa CONCRETE BASE

SL72 40mm COVER

R12:500, 150 LONG STAINLESS STEEL STUDS EPOXY INTO STONE

50mm BLINDING CONCRETE

SECTION X-X 1:20

GRANITE PAVERS TO BE CUT TO SUIT ANGLE OF KERB RAMP

DETAIL 1:5

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

FOOTWAYS

GRANITE PAVING

PEDESTRIAN RAMP (ADJACENT GARDEN)

Rev C Date 03.03.16

Dwg No. 2.2.8

Approved P S
GRANITE FOOTPATH PAVING

SAWCUT PAVING TO SUIT BLOCKOUT MIN 300mm LONG

SAWCUT PAVING TO SUIT PAVING PATTERN

VARIES TO SUIT PAVING PATTERN

MIN 200

MIN 200

REGU PLANT 1:20

PLAN 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
**DRIVEWAY SPECIFICATIONS**

<table>
<thead>
<tr>
<th>DRIVEWAY USE</th>
<th>CONCRETE STRENGTH</th>
<th>THICKNESS</th>
<th>REINFORCEMENT</th>
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<tr>
<td>SINGLE RESIDENTIAL</td>
<td>32MPa</td>
<td>150mm</td>
<td>SL82</td>
</tr>
<tr>
<td>MULTI RESIDENTIAL</td>
<td>32MPa</td>
<td>200mm</td>
<td>SL82</td>
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<td>COMMERCIAL/INDUSTRIAL</td>
<td>32MPa</td>
<td>250mm</td>
<td>TWO LAYERS SL82</td>
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**NOTE:**
1. 60mm THICK PAVERS WILL BE REQUIRED IN DISTINCTIVE PLACES AS SPECIFIED
   (REFER TO FOOTWAYS SPECIFICATION FOR FURTHER DETAILS)

**NOTE:** ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

---

**KERB PROFILES**

- TYPE K(F): FULL HEIGHT
- TYPE K(VCF): VEHICULAR CHAMFERED TO FALL
- TYPE K(VC): VEHICULAR CROSSOVER

**NOTES:**
1. ALIGN CENTRE OF DRIVEWAY WITH ENTRY.
2. DRIVEWAY TO BE GENERALLY PERPENDICULAR TO KERB LINE UNLESS APPROVED OTHERWISE.
3. FOR NARROW FOOTPATHS, LENGTH OF RAMP TO BE REDUCED TO 900mm.
4. VERTICAL AND HORIZONTAL CLEARANCE SHALL BE CHECKED BY THE DESIGNER IN ACCORDANCE WITH AS2890.1.

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**SECTION 1:20**

**PLAN 1:50**

**NOTES:**

1. ALIGN CENTRE OF DRIVEWAY WITH ENTRY.
2. DRIVEWAY TO BE GENERALLY PERPENDICULAR TO KERB LINE UNLESS APPROVED OTHERWISE.
3. FOR NARROW FOOTPATHS, LENGTH OF RAMP TO BE REDUCED TO 900mm.
4. VERTICAL AND HORIZONTAL CLEARANCE SHALL BE CHECKED BY THE DESIGNER IN ACCORDANCE WITH AS2890.1.

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**CLOSED UNITS VARY IN LENGTH AS DETERMINED BY RAMP SETOUT. MINIMUM UNIT LENGTH OF 300mm APPLIES.**

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**GRANITE PAVING**

**VEHICULAR CROSSING**

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**FOOTWAYS**

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**Rev** D  
**Date** 10.06.16  
**Dwg No.** 2.2.10  
**Approved** P S
PIT LOCATION | MINIMUM PIT AND GRATE CLASS
--- | ---
FOOTWAY | C (PEDESTRIAN SAFE)
ROADWAY | D (CYCLE SAFE)
DRIVEWAY | D (PEDESTRIAN SAFE)

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
STONE PAVING ON 30mm THICK MORTAR BED MAXIMUM

75 x 50 x 5mm ANGLE FRAME
75 x 50 x 5mm S/S CONCRETE TIE WELDED TO FRAME. BOLT TO CONCRETE SLAB.

PIT WALL UNDER SHOWN DASHED

ALIGN GRATE AND FRAME TO CENTRE OF PAVEMENT BAND

KERB

PLAN 1:20

STONE PAVING ON 30mm THICK MORTAR BED MAXIMUM

S/S GRATED DRAIN. LOCK DOWN, NON-SLIP.

TYPICAL 450mm SQ FOOTPATH GRATED DRAINAGE PIT WITH S/S GRATING

PIT WALL UNDER SHOWN DASHED

ALIGN GRATE AND FRAME TO CENTRE OF PAVEMENT BAND

KERB

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SECTION 1:5

<table>
<thead>
<tr>
<th>PIT LOCATION</th>
<th>MINIMUM PIT AND GRATE CLASS</th>
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<tbody>
<tr>
<td>FOOTWAY</td>
<td>C (PEDESTRIAN SAFE)</td>
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<tr>
<td>ROADWAY</td>
<td>D (CYCLE SAFE)</td>
</tr>
<tr>
<td>DRIVEWAY</td>
<td>D (PEDESTRIAN SAFE)</td>
</tr>
</tbody>
</table>

NOTES:

- Existing or new pit wall. Minimum opening as required by service authority.

- Footway C (Pedestrian Safe)
- Roadway D (Cycle Safe)
- Driveway D (Pedestrian Safe)

GRANITE PAVING
STAINLESS STEEL GRATING TO DRAINAGE PIT

CITY OF SYDNEY

FOOTWAYS

Rev C
Date 21.11.13
Approved P S

Dwg No. 2.2.12
**NOTE:**

1. MAINTAIN PAVER BAND WIDTH OF 450mm EXCEPT WHERE REQUIRED TO ADJUST PAVERS TO SUIT SITE CONDITIONS, THEN MIN 400mm BAND WIDTH OVER MIN 5 COURSES IS ACCEPTABLE.
2. 1-3mm GAP REQUIRED BETWEEN PAVERS.
3. FOOTWAY STONE SETTS TO COMPLY WITH THE FOLLOWING
   3.1. NATURAL STONE MATERIAL
   3.2. TO BE SIZED TO FIT WITHIN 450mm WIDE PAVER BAND
   3.3. LAYED ON 200mm THICK 32Mpa REINFORCED (2 LAYERS of SL82) CONCRETE BASE
   3.4. DESIGNED FOR HEAVY VEHICLE LOADS
   3.5. MEET SLIP RESISTANCE OF MINIMUM W AS PER HB197

**STONE SIZES:**
- TYPE A: 900 x 450 x 60mm
- TYPE B: 600 x 450 x 60mm
- TYPE C: 450 x 450 x 60mm
- TYPE D: 300 x 450 x 60mm

CJ: CONTRACTION JOINT
EJ: EXPANSION JOINT

**PLAN 1:50**

**NOT: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED**

**FOOTWAYS**

**GRANITE PAVING**

**GENERAL ARRANGEMENT PLAN** *(GEORGE ST PEDESTRIAN ZONE)*

**Rev** A  
**Date** 19.11.13  
**Dwg No.** 2.2.13  
**Approved** P S
GRANITE PAVING

STONE SIZES:
TYPE A: 900 x 450 x 60mm
TYPE B: 600 x 450 x 60mm
TYPE C: 450 x 450 x 60mm
TYPE D: 300 x 450 x 60mm

CJ: CONTRACTION JOINT
EJ: EXPANSION JOINT

NOTE:
1. MAINTAIN PAVER BAND WIDTH OF 450mm EXCEPT WHERE REQUIRED TO ADJUST PAVERS TO SUIT SITE CONDITIONS, THEN MIN 400mm BAND WIDTH OVER MIN 5 COURSES IS ACCEPTABLE.
2. 1-3mm GAP REQUIRED BETWEEN PAVERS.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

PLAN 1:50

GENERAL ARRANGEMENT PLAN
(GEORGE ST PEDESTRIAN ZONE STATION)
BUILDING/PROPERTY LINE
FOOTWAY STONE SETTS
REFER TO 2.2.13

STONE SIZES:
TYPE A:  900 x 450 x 60mm
TYPE B:  600 x 450 x 60mm
TYPE C:  450 x 450 x 60mm
TYPE D:  300 x 450 x 60mm

CJ: CONTRACTION JOINT
EJ: EXPANSION JOINT

NOTES:
1. MAINTAIN PAVER BAND WIDTH OF 450mm EXCEPT WHERE REQUIRED TO ADJUST PAVERS TO SUIT SITE CONDITIONS, THEN MIN 400mm BAND WIDTH OVER MIN 5 COURSES IS ACCEPTABLE.
2. 1-3mm GAP REQUIRED BETWEEN PAVERS.
3. TACTILES AS REQUIRED
4. ROAD PAVING TO COMPLY WITH THE FOLLOWING REQUIREMENTS
   4.1. LAYED ON A 200mm THICK 32mpa REINFORCED (2 LAYERS OF SL82) CONCRETE BASE
   4.2. A NATURAL STONE PAVER WITH SIMILAR COLOUR TO AUSTRAL BLACK GRANITE PAVING
   4.3. DESIGNED FOR HEAVY TRAFFIC LOADS EQUIVALENT TO CLASS D
   4.4. TO MEET THE RMS SKID RESISTANCE REQUIREMENTS
   4.5. DEMONSTRATED TO HAVE MINIMAL POLISHING OVER TIME DUE TO TRAFFIC LOADS
   4.6. PAVING TO BE DESIGNED FOR QUICK MAINTENANCE ALLOWING FOR TRAFFIC LOADING AFTER REPAIR
   4.7. MINIMUM SERVICE LIFE OF PAVEMENT SHALL BE 40 YEARS

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

PLAN 1:100
PAVING PATTERN IN ACCORDANCE WITH 2.2.1

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

PLAN 1:20

SECTION 1:10

GRANITE PAVING
STORMWATER VALLEY DRAIN
(GEORGE ST PEDESTRIAN ZONE)
REFER TO DRAWING 2.2.1 FOR GRANITE PAVING

SINGLE TREE PIT PLAN

REFER TO DRAWING 2.2.1 FOR GRANITE PAVING

LINKED TREE PIT PLAN

NOTE:

1. THE VOLUME OF STRUCTURAL CELLS OR STRUCTURAL SOIL DOES NOT NEED TO BE REGULAR IN SHAPE. SHAPE MAY BE ADJUSTED BASED ON SPECIFIC SITE CONSTRAINTS IN ORDER TO ACHIEVE THE REQUIRED SOIL VOLUMES.

2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWINGS 2.2.1, 2.2.18 & 2.2.19
SECTION A

TREE AS SPECIFIED

TREE GRATE AS SPECIFIED

VOID

ROOT BALL

DRAINAGE SYSTEM

TRANSITION LAYER

DRAINAGE LAYER WITH DRAINAGE PIPE

SECTION B

IMPERMEABLE MEMBRANE (BETWEEN SLAB AND CELL)

STRUCTURAL RC SLAB

STRUCTURAL SOIL AS SPECIFIED BY URBAN SOIL CONSULTANT AND APPROVED BY THE CITY OF SYDNEY

GRANITE PAVING

AG-PIPE FOR AERATION/WATERING

GEOFABRIC UNDER DRAINAGE LAYER

UNDISTURBED EXISTING SOIL

TRANSITION LAYER 100mm THICK

DRAINAGE LAYER 150mm THICK

AG-PIPE DRAIN (NO SOCK) TO STORMWATER

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.

GRANITE PAVING
ALTERNATIVE TREE PIT ARRANGEMENT

Rev B Date 17.12.13
Approved PS
Dwg No. 2.2.19
NOTE: 1. MAINTAIN PAVER BAND WIDTH OF 400mm EXCEPT WHERE REQUIRED TO ADJUST PAVERS TO SUIT SITE CONDITIONS, THEN MIN 350mm BAND WIDTH OVER MIN 5 COURSES IS ACCEPTABLE.
2. 1-3mm GAP REQUIRED BETWEEN PAVERS.
3. PAVERS TO BE SET OUT 90° TO BACK OF KERB.

TYPICAL PAVING MODULE 1:50

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE:

1. 1 - 3mm GAP REQUIRED BETWEEN PAVERS.
2. PAVERS TO BE SET OUT 90° TO BACK OF KERB.

TYPICAL PAVING MODULE 1:50

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

CONCRETE UNIT PAVING
GENERAL ARRANGEMENT PLAN (FACETTED)
BUILDING/PROPERTY LINE
REFER TO 2.3.4 FOR BUILDING & BACK OF KERB JUNCTION DETAILS
FACE OF KERB
EJ & CJ
REFER TO 2.3.5
REFER TO POLE DETAIL FOR JOINT MATERIAL AND SPECIFICATION
PAVING PATTERN TO CONTINUE AS CLOSE TO MAKE UP ZONE AS POSSIBLE
REFER TO 2.3.4 FOR BUILDING & BACK OF KERB JUNCTION DETAILS
BUILDING/PROPERTY LINE
FACE OF KERB
MIN UNIT LENGTH TO BE 300mm IN MAKE UP ZONE
FOR NON 90° INTERSECTIONS - PAVERS IN MAKE UP ZONE ARE TO BE CUT TO ACCOMMODATE THE INTERSECTION ANGLE
Align kerb ramps to suit lines of pedestrian travel and pedestrian crossings, refer to 2.3.6 for dimension and details
Refer to pole detail for joint material and specification
PLAN 1:100

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
COMPACTED SUB-BASE CBR4
110mm THICK 32MPa CONCRETE SLAB
30mm THICK MORTAR BED MAXIMUM
SL72 40mm COVER
DOWEL JOINT, 400mm LONG N16 @ 500mm CENTRES
110mm THICK 32MPa CONCRETE SLAB
APPROVED 10mm SELF EXPANDING JOINT FILLER
COMPACTED SUB-BASE CBR4
1-3mm GAP TO BE LEFT BETWEEN PAVERS
PAVER
3mm SAW CUT TO ONE THIRD OF SLAB THICKNESS
CONTRACTION JOINT

SECTION 1:5

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
MAINTAIN MIN DISTANCE OF 1330mm FROM TOP OF RAMP TO ANY OBSTRUCTION

PAVER SIZES

TYPE A: 600 x 400 x 50mm
TYPE B: 450 x 400 x 50mm
TYPE C: 300 x 400 x 50mm
TYPE D: SPECIAL CUT

KERB TYPES:

TYPE K(F): FULL HEIGHT
TYPE K(KRF): PEDESTRIAN CHAMFERED TO FALL
TYPE K(KR): PEDESTRIAN CROSSOVER

PLAN 1:50

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
CONCRETE UNIT PAVING
PEDESTRIAN RAMP (ADJACENT GARDEN)

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

PLAN 1:20

SECTION X-X 1:20

DETAIL 1:5

FOR JOINT DETAILS REFER BELOW
CONCRETE PAVED FOOTPATH

30mm THICK MORTAR BED MAXIMUM
SL72 40mm COVER
110mm THICK 32MPa CONCRETE BASE

FOOTPATH
KERB RAMP

PAVERS TO BE CUT TO SUIT ANGLE OF KERB RAMP
PAVERS TO BE CUT TO SUIT ANGLE OF KERB RAMP

FOOTWAYS
Rev B Date 22.03.13
Approved P S
Dwg No. 2.3.7
PLAN 1:20

SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
PAVER SIZES
TYPE A: 600 x 400 x 60mm
TYPE B: 450 x 400 x 60mm
TYPE C: 300 x 400 x 60mm
TYPE D: SPECIAL CUT

KERB TYPES:
TYPE K(F): FULL HEIGHT
TYPE K(VC): VEHICULAR CHAMFERED TO FALL
TYPE K(V): VEHICULAR CROSSOVER

NOTES:
1. DRIVEWAY TO BE GENERALLY PERPENDICULAR TO KERB LINE, UNLESS APPROVED OTHERWISE.
2. VERTICAL AND HORIZONTAL CLEARANCE SHALL BE CHECKED BY THE DESIGNER IN ACCORDANCE WITH AS2890.1.

PLAN
1:50

SECTION
1:20

DRIVEWAY SPECIFICATIONS

<table>
<thead>
<tr>
<th>DRIVEWAY USE</th>
<th>CONCRETE STRENGTH</th>
<th>THICKNESS</th>
<th>REINFORCEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SINGLE RESIDENTIAL</td>
<td>32MPa</td>
<td>150mm</td>
<td>SL82 LOCATED CENTRALLY</td>
</tr>
<tr>
<td>MULTI RESIDENTIAL</td>
<td>32MPa</td>
<td>200mm</td>
<td>SL82 LOCATED CENTERALLY</td>
</tr>
<tr>
<td>COMMERCIAL/INDUSTRIAL</td>
<td>32MPa</td>
<td>250mm</td>
<td>TWO LAYERS SL82 50mm COVER TOP &amp; BOTTOM</td>
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</table>

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

CITY OF SYDNEY

CONCRETE UNIT PAVING
VEHICULAR CROSSING

FOOTWAYS

Rev C
Date 10.06.16
Approved P S
Dwg No. 2.3.9
VALLEY DRAIN TO TRANSITION OVER 900mm TO MATCH FLUSH WITH GRATED DRAINAGE PIT

TYPICAL 450mm SQ FOOTPATH S/S GRATED DRAINAGE PIT WITH GRATING ALIGNED TO DIRECTION OF WATER FLOW. REFER TO TABLE BELOW FOR CLASS INSTRUCTIONS.

CREATE MAKE UP ZONE USING STANDARD PAVING SIZES AND RETURN TO STANDARD PATTERN ON EITHER SIDE

PLAN 1:50

50mm THICK CONCRETE UNIT PAVING ON 30mm THICK MORTAR BED

450mm SQUARE FOOTPATH GRATED DRAINAGE PIT WITH S/S GRATING (REFER TO TABLE BELOW)

NOTES:
1. ALIGN 450mm SQUARE PIT FRAME TO PAVEMENT BANDING & TO PAVING MODULES AS SHOWN.
2. DETAIL NOT TO BE USED WITHOUT SITE SPECIFIC APPROVAL FROM COUNCIL.

SECTION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
TYPICAL 450mm SQ FOOTPATH GRATED DRAINAGE PIT WITH S/S GRATING

PIT WALL UNDER SHOWN DASHED

ALIGN GRATE AND FRAME TO CENTRE OF PAVEMENT BAND

KERB

PLAN 1:20

50mm THICK STONE PAVING ON 30mm THICK MORTAR BED

S/S GRADED DRAIN, 8mm APERTURE SIZE, PEDESTRIAN SAFE, LOCK DOWN, NON-SLIP. FOR CLASS REFER TO DRAWING 2.3.9

SUPPORT RIB

75 x 50 x 5mm ANGLE FRAME

75 x 50 x 5mm S/S CONCRETE TIE WELDED TO FRAME. BOLT TO CONCRETE SLAB.

CONCRETE BASE

EXISTING OR NEW PIT WALL. MINIMUM OPENING AS REQUIRED BY SERVICE AUTHORITY.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
EXTENT OF STRUCTURAL SOIL UNDER TO BE NOT LESS THAN 50 mm

PLAN

SECTION A

SECTION B

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

CONCRETE UNIT PAVING
TREE PIT ARRANGEMENT

FOOTWAYS
Rev B Date 17.12.13
Dwg No. 2.3.12
Approved PS
KERB
GUTTER

FACE OF KERB

TREE PLANTING REFER TO STREET TREE MASTER PLAN

PAVING SURROUNDS SHALL BE CUT TO SUIT

BUILDING PROPERTY LINE

SMARTPOLE (REFER TO POLE DETAIL FOR JOINT MATERIAL AND SPECIFICATION)

EDGE PAVERS SHALL BE CUT TO SUIT

90° HERRING BONE PATTERN TO BE ORIENTATED AS SHOWN

BUILDING PROPERTY LINE

TYPICAL PAVING MODULE 1:50

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

FOOTWAYS

BRICK PAVING

GENERAL ARRANGEMENT PLAN

Rev B
Date 22.03.13
Approved P S
Dwg No. 2.4.1
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

BRICK PAVING CORNER ARRANGEMENT PLAN

PEDESTRIAN RAMPS

BUILDING PROPERTY LINE

KERB

GUTTER

90° HERRING BONE PATTERN SHALL BE ORIENTATED AS SHOWN

NOTES:

1. FOR NON 90° INTERSECTIONS, PAVERS IN MAKE UP ZONE ARE TO BE CUT TO ACCOMMODATE THE INTERSECTION ANGLE.

PLAN 1:100

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
BRICK PAVED RAMP

1500 NOM

1500 NOM

1565 (TYP) 1200 MIN

MIN 2000 AT SHARED PATHS

SHARP TRANSITION
REFER TO JOINT DETAIL BELOW

BRICK PAVED RAMP

BRICK PAVING
PEDESTRIAN RAMP (TYPICAL)

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

PLAN 1:50

SECTION 1:20

DETAIL 1:5
**DRIVEWAY SPECIFICATIONS**

<table>
<thead>
<tr>
<th>DRIVEWAY USE</th>
<th>CONCRETE STRENGTH</th>
<th>THICKNESS</th>
<th>REINFORCEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SINGLE RESIDENTIAL</td>
<td>32MPa</td>
<td>150mm</td>
<td>SL82 CENTRALLY LOCATED</td>
</tr>
<tr>
<td>MULTI RESIDENTIAL</td>
<td>32MPa</td>
<td>200mm</td>
<td>SL82 CENTRALLY LOCATED</td>
</tr>
</tbody>
</table>

**NOTES:**

1. DRIVEWAY TO BE GENERALLY PERPENDICULAR TO KERB LINE, UNLESS APPROVED OTHERWISE.
2. ALL DRIVEWAY CROSSINGS TO INCLUDE REINFORCED CONCRETE SLAB.
3. FOR NARROW FOOTPATHS, LENGTH OF RAMP TO BE REDUCED TO 900mm, OR LAYBACK ONLY TO BE USED IN APPROVED APPLICATIONS.
4. FOR DRIVEWAYS WIDER THAN 6.0m A TOOL JOINT SHALL BE PROVIDED ALONG THE CENTRE OF THE DRIVEWAY.
5. VERTICAL AND HORIZONTAL CLEARANCE OF THE VEHICULAR CROSSINGS SHALL BE CHECKED BY THE DESIGNER.
6. CONCRETE STRENGTH SHALL NOT BE LESS THAN Fc=32MPa.

**NOTE:** ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SECTION 1:20

1. DRIVEWAY TO BE GENERALLY PERPENDICULAR TO KERB LINE, UNLESS APPROVED OTHERWISE.
2. FOR NARROW FOOTPATHS, LENGTH OF RAMP TO BE REDUCED TO 900mm, OR LAYOUT ONLY TO BE USED IN APPROVED APPLICATIONS.
3. FOR DRIVEWAYS WIDER THAN 6.0m A TOOL JOINT SHALL BE PROVIDED ALONG THE CENTRE OF THE DRIVEWAY.
4. CONCRETE TO BE MINIMUM 32MPa.
NOTES:
1. DRIVEWAY TO BE GENERALLY PERPENDICULAR TO KERB LINE, UNLESS APPROVED OTHERWISE.
2. FOR NARROW FOOTPATHS, LENGTH OF RAMP TO BE REDUCED TO 900mm, OR LAYBACK ONLY TO BE USED IN APPROVED APPLICATIONS.
3. FOR DRIVEWAYS WIDER THAN 6.0m A TOOL JOINT SHALL BE PROVIDED ALONG THE CENTRE OF THE DRIVEWAY.
4. CONCRETE TO BE MINIMUM 32MPA.
NOTE:

1. MODIFIED ASPHALTIC CONCRETE WITH POLYMER ADDITIVE TO INCREASE SOFTENING POINT TO BE USED IN LOCATIONS WITH EXISTING OR PROPOSED OUTDOOR DINING (FULL FRONTAGE).

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SCALE 1:20
NOTE: 600mm MIN WHERE RESTRICTED BY SITE CONDITIONS SUBJECT TO APPROVAL

PLAN 1:50

SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

110mm THICK 32MPa CONCRETE RAMP WITH OXIDE TO MATCH ASPHALT FOOTPATH

ASPHALT FOOTPATH

MIN. 100mm THICK COMPACTED DGB20 BASE

SL72 40mm COVER

COMPACTED SUBGRADE TO CBR4

APPROVED SELF EXPANDING JOINT FILLER (STONE KERB ONLY)

GUTTER

ROAD

KERB

TO MATCH ADJACENT 150-300

8 1 MAX.

TYP 1500

FOOTWAYS

ASPHALT PAVING

PEDESTRIAN RAMP

Rev C
Date 21.11.13
Approved P S
Dwg No. 2.5.3

NOTE: 1200 MIN 1500 TYP.

2000 MIN AT SHARED PATH

TOOL/DUMMY JOINTS

COLOURED CONCRETE RAMP

NOTE: 600mm MIN WHERE RESTRICTED BY SITE CONDITIONS SUBJECT TO APPROVAL
PLAN 1:20

SECTION A-A 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
DRIVEWAY SPECIFICATIONS

<table>
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<th>DRIVeway USE</th>
<th>CONCRETE STRENGTH</th>
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<tr>
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</table>

NOTES:
1. DRIVEWAY TO BE GENERALLY PERPENDICULAR TO KERB LINE, UNLESS APPROVED OTHERWISE.
2. FOR NARROW FOOTPATHS, LENGTH OF RAMP TO BE REDUCED TO 900mm, OR LAYBACK ONLY TO BE USED IN APPROVED APPLICATION.
3. DRIVEWAY TO BE GENERALLY PERPENDICULAR TO KERB LINE, UNLESS APPROVED OTHERWISE.
4. VERTICAL AND HORIZONTAL CLEARANCE SHALL BE CHECKED BY THE DESIGNER IN ACCORDANCE WITH AS2890.1.
5. CONCRETE TO BE MINIMUM 32MPa

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTES:

1. THIS DRIVEWAY SUIT COMMERCIAL VEHICULAR CROSSINGS SUBJECT TO AXLE LOADING OF 10 TONNES OR LIGHTER.
2. DRIVEWAY TO BE GENERALLY PERPENDICULAR TO KERB LINE, UNLESS APPROVED OTHERWISE.
3. VERTICAL AND HORIZONTAL CLEARANCE SHALL BE CHECKED BY THE DESIGNER IN ACCORDANCE WITH AS2890.1.
4. FOR NARROW FOOTPATHS, LENGTH OF RAMP TO BE REDUCED TO 500mm, OR LAYBACK ONLY TO BE USED IN APPROVED APPLICATIONS.
5. FOR DRIVEWAYS WIDER THAN 6.0m A TOOL JOINT SHALL BE PROVIDED ALONG THE CENTRE OF THE CONCRETE DRIVEWAY.
6. CONCRETE TO BE MINIMUM 32MPa.
7. TYPE OF KERB TO SUIT SYDNEY STREET CODE.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTES:
1. ALL STEELWORK TO BE HOT DIPPED GALVANISED.
2. ALL STEELWORK BELOW GROUND LEVEL TO BE PAINTED WITH TWO COATS OF BITUMINOUS PAINT.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
ASPHALT FOOTPATH

TIMBER EDGE

TREE BED

450mm x 45mm² TREATED PINE (H5) STAKES AT 1200mm C/C

25 x 75mm TREATED PINE (H5) OR HARDWOOD EDGE

SET PEG 25mm DOWN

GALVANISED STEEL NAILS

SECTION 1:10

ELEVATION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE:

1. ALL EXPOSED CONCRETE SURFACES MUST BE FINISHED WITH A MEDIUM BROOM FINISH GENERALLY PERPENDICULAR TO THE DIRECTION OF TRAVEL.
2. ALL CONCRETE SLABS MUST HAVE A JOINT ALONG THE BUILDING LINE, KERB LINE AND ANY PENETRATIONS (EXCEPT WHEN USING BRICK KERBS).
3. ANY FOOTPATH THAT MAY BE SUBJECT TO VEHICULAR LOADS (SUCH AS GARBAGE TRUCKS IN NARROW LANES OR AT INTERSECTIONS WITH A TIGHT TURNING CIRCLE WHERE VEHICLES MAY MOUNT THE FOOTWAY) MUST HAVE AT LEAST 150mm THICK REINFORCED CONCRETE BASE (SL72).
4. CONCRETE FOOTWAYS TO BE A MINIMUM OF 1.2m WIDE, OR AS DIRECTED BY COUNCIL.
5. TYPICALLY ALLOW FOR EXPANSION JOINTS AT 4.5m - 5.4m SPACING AND CONTRACTION JOINTS AT 1.5m - 1.8m SPACING IN PLAIN CONCRETE FOOTPATHS.

PLAN 1:50

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE:

1. DETAIL ONLY TO BE USED IF MATCHING EXISTING. CITY REPRESENTATIVE TO APPROVE.
2. ALL EXPOSED CONCRETE SURFACES MUST BE FINISHED WITH A MEDIUM BROOM FINISH GENERALLY PERPENDICULAR TO THE DIRECTION OF TRAVEL.
3. ALL CONCRETE SLABS MUST HAVE A JOINT ALONG THE BUILDING LINE, KERB LINE AND ANY PENETRATIONS (EXCEPT WHEN USING BRICK KERBS).
4. ANY FOOTPATH THAT MAY BE SUBJECT TO VEHICLE LOADS (SUCH AS GARBAGE TRUCKS IN NARROW LANES OR AT INTERSECTIONS WITH A TIGHT TURNING CIRCLE WHERE VEHICLES MAY MOUNT THE FOOTWAY) MUST HAVE AT LEAST 150mm THICK REINFORCED CONCRETE BASE (SL72).
5. CONCRETE FOOTWAYS TO BE A MINIMUM OF 1.2m WIDE, OR AS DIRECTED BY COUNCIL.
6. TYPICALLY ALLOW FOR EXPANSION JOINTS AT 4.5m - 5.4m SPACING AND CONTRACTION JOINTS AT 1.5m - 1.8m SPACING IN PLAIN CONCRETE FOOTPATHS.

PLAN 1:50

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
SECTION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
EXPANSION JOINT

10mm THICK APPROVED SELF EXPANDING JOINT FILLER

SL72 40mm COVER

CONSTRUCTION JOINT

SAWCUT 25mm DEEP OR ONE THIRD OF SLAB DEPTH OR PROVIDE DUMMY (TOOLED JOINT)

SL72 40mm COVER

SECTION 1:2
CONCRETE TOOL/DUMMY JOINTS

NOTE: 600mm MIN WHERE RESTRICTED BY SITE CONDITIONS SUBJECT TO APPROVAL

1200 MIN 1500 TYP.
2000 MIN AT SHARED PATH

TOOL/DUMMY JOINTS

CONCRETE

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

PLAN 1:50

SECTION 1:20

CONCRETE PAVING
PEDESTRIAN RAMP
CONCRETE KERB RAMP

1500

KERB FALL

GARDEN

1500

EDGE KERB

FOR STONE KERB DETAILS REFER TO STONE KERB SECTION

BACK OF KERB

FRONT OF KERB

100mm FILLET

PLAN 1:20

110mm THICK 32MPa CONCRETE RAMP

150-300 TO MATCH ADJACENT ROAD

GUTTER LIP

FOOTWAYS

1500

MIN. 100mm THICK COMPACTED DGB20 BASE

Compact Sub grade to CBR4

CONCRETE FOOTPATH

SL72 40mm COVER

FALL

FALL

1 MAX.

KERB BEYOND

FOOTWAYS

NOTES: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

CONCRETE PAVING

PEDESTRIAN RAMP (ADJACENT GARDEN)
CONCRETE FOOTPATH

CONCRETE EDGE FORMED TO SUIT BLOCKOUT

MIN 200

VARIES

MIN 200

MIN 200

AC COLD MIX INFILL

CONCRETE FOOTPATH

100mm DGB20

COMPACTED SUBGRADE - CBR4

POWER POLE OR SMART POLE

600 MIN (MIN 1000 FOR TRAFFIC SIGNALS)

KERB

GUTTER

PLAN 1:20

SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

CONCRETE PAVING

PAVING AROUND LIGHT POLES AND SMARTPOLES

FOOTWAYS

Rev: B
Date: 22.03.13
Approved: P S
Dwg No. 2.6.7
DRIVEWAY SPECIFICATIONS

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<tr>
<td>SINGLE RESIDENTIAL</td>
<td>32MPa</td>
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<tr>
<td>MULTI RESIDENTIAL</td>
<td>32MPa</td>
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<td>SL82</td>
</tr>
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<td>32MPa</td>
<td>250mm</td>
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NOTE: ALL DIMENSIONS IN MILLI METRES UNLESS OTHERWISE STATED.
NOTE: ALL WORK SHOULD BE CARRIED OUT IN ACCORDANCE WITH THE AS/NZS 1428.4.1 2009 & CITY'S "SYDNEY STREETS TECHNICAL SPECIFICATION", OR AS DIRECTED BY THE CITY'S REPRESENTATIVE.

2. FOR RAMPS WIDER THAN 2 METRES, WIDTH OF TACTILE INDICATORS ON THE RAMP SHOULD BE MINIMUM 1000MM. WHEN WIDTH OF RAMP IS LESS THAN OR EQUAL TO TWO (2) METRES WIDTH OF TACTILE INDICATOR'S BLOCK SHALL MATCH THE RAMP.

3. TYPE AND COLOUR OF TGSIS SHALL BE IN ACCORDANCE WITH CITY OF SYDNEY'S TECHNICAL SPECIFICATIONS UNLESS SPECIFIED FOR THE PROJECT. REFER TO DRAWING# 2.7.4 FOR THE COLOUR AND TYPES.

4. DIFFERENT COLOURS AND TYPES OF TGSIS MAY BE USED FOR SPECIFIC PROJECTS, IN WHICH CASE CITY OF SYDNEY'S APPROVAL MUST BE OBTAINED IN THE DESIGN PHASE.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE:
1. ALL WORK SHOULD BE CARRIED OUT IN ACCORDANCE WITH THE AS/NZS 1428.4.1 2009 & CITY’S "SYDNEY STREETS TECHNICAL SPECIFICATION", OR AS DIRECTED BY THE CITY'S REPRESENTATIVE.
2. FOR RAMPS WIDER THAN 2 METRES, WIDTH OF TACTILE INDICATORS ON THE RAMP SHOULD BE MINIMUM 1000MM. WHEN WIDTH OF RAMP IS LESS THAN OR EQUAL TO TWO (2) METRES WIDTH OF TACTILE INDICATOR'S BLOCK SHALL MATCH THE RAMP.
3. TYPE AND COLOUR OF TGSI'S SHALL BE IN ACCORDANCE WITH CITY OF SYDNEY'S TECHNICAL SPECIFICATIONS UNLESS SPECIFIED FOR THE PROJECT. REFER TO DRAWING# 2.7.4 FOR THE COLOUR AND TYPES.
4. DIFFERENT COLOURS AND TYPES OF TGSI'S MAY BE USED FOR SPECIFIC PROJECTS, IN WHICH CASE CITY OF SYDNEY'S APPROVAL MUST BE OBTAINED IN THE DESIGN PHASE.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

LEGEND

- WARNING TGSIs
- DIRECTIONAL TGSIs

NOTE:
1. ALL WORK SHOULD BE CARRIED OUT IN ACCORDANCE WITH THE AS/NZS 1428.4.1 2009 & CITY'S "SYDNEY STREETS TECHNICAL SPECIFICATION", OR AS DIRECTED BY THE CITY'S REPRESENTATIVE.
2. FOR RAMPS WIDER THAN 2 METRES, WIDTH OF TACTILE INDICATORS ON THE RAMP SHOULD BE MINIMUM 1000MM. WHEN WIDTH OF RAMP IS LESS THAN OR EQUAL TO TWO (2) METRES WIDTH OF TACTILE INDICATOR'S BLOCK SHALL MATCH THE RAMP. TYPE AND COLOUR OF TGSIs SHALL BE IN ACCORDANCE WITH CITY OF SYDNEY'S TECHNICAL SPECIFICATIONS UNLESS SPECIFIED FOR THE PROJECT. REFER TO DRAWING# 2.7.4 FOR THE COLOUR AND TYPES.
3. DIFFERENT COLOURS AND TYPES OF TGSIs MAY BE USED FOR SPECIFIC PROJECTS, IN WHICH CASE CITY OF SYDNEY'S APPROVAL MUST BE OBTAINED IN THE DESIGN PHASE.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
**Item** | **Base Surface** | **Background Surface** | **Tactile Type**
---|---|---|---
1 | Granite | Granite | Stainless Steel
2 | Brick Pavers | Concrete | Stainless Steel
3 | Concrete Pavers | Concrete/Concrete Pavers | Stainless Steel
4 | Asphalt | Concrete | Stainless Steel
5 | Concrete | Concrete coloured in with black oxide | Stainless Steel

**WARNING TGSI**

**LEGEND**

- WARNING TGSI
- DIRECTIONAL TGSI

**NOTE:**
1. TYPE AND COLOUR OF TGSI'S SHALL BE IN ACCORDANCE WITH THIS DRAWINGS UNLESS SPECIFIED FOR THE PROJECT. REFER TO DRAWINGS #2.7.1, #2.7.2 AND #2.7.3 FOR TYPICAL LAYOUT OF TGSI INSTALLATION.
2. DIFFERENT COLOURS AND TYPES OF TGSI'S MAY BE USED FOR SPECIFIC PROJECTS, IN WHICH CASE CITY OF SYDNEY'S APPROVAL MUST BE OBTAINED IN PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
3. WHERE THE BASE SURFACE IS CONCRETE AND STAINLESS STEEL TGSI'S ARE USED, THE BACKGROUND COLOUR SHALL BE CHANGED TO BLACK. SIZE OF THE BLACK COLOUR SHALL MATCH SIZE OF TGSI'S BLOCK. PLEASE NOTE THAT THE BASE COLOUR SHALL REMAIN AS NATURAL CONCRETE COLOUR.
4. FOR RAMP CONSTRUCTION DETAIL, REFER TO APPROPRIATE DRAWING TO SUIT FOOTPATH'S FINISH MATERIAL.
5. SIZE OF THE TGSI'S MAY VARY TO SUIT ANY SPECIFIC DESIGN PENDING CITY'S APPROVAL.

**NOTE:** ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.
NOTE:

1. THIS DRAWING IS TO READ IN CONJUNCTION WITH RMS TECHNICAL DIRECTION TDT 2013/05 - CONTINUOUS FOOTPATH TREATMENTS.
2. SURFACE TREATMENTS AND MATERIALS FOR THE CONTINUOUS FOOTPATH TREATMENT SHALL MATCH THE ADJACENT FOOTPATH AND SHALL DIFFER FROM ROAD SURFACE FINISH.
3. WHERE ROAD SURFACE MATERIAL AND CONTINUOUS FOOTPATH TREATMENT MATERIAL ARE SIMILAR, THE FOOTPATH SURFACE SHALL BE REMOVED AND RECONSTRUCTED TO 5m EITHER SIDE OF THE FOOTPATH TREATMENT WITH AN APPROVED MATERIAL TO SUIT SYDNEY STREETSCAPE SPECIFICATION, UNLESS NOTED OTHERWISE.
4. TYPE AND COLOUR OF TGSIS SHALL BE IN ACCORDANCE WITH CITY OF SYDNEY'S TECHNICAL SPECIFICATIONS UNLESS SPECIFIED FOR THE PROJECT. REFER TO DRAWING# 2.7.4 FOR THE COLOUR AND TYPES.
5. THE PIANO KEY MARKING SHALL BE IN ACCORDANCE WITH AUSTRALIAN STANDARDS AS1742.13 FIGURE 4.3.
6. WIDTH OF THE WING MAY VARY TO SUIT CALCULATED TURNING PATHS AND/OR EXISTING KERB RETURNS.
7. VERTICAL AND HORIZONTAL CLEARANCE SHALL BE CHECKED IN ACCORDANCE WITH AS2890.1 BY THE DESIGN ENGINEER.
8. WHERE GEOMETRY OF THE RAMP ALLOWS, THE LIP SHALL BE OMITTED.
9. WHERE ACHIEVING 2000mm IS NOT POSSIBLE, WIDTH OF FOOTPATH MAY BE REDUCED TO 1800mm ONCE APPROVED BY CITY'S REPRESENTATIVE.
RIGID ROAD PAVEMENT

SUB-GRADE COMPACTED TO 98% STD MDD (CBR4)
BASE COURSE OF DGB20
40MPa CONCRETE
SL82 T&B 50mm MIN COVER
AC14 WEARING COURSE
REGIONAL ROADS/AC10
FOR OTHER ROADS

FLEXIBLE ROAD PAVEMENT

AC20 ROAD BASE (PLACED IN 2 EQUAL LAYERS)
BASE COURSE OF DGB20
SUB-BASE COURSE OF DGS40
SUB-GRADE COMPACTED TO 98% STD MDD (CBR4)
AC14 WEARING COURSE
REGIONAL ROADS/AC10
FOR OTHER ROADS

SECTION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTES

1. TRANSVERSE EXPANSION JOINTS SHALL BE PLACED AT 20m MAXIMUM SPACING ON CONTINUOUS PAVEMENT.
2. TRANSVERSE CONTRACTION JOINTS TO BE PLACED AT 5m MAXIMUM SPACING ON CONTINUOUS PAVEMENT.
3. CONSTRUCTION JOINTS SHALL BE PLACED AT WORK EXTENTS WHEN JOINING ONTO ADJACENT RIGID PAVEMENTS.

SCALE 1:100

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
FIRST PLACED SLAB

25mm EXPANSION ALLOWANCE
CAP TO BE PROVIDED

R20 GALVANISED DOWEL 600mm LONG @
450mm CTS IN DANLEY DOWEL MASTER
COVER OR CONNOLLY DOWEL SLEEVE

35mm DEEP SEALANT
RESERVOIR AND SEALANT

10mm APPROVED SELF EXPANDING JOINT FILLER

DISCONTINUE MESH 75mm
EITHER SIDE OF JOINT

SECOND SLAB

35mm DEEP SEALANT
RESERVOIR AND SEALANT

FIRST PLACED SLAB

10mm APPROVED SELF EXPANDING JOINT FILLER

25mm EXPANSION ALLOWANCE
CAP TO BE PROVIDED

SECOND SLAB

10mm WIDE SAW CUT. DEPTH TO EQUAL
1/3 THE DEPTH OF THE SLAB. CUT TO BE
SEALED WITH FLEXIBLE SEALANT AND
BACKING ROD

CONTRACTION JOINT (CJ)

1. TRANSVERSE EXPANSION JOINTS SHALL BE PLACED AT 45m MAXIMUM SPACING.
2. TRANSVERSE CONTRACTION JOINTS TO BE PLACED AT 15m MAXIMUM SPACING.

SECTION 1:10

NOTES:

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
CONSTRUCTION JOINT (DCJ)

ALL EXPOSED CONCRETE EDGES SHALL BE ROUNDED TO A 5mm RADIUS

600mm LONG GALVANISED N12 TIE BARS AT 500 C/C

DISCONTINUE MESH 75mm EITHER SIDE OF JOINT

SECTION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
CONCRETE ROAD

COMPACTED DGB20

600mm WIDE AC ADJUSTMENT

N12 TIE BARS 600mm LONG @ 1000mm CTS

BASECOURSE OF DGB20

SUB-GRADE COMPACTED TO 98% STD MDD (CBR4)

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SECTION 1:10
SL2 T&B
200mm THICK 32MPa REINFORCED CONCRETE BASE. REFER TO NOTE 1

10mm WIDE JOINTS
REFER TO NOTE 5

GRANITE SETT ADHESIVE.
LATICRETE 3701 + LATICRETE 290.
REFER TO NOTE 4

30mm THICK MORTAR BED. REFER TO NOTE 3

SLURRY BOND COAT (LATICRETE 3701 + CEMENT) REFER TO NOTE 2

200mm THICK 32MPa REINFORCED CONCRETE BASE. REFER TO NOTE 1

SL82 T&B

NOTES:

1. SURFACE SHALL BE MADE PLUMB & TRUE WITHIN 3mm AND SHALL HAVE A WOODEN FLOAT FINISH.
2. MORTAR BED SHALL BE LAID WHILE THE SLURRY BOND COAT IS STILL WET & Tacky.
3. 30mm THICK MORTAR BEDDING FINISHED TO A WOOD FLOAT QUALITY. THE BEDDING SHALL BE OF MODIFIED MORTAR (3:1 SAND:CEMENT) MIXED WITH LATICRETE 3701 MORTAR ADMIX & LATICRETE 226 THICK BED MORTAR AS PER THE MANUFACTURER'S SPECIFICATIONS.
4. THE GRANITE SETTS SHALL BE ADHERED TO THE CURED BEDDING USING A MIX OF LATICARETE 290 PREMIUM MORTAR & LATICRETE 3701 MORTAR ADMIX AS PER THE MANUFACTURER'S SPECIFICATIONS.
5. USE MODIFIED MORTAR (3:1 SAND:CEMENT) MIXED WITH LATICRETE 3701 MORTAR ADMIX, LATICRETE 226 THICK BED MORTAR TO MATCH SETTS COLOUR.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
FINISH PAVEMENT FLUSH WITH GUTTER

20mm THICK SAND LEVELING LAYER (4% CEMENT STABILISED)

80mm THICK TRI-HEX PAVER (PAVERS TO BE SKID RESISTANT)

200mm THICK 32MPa WITH SL82 MESH T&B (50mm COVER)

100mm THICK DGB20 (98% MMDD)

COMPACT SUB-GRADE 95% STANDARD. CONFIRM CBR4 MIN

SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

ROADWAYS
ROAD PAVEMENTS
CONCRETE UNIT PAVEMENT

REV: B
DATE: 22.03.13
APPROVED: P S

CITY OF SYDNEY

PLAN 1:100

SECTION A-A

CONCRETE KERB & GUTTER

FOOTPATH

FINISH PAVEMENT FLUSH WITH GUTTER

80mm THICK TRI-HEX PAVER (PAVERS TO BE SKID RESISTANT)

20mm THICK SAND LEVELING LAYER (4% CEMENT STABILISED)

200mm THICK 32MPa WITH SL82 MESH T&B (50mm COVER)

100mm THICK DGB20 (98% MMDD)

COMPACT SUB-GRADE 95% STANDARD. CONFIRM CBR4 MIN

SECTION B-B

CONCRETE KERB

FINISH PAVEMENT FLUSH WITH GUTTER

80mm THICK TRI-HEX PAVER (PAVERS TO BE SKID RESISTANT)

20mm THICK SAND LEVELING LAYER (4% CEMENT STABILISED)

200mm THICK 32MPa WITH SL82 MESH T&B (50mm COVER)

100mm THICK DGB20 (98% MMDD)

COMPACT SUB-GRADE 95% STANDARD. CONFIRM CBR4 MIN

SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

ROADWAYS
ROAD PAVEMENTS
CONCRETE UNIT PAVEMENT

REV: B
DATE: 22.03.13
APPROVED: P S

CITY OF SYDNEY
NOTE: THE USE OF THIS TREATMENT IS SUBJECT TO RMS’ APPROVAL.

150mm SQUARE STONE SETTS. 60mm THICK WITH 10mm JOINTS OVER 30mm THICK MORTAR BEDDING & EXFOLIATED FINISH TO IMPROVE TRACTION.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.

1. SURFACE SHALL BE MADE PLUMB & TRUE WITHIN 3mm AND SHALL HAVE A WOODEN FLOAT FINISH.
2. MORTAR BED SHALL BE LAID WHILE THE SLURRY BOND COAT IS STILL WET & TACKY.
3. 30mm THICK MORTAR BEDDING FINISHED TO A WOOD FLOAT QUALITY. THE BEDDING SHALL BE OF MODIFIED MORTAR (3:1 SAND:CEMENT) MIXED WITH LATICRETE 3701 MORTAR ADMIX & LATICRETE 226 THICK BED MORTAR AS PER THE MANUFACTURER’S SPECIFICATIONS.
4. THE GRANITE SETTS SHALL BE ADHERED TO THE CURED BEDDING USING A MIX OF LATICARETE 290 PREMIUM MORTAR & LATICRETE 3701 MORTAR ADMIX AS PER THE MANUFACTURER’S SPECIFICATIONS.
5. USE MODIFIED MORTAR (3:1 SAND:CEMENT) MIXED WITH LATICRETE 3701 MORTAR ADMIX, LATICRETE 226 THICK BED MORTAR TO MATCH SETTS COLOUR.
NOTE:
1. RAMP CONCRETE TO BE COLOURED BLACK WITH OXIDE
2. PIANO KEY LINE MARKING TO BE IN ACCORDANCE WITH AS1742

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
STAMPED AC TO BE "STREETPRINT" OR APPROVED EQUIVALENT WITH 203 x 203mm OFFSET TILE PATTERN (20-61-500) AND COLOURED WITH SANDSTONE BASE AND FLECKS (2-15mm Ø) OF FAWN (MAX 10% COVERAGE), MIDNIGHT BLUE (MAX 10% COVERAGE) AND DOWN TO EARTH (MAX 10% COVERAGE) UNLESS NOTED OTHERWISE

PIANO KEY LINEMARKING TO AS1742.13

NOTE
1. PIANO MARKINGS ARE TO BE APPLIED ONTO THE RAMP AND NOT ONTO THE PRECEDING ASPHALT.
2. ON FLAT GRADES A 0.3m DRAINAGE CHANNEL MAY BE REQUIRED.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
KERB CONCRETE RAISED THRESHOLD
REFER CROSS SECTIONS

EXPANSION JOINT.
FOR DETAILS REFER TO TRAFFICABLE
JOINTS STANDARD DRAWINGS

STENCIL CONCRETE WITH 200 x 200mm
OFFSET TILE PATTERN AND COLOURED
WITH SANDSTONE BASE AND FLECKS
(2-15mm Ø) OF FAWN (MAX 10% COVERAGE),
MIDNIGHT BLUE (MAX 10% COVERAGE) AND
DOWN TO EARTH (MAX 10% COVERAGE)
UNLESS NOTED OTHERWISE

APPLY TOOLED JOINTS
AT CHANGES IN GRADE

NOTE
1. PIANO MARKINGS ARE TO BE APPLIED ONTO THE
RAMP AND NOT ONTO THE PRECEDING ASPHALT.
2. ON FLAT GRADES A 0.3m DRAINAGE CHANNEL MAY
BE REQUIRED.

SECTION A-A
CONCRETE ROAD 200mm THICK, 32MPa.
FINISHED SURFACE RAISED ABOVE
EXISTING SURFACE BY 75mm FOR BUS
ROUTES OR 100mm FOR NON-BUS ROUTES

SECTION B-B
CONCRETE ROAD 200mm THICK, 32MPa. FINISHED
SURFACE RAISED ABOVE EXISTING SURFACE BY 75mm
FOR BUS ROUTES OR 100mm FOR NON-BUS ROUTES

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
PAVER INFILL OVER 200mm THICK CONCRETE BASE, 32MPa. FINISHED SURFACE RAISED ABOVE EXISTING SURFACE BY 75mm FOR BUS ROUTES OR 100mm FOR NON-BUS ROUTES.

NOTE:
1. PIANO MARKINGS ARE TO BE APPLIED ONTO THE RAMP AND NOT ONTO THE PRECEDING ASPHALT.
2. ON FLAT GRADES A 0.3m DRAINAGE CHANNEL MAY BE REQUIRED.
STAMPED AC TO BE "STREETPRINT" OR APPROVED EQUIVALENT WITH 203 x 203mm TILE PATTERN (20-61-500) AND COLOURED WITH SANDSTONE BASE AND FLECKS (2-15mm Ø) OF FAWN (MAX 10% COVERAGE), MIDNIGHT BLUE (MAX 10% COVERAGE) AND DOWN TO EARTH (MAX 10% COVERAGE) UNLESS NOTED OTHERWISE

PIANO KEY LINEMARKING TO AS1742.13

NOTE
1. PIANO MARKINGS ARE TO BE APPLIED ONTO THE RAMP AND NOT ONTO THE PRECEDING ASPHALT.
2. ON FLAT GRADINGS A 0.3m DRAINAGE CHANNEL MAY BE REQUIRED.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
TEMPORARY RESTORATION

50 mm COLD MIX/AC20 (AUSPEC 1142)

EXISTING PAVEMENT

STABILISED SAND (14:1) COMPACTED IN LAYERS NOT GREATER THAN 150 mm

100 - 300 OR ACCORDING TO SERVICE AUTHORITY

CLEAN SAND (COMPACTION TO UTILITY AUTHORITY SPECIFICATION)

NOTES:
1. MINIMUM TRENCH RESTORATION WIDTH IS 2m.
2. MINIMUM LOCALISED PATCH RESTORATION AREA IS 2m².

SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
ASPHALT ROAD

CONCRETE ROAD

NOTES:
1. THICKNESS OF AC14 FOR NON REGIONAL ROAD SHALL BE 50 mm

SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
STONE SET PAVEMENT

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

STABILISED SAND (8:1 SAND/CEMENT)

CLEAN SAND (COMPACTION TO UTILITY AUTHORITY SPECIFICATION)

ROAD FINISH TO MATCH SURROUNDING ROAD FINISHES

N12 TIE BARS MIN. 600mm LONG @ 600mm CTS CENTRALLY LOCATED

100mm DBG20 COMPACTED TO 98% STD MMD

CONCRETE UNIT PAVEMENT

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

STABILISED SAND (8:1 SAND/CEMENT)

CLEAN SAND (COMPACTION TO UTILITY AUTHORITY SPECIFICATION)

ROAD FINISH TO MATCH SURROUNDING ROAD FINISHES

N12 DOWELS MIN. 600mm LONG @ 600mm CTS CENTRALLY LOCATED

100mm DBG20 COMPACTED TO 98% STD MMD

NOTES:
1. THICKNESS OF AC14 FOR NON REGIONAL ROAD SHALL BE 50 mm
2. WHERE RESTORATION ZONE INCLUDES EXISTING EXPANSION JOINTS, THE EXPANSION JOINTS SHALL BE RESTORED TO AS PER NEW DOWELS CONSTRUCTION DETAILS
3. REFER TO DWG 3.3.10 FOR EXPANSION JOINT DETAIL

SECTION 1:20

ROADWAYS

PAVEMENT RESTORATION
TYPICAL PERMANENT TRENCH RESTORATION - PAVED

REV C
DATE 22.06.16
APPROVED PS

DWG NO. 3.3.3
FOOTPATH - PERMANENT RESTORATION

100 mm DGB20 COMPACTED TO 98% STD MMD

STABILISED SAND (14:1 SAND/CEMENT) COMPACTED IN LAYERS NOT GREATER THAN 150mm

100-300 mm THICK OVER SERVICES IN ACCORDANCE WITH UTILITIES SPECIFICATION

CLEAN SAND COMPACTED TO SERVICE AUTHORITIES SPECIFICATION

MATCH EXISTING SURFACE FINISHES

SL72 MESH 50mm COVER

25 MPa CONCRETE TO MATCH EXISTING FOOTPATH

N12 DOWELS MIN. 600mm LONG @ 600mm CTS CENTRALLY LOCATED

SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
**EXPANSION JOINT (EJ)**

- 32mm EXPANSION ALLOWANCE
- CAP TO BE PROVIDED
- R28 GALVANISED DOWEL 600mm LONG @ 600mm CTS IN APPROVED DOWEL SLEEVE (32mm DIA MIN)
- 35mm DEEP SEALANT RESERVOIR AND SEALANT
- 10mm APPROVED SELF EXPANDING JOINT FILLER
- DISCONTINUE MESH 75mm EITHER SIDE OF JOINT
- FIRST PLACED SLAB
- NEW PLACED SLAB
- 32mm EXPANSION ALLOWANCE

**CONSTRUCTION JOINT (CJ)**

- DISCONTINUE MESH 75mm EITHER SIDE OF JOINT
- NEW PLACED SLAB
- N28 GALVANISED TIE BARS 600mm LONG @ 600mm CTS IN APPROVED DOWEL SLEEVE (32mm DIA MIN)
- DRILL & EPOXY BARS INTO EXISTING SLAB
- EXISTING SLAB

### Section 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE:

1. WHEREEVER POSSIBLE FIXTURES SHOULD BE LOCATED TO ALIGN FIXING POINTS WITH PAVING JOINTS TO MINIMISE CUTTING THROUGH PAVING UNITS. SET FIXTURES FURTHER APART (CLEARANCE MIN. 300 mm) AS REQUIRED TO ALIGN WITH PAVING JOINTS.

2. SUFFICIENT SPACE SHOULD BE ALLOWED BETWEEN FIXTURES ACCOMMODATE BELOW GROUND FOOTING AND FIXINGS.

3. ALLOW FOR MORE ADEQUATE CLEARANCE IN RELATION TO FIXTURE USAGE AS REQUIRED.

4. EG. AT TELEPHONE BOOTHS AND FOR BIKE RACK/RING.

5. FIXTURES SHOULD BE LIMITED IN CLOSE PROXIMITY TO PEDESTRIAN CROSSING POINTS TO MINIMISE OBSTRUCTION.

PLAN 1:100

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SECTION
1:10
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

**PLAN 1:20**

- BIN ENCLOSURE
- SL72 MESH 100mm
- COVER FROM TOP
- 150mm CONCRETE F'c 32 MPa

**SECTIONS 1:20**

- BIN ENCLOSURE
- M16 CHEMICAL ANCHORS TO MANUFACTURER'S SPEC
- SL72 MESH 100mm
- COVER FROM TOP
- FOOTING UNDER SHOWN DASHED

**DOOR SWING AREA**

150mm CONCRETE F'c 32 MPa

**PAVEMENT AS SPECIFIED**
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
PAVEMENT TO SUIT CITY’S SPECIFICATIONS
200mm THK CONCRETE
SOLID BOLLARD
FIXED/REMOVABLE
AS PER REQUIRED FOR
PAVEMENT DESIGN
200mm THK CONCRETE
10mm ABLEFLEX

SECTION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

FURNITURE

SOLID BOLLARD

Rev C
Date 26.09.18
Approved P G
Dwg No. 4.4.2
**FIXED BOLLARD**
- BOLLARD
- SFA POWDER COATED GREY
- REFLECTIVE TAPE
- LUG POSITION
- CONCRETE FOOTING TO MANUFACTURERS SPECIFICATION
- BASE PLATE TO BOLLARD AS SPECIFIED - LEVELLING GROUT PAD UNDER
- CUT CONCRETE UNITS TO PROVIDE BUTT JOINT TO BOLLARD
- 15mm SET DOWN TO SLAB
- CHEMSET BOLT TO MANUFACTURERS RECOMMENDATIONS
- FOOTPATH

**PAVEMENT SOCKET PLAN**

**PAVEMENT SOCKET ELEVATION**
- 215
- 400
- 315

**REMOVABLE BOLLARD**
- SFA POWDER COATED GREY
- REFLECTIVE TAPE
- LUG POSITION
- 15mm SET DOWN TO SLAB
- BASE PLATE TO BOLLARD AS SPECIFIED - LEVELLING GROUT PAD UNDER
- FOOTPATH
- CHEMSET BOLT TO MANUFACTURERS RECOMMENDATIONS
- CONCRETE MASS FOOTING TO MANUFACTURERS SPECIFICATIONS
- PAVEMENT SOCKET (PS2)

**NOTE:** ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

**SCALE 1:10**

**BOLLARDS**

**HERITAGE**

**FURNITURE**

**Rev** B  
**Date** 22.03.13  
**Approved** P S  
**Dwg No.** 4.4.3
BUBBLER INSTALLATION DETAIL

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SECTION 1:10

SIDE VIEW

1%  1%

800x800x250 FOOTING
WITH SL82 MESH 50mm COVER

M10 CHEMICAL ANCHORS TO
MANUFACTURER'S SPECIFICATIONS

BUBBLER

PAVED AS SPECIFIED

10mm MASTIC FILLER
COLOUR TO MATCH THE PAVERS

FRONT VIEW

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
TYPICAL ELECTRICAL & COMMS CONDUIT ARRANGEMENT (FOOTPATH)

1 x Ø63mm UPVC ORANGE CONDUIT FOR STREET LIGHTING & POWER.
2 x Ø63mm UPVC ORANGE CONDUIT FOR POWER PROVISION FOR FUTURE USE.
3 x Ø50mm UPVC WHITE CONDUIT FOR COMMUNICATIONS CABLING.
PROVISION FOR FUTURE USE

TYPICAL ELECTRICAL & COMMS CONDUIT ARRANGEMENT (ROAD)

1 x Ø63mm UPVC ORANGE CONDUIT FOR STREET LIGHTING & POWER.
2 x Ø63mm UPVC ORANGE CONDUIT FOR POWER PROVISION FOR FUTURE USE.
3 x Ø50mm UPVC WHITE CONDUIT FOR COMMUNICATIONS CABLING.
PROVISION FOR FUTURE USE
**GENERAL**

"ROCKS" TYPE COLUMN INCLUDING FOOTINGS

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SCALE: NTS

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
## MINOR EQUIPMENT SCHEDULE

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<td>SCNEDER 3P 12-WAY 100A COMB BUSBAR WITH ENDCAP</td>
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<td>IPD - 100- 250W AC TNC THERMOSTAT</td>
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<td>FUSE</td>
<td>Fuse Carrier</td>
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<td>10A Fuse Link</td>
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<td>LS CONTRUCTION 3P N/O AC3-85A 240V</td>
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<td>SWING HANDLE PADLOCKABLE 55216</td>
<td>#PH-PL-526</td>
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<td>MCB</td>
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### NOTE:
- TO BE READ IN CONJUNCTION WITH DRAWING 5.1.4
- NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

---

**LIGHTING**

**GENERAL**

**THREE PHASE SWITCHBOARD DETAILS & SCHEMATICS (SHEET 1)**

**SITE LOCATION**

**ENERGY AUTHORITY METER ENCLOSURE**

**STREET LIGHTING MAIN SWITCHBOARD**

**SWITCHBOARD & MANUFACTURER DETAILS. REFER TO CoS STREET LIGHTING STANDARD SECTION B8**
CONSTRUCTION NOTES:

CONSTRUCTION: FLOOR MOUNTED, FRONT CONNECTED, RATED AT 160A
CABINET: 2mm 316 STAINLESS STEEL, FOLDED & WELDED MODULAR BOLTED CONSTRUCTION
DOORS AND ESCRUTCIONS: 1.5mm GRADE 316 STAINLESS STEEL
OTHER BRACKETS: 1.6mm ZINC SEALED MILD STEEL MIN
BOTTOM GLAND PLATE: 6mm METER PANEL
FORM OF SECREGATION: FORM 1 - TO AS3439.1 - 2002
DEGREE OF PROTECTION: IP - 66 - REFER TO WEATHER PROOFING DETAIL
FAULT RATING: 6kA FOR 1 SECOND

FINISH:
PREPERATION: DE-SCALE & DE-GREASE
EXTERNAL COLOUR: NATURAL FINISH
INTERNAL COLOUR: NATURAL FINISH
REMOVALBLE GEAR PANS & ESCRUTCION: GLOSS WHITE
PLINTH: GALVANISED
LABELS: ENGRAVED PLASTIC LAMINATE
FIXING: DOUBLE SIDED ADHESIVE & STAINLESS STEEL SCREWS
COLOUR: AS SHOWN
CONTROL WIRING: MINIMUM 1.5mm Cu V90
POWER WIRING: MINIMUM 2.5mm Cu RE110 DOUBLE INSULATED
WIRE MARKERS: STANDARD FERRULES
TERMINATIONS: BARE CABLE ENDS. WHERE TERMINAL REQUIRE LUGS, BOOTLACE FERRULES OR PRE-INSULATED RING LUGS. FORK LUGS SHALL NOT BE USED
COLOUR: 240 AC - PHASE COLOURED
NEUTRAL - BLACK
EARTH - GREEN/YELLOW

CONSTRUCTION: FLOOR MOUNTED, FRONT CONNECTED, RATED AT 100A
CABINET: 2mm 316 STAINLESS STEEL, FOLDED & WELDED MODULAR BOLTED CONSTRUCTION
DOOR: NEOPRENE GASKET
WEATHER PROOF CHANNEL
SWITCHBOARD CABINET
WEATHER PROOFING DETAIL

NOTES:
MAIN ISOLATOR TO BE LOCATED IN THE ENERGY AUTHORITY SECTION. BUS COMB TO BE FIXED SECURELY TO THE BUSBAR.

NOTE:
TO BE READ IN CONJUNCTION WITH DRAWING 5.1.3
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
FOOTPATH SLAB PENETRATION

150mm(W) CONCRETE BEAM
SMARTPOLE FOOTING AS PER STRUCTURAL ENGINEERS SPECIFICATION

IF APPLICABLE, Ø80mm RMS CONDUIT
CONDUIT IN THE DIRECTION OF THE NEAREST RMS PIT. REFER TO NOTE 3.

Ø50mm TELECOM COMMUNICATIONS CONDUIT TO BE CAPPED OFF.

Ø50mm STREET LIGHTING COMMUNICATIONS CONDUIT
CONNECTED TO CoS STREET LIGHTING CONDUITS

Ø63mm ELECTRICAL STREET LIGHTING CONDUIT
CONDUIT CONNECTED FROM ADJACENT STREET LIGHTING POLE OR SWITCHBOARD

PLASTIC ELECTRICAL PIT
715 x 410 x 800mm

SECTION A-A
750@ MIDBLOCK OR 1000@ INTERSECTIONS

FOOTPATH SLAB PENETRATION
SMARTPOLE

6 SMARTPOLE HD BOLTS/ RAGBOLT ASSEMBLY
WEAK CEMENT MORTAR 1:5 MIX
NON SHRINK GROUT

050mm STREET LIGHTING COMMUNICATIONS CONDUIT

050mm TELECOM COMMUNICATIONS CONDUIT TO BE CAPPED OFF.

2 x Ø63mm ELECTRICAL STREET LIGHTING CONDUIT

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
FOOTPATH PAVEMENT

STANDARD CONDUIT DEPTH FOR PATHWAYS

PLASTIC ELECTRICAL PIT
715 x 410 x 800mm

CONDUITS LOWER FOR ROAD CROSSING

CLASS D INFILL PIT LID

CLASS C INFILL PIT LID

ROAD PAVEMENT

FOOTPATH PAVEMENT

COMMS CONDUIT

ELECTRICAL CONDUIT

250 MIN

600 MIN

400 MIN

750 MIN

SCALE 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE:
TO BE READ IN CONJUNCTION WITH DRAWING 5.1.8
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTES:

TO BE READ IN CONJUNCTION WITH DRAWING 5.1.7
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
1. Text heights and widths as shown.
2. Text shall be centrally located.
3. Text shall be in green lettering on a white background with a 100mm wide white border.
4. Chevron marking shall be 400mm wide green strips with 100mm wide white lines as shown.
5. Chevron lines shall be at a 45° angle to the kerb as shown.
6. All dimensions are in unit millimetres.
7. Marking shall be aligned flush with gutter lip.

NOTE: All dimensions in millimetres unless otherwise stated.
Bathurst St
350 - 600

Bathurst St
350 - 600

PLAN 1:5

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SIGNAGE
STANDARD STREET NAME BLADES

Rev B
Date 22.03.13
Approved P S

Dwg No. 6.2.1

CAP HEIGHT 105
NUMERAL NUMERAL 39
MIN 140mm

TYPOGRAPHY
STREET NAME AND NUMERALS SET IN GILL SANS REGULAR CAP HEIGHT IS 105mm NUMERAL HEIGHT IS 44mm

CONSTRUCTION
MATERIAL IS 6mm ALUMINIUM SANDED THEN WASHED FOLLOWED BY A TWO PACK ETCH PRIMER, THEN A TWO PACK POLYURETHANE TO A STANDARD COLOUR.

GRAPHIC APPLIED THEN COATED IN A TWO PACK ANTI-GRAFFITI CLEAR COAT

COLOURS
LETTERING/LOGO IS CUT WHITE 7725/10 VINYL ON GREEN AS2700 G11 BOTTLE GREEN FIELD

VISABLE LENGTH VARIES 905/1005/1105/1205

925/1005/1105/1205
LOK-SOCKET INSTALLATION

50mm NB CHS SIGN POST

FOOTPATH AS SPECIFIED

200 MIN

710

KERB

GUTTER

200 MIN

LOC-SOCKET TO BE INSTALLED TO MANUFACTURERS SPECIFICATION

20MPa CONCRETE EMBEDMENT 200mm ALL AROUND

DIRECT CONCRETE EMBEDMENT

50mm NB CHS SIGN POST

FOOTPATH AS SPECIFIED

200 MIN

710

KERB

GUTTER

200 MIN

20MPa CONCRETE EMBEDMENT 200mm ALL AROUND

SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE:
1. TACTILE BRAILLE SIGNS SHALL BE INSTALLED ON EVERY POLE WHERE TRAFFIC SIGNAL PUSH BUTTON EXISTS OR BEING INSTALLED. REFER TO ‘LEGIBLE SYDNEY DESIGN MANUAL’ FOR DETAILED SPECIFICATIONS.
2. SIZE, TYPE, CONTENT, LOCATION, MATERIAL AND INSTALLATION DETAILS OF ANY SIGNS SHALL BE SUBMITTED AND APPROVED BY CITY'S ELECTRICAL AND STREET FURNITURE'S ASSET MANAGEMENT TEAM.
3. TYPE, DESIGN, CONTENT, MESSAGING AND SIZE OF THE TACTILE SIGN VARIES DEPENDING ON THE TYPE OF THE POLE.
4. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING 6.3.3.
5. TACTILE/BRAILLE SIGNAGE SHALL BE LOCATED IN A STANDARD POSITION.
6. TACTILE/BRAILLE SIGNAGE SHALL BE PLACED ON THE RIGHT-HAND SIDE OF THE AUDIO TACTILE PEDESTRIAN CALL BUTTON.
7. THE CENTRE OF THE SIGN SHALL BE LEVEL WITH THE CENTRE OF THE AUDIO-TACTILE PEDESTRIAN CALL BUTTON.
NOTE:
1. TACTILE BRAILLE SIGNS SHALL BE INSTALLED ON EVERY POLE WHERE TRAFFIC SIGNAL PUSH BUTTON EXISTS OR BEING INSTALLED.
2. SIZE, TYPE, CONTENT, LOCATION, MATERIAL AND INSTALLATION DETAILS OF ANY SIGNS SHALL BE SUBMITTED AND APPROVED BY CITY'S ELECTRICAL AND STREET FURNITURE'S ASSET MANAGEMENT TEAM.
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5. TACTILE/BRAILLE SIGNAGE SHALL BE LOCATED IN A STANDARD POSITION.
7. THE CENTRE OF THE SIGN SHALL BE LEVEL WITH THE CENTRE OF THE AUDIO-TACTILE PEDESTRIAN CALL BUTTON.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTES:
1. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS TO BE 32MPa.
2. 75mm MINIMUM BENCHING TO HALF PIPE HEIGHT TOTAL BENCHING TO OBVERT OF PIPE.
3. 100mmØ SUBSOIL DRAINAGE PIPE 3.0m LONG WRAPPED IN FABRIC SOCK TO BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES.
4. PROVIDE STEP IRONS WHERE PIT IS DEEPER THAN 1.0m AT 300mm CENTRES.
5. PITS OVER 2.1m IN DEPTH TO BE DESIGNED BY STRUCTURAL ENGINEER.
6. GRATES SHALL BE BICYCLE SAFE AND HAVE MAXIMUM INLET CAPACITY. ALL GRATES MUST BE APPROVED BY THE CITY'S REPRESENTATIVE.
7. REINFORCEMENT TO COMPLY WITH AS 1302, 1303 & 1304.
8. DRAINAGE PIPE TO BE MINIMUM 375Ø CLASS 4 REINFORCED CONCRETE PIPE.

<table>
<thead>
<tr>
<th>PIT SPECIFICATIONS</th>
<th>D</th>
<th>B</th>
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<th>CORNER BARS</th>
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<tr>
<td>750 - 1200</td>
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<td>SL81</td>
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<td>SL81</td>
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<th>MINIMUM DIMENSION A (mm)</th>
<th>INLET LENGTH - EKI (m)</th>
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NOTES:
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7. REINFORCEMENT TO COMPLY WITH AS1302, 1303 & 1304.
8. DRAINAGE PIPE TO BE MINIMUM 375Ø CLASS 4 REINFORCED CONCRETE PIPE.
NOTES:
1. ALL LIGATURES TO BE R6 WITH DIMENSIONS AS SPECIFIED.
2. ALL REINFORCEMENT TO COMPLY WITH AS1302, 1303 & 1304.
3. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS TO BE 32MPa.
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9. DRAINAGE PIPE TO BE MINIMUM 375Ø CLASS 4 REINFORCED CONCRETE PIPE.

SECTION C-C

10xN16 LONGITUDINAL

SECTION A-A

FOOTPATH AS PER STANDARD

SECTION B-B

2 x LIGATURES - TYPE A

LIGATURES TYPE A

LIGATURES TYPE B

PIT SPECIFICATIONS

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NOTE: ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

SCALE 1:50
NOTES:
1. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS TO BE 32MPa.
2. 75mm MINIMUM BENCHING TO HALF PIPE HEIGHT TOTAL BENCHING TO OBVERT OF PIPE.
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4. PROVIDE STEP IRONS WHERE PIT IS DEEPER THAN 1.0m AT 300mm CENTRES.
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6. GRATES SHALL BE BICYCLE SAFE AND HAVE MAXIMUM INLET CAPACITY. ALL GRATES MUST BE APPROVED BY THE CITY’S REPRESENTATIVE.
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7. REINFORCEMENT TO COMPLY WITH AS 1302, 1303 & 1304.
8. DRAINAGE PIPE TO BE MINIMUM Ø375 CLASS 4 REINFORCED CONCRETE PIPE.

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8. DRAINAGE PIPE TO MINIMUM 375Ø CLASS 4 REINFORCED CONCRETE PIPE

SECTION B-B

SECTION A-A

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
PIT LID IS A CLASS D DUCTILE IRON HINGED LID WITH A SPRING LOCKING SYSTEM
THE LID SHALL BE A KORUM MANHOLE COVER (REF CDK060EFX17) OR SIMILAR PRODUCT APPROVED BY THE CITY.

VARIABLE HEIGHT TO ALLOW FOR ADJUSTMENT OF MANHOLE COVER TO SUIT DESIGN SURFACE LEVELS AND GRADING. LID MAY BE RECESSED INTO THE CONVERTER SLAB AS REQUIRED. ADJUST NUMBER OF RISERS AS REQUIRED.

SECTION A-A

STEP IRONS REQUIRED @300mm SPACINGS IF DEPTH OF PIT IS GREATER THAN 1.0m AS PER STANDARD DETAIL
75mm MINIMUM BENCHING TO HALF PIPE HEIGHT TOTAL BENCHING TO OBVERT OF PIPE

NOTE:
1. ALL CONCRETE IS TO HAVE MINIMUM STRENGTH OF 32MPa.
2. DRAINAGE PIPE TO MINIMUM Ø3750 CLASS 4 REINFORCED CONCRETE PIPE

SECTION 1:20

MANHOLE COVER AND FRAME
NOTE: PIT LID CAN BE CENTRED OR OFF-CENTRED AS REQUIRED

200mm THICK CONVERTER SLAB
INSTALL BITUMEN SEALER BETWEEN THE SLAB & CAST IN SITU PIT CHAMBER

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

PIT SPECIFICATIONS

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MINIMUM DIMENSIONS OF PIT

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</table>
WRAP FLASHTAC TAPE WITH 100mm OVERLAY ON EACH SIDE OF JOINT

CLEAN PIPE SURFACES PRIOR TO CONSTRUCTING THE BANDAGE JOINT

ENCASE WITH MASS CONCRETE 150mm THICK WITH 50mm OVERLAY ON EACH SIDE OF TAPE

SECURE TAPE WITH WIRE

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SCALE 1:10
CONCRETE PIPE TRENCH BACKFILL DETAIL
≤ 900mm DIA.

EXISTING SURFACE LEVEL

FOOTPATH/ROAD TO SUIT
(REFER TO PAVEMENT DETAILS)

BACKFILL ZONE

OVERLAY ZONE

SIDE ZONES

HAUNCH ZONES

BED ZONE

150 MIN

NOTE:
1. DRAINAGE PIPE TO BE
MINIMUM 375Ø CLASS 4
REINFORCED CONCRETE PIPE

SECTION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
CONCRETE PIPE TRENCH BACKFILL DETAIL
≤ 900mm DIA.

EXISTING SURFACE LEVEL

FOOTPATH/ROAD TO SUIT
(REFER TO PAVEMENT DETAILS)

BACKFILL ZONE

PRECAST CONCRETE CULVERT

OVERLAY ZONE

BED ZONE

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SECTION 1:10

DRAINAGE

PITS & PIPES

TYPICAL CULVERT TRENCH BACKFILL

Rev B
Date 22.03.13
Approved P S

Dwg No. 7.1.10
MANHOLE COVER AND FRAME

NOTES:
1. ALL REINFORCEMENT TO COMPLY WITH AS4671/4
2. ALL REINFORCEMENT TO BE GRADE 500
3. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS TO BE 32MPa.
4. ALL REINFORCEMENT SHALL BE PLACED IN MID-SECTION UNO. OTHERWISE MIN CONCRETE COVER SHALL BE 40mm - B1 COVER
5. FOR ANY PENETRATION THROUGH WALLS AND SLABS GREATER THAN 200 SPACING, PROVIDE N12 TRIMMER BARS AND ADDITIONAL N12 REPLACEMENT BARS ON EACH SIDE.
6. LAP LENGTH IS TO BE MINIMUM 40 x BAR Ø UNLESS NOTED OTHERWISE.
7. 75mm MINIMUM BENCHING TO HALF PIPE HEIGHT TOTAL BENCHING TO OBVERT OF PIPE.
8. 100mmØ SUBSOIL DRAINAGE PIPE 3.0m LONG WRAPPED IN FABRIC SOCK TO BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES.
9. PROVIDE STEP IRONS WHERE PIT IS DEEPER THAN 1.0m AT 300mm CENTRES.
10. GRATES SHALL BE BICYCLE SAFE AND HAVE MAXIMUM INLET CAPACITY. ALL GRATES MUST BE APPROVED BY THE CITY'S REPRESENTATIVE.
11. DRAINAGE PIPE TO BE MINIMUM 375Ø CLASS 4 REINFORCED CONCRETE PIPE

SECTION A-A

NOTE: PIT LID CAN BE CENTRED OR OFF-CENTRED AS REQUIRED

MIN 1200

MIN 200

MIN 75

PLAN 1:20

SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

PITS & PIPES

JUNCTION PIT WITH INFILL LID

CITY OF SYDNEY

DRAINAGE

Rev A

Date 19.11.13

Approved P S

Dwg No 7.1.11
NOTES:
1. ALL REINFORCEMENT TO COMPLY WITH AS4671.4
2. ALL REINFORCEMENT TO BE GRADE 500
3. ALL LIGATURES TO BE MIN R10
4. COMPRRESSIVE STRENGTH OF CONCRETE AT 28 DAYS TO BE 32MPa
5. ALL REINFORCEMENT SHALL BE PLACED IN MID-SECTION UNLESS NOTED OTHERWISE.
6. FOR ANY PENETRATION THROUGH WALLS AND SLABS GREATER THAN 200 SPACING, PROVIDE N12 TRIMMER BARS AND ADDITIONAL N12 REPLACEMENT BARS ON EACH SIDE.
7. LAP LENGTH IS TO BE MINIMUM 40 x BAR Ø UNLESS NOTED OTHERWISE.
8. 75mm MINIMUM BENCHING TO HALF PIPE HEIGHT TOTAL BENCHING TO OVERT OF PIPE.
9. 100mmØ SUBSOIL DRAINAGE PIPE 3.0m LONG WRAPPED IN FABRIC SOCK TO BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES.
10. PROVIDE STEP IRONS WHERE PIT IS DEEPER THAN 1.0m AT 300mm CENTRES.
11. GRATES SHALL BE BICYCLE SAFE AND HAVE MAXIMUM INLET CAPACITY. ALL GRATES MUST BE APPROVED BY THE CITY'S REPRESENTATIVE.
12. DRAINAGE PIPE TO BE MINIMUM 375Ø CLASS 4 REINFORCED CONCRETE PIPE

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SECTION A-A

SECTION B-B

SECTION C-C

SECTION D-D

SECTION E-E

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTES:
1. ALL REINFORCEMENT TO COMPLY WITH AS46714
2. ALL REINFORCEMENT TO BE GRADE 500
3. ALL LIGATURES TO BE MIN R10,
4. COMpressive STRENGTH OF CONCRETE AT
28 DAYS TO BE 32MPa.
5. ALL REINFORCEMENT SHALL BE PLACED IN MID-SECTION UNO. OTHERWISE MIN CONCRETE
COVER SHALL BE 40mm - B1 COVER
6. FOR ANY PENETRATION THROUGH WALLS AND
SLABS GREATER THAN 200 SPACING, PROVIDE
N12 TRIMMER BARS AND ADDITIONAL N12
REPLACEMENT BARS ON EACH SIDE.
7. LAP LENGTH IS TO BE MINIMUM 40 x BAR Ø
UNLESS NOTED OTHERWISE.
8. 75mm MINIMUM BENCHING TO HALF PIPE HEIGHT
TOTAL BENCHING TO OBVERT OF PIPE.
9. 100mmØ SUBSOIL DRAINAGE PIPE 3.0m LONG
WRAPPED IN FABRIC SOCK TO BE PROVIDED IN
PIPE TRENCHES ADJACENT TO INLET PIPES.
10. PROVIDE STEP IRONS WHERE PIT IS DEEPER
THAN 1.0m AT 300mm CENTRES.
11. GRATES SHALL BE BICYCLE SAFE AND HAVE
MAXIMUM INLET CAPACITY. ALL GRATES MUST
BE APPROVED BY THE CITY’S REPRESENTATIVE.
12. DRAINAGE PIPE TO BE MINIMUM 375Ø CLASS 4
REINFORCED CONCRETE PIPE

SECTION A-A
PIT TO BE EXTENDED WITH EXTRA ADDITIONAL
GRATES AND LINTELS AS REQUIRED

SECTION D-D

SECTION E-E

SECTION B-B

SECTION C-C

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

PITS & PIPES
STANDARD SURCHARGE PIT (STONE KERB)
NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SECTION A-A

MANHOLE COVER AND FRAME, NOTE: PIT LID CAN BE CENTRED OR OFF-CENTRED AS REQUIRED

N16-200 WITH 50mm CONCRETE COVER (TRIMMED TO SUIT TOP COVER)

REINFORCEMENT (CENTRAL)

N12 TRIMMER BARS TO ALL PENETRATIONS >200mm Ø

STEP IRONS REQUIRED @300mm SPACINGS IF DEPTH OF PIT IS GREATER THAN 1.0m AS PER STANDARD DETAIL

75mm MINIMUM BENCHING TO HALF PIPE HEIGHT TOTAL BENCHING TO OVERT OF PIPE

CORNER BARS N16 - 200 (HORIZONTAL AND VERTICAL CORNERS)

REINFORCEMENT (CENTRAL)

SECTION 1:20

MINIMUM DIMENSIONS OF PIT (mm)

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<th>Ø OF OUTLET ON STRAIGHT</th>
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MIN 145

MIN 75

MIN 150

MIN 300

3 N16 T&B EW & R10-200 TIES (TRIMMED TO SUIT COVER)

PIT INLET 150MM OPENING

REINFORCEMENT (CENTRAL)
1. All reinforcement to comply with AS4671.
2. All reinforcement to be grade 500.
3. Compressive strength of concrete at 28 days to be 32.5MPa.
4. All reinforcement shall be placed in mid-section uno, otherwise min. concrete cover shall be 40mm + B1 cover.
5. For any penetration through walls and slabs greater than 200 spacings, provide N12 trimmer bars and additional N12 replacement bars on each side.
6. Lap length is to be minimum 40 x bar Ø unless noted otherwise.
7. 75mm minimum benching to half pipe height total. Benching to overtop of pipe, 100mm subsol drainage pipe 3.0m long wrapped in fabric sock to be provided in pipe trenches adjacent to inlet pipes.
8. Provide step mono's where pit is deeper than 1.0m at 300mm centres.
9. Grates shall be bicycle safe and have maximum inlet capacity, all grates must be approved by the city's representative.
10. Drainage pipe to be minimum 3750 class 4 reinforced concrete pipe.

Note: All dimensions in millimetres unless otherwise stated.
NOTES:
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DWG 2.1.4 & 2.1.17
2. ALL REINFORCEMENT TO COMPLY WITH AS4674
3. ALL REINFORCEMENT TO BE GRADE 500
4. COMPRRESSIVE STRENGTH OF CONCRETE AT 28 DAYS TO BE 32MPa
5. ALL REINFORCEMENT SHALL BE PLACED IN MID-SECTION UNDO, OTHERWISE MIN CONCRETE COVER SHALL BE 40mm + B1 COVER
6. FOR ANY PENETRATION THROUGH WALLS AND GLASSES GREATER THAN 200 SPACING, PROVIDE N12 TRIMMER BARS AND ADDITIONAL N12 REPLACEMENT BARS ON EACH SIDE
7. LAP LENGTH IS TO BE MINIMUM 40 x BAR Ø UNLESS NOTED OTHERWISE
8. 76mm MINIMUM BENCHING TO HALF PIPE HEIGHT TOTAL BENCHING TO OBVERT OF PIPE
9. 100mm SUBSOIL DRAINAGE PIPE 3.0m LONG WRAPPED IN FABRIC Sock TO BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES
10. PROVIDE STEP IRONS WHERE FIT B DEEPER THAN 1.0m AT 300mm CENTRES
11. GRATES SHALL BE BICYCLE SAFE AND HAVE MAXIMUM INLET CAPACITY, ALL GRATES MUST BE APPROVED BY THE CITY'S REPRESENTATIVE
12. DRAINAGE PIPE TO BE MINIMUM 375B CLASS 4 REINFORCED CONCRETE PIPE

SECTION B-B

1:25

100 x 8mm STAINLESS STEEL PLATE GUARD WELDED TO U RAIL AT EACH END

SECTION A-A

1:25

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

PITS & PIPES
SLOTTED INLET DRAIN UNDER BICYCLE PARKING LAYOUT

DRAINAGE

Rev B
Date 16.12.13
Approved P S
Dwg No. 7.1.16
100Ø SEWER GRADE uPVC

RODDING POINT DOWNPIPE CONNECTION - REFER DETAIL BELOW

EXISTING BUILDING

FOOTPATH

PURPOSE MADE FITTINGS

STORMWATER DRAINAGE MAIN

SECTION 1:20

220x220 GRATED FLOOR OUTLET
(DURHAMS FW220 OR APPROVED EQUIVALENT) TO BE CONNECTED TO DOWNPIPE LINE AS RODDING POINT.

EXISTING BUILDING

EXISTING DOWNPIPE

MAINTAIN GAP FOR SURCHARGE

25mm

DETAIL 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

220x220 GRATED FLOOR OUTLET
(DURHAMS FW220 OR APPROVED EQUIVALENT) TO BE CONNECTED TO DOWNPIPE LINE AS RODDING POINT.
NOTES:

1: STEP IRONS TO BE FABRICATED FROM 20mm Ø M.S.
2: ALL BENDS TO BE FORMED AROUND 12mm diameter PIN
3: STEP IRONS TO BE PROVIDED IN PITS DEEPER THAN 1.0m
4: STEP IRONS TO BE HOT-DIPPED GALVANISED
5: STEP IRONS TO BE LOCATED DIRECTLY ABOVE PIT OUTLET PIPE
NOTES:
1. THE RAINGARDENS ARE PREFERRED TO BE TERRACED RAINGARDEN TO MAXIMISE THE PONDING VOLUME. REFER DRAWING 7.2.5.
2. THE RAINGARDEN & SURROUNDINGS AREAS SHALL BE DESIGNED IN ACCORDANCE WITH SYDNEY STREET TECHNICAL SPECIFICATION PART A4.
### RAINGARDEN MEDIA SPECIFICATION

- **MULCH**
  - WASHED AGGREGATE 10-20mm

### BIO FILTRATION SPECIFICATION

- **SANDY LOAM MIX (IN ACCORDANCE WITH FAWB GUIDELINES)**
  - SATURATED HYDRAULIC CONDUCTIVITY
    - 100mm / Hr - 250mm / Hr

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<tr>
<th>DESCRIPTION</th>
<th>PROPORTION</th>
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<tbody>
<tr>
<td>Clay &amp; Silt</td>
<td>&lt;3% &lt;0.05mm</td>
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<tr>
<td>Very Fine Sand</td>
<td>5-30% 0.05-0.15mm</td>
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<tr>
<td>Fine Sand</td>
<td>10-30% 0.15-0.25mm</td>
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<tr>
<td>Medium to Coarse Sand</td>
<td>40-60% 0.25-1.0mm</td>
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<tr>
<td>Coarse Sand</td>
<td>7-10% 1.0-2.0mm</td>
</tr>
<tr>
<td>Fine Gravel</td>
<td>&lt;3% 2.0-3.4mm</td>
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- **TOTAL CLAY AND SILT CONTENT**: ≤3%
- **ORGANIC CONTENT**: <5%
- **PH (1:5 IN WATER)**: 5.5 - 7.5
- **ELECTRICAL CONDUCTIVITY (EC)**: <1.2dS/m
- **TOTAL NITROGEN**: <1000mg/kg
- **ORTHOPHOSPHATE (PO₄³⁻)**: <80mg/kg

### TRANSITION LAYER SPECIFICATIONS

- **COARSE WASHED RIVER SAND OR RECYCLED CRUSHED GLASS EQUIVALENT**
  - 90% PARTICLES RETAINED ABOVE 0.25mm
  - SATURATED HYDRAULIC CONDUCTIVITY >250mm / Hr

### DRAINAGE LAYER SPECIFICATION

- NO FINES DRAINAGE GRAVEL

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<tr>
<th>PARTICLE SIZE</th>
<th>% RETAINED</th>
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<td>2-4mm</td>
<td>&lt;20%</td>
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### TRANSITION LAYERS SPECIFICATIONS

- WASHED AGGREGATE 10-20mm
- SANDY LOAM MIX (IN ACCORDANCE WITH FAWB GUIDELINES)
- SATURATED HYDRAULIC CONDUCTIVITY
  - 100mm / Hr - 250mm / Hr

### DRAINAGE LAYER SPECIFICATION

- NO FINES DRAINAGE GRAVEL

- **ACCEPTABLE PARTICLE DISTRIBUTION**

### NOTES

1. BACK OF KERB SHALL BE CONSTRUCTED VERTICALLY AND NO CONCRETE SHALL BE POURED IN THE RAINGARDEN.
2. WHERE STRUCTURAL STABILITY OF KERB IS A CONCERNED MATTER, THE KERB & GUTTER MAY BE REINFORCED USING REINFORCEMENT STEEL BARS. REFER DWG# 1.1.15
3. THE KERB MATERIAL SHALL BE SELECTED IN ACCORDANCE WITH CITY OF SYDNEY STREET CODE.
**RAINGARDEN MEDIA SPECIFICATION**

**MULCH**
- WASHED AGGREGATE 10-20mm

**BIO FILTRATION MEDIA SPECIFICATION**
- SANDY LOAM MIX (IN ACCORDANCE WITH FAWB GUIDELINES)
- SATURATED HYDRAULIC CONDUCTIVITY 100mm/Hr - 250mm/Hr

**PARTICLE DISTRIBUTION**

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<td>&lt;3%</td>
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<td>Very Fine Sand</td>
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<tr>
<td>Fine Gravel</td>
<td>&lt;3%</td>
<td>2.0-3.4mm</td>
</tr>
</tbody>
</table>

- TOTAL CLAY AND SILT CONTENT ≤3%
- ORGANIC CONTENT <5%
- PH (1:5 IN WATER) 5.5 - 7.5
- ELECTRICAL CONDUCTIVITY (EC) <1.2dS/m
- TOTAL NITROGEN <1000mg/kg
- ORTHOPHOSPHATE (PO₄³⁻) <80mg/kg

**TRANSITION LAYER SPECIFICATIONS**
- COARSE WASHED RIVER SAND OR RECYCLED CRUSHED GLASS EQUIVALENT
- 90% PARTICLES RETAINED ABOVE 0.25mm
- SATURATED HYDRAULIC CONDUCTIVITY >250mm/Hr

**SUBMERGED ZONE SPECIFICATIONS**
- MIX OF
  - NO FINES DRAINAGE GRAVEL
  - 5% ORGANIC MULCH (SUGAR CANE MULCH)
  - 5% HARDWOOD CHIPS (NOT TREATED)

**NOTES**
1. BACK OF KERB SHALL BE CONSTRUCTED VERTICALLY AND NO EXCESS CONCRETE SHALL BE POURED IN THE RAINGARDEN.
2. WHERE STRUCTURAL STABILITY OF KERB IS A CONCERNED MATTER, THE KERB & GUTTER MAY BE REINFORCED USING REINFORCEMENT STEEL BARS REFERENCE DWG# 1.1.15
3. THE KERBS MATERIAL SHALL BE SELECTED IN ACCORDANCE WITH CITY OF SYDNEY STREET CODE

**PLAN**
- 50mm THICK SHOTCRETE WALL OR 0.5mm THICK POLYPROPYLENE LINER
- 100mm DEEP x 100mm WIDE CONCRETE EDGE KERB
- 200mm DEEP x 100mm WIDE CONCRETE EDGE KERB
- 50mm THICK SHOTCRETE WALL OR 0.5mm THICK POLYPROPYLENE LINER

**Dwg No.**
- RAINGARDENS LINED - SUBMERGED ZONE
- RAINGARDENS
- DRAINAGE

**Rev.**
- F 10/06/16

**Approved**
- P S
RAINGARDEN MEDIA SPECIFICATION

MULCH
- WASHED AGGREGATE 10-20mm

BIO FILTRATION SPECIFICATION
SANDY LOAM MIX (IN ACCORDANCE WITH FAWB GUIDELINES)
- SATURATED HYDRAULIC CONDUCTIVITY
  100mm/Hr - 250mm/Hr

PARTICLE DISTRIBUTION
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<tr>
<td>Fine Gravel</td>
<td>&lt;3%</td>
<td>2.0-3.4mm</td>
</tr>
</tbody>
</table>

- TOTAL CLAY AND SILT CONTENT ≤3%
- ORGANIC CONTENT <9%
- PH (1:5 IN WATER) 5.5 - 7.5
- ELECTRICAL CONDUCTIVITY (EC) <1.2dS/m
- TOTAL NITROGEN <1000mg/kg
- ORTHOPHOSPHATE (PO4³⁻) <80mg/kg

TRANSITION LAYER SPECIFICATIONS
COARSE WASHED RIVER SAND OR RECYCLED CRUSHED GLASS EQUIVALENT
- 90% PARTICLES RETAINED ABOVE 0.25mm
- SATURATED HYDRAULIC CONDUCTIVITY >250mm/Hr

ACCEPTABLE PARTICLE DISTRIBUTION
<table>
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<th>PARTICLE SIZE</th>
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<td>&lt;30%</td>
</tr>
<tr>
<td>&lt;2mm</td>
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DRAINAGE LAYER SPECIFICATION
NO FINES DRAINAGE GRAVEL

RAE DRRAINAGE LAYER (400mm THICK)

TRANSITION LAYER (100mm THICK)

DRAINAGE LAYER (150mm THICK)

NOTES
1. BACK OF KERB SHALL BE CONSTRUCTED VERTICALLY AND NO EXCESS CONCRETE SHALL BE POURED IN THE RAINGARDEN.
2. WHERE STRUCTURAL STABILITY OF KERB IS A CONCERNED MATTER, THE KERB & GUTTER MAY BE REINFORCED USING REINFORCEMENT STEEL BARS REFER DWG# 1.1.15
3. THE KERBS MATERIAL SHALL BE SELECTED IN ACCORDANCE WITH CITY OF SYDNEY STREET CODE
4. DRAINAGE LAYER MAY BE DELETED IF THERE IS NO DRAINAGE IN THE VICINITY SUBJECTED TO CITY'S APPROVAL.
5. THE SLOTTED PIPE SHALL BE CONNECTED TO BY PASS CHAMBER OF BYPASS PIT/SURCHARGE PIT

DEMOILISH EXISTING KERB

200mm Max.

FOOTWAY

EDGE KERB

ROAD

100mm DIA SLOTTED PVC DRAINAGE PIPE TO DRAINAGE NETWORK

Dwg No.

SECTION 1:20

DATE 10.06.16

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

RAINGARDENS UNLINED

7.2.4

P S

Approved

Rev E

Page 5/6

7.2.4

ROAD EDGE KERB FOOTWAY DEMOLISH EXISTING KERB

200mm Max.

DEMOLISH EXISTING KERB
1. The stone shall be Bluestone unless specified by the designer and approved by City’s representative.
2. The flush kerb at the edge of the footpath shall be selected to match the surrounding kerbs.
3. Other materials may be used for the retaining terraced edges upon City’s approval.

NOTE: All dimensions in millimetres unless otherwise stated.

RAINGARDENS
TERRACE RAINGARDEN

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

DRAINAGE

Rev D
Date 15.06.16
Approved P S
RAINGARDEN ENERGY DISSIPATION - PLAN

1:25

NOTE: DISSIPATION BASIN LENGTH SHALL BE MINIMUM 400mm UNLESS NOTES OTHERWISE.

DISSIPATION BASIN LENGTH

HEDGING BEYOND

RAINGARDEN KERB
6mm THICK PLATE FIXED WITH 3 M12 CHEMSETS

NEW GUTTER

CONCRETE HOB

GRAVEL MULCH

ROCK/CHICKEN WIRE

DISAPATION ROCKS 150mm DIA SIZE

SECTION
1:10

NOTE: THE PLATE SHALL BE RECESSED INTO THE KERB

GALVANISED PLATE
1:10

NOTE: T - TERRACE GARDEN IS THE PREFERRED OPTION FOR MOST OF RAINGARDENS EXCEPT ROCK SWALES: IN WHICH CASE ENTRY STRUCTURE SHALL BE DESIGNED TO SUIT THE ROCK SWALE

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
DEPTH AS REQUIRED

HEAVY DUTY HOT DIP GALVANISED STEEL SURCHARGE GRATE FRAME TO SUIT PIT OPENING

RAINGARDEN SURFACE LEVEL

150mm THICK CONCRETE WALLS WITH SL92 MESH CENTRALLY LOCATED

Ø100mm SLOTTED PVC

N12 COGS @ 200mm CENTRES, 300mm LONG EACH WAY (TYPICAL)

NOTES
1. ALL CONCRETE IS TO HAVE A MINIMUM STRENGTH OF 32 MPa.
2. PIT STRUCTURE TO BE 150mm THICK UNLESS NOTED OTHERWISE.
3. DRAINAGE PIPE TO BE MINIMUM 375Ø CLASS 4 REINFORCED CONCRETE PIPE

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SCALE 1:10
NOTES:

1. GUTTER BRIDGE SHALL BE DESIGNED TO SUIT MINIMUM 5 YEARS ARI STORM & SHALL HAVE 240 kN ULTIMATE LOAD CAPACITY. DESIGNER SHALL SUBMIT MAINTENANCE REGIME WITH ANY RAINGARDEN INCORPORATED IN DESIGN.
2. USE OF BONDEK IS NOT ALLOWED FOR GUTTER BRIDGES.
3. SIZE OF GUTTER BRIDGE SHALL BE DESIGNED TO SUIT THE ANTICIPATED FLOW RATES

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
SMALL DISSIPATION ROCKS

FOOTPATH

KERB OUTLET INTO RAINGARDEN

KERB

RAINGARDEN

150mm THICK ROCK (50-100mm SIZE) SECURED WITH PVC NET (20mm MAX GRID SIZE) UNDER 50mm WASHED AGGREGATE MULCH

WASHED GRAVEL MULCH - 10-20mm

SECTION B-B

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SCALE 1:20
1000 HIGH END RISER

SECTION

HEAVY DUTY uPVC PLASTIC COVER TO SIT 150mm PROUD

45° PVC BEND

NOM 1000 uPVC DRAINAGE PIPE CONNECTION TO SUBSOIL DRAINAGE LINE

45° PVC BEND

NOM 1000 SLOTTED PVC SUBSOIL DRAINAGE LINE TO BE CONNECTED TO BYPASS STROMWATER DRAINAGE NETWORK.

SCALE 1:20

2250 HIGH END RISER JUNCTION

PLAN

SECTION

HEAVY DUTY uPVC PLASTIC COVER TO SIT 150mm PROUD

RAINGARDEN SURFACE

NOM 2250 uPVC RISER

NOM 1000 SLOTTED PVC SUBSOIL DRAINAGE LINE.

NOM 1000 uPVC DRAINAGE PIPE CONNECTION TO DRAINAGE PIT

NOM 1000 SLOTTED PVC SUBSOIL DRAINAGE LINE.

FIXED AND SEALED CAP

NOM 1000 uPVC DRAINAGE PIPE CONNECTION TO DRAINAGE PIT

SCALE 1:20

NOTE:
1. THE SUBSOIL DRAIN SHALL BE CONNECTED TO THE
   - BYPASS CHAMBER OF THE INLET PIT, OR;
   - BYPASS DRAINAGE PIT, OR;
   - RAINGARDEN SURCHAGE PIT.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE: THIS OPTION REQUIRES OBVERT OF THE STORMWATER DRAINAGE PIPE TO BE DEEPER THAN 600mm

2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING #7.2.1

3. EXISTING UTILITY SERVICES & DEPTH TO EXISTING STORM WATER SHALL BE VERIFIED BEFORE SPECIFYING THIS OPTION

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

SCALE 1:40

DRAINAGE

RAINGARDENS
RAINGARDEN INLET PIT WITH STEEL TRAY
PIT PERPENDICULAR TO THE ROAD

Rev A
Date 10.06.16
Approved P S
Dwg No. 7.2.11
NOTES
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING #7.2.1
2. THIS OPTION REQUIRES OBVERT OF THE STORMWATER DRAINAGE PIPE TO BE DEEPER THAN 550mm.
3. SIZE OF THE BYPASS SHALL BE ADJUSTED TO SUIT THE CATCHMENT SIZE.
4. LEVELS OF THE SURROUNDING SHALL BE DESIGN TO ALLOW FOR 60mm LOCAL PONDING OVER THE RAINGARDEN INLET CHAMBER.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
NOTE:

1. STORMWATER PIT SHALL BE CONSTRUCTED AS PER CITY'S STANDARD DRAWINGS. THE PIT SHALL BE CAREFULLY SELECTED TO SUIT SYDNEY STREET CODE & STANDARD SPEC. FROM DRAWINGS #7.1.1 TO 7.1.6.

2. THE ACO KERB DRAIN OR APPROVED EQUIVALENT SHALL BE USED FOR RAINGARDEN ENTRY PIT.

3. THIS DETAIL IS WELL SUITED FOR THE AREAS WHERE
   - NO GRASS VERGE EXISTS
   - THE DRAINAGE PIPES ARE SHALLOWER THAN 1.20m.
NOTE:
1. RAINGARDEN SHALL BE DESIGNED IN ACCORDANCE WITH SYDNEY STREET TECHNICAL SPECIFICATION PART A4.
2. SURCHARGE PIT MAY BE DELETED UPON APPROVAL. REFER SYDNEY STREET TECHNICAL SPECIFICATION PART A4.
3. THIS OPTION BEST SUITS SMALLER CATCHMENTS WHERE
   - FOOTPATH HAS A GRASS VERGE.
   - INVERTS OF THE EXISTING DRAINAGE PIPES ARE SHALLOWER THAN 1.2m.
4. THE DRAINAGE PIT SHALL BE CONSTRUCTED IN ACCORDANCE WITH DRAWINGS #7.1.1 TO #7.1.6.
NOTE: 1 - THE SLOPE AND LEVELS SPECIFIED ON THE PLAN SHALL COMPLY WITH THE COMMENT BELOW:
   i- S3 > S1 + 1%
   ii- RL A > RL B + 0.05m
   iii- THE CROSS FALL OF THE ROAD SHALL ALWAYS BE MAINTAINED TO BE TOWARDS THE KERB & GUTTER AND NOT LESS THAN 1.5%.
2 - THIS DRAWING IS A GENERAL GUIDELINE ONLY AND THE RAINGARDEN & SURROUNDINGS SHALL BE DESIGNED & CONSTRUCTED IN ACCORDANCE WITH SYDNEY STREET TECHNICAL SPECIFICATIONS PART A4.
3- THE ENTRY TO THE RAINGARDEN SHALL DESIGN IN ACCORDANCE WITH DRAWING #7.2.6.

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

PLAN
1:100

SECTION 1
1:10

GALVANISED CHICKEN WIRE OR PVC NET
600 - 1000 wide

FLUSH KERB EDGE

WASHED GRAVEL MULCH

RAINGARDEN LAYER AND LINER TO SUIT SPECIFIC TYPE OF RAINGARDEN

NOTE:

RAINGARDENS / SWALE SYSTEM
GENERAL ARRANGEMENT
NO DRAINAGE IN VICINITY

DRAINAGE
Rev A
Date 10.06.2016
Approved P S
Dwg No 7.2.15
LID (UNDERSIDE)

- Minimum 20mm width for number plate
- 25-30mm wide slot for chisel

LID (TOPSIDE)

- Non-slip upper surface (sample pattern only)
- 2-3mm gap all round between lid and base
- Minimum 10mm contact all round between underside of lid and seat
- Stainless steel axle
- 20-30mm flange for stability
- Lip at back of lid to prevent ingress of dirt

FRAME

Approx 70-120mm depth

Minimum 150x150mm opening internal

SECTION 1:10

Note: All dimensions in millimetres unless otherwise stated
Notes:

1. Minimum size of concrete 460mm deep by 380mm square and enlarged at the bottom. Where solid rock is met the depth may be varied.

2. In localities where the ground is unstable the dimensions must be increased.

3. The stainless steel pin is to protrude 50mm above the surface of the concrete block.

4. The buffer course is to be a 50mm layer of crushed brick, gravel or coarse sand.
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SECTION 1:10

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