3 CENTRAL ROAD, AVALON BEACH
CONCEPT STORMWATER MANAGEMENT

SITE WORKS - GENERAL

1. ALL WORKS ARE TO BE UNDERTAKEN IN ACCORDANCE WITH LOCAL COUNCIL, AUSTRALIAN AND AUTHORITY STANDARDS.
2. ALL TRENCHING WORKS ARE TO BE RESTORED TO ORIGINAL CONDITION.
3. THE INTEGRITY OF ALL EXISTING AND NEW SERVICES IS TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
4. ALL PLANS ARE TO BE READ IN CONJUNCTION WITH APPROVED ARCHITECTS, STRUCTURAL ENGINEERS AND OTHER CONSULTANT'S PLANS. ANY DISCREPANCIES ARE TO BE NOTIFIED TO THE ENGINEER FOR CLARIFICATION.
5. THE ENGINEER SHALL BE GIVEN A MIN. OF 48 HOURS NOTICE FOR ALL STORMWATER DRAINAGE AND PAVEMENT INSPECTIONS. CONCRETE SHALL NOT BE DELIVERED UNTIL ENGINEERS APPROVAL IS OBTAINED.

SITE WORKS - ACCESS AND SAFETY

1. ALL WORKS ARE TO BE UNDERTAKEN IN A SAFE MANNER IN ACCORDANCE WITH ALL STATUTORY AND INDUSTRIAL RELATION REQUIREMENTS.
2. ACCESS TO ADJACENT BUILDINGS AND PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.
3. WHERE NECESSARY SAFE PASSAGE SHALL BE PROVIDED FOR VEHICLES AND PEDESTRIANS THROUGH OR ADJACENT TO THE SITE.

SEDIMENT AND EROSION CONTROL

1. THE CONTRACTOR SHALL INSTIGATE ALL SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL AND THE "BLUE BOOK" (MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION, PRODUCED BY THE DEPARTMENT OF HOUSING). THESE MEASURES ARE TO BE REGULARLY INSPECTED AND MAINTAINED.
2. THE SEDIMENT & EROSION CONTROL PLAN PRESENTS CONCEPTS ONLY, THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE ESTABLISHMENT & MANAGEMENT OF A DETAILED SCHEME MEETING COUNCIL'S DESIGN, AND ALL OTHER REGULATORY AUTHORITY REQUIREMENTS.
3. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE SHALL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
   a. INSTALL ALL TEMPORARY SEDIMENT FENCES AND BARRIER FENCES. WHERE FENCES ARE ADJACENT TO EACH OTHER THE SEDIMENT FENCE CAN BE INCORPORATED INTO THE BARRIER FENCE.
   b. CONSTRUCT TEMPORARY STABILISED SITE ACCESS. INCLUDING SHAKE DOWN AND WASH PAD.
   c. INSTALL SEDIMENT CONTROL MEASURES AS OUTLINED ON THESE SEDIMENT AND CONTROL PLANS (ONCE APPROVED)
4. THE CONTRACTOR SHALL UNDERTAKE SITE DEVELOPMENT WORKS SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF MINIMUM WORKABLE SIZE.
5. AT ALL TIMES AND IN PARTICULAR DURING WINDY AND DRY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL. TACIFIERS MAY BE USED TO CONTROL DUST DURING EXTENDED PERIODS OF DRY WEATHER.
6. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) SHALL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
7. WATER SHALL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN STABILISED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED OUT.
8. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES SHALL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE STABILISED / REHABILITATED.
9. THE CONTRACTOR SHALL ALLOW FOR THE ESTABLISHMENT OF ANY OTHER EROSION PROTECTION MEASURES. (IF APPLICABLE).
10. THE CONTRACTOR SHALL REGULARLY INSPECT (MINIMUM TWICE PER WEEK) ALL EROSION AND SEDIMENT CONTROL MEASURES TO ENSURE THEY ARE OPERATING EFFECTIVELY. REPAIRS AND/OR MAINTENANCE SHALL BE UNDERTAKEN REGULARLY AND AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.
11. ACCEPTABLE RECEPTORS SHALL BE USED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER. WASTE FROM THESE RECEPTORS SHALL BE DISPOSED OF IN ACCORDANCE WITH REGULATORY AUTHORITY REQUIREMENTS. PAY ALL FEES AND PROVIDE EVIDENCE OF SAFE DISPOSAL.

STORMWATER

1. ALL WORKS ARE TO BE UNDERTAKEN IN ACCORDANCE WITH THE FOLLOWING AUSTRALIAN STANDARDS AS2032, AS3500 AND AS3725 AS A MINIMUM.
2. REFER TO INTEGRATED WATER CYCLE MANAGEMENT REPORT [1] (DATED: 12/12/19) FOR FURTHER DETAILS ON STORMWATER SYSTEM
3. ALL PIPES LESS THAN OR EQUAL TO Ø300mm IN SIZE ARE TO BE SOLVENT WELD-JOINTED UPVC CLASS SN6 U.N.O.
4. ALL PIPES Ø375mm OR GREATER IN SIZE ARE TO BE MIN. CLASS 2 REINFORCED CONCRETE PIPE (RCP) WITH SPIGGOT AND SOCKETED JOINT OR VANTAGE PIPE PLUS (VPIPE+) FIBRE REINFORCED CONCRETE (FRC) WITH VANTAGE PIPE PLUS JOINT U.N.O.
5. ALL PIPES ARE TO BE LAID AT MIN. 1.0% GRADE U.N.O.
6. PIPE BEDDING IS TO BE HS2 UNDER ROADS AND TRAFFICKED AREAS AND SHALL BE H2 IN LANDSCAPED AND PEDESTRIAN TRAFFICKED AREAS U.N.O.
7. ALL PIPE BENDS AND JUNCTIONS ARE TO BE MADE WITH EITHER PURPOSE MADE FITTINGS OR STORMWATER DRAINAGE PITS.
8. MINIMUM COVER FROM THE OBVERT OF THE STORMWATER PIPE OF 300mm IS TO BE PROVIDED IN LANDSCAPED AREAS AND 600mm IN VEHICULAR TRAFFICKED AREAS U.N.O.
9. WHERE MINIMUM COVER CANNOT BE ACHIEVED CONCRETE ENCASEMENT OF THE AFFECTED PIPE IS MAY BE UNDERTAKEN WITH 20MPa CONCRETE WITH A MIN. COVER OF 150mm TO ALL SIDES OF THE PIPE. THE CONTRACTOR SHALL CONFIRM THIS REQUIREMENT WITH THE ENGINEER OR SUPERINTENDENT.
10. LAID PIPELINES ARE TO HAVE THE FOLLOWING CONSTRUCTED TOLERANCES:
    a. HORIZONTAL-1:300 ANGULAR DEVIATION FROM REQUIRED ALIGNMENT;
    b. VERTICAL-1:300 ANGULAR DEVIATION FROM REQUIRED ALIGNMENT.
10. ALL DRAINAGE PITS ARE TO BE CAST IN-SITU, PRECAST DRAINAGE PITS MAY BE USED WITH APPROVAL FROM THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A PRECAST PIT INSTALLATION WORK METHOD STATEMENT FOR ASSESSMENT BY THE ENGINEER FOR APPROVAL.
11. DRAINAGE PIT COVERS ARE TO BE EITHER GALVANISED STEEL OR CAST IRON CLASS 'B' IN LANDSCAPED AND PEDESTRIAN TRAFFICKED AREAS AND CLASS 'D' IN ALL VEHICULAR TRAFFICKED AREAS U.N.O.
12. DRAINAGE PIT COVERS ARE TO BE 'HEELSAFE' TYPE IN ALL PEDESTRIAN TRAFFICKED AREAS U.N.O.
13. EXISTING STORMWATER PIT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED PRIOR TO COMMENCING WORKS ON SITE.
14. PROVIDE CLEANING EYES (RODDING POINTS) TO PIPES AT ALL CORNERS AND T-JUNCTIONS WHERE NO PITS ARE PRESENT.
15. DOWN PIPES CONNECTED DIRECT TO PIPES TO BE CONNECTED AT 45° TO THE FLOW DIRECTION WITH A CLEANING EYE PROVIDED AT GROUND LEVEL.

DRAWING SCHEDULE

LOCALITY PLAN
NOT TO SCALE - COURTESY OF SIX MAPS

NOT TO SCALE

DA ISSUE

IMPORTANT
- DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
- DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
- THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT©

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
12/12/19	ISSUED FOR DA	DL	1

DATE	AMENDMENT	INIT	REV

STRUCTURAL -
MECHANICAL -
ELECTRICAL -
CIVIL -

CLIENT
AVALON BEACH CENTRAL PTY. LTD.

PROJECT
3 CENTRAL ROAD, AVALON BEACH

ARCHITECT
COTTEEPARKER Φ JPR∧
SYDNEY
T 61 2 9366 1133
COTTEE PARKER ARCHITECTS PTY LTD
ABN: 77 010 504 106
COTTEEPARKER.COM.AU

SPARKS+PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE
Level 1, 91 George Street | Parramatta | NSW 2150
P 02 9891 5033 | F 02 9891 3898 | E admin@sparksandpartners.com.au
https://sparksandpartners.com.au/

FPA AUSTRALIA Fire Protection Association Australia. CORPORATE MEMBER

QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001

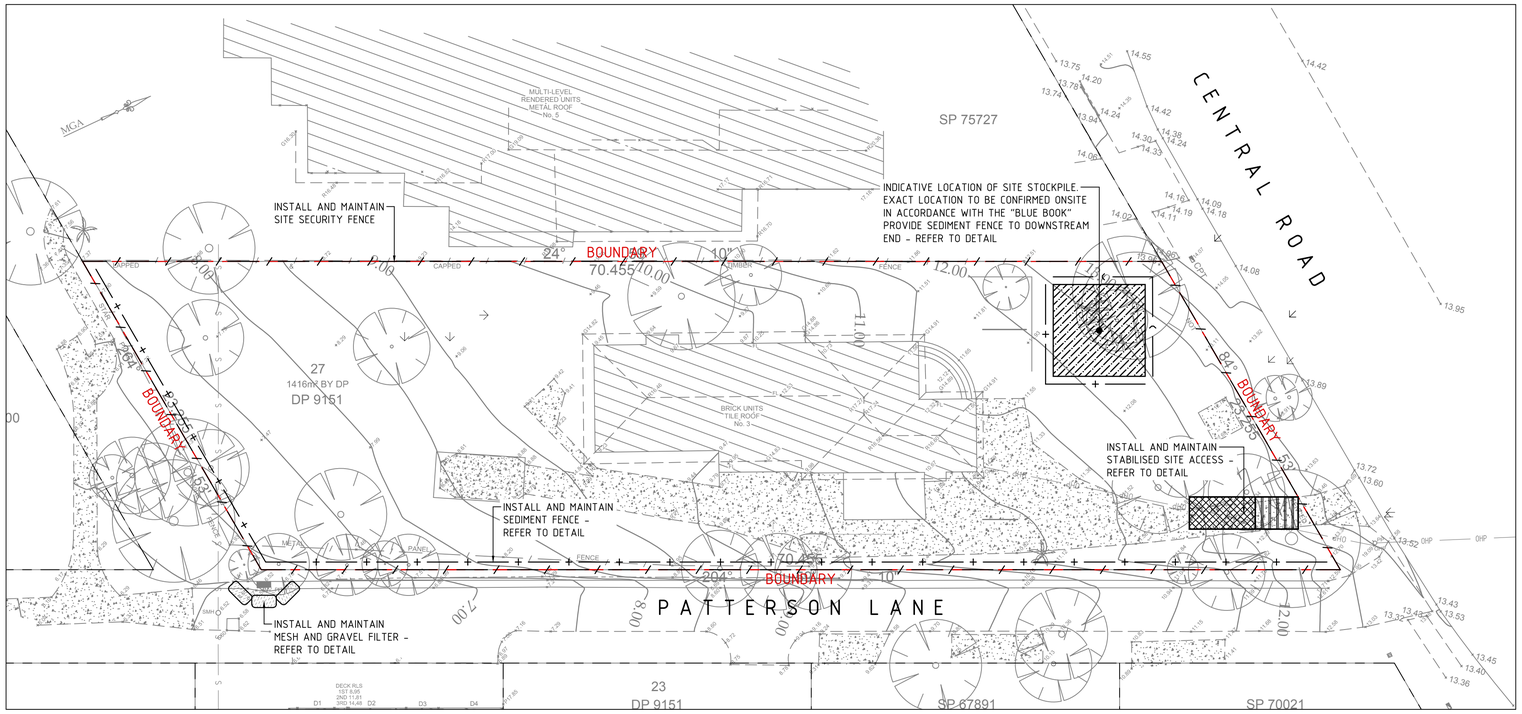
DRAWING TITLE
CIVIL DESIGN
COVER SHEET, DRAWING SCHEDULE
& LOCALITY PLAN

DATE	DRAWN	DESIGNED	CHECKED
DEC 2019	DL	DL	

SCALE	SIZE	REVISION
N.T.S	A1	1

PROJECT No 19279
DRAWING No DA1.01

W:\2 - PROJECTS\2019\19279 - 3 CENTRAL RD, AVALON\05-DESIGN FILE\1A - DESIGN DRAWINGS\B - CIVIL\19279_DA1.01C.DWG



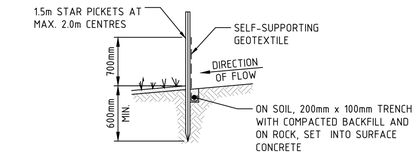
SEDIMENT & EROSION CONTROL PLAN
SCALE 1:200

LEGEND

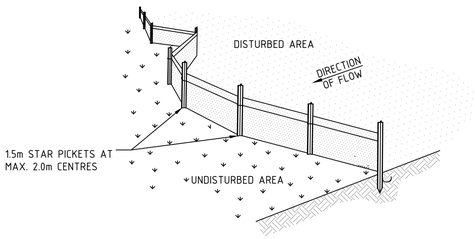
- SITE SECURITY FENCE
- SEDIMENT FENCE
- STABILISED SITE ACCESS
- SITE STOCKPILE
- MESH AND GRAVEL INLET FILTER
- EARTH BANK DIVERSION MOUND

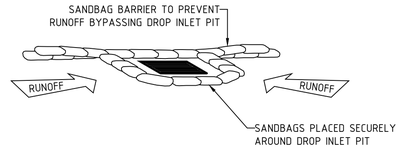
NOTES

1. REFER TO DRAWING DA1.01 FOR GENERAL NOTES AND SPECIFICATIONS



SECTION DETAIL

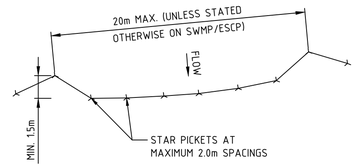




SEDIMENT TRAP FOR DROP INLET PIT
NOT TO SCALE

NOTE:

GROUND LEVEL AT END OF SANDBAG BARRIER MUST BE HIGHER THAN DROP INLET SANDBAG LAYER.

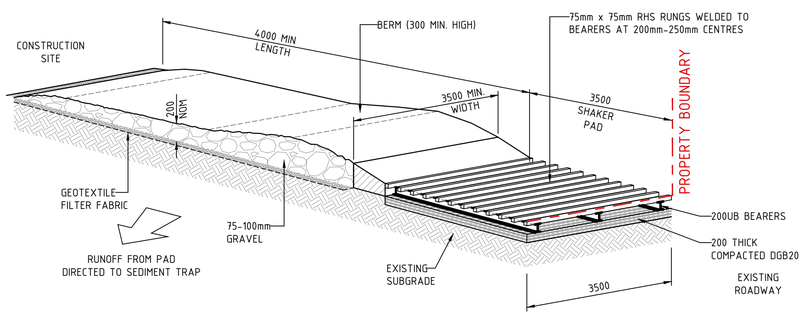


PLAN

SEDIMENT FENCE
NOT TO SCALE

NOTES:

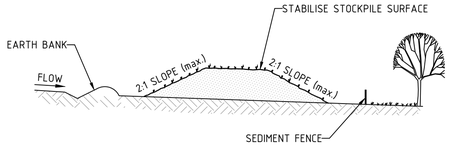
1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50L/s IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 200mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND AT 2.0m INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.



STABILISED SITE ACCESS
NOT TO SCALE

MAINTENANCE

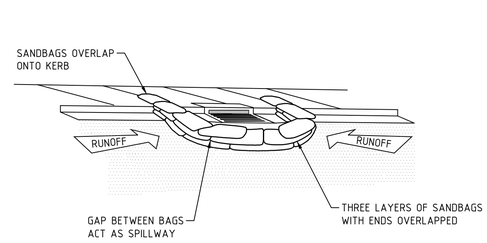
- THE TEMPORARY ACCESS SHALL BE MAINTAINED IN A CONDITION THAT PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY.
- THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL GRAVEL AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT,
- ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.
- INSTALL BARRIER ON EITHER SIDE OF SHAKER PAD TO ENSURE VEHICLES ARE GUIDED ON TO THE PAD.
- INVERT OF SHAKER PAD TO BE DRAINED VIA AGRICULTURAL PIPE WRAPPED IN GEOTEXTILE FABRIC.



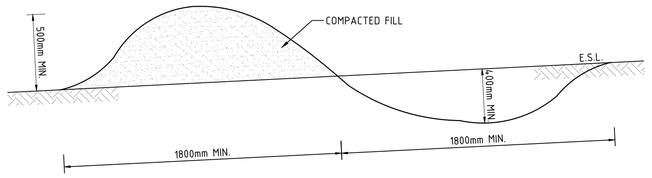
STOCKPILE
NOT TO SCALE

NOTES:

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.



SEDIMENT TRAP FOR KERB INLET (AT LOW POINT - SANDBAG)
NOT TO SCALE



DIVERSION BANK
NOT TO SCALE

AS SHOWN

DA ISSUE

IMPORTANT
- DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
- DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
- THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT©

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
12/12/19	ISSUED FOR DA	DL	1

DATE	AMENDMENT	INIT	REV

STRUCTURAL -
MECHANICAL -
ELECTRICAL -
CIVIL -

CLIENT: AVALON BEACH CENTRAL PTY. LTD.

PROJECT: 3 CENTRAL ROAD, AVALON BEACH

ARCHITECT: COTTEEPARKER Φ JPRΛ
SYDNEY
T 61 2 9066 1133
COTTEE PARKER ARCHITECTS PTY LTD
ABN: 77 070 924 106
COTTEEPARKER.COM.AU

SPARKS+PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE
Level 1, 91 George Street | Parramatta | NSW 2150
P 02 9891 5033 | F 02 9891 3898 | E admin@sparksandpartners.com.au
https://sparksandpartners.com.au/

FPA AUSTRALIA Fire Protection Association Australia. CORPORATE MEMBER

QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001

DRAWING TITLE: CIVIL DESIGN
CONCEPT SEDIMENT & EROSION CONTROL PLAN & DETAILS

DATE	DRAWN	DESIGNED	CHECKED
DEC 2019	DL	DL	

SCALE	SIZE	REVISION
AS SHOWN	A1	1

PROJECT No: 19279
DRAWING No: DA2.01

W:\2 - PROJECTS\2019\19279 - 3 CENTRAL RD, AVALON\5-DESIGN FILE\A - DESIGN DRAWINGS\B - CIVIL\19279_DA2.DWG

NOTES

1. REFER TO DRAWING DA1.01 FOR GENERAL NOTES AND SPECIFICATIONS

LEGEND

- PROPOSED STORMWATER PIPE (<Ø375)
- PROPOSED STORMWATER PIPE (Ø375)
- EXISTING STORMWATER PIPE
- PROPOSED STORMWATER PIT
- EXISTING KERB INLET PIT
- DP — PROPOSED DOWNPIPE
- ONSITE DETENTION TANK
- Ø225 — PIPE FLOW DIRECTION AND SIZE
- GTD — PROPOSED GRATED TRENCH DRAIN
- RAINWATER TANK
- PROPOSED SUBSOIL DRAINAGE LINE

SP 75727
5 CENTRAL ROAD
MULTI - LEVEL
RENDERED UNITS
METAL ROOF

MULTI LEVEL
RENDERED UNITS
METAL ROOF

SP

AVERAGE FRONT SETBACK LINE

INVERT LEVELS OF EXISTING SEWER TO BE CONFIRMED AT DETAILED DESIGN STAGE

SUBSOIL DRAINAGE FOR MINOR SEEPAGE BEHIND RETAINING WALL TBC IN DETAILED DESIGN STAGE

BOUNDARY

STORAGE

AC PLANT

ACCESS TO PARK

PLANT

BASEMENT 1
CAR PARK

OSD

RL 7.100

BIN STORAGE

LOBBY

STORAGE

REFER TO DRAWINGS DA4.11-DA4.13 FOR DETAILS

SUBSOIL DRAINAGE FOR MINOR SEEPAGE BEHIND RETAINING WALL TBC IN DETAILED DESIGN STAGE

PROVIDE 100L RAINWATER RE-USE TANK. PLUMBED TO TOILETS AND LANDSCAPING.

900x900 SILT ARRESTOR PIT

SUBSOIL DRAINAGE FOR MINOR SEEPAGE BEHIND RETAINING WALL TBC IN DETAILED DESIGN STAGE

LINE OF BASEMENT ABOVE

STORMWATER INLET PITS TO BE FITTED WITH OCEANPROTECT "OCEANGUARDS"

SUBSOIL DRAINAGE FOR MINOR SEEPAGE BEHIND RETAINING WALL TBC IN DETAILED DESIGN STAGE

DUMPER PARK ENTRY GATE

3.25M LANE SETBACK

1.5M LANE SETBACK

WIRE FENCE

PROPOSED FOOTPATH

PROPOSED DRIVEWAY

SMH

SWO PIT

PATTERSON LANE

CPT

DECK RLS
1ST 8.95
2ND 11.81
3RD 14.48

SP 42775
65 OLD BARRENJOEY ROAD
MULTI - LEVEL
BRICK UNITS

LOT 23, DP 9151
67 OLD BARRENJOEY ROAD
BRICK RESIDENCE
METAL ROOF

SP 67891
691 BARRENJOEY ROAD
RENDERED UNITS
METAL ROOF

SP 70021
693 BARRENJOEY ROAD
MULTI - LEVEL
RENDERED UNITS
METAL ROOF

Y ROAD

DA ISSUE

IMPORTANT
- DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY
- DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION
- THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT®

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
12/12/19	ISSUED FOR DA	DL	1

DATE	AMENDMENT	INIT	REV
####	####	####	####

STRUCTURAL -
MECHANICAL -
ELECTRICAL -
CIVIL -

CLIENT
AVALON BEACH CENTRAL PTY. LTD.

PROJECT
3 CENTRAL ROAD, AVALON BEACH

ARCHITECT
COTTEEPARKER Φ JPRA
SYDNEY
T 61 2 9366 1133
COTTEE PARKER ARCHITECTS PTY LTD
ABN 77 010 924 106
COTTEEPARKER.COM.AU

SPARKS +PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE
Level 1, 91 George Street | Parramatta | NSW 2150
P 02 9891 5033 | F 02 9891 3898 | E admin@sparksandpartners.com.au
https://sparksandpartners.com.au/

FPA AUSTRALIA Fire Protection Association Australia CORPORATE MEMBER

QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001

DRAWING TITLE
CIVIL DESIGN
CONCEPT STORMWATER MANAGEMENT PLAN - BASEMENT 01

DATE	DRAWN	DESIGNED	CHECKED
DEC 2019	DL	DL	

PROJECT No	SCALE	SIZE	REVISION
19279	1:100 @ A1	A1	1

DRAWING No DA4.01

W:\2 - PROJECTS\2019\19279 - 3 CENTRAL RD, AVALON\5-DESIGN FILE\A - DESIGN DRAWINGS\B - CIVIL\19279_DA4.DXDWG

NOTES
1. REFER TO DA4.01 FOR NOTES AND LEGEND
SP 75727
5 CENTRAL ROAD
MULTI - LEVEL
RENDERED UNITS
METAL ROOF
MULTI-LEVEL
RENDERED UNITS
METAL ROOF
No. 5
CENTRAL ROAD
AVERAGE FRONT SETBACK LINE
STORMWATER INLET PITS TO BE FITTED WITH OCEANPROTECT "OCEANGUARDS"
PROVIDE 10kL RAINWATER RE-USE TANK. PLUMBED TO TOILETS AND LANDSCAPING.
900x900 SILT ARRESTOR PIT
BOUNDARY
TERRACE
BED 1
ENS
BATH
LOUNGE/ DINING
KITCHEN
LDRY
BED 2
STUDY
APARTMENT 2
APARTMENT 1
COMMUNAL SPACE
LIFT
STORAGE
PLANT
BASEMENT CAR PARK 2
RL 10.200
RL 10.000
RL 9.608
LOBBY
STORMWATER INLET PITS TO BE FITTED WITH OCEANPROTECT "OCEANGUARDS"
STORMWATER INLET PIT TO BE FITTED WITH OCEANPROTECT "OCEANGUARDS"
3.25M LANE SETBACK
1.5M LANE SETBACK
EGRESS GATE
PROPOSED DRIVEWAY
PATTERSON LANE
LANE RESERVE BOUNDARY
DP 150
DP 100
RWO
HER
TPZ
DECK RLS
1ST 8.95
2ND 11.81
3RD 14.48
SP 42775
65 OLD BARRENJOEY ROAD
MULTI - LEVEL
BRICK UNITS
23
DP 9151
LOT 23, DP 9151
67 OLD BARRENJOEY ROAD
BRICK RESIDENCE
METAL ROOF
SP 67891
691 BARRENJOEY ROAD
RENDERED UNITS
METAL ROOF
SP 70021
693 BARRENJOEY ROAD
MULTI - LEVEL
RENDERED UNITS
METAL ROOF
DA ISSUE

IMPORTANT
- DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY
- DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
- THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT.

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
12/12/19	ISSUED FOR DA	DL	1

DATE	AMENDMENT	INIT	REV
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####

STRUCTURAL -
MECHANICAL -
ELECTRICAL -
CIVIL -

CLIENT: AVALON BEACH CENTRAL PTY. LTD.

PROJECT: 3 CENTRAL ROAD, AVALON BEACH

ARCHITECT: COTTEEPARKER JPRA — COTTEEPARKER.COM.AU

SPARKS+PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE
Level 1, 91 George Street | Parramatta | NSW 2150
P 02 9891 5033 | F 02 9891 3898 | E admin@sparksandpartners.com.au
https://sparksandpartners.com.au/

DRAWING TITLE: CIVIL DESIGN CONCEPT STORMWATER MANAGEMENT PLAN - LOWER GROUND

DATE	DRAWN	DESIGNED	CHECKED
DEC 2019	DL	DL	

PROJECT No	SCALE	SIZE	REVISION
19279	1:100 @A1	A1	1

DRAWING No: DA4.02

SP 75727
5 CENTRAL ROAD
MULTI - LEVEL
RENDERED UNITS
METAL ROOF
MULTI-LEVEL
RENDERED UNITS
METAL ROOF
No. 5
SP 75727
AVERAGE FRONT SETBACK LINE
CENTRAL ROAD
PROPOSED CONNECTION OF FOOTPATH
TPZ
SRZ
CPT
BOUNDARY
STORMWATER INLET PITS TO BE FITTED WITH OCEANPROTECT "OCEANGUARDS"
DP 100
RWO
BALCONY
BED 1
ENS
BATH
KITCHEN
LDRY
LOUNGE/ DINING
BED 2
STUDY
APARTMENT 4
LIFT
LANDSCAPE BELOW
APARTMENT 6
TERRACE
RL 13.100
RL 13.100
BRIDGE
13,607
13,350
13,900
13,120
WASTE ENCLOSURE
APARTMENT 3
APARTMENT 5
BAL.
3.25M LANE SETBACK
1.5M LANE SETBACK
PROPOSED FOOTPATH
PROPOSED DRIVEWAY BELOW
PROPOSED DRIVEWAY
PATTERSON LANE
SMH
23
DP 9151
SP 67891
SP 70021
DECK RLS
1ST 8.95
2ND 11.81
3RD 14.48
D1
D2
D3
D4
SP 42775
65 OLD BARRENJOEY ROAD
MULTI - LEVEL
BRICK UNITS
ROAD
SP 42775
SP 70021
693 BARRENJOEY ROAD
0 2 5 10
1:100

NOTES

1. REFER TO DA4.01 FOR NOTES AND LEGEND

DA ISSUE

IMPORTANT

- DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY
- DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
- THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT®

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
12/12/19	ISSUED FOR DA	DL	1

DATE	AMENDMENT	INIT	REV
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####

STRUCTURAL -
MECHANICAL -
ELECTRICAL -
CIVIL -

CLIENT: AVALON BEACH CENTRAL PTY. LTD.

PROJECT: 3 CENTRAL ROAD, AVALON BEACH

ARCHITECT: COTTEEPARKER JPRA SYDNEY T 61 2 9386 1133 COTTEEPARKER.COM.AU

SPARKS+PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE
Level 1, 91 George Street | Parramatta | NSW 2150
P 02 9891 5033 | F 02 9891 3898 | E admin@sparksandpartners.com.au
https://sparksandpartners.com.au/

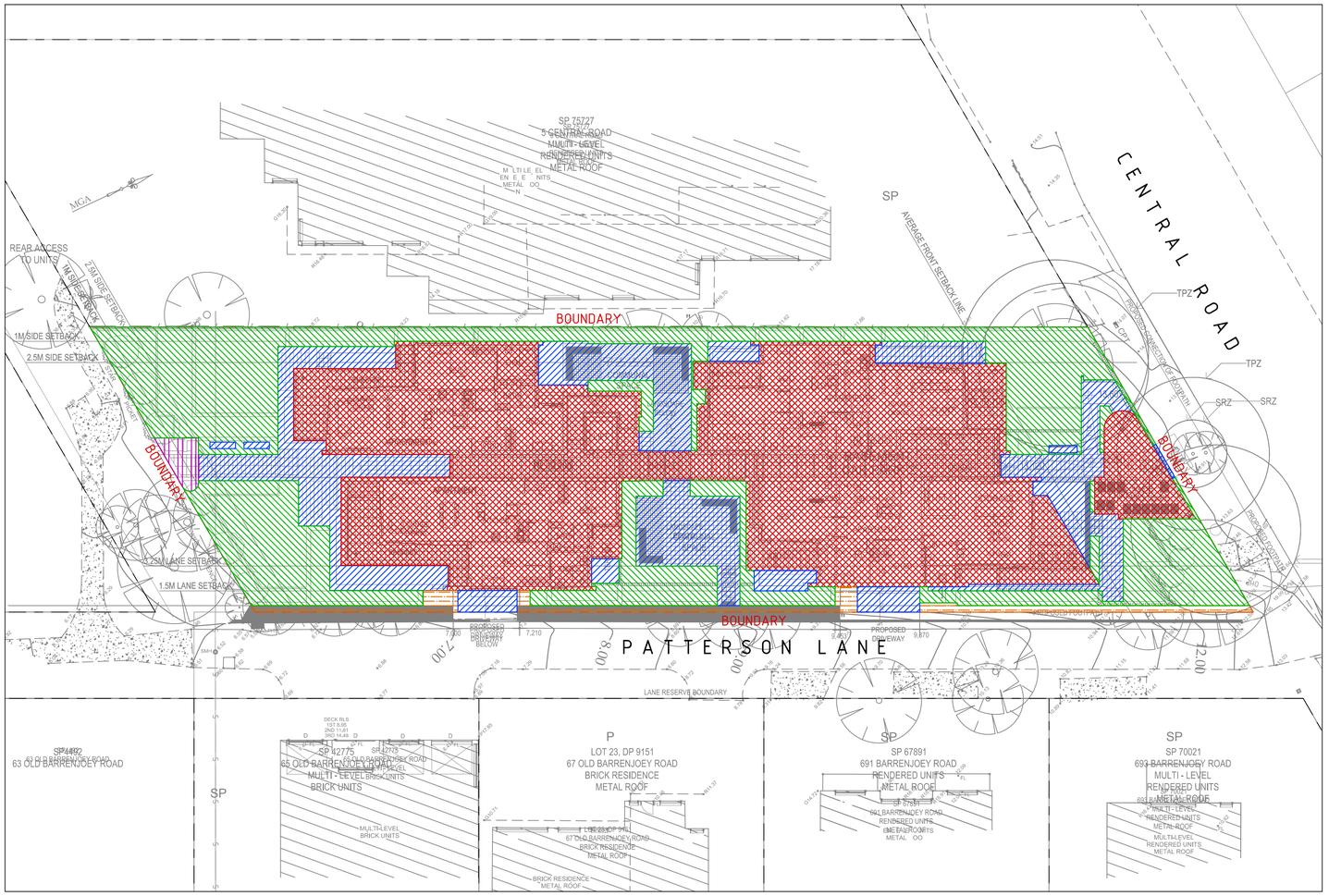
FPA AUSTRALIA CORPORATE MEMBER — DNV·GL ISO 9001

DRAWING TITLE: CIVIL DESIGN CONCEPT STORMWATER MANAGEMENT PLAN - GROUND

DATE	DRAWN	DESIGNED	CHECKED
DEC 2019	DL	DL	

SCALE	SIZE	REVISION
1:100 @A1	A1	1

PROJECT No	DRAWING No
19279	DA4.03



CONCEPT STORMWATER CATCHMENT PLAN

SCALE 1:200

LEGEND

- IMPERVIOUS CATCHMENT AREA = 262m²
- PERVIOUS CATCHMENT AREA = 396m²
- ROOF TO RWT CATCHMENT AREA = 718m²
- ROOF TO OSD CATCHMENT AREA = 8m²
- BYPASS CATCHMENT AREA = 34m²

NOTES

1. REFER TO DRAWING DA1.01 FOR GENERAL NOTES AND SPECIFICATIONS

1:200 (0, 4, 10, 20)

IMPORTANT
- DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
- DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
- THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT©

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
12/12/19	ISSUED FOR DA	DL	1

DATE	AMENDMENT	INIT	REV

STRUCTURAL –
MECHANICAL –
ELECTRICAL –
CIVIL –

CLIENT: AVALON BEACH CENTRAL PTY. LTD.

PROJECT: 3 CENTRAL ROAD, AVALON BEACH

ARCHITECT: COTTEEPARKER Φ JPRA
SYDNEY
T 61 2 9366 1133
COTTEE PARKER ARCHITECTS PTY LTD
ABN: 77 070 924 106
COTTEEPARKER.COM.AU

SPARKS + PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE
Level 1, 91 George Street | Parramatta | NSW 2150
P 02 9891 5033 | F 02 9891 3898 | E admin@sparksandpartners.com.au
https://sparksandpartners.com.au/
FPA AUSTRALIA Fire Protection Association Australia. CORPORATE MEMBER
DNV·GL ISO 9001 QUALITY SYSTEM CERTIFICATION

DRAWING TITLE: CIVIL DESIGN
CONCEPT STORMWATER
CATCHMENT PLAN

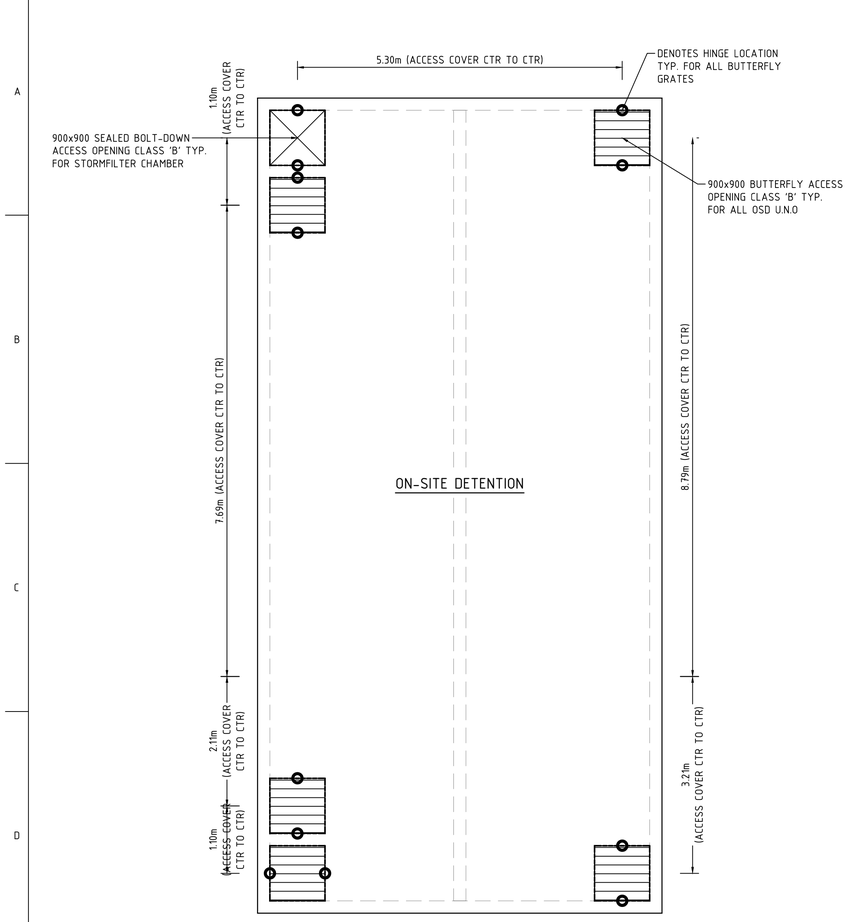
DA ISSUE

DATE	DRAWN	DESIGNED	CHECKED
DEC 2019	DL	DL	

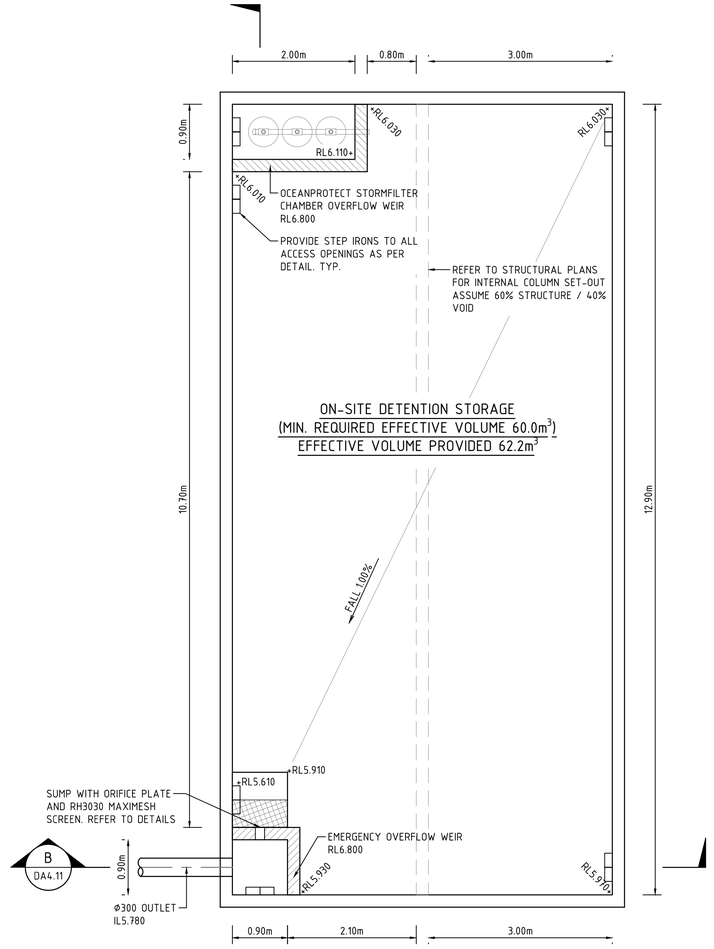
PROJECT No	SCALE	SIZE	REVISION
19279	1:200	A1	1

DRAWING No: DA4.10

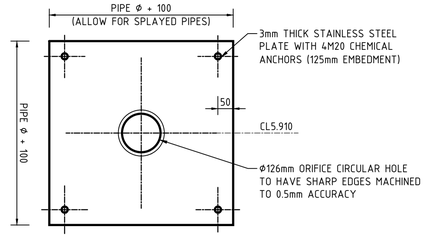
W:\2 - PROJECTS\2019\19279 - 3 CENTRAL RD, AVALON\5-DESIGN FILE\A - DESIGN DRAWINGS\B - CIVIL\19279_DA4.10.DWG



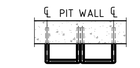
OSD & RWT ROOF PLAN
SCALE 1:50



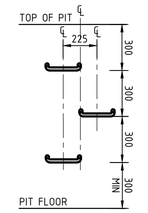
OSD & RWT BASE PLAN
SCALE 1:50



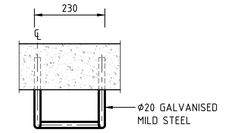
ORIFICE PLATE
NOT TO SCALE



PLAN
NOT TO SCALE

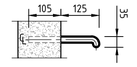


ELEVATION
NOT TO SCALE



PLAN
SCALE 1:10

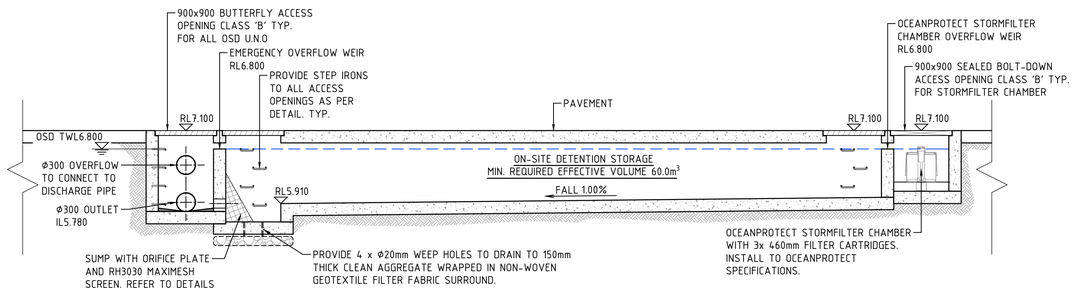
FRONT ELEVATION
SCALE 1:10



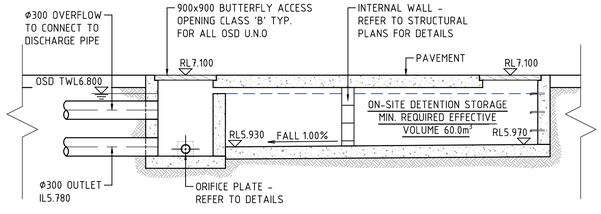
SIDE ELEVATION
SCALE 1:10

STEP IRON DETAIL
SCALE 1:10

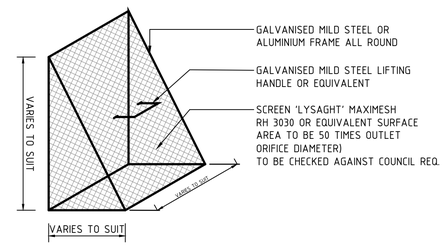
STEP IRON PLACEMENT TO PIT WALL
NOT TO SCALE



OSD TANK SECTION
SCALE 1:50
A DA4.11



OSD TANK SECTION
SCALE 1:50
B DA4.11



TYPICAL REMOVABLE SCREEN DETAIL
NOT TO SCALE

NOTES
PROVIDE FIXING CLIPS OR BRACKETS TO WALL OF PIT AT OUTLET. ALLOW FOR EASE OF REMOVAL.

AS SHOWN

DA ISSUE

IMPORTANT
- DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY
- DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
- THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT®

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
12/12/19	ISSUED FOR DA	DL	1

DATE	AMENDMENT	INIT	REV
####	####	####	####

STRUCTURAL -
MECHANICAL -
ELECTRICAL -
CIVIL -

CLIENT: AVALON BEACH CENTRAL PTY. LTD.

PROJECT: 3 CENTRAL ROAD, AVALON BEACH

ARCHITECT: COTTEEPARKER Ø JPRA
SYDNEY
T 61 2 9366 1133
COTTEE PARKER ARCHITECTS PTY LTD
ABN: 77 210 924 196
COTTEEPARKER.COM.AU

SPARKS+PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE
Level 1, 91 George Street | Parramatta | NSW 2150
P 02 9891 5033 | F 02 9891 3898 | E admin@sparksandpartners.com.au
https://sparksandpartners.com.au/

FPA AUSTRALIA Fire Protection Association Australia CORPORATE MEMBER
DNV·GL ISO 9001 QUALITY SYSTEM CERTIFICATION

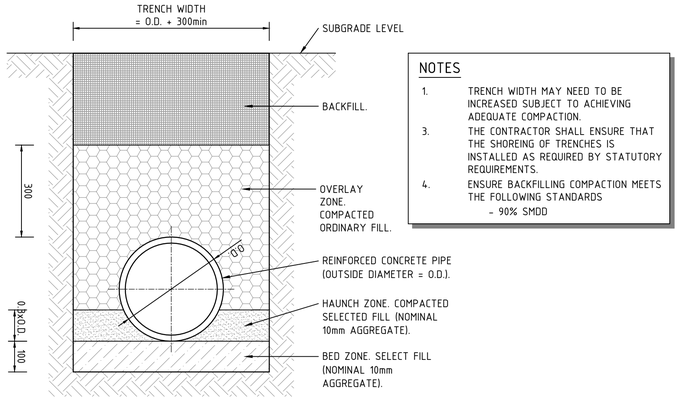
DRAWING TITLE: CIVIL DESIGN
STORMWATER MANAGEMENT
DETAILS SHEET 1

DATE	DRAWN	DESIGNED	CHECKED
DEC 2019	DL	DL	

SCALE	SIZE	REVISION
AS SHOWN	A1	1

PROJECT No: 19279
DRAWING No: DA4.11

W:\2 - PROJECTS\2019\19279 - 3 CENTRAL RD, AVALON\5-DESIGN FILE\A - DESIGN DRAWINGS\B - CIVIL\19279_DA4.11.DWG

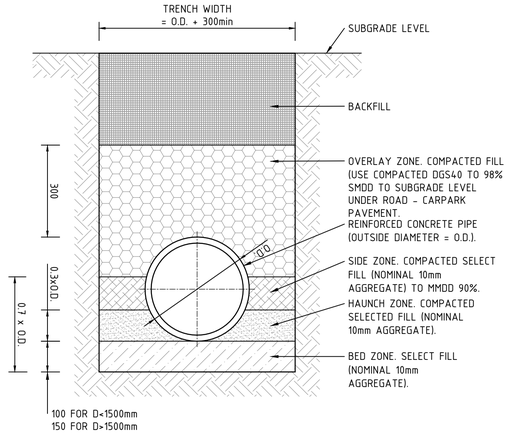


NOTES

1. TRENCH WIDTH MAY NEED TO BE INCREASED SUBJECT TO ACHIEVING ADEQUATE COMPACTION.
3. THE CONTRACTOR SHALL ENSURE THAT THE SHOREING OF TRENCHES IS INSTALLED AS REQUIRED BY STATUTORY REQUIREMENTS.
4. ENSURE BACKFILLING COMPACTION MEETS THE FOLLOWING STANDARDS
   - 90% SMDD

CONCRETE PIPE TRENCHING IN LANDSCAPING

SCALE 1:10

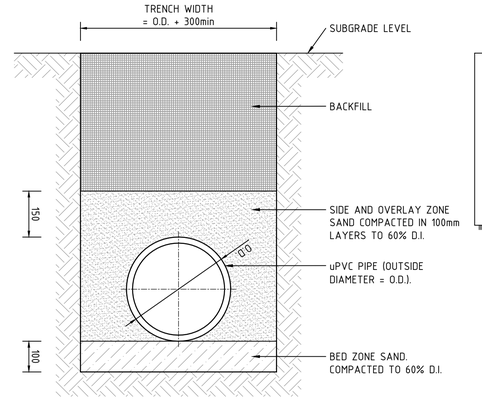


NOTES

1. TRENCH WIDTH MAY NEED TO BE INCREASED SUBJECT TO ACHIEVING ADEQUATE COMPACTION.
2. THE CONTRACTOR SHALL ENSURE THAT THE SHOREING OF TRENCHES IS INSTALLED AS REQUIRED BY STATUTORY REQUIREMENTS.
3. ENSURE BACKFILLING COMPACTION MEETS THE FOLLOWING STANDARDS
   - 100% SMDD

CONCRETE PIPE TRENCHING IN PAVED AREAS

SCALE 1:10

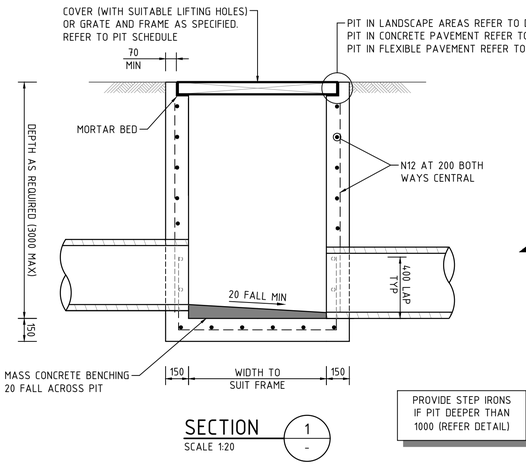


NOTES

1. TRENCH WIDTH MAY NEED TO BE INCREASED SUBJECT TO ACHIEVING ADEQUATE COMPACTION.
2. THE CONTRACTOR SHALL ENSURE THAT THE SHOREING OF TRENCHES IS INSTALLED AS REQUIRED BY STATUTORY REQUIREMENTS.
3. ENSURE BACKFILLING COMPACTION MEETS THE FOLLOWING STANDARDS
   - 60%D.I.

PIPE TRENCHING FOR uPVC PIPE

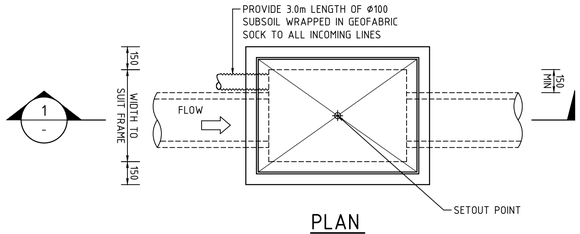
SCALE 1:10



SECTION

SCALE 1:20 (1 / -)

PROVIDE STEP IRONS IF PIT DEEPER THAN 1000 (REFER DETAIL)

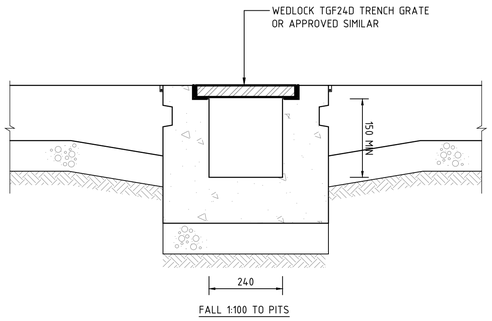


PLAN

SCLAE 1:20

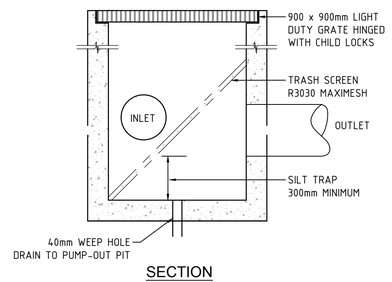
SURFACE INLET / JUNCTION PIT

(PIPE SIZES ≤ ø450)

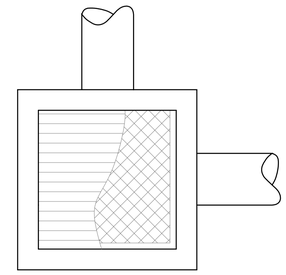


TYPICAL GRATED TRENCH DRAIN (GTD) SECTION

SCALE 1:10



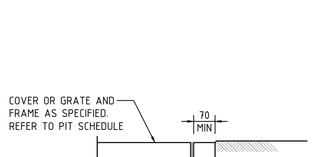
SECTION



PLAN

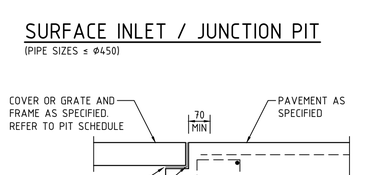
SW SUMP WITH SILT TRAP & TRASH SCREEN

NOT TO SCALE



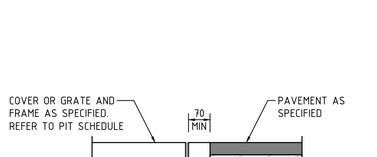
DETAIL 'A'

SCLAE 1:10



DETAIL 'B'

SCLAE 1:10



DETAIL 'C'

SCLAE 1:10

AS SHOWN

IMPORTANT
- DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY.
- DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
- THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHT®

NORTH POINT

REFERENCES

DATE	AMENDMENT	INIT	REV
12/12/19	ISSUED FOR DA	DL	1

DATE	AMENDMENT	INIT	REV
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####

STRUCTURAL -
MECHANICAL -
ELECTRICAL -
CIVIL -

CLIENT
AVALON BEACH CENTRAL PTY. LTD.

PROJECT
3 CENTRAL ROAD, AVALON BEACH

ARCHITECT
COTTEEPARKER Ø JPRA
SYDNEY
T 61 2 9366 1133
COTTEE PARKER ARCHITECTS PTY LTD
ABN 77 010 924 106
COTTEEPARKER.COM.AU

SPARKS+PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE
Level 1, 91 George Street | Parramatta | NSW 2150
P 02 9891 5033 | F 02 9891 3898 | E admin@sparksandpartners.com.au
https://sparksandpartners.com.au/

FPA AUSTRALIA Fire Protection Association Australia CORPORATE MEMBER

QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001

DRAWING TITLE
CIVIL DESIGN
STORMWATER MANAGEMENT
DETAILS SHEET 2

DATE	DRAWN	DESIGNED	CHECKED
DEC 2019	DL	DL	

PROJECT No	SCALE	SIZE	REVISION
19279	AS SHOWN	A1	1

DRAWING No DA4.12

DA ISSUE

W:\2 - PROJECTS\2019\19279 - 3 CENTRAL RD, AVALON\5-DESIGN FILE\A - DESIGN DRAWINGS\B - CIVIL\19279_DA4.1X.DWG