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ECT

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& URBAN

BEACON HILL 808

ALTRE
70A WILLANDRA ROAD NARRAWEENA NSW
DEVELOPMENT APPLICATION



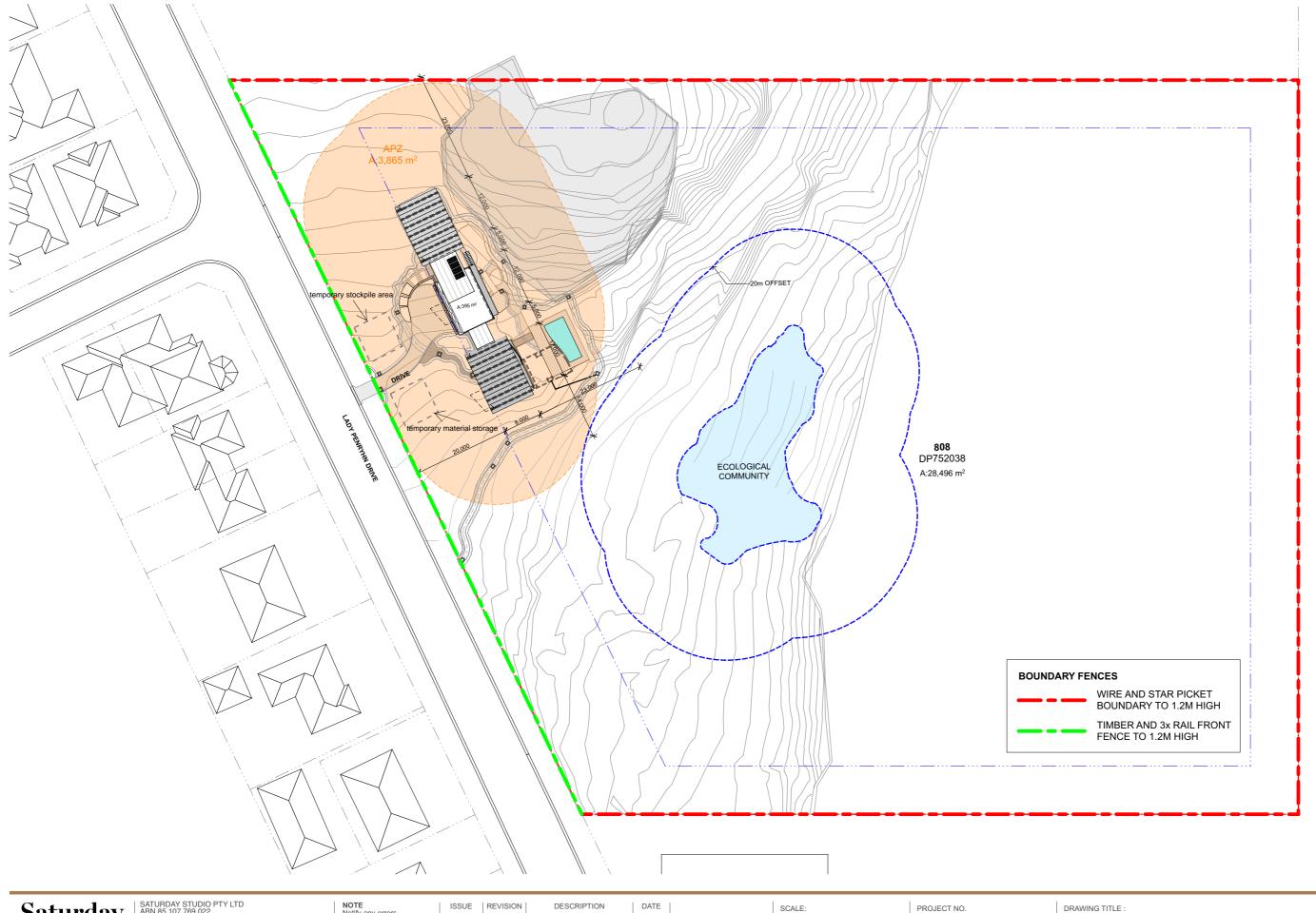
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18016 BEACON HILL 808 - DOCUMENT TRANSMITTAL

70A WILLANDRA ROAD NARRAWEENA NSW		
70A WILLANDRA ROAD NARRAWEENA NSW		

DRAWING #	DRAWING NAME	REV	DESCRIPTION	DATE
100:01	SITE PLAN	А	Issued for DA	26/02/20
100:02	LOWER GF PLAN	А	Issued for DA	26/02/20
100:03	UPPER GF PLAN	А	Issued for DA	26/02/20
100:04	LEVEL 1	А	Issued for DA	26/02/20
100:05	ROOF	А	Issued for DA	12/12/19
200:01	EAST & WEST	А	Issued for DA	30/03/20
200:02	NORTH & SOUTH	А	Issued for DA	12/12/19
200:03	STREET ELEVATION	А	Issued for DA	30/03/20
300:01	LONG SECTION	А	Issued for DA	12/12/19
710:01	SHADOW DIAGRAM	А	Issued for DA	12/12/19
720:01	NOTIFICATION - SITE	А	Issued for DA	26/02/20
720:02	NOTIFICATION - LG	А	Issued for DA	26/02/20
720:03	NOTIFICATION - UG	А	Issued for DA	26/02/20
720:04	NOTIFICATION - UPPER	А	Issued for DA	26/02/20
720:05	NOTIFICATION - ROOF	А	Issued for DA	12/12/19
720:06	NOTIFICATION - ELEVATIONS	А	Issued for DA	12/12/19
720:07	NOTIFICATION - ELEVATIONS	А	Issued for DA	12/12/19
800:03	MATERIAL SCHEDULE	А	Issued for DA	12/12/19
820:01	SITE LOCATION	А	Issued for DA	12/12/19
820:02	SITE ANALYSIS	А	Issued for DA	12/12/19
820:03	BUILT ENVIRONMENT	А	Issued for DA	12/12/19
600:01	3D Images	А	Issued for DA	30/03/20

Distribu	tion	Contact															
Client:	ALTRE	ALTRE	-													T	
<01NAME	>: <01ADDRESS>	####	-														
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Documentation																	
Purpose	A = ApprovalC = ConstructiorR = Review P = Preliminary	Co = Coordinatio@C = Constructio	n_														
	T = Tender S = Costing N = Signing V = Variation Costing	I = Information Certificate	'														
Stage	SK = Sketch Design DA = Development Application	Date Day	01														
5"	CC = Construction CertificateCD = Construction Documentation	Month	01														
	CC = Construction CertificateCD = Construction Documentation	Year	15														





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SCALE: PRINT SIZE: PRINT DATE:

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SITE:

26/2/20 **ALTRE**

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18016

DRAWING TITLE : **PLANS**

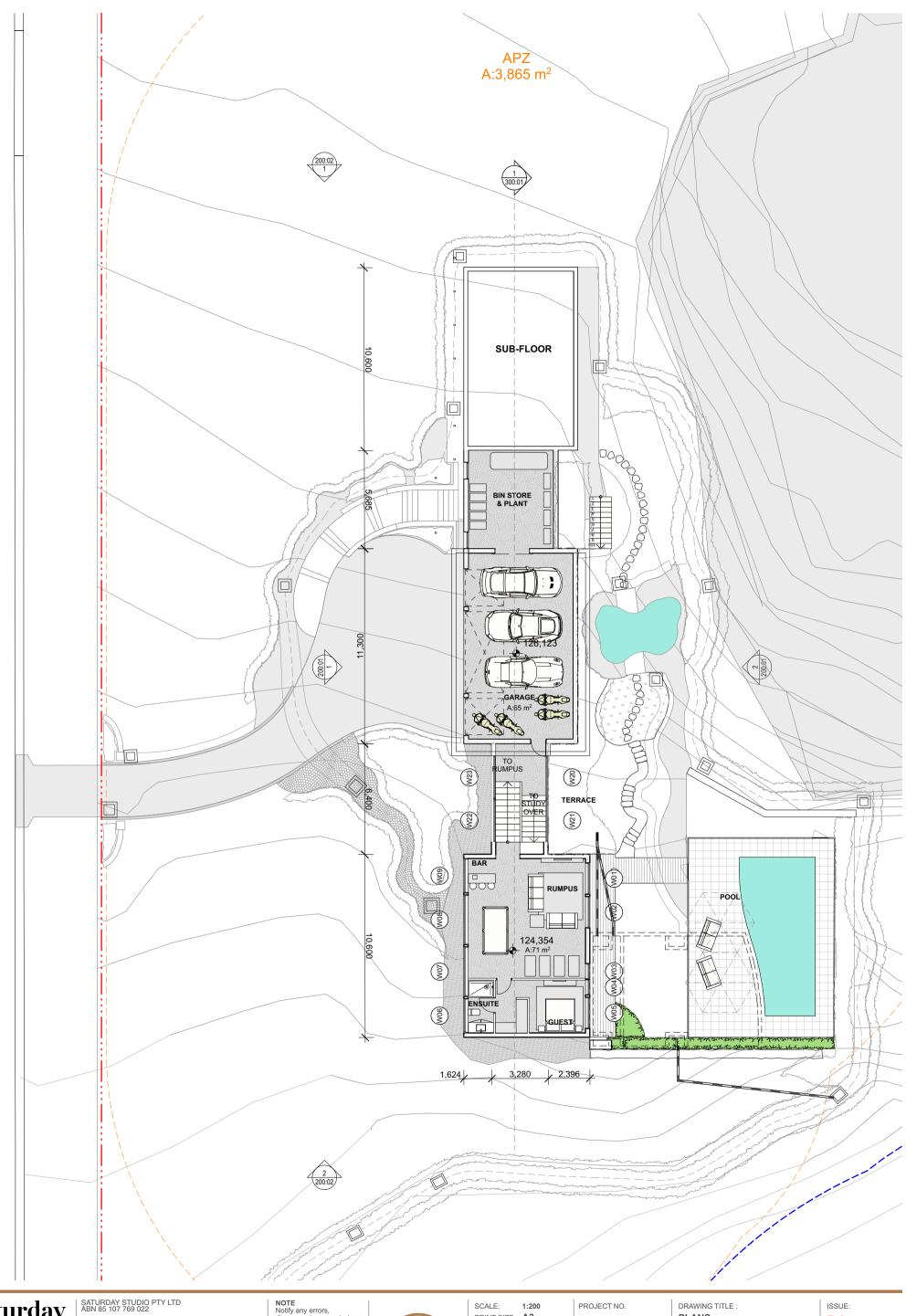
SITE PLAN

PROJECT NAME

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PLANS

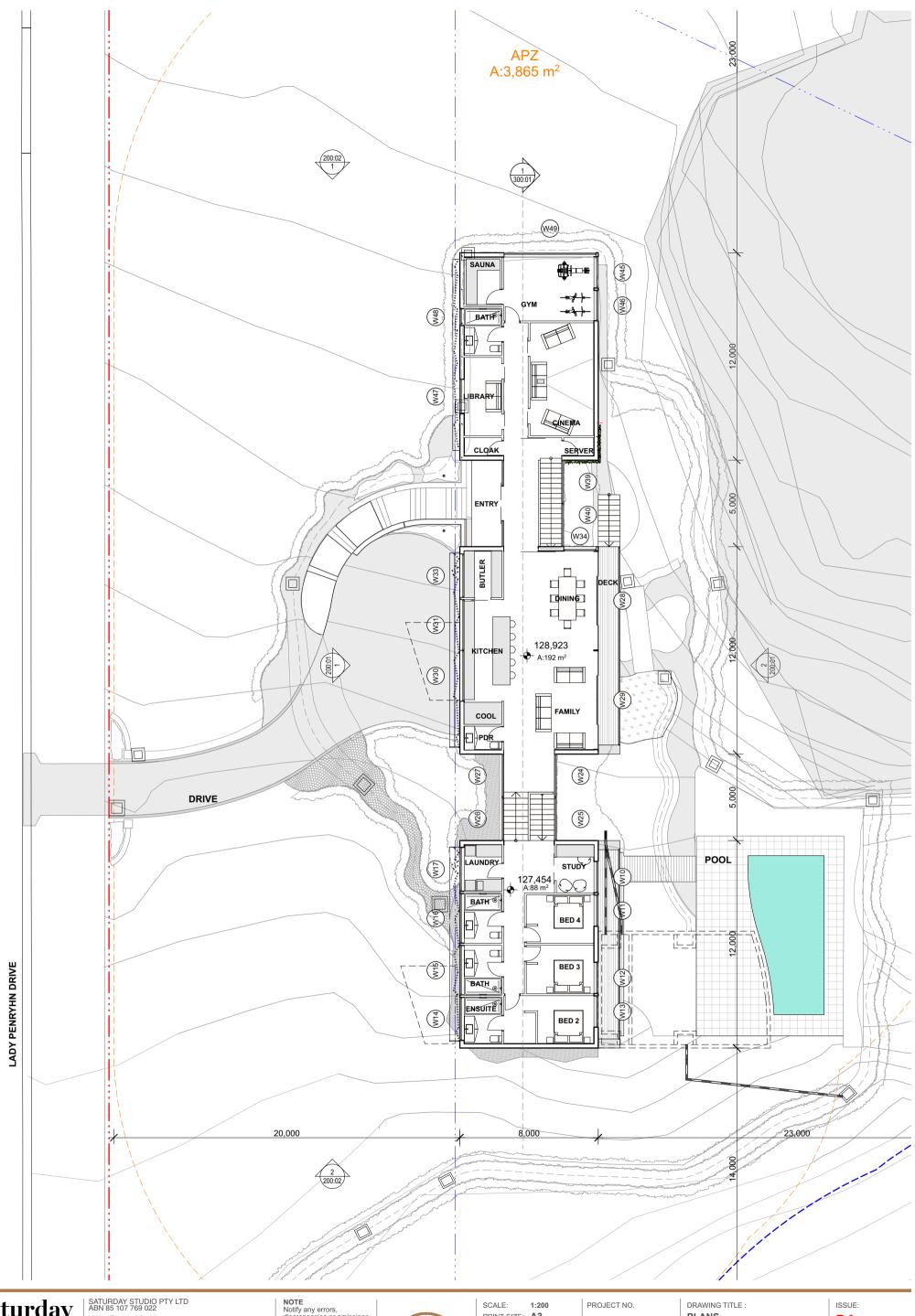
LOWER GF PLAN

PROJECT NAME :

BEACON HILL 808

DA DRAWING NO. 100:02

REVISION NO.



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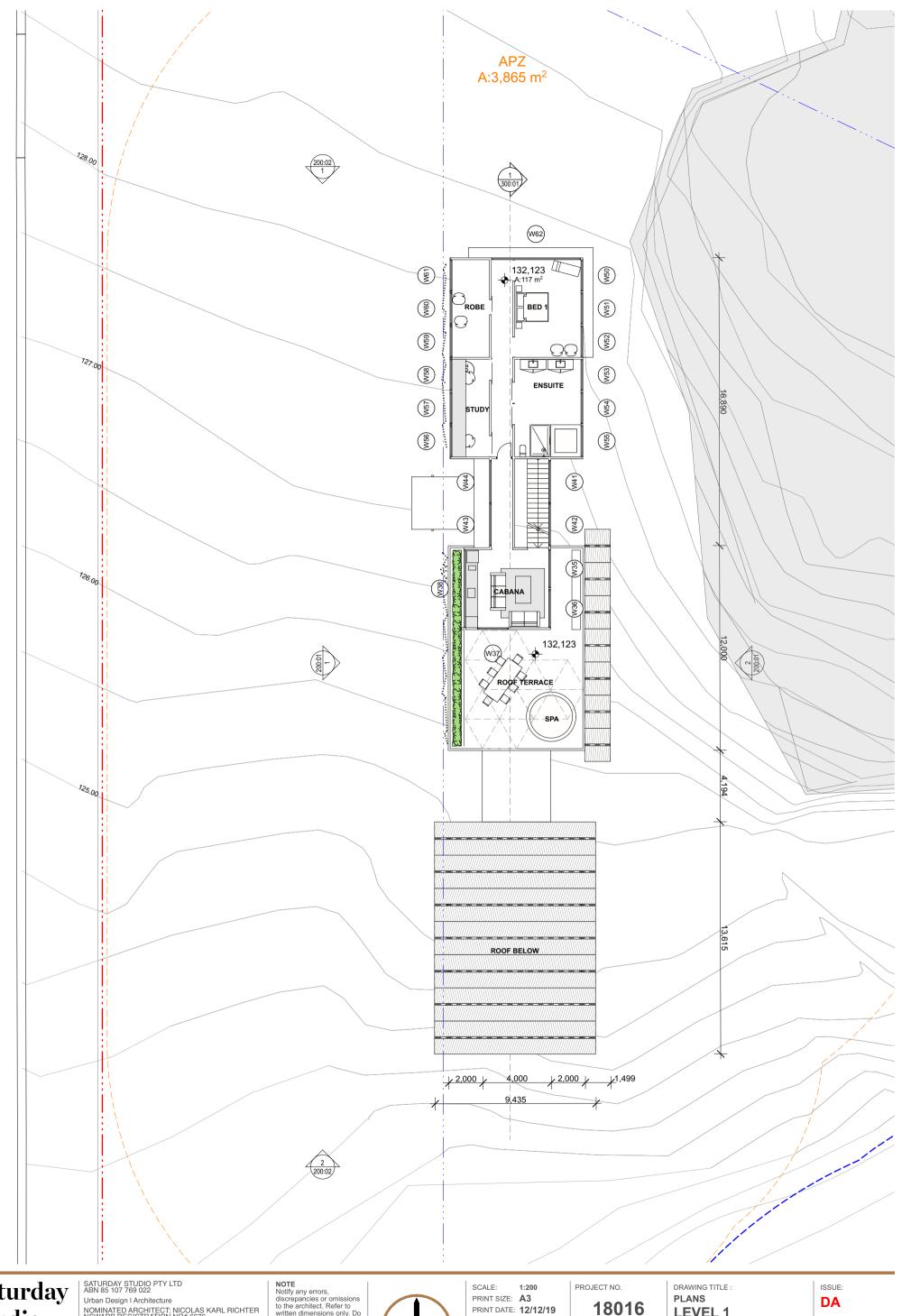
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18016

PLANS UPPER GF PLAN

PROJECT NAME : **BEACON HILL 808** DA DRAWING NO. 100:03

REVISION NO.



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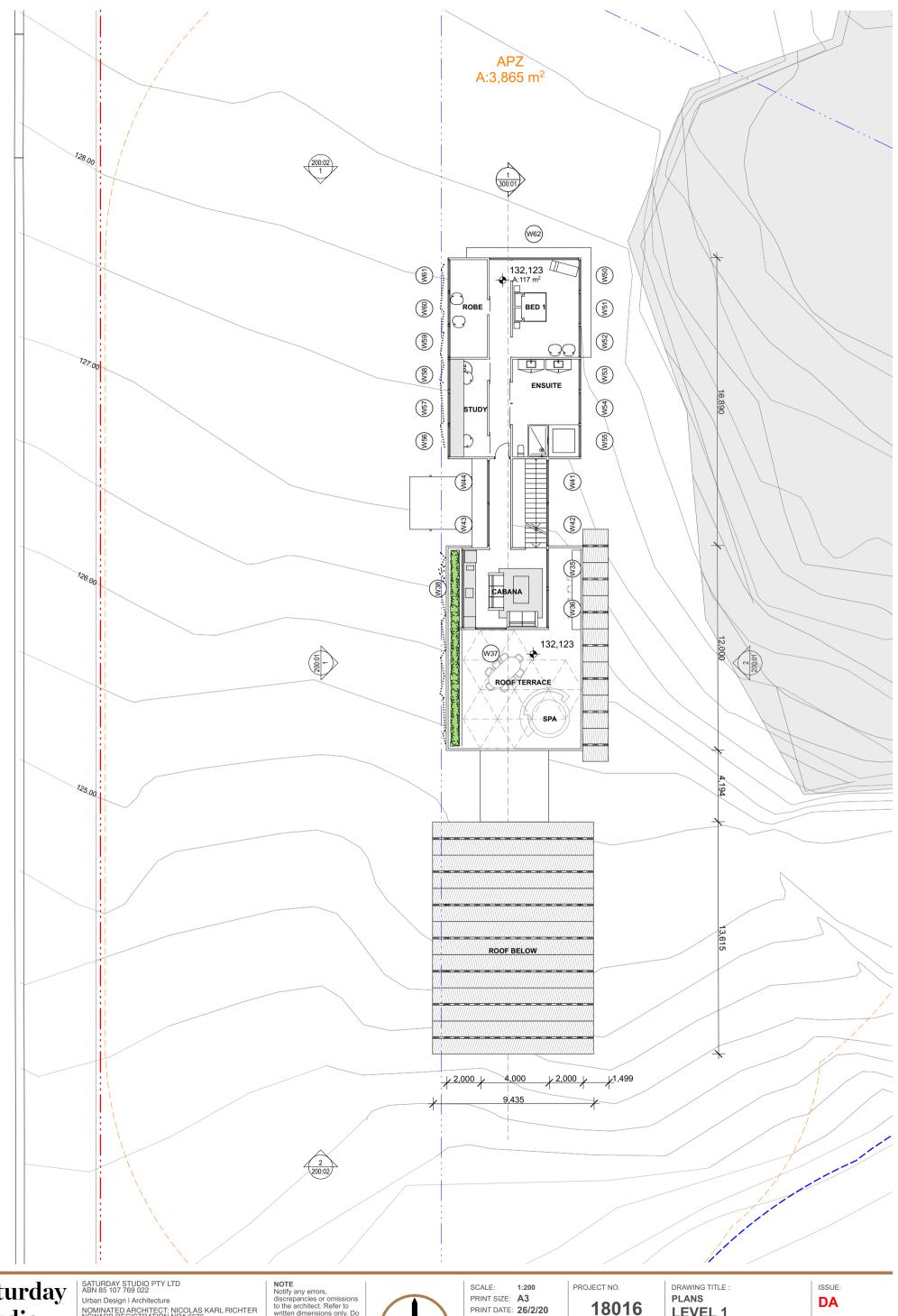
LEVEL 1

PROJECT NAME :

BEACON HILL 808

DRAWING NO.

100:04 REVISION NO.



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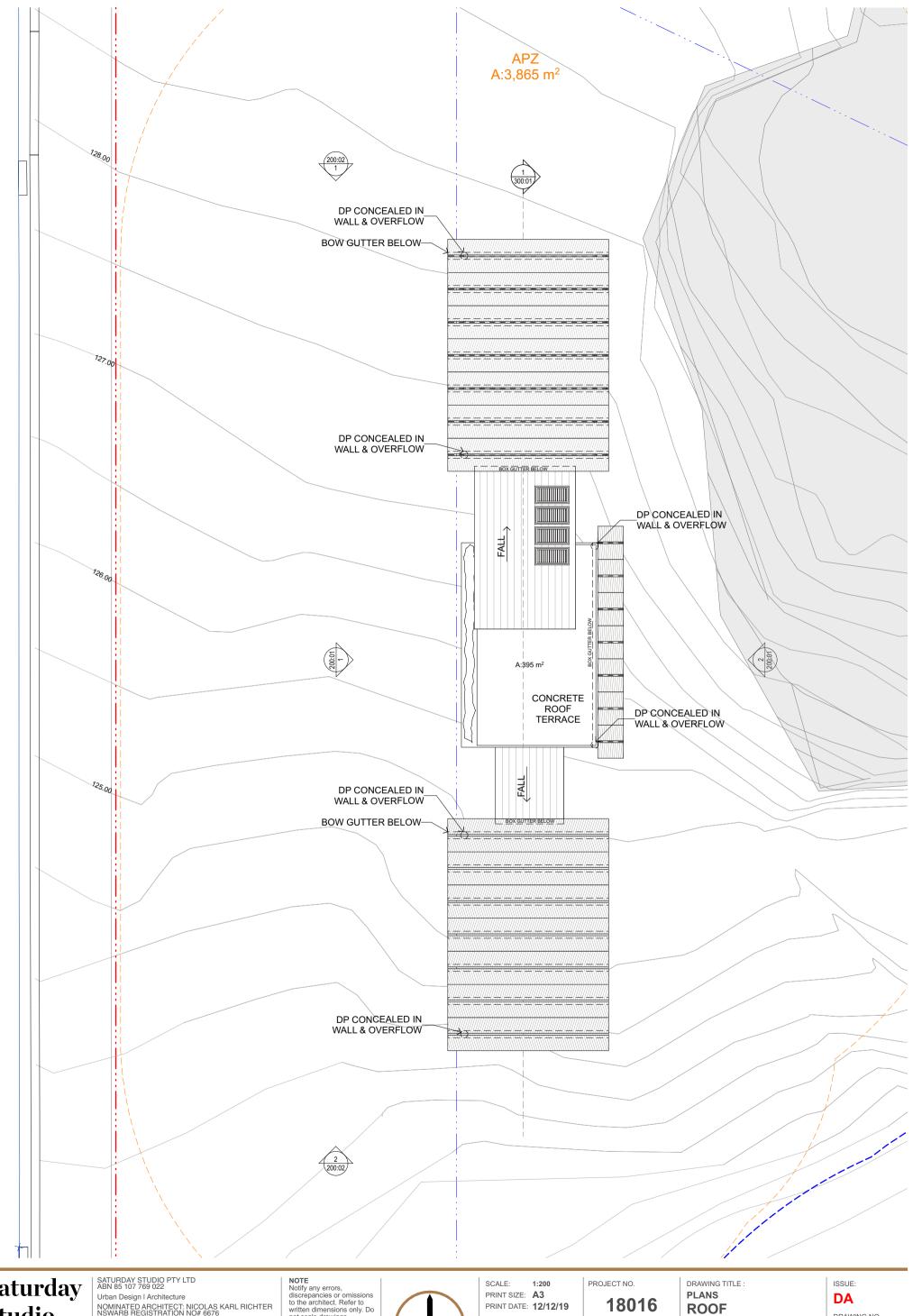
PRINT DATE: 26/2/20 CLIENT: ALTRE

70A WILLANDRA ROAD NARRAWEENA NSW

LEVEL 1

PROJECT NAME : **BEACON HILL 808** DRAWING NO. 100:04

REVISION NO.



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SCALE: PRINT SIZE: PRINT DATE:

CLIENT:

SITE:

1:200 A3 30/03/20

18016

PROJECT NO.

ALTRE 70A WILLANDRA ROAD **NARRAWEENA NSW**

DRAWING TITLE : **ELEVATIONS EAST & WEST**

PROJECT NAME : **BEACON HILL 808** ISSUE: DA DRAWING NO. 200:01 REVISION NO.





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PROJECT NO.

NARRAWEENA NSW

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70A WILLANDRA ROAD

DRAWING TITLE : **ELEVATIONS NORTH & SOUTH**

BEACON HILL 808

ISSUE: DA DRAWING NO. 200:02

REVISION NO.



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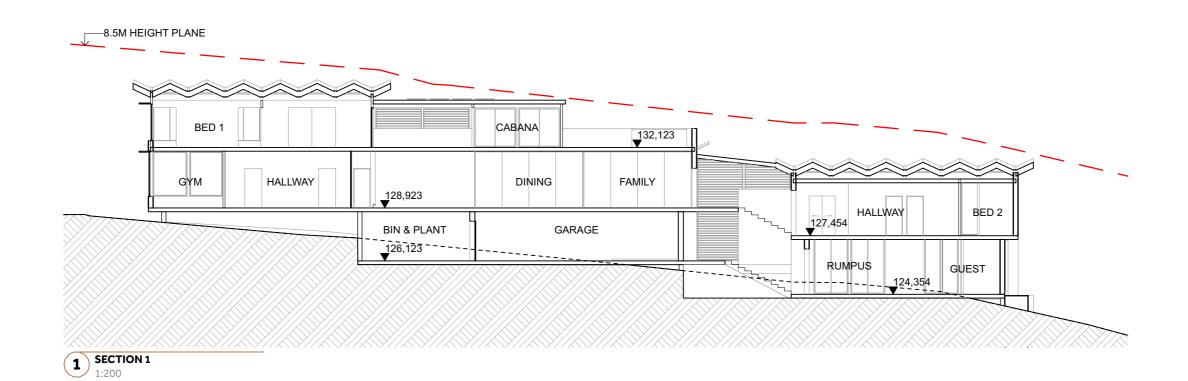
18016

DRAWING TITLE : **ELEVATIONS**

STREET ELEVATION

BEACON HILL 808

ISSUE: DA DRAWING NO. 200:03 REVISION NO.



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SITE:

1:200 A3 12/12/19

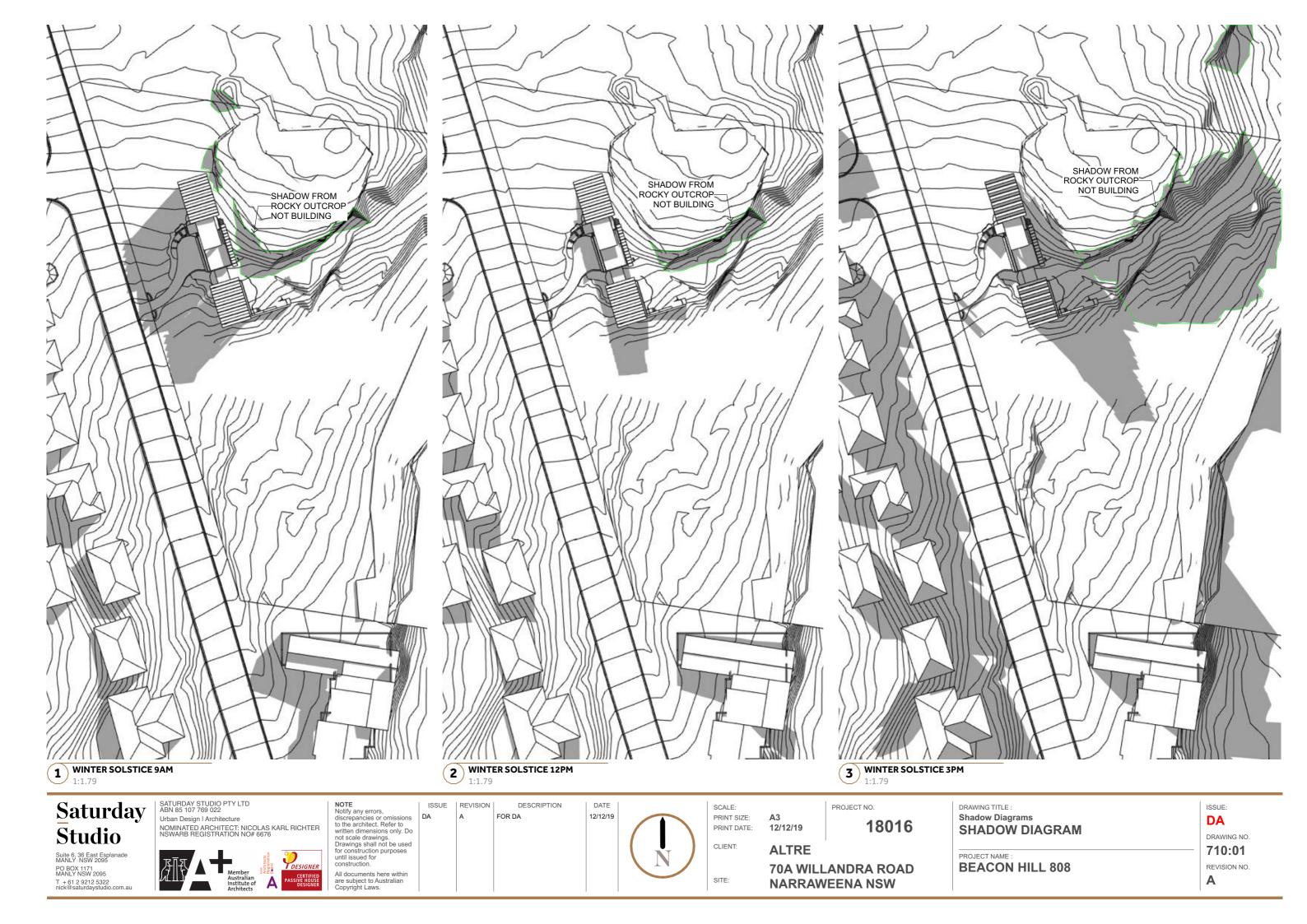
PROJECT NO. 18016

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DRAWING TITLE : SECTIONS **LONG SECTION**

DA DRAWING NO. 300:01 **BEACON HILL 808** REVISION NO. Α

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NARRAWEENA NSW

PROJECT NO.

18016

NOTIFICATION -

PROJECT NAME:
BEACON HILL 808

DRAWING TITLE:

Notification Plans

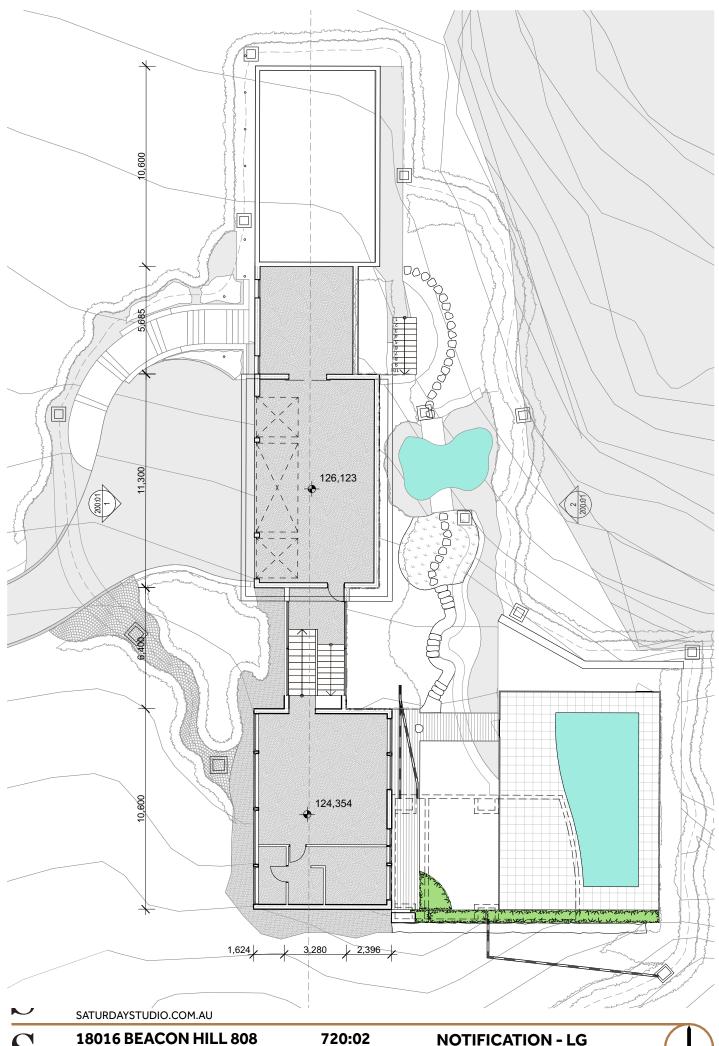
ISSUE:

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DRAWING NO.

720:01

REVISION NO.



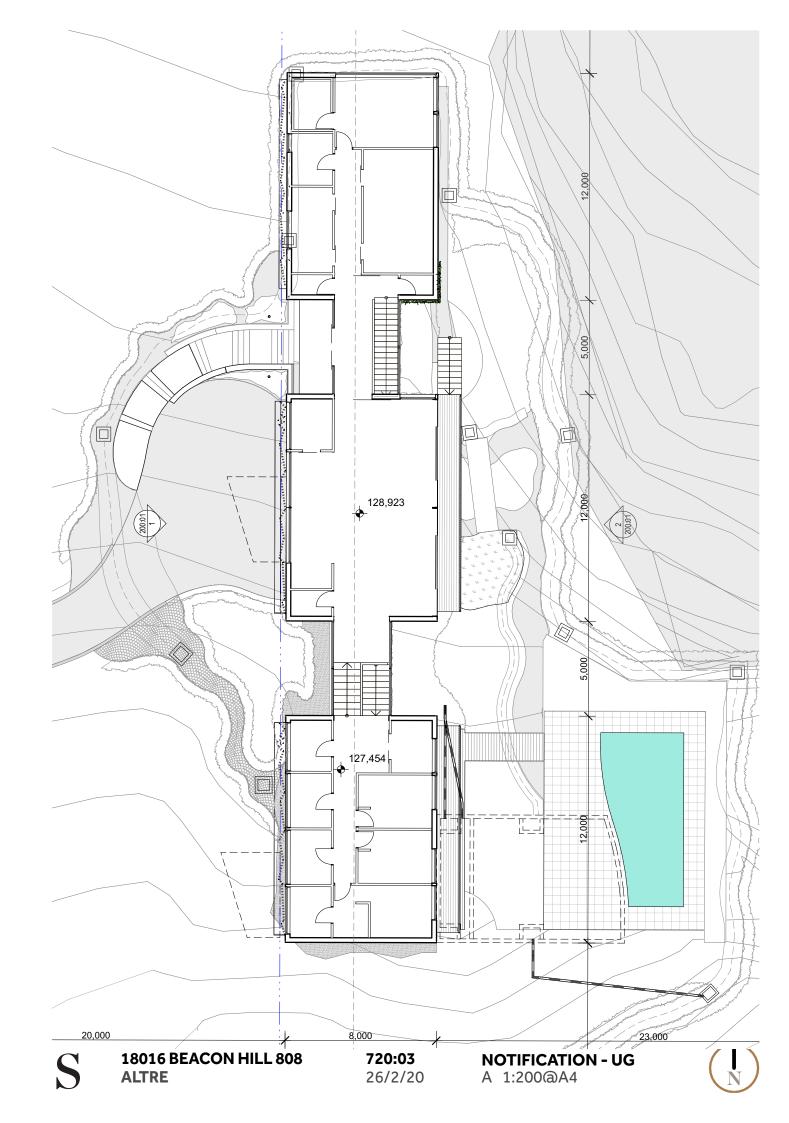


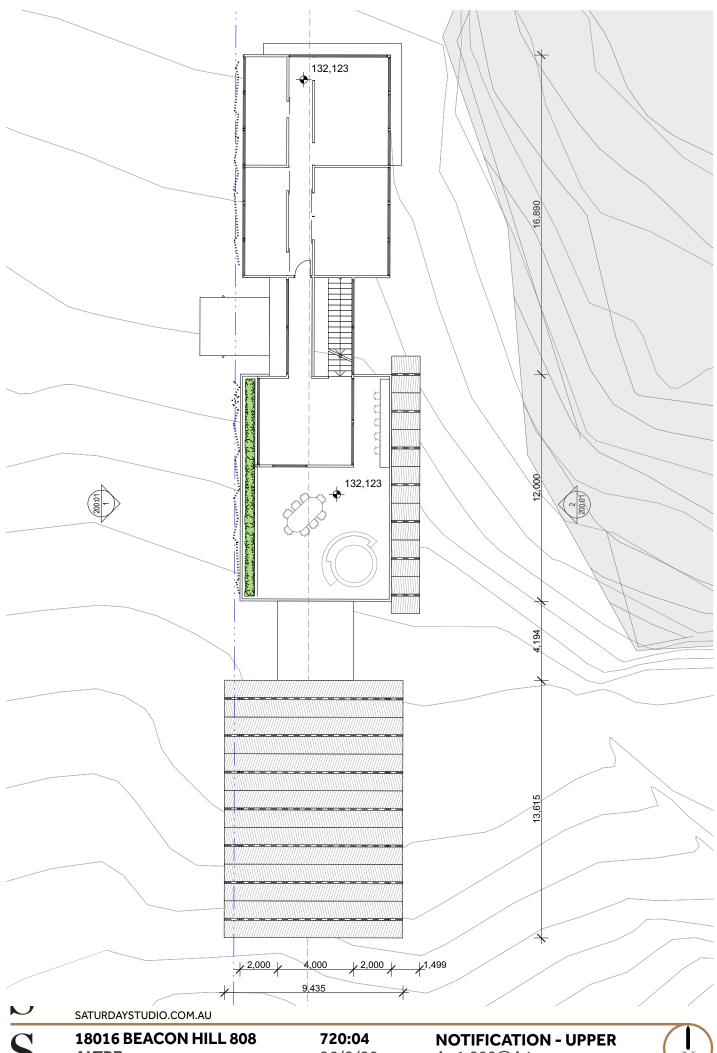
18016 BEACON HILL 808 ALTRE

26/2/20

NOTIFICATION - LG A 1:200@A4





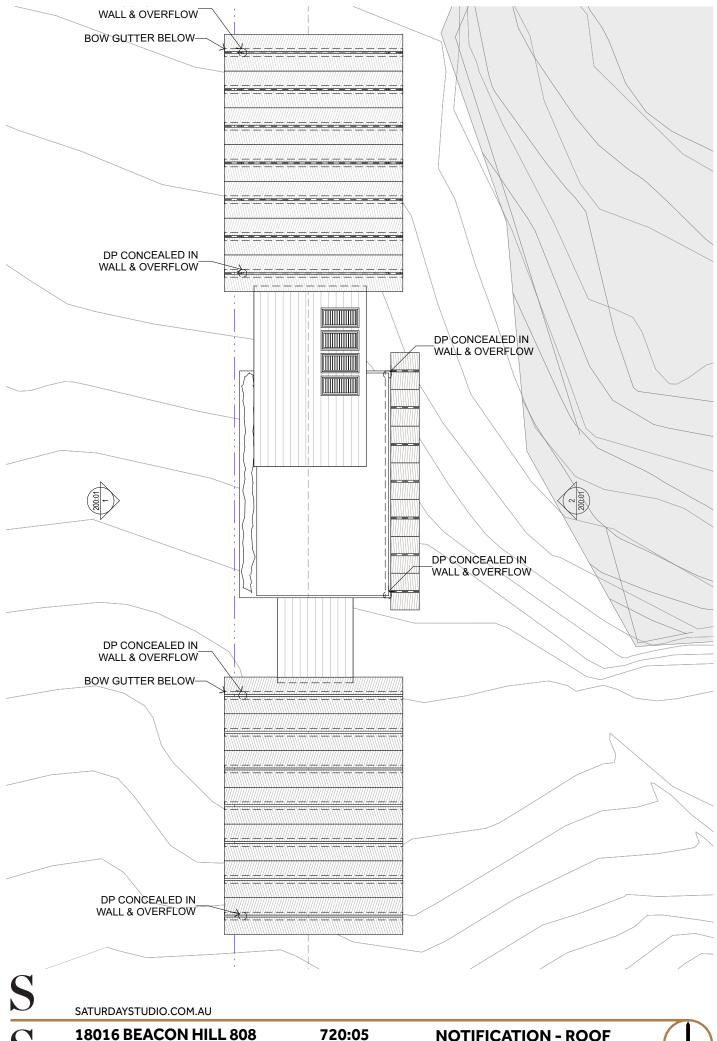


ALTRE

26/2/20

A 1:200@A4





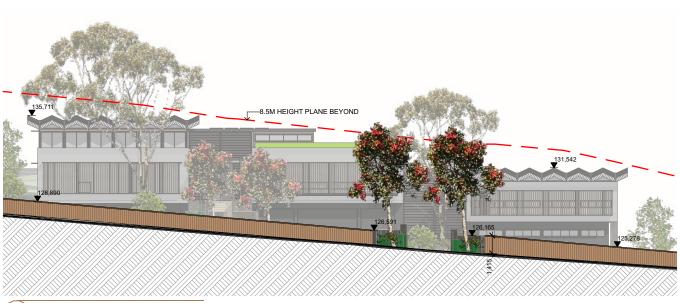
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18016 BEACON HILL 808 ALTRE

720:05 12/12/19

NOTIFICATION - ROOF A 1:200@A4





1:300



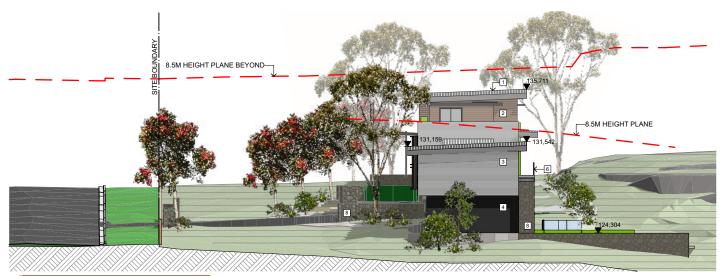
2 EAST ELEVATION 1:300

S

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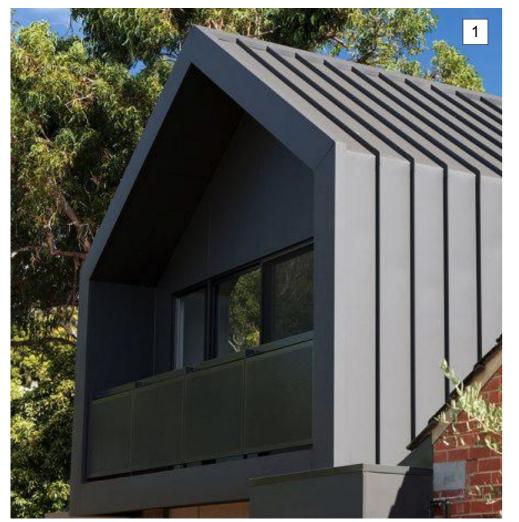
NORTH ELEVATION



2 SOUTH ELEVATION 1:300

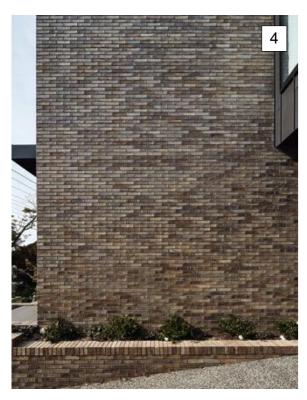
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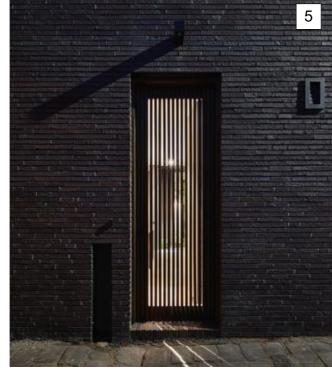
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PROJECT NAME **BEACON HILL 808**

DRAWING TITLE :

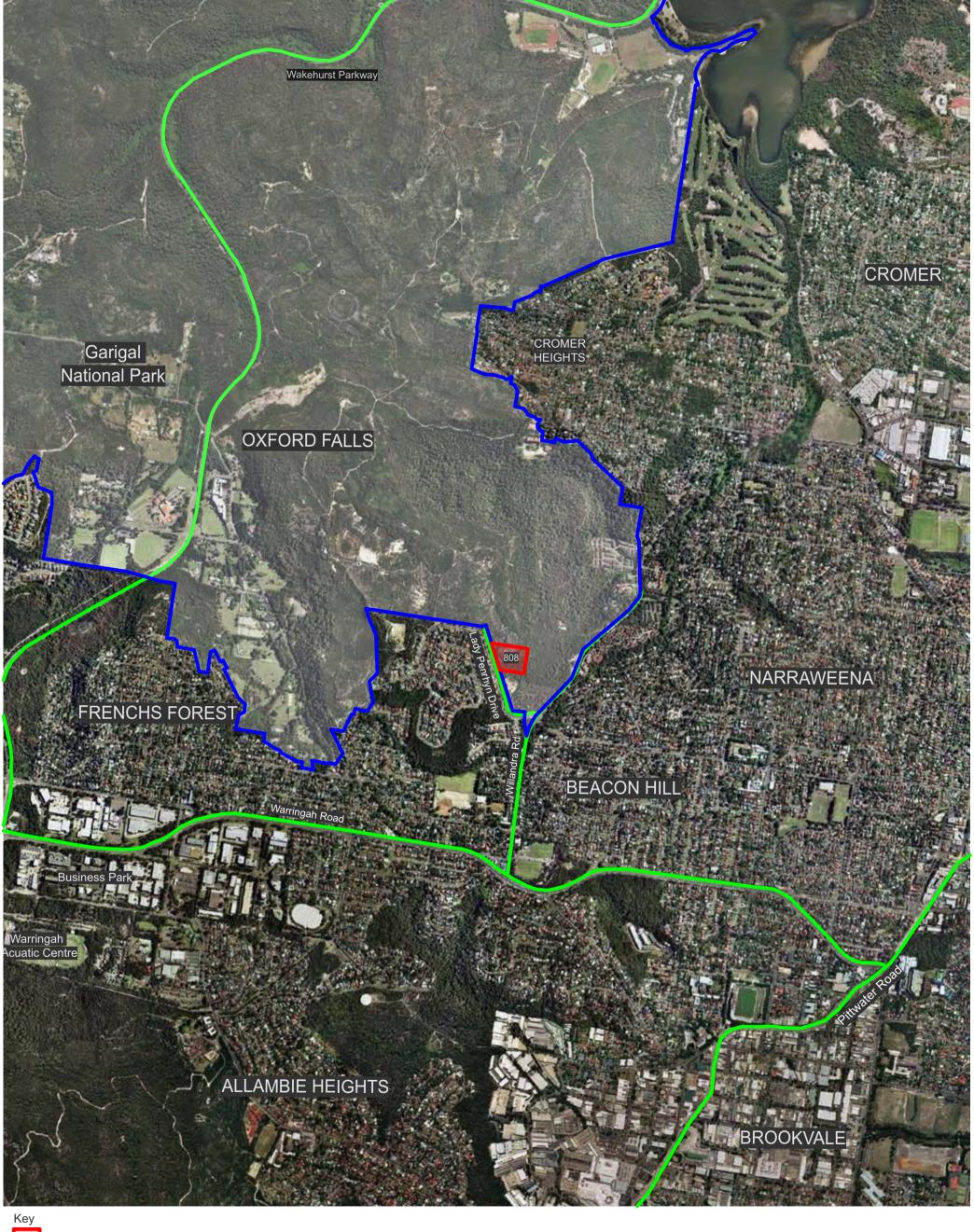
Supplementary Drawings

MATERIAL SCHEDULE

ISSUE: DA

DRAWING NO. 800:03

REVISION NO.





Site Area

B2 Oxford Falls Locality (Warringah LEP 2000)

Connector Roads







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PROJECT NO.

18016

DRAWING TITLE :

Analysis SITE LOCATION

500

PROJECT NAME :

0 100 200 300

DRAWING NO. 820:01 REVISION NO. **BEACON HILL 808**

ISSUE:

DA

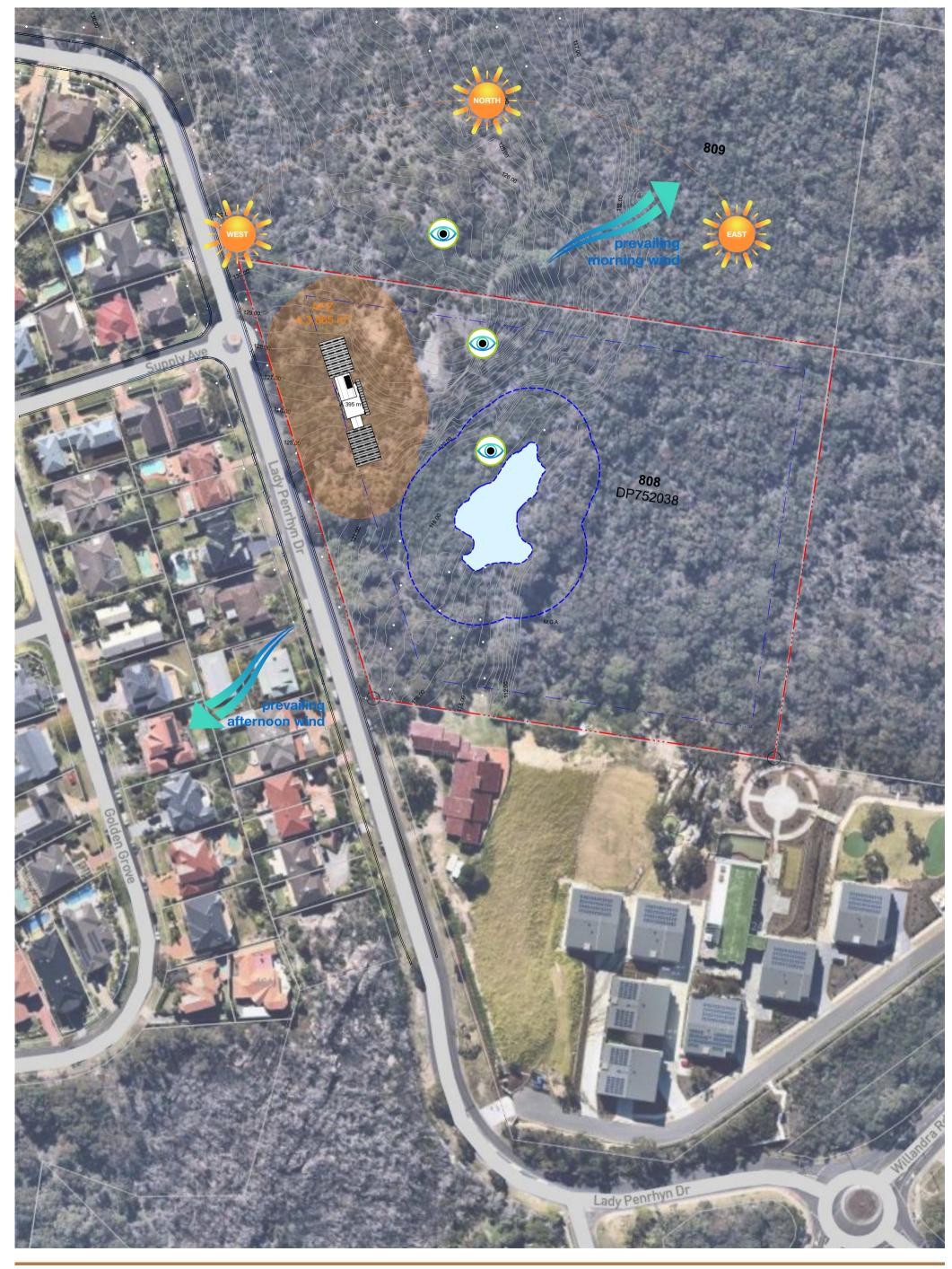
700

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NARRAWEENA NSW

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DRAWING TITLE:
Analysis
SITE ANALYSIS

PROJECT NAME :

BEACON HILL 808

DA DRAWING NO.

820:02REVISION NO. **A**



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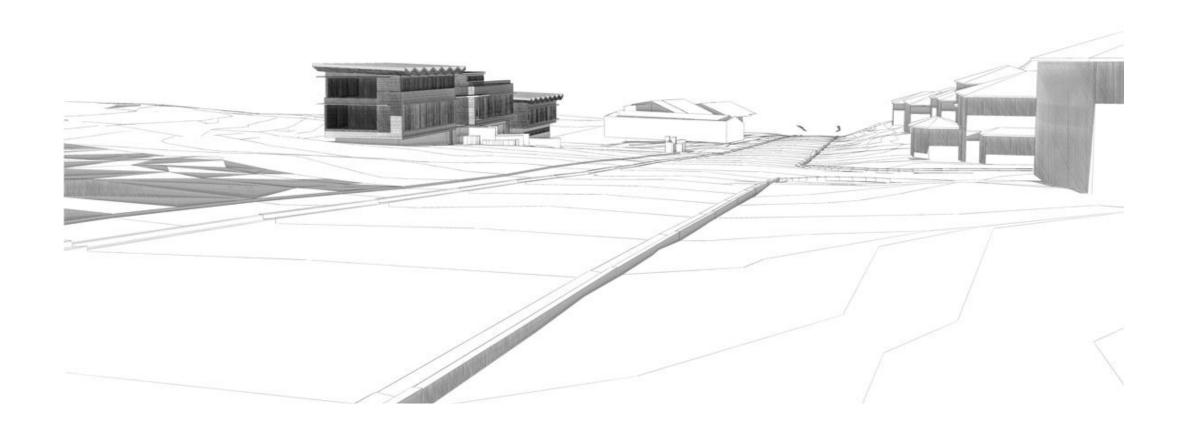
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Analysis **BUILT**

ENVIRONMENT PROJECT NAME : **BEACON HILL 808** DA DRAWING NO. 820:03

REVISION NO.





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A3 30/03/20

ALTRE 70A WILLANDRA ROAD **NARRAWEENA NSW**

PROJECT NO.

18016

3D IMAGES

DRAWING TITLE :

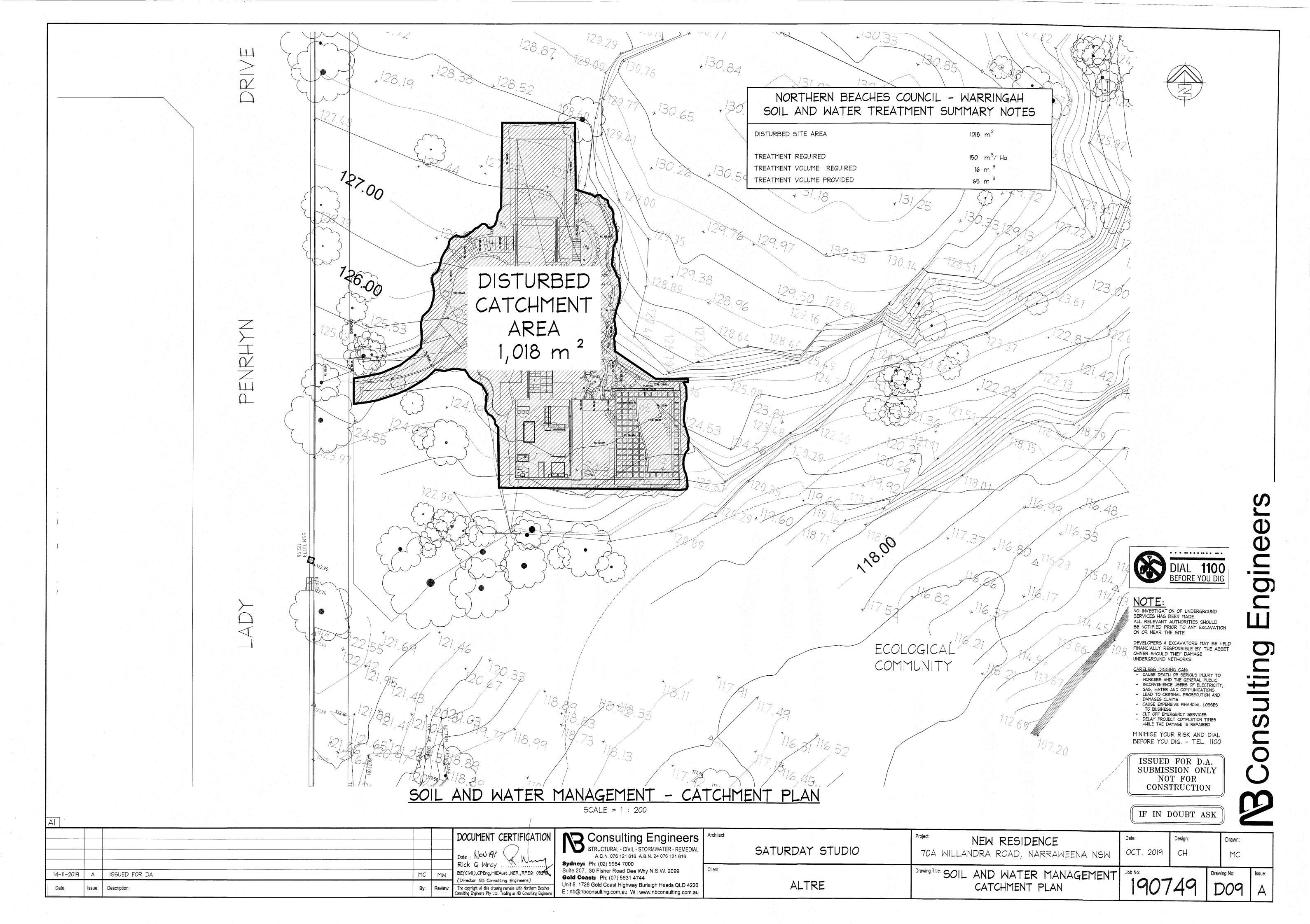
3D Images

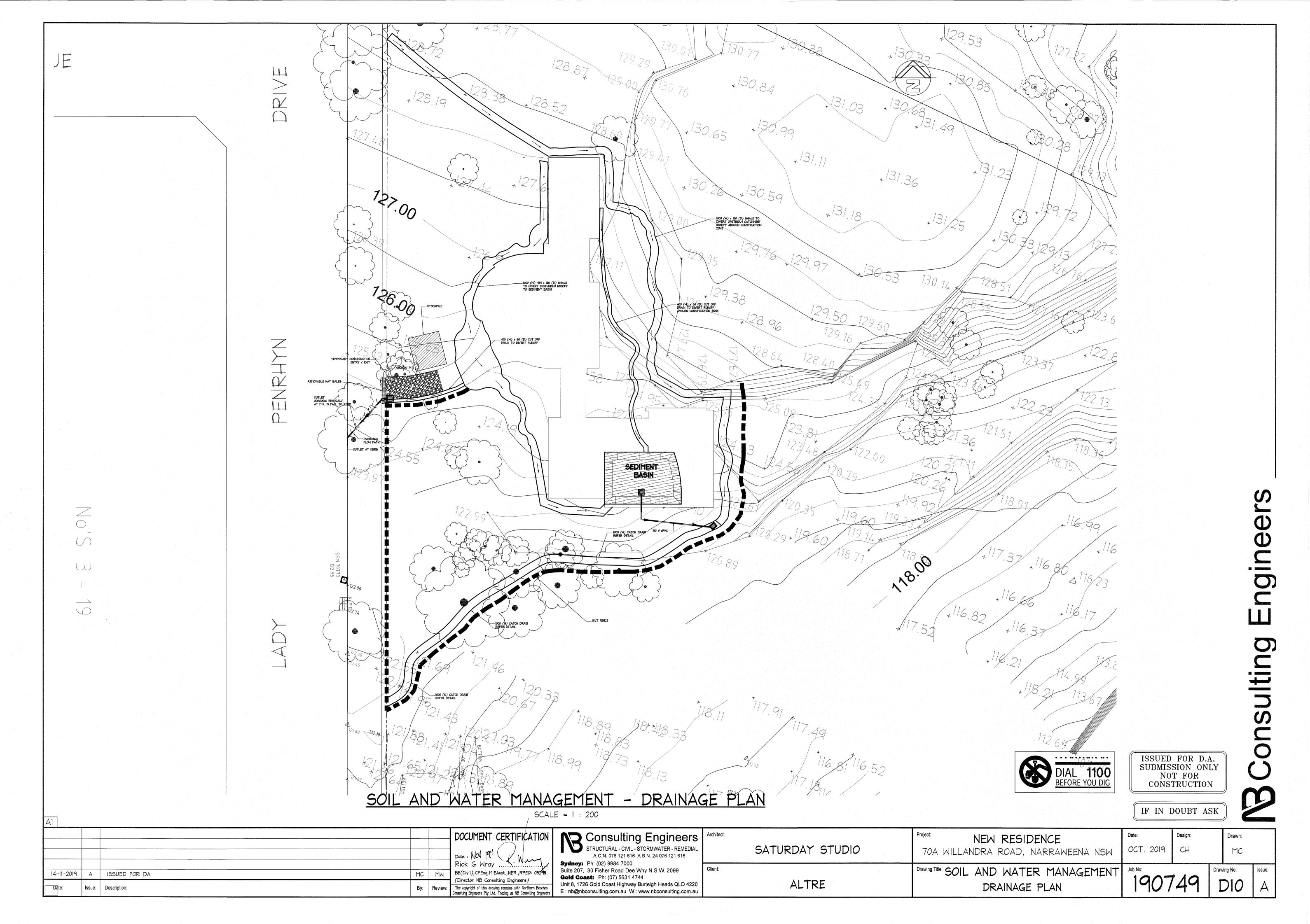
PROJECT NAME:
BEACON HILL 808

ISSUE: DA DRAWING NO.

600:01

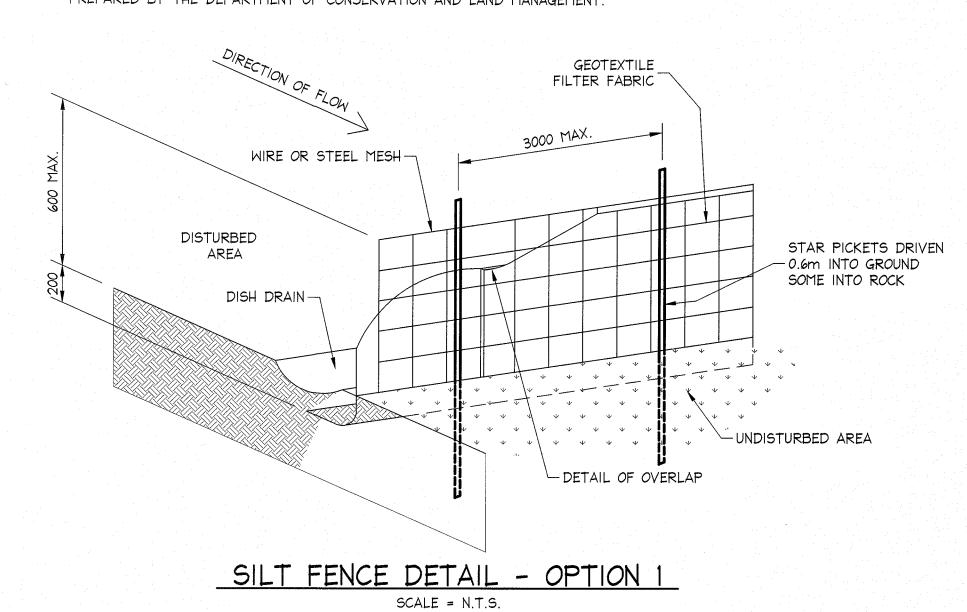
REVISION NO. Α

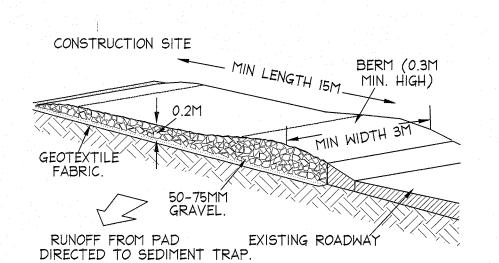




SEDIMENT CONTROLS

- 1. INSTALL SEDIMENT CONTROL STRUCTURES IN LOCATIONS INDICATED ON DRAWINGS AND AS OTHERWISE REQUIRED TO CONTROL SEDIMENT DURING ALL EXCAVATIONS AND WHILST AREAS OF THE SITE ARE EXPOSED TO EROSION.
- 2. CONTROL STRUCTURES TO BE AS DETAILED OR AS OTHERWISE REQUIRED BY CERTIFYING AUTHORITY.
- 3. REVIEW CONTROL MEASURES AND MAINTAIN STRUCTURES DURING CONSTRUCTION.
- 4. IF ADDITIONAL MEASURES ARE REQUIRED FOR EROSION CONTROL OR BY COUNCIL REQUIREMENTS REFER TO "URBAN EROSION AND SEDIMENT CONTROL" GUIDELINES PREPARED BY THE DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT.

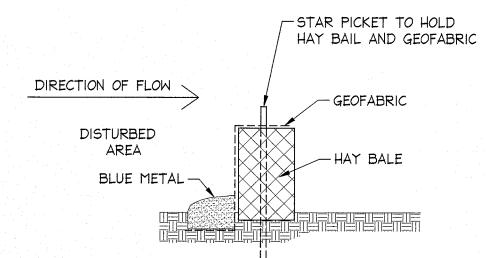




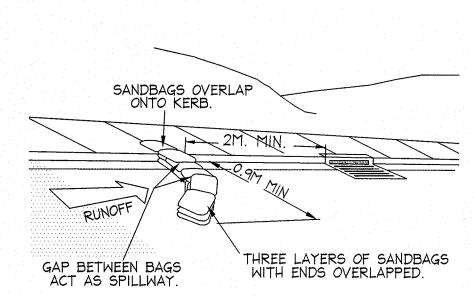
TYPICAL TEMPORARY CONSTRUCTION ENTRY/EXIT DETAIL

CONSTRUCTION NOTES:

- 1. STRIP TOPSOIL AND LEVEL SITE.
- 2. COMPACT SUBGRADE.
- 3. COVER AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
- 4. CONSTRUCT 200mm THICK PAD OVER GEOTEXTILE USING ROADBASE or 30mm AGGREGATE. MINIMUM LENGTH 15 METRES OR TO BUILDING ALIGNMENT. MINIMUM WIDTH 3 METRES.
- 5. CONSTRUCT HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER
- TO A SEDIMENT FENCE or OTHER SEDIMENT TRAP.
- 6. OR CONSTRUCT A CATTLE GRID LOCATED AT ANY POINT WHERE TRAFFIC ENTERS OF LEAVES THE SITE.



SILT FENCE DETAIL - OPTION 2 SCALE = N.T.S.



SANDBAG KERB INLET SEDIMENT TRAP

SCHEDULE OF WORKS:

- 1. SILT FENCE AND ASSOCIATED WORKS INCLUDING INTERCEPTOR DRAIN IS TO BE INSTALLED BEFORE THE COMMENCEMENT OF ANY EXCAVATION.
- 2. CUTS TO BE EXECUTED TO THE REQUIRED LEVEL USING CONVENTIONAL EXCAVATION MACHINERY. INITIALLY THE DEPTH OF FILL/CLAY IS TO BE ESTABLISHED TO ENSURE NEIGHBOURING PROPERTIES ARE NOT ADVERSELY AFFECTED. EARTH BATTERS TO BE A MAXIMUM SLOPE OF 1.0 m VERT. TO 1.7 m HORIZ. (AS PER GEOTECHNICAL REPORT) ANY BATTERS GREATER THAN 1.0 m VERT. TO 1.7 m HORIZ ARE TO BE ADEQUATELY SHORED IN ACCORDANCE WITH THE ENGINEERS DETAILS AND INSTRUCTIONS.
- 3. ANY PERMANENT RETAINING STRUCTURE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERS DETAILS AND INSTRUCTIONS.
- 4. ALL PERMANENT RETAINING STRUCTURES ARE TO BE COMPLETED WITH MINIMUM DELAY FOLLOWING EXCAVATION.

DIRECTION OF FLOW

DIRECTION OF FLOW

DISTURBED

AREA

BLUE METAL

DISTURBED

AREA

BLUE META

GEOFABRIC

- GEOFABRIC

- HAY BALE

EXISTING PAVEMENT

OPTION 1

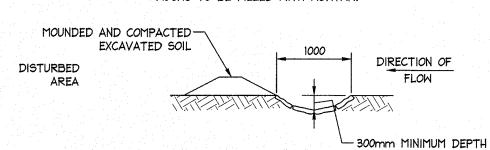
OPTION 2

REMOVABLE HAY BALE DETAIL

SCALE = N.T.S.

- 1. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSPECTED AND MAINTAINED DAILY BY SITE MANAGER. 2. MINIMISE DISTURBED AREAS!
- 3. ALL STOCKPILES TO BE CLEAR FROM DRAINS, GUTTERS
- 4. DRAINAGE IS TO BE CONNECTED TO STORMWATER
- SYSTEM AS SOON AS POSSIBLE.
- 5. ROADS AND FOOTPATH TO BE SWEPT DAILY.

NOTE: ROCK LINE DISH DRAIN, JOINTS BETWEEN ROCKS TO BE FILLED WITH MORTAR.



SATURDAY STUDIO

CATCH DRAIN - ROCK LINED NOT TO SCALE

GENERAL NOTES :

- 1. CONSTRUCTION VEHICLES ARE TO LEAVE AND ENTER THE SITE OVER AN ALL WEATHER SURFACE CONSISTING OF COURSE CRUSHED STONE OR BLUE METAL CONSTRUCTED WITHIN THE FRONT SETBACK AREA OPPOSITE THE EXISTING FOOTPATH CROSSING UNLESS NOTED OTHERWISE.
- 2. EXCAVATION MACHINERY ARE TO BE UNLOADED AND LOADED UPON THIS ALL WEATHER SURFACE. CONCRETE PUMPS AND TRUCKS WILL ALSO UTILISE THE ALL WEATHER SURFACE FOR THEIR OPERATIONS.
- 3. MATERIALS WILL BE UNLOADED UPON THE ALL WEATHER SURFACE WITHIN THE FRONT SETBACK AREA BY MEANS OF CRANES MOUNTED ON THE BACK OF DELIVERY TRUCKS OR UNLOADED BY HAND, IT IS NOT ENVISAGED THAT A MOBILE CRANE WILL BE REQUIRED DURING THE CONSTRUCTION PROCESS.
- 4. SOME STOCKPILING OF TOPSOIL REMOVED FROM THE BUILDING AREA MAY BE STORED ON THE SITE DURING THE CONSTRUCTION WITHIN THE PROPERTY IN AN AREA ENCLOSED WITHIN THE SEDIMENT CONTROL FENCING
- 5. ALL EXCAVATED & CONSTRUCTION MATERIALS, SHED, SKIP BINS, TEMPORARY WATER CLOSETS, SPOIL AND EQUIPMENT, ETC SHALL BE KEPT WITHIN THE PROPERTY. NO VEHICLES OR MACHINES SHALL BE KEPT WITHIN THE PROPERTY. NO VEHICLES OR MACHINES SHALL STAND ON COUNICIL FOOTPATHS FOR LARGE LENGTHS OF TIME.
- 6. ALL RUBBISH & RECYCLABLE MATERIAL SHALL BE STOCKPILED IN WASTE BINS IN THE AREA NOMINATED ON THE SITE PLAN WITHIN THE SITE BOUNDARY, PUBLIC PROPERTY SHALL BE KEPT FREE OF RUBBISH AND RECYCLABLES AT ALL TIMES ANY WASTE MATERIALS SHALL BE REGULARLY COLLECTED FROM THE SITE AND DISPOSED OF IN AN APPROPRIATE FASHION.
- 7. ANY BUILDING / DEMOLITION WORKS INVOLVING ASBESTOS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELAVANT STANDARDS.
- 8. VEHICLES LEAVING THE SITE WILL DO SO VIA THE ALL WEATHER BALLAST DRIVEWAY MADE OF COURSE AGGREGATE OR SIMILLAR LOCATED WITHIN THE FRONT SETBACK AREA OF THE DEVELOPMENT. ANY DIRT OR MATERIAL DEPOSITED ON THE ROAD RESERVE OR ROADWAY IS TO BE PROMPTLY CLEANED.
- 9. ANY EXCAVATED AREA REQUIRED SUPPORT WILL BE UNDERTAKEN BY THE OWNER USING STRUCTURALLY APPROVED RETAINING STRUCTURES.
- 10. ADEQUATE SAFETY SIGNAGE MUST BE ERECTED IN A PROMINENT POSITION ON THE WORK SITE, WARNING OF UNAUTHORISED ENTRY TO WORK SITE AND INTENDING DANGERS.
- 11. SAFETY FENCES SHALL BE PROVIDED AROUND ALL BOUNDARIES UNLESS A CONTINUOUS STRUCTURALLY ADEQUATE FENCE PRESENTLY EXISTS. THE FENCING SHALL BE ADEQUATE TO RESTRICT PUBLIC ACCESS TO THE SITE WHEN BUILDING WORK IS NOT IN PROGRESS OR THE SITE IS UNOCCUPIED.
- 12. NOISE LEVELS SHALL NOT EXCEED COUNCIL REGULATION LEVELS. BUILDING AND DEMOLITION WORKS SHALL ONLY BE CARRIED OUT BETWEEN HOURS AND DAYS SPECIFIED BY COUNCIL.
- 13. GEOTEXTILE FABRIC SHALL BE PLACED ON THE INSIDE OF THE SITE FENCING PRIOR TO SITE DISTURBANCE TO PREVENT SEDIMENT WASHING FROM CLEARED AND DISTURBED AREAS OF THE SITE INTO THE STORMWATER SYSTEM DURING CONSTRUCTION UNCONTAMINATED RUNOFF FROM CLEARED OR DISTURBED AREAS IS TO BE DIRECTED TO A TEMPORARY SILT ARRESTOR PIT THAT SHALL BE PROVIDED WITHIN THE SITE AT THE STREET BOUNDARY PROCESSING SITE STORMWATER BEFORE IT IS DISCHARGED TO THE STREET DRAINAGE SYSTEM OR WATERCOURSE.
- 14. ALL TOP SOIL STRIPPED & STOCKPILED ON SITE IS TO BE BE PLACED IN NOMINATED AREAS ON PLAN. ALL DISTURBED AREAS ARE TO BE STABILISED UPON THE COMPLETION OF BUILDING WORKS.
- 15. ALL SEDIMENT CONTROL STRUCTURES ARE TO BE CONTINUALLY MAINTAINED DURING CONSTRUCTION AND INSPECTED FOR STRUCTURAL DAMAGE AFTER EACH RAINFALL EVENT, WITH TRAPPED SEDIMENT BEING REMOVED TO THE TOPSOIL
- 16. WHERE THERE IS THE POTENTIAL OF SITE EROSION TO PRODUCE EXCESSIVE SEDIMENT RUNOFF SUITABLE GEOTEXTILE BARRIERS SHALL BE PLACED TO ALLEVIATE THE RISK ACCORDINGLY. BARE SURFACES SHALL BE KEPT MOIST TO REDUCE DUST LEVELS. GEOTEXTILE FABRIC LOCATED ON THE INSIDE OF FENCES SHALL ALSO BE UTILISED FOR DUST CONTROL WHERE NECESSARY.

NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE. ALL RELEVANT AUTHORITIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION ON OR NEAR THE SITE

DEVELOPERS & EXCAVATORS MAY BE HELD FINANCIALLY RESPONSIBLE BY THE ASSET OWNER SHOULD THEY DAMAGE UNDERGROUND NETWORKS.

- CARELESS DIGGING CAN:
 CAUSE DEATH OR SERIOUS INJURY TO WORKERS AND THE GENERAL PUBLIC INCONVENIENCE USERS OF ELECTRICITY. GAS, WATER AND COMMUNICATIONS
- LEAD TO CRIMINAL PROSECUTION AND DAMAGES CLAIMS
- CAUSE EXPENSIVE FINANCIAL LOSSES TO BUSINESS
- CUT OFF EMERGENCY SERVICES
 DELAY PROJECT COMPLETION TIMES WHILE THE DAMAGE IS REPAIRED

MINIMISE YOUR RISK AND DIAL BEFORE YOU DIG. - TEL. 1100



NEW RESIDENCE

70A WILLANDRA ROAD, NARRAWEENA NSW

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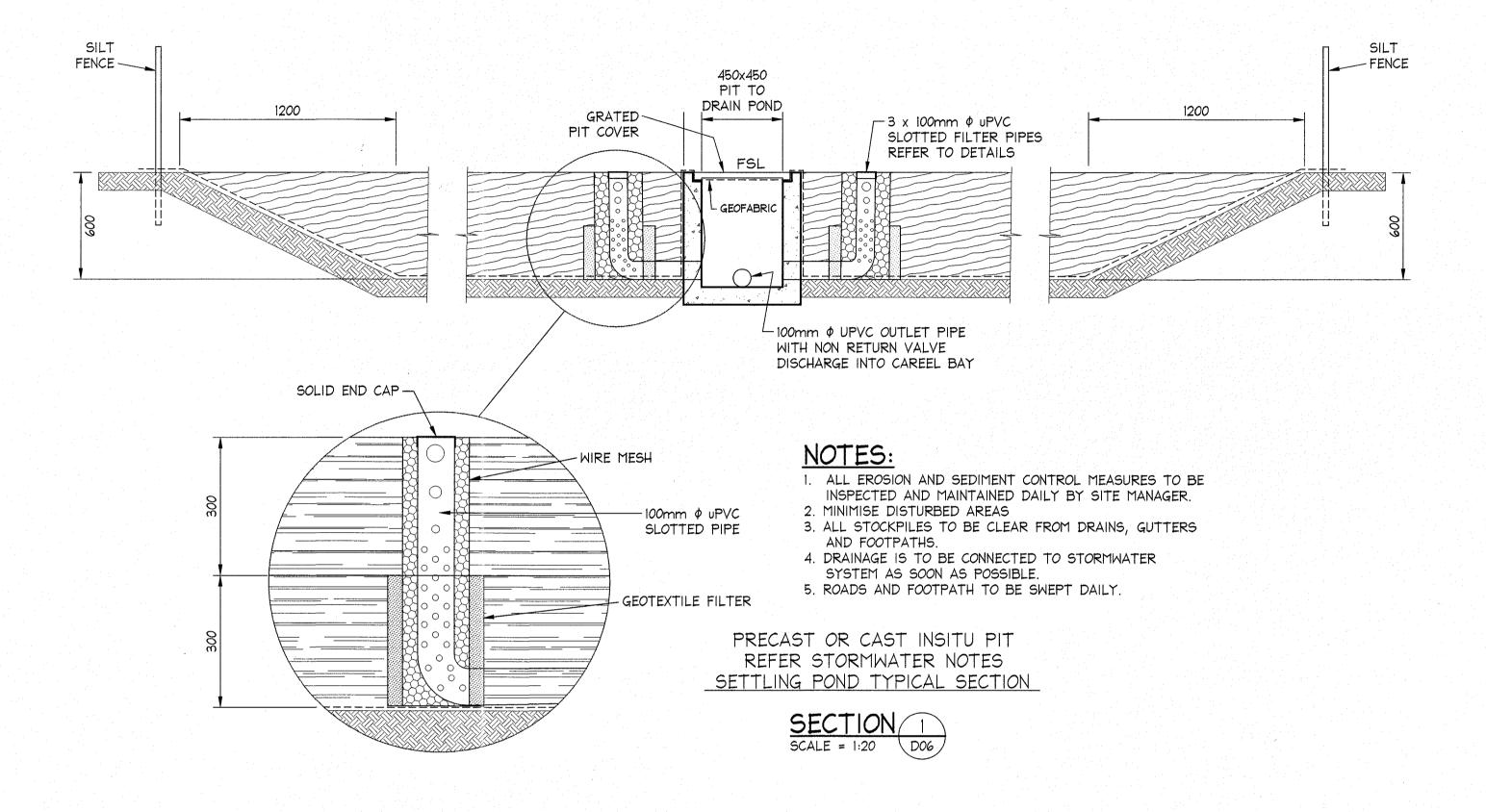
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Client: Unit 8, 1726 Gold Coast Highway Burleigh Heads QLD 4220 E: nb@nbconsulting.com.au W: www.nbconsulting.com.au

Drawing Title: SOIL AND WATER MANAGEMENT ALTRE **DETAILS**



SETTLEMENT POND CONSTRUCTION SPECIFICATION:

- 1 SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS
 ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO
 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL
 BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT
- IT WILL NOT ERODE.

 2 THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRED AS NEEDED.
- 3 CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN A MANNER,
- THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.

 4 THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED
 - WHEN THE CONSTRUCTED DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.



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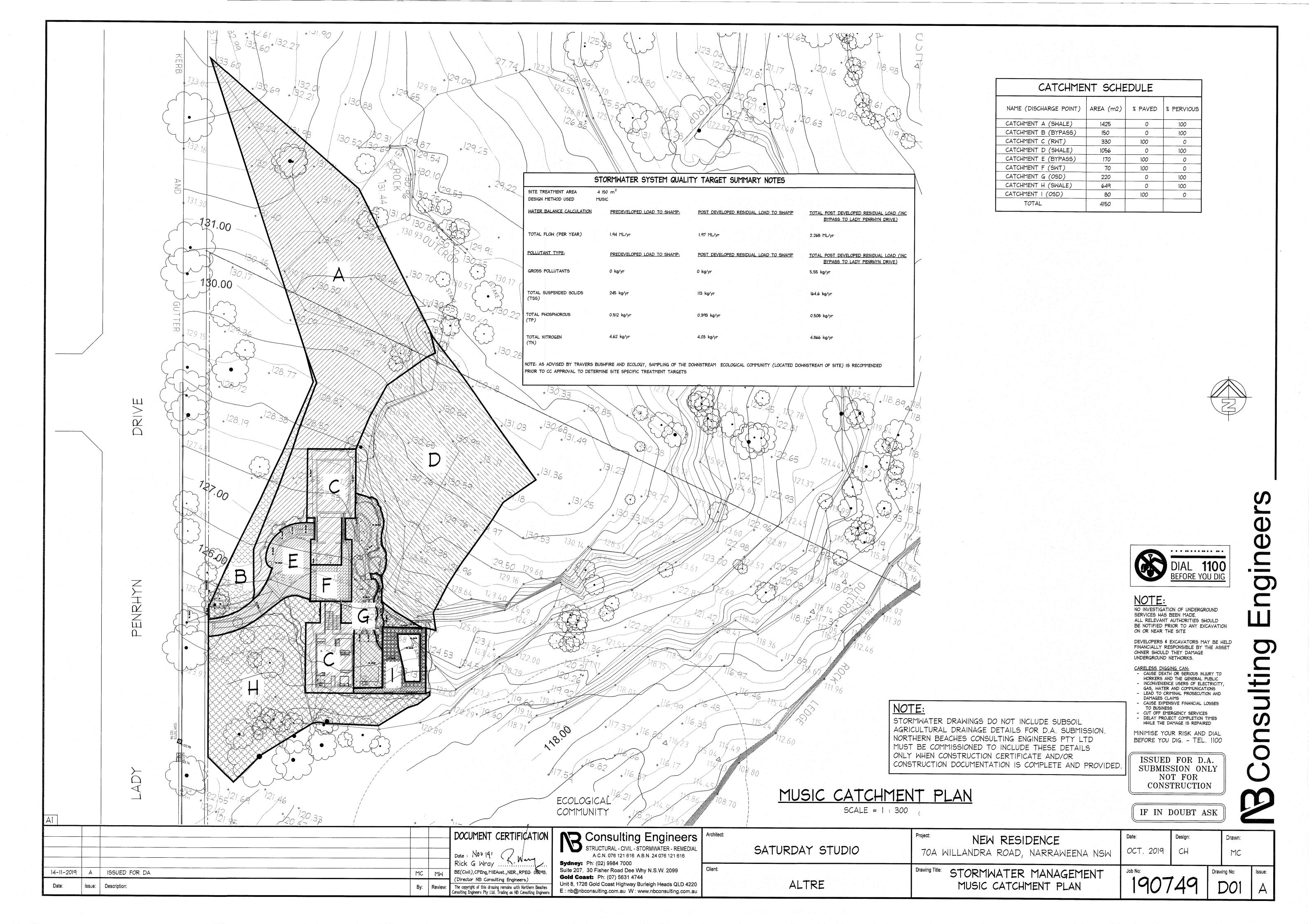
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<u>.</u> .	Sydney: Ph: (02) 9984 7000
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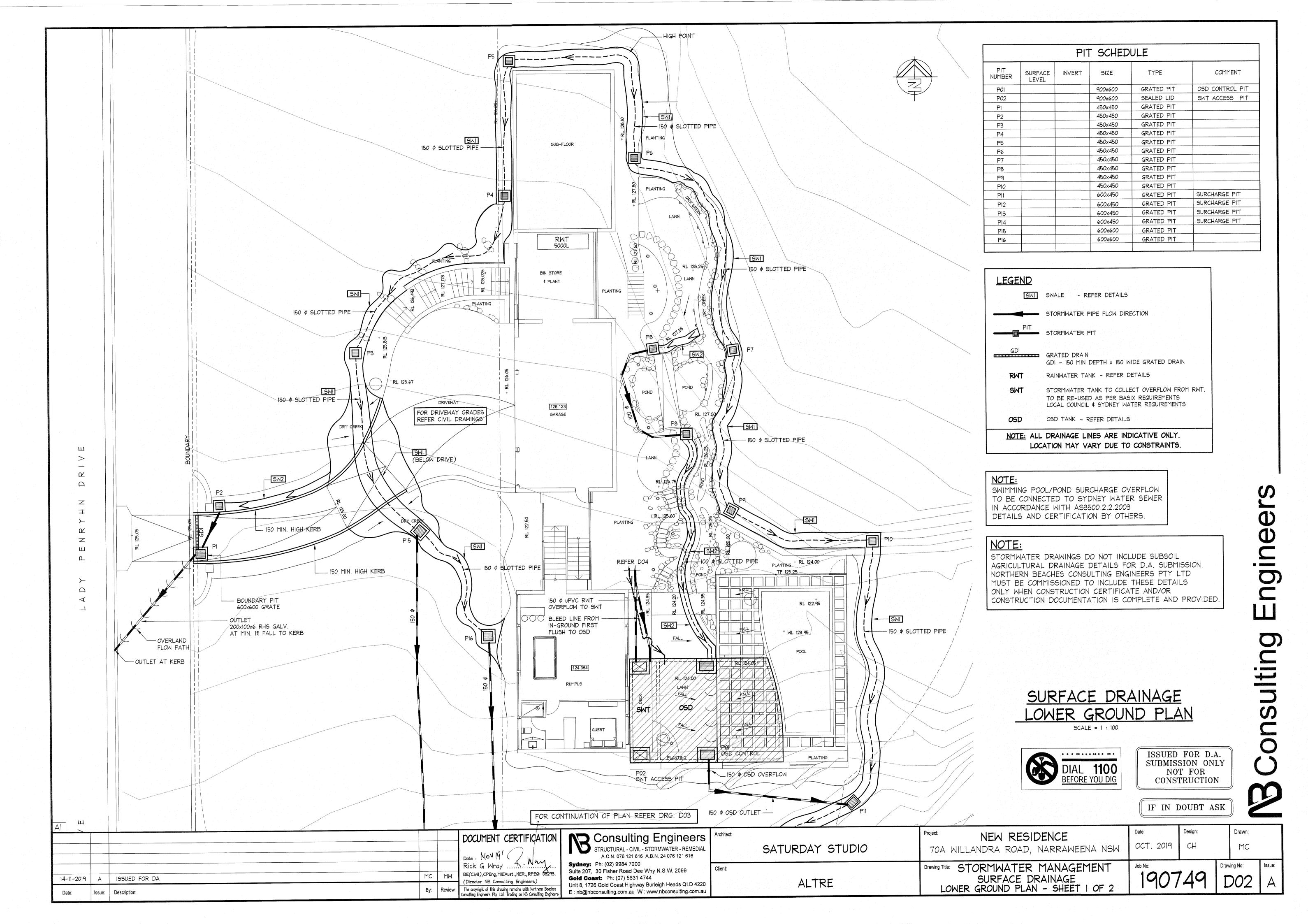
Architect: SATURDAY STUDIO	Project: NEW RESIDENCE 70A WILLANDRA ROAD, NARRAWEENA NSW
Client: ALTRE	Drawing Title: SOIL AND WATER MANAGEMENT DETAILS

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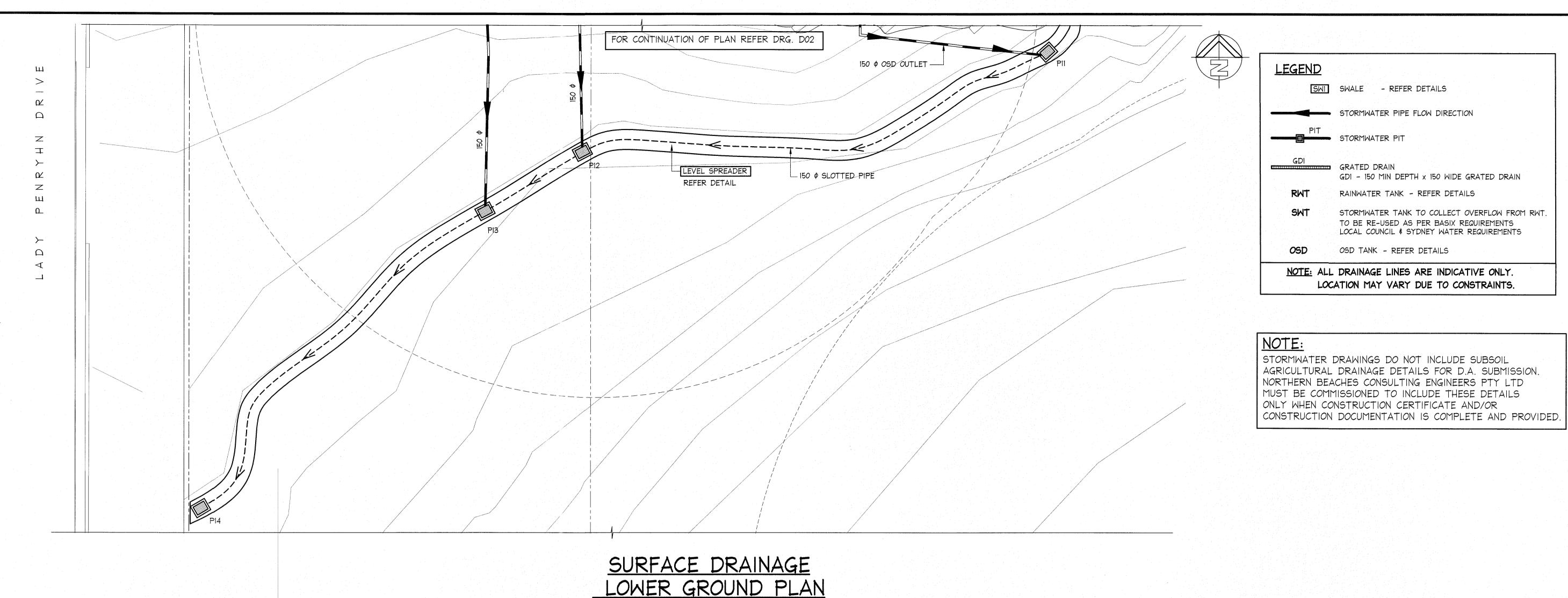
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 Job No:
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NOTE:

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1000 (MIN.)

LEVEL SPREADER

NOT TO SCALE

LEVEL SPREADER

-- 150 ϕ SLOTTED PIPE

_150 HOB

--- GROUND LEVEL

BIDIM A24 OR SIMILAR

GEOTEXTILE FILTER FABRIC

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__ 150 Φ SLOTTED PIPE

1000 (MIN.)

SWI

CUT-OFF SWALE

NOT TO SCALE

-150 HOB

BLUE METAL

-BIDIM A24 OR SIMILAR

GEOTEXTILE FILTER FABRIC

GROUND LEVEL

Consulting Engineers STRUCTURAL - CIVIL - STORMWATER - REMEDIAL A.C.N. 076 121 616 A.B.N. 24 076 121 616 Suite 207, 30 Fisher Road Dee Why N.S.W. 2099 Gold Coast: Ph: (07) 5631 4744 Unit 8, 1726 Gold Coast Highway Burleigh Heads QLD 4220 E: nb@nbconsulting.com.au W: www.nbconsulting.com.au

TURF LINED DISH DRAIN

FALL

SATURDAY STUDIO

ALTRE

SW2

TURF LINED SWALE

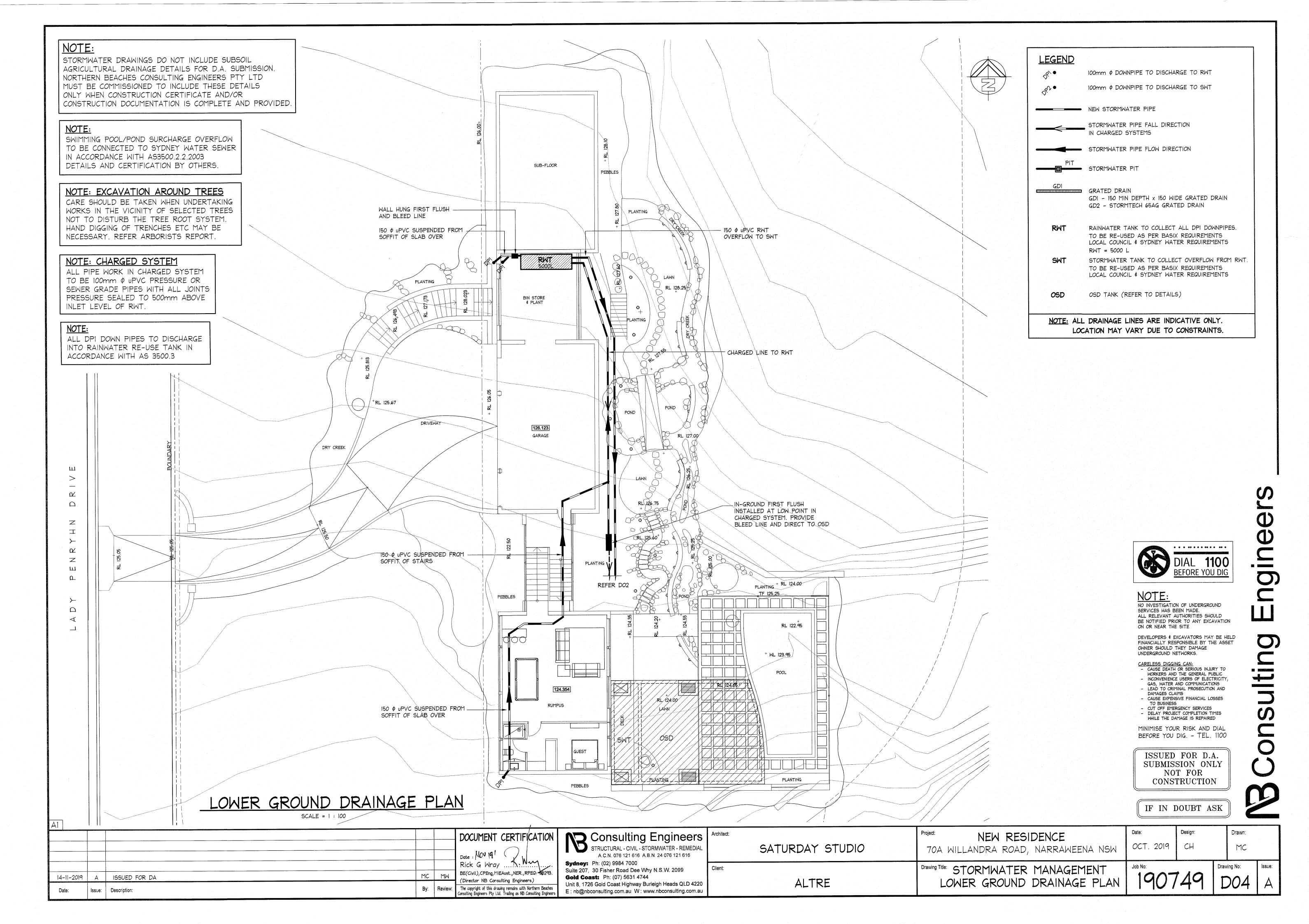
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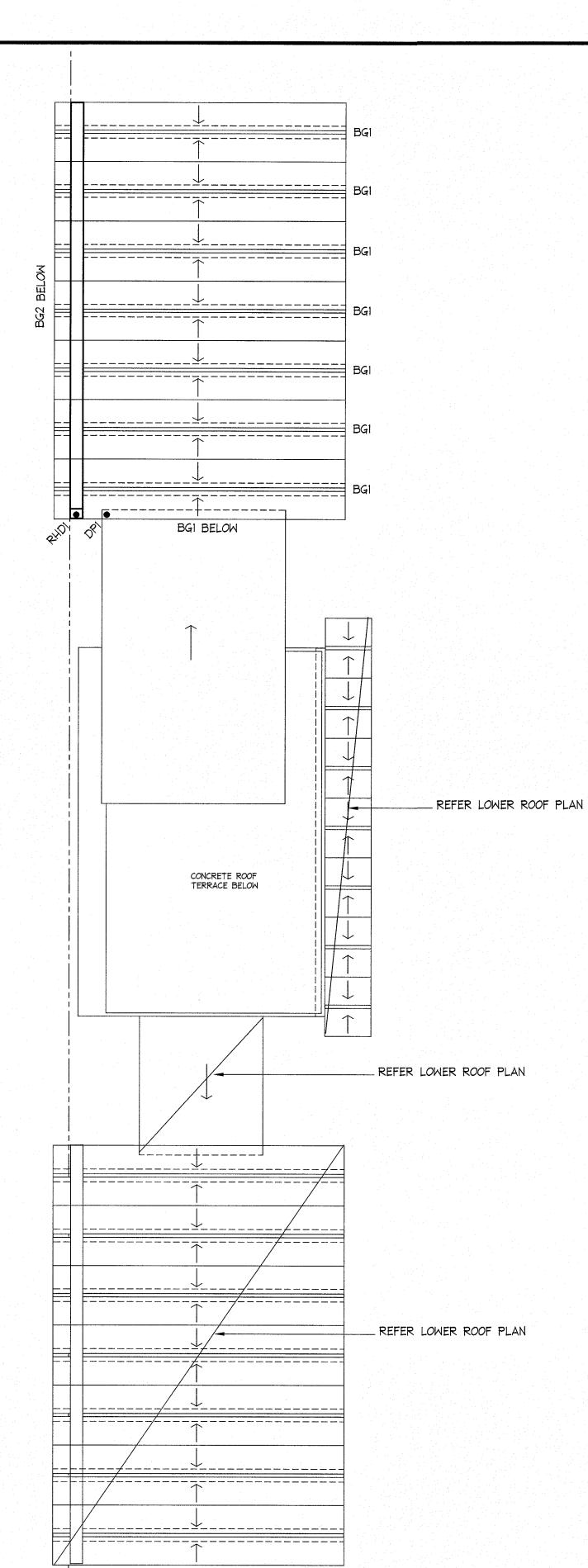
NEW RESIDENCE 70A WILLANDRA ROAD, NARRAWEENA NSW Drawing Title: STORMWATER MANAGEMENT SURFACE DRAINAGE LOWER GROUND PLAN - SHEET 2 OF 2

OCT. 2019

MC Drawing No:







LEGEND

100mm & DOWNPIPE TO DISCHARGE TO RWT

100mm & DOWNPIPE TO DISCHARGE TO SWP

RAINHEAD - TO FUTURE DETAIL

BOX GUTTER - 300 MIN. WIDE - TO FUTURE DETAIL BOX GUTTER - 400 MIN. WIDE - TO FUTURE DETAIL

STORMWATER PIPE FLOW DIRECTION

STORMWATER PIT

GD2 GRATED DRAIN

GD2 - STORMTECH 65AG GRATED DRAIN

NOTE: ALL DRAINAGE LINES ARE INDICATIVE ONLY. LOCATION MAY VARY DUE TO CONSTRAINTS.

NOTE: BOX GUTTERS

ALL BOX GUTTER SYSTEMS SHOWN ON THESE PLANS ARE TO BE INSTALLED STRICTLY IN ACCORDANCE WITH THE ASSOCIATED DETAILS. IF ANY CHANGE TO THE BOX GUTTER CONFIGURATION IS PROPOSED, NOTIFY THE ENGINEER FOR RE-DESIGN IF THE INSTALLED BOX GUTTER DOES NOT STRICTLY COMPLY WITH OUR DESIGN, CERTIFICATION OF THE HYDRAULIC SYSTEM MAY BE REFUSED.

NOTE: PLANTER DRAINAGE

PROVIDE ATLANTIS DRAINAGE CELLS OR APPROVED EQUIVALENT TO PLANTER AREAS TO BE INSTALLED AS PER MANUFACTURER'S DETAILS AND TO AS3500.3

NOTE:

STORMWATER DRAWINGS DO NOT INCLUDE SUBSOIL AGRICULTURAL DRAINAGE DETAILS FOR D.A. SUBMISSION. NORTHERN BEACHES CONSULTING ENGINEERS PTY LTD MUST BE COMMISSIONED TO INCLUDE THESE DETAILS ONLY WHEN CONSTRUCTION CERTIFICATE AND/OR CONSTRUCTION DOCUMENTATION IS COMPLETE AND PROVIDED

BALCONY OVERFLOW NOTE:

BUILDER TO PROVIDE A MIN. 100 (W) x 30 (H) OR 50¢ OVERFLOW FOR EVERY 6m2 OF EXPOSED BALCONY AREA. THE FULL OVERFLOW DEPTH MUST BE LOCATED BELOW THE ADJACENT INTERNAL FLOOR LEVEL TO PROTECT AGAINST INCIDENTAL FLOODING DUE TO A BLOCKED FLOOR OUTLET.

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AND LOWER ROOF DRAINAGE PLAN

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PLANTER

OVERFLOW SPITTERS

IN BALUSTRADE REFER NOTE

REFER PLANTER DRAINAGE NOTE

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SATURDAY STUDIO

NEW RESIDENCE

LEVEL I AND ROOF DRAINAGE PLANS

OCT. 2019

Drawing No:

Drawn:

UPPER ROOF DRAINAGE PLAN Design:

70A WILLANDRA ROAD, NARRAWEENA NSW STORMWATER MANAGEMENT

NORTHERN BEACHES COUNCIL - WARRINGAH ON SITE DETENTION SYSTEM SUMMARY NOTES

CONSIDERED SITE AREA DESIGN METHOD USED	749 m ² DRAINS
PRE DEVELOPMENT IMPERVIOUS AREA	0 m ²
POST DEVELOPMENT IMPERVIOUS AREA	500 m ² (67% IMPERVIOUS)
PRE DEVELOPMENT SITE DISCHARGE TO SWAMP	
0.5 EY (2YR ARI)	5 1/s
0.2 EY (5YR ARI)	11 1/s
5% (20YR ARI)	21 1/s
1% (100YR ARI)	34 1/s
POST DEVELOPMENT SITE DISCHARGE TO SWAMP	
0.5 EY (2YR ARI)	5 1/s
0.2 EY (5YR ARI)	6 1/s
5% (20YR ARI)	8 1/s
1% (100YR ARI)	32 1/s
PORTION OF CONSIDERED SITE THROUGH OSD	93 %
ORIFICE SIZE	73 mm Φ
TYPE OF CONTROL	BELOW GROUND TANK
CALCULATED OSD VOLUME TO SUIT PSD	24.0 m ³ (NOTE: 24.0 m ³ PROVIDED)
RAINWATER 'BASIX' REQUIREMENT	5.0 m ³ (NOTE: 5.0 m ³ PROVIDED)
SWT PROVIDED	5.0 m3 (NOTE: 5.0 m3 PROVIDED)
DIMENSION OF OSD	48.0 m ² x 0.5 m DEEP
DIMENSION OF SWT	10.0 m ² x 0.5 m DEEP

RAINWATER RE-USE TANKS:

1. CONSIDERING THE ROOF CATCHMENT AREA, LOCATION OF PROPERTY, INTENDED USE OF RAINWATER AND GARDEN SIZE WE RECOMMEND PROVIDING A RAINWATER TANK FOR USE AS PER BASIX REQUIREMENTS, SYDNEY WATER AND NSW HEALTH REQUIRMENTS FOR NON DRINKING USE ONLY AND TO BASIX AND LOCAL COUNCIL REQUIREMENTS.

2. THE TANKS PROVIDED WILL REDUCE PRESSURE ON COUNCIL'S STORMWATER INFRASTRUCTURE.

COOMBES P.J. & KUCZERA G. (2001), "RAINWATER TANK DESIGN FOR WATER SUPPLY & STORMWATER MANAGEMENT." STORMWATER INDUSTRY ASSOCIATION REGIONAL CONFERENCE. PATRICK DUPONT & STEVE SHACKEL, "RAINWATER" AUSTRALIAN GOVERNMENT (2004), "GUIDANCE ON USE OF RAINWATER TANKS"

ALL CONNECTIONS TO PLUMBING AND RAINWATER TANKS TO BE IN ACCORDANCE WITH SYDNEY WATERS' GUIDE "INSTALLING A RAINWATER TANK"

AVAILABLE AT www.sydneywater.com.au PROVIDE A DUAL SUPPLY SYSTEM AND BACKFLOW PREVENTION SYSTEM IN ACCORDANCE WITH 'BASIX-DESIGN GUIDE FOR SINGLE DWELLINGS' BY NSW DEPARTMENT OF INFRASTRUCTURE, PLANING AND NATURAL RESOURCES.

6. IF NOT SPECIFIED ON PLANS, THE FIRST FLUSH SYSTEM IS TO HAVE A MINIMUM SIZE OF 20L PER 100m2 OF ROOF CATCHMENT AREA PRIOR TO ENTERING THE RAINWATER TANK. INDIVIDUAL SITE ANALYSIS IS REQUIRED IN HEAVILY POLLUTED AREAS TO DETERMINE IF LARGER VOLUMES OF FIRST FLUSH RAINWATER ARE TO BE DIVERTED. IF IN DOUBT, CHECK WITH LOCAL HEALTH AUTHORITIES.

7. SCREENED DOWNPIPE RAINWATER HEAD OR OTHER SUITABLE LEAF AND DEBRIS DEVICE TO BE INSTALLED ON EACH DOWNPIPE. SCREEN MESH TO BE 4-6mm AND DESIGNED TO BE SELF-CLEANING.

8. FIRST FLUSH DEVICES, OR APPROVED ALTERATIVE, TO BE INSTALLED WITH AN AUTOMATED DIVERSION AND DRAINAGE SYSTEM, THAT IS, NO MANUAL DIVERSION AND DRAINAGE VALVES. REFER TYPICAL FLUSH OUT PIT FOR DETAILS.

9. BEFORE PURCHASING MATERIALS OR PAINT TO BE USED ON ROOF CATCHMENT AREAS, THE MANUFACTURER'S RECOMMENDATIONS ON LABELS AND BROCHURES FOR RAINWATER TANK SUITABILITY TO BE READ AND ADHERED TO.

10. PRE-STORAGE PITS FOR UNDERGROUND RAINWATER STORAGE TANKS AND FLUSH OUT PITS MAY ASSIST IN LIMITING SILT, AND PREVENT VERMIN, INSECTS (INCLUDING MOSQUITOES) AND DEBRIS FROM ENTERING THE RAINWATER STORAGE AREA.

11. BUILDER/PLUMBER TO ENSURE THE INSTALLATION OF THE RAINWATER TANK SYSTEM IS IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS AND THE RAINWATER TANK DESIGN AND INSTALLATION HANDBOOK - HB 230-2008. IF IN DOUBT CONTACT ENGINEER.

12. RAINWATER TANK TO BE WATER PROOFED IN ACCORDANCE WITH HB 230-200B

STORMWATER RE-USE TANKS:

BASIX RECOMMENDS PROVIDING A STORMWATER TANKS FOR USE AS PER BASIX REQUIRMENTS. THE TANKS PROVIDED WILL REDUCE PRESSURE ON COUNCIL'S STORMWATER INFRASTRUCTURE.

3. IF NOT SPECIFIED ON PLANS, THE FIRST FLUSH SYSTEM IS TO HAVE A MINIMUM SIZE OF 20L PER 100m2 OF ROOF CATCHMENT AREA PRIOR TO ENTERING THE RAINWATER TANK. INDIVIDUAL SITE ANALYSIS IS REQUIRED IN HEAVILY POLLUTED AREAS TO DETERMINE IF LARGER VOLUMES OF FIRST FLUSH RAINWATER ARE TO BE DIVERTED. IF IN DOUBT, CHECK WITH LOCAL HEALTH AUTHORITIES.

4. SCREENED DOWNPIPE RAINWATER HEAD OR OTHER SUITABLE LEAF AND DEBRIS DEVICE TO BE INSTALLED ON EACH DOWNPIPE, SCREEN MESH TO BE 4-6mm AND DESIGNED TO BE SELF-CLEANING.

5. FIRST FLUSH DEVICES, OR APPROVED ALTERNATIVES, TO BE INSTALLED WITH AN AUTOMATED DIVERSION AND DRAINAGE SYSTEM, THAT IS, NO MANUAL DIVERSION AND DRAINAGE VALVES. REFER TYPICAL FLUSH OUT PIT FOR DETAILS.

6. BEFORE PURCHASING MATERIALS OR PAINT TO BE USED ON ROOF CATCHMENT AREAS, THE MANUFACTURER'S RECOMMENDATIONS ON LABELS AND BROCHURES FOR RAINWATER TANK SUITABILITY TO BE READ AND ADHERED TO.

STORMWATER NOTES:

ALL PIPES TO BE 100mm & UNLESS NOTED OTHERWISE.

2. ALL PIPES TO BE UPVC TO AS 1254-2002 UNLESS NOTED OTHERWISE. 3. ALL PIPES TO BE LAYED AT 1 % MINIMUM GRADE UNLESS NOTED OTHERWISE.

4. ALL PIPES SHALL BE LAID ON A 75mm SAND BED, COMPACTED TO 100% S.M.D.D. BELOW PAVEMENTS. (NO COMPACTION REQUIRED BELOW LANDSCAPING) COVER TO SURFACE FROM TOP OF PIPE TO BE 300mm MINIMUM

BACKFILL TO BE ADEQUATELY CONSOLIDATED AROUND PIPES BY METHOD OF RAMMING AND WATERING IN. TRENCHES TO BE FILLED WITH GRANULAR MATERIAL AS SPECIFIED. 5. ALL DOWN PIPES TO BE 100mm ϕ UNLESS NOTED OTHERWISE.

6. DOWN PIPE LOCATIONS ARE INDICATIVE ONLY. LOCATIONS TO BE CONFIRMED WITH ARCHITECT PRIOR TO COMMENCEMENT OF WORK.

 PROVIDE CLEANING EYES AT ALL DOWNPIPES. 8. ALL PITS TO BE CAST INSITU OR, IF PRECAST, APPROVED BY ENGINEER. CAST INSITU PITS TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH I NIZ TOP TIE UNLESS NOTED OTHERWISE. CAST INSITU PITS GREATER THAN 900 DEEP TO BE MINIMUM 900x600 AND TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE

REINFORCED WITH NI2 AT 300 EACH WAY UNLESS NOTED OTHERWISE. 9. ALL PITS GREATER THAN 1000mm DEEP SHALL HAVE STEP IRONS

AS PER COUNCIL STANDARDS. 10. THE BOUNDARY OR SILT ARRESTOR PIT SHOULD ALWAYS INCORPORATE A SUMP AND MAXI-MESH SCREEN AS PER LOCAL COUNCIL REQUIREMENTS. HOWEVER, UNLESS SPECIFICALLY REQUIRED BY COUNCILS POLICY OR IF THE SITE CONSISTS OF A CLAY OR ROCK SUBGRADE, ALL OTHER DRAINAGE PITS WILL NOT REQUIRE A SUMP.

11. ALL WORK TO BE IN ACCORDANCE WITH LOCAL COUNCIL STANDARDS

AND SPECIFICATIONS. 12. PRIOR TO COMMENCING ANY SITE WORKS THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES TO APPROVED SEDIMENT AND EROSION CONTROL PLAN, EPA GUIDELINES AND COUNCIL SPECIFICATIONS. ALL MEASURES TO REMAIN IN PLACE UNTIL COMPLETION AND STABILIZATION OF THE SITE TO COUNCIL SATISFACTION.

13. ALL LEVELS SHOWN ARE TO AHD 14. ENSURE THAT ALL PITS AND STORMWATER PIPES ARE LOCATED CLEAR

FROM TREE ROOT SYSTEMS. 15. ALL EXISTING EARTHENWARE PIPES TO BE UPGRADED TO UPVC.

16. ALL WORKS TO BE IN ACCORDANCE WITH AS 3500-2003 NATIONAL PLUMBING DRAINAGE CODE PART 3 - STORMWATER DRAINAGE.

17. UNLESS NOTED OTHERWISE, SUB-SOIL DRAINS ARE TO BE INSTALLED IN ACCORDANCE WITH AS3500.3 ALONGSIDE WALLS THAT IMPEDE THE NATURAL FLOW OF GROUNDWATER. THIS MAY ALSO INVOLVE TRENCHING INTO THE CLAY OR ROCK SUBGRADE TO DIRECT GROUNDWATER AWAY FROM STRUCTURES.

18. IF NOT INDICATED ON PLANS, PROVIDE LEAF CATCHERS TO ALL DOWNPIPES OR GUTTER GUARD TO ALL EAVES GUTTERS.

19. ORIFICE PLATE MUST BE INSTALLED PRIOR TO INSTALLATION OF THE ROOF DRAINAGE SYSTEM AND CONNECTION OF THE SITE STORMWATER SYSTEM TO THE ONSITE DETENTION TANK.

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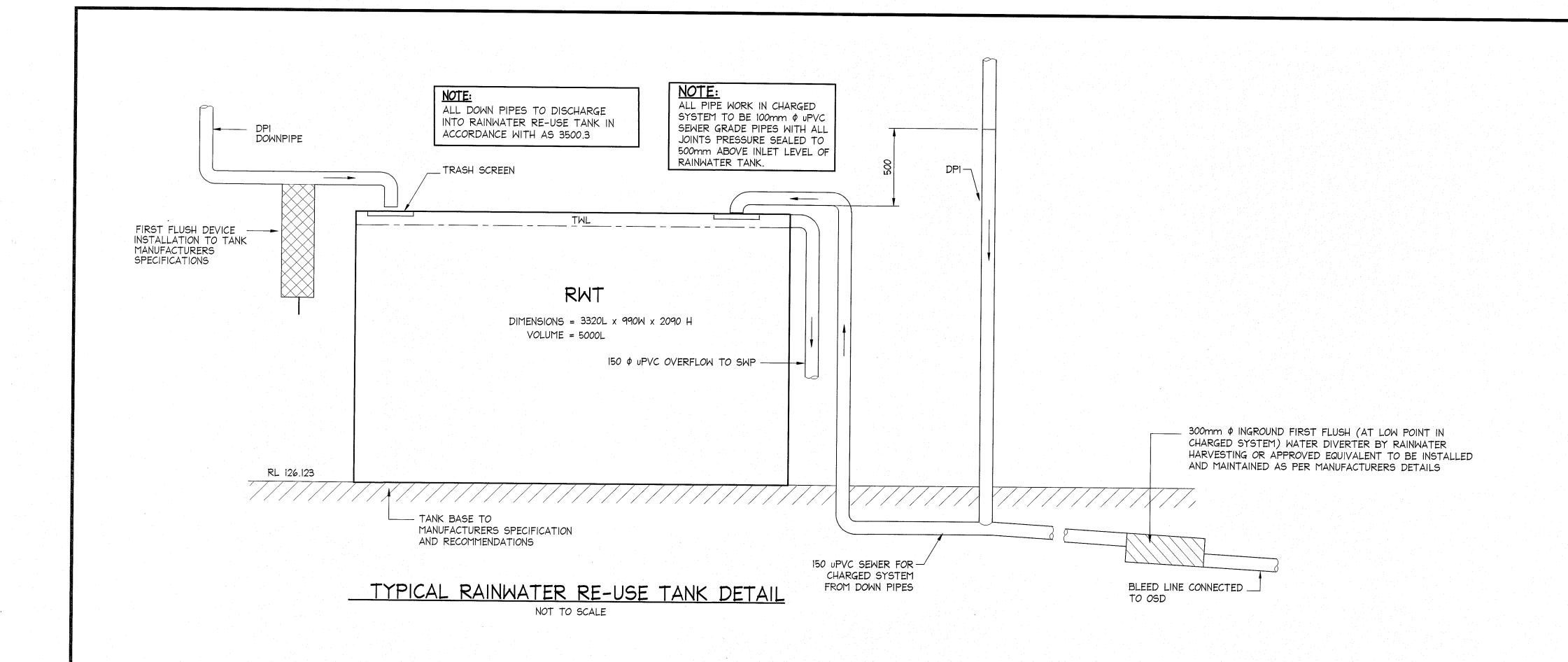
70A WILLANDRA ROAD, NARRAWEENA NSW STORMWATER MANAGEMENT ALTRE NOTES AND CALCULATIONS

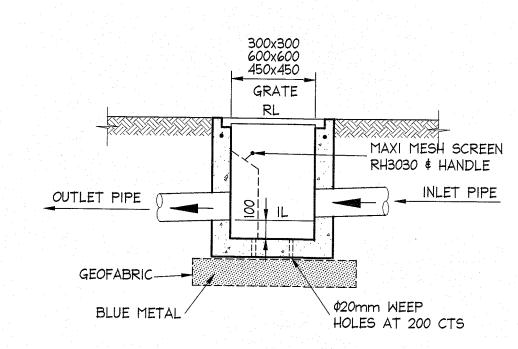
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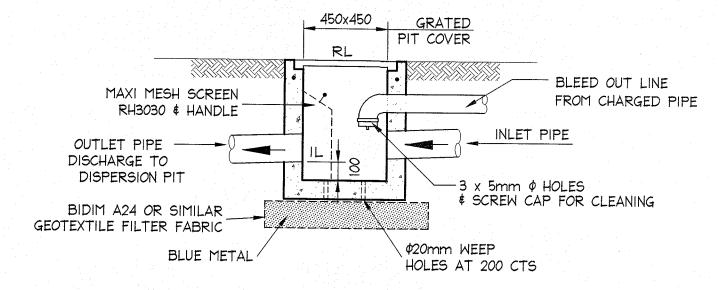
IF IN DOUBT ASK





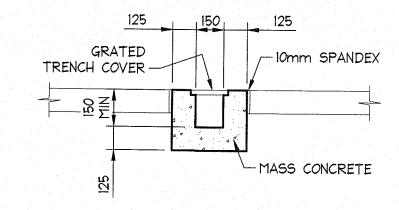
PRECAST OR CAST INSITU PIT REFER STORMWATER NOTES
ALTERNATIVE POLYPROPYLENE PIT BY MANUFACTURER

TYPICAL PIT DETAIL SCALE = 1 : 20



PRECAST OR CAST INSITU PIT REFER STORMWATER NOTES ALTERNATIVE POLYPROPYLENE PIT BY MANUFACTURER

TYPICAL FLUSH OUT PIT DETAIL SCALE = 1 : 20



OR PRECAST GRATED DRAIN ALTERNATE POLYPROPYLENE DRAIN BY MANUFACTURER

TYPICAL GRATED DRAIN SCALE = 1 : 20

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STRUCTURAL - CIVIL - STORMWATER - REMEDIAL
A.C.N. 076 121 616 A.B.N. 24 076 121 616

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SATURDAY STUDIO	
ALTRE	

Project: NEW RESIDENCE 70A WILLANDRA ROAD, NARRAWEENA NSW STORMWATER MANAGEMENT

DETAILS

Date: Design: OCT. 2019

Drawing No: D07

Drawn:

MC

