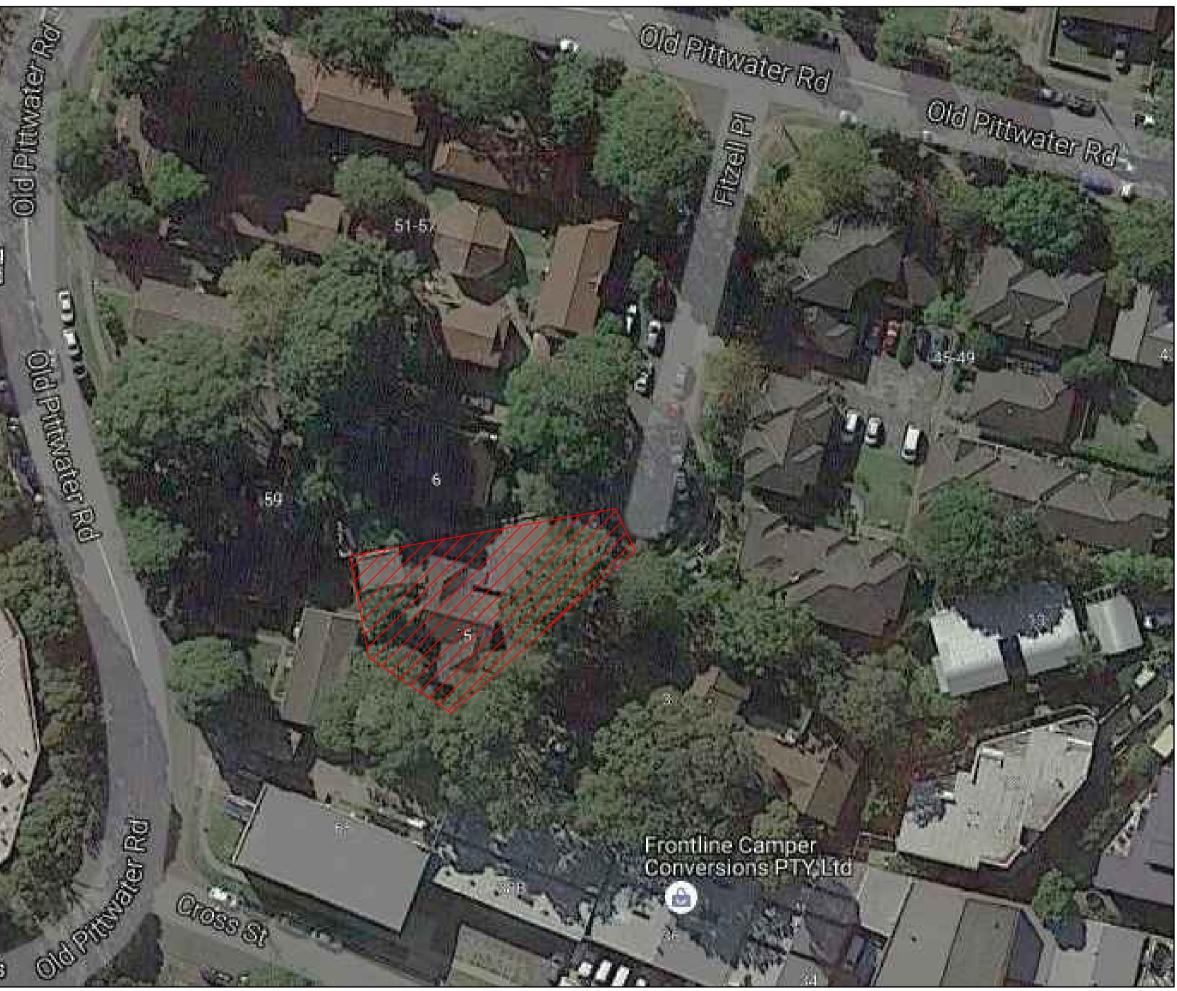
PROJECT No: 116872

DRAWING REGISTER

116872-C010	COVER SHEET, LOCALITY PLAN & DRAWING REGISTER
116872-C020	GENERAL NOTES
116872-C030	EROSION & SEDIMENT CONTROL PLAN
116872-C031	EROSION & SEDIMENT CONTROL DETAILS
116872-C100	GENERAL ARRANGEMENT PLAN
116872-C101	DRAINAGE PLAN
116872-C102	DRIVEWAY PLAN, SECTIONS & DETAILS
116872-C103	FLOOD STORAGE PLAN
116872-C730	CATCHMENT PLAN
116872-C740	OSD PLAN & DETAILS
116872-H100	BASEMENT HYDRAULIC PLAN
116872-H101	GROUND FLOOR HYDRAULIC PLAN
116872-H102	ROOF HYDRAULIC PLAN



REV	DESCRIPTION	BY	APP	DATE
Α	ISSUED FOR PRELIMINARY DESIGN	IV	PE	09.12.16
В	CLIENT DETAILS & LEGEND AMENDED	IV	PE	14.12.16
С	DRAWING LIST AMENDED	IV	PE	21.12.16
D	ISSUED FOR DA	DG	PE	13.01.17
E	ISSUE FOR DA RE-SUBMISSION	JT	PE	10.05.17
A01	ISSUED FOR S96	JT	KW	28.02.18



LOCALITY PLAN



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COVER SHEET, LOCALITY PLAN & DRAWING REGISTER

BROORVALE						
STATUS	DESIGNED	DRAWN	APPROVED	DATE	SCALE @A1	SHEET
FOR APPROVAL	JT	SY	KW	01.12.16		OF
NOT FOR CONSTRUCTION	PROJECT No 1168		DRAWING No	10	REV	01

PROJECT	
5 FITZELL PLACE	
BROOKVALE	

GENERAL NOTES

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL, SERVICES AND OTHER CONSULTANTS DRAWINGS THE SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE TENDER AND CONTRACT.
- 2. IF ANY DISCREPANCY OCCURS ON THE DRAWINGS OR BETWEEN DRAWINGS AND SPECIFICATION, THE CONTRACTOR SHALL REFER THE DISCREPANCY TO MEINHARDT NSW PTY LTD FOR WRITTEN CLARIFICATION BEFORE PROCEEDING WITH THE WORK
- ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH COUNCIL'S SPECIFICATION & POLICY, AUS-SPEC, THE BUILDING CODE OF AUSTRALIA AND THE RELEVANT CURRENT AUSTRALIAN STANDARDS AS APPROPRIATE.
- ALL DIMENSIONS SHOWN SHALL BE VERIFIED ON SITE. DRAWINGS MUST NOT BE SCALED.
- ONLY SUBSTITUTIONS APPROVED IN WRITING BY MEINHARDT NSW PTY LTD SHALL BE ACCEPTED.
- DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL STRUCTURES AND WORKS IN A STABLE CONDITION AND SHALL ENSURE NO PART SHALL BE OVER STRESSED DURING CONSTRUCTION ACTIVITIES.

PRELIMINARY WORKS NOTES

- THE CONTRACTOR SHALL ALLOW FOR PROVIDING MATERIALS AND WORK WHICH IS INCIDENTAL TO THE ITEMS SPECIFIED AND WHICH WOULD BE NECESSARY TO ACHIEVE THE RESULTS REQUIRED BY THE DRAWINGS.
- THE CONTRACTOR WILL BE DEEMED TO HAVE INSPECTED THE SITE OF THE WORKS, ASSESSED AVAILABLE ACCESS, INQUIRED INTO THE LOCATION OF AUTHORITIES UNDERGROUND ASSETS, EXAMINED THE GEOTECHNICAL REPORT AND THE NATURE OF THE GROUND AND OBTAINED THE LOCAL CLIMATE AND RAINFALL INFORMATION.
- SAFETY REQUIREMENTS. THE CONTRACTOR SHALL ENSURE THAT ALL TIMES, THE MEANS AND METHODS OF CARRYING OUT THE WORK TO BE UNDERTAKEN CONFORM WITH THE STANDARDS AND REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND ANY OTHER APPLICABLE LEGISLATION, CODES OF PRACTICE AND STANDARDS.
- ALL PERSONNEL WORKING ADJACENT TO A TRAFFICABLE ROAD OR FORMATION SHALL WEAR RED SAFETY VESTS. THE CONTRACTOR SHALL PROTECT THE PUBLIC FROM DANGERS INHERENT IN EXCAVATIONS, OBSTRUCTIONS, WORKING PLANT AND FALLING OBJECTS. SUCH MEASURES THAT ARE TAKEN SHALL BE ADEQUATE TO MAINTAIN THE SAFETY OF THE PUBLIC DURING PERIODS OUTSIDE NORMAL WORKING HOURS ON SITE.
- THE CONTRACTOR SHALL ENSURE THAT ALL TRENCH EXCAVATION FOR INSTALLATION OF PIPEWORKS (OR OTHER WORKS) OF DEPTHS GREATER THAN 1.5 METRES MUST BE CONTINUOUSLY SUPERVISED AND AT ALL TIMES BE ADEQUATELY SUPPORTED.
- ALL WORK WITHIN ROAD RESERVES. PUBLIC PROPERTY OR PRIVATE PROPERTY - SHALL BE EXECUTED STRICTLY IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT AUTHORITY OR LAND OWNER.
- CONTRACTOR SHALL OBTAIN FROM THE RELEVANT AUTHORITIES DETAILS OF ALL EXISTING SERVICES WITHIN THE VICINITY OF THE WORKS AND SHALL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGE CAUSED TO EXISTING SERVICES DURING THE EXECUTION OF THE WORKS.
- THE CONTRACTOR SHALL COMPLY WITH AND GIVE NOTICES REQUIRED BY ANY ACT OF PARLIAMENT. ORDINANCE REGULATION OR BY-LAW OF ANY AUTHORITY HAVING JURISDICTION OVER THE WORKS AND SHALL PAY ALL FEES OR CHARGES LEGALLY DEMANDABLE UNDER ANY SUCH ACT OF PARLIAMENT, ORDINANCE, REGULATION OR BY-LAW.
- PRIOR TO WORKS, THE CONTRACTOR SHALL UNDERTAKE AN EXISTING DEFECTS INSPECTION AND REPORT TO LIST ANY EXISTING DAMAGE TO ROADS, FOOTPATHS, KERBS CROSSINGS CHANNELS NATURE STRIPS, ETC. SUCH LISTS SHALL BE PREPARED IN DUPLICATE BY THE CONTRACTOR AND A COPY SENT TO THE SUPERINTENDENT.

TRAFFIC PROVISION NOTES

- UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL MAKE PROVISION FOR TRAFFIC. IN ACCORDANCE WITH THE RELEVANT AUS-SPEC OR AUSTRALIAN STANDARD AS1742 "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
- THE CONTRACTOR SHALL ASCERTAIN AND COMPLY WITH THE REQUIREMENTS OF THE AUTHORITY RESPONSIBLE FOR PUBLIC ROADS.
- THE CONTRACTOR SHALL SO CONDUCT THE OPERATIONS AS TO MINIMISE OBSTRUCTION AND INCONVENIENCE TO THE PUBLIC. AND SHALL NOT HAVE UNDER CONSTRUCTION AN GREATER LENGTH OR AMOUNT OF WORK THAN CAN BE MANAGED PROPERLY WITH DUE REGARD TO THE CONVENIENCE OF THE PUBLIC.

SITEWORKS NOTES

- THE CONTRACTOR SHALL LIAISE DIRECTLY WITH ALL SERVICE AUTHORITIES INVOLVED AND SHALL COMPLY WITH ALL THEIR REGULATIONS AND REQUIREMENTS
- ALL LEVELS SHOWN ARE TO AUSTRALIAN HEIGHT DATUM, UNLESS STATED OTHERWISE. ALL COORDINATES SHOWN ARE TO AUSTRALIAN MAP GRID, UNLESS STATED OTHERWISE. BASE SURVEY & SETOUT HAS BEEN SUPPLIED BY OTHERS & SHALL BE CONFIRMED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION
- SERVICE INFORMATION SHOWN IS BASED ON PLANS SUPPLIED AND IS APPROXIMATE ONLY. ACTUAL LOCATION CAN ONLY BE DETERMINED BY EXCAVATION. THE CONTRACTOR SHALL LIAISE WITH SERVICE AUTHORITIES FOR SERVICE LOCATIONS. THE CONTRACTOR SHALL PROTECT ALL SERVICES AND SHALL RECTIFY ANY DAMAGE AT HIS EXPENSE
- ALL WORKS IN PUBLIC LANDS SHALL BE TO THE APPROVAL AND SATISFACTION OF THE RELEVANT AUTHORITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND OBTAINING RELEVANT AUTHORITY WRITTEN APPROVAL OF THE WORKS.
- EXISTING SURFACE CONTOURS SHOWN ARE INTERPOLATED FROM SPOT HEIGHTS AND ARE APPROXIMATE ONLY
- THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK, AND REPORT ANY DISCREPANCIES TO THE SUPERINTENDENT.
- ALL EXISTING SERVICES (INCLUDING ANY NOT SHOWN ON THE PLANS) MUST BE ACCURATELY LOCATED IN POSITION AND LEVEL PRIOR TO ANY EXCAVATION. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. MINIMUM SERVICE CLEARANCES SHALL BE MAINTAINED FROM THE RELEVANT SERVICE AUTHORITY.
- ALL DIMENSIONS AND SET OUTS SHOWN ARE EITHER TO FACE OF BUILDING, GRID LINES OR FACE OF KERB INVERT (LINE OF KERB), UNLESS SHOWN OTHERWISE.
- CONTRACTOR SHALL BE ISSUED AN ELECTRONIC COPY OF THE CIVIL DETAIL PLANS IN AUTOCAD DWG FORMAT FOR SET OUT PURPOSES. ALL DIMENSIONS SHOWN ON PLAN SHALL OVER RIDE SETOUT POINTS SELECTED FROM ELECTRONIC FILE PROVIDED.
- 10. THE CONTRACTOR SHALL ARRANGE FOR ALL SETTING OUT BY A **REGISTERED SURVEYOR.**
- 11. THE CONTRACTOR SHALL OBTAIN ALL REGULATORY AUTHORITY APPROVALS
- WHERE NEW WORKS ABUT EXISTING, THE CONTRACTOR MUST 12 ENSURE THAT A SMOOTH AND EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
- SAWCUT EXISTING KERB/KERB & CHANNEL AND PAVING WHERE NEW WORKS ARE TO MATCH EXISTING WORKS
- BUILDING AND SITE MAINTENANCE PROGRAM IS TO INCORPORATE 14. REGULAR FLUSHING OF ALL STORMWATER PITS, PIPES, DOWNPIPES, SUB-SOIL DRAINS AND ASSOCIATED FITTINGS TO AVOID BLOCKAGES WITHIN THE SYSTEM.
- 15. ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, UNLESS SPECIFIED OTHERWISE.
- 16 EXCAVATED TRENCHES SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT NATURAL MATERIAL. ANY SUBSIDENCES DURING THE PERIOD TO BE RECTIFIED AS DIRECTED BY THE SUPERINTENDENT.
- 17. THE CONTRACTOR SHALL KEEP THE SITE WELL DRAINED AND COMPLETELY FREE OF STANDING WATER AT ALL TIMES.
- GRADE EVENLY BETWEEN FINISHED SURFACE SPOT LEVELS. (FINISHED SURFACE CONTOURS ARE SHOWN FOR CLARITY ONLY.) WHERE FINISHED SURFACE SPOT LEVELS ARE NOT SHOWN THE SURFACE SHALL BE GRADED SMOOTHLY SO THAT IT WILL DRAIN FREELY, AND TO MATCH THE LEVELS OF ADJACENT SURFACES OR STRUCTURES.
- ANY EXISTING TREES WHICH FORM PART OF THE FINAL 19 LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S DETAILS AND/OR BY :
 - a) PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE, b) ENSURING THAT NOTHING IS NAILED TO THEM.
 - c) PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT AS ADVISED BY A QUALIFIED ARBORIST.
- RECEPTORS FOR CONCRETE AND MORTAR SLURRIES, PAINTS, 20. ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER ARE TO BE EMPTIED AS NECESSARY. DISPOSAL OF WASTE SHALL BE IN A MANNER APPROVED BY THE SUPERINTENDENT OR AS SPECIFIED IN THE WASTE MANAGEMENT PLAN.

SUBSOIL DRAINAGE NOTES

- WHERE SUBSOIL DRAINAGE LINES PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC DWV GRADE CLASS SN8 PIPE SHALL BE USED.
- PROVIDE SUBSOIL DRAINAGE IN ACCORDANCE WITH COUNCIL SPECIFICATIONS WITH CONTINUOUS FALL TO DOWNSTREAM PITS LOCATED AS SHOWN ON PLAN AND AS MAYBE DIRECTED BY COUNCIL / SUPERINTENDENT.
- ALL SUBSOIL DRAINAGE PIPES SHALL BE Ø100mm CLASS 400 PERFORATED DRAINAGE PIPE LAID AT 1.0% MIN GRADE WRAPPED IN GEOFABRIC (UNO) AND BE LAID AT A MIN DEPTH OF 400mm BELOW PAVEMENT SUB-BASE COURSE.

WHOLLY REMOVED. SUPERINTENDENT.

TIMES

UNIFORM GRADES.

ITS BEDDING.

REV	DESCRIPTION	BY	APP	DATE
А	ISSUED FOR PRELIMINARY DESIGN	IV	PE	09.12.16
В	CLIENT DETAILS & GENERAL NOTES AMENDED	IV	PE	14.12.16
С	GENERAL NOTES AMENDED	IV	PE	21.12.16
D	ISSUED FOR DA	DG	PE	13.01.17
Е	ISSUE FOR DA RE-SUBMISSION	JT	PE	10.05.17
A01	ISSUED FOR S96	JT	KW	28.02.18

EARTHWORKS NOTES

- THE CONTRACTOR SHALL COMPLY WITH THE CURRENT EDITIONS OF THE AUSTRALIAN STANDARDS.
- AS 1289 TESTING SOILS FOR ENGINEERING PURPOSES
- AS 3798 GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS
- ALL WORK SHALL COMPLY WITH THE PROJECT GEOTECHNICAL

REPORT.

FOLLOWING -

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CARRYING OUT ALL CONTROL AND COMPLIANCE EXAMINATION AND TESTING OF MATERIALS AND WORK.
- UNLESS OTHERWISE SPECIFIED, ALL TESTS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE APPROPRIATE AUSTRALIAN STANDARD TEST METHOD. WHERE THERE IS NO RELEVANT AUSTRALIAN STANDARD TEST METHOD THEN THE CURRENT APPROPRIATE RTA TEST METHOD OR OTHER SPECIFIED TEST METHOD SHALL BE USED. ALL TESTS SHALL BE CONDUCTED BY EXPERIENCED TESTING OFFICERS IN A LABORATORY ACCREDITED BY THE
- NATIONAL ASSOCIATION OF TESTING AUTHORITIES-NATA. DETERMINATION OF THE NATURE AND QUANTITY(IES) OF THE EXISTING SITE MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. WHERE INCLUDED IN THE DOCUMENTS, GEOTECHNICAL REPORTS ARE INCLUDED FOR INFORMATION ONLY. INTERPRETATION OF THE REPORT/S SHALL BE THE RESPONSIBILITY
- OF THE CONTRACTOR. USE OF ON-SITE MATERIAL WITHIN THE WORKS SHALL ONLY BE PERMITTED WHERE THE MATERIAL EITHER:
- I. IS SPECIALLY STATED WITHIN THE DOCUMENTS AS BEING USED IN THE WORKS, OR
- II. IS PERMITTED BY THE SUPERINTENDENT & GEOTECHNICAL **TESTING / ENGINEER**
- ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SUPERINTENDENT AND SHALL COMPLY WITH THE
 - a) FREE FROM ORGANIC AND PERISHABLE MATTER;
 - b) MAXIMUM PARTICLE SIZE 75mm; AND
 - c) PLASTICITY INDEX BETWEEN 2% AND 15%.
- WHEN A SURFACE IS UNABLE TO SUPPORT CONSTRUCTION EQUIPMENT OR IT IS NOT POSSIBLE TO COMPACT THE OVERLYING MATERIALS BECAUSE OF HIGH MOISTURE CONTENT, THEN ONE OR MORE OF THE FOLLOWING ALTERNATIVE ACTIONS MAY BE TAKEN (I) ALLOW THE MATERIAL TO DRY TO A MOISTURE CONTENT WHICH ALLOW IT TO BE COMPACTED AND ALLOW THE PLACEMENT AND COMPACTION OF OVERLYING MATERIAL
- (II) SCARIFY THE MATERIAL TO A DEPTH OF 200MM AND WORK AS NECESSARY TO ACCELERATE DRYING, RECOMPACT AS SPECIFIED WHEN MOISTURE CONTENT APPROXIMATES OPTIMUM
- (III) EXCAVATE AND REPLACE THE SOFT MATERIAL
- THE ACTION TO BE ADOPTED SHALL BE AT THE CONTRACTOR'S DISCRETION AND EXPENSE, BUT SHALL BE ADVISED TO THE SUPERINTENDENT BEFORE ACTION COMMENCES.
- IF THE CONTRACTOR ELECTS PURSUANT TO (I) ABOVE TO ALLOW THE MATERIAL TO DRY, RESULTING DELAYS, IF ANY, SHALL NOT CONSTITUTE GROUNDS FOR AN EXTENSION OF CONTRACT PERIOD OR DATE OF PRACTICAL COMPLETION.
- THE FINISHED SUBGRADE SHALL NOT BE DISTURBED BY TRAFFIC OR OTHER OPERATIONS, AND SHALL BE PROTECTED AND MAINTAINED BY THE CONTRACTOR UNTIL THE FIRST LAYER OF FILL OR SUB-BASE IS PLACED THEREON. THE SUBGRADE SHALL BE KEPT DRAINED AND COMPLETELY FREE OF STANDING WATER AT ALL
- THE CONTRACTOR SHALL PLAN AND CARRY OUT THE WHOLE OF THE WORKS TO MINIMISE THE EFFECTS OF RUN-OFF AND EROSION ON THE SITE AND ON DOWNSTREAM AREAS. HE SHALL AVOID UNNECESSARY GROUND DISTURBANCE AND PROVIDE AS NECESSARY FOR THE PROPER CONTROL OF STORMWATER RUN-OFF AT EVERY STAGE OF THE WORKS ALL IN ACCORDANCE WITH "MANAGING URBAN STORMWATER / SOIL AND CONSTRUCTION" (LANDCOM "BLUE BOOK")
- PRIOR TO THE COMMENCEMENT OF EARTHWORKS TOPSOIL IS TO BE STRIPPED WITHIN THE LIMITS OF THE EARTHWORKS AND FROM ANY AREAS TO BE COVERED BY PAVING, STRUCTURES OR FILL, AND ALL AREAS WHICH ARE TO SUPPORT PAVEMENTS.
- EMBANKMENTS, STRUCTURES AND THE LIKE OR FILLING UNDER SUCH WORKS, SHALL BE STRIPPED CLEAR OF ALL TREES, LOGS, STUMPS, SCRUB, GRASS, ROOT GROWTH, CULTIVATED SOIL, WET OR SPONGY NATURAL SOIL, DECAYED VEGETABLE MATTER AND ANY OTHER DELETERIOUS SUBSTANCE. THE CONTRACTOR SHALL BREAK UP AND REMOVE ALL ASPHALT AND CONCRETE MATERIAL UPON WHICH FILL OR PAVEMENT SHALL BE PLACED.
- ALL MATERIAL WITHIN THE LIMIT OF THE EARTHWORKS SHALL BE
- FILL ALL HOLES WITH APPROVED MATERIAL IN MAXIMUM 150MM COMPACTED THICKNESS LAYERS COMPACTED TO THE DENSITY TO THE ADJOINING UNDISTURBED SOIL AND TO THE APPROVAL OF THE
- EXCAVATION TO THE LINES, LEVELS AND GRADES AS REQUIRED FOR UNDERGROUND SERVICES SPECIFIED IN THE RELEVANT SERVICES SECTIONS, INCLUDING DRAINAGE, HYDRAULIC, ELECTRICAL AND THE LIKE. UNLESS OTHERWISE SPECIFIED MAKE THE TRENCHES STRAIGHT BETWEEN MANHOLES, INSPECTION POINTS, JUNCTIONS AND THE LIKE, WITH VERTICAL SIDES AND
- DEPTH SHALL BE AS REQUIRED BY THE RELEVANT SERVICES AND
- CUT BACK ROOTS ENCOUNTERED IN TRENCHES TO LESS THAN 600mm CLEAR OF THE RELEVANT SERVICE. REMOVE SUCH OTHER OBSTRUCTIONS INCLUDING ROOTS, STUMPS, BOULDERS AND THE LIKE WHICH MAY, IN THE OPINION OF THE SUPERINTENDENT, INTERFERE WITH THE PROPER FUNCTIONING OF THE SERVICE. LAY AND BED SERVICES IN ACCORDANCE WITH THE RELEVANT SERVICES SPECIFICATION SECTION.

EARTHWORKS NOTES CONT.

- 10. BACKFILL AND COMPACT SERVICE TRENCHES AS SOON AS POSSIBLE AFTER APPROVAL OF LAID AND BEDDED SERVICE. COMPACT BACKFILL IN PIPE TRENCHES SO THAT THE PIPE IS BUTTRESSED BY THE WALLS OF THE TRENCH.
- 11. WHERE FILLING IS DESIGNATED BY THE CONTRACT OR IS SHOWN ON THE DRAWINGS AS STRUCTURAL OR CONTROLLED FILL THE CONTRACTOR SHALL ENGAGE AN INDEPENDENT GEOTECHNICAL TESTING AUTHORITY TO SUPERVISE SUBGRADE PREPARATION, FILL PLACEMENT, COMPACTION AND TO UNDERTAKE SAMPLING AND TESTING AND REPORTING TO SATISFY THE REQUIREMENTS OF THIS SPECIFICATION AND THOSE OF AS 2870 AND AS 3798, FOR CONTROLLED FILL.
- NO FILL SHALL BE PLACED OVER LAYERS NOT TESTED AND HAVING 12. SATISFACTORY RESULTS.
- WHERE EXCAVATED MATERIAL IS NOT SUITABLE FOR FILLING. FILL MATERIAL, AS SPECIFIED IN THIS SPECIFICATION SECTION, "IMPORTED FILL" SHALL BE USED.
- ALL FILL MATERIAL SHALL BE PLACED IN MAXIMUM 200mm THICK LAYERS AND COMPACTED AT OPTIMUM MOISTURE CONTENT (+ OR 2%) TO ACHIEVE A DRY DENSITY DETERMINED IN ACCORDANCE WITH AS1289.5.1.1-2003-METHODS OF TESTING SOILS FOR ENGINEERING PURPOSES OF NOT LESS THAN THE FOLLOWING STANDARD MINIMUM DRY DENSITY -

LOCATION DENSITY	STANDARD DR
UNDER BUILDING SLABS	98%
VEHICULAR PAVED AREAS	98%
NON-VEHICULAR PAVED AREAS	95%
LANDSCAPED AREAS	95%

- 13. UNLESS OTHERWISE PERMITTED, NO FILLING SHALL BE PLACED AGAINST ANY STRUCTURES, WING WALLS OR RETAINING WALLS WITHIN FOURTEEN DAYS OF CASTING. STRUT WALLS AS NECESSARY TO PREVENT MOVEMENT DURING PLACING AND COMPACTION.
 - PLACE AND COMPACT FILLING OVER AND AROUND PIPES, CULVERTS, BRIDGES AND OTHER STRUCTURES SO AS TO AVOID
 - UNBALANCED LOADING OR MOVEMENT. UNLESS OTHERWISE DETAILED BACKFILL AT STRUCTURES SHALL BE FILLED AS FOLLOWS:
 - WHERE THE GAP BETWEEN THE STRUCTURE AND UNDISTURBED GROUND EXCEEDS 2m, BACKFILL THE ZONE WITHIN 2m OF THE STRUCTURE WITH DGS20 SUBBASE FINE CRUSHED ROCK AND BACKFILL IN THE ZONE BEYOND 2m OF THE STRUCTURE WITH SELECT FILL TO THE APPROVAL OF THE SUPERINTENDENT OR DGS20 SUBBASE FINE CRUSHED ROCK.
 - UNLESS OTHERWISE DETAILED, MATERIAL WITHIN 300mm OF WEEPHOLES SHALL BE AN APPROVED GRANULAR FILTER MEDIUM OF COARSE SAND OR CRUSHED STONE WRAPPED AND SURROUNDED WITH AN APPROVED GEOTEXTILE SEPARATION LAYER.
- 14 HORIZONTAL:
- NO POINT SHALL BE GREATER THAN + OR 100mm FROM THE DESIGN LOCATION.
- VERTICAL:
- SUBGRADE LEVEL: +0, -25mm
- PAVEMENT DESIGN SUBGRADE:
- LEVEL: +0, -25mm
- OTHER: +50, -50mm
- STRAIGHTNESS (EXCLUDES ROCK): MAXIMUM 20MM DEPARTURE FROM 3M STRAIGHT EDGE LAID:
- PARALLEL TO ROAD CENTER LINE
- NORMAL TO INTENDED CONTOURS
- AREAS UPON WHICH FILLS ARE TO BE CONSTRUCTED, ALL LAYERS 15. OF FILLING, AND MATERIALS LESS THAN 150mm BELOW PERMANENT SUBGRADE LEVEL IN CUTTINGS, SHALL BE COMPACTED SO AS TO BE CAPABLE OF WITHSTANDING TEST ROLLING, WITHOUT VISIBLE DEFORMATION OR SPRINGING, WITH A PNEUMATIC TYRED ROLLER OR HIGHWAY TRUCK BALLASTED TO COMPLY WITH THE FOLLOWING:
 - PNEUMATIC TYRED NOT LESS THAN 3 T PER TYRE WITH TYRES INFLATED TO 550 KPa.
- HIGHWAY TRUCK WITH REAR AXLE OR AXLES LOADED TO NOT LESS THAN 8 T EACH WITH TYRES INFLATED TO 550KPa
- TEST ROLLING SHALL BE CARRIED OUT IMMEDIATELY BEFORE OVERLYING LAYERS ARE PLACED. WHERE TEST ROLLING IS REQUIRED AT SOME LATER DATE, THE
- SURFACE SHALL BE MOISTURE CONDITIONED AS AND GIVEN NOT LESS THAN FOUR COVERAGES OF THE TEST ROLLER BEFORE TEST ROLLING COMMENCES.
- 16. THE WORK SHALL NOT BE ACCEPTED AS COMPLETE UNLESS ALL TEST RESULTS ARE PROVIDED TO THE SUPERINTENDENT.
- THE CONTRACTOR SHALL PROVIDE ALL MATERIAL PROPERTY AND QUALITY TEST RESULTS TO THE SUPERINTENDENT.
- 17. THE CONTRACTOR SHALL PROGRAM THE EARTHWORKS OPERATION SO THAT THE WORKING AREAS ARE ADEQUATELY DRAINED DURING THE PERIOD OF CONSTRUCTION. THE SURFACE SHALL BE GRADED AND SEALED OFF TO REMOVE DEPRESSIONS, ROLLER MARKS AND SIMILAR WHICH WOULD ALLOW WATER TO POND AND PENETRATE THE UNDERLYING MATERIAL. ANY DAMAGE RESULTING FROM THE CONTRACTOR NOT OBSERVING THESE REQUIREMENTS SHALL BE RECTIFIED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
- 18. TESTING OF THE FILL MATERIAL SHALL BE CARRIED OUT BY AN APPROVED NATA REGISTERED LABORATORY AT THE CONTRACTORS EXPENSE.

SOCKET REINFORCED CONCRETE PIPES WITH RUBBER RING JOINTS (UNO).

ALL DRAINAGE PIPES LESS THAN OR EQUAL TO Ø225mm SHAL uPVC DWV GRADE CLASS SN8 IN ACCORDANCE WITH AS/NZS1260:2009-PVC-U PIPES AND FITTINGS FOR DRAIN, WAS AND VENT APPLICATION WITH SOLVENT WELDED JOINTS (UNC

STORMWATER NOTES

ALL DRAINAGE PIPES Ø300mm AND ABOVE SHALL BE SPIGOT

- ALL PIPE JUNCTIONS UP TO AND INCLUDING Ø450mm AND TAF
- SHALL BE VIA PURPOSE MADE FITTINGS (UNO). MINIMUM GRADE TO STORMWATER LINES TO BE 1%(UNO).
- EQUIVALENT STRENGTH FIBROUS REINFORCED CONCRETE AND/OR VITRIFIED CLAY PIPE MAY BE USED SUBJECT TO APP BY THE SUPERINTENDENT AND CONSENT AUTHORITY.
- TRENCHES MUST BE KEPT CLEAR OF WATER AT ALL TIMES AN TIMBERED WHERE NECESSARY TO PREVENT COLLAPSE.
- PIPES SHALL BEAR EVENLY ON THE BED PREPARED AS SPEC ABOVE AND LAID WITH THE SOCKETS POINTED UPGRADE. AL PIPES SHALL BE LAID IN STRAIGHT LINES, TO TRUE INVERT LE AND GRADES AS SHOWN ON PLANS. EACH PIPE SHALL BE SEPARATELY BONED BETWEEN ACCURATELY ESTABLISHED POINTS. THE CONTRACTOR SHALL ADHERE SUPERINTENDENT WRITTEN APPROVAL
- UNLESS NOTED OTHERWISE, BEDDING SHALL BE TYPE H2 FOR PIPES NOT UNDER PAVEMENTS AND TYPE HS3 FOR PIPES UNI PAVEMENTS IN ACCORDANCE WITH AS/NZS3725 (2007) - DESIG FOR INSTALLATION OF BURIED CONCRETE PIPES.
- BACKFILL TRENCH WITH SAND OR APPROVED GRANULAR BAC TO 300mm (MIN) ABOVE THE PIPE. WHERE THE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO PAVEMENT SUBGRADE WITH SAND OR APPROVED GRAVEL SUB-BASE COMPACTED IN 150mm LAYERS TO 98% STANDARD MAXIMUM DENSITY. THE CONTRACTOR IS TO ENSURE COMPACTION EQUIPMENT IS APPROPRIATE FOR THE PIPE CLASS USED.
- ALL PIPE JOINTING SHALL BE CARRIED OUT IN ACCORDANCE THE MANUFACTURER'S WRITTEN SPECIFICATIONS FOR THE OF PIPE BEING USED.
- CONTRACTOR TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.
- ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE M A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF TH AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO EN A SMOOTH FINISH WITH NO PROTRUSION.
- WHERE ANY PIPE IS CUT INTO A LARGER PIPE, SUCH CONNEC 13. SHALL BE NEATLY MADE AND NO PART OF THE PIPE OR DOWI SHALL BE ALLOWED TO PROJECT. ANY CUT-IN JUNCTION SHA MADE IN THE TOP HALF OF THE LARGER PIPE. SUCH JUNCTIC CONCRETE PIPES SHALL BE SURROUNDED WITH A NEAT COL OF CEMENT MORTAR AS DIRECTED OR AS DETAILED ON THE DRAWINGS. JUNCTIONS BETWEEN PVC PIPES SHALL USE PROPRIETY FITTINGS INTENDED FOR THE PURPOSE.
- THE ENDS OF PIPES WHICH CONNECT WITH SIDE ENTRY, JUNG 14 OR OTHER PITS SHALL BE NEATLY CUT TO FIT THE INNER FAC THE CONCRETE. WHERE UPVC PIPES ENTER/LEAVE PITS A RU RING JOINT MANHOLE COUPLING SHALL BE CAST INTO THE P WALL

BEDDING, HAUNCH AND OVERLAY MATERIALS SHALL CONFOR THE DETAILS SHOWN ON THE DRAWINGS.

ALL PITS AND ENDWALLS SHALL BE CONSTRUCTED IN THE POSITIONS AND TO THE LEVELS SHOWN ON THE DRAWINGS DIRECTED BY THE SUPERINTENDENT, LOCATION OF ALL IAD F TO BE CONFIRMED WITH SUPERINTENEND & LANDSCAPE ARCHITECT BEFORE CONSTRUCTION

COUNCIL'S CONSTRUCTION PIT DETAILS TO TAKE PRECEDEN THE CONSTRUCTION DETAILS SHOWN IN THIS DOCUMENTATION PRECAST PITS OR ALTERNATIVE DESIGN TYPES CAN BE USED SUBJECT TO COUNCIL / PCA APPROVAL. (IAD ONLY)

PIT COVERS SHALL BE PLACED IN ACCORDANCE WITH THE DE SITE PLANS AND PIT SCHEDULE (IF PROVIDED) IN REGARD TO SIZE, LOCATION AND LEVEL.

THE BASE OF EACH PIT SHALL BE INFILLED AND SHAPED WITH CONCRETE OR CEMENT MORTAR TO PROVIDE A SMOOTH FLO PATH

- PITS DEEPER THAN 1000mm SHALL HAVE STEP IRONS INSTAL ACCORDANCE WITH THE LOCAL OR STATUTORY AUTHORITY REQUIREMENTS.
- SUPPLY APPARATUS AND MATERIALS NECESSARY FOR, AND CARRY OUT THE TESTS REQUIRED BY THE SPECIFICATION OR REGULATORY AUTHORITIES. IN THE PRESENCE OF THE SUPERINTENDENT AND THE RELEVANT AUTHORITY. LEAVE PI JOINTS EXPOSED TO ENABLE OBSERVATION DURING THE TES ENSURE PVC SOLVENT CEMENT JOINTS HAVE BEEN CURED F LEAST 24 HOURS BEFORE TESTING.
- THE CONTRACTOR SHALL PRESSURE TEST WITH WATER, ALL 18 STORMWATER PIPEWORK IN OR UNDER ANY STRUCTURES, IN ACCORDANCE WITH AS 3500.3.

MEINHARDI

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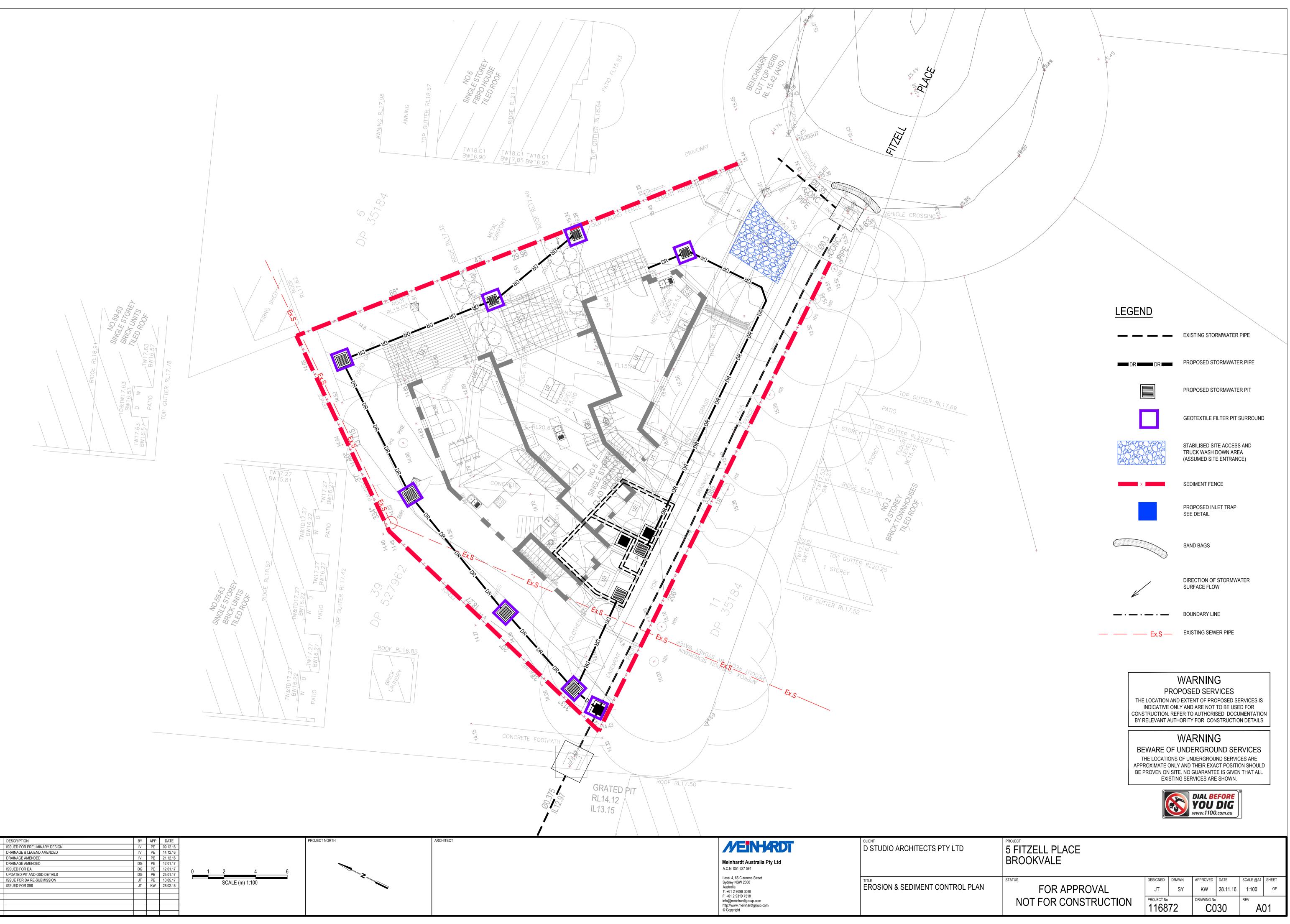
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CLIENT		
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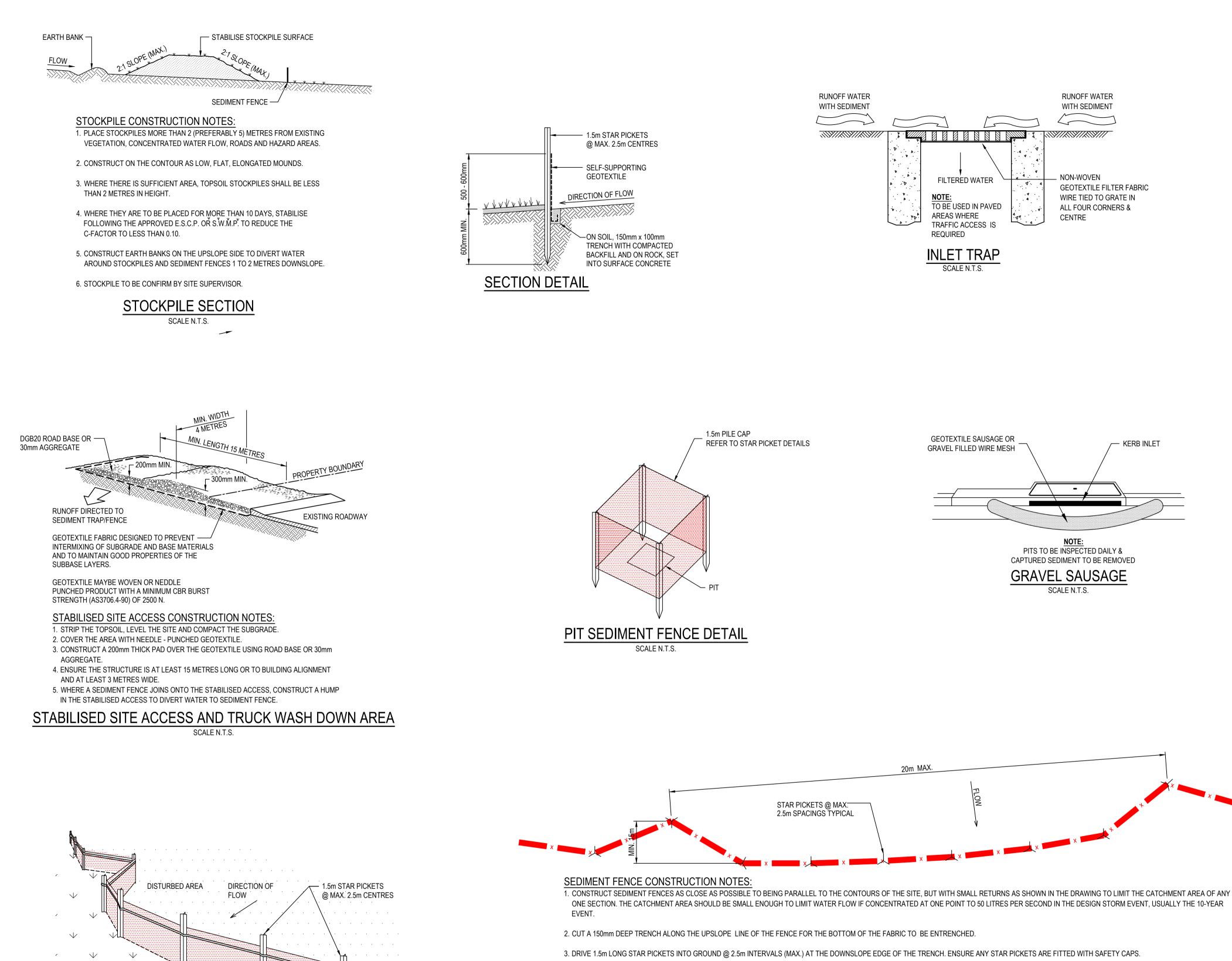
GENERAL NOTES

1.	EXISTING SERVICES NOTES
	EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE
2.	REPORTED TO THE SUPERINTENDENT. THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL IF REQUIRED OF ALL REDUNDANT
3.	EXISTING SERVICES IN AREAS AFFECTED BY WORKS WITHIN THE CONTRACT AREA, AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT. THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES
4.	TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED. IF REQUIRED, THE CONTRACTOR SHALL CONSTRUCT TEMPORARY
	SERVICES TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT AND THE RELEVANT SERVICE AUTHORITY.
5.	INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE TO THE PRINCIPAL. THE CONTRACTOR IS TO GAIN APPROVAL FROM THE SUPERINTENDENT FOR TIME OF INTERRUPTION - THE CONTRACTOR IS RESPONSIBLE FOR ALL LIAISON.
6.	ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN 80mm DIA uPVC SEWER GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND THE EDGE OF PAVING.
7.	CLEARANCE AND COVER REQUIREMENTS SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY BEFORE COMMENCEMENT OF WORKS AND SHALL BE ADHERED TO AT ALL TIMES.
8.	CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER TELECOM OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS ONLY
ſ	WARNING
	WARNING PROPOSED SERVICES THE LOCATION AND EXTENT OF PROPOSED SERVICES IS INDICATIVE ONLY AND ARE NOT TO BE USED FOR CONSTRUCTION. REFER TO AUTHORISED DOCUMENTATION BY RELEVANT AUTHORITY FOR CONSTRUCTION DETAILS
	PROPOSED SERVICES THE LOCATION AND EXTENT OF PROPOSED SERVICES IS INDICATIVE ONLY AND ARE NOT TO BE USED FOR CONSTRUCTION. REFER TO AUTHORISED DOCUMENTATION

5 FITZELL PLACE BROOKVALE						
STATUS	DESIGNED	DRAWN	APPROVED	DATE	SCALE @A1	SHEET
FOR APPROVAL	JT	SY	KW	01.12.16		OF
NOT FOR CONSTRUCTION	PROJECT No 1168		DRAWING NO	20	REV A()1



REV	DESCRIPTION	BY	APP	DATE	PROJECT NORTH ARC	RCHITECT
Α	ISSUED FOR PRELIMINARY DESIGN	IV	PE	09.12.16	.16	
В	DRAINAGE & LEGEND AMENDED	IV	PE	14.12.16	.16	
С	DRAINAGE AMENDED	IV	PE	21.12.16	.16	
D	DRAINAGE AMENDED	DG	PE	12.01.17		
Е	ISSUED FOR DA	DG	PE	12.01.17		
F	UPDATED PIT AND OSD DETAILS	DG	PE	25.01.17		
G	ISSUE FOR DA RE-SUBMISSION	JT	PE	10.05.17	.17 SCALE (m) 1:100	
A01	ISSUED FOR S96	JT	KW	28.02.18		



REV	DESCRIPTION	BY	APP	DATE	PROJECT NORTH	ARCHITECT
А	ISSUED FOR PRELIMINARY DESIGN	IV	PE	09.12.16		
В	CLIENT DETAILS AMENDED	IV	PE	14.12.16		
С	ISSUE FOR INFORMATION	IV	PE	21.12.16		
D	ISSUE FOR INFORMATION	DG	PE	12.01.17		
ш	ISSUE FOR DA	DG	PE	13.01.17		
F	ISSUE FOR DA RE-SUBMISSION	JT	PE	10.05.17		
A01	ISSUED FOR S96	JT	KW	28.02.18		

 \checkmark

SEDIMENT FENCE

SCALE N.T.S.

UNDISTURBED AREAS

 \checkmark

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.



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EROSION & SEDIMENT CONTROL DET

EROSION AND SEDIMENT CONTROLS

- **ES1** ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH:
- (A) LOCAL AUTHORITY REQUIREMENTS
- (B) APPLICABLE POLLUTION CONTROL MANUAL FOR URBAN STORMWATER
- (C) DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT MANUAL- "URBAN EROSION & SEDIMENT CONTROL".
- (D) NSW PROTECTION OF THE ENVIRONMENT ACT 1997
- **ES2** THE CONTRACTOR SHALL PREPARE EROSION AND SEDIMENT CONTROL DRAWINGS AND NOTES FOR THE WHOLE OF THE WORKS. SHOULD THE CONTRACTOR STAGE THESE WORKS THEN THE DESIGN MAY REQUIRE TO BE MODIFIED. VARIATION TO THESE DETAILS MAY REQUIRE TO BE APPROVED BY THE RELEVANT AUTHORITIES. THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE IMPLEMENTED AND ADOPTED TO MEET THE VARYING SITUATIONS AS WORK ON SITE PROGRESSES.
- ES3 MAINTAIN ALL EROSION AND SEDIMENT CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY AS APPROPRIATE (IE. PRIVATE / PUBLIC LAND)
- ES4 AS STORMWATER PITS ARE CONSTRUCTED PREVENT SITE RUNOFF ENTERING. ERECT SILT FENCES AROUND PITS.
- **ES5** MINIMISE THE AREA OF SITE DISTURBED AT ANY ONE TIME.
- **ES6** PROTECT ALL STOCKPILES OF MATERIALS FROM SCOUR AND EROSION. DO NOT STOCKPILE LOOSE MATERIAL IN ROADWAYS, NEAR DRAINAGE PITS OR IN WATERCOURSES.
- ES7 ALL SOIL AND WATER CONTROL MEASURES ARE TO BE PUT BACK IN PLACE AT THE END OF EACH WORKING DAY, AND MODIFIED TO BEST SUIT SITE CONDITIONS.
- ES8 CONTROL WATER FROM UPSTREAM OF THE SITE SO THAT IT DOES NOT ENTER THE DISTURBED SITE.
- **ES9** ALL CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE VIA THE AGREED TEMPORARY CONSTRUCTION ENTRY/EXIT.
- ES10 ALL VEHICLES ASSOCIATED WITH CIVIL WORKS SHALL BE CLEANED AND INSPECTED BY THE CONTRACTOR BEFORE LEAVING THE SITE .
- **ES11** MAINTAIN ALL STORMWATER PIPES AND PITS CLEAR OF DEBRIS AND SEDIMENT. THE CONTRACTOR SHALL INSPECT STORMWATER SYSTEM AND CLEAN OUT AFTER EACH STORM EVENT AND / OR WHEN DIRECTED
- ES12 THE CONTRACTOR SHALL CLEAN OUT ALL EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH STORM EVENT.

SEQUENCE OF WORKS

- **SQ1** PRIOR TO COMMENCEMENT OF EXCAVATION THE FOLLOWING SOIL MANAGEMENT DEVICES MUST BE INSTALLED.
- (A) CONSTRUCT ALL SILT FENCES BELOW THE SITE AND ACCROSS ALL POTENTIAL RUNOFF
- SITES (B) CONSTRUCT TEMPORARY CONSTRUCTION ENTRY / EXIT AND DIVERT RUNOFF TO SUITABLE CONTROL SYSTEMS
- (C) CONSTRUCT MEASURES TO DIVERT UPSTREAM FLOWS AROUND WORK(S) AREAS (D) CONSTRUCT SEDIMENTATION TRAPS / BASIN INLUDING OUTLET CONTROL AND OVERFLOW (E) PROVIDE SAND BAG SEDIMENT TRAPS / GRAVEL SEDIMENT SAUSAGE UPSTREAM OF EXISTING PITS
- SQ2 CONSTRUCT GEOTEXTILE FILTER PIT SURROUND AROUND ALL PROPOSED PITS AS THEY ARE CONSTRUCTED
- SQ3 ON COMPLETION OF PAVEMENT PROVIDE GRAVEL SAUSAGE AT KERB INLET PITS.

WARNING

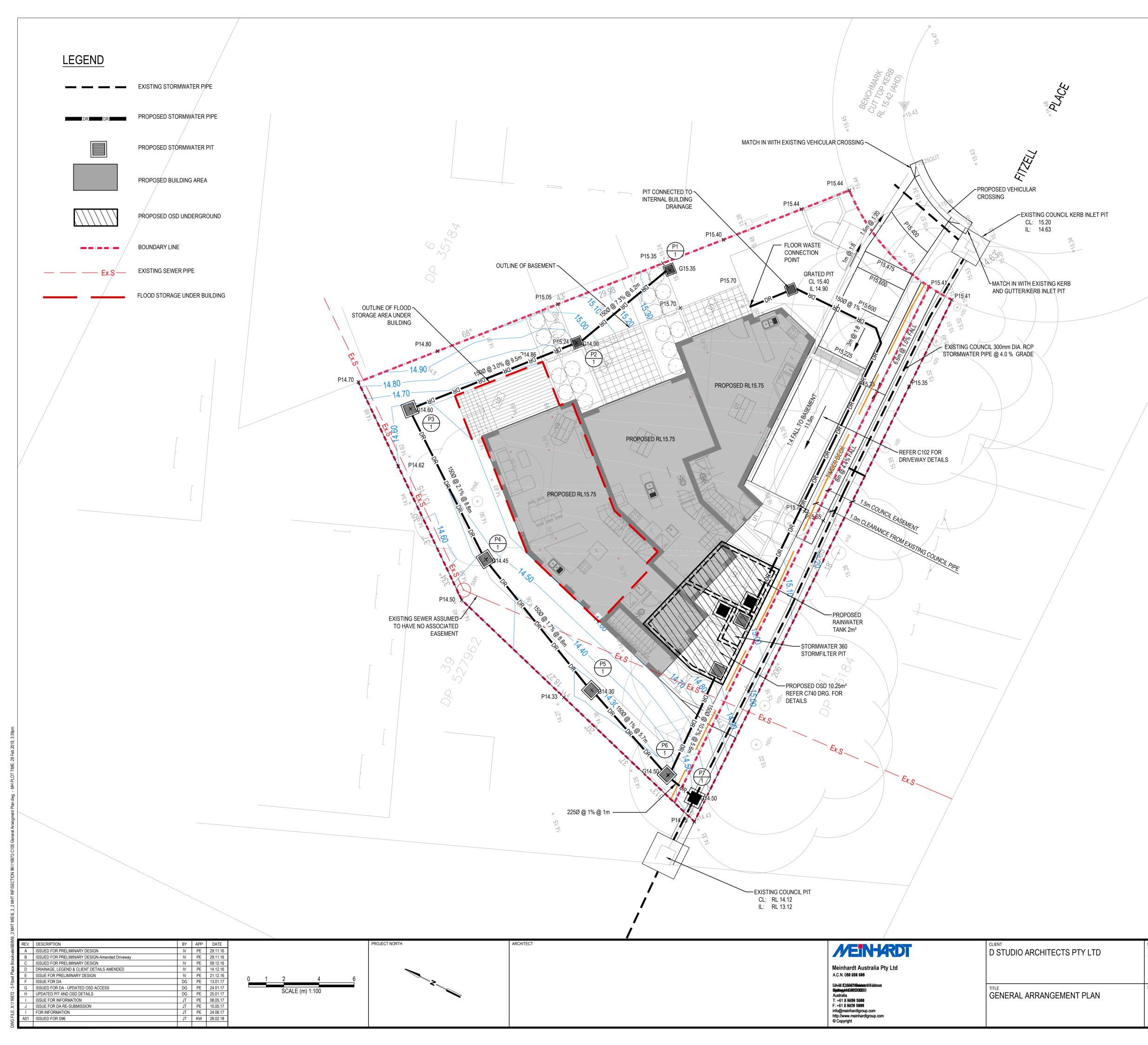
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WARNING

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AILS	FOR APPROVAL	DESIGNED JT	drawn SY	APPROVED KW	date 01.12.16	SCALE @A1	SHEET OF
	NOT FOR CONSTRUCTION	PROJECT № 1168				REV	D1



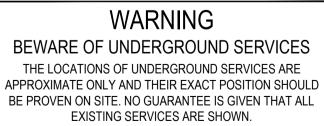
STATUS NOT

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PROJEC

	DESIGNED	DRAWN	APPROVED	DATE	SCALE @A1	SHEET
FOR APPROVAL	JT	SY	KW	28.11.16	1:100	OF
T FOR CONSTRUCTION	PROJECT № 1168		DRAWING No	00	REV A01	
I FOR CONSTRUCTION					A01	

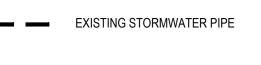
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WARNING

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PROPOSED STORMWATER PIPE

PROPOSED STORMWATER PIT

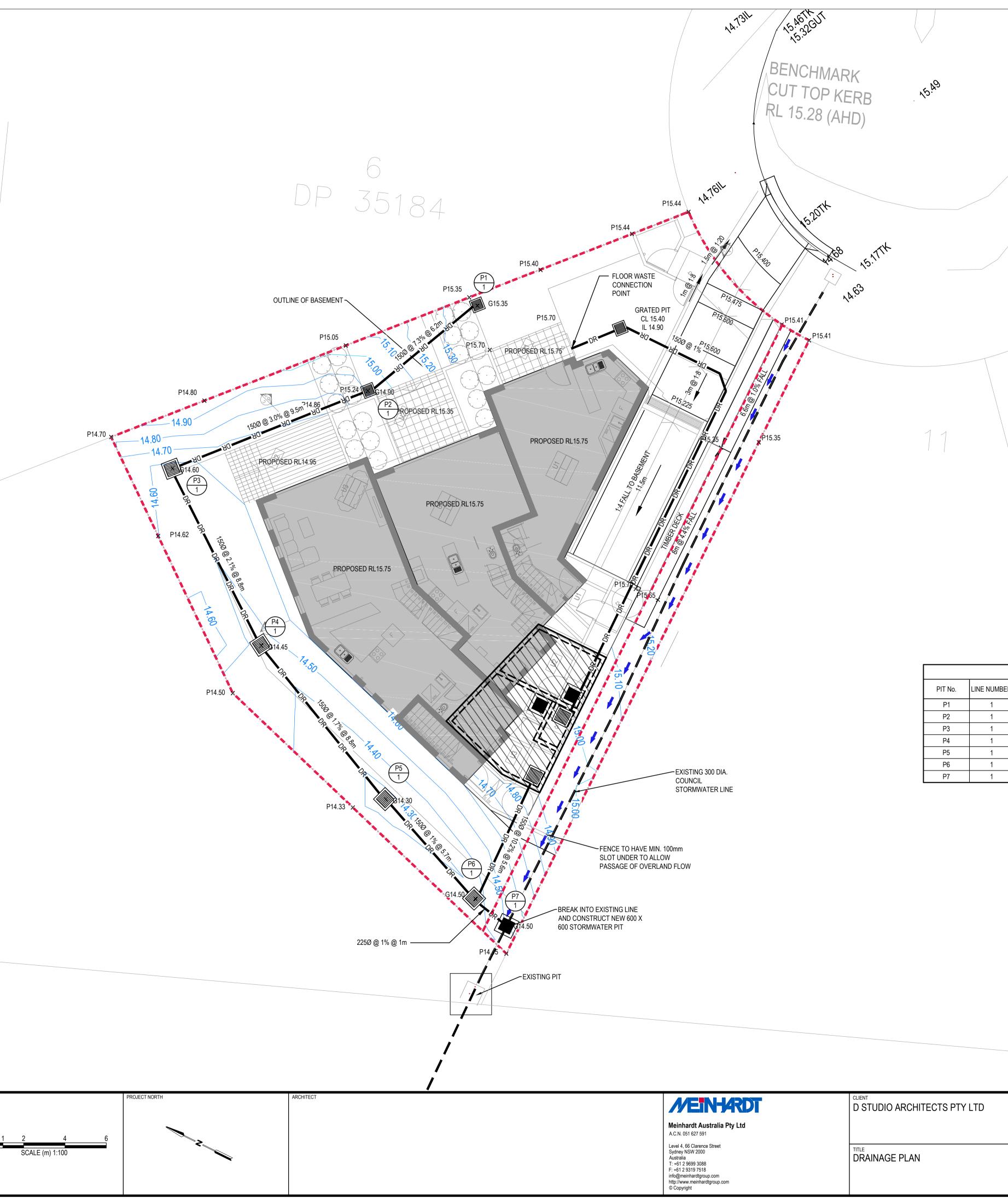
PROPOSED STORMWATER PIT NUMBER

PROPOSED BUILDING AREA

PROPOSED OSD

BOUNDARY LINE

OVERLAND FLOW





REV	DESCRIPTION	BY	APP	DATE	PROJECT NORTH ARG	RCHITECT
А	ISSUED FOR PRELIMINARY DESIGN	JT	PE	-		
В	ISSUED FOR PRELIMINARY DESIGN-Amended Driveway	IV	PE	29.11.16	j	
С	ISSUED FOR PRELIMINARY DESIGN	JT	PE	09.12.16		
D	DRAINAGE, CATCHMENT BOUNDARIES & LEGEND AMENDED	JT	PE	14.12.16		
E	CHANGED TO DRAINAGE PLAN	JT	PE	21.12.16		
F	ISSUED FOR DA	DG	PE	13.01.17		
G	UPDATED PIT AND OSD DETAILS	DG	PE	25.01.17	7 SCALE (m) 1:100	
Н	ISSUE FOR DA RE-SUBMISSION	JT	PE	10.05.17	SCALE (m) 1:100	
A01	ISSUED FOR S96	JT	KW	28.02.18		

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15.44TW 15.29GUT		13	
	12		

		PIT SCHEDULE								
BER		DESCRIPTION	CLASS	R.L (m)	IN I.L (m)	OUT I.L (m)	PIT DEPTH (m)			
	450 X 45	50 GRATED INLET PIT		15.35	-	14.75	0.60			
	450 X 45	50 GRATED INLET PIT		14.90	14.30	14.28	0.62			
	450 X 45	50 GRATED INLET PIT		14.60	14.00	13.98	0.62			
	450 X 45	50 GRATED INLET PIT		14.45	13.80	13.78	0.67			
	600 X 60	00 GRATED INLET PIT		14.30	13.63	13.61	0.69			
	600 X 60	00 GRATED INLET PIT		14.50	13.55	13.53	0.97			
	600 X 600	SEALED JUNCTION PIT		14.50	13.50	13.25	1.25			

WARNING

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WARNING

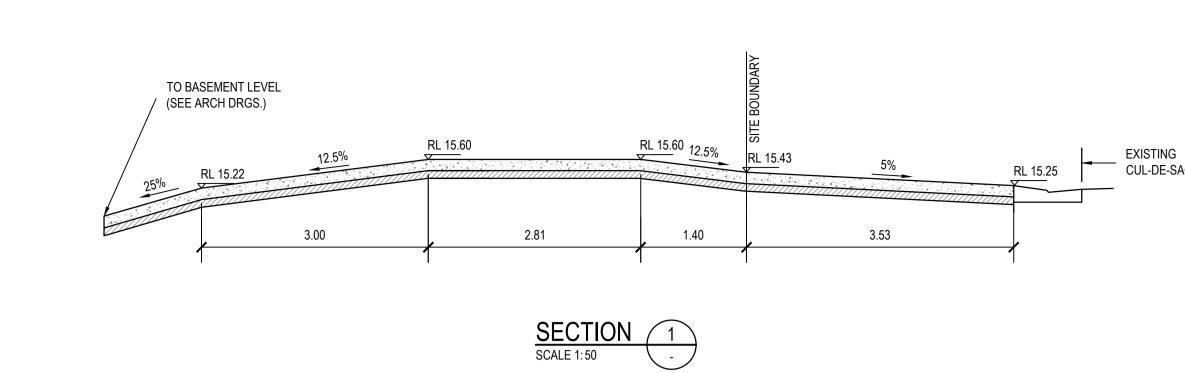
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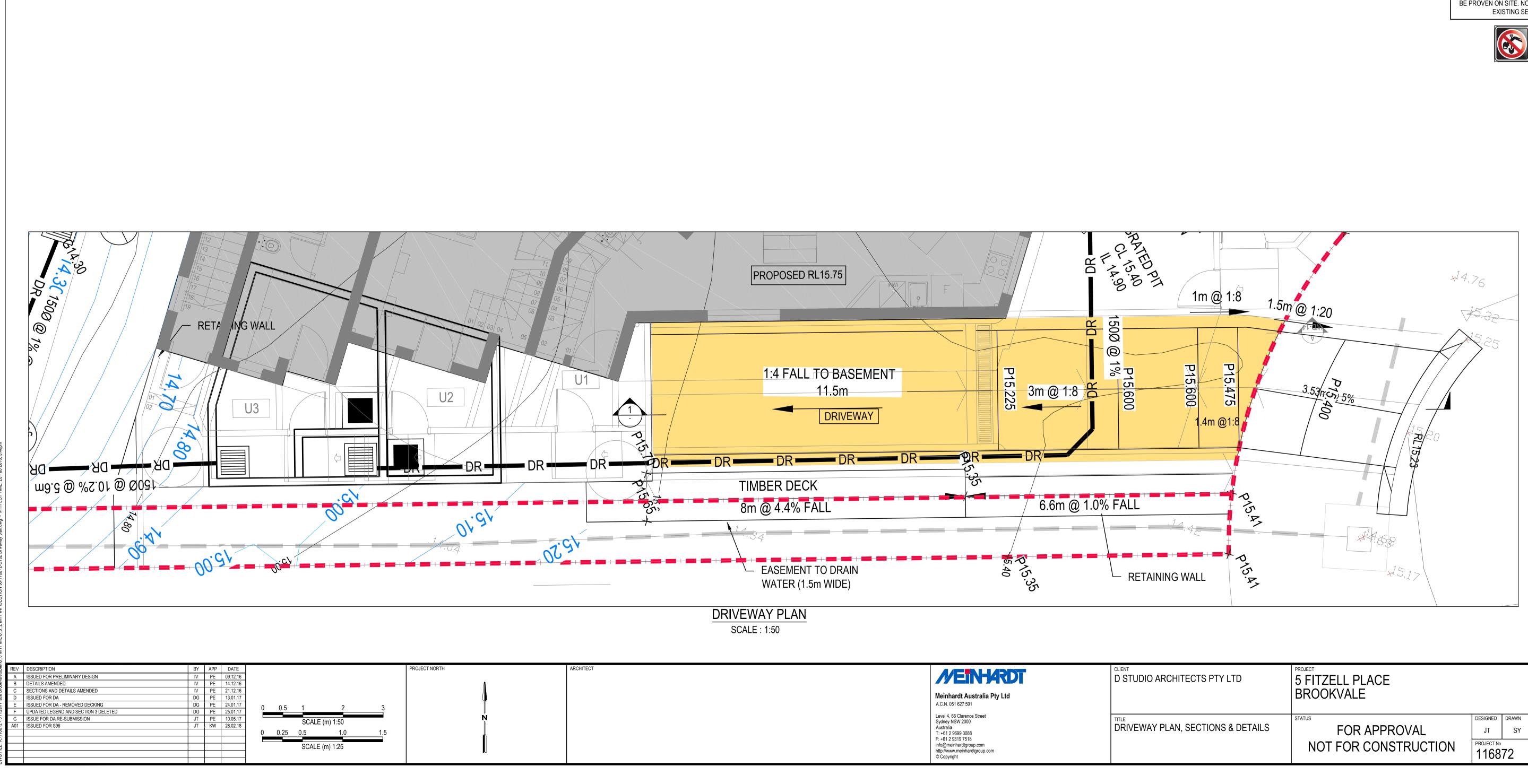


5 FITZELL PLACE BROOKVALE

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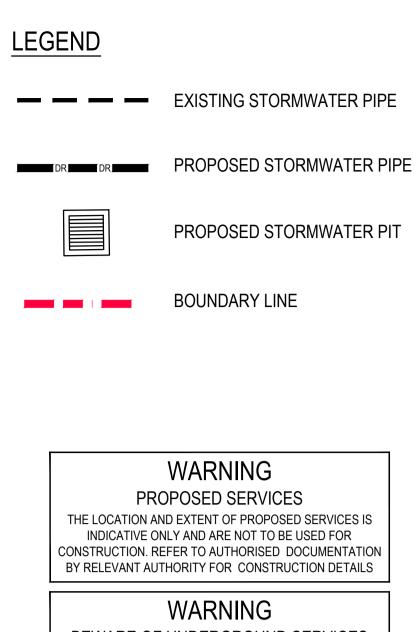
STATUS	DESIGNED	DRAWN	APPROVED	DATE	SCALE @A1	SHEET
FOR APPROVAL	JT	SY	KW	28.11.16	1:100	OF
NOT FOR CONSTRUCTION	PROJECT № 1168		DRAWING No		REV A)1





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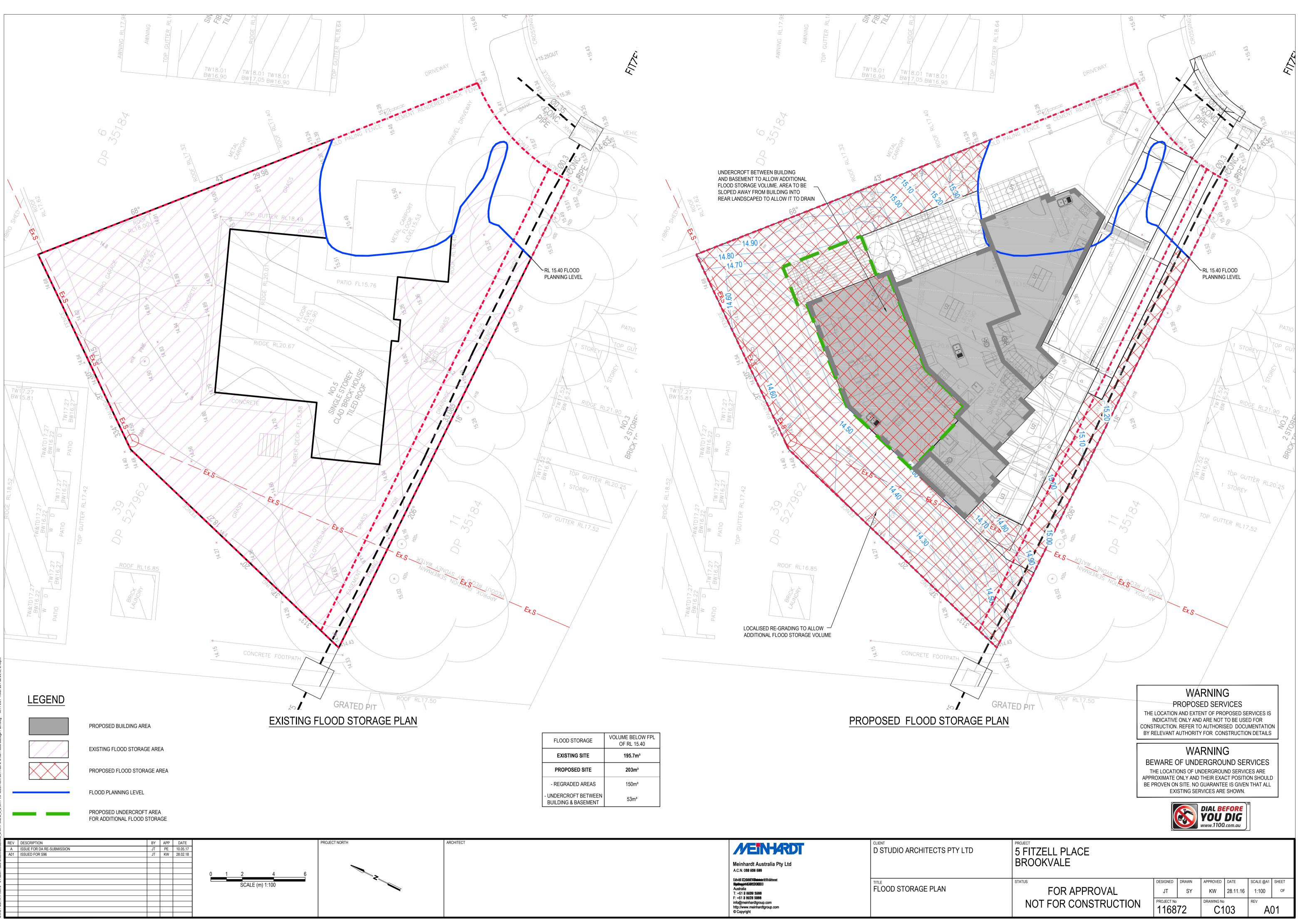
	REV	DESCRIPTION	BY	APP	DATE	PROJECT NORTH	ARCHITECT
	А	ISSUED FOR PRELIMINARY DESIGN	IV	PE	09.12.16		
	В	DETAILS AMENDED	IV	PE	14.12.16		
ŝ	С	SECTIONS AND DETAILS AMENDED	IV	PE	21.12.16		
	D	ISSUED FOR DA	DG	PE	13.01.17		
	E	ISSUED FOR DA - REMOVED DECKING	DG	PE	24.01.17	0 0.5 1 2 3	
Í	F	UPDATED LEGEND AND SECTION 3 DELETED	DG	PE	25.01.17		
,	G	ISSUE FOR DA RE-SUBMISSION	JT	PE	10.05.17	SCALE (m) 1:50	
	A01	ISSUED FOR S96	JT	KW	28.02.18		
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			L			SCALE (m) 1:25	
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	STATUS	DESIGNED	DRAWN	APPROVED	DATE	SCALE @A1	SHEET
AILS	FOR APPROVAL	JT	SY	KW	28.11.16	AS SHOWN	OF
	NOT FOR CONSTRUCTION	PROJECT No 1168		DRAWING No		REV	D1



FLOOD STORAGE	VOLUME BELOW FPL OF RL 15.40					
EXISTING SITE	195.7m³					
PROPOSED SITE	203m ³					
- REGRADED AREAS	150m³					
- UNDERCROFT BETWEEN BUILDING & BASEMENT	53m³					



STATUS	DESIGNED	DRAWN	APPROVED	DATE	SCALE @A1	SHEET
FOR APPROVAL	JT	SY	KW	28.11.16	1:100	OF
NOT FOR CONSTRUCTION	PROJECT No 1168		DRAWING No		REV	01

PROJEC 5 FITZELL PLACE BROOKVALE

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BEWARE OF UNDERGROUND SERVICES THE LOCATIONS OF UNDERGROUND SERVICES ARE

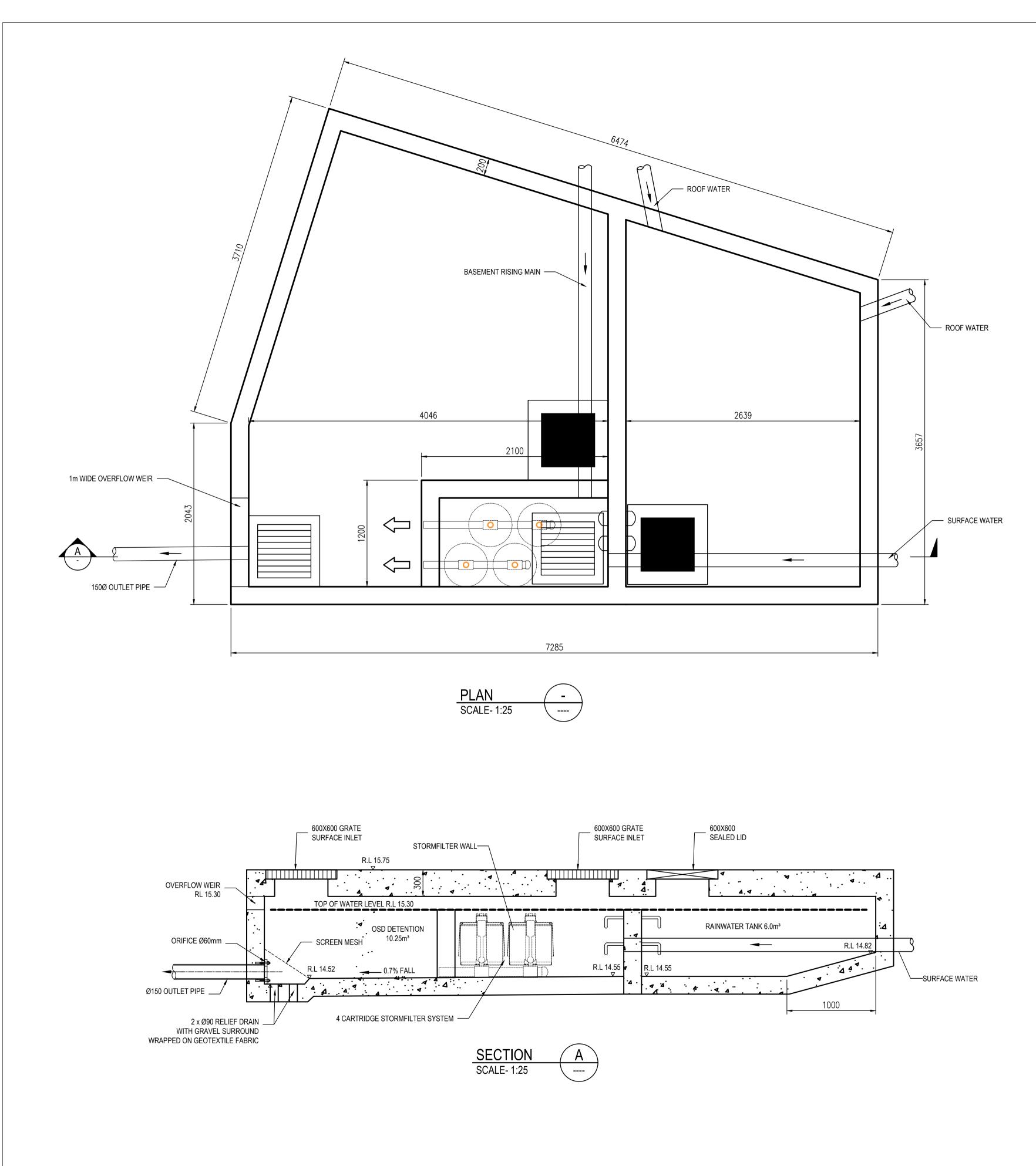
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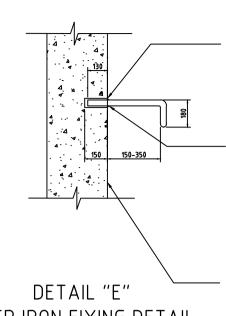
WARNING PROPOSED SERVICES

TOTAL SITE AREA = 626m²

CATCHMENT 7 AREA = 14 m2 IMPERV = 68%



	DESCRIPTION	BY	APP	DATE
REV A C D E F	ISSUED FOR PRELIMINARY DESIGN	IV	PE	14.12.16
В	ISSUED FOR PRELIMINARY DESIGN	IV	PE	21.12.16
С	ISSUED FOR DA	DG	PE	13.01.17
D	ISSUED FOR DA INVERTED ADJUSTED	DG	PE	16.01.17
Е	ISSUED FOR DA - ADDED OVERFLOW	DG	PE	24.01.17
F	UPDATED PIT AND OSD DETAILS	DG	PE	25.01.17
G	ISSUE FOR DA RE-SUBMISSION	JT	PE	10.05.17
A01	ISSUED FOR S96	JT	KW	28.02.18

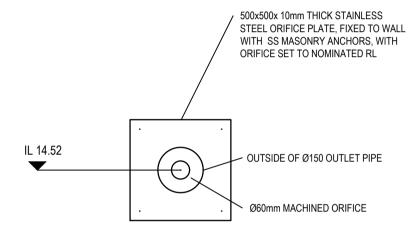


STEP IRON FIXING DETAIL

CORE DN30 HOLES IN WALL AND FIX STEP – IRON WITH EPOXY ADHESIVE HILTI HIT-RE OR APPROVED EQUIVALENT

 WHERE PROTECTIVE LINING IS APPLIED TO INTERNAL SURFACE ALLOW EPOXY ADHESIVE TO SEAL CONCRETE - LINING INTERFACE

HDPE OR PVC PROTECTIVE LINING TO SS210 WHERE REQUIRED



ORIFICE PLATE DETAIL SCALE NTS



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OSD PLAN & DETAILS

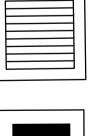
5 FITZELL PLACE BROOKVALE						
STATUS	DESIGNED	DRAWN	APPROVED	DATE	SCALE @A1	SHEET
FOR APPROVAL	JT	SY	KW	01.12.16	1:25	OF
NOT FOR CONSTRUCTION	PROJECT No 1168	72	DRAWING NO	40	REV	01

FIXED TO WALL ACHORS, WITH VATED RL

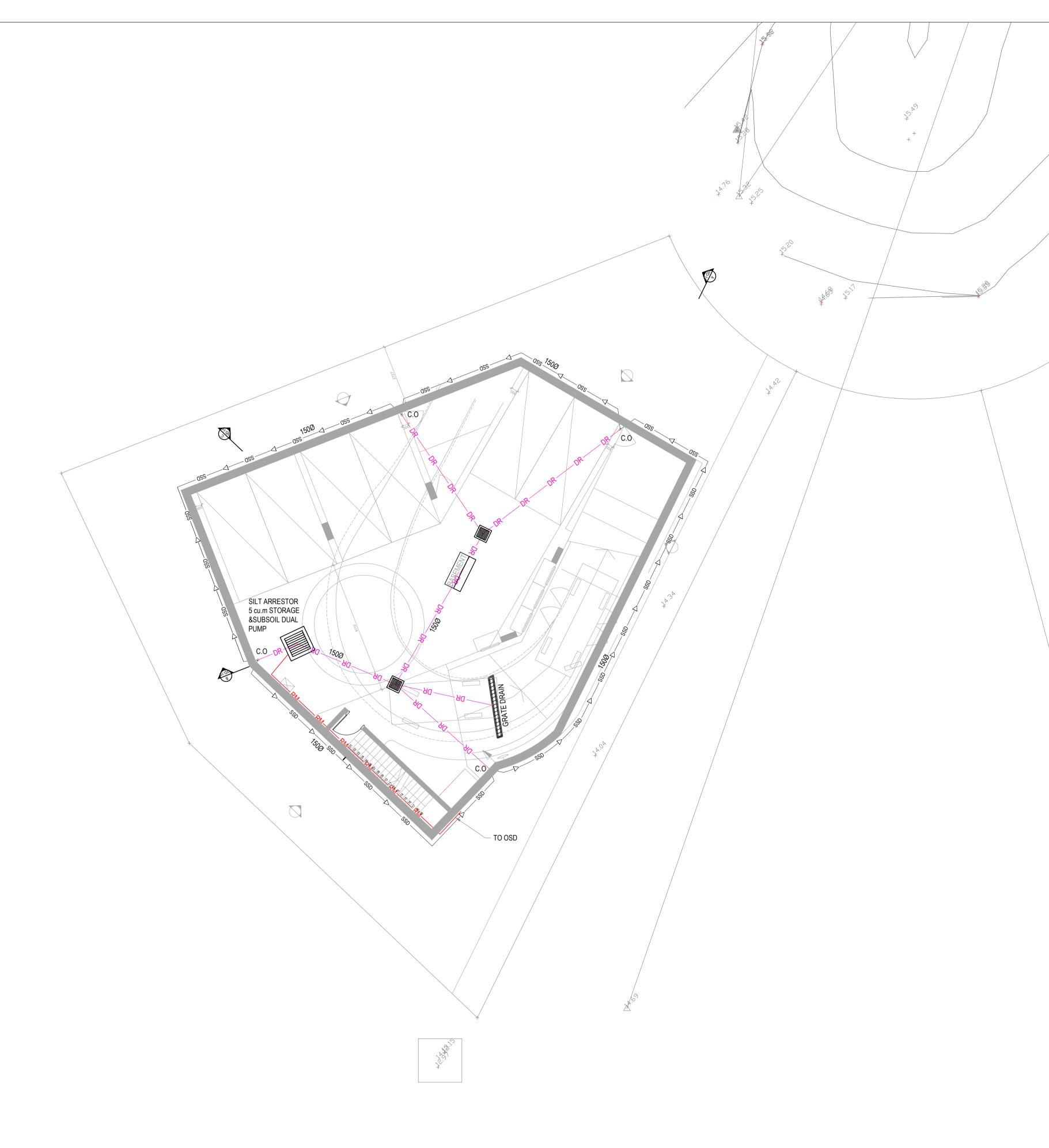
DETAIL "F" STEP IRON SET OUT DETAIL SCALE NTS

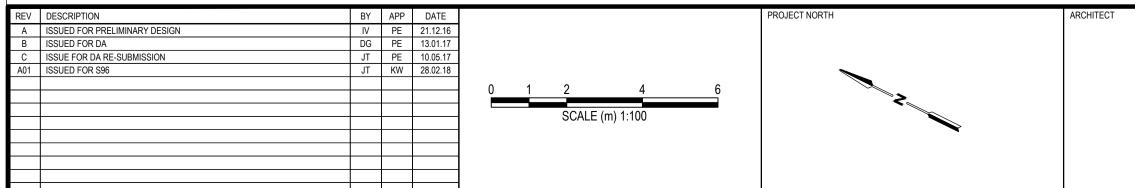
PROPOSED GRATED LIDS

PROPOSED SEALED LIDS



C.O °	CLEAR OUT
DR	PROPOSED DRAIN PIPE
—>—— SSD —	PROPOSED SUBSOIL DRAIN
RM	PROPOSED RISING MAIN
	PROPOSED STORMWATER PIT







CLIENT D STUDIO ARCHITECTS PTY LTD

BASEMENT HYDRAULIC PLAN

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NOT FOR CONSTRUCTION	PROJECT No 1168		DRAWING No		REV	D1

5 FITZELL PLACE

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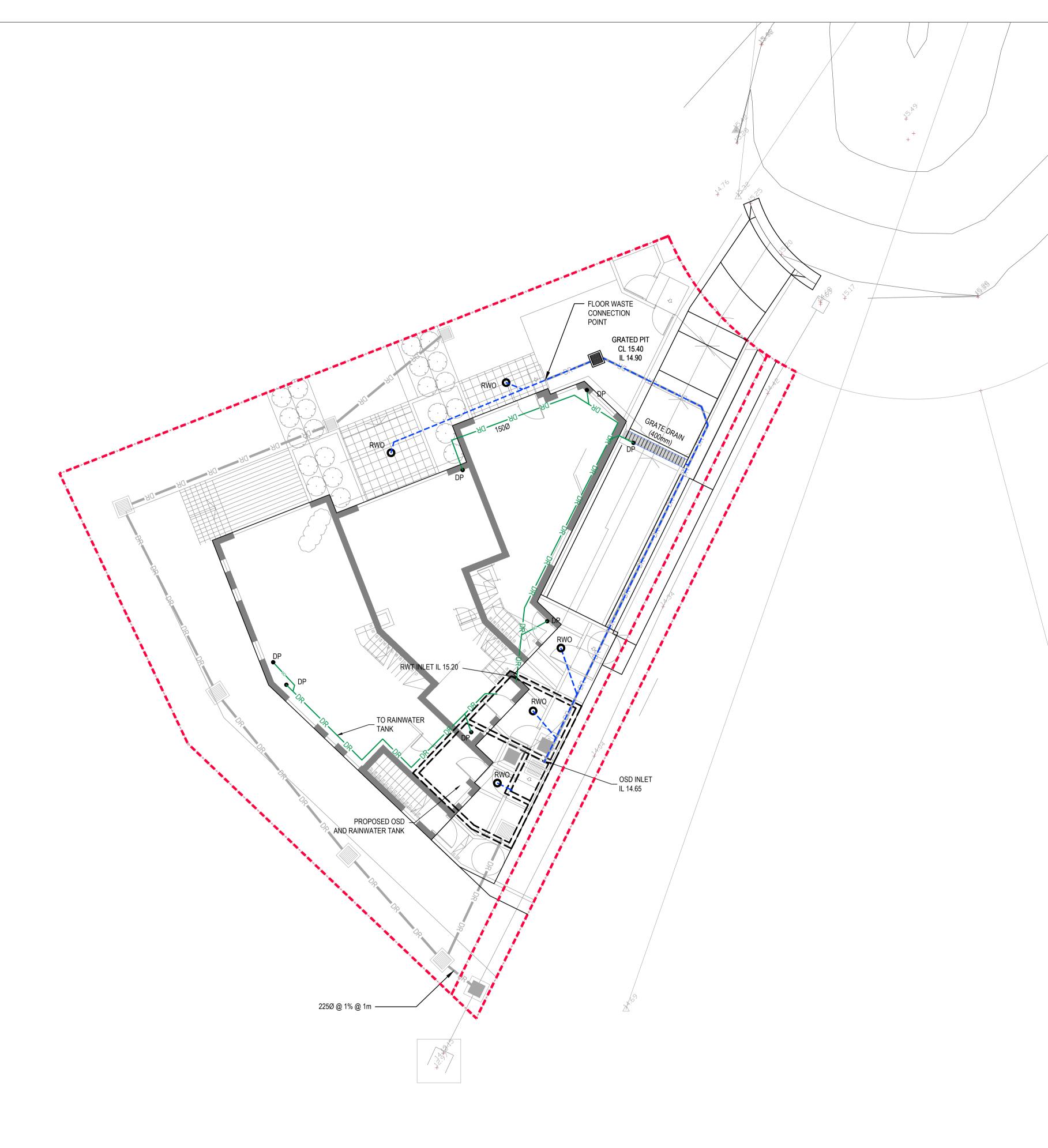
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WARNING

BEWARE OF UNDERGROUND SERVICES

PROPOSED SERVICES

DR DR	PROPOSED STORMWATER PIPE
	PROPOSED STORMWATER PIT
RWO	PROPOSED RAINWATER OUTLET
● DP	PROPOSED DOWNPIPE
DR	PROPOSED ROOFWATER PIPE
	PROPOSED RAINWATER PIPE



REV	DESCRIPTION	BY	APP	DATE	PROJECT NORTH A	ARCHITECT
Α	ISSUED FOR PRELIMINARY DESIGN	IV	PE	21.12.16		
В	ISSUED FOR DA	DG	PE	13.01.17		
С	UPDATED PIT AND OSD DETAILS	DG	PE	25.01.17		
D	ISSUE FOR DA RE-SUBMISSION	JT	PE	10.05.17		
A01	ISSUED FOR S96	JT	KW	28.02.18		
					SCALE (m) 1:100	
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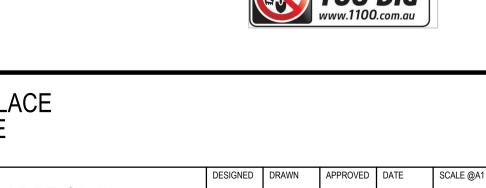
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TITLE

GROUND FLOOR HYDRAULIC PLAN

BROOKVALE						
STATUS	DESIGNED	DRAWN	APPROVED	DATE	SCALE @A1	SHEET
FOR APPROVAL	JT	SY	KW	28.11.16	1:100	OF
NOT FOR CONSTRUCTION	PROJECT NO 116872		DRAWING NO H101		A01	

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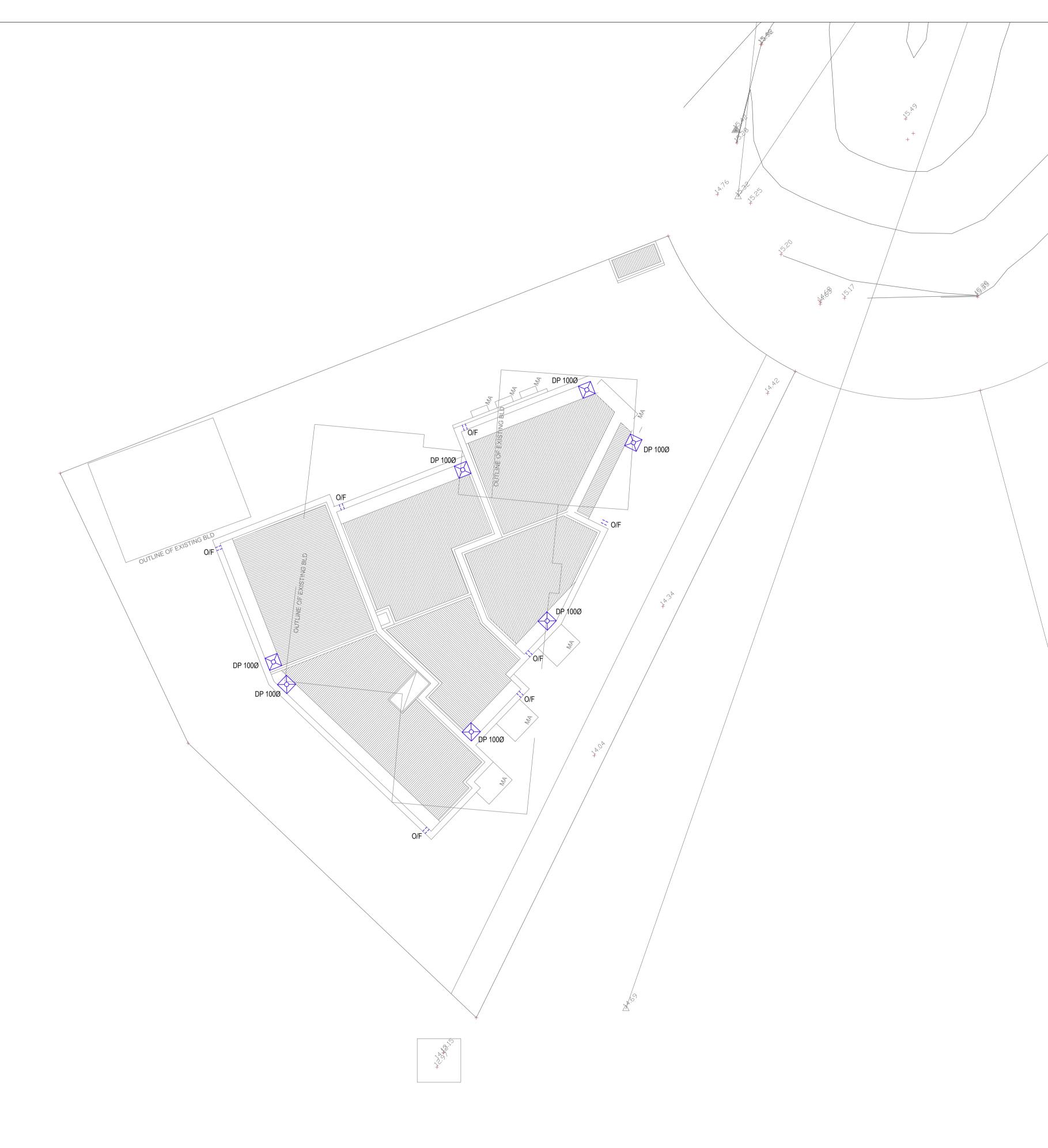
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\leq	PROPOSED SUMP

|| O/F OVER FLOW



REV	DESCRIPTION	BY	APP	DATE	PROJECT NORTH ARC	RCHITECT
Α	ISSUED FOR PRELIMINARY DESIGN	IV	PE	21.12.16	1	
В	ISSUED FOR DA	DG	PE	13.01.17		
С	ISSUE FOR DA RE-SUBMISSION	JT	PE	10.05.17		
A01	ISSUED FOR S96	JT	KW	28.02.18		
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STATUS	DESIGNED	DRAWN	APPROVED	DATE	SCALE @A1	SHEET
FOR APPROVAL	JT	SY	KW	28.11.16	1:100	OF
NOT FOR CONSTRUCTION	PROJECT No 116872		DRAWING NO H102		A01	

5 FITZELL PLACE BROOKVALE

 WARNING

 BEWARE OF UNDERGROUND SERVICES

 THE LOCATIONS OF UNDERGROUND SERVICES ARE

 APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD

 BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL

 EXISTING SERVICES ARE SHOWN.

WARNING PROPOSED SERVICES THE LOCATION AND EXTENT OF PROPOSED SERVICES IS INDICATIVE ONLY AND ARE NOT TO BE USED FOR CONSTRUCTION. REFER TO AUTHORISED DOCUMENTATION BY RELEVANT AUTHORITY FOR CONSTRUCTION DETAILS