

| Regulated Design Record                             |               |                        |              |        |
|---|---------------|------------------------|--------------|--------|
| Project Address: 80-82 SHOWGROUND ROAD, GOSFORD     |               |                        |              |        |
| Project Title: Affordable Housing - RFB Development |               |                        |              |        |
| Consent No: BGYGP - xx/xx/20xx                      |               | Body Corporate Reg No: |              |        |
| Drawing Title: SPECIFICATION SHEET                  |               | Drawing No: Sheet 01   |              |        |
| Rev   | Date dd.mm.yy | Description            | DP Full Name | Reg No |
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GENERAL

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS’ DRAWINGS AND SPECIFICATIONS, AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ALL DISCREPANCIES SHALL BE REFERRED TO THE PROJECT MANAGER FOR DECISION BEFORE PROCEEDING WITH THE WORK.
- DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
- SETTING OUT DIMENSIONS SHOWN ON THE DRAWING SHALL BE VERIFIED BY THE CONTRACTOR. ALL BENCHMARKS ARE TO BE CONFIRMED FOR LEVEL PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- DURING CONSTRUCTION, THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVER-STRESSED.
- TEMS AND LEVELS ARE SHOWN TO AHD. CONTRACTOR TO PERFORM QUALITY CONTROL SURVEY AND MAINTAIN IT DURING THE EXTENT OF THE CONSTRUCTION PERIOD.
- THE LOCATION OF ALL EXISTING SERVICES HAVE BEEN OBTAINED FROM THE AVAILABLE AUTHORITY RECORDS. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVE ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORKS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE LOWERING AND REALIGNMENT OF MINOR DISTRIBUTION SERVICES IN CONSULTATION WITH THE RELEVANT CODE OF PRACTICE STIPULATED BY THE ASSET OWNER. ALL EXISTING STREET SIGNS TO BE REINSTATED AS REQUIRED.
- ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE SPECIFICATIONS AND TO THE SATISFACTION OF THE SUPERINTENDENT, COUNCIL, AND THE SERVICE AUTHORITIES. THE SUPERINTENDENT SHALL CARRY OUT REGULAR SITE INSPECTIONS. THE CONTRACTOR SHALL NOTIFY COUNCIL 7 DAYS PRIOR TO COMMENCEMENT OF WORKS.
- THE CONTRACTOR IS TO SUBMIT AN ENVIRONMENTAL MANAGEMENT PLAN IDENTIFYING THE RISKS ASSOCIATED WITH THE WORKS AND CONTROL MEASURES FOR APPROVAL, PRIOR TO COMMENCING WORKS ON SITE. THE EMP MUST COMPLY WITH ALL STATUTES, BY-LAWS, STANDARDS, AND SECTION 6.3 OF URBAN STORMWATER – BEST PRACTICE ENVIRONMENTAL MANAGEMENT GUIDELINES. THE CONTRACTOR SHALL CONTROL SEDIMENTATION, EROSION, AND POLLUTION DURING CONSTRUCTION IN ACCORDANCE WITH THE ‘GUIDELINES FOR ENVIRONMENTAL MANAGEMENT – DOING IT RIGHT’ ON SUBDIVISIONS’.
- ANY STRUCTURES, PAVEMENTS OR SURFACE DAMAGED, DIRTIED OR MADE UNSERVICEABLE DUE TO CONSTRUCTION WORK SHALL BE REINSTATED TO THE SATISFACTION OF THE SUPERINTENDENT. ALL MATERIAL ASSETS MODIFIED OR DAMAGED BY THE PROPOSED WORKS ARE TO BE REINSTATED TO THE SATISFACTION OF THE LOCAL CITY COUNCIL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES BY SETTLEMENT SUBSIDENCE OR REMOVAL SUPPORT CONSEQUENT UPON OPERATION UNDER THE CONTRACT AND SHALL MAKE GOOD ALL DAMAGES AT THEIR OWN COST.
- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT LOCAL COUNCIL’S STANDARD DRAWINGS AND TO THE SATISFACTION OF THE COUNCIL SUPERVISING ENGINEER.
- THE CONTRACTOR SHALL ARRANGE AND PAY ALL FEES TO CONNECT TO COUNCIL’S STORMWATER SYSTEM, IN COMPLIANCE WITH COUNCIL REQUIREMENTS.
- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AS 4300 AND WITH THE PLANS APPROVED BY THE LOCAL CITY COUNCIL.
- ANY VARIATION TO THE DETAILS SHOWN ON THE DRAWINGS MUST BE AUTHORISED BY THE SUPERINTENDENT PRIOR TO FABRICATION AND/OR CONSTRUCTION.
- ALL CONSTRUCTION WORKS SHALL BE RESTRICTED TO THE HOURS AS ADVISED BY THE SUPERINTENDENT.
- THE CONTRACTOR SHALL NOT ENTER OR WORK IN ADJOINING PROPERTIES WITHOUT WRITTEN PERMISSION FROM THE PROPERTY OWNERS OR RESPONSIBLE AUTHORITIES.
- ALL NEW WORKS TO HAVE A SMOOTH JUNCTION WITH EXISTING WORK.
- ALL PROPERTY ITEMS TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURES SPECIFICATIONS. ANY ALTERNATIVE PRODUCTS ARE TO BE APPROVED BY THE SUPERINTENDENT PRIOR TO INSTALLATION.
- THE CONTRACTOR IS RESPONSIBLE TO CARRY OUT ALL WORKS WITH ADEQUATELY SKILLED, TRAINED, AND QUALIFIED TRADE WORKERS.
- IT IS THE MAIN CONTRACTORS RESPONSIBILITY TO SUPPLY THE RELEVANT NOTES, SPECIFICATIONS, AND DRAWINGS TO ALL SUB-CONTRACTORS.
- TRAFFIC CONTROL MEASURES ARE TO BE IMPLEMENTED AT ALL TIMES IN ACCORDANCE WITH AS 1742. A SITE SAFETY PLAN IS TO BE PREPARED BY THE CONTRACTOR IN ACCORDANCE WITH THE RELEVANT STANDARDS.
- THE CONTRACTOR IS TO ENSURE THE SITE IS KEPT AT CONSISTENTLY CLEARED OF RUBBISH AND IS MAINTAINED IN A SAFE AND TIDY CONDITION TO THE SATISFACTION OF THE SUPERINTENDENT.
- THE CONTRACTOR IS TO COMPLY WITH THE REQUIREMENTS OF THE LATEST OCCUPATIONAL HEALTH AND SAFETY ACT.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY FENCING TO THE SATISFACTION OF THE SUPERINTENDENT DURING THE CONTRACT TO PREVENT UNAUTHORISED ENTRY INTO THE SITE. WITH CONTRACTOR SHALL ALSO REMOVE TEMPORARY FENCING ON COMPLETION OF THE WORK.
- ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS.
- ROADS ADJOINING THE SITE MUST BE KEPT CLEAN AND FREE OF ALL EXCAVATED/TRANSPORTED SPOIL MATERIAL.

CONCRETE

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600-2018 AND AS 3610-1995 & AS 3610.1-2018 WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- ALL CONCRETE TO BE 32 MPa WITH A MAXIMUM SLUMP OF 80mm, AND MAXIMUM AGGREGATE SIZE OF 20mm UNO.
- CONCRETE SHALL BE PLACED IN A MANNER THAT AVOIDS SEGREGATION. CONCRETE SHALL NOT BE PLACED IF THE AMBIENT AIR TEMPERATURE IS LESS THAN 5 °C OR GREATER THAN 35 °C. ADDITIONAL PRECAUTIONS MAY NEED TO BE TAKEN IN WINDY CONDITIONS AND/OR TEMP. ABOVE 30°C.
- THE CONTRACTORS SHALL SUBMIT PROPOSED CURING METHODS FOR THE ENGINEERS WRITTEN APPROVAL PRIOR TO CONCRETE POUR.
- REPAIRS TO CONCRETE SHALL NOT BE ATTEMPTED WITHOUT INSPECTION & PERMISSION OF THE ENGINEER.
- CONCRETE FORMED SURFACE TO HAVE FINISHED IN ACCORDACE WITH AS 3610-1995 & AS 3610.1-2018 OR AS SPECIFIED OTHERWISE.

EARTHWORKS

- THE CONTRACTOR SHALL INSTALL EFFECTIVE EROSION AND SEDIMENTATION CONTROL MEASURES TO THE SATISFACTION OF THE SUPERINTENDANT PRIOR TO COMMENCING EARTHWORKS. THESE MEASURES SHALL BE MAINTAINED FOR THE DURATION OF THE CONTRACT.
- ADEQUATE DRAINAGE OF ALL WORKING AREAS SHALL BE MAINTAINED THROUGHOUT THE PERIOD OF CONSTRUCTION TO ENSURE RUN-OFF OF WATER WITHOUT PONDING, EXCEPT WHERE PONDING FORMS PART OF AN APPROVED EROSION AND SEDIMENTATION CONTROL SYSTEM.
- THE CONTRACTOR SHALL OBTAIN THE WRITTEN CONSENT OF THE SUPERINTENDANT OR THE USE OF ANY STOCKPILE WITE WHICH IS NOT SHOWN ON THE DRAWINGS. PROPOSAL IN THIS REGARD SHALL BE SUBMITTED AT LEAST THREE WORKING DAYS BEFORE STOCKPILING IS DUE TO COMMENCE AND SHALL SPECIFY THE MAXIMUM DIMENSIONS OF THE PROPOSAL.
- COMPACTION OF ALL MATERIALS INCLUDING ROAD SURFACES SHALL BE AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.

STORMWATER DRAINAGE

- ALL STORMWATER WORKS ARE TO BE UNDERTAKEN GENERALLY IN ACCORDANCE WITH AS/NZS 3500.3-2021 STORMWATER DRAINAGE.
- PIPES OF 300mm DIA. AND UNDER SHALL BE UPVC TO AS/NZS 1254-2010.
- PIPES OF 375mm DIA. AND LARGER SHALL BE FRC OR CONCRETE CLASS 2 TO AS/NZS 4058-2007, RUBBER RING JOINTED U.N.O.
- PIPES UP TO 150mm DIA. SHALL BE LAID AT A MINIMUM GRADE OF 1.0%. PIPES 225mm DIA. AND OVER TO BE LAID AT A MINIMUM GRADE OF 0.5%. UNO. BEDDING MATERIAL TO AS/NZS 2032-2006 OR AS/NZS 3725-2007 AS APPROPRIATE.
- MINIMUM COVER TO PIPES 300mm DIA. AND OVER GENERALLY SHALL BE 450mm IN CARPARK & ROADWAY AREAS UN.O.
- UNLESS NOTED OTHERWISE, ALL CONCRETE PIPE ARE TO BE CLASS 2 AND RUBBER RING JOINTED. RUBBER RINGS SHALL BE MANUFACTURED AND TESTED IN ACCORDANCE WITH AS 1646-2007. THE EXCAVATED TRENCH WIDTH FOR PIPE LAYING MUST BE AT LEAST 400mm WIDER THAN THE OUTER DIAMETER OF THE PIPE. PIPES ARE TO BE LAID CENTRALLY WITHIN THE EXCAVATED TRENCH.
- ALL PIPEWORK SHALL BE BEDDED ON A CONTINUOUS UNDERLAY OF SAND, NOT LESS THAN 75mm THK. IN OTHER THAN ROCK AND 200mm THK. IN ROCK AFTER COMPACTION. THE SAND SHALL BE GRADED IN ACCORDANCE WITH AS/NZS 3500.3-2021 AND COMPACTED TO AT LEAST 90% OF THE MAXIMUM DRY DENSITY AND SHALL BE GRADED EVENLY WITH THE ADDITIONAL BEDDING.
- THE BED AND HAUNCH MATERIAL SHALL BE COMPACTED FOR THE FULL WIDTH OF THE TRENCH BY A MINIMUM OF TWO PASSES OF A VIBRATING PLATE OR HAND TAMPING METHODS TO THE SATISFACTION OF THE SUPERINTENDENT.
- CHASES SHALL BE FORMED WHERE NECESSARY TO PREVENT SOCKETS, FLANGES OR THE LIKE FROM BEARING ON THE BOTTOM OF THE TRENCH.
- THE CONTRACTOR MUST LEAVE ALL STORMWATER DRAINAGE WORKS UNCOVERED UNTIL ANY TESTING DEEMED NECESSARY BY THE SUPERINTENDENT HAS BEEN PERFORMED.
- THE CONTRACTOR SHALL ENSURE THAT ANY EXISTING STRUCTURES LOCATED ADJACENT TO EXCAVATED TRENCHES ARE SUPPORTED OR PROTECTED TO PREVENT DAMAGE TO OR MOVEMENT TO THESE STRUCTURES.
- PIPE LAYING SHALL BEGIN AT THE DOWNSTREAM END OF THE LINE WITH THE SOCKET ENDS OF THE PIPE FACING UPSTREAM. THE BARREL OF EACH PIPE SHALL BE IN CONTACT WITH THE BEDDING MATERIAL THROUGHOUT ITS FULL LENGTH.
- FOR RUBBER RING JOINTS THE PIPE ENDS SHALL BE TIGHTLY JOINED WITH THEIR INNER SURFACES AT THE MANUFACTURES NOMINATED LAYING GAP.
- LIFTING HOLES IN PIPES SHALL BE PLUGGED WITH MORTAR, PRECAST TAPERED PLUGS, OR TAPE SURROUNDINGS OR OTHER APPROVED MEANS PRIOR TO BACKFILL MATERIAL BEING PLACED.
- CUTTING OPERATIONS FOR CONCRETE PIPES SHALL PROVIDE NEAT END SURFACES. THE CUT SURFACES SHALL BE GIVEN TWO COATS OF A APPROVED EPOXY PAINT.
- COMPLETED CEMENT MORTAR JOINTS SHALL BE KEPT DAMP AND PROTECTED FROM THE DIRECT RAYS OF THE SUN UNTIL BACKFILLED.
- DRAINAGE LINES SHALL BE CONSTRUCTED TO THE TOLERANCES IN ACCORDANCE WITH THE RELIANT AUSTRALIAN STANDARDS, SUPERINTENDENTS SPECIFICATIONS AND THE MANUFACTURES SPECIFICATIONS.
- BACKFILL MATERIAL SHALL BE INSPECTED AND APPROVED BY THE SUPERINTENDENT PRIOR TO PLACING AND COMPACTION.
- ALL BACKFILL FOR STORMWATER DRAINAGE WORKS IS TO BE COMPACTED IN LAYERS NOT EXCEEDING 30mm LOOSE THICKNESS AND COMPACTED WITHOUT DAMAGING OR DISPLACING THE PIPEWORK.
- STEP IRONS AT SPACINGS OF 300m ARE TO BE PROVIDED IN DRAINAGE PITS MORE THAN 0.9m DEEP U.N.O.
- PROVIDE 3.0m LENGTH OF Ø100 SUBSOIL DRAINAGE PIPE WRAPPED IN FABRIC SOCK AT UPSTREAM END OF EACH PIT.
- UNLESS OTHERWISE SPECIFIED, ALL DRAINAGE GRATES TO BE CLASS “C” GALVANISED MILD STEEL TO AS 3996-2019.
- UPVC PIPES SHALL BE TRANSPORTED, HANDLED, AND STORED IN ACCORDANCE WITH THE MANUFACTURES SPECIFICATIONS.
- UPVC PIPE LAYING SHALL BEGIN AT THE DOWNSTREAM END OF THE LINE WITH THE SOCKET END OF THE PIPE FACING UPSTREAM. WHEN THE PIPES ARE LAID, THE BARREL OF EACH PIPE SHALL BE IN CONTACT WIT THE BEDDING MATERIAL THROUGHOUT ITS FULL LENGTH.
- THE UPVC PIPE ENDS SHALL BE THOROUGHLY CLEANED BEFORE THE JOINT IS MADE. JOINTING SHALL BE IN ACCORDANCE WIT THE MANUFACTURES SPECIFICATIONS WITH JOINTING SOLVENT AND PRIMER.

RAINWATER TANK

- PUMP FOR RAINWATER TANK TO BE CONNECTED TO TOILETS, LAUNDRY AND GARDEN TAP FOR IRRIGATION.
- PUMP MUST HAVE MAINS WATER BACKUP WITH AN APPROVED BACKFLOW PREVENTION DEVICE. DEVICE TO BE ACCESSIBLE FOR TESTING.
- A FIRST FLUSH DEVICE OR FILTER BAG IS TO BE INSTALLED.
- RAINWATER TANK MUST NOT BE CONNECTED TO THE MAIN DRINKING WATER SUPPLY.
- RAINWATER TANK MUST CONTAIN A BYPASS OF THE PUMP IN THE EVENT OF A POWER FAILURE.
- RAINWATER TANK MUST BE CONSTRUCTED IN ACCORDANCE WITH AUSTRALIAN STANDARD. AS/NZS 3500.1-2021: NATIONAL PLUMBING AND DRAINAGE – WATER SUPPLY – ACCEPTABLE SOLUTIONS, WHICH PROVIDES GUIDANCE ON THE DESIGN OF STORMWATER AND RAINWATER REUSE SYSTEMS.
- RAINWATER TANK MUST BE PROVIDED WITH AN AIR GAP (SEE AS/NZS 3500.1-2021 AND AS 2845.2-2010)
- RAINWATER TANK MUST BE KEPT WELL MAINTAINED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURING REQUIREMENTS AND THE REQUIREMENTS OF SYDNEY WATER.

EROSION, SEDIMENT AND SITE MANAGEMENT

- ALL EROSION AND SILTATION CONTROL DEVICES ARE TO BE PLACED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORKS. THE LOCATION OF SUCH DEVICES (SHOWN ON THIS DRAWINGS) IS INDICATIVE ONLY AND FINAL POSITION SHOULD BE DETERMINED ON SITE.
- SURPLUS TOPSOIL SHALL BE STOCKPILED WHERE DIRECTED. DIVERSION BANKS ARE TO BE PLACED UPSTREAM AND SHALL DISCHARGE TO SEDIMENT BARRIERS. ALL STOCKPILES ARE TO BE VEGETATED WITHIN 14 DAYS OF FORMATION. SILT FENCES ARE TO BE PLACED ON THE DOWNSTREAM FACE.
- DURING TRENCH EXCAVATION ALL SPOIL SHALL BE MOUNDED ON THE UPHILL SIDE OF TRENCHES AND PLACEMENT IS TO COMPLY WITH THE SUPERINTENDENTS REQUIREMENTS.
- PROVIDE SEDIMENT TRAPS TO ALL INLET PITS.
- ALL TURF SODS AND SEEDED AREAS ARE TO BE WATERED AND FERTILISED AS DIRECTED.
- ALL EROSION AND SILTATION CONTROL DEVICES ARE TO BE CLEARED OF DEPOSITED SILT AND MAINTAINED TO THE SATISFACTION OF THE SUPERINTENDENT.
- GENERALLY BARRIERS SHOULD BE PLACED APPROXIMATELY 5.0 METRES OUTSIDE POTENTIAL DISTURBED AREAS.
- A LOG BOOK OR OTHER SUITABLE RECORDS MUST BE KEPT BY THE SITE SUPERVISOR IN ACCORDANCE WITH THE EPA’S REQUIREMENTS.
- CONTRACTOR TO FOLLOW THE RECOMMENDED SEQUENCE OF OPERATIONS AS SPECIFIED BY THE DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT IN THE BROCHURE “PREPARING SOIL AND WATER MANAGEMENT PLANS”.
- BUILDER IS TO CONDUCT WORKS IN ACCORDANCE WITH COUNCILS CONDITION TO DUST SUPPRESSION AND SEDIMENT REMOVAL MEASURES.
- BUILDER TO CONFIRM LOCATION OF STOCKPILES, FENCING, STABILISED ACCESS ETC. ON COMMENCEMENT OF WORK. ENGINEER TO BE NOTIFIED.
- WASTE MATERIALS ARE TO BE STOCKPILED OR LOADED INTO SKIP-BINS LOCATED AS SHOWN ON PLAN.
- STOCKPILES OF LOOSE MATERIALS SUCH AS SAND, SOIL, GRAVEL MUST BE COVERED WITH GEOTEXTILE SILT FENCE MATERIAL. PLASTIC SHEETING OR MEMBRANE MUST NOT BE USED. SAFETY BARRICADING SHOULD BE USED TO ISOLATE STOCKPILES OF SOLID MATERIALS SUCH AS STEEL REINFORCING, FORMWORK, SCAFFOLDING.
- TRUCKS REMOVING EXCAVATED / DEMOLISHED MATERIAL SHOULD TRAVEL ON STABILISED CONSTRUCTION PATHS. MATERIAL TO BE TAKEN TO THE TRUCK TO REDUCE TRUCK MOVEMENT ON SITE. TRUCKS TO BE LIMITED TO SINGLE UNIT HEAVY RIGID VEHICLES. ( NO SEMITRAILERS )
- ANY SEDIMENT DEPOSITED ON THE PUBLIC WAY, INCLUDING FOOTPATH RESERVE AND ROAD SURFACE, IS TO BE REMOVED IMMEDIATELY.
- PROVIDE BARRIERS AROUND ALL CONSTRUCTION WORKS WITHIN THE FOOTPATH AREA TO PROVIDE SAFE ACCESS FOR PEDESTRIANS.
- CONCRETE PUMPS AND CRANES ARE TO OPERATE FROM WITHIN THE BALLAST ENTRY DRIVEWAY AREA AND ARE NOT TO OPERATE FROM THE PUBLIC ROADWAY UNLESS SPECIFIC COUNCIL PERMISSION IS OBTAINED.
- DELIVERY VEHICLES MUST NOT STAND WITHIN THE PUBLIC ROADWAY FOR MORE THAN 20 MINUTES AT A TIME.
- ANY EXCAVATION WORK ADJACENT TO ADJOINING PROPERTIES OR THE PUBLIC ROADWAY IS NOT TO BE COMMENCED UNTIL THE STRUCTURAL ENGINEER IS CONSULTED AND SPECIFIC INSTRUCTIONS RECEIVED FROM THE ENGINEER.
- TOILET FACILITIES MUST BE EITHER A FLUSHING TYPE OR APPROVED PORTABLE CHEMICAL CLOSET. CHEMICAL CLOSETS ARE TO BE MAINTAINED & SERVICED ON A REGULAR BASIS SO THAT OFFENSIVE ODOUR IS NOT EMITTED.
- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH LOCAL CITY COUNCIL ENVIRONMENTAL SITE MANAGEMENT DEVELOPMENT CONTROL PLAN DOCUMENTS, CURRENT EDITION.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL MEASURES ARE TAKEN DURING THE COURSE OF THE CONSTRUCTION TO PREVENT SEDIMENT EROSION AND POLLUTION OF THE DOWNSTREAM SYSTEM. SUPERVISING ENGINEER SHOULD BE CONTACTED IF IN DOUBT. ALL SEDIMENT CONTROL STRUCTURES TO BE INSPECTED AFTER EACH RAINFALL EVENT FOR STRUCTURAL DAMAGE AND TRAPPED SEDIMENT TO BE REMOVED TO A NOMINATED SOIL STOCKPILE SITE.
- PROVIDE BARRIERS AROUND ALL CONSTRUCTION WORKS WITHIN THE FOOT PATH AREA TO PROVIDE SAFE ACCESS FOR PEDESTRIANS.

ROCK WORKS

- ROCK SIZES ARE SPECIFIED ACCORDING TO THEIR POSITION AND RESISTANCE TO HYDRAULIC FORCES. THE ROCK HAS BEEN SHOWN SCHEMATICALLY IN THE DRAWINGS AND SHALL BE 100mm NOMINAL SIZE.
- ROCK SUPPLIED FOR THE WORKS MUST BE HARD, DURABLE, AND LOCALLY SOURCED.
- ROCK IN THE FORM OF BLOCKS WITH ANGULAR EDGES IS REQUIRED TO ENSURE CONSISTENT INTERLOCKING DURING PLACEMENT.
- ROCK IS TO BE IN THE NATURAL FORM AND NOT CUT OF SHAPED.
- ALL GAPS WITHIN ROCK TO BE FILLED WITH COARSE GRAVEL TO THE TOP AND THEN FILLED WITH A FILTER MEDIA. THIS GRADED ROCK IS TO BE OVERLAID ON A COARSE GRAVEL BEDDING WITH A MIN. 20mm THICKNESS. PROVIDE A GEOTEXTILE FABRIC BDM9 A64 OR APPROVED EQUIVALENT.

SEQUENCE OF OPERATIONS

- PROVIDE SHAKE DOWN PAD AT ENTRY OF SITE.
- CONSTRUCT SEDIMENT FENCING (REFER DETAILS)
- CONSTRUCT DRAINAGE & CIVIL WORKS (MODIFY SEDIMENT CONTROL DRAINS TO SUIT CONSTRUCTION.
- PITS & PIPES TO BE PROTECTED WITH FILTER BARRIERS REFER DETAILS
- AT COMPLETION OF ALL WORKS REVEGETATE BATTERS WITHIN 14 DAYS
- AFTER COMPLETION OF BUILDING WORKS, ALL CONTROL MEASURES CAN BE REMOVED.

MAINTENANCE PROCEDURES DURING CONSTRUCTION

- ALL EROSION CONTROL MEASURES ARE TO BE MAINTAINED AT ALL TIMES SO THAT THOSE MEASURES ARE FULLY FUNCTIONAL/OPERATIONAL DURING THE CURRENCY OF WORKS. ALL SUCH CONTROLS MUST ALSO BE FULLY FUNCTIONAL/OPERATIONAL. SHOULD WORK OPERATIONS CEASE TEMPORARILY, ( e.g. WEEKENDS, ROSTERED DAYS OFF, etc.)
- RESPREAD MATERIAL GAINED DURING MAINTENANCE OPERATION OR ALTERNATIVELY PLACE STOCKPILES
- NON-COMPLIANCE WITH AGREED PERFORMANCE CRITERIA WILL BE IDENTIFIED BY: VISUAL INSPECTIONS IDENTIFYING
  - BUILD-UP OF SEDIMENT OFF THE SITE
  - EXCESSIVE SEDIMENT BUILD-UP ON THE SITE
  - EXCESSIVE EROSION ON THE SITE
  - RELEASE OF CONSTRUCTION MATERIAL FROM THE SITE
  - POOR VEGETATION ESTABLISHMENT
  - POORLY MAINTAINED, DAMAGED OR FAILED ESC DEVICES.
  - DETERIORATED WATER QUALITY IDENTIFIED BY THE ENVIRONMENTAL CONSULTANT AS BEING ATTRIBUTABLE TO THE CONSTRUCTION ACTIVITIES.
- BUILD-UP OF SEDIMENT OFF THE SITE – THE MATERIAL MUST BE COLLECTED AND DISPOSED OF IN A MANNER THAT WILL NOT CAUSE ONGOING ENVIRONMENTAL NUISANCE OR HARM; THEN ON-SITE ESC MEASURES AMENDED, WHERE APPROPRIATE, TO REDUCE THE RISK OF FURTHER SEDIMENTATION.
- EXCESSIVE SEDIMENT BUILD-UP ON THE SITE – COLLECT AND DISPOSE OF MATERIAL, THEN AMEND UP-SLOPE DRAINAGE AND/OR EROSION CONTROL MEASURES AS APPROPRIATE TO REDUCE FURTHER OCCURRENCE.
- SEDIMENT FENCE FAILURE – REPLACE AND MONITOR MORE FREQUENTLY. REGULAR FAILURES MAY MEAN THAT THE SEDIMENT FENCE LOCATION, ALIGNMENT OR INSTALLATION MAY NEED TO BE AMENDED.
- IF THE RELEASE OF EXCESSIVE SEDIMENT AND/OR OTHER MATERIALS OFF THE SITE OCCURS, OR WATER QUALITY MONITORING INDICATES LEVELS ARE NOT WITHIN THE W005, CLEAN UP DEPOSITION, AND INSPECT ALL CONTROL MEASURES.

1. DO NOT SCALE FROM DRAWINGS. USE WRITTEN DIMENSIONS ONLY.  
2. BUILDER TO CHECK & VERIFY ALL DIMENSIONS & LEVELS PRIOR TO COMMENCEMENT OF WORK.  
3. IT IS THE OWNERS RESPONSIBILITY TO ENSURE THAT THE ENGINEER HAS INVESTIGATED SUBSOIL CONDITIONS & DESIGNED ALL STRUCTURAL ELEMENTS TO SUIT.  
4. THE DESIGN & DETAILS CONTAINED ON THIS DRAWING IS SUPPLIED IN CONFIDENCE & IS NOT TO BE USED FOR ANY OTHER PURPOSE, EXCEPT THAT AUTHORISED BY MSL CONSULTING ENGINEERS

0 5 10 20 40MM  
SCALE FOR PRINTING  
PURPOSE ONLY

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|  <div>LEVEL 4, 12 DARCY STREET<br/>PARRAMATTA NSW 2150<br/>PHONE No (02) 9354 1836</div> |  |  <div><b>MSL Consulting Engineers</b> Pty Limited<br/>ABN 72 903 080 591<br/>ACN 142 291 160<br/>Suite 102 - 62 Harbour St, Wollongong NSW<br/>PO Box 567 Dapto NSW<br/>p 02 4226 5247<br/>e: info@mslengineers.com.au<br/>w: www.mslengineers.com.au</div> |  | <table><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td>B</td><td>04.03.2025</td><td>DA ISSUE</td></tr><tr><td>A</td><td>19.12.2024</td><td>DRAFT DA</td></tr><tr><td>REV</td><td>DATE</td><td>NOTATION/AMENDMENT</td></tr><tr><td colspan="3">DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE.<br/>FIGURED DIMENSIONS TAKE PRECEDENCE.</td></tr></table> |  |                         |  |       |  |                               |  | B                  | 04.03.2025 | DA ISSUE                 | A | 19.12.2024       | DRAFT DA | REV | DATE | NOTATION/AMENDMENT | DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE.<br>FIGURED DIMENSIONS TAKE PRECEDENCE. |  |  | <table><tr><td>PROJECT MANAGER<br/><b>HOMES NSW</b><br/>PH (02) 9354 1836</td><td>STRUCTURAL / STORMWATER / CIVIL CONSULTANT<br/><b>MSL CONSULTING ENGINEERS PTY LTD</b><br/>PH (02) 4226 5247</td></tr><tr><td>ARCHITECT<br/><b>DTA Architects Pty Ltd</b><br/>PH (02) 9601 1011</td><td>HYDRAULIC CONSULTANT<br/><b>ABEL &amp; BROWN PTY LTD</b><br/>PH (02) 9709 5705</td></tr><tr><td>ELECTRICAL / BASIX CONSULTANT<br/><b>GREENVIEW CONSULTING PTY LTD</b><br/>PH (02) 8544 1683</td><td>LANDSCAPE CONSULTANT<br/><b>RAY FUGGLE &amp; ASSOCIATED PTY LTD</b><br/>PH 0412 294 712</td></tr></table> |  | PROJECT MANAGER<br><b>HOMES NSW</b><br>PH (02) 9354 1836 | STRUCTURAL / STORMWATER / CIVIL CONSULTANT<br><b>MSL CONSULTING ENGINEERS PTY LTD</b><br>PH (02) 4226 5247 | ARCHITECT<br><b>DTA Architects Pty Ltd</b><br>PH (02) 9601 1011 | HYDRAULIC CONSULTANT<br><b>ABEL &amp; BROWN PTY LTD</b><br>PH (02) 9709 5705 | ELECTRICAL / BASIX CONSULTANT<br><b>GREENVIEW CONSULTING PTY LTD</b><br>PH (02) 8544 1683 | LANDSCAPE CONSULTANT<br><b>RAY FUGGLE &amp; ASSOCIATED PTY LTD</b><br>PH 0412 294 712 | <div></div> |  | PROJECT:<br><b>AFFORDABLE HOUSING - RFB DEVELOPMENT</b><br>at<br><b>Lots 10 &amp; 11 in DP 503890</b><br><b>80-82 SHOWGROUND ROAD</b><br><b>GOSFORD NSW 2250</b> |  | TITLE:<br><b>SPECIFICATION SHEET</b> |  | STATUS:<br><b>DEVELOPMENT APPLICATION</b> |  |
|  |  |  |  |  |  |                         |  |       |  |                               |  |                    |            |                          |   |                  |          |     |      |                    |   |  |  |   |  |  |  |   |  |   |   |   |  |  |  |                                      |  |   |  |
|  |  |  |  |  |  |                         |  |       |  |                               |  |                    |            |                          |   |                  |          |     |      |                    |   |  |  |   |  |  |  |   |  |   |   |   |  |  |  |                                      |  |   |  |
| B  | 04.03.2025   | DA ISSUE   |  |  |  |                         |  |       |  |                               |  |                    |            |                          |   |                  |          |     |      |                    |   |  |  |   |  |  |  |   |  |   |   |   |  |  |  |                                      |  |   |  |
| A  | 19.12.2024   | DRAFT DA   |  |  |  |                         |  |       |  |                               |  |                    |            |                          |   |                  |          |     |      |                    |   |  |  |   |  |  |  |   |  |   |   |   |  |  |  |                                      |  |   |  |
| REV  | DATE   | NOTATION/AMENDMENT   |  |  |  |                         |  |       |  |                               |  |                    |            |                          |   |                  |          |     |      |                    |   |  |  |   |  |  |  |   |  |   |   |   |  |  |  |                                      |  |   |  |
| DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE.<br>FIGURED DIMENSIONS TAKE PRECEDENCE.  |  |  |  |  |  |                         |  |       |  |                               |  |                    |            |                          |   |                  |          |     |      |                    |   |  |  |   |  |  |  |   |  |   |   |   |  |  |  |                                      |  |   |  |
| PROJECT MANAGER<br><b>HOMES NSW</b><br>PH (02) 9354 1836   | STRUCTURAL / STORMWATER / CIVIL CONSULTANT<br><b>MSL CONSULTING ENGINEERS PTY LTD</b><br>PH (02) 4226 5247 |  |  |  |  |                         |  |       |  |                               |  |                    |            |                          |   |                  |          |     |      |                    |   |  |  |   |  |  |  |   |  |   |   |   |  |  |  |                                      |  |   |  |
| ARCHITECT<br><b>DTA Architects Pty Ltd</b><br>PH (02) 9601 1011  | HYDRAULIC CONSULTANT<br><b>ABEL &amp; BROWN PTY LTD</b><br>PH (02) 9709 5705                               |  |  |  |  |                         |  |       |  |                               |  |                    |            |                          |   |                  |          |     |      |                    |   |  |  |   |  |  |  |   |  |   |   |   |  |  |  |                                      |  |   |  |
| ELECTRICAL / BASIX CONSULTANT<br><b>GREENVIEW CONSULTING PTY LTD</b><br>PH (02) 8544 1683  | LANDSCAPE CONSULTANT<br><b>RAY FUGGLE &amp; ASSOCIATED PTY LTD</b><br>PH 0412 294 712                      |  |  |  |  |                         |  |       |  |                               |  |                    |            |                          |   |                  |          |     |      |                    |   |  |  |   |  |  |  |   |  |   |   |   |  |  |  |                                      |  |   |  |
| DATE:<br><b>04/03/25</b>   |  | SCALE:<br><b>NTS @ A1</b>  |  | PROJ:<br><b>BGYGP</b>  |  | JOB:<br><b>24217</b>    |  | FILE: |  | PLOTTED:<br><b>04/03/2025</b> |  | TYPE:<br><b>SW</b> |            | SHEET:<br><b>1 of 15</b> |   | REV:<br><b>B</b> |          |     |      |                    |   |  |  |   |  |  |  |   |  |   |   |   |  |  |  |                                      |  |   |  |
| STAGE:<br><b>C</b>   |  | DRAWN:<br><b>WT</b>  |  | CHECKED:<br><b>MP</b>  |  | CERTIFIED:<br><b>MP</b> |  |       |  |                               |  |                    |            |                          |   |                  |          |     |      |                    |   |  |  |   |  |  |  |   |  |   |   |   |  |  |  |                                      |  |   |  |



Regulated Design Record

Project Address: 80-82 SHOWGROUND ROAD, GOSFORD

Project Title: Affordable Housing - RFB Development

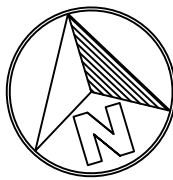
Consent No: BGYGP - xx/xx/20xx

Body Corporate Reg No:

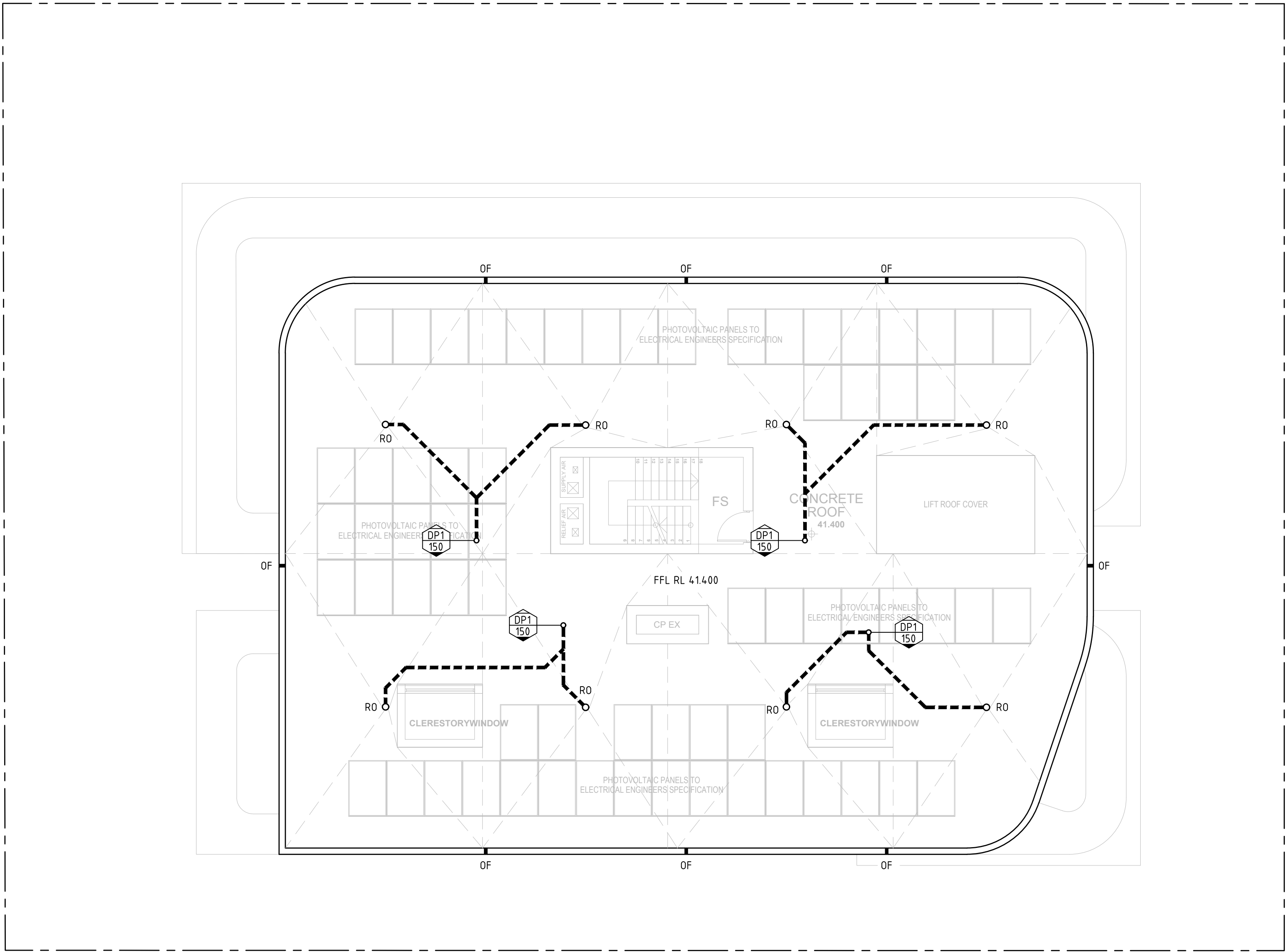
Drawing Title: ROOF DRAINAGE PLAN

Drawing No: Sheet 02

| Rev | Date<br>dd.mm.yy | Description | DP Full Name | Reg No |
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| SYMBOLS & NOTATION |  |
|--------------------|--|
|                    | STORMWATER DRAINAGE LINE<br>(REFER TO HYDRAULIC DRAWINGS FOR SIZE) |
|                    | DOWNPIPE SIZE & PROJECTION<br>FROM CONCRETE ROOF                   |
|                    | ROOF OUTLET<br>(REFER TO HYDRAULIC DRAWINGS FOR DETAIL)            |
|                    | ROOF OVERFLOW POINT<br>(REFER TO HYDRAULIC DRAWINGS FOR DETAIL)    |



ROOF DRAINAGE PLAN  
SCALE 1:100

- DO NOT SCALE FROM DRAWINGS. USE WRITTEN DIMENSIONS ONLY.
- BUILDER TO CHECK & VERIFY ALL DIMENSIONS & LEVELS PRIOR TO COMMENCEMENT OF WORK.
- IT IS THE OWNERS RESPONSIBILITY TO ENSURE THAT THE ENGINEER HAS INVESTIGATED SUBSOIL CONDITIONS & DESIGNED ALL STRUCTURAL ELEMENTS TO SUIT.
- THE DESIGN & DETAILS CONTAINED ON THIS DRAWING IS SUPPLIED IN CONFIDENCE & IS NOT TO BE USED FOR ANY OTHER PURPOSE, EXCEPT THAT AUTHORISED BY MSL CONSULTING ENGINEERS



Regulated Design Record

Project Address: 80-82 SHOWGROUND ROAD, GOSFORD

Project Title: Affordable Housing - RFB Development

Consent No: BGYGP - xx/xx/20xx

Drawing Title: LEVEL 4 DRAINAGE PLAN

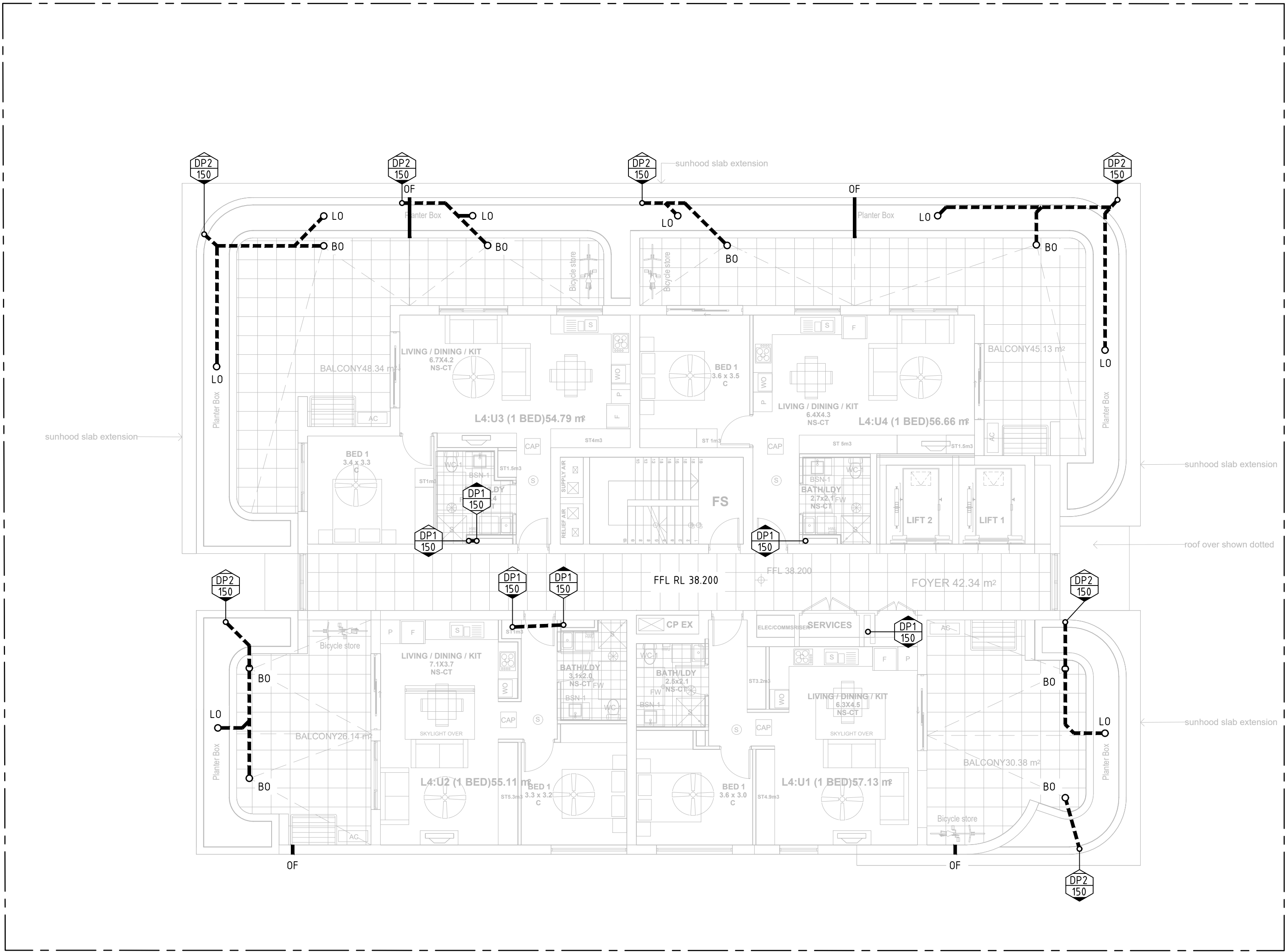
Body Corporate Reg No:

Drawing No: Sheet 03

| Rev | Date<br>dd.mm.yy | Description | DP Full Name | Reg No |
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| SYMBOLS & NOTATION |  |
|--------------------|--|
| -----              | STORMWATER DRAINAGE LINE<br>(REFER TO HYDRAULIC DRAWINGS FOR SIZE) |
|                    | DOWNPIPE SIZE & PROJECTION<br>FROM CONCRETE ROOF                   |
|                    | DOWNPIPE SIZE & PROJECTION<br>FROM BALCONY/PLANTER BOX             |
| B0 ○               | BALCONY OUTLET<br>(REFER TO HYDRAULIC DRAWINGS FOR DETAIL)         |
| L0 ○               | LANDSCAPE OUTLET<br>(REFER TO HYDRAULIC DRAWINGS FOR DETAIL)       |
| OF ■               | BALCONY OVERFLOW POINT<br>(REFER TO HYDRAULIC DRAWINGS FOR DETAIL) |



LEVEL 4 DRAINAGE PLAN  
SCALE 1:100

1. DO NOT SCALE FROM DRAWINGS. USE WRITTEN DIMENSIONS ONLY.  
2. BUILDER TO CHECK & VERIFY ALL DIMENSIONS & LEVELS PRIOR TO COMMENCEMENT OF WORK.  
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4. THE DESIGN & DETAILS CONTAINED ON THIS DRAWING IS SUPPLIED IN CONFIDENCE & IS NOT TO BE USED FOR ANY OTHER PURPOSE, EXCEPT THAT AUTHORISED BY MSL CONSULTING ENGINEERS

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SCALE FOR PRINTING  
PURPOSE ONLY

Regulated Design Record

Project Address: 80-82 SHOWGROUND ROAD, GOSFORD

Project Title: Affordable Housing - RFB Development

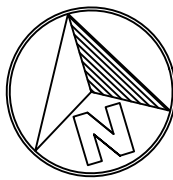
Consent No: BGYGP - xx/xx/20xx

Body Corporate Reg No:

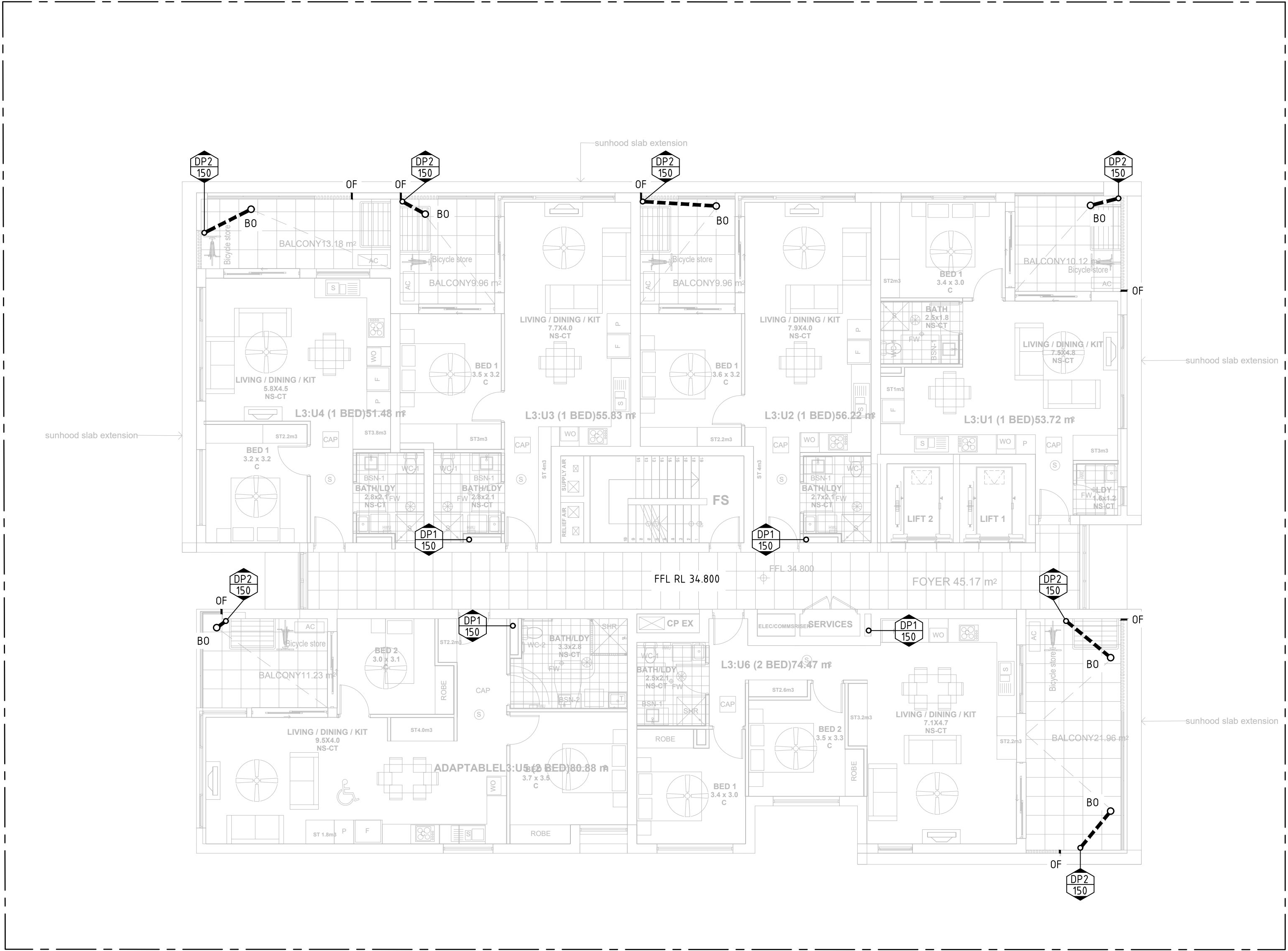
Drawing Title: LEVEL 3 DRAINAGE PLAN

Drawing No: Sheet 04

| Rev | Date<br>dd.mm.yy | Description | DP Full Name | Reg No |
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| SYMBOLS & NOTATION |  |
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| -----              | STORMWATER DRAINAGE LINE<br>(REFER TO HYDRAULIC DRAWINGS FOR SIZE) |
|                    | DOWNPIPE SIZE & PROJECTION<br>FROM CONCRETE ROOF                   |
|                    | DOWNPIPE SIZE & PROJECTION<br>FROM BALCONY/PLANTER BOX             |
| B0                 | BALCONY OUTLET<br>(REFER TO HYDRAULIC DRAWINGS FOR DETAIL)         |
| OF                 | BALCONY OVERFLOW POINT<br>(REFER TO HYDRAULIC DRAWINGS FOR DETAIL) |



LEVEL 3 DRAINAGE PLAN  
SCALE 1:100

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SCALE FOR PRINTING  
PURPOSE ONLY



The floor plan illustrates the second floor (L2) of a residential building, featuring a central corridor (CP EX) and a foyer (45.17 m²). The units are distributed as follows:

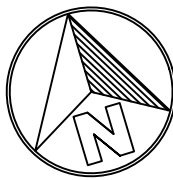
- L2:U1 (1 BED) 53.72 m²:** Includes a living/dining/kitchen area (7.3x4.7 NS-CT), a bedroom (3.4 x 3.0 C), a bathroom (2.8x1.9 NS-CT), and a balcony (10.12 m²).
- L2:U2 (1 BED) 56.22 m²:** Includes a living/dining/kitchen area (7.3x4.9 NS-CT), a bedroom (3.4 x 3.2 C), a bathroom (2.7x2.1 NS-CT), and a balcony (9.96 m²).
- L2:U3 (1 BED) 55.83 m²:** Includes a living/dining/kitchen area (7.7x4.5 NS-CT), a bedroom (3.4 x 3.2 C), a bathroom (2.8x2.1 NS-CT), and a balcony (9.96 m²).
- L2:U4 (1 BED) 51.48 m²:** Includes a living/dining/kitchen area (5.5x4.5 NS-CT), a bedroom (3.2 x 3.2 C), a bathroom (2.8x2.1 NS-CT), and a balcony (13.16 m²).
- L2:U5 (2 BED) 80.88 m²:** Includes a living/dining/kitchen area (9.5x4.0 NS-CT), two bedrooms (3.7 x 3.8 C and 3.4 x 3.0 C), a bathroom (2.8x2.1 NS-CT), and a balcony (11.20 m²).
- L2:U6 (2 BED) 74.47 m²:** Includes a living/dining/kitchen area (7.1x4.7 NS-CT), two bedrooms (3.5 x 3.3 C and 3.4 x 3.0 C), a bathroom (2.8x2.1 NS-CT), and a balcony (21.96 m²).
- L2:U7 (2 BED) 80.88 m²:** Includes a living/dining/kitchen area (9.5x4.0 NS-CT), two bedrooms (3.7 x 3.8 C and 3.4 x 3.0 C), a bathroom (2.8x2.1 NS-CT), and a balcony (11.20 m²).

Common areas and features include a bicycle store, a sunhood slab extension, a central staircase (FS), and a central corridor (CP EX). The floor level is marked as FFL RL 31.600.

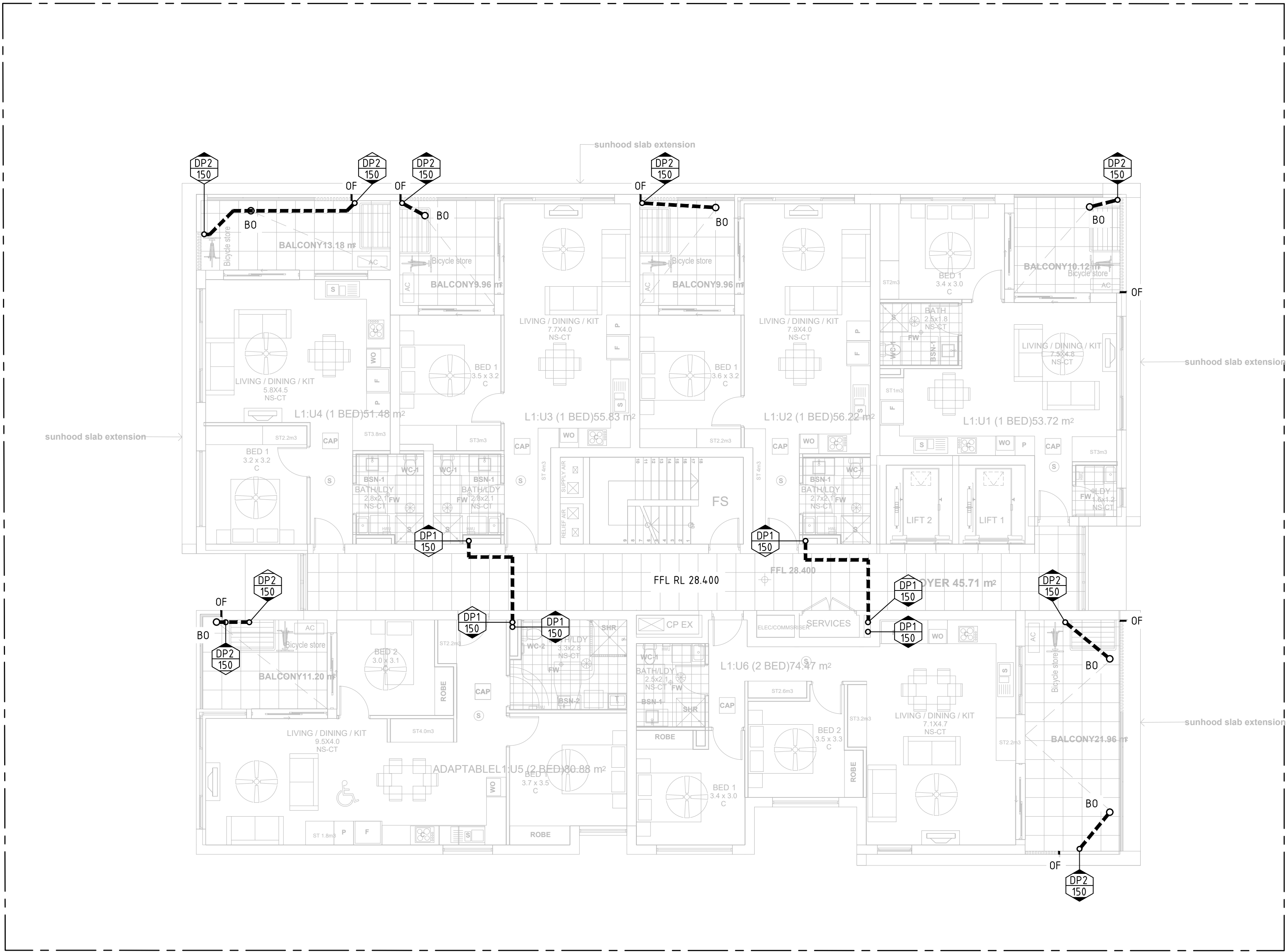
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SCALE FOR PRINTING  
PURPOSE ONLY

| Regulated Design Record                             |                  |                        |              |        |
|---|------------------|------------------------|--------------|--------|
| Project Address: 80-82 SHOWGROUND ROAD, GOSFORD     |                  |                        |              |        |
| Project Title: Affordable Housing - RFB Development |                  |                        |              |        |
| Consent No: BGYGP - xx/xx/20xx                      |                  | Body Corporate Reg No: |              |        |
| Drawing Title:<br>LEVEL 1 DRAINAGE PLAN             |                  | Drawing No: Sheet 06   |              |        |
| Rev   | Date<br>dd.mm.yy | Description            | DP Full Name | Reg No |
|   |                  |                        |              |        |
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| SYMBOLS & NOTATION |  |
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| -----              | STORMWATER DRAINAGE LINE<br>(REFER TO HYDRAULIC DRAWINGS FOR SIZE) |
|                    | DOWNSIZE SIZE & PROJECTION<br>FROM CONCRETE ROOF                   |
|                    | DOWNSIZE SIZE & PROJECTION<br>FROM BALCONY/PLANTER BOX             |
| B0 ○               | BALCONY OUTLET<br>(REFER TO HYDRAULIC DRAWINGS FOR DETAIL)         |
| OF ■               | BALCONY OVERFLOW POINT<br>(REFER TO HYDRAULIC DRAWINGS FOR DETAIL) |



LEVEL 1 DRAINAGE PLAN  
SCALE 1:100

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SCALE FOR PRINTING  
PURPOSE ONLY

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|  | LEVEL 4, 12 DARCY STREET<br>PARRAMATTA NSW 2150<br>PHONE No (02) 9354 1836 |  <div>MSL Consulting Engineers Pty Limited<br/>ABN 72 903 080 591<br/>ACN 142 291 160<br/>Suite 102 - 62 Harbour St. Wollongong NSW<br/>PO Box 567 Dapto NSW<br/>p 02 4226 5247<br/>e: info@mslengineers.com.au<br/>w: www.mslengineers.com.au</div> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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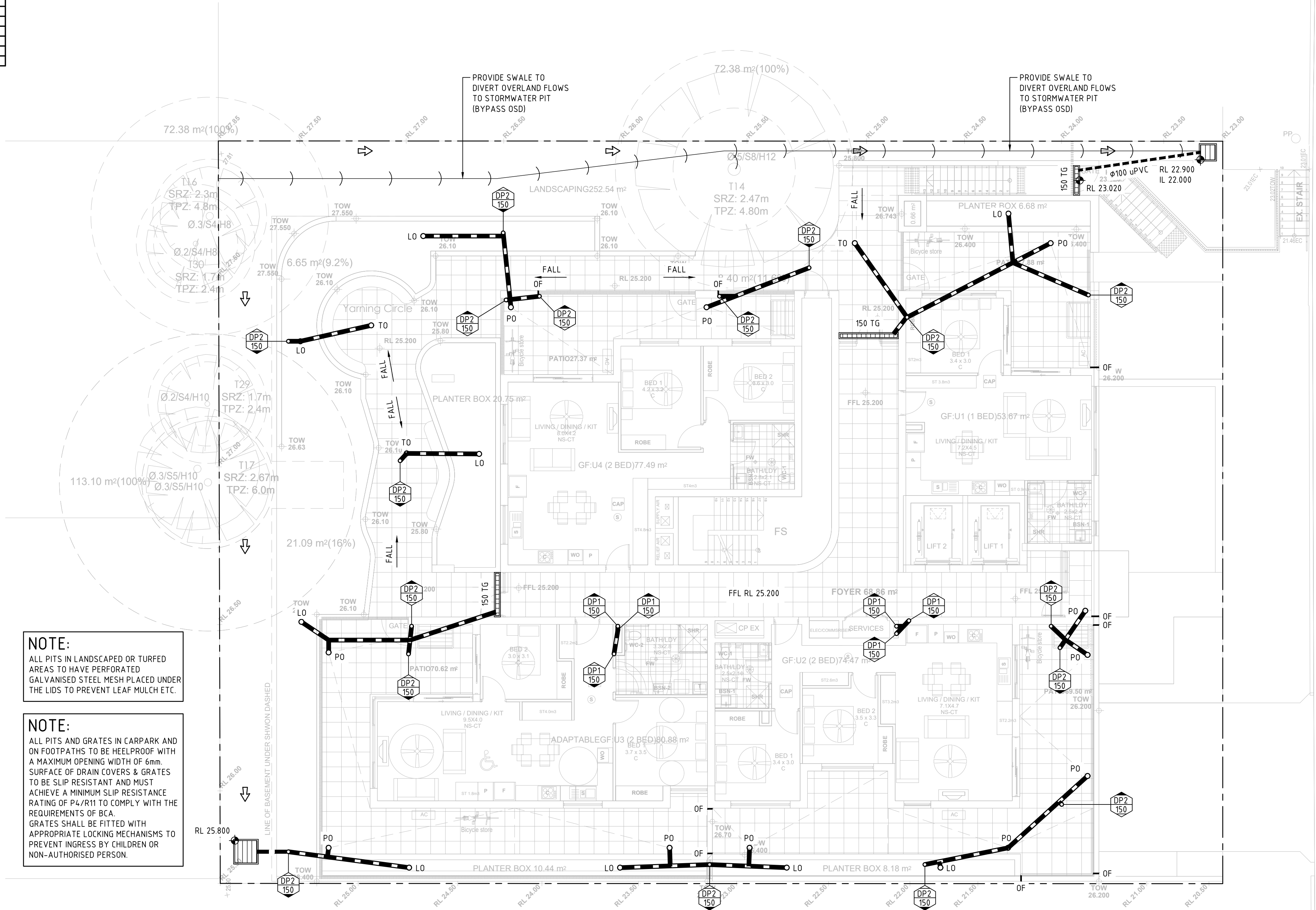


| Regulated Design Record                             |               |                        |              |        |
|---|---------------|------------------------|--------------|--------|
| Project Address: 80-82 SHOWGROUND ROAD, GOSFORD     |               |                        |              |        |
| Project Title: Affordable Housing - RFB Development |               |                        |              |        |
| Consent No: BGYGP - xx/xx/20xx                      |               | Body Corporate Reg No: |              |        |
| Drawing Title: GROUND FLOOR DRAINAGE PLAN           |               | Drawing No: Sheet 07   |              |        |
| Rev   | Date dd.mm.yy | Description            | DP Full Name | Reg No |
|   |               |                        |              |        |
|   |               |                        |              |        |
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|   |               |                        |              |        |
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BEFORE EXCAVATION FOR PIPEWORK LOCATE DEPTH OF EXISTING SERVICES & CONTACT DIAL BEFORE YOU DIG

ALL EXISTING LEVELS TO BE CONFIRMED ON SITE AND ENGINEER TO BE NOTIFIED PRIOR TO COMMENCEMENT OF WORK.

DEPTH AND LOCATION OF ALL EXISTING SERVICES TO BE CONFIRMED BY BUILDER ON SITE. ENGINEER TO BE NOTIFIED.



**NOTE:**  
ALL PITS IN LANDSCAPED OR TURFED AREAS TO HAVE PERFORATED GALVANISED STEEL MESH PLACED UNDER THE LIDS TO PREVENT LEAF MULCH ETC.

**NOTE:**  
ALL PITS AND GRATES IN CARPARK AND ON FOOTPATHS TO BE HEELPROOF WITH A MAXIMUM OPENING WIDTH OF 6mm. SURFACE OF DRAIN COVERS & GRATES TO BE SLIP RESISTANT AND MUST ACHIEVE A MINIMUM SLIP RESISTANCE RATING OF P4/R11 TO COMPLY WITH THE REQUIREMENTS OF BCA. GRATES SHALL BE FITTED WITH APPROPRIATE LOCKING MECHANISMS TO PREVENT INGRESS BY CHILDREN OR NON-AUTHORISED PERSON.

GROUND FLOOR DRAINAGE PLAN  
SCALE 1:100

| SYMBOLS & NOTATION |   |
|--------------------|---|
|                    | Ø150 STORMWATER DRAINAGE LINE @ 1% MIN GRADE UNLESS NOTED OTHERWISE     |
|                    | Ø150 STORMWATER DRAINAGE LINE (SUSPENDED UNDER GF SLAB @ 1% MIN U.N.O.) |
|                    | 450 OR 600 SQUARE GRATED PIT  |
|                    | 900 SQUARE GRATED PIT   |
|                    | 150 WIDE TRENCH GRATE @ MIN. 10% BASE FALL                              |
|                    | DOWNPIPE SIZE & PROJECTION FROM CONCRETE ROOF                           |
|                    | DOWNPIPE SIZE & PROJECTION FROM PATIO/TERRACE/PLANTER BOX               |
|                    | PATIO OUTLET (REFER TO HYDRAULIC DRAWINGS FOR DETAIL)                   |
|                    | TERRACE OUTLET (REFER TO HYDRAULIC DRAWINGS FOR DETAIL)                 |
|                    | LANDSCAPE OUTLET (REFER TO HYDRAULIC DRAWINGS FOR DETAIL)               |
|                    | PATIO OVERFLOW POINT (REFER TO HYDRAULIC DRAWINGS FOR DETAIL)           |
|                    | PROPOSED FINISHED LEVEL   |
|                    | OVERLAND FLOWS  |

1. DO NOT SCALE FROM DRAWINGS. USE WRITTEN DIMENSIONS ONLY.  
2. BUILDER TO CHECK & VERIFY ALL DIMENSIONS & LEVELS PRIOR TO COMMENCEMENT OF WORK.  
3. IT IS THE OWNERS RESPONSIBILITY TO ENSURE THAT THE ENGINEER HAS INVESTIGATED SUBSOIL CONDITIONS & DESIGNED ALL STRUCTURAL ELEMENTS TO SUIT.  
4. THE DESIGN & DETAILS CONTAINED ON THIS DRAWING IS SUPPLIED IN CONFIDENCE & IS NOT TO BE USED FOR ANY OTHER PURPOSE, EXCEPT THAT AUTHORISED BY MSL CONSULTING ENGINEERS

0 5 10 20 40MM  
SCALE FOR PRINTING  
PURPOSE ONLY

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| Regulated Design Record                             |          |                        |              |        |
|---|----------|------------------------|--------------|--------|
| Project Address: 80-82 SHOWGROUND ROAD, GOSFORD     |          |                        |              |        |
| Project Title: Affordable Housing - RFB Development |          |                        |              |        |
| Consent No: BGYGP - xx/xx/20xx                      |          | Body Corporate Reg No: |              |        |
| Drawing Title: BASEMENT DRAINAGE PLAN - SHEET 1     |          | Drawing No: Sheet 08   |              |        |
| Rev   | Date     | Description            | DP Full Name | Reg No |
|   | dd.mm.yy |                        |              |        |
|   |          |                        |              |        |
|   |          |                        |              |        |
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|   |          |                        |              |        |
|   |          |                        |              |        |
|   |          |                        |              |        |

|  |
|--|
| BEFORE EXCAVATION FOR PIPEWORK LOCATE DEPTH OF EXISTING SERVICES & CONTACT DIAL BEFORE YOU DIG           |
| ALL EXISTING LEVELS TO BE CONFIRMED ON SITE AND ENGINEER TO BE NOTIFIED PRIOR TO COMMENCEMENT OF WORK.   |
| DEPTH AND LOCATION OF ALL EXISTING SERVICES TO BE CONFIRMED BY BUILDER ON SITE. ENGINEER TO BE NOTIFIED. |

- NOTES:
- UNDERGROUND STORMWATER DRAIN CROSSING ANOTHER SERVICE SHALL HAVE A VERTICAL SEPARATION OF NOT LESS THAN 100mm.
  - UNDERGROUND STORMWATER DRAIN CROSSING ANOTHER SERVICE SHALL BE MARKED ALONG ITS LENGTH FOR 1m EITHER SIDE OF THE CENTERLINE OF THE SERVICE WITH MARKER TAPE CONFORMING TO AS/NZS 2648.1, LAID 150mm ABOVE THE INSTALLED SERVICE.



| SYMBOLS & NOTATION |   |
|--------------------|---|
|                    | Ø150 STORMWATER DRAINAGE LINE @ 1% MIN GRADE UNLESS NOTED OTHERWISE |
|                    | Ø90 AG LINE CONNECT TO STORMWATER OUTLET OR VERTICAL SLOT DRAIN     |
|                    | 450 OR 600 SQUARE GRATED PIT  |
|                    | 900 SQUARE GRATED PIT   |
|                    | 900 SQUARE SEALED LID PIT   |
|                    | 150 WIDE TRENCH GRATE @ MIN. 1.0% BASE FALL                         |
|                    | 200 WIDE TRENCH GRATE @ MIN. 1.0% BASE FALL                         |
|                    | DOWNSPIPE SIZE & PROJECTION FROM CONCRETE ROOF                      |
|                    | DOWNSPIPE SIZE & PROJECTION FROM PATIO/TERRACE/PLANTER BOX          |
|                    | PROPOSED FINISHED LEVEL   |
|                    | OVERLAND FLOWS  |

## OSD TANK (ILSAX DRAINS) SUMMARY:

|                                  |                        |
|----------------------------------|------------------------|
| SITE AREA                        | = 1214.6m <sup>2</sup> |
| CATCHMENT AREA TO OSD            | = 1057.8m <sup>2</sup> |
| BYPASS OSD                       | = 156.8m <sup>2</sup>  |
| PRE-DEVELOPMENT IMPERVIOUS AREA  | = 43.3% OF SITE AREA   |
| POST-DEVELOPMENT IMPERVIOUS AREA | = 63% OF SITE AREA     |

### PRE-DEVELOPMENT SITE DISCHARGE

|                    |                           |
|--------------------|---------------------------|
| DRAIN ANALYSIS     |                           |
| MINOR 5% AEP STORM | = 0.063 m <sup>3</sup> /s |
| MAJOR 1% AEP STORM | = 0.104 m <sup>3</sup> /s |

### POST-DEVELOPMENT SITE DISCHARGE

|                              |                           |
|------------------------------|---------------------------|
| UN-RESTRICTED SITE DISCHARGE |                           |
| MINOR 5% AEP STORM           | = 0.067 m <sup>3</sup> /s |
| MAJOR 1% AEP STORM           | = 0.104 m <sup>3</sup> /s |

|                           |                           |
|---------------------------|---------------------------|
| RESTRICTED SITE DISCHARGE |                           |
| MINOR 5% AEP STORM        | = 0.035 m <sup>3</sup> /s |
| BYPASS 5% AEP STORM       | = 0.008 m <sup>3</sup> /s |
| MAJOR 1% AEP STORM        | = 0.068 m <sup>3</sup> /s |
| BYPASS 1% AEP STORM       | = 0.013 m <sup>3</sup> /s |

### OSD STORAGE REQUIRED

|            |                       |
|------------|-----------------------|
| SSR 5% AEP | = 13.9 m <sup>3</sup> |
| SSR 1% AEP | = 15.8 m <sup>3</sup> |

### OSD STORAGE PROVIDED

|        |                        |
|--------|------------------------|
| 5% AEP | = 13.95 m <sup>3</sup> |
| 1% AEP | = 16.2 m <sup>3</sup>  |

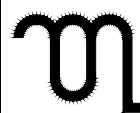
### ORIFICE DETAILS

|        |                                  |
|--------|----------------------------------|
| 5% AEP | = Ø150 mm<br>(NO ORIFICE NEEDED) |
| 1% AEP | = Ø188 mm                        |

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| REV  | DATE       | NOTATION/AMENDMENT |
|--|------------|--------------------|
| B  | 04.03.2025 | DA ISSUE           |
| A  | 19.12.2024 | DRAFT DA           |
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BUSINESS PARTNER:  
**NSW GOVERNMENT**



PROJECT:  
**AFFORDABLE HOUSING - RFB DEVELOPMENT**  
at  
**Lots 10 & 11 in DP 503890**  
**80-82 SHOWGROUND ROAD**  
**GOSFORD NSW 2250**

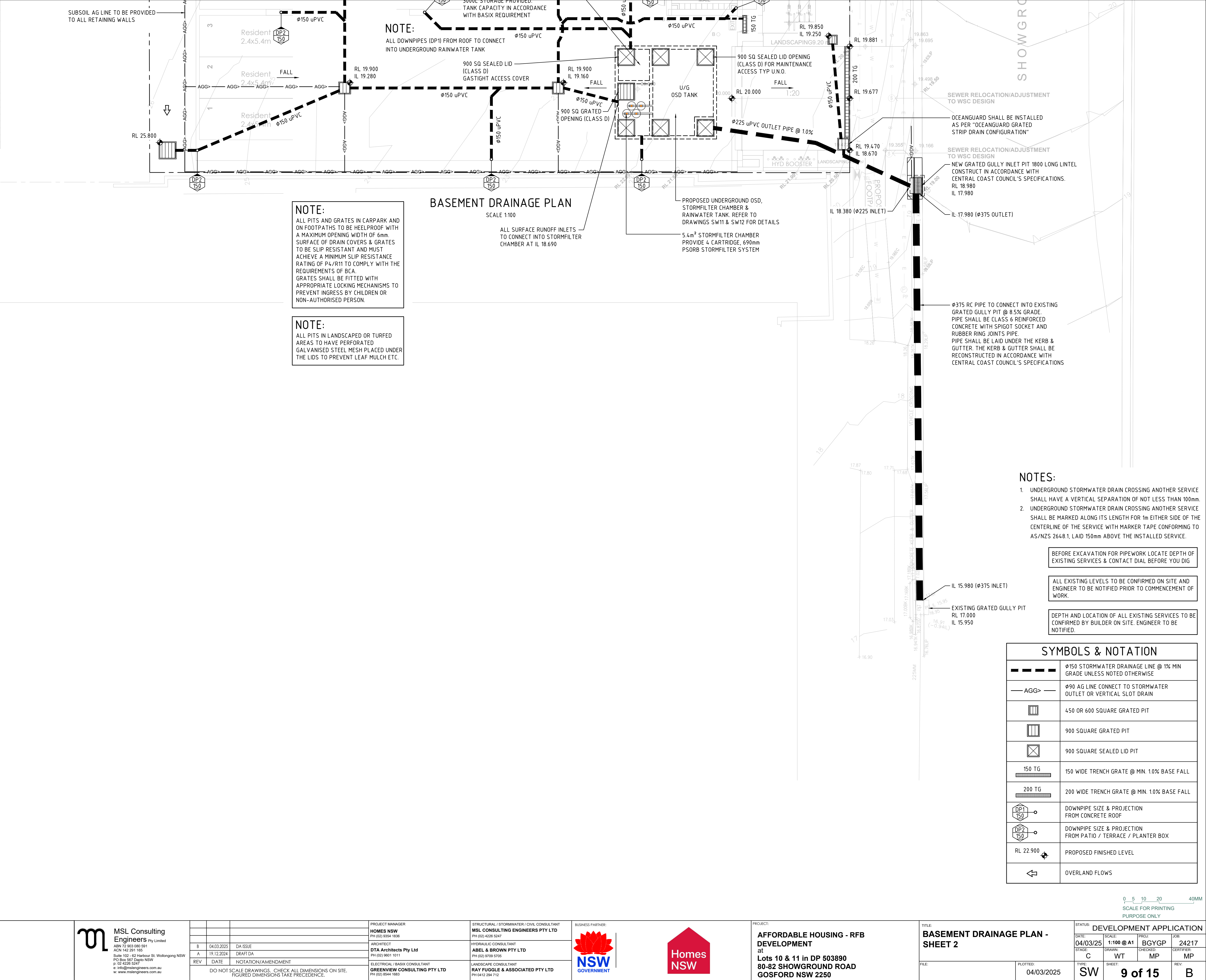
TITLE:  
**BASEMENT DRAINAGE PLAN - SHEET 1**

FILE: 04/03/2025


| STATUS: DEVELOPMENT APPLICATION |                   |             |               |
|---------------------------------|-------------------|-------------|---------------|
| DATE: 04/03/25                  | SCALE: 1:100 @ A1 | PROJ: BGYGP | JOB: 24217    |
| STAGE: C                        | DRAWN: WT         | CHECKED: MP | CERTIFIED: MP |
| TYPE: SW                        | SHEET: 8 of 15    | REV: B      |               |



| Regulated Design Record                             |                  |                        |              |        |
|---|------------------|------------------------|--------------|--------|
| Project Address: 80-82 SHOWGROUND ROAD, GOSFORD     |                  |                        |              |        |
| Project Title: Affordable Housing - RFB Development |                  |                        |              |        |
| Consent No: BGYGP - xx/xx/20xx                      |                  | Body Corporate Reg No: |              |        |
| Drawing Title: BASEMENT DRAINAGE PLAN - SHEET 2     |                  | Drawing No: Sheet 09   |              |        |
| Rev   | Date<br>dd.mm.yy | Description            | DP Full Name | Reg No |
|   |                  |                        |              |        |
|   |                  |                        |              |        |
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| REV  | DATE       | NOTATION/AMENDMENT |
|--|------------|--------------------|
| B  | 04.03.2025 | DA ISSUE           |
| A  | 19.12.2024 | DRAFT DA           |
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BUSINESS PARTNER:

 **NSW GOVERNMENT**

 **Homes NSW**

PROJECT:  
**AFFORDABLE HOUSING - RFB DEVELOPMENT**  
at  
**Lots 10 & 11 in DP 503890**  
**80-82 SHOWGROUND ROAD**  
**GOSFORD NSW 2250**

TITLE:  
**BASEMENT DRAINAGE PLAN - SHEET 2**

FILE:

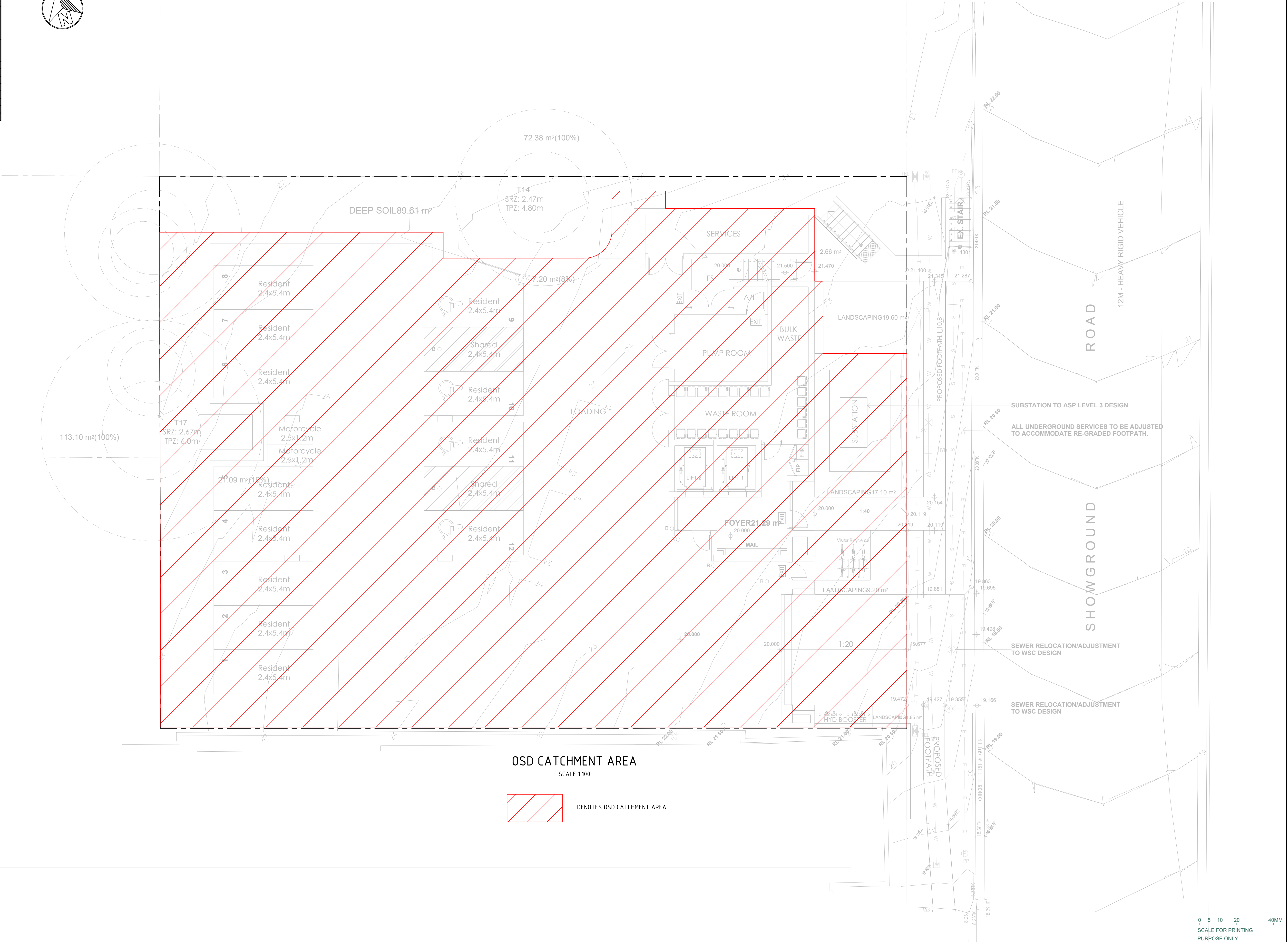
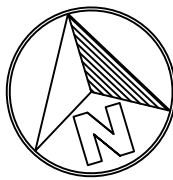
PLOTTED: 04/03/2025

STATUS: **DEVELOPMENT APPLICATION**

|                |                   |             |               |
|----------------|-------------------|-------------|---------------|
| DATE: 04/03/25 | SCALE: 1:100 @ A1 | PROJ: BGYGP | JOB: 24217    |
| STAGE: C       | DRAWN: WT         | CHECKED: MP | CERTIFIED: MP |
| TYPE: SW       | SHEET: 9 of 15    | REV: B      |               |



| Regulated Design Record                             |                  |                        |              |        |
|---|------------------|------------------------|--------------|--------|
| Project Address: 80-82 SHOWGROUND ROAD, GOSFORD     |                  |                        |              |        |
| Project Title: Affordable Housing - RFB Development |                  |                        |              |        |
| Consent No: BGYGP - xx/xx/20xx                      |                  | Body Corporate Reg No: |              |        |
| Drawing Title: OSD CATCHMENT AREA                   |                  | Drawing No: Sheet 10   |              |        |
| Rev   | Date<br>dd.mm.yy | Description            | DP Full Name | Reg No |
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- THE DESIGN & DETAILS CONTAINED ON THIS DRAWING IS SUPPLIED IN CONFIDENCE & IS NOT TO BE USED FOR ANY OTHER PURPOSE, EXCEPT THAT AUTHORISED BY MSL CONSULTING ENGINEERS

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| <div></div> <div>LEVEL 4, 12 DARCY STREET<br/>PARRAMATTA NSW 2150<br/>PHONE No (02) 9354 1836</div> | <div></div> <div>MSL Consulting<br/>Engineers Pty Limited<br/>ABN 72 903 080 591<br/>ACN 142 291 160<br/>Suite 102 - 62 Harbour St. Wollongong NSW<br/>PO Box 567 Dapto NSW<br/>p 02 4226 5247<br/>e: info@mslengineers.com.au<br/>w: www.mslengineers.com.au</div> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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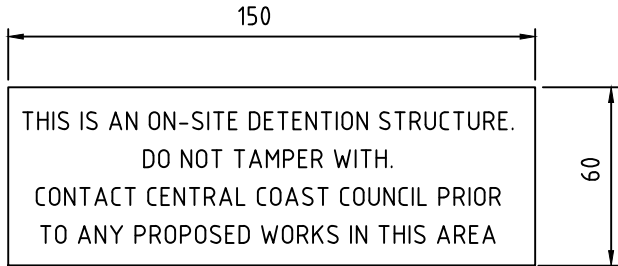




- 0 5 10 20 40MM  
SCALE FOR PRINTING  
PURPOSE ONLY



THE ON-SITE FACILITY HAS BEEN DESIGNED TO WITHSTAND MAXIMUM LOADING (W80) WHICH IS LIKELY TO BE USE THE ACCESSWAY. THE DESIGN WAS APPLIED IN ACCORDANCE WITH AS/NZS 1170 - STRUCTURAL DESIGN ACTIONS.

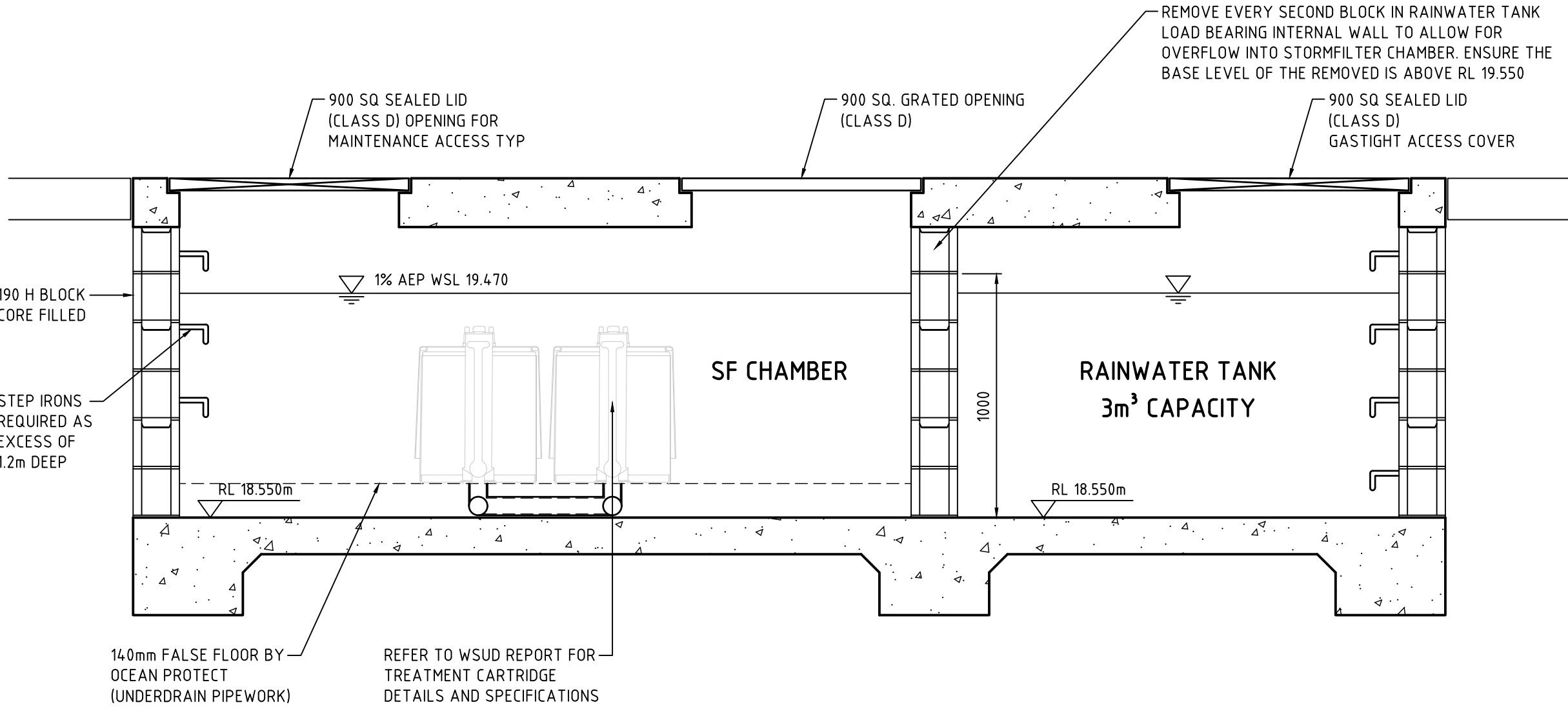


NOTES:

1. MINIMUM SIZE: 150mm x 60mm
2. MATERIAL:  
NON-CORROSIVE METAL OR  
4mm THICK LAMINATED PLASTIC
3. LOCATION:  
SCREWED TO THE NEAREST CONCRETE OR PERMANENT  
SURFACE TO THE OSD SYSTEM AND BE ABOVE THE  
EXPECTED WATER SURFACE LEVEL IN THE BASIN.  
IF IN DOUBT, CONTACT COUNCIL
4. WORDING:  
MINIMUM LETTER HEIGHT OF 5mm. WORDING TO  
CONSIST OF (AS ABOVE)

## MESH SCREEN DETAIL

NOT TO SCALE  
GALVANISED LYSAGHT RH3030MAXI MESH  
SCREEN IN GALVANISED STEEL FRAME WITH  
LIFTING HANDLES



## SECTION

SCALE 1:20

1  
SW11

## SECTION

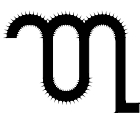
SCALE 1:20

2  
SW11

1. DO NOT SCALE FROM DRAWINGS. USE WRITTEN DIMENSIONS ONLY.
2. BUILDER TO CHECK & VERIFY ALL DIMENSIONS & LEVELS PRIOR TO COMMENCEMENT OF WORK.
3. IT IS THE OWNERS RESPONSIBILITY TO ENSURE THAT THE ENGINEER HAS INVESTIGATED SUBSOIL CONDITIONS & DESIGNED ALL STRUCTURAL ELEMENTS TO SUIT.
4. THE DESIGN & DETAILS CONTAINED ON THIS DRAWING IS SUPPLIED IN CONFIDENCE & IS NOT TO BE USED FOR ANY OTHER PURPOSE, EXCEPT THAT AUTHORISED BY MSL CONSULTING ENGINEERS



LEVEL 4, 12 DARCY STREET  
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| B   | 04.03.2025 | DA ISSUE           |
| A   | 19.12.2024 | DRAFT DA           |
| REV   | DATE       | NOTATION/AMENDMENT |
| DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE.<br>FIGURED DIMENSIONS TAKE PRECEDENCE. |            |                    |

PROJECT MANAG  
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**DTA Architects Pty Ltd**  
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**PROJECT:**

**AFFORDABLE HOUSING - RFB  
DEVELOPMENT**  
at  
**Lots 10 & 11 in DP 503890**  
**80-82 SHOWGROUND ROAD**  
**GOSFORD NSW 2250**

TITLE: **OSD/SF CHAMBER/RAINWATER  
TANK SECTIONS &  
STORMWATER DETAILS**

|       |                        |
|-------|------------------------|
| FILE: | PLOTTED:<br>04/03/2025 |
|-------|------------------------|

STATUS: **DEVELOPMENT APPLICATION**

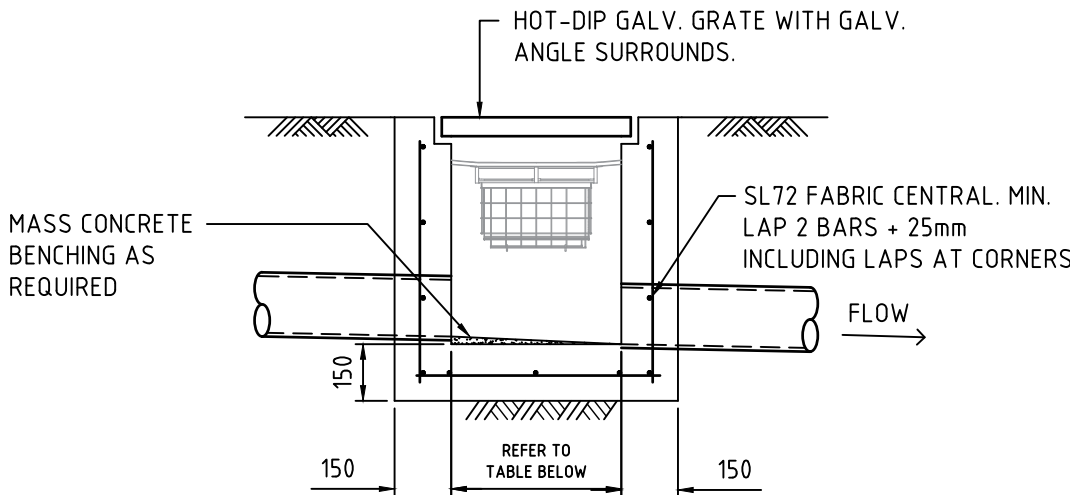
|                   |                     |                |                  |
|-------------------|---------------------|----------------|------------------|
| DATE:<br>04/03/25 | SCALE:<br>1:20 @ A1 | PROJ:<br>BGYGP | JOB:<br>24217    |
| STAGE:<br>C       | DRAWN:<br>WT        | CHECKED:<br>MP | CERTIFIER:<br>MP |

|                    |                           |                  |
|--------------------|---------------------------|------------------|
| TYPE:<br><b>SW</b> | SHEET:<br><b>12 of 15</b> | REV:<br><b>B</b> |
|--------------------|---------------------------|------------------|





| Regulated Design Record                             |                  |                        |              |        |
|---|------------------|------------------------|--------------|--------|
| Project Address: 80-82 SHOWGROUND ROAD, GOSFORD     |                  |                        |              |        |
| Project Title: Affordable Housing - RFB Development |                  |                        |              |        |
| Consent No: BGYGP - xx/xx/20xx                      |                  | Body Corporate Reg No: |              |        |
| Drawing Title: STORMWATER DETAILS                   |                  | Drawing No: Sheet 13   |              |        |
| Rev   | Date<br>dd.mm.yy | Description            | DP Full Name | Reg No |
|   |                  |                        |              |        |
|   |                  |                        |              |        |
|   |                  |                        |              |        |
|   |                  |                        |              |        |
|   |                  |                        |              |        |
|   |                  |                        |              |        |
|   |                  |                        |              |        |



TYPICAL SURFACE INLET PIT  
-NATURAL SURFACE

NOT TO SCALE

NOTES :

ALTERNATIVE PIT CONSTRUCTION MAY BE USED, SUBJECT TO THE ENGINEERS APPROVAL

1.

| Depth to Invert | Pit Internal Dimensions |
|-----------------|-------------------------|
| ≤600            | 450x450                 |
| >600 ≤900       | 600x600                 |
| >900 ≤1200      | 600x900                 |
| >1200           | 900x900                 |

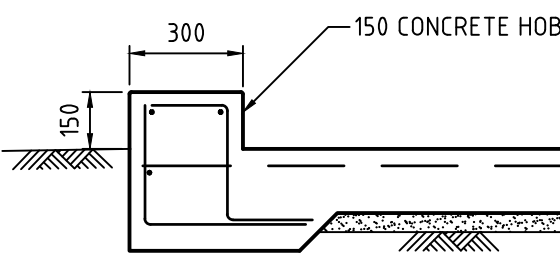
2. PROVIDE STEP IRONS UNDER LID AT 300 CTS. TO COUNCIL SPECIFICATIONS WHERE PIT DEPTH IS DEEPER THAN 1200mm.

3. REINFORCEMENT NOTED IS ONLY REQUIRED FOR PITS EXCEEDING 900 DEEP. SUBJECT TO COUNCIL REQUIREMENTS. PITS GREATER THAN 2500 mm DEEP WILL REQUIRE STRUCTURAL ENGINEER'S DESIGN.

4. PROVIDE Ø90 x 3000 LONG SUBSOIL DRAINAGE STUB PIPE SURROUNDED WITH 100mm THICKNESS OF NOMINAL 20mm COARSE FILTER MATERIAL WRAPPED IN GEOTEXTILE FILTER FABRIC (BIDUM A24 OR APPROVED SIMILAR), TO BE PARALLEL TO UPSTREAM SIDE OF EACH INLET PIPE.

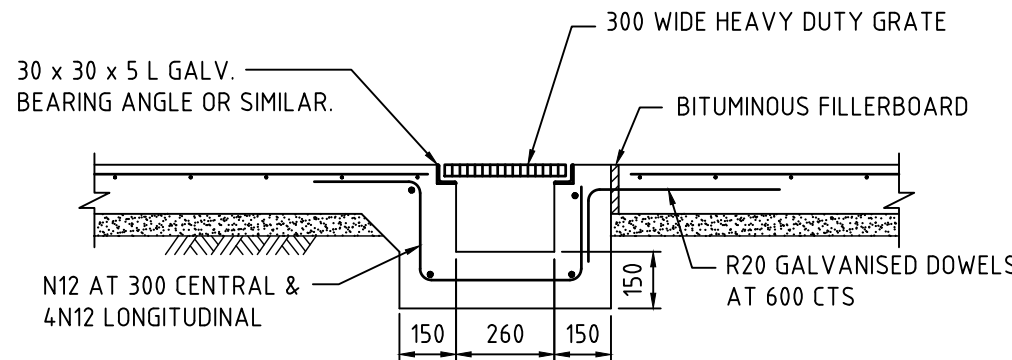
5. ALTERNATIVE PIT CONSTRUCTION MAY BE USED SUBJECT TO THE ENGINEERS APPROVAL.

6. CONCRETE STRENGTH f'c = 32 MPa



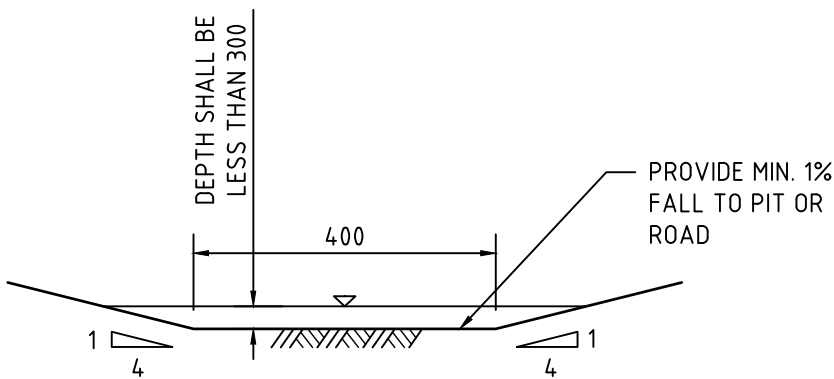
TYP DRIVEWAY 150 HOB  
DETAIL

NOT TO SCALE



TYPICAL GRATED DRAIN DETAIL

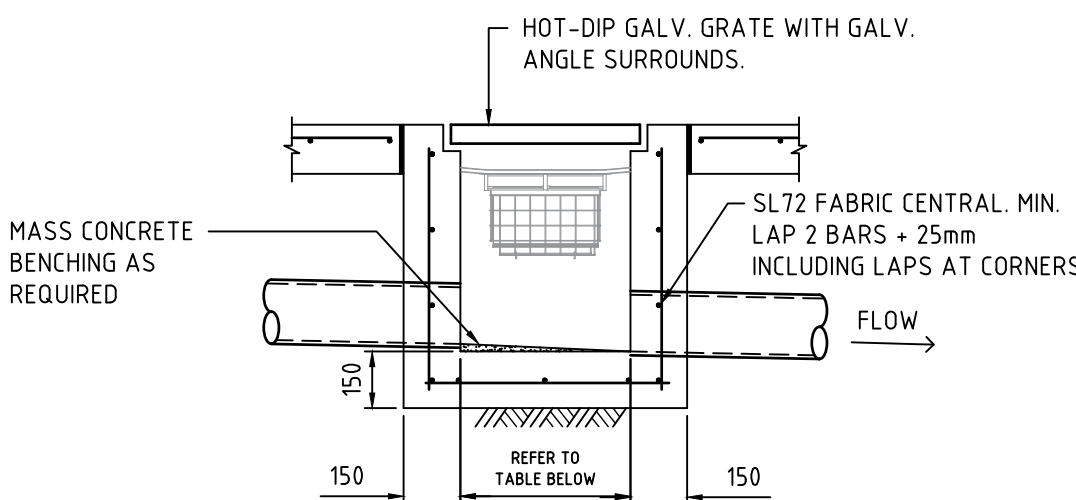
NOT TO SCALE



TYPICAL SWALE DETAIL

NOT TO SCALE

NOTE:  
SWALE FINAL DESIGN TO BE CONFIRMED AT CC STAGE



TYPICAL SURFACE INLET PIT  
-CONCRETE SURFACE

NOT TO SCALE

NOTES :

ALTERNATIVE PIT CONSTRUCTION MAY BE USED, SUBJECT TO THE ENGINEERS APPROVAL

1.

| Depth to Invert | Pit Internal Dimensions |
|-----------------|-------------------------|
| ≤600            | 450x450                 |
| >600 ≤900       | 600x600                 |
| >900 ≤1200      | 600x900                 |
| >1200           | 900x900                 |

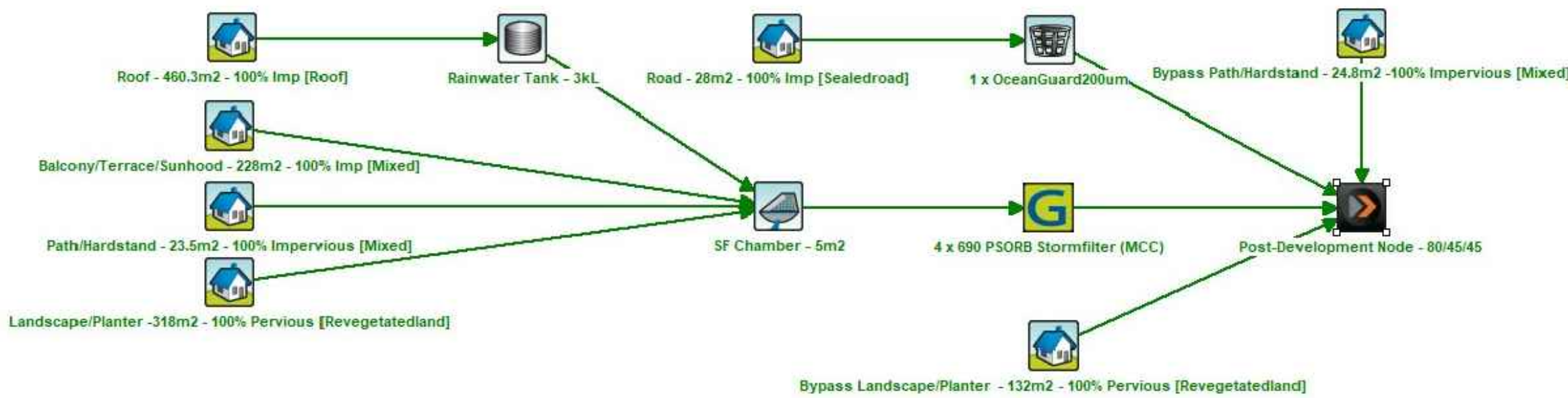
2. PROVIDE STEP IRONS UNDER LID AT 300 CTS. TO COUNCIL SPECIFICATIONS WHERE PIT DEPTH IS DEEPER THAN 1200mm.

3. REINFORCEMENT NOTED IS ONLY REQUIRED FOR PITS EXCEEDING 900 DEEP. SUBJECT TO COUNCIL REQUIREMENTS. PITS GREATER THAN 2500 mm DEEP WILL REQUIRE STRUCTURAL ENGINEER'S DESIGN.

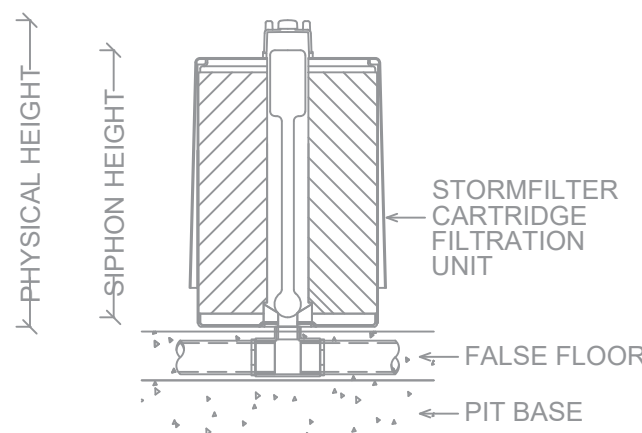
4. PROVIDE Ø90 x 3000 LONG SUBSOIL DRAINAGE STUB PIPE SURROUNDED WITH 100mm THICKNESS OF NOMINAL 20mm COARSE FILTER MATERIAL WRAPPED IN GEOTEXTILE FILTER FABRIC (BIDUM A24 OR APPROVED SIMILAR), TO BE PARALLEL TO UPSTREAM SIDE OF EACH INLET PIPE.

5. ALTERNATIVE PIT CONSTRUCTION MAY BE USED SUBJECT TO THE ENGINEERS APPROVAL.

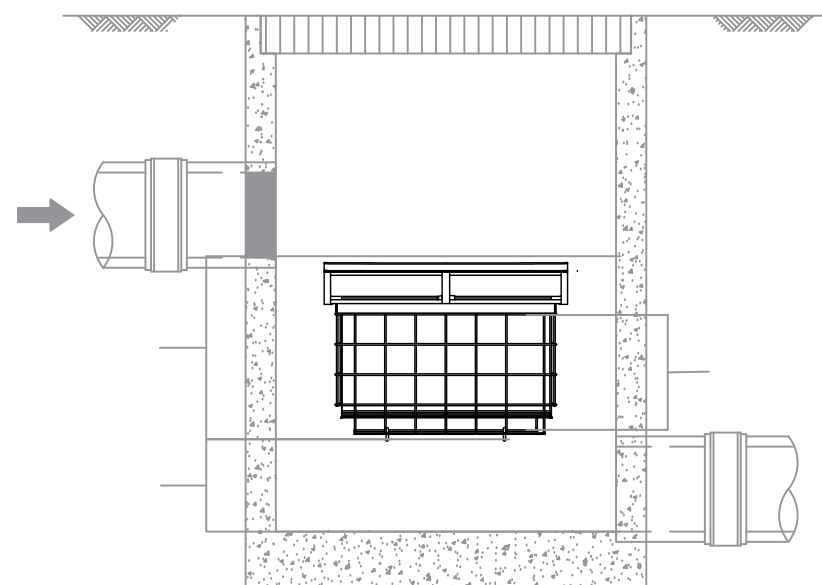
6. CONCRETE STRENGTH f'c = 32 MPa



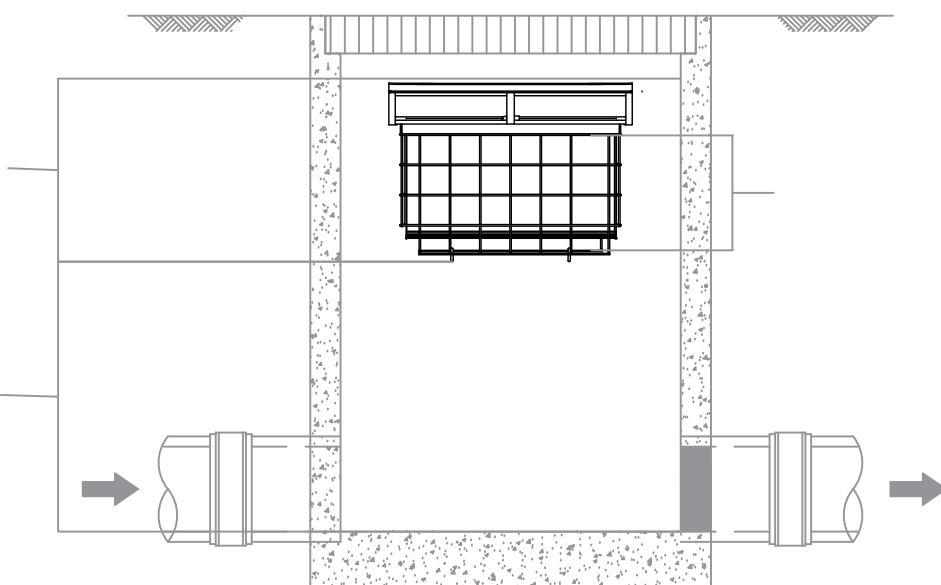
| Treatment Train Effectiveness - Post-Development Node - 80/45/45 |         |               |             |
|--|---------|---------------|-------------|
|  | Sources | Residual Load | % Reduction |
| Flow (ML/yr)   | 1.05    | 0.979         | 6.8         |
| Total Suspended Solids (kg/yr)                                   | 91.9    | 18.2          | 80.2        |
| Total Phosphorus (kg/yr)   | 0.218   | 0.0625        | 71.3        |
| Total Nitrogen (kg/yr)   | 2.18    | 1.05          | 51.6        |
| Gross Pollutants (kg/yr)   | 21.8    | 0.573         | 97.4        |



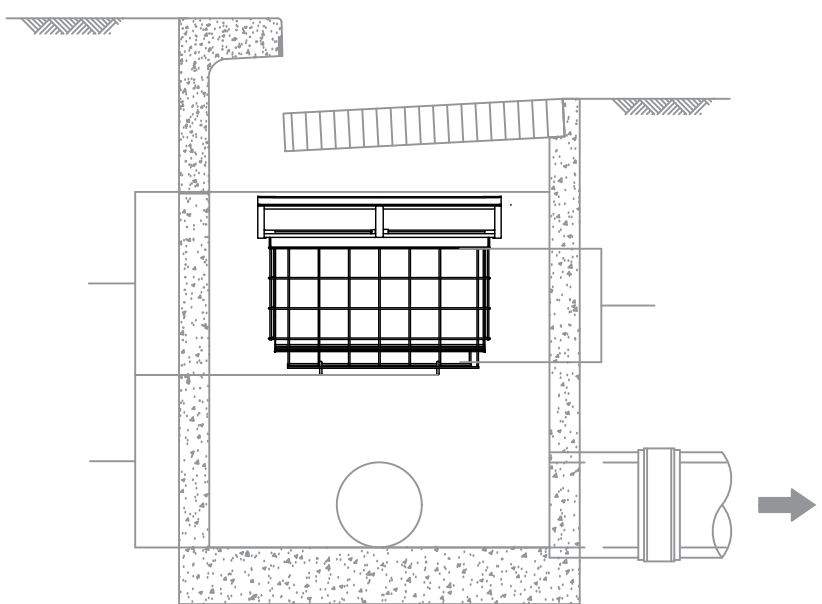
STORMFILTER  
CARTRIDGE DETAIL



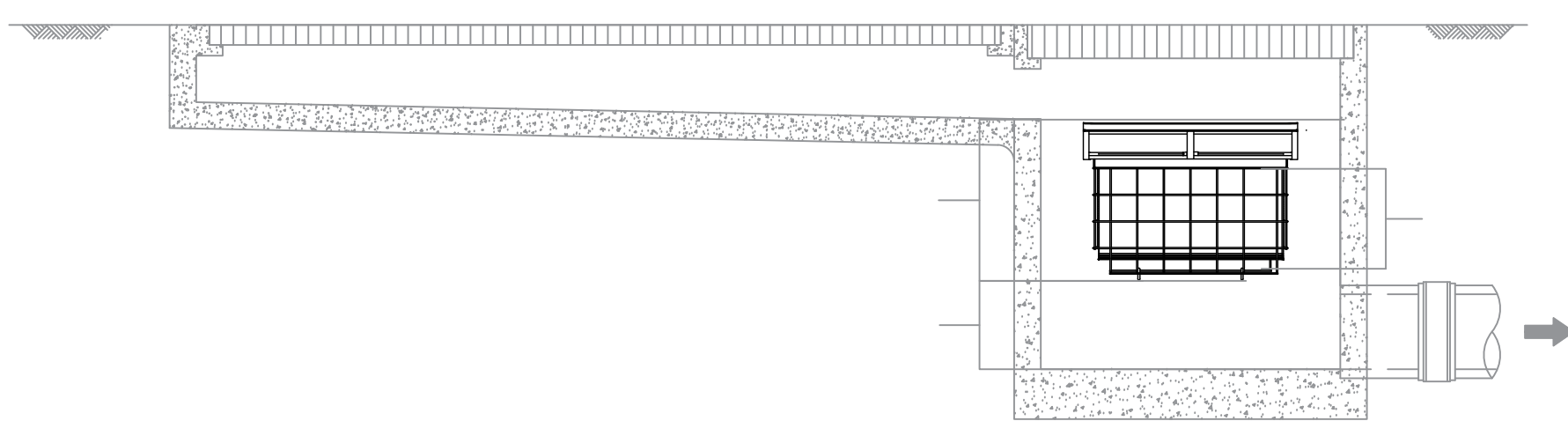
PIPE FLOW  
CONFIGURATION



SURFACE FLOW  
CONFIGURATION



SURFACE FLOW  
CONFIGURATION



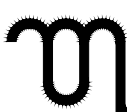
GRATED STRIP DRAIN  
CONFIGURATION

REFER TO OCEAN PROTECT DESIGN FOR FULL WATER QUALITY DESIGN & DETAILS.  
CONTACT OCEAN PROTECT FOR ANY QUESTIONS IN REGARDS TO WATER QUALITY DESIGN

- DO NOT SCALE FROM DRAWINGS. USE WRITTEN DIMENSIONS ONLY.
- BUILDER TO CHECK & VERIFY ALL DIMENSIONS & LEVELS PRIOR TO COMMENCEMENT OF WORK.
- IT IS THE OWNERS RESPONSIBILITY TO ENSURE THAT THE ENGINEER HAS INVESTIGATED SUBSOIL CONDITIONS & DESIGNED ALL STRUCTURAL ELEMENTS TO SUIT.
- THE DESIGN & DETAILS CONTAINED ON THIS DRAWING IS SUPPLIED IN CONFIDENCE & IS NOT TO BE USED FOR ANY OTHER PURPOSE, EXCEPT THAT AUTHORISED BY MSL CONSULTING ENGINEERS



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PHONE No (02) 9354 1836



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PO Box 567 Dapto NSW  
p (02) 4226 5247  
e: info@mslengineers.com.au  
w: www.mslengineers.com.au

| REV  | DATE       | NOTATION/AMENDMENT |
|--|------------|--------------------|
| B  | 04.03.2025 | DA ISSUE           |
| A  | 19.12.2024 | DRAFT DA           |
| DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE. |            |                    |

PROJECT MANAGER  
**HOMES NSW**  
PH (02) 9354 1836

ARCHITECT  
**DTA Architects Pty Ltd**  
PH (02) 9601 1011

ELECTRICAL / BASIX CONSULTANT  
**GREENVIEW CONSULTING PTY LTD**  
PH (02) 8544 1683

STRUCTURAL / STORMWATER / CIVIL CONSULTANT  
**MSL CONSULTING ENGINEERS PTY LTD**  
PH (02) 4226 5247

HYDRAULIC CONSULTANT  
**ABEL & BROWN PTY LTD**  
PH (02) 9709 5705

LANDSCAPE CONSULTANT  
**RAY FUGGLE & ASSOCIATED PTY LTD**  
PH 0412 294 712

BUSINESS PARTNER:  
**NSW GOVERNMENT**



PROJECT:  
**AFFORDABLE HOUSING - RFB DEVELOPMENT**  
at  
**Lots 10 & 11 in DP 503890**  
**80-82 SHOWGROUND ROAD**  
**GOSFORD NSW 2250**

TITLE:  
**STORMWATER DETAILS**

FILE:  
04/03/2025

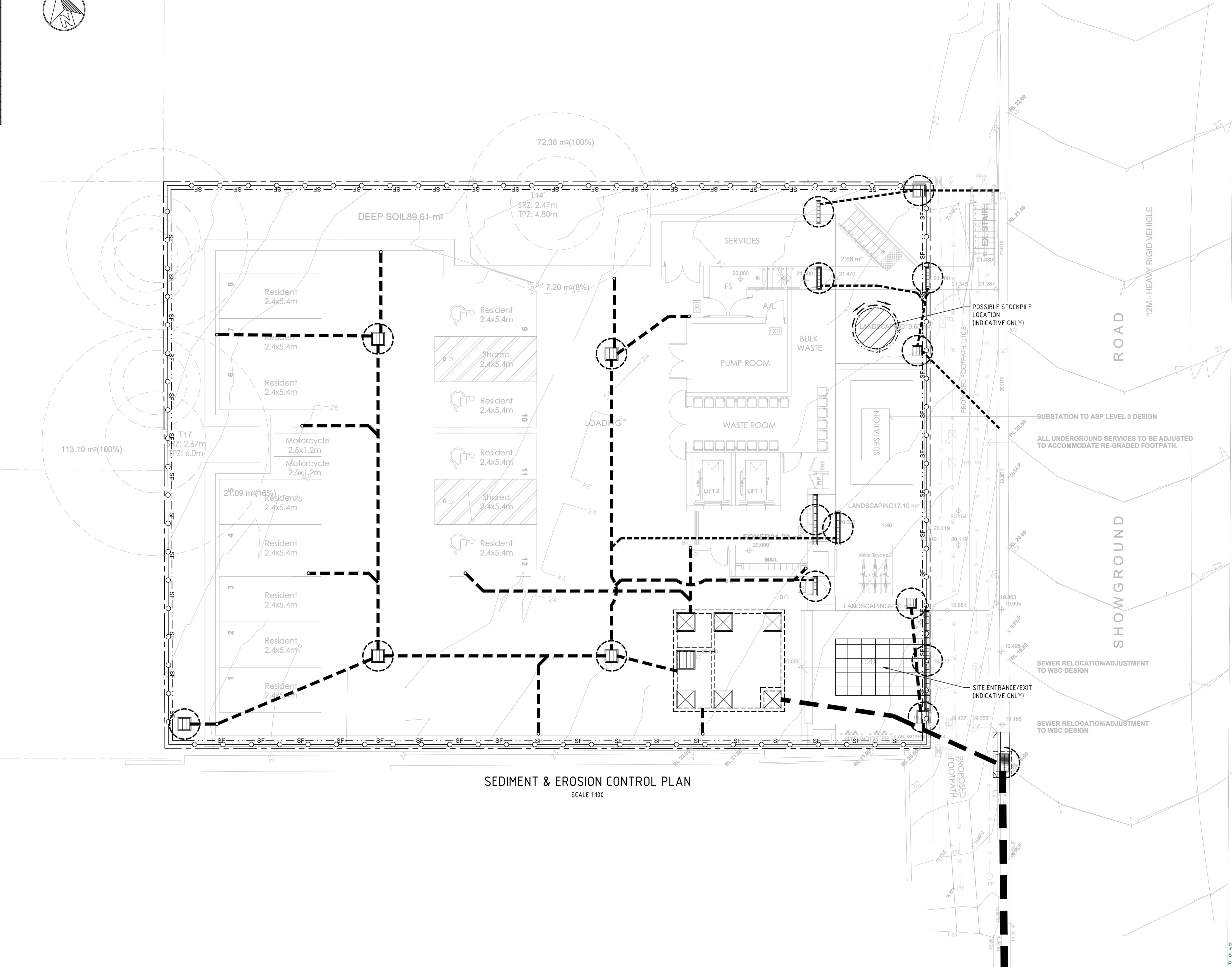
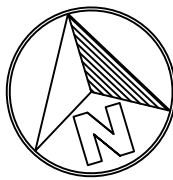
STATUS:  
**DEVELOPMENT APPLICATION**

|                   |                    |                |                  |
|-------------------|--------------------|----------------|------------------|
| DATE:<br>04/03/25 | SCALE:<br>NTS @ A1 | PROJ:<br>BGYGP | JOB:<br>24217    |
| STAGE:<br>C       | DRAWN:<br>WT       | CHECKED:<br>MP | CERTIFIED:<br>MP |
| TYPE:<br>SW       | SHEET:<br>13 of 15 | REV:<br>B      |                  |

0 5 10 20 40MM  
SCALE FOR PRINTING  
PURPOSE ONLY



| Regulated Design Record                                  |               |                        |              |        |
|--|---------------|------------------------|--------------|--------|
| Project Address: 80-82 SHOWGROUND ROAD, GOSFORD          |               |                        |              |        |
| Project Title: Affordable Housing - RFB Development      |               |                        |              |        |
| Consent No: BGYGP - xx/xx/20xx                           |               | Body Corporate Reg No: |              |        |
| Drawing Title: SEDIMENT & EROSION CONTROL PLAN - SHEET 1 |               | Drawing No: Sheet 14   |              |        |
| Rev  | Date dd.mm.yy | Description            | DP Full Name | Reg No |
|  |               |                        |              |        |
|  |               |                        |              |        |
|  |               |                        |              |        |
|  |               |                        |              |        |
|  |               |                        |              |        |
|  |               |                        |              |        |
|  |               |                        |              |        |



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|  <div>LEVEL 4, 12 DARCY STREET<br/>PARRAMATTA NSW 2150<br/>PHONE No (02) 9354 1836</div> |  <div>MSL Consulting Engineers Pty Limited<br/>ABN 72 903 080 591<br/>ACN 142 291 160<br/>Suite 102 - 62 Harbour St. Wollongong NSW<br/>PO Box 567 Dapto NSW<br/>p (02) 4226 5247<br/>e: info@mslengineers.com.au<br/>w: www.mslengineers.com.au</div> |     |            |                    | PROJECT MANAGER<br><b>HOMES NSW</b><br>PH (02) 9354 1836                                  | STRUCTURAL / STORMWATER / CIVIL CONSULTANT<br><b>MSL CONSULTING ENGINEERS PTY LTD</b><br>PH (02) 4226 5247 | <div>BUSINESS PARTNER:</div> <div></div> | PROJECT:<br><b>AFFORDABLE HOUSING - RFB DEVELOPMENT</b><br>at<br><b>Lots 10 &amp; 11 in DP 503890</b><br><b>80-82 SHOWGROUND ROAD</b><br><b>GOSFORD NSW 2250</b> | TITLE:<br><b>SEDIMENT &amp; EROSION CONTROL PLAN - SHEET 1</b> | STATUS: <b>DEVELOPMENT APPLICATION</b> |            |          |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |   | B   | 04.03.2025 | DA ISSUE           | ARCHITECT<br><b>DTA Architects Pty Ltd</b><br>PH (02) 9601 1011                           | HYDRAULIC CONSULTANT<br><b>ABEL &amp; BROWN PTY LTD</b><br>PH (02) 9709 3705                               |  |  |  | DATE:                                  | SCALE:     | PROJ:    | JOB:     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |   | A   | 19.12.2024 | DRAFT DA           |   |  |  |  |  | 04/03/25                               | 1:100 @ A1 | BGYGP    | 24217    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |   | REV | DATE       | NOTATION/AMENDMENT | ELECTRICAL / BASIX CONSULTANT<br><b>GREENVIEW CONSULTING PTY LTD</b><br>PH (02) 6544 1683 | LANDSCAPE CONSULTANT<br><b>RAY FUGGLE &amp; ASSOCIATED PTY LTD</b><br>PH (02) 8412 294 712                 |  |  |  | STAGE:                                 | DRAWN:     | CHECKED: | CERTIFY: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.   |   |     |            |                    |   |  |  |  |  |  |            |          |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



SCALE 1:100



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DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE.  
FIGURED DIMENSIONS TAKE PRECEDENCE.

**STRUCTURAL / STORMWATER / CIVIL CONSULTANT**  
**MSL CONSULTING ENGINEERS PTY LTD**  
PH (02) 4226 5247

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**HYDRAULIC CONSULTANT**  
**ABEL & BROWN PTY LTD**  
PH (02) 9709 5705

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**LANDSCAPE CONSULTANT**  
**RAY FUGGLE & ASSOCIATED PTY LTD**  
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| STATUS: DEVELOPMENT APPLICATION |                      |                |                  |
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