

24 HUNTER STREET HORSESHOE BEND, NSW 2320 CIVIL ENGINEERING PACKAGE




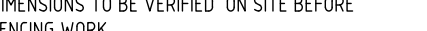

IMAGE SOURCE : NEARMAPS

DRAWING LIST

DWG No.	DRAWING TITLE
CC-C01.01	COVER SHEET, DRAWING LIST AND LOCALITY PLAN
CC-C01.11	CIVIL SPECIFICATIONS - SHEET 1
CC-C01.12	CIVIL SPECIFICATIONS - SHEET 2
CC-C01.21	GENERAL ARRANGEMENT PLAN
CC-C02.01	EROSION AND SEDIMENT CONTROL PLAN
CC-C02.11	EROSION AND SEDIMENT CONTROL DETAILS
CC-C04.01	CIVIL WORKS PLAN - GROUND FLOOR - SHEET 1
CC-C04.02	CIVIL WORKS PLAN - GROUND FLOOR - SHEET 2
CC-C04.11	CIVIL WORKS PLAN - BASEMENT
CC-C06.01	PAVEMENT JOINTING PLAN
CC-C09.01	CIVIL DETAILS - SHEET 1
CC-C09.02	CIVIL DETAILS - SHEET 2
CC-C09.03	CIVIL DETAILS - SHEET 3
CC-C09.04	CIVIL DETAILS - SHEET 4

DRAWN: B. DUGGAN DESIGNED: G. WOOD JOB MANAGER: C. PIPER VERIFIER:

NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT		PROJECT	DRAWING TITLE	JOB NUMBER
A	ISSUED FOR 30% DETAILED DESIGN	JK		GW	10.11.23		SHAC	 Newcastle Level 1, 215 Pacific Hwy, Charlestown NSW 2290 Ph (02) 4943 1777 Email newcastle@northrop.com.au ABN 81 094 433 100	ALL SAINTS COLLEGE MULTI PURPOSE CENTRE 24 HUNTER STREET HORSESHOE BEND, NSW 2320	CIVIL ENGINEERING PACKAGE COVER SHEET, DRAWING LIST AND LOCALITY PLAN	NL203354
B	ISSUED FOR 50% DETAILED DESIGN	JK		GW	19.01.24						
C	ISSUED FOR 90% DETAILED DESIGN	JK		GW	14.06.24						
D	ISSUED FOR 100% TENDER	JK		GW	22.08.24						
E	RE-ISSUED FOR 100% TENDER	JS		GW	02.10.24						
DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED						THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD	NOT TO SCALE	DRAWING SHEET SIZE = A1			

VERIFIER:

JOB MANAGER: C. PIPER

DESIGNED: G. WOOD

DRAWN: B. DUGGAN

NOTE: ALL CIVIL ENGINEERING CONSTRUCTION WORKS TO BE CARRIED OUT IN ACCORDANCE WITH MAITLAND CITY COUNCIL (MCC) DEVELOPMENT GUIDELINES, READ IN CONJUNCTION WITH THE NOTES PROVIDED BELOW.
IF CONFLICT ARISE,MCC GUIDELINES AND SPECIFICATIONS TAKE PRECEDENCE. WHERE MCC GUIDELINES AND SPECIFICATIONS ARE SILENT, THE SPECIFICATION NOTES BELOW TAKE PRECEDENCE.

ACCESS AND SAFETY
<div><div>1.</div><div>THE CONTRACTOR SHALL COMPLY WITH ALL STATUTORY AND INDUSTRIAL REQUIREMENTS FOR PROVISION OF A SAFE WORKING ENVIRONMENT INCLUDING (BUT NOT LIMITED TO) TRAFFIC CONTROL.</div></div> <div><div>2.</div><div>THE CONTRACTOR SHALL PROVIDE TRAFFIC MANAGEMENT PLANS FOR THE PROPOSED WORKS COMPLETED BY A SUITABLY QUALIFIED PERSON AND APPROVED BY COUNCIL / REGULATORY AUTHORITY. WORKS ARE NOT TO COMMENCE ON SITE PRIOR TO THE APPROVAL OF TRAFFIC MANAGEMENT SCHEMES.</div></div> <div><div>3.</div><div>THE CONTRACTOR SHALL ENSURE SAFE ACCESS TO ALL ADJACENT AND NEIGHBOURING BUSINESSES AND RESIDENCES AT ALL TIMES DURING AND AFTER WORK ACTIVITIES.</div></div> <div><div>4.</div><div>WHERE NECESSARY THE CONTRACTOR SHALL PROVIDE SAFE PASSAGE OF VEHICLES AND / OR PEDESTRIANS THROUGH OR BY THE SITE AT ALL TIMES.</div></div> <div><div>5.</div><div>THE CONTRACTOR SHALL ENSURE PUBLIC ACCESS EXTERNAL TO THE SITE IS IN ACCORDANCE WITH COUNCILS REQUIREMENTS AT ALL TIMES.</div></div>

EXISTING SERVICES
<div><div>1.</div><div>ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIAL BEFORE YOU DIG SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE AND CONFIRM THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY. <u>NOTE SERVICE AUTHORITY REQUIREMENTS FOR LOCATING OF SERVICES PRIOR TO COMMENCEMENT OF WORKS.</u></div></div> <div><div>2.</div><div>THE CONTRACTOR IS TO PROTECT AND MAINTAIN ALL EXISTING SERVICES THAT ARE TO BE RETAINED IN THE VICINITY OF WORKS. ANY AND ALL DAMAGES TO EXISTING SERVICES AS A RESULT OF PROPOSED WORKS (INCLUDING ANY ECONOMIC LOSS SUFFERED AS A RESULT OF DAMAGES) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SUPERINTENDENT TO RECTIFY AND MADE GOOD AT NO COST TO THE PRINCIPAL OR NORTHPROP CONSULTING ENGINEERS.</div></div> <div><div>3.</div><div>CARE TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS AREA TO BE UNDERTAKEN OVER COMMUNICATION, GAS OR ELECTRICAL SERVICES. HAND EXCAVATION ONLY IN THESE AREAS.</div></div> <div><div>4.</div><div>THE CONTRACTOR SHALL ALLOW IN THE PROGRAM FOR THE ADJUSTMENT OF EXISTING SERVICE AND INFRASTRUCTURE AS REQUIRED TO FACILITATE PROPOSED WORKS AND CONSTRUCTION REQUIREMENTS.</div></div> <div><div>5.</div><div>THE CONTRACTOR SHALL ALLOW IN THE PROGRAM FOR THE CAPPING OFF, EXCAVATION AND REMOVAL (IF REQUIRED) OF EXISTING SERVICES IN AREAS AFFECTED BY WORKS UNLESS DIRECTED OTHERWISE ON THE DRAWINGS OR BY THE SUPERINTENDENT.</div></div> <div><div>6.</div><div>THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES, SERVICES TO ALL ADJACENT BUILDINGS NOT AFFECTED BY THE WORKS ARE PROTECTED AND NOT DISRUPTED.</div></div> <div><div>7.</div><div>PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL GAIN APPROVAL OF THE PROGRAM FOR THE RELOCATION AND/OR CONSTRUCTION OF TEMPORARY SERVICES AND FOR ANY ASSOCIATED INTERRUPTION OF SUPPLY FROM THE APPROPRIATE SERVICE AUTHORITY.</div></div> <div><div>8.</div><div>THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT.</div></div>

HOLD POINTS
<div><div>1.</div><div>THE CONTRACTOR SHALL PROVIDE MINIMUM 72 HOURS NOTICE TO CERTIFYING AUTHORITY FOR ALL CIVIL ENGINEERING INSPECTIONS AT ALL HOLD POINTS. THE STAGES FOR HOLD POINTS ARE:<div><div>-</div><div>PRIOR TO BACK FILLING STORMWATER PIPES / TRENCHES.</div></div><div><div>-</div><div>AT FINISHED SUBGRADE UNDER PAVEMENTS</div></div><div><div>-</div><div>PRIOR TO BACKFILLING RETAINING WALLS</div></div><div><div>-</div><div>PRIOR TO EXTERNAL CONCRETE POUR (INCLUDING STORMWATER PITS WHERE CAST INSITU)</div></div><div><div>-</div><div>FINAL INSPECTION PRIOR TO PRACTICAL COMPLETION.</div></div></div></div> <div><div>2.</div><div>CONSTRUCTION SHALL NOT PROCEED UNTIL APPROVAL IS GIVEN BY CERTIFYING AUTHORITY FOR EACH HOLD POINT.</div></div>

SOIL AND WATER MANAGEMENT
<div><div>1.</div><div>ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH RELEVANT ORDINANCES AND REGULATIONS; NOTE IN PARTICULAR THE REQUIREMENTS OF LANDCOMS MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION (THE BLUE BOOK).</div></div> <div><div>2.</div><div>THE CONTRACTOR MUST NOTIFY COUNCIL WITHIN 5 WORKING DAYS OF THE INITIAL EROSION CONTROL MEASURES BEING INSTALLED AND CHECK / MAINTAIN THE INSTALLED CONTROL MEASURES DAILY.</div></div> <div><div>3.</div><div>INSTALL SEDIMENT PROTECTION FILTERS ON ALL NEW AND EXISTING STORMWATER INLET PITS IN ACCORDANCE WITH EITHER THE MESH AND GRAVEL INLET FILTER DETAIL, SD6-11 OR THE GEOTEXTILE INLET FILTER DETAIL, SD6-12 OF THE 'BLUE BOOK'.</div></div> <div><div>4.</div><div>ESTABLISH ALL REQUIRED SEDIMENT FENCES IN ACCORDANCE WITH DETAIL, SD6-8 OF THE 'BLUE BOOK'.</div></div> <div><div>5.</div><div>INSTALL SEDIMENT FENCING AROUND INDIVIDUAL BUILDING ZONES / AREAS AS REQUIRED AND AS DIRECTED BY THE SUPERINTENDENT.</div></div> <div><div>6.</div><div>ALL TRENCHES AND SWALE EXCAVATION SHALL BE SIDE-CAST TO THE HIGH SIDE AND CLOSED AT THE END OF EACH DAYS WORK.</div></div> <div><div>7.</div><div>THE CONTRACTOR SHALL ENSURE THAT ALL VEGETATION (TREE, SHRUB & GROUND COVER) WHICH IS TO BE RETAINED SHALL BE PROTECTED THROUGH THE DURATION OF CONSTRUCTION. REFER ARCHITECTS PLANS FOR TREES TO BE KEPT.</div></div> <div><div>8.</div><div>ALL VEGETATION TO BE REMOVED SHALL BE MULCHED ONSITE AND SPREAD/STOCKPILED AS DIRECTED BY THE SUPERINTENDENT.</div></div> <div><div>9.</div><div>STRIP TOPSOIL IN AREAS DESIGNATED FOR STRIPPING AND STOCKPILE FOR RE-USE AS REQUIRED. ANY SURPLUS MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN ACCORDANCE WITH EPA GUIDELINES.</div></div> <div><div>10.</div><div>CONSTRUCT AND MAINTAIN ALL MATERIAL STOCKPILES IN ACCORDANCE WITH DETAIL SD4-1 OF THE 'BLUE BOOK' INCLUDING CUT-OFF SWALES TO THE HIGH SIDE AND SEDIMENT FENCES TO THE LOW SIDE). NOTABLY, ENSURE STOCKPILES DO NOT EXCEED 2.0M HIGH. IF MATERIALS ARE LIKELY TO BE STOCKPILED FOR MORE THAN 10 DAYS, THE CONTRACTOR SHALL PROVIDE AN APPROPRIATE PROTECTIVE COVER (SYNTHETIC OR ORGANIC).</div></div> <div><div>11.</div><div>PROVIDE WATER TRUCKS OR SPRINKLER DEVICES DURING CONSTRUCTION AS REQUIRED TO SUPPRESS DUST. WHERE COUNCIL CONSIDERS THAT THE DUST IS NOT ADEQUATELY CONTROLLED, THE CONTRACTOR MUST INVESTIGATE OTHER DUST MITIGATION MEASURES SUCH AS DUST SUPPRESSANTS. THE CONTRACTOR MUST ENSURE THE CHEMICAL BASED DUST SUPPRESSANT DOES NOT CREATE A TRAFFIC OR ENVIRONMENTAL HAZARD.</div></div> <div><div>12.</div><div>SHOULD ANY SEDIMENT LADEN WATER LEAVE THE SITE, THE INCIDENT MUST BE REPORTED TO COUNCIL WITHIN 2 HOURS OF THE SITE MANAGER BECOMING AWARE OF THE INCIDENT.</div></div> <div><div>13.</div><div>THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING A DETAILED WRITTEN RECORD OF ALL EROSION & SEDIMENT CONTROLS ON-SITE DURING THE CONSTRUCTION PERIOD. THIS RECORD SHALL BE UPDATED ON A WEEKLY BASIS & SHALL CONTAIN DETAILS ON THE CONDITION OF CONTROLS AND ANY / ALL MAINTENANCE, CLEANING & BREACHES. THIS RECORD SHALL BE KEPT ON-SITE AT ALL TIMES AND SHALL BE MADE AVAILABLE FOR INSPECTION BY THE PRINCIPAL CERTIFYING AUTHORITY AND THE SUPERINTENDENT DURING NORMAL WORKING HOURS.</div></div> <div><div>14.</div><div>MEASURES USED TO CONTROL WIND EROSION MUST BE APPROPRIATE FOR THE LOCATION AND PREVENT SOIL EROSION AT ALL TIMES, INCLUDING WORK HOURS, WEEKENDS, PUBLIC HOLIDAYS AND DURING ANY OTHER SHUTDOWN PERIODS.</div></div> <div><div>15.</div><div>ONCE CUT / FILL OPERATIONS HAVE BEEN FINALISED ALL DISTURBED AREAS THAT ARE NOT BEING WORKED ON SHALL BE RE-VEGETATED AS SOON AS IS PRACTICAL.</div></div> <div><div>16.</div><div>PRIORITY MUST BE GIVEN TO THE PREVENTION, OR AT LEAST MINIMISATION, OF SOIL EROSION, RATHER THAN THE TRAPPING OF DISPLACED SEDIMENT. SUCH A CLAUSE SHALL NOT REDUCE THE RESPONSIBILITY OF A CONTRACTOR TO APPLY AND MAINTAIN, AT ALL TIMES, ALL NECESSARY SEDIMENT CONTROL MEASURES.</div></div>

TREE PROTECTION
<div><div>1.</div><div>REFER TO LANDSCAPE / ARCHITECTS PLAN FOR TREES TO BE RETAINED AND PROTECTED.</div></div> <div><div>2.</div><div>ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:<div><div>-</div><div>INSTALLING APPROPRIATE PROTECTION BARRIER FENCING OR SIMILAR MATERIALS INSTALLED IN ACCORDANCE WITH ARBORIST SPECIFICATIONS.</div></div><div><div>-</div><div>CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY. COUNCILS AND / OR INDEPENDENT ARBORISTS TO BE CONSULTED WHERE TREE ROOTS ARE TO BE REMOVED AND / OR CUT.</div></div></div></div>

GENERAL
<div><div>1.</div><div>ALL WORKS TO BE IN ACCORDANCE WITH RELEVANT LOCAL COUNCIL SPECIFICATIONS, REGULATORY AUTHORITIES SPECIFICATIONS, ENGINEERING DRAWINGS AND NOTES, AUSTRALIAN STANDARDS, LANDCOM AND EPA SPECIFICATIONS AND THE LATEST VERSION OF NATSPEC SPECIFICATIONS. <u>CONFLICTS BETWEEN THE ABOVE DOCUMENT</u> SHALL BE REFERRED TO THE SUPERINTENDENT FOR DIRECTION.</div></div> <div><div>2.</div><div>ALL CIVIL ENGINEERING DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATION DOCUMENTATION, NAMELY ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND LANDSCAPE.</div></div> <div><div>3.</div><div>THE CONTRACTOR IS TO DESIGN, OBTAIN APPROVALS AND CARRY OUT REQUIRED TEMPORARY TRAFFIC CONTROL PROCEDURES BEFORE AND DURING CONSTRUCTION IN ACCORDANCE WITH <u>ALL REGULATORY AUTHORITIES</u>, INCLUSIVE OF LOCAL COUNCILS AND STATE AUTHORITIES AS REQUIRED.</div></div> <div><div>4.</div><div>THE CONTRACTOR IS TO OBTAIN ALL AUTHORITY APPROVALS AS REQUIRED <u>PRIOR TO COMMENCEMENT OF WORKS.</u></div></div> <div><div>5.</div><div>RESTORE ALL PAVED, COVERED, GRASSED AND LANDSCAPED AREAS TO THEIR ORIGINAL CONDITION <u>OR AS DIRECTED BY THE SITE SUPERINTENDENT</u> ON COMPLETION OF ALL AND ANY WORKS. WHERE PLANTING OF NEW GRASS IS NECESSARY REFER TO LANDSCAPE ARCHITECT AND / OR ARCHITECT DOCUMENTATION.</div></div> <div><div>6.</div><div>THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR <u>PRIOR TO COMMENCEMENT OF WORKS.</u></div></div> <div><div>7.</div><div>THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING LEVELS ONSITE PRIOR TO LOOGEING OF TENDER AND ONSITE WORKS. THE PRICE AS TENDERED SHALL BE INCLUSIVE OF ALL WORKS SHOWN ON THE TENDER PROJECT DRAWINGS. ADDITIONAL PAYMENTS FOR WORKS SHOWN ON THE TENDER PROJECT DRAWINGS WILL NOT BE APPROVED.</div></div> <div><div>8.</div><div>DO NOT OBTAIN DIMENSIONS BY SCALING DRAWINGS.</div></div> <div><div>9.</div><div>IN CASE OF DOUBT OR DISCREPANCY REFER TO SUPERINTENDENT FOR CLARIFICATION OR CONFIRMATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.</div></div> <div><div>10.</div><div>WHERE NEW WORKS ABOUT EXISTING SURFACES AND INFRASTRUCTURE, THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED. MAKE SMOOTH TRANSITION TO EXISTING FEATURES AND MAKE GOOD WHERE JOINED.</div></div> <div><div>11.</div><div>ALL CIVIL ENGINEERING DESIGN HAS BEEN DOCUMENTED UNDER THE ASSUMPTION THAT ALL NECESSARY SITE CONTAMINATION REMEDIATION WORKS HAVE BEEN SATISFACTORILY COMPLETED (IF APPLICABLE) AND THAT THE SITE IS NOT AFFECTED BY ANY SOIL STRATA OR GROUNDWATER TABLE CONTAMINATION.</div></div> <div><div>12.</div><div>ORIGIN OF LEVELS SHOWN ON THE FOLLOWING DRAWINGS ARE ASSUMED TO BE TO AUSTRALIAN HEIGHT DATUM (AHD) AS PROVIDED BY SURVEY DATA. THE CONTRACTOR IS TO CONFIRM ALL LEVELS AND HEIGHT DATA PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.</div></div> <div><div>13.</div><div>ALL WORK SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS AND THE DIRECTIONS OF THE SUPERINTENDENT.</div></div> <div><div>14.</div><div>THE CONTRACTOR IS TO PROVIDE AND INSTALL 10mm MINIMUM WIDE COMPRESSIBLE FILLER JOINTS BETWEEN BUILDINGS AND CONCRETE PAVEMENTS.</div></div> <div><div>15.</div><div>THE CONTRACTOR IS TO PROVIDE TEMPORARY DIVERSION DRAINS AND MOUNDS AS REQUIRED TO ENSURE THAT AT ALL TIMES EXPOSED SURFACES ARE FREE DRAINING AND WHERE NECESSARY EXCAVATE SUMPS AND PROVIDE PUMPING EQUIPMENT TO DRAIN EXPOSED AREAS.</div></div> <div><div>16.</div><div>ANY AND ALL DAMAGE TO EXISTING INFRASTRUCTURE AND/OR PAVEMENTS SHALL BE REPORTED TO THE SUPERINTENDENT AND SHALL BE REPAIRED AND MADE GOOD BY THE CONTRACTOR TO MATCH NEATLY AND FLUSH TO EXISTING AT NO EXTRA COST TO THE PRINCIPAL OR NORTHPROP CONSULTING ENGINEERS.</div></div> <div><div>17.</div><div>THE CONTRACTOR IS TO REFER TO HYDRAULIC ENGINEERS DRAWINGS FOR STORMWATER DRAINAGE DETAILS IN ADDITION TO THOSE SHOWN ON THE CIVIL ENGINEERING DRAWINGS. ANY CONFLICTS IDENTIFIED ARE TO BE REFERRED TO THE SITE FORMAN OR SUPERINTENDENT PRIOR TO PROCEEDING WITH WORKS.</div></div> <div><div>18.</div><div>THE CONTRACTOR IS TO ENSURE ALL FINISHED SURFACE LEVELS DRAIN TOWARDS THE PROPOSED STORMWATER SYSTEM AND NO AREAS POND / HOLD WATER.</div></div> <div><div>19.</div><div>THE CONTRACTOR SHALL ENSURE COUNCIL ASSETS AND UTILITIES ARE PROTECTED AT ALL TIMES. ANY AND ALL DAMAGE TO COUNCIL ASSETS AND / OR UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF COUNCIL AND THE UTILITIES AUTHORITY AND AT NO COST TO THE PRINCIPAL OR NORTHPROP CONSULTING ENGINEERS.</div></div>

EARTHWORKS

PRIOR TO THE COMMENCEMENT OF EARTHWORKS THE CONTRACTOR IS TO REVIEW THE HAZARDOUS MATERIALS ASSESSMENT / ENVIRONMENTAL REPORT IN ORDER TO ASCERTAIN ANY ONSITE CONTAMINATION AND MANAGE ACCORDINGLY. ALL SURPLUS EXCAVATED MATERIAL SHALL REQUIRE A WASTE CLASSIFICATION ASSESSMENT PRIOR TO ITS REMOVAL FROM SITE.




1. THE CONTRACTOR SHALL REVIEW THE SITE SPECIFIC GEOTECHNICAL REPORT WHEN PROVIDED, REMOVE ALL TOPSOIL, ORGANIC MATTER, RUBBLE, UNCONTROLLED FILL, UNSUITABLE MATERIAL AND THE LIKE AND UNDERTAKE ALL REQUIRED SUBGRADE / BASE LAYER TESTING (PROOF ROLLING ETC) UNDER THE GUIDANCE OF A SUITABLE QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO BACK FILLING WITH CONTROLLED SPECIFIED MATERIAL.
2. THE CONTRACTOR SHALL ALLOW TO EXCAVATE IN ALL MATERIALS UNLESS NOTED OTHERWISE
3. THE CONTRACTOR SHALL STRIP AND STOCKPILE SUFFICIENT TOPSOIL AS REQUIRED FOR LATER REUSE AND SITE REHABILITATION. EXCESS TOPSOIL MAY BE SPREAD ON SITE ONLY IF AUTHORISED AND INSTRUCTED BY THE SUPERINTENDENT. ALL MATERIAL STOCKPILES AND UNVEGETATED AREAS SHALL HAVE SEDIMENT AND EROSION CONTROL MEASURES INSTALLED IN ACCORDANCE WITH THE 'BLUE BOOK' (MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION, PRODUCED BY LANDCOM). ANY SURPLUS EXCAVATED MATERIAL (INCLUDING TOPSOIL) SHALL BE REMOVED FROM SITE AND DISPOSED OF IN ACCORDANCE WITH EPA GUIDELINES. LIMIT STOCKPILE TO A MAXIMUM HEIGHT OF 2.0m UNLESS APPROVED OTHERWISE BY THE SUPERINTENDENT.
5. THE CONTRACTOR IS TO ALLOW FOR A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER TO PROVIDE ADVICE AND CERTIFICATION OF ANY WORKS ASSOCIATED WITH TREATING OR MANAGING UNSUITABLE GROUND CONDITIONS THROUGHOUT THE CONTRACT (E.G. STABILITY OF EXCAVATIONS, POOR SUBGRADE, ETC).
6. THE CONTRACTOR SHALL PROOF ROLL ALL EXPOSED NATURAL SUBGRADE FOR BUILDING PLATFORMS, PAVED AREAS, AREAS TO BE FILLED, OR CUT BATTERS IN THE PRESENCE OF A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER WHO WILL CERTIFY THE WORKS AND CONFIRM FILLING METHODOLOGY. ALL SOFT, WET OR UNSUITABLE MATERIAL ENCOUNTERED SHALL BE ADVISED TO THE PRINCIPAL'S AGENT FOR INSTRUCTION REMOVE & REPLACE OR REMEDIATE ALL AREAS AS DIRECTED BY THE PRINCIPAL'S AGENT.
7. THE CONTRACTOR AND GEOTECHNICAL ENGINEER ARE TO ENSURE CONTINUITY IN COMPACTION BETWEEN CUT / FILL AREAS LOCATED IN BUILDING PLATFORMS AND ROAD SUBGRADES
8. THE CONTRACTOR IS TO OBTAIN AND PROVIDE CERTIFICATES VERIFYING THE QUALITY OF IMPORTED MATERIAL FOR THE SUPERINTENDENTS APPROVAL.
9. TESTING OF SITE MATERIAL, SUBGRADES AND PAVEMENT LAYERS SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A. REGISTERED LABORATORY AND IN ACCORDANCE WITH THE LATEST VERSION OF AS3798. WHERE THE FILL IS TO PROVIDE SUPPORT TO BUILDING FLOOR SLAB, LEVEL 1 TESTING PROCEDURES (IN ACCORDANCE WITH AS3798) SHALL BE FOLLOWED, OTHERWISE LEVEL 2 TESTING SHALL BE UNDERTAKEN. THE TESTING AUTHORITY SHALL BE ENGAGED BY THE BUILDER.
10. ALL FILL MATERIAL SHALL BE PLACED IN MAXIMUM 200mm THICK LAYERS (LOOSE) AND COMPACTED AT OPTIMUM MOISTURE CONTENT (+ OR - 2%) USING SUITABLE COMPACTION EQUIPMENT TO ACHIEVE A DRY DENSITY DETERMINED IN ACCORDANCE WITH AS1289.2.1.1, AS1289.5.7.1 AND AS1289.5.8.8 OF NOT LESS THAN THE FOLLOWING STANDARD MINIMUM DRY DENSITY:

LOCATION	COMPACTION REQUIREMENT
- SERVICE TRENCHES (NOT UNDER PAVEMENTS)	95% SMDD
- SERVICE TRENCHES (UNDER PAVEMENTS)	100% SMDD
- TOP 600mm TO SUBGRADE LEVEL UNDER PAVED AREAS	100% SMDD
- LANDSCAPED & GENERAL AREAS	95% SMDD
- PAVEMENT SUB-BASE LAYERS	100% SMDD (U.N.O.)
- PAVEMENT BASE LAYERS	100% SMDD (U.N.O.)
11. FREQUENCY OF TESTING SHALL BE IN ACCORDANCE WITH TABLE 8.1 OF AS3798 FOR TYPE 1 EARTHWORKS
12. DENSITY TESTING SHALL BE UNDERTAKEN WITHIN TRENCHES AT A RATE OF ONE (1) TEST PER TWO (2) LAYERS PER FORTY (40) LINEAL METRES OF TRENCH.
13. WHERE TEST RESULTS ARE BELOW THE SPECIFIED COMPACTION, RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION STANDARDS ARE ACHIEVED, OTHERWISE SUBGRADE REPLACEMENT IS REQUIRED IF COMPACTION STANDARDS ARE NOT ACHIEVED.

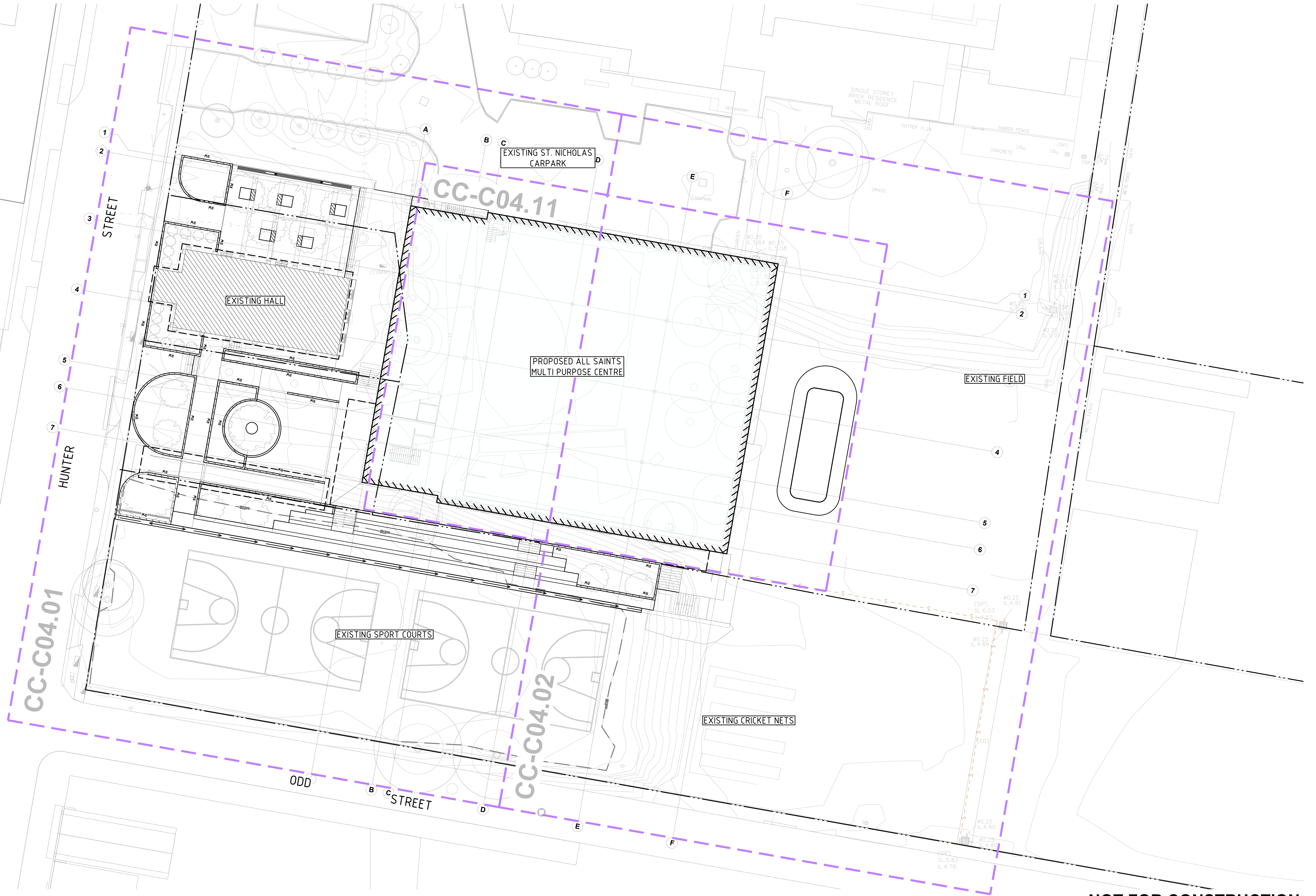
EARTHWORKS (cont)
<div><div>14.</div><div>IF SUBGRADE OR FILL IS TOO WET TOO ACHIEVE COMPACTION, UNDERTAKE ONE OR MORE OF THE FOLLOWING:<div><div>-</div><div>SCARIFY AND WORK TO ACCELERATE DRYING.</div></div><div><div>-</div><div>STABILIZE BY MIXING WITH LIME.</div></div><div><div>-</div><div>REPLACE WITH SUITABLE MATERIAL. RE-COMPACT WHEN MOISTURE CONTENT APPROACHES OPTIMUM.</div></div></div></div> <div><div>15.</div><div>THE CONTRACTOR CAN REUSE CUT MATERIAL AS DIRECTED BY THE SITE SPECIFIC GEOTECHNICAL AUTHORITY OR PRINCIPALS AGENT. WHERE THERE IS INSUFFICIENT CUT MATERIAL SUITABLE FOR FILLING OR SUBGRADE REPLACEMENT, THE CONTRACTOR IS TO ALLOW TO IMPORT FILL. IMPORTED FILL SHALL COMPLY WITH THE FOLLOWING:<div><div>-</div><div>APPROVED AND CERTIFIED BY THE SITE GEOTECHNICAL ENGINEER</div></div><div><div>-</div><div>MAXIMUM PARTICLE SIZE OF 50mm</div></div><div><div>-</div><div>PASSING 37.5mm SIEVE (NOT LESS THAN 80%)</div></div><div><div>-</div><div>PASSING 75 MICRON SIEVE (NOT GREATER THAN 15%)</div></div><div><div>-</div><div>PLASTICITY INDEX BETWEEN 2-15%</div></div><div><div>-</div><div>MINIMUM CBR VALUE OF 8%</div></div></div></div> <div><div>16.</div><div>THE CONTRACTOR IS TO ALLOW FOR THE REPLACEMENT OF UNSUITABLE AND/OR SENSITIVE GROUND (I.E. SILTS, ORGANIC MATTER ETC) WITH SELECTED MATERIAL FROM EXCAVATIONS IF AVAILABLE OR SELECT IMPORTED FILL</div></div> <div><div>17.</div><div>THE CONTRACTOR IS TO PROGRAM EXCAVATIONS TO ENSURE THAT BULK EARTHWORKS AND EXPOSED SURFACES ARE ADEQUATELY DRAINED DURING CONSTRUCTION. ALL EXPOSED SURFACES SHALL BE GRADED AND SEALED OFF TO REMOVE DEPRESSIONS, ROLLERS MARKS AND SIMILAR WHICH WOULD ALLOW WATER TO POND AND PENETRATE THE UNDERLYING MATERIAL. ANY DAMAGE RESULTING FROM THE CONTRACTOR NOT OBSERVING THESE REQUIREMENTS SHALL BE RECTIFIED AT NO COST TO THE PRINCIPAL OR NORTHPROP CONSULTING ENGINEERS.</div></div> <div><div>18.</div><div>THE CONTRACTOR IS TO PROVIDE AND INSTALL TEMPORARY DRAINAGE OR SUMP PUMPING AS REQUIRED UNTIL SUFFICIENT SITE STORMWATER DRAINAGE HAS BEEN INSTALLED. ENSURE THAT ALL SEDIMENT AND EROSION CONTROL PROVISIONS ARE ADHERED TO FOR TEMPORARY DRAINAGE MEASURES (REFER TO THE ENGINEERING SEDIMENT AND EROSION CONTROL DRAWINGS)</div></div> <div><div>19.</div><div>IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE AND MAINTAIN THE INTEGRITY OF ALL SERVICES, CONDUITS AND PIPES DURING CONSTRUCTION, SPECIFICALLY DURING THE BACKFILLING AND COMPACTION PROCEDURE. ANY AND ALL DAMAGE TO NEW OR EXISTING SERVICES AS A RESULT OF THESE WORKS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST.</div></div> <div><div>20.</div><div><u>ALLOWABLE EXCAVATION TOLERANCE IS -25mm (BELOW DOCUMENTED LEVELS) AND +0mm (ABOVE DOCUMENTED LEVELS). NOTE THAT BULK EARTHWORKS LEVELS MAY NOT ALLOW FOR A SAND LEVELING LAYER. ANY SAND THAT IS REQUIRED DUE TO OVER-EXCAVATION SHALL BE PROVIDED, AT NO EXTRA COST TO THE PRINCIPAL OR NORTHPROP CONSULTING ENGINEERS</u></div></div> <div><div>21.</div><div>REFER TO STRUCTURAL AND / OR ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF STEPS IN BUILDING FLOOR LEVELS FOR DETAILED SET-DOWN PREPARATIONS.</div></div> <div><div>22.</div><div>THE CONTRACTOR IS TO INSTALL CUT-OFF DRAINAGE SWALES (AT MIN. 1% LONGITUDINAL GRADE AND MIN. 500mm WIDE) TO THE HIGH SIDE OF ALL BUILDING PLATFORMS TO PROTECT THE PLATFORMS DURING CONSTRUCTION. ALL TEMPORARY DRAINAGE SWALES ARE TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF "THE BLUE BOOK"</div></div> <div><div>23.</div><div>ALL EARTH BATTERS SHALL BE CUT/FILLED TO A MAXIMUM 1 (VERTICAL) IN 4 (HORIZONTAL) SLOPE UNLESS NOTED OTHERWISE ON THE DRAWINGS.</div></div> <div><div>24.</div><div>ANY CONTAMINATED MATERIAL FOUND ON SITE DURING CONSTRUCTION AND EARTHWORKS ACTIVITIES SHALL BE ADVISED TO THE PRINCIPAL'S AGENT FOR DIRECTION.</div></div> <div><div>DEEP EXCAVATIONS</div></div> <div><div>25.</div><div><u>PRIOR TO THE COMMENCEMENT OF EXCAVATION WORKS GREATER THAN 1.5m IN DEPTH, THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER TO DETERMINE THE STABILITY OF A NATURAL MATERIAL AND BENCHING REQUIREMENTS.</u></div></div> <div><div>26.</div><div><u>THE CONTRACTOR MUST PROVIDE THE SUPERINTENDENT AND OR THE DESIGN ENGINEER WITH A COPY OF THE GEOTECHNICAL ENGINEERS REPORT.</u></div></div> <div><div>27.</div><div>THE CONTRACTOR IS TO PROVIDE SAFETY BARRIERS / FENCING IN ACCORDANCE WITH OH&S AND REGULATORY AUTHORITY REQUIREMENTS.</div></div>

SIGNAGE AND LINEMARKING
<div><div>1.</div><div>ALL SIGNAGE TO BE INSTALLED IN ACCORDANCE WITH AUSTRALIAN STANDARDS 1742 / RMS STANDARDS AND SPECIFICATIONS.</div></div> <div><div>2.</div><div>LINE MARKING AND PAINT SHALL BE IN ACCORDANCE WITH AUSTRALIAN STANDARDS 1742 / RMS STANDARDS AND SPECIFICATIONS.</div></div> <div><div>3.</div><div>DEDICATED SPACES FOR PEOPLE WITH DISABILITIES AND ADJACENT SHARED AREA SHALL BE IN ACCORDANCE WITH AUSTRALIAN STANDARDS 2890.6</div></div> <div><div>4.</div><div>PAINT SHALL BE TYPE 3 CLASS 'A' AND THE COLOUR SHALL BE WHITE AND NOT SUBJECT TO DISCOLOURATION BY BITUMEN FROM ROAD SURFACE. ALL PAINT TO BE APPLIED BY MECHANICAL SPRAYER.</div></div> <div><div>5.</div><div>LINE MARKING SHALL BE SPOTTED OUT AND APPROVED PRIOR TO SPRAYING.</div></div> <div><div>6.</div><div>PAINT SHALL BE APPLIED AT A WET THICKNESS OF BETWEEN 0.35mm AND 0.40mm.</div></div> <div><div>7.</div><div>CARPARK LINEMARKING TO BE 80mm WIDE.</div></div>

NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT	ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK. NORTHPROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE.	PROJECT	DRAWING TITLE	JOB NUMBER
A	ISSUED FOR 30% DETAILED DESIGN	JK		GW	10.11.23	 DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED		 Newcastle Level 1, 215 Pacific Hwy, Charlestown NSW 2290 Ph (02) 4943 1777 Email newcastle@northrop.com.au ABN 81 094 433 100	ALL SAINTS COLLEGE MULTI PURPOSE CENTRE 24 HUNTER STREET HORSESHOE BEND, NSW 2320	CIVIL ENGINEERING PACKAGE	NL203354
B	ISSUED FOR 50% DETAILED DESIGN	BD		GW	19.01.24						
C	ISSUED FOR 90% DETAILED DESIGN	JK		GW	14.06.24						
D	ISSUED FOR 100% TENDER	JK		GW	22.08.24						
E	ISSUED FOR 100% TENDER	JS		GW	02.10.24						
						THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHPROP CONSULTING ENGINEERS PTY LTD				CIVIL SPECIFICATIONS SHEET 1	DRAWING NUMBER CC-C01.11 REVISION E DRAWING SHEET SIZE = A1

VERIFIER: JOB MANAGER: C. PIPER DESIGNED: G. WOOD DRAWN: B. DUGGAN



NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
A	ISSUED FOR 50% DETAILED DESIGN	BD		GW	19.01.24
B	ISSUED FOR 90% DETAILED DESIGN	JK		GW	14.06.24
C	ISSUED FOR 100% TENDER	JK		GW	22.08.24
D	RE-ISSUED FOR 100% TENDER	JS		GW	02.10.24

CLIENT: Catholic Diocese of Maitland-Newcastle

ARCHITECT: SHAC

DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED

ARCHITECT: SHAC

THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD

ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE.

SCALE 1:250 @ A1

0 2.5 5 7.5 10 12.5m

NORTHROP

Newcastle

Level 1, 215 Pacific Hwy, Charlestown NSW 2290

Ph (02) 4943 1777 Email newcastle@northrop.com.au

ABN 81 094 433 100

PROJECT

**ALL SAINTS COLLEGE
MULTI PURPOSE CENTRE**

**24 HUNTER STREET
HORSESHOE BEND, NSW 2320**

DRAWING TITLE

CIVIL ENGINEERING PACKAGE

GENERAL ARRANGEMENT PLAN

JOB NUMBER

NL203354

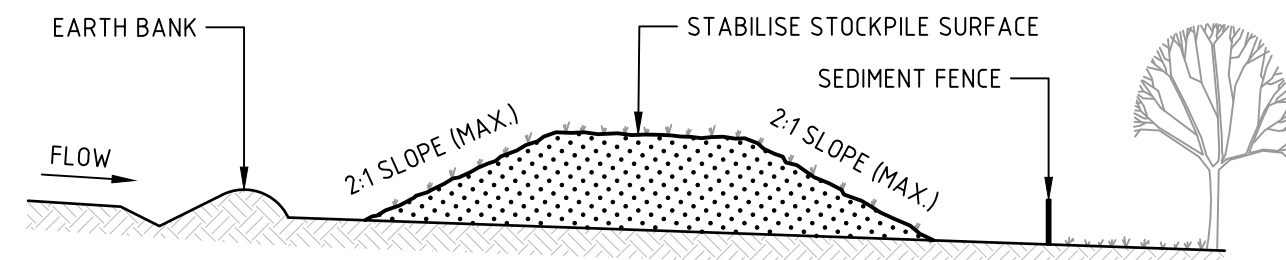
DRAWING NUMBER

CC-C01.21

REVISION

D

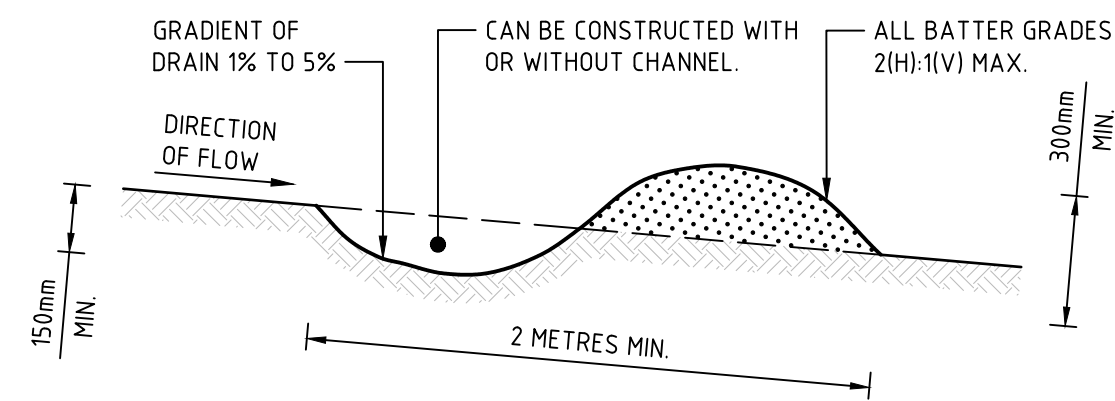
DRAWING SHEET SIZE = A1



CONSTRUCTION NOTES

1. PLACE STOCKPILES MORE THAN 2m (PREFERABLY 5m) FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.
4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS (STANDARD DRAWING 5-5) ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES (STANDARD DRAWING 6-8) 1 TO 2m DOWNSLOPE.

STOCKPILES (SD 4-1)

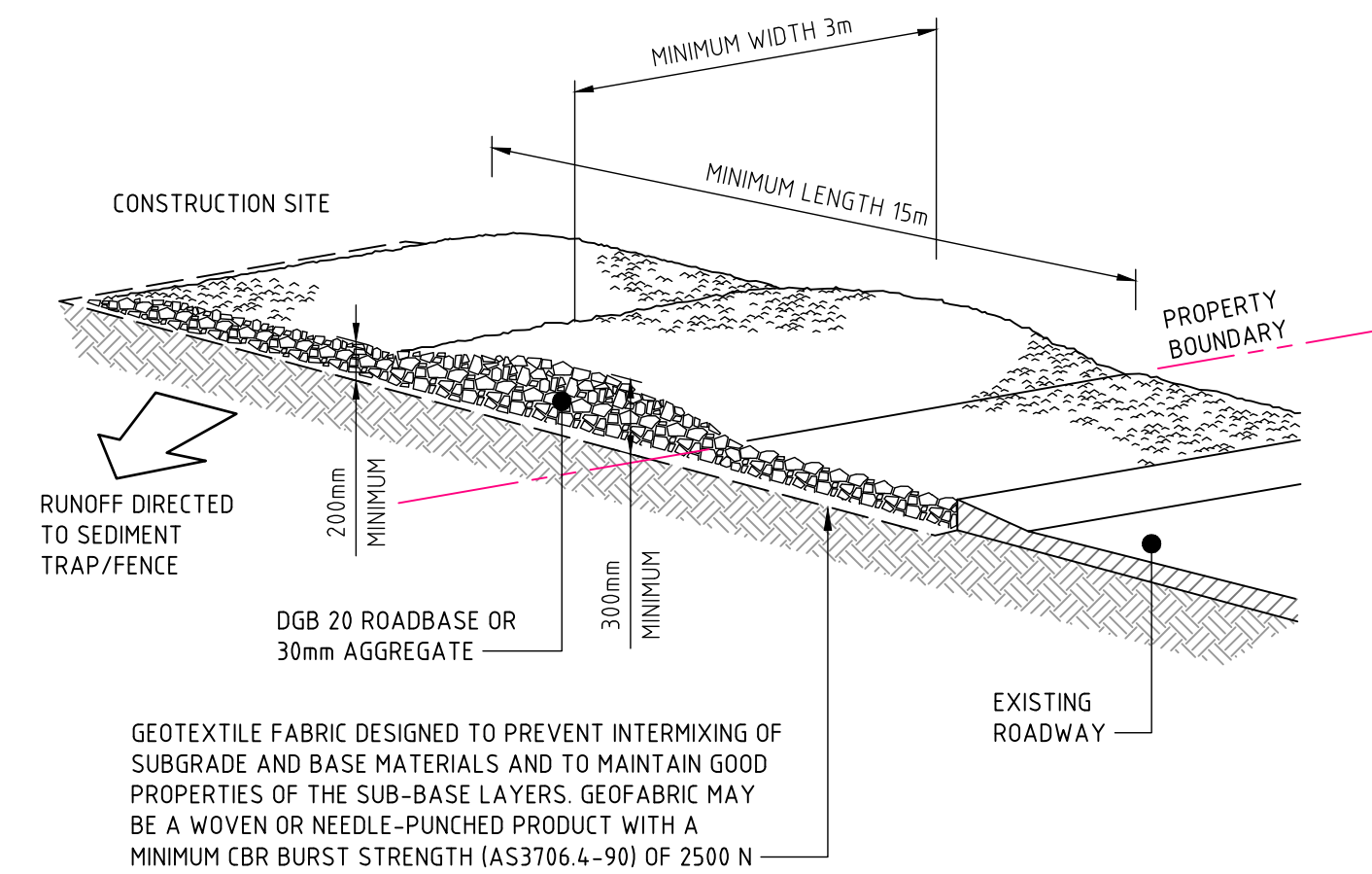


NOTE: ONLY TO BE USED AS TEMPORARY BANK
WHERE MAXIMUM UPSLOPE LENGTH IS 80 METRES.

CONSTRUCTION NOTES

1. BUILD WITH GRADIENTS BETWEEN 1 AND 5 PERCENT.
2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE - WORK AROUND THEM.
3. ENSURE THE STRUCTURES ARE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT COULD IMPEDE WATER FLOW.
4. BUILD THE DRAINS WITH CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTIONS, NOT V SHAPED.
5. ENSURE THE BANKS ARE PROPERLY COMPACTED TO PREVENT FAILURE.
6. COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS OF CONSTRUCTION.

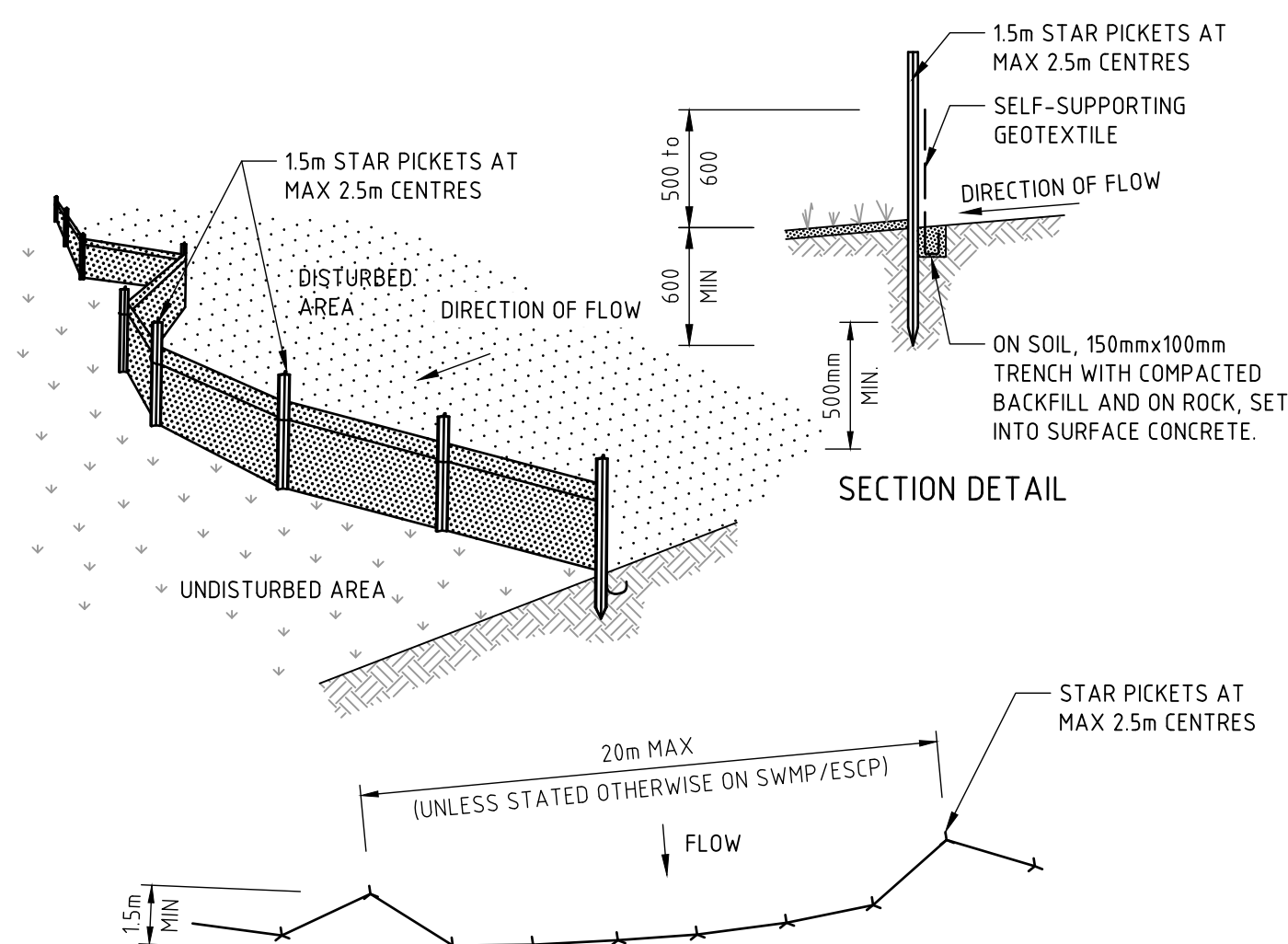
EARTH BANK - LOW FLOW (SD 5-5)



CONSTRUCTION NOTES

1. STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE.
2. COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
3. CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE.
4. ENSURE THE STRUCTURE IS AT LEAST 15 METRES LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3 METRES WIDE.
5. WHERE A SEDIMENT FENCE JOINS ONTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE.

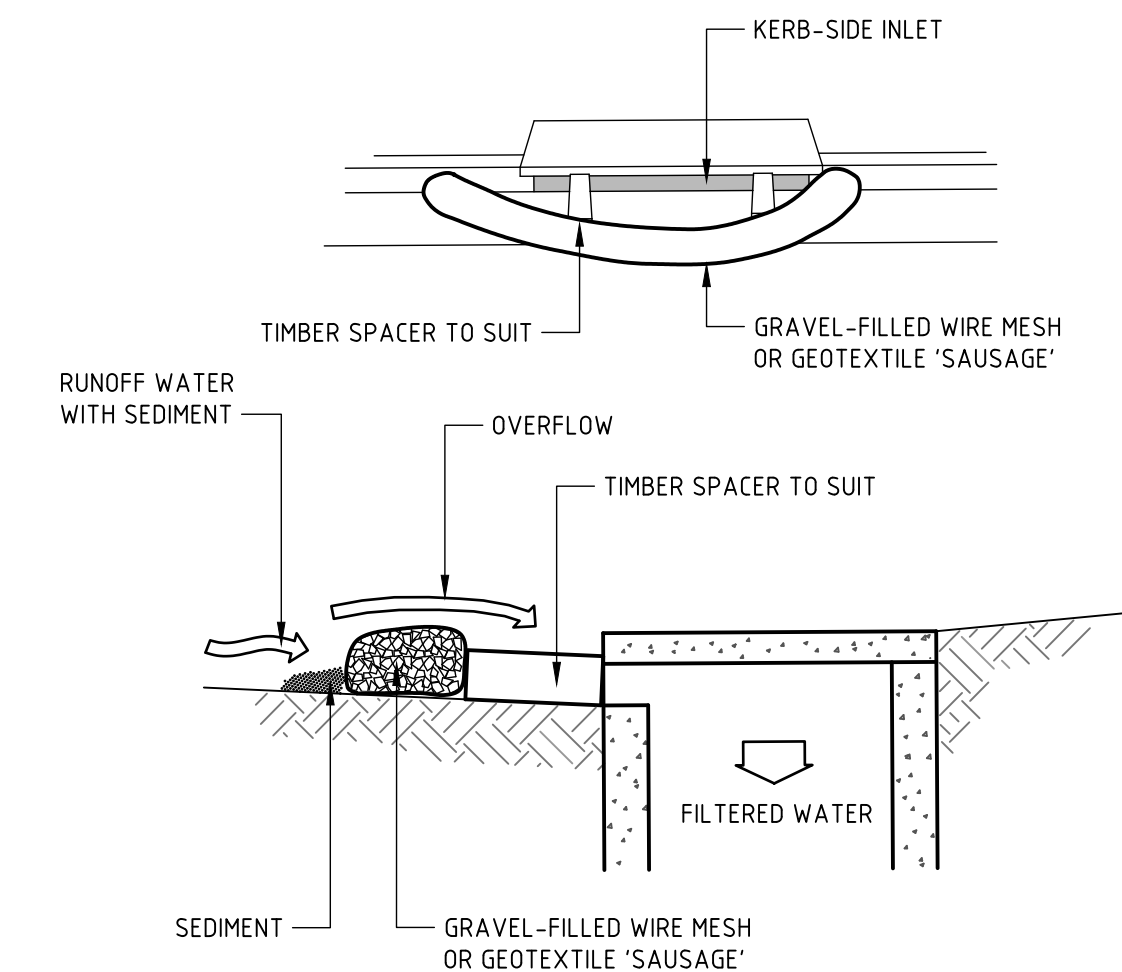
STABILISED SITE ACCESS (SD 6-14)



CONSTRUCTION NOTES

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 15 METRE LONG STAR PICKETS INTO GROUND AT 2.5 METRE INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

SEDIMENT FENCE (SD 6-8)

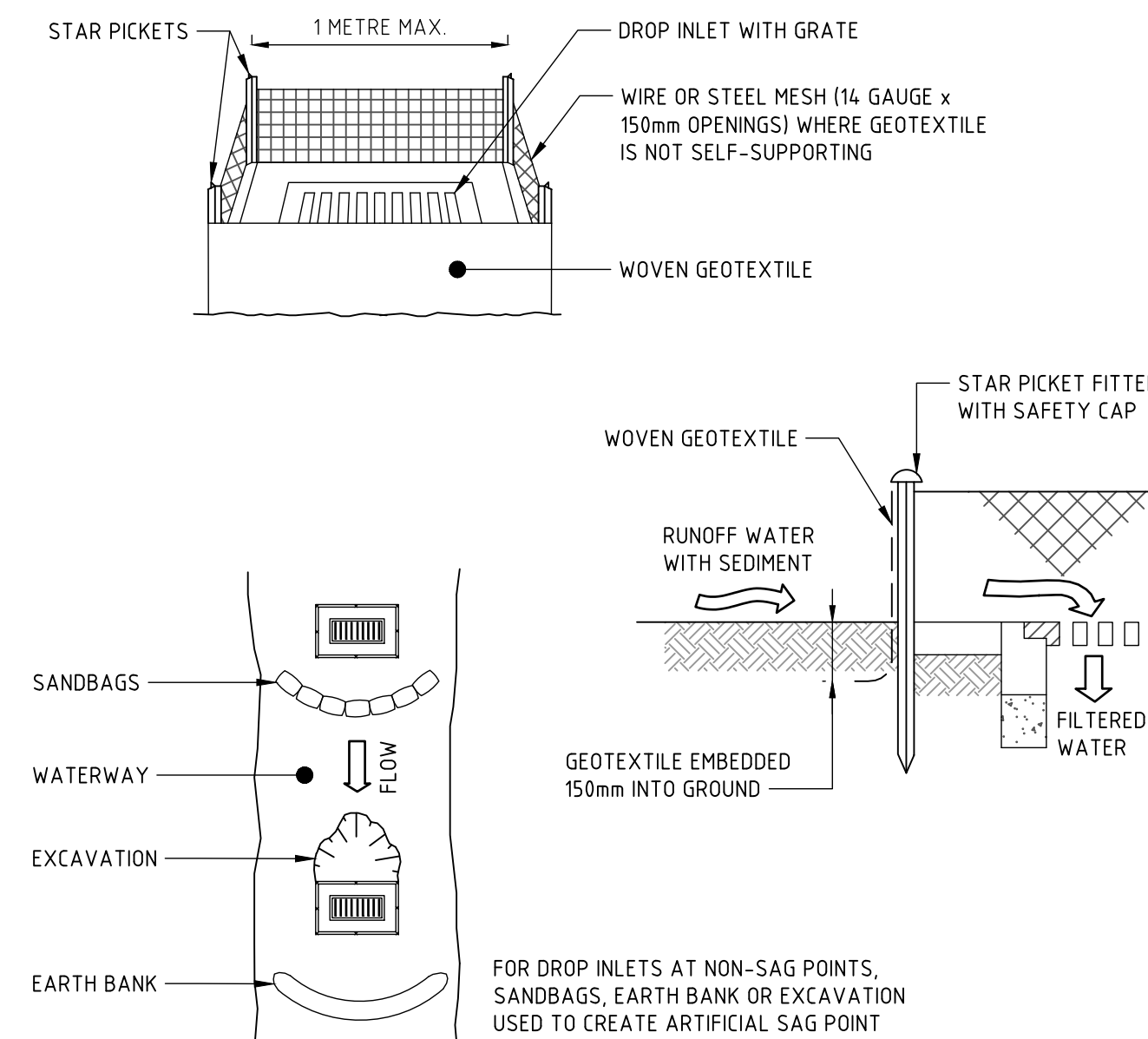


NOTE: THIS PRACTICE ONLY TO BE USED
WHERE SPECIFIED IN APPROVED SWMP/ESCP.

CONSTRUCTION NOTES

1. INSTALL FILTERS TO KERB INLETS ON AT SAG POINTS.
2. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
3. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
4. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
5. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
6. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY FIRMLY ABUT EACH OTHER AND SEDIMENT-LADEN WATERS CANNOT PASS BETWEEN.

MESH AND GRAVEL INLET FILTER (SD 6-11)


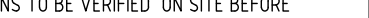



CONSTRUCTION NOTES

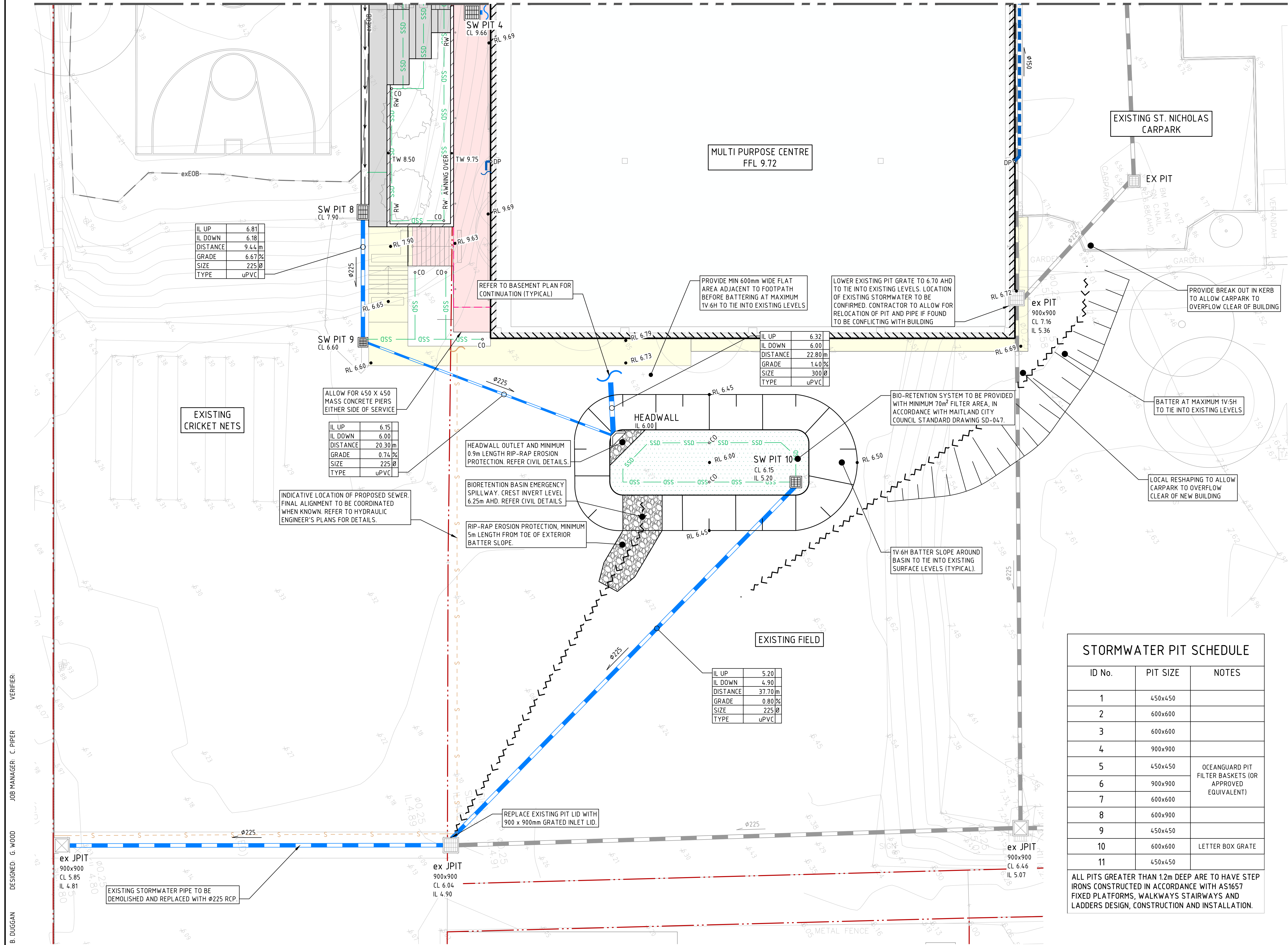
1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. FOLLOW STANDARD DRAWING 6-7 AND STANDARD DRAWING 6-8 FOR INSTALLATION PROCEDURES FOR THE STRAW BALES OR GEOFABRIC. REDUCE THE PICKET SPACING TO 1 METRE CENTRES.
3. IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
4. DO NOT COVER THE INLET WITH GEOTEXTILE UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

GEOTEXTILE INLET FILTER (SD 6-12)

NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT	<div> <small>ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE.</small>  <div> Newcastle Level 1, 215 Pacific Hwy, Charlestown NSW 2290 Ph (02) 4943 1777 Email newcastle@northrop.com.au ABN 81 094 433 100 </div> </div>	PROJECT	DRAWING TITLE	JOB NUMBER
A	ISSUED FOR 30% DETAILED DESIGN	JK		GW	10.11.23	 DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED	 THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD	<small>ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE.</small> NOT TO SCALE	ALL SAINTS COLLEGE MULTI PURPOSE CENTRE 24 HUNTER STREET HORSESHOE BEND, NSW 2320	CIVIL ENGINEERING PACKAGE EROSION AND SEDIMENT CONTROL DETAILS	NL203354
B	ISSUED FOR 50% DETAILED DESIGN	BD		GW	19.01.24						
C	ISSUED FOR 90% DETAILED DESIGN	JK		GW	14.06.24						
D	ISSUED FOR 100% TENDER	JK		GW	22.08.24						
E	RE-ISSUED FOR 100% TENDER	JS		GW	02.10.24						
DRAWING SHEET SIZE = A1											

REFER TO SHEET 1 FOR CONTINUATION



LEGEND

SITE BOUNDARY LINE

DENOTES ROOF OVER

STORMWATER PIPE

APPROX EXTENT OF EXISTING STORMWATER PIPE

SW PIT
CL xx.xx

EX PIT

GTD

HW

CO

SSD

RIP RAP ENERGY DISSIPATER

DP

VP

INDICATIVE LOCATION OF DOWNPIPE DRAINAGE LINE. REFER TO HYDRAULIC ENGINEER

BIO-RETENTION BASIN

DRAINAGE SWALE

DISH DRAIN

RETAINING WALL / WALL. REFER TO LANDSCAPE ARCHITECT DRAWINGS FOR RETAINING WALL TYPE

EXISTING CONTOURS (0.20m INTERVALS)

• RL XX.XX

• TW XX.XX

+ eRL XX.XX

FFL X.XX

IK

FALL

STRUCTURAL PAVEMENT. REFER TO STRUCTURAL ENGINEER'S DRAWINGS

CONCRETE FOOTPATH PAVEMENT

EXTENT OF BRICK PAVERS

PERMEABLE PAVERS PAVEMENT

CONCRETE BLEACHER SEATING

EXISTING BUILDING EXTENTS

PROPOSED BUILDING EXTENTS

APPROX EXTENT OF EXISTING SEWER LINE

LANDSCAPING FURNITURE. REFER TO LANDSCAPE ARCHITECT FOR DETAIL

exEOB

STORMWATER PIT SCHEDULE

ID No.	PIT SIZE	NOTES
1	450x450	
2	600x600	
3	600x600	
4	900x900	
5	450x450	OCEANGUARD PIT FILTER BASKETS (OR APPROVED EQUIVALENT)
6	900x900	
7	600x600	
8	600x900	
9	450x450	
10	600x600	LETTER BOX GRATE
11	450x450	

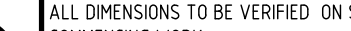



ALL PITS GREATER THAN 1.2m DEEP ARE TO HAVE STEP IRONS CONSTRUCTED IN ACCORDANCE WITH AS1657 FIXED PLATFORMS, WALKWAYS STAIRWAYS AND LADDERS DESIGN, CONSTRUCTION AND INSTALLATION.

NOTE

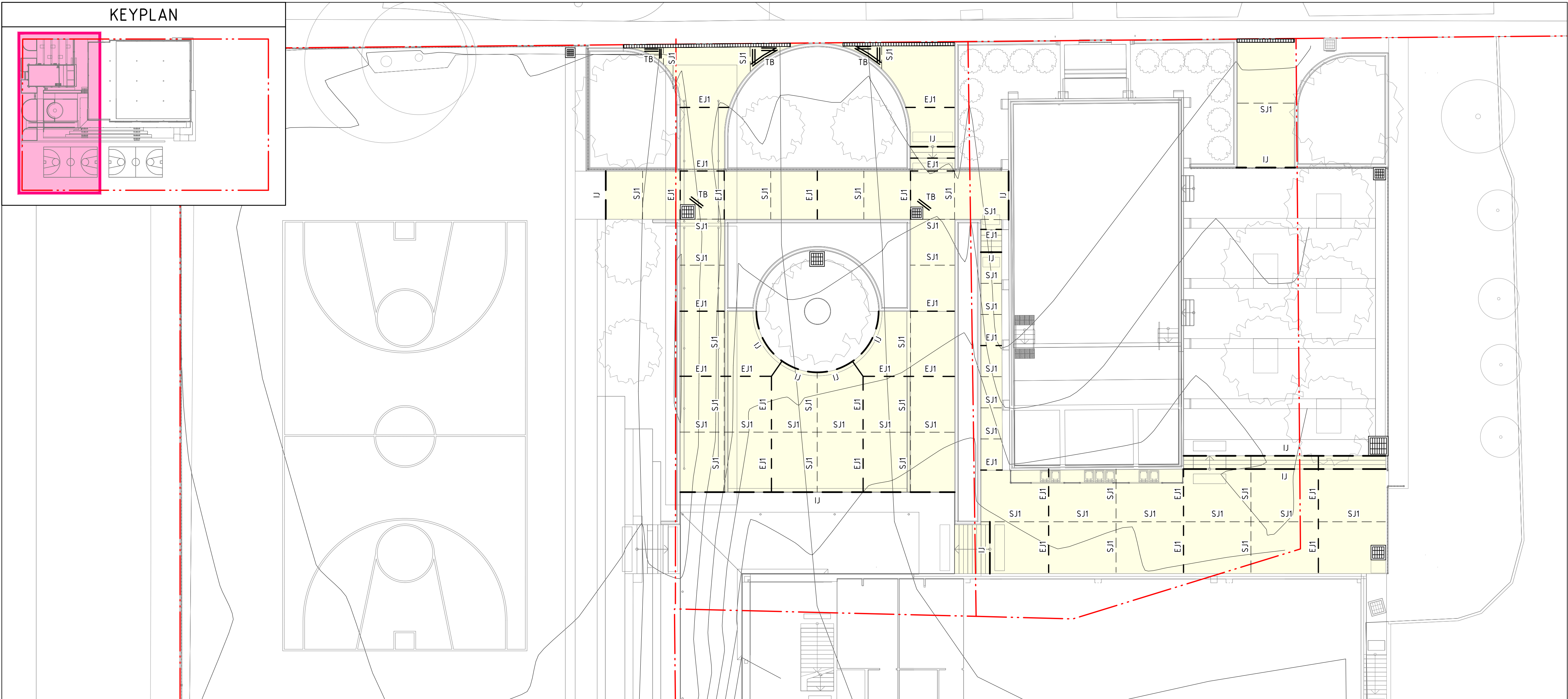
1. REFER TO ARCHITECT AND LANDSCAPE PLANS FOR SETOUT AND LEVELS. ANY DISCREPANCIES BETWEEN CIVIL PLANS ARE TO BE RAISED WITH NORTHROP PRIOR TO COMMENCEMENT.

2. REFER TO HYDRAULIC ENGINEER'S PLANS FOR LOCATION AND SIZE OF DOWNPIPES AND FIRST FLUSH DEVICE.

NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT	SCALE	PROJECT	DRAWING TITLE	JOB NUMBER
A	ISSUED FOR 30% DETAILED DESIGN	JK		GW	10.11.23		SHAC	 <p>ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE.</p>	 <p>Newcastle Level 1, 215 Pacific Hwy, Charlestown NSW 2290 Ph (02) 4943 1777 Email newcastle@northrop.com.au ABN 81 094 433 100</p>	ALL SAINTS COLLEGE MULTI PURPOSE CENTRE 24 HUNTER STREET HORSESHOE BEND, NSW 2320	NL203354
B	ISSUED FOR 50% DETAILED DESIGN	BD		GW	19.01.24						
C	ISSUED FOR 90% DETAILED DESIGN	JK		GW	14.06.24						
D	ISSUED FOR 100% TENDER	JK		GW	22.08.24						
E	RE-ISSUED FOR 100% TENDER	JS		GW	02.10.24						
DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED						THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD	SCALE 1:150 @ A1			CIVIL ENGINEERING PACKAGE CIVIL WORKS PLAN - GROUND FLOOR SHEET 2	REVISION CC-C04.02 E DRAWING SHEET SIZE = A1

VERIFIER: C. PIPER
JOB MANAGER: C. PIPER
DESIGNED: G. WOOD
DRAWN: B. DUGGAN



LEGEND

SITE BOUNDARY LINE

EXISTING BOUNDARY LINE

EASEMENT LINE

SJ

SAWN JOINT

EJ

EXPANSION JOINT

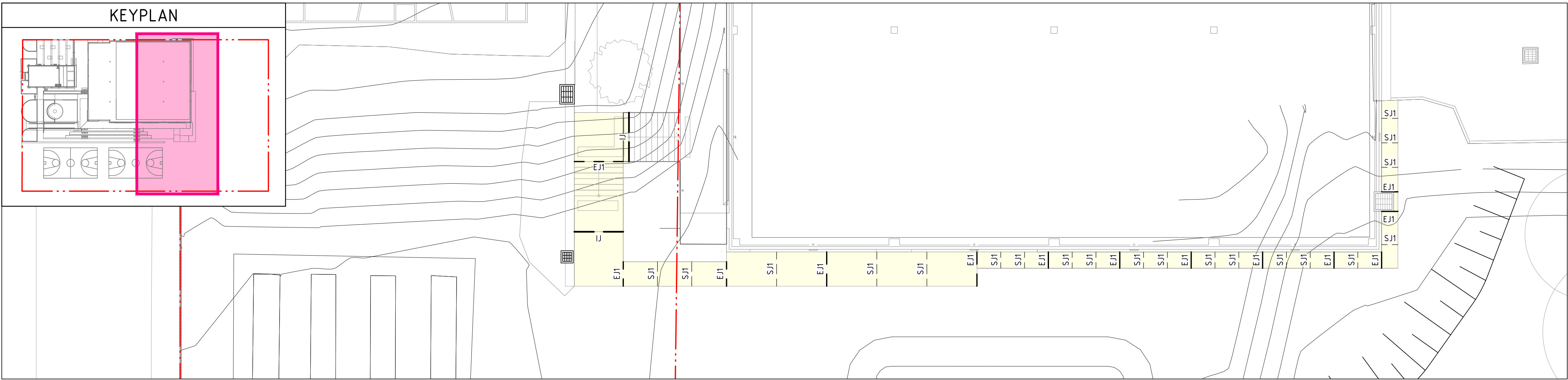
U

ISOLATION JOINT



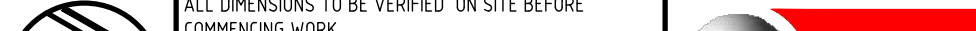
TB

TRIMMER BARS

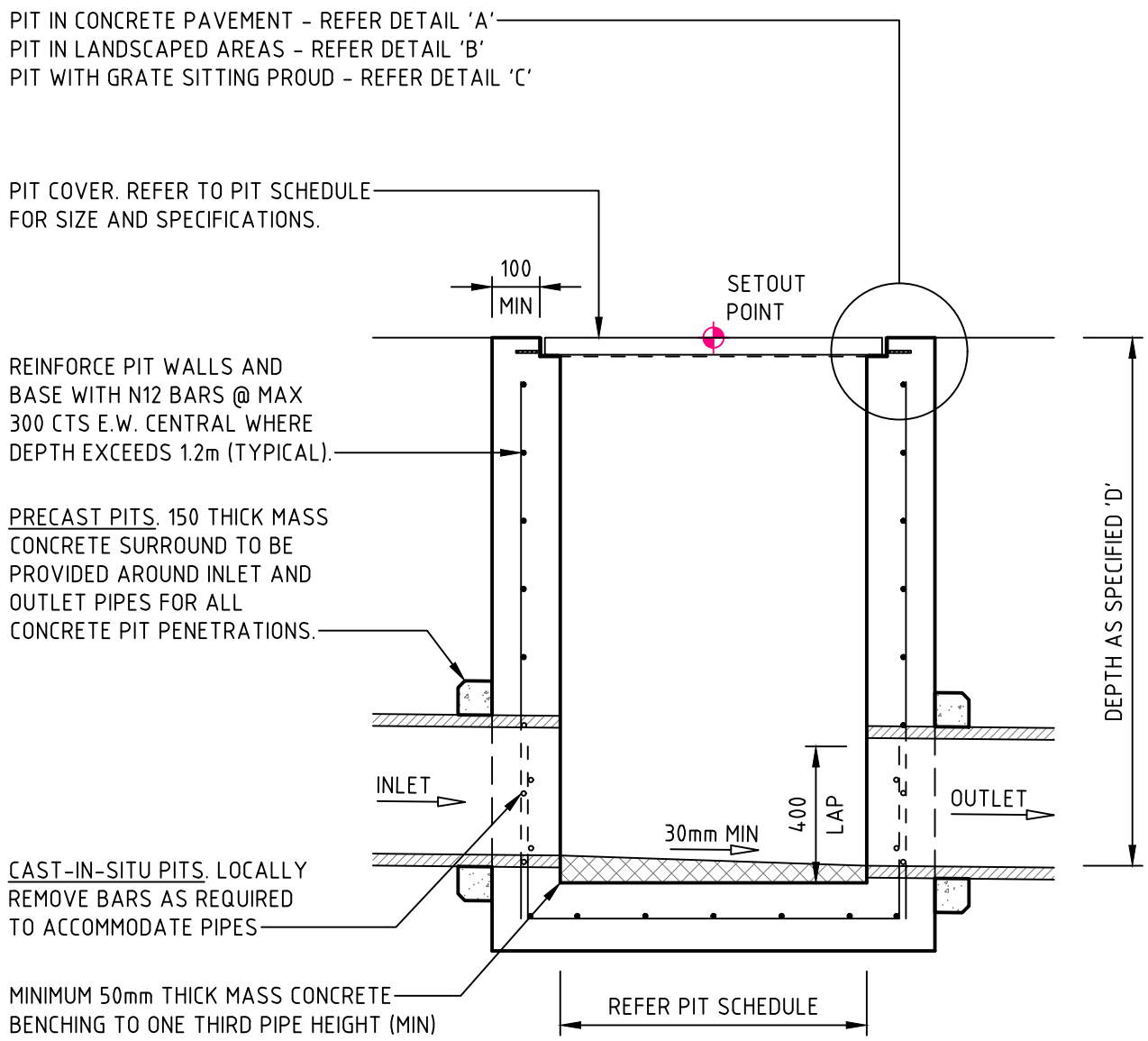
TO BE READ IN CONJUNCTION WITH CIVIL DETAILS



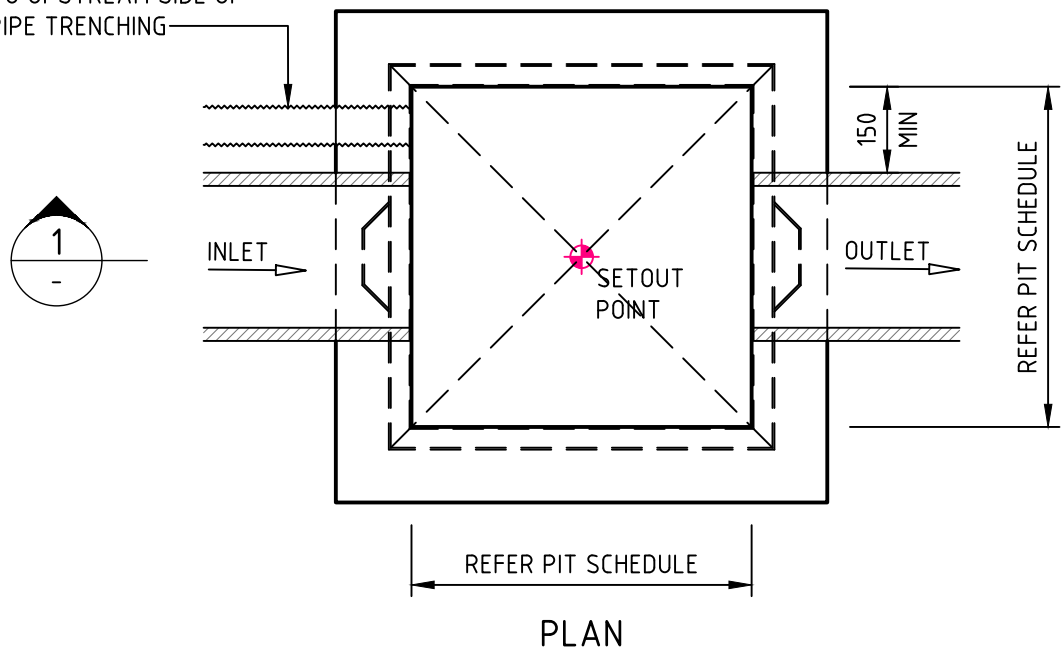
NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT	SCALE	PROJECT	DRAWING TITLE	JOB NUMBER	
A	ISSUED FOR 90% DETAILED DESIGN	BD		GW	19.01.24	 Catholic Diocese OF NORTHERN NEWCASTLE	SHAC	 SCALE 1:150 @ A1	 Newcastle Level 1, 215 Pacific Hwy, Charlestown NSW 2290 Ph (02) 4943 1777 Email newcastle@northrop.com.au ABN 81 094 433 100	ALL SAINTS COLLEGE MULTI PURPOSE CENTRE	CIVIL ENGINEERING PACKAGE	NL203354
B	ISSUED FOR 90% DETAILED DESIGN	JK		GW	14.06.24							
C	ISSUED FOR 100% TENDER	JK		GW	22.08.24							
D	RE-ISSUED FOR 100% TENDER	JS		GW	02.10.24							
DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED						THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD						
DRAWING SHEET SIZE = A1												

VERIFIER:
JOB MANAGER: C. PIPER
DESIGNED: G. WOOD
DRAWN: B. DUGGAN

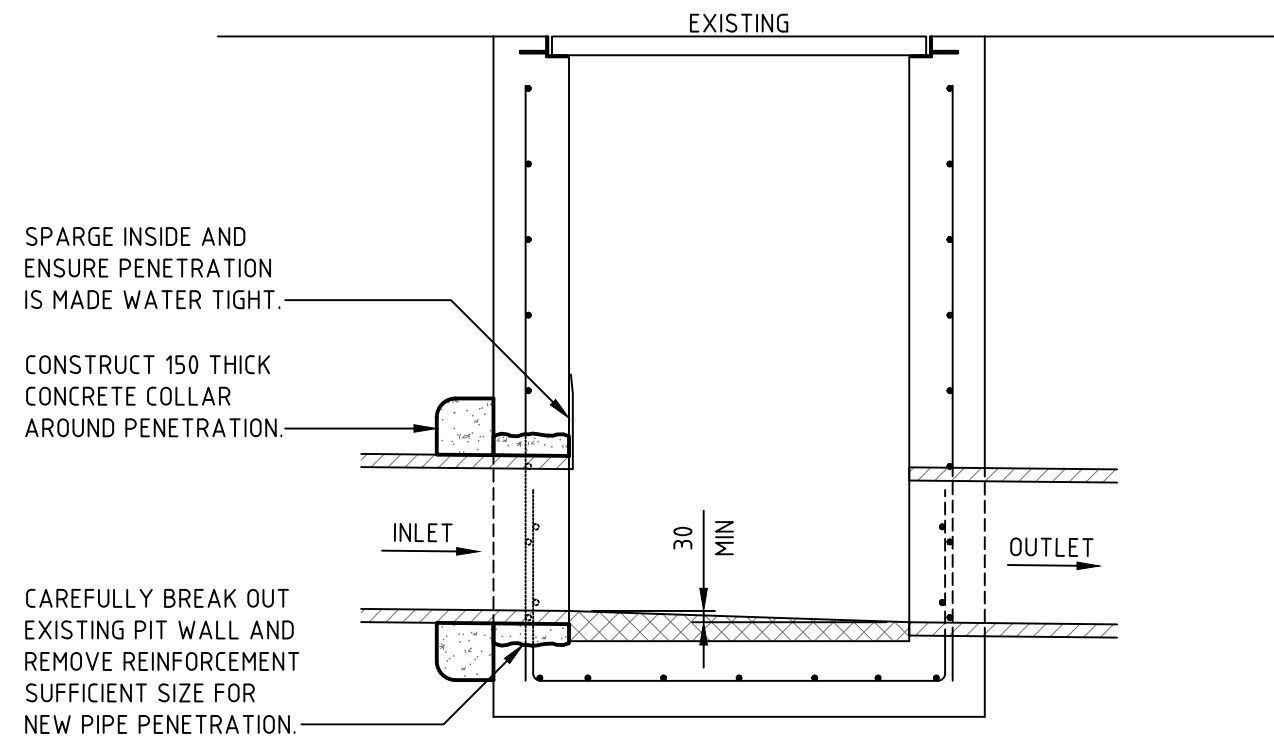


SECTION 1



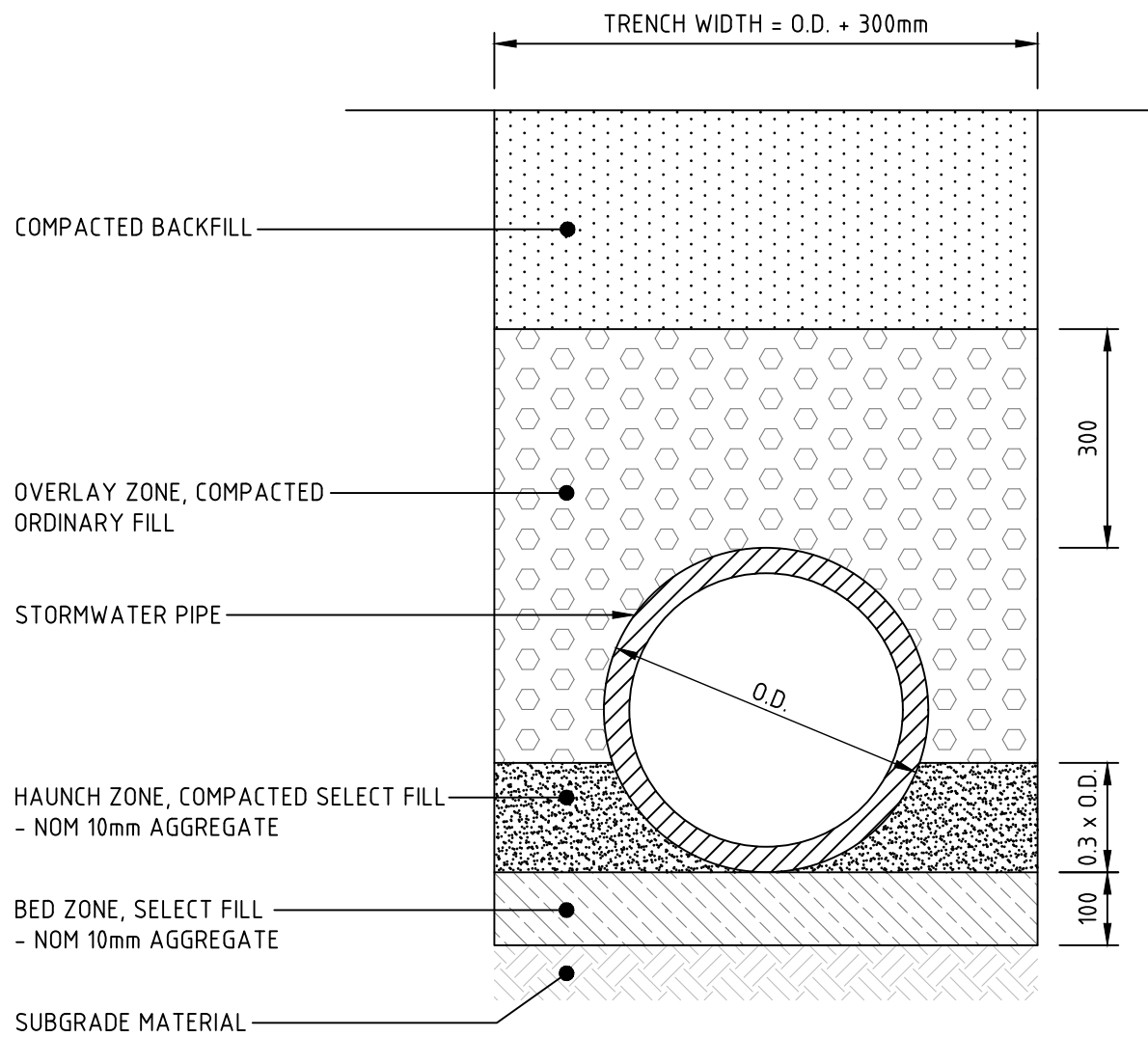
SURFACE INLET 'SIP' / JUNCTION PIT 'JP'

- PIT STRUCTURE TO BE 150mm THICK MINIMUM (UNLESS SHOWN OTHERWISE)
- REFER TO 'PIT CORNER REINFORCEMENT DETAIL' IF MESH IS USED IN LIEU OF N12-300 EACH WAY
- PROVIDE STEP IRONS IN ACCORDANCE WITH AS1657 WHEN PIT DEPTHS ARE GREATER THEN 1200mm
- SPARGE INTERNAL PIT FACE AT ALL PIPE CONNECTIONS AND PENETRATIONS.
- SHAPE BASE OF PIT TO DIRECT FLOWS TOWARDS OUTLET. PROVIDE A MINIMUM 30mm SMOOTH DROP FROM INLET TO OUTLET
- PROVIDE ADEQUATE LEVEL OF COMPACTION AROUND PIT. REFER TO SPECIFICATION FOR REQUIREMENTS.



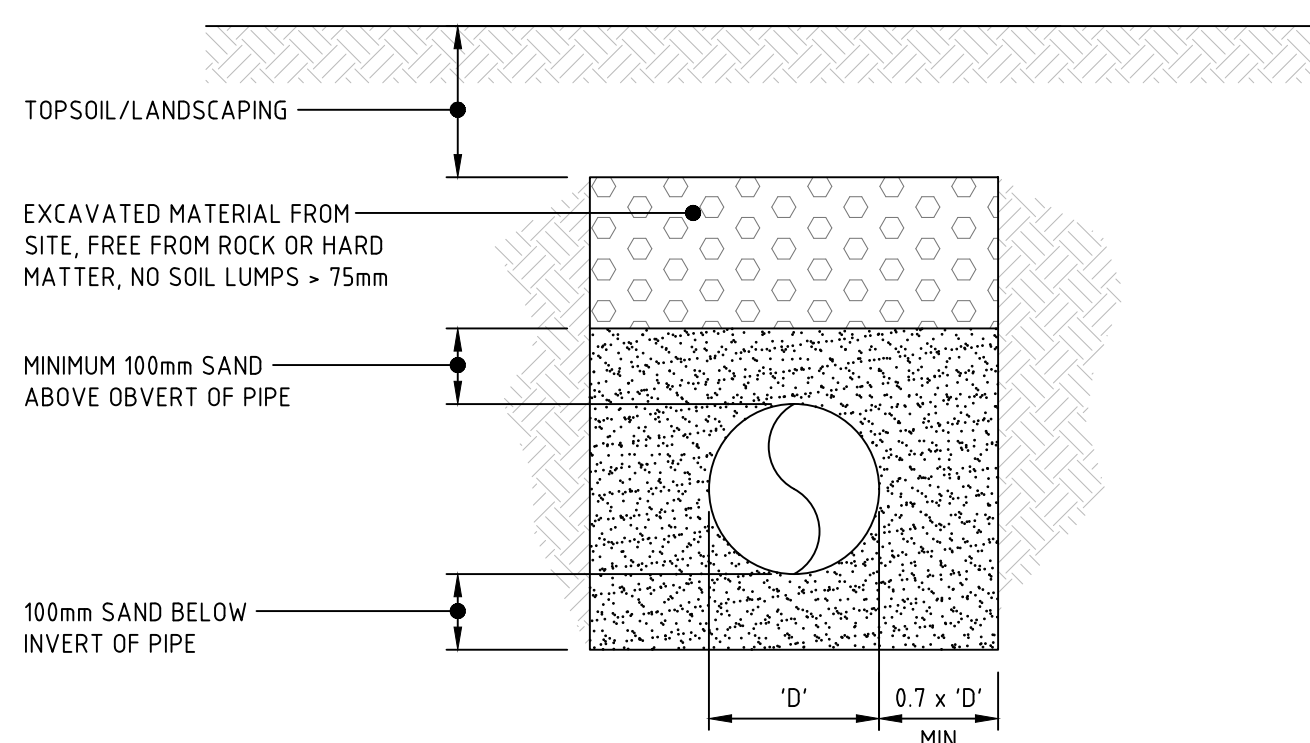
DRAINAGE PIT - NEW PIPE CONNECTION

THE CONTRACTOR SHALL REQUEST THE SUPERINTENDENT INSPECT THE CONDITION OF THE EXISTING PIT PRIOR TO MODIFICATION. IF THE EXISTING PIT IS IN POOR CONDITION, THE CONTRACTOR SHALL REMOVE AND RECONSTRUCT A NEW PIT IN ACCORDANCE WITH SUPERINTENDENTS INSTRUCTIONS.

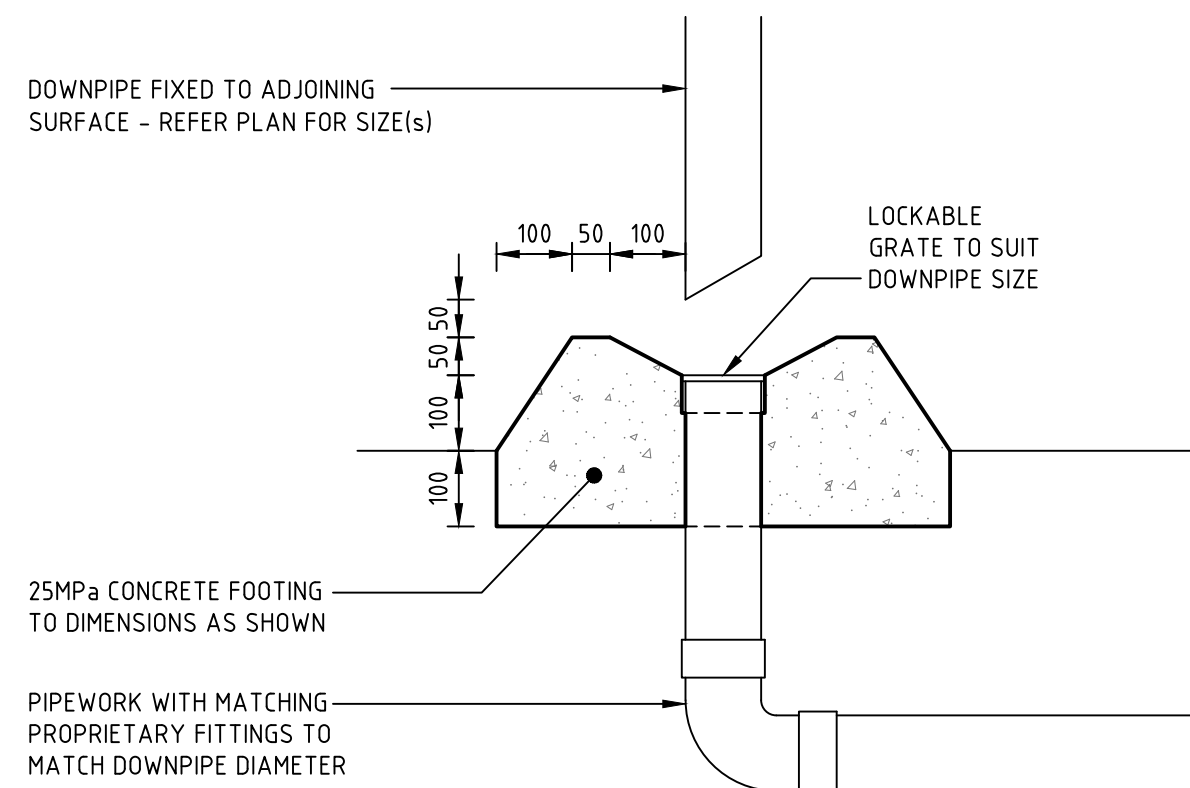


STORMWATER PIPE TRENCH - GENERAL AREAS

- TRENCH WIDTH MAY NEED TO BE INCREASED SUBJECT TO ACHIEVING COMPACTION. ENSURE MINIMUM 300mm CLEARANCE BETWEEN, WHEN USING MULTIPLE PIPES TO ACHIEVE ADEQUATE COMPACTION.
- MINIMUM PIPE COVER NOT UNDER ROADS TO BE 300mm U.N.O.
- THE CONTRACTOR SHALL ENSURE THAT SHORING OF TRENCHES IS INSTALLED AS REQUIRED BY STATUTORY REQUIREMENTS.
- ENSURE BACKFILLING COMPACTION MEETS THE FOLLOWING STANDARDS;
 - TRENCHES UNDER PAVED AREAS / BUILDING - 100% SMDD
 - TRENCHES NOT UNDER PAVEMENTS - 95% SMDD

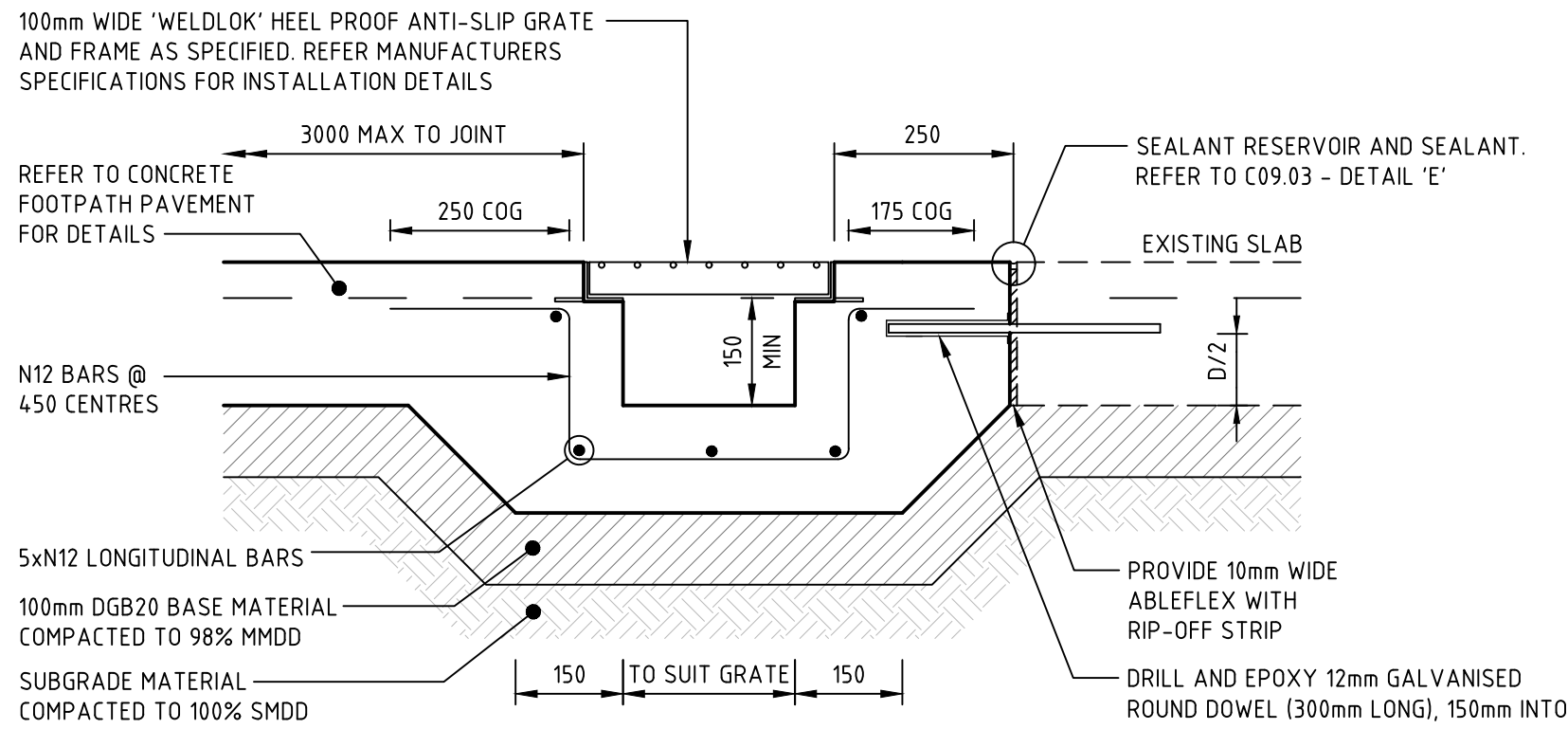


LANDSCAPED AREAS PIPE BACKFILLING DETAIL



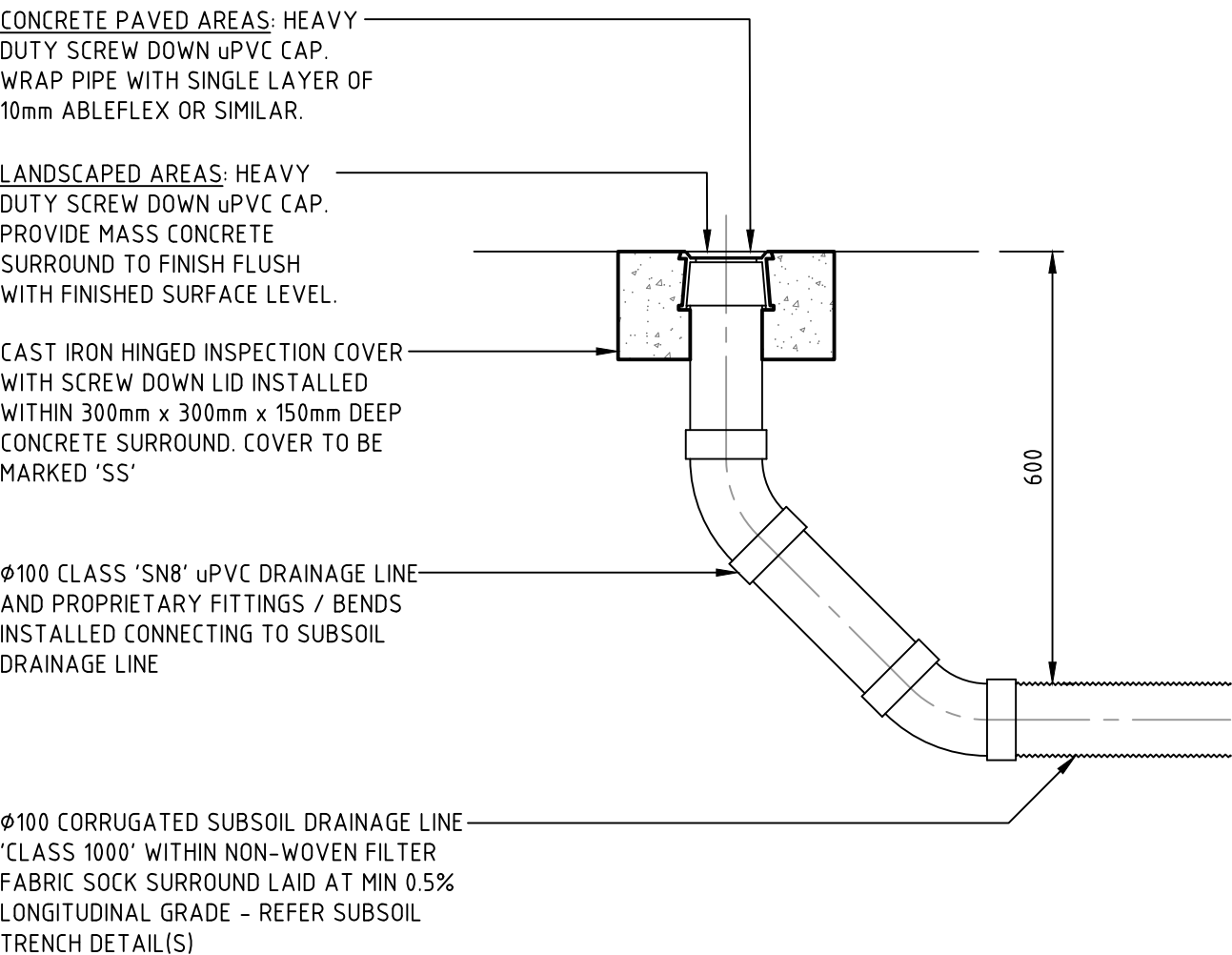
DOWNPIPE CONNECTION 'DP'

- DOWNPIPE TO BE CONNECTED TO MAIN DRAINAGE LINE AT EITHER STORMWATER PIT OR USING APPROPRIATE PROPRIETARY 'Y' JUNCTION CONNECTIONS



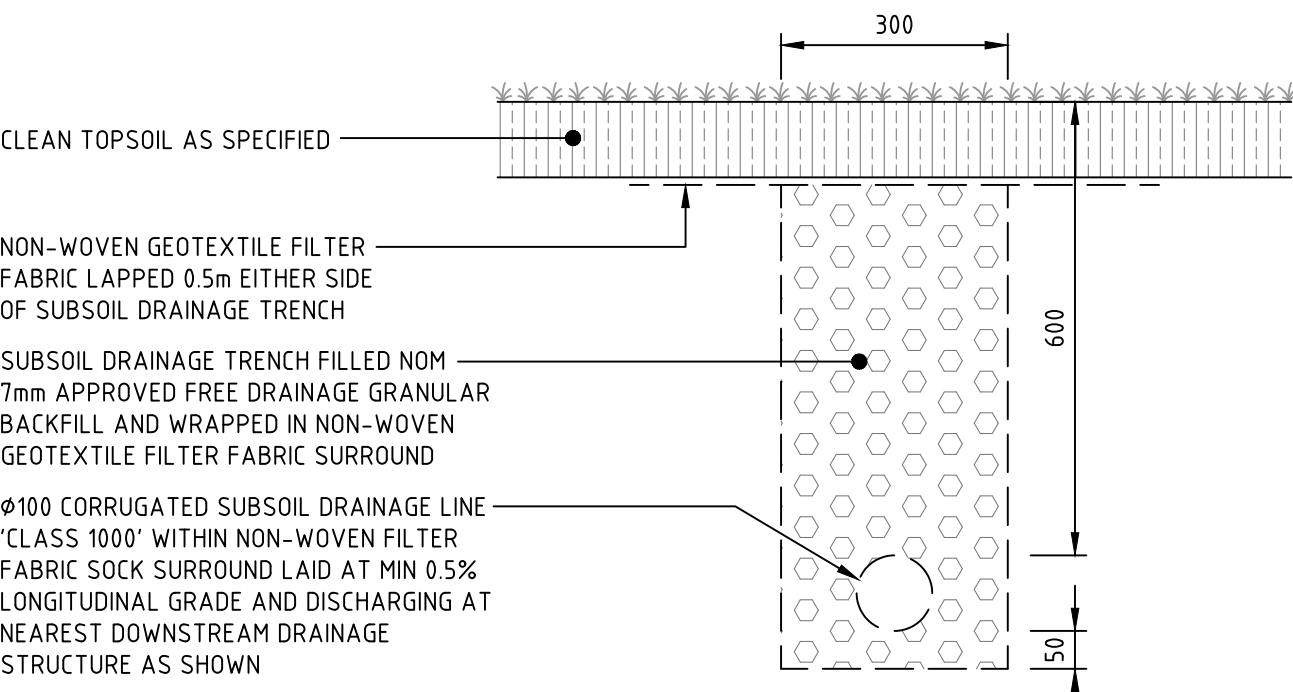
GRADED TRENCH DRAIN 'GTD'

GRADED TRENCH DRAIN TO HAVE MINIMUM 150mm CLEARANCE AND 1% LONGITUDINAL FALL. GRATE CLASS TO BE CLASS 'B' HEELS SAFE IN PEDESTRIAN AREAS AND CLASS 'D' IN TRAFFICKED AREAS UNLESS NOTED OTHERWISE ON PLAN. REFER PLAN FOR JOINT TYPES AND LOCATIONS



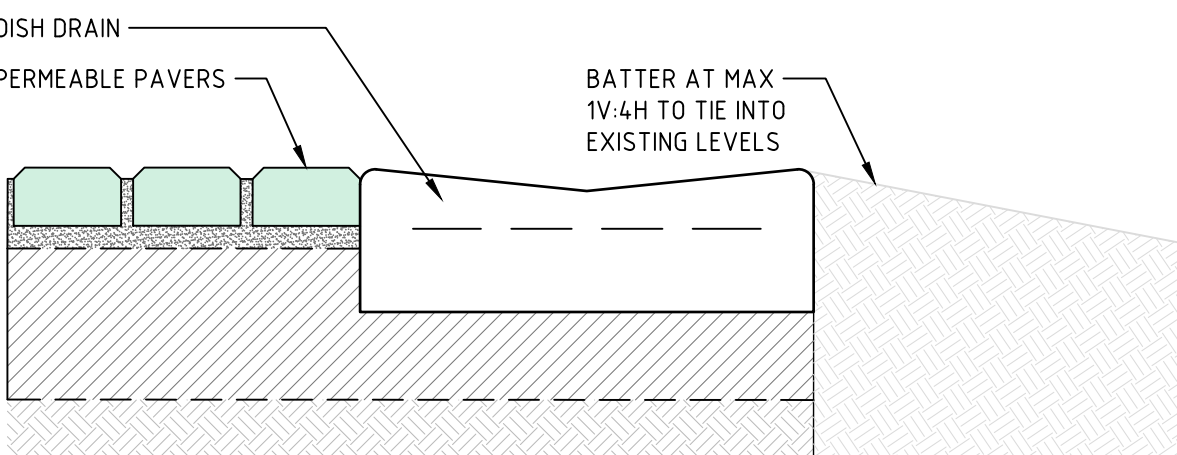
SUBSOIL DRAINAGE CLEAROUT 'CO'

CLEAROUT TO BE INSTALLED AT UPSTREAM POINTS ALONG SUBSOIL DRAINAGE LINES @ MAX 30m CENTRES AND DISCHARGING TO DRAINAGE STRUCTURES @ MAX 60m CENTRES.

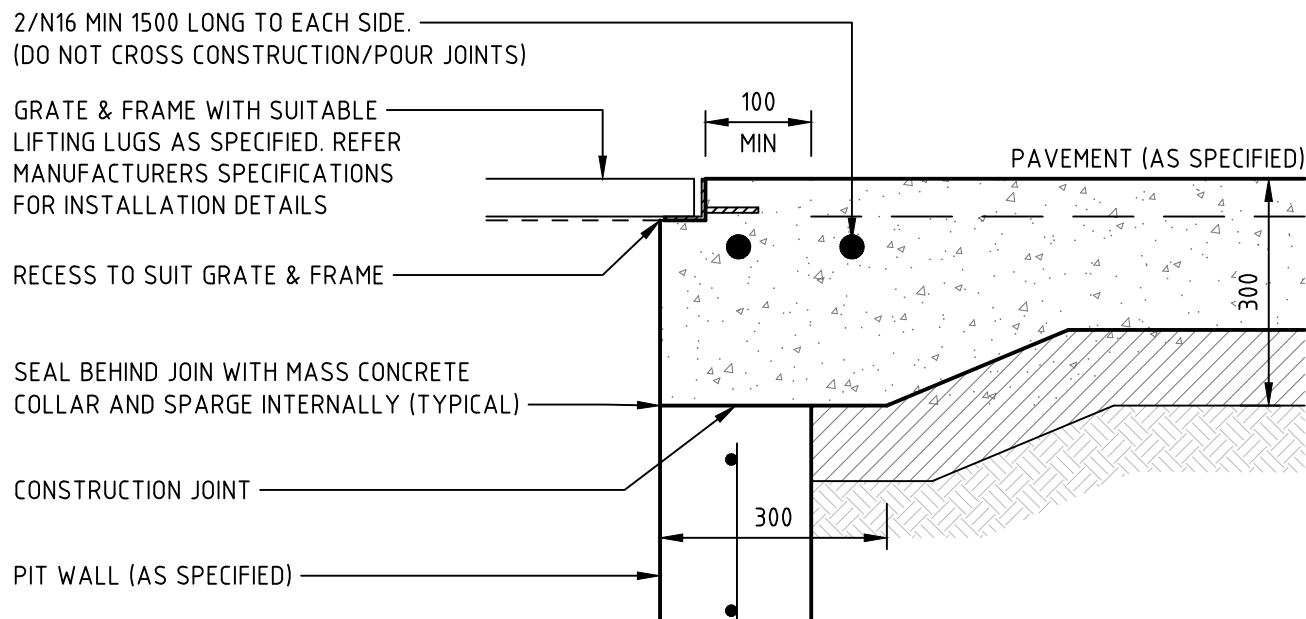


SUBSOIL DRAINAGE TRENCH - LANDSCAPING 'SSD'

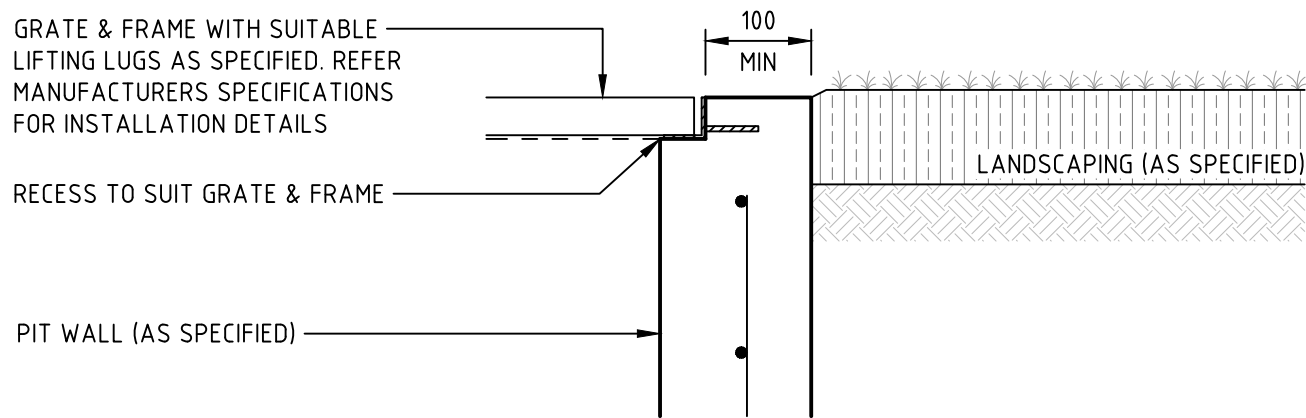
CLEAROUT TO BE INSTALLED @ MAX 30m CENTRES AND DISCHARGING TO DRAINAGE STRUCTURES @ MAX 60m CENTRES.



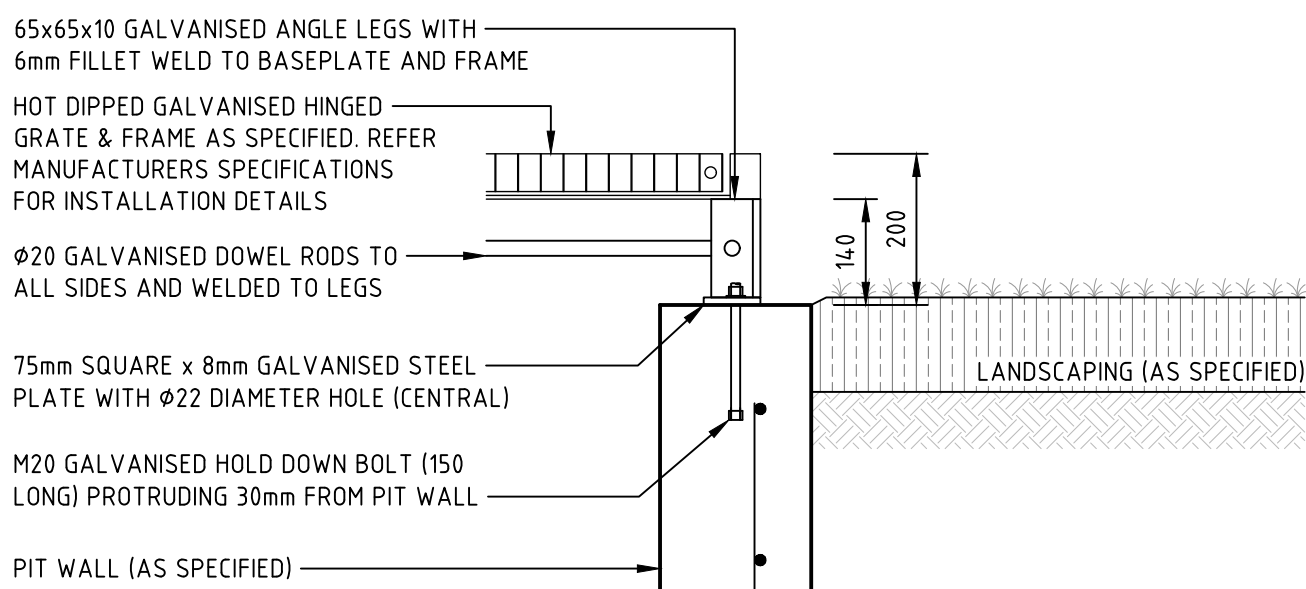
SECTION A
SCALE: 1:10
C04.01



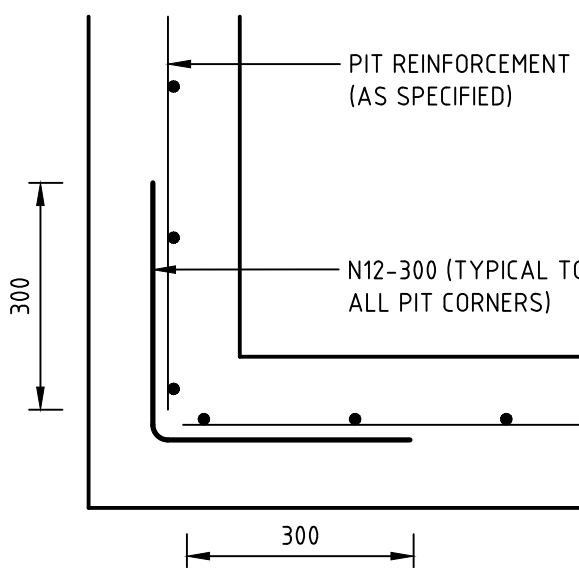
PIT INTERFACE - DETAIL 'A'



PIT INTERFACE - DETAIL 'B'

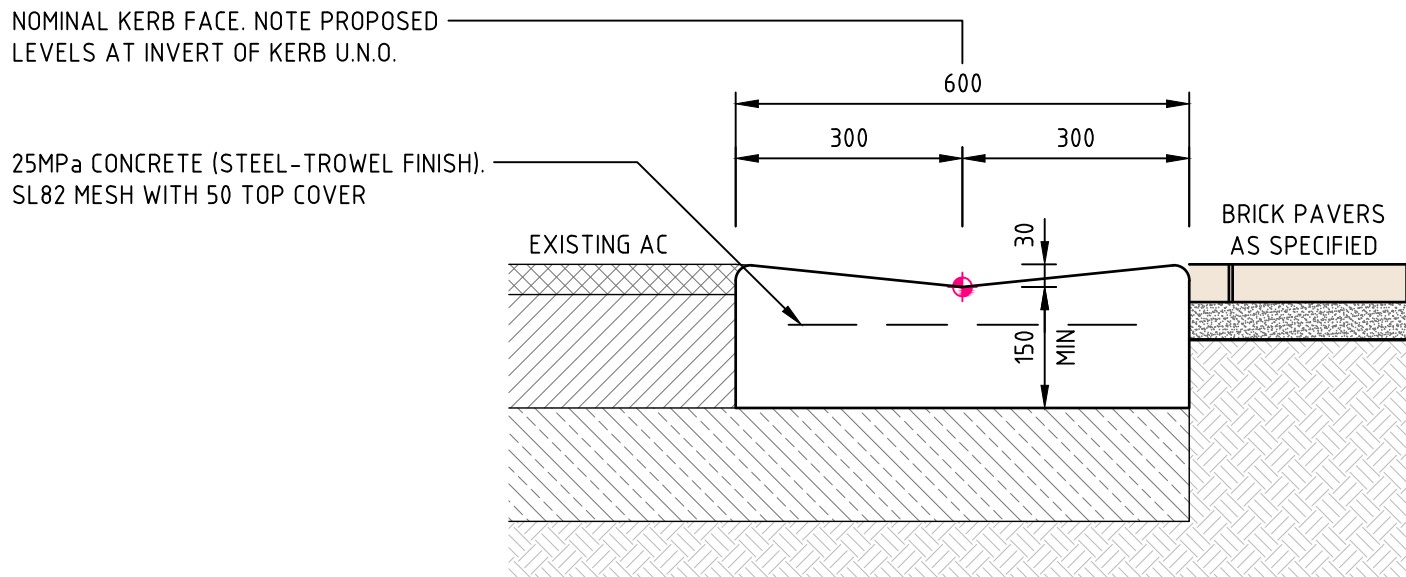


PIT INTERFACE - DETAIL 'C'



PIT CORNER REINFORCEMENT DETAIL

APPLICABLE TO ALL STORMWATER DRAINAGE STRUCTURES



DISH DRAIN - 600 WIDE 'DD'

EXPANSION JOINTS @ MAX 12m CTRS / TOOL JOINTS @ MAX 3m CTRS ALL RADII TO BE 20mm U.N.O.

NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
A	ISSUED FOR 30% DETAILED DESIGN	JK		GW	10.11.23
B	ISSUED FOR 50% DETAILED DESIGN	BD		GW	19.01.24
C	ISSUED FOR 90% DETAILED DESIGN	JK		GW	14.06.24
D	ISSUED FOR 100% TENDER	JK		GW	22.08.24
E	RE-ISSUED FOR 100% TENDER	JS		GW	02.10.24

0000 - 10/10/2024 2:40 PM Printed by: JACOB STUBBS



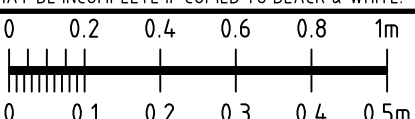
DRAWING NOT TO BE USED FOR CONSTRUCTION
UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED



THE COPYRIGHT OF THIS DRAWING REMAINS WITH
NORTHROP CONSULTING ENGINEERS PTY LTD

ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK.
NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY.
THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE.

SCALE 1:20 @ A1
SCALE 1:10 @ A1



PROJECT
**ALL SAINTS COLLEGE
MULTI PURPOSE CENTRE**

**24 HUNTER STREET
HORSESHOE BEND, NSW 2320**

DRAWING TITLE
CIVIL ENGINEERING PACKAGE

**CIVIL DETAILS
SHEET 1**

JOB NUMBER
NL203354

DRAWING NUMBER
CC-C09.01
REVISION
E

DRAWING SHEET SIZE = A1



DRAINAGE LAYER
CLEAN, FINE GRAVEL (2-5mm WASHED SCREENINGS)
(REF: GUIDELINE SPECIFICATIONS FOR FILTER MEDIA IN
BIORETENTION SYSTEMS, FACILITY FOR ADVANCING
WATER BIOFILTRATION (2009))



- ALL RIP-RAP MUST CONSIST OF HARD, DURABLE ANGULAR RUN-OF-QUARRY ROCK; RESISTANT TO WEATHERING AND WATER ACTION; FREE FROM OVERBURDEN, SPOIL, SHALE AND ORGANIC MATERIAL; AND SHALL MEET THE GRADATION REQUIREMENTS SPECIFIED.
- ROUNDED STONES / BOULDERS WILL NOT BE ACCEPTABLE.
- SHALE AND ROCK WITH SHALE SEAMS WILL NOT BE ACCEPTABLE.
- ALL ROCK AND COBBLES TO BE PACKED WITH TOPSOIL. GAPS IN RIP-RAP TO BE PLANTED WITH SUITABLE NATIVE GRASSES / SEDGES.
- RIP-RAP SHALL BE PLACED ON THE PREPARED SLOPE IN A MANNER THAT WILL PRODUCE A REASONABLY WELL GRADED MASS OF STONE WITH THE MINIMUM PRACTICAL PERCENTAGE OF VOIDS.
- LARGER STONES SHALL BE WELL DISTRIBUTED AND THE ENTIRE MASS OF STONE SHALL CONFORM TO THE GRADATION SPECIFIED BY THE ENGINEERING PLANS.
- THE MINIMUM THICKNESS OF THE RIP-RAP LAYER IS TO BE 2 TIMES THE D/50 ROCK SIZE AND NOT BE LESS THAN 200mm FOR PRACTICAL PLACEMENT.
- THE MINIMUM DENSITY OF STONE USED SHALL NOT BE LESS THAN 2200 kg/CUM. TYPICAL ROCK WEIGHT RANGES FOR RIP-RAP ARE:

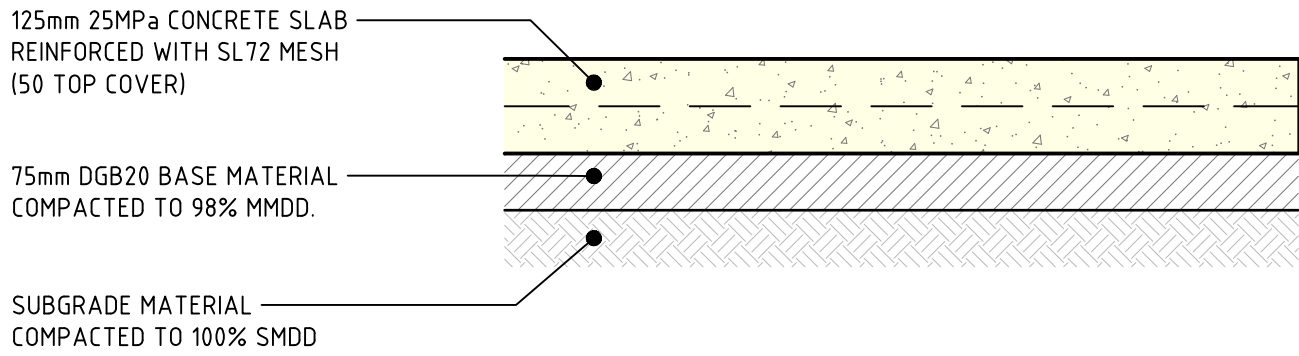
M50	- 60kg (NOM 300MD)
M15	- 25kg
M100	- 120kg



- ## NOTES
1. ALL RIPRAP MUST CONSIST OF HARD, DURABLE ANGULAR RUN-OF-QUARRY ROCK; RESISTANT TO WEATHERING & WATER ACTION; FREE FROM OVERBURDEN, SPOIL, SHALE & ORGANIC MATERIAL; & SHALE MUST THE GRADATION REQUIREMENTS SPECIFIED.
 2. ROUNDED STONES/BOULDERS WILL NOT BE ACCEPTABLE.
 3. SHALE AND ROCK WITH SHALE SEAMS WILL NOT BE ACCEPTABLE.
 4. ALL ROCK AND COBBLES TO BE PACKED WITH TOPSOIL. GAPS IN RIPRAP TO BE PLANTED WITH SUITABLE NATIVE GRASSES/SEDGES.
 5. RIPRAP SHALL BE PLACED ON THE PREPARED SLOPE IN A MANNER THAT WILL PRODUCE A REASONABLY WELL GRADED MASS OF STONE WITH THE MINIMUM PRACTICAL PERCENTAGE OF VOIDS.
 6. LARGER STONES SHALL BE WELL DISTRIBUTED & THE ENTIRE MASS OF STONE SHALL CONFORM TO THE GRADATION SPECIFIED BY THE ENGINEERING PLANS.
 7. THE MINIMUM THICKNESS OF THE RIPRAP LAYER IS TO BE 2 TIMES THE D_{30} ROCK SIZE & NOT BE LESS THAN 200mm FOR PRACTICAL PLACEMENT.
 8. THE MINIMUM DENSITY OF STONE USED SHALL NOT BE LESS THAN 2200 kg/cu.m. TYPICAL ROCK WEIGHT RANGES FOR RIPRAP ARE:
M50 - 60kg (NGM 300MD)
M15 - 25kg
M100 - 120kg

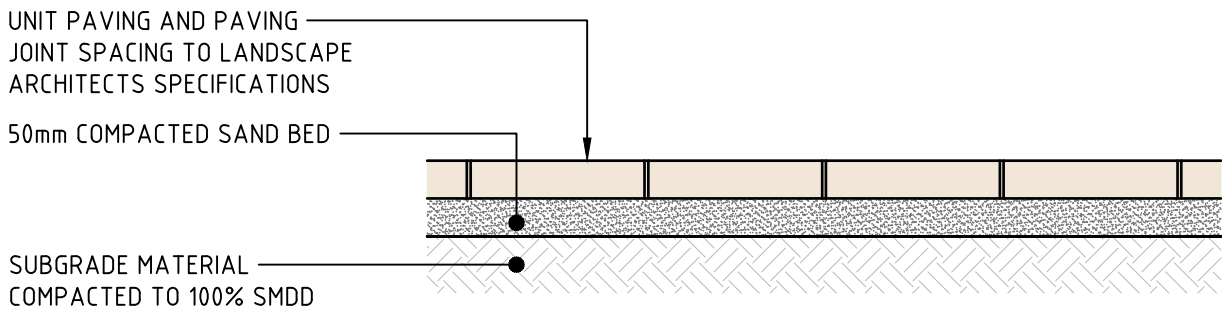
NOT FOR CONSTRUCTION

VERIFIER: C. PIPER
JOB MANAGER: C. PIPER
DESIGNED: G. WOOD
DRAWN: B. DUGGAN



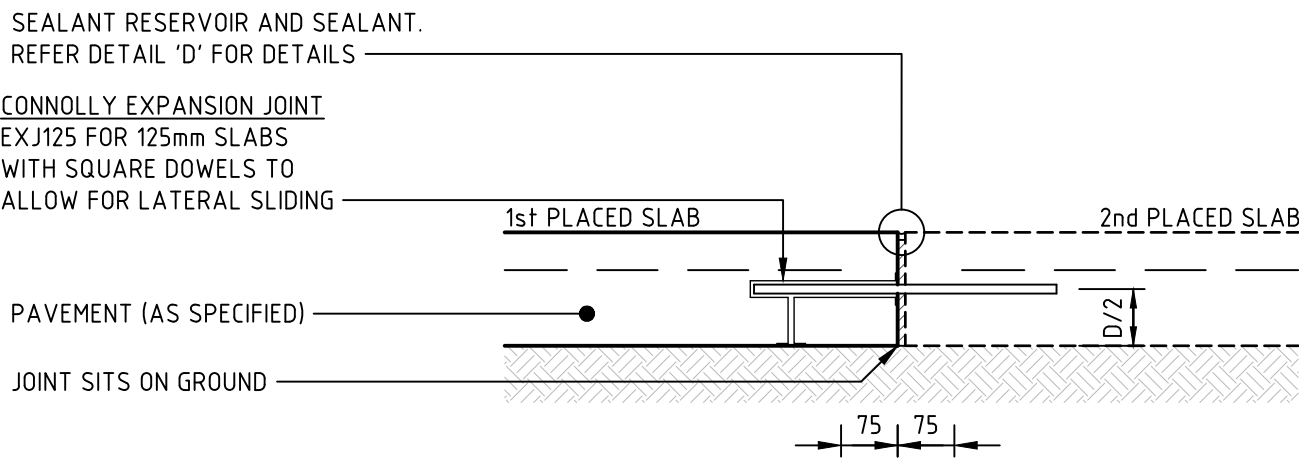
CONCRETE FOOTPATH PAVEMENT

MIN CBR 5% (CONTRACTOR TO CONFIRM ONSITE).
CONTRACTOR TO ALLOW FOR JOINTS - REFER JOINT DETAILS



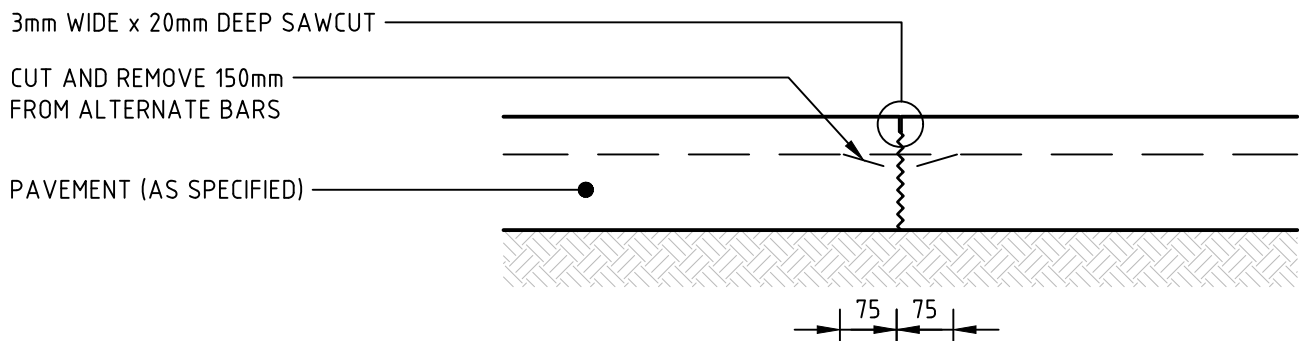
BRICK PAVING

MIN CBR 5% (CONTRACTOR TO CONFIRM ONSITE)



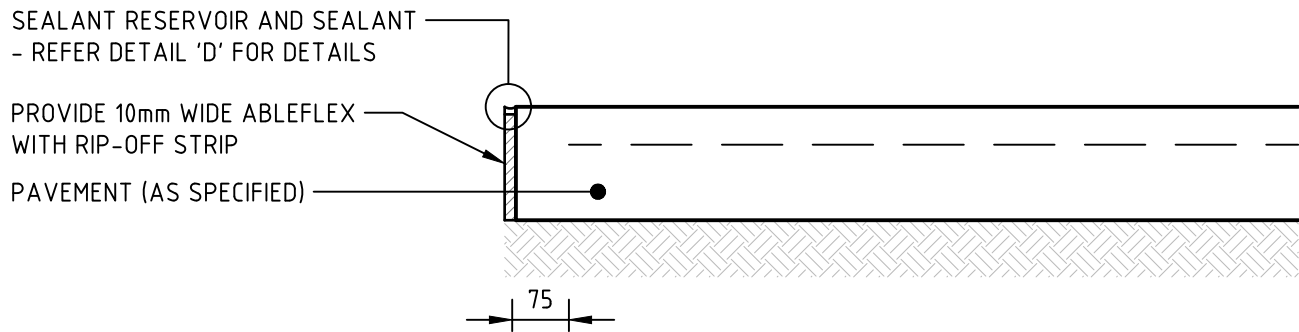
EXPANSION JOINT - NON-TRAFFICABLE 'EJ'

- TO ALSO BE USED AS A 'STOPWORK JOINT'
- MAXIMUM CONTINUOUS POUR NOT TO EXCEED 36m
- JOINT TO BE INSTALLED TO MANUFACTURERS SPECIFICATIONS
- REFER SPECIFICATION NOTES FOR JOINT SPACINGS (6m UNO)



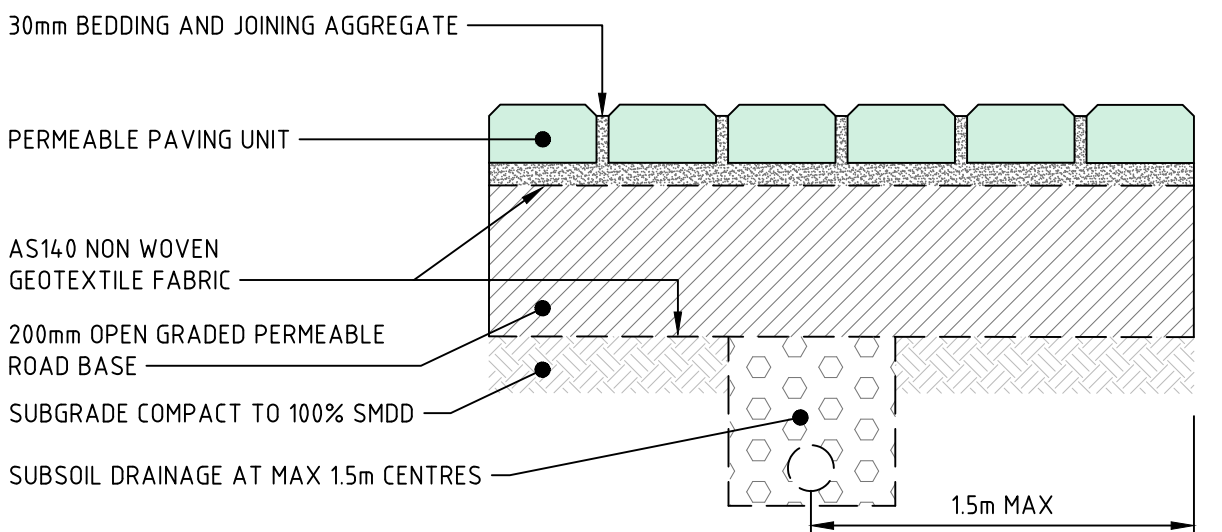
SAWN JOINT - NON-TRAFFICABLE 'SJ'

- JOINT TO BE SAWN AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY THAT IT WILL NOT BE DAMAGED BY SAWING (MAX 24HRS)
- REFER SPECIFICATION NOTES FOR JOINT SPACINGS (2m UNO)

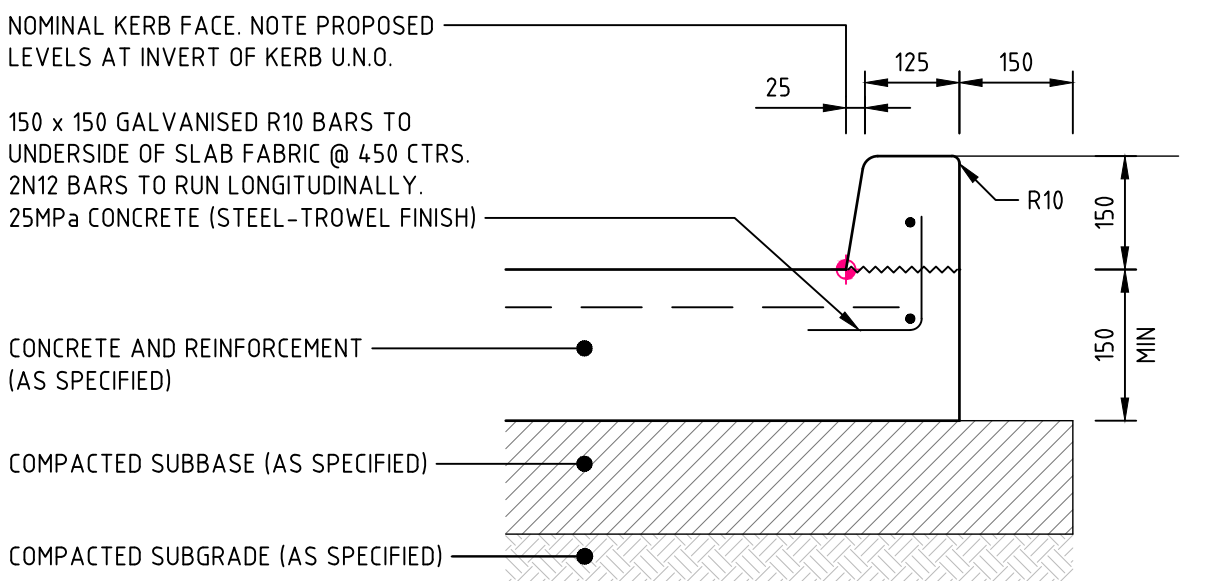


ISOLATION JOINT 'IJ'

- PROVIDE JOINT BETWEEN ALL NEW CONCRETE AND EXISTING STRUCTURES
- JOINT TO BE USED AGAINST ALL WALLS, FOOTINGS, COLUMNS, BACK OF KERB, SERVICE PITS, DRAINAGE PITS AND ALL SLAB PENETRATIONS

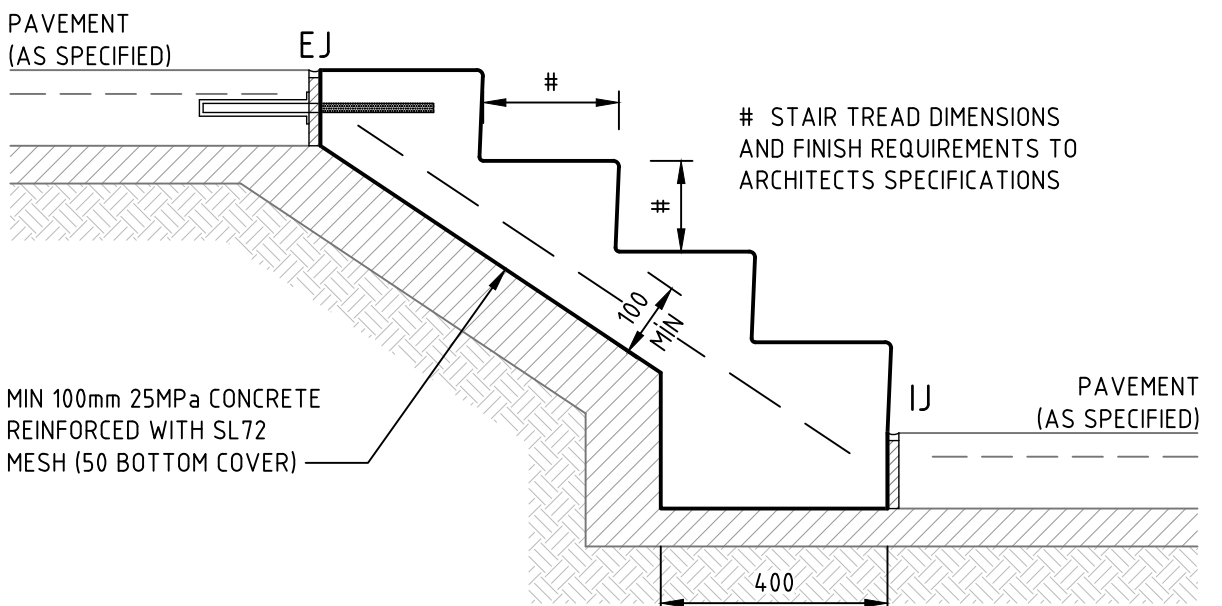


PERMEABLE PAVING

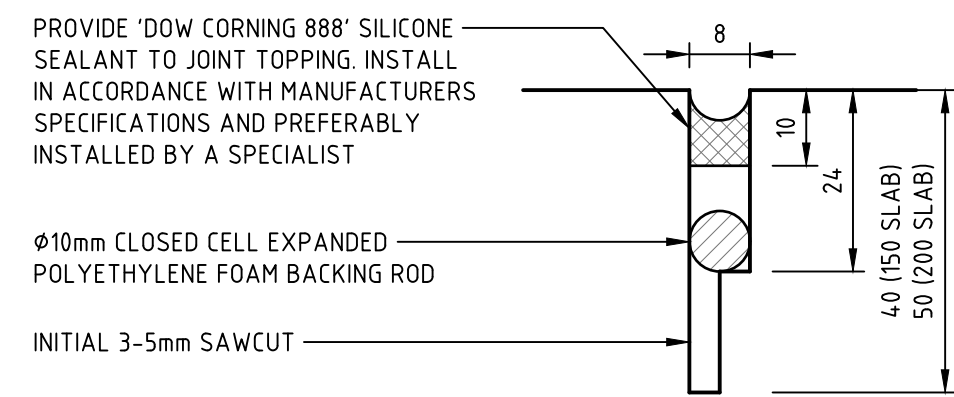


INTEGRAL KERB 'IK'

EXPANSION JOINTS @ MAX 12m CTRS / TOOL JOINTS @ MAX 3m CTRS TO ALIGN WITH PAVEMENT JOINTING. ALL RADII TO BE 20mm U.N.O.

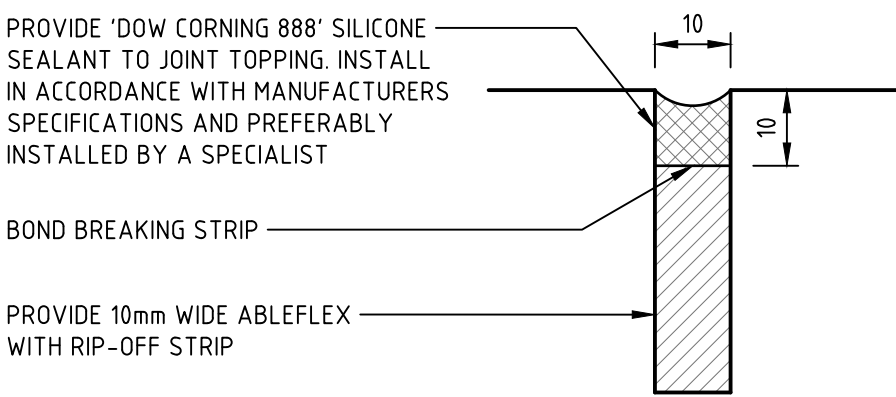


TYPICAL STAIR DETAIL

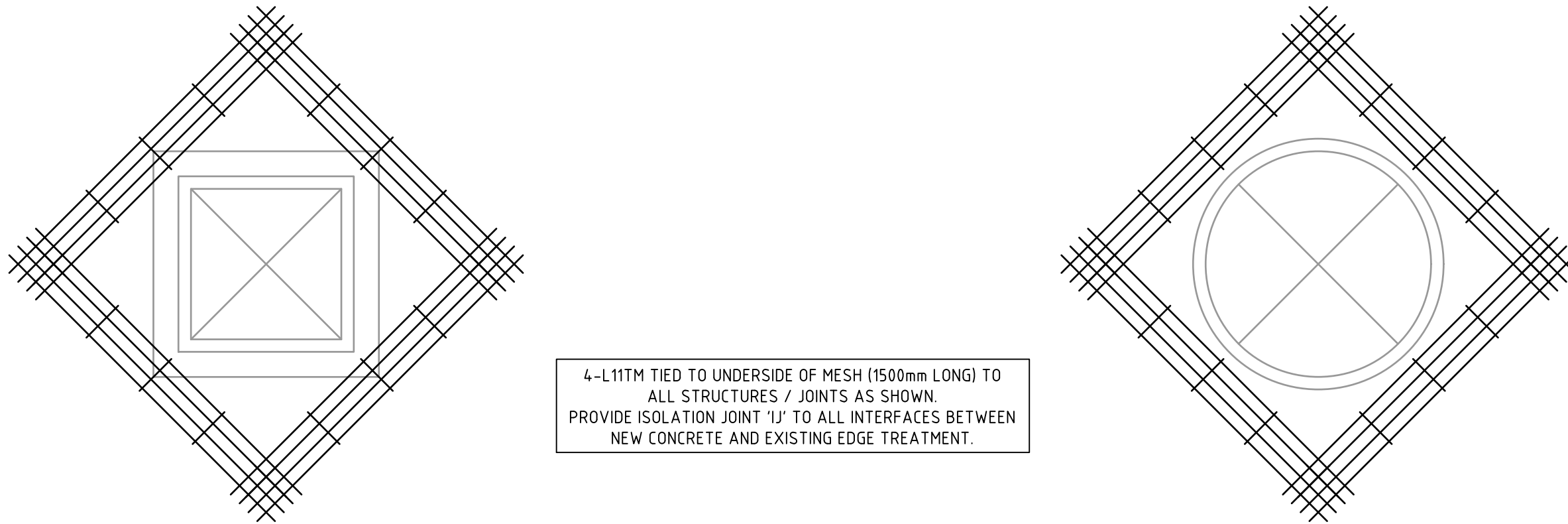


DETAIL 'D'

DEPTH OF CUT TO BE NO GREATER THAN PAVEMENT REINFORCEMENT (COVER -10mm)

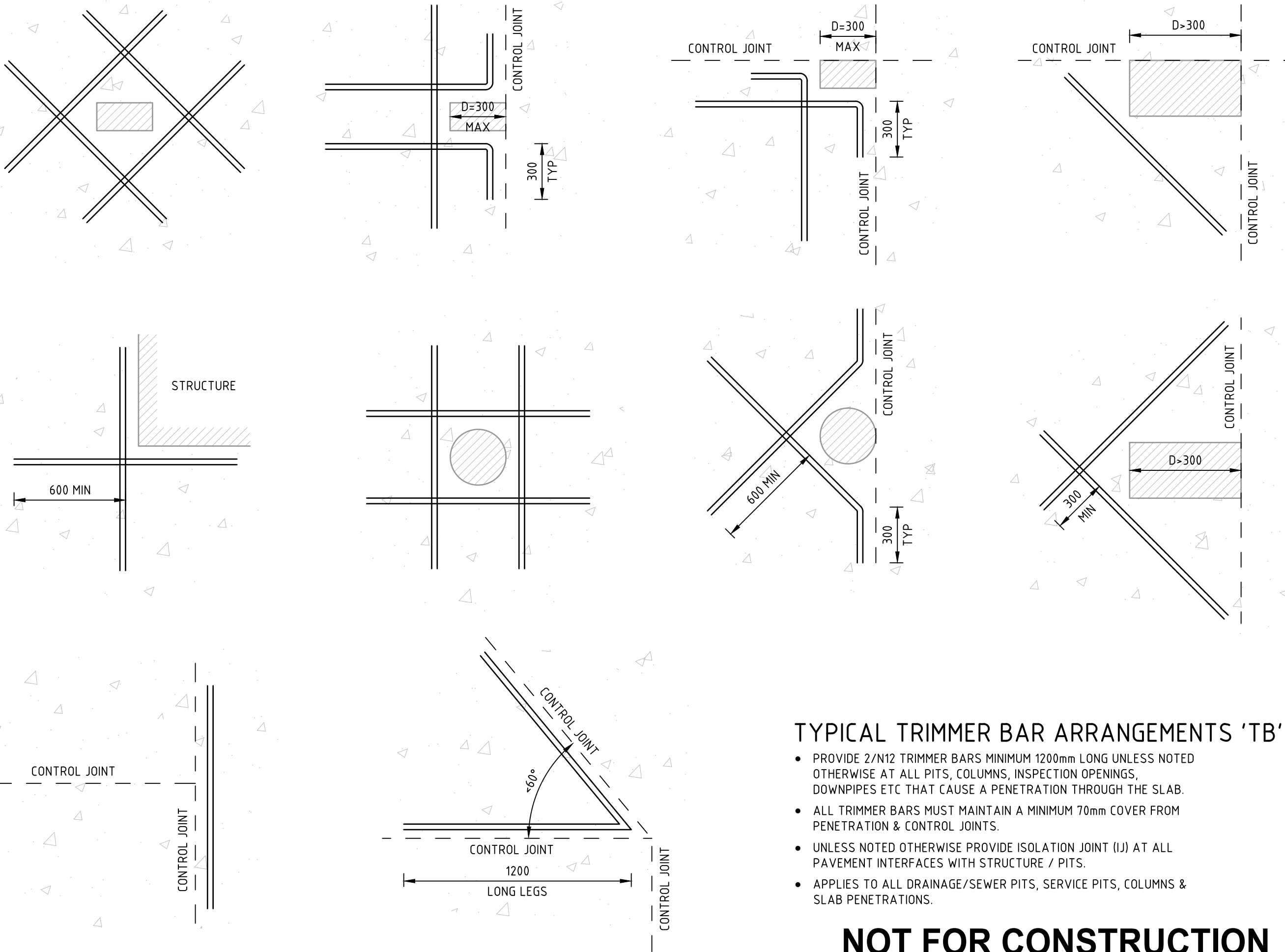


DETAIL 'E'



TYPICAL TRIMMER BAR ARRANGEMENTS 'TB'

THE ABOVE SHOWN DESIGN INTENT APPLIES TO ALL DRAINAGE / SEWER PITS, SERVICE PITS, COLUMNS AND SLAB PENETRATIONS



TYPICAL TRIMMER BAR ARRANGEMENTS 'TB'

- PROVIDE 2/N12 TRIMMER BARS MINIMUM 1200mm LONG UNLESS NOTED OTHERWISE AT ALL PITS, COLUMNS, INSPECTION OPENINGS, DOWNPIPES ETC THAT CAUSE A PENETRATION THROUGH THE SLAB.
- ALL TRIMMER BARS MUST MAINTAIN A MINIMUM 70mm COVER FROM PENETRATION & CONTROL JOINTS.
- UNLESS NOTED OTHERWISE PROVIDE ISOLATION JOINT (IJ) AT ALL PAVEMENT INTERFACES WITH STRUCTURE / PITS.
- APPLIES TO ALL DRAINAGE/SEWER PITS, SERVICE PITS, COLUMNS & SLAB PENETRATIONS.

NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT
A	ISSUED FOR 50% DETAILED DESIGN	BD		GW	19.01.24	
B	ISSUED FOR 90% DETAILED DESIGN	JK		GW	14.06.24	
C	ISSUED FOR 100% TENDER	JK		GW	22.08.24	
D	RE-ISSUED FOR 100% TENDER	JS		GW	02.10.24	



SHAC

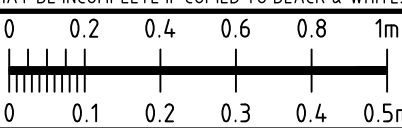
DRAWING NOT TO BE USED FOR CONSTRUCTION
UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED

THE COPYRIGHT OF THIS DRAWING REMAINS WITH
NORTHROP CONSULTING ENGINEERS PTY LTD

ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK.
NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY.
THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR, AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE.

SCALE 1:20 @ A1

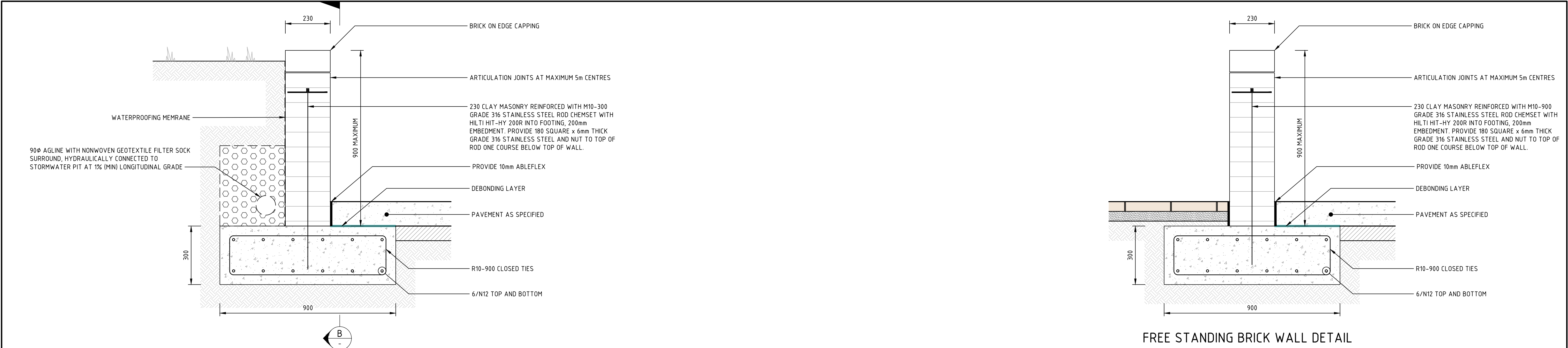
SCALE 1:10 @ A1



PROJECT
**ALL SAINTS COLLEGE
MULTI PURPOSE CENTRE**
**24 HUNTER STREET
HORSESHOE BEND, NSW 2320**

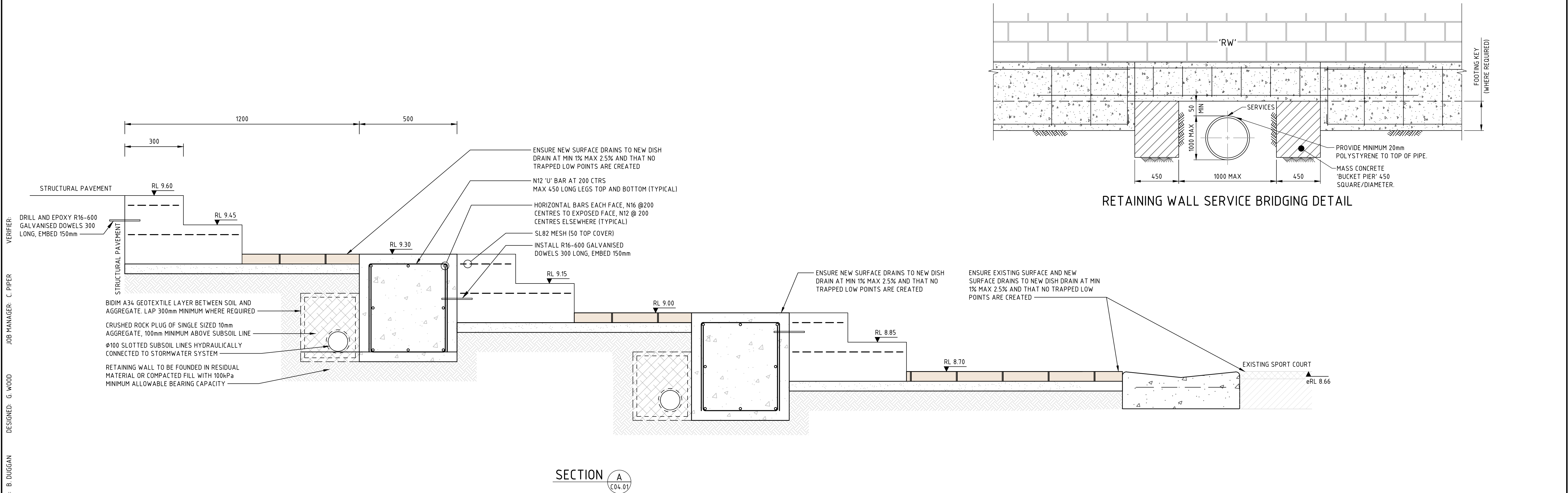
DRAWING TITLE
CIVIL ENGINEERING PACKAGE
**CIVIL DETAILS
SHEET 3**

JOB NUMBER	
NL203354	
DRAWING NUMBER	REVISION
CC-C09.03	D
DRAWING SHEET SIZE = A1	






BRICK RETAINING WALL WITH GARDEN DETAIL

FREE STANDING BRICK WALL DETAIL



SECTION A
C04.01

NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT	ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. THIS DRAWING MAY HAVE BEEN PREPARED USING COLOUR AND MAY BE INCOMPLETE IF COPIED TO BLACK & WHITE.	PROJECT	DRAWING TITLE	JOB NUMBER
A	ISSUED FOR 50% DETAILED DESIGN	BD		GW	19.01.24				ALL SAINTS COLLEGE MULTI PURPOSE CENTRE	CIVIL ENGINEERING PACKAGE	NL203354
B	ISSUED FOR 90% DETAILED DESIGN	JK		GW	14.06.24						
C	ISSUED FOR 100% TENDER	JK		GW	22.08.24						
D	RE-ISSUED FOR 100% TENDER	JS		GW	02.10.24						
DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED						THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD	SCALE 1:10 @ A1	Level 1, 215 Pacific Hwy, Charlestown NSW 2290 Ph (02) 4943 1777 Email newcastle@northrop.com.au ABN 81 094 433 100	24 HUNTER STREET HORSESHOE BEND, NSW 2320	CIVIL DETAILS SHEET 4	DRAWING NUMBER CC-C09.04
											REVISION D