

HCCD STAGE 1 A

UNIVERSITY OF NEWCASTLE

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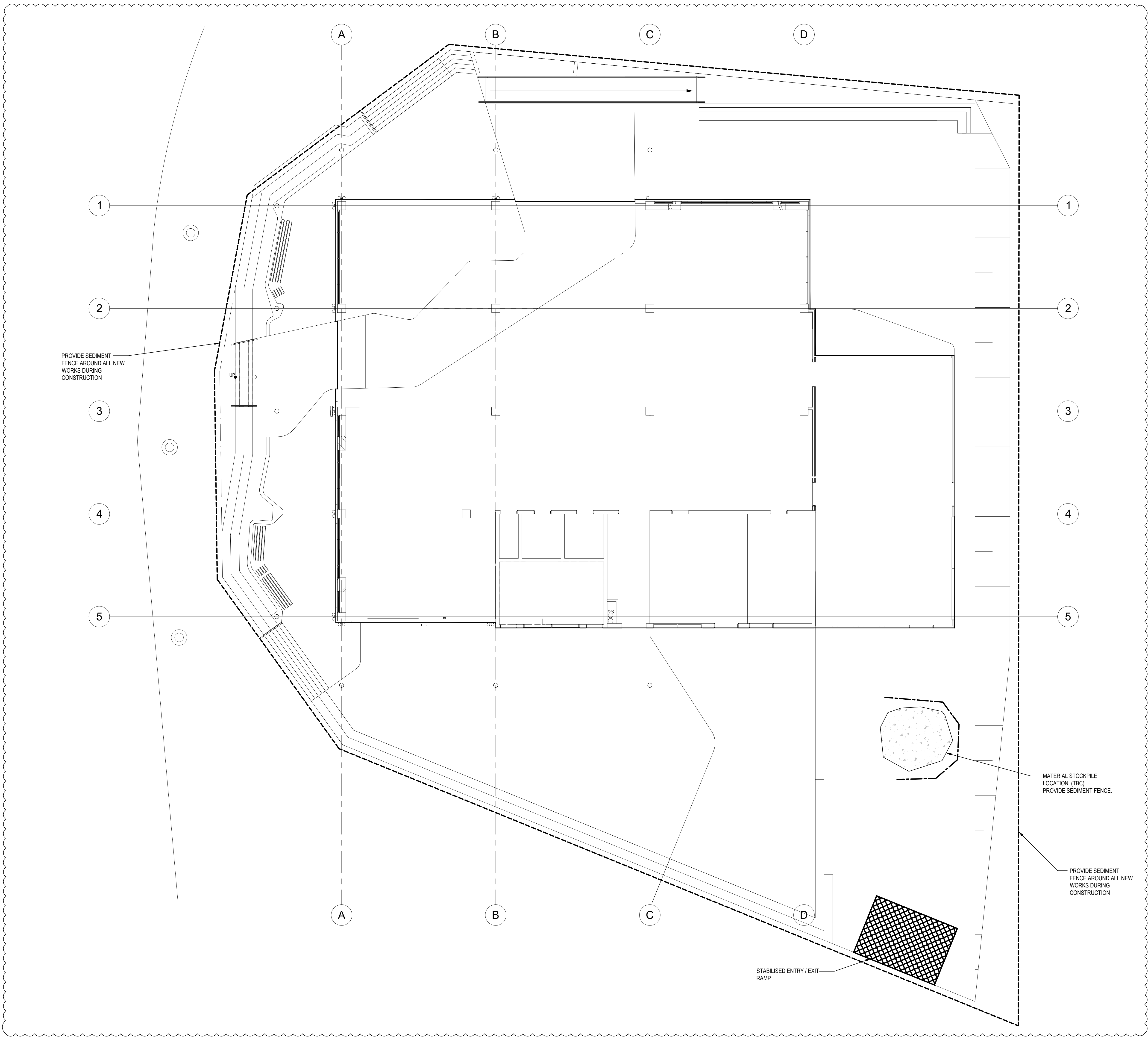
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REV		DATE	REVISION DETAILS				APP	SCALE		SIZE	PRELIMINARY NOT FOR CONSTRUCTION	PROJECT	HCCD STAGE 1A UNIVERSITY OF NEWCASTLE										
	1	25.07.19	ISSUED FOR TENDER				MRB	1:100		B1													
												DRAWN	COVER SHEET										
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											REVIEWED	DATE	TITLE										
											TKM			M.BLYTH	DRAWING No.	PROJECT No.	WBS	TYPE	DISC	NUMBER	REV		
													504356	—	0001	—	DRG	—	CV	—	0001	—	1



SITE PLAN

GENERAL DRAINAGE NOTES

- WHERE PROPOSED STORMWATER PIPES INTERFERE WITH EXISTING SERVICES, ADVISE AURECON BEFORE PROCEEDING WITH THE WORKS.
- ALL CONCRETE WORKS SHALL BE IN ACCORDANCE WITH AS 3600.
- STEEL REINFORCEMENT MATERIALS TO BE IN ACCORDANCE WITH AS/NZS4671
- ALL LEVELS ARE TO AHD AND IN METRES. ALL DIMENSIONS ARE IN MILLIMETRES. U.N.O.
- CONSTRUCTION OF ALL DRAINAGE WORKS TO BE IN ACCORDANCE WITH NEWCASTLE COUNCIL GUIDELINES OR SPECIFICATIONS.
- CONNECTIONS TO THE BUILDING DOWNPIPES ARE TO COMPRISE COLLARED CONNECTIONS PROVIDED BY THE STORMWATER CONTRACTOR. COLLARED CONNECTIONS ARE TO BE COMPLETED AFTER INSTALLATION OF THE DOWNPIPES.
- FOR SETOUT REFER TO ARCHITECTS DRAWINGS UNLESS SHOWN OTHERWISE ON THIS DRAWING.
- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH AS 3500.
- ALL PIPES TO BE LAID AT A MINIMUM GRADE OF 1% U.N.O.
- GRATES & FRAMES SHALL BE LOAD CLASS D IN ACCORDANCE WITH AS 3996.
- DOWNPIPE LOCATIONS SHOWN ARE INDICATIVE ONLY. REFER TO HYDRAULIC ENGINEERS DRAWINGS FOR FINAL NUMBER & LOCATION.
- SUBSOIL DRAINAGE TO BE PROVIDED BEHIND ALL VERTICAL STEPS IN LEVEL & AS SPECIFIED BY THE LANDSCAPE ARCHITECT.
- ALL STORMWATER PIPES TO HAVE FLEXIBLE JOINTS INTO PITS & TANKS TO ACCOMMODATE ANY GROUND MOVEMENTS RELATED TO MINE SUBSIDENCE.
- BELOW GROUND TANKS TO BE CONSTRUCTED ON BOUNDARY. CONTRACTOR TO ALLOW FOR ANY TEMPORARY SHORING REQUIRED TO MAINTAIN THE INTEGRITY OF COUNCILS FOOTPATH AREA.
- ALL STORMWATER INLET PITS TO HAVE AN ENVIROPOD SERIES 200 FILTER INSTALLED (OR APPROVED EQUIVALENT) TYP.
- ALL STORMWATER PIPES TO DISCHARGE INTO FILTER CHAMBER WITHIN DETENTION TANKS.

EXISTING SERVICE NOTES

- X1. THE LOCATIONS OF ALL EXISTING SURFACE PITS, VALVE COVERS, ETC. SHOWN ON DRAWINGS HAVE BEEN REPRODUCED FROM SURVEY THE LOCATION UNDERGROUND SERVICES HAVE BEEN NOTED FROM EXISTING RECORDS. AS DIFFERENCES WITH RECORDS MAY EXIST COMPLETE ACCURACY CANNOT BE GUARANTEED. ALL EXISTING SERVICES LOCATIONS SHALL BE VERIFIED ON SITE BY THE CONTRACTOR BEFORE COMMENCING WORK.
- X2. PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON THE SITE THE CONTRACTOR SHALL CALL DIAL BEFORE YOU DIG. CONTACT THE RELEVANT AUTHORITIES TO ASCERTAIN THE POSSIBLE LOCATION OF FURTHER SERVICES AND DETAILED LOCATION AND DEPTH OF ALL SERVICES AND ARRANGE FOR THEIR RELOCATION WHERE NECESSARY.
- X3. ALL SERVICES ARE TO BE PROTECTED DURING CONSTRUCTION. ATTENTION IS DRAWN TO MINIMUM COVER REQUIREMENTS OVER EXISTING SERVICES. IN THE CASE OF PROPOSED SERVICES, FILL TO MINIMUM REQUIRED DEPTH ABOVE THE TOP OF THE SERVICE PRIOR TO TRENCH EXCAVATION. REFER RELEVANT STANDARDS REGARDING MINIMUM COVER REQUIREMENTS AND CLEARANCES.

LEGEND

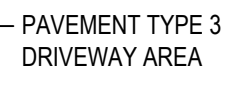
- DENOTES DOWNPIPE
- DENOTES STORMWATER DRAINAGE PIPE. MATCH DP SIZE & EXTEND PIPES AT 1% MIN. TO NEAREST PIT AS SHOWN
- DENOTES GRATED DRAIN
- GRATED PIT
- PAVES ACCEPTING ACCESS COVER OVER STORMFILTERS
- KIP KERB INLET PIT
- S.L. SURFACE LEVEL
- I.L. INVERT LEVEL
- INSPECTION OPENING
- DIRECTION OF PIPE FLOW

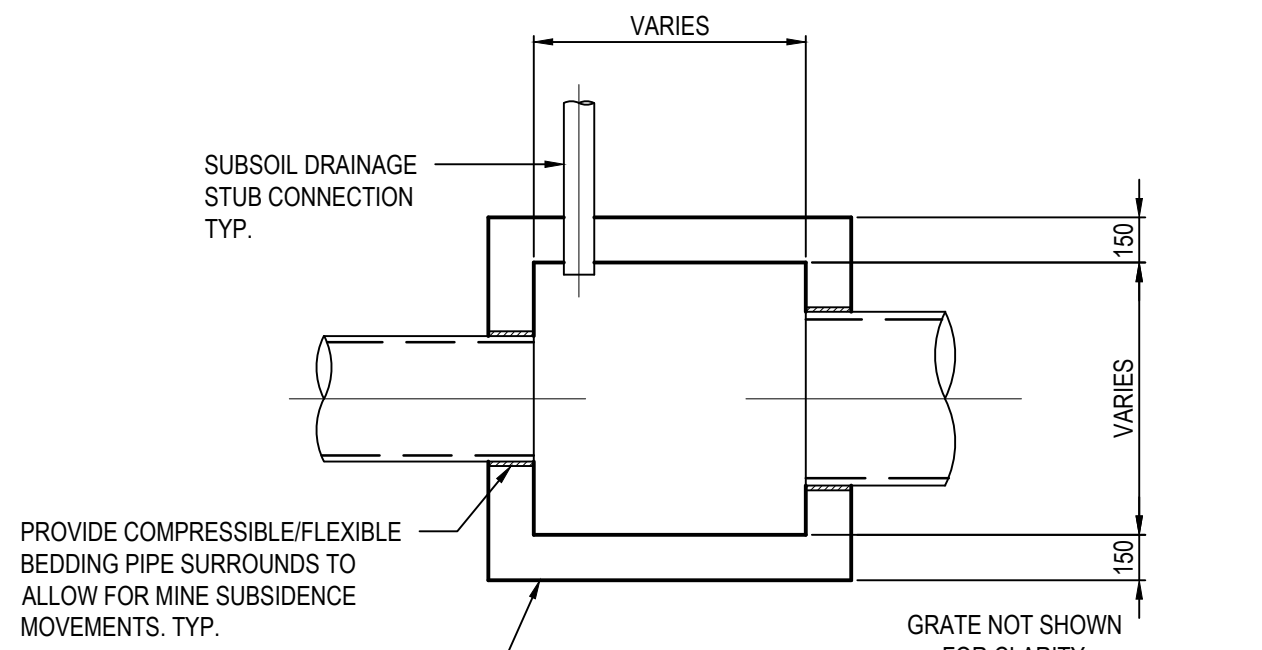
REV	DATE	REVISION DETAILS	APP
1	25.01.19	SCHEMATIC DESIGN ISSUE	MRB
2	26.06.19	ISSUED FOR TENDER REVIEW	MRB
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4	16.07.19	ISSUED FOR TENDER	MRB
5	03.10.19	ISSUED FOR TENDER ADDENDUM	MRB

SCALE	SIZE
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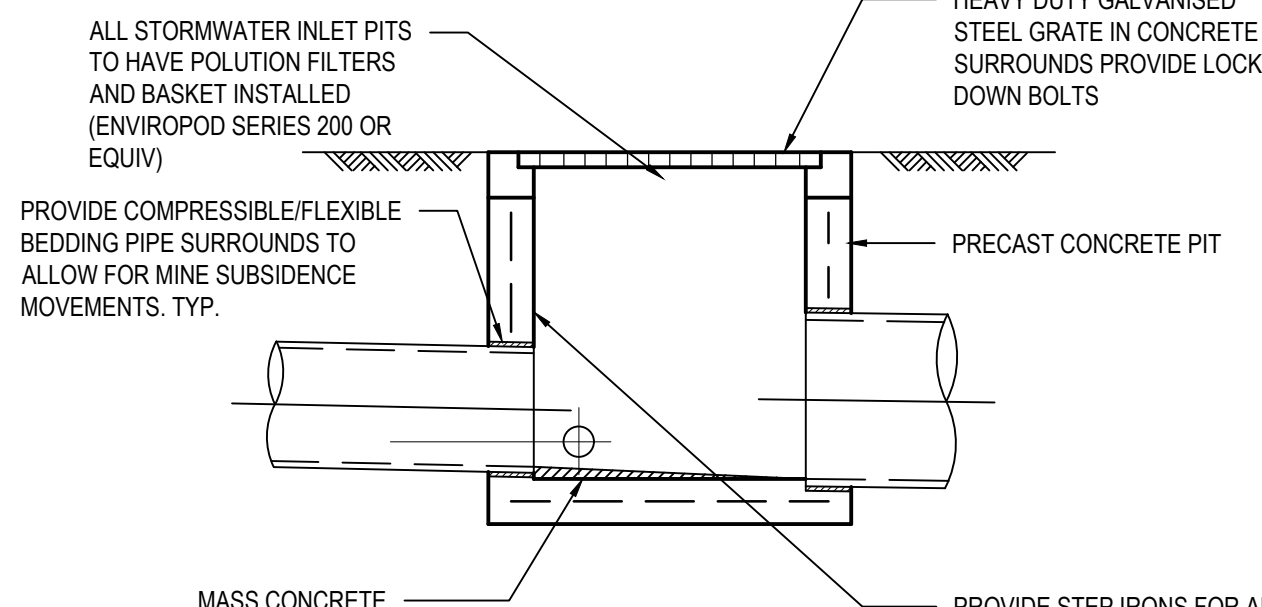
PRELIMINARY NOT FOR CONSTRUCTION
APPROVED
DATE
M.BLYTH

PROJECT	HCCD STAGE 1A UNIVERSITY OF NEWCASTLE
TITLE	SITE PLAN
DRAWING No.	504356
PROJECT No.	504356
WBS	0003
TYPE	DRG
DISC	CV
NUMBER	0002
REV	5

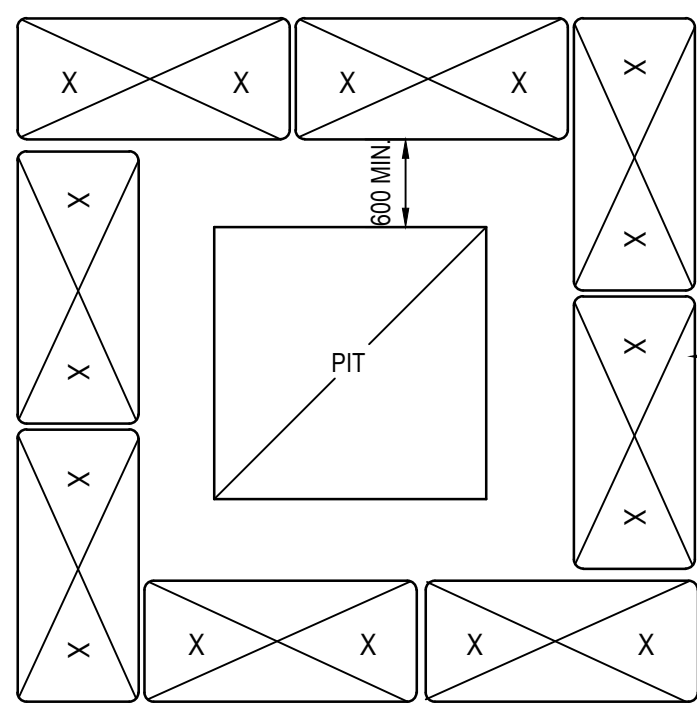




PLAN
NTS

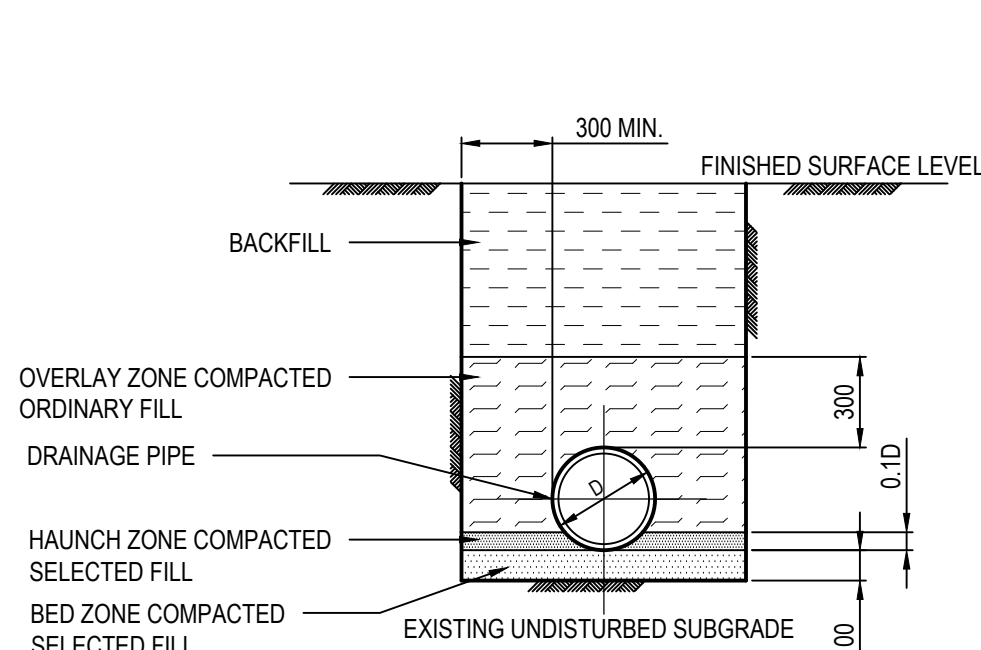


GRADED INLET PIT
NTS



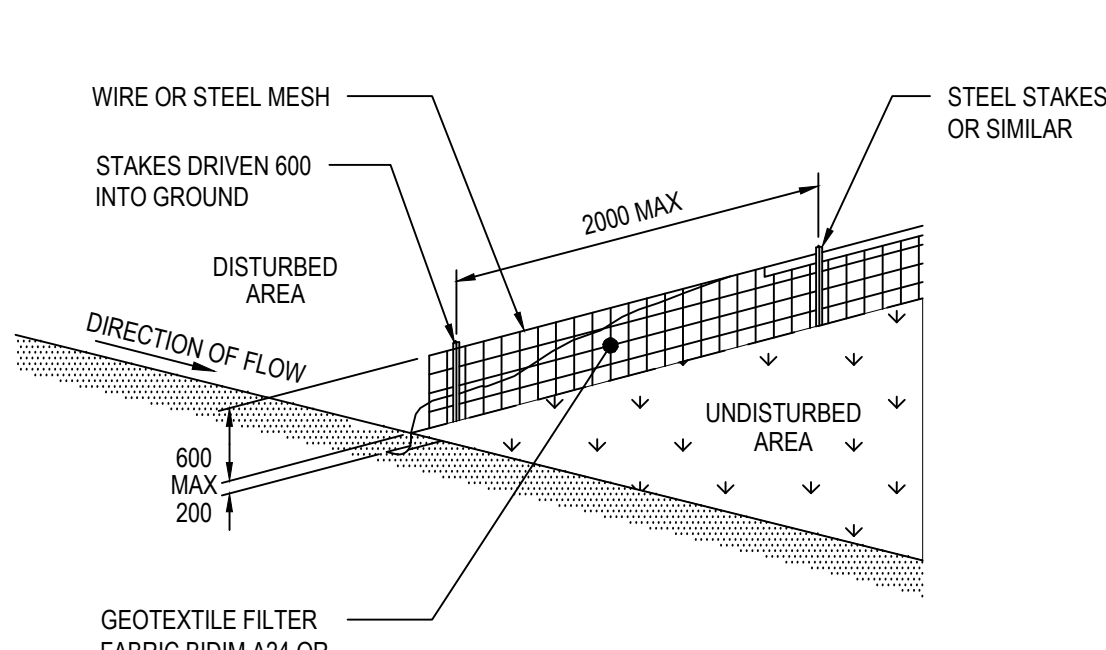
PROTECTION OF NEW
STORMWATER INLETS
NTS

NOTE: SEDIMENTATION CONTROL REQUIRED DURING ALL EARTHWORKS OPERATIONS UNTIL PAVEMENT SURFACING PLACED.

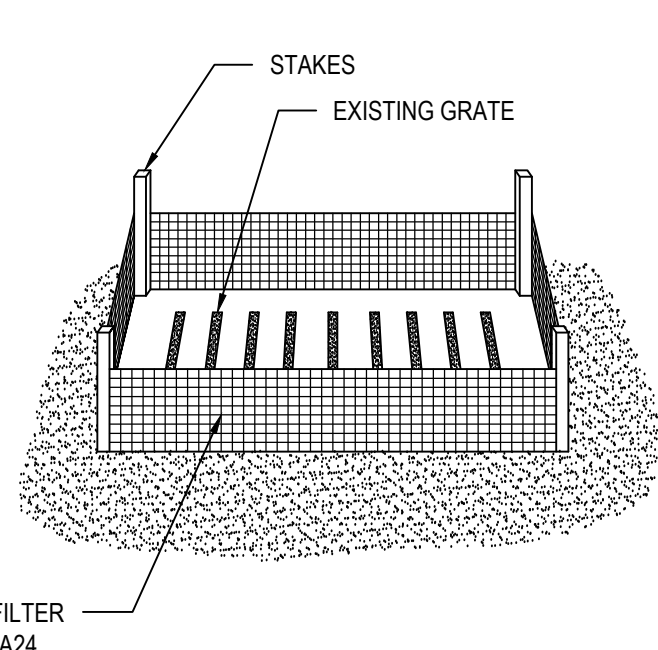


PIPE TRENCH DETAILS
NTS

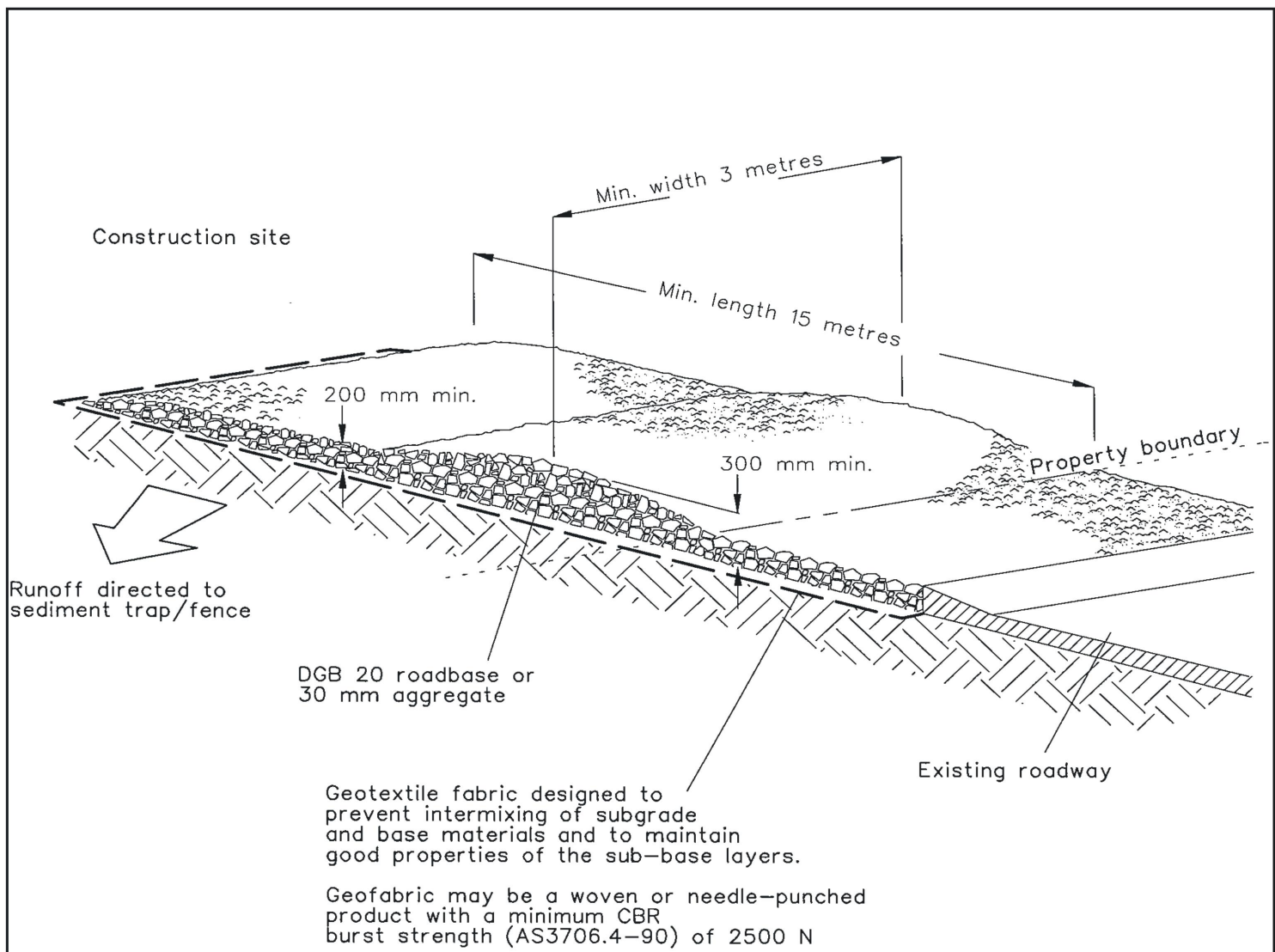
TRENCHING BACKFILL, OVERLAY & BEDDING MATERIAL AND COMPACTION SHALL BE AS SPECIFIED IN ASS300.3-2003 SECTION 7.3.6



SEDIMENTATION CONTROL FENCE
NTS



PROTECTION OF EXISTING STORMWATER INLETS
NTS



Construction Notes

- Strip the topsoil, level the site and compact the subgrade.
- Cover the area with needle-punched geotextile.
- Construct a 200-mm thick pad over the geotextile using road base or 30-mm aggregate.
- Ensure the structure is at least 15 metres long or to building alignment and at least 3 metres wide.
- 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

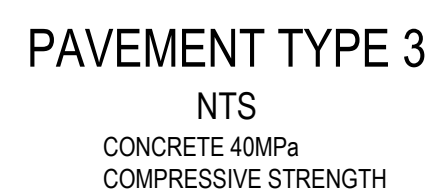
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NOTES

- FOR GENERAL NOTES REFER TO DRG. CV-002.
- FOR PAVEMENT DETAILS REFER TO CV-006.
- FOR CIVIL DETAILS REFER TO CV-006 & CV-007.

SEDIMENT CONTROL PLAN

- THE CONTRACTOR SHALL IMPLEMENT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES RELATING TO A PARTICULAR CATCHMENT PRIOR TO STRIPPING OF TOPSOIL FROM THAT CATCHMENT. WHERE IT IS NECESSARY TO UNDERTAKE STRIPPING IN ORDER TO CONSTRUCT A SEDIMENT CONTROL, DEVISE ONLY SUFFICIENT GROUND SHALL BE STRIPPED TO ALLOW CONSTRUCTION.
- ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED AS INDICATED ON THESE DRAWINGS AND NOMINATED IN COUNCIL'S SPECIFICATION AS DIRECTED BY THE ENGINEER. LOCATION AND EXTENT OF SOIL AND WATER MANAGEMENT DEVICES IS DIAGRAMMATIC ONLY AND THE ACTUAL REQUIREMENTS SHALL BE RECONFIRMED ON SITE PRIOR TO COMMENCEMENT.
- CONFORMITY WITH THIS PLAN SHALL IN NO WAY REDUCE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AGAINST EROSION AND SEDIMENTATION DUE TO WATER AND WIND DAMAGE DURING THE COURSE OF THE CONTRACT. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT ANY NECESSARY CONTROL IS IN PLACE EVEN THOUGH SUCH CONTROL MAY NOT BE SHOWN ON THE PLAN.
- THE CONTRACTOR SHALL INFORM ALL SUBCONTRACTORS AND ALL EMPLOYEES OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWN STREAM AREAS.
- THE CONTRACTOR SHALL REGULARLY MAINTAIN SEDIMENT AND EROSION CONTROL STRUCTURES AND DESILT SUCH STRUCTURES PRIOR TO THE REDUCTION IN CAPACITY OF 60% DUE TO ACCUMULATED SILT OR AS DIRECTED BY THE ENGINEER.
- TOPSOIL AND SPOIL SHALL BE STOCKPILED IN NON-HAZARDOUS AREAS AND PROTECTED FROM SURFACE RUN-ON AND RUN-OFF BY DIVERSION DRAINS OR SIMILAR. STOCKPILES SHALL BE SURROUNDED ON DOWNSTREAM SIDE BY SILT FENCING. WHERE THE STOCKPILING PERIOD EXCEEDS FOUR (4) WEEKS, THE STOCKPILE SHALL BE SEED TO ENCOURAGE VEGETATION GROWTH.
- TOPSOIL SHALL BE RE-SPREAD AND STABILISED AS SOON AS POSSIBLE. DISTURBED AREAS SHALL BE LEFT WITH A SCARIFIED SURFACE TO ENCOURAGE WATER INFILTRATION AND ASSIST KEYING IN TOPSOIL.
- THE CONTRACTOR SHALL TEMPORARILY REHABILITATE WITHIN 20 DAYS ANY DISTURBED AREAS. WHERE FINAL SHIPPING HAS OCCURRED THE CONTRACTOR SHALL PROVIDE FINAL REHABILITATION WITHIN 20 DAYS.
- THE CONTRACTOR SHALL PROVIDE A MULCH STRIP MINIMUM 1.2m WIDE BEHIND ALL KERB AND GUTTER AT COMPLETION OF FOOTPATH FORMATION.
- THE CONTRACTOR SHALL PROVIDE INLET SEDIMENT TRAPS AT ALL PITS DURING CONSTRUCTION AND REPLACE WITH KERB INLET CONTROL AT COMPLETION OF LINTEL CONSTRUCTION.
- ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AND STABILISED AS QUICKLY AS POSSIBLE TO MINIMISE RISK OF EROSION.
- VEHICULAR TRAFFIC SHALL BE CONTROLLED DURING CONSTRUCTION CONFINING ACCESS WHERE POSSIBLE TO THE PROPOSED OR EXISTING ROAD RESERVES. AREAS TO BE LEFT UNDISTURBED SHALL BE MARKED NO ACCESS AND CONTROLLED BY FENCING.
- SITE ACCESS SHALL BE RESTRICTED TO A NOMINATED POINT. THE CONSTRUCTION OF A SHAKEDOWN AREA MAY BE REQUIRED DEPENDING UPON THE SOIL CONDITIONS. DEBRIS ON EXISTING ROAD SHALL BE SWEEPED TO THE SATISFACTION OF COUNCIL'S SUPERVISOR.
- SEDIMENT BASINS SHALL BE IN ACCORDANCE WITH 'MANAGING URBAN STORM WATER, SOILS AND CONSTRUCTION' - 3rd EDITION, AUGUST 1998, SECTION 6.3.
- SEDIMENT BASINS SHALL BE MAINTAINED FOR THE ENTIRE DURATION OF THE PROJECT OR UNTIL SUCH TIME AS ALL DISTURBED AREAS ARE REVEGETATED TO THE SATISFACTION OF COUNCIL.
- WHERE FLOCCULATION OF BASINS IS REQUIRED, FLOCCULATION IS TO BE IN ACCORDANCE WITH 'MANAGING URBAN STORM WATER, SOILS AND CONSTRUCTION' - 3rd EDITION, AUGUST 1998, APPENDIX E.
- ANY DAMS TO BE DE-SILTED OF FILLED MATERIAL SHALL BE FLOCCULATED TO SETTLE ANY SUSPENDED SOLIDS. ANY NOXIOUS WEED PRESENT SHALL BE ERADICATED IN AN APPROVED MANNER PRIOR TO ANY WORKS COMMENCING. APPROVAL REQUIRED PRIOR TO PUMPING. CLEAR WATER SHALL THEN BE PUMPED OUT IN A MANNER THAT WILL NOT CAUSE DOWNSTREAM EROSION. THE DAM WALL SHALL THEN BE BREACHED AND ANY SILT REMOVED BE PLACED IN A SUITABLE CONSTRUCTED DRYING BASIN. WHEN DRY THE SILT SHALL BE REMOVED FROM SITE OR MIXED WITH TOPSOIL FOR FUTURE SPREADING.
- THE CONTRACTOR SHALL MAINTAIN CONTROL THROUGH THE ENTIRE DURATION OF THE PROJECT.
- THE CONTRACTOR SHALL MAINTAIN A LOG BOOK DETAILING:
 - RECORDS OF ALL RAINFALL
 - CONDITION OF SOIL AND WATER MANAGEMENT STRUCTURES
 - ANY APPLICATION OF FLOCCULATING AGENTS TO SEDIMENT BASIN
 - VOLUMES OF ALL WATER DISCHARGED FROM SEDIMENT BASINS
 - ANY ADDITIONAL REMEDIAL WORKS REQUIRED.THE LOG BOOK SHALL BE MAINTAINED ON A WEEKLY BASIS AND BE MADE AVAILABLE TO ANY AUTHORISED PERSON UPON REQUEST. THE ORIGINAL LOG BOOK SHALL BE ISSUED TO THE PROJECTS MANAGER AT THE COMPLETION OF WORKS.

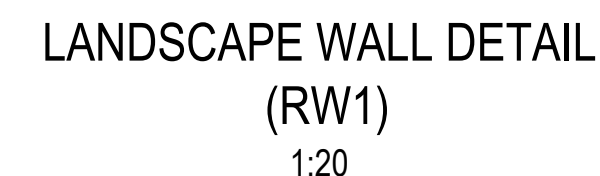


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N12-400 STIRRUPS.
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3N12 T & B
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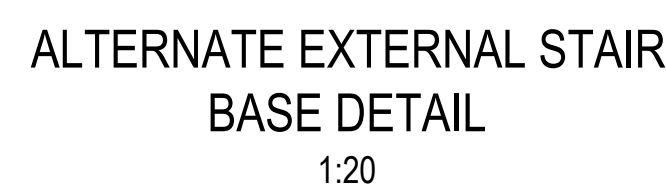
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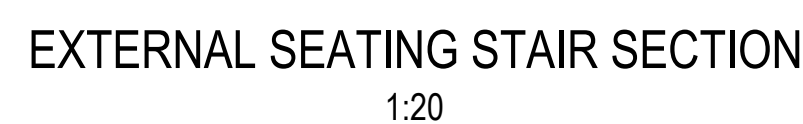
1. FOR GENERAL NOTES REFER TO DRG. CV-0002.
2. FOR STORMWATER PLAN REFER TO DRG. CV-003
3. FOR PAVEMENT PLAN REFER TO DRG. CV-004
4. FOR PAVEMENT DETAILS REFER TO CV-006.
5. FOR CIVIL DETAILS REFER TO CV-006 & CV-007.



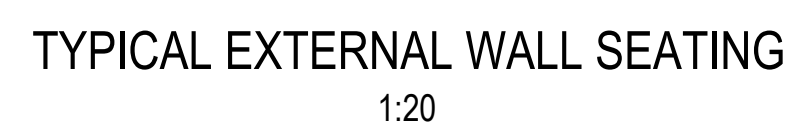
- ### TYPICAL PAVEMENT JOINTS
- ALLOW FOR SAW CUT JOINTS (SC) AT MAXIMUM 4m CRS. EACH WAY
 - ALLOW FOR DOWELED JOINTS (DJ) AT MAXIMUM 8m CRS. EACH WAY



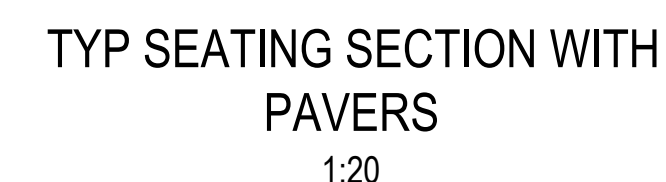
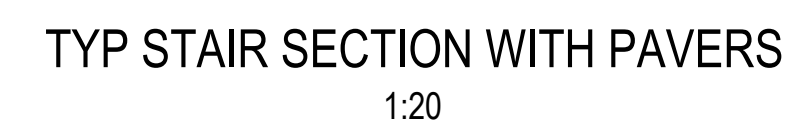
NOTE: PROVIDE 200 WIDE CONCRETE DOWNTURN TO EDGE OF STAIR AS REQUIRED
TO MATCH NEW GROUND LEVEL, N12-200 EACH WAY EXTERNAL FACE



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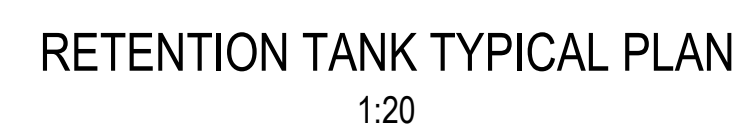
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APPROVED

DATE

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PROJECT	HCCD STAGE 1A UNIVERSITY OF NEWCASTLE									
TITLE	CIVIL DETAILS SHEET 2									
DRAWING No.	PROJECT No.	WBS		TYPE	DISC		NUMBER		REV	
504356	—	0001	—	DRG	CV	—	0006	—	4	



REFER TO LANDSCAPE ARCHITECT DRAWINGS FOR FINISHES & COLOURED ADDITIVES

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2. FOR STORMWATER PLAN REFER TO DRG. CV-003
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