

SPREP DRAINAGE WORK

DRAWING LIST

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STRUCTURAL NOTES

GENERAL

1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCIES SHALL BE REFERRED TO THE CONTRACT MANAGER BEFORE PROCEEDING WITH THE WORK.
2. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT A.S./NZS CODES AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.
3. SETTING-OUT DIMENSIONS AND SIZES OF STRUCTURAL MEMBERS SHALL NOT BE OBTAINED BY SCALING THE STRUCTURAL DRAWINGS. ANY SETTING-OUT DIMENSIONS SHOWN IN THE STRUCTURAL DRAWINGS SHALL BE CHECKED BY THE CONTRACTOR BEFORE CONSTRUCTION COMMENCES. ANY DISCREPANCIES IN THE DOCUMENTS MUST BE RESOLVED BEFORE ORDERING OR PLACING ANY MATERIALS.
4. DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A SAFE AND STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING SHALL BE PROVIDED BY THE CONTRACTOR AS REQUIRED TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES.
5. UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
6. WIND LOADS ARE IN ACCORDANCE WITH AS 1170.2 AS FOLLOWS:
BASIC WIND VELOCITY $V_u = 70 \text{ m/s}$
TERRAIN CATEGORY 2
REGION C

FORMWORK

1. THE DESIGN CERTIFICATION, CONSTRUCTION AND PERFORMANCE OF THE FORMWORK AND FALSE WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.
2. DESIGN AND CONSTRUCTION AND STRIPPING TIMES TO COMPLY WITH AS/NZS 3610 AND AS 3600 UNLESS OTHERWISE APPROVED BY THE CONTRACT MANAGER.
3. FOR FINISH TO FORMED CONCRETE SURFACES REFER TO SPECIFICATION.

FOUNDATIONS

1. THE LEVELS SHOWN ON THE DRAWINGS ARE FOR PRICING PURPOSES ONLY.
2. EXCAVATED GROUND FOR FOUNDATION SHALL BE INSPECTED BY THE CONTRACT MANAGER BEFORE PLACING OF CONCRETE
3. SAFE BEARING CAPACITIES: 100 kPa
4. SUB-BASE FOR SLABS ON GROUND AND BACKFILL OVER FOOTINGS SHALL BE APPROVED GRANULAR MATERIAL COMPACTED IN LAYERS OF 150 mm MAXIMUM TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289. PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 3600.
6. NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING.
7. MINIMUM CLEAR COVER TO REINFORCEMENT OF:

TOP SLAB: 30mm
BOTTOM SLAB: 75mm
BOXDRAIN: 70mm
8. ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON PLASTIC CHAIRS AT NOT GREATER THAN 1 METRE CENTRES BOTH WAYS, BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS.
9. CONCRETE DIMENSIONS SHOWN DO NOT INCLUDE THICKNESSES OF APPLIED FINISHES.
10. FOR CHAMFERS, DRIP GROOVES, FILLETS ETC REFER TO ARCHITECTS DETAILS, MAINTAIN COVER TO REINFORCEMENT AT THESE DETAILS.
11. NO HOLES, CHASES OR EMBEDMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE CONTRACT MANAGER.

CONCRETE

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS2870 & AS3600 AND THE CONCRETE SPECIFICATION.
2. CONCRETE QUALITY.

ELEMENT	SLUMP	MAX SIZE AGG	CONCRETE GRADE(MPa)
ALL (U.N.O)	80	20	25
BOX DRAIN	80	20	25
SPOON DRAIN	80	20	25


3. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE CONTRACTMANAGER.
4. THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE SHALL BE COMPACTED WITH MECHANICAL VIBRATORS.
5. CURING OF ALL CONCRETE SHALL BE ACHIEVED BY KEEPING SURFACES CONTINUOUSLY WET FOR A PERIOD OF 3 DAYS, AND PREVENTION OF LOSS OF MOISTURE FOR A TOTAL OF 7 DAYS FOLLOWED BY A GRADUAL DRYING OUT. APPROVED SPRAYED ON CURING COMPOUNDS MAY BE USED WHERE NO FLOOR FINISHES ARE PROPOSED. POLYTHENE SHEETING OR WET HESSIAN MAY BE USED IF PROTECTED FROM WIND AND TRAFFIC.
6. THE CONTRACT MANAGER SHALL BE GIVEN A MINIMUM OF 24 HOURS NOTICE FOR REINFORCEMENT INSPECTION AND CONCRETE SHALL NOT BE DELIVERED UNTIL FINAL APPROVAL IS OBTAINED.
7. CONDUITS, PIPES ETC, SHALL ONLY BE LOCATED IN THE MIDDLE ONE THIRD OF SLAB DEPTH AND SPACED AT NOT LESS THAN 3 DIAMETERS.
8. REINFORCEMENT SYMBOLS:
8 D20
8 (NUMBER OF BARS IN GROUP)
D (BAR GRADE AND TYPE)
20 (NOMINAL BAR SIZE IN mm)

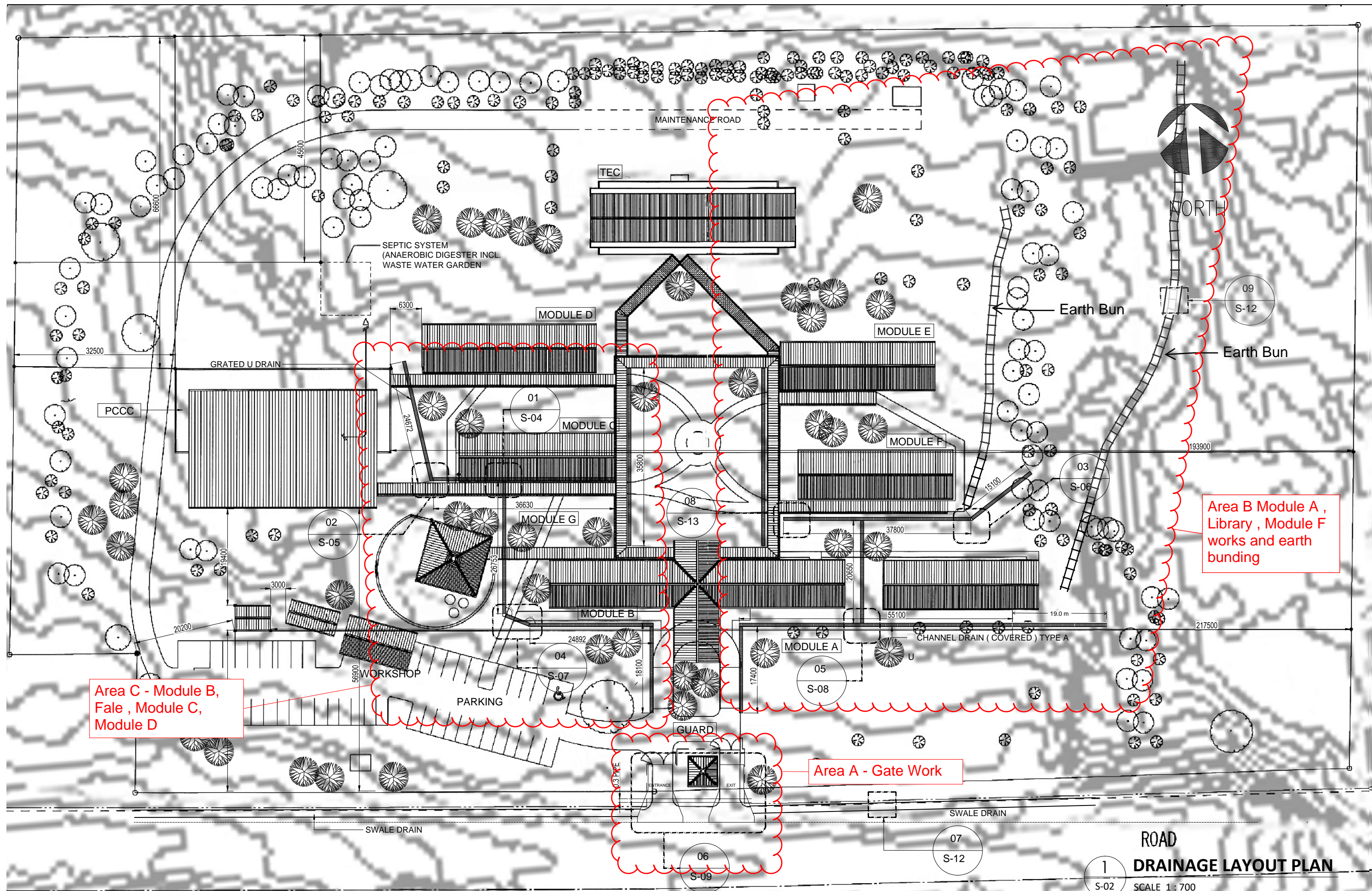
THE FIGURE FOLLOWING THE FABRIC SYMBOL F IS THE REFERENCE NUMBER FOR FABRIC TO AS 1304.

9. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
10. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITION SHOWN OR OTHERWISE APPROVED IN WRITING BY THE CONTRACT MANAGER.
11. WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE CONTRACT MANAGER.
12. JOGGLES TO BARS SHALL BE 1 BAR DIAMETER OVER A LENGTH OF 12 BAR DIAMETERS UNLESS NOTED OTHERWISE.
13. FABRIC SHALL BE LAPPED 2 TRANSVERSE WIRES PLUS 50mm.
14. CONCRETE BELOW GROUND IN WALLS, BEAMS, OR PEDESTALS SHALL BE PLACED INTO PROPERLY CONSTRUCTED FORMS. IF APPROVED BY THE CONTRACT MANAGER, CONCRETE MAY BE PLACED AGAINST AN EARTH FACE BUT THE CONCRETE DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE INCREASED TO PROVIDE 20mm ADDITIONAL COVER TO THE REINFORCEMENT ADJACENT TO THE EARTH FACE.
15. A BOND BREAKING MATERIAL SHALL BE PLACED BETWEEN CONTACTING SURFACES AT CONTRACTION JOINTS. REINFORCEMENT SHALL NOT BE CONTINUOUS THROUGH CONTRACTION JOINTS.
16. AT PENETRATIONS IN SLABS UNLESS OTHERWISE DETAILED REINFORCEMENT SHALL NOT BE CUT BUT SHALL BE GATHERED EQUALLY TO EACH SIDE OF PENETRATION AND EXTRA REINFORCEMENT PROVIDED BETWEEN THE PENETRATIONS AS DIRECTED BY THE CONTRACT MANAGER.
17. LAP LENGTHS FOR STARTER BARS IS TO BE 800mm UNLESS OTHERWISE NOTED.

STRUCTURAL STEEL


1. ALL STRUCTURAL STEEL SHALL BE MILD STEEL GRADE 250 TO AS 1163, AS 1594, AS 3678 AND AS 3679 UNLESS NOTED OTHERWISE ON THE DRAWINGS.
2. SHOP DRAWINGS SHALL BE SUBMITTED TO THE CONTRACT ADMINISTRATOR FOR APPROVAL BEFORE FABRICATION COMMENCES.
3. CLEATS, CONNECTIONS, HOLES, LINTELS AND OTHER MISCELLANEOUS STEELWORK SHALL BE PROVIDED AS REQUIRED BY THE ARCHITECTURAL OR OTHER CONSULTANTS DRAWINGS OR SPECIFICATIONS.
4. ALL STEELWORK SHALL BE SAND-BLASTED TO CLASS 2.5 AND SHOP PRIMED WITH ONE COAT OF INORGANIC ZINC SILICATE IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND FIELD COATS AS SPECIFIED BY THE CONTRACT ADMINISTRATOR.
5. WHERE STEELWORK IS PERMANENTLY ENCLOSED IN CEILING SPACE, STEELWORK CAN BE PREPARED AND SHOP PRIMED WITH ONE COAT OF ZINC PHOSPHATE PRIMER TO K211.
6. WHERE NOTED ON DETAILS, EXPOSED STEELWORK IS TO BE COATED WITH A TAR EPOXY PAINT OVER THE INORGANIC ZINC SILICATE PRIMER.
7. ROOF SHEETING SHALL BE CUSTOM ORB 0.48mm BMT, CREST FASTENED WITH CYCLONE WASHERS TO MANUFACTURERS SPECIFICATIONS, FLASHINGS AND CAPPINGS SHALL BE 0.6mm BMT, FASTENED AT 600 CENTRES MAXIMUM.

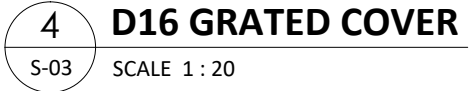
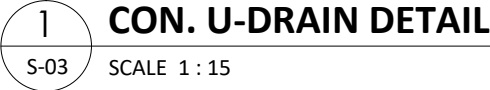
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						DATE : 03/19/22			LOCATION APIA, SAMOA	S - 01

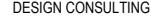


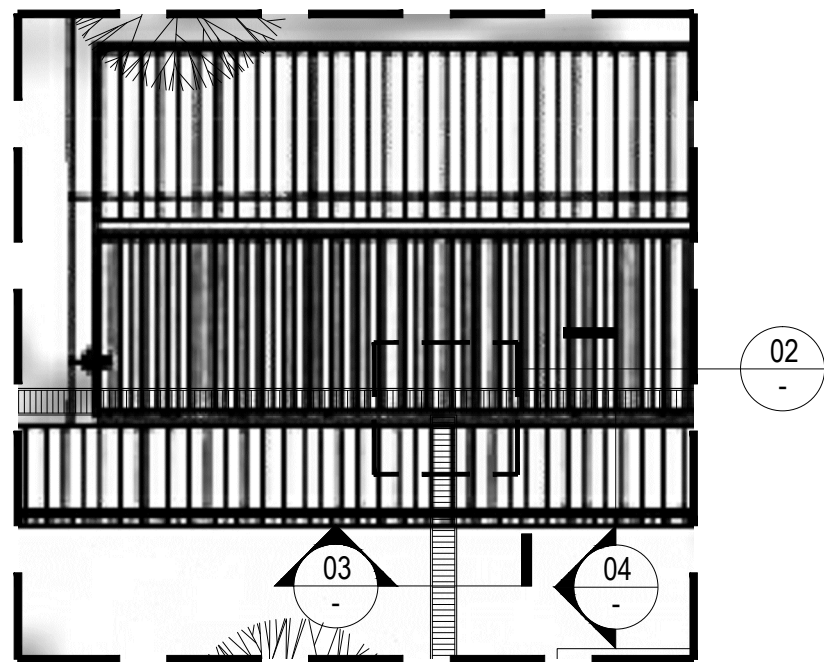
ROAD
1
DRAINAGE LAYOUT PLAN

SCALE 1 : 700

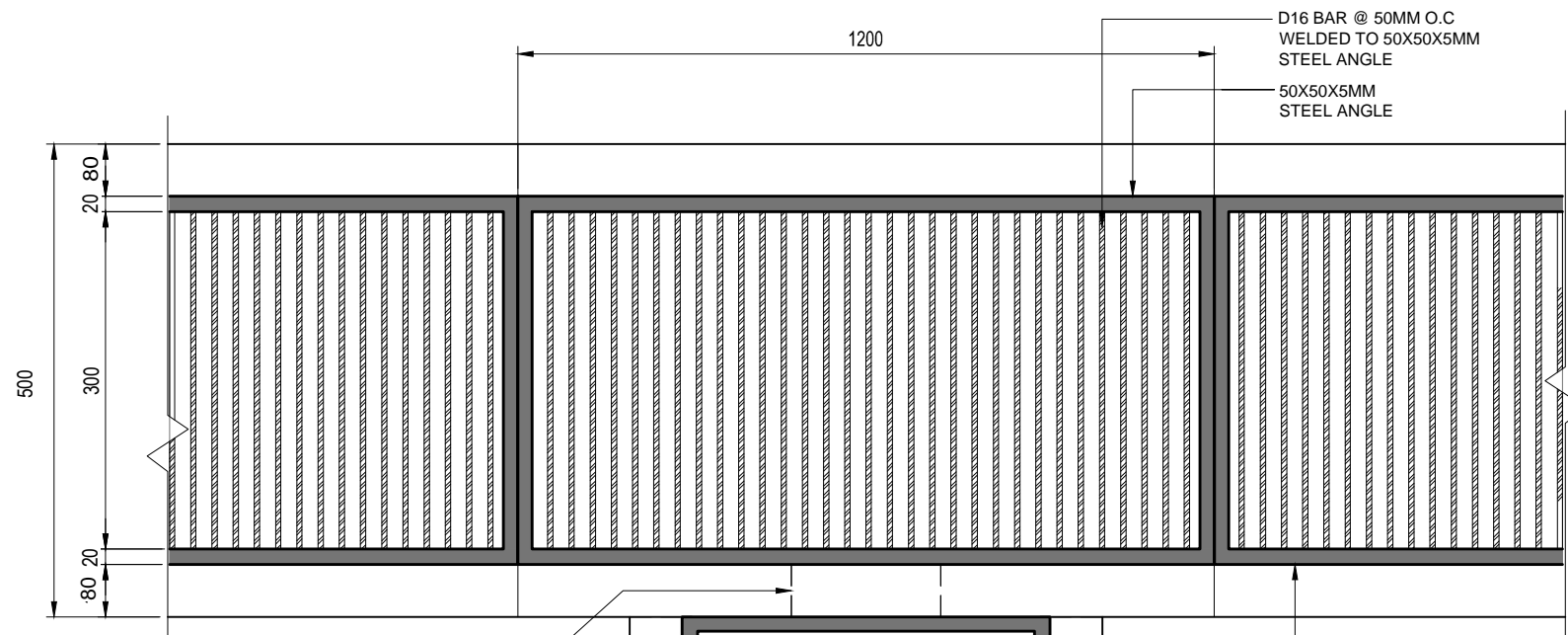
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							LOCATION APIA, SAMOA			



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			ENGINEER:			S- 03				
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				DATE : 03/19/22	LOCATION APIA, SAMOA					



1 CALL-OUT PLAN (DET. 01)
S-04 SCALE 1 : 200

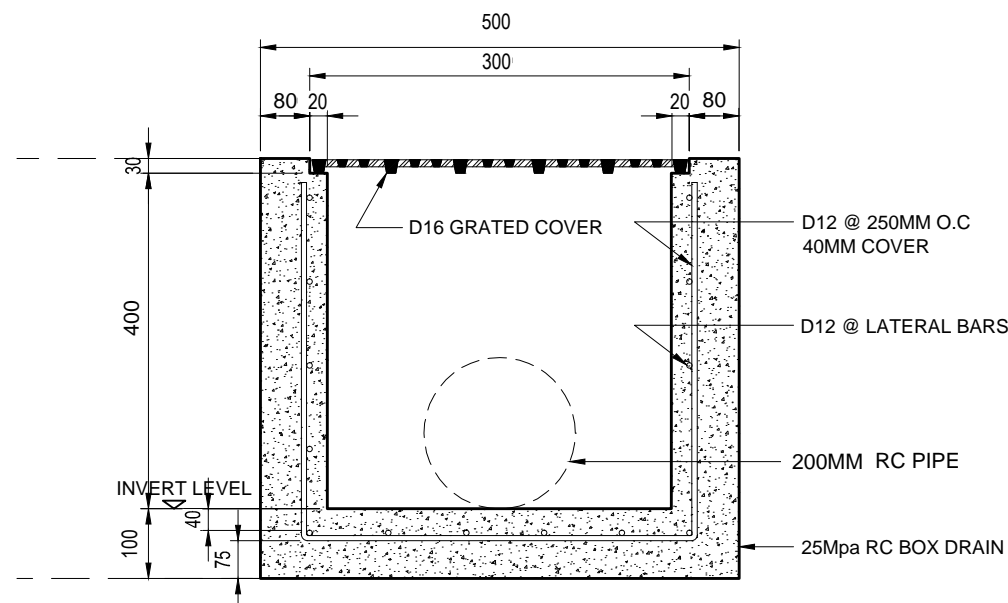


200MM RC PIPE

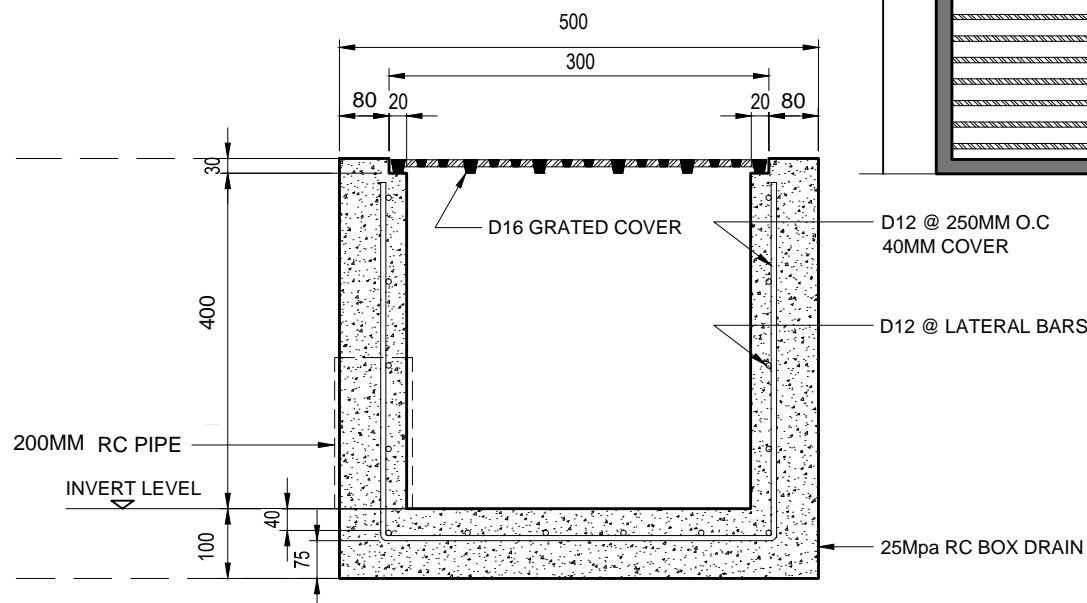
D16 BAR @ 50MM O.C
WELDED TO 50X50X5MM
STEEL ANGLE

50X50X5MM
STEEL ANGLE

1200



3 CON. U-DRAIN SECTION DETAIL
S-04 SCALE 1 : 15




4 CONCRETE BOX DRAIN DETAIL
S-04 SCALE 1 : 15

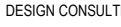
2 CON. U-DRAIN DETAIL PLAN
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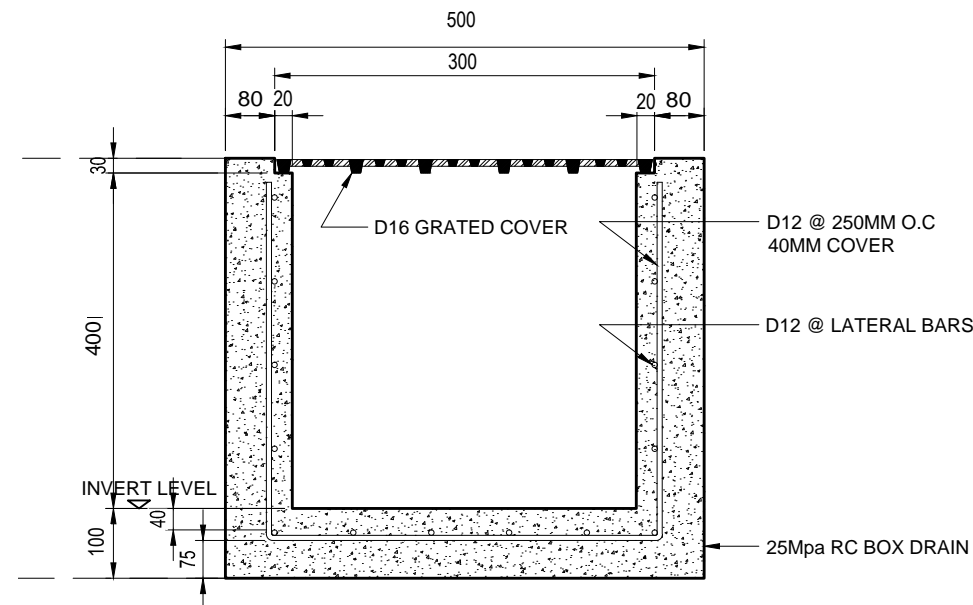
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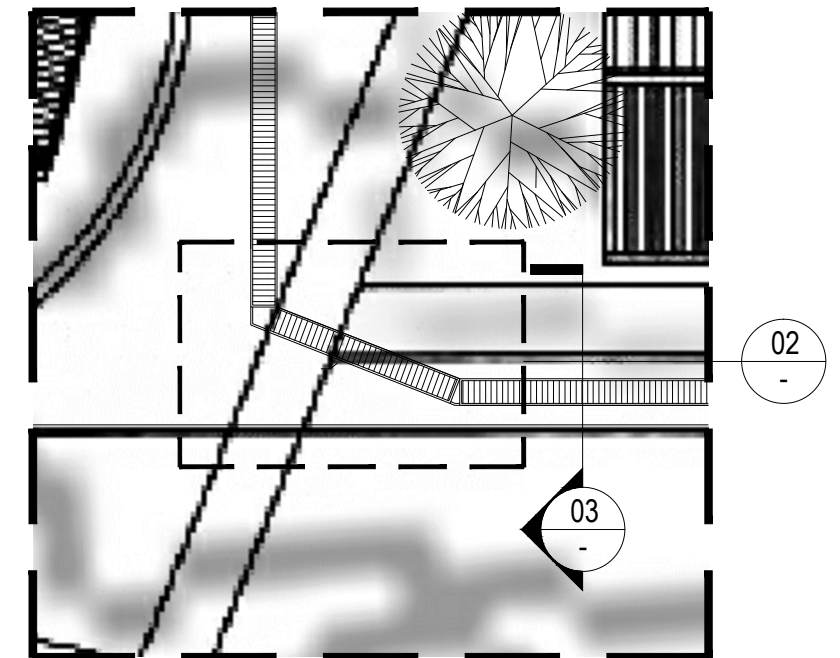
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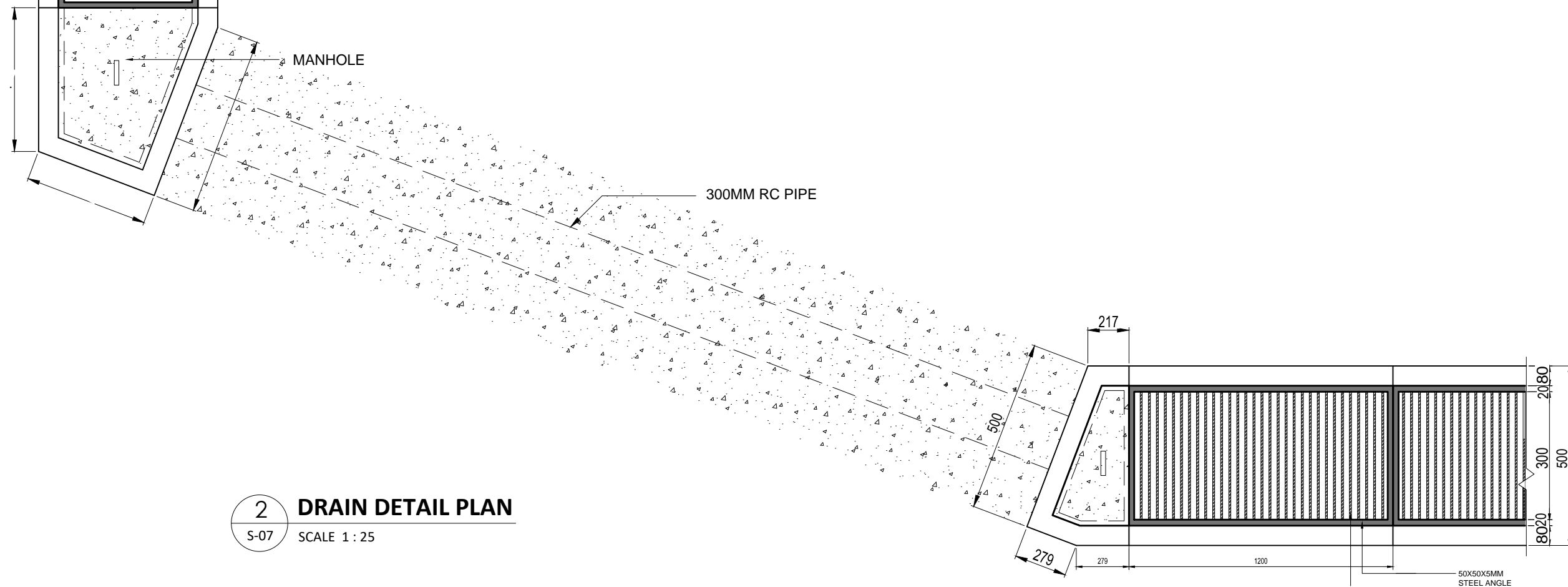
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			ENGINEER:			DRAWING NUMBER			REV No:	
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						DATE : 03/19/22	LOCATION APIA, SAMOA		S- 06	




3 CONCRETE U-DRAIN DETAIL

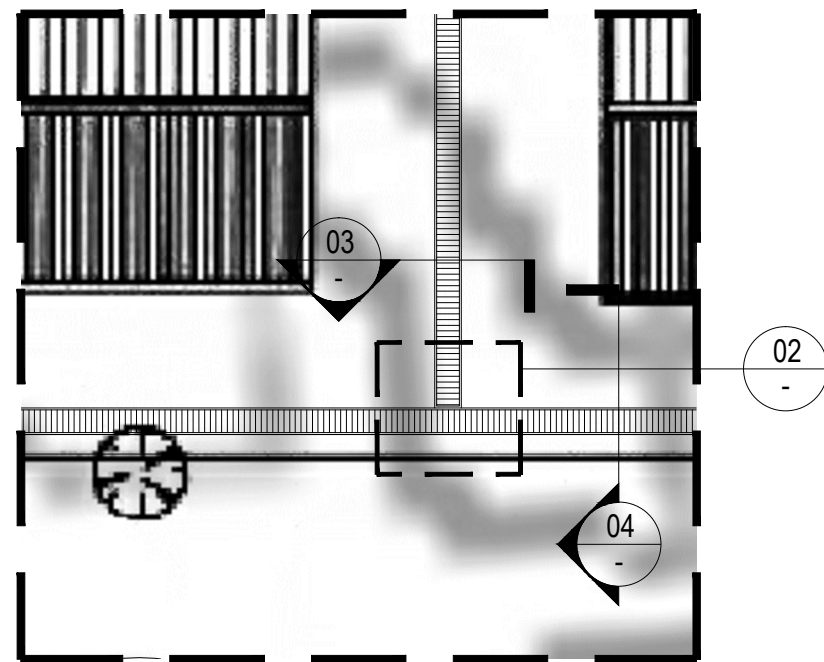


1 **CALL-OUT PLAN (DET. 04)**
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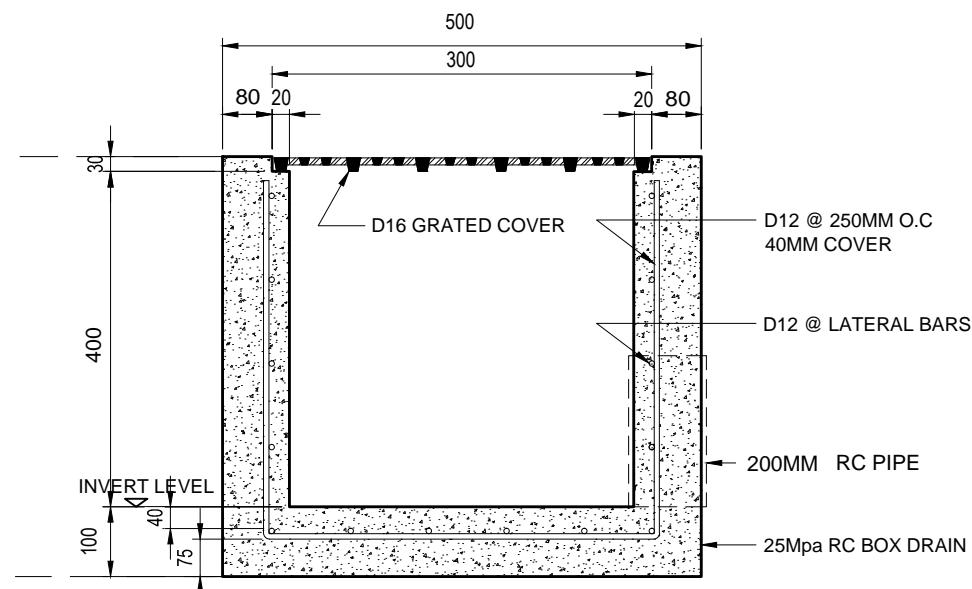


2 DRAIN DETAIL PLAN
S-07 SCALE 1 : 25

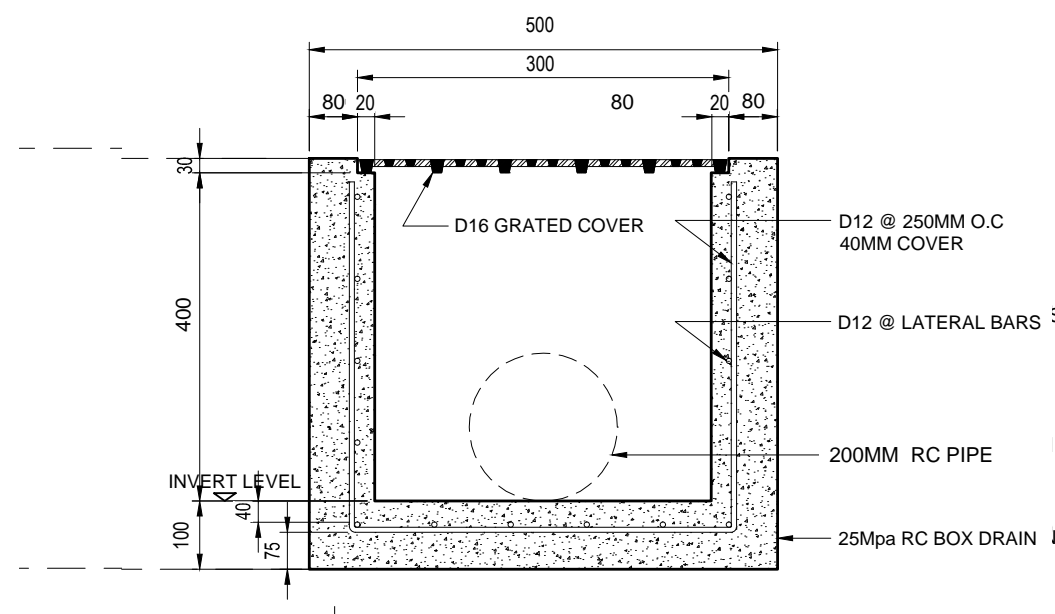
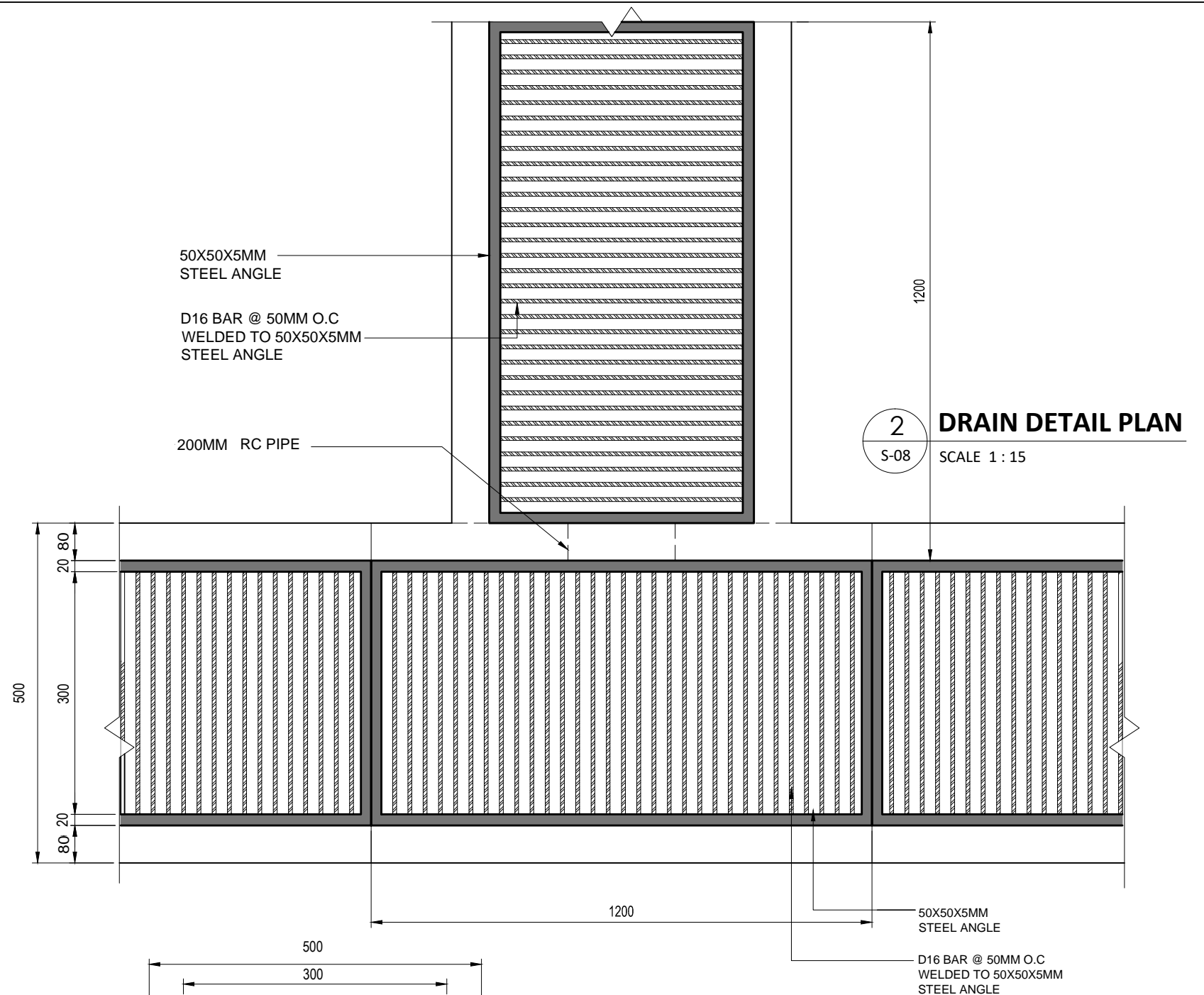
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						DATE : 03/19/22	LOCATION APIA, SAMOA		S- 07	



1 CALL-OUT PLAN (DET. 05)
S-08 SCALE 1 : 200

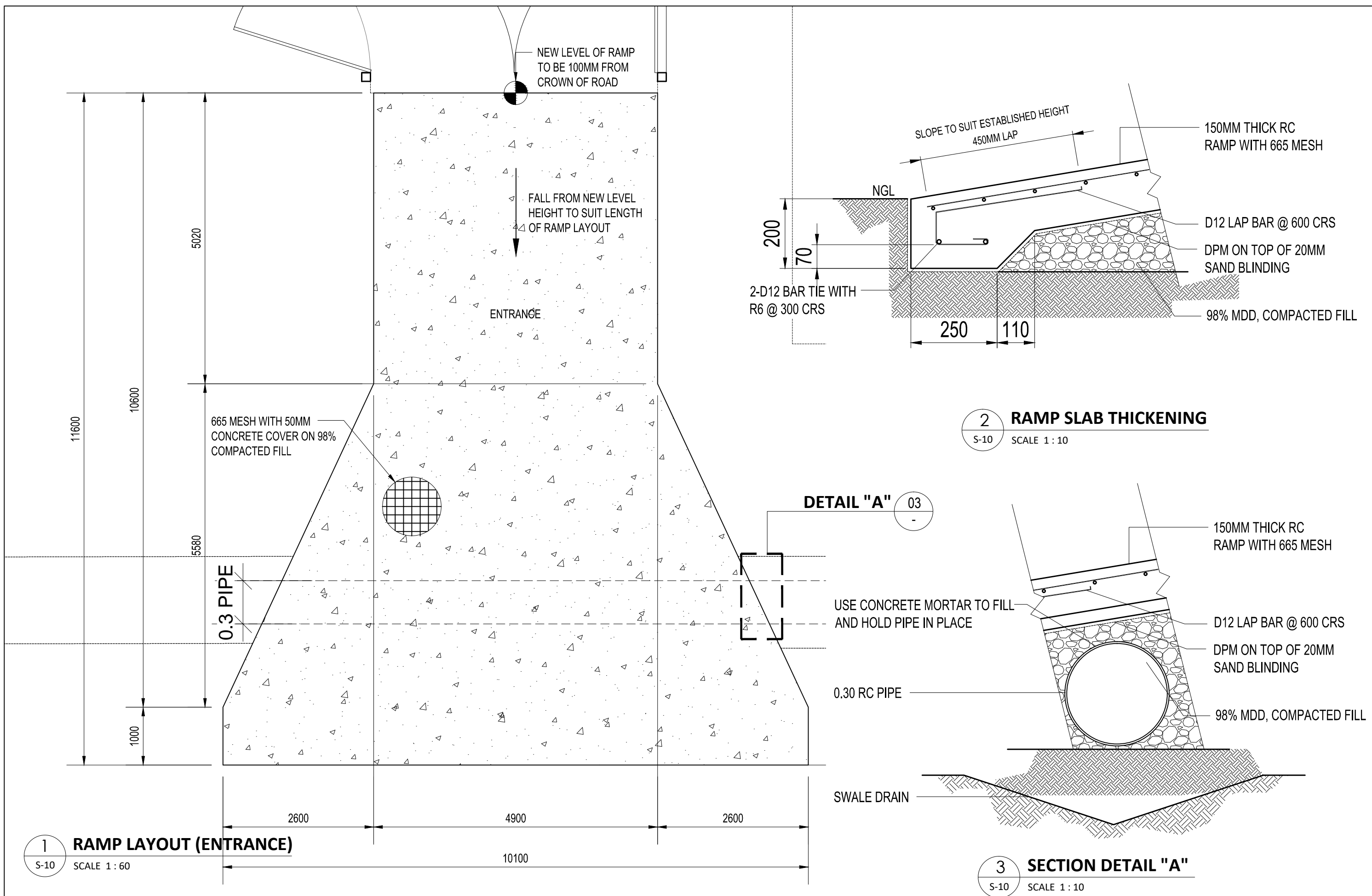


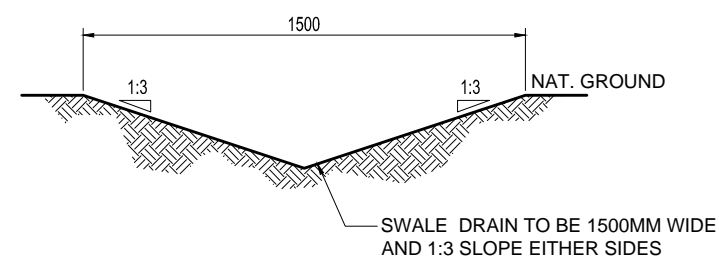
4 CON. U-DRAIN SECTION DETAIL
S-08 SCALE 1 : 15



3 CON. U-DRAIN SECTION DETAIL
S-08 SCALE 1 : 15

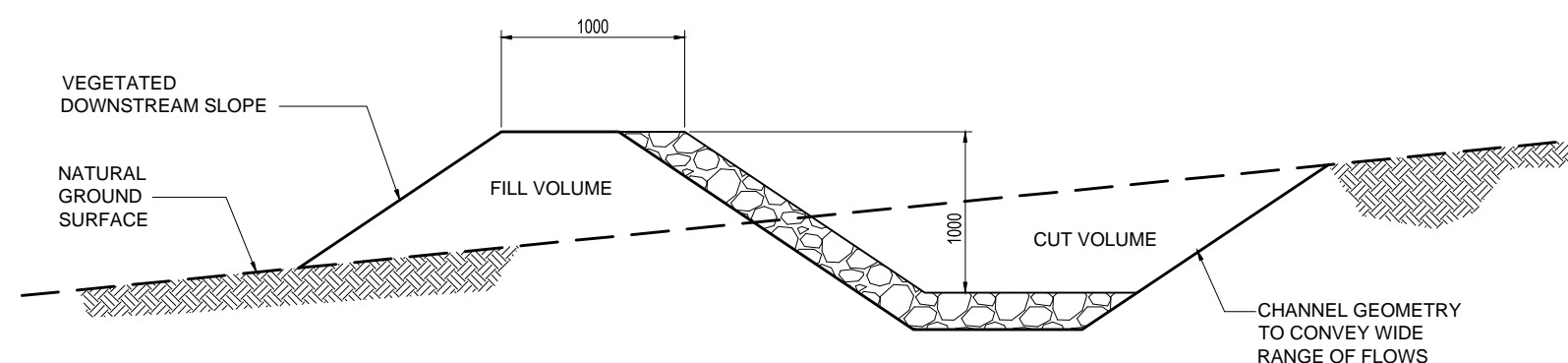
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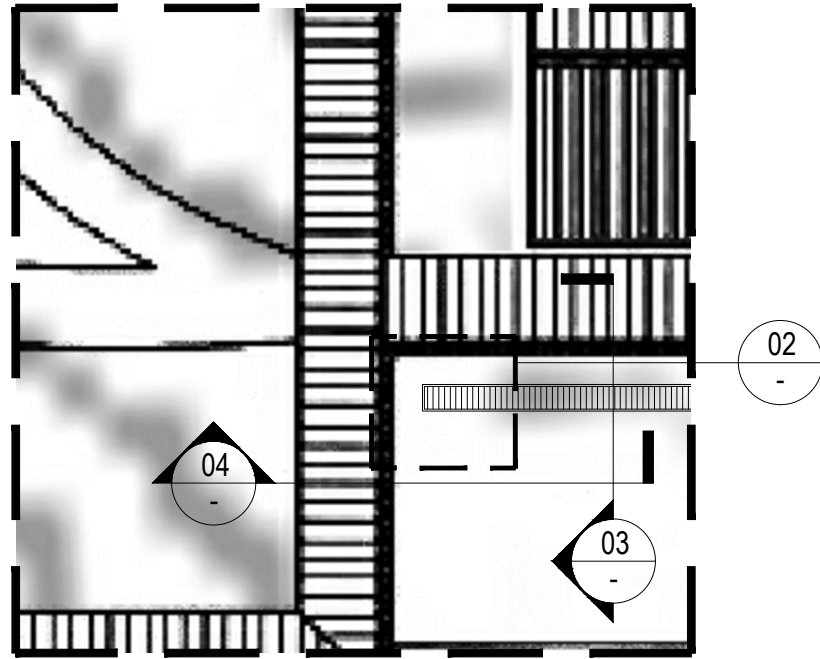
- PLACE 100mm TOPSOIL ACROSS SWALE LENGTH AND CHANNEL WIDTH.
- TOP SOIL MUST BE FREE OF CLAY TO ALLOW FREE DRAINING.
- SOW GRASS DENSELY SOW TO COVER ENTIRE SWALE LENGTH AND WIDTH.
- FENCE OFF UNTIL GRASS ESTABLISHED, AND WATER REGULARLY EARLY ON TO ESTABLISH DENSE GRASS GROWTH.

2 SWALE DRAIN
S-12 SCALE 1 : 25

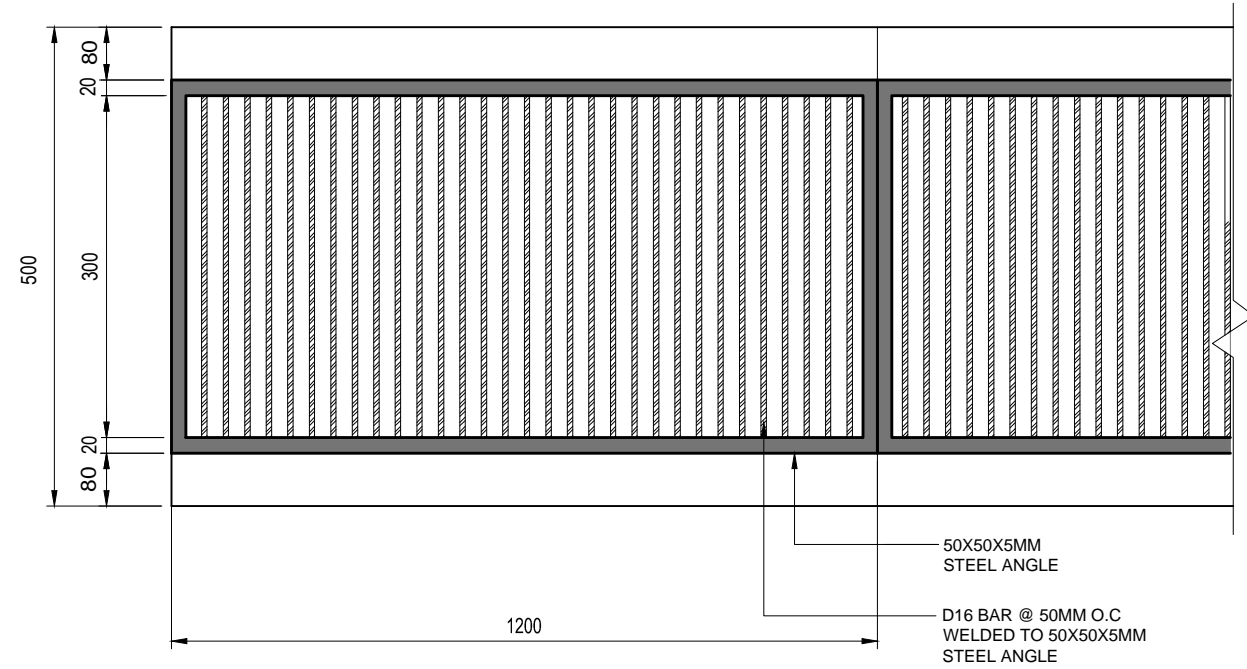


4 EARTH BUN
S-12 SCALE 1 : 25

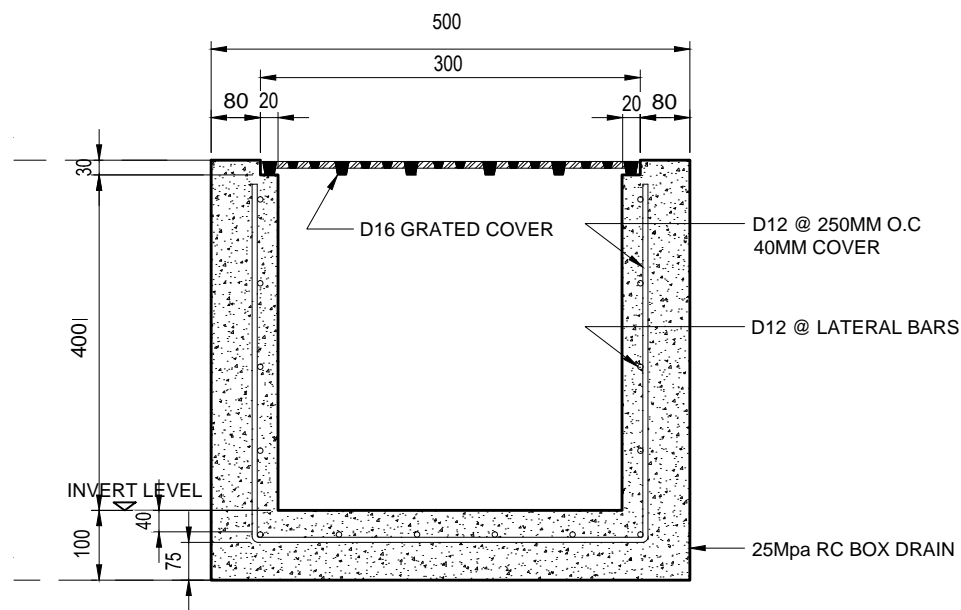
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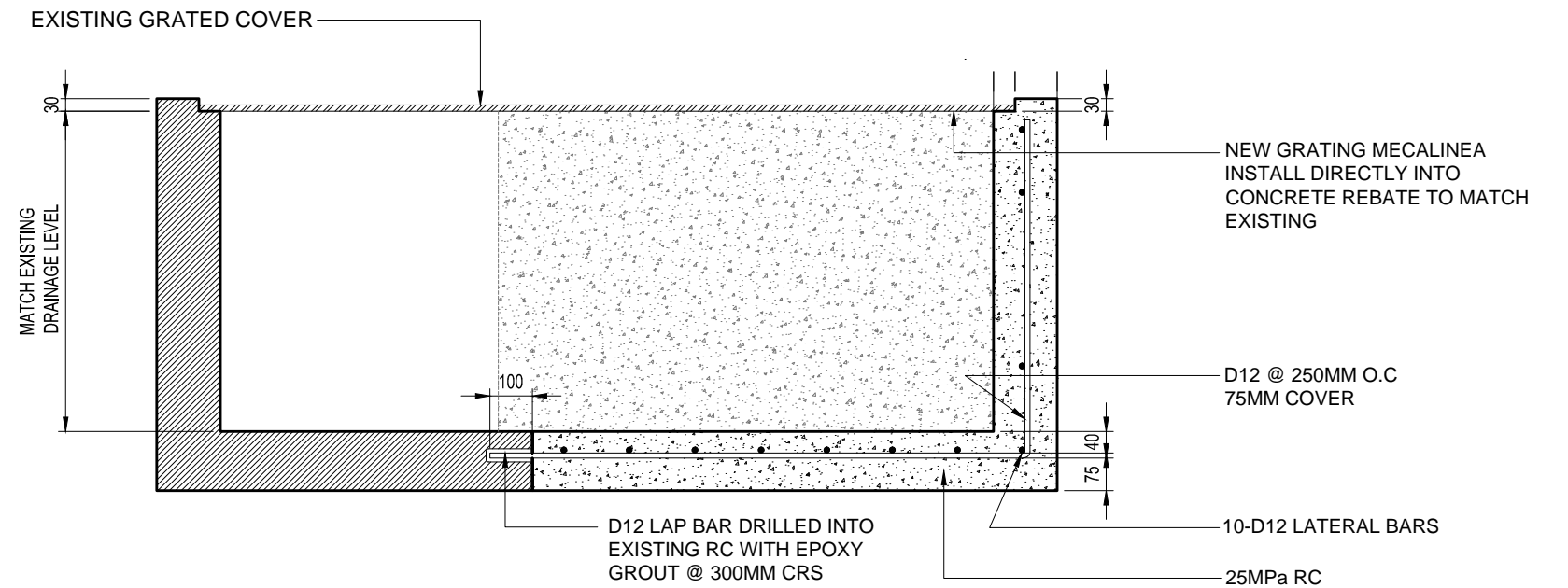
1 CALL-OUT PLAN (DET. 08)
S-13 SCALE 1 : 200



2 DRAIN CONNECTION AND END WALL DETAIL
S-13 SCALE 1 : 15



3 CONCRETE BOX DRAIN DETAIL
S-13 SCALE 1 : 15



4 BOX DRAIN CONNECTION AND END WALL DETAIL
S-13 SCALE 1 : 15

REV ID	DATE	DESCRIPTION	DWG	DESIGN CONSULTING	PRINCIPAL CLIENT	TITLE	PROJECT NAME	DRAWING TITLE	PROJECT No:	SCALE SIZE:
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