PROPOSED LANDSCAPING WORKS

AT

101 GEORGE STREET

AVALON BEACH NSW

FOR

CONRAD AND MAGDA GROENWALD

DRAWING LIST

DRAWING No.	DRAWING TITLE
S1.1	COVER SHEET
S1.2	CONSTRUCTION NOTES
S2.1	LANDCAPING PLAN
S2.2	LANDCAPING DETAILS

Rev.	Amendment	Date
A	CONSTRUCTION ISSUE	16.06.21

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Project
PROPOSED LANDSCAPING WORKS
101 GEORGE STREET
AVALON BEACH NSW

Title
COVER SHEET

Scale at A1	Date	Drawn
N.T.S	MAY/21	WB
Job No.	Drawing No.	Revision
20210057	S1.1	A

CONSTRUCTION

CONSTRUCTION NOTES

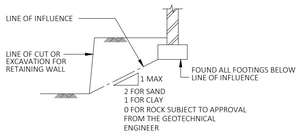
GENERAL

G1. These drawings are for structural purposes only and are to be read in conjunction with all architectural and other working drawings, specifications and with such other written instructions as may be issued during the course of the contract.
G2. Provide all workmanship and materials in accordance with the requirements of the current editions of the BCA, the Australian Standards and the By-Laws and Ordinances of the relevant Building Authority.
G3. The Builder must comply with requirements of the Occupational Health & Safety Act.
G4. Refer any conflict between these notes, the specification, the drawings or any other relevant documents to the contract superintendent for decision prior to proceeding with the work.
G5. Do not obtain dimensions by scaling the drawings. For setting out dimensions and levels refer to architectural drawings.
G6. During construction it is the Builder's responsibility to maintain the structure in a stable condition and to ensure no part is overstressed.The Builder is responsible for the provision of all temporary shoring, bracing and propping to maintain the stability and integrity of excavations, the structure and any adjacent structures. Provide details, for review by the Engineer, of any necessary temporary works, including temporary shoring, prior to commencing construction. For all temporary batters obtain geotechnical engineers recommendations.
G7. The design and drawings are copyright and may not be used or reproduced in whole or in part without the written permission of ROR.
G8. Fire-Resistant Levels (FRL's) required for the various structural elements must be confirmed by the BCA consultant or Architect.
G9. Waterproofing requirements shall be specified by the architect.
G10. All proprietary items are to be installed and fixed in accordance with the manufacturers specifications and instructions.
G11. Construction using these drawings shall not commence until a Construction Certificate is issued by the Principal Certifying Authority.

FOUNDATIONS

F1. The minimum safe bearing capacity of foundation material shall be:
Raft slabs : 600 kPa. in ROCK

F2. Foundation material shall be approved by the Geotechnical Engineer prior to placing membrane, reinforcement or concrete. Builder is to allow for cost of geotechnical inspections and any required certification.
F3. If a geotechnical investigation has not been made, the foundation conditions and reactivity class are an assumption and must be confirmed by trial excavations by the builder.
F4. The bases of footing excavations shall be finished clean and horizontal.
F5. Footings shall be located centrally under walls and columns unless noted otherwise.
F6. Founding levels where shown are for tender purposes only.
F7. Any proposed footing excavation near boundaries, other structures or services shall be approved by the Engineer.
F8. The builder shall not excavate below the level of the footings to any existing buildings without the written consent of the engineer.
F9. The building shall not be erected on or adjacent to any of the following hazards unless the hazard is indicated on the structural drawing; Embankments, batters, water retaining structures, retaining walls, pits, sewers, service trenches, drainage channels, streams or any potential source of damage to the structure. If any such hazards are encountered the engineer shall be notified and written approval obtained before proceeding.
F10. The builder shall locate all existing and proposed services and easements on and adjacent to the site. The approval of the relevant statutory authority and the engineer shall be obtained before building on or over any services or easements.
F11. The written consent of adjoining property owners shall be obtained before installation of underpinning, anchoring work, drainage lines or any other work beyond the property boundary.
F12. Do not backfill against retaining walls (other than cantilever walls) until 7 days after slab over is poured.
F13. The builder shall be responsible for maintaining any excavation in a stable condition without adversely affecting surrounding property including services. This includes obtaining all necessary approvals for shoring and anchor systems.
F14. Compacted fill areas and subgrade if required shall be approved material compacted to 98% Standard Dry density determined by testing to AS 1289.5.1.1 u.n.o. Compaction under buildings to extend 2m minimum beyond building footprint.
F15. Footings to be constructed and backfilled as soon as possible following excavation to avoid softening or drying out by exposure
F16. Foundations adjacent to services, existing footings, existing excavation or any new excavation for retaining walls shall extend down such that the zone of influence line of the new foundations is below the adjacent service or footing as follows:



LOADINGS

L1. Importance Levels of Building: 2
L2. Superimposed floor live loads are generally in accordance with AS/NZS1170.1 and specifically:
1.5 kPa. GENERALLY
2.0 kPa. BALCONIES
2.0 kPa. STAIRS
L3. Wind loads have been determined in accordance with AS4055
Wind Region: A Terrain Category: 3
Topographic Class: T2 Shielding: PS
Wind Classification =N2
L4. The relevant provisions of AS1170.4 have been applied for the following
Earthquake Design:
Probability factor kp: 1 Hazard Factor Z: 0.08
Site Sub-Soil Class: Ce
Earthquake Design Category: N/A

EXISTING STRUCTURES (ALTERATIONS & ADDITIONS)

E1. After exposing the structure of the existing building, the Builder must advise the Engineer to allow for inspection to confirm suitability of documented strengthening requirements, prior to commencing structural alterations and additions.

CONCRETE

C1. Provide all workmanship and materials in accordance with AS3600, the SAA standards cited in AS3600, the drawings and the specification.
C2. Concrete composition and quality shall be as follows;

ELEMENT	CONCRETE GRADE F'c -28 DAYS (MPa)	SLUMP	MAX AGGREGATE SIZE
Footings	25	80	20
Slab on Ground	40	80	20
Suspended Slab	40	80	20
Concrete Walls	40	80	20
Concrete Columns	40	80	20
Core Filling Grout	20	180	10

EXPOSURE CLASSIFICATION: External: B2 Internal: A1

C3. Use type "GP" cement unless noted otherwise
C4. No "Breccia" type aggregate is to be used.
C5. No admixtures unless approved by the engineer.
C6. The finished concrete shall be mechanically vibrated to achieve full compaction, completely filling formwork, thoroughly embedding the reinforcement and free of stone pockets.
C7. Sizes of concrete are net, exclusive of applied finishes. Beam depths are written first and include slab thickness.
C8. Properly form construction joints and use only where shown or approved by the Engineer.
The first pour shall be thoroughly scabbled and cleaned of all poorly compacted material and laitance, thoroughly soaked and painted with a 2:1 sand cement slurry immediately before placing the second pour. Thoroughly compact the second pour against the first pour.
C9. Make no holes or chases in concrete members without the approval of the Engineer.
C10. For all falls in slab, chamfers, reglets, drip grooves etc. refer to the Architect's drawings and specification. Maintain cover to reinforcement as outlined in reinforcement notes.
C11. Conduits and pipes are to be fixed to the underside of the top reinforcement layer.
C12. Where a vapour barrier is specified beneath slabs on ground provide a "Cromford" 0.2 thick high-impact resistant polyethylene film damp proof membrane throughout. Lap sheets 300mm and seal with a 50mm wide pressure sensitive waterproof tape.
C13. Slurry used to lubricate concrete pump lines is not to be used in any structural members.
C14. Cure concrete in accordance with AS3799. Commence curing within two hours of finishing operations and continue for a minimum of seven days by using an approved proprietary compound applied uniformly in accordance with the manufacturers instructions or by keeping continuously wet.
C16. Pre camber formwork upwards by 1/500 of the clear span U.N.O. where supported beams and slabs span greater than 5m. Extreme care must be taken to ensure the specified depths of beams and slabs are achieved in areas of pre-set or pre-cambered formwork. This cannot be achieved by levelling the concrete surface into the nominal finished concrete level.

FORMWORK
The design, certification, construction and performance of the formwork, falsework and backpropping shall be the responsibility of the contractor in accordance with AS3610 and AS3600. Proposed method of installation and removal of formwork is to be submitted to the superintendent for comment prior to work being carried out.

MASONRY

GENERAL

M1. Ensure all workmanship and materials are in accordance with AS3700, the drawings and the APPL Standard Technical Specification STD-D905.
M2. Build all load bearing walls before supported structural members are poured.
M3. Obtain engineers approval before commencing building masonry walls on suspended slabs.
M4. Do not erect any masonry walls supported by concrete slabs or beams until all formwork and props under have been removed.
M5. Mortar shall consist of the following;
M3 for general applications: 1 part type GP cement: 5 parts sand plus water thickener.
M4 (exposure grade) for elements in interior environments subject to saline, wetting and drying; below a damp proof course or in contact with ground in aggressive soils; in marine environments; in saline or contaminated water including tidal splash zones and within 100m from non-surf coast, or 1km surf coast: 1 part type GP cement: 4 parts sand plus water thickener.
M6. The builder shall provide records that demonstrate all masonry bed joint reinforcement, masonry ties and masonry wall stiffeners have been installed in accordance with the drawings and specification.
M7. Where masonry walls abuts steel or concrete structures, they shall be restrained using M.E.T 5-3. Power fix to columns every 4th course (brick work) and 2nd course (block work).
M8. Only engineer approved masonry anchors to be used.
M9. No chasing or rebates to be made be made without the written approval of the Engineer

BRICK WORK

M10. Provide all bricks of minimum characteristic unconfined compressive strength f'uc= 15 MPa u.n.o.
M11. Brick walls shown under and shaded on plan are load bearing. Load bearing walls supporting slabs and beams to be laid with frogs down and have a layer of mortar towelled smooth on top. Provide slip joint to separate floor slabs/beams and brickwork. Slip joint to consist of 2 layers of galvanised flat steel with graphite grease. Non-loadbearing walls shall be separated by 20mm of approved compressible material. Where masonry abuts slab downturns, provide 15mm gap between brickwork and side of downturn.
M12. Provide bed joint reinforcement as follows;
M.E.T galvanised masonry reo where M3 mortar is used
Ancon CCL stainless steel where M4 mortar is used and locate as follows;
- in 2 bed joints below and above head and sill flashing's to openings
- in 2 bed joints below and above openings
- in third bed joint above bottom of wall
- in second bed joint below top of wall
M13. Place brick ties to all brickwork at 4 course centres (and one course over openings)
M14. Provide movement control joints vertically for full height of wall as follows:
- for general masonry = 8m maximum centres & 4m maximum from corners.
- for articulated masonry = 6m maximum centres & 4m maximum from corners.
Provide 15mm minimum joints with an approved compressible filler, tied together every 4th course with an M.E.T 3.3 masonry sliding tie or approved equal.
M15. All brickwork at corners and intersections to be fully bonded.
M16. All engaged brick piers to be 110 x 230 unless noted otherwise and bonded every second course
M17. Lintels not shown on drawings to be as per standard practice. All lintels to be hot dip galvanised.

REINFORCED BLOCK WORK

M18. Provide all hollow concrete masonry of strength f'uc= 15 MPa u.n.o.
M19. Provide Vertical Control Joints in all walls at a maximum of 8m maximum centres and over any permanent floor joints unless indicated on the structural drawings. Joint locations to be co-ordinated with the architectural drawings.
M20. Maximum continuous pour height shall be 3600mm. Stop pour 50mm below top of block to provide key for the following pour. Provide clean out openings at the base of all cores to be filled. Cores shall be cleaned of mortar protrusions before grouting.
M21. Provide hollow F'c 20 MPa core filling concrete with 10mm aggregate, 180 slump. U.N.O. to all reinforced block walls. Core filling grout shall be thoroughly compacted by mechanical vibrator or rodding. Grout to be in accordance with AS3700.
M22. Lay bottom course on full mortar bed. All perpends shall be fully filled with mortar, except where required for weep holes.
M23. All core filled block walls shall be constructed using "double U blocks".
M24. Reinforcement shall be placed and securely held in the locations indicated by plastic "blockaid" reinforcement location brackets or approved equivalent at the intersection of all vertical and horizontal reinforcement. Rods shall be tied to starter bars in clean out blocks.
M25. Water proofing to the back of block retaining walls to the architect's specification.
M26. Only backfill behind retaining walls after obtaining engineers approval.

REINFORCEMENT

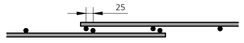
R1. All workmanship and materials shall be in accordance with AS 3600, the drawings and the specification
R2. Fix reinforcement as shown on drawings. The type and grade is indicated by a symbol as shown below. On the drawings this is followed by a numeral which indicates the size in millimetres of the reinforcement.
S - Denotes hot rolled deformed bars Grade 250S.
N - Denotes hot rolled deformed bars Grade 500N.
R - Denotes hot rolled plain round bars Grade 250N.
SL, RL, L(size)TM - Denotes hard drawn wire fabric Grade 500L.

R3. Reinforcement is shown diagrammatically and not necessarily shown in true projection.
R4. All reinforcement shall be securely supported in its correct position during concreting by approved bar chairs, spacers or support bars. Bar chairs are to be mild steel plastic tipped chairs, plastic chairs or concrete chairs. Fully plastic chairs only shall be used on element faces having external exposure on the completed structure. Extra chairs may be required adjacent to slab edges and joints to prevent the upward deflection of the reinforcement when stood on. All reinforcement shall be chaired at maximum centers as follows:
Bars - 1000mm centers each way
Fabric - 600mm centers each way

REINFORCEMENT COVER TABLE

EXPOSURE CONDITION	COVER TO REINFORCEMENT
SURFACES IN DIRECT CONTACT WITH GROUND	
A - Surface protected by damp proof membrane	30
B - Unprotected surfaces U.N.O	50
SURFACES IN INTERIOR ENVIRONMENT	
Element	
Slabs	25 Top, 25 Bottom, 25 Sides
Beams	25 Top to ties, 25 Bottom, 25 Sides
Columns	25 to ties and spirals
Walls	25
SURFACES EXPOSED TO EXTERIOR ENVIRONMENT	45

R5. Reinforcement shall not be cut or welded on site without approval by the engineer. At small holes less than 200mm eg plumbing penetrations, bars shall be displaced to either side.
R6. Maintain cover to all pipes, conduits, reglets, drip grooves etc as required by AS3600 but not less than three bar diameters. Do not place conduits in slabs above top reinforcement or below bottom reinforcement.
R7. Site bending of reinforcement shall be avoided if possible. Where site bending is specified or unavoidable, it shall be carried out cold, without the application of heat with power mechanical bending tools. Cranked bars to be bent 1:6 max.
R8. Laps in reinforcement shall be made only where shown on the drawings unless otherwise approved. Lap lengths as per table below and shown on reinforcement drawings.
R12. Notify the Engineer a minimum of 24 hours before reinforcement has been completed. Allow 2 hours after the completion of the reinforcement for the Engineer's inspection. Do not order concrete until reinforcement has been approved by the Engineer.
R13. Tie all unsupported bars in transverse direction to N12-300, lapped 500 U.N.O.
R14. Provide hooks, bends and cogs in accordance with AS3600 U.N.O.
R15. Fabric end and side laps are to be placed strictly in accordance with the manufacturers requirements to achieve a full tensile lap. Fabric shall be laid so that there is a maximum of 3 layers at any location.



FABRIC LAP DIAGRAM

TENSION LAPS & COGS

BAR SIZE	TOP BARS WITH MORE THAN 300mm CONCRETE BELOW BAR	ALL OTHER BARS	COG LENGTH
N12	650	500	180
N16	950	700	210
N20	1150	950	260
N24	1600	1250	310
N28	1950	1500	360
N32	2300	1800	400
N36	2700	2100	450

COMPRESSION LAPS & COGS

BAR SIZE	LAP LENGTH	COG LENGTH
N12	500	180
N16	650	210
N20	800	260
N24	1000	310
N28	1150	360
N32	1300	400
N36	1450	450

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A	CONSTRUCTION ISSUE	16.06.21

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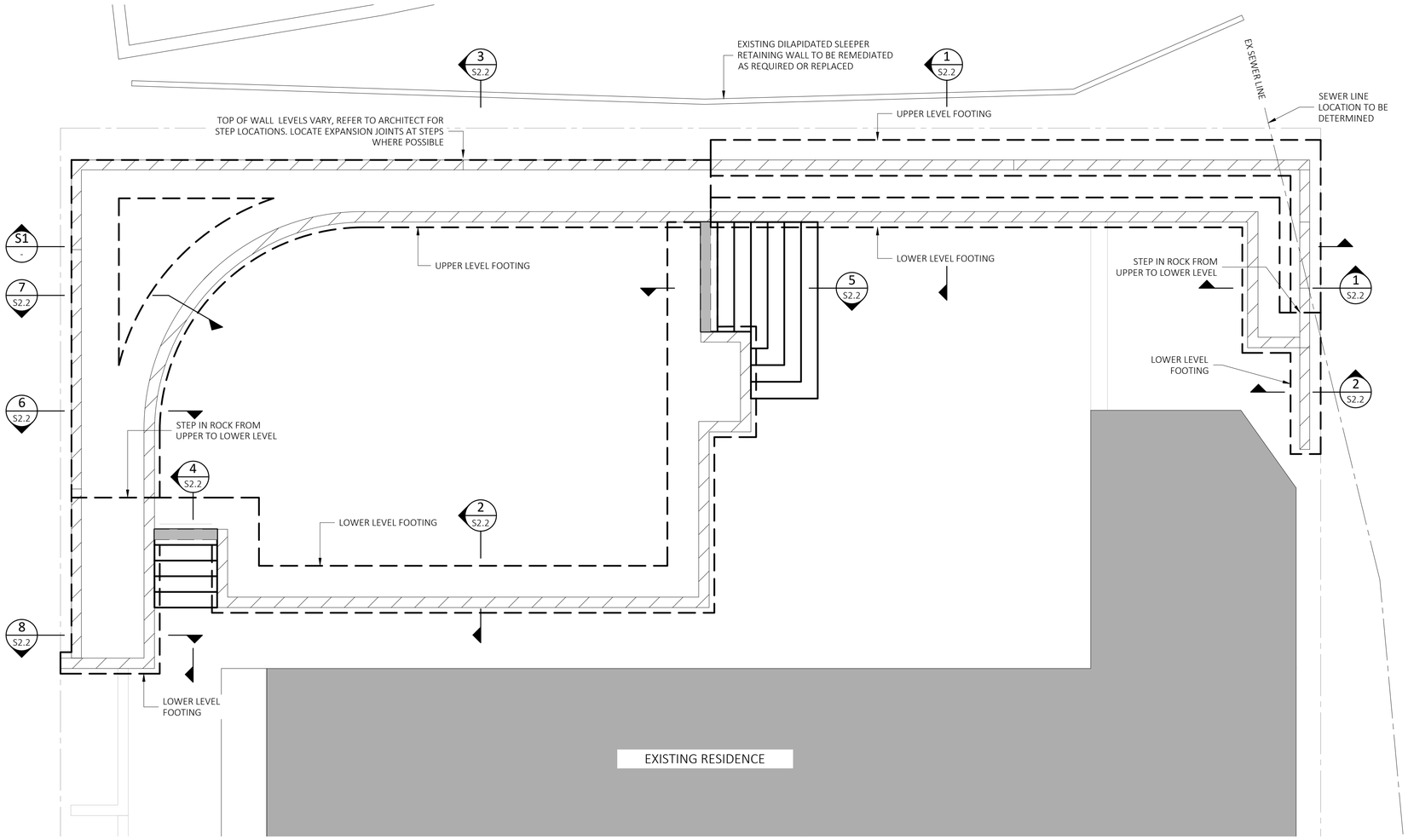
GENERAL NOTES

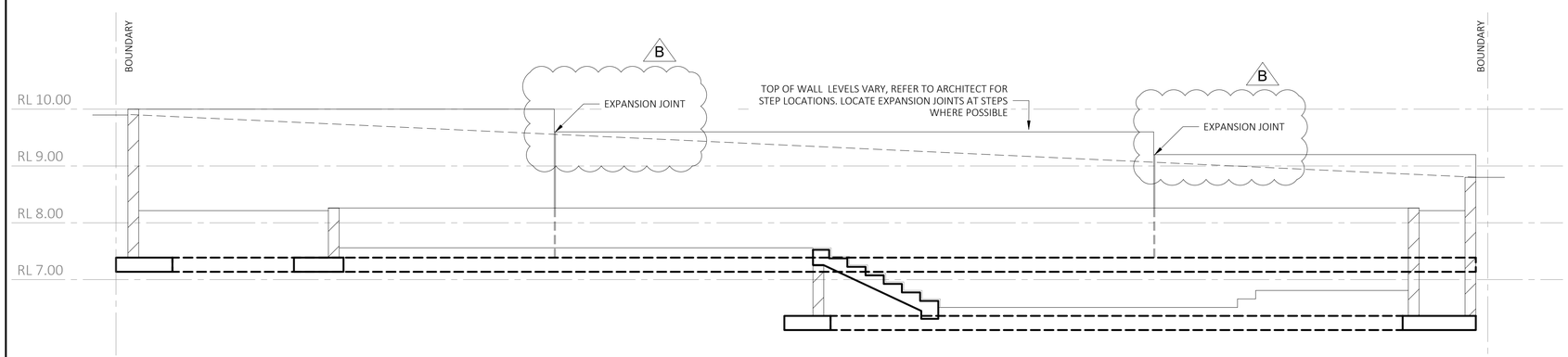
Scale at A1	Date	Drawn
N.T.S	MAY/21	WB
Job No.	Drawing No.	Revision
20210057	S1.2	A

CONSTRUCTION



LANDSCAPING PLAN

THIS DRAWING TO BE READ IN CONJUNCTION WITH LANDSCAPE ARCHITECTS DRAWINGS.
REFER TO LANDSCAPE ARCHITECT FOR ALL WALL SETOUT DIMENSIONS AND REQUIRED LEVELS.



SECTION S1
SCALE 1:50

LEGEND

- DENOTES LOAD BEARING WALLS UNDER
- DENOTES BRICK WALLS OVER
- T.B.C. — DENOTES TO BE CONFIRMED
- C.O.S. — DENOTES TO BE CONFIRMED ON SITE
- U.N.O. — DENOTES UNLESS NOTED OTHERWISE

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B	REVISED AS CLOUDED	21.06.21
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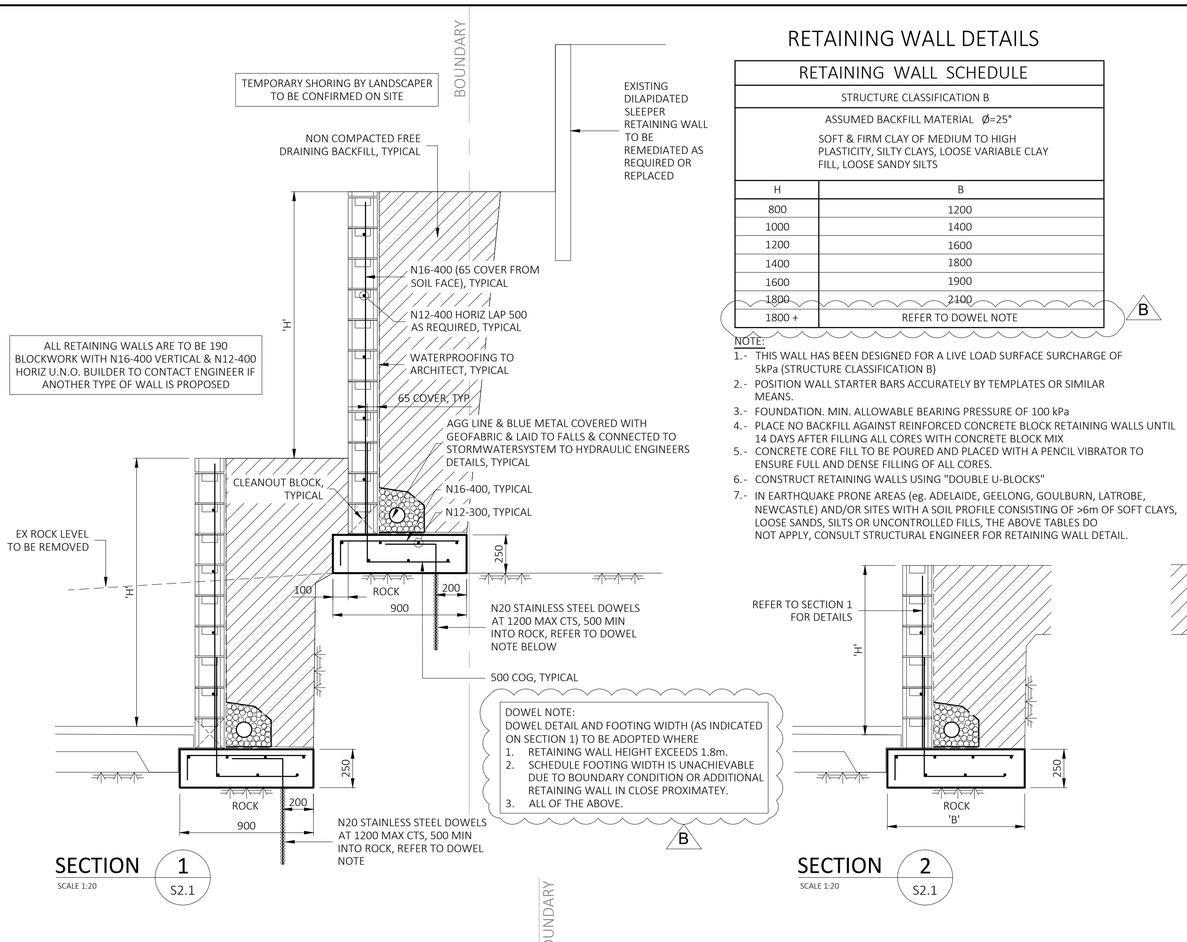
LANDSCAPING PLAN

Scale at A1	Date	Drawn
1:50 @ A1	MAY/21	WB
Job No.	Drawing No.	Revision
20210057	S2.1	B

CONSTRUCTION

RETAINING WALL DETAILS



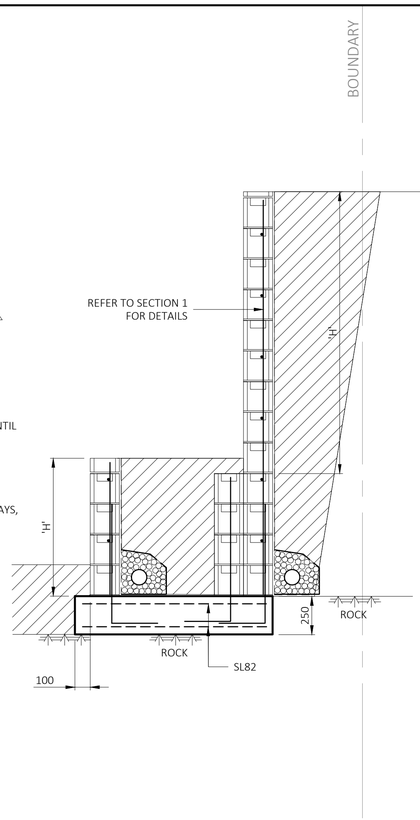
SECTION 1 (S2.1)
SCALE 1:20

RETAINING WALL SCHEDULE	
STRUCTURE CLASSIFICATION B	
ASSUMED BACKFILL MATERIAL Ø=25° SOFT & FIRM CLAY OF MEDIUM TO HIGH PLASTICITY, SILTY CLAYS, LOOSE VARIABLE CLAY FILL, LOOSE SANDY SILTS	
H	B
800	1200
1000	1400
1200	1600
1400	1800
1600	1900
1800	2100
1800 +	REFER TO DOWEL NOTE

B

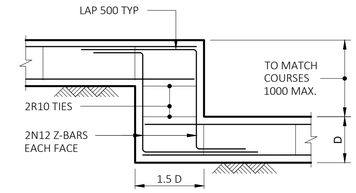
NOTE:
1. - THIS WALL HAS BEEN DESIGNED FOR A LIVE LOAD SURFACE SURCHARGE OF 5kPa (STRUCTURE CLASSIFICATION B)
2. - POSITION WALL STARTER BARS ACCURATELY BY TEMPLATES OR SIMILAR MEANS.
3. - FOUNDATION. MIN. ALLOWABLE BEARING PRESSURE OF 100 kPa
4. - PLACE NO BACKFILL AGAINST REINFORCED CONCRETE BLOCK RETAINING WALLS UNTIL 14 DAYS AFTER FILLING ALL CORES WITH CONCRETE BLOCK MIX
5. - CONCRETE CORE FILL TO BE POURED AND PLACED WITH A PENCIL VIBRATOR TO ENSURE FULL AND DENSE FILLING OF ALL CORES.
6. - CONSTRUCT RETAINING WALLS USING "DOUBLE U-BLOCKS"
7. - IN EARTHQUAKE PRONE AREAS (eg. ADELAIDE, GEELONG, GOULBURN, LATROBE, NEWCASTLE) AND/OR SITES WITH A SOIL PROFILE CONSISTING OF >6m OF SOFT CLAYS, LOOSE SANDS, SILTS OR UNCONTROLLED FILLS, THE ABOVE TABLES DO NOT APPLY, CONSULT STRUCTURAL ENGINEER FOR RETAINING WALL DETAIL.

SECTION 2 (S2.1)
SCALE 1:20



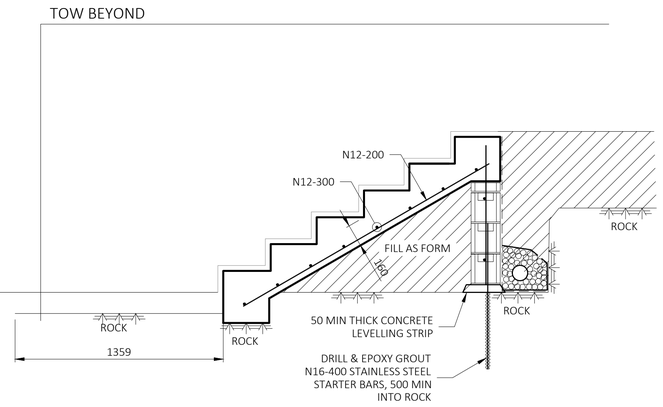
SECTION 3 (S2.1)
SCALE 1:20

SECTION 6 (S2.1) SIMILAR
SCALE 1:20



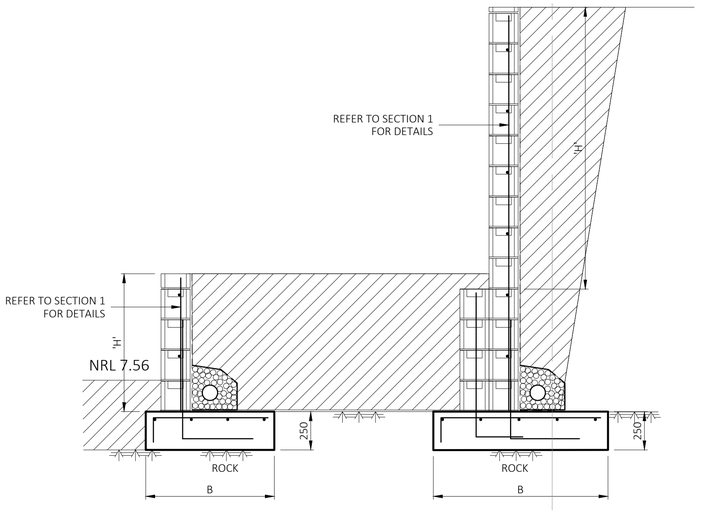
STEP DETAIL

TYPICAL FOOTING STEP DETAIL
SCALE 1:20

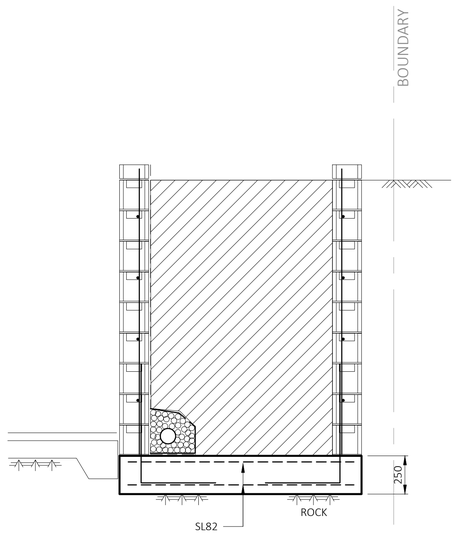


SECTION 4 (S2.1)
SCALE 1:20

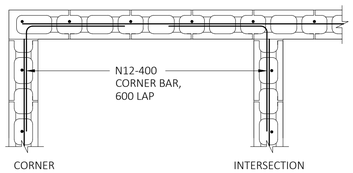
SECTION 5 (S2.1) SIMILAR
SCALE 1:20



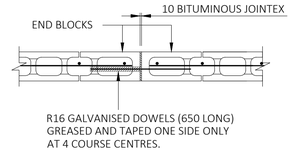
SECTION 7 (S2.1)
SCALE 1:20



SECTION 8 (S2.1)
SCALE 1:20

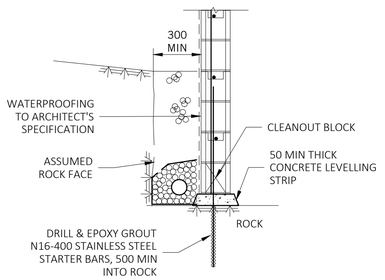


PLAN ON BLOCK WALL JUNCTION DETAILS



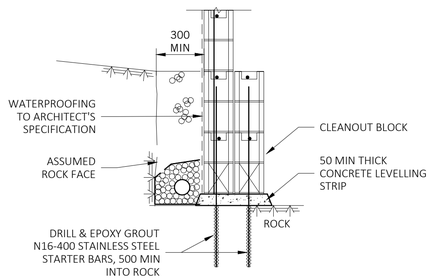
PLAN ON BLOCK WALL EXPANSION JOINT

LOCATION OF JOINTS TO BE LOCATED AT TOP OF WALL STEPS, U.N.O. (8m MAX CTS)



ALTERNATIVE FOOTING DETAIL

TO BE USED IN LIEU OF CONCRETE FOOTING IF PREFERRED BY BUILDER.



ALTERNATIVE FOOTING DETAIL

TO BE USED IN LIEU OF CONCRETE FOOTING IF PREFERRED BY BUILDER.

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B	REVISED AS CLOUDED	21.06.21
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