General Notes

1. These drawings shall be read in conjunction with all architectural and other consultants drawings, the specifications and with such other written instructions as may be issued during the course of the contract.
2. Any discrepancy on the drawings or between the drawings and/or the specification and/or the specified Australian Standard shall be referred to the engineer and a written instruction received prior to proceeding with the work. During tendering the tender shall assume the larger/greater criteria in terms of cost in the absence of other instructions.
3. All materials and workmanship shall be in accordance with the requirements of the current Australian Standards codes, including all amendments, and the by-laws and ordinances of the relevant building authority, except where varied by the project specification.
4. All dimensions are in millimetres unless noted otherwise. All levels are expressed in metres. All dimensions relevant to setting out and off-site work shall be verified on site by the contractor before construction and fabrication are commenced. The engineers drawings are not to be scaled. No responsibility will be taken by the engineer for dimensions obtained by scaling the drawings.
5. Substitutions must be approved by the engineer and be included in any tender.
6. During construction the contractor shall be responsible for maintaining the structure in a stable condition; ensuring no part shall be over-stressed during construction activities.
7. The structural drawings do not show all details of fixtures, inserts, sleeves, openings, etc. required by the various trades. All such details, including openings for construction purposes must be approved by the engineer before proceeding with construction.
8. The wind classification of the site is **N1** as per AS4055

Foundation Notes

1. All footings and ground beams shall be founded on **ROCK** of a minimum uniform Serviceability/Allowable Bearing Capacity of **800**kPa, otherwise provide piers as per note 2.
2. Piers where required shall be 400Ø on firm natural clay (600mm deep into natural soil after fill) and 300Ø for rock bearing. The spacing of piers where required shall be as follows:
   Single storey brick veneer – 2.0m cts.
   Double storey brick veneer – 1.5m cts.
3. If rock is encountered in the excavation, all footings must be founded on or piered to that strata.
4. Slab should be placed on compacted natural ground/fill with minimum 98% Maximum Dry Density (MDD) and the builder is required to keep test records.
5. Locations of any underground services should be determined by the client for the engineer prior to design of the footings and any necessary modification should be obtained prior to construction of the footings. These modifications may incur fees payable to the engineer.
6. Note this design does not cover any slope stability matters. If the site has slopes exceeding 1 vertical in 2 horizontal (1V/2H) the client should get a qualified geotechnical engineer to verify it's stability prior to construction and any recommendations pertaining to the building should be brought to the engineers notice prior to construction.
7. No part of the footing including ground beams, piers, backhoe piers should be founded on:
   A) Loose natural materials with allowable bearing capacity of less than 100kPa
   B) Landslip
   C) Mine subsidence and collapsing soils
   D) Soils subject to erosion
   E) Reactive sites with abnormal moisture contents caused by events on site and including the surrounding areas such as recent removal of building from site, change in drainage of the site caused by removal/addition of drains, leaking drains/ponds/pools etc. due to poor/lack of maintenance, removal of large trees, trees near the foundation.
8. The minimum distance of the trees (both on site and on the adjoining property) from the foundation should be as below.
9. Fill under the slab should be free from organic material, reactive clays, large boulders. Fills should be non reactive crushed rock or equivalent compacted to a minimum 98% maximum dry density in layers of 200mm depth.
10. Footings near pools/retaining walls should be taken below zone of influence of these structures and piers should be used if necessary. If in doubt contact the engineer for further advice.

Concrete Notes

1. All materials, workmanship and testing shall comply with AS1379, AS3600 and AS3610.
2. Water must not be added to the premixed concrete at site and no additives or admixtures to be used without obtaining prior approval in writing from the superintendent.
3. Refer to the table below for required concrete grade:

Element	Slump	Max. Agg. Size	Cement Type	Grade in MPa
Footings	80	20mm	GP	25

4. Size of elements is exclusive of applied finishes. Beam depths include slab thickness are the first dimension specified followed by the width.
5. Slabs to be continuously moist cured for 7 days maintaining dampness at all times with plastic film and wet sand, or continuous immersion. PVC and resin based curing compounds shall not be used.
6. Mechanical vibrate all concrete to give maximum compaction without segregation of the concrete.
7. All joints shall be properly formed and used where shown or specifically approved by the superintendent.
8. At footing intersections reinforcement shall extend 40 bar diameters into transverse footing.
9. No holes, chases or embedment of pipes other than those shown on the structural drawings shall be made in concrete members or slabs without prior approval of the superintendent. Steps in footings shall be constructed to details.
10. Dimensional tolerances of AS3600 modified by AS3610 shall apply unless otherwise noted. Slab surface flatness tolerance shall be 5mm maximum deviation from a 3m straight edge.
11. Formed concrete shall not be stripped for at least 3 full days after pouring and longer as required by the formwork code. Such concrete shall be backpropped until such time as the concrete has gained it's design strength. Where construction loads are imposed, adequate backpropping shall be maintained until such loads are removed and as approved by the superintendent.
12. Where slabs and beams are to support brickwork or other non flexible forms of construction, formwork and props for these members must not be removed prior to construction of brickwork etc. No loads shall be placed on cantilevered members until removal of temporary supports.
13. Design, erection and removal of formwork and temporary supports shall be the responsibility of the builder.
14. The faces of all concrete of which new concrete is to be poured shall be thoroughly scabbled and cleaned of any deleterious material.

Reinforcement Notes

1. Lap mesh at least one whole uncut wire panel as shown

2. Provide 50mm minimum cover to trench mesh, U.N.O.
3. Provide 20mm minimum cover to reinforcing mesh, U.N.O.
4. All trench mesh is to be fully lapped at splices and intersections.
5. Concrete cover to reinforcement (refer to table 4.10.3.2. of AS3600) unless otherwise shown in table.
6. Provide 40mm minimum cover to all reinforcement, U.N.O.
7. Lapping of bars at splices shall be as per below:

Bar Size	Splice Length
N12	400
N16	600
N20	800
N24	1000

8. Reinforcement is represented diagrammatically and not necessarily shown in true projection.
9. Splices in reinforcement shall be made only in the positions shown or as otherwise approved by the superintendent.
10. Welding or reinforcement shall not be permitted without the approval of the superintendent.
11. Reinforcement symbols:
    N – Deformed bars AS/NZS4671, grade 500MPa
    R – Structural grade plain round bar to AS/NZS4671, grade 250MPa
    SL/RL – Hard drawn steel wire reinforcing mesh to AS/NZS4671, grade 500MPa
12. All reinforcement must be adequately placed in the positions shown. Tied and supported by the appropriate bar chairs in order to maintain specified covers.

Reinforced Blockwork Wall Notes

1. Concrete masonry units to be 15MPa in accordance with AS4455-1997 and of such a section that all the cores line up in stretcher bond. Double 'U' Blocks (20.90 Series) or 'H' Blocks (20.48 Series) are recommended.
2. Build retaining wall in cement mortar of class M4 to AS3700-2001 Masonry Structures code.
3. Core filling grout to be 20MPa with a pourable consistency, minimum cement content of 300kg/m^3 and maximum 10mm aggregate.
4. Reinforcing steel 'N' to be grade 500 deformed bar complying with AS4671-200.
5. All vertical bars to be located at exact spacing and with 50mm cover to soil face of wall, ensuring 15mm minimum cover to inside of blocks.
6. All blockwork to be laid true with fully bedded face shells and prepends.
7. Batter wall back into the retained soil at 1:25.
8. Clean out openings must be provided at the bottom course in all reinforced cores. Remove mortar protrusions inside the cores by rodding and remove droppings prior to placing grout.
9. Provide full height vertical expansion joints in the wall at 8.0m maximum spacing. Refer to joint detail.
10. AG. Drains at base of wall must be collected at low points or at 30m intervals and passed through the wall and connected to site drainage system or discharged well clear of wall.

DRAWING LIST

S01 - TITLE SHEET & CONSTRUCTION NOTES
S05 - SITE PLAN
S10 - BOUNDARY WALL SECTION

CONSTRUCTION

REV	DATE	DETAILS	ENG	DFT
A	03/11/2023	ISSUED FOR CONSTRUCTION	LP	TN

REVISIONS

CLIENT

ARCHITECT

DESIGNED L PRASAD | CHECKED L PRASAD | DRAWN T NGUYEN

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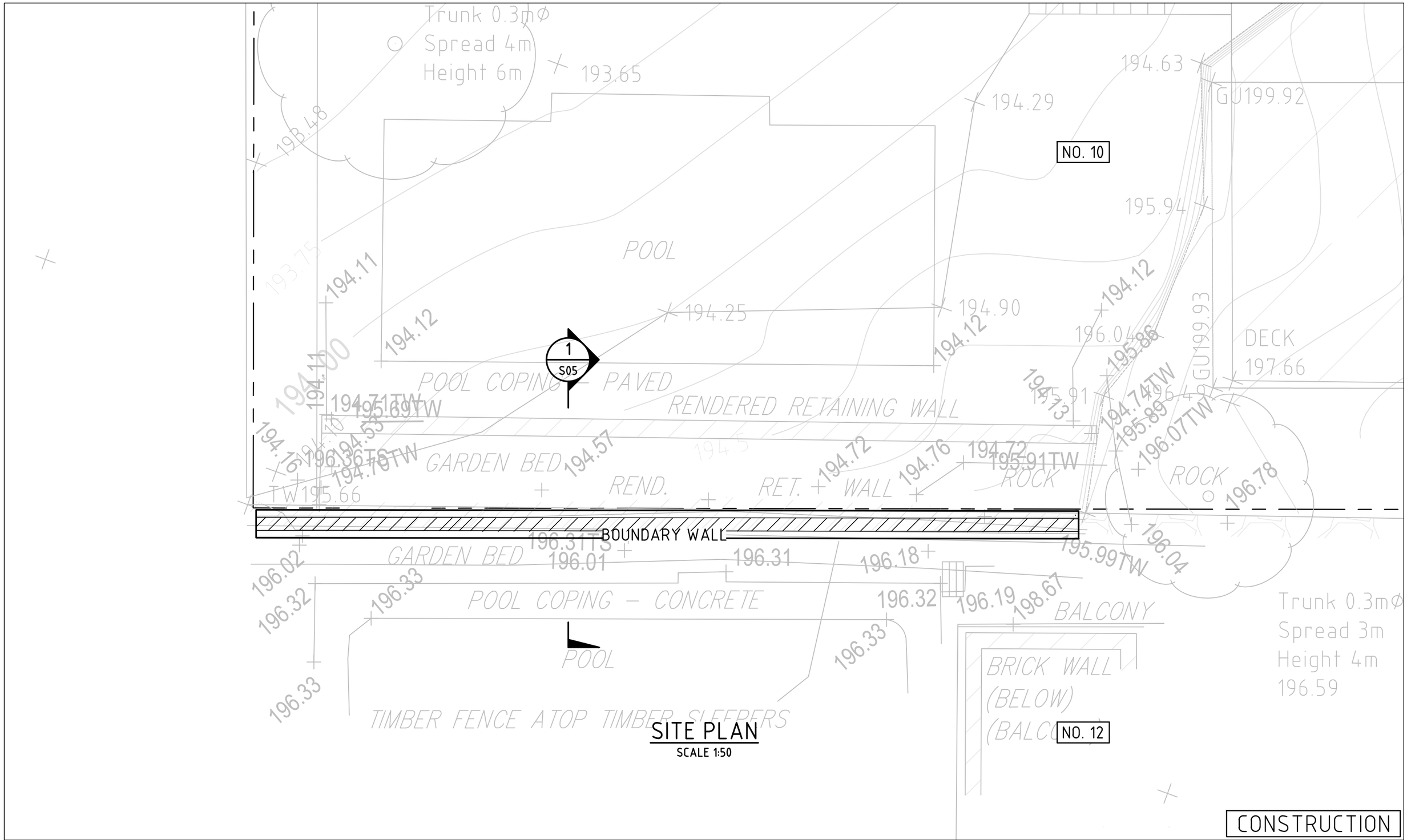
PROJECT
PROPOSED BOUNDARY WALL
12 BURRAGA AVENUE, TERREY HILLS

DRAWING TITLE
TITLE SHEET & CONSTRUCTION NOTES

SCALE A3 N/A | DATE NOV 2023 | DWG 20468 - S01 | REV A



SITE PLAN

SCALE 1:50

CONSTRUCTION

REV	DATE	DETAILS	ENG	DFT
A	03/11/2023	ISSUED FOR CONSTRUCTION	LP	TN

REVISIONS

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PROJECT
PROPOSED BOUNDARY WALL
12 BURRAGA AVENUE, TERREY HILLS

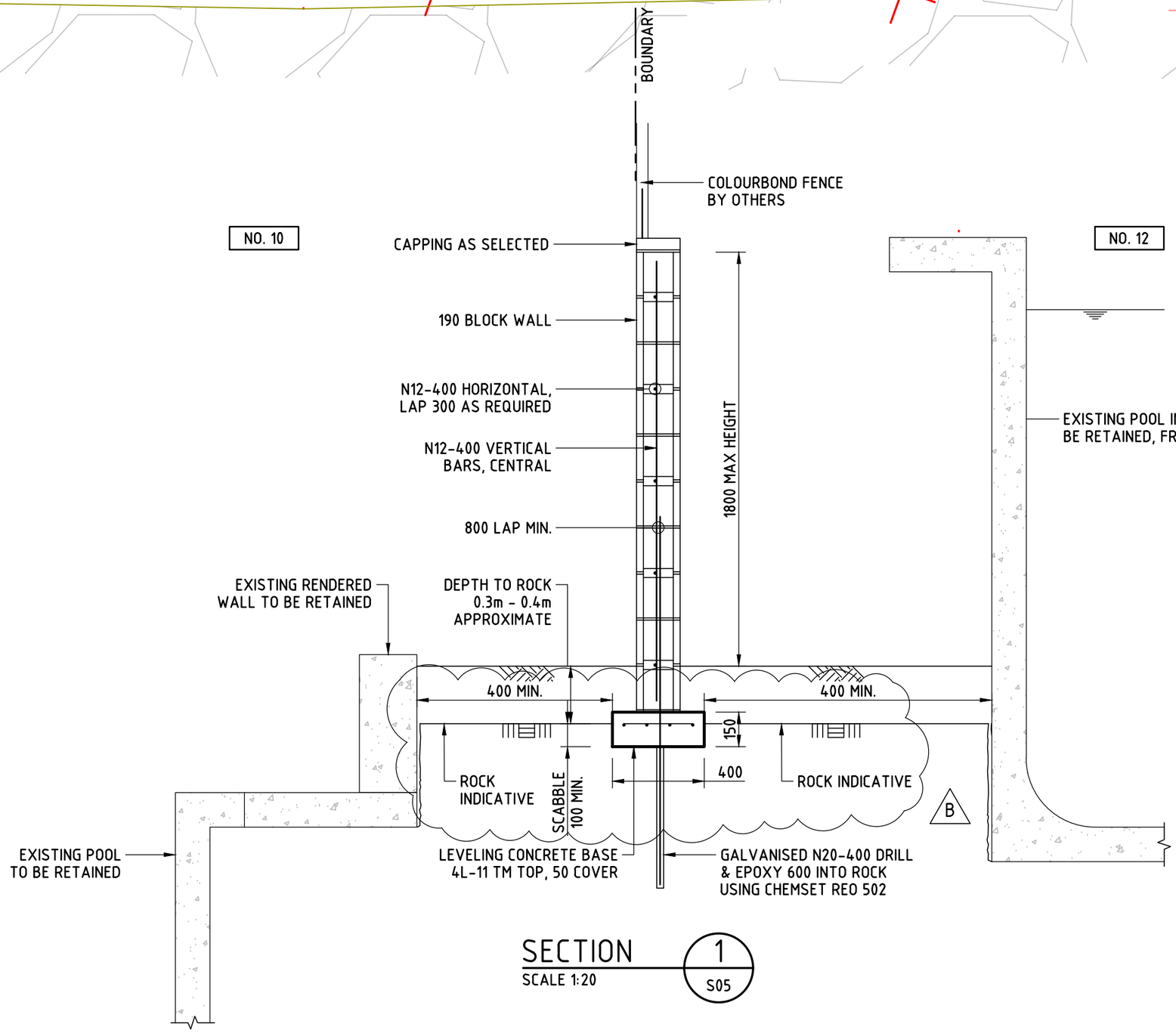
DRAWING TITLE
SITE PLAN

SCALE A3 1:50

DATE NOV 2023

DWG 20468 - S05

REV A



SECTION 1 / S05

SCALE 1:20

CONSTRUCTION

REV	DATE	DETAILS	ENG	DFT
B	06/11/2023	AMENDED AS CLOUDED	LP	TN
A	03/11/2023	ISSUED FOR CONSTRUCTION	LP	TN

REVISIONS

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DESIGNED: L PRASAD

CHECKED: L PRASAD

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PROJECT
PROPOSED BOUNDARY WALL
12 BURRAGA AVENUE, TERREY HILLS

DRAWING TITLE
BOUNDARY WALL SECTION

SCALE A3 1:20

DATE NOV 2023

DWG 20468 - S10

REV B