PROJECT 2025.0019 - STRUCTURAL DRAWINGS

REPAIRS TO DRIVEWAY & BALUSTRADE
11 ADDISON ROAD, MANLY NSW 2095

CLIENT: THE OWNERS SP2373

B

GENERAL NOTES

GENERAL (G)

1. Technical specifications or specific instructions on drawings take precedence over these notes.
2. 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 discrepancy shall be referred to the engineer before proceeding with the work.
3. Construction from these drawings, and their associated consultants' drawings, is not to commence until approved by the local authorities.
4. All materials and workmanship shall be in accordance with the relevant and current Standards Australia codes and with by by-laws and ordinances of the relevant building authorities except where varied by the project specification.
5. All dimensions shown of existing construction shall be verified by the builder on site. Engineer's drawings shall not be scaled for dimensions.
6. During construction the structure, walls and any excavations, shall be maintained in a stable condition and no part shall be overstressed. Temporary bracing shall be provided by the builder to keep the works and excavations stable at all times.
7. All demolition work shall be carried out in accordance with AS2601-2001 "The Demolition of Structures" , "Code of Practice Demolition Work" dated September 2017 published by SafeWork NSW and any further instructions specified in the drawings.

DESIGN DATA (DD)

1. The structural components detailed on these drawings have been designed in accordance with the relevant Standards Australia codes and local government ordinances for the following loadings.
2. Design floor loadings are in accordance with AS1170.1 as per the following table:

FLOOR USAGE	SUPERIMPOSED DEAD LOADS (kPa)	LIVE LOADS (kPa)
Driveway	-	5 axle concrete truck. Mass = 32 tonnes

FORMWORK (F)

1. The design certification, construction and performance of the formwork and propping shall be the responsibility of the builder, except to the extent that formwork design is shown on the drawings.
2. Formwork design, construction tolerances and stripping times shall comply with AS 3610 and AS 3600 unless otherwise approved by the engineer.
3. Concrete formed surfaces to have finishes in accordance with AS 3610 as specified below.

FORMED SURFACE SCHEDULE

Surface finish class to AS3610	Concrete element or surface	Form lining	Bolt hole
Class 3	Concrete face to be rendered	Film faced ply	Fill

REINFORCEMENT (R)

1. All reinforcement bars shall be to AS/NZS 4671. All reinforcement fabric shall be to AS/NZS 4671. Reinforcing Symbols are as follows :
   - N Designates Grade 500N hot rolled deformed bars to AS4671 Ductility Class N
   - R Designates Grade 250S hot rolled deformed plain bars to AS4671 Ductility Class N
   - SL Designates Grade 500 cold rolled ribbed wire to AS4671 square mesh Ductility Class L
2. The figures with the fabric symbol SL, RL and TM is the reference number for fabric to AS 4671.
3. All reinforcement shall be firmly supported by **PLASTIC CHAIRS ONLY**. Bars shall be tied at alternate intersections. Where concrete surface is permanently exposed externally use only plastic chairs.
4. Reinforcement is represented diagrammatically and not necessarily in true projection.
5. Splices in reinforcement shall be made only in positions shown or otherwise approved in writing by the engineer.
6. Laps shall be in accordance with the drawings.

CONCRETE (C)

1. All workmanship and materials shall be in accordance with AS3600 current edition with amendments, except where varied by the contract documents.
2. Pre-mixed concrete manufacture and supply shall comply with AS1379.
3. Ensure clear cover to reinforcement is as specified on the drawings.
4. No metallic items, including sleeves, formwork spacers. etc. are to be located within the cover zone.
5. Concrete sizes shown do not include thicknesses of applied finishes.
6. Construction joints where not shown shall be located to the approval of the engineer.
7. The finished concrete shall be a dense homogeneous mass, completely filling the formwork thoroughly embedding the reinforcement and free of stone pockets. All concrete including slabs on ground and footings shall be compacted with mechanical vibrators. Curing of all concrete is to be achieved by keeping surfaces continuously wet for a period of 7 days, followed by a gradual drying out. Approved sprayed on curing compounds that comply with AS 3799 may be used where floor finishes will not be affected (refer manufacturer's specification). Polythene sheeting or wet hessian may be used to retain concrete moisture where protected from wind and traffic.
8. The engineer shall be given 24 hours notice for reinforcement inspection and concrete shall not be delivered until final approval obtained.
9. Concrete quality shall be as shown in the following concrete mix design table.

Element	Strength (MPa) Fc' at 28 days UNO	Slump (mm)	Cement type	Max. aggregate size (mm)
Piles	32	80	GP	20
Slab and balustrade wall	40	80	GP	20

9.1. Project control testing shall be carried out in accordance with AS1379, Clause B7.

PILING (P)

1. Piles shall be installed in accordance with AS 2159.
2. Refer Geotechnical Engineer Report No. AG25124 , dated 13 May 2025 prepared by Ascent Geo Geotechnical Consulting.
3. Groundwater conditions as referred to in the geotechnical report are drawn to the attention of the tenderers. Due allowance shall be made for these in the methodology, particularly concrete placement.
4. Founding material shall be sandstone bedrock as defined in the geotechnical report.
5. All preparatory work prior to the casting of all the piles is to be inspected and approved in writing by the geotechnical engineer as meeting the specified design parameters. The contractor shall liaise directly with the geotechnical engineer.
6. Required bearing capacity of foundation material = 1,000kPa.
7. The piles shall not deviate from the vertical by more than 1 in 250. The maximum out of position permitted is 75mm.
8. Concrete shall be placed as soon as possible after drilling and after approval has been given by the geotechnical engineer and engineer. A tremie shall be used for piles longer than 3 metres.
9. The base shall be cleaned out of all loose and disturbed material prior to placing concrete. Care shall be taken to prevent loose surface material falling into the hole.
10. When possible the pile excavations shall be kept free of water at all times and concrete not placed in water.
11. When ground conditions dictate the placement of concrete in water the concrete mix shall be designed accordingly and the concrete placed by tremie so as to avoid segregation of the concrete.
12. The top of the excavation shall be properly covered for safety and to prevent surface water or rainfall from entering the hole.

PROCEDURE:

1. REFER CONTRACT FOR GENERAL REQUIREMENTS.
2. SECURE CONSTRUCTION SITE. INSTALL SCAFFOLDING & OTHER SAFETY PROVISIONS.
3. DEMOLISH THE EXISTING BALUSTRADE AND SLAB.
4. USE THE SERVICES OF A QUALIFIED GEOTECHNICAL ENGINEER TO PROBE TO ESTABLISH THE PROFILE OF THE EXISTING SANDSTONE RETAINING WALL AND THE DEPTH TO THE REQUIRED BEARING STRATUM. PROVIDE THIS INFORMATION TO THE ENGINEER & AWAIT THEIR ADVICE BEFORE PROCEEDING FURTHER.
5. ESTABLISH CONFIGURATION OF ANTICIPATED EXISTING S/W LINE. ENGINEER TO CONFIRM INSTRUCTIONS FOR NEW LINE.
6. PREPARE THE FORMATION AS SPECIFIED.
7. DRILL THE PILES AND OBTAIN CERTIFICATION OF THE FOUNDATION BY THE GEOTECHNICAL ENGINEER AS SPECIFIED.
8. INSTALL PILE REINFORCEMENT. ENGINEER TO INSPECT. CAST PILES.
9. INSTALL NEW S/W LINE.
10. INSTALL THE SLAB & BALUSTRADE WALL FORMWORK, POLYTHENE MEMBRANE, REINFORCEMENT AND DOWELS AS SPECIFIED. RE-INSTATE THE STORMWATER DRAINAGE AS SPECIFIED. ENGINEER TO INSPECT.
11. CAST SLAB AND BALUSTRADE AND CURE FOR 7 DAYS WITH WET HESSIAN. DO NOT ALLOW TO DRY TOO RAPIDLY.
12. PROVIDE CONCRETE TEST RESULTS.
13. INSTALL RENDER, SEALANTS AND PAINT.

FOR TENDER
NOT TO BE USED FOR CONSTRUCTION

ISSUE	REVISION	DATE
B	FOR TENDER	5.09.25
A	FOR TENDER	14.07.25

macartney engineering consultants
178b Lawrence Hargrave Drive
THIRROUL NSW 2515
AUSTRALIA
0418 458 690 M
www.mecsydney.com.au W
mec@mecsydney.com.au E

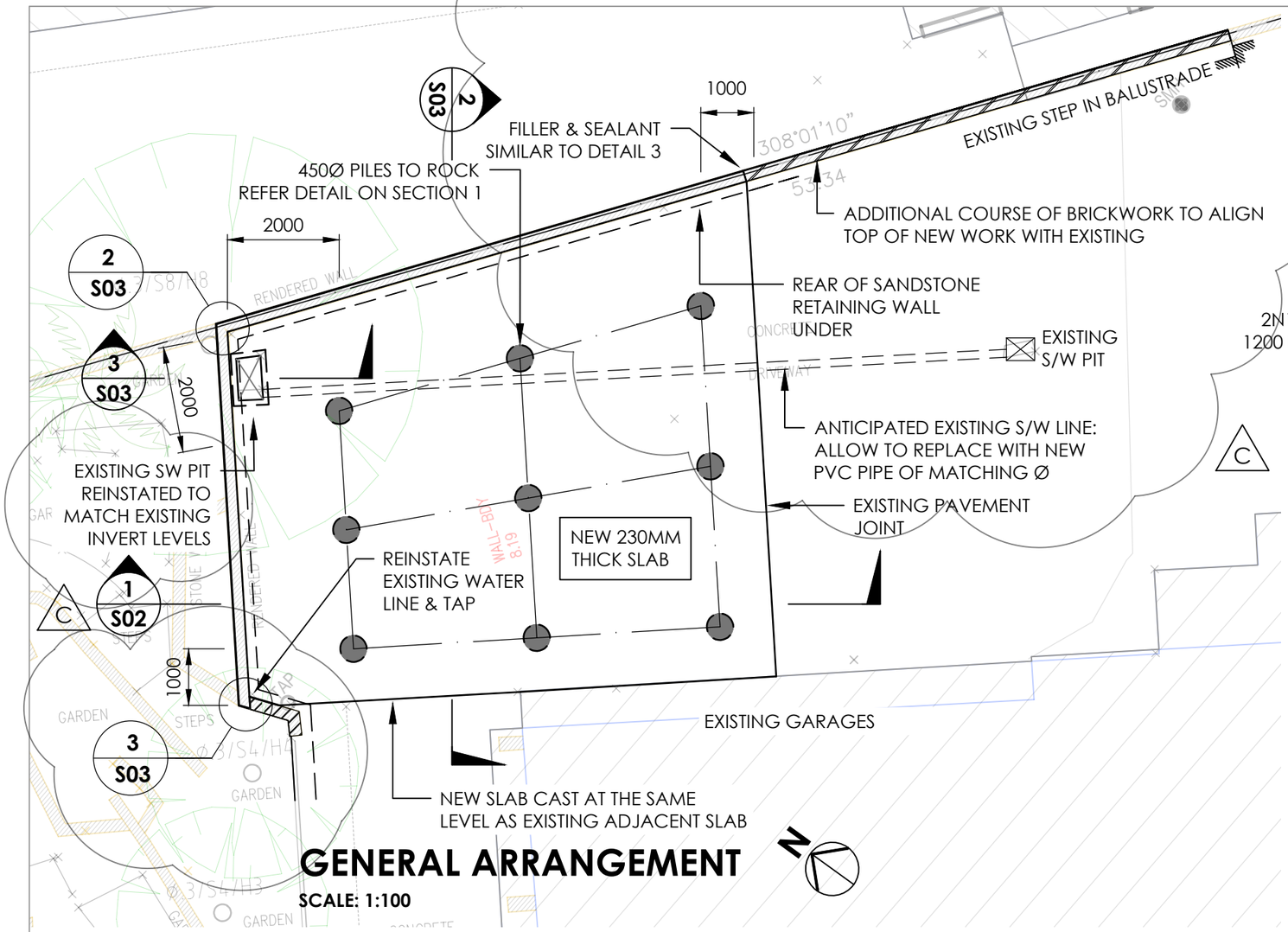
CLIENT: THE OWNERS SP2373

ARCHITECT: -

PROJECT: 11 ADDISON ROAD, MANLY NSW 2095
REPAIRS TO DRIVEWAY & BALUSTRADE

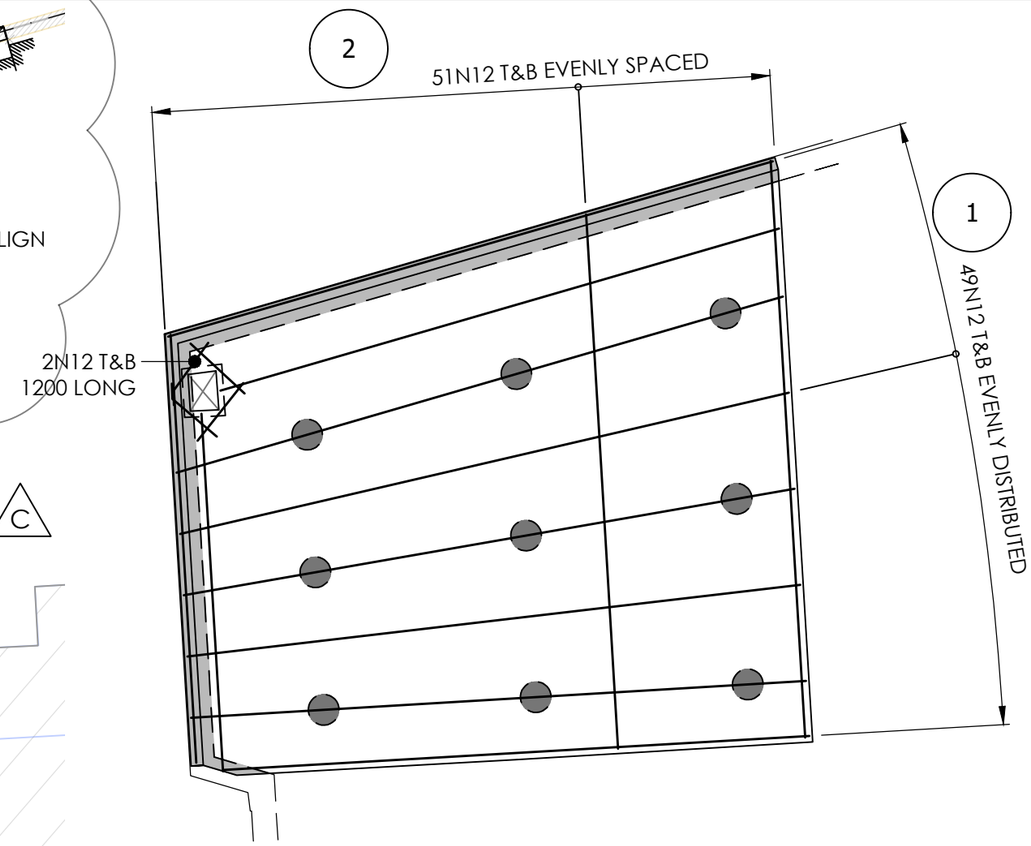
TITLE: TITLE SHEET
GENERAL NOTES

SIZE	SCALE		
A3	N.A.		
DRAWN	DESIGNED	REVIEWED	APPROVED
JM	JM	JM	JM
PROJECT NUMBER	SHEET No.	ISSUE	
2025.0019	S00	B	



GENERAL ARRANGEMENT

SCALE: 1:100



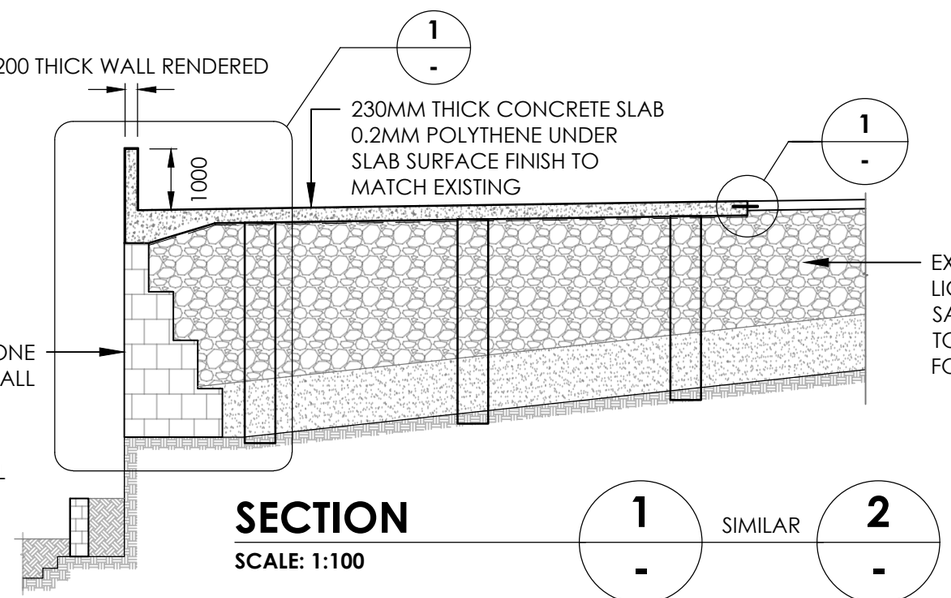
TOP & BOTTOM REINFORCEMENT

SCALE: 1:100

BAR LAYERING AND COVER:

1 BARS 1ST & 4TH. COVER = 20 BOT, 45 TOP

2 BARS 2ND & 3RD



LEGEND:

- EXISTING LOOSE SANDY FILL
- EXISTING SAND LAYER
- SANDSTONE BEDROCK

SECTION

SCALE: 1:100

1 - SIMILAR 2 -

FOR TENDER
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ISSUE	REVISION	DATE
C	FOR TENDER	5.09.25
B	FOR TENDER	14.07.25
A	PRELIMINARY	27.06.25

macartney engineering consultants
178b Lawrence Hargrave Drive
THIRROUL NSW 2515
AUSTRALIA
0418 458 690 M
www.mecsydney.com.au W
mec@mecsydney.com.au E

CLIENT: THE OWNERS SP2373

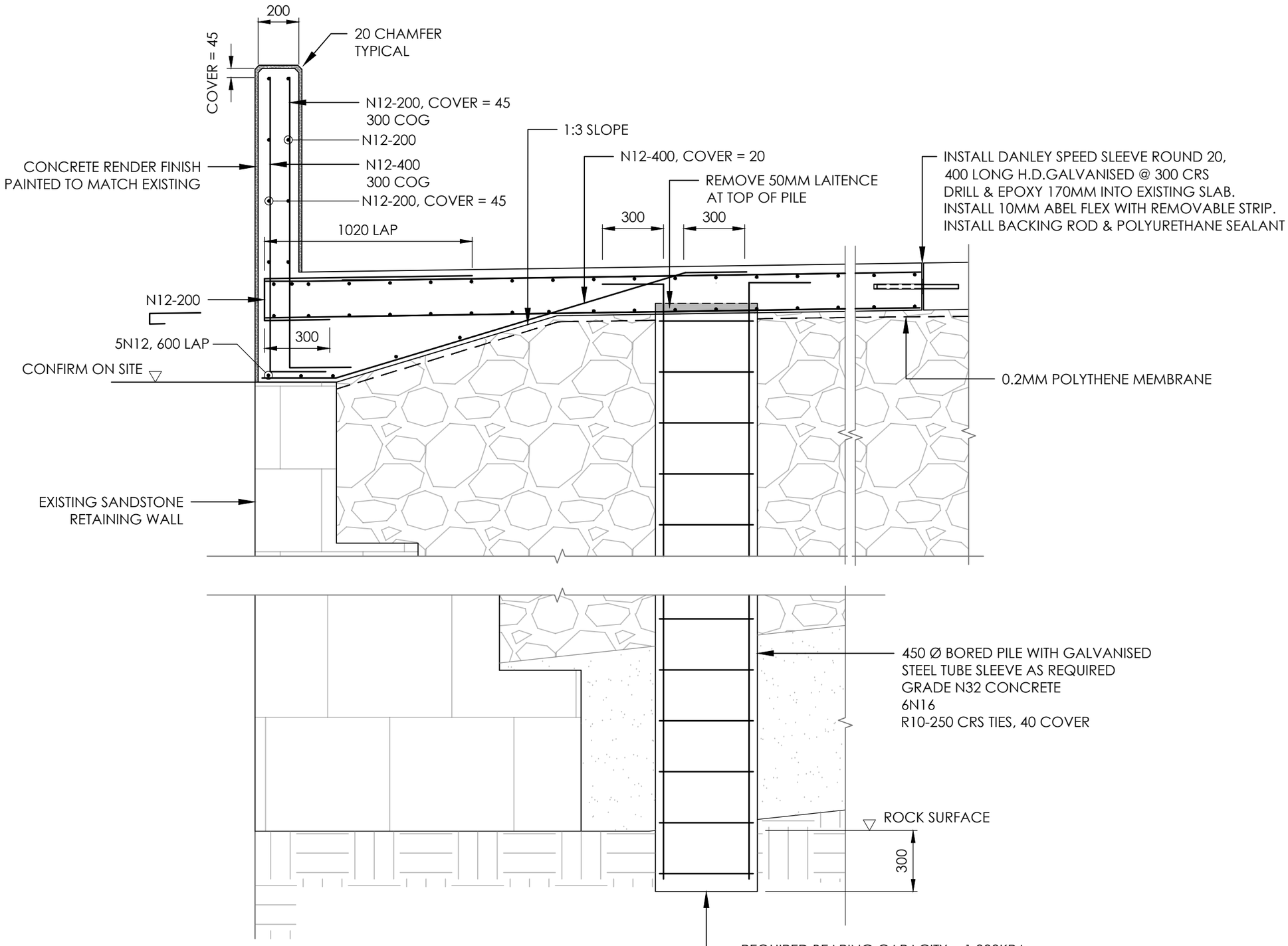
ARCHITECT: - - -

PROJECT: 11 ADDISON ROAD, MANLY NSW 2095
REPAIRS TO DRIVEWAY & BALUSTRADE

TITLE: PLAN & DETAILS

SIZE	SCALE		
A3	1:100		
DRAWN	DESIGNED	REVIEWED	APPROVED
JM	JM	JM	JM

PROJECT NUMBER	SHEET No.	ISSUE
2025.0019	S01	C



DETAIL 1
SCALE: 1:20

S01

SHOWING TYPICAL PILE DETAIL

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A	FOR TENDER	14.07.25

macartney engineering consultants
178b Lawrence Hargrave Drive
THIRROUL NSW 2515
AUSTRALIA
0418 458 690 M
www.mecsydney.com.au W
mec@mecsydney.com.au E

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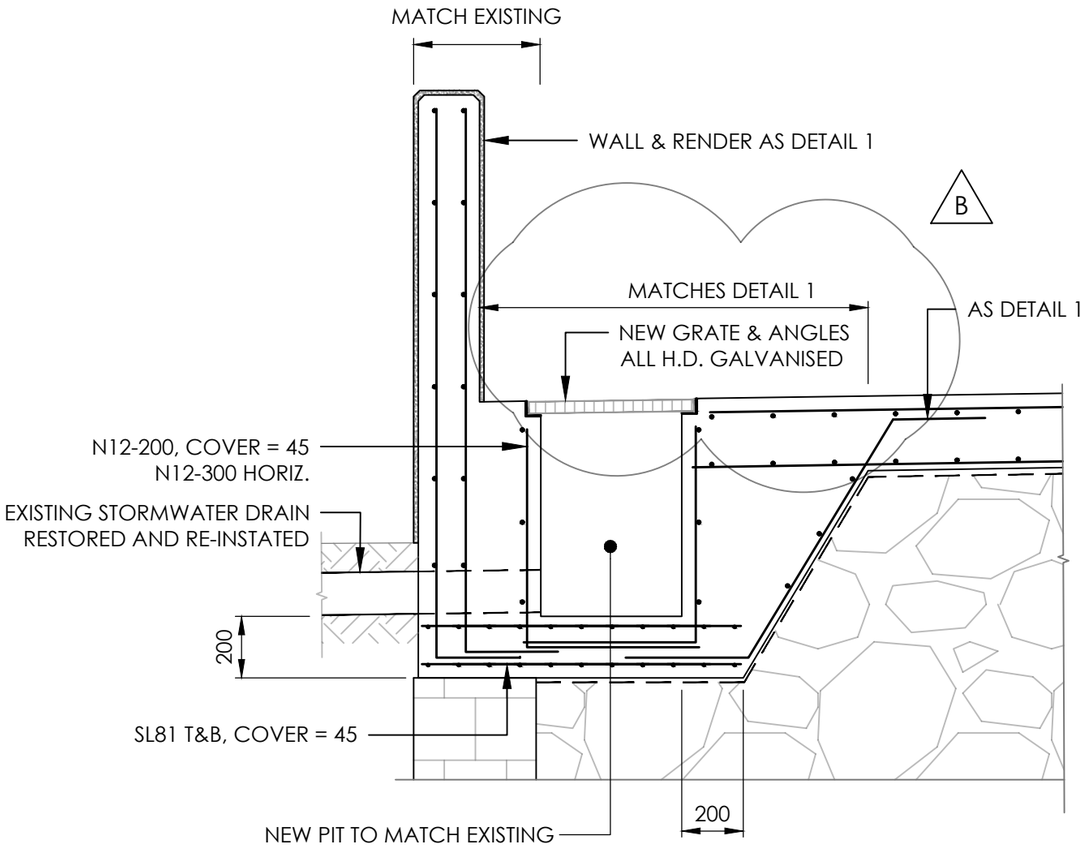
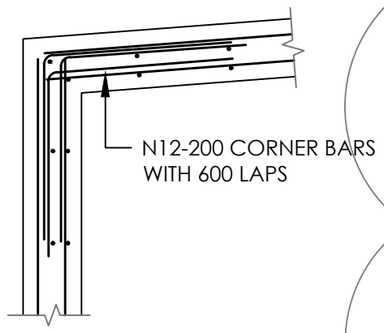
TITLE: DETAILS
SHEET 1

SIZE	SCALE		
A3	1:20		
DRAWN	DESIGNED	REVIEWED	APPROVED
JM	JM	JM	JM
PROJECT NUMBER	SHEET No.	ISSUE	
2025.0019	S02	A	



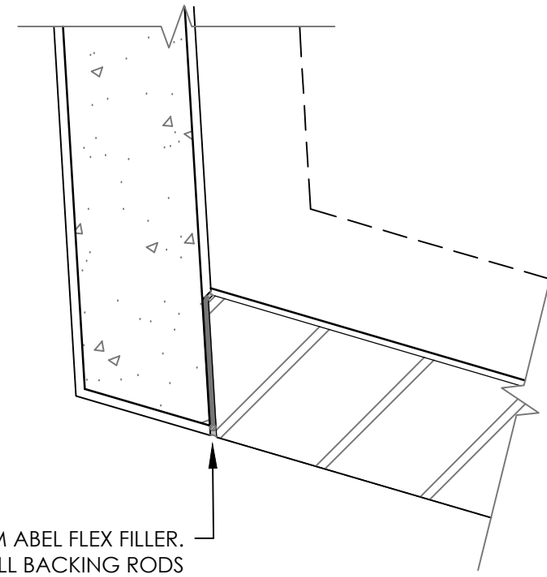
SECTION 3 / S01

SCALE: 1:20



DETAIL 2 / S01

SCALE: 1:20



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DETAIL 3 / S01

SCALE: 1:10

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macartney engineering consultants
178b Lawrence Hargrave Drive
THIRROUL NSW 2515
AUSTRALIA
0418 458 690 M
www.mecsydney.com.au W
mec@mecsydney.com.au E

CLIENT
THE OWNERS SP2373

ARCHITECT
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PROJECT
11 ADDISON ROAD, MANLY NSW 2095
REPAIRS TO DRIVEWAY & BALUSTRADE

TITLE
DETAILS
SHEET 2

SIZE	SCALE		
A3	1:20		
DRAWN	DESIGNED	REVIEWED	APPROVED
JM	JM	JM	JM

PROJECT NUMBER	SHEET No.	ISSUE
2025.0019	S03	B