

03 December 2024

Malcolm Cooke  
139 Lagoon Street  
NARRABEEN, NSW

By e-mail: malcolmcooke@mac.com; liezld@mhdp.com.au

**Re: Construction Methodology and Staging Letter  
for  
139 Lagoon Street, Narrabeen  
Job N° 2211076**

**Introduction**

We refer to the proposed garaging at 139 Lagoon Street, Narrabeen by MHDP Architects. NB Consulting Engineers P/L have been commissioned to design and detail the new structure should the DA be approved.

The proposal includes excavation and retaining between the dwelling and road reserve to install a double garage and green landscaped roof slab. The following construction methodology makes reference to the attached architectural sections, an extract from the proposed DA submission.

**Construction Methodology and Staging**

1. Excavation in sand causes slumping batters up to 2H:1V. Consequently, excavation boundaries must be shored in order to prevent instability to nearby structures. In this case, structures that stand within the zone of influence of the garage excavation include the dwelling at 139 Lagoon Street and the neighbouring property at 137 Lagoon Street.
2. Prior to commencement of excavation, reinforced concrete contiguous piling is to be augured into the sand subgrade around the perimeter of the garage footprint, but not to the Lagoon Street boundary.
3. A reinforced concrete capping beam is then installed to tie the piling together and create a ring beam thereby supporting the top of the contiguous piling without the need for propping. Excavation for the capping beam must not extend to below the level of adjacent foundations.
4. Once the capping beam concrete has cured, excavation for the garage can then be carried out to the required bench height.
5. Voids between piers are to be ram packed with mortar immediately after excavation
6. Garage walls are to be reinforced and sprayed with shotcrete for permanent protection
7. The roof slab and garage slab can be poured in any order

Yours faithfully,

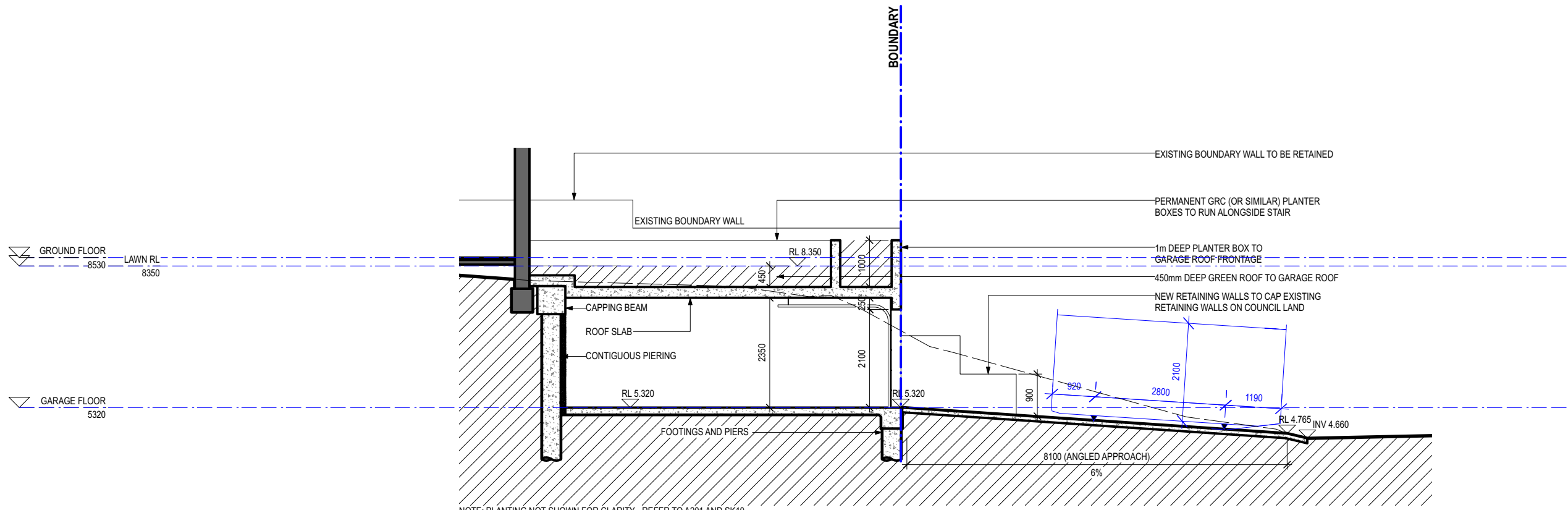
**NORTHERN BEACHES CONSULTING ENGINEERS P/L**



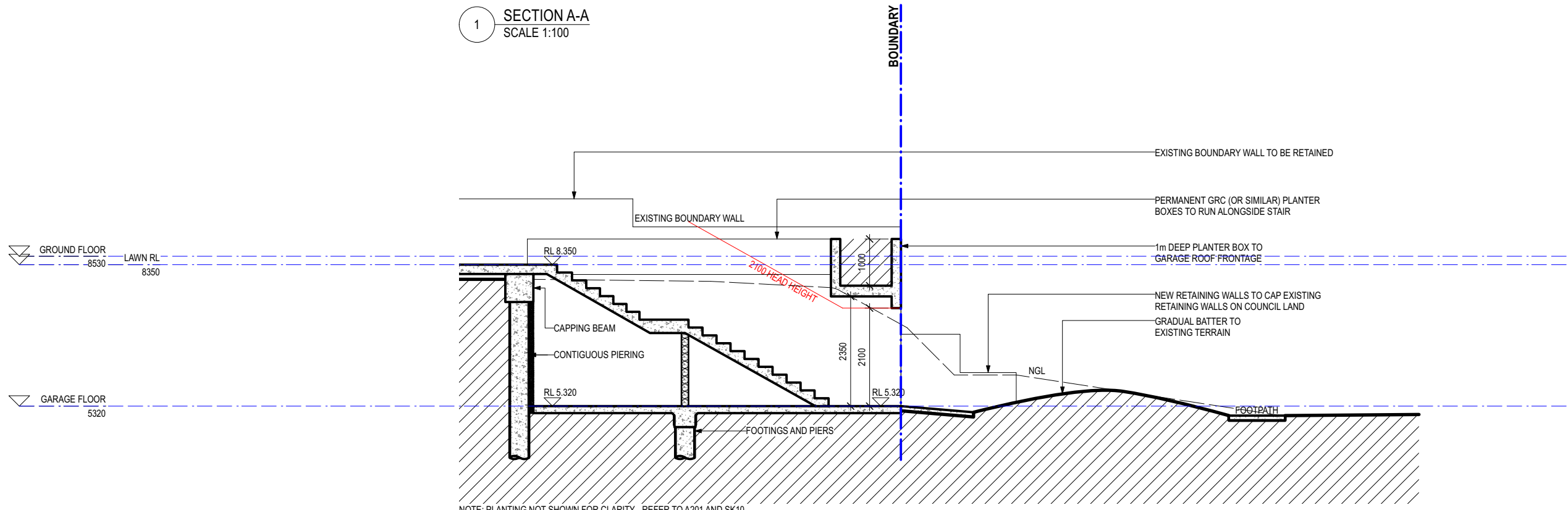
**Stewart McGeady**

BE (Civil), MIEAust., PDP, PRE, DEP.  
(Director NB Consulting Engineers)

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1 SECTION A-A  
SCALE 1:100



2 SECTION B-B  
SCALE 1:100

FOR DEVELOPMENT APPLICATION ONLY

ISSUED FOR DEVELOPMENT APPLICATION AMENDMENT  
LEVEL 2 / 271 ALFRED STREET NORTH NORTH SYDNEY NSW 2060  
EMAIL: architects@mhdpc.com.au  
TELEPHONE (02) 9955 5608  
NSW NOMINATED ARCHITECT  
MARK HURCUM - Reg. No. 5605  
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25/11/24 DATE  
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ALTERATIONS AND ADDITIONS  
139 LAGOON STREET NARRABEEN

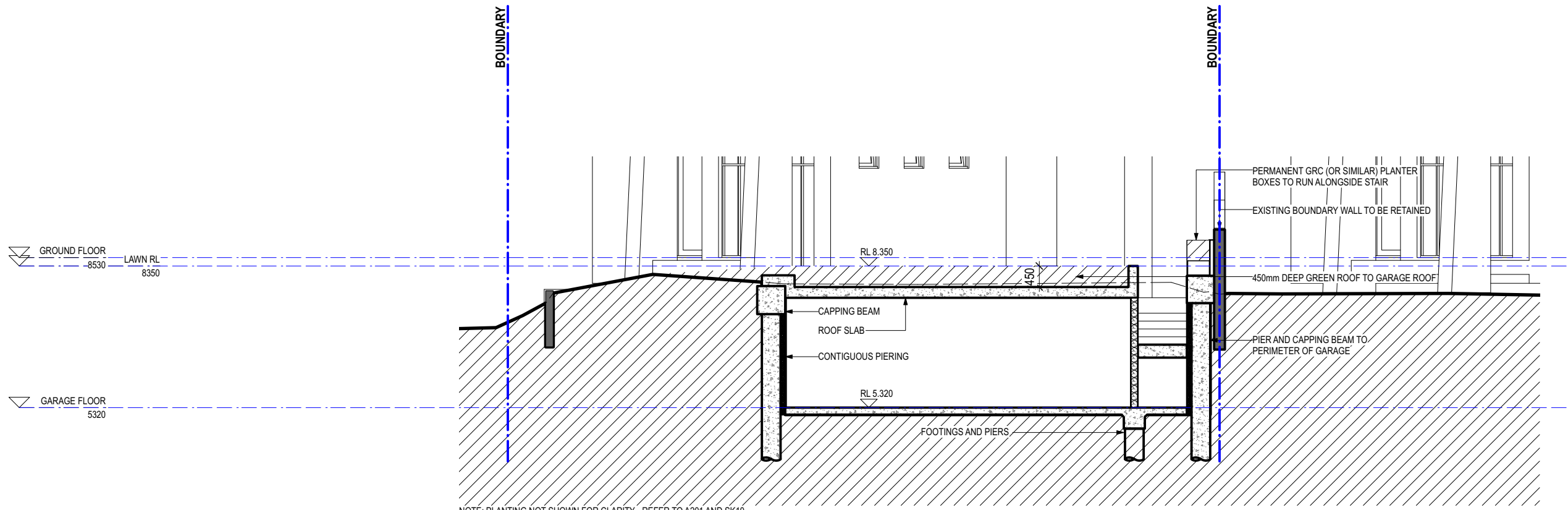
SECTIONS  
1:100 @ A3



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OCTOBER 2024

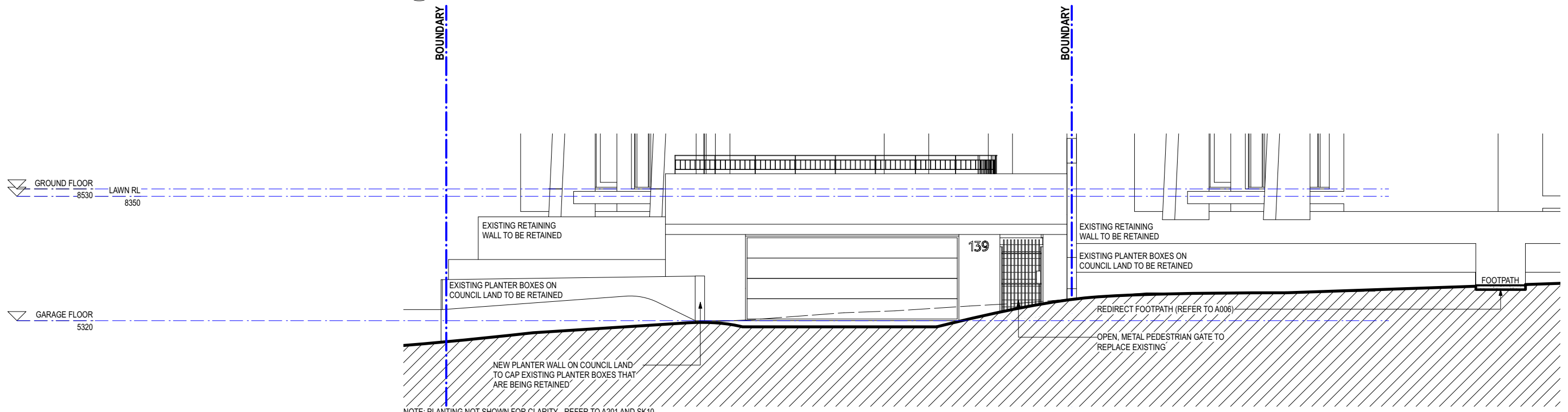
MHDP ARCHITECTS





NOTE: PLANTING NOT SHOWN FOR CLARITY - REFER TO A201 AND SK10

1 SECTION C-C  
SCALE 1:100



NOTE: PLANTING NOT SHOWN FOR CLARITY - REFER TO A201 AND SK10

2 SECTION D-D  
SCALE 1:100

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ALTERATIONS AND ADDITIONS  
139 LAGOON STREET NARRABEEN

SECTIONS  
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MHDP  
ARCHITECTS

