

15 September 2020

NL171278\_E06

DOMA Group  
Sean Kearney  
Unit 4/3 Sydney Avenue  
Barton ACT 2600

Dear Sean,

**Re: SSD 10378: 42 Honeysuckle Drive – Structural Information for DPIE**

As requested, we provide the following correspondence to address the Department of Planning's request for additional information regarding the proposed structural works at 42 Honeysuckle Drive, Newcastle (SSD 10378). The requested structural information is related to the earthworks proposed to be carried out.

The structural foundations for the proposed development will be a mix of existing foundations constructed as part of the previous scheme (SSD 8440) that can be adapted to the new layout and new foundations where required. We have provided a foundation marking plan appended to this letter, to clearly identify the new foundations and the existing foundations to be reused. The existing and new foundations are reinforced concrete piles that have been constructed from ground level which terminate into reinforced concrete pile caps or will terminate into the proposed concrete slab on ground. No basement is proposed for the SSD 10378 development nor was there a basement proposed for SSD 8440.

The correspondence from DPIE requested comment on use of existing foundations for the alternate building form. We, Northrop Consulting Engineers, carried out the structural engineering design for the SSD 8440 project and have an inherent understanding of the structural capacity and function of the existing foundations. With this knowledge we have been able to effectively utilise the existing foundations and adapt them to the new building form of SSD 10378 where appropriate.

The new foundations for the proposed development will consist of displacement type piles which do not generate spoil and are not considered as *excavations*. The new foundation piles will require localised detailed excavation for construction of the pile caps at ground level however the depth of excavation will not exceed 2 metres within the vicinity of the light rail corridor and is typically limited to 1.5 metres. The deepest excavation for the new foundations will occur at the existing lift base. A localised maximum excavation depth of 2.5 metres is expected here, however this is located approximately 40 metres from the light rail corridor. A cross section and aerial photograph have been appended to this report showing the proposed new foundations and their typical proximity to the light rail corridor.

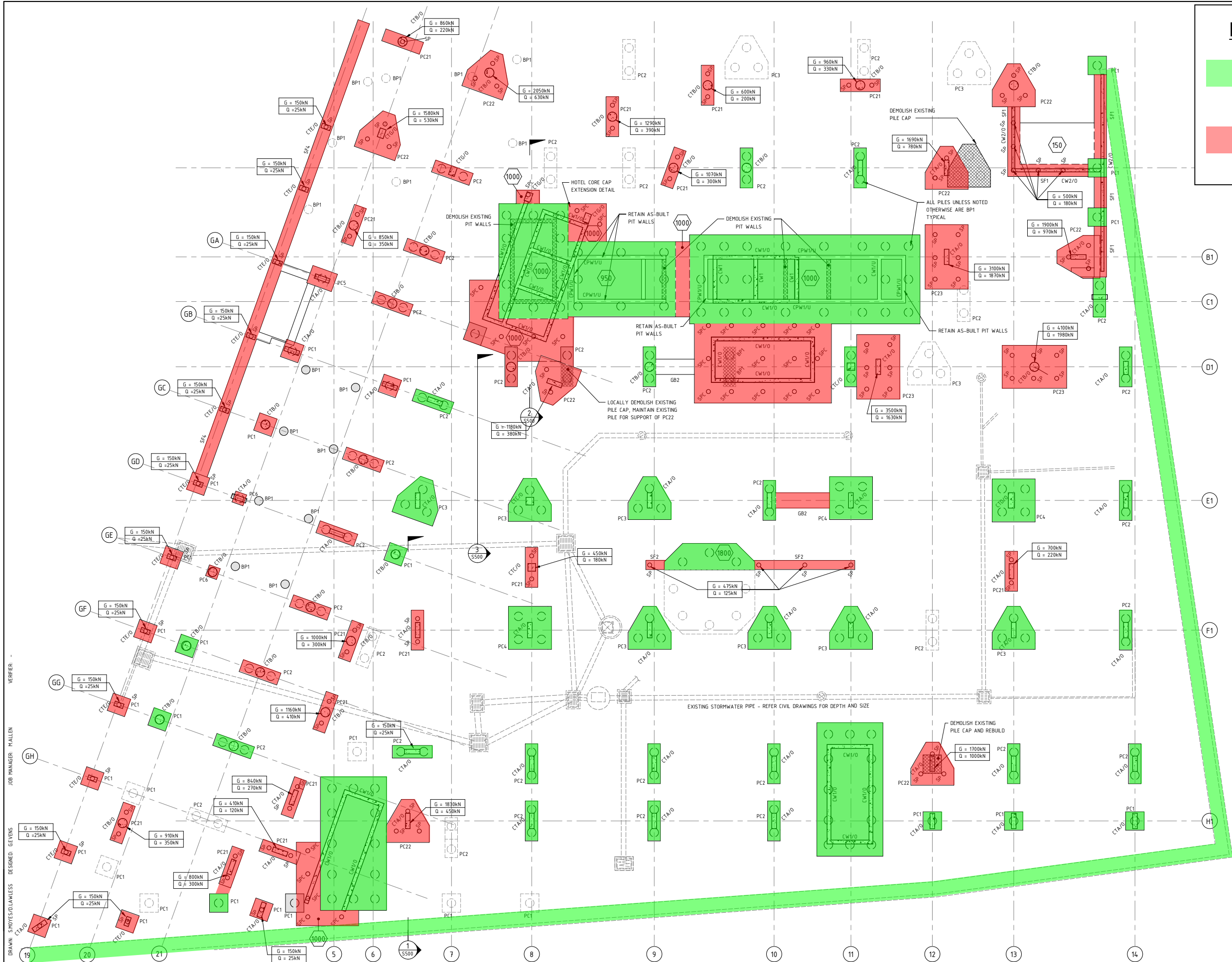
Yours sincerely,



**Matthew Allen**

Associate | Structural Engineer  
BE (Civil) MIEAust CPEng NER (Structural)

		Date
Prepared by	MA	15/09/2020
Checked by	CK	15/09/2020
Admin	BBR	15/09/2020



**LEGEND**

■ DENOTES EXISTING FOUNDATIONS

■ DENOTES NEW FOUNDATIONS

VERTICAL STRUCTURAL ELEMENTS WITHOUT A SUFFIX (+/0 OR -/0) SHALL BE READ AS OVER & UNDER. REFER TO MEMBER SCHEDULE FOR ADDITIONAL INFORMATION.

APPROVED DEMOLITION METHODOLOGY:  
SAW CUT EXISTING PILE CAP (REINFORCEMENT NOT BEING SLAVED)  
BREAK UP WITH HAMMER - TAKE CARE WHEN CLOSE TO PILE  
USE SMALLER EQUIPMENT TO CARRY OUT DETAILED DEMOLITION TO EXPOSE PILE.  
IF PILE REINFORCEMENT BECOMES DAMAGED THEN BAR COUPLERS ARE TO BE PROVIDED

**LEGEND**

○ DENOTES NEW PILE CAP

● DENOTES EXISTING PILE CAP

○ DENOTES REDUNDANT EXISTING PILE CAP

- COLUMN TYPE SCHEDULE -		
MARK	SIZE	COMMENTS
CONCRETE COLUMN		
CTA	1000 x 300	
CTB	600 DIA.	
CTC	500 x 500	
CTD	1000 x 400	
CTE	600 x 300	
CTG	600 x 400	

- WALL TYPE SCHEDULE -		
MARK	THICKNESS	COMMENTS
CLT TIMBER WALL		
TW1	200	FIRE PROTECTED LOAD BEARING WALL
CONCRETE WALL		
CPW1	250	EXISTING CONCRETE PIT WALL
CW1	250	
CW2	200	
LOADBEARING BLOCK		
BW3	190	
NON-LOADBEARING BLOCK		
BW1	190	
BW2	160	
PRECAST WALL		
PCW1	200	

- FOUNDATION SCHEDULE -		
MARK	SIZE	COMMENTS
GROUND BEAM		
GB2	1000 WIDE x 1000 DEEP	
PILE		
BP1	BORED PIERS AS PER PILE DESIGNERS DOCUMENTATION	EXISTING PILES
PILE CAP		
PC1	REFER S0103 FOR DETAILS	CONCRETE STRENGTH $f_{cu} = 50$ MPa
PC2	REFER S0103 FOR DETAILS	CONCRETE STRENGTH $f_{cu} = 50$ MPa
PC3	REFER S0103 FOR DETAILS	CONCRETE STRENGTH $f_{cu} = 50$ MPa
PC4	REFER S0103 FOR DETAILS	CONCRETE STRENGTH $f_{cu} = 50$ MPa
PC5	REFER S0103 FOR DETAILS	CONCRETE STRENGTH $f_{cu} = 50$ MPa
PC6	REFER S0103 FOR DETAILS	CONCRETE STRENGTH $f_{cu} = 50$ MPa
PC21	REFER S0103 FOR DETAILS	CONCRETE STRENGTH $f_{cu} = 50$ MPa
PC22	REFER S0103 FOR DETAILS	CONCRETE STRENGTH $f_{cu} = 50$ MPa
PC23	REFER S0103 FOR DETAILS	CONCRETE STRENGTH $f_{cu} = 50$ MPa
SCREW PILE		
SP	STEEL SCREW AS PER PILE DESIGNERS DOCUMENTATION	
SCREW PILE CORE		
SPC	STEEL SCREW AS PER PILE DESIGNERS DOCUMENTATION	$G = +1050kN, Q = -660kN$
STRIP FOOTING		
SF1	800 WIDE x 600 DEEP	4N20 TOP & BOTTOM WITH N12-300 TIES
SF2	600 WIDE x 400 DEEP	3N20 TOP & BOTTOM WITH N12-300 TIES
SF4	800 WIDE x 300 DEEP	4N16 TOP & BOTTOM WITH N12-300 TIES

**ISSUE FOR PLANNING REVIEW**

REV	DESCRIPTION	ISSUED	VERD	APP'D	DATE
1	FOR CO-ORDINATION	SM	MA	MA	24.04.20
2	INFORMATION	PT	MA	MA	14.05.20
3	ISSUE FOR PLANNING REVIEW	SM	MA	MA	15.09.20

**DOMAGROUP**

**BATESSMART**

CLIENT

ARCHITECT

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ABN 81 094 433 100

PROJECT

42 HONEYSUCKLE DRIVE  
NEWCASTLE, NSW

DRAWING TITLE		JOB NUMBER	
STRUCTURAL DRAWING FOOTING PLAN		NL171278-04	
DRAWING NUMBER	REVISION	DRAWING NUMBER	REVISION
S02.01	3	S02.01	3
DRAWING SHEET SIZE = B1			





## Legend

- ▬ Subject Site
- ▬ Cadastre (not survey)
- Nearmap Aerial

↔ Cross Section Marker

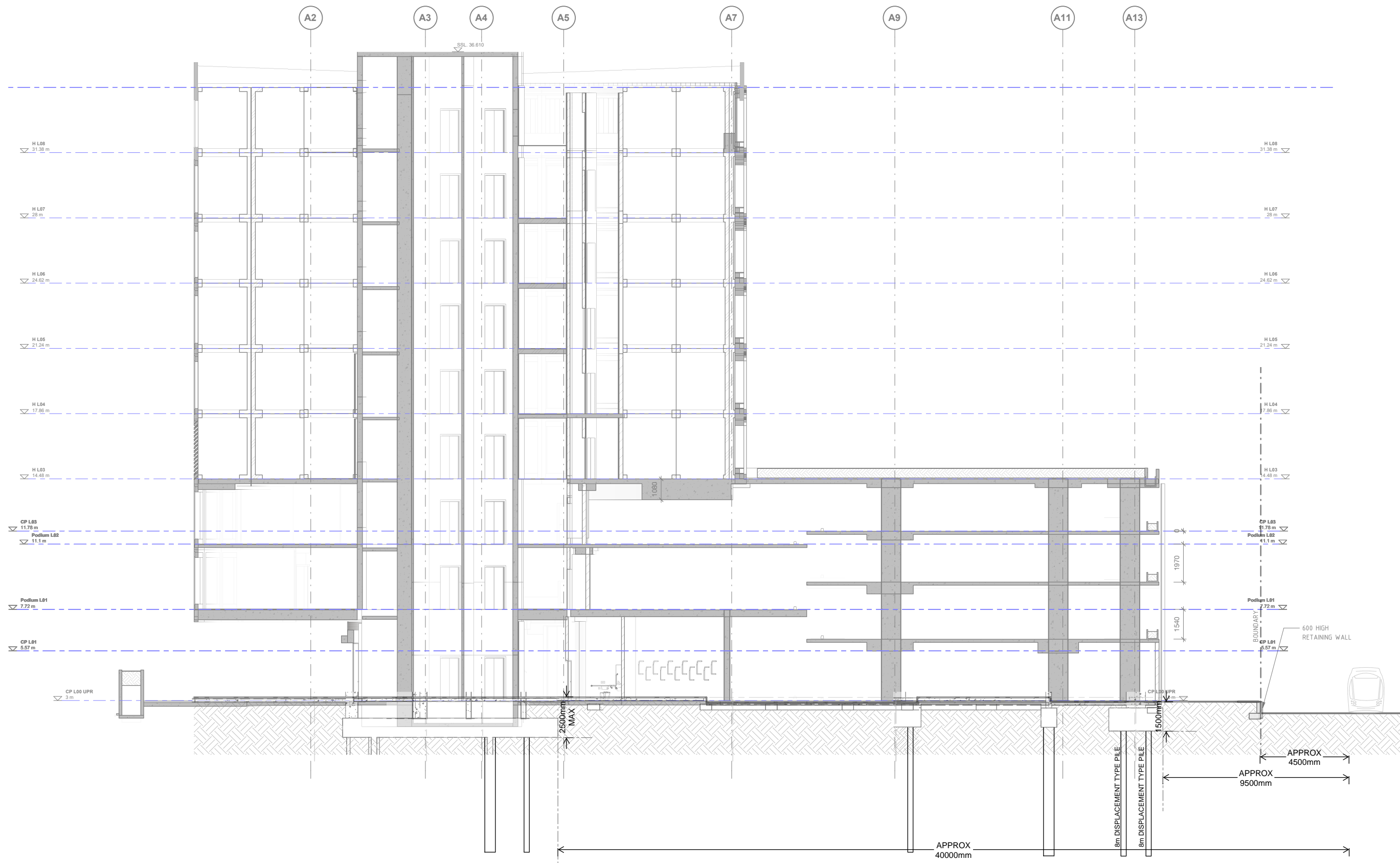
0 10 20 30 Metres  
1:500

**Figure 1**  
**Aerial & Cadastre**

42 Honeysuckle Drive  
Newcastle








**SITE STRUCTURAL CROSS SECTION**

1:200 @ A3

 Newcastle Suite 4, 215 Pacific Hwy, Charlestown NSW 2290 P.O. Box 180, Charlestown NSW 2290 Ph (02) 4943 1777 Fax (02) 4943 1577 Email newcastle@northrop.com.au ABN 81 094 433 100	JOB NUMBER:	NL171278	DESIGNED:	MA
	PROJECT:	42 HONEYSUCKLE		
	DRAWING TITLE:	SITE CROSS SECTION - STRUCTURE		
	DRAWING NUMBER:	SK	DATE:	15/09/2020