

AMENDED IN RED

24/01/2018



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Site Based Stormwater Management Plan

for the

Residential Development

at

15 DANIELLS STREET, CARINA

for

Esellar Holdings Pty Ltd

Project No: **WCD-301**

Revision: **A**

Date: **4 April 2017**

PLANS AND DOCUMENTS
referred to in the
DEVELOPMENT APPROVAL

Issued: 02/02/2018

Minor change: 07/01/2020

PLANS AND DOCUMENTS
referred to in the
APPROVAL

Dated: **2/02/2018**

THIS APPROVAL SHOULD NOT BE
TAKEN TO CONSTITUTE PERMISSION
TO ENTER NEIGHBOURING
PROPERTIES TO CONSTRUCT
(INCLUDING ASSOCIATED WORKS
SUCH AS DRAINAGE AND EXCAVATION)
ANY BUILT TO BOUNDARY WALL OR
FENCES. PERMISSION MUST BE
OBTAINED FROM RELEVANT
PROPERTY OWNERS.

Received

06/04/2017

BCC DA

RPEQ Certification

This document has been reviewed and approved by the following appropriately qualified and experienced Registered Professional Engineer of Queensland (RPEQ).



Wayne Clark (RPEQ No.16580)

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REVISION	AUTHOR	DESCRIPTION	DATE	APPROVED
A	WC	Final (For Approval)	04/04/2017	WC

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1. Executive Summary

1.1 Introduction

The following Site Based Stormwater Management Plan (SBSMP) has been prepared on behalf of Esellar Holdings Pty Ltd for the proposed townhouse development of 15 Daniells Street, Carina. The proposed development shall include the redevelopment of the existing allotment into a new townhouse development consisting of 8 townhouses. Access will be provided via Daniells Street to the east.

The existing topography varies between RL.11.84m AHD to RL.17.01m AHD at Daniells Street as shown via the natural surface contours included in the Ian Webb Architect drawings and the bimap extracts included in Appendices A and C respectively. The existing allotment currently contains a single detached dwelling, single garage, concrete driveway tracks and sparse gardens throughout. Refer to the Site Photographs contained in Appendix B.

Refer to Figures 1.1 and 1.2 below showing Street Locality and existing Aerial View of the proposed development site.

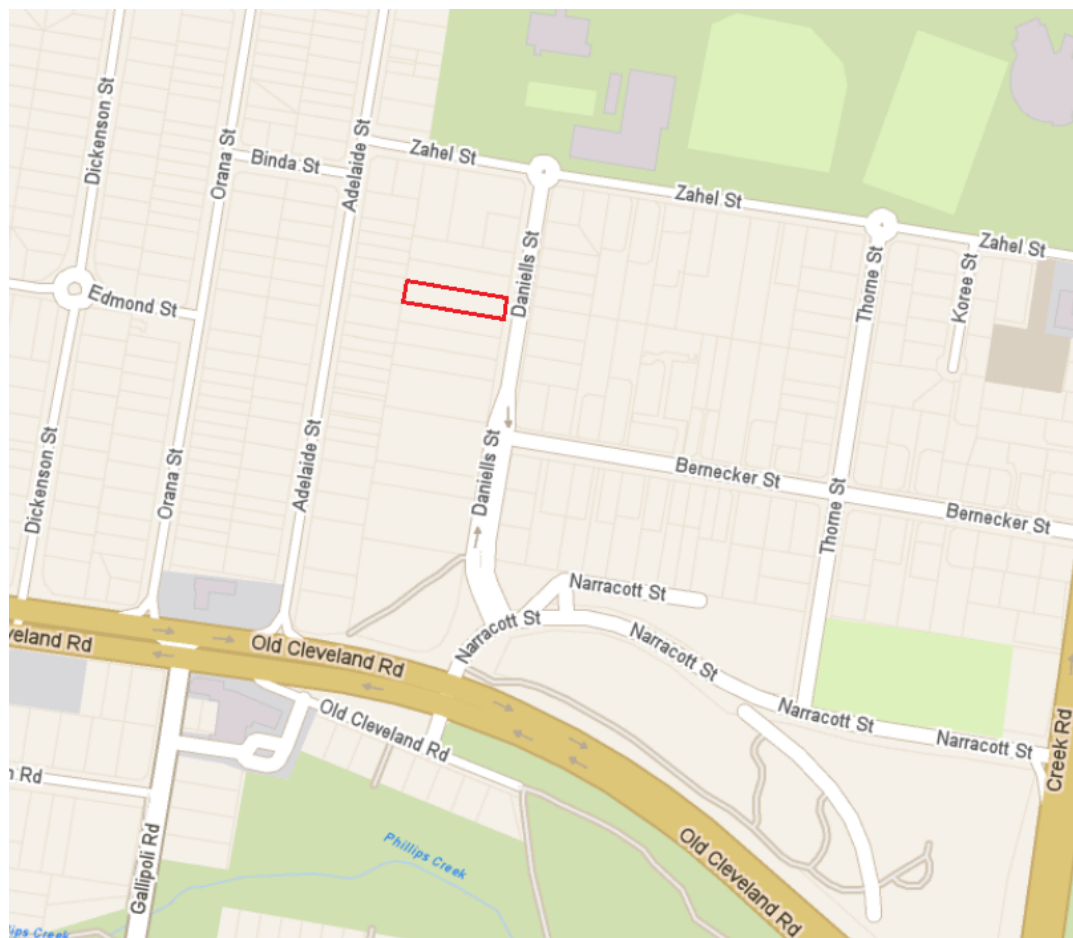


Figure 1.1 ~ Locality Plan



Figure 1.2 ~ Aerial View

1.2 Objectives

The objective of this report is to address the stormwater quality and quantity requirements of the Queensland Urban Drainage Manual (QUDM), Brisbane City Council (BCC), the South East Queensland Regional Plan 2009-2031 Implementation Guideline No.7, the Environmental Protection Act 1994 and its associated Environmental Protection (Water) Policy 2009.

The aim of this Conceptual Stormwater Management Plan is to identify any stormwater detention requirements (if required) and an appropriate level of quality improvement for the treatable flow (if required) being Q_{3Month} (as determined by BCC) to a level that achieved the Water Quality Objectives as deemed required.

1.3 Development Details

Site Address:	15 Daniells Street, Carina
Property Description:	Lot 6 on RP.72193 Parish of Bulimba County of Stanley
Site Area:	0.1264 ha
Proposed Use:	Townhouse Development
Local Authority:	Brisbane City Council (BCC)

1.4 Existing Infrastructure

The site generally falls from the north to the south east with elevations ranging between RL.11.84m AHD to RL.17.01m AHD. There is an existing 450mm diameter stormwater line traversing the rear (western) boundary of the site flowing from south to north. This line enters an existing manhole in the north western corner of the property before turning 90 degrees and flowing towards Adelaide Street to the west. The existing site currently discharges all areas (pervious and impervious) via overland flow (sheet flow).

Refer Appendix C for extracts from the Brisbane City Council, eBiMap system showing available infrastructure within the adjoining streets.

The Brisbane City Council, Floodwise Property Report as included in Appendix D states that *“There are currently no River, Creek/Waterway, or Overland Flow Flood Planning Areas that apply to this property”*. Furthermore, the report states that *“There are currently no Coastal Hazard Overlays that apply to this property”*.

The property is however defined as a *“Large Lot”* and therefore it is suggested that *“further investigations may be warranted in determining the variation in flood levels and the minimum habitable floor level across the site”*.

The site is situated outside of Council's mapped waterway corridors as shown on Figure 1.3 below. The Brisbane City Planning Scheme, Waterways corridors overlay map is included in Appendix E for reference.



Figure 1.3 ~ Waterways Overlay Map Extract

It should also be noted that Council's Flood Awareness Map for the Carina area as included in Appendix E (*extract included below*) also represents no direct risk of flooding of the subject site from events ranging in likelihood between Very Low (0.05% Annual Chance) to High (5.0% Annual Chance).

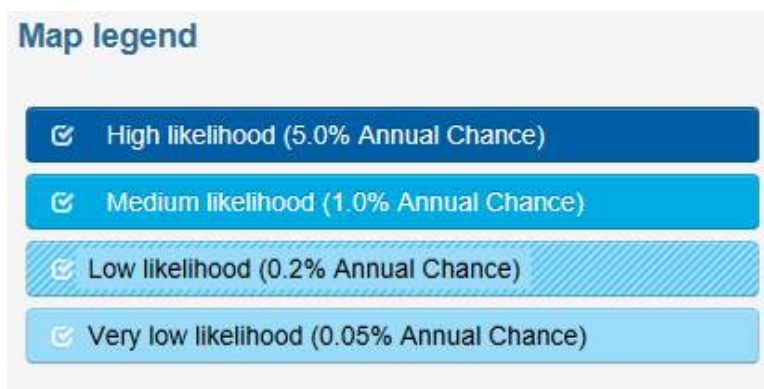
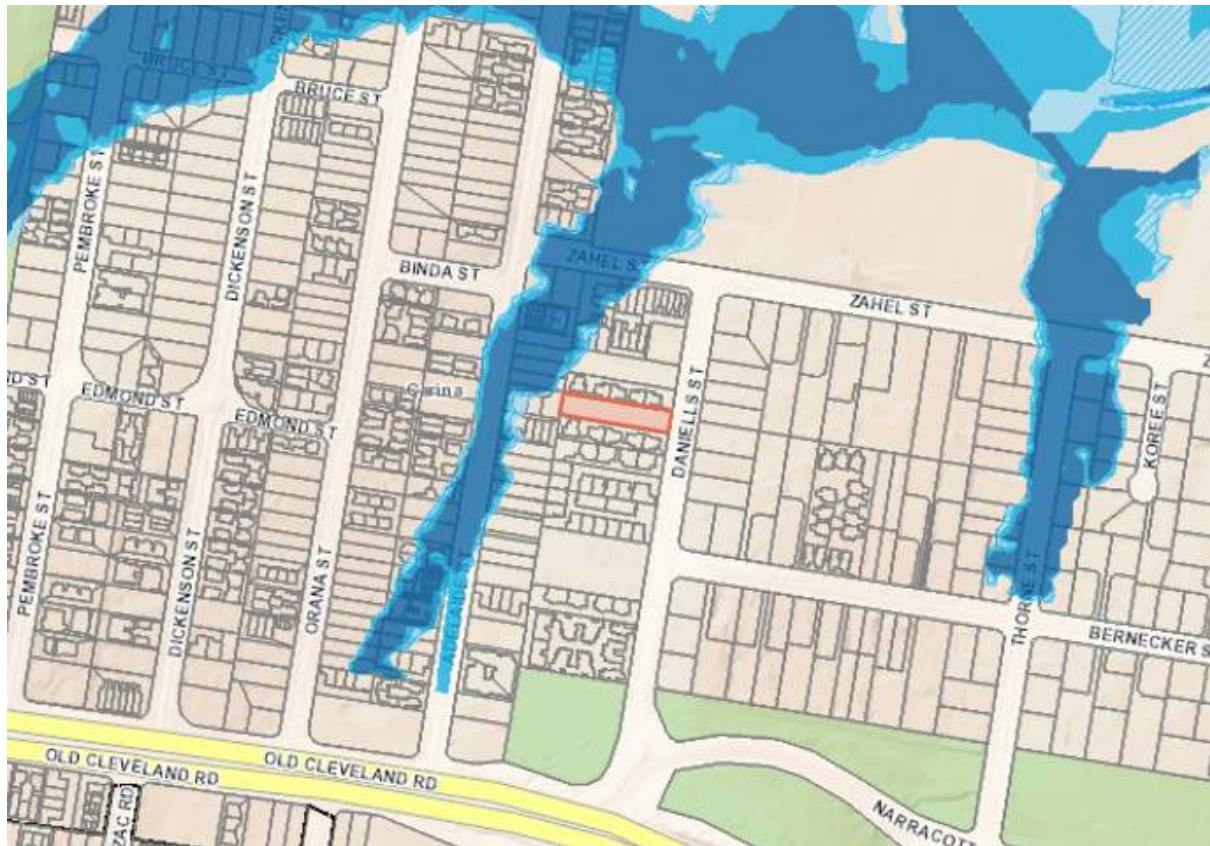


Figure 1.4 ~ Flood Awareness Map Extract

1.5 Flood Behaviour

The proposed development will not directly or indirectly create a material adverse impact on flood behaviour on properties that are upstream, downstream or adjacent to the site by noting the following:

- The site is not constrained by BCC Creek or Overland Flow flags.
- Local upstream catchment area is limited to the lots to the south therefore any runoff from this area can easily be dealt with, with minimal standard drainage works at the property boundary.
- The site is located near the Bulimba Creek drainage reserve.
- Minimal earthworks proposed will have no impact on Brisbane River flooding given the extent of development on the existing and surrounding sites.
- Additional stormwater runoff created by an increased post development impervious area will be detained on site using below ground detention storage with discharge at pre-development rates.

The proposed works are therefore in compliance with Performance Criteria P07 from the Flood Overlay Code.

2. Stormwater Quality

2.1 Water Quality Objectives

The Department of State Development, Infrastructure and Planning, "State Planning Policy (SPP), July 2014" defines development of state interest for receiving waters only when the development application triggers any of the following:

1. *A material change of use for urban purposes that involves a land area greater than 2500m² -> **Not Applicable** or*
2. *Reconfiguring a lot for urban purposes that involves a land area of greater than 2500m² and will result in six or more lots, -> **Not Applicable** or*
3. *Operational works for urban purposes that involve disturbing more than 2500m² of land -> **Not Applicable**.*

Introduction of water quality improvement devices are therefore required under the SPP.

Furthermore, the Brisbane City Plan 2014, Infrastructure Planning Scheme Chapter 2: Stormwater Drainage, defines the risk category characteristics for assessment against proposed development as follows:

1. *Any development located in a defined waterway or Brisbane River corridor or wetland as indicated by BCC Planning Scheme Maps -> **Not Applicable**.*
2. *Multi-unit dwelling or commercial uses with the impermeable surface area greater than 2500m² -> **Not Applicable**.*
3. *Subdivisions where greater than 6 lots are created -> **Not Applicable**.*
4. *Industrial activities which are not impact assessable and have at least 1000m² in uncovered storage or working spaces -> **Not Applicable**.*
5. *Industrial activities that are impact assessable -> **Not Applicable**.*
6. *Uncovered carparks with at least 100 spaces -> **Not Applicable**.*

The development is therefore categorized as "Low Risk" under the BCC Guidelines which requires best practice strategies for pollutant identification during the construction and operational phases in order to be deemed to satisfy the Water Quality Guidelines.

2.2 Proposed Development

Further water quality analysis and “Pollutant Export Modelling” is not deemed to be required due to the site categorized as “Low Risk”. Water quality measures shall therefore be described as *(but not limited to)* a requirement to incorporate best practice pollutant identification and mitigation strategies.

The development will incorporate *(where possible)* drainage litter basket inserts in all stormwater discharge pits and a “First Flush” diversion device to direct discharge to onsite garden beds generally as shown below.

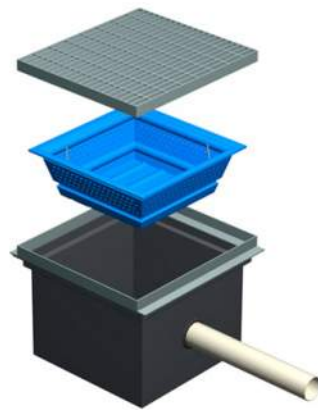


Figure 2.1 ~ Example Drainage Litter Basket Insert

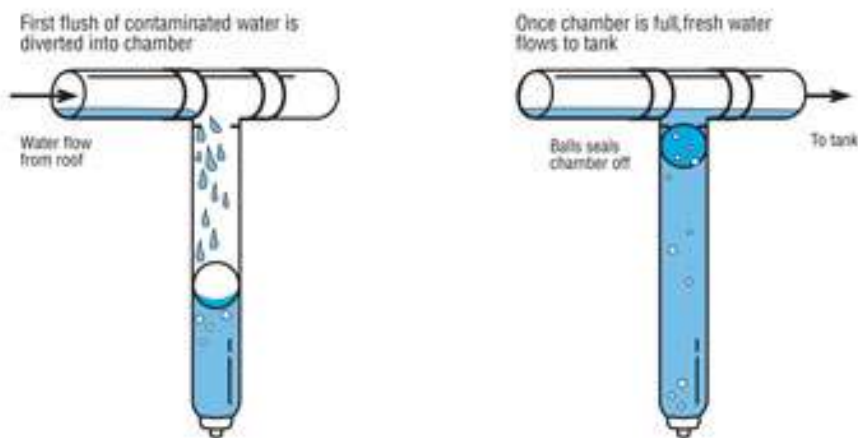


Figure 2.2 ~ Example First Flush Diversion Device

3. Stormwater Quantity

3.1 Water Quantity Objectives

Water quantity objectives for the proposed development have been determined in accordance with the Brisbane City Council Development and the Queensland Urban Drainage Manual 2013 (QUDM) as follows:

- “Lawful Point of Discharge” being the existing drainage network traversing the western site boundary in accordance with the QUDM, Section 3.4
- No increase in flows between pre and post development works, up to and including the 50 year ARI storm events; and
- No adverse impact on adjoining or downstream properties.

3.2 Detention Storage Calculations

On-site detention storage as shown conceptually in Section 4 below has been determined using the Brisbane City Council’s, Simplified Detention Storage Method as described in the Infrastructure Design Planning Scheme Policy Section 1; Chapter 7 Stormwater Drainage; Item 7.5 Stormwater Detention and Retention Systems.

Specifically, Clause 7.5.5, Simplified detention storage sizing method describes its use with development sites less than 2 hectares and with less than 60% of impervious areas pre-development. Therefore:

Total site area	=	1,264m ²
Pre-development impervious area	=	Approx. 304m ²
Pre-development % impervious	=	24.1%

Based upon a pre-development percentage impervious figure of 24.1%, the site is defined as development “Category D2”.

The post development site includes an area of 246m² of landscaping (pervious area) giving a post development percentage impervious figure of 80.5%.

Site storage requirements in accordance with the Deemed-to-comply solution as proposed in Table 7.5.5A are therefore:

Proposed (Post Dev.) % Impervious	=	80.5% (82 adopted from Table)
Development Category D2	=	170m ³ /ha
Development Site Storage Req.	=	(170 / 10,000) x 1,264
	=	21.49m ³ or 21,488 litres
Prescribed storage increase based upon "above ground basin"	=	15%
Total Site Storage Required	=	21.49m ³ x 1.15
	=	24.71m ³ (Say 25,000 litres)

Based upon the above mentioned calculations, a minimum detention storage capacity of 25,000 litres is proposed to be included within the bounds of the site, "generally" as per the attached "Conceptual Site Drainage, Layout Plan" drawing no. WCD-301-001(A) as included in Appendix G and extract included in Section 4 below.

Further detailed design of the internal drainage system including the detention tank/s location plus high / low level outlet characteristics will be required at the operational works phase.

3.3 Proposed Development (Legal Point of Discharge)

All drained stormwater will be directed towards the existing stormwater network at the rear (north west) of the property.

4. Conceptual Stormwater Management Plan

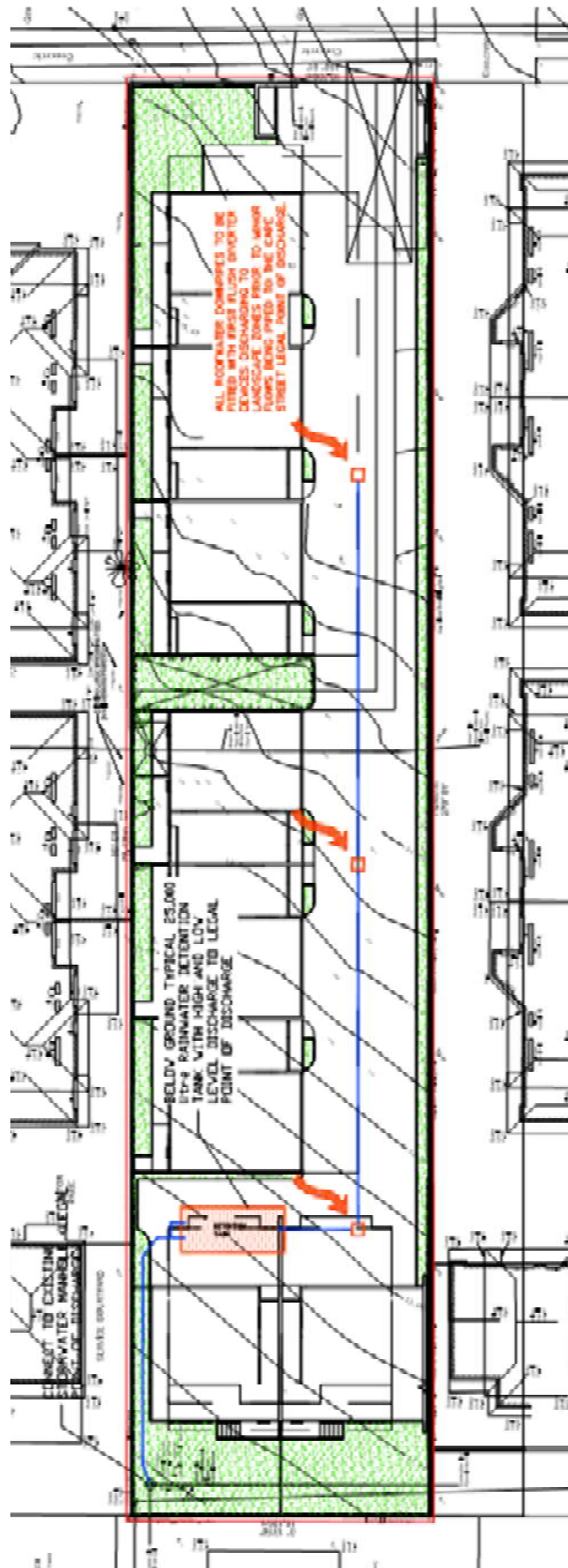


Figure 4.1 ~ Conceptual Stormwater Management Plan

5. Conclusion and Recommendations

The aim of this conceptual SBSMP is to identify the need (if any) for water quality improvement measures and stormwater detention requirements.

Assessment of the development against the State Planning Policy and the Brisbane City Council development guidelines determined that water quality measures of pollutant identification and mitigation strategies will not be required. Therefore, best practice strategies for pollutant control during the construction and operational phases are proposed.

Stormwater quantity requirements were determined using the Brisbane City Council's, Simplified Detention Storage Method. A minimum detention storage capacity of 25,000 litres is proposed to be included within the bounds of the site.

Based upon the above mentioned comments, we believe that incorporation of the recommendations of this report will result in a development that satisfies BCC's requirements for stormwater quality and quantity.

6. References

Brisbane City Council (BCC) (2000). Stormwater Quality Best Management Practices.

Brisbane City Council, 2001. Guidelines – Sediment Basin Design, Construction and Maintenance.

Neville Jones & Associates (2007) “Queensland Urban Drainage Design Manual (QUDM)”, Edition 2

Brisbane City Council (BCC) (2008). Subdivision and Development Guidelines, 2008. City Policy and Strategy Division, Brisbane City Council.

Department of State Development, Infrastructure and Planning, “State Planning Policy, July 2014”

Appendix A

Proposed Development

Green contour lines denote "ground level" as defined by BCC Cityplan 2014.

Subject lot boundary dimensions and area are derived from field survey.

Levels shown on this plan are correct in relation to the benchmarks placed on this plan. AJS Surveys accepts no responsibility for any subsequent plans or works that do not use the same level datum as shown on this plan.

Subject title has not been obtained, therefore AJS Surveys can not certify that no easements affect this lot. A full title search should be carried out prior to any construction.

This plan has been prepared for the purpose of designing new constructions and should not be used for any other purpose.

Certificate of Title for this site has not been obtained. Unless noted otherwise only visible services have been located.

Prior to any demolition, excavation or construction on the site, the relevant authorities should be contacted for accurate location of all services.

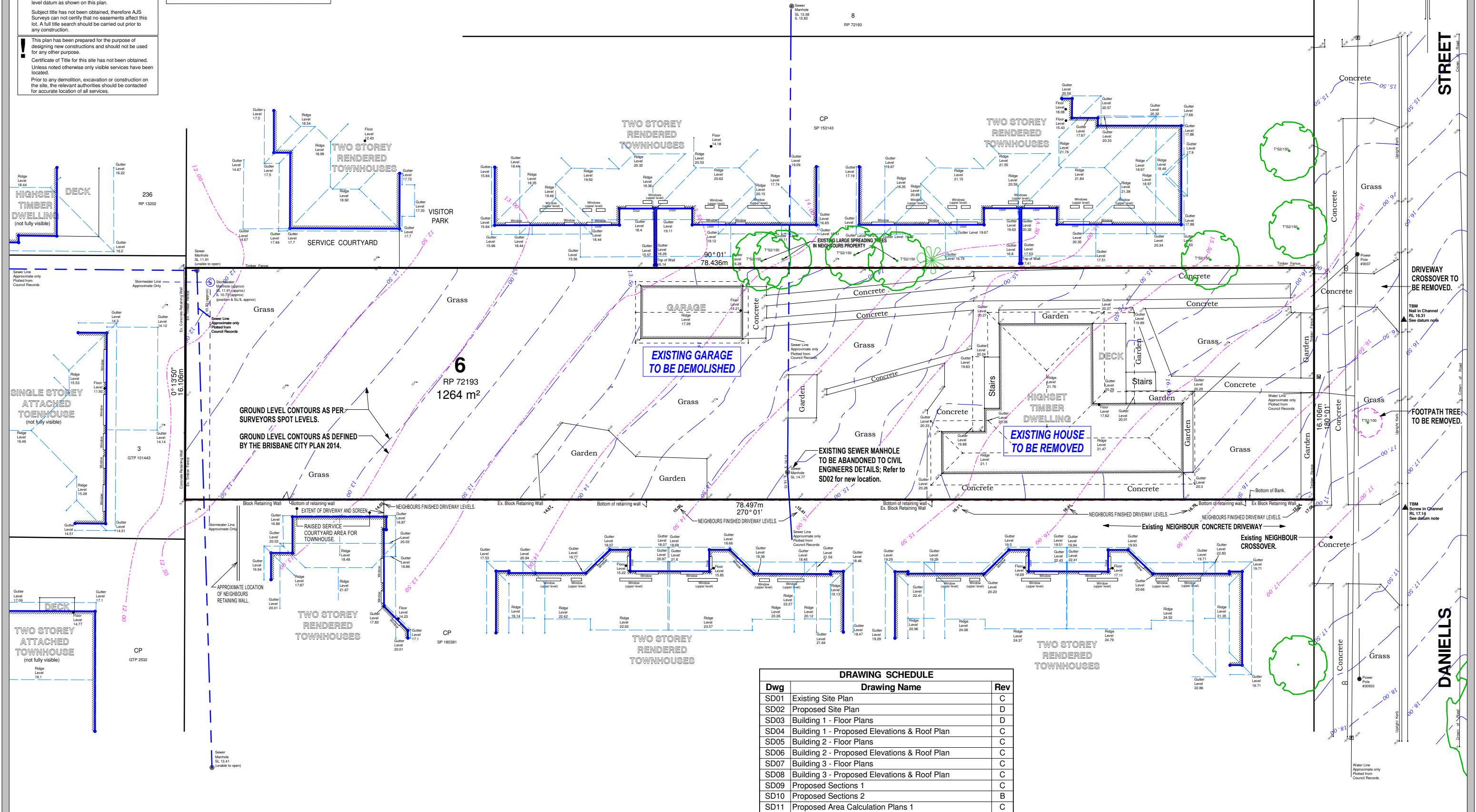
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W: www.ajs-surveys.com.au

REVISIONS		
23/02/2017	Add Stormwater MHL Line as advised by client. The position SL/L are all approximate only.	LIS A

LEVEL DATUM:	
AHD	
DERIVED FROM PSM 7606 (RL 4.431m)	

SITE: 15 Daniells Street, Carina
Lot 6 on RP 72193



DRAWING SCHEDULE		
Dwg	Drawing Name	Rev
SD01	Existing Site Plan	C
SD02	Proposed Site Plan	D
SD03	Building 1 - Floor Plans	D
SD04	Building 1 - Proposed Elevations & Roof Plan	C
SD05	Building 2 - Floor Plans	C
SD06	Building 2 - Proposed Elevations & Roof Plan	C
SD07	Building 3 - Floor Plans	C
SD08	Building 3 - Proposed Elevations & Roof Plan	C
SD09	Proposed Sections 1	C
SD10	Proposed Sections 2	B
SD11	Proposed Area Calculation Plans 1	C

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CLIENT: **ESELLAR HOLDINGS PTY LTD**
PROJECT: **PROPOSED MULTI UNIT DWELLING**
LOCATION: **15 DANIELLS STREET, CARINA**

AMENDMENTS:		DRAWN BY:		JOB No:	
A	Survey Plan updated. Stormwater line added	24.02.17	LM	LM	4058
B	Revision Schedule updated.	24.03.17	LM		
C	Details added w/ Existing Sewer manhole in center of Property to be abandoned. Revision Schedule updated.	25.03.17	LM		

DATE:	Feb 2017	SHEET No:	SD01
SCALE at A1:	1:125	REVISION:	C

Green contour lines denote "ground level" as defined by BCC Cityplan 2014.

Subject to boundary dimensions and area are derived from field survey.

Levels shown on this plan are correct in relation to the benchmarks placed on this plan. AJS Surveys accepts no responsibility for any subsequent plans or works, that do not use the same level datum as shown on this plan.

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W: www.ajs-surveys.com.au

SITE: 15 Daniells Street, Carina
Lot 6 on RP 72193

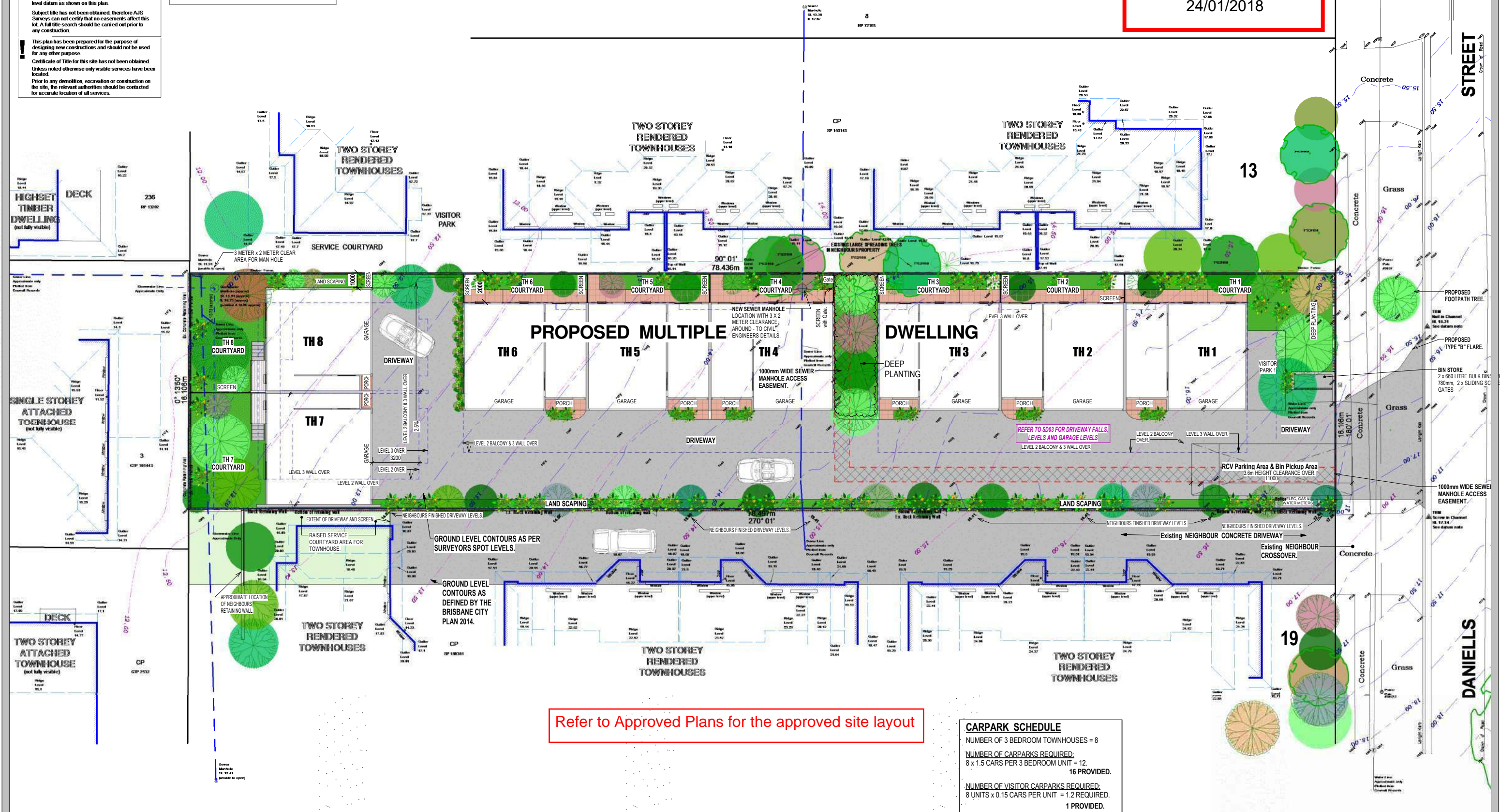
REVISIONS	
1	Initial Survey
2	Revised Survey
3	Final Survey

LEVEL DATUM:	
AHD	
DERIVED FROM PSM 7000	
(PL 4.431m)	

Scale 1:125 - Lengths are in Metres.

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24/01/2018



Refer to Approved Plans for the approved site layout

CARPARK SCHEDULE

NUMBER OF 3 BEDROOM TOWNHOUSES = 8

NUMBER OF CARPARKS REQUIRED:
8 x 1.5 CARS PER 3 BEDROOM UNIT = 12.
16 PROVIDED.

NUMBER OF VISITOR CARPARKS REQUIRED:
8 UNITS x 0.15 CARS PER UNIT = 1.2 REQUIRED.
1 PROVIDED.

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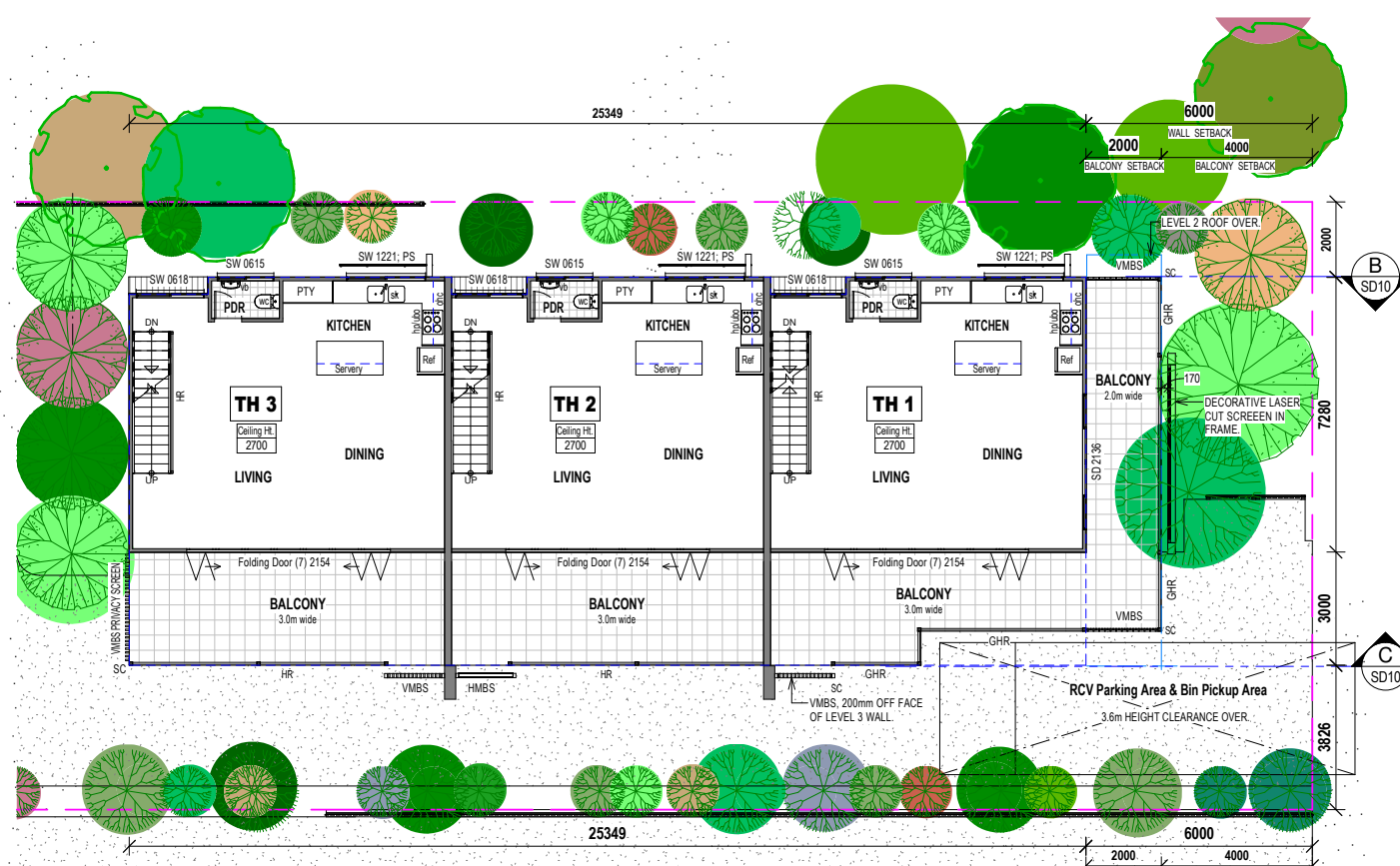
CLIENT: ESELLAR HOLDINGS PTY LTD
PROJECT: PROPOSED MULTI UNIT DWELLING
LOCATION: 15 DANIELLS STREET, CARINA

AMENDMENTS:	
A	Survey Plan updated. Stormwater line added
B	Amendments
C	Side from TH1 Level 2 Balcony Screens removed. Enhanced Landscape Planting shown on drawings. Additional Window Privacy Screens and Window Hoods to TH1-6 northern side. Additional Notes. Level 2 Living Dining Doors changed to wide Folding Doors. High level TH1&8 south wall moved back to 3.0m setback to TH6.
D	New Sewer Manhole position and required clearance added. New Sewer Access Easement added.
24/02/17	LM
7/03/17	LM
24/03/17	LM
28/03/17	LM

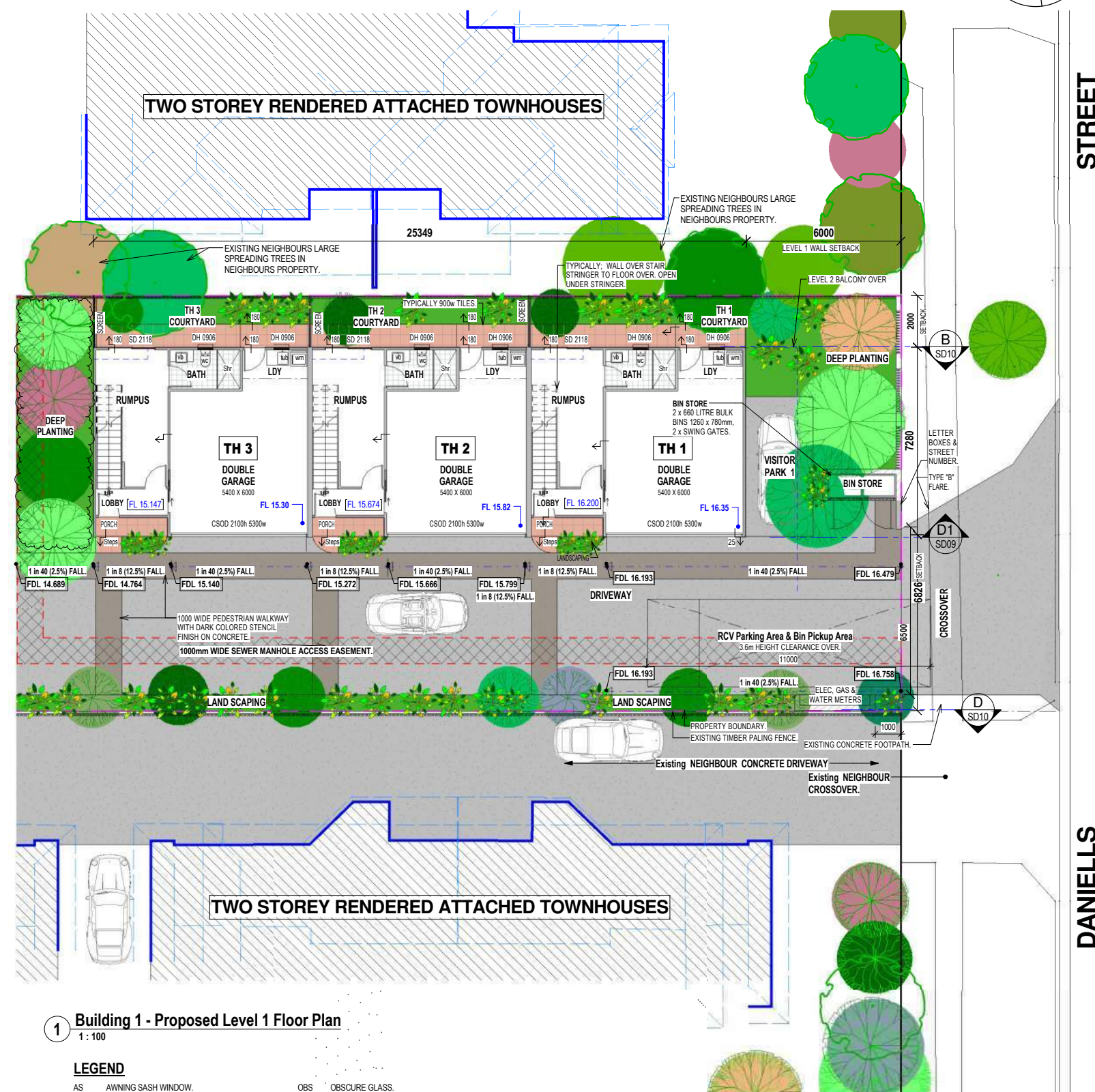
1 Proposed Site Plan	1:125
DRAWN BY: LM	JOB No: 4058
DATE: Feb 2017	SHEET No: SD02
SCALE: As indicated	REVISION: D



3 Building 1 - Proposed Level 3 Floor Plan
1 : 100



2 Building 1 - Proposed Level 2 Floor Plan
1:100



1 Building 1 - Proposed Level 1 Floor Plan
1 : 100

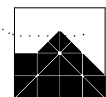
LEGEND

AS	AWNING GASH WINDOW.	QBS	OBSCURE GLASS.
CSD	CAVITY SLIDING DOOR.	ORC	OVERHEAD CUPBOARD.
DH	DOUBLE HUNG WINDOW.	PS	PRIVACY SCREEN. Window Privacy Screen up to min
ED	EXISTING DOOR - TO REMAIN IN-SITU.		1500 above floor level.
EFD	EXISTING FRENCH DOOR - TO REMAIN IN-SITU	SC	STEEL COLUMN.
EW	EXISTING WINDOW - TO REMAIN IN-SITU.	SD	SLIDING GLAZED PANEL DOOR EXTERNAL DOOR
FAS	FIRE ATTENUATION SCREEN, TO FIRE SERVICES		If Bedroom ROSE. SOLID PANEL DOOR.
	ENGINEER DETAILS.	SH	SHELF.
FG	FIXED GLASS WINDOW.	SW	SLIDING WINDOW.
FLF	FAN LIGHT WINDOW OVER	TSB	TIMBER SHUTTERS.
FLO	SELECT HERRPAIL & BALLUSTRAID	VMH	VERTICAL METAL BLADE SCREEN.
NFD	NEW FRENCH DOORS.		

Refer to Approved Plans for the approved site layout

Building 1 Floor Plans

AMENDMENTS:				DRAWN BY: LM		JOB No: 4058
A	Stormwater line added, Sewer Line more accurate according to Survey Plan.	24.02.17	LM	DATE: Feb 2017	SHEET No: SD03	REVISION: D
B	Amendments	7.03.17	LM			
C	Side front THT Level 2 balcony Screens removed; Enhanced Landscape Planting shown on drawings; Additional Window Privacy Screens and Window Hoods to TH16-16 within site. Additional Notes: Level 2 Living Dining Doors changed to wide Folding Doors. High level TH16B south wall moved back to 3.0m setback to TH6.	24.03.17	LM			
D	New Sewer Access Easement added	29.03.17	LM			
				SCALE at A1: 1 : 100		

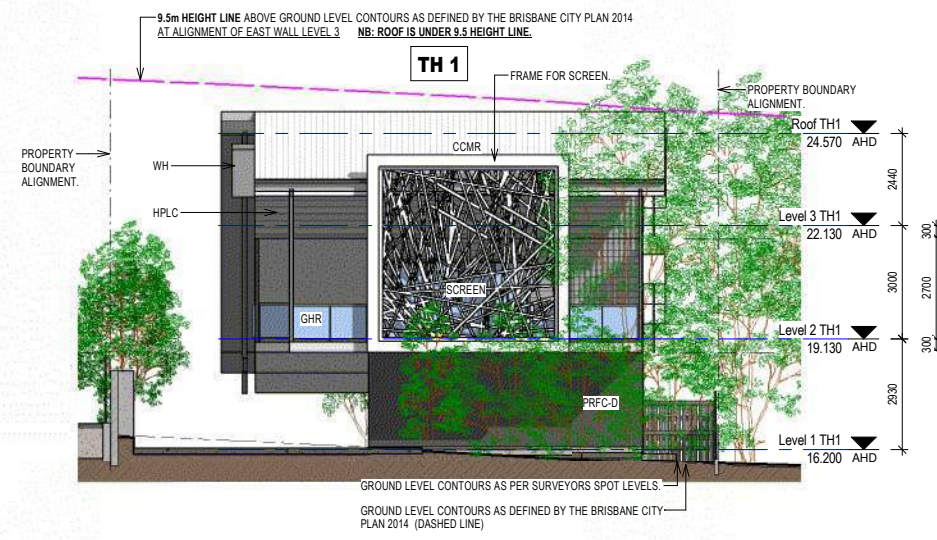


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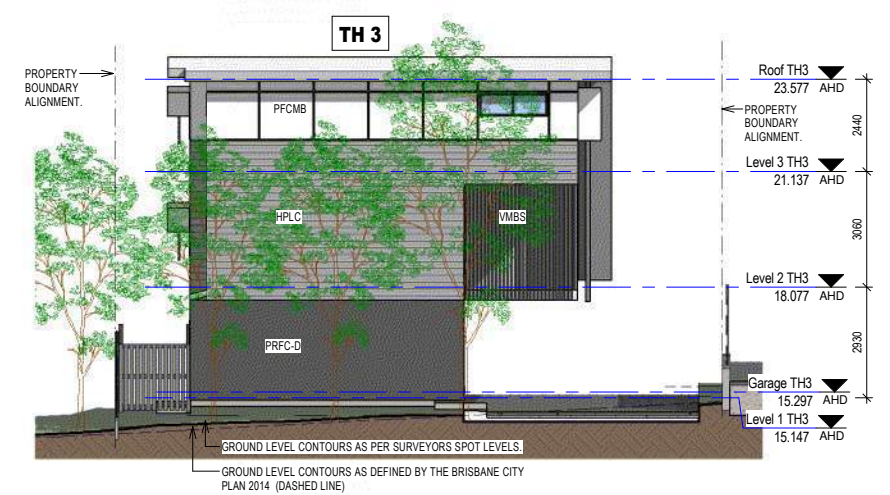
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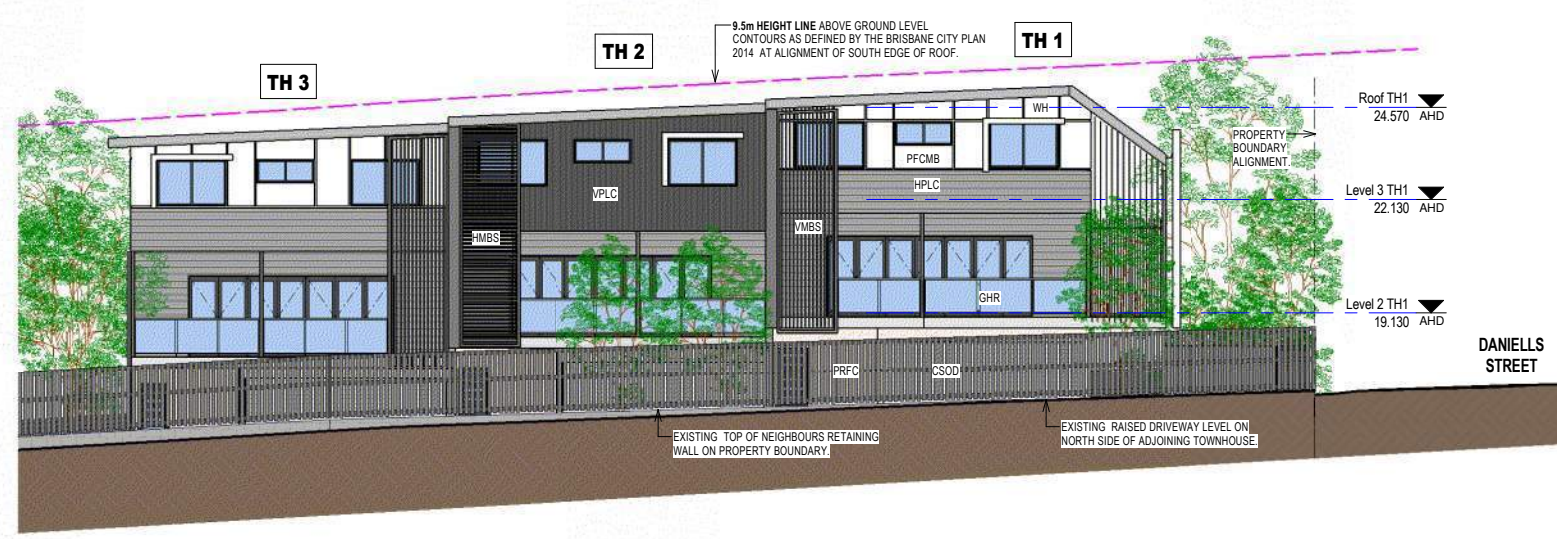
CLIENT:	ESELLAR HOLDINGS PTY LTD
PROJECT:	PROPOSED MULTI UNIT DWELLING
LOCATION:	15 DANIELLS STREET, CARINA



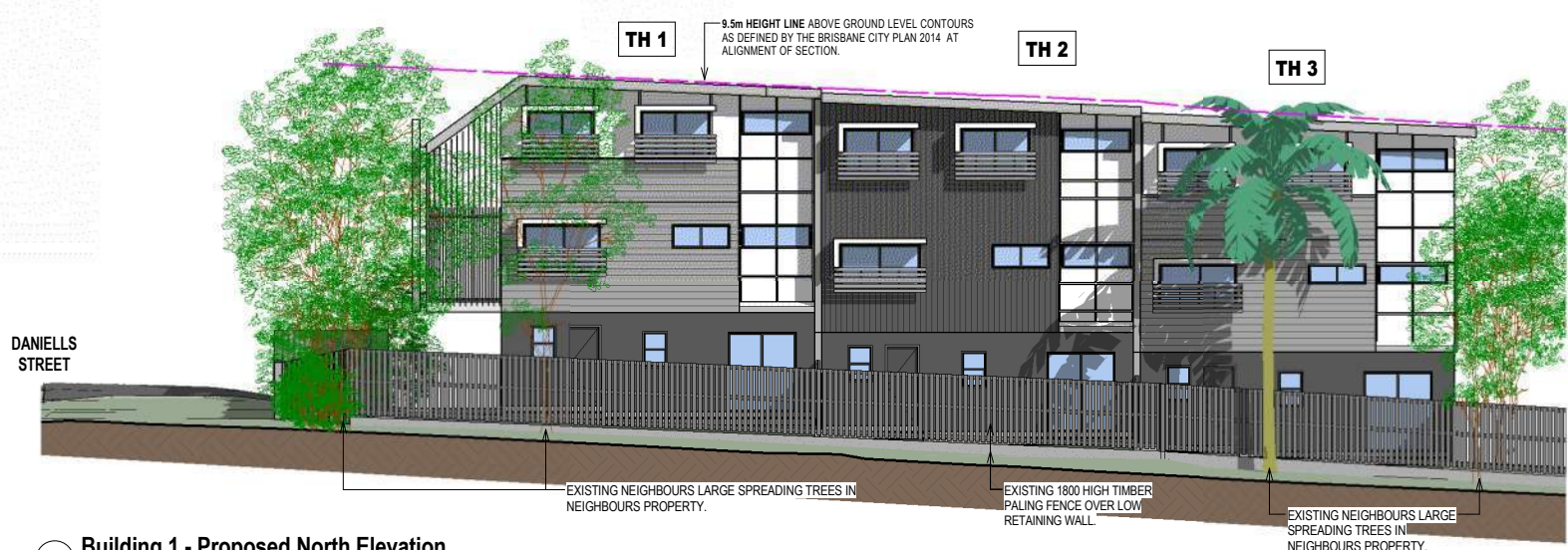
1 Building 1 - Proposed East Elevation
1:100



2 Building 1 - Proposed West Elevation
1:100



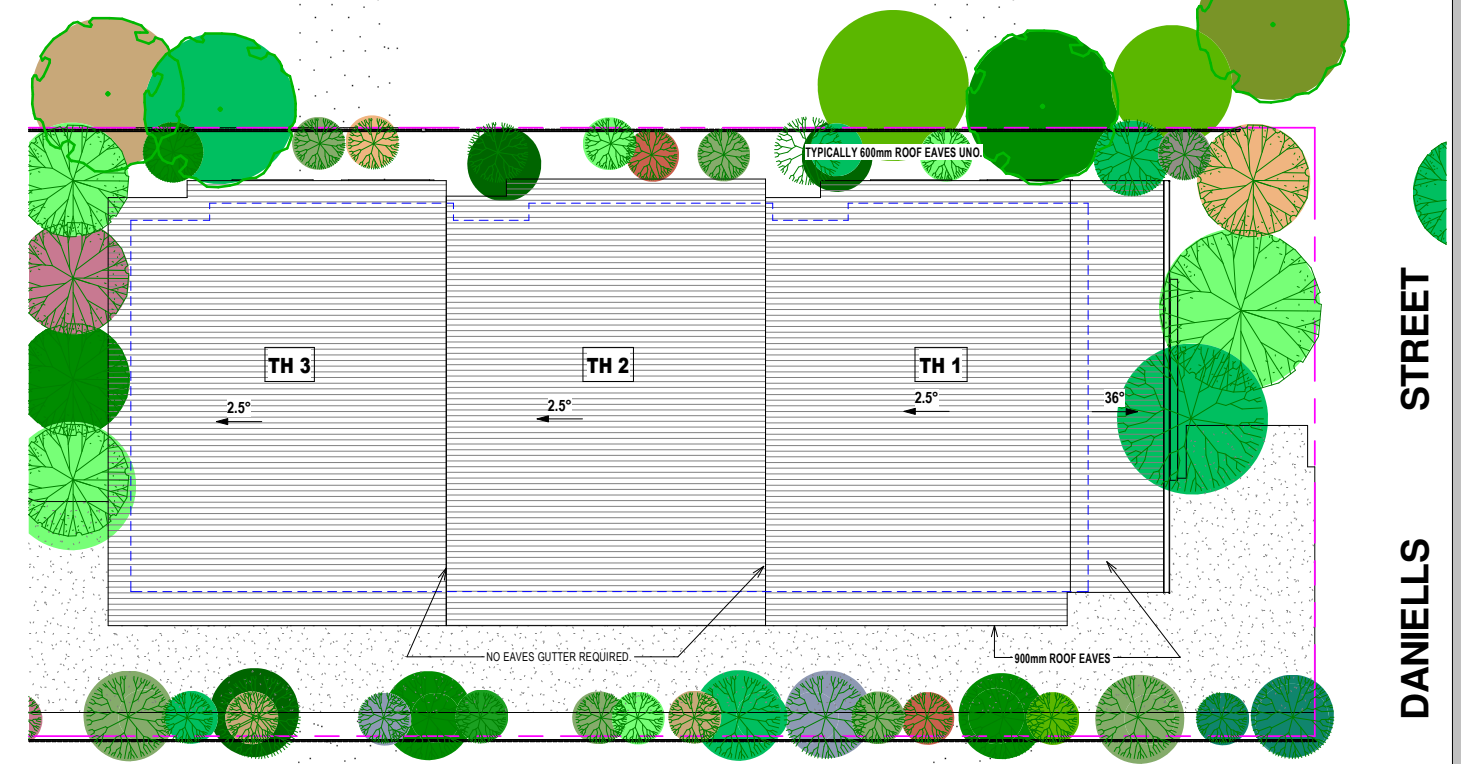
4 Building 1 - Proposed South Elevation
1:100



3 Building 1 - Proposed North Elevation
1:100

MATERIALS LEGEND

- AFJ ALUMINUM FRAMED JOINERY.
- CCMR COLORBOND CORRUGATED METAL ROOF SHEETING.
- CSOD COLORBOND SECTIONAL OVERHEAD DOOR.
- GHR GLASS HANDRAIL.
- HPLC HORIZONTAL PROFILED LIGHTWEIGHT CLADDING.
- PFCMB POWDERCOATED METAL BATTEN PRIVACY SCREEN. 80mm BATTENS SPACED 20mm APART. Window Privacy Screen. up to minimum 1500 above floor level.
- PFCMB PAINTED FIBROUS CEMENT MATRIX BOARD with RECESSED JOINTS.
- PRFC-D PAINTED RENDERED FIBROUS CEMENT CLADDING, DARK COLORED.
- PRM PAINTED RENDERED MASONRY.
- PRM-D DARK COLORED PAINTED RENDERED MASONRY.
- PRM-MD MID COLORED PAINTED RENDERED MASONRY.
- SSWHR STAINLESS STEEL WIRE HANDRAIL.
- VMBS VERTICAL METAL BLADE SCREEN.
- VPLC VERTICAL PROFILED LIGHTWEIGHT CLADDING.
- WH WINDOW HOOD.



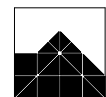
Refer to Approved Plans for the approved elevations

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5 Building 1 - Proposed Roof Plan
1:100

Building 1 Elevations and Roof Plan



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PROJECT: PROPOSED MULTI UNIT DWELLING
LOCATION: 15 DANIELLS STREET, CARINA

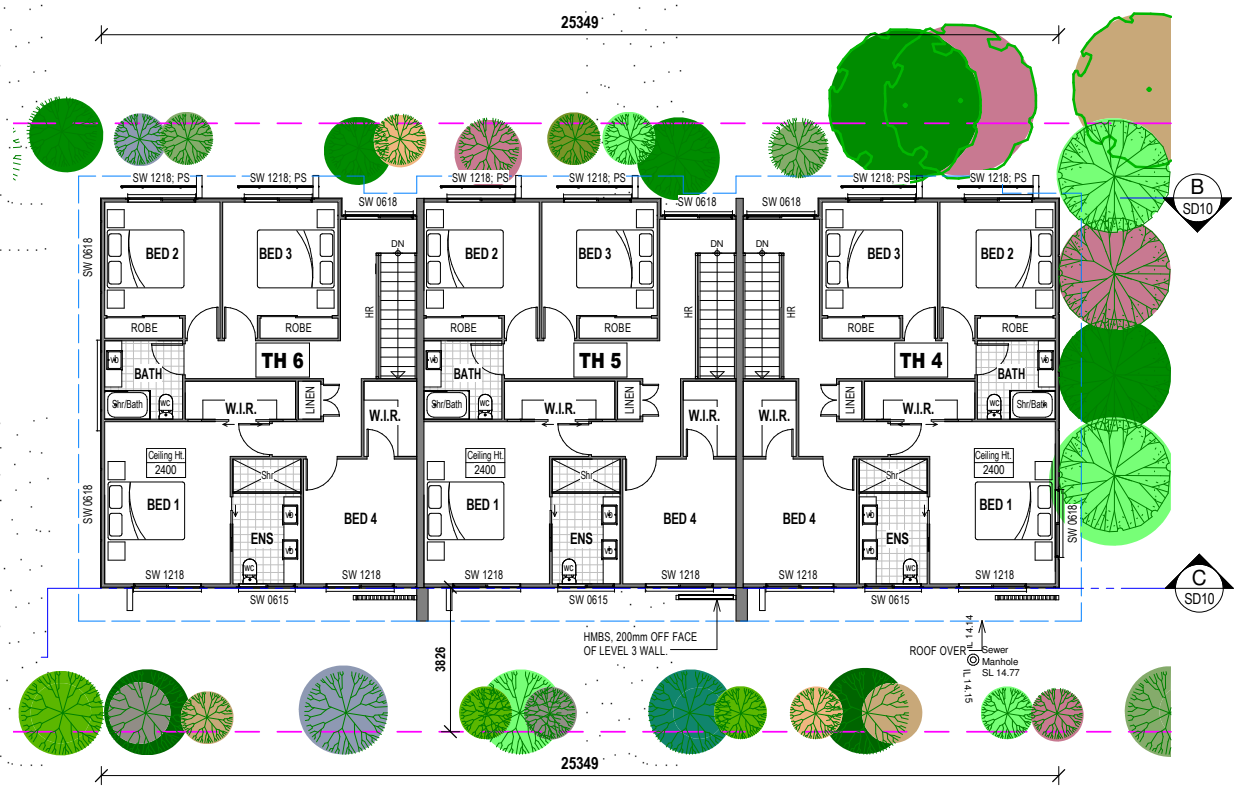
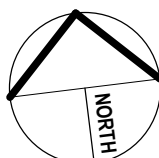
AMENDMENTS:

A	Amendments	7.03.17	LM
B	Side front TH1 Level 2 Balcony Screens removed; Enhanced Landscape Planting shown on drawings; Additional Window Privacy Screens and Window Hoods to TH1-6 northern side. Additional Notes: Level 2 Living Dining Doors changed to wide Folding Doors. High level TH1&8 south wall moved back to 3.0m setback to TH1-6	24.03.17	LM
C	Additional notes	29.03.17	LM

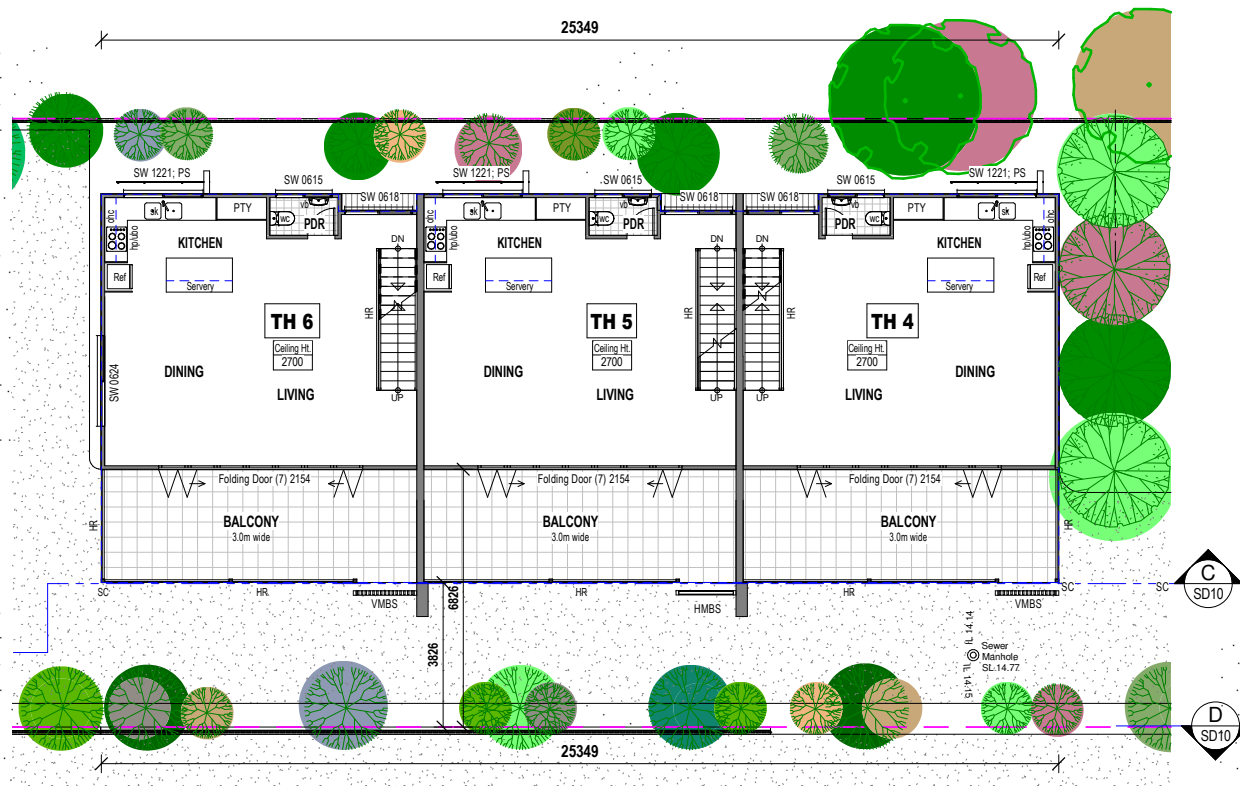
DRAWN BY: LM
DATE: Feb 2017
SCALE at A1: 1:100
JOB No: 4058
SHEET No: SD04
REVISION: C

Scale 1:100 - Lengths are in Metres.

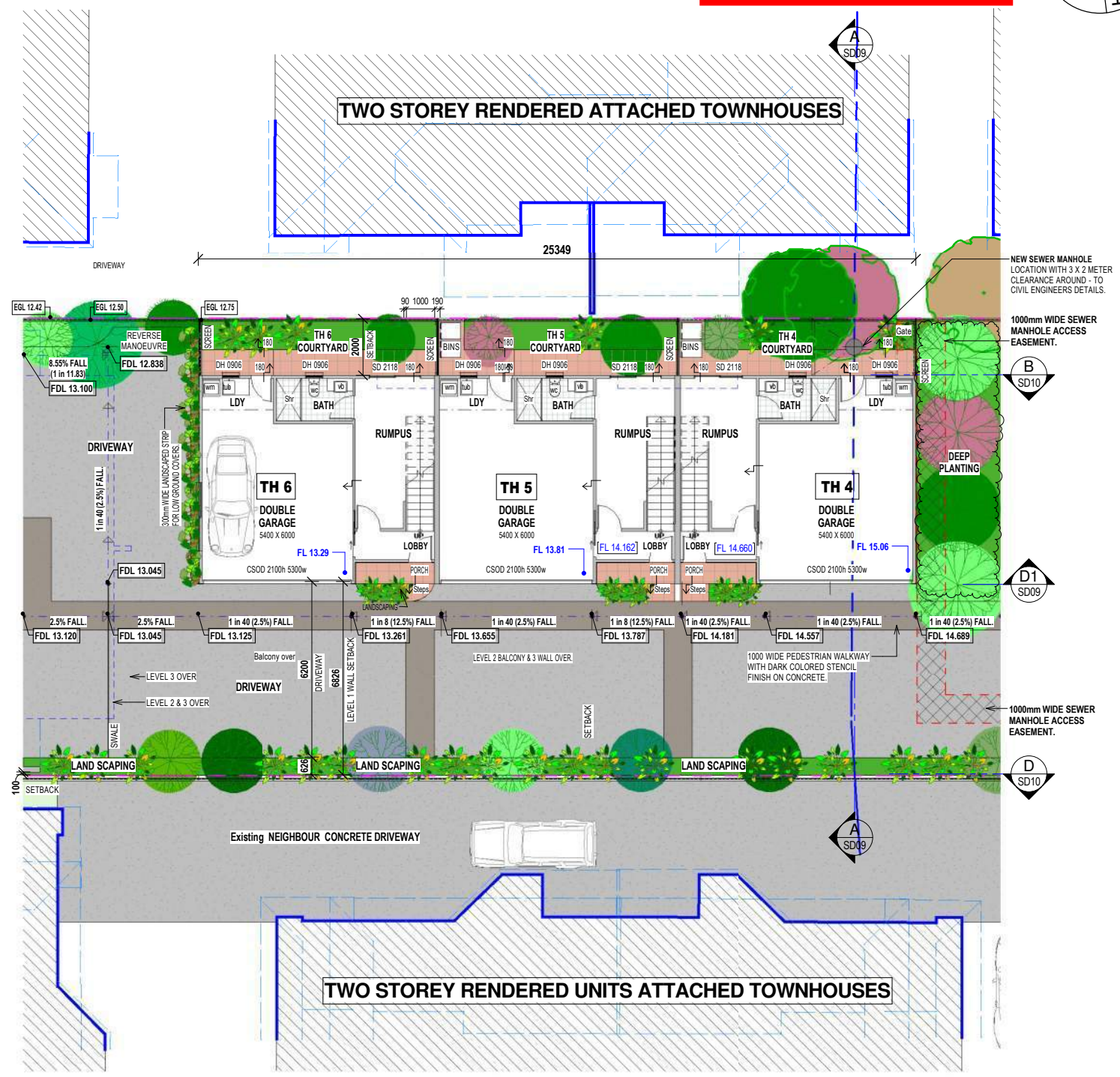
AMENDED IN RED
24/01/2018



3 Building 2 - Proposed Level 3 Floor Plan
1 : 100



2 Building 2 - Proposed Level 2 Floor Plan
1 : 100



1 Building 2 - Proposed Level 1 Floor Plan
1 : 100

Refer to Approved Plans for the approved site layout

LEGEND

- | | | | |
|-----|---|------|--|
| AS | AWNING SASH WINDOW. | OBS | OBSCURE GLASS. |
| CSD | CAVITY SLIDING DOOR. | OHC | OVERHEAD CUPBOARD. |
| DH | DOUBLE HUNG WINDOW. | PS | PRIVACY SCREEN. Window Privacy Screen up to min. |
| ED | EXISTING DOOR - TO REMAIN IN-SITU. | 1500 | 1500 above floor level. |
| EFD | EXISTING FRENCH DOOR - TO REMAIN IN-SITU. | SC | STEEL COLUMN. |
| EW | EXISTING WINDOW - TO REMAIN IN-SITU. | SD | SLIDING GLAZED PANEL DOOR EXTERNAL DOOR. |
| FAS | FIRE ATTENUATION SCREEN, TO FIRE SERVICES | IF | If Bedroom Robe, SOLID PANEL DOOR. |
| ENG | ENGINEER DETAILS. | SH | SHELF. |
| FG | FIXED GLASS WINDOW. | SW | SLIDING WINDOW. |
| FLO | FAN LIGHT WINDOW OVER. | TSH | TIMBER SHUTTERS. |
| HR | SELECT HARDWARE & BALUSTRADE | VMBS | VERTICAL METAL BLADE SCREEN. |
| NFD | NEW FRENCH DOORS. | | |

Building 2 Floor Plans

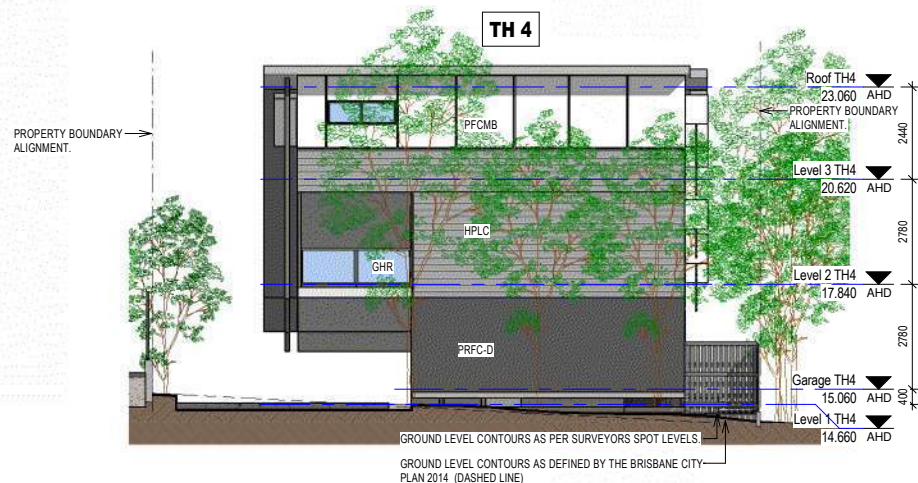
IAN WEBB ARCHITECT
60 BANKS ST. NEWMARKET Q. 4051
PH 07 3856 2855 FAX 07 3356 0419

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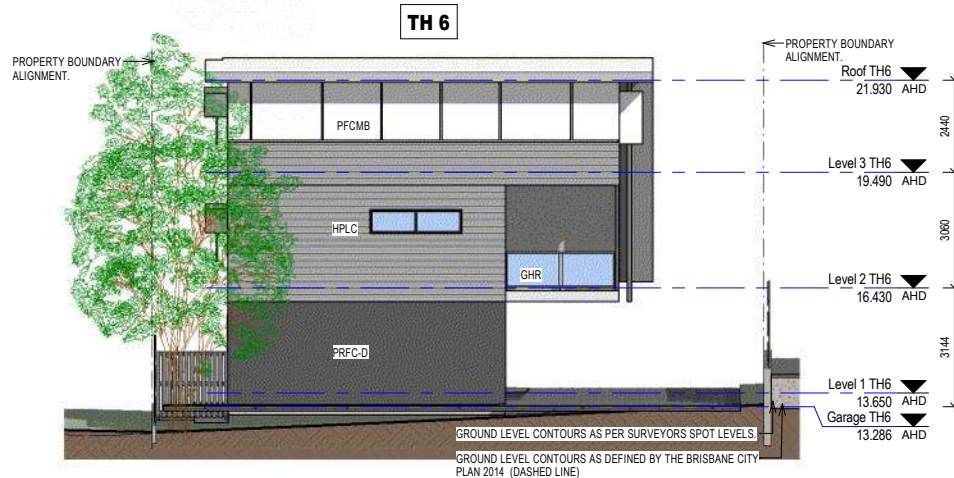
CLIENT: ESELLAR HOLDINGS PTY LTD
PROJECT: PROPOSED MULTI UNIT DWELLING
LOCATION: 15 DANIELLS STREET, CARINA

AMENDMENTS:				
A	Amendments	7.03.17	LM	
B	Side front TH1 Level 2 Balcony Screens removed; Enhanced Landscape Planting shown on drawings; Additional Window Privacy Screens and Window Hoods to TH1-6 northern side. Additional Notes: Level 2 Living Dining Doors changed to wide Folding Doors. High level TH1&8 south wall moved back to 3.0m setback to TH6.	24.03.17	LM	
C	New Sewer Manhole and Access Easement added.	29.03.17	LM	
DRAWN BY: LM		DATE: Feb 2017	SHEET No: SD05	JOB No: 4058
SCALE at A1: 1 : 100		REVISION: C		

Scale 1:100 - Lengths are in Metres.



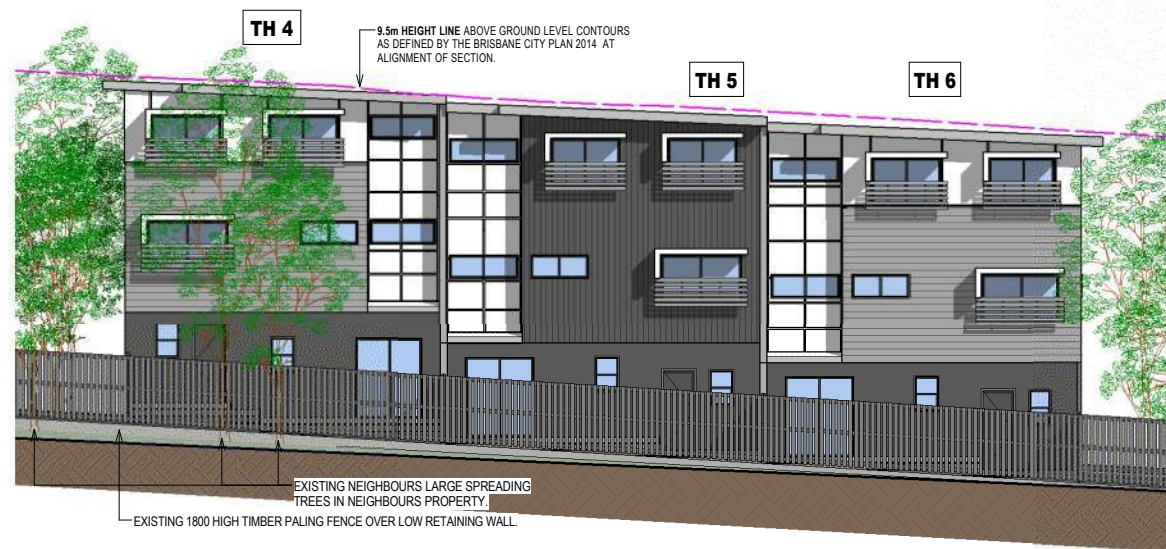
1 Building 2 - Proposed East Elevation
1:100



2 Building 2 - Proposed West Elevation
1:100



3 Building 2 - Proposed South Elevation
1:100



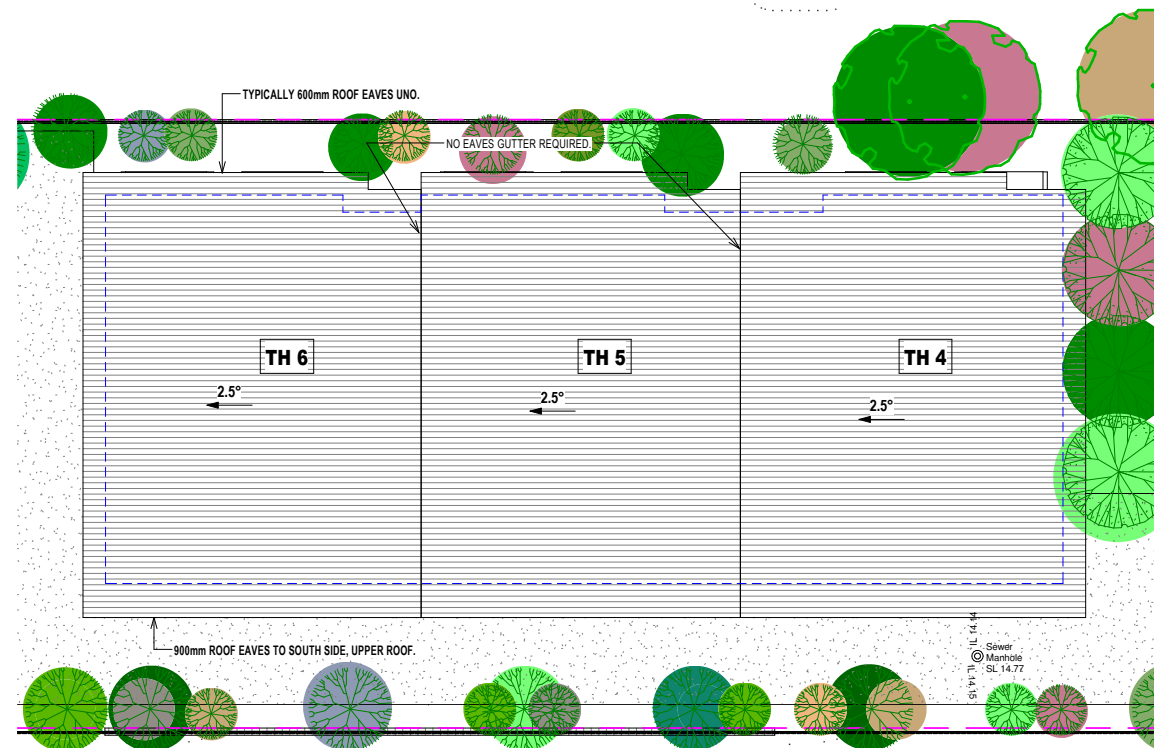
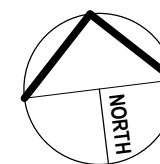
4 Building 2 - Proposed North Elevation
1:100

AMENDED IN RED

24/01/2018

MATERIALS LEGEND

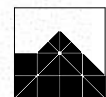
AFJ ALUMINUM FRAMED JOINERY.
CCMR COLORBOND CORRUGATED METAL ROOF SHEETING.
CSOD COLORBOND SECTIONAL OVERHEAD DOOR.
GHR GLASS HANDRAIL.
HPLC HORIZONTAL PROFILED LIGHTWEIGHT CLADDING. 80mm BATTENS SPACED 20mm APART. Window Privacy Screen up to minimum 1500 above floor level.
PCMBPS POWDERCOATED METAL BATTEN PRIVACY SCREEN. 80mm BATTENS SPACED 20mm APART. Window Privacy Screen up to minimum 1500 above floor level.
PFCMB PAINTED FIBROUS CEMENT MATRIX BOARD with RECESSED JOINTS.
PRFC-D PAINTED RENDERED FIBROUS CEMENT CLADDING, DARK COLORED.
PRM PAINTED RENDERED MASONRY.
PRM-D DARK COLORED PAINTED RENDERED MASONRY.
PRM-MD MID COLORED PAINTED RENDERED MASONRY.
SSWHR STAINLESS STEEL WIRE HANDRAIL.
VMBS VERTICAL METAL BLADE SCREEN.
HMBS HORIZONTAL METAL BLADE SCREEN.
VPLC VERTICAL PROFILED LIGHTWEIGHT CLADDING.
WH WINDOW HOOD.



5 Building 2 - Proposed Roof Plan
1:100

Refer to Approved Plans for the approved elevations.

Building 2 Elevations and Roof Plan



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CLIENT: ESELLAR HOLDINGS PTY LTD
PROJECT: PROPOSED MULTI UNIT DWELLING
LOCATION: 15 DANIELLS STREET, CARINA

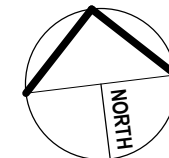
AMENDMENTS:

A	Amendments	7.03.17	LM
B	Side front TH1 Level 2 Balcony Screens removed; Enhanced Landscape Planting shown on drawings; Additional Window Privacy Screens and Window Hoods to TH1-6 northern side. Additional Notes: Level 2 Living Dining Doors changed to wide Folding Doors. High level TH1&8 south wall moved back to 3.0m setback to TH6.	24.03.17	LM
C	Additional notes.	29.03.17	LM

DRAWN BY:	LM	JOB No:	4058
DATE:	Feb 2017	SHEET No:	SD06
SCALE at A1:	1:100	REVISION:	C

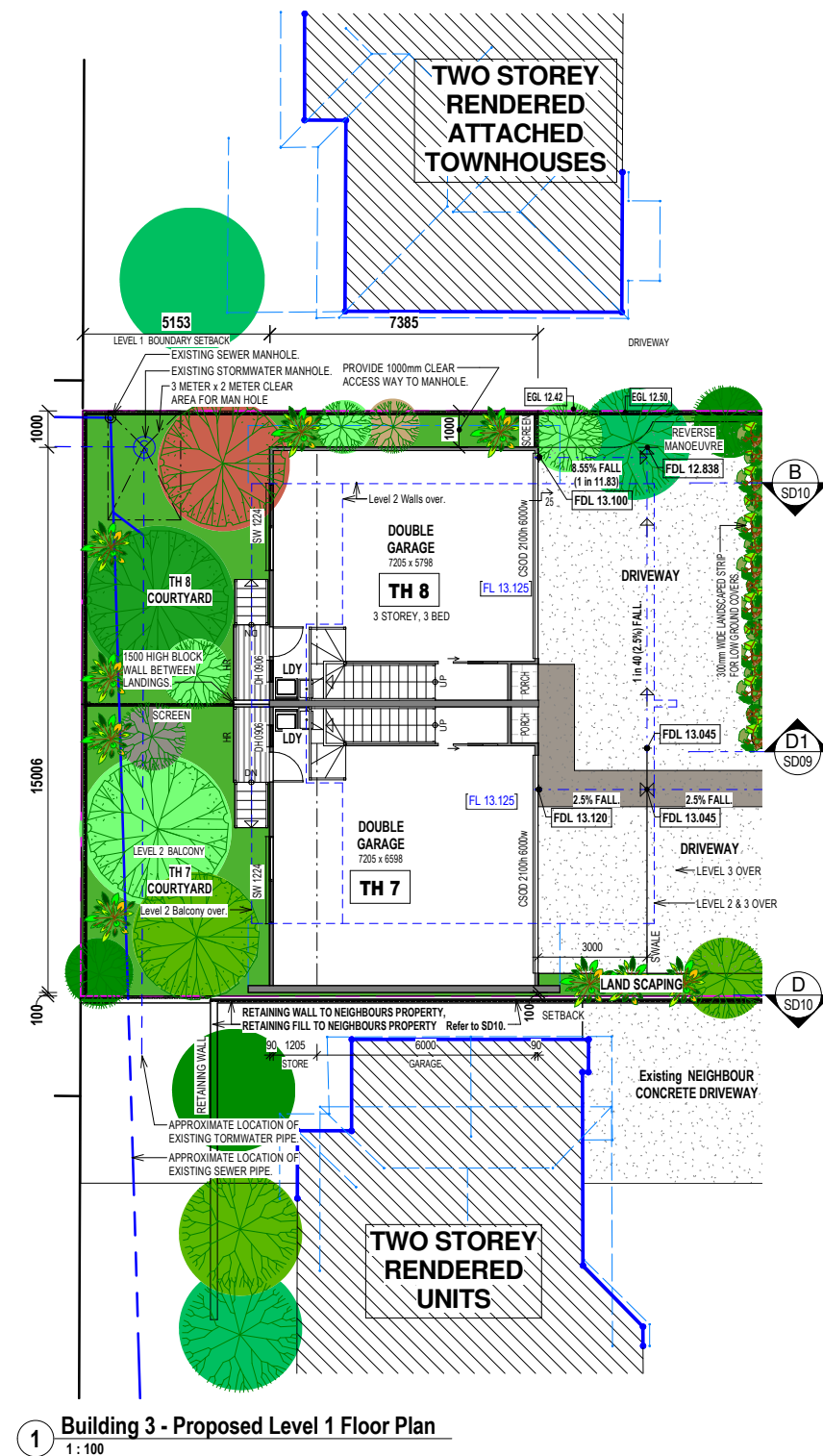
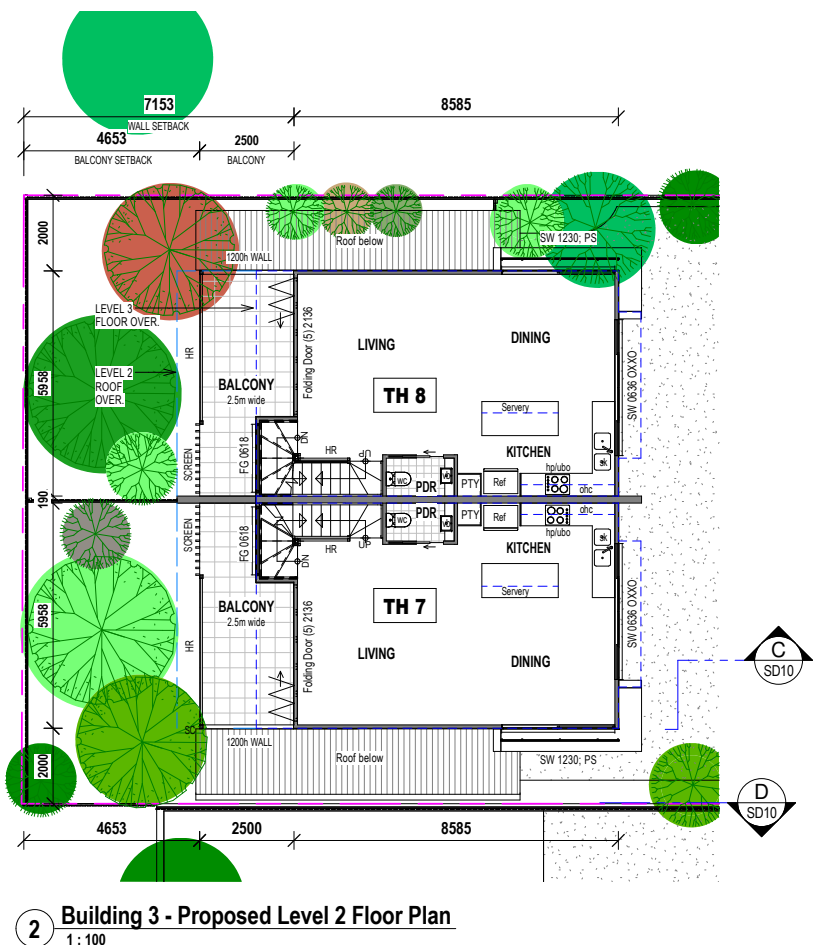
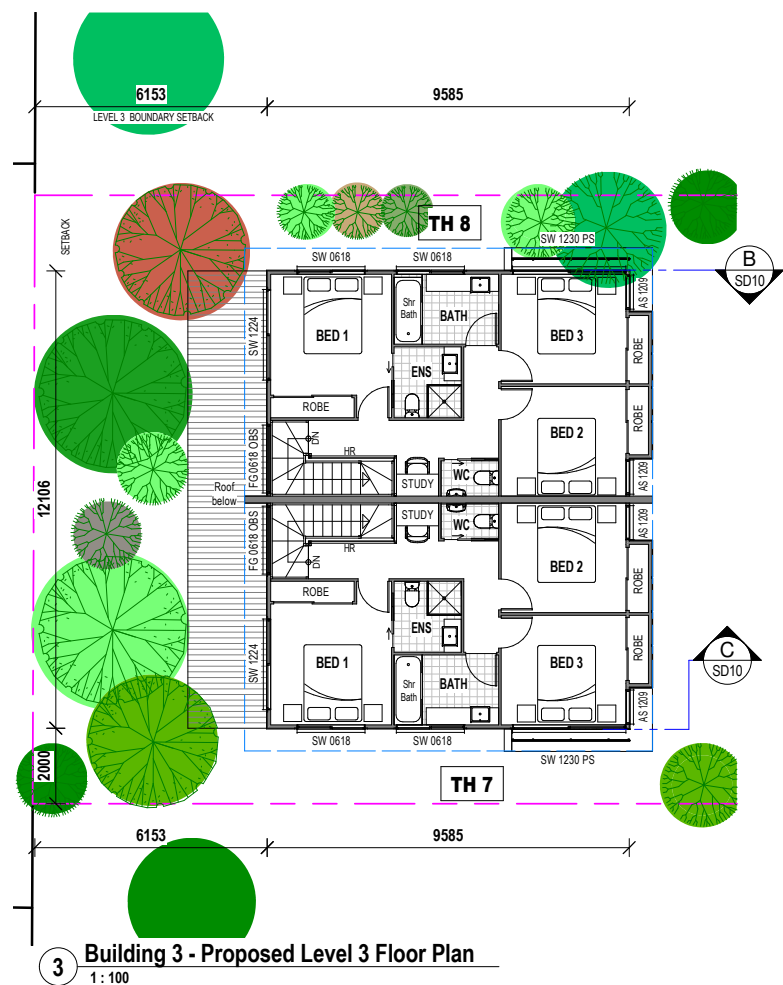
AMENDED IN RED

24/01/2018



LEGEND

AS	AWNING SASH WINDOW.	OBS	OBSCURE GLASS.
CSD	CAVITY SLIDING DOOR.	OHC	OVERHEAD CUPBOARD.
DH	DOUBLE HUNG WINDOW.	PS	PRIVACY SCREEN. Window Privacy Screen up to min.
ED	EXISTING DOOR - TO REMAIN IN-SITU.		1500 above floor level.
EFD	EXISTING FRENCH DOOR - TO REMAIN IN-SITU.	SC	STEEL COLUMN.
EW	EXISTING WINDOW - TO REMAIN IN-SITU.	SD	SLIDING GLAZED PANEL DOOR EXTERNAL DOOR.
FAS	FIRE ATTENUATION SCREEN, TO FIRE SERVICES		If Bedroom Robe, SOLID PANEL DOOR.
	ENGINEER DETAILS.	SH	SHELF.
FG	FIXED GLASS WINDOW.	SW	SLIDING WINDOW.
FLO	FAN LIGHT WINDOW OVER.	TSH	TIMBER SHUTTERS.
HR	SELECT HARDRAIL & BALUSTRADING	VMBS	VERTICAL METAL BLADE SCREEN.
NFD	NEW FRENCH DOORS.		



Refer to Approved Plans for the approved site layout



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CLIENT: ESELLAR HOLDINGS PTY LTD
PROJECT: PROPOSED MULTI UNIT DWELLING
LOCATION: 15 DANIELLS STREET, CARINA

AMENDMENTS:

A	Amendments	7.03.17	LM
B	Side front TH1 Level 2 Balcony Screens removed. Enhanced Landscape Planting shown on drawings. Additional Window Privacy Screens and Window Hoods to TH1-6 northern side. Additional Notes. Level 2 Living Doors changed to wide Folding Doors. High level TH1&8 south wall moved back to 3.0m setback to TH6.	24.03.17	LM
C	Additional notes.	29.03.17	LM

DRAWN BY:	LM	JOB No:	4058
DATE:	Feb 2017	SHEET No:	SD07
SCALE at A1:	1 : 100	REVISION:	C

Building 3 Floor Plans

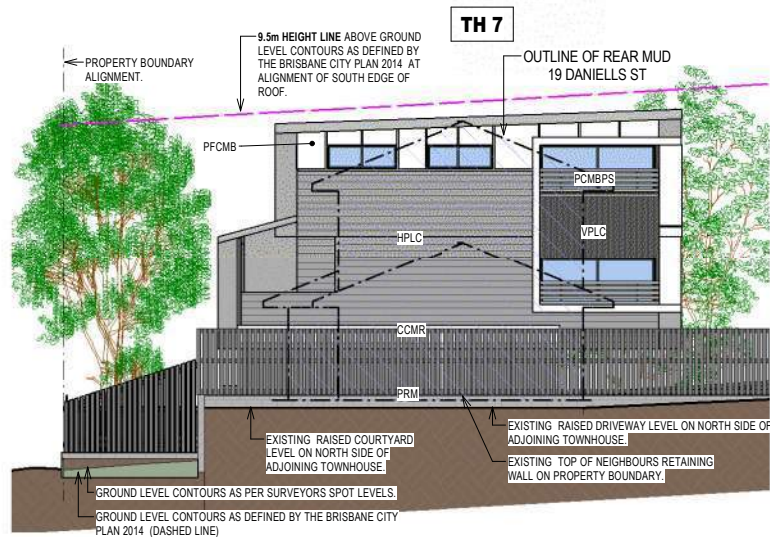
Scale 1:100 - Lengths are in Metres.



1 Building 3 - Proposed East Elevation
1:100



2 Building 3 - Proposed West Elevation
1:100



3 Building 3 - Proposed South Elevation
1:100



4 Building 3 - Proposed North Elevation
1:100

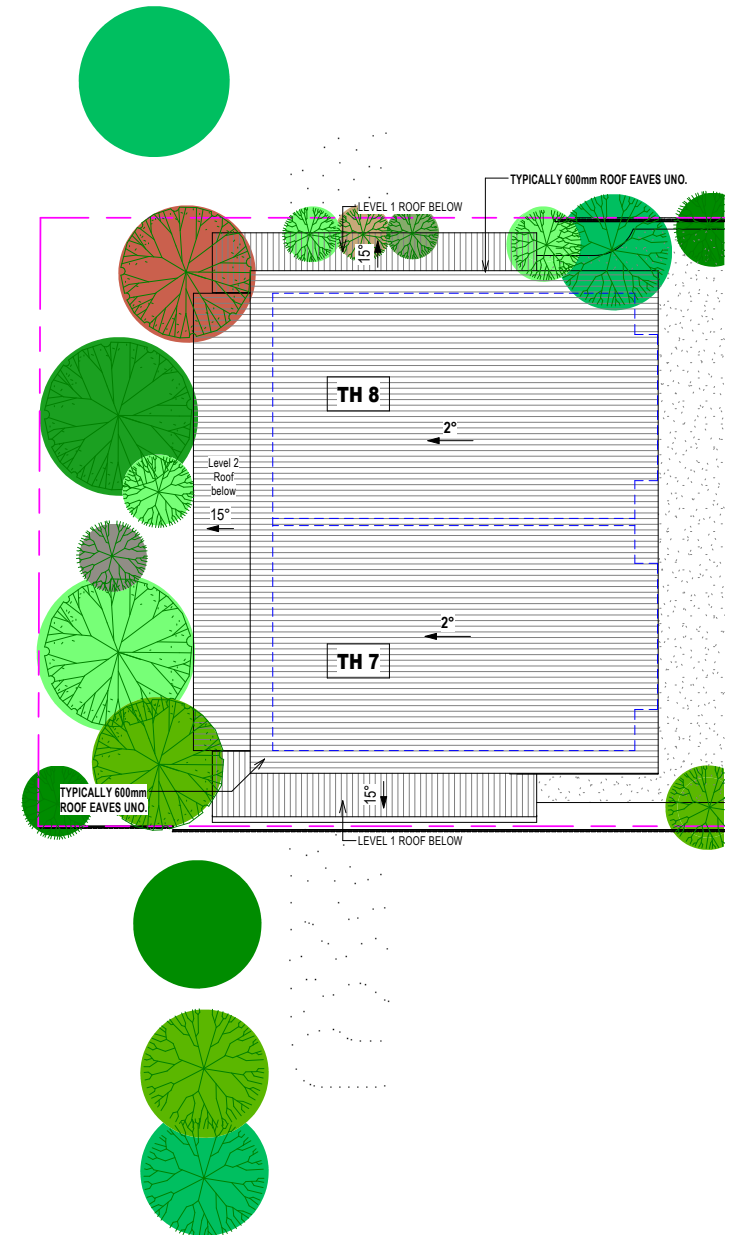
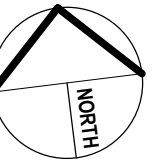
Refer to Approved Plans for the approved elevations

MATERIALS LEGEND

AF-J	ALUMINUM FRAMED JOINERY.
CCMR	COLORBOND CORRUGATED METAL ROOF SHEETING.
CSOD	COLORBOND SECTIONAL OVERHEAD DOOR.
GHR	GLASS HANDRAIL.
HPLC	HORIZONTAL PROFILED LIGHTWEIGHT CLADDING.
PCMBPS	POWDERCOATED METAL BATTEN PRIVACY SCREEN. 80mm BATTENS SPACED 20mm APART. Window Privacy Screen up to minimum 1500 above floor level.
PFCMB	PAINTED FIBROUS CEMENT MATRIX BOARD with RECESSED JOINTS.
PRFC-D	PAINTED RENDERED FIBROUS CEMENT CLADDING, DARK COLORED.
PRM	PAINTED RENDERED MASONRY.
PRM-D	DARK COLORED PAINTED RENDERED MASONRY.
PRM-MD	MID COLORED PAINTED RENDERED MASONRY.
SSWHR	STAINLESS STEEL WIRE HANDRAIL.
VMBS	VERTICAL METAL BLADE SCREEN.
HMBS	HORIZONTAL METAL BLADE SCREEN.
VPLC	VERTICAL PROFILED LIGHTWEIGHT CLADDING.
WH	WINDOW HOOD.

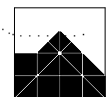
AMENDED IN RED

24/01/2018



5 Building 3 - Proposed Roof Plan
1:100

Building 3 Elevations and Roof Plan



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PROJECT: PROPOSED MULTI UNIT DWELLING
LOCATION: 15 DANIELLS STREET, CARINA

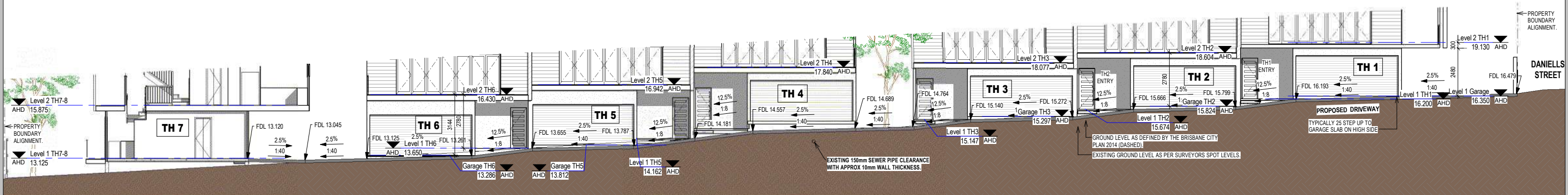
AMENDMENTS:

A	Amendments	7.03.17	LM
B	Side front TH1 Level 2 Balcony Screens removed. Enhanced Landscape Planting shown on drawings. Additional Window Privacy Screens and Window Hoods to TH1-6 northern side. Additional Notes. Level 2 Living Dining Doors changed to wide Folding Doors. High level TH1&8 south wall moved back to 3.0m setback to TH6.	24.03.17	LM
C	Additional notes.	29.03.17	LM

DRAWN BY:	LM	JOB No:	4058
DATE:	Feb 2017	SHEET No:	SD08
SCALE at A1:	1:100	REVISION:	C

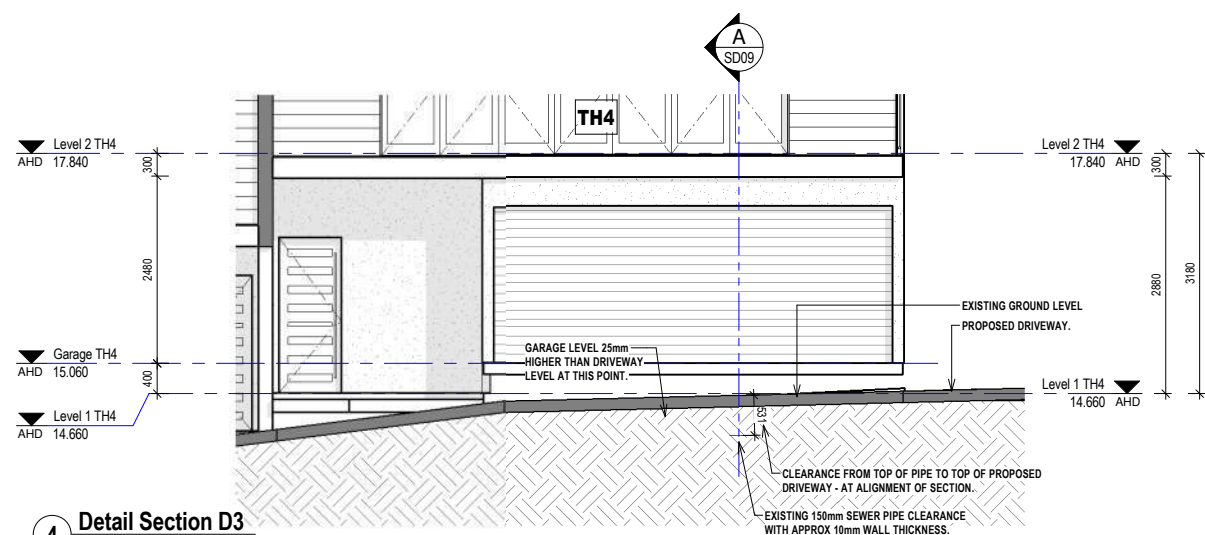
Scale 1:100 - Lengths are in Metres.

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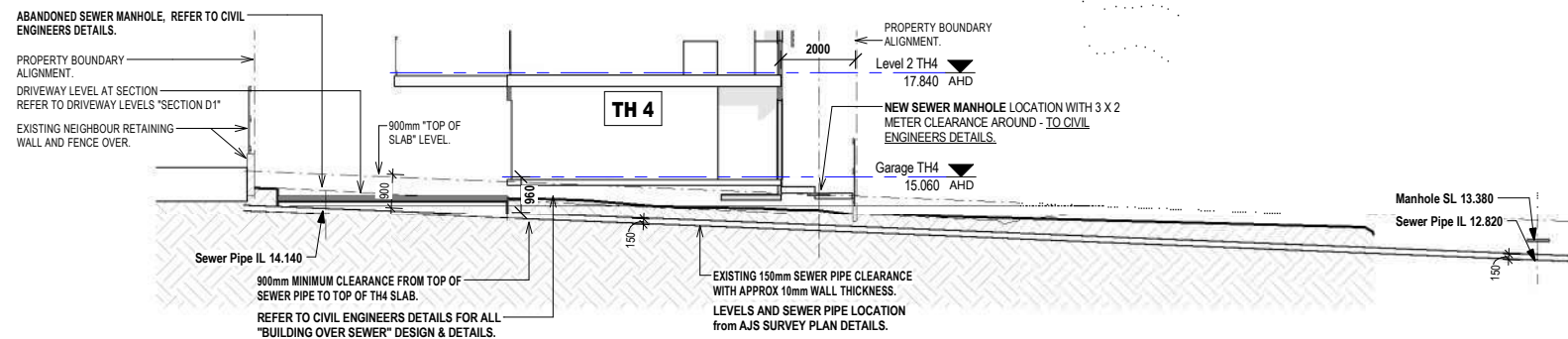


1 Driveway Section at face of Garage Doors "D1"
1:100

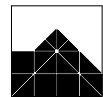
Refer to Approved Plans for the approved sections



4 Detail Section D3
1:50



2 Longitudinal Sewer Pipe Clearance Section A
1:100



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PROJECT: PROPOSED MULTI UNIT DWELLING
LOCATION: 15 DANIELLS STREET, CARINA

AMENDMENTS:

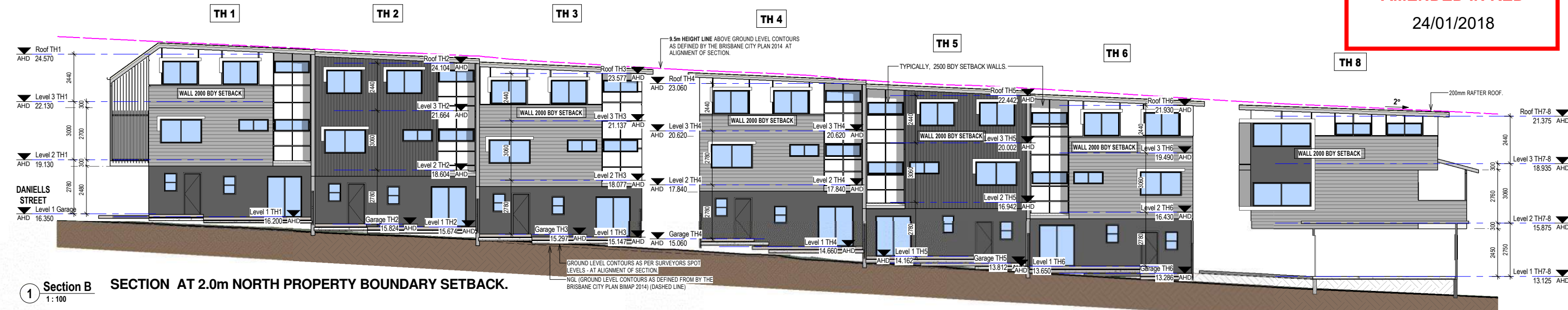
A	Amendments	7.03.17	LM
B	Side front TH1 Level 2 Balcony Screens removed; Enhanced Landscape Planting shown on drawings; Additional Window Privacy Screens and Window Hoods to TH1-6 northern side. Additional Notes: Level 2 Living Dining Doors changed to wide Folding Doors. High level TH1&8 south wall moved back to 3.0m setback to TH6.	24.03.17	LM
C	"Sewer Line Section updated to show new Manhole position and notes."	28.03.17	LM

DRAWN BY:	LM	JOB No:	4058
DATE:	Feb 2017	SHEET No:	SD09
SCALE at A1:	As indicated	REVISION:	C

Scale 1:100 - Lengths are in Metres.

AMENDED IN RED

24/01/2018



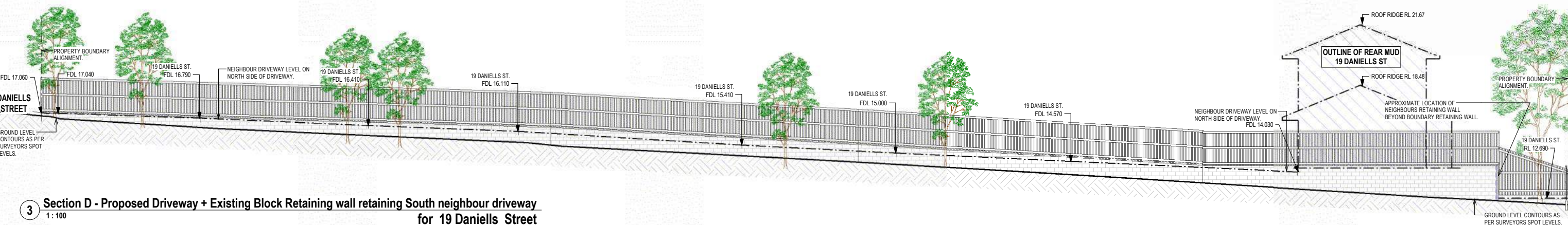
1 Section B SECTION AT 2.0m NORTH PROPERTY BOUNDARY SETBACK.



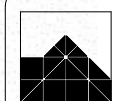
2 Section C SECTION AT 2.0m SOUTH PROPERTY BOUNDARY SETBACK.

SECTION AT 3.826m SOUTH PROPERTY BOUNDARY SETBACK.

Refer to Approved Plans for the approved elevations



3 Section D - Proposed Driveway + Existing Block Retaining wall retaining South neighbour driveway for 19 Daniells Street



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PROJECT: PROPOSED MULTI UNIT DWELLING
LOCATION: 15 DANIELLS STREET, CARINA

AMENDMENTS:

A	Amendments	7.03.17	LM
B	Side front TH1 Level 2 Balcony Screens removed; Enhanced Landscape Planting shown on drawings; Additional Window Privacy Screens and Window Hoods to TH1-6 northern side. Additional Notes: Level 2 Living Dining Doors changed to wide Folding Doors. High level TH1&8 south wall moved back to 3.0m setback to TH1-6.	24.03.17	LM

DRAWN BY: LM
DATE: Feb 2017
SCALE at A1: 1:100
JOB No: 4058
SHEET No: SD10
REVISION: B