

KUATRO

CONSTRUCTION MANAGEMENT PLAN



Forest Lodge Warriewood

8 Forest Road, Warriewood

NOVEMBER 2023

REVISION 2

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Document Control Sheet

Rev No	Description of Changes	Approved By	Signed	Date
0	Commencement on site	Ryan Soh		17 th Feb 2023
1	Project team & Site access update	Ryan Soh		14 th June 2023
2	Project team & Methodology update	Ryan Soh		6 th November 2023

1.0. INTRODUCTION

This Site-Specific Construction Management Plan (the CMP) outlines the proposed strategies to construct the Warriewood Forest Lodge Project.

The CMP incorporates and highlights the extent of the work site, construction methodology and offers a brief insight into how KUATRO will phase the establishment, excavation, and construction of the proposed development.

Our diagrammatic Site Establishment and Work Method approach is enclosed. A Project Methodology is outlined in Section 5 including the process and management of significant construction activities. A stakeholder management and cohabitation plan are also in place.

In addition, it encloses the contents of the following subsection plans:

- Traffic and Pedestrian Management Plan
- Construction Waste Management Plan
- Environmental Management Plan

2.0. CONSULTATION AND COMMUNITY STRATEGY

The Project is located between Jubilee Avenue, Bert Close and the Forest Road easement. Access to site during construction and permanently for the development thereafter is only through Jubilee Avenue although the address is 8 Forest Road.

Items of concern will include:

- Excavation and construction in close proximity to the Narrabeen Creek, ensuring Environmental management plans are strictly implemented and adhered to for the Duration of the works.
- Critical service infrastructure.
- Heritage impact of the existing dwelling to be retained in the SW corner of site.
- Dust control.
- Site Pedestrian management.
- Truck movements on site.
- Erection of hoardings and site accommodation.
- Treatment of hazardous materials if any.

KUATRO will ensure that effective communication is undertaken throughout the project to ensure a positive outcome for all Stakeholders.

Consultation and communication will be the key strategy in successfully delivering the project. KUATRO will use the following forums, meetings and tools to assist in achieving this goal:

Stakeholder meetings as necessary.

1. Pre-start introduction meetings with Stakeholders.
2. Daily site induction of all new personnel involved with the Project.
3. Daily prestart meetings of KUATRO employees.
4. Site notice boards.
5. Weekly toolbox meetings of subcontractor's employees.
6. Weekly site safety inspections.
7. Stakeholder meetings as necessary.
8. Weekly subcontractor meetings.
9. Monthly PCG meetings.
10. 24-hour 7 day KUATRO contact numbers;
11. Complaints Register.
12. Evacuation Procedures and permits and notification to neighbours.

3.0. OVERVIEW

3.1. Extent of Work

The construction site is located **8 Forest Road, Warriewood**, access through **4 Jubilee Avenue Warriewood**. The site is bounded by Narrabeen Creek to the North, Ingleside Chase Reserve to the West & South, as well as Jubilee Ave to the East.

At present the structures have been demolished with shoring works, bulk excavation and detailed excavation about to commence.

The project involves, construction of a shoring system, excavation and construction of the 1 level basement carpark, construction of the 4 off low rise buildings containing 66 Luxury units as well as and another low rise building comprising of 14 Luxury Townhouses. Included in the development, an extensive public domain scope which will enhance the residence experience and offer the community a place to congregate and engage.

On completion the Project configuration shall be:

- Car parking – 1 basement level.
- Residential apartments – 66 apartments located on Ground to Level 2 (BLDS A, B, C & D).
- Townhouse Residencies – 14 townhouses located on the East of the site.
- Community / Public Domain – Swimming pool and communal room located at the centre between the dwellings for shared access.

The Project will be constructed in FOUR distinct phases:

- Phase 1 – Site Establishment, bulk & detailed excavation.
- Phase 2 – Construction of foundations, basement, podium & building structure.
- Phase 3 – Construction of the façade & fitout to the residential & townhouse dwellings.
- Phase 4 – Community / public domain works incl rejuvenation of the creek.

PHASE 1

The key activities during this phase include:

- Site Establishment
- Environmental establishment of Narrabeen Creek
- Install Tree protection Zones
- Completion of Aboriginal Heritage Investigations
- Removal of ground vegetation followed by Bulk excavation.
- Stabilization of excavation batters
- Detailed excavation

PHASE 2

The key activities during this phase include:

- Construction of foundation piles
- Construction of basement & podium
- Installation of basement shoring wall and backfill.
- Construction of residential and townhouse buildings.

PHASE 3

The key activities during this phase include:

- Installation of façade elements
- Installation of basement and dwelling services
- Installation of dwelling fitout
- Installation of basement fitout
- Services commissioning

PHASE 4

The key activities during this phase include:

- Re-grading the existing levels, construction of access roads
- Installation of inground infrastructure
- Installation of soft and hardscape elements to Public Domains

3.2. Project Duration

The Main Works will commence in late Feb 2022 (Kuatro took possession from the former builder in Feb 2023) with an overall construction period of 15 months.

3.3. Hours of Work

In accordance with the Development Consent, the working hours for the site are as follows:

- Monday to Friday: 7:00am – 5:00pm
- Saturday: 7:00am – 1:00pm
- Sunday & Public Holidays – no work is permitted.

3.4. Contact Details of Site Manager

KUATRO will provide its Site Manager's Contact details to Northern Beaches Council and install project signage displaying the contact details.

KUATRO Site Office contact:

Project Manager	Ryan Soh	0416 812 439
Site Manager	Michael Petracca	0419 762 387

KUATRO Head Office contact:

1 Macquarie Street, Sydney 2000 NSW
Phone: +61 2 9011 6030
Email: info@kuatro.com.au

4.0. SITE ESTABLISHMENT AND PROJECT STAGING PLANS**4.1 Dilapidation Reports**

Dilapidation reports for the following properties have been undertaken.

Council Infrastructure – Conducted by James Townsend Dilapidation Surveys Pty Ltd dated 15th and 20th September 2021.

4.2 Fencing, Hoardings and Scaffold

Kuatro will erect a Chainmesh Fencing and shade cloth to the perimeter of the site prior to excavation work commencing.

An A class hoarding will be established to the frontage of the site (Jubilee Ave front) and South of the Sales office to delineate from construction activities.

Vehicular access gate provided at 4 Jubilee Ave.

Scaffold (3 board + 2 hop) will be erected around the 5 buildings for the safe construction of the dwellings.

4.3 Site Access

Site security and vehicular access will be established by way of gates through Jubilee Avenue.

All gates will be monitored during approved DA hours and a qualified traffic controller will be deployed in accordance with the Traffic Management Plan. Prominent signage will be installed to all gates indicating gate numbers and way finding signage to the site office and amenities. Turnstile gate located off Jubilee Ave for project personnel site access and egress are activated by card swipe, issued on completion of site-specific induction. Afterhours site security will be managed by end of day as required during respective stages and carry out inspection of perimeter hoardings and gates, are secured and locked. Prominent signage will be provided at each gate and site access / egress point identifying emergency and afterhours contact details.

Refer to Site plan for location.

4.4 Materials Handling

The methods of materials handling procedures during the course of construction works are outlined as follows;

4.4.1 Deliveries

Deliveries will need to come through Jubilee Avenue, Construction Swept path is as demonstrated on the Traffic Management Plan (TMP). Deliveries compound will be managed at the Eastern end of the project site – Townhouse footprint.

4.4.2 Cranes

No tower cranes will be installed, all craneage will be done via mobiles/Franca/City cranes as required.

4.4.3 Concrete Pumping

All concrete pumping will be by mobile boom and/or line pumps. Static Concrete pump will not be feasible due to the total sqm of the site. Refer to Site plan for locations.

4.4.4 Loading Platforms and Access to Work Faces

Loading platform will be installed to each level per building. Installation of loading platforms will be progressive upon completion of podium level (ground floor slab). Refer to Site plan for locations.

4.4.5 Rubbish Removal – Construction Site

Centralized location of 20m³ Bins to be shown on waste management plans. Rubbish and construction waste to be placed in smaller bins (2m³) and dumped into the centralized bins utilising telehandler/ manitou with rotators.

4.4.6 Rubbish Removal – Neighbours

There is no obligation to assist in rubbish removal for adjoining/neighbouring properties.

4.5 Construction Site Services

Infrastructure works servicing the development include the following:

- Installation of 1 Substation Kiosk with high & low voltage connection.
- Installation of Sewer Mains & Water Mains extension work.
- Installation of civil stormwater works and 2 off water detention basins.
- Installation of Hydrant Booster services.

4.6 General Erosion and Sediment Control

Kuatro acknowledge the proximity of the construction works to the Narrabeen Creek, sediment control measures will be installed along the boundary of the site as indicated in the site establishment and "Sediment and Control plan". These sediment control measures will be monitored closely to ensure there are no breaches in the system.

Dewatering during bulk excavation and construction will be strictly implemented in accordance with the EPA guidelines, NSW Office of Water conditions of approval and dewatering management plan, primarily filtered through the detention basins for settlement.

Generally external kerb & gutter and drains will be protected from the ingress of construction materials.

As a precautionary measure, **if so required**, to prevent any possible flood events during construction stage and prior to building up the permanent retaining wall, a row of sand filled bulker bags may be placed along the creek approx. 2m away. Those bags will be removed upon the permanent retaining wall work completion.

5.0. PROJECT METHODOLOGY

5.1 Phase 1

Following the completion of the site establishment including sediment control measures incorporated, a construction certificate will be sought to begin bulk excavation works. A site clearance certificate will be required following the completion of bulk excavation for the entire site.

Basement foundation piling and water infrastructure works concurrently commenced in an approved sequence. The foundation system is a displacement pile system. As a part of the due diligence process, KUATRO identified all site services prior to design and installation of the any foundation system & infrastructure works.

5.2 Phase 2

Once the bulk excavation is completed and foundation system installed, the detailed excavation as well as inground services and installation of footings commenced for the proposed basement enclosure. The basement structure will comprise of reinforced concrete walls and columns to support the podium transfer forming ground floor.

Once this is completed, the 5 off buildings will be found on the transfer and commence construction to the required envelope. This will be enclosed by scaffold and serviced with mobile cranes, and telehandler.

5.3 Phase 3

The structural elements consist of concrete columns, in-situ blade walls and post-tensioned slabs. The typical floor plates will be broken up into two pour cycles (West & East) following the below sequence:

1. Installing scaffold
2. Construct formwork deck & walls
3. Install steel to deck, columns and walls
4. Install post tension cables to deck steel
5. Pour concrete and stress slabs

The size of each cycle is approximately 1000m².

Following stripping of formwork and adequate back propping to the lower floors, the fitout cycle can commence. This includes, but is not limited to:

- Loading platforms will be installed on the elevations of the tower to allow materials handling through the floor plates.
- Commencement of service risers and high-level services installation.

- Typical floors – wall construction and finishes; Hebel, steel framing, insulation, lining and paint.
- Wet areas and balconies are waterproofed, and flood tested prior to tiling.
- Installation of kitchens, bathrooms, and other PC items.
- Floor finishes are installed and protected.
- Common floor areas are completed and protected concurrently.

Following sequential removal of materials handling equipment such as loading platforms and mobile crane, the final façade elements will be completed to dwellings, common areas and lobbies.

Completion, Defects and Commissioning

Commissioning is to be completed by all services trades on a progressive basis.

Kuatro will implement its quality management plan to allow for early defects identification, registration and rectification by the appropriate trade. The defects stage will involve an initial quality assurance inspection by KUATRO and a subsequent inspection by the apartments. This is to ensure all defects are accounted.

4.7 Phase 4

The public domain scope surrounding the site along the river foreshore is significant and on completion it will provide the community with a high-quality public domain space including swimming pool.

During this phase of the construction, Kuatro will ensure the existing areas are not disturbed and the quality of the creek is not compromised. The project specific Environmental Management Plans will be strictly implemented and monitored at all times.

6.0. TRAFFIC AND PEDESTRIAN MANAGEMENT PLAN

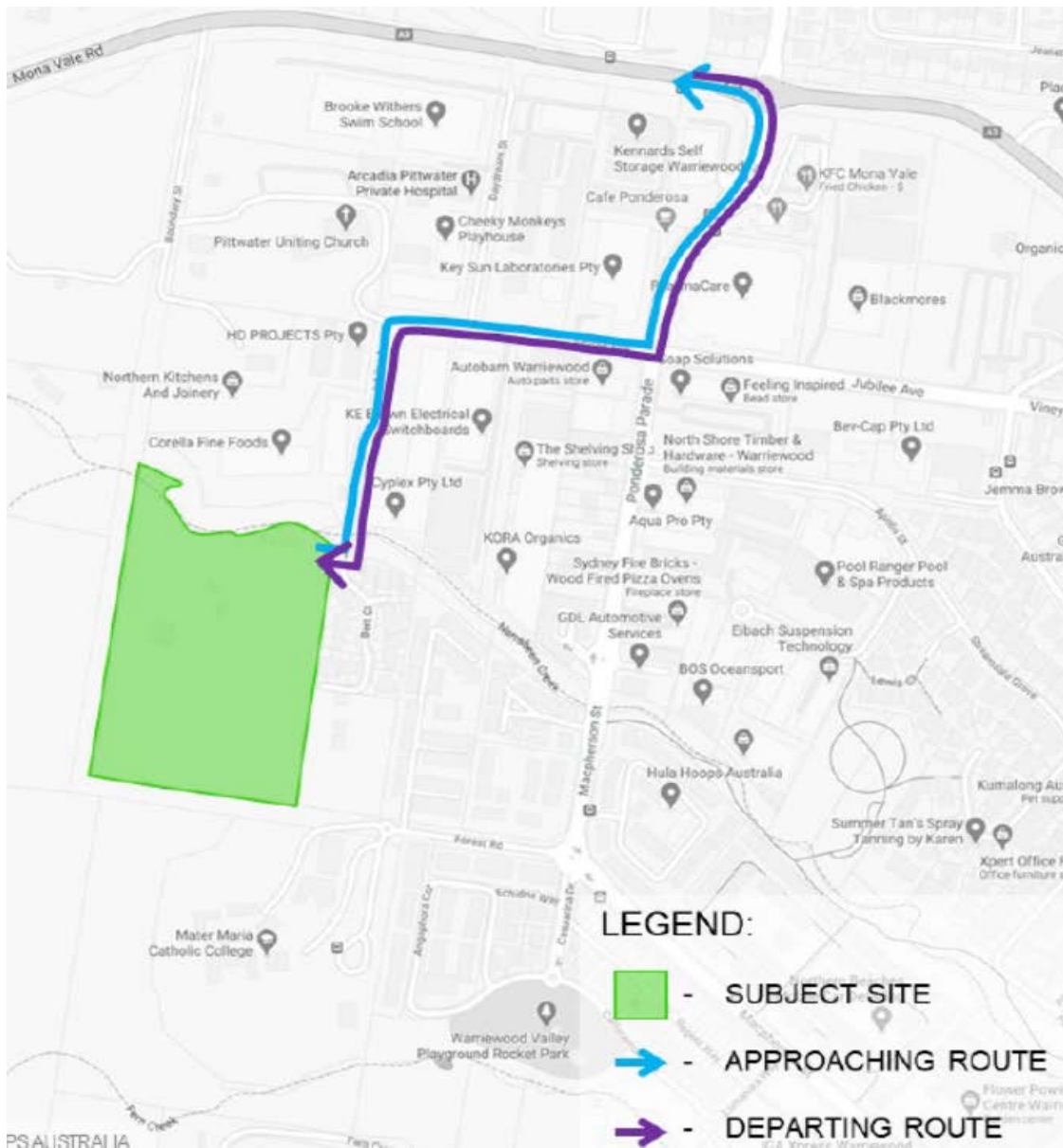
This section highlights the principles to be adopted for construction traffic and pedestrian movement during construction.

Kuatro have commissioned a qualified traffic engineer to prepare a comprehensive Traffic and Pedestrian Management Plan (TMP). This has been approved by Council.

Kuatro will incorporate elements of the Traffic and Pedestrian Management Plan in the site induction process to ensure all personnel are aware of the various strategies implemented.

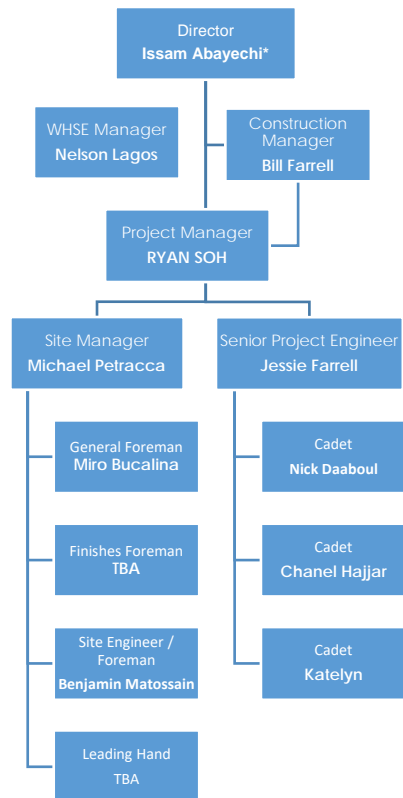
The key features of the TMP are:

- Vehicle access to the construction site is proposed to be primarily off Jubilee Ave
- Temporary concrete cross over constructed over existing kerb & gutter and footpath to council approval.
- All proposed access points will be managed by qualified traffic controllers equipped with two-way radio to ensure the safe and efficient movement of all road users including pedestrians and cyclists.
- Adequate turning areas within the site are provided for construction and spoil removal vehicles, allowing a forward entry and egress for all construction vehicles on the site.
- Due to site constraints, on-site parking is not proposed for construction workers. All construction workers will be encouraged to use public transport and/or carpooling to access the site.
- The site is located within easy walking distance to public transport hence construction personnel would be encouraged to utilise the proposed tool drop facility and the public transport system to minimise traffic impacts on the surrounding road network.

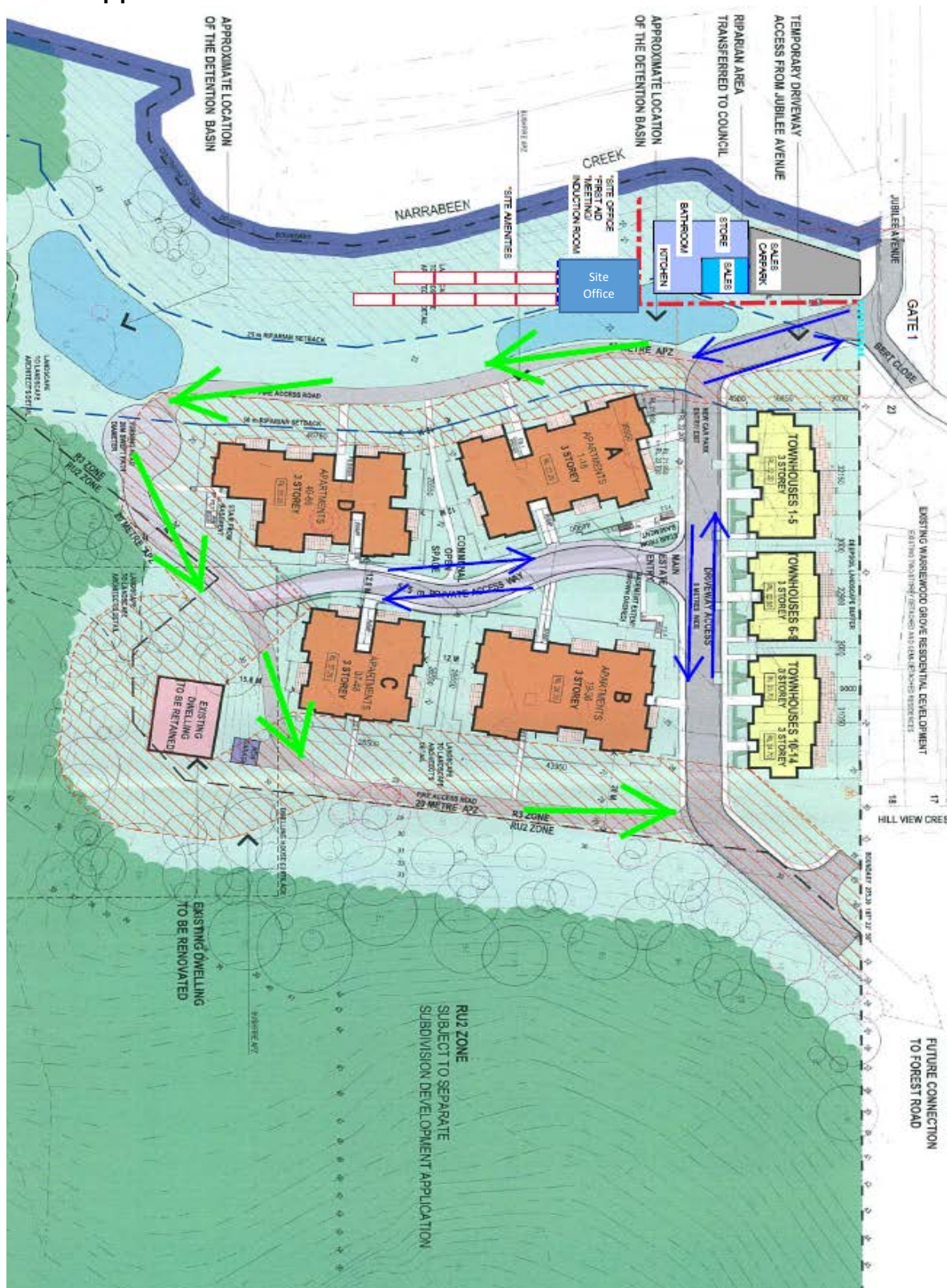


7.0. APPENDICES

TEAM HEIRACHY



7.1 Appendix 1: Site Pedestrian & Traffic Plan



7.2 Site Footprint & Location





7.3 Appendix 2: Site Establishment Plan



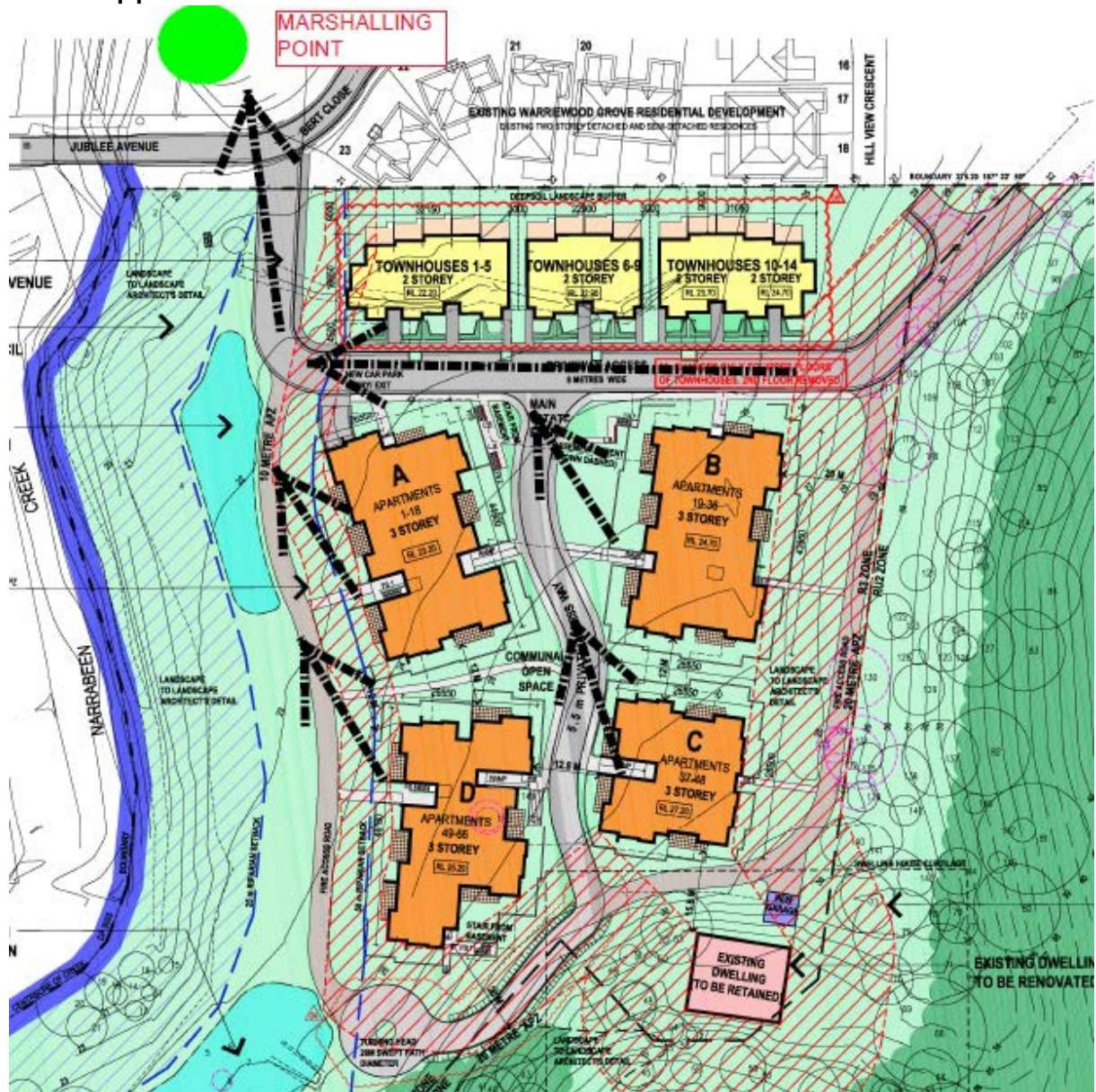
7.4 Appendix 3: Sediment Control Plan



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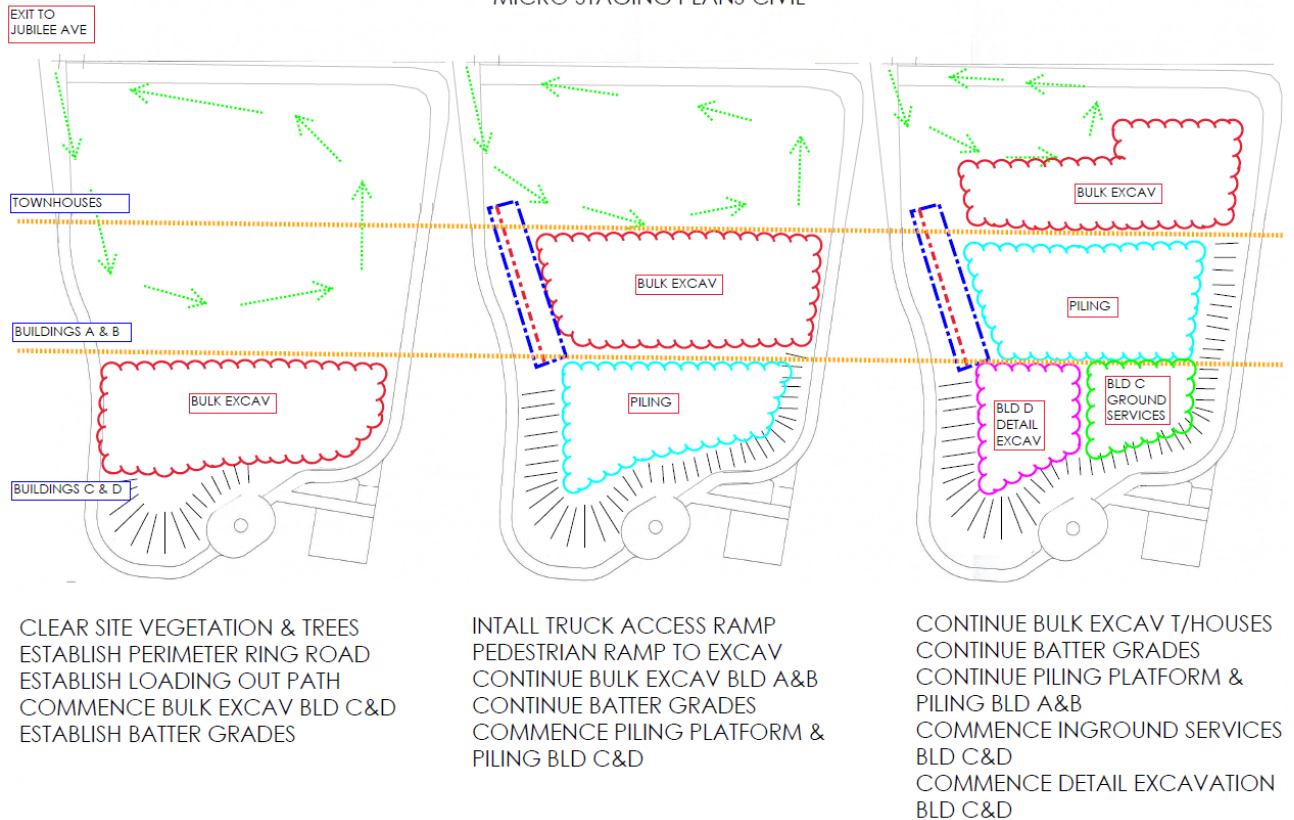
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7.5 Appendix 4: Evacuation Plan

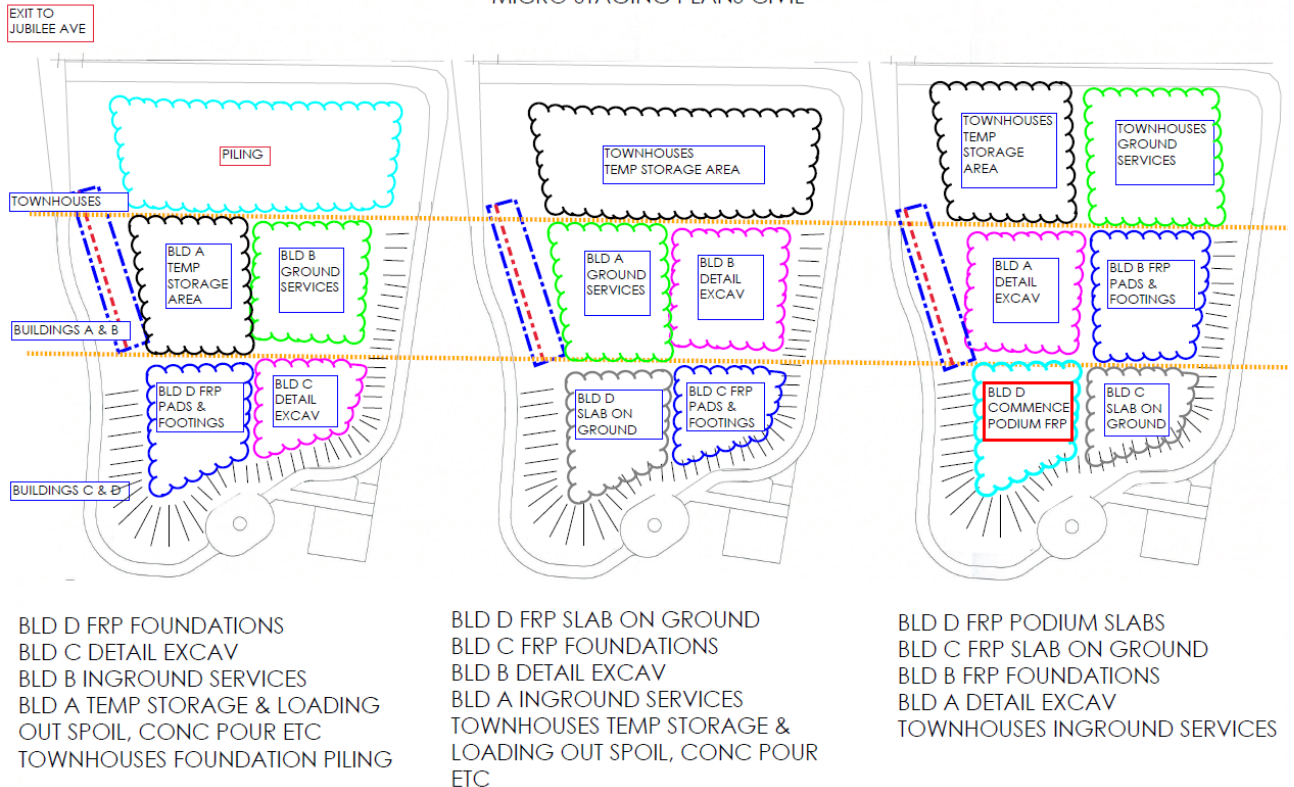


7.6 Appendix 5: Micro Staging Plans

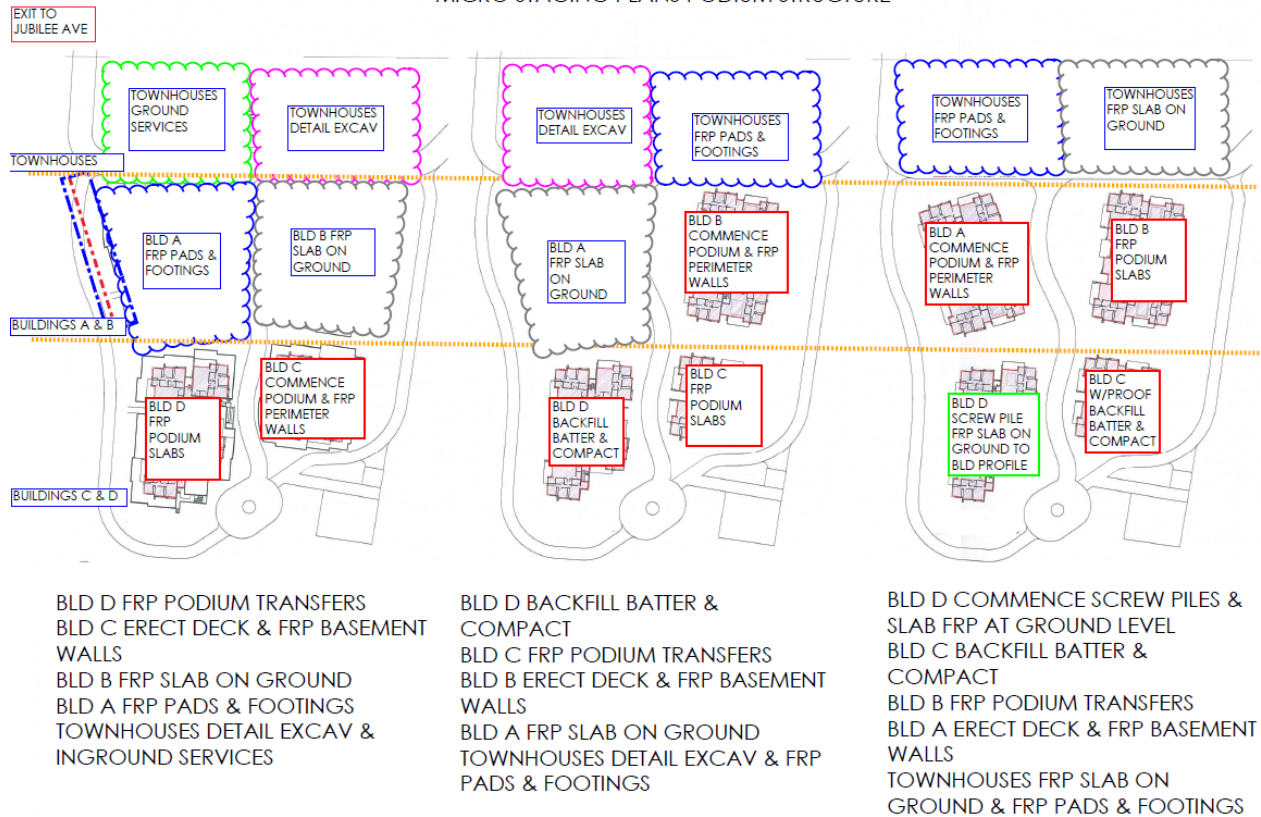
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MICRO STAGING PLANS CIVIL



MICRO STAGING PLANS PODIUM STRUCTURE



MICRO STAGING PLANS PODIUM & CIVIL STRUCTURE

