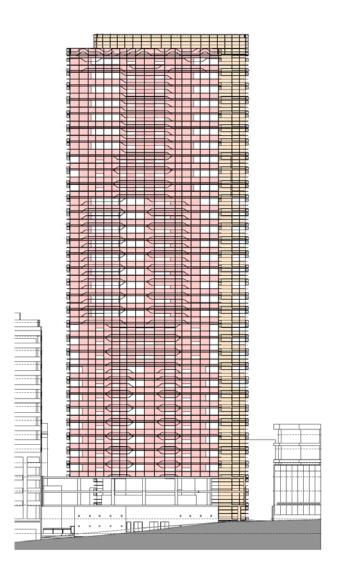
APPENDIX 9: CONSTRUCTION MANAGEMENT PLAN



Construction Management Plan

6-16 Atchinson Street – ST LEONARDS



Date 19 May 2010 Rev A





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1. Introduction

This report will outline key construction issues associated with the proposed development at 6-16 Atchinson Street, St Leonards (The Project). Specifically, the aim of the report is:

- To ascertain an appropriate construction methodology
- Establish a detail programme
- Propose a suitable site setup
- Outlay the site safety management system requirements
- Address waste management objectives
- Outline the community consultation process
- Put forward a noise mitigation strategy during construction

The subject building will have a final height of 109m, and 30,000m² GFA which will comprise of a mixture of 228 residential apartments, a 38 room hotel, and a cafe/restaurant. Other key features include a swimming pool, 5.5 basement levels, and gym facilities.

The design incorporates many ESD principles including minimisation of energy consumption through use of highly efficient systems, maximisation of daylight usage and natural ventilation, and solar water heating. The design will incorporate the Building Council of Australia (GBCA), Green Star Multi-unit Residential toll as a guide to provide a framework from which ESD initiatives can be further reviewed and adopted for the project. It is the current intent that the building will aim to achieve a 5-star green star accreditation.

The proposed site currently houses 3 separate buildings comprising of a mix of retail and commercial office space, namely:

- **6-12 Atchinson St** 4 storey commercial/retail building including basement car park with rear access from Atchinson Lane
- 14 Atchinson St 3 storey commercial building including basement car park with rear access from Atchinson Lane.
- **16 Atchinson St** 3 storey commercial building including basement car park with rear access from Atchinson Lane.







Image 1: Street view of 6-16 Atchinson St

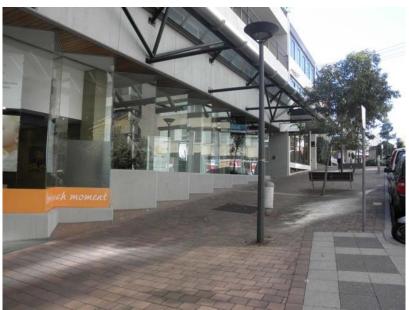


Image 2: Street view of 6-16 Atchinson St

All 3 properties are currently partially occupied and are attached to each other as well as to a residential development on 2-4 Atchinson St and a commercial development on 16 Atchinson St. It is proposed that all 3 existing properties are demolished to enable construction of the new building. As indicated in the concept design site plan the basement footprint will extend to the boundaries of both adjacent properties.

The construction phase of the project will consist of 3 distinct phases which will present with different challenges, namely: (a) Demolition and Excavation, (b) Structure, Facade and Base Building Services, and finally (c) Fitout, Commissioning





and Handover. A detail construction programme has been prepared which is analysed in section 4 of this report.

The contents of this report are intended to demonstrate the viability of the current scheme and form a platform for further development during the tender period in consultation with the selected building contractor.





2. Consultation and Communication Strategy

To ensure a clear and focused consultation process, a Community and Stakeholder Management Strategy has been developed. The Strategy builds on experience previously gained in large scale mixed use projects and will leverage existing relationships to deliver a proactive communications program through a variety of channels.

The objectives of community liaison concerning this project will be to:

- 1. Generate awareness of the delivery of the new facilities to be provided
- 2. Develop and maintain good working relationships with project stakeholders
- Keep the local community informed of progress of the construction works, likely impacts during upcoming construction activities, and proposed measures to mitigate these impacts
- 4. Ensure that community concerns are addressed and work with the community to minimise impacts of construction activities
- 5. Manage complaints and potentially controversial issues

Issues of concern to stakeholders associated with this project may include:

- 1. Noise from construction activities
- 2. Visual impacts of construction activities
- 3. Generation of construction traffic
- 4. Generation of dust

The key stakeholder groups identified include:

(a) Individuals directly affected by the project

Residents who live either side of the proposed development will be identified as 'buffer zone' residents, who may be impacted by construction activities (noise, dust, traffic increases).

(b) Community, environmental and business/development groups interested in the project

Interest groups will also be included in the community consultation program. These groups include industry bodies, environmental and community groups.





To effectively address any community concerns during the construction phase, the following consultation activities will be undertaken:

(a) Introduction letters to potential directly affected property owners (Prior to commencement)

These letters will as a minimum advise the local residents of the project commencement date, overall duration of the project, details of contact person, details of upcoming activities, and hours of work.

(b) Monthly updates

During the course of the works regular updates of progress will be given to residents noting key upcoming activities and any change to the original programme.

(c) Correspondence with stakeholders

A record will be kept of all correspondence with the local residents and will be reviewed monthly in the Project Control Meetings. The following information will be recorded:

- 1. Date and time of enquiry/complaint
- 2. Type of communication, such as telephone call, letter or email
- 3. Name and contact details of stakeholder
- 4. Nature of enquiry/complaint
- 5. Action taken in response to the enquiry/compliant
- 6. Any monitoring necessary to ensure the issue has been satisfactorily resolved

(d) Community meetings (as required)

Meetings will be arranged for local residents, which will provide an opportunity for community members, and the project team to discuss concerns and issues in an open forum.





3. The Site

The following image shows the subject site in its current condition. Access to the site is available from both Atchinson Road and Atchinson Lane. Pedestrian access is primarily through Atchinson Road with Atchinson Lane serving as car park access.

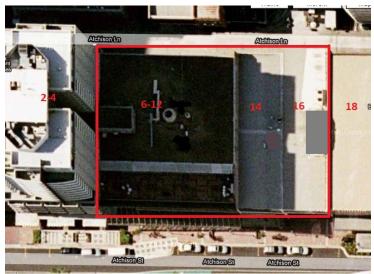


Image 3: Satellite image of site

The three buildings currently on the site will need to be demolished to enable construction of the new works. From initial site observations the following key information is noted for each building:

(a) 6-10 Atchinson St

4 storeys + 1 basement car park Concrete frame construction with brick cavity walls 1 lift Significant glass components on Street frontage Glass awning on steel frame Hydrant booster located at entrance Medium to high grade fitout Approximate footprint 1000m²







Image 4: 6-12 Atchinson St (view from Atchinson St)



Image 5: 6-12 Atchinson St (view from Atchinson Lane)







Image 6: 6-12 Atchinson St (Atchinson Lane Loading Dock)



Image 7: 6-12 Atchinson St (Atchinson St entrance)

(b) 14 Atchinson St

3 storeys + 1 basement car park Concrete frame construction with brick cavity walls Basic fitout Overhead power lines Approximate footprint 400m²







Image 8: 14 Atchinson St (view from Atchinson St)



Image9: 14 Atchinson St (view from Atchinson Lane)







Image 10: 14 Atchinson St (Atchinson Lane car park)

(c) 16 Atchinson St

3 storeys + 1 basement carpark Concrete frame construction with brick cavity walls Basic fitout Approximate footprint 400m²



Image 11: 16 Atchinson St (view from Atchinson St)







Image 12: 16 Atchinson St (view from Atchinson Lane)





4. Construction Programme and Sequencing

A detail programme has been prepared for this project which shows the sequence in which the job will be constructed. The overall project duration will be 31 months including the following critical periods (as well as a 2 month delay contingency):

- 1. 2 months demolition
- 2. 3 months piling & excavation
- 3. 18 months structural works
- 4. 2 months facade works
- 5. 4 months fitout and finishes

Working hours will be in strict accordance with planning consent conditions, however for the purpose of time estimation it has been assumed that construction will take place Monday to Friday 7am-6pm, and Saturday 8am-4pm.

During the early stages of the project (site establishment/demolition) the following site setup will be established:

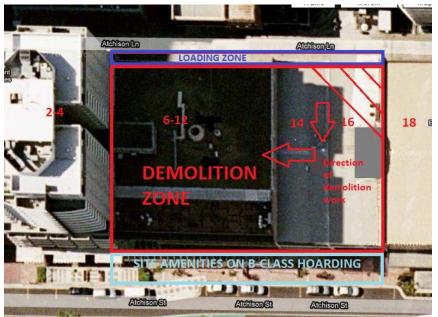


Image 13: Site establishment during demolition

Prior to commencement of demolition B-Class hoardings will be established along the Atchinson St frontage, and Atchinson Lane will be established as a work zone. The main pedestrian access to the site will be through Atchinson St.

The demolition will be undertaken in the following sequence:

1. Demolish 16 Atchinson St





- 2. Relocate demolition loading zone to 16 Atchinson St
- 3. Demolish 14 Atchinson St
- 4. Demolish 6-12 Atchinson St

Once the demolition is substantially completed shoring and excavation will commence. It is assumed for the purpose of this report that contiguous piling will be required to a certain depth all around the perimeter of the site. Piling will commence in a direction from East to West following completion of demolition and will be followed by excavation from West to East. A ramp will be formed along the North boundary of the site. The anticipated site establishment plan during the excavation stage is shown below.

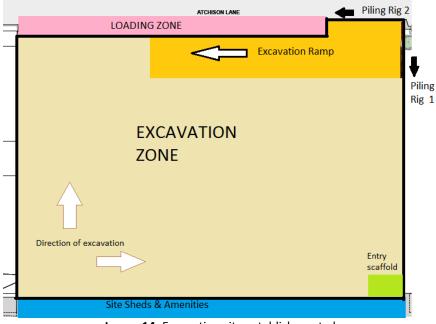


Image 14: Excavation site establishment plan

Once excavation is completed a Luffing tower crane can be established and structural works will commence. The following diagram (Image 4) shows the site setup once the structure has been completed up to podium level.





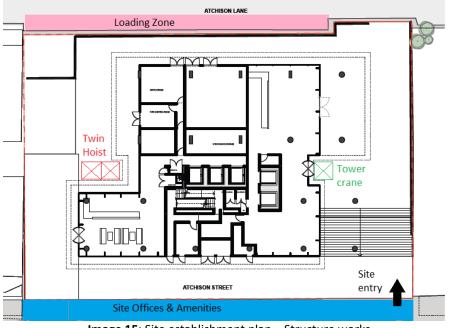


Image 15: Site establishment plan – Structure works

This site establishment plan will remain substantially unchanged from commencement of structural works to completion. Once the curtain wall facade is complete the crane will be disassembled, and approximately 8 weeks from completion the B-Class hoardings will be removed to enable finalisation of streetscape.

4.1 Summary Construction Programme

A summary construction programme showing key durations for critical trades can be found in Attachment 2.

4.2 Detail Construction Programme

A detail construction programme and staging diagrams can be found in attachments 3 and 1 respectively.





5. Noise, Vibration and Disruption Management

This plan has been developed to address construction noise and vibration control as well as mitigation measures to be implemented during site activities to manage noise and vibration issues associated with site workers, the surrounding community and infrastructure.

The following plan contains details on the management procedures to be used to control noise and vibration levels during site works.

Excessive noise and vibration levels can result in a serious nuisance and loss of amenity for site and surrounding occupants including surrounding residents, site workers, etc. Occupational health risks to site workforce including:

- Noise induced hearing loss, tinnitus
- Communication problems including safety instructions
- Stress

Vibration may also cause damage to the site and surrounding buildings and infrastructure. To minimize the occurrence of noise complaints associated with site works from nearby residents (sensitive receptors).

The noise criteria to be adopted for the site comprise the following:

- Airborne noise contribution from construction, measured over at least a 15 minute interval will not exceed the established background noise levels
- No excess or un-necessary noise generation during site works
- Noise complaints received from nearby receptors are promptly and appropriately responded to

Where two successive monitoring events identify values above the adopted criteria, corrective action will be required. Vibration assessment criteria will be established as part of the geotechnical assessment of proposed construction works.

Where site monitoring identifies potential exceedances of acceptable noise/vibration levels, site practices shall be reviewed as per the contingency plan and may include implementation of additional mitigation measures.

Noise/vibration generation activities that will occur during construction works include:





- Movement and reversing alarms of construction equipment, plant, trucks, site vehicles
- Materials and equipment loading and unloading
- Excavator/piling rig hammering/ sandstone cutting activities potentially associated with bulk excavation works and/or construction of foundations
- Use of concrete cutter, circular saws, nail guns
- Use of excavation equipment, jackhammer, hand tools, welding equipment;
- Crane operations
- Operation of generators and air compressors
- Operation of mobile concrete/grout, plant/mixer, concrete pump
- Smooth/vibratory drum roller for pavement construction

The following noise mitigation measures will be adopted during site project activities:

- Staging of site works to maximise use of the existing site features/facilities as acoustic barriers where possible
- Noise and vibration awareness training for all site staff including subcontractors as part of general site induction and tool-box talk activities
- Strict adherence to approved works times
- Works will be scheduled, where practical, to avoid simultaneous noisy activities occurring on site
- Vehicles will not be left turned on or idling at the site for longer than minimum amount of time required to complete site activities. In addition, machines/equipment used intermittently during construction activities (ie. cranes, excavators, bobcats, lifting equipment, etc) will be shut down, as practicably achievable, in the period between works activities rather than allowed to idle
- The duration of noise-intensive works will be minimised through a regular review of the program and construction methodologies during project team meetings
- Piling works will be undertaken using non-percussive piling methods where achievable given the subsurface conditions





Regular and effective plant/equipment maintenance will be completed and documented throughout the project period and documentation will be maintained on site demonstrating completion of maintenance logs and associated checklists in order to ensure all machinery is in good working order and use does not generate excess noise/vibration.

Plant, equipment and vehicles will not be operated in the event that excessive noise is produced at start up as a result of maintenance being required. All plant, machinery and works vehicles will have an efficient muffler design in accordance with the manufacturer's specifications. The mufflers will be well maintained and regularly tested with the results documented in the maintenance logs.

Care will be taken by site personnel to ensure materials will not be dropped from a height either onto or from vehicles or from the roof, overhead bridge or other raised location.

Radio/music audible in areas external to the building/vehicles will not be permitted on site. Where monitoring of site conditions and activities indicates the potential or actual occurrence of noise exceedances at nearby sensitive receptors, the effectiveness of installation of temporary shielding options, including portable noise walls in the form of timber hoarding, compressed fibre board panels, steel sheeting etc (with no gaps between panels) will be evaluated prior to ongoing noise generation activities, etc.

The quietest suitable plant reasonably available will be selected for each works activity. This will include review of documentation provided by manufacturers, suppliers, hire companies in relation to equipment prior to delivery to site.

Where noise/vibration levels at the sensitive receiver/receptor location exceed the nominated goals, the relevant noise source will be identified and any additional feasible and reasonable measures available will be implemented to either reduce noise emissions or reduce the impact on receptors. This may include:

- evaluation of the works activity and subsequent use of alternative methodologies and/or equipment
- installation of equipment silencing devices such as shrouding, industrial silences fitted to exhaust systems etc
- installation of temporary sound barriers / shielding. This may comprise shielding of plant/equipment in the vicinity of non-mobile equipment where this is the source, or alternatively shielding at the site boundaries where the noise source is mobile (ie, pavement removal equipment, or the source activity based). The intent of shielding/barrier installation is to block the line of site and so the noise transmission pathway between the receiver and the source.





The effectiveness of the attenuation measures will also be dependent upon the ability of the shielding to reduce noise levels. As such, appropriate materials will be installed to achieve suitable noise reduction levels

A non-conformance resulting from the receipt of a complaint and/or the recording of 2 successive exceedences of noise criteria may result in the following corrective actions being implemented by the project site staff:

- an evaluation of the non-conformance to improve management strategies to prevent recurrence
- address complaint and respond to complainant with proposed mitigation measures
- undertake additional training of the site staff in respect to implementation of mitigation measures for the management of noise and vibration
- notification of relevant government authorities, if required





6.0 Construction Safety Plan

6.1 Objectives

- Maintain lost time injury reporting and review positive performance indicators
- Report all incidents and near misses and develop corrective action plans
- Conduct Senior Management and OH&S Group reviews
- Develop required OH&S resources
- Formalise regular senior management reviews of OH&S systems and implement relevant improvements
- Continually develop OH&S systems, policies, procedures and OH&S Plans to comply with statutory requirements and industry best practice
- Maintain an Audit Programme to comply with system's requirements
- Ensure all corrective actions and Non-Conformances are closed out
- Meet or exceed the requirements of AS 4801 certification and Federal Safety Commission accreditation
- Adopt a zero tolerance safety philosophy.
- Provide Safety Awareness and other appropriate OH&S training
- Continue to implement ongoing induction procedures
- Hold regular Consultative Committee meetings, maintain minutes and record actions
- Issue Safety Alerts to all staff and other stakeholders according to requirements
- Conduct weekly toolbox talks on site
- Maintain a data base of all toolbox talks

6.2 Responsibilities

- Demonstrate commitment to health, safety and management, and support to the project in the management of the workplace
- Undertake audits to ensure appropriate implementation of the OH&S Plan occurs





- Coordinate OH&S training
- Establish, implement and maintain procedures for controlling all relevant documents and data required
- Implement OH&S matters in construction design and planning.
- Make all reasonable endeavours to ensure that the OH&S management system is established, implemented and maintained on the project
- Monitor and constantly review risk management to the site
- Ensure all Work Method Statements have been received on site prior to the commencement of work
- Review all Work Method Statements for their accuracy and relevance
- Review any safety incidents and where applicable prepare relevant incident reports, notifications and preventative actions
- Maintain the management of safety on site, including the set up of regular site safety inspections by a nominated OH&S committee
- Administer the issue of Safety Non-Conformance Notices to companies or individuals not adhering to relevant safety standards
- Make all reasonable endeavours to ensure safe work procedures and job safety analysis requirements are enforced
- Correct improper work practices
- Maintain good housekeeping practices
- Communicate, negotiate and listen effectively
- Review follow-up on non compliant items from hazard inspections
- Monitor safety performance
- Review incident reports and investigations

6.3 Management Review Meetings

The building contractor, shall implement monthly OH&S management review meetings and further meetings on an as need basis at which the following shall be discussed:

- Effectiveness of the occupational health and safety policy, plan and procedures
- Review responsibilities for relevance and functionality
- Review of workplace safety management
- Implementation of accident prevention programs
- Changes to safety management standards, statutory legislation, WorkCover requirements, etc
- Major safety issues, non-conformances, etc





• Potential improvements in the safety management system.

The safety management review meetings shall be minuted showing:

- Date, time and place of meeting
- Position, title and name of participants
- Details of any actions to be taken, including responsibility and target dates
- The outcomes of the safety management review meetings shall be reported to senior management and other relevant groups as necessary

6.4 Site Establishment

This phase involves the establishment of OH&S controls and more particularly addresses the following:

- The preparation of a site plan
- The nomination and documentation of the site occupational health and safety team
- The installation of all necessary signage
- The identification of potential hazardous areas and implementation of appropriate measures to make safe
- The preparation of a site induction system
- The preparation of emergency response plans
- Ensure that site establishment trades have satisfied occupational health and safety requirements prior to commencing their temporary installations
- The erection of hoardings, fencing and pedestrian and vehicular access gates
- The establishment of a visitor's management system

Procedures relevant to this phase include:

- Emergency Response
- Hoardings & Fencing
- Purchasing
- Risk Management
- Signage
- Site Establishment
- Site Induction
- Visitors to Site





6.5 On Going Site Management

This phase involves numerous OH&S elements that may occur / will continue to occur throughout the duration of the project.

Procedures relevant to this phase include:

- Bomb Threat
- Company Induction
- Drugs & Alcohol
- Handrail Removal and Installation
- Hoardings & Fencing
- Fire Prevention & Control
- Housekeeping
- Inspections, Audits and Monitoring
- Management of Third Party Contractors
- Protective Equipment & Clothing
- Record Keeping
- Risk Management
- Safe Work Procedures / Work Method / Job Safety Analysis
- Safety Committee & Constitution
- Site Induction
- Traffic Management / Control
- Training and Competencies
- Visitors to Site
- Working at Heights (including relevant permit)

6.6 Incident Management

This element of the management process involves the establishment and maintenance of a process to effectively report, register and manage incidents and more particularly preventative actions arising out of such incidents or near misses.

As part of this process incidents are defined in accordance with a classification system that also provides direction on responsibility and action to be taken.

6.7 Injury Management

This element of the management process essentially describes procedures relevant to first aid. In particular the following items are addressed:





- first aid attendant, treatment, kits, rooms & training
- injury management and responsibility for injury management

6.8 Plant & Equipment

To ensure safety on site all plant and equipment will be required to complete daily checks prior to commencing operation. This will be the responsibility of the operator or, in the case of day hire, the owner, to complete and prove that the plant or equipment is safe to operate. In addition this element also requires evidence of operator licenses and or certificates to ensure that it is legal to operate / erect / guide the plant or equipment.

This requirement includes for plant and equipment:

- for mechanical powered lifting
- is driver operated
- requiring a license to operate
- requires a certificate of competency

Procedures relevant to this phase include:

- Plant & Equipment
- Purchasing

6.9 On Site Works

On site works requirements will address numerous issues that require the enforcement of safety procedures. These works will usually require the completion of tool box training and in some instances the issue of relevant work permits.

Procedures relevant to this phase include:

- Asbestos
- Concrete Works
- Concrete Cutting and Core Hole Drilling (including relevant permit)
- Confined Space Entry (including relevant permit)
- Cranage
- Electrical Installations
- Excavation (including relevant permit)
- Explosive Power Tools (including relevant permit)
- Handrail Removal and Installation





- Hot Work (including relevant permit)
- Isolation
- Manual Handling
- Roof Works
- Plant & Equipment
- Use of Electrical Equipment
- Use of Hand Tools
- Working at Heights (including relevant permit)





7. Waste Management Plan

The objectives of the Waste Management Plan are:

- 1. Address the waste management requirements for the project
- 2. Provide guidance of the project in waste minimisation from demolition and construction activities
- 3. Increase economic feasibility of the project through effective waste separation, recycling and re-use measures

The existing site structures are to be demolished with waste materials sent either to landfill, reused, or recycled. The existing open space areas of the site in the public domain are to be predominantly demolished and remodelled. Following the cutting/sealing and redirection of services, relocation of plant and completion of soft stripouts, hard demolition of the existing structure will occur. These works include the removal and salvage of recyclable material as well as total demolition of major elements – reinforced and post tensioned concrete structure, roof sheeting, steel and aluminium, timber, plasterboard, glass and the like.

The existing kerb and guttering surrounding the site is also to be demolished and replaced with an all new kerb and guttering.

Excavation is to begin on site following the completion of full demolition. Approximately 27,000m3 of material is required to be excavated from the site using conventional earth moving plant.

Demolition waste will be the biggest contributor to the total waste tonnage of the project. Of demolition waste, concrete and brick will be the most important to reuse or recycle to ensure that targets are met.

Waste streams can be contaminated by hazardous materials during the demolition process, which may render them unsuitable for re-use or recycling. If this were to occur it would increase the difficulty in achieving the targets for the project. Care will be taken to ensure that Hazardous material is not mixed with other waste streams. For all Hazardous wastes, collection form the work area will be performed at least once per day as the material is identified.

Refrigerant gas in air conditioning units at the site contain R22, an ozone depleting substance. Disposal of air conditioning units will be undertaken by accredited person/s to ensure that embodied ozone gases are not released.

Separated wastes are a more valuable resource. Waste streams will be separated on site where possible to save double handling and time and labour intensive sorting.





Hazardous wastes such as lead paint contaminated brick and concrete must be kept separate from uncontaminated recyclables.

The provision of waste skips or bins at the site will be made for the following materials:

- Cardboard
- Timber
- Metal
- Soft Plastic
- Polystyrene
- Insulation
- Concrete
- Glass
- Bricks

Note that recyclables may be combined in a skip, however evidence will be provided that the waste contractor will separate these materials off-site. The project is likely to generate significant quantities of all materials stated above.

A waste classification of the soils to be excavated will be provided prior to excavation. The method of soil reuse will depend on the contractor employed for the excavation, and the need for reuse of VENM material will be specified for the excavation contract.

Waste collection during construction is expected to be simpler than during the demolition phase due to the staged nature of construction and the use of known quantities of uncontaminated materials. Major recyclables to be recovered in construction are likely to consist of off cuts, discards and unnecessary volumes of materials such as glass, piping,

timber, steel, flooring, tiles and plasterboard. Significant waste is also expected from construction packaging materials.

The main goal in construction will be to reduce the total volume of waste produced, which is

to be achieved by effective materials procurement, management and supply. Project managers, engineers, builders and subcontractors will play a key role in achieving onsite waste reduction targets on a day-to-day basis.

The following waste management measures will be undertaken during construction:

1. Disposal of waste that cannot be recovered, reused or recycled and requires

landfilling is to be safely recovered and disposed to licensed landfills



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- 2. All documentation of materials disposed, landfill receipts, contracts, waste plans, etc. will be retained and maintained to meet the data collection requirements of this project. Appropriate storage arrangements to guard against product degradation or damage from weathering or moisture are to be established
- 3. Prefabricated materials such as frames and trusses are to be purchased where possible
- 4. Materials are to be delivered by suppliers only when needed. This reduces the opportunity for waste through error or change in estimate, permits on-site measurement rather than from drawings and provides for any modifications that the client may request
- 5. Packaging is to be minimised for building supply materials
- 6. Arrangements are to be made with recycling contractors to provide clearly marked bins for material separation. Must ensure that sub-contractors are aware of the placement of the bins and their responsibility to separate materials
- 7. Litter management will be implemented on site to address air borne litter and litter entering the storm water system

As well as updating and fulfilling the requirements of this Waste Management Pan, specific requirements for consideration include:

- 1. If under any circumstances any material becomes contaminated so as to deem it unfit for recycling due to the practice of the contractor, the contractor will be liable for the cost of landfill for this material
- 2. The contractor must provide notification of any asbestos or hazardous waste that is uncovered during the strip out works. A time frame for the removal of this waste should also be provided
- 3. Any contractor being used for recycling on this project must provide a facility/service license or similar certification within two weeks of tender and prior to proceeding with any site works
- 4. Contractors held responsible if known hazardous waste is mixed with recyclables (e.g. lead contaminated concrete disposed with concrete to be recycled)



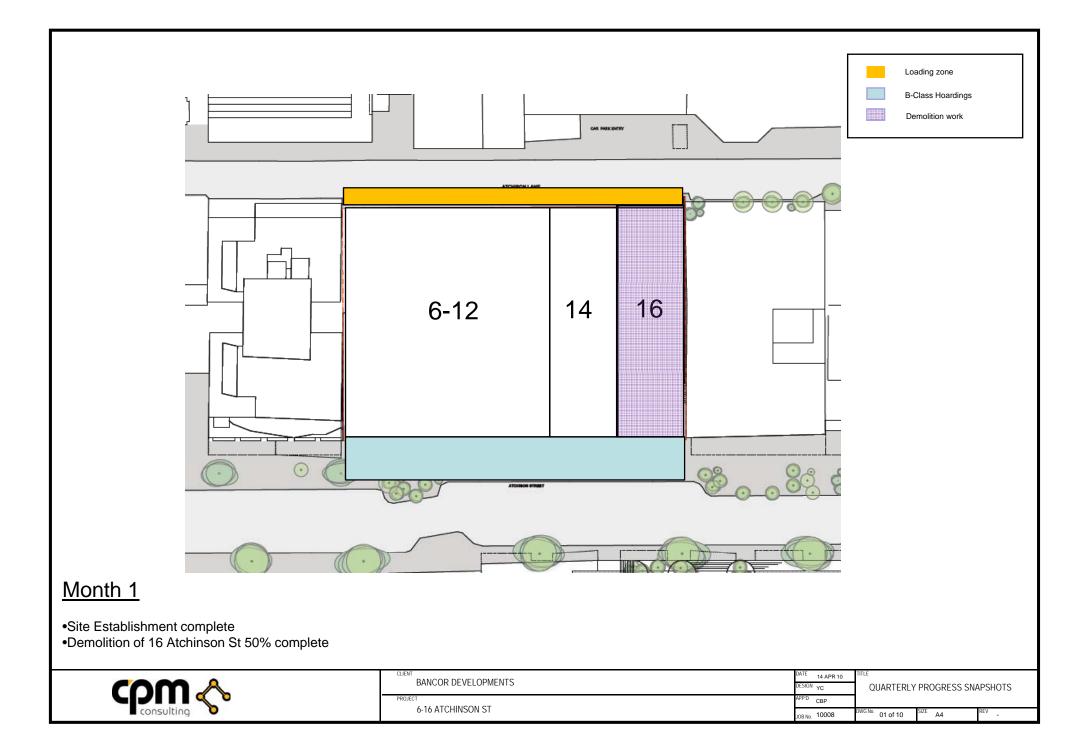
- 5. The contractor will be liable for any material that is unjustifiably 'dumped' or
 - not dealt with as per the recycling schedule outlined in this report
 - 6. Any penalties received from recyclers for the contamination of recycling bins or skip will be the responsibility of the contractor. This charge will attract a penalty to be outlined in the contract documents

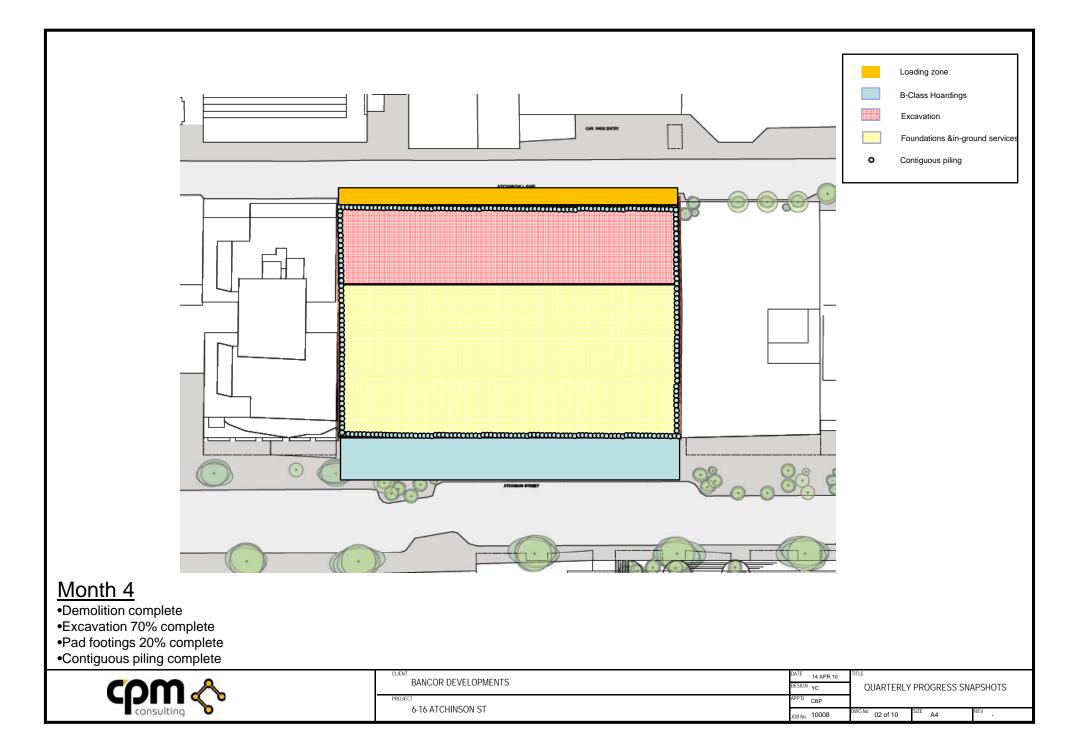


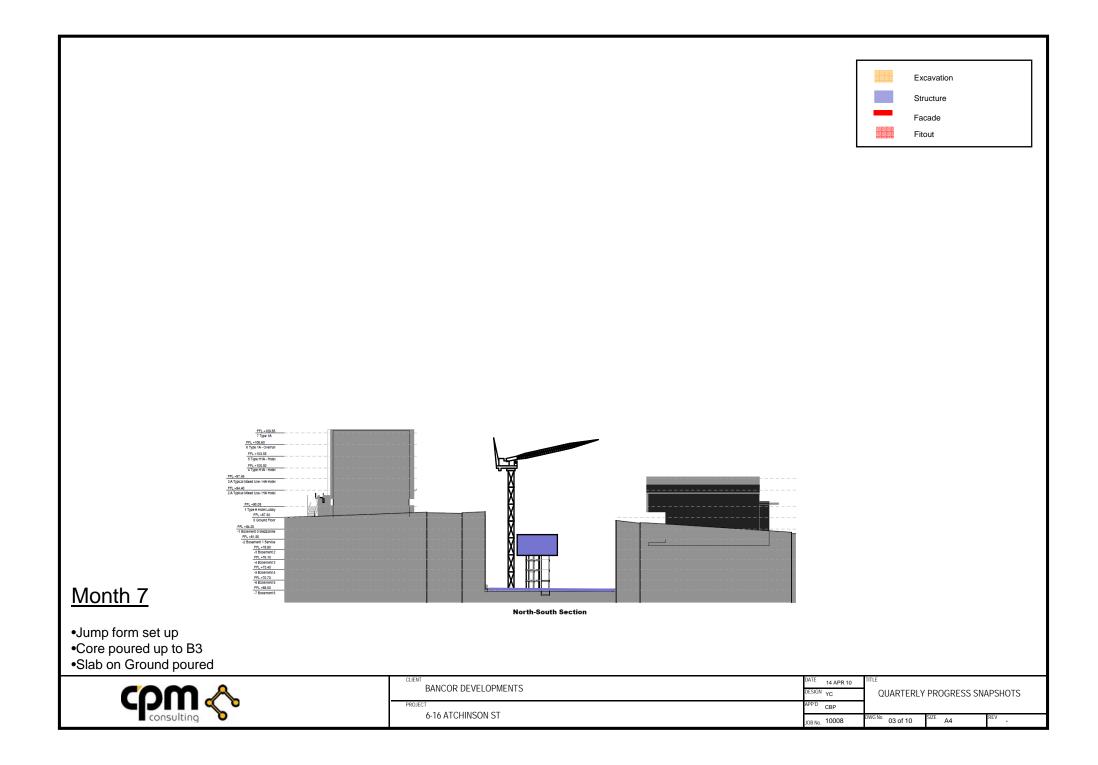


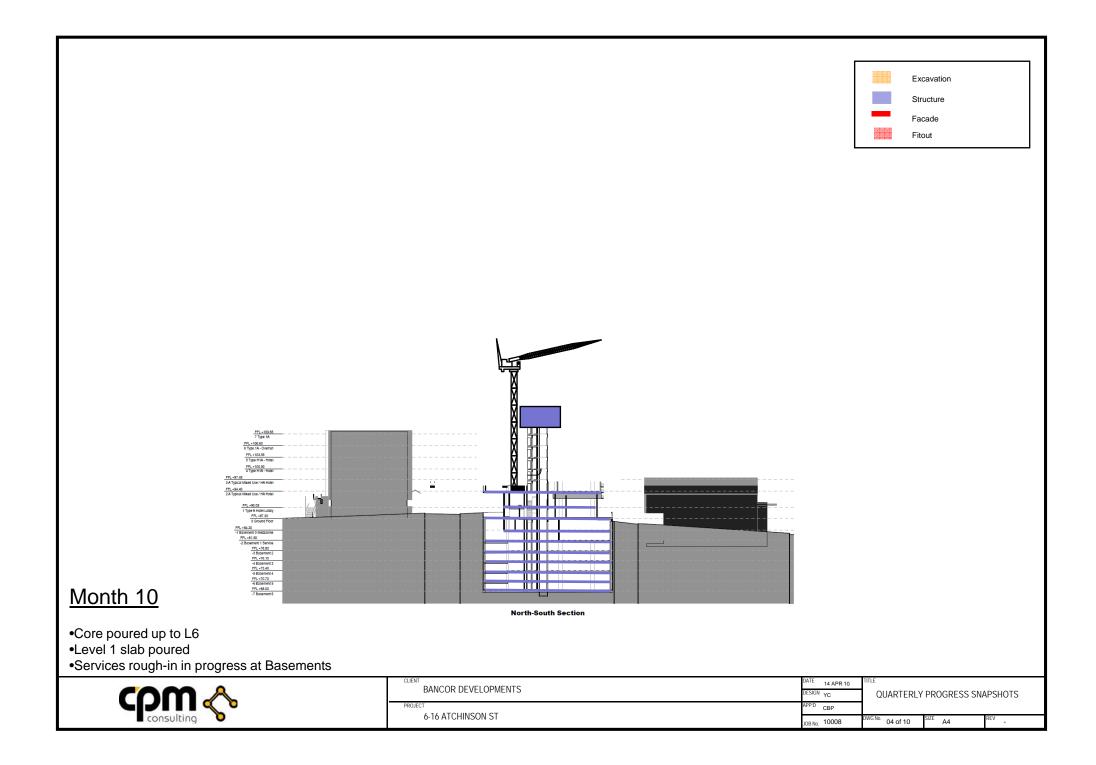
ATTACHMENT 1 – Staging Diagrams

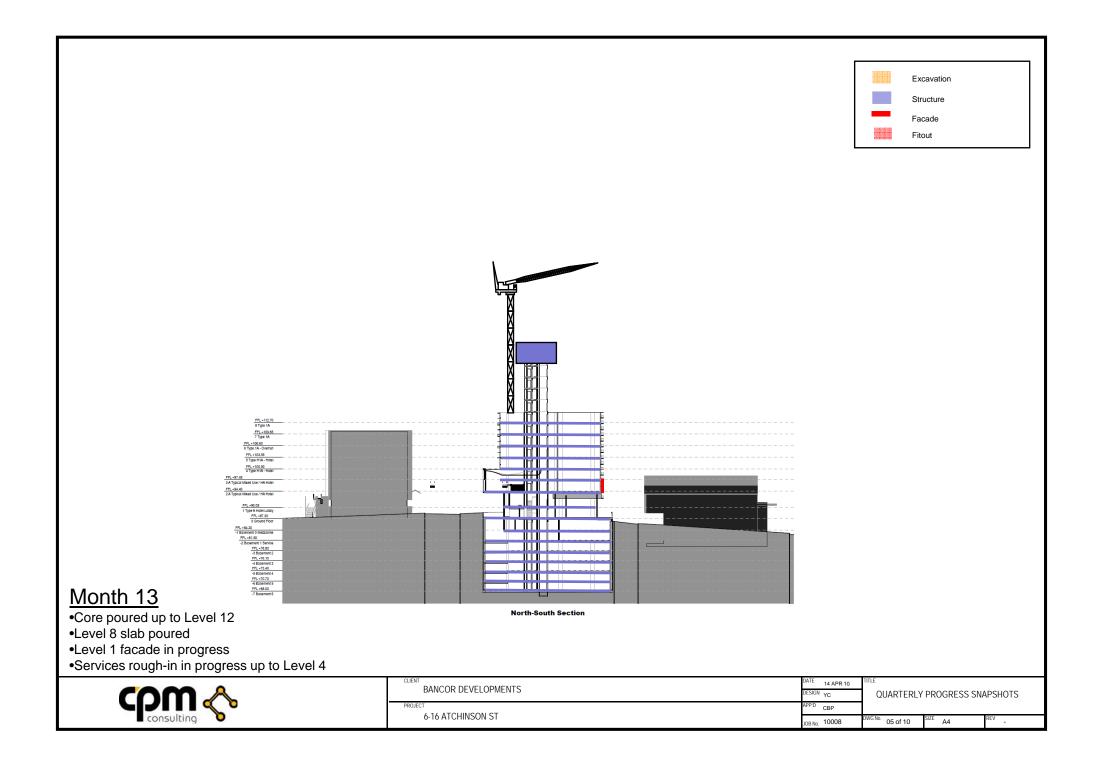


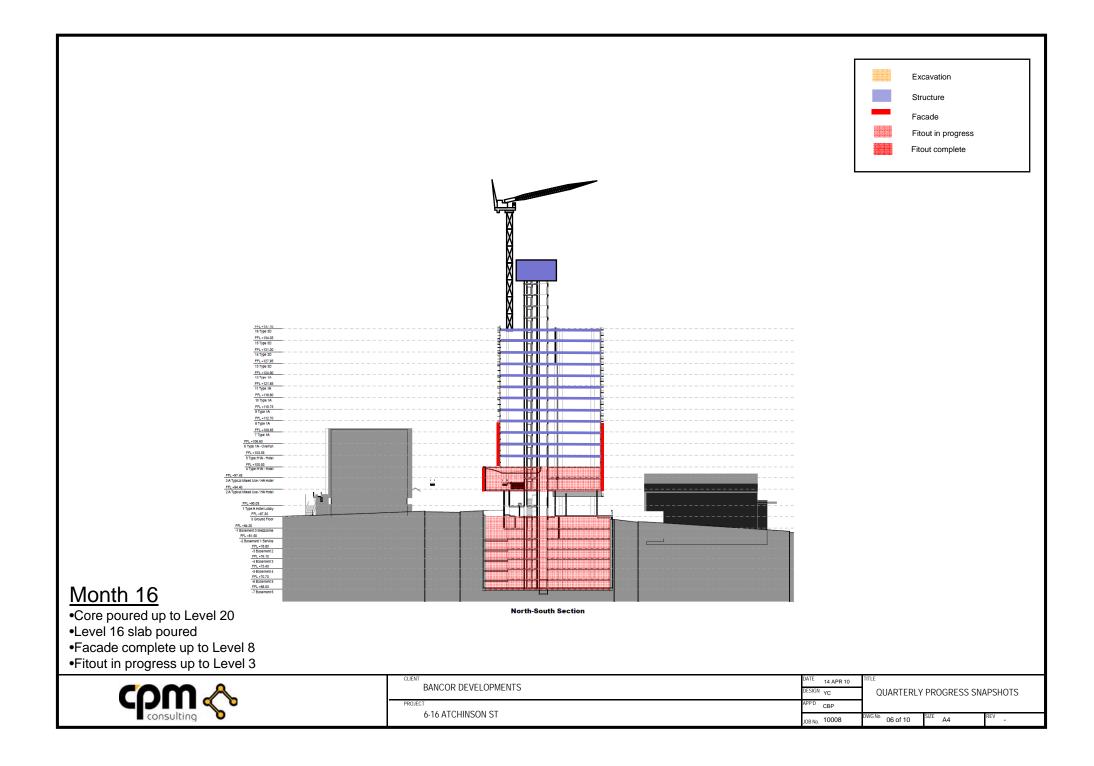


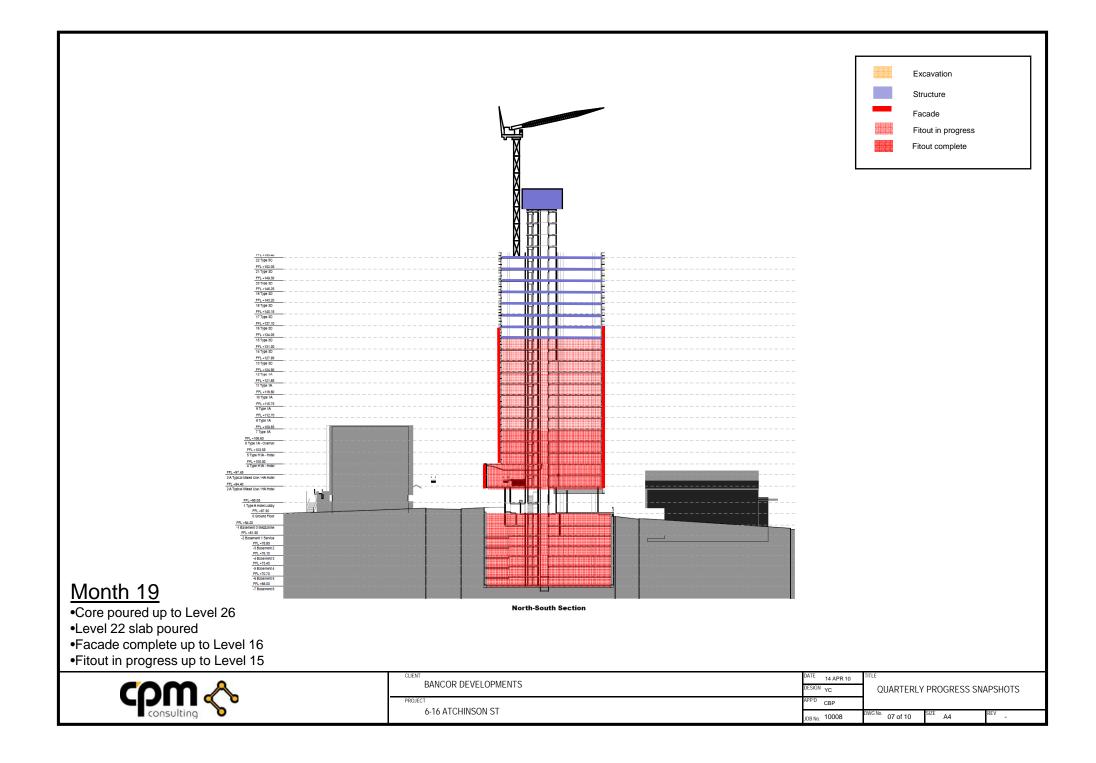


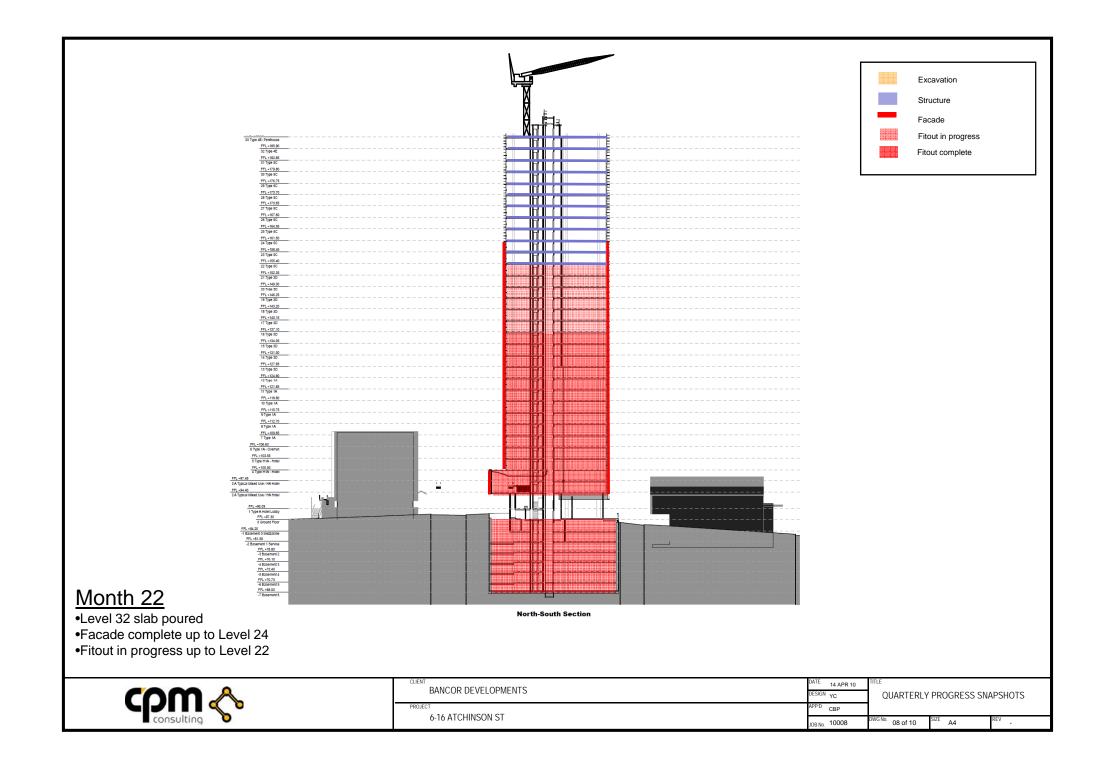


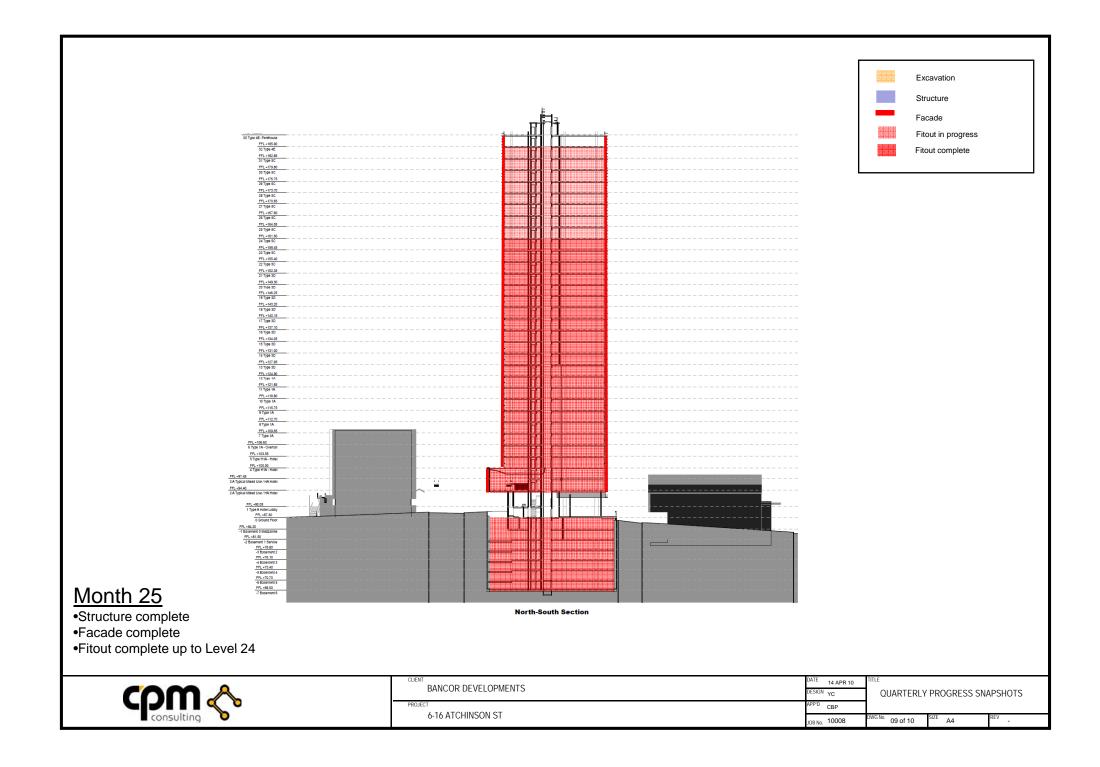


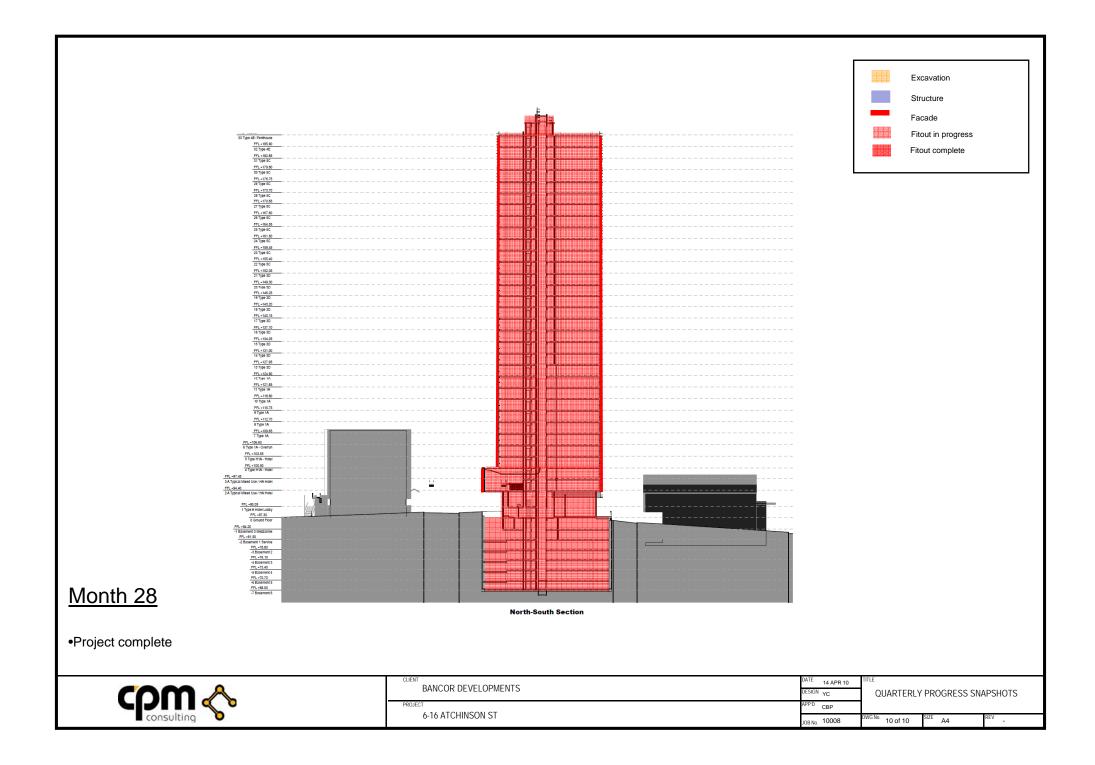








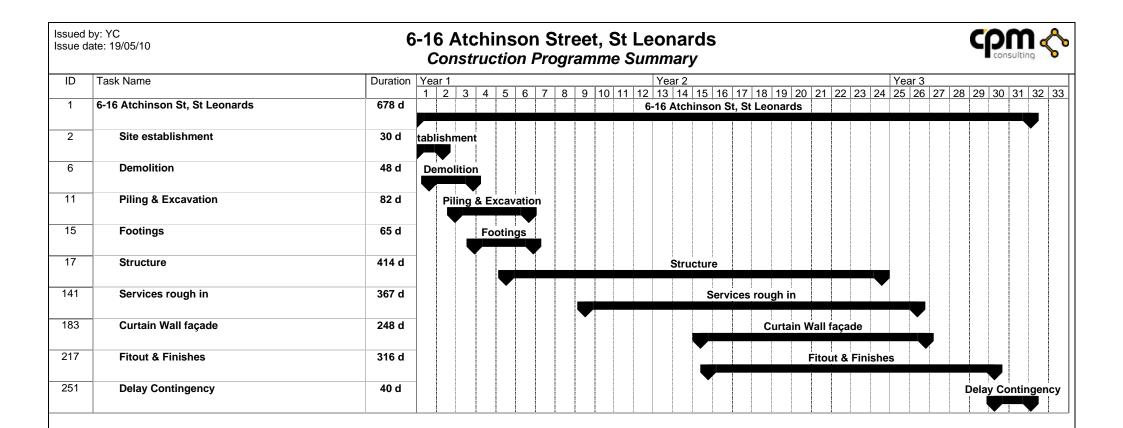






ATTACHMENT 2 – Summary programme







ATTACHMENT 3 – Construction Programme



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ID Ta	sk Name	Duration	Year 1 Year 2 Year 3 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
1 6-1	16 Atchinson St, St Leonards	678 d	
2	Site establishment	30 d	
3	Start on site	0 d	Start on site
4	Install A-Class hoardings along Atchinson Lane	15 d	Install A-Class hoardings along Atchinson Lane & Establish work zone
5	Erect B-Class hoardings & Site sheds	30 d	Erect B-Class hoardings & Site sheds
6	Demolition	48 d	
7	Demolish 16 Atchinson St	12 d	4 Demolish 16 Atchinson St
8	Relocate loading zone to 16 Atchinson St	3 d	SS+5 d Relocate loading zone to 16 Atchinson St
9	Demolish 14 Atchinson St	12 d	8 Demolish 14 Atchinson St
10	Demolish 6-10 Atchinson St	24 d	9 Demolish 6-10 Atchinson St
11	Piling & Excavation	82 d	
12	Contiguous piling	30 d	,10FF+10 d Contiguous piling
13	Excavation	55 d	12SS+12 d Excavation
14	In ground services	60 d	13SS+10 d In ground services
15	Footings	65 d	
16	FRP Pad footings	65 d	13FF+20 d FRP Pad footings
17	Structure	414 d	
18	Setup jump form	20 d	13SS+45 d Setup jump form
19	FRP core B7-B6	12 d	18 FRP core B7-B6
20	FRP core B6-B5	12 d	19 FRP core B6-B5
21	FRP core - B5-B4	12 d	18,20 FRP core - B5-B4
22	FRP core - B4-B3	11 d	21 FRP core - B4-B3
23	FRP core - B3-B2	10 d	22 FRP core - B3-B2
24	FRP core - B2-B1	10 d	23 FRP core - B2-B1
25	FRP core - B1 - Podium	9 d	24,16 FRP core - B1 - Podium
26	FRP core - Podium - L1	9 d	25 FRP core - Podium - L1
27	FRP core L1-L2	8 d	26 FRP core L1-L2
28	FRP core L2-L3	8 d	27 FRP core L2-L3
29	FRP core L3-L4	8 d	28 FRP core L3-L4
30	FRP core L4-L5	8 d	29 FRP core L4-L5
31	FRP core L5-L6	8 d	30 FRP core L5-L6
32	FRP core L6-L7	8 d	31 FRP core L6-L7
33	FRP core L7-L8	8 d	32 FRP core L7-L8
34	FRP core L8-L9	8 d	33 FRP core L8-L9
35	FRP core L9-L10	8 d	
36	FRP core L10-L11	8 d	35 FRP core L10-L11
37	FRP core L11-L12	8 d	
38	FRP core L12-L13	8 d	
39	FRP core L13-L14	8 d	
40	FRP core L14-L15	8 d 8 d	39 FRP core L14-L15
11	FRP core L15-L16	8 d 8 d	40 FRP core L15-L16
12 13	FRP core L16-L17 FRP core L17-L18	8 d	41 FRP core L16-L17
+3 14	FRP core L18-L19	8 d	42 FRP core L17-L18
			43 FRP core L18-L19
45	FRP core L19-L20	8 d	
46	FRP core L20-L21	8 d	45 FRP core L20-L21
47	FRP core L21-L22	8 d	46 FRP core L21-L22
18	FRP core L22-L23	8 d	47 FRP core L22-L23
19	FRP core L23-L24	8 d	48 FRP core L23-L24



6-16 Atchinson Street, St Leonards Construction Programme

ID Tas	k Name	Duration Year 1	Year 2 Year 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
50	FRP core L24-L25	8d	4 5 6 7 6 3 10 11 13 10 17 16 13 20 21 22 23 24 23 20 21 22 23 24 23 20 21 22 23 24 23 20 21 22 23 24 23 20 21 22 23 24 23 20 21 23 20 21 23 20 21 23 20 21 23 20 21 23 20 21 23 20 21 23 20 21 23 20 21 23 20 21 23 20 21 23 20 21 23 20 21 23 20 21 23 20 21 23 20 21 23 20 21 23 30 31 32 1 1 1 1 1 1 1 1 10 11 10 11 10 11 10 11 12 13 13 10 11 10 11 10 11 10 11 10 11 10
1	FRP core L25-L26	8 d	50 FRP core L25-L26
2	FRP core L26-L27	8 d	51 FRP core L26-L27
3	FRP core L27-L28	8 d	52 FRP core L27-L28
4	FRP core L28-L29	8 d	53 FRP core L28-L29
5	FRP core L29-L30	8 d	54 FRP core L29-L30
6	FRP core L30-L31	8 d	55 FRP core L30-L31
7	FRP core L31-L32	8 d	56 FRP core L31-L32
8	FRP core L32-L33	8 d	57 FRP core L32-L33
9	FRP Slab on Ground - North	12 d	14 FRP Slab on Ground - North
50	FRP Slab on Ground - South	12 d	59SS+6 d FRP Slab on Ground - South
51	FRP Basement 6 - North	14 d	60SS+6 d,59 FRP Basement 6 - North
2	FRP Basement 6 - South	14 d	61SS+7 d,60 FRP Basement 6 - South
3	FRP Basement 5 - North	14 d	62SS+7 d,61 FRP Basement 5 - North
64	FRP Basement 5 - South	14 d	63SS+7 d,62 FRP Basement 5 - South
65	FRP Basement 4 - North	14 d	64SS+7 d,63 FRP Basement 4 - North
56 56	FRP Basement 4 - South	14 d	65SS+7 d,64 FRP Basement 4 - South
67 67	FRP Basement 3 - North	14 d	66SS+7 d,65 FRP Basement 3 - North
68	FRP Basement 3 - South	14 d	67SS+7 d,66 FRP Basement 3 - South
i9	FRP Basement 2 - North	14 d	68SS+7 d,67 FRP Basement 2 - North
0	FRP Basement 2 - South	14 d	69SS+7 d,68 FRP Basement 2 - South
1	FRP Basement 1 - North	14 d	70SS+7 d,69 FRP Basement 1 - North
2	FRP Basement 1 - South	14 d	
3	FRP Podium - North	18 d	71SS+7 d,70 FRP Basement 1 - South 72SS+9 d,71 FRP Podium - North
4	FRP Podium - South	18 d	
	FRP Level 1 - North	9 d	73SS+9 d,72 FRP Podium - South
6	FRP Level 1 - South	9 d	74SS+5 d,73 FRP Level 1 - North
7	FRP Level 2 - North	8 d	75SS+5 d,74 FRP Level 1 - South
'8	FRP Level 2 - South	8 d	76SS+4 d,75 FRP Level 2 - North
79	FRP Level 3 - North	7 d	77SS+4 d,76 FRP Level 2 - South
30	FRP Level 3 - South	7 d	78SS+4 d,77 FRP Level 3 - North
31	FRP Level 4 - North	7 d 7 d	79SS+4 d,78 FRP Level 3 - South
32	FRP Level 4 - South	7 d	80SS+4 d,79 FRP Level 4 - North
	FRP Level 5 - North	7 d	81SS+4 d,80 FRP Level 4 - South
33			82SS+4 d,81 FRP Level 5 - North
84	FRP Level 5 - South	7 d	83SS+4 d,82 FRP Level 5 - South
85	FRP Level 6 - North	7 d	84SS+4 d,83 FRP Level 6 - North
6 7	FRP Level 6 - South FRP Level 7 - North	7 d	85SS+4 d,84 FRP Level 6 - South
67		7 d	86SS+4 d,85 FRP Level 7 - North
8	FRP Level 7 - South	7 d	87SS+4 d,86 FRP Level 7 - South
9	FRP Level 8 - North	7 d	88SS+4 d,87 FRP Level 8 - North
0	FRP Level 8 - South	7 d	89SS+4 d,88 FRP Level 8 - South
1	FRP Level 9 - North	7 d	90SS+4 d,89 FRP Level 9 - North
2	FRP Level 9 - South	7 d	91SS+4 d,90 FRP Level 9 - South
3	FRP Level 10 - North	7 d	92SS+4 d,91 FRP Level 10 - North
4	FRP Level 10 - South	7 d	93SS+4 d,92 FRP Level 10 - South
5	FRP Level 11 - North	7 d	94SS+4 d,93 FRP Level 11 - North
6	FRP Level 11 - South	7 d	95SS+4 d,94 FRP Level 11 - South
)7	FRP Level 12 - North	7 d	96SS+4 d,95 FRP Level 12 - North
98	FRP Level 12 - South	7 d	97SS+4 d,96 FRP Level 12 - South



6-16 Atchinson Street, St Leonards Construction Programme

ID Tas	< Name	Duration Year 1 Year 3 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	32
99	FRP Level 13 - North	7 d 7 d 9 d 9 d 10 d 11 d 13 d 14 d 13 d <th< td=""><td>52</td></th<>	52
00	FRP Level 13 - South	7 d 99SS+4 d,98 FRP Level 13 - South	
)1	FRP Level 14 - North	7 d 100SS+4 d,99 FRP Level 14 - North	
)2	FRP Level 14 - South	7 d 101SS+4 d,100 FRP Level 14 - South	
)3	FRP Level 15 - North	7 d 102SS+4 d, 101 FRP Level 15 - North	
)4	FRP Level 15 - South	7 d 103SS+4 d, 102 FRP Level 15 - South	
05	FRP Level 16 - North	7 d 104SS+4 d, 103 FRP Level 16 - North	
06	FRP Level 16 - South	7 d 105SS+4 d, 104 FRP Level 16 - South	
)7	FRP Level 17 - North	7 d 106SS+4 d, 105 FRP Level 17 - North	
)8	FRP Level 17 - South	7 d 107SS+4 d, 106 FRP Level 17 - South	
9	FRP Level 18 - North	7 d 108SS+4 d, 107 FRP Level 18 - North	
10	FRP Level 18 - South	7 d 109SS+4 d,108 FRP Level 18 - South	
1	FRP Level 19 - North	7 d 110SS+4 d, 109 FRP Level 19 - North	
12	FRP Level 19 - South	7 d 111SS+4 d,110 FRP Level 19 - South	
13	FRP Level 20 - North	7 d 112SS+4 d, 111 FRP Level 20 - North	
14	FRP Level 20 - South	7 d 113SS+4 d,112 FRP Level 20 - Notth	
5	FRP Level 21 - North	7 d 114SS+4 d, 112 FRP Level 21 - North	
6	FRP Level 21 - South	7 d 115SS+4 d, 114 FRP Level 21 - Notth	
7	FRP Level 22 - North	7 d 116SS+4 d, 115 FRP Level 22 - North	
8	FRP Level 22 - South		
9	FRP Level 23 - North		
20	FRP Level 23 - South		
	FRP Level 24 - North		
2			
22	FRP Level 24 - South		
23	FRP Level 25 - North	7 d 122SS+4 d,121 FRP Level 25 - North	
24	FRP Level 25 - South	7 d 123SS+4 d,122 FRP Level 25 - South	
25	FRP Level 26 - North	7 d 124SS+4 d,123 FRP Level 26 - North	
26	FRP Level 26 - South	7 d 125SS+4 d,124 FRP Level 26 - South	
27	FRP Level 27 - North	7 d 126SS+4 d,125 FRP Level 27 - North	
28	FRP Level 27 - South	7 d 127SS+4 d, 126 FRP Level 27 - South	
29	FRP Level 28 - North	7 d 128SS+4 d,127 FRP Level 28 - North	
30	FRP Level 28 - South	7 d 129SS+4 d, 128 FRP Level 28 - South	
31	FRP Level 29 - North	7 d 130SS+4 d,129 FRP Level 29 - North	
32	FRP Level 29 - South	7 d 131SS+4 d,130 FRP Level 29 - South	
33	FRP Level 30 - North	7 d 132SS+4 d, 131 FRP Level 30 - North	
34	FRP Level 30 - South	7 d 133SS+4 d, 132 FRP Level 30 - South	
35	FRP Level 31 - North	7 d 134SS+4 d, 133 FRP Level 31 - North	
36	FRP Level 31 - South	7 d 135SS+4 d, 134 FRP Level 31 - South	
37	FRP Level 32 - North	7 d 136SS+4 d, 135 FRP Level 32 - North	
38	FRP Level 32 - South	7 d 137SS+4 d, 136 FRP Level 32 - South	
39	FRP Level 33 - North	7 d 138SS+4 d,137 FRP Level 33 - North	
10	FRP Level 33 - South	7 d 139SS+4 d,138 FRP Level 33 - South	
11	Services rough in	367 d	
12	Basement 7 Services Rough in	18 d 66 Basement 7 Services Rough in	
13	Basement 6 Services Rough in	18 d 68 Basement 6 Services Rough in	
4	Basement 5 Services Rough in	18 d 70FS+6 d Basement 5 Services Rough in	
5	Basement 4 Services Rough in	18 d ZZFS+6 d Basement 4 Services Rough in	
6	Basement 3 Services Rough in	18 d Basement 3 Services Rough in	
7	Basement 2 Services Rough in	18 d 76FS+5 d Basement 2 Services Rough in	



6-16 Atchinson Street, St Leonards

Construction Programme Task Name ID Duration Year 1 Year 2 2 4 5 7 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 3 6 8 148 Basement 1 Services Rough in 18 d Basement 1 Services Rough in 78FS+4 d 149 Podium Level Rough in 18 d 80FS+3 d Podium Level Rough in 150 Level 1 Rough in 18 d 82FS+3 d Level 1 Rough in 18 d 151 Level 2 Rough in 84FS+3 d Level 2 Rough in 152 Level 3 Rough in 18 d 86FS+3 d Level 3 Rough in 153 Level 4 Rough in 18 d 88FS+3 d Level 4 Rough in 154 18 d Level 5 Rough in 90FS+3 d Level 5 Rough in 155 18 d Level 6 Rough in 92FS+3 d Level 6 Rough in 156 Level 7 Rough in 18 d 94FS+3 d Level 7 Rough in 157 18 d Level 8 Rough in 96FS+3 d Level 8 Rough in 158 18 d Level 9 Rough in 98FS+3 d Level 9 Rough in 159 18 d Level 10 Rough in 100FS+3 d Level 10 Rough in 160 18 d Level 11 Rough in 102FS+3 d Level 11 Rough in 161 Level 12 Rough in 18 d 104FS+3 d Level 12 Rough in 18 d 162 Level 13 Rough in 106FS+3 d Level 13 Rough in 163 Level 14 Rough in 18 d 108FS+3 d Level 14 Rough in 164 Level 15 Rough in 18 d 110FS+3 d Level 15 Rough in 165 Level 16 Rough in 18 d 112FS+3 d Level 16 Rough in 166 Level 17 Rough in 18 d 114FS+3 d Level 17 Rough in 167 Level 18 Rough in 18 d 116FS+3 d Level 18 Rough in 168 Level 19 Rough in 18 d 118FS+3 d Level 19 Rough 169 Level 20 Rough in 18 d 120FS+3 d Level 20 Roug 170 Level 21 Rough in 18 d 122FS+3 d Level 21 Rc 171 Level 22 Rough in 18 d 124FS+3 d Level 22 172 Level 23 Rough in 18 d 126FS+3 d Level 173 Level 24 Rough in 18 d 128FS+3 d Lev 174 Level 25 Rough in 18 d 130FS+3 d 175 Level 26 Rough in 18 d 132FS+3 d 176 18 d Level 27 Rough in 134FS+3 d 177 Level 28 Rough in 18 d 136FS+3 d 18 d 178 Level 29 Rough in 138FS+3 d 179 18 d Level 30 Rough in 140FS+ 180 18 d Level 31 Rough in 179SS 181 Level 32 Rough in 18 d 180S 182 18 d Level 33 Rough in 18 183 Curtain Wall façade 248 d 184 Façade L1 8 d 90 Façade L1 185 7 d Façade L2 91,92 Façade L2 186 Façade L3 6 d 94 Façade L3 187 Façade L4 6 d 96 Façade L4 188 6 d Façade L5 98 Façade L5 189 Façade L6 6 d 100 Façade L6 190 Façade L7 6 d 102 Façade L7 191 Façade L8 6 d 104 Façade L8 192 6 d Façade L9 106 Façade L9 193 Façade L10 6 d 108 Façade L10 194 Façade L11 6 d 110 Façade L11 195 Façade L12 6 d 112 Façade L12 196 Façade L13 6 d 114 Façade L13



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24	Year 3 25	26	27	28	29	30	31	32	33
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S+6 d		Level 3							
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6-16 Atchinson Street, St Leonards Construction Programme

ID	Task Name	Duration Yea	ar 1 2	2		5	6	7	8 9	10 11	10	Year 2	14 4	5 10	17	Year 3 7 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
97	Façade L14	6 d		<u> </u>	4	<u> </u>	0	1	<u> </u>		12	13	14 1	0 10	1/	· 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 116 <mark>■ Façade L14</mark>
98	Façade L15	6 d														118 Façade L15
9	Façade L16	6 d														120 Façade L16
0	Façade L17	6 d														122 Façade L17
)1	Façade L18	6 d														124 Façade L18
)2	Façade L19	6 d														126 Façade L19
)3	Façade L20	6 d														128 Façade L20
)4	Façade L21	6 d														130 Façade L21
5	Façade L22	6 d														132 Façade L22
6	Façade L23	6 d														134 Façade L23
)7	Façade L24	6 d														136 Façade L24
8	Façade L25	6 d														138 Façade L25
9	Façade L26	6 d														140 Façade L26
0	Façade L27	6 d														209 Façade L27
1	Façade L28	6 d														210 Façade L28
2	Façade L29	6 d														211 Façade L29
3	Façade L30	6 d														212 Façade L30
4	Façade L31	6 d														213 Façade L31
5	Façade L32	6 d														214 Façade L32
6	Façade L33	6 d														215 Façade L33
7	Fitout & Finishes	316 d														
8	Fitout & Finishes L1	60 d											184,150	• : • • • •	ł	Fitout & Finishes L1
9	Fitout & Finishes L2	60 d										185,15	1,218SS+	3 d		Fitout & Finishes L2
0	Fitout & Finishes L3	60 d										186	,152,2195	S+8 d	:	Fitout & Finishes L3
1	Fitout & Finishes L4	60 d										1	87,153,22	0SS+8 d		Fitout & Finishes L4
2	Fitout & Finishes L5	60 d											188,154,2	21SS+8	d	Fitout & Finishes L5
3	Fitout & Finishes L6	60 d											189,15	5,222SS	+8 d	Fitout & Finishes L6
4	Fitout & Finishes L7	60 d											190,	156,223	SS+8 d	Fitout & Finishes L7
25	Fitout & Finishes L8	60 d											1	91,157,2	24SS+8	8 d Fitout & Finishes L8
26	Fitout & Finishes L9	60 d												192,158	8,22555	S+8 d Fitout & Finishes L9
27	Fitout & Finishes L10	60 d												193 ,1	159,226	6SS+8 d Fitout & Finishes L10
28	Fitout & Finishes L11	60 d												19	4,160,2	227SS+8 d Fitout & Finishes L11
9	Fitout & Finishes L12	60 d													195,161	61,228SS+8 d Fitout & Finishes L12
0	Fitout & Finishes L13	60 d													196,	5,162,229SS+8 d Fitout & Finishes L13
31	Fitout & Finishes L14	60 d													19	197,163,230SS+8 d Fitout & Finishes L14
2	Fitout & Finishes L15	60 d														198,164,231SS+8 d Fitout & Finishes L15
3	Fitout & Finishes L16	60 d														199,165,232SS+8 d Fitout & Finishes L16
34	Fitout & Finishes L17	60 d														200,166,233SS+8 d Fitout & Finishes L17
5	Fitout & Finishes L18	60 d														201,167,234SS+8 d Fitout & Finishes L18
86	Fitout & Finishes L19	60 d														202,168,235SS+8 d Fitout & Finishes L19
37	Fitout & Finishes L20	60 d														203,169,236SS+8 d
8	Fitout & Finishes L21	60 d														204,170,237SS+8 d
9	Fitout & Finishes L22	60 d														205,171,238SS+8 d Fitout & Finishes L22
0	Fitout & Finishes L23	60 d														206,172,239SS+8 d Fitout & Finishes L23
1	Fitout & Finishes L24	60 d														207,173,240SS+8 d Fitout & Finishes L24
12	Fitout & Finishes L25	60 d														208,174,241SS+8 d Fitout & Finishes L25
13	Fitout & Finishes L26	60 d														209,175,242SS+8 d Fitout & Finishes L26
4 4	Fitout & Finishes L27	60 d														210,176,243SS+8 d Fitout & Finishes L27
44 45	Fitout & Finishes L28	60 d				1	1	1				1		1		



Issued Issue d	by: YC ate: 19/05/10	6-16 Atchinson Street, St Leonards Construction Programme																							
ID	Task Name	Duration																Year 3							
			1	2	3	4	5	6	7	8	9	10) 11	12	13	14	15	5 16	17	18	19	20	21	22 23 24 25 26 27	28 29 30 31 32 33
246	Fitout & Finishes L29	60 d																						212,178,245SS+8 d	Fitout & Finishes L29
247	Fitout & Finishes L30	60 d																						213,179,246SS+8 d	Fitout & Finishes L30
248	Fitout & Finishes L31	60 d																						214,180,247SS+8 d	Fitout & Finishes L31
249	Fitout & Finishes L32	60 d																						215,181,248SS+8 d	Fitout & Finishes L32
250	Fitout & Finishes L33	60 d																						216,182,249SS+8 d	Fitout & Finishes L33
251	Delay Contingency	40 d	1																						
252	DELAY CONTINGENCY	40 d																							250 DELAY CO