

KUMUTOTO - SITE 10
CONSTRUCTION MANAGEMENT PLAN
OCTOBER 2014

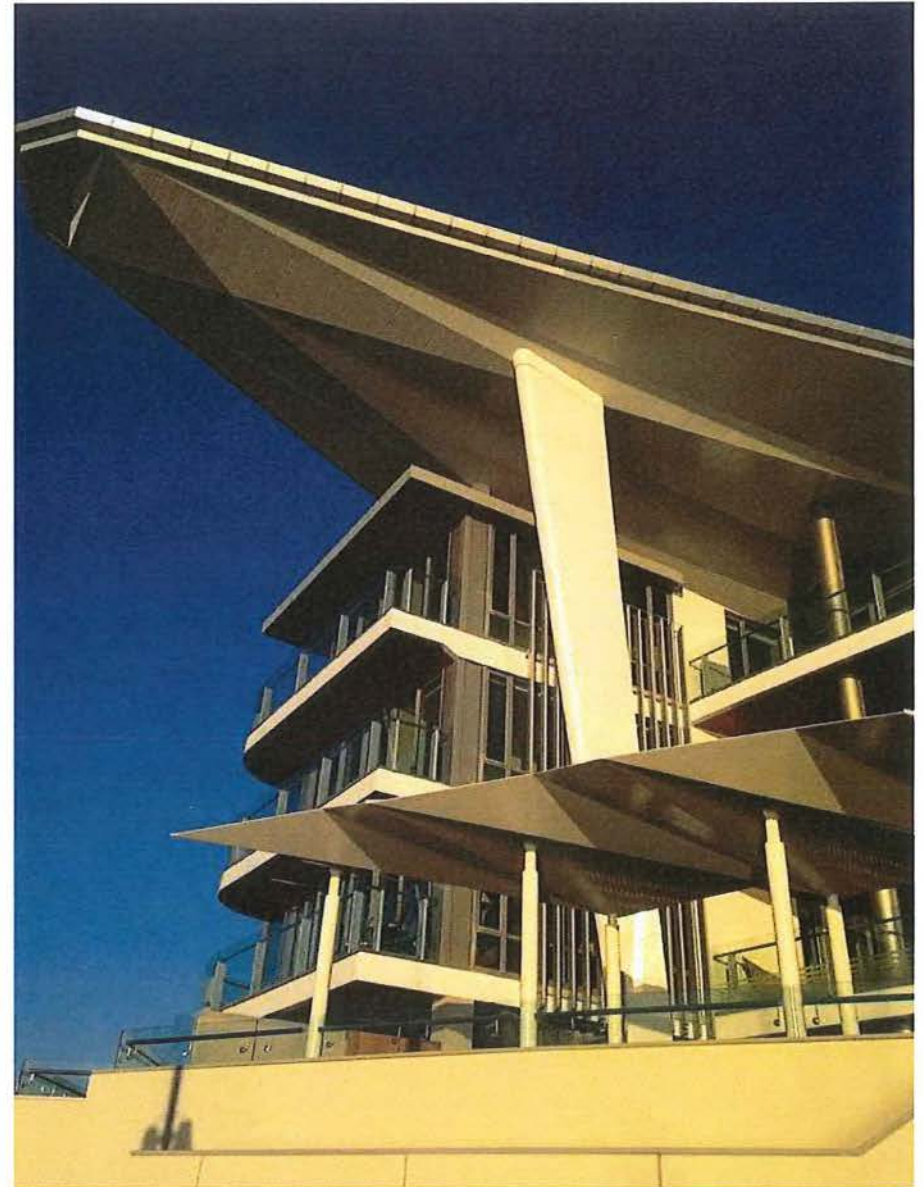


WILLIS BOND & CO



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SECTION 1.0

PROJECT INTRODUCTION & CMP OBJECTIVES

PROJECT INTRODUCTIONS

This Construction Management Plan covers the proposed construction works to develop Kumutoto Site 10.

Located between Waterloo Quay and Kumutoto Lane, Site 10 will be the location for a new purpose built premium commercial office building which will comprise four upper levels of open plan office space, ground level 'creative' units, retail and a basement car park with cycle storage and shower facilities.

Access to the building is through a ground floor lobby, which can be accessed from either Waterloo Quay or Kumutoto Lane. A bank of lifts connects to the upper levels through a central core.

At each level, sited adjacent to the central core are toilet facilities. Also located in this area are service ducts providing access to plant spaces located at both roof and basement levels.

The building will be base-isolated, which provides seismic performance equivalent to Importance Level 4 (IL4)

The building is designed to achieve a 5 Greenstar rating equivalent.

CMP OBJECTIVES

- To outline a construction methodology for the Kumutoto Site 10 Project.
- Identify any works during the course of the construction that have the potential to impact on the immediate environment.
- To demonstrate management procedures to deal with the potential effects of construction activity on the environment.
- To establish how public interface will be managed.
- Ensure the safety of public at all times during the works.
- To outline potential issues and corrective procedures in consultation between neighbouring buildings, public, contractors and Wellington City Council.



SECTION 2.0

SCOPE OF WORKS

PROJECT SCOPE OF WORKS

The main works associated with the project include:

Stage 1 – Basement Construction

1. Excavation
2. Piling
3. Slabs
4. Cores
5. Base Isolators
6. Structural steel
7. Building Services

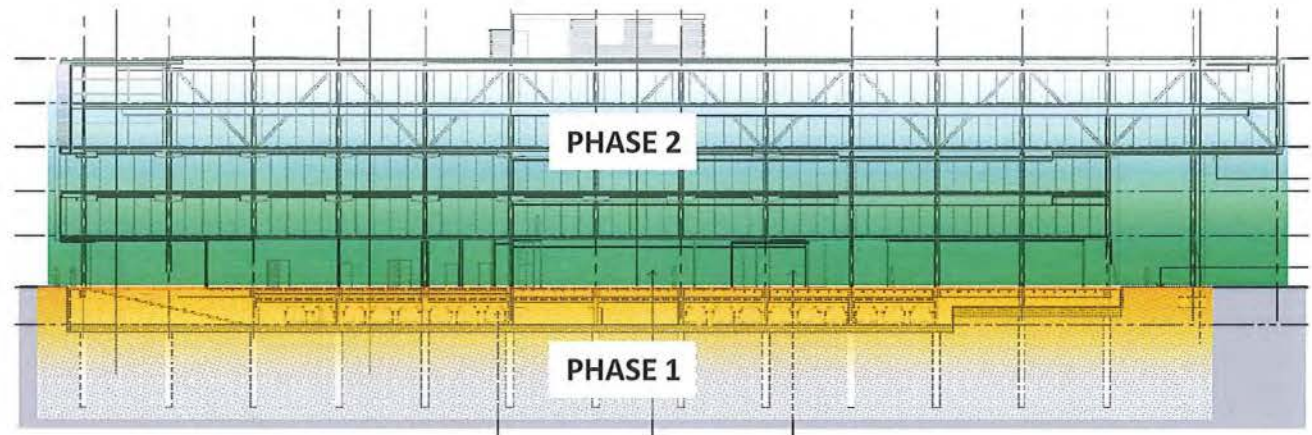
Stage 2 – Building Structure

1. Concrete and steel structure
2. Double T's
3. Cores
4. Building Services
5. Lifts
6. Façade
7. Roofing
8. Site Works

The basement phase incorporates new 18m deep tension piles to the perimeter of the building, concrete slab, concrete columns and plinths and also significant structural steel throughout the basement structure. The purpose of the basement is to facilitate parking for the office building, showers, bicycle parking and plant rooms as well as provide a base structure for the Site 10 building.

Stage 2 involves the construction of the concrete and structural steel structure. This structure is made up of concrete/ steel columns, steel braces throughout, interspan flooring and double tees. The façade, roofing, building services and all other works above ground level is also included in this phase.

It is anticipated that the construction stage of this project will be 24 months, however this will be reviewed following developed design.



LOADING

All excavated material will be transported off site throughout the Whitmore St entrance way. Trucks and machinery coming in/ out of the premises will be assisted by banksman to ensure the safety of the public and staff. Further management of the Whitmore entrance area is required to control the public egress from the northern and southern approaches. This will be achieved by suitable signage, gantries, timber hoardings and a permanent gate man to control machinery access and egress.

DUST CONTROL

Dust will be mitigated and managed through;

- Scaffolding
- Sprinklers
- Dust fighters.

All machinery / trucks and wheel will be hosed down prior to departing site to prevent any risk of dust transportation out of site.

CONTAMINATED GROUND CONDITIONS

Due to the presence of soil contamination, procedures will be required during the excavation and transportation of soil from the site to protect site workers, the public and the environment. These procedures will be set out in a separate Contamination Site Management Plan. Groundwater is expected to be suitable for either discharge to storm water or to trade waste, both of which will require WCC permits. This will be subject to further testing of groundwater

SECTION 3.0

PROPOSED METHODOLOGY

Site establishment will involve securing the site and making it safe, the demolition of existing site structures and site clearance. Identification of existing services will also be required together with diversions or re-location as necessary.

Secant piling to the perimeter of the building will act as both a ground retaining structure and groundwater barrier to the excavation of the basement which is below the average mean sea level. Once formation level has been reached further piling (secant and anchor piling) will commence.

The basement floor slab will be poured in a checkerboard pattern incorporating waterbar jointing. The concrete walls of the basement will be formed against the perimeter secant piling and the junction to the floor slab detailed to ensure a waterproof envelope to the basement.

The concrete / steel structure to accommodate the base-isolation can then be constructed and the ground floor slab installed.

Ground floor, Level 1 and Level 2 are a combination of structural steel and concrete framing, while Levels 3 & 4 are steel framed. Suspended floors are typically of double Tee construction. A central core located between grid lines F – K provide vertical transport, toilet facilities and services duct. Plant areas are located at both roof level and basement.

The façade will be a unitised glazing system spanning from floor to floor. Isolated panels of zinc / timber will also feature.

Membrane roofing will be applied to either plywood or concrete substrate, depending on the location, while hardwood cladding / zinc panels will feature to external soffits.

A comprehensive construction methodology will be incorporated in our Final Construction Management Plan following developed design. This methodology will have particular focus on the basement construction and temporary works required.



SECTION 4.0

SITE ESTABLISHMENT

HOARDINGS

Timber and wire mesh 1800mm high hoardings will be used to separate the public areas and the construction zone.

The hoardings will be positioned along side Waterloo Quay initially, and also around the perimeter of the construction site. Signage on the Whitmore entrance is initial to direct public traffic and educate the public of the environment. Stage two requires gantries along Waterloo Quay to enable public egress.

GANTRY

The main principal of the gantries positioned along Waterloo Quay is to allow public traffic along the footpath. A gantry will also be present from the eastern side of the Whitmore/ Waterloo Quay crossing to facilitate public traffic heading south. Appropriate signage will direct public as necessary.

TRUCKS & MACHINERY

Due to the nature of this new build, a substantial amount of plant and equipment will be required to facilitate the construction stage. Piling rigs, excavators and large trucks will be required initially in phase one. The basement and temporary loading dock will house these whilst on site. All machinery will be hosed off via a wheel wash prior leaving the construction site to minimise nuisance to surrounding roads/ public spaces.

CRANAGE

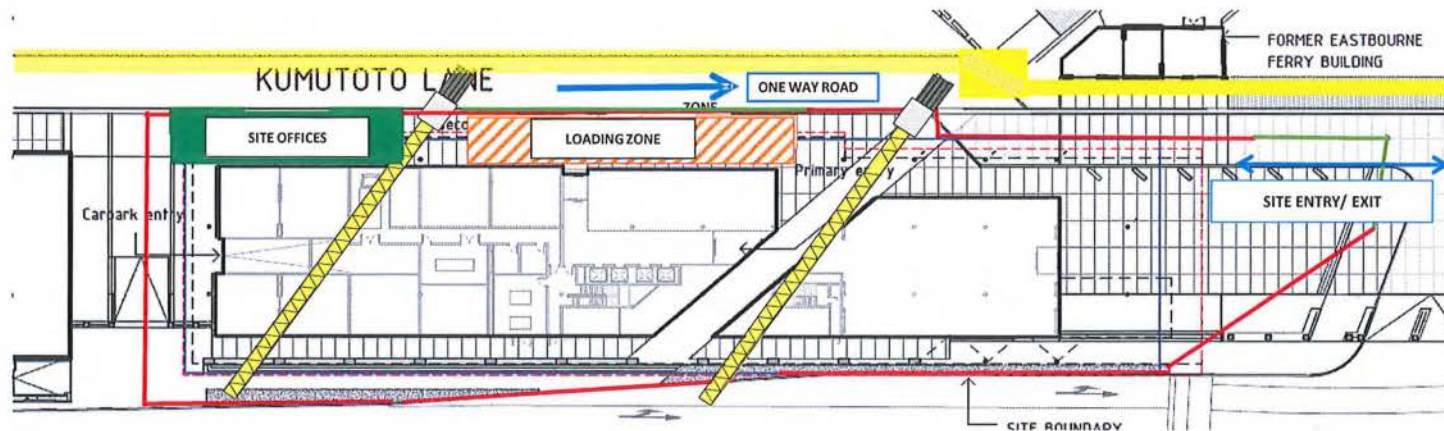
Due to the length of Kumutoto Site 10, LT McGuinness proposes to erect two tower cranes. The two cranes will be positioned on Kumutoto Lane, allowing full reach over the entire building, and will be used for erection of the structural frame, double tee floor structure and façade installation.

We have positioned the loading zone on the eastern side of the building, Kumutoto Lane. This location offers benefits in terms of easy access by delivery vehicles and also proximity to the new building while minimising impact to Customhouse Quay.

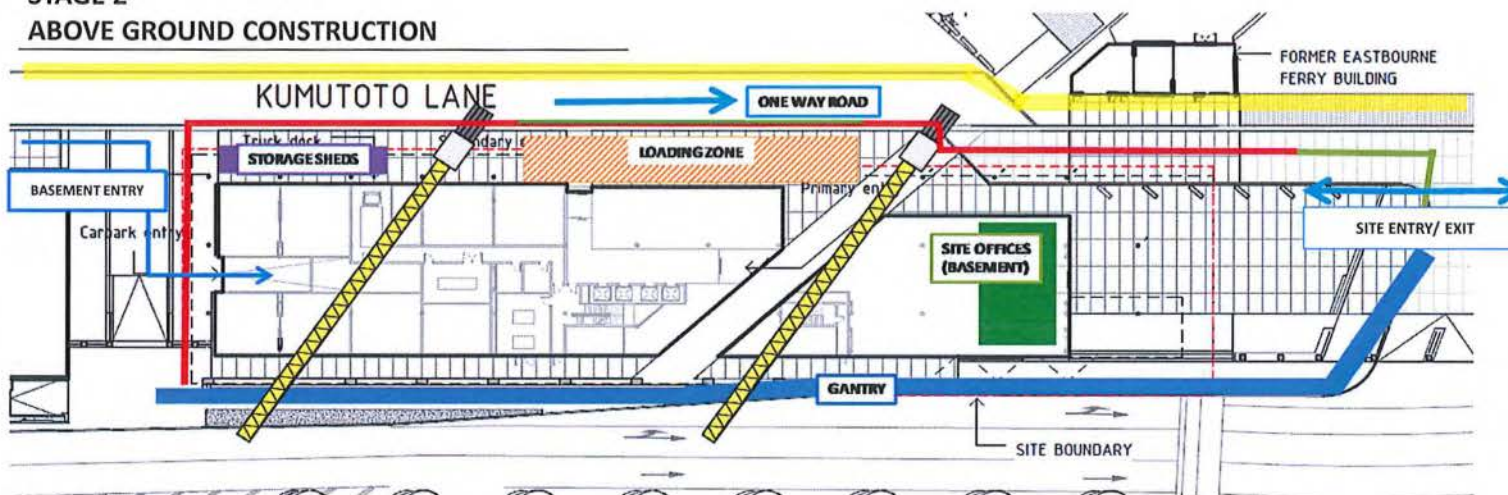


SECTION 4.0 PROPOSED SITE PLANS

STAGE 1 BASEMENT CONSTRUCTION



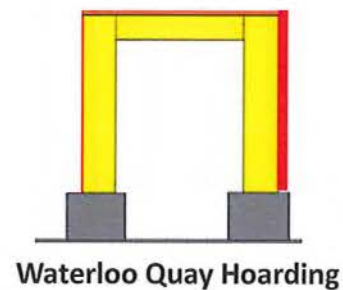
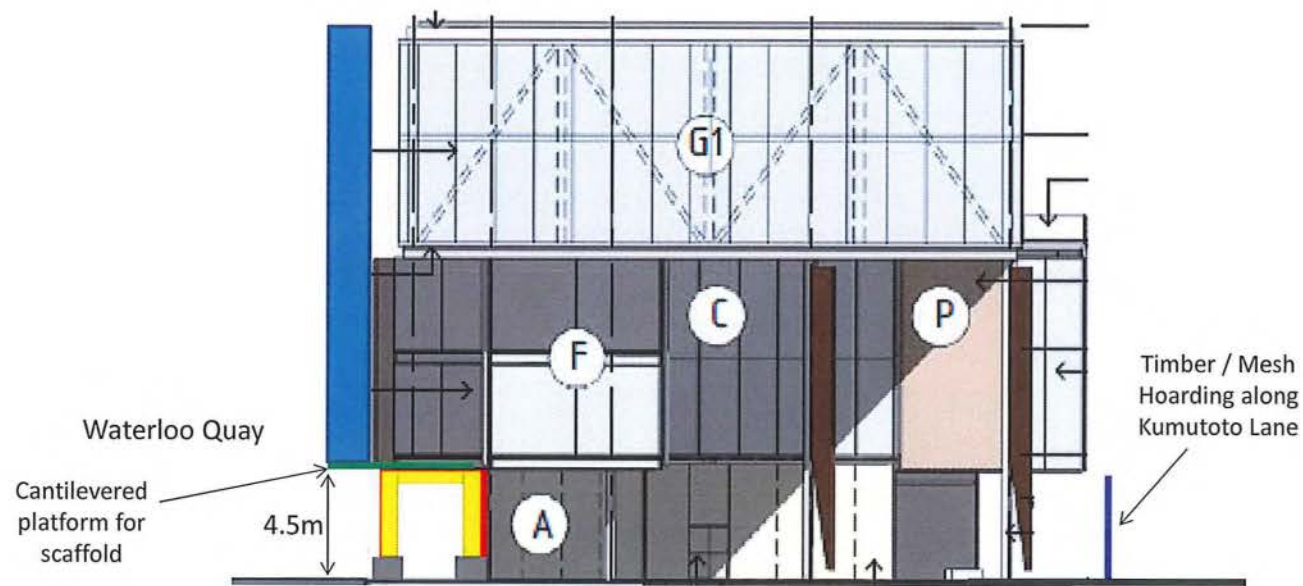
STAGE 2 ABOVE GROUND CONSTRUCTION



KEY

- Timber Hoardings
- - - Gates
- Gantry
- ➔ Site Entry/ Exit
- Site Offices
- ▨ Loading Zone
- Storage Sheds
- Site Fencing
- Walkway

SECTION 4.0
PROPOSED SITE PLANS
STAGE 2 HOARDINGS



SITE PLAN
HOARDING CONSTRUCTION

KEY

-  Steel Portal
-  Ply Construction Cover
-  Timber Hoardings
-  Concrete Foundations
-  Steel scaffold support
-  Scaffolding
-  Timber Hoardings

SECTION 5.0

ROLES AND RESPONSIBILITIES

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SECTION 6.0

ENVIRONMENTAL MANAGEMENT PLAN

VISION

L.T McGuinness Limited's environmental vision is to be regarded as an environmentally responsible construction company. L.T. McGuinness Limited is committed to creating a sustainable future by utilizing both people and resources in the care of the environment during the construction process in an effort to maintain the quality of the environment for future generations.

POLICY

- To support our environmental vision, L T McGuinness Limited will:
- Implement and maintain environmental systems, including measurable objectives and targets.
- Ensure employees, subcontractors and suppliers are made aware of environmental issues through ongoing training, communication and reporting.
- Comply with environmental legislation, RMA requirements and relevant regulations.
- Ensure staff are accountable and provided with adequate resources to deliver good environmental outcomes.
- Where possible will reduce, reuse or recycle materials to minimize waste.
- Regularly review this environmental policy.

ROLES AND RESPONSIBILITIES

There are four groups with responsibility for the environmental management of the contract;

- The Client;
- LT McGuinness Limited together with its subcontractors;
- Greater Wellington Regional Council, Wellington City Council, Wellington City Waterfront.
- The client's consultants who audit the works and monitor compliance with resource consent conditions and the environmental management plan.

The Consultants are as follows:

| | |
|-----------------------|------------------------------|
| Architect | Athfield Architects |
| Structural Engineer | Dunning Thornton Consultants |
| Building Services | Aecom |
| Piling Engineer | Dunning Thornton Consultants |
| Geotechnical Engineer | Tonkin + Taylor |

LT McGuinness Limited shall appoint an Environmental Officer responsible for the environmental performance and compliance where they apply to the works in the contract.
The Environmental Officer will liaise directly with the Site Project Manager.



SECTION 6.0

ENVIRONMENTAL MANAGEMENT PLAN

ENVIRONMENTAL CONSIDERATIONS AS A RESULT OF CONSTRUCTION ACTIVITY

- Dirt and Droppings
- Damage and Nuisance
- Construction Noise
- Dust Mitigation
- Wind
- Construction Traffic
- Cement, Grout and Concrete waste
- Fire Prevention

Dirt and Droppings

Dirt and droppings deposited on public or private thoroughfares from vehicles servicing the site are to be removed by the contractor to the satisfaction of the appropriate authorities.

Damage and Nuisance

L.T. McGuinness Limited will take all reasonable precautions to prevent damage and nuisance from water, fire, smoke, dust, rubbish and all other causes resulting from the construction works.

Construction Noise

The increased noise associated with the construction activities will be as a result of the construction works, these include:

Pneumatic breaking;
Saw cutting
Concrete pumping and placing;
Construction plant.

Significant construction activities will take place during daytime 7:30 am to 6 pm hours weekdays and Saturdays as far as is reasonable practical and noise will be managed in accordance with NZS6803:1999 Acoustics – Construction Noise and in accordance with the requirements of the resource consent conditions.

Dust Mitigation

Hoardings/ fences with scrim will be erected around the construction site. The screens will reduce the effects of dust produced by the demolition work. Activities which generate dust will be monitored closely along with weather conditions so any foreseeable issues will be minimized. Housekeeping will be maintained vigilantly with routine sweep ups to minimize dust clouds during construction phase.

The use of stockpiles and handling of excavated materials will be limited.

Wind

The exposed nature of the site will require constant monitoring as the wind poses significant issues which need to be addressed:

1. Dust from demolition;
2. Concrete slurry from skip and pump;
3. General construction debris.

All of the above will require constant monitoring during windy weather. To mitigate the effects by keeping exposed areas free from built up piles of construction debris, dampening down where necessary, proper containment and removal of concrete slurry.



SECTION 6.0

ENVIRONMENTAL MANAGEMENT PLAN

Construction Traffic

Before construction activities begin construction signage will be installed where deemed necessary by all parties involved. The signs will inform the public of the project and provide restrictions of access where necessary. Signs should contain main contact numbers, a brief construction description and approximate time frame of the development. Refer to Appendix A.

A construction Traffic Management Plan is prepared for the project for each phase in accordance with the Wellington City Council Code of Practice for Temporary Traffic Management Control as required. The traffic Management plans will include the following;

- Brief description of works
- Staging
- Traffic and pedestrian control during the construction
- Temporary Traffic Control to close the footpath during loading out times to be installed. This work will be carried out outside of normal working hours.
- Truck and vehicle movements to and from site
- Applicable signage
- Parking and turning areas
- Public safety
- STMS and TC details

Cement, Grout and Concrete Waste

- Concrete has the potential to impact upon water quality through the release of fine particles through a localized increase in pH. This is most likely to occur during the inappropriate washing down of cement truck sluices prior to departing the site.
- No excessive waste concrete or grout materials are to be discharged down (or where they can run into) storm water grates or into the marine environment.
- Concrete Trucks after placing are to wash down in the designated wash bay. Pump trucks are to blow back into the concrete truck for disposal back at quarry.
- Waste concrete will be stored in skips for later removal.

Fire Prevention

To assist in minimizing the risk of fire, the following actions shall be undertaken:

1. A hot permit system shall be used for welding and similar activities that are undertaken on site.
2. At the completion of the working day, the security staff shall inspect all work areas.
3. A fire hazard sign shall be erected at the site entrance.
4. Fire extinguishers and fire hose reels will be made available and installed on site.
5. The water main must remain operating wherever possible to ensure water supply for the fire hose reels.



SECTION 7.0

HEALTH AND SAFETY PLAN

OUR SAFETY PLAN

- Before site work commences, Safety Supervisor/Foreman consults the “Site Hazard Register” table. This list is used to identify hazards on site. Any items that are site specific can be added to the list.
- Information from the above table together with any site specific hazards and hazard information requested from subcontractors will be included into the first Health & Safety Site Meeting Agenda.
- The Safety Supervisor is to review and sign off the effectiveness of the controls for the hazard on a regular basis to check that controls for hazards are effective, i.e. before each monthly Health & Safety meeting.
- All employees and subcontractors are inducted on site, using the “Site Induction” forms.
- This induction includes the LT McGuinness health & safety plan for the site.
- All employees and subcontractors are required to attend the monthly health & safety meeting.
- The health & safety meeting agenda is issued to all attending the health & safety meeting.
- The items listed on the health & safety meeting agenda are discussed and any questions answered.
- An attendance form is then signed and is kept in the health & safety job folder on site. The employee or subcontractor keeps the remaining portion of the form as reference to site hazards.
- A copy of the minutes of the health & safety meeting together with an attendance list is sent to the Architect/Principal.
- The Principal/Engineer is invited to attend the monthly health & safety meeting if applicable.
- LT McGuinness employees only then review the site hazard register “Tool Box” section with their safety supervisor with reference to their own activities at the monthly Tool Box Meeting, held after the health & safety meeting.
- There are ongoing “hazard evaluations” as site operations change and progress. These new hazards will be added to the existing “Site Hazard Register”. The hazard board on site is updated daily.
- Employees and subcontractors should use the “Health & Safety Improvement Form”, if they feel any safety improvement needs to be made on site. These are actioned by the Safety Officer on site and later used in the Health and Safety review. These forms are also given to subcontractors at the tender acceptance stage, so confidentiality can be reserved if necessary.
- There will be site inspections through Site Safe Ltd. These are carried out on a monthly basis. Findings from these inspections ensure that the LT McGuinness health & safety policy is being maintained on site.

- The safety supervisor also has a “Hazard Identification Report” book in which they write out infringement notices to any offenders that have been properly informed and trained on Health & Safety information but continue to breach the rules. The warning has three copies, one going to the offender, one kept as a record on site and one going to the LT McGuinness office where it is faxed to the offender’s employer. Positive action needs to be followed through when the notice is issued. Please refer to the following pages outlining our proposed card system for the project.
- Staff and subcontracting companies take these tickets seriously as they indicate lack of understanding of LT McGuinness health & safety issues particularly in relation to activities on site. These tickets are lodged in a staff personnel file and can be a basis for staff dismissal if continued re-offending occurs.
- Safety co-coordinators liaise with Safety Supervisors on any complaints regarding the health & safety system and its implementation on sites. Meetings at the office are held on a 6 monthly basis ensure a constant review of all safety procedures.
- At the completion of the project a review is carried out of the LT McGuinness health & safety policy and the success of its implementation on site. Any improvements are then added to the existing health & safety document

The following page outlines of safety plan and procedures in a flow Chart form

LTM DRUG AND ALCOHOL POLICY

In 2009 LT McGuinness implemented a new drug and alcohol policy which included mandatory testing of staff and sub contractors.

We believe this initiative was the first in the New Zealand Construction Industry.

All of our sites are subject to ongoing testing.

Since its inception the quality of sub contractors on our sites have improved and it ensures a drug and alcohol free construction site.

CARD SYSTEM PROPOSED FOR SITE 10

The LT McGuinness green, yellow and red card system has been introduced on to our sites over the past few years. It is a system that encourages safe behavior and deals efficiently with non-conformance.

Safe Practice Award – A monthly draw is conducted with a winning prize.

Infringement Notice – 2 yellow cards in 3 months and the offender is removed from site.

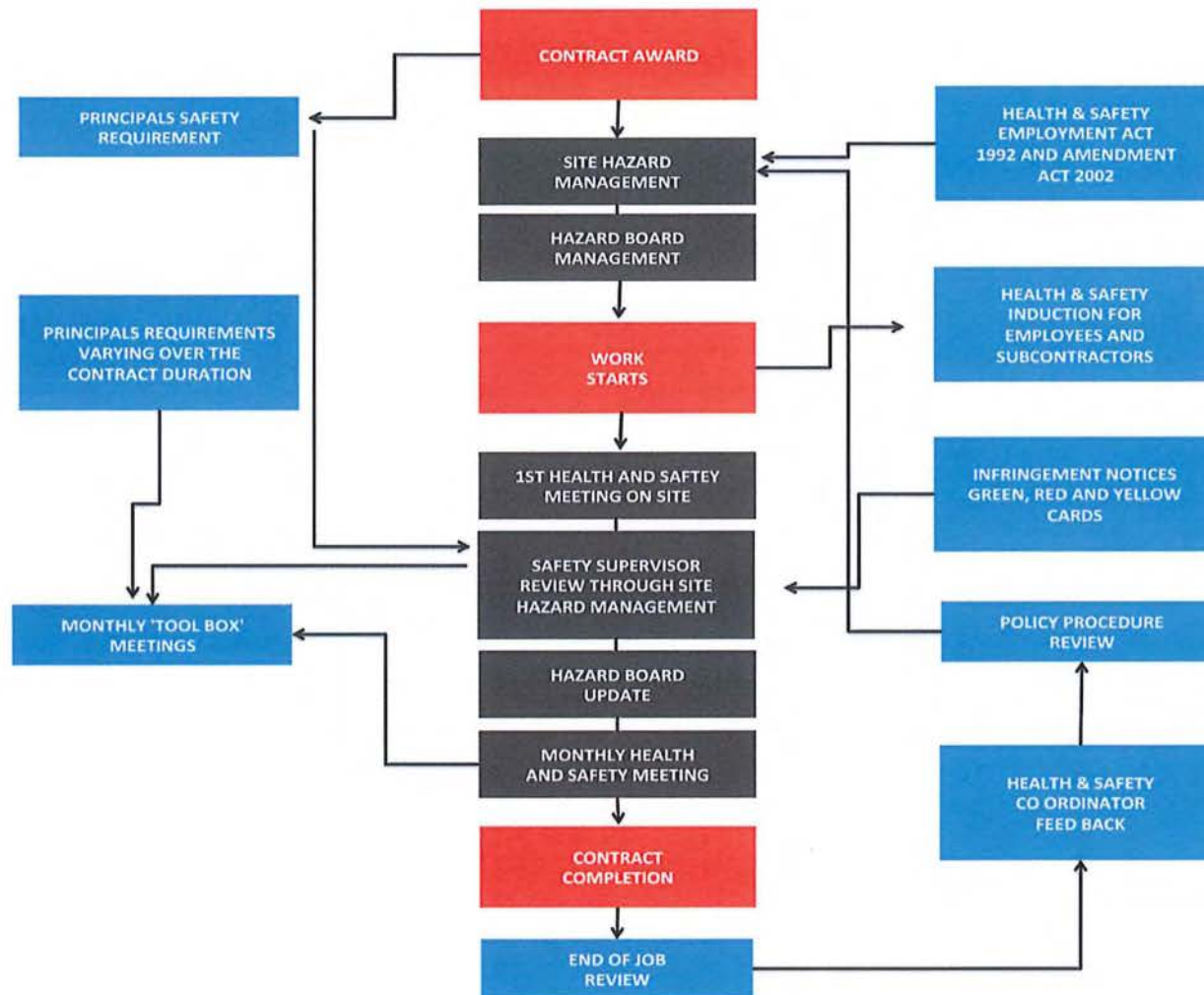
GREEN CARD – Safe Practice Award – A monthly draw is conducted with a winning prize.

YELLOW CARD – Infringement Notice – 2 yellow cards in 3 months and the offender is removed from site.

RED CARD – Serious Infringement Notice – Immediate removal from site.

The card system has worked very effectively to date, it is a simple system in which the rules are very clear for everyone entering site.

SECTION 7.0 HEALTH AND SAFETY PLAN



LTM CARD SYSTEM

| | | |
|---|---|----------------------------|
| LTM No. 0101 | LTM BUILDING CONTRACTORS INFRINGEMENT NOTICE | SAFE PRACTICE AWARD |
| Date: _____ Time: _____ Offender: _____ Employer: _____ Site: _____ Item Requiring Attention: _____ Signed by: _____ | Awarded to: _____ Employer: _____ Site: _____ Signed by: _____ Date: / / | |



SECTION 8.0

LTM COMPLAINTS PROCEDURE

The following complaints procedure will be implemented on Kumutoto Site 10;

1. All complaints will be directed in the first instance to the Site Manager, Gerry Andrews

Gerry Andrews

Mob: 021 221 9083

Email: gerrya@mcguinness.co.nz

2. Gerry Andrews will have the responsibility to ensure that the complaints procedure process is enacted and communicated correctly.

LT McGuinness will prominently display alongside the works a signboard with the 24 hour contact number of LT McGuinness Site Manager, Gerry Andrews.

3. LT McGuinness will maintain on site a complaint register and log of actions taken.

The register will include the following;

- A standard complaints procedure pro forma
- Date of complaint log
- Complaint names log
- Actions taken log
- Report back on log
- Close out log



APPENDIX A
DRAFT TRAFFIC MANAGEMENT PLAN



LT McGuinness

Site 10 Development, Wellington
Waterfront

**Construction Traffic Management
Plan**

Date _____



TDG Ref: 12950 ctmp.docx

DRAFT

LT McGuinness

Site 10 Development, Wellington
Waterfront

Construction Traffic Management Plan
Quality Assurance Statement

Prepared by:

Eliza Sutton

Principal Transportation Engineer

Reviewed by:

Name

Title

Approved for Issue by:

Name

Title

Status:

Draft report

Date:

Date _____

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DRAFT

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1. Background

TDG have been commissioned by LT McGuinness to develop this Construction Traffic Management Plan (CTMP) in support of the planned development of a commercial building known as 'Site 10', on Wellington Waterfront. The purpose of this report is to outline the anticipated construction philosophy, as it is known at this early stage of planning, to provide Council with information as to how the effects the construction phase on the wider roading network are planned to be mitigated.

This CTMP has been developed with regard to the construction of the commercial building only; the construction of the adjoining Open Space areas (which form a parallel Resource Consent to that for the building itself) will be the responsibility of others.

The site is located to the north of the Waterloo Quay intersection with Whitmore Street. The site can be accessed via a number of intersections located along Waterloo and Customhouse Quay, however, it is most conveniently accessed via the Whitmore Street intersection, or Bunny Street (to the north).

The site is currently used as a surface level campervan park and commuter carparking area, with an established residential apartment building (Shed 21) to the immediate north. To the north-east of the site, the land and wharfs are under the control of CentrePort, and on-going access to these established facilities will need to be provided for the duration of the construction period.

2. Existing Environment

The Site 10 development site is located within land under the management of Wellington City Council City Shapers (previously Wellington Waterfront Ltd). The site is located to the immediate north-east of the Customhouse Quay intersection with Whitmore Street.

The site is currently used as a public carpark and campervan park, with a poorly defined vehicle laneway running north-south to the east of Site 10. This laneway provides access to Site 10, the established Shed 21 (to the north) and CentrePort land (to the north-east). The laneway has connections with both Bunny Street and Whitmore Street, and also connects to the established Kumototo Precinct laneway to the south.

The Waterfront as a whole attracts and carries a significant volume of pedestrian and cycle traffic. To the south of the site, formed routes are established throughout the Waterfront to cater for these users. In the immediate vicinity of the site, pedestrians and cyclists are less well catered for, with these modes being mixed with vehicular traffic. Nonetheless, there remains a high volume of pedestrians and cyclists travelling along the laneway, and across Customhouse Quay, and these users will require particular consideration when planning the construction development.

3. Construction Operations

3.1 Construction Programming

Preliminary programming of the construction works has identified an overall work programme of some 24 months, likely beginning mid-2016 (subject to various consents being granted).

Stage 1: The initial construction phase will involve piling around the perimeter of the site, before excavating to enable the basement carpark and services to be established.

For this initial period of around 9 months, during which the piling, excavation, and construction of the basement through to approximately Level 1 of the building will be undertaken, the footpath fronting Waterloo Quay will be closed to enable the works to be undertaken. Pedestrian diversion signage throughout the surrounding area will be required to support this closure. This will be discussed later in the report.

Stage 2: The construction of the building (L1 and above) will allow for the Customhouse Quay footpath to be re-opened via a covered gantry will be provided, to enable safe pedestrian access.

In keeping with other developments throughout the Waterfront, construction traffic access will be restricted during peak pedestrian periods. On-going access for all legitimate users of the waterfront will be maintained.

3.2 Site Access

3.2.1 Stage 1: Piling and Ground Floor Development

It is intended that site access for heavy vehicles will be achieved primarily via the Whitmore Street gates. As the right turn into the waterfront area is banned from the south at the Whitmore Street intersection, this will mean that all trucks will arrive to the site either via Waterloo Quay (to the north) or Whitmore Street (to the west).

During the initial construction period, controlled access will be established from the Waterfront land to the construction site itself, so that only vehicles associated with the works are able to access the site. Staff will be made available on the ground during the arrivals and departure of heavy vehicles, to ensure the safety of other users through the area.

Key features of the traffic management during this stage includes:

- ▣ Closure of the Customhouse Quay footpath adjacent to Site 10, with pedestrian diversion routes signs established within the adjoining Waterfront area and roading network.
- ▣ The eastern laneway will remain accessible to all vehicular traffic throughout. Due to the localised width restriction adjacent to the south-eastern corner of the building, pedestrian and cyclists will be discouraged from using the lane (but not specifically restricted).
- ▣ All truck access to the site will be via Whitmore Street gates.

Figure 1 shows the intended work site area, and access for the largest vehicles. **Figure 2** highlights the pedestrian and vehicle routes through the area. The footpath closure and restrictions of the eastern laneway will require some pedestrian diversion routes to be signed.

3.2.2 Stage 2: Level 1 (and above) Construction

During the latter period of construction (when the portion of building above ground is being constructed), loading will occur by way of a dedicated loading zone adjacent to the laneway. This is shown on **Figure 3**.

Key features of the traffic management during this stage includes:

- Customhouse Quay footpath will be re-opened, with a pedestrian gantry installed to enable works to safely occur overhead.
- An overnight lane closure of the left/through lane may be required on occasion, subject to Council approval.
- The eastern laneway will remain accessible to all vehicular traffic throughout. Due to the localised width restriction adjacent to the south-eastern corner of the building, pedestrian and cyclists will be discouraged from using the lane (but not specifically restricted).
- A construction loading zone will be installed within the laneway.
- All truck egress to the site will be via the Bunny Street gates, and exit via Whitmore Street.

A cantilevered structure is proposed to be installed at a height 4.5m above the adjacent left/through lane, to enable the façade to be constructed. This is shown indicatively by **Figure 4**, and will require approval by Council. Over-dimensioned loads will be required to use the outer southbound lanes.

3.2.3 Staff Parking

When practicable, some staff parking will be available within the work site itself. This may include the basement carpark (once it is completed). When no space is available, staff will be directed to park elsewhere or use public transport. With respect to this latter point, it is noted that the Wellington Train Station and Bus Transfer Station are located in close proximity to the site.

3.3 Hours of Operation

Construction traffic movements into and out of the site will be limited to between 7am and 7pm Monday – Saturday, with heavy vehicle movements avoided during the peak pedestrian periods. It is not expected that works on the site itself will need to be undertaken outside these hours, with the exception of some façade work on the western side of the building, which will occur during the overnight lane closures.

3.4 Access to Adjacent Properties

On-going and enduring vehicular access through the area will be maintained throughout the construction period, to ensure full access to Shed 21 and CentrePort is provided. In addition, access will be ensured for pedestrian and cyclists through diverted routes and protected pathways.

As previously described, the Customhouse Quay footpath will be closed for a period of approximately six months, to enable piling and excavation works to be completed. Pedestrian diversion routes (either through the Waterfront area or on the adjoining public roading network) will be signed for this period.

3.5 Dust Suppression and Detritus Control

Dust suppression and detritus control is to be provided by the Contractor. The Contractor is to liaise with the Road Controlling Authority to ensure that dust suppression and the spread of detritus material (dropped from heavy haulage vehicles carting materials to the site) is appropriately controlled and remedied. The Contractor is to adhere to any further guidance given by the Traffic Management Co-ordinator and/or the road controlling authorities (such as localised speed restrictions) in relation to dust suppression and removal of detritus material.

3.6 Material Storage

All materials will be stored on-site. No material will be stored within the public highway at any time.

4. Traffic Management

The adjoining roads are classified as Principle or Arterial Streets, and as such are designed to accommodate large and heavy vehicles. Based on the size of the development area, it is anticipated that the largest truck able to be accommodated on site will be a maximum rigid truck. The number of truck movements associated with the development will be subject to a more detailed traffic management plan to be developed prior to works being undertaken, but access by the large vehicles will be limited to outside pedestrian peak periods, to ensure on-going safety for the general public.

4.1 Heavy Vehicle Volumes

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4.2 Access

Given the constrained size of the development site, it is not anticipated that any significant number of vehicles will be on site at any one time. Any vehicles on site will be marshalled while moving.

4.2.1 Stage 1: Heavy Vehicles

Heavy vehicle access to the site will be managed entirely via the Whitmore Street intersection during the initial construction period, to minimise the impact of heavy vehicle traffic around the adjoining residential building of Shed 21 during the excavation works. With right turns into the waterfront banned at this intersection, arrivals by heavy vehicles will be entirely accommodated via Customhouse Quay (north) or Whitmore Street (west). All outbound movements are permitted at the Whitmore Street gates, so the outbound route adopted by the heavy vehicles will not be restricted.

Trucks entering the site will do so in a forward motion where possible. However, there may be the occasional need for a truck to reverse into the site or loading zone (from the Whitmore Street driveway access area) dependant on construction operations at any given point. These movements will occur under the control of marshals to ensure the on-going safety of the public.

All movements out of the site will occur in a forward motion.

4.2.2 Stage 2: Heavy Vehicles

During subsequent periods of construction, a loading zone will be established in the laneway adjacent to the site. The preferred location of the zone will be identified as detailing such as the crane location is finalised. During this period, access will be required by both intersections, with heavy vehicles directed to enter via Bunny Street and exit via Whitmore Street. No heavy vehicles associated with the construction will be permitted during peak pedestrian periods, including the weekday commuter period and Saturday mid-day (summer) periods or event days (such as the 7's).

4.2.3 General Access and Management

Smaller vehicles associated with the construction phase (trades vans and the like) may arrive and depart from either the Whitmore Street or Bunny Street access, as suits.

The Site and/or Project Manager will be responsible for communicating the site access limitations to all drivers and/or contractors bringing trucks to the site.

4.3 Loading

During the initial piling and excavation phase, all loading and unloading will occur within the construction site.

During the subsequent phases, as the above ground levels are constructed, loading will occur from a loading zone on the adjacent laneway. The exact location of the loading zone will be confirmed as the planning for the construction works is developed.

4.4 Signage

Traffic and warning signs will, wherever possible, will conform to the standards specified in COPTTM. These signs may be supplemented with some specifically designed unique signage, particularly with respect to providing information for pedestrian diversion routes.

4.5 Material Storage

All materials will be stored on-site. No material will be stored within the public highway at any time.

5. Pedestrian and Cycle Access

5.1 Stage 1

As previously described, for an initial six month period, the Customhouse Quay footpath adjacent to the site will be closed to pedestrian traffic, to enable the piling and excavation works to be completed.

In addition, the laneway located to the east of the construction site will be limited to vehicular traffic only. There is a localised pinch point to the south-east of the building footprint, and a requirement to provide for on-going access to Shed 21 and CentrePort. Pedestrians and cyclists will be diverted so as to connect with the CBD via the Customhouse Quay signalised crossing, rather than be encouraged to share the narrow laneway with vehicular traffic.

During this period, pedestrian diversions will be in place, to direct members of the public through alternative routes. The anticipated extent of the closure and the alternative available routes was shown previously in Figure 2. The full extent of the signage adopted will be agreed with Council as part of the more detailed TTMP process which will be undertaken prior to construction works beginning.

5.2 Stage 2

After the initial works have been completed, a gantry will be established along the same length of Customhouse Quay, to enable protected pedestrian access through this area, with construction work then able to occur above.

Pedestrians and cyclists will be able to access the laneway, however they will be encouraged to use protected route on Customhouse Quay in order to avoid the 'pinch point' on the lane adjacent to the Police building.

6. Implementation and Liaison

6.1 Project Manager Contact Details

Contact details for the Project Manager and associated personnel are provided below:

- Project Manager: Kerrin Manuel
- Site Traffic Management Supervisor: XXX

6.2 Affected Parties

Access to Shed 21 and CentrePort will be maintained throughout the works, as will access for pedestrians, cyclists and vehicles through the adjacent area.

Notices detailing the timing of the construction works will be provided to the owners and occupiers of Shed 21 commercial and residential units, as well as CentrePort and WWL. In addition, public notices will be posted in the vicinity of the site in advance of the works and through the duration when the footpath is closed.

Communication with the Shed 21, CentrePort and WWL will be the responsibility of the Project Manager, and will be on-going through the duration of the works. A contact number will be provided within any communications, in order that any issues may be raised and dealt with promptly.

These communications will be issued at least ten working days prior to the commencement of works on site. The communication will be the responsibility of the Project Manager.

6.3 Driver Induction

The STMS is responsible to undertake a site induction with all transport operators contracted to transport materials to the site. The induction is to cover (but not be limited to):

- the route of travel
- permissible times of deliveries
- requirement for and use of possible communication systems
- requirements to abide by local speed restrictions for dust and detritus management
- requirement for courteous driving
- requirement to report hazards on the transport route

6.4 Utility Services

There will not be a need to restrict access to utilities providers. Should access to the site, or surrounding area, be required by such parties, the Project Manager should be engaged.

6.5 Complaints Procedure

Any communications issued will include contact details for the Project Manager for any complaints to be directed. Any comments will be quickly communicated to the relevant project staff and a response provided and actions taken as appropriate. Should any changes be required to any approved CTMP or TTMP, a records of the change itself shall be kept.

A full record of complaints and responses shall be maintained by way of a complaints register.

6.6 Updates to Plans

Approved CTMPs and TTMPs will be reviewed by the Project Manager and STMS on a regular basis, to ensure that the documents remain relevant for use.

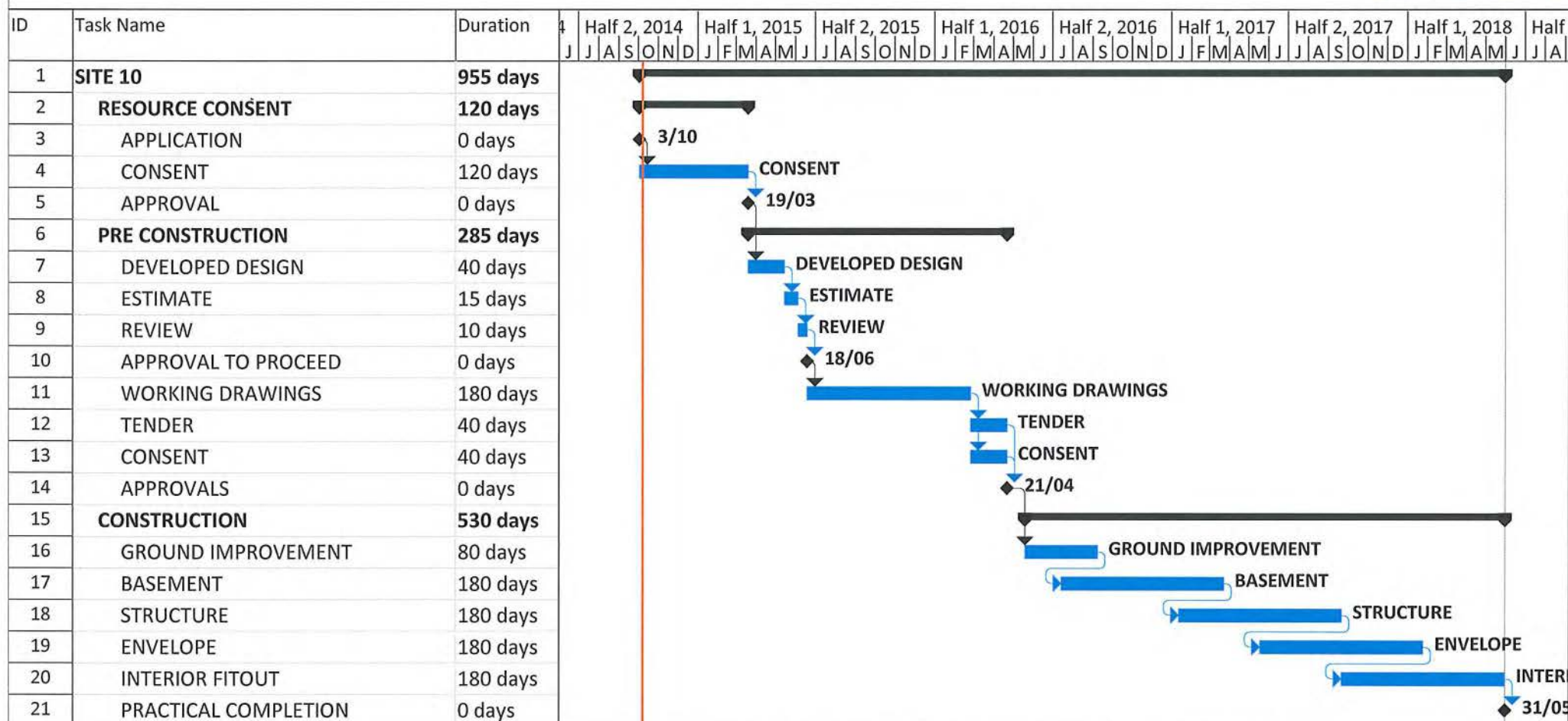
Any changes to these plans will be recorded.

The structure of and requirements for the CTMP are to be approved by the road controlling authorities prior to construction as directed by the conditions of consent.

TDG Ltd

APPENDIX B
DRAFT PROGRAMME

SITE 10 CONCEPT PROGRAMME FOR DISCUSSION REVISION 5 - SEPTEMBER 2014



Project: DraftProgrammeREV1.09
Date: Wed 8/10/14

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|-----------------|--|--------------------|--|-----------------------|--|
| Task | | External Milestone | | Manual Summary Rollup | |
| Split | | Inactive Task | | Manual Summary | |
| Milestone | | Inactive Milestone | | Start-only | |
| Summary | | Inactive Summary | | Finish-only | |
| Project Summary | | Manual Task | | Deadline | |
| External Tasks | | Duration-only | | Progress | |