CONSTRUCTION & ENVIRONMENTAL

MANAGEMENT PLAN

(CMP)

For Development Approval at

St Ignatius College, Riverview Sydney

Stage 1 Works

Prepared by:

Novati Constructions Pty Limited

On Behalf of:

St Ignatius' College Riverview

Tambourine Bay Road,

Lane Cove NSW 2066

TABLE OF CONTENTS

1. INTRODUCTION

This CONSTRUCTION MANAGEMENT PLAN (CMP), has been developed on behalf of St Ignatius College Riverview to address construction items that relate to the proposed Stage 1 development.

The Implementation of a CMP is key to the successful completion of a project and ensures that a project is carried out adopting the highest quality, safety & environmental standards.

All construction activities will be undertaken in accordance with the relevant sections from the WHS Act 2011 & WHS Regulations 2011, Associated Codes of Practice, Building Code of Australia, Australian Standards and Lane Cove Council Approval.

2. PROJECT DESCRIPTION

Project Address:	Tambourine Road Lane Cove
D.P.:	D.P. 234296
Client:	St Ignatius' College Riverview

2.1. Existing Site

The existing site fronts Tambourine Bay Road and Riverview Street with the main vehicular access to the school via Riverview Street.
The Site comprises multiple buildings including Administration building, Chapel library, classroom buildings and boarding houses, playing fields and wharf access.

2.2. Proposed Works

The proposed Stage 1 Development comprises the partial demolition construction of additional floors and extension of the existing Therry and O'Neill building's, extension of the existing Therry building to the North & West, extension of the O'Neill building to the North East, refurbishment of the Therry & parts of O'Neill and additional landscaping works.

2.3. Expected Duration of Works

The expected construction duration is approximately 14 months from commencement Building Works, with the following key stages of procurement;

- **Demolition / Excavation:**
  - Erection of Scaffold & Demolition of structure
  - Completion of additional geotech & environmental testing
  - Erection of crane

  - FRP concrete slab on ground
- **Structure:**
  - Progressive erection of building perimeter scaffold
  - FRP concrete framed structure in typical concrete pour cycles
- **Façade:**
  - Erection of façade
  - Erect balustrades & windows
  - Progressive removal of scaffold from the perimeter of the structure
- **Fit-out:**
  - Installation of services
  - Installation of internal walls
  - Internal floor, wall & ceiling finishes
  - Internal fixtures
  - Commissioning internal works
- **External Works:**
  - Hard Landscaping
  - Soft Landscaping
  - Commissioning external services

3. SITE SET-UP & ESTABLISHMENT

3.1. General Layout

Refer to Appendix *2: Preliminary Site Management Plan* for the location of offices, amenities, hoardings and construction zones.

It is proposed to erect a "A" Class hoarding surrounding the building and ATF fencing to Gorman Field with a gated site access point for all deliveries and materials handling movements.

The site office and amenities will be in portable sheds and existing St Johns Building. Temporary amenity services will be connected to the nearby services lines.

The majority of trucks will be loaded & unloaded within the site compound in Gorman field in a designated area.

3.2. Site Offices and Amenities

The Site Office will be located on the northern side of Gorman field. All visitors will be directed to the Novati Constructions Site office for enquiries, registrations and inductions.

This area will be segregated from the construction zone to facilitate easy access without the need for PPE, however all construction works will require full PPE compliance as per the site WHS Management Plans and Policy.

3.3. Vehicular Site Access

Vehicular site access will be restricted to construction vehicles entering the site for unloading and loading only.

The proposed entry will be via Riverview Street entry gate. This will then lead vehicles to the internal traffic path and the construction zone in Gorman field, which will also service the parking and transfer for all Concrete Trucks during concrete pours.

3.4. Subcontractor and Personnel Access

The main personnel entry into the site will be via Riverview Street and gates at Gorman field.

The following temporary hydraulic services will be provided, in compliance with statutory and industrial requirement;

- Drinking fountain
- Toilets

Hydraulic services to the site sheds will be brought via the existing services and connected to the stormwater and sewer lines.

The following temporary electrical services will be provided, in compliance with Work Cover acts and regulations;

- Temporary Electrical Boards located on each floor
- Task and egress lighting as required
- Temporary electrical services will be brought to the site sheds from nearby points.

3.5. Waste Management

Throughout the construction works, a comprehensive waste management and waste removal plan will be followed. Rubbish and trade waste will be removed from each floor prior to the end of each working day and placed into either the Recycling or Sorting Station or into a General Waste Station. A dedicated rubbish removal contractor will remove the dedicated skip bins from site, as required, where they are taken to their yard for further sorting and recycling of concrete, metals bricks, timber, gyprock and soil.

A waste removal summary will be provided monthly by the rubbish removal contractor and will be analysed to ensure the ongoing maximum efficiency and sustainability of all construction waste removal activities / management.

4. CONSTRUCTION METHODOLOGY

4.1. Materials Handling

4.1.1. Cranage

Generally the intent is to use the site compound for materials handling during construction.

An effective material handling strategy has been centred on the implementation of an onsite tower crane, which will be implemented for the duration of the construction works.

The Crane will be erected early in the construction programme as it will be used for materials handing for the majority of the construction of the building.

4.1.2. Concrete Handling

It is our intention to pump the majority of the Concrete on site with the possibility of using the Tower Crane to pour some of the vertical elements such as columns and walls depending on availability.

4.1.3. Vertical Materials Handling

The majority of vertical lifting will be via the Loading platforms located at each level of the structure, and will utilise the tower crane for each movement.

Throughout the construction of the structural phase of the project, it is envisaged that there will be limited horizontal movement of materials. All deliveries will be unloaded directly where required by the tower crane.

During the fit out stage, materials will landed on loading platforms at various locations, and then manhandled to the work face using pallet trollies.

4.2. Scaffolding and Fall Prevention

For the duration of the construction to the completion of the external works, an external scaffolding system will be implemented. This will provide not only the necessary height safety and construction personnel egress systems necessary during the construction phase, but will also provide an external screening system, protecting the surrounding areas from falling objects and dust escape / extraction.

Scaffolding will be erected on above the “A” Class Hoardings surrounding the building. Scaffolding will also be used on the upper levels where the building steps out. All external scaffolds will have chain wire and shade cloth as well as stretcher access stairs for easy and safe access to the work face and in case of emergency for stretcher access.

4.3. Excavation & Remediation

All excavation & geotechnical procedures will be carried out in accordance with the Site Geotechnical Investigations.

4.4. Protection of Trees during Construction

Tree protection measures will be implemented to any trees that may be affected by construction work.

5. TRAFFIC MANAGEMENT

5.1. Traffic Management Guidelines and Principals

An Authorised traffic management consultant will be engaged to develop “Traffic Control Plans” (TCP’s) applicable to the Lane cove Council Standard requirements for Construction Traffic Management, Australian Standards and Traffic control at Work Site Guidelines.
General guidelines for traffic / pedestrians management that will be in effect over the entire duration of the constructions and development works are to be carried out in full accordance with the following principles;

- Provision of a convenient and safe environment for pedestrians.
- Minimise effects on pedestrian movements and amenity.
- Manage and control all construction traffic movements on the internal road network and vehicle movements to and from the construction site.
- Maintain existing on-street parking in the vicinity of the site where practical.
- Restrict heavy vehicle activity to designated routes through the area.
- Fastidiously maintain the upmost safety for all Students, teachers and workers directly affected by the development works;
- Provide appropriate access to the site for construction traffic.
- Construction vehicles, associated with the construction process, will be accommodated on-site or within a dedicated "Construction Zone".
- Construction access driveways and the on-street "Construction Zone" to be managed and controlled by qualified site personnel.

- Pedestrian movements adjacent to the construction activity to be protected with the erection of ATF fencing, containment fencing and all required signage provisions.
- Pedestrian movements across the construction access driveway to be managed and controlled by qualified site personnel when the driveway is in use.
- Construction activity to be carried out in accordance with Council's approved hours of work.

5.2. Traffic Routes and Hours of Work

The head contractor will be responsible for the communication and general control of sub-contractors and visitors associated with the development in relation to Lane Cove Council approved hours of work.

To facilitate an efficient program, the arrival and departure of trucks associated with construction works will be regulated and onsite works will be carefully managed and controlled by site personnel.

During construction, trucks transporting material to/from the site will be accommodated on site or within the designated internal traffic paths and designated construction zones waiting areas. These areas will be managed and controlled by site personnel.

The designated vehicular access routes to and from the site are proposed to restrict vehicular traffic to the main road network through the area. In particular, these routes are proposed to prevent vehicles accessing local roads and surrounding residential areas in the vicinity of the site. Truck drivers will be inducted and advised of the designated truck routes to and from the site.

5.3. Vehicle Movements upon arrival / Exit

The arrival and departure of trucks to and from the site and pedestrian movements adjacent to the construction activity will be carefully managed and controlled by site personnel. These personnel will manage the movement of construction vehicles to and from the site.

All work personnel will be required to wear high visibility fluorescent safety vests and Personnel Protective Equipment (PPE). Wet weather clothing will be made of fluorescent high visibility material.

All trucks leaving the site will be loaded to prescribed weight limits and loose material will be covered during transport from the site. Loose material will be removed from all vehicles and / or machinery before leaving the site and entering the road system.

5.4. Traffic Flow

Site personnel controlling traffic are at all times to consider workplace safety when vehicles enter or leave site. Vehicles already on the road have right of way.

5.5. Internal “Construction Waiting Zone” and Signage

As referenced in Appendix 1, a "Construction Waiting Zone" on the internal road to Gorman field is proposed. The extent and length of "Construction Waiting Zone" required will be subject to a close co-ordination with the school The "Construction Waiting Zone" will be required during the construction period for the multiple delivery of construction material and large stage concrete pours.

All “Construction Waiting Zone" will be signposted to alert all campus users of possible construction vehicle movement.

6. CONSTRUCTION WORKS

6.1. Neighborhood Relations

In the initial stages of the project, all neighbours will be notified of the coming construction works. This will be undertaken by the distribution of fliers throughout the neighbourhood.

At all times, all attempts will be made to ensure good neighbourhood relations. In the event that a dispute takes place it is the responsibility of the Site Manager to attend and resolve in the first instance.

6.2. Site Industrial Relations

In the event of any industrial issues, all queries / concerns will be handled by the Site Manager on site in the first instance. All attempts will be made to resolve issues as quickly as possible. A Site Delegate will also be present on the project to assist in resolving issues.

6.3. Working Hours, Shiftwork and Overtime Plan

The site will operate on a six (6) day working week basis as follows;

- Monday – Friday In accordance with Development Consent
- Saturday In accordance with Development Consent
- No Works on Sundays or Public Holidays.

6.4. Noise Control

The main concern regarding noise will be during the demolition, detailed excavation stage of the project and during concrete pours. The proposals have been designed to work with the existing site levels to ensure excavation is reduced to a minimum. All other works will fall into general fit out works. There are a number of school buildings in close proximity to the project the Site Manager and School representative will liaise on a regular basis to ensure the staff and students made aware of upcoming noisy works.

6.5. Temporary Weather Proofing – Storm water Control

To ensure the adequate water proofing of each stage of the newly constructed works for the period of construction and prior to the erection of roof structures and external façade systems, a means of waterproofing is to be established. On each level, all penetrations will be protected and capped until a permanent connection is established. Prior to installation of windows and glazed doors there will be a necessity for temporary waterproofing to window openings exposed to rain and wind.

6.6. Sediment and Dust Control

Adequate measures will be employed to for sediment control and to prevent the generation of excessive dust during these activities including;

- Exposed ground surfaces affected by heavy vehicle movements will be wetted down to suppress the excess generation of dust with excess run-off from wetting and/or wash-downs will be directed to the sediment control system not create excessive run-off from the site.
- A wash-down area using manual sprayers will be provided at the site entry / exit to facilitate removing loose material from vehicles before leaving the site.
- All heavy vehicles involved in removing demolition, site clearing or excavated material from site will be loaded to their prescribed weight limits and loads covered at all times during transportation.
- Gates shall be fitted with shade cloth and closed between vehicle movements.
- Pedestrian footpaths; roadways and crossovers shall be cleaned daily.

6.7. Site Safety and Environmental Management

An Environmental and Quality Management Plan will be adhered to at all times on this project. All site workers shall be site inducted by the site supervisors and informed of any on site environmental hazards and/or controls, with each having to sign a site induction form. Site supervisors shall assist where necessary to educate and inform

every contractor of the environmental hazards and controls and shall ask each contractor to provide their own work method statements that must demonstrate the following;

- All reasonable steps have been taken to prevent pollution and protect the environment.
- Promote action to prevent or minimize potential environmental damage.
- Implement rules and methods of work that prevent an incident from occurring.
- Ensure that all precautionary measures are in place and regularly check and maintain the potential risks of an adverse environmental incident.

6.8. Signage and Public Protection.

Site personnel shall supervise traffic in and out of site. Adequate signage warning the public that the area is a construction zone and that no one is permitted on site without proper safety gear (hard hat, boots etc) shall be enforced.

6.9. Languages

Printed material in various languages shall be available on site.

6.10. Air Quality Management

The following procedures and controls shall be strictly enforced on site;

- Cover materials and stockpiles.
- Fit dust catchers to equipment.
- When excavating into rock, we shall keep the surface moist to minimize dust.
- Put up dust screens around the edges of the site.
- Wear Facemasks and respirators to protect health.
- Use wet, hydro or vacuum blasting as an alternative to dry blasting when possible.
- No burning is permitted on site.
- Welding shall be carried out in well-ventilated spaces.

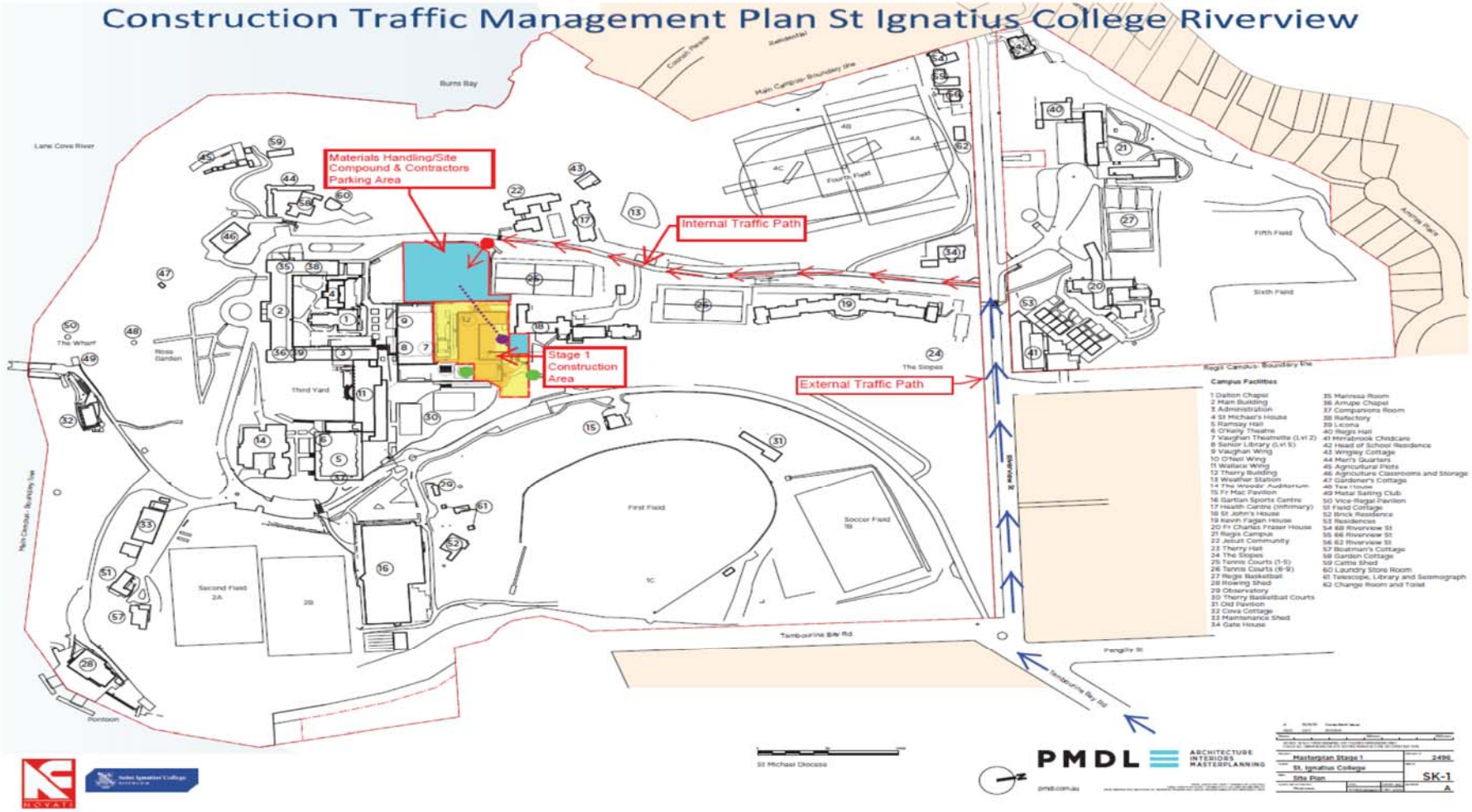
6.11. Noise Management

The following procedures and controls shall be strictly enforced on site;

- Work shall only be carried out between council approved times.
- Perform noisy work during less sensitive time periods
- If noisy work cannot be avoided i.e. concrete pours advise the school in advance so that appropriate action and mitigation can.

- Select low-noise plant & equipment
- Ensure equipment has mufflers installed
- Use quieter and less vibration emitting construction methods
- Regulations limiting the noise that machines and accessories can lawfully emit shall be enforced.

APPENDIX 1 – PRELIMINARY CONSTRUCTION TRAFFIC MANAGEMENT PLAN



APPENDIX 2 – PRELIMINARY SITE LAYOUT PLAN