



St Aloysius' College Masterplan Project

State Significant Development Application

Preliminary Construction Traffic & Pedestrian Management Plan

Response to Submissions
24 July 2018



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1 Background

- 1 The SSDA submission (8669) is a State Significant Development Application under 83B of the EP&A Act, and addresses the SEARs issued by the Department of Planning on 28 August 2017, reissued 22 November 2017, for the staged redevelopment of St Aloysius' College.
- 2 The SSDA seeks consent for the staged redevelopment of the St Aloysius' College based on:
 - a. Concept approval for the building envelopes for alterations and additions and new development across the Junior, Middle and Senior School Campuses.
 - b. Stage 1 - detailed built form approval for the Middle and Senior School Campuses. For these two campuses the delivery will be conducted across two discrete phases as summarised below:
 - i. Wyalla Senior Campus: Single storey addition to the heritage building fronting Robertson Lane, as well as internal refurbishment and upgrades of teaching and learning spaces.
 - ii. Upper Pitt Street Main Campus: Demolition and rebuild of the existing four (4) storey North-East Wing fronting Upper Pitt Street, construction of new infill building in the existing quadrangle, and associated refurbishment of north-wing, south-wing, Great Hall and Chapel.
- 3 Stage 2 - detailed built form approval for the Junior School Campus will be at a later date and is not part of this submission.

2 Introduction

- 4 This Preliminary Construction Traffic & Pedestrian Management Plan has been prepared as required by the SEARs issued for the SSDA for the proposed redevelopment of the St Aloysius' College Masterplan Project. This plan is made up of two parts;
- a. Preliminary Construction Management Plan (PCMP) – outlined below
 - b. Preliminary Construction Traffic & Pedestrian Management Plan (PCTPMP) – presented as Annexure 3
- 5 This version has been updated to address the submissions to the Application related to the PCTPMP. Specifically Section 3.4 **Construction Schedule** of the PCMP and the **Traffic Control Plan** and **Pedestrian and Cyclist Amenity** Sections of the PCTPMP.
- 6 This PCMP is intended to describe the Project's key construction characteristics, including;
- a. Detail the scope of the works to be completed including details of the various stages, e.g. Demolition, Excavation, Construction etc. and the duration of each stage.
 - b. Identify local traffic routes to be used by construction vehicles.
 - c. Identify ways to manage construction works to address impacts on local traffic routes.
 - d. Detail how construction workers will travel to and from the site and parking arrangements for those that drive.
 - e. Identify any proposed road closures, temporary traffic routes, loss of pedestrian or cyclist access or reversing manoeuvres onto a public road and provide Traffic Control Plans (TCPs) prepared by an accredited RMS Red or Orange card holder to manage these temporary changes.
 - f. Detail the size (including dimensions), numbers and frequency of arrival of the construction vehicles that will service the site for each stage of works.
 - g. Provide for the standing of vehicles during construction.
 - h. If trucks are to be accommodated on the site, show where the construction vehicles will stand and the vehicle swept path to show that these vehicles can access and egress the site in a forward direction (including dimensions and all adjacent traffic control devices, such as parking restrictions, pedestrian facilities, kerb extensions, etc.).
 - i. If trucks are to be accommodated on Council property, provide a drawing showing the location of any proposed Works Zone (including dimensions and all adjacent traffic control devices, such as parking restrictions, pedestrian facilities, kerb extensions, etc.).
 - j. Show the location of any site sheds and any anticipated use of cranes and concrete pumps and identify the relevant permits that will be required.
 - k. If a crane/s are to be accommodated on site, detail how the crane/s will be erected and removed, including the location, number and size of vehicles involved in the erection/removal of the crane/s, the duration of the operation and the proposed day and times, any full or partial road closures required to erect or remove the crane/s and appropriate Traffic Control Plans (TCPs) prepared by an approved RMS Red or Orange Card holder.
 - l. Make provision for all materials, plant, etc. to be stored within the development site at all times during construction.
 - m. State that any oversized vehicles proposed to operate on Council property (including Council approved Works Zones) will attain a Permit to Stand Plant on each occasion. (Note: Oversize vehicles are vehicles longer than 7.5m or heavier than 4.5T).
 - n. Show the location of any proposed excavation and estimated volumes.

- o. When excavation works are to be undertaken on school days, all vehicular movements associated with this work shall only be undertaken between the hours of 9.30am and 2.30pm, in order to minimise disruption to the traffic network during school pick up and drop off times.
 - p. Show the location of all Tree Protection (Exclusion) zones (Note: storage of building materials or access through Reserve will not be permitted without prior approval by Council).
- 7 This PCMP is a live document, intended to be updated by the selected Construction Contractor(s) as the Project develops.

3 Stage 1 Construction Management Planning

3.1 Construction Works

8 The Construction Works to be undertaken within Stage 1 of the SSDA comprise:

Phase 1: Senior School Campus - Staged refurbishment of "Wyalla" and partial demolition, detailed excavation and construction of a small single storey addition to the heritage building.

Phase 2:

- Main School Campus - Staged works to the Upper Pitt St campus, including;
 - a. partial demolition, detailed excavation and construction of a new four (4) storey North-East Wing fronting Upper Pitt Street;
 - b. minor demolition, detailed excavation and construction of a new four (4) storey infill building within the existing quadrangle; and,
 - c. refurbishment of the remaining north-wing, south-wing, Great Hall and Chapel.
- Senior School Campus - Staged refurbishment of "Wyalla"

3.2 Construction Site Areas

9 The Senior School Campus Construction site has access from Jeffreys Street, Upper Pitt Street and Robertson Lane. It has direct pedestrian access and limited vehicular access.

10 The Main School Campus Construction site has access from Upper Pitt Street and Kirribilli Avenue. It has direct pedestrian access and direct vehicular access.

11 Proposed construction site areas, including accommodation, storage and loading are shown in the Preliminary Site Management Plan contained in Annexure 1.

3.3 Construction Staging

12 It is envisaged that the construction works shall be delivered in a staged manner.

13 The current staging within each phase of Stage 1 is outline below.

3.3.1 Phase 1: Senior Campus - Wyalla

14 Phase 1.1:

- a. Site establishment, dilapidation and services surveys commence.
- b. Decant the public and staff out of Phase 1.1 areas.
- c. Erect hoardings for Phase 1.1 areas.
- d. Use vehicle access to transport material up to L3 and L4 of Dalton Hall.
- e. Refurbish Phase 1.1 areas.
- f. Dismantle the hoarding and handover Phase 1.1 areas.

- 15 Phase 1.2:
- a. Decant the public and staff out of Phase 1.2 areas.
 - b. Erect hoarding for Phase 1.2 areas and set up hoist to transport material to L2 and L3 of School.
and in conjunction,
 - c. Demolish existing wall in courtyard.
 - d. construct building envelope for one storey addition.
 - e. Refurbish Phase 1.2 areas and Install services and finishes to new area.
 - f. Dismantle the hoarding, site establishment and demobilise from site and handover Phase 1.2 areas.

3.3.1 Phase 2.1 to 2.13: Main Campus - Upper Pitt St. and Phase 2.14 Senior Campus - Wyalla

- 16 Phase 2.1:
- a. Site establishment, dilapidation and services surveys commence.
 - b. Erect hoardings for Phase 2.1 areas
 - c. Decant the public and staff out of Phase 2.1 areas.
 - d. Refurbish Phase 2.1 areas using the existing lift to transport materials to upper levels.
 - e. Dismantle the hoarding and handover Phase 2.1 areas.
- 17 Phase 2.2:
- a. Decant the public and staff out of Phase 2.2 areas.
 - b. Set up temporary site accommodation in school
 - c. Erect hoarding for Phase 2.2 areas and scaffold the demolition area
 - d. Demolition of the existing North-East Wing.
 - e. Dismantle temporary site accommodation and remobilise.
 - f. Detail excavation for building foundations and in-ground services.
 - g. Pour foundations and install in-ground services.
 - h. Pour the slab on ground and install crane.
 - i. Formwork, reinforce and pour the structure (L1, L2, L3, L4) and setup hoists/scaffolding
 - j. Refurbish Phase 2.2 areas and Install services and finishes to new area using the hoist/builder's lift to transport materials to upper levels.
 - k. Once the movement of heavy materials are minimised dismantle crane.
 - l. External hardscaping and soft landscaping.
 - m. Dismantle the hoarding, site establishment and demobilise from site and handover Phase 2.2 areas.

- 18 Phase 2.3:
- a. Decant the public and staff out of Phase 2.3 areas.
 - b. Erect hoardings for Phase 2.3 areas
 - c. Refurbish Phase 2.3 areas
 - d. Dismantle the hoarding and handover Phase 2.3 areas.
- 19 Phase 2.4:
- a. Decant the public and staff out of Phase 2.4 areas.
 - b. Erect hoardings for Phase 2.4 areas
 - c. Strengthening works to great hall structure
 - d. Refurbish Phase 2.4 areas
 - e. Dismantle the hoarding and handover Phase 2.4 areas.
- 20 Phase 2.5:
- a. Decant the public and staff out of Phase 2.5 areas.
 - b. Erect hoardings for Phase 2.5 areas
 - c. Refurbish Phase 2.5 areas and in conjunction, construct canopy.
 - d. Dismantle the hoarding and handover Phase 2.5 areas.
- 21 Phase 2.6:
- a. Decant the public and staff out of Phase 2.6 areas.
 - b. Erect hoardings for Phase 2.6 areas
 - c. Refurbish Phase 2.6 areas
 - d. Dismantle the hoarding, site establishment and demobilise from site and handover Phase 2.6 areas.
- 22 Phase 2.7:
- a. Decant the public and staff out of Phase 2.7 areas.
 - b. Erect hoardings for Phase 2.7 areas
 - c. Refurbish Phase 2.7 areas
 - d. Dismantle the hoarding, site establishment and demobilise from site and handover Phase 2.7 areas.
- 23 Phase 2.8:
- a. Decant the public and staff out of Phase 2.8 areas.
 - b. Erect hoardings Phase 2.8 areas

- c. Refurbish Phase 2.8 areas
 - d. Dismantle the hoarding, site establishment and demobilise from site and handover Phase 2.8 areas.
- 24 Phase 2.9:
- a. Decant the public and staff out of Phase 2.9 areas.
 - b. Erect hoardings for Phase 2.9 areas
 - c. Refurbish Phase 2.9 areas
 - d. Dismantle the hoarding, site establishment and demobilise from site and handover Phase 2.9 areas.
- 25 Phase 2.10:
- a. Decant the public and staff out of Phase 2.10 areas.
 - b. Erect hoardings for Phase 2.10 areas
 - c. Refurbish Phase 2.10 areas
 - d. Dismantle the hoarding, site establishment and demobilise from site and handover Phase 2.10 areas.
- 26 Phase 2.11:
- a. Decant the public and staff out of Phase 2.11 areas.
 - b. Erect hoardings for Phase 2.11 areas
 - c. Refurbish Phase 2.11 areas
 - d. Dismantle the hoarding, site establishment and demobilise from site and handover Phase 2.11 areas.
- 27 Phase 2.12:
- a. Decant the public and staff out of Phase 2.12 areas.
 - b. Erect hoardings for Phase 2.12 areas
 - c. Refurbish Phase 2.12 areas
 - d. Dismantle the hoarding, site establishment and demobilise from site and handover Phase 2.12 areas.
- 28 Phase 2.13:
- a. Decant the public and staff out of Phase 2.13 areas.
 - b. Erect hoardings for Phase 2.13 areas
 - c. Refurbish Phase 2.13 areas

- d. Dismantle the hoarding, site establishment and demobilise from site and handover Phase 2.13 areas.

29 Phase 2.14:

- a. Decant the public and staff out of Phase 2.14 areas.
- b. Erect hoardings for Phase 2.14 areas
- c. Refurbish Phase 2.14 areas
- d. Dismantle the hoarding, site establishment and demobilise from site and handover Phase 2.14 areas.

3.4 Construction Schedule

- 30 An indicative construction schedule has been prepared for the purpose of preparing this PCMP.
- 31 The Preliminary Construction Schedule is presented at Annexure 2.
- 32 It is assumed that the SSDA application will be submitted by March 2018 with Stage 1 construction commencing by December 2018.
- 33 The Construction Schedule outlines the sequence and timing of the key decanting and constructability steps for staging and progressing the works whilst maintaining school operations.
- 34 It should be noted that other than phases 1.2, 2.2 to 2.5, which are intended to be progressed early in the project, all other stages are primarily internal refurbishment works.
- 35 It is noted that this schedule shall be updated as the project progresses and its scope evolves.

3.5 Site Establishment

3.5.1 Trees, Dilapidation Report, Existing Services Survey

- 36 Prior to commencing work on site a Pre-Construction Dilapidation Report will be sought. This detail survey will encompass current structural, architectural, services and heritage conditions of the existing premises, construction zones and infrastructure. The dilapidation report will cover all areas where a construction certificate would apply and include adjoining facilities.
- 37 Utilities and Services locaters will survey the site and surrounding areas to plot the locations of existing services.
- 38 Tree protection will be carried out complying with AS 4970. Protection of Trees on the sites would also be undertaken in accordance with any applicable tree protection specifications from Council.
- 39 Additional geotechnical investigations of existing footings will be carried out progressively following demolition of the existing buildings. It is expected that existing building materials will be salvaged for re-use and initial excavation will determine the need for any archaeological monitoring.

3.5.2 Site Fencing, Hoardings and Accommodation

- 40 Temporary Site fencing and gates will be installed around all internal and external construction site areas.

- 41 Temporary B-Class hoardings and scaffold systems will be installed to boundaries adjoining the Demolition and overhead Construction site areas.
- 42 Site accommodation will be established subject to the amount of personnel working on site.
- 43 Temporary hoardings and signage will be adopted in working areas at all times during construction.

3.5.3 Temporary Utilities and Services

- 44 All existing services in the construction area will be identified and located to minimise disruption to the construction works and to adjacent facilities. Thorough investigation and staging of works will be undertaken to ensure that any capping and removal of services does not affect other Stages of the facility.
- 45 All existing services and utilities shall be disconnected and /or diverted around building work areas prior to demolition or construction works commencing. These services works will be carried out with the relevant utilities or services provider.
- 46 Reticulated power and lighting installations will comply to the requirements of the WH&S Regulations, Electricity Supply Authority and the Code of Practice for Temporary Electrical Installations on Building and Construction Sites.
- 47 Noise, air and vibration monitoring units will be established to manage air quality and vibration movement during the demolition and construction of the Project.

3.6 Vehicle Access

- 48 Each of the construction sites offer a primary and alternative location for construction vehicles access. All vehicles will follow the same travel path by entering and leaving the sites via the designated primary gate.
- 49 Weekend and/or night loading may be required for larger deliveries for items such as structural steel framing and glass. A temporary loading area can be used following the necessary applications, notices, approvals and permits are obtained.
- 50 Vehicles delivering concrete, concrete pumping, reinforcement, steel can occur in designated and approved work zones or contractor laydown areas within the temporary established site boundaries.
- 51 Acknowledging the site is adjacent to a residential zone, a traffic management report would be prepared to prevent the parking of waiting vehicles in the adjacent areas and provides several access options for vehicle loads and marshalling areas.
- 52 Vehicle shaker grids and wash facilities will be used to wash down exiting vehicle tyres especially during demolition and excavation works.

3.7 Construction Personnel Access

- 53 The two locations for vehicle access gates for each site will also provide adjoining access for construction personnel to restrict unnecessary movements through school grounds.
- 54 Within the school premises, access to construction personnel shall be controlled and conform to the prevailing Working With Children requirements.

- 55 Unimpeded pedestrian access will be maintained where possible and if required provided under controlled conditions where pedestrian and construction paths overlap or intersect.

3.8 Cranage and Materials Handling

- 56 A fixed tower crane would be expected to operate on the main campus during most of the construction period.
- 57 It is expected that Mobile cranes will also be intermittently required to facilitate some of the loading of materials on to the sites.
- 58 Although lifting will most likely be from construction delivery vehicles and contractor laydown areas within the site, in some instances, crane(s) will need to be capable of lifting from construction vehicles from approved work zones.
- 59 Refer to Annexure 1 for indicative crane and mobile crane positions.
- 60 Demolition and Excavation material disposal and delivery of small items will be undertaken via designated gates at site boundaries.
- 61 Concrete delivery will be undertaken via trucks parked on site or in approved work zones, with others nearby in a controlled marshalling area to avoid congestion on the local streets. It is anticipated that a mobile concrete boom pump would be established on the sites as required.
- 62 Delivery of Structural Steel frames and beams will most likely occur using a table top semi-trailer, prime mover, and then lifted from an alternative weekend/night lifting zone.
- 63 Smaller building elements can be lifted from within the site or approved work zones, delivered via smaller table top trucks.

4 Supporting Construction Management Plans

4.1 Preliminary Construction Traffic and Pedestrian Management Plan

- 64 A Preliminary Construction Traffic and Pedestrian Management Plan (PCTPMP) has been prepared for the Project. The PCTPMP is included as Annexure 3.
- 65 It is anticipated that the construction contractor(s) will update the construction traffic & pedestrian management plan prior to obtaining a construction certificate.
- 66 Long term road closures are not envisaged however authorised short term lane closures may be required for structural steel framing deliveries which can occur out of normal work hours. The contractor will liaise and apply to the appropriate authorities to obtain permits as needed.
- 67 The contractor will monitor and coordinate all vehicles entering and exiting the Construction sites.
- 68 Appropriate traffic controls will be put in place during construction to separate construction activities from the public. In addition, traffic controllers will be engaged to manage the interface between pedestrians and to direct vehicles entering and leaving the site.
- 69 Any work from neighbouring properties will be managed and coordinated with these stakeholders to maintain access and amenity.
- 70 The number and path of vehicle movements will vary during the construction period of the project. The majority of construction vehicles will access directly onto the work sites.
- 71 The table below outlines the current estimated daily major construction traffic movements during Stage 1 construction:

a. Construction Phase 1

Month	Activity	Daily Average Peak
Aug-18		0
Sep-18		0
Oct-18	Decanting	2
Nov-18	Site Establishment, Soft Demo/Strip Out	2
Dec-18	Soft Demo/Strip Out, Fitout	2
Jan-19	Site Establishment, Fitout	5
Feb-19	Site Establishment, Soft Demo/Strip Out, Excavation, Structure	15
Mar-19	Soft Demo/Strip Out, Structure, Fitout, Façade	15
Apr-19	Fitout, Façade	5
May-19	Fitout	2

b. Construction Phase 2

Month	Activity	Daily Average Peak
Nov-19		0
Dec-19	Decant, Site Establishment	4
Jan-20	Site Establishment	4
Feb-20	Soft Demo/Strip Out, Fitout	4
Mar-20	Fitout	2
Apr-20	Fitout	2
May-20	Demolition, Fitout	20
Jun-20	Demolition	20
Jul-20	Demolition, Ground Works	40
Aug-20	Structure	40
Sep-20	Structure, Fitout, Façade	40
Oct-20	Fitout, Façade	20
Nov-20	Fitout	10
Dec-20	Fitout	2
Jan-21	Fitout	2
Feb-21	Fitout	2
Mar-21	Soft Demo/Strip Out	2
Apr-21	Soft Demo/Strip Out, Fitout	2
May-21	Fitout	2
Jun-21	Fitout	2
Jul-21	Soft Demo/Strip Out	2
Aug-21	Fitout	2
Sep-21	Fitout	2
Oct-21	Fitout	2
Nov-21	Soft Demo/Strip Out	2
Dec-21	Soft Demo/Strip Out, Fitout	2
Jan-22	Fitout	2
Feb-22	Fitout	2
Mar-22	Fitout	2
Apr-22	Soft Demo/Strip Out, Fitout	2
May-22	Fitout	2
Jun-22	Fitout	2
Jul-22	Soft Demo/Strip Out	2
Aug-22	Soft Demo/Strip Out, Fitout	2
Sep-22	Fitout	2
Oct-22	Fitout	2
Nov-22	Soft Demo/Strip Out	2
Dec-22	Soft Demo/Strip Out, Fitout	2
Jan-23	Fitout	2
Feb-23	Fitout	2

Mar-23	Fitout	2
Apr-23	Fitout	2
May-23	Soft Demo/Strip Out, Fitout	2
Jun-23	Fitout	2
Jul-23	Fitout	2
Aug-23	Fitout	2
Sep-23	Fitout	2
Oct-23	Fitout	2
Nov-23	Fitout	2
Dec-23	Soft Demo/Strip Out, Fitout	2
Jan-24	Fitout	2
Feb-24	Fitout	2
Mar-24	Fitout	2
Apr-24	Fitout	2
May-24	Fitout	2
Jun-24	Soft Demo/Strip Out	2
Jul-24	Soft Demo/Strip Out, Fitout	2
Aug-24	Fitout	2
Sep-24	Fitout	2
Oct-24	Fitout	2
Nov-24	Fitout	2
Dec-24	Soft Demo/Strip Out, Fitout	2
Jan-25	Fitout	2
Feb-25	Fitout	2
Mar-25	Fitout	2
Apr-25	Fitout	2
May-25	Site Establishment, Soft Demo/Strip Out	2
Jun-25	Soft Demo/Strip Out, Fitout	2
Jul-25	Fitout	2
Aug-25	Fitout	2

72 It is anticipated that car parking required for construction personnel will be minimal with public transport well located and designated as the primary travel mode.

4.2 Preliminary Vibration and Noise Impact Assessment Plan

73 A Preliminary Noise Impact Assessment Plan (PNIAP) has been prepared for the Project.

74 Noise and vibration from the construction process may impact on surrounding building occupants and public amenities. Vibration could also potentially affect the existing heritage fabric of the school.

75 In order to help meet the noise and vibration requirements of the site, baseline testing will be carried out and existing operational levels identified. The identification of baseline levels will enable construction contractors' methodologies to be specifically tailored to ensure benchmarks

are not exceeded. Noise and vibration monitoring will be installed on site and monitored throughout the project.

- 76 The Contractor will develop these management plans to manage the construction caused vibration and noise that will occur during the Project, including mitigation strategies.
- 77 Vibration and noise activities that will occur during construction include the following:
- a. quick cut saws,
 - b. excavation equipment, rock hammers
 - c. hammer drills
 - d. angle grinders
 - e. air compressors,
 - f. generators
 - g. concrete pumps
 - h. diesel static crane
- 78 Noise mitigation strategies that could be employed include:
- a. excavation, piling, shoring and retention works will be undertaken primarily using non-percussive methods where achievable given the subsurface conditions,
 - b. plant used intermittently during construction activities such as, trucks, excavators, cranes, piling machines will be turned off in periods between works activities rather than left idling,
 - c. plant and equipment selection to reduce noise where possible; plant and equipment fitted with silencers where possible,
 - d. erection of temporary screens to control dust and noise emissions eg hoarding to the existing building as an acoustic barrier
 - e. vibration and noise awareness training for all site staff including subcontractors as part of general site induction and tool-box meetings,
 - f. regular reviews of the program and construction methodologies to minimise the duration of noise-intensive works.
 - g. adherence to permitted working times with approved flexible working hours to avoid noisy work during sensitive hours and school days
 - h. acoustic testing of proposed methodologies

4.3 Site Safety Management and Work Method Statements

- 79 A Site Safety Plan and safe work method statements will be developed by the Construction Contractor to demonstrate the commitment to Work Health & Safety (WH&S) prior to construction.
- 80 The site safety plan is required to identify the scope of work to be undertaken, the hazards associated with the work and the risk assessment processes and risk control measures to be used in the execution of the project activities.
- 81 Objectives for a Site Safety Plan include the following:
- a. maintain lost time injury reporting and review positive performance indicators,
 - b. report all incidents and near misses and develop corrective action plans,

- c. conduct Senior Management and WH&S Group reviews,
- d. develop required WH&S resources,
- e. formalise regular senior management reviews of WH&S systems and implement relevant improvements,
- f. continually develop WH&S systems, policies, procedures and WH&S Plans to comply with statutory requirements and industry best practice,
- g. maintain an Audit Programme to comply with system's requirements,
- h. ensure all corrective actions and Non-Conformances are closed out,
- i. meet or exceed the requirements of AS 4801 certification and Federal Safety commission accreditation,
- j. adopt a zero tolerance safety philosophy,
- k. provide Safety Awareness and other appropriate WH&S training,
- l. continue to implement ongoing induction procedures on all Projects,
- m. hold regular Consultative Committee meetings, maintain minutes and record actions,
- n. issue Safety Alerts to all staff and other stakeholders according to requirements,
- o. conduct and record regular toolbox meetings on site.

82 A Site Safety Plan would also outline the key responsibilities for achieving the above objectives. A statement of responsibilities by the Construction Contractor would identify who will be responsible for the following:

- a. undertake audits to ensure appropriate implementation of the WH&S Plan occurs,
- b. coordinate WH&S training,
- c. establish, implement and maintain procedures for controlling all relevant documents and data required,
- d. implement WH&S matters in construction design and planning,
- e. make all reasonable endeavours to ensure that the WH&S management system is established, implemented and maintained on the Project,
- f. monitor and constantly review risk management to the site,
- g. ensure all Work Method Statements have been received on site prior to the commencement of work.

83 The Site Safety Plan would also address the following requirements, as required:

- a. **Working with Children** legislation and school policies.
- b. WH&S training – identification of WH&S training needs of all personnel, induction training, refresher training, attendance of WH&S committee personnel at consultation training etc;
- c. incident management – identifies who will be available during and outside normal working hours to prevent, prepare for, respond to and recover from illness/ injury and incidents;
- d. site safety rules – As a minimum will include induction and safety training, PPE, Site access and security, emergency procedures, illness and injury, protection of personnel and the public, work at elevated areas, safe working, hazardous materials and dangerous goods etc;
- e. Safe Work Method Statements – All activities assessed as having WH&S risks require a SWMS to be prepared and implemented.

4.4 Construction Environmental and Waste Management

- 84 An construction environmental management plan (CEMP) will be developed and executed by the Construction Contractor in accordance with relevant authorities conditions, standards and specifications prior to the Project's site commencement.
- 85 A CEMP would include the following items;
- erosion and sediment control
 - water discharge from the site
 - recycling
 - noise control,
 - dust reduction,
 - waste reduction,
 - organising material removal.
- 86 A Waste Management Plan is required to:
- minimise waste from site activities;
 - establish the site specific waste management requirements and improve efficiencies via waste separation, recycling and re-use measures,
 - hazardous materials - identification, separation, collection and disposal of environmental waste,
- 87 Where possible, excavated natural material will be reused by the contractor on site. Prior to disposal, a waste classification of the soils to be excavated will be provided.
- 88 Waste will be sorted on site and care will be taken to avoid cross contamination with recyclables.
- 89 If Hazardous Materials are found then the contractor will ensure the following;
- In accordance with the National Occupational Health and Safety Commission's Guide to the Control of Asbestos Hazards in Building and Structures [NOHSC:2002(1988)], appropriate warning signs will be placed on the asbestos materials identified.
 - All asbestos-containing materials will be removed prior to any renovation, demolition or work taking place in an area.
 - All removal procedures should be undertaken by an experienced appropriately licensed removal contractor in accordance with the National Occupational Health and Safety Commission's Code of Practice for the Safe Removal of Asbestos [NOHSC: 2002 (2005)].
 - Monitoring for airborne asbestos in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC:3003(2005)] will be carried out during any removal operations in accordance with Clause 50 and 51 of the WorkCover 2001 OH&S Regulation requirements.
 - At the end of removal operations all surfaces in the subject area, such as frames, floor / ground, etc., will be vacuumed then wet wiped. An industrial High Efficiency Particulate Air (HEPA) vacuum cleaner will be used. Spreading of dust into clean areas or outside the subject areas will be prevented.
 - A clearance inspection should be carried out after the removal operations are completed in accordance with WorkCover and NOHSC requirements.

90 The contractor will provide skips primarily for metal, cardboard, concrete and masonry. Recyclables to be recovered are likely to consist of off cuts of materials such as stone, pipes, timber, steel, plasterboard, tiles and miscellaneous packaging.

91 The main goal will be to reduce the total volume of waste produced, which will be achieved by effective materials procurement, supply and management. Project managers, engineers, builders and subcontractors will play a key role in achieving on-site waste reduction targets on a day-to-day basis.

4.5 Community Construction Consultation Strategy

92 For an optimal Community Construction consultation and liaison process, a Community and Stakeholder Management Strategy will be developed.

93 The Strategy will be developed from the selected construction contractors' previous experiences on similar prominent projects and will deliver a useful communication system for the Project duration.

94 The consultation objectives will include the following:

- a. Establish and maintain relationships with key stakeholders,
- b. Develop general public awareness and knowledge of the Project
- c. Ensure key stakeholders are kept informed and satisfied of, upcoming activities, Project status, impacts arising from unforeseen events and arrangements to mitigate the impact as needed,
- d. Mitigate the impact of the construction activities on the surrounding areas,
- e. Manage objections by understanding the main stakeholders' needs and take necessary actions for their effective management.

95 The key stakeholder groups would include the following:

- a. Staff, students and parents of St Aloysius College,
- b. Contractors, sub-contractors and suppliers,
- c. The local Community,
- d. Heritage and Environmental groups,
- e. Interested local business groups and construction sites
- f. Pedestrians and users of the neighbourhood,
- g. Government Authorities esp. North Sydney Council, NSW Government, the Commonwealth.
- h. Local utilities and services providers

96 After identifying and prioritising stakeholders' concerns and impact, a stakeholder management plan can be created in order to notify key stakeholders, so as to keep them aligned with the Project and avoid any misunderstandings.

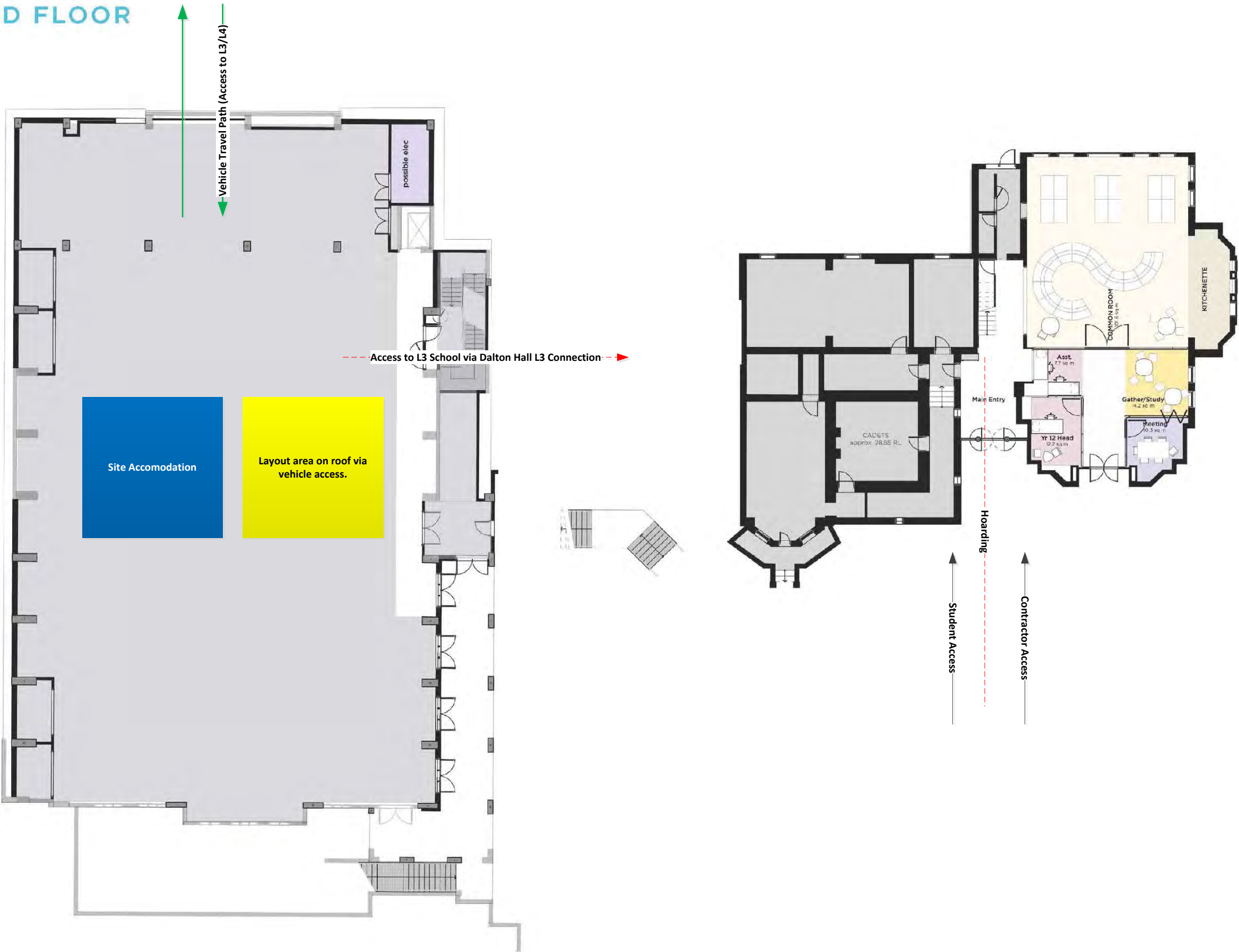
97 Likely issues of concern to stakeholders may include the following:

- a. Containment of Noise and Dust,
- b. Vibration caused from demolition, excavation and construction activities,
- c. Environmental remediation,
- d. Construction traffic,

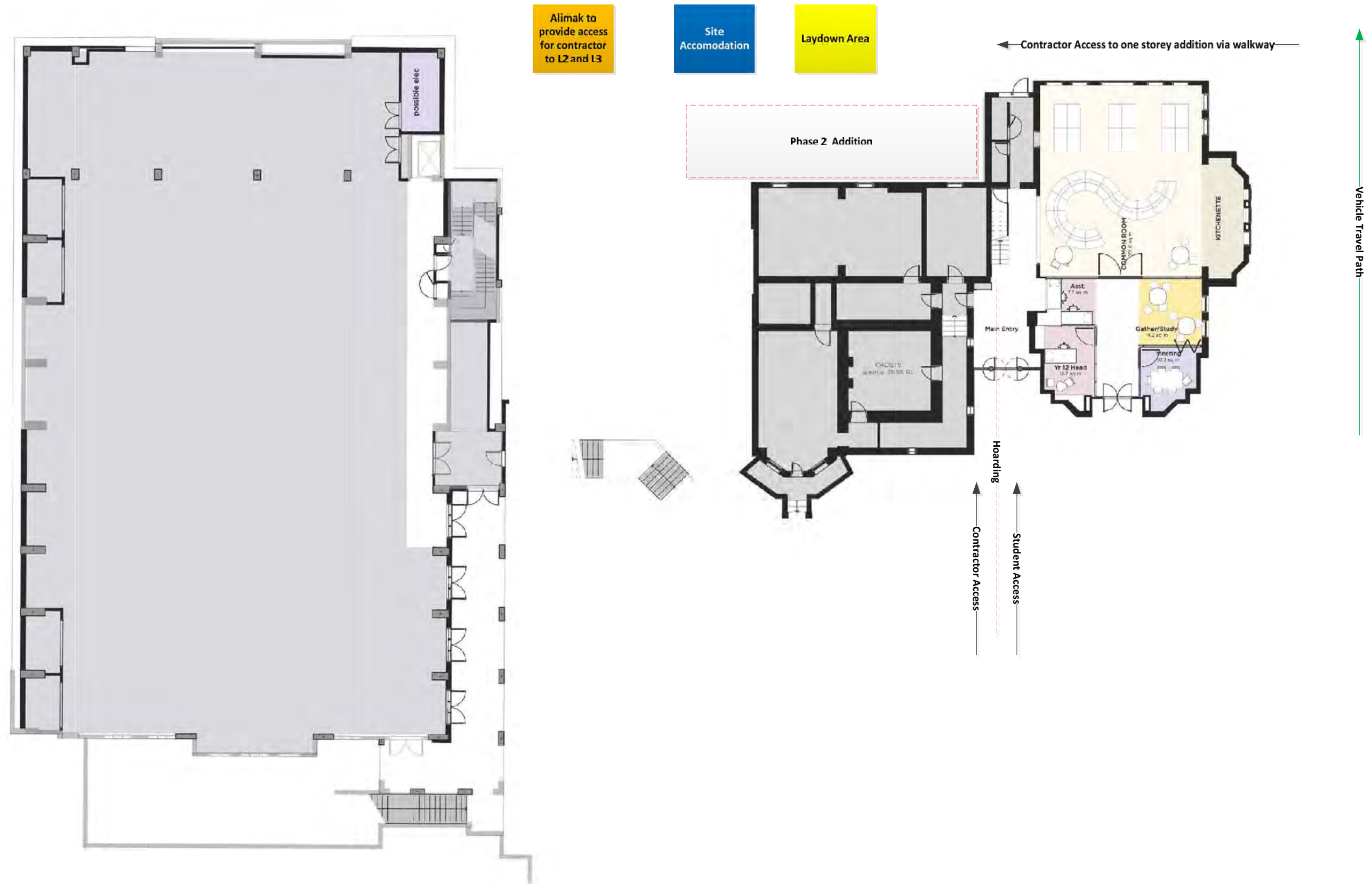
- e. Construction personnel,
 - f. Restrictions / alterations to pedestrian and traffic flow,
 - g. Protection of existing St Aloysius Buildings including heritage elements,
 - h. Protection of existing trees.
- 98 It is expected that the Construction Contractor will allocate liaison personnel particularly for communicating with the stakeholders on planned works or activities that require explanation and solutions to alleviate issues that may arise during the Project's construction phase.
- 99 The stakeholder management process would typically involve the following;
- a. An initial consultation session held before the commencement of construction and letters of introduction sent to the surrounding properties, advising Project specifics, including commencement date, duration, contact details, site safety and public protection,
 - b. Contractor developed periodic reports issued to key stakeholders advising of imminent activities
 - c. A register of all stakeholder contact information and concerns developed and reviewed at the regular meetings
 - d. Regular communication and consultation with the relevant consent authority, or its designated representatives, in relation to the site management and impact on surrounding areas.

Annexure 1 - Preliminary Site Management Plans

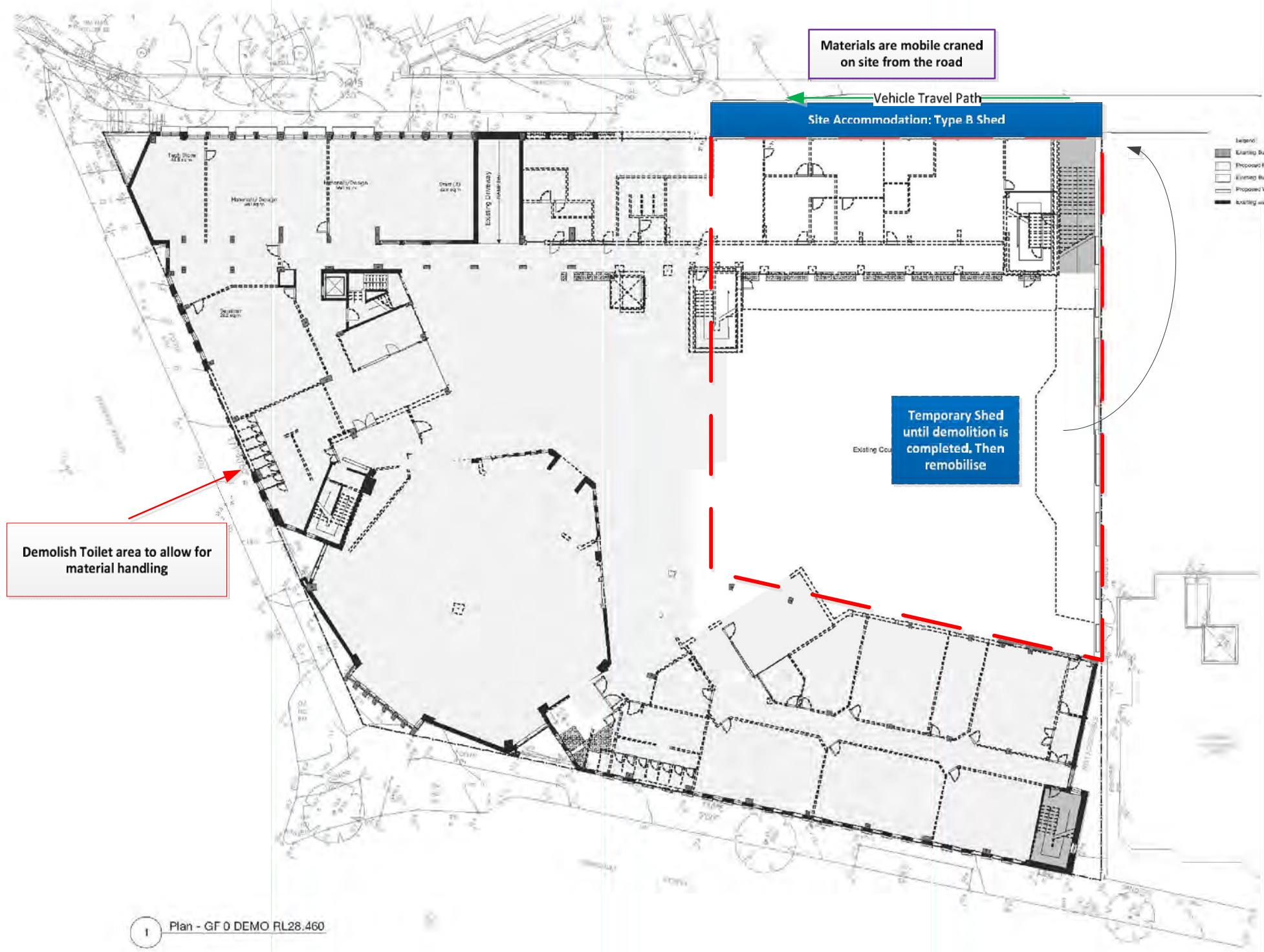
GROUND FLOOR



GROUND FLOOR



Preliminary Site Management Plan
Phase 2.2



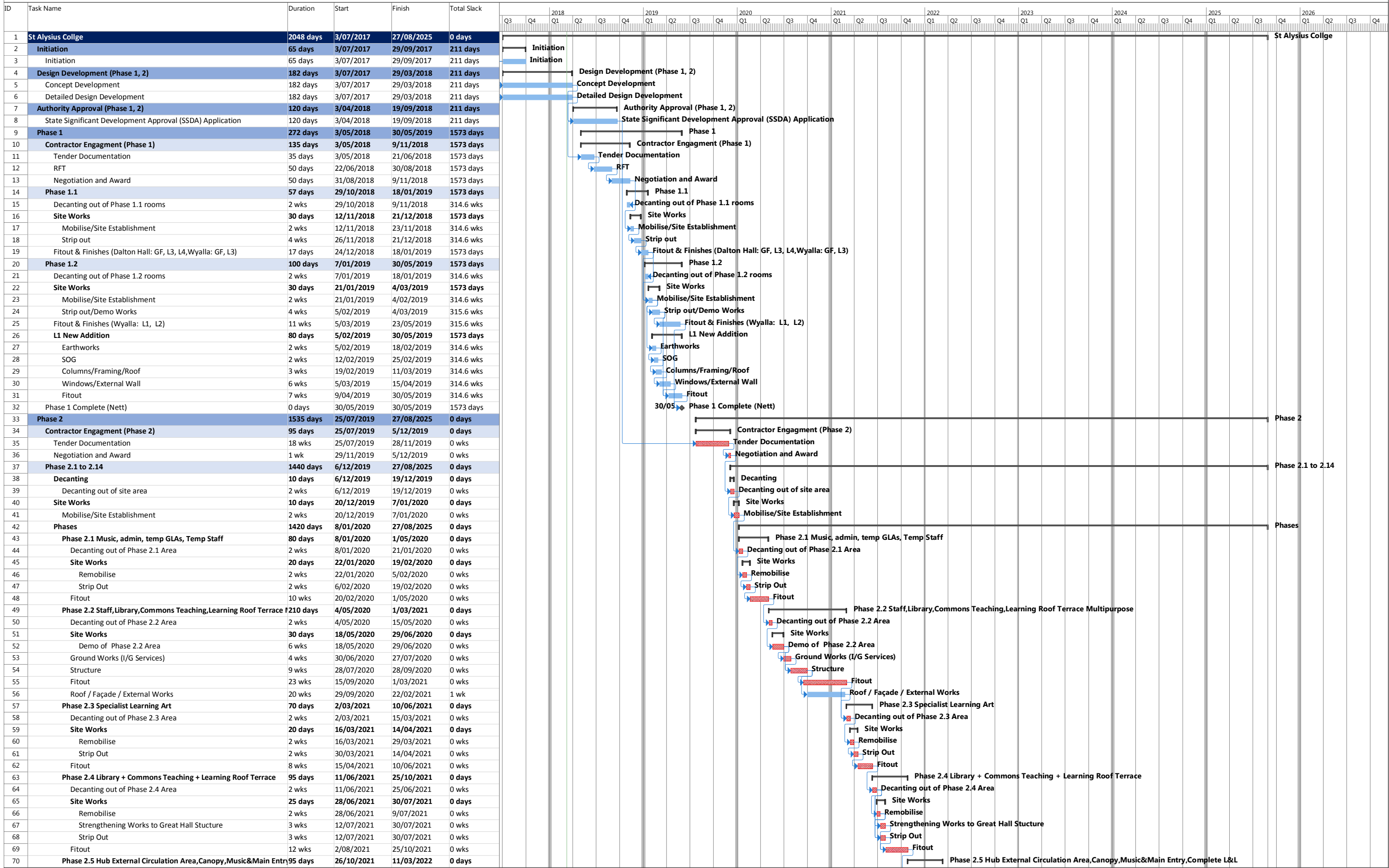
1 Plan - GF 0 DEMO RL28.460

DRAFT



NO.	DATE	REVISION
01	20/06/21	1
DO NOT SCALE FROM DRAWING. USE DIMENSIONS PROVIDED. CHECK ALL DIMENSIONS ON SITE. VERIFY MANUFACTURE OF CONSTRUCTION.		
PROJECT	St. Aloysius' College SSDA	2670
CLIENT	St. Aloysius' College	
NO.	Plan - GF 0 DEMO RL28.460	DAU104
CLIENT'S ADDRESS	St. Aloysius' College	
DATE	JUL 2020	REVISED

Annexure 2 – Preliminary Construction Schedule



Project: St Aloysius College v1.2 Program (P1, P2) Task  Split  Milestone  Summary  Project Summary  Deadline  Critical Task Critical Milestone
 Date: 9/03/2018

Annexure 3 – Preliminary Construction Traffic & Pedestrian Management Plan



20 July 2018
Ref 17764

**PROPOSED MASTERPLAN PROJECT
ST ALOYSIUS' COLLEGE, KIRRIBILLI
PRELIMINARY CONSTRUCTION TRAFFIC & PEDESTRIAN MANAGEMENT PLAN**



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Introduction

This Preliminary Construction Traffic & Pedestrian Management Plan (CTPMP) has been prepared to accompany a State Significant Development Application (SSDA) to the *NSW Department of Planning* on behalf of *St Aloysius' College*, to review the traffic and parking arrangements to be implemented during Masterplan construction works during the various phases. It should be read in conjunction with the Preliminary Construction Management Plan (CMP) being submitted with the SSDA, prepared by *Tracey Brunstorm & Hammond*.

All correspondence on this matter must be addressed to The Applicant's representative:

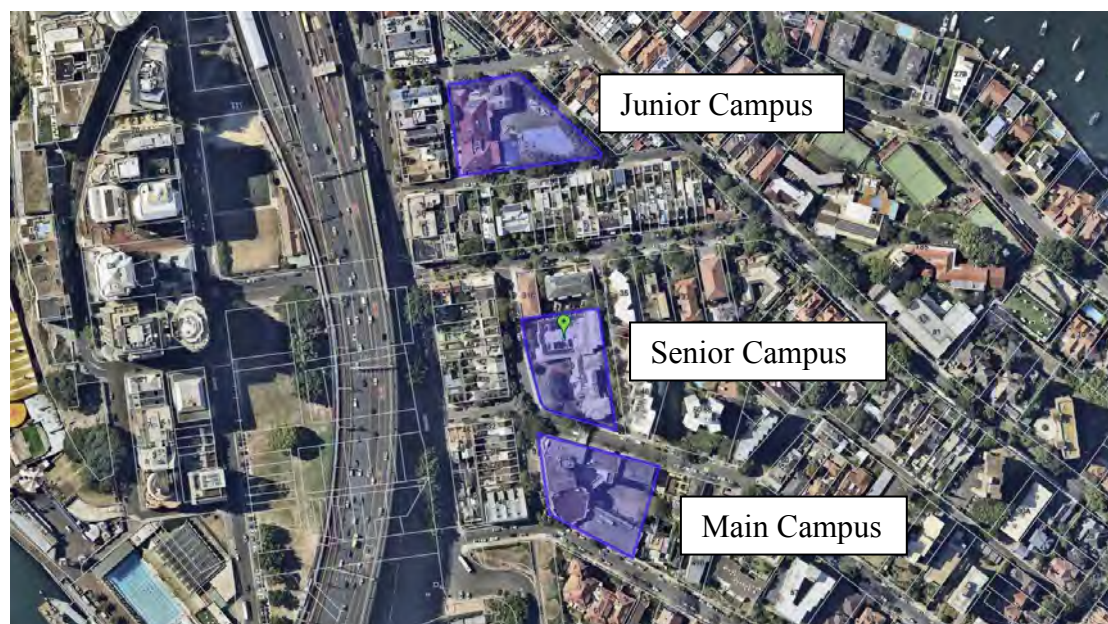
Peter Brogan
Bloompark
Suite 3, Ground Floor
41 McLaren Street
North Sydney NSW 2060
P: 9957 1473
E: pbrogan@bloompark.com.au

It should be noted that *Varga Traffic Planning* accepts full responsibility for the preparation of this Preliminary Construction Traffic & Pedestrian Management Plan, but does not accept any responsibility for its implementation which is to be undertaken by others.

Site

St Aloysius' College comprises three separate campuses; the Junior Campus which is located at 29 Burton Street, the Senior Campus which is located at 5 Jeffreys Street and the Main Campus which is located at 47 Upper Pitt Street (Figures 1 and 2).

A recent aerial image of the College and the surrounding area is reproduced below.



Source: Nearmap

The Junior Campus is located at 29 Burton Street and occupies the entire site bounded by Bligh Street, Humphrey Place, Burton Street and Crescent Place. A kiss & drop parking area is provided along the Burton Street frontage whilst a small section of 1P parking is permitted along the Humphrey Place frontage. The Crescent Place and Bligh Street frontages as well as the remainder of the Humphrey Place frontage are subject to No Stopping/No Parking restrictions. A small undercover off-street parking area is provided for staff in the south-western corner of the Junior Campus, accessed directly off Humphrey Place.

The Senior Campus has frontages to Jeffreys Street, Upper Pitt Street and Robertson Lane as well as a pedestrian stairway which connects Robertson Lane to Upper Pitt Street. A kiss & drop parking area is provided along the Upper Pitt Street frontage whilst a small section of 1P parking is permitted along the Jeffrey Street frontage. The Robertson Lane frontage as well as the remainder of the Jeffrey Street and Upper Pitt Street frontages are subject to No Stopping/No Parking restrictions. An open-air rooftop off-street parking area is provided for staff on the northern portion of Senior Campus, accessed directly off Robertson Lane.

The Main Campus has frontages to Upper Pitt Street, Jeffrey Street and Kirribilli Avenue. A kiss & drop parking area is provided along the Upper Pitt Street frontage whilst a small section of 1P parking is also permitted along the Upper Pitt Street frontage. Two small sections of 1P parking is permitted along the Jeffrey Street frontage as well as the entire length of the Kirribilli Avenue frontage. The Main Campus does not have a formal off-street parking area however on certain occasions, the central outdoor hardstand play area is used which is accessed via Jeffrey Street.

Proposed Development

The SSDA seeks consent for the staged redevelopment of the St Aloysius' College based on:

1. Concept approval is sought for the building envelopes for alterations and additions and new development across the Junior, Middle and Senior School Campuses.

2. Detailed built approval is sought for Middle and Senior School Campuses. For these two campuses the delivery will be conducted across two clear phases as summarised below:
 - **Wyalla Senior Campus:** Single storey addition to the heritage building fronting Robertson Lane, as well as internal refurbishment and upgrades of teaching and learning spaces.
 - **Upper Pitt Street Main Campus:** Demolition and rebuild of the existing four (4) storey North-East Wing fronting Upper Pitt Street, construction of new infill building in the existing quadrangle, and associated refurbishment of north-wing, south-wing, Great Hall and Chapel.

Stage 2 detailed built approval for the Junior School Campus will be at a later date and not part of this submission.

The wording and description is in accordance with Section 83B of the EP&A Act, as well as the SEARs issued by the Department of Planning on 28 August, 2017, and revised 22 November 2017. The overall submission is a Staged Development Application under 83B of the EP&A Act for the staged redevelopment of St Aloysius College (Concept). In accordance with Section 83B(b) of the EP&A, consent is also sought for:

Stage 1:

Ports are

- Concept Approval for all three campuses;
- Detailed built form approval of Upper Pitt Street Main Campus and Wyalla Senior Campus.

As such, in accordance with the above the following is required to capture the proposed:

- Concept Approval Plans for Middle, Senior and Junior School – this is similar as to what was originally prepared for the SEARs Request.
- Detailed Built Form Architectural Plans for the redevelopment of the entire Upper Pitt Street Campus and Wyalla Campus.

Stage 2 will require lodgement of another DA/SSDA for delivery of detailed built form approval for the Junior Campus in accordance with stage 1 concept approval.

Construction Schedule

The construction activities are expected to be undertaken over a duration of several years as set out below. Building and construction works are proposed from 7:00am to 5:00pm Monday to Friday and 8:00am to 1:00pm Saturday as per Council's standard hours. Notwithstanding, demolition and excavation works are proposed from 8:00am to 5:00pm Monday to Friday only. No work is to be carried out on Sundays or Public Holidays unless prior approval is granted by North Sydney Council.

CONSTRUCTION PROGRAM – APPROXIMATE DURATIONS		
Phase	Work	Duration
1	Senior Campus	October 2018 to May 2019
2	Main Campus	December 2019 to August 2025

Loading & Unloading

Demolition and excavated spoil material will be loaded into bogey trucks no larger than a standard 8.8m medium rigid truck via designated gates at the site boundaries.

Construction material delivery trucks, including concrete pumping, will occur within the site where possible or from potential Works Zones typically using small and medium rigid trucks. It is envisaged that a tower crane will be installed on the Main Campus for the majority of the construction period to transfer materials onto the site. Mobile cranes may also be required intermittently throughout the construction program.

As necessary, RMS-accredited traffic controllers will be in place at all times during truck movements to ensure the safety of pedestrians and minimise disruption to local traffic.

The site manager will co-ordinate the work such that two deliveries do not occur at the same time, unless they can be both accommodated on site or within the potential Works Zones.

All materials are to be stored on site. At no time are materials to be stored on any road or Council property unless prior approval is granted by North Sydney Council.

Potential Works Zones

As on-site space is limited it may be necessary for Works Zones to be applied for at some (or many) stages throughout the course of the works. A plan has been prepared which illustrates the existing parking restrictions in the vicinity of the Senior Campus and Main Campus as well as locations for potential Works Zones.

Some of these potential Works Zone locations are where existing Kiss & Drop areas are situated. As it is intended to minimise as much disruption as possible to normal day-to-day College activity, any loss of Kiss & Drop area as a consequence of a Works Zone will need to be provided elsewhere. Note, Works Zones will not be proposed in existing No Stopping locations.

Any Works Zone parking restrictions would apply during working hours only and will be provided specifically for the set down and pick up of materials, not for the parking of private vehicles associated with the site.

Hoarding

Phase 1: Senior Campus – Given the small scale of the proposed development, B-Class overhead hoarding is not considered necessary. Secure A-Class hoarding will however be installed around the perimeter of the site to prevent unauthorised access and protect the public

Phase 2: Main Campus – Given the demolition and construction work required for the proposed development, B-Class overhead hoardings are considered necessary along Upper Pitt Street and Kirribilli Avenue.

Sediment Control

All practicable measures must be taken, including the use of “truck scrubbers”, to ensure that vehicles leaving the site do not deposit mud or debris on the road. Any mud or debris deposited on the road must be cleaned up immediately in a manner that does not pollute waters (i.e. by sweeping or vacuuming).

Neighbouring Properties

All neighbouring properties are to have their access maintained at all times. All nearby residents and businesses will be updated on a regular basis and at key construction stages with respect to the construction process, particularly in relation to construction vehicles movements, and be provided with a phone number to contact the site manager.

Furthermore, the site manager must liaise with the site managers of any nearby construction sites to ensure that appropriate measures are in place to prevent the combined impact of construction activities, such as (but not limited to) concrete pours, crane lifts and spoil truck routes. Along with Council's and other statutory requirements, a minimum seven (7) days notification should be provided to adjoining property owners prior to the implementation of any temporary traffic control measures.

Construction Truck Routes

All heavy vehicles involved in the demolition, excavation and construction of the proposed development would approach and depart the site as indicated on Figure 3.

The site manager will ensure that the route map is prominently displayed on the site and that all contractors and employees are given a copy of the route map and understand their obligations as part of their site induction procedure.

Light traffic roads and those subject to load or height limits will be avoided as well as minimising heavy vehicle movements during school peak periods. Whilst working on site can occur during the abovementioned construction hours, the site manager will endeavour to restrict truck loading/unloading *outside* peak school drop-off/pick-up periods.

Truck Movements

A detailed estimation of the truck movements during Phase 1 & Phase 2 is provided within the Preliminary CMP and summarised below:

1. Phase 1: Senior Campus – average peak of 15 truck movements per day
2. Phase 2: Main Campus – average peak of 40 truck movements per day

Demolition works would typically involve approximately 4 to 5 trucks carrying out approximately 2 to 3 loads per day. This would not be every day as they would not be loading out every day of the demolition period.

Major concrete pours would typically take approximately 4 to 6 hours to pour with 8 trucks per hour or 40 to 50 truck movements per day. Smaller pours would have a similar amount of truck movements per hour however the duration would be a lot shorter say 2 to 4 hours maximum.

General deliveries would occur intermittently throughout the project with the major deliveries being reinforcing steel, plasterboard and bricks. The remainder would generally comprise smaller truck deliveries. Special deliveries (i.e. long and/or large) may require out-of-hours or special conditions which will be subject to North Sydney Council prior approval.

Site Fencing, Hoarding & Amenities

Temporary site fencing and signage will be installed around all internal and external work areas. In addition, B-Class overhead hoarding and scaffolding will also be installed above the footpath areas for adjoining overhead demolition and construction work areas.

Site accommodation and amenities requirements will vary depending on the construction phase however will be accommodated within the College grounds or above the B-Class hoarding.

In this regard, it is expected that all external footpaths surrounding the three campuses will remain open to pedestrians at all times. If a footpath is required to be closed at any stage, a Pedestrian Management Plan may be required which will be submitted to Council for approval prior to the closure.

Traffic Control Plan

An indicative Traffic Control Plan has been prepared which illustrates the traffic arrangements to be implemented during kerbside loading/unloading activities. Key features of the Traffic Control Plan are:

- advance warning signs alerting approaching traffic and cyclists of the presence of possible road works and traffic controllers ahead
- B-Class hoarding with scaffolding above the footpath outside the works area which will allow for the footpath to remain open at all times and protect the public
- two traffic controllers situated outside the kerbside loading/unloading area who will have the following primary responsibilities:
 1. to ensure the safety of pedestrian movements in the vicinity of the works area so that no pedestrian enters the path of a heavy vehicle,
 2. to control heavy vehicle movements into and out of the kerbside loading/unloading area. The traffic controllers should wait for a safe gap in the passing traffic, cyclist and pedestrian flows before allowing the vehicle to depart,
 3. to control local traffic and cyclists past the kerbside loading/unloading area when trucks are present as traffic flow will need to be reduced to single lane due to the physical roadway width, and
 4. to momentarily stop traffic and cyclists whilst material is craned off the truck onto site. Any stoppages to traffic and cyclists will be kept to a minimum.
- all construction vehicles should park as close to the kerb as possible thereby allowing local traffic, including emergency service vehicles, to pass at all times.

The Traffic Control Plan has been prepared generally in accordance with the former RTA's publication *Traffic Control at Works Sites (2010)* and the Standards Australia publication *AS1742.3: Traffic Control Devices for Work Sites on Road*.

Pedestrian & Cyclist Amenity

The site manager will ensure that pedestrian and cyclist interference is minimised by including adequate safety and diversion measures and also limiting time delay and detour distances. These include the use of:

- advance warning signs such as “Pedestrians Watch Your Step” are to be placed in areas where trucks are accessing the site or loading/unloading from a potential kerbside Works Zone
- potential B-Class overhead hoarding outside selected kerbside Works Zones which will allow the public footpath to remain open to pedestrians
- where a footpath may be required to be completely closed to pedestrians, traffic controllers will be in place to assist pedestrians cross to the opposite footpath and back again, if required
- water-filled barriers may also be used in some instances, for example, where the footpath area is required to be closed overnight when traffic controllers are not present. The barriers will be placed on the roadway, offset from the kerb, with pedestrians diverted onto the road (but behind the barriers) which will provide protection from errant vehicles
- pram ramps should also be used in instances where pedestrians are required to cross the road (under the supervision of traffic controllers), *or* in the instance of concrete pumping via a kerbside Works Zone using a static line

It is pertinent to note that pedestrian and cyclist protection will be paramount, as are ensuring the school’s drop-off & pick-up activities are *not* affected by any construction works.

Permits

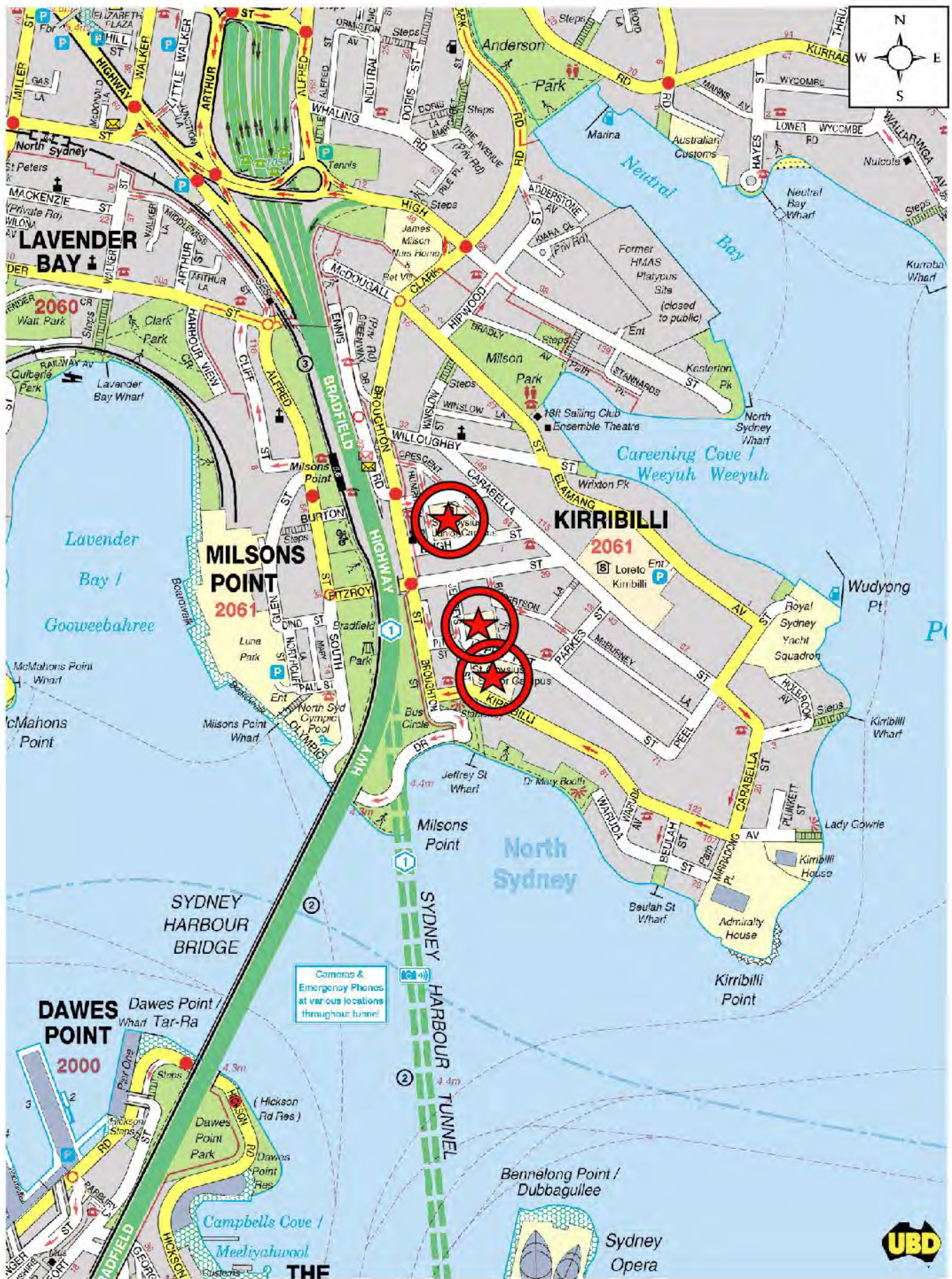
All necessary permits such as hoarding, crane, roadway/footpath/nature strip occupation etc. will require separate approval from North Sydney Council or the relevant authority. Any related task-specific Traffic Control Plans will be prepared by the responsible contractor at the time of the works and provided under separate cover.

Tradesmen and Contractor Parking

Due to site constraints, no on-site parking will be available for building contractor staff. The availability of public transport and lack of on-site parking will encourage the use of public transport and minimise traffic and parking impacts as a consequence of the construction process. In this regard it is noted that Milsons Point Railway Station is situated within easy walking of the site.

Site Inductions

The requirements of the approved Construction Traffic & Pedestrian Management Plan will need to be followed by the demolition, excavation and construction contractors, builders, owner and any subcontractors. The site manager will ensure that site inductions occur on a regular basis or as deemed necessary.



**LOCATION
FIGURE 1**

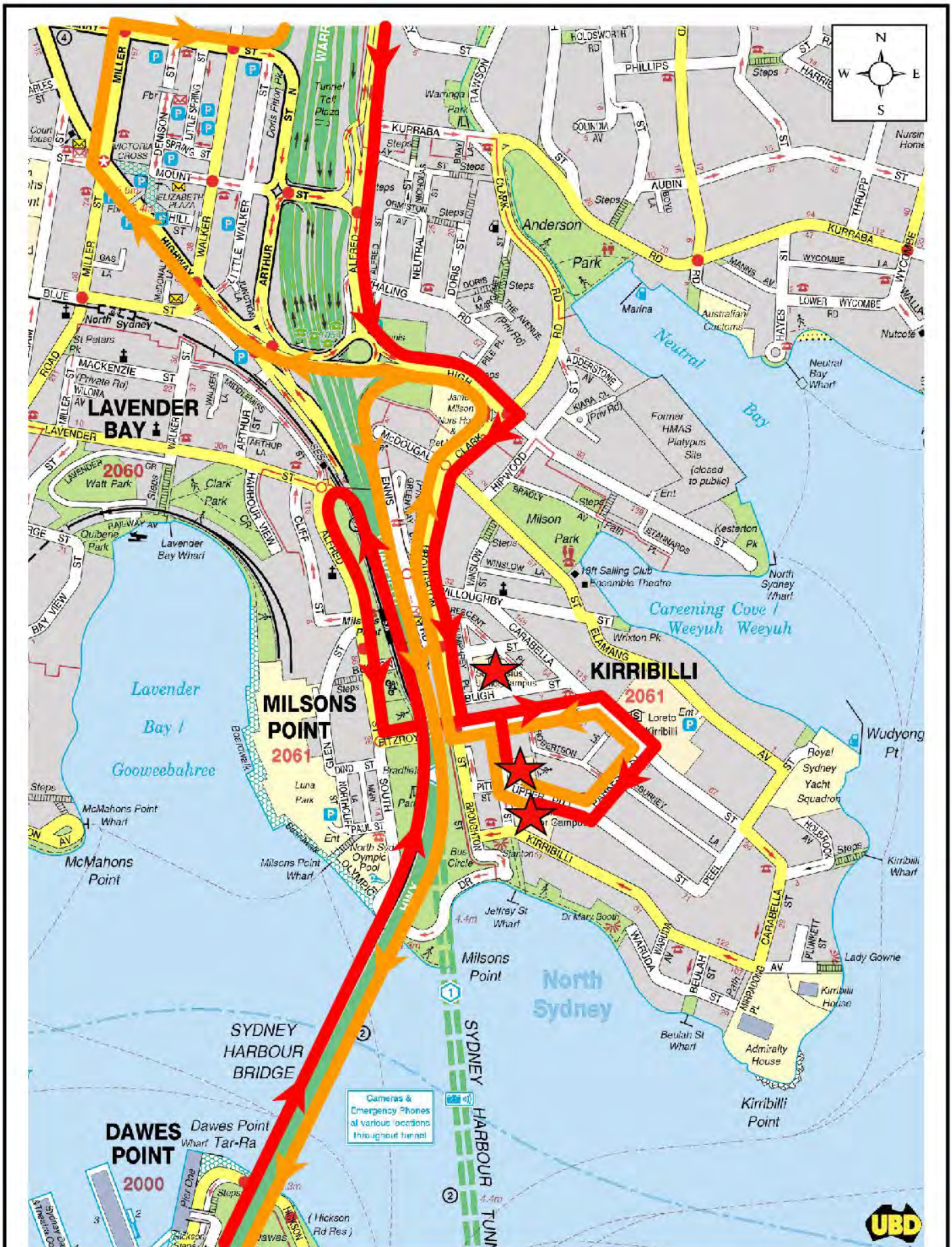


Key:

- | | | | | | |
|--|---------------|--|---------------------|--|-------------|
| | Give Way Sign | | Traffic Signal | | School Zone |
| | One-Way | | Speed Hump | | Speed Limit |
| | Stop Sign | | Pedestrian Crossing | | |

VARGA TRAFFIC PLANNING Pty Ltd
 Traffic and Parking Consultants

**SITE & EXISTING
 TRAFFIC CONTROLS**
 FIGURE 2

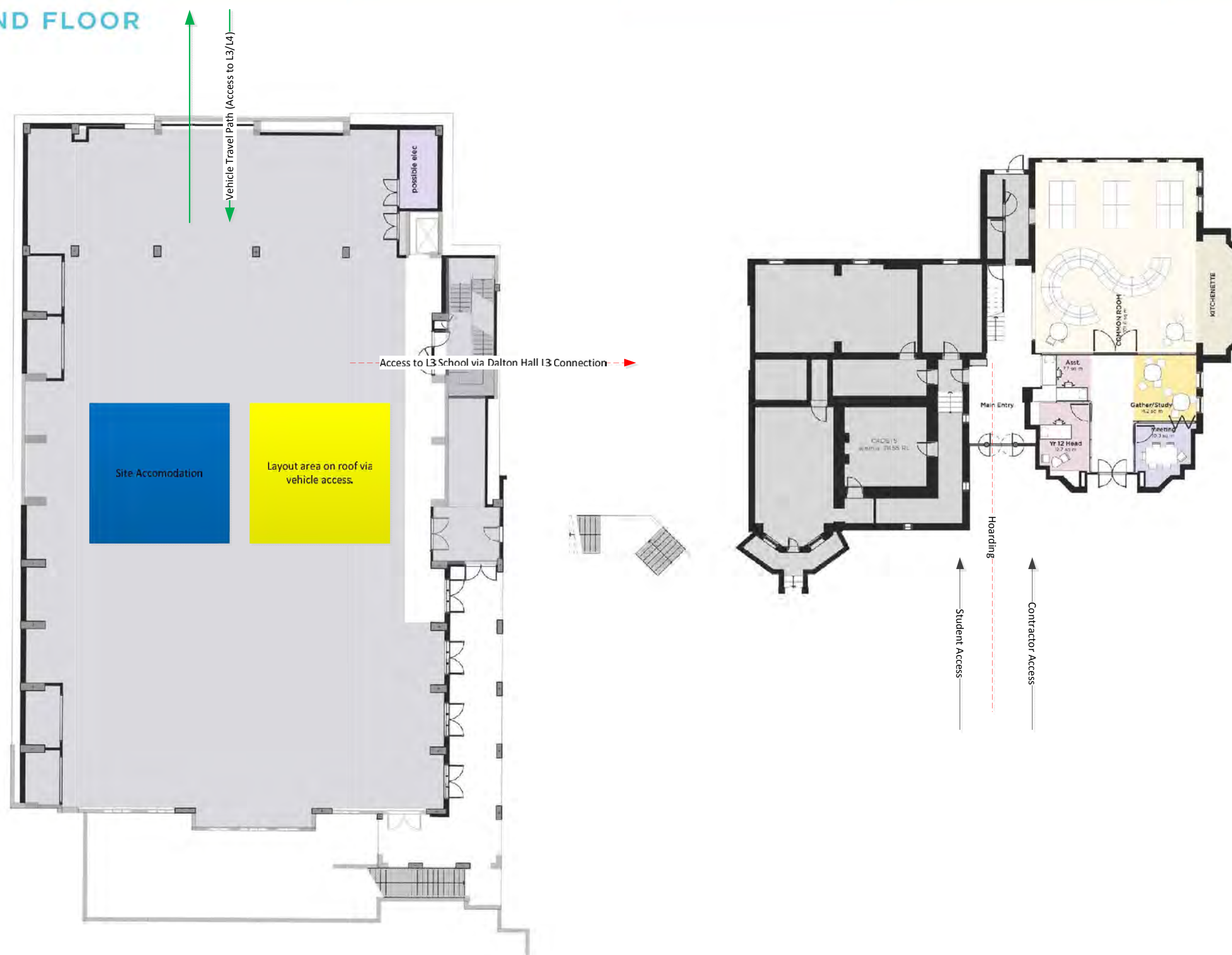


- Approaching Traffic
- Departing Traffic

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HEAVY VEHICLE ROUTE MAP FIGURE 3

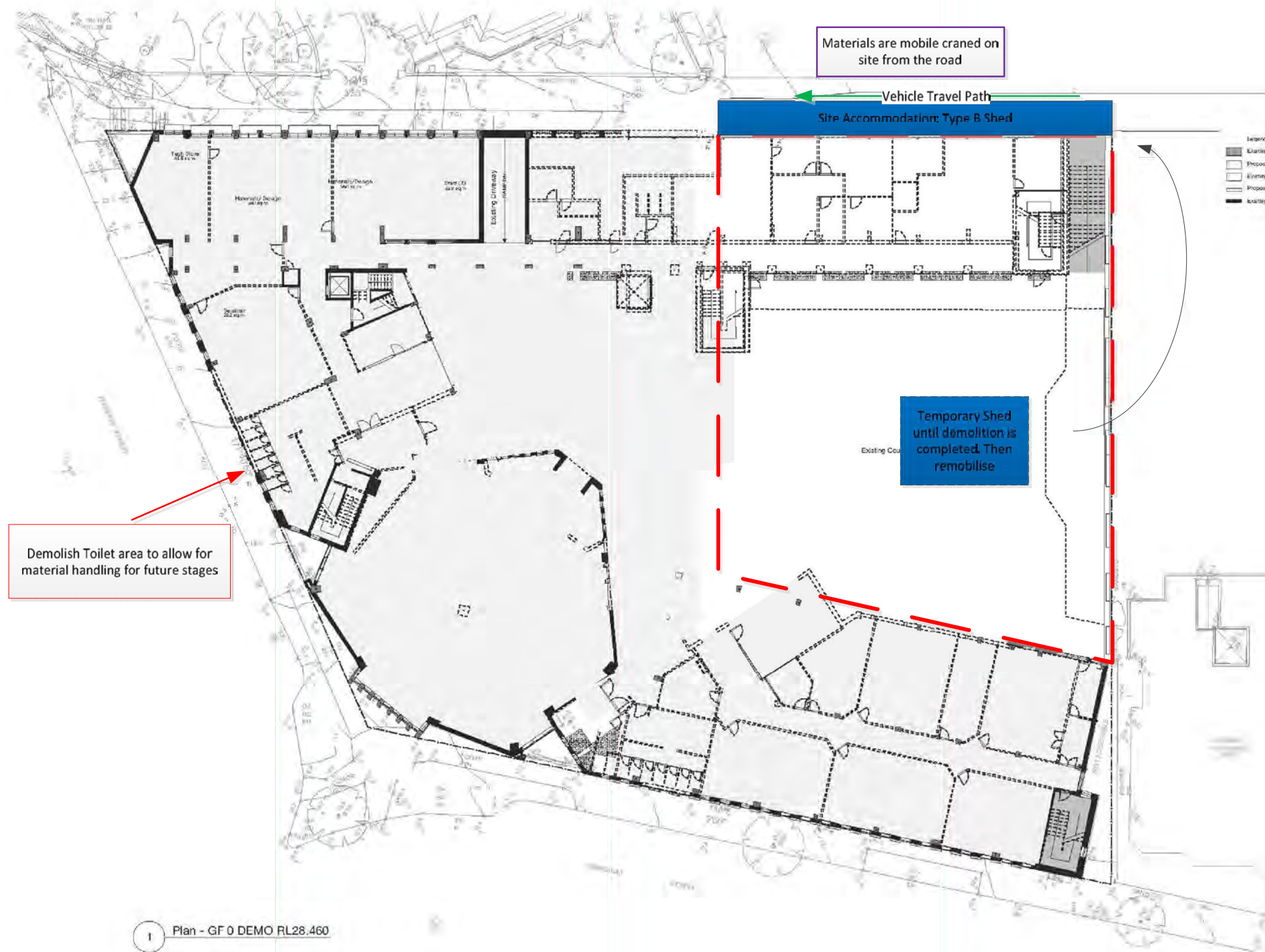
GROUND FLOOR



GROUND FLOOR

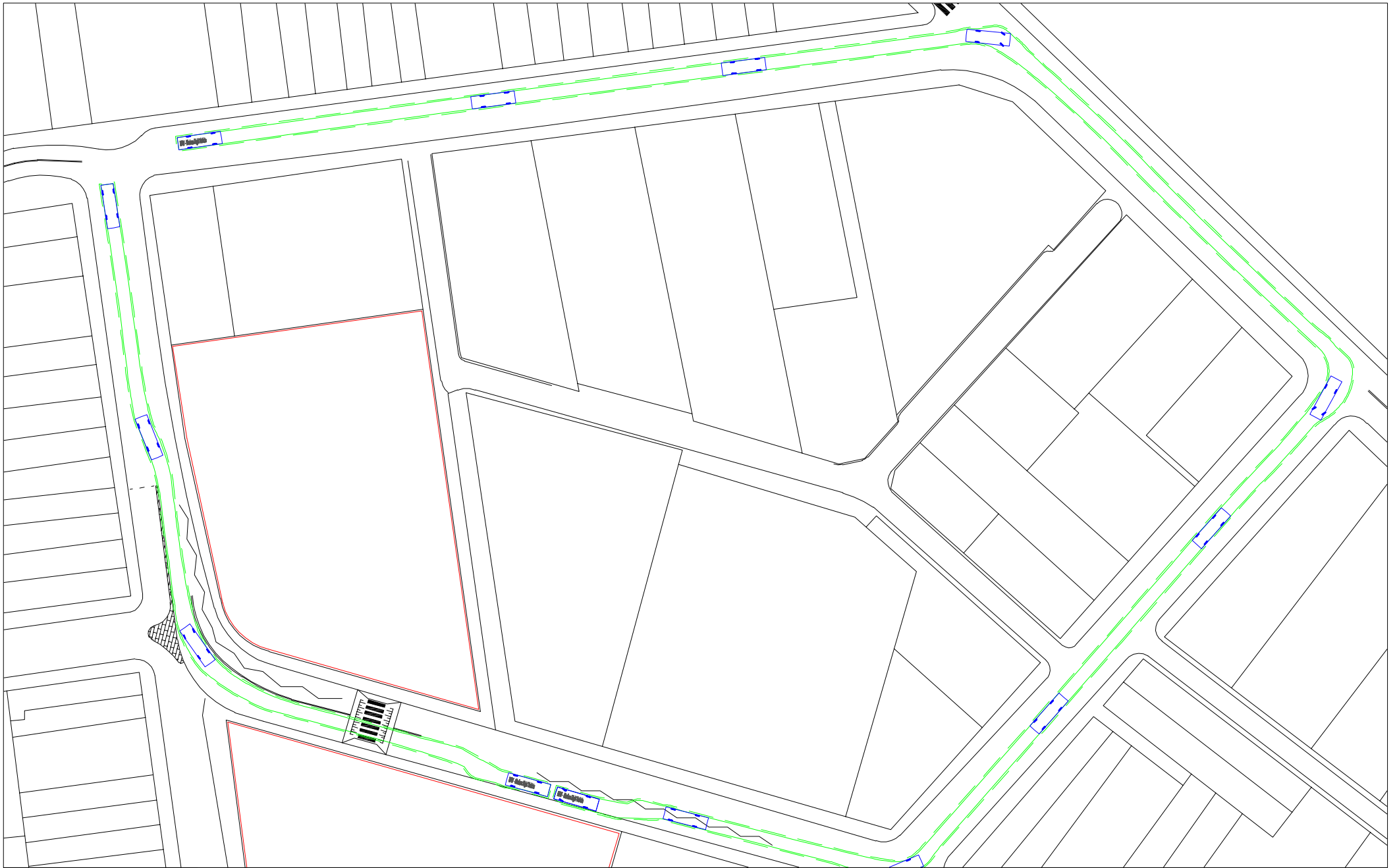


Preliminary Site Management Plan Phase 2: Stage 2



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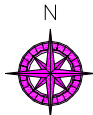




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Phone +61 2 9904 3224
 PO Box 1866
 Neutral Bay, NSW 2089
 www.vargatrafic.com.au
 Sydney, Australia

PROJECT
 EXISTING SCHOOL RE-DEVELOPMENT



DRAWING TITLE
8.8M MRV TRUCK TURNING PATH
During Kerbside Loading / Unloading
 ADDRESS
 St Aloysius College, Kirribilli

1:1000 @ A4

PROJECT NO.
 17764
 REVIEWED
 CHRIS PALMER

DATE DRAWN
 2017-12-20
 PREPARED
 DONALD LEE

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants



Notes: Check regularly that signs are in correct position and clearly visible to approaching traffic

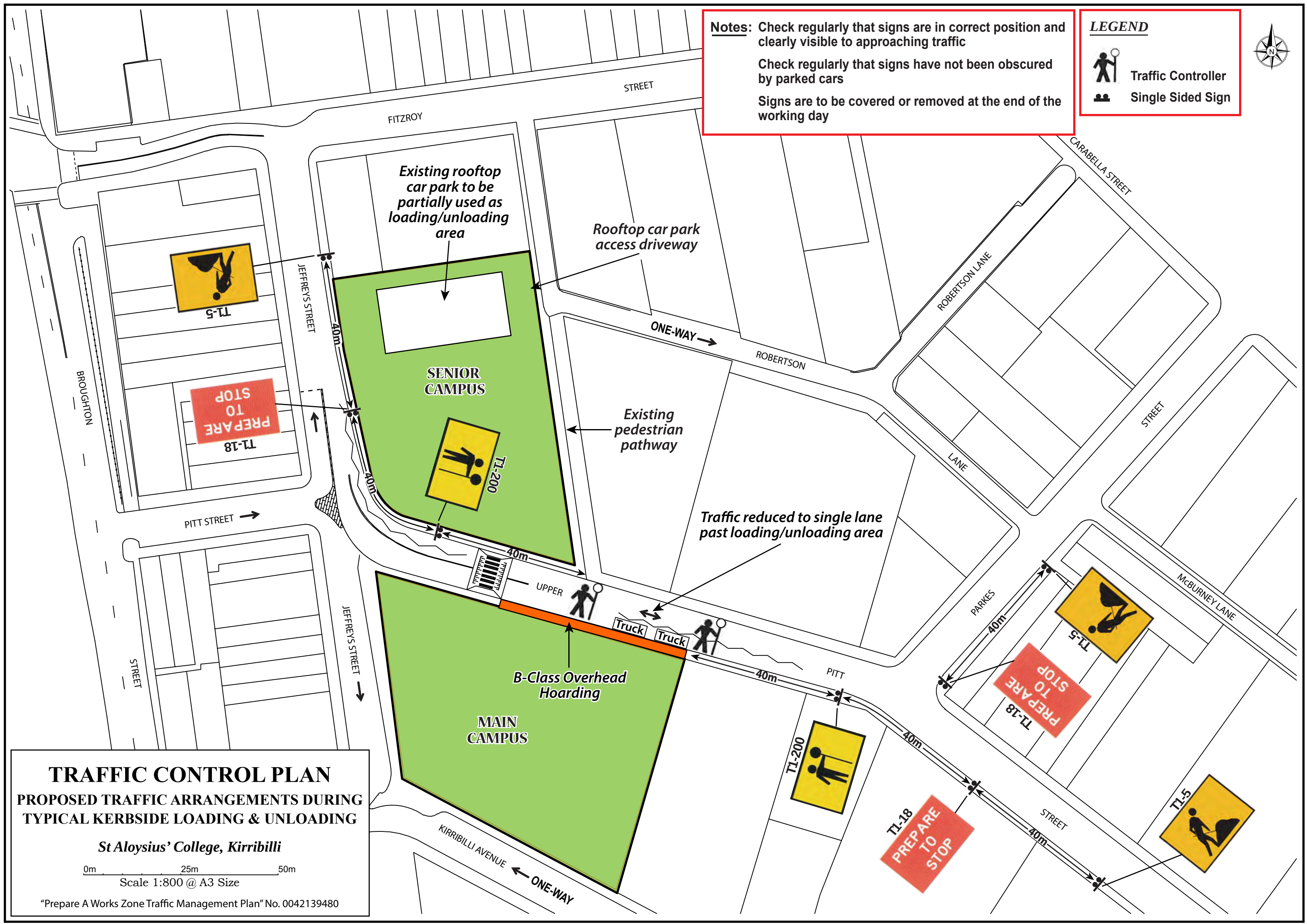
Check regularly that signs have not been obscured by parked cars

Signs are to be covered or removed at the end of the working day

LEGEND

 Traffic Controller

 Single Sided Sign



TRAFFIC CONTROL PLAN

PROPOSED TRAFFIC ARRANGEMENTS DURING TYPICAL KERBSIDE LOADING & UNLOADING

St Aloysius' College, Kirribilli

0m 25m 50m
Scale 1:800 @ A3 Size

"Prepare A Works Zone Traffic Management Plan" No. 0042139480

