



CURL CURL NORTH PUBLIC SCHOOL

Playfair Rd, Curl Curl North, NSW 2099

Preliminary Construction Management Plan

Prepared for
Department of Education

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1 INTRODUCTION

1.1 Overview

This Preliminary Construction Management Plan outlines the methodologies and strategies anticipated for the construction of a new Public school development at Playfair Road, Curl Curl North NSW 2099 – proposed name Curl Curl North Public school development.

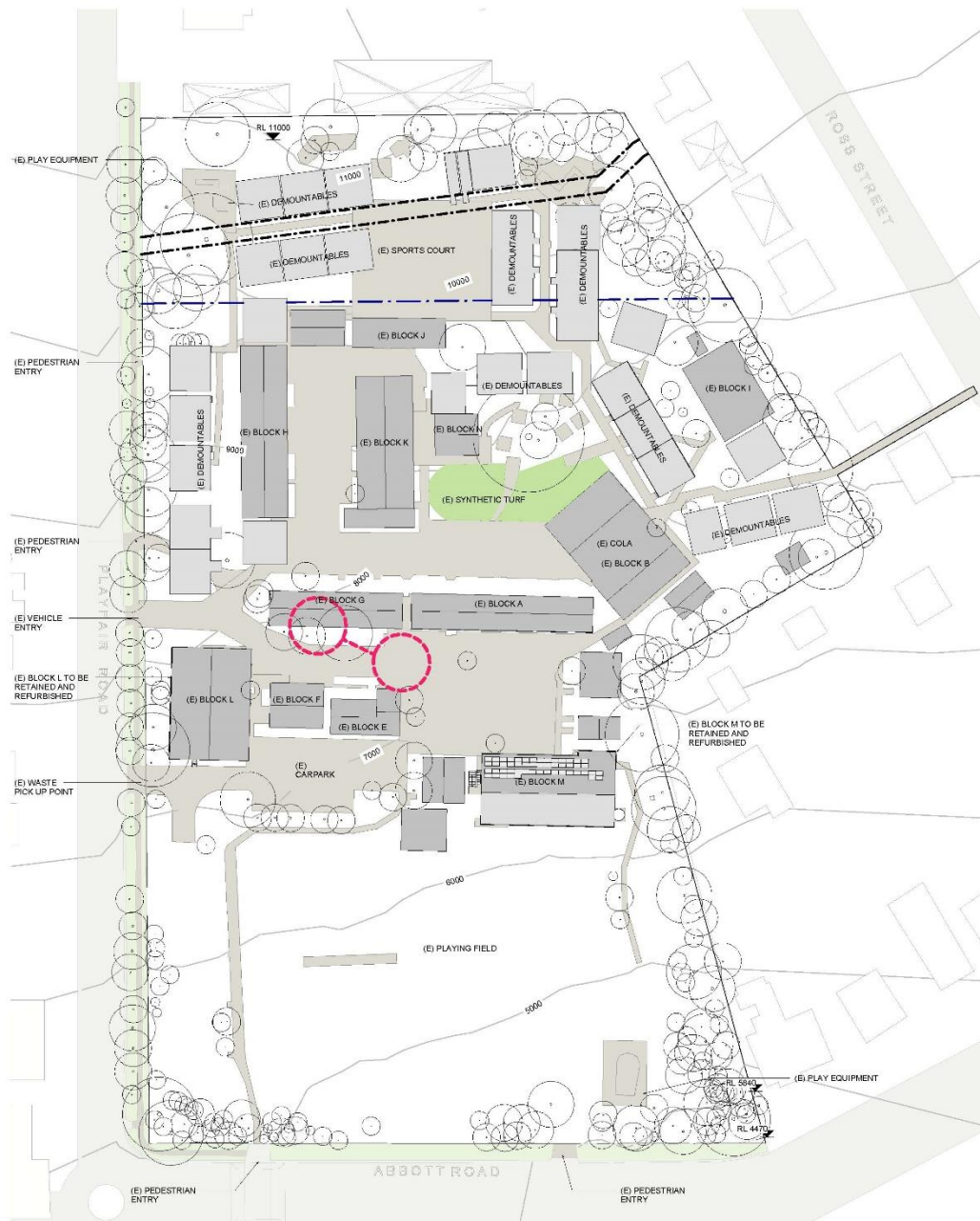


1 Aerial View of Existing Site



1.2 Site Description

The subject site is located within the Northern Beaches and is situated at the intersection of Abbott Road and Playfair Road, Curl Curl North. Immediately to the south is John Fisher Park, a series of large Council owned playing fields and netball courts that sit beside Curl Curl Lagoon. To the north, east and west are generally low scale residential dwellings, typically 1-2 storeys in height. The site falls approximately 7m from north to south and comprises two lots, Lot 1 DP 731454 and Lot 286 DP752038. There are a number of perimeter trees across the lots, and separate Arboricultural and Ecological reports have been developed identifying the plan for the development.

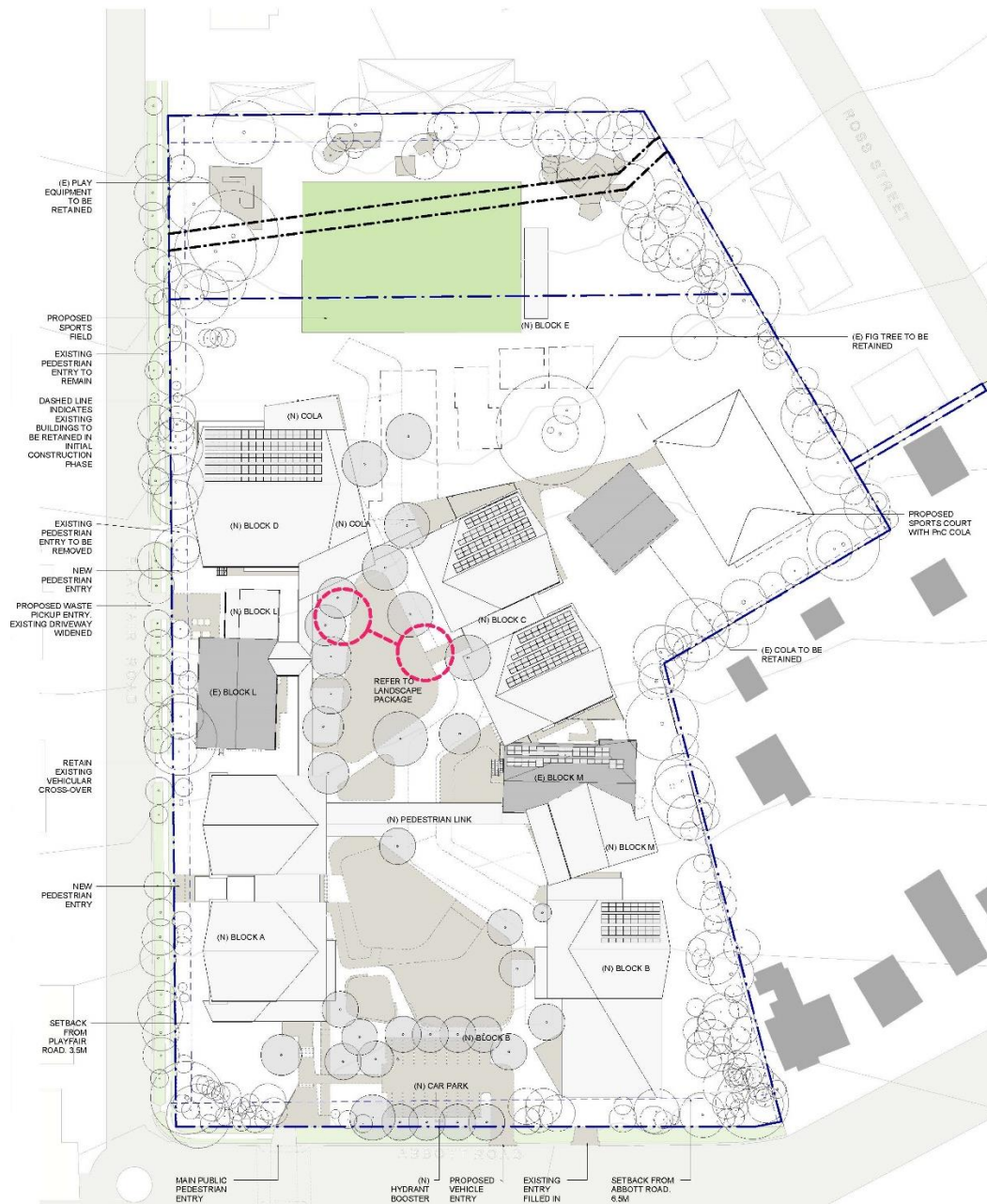


2 Existing Site Plan

1.3 Proposal

The proposed development consists of the Construction of a new Public School and associated sports facilities, site services and landscaping.

This construction management plan (CMP) is a preliminary report, and the measures contained within it are subject to change during the detailed design phase. A more detailed CMP will be developed following appointment of a construction contractor. This construction management plan (CMP) is for planning purposes, and the construction contractor is responsible for developing a revised CMP for use during construction.



3 Proposed Site Plan

1.4 Interface with other Project Plans and Procedures

The Construction Management Plan forms part of an integrated set of Project Management Plans and should be read in conjunction with them.

This document should also be read in conjunction with the following but not limited to:

- Hazardous Materials Assessment (Hazmat)
- Geotechnical and Structural Report
- Environment Site Assessment Report Stage 1 (ESA)

- Remedial Action Plan (RAP). The preliminary RAP is included with this SSDA. The RAP will be further developed during detail design and in response to external auditing and provided to the Contractor.
- Construction Noise and Vibration Management Plan (CNVMP). The preliminary CNVMP is included with this SSDA. The final CNVMP will be further developed by the Contractor once appointed.
- Construction Traffic Management Plan (CTMP). The preliminary CTMP is included with this SSDA. The final CTMP will be further developed by the Contractor once appointed.
- Construction and Demolition Waste Management Plan (CWMP). The preliminary CWMP is included with this SSDA. The final CWMP will be further developed by the Contractor once appointed.
- Stormwater Management Report
- Flood Risk Assessment Report
- Design and Sediment Control Plan
- Aboricultural Impact Assessment
- Landscape Report

1.5 Project Staging

The project will be broken into the stages below. Please note that the timeframes are guides only, and will be the responsibility of the main contractor to stipulate.

1.5.1 PRE-CONSTRUCTION [approx. 4 weeks]

Project preparation works including surveys, due diligence and approvals.

Site preparation for Stage 1 works.

1.5.2 EARLY WORKS [approx. 2 months]

Demolition of existing buildings in the southern portion of the site, with the exception of the existing Library.

Civil works in the southern portion of the site.

1.5.3 STAGE 01 [approx. 11 months]

Construction of proposed school buildings in the south of the site, including Administration, Library and Homebases.

Construction of southern landscape items, including verandahs, sports courts, planting, swale, and car park.

1.5.4 STAGE 02 [approx. 6 months]

Construction of the new hall, canteen, OOSH extension, toilet block and fabric COLA.

Landscape works including site remediation and swale/overland flow works.

1.5.5 STAGE 03 [approx. 2 months]

Demolition of the existing hall, canteen, northern toilet block and 2 x remaining demountables.

Completion of civil and landscape works.

1.6 Construction Methodology

The following explains the proposed methodology, sequencing and specific requirements to be adopted during construction of the proposed works.

1.6.1 Pre-construction

Prior to construction works being undertaken on site, all necessary planning and investigations will be undertaken to mitigate and control impacts arising from the proposed works:

1. Existing condition and Dilapidation Survey

A detailed dilapidation survey will be performed on surrounding areas including:

- Roads, kerb & gutter, footpath
- Street signs, street furniture, light poles, trees, fences etc.
- Infrastructure installations (pits, bollards etc.)

2. Existing Infrastructure Due Diligence

Infrastructure investigation including:

- Location of in ground services (including marking of location)
- Establish dialogue and liaise with authorities to make relevant applications.

3. Authority Approvals

Approval applications (aside from planning requirements) including:

- Utility diversions and/or protection works
- Traffic Management Plan

It is envisaged to utilise the existing paved entry off Playfair Road for the majority of the works. There may be a need for a temporary vehicular cross-over during Stage 3 works to remove the last of the demountable buildings without disrupting operation of the school. This zone is annotated in Figure 6 of this report. Any requirements detailed in the Traffic Management Plan will be installed and incorporated to enable safe access and egress to the site for material vehicular deliveries.

Temporary silt fencing and sedimentation drainage will also be installed where necessary prior to construction earthworks commencing.

1.6.2 Early Works

Demolition

Contractors undertaking demolition works during this phase will be required to develop and implement specific plans to ensure works appropriately deal with safety and environmental issues. Contractor works will include:

- Removal of hazardous materials present on site that are to be demolished as part of the works. Noting that the initial Hazardous building materials survey has highlighted harmful substances ie; Asbestos.
- Demolition of existing internal building finishes, including existing building services not required in the new development.

All demolition materials will be loaded into road trucks and removed offsite and deposited at a designated waste facility.

Site Clearance and Bulk Excavation

All existing trees identified to be removed will be undertaken by an approved specialist Arborist contractor, it is envisaged at this stage that all removed trees will be transported off site to a registered waste disposal recycling facility.

Topsoil strip will be progressed utilising on site dump trucks and deposited to a designated onsite storage area for use during later Landscaping works.

Bulk excavation cut and fill operation will generally progress South to North to the required levels and proposed profiles. Where fill material is to be placed on existing ground this will be proof rolled prior to filling operations, placement of fill will then proceed with compaction to the required specification and levels required. Piling platforms will be installed where necessary prior to piling rigs mobilised for piling operations.

Site Stormwater Services

Once bulk earthworks operations are completed site drainage will commence, working from the lowest outfall point and connecting to the existing mains the drains will be laid to fall in excavated trenches as specified, suitable bedding, surround and backfill material will be compacted to final reduced levels. Where necessary trench supports will be installed to ensure safe working conditions during all excavation and drainage installation works. Proposed swale pathways will also be constructed connected to the drainage where required, again temporary supports will be installed if required during excavation and construction.

1.6.3 Stage 1 works

Associated Retaining Walls

Associated retaining walls will be progressed as Bulk earthworks operation allow, these structures comprise of typically reinforced foundations and blockwork construction with associated drainage and fencing as required. These retaining structures will be progressively constructed in conjunction with bulk earthworks operations with cut and fill operations allowing stepped construction as specified.

Construction of Stage 1 Buildings

Once the required levels have been attained following bulk earthworks operations, works will progress on the construction of the proposed blocks. Reinforced piles will be installed and ground floor slabs to progress sequentially incorporating the required construction and movement joints as specified. Reinforced concrete columns and shear walls then be constructed to first floor levels as noted. It is anticipated that Concrete mobile pumps be used for the construction of floor slabs, columns and walls where required. Mobile craneage will also be required for the installation of reinforcement and lifting of formwork where necessary. Scaffold will be erected directly off the pre-laid concrete slabs or levelled formation allowing erection of the external facades, walls and windows. Craneage will be used where necessary to install panels in a safe and secure method.

Roofing will be delivered and installed utilising mobile craneage to ensure a watertight structure allowing follow on installation of internal services and finishes.

Services, internal partitions and ceilings will be progressed once a weather tight structure is erected. Internal finishes will progress in a sequential manner throughout the blocks.

Site Services

All service routes i.e.; sewers, fire mains, water, communications and security will be installed following installation of the drainage routes and as earthworks and building works allow.

Finishes

Final finishes including lighting, equipment and fittings installed, the clearing of the site compound, carparking areas and storage areas will be completed prior to final landscaping completion and handover of the proposed school facilities.

Commissioning and Relocation

Fixed and loose furniture will be installed, and all plant items in Stage 1 commissioned.

The school will be relocated to occupy the Stage 1 buildings, to allow Stage 2 works to commence.

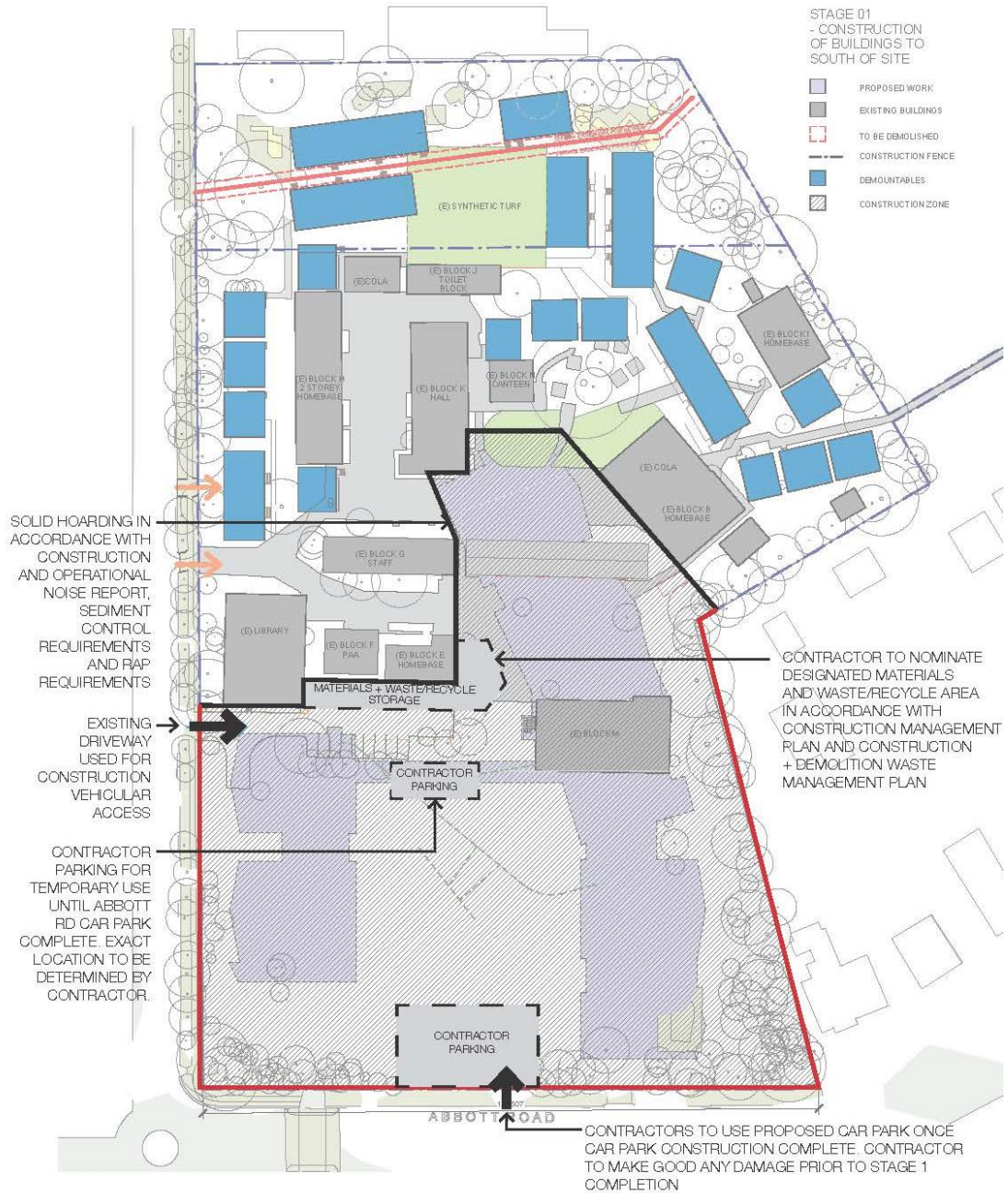


Figure 4 Stage 1 Construction Plan Diagram. CONCEPT ONLY - Contractor to prepare final plan

1.6.4 Stage 2 works

Site preparation for Stage 2 works. The site fence is to be established to allow works in the northern half of the site (see Figure 5). Sediment control measures, footings, services trenching and services connections etc. Remediation works in line with the RAP.

Tree removal/pruning and protection measures as per the Arboricultural Impact Assessment.

Demolition of existing buildings in the northern portion of the site, with the exception of the existing school hall, canteen, nearby toilet block and 2 x demountables. Note: The school will continue to operate in the southern buildings throughout Stage 2 works, as well as in the existing hall, canteen and remaining demountables.

Civil works in the northern portion of the site. Establish RLs and site set-out.

Construction of the new hall, canteen, OOSH extension, toilet block and fabric COLA.

Landscape works including remediation.

Completion and commissioning of Stage 2 buildings. Installation of fixed and loose furniture.

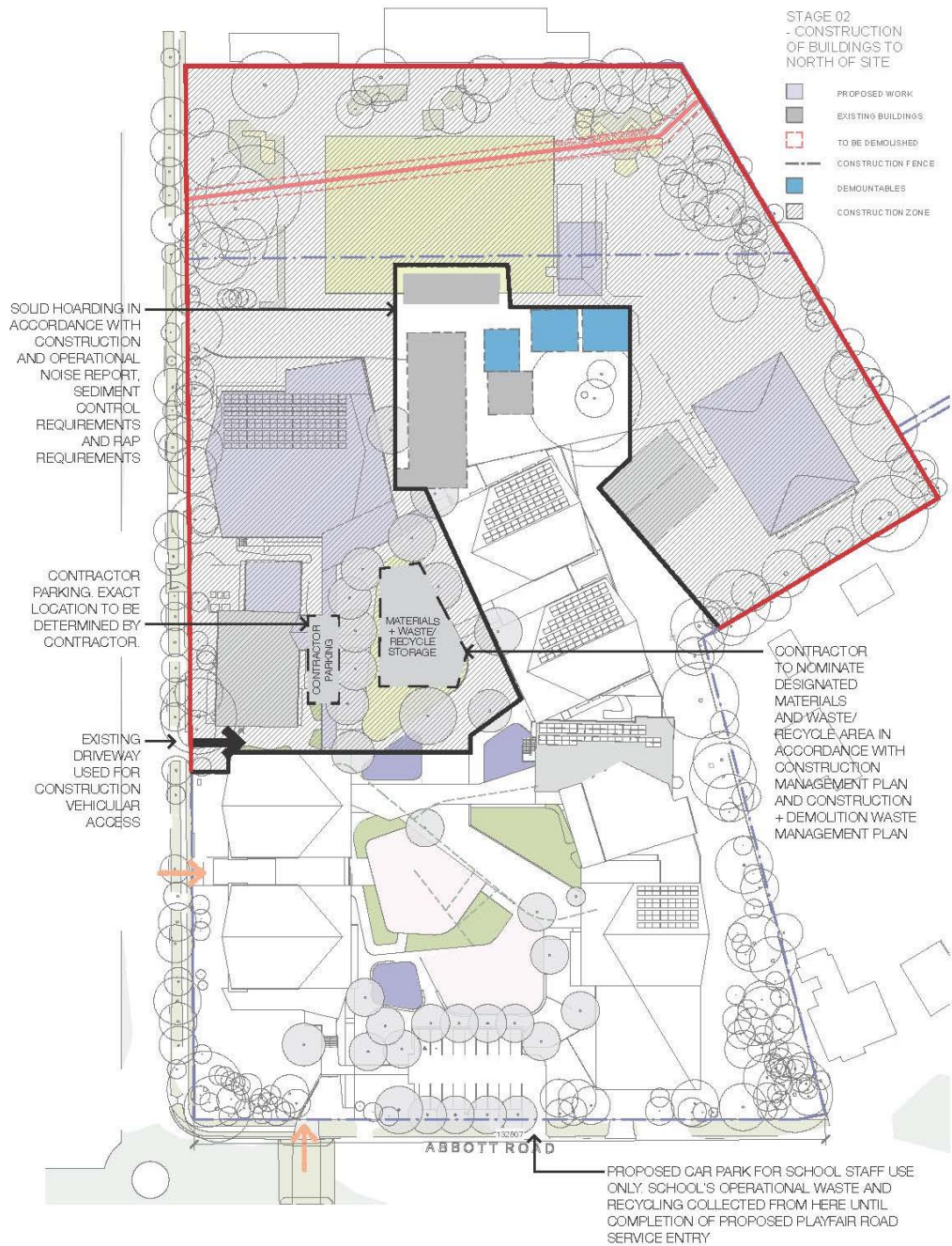


Figure 5 Stage 2 Construction Site Diagram. CONCEPT ONLY - Contractor to prepare final plan

1.6.5 Stage 3 works

Site preparation for Stage 3 works. The site fence is to be established around the existing hall, canteen, nearby toilets and 2 x remaining demountables (refer to Figure 6). Sediment control measures, footings, services trenching and services connections etc. Remediation works in line with the RAP.

Tree protection measures as per the Arboricultural Impact Assessment.

Demolition of the existing hall, canteen, toilets and 2 x remaining demountables. Note: The school will continue to operate in the recently completed buildings throughout Stage 3 works.

Completion of civil and landscape works.

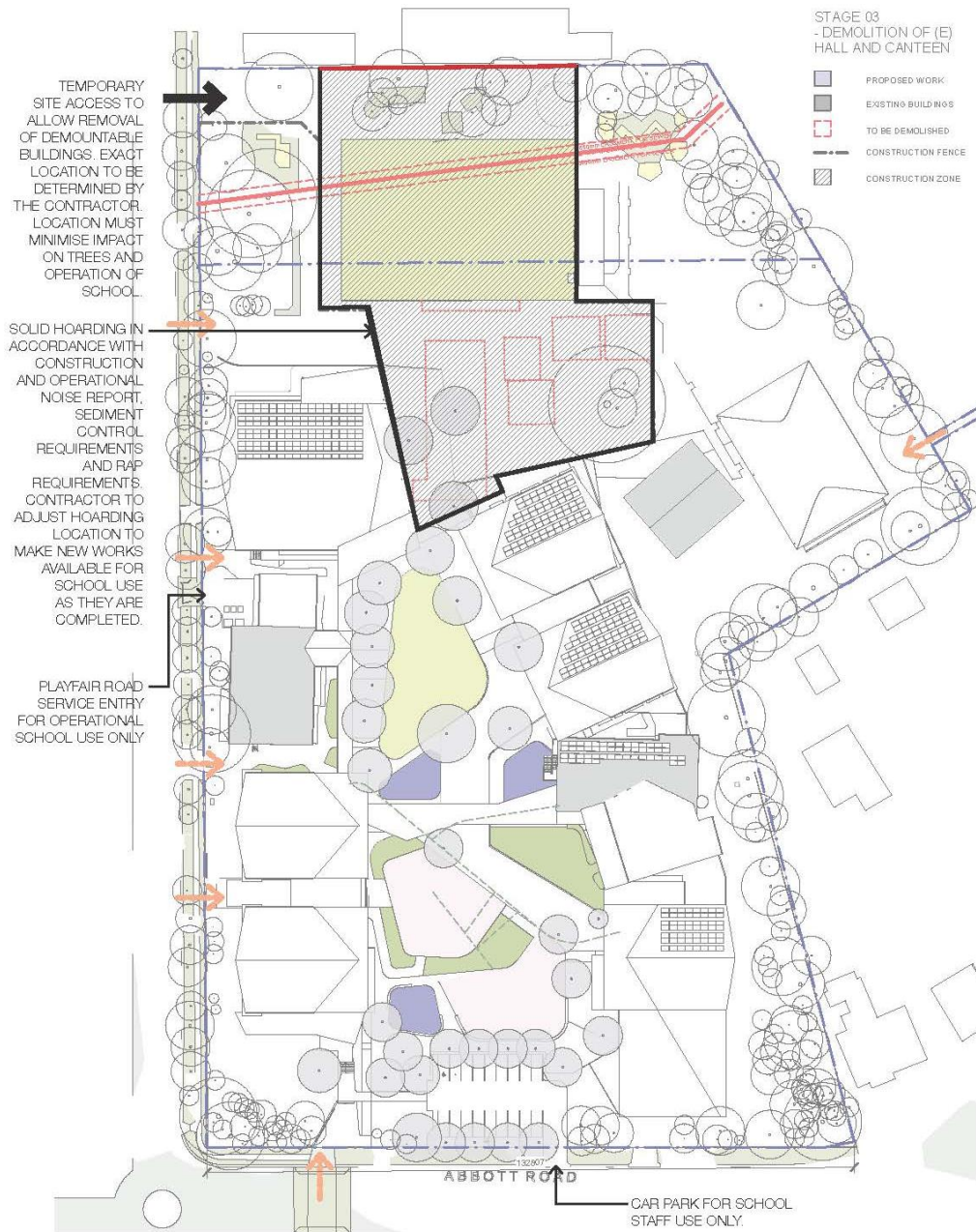


Figure 6 Stage 3 Construction Site Diagram. CONCEPT ONLY - Contractor to prepare final plan

1.7 Hours of Operation and Programme

The proposed working hours for this project are as follows:

Monday to Friday – 7.00am to 6.00pm

Saturdays – 8.00am to 5.00pm

Sundays and Public Holidays – No work

If required, after hours permits will be sought from the relevant authorities.

The overall Construction Programme period for the proposed development works is circa 21 months, including Christmas shutdown, standard public holidays and Rostered Days Off (RDO), and weather risk contingency. The Contractor will need to comply with the recommendations in the CNVMP to minimise noise and vibration disruption to nearby residents and on school operations.

1.8 Materials Handling Strategy

Prior to commencement of works, the Construction Traffic Management Plan will be further developed by the Contractor and traffic controls installed to manage the flow of traffic on and around the proposed site.

During the demolition phase, the handling of materials will be controlled by the demolition contractor with specific consideration for the handling of hazardous materials.

2 ENVIRONMENTAL MANAGEMENT

2.1 Public Safety and Protection

Appropriate signage will be placed on areas at the entrance to the site along Playfair Road and Abbott road indicating the works area and restricted access to the site.

All works will be undertaken in accordance with the requirements of Workcover NSW as well as the relevant standards and codes of practice to ensure the safety of personnel on and around the site.

Contractors will be required to undertake a through induction specific to the site and to hold on-site briefings periodically as the project and site evolves.

All incidents and near-misses on site must be recorded and addressed in accordance with the contractor's health and safety protocols.

2.2 Dust Control Measures

A detailed Air Quality Management Plan will be provided by the contractor.

All demolition works will be undertaken by appropriately licenced and experienced contractor utilising the relevant codes of practice with regards to the generation of dust.

Regular daily monitoring will be undertaken throughout the construction phase and mitigation measures will be undertaken on an as need basis.

2.3 Stormwater Management Measures

A preliminary Stormwater Management Plan is part of the integrated management plan and will be updated by the Contractor.

A continuous sedimentation drain and silt fence will be installed to the low side perimeter(south) of the site as specified to prevent any spoil washing from the site. The drains and pits will be inspected regularly and maintained such that they remain effective.

A sediment control trap for vehicles will also be established at the vehicle entry to assist with preventing spoil from being deposited onto adjoining roads.

2.4 Noise and Vibration Control Measures

A preliminary Construction Noise and Vibration Management Plan (CNVMP) will be prepared by the contractor. All works have been planned within the proposed working hours as outlined in Section 4.2 of the CNVMP. This plan will be developed and updated by the Contractor.

The report also identifies mitigation measures for noise disturbance. These are detailed in Section 4.9 of the report.

2.5 Traffic Management

A preliminary Construction Traffic Management Plan (CTMP) has been prepared as part of this SSDA. This plan will be developed further by the Contractor. The preliminary plan identifies the proposed vehicular routes and points of access during construction. The final CTMP, by the contractor, will further develop these strategies so they are fully coordinated with the final construction programme. It will also detail vehicular and pedestrian controls.

An on-site traffic and pedestrian route plan will be maintained for the identification and management of work zones, material deliveries and which will manage the flow of vehicle and pedestrian traffic on and around the proposed works zones to alleviate congestion. Also, signage and directions will be clearly identified to assist safe movements and manoeuvres.

At this stage it is envisaged the demolition and excavation activities be serviced utilising standard Medium Rigid Vehicles (MRV) and Truck and Dog Vehicles which will be loaded on site utilising tracked excavators. Following the demolition and excavation, it is expected that deliveries will increase due to the construction of the structures and internal fit out works.

Bulk deliveries will be unloaded into predefined storage and materials deliveries areas prior to being distributed to the workface for installation. Authorised traffic controllers will be utilised as required to facilitate movements on and off site.

2.6 Waste Management

A preliminary Construction and Demolition Waste Management Plan is part of the integrated waste management plan prepared for SSDA. It will be developed and updated by the Contractor.

2.7 Remediation

Specific requirements apply to the site in relation to remediation. For requirements that must be met during construction, refer to Section 9 of the Remediation Action Plan that accompanies this SSDA.