

Infrastructure Management Plan

Kambala Sport, Wellbeing and Senior Learning Precinct (KSWSLP)

Revision 04

20th July 2020

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Revision Information

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Revision Schedule

Revision	Date	Issue Name	Author	Authorised
01	7/4/2020	Preliminary	SM/KM/SL/DN	SL
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03	23/06/2020	Draft SSDA Issue	SM/KM/SL/DN	SL
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1 Executive Summary

This report addresses key infrastructure design considerations and parameters for the proposed redevelopment of the sports precinct of Kambala School at 794 – 796 New South Head Road, Rose Bay.

This Infrastructure Management Plan seeks to address the requirements of the Planning Secretary's Environmental Assessment Requirements (SEARs) as follows:

- Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation and easement requirements of the development for the provision of utilities including staging of infrastructure.

The findings of this report can be summarised as follow:

Infrastructure	Authority	Upgrade / New Connection Requirement	Augmentation & Easement Requirement	Staging Requirement
Gas	Jemena	Not Required	Not Applicable	Not Applicable
Water (Potable and Fire)	Sydney Water	Not Required	Not Applicable	Not Applicable
Sewer	Sydney Water	Not Required	Not Applicable	Not Applicable
Electricity	Ausgrid	Not Required	Not Applicable	Not Applicable

This report should be read in conjunction with the current set of AJ+C architectural drawings and other consultant reports sent through this application.

2 Introduction

This report supports a State Significant Development Application (SSDA) submitted to the Department of Planning, Infrastructure and Environment (DPIE) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act), for the proposed redevelopment of the sports precinct of Kambala School at 794 -796 New South Head Road, Rose Bay.

This application is SSD by way of clause 8 and schedule 1 under *State Environmental Planning Policy (State and Regional Development) 2011* on the basis that the development is for the purpose of an existing school and has a Capital Investment Value of more than \$20 million.

This report has been prepared having regard to the Secretary's Environmental Assessment Requirements issued for the project by DPIE, ref no SSD-10385 issued on 24 November 2019.

Pursuant to item 14 – Utilities:

- Prepare and infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation and easement requirements of the development for the provision of utilities including staging of infrastructure.

3 Background

Kambala is an independent day and boarding school for girls up to 18 years. Kambala also has an early learning centre catering for approximately 70 girls and boys aged between 6 months and 5 years. The school was established in the late 1800s and moved to the current campus in 1913. The campus has evolved in an organic and ad-hoc manner over the last 100 years as the school and its demands have grown.

A new campus-wide planning approach offers the opportunity to strategically plan for the future in a sustainable and effective manner and to preserve the unique aesthetic and heritage qualities of the campus. The preparation of a campus-wide planning approach is also consistent with the School's 2019 - 2023 Strategic Plan which identified the need for a broader strategic plan to coordinate renewal and development in a feasible and staged manner.

4 Site Description

Kambala is located at 794 -796 New South Head Road, Rose Bay and is within the Woollahra Council local government area (LGA). Situated in the eastern suburbs of Sydney, the School is approximately 8km east of the Sydney CBD. The School is located on New South Head Road which is a classified road connecting the City with the eastern beaches. The School is surrounded by predominantly residential uses.

The campus is bound by New South Head (to the east), Bayview Hill Road (to the north) and Tivoli Avenue (to the west). Fernbank Boarding House is located at 1A -3 Bayview Hill Road opposite the Kambala School grounds. No works are proposed to this part of the campus in this DA. The locational context of the School is illustrated at **Figure1**. **Figure 2** provides an aerial map of the School and its immediate surrounds.

The School campus slopes down from New South Head Road in the east to the west and comprises a series of existing buildings in the western part of the campus that range in height and age. The south western and north western part of the campus accommodates much of the school's existing built form, while the eastern part has the school's sporting fields and courts.

The Kambala School building known as Tivoli House is in the heart of the campus. The house, its interiors, gateposts, gates and flanking walls with railing facing Tivoli Avenue, as well as 2 Norfolk Island Pines are listed as a heritage item in Woollahra Local Environmental Plan 2014 (WLEP 2014).

Within the School campus, the site of this SSDA is illustrated in **Figure 3**. The site proposed for new buildings is on top of the existing sports field and music building, as shown in green. The site proposed for demolition works and associated façade redevelopment and landscaping works is shown in red and is limited to a portion of the existing Hawthorne Building and the Arts building. The site of new landscape works is shown in yellow and includes all external spaces connecting these works. It is anticipated that the construction works will be staged, so the construction site for any given stage will be smaller than the overall site identified in **Figure 3**. The four key main buildings proposed are identified in **Figure 4**.

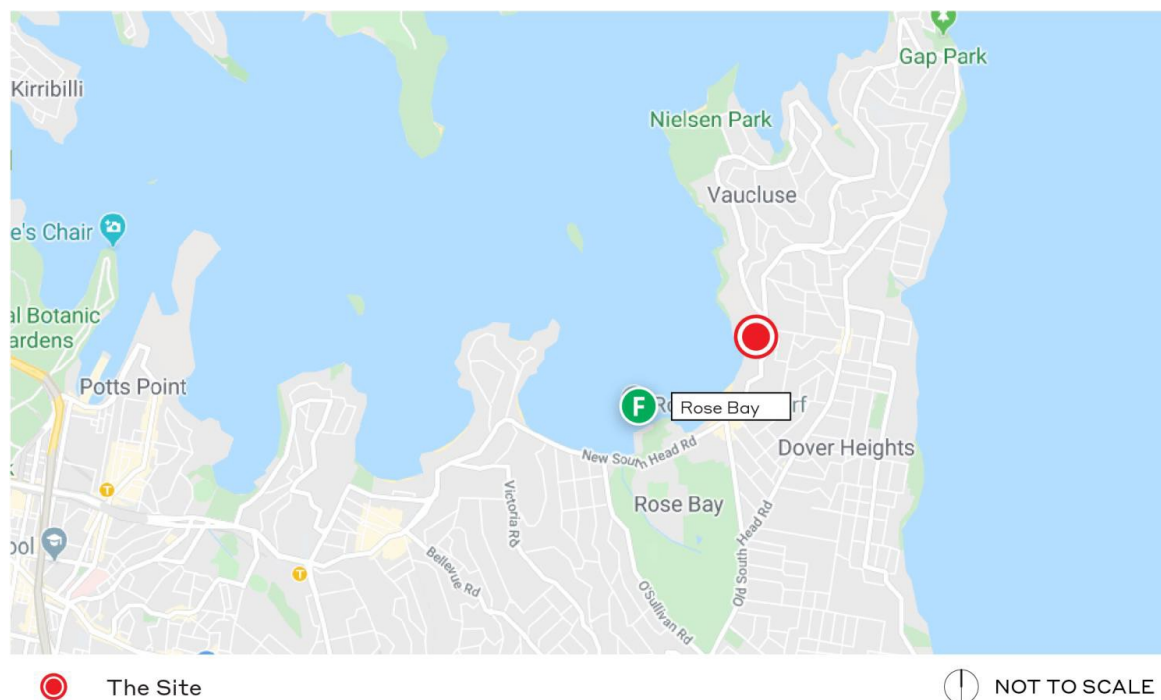


Figure 1: Kambala School Location Plan

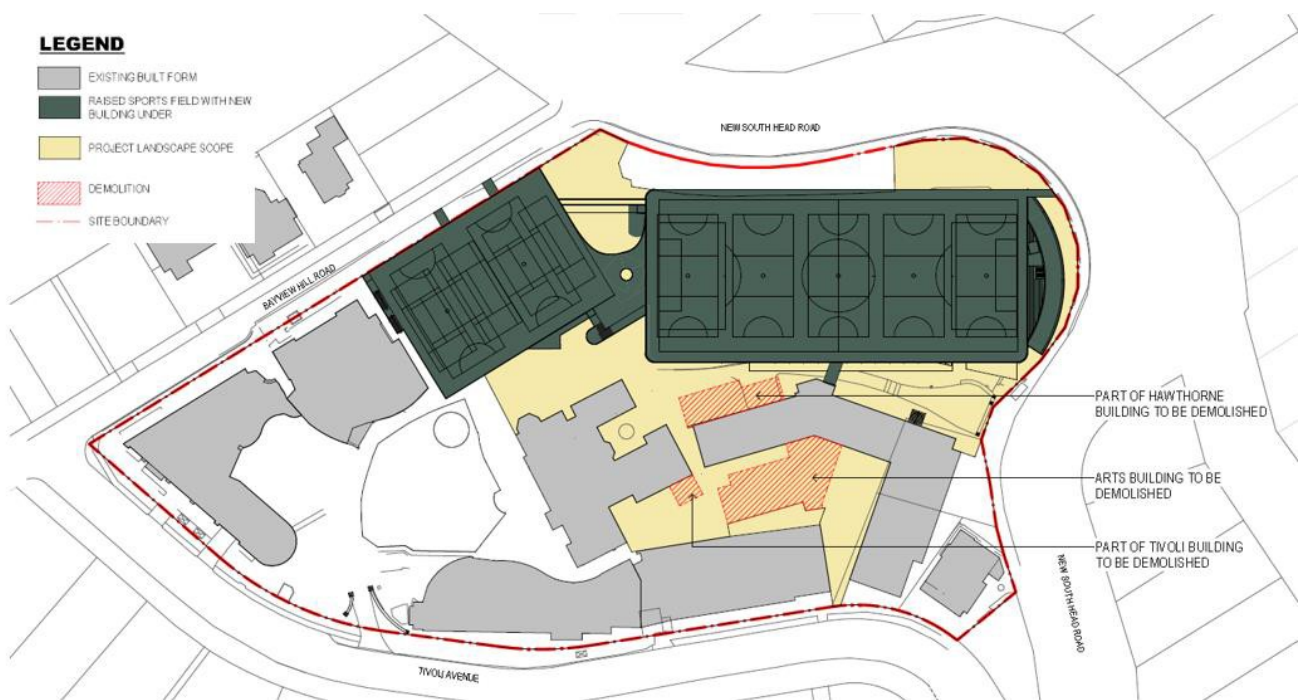




Figure 4: Key Plan

Source: AJ+C

5 Overview of Proposed Development

This SSDA includes detailed plans for a new sport, wellbeing and senior learning precinct. Accordingly, consent is sought for the following:

- The excavation of part of the existing sports field to facilitate the construction of the following:
 - > sports facilities including weights room and dance rooms;
 - > indoor multipurpose sports courts for use by up to 1500 people;
 - > innovative and flexible teaching and learning spaces;
 - > amenities, store rooms, plant, circulation and ancillary spaces
 - > reinstatement of the sports field surface on the roof (sports field and perimeter fencing)
 - > spectator seating / bleachers;
- The removal of the tennis courts (currently on the roof of the music building), and the construction of the following:
 - > a wellbeing centre, called the SHINE centre, to accommodate the Kambala SHINE program
 - > a new staff centre, called the KITE centre, to accommodate staff workstations, meeting areas, staff development workshop rooms and amenities
 - > reinstatement of the tennis courts, lighting and perimeter fencing on the new roof
- a new eastern forecourt for the school, new external landscaped areas and new courtyards;
- minor works to the existing music building to facilitate a new connection to the new courtyard;
- the partial demolition of the Hawthorne building and the construction of a new façade, roof and landscaping; and
- the demolition of the Arts building and the construction of new facades to adjacent affected buildings, and new landscaping to the footprint of the demolished building

6 Authority Consultation

The following are a list of consulted Authorities:

Infrastructure	Authority
Gas	Jemena
Water (Potable and Fire)	Sydney Water
Sewer	Sydney Water
Electricity	Ausgrid

7 Infrastructure / Mains Connection

7.1 Gas connection

The School precinct is currently connected to Jemena's gas network.

The proposed redevelopment is not anticipated to require any additional/new gas connections and we do not envisage any modification to the incoming gas main as a result of the proposed development.

However, should a gas connection be required in the future, then a separate application will be made to Jemena for a new connection.

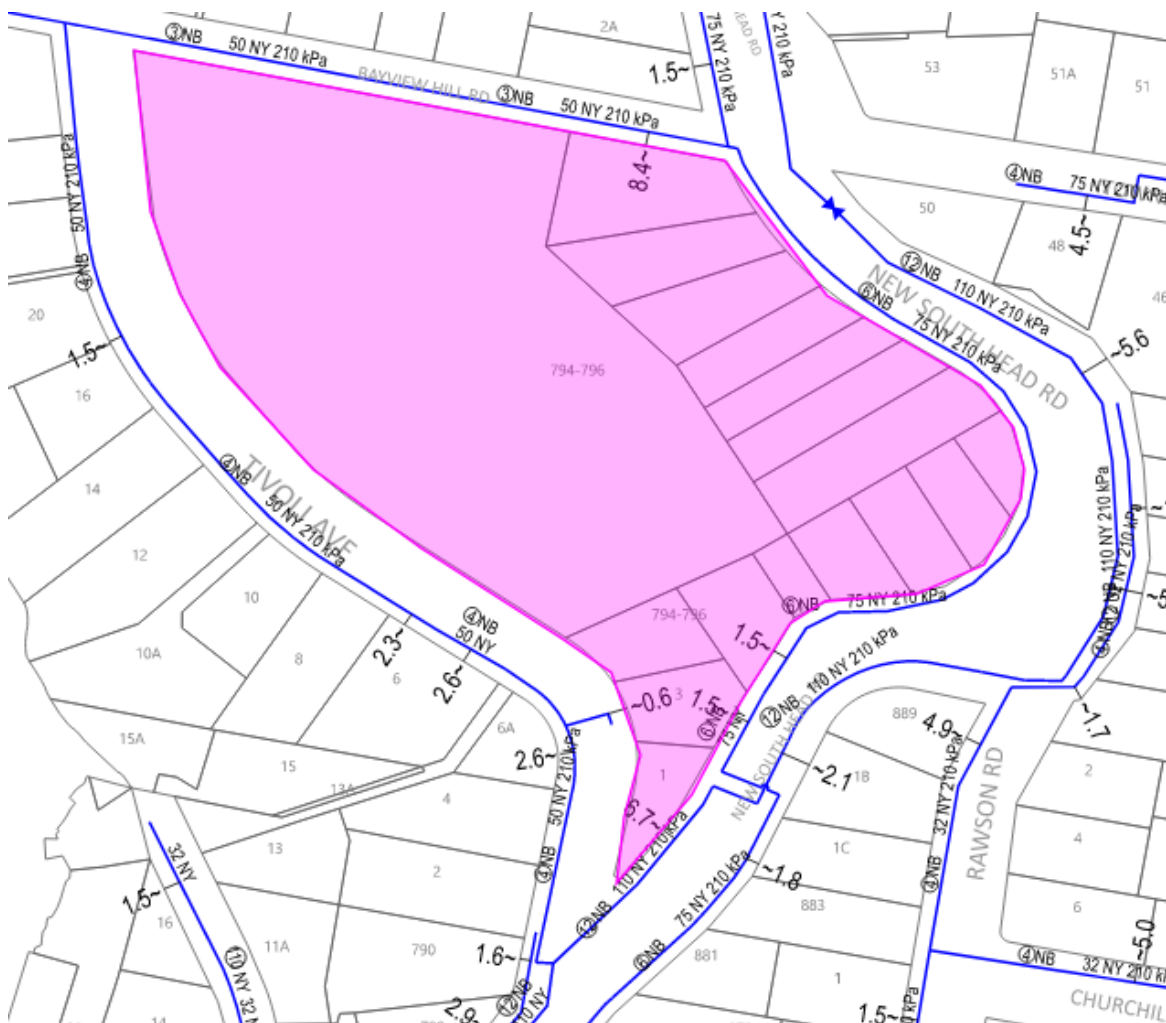


Figure 5: Jemena 1050 kPa Gas Main

Source: DBYD, Jemena

7.2 Water (Potable and Fire) Connection

Sydney Water DBYD shows an existing 150ømm main (Figure 6) reticulating on the Western side of Tivoli Avenue.

The School precinct is currently connected to this Sydney Water Infrastructure.

The proposed redevelopment do not require any additional/new water connection and we do not envisage any modification to the incoming water main.

7.3 Sewer Connection

Sydney Water DBYD shows an existing 225ømm main (A) reticulating on the Western side of Tivoli Avenue.

Sewer services from level higher than the levels of the existing authority main will be connected by gravity and sewer from the lower levels will be pumped out towards the gravity lines.

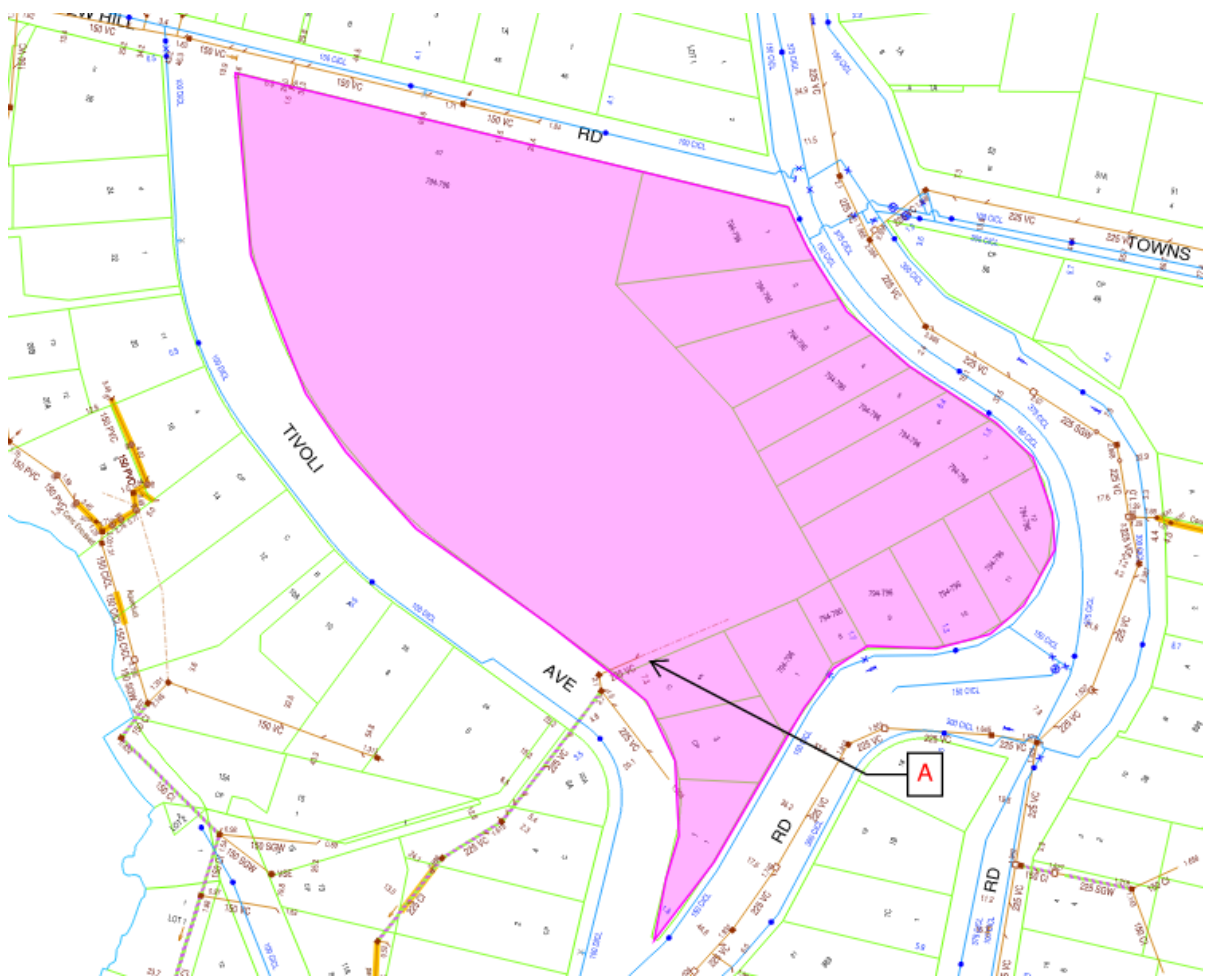


Figure 6: Sydney Water – Water & Sewer Connections

Source: DBYD, Sydney Water

7.4 Electricity Connection

The Kambala School site is a Low Voltage Customer and the site (including the surrounding areas) are supplied via three (3) kiosk transformers, namely: S35305, S35304, and S7486 (see below).

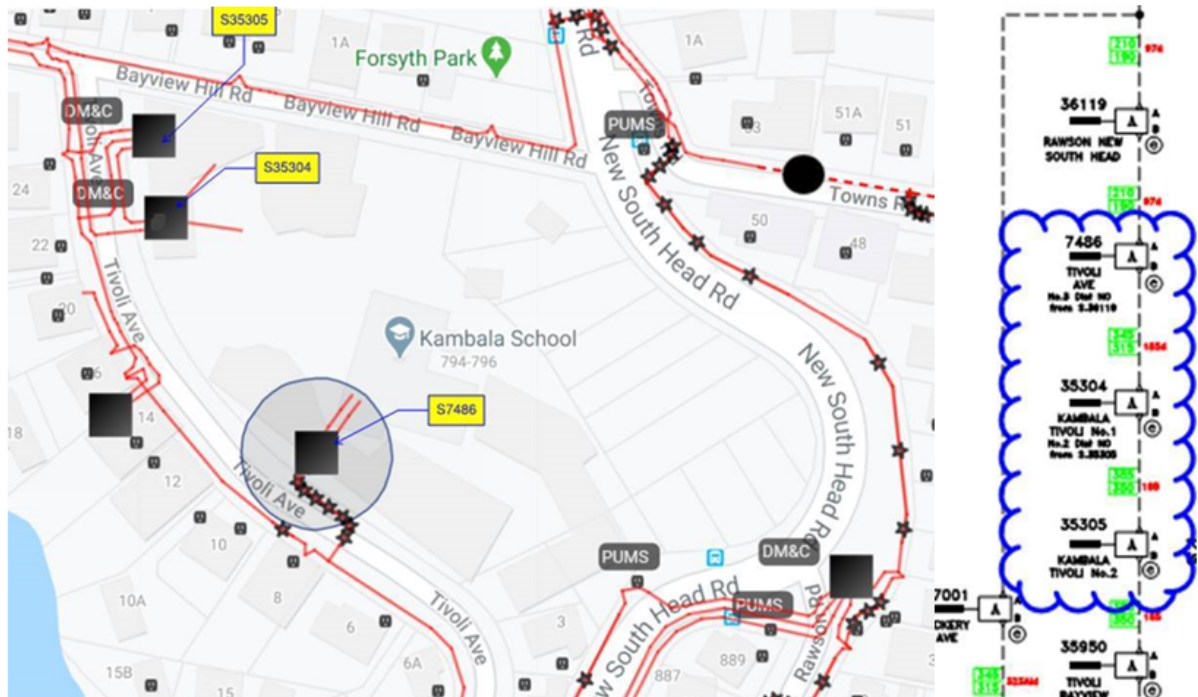


Figure 7: Ausgrid Distribution Substation Arrangement

Source: Ausgrid

Preliminary enquiry have been lodged with Ausgrid on the 2nd March 2020 and the application number is 0085602.

Based on the information received from Ausgrid on the 16th April 2020:

Asset Number	Asset Capacity	Supply to Project
Substation "S35305"	1511A Substation Capacity <ul style="list-style-type: none"> > Supplies network load on street Current overall Maximum Demand of Substation is 210A	The School is not supplied via this substation
Substation "S35304"	1511A Substation Capacity with: <ul style="list-style-type: none"> > Interconnecting load to S35305 (does not normally draw any load) > 400A network distributor to Bayview Hill Road Current overall Maximum Demand of Substation is 390A	<ul style="list-style-type: none"> > 400A denoted as 'School Supply No. 4' > 800A denoted as 'School Supply No. 2'
Substation "S7486"	1450A Substation Capacity with 400A network distributor supplying New South Head	<ul style="list-style-type: none"> > 800A denoted as 'School Supply No. 1'

Asset Number	Asset Capacity	Supply to Project
	Road (used during maintenance on S36119)	> 400A denoted as 'School Supply No. 3'

Based on our assessment to date, we envisage that proposed redevelopment do not require any additional/new electricity connection and we do not envisage any modification to the Ausgrid network.

7.4.1 Precinct Power Distribution

Based on our investigation to date, the site power distribution is in accordance with the diagram below:



Figure 8: Precinct Power Distribution

We envisage that the expansion will involve:

- > Additional 100A Electrical Load to the Music Centre
- > The estimated Maximum Demand to the New Sport Centre Building to be below 400A

It should be noted that all demand and loading is preliminary based on initial available information of the functionality of the redevelopment and is subject to further validation and confirmation.

8 Augmentation and Easement Requirements

Based on our findings, we can confirm the following:

Infrastructure	Upgrade / New Connection Required
Gas	Not Required
Water (Potable and Fire)	Not Required
Sewer	Not Required
Electricity	Not Required

As the proposed redevelopment do not require any additional/new connection and we do not envisage any augmentation and creation of easements.

9 Staging of Infrastructure

While the project is anticipated to be constructed in stages, we do not envisage that there will be any staging of Infrastructure. Therefore, Staging of Infrastructure is not applicable for the proposed redevelopment.

