



Robert Bird Group

EXALLOS DIVISION

SPECIALIST ENGINEERING

Construction Management Statement for

City One Wynyard

Prepared For: Thakral Holdings Limited

15th March 2011

Job No.: 10848N

Issue B



[illegible]

REVIEWER:

NICK BARKER
Signing for and on behalf of
Robert Bird Group Pty Ltd
Date: 15th March 2011

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1.0 Brief

The Exallos Division of Robert Bird Group Pty Ltd (RBG) was requested by Thakral Holdings Limited (Thakral) to prepare an updated Construction Management Statement in response to the correspondence received by JBA Urban Planning from NSW Planning on 8th March 2011. The Construction Management Statement forms part of a concept plan application for the proposed City One Wynyard development.

The updated Construction Management Statement was to address the following:

- Proposed construction management strategy and staging of the construction works to ensure continuous access and operation of Wynyard Station throughout the construction process.
- Provide recommendations to the strategies proposed that may need to be addressed at the detailed design stage.
- Concerns raised by NSW Planning in their letter dated 8th March 2011
 - Staging and Interface Issues.
 - Construction Management and Staging.
- Concerns raised by:
 - JG Service Pty Ltd on behalf of Mirvac Funds Limited and MTAA Superannuation Fund “Joint Owners” – 60 Margaret Street, Sydney.
 - Memcorp Australia Pty Ltd owner of Wynyard Green (formerly known as Railway House and Transport House) 11-31 York Street, Sydney.

2.0 Limitations

- This report has been prepared by the Exallos Division of RBG for the Thakral City One Wynyard project.
- This report shall not be used for any purpose than that stated above.
- This report is based upon our understanding of the site constraints developed during our initial brief and site inspections in August 2007, follow up meetings with Thakral in July 2008, and discussions on Friday 11th March 2011.
- The Construction Management Strategy is at concept stage and will require changes as detailed design progresses and the results of detailed consultation with RailCorp, State Transit, RTA, and the City of Sydney Council are incorporated.
- This report is based on the building concept shown in the Hassell Architects drawings Option 10.

3.0 Introduction

The City One Wynyard project comprises the proposed new building designed by Hassell Architects to be constructed on the site of the current Thakral House in George Street and Menzies Hotel including the Shell House building in Carrington Street.

This Construction Management Statement addresses the impact of the proposed architectural design on the physical constraints of the site including continuous access and operation of Wynyard Station for the proposed development, and highlights the issues that may require further investigation and development at the detailed design stage.

The City One Wynyard development is confined to the property boundaries of the existing Thakral House and Menzies Hotel including the former Shell House Building and that part of Wynyard Lane between Thakral House and the Menzies Hotel.

It is understood that staging of the construction works will be such that any works related to the Wynyard Station upgrade will occur following the construction of the City One Wynyard building by Thakral.

With the separation of works related to the Wynyard Station Upgrade and the construction of the City One Wynyard building it will be possible to continuously maintain clear and unimpeded pedestrian access and circulation through all of the existing paths around the City One Wynyard construction site including access to the Met Centre.

Clear and unimpeded access will also be maintained between George Street and Wynyard Station throughout the demolition and construction stages of the City One Wynyard project by the use of the existing Northern and Southern George Street Concourses, a Temporary Access Tunnel and finally the new pedestrian connections of the proposed development.

4.0 Construction Management Strategy

4.1 Potential Areas of Impact for Access and Operation of Wynyard Station

The Construction Management Strategy for the proposed development of the City One Wynyard building will need to address the following issues at the preliminary design, detailed design and construction phases.

4.1.1 Potential Structural Impact of the Proposed Development on Adjacent Structures

The proposed architectural design for the City One Wynyard building requires demolition of two (2) existing buildings that are at present located within the proposed development footprint. These buildings are the existing Menzies Hotel, and Thakral House.

Shell House, a heritage listed building located on the northern side of the Menzies Hotel will have its floors and core structure removed and replaced whilst the sandstone façade and clock tower are maintained.

The demolition methodology employed will focus on minimising the risk of damage to adjacent structures, as well as limiting vibration and noise whilst the demolition and construction phases are being performed.

It will be necessary to record the existing general structural condition and visible structural defects of the adjacent buildings and structures deemed to be within the potential zone of influence before any work commences. It is recommended that detailed dilapidation inspections and reports are prepared prior to any works beginning on the City One Wynyard site.

An understanding of the possible vibration related deterioration and foundation stability of the existing buildings and structures will need to be considered when completing inspections and reports.

The extent of adjacent buildings and structures that will require their condition to be recorded will need to be determined at the detailed design phase.

4.1.2 Demolition Methodology for Existing Buildings

The methodology sequence employed to demolish the existing Menzies Hotel and Thakral House will be performed in a manner that minimises risk to the general public, as well as damage and nuisance to adjacent structures.

Demolition methods and sequencing will be reviewed with RailCorp, State Transit, RTA, and the City of Sydney Council prior to demolition commencing, and throughout the demolition process.

This will be achieved by the following:

- A comprehensive review of all available structural drawings and documentation for the existing Menzies Hotel and Thakral House.
- Regular site inspections to monitor and if necessary develop alternate processes.
- Temporary load out platforms and designated construction zones nominated to allow demolished materials to be efficiently removed from the site in a manner that minimises adverse impacts to pedestrian movements and general traffic flow.

This will be achieved by a comprehensive review of site constraints and the strategic location of designated load out and construction zones.

Type B overhead protection hoardings will also be provided to limit impacts to pedestrian movements where applicable along the site boundaries in George and Carrington Streets as well as Wynyard Lane.

Traffic management plans will also be required to minimise the effect of construction related traffic on general traffic and bus movements and flows in the local area.

4.1.3 Sediment, Noise, and Vibration Control

The construction and demolition methodologies developed for the proposed City One Wynyard development will focus on controlling and minimising sediment run-off, excessive noise, and vibration from construction related activities.

Sediment run-off will require monitoring at the northern end of Wynyard Lane. This may require preliminary assessment and potentially upgrading prior to demolition works commencing.

The control of noise and vibration nuisance related to demolition and construction activities will be assessed at the detailed design phase of the development. This will be controlled by appropriate selection of demolition and construction methods and sequencing, as well the equipment used to perform these activities.

4.2 Potential Areas of Impact to Access and Operation of Wynyard Station

The demolition of the existing Thakral Building and Menzies Hotel, and construction of the new City One Wynyard building has a potential impact on the following physical constraints that may affect the access and operation of Wynyard Station.

- RailCorp goods lift and access.
- Hunter Arcade pedestrian access.
- George Street pedestrian subway.
- Northern and Southern George Street pedestrian concourses.

These physical constraints are addressed to a concept level of detail in Section 4.3.

4.3 Proposed Staging of Demolition and Construction Works

The proposed staging of demolition and construction works is shown in the table below (refer to RBG Drawings in Appendix A):

Construction Stage	Affected Areas	Proposed Solution to Affected Area	Issues Requiring Further Development at Detailed Design Stage
Stage 1			
<ul style="list-style-type: none"> - Install overhead Type B hoardings along George and Carrington Streets. - Close southern George Street concourse access to public. - Seal sides of southern George Street concourse to keep out dust and provide protection, including Hunter Arcade below. - Open southern George Street concourse access to public. - Close northern George Street concourse access to public. 	Existing southern George Street concourse now closed to pedestrians.	Redirect pedestrians to northern George Street concourse.	Disabled temporary access requirements may also have to be addressed.
<ul style="list-style-type: none"> - Relocate electrical substation No. 1771 & 1772 from basement (to be confirmed). 	Internal and external to site.	Temporary or permanent alternative substations installed.	Detailed design and staging of substation changes to be confirmed.
<ul style="list-style-type: none"> - Maintain existing goods lift and access zone. 	Wynyard Lane access.	Erect Type B hoarding in Wynyard Lane.	Plan for alternative goods lift to be installed.
<ul style="list-style-type: none"> - Commence demolition of existing buildings from top. 	Pedestrian access along George Street, and Carrington Street.	Erect Type B hoarding and access scaffold on George Street, and Carrington Street.	Extent of hoarding required. Potential clash with construction zones and load out platforms.

Construction Stage	Affected Areas	Proposed Solution to Affected Area	Issues Requiring Further Development at Detailed Design Stage
Stage 2			
- Demolish both buildings down to Level 2	Pedestrian access along George Street, and Carrington Street.	Erect Type B hoarding and access scaffold on George Street, and Carrington Street.	Extent of hoarding required. Potential clash with construction zones and load out platforms.
- At the same time, footings for new columns and walls can be excavated and constructed in the basement.	Internal to site.	N/A	N/A
Stage 3			
- Demolish floor slab of the northern George Street concourse for placement of new access tunnel.	Pedestrian access along George Street, and Carrington Street.	Erect Type B hoarding and access scaffold on George Street, and Carrington Street.	Extent of hoarding required. Potential clash with construction zones and load out platforms.
- Punch holes through the floor slabs on the northern side of the site for installing new columns and access tunnel supports.	Internal to site.	N/A	N/A
- Wynyard Lane is closed to through traffic.	Wynyard Lane closed to through traffic.	Traffic management plans to be put into place.	N/A
Stage 4			
- Install temporary supports and temporary access tunnel on the northern George Street concourse, including stair / lift to George Street pedestrian subway.	Pedestrian access to Hunter Arcade between George Street, and Carrington Street.	Construct a temporary staircase between Hunter Arcade to George Street Temporary Access Tunnel (adjacent to the western side of George Street), and divert pedestrians from George Street pedestrian subway at the eastern end of the Hunter Arcade.	Refine temporary staircase location and ensure the required clearances for pedestrian flow can be achieved. Assessment of existing levels 2 and 3 to act as overhead protection for demolition activities being performed above. Disabled temporary access requirements may also have to be addressed.
- When access tunnel is complete, close southern George Street concourse and demolish floor slabs / columns / walls to install new cores and new columns.	Southern George Street Concourse.	Divert pedestrian traffic from Southern George Street Concourse to Temporary Access Tunnel.	Disabled temporary access requirements may have to be addressed.

Construction Stage	Affected Areas	Proposed Solution to Affected Area	Issues Requiring Further Development at Detailed Design Stage
Stage 5			
<ul style="list-style-type: none"> - Install new columns and core to the new foyer level (GR3). - Construct Level GR3 floor framing, including temporary floor framing as a working platform. - Demolish existing Level 2 and continue demolishing the existing structure towards the basement. 	Internal to site.	N/A	N/A
Stage 6			
<ul style="list-style-type: none"> - Construct new Level 1 and Level 2, remove temporary floor framing at new foyer level. - Continue demolition of the existing lower floor structure. - Install alternative goods lift and access inside new lift core structure. 	Internal to site.	N/A	N/A
Stage 7			
<ul style="list-style-type: none"> - Install lower slab levels, leaving penetration for temporary access tunnel. - Demolish existing goods lift and support structure. 	Internal to site.	N/A	N/A
Stage 8			
<ul style="list-style-type: none"> - Open access to Southern George Street Concourse on new structure. - Remove temporary access tunnel and infill slabs where the tunnel was located. - Complete construction of the remainder of the building. - Overhead Type B hoardings along George and Carrington Street are to remain in place until the City One development is complete. 	Existing temporary access tunnel is closed to pedestrians.	Redirect pedestrians to new Southern George Street Concourse.	N/A

5.0 Conclusion

In accordance with the brief from Thakral, the Exallos Division of RBG has prepared an updated Construction Management Statement to address the construction management issues to a concept level for inclusion in the concept plan application submission for the proposed City One Wynyard development.

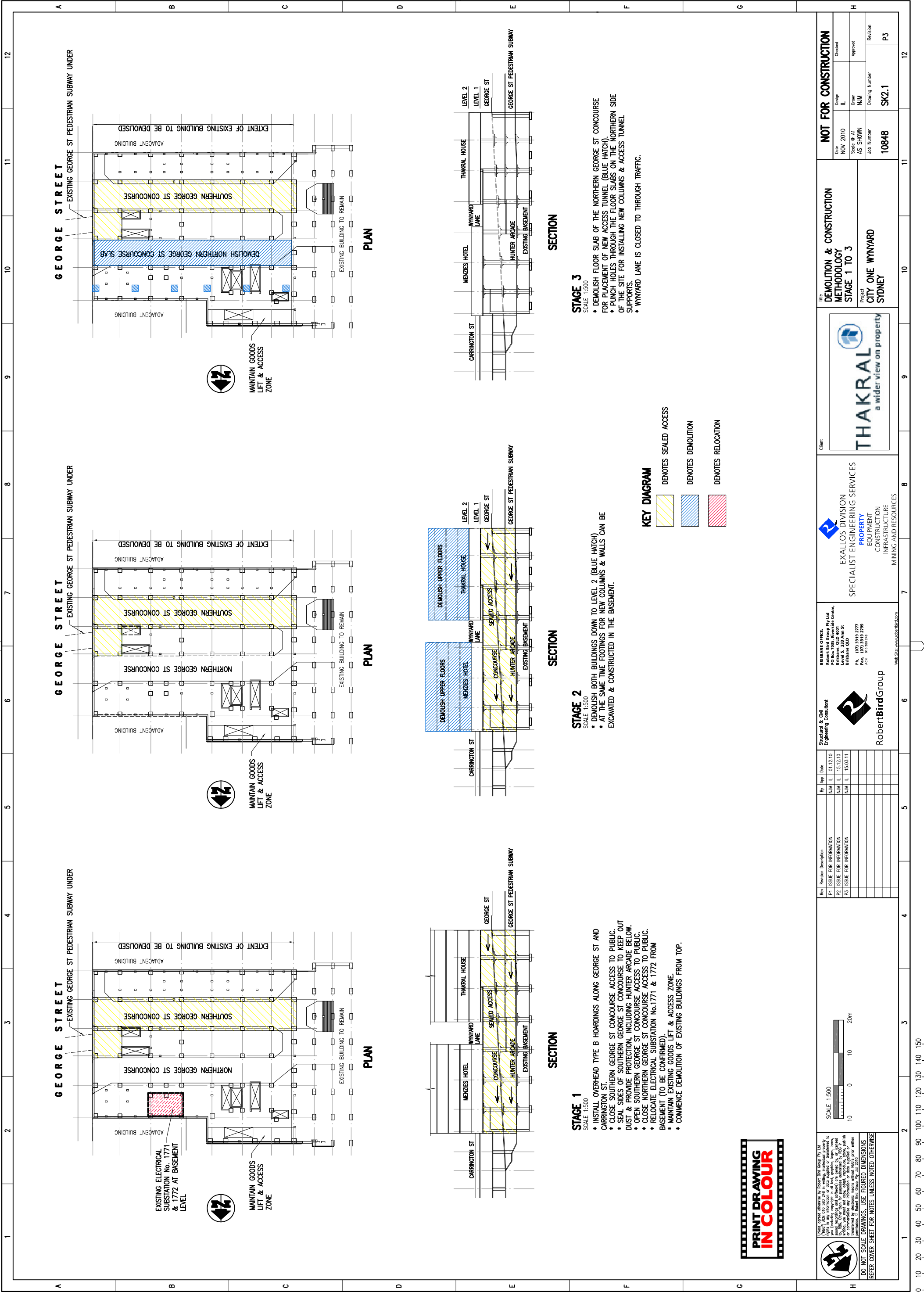
The construction for the City One Wynyard building is confined to the site of the existing Thakral House, Menzies Hotel including the Shell House building and that part of Wynyard Lane between Thakral House and the Menzies Hotel Buildings.

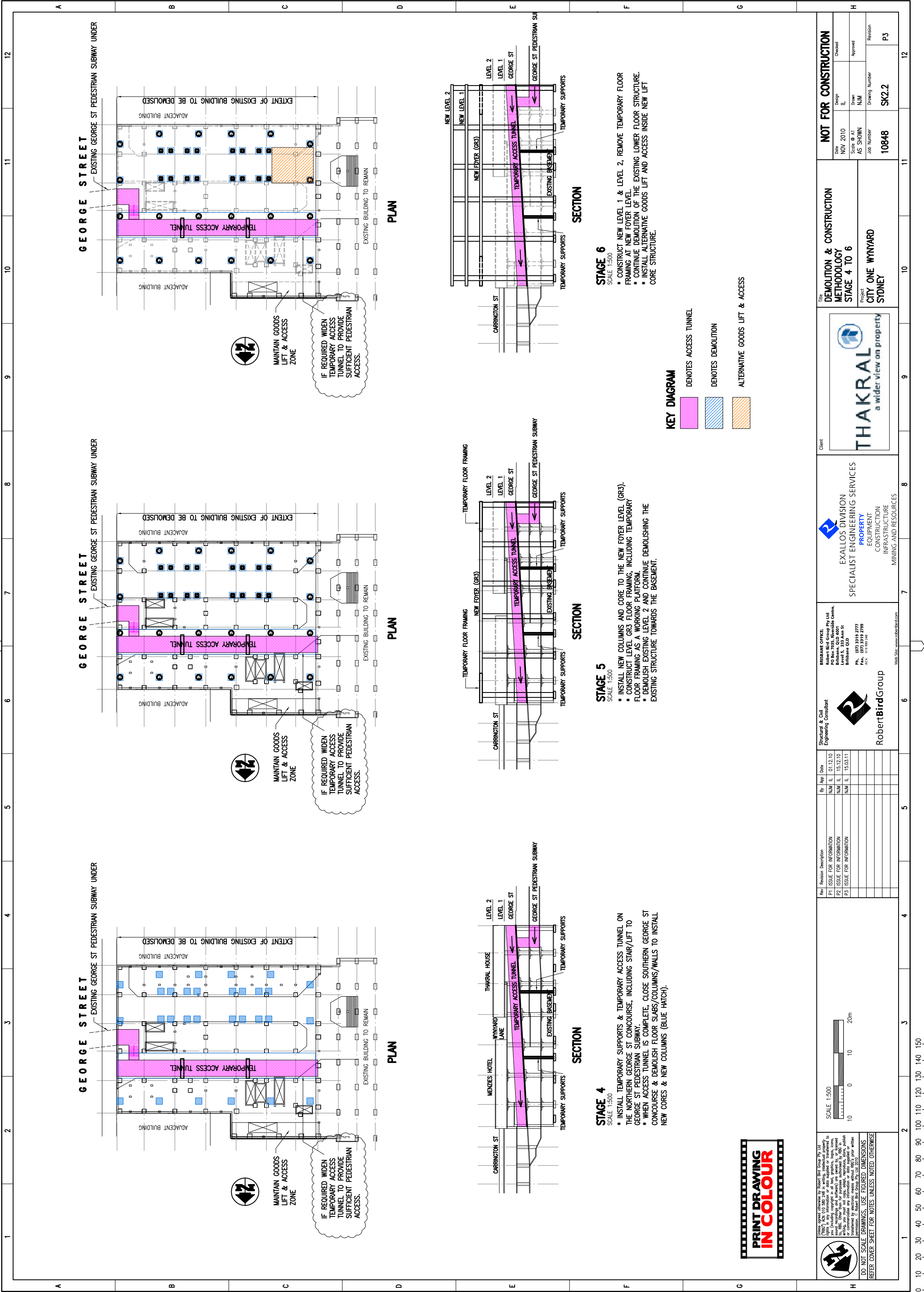
Clear and unimpeded access will be maintained by Thakral around and through the City One Wynyard construction site at all times throughout the proposed construction period.

The demolition and construction staging is at concept level and may require changes as detailed design progresses to meet stakeholder requirements.

Appendix A

Demolition and Construction Methodology Drawings



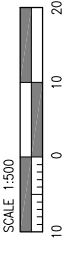




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Rev	Revision Description	By	App	Date
P1	ISSUE FOR INFORMATION	NJM	IL	01.12.10
P2	ISSUE FOR INFORMATION	NJM	IL	15.12.10
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THAKRAL
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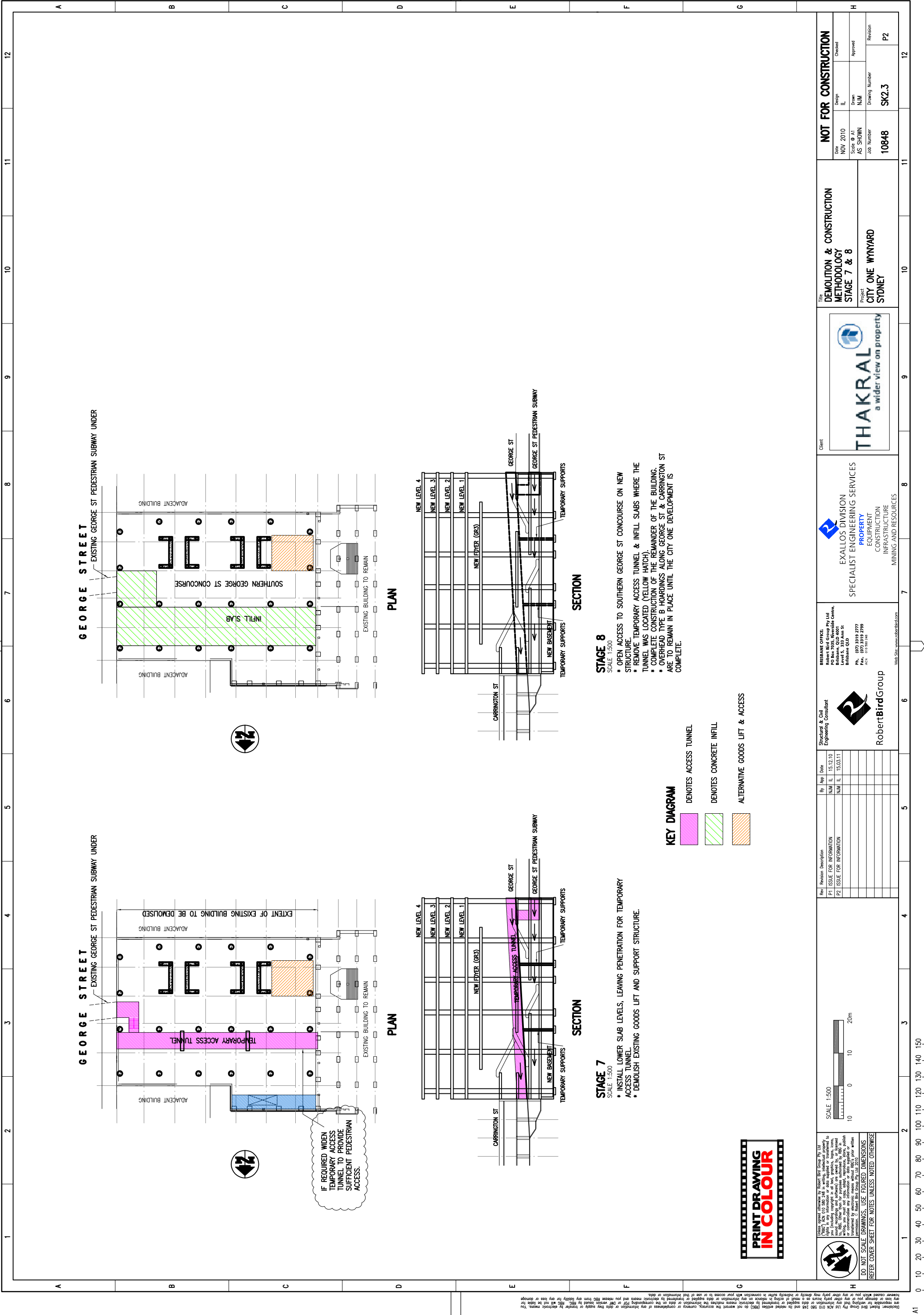
Client

The
DEMOLITION & CONSTRUCTION
METHODOLOGY
STAGE 4 TO 6

Project
CITY ONE WYNWARD
SYDNEY

NOT FOR CONSTRUCTION

Date	NOV 2010	Design	IL	Checked
Scale	@ A1	Drawn	NJM	Approved
AS SHOWN				
Job Number	10848	Drawing Number	SK2.2	Revision
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