

Private & Confidential

Supplementary Proposal For The Commercial Offer to NSW Government



**For Upgrade of Eastern Access ways & Commercial/Retail
Development above Wynyard Station
August 2011**

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1. Introduction

In May 2011, Thakral submitted a Commercial Offer in relation to the development of the eastern pedestrian access to Wynyard Station. Since that time:

- Thakral has worked with NSW Government to more precisely define the public benefits;
- Thakral has modified the design to provide greater certainty of delivery of those benefits; and
- the validity period of Thakral's offer expired.

This Supplementary Proposal addresses the above issues and is to be read in conjunction with and supersedes Thakral's earlier Commercial Offer where stated herein. The consolidated offer is referred to as the Proposal in this document. The validity period for the acceptance of the Proposal is extended to 14 September 2011.

2. Public Benefits of the Proposal

2.1. General

The core public benefit of the Proposal is that Thakral is proposing to create and maintain a new contemporary eastern entry and associated Transit Hall space to one of Sydney's most important transport interchanges, Wynyard Station.



Figure 1, Existing Connection from main concourse towards George Street

The Proposal offers to replace the existing low clearance, unattractive and non-compliant (with current standards) entry to Wynyard Station with an attractive, open, shared thoroughfare with natural

light and clear sight lines which complies with current BCA and DDA standards and meets the long-term transport needs of Wynyard Station.

Revised details of the Railway Transit Hall (refer annexure 1) were provided to NSW Government on 23 June 2011 and an updated presentation was provided on 4 August 2011. These details included revised drawings from Hassell architects, Halcrow for future capacity and compliance with the 20m metre zone and Stephen Grubits Associates relating to fire and life safety measures. The following parts of this section provide details of the specific benefits.



Figure 2, Railway Transit Hall showing proposed connection from George Street looking towards the concourse and Carrington Street. \$20m Public Infrastructure Contribution.

2.2. Passenger Access to Wynyard Station from the East

The pedestrian flows to George Street in 2060 have been estimated to be in the order of 16,630 persons in the peak am period. At this level the Thakral design is able to provide a level of service of A.

In terms of redundancy levels, the Proposal provides an increase in access capacity by 18% to meet Wynyard Station requirements to 2060. The Proposal provides for 42,100 pedestrians per hour at service level of C, compared to the existing ramps which provide for 35,500 persons at a level of service C.

This is delivered by the provision of equivalent pedestrian clear access width of 16m to George Street and 4m to Hunter Street Connection. The width equivalence is provided between floor levels by stairs and escalators. Specific details are contained in the Halcrow report in annexure 1.

2.3. Compliance of Passenger Access

The current rail passenger access through the existing ramps from George Street does not comply with BCA 2011, in terms of fire safety provisions, or with DDA, in terms of suitable disabled access.

The proposed Transit Hall will provide compliance with both BCA 2011 and DDA. By 2017 the Disability Standard of Public Transport will require compliance for 90% of public transport facilities, the Proposal will assist with achieving this. In addition, the Proposal will also provide:

- a reduction in RailCorp's incident egress distance to a "point of safety" by 60m, providing an egress travel time saving of 1.6 minutes and providing compliance with NFPA 130;
- an incident egress capacity for Wynyard of 905 people per minute, providing 181% of that required by relevant codes;
- Wynyard Lane to be available as a point of safe egress; and
- capacity for all incident exit requirements for Wynyard Station, providing significant flexibility and cost savings for future station development planning and construction (scope and staging).

2.4. Improved Transport Passenger Accessibility

The Proposal provides new direct pedestrian (including escalator) access between Wynyard Station and Carrington Street bus and taxi arrival/departure points. This improves accessibility to public transport.



Figure 3, Railway Transit Hall showing access to the concourse & Carrington Street

2.5. Improved Passenger Amenity

The Proposal provides a new, spacious Transit Hall with quality internal finishes which is open at either end incorporating natural light and views from George Street through to Carrington Street and into Wynyard Park. The passenger movements are supported by contemporary lifts, escalator and stairs and the amenity is supported by a modern building environment and associated fire safety services.

2.6. Economic Benefit to the NSW Government

The prior Commercial Offer describes the economic benefits to the NSW Government generated by the Proposal. Deloitte were engaged to identify and quantify the economic benefits as a result of the Proposal, including:

- improved access to the station;
- reduction in crowding;
- improved station amenities;
- additional generation of rail passengers as a result of the improved access and amenity; and
- avoided environmental externalities and road congestion costs.

The findings of the report indicate that the Proposal generates economic benefits to the community of approximately \$60m as summarised below.

Total Quantified Benefits for CityOne 2011

1. Wynyard Access and Crowding benefits	\$28,187,000
2. Amenity improvement benefits	\$19,686,000
3. Generated fare revenue	\$9,869,000
4. Avoided externalities from diverted road trips	\$766,000
5. Avoided congestion from diverted road trips	\$1,334,000
6. Total Economic Benefits	\$59,843,000

3. Benefits to Thakral

3.1. General

To make the Proposal viable Thakral has incorporated a number of benefits including:

- Additional FSR;
- Maintain car parking numbers as per the existing lease;
- An additional 21 year extension of the existing lease to 99 years; and
- Ground rent relief for the duration of the extended lease.

3.2. Benefit of Additional FSR

The Proposal requires a floor space of 26,475m² in excess of that which would otherwise be available for the land controlled by Thakral. In the CBRE valuation contained in the original offer, Heritage Floor Space was deemed to be an appropriate method of valuing the additional FSR. As stated in the CBRE report, HFS is presently selling for approx \$385 per m2 depending on the quantum and market conditions. Any price will ultimately be determined between the owner of the HFS and the prospective purchaser. Recent sales have been trading between \$350 - \$500 per m2. Thakral's contribution to the FSR has been valued at \$423m² which equates to \$11.2 million.

3.3. Benefit of Extension of Existing Lease

The Proposal requires an extension of the existing lease from 78 years to 99 years. To provide equity with comparable sites and to attract investors, Thakral seeks to extend its ground lease by 21 years. CBRE has determined that the additional 21 year extension to the existing lease has an estimated value of \$3 million.

3.4. Benefit of Rent Relief

Deloitte was requested to value the removal of this obligation. Current rental payments are approximately \$1.8m per annum based on 4.78% of the unimproved capital value of the land. In keeping with the methodologies adopted in the Deloitte Economic Analysis, a discount rate of 7% and an evaluation period of 30 years was considered to be appropriate. Given these parameters, the removal of the ground rent obligation has a present value to Thakral of approximately \$21 million.

4. Valuation of the Proposal Benefits to NSW Government

4.1. General

The benefits of the Proposal, identified in section 3 result in:

- Improved passenger transit times;
- Improved passenger amenity and experience;
- Improved passenger accessibility;
- Monetary contribution to future improvements;
- Economic benefits to the NSW Government; and
- Improved certainty of delivery of the above over time.

With the exception of the monetary contribution, and economic benefits, it would be extremely subjective to endeavour to evaluate the general qualitative public benefits in monetary terms. On the basis that the constructed and maintained public infrastructure is assumed to have (at least) a cost/benefit of one, the benefits of the new public infrastructure to the passengers is calculated on the basis of an apportioned value of the capital and operational cost of that new infrastructure. The following parts of this section 4 provide quantification of those values.

4.2. Valuation of the Benefit of the Provision of the new Infrastructure

Given the cost/benefit assumption of the new infrastructure, the public benefit of the new Transit Hall includes an apportionment of the new public area costs of the Transit Hall, including an apportionment of costs for escalators, lifts, fire services and the structure itself. This is a net cost to Thakral to provide the Transit Hall, inclusive of the natural light and clear sight lines through the project.

The Proposal includes the added benefit of the direct connection to Carrington Street, not present in the existing arrangements. This connection assists with intermodal transport requirements as well as providing a clear link to the western side of the CBD towards York Street and the future Barangaroo links.



Figure 4, Transit Hall direct connection to Carrington Street

When looking to quantify the public benefit of the Proposal, the Met Centre at 60 Margaret Street which has a similar GLA (6,753 sqm) to the proposed CityOne development, can be used to demonstrate the additional volume of public space provided. It has entry access widths of approximately 8 metres tapering to approx. 6 metres in general retail areas. The Met Centre is directly connected to the Wynyard station concourse and is a comparable scenario to the CityOne retail area.

Assuming that the volume of the space provided in the Thakral proposal is approx. 50% larger than a conventional retail environment due to the 16m access requirement to George Street, we would consider that it would not be unreasonable for these costs to be apportioned 50/50 between NSW Government and Thakral.

If the existing ramps through the site were compliant with BCA 2011 and DDA, it could be argued that they had a material residual value. However, given the extent of non-compliance and the condition, the residual value of the existing ramps is assumed to be negligible, particularly given the disability targets for 2017.

The direct cost involved with the provision of the Transit Hall is \$41.5m as prepared by WT Partnership (refer appendix 2). In addition there are indirect costs to deliver the space, including design, finance, overheads preliminaries etc. The indirect costs are approx. \$9.2 million, bringing the

total cost of the Transit Hall to \$50.8 million. Assuming 50% of this cost is a public benefit, the contribution is considered to be in the order of \$25.4 million.

4.3. Volume of the Public Space

The Proposal incorporates atrium space solely for the visual, spatial and natural light amenity for the transit passengers. Should this amenity not be considered necessary, the upper level of the volumetric space would otherwise be utilised for retail opportunities. The cost to provide this atrium space is essentially the loss of retail that could have otherwise have been provided within the proposed envelope. It is estimated that the opportunity cost of this space equates to a foregone annual rent of \$2.4 million or an NPV of around \$32 million over the term of the lease.

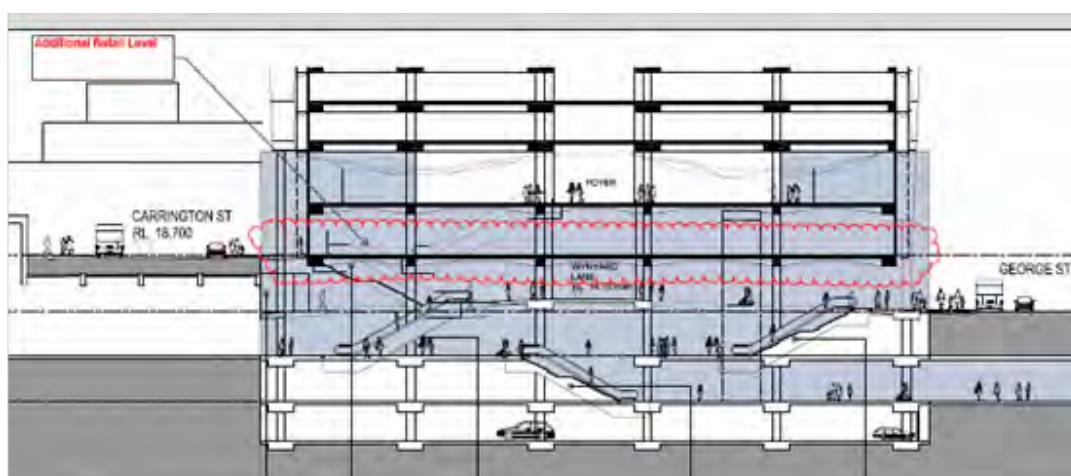


Figure 5. Potential additional retail level not included to provide generous Transit Hall volume.

4.4. Benefit of the Operation and Maintenance of the Transit Hall

Thakral's Proposal includes the operation and maintenance of the Transit Hall. A substantial portion of the Transit Hall is for the benefit of rail passengers and the general public.

Assuming that the volume of the space is approx. 50% larger than a conventional retail environment due to the 16m access requirement to George Street, we would consider that it would not be unreasonable for these costs to be apportioned 50/50 between NSW Government and Thakral.

The number of escalators (11), the volume of the space, the increased services such as smoke exhaust, fire separation, sprinklers and mechanical ventilation not contained within the existing ramps equate to significantly increased operating expenses. We have undertaken a detailed assessment of the expenses of the common areas of the proposed Transit Hall space leading to the main concourse, including; insurance, air conditioning, common area cleaning, centre supervision,

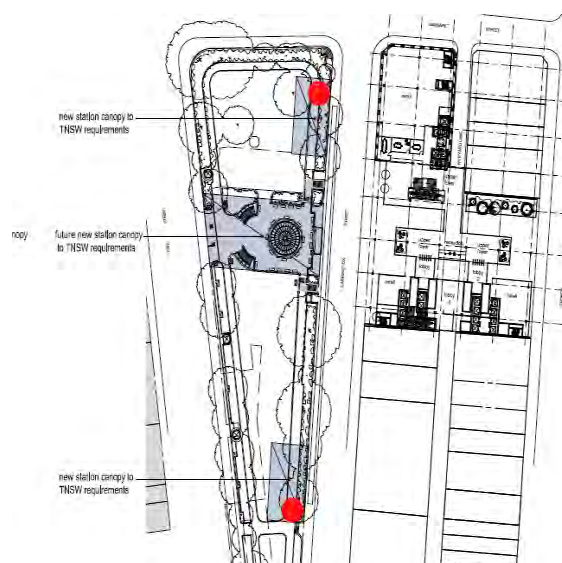
electricity, fire protection, lifts & escalators, security and 24 hour access to the station. These costs are estimated to be approximately \$3.26 million per annum.

The 50% portion of the outgoings expenses(\$1.63m) equates to a benefit to the State, over a 99 year lease period, of \$21.7m at a 7% discount rate.

4.5. Benefit of Payment for Wynyard Precinct

Following negotiations with the NSW Government, the Proposal now includes a cash payment of \$18.5m towards physical works in the Wynyard Park and Station Precinct. The payment will be made to enable these works to be undertaken as part of the precinct development by NSW Government. Based on our knowledge of the master plan, it is proposed that the contribution be directed to new entry points to the station at the north and south ends of Wynyard Park.

Subject the final design, scope of works and specification the contribution of \$18.5m is expected to meet the cost of the two new entrances and other associated public domain works and ensure that these works could occur in line with Wynyard's master plan time table. The stairs would also assist in maintaining suitable access to the station once the Barangaroo connection commences.



5. Alternative Method of Valuation of Benefits

As an alternative to the valuation of the Proposal benefits in section 4.0, it is worthwhile to evaluate the cost to the NSW Government if the Proposal was not to proceed. At present the Wynyard station entrance from George Street to the base of the ramps does not achieve compliance with BCA 2011 or provide suitable disabled access. By 2017 the Disability Standard of Public Transport will require compliance for 90% of public transport facilities.

The Proposal provides a fully complying BCA 2011 solution as well as addressing a complying DDA solution. Should the Proposal not proceed, it is likely that NSW Government would address the non-compliances.

The reports attached in appendix 3 & 4 by Morris Goding (DDA) and McKenzie Group (BCA) provide a high level review of the issues affecting the George Street ramps and potential solutions. The base

of the ramps represents the property boundary and is the western most boundary of the Thakral leasehold, the existing connection from George Street is outside of Thakral's lease, with both ramps and associated infrastructure being owned by RailCorp.

In conjunction with the above BCA and DDA reports, Hassell Architects have reviewed a number of solutions to provide a complying access way. Numerous scenarios have been reviewed including replacing the ramps with a complying gradient, to attempting to make the existing ramps compliant. None of these options provided an acceptable solution due to either head height restrictions or the ultimate length of a complying ramp and its effect of the operation of the main concourse. The Hassell design solution (contained in Appendix 5) addresses the following items:

- provides Building Code of Australia compliance as of 2011; and
- provides appropriate disabled access provisions.

The design solution requires the removal of the existing ramps and replacement with escalator and lift access directly from George Street down to a level surface linking back to the main concourse. The solution also includes the installation of smoke exhaust systems, sprinklers and drenchers to comply with BCA. Some below ground plant and retail spaces will be lost.

The additional consideration with this solution is TNSW's 2060 capacity requirements. The Hassell solution maintains escalator numbers and stair widths to ensure that the 16 metre zone to George Street is maintained in accordance with the advice prepared by Stephen Grubits Associates and Halcrow as contained in appendix 1.

This stand-alone solution provides a compliant access way in terms of:

- provides Building Code of Australia compliance as of 2011;
- provides appropriate disabled access provisions; and
- provides 2060 capacity provisions including the 20 metre zone identified by TNSW.

This option results in a loss of retail space at the George Street level in order to maintain the total equivalent 16m egress width to meet 2060 capacity requirements. The reconfiguration would involve the loss to Thakral of approximately 1,020 square metres of retail space from George Street and the mezzanine level. The reduction of this retail area would represent, conservatively, a loss of rental revenue to Thakral of \$1.36 million p.a. The saving to the State in not having to procure the Thakral leasehold retail interest of 1,020 square metres would be in excess of \$18 million (refer appendix 6 for final area calculations).

WT partnership have provided a detailed scope and costing of the proposed complying scheme (refer appendix 6). Due to the fact that the station entrance would need to be maintained from George Street at all times, the cost would be at a significant premium. It is estimated that the scheme would cost between \$16.9m and \$26.9m.

For the construction cost of the complying scheme, assume a cost somewhere between these two figures above, for the purpose of this exercise a cost of \$21.9 million has been adopted. In addition, the necessary works would attract increased operation and maintenance costs similar to those calculated in section 5.3.

6. Existing Lease Issues

The Proposal contemplates that the existing lease in place between RailCorp and Thakral is amended where appropriate to allow for amongst other things, the revised three dimensional space. It is anticipated that the existing lease would remain in place and where necessary, selected clauses of the lease would be amended.

For instance the extension of the lease required to provide 99 years, would require an appropriate amendment for this to occur. The valuation contained in the original offer document estimate the extension of the existing lease to be in the order of \$3 million dollars.

The Proposal contemplates that all payments required under part 16 of the Thakral lease with RailCorp, in relation to the contingent settlement sum, have been satisfied.

In addition to the issues surrounding the lease, Thakral acknowledges that there will be numerous agreement's required to facilitate the works. The letter provided by RailCorp dated 10 March 2011 details these matters comprehensively and the suggested mechanism is a Project Delivery Agreement. We confirm that Thakral is in agreement that such a document is necessary in order to address issues such as, title, operational requirements, interface agreement's, staging of works etc. It is not intended to cover off all these aspects in the commercial offer document, but to provide the framework containing the commercial terms.



Figure 6. Proposed view of Transit Hall from Carrington Street looking through to George Street.

7. Summary of Proposal Net Benefits

The summary of the benefits to Thakral are summarised below.

Description	Reference	Benefit to Thakral
FSR Benefits to Thakral	3.2	\$11,200,000
Extension of Lease	3.3	\$3,000,000
Rent Relief	3.4	\$21,000,000
Total Benefits Sought by Thakral		\$35,200,000

The summary of the benefits from the Proposal to the NSW Government and the passengers using the Transit Hall are summarised below.

Description	Reference	Benefits from the Proposal
Economic Benefit to NSW Government	2.6	\$60,000,000
Benefit of the Public Area Infrastructure	4.2	\$25,400,000
Operation and Maintenance Expenses of the Public Space	4.4	\$21,700,000
Cash Payment for Wynyard Precinct	4.5	\$18,500,000
Total Benefits from the Proposal		\$125,600,000

The above summary demonstrates that the net benefits of the Proposal are in the order of \$90.4 million.

Alternatively, if the Proposal was not to proceed, the cost to NSW Government to modify the existing ramps such that they satisfy 2060 patronage; and otherwise comply with BCA 2011 and DDA, would be in the order of \$40 million excluding ongoing if operation & maintenance costs (refer to section 4.0) and in the order of \$60 million if operation & maintenance costs were included, as is the comparative case for the Proposal.

This demonstrates that if the Proposal does not proceed, the NSW Government would outlay in the order of \$40 million (being \$60m from above less approximately \$21m in operating and maintenance expenses) in lieu of receiving a \$18.5m cash contribution and the contribution of a fully complying access way to 2060. Further, the transit passengers would have significantly reduced benefits in terms of visual and spatial amenity and no accessibility to Carrington Street providing a true intermodal Transit Hall.

Despite any other terms in this offer, no binding commitment can be made by Thakral until detailed formal commercial terms have been agreed with Transport NSW, approved by the Thakral Holdings Limited board and all implementation agreements signed by all relevant parties. This offer expires on 14th of September 2011 unless an extension is agreed in writing between the parties.

Annexure 1 – Compliance with TNSW 20 metre zone

Architecture
Interior Design
Landscape Architecture
Planning
Urban Design

Australia
PR China
Hong Kong SAR
Singapore
Thailand

04 August 2011

CITY ONE PROJECT CONTRIBUTION TO WYNYARD STATION EGRESS

Presented by:
Rob Hawkins Principal

HASSELL

- 01 _____ Public Experiences
- 02 _____ Proposed Escalators, Ramps & Walkway
Connecting George St, Carrington St & Concourse level

01__PUBLIC EXPERIENCES

HASSELL

01 — Transit Hall
View toward Wynyard Park showing escalators down to Concourse level and two storey void



HASELL

01 — Transit Hall
View toward Wynyard Park



HASSELL

01 — Transit Hall
View to Wynyard Park at base of stairs to Carrington Street



HASSELL

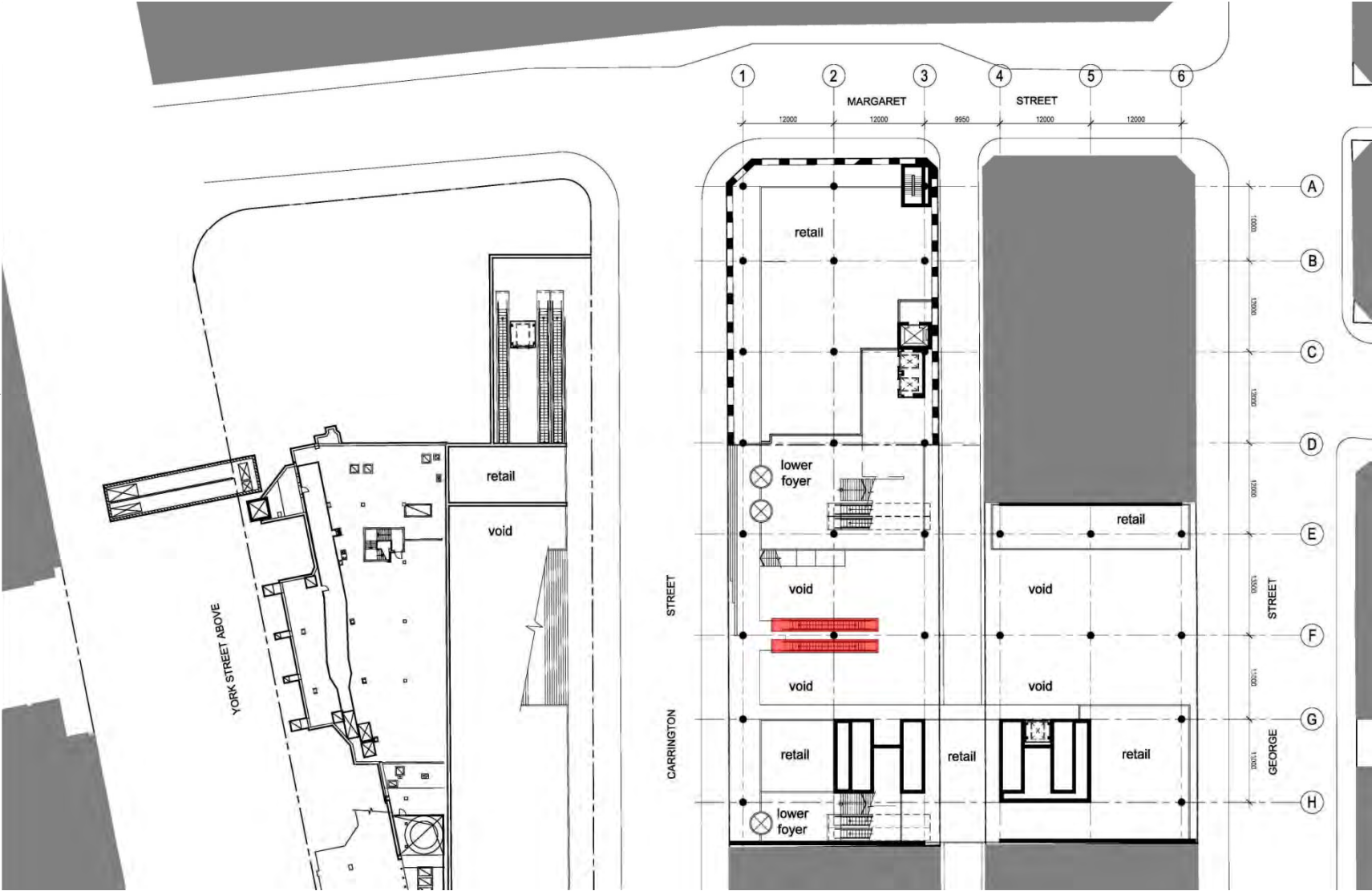
01 — Transit Hall
View toward George St from Carrington St



HASSELL

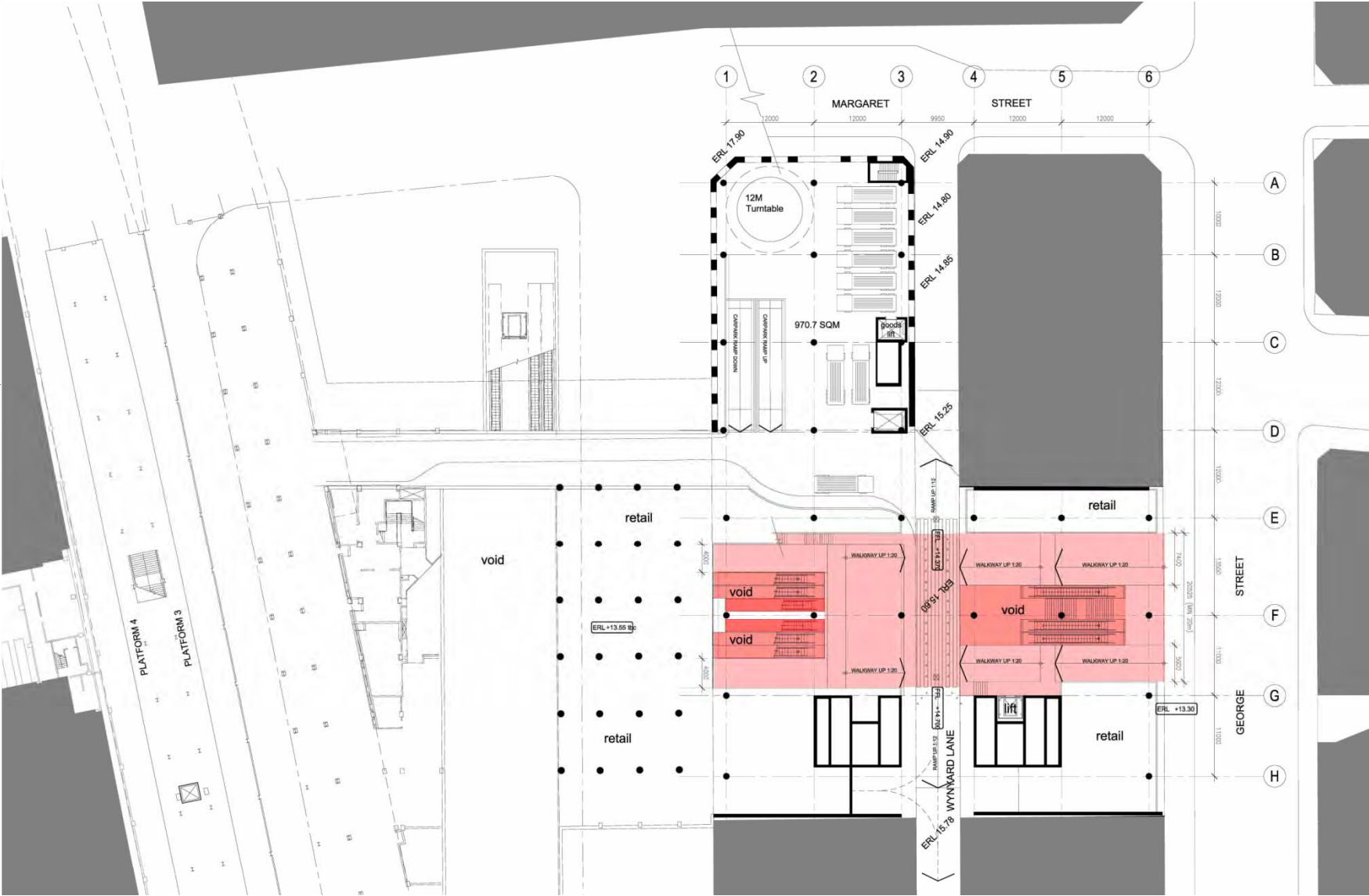
02__PROPOSED ESCALATORS, RAMPS & WALKWAY CONNECTING GEORGE ST, CARRINGTON ST & CONCOURSE LEVEL

02 — Proposed Carrington St Level Plan



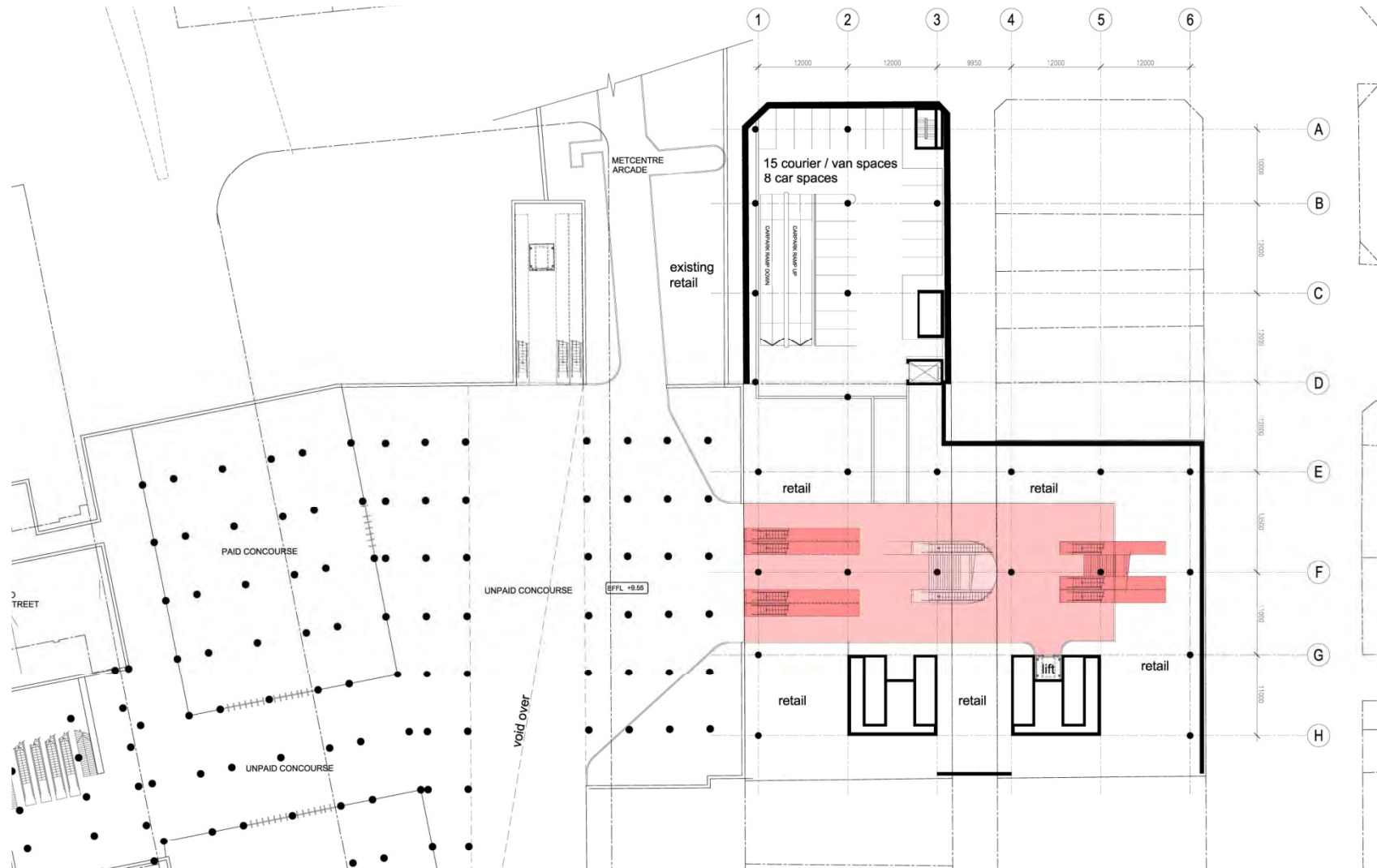
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02 — Proposed George St Level Plan



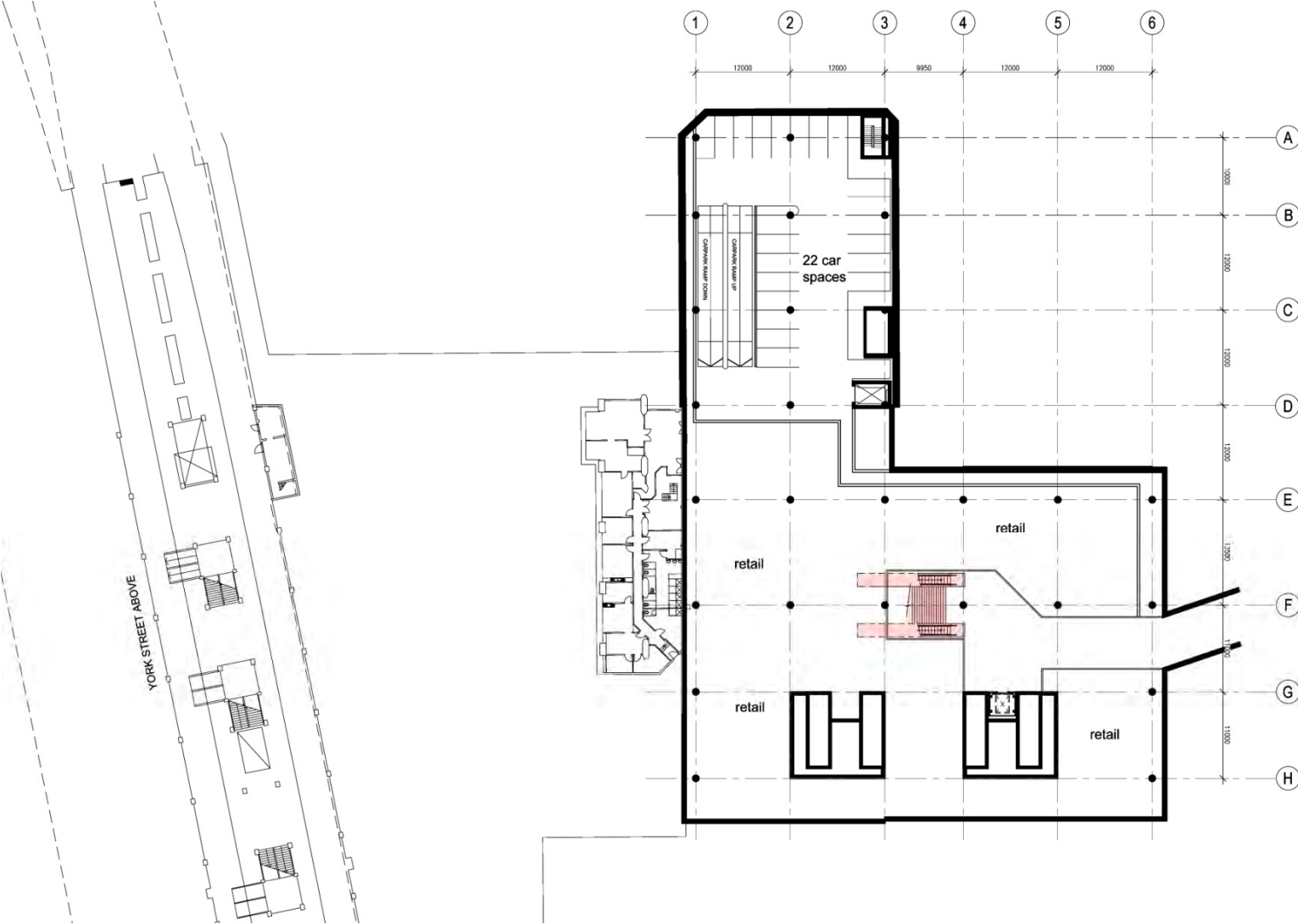
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02 _____ Proposed Concourse Level Plan

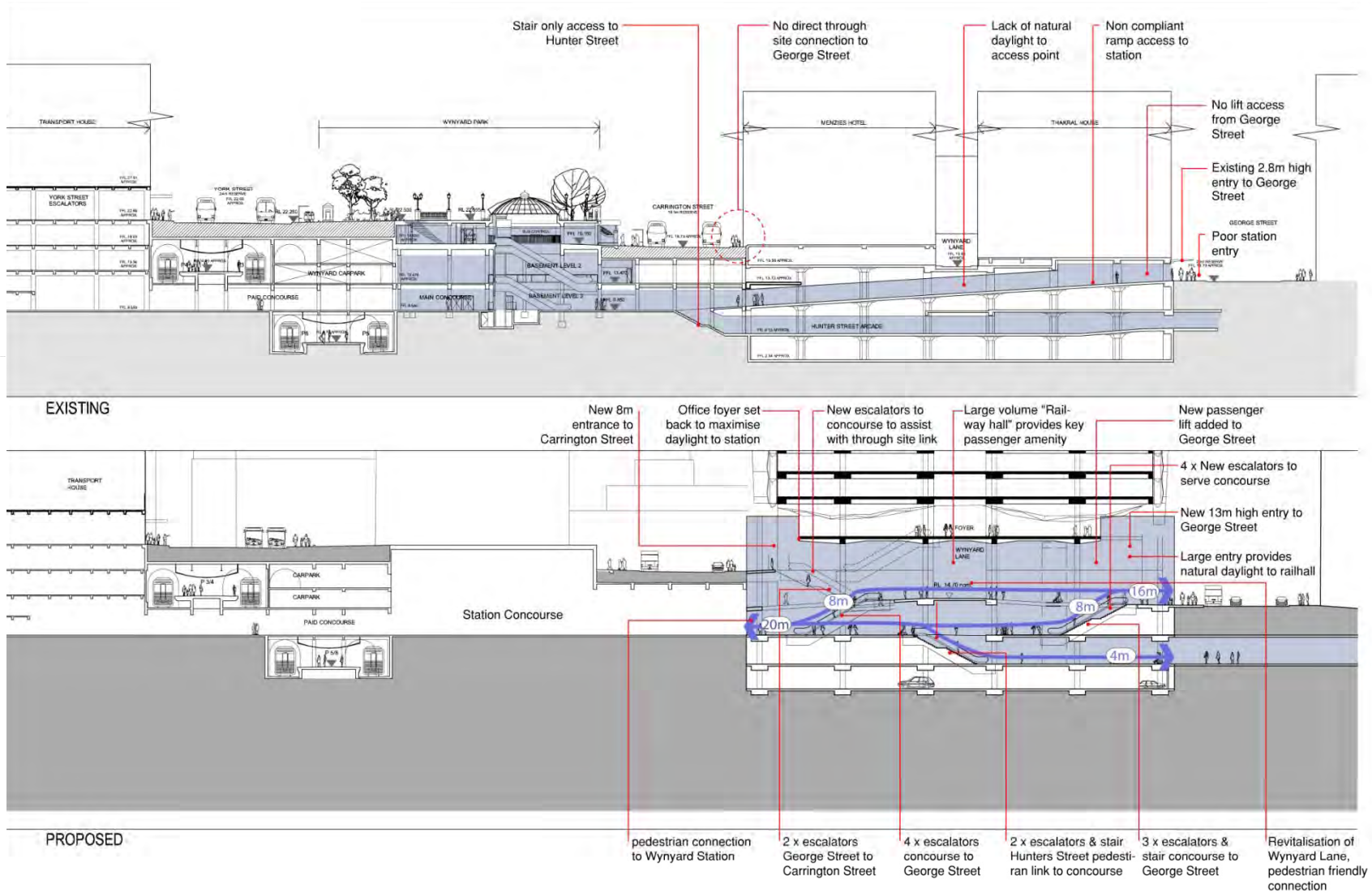


HASSELL

02 — Proposed Hunter Connection Level Plan



02 — Existing & Proposed Sections



HASELL

CityOne Project

Thakral

Walkway Width Issues

Ken Hollyoak *Eur Ing BSc (Hons) MSc (Dist) CEng MICE FIHT CPEng MIEAust*
Associate Director (Transport Planning) – Halcrow (Formerly MWT)

This document should be viewed as a PowerPoint Presentation. If viewed as a pdf document, the text of slides 4,9 and 14 will overlap as these slides have special effects.

Provisional Functional Specifications for the Eastern Exits to Wynyard Station

Transport NSW provisional function specifications are that they must total no less than 20m and offer unimpeded pedestrian flows between the concourse and the street.

The provisional 20m eastern exit width requirement is inclusive of the Hunter Connection exit which is approximately 4m wide at its narrowest point meaning that a minimum of 16m of unimpeded width to George Street must be provided.

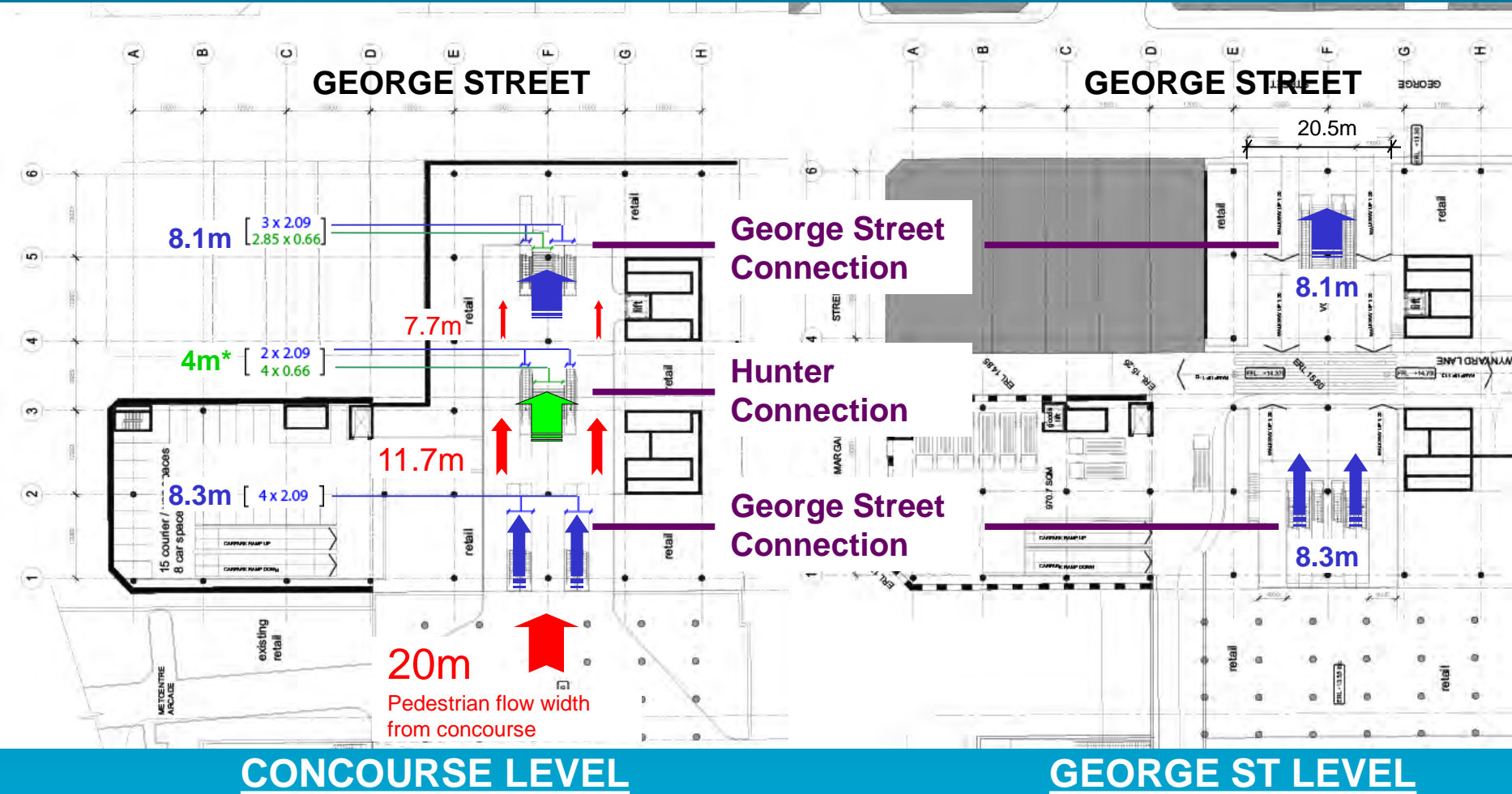
The relative capacities of different pedestrian facilities are as follows:

walkway*	– 2870 peds/m/hr
stair*	– 1885 peds/m/hr
escalator	– 6000 peds/m/hr

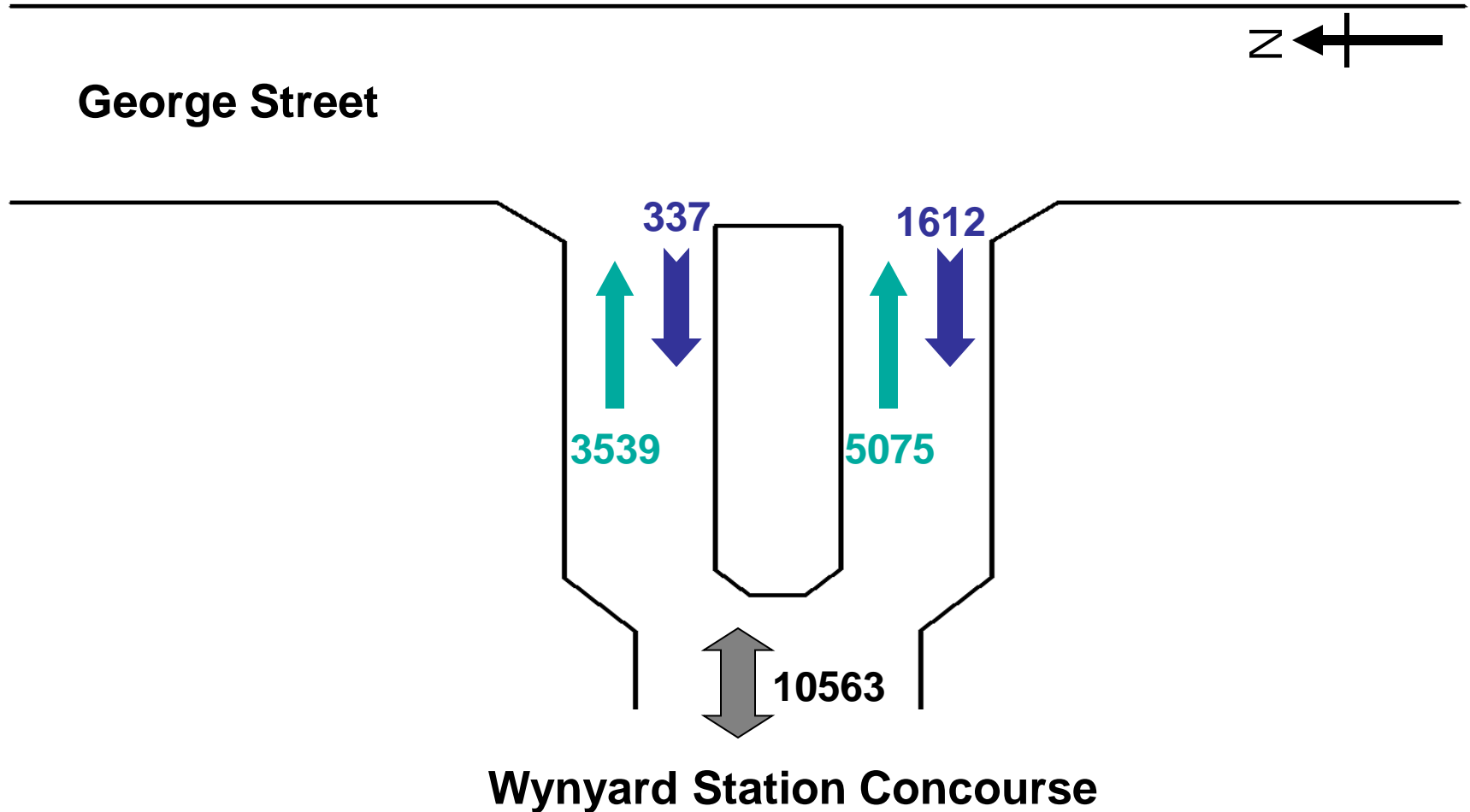
*The capacities are based upon Level of service D which means that passing fellow pedestrians is rarely possible without conflict and pedestrians have severely restricted crossing movements with multiple conflicts

Thus equivalent capacity widths are:

1m stair	= 0.66m walkway
1 escalator	= 2.09m walkway



2009 Pedestrian Survey AM Peak Flow 8AM-9AM





2031 Pedestrian demand distribution - Connell Wagner STEPS analysis

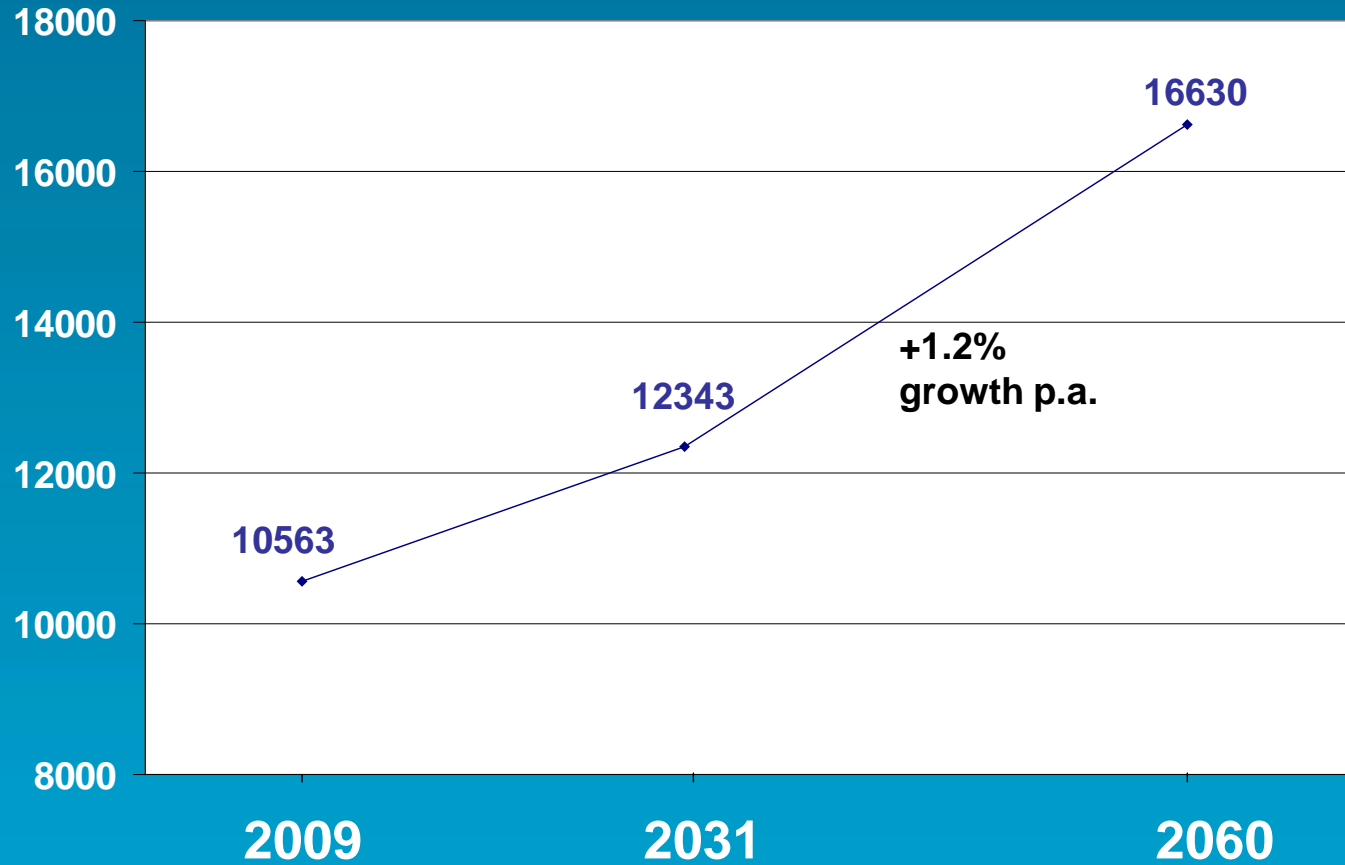
Source/Destination	P3	P4	P5	P6	Westpac	York St	Wynyard Park	Met Centre	Hunter Arcade	George St	New Infrastructure*	TOTAL
Platform 3 (P3)			199	522	2996	2134	810	2525	2060	3227	1995	16466
Platform 4 (P4)				108	1427	1015	388	1196	976	1528	1710	8347
Platform 5 (P5)	19	417			950	677	257	801	653	1023	285	5081
Platform 6 (P6)		761			1853	1318	504	1552	1267	1984	1710	10948
Westpac	19	45	26	14				73	68	154	48	446
York St	20	53	29	13				94	31	200	60	501
Wynyard Park	118	328	175	72	437			459	362	591	60	2603
Met Centre	160	448	238	96							45	986
Hunter Arcade	16	45	24	9	118	81	36	86			39	453
George St	101	284	151	61	747	512	224	549			48	2676
New infrastructure*	2400	1680	1680	240	960	1200	1200	900	780	960		12000
TOTAL	2854	4060	2521	1134	9488	6935	3417	8234	6197	9667	6000	60507

Source: Connell Wagner, 2008, *Original analysis assumed CBD Metro

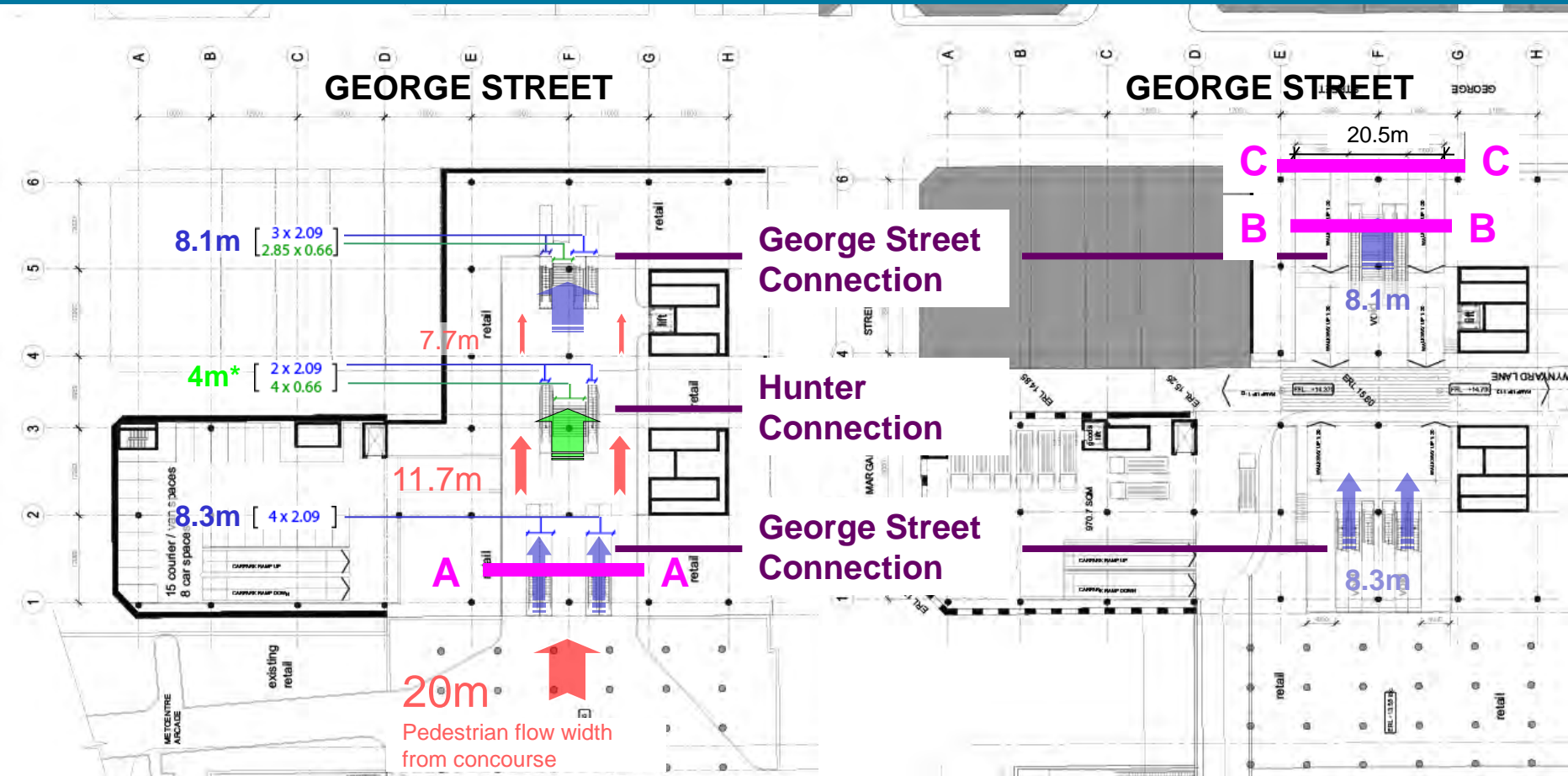
Wynyard Station AM Peak Growth to 2051

2008	Paid Demand	44 717		1.26% p.a.
2031	Paid Demand	57 819		
				
2051	Paid Demand	72 005		1.2% p.a.

Source: Arup, 2009, Wynyard Station Master Plan – 2009 Pedestrian Analysis Report for RailCorp



** 1.2% growth rate p.a. was previously provided by RailCorp for pedestrian modelling in Wynyard Station and also noted in Arup Pedestrian Analysis Report*



CONCOURSE LEVEL

GEORGE ST LEVEL

Capacities at Sections

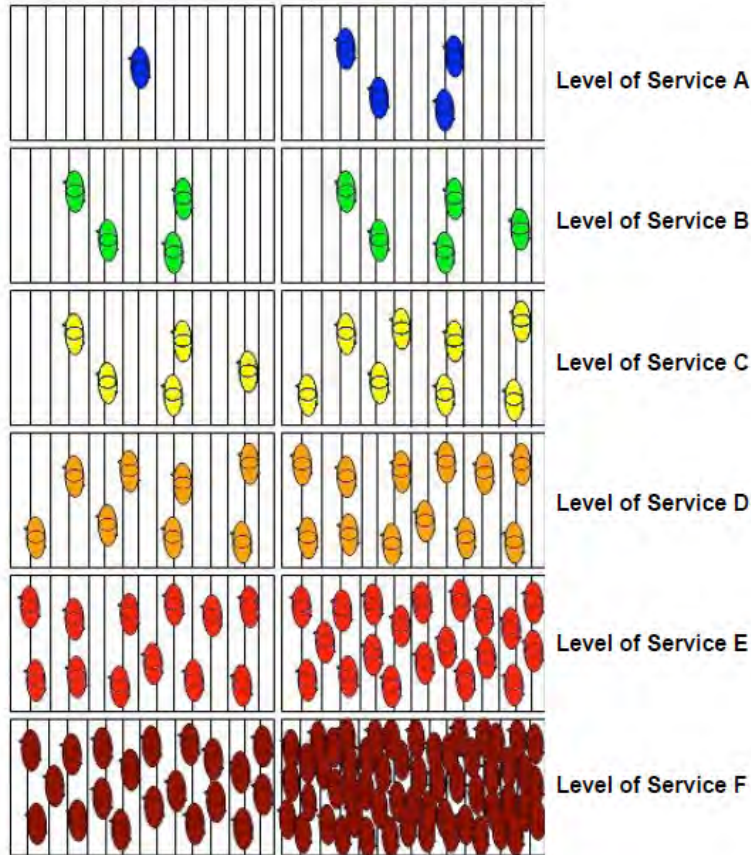
Proposed Section	Walkway Width (m)	Escalator Width (m)	Stairway Width (m)	Equivalent Width (m)*	Capacity @ LoS C (ped/m/hr)
A-A	11.6	4	0	20.0	40800
B-B	12.4	3	2.8	20.5	42000
EXISTING	17.3	0	0	17.3	35500

** This assumes a 1m escalator provides 2.09 times the capacity of a walkway and a staircase provides 0.66 times the capacity of a walkway*

Capacity characteristics of the proposed George Street entry (i.e. Section C-C)

Location	Width	Capacity@ LoS C
Total Proposed Walkway	20.5m	42,100
Existing Walkway	17.3m*	35,500
Change in capacity	3.2	+ 6,600

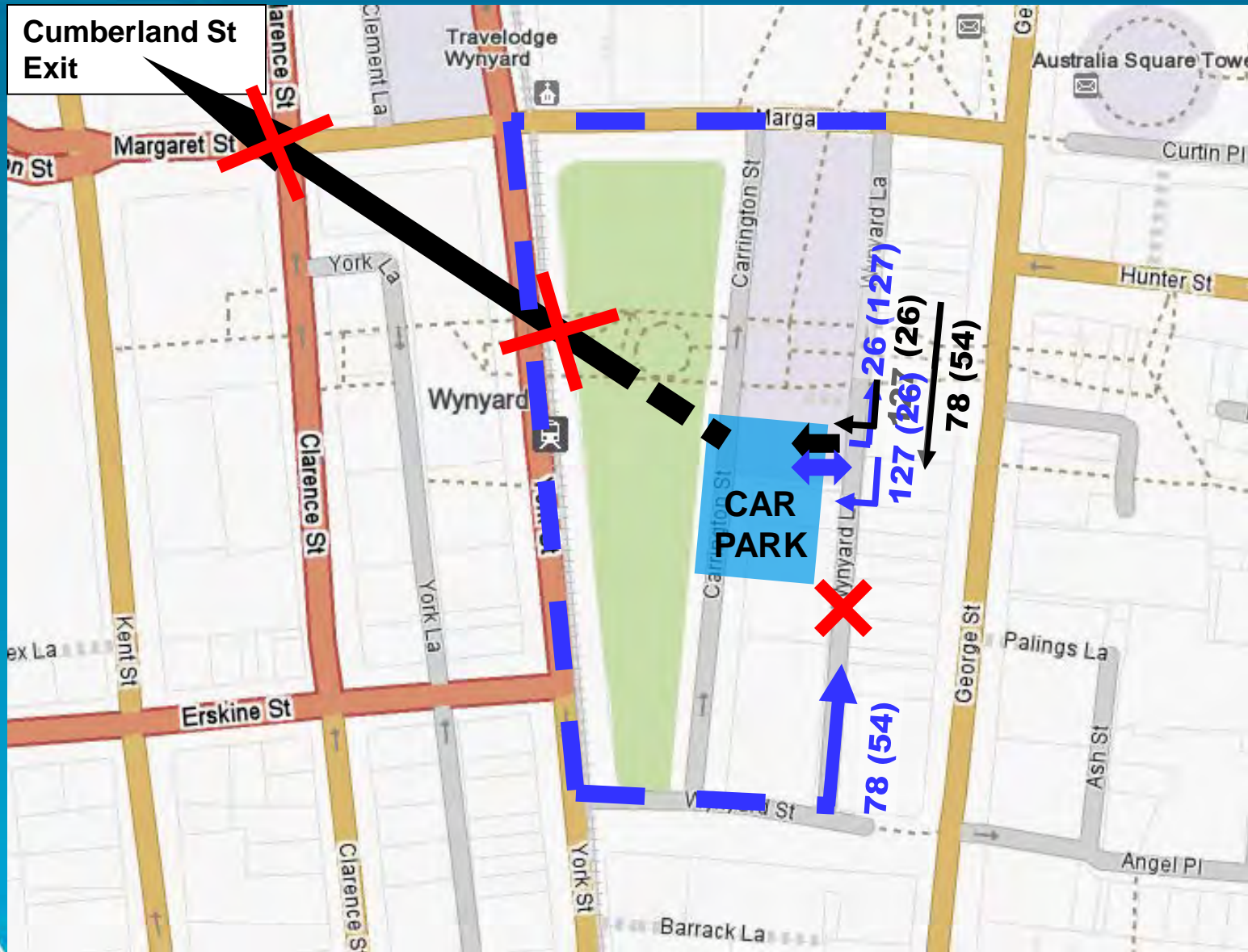
*If pedestrian flow in **2060** is 16,630, the project would provide a Level of Service **A** at George Street entry*



Level of Service	Description
A	<ul style="list-style-type: none"> Flow rate of less than 23 people per metre per minute. Virtually unrestricted choice of walking speed. Minimum manoeuvring needed to pass fellow pedestrians. Unrestricted crossing and reverse movements.
B	<ul style="list-style-type: none"> Flow rate of between 23 and 33 people per metre per minute. Normal walking speeds, restricted only occasionally. Occasional interference in passing fellow pedestrians. Occasional interference in crossing and reverse movements.
C	<ul style="list-style-type: none"> Flow rate of between 33 and 49 people per metre per minute. Partially restricted walking speeds. Restricted passing movements, but possible with manoeuvring. Restricted crossing and reverse movements, with significant manoeuvring needed to avoid conflict. Reasonably fluid flow.
D	<ul style="list-style-type: none"> Flow rate of between 49 and 66 people per metre per minute. Restricted and reduced walking speeds. Passing fellow pedestrians rarely possible without conflict. Severely restricted crossing and reverse movements, with multiple conflicts. Momentary flow stoppages possible when critical densities are intermittently reached.
E	<ul style="list-style-type: none"> Flow rate of between 66 and 82 people per metre per minute. Restricted walking speeds, occasionally reduced to shuffling. Passing fellow pedestrians impossible without conflict. Severely restricted crossing and reverse, with unavoidable conflicts. Flow achieves maximum capacity under pressure, but with frequent interruptions and stoppages.
F	<ul style="list-style-type: none"> Flow rate variable. Walking speed reduced to shuffling. Passing movements are impossible Crossing and reverse movements are impossible Frequent and unavoidable physical contact Sporadic flow, on the verge of complete breakdown and stoppage.

WYNYARD LANE ISSUES

- **Currently 335 parking spaces**
- **Proposal is**
 - 177 commercial parking spaces,
 - 158 spaces retained for public use.
- **Wynyard Lane Closed**
- **Cumberland Street Tunnel Closed to traffic**

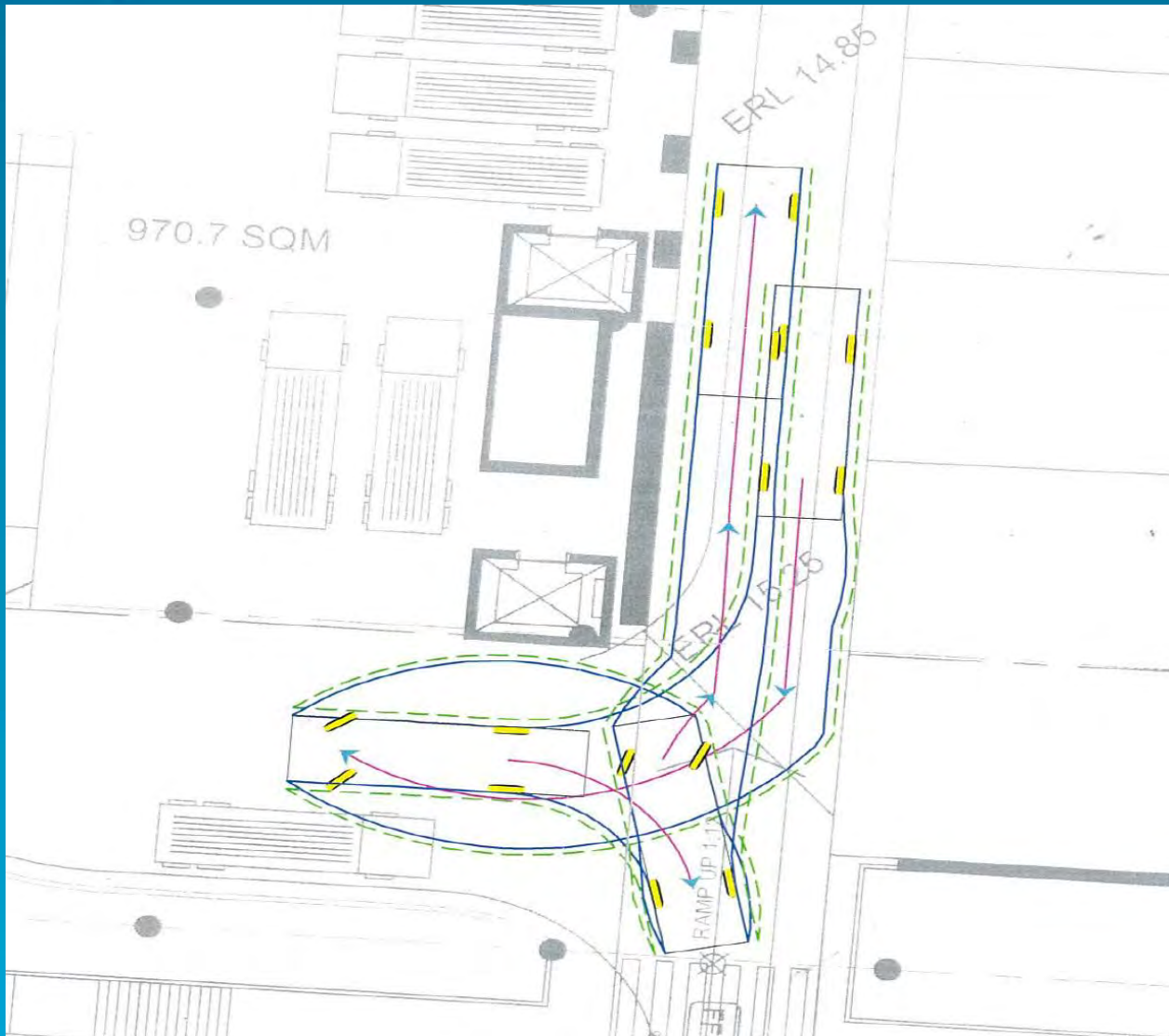


- Public car parks/commercial car parks behave differently
- Wynyard Lane - short term / relatively high turnaround visitors
- 335 public spaces generate 153 peak hour trips (two-way)
- 158 public spaces should generate 72 peak hour trips (two-way).
- Halcrow extensive surveys around Sydney CBD showing commercial trip rate of 0.26 (AM) 0.20 (PM) per space
- 177 commercial spaces will generate 46(AM) and 35(PM)

	Existing			TOTAL Proposed Parking		
	IN	OUT	TOTAL	IN	OUT	TOTAL
AM Peak	127	26	153	97	21	118
PM Peak	26	127	153	19	88	107

- Proposed change in type of car parking could reduce impact

Entrance from Margaret Street for 8.8m MRV



Entrance from Wynyard Street for 8.8m MRV



CityOne Development Contribution to Wynyard Station Egress

Stephen Grubits

Managing Director

Stephen Grubits & Associates

Wynyard Station Interface

- CityOne fire safety strategy proposed performance-based fire separation
 - Separate smoke compartments
 - dual sprinkler system with cut-off sprinklers
- CityOne development separate building
- Egress through CityOne is
“HORIZONTAL EXIT” to Wynyard
Station



Wynyard Station Egress Routes

- George Street ramps (Thakral House)
- Escalators & stairs to York St (Transport House)
- Existing link to west (Kent St)
- Escalators & stairs to Wynyard park
- Met Centre link
- Hunter Arcade
- Future Barangaroo Link
- Wynyard Lane (North & South) through City One development
- Fire-isolated exits



Fire Safety Benchmark

- BCA compliance required but may be on performance basis
- NFPA 130
 - extensively used in many countries
 - defacto international standard
 - basis of egress provisions in RailCorp's SGFLS (standard Guidelines for Fire & Life Safety in Underground Stations)
 - basis of egress design for ECRL, Chatswood, Parramatta, Epping and many other stations



NFPA 130 Egress Criteria

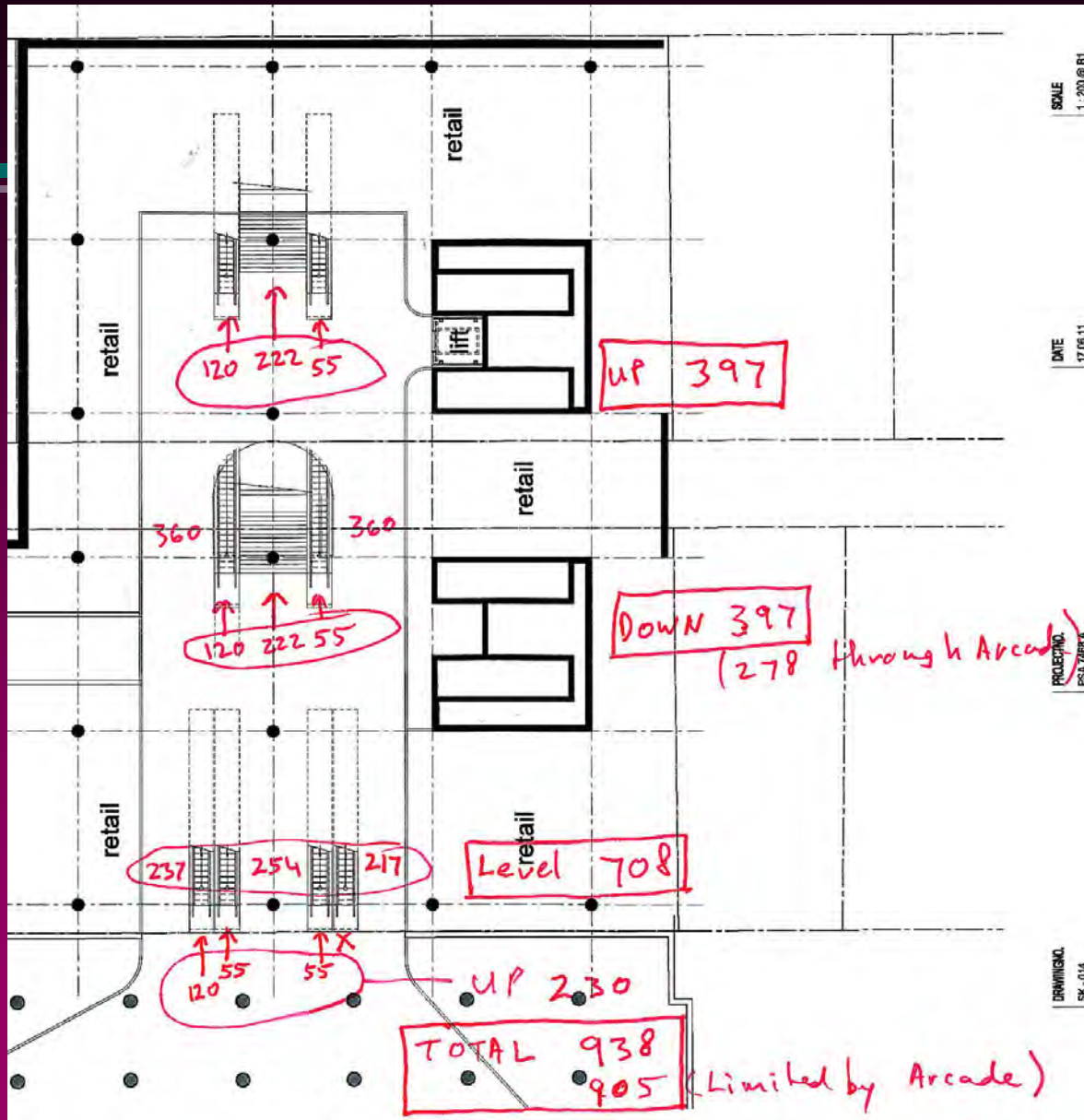
- Escalators permitted to be used for egress
- Escalators in direction of travel shall continue to operate
- One escalator (worst capacity) is to be considered out of service
- Escalators reverse to direction of egress shall be capable of being stopped (locally or remotely)
- Stopped escalators may be used (treated as stairs)
- Concourse with emergency ventilation system may be regarded as a "Point of Safety"
- Sufficient exit capacity to evacuate platforms to "point of safety" in 4 minutes
- Evacuation time of platform to "point of safety" in 6 minutes
- No limit on evacuation time beyond "point of safety"
- Horizontal exits limited to 50% into single building. **Note:** BCA limits horizontal exits to 50%.



Egress via CityOne Development

- Can be regarded as “point of safety”
- Exit capacity calculations based on 8 min
- NFPA 130 flow capacity and travel speed
- Distance to “point of safety” reduced by 60 m
- Travel time reduced by 1.6 min
- Flow capacity provided is 905 people/min
- Capable of evacuating 7240 people in 8 min
- Estimated 2060 Wynyard egress population: 4000
- Capacity is 181% of demand - BCA limit is 50%





STEPHEN GRUBITS & ASSOCIATES



Summary

- CityOne Development is only one of many egress routes from Wynyard Station
- BCA and NFPA130 limit horizontal exit capacity to 50% of demand
- 181% of likely demand is available
- Travel times to “point of safety” reduced by 1.6min
- Capacity adequate for simultaneous evacuation (not required by BCA)



Annexure 2 – WT Assessment of Transit Hall Costs

CITY ONE WYNYARD

NEW RETAIL/COMMERCIAL DEVELOPMENT [HASSELL OPTION 7 BASE SCHEME DATED 13.08.10]

INDICATIVE BUDGET ESTIMATE OF POSSIBLE CONSTRUCTION COSTS



DRAFT

Total Project

Date August 5, 2011

Rev 02

Ref	Description	Unit	Approx Qty	Approx Rate \$	Amount \$	TOTAL \$	RETAIL MALL COMPONENT \$	
1.00	Enabling Works							
1.01	Demolish existing buildings (Menzies & Wynyard House)	m2	35,000	160	5,600,000		10%	560,000
1.01	Demolish concourse/arcade etc	m2	9,000	190	1,710,000		40%	684,000
1.02	Demolish Shell House (within existing façade)	m2	10,400	210	2,190,000		10%	219,000
1.03	Shell House Façade retention	m2	4,000	280	1,120,000			
	Sub Total	m2	54,400	195	10,620,000	10,620,000		
2.00	CAR PARK, LOADING DOCK AND ASSOCIATED ACCESS RAMPS							
2.01	Ramp Access	m2	2,334	2,100	4,910,000			
2.02	Loading Dock	m2	965	2,100	2,030,000			
2.03	Basement Car Parking (B6 to B3)	m2	12,834	1,200	15,410,000			
2.04	Extra over for truck lift (26 tonnes, 15m long)	No	2	2,950,000	5,900,000			
	Sub Total	m2	16,133	1,751	28,250,000	28,250,000		
3.00	RETAIL & MALL AREAS (WITHIN THAKRAL FOOTPRINT)							
3.01	Lower Mall (B2 Hunter Connection & B1 Concourse)	m2	1,303	3,500	4,570,000		100%	4,570,000
3.02	Plant / Back of House	m2	1,361	1,700	2,320,000		100%	2,320,000
3.03	Upper Mall (GR1, GR2 & GR3)	m2	1,015	6,300	6,400,000		100%	6,400,000
3.04	Retail Areas (B2 Hunter Connection & B1 Concourse)	m2	3,402	2,500	8,510,000			
3.05	Retail Areas (GR1, GR2 & GR3)	m2	2,760	3,100	8,560,000			
3.06	Escalators & Lifts	No	18	390,000	7,020,000		100%	7,020,000
3.07	Features to Wynyard Lane & Mall etc	Prov	1	1,500,000	1,500,000		100%	1,500,000
	Sub Total	m2	9,841	3,951	38,880,000	38,880,000		
4.00	COMMERCIAL OFFICE BUILDNG (SHELL - LEVEL 1 TO ROOF)							
4.01	Office Levels	m2	8,802	2,500	22,010,000			
4.02	Plant Room Level 10 (On Shell House Roof)	m2	-	-	Excluded			
4.03	Cantilevered meeting room pod	m2	252	4,500	1,130,000			
4.04	Suspended bridge links	m2	552	5,600	3,090,000			
4.05	Extra over for landscaped roof garden	m2	571	350	200,000			
4.06	Lifts	No	5	480,000	2,400,000			
4.07	ESD Provisions to achieve 5 Star As Built (not incl above (say))	m2	9,606	150	1,450,000			
4.08	Specific Services/BMU etc	Prov	1	500,000	500,000			
	Sub Total	m2	9,606	3,204	30,780,000	30,780,000		
5.00	COMMERCIAL TOWER BUILDING (GR2 TO ROOF)							
5.01	Structure Basement to Level 5 (footing, lift pis and main columns)	m2	3,813	2,885	11,000,000			
5.02	Transfer Structure at office lobby level for commercial over	m2	3,478		N/A			
5.03	Office Lobby - GR2 & GR3	m2	1,864	5,700	10,630,000			
5.04	Office Floor (L1 - Level 29)	m2	67,123	2,783	186,770,000			
5.05	Additional office areas	m2	1,500	2,783	4,180,000			
5.06	Extra over for roof slab over trading floors	m2	-	1,000	N/A			
5.07	Extra for temporary working platform to Level 1	m2	2,367	400	950,000			
5.08	Roof Plant Room (Level 30)	m2	-	-	Excluded			
5.09	Cantilevered meeting Pods (now normal office area)	m2	2,865	2,783	7,980,000			
5.10	Suspended bridge links	m2	-		N/A			
5.11	Lifts	No	18	750,000	13,500,000			
5.12	ESD Provisions to achieve 5 Star As Built (not incl above (say))	m2	73,352	150	11,000,000			
5.13	Specific Services BMU etc	Prov	1	10,300,000	10,300,000			
5.14	Roof Feature	Prov	1	1,000,000	1,000,000			
	Sub Total	m2	73,352	3,508	257,310,000	257,310,000		
6.00	ASSOCIATED WORKS							
6.01	Wynyard Lane bridge (over mall below)	m2	270	8,000	2,160,000		100%	2,160,000
6.02	Landscaping paving and associated works	PC Sum	1	2,000,000	2,000,000		50%	1,000,000
6.03	Make good adjoining owners buildings, incl underpinning etc	PC Sum	1	3,000,000	3,000,000		40%	1,200,000
6.04	Staging, temporary access, diversions etc	PC Sum	1	10,000,000	10,000,000		100%	10,000,000
6.05	External services connections & diversions	PC Sum	1	2,000,000	2,000,000			
	Sub Total	Prov	1	19,160,000	19,160,000	19,160,000		
	Sub Total					\$ 385,000,000	10%	37,633,000
	Design contingency	approx	5.00%			19,000,000	10%	1,860,000
	Construction Contingency	approx	5.00%			21,000,000	10%	2,050,000
TOTAL INDICATIVE BUDGET ESTIMATE OF POSSIBLE CONSTRUCTION COST AT JULY 2010 PRICES (EXCL GST)			108,932	3,902		\$ 425,000,000	29%	\$ 41,543,000

- LIST OF EXCLUSIONS:-**

 - Land costs, legal fees, interest charges and financing costs
 - Development Application & Construction Certificate fees and charges
 - Council contributions, fees, levies and charges
 - Consultants fees & Project Management fees & charges
 - Escalation after July 2010
 - Remediation of contaminated materials
 - Tenancy leasing & fitout costs
 - All loose fittings, furniture and equipment
 - SRA track & station closures, ticketing & operating equipment, security system, fire & safety upgrade works not noted above
- Connection to Australia Square
 - Shopfronts to retail units within Malls (within Thakral footprint add \$1m if required)
 - All work within SRA, Westpac Connection, Hunter connections and Wynyard Park
 - Escalators and lifts to station platforms unless noted
 - Station and station concourse upgrade works in excess of above allowance
 - East Darling Harbour Link Tunnel
 - Underground link to Wynyard Street
 - Other items as noted above
 - Provision for GST
 - Developer's contingency sum

NOTES:-

This opinion has been prepared with preliminary indicative input from structural and building services consultants only, and should only be considered as indicative at this early stage in design development.

We have assumed that the Shell House building is to be demolished and rebuilt with the exception of the Façade which will be retained.

Building services for Mechanical and Electrical cost advice for the Tower component has been based on previous information prepared by Norman Disney Young in 2006.

We strongly suggest that structural advice for the tower and transfers in particular are provided and assessed prior to making any binding decisions.

We strongly recommend that a more detailed estimate be prepared before any commitment is made.

Where appropriate have used and relied upon the GBA area totals as noted in Hassell area schedule dated 13 August 2010 as replicated in the attached area schedule.

Please note that the Hassell area schedule does NOT include for all built structures and indicates the possible nett lettable area only.

We have allowed a notional area for the low rise and the high rise plant.

The estimate allows for a the floor to floor heights as noted as noted. This differs to the RL's noted on the elevation for the lowere levels.

Annexure 3 – DDA Report by Morris Goding



THAKRAL

CITY ONE @ WYNYARD

CONCEPT PLAN APPLICATION REPORT - ACCESSIBILITY

Morris Goding Accessibility Consulting

FINAL v4

14th March 2011

1. BACKGROUND

1.1. Site Description

The City One site is located between George and York Streets, Sydney. The site has a total site area of 11,463m² and is comprised of the Menzies Hotel (including Shell House), Thakral House, Wynyard Station, part of Wynyard Park, the stratum lot above Wynyard Lane, and a number of stratum lots beneath Transport House, Wynyard Park, Carrington Street, and York Street that together form the Wynyard Station Concourse.

This concept report is limited to the proposed development area located between George Streets and the east of Carrington Street. The area to the west of Carrington Street including Wynyard Park, York Street, Wynyard station concourse levels and the access linkages to these areas from the proposed development will be addressed in a subsequent concept application.

This report has been prepared to address those matters related to accessibility for persons with disabilities based on the concept plan drawings prepared by Hassell Architects.

1.2. Concept Plan

The City One Project for Thakral is now going to Concept Plan Application stage.

The Concept Plan will seek approval for:

- the building envelope (above and below ground);
- a floor space area (FSA) of approximately 85,000m²;
- all land uses;
- pedestrian and vehicle access arrangements;
- potential connections with proposed future Western Express or Metro platforms and the Barangaroo Development;
- development site;
- and car parking numbers.

2. ACCESSIBILITY STATEMENT

2.1. Objectives

The Statement of Commitments considers operational modes and user groups in relation to Wynyard Station, retail areas and commercial floors. The user groups include members of the public, commuters and commercial staff.

The Statement of Commitments attempts to deliver equality, independence and functionality to people with disabilities inclusive of:

1. People with sensory impairment
2. People with mobility impairments
3. People with dexterity impairments

The Statement of Commitments seeks to provide compliance with the DDA. In doing so, it attempts to eliminate, as far as possible, discrimination against persons on the ground of disability.

2.2. Accessibility of Design

The proposed design will utilize the Federal Disability Discrimination Act (DDA), DDA Access Code 2010, AS 1428 Series, DDA Transport Standards and BCA Part D3 to develop appropriate design documentation, to provide adequate access provisions for people with disabilities.

Hassell Architects and Morris Goding Accessibility Consulting will examine key physical elements, to identify physical barriers, and incorporate solutions as a suitable response to disability statutory regulations.

The design will be developed to ensure the principles of the DDA are upheld. Under the Disability Discrimination Act (DDA), it is unlawful to discriminate against people with disabilities in the provision of appropriate access, where the approach or access to and within a premises, makes it impossible or unreasonably difficult for people with disabilities to make use of a particular service.

The design will comply with the requirements of DDA Transport Standards and the DDA Access Code including requirements for accessible buildings and the seamless integration of these within the development compliant with the new AS1428 Suite. The developed design will consider all user groups, the majority being public commuters and staff.

Within the proposed development there are existing and new entrances which will be improved and connected to facilitate pedestrian access and overall connectivity throughout the site.

George Street Station Entrance

The existing George Street entrance will be redesigned as part of the overall development. The new larger entrance will incorporate new escalators, stairs, a passenger lift and

walkways (previously ramps), with the existing non-compliant ramp gradient improved to be compliant with AS1428.1.

Based on a recent survey, the gradient of the existing ramps is 1:16.6. These ramps do not comply with AS1428.1:2009 due to a lack of landings over approximately 80 metres.

The proposal has 2 new walkways, with appropriate 1:20 gradients and level landings, compliant with AS1428.1:2009, which will replace the existing ramps. The walkways will provide appropriate access for people using wheelchairs from the George Street entry up to the Wynyard lane level.

The proposed closure of the central area of Wynyard Lane to vehicular traffic area will revitalise the area and provide a pedestrian linkage from the walkways towards Carrington Street. The pedestrian area of Wynyard Lane will be separated from the roadway leading to car park entry by a 1:12 vehicular ramp and suitable physical barriers to improve safety and assist people with vision impairment.

A new passenger lift facility, compliant with the DDA Access Code will provide an accessible path of travel from the George St level (near Wynyard lane) to the Concourse (B1) and the Hunter Connection arcade levels (B2) below and the new entrance on Carrington Street level above.

The Wynyard Station Concourse level will also be connected with the main George Street entry level by new escalator and stair accesses. A future pedestrian connection underneath Carrington Street will connect the proposed development to the Wynyard station Concourse level.

The existing standard of access will be maintained during demolition and construction.

Carrington Street Commercial Office Entry

The proposed commercial office entry will be from Carrington Street and will have an appropriate wheelchair accessible link to the office lobby, located at mezzanine level, (above Carrington Street) via the use of an existing passenger lift. This lift will have minimum internal dimensions for compliance with AS1735.12 and DDA Transport Standards.

The use of this lift will provide a continuous accessible path of travel from the street entry to the office lobby, reception and 3 lift bank lobbies which service the commercial tower. The circulation areas in front of all passenger lifts will have appropriate manoeuvrability space for wheelchair users, compliant with AS1428.1:2009.

Internal Paths of Travel

In general, the clear widths and gradients of the paths of travel throughout the development will be designed to have appropriate gradients within the means of AS1428.1:2009, traversable by people using wheelchairs or mobility aids.

Should the 1:12 ramp to the south of the pedestrian area of Wynyard Lane be intended as a pedestrian area, this will require review to comply with AS1428.1-2009. This is achievable.

There will be continuous accessible paths of travel between all levels of the commercial, retail, concourse areas, via the proposed passenger lift. Consideration is required to provide another lift adjacent to the second set of escalators from George Street (on western side of Wynyard Lane) to increase the equity of amenity for people with mobility impairment. This is achievable.

Although not shown at this stage, unisex accessible toilets will need to be identified during the design stage in the retail areas. The accessible toilets will need to satisfy the DDA Premises Code and provide internal dimensions compliant with AS1428.1:2009. Ambulant toilet cubicles, compliant with AS1428.1:2009 will also need to be identified for males and females at every bank of toilets where 1 or more toilets (in addition to an accessible facility) are provided to satisfy the DDA Access Code.

There are continuous accessible paths of travel between all commercial floors via the use of passenger lift facilities. The commercial floors have made provisions for a unisex accessible WC on each floor, compliant with DDA Access Code. The overall dimensions of the accessible WC indicate that appropriate circulation areas can be provided, compliant with AS1428.1:2009. Ambulant toilet cubicles, compliant with AS1428.1:2009 will also need to be provided for males and females at every bank of toilets where 1 or more toilets (in addition to an accessible facility) are provided to satisfy the DDA Access Code.

Provision will be made for the later addition of a link from the station concourse level (B1) to the Barangaroo pedestrian tunnel. This link will be designed to comply with AS 1428.1:2009 and DDA Transport Standards.

There appears to be no works proposed below the Rail Concourse level (B1), except for the basement car parks, which are located under the commercial office tower.

There are 4 proposed basement levels (B3-B6) of new car parking underneath the commercial tower. Although not shown at this stage, designated accessible car spaces will need to be provided at a rate of 2% of the total number of car parking spaces provided to satisfy the BCA Part D3 and DDA Access Code.

The dimensions of the accessible car spaces and the required shared spaces must comply with AS2890.6:2009. The access pathways leading to adjacent lift facility must comply with AS1428.1:2009.

2.3. Standards & Regulations

The statutory & regulatory guidelines to be encompassed in the developed design to ensure effective appropriate and safe use by all people including those with disability will be in accordance with:

- Federal Disability Discrimination Act (DDA)
- DDA Access to Premises Standards 2010 (DDA Access Code 2010)
- DDA Transport Standards (DSAPT)
- Building Code of Australia (BCA) Part D3
- AS 1428.1:2009

- AS 1428.4.1:2009 - (Tactile Ground Surface Indicators)
- AS 1735.12 - (Lift facilities for persons with disabilities)
- AS 2890.6:2009 - (Car Parking)

Annexure 4 – BCA Report by McKenzie Group



Thakral Holdings Limited
Level 12, 301 George Street,
Sydney NSW 2000

Attention: David Hogendijk

Dear David,

**Re: Wynyard 'Link' between George Street & Harrington Street
BCA Compliance & Access for persons with a Disability.**

McKenzie Group Consulting was engaged by Thakral Holdings to conduct a compliance assessment of the Wynyard Ramp located between George and Carrington Street for Compliance purposes.

For the majority of the buildings, the primary consideration required is to ensure that a solid maintenance regime is maintained on the site for all essential services including enforcement of a management in use type system. It should be noted that where any upgrade is proposed of any essential service (e.g. sprinkler system, fire ratings, and smoke detectors etc) then the relevant building approval should be obtained prior to undertaking the works.

This assessment has reviewed the site link under the following scenarios:

- i. The existing conditions on site, specifically in relation to the connection to George Street.
- ii. Modifications to the George Street interface and station concourse to address Building Code of Australia 2011 (BCA) deficiencies and requirements of the Disability Standards for Accessible Public Transport 2002 (as amended)
- iii. The proposed solution based on the Thakral Design

Existing Conditions Review

A review of the existing conditions nominated the following major deficiencies with regard to BCA Compliance:

1. No Sprinkler protection throughout the link
2. No Smoke Exhaust provided to the Link
3. No Fire Separation from the adjoining Wynyard station site,

4. Access for persons with a disability is deficient with regard to
 - a. Gradient of the ramp being approximately 1:16 in lieu of 1:14,
 - b. Landing not provided for a length of up to 80 metres,

To create or amend the existing pathway to compliance is very difficult without redeveloping the entire area. The following highlights some key recommendations that will provide a “short term solution”. However it should be noted that it will **not** achieve compliance with BCA 2011 and the Disability Standard of Accessible Public Transport.

Recommendations

- Provision of rest seating hubs at key locations
- Ensure lighting is clear
- Provide clear accessibility specific signage highlighting to locations of lifts and toilets
- Ensure A frame sandwich boards, bicycle racks and other obstructions allow clear and predictable pathways
- Ensure station staff are aware that the pathway is non compliant and that some people with disabilities may require assistance

Compliance with BCA 2011 and the Disability Standard of Accessible Public Transport will mandate upgrade between now and 2022 for all Public transport elements. Milestones include 55% by 2012 and 90% by 2017.

Option 1 Existing Situation with Compliant Access Provisions

The option 1 proposed by Hassell Architects is intended to provide a BCA and Accessible complaint solution. The assessment of the existing conditions revealed the following elements for consideration within the area where upgrade is required:

- i. Provide Fire Separation between Wynyard Station and the link at the property boundary.
- ii. Generally Fire Resistance levels of all structure to achieve a minimum FRL of 120 minutes,
- iii. Egress from the ramp currently is via the George street entrance, and fire stairs from the above commercial office. As the travel distances and occupancy levels shall be in excess of the prescriptive provision of the BCA a fire engineered solution will be required to verify DP4 of the BCA.
- iv. Provide the following services and equipment as required by the BCA
 - a. Fire Sprinkler System to AS2118.1-1999
 - b. Fire Hydrant System to AS2419.1-2005
 - c. Fire Hose Reel System to AS2441-2005
 - d. Smoke Hazard Management System to Clause E2.2 of the BCA.
 - e. Provide emergency and exit lighting to AS2293.1-2005

Note the elements with regard to smoke hazard management and fire separation would need to be considered as part of the fire engineered solution (refer comments from Stephen Grubits and Associates).

The proposed upgrade with regard to access for persons with a disability would require the following general provisions:

1. The removal of the existing ramp and the provision of a ramp with a gradient of 1:14 with landing as required by AS 1428.1-2009,
2. The provision of tactile indicators at the ramps in accordance with As 1428.1-2009
3. The provision of handrails as required by AS 1428.1-2009

Option 2 Thakral Development

The Thakral proposal as detailed in option 2 shall be fully compliant with BCA and Accessibility requirements. The following measures have been identified have been identified as part of this solution:

- i. Undertake a Fire engineered assessment to allow the connection of the link through to Wynyard Station to be non- fire rated.
- ii. Egress from the ramp currently is via the George street entrance, and fire stairs from the above commercial office. As the travel distances and occupancy levels shall be in excess of the prescriptive provision of the BCA a fire engineered solution will be required to verify DP4 of the BCA. The use of escalators shall be verified as part of the Fire Engineered solution for egress from the link.
- iii. Provide the following services and equipment as required by the BCA
 - a. Fire Sprinkler System to AS2118.1-1999
 - b. Fire Hydrant System to AS2419.1-2005
 - c. Fire Hose Reel System to AS2441-2005
 - d. Smoke Hazard Management System to Clause E2.2 of the BCA.
 - e. Provide emergency and exit lighting to AS2293.1-2005

Note the elements with regard to smoke hazard management and fire separation would need to be considered as part of the fire engineered solution (refer comments from Stephen Grubits and Associates).

The proposed upgrade with regard to access for persons with a disability would require the following general provisions:

1. The provision of a level walkway connecting the escalators and lifts to be provided at each end of the link
2. Lift access form George street as shown on the current plans.

I trust the information above is of assistance however should you have any queries, please contact me.

Yours faithfully

Peggy Cheng

Per

Stephen Natilli

Director

McKenzie Group Consulting (NSW) Pty Ltd

ACN 093 211 995

Appendix A

Design Documentation

The following documentation was used in the assessment and preparation of this report: -

Drawing No.	Title	Date
SK-01-E	Existing Plan – George St	11.07.2011
SK-04-E	Existing Plan – Concourse	11.07.2011
SK-06	Existing and Proposed Long Section	11.07.2011
SK-03-02	Existing and Proposed Plan – George St Compliance with DDA & 20M Total Egress	11.07.2011
SK-03-01	Existing Plan – George St Compliance with DDA Only	11.07.2011
SK-06-03	Existing and Proposed Long Section	11.07.2011
SK-01-E	Existing Plan – York St	11.07.2011
SK-02-E	Existing Plan – Carrington St	11.07.2011

Annexure 5 – Architectural Review by Hassell

Architecture	Australia
Interior Design	China
Landscape Architecture	Hong Kong SAR
Planning	Singapore
Urban Design	Thailand
	United Kingdom

THAKRAL WYNYARD REDEVELOPMENT_ REVIEW OF COMPLIANCE EXISTING WYNYARD STATION ACCESS

Prepared for Thakral Pty Limited
1 August 2011

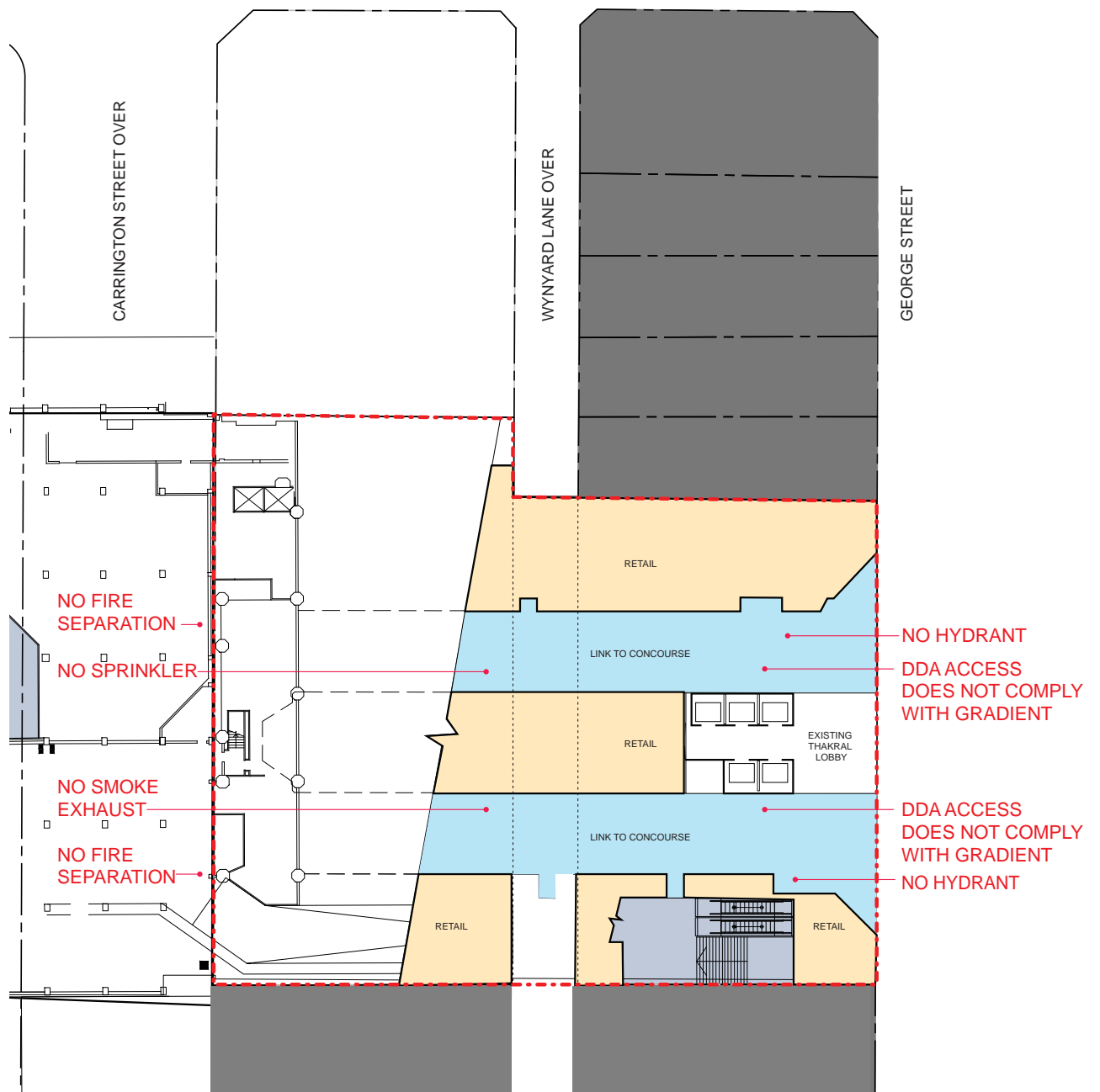
Contact

Rob Hawkins Principal
rhawkins@hassell.com.au

HASSELL
Level 2
88 Cumberland Street
Sydney NSW
Australia 2000
T +61 2 9101 2000
M +61 411 209 335
F +61 2 9101 2100
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HASSELL Limited
ABN/Company number here

Section	Page
01_____Review Process	1
02_____Options for Compliance	5
03_____Conclusions	9



EXISTING ACCESS

01 _____ Review Process

HASSELL has been requested to review the existing Wynyard Station access ramps and retail spaces within the Thakral lease boundaries on the levels from George Street to the Wynyard Station concourse level and the Hunter connection concourse level for

_Compliance with Building code of Australia

_Compliance with DDA Access

_Compliance with Department of Transports (DoT) own "Premises Standards" and its access requirements to satisfy growth to the year 2060 (i.e. provision of a total 20m egress width at George Street, including 4m egress width at the Hunter Arcade Level.)

Based on DDA reports from Morris Godding, and BCA Reports from McKenzie, we have then prepared an indicative concept for:

Item A

Provision of complying DDA Access Ramps only and their impact on the existing station access ramps and retail areas. We have tabled a range of mechanisms to bring the existing ramps into compliance including;

_ 1 in 20 access ramps within each of the existing access ways in accordance with AS1428-1

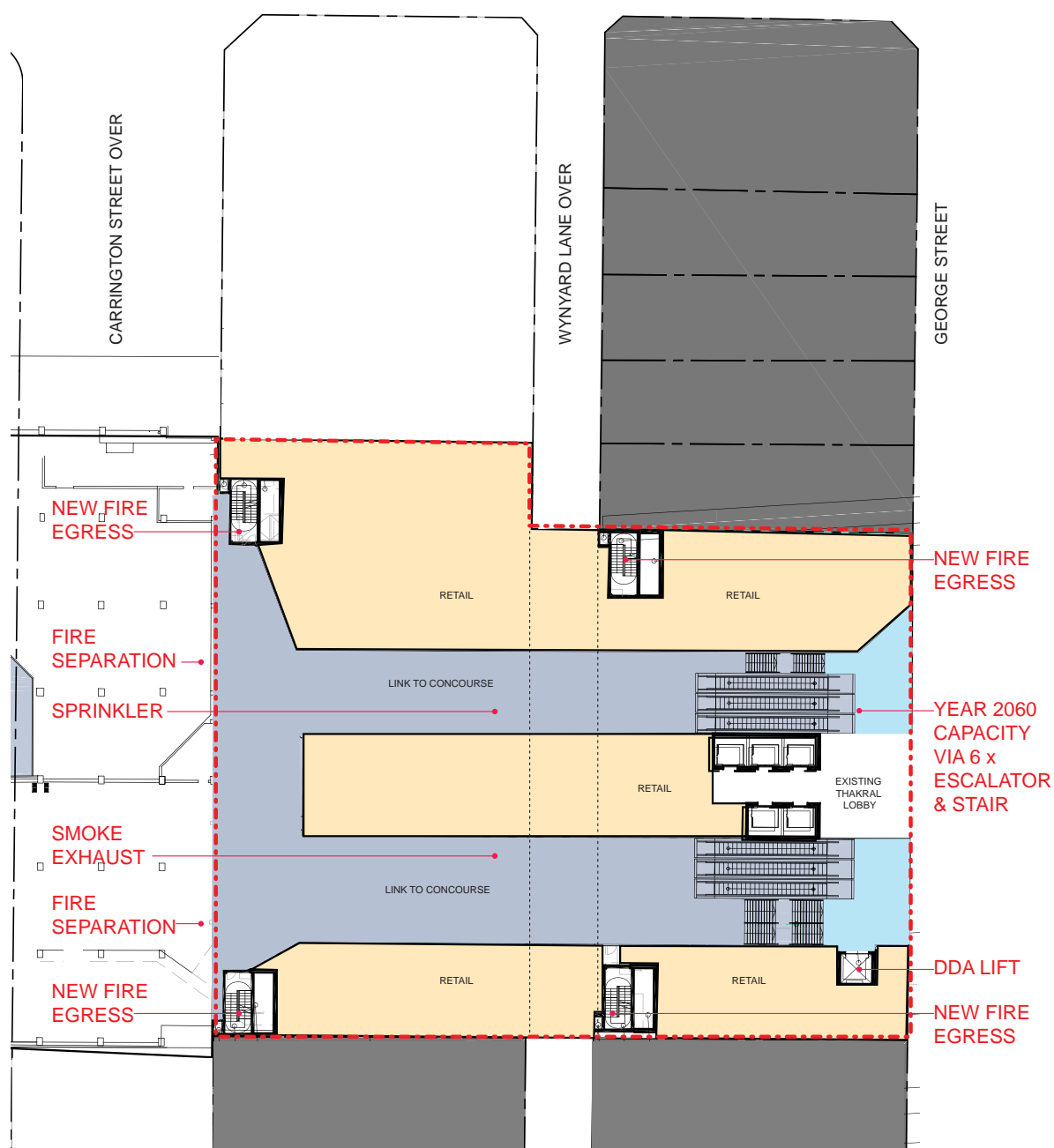
_ 1 in 14 access ramps with 1.5m wide rest-stops every 7 metres in accordance with AS1428-1

_ a single centrally located 1 in 20 access ramp switchback configuration in accordance with AS1428-1, located within the existing central retail area

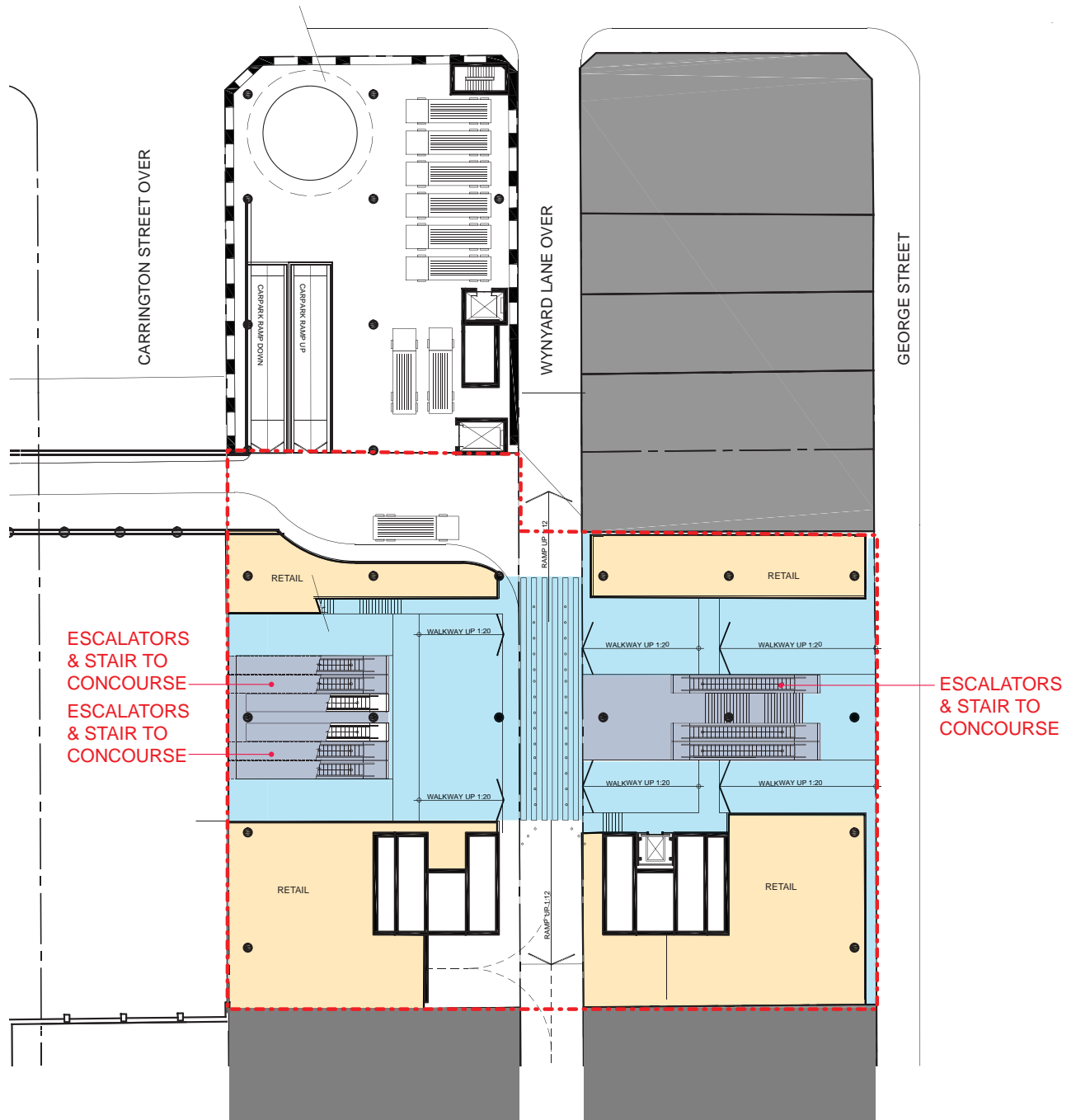
Item B

An alternative scheme (Option 1) which would provide the Department of Transport with a complying access from George St to the Wynyard Station Concourse level including compliance with DoTs own 2060 growth requirements.

Both items above, assume Thakral House remains as is, and no re-development occurs within the Thakral House or the Menzies Hotel lease areas.



OPTION 1 - EXISTING COMPLYING ACCESS, DDA & MEETING 2060 REQUIREMENTS



OPTION 2 - PROPOSED THAKRAL SCHEME COMPLYING ACCESS, DDA & MEETING 2060 REQUIREMENTS

4

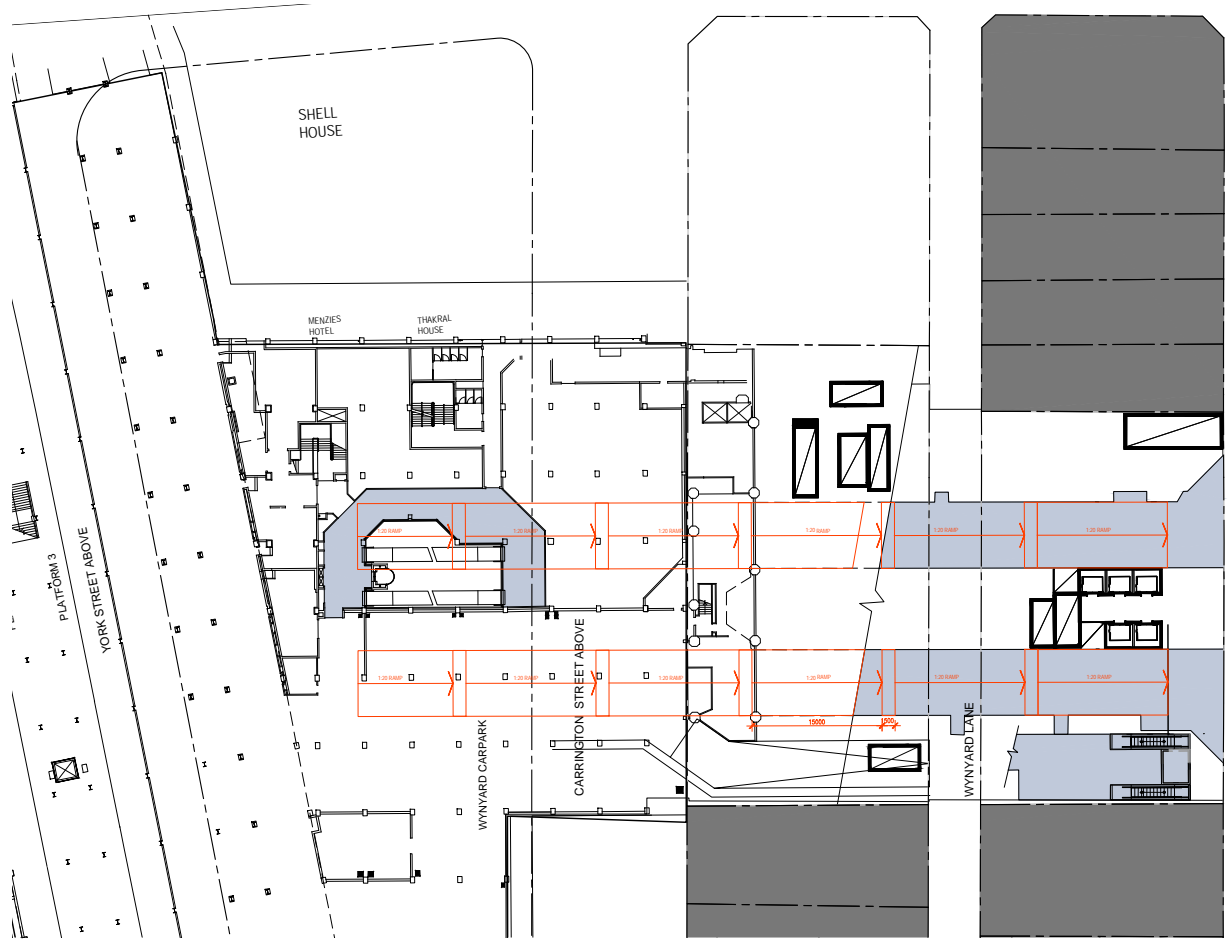
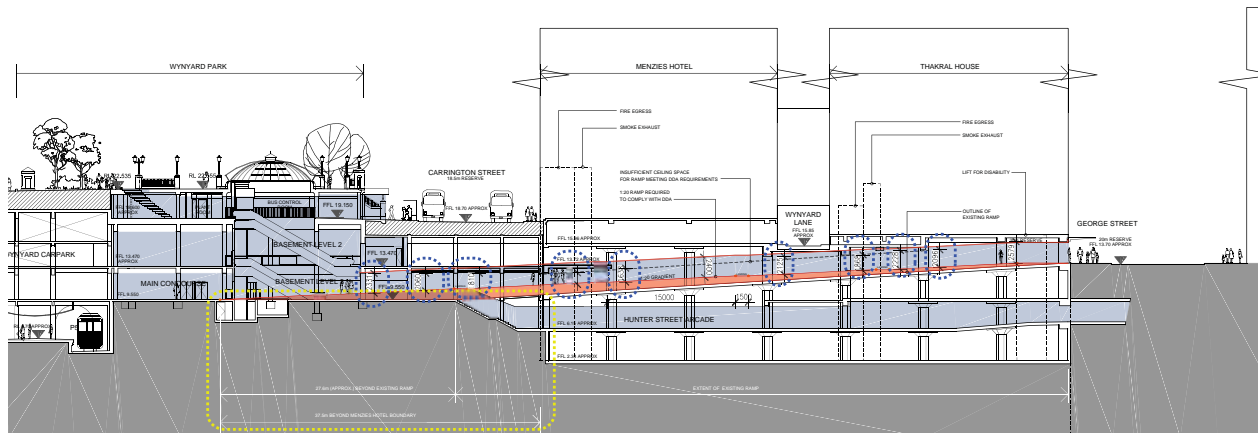


Diagram 1_



EXISTING WITH 1:20 GRADIENT RAMP (WITH LANDING AT EVERY 15m RAMP RUNS)

- LEGEND:
- RAMP EXTENTS INTO CONCOURSE AREA
 - CLASHES OF CEILING WITH EXISTING BEAM / SLAB

02 Options for Compliance

Item A

Compliance with DDA access including redesign of the ramps from George Street to the Concourse level can be achieved by 2 ramps constructed from George St to the Concourse.

The current access ramps do not comply with DDA provisions (refer Morris Godding Report).

In order to comply, the ramps need to be reconfigured to provide a 1:20 ramp or 1:14 ramp with a 1.5 metre landing every 7 metres. (Diagram 1 and 2). Each ramp requires a handrail on BOTH sides.

The 1:20 ramp would land in the middle of the existing unpaid concourse but has insufficient head height to be viable.

The 1:14 ramps if located within each of the existing access ramps would limit access to the existing retail shops.

If located centrally they would limit access to fire stairs both existing and proposed new stairs for BCA Compliance.

However for both ramps the configuration of the ramps to comply is such that there is insufficient head height under Wynyard Lane or under the Menzies Hotel area for the ramps to comply. These are indicated on Diagrams 1 and 2 by the blue dotted areas.

In order to develop a conforming scheme for DDA access it would be required to occupy the central retail area and design a switchback ramp within this space (see Diagram 3). For all of the above schemes a DDA lift will still be required to provide access from Hunter Connection level to the concourse level.

In summary there will be a significant loss of retail area to configure a ramp on the existing ramp no matter which option is included.

Item B

In order to comply with all of the stated requirements for BCA, DDA and future growth, an alternative is to lower the main access way to the station to the level of the exiting concourse and provide escalators and a lift and fire stairs to satisfy the necessary compliance.

For the Department of Transport to comply with its own requirement for growth in passenger numbers to 2060 and observance of the initial compliance option to DDA and BCA (Item A above) then a total of 6 escalators and 6 metre wide stair will be required to maintain the width of 16 metres from the concourse level to George Street. This option assumes a 4 metre width as a constant at the Hunter connection level. To comply a DDA lift down to the Hunter Arcade level is required as stated above.

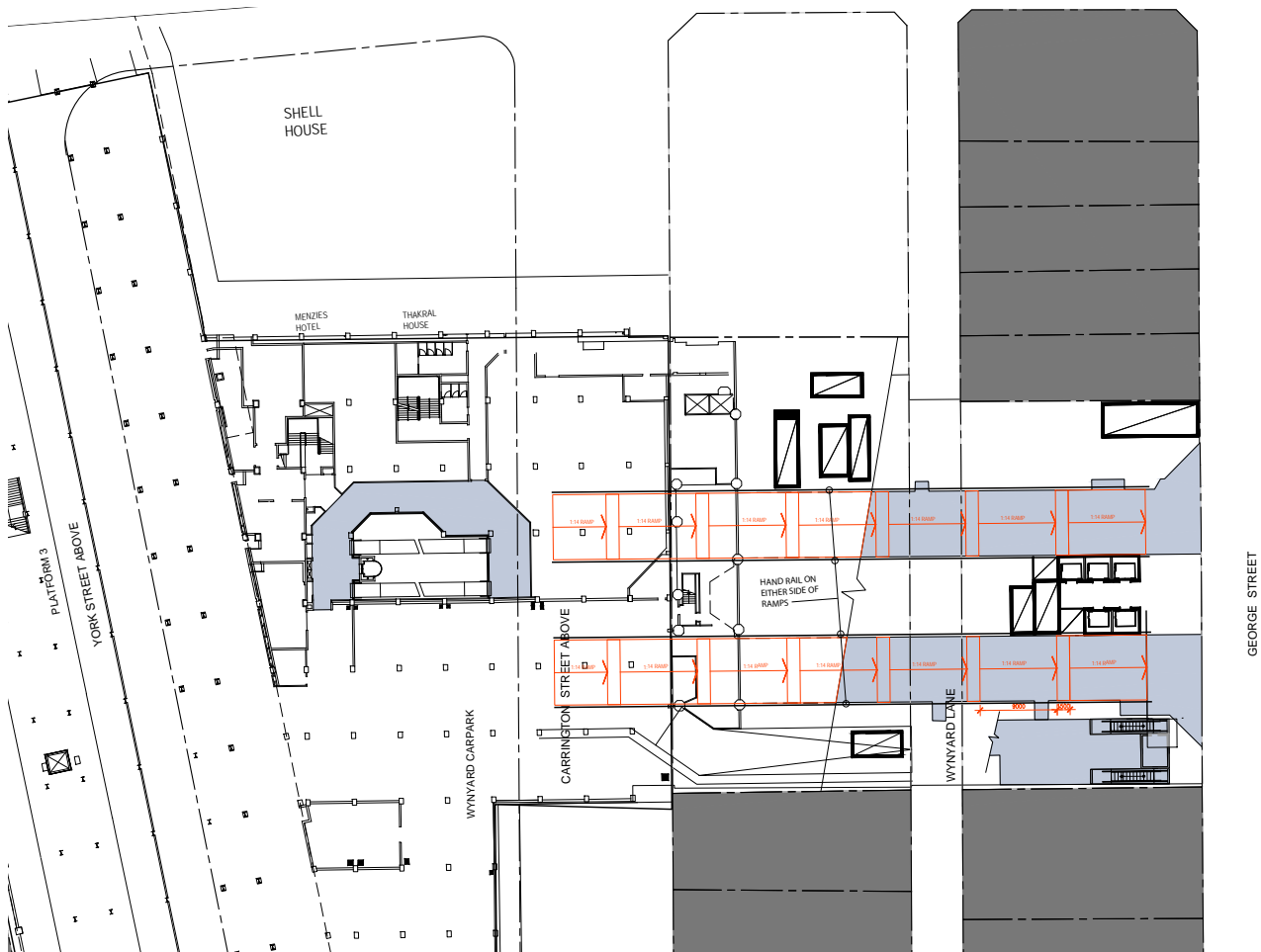
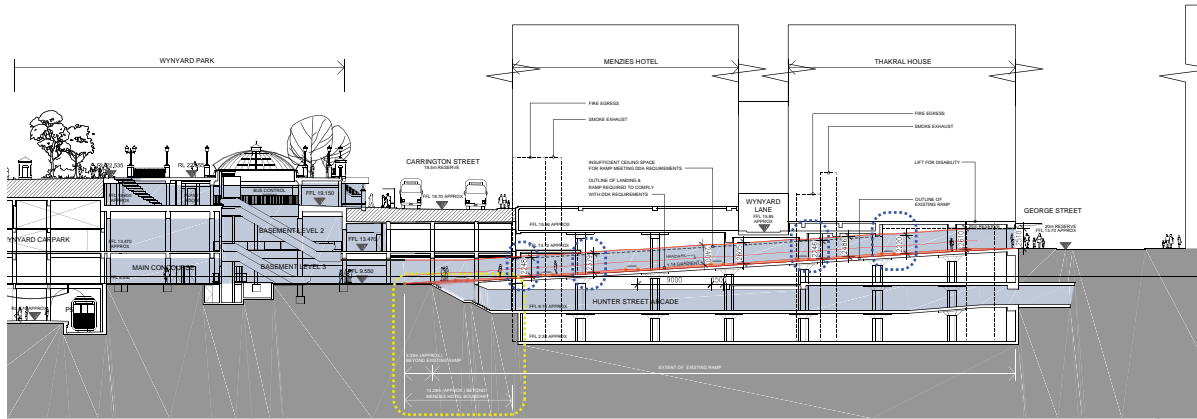


Diagram 2_



EXISTING WITH 1:14 GRADIENT RAMP (WITH LANDING AT EVERY 9m RAMP RUNS)

- LEGEND:
- RAMP EXTENTS INTO CONCOURSE AREA
 - CLASHES OF CEILING WITH EXISTING BEAM / SLAB

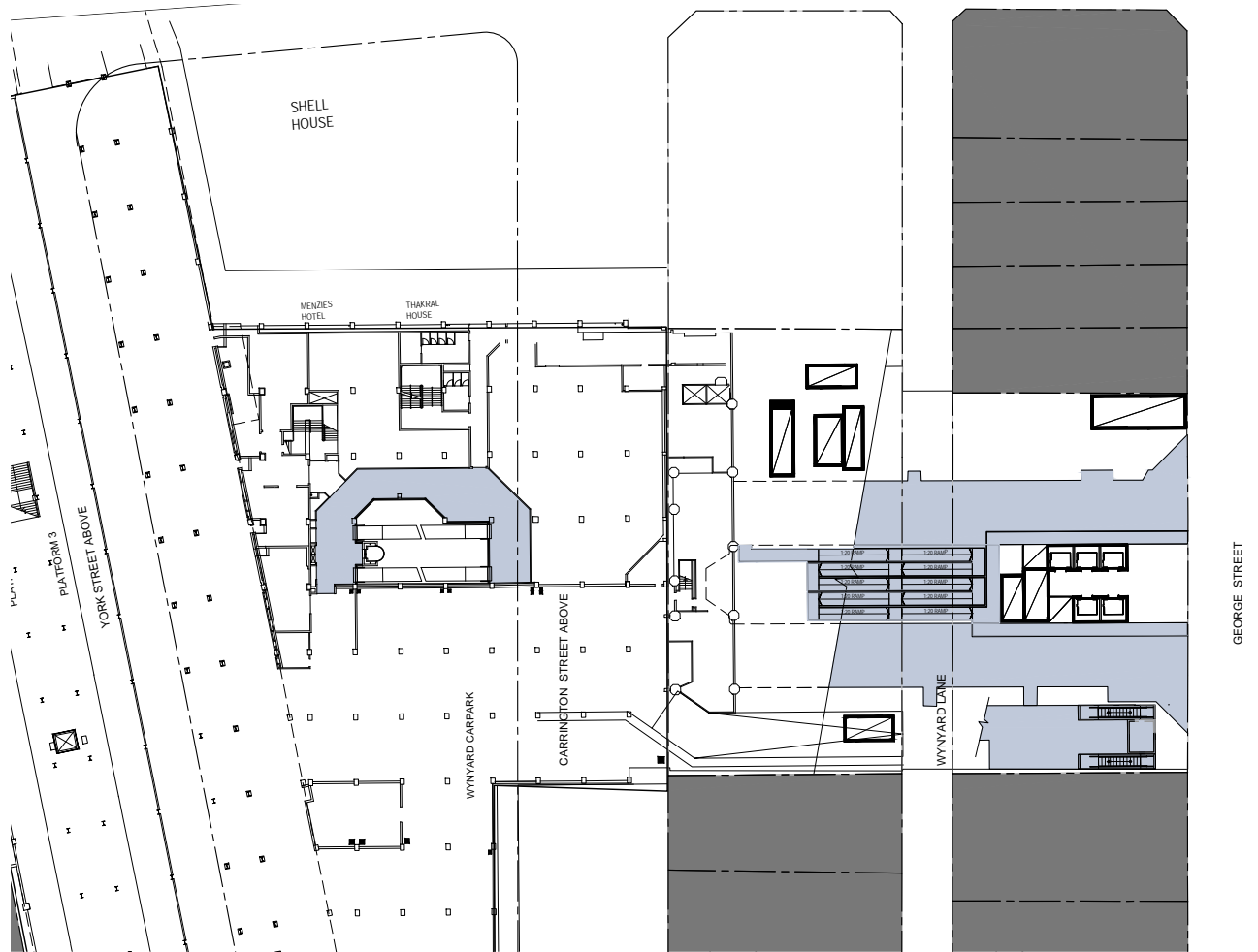


Diagram 3_

8

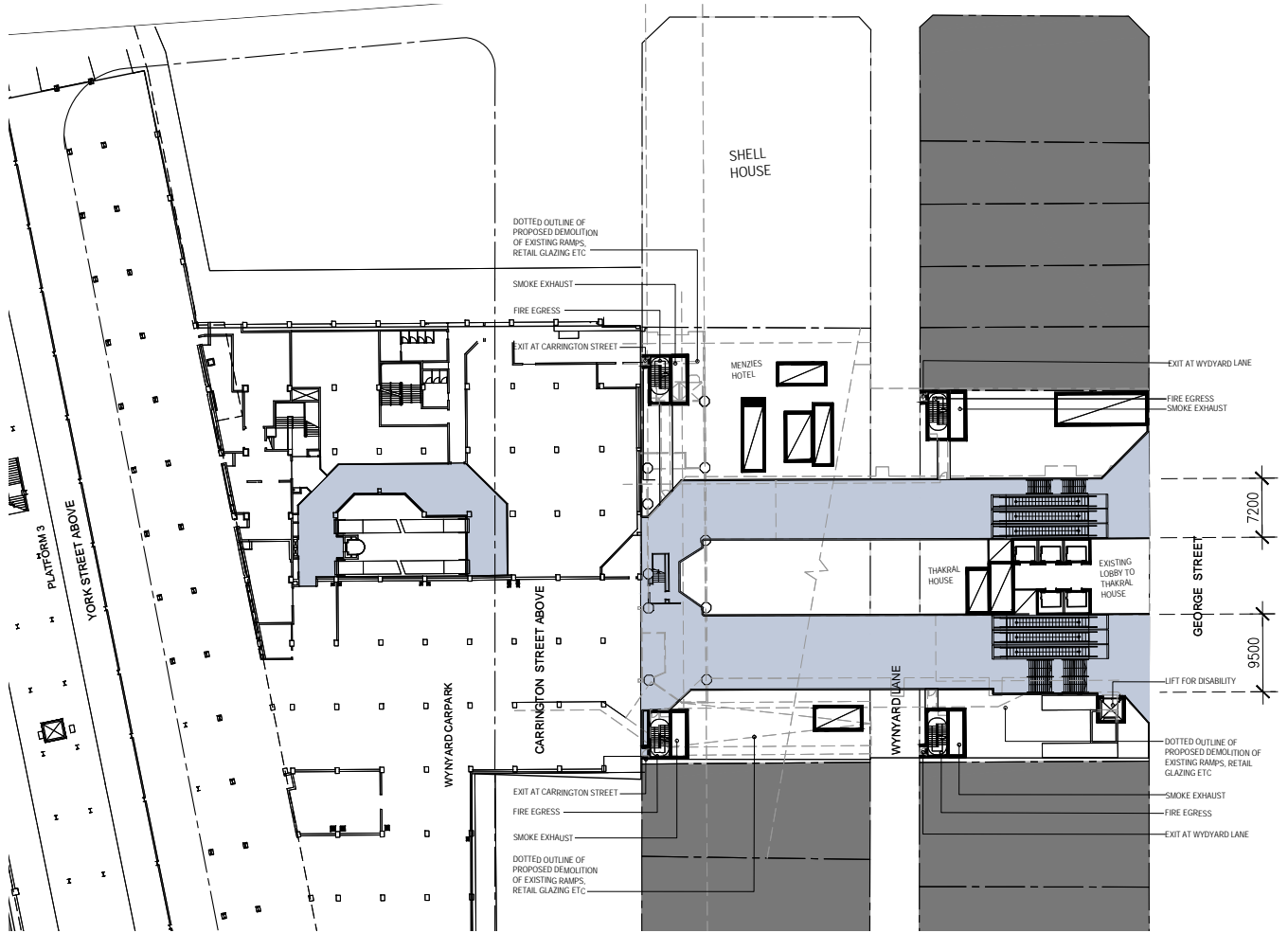
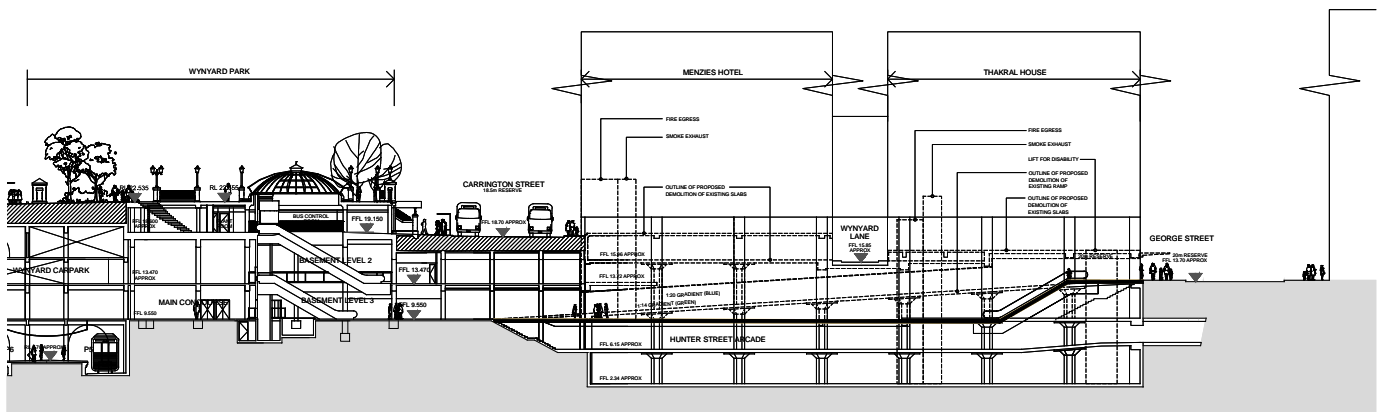


Diagram 4_



03_____ Conclusion

- _It is apparent that should DoT be served a notice requiring compliance by the Council of the City of Sydney for the existing station access-ways with Building code of Australia for Fire and Life Safety and with the DDA standards, than a significant amount of re-work would be required.
- _It is apparent that Item B above which will involve significant re-work to this area is the only option that will fully comply with all of these requirements
- _An alternative Option 1 proposal would satisfy all 3 requirements of BCA, DDA and DoT 2060 growth requirements, by the lowering of the current access-ways to the existing concourse level and the installation of stairs, escalators and DDA lifts and fire stairs. This aligns more closely with the Proposed new Thakral development and provides a higher level of service to the travelling public.

9

Australia

Adelaide

HASELL
Level 5
70 Hindmarsh Square
Adelaide SA
Australia 5000
T +61 8 8220 5000
E adelaide@hassellstudio.com

Brisbane

HASELL
36 Warry Street
Fortitude Valley QLD
Australia 4006
T +61 7 3914 4000
E brisbane@hassellstudio.com

Melbourne

HASELL
61 Little Collins Street
Melbourne VIC
Australia 3000
T +61 3 8102 3000
E melbourne@hassellstudio.com

Perth

HASELL
Podium Level, Central Park
152 – 158 St Georges Terrace
Perth WA
Australia 6000
T +61 8 6477 6000
E perth@hassellstudio.com

Sydney

HASELL
Level 2
88 Cumberland Street
Sydney NSW
Australia 2000
T +61 2 9101 2000
E sydney@hassellstudio.com

China

Beijing

HASELL
Building A7
50 Anjialou
ChaoYang District
Beijing 100125 China
T +8610 5126 6908
E beijing@hassellstudio.com

Chongqing

HASELL
28F, International Trade Centre
38 Qing Nian Road
Yu Zhong District
Chongqing 400010 China
T +8623 6310 6888
E chongqing@hassellstudio.com

Hong Kong SAR

HASELL
22F, 169 Electric Road
North Point Hong Kong SAR
T +852 2552 9098
E hongkong@hassellstudio.com

Shanghai

HASELL
Building 8 Xing Fu Ma Tou
1029 South Zhongshan Road
Huangpu District
Shanghai 200011 China
T +8621 6887 8777
E shanghai@hassellstudio.com

Shenzhen

HASELL
37F, Landmark
4028 Jintian Road
Futian District
Shenzhen 518035 China
T +86755 2381 1838
E shenzhen@hassellstudio.com

South East Asia

Bangkok

HASELL
18F, K Tower
209 Sukhumvit Soi 21
Klongtoey-Nua Wattana
Bangkok 10110 Thailand
T +66 2207 8999
E bangkok@hassellstudio.com

Singapore

HASELL
17A Stanley Street
068736 Singapore
T +65 6224 4688
E singapore@hassellstudio.com

United Kingdom

London

HASELL
Level 2, Morelands
17 – 21 Old Street
Clerkenwell
London EC1V 9HL United Kingdom
T +44 7557 369557
E london@hassellstudio.com

Annexure 6 – WT Assessment of Alternate Complying Scheme

THE WYNYARD CENTRE ARCADE RECONFIGURATION



Rev 01

SCOPE OF WORKS

Demolish the existing ramps and retail areas including the floor slabs at George Street level, strip out the existing accommodation at mezzanine level and part of the retail at Hunter Arcade level; construct a new floor slab at mezzanine level above the Hunter level to connect to the concourse; construct new plant areas, new retail areas, new back of house areas, new egress routes/mall, new fire stairs, new lift shaft and accessible lift, new escalators, new stairs; replace the existing building services, add new services for the accessible lift, escalators, smoke exhaust, additional egress route/mall height; temporary works to the Hunter Arcade for works above; staging the works to maintain the required egress routes throughout the works; working out of hours and with limited access for deliveries of plant and materials within a confined working area.

AREA SCHEDULE (REFER TO DRAWINGS ATTACHED)

	Total	Retail	Plant/BoH	Mall
Existing				
George St along ramp	2,720	1,450	220	1,050
Mezzanine Level	1,600	680	920	
Sub total A	4,320	2,130	1,140	1,050

Proposed

George Street level	600	350	100	150
Mezzanine level	2,700	760	1,040	900
Sub total B	3,300	1,110	1,140	1,050

Change In Areas Sub total B - A

Prime retail adjacent Mall		(340)		
Sub Prime retail below existing mall		(680)		
Change In Areas Sub total B - A	(1,020)	(1,020)	0	0

INDICATIVE ESTIMATE

	quant	unit	rate	total
Strip out retail, plant rooms and mall areas	4,320	m2	200	864,000
Demolish ramps, retail, stairs etc in two stages	2,720	m2	500	1,360,000
Temporary protection to Hunter Mall and Back of house area	1,100	m2	400	440,000
Temporary plant and equipment during construction	1	Item	400,000	400,000
New upper floor	1,100	m2	300	330,000
Extra over for forming stairs	30	m2	400	12,000
Column connections and remedial works	1,100	m2	100	110,000
Remedial works to retained upper floors	2,200	m2	200	440,000
Modifications for escalator pits	6	No	10,000	60,000
New Fire stairs	4	No	50,000	200,000
New lift enclosure	1	No	100,000	100,000
Fit out to new mall areas including services	1,050	m2	1,400	1,470,000
Fit out to new plant area including services	1,140	m2	300	342,000
Fit out to new retail area including provision for services	760	m2	500	380,000
Allowance for replacement of plant and equipment	1	Prov	1,000,000	1,000,000
New escalators	6	No	250,000	1,500,000
New lift	1	No	250,000	250,000
Remedial works to front entry including security doors etc	1	No	200,000	200,000
Remedial works to Mezzies Arcade	1	No	200,000	200,000
New escalators to Menzies Arcade (assume reticulated)	2	No	350,000	700,000
Sub total				10,358,000
Staging and Out of Hours Working	40%			4,142,000
Preliminaries and Margin	23%			3,340,000
Contingencies	10%			1,780,000
TOTAL CONSTRUCTION				19,620,000
Design & Supervision	10%			1,960,000
Statutory Fees & Charges	1.5%			320,000
INDICATIVE ESITMATE TOTAL EXCL GST				21,900,000

#1 LIST OF EXCLUSIONS:-

Land costs, legal fees, interest charges and financing costs
 Development Application & Construction Certificate fees and charges
 Council contributions, fees, levies and charges
 Consultants fees & Project Management fees & charges
 Escalation after July 2012
 Remediation of contaminated materials
 Tenancy leasing & fitout costs
 All loose fittings, furniture and equipment
 SRA track & station closures, ticketing & operating equipment, security system, fire & safety upgrade works not noted above
 Prolongation and delay costs
 Internal shopfronts to retail units within Malls
 All work within SRA, Westpac Connection, Hunter connections and Wynyard Park
 Works outside Thakral footprint
 Station and station concourse upgrade works
 East Darling Harbour Link Tunnel
 Roof and building tenant signage
 Artwork/Sculpture
 Provision for GST
 Carbon Tax Cost Implications (allow +1.5%)
 Developer's contingency sum



PERPETUAL TRUSTEES

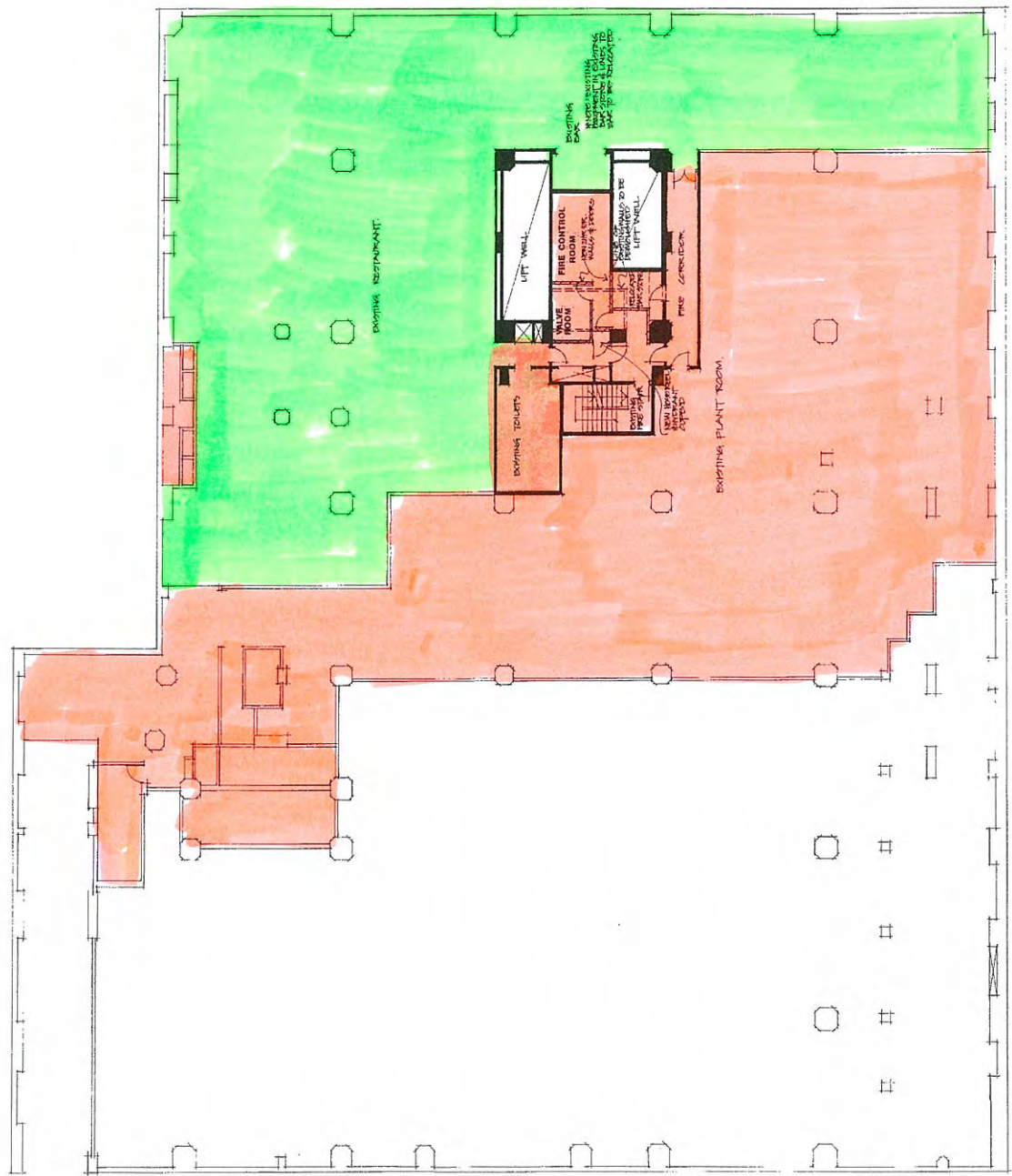
THE WYNYARD CENTRE
GEORGE STREET RAMP
MENZIES ARCADE

THE RICE DAIRY GROUP
ARCHITECTS
100 RICE STREET
SYDNEY NSW 2008
TEL: 02 9231 1234
WWW.RICEDAIRYGROUP.COM.AU

PLAN -
GEORGE STREET RAMP

DATE: JUNE 1993
DRAWN BY: T100
CHECKED BY: T100
APPROVED BY: T100

PROJECT NO: 92100
DRAWING NO: A05



EXISTING



PERPETUAL TRUSTEES

THE WYNWARD CENTRE
SHOPFRONT REPAIR/REPAIRMENT
SERVICE STREET FAMP
MEZZANES ARCADE



PART PLAN -
MEZZANINE LEVEL

1:100

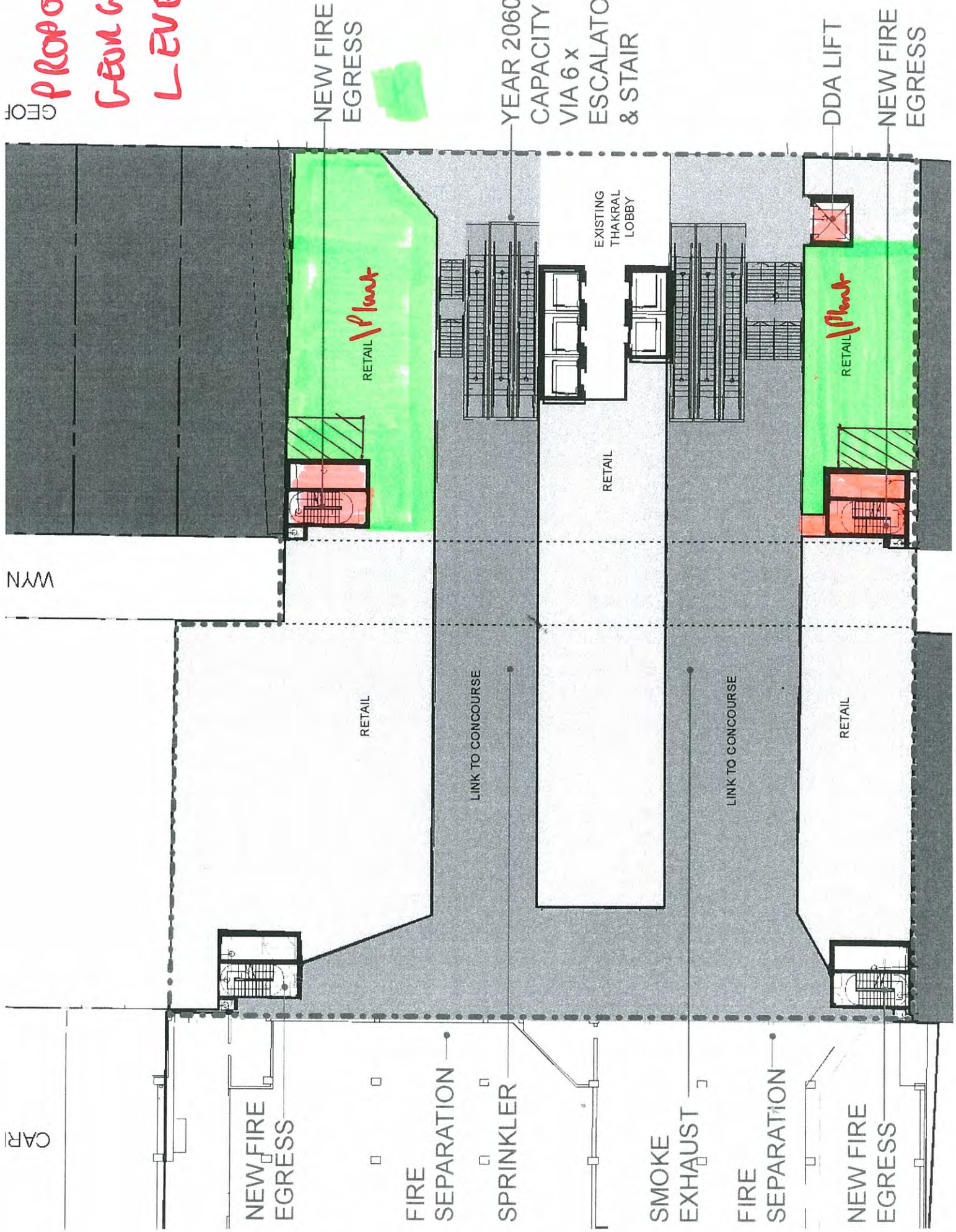
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CAR

WYN

GEOP

PROPOSED
CONCRETE
LEVEL



CAR

WYN

CEOF

PROPOSED
MEZZANINE
LEVEL



NEW FIRE
EGRESS

FIRE
SEPARATION

SPRINKLER

SMOKE
EXHAUST

FIRE
SEPARATION

NEW FIRE
EGRESS

NEW FIRE
EGRESS

YEAR 2060
CAPACITY
VIA 6x
ESCALATOR
& STAIR

DDA LIFT
NEW FIRE
EGRESS

RETAIL

RETAIL

RETAIL

RETAIL / Plank

Plank

RETAIL / Plank

EXISTING
THAKRAL
LOBBY

Plank