City One Wynyard

Report in Response to Authority Submissions

March 2011

Prepared for

Thakral Holdings Limited

Halcrow

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This report has been issued and amended as follows:

Rev	Description	Date	Prepared by	Approved by
0	Draft for internal review	14/03/2011	BM	BM
1	Final	16/03/2011	BM	BM

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Contents

1 Introduction

In December 2010 Halcrow prepared an Operational and Construction Traffic, Pedestrian and Parking Report for a proposed redevelopment of land controlled by Thakral Holdings Limited at Wynyard Station. This would involve full redevelopment of the parts of the station generally between Carrington and George Streets including improved access to the station concourse, a through site link and a major commercial building above.

The initial proposal included potential extension of the work to provide upgraded pedestrian extensions to Wynyard Park and York Street, however Transport NSW determined that it would maintain responsibility for the design of such works.

In response to the public display of the proposal, meetings were had with Transport NSW and it prepared a submission to the Department of Planning on behalf of the NSW Government Transport Agencies.

A submission was also prepared by Sydney City Council.

There is some overlap between the issues raised in the submissions so they are summarised as follows:

- Concerns regarding proposed parking provision, the need to detail this provision on plans and the adequacy of provisions for service vehicles and bicycles.
- Desirability of closing Wynyard Lane to traffic so as to allow uninterrupted pedestrian access across it.
- Need to provide 20m horizontal width of pedestrian route throughout the eastern section of the railway concourse to George Street.

These matters are discussed in the following sections of this report.

2 Parking Provision

2.1 Car Parking

At present there are some 335 parking spaces in the Wynyard public car park. This car park is leased to Thakral on a long term lease but the lease allows the State Government to take back the car park with two years notice.

Thakral is mindful of this. It is also mindful that a high grade office building requires a minimum amount of operational parking for the use of tenants. It is concerned that if the Wynyard public car park is closed in future, as appears very likely from comments from Transport NSW, then the proposed building would be compromised in terms of the operational needs of its tenants if parking was not provided within it.

As mentioned in the project transport report, the proposed station concourse upgrade works including the pedestrian connection across Wynyard Lane together with structural requirements for the building above will result in a loss of parking spaces in the public car park.

To address the concerns of the various authorities and to take a minimalist approach to parking provision, it is proposed that no additional car parking be provided on the combined site.

This would mean that with 177 car parking spaces provided in the proposed developments new basement, only 158 spaces would be provided in the public car park.

This approach would ensure the long term satisfaction of the commercial requirements of the proposed office building, avoid an increase in traffic generation and allow the Wynyard car park to accommodate bicycles in the part of the car park that would no longer be used for car parking.

2.2 Bicycle Parking

The Central Sydney DCP requires that the bicycle parking equivalent to that which can be contained in one parking space be provided for every 100 car parking spaces that are

provided. Thus for the 177 parking spaces proposed, the equivalent at 1.8 parking spaces should be provided for bicycle parking. This would be equivalent to about 11 car spaces.

This provision is considered somewhat low. An alternative method of calculation would be to provide about one bicycle space for every 100 persons that would work in the building. It is anticipated that some 3,500 persons might work in the building. To cater for these plus for some increased bicycle usage in the future, it is proposed to provide 50 bicycle spaces on the site. These would be accommodated in the part of the existing Wynyard car park with access off Wynyard Lane.

Showers, change facilities and lockers will also be provided.

2.3 Motorcycle Parking

The City of Sydney DCP also requires the equivalent of one car space for motorcycle parking for every 100 car parking spaces.

This will be provided in conjunction with the bicycle parking.

2.4 Service Vehicle Parking

As indicated in the transport report for the development, it is proposed to provide service vehicle parking at an appropriate rate. For the purposes of clarity, this is recalculated below. It is noted that FSA is used in the activity measure for commercial space and NLA for retail space. This is because NLA better reflects the intensity of traffic and service vehicle generation for retail stores.

Medium Rigid Truck Provision

Tower + Shell House	Commercial Space	68,711m² FSA @ 1/20,000m²	= 3.4
Tower + Shell House	Retail Space	7,168m² NLA (8,360m2 FSA) @ 1/1,500m²	= 4.8
Railcorp	Retail Space	2,333m² NLA @ 1/1,500m²	= 1.6
Public Circulation		6,001m² FSA @ zero provision	= 0
Total	Medium Truck Provision		= 9.8

A total of 9 medium truck bays are proposed. This medium truck provision is considered satisfactory as additional loading provision for smaller delivery vehicles will be made within the car park as outlined below.

Couriers and Vans

Typically the provision for these would be the same as for trucks. It is proposed to provide about 15 of these at concourse level so that they could service small retail outlets directly.

Total

In total 24 loading/service bays are proposed and this is considered to be sufficient.

3 Wynyard Lane

The submissions indicate the importance of not having pedestrians conflict with cars when crossing the lane. Accordingly, subject to normal Sydney Local Traffic Committee processes, it is proposed to close it at the pedestrian cross route.

This will mean that each side of the closed section of the lane will need to operate as a two way cul-de-sac and no stopping restrictions will need to apply to allow vehicles to pass.

The effects on each side of the closure will be different as discussed below. Plans of the closure are indicated on the car park plans in Appendix A of this response.

South of the Closure

No stopping restrictions already apply in this section so there will be no loss of loading space in the lane.

The main function of this part will be to provide access to car parking and loading areas that gain access from it.

At present this section carries only 78 vehicles per hour in the morning peak hour and 54 vehicles per hour in the evening peak hour. This includes vehicles departing after servicing development on each side of the northern section of the lane as well as vehicles accessing the car parks and loading areas from the southern section of the lane.

After the closure, traffic servicing the northern part of the lane will no longer use the southern part of the lane so traffic flows in the section would reduce below the above volumes. Indicatively the traffic flow in this section would reduce to a peak of below 50 vehicles per hour (two way).

The lane would easily be able to cater for this traffic, especially as truck usage would be significantly reduced.

Three measures would be needed to assist traffic when the closure took place as follows:

- a turning bay would be needed adjacent to the closure to allow vehicles to turn around at the end of the lane. This is proposed.
- signage should be provided at the entry to the system in Wynyard Street at Carrington Street advising that it was a no through route and for building access only, and
- some adjustments to parking may be needed at the intersection of Wynyard Lane with Wynyard Street to allow vehicles to pass by each other at the bend where the two roads join.

North of the Closure

This section would cater for continued access to Wynyard car park, service traffic to the development and Wynyard Station retail.

At present 127 vehicles enter the Wynyard car park in the morning peak hour and 26 in the evening peak hour. With the reduced parking provision in the public car park offset by the new parking spaces in the proposed development, the number of vehicles entering the lane to park would remain the same.

In the morning peak hour, negligible traffic would exit the new car park back to Margaret Street. A small amount of increased service traffic due to a moderate increase in retail space in the development would be more than offset by the removal of service and car park access traffic destined for properties at the southern end of the lane, plus a small amount of through traffic that uses the lane to access Carrington Street.

Thus in the morning peak, the net result would be no increase and possibly a small decrease in traffic on Margaret Street.

In the evening peak, there would be an estimated 28 vehicles per hour exiting the new car park to Margaret Street. On the other hand, the majority of the evening peak hour through traffic on Wynyard Lane (58 veh/hr as outlined above) would be removed.

Thus in the evening peak hour, the effect of the closure would be about neutral in terms of traffic levels on Margaret Street.

The only adverse effect of the closure would be the loss of 18m of loading zone in the lane to the south of Margaret Street. This would desirably be replaced, possibly somewhere on Margaret Street.

Conclusions on the Closure of Wynyard Lane

It is concluded that Wynyard Lane could be closed at the pedestrian crossing without significant adverse effects on the local road system.

4 Pedestrian Capacity

Transport NSW has advised that it is still working on future passenger planning forecasts for Wynyard station. Its planning horizon is 2060 and it is taking into account the effects of the Barrangaroo tunnel plus those of future railway lines through the area.

Arising out of its preliminary work, it has determined that there needs to be 20m equivalent width of pedestrian walking access into and out of the station concourse area toward from the east. i.e. George Street and the Hunter Connection.

As both the Hunter Connection and George Street are at different levels to the concourse and it would not be possible to ramp these change of levels at grades that would meet DDA requirements, it would be necessary to accommodate the level changes through a combination of stairs, escalators and lifts.

In this regards it is noted that the Hunter arcade has a width of about 4m. Thus it would require 25% of the access capacity. The remainder would need to feed to and from George Street.

Appendix B provides plans of the proposed concourse and George Street/ Wynyard have levels which indicate relative walking widths etc at critical location. In this regards it is noted that relative capacities of different pedestrian facilities are as follows:

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

Thus equivalent capacity widths are:

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

Three critical sections are shown in Appendix B to illustrate the sufficiency of the proposed pedestrian width.

Section A – Concourse level, immediately east of the concourse
– 20m walkway as per TNSW requirement

Section B – Concourse level, western escalator to George Street level
– 16.65m walkway
– 2 escalators equivalent to 4.18m walkway
– total walkway equivalent of over 20m

Section C – Concourse level, escalator and stairs to Hunter arcade
– 10m walkway
– 2 escalators equivalent to 4.18m walkway
– 4.65m wide stairs equivalent to 3.07m walkway
– total walkway equivalent of 17.25m
– system capacity of over 20m where western escalator to George Street taken into account

Section D – George Street level, eastern escalator
– 12.325m walkway
– 2 escalators equivalent to 4.18m walkway
– 4.65m wide stair equivalent to 3.07m walkway
– total walkway equivalent = 20m

These sections indicate that the Concept Plan complies with the TNSW specification for pedestrian capacity.

5 Conclusion

Following comments from government authorities, the concept design has been modified to:

- reduce the parking provision on the site and make provision for bicycles, motorcycles and service vehicles
- close Wynyard Lane at the east-west pedestrian route through the site; and
- improve east-west pedestrian capacity to/ from the walkway concourse

It is concluded that these changes should satisfactorily resolve concerns raised by the authorities on these matters.

Appendix A. Car Park and Location Plans

CITY ONE WYNYARD
CONCOURSE LEVEL B1 RETAIL / CAR PARK

NAME	TOWER	SHELL HOUSE	TOTAL
AREA	3019.8	1050.1	
	3019.8	1050.1	4069.9

NOTE:
1. AREA CALCULATIONS ARE INDICATIVE ONLY AND SUBJECT TO RECEIPT OF SURVEY PLANS., STRUCTURAL, SERVICES CONSULTANTS AND PEDESTRIAN ANALYSIS INPUT.

2. NUMBER OF TOILET FITTINGS ARE CALCULATED BASED ON THE POPULATION DENSITY OF 1 PERSON / 10 SQM.

3. NUMBER OF LIFTS AREA INDICATIVE ONLY SUBJECT TO CONSULTANTS INPUT.

4. LOADING DOCK PROVISION IS INDICATIVE ONLY SUBJECT TO RETAIL AND TOWER REQUIREMENTS AND CONSULTANT INPUT

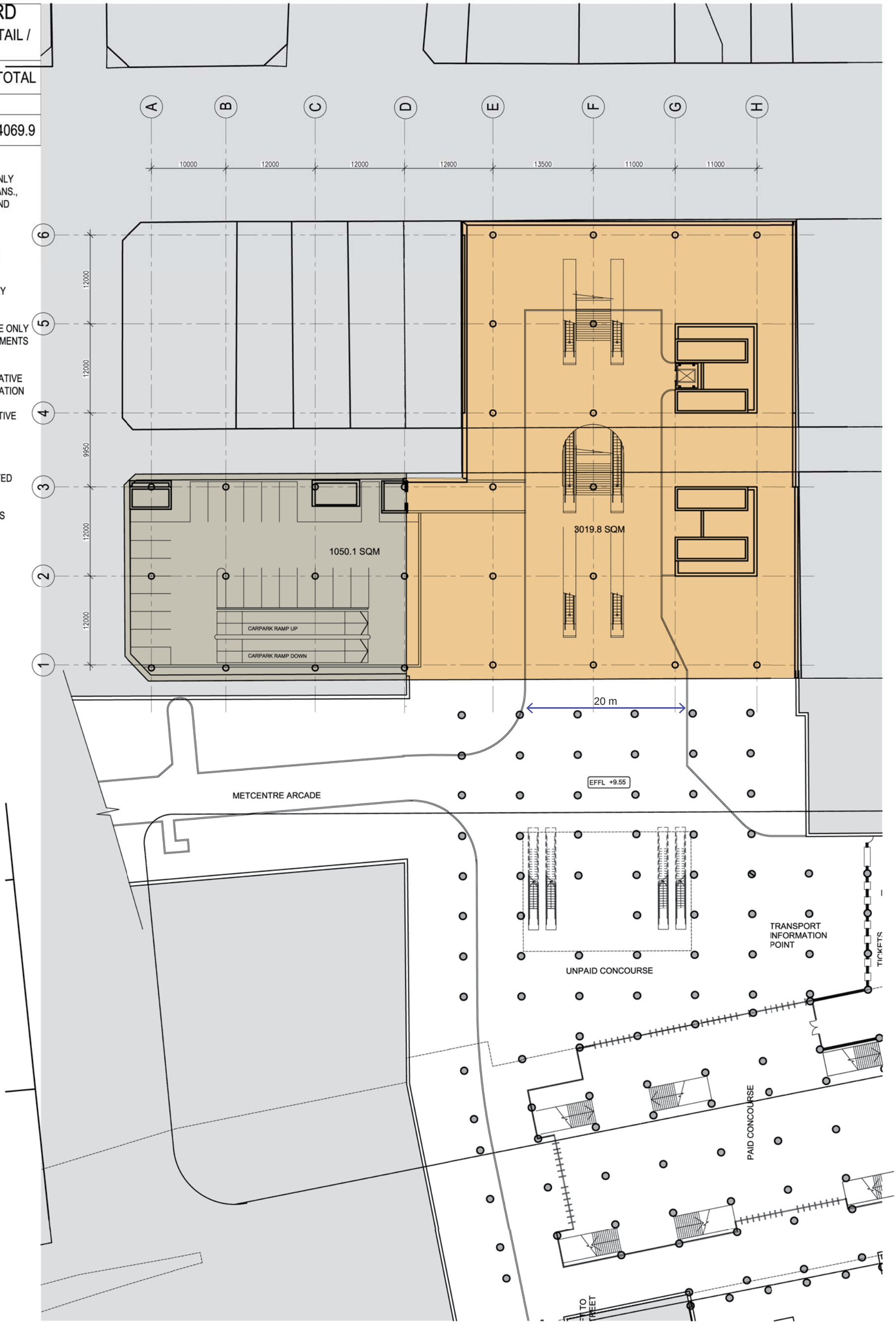
5. CARPARK BASEMENT LEVELS ARE INDICATIVE ONLY SUBJECT TO CONSULTANTS INFORMATION

6. EXISTING HERITAGE BUILDING IS INDICATIVE ONLY SUBJECT TO SURVEY

ASSUMPTIONS

1. AREAS ARE BASED ON A SINGLE TENANTED BUILDING

2. AREAS SHOWN FOR CORE AND SERVICES RISERS ARE INDICATIVE ONLY



B1 CONCOURSE

OPT 10 BASE BUILDING SCHEME

CITY ONE WYNYARD
HUNTER CONNECTION LEVEL B2
RETAIL / CAR PARK

NAME	TOWER	SHELL HOUSE	TOTAL
AREA	3019.8	1050.1	
	3019.8	1050.1	4069.9

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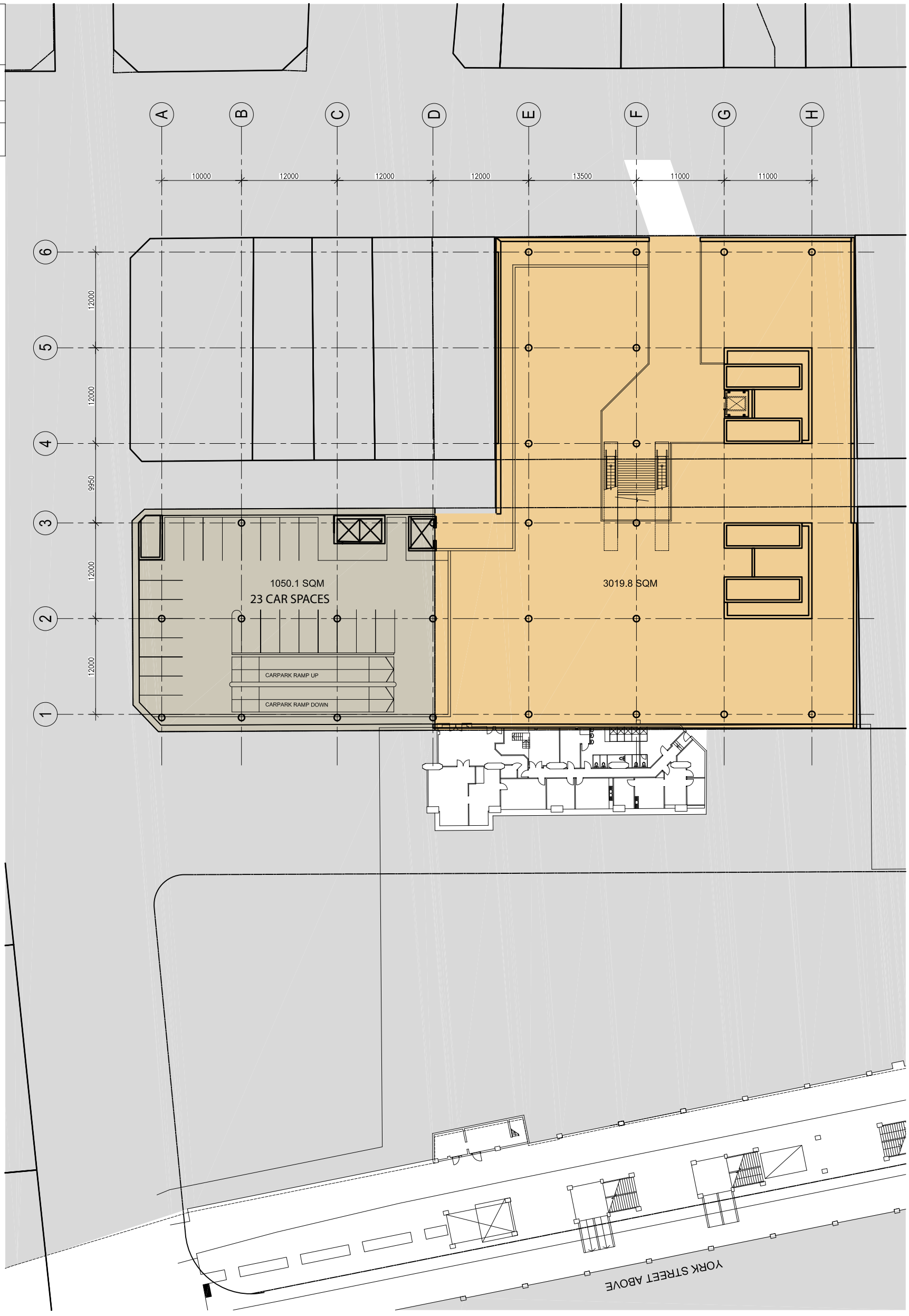

B2 HUNTER CONNECTION

OPT 10 BASE BUILDING SCHEME

CITY ONE WYNYARD

HUNTER CONNECTION LEVEL B3 CAR PARK

NAME	TOWER	SHELL HOUSE	TOTAL
AREA	3019.8	1050.1	
	3019.8	1050.1	4069.9

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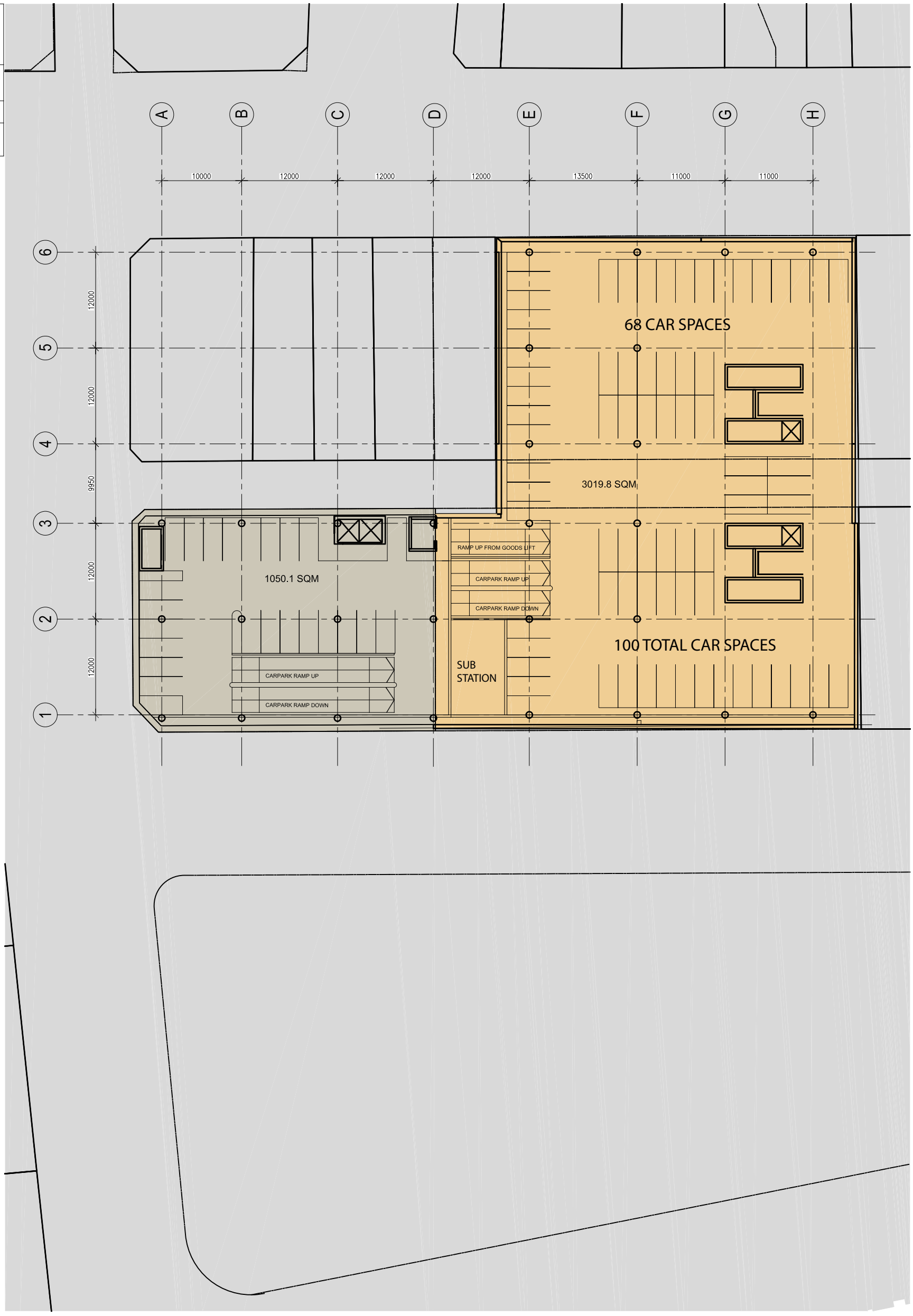

B3 CARPARK

OPT 10 BASE BUILDING SCHEME

CITY ONE WYNYARD
HUNTER CONNECTION LEVEL B4 CAR PARK

NAME	TOWER	SHELL HOUSE	TOTAL
AREA	254.8	1050.1	
	254.8	1050.1	1304.9

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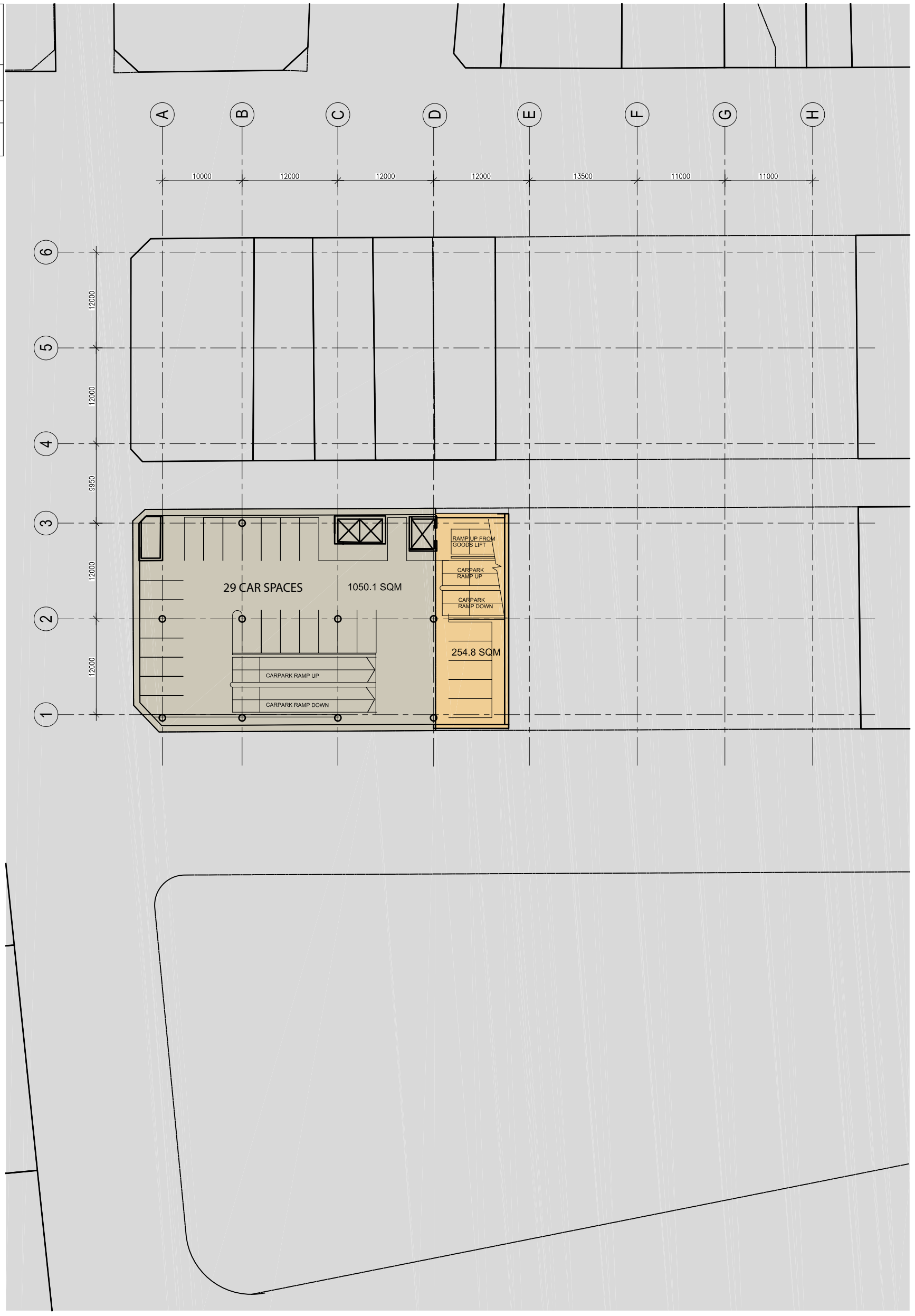

B4 CARPARK

OPT 10 BASE BUILDING SCHEME

CITY ONE WYNYARD
HUNTER CONNECTION LEVEL B4 CAR PARK

NAME	TOWER	SHELL HOUSE	TOTAL
AREA	254.8	1050.1	
	254.8	1050.1	1304.9

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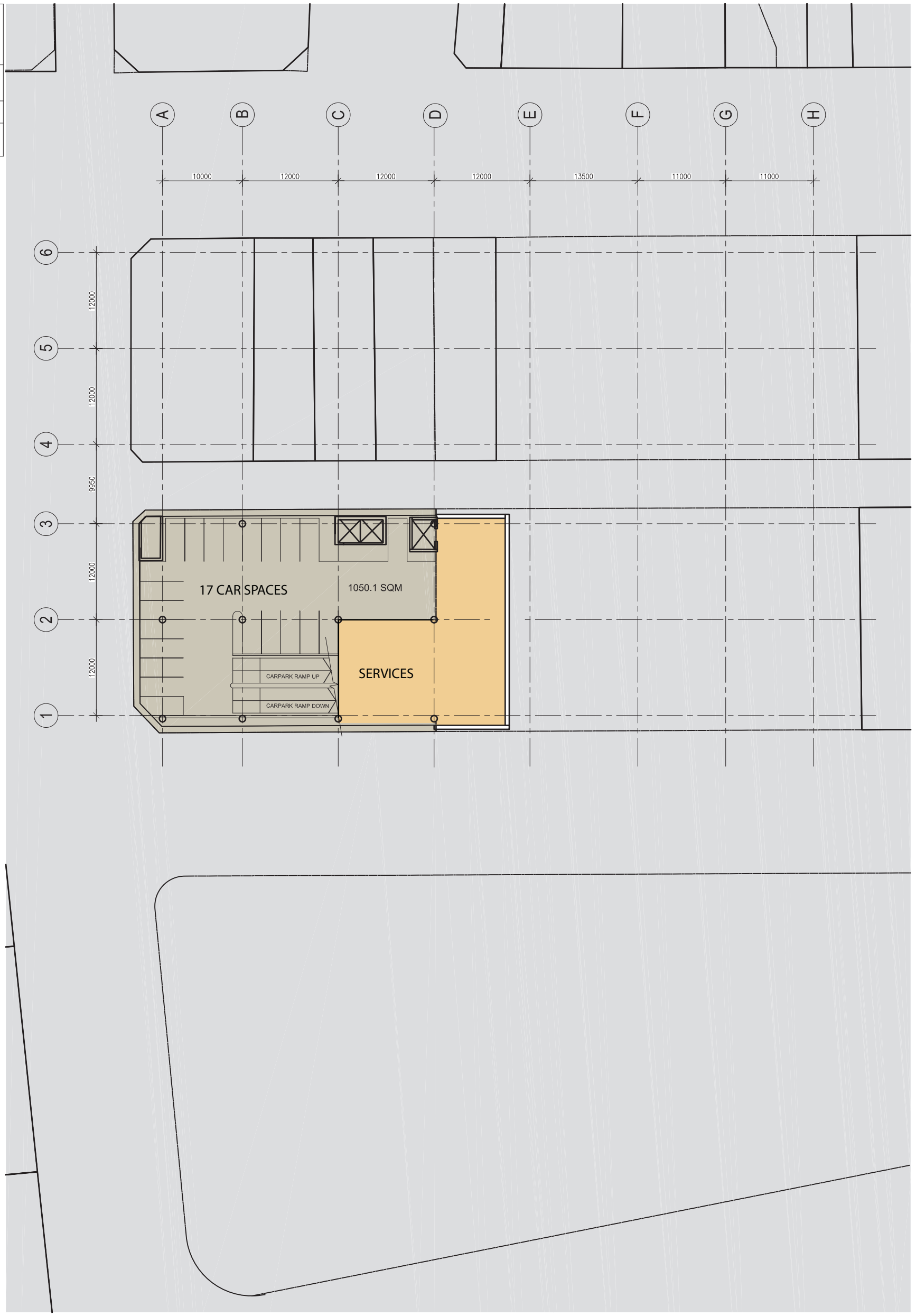

B4 CARPARK

OPT 10 BASE BUILDING SCHEME

CITY ONE WYNYARD

GEORGE ST LEVEL GR1 RETAIL / LOADING DOCK

NAME	TOWER	SHELL HOUSE	TOTAL
AREA	1182.2	970.7	
AREA	320.4	79.5	
AREA	1395.3		
	2897.9	1050.1	3948.0

NOTE:
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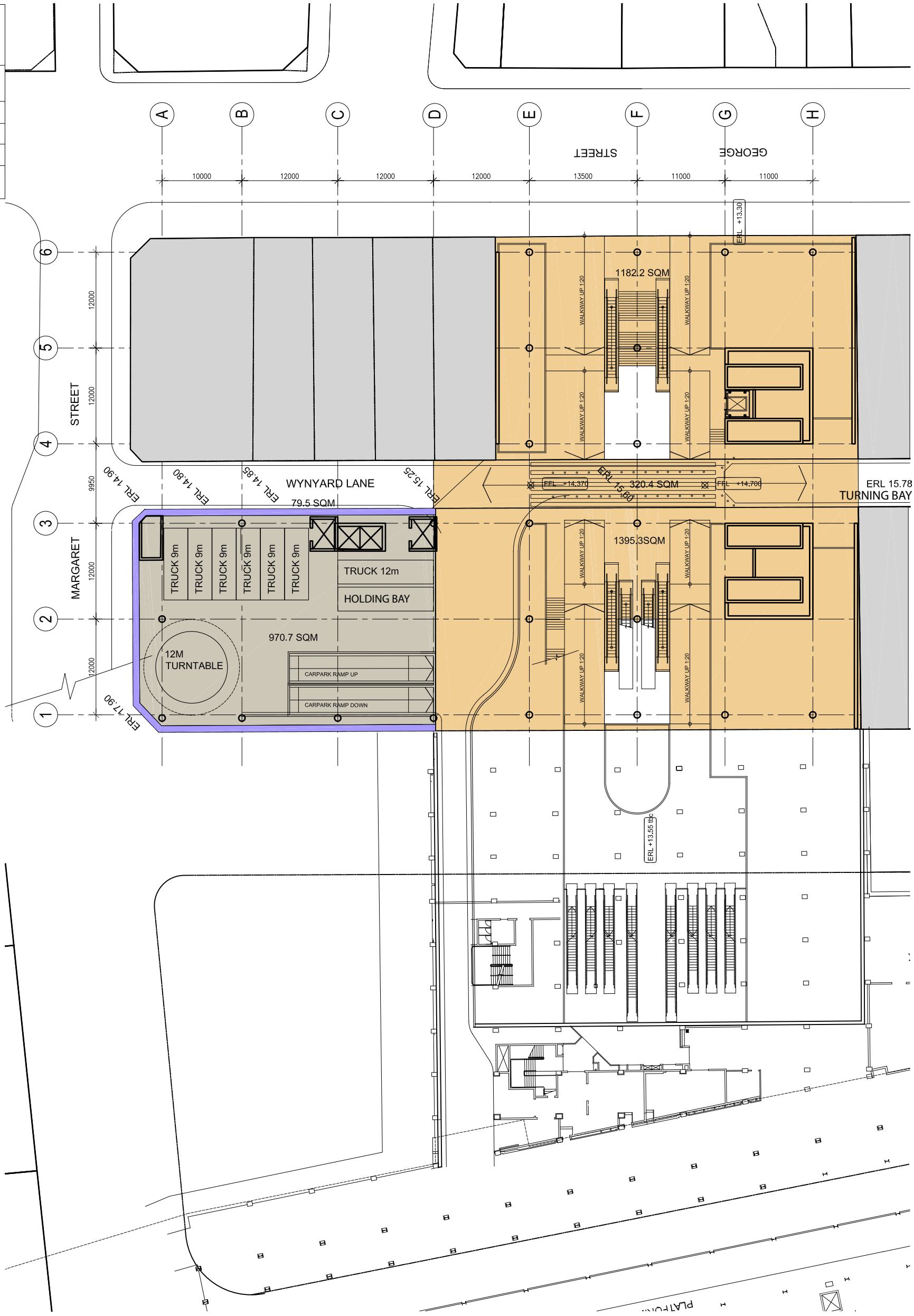

GR1 GEORGE ST

OPT 10 BASE BUILDING SCHEME

Appendix B. Walkway Section Location Plans

CITY ONE WYNYARD
CONCOURSE LEVEL B1 RETAIL / CAR PARK

NAME	TOWER	SHELL HOUSE	TOTAL
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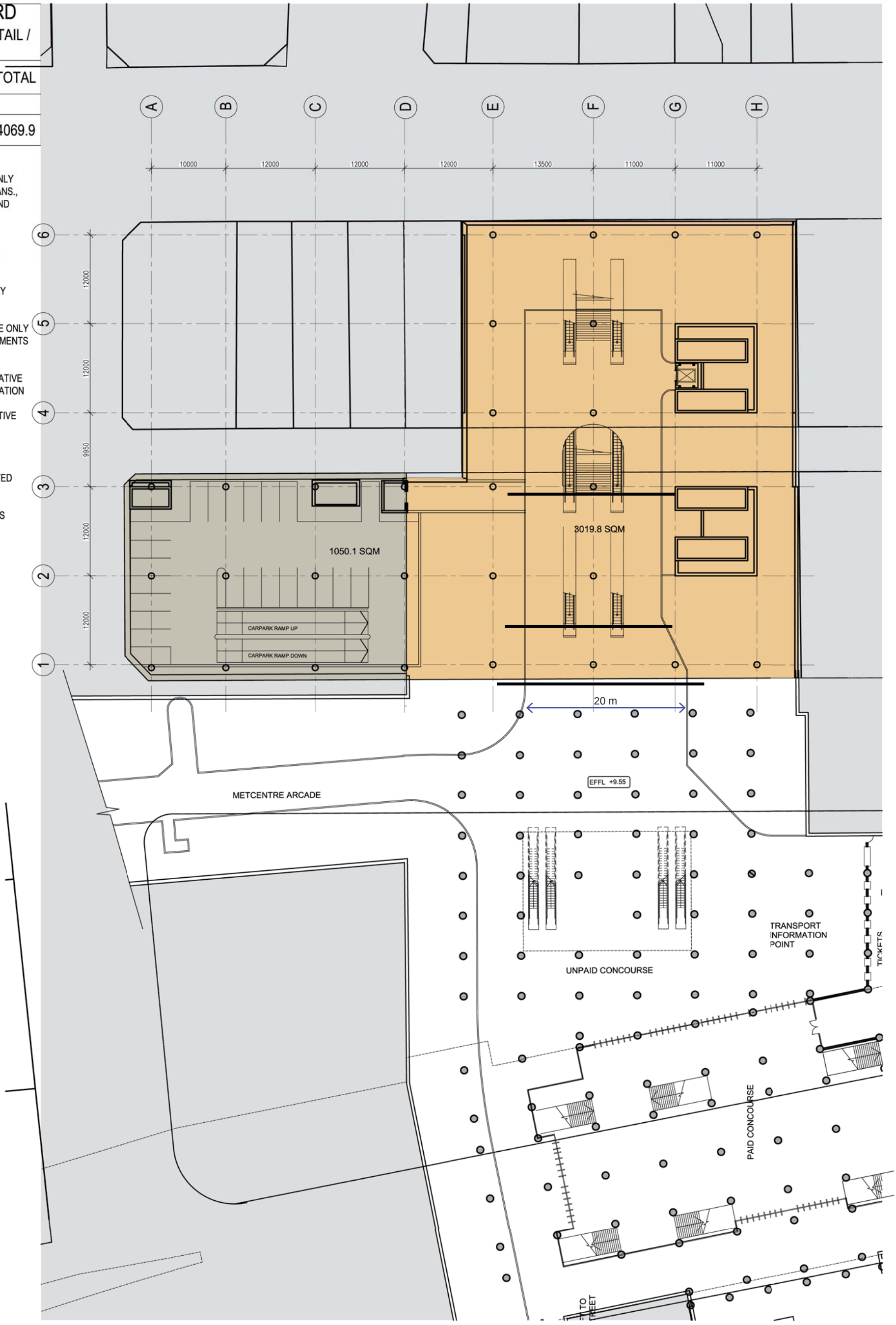

B1 CONCOURSE

OPT 10 BASE BUILDING SCHEME

CITY ONE WYNYARD

GEORGE ST LEVEL GR1 RETAIL / LOADING DOCK

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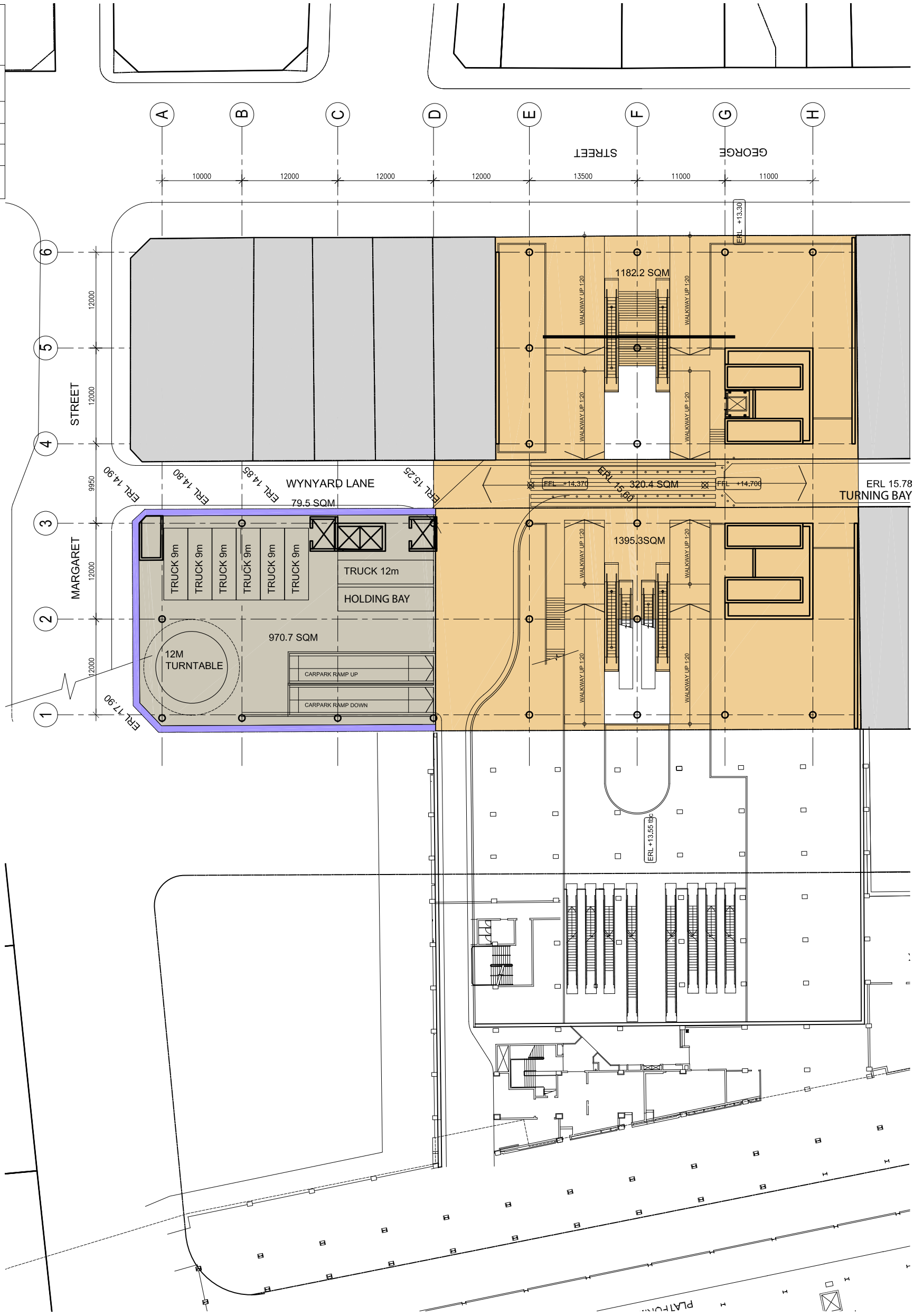

GR1 GEORGE ST

OPT 10 BASE BUILDING SCHEME