



traffic impact assessment;

Winx Stand Development

For Australian Turf Club
30 October 2019

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Contents

1. Introduction	1
1.1 Purpose of this Report	3
2. Background	4
2.1 Site Context	4
2.2 Assessment Requirements	4
2.3 Development Proposal	6
3. Existing Transport Facilities	7
3.1 Road Hierarchy	7
3.2 Public Transport	10
3.2.1 Train	10
3.2.2 Bus	10
3.2.3 Light Rail	14
3.3 Active Travel	15
3.3.1 Walking	15
3.3.2 Cycling	15
4. Traffic Impact Assessment	16
4.1 Existing Network Performance	16
4.1.1 Existing Traffic Volumes	16
4.1.2 Existing Network Operation	20
4.2 Traffic Generation	21
4.3 Cumulative Construction Traffic Impact	21
4.3.1 Traffic Generation	21
4.3.2 Network Operation	23
5. Construction Pedestrian Traffic Management Plan	25
6. Access and Parking Provision	26
7. Conclusion	27
Attachment 1 Architectural Plans	28
Attachment 2 Preliminary Construction Pedestrian Traffic Management Plan	29
Figure 1.1 – Site Location (Source: HERE WeGo Maps)	2
Figure 1.2: Aerial View of the Site	2
Figure 2.1 - Surrounding Land Uses of the Development	4
Figure 2.2 – Ground level Plan	6
Figure 3.1: Road Hierarchy (RMS Road Hierarchy Review)	7
Figure 3.2: Anzac Parade – Southbound towards Darling Street	8
Figure 3.3: Alison Road – Northwest towards Anzac Parade	8
Figure 3.4: Avoca Street – Northbound towards Allen Street	9
Figure 3.5: Doncaster Avenue – Northbound towards Bowral Street	9
Figure 3.6: 800m radius of the subject site	10
Figure 3.7: Surrounding bus stops	11
Figure 3.8: Light Rail Routes under construction (Source: Sydney Light Rail)	14
Figure 3.9: Randwick City Council's Cycling and Walking Map	15
Figure 4.1 – Location of Intersection Surveys.	17
Figure 4.2 – Existing AM Peak Hour (10.30-11.30am) Traffic Volumes	18
Figure 4.3 – Existing PM Peak Hour (4.30-5.30pm) Traffic Volumes	19

Figure 4.4 – Cumulative Traffic in the Weekday morning Peak Hour	22
Figure 4.5 – Cumulative Traffic in the Weekday afternoon Peak Hour	23
Table 3.1: Summary of Bus Services	11
Table 4.1 – Intersection Performance - Levels of Service	20
Table 4.2 – Summary of Existing Intersection Modelling	21
Table 4.3 – Summary of Intersection Modelling during the Construction Phase	23

1. Introduction

ptc. has been engaged by the Australian Turf Club to prepare a Traffic Impact Assessment (TIA) for a State Significant Development (SSD) within the Royal Randwick Racecourse for the construction of a new spectator stand (SSD 10285). This TIA will accompany the Environmental Impact Statement (EIS) as requested by the Planning Secretary's Environmental Assessment Requirements (SEARs). The proposed site for the new spectator stand, known as the Winx Stand, will be located on the current Leger Lawn in Royal Randwick Racecourse. It is noted that the Royal Randwick Racecourse lies within the Randwick Council Local Government Area.

This report sets out the methodology and findings of the study to assess the traffic and the adjacent road network related considerations associated with the following proposal:

- 100m fully enclosed and serviced ground floor;
- 100m level 1 including 60m fully enclosed and serviced and 40m open air terrace; and
- Link Bridge to the QEII.

The project site is comprised of a building and a lawn area and is located south of the existing QEII Grandstand and to the east of the newly delivered Multi Deck Car Park. The location and an aerial view of the subject site is presented in Figure 1.1 and Figure 1.2 respectively.



Figure 1.1 – Site Location (Source: HERE WeGo Maps)



Figure 1.2: Aerial View of the Site

1.1 Purpose of this Report

This report presents the following considerations in relation to the traffic impact assessment of the proposal:

Section 2	A description of the project;
Section 3	A description of the road network serving the development property, and existing traffic volumes through key local intersections;
Section 4	Determination of the traffic activity associated with the development proposal, and the adequacy of the surrounding road network;
Section 5	A description of the Preliminary Construction Pedestrian Traffic Management Plan
Section 6	Assessment of the proposed parking provision and access in the context of the relevant planning control and standards requirements; and
Section 7	Conclusion.

2. Background

2.1 Site Context

The Royal Randwick Racecourse lies within a Public Recreation Zone (RE1) which spans the entire footprint of the Royal Randwick Racecourse as well as to the north. The subject site is bounded by Infrastructure (SP2) to the south with Low Density Residential (R2) and Medium Density Residential (R3) to the east and west. Local Centre (B2) land uses are located to the east and west of the site.

Figure 2.1 presents the surrounding land uses of the Site.

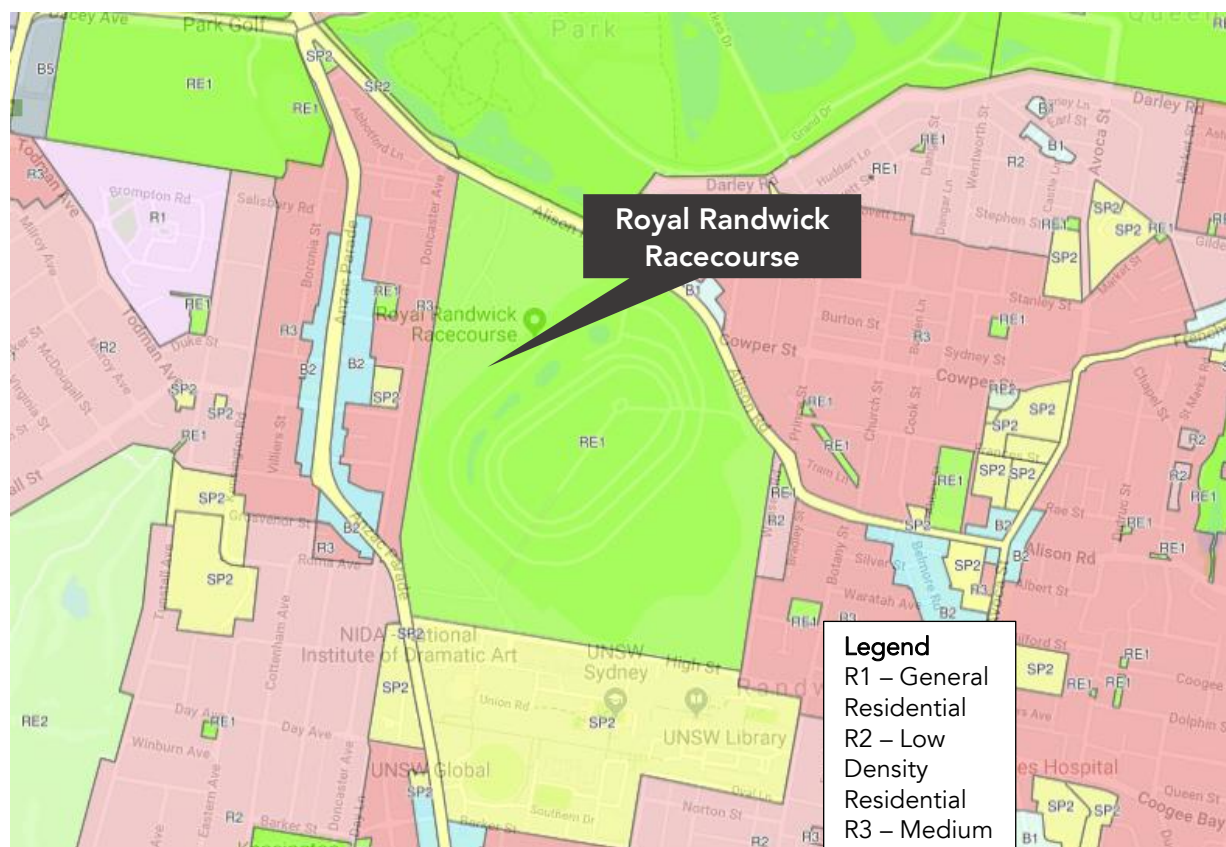


Figure 2.1 - Surrounding Land Uses of the Development

2.2 Assessment Requirements

In preparing this traffic report, the Secretary's Environmental Assessment Requirements (SEARs) issued for the Winx Stand project on 26 April 2019 has been addressed. The key items raised by the SEARs for consideration in the traffic and transport assessment (Item 10) are highlighted below:

10. Transport, traffic, parking and access (Construction and Operation)

The EIS must include a Transport and Traffic Impact Assessment that provides, but is not limited to, the following:

Construction

- *An assessment of the cumulative impacts associated with other construction activities in the vicinity of the site*

- *An assessment of traffic and transport impacts during construction and how these impacts will be mitigated for any associated traffic, pedestrians, cyclists and public transport services*
- *Details of construction vehicle routes, peak hour and daily truck movements, hours of operation, access arrangements at all stages of construction and traffic control measures for all works*
- *Preparation of a draft Construction Pedestrian Traffic Management Plan (CPTMP). This Plan shall include vehicle routes, truck numbers, construction program, works zone location, hours of operation, access arrangements and cumulative impacts of other development. The CPTMP should be prepared in consultation with RMS, TfNSW and Council.*
- *Existing CPTMPs for developments within or around the development site should be referenced in the CPTMP to coordinate work activities to minimise impacts on the transport network and other road users including light rail and buses*
- *An assessment of construction impacts on road safety at key intersections and locations for potential pedestrian, vehicle and bicycle conflicts*
- *Details of access arrangements for workers, emergency services and the provision for safe and efficient access for loading and deliveries*
- *Details of temporary cycling and pedestrian access arrangements during construction.*

Operational

- *Current and estimated daily and peak hour traffic generation (including point to point transport), public transport, walking and cycling movements, together with cumulative impacts of existing, proposed and approved developments within the vicinity of the proposed development and any transport/ traffic upgrade*
- *Details of any new or upgraded infrastructure works required*
- *Modelling and analysis of the following intersections:*
 - *Anzac Parade/Alison Road/Dacey Avenue*
 - *Anzac Parade/High Street*
 - *Alison Road/Avoca Street*
 - *Alison Road/High Street/Belmore Road*
- *Impacts of additional traffic generated by the development on existing and future road, light rail and bus services and pedestrian and cycle networks within the vicinity of the site and identify measures to manage/ mitigate the likely future increased demand for public transport, pedestrian and cycle infrastructure, including any required upgrades*
- *Proposed car and bicycle parking provision and pick-up and drop-off facilities for staff and visitors including consideration of the availability of public transport and the requirements of the relevant parking codes and Australian Standards*
- *Loading and servicing arrangements and potential impacts to the traffic and transport network*
- *Measures to be implemented to encourage users of the development to make sustainable travel choices, including walking, cycling, public transport and car sharing, such as provision of adequate bicycle parking and end of trip facilities.*

The above comments have been addressed in this report.

2.3 Development Proposal

The development proposal involves the development of a one-storey multi-purpose race day facility:

- 100m fully enclosed and serviced ground floor;
- 100m level 1 including 60m fully enclosed and serviced and 40m open air terrace; and
- Link Bridge to the QEII.

The multi-purpose facility acts as an improvement to the amenity of Royal Randwick Racecourse, it does not seek approval for increase of patronage numbers.



Figure 2.2 – Ground level Plan

3. Existing Transport Facilities

3.1 Road Hierarchy

The subject site is located in the suburb of Randwick and is primarily serviced by the State Roads including Anzac Parade, Alison Road, Dacey Avenue, Avoca Street, Frenchmans Road, Carrington Road, and M1, as well as Regional Roads such as Darley Road, Carrington Road, York Road, Cowper Street, Todman Avenue, and Bourke Street. The site is also serviced by local roads managed by Council.

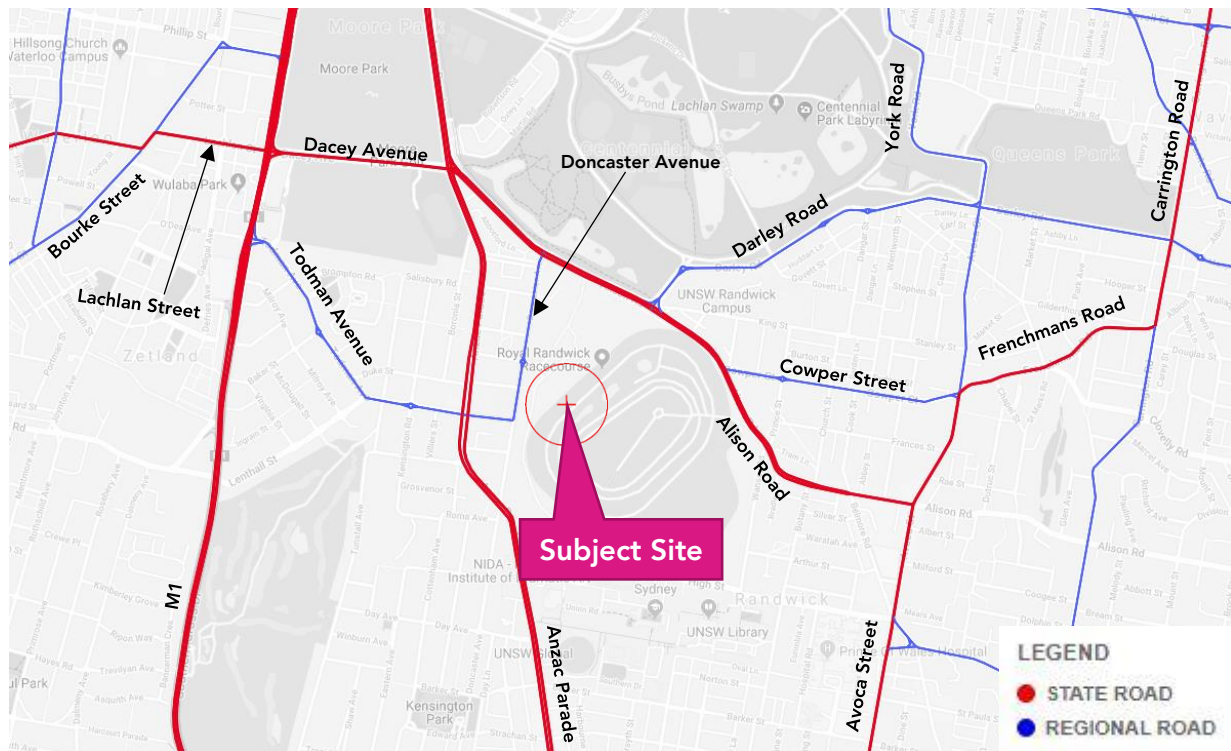


Figure 3.1: Road Hierarchy (RMS Road Hierarchy Review)

The NSW administrative road hierarchy comprises the following road classifications, which align with the generic road hierarchy as follows:

State Roads	- Freeways and Primary Arterials (RMS Managed)
Regional Roads	- Secondary or sub arterials (Council Managed, Part funded by the State)
Local Roads	- Collector and local access roads (Council Managed)

Anzac Parade

Road Classification	State Road
Alignment	North-South
Number of Lanes	2 lanes in each direction
Carriageway Type	Divided
Carriageway Width	20m
Speed Limit	70 km/h
School Zone	No
Parking Controls	No Parking
Forms Site Frontage	No



Figure 3.2: Anzac Parade – Southbound towards Darling Street

Alison Road

Road Classification	State Road
Alignment	Northwest-Southeast
Number of Lanes	3 lanes in each direction
Carriageway Type	Divided
Carriageway Width	20m
Speed Limit	60 km/h east of Doncaster Avenue; 70km/h west of Doncaster Avenue
School Zone	Between Avoca Street and Bradley Street
Parking Controls	Prohibited west of Wansey Road; time restricted parking east of Wansey Road
Forms Site Frontage	No



Figure 3.3: Alison Road – Northwest towards Anzac Parade

Avoca Street

Road Classification	State Road
Alignment	North-South
Number of Lanes	2 lanes in each direction
Carriageway Type	Undivided
Carriageway Width	13m
Speed Limit	60 km/h
School Zone	Between Albert Street and Mears Avenue
Parking Controls	No Parking southbound from 7am to 9am & from 4pm to 6pm (Mon-Fri) & No Parking northbound 7am to 6pm
Forms Site Frontage	No



Figure 3.4: Avoca Street – Northbound towards Allen Street

Doncaster Avenue

Road Classification	Regional Road
Alignment	North-South
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	12m
Speed Limit	50 km/h
School Zone	Between Ascot Street and Darling Street
Parking Controls	Time restricted parking
Forms Site Frontage	No



Figure 3.5: Doncaster Avenue – Northbound towards Bowral Street

3.2 Public Transport

The locality has been assessed in the context of available forms of public transport that may be utilised by prospective employees and customers. When defining accessibility, the NSW Guidelines to Walking & Cycling (2004) suggest that 400m-800m is a comfortable walking distance.



Figure 3.6: 800m radius of the subject site

3.2.1 Train

There are no train services within 800m radius of the development.

3.2.2 Bus

The development site is 470 metres and 510 metres to the bus corridors on Anzac Parade and Alison Road respectively. The locality is well serviced by buses that are operated by Sydney Bus Network. The bus stop locations are presented in Figure 3.7 and a summary of the bus routes are provided in Table 3.1.



Figure 3.7: Surrounding bus stops

Table 3.1: Summary of Bus Services

Route No.	Frequency (approximate)	Coverage	Stop Location
338	Only operate every 30 minutes from 7:30am to 9:30am and every 10 minutes from 4:30pm to 7pm Mon-Fri	Clovelly to Central Railway Square	530m & 540m
339	Every 30 minutes from 6am to 12am on weekdays Every 30 minutes from 6am to 1am on weekends	Clovelly to Circular Quay	530m & 540m
372	Every 15 minutes from 5:30am to 12:30am on weekdays Every 15 minutes from 5:30am to 11:30pm on weekends	Coogee to Central Railway Square	510m & 530m
373	Every 10 minutes on peak and every 30 minutes off peak throughout the day and night	Coogee to Circular Quay	510m & 530m
374	Every 15 minutes on peak and every 30 minutes off peak from 7am to 12am on weekdays	Coogee to Circular Quay	510m & 530m

Route No.	Frequency (approximate)	Coverage	Stop Location
	Every 30 minutes from 7am to 12am on weekends		
376	Every 10 minutes on afternoon peak and every 30 minutes off peak from 7am to 7pm on weekdays Every 30 minutes from 9am to 7pm on weekends	Maroubra Beach to Central Railway Square	510m & 530m
377	Every 15 minutes on afternoon peak and every 30 minutes off peak from 6:30am to 12:30am on weekdays Every 30 minutes from 6am to 12:30am on weekends	Maroubra Beach to Circular Quay	510m & 530m
391	Every 15 minutes on peak and every 30 minutes off peak from 5:30am to 6:30pm on weekdays Every 30 minutes from 9am to 5pm on weekends	La Perouse to Central Railway Square	470m & 580m
392	Every 15 minutes on afternoon peak and every 30 minutes off peak from 8am to 12:30am on weekdays Every 30 minutes from 7am to 12am on weekends	Little Bay to Circular Quay	470m & 580m
393	Every 10 minutes on peak and every 30 minutes off peak from 6am to 11pm on weekdays Every 15 minutes on peak and every 30 minutes off peak from 6:30am to 11pm on weekends	Little Bay to Central Railway Square	470m & 580m
394	Only operate every 30 minutes during the day and every hour during night time from 3:30pm to 8:30am on weekdays and from 7pm to 7am on weekends	La Perouse to Circular Quay	470m & 580m
395	Every 30 minutes from 6am to 7:30pm on weekdays Every 30 minutes from 8am to 6:30pm on weekends	Maroubra Beach to Central Railway Square	470m & 580m
396	Every 30 minutes from 6:30am to 3:30am on weekdays Every 30 minutes from 6am to 3:30am on weekends	Maroubra Beach to Circular Quay	470m & 580m

Route No.	Frequency (approximate)	Coverage	Stop Location
397	Every 30 minutes from 9am to 11:30pm on weekdays Every 30 minutes from 8:30am to 11:30pm on weekends	South Maroubra to Circular Quay	470m & 580m
399	Every 15 minutes on peak and every 30 minutes off peak from 9am to 11:30pm on weekdays Every 30 minutes from 7am to 11:30pm on weekends	La Perouse to Circular Quay	580m
L94	Every 15 minutes from 9am to 7pm on weekdays Every 15 minutes from 8am to 6:30pm on weekends	La Perouse to Circular Quay	580m
M10	Every 10 minutes on peak and every 15 minutes off peak from 7am to 8:30pm on weekdays Every 20 minutes from 7:30am to 8pm on weekends	Maroubra Junction to Leichhardt	470m & 580m
M50	Every 10 minutes on peak and every 15 minutes off peak from 6:30am to 8:30pm on weekdays Every 20 minutes from 7:30am to 7:30pm on weekends	Coogee to Drummoyne	510m & 530m
X92	Only operate every 15 minutes from 6:30am to 8am to the city and from 5pm to 6:30pm from the city on weekdays	Little Bay to City Museum	580m
X94	Only operate every 20 minutes from 7am to 8:30am to the city and from 4pm to 7pm from the city on weekdays	La Perouse to Circular Quay	580m
X96	Only operate every 15 minutes from 7am to 8:30am to the city and from 5pm to 6:30pm from the city on weekdays	Maroubra Beach to City Martin Place	580m
X97	Only operate two services from 7:30am to 8am to the city and from 5:20pm to 5:40pm from the city on weekends	South Maroubra to City Museum	580m
X99	Only operate every 30 minutes from 7am to 8:30am to the city on weekdays	Little Bay to City Museum	580m

The existing bus services are frequent and provide good connection to the City and major neighbouring town centres.

3.2.3 Light Rail

The Sydney CBD and South East light rail is currently under construction and is expected to reach completion in 2019. As a result, the roads along the route are undergoing significant upgrades. The light rail comprises of 19 stops along the 12km route, which originates in Circular Quay, passing through Wynyard, Town Hall, Central, Moore Park and then splitting up into two lines at the intersection of Anzac Parade with Alison Road and terminating in Randwick and Kingsford respectively. The light rail services will operate every four minutes during the peak hours and will be able to transport the mass reliably.

In summary, there are six light rail stops surrounding Royal Randwick Racecourse, which will provide easy access to and from the city.

The routes and stops of the prospective light rail are presented in Figure 3.8.

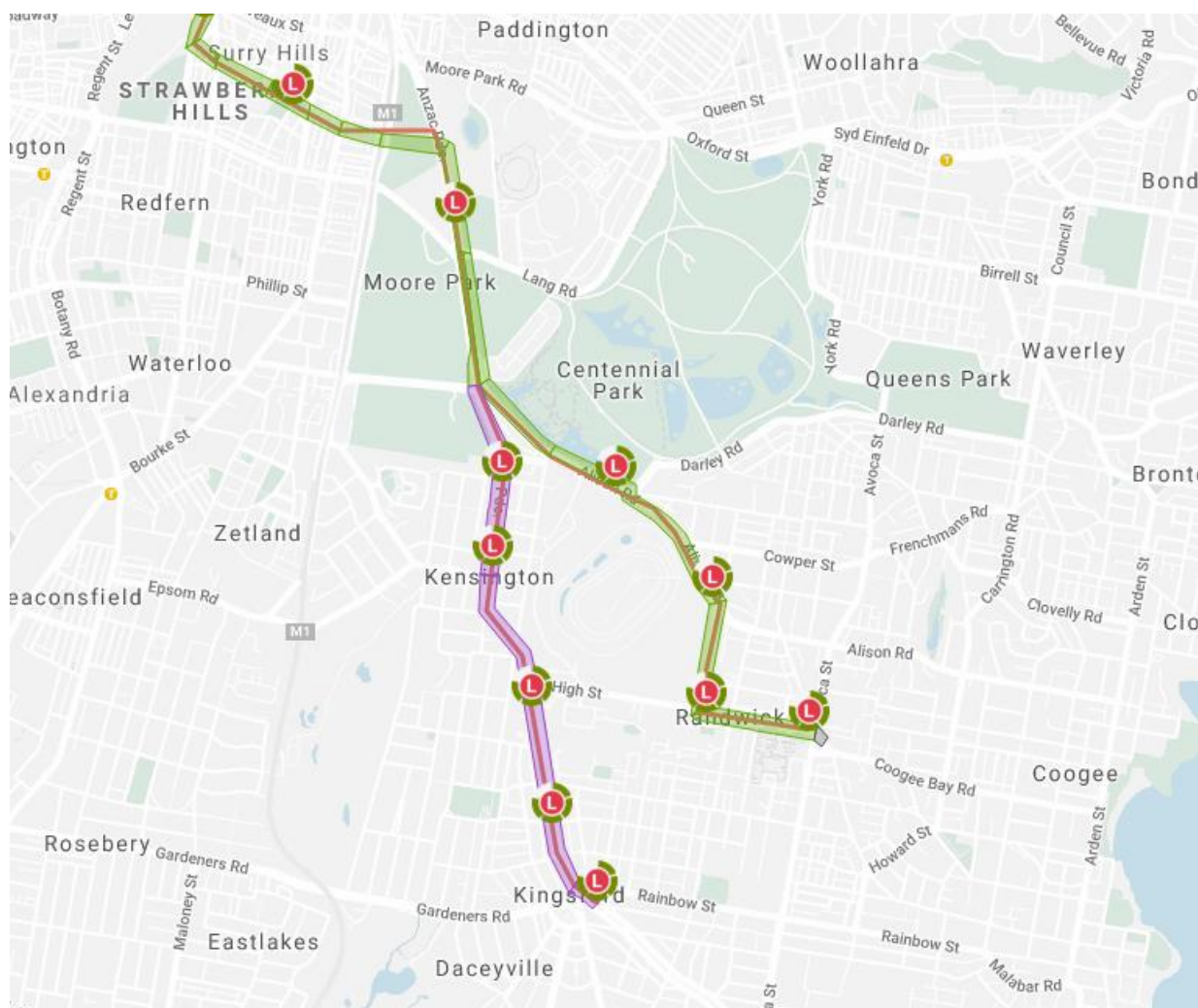


Figure 3.8: Light Rail Routes under construction (Source: Sydney Light Rail)

3.3 Active Travel

In addition to public transport, the locality has been assessed for its active transport potential.

3.3.1 Walking

In terms of public infrastructure, the local road network offers a high level of amenity and safety for pedestrians, providing footpaths on either side of most roadways, signalised crossings, supporting signage and appropriate lighting throughout the locality.

3.3.2 Cycling

According to Randwick City Council's cycling and walking map, the subject site is located within a well-connected bicycle network. This will encourage and promote cycling as an alternative mode of transport for its occupants which is a healthy, low cost and environmentally-friendly method of travel.

The Randwick City Council's Cycling and Walking map is shown in Figure 3.9.

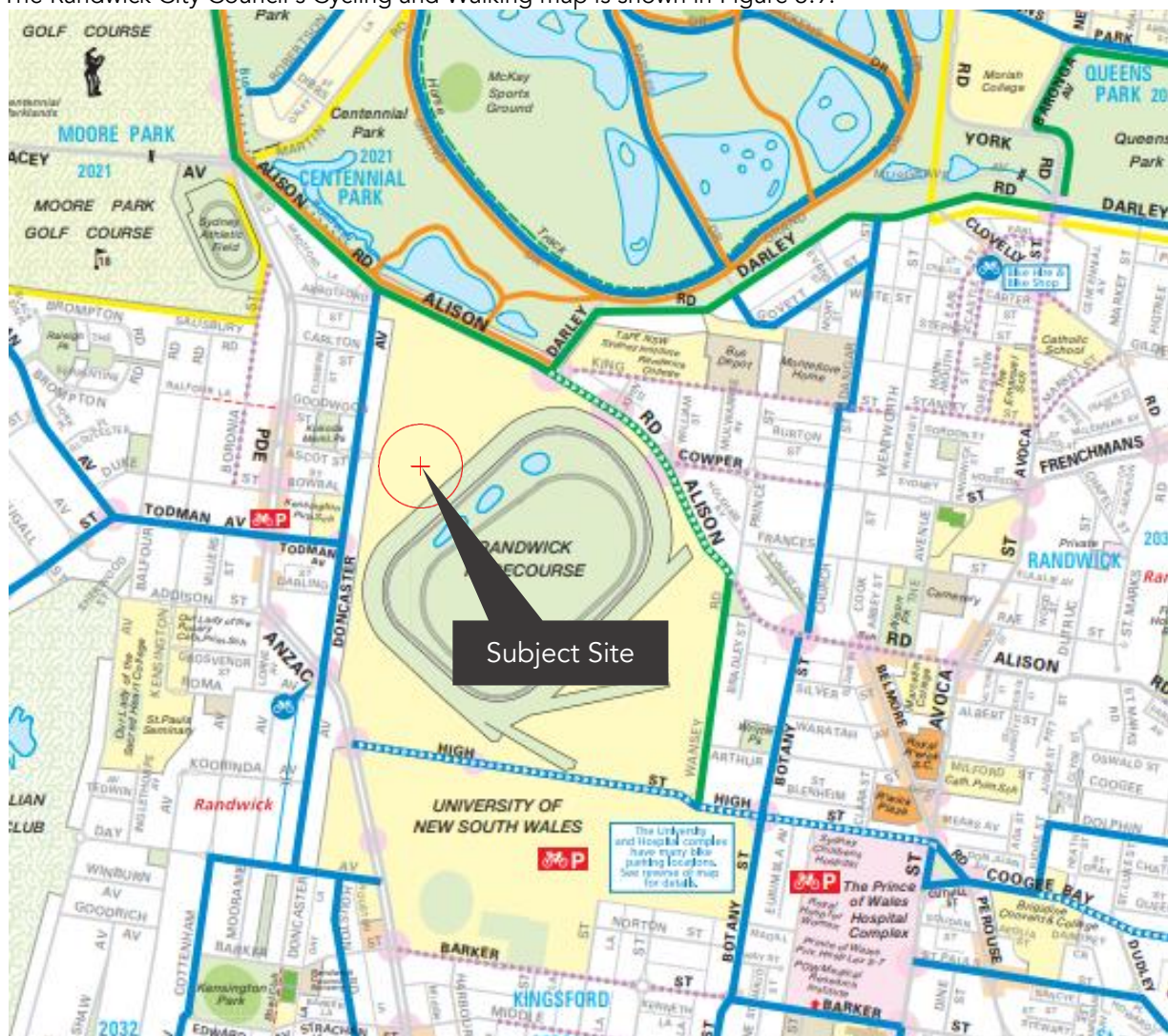


Figure 3.9: Randwick City Council's Cycling and Walking Map

4. Traffic Impact Assessment

4.1 Existing Network Performance

4.1.1 Existing Traffic Volumes

To determine the current traffic volumes within the vicinity of the development site, intersection surveys were conducted on Saturday, 8th June 2019, between 9:30am – 11:30am and 3:30pm – 5:30pm, which was a racing day and replicated the worse-case scenario, at the following intersections:

- Anzac Parade / Alison Road / Dacey Avenue
- Alison Road / Avoca Street
- Anzac Parade / High Street
- Avoca Street / High Street / Belmore Road
- Alison Road / Gate 1
- Alison Road / Doncaster Avenue
- Doncaster Avenue / Ascot Street
- Anzac Parade / Doncaster Avenue

The intersection survey locations are shown in Figure 4.1.

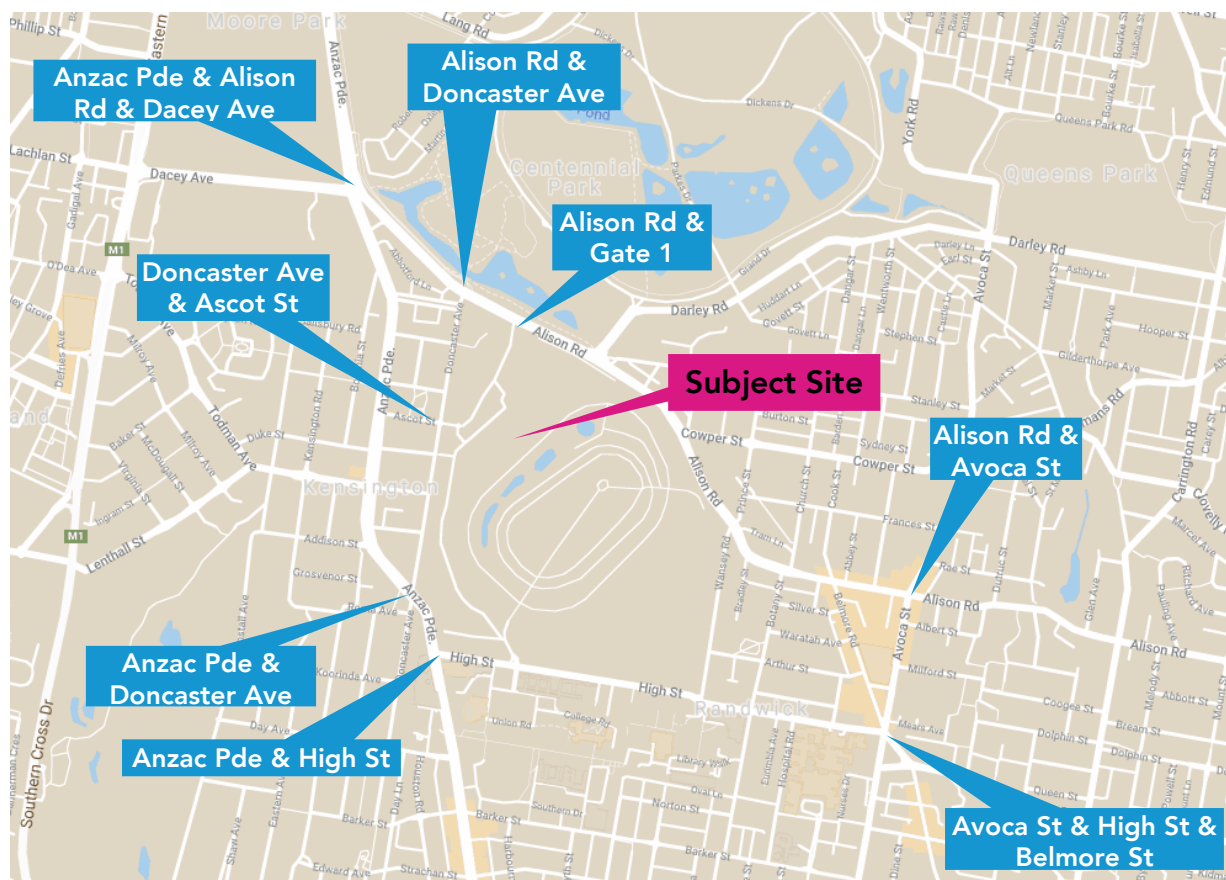


Figure 4.1 – Location of Intersection Surveys.

It was determined from the survey that the peak hours were in 10:30am – 11:30am and 4:30pm – 5:30pm respectively during a Saturday racing day. These peaks were in line with the gate time of the first race and last race in the Racecourse. The peak hour traffic volumes are presented in Figure 4.2 and Figure 4.3.

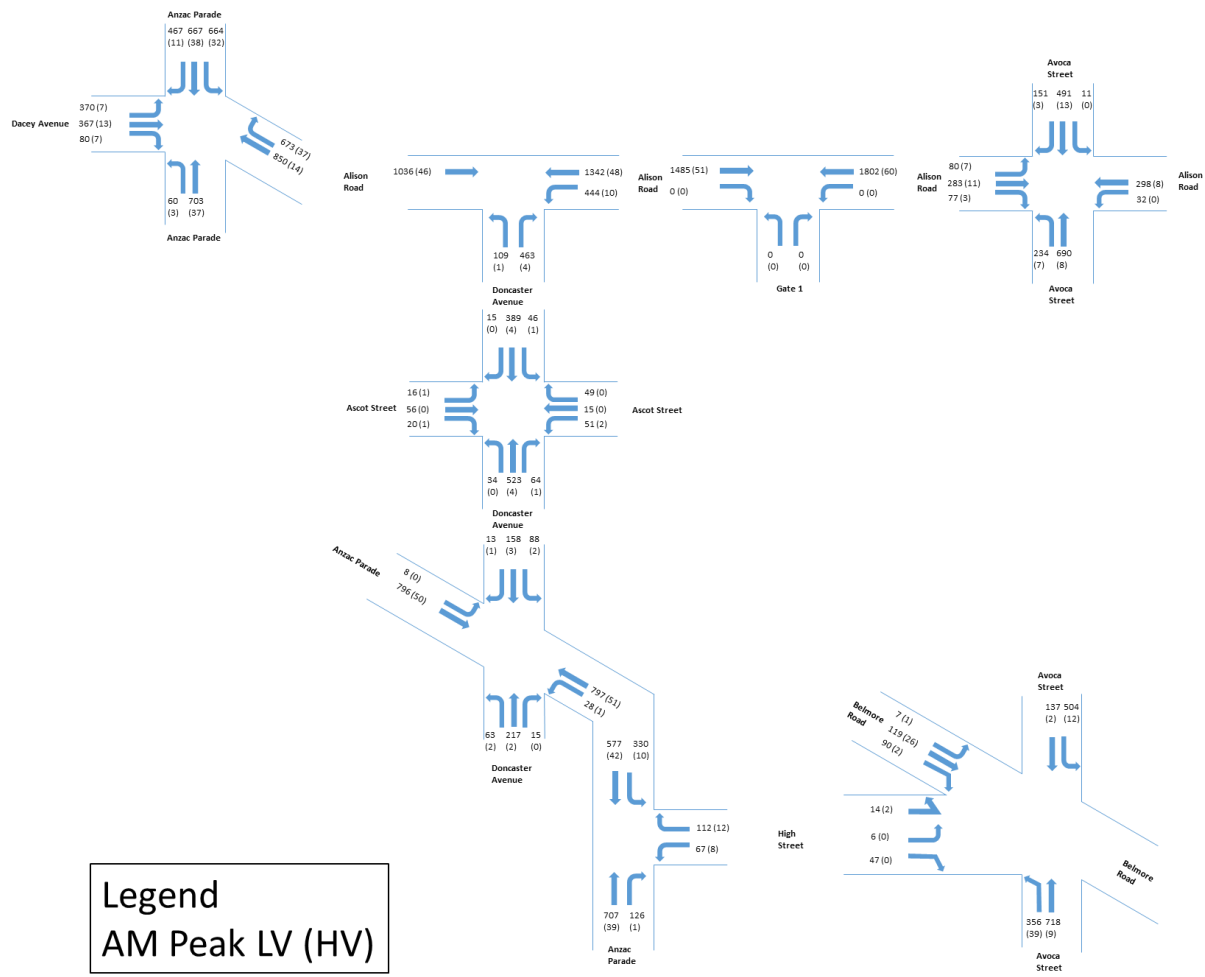


Figure 4.2 – Existing AM Peak Hour (10.30-11.30am) Traffic Volumes

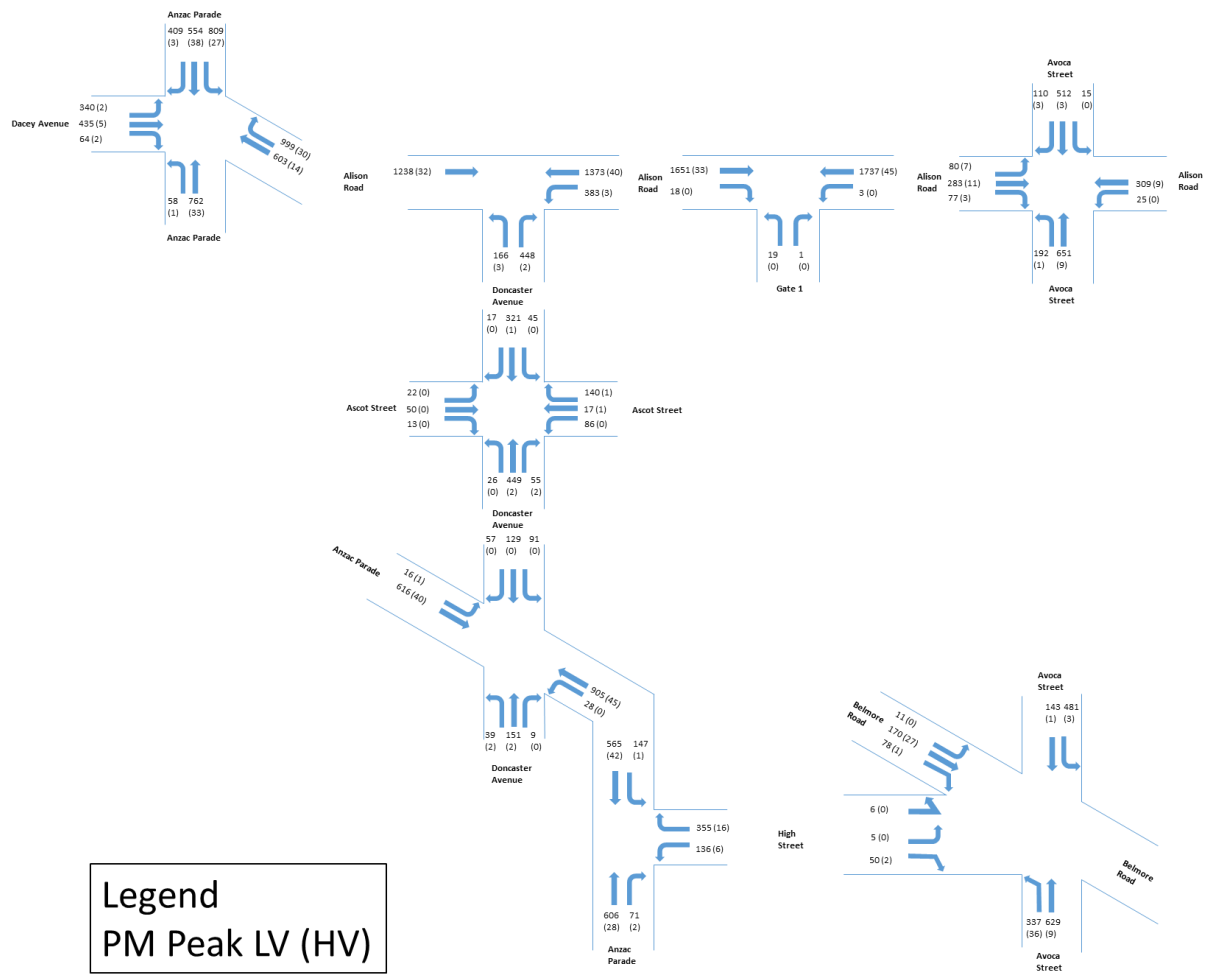


Figure 4.3 – Existing PM Peak Hour (4.30-5.30pm) Traffic Volumes

4.1.2 Existing Network Operation

The performance of the surveyed intersection was assessed by using SIDRA Intersection 8.0 software, a micro-analytical tool for individual intersections and whole-network modelling. The models are based on the collected traffic survey data. SIDRA provides a number of performance indicators, outlined below:

- Degree of Saturation – The total usage of the intersection expressed as a factor of 1 with 1 representing 100% use/saturation. (e.g. 0.8=80% saturation)
- Average Delay- The average delay encountered by all vehicles passing through the intersection. It is often important to review the average delay of each approach as a side road could have a long delay time, while the large free flowing major traffic will provide an overall low average delay.
- Level of Service (LoS) - This is a categorization of average delay, intended for simple reference. The RMS adopts the following bands:
- 95% Queue Lengths (Q95) – is defined to be the queue length in metres that has only a 5-percent probability of being exceeded during the analysis time period. It transforms the average delay into measurable distance units.

Level of Service is a good indicator of overall performance for individual intersections, with each level summarised in Table 4.1.

Table 4.1 – Intersection Performance - Levels of Service

Level of Service	Average Delay (secs/vehicle)	Traffic Signals, Roundabout	Give Way & Stop Signs
A	<14	Good operation	
B	15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity & accident study required
E	57 to 70	At capacity. At signals, incidents would cause excessive delays. Roundabouts require other control mode	At capacity, requires other control mode
F	>70	Extra capacity required	Extreme delay, major treatment required

The SIDRA results for each intersection are shown in Table 4.2.

Table 4.2 – Summary of Existing Intersection Modelling

Intersection	Period	Level of Service	Average Delay (sec)	Degree of Saturation	95% Queue Length (m)
Anzac Parade / Alison Road / Dacey Avenue	AM Peak	LOS D	52.9	0.912	233.4
	PM Peak	LOS D	45.2	0.895	195.2
Alison Road / Avoca Street	AM Peak	LOS C	29.9	0.851	150
	PM Peak	LOS C	38	0.718	170.7
Anzac Parade / High Street	AM Peak	LOS A	11.5	0.698	48.6
	PM Peak	LOS C	29	0.444	138.5
Avoca Street / High Street / Belmore Road	AM Peak	LOS B	23.6	0.67	155.7
	PM Peak	LOS B	17.7	0.5	104.6
Alison Road / Gate 1	AM Peak	LOS A	8.7	0.834	171.3
	PM Peak	LOS A	9.9	0.76	165.9
Alison Road / Doncaster Avenue	AM Peak	LOS B	24.7	0.643	168.1
	PM Peak	LOS B	27.2	0.654	169.9
Doncaster Avenue / Ascot Street	AM Peak	LOS A	5.2	0.5	29
	PM Peak	LOS A	5.8	0.504	27.5
Anzac Parade / Doncaster Avenue	AM Peak	LOS A	10.5	0.55	48.3
	PM Peak	LOS B	21	0.478	145

The intersection of Anzac Parade with Alison Road and Dacey Avenue has an overall Level of Service (LOS) D for both peak hours, all four approaches are regional roads with around 50 seconds delays on average. The Alison Road/Avoca Street and Anzac Parade/High Street intersections have an overall LOS C with spare capacity to accommodate additional traffic. All other intersections have a LOS A or B which indicates they can easily accommodate additional traffic.

4.2 Traffic Generation

The development will enhance patron experience by providing additional viewpoints, amenity spaces and food and beverage facilities. The proposal does not seek to increase the number of patronage and thus will not generate additional traffic. The development will not have an impact on the nearby road network after its completion.

4.3 Cumulative Construction Traffic Impact

4.3.1 Traffic Generation

There are no post development traffic generation for this development, the only traffic impact it will have on the nearby road network is the construction vehicles during the construction phases.

It is noted that there is a State Significant Development (SSD) proposed in the vicinity of Royal Randwick Racecourse at 4-18 Doncaster Avenue in Kensington with driveway access via Doncaster Avenue. According

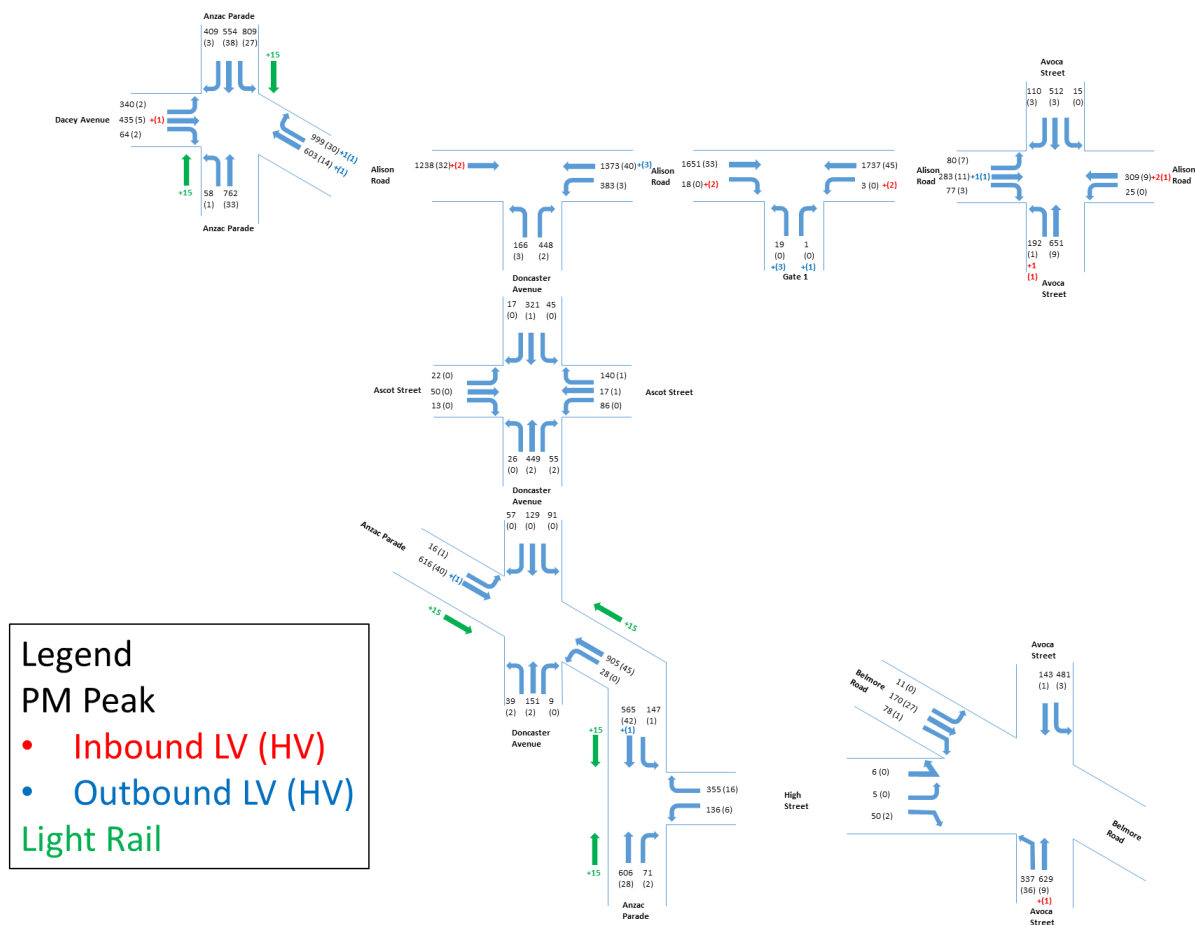


Figure 4.5 – Cumulative Traffic in the Weekday afternoon Peak Hour

4.3.2 Network Operation

The eight (8) intersections studied in Section 4.1.2 are re-modelled based on the new traffic volume data, the SIDRA results are summarised in Table 4.3.

Table 4.3 – Summary of Intersection Modelling during the Construction Phase

Intersection	Period	Level of Service	Average Delay (sec)	Degree of Saturation	95% Queue Length (m)
Anzac Parade / Alison Road / Dacey Avenue	AM Peak	D	46.8	0.876	172.6
	PM Peak	D	45.7	0.796	173.9
Alison Road / Avoca Street	AM Peak	C	30.5	0.875	157.1
	PM Peak	C	29.9	0.865	153
Anzac Parade / High Street	AM Peak	B	17.8	0.709	107.7
	PM Peak	B	16.9	0.685	71.2
Avoca Street / High Street / Belmore Road	AM Peak	B	19.6	0.619	156.5
	PM Peak	B	20.2	0.571	139.7
Alison Road / Gate 1	AM Peak	A	9.3	0.839	176.3
	PM Peak	A	5.5	0.786	128.4

Intersection	Period	Level of Service	Average Delay (sec)	Degree of Saturation	95% Queue Length (m)
Alison Road / Doncaster Avenue	AM Peak	B	24.8	0.646	168.1
	PM Peak	B	25.1	0.643	168.1
Doncaster Avenue / Ascot Street	AM Peak	A	5.3	0.502	29.4
	PM Peak	A	5.8	0.510	27.9
Anzac Parade / Doncaster Avenue	AM Peak	A	13.8	0.497	76.4
	PM Peak	A	12.1	0.508	73.9

The SIDRA results show there is an improvement to the performance of some intersections despite the additional traffic, this is due to the upgrades at a number of intersections (due to the light rail project) that provides additional lanes and/or lane capacity. In particular, the AM peak hour performance of Anzac Parade and High Street intersection and the Anzac Parade and Doncaster Avenue intersection are improved with less delays.

In summary, during both morning and afternoon peak hours in a Saturday racing day, the Anzac Parade / Alison Road / Dacey Avenue intersection and the Alison Road / Avoca Street intersection have an overall Level of Service D and C respectively, which do not deteriorate from the existing scenario. In addition, the remaining six intersections will perform well with a Level of Service B or better.

Based on the SIDRA results, the future road network (with the completion of light rail project) is able to accommodate the additional traffic generation from the construction activities of the Winx Stand development without additional mitigation measures.

5. Construction Pedestrian Traffic Management Plan

A detailed Construction Pedestrian Traffic Management Plan (CPTMP) will be prepared and submitted to Council separate to this State Significant Development Application, in response to any future DA Conditions Consent. A Preliminary CPTMP has been prepared and addresses the overall management principles for the site during all stages of construction. The Preliminary CPTMP is presented in Attachment 2.

6. Access and Parking Provision

The proposal does not seek an increase of patronage attending the events at Royal Randwick Racecourse (RRR). The development will merely cause relocation of the events from an open area to an enclosed building and to upgrade the amenity for patrons. Thus, the parking demand will not increase within the RRR and will be retained at the existing parking facilities.

It is noted that the proposed multi-purpose hall is located across the proposed 'Eat Street' to an existing multi deck car park. The car park can also be accessed via a link bridge on the first level, which will be constructed connecting the proposed multi-purpose hall and the QEII circulation drum which will subsequently connect to the car park.

7. Conclusion

ptc. has been engaged by Australian Turf Club to provide a traffic and parking assessment to accompany a State Significant Development within Royal Randwick Racecourse in the Randwick Local Government Area.

The proposal does not seek an increase of the number of patronage in any events nor will it serve as an attraction.

There is no additional parking demand and hence no parking requirements.

In the context of traffic generation, there is no additional traffic to be generated for the Winx Stand development. However, a cumulative impact assessment has been undertaken for the construction period with the assumption that the nearby state significant development (student accommodation) and the light rail project will have been completed. The cumulative impact assessment has identified that the road network is able to accommodate the additional traffic demand without any infrastructure upgrade being required.

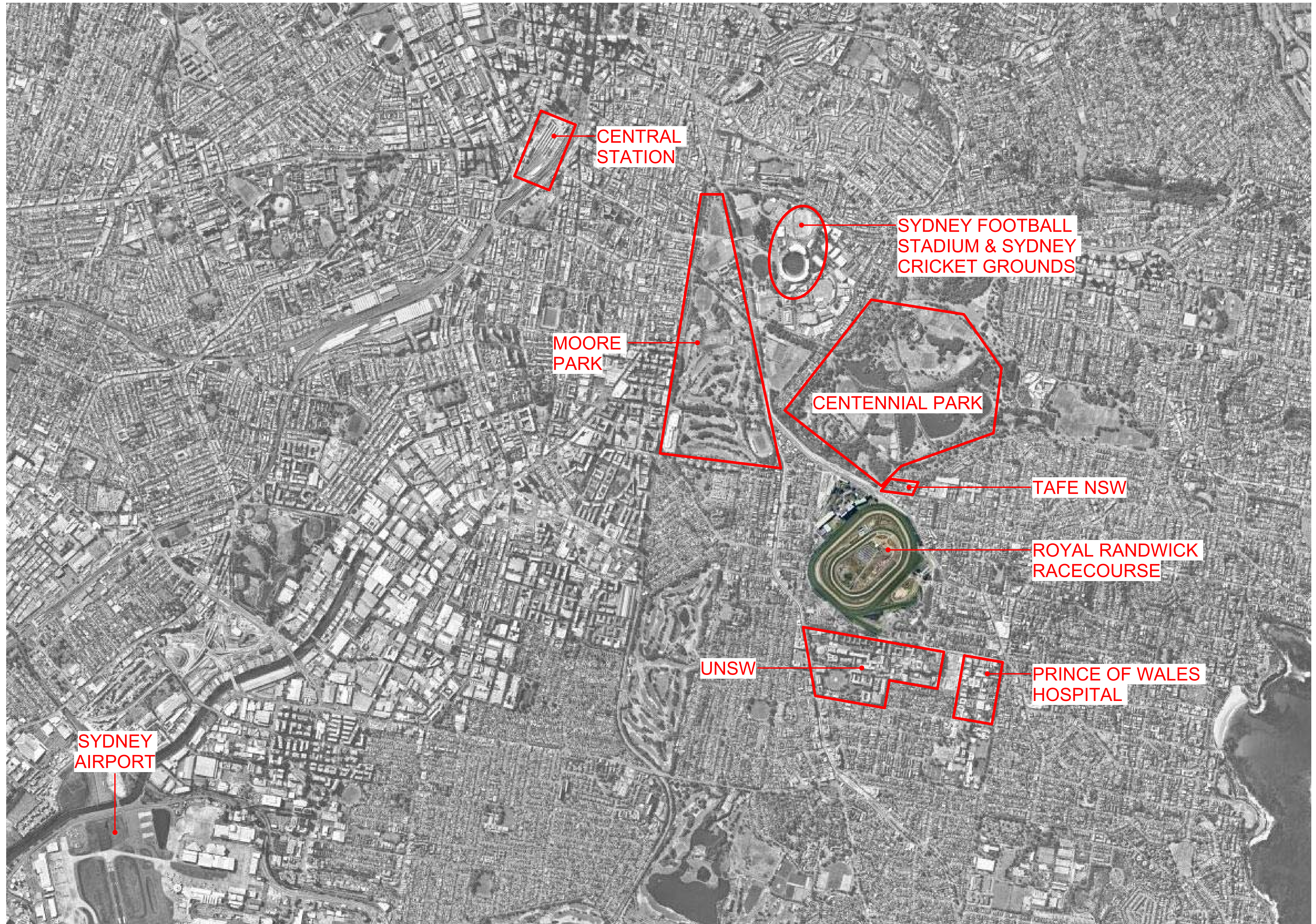
Based on the above, the proposed development is endorsed from a traffic and parking standpoint.

Attachment 1 Architectural Plans



DRAWING LIST - SSDA		
SHEET No.	SHEET NAME	Current Revision
SSDA-001	COVER PAGE	A
SSDA-100	LOCATION PLAN	A
SSDA-101	BOUNDARIES & SCOPE OF WORKS	A
SSDA-102	SITE PLAN	A
SSDA-103	SITE ANALYSIS	A
SSDA-140	DEMOLITION PLAN	A
SSDA-201	GROUND FLOOR PLAN	A
SSDA-202	MEZZANINE FLOOR PLAN	A
SSDA-203	LEVEL 1 FLOOR PLAN	A
SSDA-204	PLANT LEVEL FLOOR PLAN	A
SSDA-205	ROOF PLAN	A
SSDA-301	ELEVATIONS	A
SSDA-302	ELEVATIONS	A
SSDA-401	SECTIONS	A
SSDA-701	SOLAR STUDIES - 21 MARCH 9AM	A
SSDA-702	SOLAR STUDIES - 21 MARCH 12PM	A
SSDA-703	SOLAR STUDIES - 21 MARCH 3PM	A
SSDA-711	SOLAR STUDIES - 21 JUNE 9AM	A
SSDA-712	SOLAR STUDIES - 21 JUNE 12PM	A
SSDA-713	SOLAR STUDIES - 21 JUNE 3PM	A
SSDA-721	SOLAR STUDIES - 22 DEC 9AM	A
SSDA-722	SOLAR STUDIES - 22 DEC 12PM	A
SSDA-723	SOLAR STUDIES - 22 DEC 3PM	A
SSDA-801	SCHEDULE OF FINISHES	A
SSDA-811	GFA	A
SSDA-850	SIGNAGE	A
SSDA-900	PHOTOMONTAGE	A
SSDA-901	PHOTOMONTAGE	A
SSDA-902	PHOTOMONTAGE	A
SSDA-903	PHOTOMONTAGE	A





Project:

ATC RNSW Public Infrastructure

Drawing Title:

LOCATION PLAN

Drawing Number:

SSDA-100

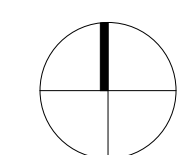
Revision:

A

Date:

31/10/19

Scale:



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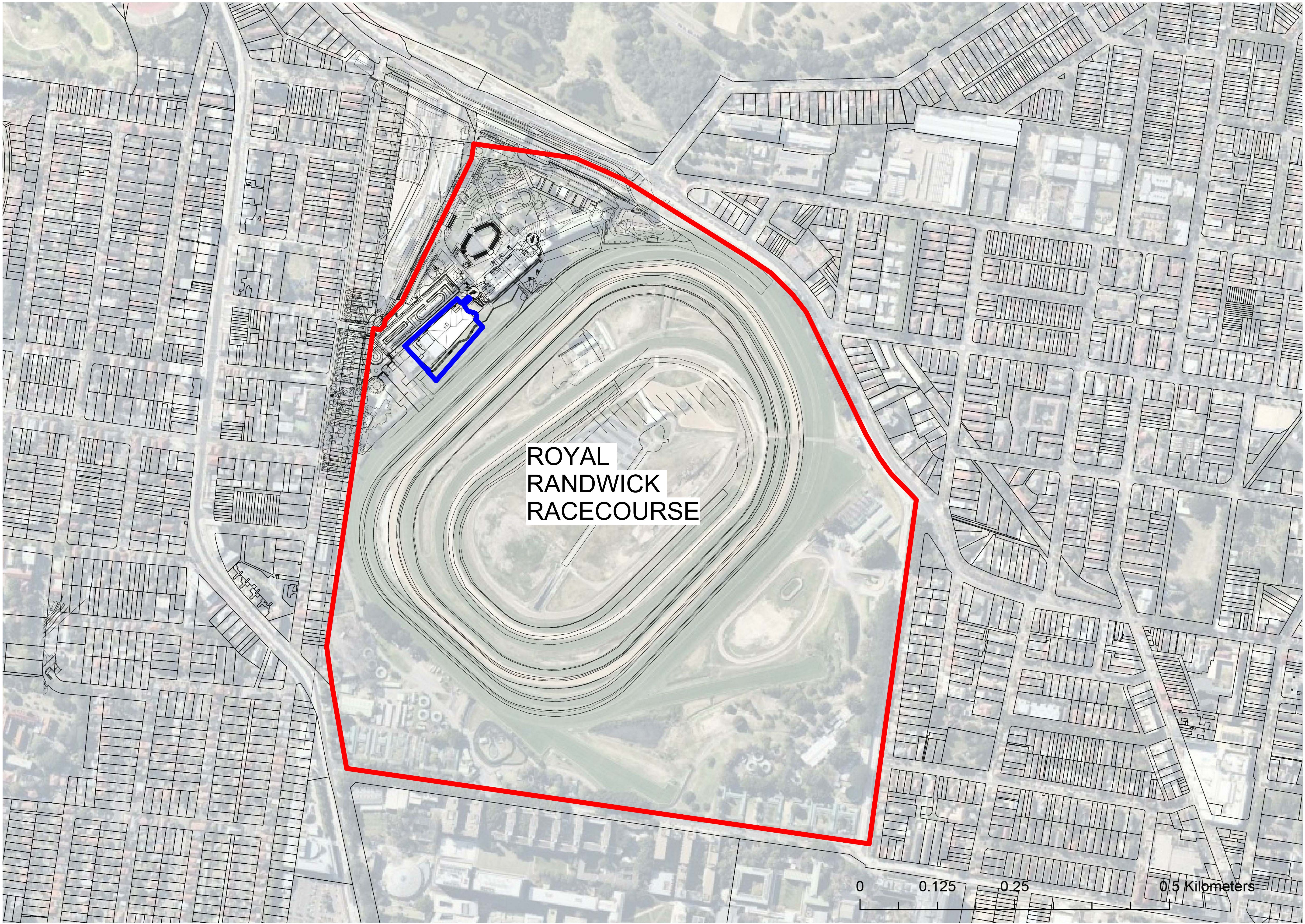
Nominated Architects
Joint Apia no. 6491
Russell Lee no. 6367

COX

LEGEND

SITE BOUNDARY

SCOPE OF WORKS



Project:

ATC RNSW Public Infrastructure

Drawing Title:

BOUNDARIES & SCOPE OF WORKS

Drawing Number:

SSDA-101

Revision:

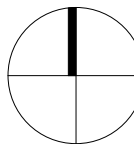
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Date:

31/10/19

Scale:

@ A1



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Russell Lee no. 6367

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Project:

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Drawing Title:

SITE PLAN

Drawing Number:

SSDA-102

Revision:

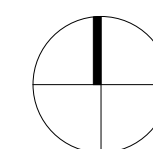
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Date:

31/10/19

Scale:

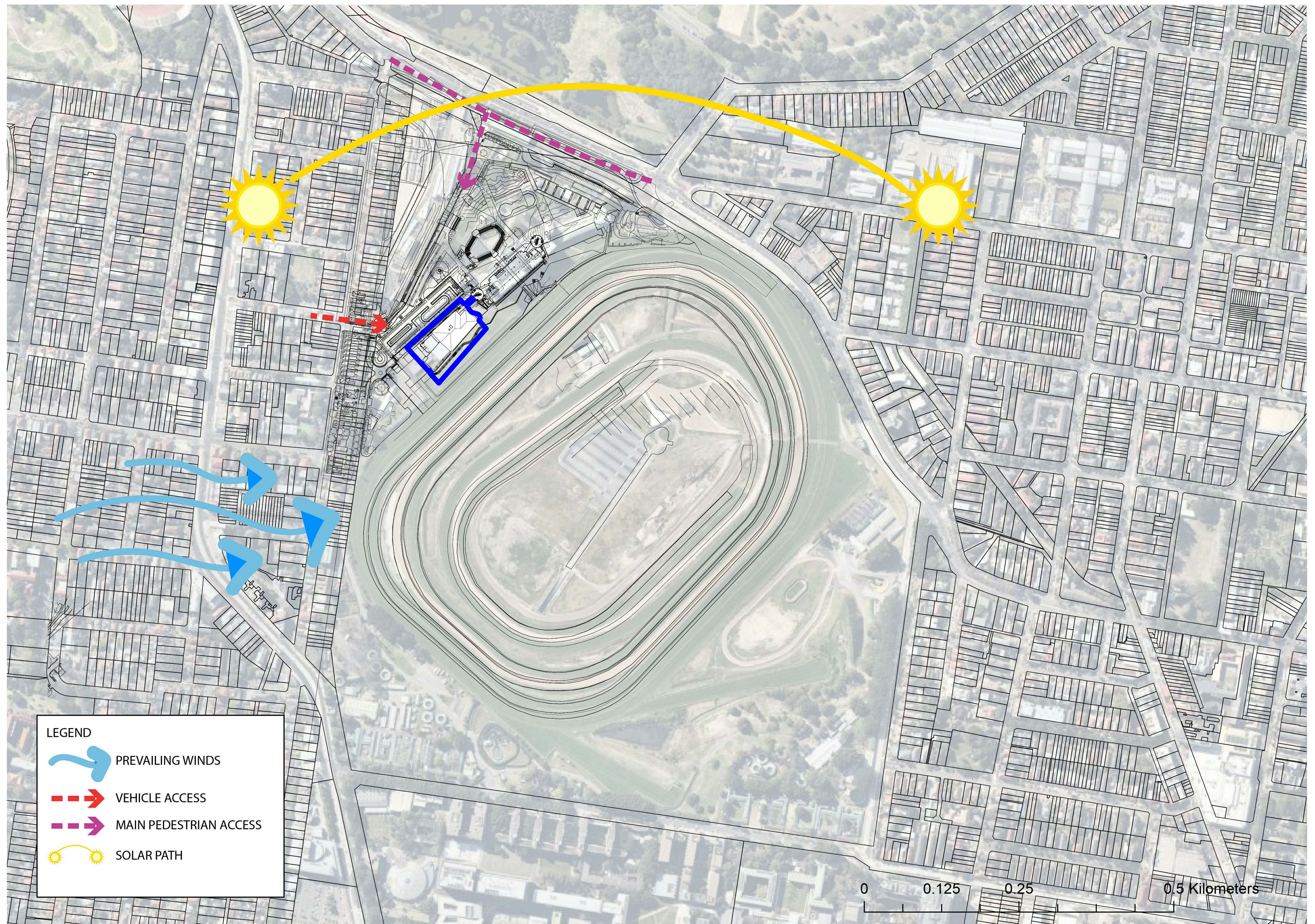
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Russell Lee no. 6367

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Project:

ATC RNSW Public Infrastructure

Drawing Title:

SITE ANALYSIS

Drawing Number:

SSDA-103

Revision:

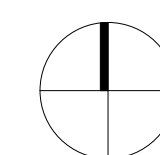
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Date:

31/10/19

Scale:

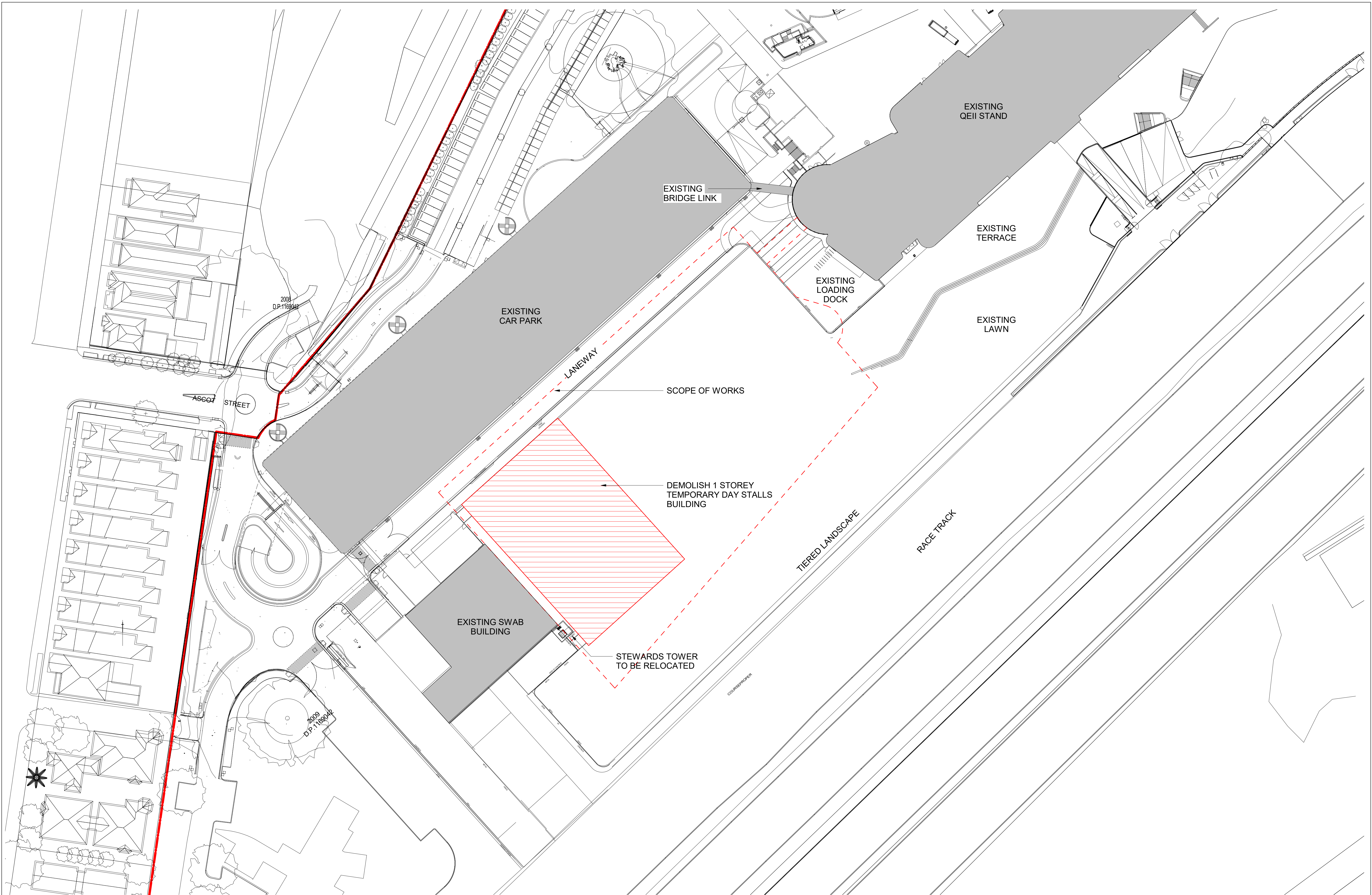
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Russell Lee no. 6367

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Project:

ATC RNSW Public Infrastructure

Drawing Title:

DEMOLITION PLAN

Drawing Number:

SSDA-140

Revision:

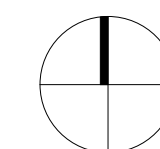
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Date:

31/10/19

Scale:

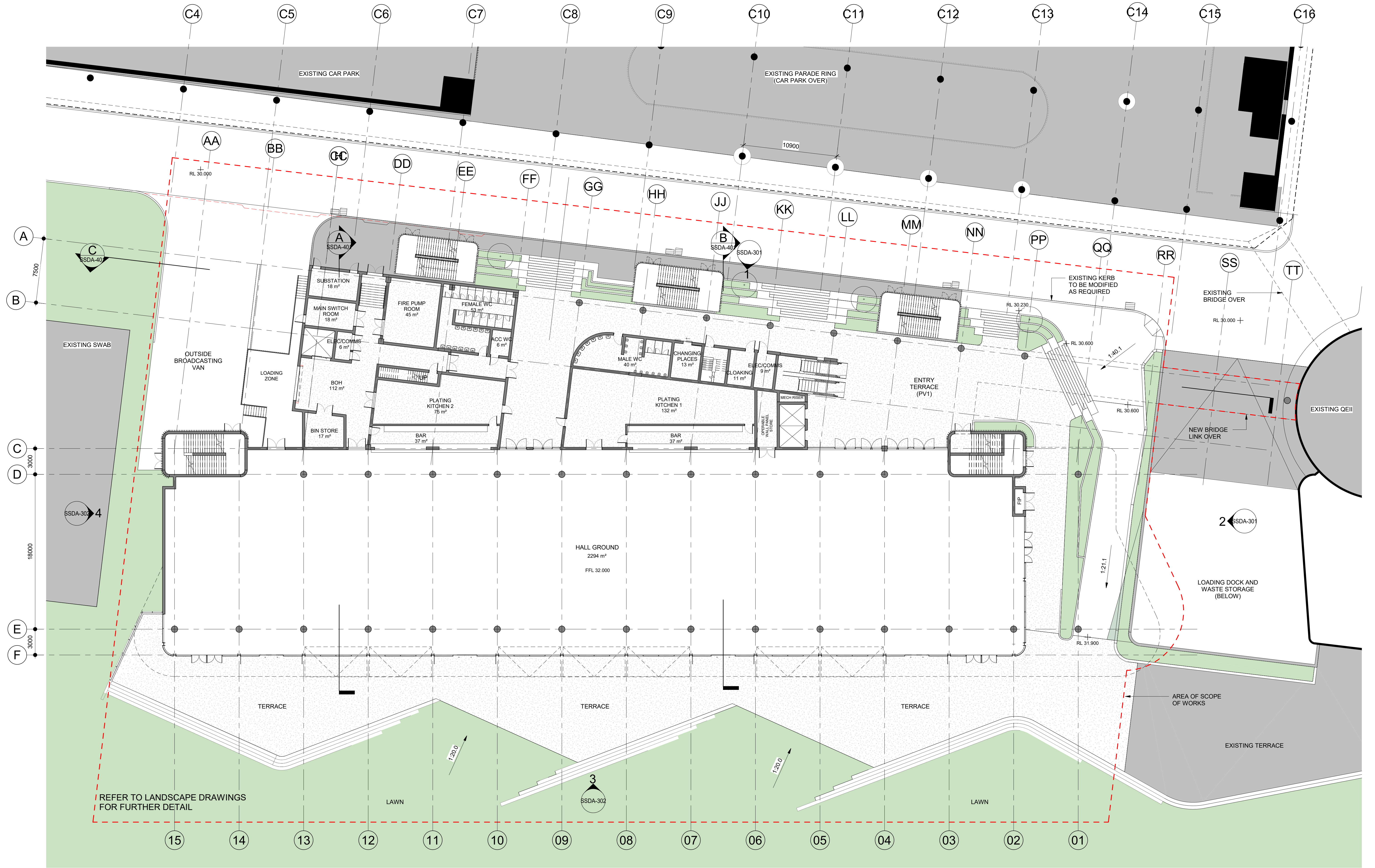
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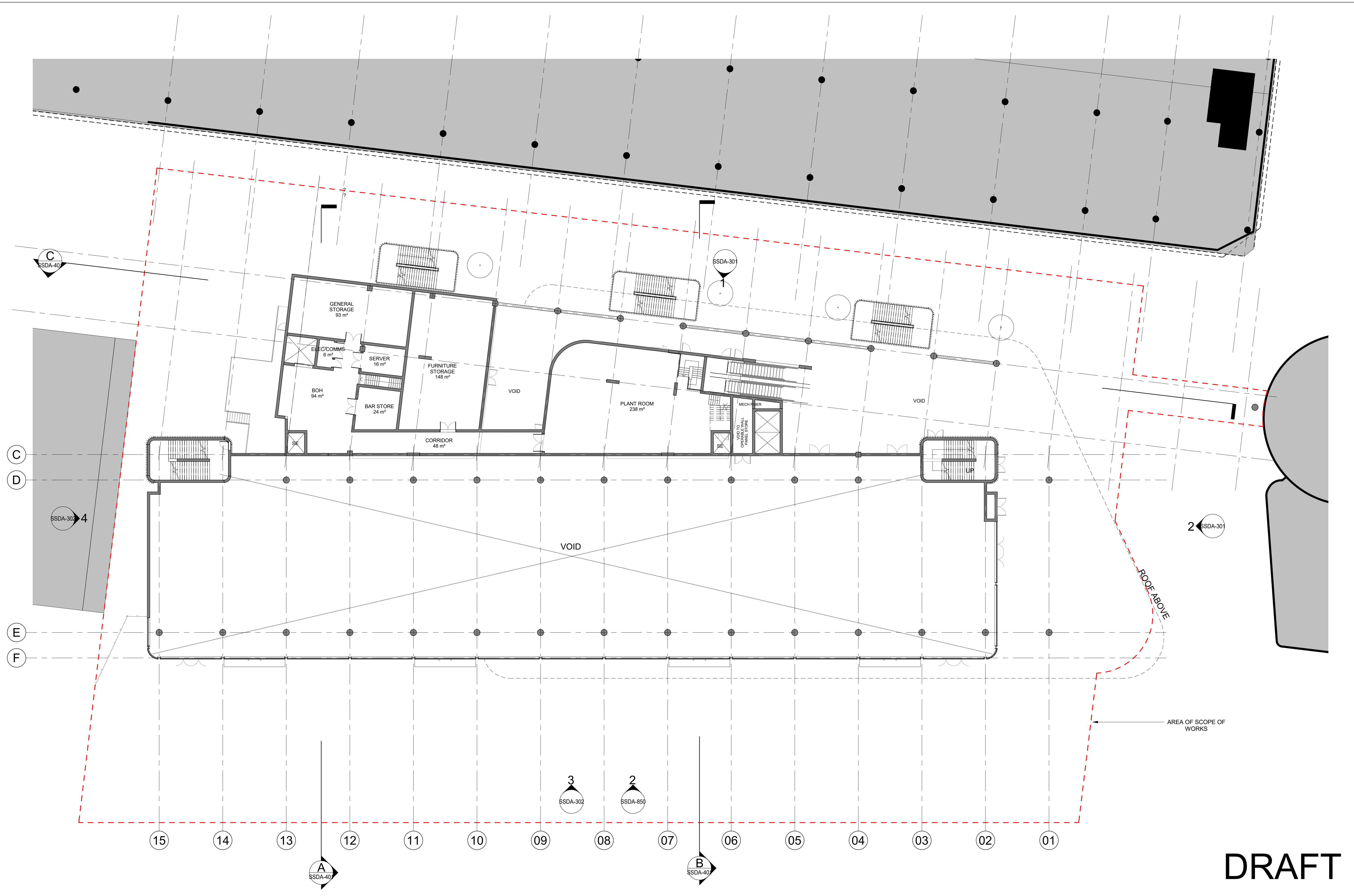


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Russell Lee no. 6367

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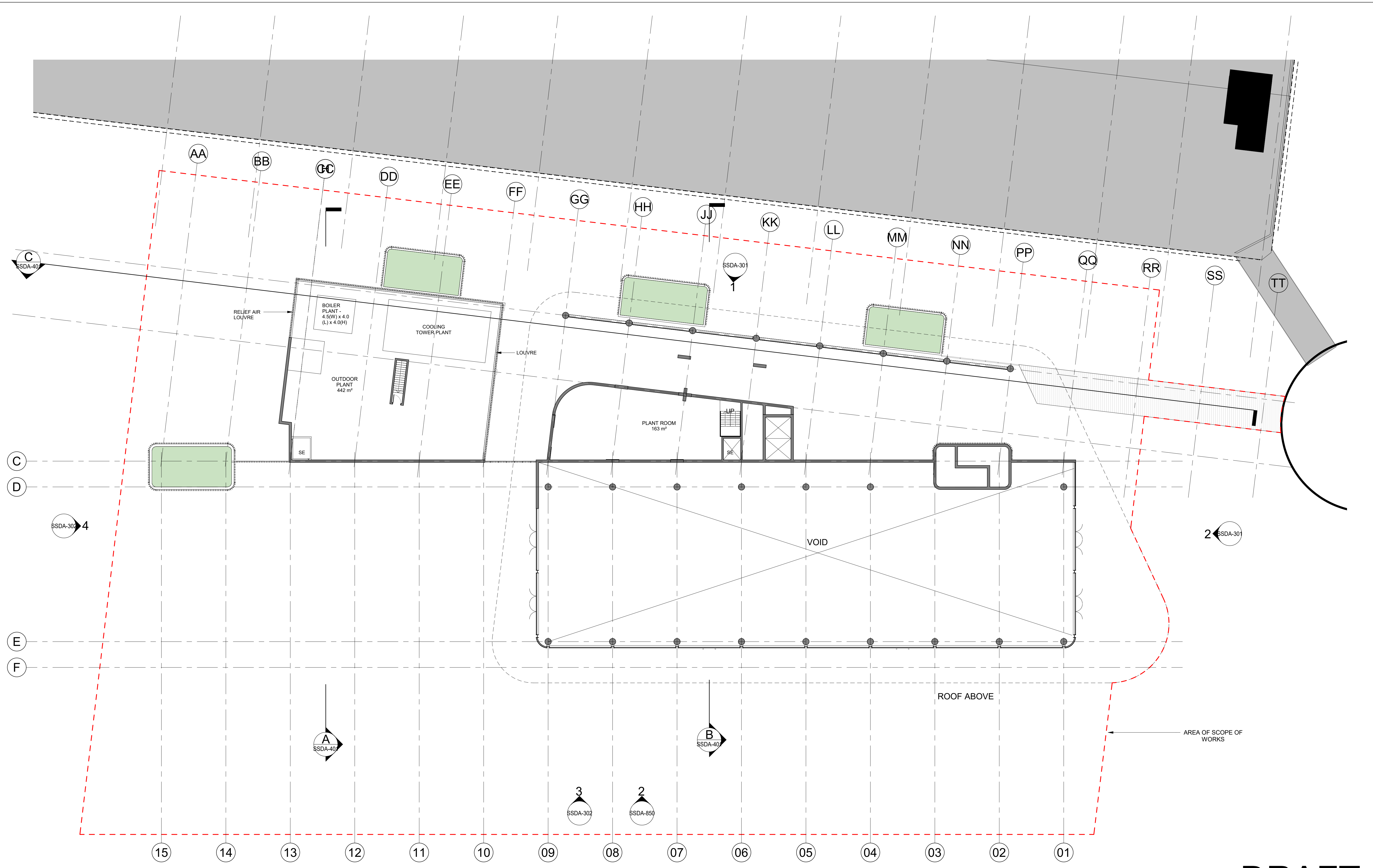




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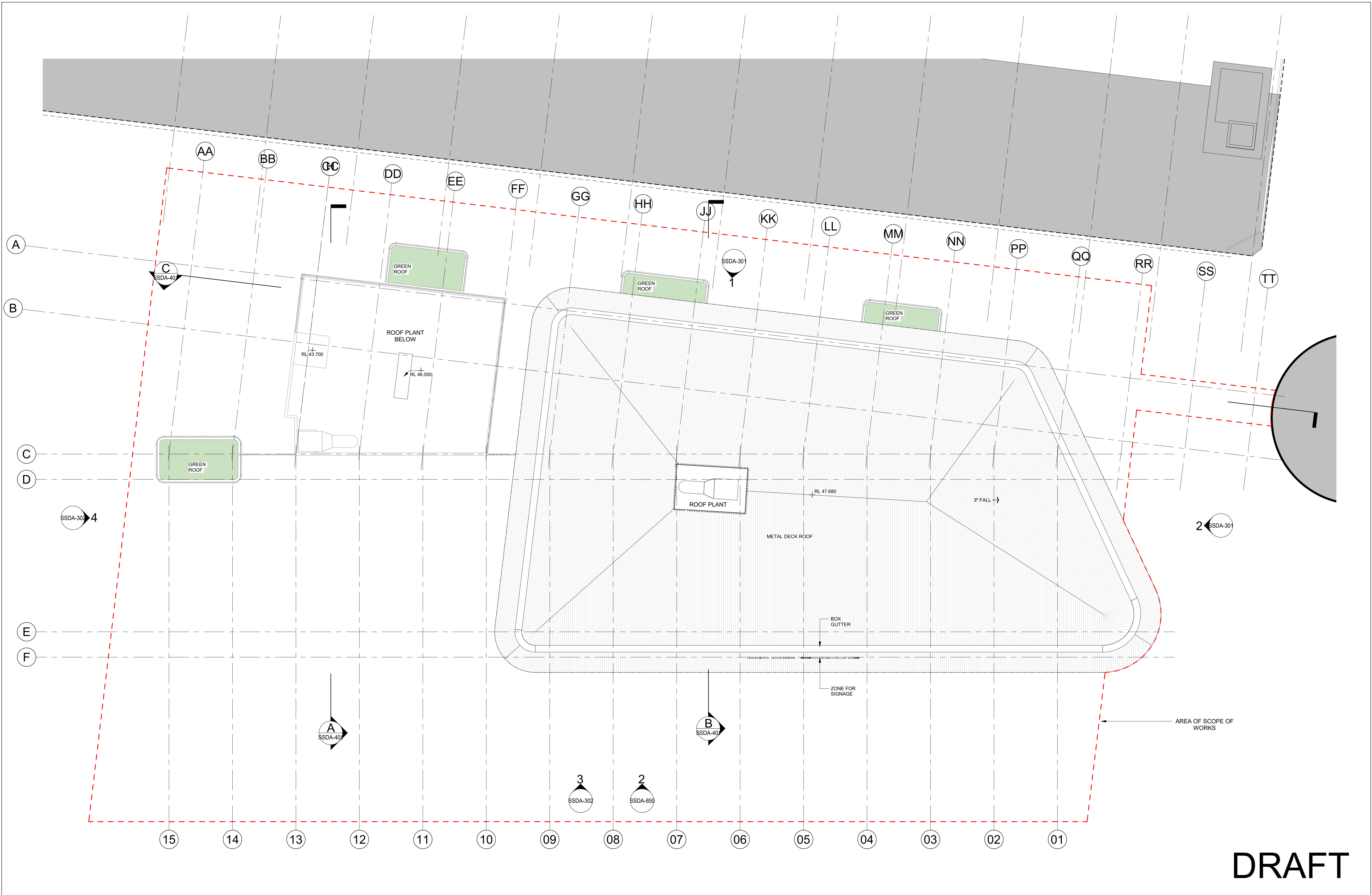


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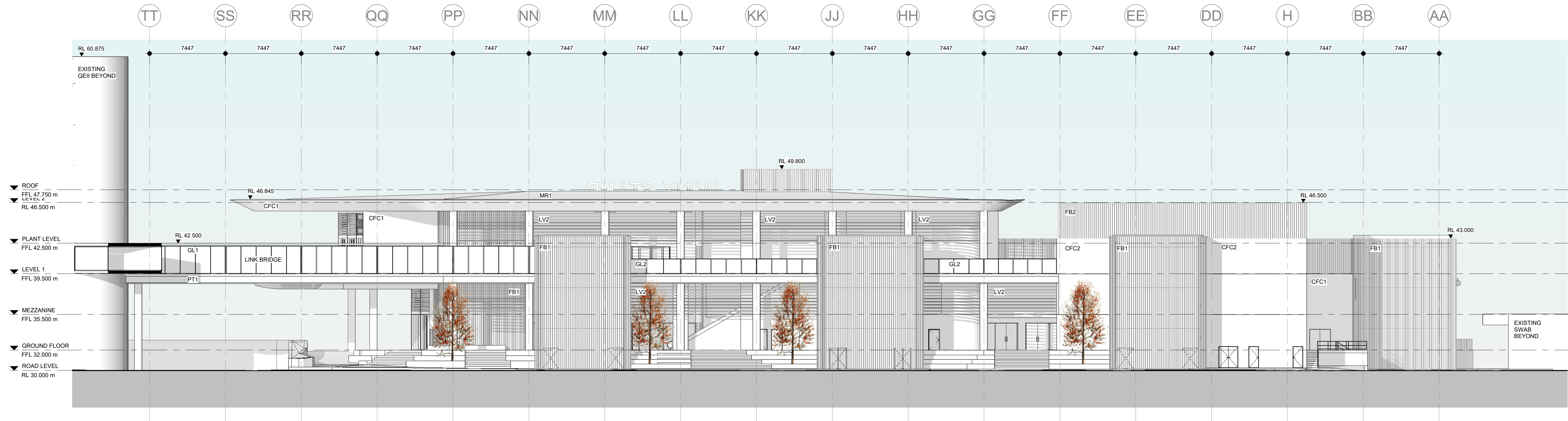


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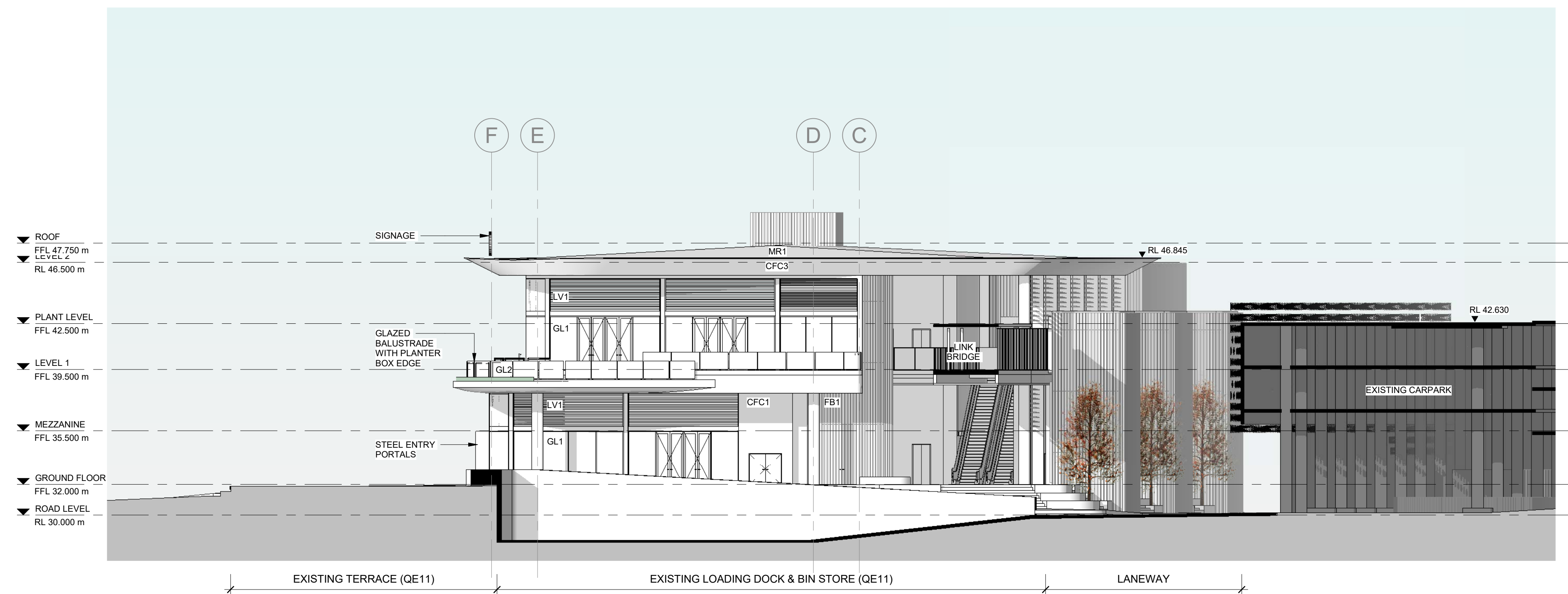




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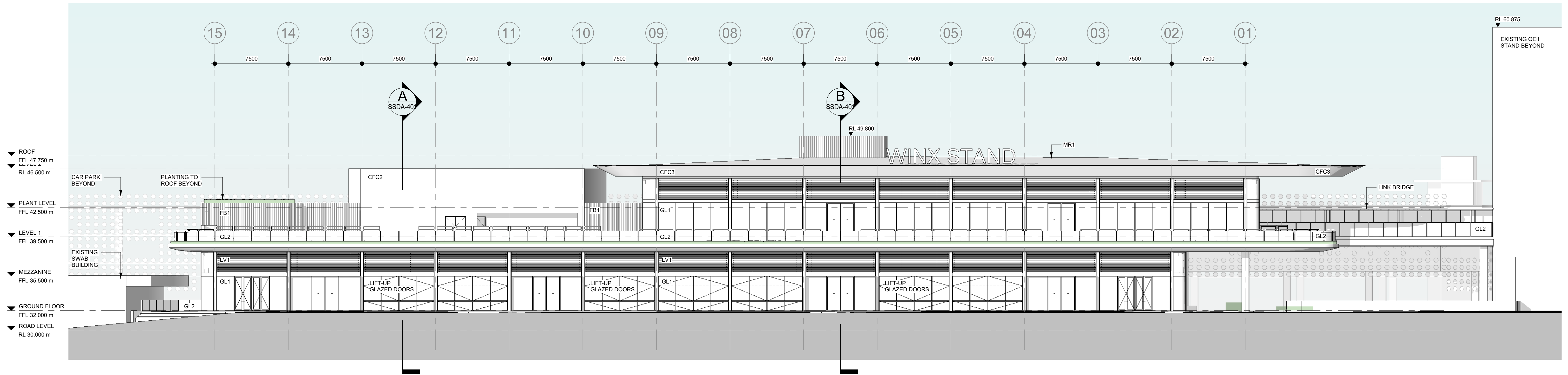
1 NORTH ELEVATION (LANEWAY)
A-11-00 SCALE 1:200



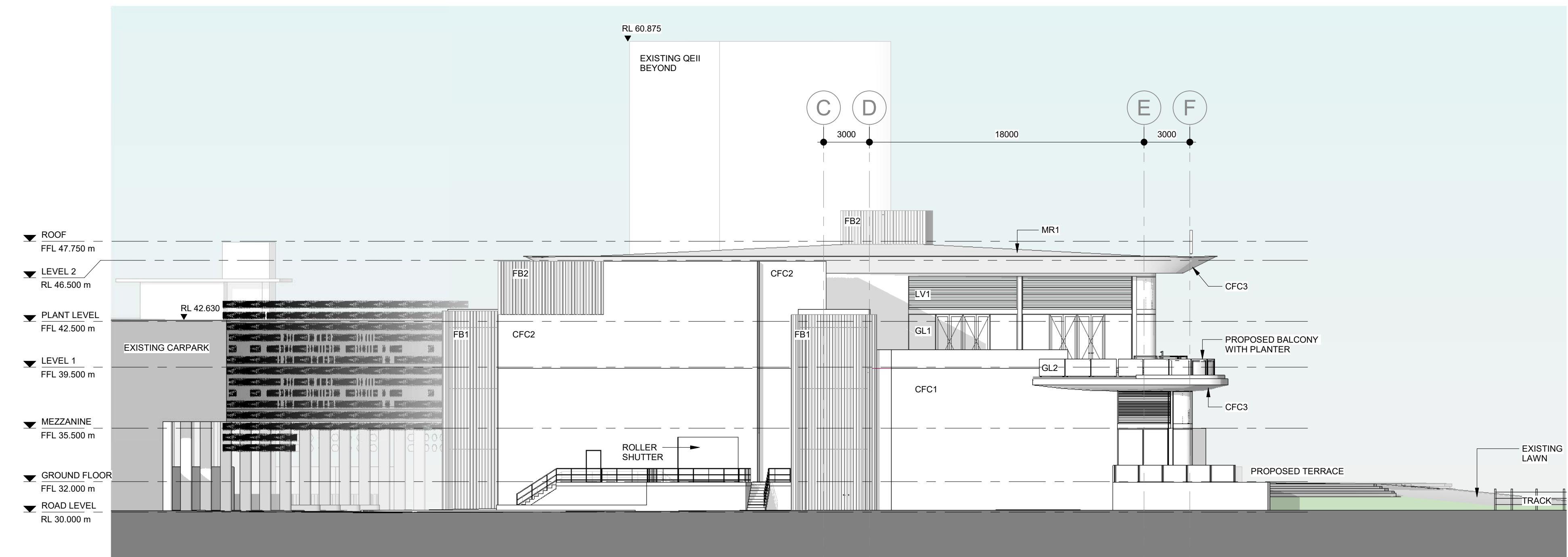
2 EAST ELEVATION
A-11-00 SCALE 1:200

MATERIALS LEGEND:		
CODE:	DESCRIPTION:	COLOUR:
MR1	METAL DECK ROOF	WINDSPRAY
FB1	VERTICAL ALUMINIUM FACADE BLADES	DOESKIN POWDERCOAT
FB2	VERTICAL ALUMINIUM FACADE BLADES	MONUMENT POWDERCOAT
CFC1	CFC STAGGERED CLADDING PANELS	LIGHT GREY PREFINISHED
CFC2	CFC VERTICAL CLADDING PANELS	MONUMENT PREFINISHED
CFC3	CFC CLADDING FINISHED FLUSH	LIGHT GREY PAINT FINISH
CO1	OFF-FORM CONCRETE	CLEAR SEALER
GL1	ALUMINIUM FRAMED GLAZING	CLEAR GLASS / MONUMENT FRAMES
GL2	GLAZED BALUSTRADE ON STEEL FRAME	CLEAR GLASS / MONUMENT FRAMES
LV1	VENTILATION LOUVRES	MONUMENT POWDERCOAT
LV2	EXTERNAL SHADE LOUVRES	CITI PEARL POWDERCOAT
PT1	MASONRY PAINT FINISH	MONUMENT
PV1	CONCRETE PAVERS	HONED WITH EXPOSED AGGREGATE

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3 SOUTH ELEVATION (TRACKSIDE)
A-11-00 SCALE 1 : 200



4 WEST ELEVATION
A-11-00 SCALE 1 : 200

MATERIALS LEGEND:		
CODE:	DESCRIPTION:	COLOUR:
MR1	METAL DECK ROOF	WINDSPRAY
FB1	VERTICAL ALUMINIUM FACADE BLADES	DOESKIN POWDERCOAT
FB2	VERTICAL ALUMINIUM FACADE BLADES	MONUMENT POWDERCOAT
CFC1	CFC STAGGERED CLADDING PANELS	LIGHT GREY PREFINISHED
CFC2	CFC VERTICAL CLADDING PANELS	MONUMENT PREFINISHED
CFC3	CFC CLADDING FINISHED FLUSH	LIGHT GREY PAINT FINISH
CO1	OFF-FORM CONCRETE	CLEAR SEALER
GL1	ALUMINIUM FRAMED GLAZING	CLEAR GLASS / MONUMENT FRAMES
GL2	GLAZED BALUSTRADE ON STEEL FRAME	CLEAR GLASS / MONUMENT FRAMES
LV1	VENTILATION LOUVRES	MONUMENT POWDERCOAT
LV2	EXTERNAL SHADE LOUVRES	CITI PEARL POWDERCOAT
PT1	MASONRY PAINT FINISH	MONUMENT
PV1	CONCRETE PAVERS	HONED WITH EXPOSED AGGREGATE

DRAFT

Project:

ATC RNSW Public Infrastructure

Drawing Title:

ELEVATIONS

Drawing Number:

SSDA-302

Revision:

A

Date:

31/10/19

Scale:

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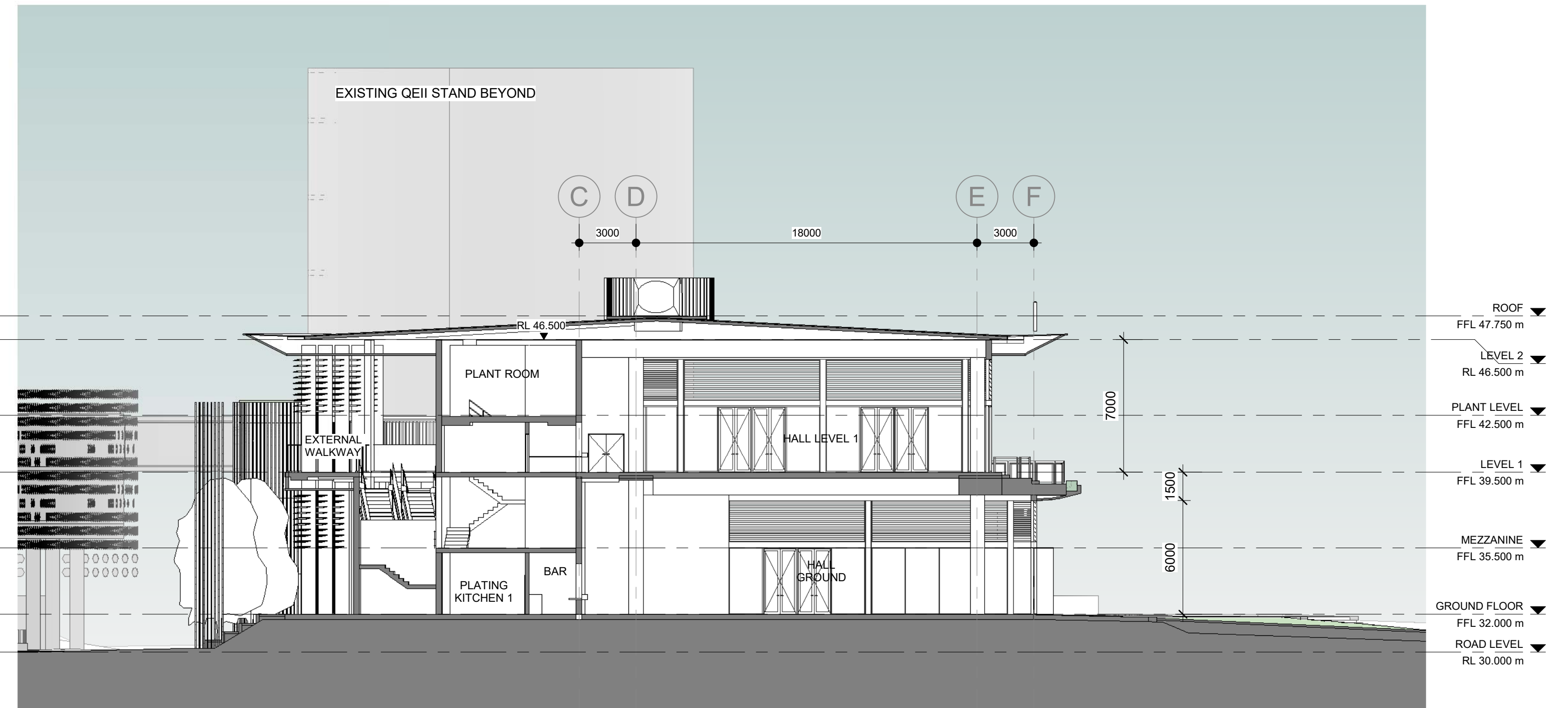
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Nominated Architects
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Russell Lee no. 6367

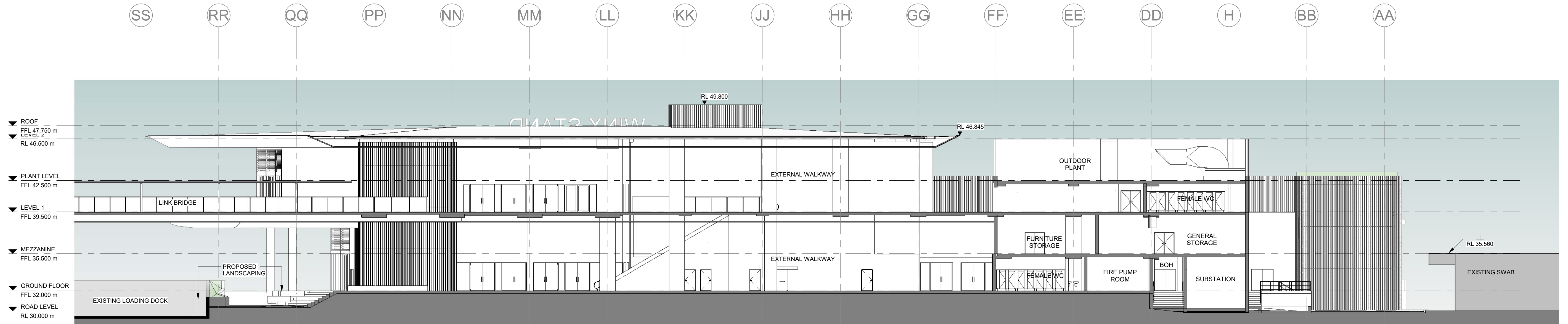
COX



A SECTION A
A-26-00 SCALE 1 : 200

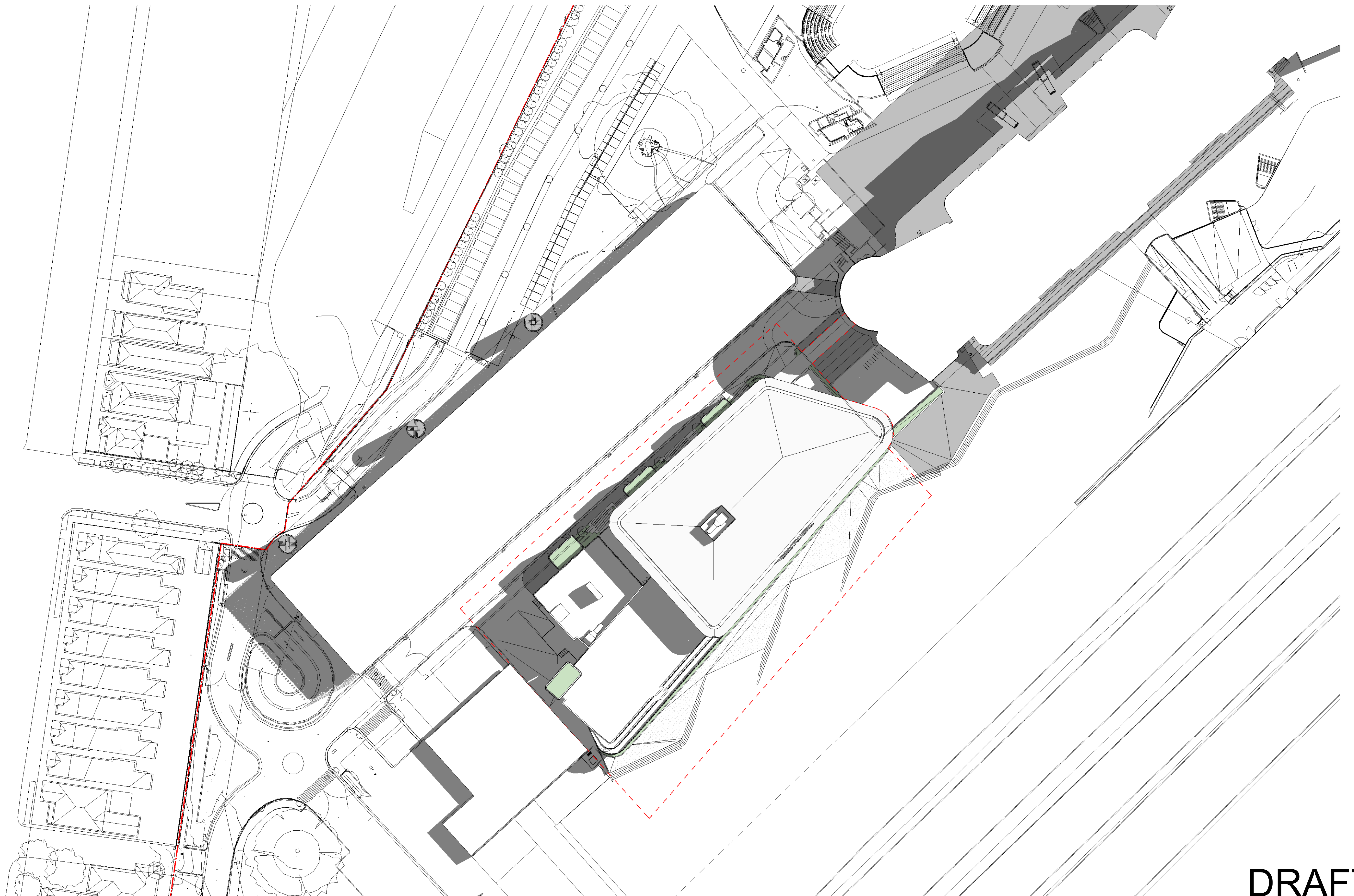


B SECTION B
A-26-00 SCALE 1 : 200



C SECTION C
A-26-00 SCALE 1 : 200

DRAFT



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Project:

ATC RNSW Public Infrastructure

Drawing Title:

SOLAR STUDIES - 21 MARCH 9AM

Drawing Number:

SSDA-701

Revision:

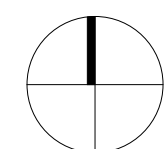
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Date:

31/10/19

Scale:

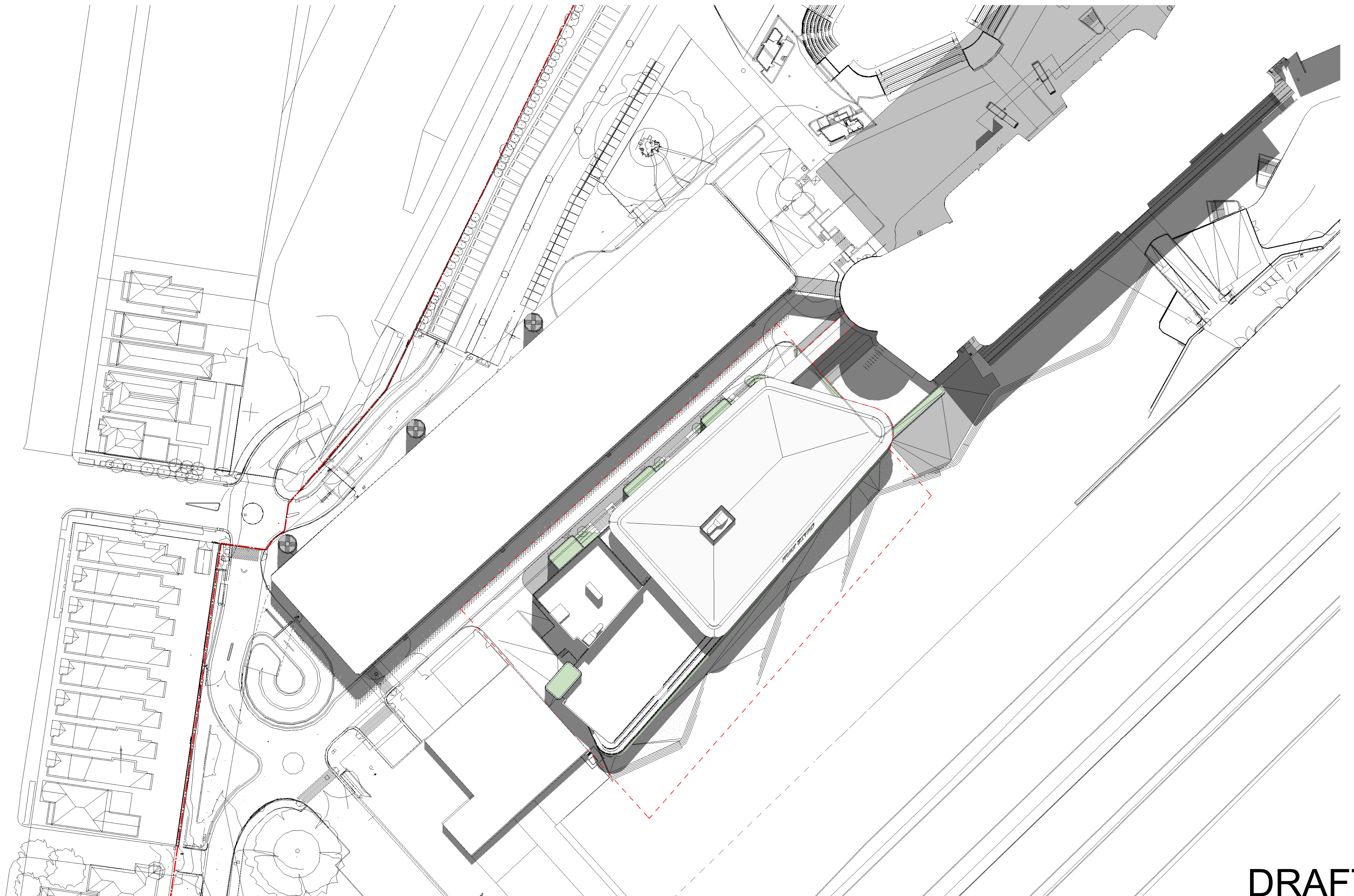
1 : 500 @ A1



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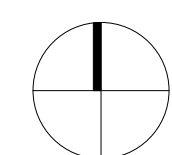
Project:
ATC RNSW Public Infrastructure

Drawing Title:
SOLAR STUDIES - 21 MARCH 12PM

Drawing Number:
SSDA-702 A

Revision:
31/10/19

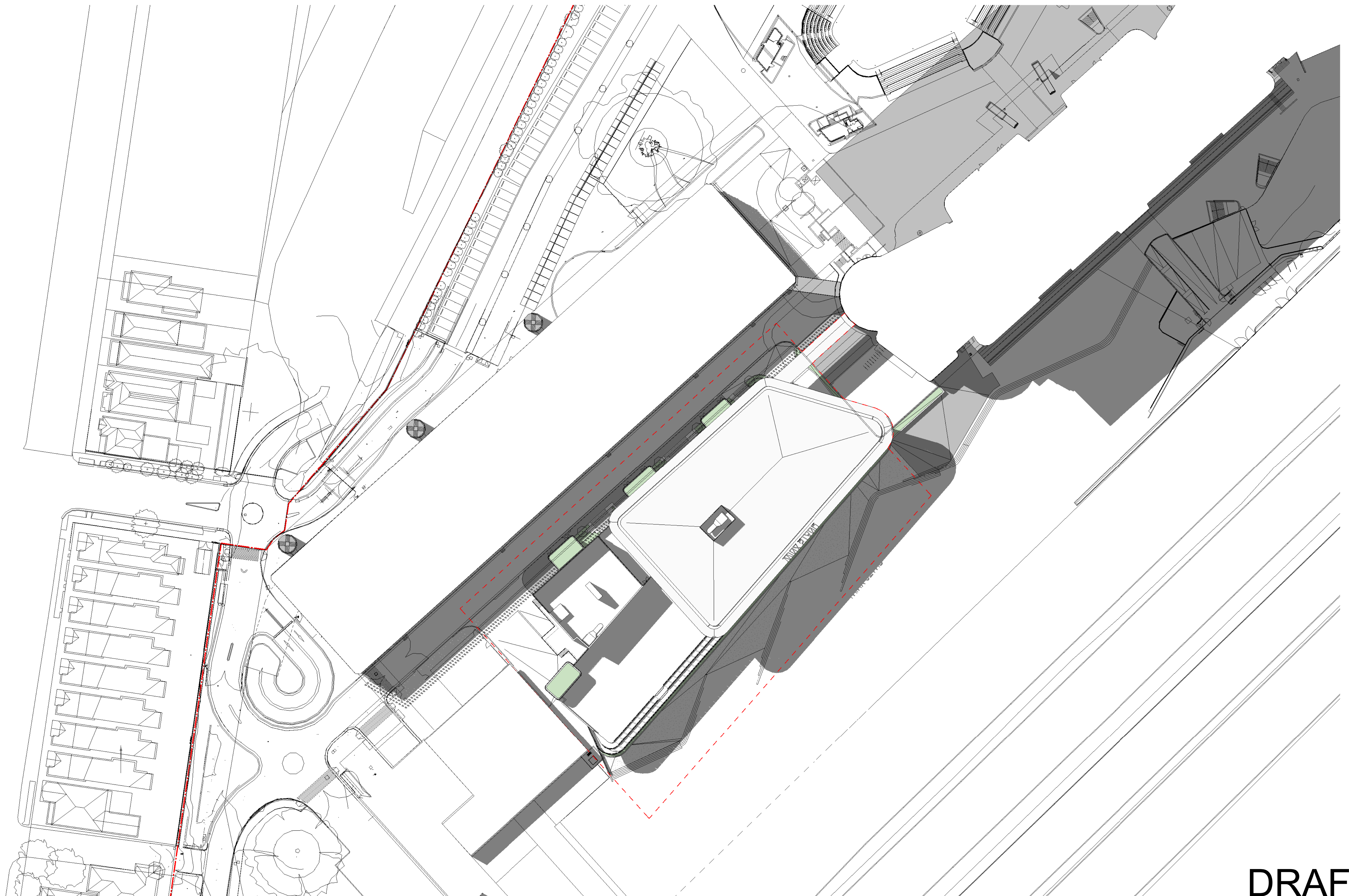
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Project:

ATC RNSW Public Infrastructure

Drawing Title:

SOLAR STUDIES - 21 MARCH 3PM

Drawing Number:

SSDA-703

Revision:

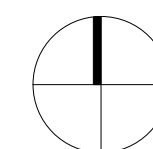
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Date:

31/10/19

Scale:

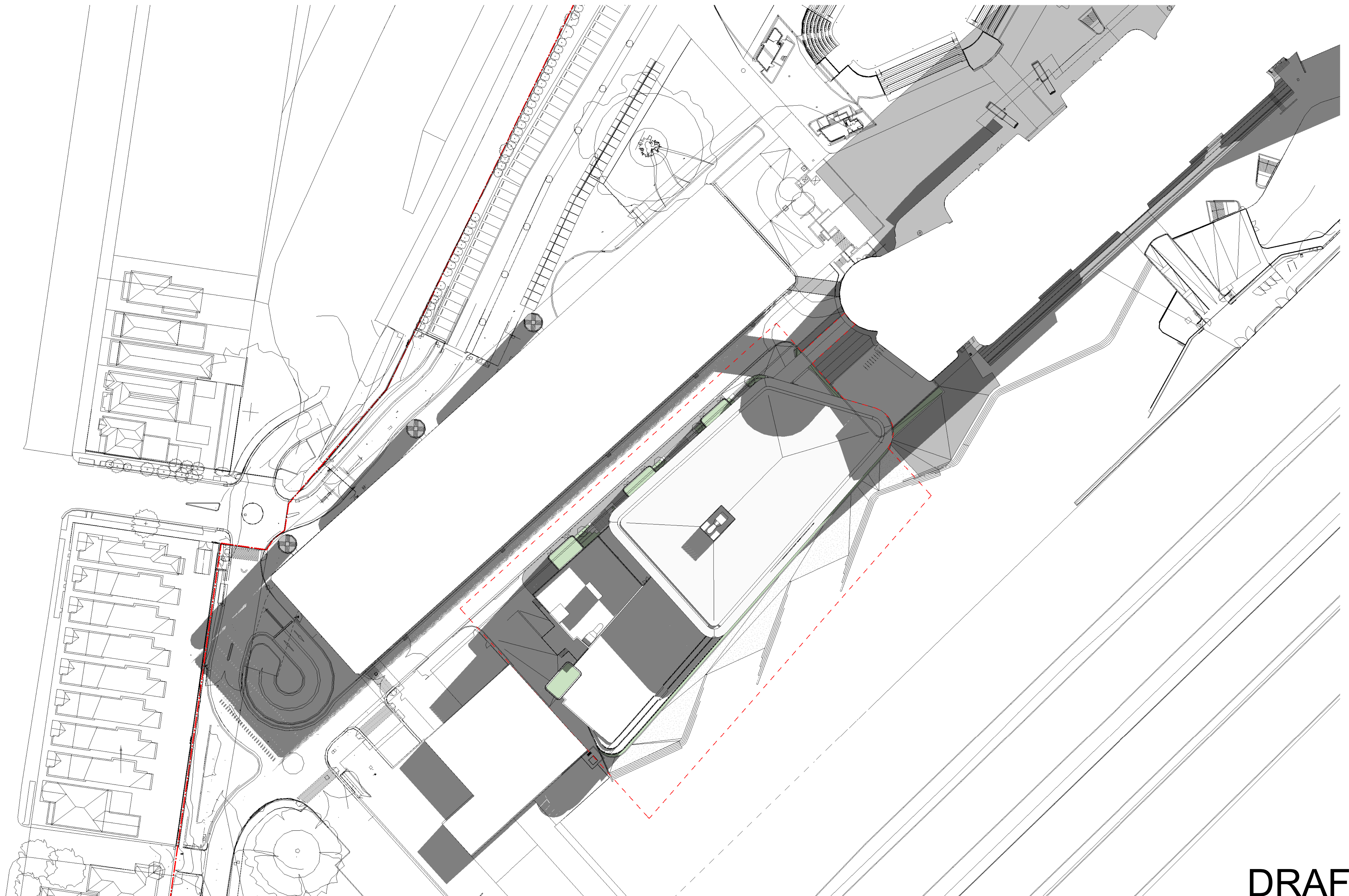
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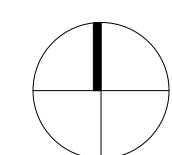
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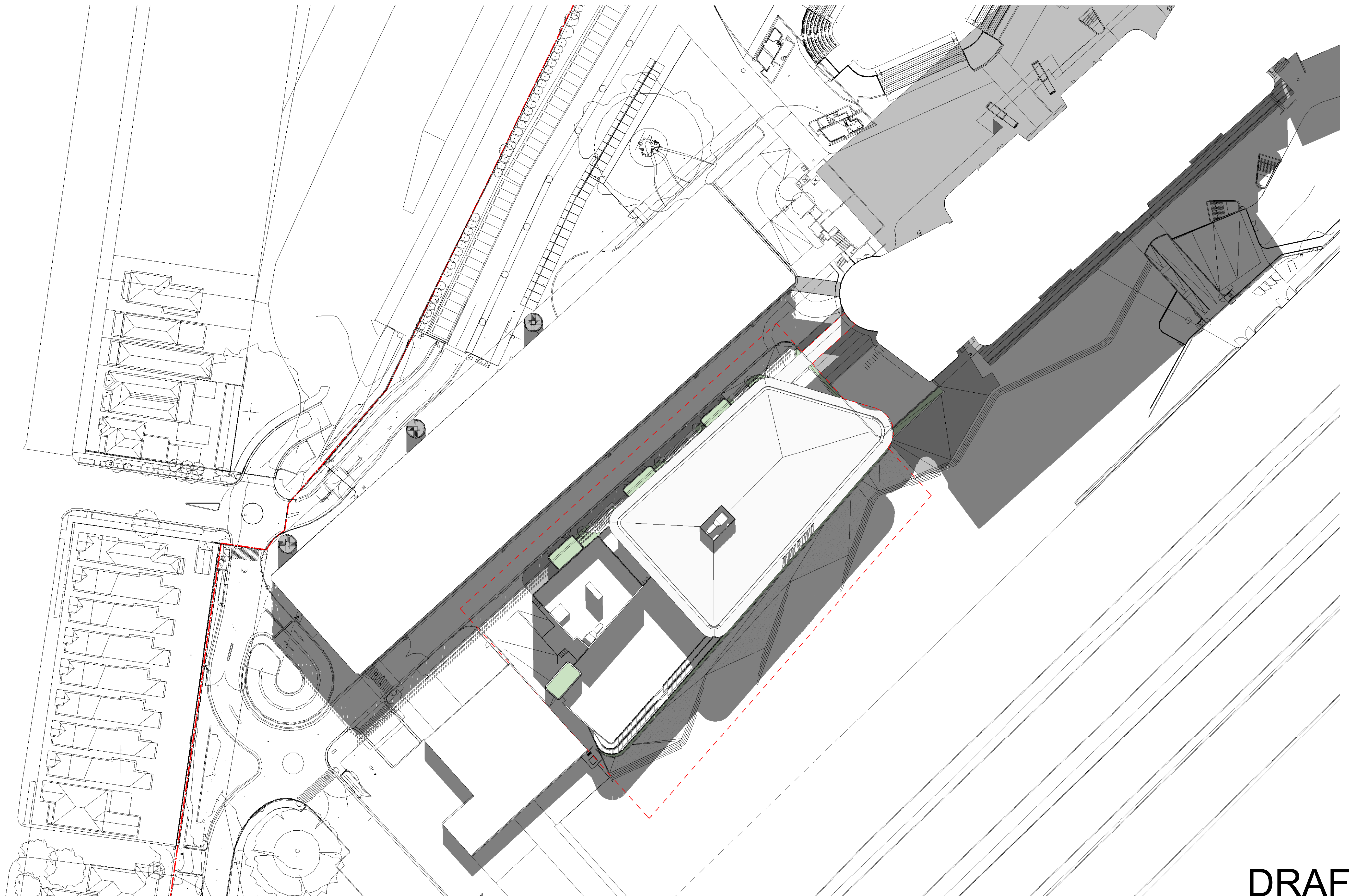
Nominated Architects
Joe Agius no. 6491
Russell Lee no. 6367

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Project: **ATC RNSW Public Infrastructure**

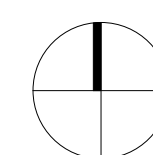
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Drawing Number: **SSDA-712**

Revision: **A**

Date: **31/10/19**

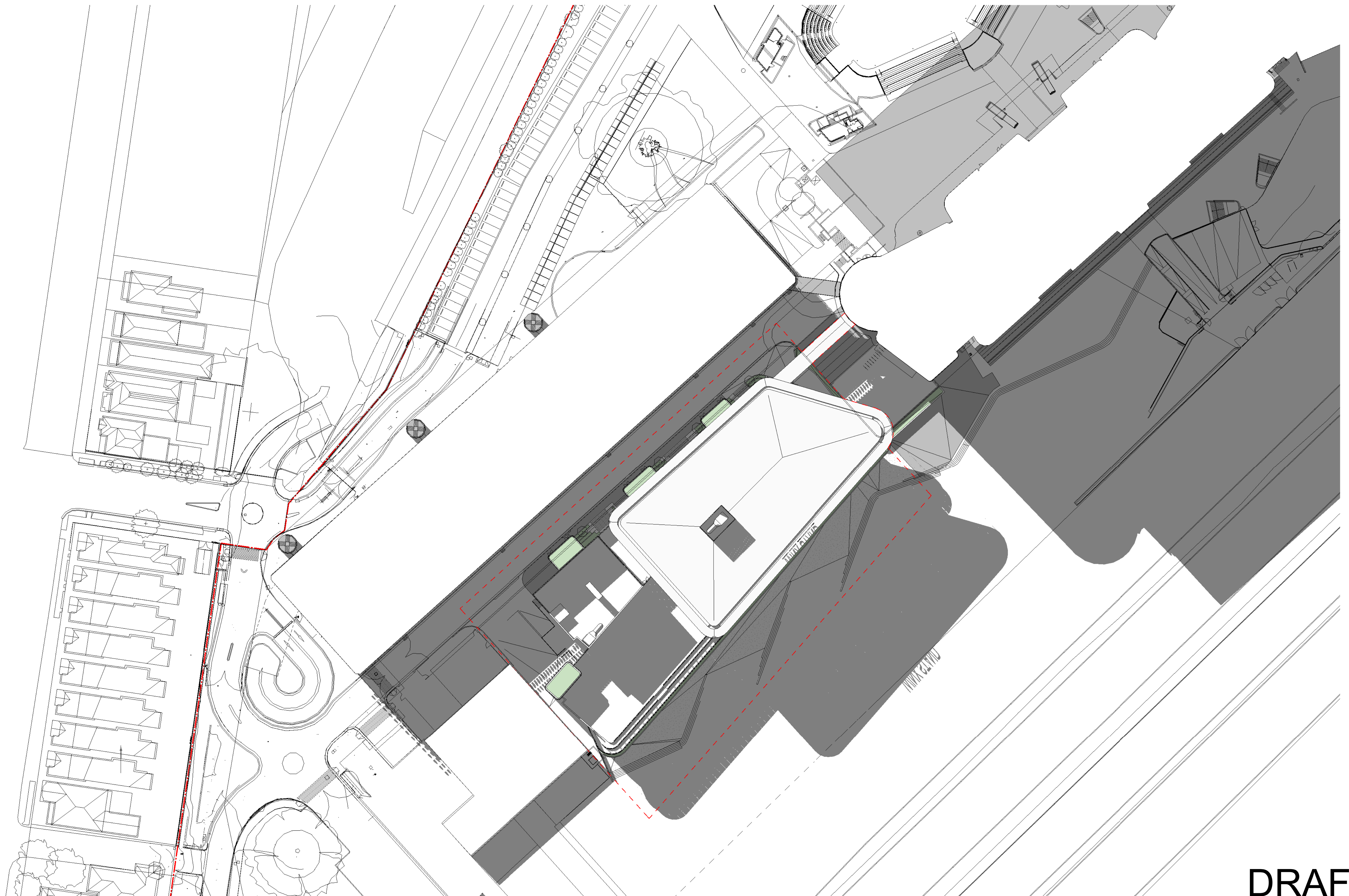
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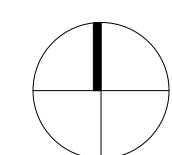
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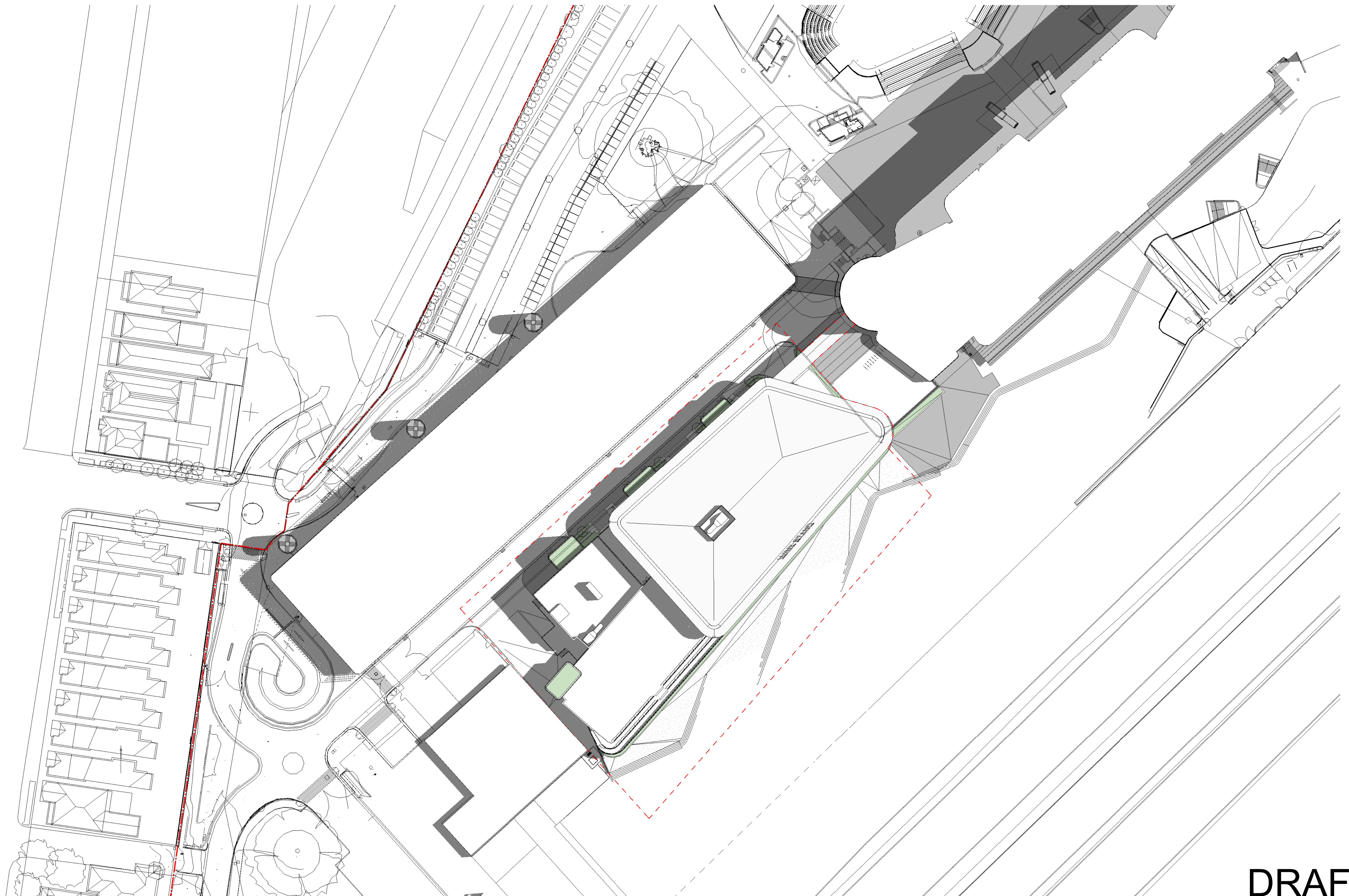
Nominated Architects
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Project:

ATC RNSW Public Infrastructure

Drawing Title:

SOLAR STUDIES - 22 DEC 9AM

Drawing Number:

SSDA-721

Revision:

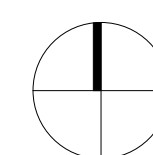
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Date:

31/10/19

Scale:

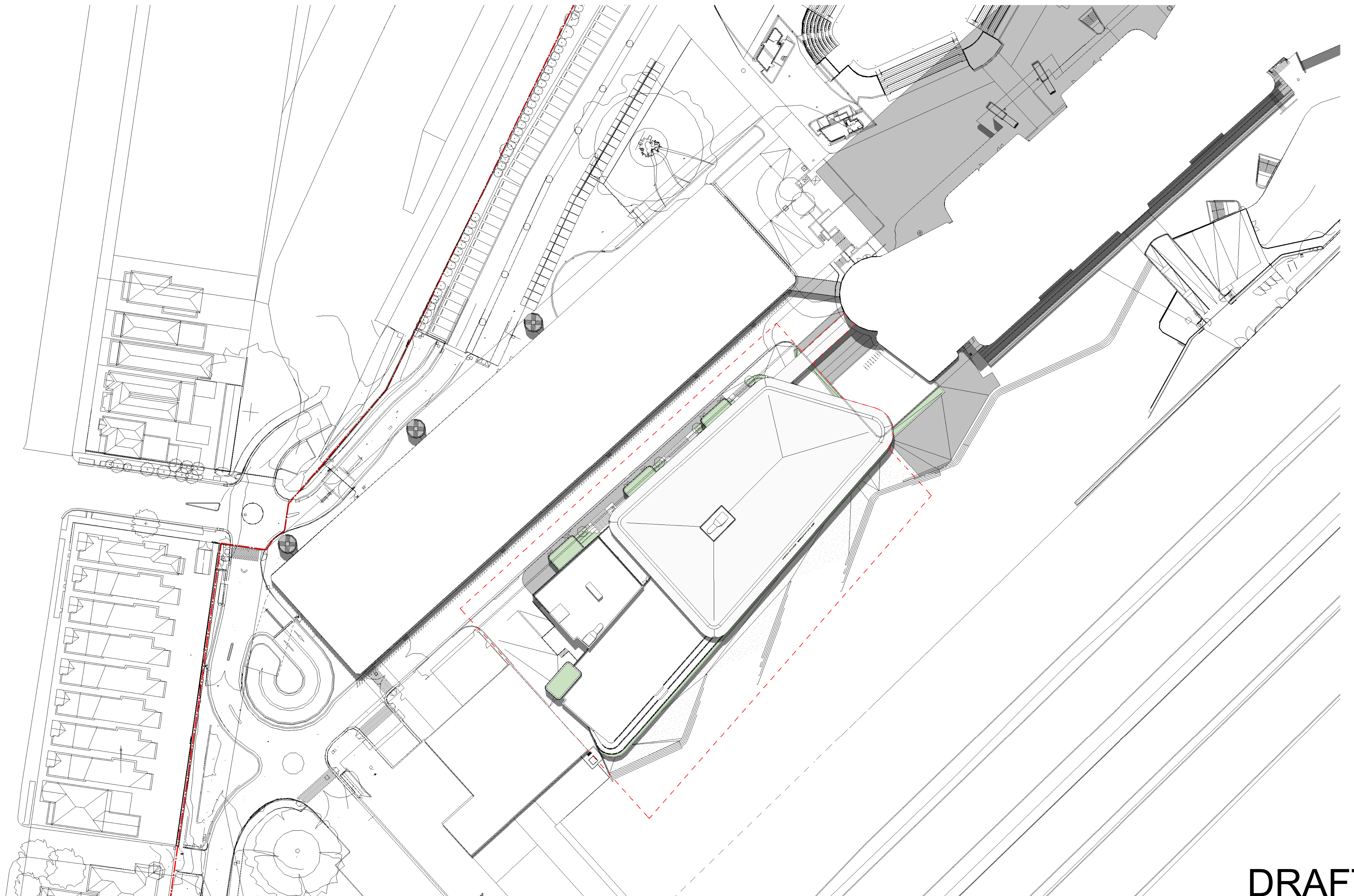
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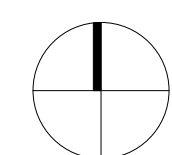
Project:
ATC RNSW Public Infrastructure

Drawing Title:
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Drawing Number:
SSDA-722 A

Revision:
31/10/19

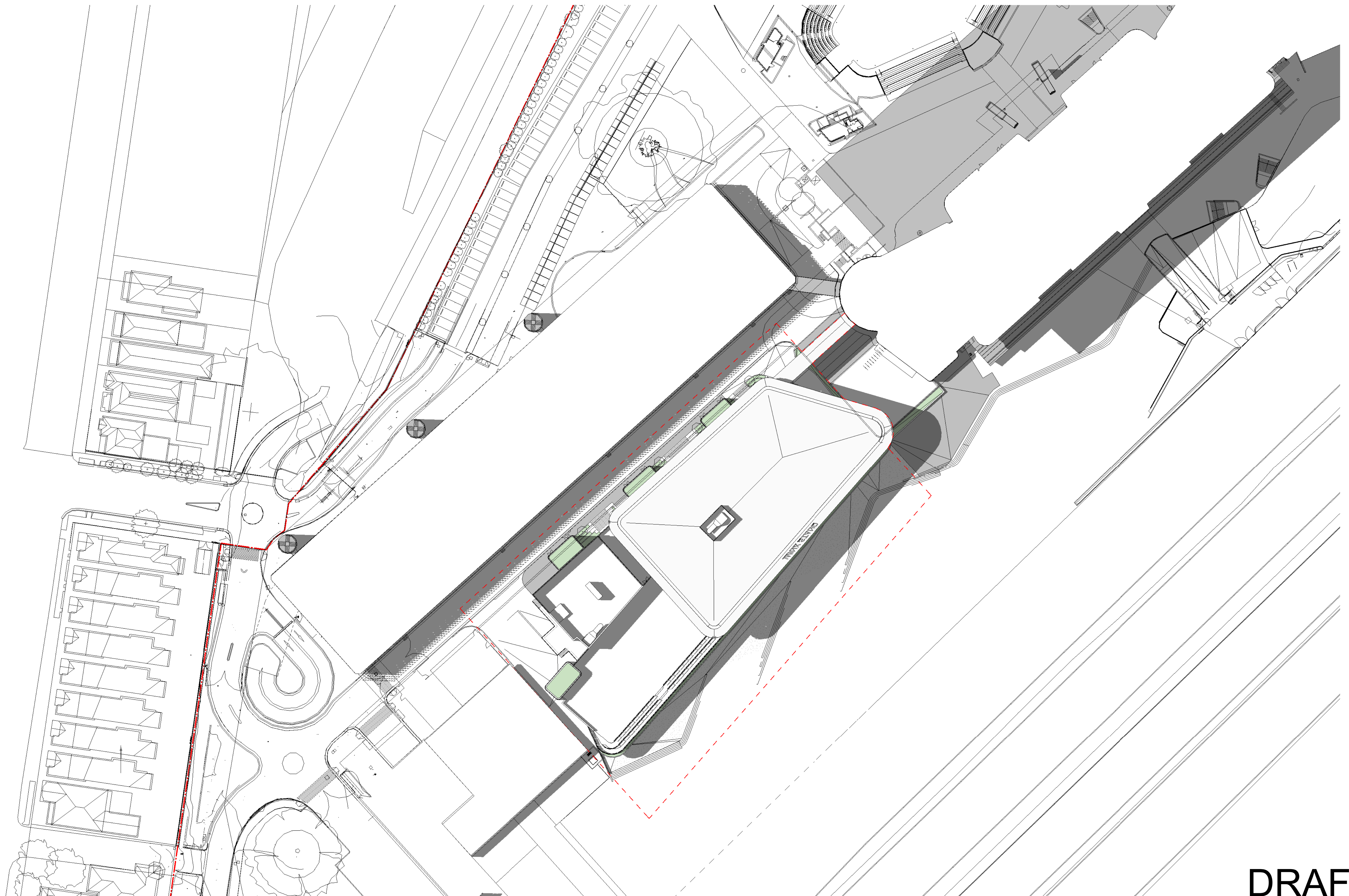
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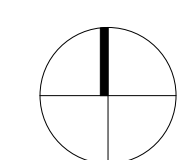
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CLEAR GLASS
(GL1 -FULL HEIGHT GLAZING PANELS)
(GL2 -BALUSTRADE)



ALUMINIUM ROOF
(MR1)



GREY LOUVRES
(LV1)



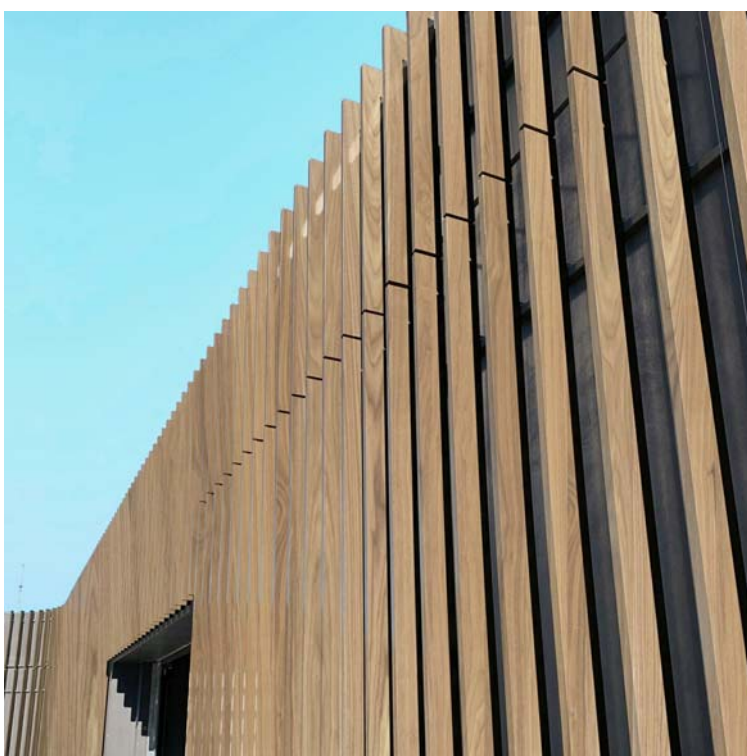
SILVER LOUVRES
(LV2)



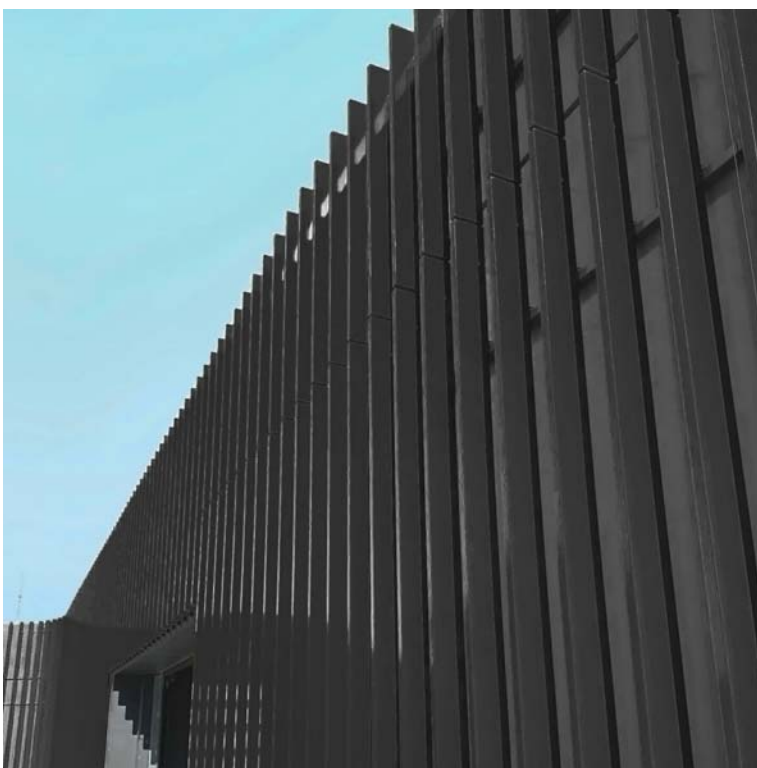
LIGHT GREY CFC PANEL
(CFC1)



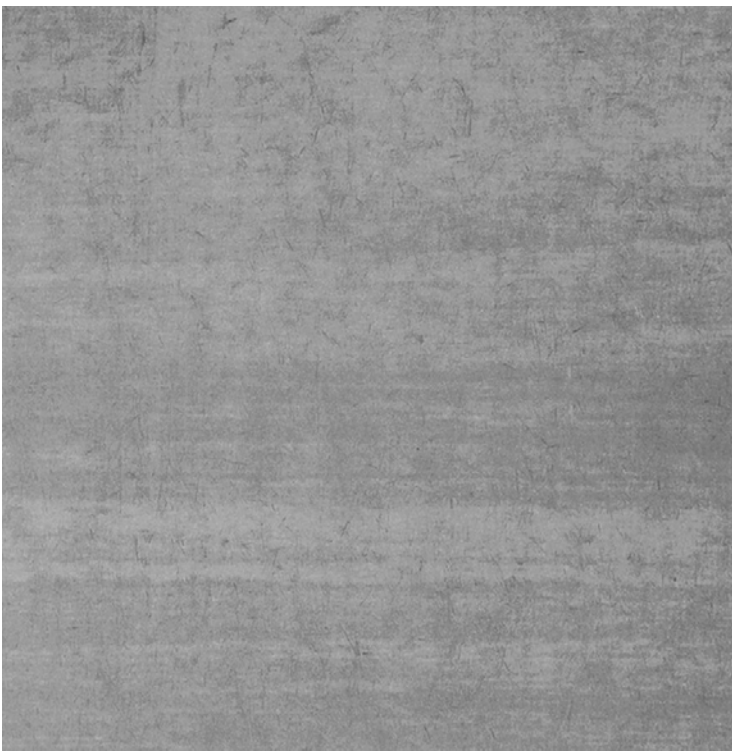
MONUMENTAL GREY CFC PANEL
(CFC2)



POWDERCOAT ALUMINIUM
FACADE BLADES
(AL2)



POWDERCOAT ALUMINIUM
FACADE BLADES
(AL3)



OFF-FORM CONCRETE
(CO1)



CONCRETE PAVERS
(PV1)



MONUMENT GREY PAINT
(PT1)



VEGETATION

DRAFT

Project:

ATC RNSW Public Infrastructure

Drawing Title:

SCHEDULE OF FINISHES

Drawing Number:

SSDA-801

Revision:

A

Date:

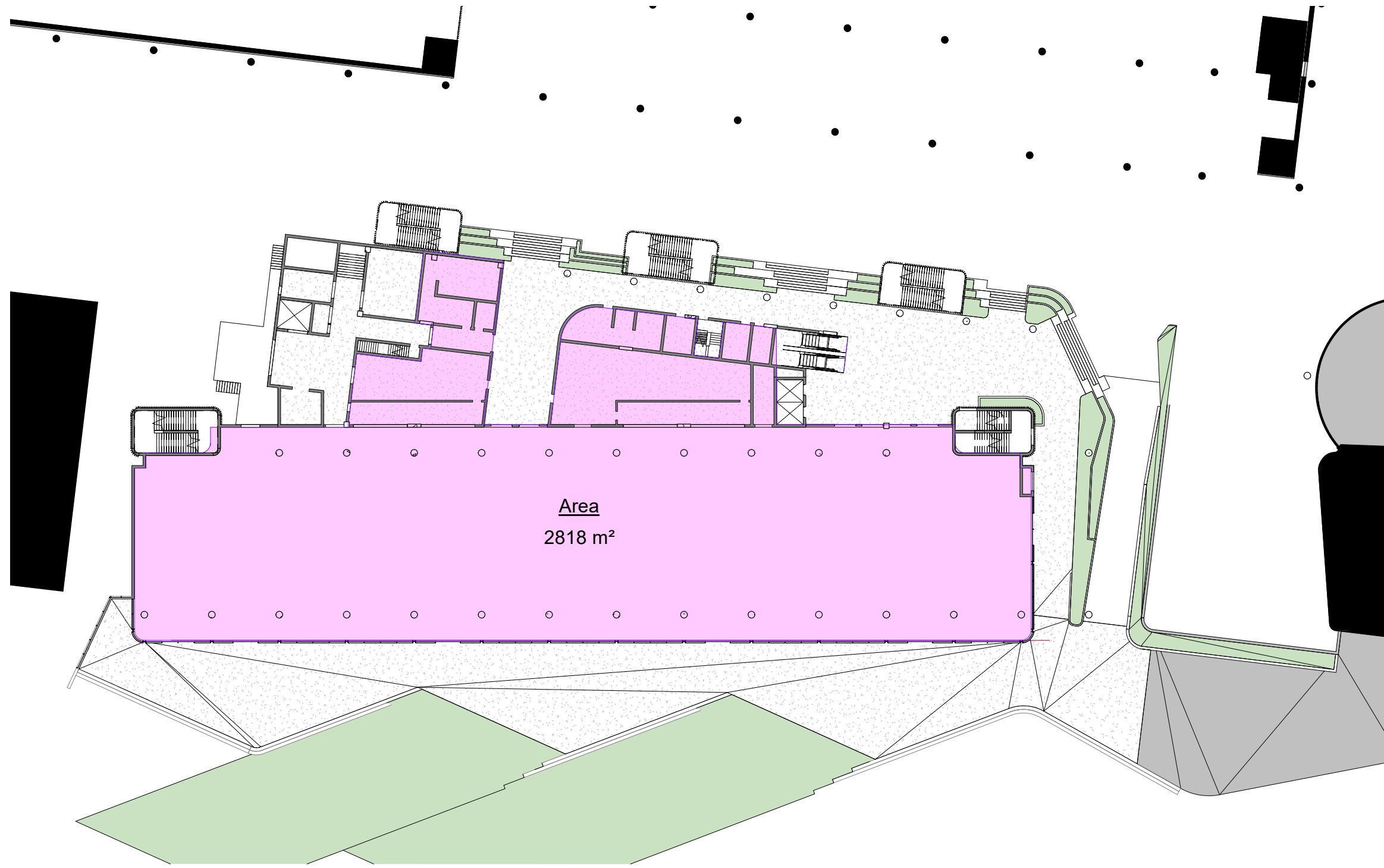
31/10/19

Scale:

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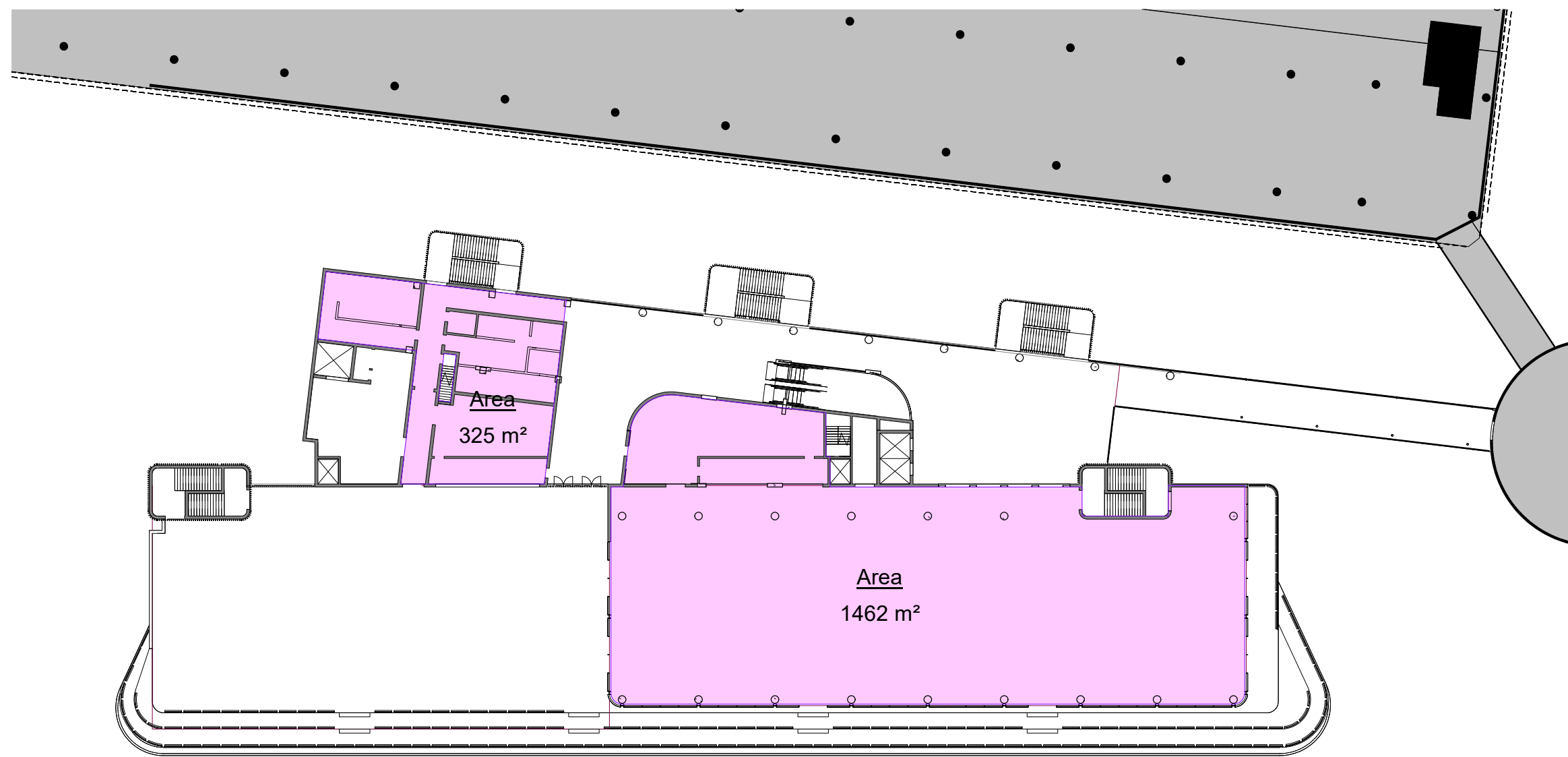
Nominated Architects
Joel Agius no. 6491
Russell Lee no. 6367

COX



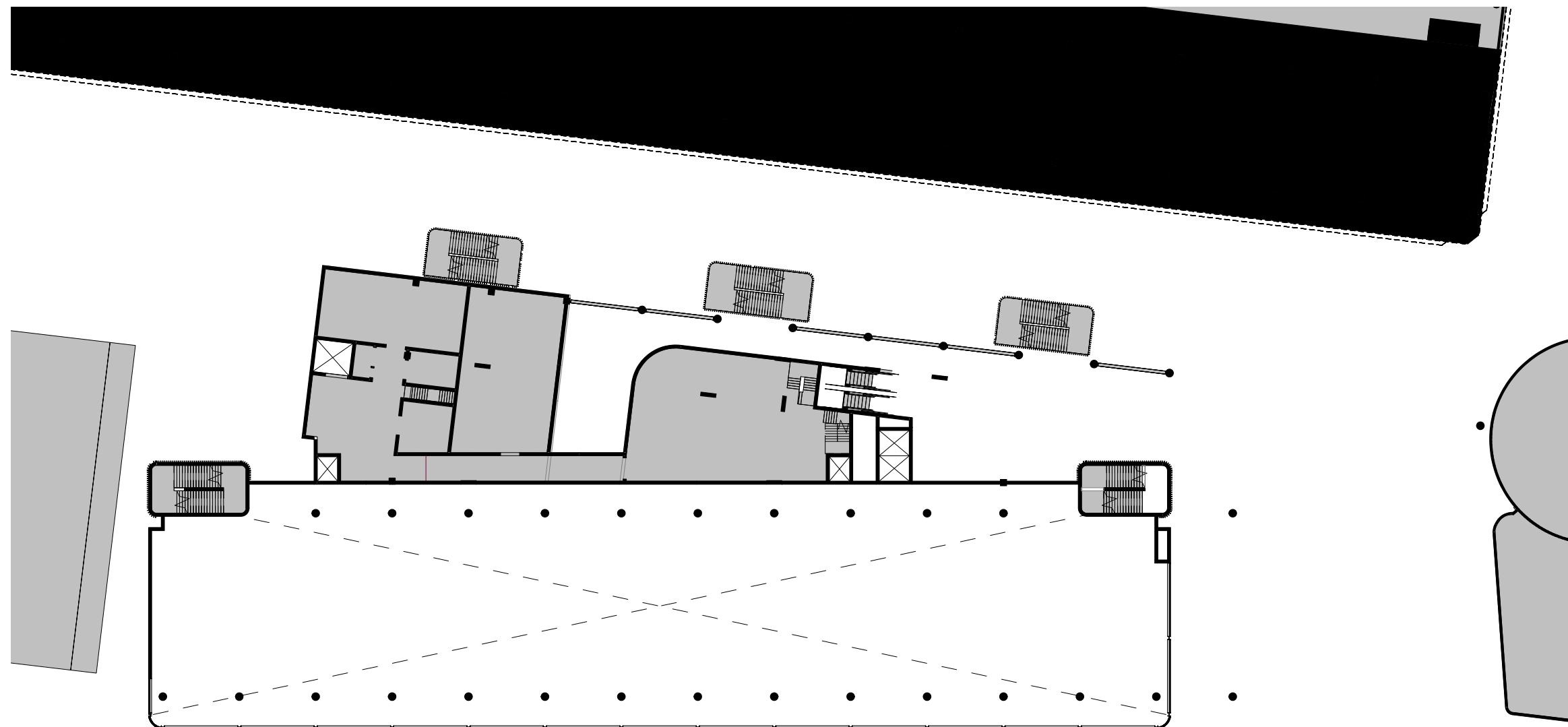
1 GROUND FLOOR
SK-14 SCALE 1 : 500

GROUND FLOOR GFA: 2818m²



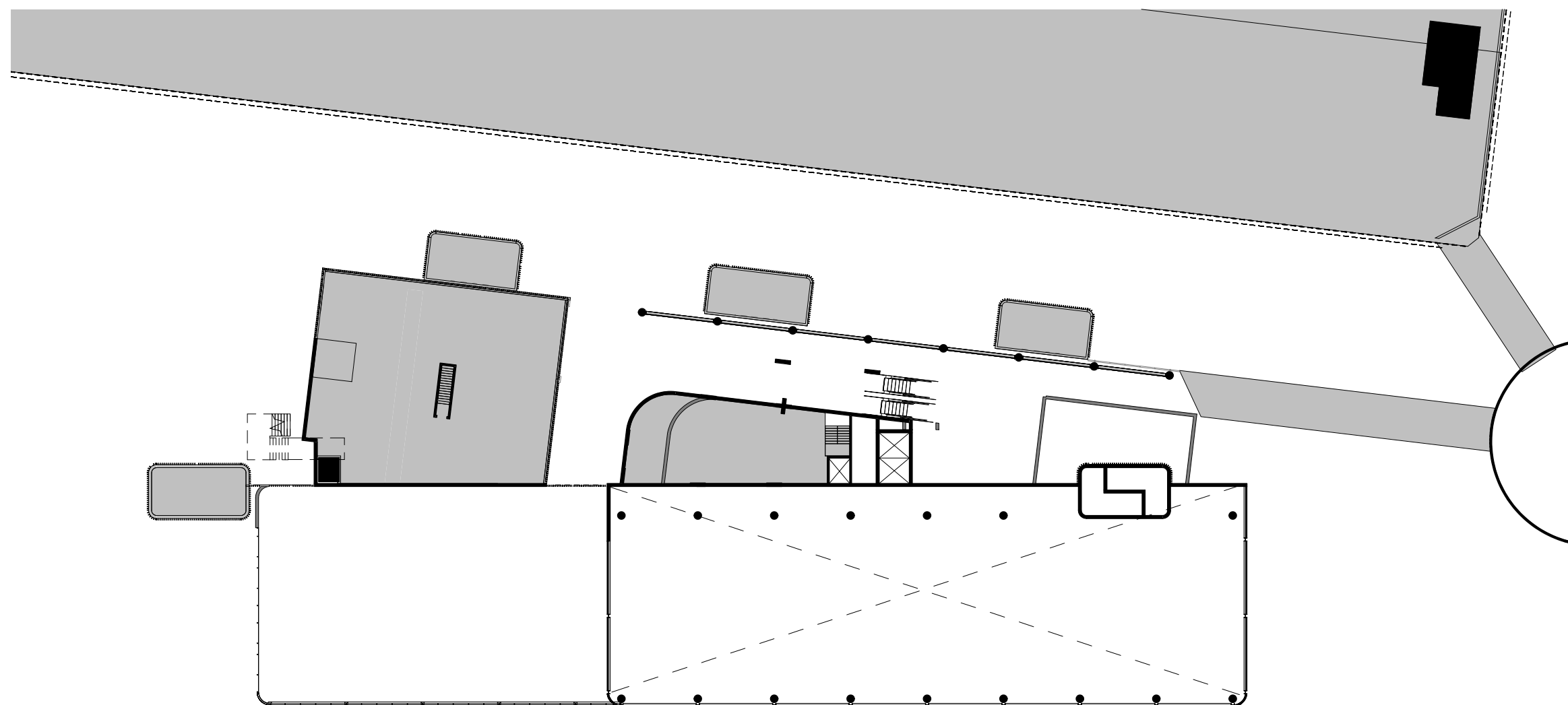
2 LEVEL 1
SK-14 SCALE 1 : 500

LEVEL 1 GFA: 1787m²



3 MEZZANINE
SK-14 SCALE 1 : 500

MEZZANINE FLOOR GFA: 0m²



4 PLANT LEVEL
SK-14 SCALE 1 : 500

PLANT LEVEL GFA: 0m²

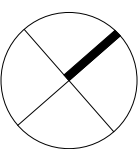
GROUND FLOOR GFA: 2818m²

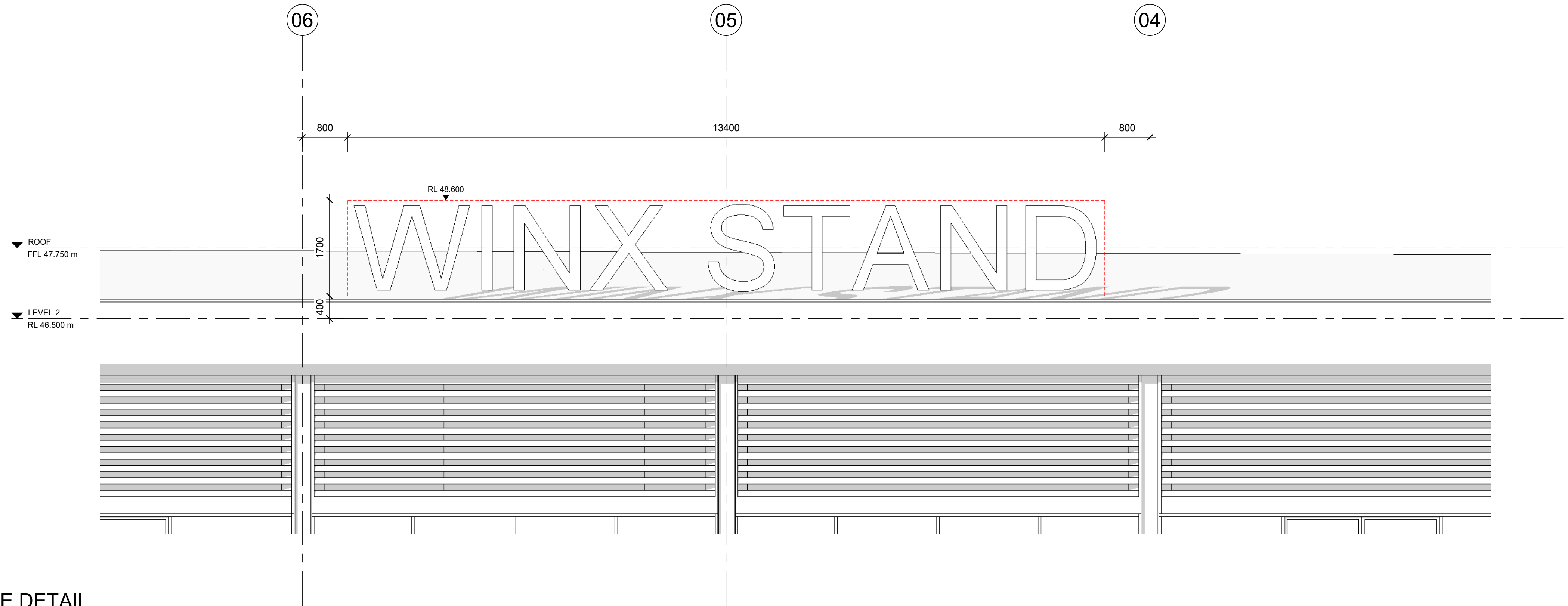
MEZZANINE FLOOR GFA: 0m²

LEVEL 1 GFA: 1787m²

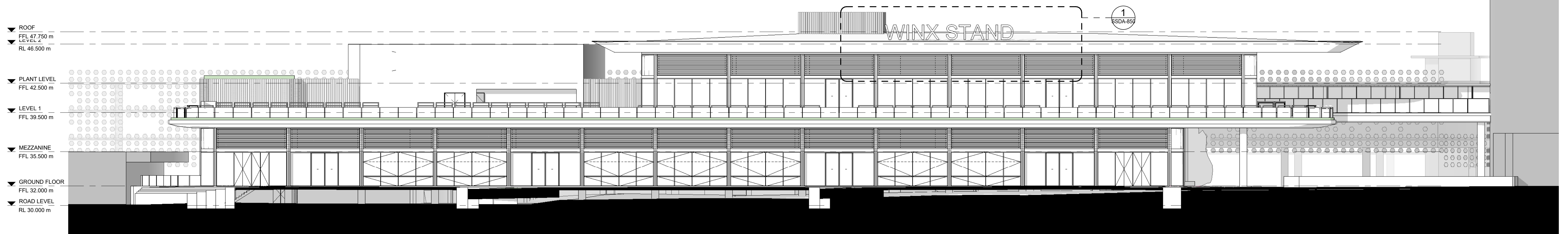
PLANT LEVEL GFA: 0m²

TOTAL AREA: 4605m²





1 SOUTH ELEVATION (TRACKSIDE) SIGNAGE DETAIL
SSDA-850 SCALE 1 : 50



2 SOUTH ELEVATION (TRACKSIDE) SIGNAGE
A-11-00 SCALE 1 : 200

DRAFT

Project:

ATC RNSW Public Infrastructure

Drawing Title:

SIGNAGE

Drawing Number:

SSDA-850

Revision:

A

Date:

31/10/19

Scale:

As indicated @ A1

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Nominated Architects
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Russell Lee no. 6367

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Attachment 2 Preliminary Construction Pedestrian Traffic Management Plan



construction

pedestrian traffic

management plan;

Winx Stand Development

For Australian Turf Club
30 October 2019

**parking;
traffic;
civil design;
wayfinding;
ptc.**

Document Control

Winx Stand Development, Construction pedestrian traffic management plan

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Contents

1.	Introduction	1
1.1	Purpose of this Report	2
2.	The Development	3
2.1	Site Content	3
2.2	Development Proposal	3
3.	Existing Transport Facilities	5
3.1	Road Hierarchy	5
3.2	Public Transport	8
3.2.1	Train	8
3.2.2	Bus	8
3.2.3	Light Rail	11
3.3	Active Travel	13
3.3.1	Walking	13
3.3.2	Cycling	13
4.	Construction Pedestrian Traffic Management Plan	14
4.1	Objective	14
4.2	General Requirements	14
4.3	Staging and Program	15
4.4	Hours of Work	15
4.5	Construction Vehicle Types	16
4.6	Construction Vehicle Routes	17
4.7	Construction Vehicle Site Access and Egress	21
4.8	Works Zone	21
4.9	Pedestrian Access	21
4.10	Special Deliveries	21
4.11	Staff Parking	21
4.12	Work Site Security	21
4.13	Staff Induction	21
4.14	Emergency Vehicle Access	22
4.15	Access to adjoining properties	22
4.16	Occupational Health and Safety	22
4.17	Contact Details for On-Site Enquiries and Site Access	22
5.	Summary	23
Attachment 1	Swept Path Assessment	24
Attachment 2	Site Establishment Plan	25
	Figure 1.1 – Site Location (Source: HERE WeGo Maps)	1
	Figure 1.2: Aerial View of the Site	2
	Figure 2.1 - Surrounding Land Uses of the Development	3
	Figure 2.2 – Ground level Plan	4
	Figure 3.1: Road Hierarchy (RMS Road Hierarchy Review)	5
	Figure 3.2: Anzac Parade – Southbound towards Darling Street	6
	Figure 3.3: Alison Road – Northwest towards Anzac Parade	6

Figure 3.4: Avoca Street – Northbound towards Allen Street	7
Figure 3.5: Doncaster Avenue – Northbound towards Bowral Street	7
Figure 3.6: 800m radius of the subject site	8
Figure 3.7: Surrounding bus stops	9
Figure 3.8: Light Rail Routes under construction (Source: Sydney Light Rail)	12
Figure 3.9: Randwick City Council’s Cycling and Walking Map	13
Figure 4.1 – Construction Vehicle Routes	17
Figure 4.2 – Intersection Overview	18
Figure 4.3 – 19m AV Swept Path Analysis – Intersection 1 (Alison Road/Gate 1 Entry)	19
Figure 4.4 – 19m AV Swept Path Analysis – Intersection 2 (Internal Road)	19
Figure 4.5 – 19m T&D Swept Path Analysis – Intersection 3 (Anzac Parade/Ascot Street)	20
Figure 4.6 – 19m T&D Swept Path Analysis – Intersection 4 (Ascot Street/Gate 2B Entry)	20
Table 3.1: Summary of Bus Services	9
Table 4.1 – Staging and Program of the overall Project	15
Table 4.2 – Construction vehicles and estimated vehicle trips	16

1. Introduction

ptc. has been engaged by the Australian Turf Club to prepare a Construction Pedestrian Traffic Management Plan (CPTMP) for a State Significant Development (SSD) within the Royal Randwick Racecourse for the construction of a new spectator stand (SSD 10285). This CPTMP will accompany the Environmental Impact Statement (EIS) as requested by the Planning Secretary's Environmental Assessment Requirements (SEARs). The proposed site for the new spectator stand, known as the Winx Stand, will be located on the current Leger Lawn in Royal Randwick Racecourse. It is noted that the Royal Randwick Racecourse lies within the Randwick City Council Local Government Area.

This report is associated with the demolition, excavation and construction of the following proposal:

- 100m fully enclosed and serviced ground floor;
- 100m level 1 including 60m fully enclosed and serviced and 40m open air terrace; and
- Link Bridge to the QEII.

The project site is comprised of a building and a lawn area and is located south of the existing QEII Grandstand and to the east of the newly delivered Multi Deck Car Park. The location and an aerial view of the subject site is presented in Figure 1.1 and Figure 1.2 respectively.

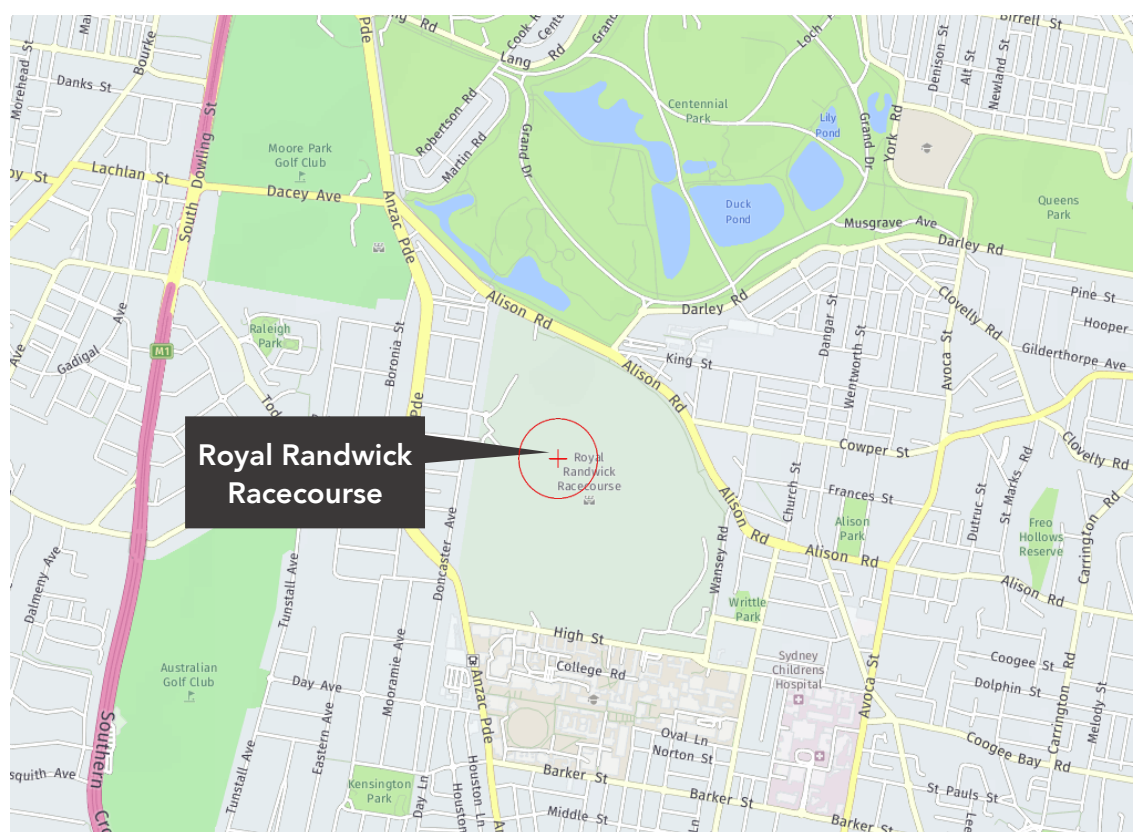


Figure 1.1 – Site Location (Source: HERE WeGo Maps)

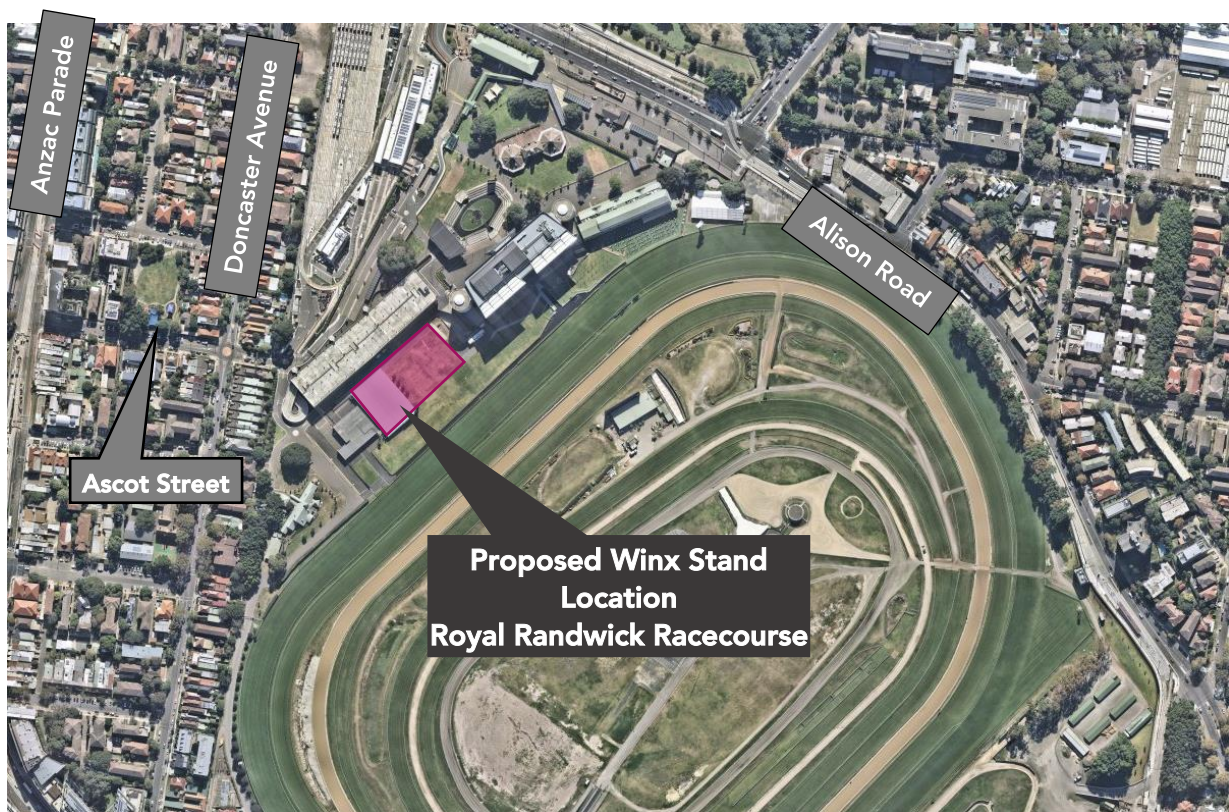


Figure 1.2: Aerial View of the Site

1.1 Purpose of this Report

This report presents the following considerations in relation to the construction pedestrian traffic management of the Proposal:

- | | |
|-----------|---|
| Section 2 | A description of the project; |
| Section 3 | A description of the road network serving the development property; |
| Section 4 | Management of construction vehicles and non-site traffic; and |
| Section 5 | Summary. |

2. The Development

2.1 Site Content

The Royal Randwick Racecourse lies within a Public Recreation Zone (RE1) which spans the entire footprint of the Royal Randwick Racecourse as well as to the north. The subject site is bounded by Infrastructure (SP2) to the south with Low Density Residential (R2) and Medium Density Residential (R3) to the east and west. Local Centre (B2) land uses are located to the east and west of the site.

Figure 2.1 presents the surrounding land uses of the Site.

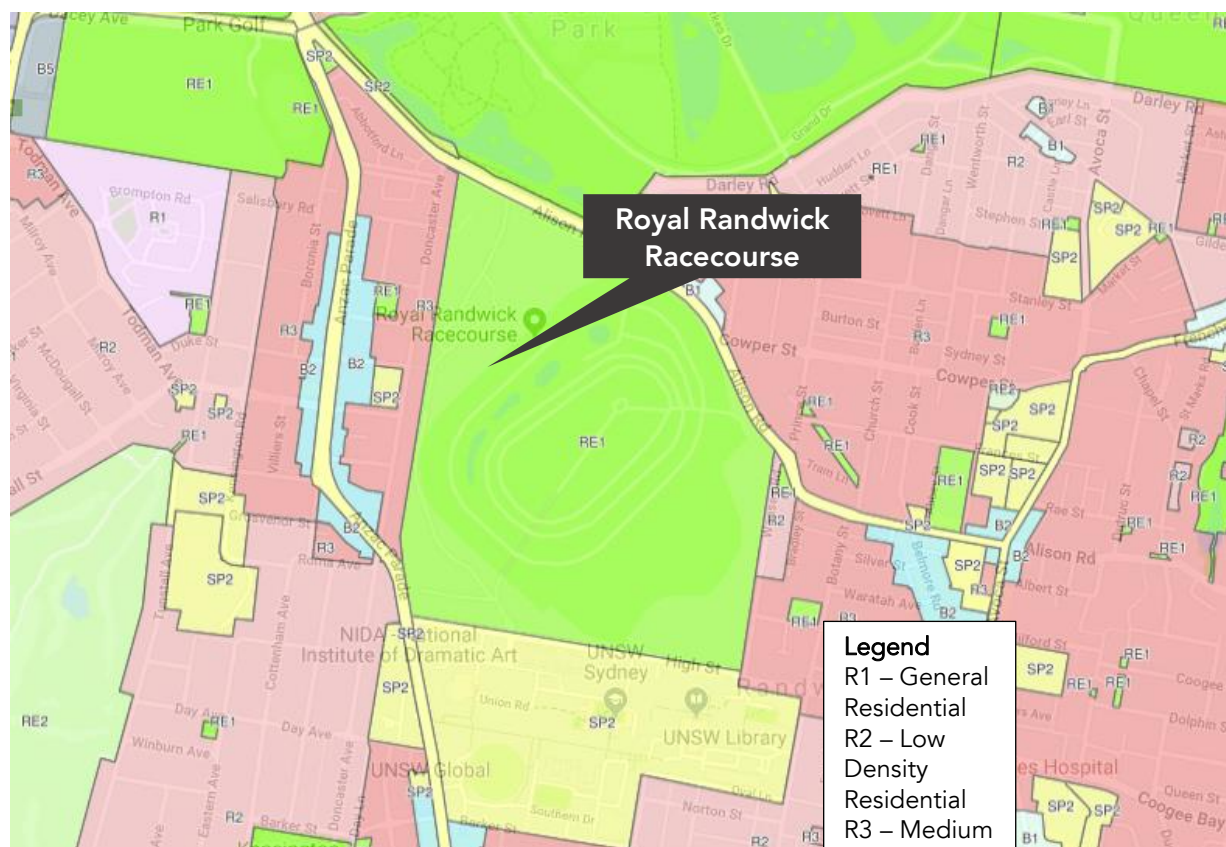


Figure 2.1 - Surrounding Land Uses of the Development

2.2 Development Proposal

The development proposal involves the development of a one-storey multi-purpose race day facility:

- 100m fully enclosed and serviced ground floor;
- 100m level 1 including 60m fully enclosed and serviced and 40m open air terrace; and
- Link Bridge to the QEII.

The multi-purpose facility acts as an improvement to the amenity of Royal Randwick Racecourse, it does not seek approval for increase of patronage numbers.

3. Existing Transport Facilities

3.1 Road Hierarchy

The subject site is located in the suburb of Randwick and is primarily serviced by the State Roads including Anzac Parade, Alison Road, Dacey Avenue, Avoca Street, Frenchmans Road, Carrington Road, and M1, as well as Regional Roads such as Darley Road, Carrington Road, York Road, Cowper Street, Todman Avenue, and Bourke Street. The site is also serviced by local roads managed by Council.

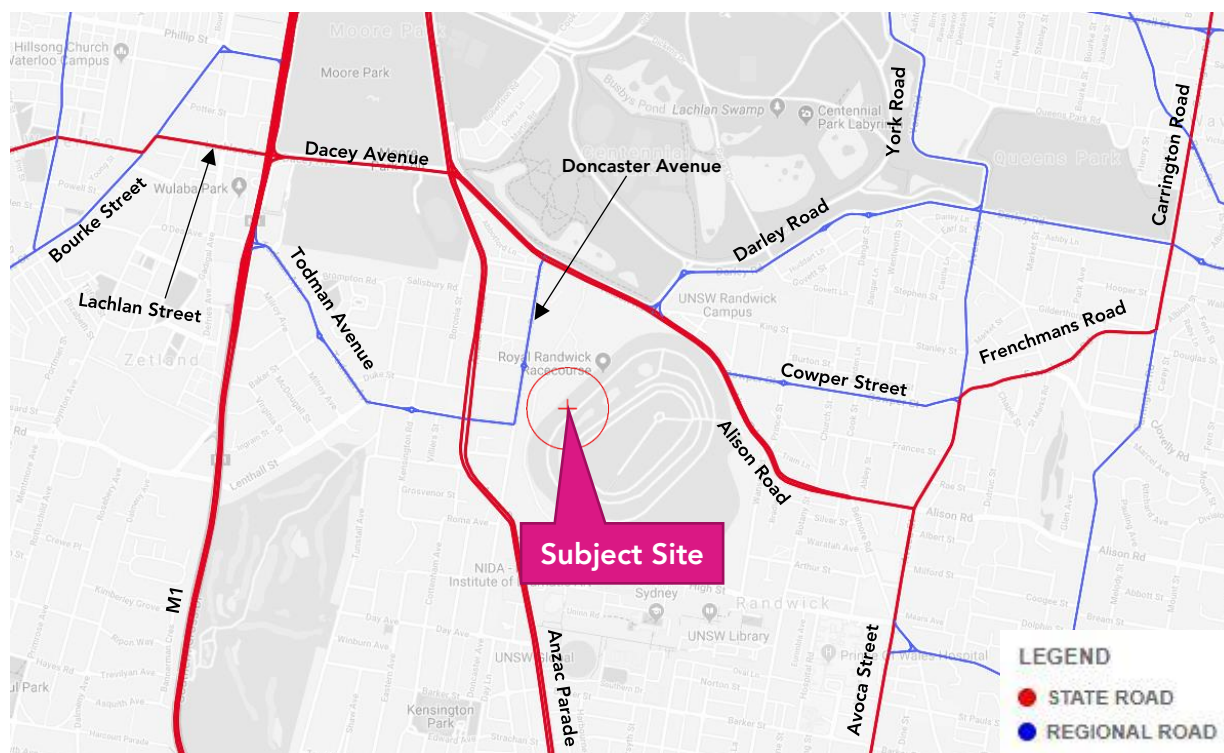


Figure 3.1: Road Hierarchy (RMS Road Hierarchy Review)

The NSW administrative road hierarchy comprises the following road classifications, which align with the generic road hierarchy as follows:

State Roads	- Freeways and Primary Arterials (RMS Managed)
Regional Roads	- Secondary or sub arterials (Council Managed, Part funded by the State)
Local Roads	- Collector and local access roads (Council Managed)

Anzac Parade

Road Classification	State Road
Alignment	North-South
Number of Lanes	2 lanes in each direction
Carriageway Type	Divided
Carriageway Width	20m
Speed Limit	70 km/h
School Zone	No
Parking Controls	No Parking
Forms Site Frontage	No



Figure 3.2: Anzac Parade – Southbound towards Darling Street

Alison Road

Road Classification	State Road
Alignment	Northwest-Southeast
Number of Lanes	3 lanes in each direction
Carriageway Type	Divided
Carriageway Width	20m
Speed Limit	60 km/h east of Doncaster Avenue; 70km/h west of Doncaster Avenue
School Zone	Between Avoca Street and Bradley Street
Parking Controls	Prohibited west of Wansey Road; time restricted parking east of Wansey Road
Forms Site Frontage	No



Figure 3.3: Alison Road – Northwest towards Anzac Parade

Avoca Street

Road Classification	State Road
Alignment	North-South
Number of Lanes	2 lanes in each direction
Carriageway Type	Undivided
Carriageway Width	13m
Speed Limit	60 km/h
School Zone	Between Albert Street and Mears Avenue
Parking Controls	No Parking southbound from 7am to 9am & from 4pm to 6pm (Mon-Fri) & No Parking northbound 7am to 6pm
Forms Site Frontage	No



Figure 3.4: Avoca Street – Northbound towards Allen Street

Doncaster Avenue

Road Classification	Regional Road
Alignment	North-South
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	12m
Speed Limit	50 km/h
School Zone	Between Ascot Street and Darling Street
Parking Controls	Time restricted parking
Forms Site Frontage	No



Figure 3.5: Doncaster Avenue – Northbound towards Bowral Street

3.2 Public Transport

The locality has been assessed in the context of available forms of public transport that may be utilised by prospective employees and customers. When defining accessibility, the NSW Guidelines to Walking & Cycling (2004) suggest that 400m-800m is a comfortable walking distance.



Figure 3.6: 800m radius of the subject site

3.2.1 Train

There are no train services within 800m radius of the development.

3.2.2 Bus

The development site is 470 metres and 510 metres to the bus corridors on Anzac Parade and Alison Road respectively. The locality is well serviced by buses that are operated by Sydney Bus Network. The bus stop locations are presented in Figure 3.7 and a summary of the bus routes are provided in Table 3.1.



Figure 3.7: Surrounding bus stops

Table 3.1: Summary of Bus Services

Route No.	Frequency (approximate)	Coverage	Stop Location
338	Only operate every 30 minutes from 7:30am to 9:30am and every 10 minutes from 4:30pm to 7pm Mon-Fri	Clovelly to Central Railway Square	530m & 540m
339	Every 30 minutes from 6am to 12am on weekdays Every 30 minutes from 6am to 1am on weekends	Clovelly to Circular Quay	530m & 540m
372	Every 15 minutes from 5:30am to 12:30am on weekdays Every 15 minutes from 5:30am to 11:30pm on weekends	Coogee to Central Railway Square	510m & 530m
373	Every 10 minutes on peak and every 30 minutes off peak throughout the day and night	Coogee to Circular Quay	510m & 530m
374	Every 15 minutes on peak and every 30 minutes off peak from 7am to 12am on weekdays Every 30 minutes from 7am to 12am on weekends	Coogee to Circular Quay	510m & 530m
376	Every 10 minutes on afternoon peak and every 30 minutes off peak from 7am to 7pm on weekdays Every 30 minutes from 9am to 7pm on weekends	Maroubra Beach to Central Railway Square	510m & 530m

Route No.	Frequency (approximate)	Coverage	Stop Location
377	Every 15 minutes on afternoon peak and every 30 minutes off peak from 6:30am to 12:30am on weekdays Every 30 minutes from 6am to 12:30am on weekends	Maroubra Beach to Circular Quay	510m & 530m
391	Every 15 minutes on peak and every 30 minutes off peak from 5:30am to 6:30pm on weekdays Every 30 minutes from 9am to 5pm on weekends	La Perouse to Central Railway Square	470m & 580m
392	Every 15 minutes on afternoon peak and every 30 minutes off peak from 8am to 12:30am on weekdays Every 30 minutes from 7am to 12am on weekends	Little Bay to Circular Quay	470m & 580m
393	Every 10 minutes on peak and every 30 minutes off peak from 6am to 11pm on weekdays Every 15 minutes on peak and every 30 minutes off peak from 6:30am to 11pm on weekends	Little Bay to Central Railway Square	470m & 580m
394	Only operate every 30 minutes during the day and every hour during night time from 3:30pm to 8:30am on weekdays and from 7pm to 7am on weekends	La Perouse to Circular Quay	470m & 580m
395	Every 30 minutes from 6am to 7:30pm on weekdays Every 30 minutes from 8am to 6:30pm on weekends	Maroubra Beach to Central Railway Square	470m & 580m
396	Every 30 minutes from 6:30am to 3:30am on weekdays Every 30 minutes from 6am to 3:30am on weekends	Maroubra Beach to Circular Quay	470m & 580m
397	Every 30 minutes from 9am to 11:30pm on weekdays Every 30 minutes from 8:30am to 11:30pm on weekends	South Maroubra to Circular Quay	470m & 580m
399	Every 15 minutes on peak and every 30 minutes off peak from 9am to 11:30pm on weekdays Every 30 minutes from 7am to 11:30pm on weekends	La Perouse to Circular Quay	580m
L94	Every 15 minutes from 9am to 7pm on weekdays Every 15 minutes from 8am to 6:30pm on weekends	La Perouse to Circular Quay	580m
M10	Every 10 minutes on peak and every 15 minutes off peak from 7am to 8:30pm on weekdays	Maroubra Junction to Leichhardt	470m & 580m

Route No.	Frequency (approximate)	Coverage	Stop Location
	Every 20 minutes from 7:30am to 8pm on weekends		
M50	Every 10 minutes on peak and every 15 minutes off peak from 6:30am to 8:30pm on weekdays Every 20 minutes from 7:30am to 7:30pm on weekends	Coogee to Drummoyne	510m & 530m
X92	Only operate every 15 minutes from 6:30am to 8am to the city and from 5pm to 6:30pm from the city on weekdays	Little Bay to City Museum	580m
X94	Only operate every 20 minutes from 7am to 8:30am to the city and from 4pm to 7pm from the city on weekdays	La Perouse to Circular Quay	580m
X96	Only operate every 15 minutes from 7am to 8:30am to the city and from 5pm to 6:30pm from the city on weekdays	Maroubra Beach to City Martin Place	580m
X97	Only operate two services from 7:30am to 8am to the city and from 5:20pm to 5:40pm from the city on weekends	South Maroubra to City Museum	580m
X99	Only operate every 30 minutes from 7am to 8:30am to the city on weekdays	Little Bay to City Museum	580m

The existing bus services are frequent and provide good connection to the City and major neighbouring town centres.

3.2.3 Light Rail

The Sydney CBD and South East light rail is currently under construction and is expected to reach completion in 2019. As a result, the roads along the route are undergoing significant upgrades. The light rail comprises of 19 stops along the 12km route, which originates in Circular Quay, passing through Wynyard, Town Hall, Central, Moore Park and then splitting up into two lines at the intersection of Anzac Parade with Alison Road and terminating in Randwick and Kingsford respectively. The light rail services will operate every four minutes during the peak hours and will be able to transport the mass reliably.

In summary, there are six light rail stops surrounding Royal Randwick Racecourse, which will provide easy access to and from the city.

The routes and stops of the prospective light rail are presented in Figure 3.8.

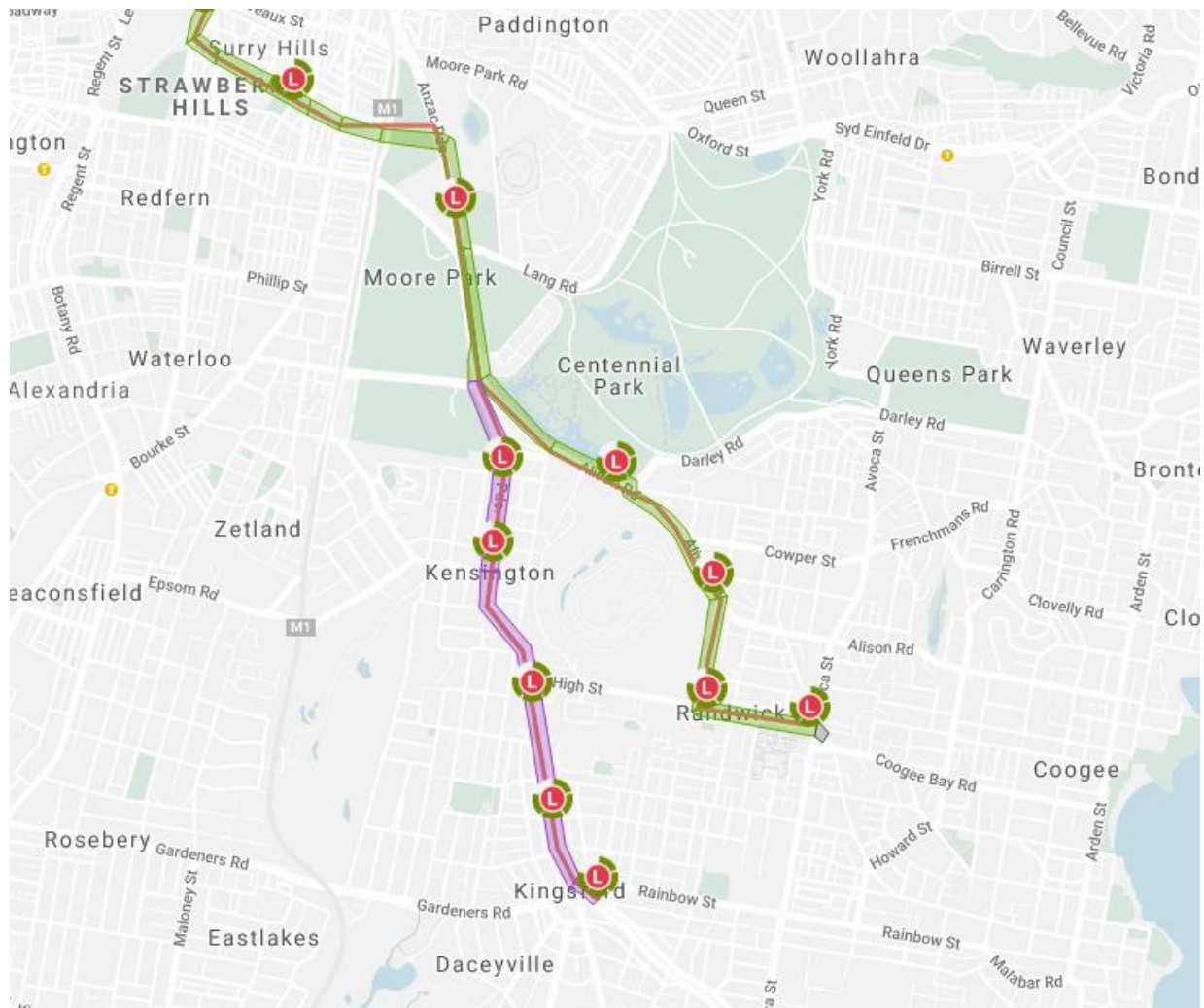


Figure 3.8: Light Rail Routes under construction (Source: Sydney Light Rail)

3.3 Active Travel

In addition to public transport, the locality has been assessed for its active transport potential.

3.3.1 Walking

In terms of public infrastructure, the local road network offers a high level of amenity and safety for pedestrians, providing footpaths on either side of most roadways, signalised crossings, supporting signage and appropriate lighting throughout the locality.

3.3.2 Cycling

According to Randwick City Council's cycling and walking map, the subject site is located within a well-connected bicycle network. This will encourage and promote cycling as an alternative mode of transport for its occupants which is a healthy, low cost and environmentally-friendly method of travel.

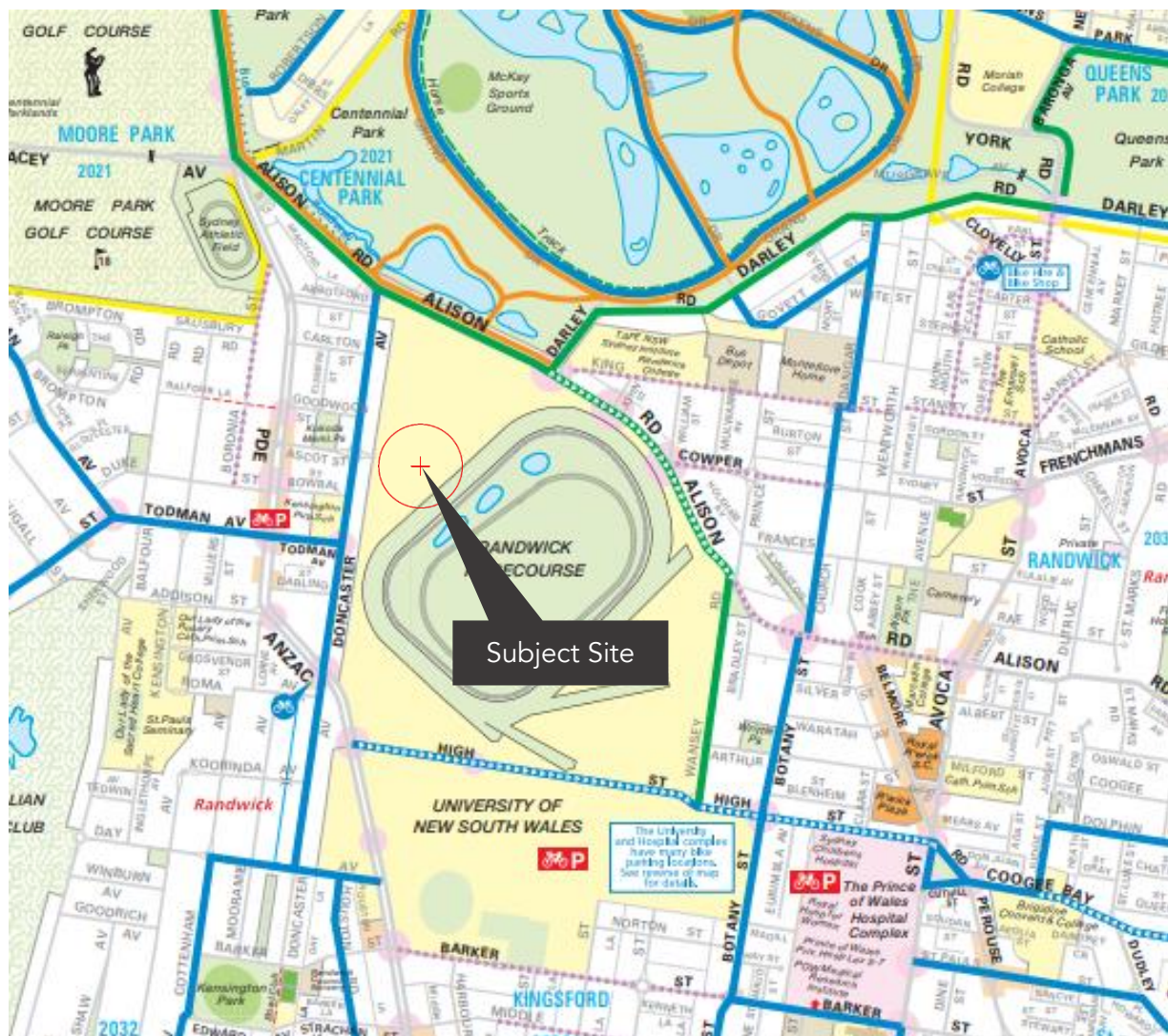


Figure 3.9: Randwick City Council's Cycling and Walking Map

4. Construction Pedestrian Traffic Management Plan

4.1 Objective

The traffic management plan associated with the construction activity aims to ensure the safety of all workers and road users within the vicinity of the construction site and the following are the primary objectives:

- To minimise the impact of the construction vehicle traffic on the overall operation of the road network;
- To ensure continuous, safe and efficient movement of traffic for both the general public and construction workers;
- Installation of appropriate advance warning signs to inform users of the changed traffic conditions;
- To provide a description of the construction vehicles and the volume of these construction vehicles accessing the construction site;
- To provide information regarding the changed access arrangement and also a description of the proposed external routes for vehicles including the construction vehicles accessing the site; and
- Establishment of a safe pedestrian environment in the vicinity of the site.

4.2 General Requirements

In accordance with Road and Maritime Services (RMS) requirements, all vehicles transporting loose materials will have the entire load covered and/or secured to prevent any large items, excess dust or dirt particles depositing onto the roadway during travel to and from the site.

All subcontractors must be inducted by the lead contractor to ensure that the procedures are met for all vehicles entering and exiting the construction site. The lead contractors will monitor the roads leading to and from the site and take all necessary steps to rectify any road deposits caused by site vehicles.

Vehicles operating to, from and within the site shall do so in a manner, which does not create unreasonable or unnecessary noise or vibration. No tracked vehicles will be permitted or required on any paved roads. Public roads and access points will not be obstructed by any materials, vehicles, refuse skips or the like, under any circumstances.

4.3 Staging and Program

The proposed overall development of the site will involve demolition, earthworks / excavation and construction, to which this CPTMP relates.

The estimated staging, description and programming of the works is summarised in Table 4.1.

Table 4.1 – Staging and Program of the overall Project

Phase	Description	Duration	Estimated Commencement
Demolition	Demolition of existing temporary race day stalls and site setup	15 days	November 2020
Excavation	Ground works including piling, footing and excavation	30 days	December 2020
Construction	Construction of slabs, columns and the roof	210 days	January 2021
Services Fitout	Fitout and finishes of the services	75 days	August 2021

4.4 Hours of Work

All works associated with the project will be restricted to the time periods specified in the Conditions of Consent. As the conditions of consent have not yet been issued, the development is proposing the following working hours to be associated with the construction activity:

- Monday to Saturday 08:30am to 05:30pm;
- Sunday or public holidays No works to be undertaken without prior approval

Where it is necessary for works to occur outside of these hours, a separate approval of an 'outside of hours works permit' will be required.

In addition, it is proposed that no works are to be carried out on race days, or prior to 11:30am on barrier trial days.

4.5 Construction Vehicle Types

As discussed in Section 4.3, the construction will be undertaken in four (4) stages and each stage will require access and egress for various vehicles dependent on the stage of construction.

Table 4.2 – Construction vehicles and estimated vehicle trips

Phase	Description	Maximum Size of Vehicles	Estimated Max Daily Trips
Demolition	Demolition of existing temporary race day stalls and site setup	19m AV*	6
Excavation	Ground works including piling, footing and excavation	19m AV	6
Construction	Construction of slabs, columns and the roof	HRV**	6
Services Fitout	Fitout and finishes of the services	MRV	6

* 19m long Articulated Vehicle, ** 12.5m long Heavy Rigid Vehicle

**These are the estimated maximum trips during each stage and the intensity will vary dependent on the construction activity being undertaken, i.e. – concrete pours, material deliveries, etc.*

Any oversized vehicle that is required to travel to the site will be dealt with separately, with the submission of required permits to and subsequent approval by Randwick City Council prior to any delivery.

4.6 Construction Vehicle Routes

The site is located in Randwick and the proposed construction vehicle inbound and outbound routes have regard for the surrounding traffic arrangements within the vicinity of the site, as shown in Figure 4.1.

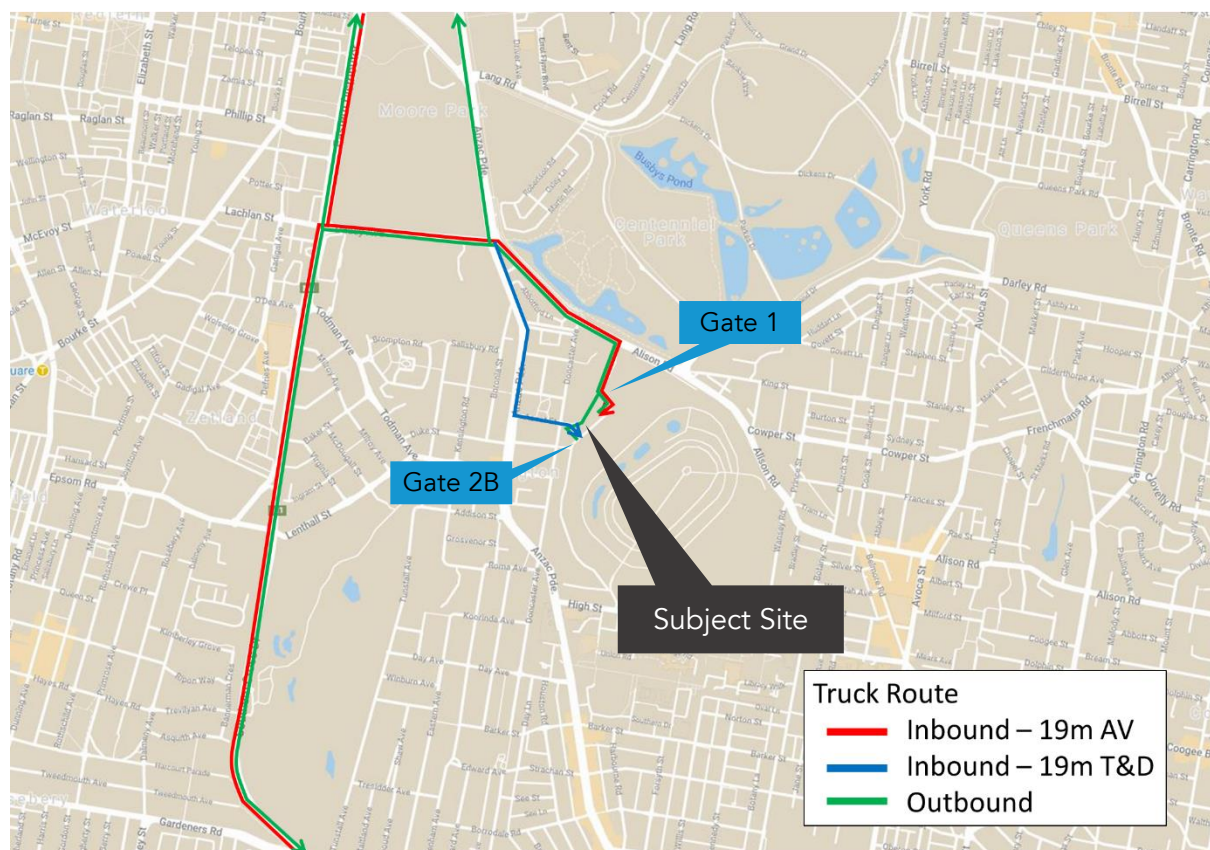


Figure 4.1 – Construction Vehicle Routes

Construction vehicles during all stages of work will access Royal Randwick Racecourse and subsequently the subject site via either one of two routes:

- Gate 1 via Alison Road
- Gate 2B via Aston Street

It is noted that the site access via Gate 2B is limited to a 19m Truck and Dog (T&D), while the Gate 1 access can accommodate vehicles up to a 19m articulated vehicle (AV). Loading/Unloading and concrete pouring activities will occur within Royal Randwick Racecourse, no queuing or marshalling of trucks is permitted on any public road.

All vehicle routes are constrained to existing public roads that have the physical geometry to accommodate the turning movements.

All access gates to the site will be managed by gate controllers to ensure the safe management of the access and egress to the site and its interaction with non-construction traffic on the road network.

Swept path analysis has been undertaken by utilising the largest vehicle type on the key intersections to confirm that the existing intersections can accommodate these truck movements. It is noted that a traffic

controller will be required at these two intersections to manage the truck movements, due to the potential encroachment of opposite traffic lane (refer to Figure 4.2).

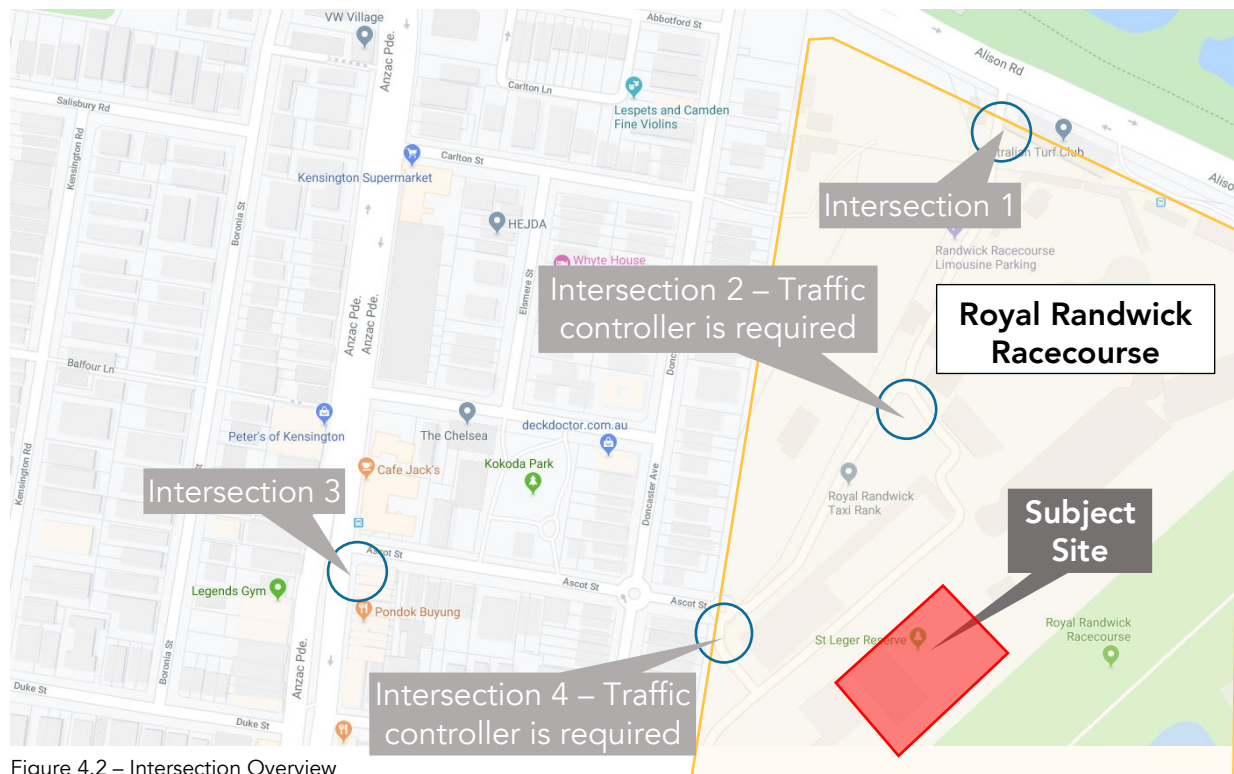


Figure 4.2 – Intersection Overview

The swept path analysis for each intersection can be found in Figure 4.3, Figure 4.4, Figure 4.5, and Figure 4.6 accordingly.

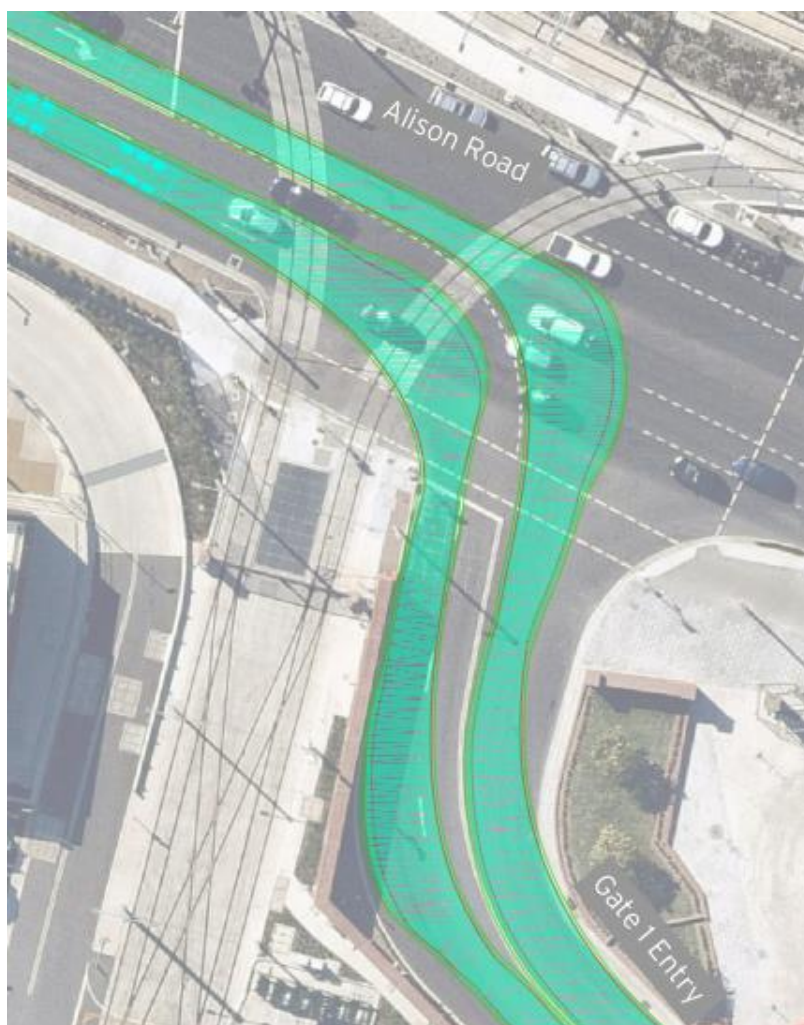


Figure 4.3 – 19m AV Swept Path Analysis – Intersection 1 (Alison Road/Gate 1 Entry)



Figure 4.4 – 19m AV Swept Path Analysis – Intersection 2 (Internal Road)



Figure 4.5 – 19m T&D Swept Path Analysis – Intersection 3 (Anzac Parade/Ascot Street)



Figure 4.6 – 19m T&D Swept Path Analysis – Intersection 4 (Ascot Street/Gate 2B Entry)

4.7 Construction Vehicle Site Access and Egress

As discussed in Section 4.6, the construction activity will be fully within Royal Randwick Racecourse (RRR) with site access and egress via either Gate 1 or 2B. Traffic controllers will be utilised to safely manage the access and egress paths within RRR.

4.8 Works Zone

No works zone is proposed on public roads. The loading/unloading and other construction related activities will be fully accommodated within Royal Randwick Racecourse.

4.9 Pedestrian Access

Pedestrian access to and around the site is to be maintained at all times. To provide segregation and protection for pedestrians, it is proposed a security gate is erected in all internal roads leading to the subject site.

All access points are to be securely locked when construction activities are not in progress.

The exact locations of these gates are to be agreed on site, prior to commencement of the works.

4.10 Special Deliveries

Whilst not anticipated, any oversized vehicle that is required to travel to the site will be dealt with separately, with the submission of required permits to and subsequent approval by Council prior to any delivery. Requests shall be submitted 28 days prior to the scheduled date of use of an oversized vehicle.

4.11 Staff Parking

The workers' parking demand will be contained fully within Royal Randwick Racecourse and it is not expected to create any parking demand in the nearby residential streets. In addition, with excellent bus services around the site and the upcoming light rail, the workers will also be encouraged to rely on public transport.

A public transport pack information is to be provided to all staff and contractors, advising them of the public transport options available.

4.12 Work Site Security

As discussed in Section 4.9, to provide security to the works site and protection to the general public, it is proposed that a security gate is to be erected in all internal roads leading to the subject site. All access points are to be securely locked when construction activities are not in progress. The exact locations of the access points are to be agreed on site, prior to commencement of the works.

4.13 Staff Induction

All staff and subcontractors engaged on site will be required to undergo a site induction. The induction will include permitted access routes to and from the construction site for all vehicles, as well as standard environmental, OH&S, driver protocols and emergency procedures. Additionally, the lead contractor will discuss TMP requirements regularly as a part of toolbox talks and advise workers of public transport and car-pooling opportunities.

4.14 Emergency Vehicle Access

The proposed traffic control arrangements do not propose closure of any local roads.

Any emergency vehicles requiring access to the project site will do so via the site access on Alison Road or Ascot Street.

4.15 Access to adjoining properties

Access to all adjoining properties will be maintained throughout the works.

4.16 Occupational Health and Safety

Any workers required to undertake works or traffic control within the public domain shall be suitably trained and will be covered by adequate and appropriate insurances. All traffic control personnel will be required to hold RMS accreditation in accordance with Section 8 of RMS Traffic Control at Worksites.

4.17 Contact Details for On-Site Enquiries and Site Access

For on-site enquiries and site access, Mostyn Copper, the Superintendent, or alternatively Matt Mostyn, the Joint Managing Director of Mostyn Copper Group Pty Ltd (the Principal Builder) can be contacted via phone: 0421 744 080.

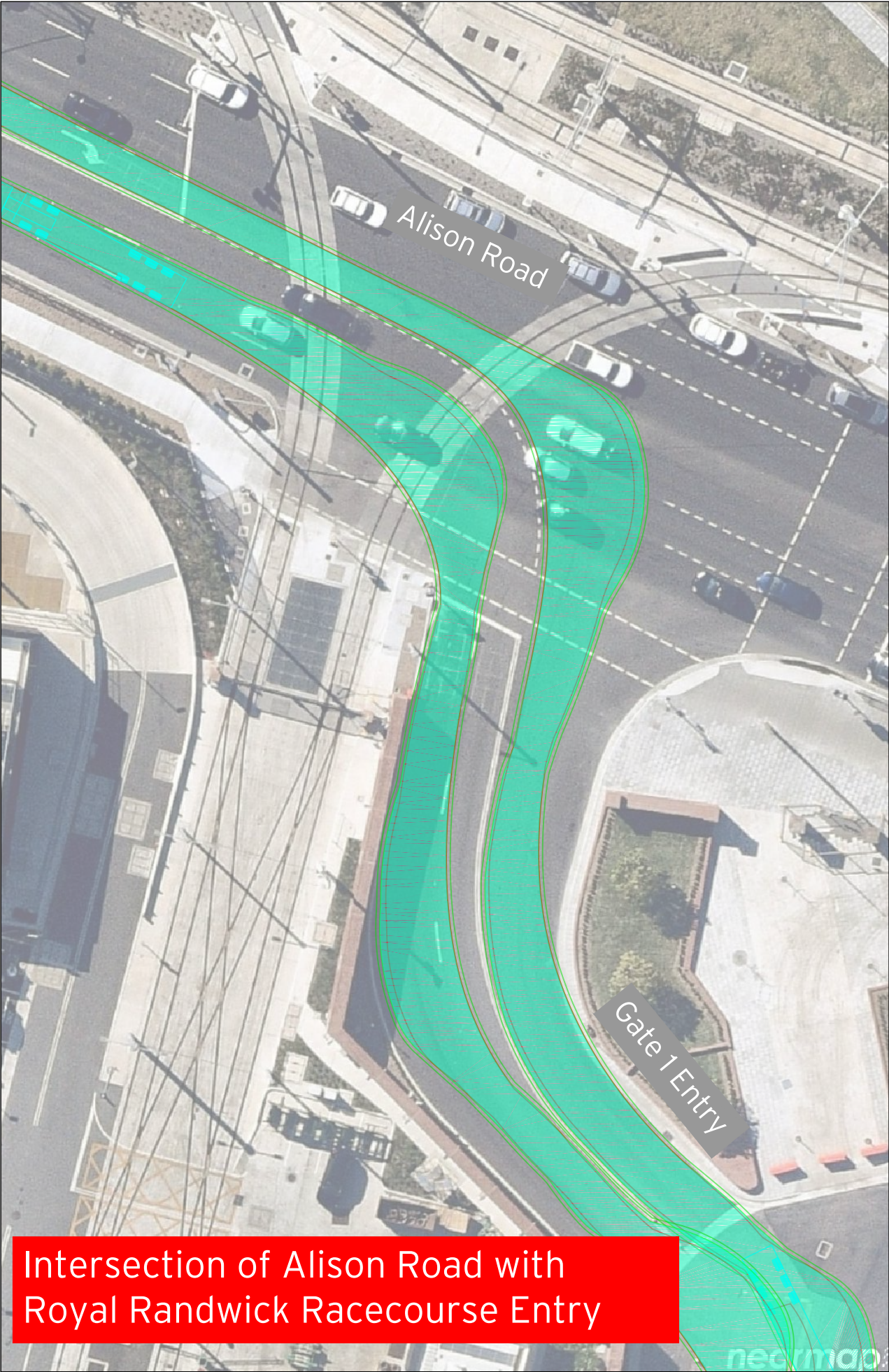
5. Summary

This CPTMP has been prepared to outline the construction traffic measures to improve site safety to the public and workers and the construction process, which will accompany the Environmental Impact Statement (EIS) as requested by the Planning Secretary's Environmental Assessment Requirements (SEARs).

The construction activity is anticipated to have minimal disruption to the daily activities within the vicinity of the site.

It is envisaged that this document will be continually reviewed and amended if required, due to changes in design, RMS, Councils or any other authority requirements.

Attachment 1 Swept Path Assessment



comments

A3

AV - Articulated Vehicle

8.2

13.7

1.6

6.6

4.7

2.1

8.1

1.4

1.4

1.5

Max 2° Horiz

Max 4° Vert

AV - Articulated Vehicle

Overall Length

Overall Width

Overall Body Height

Min Body Ground Clearance

Track Width

Lock-to-lock time

Curb to Curb Turning Radius

19.000m

2.500m

4.301m

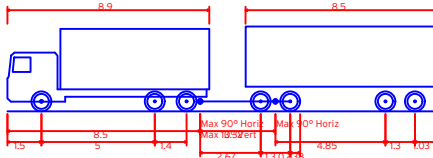
0.418m

2.500m

6.00s

12.500m

<div>ptc.</div> <div>Suite 502, 1 James Place North Sydney NSW 2060</div> <div>t +61 2 8920 0800</div> <div>ptcconsultants.co</div>	rev	date	comment / description	drawn	reviewed	<div><div></div><div></div></div>	project <div>Leger Lawn Development, Royal Randwick Racecourse</div>	drawing title <div>19m Articulated Truck Swept Path - Gate 1 Access via Alison Road</div>	client <div>Australian Turf Club</div>	rev <div>1</div>
									drawing # <div>TP-001</div>	
									project # <div>2595B</div>	
									scale <div>1 : 400</div>	
	1	15/10/19	FOR INFORMATION	EL	EL					



19M TRUCK AND DOG
Overall Length 19.000m
Overall Width 2.600m
Overall Body Height 3.738m
Min Body Ground Clearance 0.427m
Track Width 2.500m
Lock-to-lock time 4.00s
Wall to Wall Turning Radius 12.000m

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rev	date	comment / description	drawn	reviewed
1	15/10/19	FOR INFORMATION	EL	EL

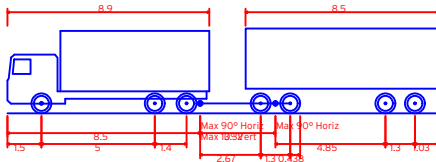


project
Leger Lawn Development, Royal
Randwick Racecourse

drawing title
19m Truck and Dog Swept Path - Gate 2B
Access via Anzac Parade

client	Australian Turf Club
drawing #	TP-002
project #	2595B
scale	1 : 250

rev 1



19M TRUCK AND DOG
Overall Length 19.000m
Overall Width 2.600m
Overall Body Height 3.738m
Min Body Ground Clearance 0.427m
Track Width 2.500m
Lock-to-lock time 4.00s
Wall to Wall Turning Radius 12.000m

<div>ptc.</div> <div>Suite 502, 1 James Place North Sydney NSW 2060</div> <div>t +61 2 8920 0800</div> <div>ptcconsultants.co</div>	rev	date	comment / description	drawn	reviewed		project Leger Lawn Development, Royal Randwick Racecourse	drawing title 19m Truck and Dog Swept Path - Gate 2B Access via Anzac Parade	client	Australian Turf Club	
									drawing #	TP-003	rev 1
									project #	2595B	
									scale	1 : 400	
	1	15/10/19	FOR INFORMATION	EL	EL						

Attachment 2 Site Establishment Plan

