Architecture Interior Design Landscape Architecture Planning Urban Design Australia China Hong Kong Singapore United Kingdom United States of America

BROOKVALE OVAL REDEVELOPMENT CENTRE OF EXCELLENCE & GRANDSTAND

DA Design Report



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Front cover image: Manly Sea Eagles
Center Of Excellence & Grandstand
by HASSELL

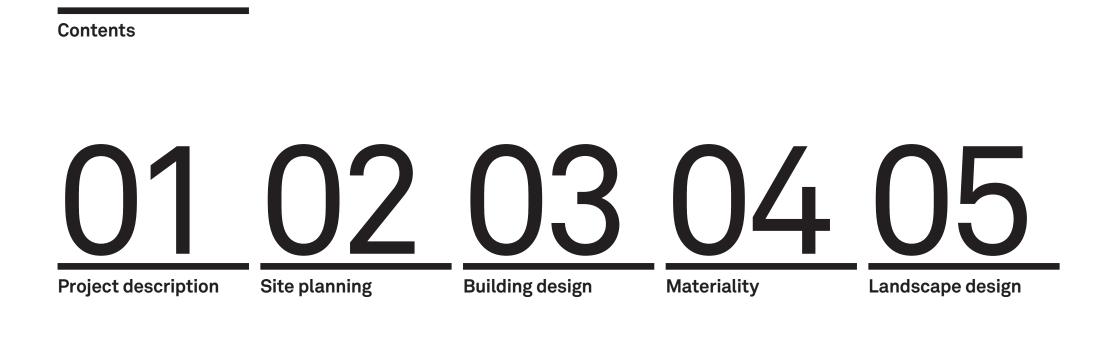
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Document control Date Prepared by Approved by Description Rev 01 01 October 2019 **Ryan Peters** Glenn Scott DRAFT DA Design Report 11 October 2019 Filae Gil Glenn Scott Final DRAFT DA Design Report 02 22 October 2019 Filae Gil Glenn Scott DA Design Report 03

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ABN/XXXXXXXX





Visualisations

Appendix



1.3 Project Greater Site Plan & Brief



Design team

HASSELL is Lead Consultant;

Urban Design, Architecture, Landscape Architecture, Interior Design

TTW

Civil, Structural, Traffic & Facade Engineering

LCI

Bulding services & specialist consultants

McKenzie Group

NCC, DDA & PCA

BrandCulture

Graphics & Signage

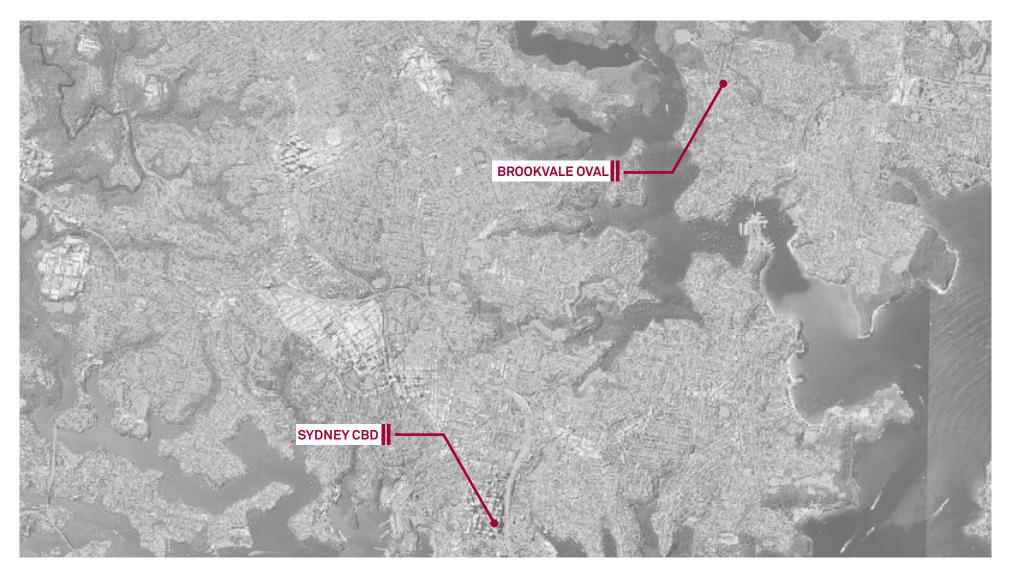
GNF + P

Aquatic/Pool Design

Client

NRL Manly Warringah Sea Eagles Client Rep: Waypoint Project PM: APP









Brief

Deliver a state-of-the-art HQ and High Performance Training Centre for the NRL MWSE at Brookvale Oval;

_Training & medical/rehab areas

_Coaching / Footy Office areas

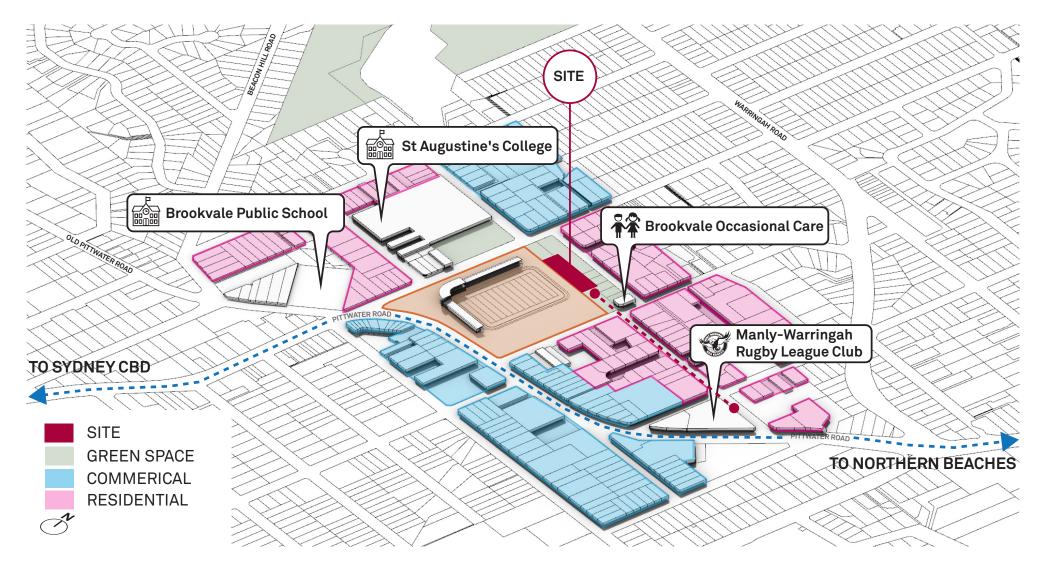
- _Players change and social areas
- _Adminstration & Marketing areas
- _Community program areas
- _Female friendly facilities
- _3,000 undercover seats

Scale

3,600m2 GFA + 3,000 seats 2 levels (1,800m2/ floor)







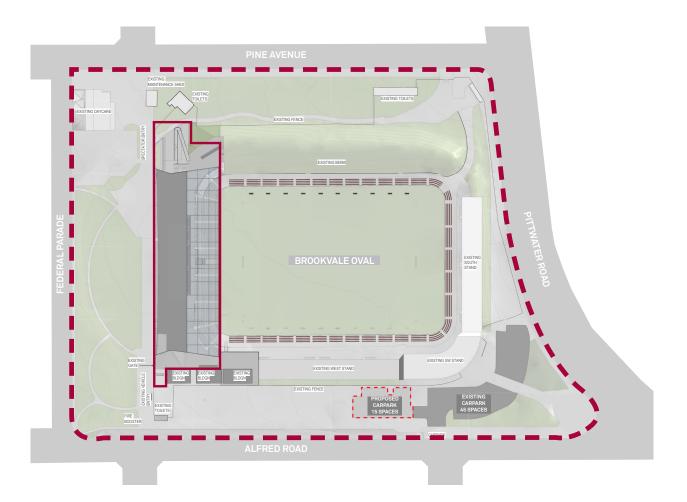


The site

The proposal sites the building and grandstand on the northern edge of the existing pitch. This results in a two storey north facing facade addressing the parkland along defining the edge and minimising the built componend of the project along the northern lot boundary.

A south facing grandstand looks out over the pitch and south stand towards Pittwater Road. The pitch is reduced slightly to accomodate the building extent.

The existing car-park in the south-west corner is expanded to hold 60 spaces in total to the service the new CoE. The exsting carpark holds 45 spaces and will be expanded to hold an additional 15 only.



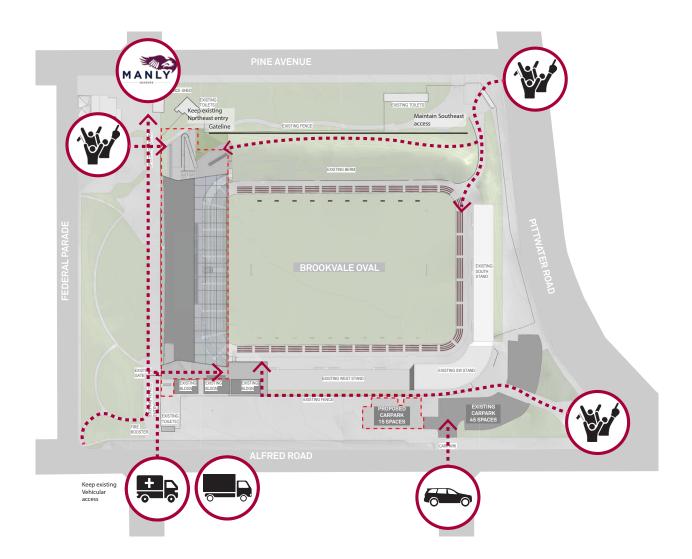


Vehicles

Existing vehicle access points are maintained providing clear separation of vehicles and pedestrians. Vehicle access points are from Alfred Road.

Pedestrians

Fans enter the site from the four corners of the block and are filtered through three entries to the pitch. Clear pedestrian zones are articulated through hard scaped surfaces, the general principle of which is consistent with the current site conditions.





Relocated

The following infrastructure will be relocated;

- _
- Scoreboard to N-E corner Sand/soil bins to grounds _
- maintenance

Replaced

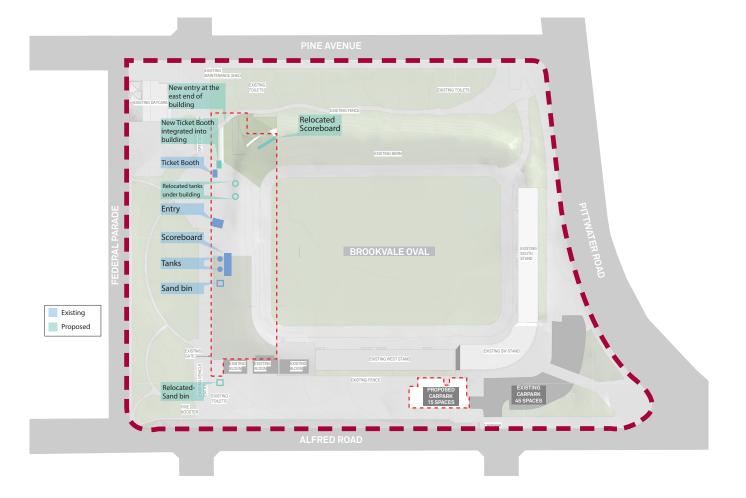
The following infrastructure will be replaced;

2x irrigation tanks (50kL)
 Ticket sales booth

Maintained

The following infrastructure will be maintained;

_ 1x irrigation bore





Site services

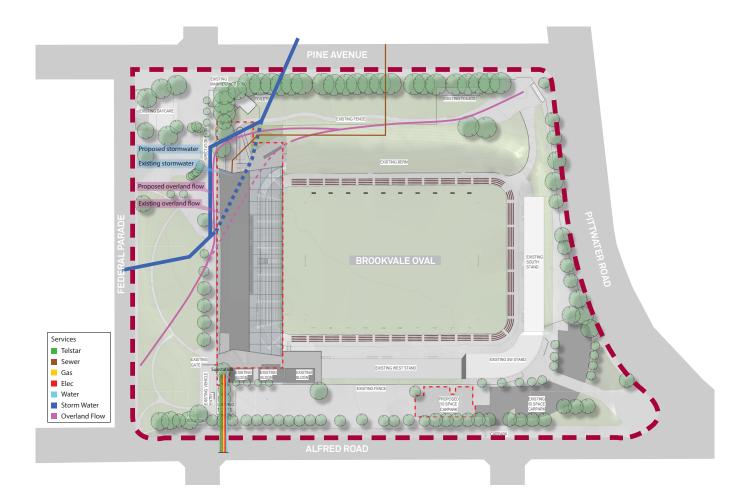
The existing council 600D stormwater line will be diverted around the east of the proposed building.

The existing overland flow path will be diverterd around the east of the proposed development.

New major services connections will enter the site from Alfred Street south of the existing disused toilet block to minimise impacts to existing driveway paving.

A new fire booster set will be located west of the exsting disused toilet block facing Alfred Street.

A new kiosk substation is required and will be located in north-west corner of the site for ease of connection to mains in Alfred Street.

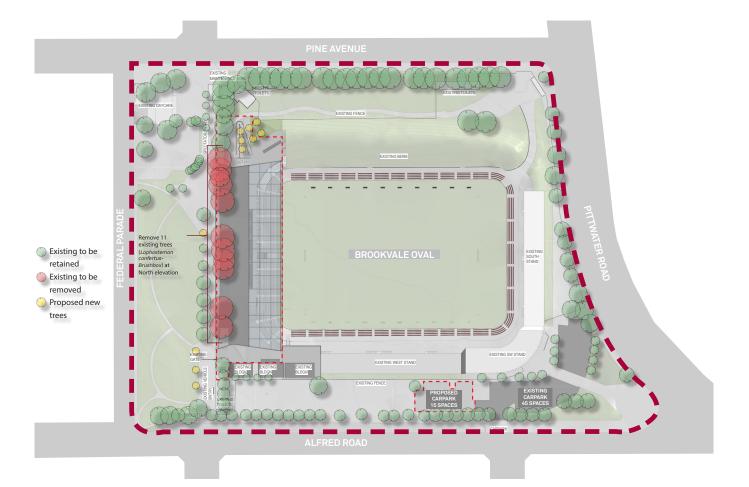




Tree strategy

The number of trees to be retained have been maximised within the constraints of the site. The new substation,re-routed 600D stormwater pipe and additional 15 car spaces have been located to avoid removal of any trees to accommodate installation.

Eleven trees need to be removed for the building site. These trees will be replaced with new advanced Brush-Box trees along the northern side of the existing north pathway to continue the existing tree curtilage along the pathway and at the north-east corner of the site to maintain the sense of visual enclosure the existing trees have to the pitch.





Ground investigations

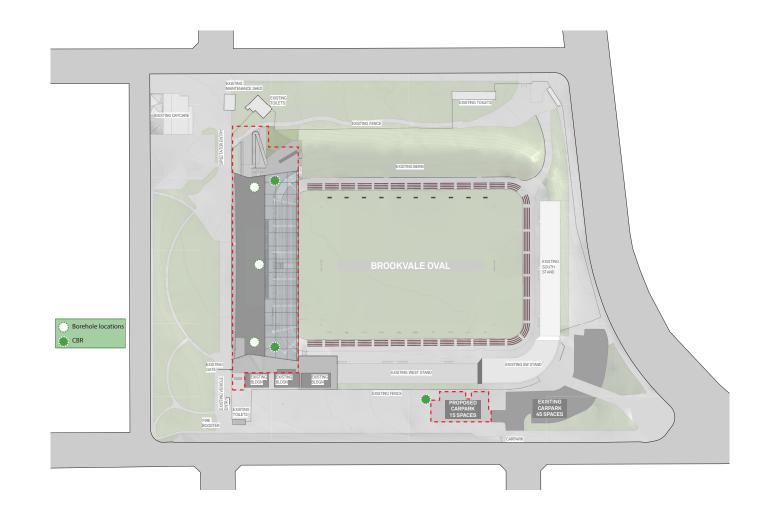
Existing soil and foundation material conditions have been undertaken.

Foundation approach

A piled foundation strategy will need to be adopted with rock bearing strata located around 18-20m deep.

Contamination

Asbestos has been located in the existing soil mounds and a strategy will be develped to address this as part of the project. The intent to 'cap-onsite' below concrete slabs is the preferred approach.





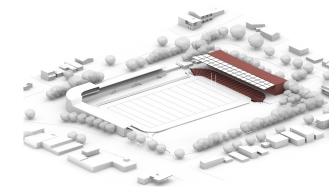
- 3.4 Design Massing Response
- 3.5 Project Brief & Program
- 3.6 Plans, Sections & Elevations
- 3.7 Area Schedule
- 3.8 Operational Planning & Circulation



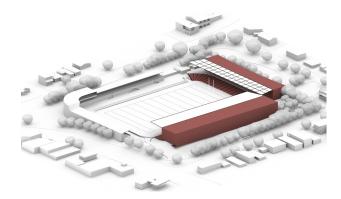
Future proofing the precinct

The proposed northern site location future proofs the site by unlocking the rest of the site to possibly be developed at a future stage as part of a staged Brookvale Oval Precinct Redevelopment Masterplan.

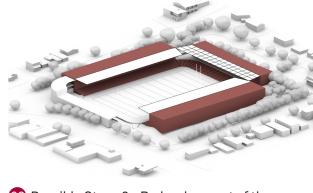
The following diagrams demonstrate a possible 4 stage redevelopment masterplan.



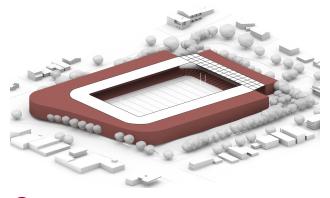
0 Stage 1 - Centre of excellence and northern grandstand



O2 Possible Stage 2 - Redevelopment of the eastern hill into a grandstand



OB Possible Stage 3 - Redevelopment of the western stand



• Possible Stage 4 - Redevelopment of the southern stand

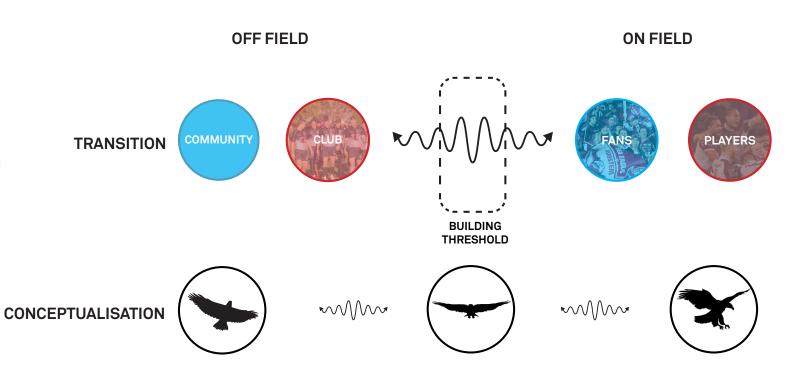


Conceptual approach

The building is conceived of as being a threshold between the external public park spaces and the event spaces within the venue.

Importantly the building has two(2) faces and two(2) addresses that need to be appropriately considered - ie there is no "back and front".

The building as a threshold also supports the transition of the fans and the players/coaches public 'offfield' personas' to their 'on-field' event personas.





off-field Persona Community





Conceptual response to site

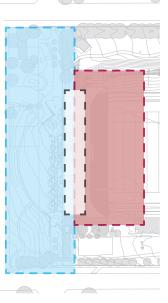
As discussed above the building is conceived of as being a threshold between the external public park spaces and the event spaces within the venue.

Importantly the building has two(2) faces and two(2) addresses that need to be appropriately considered - ie there is no "back and front";

1. North face: Park and public address

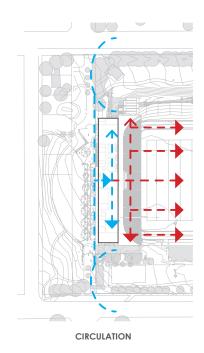
2. South face: Pitch and event address

Further during an event the East and West building faces become the 'point of arrival and address' for fans - they need to be considered as front doors, and not just less important sides of the building.



ATMOSPHERE

ADDRESS

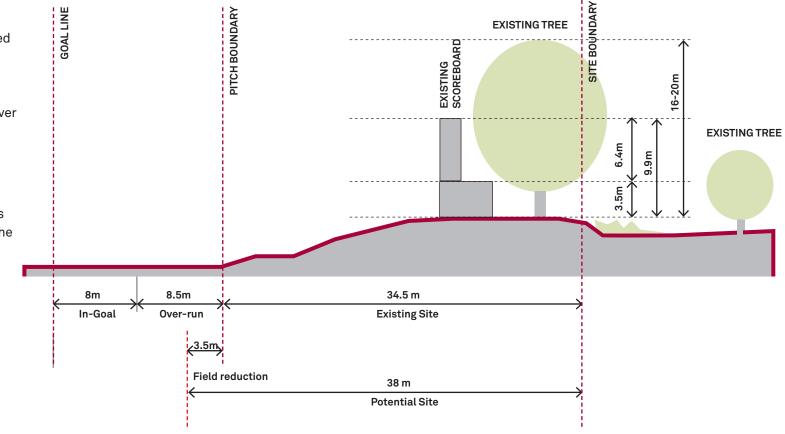




Maximise the site

On investigation if was discovered that there was a potential additional 3.5m in site area that could be utilised as the 'safety over-run' beyond the in-goal is over sized. This has the potential to increase the width of the site to 38m.

By utilising this additional 3.5m and widening the site to 38m it is now possible to accommodate the building brief on the site.



DIAGRAMMATIC SITE SECTION



Test fit study #1

By utilising this additional 3.5m and widening the site to 38m it is now possible to accommodate the building brief on the site and retain as many trees as possible.

To accomodate the brief and functional program along the northern site of the oval, the building footprint is 105m x 38m.

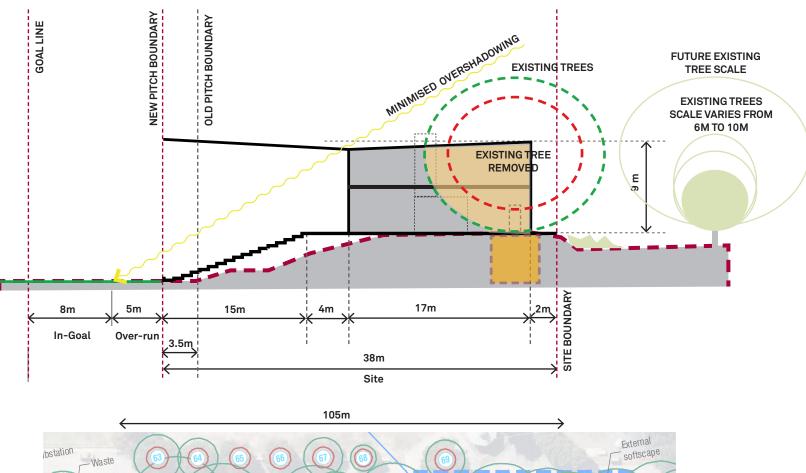
Outcome

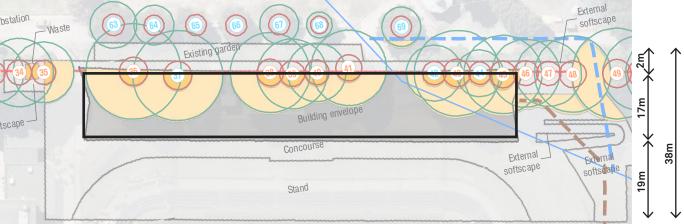
Accomodates brief over only 2 floors.

Minimises height of building and maintains similar scale to existing grandstands.

Minimises overshadowing of pitch.

Requires removal of 11 trees to fit project brief.







Test fit study #2

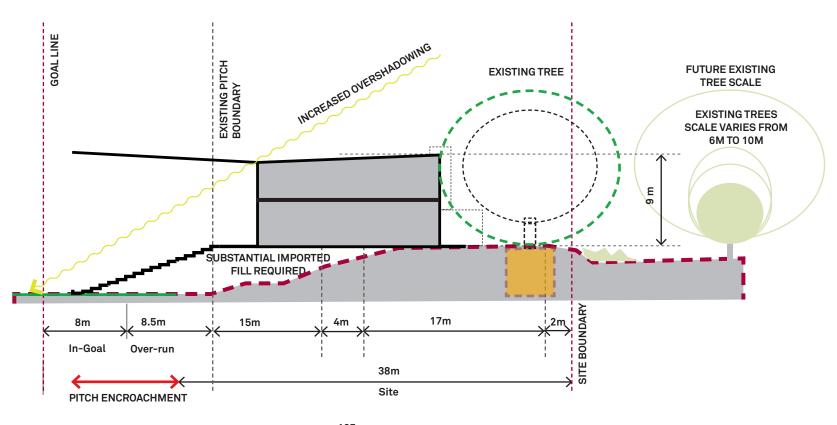
By trying to retain as many as all of the trees on the site the optimum building footprint of 105mx17m would have to push 14m further south greatly impacting the pitch and the posibility of a future staged redevelopment of the precinct.

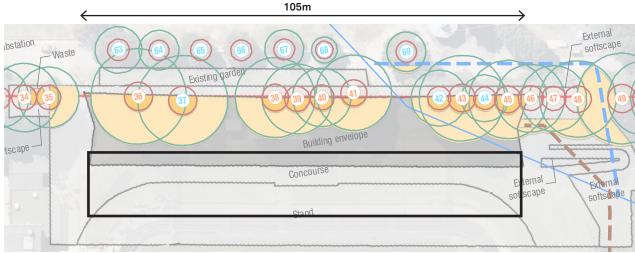
Outcome

Encroachment on pitch required to fit project brief.

Increases overshadowing of pitch.

Substantial imported fill required beneath building and grandstand.







Test fit study 3

Another building test fit option explored the possibilties of fitting a long skinny building along the entire northern site wihtout removing any of the trees. However, the long and tall bulding footprint greatly impacted sun access to facilitate pitch growth and the brief functional requirements.

Outcome

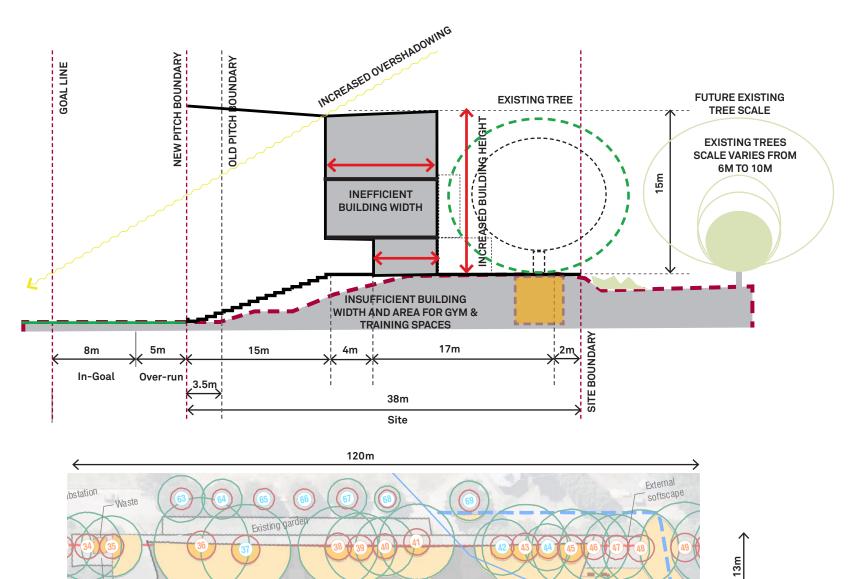
Ineffecient buildng width & proportion.

Increased building height, and much taller than existing grandstands.

Insufficient building width and area for gym & training spaces at ground level.

Significant increased overshadowing to pitch.

Brookvale Oval Redevelopment Centre of Excellence and Grandstand



Building envelope

Concourse

Stand

15m 10m

softso

25m

External

softscal



Test fit study #4

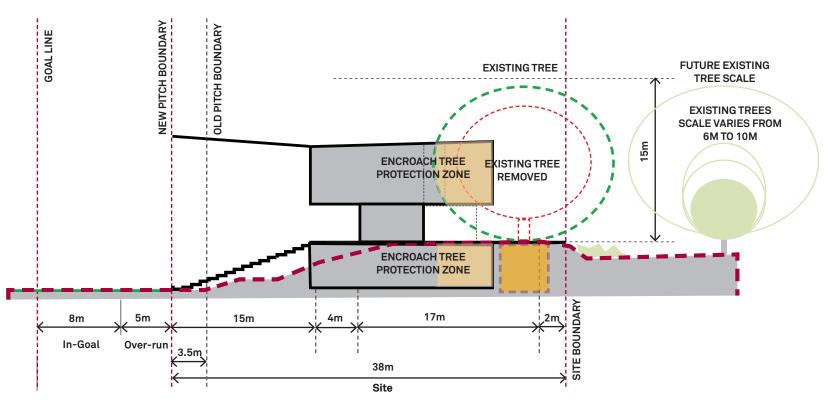
This test fit option explored the possibilities of floating and burying the building at the northern site without removing any of the trees.

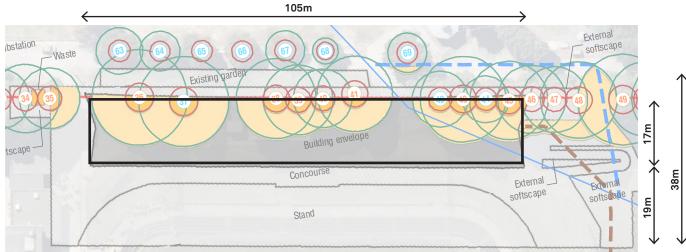
Outcome

Program adjacencies inadequate.

Excavation and removal of substantial contaminated soil off site.

Eleven (11) trees required to be removed.

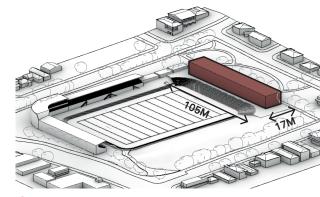




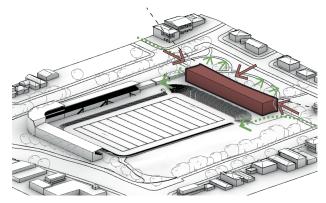


Test fit study #1	Outcomes	Delivers brief	
THE EXAMPLE THE E	Minimises height of building and maintains similar scale to existing grandstands	Yes	
	Minimises overshadowing of pitch		Preferred strategy
	Requires removal of 11 trees to fit project brief		
	Minimises "cut & fill" of containminated soils		
Test fit study #2	Outcomes	Delivers brief	
	Encroachment on pitch required to fit project brief to great and results in noncompliant field	No Pitch size compromised to be noncompliant	Not a feasible appoach as brief not delivered
	Increases overshadowing of pitch		
	Substantial imported fill required beneath building and grandstand		
Test fit study #3	Outcomes	Delivers brief	
	Ineffecient buildng width & proportion	No	
	Increased building height, and much taller than existing grandstands	Briefed uses cannot be accommodated in resulting buildng areas	Not a feasible approach as brief not delivered
	Insufficient building width and area for gym & training spaces at ground level		
	Significant increased overshadowing to pitch		
Test fit study #4	Outcomes	Delivers brief	Not preferred as does not achieve any benefits over Study #1; results in higher costs and contaminated soil disposal.
	Program adjacencies inadequate.	Partially	
	Excavation and removal of substantial contaminated soil off site.	All uses accommodated but results in compromised ajancies and large contaminated disposal	
	Eleven (11) trees required to be removed		





01 Optimised block to deliver brief



02 Soften interface to the park, Create arrival and entry for spectators

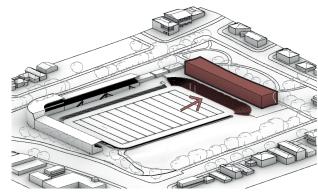
Building mass

- The optimised building block (test fit #1) is gently 01 sculpted to respond to key interfaces and points of arrival.
- A shallow curve is introduced to the north elevation $\mathbf{0}$ to soften the park interface and reduce the visual intensity of a long flat facade when viewed acutely.
- The main points of approach are from the east & west, and also form the main points of entry for spectators. The building flexes to embrace these points of address and create arrival spaces.

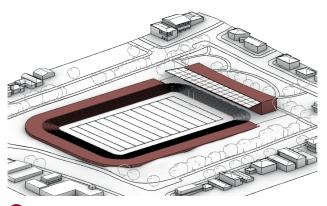
The 3,000 required seats are all delivered at grade fitting between the pitch level and building ground level creating a seemless visual connection. This approach also sets up the future geometry for the grandstands to be expanded around the full extents of the pitch.

- A transparent roof cantilevers over the 3,000 seats to provide 100% coverage and maintain solar access to the pitch turf.
- The proposed northern site location future proofs 05 06 the site by unlocking the rest of the site to possibly be developed at a future stage as part of a staged Brookvale Oval Precinct Redevelopment Masterplan.

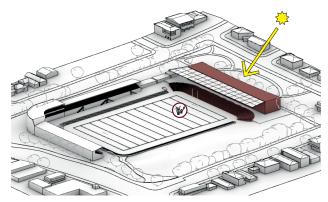
Brookvale Oval Redevelopment Centre of Excellence and Grandstand



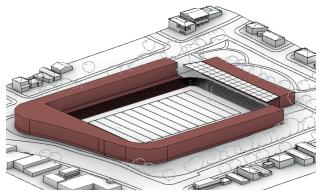
03 3,000 seats grandstand



05 Possible Redevelopment stage 2 seating bowl

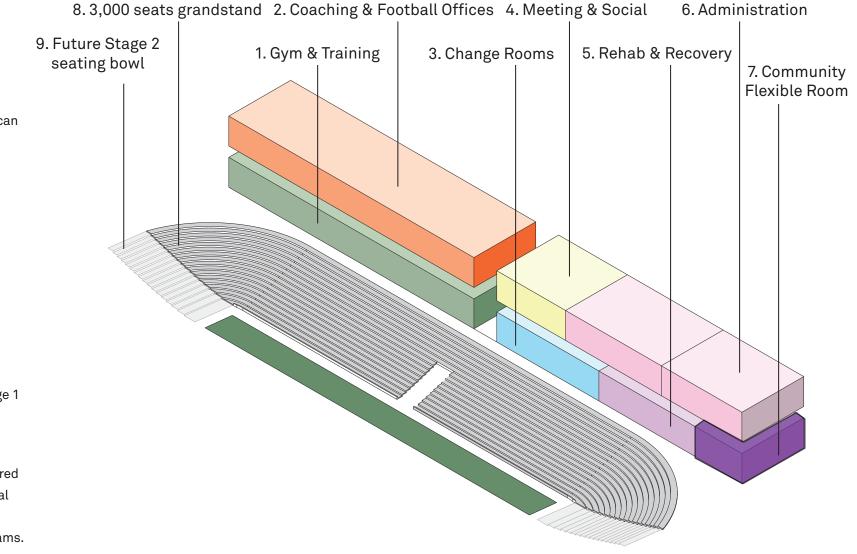


04 Roof over 3,000 seats and maintain solar access









Block and stacking

The primary building programs can be consolidated into seven (7) functional groups.

- 1. Gym & training
- 2. Coaching & football offices

3. Change rooms

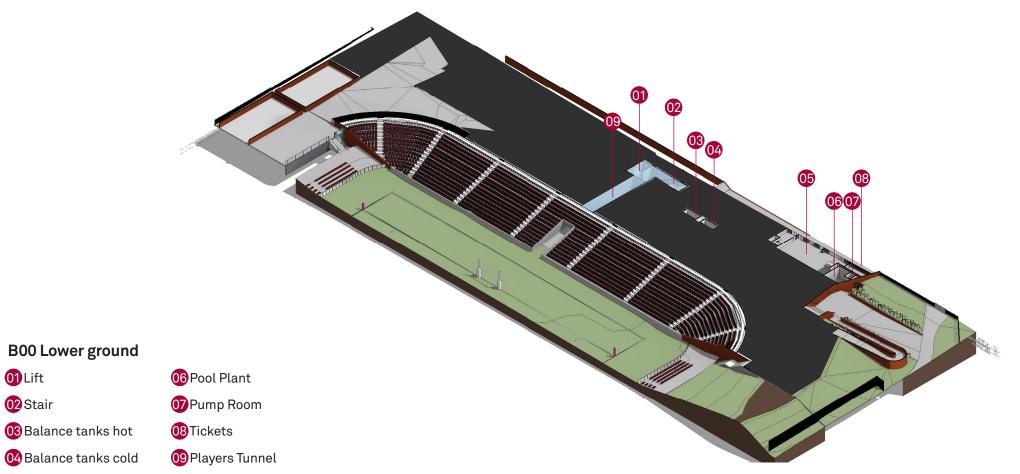
- 4. Meeting & social spaces
- 5. Rehabilitation & recovery
- 6. Adminstration offices

7. Community Flexible Room

- 8. 3,000 seats grandstand stage 1 redevelopment
- 9. Future Stage 2 seating bowl

These seven groups have preferred horizontal and vertical functional relationships which informs the block and stacking of the programs.

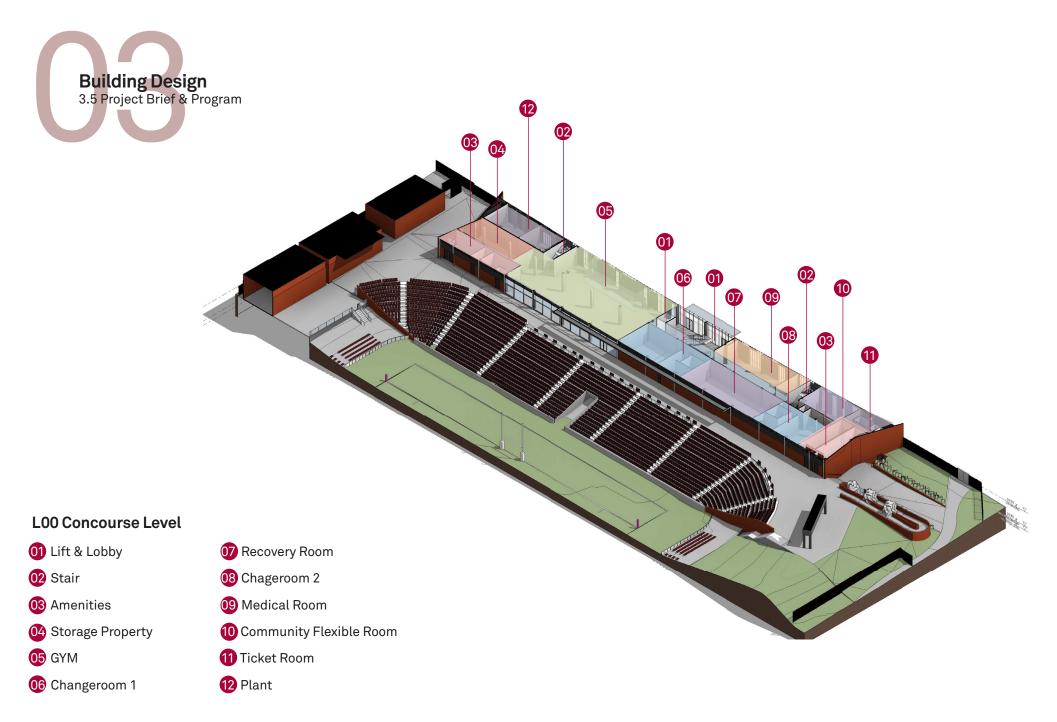


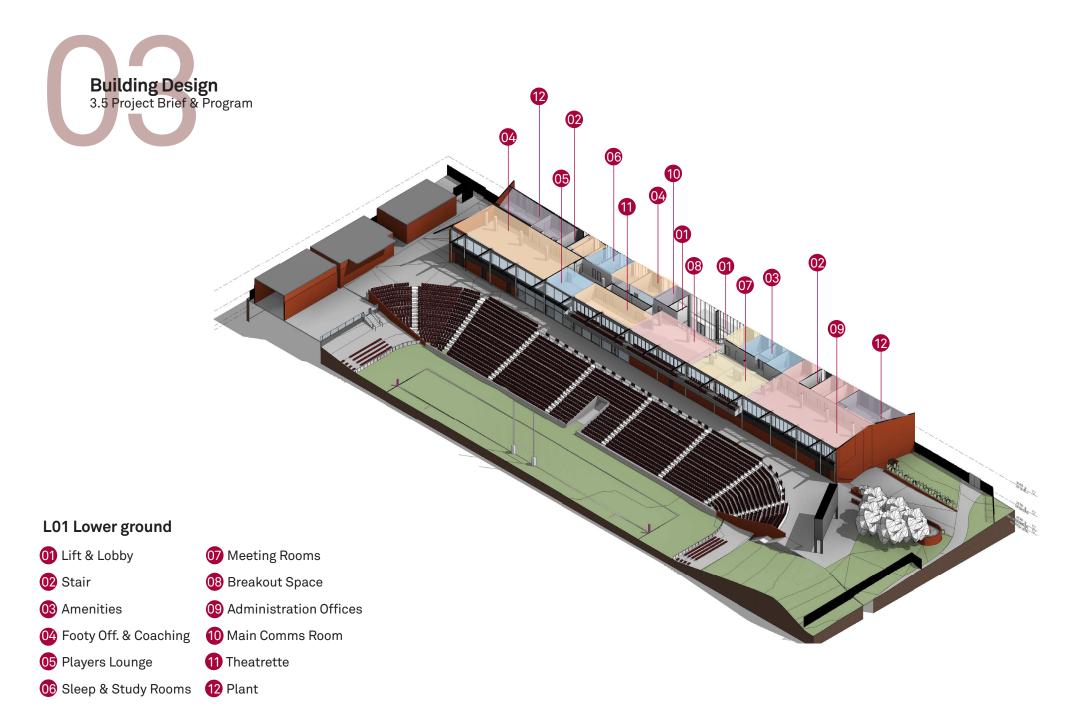


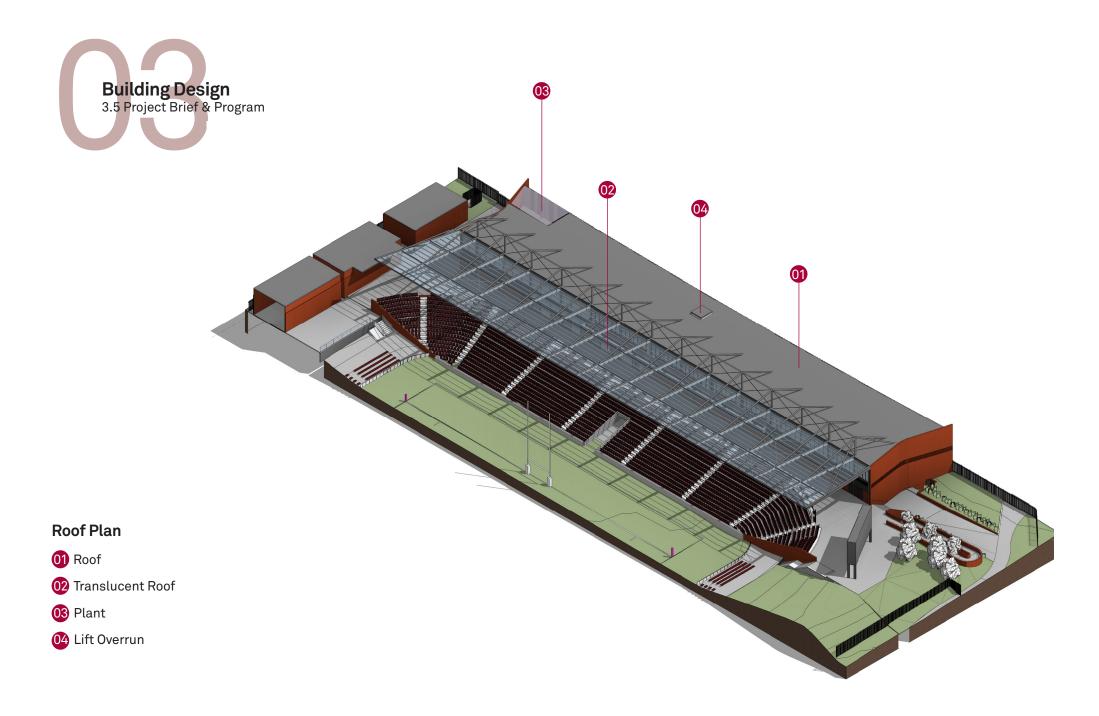
050SD tank

01 Lift

02 Stair

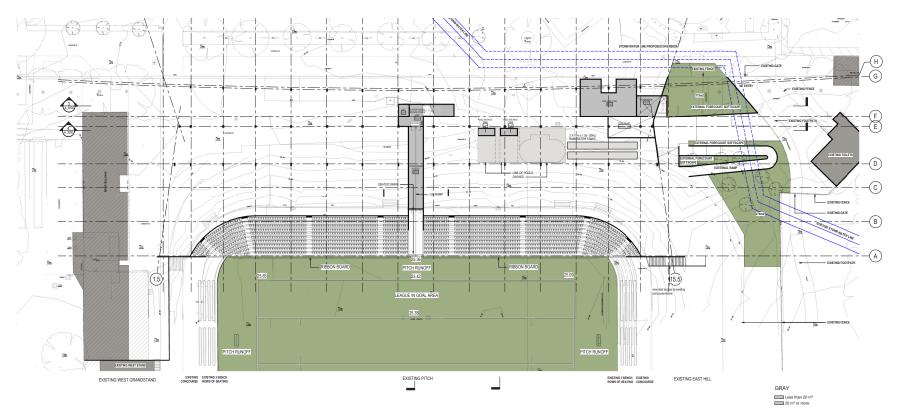






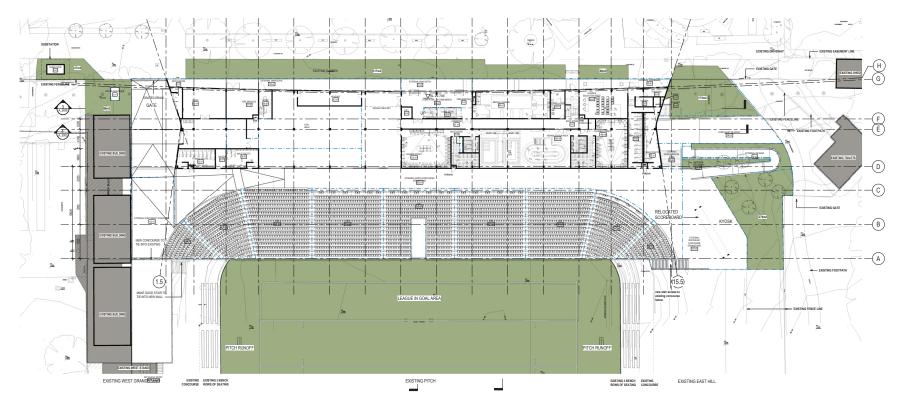


B00 Lower ground



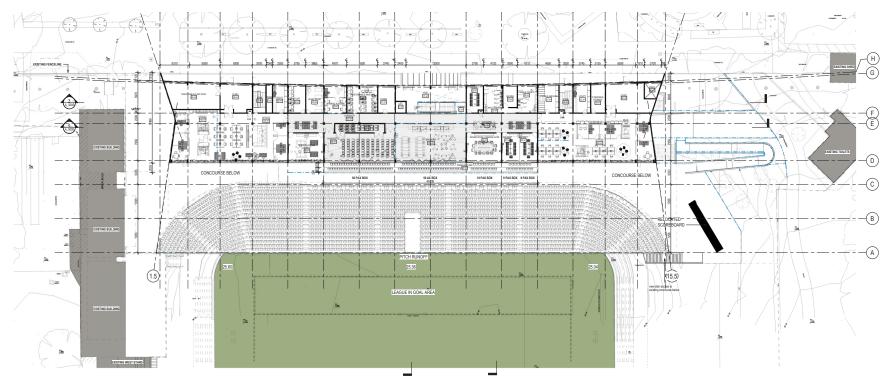


L00 Concourse Level



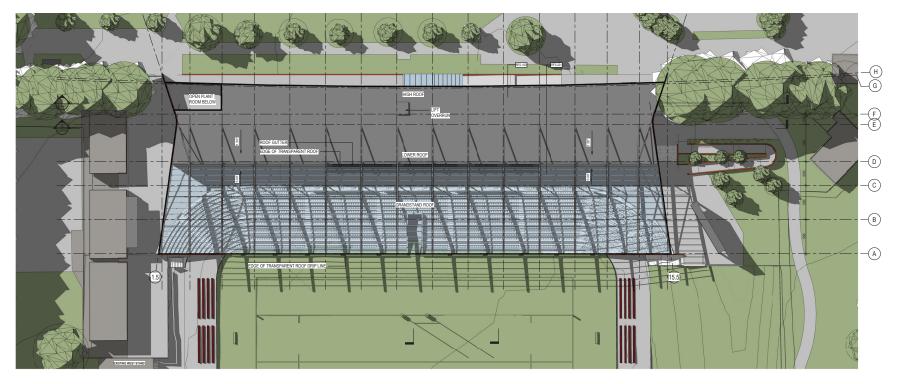


L01 Upper Level





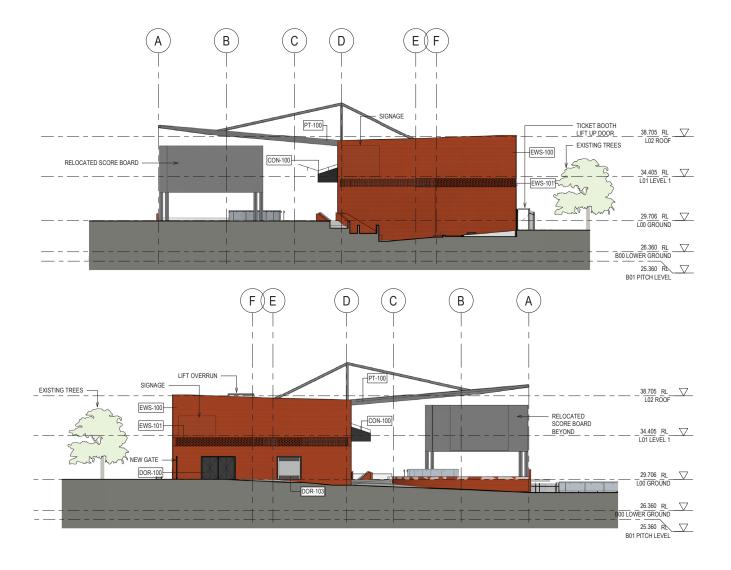
Roof Plan



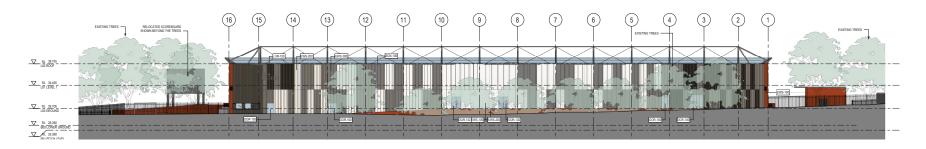


Eastern Elevation

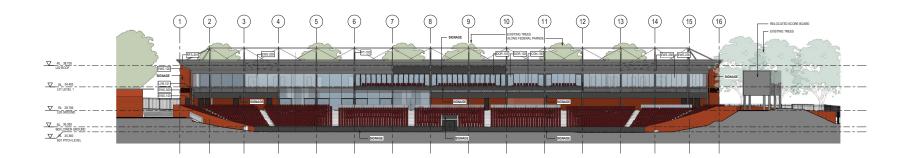
Western Elevation







Northern Elevation



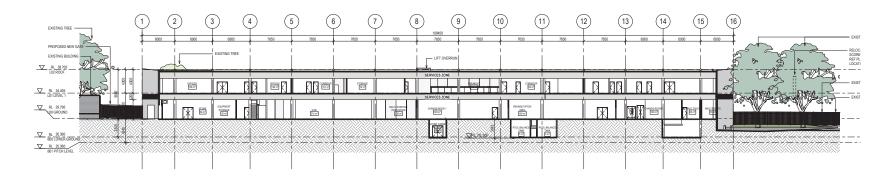
Southern Elevation



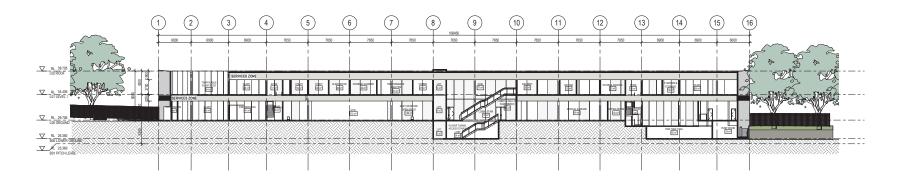




Section 03

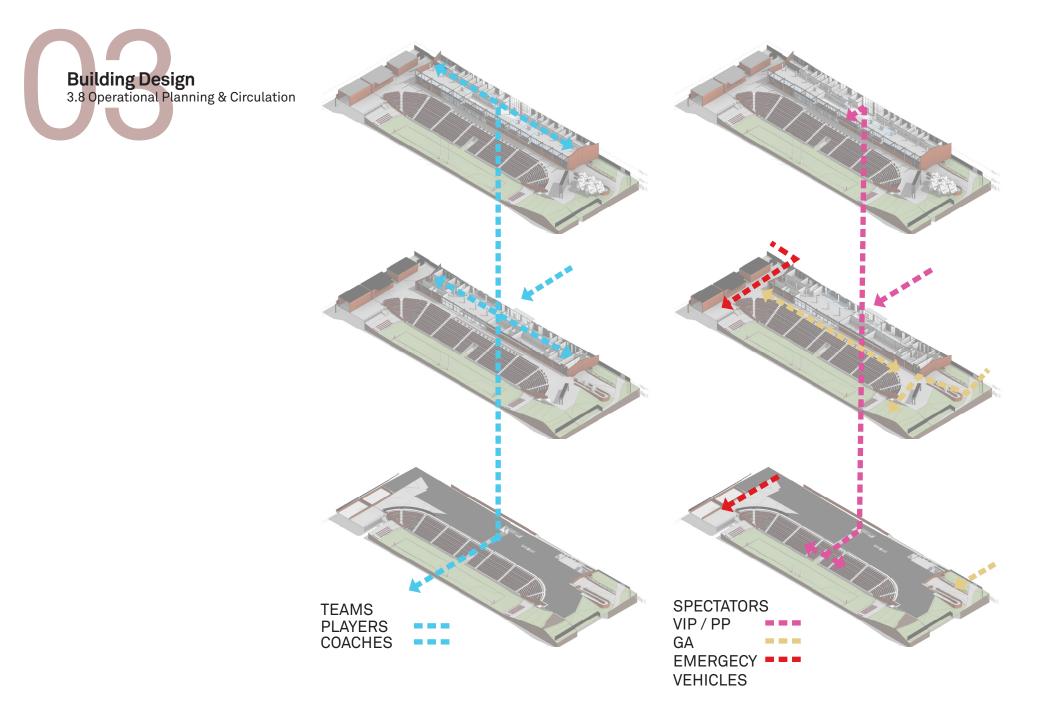


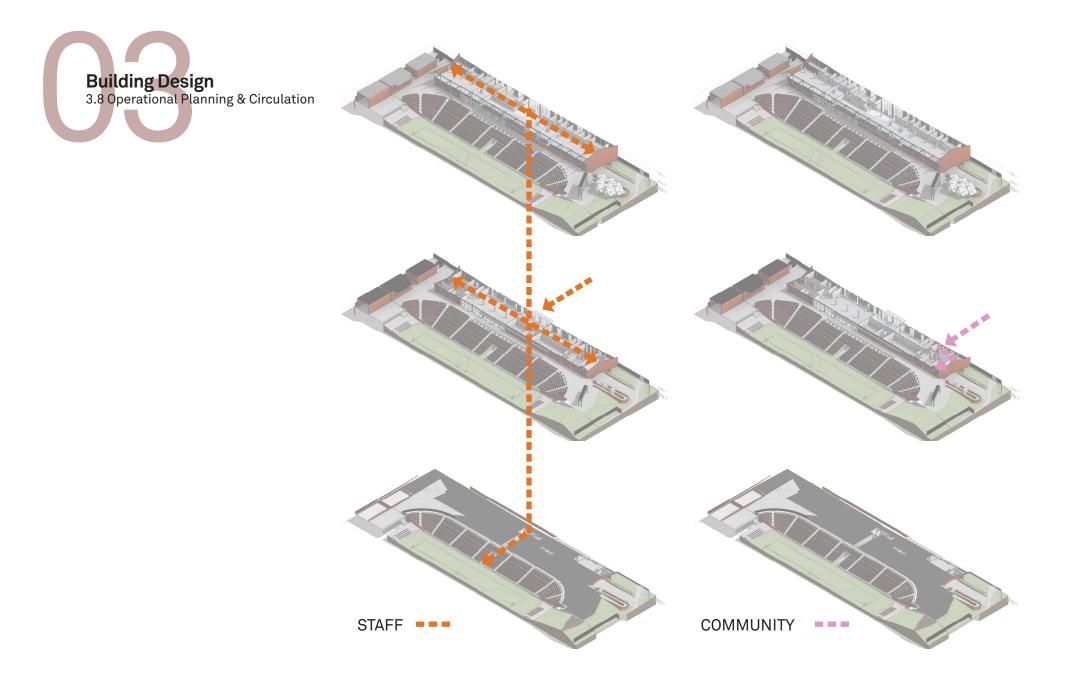
Section 04





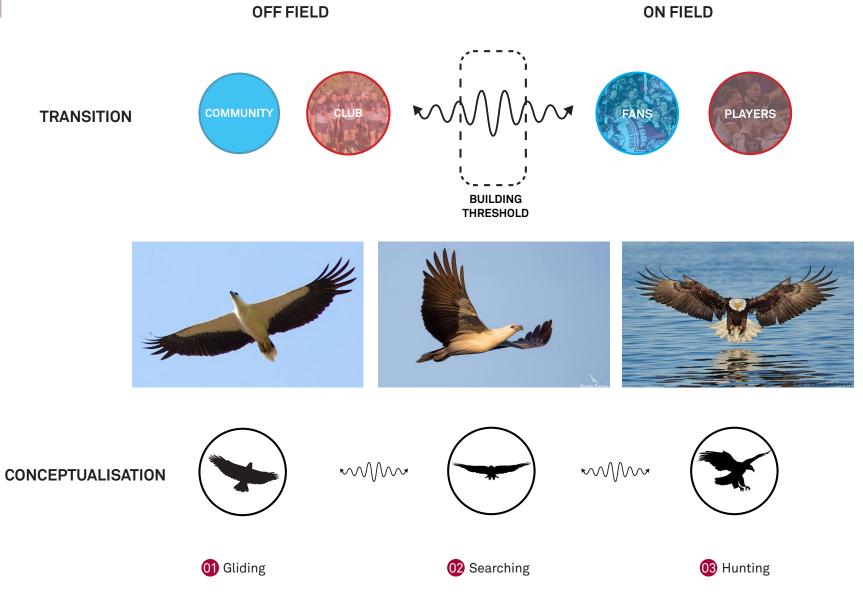
	Functional Area	(NET Area)
1	Administration Offices	253
2	Football Operationa & Coaching Offices	356
3	Flexible Education Room	63
4	Meeting Rooms	113
5	Breakout Space	124
6	Misc. Spaces	70
7	Medical & Rehabilitation	115
8	High Performance Offices	43
9	Women's Academy	29
10	Performance Analysis	37
11	Change Rooms	238
12	Players Lounge	46
13	Players Study & Sleep rooms	44
14	Gymnasium	452
15	Aquatics & Hydrotherapy	158
16	Players Tunnel	120
17	Staff Change & Toilets	61
18	Spectator Toilets	140
19	Corridors	262
20	Stairs (measured once)	55
	Sub-Total Gross Floor GFA	2779
	Stores	155
	Plant & Risers	303
	External Seating Balcony	97
	Total Gross Building Area (GBA)	3590



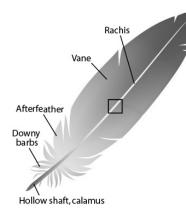


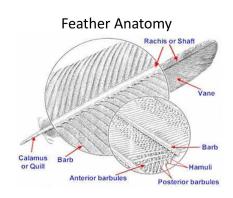


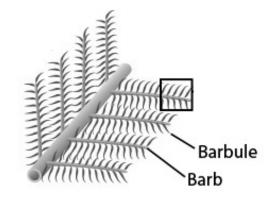


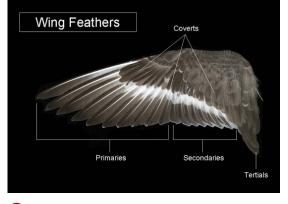




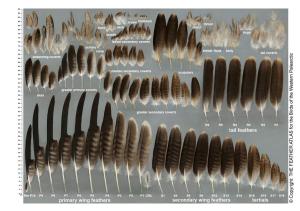








01 Macro-scale - 'the overall form'



02 Elemental-scale - 'the sum of its parts'

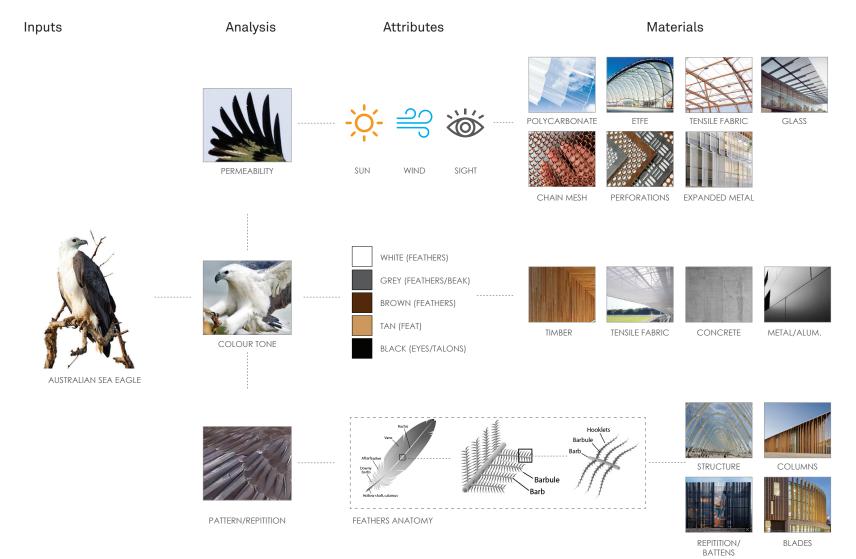


03 Micro-scale - 'the fine detail'

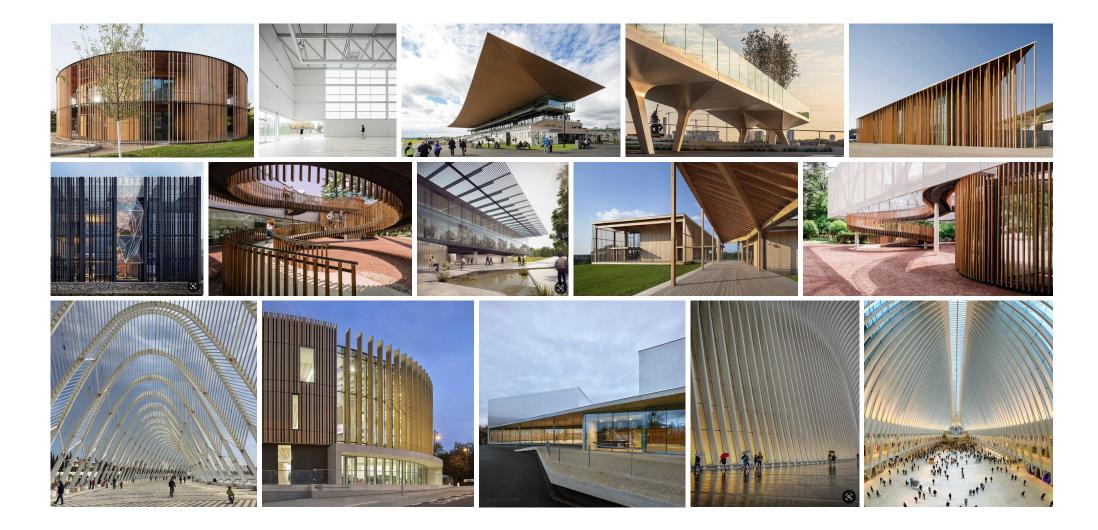




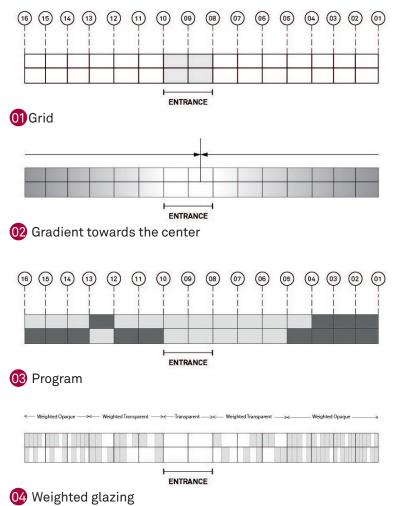


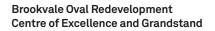






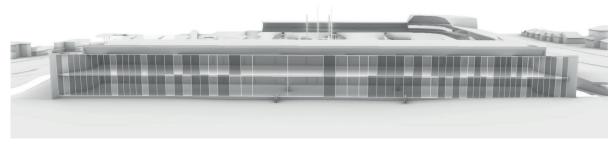


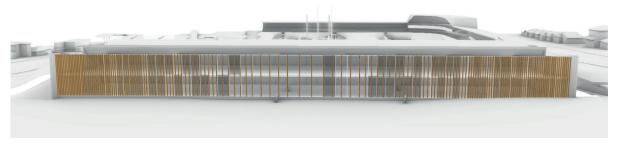




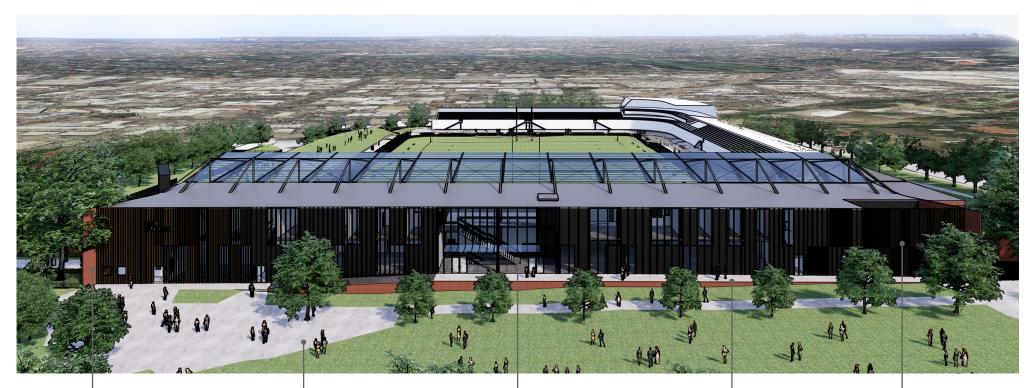










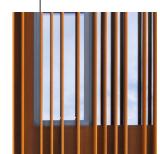












Brookvale Oval Redevelopment Centre of Excellence and Grandstand





Landscape design

The Brookvale Oval Redevelopment project will be a key asset for the Manly Warringah Sea Eagles, Northern Beaches Council and the local community. The project includes four key zones:

- 1. A new Centre for Excellence, grandstand and pedestrian concourse
- 2. Realignment and upgrade of an existing driveway to the west of the site
- 3. A new pedestrian pathway and garden running along the northern facade
- 4. A new arrival experience from the existing north-east access gate. This arrival experience will include new trees, planting, seating, lighting all arranged a central entry plaza that connects to the viewing areas of the sporting pitch via both stair and ramp

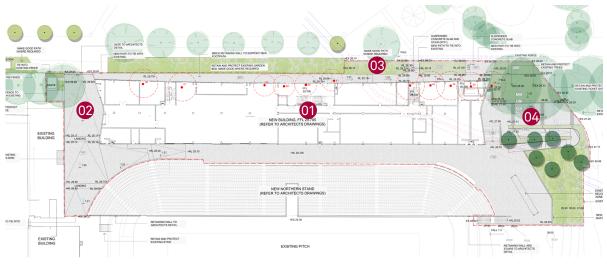
Impact on the amenity of the adjacent public space

The current landscape approach seeks to minimise the impact on the adjacent public space and neighbourhood by consolidating the majority of the landscape works to the north east corner, adjacent to the main public access to the ground. The proposed landscape works will have minimal impact on the overall amenity of the adjacent open space with no physical impact to its form or arrangement.

The project will, however, require the demolition of 11 multi stemmed mature tree specimens that include Brush Box (Lophostemon confertus) and Camphor Laurels (Cinnamomum camphora). Within the Heritage Impact Statement these trees have been identified as having a high historical significance and as such the landscape design has sought to offset the loss of these specimens through tree replacement, and the potential to engage with the local community through the design process (refer to the Heritage Report for a detailed outline of the proposed offset strategy).

The design seeks to offset the demolished heritage trees and enhance the public arrival experience to the ground through the installation of the following trees:

_7 semi-mature Lophostemon confertus in the north-east corner of the site _4 semi-mature Cupaniopsis anacardioides to the north of the building, reinforcing the existing line of trees and strengthening the east-west pedestrian connection between Federal Parade.

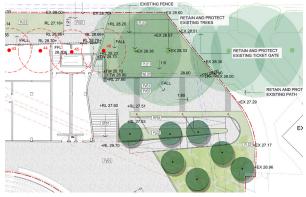


Landscape zones



Zone 4 View

- 01 Brush Box (400L-800L) tree replacement
- **02** Range of native low level planting



Zone 4 detailed plan

03 Concrete paving

04 Brick edging & retaining walls to match building



The trees will provide day one impact for the project. Longer term the tree canopies will connect and integrate with the existing row of trees to the north and east of the ground.

Integration of the design with the existing open space

The landscape design will integrate with the existing open space through the selection of planting material, reducing the impact on existing footpath networks and minimising non-essential demolition of trees.

Impact on neighbouring properties

The landscape design will have limited impact on the neighbouring properties with works contained within the site boundary and typically shielded by both the existing line of trees that will be retained and/or the new built form.

Materiality and landscape palette

All paving types and planting species will tie back into the broader palette of the adjacent public space and broader Northern Beaches area. A light grey insitu concrete will be used as the main paving treatment for the site with highlight bands created through an exposed aggregate and darker colour concrete in the north-east plaza. All retaining walls and support walls for ramps and stairs will be a brick materiality that relates to the materiality of the new building. Several seats will be provided adjacent to the existing toilet block to the east of the site.

Several zones of new landscaping will be provided, primarily associated with the main public arrivals entrance in the north-east corner of the site. The planting will create a visually appealing arrival experience for the general public and enhance the overall amenity of the space. Landscaping will consist of low grasses and shrub planting that tie into the broader planting palette within the Northern Beaches area. A detailed species list is shown below.



Lophostemon confertus



upaniopsis anacardioides



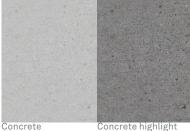
















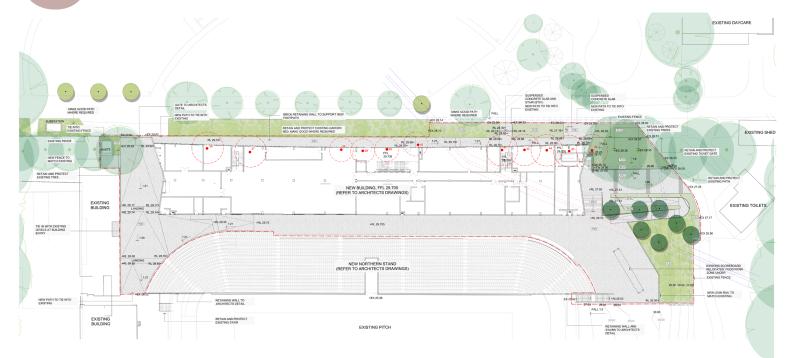
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Brick walls





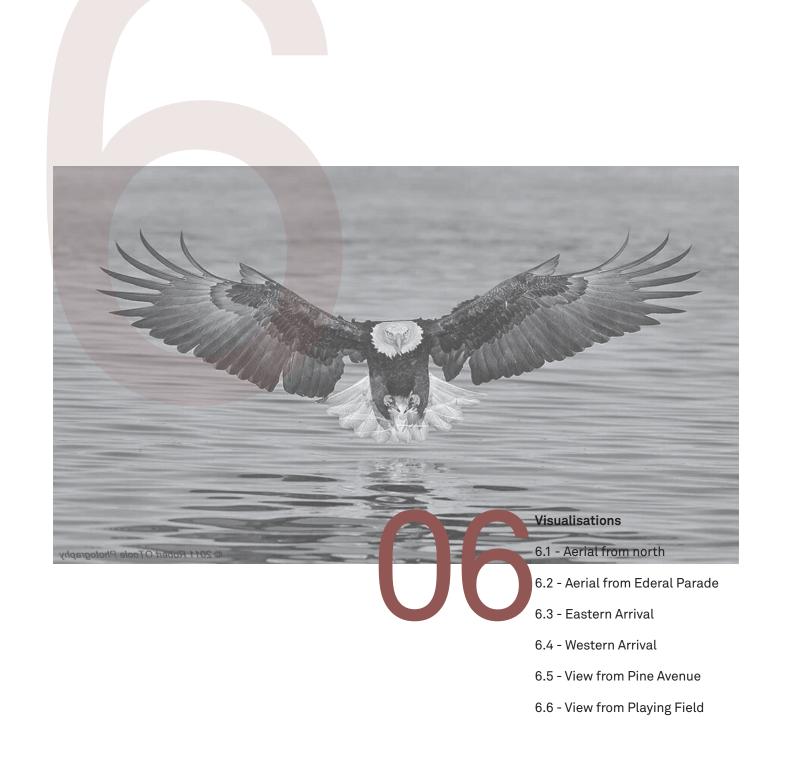


PLANTING SCHEDULE

BOTANICAL NAME	COMMON NAME	SIZE	SPACING (112)	(WIDTH X HEIGHT)	% OF MIX	QUANTITY
TREES						
Cupaniopsis anacardioides	Tuckeroo	200 - 750L	AS SHOWN	12M X 12M	NA	4
Lophostemon confertua	Brush Box	200 - 750L	AS SHOWN	15M X 15M	NA	7
PLANTING MIX 01 (35	50m2)					
Dianella 'Cosse Blue'	Paroo Lily	140MM	6	400MM x 400MM	35%	735
Litiope 'Evergreen Giant'	Liriope	140MM	6	600MM × 400MM	40%	840
Lomendra 'Tanika'	Dwarf Mat Rush	140MM	6	600MM × 400MM	25%	525
PLANTING MIX 02 (75	5m2)					
Lomandra 'Tanika'	Dwarf Mat Rush	140MM	6	600MM × 400MM	20%	90
Doryantheze excelse	Gymea Lily	300MM	2	2000MM x 2000MM	5%	23
Carpobrotus glaucescens	Pig Face	140MM	0	600MM × 400MM	30%	135
Myoporum 'Yareena'	Creeping boobialla	140MM	8	100MM × 10MM	15%	66
Westringia 'Mundi'	Coastal Rosemary	300MM	6	1200MM × 500MM	30%	135
PLANTING MIX 03 (14	10m2)					
Liriope 'Just Right'	Liriope	140MM	6	600MM × 400MM	40%	336
Lomandra 'Hystrix'	Dwarf Mat Rush	140MM	6	600MM × 400MM	20%	168
Lomendra 'Tanika'	Dwarf Mat Rush	140MM	6	600MM × 400MM	20%	168
Westringie 'Mund'	Coastal Rosemary	140MM	6	1200MM × 500MM	20%	168

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MATERIAL LEGEND					
Key Value	Keynote Text				
CON-100	Face Concrete				
DOR-100	Charcoal Metal Faced Doors				
DOR-101	Bi-Fold Glass Doors				
DOR-102	Glass Doors				
DOR-103	Charcoal Roller Door				
EWS-100	Face Brick				
EWS-101	Face Brick HIt & Miss				
EWS-200	Light Gray Glazing				
EWS-300	Charcoal Compressed Fibre Cement				
LVR-100	Charcoal Vertical Louvres				
LVR-101	Operable Glass Louvres				
PT-100	Charcoal Painted Steel				
RFS-100	Light Grey Metal Roof Sheet				
RFS-201	Translucent Polycarbonate Roof Sheet				
SCN.100	Textured Pre-Finished Metal Battens				

LOCATION PLAN

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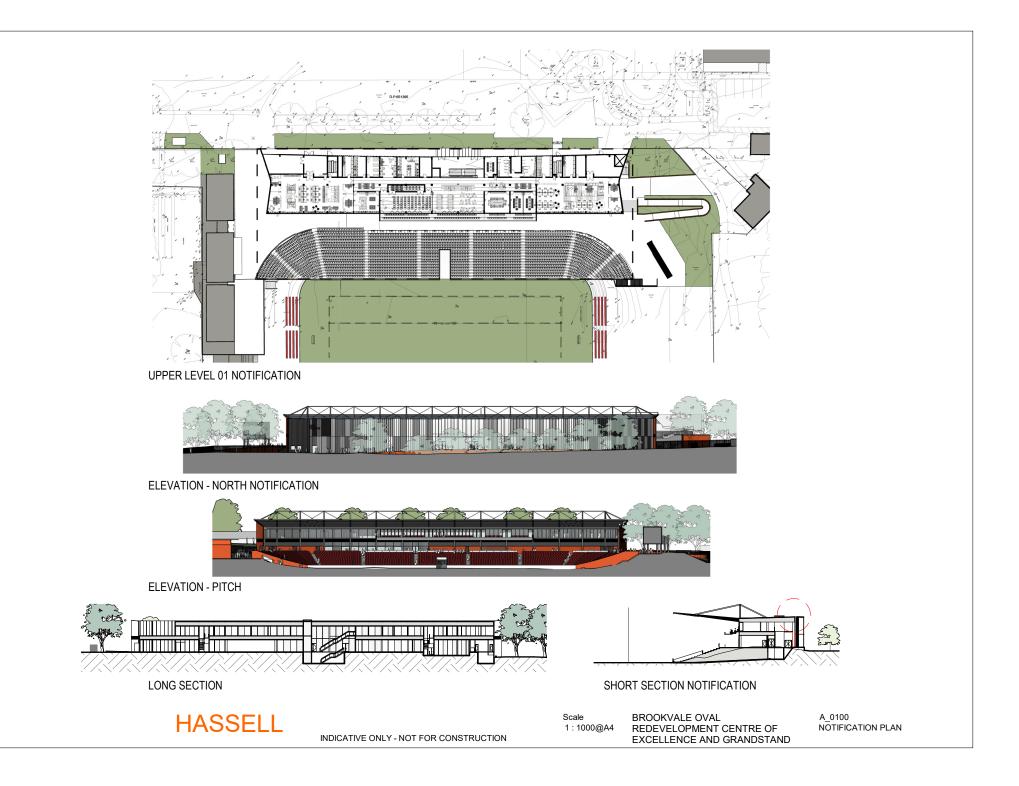
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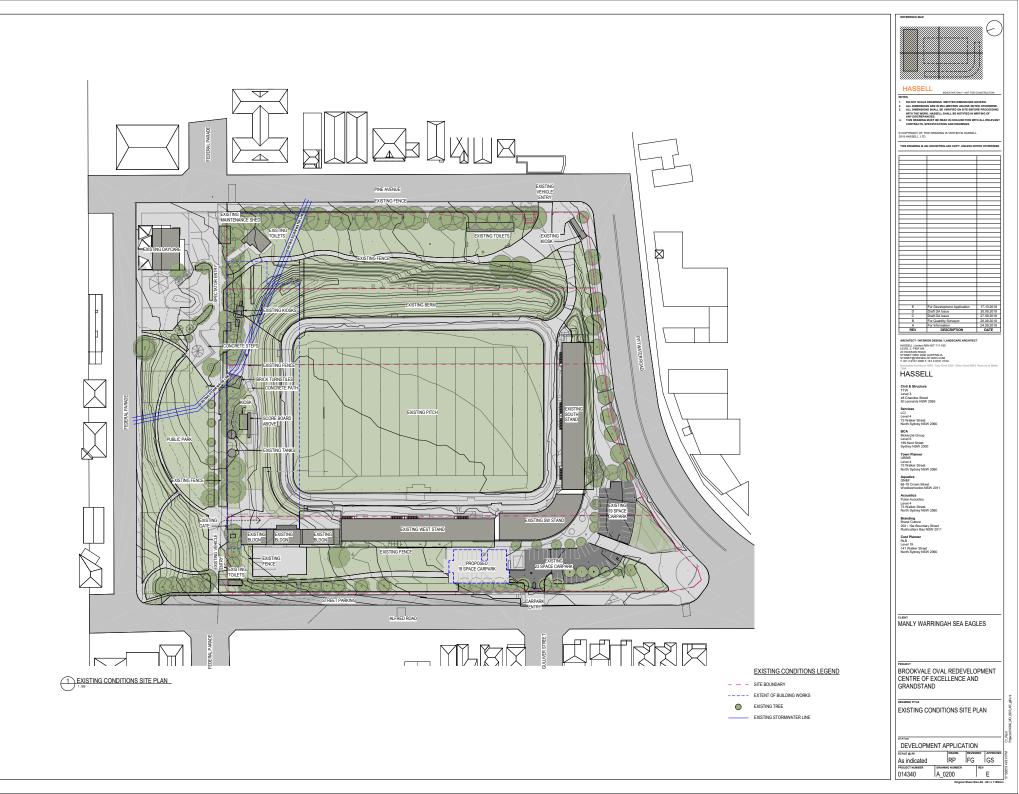
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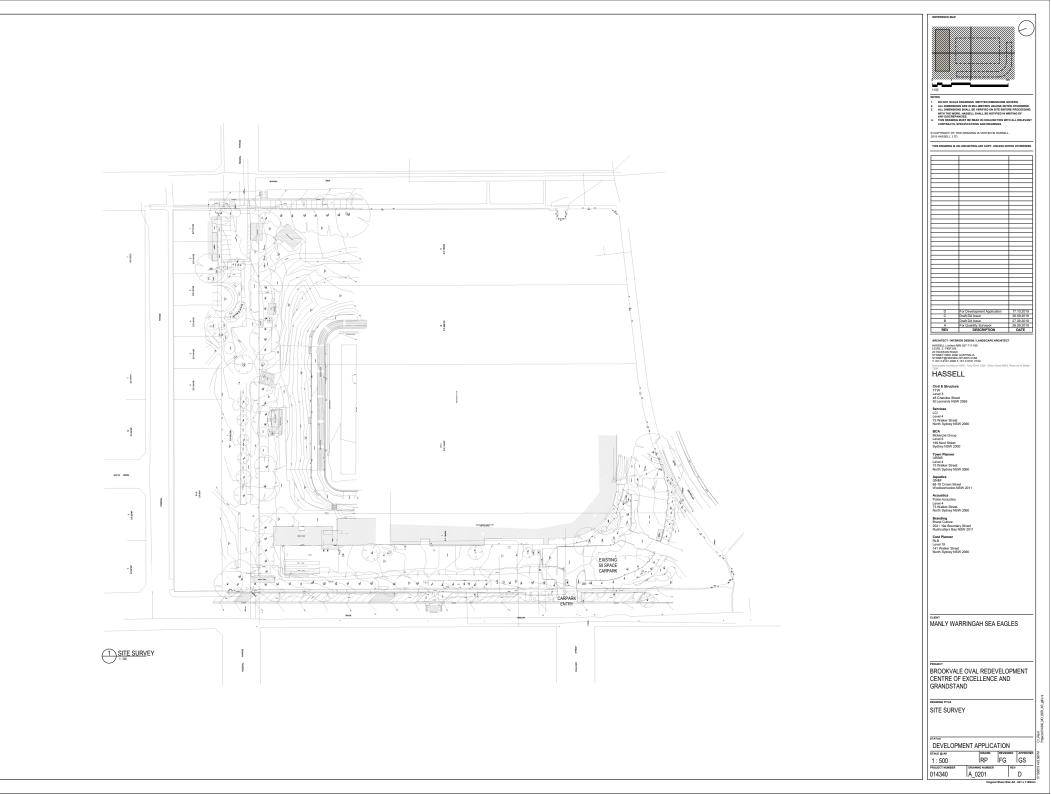
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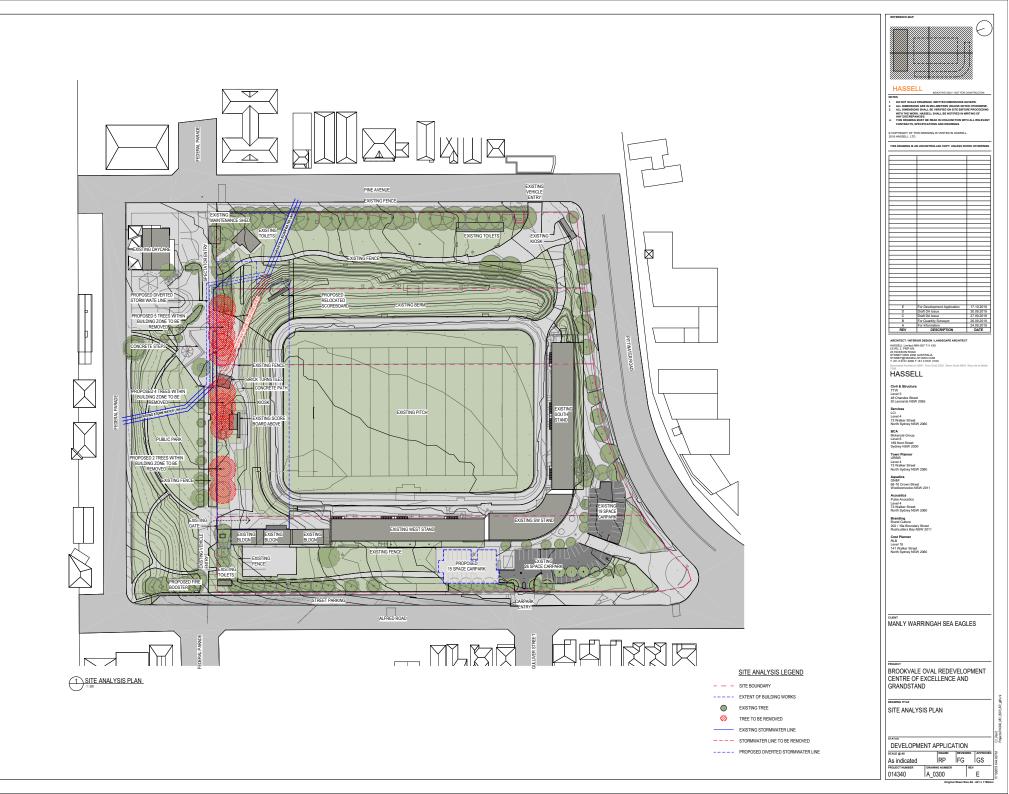
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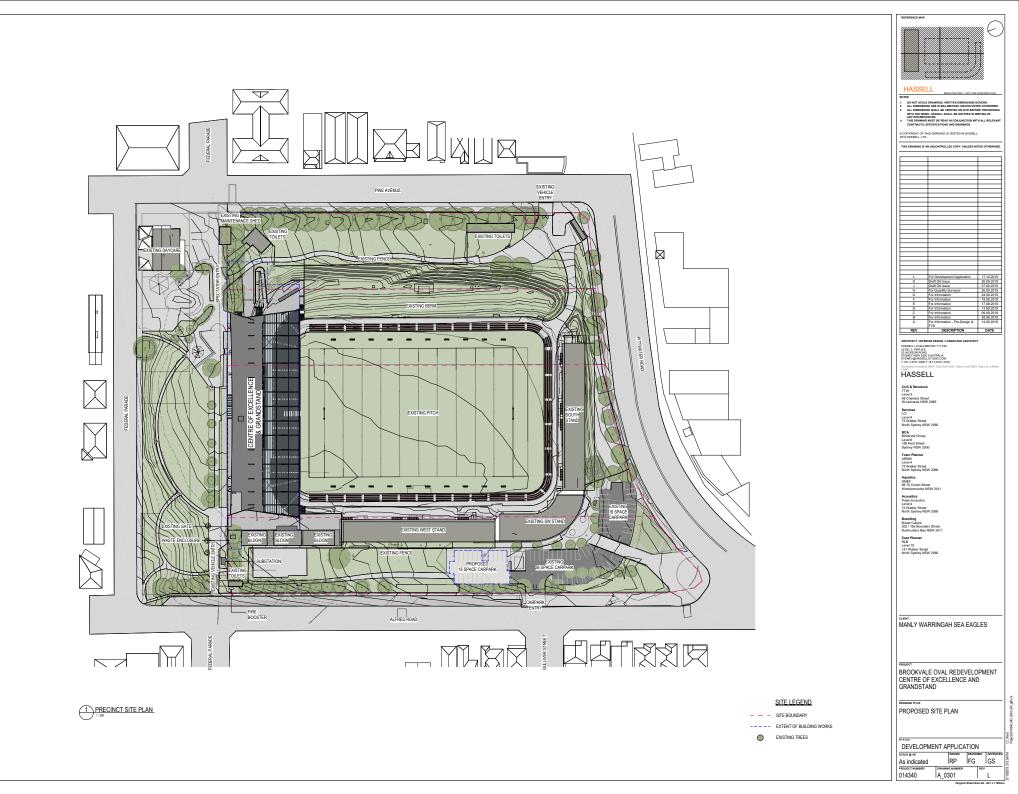
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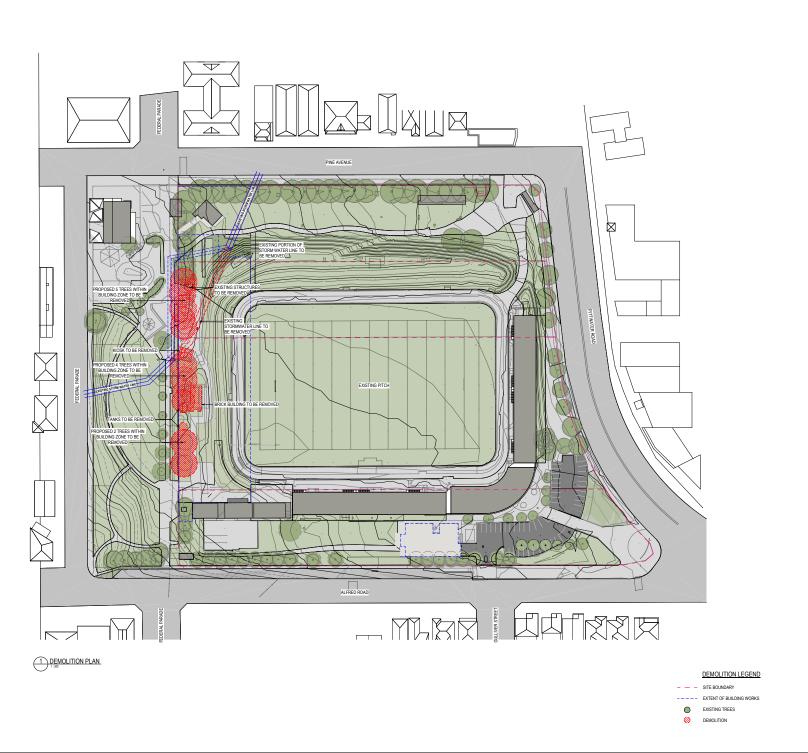










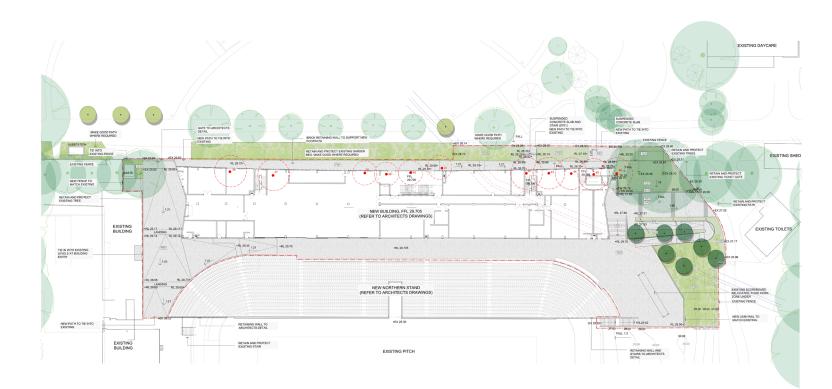




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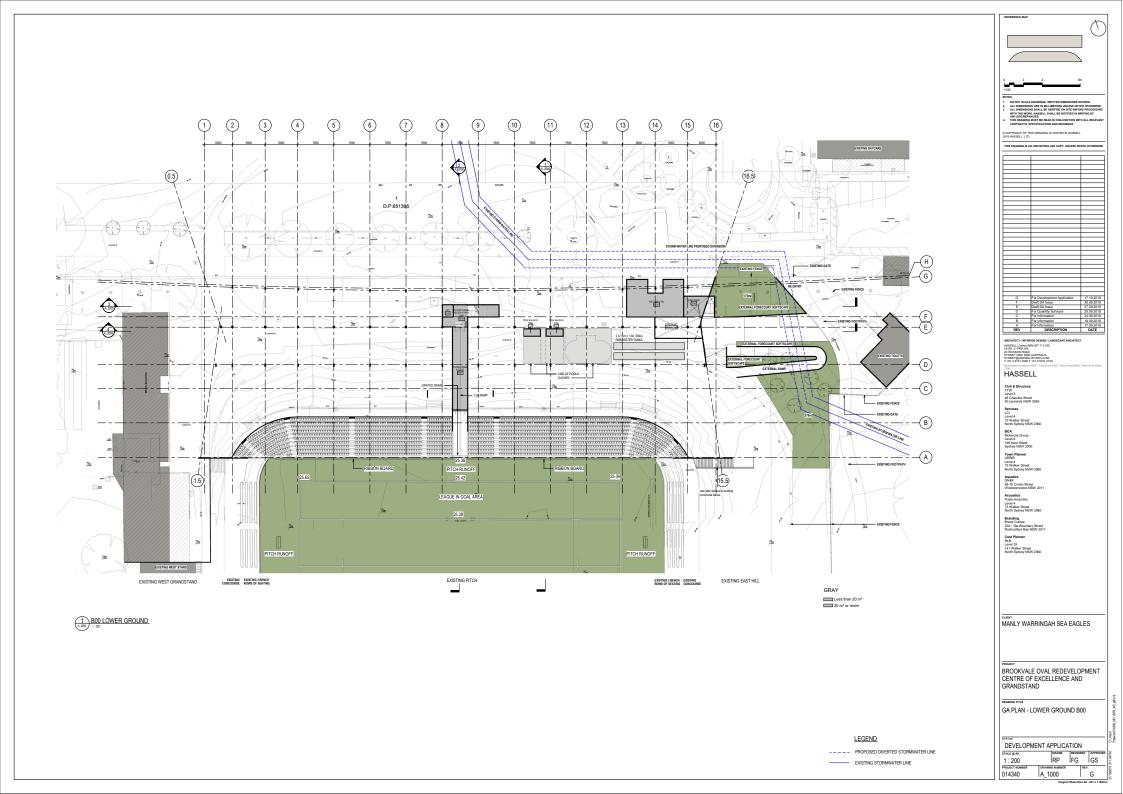
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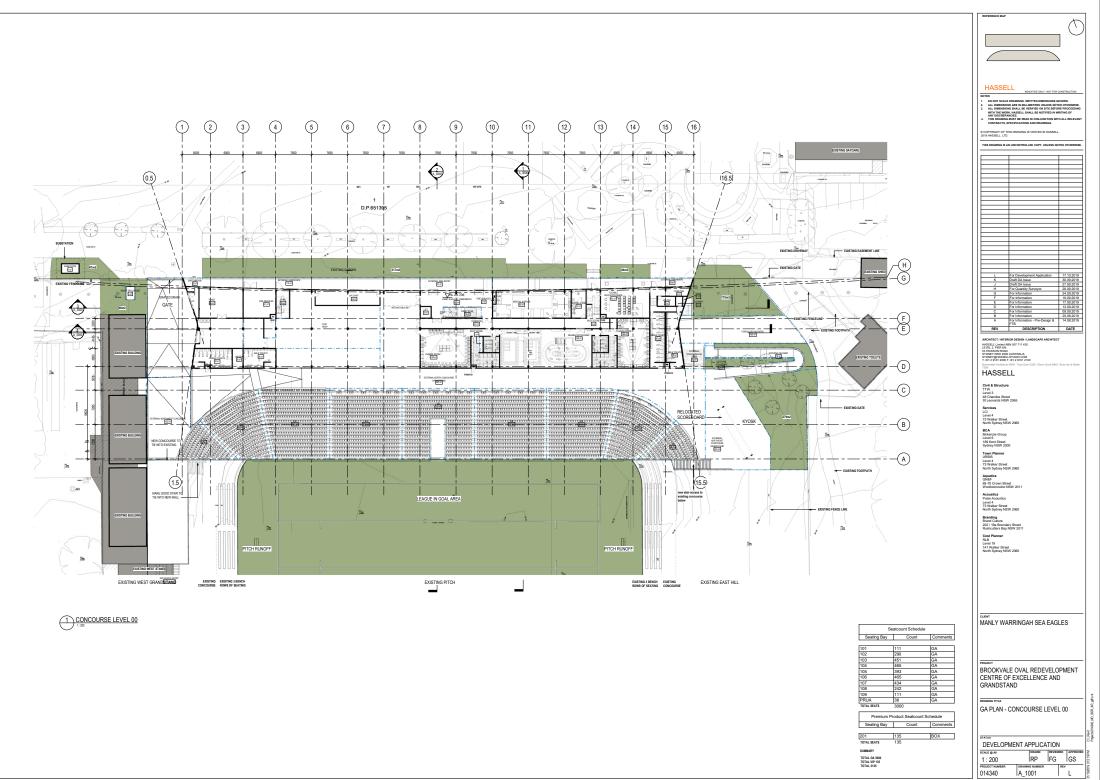


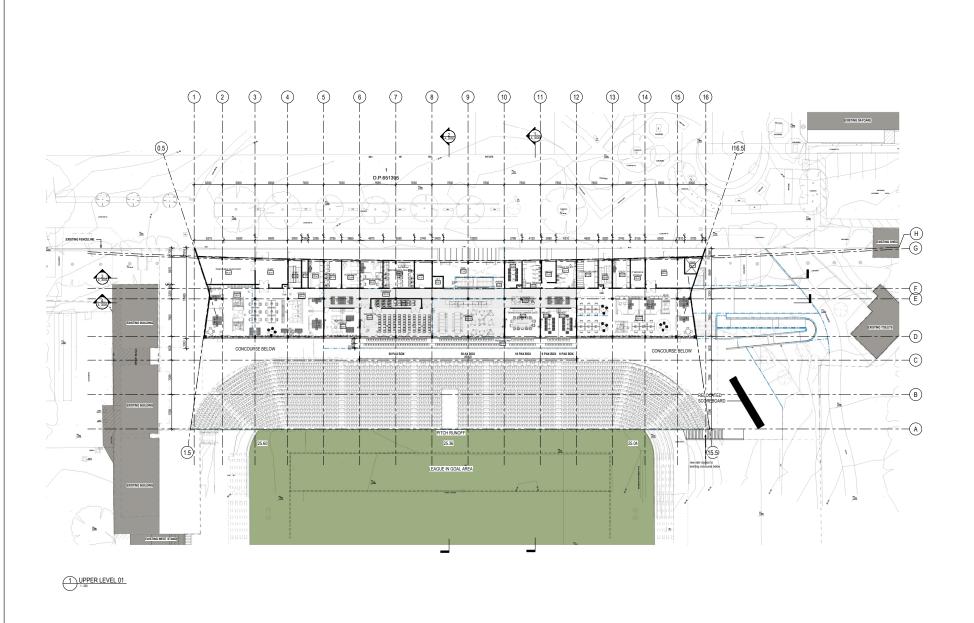
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NIA	+EX13.50	FINISHED GROUND LEVEL (EXISTING)	WALLS		Ŏ	NEW TREE - Laphosteman confertus	[202]	PLANTING MIX 03 (SWALE PLANTING) REFER TO PLANTING SCHEDULE FOR SPECIES TYPE	LIGHTING	
NIA	*TW13.50	TOP OF WALL	(W.(C)	BRICK RETAINING WALL COLOUR/ FINISH: MATCH ARCHITECTURAL FACADE	$\overline{\cdot}$	NEW TREE - Capanicps/s anacardioides			•	POST TOP LIGHT FINISH: GREY POWDERCOAT SIZE: MM TALL

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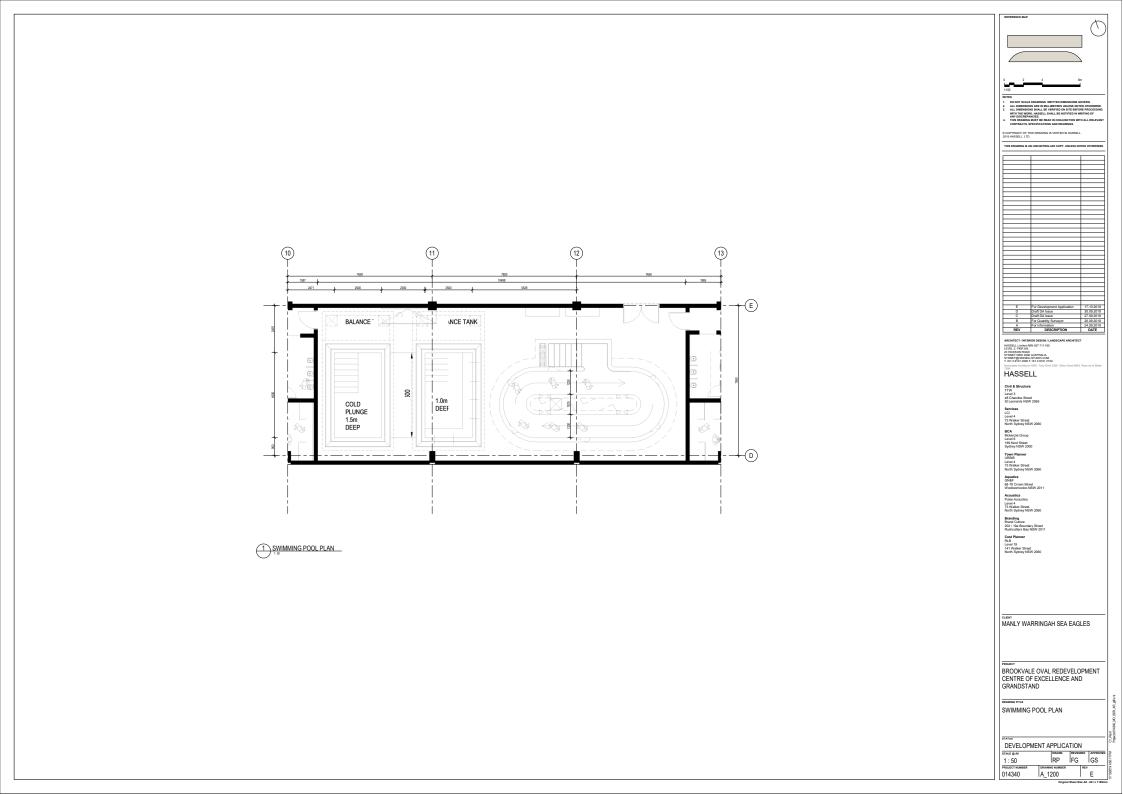


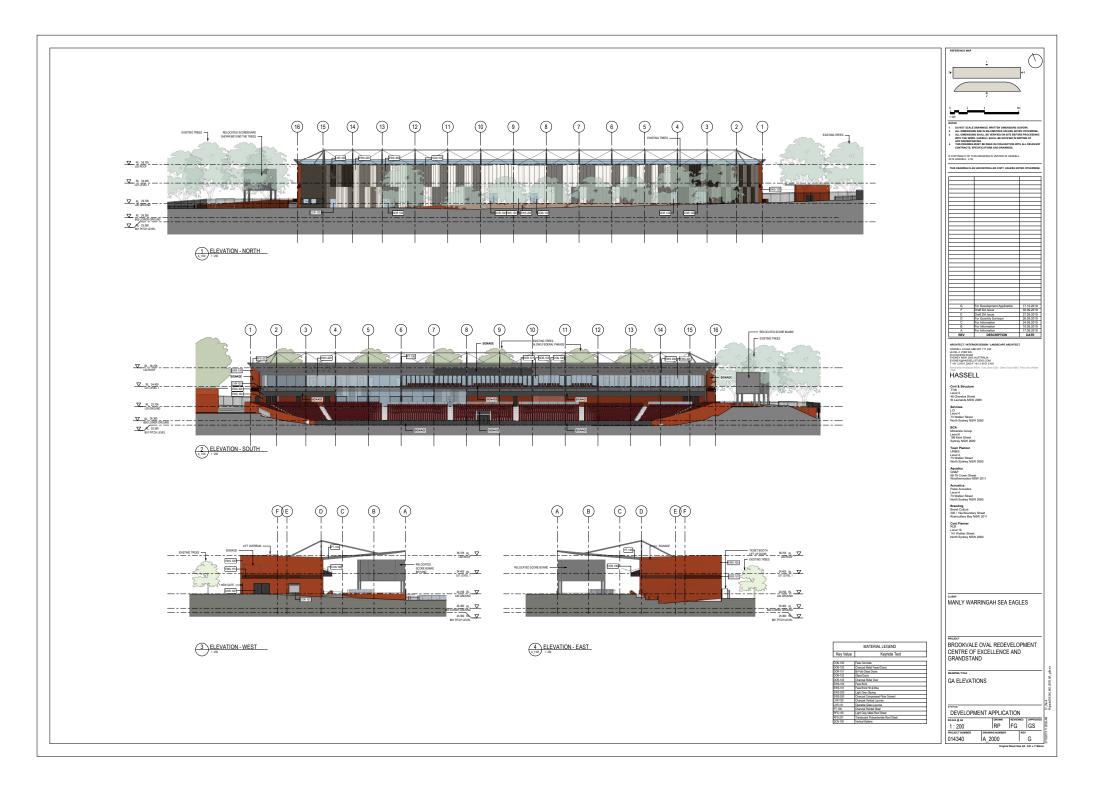


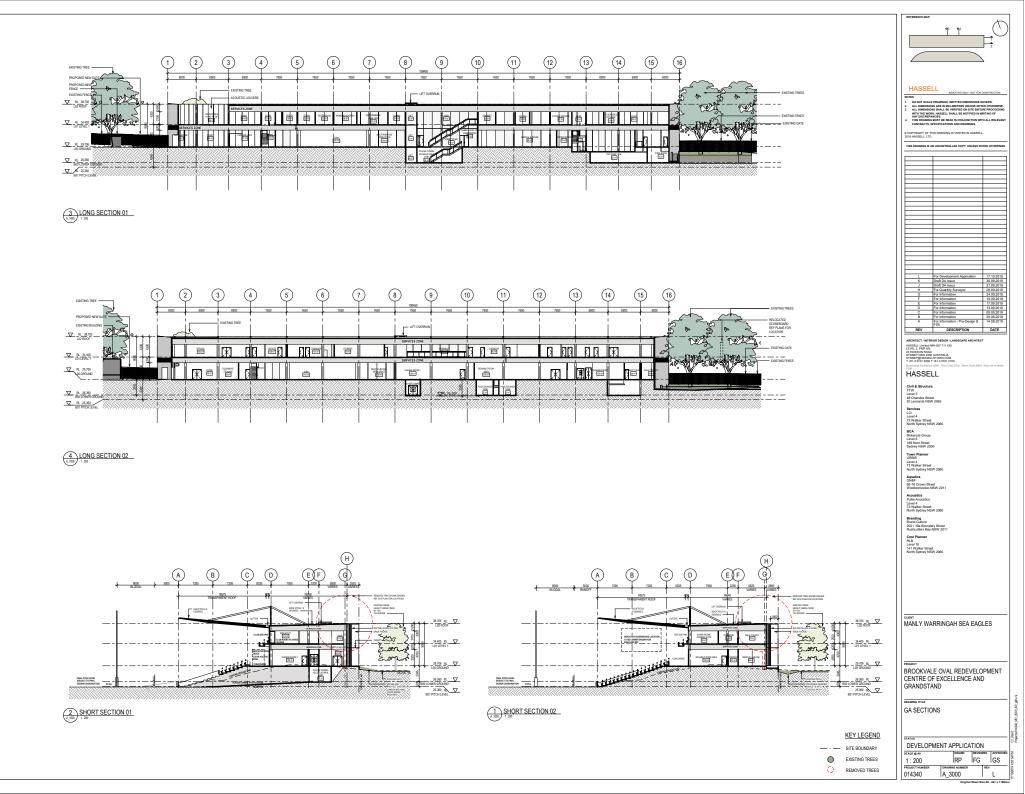
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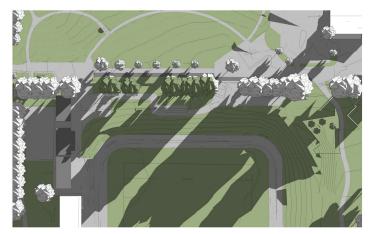
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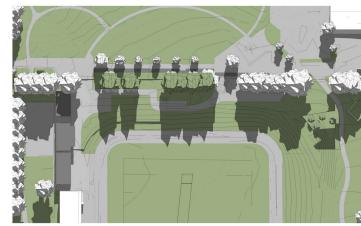








EXISTING SHADOWS - JUNE 22nd - SOLAR 0900



2 EXISTING SHADOWS - JUNE 22nd - SOLAR 1200



6 PROPOSED SHADOWS - JUNE 22nd - SOLAR 0900





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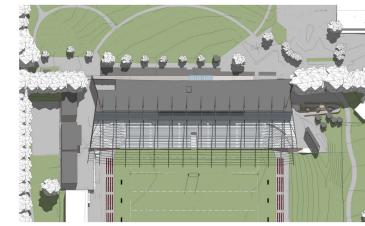
2 EXISTING SHADOWS - SEPT 22nd - SOLAR 0900



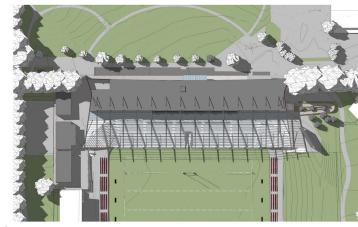
3 EXISTING SHADOWS - SEPT 22nd - SOLAR 1200



5 PROPOSED SHADOWS - SEPT 22nd- SOLAR 0900



6 PROPOSED SHADOWS - SEPT 22nd - SOLAR 1200



PROPOSED SHADOWS - SEPT 22nd - SOLAR 1500

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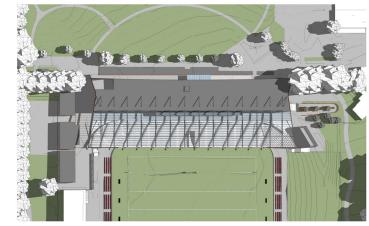


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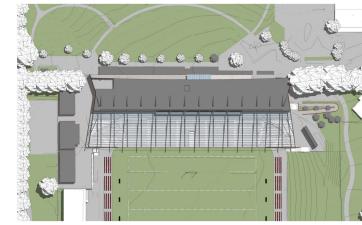


3 EXISTING SHADOWS - DEC 22nd - SOLAR 1200





5 PROPOSED SHADOWS - DEC 22nd - SOLAR 0900



6 PROPOSED SHADOWS - DEC 22nd - SOLAR 1200



4 PROPOSED SHADOWS - DEC 22nd - SOLAR 1500





EXISTING SHADOWS - MAR 22nd - SOLAR 0900



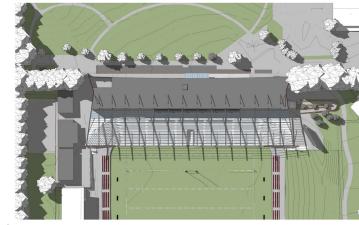
5 EXISTING SHADOWS - MAR 22nd - SOLAR 1200



3 PROPOSED SHADOWS - MAR 22nd- SOLAR 0900



1 PROPOSED SHADOWS - MAR 22nd - SOLAR 1200



2 PROPOSED SHADOWS - MAR 22nd - SOLAR 1500

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