SBA ARCHITECTS

ENFIELD INTERMODAL

DESIGN CONCEPT REPORT

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01. OVERVIEW

1.1 PROJECT BRIEF

Goodman has been selected by NSW Ports as the preferred Development Partner of the Enfield ILC. Goodman are conducting an RFP Process to select an Architect that will be responsible for the design intent and Architectural Documentation of the Estate.

For this Phase of the Design, Goodman require Architectural Concepts for the estate including:

- Proposed branding and architectural language;
- Variations in typology, particularly single level and two level offices;
- Indicative elevations and 3D perspectives of office and warehouse components.

The Preferred design will provide:

- Fresh new identity
- Modern aesthetic
- Transgenerational
- Economical and cost effective
- Durable
- High quality warehouse and office at Goodman development standards
- Market leading design
- Differentiate from Goodman Design Brand
- Compliance with Goodman Base Building Specification and minor adjustments to suit NSW Ports
- Possible consideration of Green initiatives.

1.2 PROJECT STATUS

NSW Ports is the applicant for the proposed Intermodal Logistics Centre (ILC) at Enfield. The organisation was established in 1995 as the port corporation for Sydney and is responsible for managing commercial shipping and developing port facilities in Botany Bay and Sydney Harbour. The principal roles of NSW Ports are:

- To manage and develop port facilities and services to cater for existing and future trade needs;
- To facilitate trade by providing competitive advantage to importers, exporters and the port related supply chain;
- To manage the navigational and operational safety needs of commercial shipping;
- To protect the environment;
- To have regard to the interests of the community; and
- To deliver profitable business growth to the State Government.

The proposed ILC at Enfield is consistent with the objectives and responsibilities of NSW Ports and represents an important step in achieving its legislated responsibilities as a State-Owned Corporation.

Masterplan Approval has been provided and the Project is now moving into a more detailed phase of design.

1.3 SITE DESCRIPTION

Enfield ILC encompasses approximately 31ha of Industrial Development Land at 71 Cosgrove Road, Strathfield South. The site is previously known as the Enfield Marshalling Yards Site, and is located at Strathfield South, in Sydney's inner west, approximately 15klms by road from the Sydney CBD and 18klms by rail from Port Botany. The Site is surrounded by Light Industrial and Low Density Residential uses.

Enfield ILC has an existing masterplan approval in place and has been subject to several modifications (the design intent of the buildings has not significantly changed since initial approval). Architectural documentation approved by Department Planning & Environment (DP&E) is quite broad and are not as detailed as Goodman's submissions to DP&E.

The Site currently comprises:

- Existing Rail Lines and Slipways
- Wheel Lathe Area
- Intermodal Facilities
- Container Storage
- OSD Basins
- Ecological Areas
- Roadways
- Road Bridge
- Noise Barriers

The Site is proposed to maintain the above facilities, and will include:

- Industrial Warehouses
- Administrative Offices
- Car and Bicycle Parking
- Landscaping (Hard and Soft)
- Worker Amenity Facilities
- Truck Standing and Circulation Hardstand
- Fences and Secure Gates
- Entry and Building Markers and Signage

And possibly include:

- Commercial Areas fronting Cosgrove Road
- Heritage Overlay
- Community Areas

2.0 DESIGN FACTORS

2.1 PROGRAMME

As a category of Building Type, an intermodal Warehouse has the following functional requirements:

SITE

- Articulated Vehicle Access and Circulation
- Vehicle Loading & Unloading
- Container storage hardstands
- Staff & Visitor Car Parking
- Entry Plaza & Signage
- Fencing and Gates
- Site Retention and Levelling

WAREHOUSE

- Storage Racking & Access
- Dock Manager Office
- Tenant Requirements
- Landscape and Buffer Zones

OFFICE

- Reception & Lobby
- Meeting Rooms
- Staff Workstations
- Staff Support Areas (Print, Kitchenette)
- Staff Lunch & Lunch Prep
- Staff Lockers and Change
- Staff Toilets

OPTIONAL ADDITIONAL FUNCTIONS

Additional functions could be contemplated for the Office Component, to improve the value / utility of the lettable area. These additional functions can be designed so that the spaces become multi-functional, either through adaptable operability, or through changing the fitout installation.

- Product Display
- Product Launch
- Staff Functions & Events
- Hot-Desking Areas
- Outdoor Activities (Ping Pong, Pool, Boule, Exercise)
- Worker Café / Informal Meeting Zone

2.2 INTERACTION

A key relationship for general Warehousing is the relationship between the Office Module and the Warehouse. Typically, the Warehouse Office abuts but is separate to the main Warehouse, with a door connection from the lunchroom and upstairs offices into the lunchroom. Usually, the Warehouse Staff Lunchroom, Change and Toilets sit at Ground Floor, along with the Reception Lobby, and some public or front of house meeting rooms. The upstairs of the Office component is usually workstations, offices and meeting rooms for the Tenant administrative staff. Typically, the Office Component Ground Floor sits at the same floor level as the Warehouse, with doors connecting warehouse staff into the lunchroom and change room areas. Occasionally vision is required from the upstairs office to the warehouse floor.

This typical modality could be described graphically below in Mode 1.

Alternatively, the warehouse/office modality can be interlinked to encourage staff interaction and integration, and improve utility of 'periphery' areas (areas at the edge of the office module). Refer to Mode 2 below.

2.3 AMENITY

Warehousing Businesses rely on staff retention for improved job knowledge, specialisation and efficiency. Providing a reasonable level of amenity for workers can assist with Worker Retention. As well, site and worker amenity factors could tip the balance between the range of market offerings.

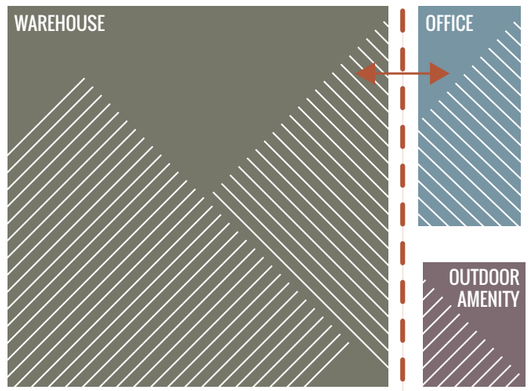
2.4 BRAND

A key element of tenant lettability is linking the value of the Tenant Brand with the brand of the development. Businesses want to establish the right functional linkages (a given at the Intermodal site), but also aspire to tie in with reputable precincts and collegiate companies. This kind of cross fertilisation of brand can add value to the precinct.

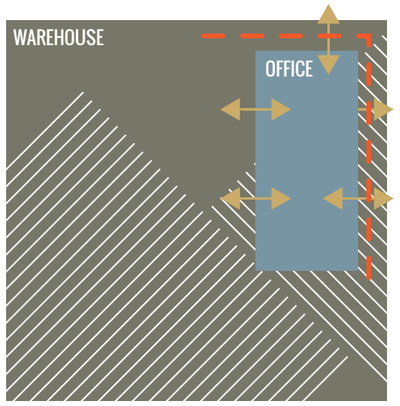
2.5 SITE LEGIBILITY

An intermodal Site such as this requires very clear site signage and tenant identification, if only from a functional point of view of the many service vehicles and personnel finding immediate orientation when arriving at the site through good site legibility. This kind of site legibility needs to be expressed at the site level; a whole of site orientation arrangement that makes sense, requires no explanation to understand and is articulated and supported by the architecture.

Mode 1



Mode 2



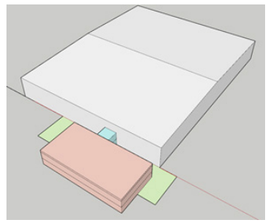
3.0 FORM

3.1 WAREHOUSE/OFFICE MODALITY

The relationship between the Office and the Warehouse can be expressed in a range of ways, each with different design outcomes. Often, drivers of these different configurations relate to site planning; simply available space for the office module.

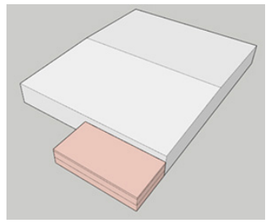
A/ SEPARATED

In this Mode, the Office Block is wholly separated from the main Warehouse. This provides the opportunity for activated courtyard and interstitial spaces between, as well as an exciting bridge link between the office and the warehouse. However, additional cost is induced to the project because with this option, instead of one common wall between the office and warehouse, of fairly simple construction, there is instead two external walls, the bridging or connecting element and the hardscape between which are more or less additional cost to the project.



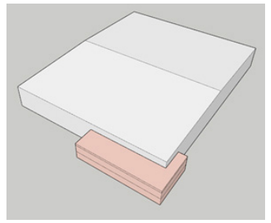
B/ ADJACENT

In this Mode, the Office Block sits adjacent the Warehouse. This provides for a regular, rectangular shape to the warehouse, easy connection between Office and Warehouse, and reduced cost. Design options for the Office Roof are somewhat limited to falling either towards or away from the Warehouse.



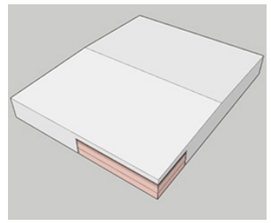
C/ PARTLY INTEGRATED

The Office Module can be partly integrated to the Warehouse Block.



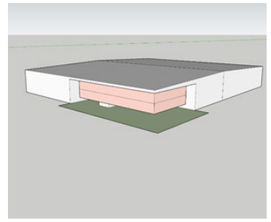
D/ WHOLLY INTEGRATED

The Office Module can wholly integrate with the Warehouse. This Option has the possible benefit of reducing the overall cost of the office component (relative to Option b above), because the warehouse roof is very efficient structurally and can cover the Office Component. Because of the relative height of the two storey office (approx. 8mtrs) and the warehouse (approx 12 – 13.7 metres), there arises a space above the Office Component, and under the warehouse roof. This 'leftover' space could be utilised for a range of functions.



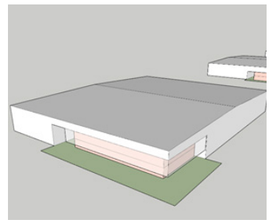
E/ WHOLLY INTEGRATED, RECESSED, SCREENED

Extending on logic of Option D above, the warehouse roof structure can be utilised to cost effectively suspend screening and articulation in front of the Office Component Glazing. This provides for shaded and covered outdoor amenity for workers, reduces heat load on glazing and provides an interesting outlook from with offices. An example of this kind of activated edge can be seen at Section XX, PRECEDENTS 'East Pilbarra Arts'.



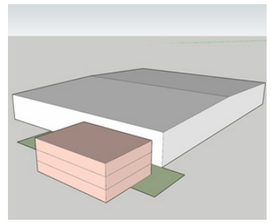
F/ WHOLLY INTEGRATED, RECESSED, ELEVATED

Extending on logic of Option E above, the height of the warehouse roof could permit the two storey office component to lift up off the ground, creating a liveable undercroft for staff amenity, landscaping, etc.



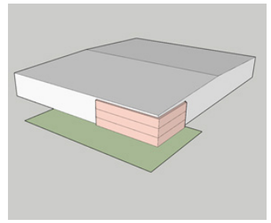
G/ 3 STOREYS SEPARATED

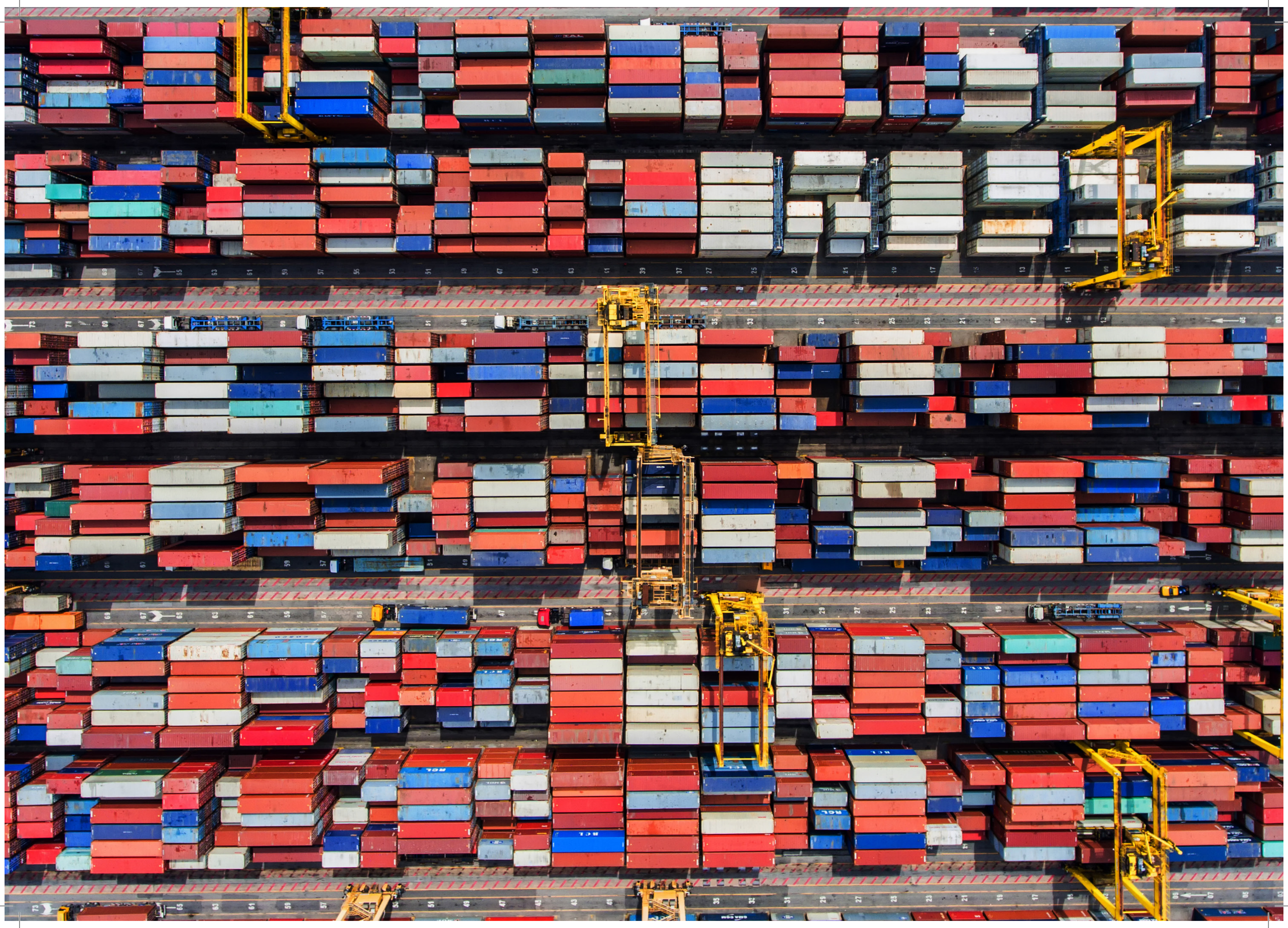
An alternative to the two storey design is to provide office facilities over three levels.



H/ 3 STOREYS INTEGRATED

Recessing the three-storey office into the warehouse is a good fit in terms of utilising all the available volume up and under the warehouse roof. It is expected this design option will provide good cost efficiency.





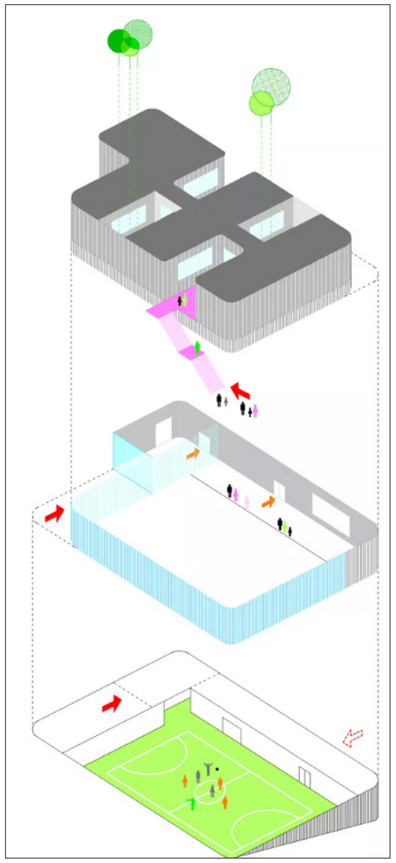
4.0 PRECEDENT

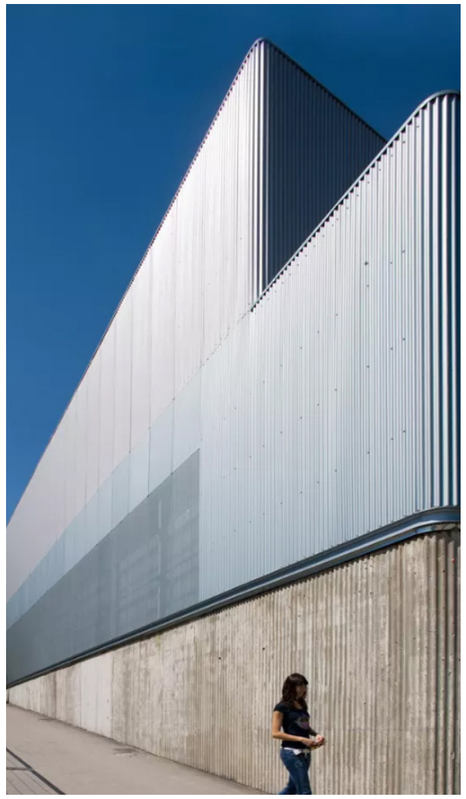
4.1 PERSICO INDUSTRIAL AREA

ARCHITECT: FRANCESCO ADOBATI

4.2 COLEGIO BERNADETTE, MADRID

ARCHITECT: PO2 ARQUITECTOS



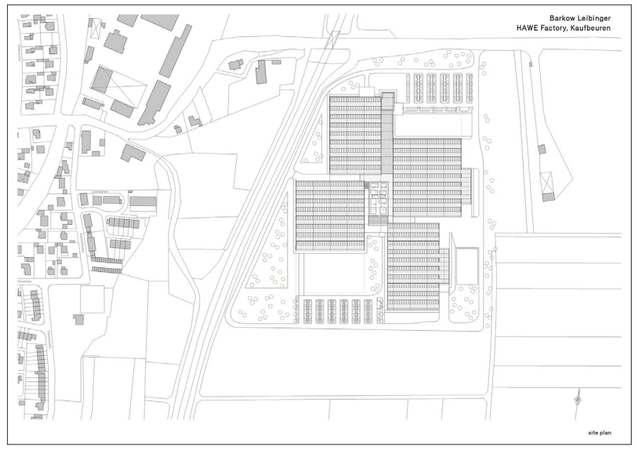


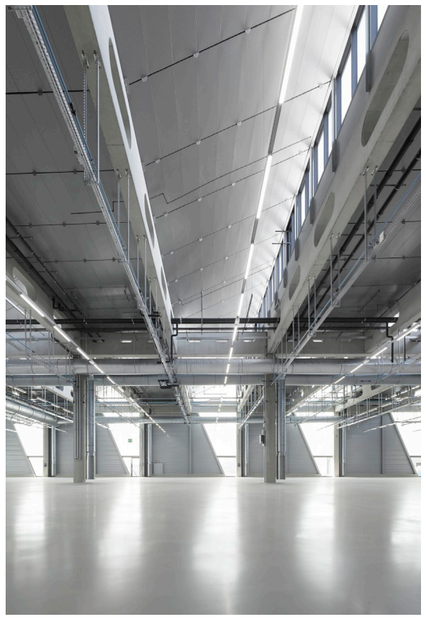
4.3 SPORTS HALL, NETHERLANDS

ARCHITECT: SLANGEN KOENIS

4.4 HAWE FACTORY KAUFBEUREN

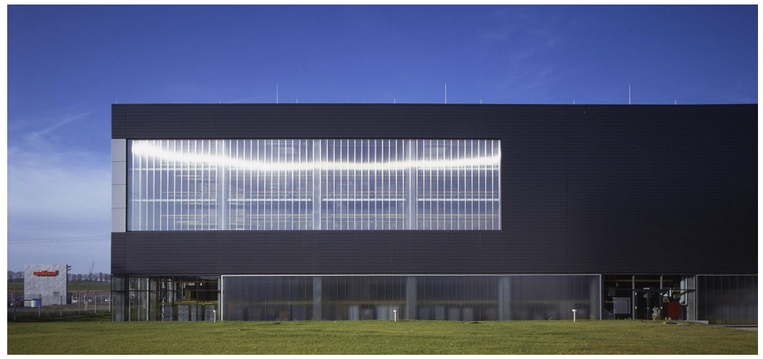
ARCHITECT: BARKOW LEIBINGER

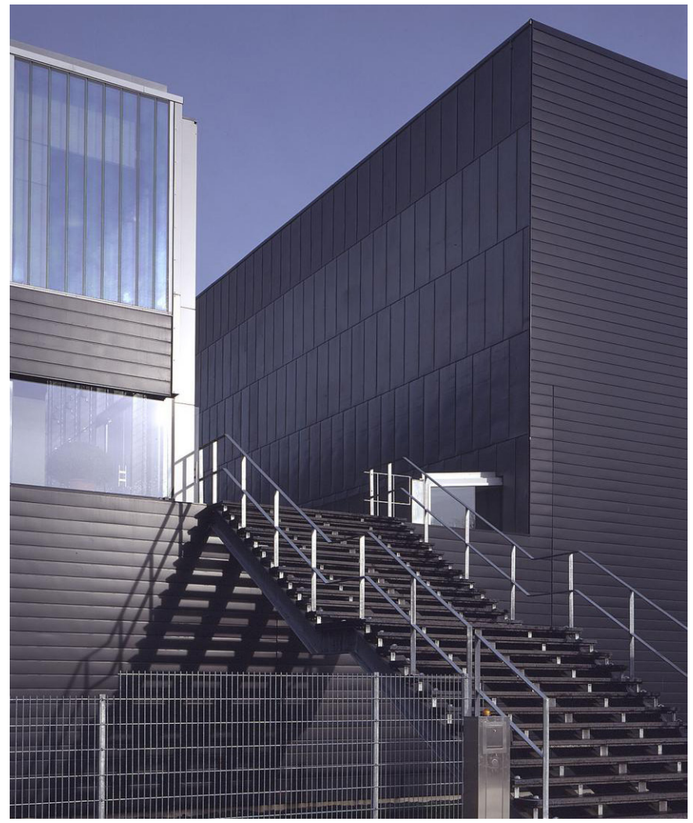




4.5 OPTIMAL MEDIA LOGISTICS CENTRE

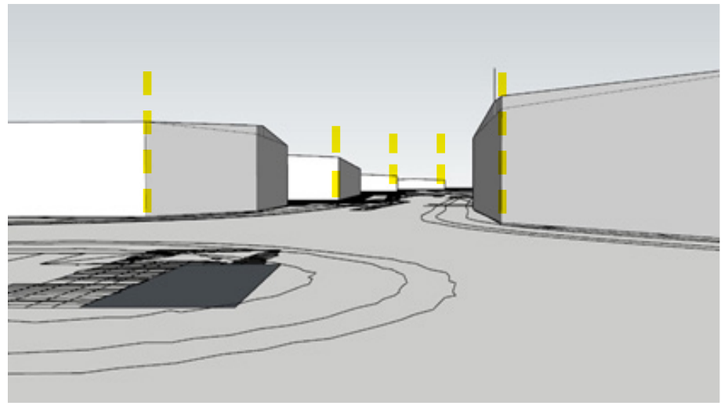
ARCHITECT: CARSTON ROTH

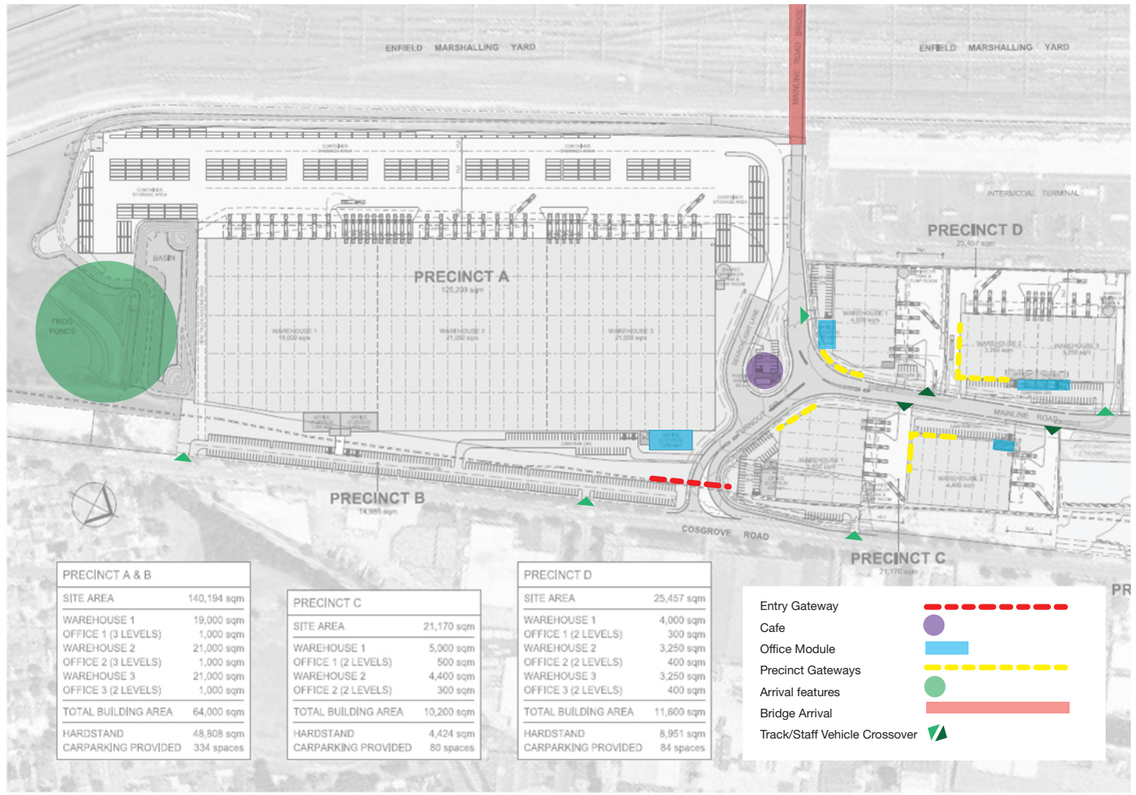




5.0 MASTERPLAN

5.1 DESIGN FEATURES

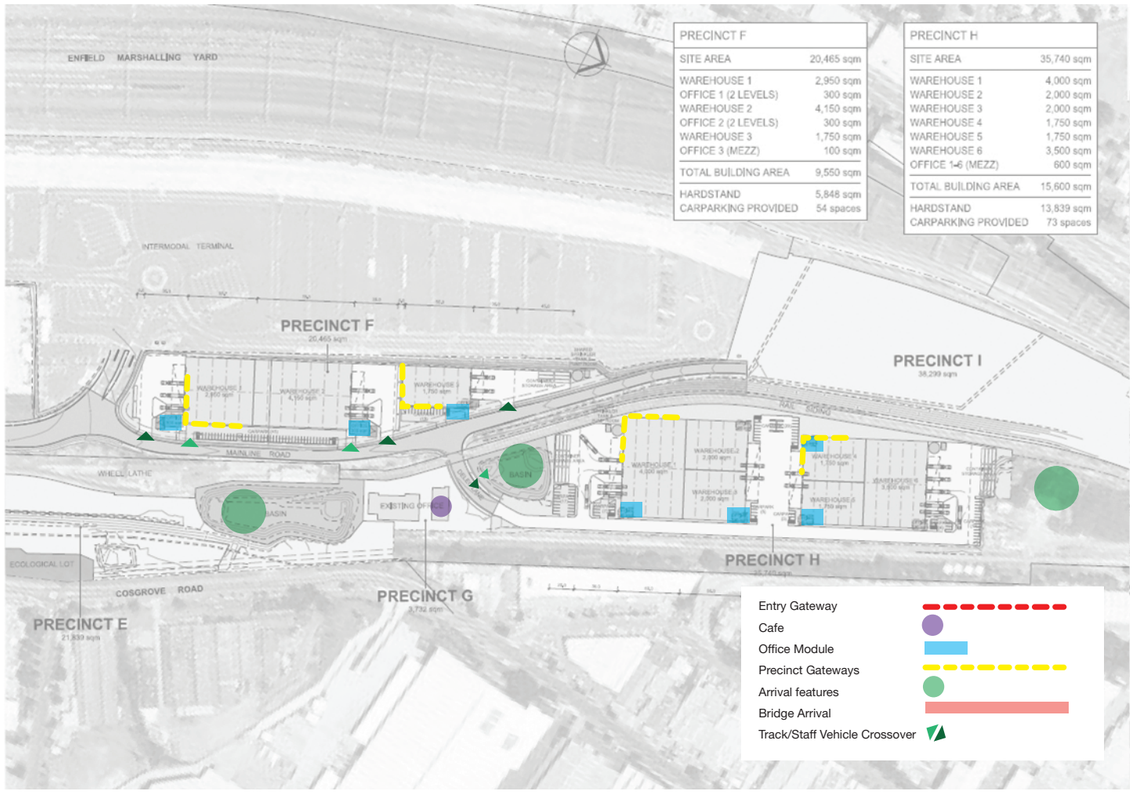




PRECINCT A & B	
SITE AREA	140,194 sqm
WAREHOUSE 1	19,000 sqm
OFFICE 1 (3 LEVELS)	1,000 sqm
WAREHOUSE 2	21,000 sqm
OFFICE 2 (3 LEVELS)	1,000 sqm
WAREHOUSE 3	21,000 sqm
OFFICE 3 (2 LEVELS)	1,000 sqm
TOTAL BUILDING AREA	64,000 sqm
HARDSTAND	48,808 sqm
CARPARKING PROVIDED	334 spaces

PRECINCT C	
SITE AREA	21,170 sqm
WAREHOUSE 1	5,000 sqm
OFFICE 1 (2 LEVELS)	500 sqm
WAREHOUSE 2	4,400 sqm
OFFICE 2 (2 LEVELS)	300 sqm
TOTAL BUILDING AREA	10,200 sqm
HARDSTAND	4,424 sqm
CARPARKING PROVIDED	80 spaces

PRECINCT D	
SITE AREA	25,457 sqm
WAREHOUSE 1	4,000 sqm
OFFICE 1 (2 LEVELS)	300 sqm
WAREHOUSE 2	3,250 sqm
OFFICE 2 (2 LEVELS)	400 sqm
WAREHOUSE 3	3,250 sqm
OFFICE 3 (2 LEVELS)	400 sqm
TOTAL BUILDING AREA	11,600 sqm
HARDSTAND	8,951 sqm
CARPARKING PROVIDED	84 spaces



PRECINCT F	
SITE AREA	20,465 sqm
WAREHOUSE 1	2,950 sqm
OFFICE 1 (2 LEVELS)	300 sqm
WAREHOUSE 2	4,150 sqm
OFFICE 2 (2 LEVELS)	300 sqm
WAREHOUSE 3	1,750 sqm
OFFICE 3 (MEZZ)	100 sqm
TOTAL BUILDING AREA	9,550 sqm
HARDSTAND	5,848 sqm
CARPARKING PROVIDED	54 spaces

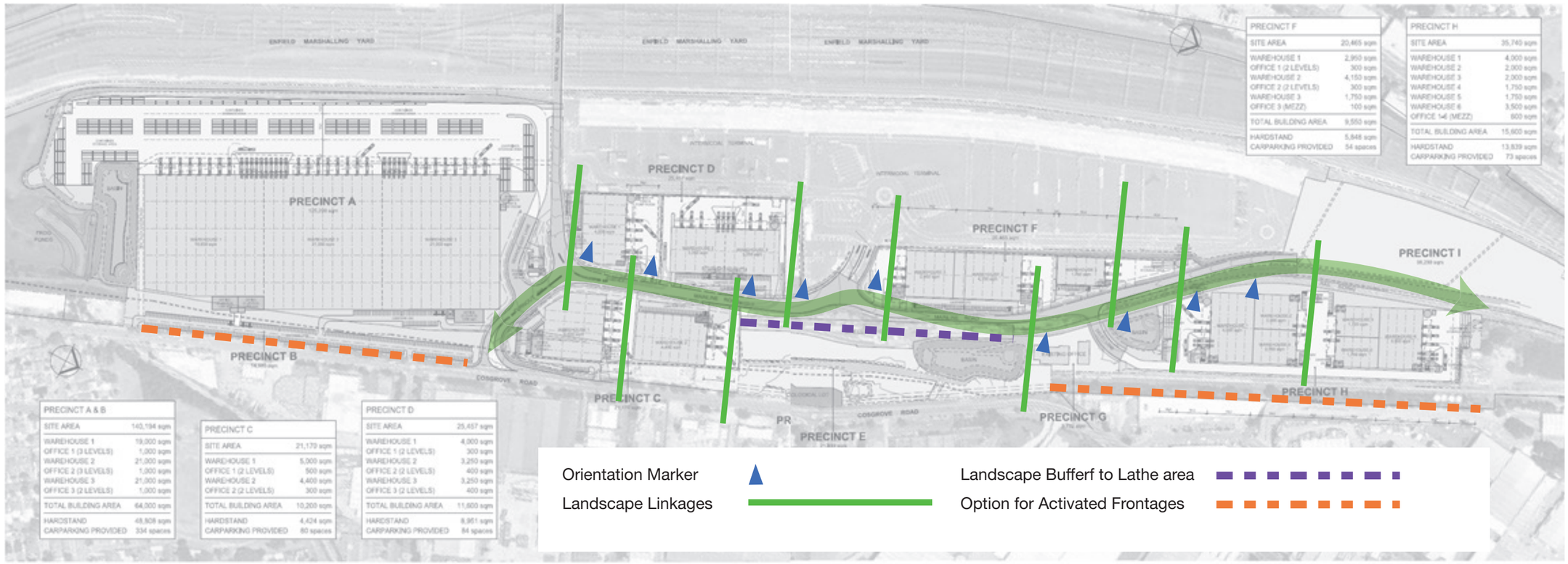
PRECINCT H	
SITE AREA	35,740 sqm
WAREHOUSE 1	4,000 sqm
WAREHOUSE 2	2,000 sqm
WAREHOUSE 3	2,000 sqm
WAREHOUSE 4	1,750 sqm
WAREHOUSE 5	1,750 sqm
WAREHOUSE 6	3,500 sqm
OFFICE 1-6 (MEZZ)	600 sqm
TOTAL BUILDING AREA	15,600 sqm
HARDSTAND	13,839 sqm
CARPARKING PROVIDED	73 spaces

5.2 ORIENTATION

The existing Roadway route will be retained and upgraded to suit the design vehicle requirements. This roadway is central to the Project and is the key 'spine' from which Precinct Orientation can be established. This is important given the number of trucks and vehicles using the site every day, as well as enhancing and reinforcing the Precinct Brand.

Architecture as Marker, Songjang Hotel (ATKINS)

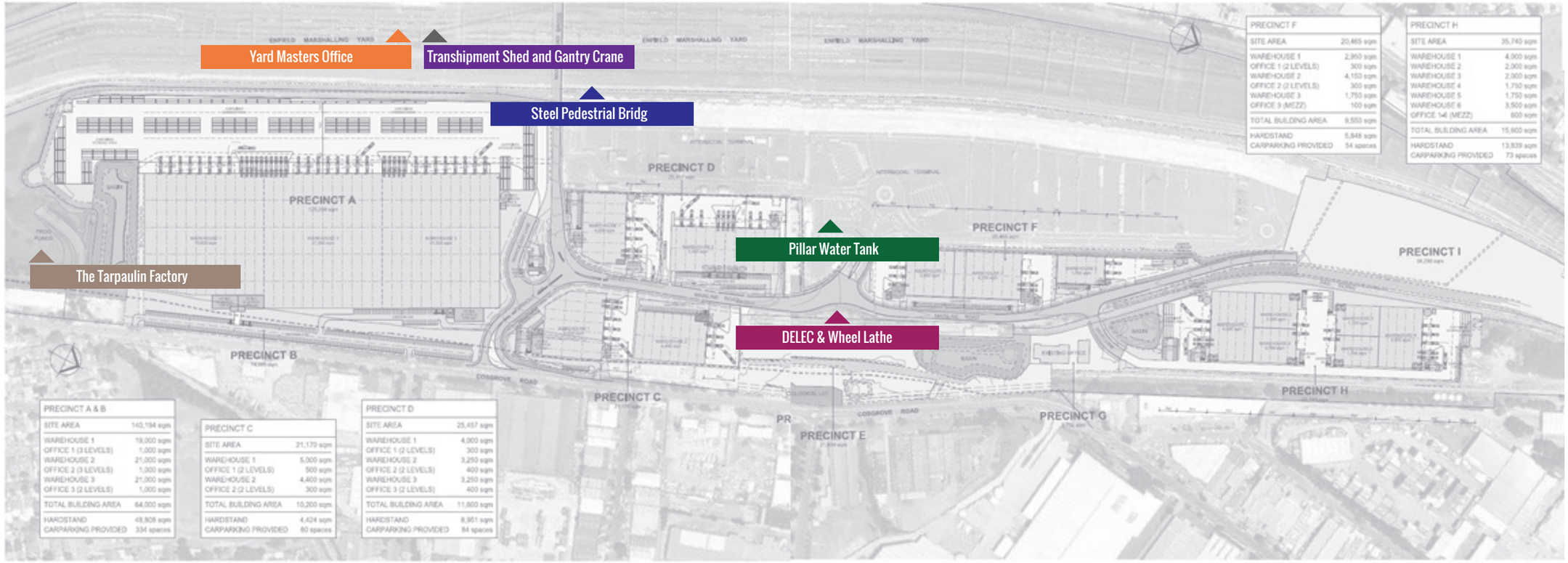
Precinct Lighting at Olympic Park, Tonkin Zulhaika Greer



5.3 EXISTING STRUCTURES

The existing Roadway route will be retained and upgraded to suit the design vehicle requirements. This roadway is central to the Project and is the key 'spine' from which Precinct Orientation can be established. This is important given the number of trucks and vehicles using the site every day, as well as enhancing and reinforcing the Precinct Brand

Key	Structure	Location	Description	Proposed Outcome
△	The Administration Building	Centre of the Abandoned Enfield Marshalling Site	20th Century Multi-coloured Brick Building with metal casement windows, glazed two storey Lobby and entrance tower	Record and Demolish
▲	The Tarpaulin Factory	Corner of Punchbowl and Cosgrove Road	Assemblage of two 19th century prefabricated cast and wrought iron single bay buildings that were once in Central Station.	Retain. Future use to be decided. Structure to be stabilised against further deterioration or re-site to rail heritage organisation.
▲	Yard Masters Office	Western Fringe of the site, toward the southern end of the Yard	Two storey brick building almost square in form. Dates from early 1900's.	Record and demolish.
▲	Pillar Water Tank	Centre of the Site		Record and re-site to appropriate display location on ILC site or to rail heritage organisation.
▲	Steel Pedestrian Bridge	South of the Yard Master's Office	80 metres in length	Record and re-site to rail heritage organisation or to appropriate display location on ILC site
▲	Transhipment Shed and Gantry Crane	Adjacent to the administration building in the centre of the Site	Post and beam timber structure, 80mtrs in length and 10 meters wide, with attached gantry crane.	Re-use some of the wood in landscaping, dismantle and relocate remainder. Gantry crane to be recorded and re-sited to an appropriate location on the site
▲	DELEC & Wheel Lathe	Eastern side of the Site	Office building, amenities building, wheel lathe shed, turntable, fuel storage tanks, DELEC platform, washing down and cleaning areas	Demolish DELEC buildings and structures. Retain wheel lathe area for continued use.



5.4 OPEN SPACES

Several existing open space features exist at the site, that are proposed to be retained and possibly rehabilitated with landscaping works for the benefit of site workers and visitors. This section investigates the location and condition of the various areas.

OPEN SPACE LOCATION 01

PRECINCT A & B	
SITE AREA	140,194 sqm
WAREHOUSE 1	19,000 sqm
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CARPARKING PROVIDED	60 spaces

PRECINCT D	
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OPEN SPACE LOCATION 02

OPEN SPACE LOCATION 03

OPEN SPACE LOCATION 04

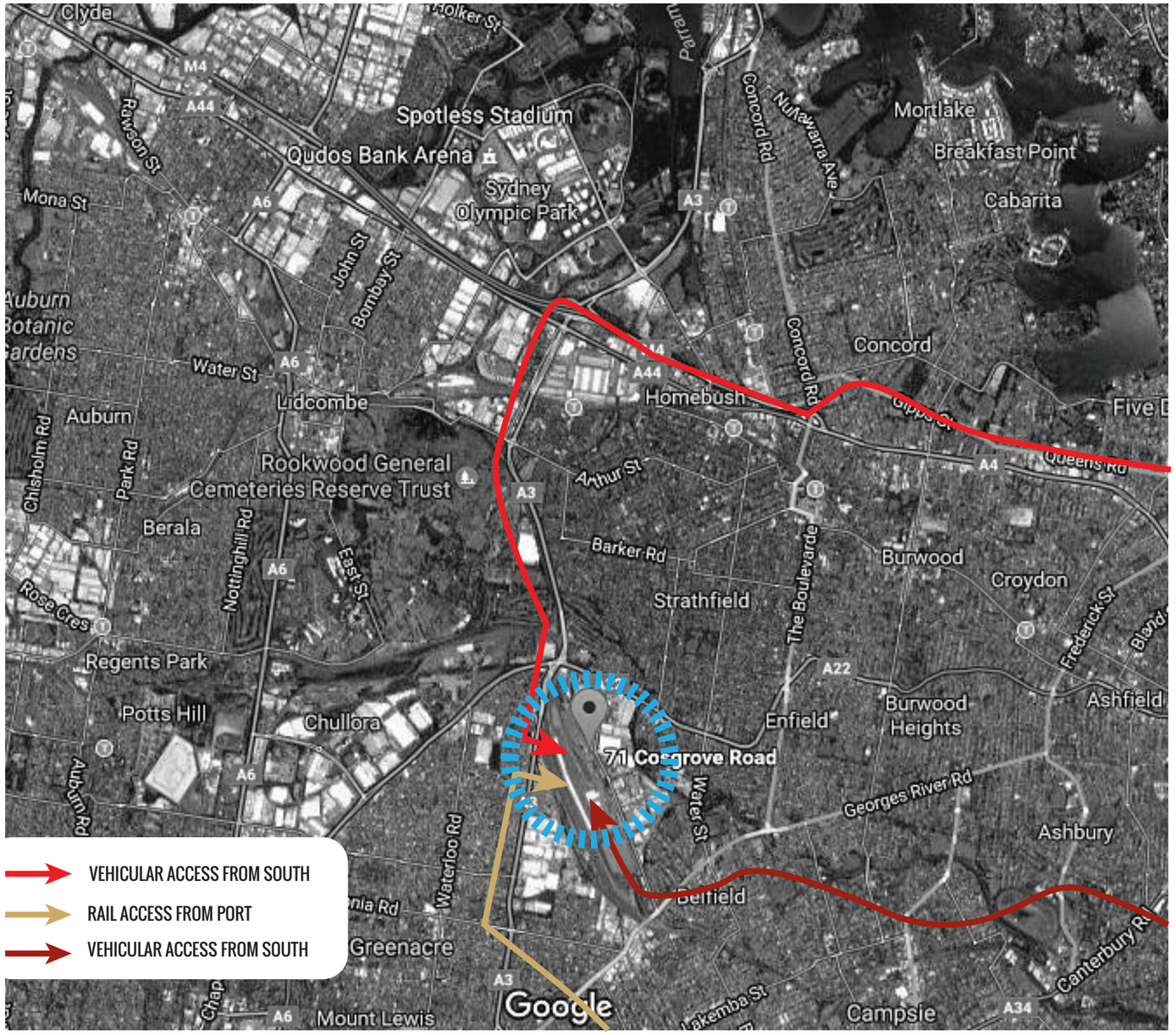
OPEN SPACE LOCATION 05

5.5 SITE ACCESS

Access to the Site can be gained from the M4 Motorway and Centenary Drive from the north, Hume Highway from the north east and north west, and Punchbowl and Roberts Road from the South leading from the M5 Motorway.

Roberts Road connects the Site with the Southern and North Western areas of Sydney, as well as the M4 Motorway to Sydney's West and the M5 Motorway to Sydney's south west.

The existing rail freight railway line to the Enfield Marshalling Yards provides a direct freight rail connection with Port Botany, approximately 18klms away.



6.0 ARCHITECTURE

6.1 DESIGN APPROACH - SITE

The Design for the Site Plan has been established by the Masterplan Approval Documents. There are several complexities at the site that must be dealt with by the Masterplan Design, including:

» Existing Storm and Gas Main traversing the Site
» Existing Ecological Features – Frog Ponds
» Existing Drainage Topography and On Site Detention Features
» Wheel Lathe and associated Rail Lines
» Retention Banks and Walls
» Topographical variations
» Existing Road Infrastructure
» Existing Intermodal Facility Functionality

There is also the opportunity to define new Road Edges along Cosgrove Road.

The Site itself is situated in an inner west location, meaning that the surrounding area is already built up and is not greenfield. Whilst this may stimulate thinking about context and site situation, in fact the Enfield Intermodal will be a first mover project on a new phase of development for the Enfield Area. It is anticipated that the Enfield Intermodal Site will stimulate a new level of thinking about Business Operations in the area and in the longer term, the project may stimulate further development and renewal on adjacent sites, much like the work of Goodman in Alexandria.

The Project Function is predominately one very large warehouse, and several small to medium warehouse sites. However, associated with this key function, are the below possible associated uses:

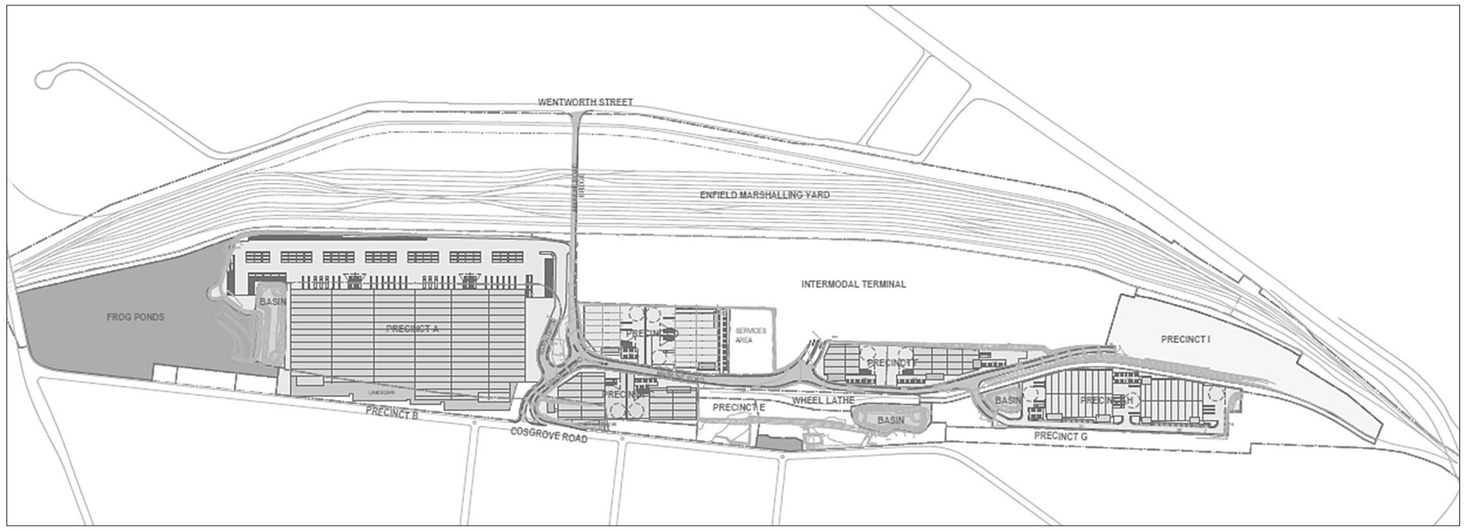
» Pop up Retail – in the form of Shipping Crate Villages
» Exercise zones and Personal Health Facilities
» Shade and Vegetation to provide respite for Workers
» Light Industry or Commercial Tenancies along northern section of Cosgrove Road Frontage, adjacent Precinct A

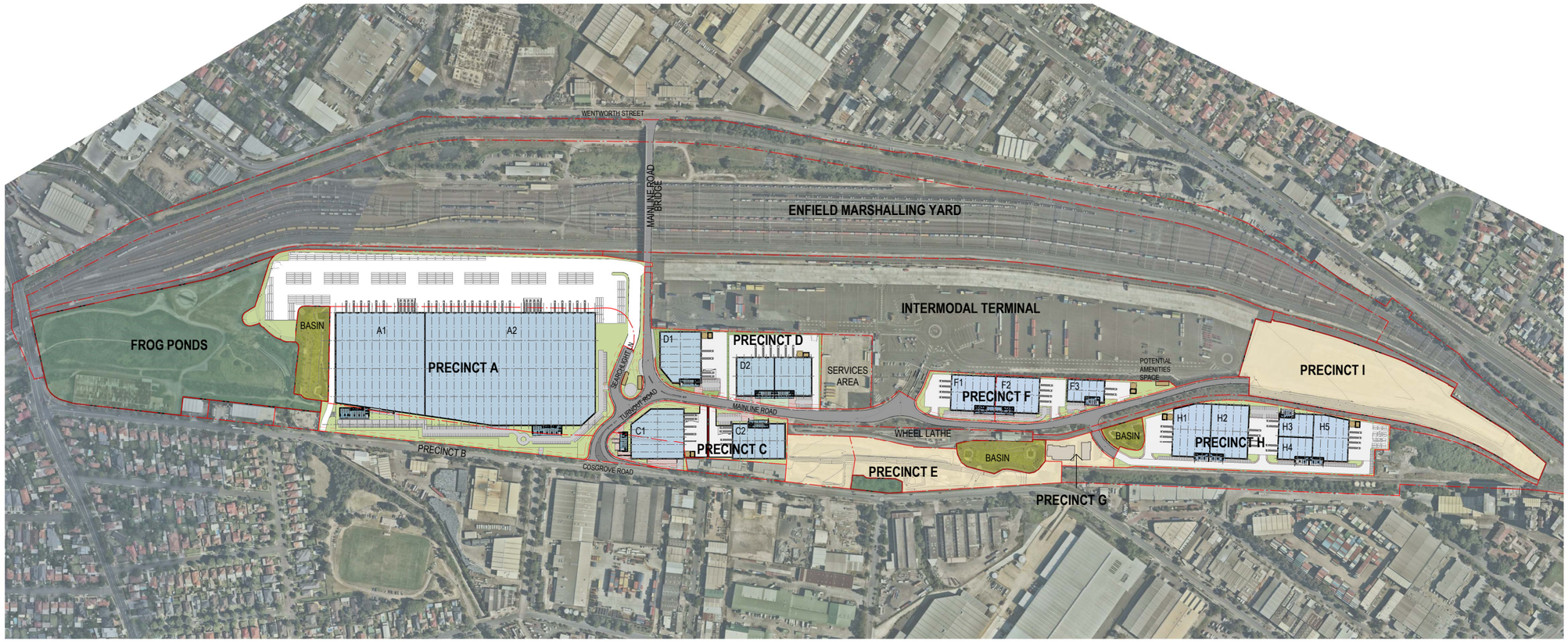
A possible future consideration of the Masterplan Design may be the proposed use of Precinct E, situated between Wheel Lathe and Cosgrove Road.

Legibility for Vehicles arriving at the Site is also critical to the successful operation of the Facility. As such, the design also considers:

» Site Legibility Markers
» Site Lighting
» Site Axial Relationships

The site predominantly orients to the Central Spine roadway





PRECINCT A & B

SITE AREA		140,194m²
HARDSTAND		48,808m²
CARPARKING SPACES		475
A1	OFFICE	500 m²
A1	OFFICE	720 m²
A1	WAREHOUSE	19510 m²
		20720 m²
A2	OFFICE	500 m²
A2	OFFICE	710 m²
A2	WAREHOUSE	42930 m²
		44130 m²
TOTAL BUILDING AREA		64860 m²

PRECINCT C

SITE AREA		21,170m²
HARDSTAND		4,554m²
CARPARKING SPACES		39
C1	OFFICE	250 m²
C1	OFFICE	350 m²
C1	WAREHOUSE	5690 m²
		6290 m²
C2	OFFICE	250 m²
C2	OFFICE	350 m²
C2	WAREHOUSE	4050 m²
		4650 m²
TOTAL BUILDING AREA		10940 m²

PRECINCT D

SITE AREA		25,457m²
HARDSTAND		6,112m²
CARPARKING SPACES		56
D1	OFFICE	250 m²
D1	OFFICE	340 m²
D1	WAREHOUSE	4370 m²
		4960 m²
D2	OFFICE	250 m²
D2	OFFICE	350 m²
D2	WAREHOUSE	3070 m²
		3670 m²
D3	OFFICE	250 m²
D3	OFFICE	350 m²
D3	WAREHOUSE	3070 m²
		3670 m²
TOTAL BUILDING AREA		12300 m²

PRECINCT F

SITE AREA		20,465m²
HARDSTAND		4,820m²
CARPARKING SPACES		58
F1	OFFICE	690 m²
F1	WAREHOUSE	3360 m²
		4040 m²
F2	OFFICE	690 m²
F2	WAREHOUSE	3350 m²
		4040 m²
F3	OFFICE	540 m²
F3	WAREHOUSE	1690 m²
		2220 m²
TOTAL BUILDING AREA		10300 m²

PRECINCT H

SITE AREA		35,740m²
HARDSTAND		12,354m²
CARPARKING SPACES		112
H1	OFFICE	500 m²
H1	WAREHOUSE	4340 m²
		4840 m²
H2	OFFICE	500 m²
H2	WAREHOUSE	4500 m²
		5000 m²
H3	OFFICE	300 m²
H3	WAREHOUSE	1810 m²
		2110 m²
H4	OFFICE	300 m²
H4	WAREHOUSE	1800 m²
		2100 m²
H5	OFFICE	300 m²
H5	WAREHOUSE	3570 m²
		3870 m²
TOTAL BUILDING AREA		17920 m²

WAREHOUSE OFFICE ROAD PARKING LANDSCAPE HARDSTAND SEWAGE PONDS SERVICES EX. BUILDING FUTURE PRECINCT

PRELIMINARY

6.2 MASTER PLAN RESPONSE

SBA provide a Masterplan Response, for discussion as part of this Submission. SBA understand the Masterplan, and each individual site, is highly iterative and will undergo several transformations as it moves to realisation as a built project.

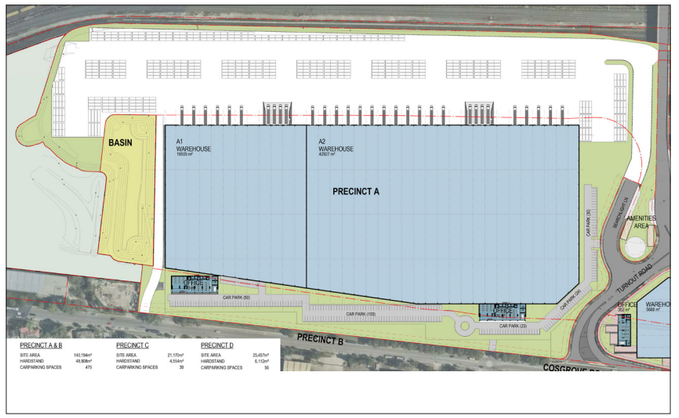
The Masterplan Response is also an opportunity for SBA to understand the Design Requirements for each precinct. Those are understood as per below per Precinct.

PRECINCT A & B

Precinct A is a very large site containing a large format warehouse, divisible to 2 or 3 warehouses. The bench level for the Warehouse sits above Cosgrove Road by about 3 – 4 metres. As such, the Masterplan Response considers the opportunity to sleeve Light Industrial or Commercial Units as Shopfronts to Cosgrove Road, with car parking behind, within the Precinct B umbrage. This allows the Precinct A Warehouse to enlarge towards the Cosgrove Road frontage, to gain further yield for this Facility.

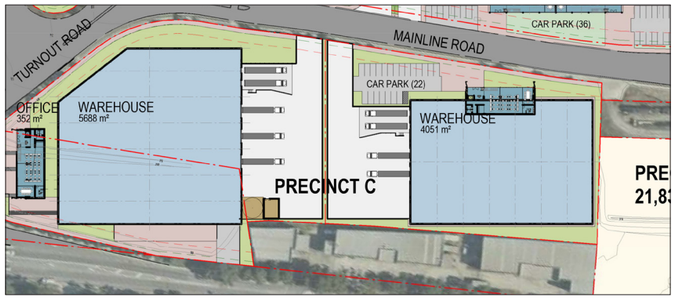
An additional complexity contemplated by this Masterplan Response, is the issue of transitioning vehicles up and onto the Precinct A Warehouse Level, from the Cosgrove Road Entry. It is noted that the existing Road Entry to the Enfield Intermodal Site, from the Mainline Road and Cosgrove Road intersection, transitions up and onto the main Enfield Intermodal Site level, within reasonably close distance to the Cosgrove Road intersection. An innovation contemplated by this Masterplan Response, is to remove the requirement to circulate worker and visitor cars on and around this Warehouse level, by collocating cars to the Cosgrove Road Level, in what would be effectively a basement level parking, below the Warehouse Offices, and connecting up to the Office Levels via Lift and Stairs. This idea means that additional driveways within Precinct A at the Warehouse Level are not required, allowing the Precinct A warehouse yield to increase.

It is noted that an existing underground mains Gas Line traverses through Precinct A, servicing locations beyond the site. As such, any proposed works that effect the Gas Line must ensure a continuity of service. The above design proposal anticipates that the Gas Line will need to be temporarily diverted, then rebuilt into the Design of Precinct A.



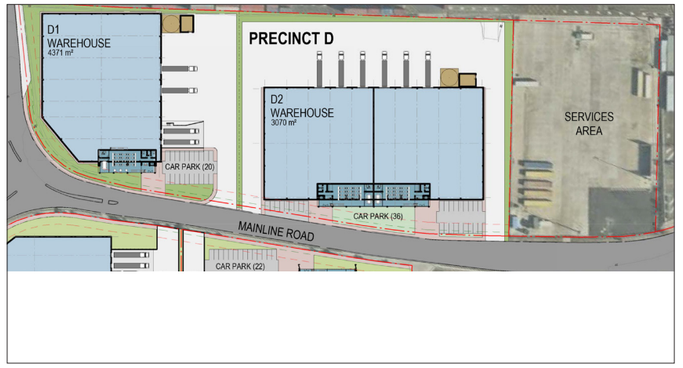
PRECINCT C

The Masterplan Response considers Precinct C, along with the southern part of Precinct A, to be a gateway Site for the EILC Project. As such the site design and layout is carefully considered in terms of how the site provides a sense of quality and presence at arrival to the EILC Facility. The Masterplan Response also contemplates the consolidation of the Precinct C Loading Dock Areas, and orientation of building alignments to match Precinct A. This alignment is carried through the site, for consistency of layout and improved axial orientation and legibility.



PRECINCT D

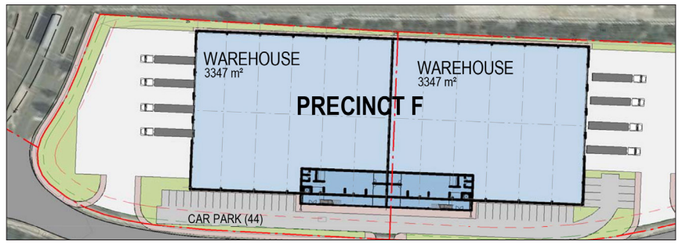
The layout for Precinct D is more or less unaltered except for adjusting the Building Alignments to match the Precinct A alignment. This alignment releases some space along the triangulating northern Boundary of this Precinct, which is contemplated by this Masterplan Response as being made available to Worker Amenity Facilities



PRECINCT F

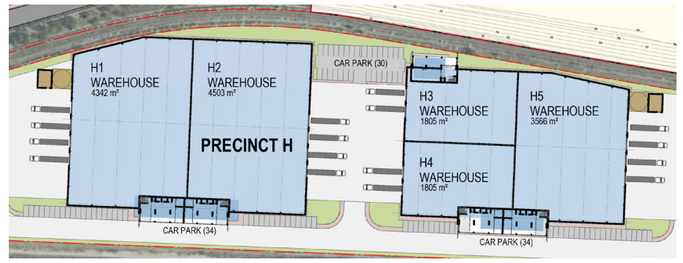
Precinct F is relatively unchanged in the Masterplan Response, except for building alignments as noted above, and because the narrow southern end of the Precinct is considered low in utility value to the development of this Precinct, it is proposed as being allocated instead to Worker Amenity use.

Site levels require the adjustment of existing battered banks along the Precinct's western Boundary, to suit the preferred Warehouse Designs for this Precinct.



PRECINCT H

Precinct H is relatively unchanged in the Masterplan Response, except for building alignments as noted above. The intended use of the adjacent Precinct G may effect the preferred design of Precinct H. It is noted that Main Line Road rises up along the western Boundary of Precinct H, and as such a large earth revetment wall exists along this Boundary.



6.3 SITE VIEWS

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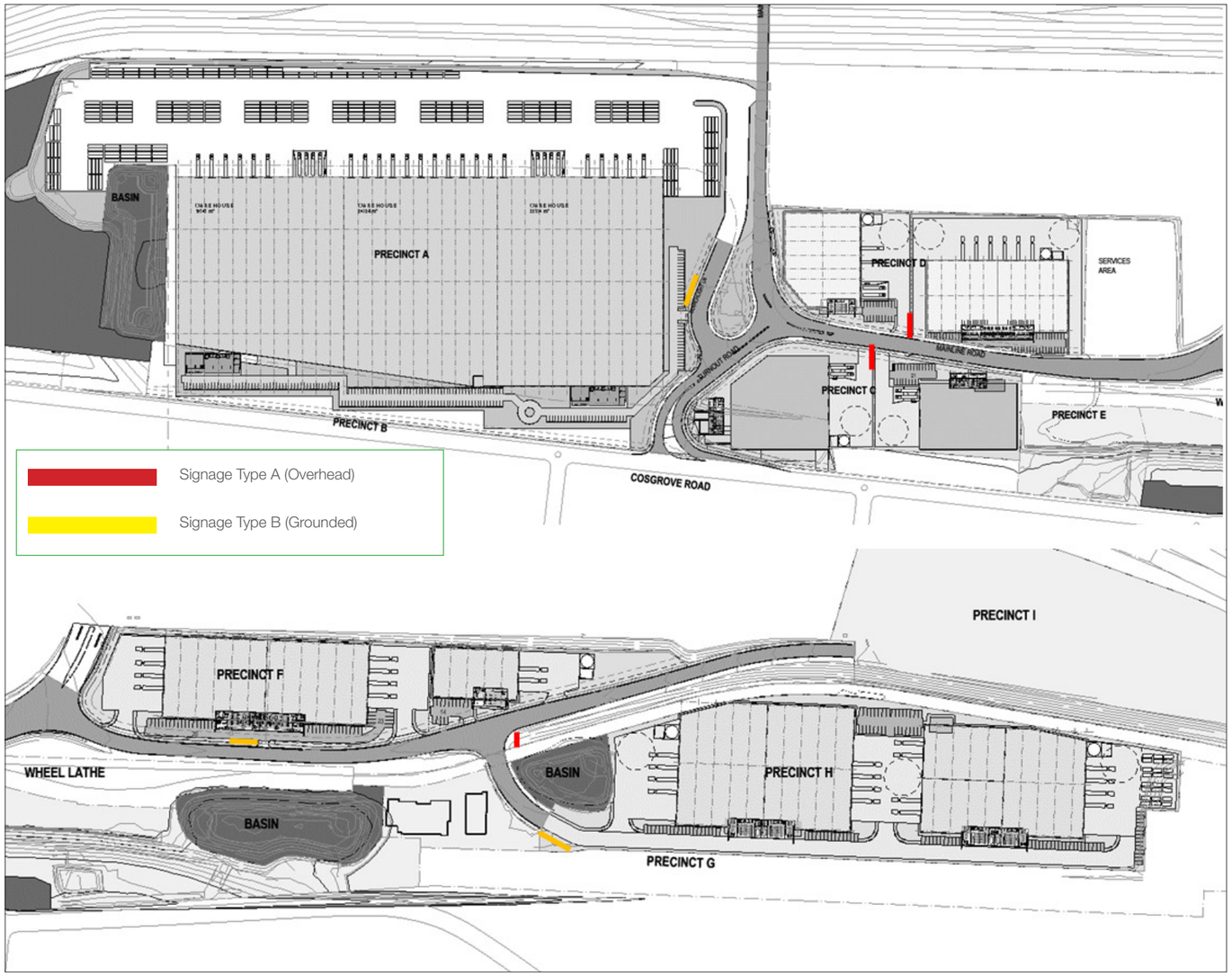
C1

6.4 SITE FEATURES

PRECINCT IDENTIFICATION

Signage and Branding is a key part of the Site Design strategy. This strategy at once relates to branding for the EILC Precinct as a whole, as well as for the individual Customers who choose to base their operations at the Site.

A clearly legible site will improve safety and efficiency of operations. A defined, approachable and resonant Brand will reinforce the value of the Operational Offer.



ESD FEATURES

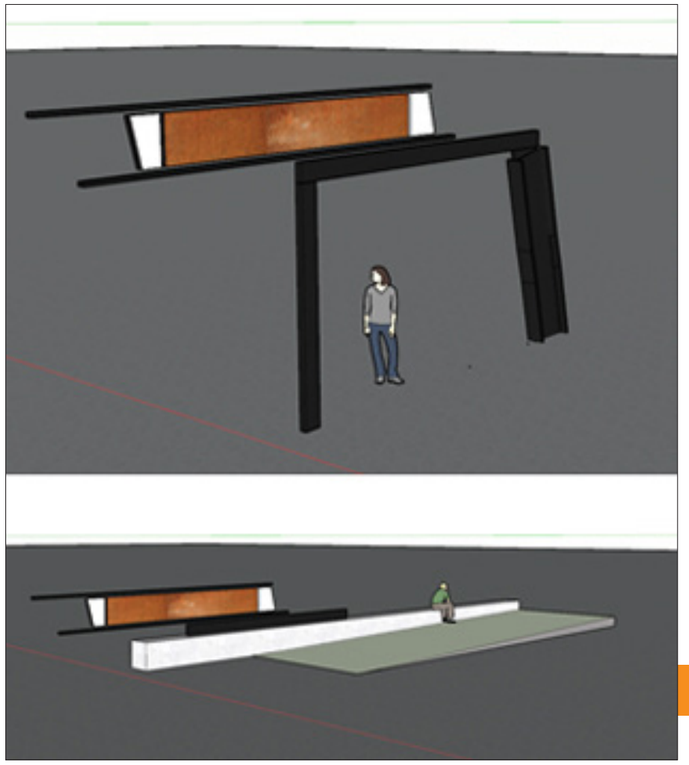
The Environmental Design solution in this report deals with possible inclusions for Sustainability Design. Energy Generation and Water Efficiency are the major ESD themes considered for this project, as relate to the Masterplan.

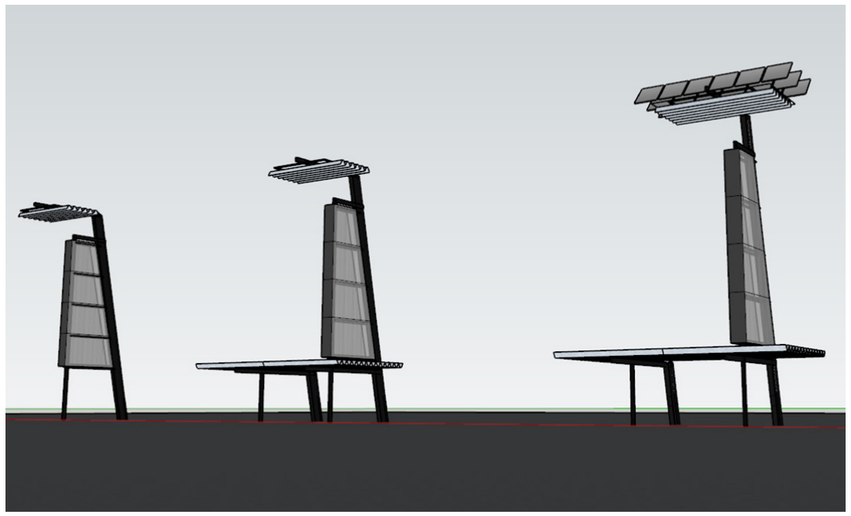
It is anticipated that the scope of these possible inclusions will be reviewed in later phases of design, and the masterplan and individual precinct plans will be adjusted to make appropriate allowances.

LIGHTING ARRAYS

Site lighting and legibility is considered an important part of the Site Design. As such, lighting arrays are proposed to be included to the Project to provide for a safe working environment during evening hours, and improve legibility of the site for truck drivers who may not be altogether familiar with the layout and address.

The Light towers also provide definition of clear axes through the site, as well as providing a unique and memorable sense of Precinct Identity. SBA propose to work with Lighting Designers to ensure the site lighting strategy is clearly evolved in line with the site function requirements and design intent.





6.5 AMENITY

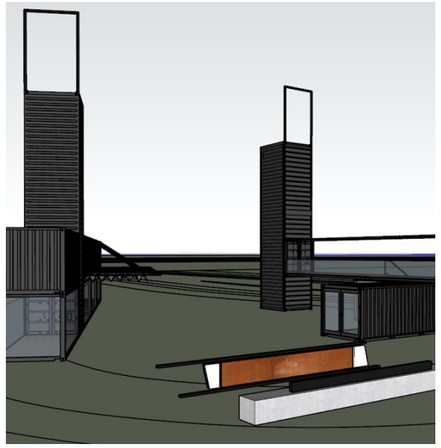
It's not so easy to get a good coffee at most Industrial Estates. There's usually very little amenity in terms of what inclusions inner city locations enjoy.

EILC can be different. Already its location is more like trendy inner city Sydney, than it is the Outer West. Amenities that can be introduced at low cost to the Precinct include:

- Café's
- Landscape Trellis and Shade Structures
- Earth Berms
- Exercise Features
- Landscape Interaction
- Boule
- Outdoor PingPong
- Park Spaces
- Park Furniture
- Heritage Trail
- Ecology Network

Making EILC a fun, healthy place to work is a big draw for prospective Customers. Staff health and well-being improves staff retention, staff productivity and safety.

Something interesting, unique and notable will put the EILC Facility 'on the map'. In fact, that's a pretty good branding slogan – Enfield Intermodal – get your business 'on the map'



6.6 YIELDS

The Masterplan Response yields a total of 126,784sqm GFA, comprised of:

Warehouse	109,577sqm
Warehouse Office	8,960 sqm
Commercial	8,247 sqm
Cars	494

Cars equate to approx. 1 per 257sqm GFA (Cars for Cosgrove Road Commercial may be calculated at different rates). The previous Masterplan yields 110,950sqm GFA (Warehouses and W'House Offices). The Masterplan Response Scheme yields 118,537sqm GFA, or an additional 7,587sqm GFA (and an additional 8,247sqm GFA for commercial spaces along Cosgrove Road. Yields are described per Warehouse as per the below schedule:

PRECINCT SITE AREA APPROVED				APPROVED BUILDING PROPOSED							
		GFA	FSR	Precinct	Office	Warehouse	Commercial	Total GFA	FSR	CARS	1 per x sqm
PRECINCT A	125,209m²	64,000m²	0.51	A1	1,200m²	19,505m²				50	
				A1	1,220m²	42,927m²				176	
				Total	**2,400m²**	**62,439m²**	**7,637m²**	**72,469m²**	**0.58**	**226**	**276**
PRECINCT B	14,985m²										
PRECINCT C	21,170m²	10,200m²	0.48	C1	500m²	5,688m²	610m²			40	
				C2	500m²	4,067m²				20	
				Total	**1,000m²**	**9,755m²**	**610m²**	**11,365m²**	**0.54**	**60**	**189**
PRECINCT D	25,457m²	11,600m²	0.46	D1	500m²	4,371m²				20	
				D2	500m²	3,178m²				17	
				D3	500m²	3,178m²				17	
				Total	**1,500m²**	**10,727m²**	**0**	**11,727m²**	**0.46**	**54**	**217**
PRECINCT E	21,839m²										
PRECINCT F	20,465m²	9,550m²	0.47	F1	500m²	3,457m²				14	
				F2	500m²	3,457m²				22	
				F3	200m²	1,788m²				14	
				Total	**1,200m²**	**8,702m²**	**0**	**9,902m²**	**0.48**	**36**	**275**
PRECINCT G	3,732m²										
PRECINCT H	35,750m²	15,600m²	0.44	H1	200m²	4,342m²				20	
				H2	200m²	4,503m²				14	
				H3	200m²	1,805m²				30	
				H4	200m²	1,805m²				10	
				H5	200m²	3,566m²				32	
				Total	**1,000m²**	**16,021m²**	**0**	**17,021m²**	**0.48**	**106**	**161**
PRECINCT I	38,299m²										
Total	**181,687m²**	**110,950m²**			**7,100m²**	**107,637m²**	**8,247m²**	**122,084m²**		**482**	

6.7 DESIGN APPROACH-OFFICE

The proposed Office Design is carefully considered to support:

» Flexibility
» Brand and Precinct Identity
» Cost Effectiveness & Durability
» Ease of Buildability
» Worker Amenity and Staff Utility

SBA hope to ameliorate the worker / manager separation between the warehouse and the Office, and provide a collaborative, supportive environment for all Customer employees, integrated in a positive way to improve productivity, worker satisfaction and staff retention. SBA understand these metrics are important to Customer businesses and as such, represent a point of difference for the Enfield Intermodal Project and other projects in the light industrial tenant sector.

SBA also understand the importance of 'Team' environments to customer businesses. A Facility that encourages interaction and collaboration, with positive worker experiences. Opportunities for respite, and collegiality, represent a happier, healthier workplace.

In terms of the Design Proposal, SBA believe the design provides for Goodman's requirements:

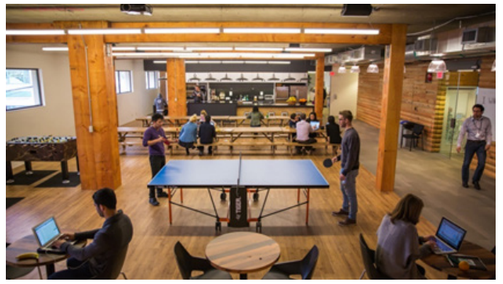
» Fresh New Identity
» Modern Aesthetic
» Transgenerational (Timelessness)
» High quality Design and Finish
» Differentiated from the Goodman Brand
» Market Leading and Innovative in Approach

The Floor Layout is Innovative and provides the following facility:

» Double height Entry
» Limited extents of overhead glazing
» Memorable Arrival Experience
» Multifunctional Space – for use by Tenant as Workstation Area, Product Display, Events, Staff Utility
» Upstairs Lunchroom
» Ground Level Offices

Integrated worker facilities to improve worker satisfaction

Warehouses are workplaces



Positive, happy staff are safe and productive

LARGE OFFICE

It is envisioned this office Module will be deployed on Precinct A. This office design provides approx. 1200sqm GFA on 2 levels.

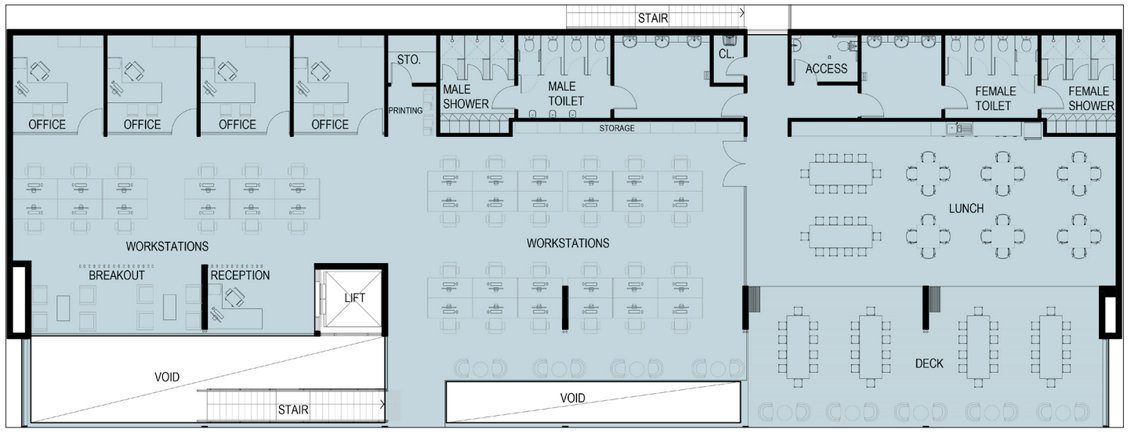
Locating the Lunchroom upstairs, provides workers with an outlook across the Precinct from the upper floor, and links with outdoor balconies at this upper level.

The Recreation Deck for Staff is located on the upper floor, providing an elevated, pleasant outlook for Staff, across the precinct and beyond through the Site, whilst not encroaching on Car Spaces. Locating offices at the ground floor allows the reception –area and multifunctional space to be associated with the office areas. The Lift and Stair can be enclosed and secured. For Offices in Precincts A and C, car parking is located below the offices, with stairs and lifts interconnecting. A reception desk can be integrated to the Workstations area, avoiding the requirement for dedicated reception staff separate to the main work area.

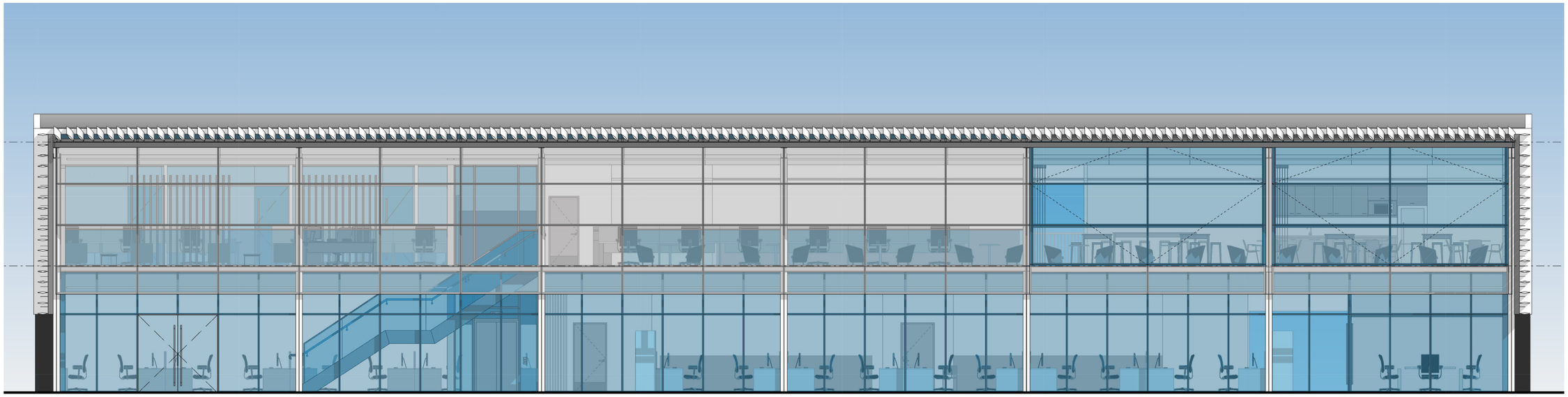
Elevationally, the form is clean and simple. Glazing along the front façade, and to a depth of 4 metres wrapping at the corners and at the roof, combining with atria along this edge, provides ample opportunity for daylight to enter into the building. The building sits lightly in the Landscape.

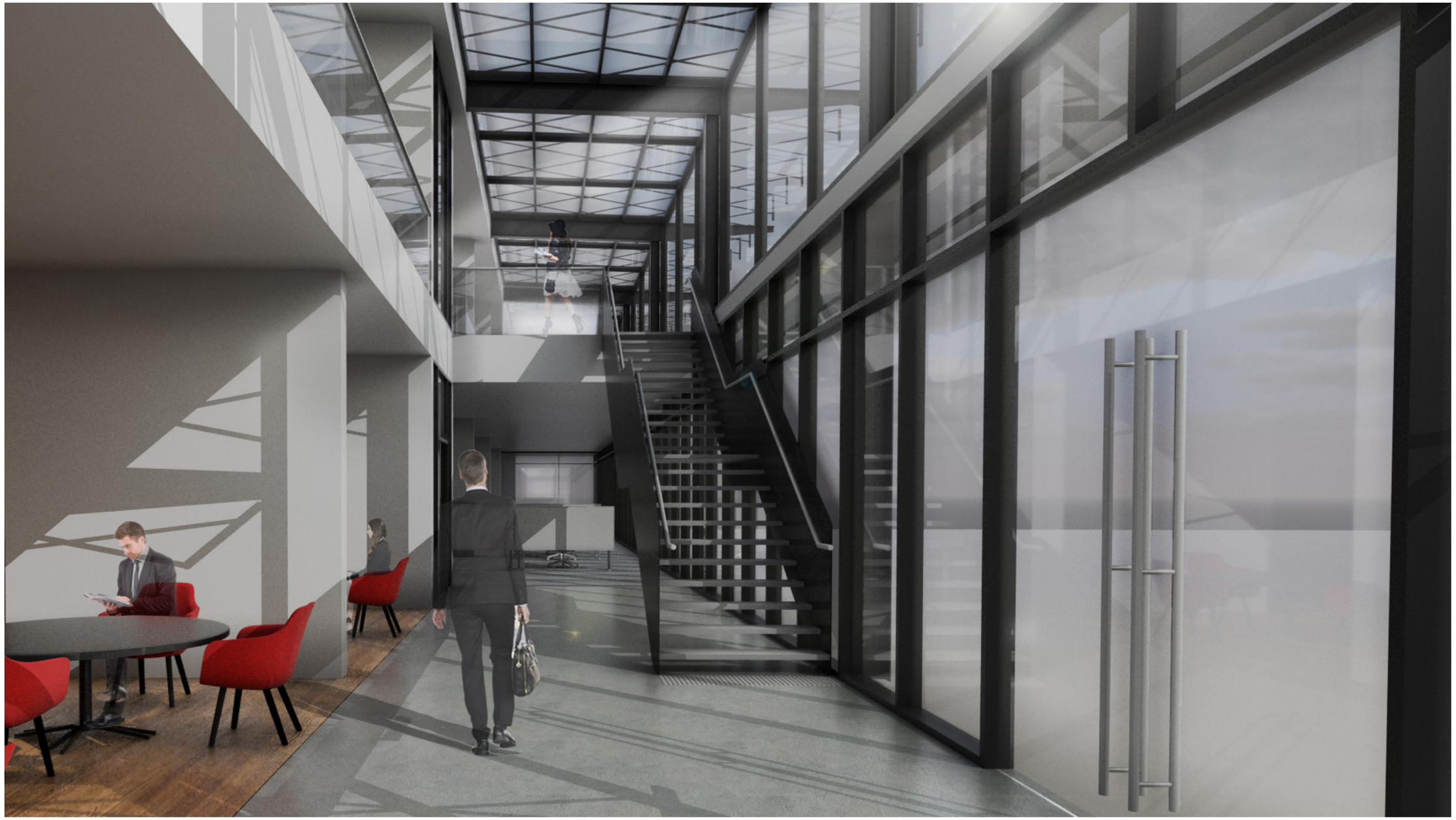
Overhead glazing permits daylight to flood into common areas along the building edge, and daylight to penetrate more considerably into the activated floor plate areas. In this way daylight becomes an integral part of the design proposal. The extent of overhead glazing can be considered in further iterations of the design, and individual Customer requirements and preferences.

Ground Floor



Upper Floor

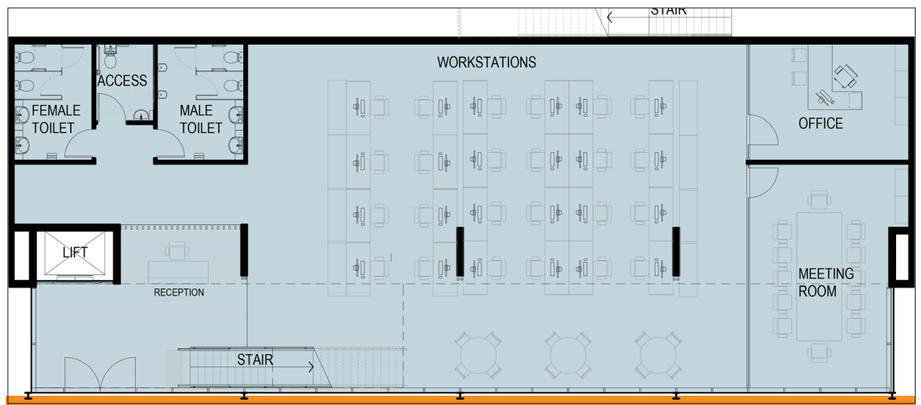




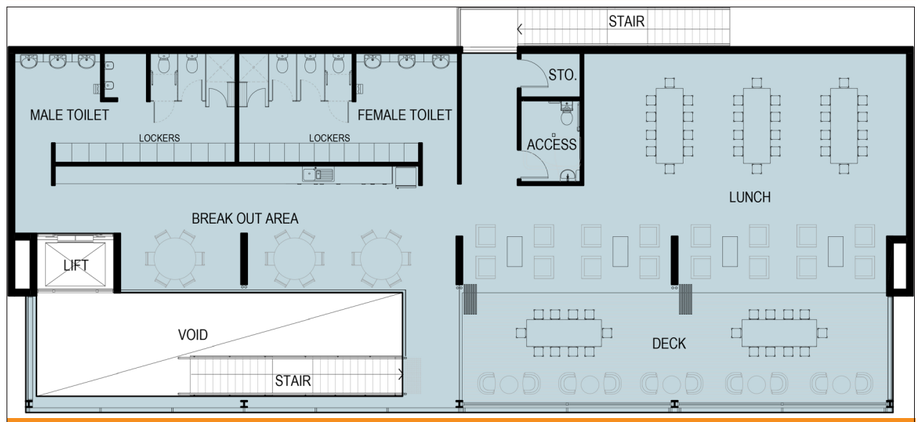
MEDIUM OFFICE

The Medium Office provides around 500sqm GFA, on 2 levels.

This design provides a similar configuration to the Large Office, with the main Office and Workstations Area at the ground floor, with Lunchroom, Change Rooms and an outdoor Deck at the upper level.



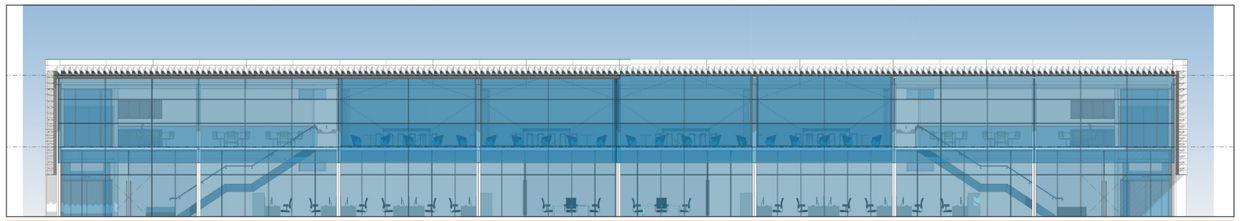
Ground Floor Plan



Upper Floor Plan - The Design can also be mirrored, to provide a pair of Medium Offices to a split Warehouse.

Ground Floor - Paired medium offices

Upper Floor – Paired medium offices

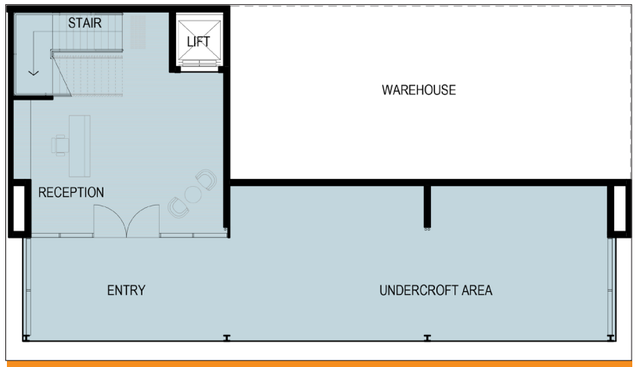


Elevation - Paired, medium office

SMALL OFFICE

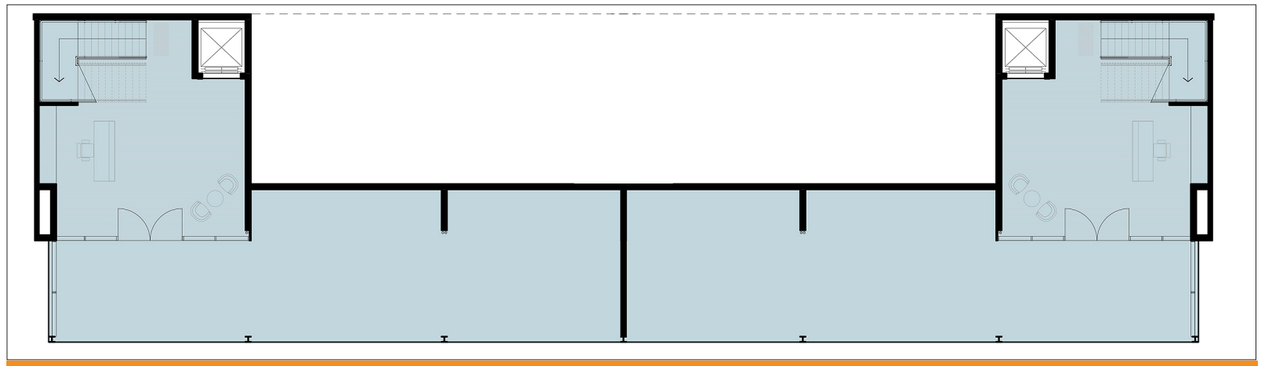
The Small Office provides around 200sqm GFA, 50sqm at Ground Floor and 150sqm at Upper Floor.

The design located the Building Entry at Ground Floor, and Offices, Lunchroom and Staff Change at the Upper Floor. The resulting undercroft space can be used for outdoor Staff Amenity, Car Parking, or an expanded warehouse area depending on the individual site requirement.



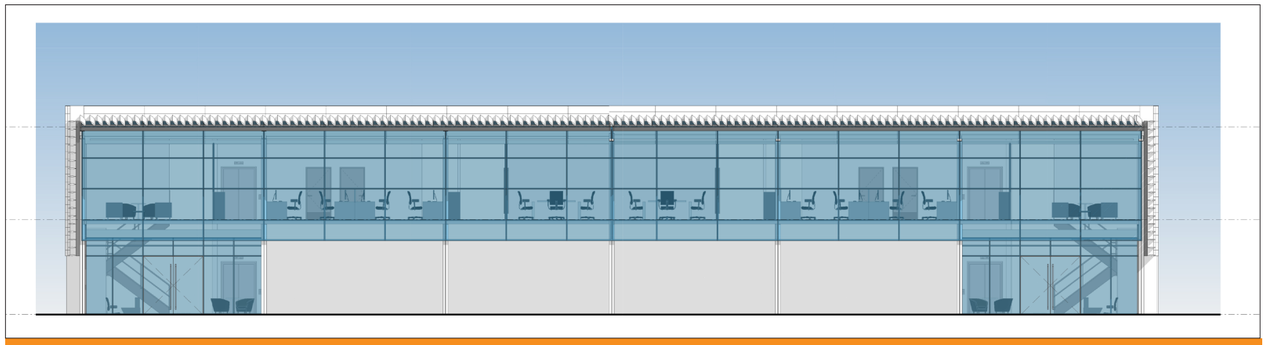
Ground Floor Plan

Upper Floor Plan - the design can also be mirrored, to provide a pair of Medium Offices to a split Warehouse.



Ground Floor – Paired small offices

Ground Floor – Paired small offices



Elevation - Paired small offices

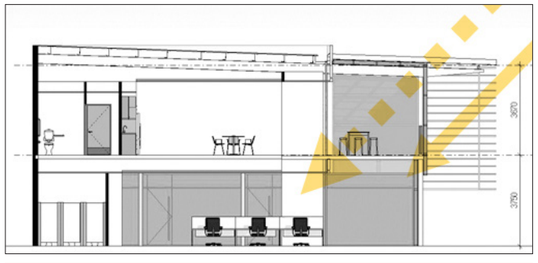
6.8 DESIGN FOR ENVIRONMENT

Key factors for healthy, amenable office work areas are as follows:

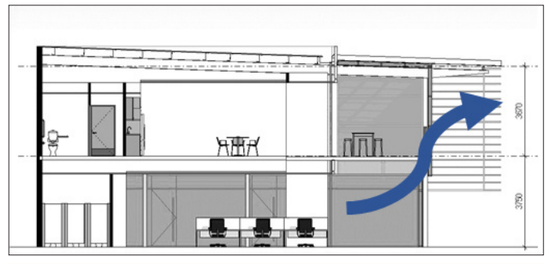
» Acoustic privacy – as required for separation of various functional zonings
» Lighting – Daylight being the preferred, but requiring control
» Views – access to distance views from within workstation areas
» Thermal – relieving heat in Summer, containing warmth in Winter

Worker productivity, and staff retention rates, are improved by healthy workplaces. Productivity and worker satisfaction can also be improved by design for:

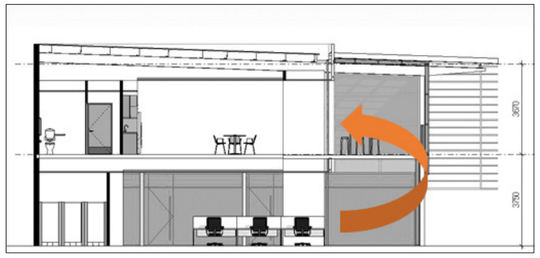
» Casual interaction – opportunities for interaction away from work desks
» Flexible seating arrangements – combination of fixed desk workstations, and flexible areas, that can be multi-purposed (café & staff lunch, breakout for meetings, casual meetings, private work)
» Public zones – zones for congregation
» Interconnectedness – seeing other parts of the Business and how they operate
» Hierarchy – controlling design for hierarchy to imply inclusiveness, value of the employee, improving approachability of senior staff
» Utility – functional, effective work areas that relate to the tenant operational brief
» Tactility (including visual) – materials and finishes reinforce the 'work zone' environment, but are amenable, easy on the eye and provide for variation and interest.
» Ergonomics – Ensuring FFE selected is fit for purpose, & easy and comfortable to use



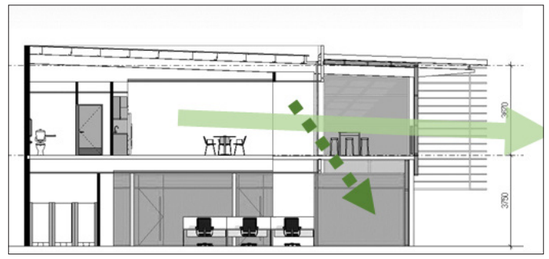
Diffuse sunlight permitted; Direct Sunlight Screened



Venting of internal air during warmer months



Recycling of air during cooler months



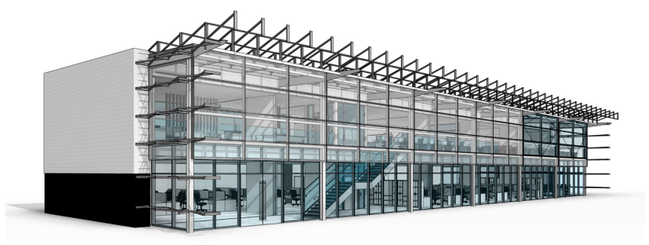
Views out and within

6.9 DESIGN FOR ROBUSTNESS

The Office Design proposed can have three variations, that could be offered as stretch inclusions to prospective tenants, such that there arises a mix of the designs across the site. SBA believe this will provide an interesting and diverse built environment, within some clearly defined constraints. Those design Options are;

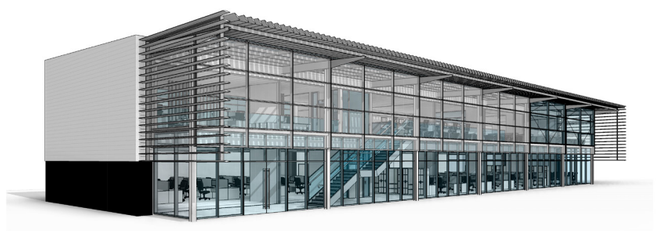
CRISS CROSS:

Inspired by the memorable effect of the overhead rail lines (refer image), the Criss Cross batten is unique and memorable, providing shade to overhead glazing and reflecting the inspiration of the site's railway heritage.



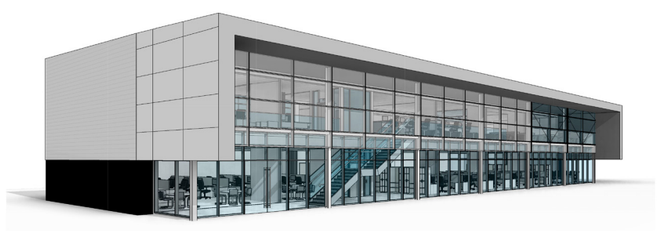
LOUVRE:

The Louvre option provides a highly mannered, crisp, clean and modern aesthetic for the office. The Louvre extents can be adjusted to coordinate with varying extents of roof and wall solid. The Louvres provide fritted shade to office and worker areas within the office. The louvres provide a light, articulated edge to the building envelope, that lightens off the building mass and makes it more approachable and unique. The overarching simplicity of the design, provides a calm, purposeful setting for Workers and visitors to the Site.



SOLID

The Solid option provides a more massive and defined frontage to the Street, as well as a lower cost alternative for the designs.



The three design options above work with the same structural framing, slab and envelope designs.

Each of the above designs, may be further refined, to tune construction budget allowances. For example, the glazed roof may become either partly or wholly solid, with a series of skylights providing a sense of vertical aperture. It is anticipated that cost review and design tuning will occur in forthcoming phases of the design.

6.10 MATERIALS, SYSTEMS AND FINISHES

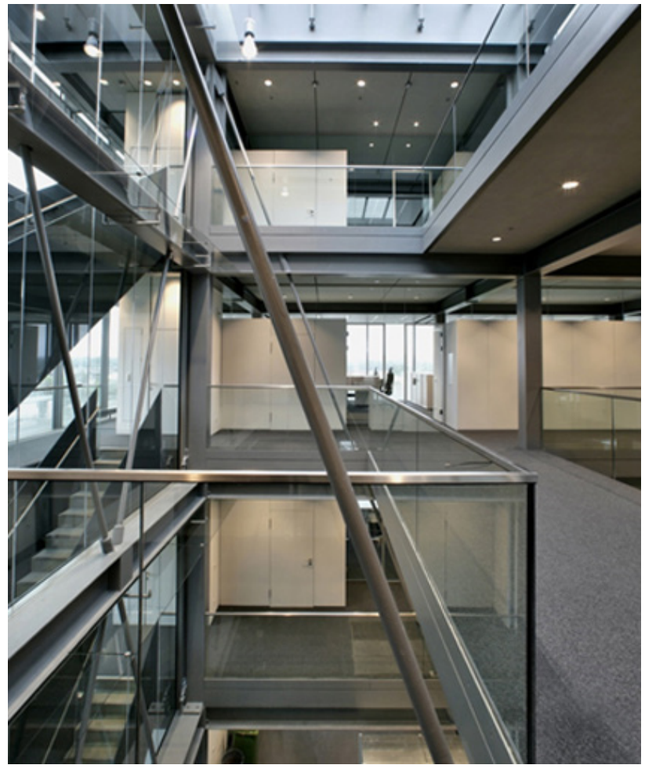
Materials, systems and Finishes proposed as part of the EILC Project, are based on the following parameters:

- Durability
- Longevity
- Quality
- Cost Effectiveness
- Reliability & Predictability

Two schemes are proposed, with similarities between each scheme. The two materials palettes are inspired by the below grouping of images.

PALETTE 01 – EXAMPLE IMAGES

Palette 01 is a tonal scheme, based around whites, greys, blacks and silver. It is anticipated that as part of Palette 01, the Customer Signage colour can become the feature colour within the tenancy signage and fitout



MATERIALS EXTERIOR

PALETTE 01

Glazing
Double glazed IGU, performance coated

Green Comfortone or Similar to suit section J

Frit
White Ceramic, Face 1 (Outer Face)

Gintegral (Pattern in image is indicative C)

Glazing Framing
Natural Anodised

Integral

Structural Frame
Structural steel, Galvanised

Paint Finish Light Grey

Roofing
Main Deck, Longline Concealed Clip

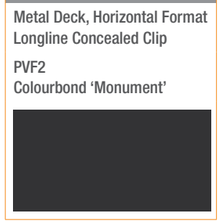
PVF2

Colourbond Monument

Cladding - Design 01 (Criss Cross)
Metal Deck, Horizontal Format Longline Concealed Clip

PVF2

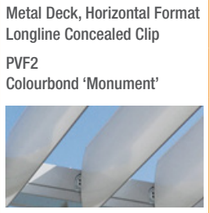
Colourbond 'Monument'



Cladding - Design 02 (Louvre)
Metal Deck, Horizontal Format Longline Concealed Clip

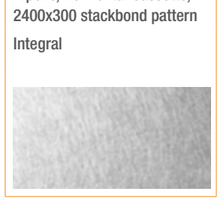
PVF2

Colourbond 'Monument'



Cladding - Design 03 (Solid)
Alpolic, Horizontal Cassette, 2400x300 stackbond pattern

Integral

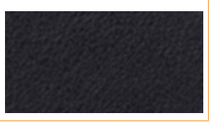


External Walls
Precast (to match warehouse sub-wall), Grey Pigment

Integral

Sunscreens-Design 01 (Criss Cross)
50x30 alum extrusion batten

Rust Red



Sunscreens - Design 02 (Louvre)
Large format bracket fixed louvre blade, aluminium

Rust Red

Sunscreens - Design 03 (Solid)
Alpolic, Horizontal Casette, 2400x300 stackbond pattern

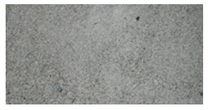
Silver Metallic, Black or Dark Grey Soffit

MATERIALS INTERIOR

PALETTE 01

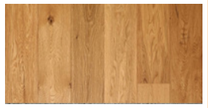
Entrance
Polished Concrete

Ashford Formula
Clear hardener and anti static

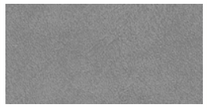


Activity, Offices & Meetings
Engineered Timber Flooring

'Oak'



Lunchroom
Vinyl



Workstations
Carpet

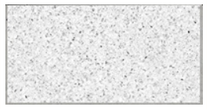
Ceilings - Workstations
Metal Cassette, Perforated 1200x30 panel

White

Feature Walls and Blade Columns
Precast or Off Form

Controlled Setout to Formwork Bolts

Benchtops
Terrazzo



Splashbacks

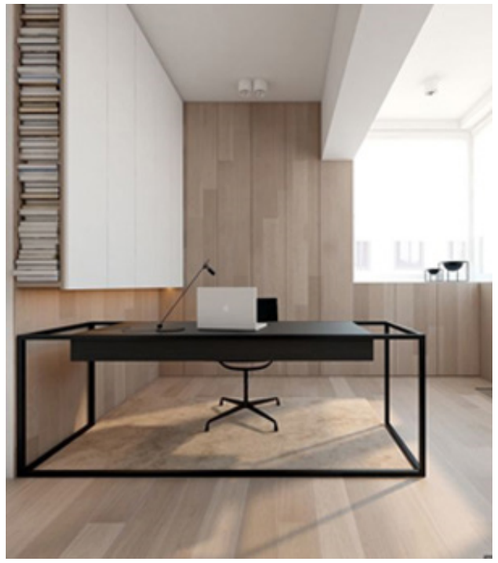
Cabinets
Laminate

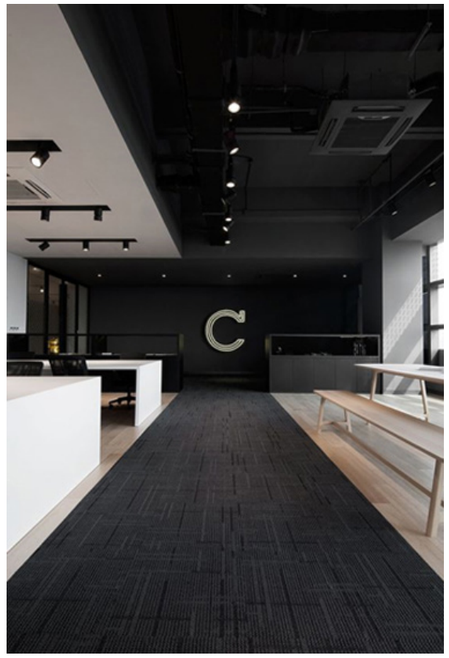
Kickplates
Solid Timber Hardwood

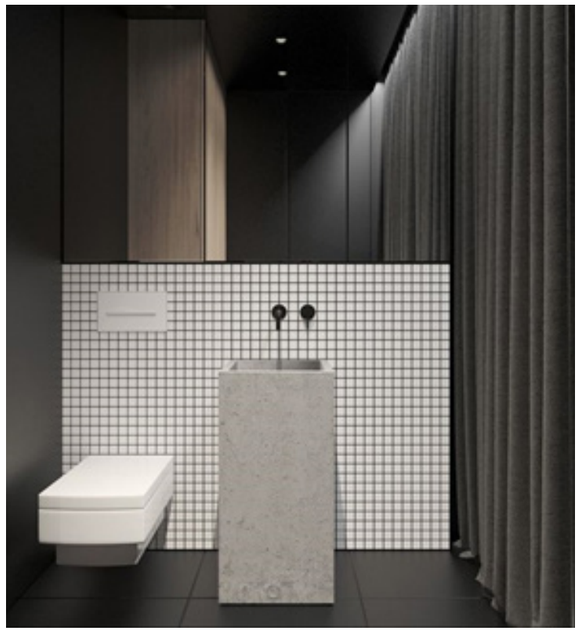
Entry Stair & Balustrades

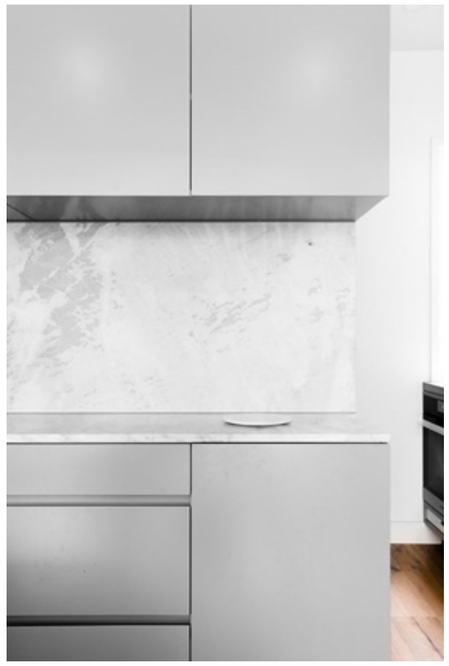
INTERIORS CONCEPT IMAGES

PALETTE 02





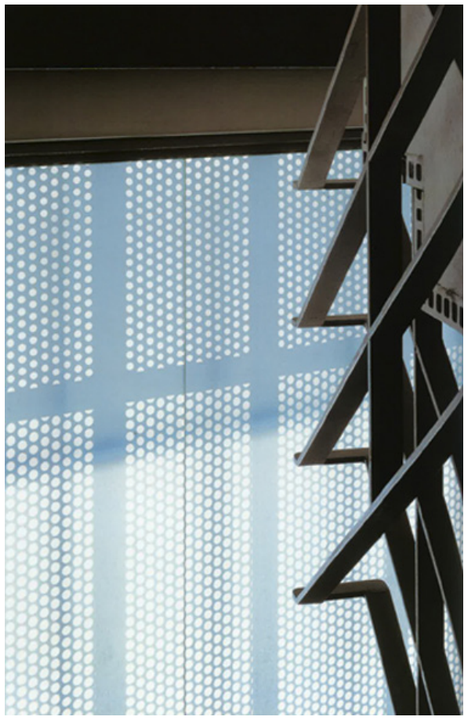


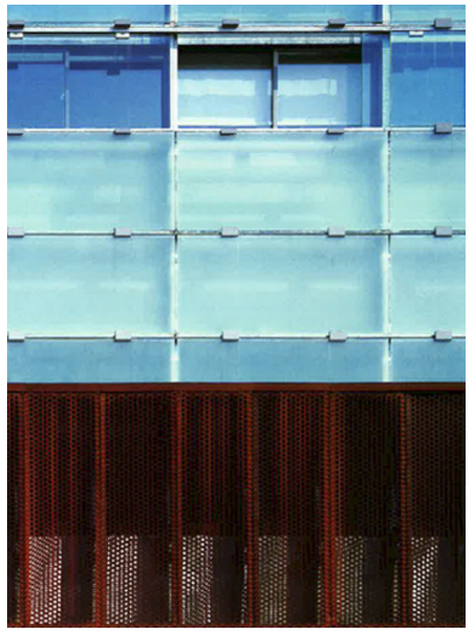


EXAMPLE IMAGES

PALETTE 02

Palette 02 is a subtle coloured scheme, based around whites, neutral greens and copper tones. It is anticipated that as part of Palette 02, the Customer Signage colour can become the feature colour within the Tenancy signage and fitout.





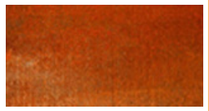
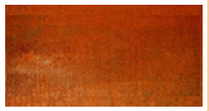
Source: DaeGu Health College,
Architect: JongKyu Kim

MATERIALS EXTERIOR

PALETTE 02

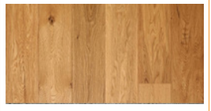
Glazing	Frit	Glazing Framing	Structural Frame
Double glazed IGU, performance coated	White Ceramic, Face 1 (Outer Face)	Natural Anodised	Structural steel, Galvanised
Green Comfortone or Similar to suit section J	Integral (Pattern in Image is Indicative Only)	Integral	Paint Finish Light Grey
			

Roofing	Cladding - Design 01 (Criss Cross)	Cladding - Design 02 (Louvre)	Cladding - Design 03 (Solid)
Main Deck, Longline Concealed Clip	Metal Deck, Horizontal Format Longline Concealed Clip	Metal Deck, Horizontal Format Longline Concealed Clip	Alpolic, Horizontal Cassette, 2400x300 stackbond pattern
PVF2 Colourbond 'Ironstone'	PVF2 Colourbond 'Ironstone'	Powdercoat Silver Metallic	Silver Metallic
			

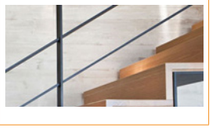
External Walls	Sunscreens-Design 01 (Criss Cross)	Sunscreens - Design 02 (Louvre)	Sunscreens - Design 03 (Solid)
Precast (to match warehouse sub-wall), Grey Pigment	50x30 alum extrusion batten	Large format bracket fixed louvre blade, aluminium	Alpolic, Horizontal Cassette, 2400x300 stackbond pattern
Integral	Rust Red	Rust Red	Silver Metallic, Rust Red Soffit
			

MATERIALS INTERIOR

PALETTE 02

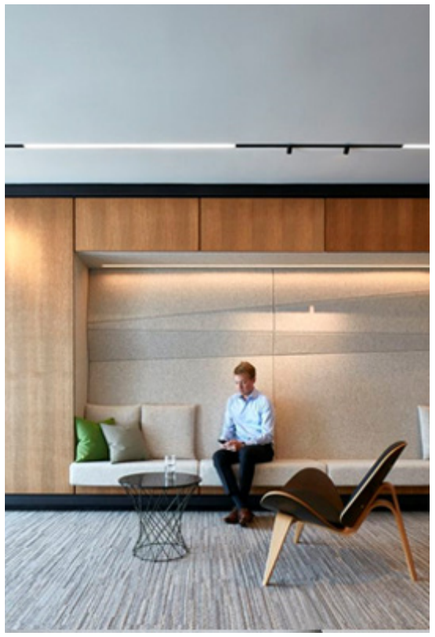
Entrance	Activity, Offices & Meetings	Lunchroom	Workstations
Polished Concrete	Engineered Timber Flooring	Vinyl	Carpet
Ashford Formula Clear hardener and anti static	'Oak'		
			

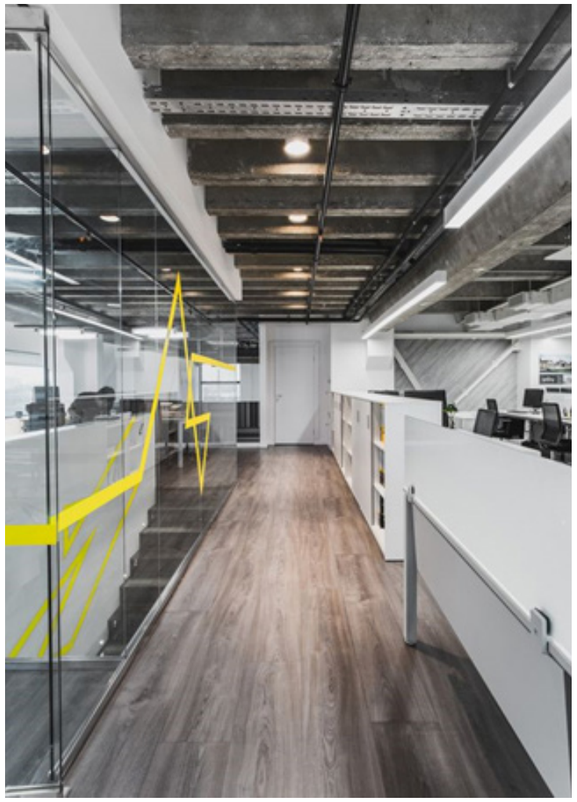
Ceilings - Workstations	Feature Walls and Blade Columns	Benchtops	Splashbacks
Metal Cassette, Perforated 1200x30 panel	Precast or Off Form	Terrazzo	Tile, Gloss Green
White	Controlled Setout to Formwork Bolts		
			

Cabinets	Kickplates	Entry Stair & Balustrades
Laminate	Solid Timber Hardwood	
		

INTERIORS CONCEPT IMAGS

PALETTE 02





6.11 DESIGN APPROACH - WAREHOUSE

Construction efficiency drives the design approach for warehouses. Over time, a highly rational and efficient standard design drives the appearance of a typical Warehouse. SBA have a developed understanding of Warehouse Design and structural efficiency requirements.

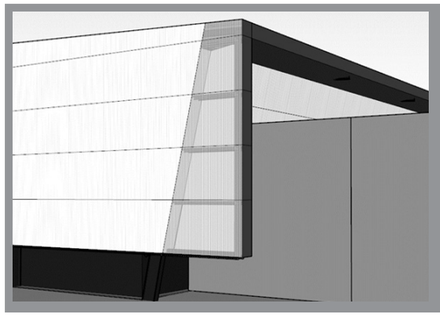
Working from within this framework of structural efficiency, SBA propose innovations to the warehouse design that will provide a point of difference within the market and a clearly identifiable and site specific design typology for the EILC Project.

Those innovations are:

» Extruding, illuminated corners at Front, wrapping to overhead shroud
» Composition / appearance of Internal Environment of Warehouse

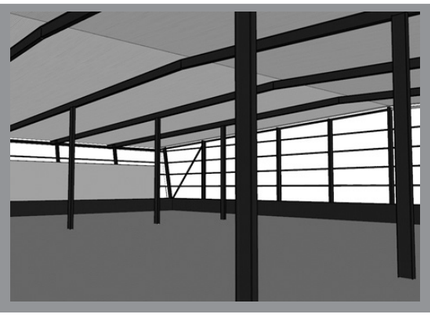
CORNER ARTICULATION

An outrigger frame of RHS is hung from the last column on each corner of the entry side of the Warehouse. This outrigger frame then supports extending wall purlins, as well as secondary purlins to the inside of the column and RHS frame., This structural array is then clad in opaque, transparent cladding, and backlit from within the framing zone. The front fascia of the blade wraps up and over to visually tie into the architectural expression of the Office component.



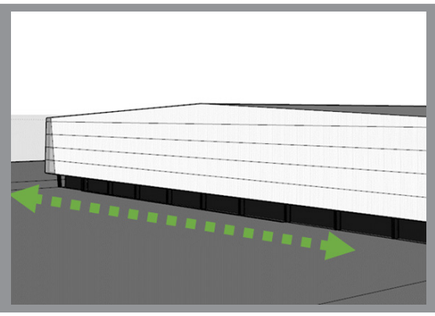
COMPOSITION & APPEARANCE OF INTERNAL ENVIRONMENT OF WAREHOUSE

Given that the internal of the warehouse is a full time work environment for staff of Customer businesses, SBA consider it may be worth investigating the composition of architectural elements, materials and finishes, in order to provide a clean, safe, and amenable environment for workers. This represents a possible point of difference within the current industrial building rental tenancy market.

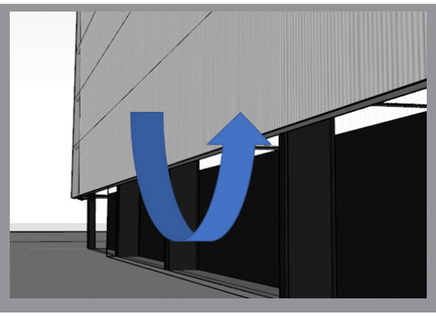


INSET PRECAST WALLS AND VENTILATION GAP (OPTION)

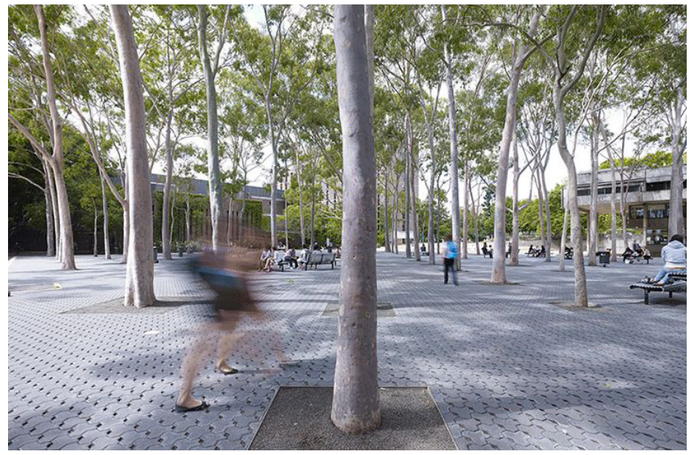
The precast walls are proposed to sit behind the perimeter columns. This makes no difference to the structure design, and in fact deletes the requirement to create movement joints in the ground bearing slab design, at column locations. GFA calculations are unaffected as area is measured at the ground plane. Wall claddings are outboard to perimeter columns. The perimeter precast wall is proposed as coloured to a dark colour, to match the perimeter column finish colour. This dark base, and light top, gives the appearance that the warehouse mass (legible as the white surface), ‘floats’ over the ground plane



Additionally, the proposed alignment of the precast panel to the inside and general wall cladding to the outside of the structure column, creates a ventilation gap to the warehouse periphery, deleting requirement for louvres in outside walls, and encouraging quality cross flow through the warehouse, important for worker amenity. This gap can be sealed with a vandal and insect proof mesh.



7.0 LANDSCAPE



8.0 ENVIRONMENTAL DESIGN

8.0 GOVERNING PRINCIPLES

The proposed EILC development will reflect best practice in resource efficient design, construction and operation. Key principles guiding the design will incorporate:

» the use of energy efficient materials and designs
» utilisation of renewable energy & materials
» energy efficient technologies and operational strategies
» water efficient technologies and operational strategies

8.1 OFFICE BUILDINGS

Office and other public buildings will be designed to achieve best practice indoor environment outcomes (IEQ) including thermal comfort, visual comfort and indoor air quality while achieving the required energy efficiency outcomes. Specifically, the energy efficiency outcomes in the built environment will be achieved through the applications of passive design principles including:

» Efficient façade design
» Building orientation
» Shading
» Insulation
» Thermal mass
» Ventilation; and
» Incorporation of suitable landscaping

In addition, building services and the supporting energy infrastructure will be designed to achieve the required performance outcomes and maximise economic use of renewable energy sources and energy efficient technologies. Buildings design and their mechanical services will maximise opportunities for passive cooling and heating to enhance indoor environment quality and to minimise buildings operating cost. This will be achieved by a considered integration of building architectural features with its mechanical systems together with appropriate control strategies, which include natural ventilation and daylight strategies.

8.2 WAREHOUSE AND WORKSHOP BUILDINGS

Warehouse design will reflect best practice in energy efficient design which will include maximisation of daylight use, low power density LED lighting systems, effective natural ventilation strategies, energy efficient mechanical ventilation and the application of thermal insulation to control indoor thermal environment. Where appropriate fast closing doors will be fitted to prevent excessive heat loss or gain. Where required, the energy efficient spot heating and cooling technologies will be deployed to maintain the required level of comfort for workers.

8.3. BUILDING SERVICES AND ENERGY INFRASTRUCTURE

The project will explore applications of state of the art renewable energy technologies, energy efficiency technologies and strategies to effectively manage consumption and maximise the economic use of renewable energy resources.

Consideration will be given to strategies for precinct scale energy infrastructure including:

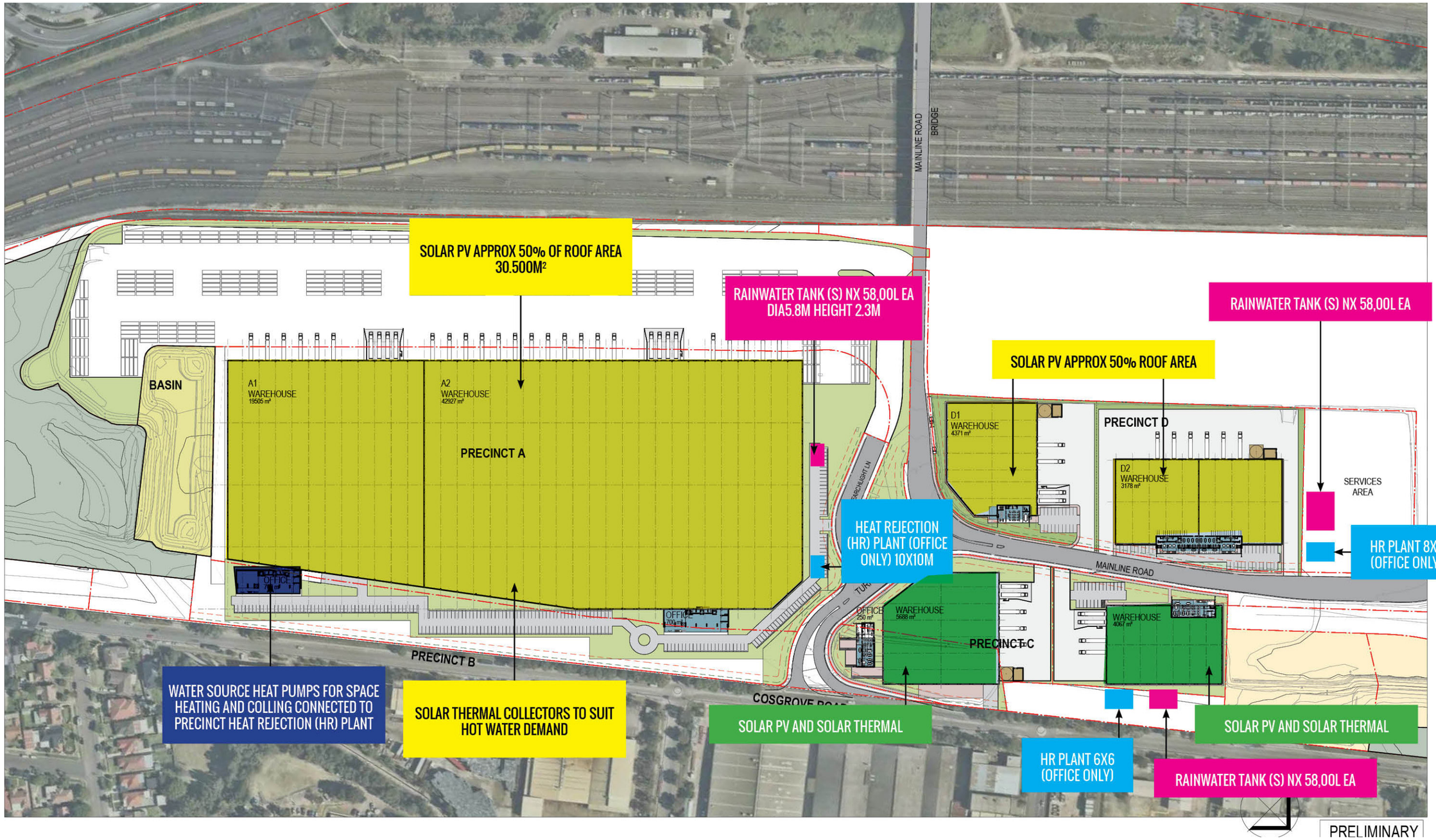
» Energy infrastructure design to enable effective and precinct wide demand management and demand response strategies
» Central and distributed energy plant options including precinct scale heating and cooling
» Integration of water and energy cycles to maximise site energy utilisation and energy recovery opportunities
» Applications of heat pump technology
» Distributed generation, such as precinct scale solar PV
» Utilisation of solar thermal energy for domestic and heating hot water generation
» Battery storage

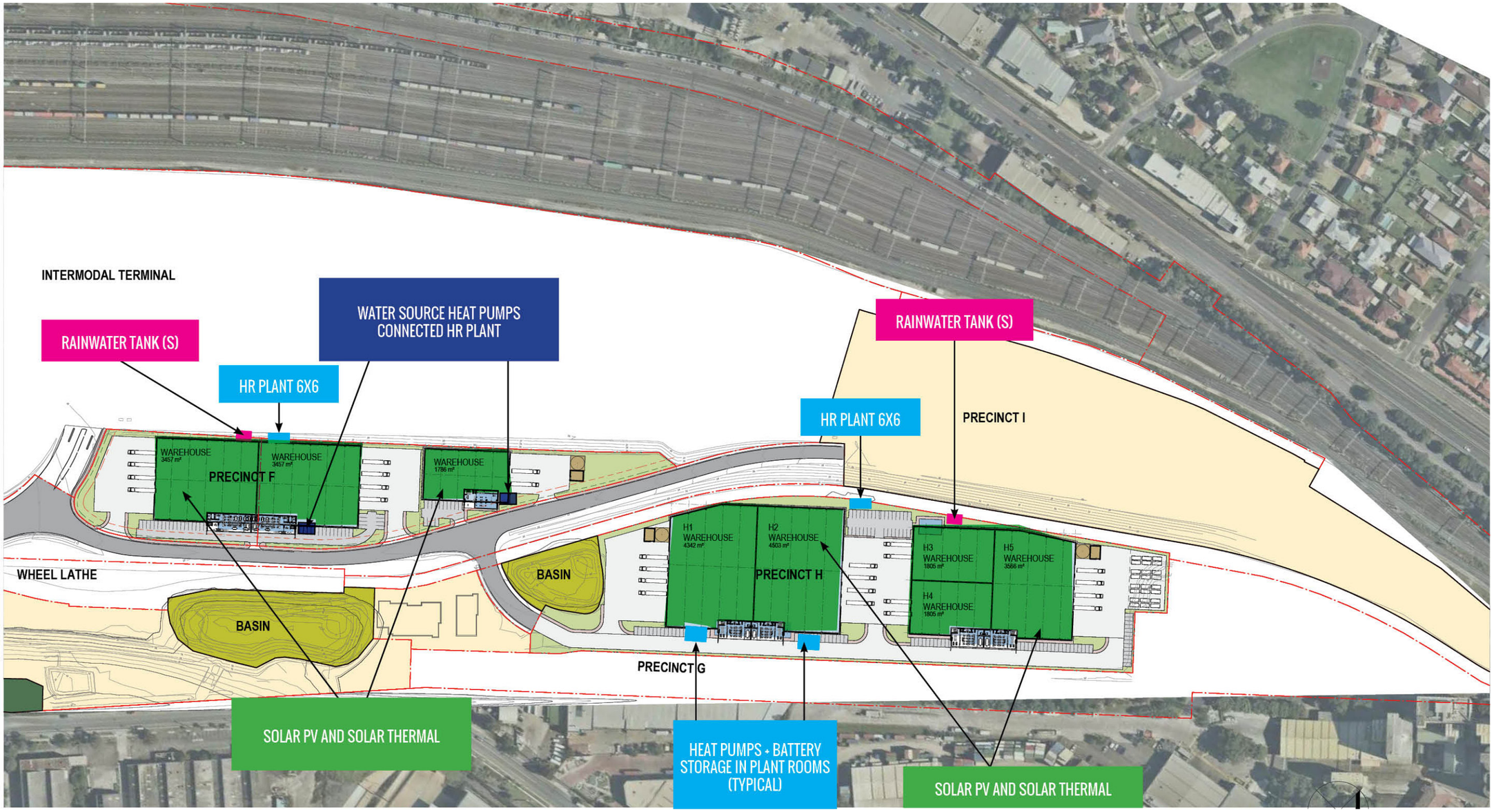
8.4 WATER EFFICIENCY

Water management system at the ILC will be guided by the principles of water conservation and recycling. Key water use areas include:

» Container wash-down
» Irrigation
» Mechanical services
» Office consumption
» General yard use

Water efficient technologies will be specified to minimise water use at the point of consumption. Effective water recycling technologies and strategies will be enabled to minimise water waste and discharge from site. This includes water efficient irrigation systems, wash-down equipment, fixtures and appliances. Water use for mechanical services will be minimised by the application of adiabatic cooling technologies which minimise water use while maximising energy efficiency of the connected mechanical plant. Appropriately sized rain water storage will be designed to minimise mains water use. In addition, consideration will be given to the recycled water infrastructure which will encompass water storage and filtration facilities.

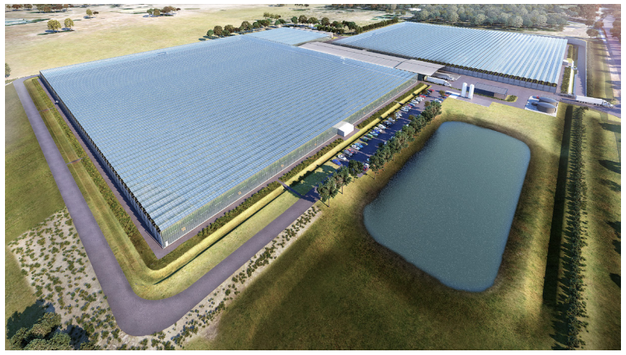

SOLAR PV APPROX 50% OF ROOF AREA
30,500M²
RAINWATER TANK (S) NX 58,00L EA
DIA5.8M HEIGHT 2.3M
RAINWATER TANK (S) NX 58,00L EA
SOLAR PV APPROX 50% ROOF AREA
MAINLINE ROAD BRIDGE
BASIN
A1
WAREHOUSE
19505 m²
A2
WAREHOUSE
42927 m²
PRECINCT A
D1
WAREHOUSE
4371 m²
PRECINCT D
D2
WAREHOUSE
3178 m²
SERVICES
AREA
HEAT REJECTION
(HR) PLANT (OFFICE
ONLY) 10X10M
HR PLANT 8X8
(OFFICE ONLY)
MAINLINE ROAD
OFFICE
700 m²
OFFICE
250 m²
WAREHOUSE
5688 m²
PRECINCT C
WAREHOUSE
4067 m²
PRECINCT B
WATER SOURCE HEAT PUMPS FOR SPACE
HEATING AND COLLING CONNECTED TO
PRECINCT HEAT REJECTION (HR) PLANT
SOLAR THERMAL COLLECTORS TO SUIT
HOT WATER DEMAND
SOLAR PV AND SOLAR THERMAL
HR PLANT 6X6
(OFFICE ONLY)
SOLAR PV AND SOLAR THERMAL
RAINWATER TANK (S) NX 58,00L EA
PRELIMINARY


INTERMODAL TERMINAL
RAINWATER TANK (S)
WATER SOURCE HEAT PUMPS CONNECTED HR PLANT
HR PLANT 6X6
RAINWATER TANK (S)
HR PLANT 6X6
PRECINCT I
WAREHOUSE 3457 m²
WAREHOUSE 3457 m²
PRECINCT F
WAREHOUSE 1786 m²
WHEEL LATHE
BASIN
BASIN
H1 WAREHOUSE 4342 m²
H2 WAREHOUSE 4503 m²
PRECINCT H
H3 WAREHOUSE 1805 m²
H5 WAREHOUSE 3566 m²
H4 WAREHOUSE 1805 m²
PRECINCT G
SOLAR PV AND SOLAR THERMAL
HEAT PUMPS + BATTERY STORAGE IN PLANT ROOMS (TYPICAL)
SOLAR PV AND SOLAR THERMAL

9.0 EXPERIENCE

9.1 CURRENT WORKLOAD

PROJECT	CLIENT	STAGE	COMPLETION DATE
Oakdale South Industrial Estate	Goodman	Ongoing	Ongoing
Oakdale West Industrial Estate	Goodman	DA Complete	Ongoing
Oakdale Central Industrial Estate	Goodman	Construction Documentation.	Complete
Calibre Industrial Estate	Mirvac	Construction Documentation	Aug 2017
Berrinba Industrial Estate QLD - Master planning	GPT Group	Concept Design	Ongoing
Fitzpatrick Industrial Estate – Master planning	Fitzpatrick Investments	Concept Design	Ongoing
Autonexus Car Processing Facility – Fitzpatrick Industrial Estate	Fitzpatrick Investments	Construction Documentation	Aug 2017
Mercedes Benz Castle Hill	Aecom	Construction Documentation	Sept 2017
Mercedes Benz Seven Hills	Aecom	Construction Documentation	Sept 2017
Actron Air Warehouse Facility Marsden Park	Taylor Construction	Construction Documentation	Sept 2017
New Cold Highbay Milk Storage Facility VIC	Hansen Yuncken	Under Construction / Answering builders queries.	Oct 2017
Toyota Parts Facility – Oakdale Industrial Estate	Prime Constructions	Construction Documentation	July 2017
Symbion Warehouse Greystanes	Qanstruct	Construction Documentation	July 2017
Warriewood Industrial Units	Livingstone Group	Construction Documentation	July 2017
The Borough Industrial Estate Marrickville – Office Building and Industrial Unit Development.	Edinburgh Group	Development Application and Construction Docs	Ongoing
Nectar Farms Greenhouses – 100,000sqm greenhouse Stawell Victoria	Nectar Farms	Construction Documentation	Aug 2017
Shelta Warehouse Rouse Hill	Shelta Australia	Development Application	Ongoing



9.2 RELEVANT PROJECT EXPERIENCE

The following overview of relevant industrial projects undertaken by SBA Architects in the past 5 years demonstrates the relevant experience required for the successful completion of this project.

PROJECT	DESCRIPTION	CLIENT
Oakdale Central Industrial Estate	Masterplanning, Full design, SSD Application to NSW Dept. of Planning and ongoing construction documentation for 11 new warehouses totalling approximately 200,000sqm GFA.	Goodman
Oakdale South Industrial Estate	Masterplanning, Full design and SSD Application to NSW Dept. of Planning for 16 new warehouses totalling 420,000sqm GFA.	Goodman
Oakdale West Industrial Estate	Masterplanning, Full design and SSD Application to NSW Dept. of Planning for 24 new warehouses totalling 470,000sqm GFA.	Goodman
Calibre Industrial Estate Eastern Creek	Masterplanning, Full design and SSD Application to NSW Planning for 5 new warehouses totalling 120,000sqm GFA. Building 1 is currently under construction	Mirvac
Melbourne Markets Fresh Produce Warehouses	75,000sqm of warehousing spread across 5 buildings for the wholesale storage of fresh food to service Melbourne Markets.	Hansen Yuncken
Wembley Industrial Estate Berrinba QLD	Masterplanning for Industrial Estate Berrinba QLD	GPT Group
Toll IPEC Tullamarine Victoria	71,000sqm Freight Transport Facility at Tullamarine Airport Victoria housing a state of the art parcel sortation system processing in excess of 400,000 parcels per day.	Qanstruct
Toll IPEC Huntingwood NSW	48,000sqm Freight Transport Facility at Tullamarine Airport Victoria housing a state of the art parcel sortation system processing in excess of 300,000 parcels per day.	Goodman
Newcold Chilled Milk Storage Facility Victoria	40,500sqm Highbay storage facility for milk storage.	Newcold and Hansen Yuncken.
Toll Prestons	60,000sqm freight forwarding facility for Logos and Toll at Prestons NSW split across 2 buildings. Building 1 includes state of the art multi-level sortation system for high speed parcel processing.	Richard Crookes

PROJECT	DESCRIPTION	CLIENT
Toyota Parts Facility Horsley Park NSW	36,000sqm Parts and Accessories warehouse and distribution facility. Project is currently under construction.	Goodman and Prime Constructions
Pelikan Artline	30,000sq.m warehouse and distribution facility for Fitzpatrick Developments, Erskine Park, NSW.	FDC
DHL 1 (Canon)	20,000sqm warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Estate Horsley Park.	Prime Constructions
DHL 2	32,000sqm warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Estate Horsley Park.	Taylor Constructions
DHL 3	30,000sqm temperature controlled warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Estate Horsley Park.	Qanstruct
DHL 4	28,000sqm warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Horsley Park.	Prime Constructions
Sigma Pharmaceuticals	40,000sqm temperature controlled warehouse and distribution facility with state of the art multi-level sortation and picking system.	Goodman
Marsden Park Industrial Estate	Design and documentation for 70,000sqm of warehousing spread across 3 buildings for Actron Air and Medline. Currently under construction.	Taylor Constructions
Interlink Industrial Estate	Design and documentation for 30,000sqm industrial estate for Goodman.	Goodman and Prime Constructions
Coles Expansion	Design and documentation for 12,000sqm Expansion of the Coles Chilled Distribution Facility at Eastern Creek.	Goodman and Qanstruct
Symbion Pharmaceuticals	Construction Documentation of 25,000sqm warehouse at Greystanes	Qanstruct




9.3 KEY PEOPLE

DIRECTOR - GREG BAIRD

As Co-founder and Director of SBA Architects, Greg has extensive experience across commercial, industrial, retail, residential and hospitality sectors. Greg is regarded as a leader in the field of Industrial Architecture, with over 30 years experience delivering large scale projects including manufacturing facilities, freight processing facilities, cold stores and warehouses for the major REIT's, design and construct contracts, owner occupier projects and private developments.

Greg has provided SBA Architects with strong leadership and direction since he co-founded the firm in 2003. He leads the design and business development functions of the organisation. Greg's personal integrity, commitment to customer service excellence and outstanding project management skills, have enabled SBA Architects to deliver exceptional outcomes for clients since the inception of the company. Greg has been responsible for the design of major commissions of a variety of corporate clients over the years including Goodman, GPT Group, Mirvac, Toyota, PAG, Australia Post, NRMA, as well as various design and construct contractors and project managers

SENIOR DESIGN ARCHITECT - MATTHEW WILLIAMS

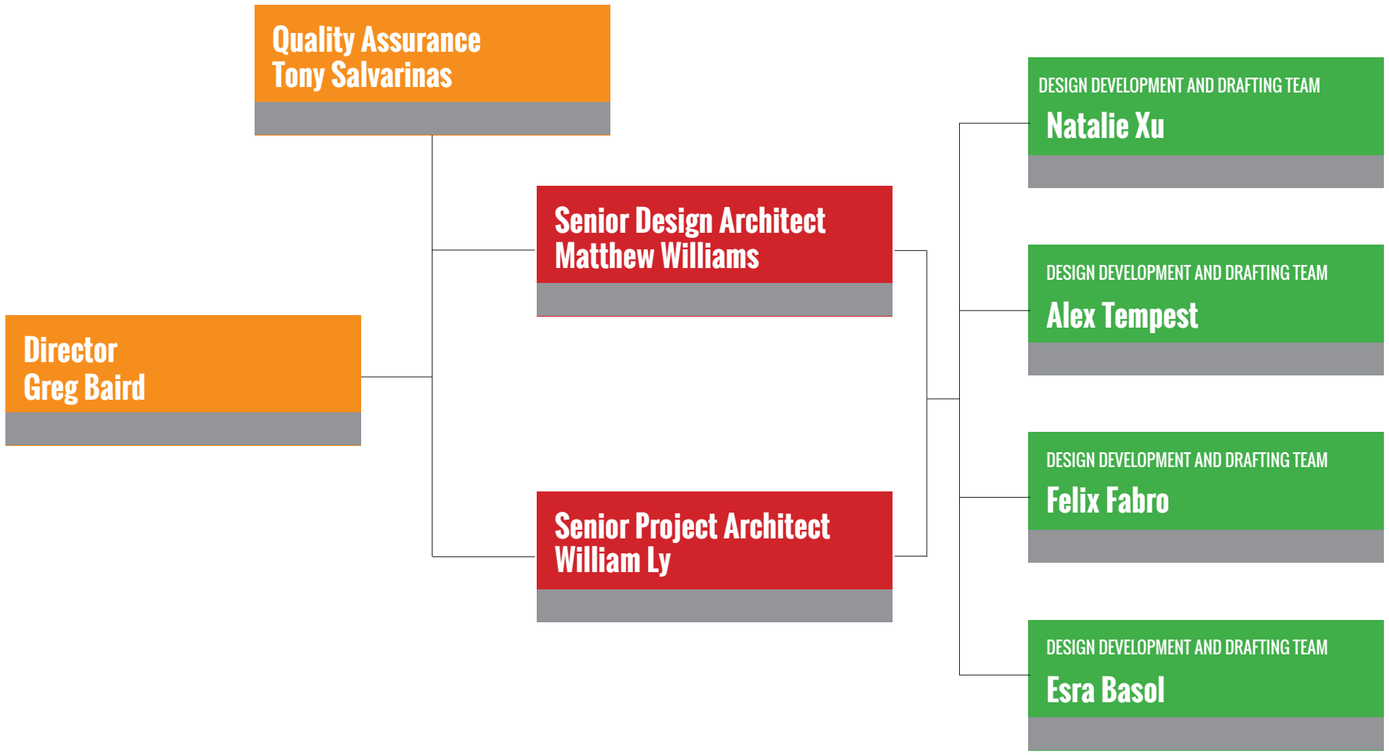
Matthew plays an integral lead role in the design team at SBA Architects. Matthew's passion for the creative process together with his strong consultation, design and technical skills ensure that each project delivers above expectations. A skilled designer, Matthew mobilises his passion for design by mentoring the team and representing the project's design intent.

Matthew's creativity, forward thinking solutions and focus on client needs, make him an influential architect. Matthew has gained project experience from design industry leaders including Berry Marshall (Denton Corker Marshall), Ken Yeang (TRHY), Tom Wright (Atkins), Kisho Kurokawa (KKAA) and Shane Thompson (BVN). Matthew's international experience includes projects in Dubai, Beijing, Kuala Lumpur and Jakarta.

SENIOR PROJECT ARCHITECT - WILLIAM LY

William is a key member of the design and delivery team, with a particular focus on pre-design and interiors. With 18 years experience in the architectural profession, he has a strong track record in managing all aspects of project delivery, from the early concept and design development phase through to construction, interior selection, product selection, council requirements and inspections.

William manages design and Masterplanning of industrial facilities, commercial fitouts and interior design projects, including product selections and furnishings. His experience spans across several key sectors including commercial, residential dwellings and interiors, office and medical fitouts, and hospitality. William conducts feasibility studies and produces concepts for all major clients including GPT, Goodman, Mirvac and Fitzpatrick Investments. His ability to build strong relationships with clients has led to exceptional feedback and repeat business.



10.0 FEE PROPOSAL

Thank you for your invitation to submit a fee proposal for architectural services for the proposed Enfield Intermodal Logistics Centre. This fee proposal is based on the RFP documentation received via email on the 09 June 2017 and includes the following scope of services

Please note all fees quoted are exclusive of 10% GST and subject to payment within 14 days under the terms of the Security of Payments Act 1999.

FEE SCHEDULE	DESCRIPTION	$
Stage 1	Preparation of all required documentation for submission to DP&E for modification of existing masterplan approval. We confirm this will be the preparation of the masterplan only.	**$18,000**
Stage 2	Preparation of all required documentation typical of Goodman's quality submissions to DP&E. This shall include the following drawings: » Site Masterplan at scale 1:500 / 1:1000 » Individual Site Plans for each Precinct at scale 1:500 » Elevations and Sections for each building at scale 1:500 » Office Plans at scale 1:200 » Office Elevations at scale 1:200 » Finishes Schedules Precinct A – Building 1 $55,000 Precinct C – Building 1 $25,000 Precinct C – Building 2 $25,000 Precinct D – Building 1 $25,000 Precinct D – Building 2 $25,000 Precinct F – Building 1 $25,000 Precinct F – Building 2 $18,000 Precinct H – Building 1 $25,000 Precinct H – Building 2 $25,000	**$248,000**

FEE SCHEDULE	DESCRIPTION	$
Stage 3	Preparation of customer enquiry proposals, including any required modifications to the estate masterplan. We confirm these options will be undertaken on an hourly rate basis as and all costs incurred will be charged onto the project at suitable stages.	**Hourly Rates**
Stage 4	Preparation of Development Applications for specific developments for committed customers. Should the building require redesigning to suit the customers' requirements and their specific corporate identity then the DA fee will be as per the individual precinct fees outlined in Stage 2.	**As Above in Stage 2**
Stage 5	Potential to novate to the builder for D&C documentation. Fees to be negotiated with successful tenderer.	**N/A**

11.0 CONSULTANTS

2.0 project team

Our collaborative approach will naturally facilitate a rich and layered response to the project requirements. 360^0 have been involved in significant multi-residential, public realm, rooftop, residential, cultural and institutional projects, and offer the range of expertise and experience to ensure the successful delivery of an innovative and cost effective design. Previous project experience within the area ensures a strong understanding of the site context, climatic conditions and areas endemic flora, ensuring appropriate plant species selection, maximising the areas natural aesthetic while minimising the sites maintenance requirements. 360^0 will work closely with the consultant team to determine the detailed expression of the design whilst managing all contributing external consultants. Our preferred approach at the design development stage is one of indivisible collaboration, which, as the project progresses, is distilled into discrete parts for pragmatic documentation purposes.

360^0 has a passionate interest and proven commitment to delivering outstanding podium and residential projects. As a small, design-driven practice, the principal will remain involved with the project from inception to construction.

THE PROJECT TEAM IS:

o	**Landscape Architect** Principal / Team Leader	360° Daniel Baffsky
o	**Landscape Architect** Studio Director (Brisbane) / Senior Landscape Architect	360° Liam Bowes
o	**Landscape Architect** Studio Director (Sydney) / Senior Landscape Architect	360° Glenn Dixon
o	**Landscape Architect** Landscape Architect / Horticulture	360° Karen Ruthven

project team

Daniel Baffsky

BLA (Hons), BEc, RLA

Principal - Design and Project Overview

Daniel is responsible for creative direction and client liaison and directly oversees all aspects of 360^0's work.

Since establishing 360^0 in 2001, Daniel has developed the practice into an award-winning practice highly-regarded for innovative design, cultural sensitivity, ecological integrity and commercial efficiency across all project sectors. He has overseen the design of significant leisure, institutional, commercial, residential and public realm projects including **Brisbane Riverside Centre, The National Centre of Indigenous Excellence**, Redfern, **Noumea Waterfront Masterplan**, New Caledonia, **The Kinghorn Cancer Centre**, Sydney, **The Kuwaiti Diplomatic Mission Complex**, Canberra, **Sam Fiszman Park**, Bondi Beach, and the **M Central** - rooftop 'park', Sydney.

Daniel's background in investment banking, marketing and tourism ensures a cross-disciplinary understanding of project dynamics. Daniel is a councillor of the Royal Botanic Gardens Foundation, has been a keynote speaker on the social sustainability benefits of green roofs (2008 Green Roofs Australia Conference and 2010 DesignEx Sydney) and was a member of AILA's SEPP 65 and RFDC Review Panel.

Liam Bowes

BBltEnv (la), GDLA (Hons), RLA

Studio Director (Brisbane), Senior Landscape Architect

As Studio Director of 360^0, Liam has been involved in many of the Studios key projects – providing expertise in strategic design, design development and construction detailing, as well as being a key partner in all aspects of running the studio.

Liam is an accomplished landscape architect with experience in both the public and private sectors. Liam began practicing within the public sector where he delivered strategic management initiatives for transit infrastructure projects across Brisbane. In private consultancy, Liam has delivered a broad range of urban projects that encompass the full spectrum of project management, including master plan development through to construction. His graphic communication is evocative and he has a meticulous approach to detailed design.

Liam delivered **Riverside Centre Plaza**, Brisbane; **Plantbank** Australian Botanic Gardens, Mt Annan; **Nan Tien Institute**, Wollongong; **EVE**, Erskineville; **George and Allen**, Waterloo; **Herbet Smith Freehills Head Office**, Sydney, **South East Regional Hospital**, Bega; and **Parkes and Forbes Regional Hospitals**. Liam is currently Senior Landscape Architect for **Garden Square**, Brisbane, **The Ville Casino,** Townsville; **Infinity by Crown Group**, Green Square; and **Northern Beaches Hospital**, Frenchs Forest.

project team

Glenn Dixon

BLArch, AMusA, LMusA

Studio Director (Sydney), Senior Landscape Architect

Glenn joined 360º in 2007 and has considerable experience in public projects, multi-residential developments, aged care facilities, school masterplans, sports fields and playgrounds. He has excellent documentation and presentation skills and brings a systematic approach to the coordination and delivery of design packages.

Glenn is a design orientated landscape architect with capability to lead design teams to plan, design and develop landscapes for small to large scale projects. As Studio Director (Sydney), Glenn's role includes responsible for the operation and implementation of various systems to help guide and align 360 Degrees with future directions in technical design practice and delivery.

Glenn delivered the **National Centre of Indigenous Excellence**, Redfern; **St Peters Green**, West Chatswood; **Zenith Centre Childcare Centre**; Chatswood; and **Ascham School Redevelopment**, Edgecliff; and is currently overseeing **Wenona School**, North Sydney, **Espirit**, Mascot; **Uptown**, Roseville; **Avantra**, Mascot; and Dexus Phase 4, Rosebery.

Karen Ruthven

BLArch (hons), Dip.Hort

Landscape Architect / Horticulture

Prior to joining 360º in 2013, Karen completed her Diploma in Horticulture and later went on to complete her Bachelors Degree in Landscape Architecture graduating with first class Honours. During her studies, Karen was awarded, The UNSW University Medal in Landscape Architecture and The Harry Howard Prize in Landscape Architecture in recognition of her outstanding academic performance. Karen continues to develop and apply her abilities within professional practice, with proficiency in visual communication and environmental design.

Karen brings to all project teams her extensive horticultural knowledge. She utilises her broad knowledge by adapting to the multiple situations which landscape generates on each project, and applying the appropriate design in response to the unique complexities and sensitivities. Karen is responsible for overseeing all horticultural design within the office, and her success is underpinned by a rigorous attention to detail, passion for delivery of quality landscape, together with excellent organisational skills.

Karen oversaw the planting design at **Coogee Pavilion; The Newport; University of Western Sydney Library**, Kingswood Campus; **Ascham School Redevelopment**, Edgecliff; and multiple private residences. Karen is currently the Project Landscape Architect for **Phoenix**, Chippendale and **Pavilions**, Sydney Olympic Park.

5.0 capability

RESOURCES

360º has the following ***personnel***:
- 1 Principal
- 2 Studio Directors
- 2 Senior Landscape Architects
- 3 Landscape Architects
- 1 Financial and Office Administrator

360º has offices in the following cities and draw personnel and experience from across all studios to best respond to project requirements;
- Sydney (1, 1 Mary's Place Surry Hills, NSW)
- Brisbane (22 Petrie Terrace, Brisbane, QLD)

The office operates the following computer ***hardware***;
- 9 workstations (iMac)
- A4 / A3 colour / black and white printer / scanner / photocopier
- A2 / A1 / A0 colour plotter / scanner

The office has the following ***software***;
- Vectorworks
- Microsoft Word
- Adobe Photoshop
- Adobe InDesign
- Google Sketchup
- AutoCAD
- Microsoft Excel
- Adobe Illustrator
- Adobe Acrobat

360º provides high-quality CAD and digital graphic media output for presentation and documentation and we are able to engage artist's sketch and digital representations.

360º has key relationships with ***quality suppliers*** of materials, plant stock and landscape construction services

INSURANCES

360º has Professional Indemnity Insurance with Vero	Sum Insured:	$10,000,000
360º has Public Liability Insurance with CGU	Sum Insured:	$20,000,000

360º has Workers' Compensation Insurance with Allianz:

REFEREES

The following referees have a full understanding of the skills and performance of ***360º***.

Plantbank	John Siemon, Australian Botanic Gardens & Domain Trust +61 2 4634 7969
Nan Tien Institute	Greg Charmichael, APP +61 2 9957 6211
The Kinghorn Cancer Centre	Tony Carlton, Capital Insight +61 2 9959 2637
The Hermitage, IVY	Justin Hemmes, Merivale +61 2 9240 3000

6.0 experience

CITY - PUBLIC REALM / URBAN DESIGN / MASTERPLAN

- **MLC Centre Redevelopment**, Sydney (in association with Woods Bagot and Seidler Associates)
- **44 Market Street**, Sydney (in association with Woods Bagot)
- **Riverside Centre Redevelopment**, Brisbane (in association with Seidler Associates and KPDO)
- **Noumea 2025 Waterfront Masterplan** (in association with Woods Bagot)
- **Sam Fiszman Park**, Bondi Beach (in association with McGregor Westlake)
- **M Central**, Ultimo (in association with marchese+partners & Dale Jones Evans)
- **Mighty High**, Cockatoo Island, Sydney (in association with Richard Goodwin Architects)
- **National Centre of Indigenous Excellence** (in association with Tonkin Zulaikha Greer)
- **Glebe Town Hall**, Glebe (in association with Tonkin Zulaikha Greer)

WORKING - WORKPLACE / COMMERCIAL / RETAIL

- **Capita Building**, Sydney (in association with Harry Seidler & Associates)
- **MLC Centre Redevelopment**, Sydney (in association with Woods Bagot and Seidler Associates)
- **Riverside Centre Redevelopment**, Brisbane (in association with Seidler Associates and KPDO)
- **Greenhills Shopping Centre**, Maitland (in association with Stockland)
- **Herbert Smith Freehills Head Office**, Sydney (in association with BVN and Lend Lease)
- **Embassy of Kuwait**, Canberra (in association with Woods Bagot)
- **Woolcock Institute of Medical Research**, Glebe (in association with Fox Johnston)
- **Flour Mills Studios**, Newtown (in association with Allen Jack + Cottier)

LEARNING - INSTITUTIONAL / CULTURAL / CAMPUS

- **Nan Tien Cultural Institute**, International Buddhist Association Australia, Wollongong (in association with Woods Bagot)
- **University of Sydney Business School Masterplan** (in association with Woods Bagot)
- **National Centre of Indigenous Excellence**, Sydney (in association with Tonkin Zulaikha Greer)
- **Ascham School**, Edgecliff (in association with BVN)
- **University of Western Sydney Library**, Penrith (in association with BVN)
- **Plantbank**, Royal Botanic Gardens, Mount Annan (in association with BVN)
- **Wenona Girls School**, North Sydney (in association with Tonkin Zulaikha Greer)
- **CBA Child Care Centre**, Sydney (in association with Davenport Campbell)
- **St Lukes Grammar**, Dee Why (in association with Tonkin Zulaikha Greer)
- **Joy Yeo Performing Arts Centre**, Roseville (in association with Tonkin Zulaikha Greer)

experience

LIVING - RESIDENTIAL / GARDENS

- **M Central**, Ultimo (in association with marchese+partners & Dale Jones Evans)
- **Bay Street**, Botany (in association with BVN)
- **REVY**, Darling Island Pyrmont (in association with PTW)
- **SKYE by Crown**, North Sydney (in association with Koichi Takada Architects)
- **161 Clarence St**, Sydney (in association with Koichi Takada Architects)
- **Palmerston Cres**, South Melbourne (in association with Elenberg Fraser)
- **627 Chapel St,** South Yarra (in association with Elenberg Fraser)
- **Mezzo**, Glebe (in association with Chrofi and KannFinch)
- **Anzac Parade**, Kensington (in association with Fox Johnston)
- **Small House**, Surry Hills (in association with Domenic Alvaro)

HEALING - HEALTH / AGED CARE

- **South East Regional Hospital**, Bega, NSW (in association with BVN)
- **Mellenium Institute**, Westmead (in association with BVN)
- **The Kinghorn Cancer Centre**, Darlinghurst (in association with BVN)
- **Sydney Childrens Hospital-CAMHS**, Randwick (in association with BVN)
- **Prince of Wales Mental Health Intensive Care Unit**, Randwick (in association with BVN)
- **Woy Woy Sub-Acute Rehabilitaion Centre** (in association with Woods Bagot)
- **Nepean Mental Health Unit**, Penrith (in association with Woods Bagot)
- **Lachlan Health Facility**, Parkes & Forbes (in association with Rice Daubney)
- **RPA North West Precinct Redevelopment**, Camperdown (in association with Peck von Hartel)

LEISURE - HOTELS / RESORTS / BARS

- **IVY**, Sydney (in association with Woods Bagot)
- **The Newport**, Sydney (in association with Akin Creative and Merivale)
- **Coogee Pavillion**, Sydney (in association with Akin Creative and Merivale)
- **Hingarae**, New Zealand (in association with X.Pace & Isthmus Group)
- **Finolhoss Island**, Maldives (in association with Akin Creative)
- **The Beresford Hotel**, Sydney (in association with Thomas Jacobsen and Merivale)
- **Harbour Rocks Hotel**, The Rocks, Sydney (in association with SJB)
- **Watsons Bay Hotel**, Watsons Bay (in association with Morrison Partners)
- **Golden Sheaf**, Double Bay (in association with Solotel)

SBA ARCHITECTS

At SBA Architects we consider every project an opportunity to positively contribute to both the client's expectations and the built environment.