Tony Owen Partners



SHOWGROUND PRECINCT URBAN DESIGN REPORT & ARCHITECTURAL CONCEPT

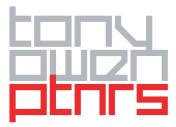
FOR SHOWGROUND CORPORATION PTY LTD SITE D: ASHFORD AVENUE SITE



Introduction

This report has been prepared by Tony Owen Partners on behalf of Showground Corporation Pty Ltd. It relates to Site D-1 - 36 Carrington Rd and 40-44 Ashford Ave; Site D-2 – 36-38 Ashford Ave; Site D-3 - 32-34 Carrington Road, 37 - 39 Ashford Avenue and 7 - 9 Partridge Avenue; and Site D-4 - 33 - 35 Ashford Avenue and 11 - 13 Partridge Avenue. Site D-1 & D-2 has an area of 14,318m2 and Site D-3 & D-4 has an area of 9505m2.

These sites form part of the Showground Station Precinct Master Plan prepared by the Department of Planning. This master plan and associated recommended DCP amendments establish the Vision for the sites.





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VIEW SOUTH TO CATTAI CREEK



VIEW EAST TO CATTAI CREEK



VIEW SOUTH-EAST TO CARRINGTON ROAD



THRU SITE LINK TO CARRINGTON ROAD









WATERSIDE ACTIVATION

ARCHITECTURAL CHARACTER









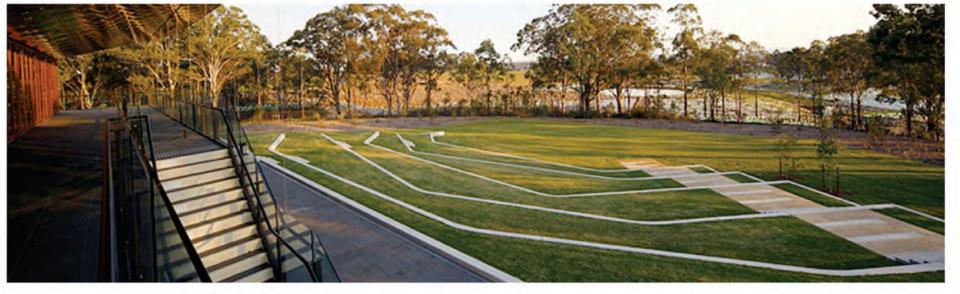


ACTIVITIES ARCHITECTURAL CHARACTER









LANDSCAPE ARCHITECTURAL CHARACTER









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COMMUNAL ROOFTOP GARDEN

ARCHITECTURAL CHARACTER











AMENITIES ARCHITECTURAL CHARACTER









STREETSCAPE ACTIVATION

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APARTMENTS ARCHITECTURAL CHARACTER





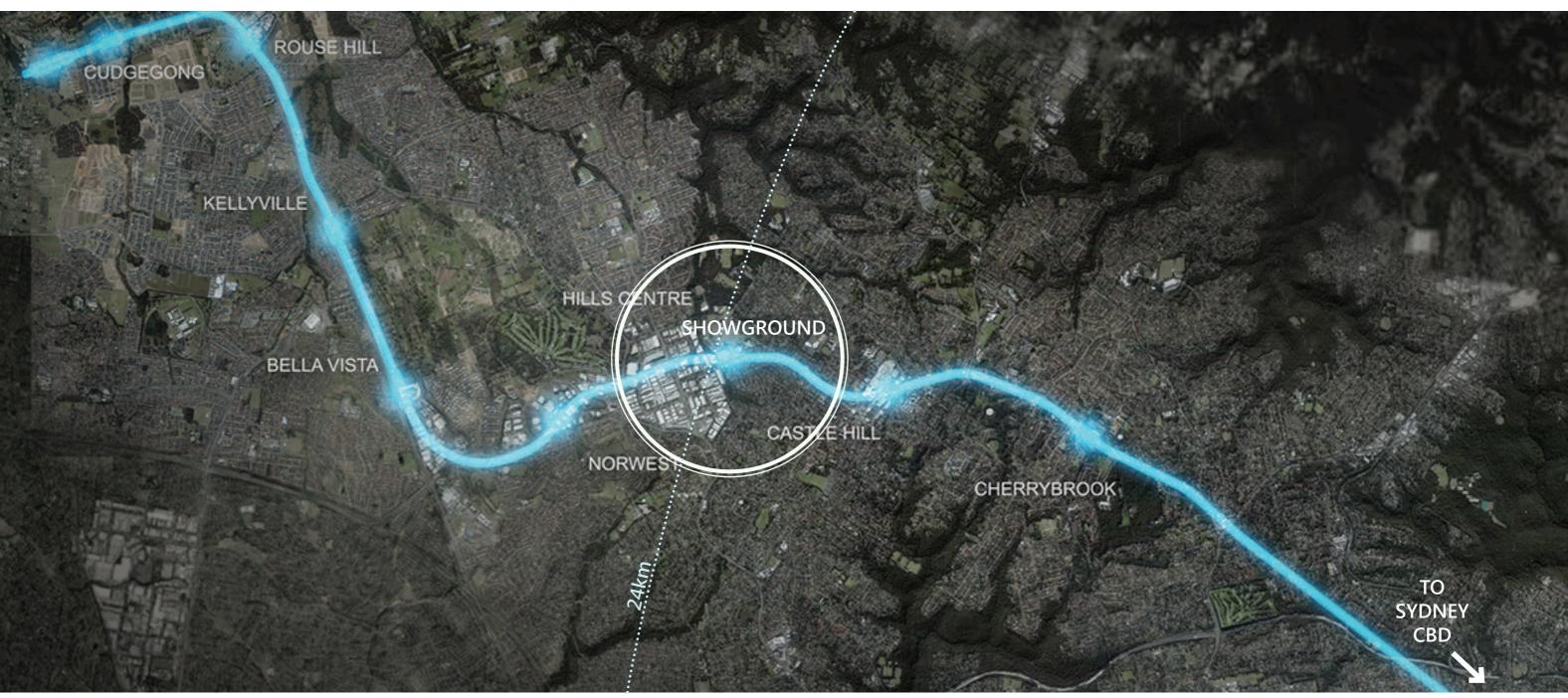




APARTMENTS ARCHITECTURAL CHARACTER

1. the site





REGIONAL CONTEXT

The site

The sites are referred to as Site D-1 - 36 Carrington Rd and 40-44 Ashford Ave; Site D-2 – 36-38 Ashford Ave; Site D-3 - 32-34 Carrington Road, 37 - 39 Ashford Avenue and 7 - 9 Partridge Avenue; and Site D-4 - 33 - 35 Ashford Avenue and 11 - 13 Partridge Avenue. Site D-1 & D-2 has an area of 14,318m2 and Site D-3 & D-4 has an area of 9505m2.

Context Analysis

Site D-1 & D-2

This site is primarily located along Ashford Avenue with a frontage on Carrington Road; the main street of the precinct. Along with Site D-2 these sites are directly opposite the railway station and as such are the main gateway sites to the precinct. This site is a long site that runs alongside Cattai creek. The Showground Master Plan places significant emphasis on the importance of Cattai creek to the plan. In particular, the plan identifies the path of Cattai creek as the main green corridor for the precinct that links the parklands associated with the showground and village green with the rest of the site. The plan envisages the creek corridor as a significant communal environmental amenity. The subject site is the largest single portion of land on this interface and a substantial portion of the site falls within the riparian zone and as such will revert to council parkland. As such this is a critical site in the success of the precinct. The site is currently occupied by 1-2 storey detached housing, however, the master plan anticipate this area will become high density apartments. There is a significant fall from the east to west towards the creek. As such both sites have a significant east to west fall of several levels.

Site D-3 & D-4

This site is located on the south eastern corner of Carrington Road and Ashford Avenue. As such, along with site D-1 it forms a significant portion of the Carrington Road streetscape adjoining the metro station and it is a significant gateway into the residential precinct. Like site D-2 it forms a significant streetscape along Ashford Avenue. And like site D-1 there is a significant fall from east to west which influences ground levels and building heights.



LOCATION BIRD EYE VIEW FROM NORTH







CARRINGTON ROAD WEST



CARRINGTON ROAD EAST



CATTAI CREEK INTERFACE TO CARRINGTON ROAD

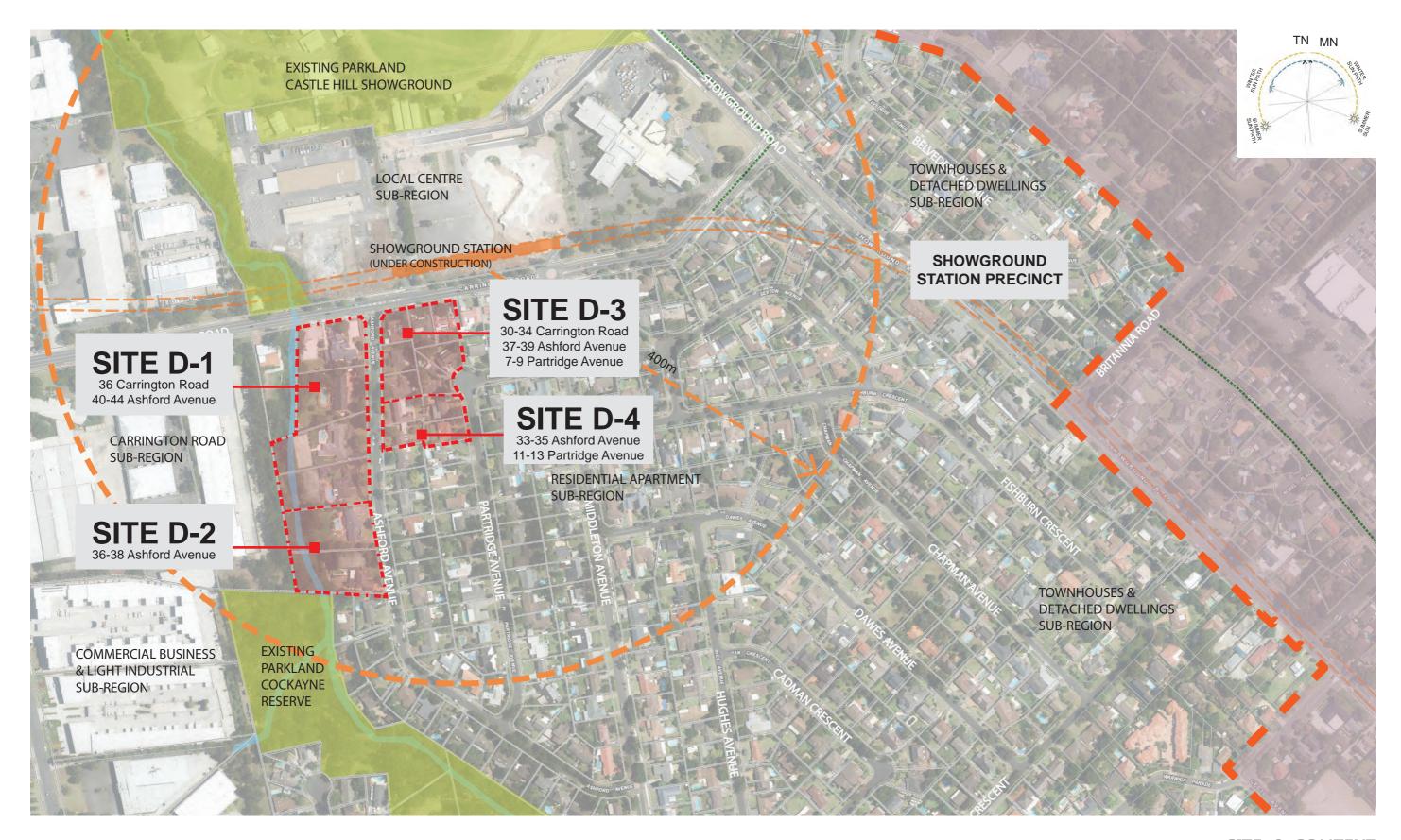


CATTAI CREEK & CARRINGTON ROAD



CATTAI CREEK VIEW TO SOUTH

SITE PHOTOS



SITE & CONTEXT





OPEN SPACE AND COMMUNITY FACILITIES

Planning Context

The Site is currently defined under the Hills Shire LEP 2012. Under the LEP the site is currently zoned R-2 Low Density Residential. It has no maximum Floor Space Ratio and a maximum height of 9m.

In December 2015 the Showground Station Precinct Proposal was prepared by the Department of Planning and Environment. This proposal had been informed by the 2013 North West Rail Link Corridor Strategy, which was prepared to guide development of land around the eight new stations on the rail link.

The precinct proposal supports:

a new local centre around the station providing a mix of shops, cafes, restaurants, local services and apartments; a range of housing options including townhouses, detached homes, low, medium an high rise apartments, with the highest buildings closet to the station; employment lands west of Cattai Creek to continue to provide jobs and services for the region;

- retention of the Castle Hill Showground as an important regional, cultural and recreational facility; and
- · increased areas of open space, community facilities, and schools.
- Future development will be supported by a range of infrastructure improvement including:
- new Sydney Metro Showground Station with bus, taxi, cycle, and kiss and rid interchange facilities and customer car park;
- new and upgraded intersections including signals at Carrington Road and Middleton Avenue, and Carrington Road and Doran Drive intersections;
- bus priority measures including bus priority lanes;
- potential new high school in either Castle Hill, Showground Station Precinct or Bella
 Vista Station Precinct;
- new community and recreation facilities at Castle Hill Showground including a multipurpose centre;
- the potential to expand and improve Chapman Avenue Reserve and/or to provide for a new local park; and
- new and improved local streets, as well as pedestrian and cycle paths.

PLANNING FRAMEWORK

RE1 Public Recreation

z.mzsterplzn



Showground Structure Plan

A Structure Plan was prepared for the Showground Station Precinct as part of the North West Rail Link Corridor Strategy. The Showground Station Structure Plan considered the potential for the Sydney Metro to transform the Showground Station Precinct by providing a new focal point for the community centred upon the station. Opportunities were identified for more homes close to the station, a greater mix of housing choice, and mix of neighbourhood shops and services to provide for the daily needs of the community. The Structure Plan is a high level strategic plan that provides the framework for future planning of the precinct (see Figure 4). It relies on further detailed planning in order to determine the most appropriate planning controls.

The Master Plan

The Showground Precinct establishes a series of principles, precincts, street patterns and envelopes for the plan. These are based on common sense principles and hierarchies and include the following:

- 1. The MP largely adopts the existing street grid.
- 2. The MP establishes zones for land use. The subject sites are all within the high density residential zone.
- The MP establishes building foot prints based on SEPP 65 and ADG controls. The envelopes are generally 20m-24m gross width to suite ADG guidelines for width and building separation and the buildings are generally oriented north south to maximize solar amenity.
- 4. The building heights and densities have a hierarchy with greatest height to the north along Carrington Road and progressively reducing towards the south.



DEPARTMENT OF PLANNING PRECINCT PROPOSAL



As part of this submission we have looked at this MP and proposed certain developments in order to develop these principles, introduce benefits and additional amenity and add grain and detail to the proposal. Accordingly, we have added some additional principles which overlaid with the MP create opportunities and enhance the MP principles as follows:

Connectivity

The 'Green Thru-Site links diagram demonstrates the introduction of **green linkages** to the MP. The current MP contains a series of east west streets such as Fishburn Street and Dawes Avenue, however, these streets do not continue to the Cattai Creek reserve. We are proposing that a series of green pedestrian linkages which continue these alignments to the reserve. These will provide connectivity between the centre of the residential precinct and the park as well as providing a visual link to the park. This link will create green vistas for the residents within the precinct.

Building footprints and solar amenity

The DoP MP allows for basic building footprints. We have developed these footprints in more detail to reflect the actual likely built form. These footprints are based on ADG principles including building width and separation and solar and ventilation amenity. The MP footprints result in a series of communal open spaces between buildings in the center of blocks. We have revised the master plan to maximize the north south buildings with a courtyard in between. In particular, we have oriented the buildings to ensure the northern end of the courtyards are not overshadowed. As a result, we have ensured that the mid-block communal spaces enjoy unencumbered solar access for maximum amenity. This is a significant development on the master plan.





DESIGN PRINCIPLE - GREEN THRU SITE LINKS DIAGRAM



Road Hierarchy

The current MP adopts the existing road grid and alignment; this is due to the limitations of the land ownership patterns. We note that this submission includes a proposal from AJC to create a hierarchy of street widths to add an additional dimension to the MP (see AJC report). This proposal allows for additional width in Ashford Avenue as a major avenue into the site.

Building Hierarchy

We note the MP provides for a progression of heights and densities from north to south across the site. We support this hierarchy and have further developed it following on from the road hierarchy discussed above. We have reviewed the heights taking into account the finer grain details of the sites.

Whilst the MP provides a good broad strategy for the precinct and establishes the principles, each site has unique conditions which require specific responses. We have investigated the conditions on each site to determine the key issues. This includes detailed shadow and solar modelling and topography. See massing and scale below.





DESIGN PRINCIPLE - SOLAR ACCESS TO COMMUNAL GREEN SPACE



The Vision

Sites D-1 D-2 D-3 and D-4 are among the most significant sites within the residential precinct. They directly adjoin the train station and retail centre and forms significant portion of streetscape along the main street. In addition, Site D-1 & D-2 forms the majority of the interface with the Cattai Creek parkland and is crucial to the permeability of the whole precinct. We have sought to develop a vision for these sites which embraces the MP principles and enhances those principles to create an architecture of high quality with the following attributes:

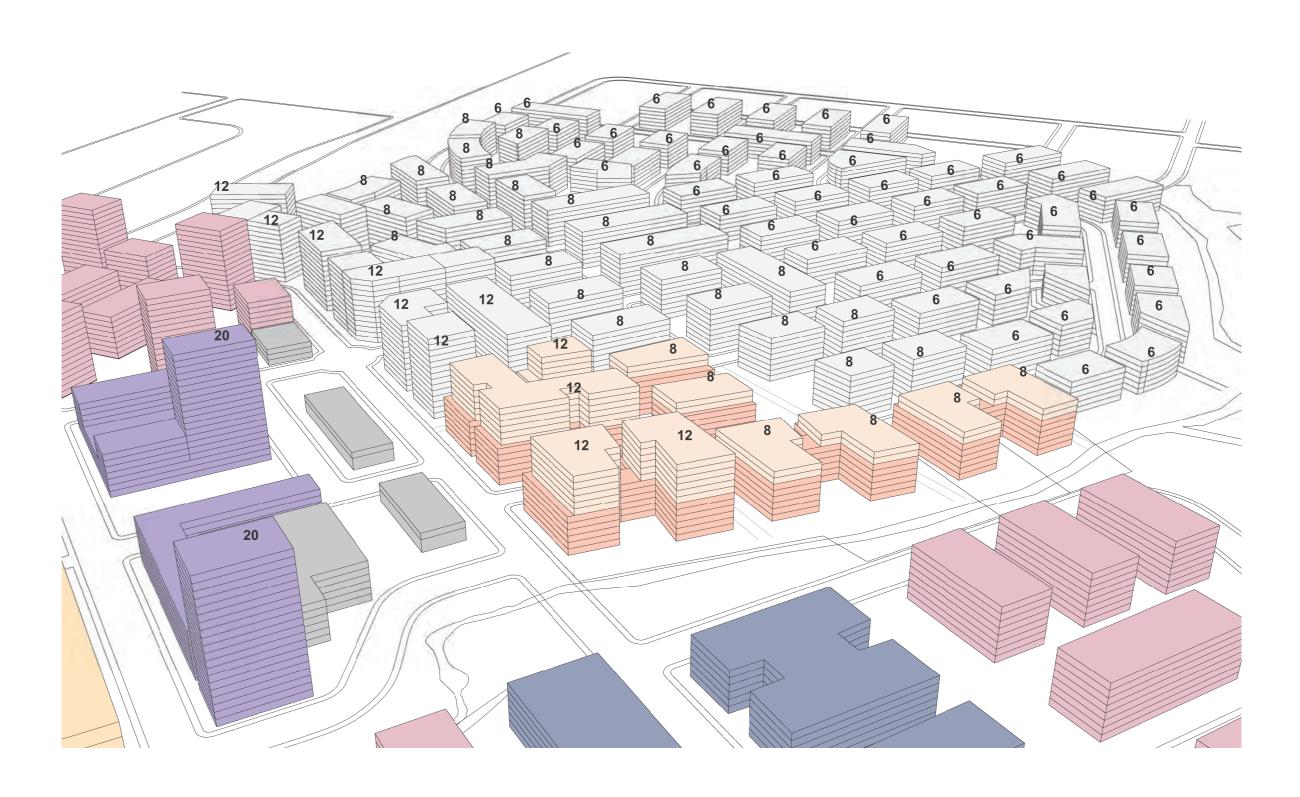
- Creating a hierarchy of built forms based on the principles
- Creating built form based on defining usable public spaces and amenity
- Creating connectivity and permeability both within the residential precinct and outwards to the surrounding neighborhoods and green spaces
- Creating legible access ways and spaces
- Compliance with the ADG and principles of SEPP65
- Maximising the yield in a sustainable way
- Based on sustainable principles including passive solar design, ventilation, water cycle usage and sustainable materials
- Creating an architecture which is contemporary, attractive and uplifting
- Activating streetscape through the active uses, articulation of facades and massing
- Creating streetscape of a suitable scale and legibility



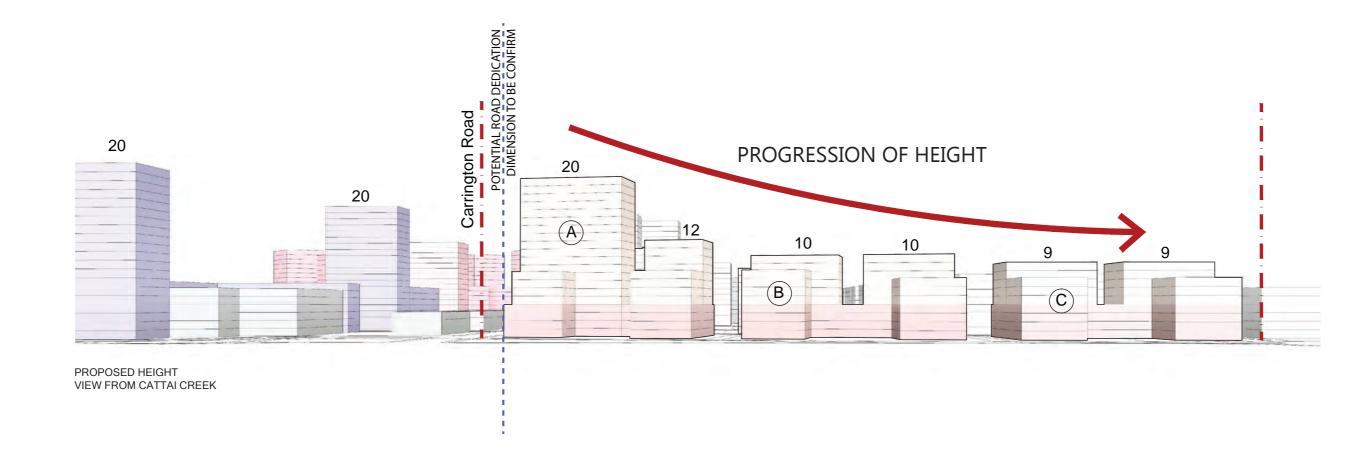
- COMPLIANT SCHEME



- COMPLIANT SCHEME

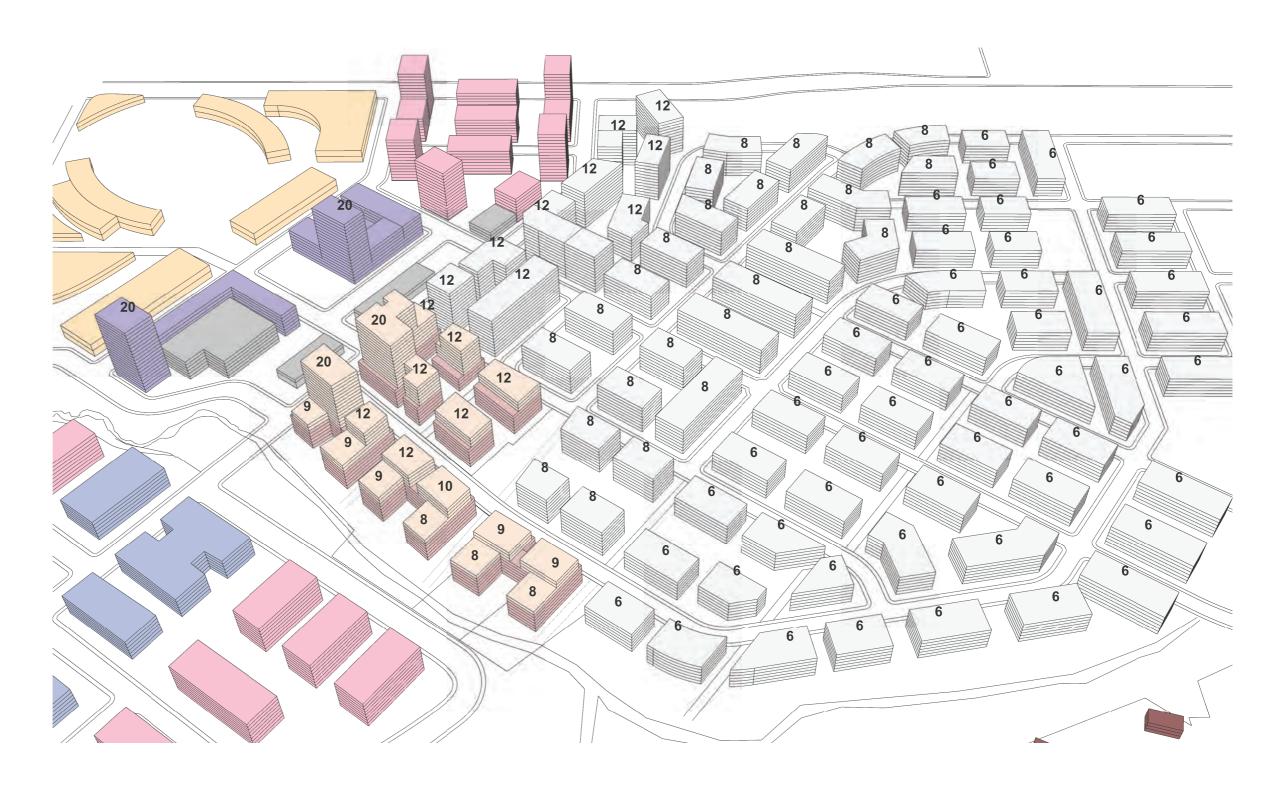


- COMPLIANT SCHEME

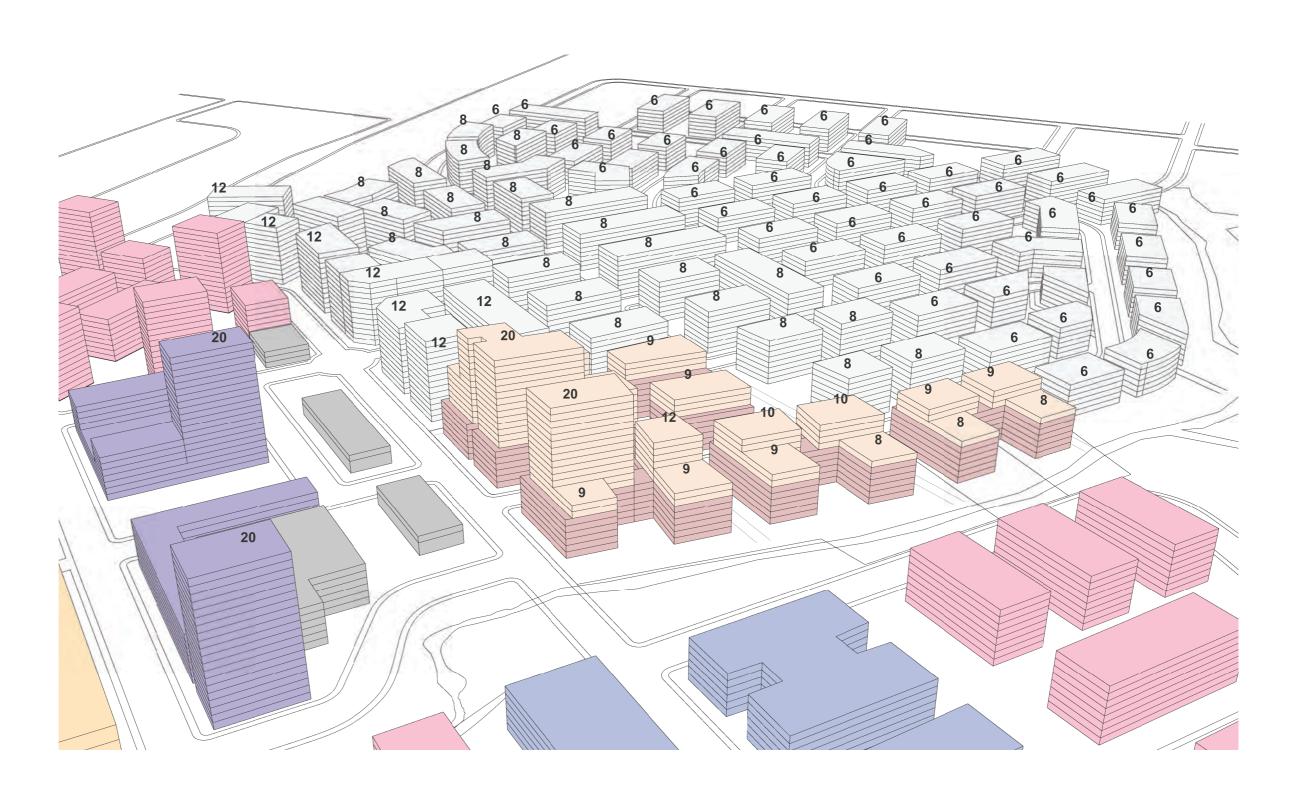




- PROPOSED PLAN
- PROPOSED HEIGHT



PROPOSED PLANPROPOSED HEIGHT



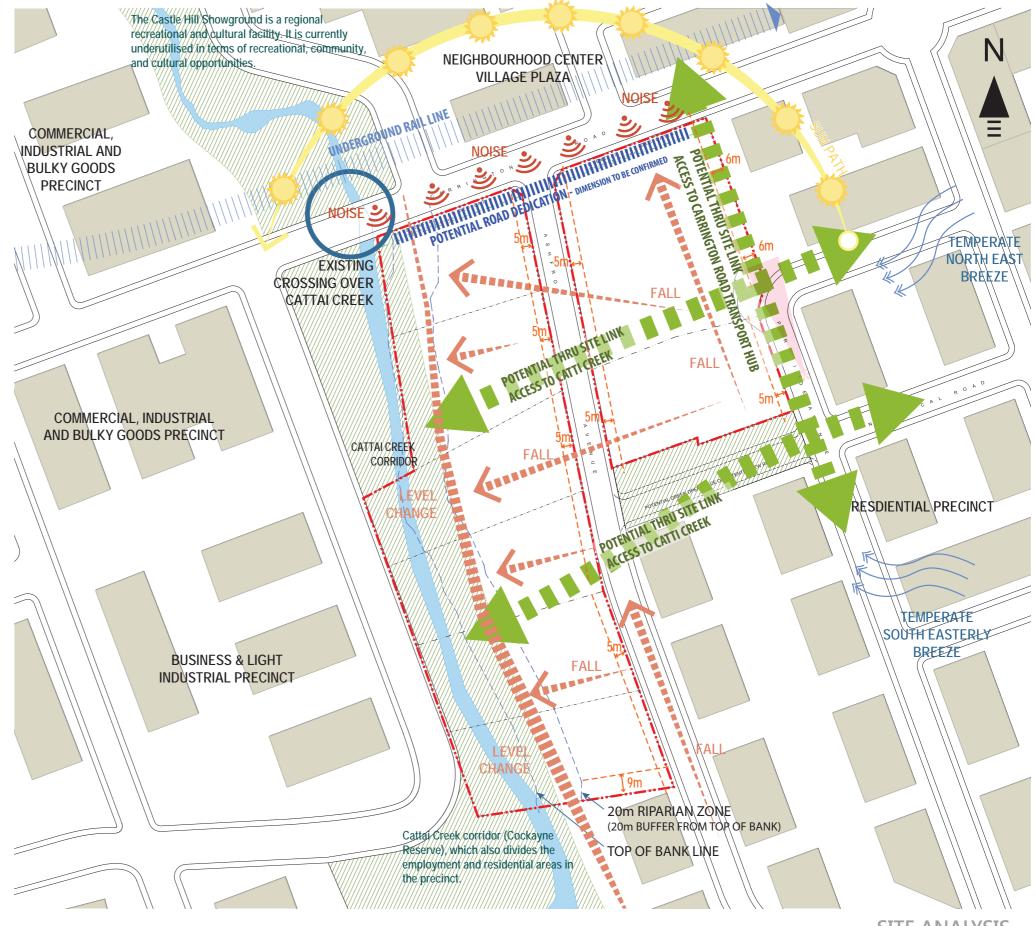
PROPOSED PLANPROPOSED HEIGHT

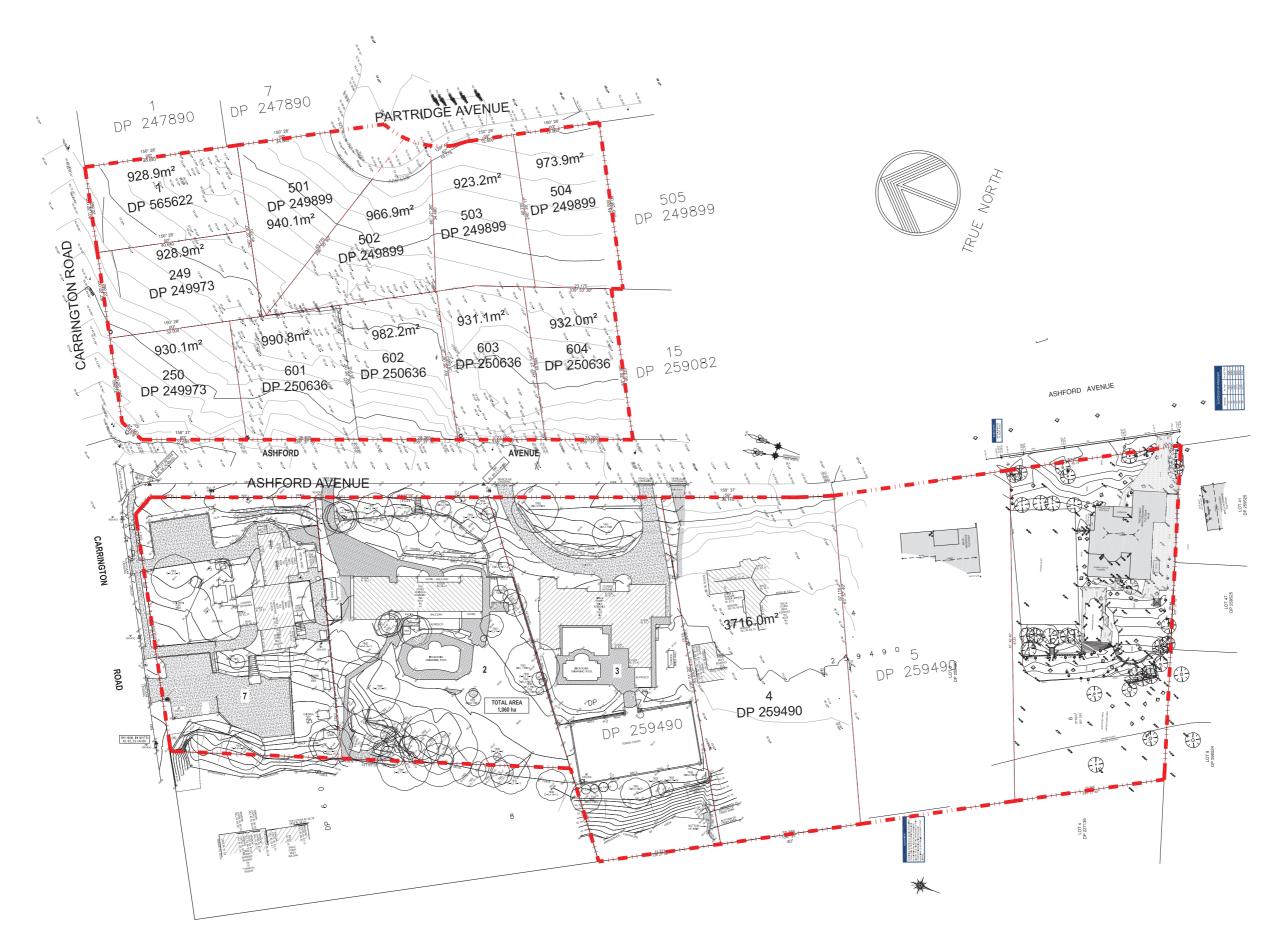
Opportunities

- Location opposite the new Showground Station
- Large consolidated area for redevelopment over two sites: D-1+D-2 (21,750.00m2) and D-3+D-4 (10,489.20m2) in a single ownership as a gateway site and entry into the precinct. The site occupies both corners at the intersection of Carrington and Ashford Avenue.
- Location along Catti Creek Corridor, which have potential to provide public open space connection to existing Cockayne Reserve with Castle Hill Showground Public recreation open
- Location within the priority precinct of the Showground Station Precinct Proposal which aims to provide new housing and hubs in centres with good existing or planned transport services.
- Proximity to future shops and services at Showground Station and Castle Hill Trading zone.
- Proximity to Castle Hill Strategic Centre and Castle Towers Shopping Centre 2km to the south-east.
- Potential to increase street width along Carrington Road (if
- Potential to increase height without adverse built form or amenity impacts due to orientation and street widths, including two taller built forms at the corner of Ashford Avenue and Carrington Road.
- Potential to connect existing cycle way along Catti Creek.
- Potential of a series of through site link access to Catti Creek.
- Potential through site link access between Partridge Avenue to Carrington Road Transport Hub.
- Easy vehicle access from Ashford Avenue.
- Favorable north orientation for solar access to communal open
- Low risk of site contamination from existing residential uses.
- Minimum 18 meters wide communal open space, and
- Majority 18 meters wide through site link access to Catti Creek Corridor.

Constraints

- · Existing low density housing requiring extensive site amalgamations.
- Ashford Avenue alignment to the west of true north limiting opportunities for 2 hours' solar access to private open spaces and living rooms with a westerly aspect.
- Transition from low rise residential character to high density residential (R4 zone).
- Traffic noise along Carrington Road.
- 3 meters fall across the site and 5 meters cross fall from south east corner down to north west, and
- Removal of large established trees located within front setback zones and existing rear yards to facilitate basement parking.





SITE SURVEY



Site D-1 & D-2

Density

This site is located along the Cattai Creek park. The MP allows for heights from 8-12 storeys for this site. The MP requires that a significant portion of this site is given over to public land in addition the developable area is reduced through maintaining the riparian zones for the creek. Given these constraints it is not possible to achieve the prescribed densities within the current heights. Our studies result in heights which can achieve this density. These heights and envelopes are generated based on the specific conditions of this site.

Park Interface

The linear site is broken into 3 buildings. These openings are determined by the through site links which terminate the east west streets and create permeability and access to the park. We have adopted a series of 'C shaped" envelopes. This form maximizes the interface between the buildings and the parkland to maximize the amenity. It also creates a series of green courtyards which bring the park into the residential development and maximize the open space amenity for the community.

This is further demonstrated with a detailed landscape strategy – see attached.

Massing and Scale

The heights of the buildings have developed from a detailed solar amenity study of the envelopes as well as urban principles. The maximum height is located along Ashford Avenue. This establishes a defined street wall. We have provided a 5m setback for the first 4 floors with an additional 3m setback above. This setback establishes a 4 storev street wall to define the avenue, create a suitable human scale and break up the mass of the buildings. The building heights reduce towards the park to break down the massing and create a progression towards the park. The is a significant fall of up to 3 storeys across the site. This allows a significant reduction in massing towards the park without necessarily reducing as many storeys. Finally, we have used extensive solar modelling to ensure that the buildings meet ADG requirements. This has resulted in a reduction of height towards the park to ensure the successive east west wings do not overshadow each other and ensure compliance.

In addition, the buildings are broken up smaller buildings above podium height. This minimizes the length of the street wall and maximizes surface façade for ADG amenity such as solar access and ventilation. We have proposed heights ranging from 12, 10 and 8 storeys with lower heights of 6,7 and 8 floors on the park wings to maximize solar amenity. The result is a massing which achieve optimum ADG performance, spatial definition and amenity. In developing the MP we have proposed greater heights on Carrington Road. Carrington Road is the main commercial spine of the precinct and is the location of the train station. The buildings opposite our sites above the station have heights up to 20 floors. We have proposed a street wall of 12 storeys with a series of 20 storey point towers evenly dispersed along Carrington Road. This creates a suitable town centre and allows for the provision of density to compensate for the loss of area for parkland in the

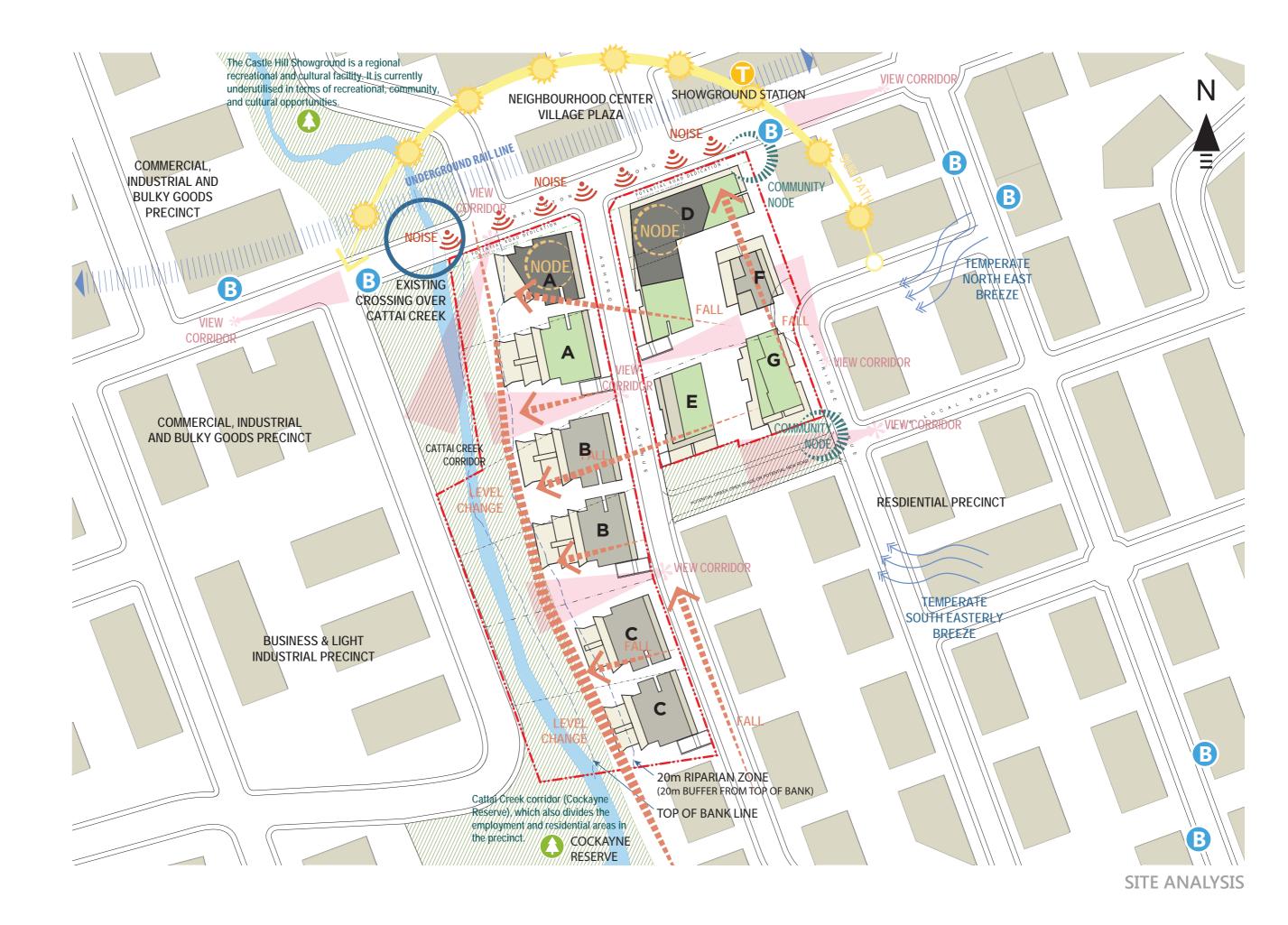
Amenity and Compliance.

We have prepared a detailed internal unit layouts to test ADG compliance. These diagrams demonstrate that the proposed envelopes and height can meet ADG controls. This has been achieved though careful consideration of envelopes and building heights. In particular, we have used a stepped building plan form which maximizes the number of corner units to promote natural ventilation and views. The envelopes have been generated based on compliance with ADG building separations. As such low rise buildings have an 18m separation and upper levels are 24m.

Site D-3 & D-4

Density

This site is located along Carrington Road and is a major gateway to the site. The MP allows for heights from 8-12 storeys for this site. The AJC study of the master plan demonstrates that it is not possible to achieve the prescribed densities on this site within the prescribed heights. These heights and envelopes are generated based on the specific conditions arising from the analysis of this site.





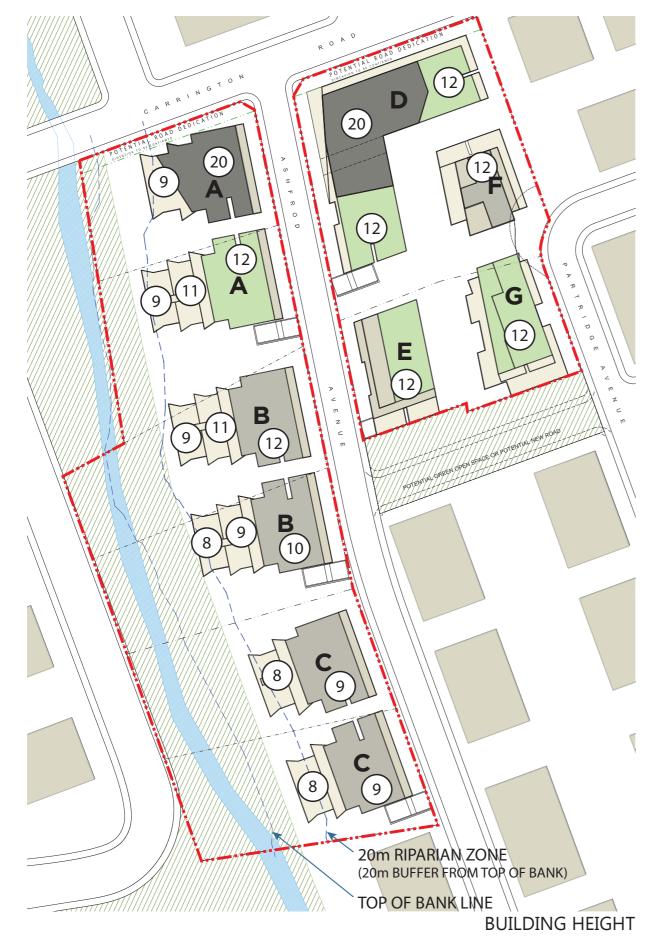


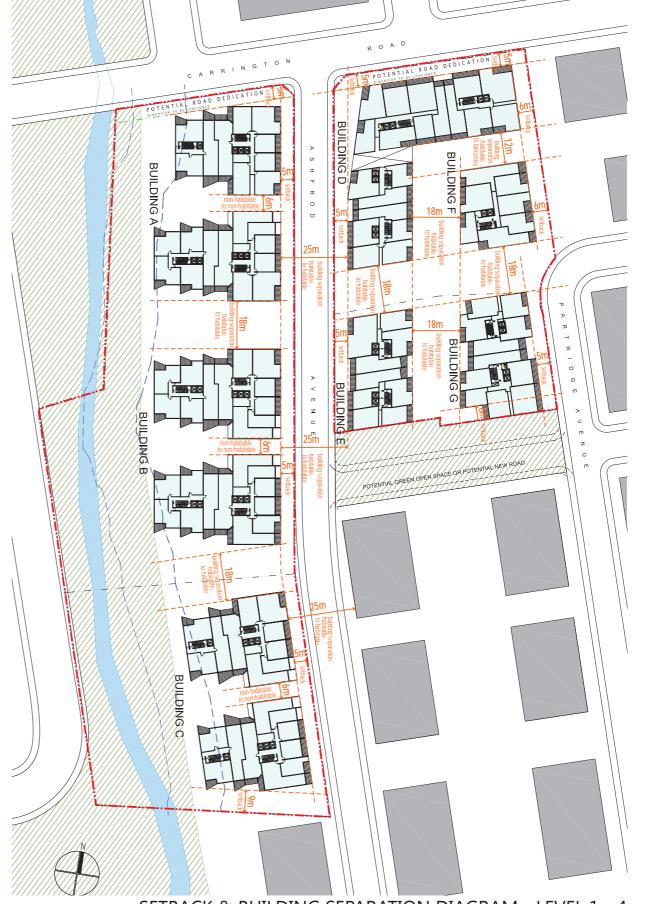
PUBLIC ACCESS CONNECTION

GREEN OPEN SPACE

GATEWAY AND STREETSCAPE ACTIVATION

SITE PLANNING PRINCIPLE



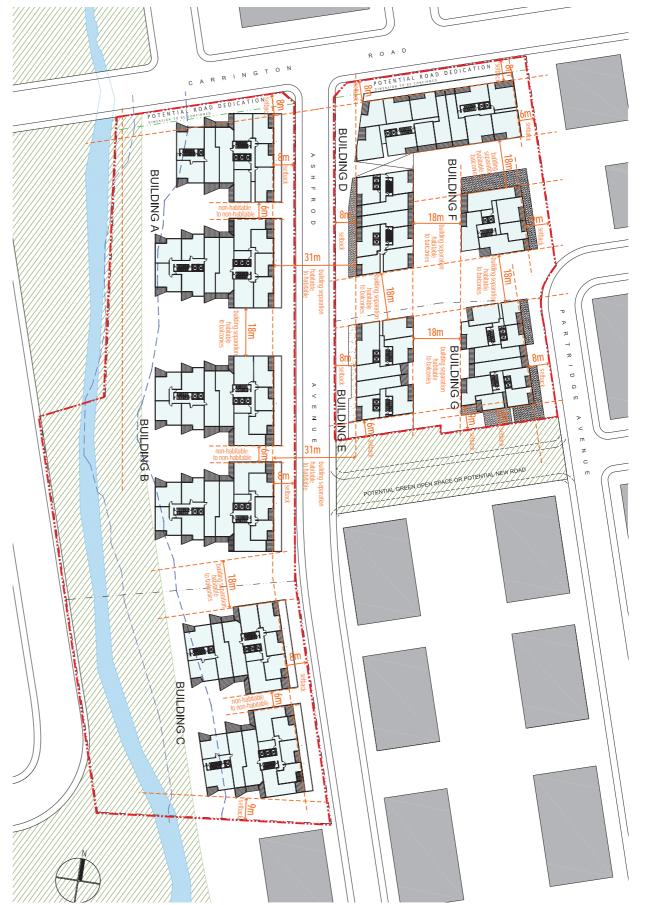


SETBACK & BUILDING SEPARATION DIAGRAM - LEVEL 1 - 4
SITE PLANNING PRINCIPLE



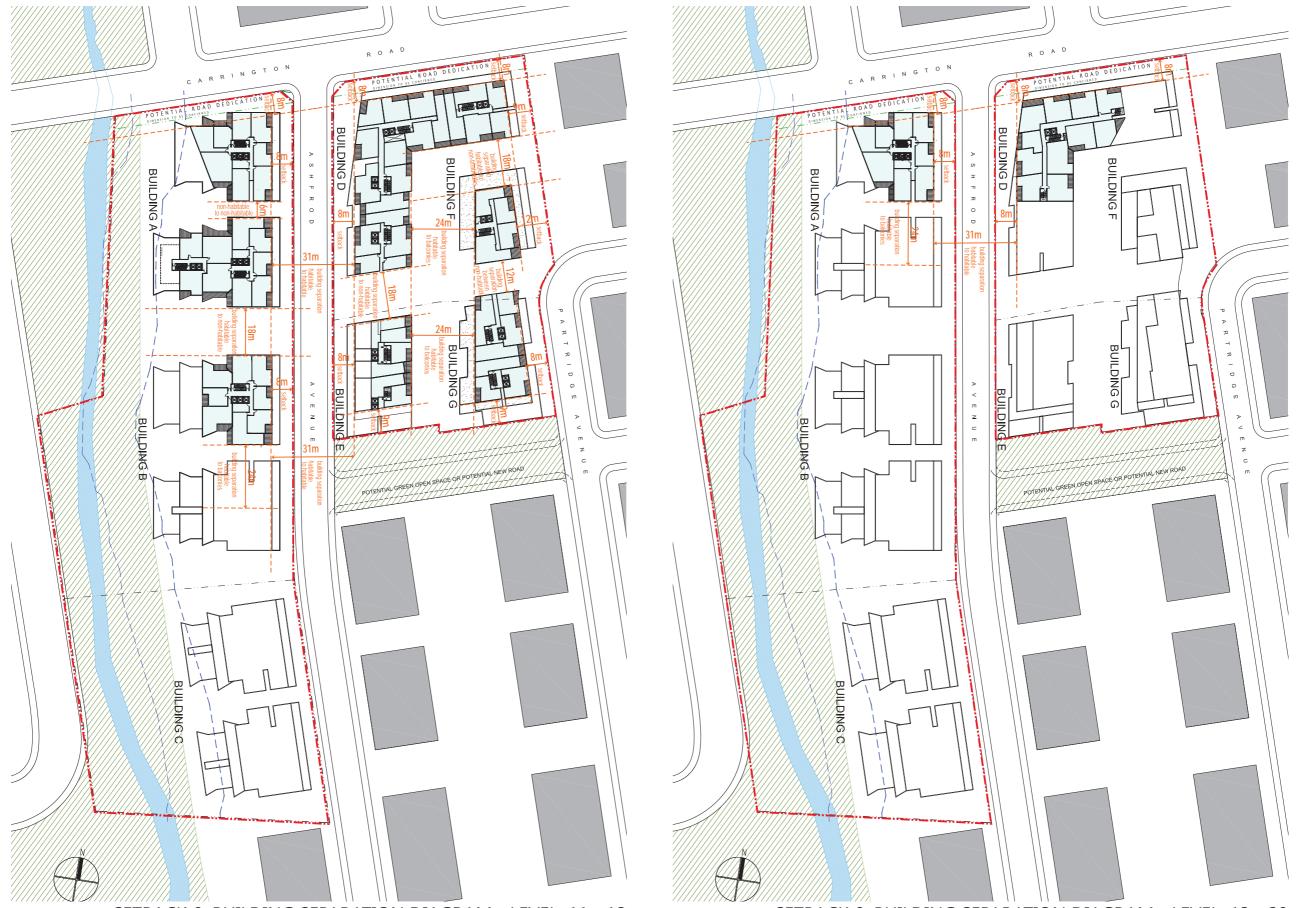






SETBACK & BUILDING SEPARATION DIAGRAM - LEVEL 7
SITE PLANNING PRINCIPLE





SETBACK & BUILDING SEPARATION DIAGRAM - LEVEL 11 - 12

SETBACK & BUILDING SEPARATION DIAGRAM - LEVEL 13 - 20 SITE PLANNING PRINCIPLE

4. Preferred scheme

Massing and Scale

The heights of the buildings have developed from a detailed solar amenity study of the envelopes as well as urban principles. Carrington Road is the main commercial spine of the precinct and is the location of the metro station. The buildings opposite our sites above the station have heights up to 20 floors. We have proposed a street wall of 12 storeys with a series of 20 storey point towers evenly dispersed along Carrington Road. This creates a suitable town centre. We have proposed a 5m setback on Carrington Road with an additional 3m setback above the 4th floor. This setback establishes a 4 storey street wall to define the avenue, create a suitable human scale and break up the mass of the buildings. Retail and commercial uses may be located on Carrington Road on corners and opposite the station to activate the streetscape.

The principles of the MP emphasise the provision of sunlight to communal spaces. According to the MP we have provided a main communal space between the buildings oriented north south. In order to ensure solar access to this space we have reduced the heights on Carrington Road north of the courtyard from 12 storeys to 8 storeys (see shadow diagrams) and increased heights in other areas. In this way we have redistributed the height across the site based on a detailed analysis of the specific site conditions. The buildings heights then reduce from 12 storeys to 9 storeys to create a progression towards the lower densities to the south.

In addition, the buildings are broken up smaller buildings above podium height. This minimizes the length of the street wall and maximizes surface façade for ADG amenity such as solar access and ventilation. The result is a massing which achieve optimum ADG performance, spatial definition and amenity. In order to achieve the requisite density we have

Amenity and Compliance.

We have prepared a detailed internal unit layouts to test ADG compliance. These diagrams demonstrate that the proposed envelopes and height can meet ADG controls. This has been achieved though careful consideration of envelopes and building heights. In particular, we have used a stepped building plan form which maximizes the number of corner units to promote natural ventilation and views.

Aesthetic Treatment

Whilst the façade treatments are only indicative at this stage, they demonstrate the principles of high quality design suitable for this area.

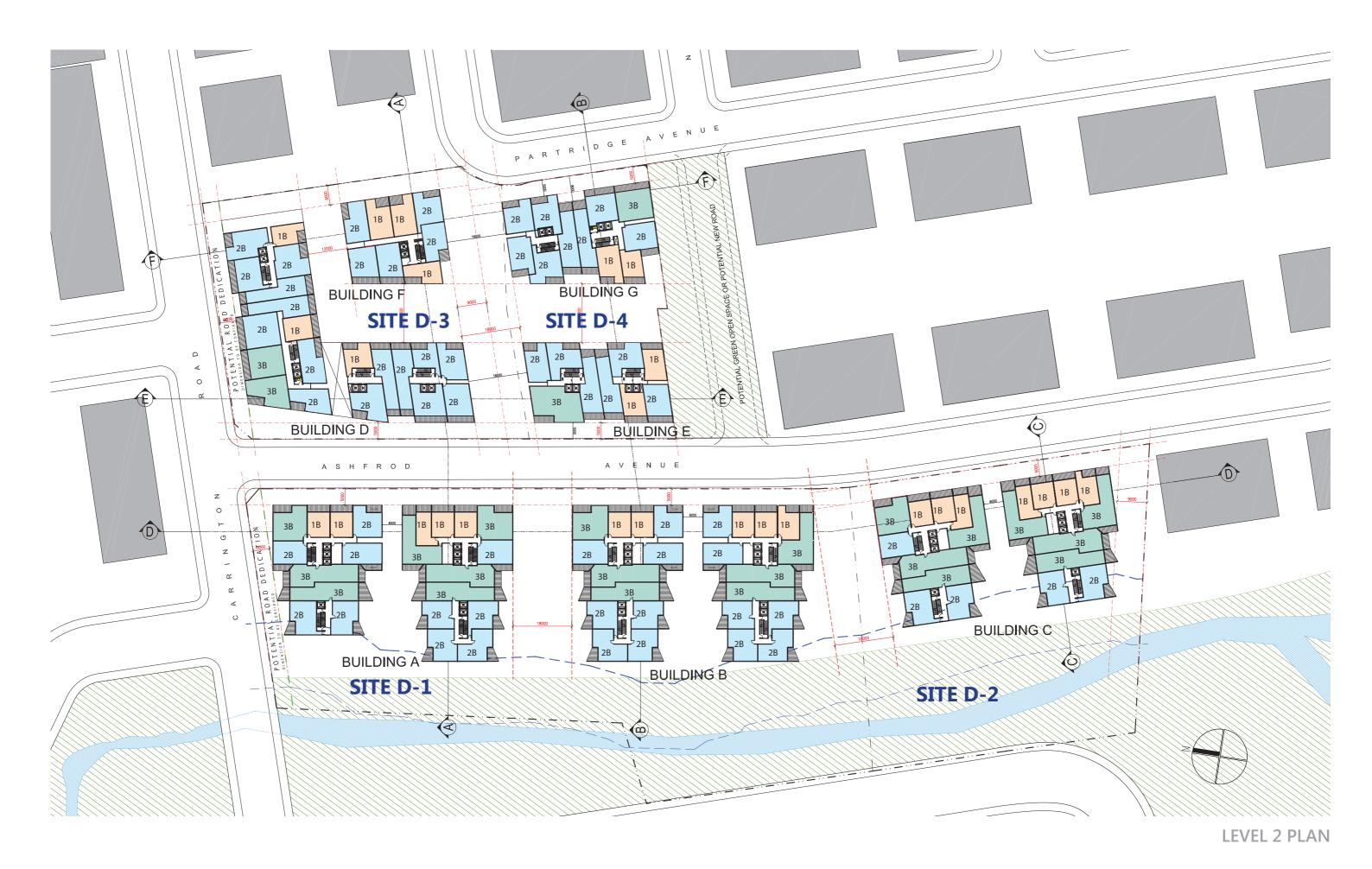
The building expression is broken down according to height into different expressions to reduce building mass and to reinforce the streetscape. The lower 4 podium floors have a more solid expression using masonry and screens to articulate the façade. The lower levels utilize an earthy palette and colours to reinforce the relationship to the park. The mid-rise portions have a lighter expression with less masonry and darker colours but still utilize screens for environmental management. The higher tower elements have a different expression. They have a much lighter expression to reduce the apparent massing and have a greater use of glass and shading fins.

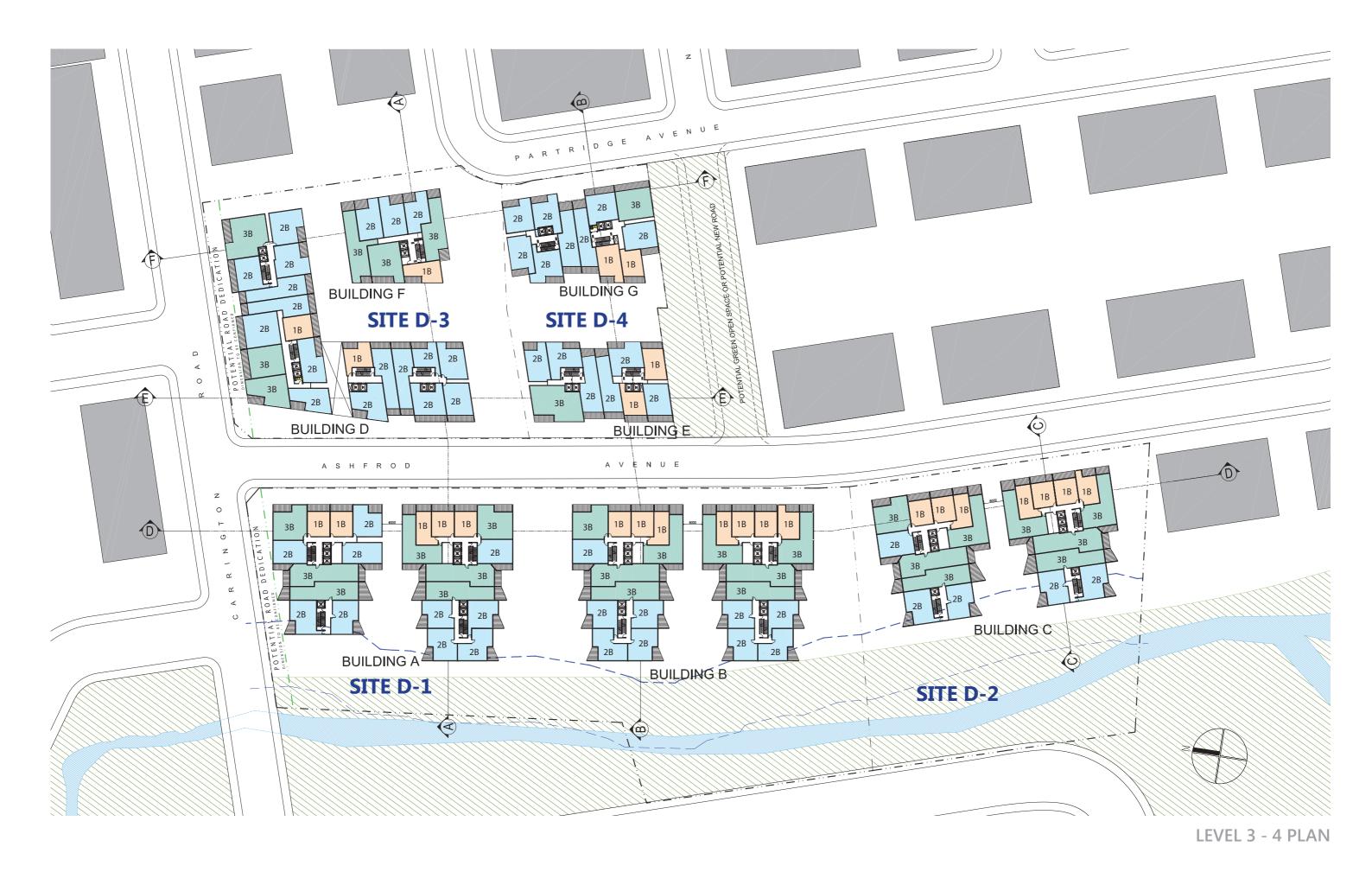
In addition, we have proposed a variety of building forms and expressions to create a diversity of expression and sense of individual identity, for example, he buildings towards Carrington Road are more urban. Some of the buildings to the south utilize a more earthy palette. They incorporate vertical screens to modulate light and shade whilst maximizing views to the park. The buildings to the east have a more traditional streetscape street scape using solid walls and punched windows. This responds the character of the street and reinforces the more urban courtyards here.

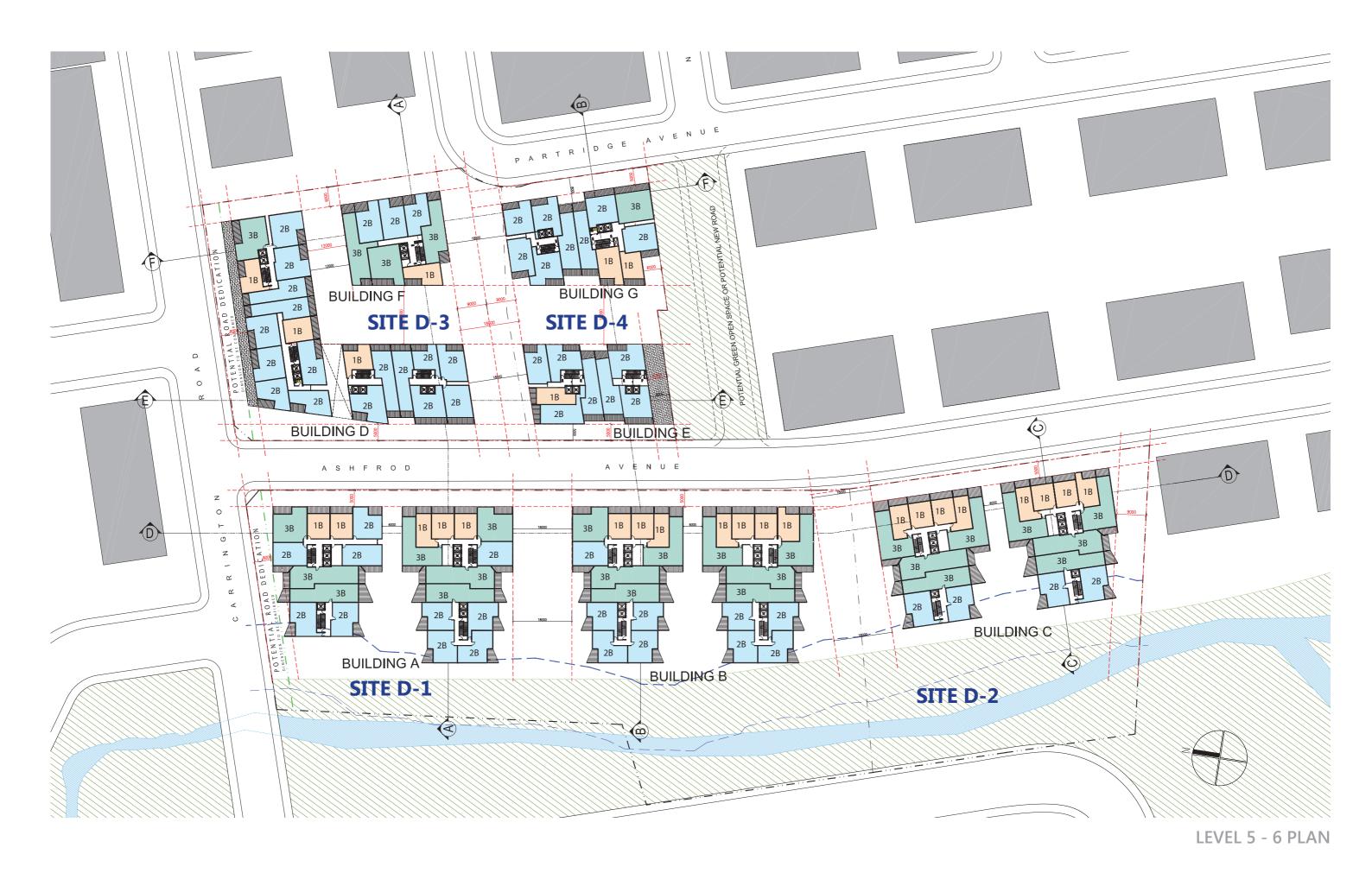
This demonstrates that we envisage a façade treatment that responds to the specifics of each site and each interface and a variety of forms and treatments to create diversity and identity.

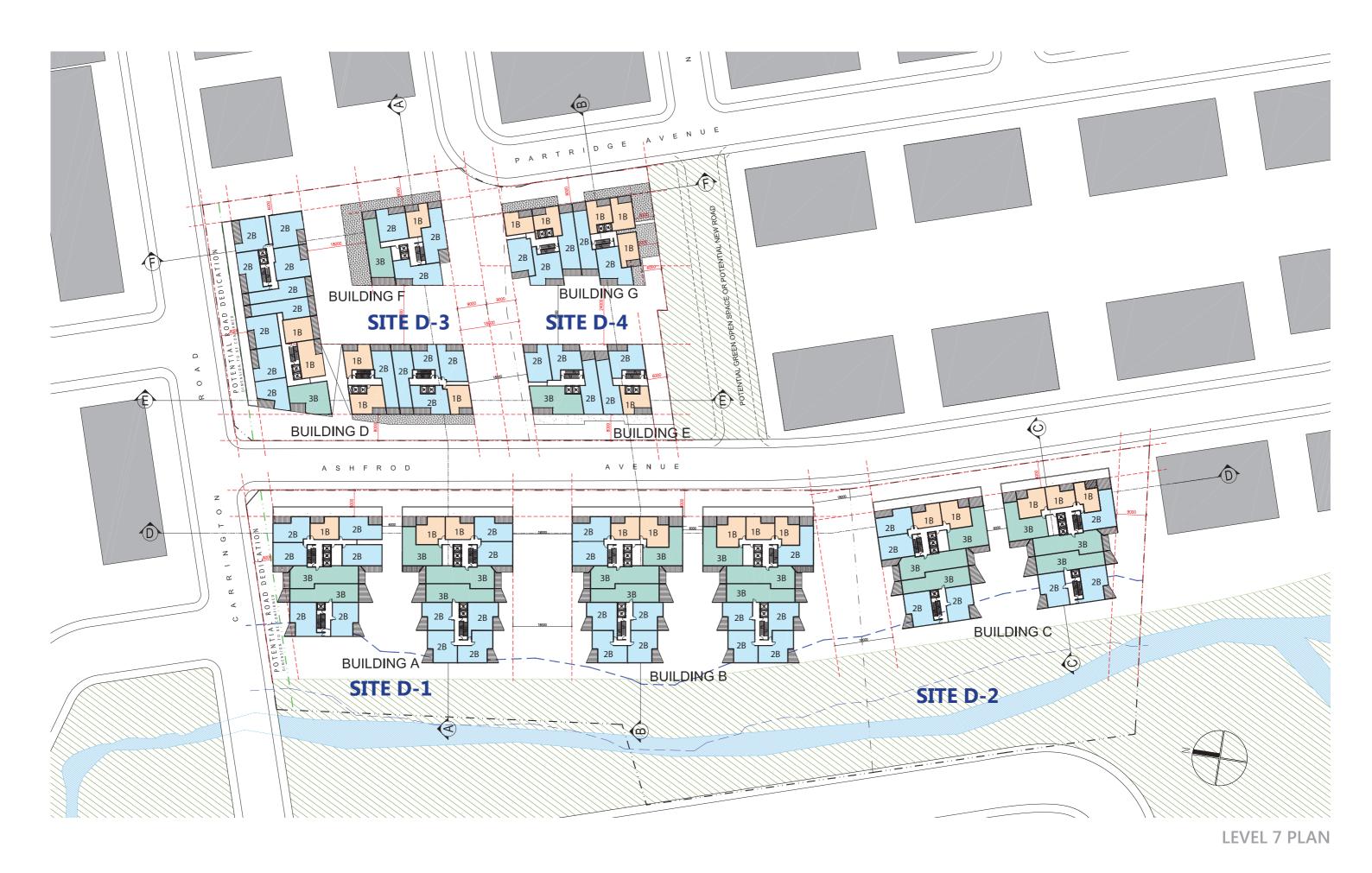


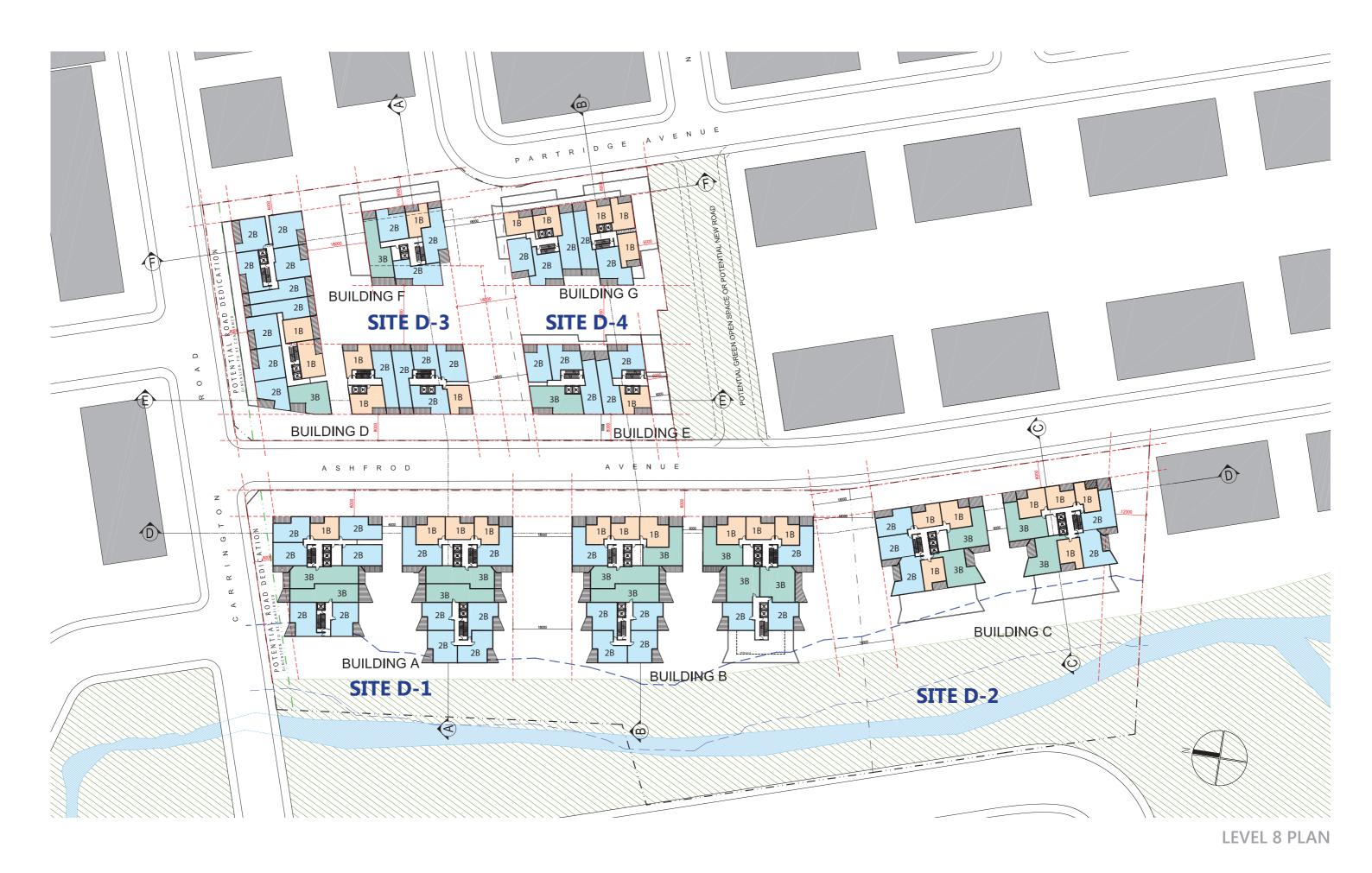


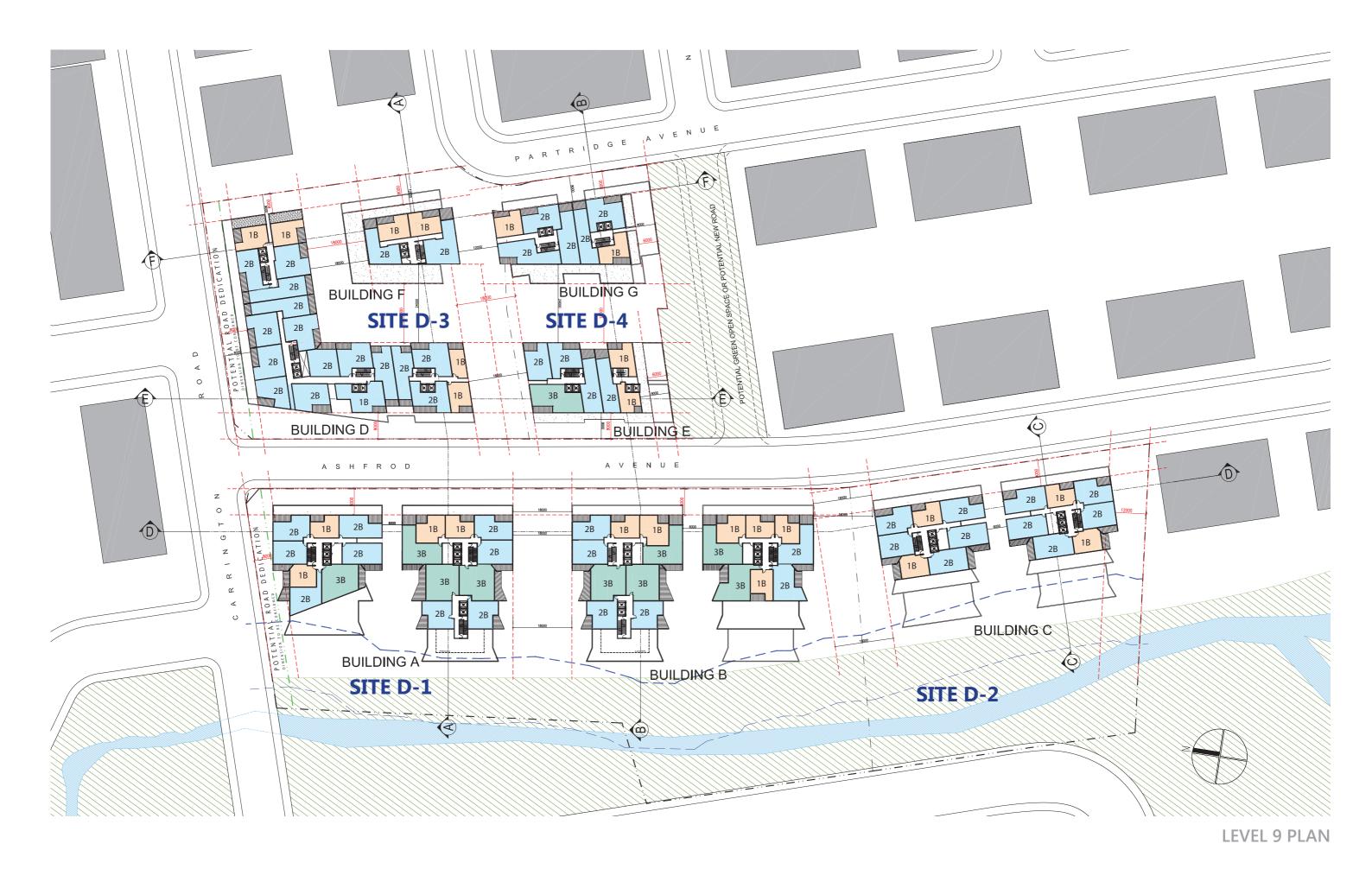


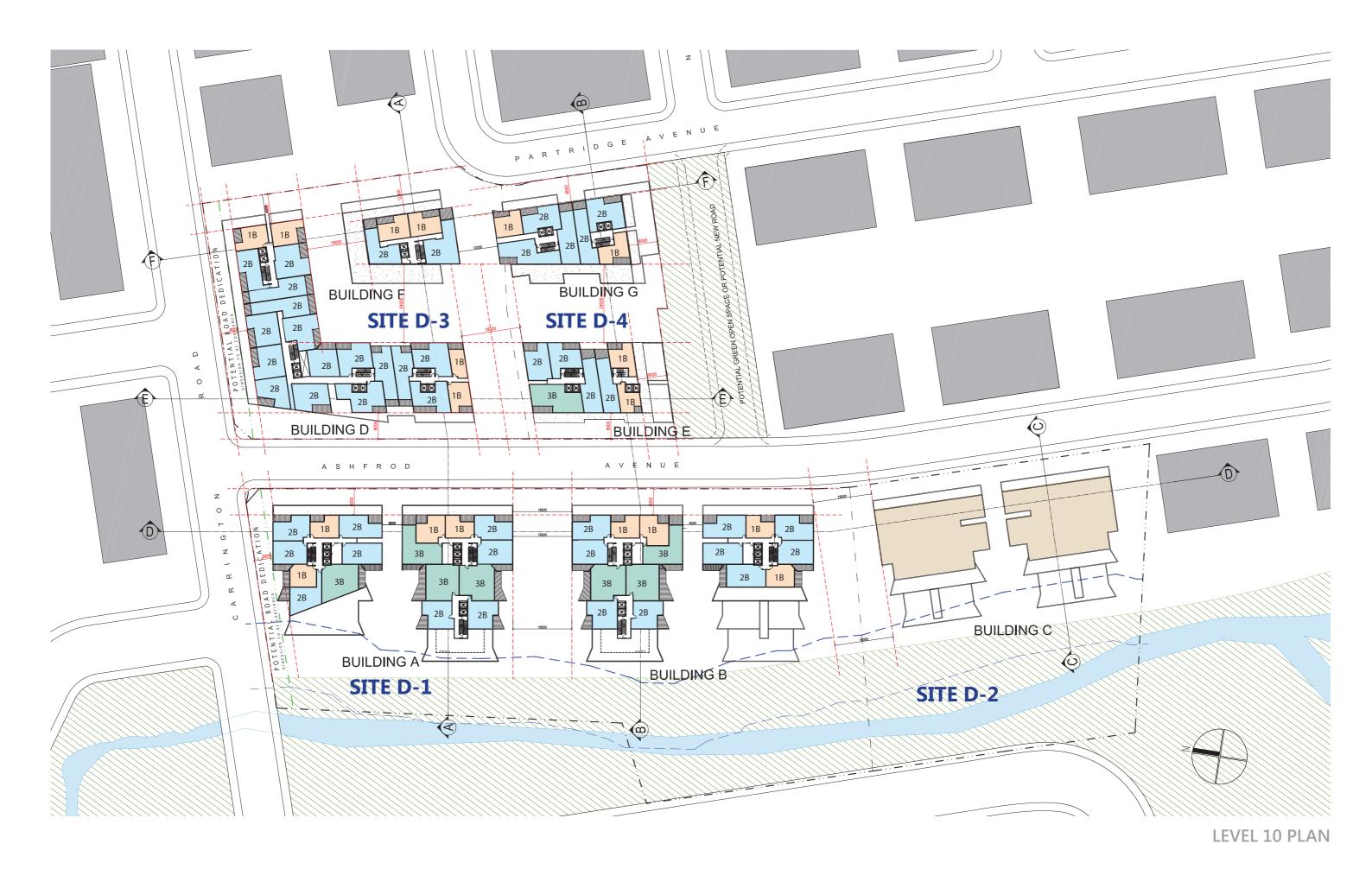


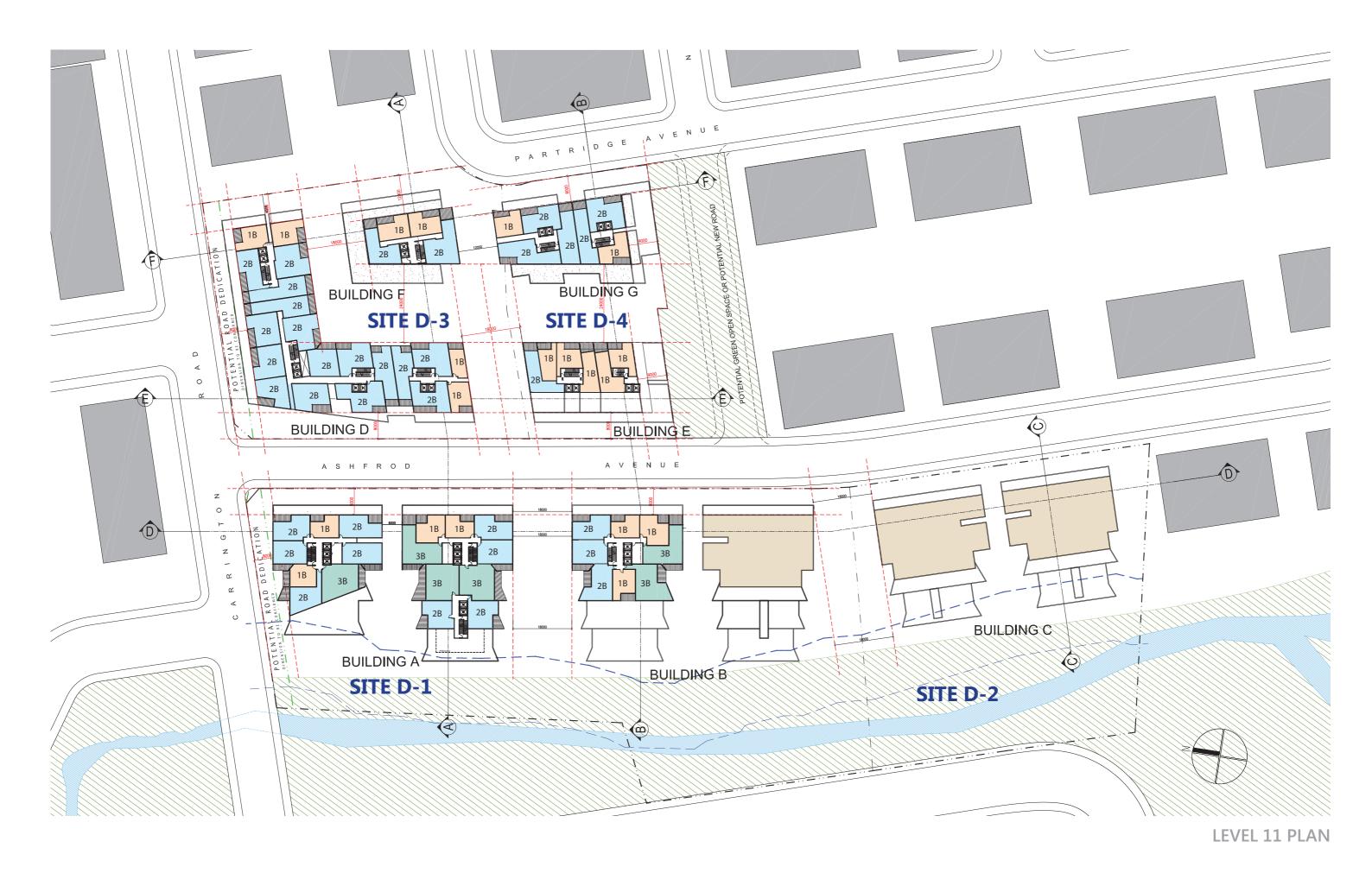


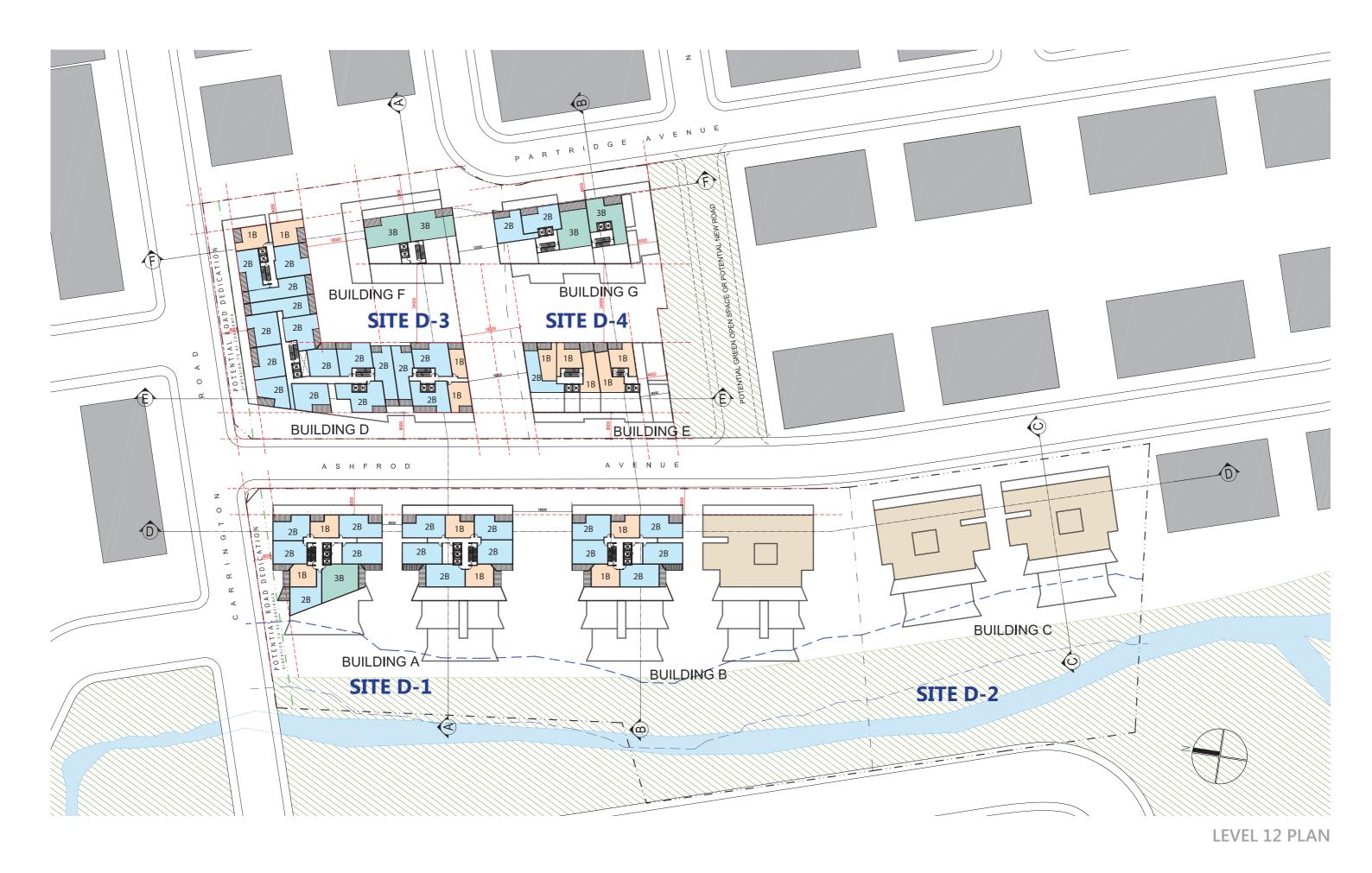


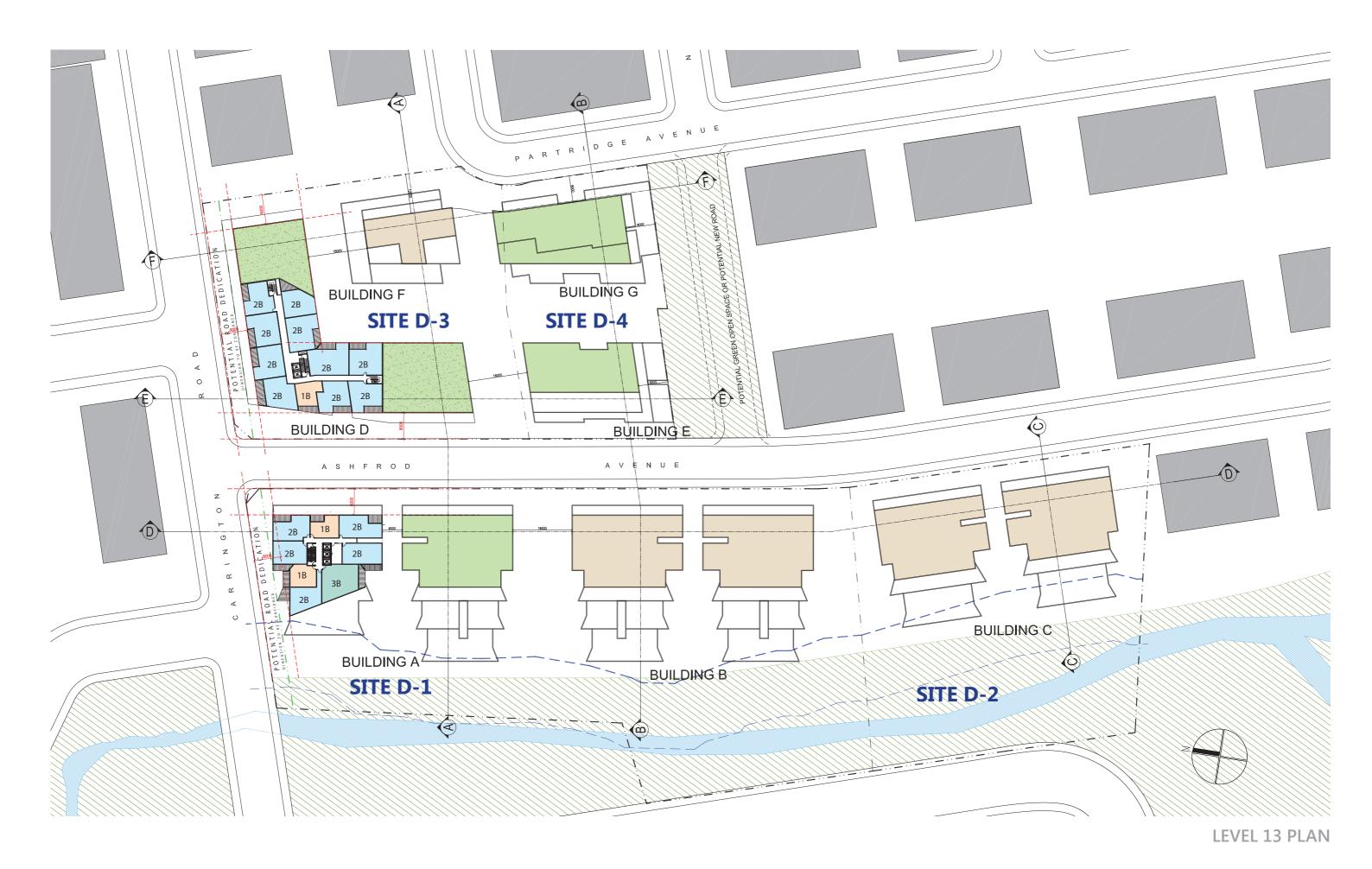




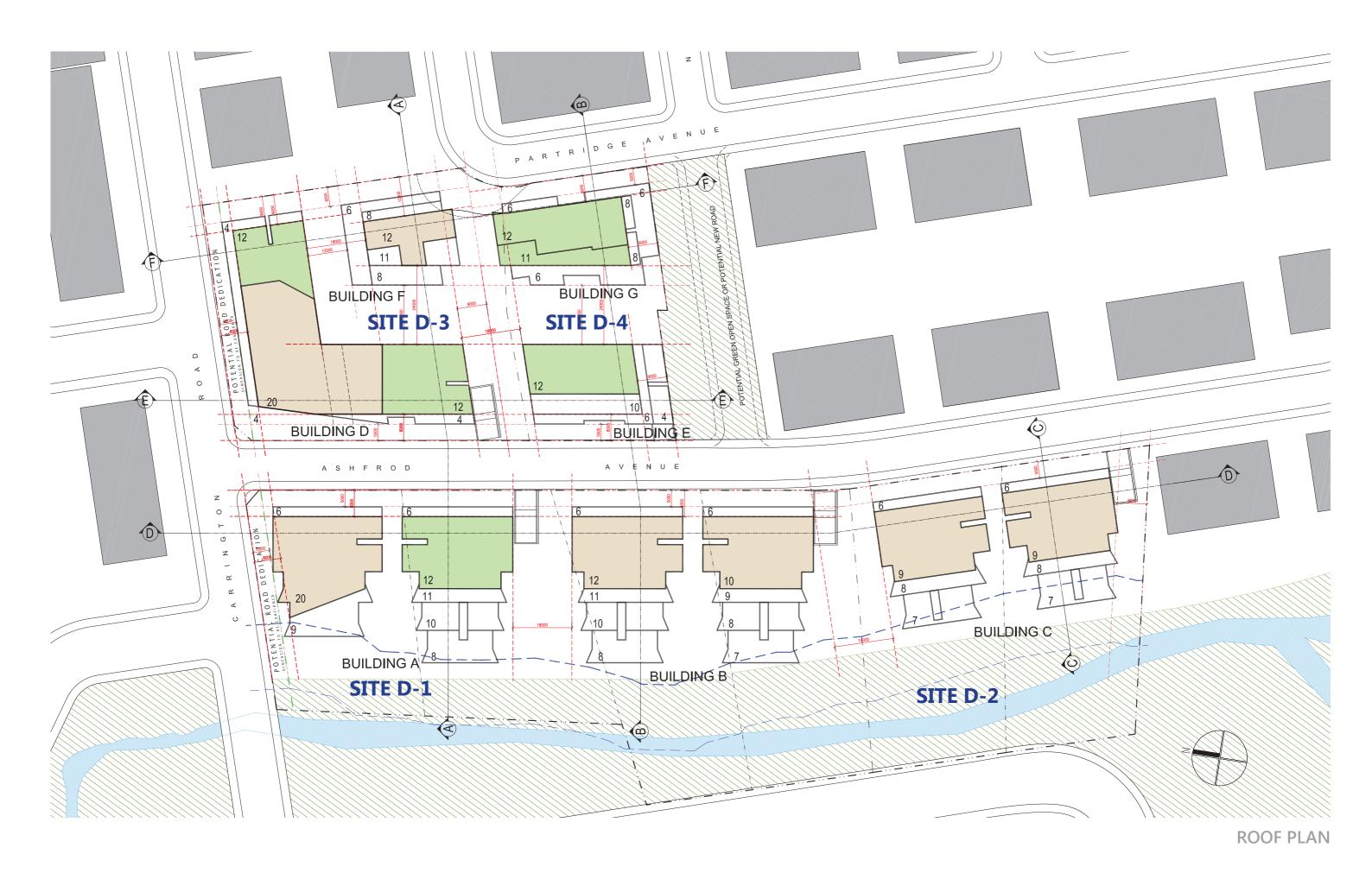




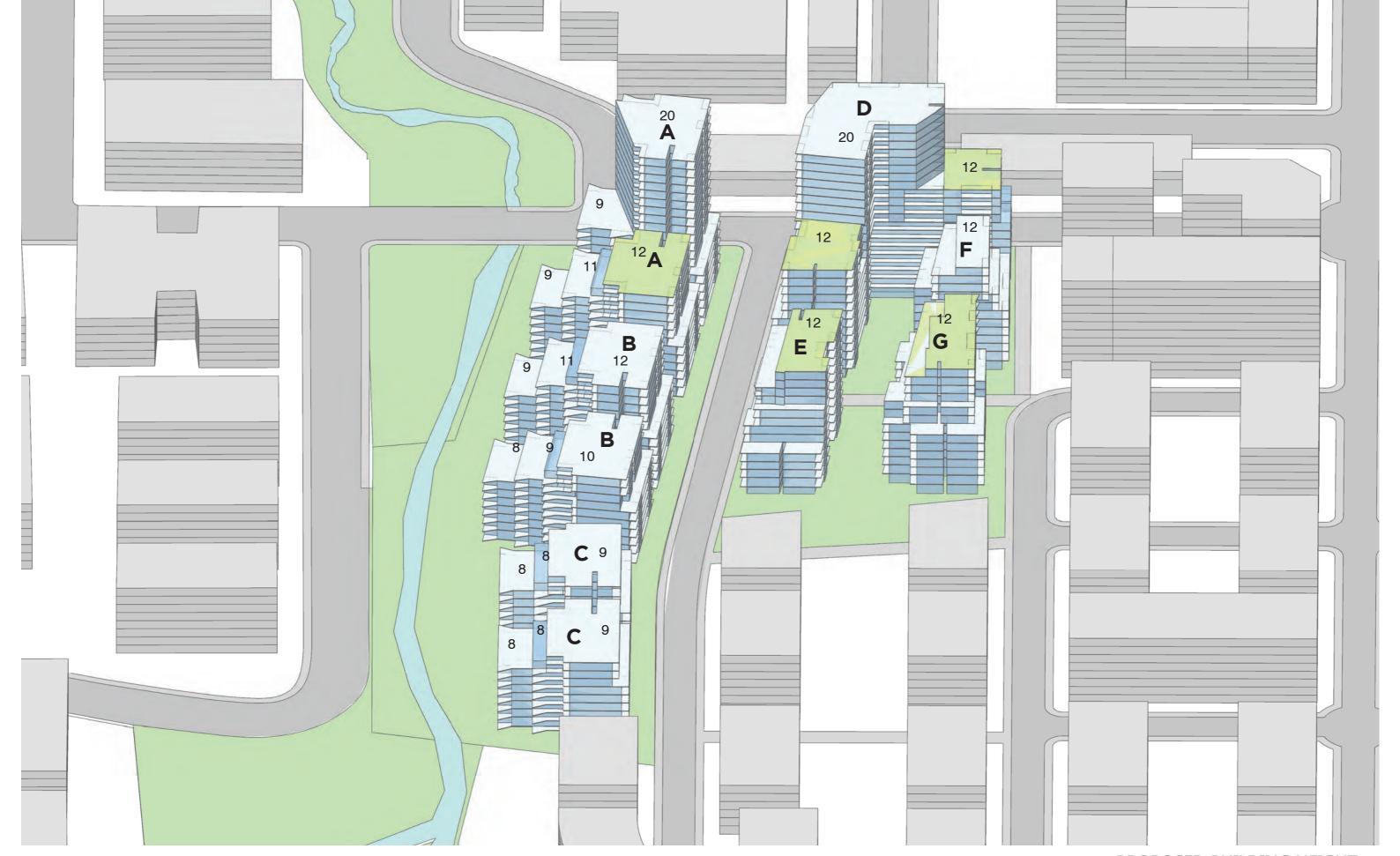




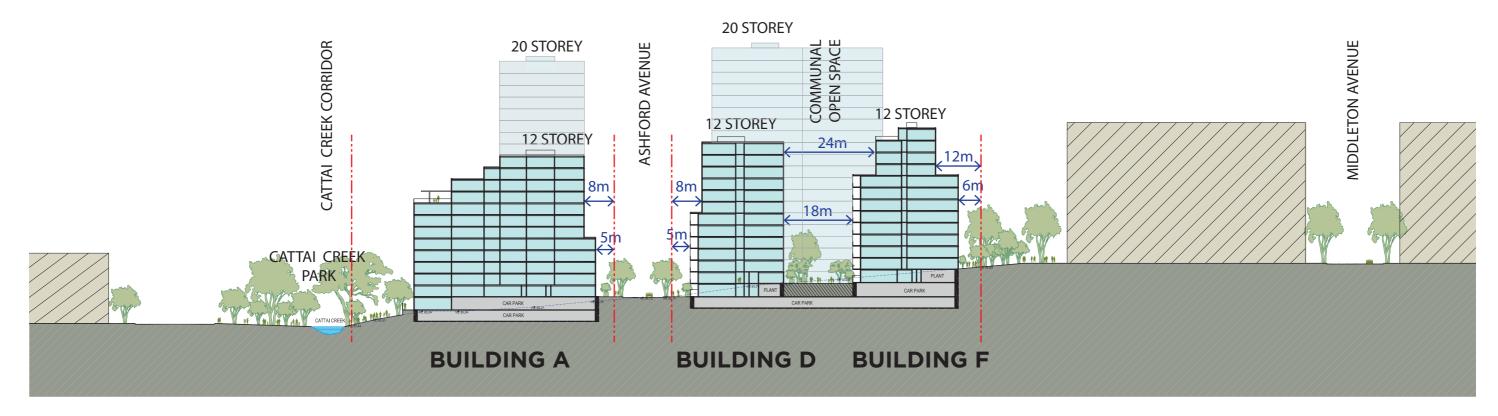




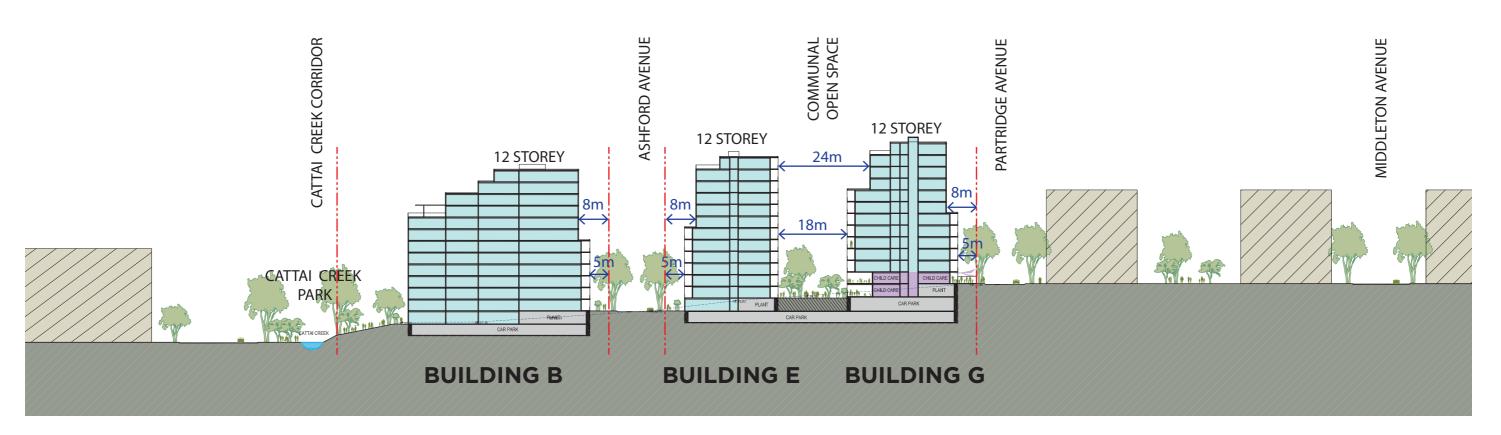




PROPOSED BUILDING HEIGHT

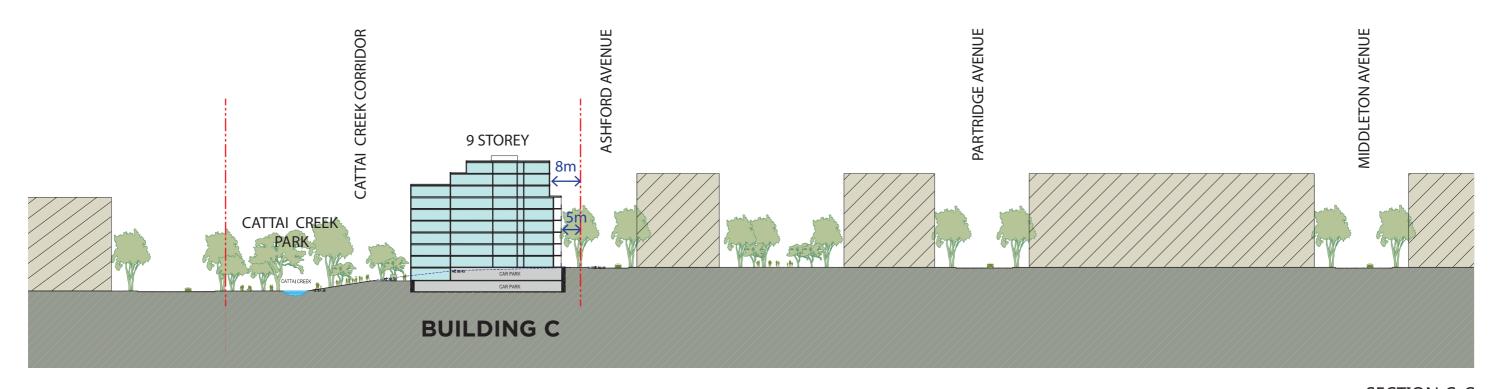


SECTION A-A

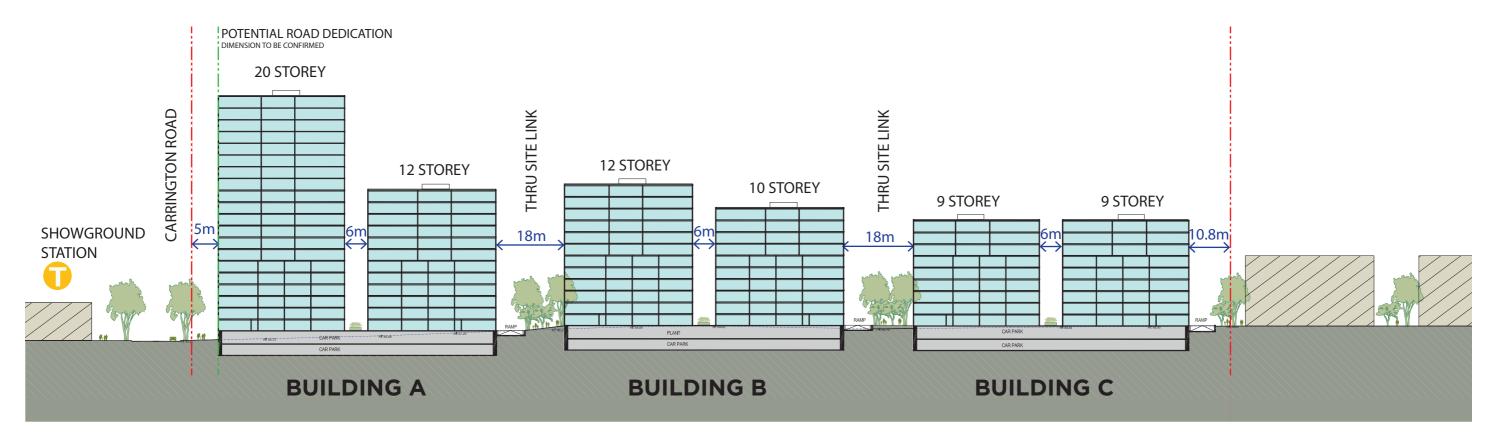


SECTION B-B

SECTIONS

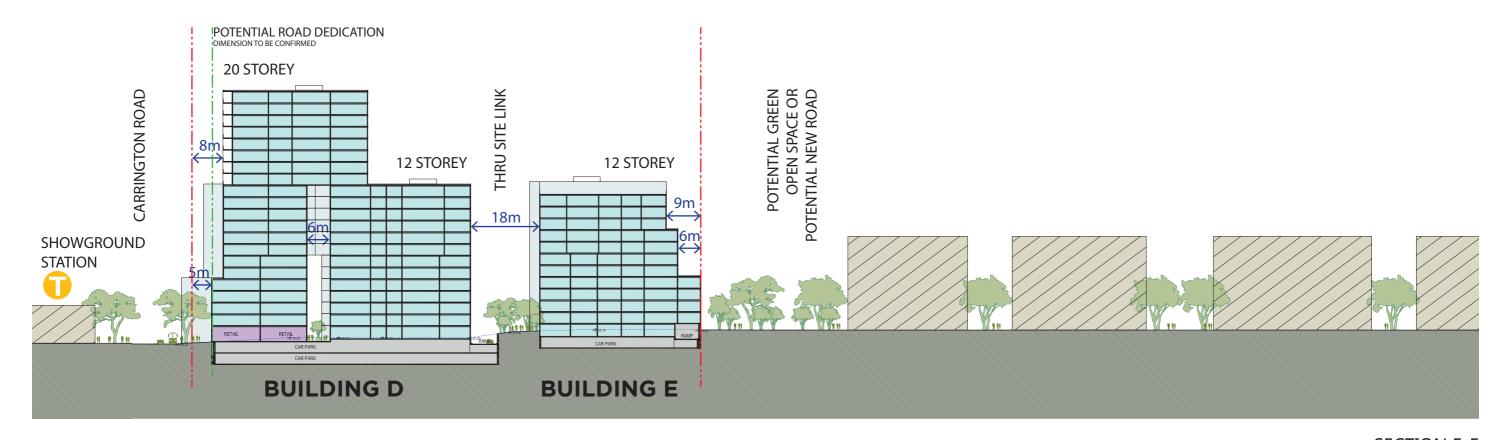


SECTION C-C

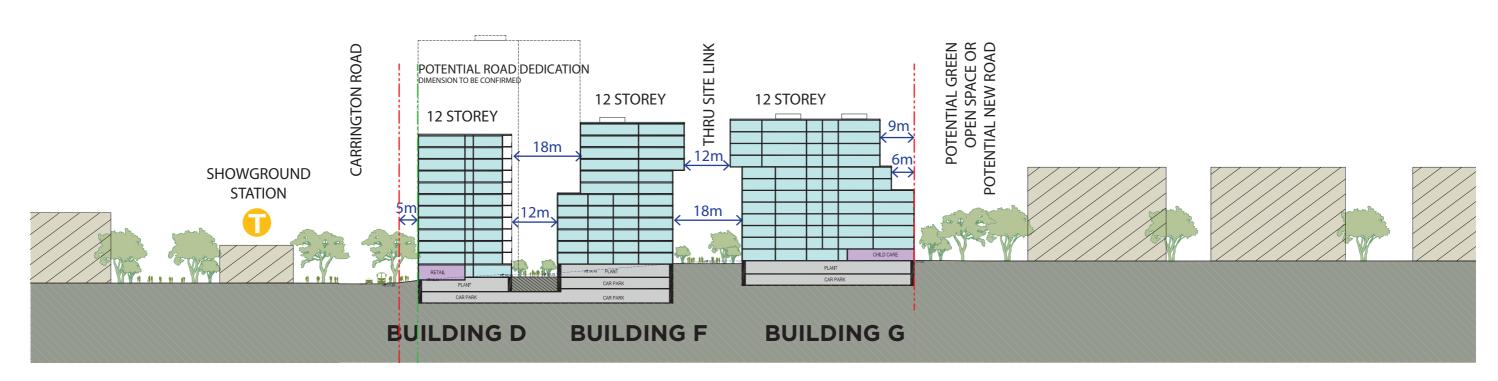


SECTION D-D

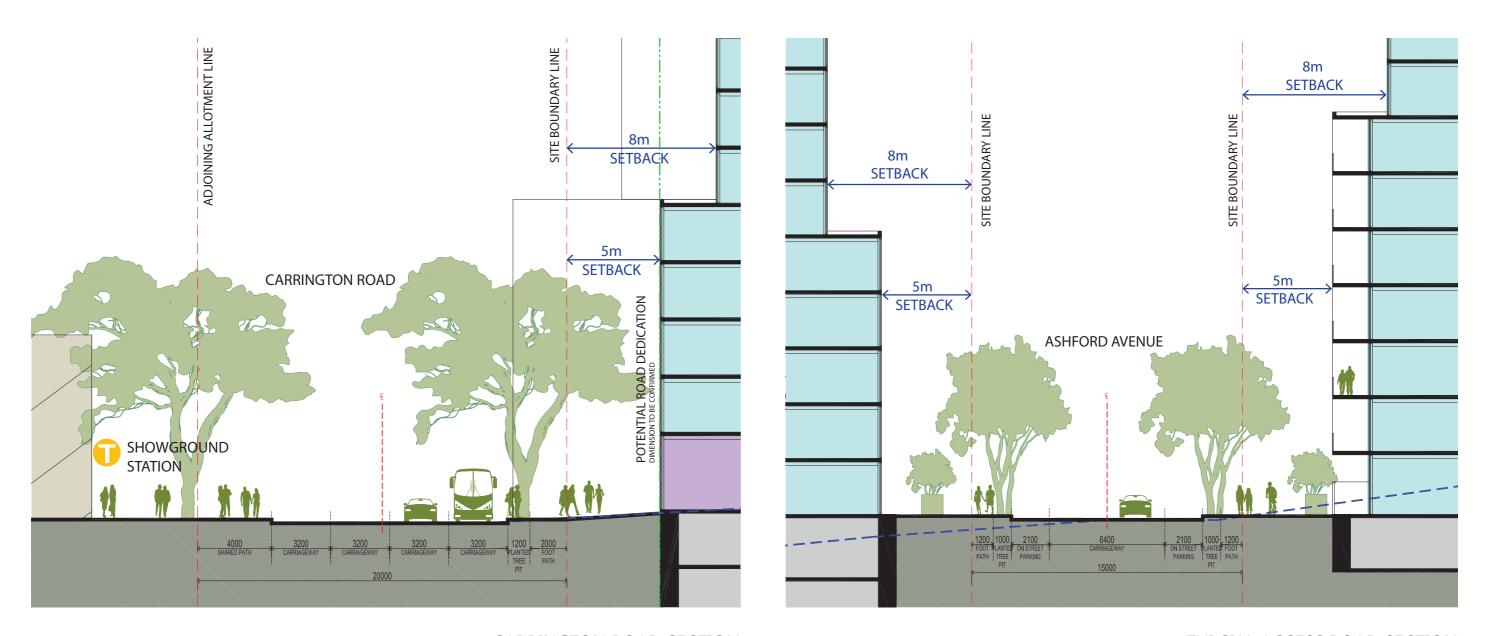
SECTIONS



SECTION E-E



SECTION F-F
SECTIONS



CARRINGTON ROAD SECTION

TYPCIAL ACCESS ROAD SECTION

STREETSCAPE INTERFACE

Site Area: 32,239.20 m² Consent Authority:

	BUILDING A				
		Retail			
		GFA	GFA (sqm)		UNITS
	Ground	61.20	657.30		7
	Level 1		1,904.00		22
	Level 2		1,969.10		22
	Level 3		1,956.90		22
	Level 4		1,956.90		22
	Level 5		1,969.10		22
	Level 6		1,969.10		22
	Level 7		1,800.20		20
_	Level 8		1,790.10		20
D-1	Level 9		1,466.30		17
ш	Level 10		1,466.30		17
SITE	Level 11		1,466.30		17
0,	Level 12		1,210.20		15
	Level 13		653.30		8
	Level 14		653.30		8
	Level 15		653.30		8
	Level 16		653.30		8
	Level 17		653.30		8
	Level 18		653.30		8
	Level 19		653.30		8
	Level 20		653.30		8
	Total	61.20	26,808.20	-	309

BUILDING B				
	Retail			
	GFA	GFA (sqm)		UNITS
Ground		1,051.80		12
Level 1		2,075.00		24
Level 2		2,110.20		24
Level 3		2,122.80		24
Level 4		2,122.80		24
Level 5		2,121.20		24
Level 6		2,121.20		24
Level 7		1,955.50		22
Level 8		1,776.60		20
Level 9		1,466.90		17
Level 10		1,371.90		16
Level 11		662.10		8
Level 12		558.50		
Total	-	21,516.50	-	246

BUILDING C	<u>:</u>			
	Retail			
	GFA	GFA (sqm)		UNITS
Ground		321.40		4
Level 1		1,745.40		20
Level 2		1,789.30		20
Level 3		1,795.30		20
Level 4		1,795.30		20
Level 5		1,775.20		20
Level 6		1,775.20		20
Level 7		1,626.30		18
Level 8		1,299.10		16
Level 9		1,102.70		14
_				
Total	-	15,025.20	-	172

BUILDING E				
	Retail			
	GFA	GFA (sqm)		UNITS
Ground	455.70			0
Level 1		728.50		8
Level 2		777.00		9
Level 3		777.00		9
Level 4		777.00		9
Level 5		653.90		8
Level 6		653.90		8
Level 7		593.80		7
Level 8		593.80		7
Level 9		454.20		7
Level 10		552.60		7
Level 11		377.00		6
Level 12		377.00		6
Total	455.70	7,315.70	0	91

Level 20		989.30	11
Level 19		989.30	11
Level 18		989.30	11
Level 17		989.30	11
Level 16		989.30	11
Level 15		989.30	11
Level 14		989.30	11
Level 13		989.30	11
Level 12		1,661.80	20
Level 11		1,661.80	20
Level 10		1,661.80	20
Level 9		1,661.80	20
Level 8		1,635.60	20
Level 7		1,635.60	20
Level 6		1,700.80	20
Level 5		1,700.80	20
Level 4		1,833.80	20
Level 3		1,833.80	20
Level 2	141.40	1,753.50	20
Level 1	141.40	1,567.00	19
Ground	586.30	388.80	5
	Retail GFA	GFA (sqm)	UNITS

BUILDING F				
	Retail			
	GFA	GFA (sqm)		UNITS
Ground		261.20		3
Level 1	334.30	337.40		8
Level 2		644.60		8
Level 3		644.60		7
Level 4		644.60		7
Level 5		644.60		7
Level 6		644.60		7
Level 7		440.30		5
Level 8		440.30		5
Level 9		330.60		4
Level 10		330.60		4
Level 11		330.60		4
Level 12		204.40		2
Total	334.30	5,898.40	-	71

BUILDING G				
	Retail			
	GFA	GFA (sqm)		UNITS
Ground	211.10	240.10		4
Level 1	318.40	528.60		6
Level 2		898.80		11
Level 3		898.80		11
Level 4		898.80		11
Level 5		898.80		11
Level 6		898.80		11
Level 7		701.30		10
Level 8		701.30		10
Level 9		572.40		7
Level 10		572.40		7
Level 11		572.10		7
Level 12		379.10		4
Total	529.50	8,761.30	-	110

TOTAL				
	Retail			
	GFA (sqm)	GFA (sqm)	GFA in RE1	UNITS
BUILDING A	61.20	26,808.20		309
BUILDING B	-	21,516.50		246
BUILDING C	-	15,025.20		172
BUILDING D	727.70	29,339.00		332
BUILDING E	455.70	7,315.70		91
BUILDING F	334.30	5,898.40		71
BUILDING G	529.50	8,761.30		110
TOTAL	1,578.90	114,664.30	-	1,331

SITE D-1					site area:	14,318.00	sqm
building	RetailGFA (sqm)	GFA (sqm)	GFA in RE1	UNITS	FSR		1
A, B	61.20	48,324.70	0	555	3.38	:1	1

SITE D-2					site area:	7,432.00
building	RetailGFA (sqm)	GFA (sqm)	GFA in RE1	UNITS	FSR	
С	-	15,025.20	0	172	2.02	:1

SITE D-1 & D)-2				site area:	21,750.00
building	RetailGFA (sqm)	GFA (sqm)	GFA in RE1	UNITS	FSR	
A, B,C	61.20	63,349.90	,	727	2.92	:1

SITE D-3					site area:	6,723.20	sqm
building	RetailGFA (sqm)	GFA (sqm)	GFA in RE1	UNITS	FSR		1
D, F	1,517.70	35,237.40	0	403	5.47	:1]
							-

SITE D-4					site area:	3,766.00	sqm
building	RetailGFA (sqm)	GFA (sqm)	GFA in RE1	UNITS	FSR		1
E, G	1,578.90	16,077.00	0	201	4.69	:1	1

Combined Site Area - 32,239.20 sqm
Combined FSR - 3.61 :1
116,243.20 sqm

Residential FSR - 3.56 :1

OVERALL Calcutation

Retail FSR - 0.05 :1

AREA SCHEDULE

Building A	Studio	1 Bed	2 Bed	3 Bed	TOTAL	Ventilated units	Solar
Ground Level		1	5	1	7	3	6
Level 1		7	12	3	22	9	13
Level 2		5	10	7	22	15	14
Level 3		5	10	7	22	15	14
Level 4		5	10	7	22	15	14
Level 5		5	10	7	22	15	15
Level 6		5	10	7	22	15	15
Level 7		3	12	5	20	15	14
Level 8		4	12	4	20	14	14
Level 9		4	9	4	17		11
Level 10		4	9	4	17		11
Level 11		4	9	4	17		11
Level 12		4	10	1	15		13
Level 13		2	5	1	8		6
Level 14		2	5	1	8		7
Level 15		2	5	1	8		7
Level 16		2	5	1	8		7
Level 17		2	5	1	8		7
Level 18		2	5	1	8		7
Level 19		2	5	1	8		7
Level 20		2	5	1	8		8
TOTAL	0	72	168	69	309	116	221 -4
		to	tal units for	first 9 storey	- 179	64.80%	71 52%

Building B	Studio	1 Bed	2 Bed	3 Bed	TOTAL	Ventilated units	Solar
Ground Level		2	6	4	12	4	4
Level 1		6	16	2	24	10	12
Level 2		5	13	6	24	15	13
Level 3		7	9	8	24	13	14
Level 4		7	9	8	24	13	14
Level 5		7	9	8	24	13	17
Level 6		7	9	8	24	13	17
Level 7		5	11	6	22	13	18
Level 8		6	8	6	20	10	18
Level 9		6	6	5	17		16
Level 10		4	9	3	16		15
Level 11		3	3	2	8		8
Level 12		2	5		7		7
TOTAL		67	113	66	246	104	17
		to	tal units for	first 9 storey	198	52 53%	70 33%

Building C	Studio	1 Bed	2 Bed	3 Bed	TOTAL	Ventilated units	Solar
Ground Level			4		4	4	0
Level 1		6	12	2	20	10	10
Level 2		7	5	8	20	13	13
Level 3		7	5	8	20	13	14
Level 4		7	5	8	20	13	16
Level 5		8	4	8	20	12	16
Level 6		8	4	8	20	12	16
Level 7		5	7	6	18	13	18
Level 8		7	5	4	16	9	16
Level 9		4	10		14		14
		•	•	<u> </u>			
TOTAL		59	61	52	172	99	133
			total units	for first 9 storey:	158	62.66%	77.33%

Building D	Studio	1 Bed	2 Bed	3 Bed	TOTAL	Ventilated units	Solar
Ground Level		2	3		5	2	4
Level 1		9	7	3	19	9	10
Level 2		3	15	2	20	13	13
Level 3		3	12	5	20	13	15
Level 4		3	12	5	20	13	15
Level 5		2	15	3	20	12	15
Level 6		2	15	3	20	12	15
Level 7		3	16	1	20	12	15
Level 8		5	14	1	20	12	15
Level 9		5	14	1	20		15
Level 10		4	16	0	20		15
Level 11		4	16	0	20		15
Level 12		4	16	0	20		17
Level 13		1	10	0	11		8
Level 14		1	10	0	11		8
Level 15		1	10	0	11		8
Level 16		1	10	0	11		8
Level 17		1	10	0	11		9
Level 18		1	10	0	11		9
Level 19		1	10	0	11		10
Level 20		1	10	0	11		10
TOTAL	0	57	251	24	332	98	249
·		1	total units for	first 9 storey:	164	59.76%	75.00%

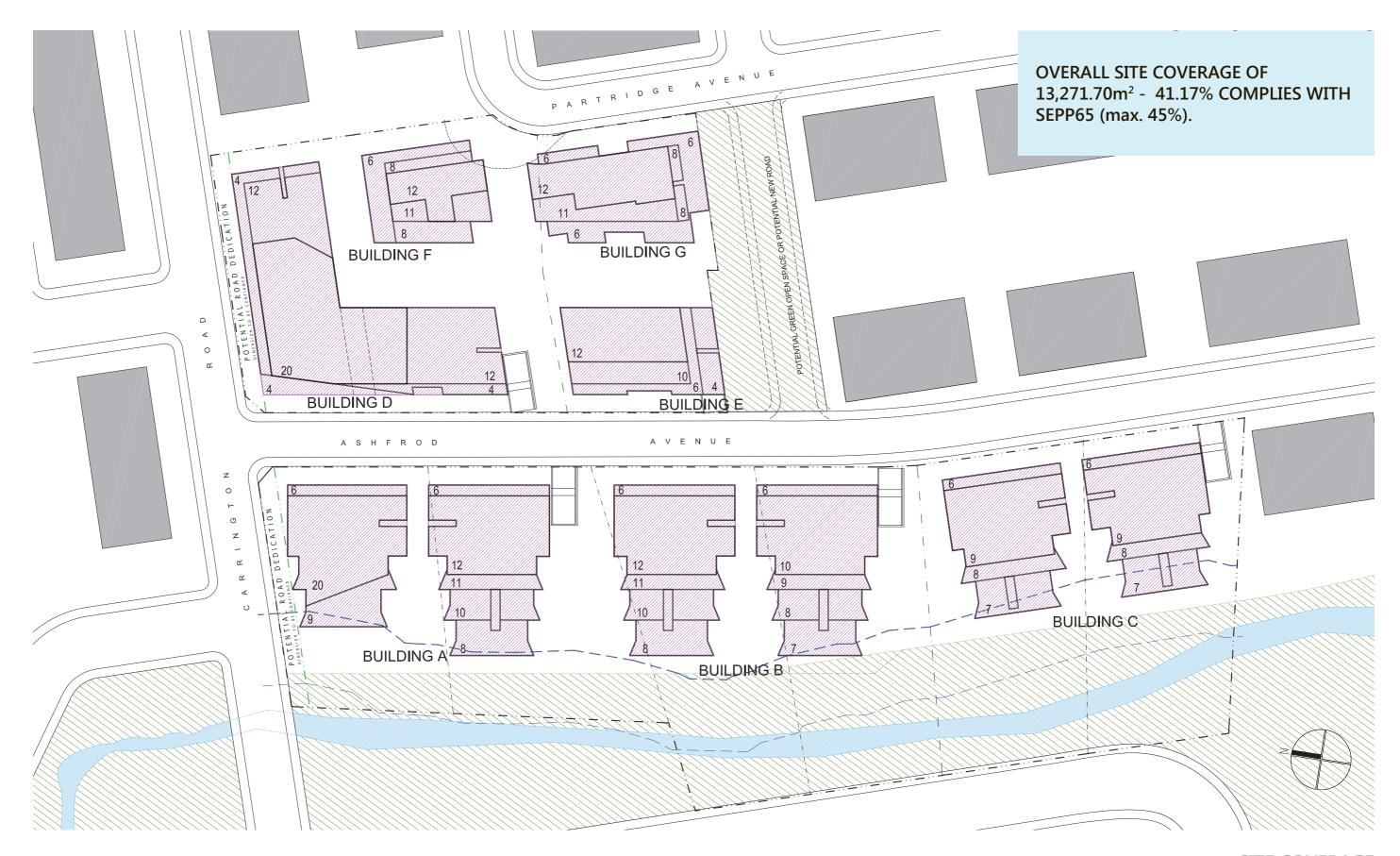
Building E	Studio	1 Bed	2 Bed	3 Bed	TOTAL	Ventilated units	Solar
Ground Level		0	0	0	0	•	0
Level 1		2	4	2	8	6	4
Level 2		2	6	1	9	6	4
Level 3		2	6	1	9	6	4
Level 4		2	6	1	9	6	4
Level 5		1	7		8	6	5
Level 6		1	7		8	6	6
Level 7		1	5	1	7	6	6
Level 8		1	5	1	7	6	6
Level 9		2	4	1	7		6
Level 10		2	4	1	7		7
Level 11		5	1	0	6		6
Level 12		5	1	0	6		6
TOTAL	0	26	56	9	91	48	64
		t	otal units fo	r first 9 storey:	65	73.85%	70.33%

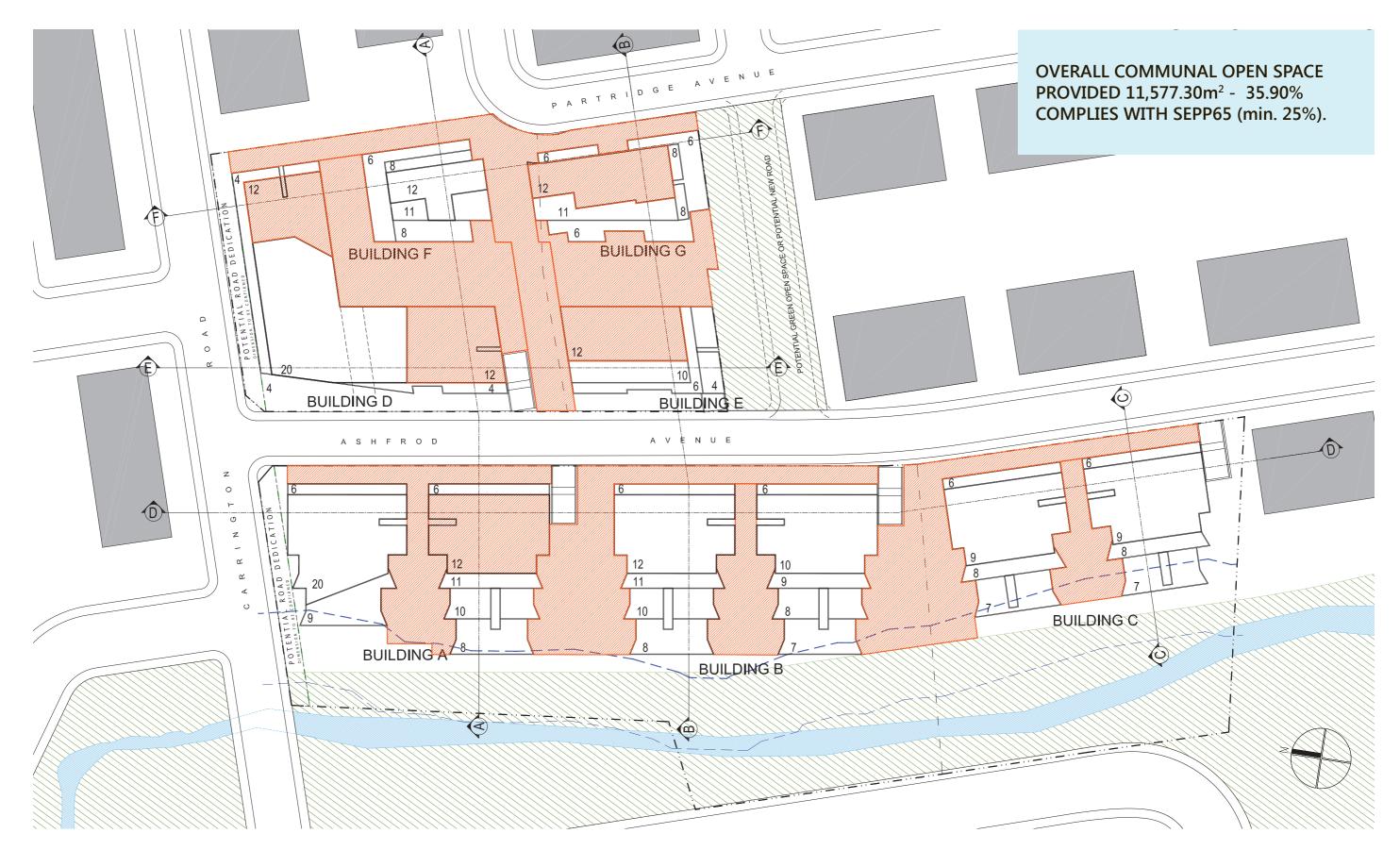
Building F	Studio	1 Bed	2 Bed	3 Bed	TOTAL	Ventilated units	Solar	
Ground Level		1	2		3	2	0	
Level 1		2	4	2	8	3	0	
Level 2		3	5	0	8	5	6	
Level 3		1	3	3	7	3	5	
Level 4		1	3	3	7	3	5	
Level 5		1	3	3	7	3	5	
Level 6		1	3	3	7	3	5	
Level 7		1	3	1	5	3	5	
Level 8		1	3	1	5	3	5	
Level 9		2	2		4		4	
Level 10		2	2		4		4	
Level 11		2	2		4		4	
Level 12				2	2		2	
TOTAL	0	18	35	18	71	28		50 -
			total units	for first 9 storey:	57	49 12%	70 42%	_

Building G	Studio	1 Bed	2 Bed	3 Bed	TOTAL	Ventilated units	Solar
Ground Level		4			4	2	0
Level 1			6		6	5	4
Level 2		2	8	1	11	8	6
Level 3		2	8	1	11	8	8
Level 4		2	8	1	11	8	8
Level 5		2	8	1	11	8	9
Level 6		2	8	1	11	8	9
Level 7		5	5		10	8	7
Level 8		5	5		10	8	9
Level 9		2	5		7		5
Level 10		2	5		7		6
Level 11		2	5		7		6
Level 12			2	2	4		4
TOTAL	0	30	73	7	110	63	81
		to	tal units for	first 9 storey:	85	74.12%	73.64%

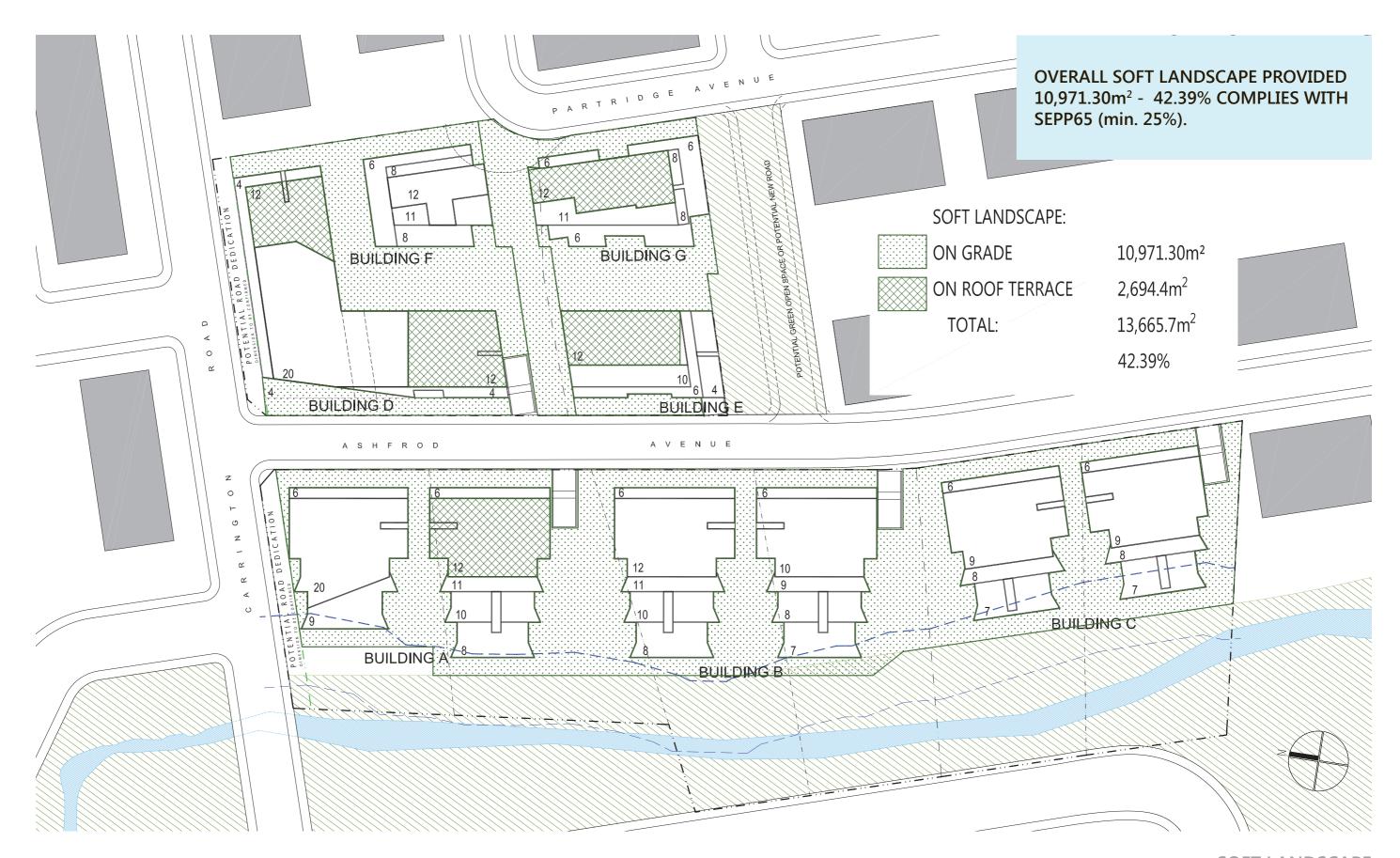
UNIT MIX	STUIDO	1 BED	2 BED	3 BED		Cross Ventilation	Solar
BUILDING A	0%	23%	54%	22%	1	65%	71.52%
BUILDING B	0%	27%	46%	27%]	53%	70.33%
BUILDING C	0%	34%	35%	30%]	63%	77.33%
BUILDING D	0%	17%	76%	7%	1	60%	75.00%
BUILDING E	0%	29%	62%	10%	1	74%	70.33%
BUILDING F	0%	25%	49%	25%]	49%	70.42%
BUILDING G	0%	27%	66%	6%]	74%	73.64%
TOTAL UNIT	0	329	757	245	1,331.00	61.37%	72.95%
T MIX PERCENTA	AGE 0%	25%	57%	18%			

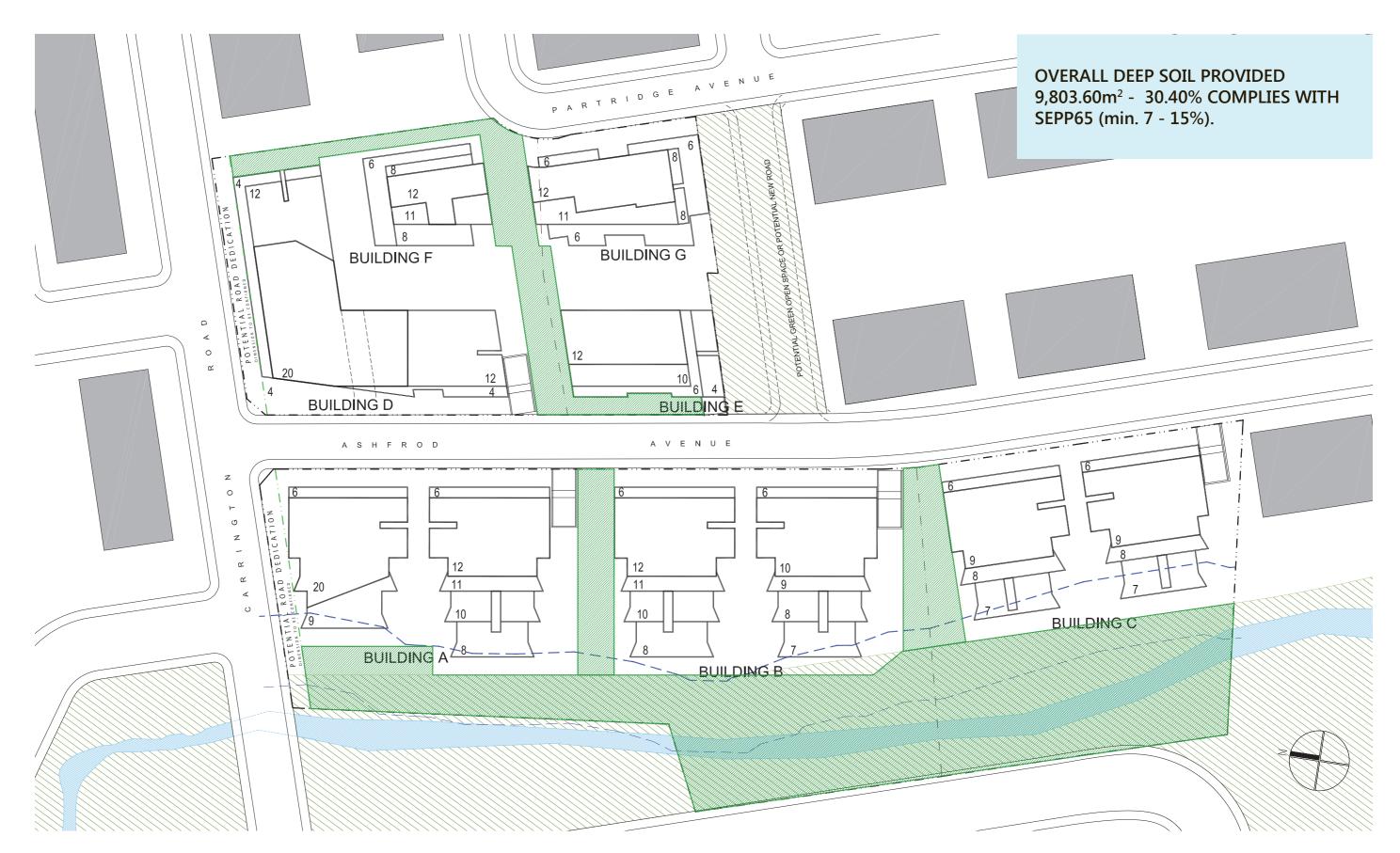
UNIT MIX & SEPP65 COMPLIANCE





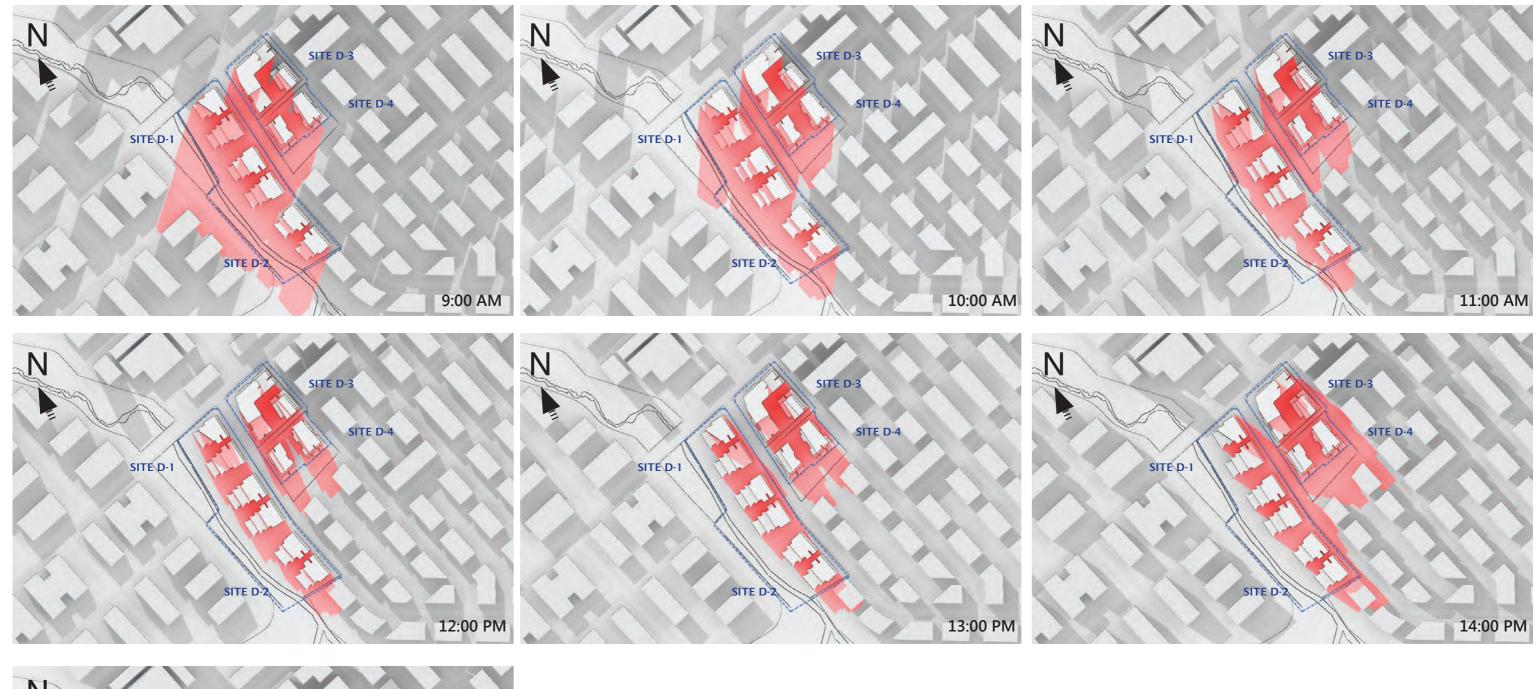
COMMUNAL OPEN SPACE





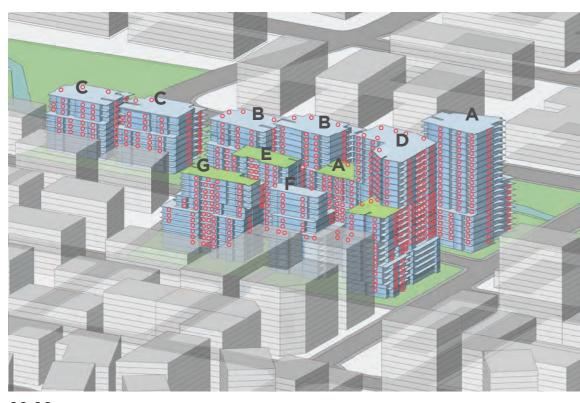
DEEP SOIL CALCULATION

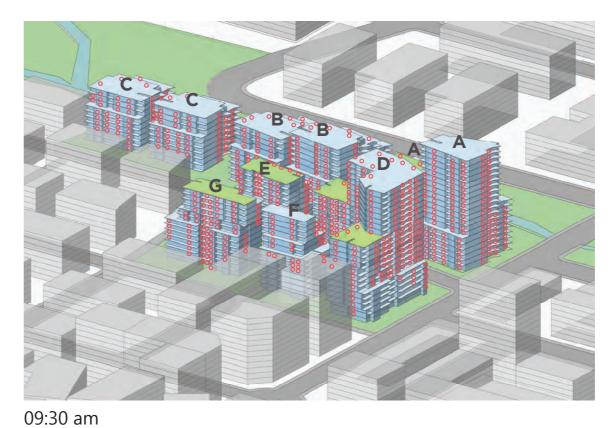






SHADOW DIAGRAMS -June 21st





09:00 am





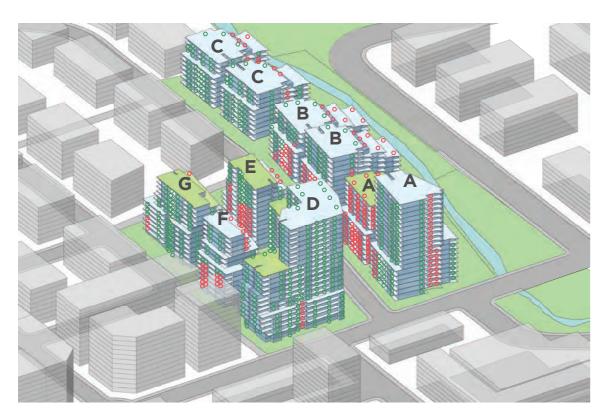
10:00 am 10:30 am

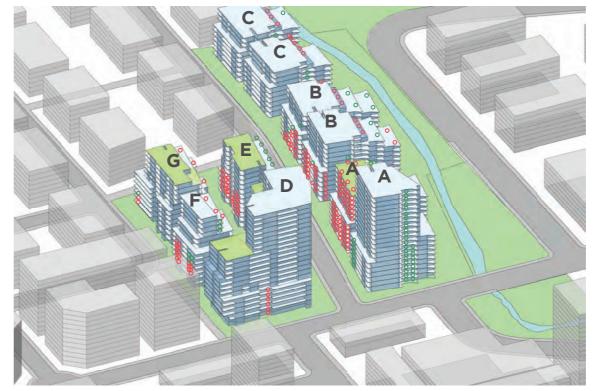


SEPP65 SOLAR ACCESS 0-1 hour

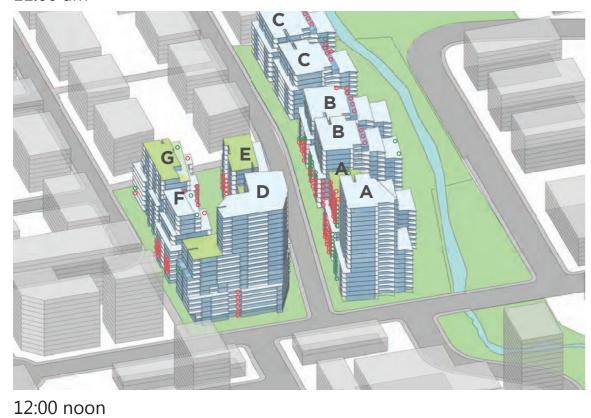
O SEP

SEPP65 SOLAR ACCESS 2+ hours (COMPLIANT)

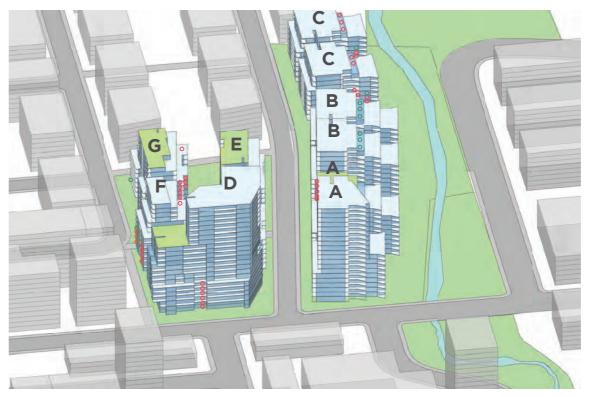




11:00 am



11:30 am



12:30 pm

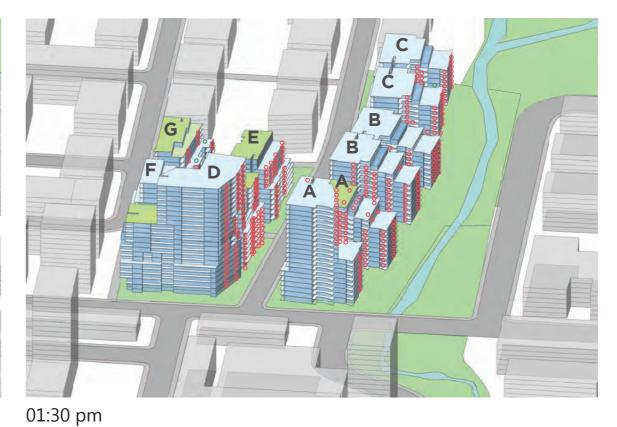


SEPP65 SOLAR ACCESS 0-1 hour



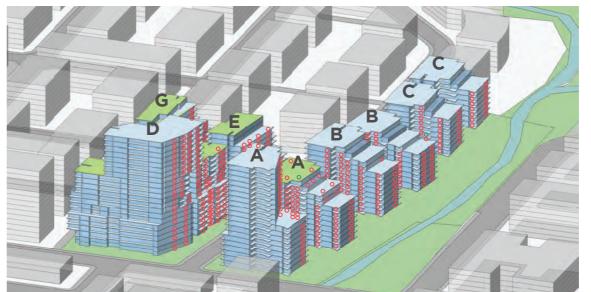
SEPP65 SOLAR ACCESS 2+ hours (COMPLIANT)





01:00 pm





02:00 pm 02:30 pm



SEPP65 SOLAR ACCESS 0-1 hour

ŏ

SEPP65 SOLAR ACCESS 2+ hours (COMPLIANT)



03:00 pm

TOTAL 72.00% OF APARTMENTS RECEIVE AT LEAST 2 HOURS OF DIRECT SUNLIGHT BETWEEN 9am AND 3pm AT MID WINTER TO THEIR LIVING ROOMS AND PRIVATE OPEN SPACE COMPLIES WITH SEPP65.

Building A	TOTAL	Solar
Ground Level	7	6
Level 1	22	13
Level 2	22	14
Level 3	22	14
Level 4	22	14
Level 5	22	15
Level 6	22	15
Level 7	20	14
Level 8	20	14
Level 9	17	11
Level 10	17	11
Level 11	17	11
Level 12	15	13
Level 13	8	6
Level 14	8	7
Level 15	8	7
Level 16	8	7
Level 17	8	7
Level 18	8	7
Level 19	8	7
Level 20	8	8
TOTAL	309	221 -4.7
	179	71.52%

Building B	TOTAL	Solar
Ground Level	12	4
Level 1	24	12
Level 2	24	13
Level 3	24	14
Level 4	24	14
Level 5	24	17
Level 6	24	17
Level 7	22	18
Level 8	20	18
Level 9	17	16
Level 10	16	15
Level 11	8	8
Level 12	7	7
TOTAL	246	173
·	198	70.33%

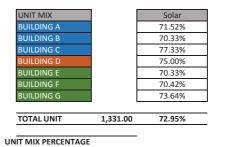
Building C	TOTAL	Solar
Ground Level	4	0
Level 1	20	10
Level 2	20	13
Level 3	20	14
Level 4	20	16
Level 5	20	16
Level 6	20	16
Level 7	18	18
Level 8	16	16
Level 9	14	14
TOTAL	172	133
	158	77.33%
		15570

Building D	TOTAL	Solar
Ground Level	5	4
Level 1	19	10
Level 2	20	13
Level 3	20	15
Level 4	20	15
Level 5	20	15
Level 6	20	15
Level 7	20	15
Level 8	20	15
Level 9	20	15
Level 10	20	15
Level 11	20	15
Level 12	20	17
Level 13	11	8
Level 14	11	8
Level 15	11	8
Level 16	11	8
Level 17	11	9
Level 18	11	9
Level 19	11	10
Level 20	11	10
TOTAL	332	249
	164	75.00%

Building E	TOTAL	Solar	
Ground Level	0	0	_
Level 1	8	4	
Level 2	9	4	
Level 3	9	4	
Level 4	9	4	
Level 5	8	5	
Level 6	8	6	
Level 7	7	6	
Level 8	7	6	
Level 9	7	6	
Level 10	7	7	
Level 11	6	6	
Level 12	6	6	
			_
TOTAL	91	6	-0
	65	70.33%	

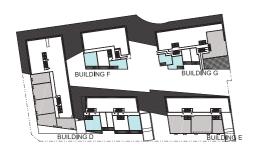
Building F	TOTAL	Solar
Ground Level	3	0
Level 1	8	0
Level 2	8	6
Level 3	7	5
Level 4	7	5
Level 5	7	5
Level 6	7	5
Level 7	5	5
Level 8	5	5
Level 9	4	4
Level 10	4	4
Level 11	4	4
Level 12	2	2
	_	
TOTAL	71	50
	57	70.42%

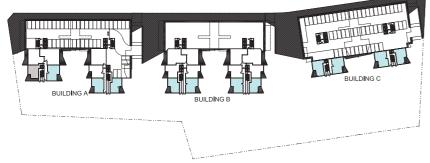
Building G	TOTAL	Solar
Ground Level	4	0
Level 1	6	4
Level 2	11	6
Level 3	11	8
Level 4	11	8
Level 5	11	9
Level 6	11	9
Level 7	10	7
Level 8	10	9
Level 9	7	5
Level 10	7	6
Level 11	7	6
Level 12	4	4
TOTAL	110	81
	85	73.64%

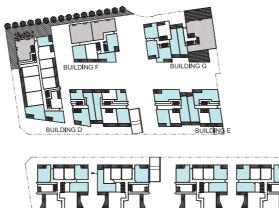


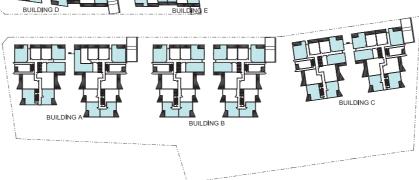
SEPP65 SOLAR ACCESS 0-1 hour

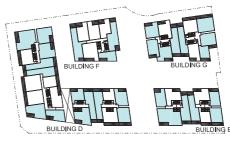
SEPP65 SOLAR ACCESS 2+ hours (COMPLIANT)

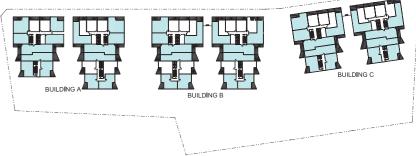






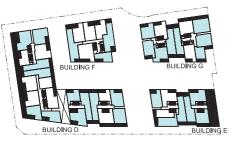


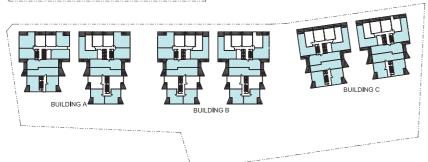




LEVEL 1 TYPICAL LEVEL 2 - 4



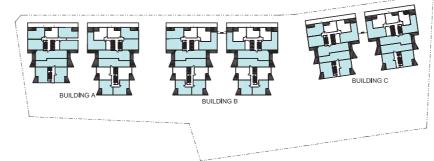




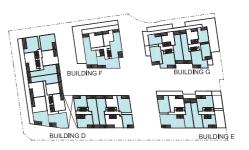
LEVEL 5 - 6

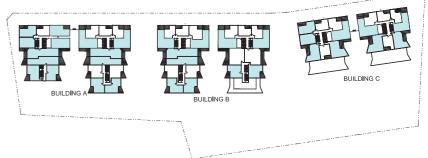
* ADG Design Criteria: At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed











LEVEL 8

TOTAL OF 61.41% OF APARTMENTS ARE NATURALLY CROSS VENTILATED COMPLIES WITH SEPP65.

VENTILATION DIAGRAM

Building A	TOTAL	Ventilated units
Ground Level	7	3
Level 1	22	9
Level 2	22	15
Level 3	22	15
Level 4	22	15
Level 5	22	15
Level 6	22	15
Level 7	20	15
Level 8	20	14
Level 9	17	
Level 10	17	
Level 11	17	
Level 12	15	
Level 13	8	
Level 14	8	
Level 15	8	
Level 16	8	
Level 17	8	
Level 18	8	
Level 19	8	
Level 20	8	
TOTAL	309	116
	179	64.80%

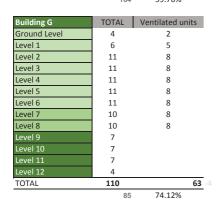
Building B	TOTAL	Ventilated units
Ground Level	12	4
Level 1	24	10
Level 2	24	15
Level 3	24	13
Level 4	24	13
Level 5	24	13
Level 6	24	13
Level 7	22	13
Level 8	20	10
Level 9	17	
Level 10	16	
Level 11	8	
Level 12	7	
TOTAL	246	104

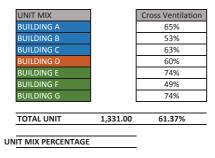
Building C	TOTAL	Ventilated uni	ts
Ground Level	4	4	
Level 1	20	10	
Level 2	20	13	
Level 3	20	13	
Level 4	20	13	
Level 5	20	12	
Level 6	20	12	
Level 7	18	13	
Level 8	16	9	
Level 9	14		
·			
TOTAL	172		99
	158	62.66%	

Building D	TOTAL	Ventilated units
Ground Level	5	2
Level 1	19	9
Level 2	20	13
Level 3	20	13
Level 4	20	13
Level 5	20	12
Level 6	20	12
Level 7	20	12
Level 8	20	12
Level 9	20	
Level 10	20	
Level 11	20	
Level 12	20	
Level 13	11	
Level 14	11	
Level 15	11	
Level 16	11	
Level 17	11	
Level 18	11	
Level 19	11	
Level 20	11	
TOTAL	332	98
	16/	50 76%

Building E	TOTAL	Ventilated units
Ground Level	0	
Level 1	8	6
Level 2	9	6
Level 3	9	6
Level 4	9	6
Level 5	8	6
Level 6	8	6
Level 7	7	6
Level 8	7	6
Level 9	7	
Level 10	7	
Level 11	6	
Level 12	6	
TOTAL	91	48
	65	73.85%

Building F	TOTAL	Ventilated units
Ground Level	3	2
Level 1	8	3
Level 2	8	5
Level 3	7	3
Level 4	7	3
Level 5	7	3
Level 6	7	3
Level 7	5	3
Level 8	5	3
Level 9	4	
Level 10	4	
Level 11	4	
Level 12	2	
TOTAL	71	28
•	57	49.12%





TOTAL OF 61.37% OF APARTMENTS ARE NATURALLY CROSS VENTILATED COMPLIES WITH SEPP65.

VENTILATION DIAGRAM



VIEW SOUTH TO CATTAI CREEK



VIEW EAST TO CATTAI CREEK



VIEW SOUTH-EAST TO CARRINGTON ROAD



THRU SITE LINK TO CARRINGTON ROAD





Place Design Group Pty Ltd T +61 2 9290 3300

Surry Hills 2010 NSW Australia T +61 2 9290 3300 LANDSCAPE CONCEPT PLAN
SHOWGROUNDS CORPORATION PTY LTD

Date	Project No.	Revision	DWG No.
16/10/2017	2516058	03	SK01

30M/ 1:500@A1 1:1000@A3

5. ZPPZNdix

Site Testing



Site Details

SITE 1

Site Address : 30,32,34,36 Carrington Rd

33,35-40,42,44 Ashford Ave

7,9,11,13 Partridge Ave

Site Area : 32,239.20sqm

Approximate R4 site area $\,$

:25,181sqm

Owner : Showground Corp Pty Ltd.

Notes:

Maximum Permissible GFA: 85,185sqm

ESD Miv	Calculator	for multi	zoned sites

FSR Zone	FSR	Site Ar	ea	Permissible GFA	A
SITE 1A&B					
V		3.0	6,867	20,601	
U		2.7	0	0	
T2		2.3	14,883	34,231	
Sub total			21,750	54,832	
SITE 1C&D					
V		3.0	6,775	20,325	
U		2.7	3,714	10,028	
T2		2.3	0	0	
Sub total			10,48	9 30,353	

LEP Controls







3.61:1

FSR

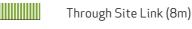
70 m

Height

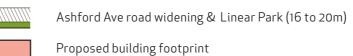
Site Address: 30,32,34,36 Carrington Rd;33,35-40,42,44 Ashford Ave;7,9,11,13 Partridge Ave









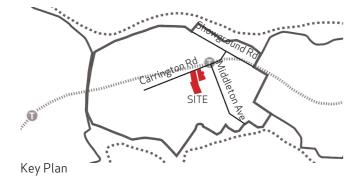




New Minor Local Road (16m)

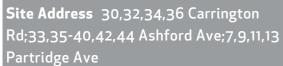
Land dedication to Cattai Creek

Site boundary line



Site Testing





Key Residential Parking Retail/ Active Uses Landscape area Total storeys Deep soil

Notes

Deep soil : Minimum 30%
Total landscaped area : Minimum 50%
Site coverage : Maximum 45%
Street wall height : 4 storeys
Setbacks : 5m
Setback above street wall : 8m to boundary

General Comments

Public Benefit

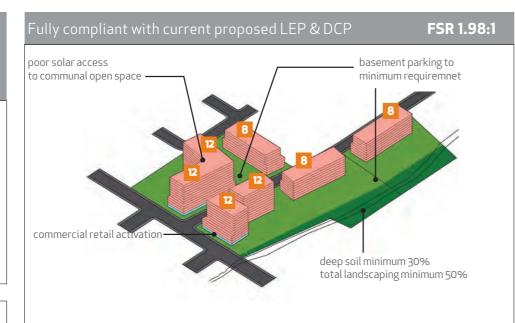
Added public accessible through site link to enhance connection to/from public green open space to Cattai Creek park:

Added public accessible through site link to enhance connection to/from Partridge Ave/ Carrington Rd public transport access;

Increased solar access to all communal open space

Building Heights :12 Storeys(Compliant);20 Storeys(Proposed)
FSR :1.98:1(Compliant);3.61:1(Proposed)

In relation to approximate R4 site area FSR- 4.63:1





Landuse: Residential
Building Ht : 12 storeys
GFA : 64,705.10sqm

Total GFA: 64,705.10sqm **FSR:** 1.98:1 **Max Ht:** 12 storeys/40m **Landscape:** complies **Comment:** under developed building footprint to permissible fsr

increased solar access to communal open space thru site link commercial retail activation proposal FSR 3.61:1 basement parking to minimum requirement progression of height 9 8 deep soil minimum 30% total landscaping minimum 50%



Landuse: Residential
Building Ht : 20 storeys
GFA : 116,500.00 sqm

Total GFA: 116,500.00 sqm FSR: 3.61:1 Max Ht: 20 storeys/70m Landscape: complies

Comment: added public accessble through site link to enhance connection to/from public green

open space to Cattai Creek park. Increase solar access to all communal open space

Showground Precinct Site 1 Carrington Road and Ashford Avenue Sites Addendum

This report was prepared in various forms in 2016 and finally lodged in its most recent form in September 2017. In October 2017 The Hills Council released a draft DCP. Subsequently The Department of Planning issued a Finalisation Report in December 2017. Following this, substantial discussions have taken place between the proponent, Council and the DoP. In response to these developments some aspects of this proposal have been amended to reflect the most recent thinking arising between the various stakeholders. This addendum summarizes these changes to the design proposal. The following is a list of changes:

- The alignment of the frontages of the building envelopes along Carrington Road has been setback to accommodate the required road dedication as requested by the RMS.
- The alignment of the frontages of the building envelopes along the western side of Ashford Avenue has been set back an additional 2m as designated in the DCP.
- The alignment of the frontages of the building envelopes along the western side of Partridge Avenue has been set back an additional 2m as designated in the DCP.
- The alignment of the building envelopes along the western side of Site 1a, 1b; buildings A,B,C have been set back additionally in order to satisfy a 20m riparian setback to Cattai creek and to remain outside the RE1 zone.
- The maximum building heights of Building A and Building D have been reduced from 20 storeys to 18 storeys.
- Additional envelope changes to ensure that the proposed envelopes are compliant with all ADG set-backs and general performance indicators such as ventilation and solar amenity.

These changes are summarized in the following diagrams:

- AD01 Revised site plan and building envelope diagram
 - AD02 Revised site cover and land use diagram
 - AD03 Revised Schedule of Areas

addendum



