

Metro Martin Place

Sydney Metro Martin Place Over Station Development Design Review Panel DRP #01 & #02

1 May 2018



Sydney Metro Martin Place Station Over Station Development DRP 01 & 02 - Agenda

OSD DRP 01 - Agenda Item	Details	Presenter	Duration
1. Introduction	<ul style="list-style-type: none"> Project team Planning update 	Anthony Henry, Macquarie	10 mins
2. Statutory Planning Context	<ul style="list-style-type: none"> Project framework Stage 1 SSDA Approval Conditions Approved Envelopes Sydney Metro Martin Place Station Precinct – Consolidated Design Guidelines Sydney Metro DRP open items 	Anthony Henry, Macquarie Alec Tzannes, Tzannes	30 mins
3. Sydney Metro Martin Place Station	<ul style="list-style-type: none"> Update on Metro station design OSD interface and integrated development Ground plane and public domain 	Matthew Cochrane, Grimshaw	20 mins
4. Integrated Metro programme	<ul style="list-style-type: none"> Martin Place Metro OSD in context of Metro programme 	Anthony Henry, Macquarie	10 mins
5. Design development & review to date	<ul style="list-style-type: none"> Sydney Metro DRP advice received to date 	Paul van Ratingen, JPW Alec Tzannes, Tzannes	20 mins
6. Panel questions	<ul style="list-style-type: none"> Panel questions and discussion 	Facilitated by Panel Chair	20 mins
7. Site visit	<ul style="list-style-type: none"> Meet at corner Martin Place and Elizabeth Street 	Anthony Henry	30 mins
OSD DRP 02 - Agenda Item	Details	Presenter	Duration
1. North Tower	<ul style="list-style-type: none"> Refresher to site design approach Key diagrams to explain building Datum lines Podium/tower – relationship to 50MP, building and ground plane sections Through site link Sketch form – where we were to changes being made Fly through and images North Tower 	Paul van Ratingen, JPW	45 mins
2. Panel questions	<ul style="list-style-type: none"> Panel questions and discussion 	Facilitated by Panel Chair	15 mins
3. Next steps & OSD DRP forward agenda	<ul style="list-style-type: none"> OSD DRP 03 Forward Agenda Project timeline and key milestones Stakeholder engagement and consultation 	Panel Chair Anthony Henry, Macquarie	10 mins

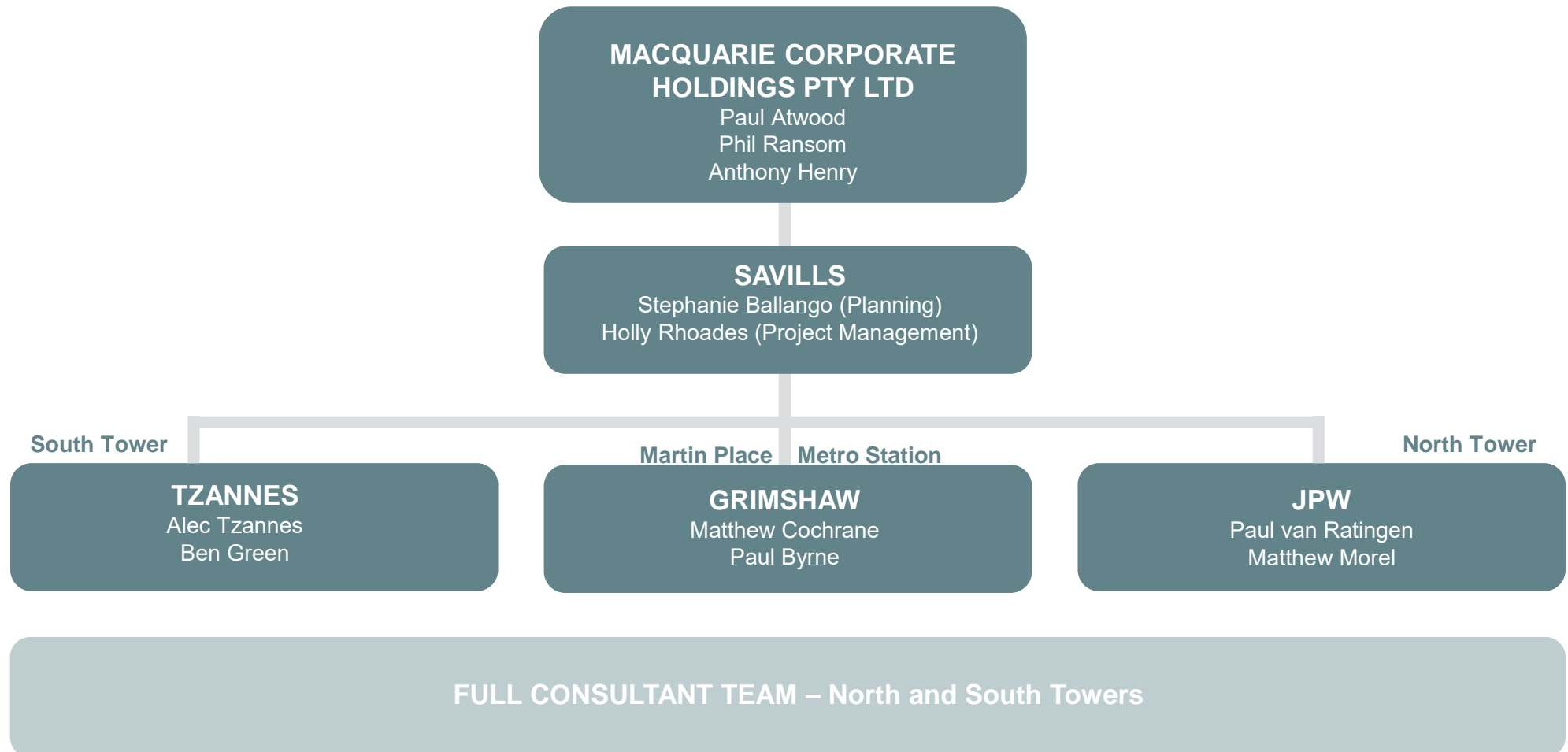


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Introduction

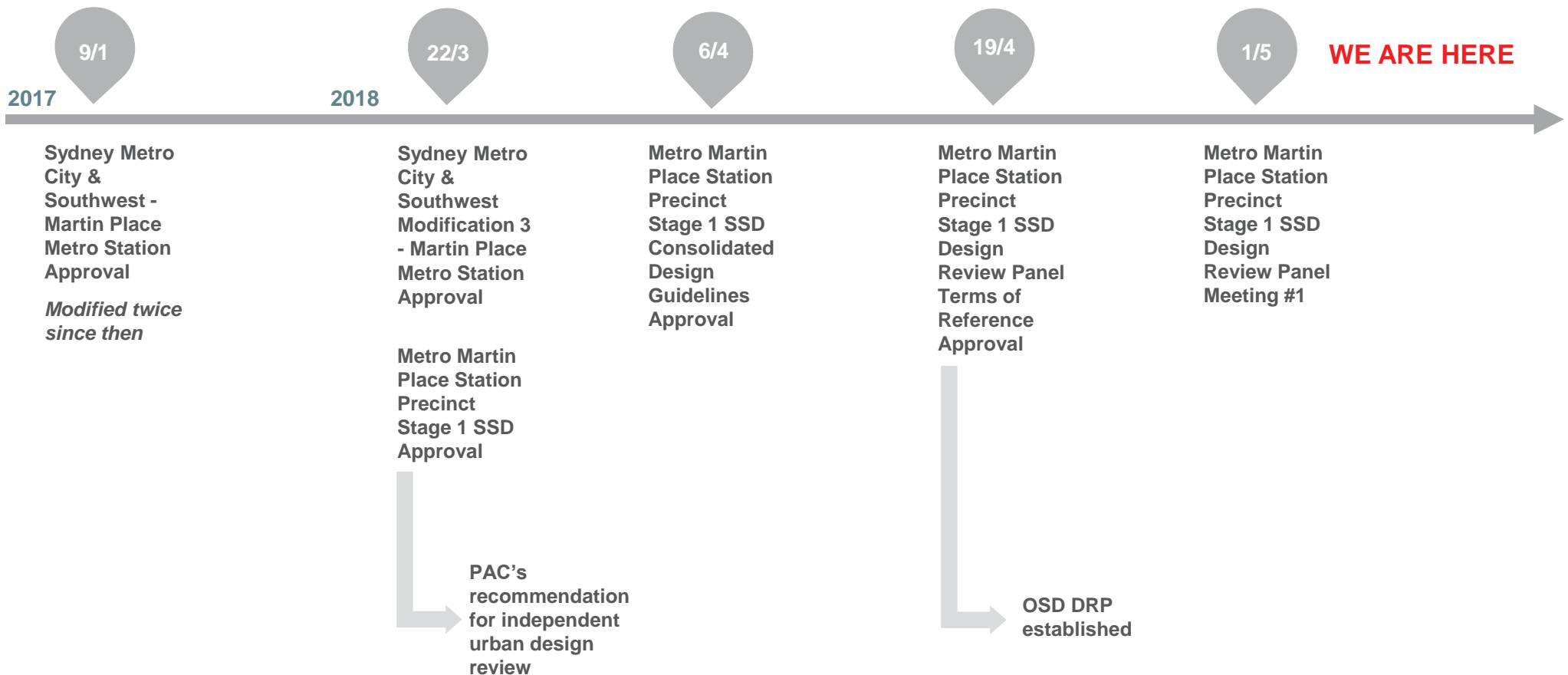
Project Team

The Sydney Metro Martin Place Station Over Station Development design teams have a long standing reputation for delivering high quality projects and can deliver design excellence



Planning Update

The convening of the Sydney Metro Martin Place Station Over Station Development Design Review Panel is the culmination of the several planning activities



Terms of Reference

The approved Terms of Reference establish the OSD DRP's role and responsibilities

Role and objectives

- Review and advise on the detailed building design of the Martin Place OSD
- Objectives:
 - Assist in achievement of design excellence
 - Support Sydney Metro Program objectives
 - Provide independent design advice to the Martin Place OSD, whilst acknowledging station and OSD station is well advanced and is being delivered as an integrated project
 - Respect previous guidance provided by Sydney Metro DRP
 - Advise on detailed design of future buildings

Scope

- Reviewing and advising on elements of the project as defined by the Stage 1 SSD consent and subsequent modifications

Membership

- Peter Poulet, Government Architect (Chair)
- John Choi (nominee of consent authority)
- Yvonne von Hartel AM (nominee of Macquarie Corporate Holdings) – alternate OSD DRP Chair
- Robert Nation AM (nominee of Macquarie Corporate Holdings)
- City of Sydney nominee

Terms of Reference

The approved Terms of Reference establish the OSD DRP's role and responsibilities

Secretariat

- Provided by Office of the Government Architect NSW
- Duties:
 - Agenda (4 working days prior)
 - Preparing draft written advice for review by Chair (or delegate) within 3 working days of meeting
 - Booking meeting rooms

Standard Meeting Agenda

- Confirmation of written advice from proceeding Martin Place OSD
- Update on outstanding matters
- Presentation and discussion on the current design, including response to previous advice
- Panel review and advice
- Forward agenda

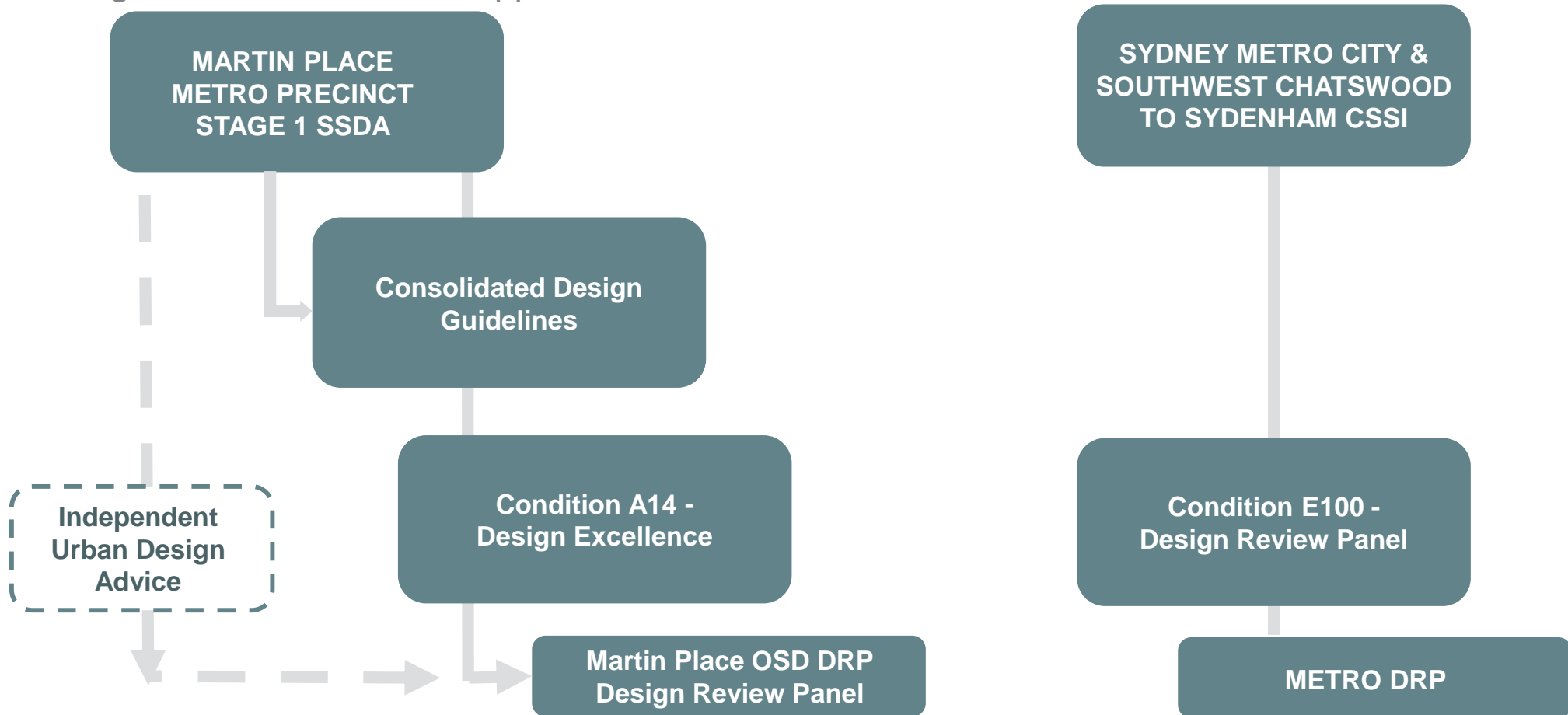


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Statutory Planning Context

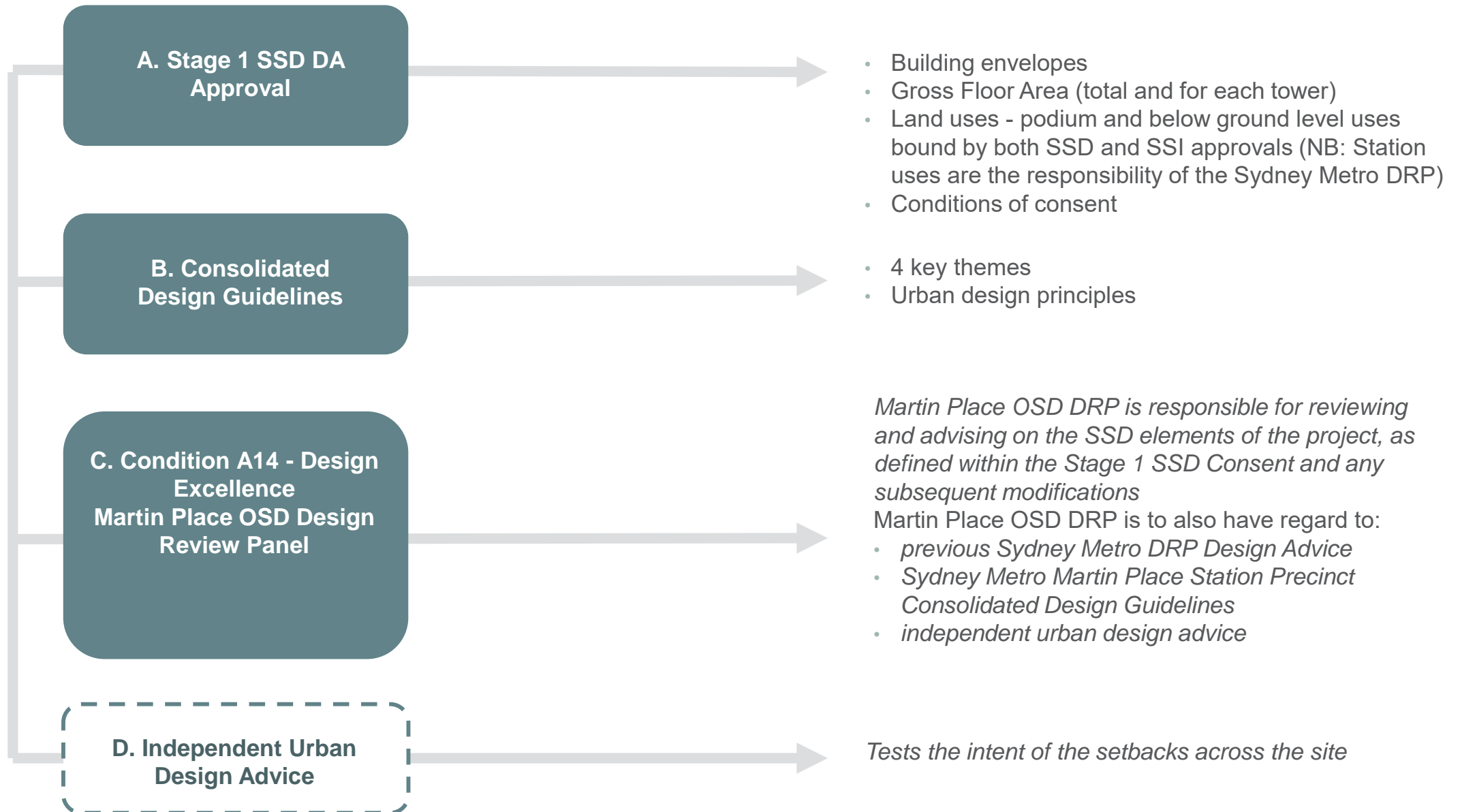
Project Approvals - Framework

The project approvals framework is multi layered and must also consider the Metro Critical State Significant Infrastructure approval



Independent urban design advice recommended by GANSW which tests the intent of the setbacks across the site and which should be provided to the site specific design review panel for their reference in reviewing the scheme

Project Approvals – Key Considerations





A

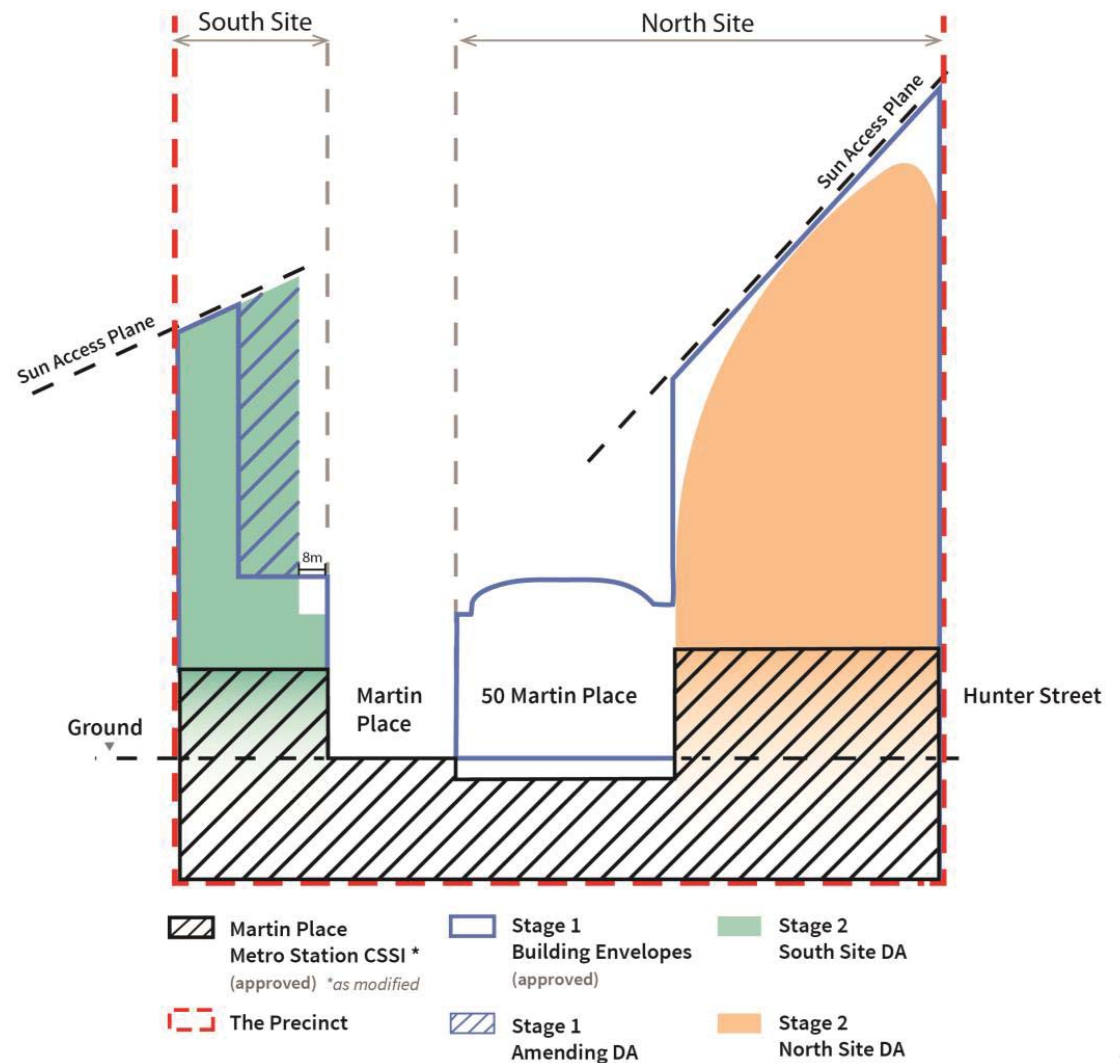
Stage 1 SSD DA Consent

A. Stage 1 SSD DA Approval

Areas of the podium and below ground levels are a mix of the SSD approved uses and metro uses. Station uses are the responsibility of the Sydney Metro DRP

Approval of building envelopes for the Over Station Development

- Building envelope on the North Site with a GFA of 104,270m²
- Building envelope on the South Site with a GFA of 21,167m²



A. Stage 1 SSD DA Conditions of Consent

Macquarie Corporate Holdings Pty Ltd is progressively fulfilling the conditions of approval

Condition	Requirement	Responsibility & Timing	Status
A13. Design Guidelines	<ul style="list-style-type: none">Revise the Sydney Metro Martin Place Station Precinct Consolidated Design Guidelines	<ul style="list-style-type: none">Applicant for Secretary approvalPrior to Stage 2 DA lodgement	✓
A14. Design Excellence	<ul style="list-style-type: none">Establish a site specific Design Review Panel.Prepare and submit Terms of Reference	<ul style="list-style-type: none">Applicant for Secretary approvalPrior to Stage 2 DA lodgement	✓

A. What does it all mean?

A number of conditions will be resolved through the evolving design process

Condition	Site	Detail
A13(b) / B2	North & South	Not to result in any additional overshadowing to Hyde Park compared to existing buildings, approved buildings and the DCP/LEP compliant envelope between 12-2pm on 21 June. Identify opportunities to improve solar access to the ground plane of Martin Place between the hours of 12 and 2pm on 14 April when compared to the shadow cast by the approved building envelope.
A13(a)	North & South	Wind impacts required to meet relevant public domain standards appropriate for use and proposed activity. Improvements to comfort and safety ratings to be at least pedestrian standing at station entrances.
A13(g)	North & South	Create distinctive architectural designs appropriate for each site, with the scale of buildings responding appropriately to the character of the area and the building form and articulation reinforcing the key features of the locality, such as the street wall height and relationship to 50 Martin Place.
A13(h)	North & South	Podium/tower relationships are to be clearly differentiated through means such as façade articulation, recesses, setbacks, colours and materials. South Site differentiation to be further reinforced by a pronounced recess between the tower and the podium and setback from the Martin Place alignment.
A13(m)	North	A new building tower and podium/base on the North Site (towards and at its southern extent) is to integrate sensitively with the low scale of 50 Martin Place, and clearly articulate its street wall height on the Castlereagh and Elizabeth Street elevations.



B

Consolidated Design Guidelines

Consolidated Design Guidelines

Below ground and street level urban design principles

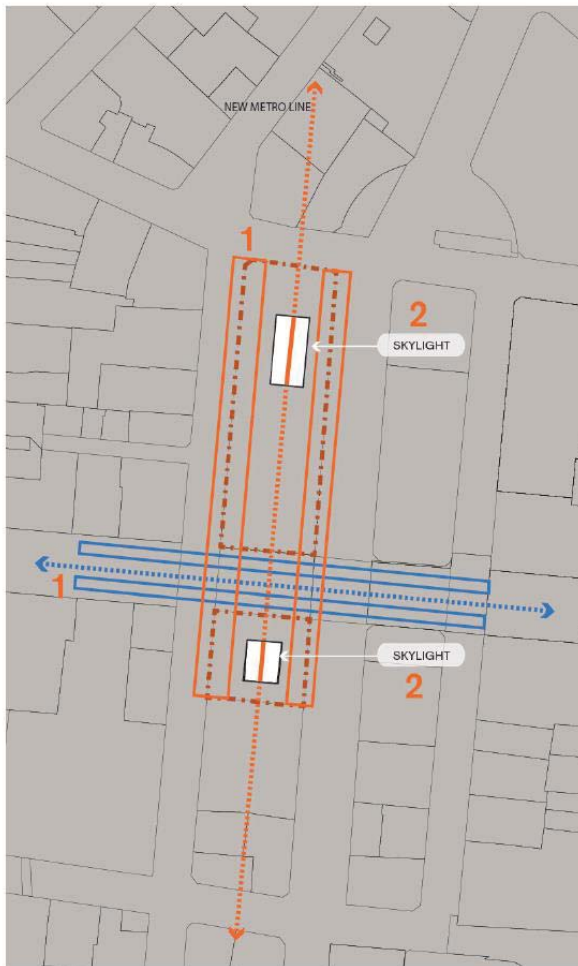


Diagram illustrating urban design principles for below ground

Urban design principles - below ground

Controls

1. Align circulation with street network over
2. Bring natural daylight into station concourse

Legend

- Existing Sydney Rail
- Proposed Metro Rail
- Existing Condition
- Proposed Condition

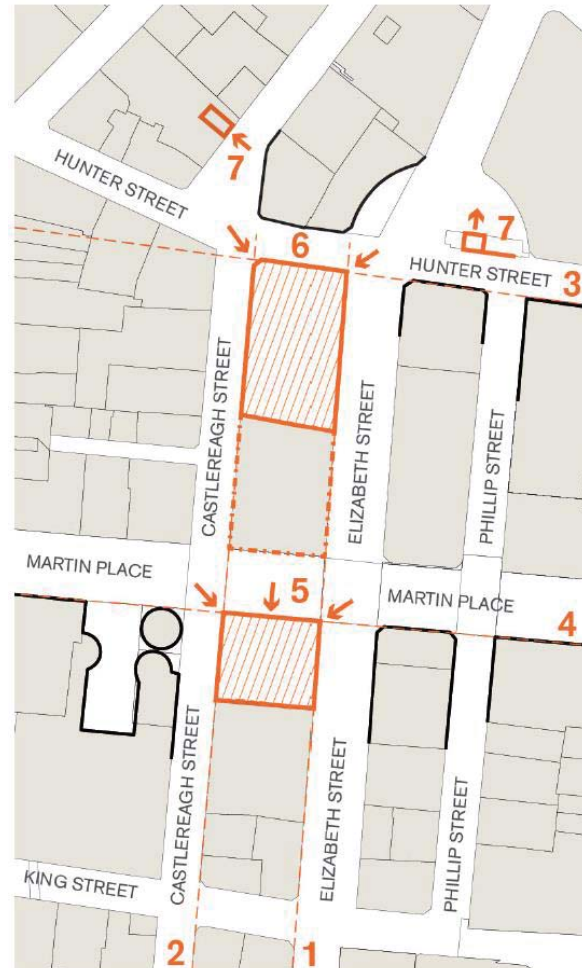


Diagram illustrating urban design principles for street level

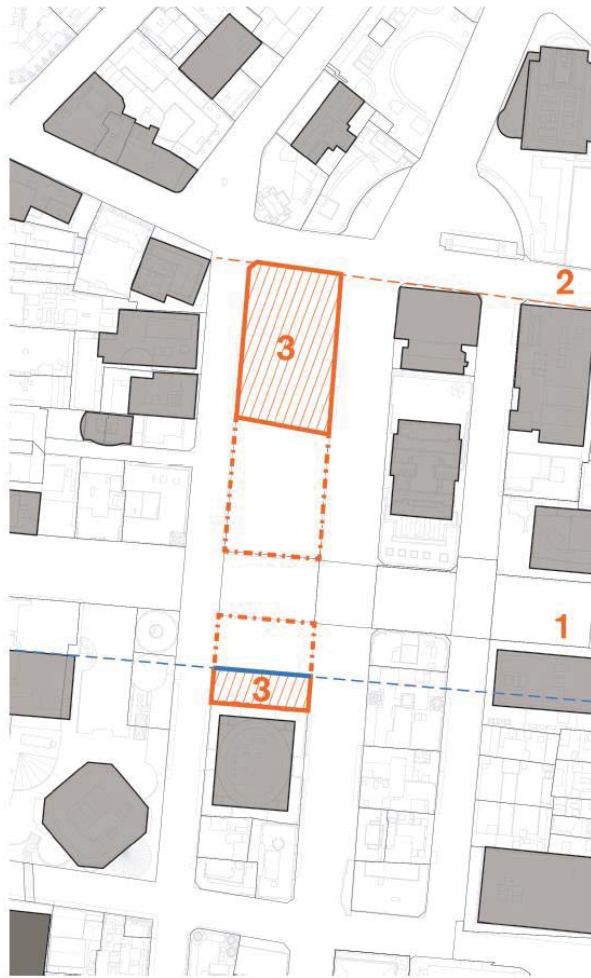
Urban design principles - street level

Controls

1. Align with streetwall on Elizabeth Street
2. Align with streetwall on Castlereagh Street
3. Match the general alignment of the streetwall to the east on Hunter Street
4. Align with streetwall on Martin Place
5. Entries to South Site from Martin Place and corners
6. Entries to North Site from corners
7. Limit impacts on Chifley and Richard Johnson Squares of new Metro entries

Consolidated Design Guidelines

Tower level urban design principles



Urban design principles - tower level

Controls

1. Note: A compliant 25m Northern setback for South Site. This is not a Principle.
2. Northern face of North Site to match the general alignment of towers to the east on Hunter Street
3. Building heights defined by SAP

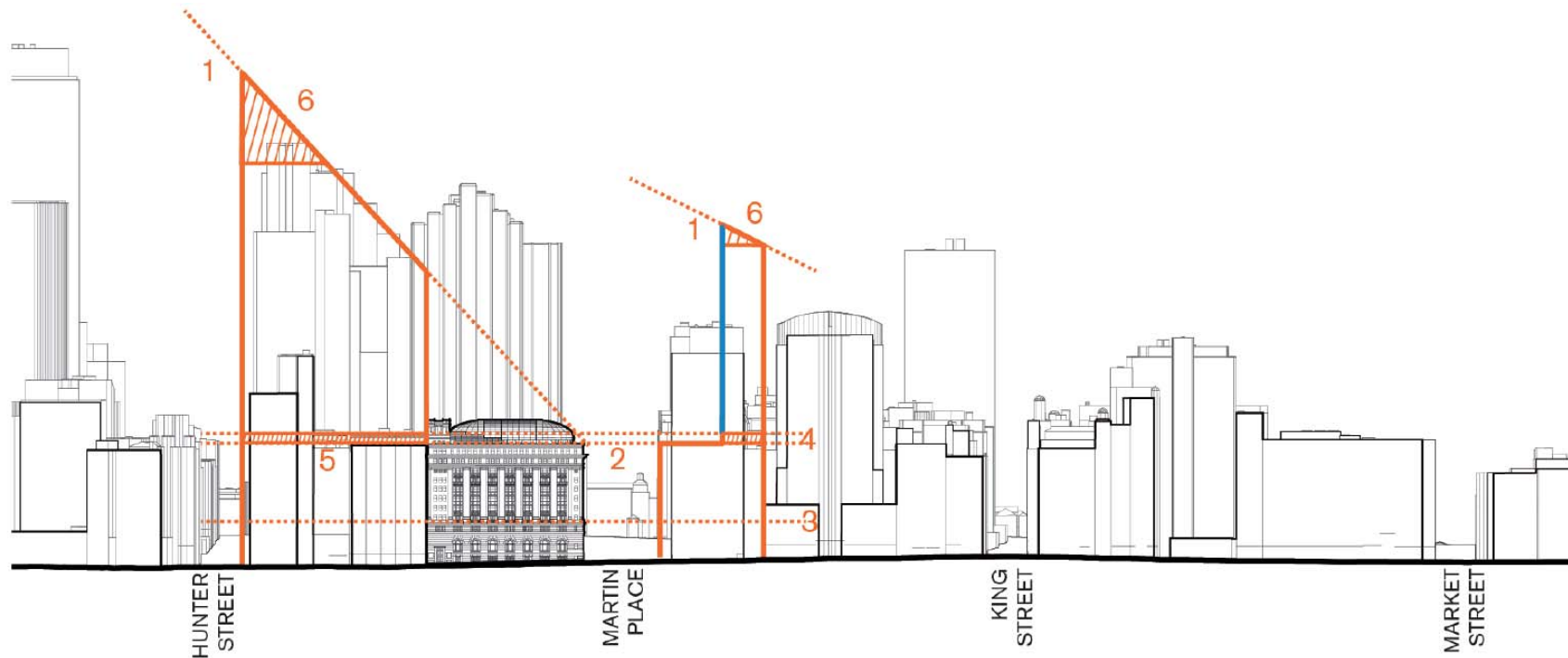
Legend

- 25m setback line in current LEP and DCP Control
- Proposed Condition

Diagram illustrating urban design principles for tower level

Consolidated Design Guidelines

West elevation design principles

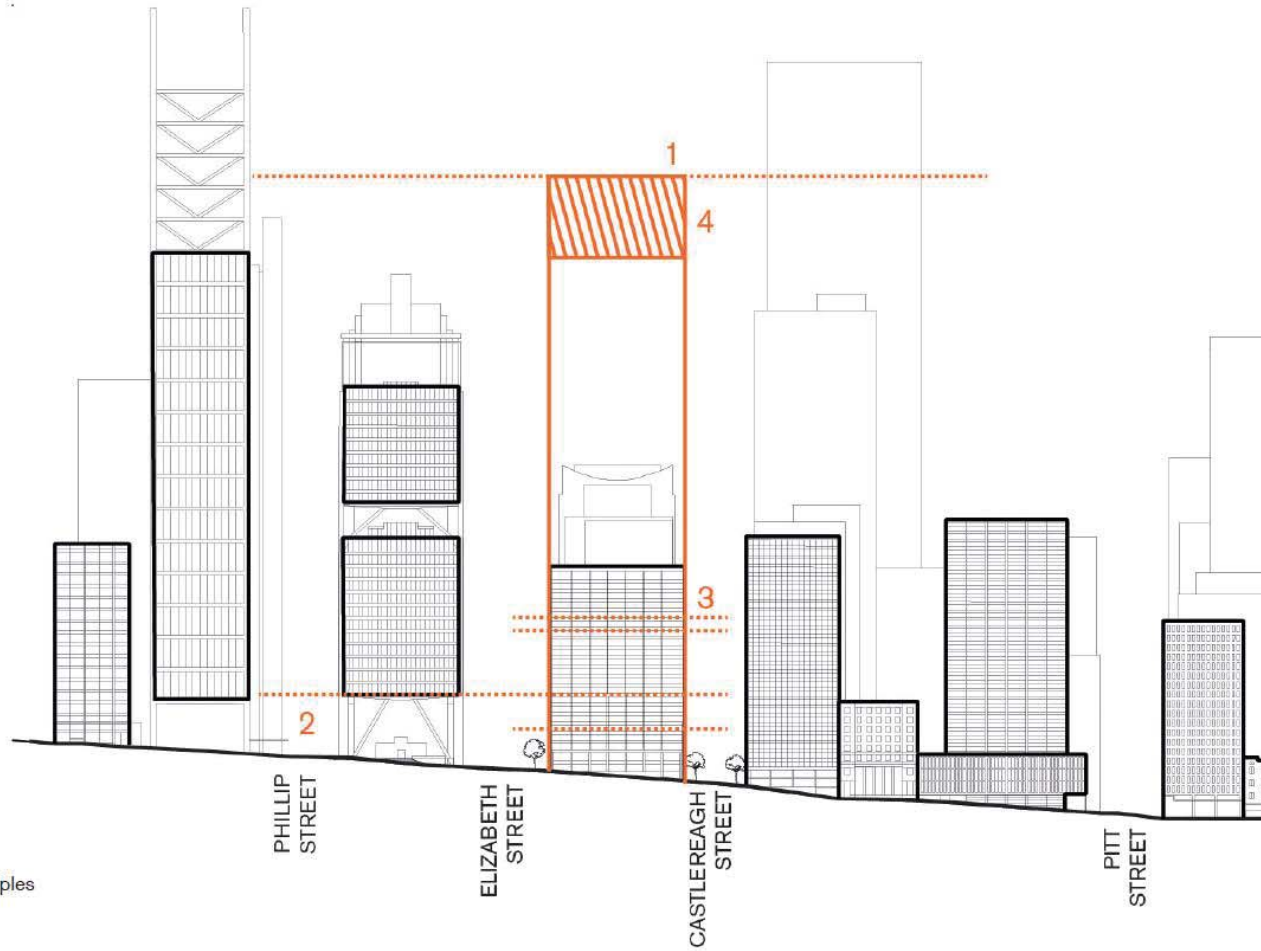


West Elevation Design Principles

1. Building heights defined by SAP
2. Podium height to South Site to relate to the height of 50 Martin Place
3. Podium articulation of South Site to relate to the articulation of 50 Martin Place
4. Provide a zone of articulation between the tower and the podium to better define the spatial quality of Martin Place. This articulation is to be predominantly created by a defined and significant recess in the tower facade
5. The base of the building on the North Site is to respond to the height and articulation of 50 Martin Place
6. Rooftop and mechanical plant to be wholly within built form envelope and a considered part of the mechanical design

Consolidated Design Guidelines

North Site north elevation design principles



North Site North Elevation Design Principles

1. Building heights defined by SAP
2. Base of northern tower to respond to the reverse podium of 8 Chifley and Deutsche Bank building
3. Base of northern tower to respond to height and articulation of 50 Martin Place
4. Rooftop and mechanical plant to be wholly within built form envelope and a considered part of the mechanical design

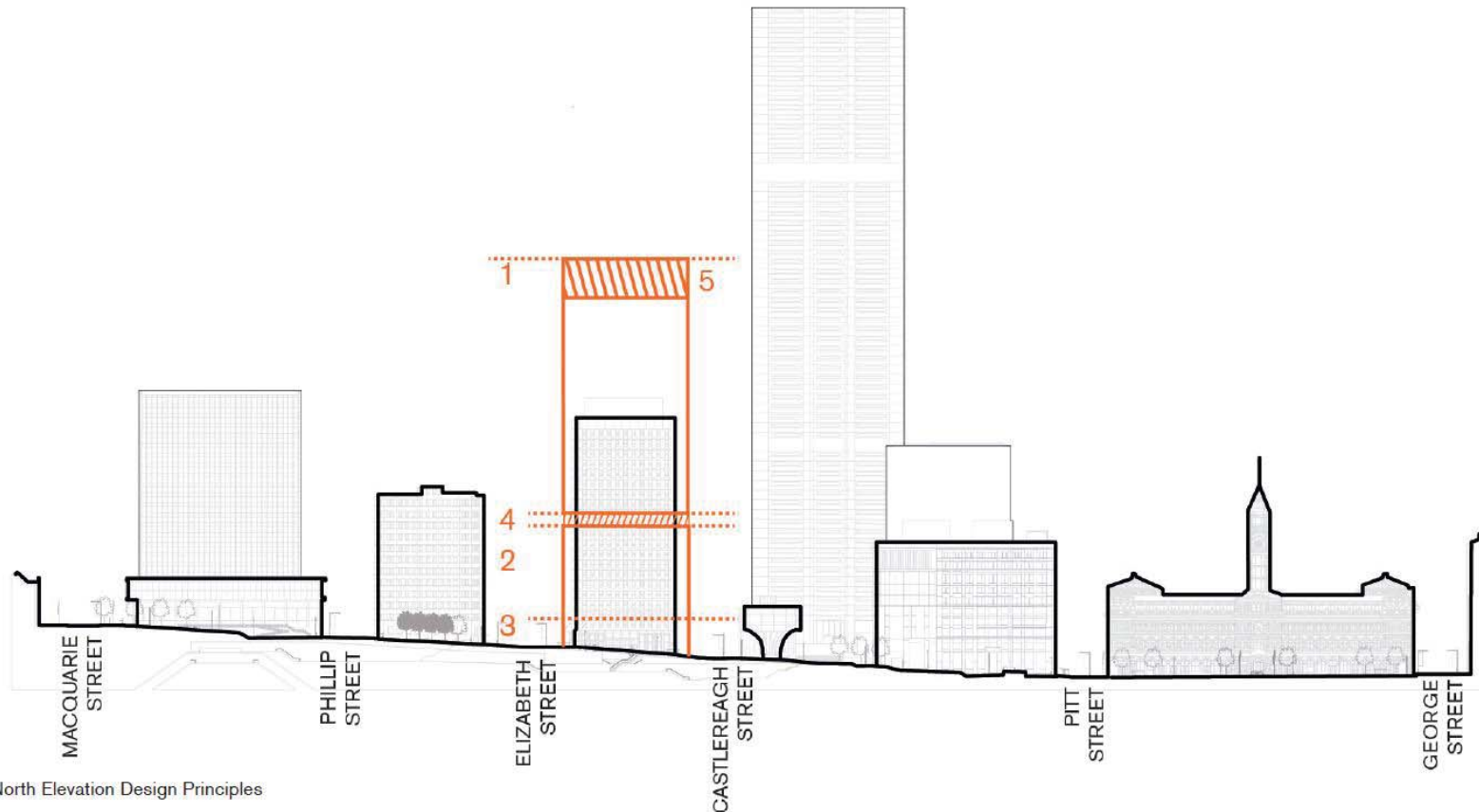
East elevation design principles



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Consolidated Design Guidelines

South Site north elevation design principles



South Site North Elevation Design Principles

1. Building heights defined by SAP
2. Podium height to South Site to relate to the height of 50 Martin Place
3. Podium articulation of South Site to relate to the articulation of 50 Martin Place
4. Provide a zone of articulation between the tower and the podium to better define the spatial quality of Martin Place. This articulation is to be predominantly created by a defined and significant recess in the tower facade
5. Rooftop and mechanical plant to be wholly within built form envelope and a considered part of the mechanical design



C

Sydney Metro DRP Open Items

C. Sydney Metro DRP – Open Items

A summary of the outstanding items taken from the previous slides outlining the issues discussed by the Sydney Metro DRP to date

Sydney Metro DRP items yet to be further developed

Precinct & Metro Station (CSSI)

- South Tower ground plane
 - Extent to which the podium is enclosed at street level
 - Extent to which the podium ground level is integrated as part of the public domain or as a transition space to the station
- North Tower ground plane
 - In general, the Panel supports the improved planning on the ground plane. However, further information is required at the next review session that demonstrates how retail analysis and pedestrian modelling have informed the design direction
 - Through-site link – There is insufficient information to understand the likely success of this link, the panel anticipates that this issue will be addressed in detail in a future session and that presentation material should demonstrate how this area will operate in three dimensions

North Tower (SSDA)

- Proposed tower form as single form to ground – further review required
- Wind impacts – further review required as design evolves

South Tower (SSDA)

- Pending outcome of the Planning Proposal
- Materials and articulation of the tower form require further and substantial development

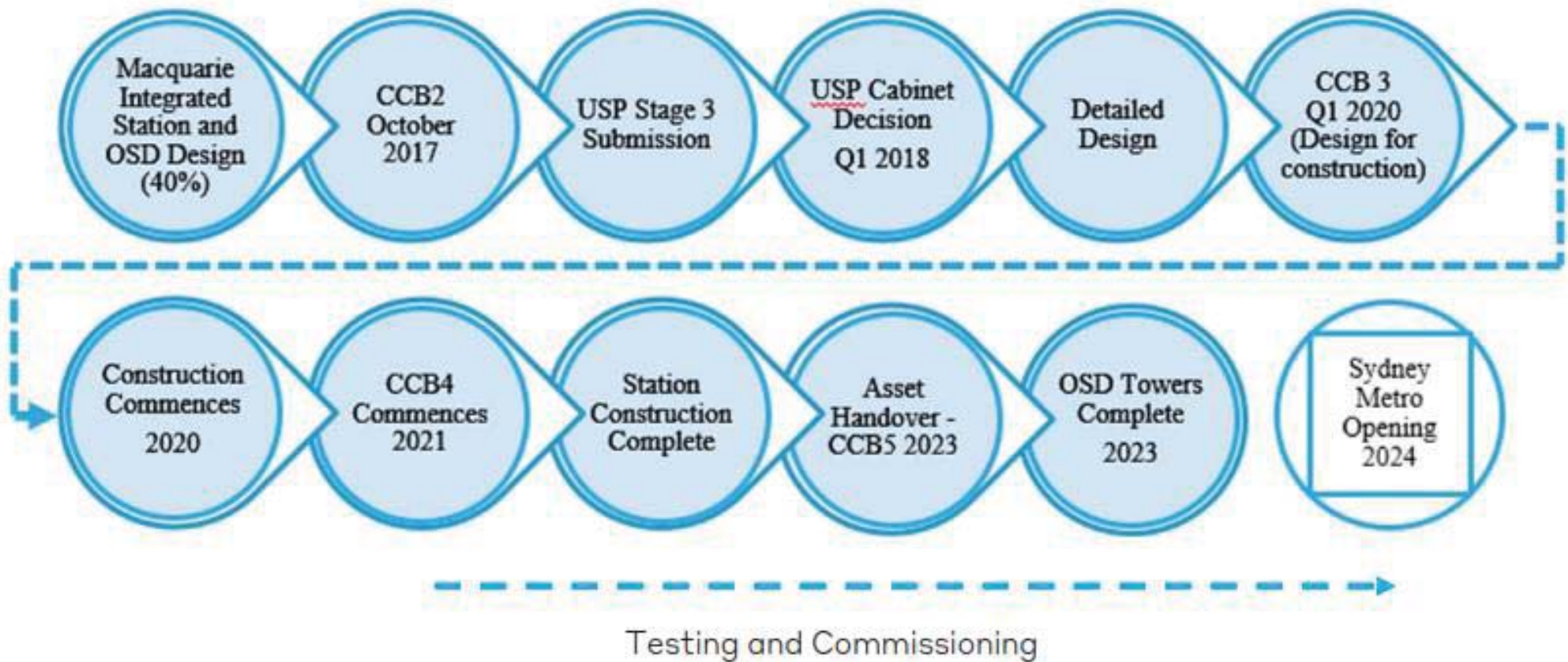


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Sydney Metro Martin Place Station

Configuration Control Board Process

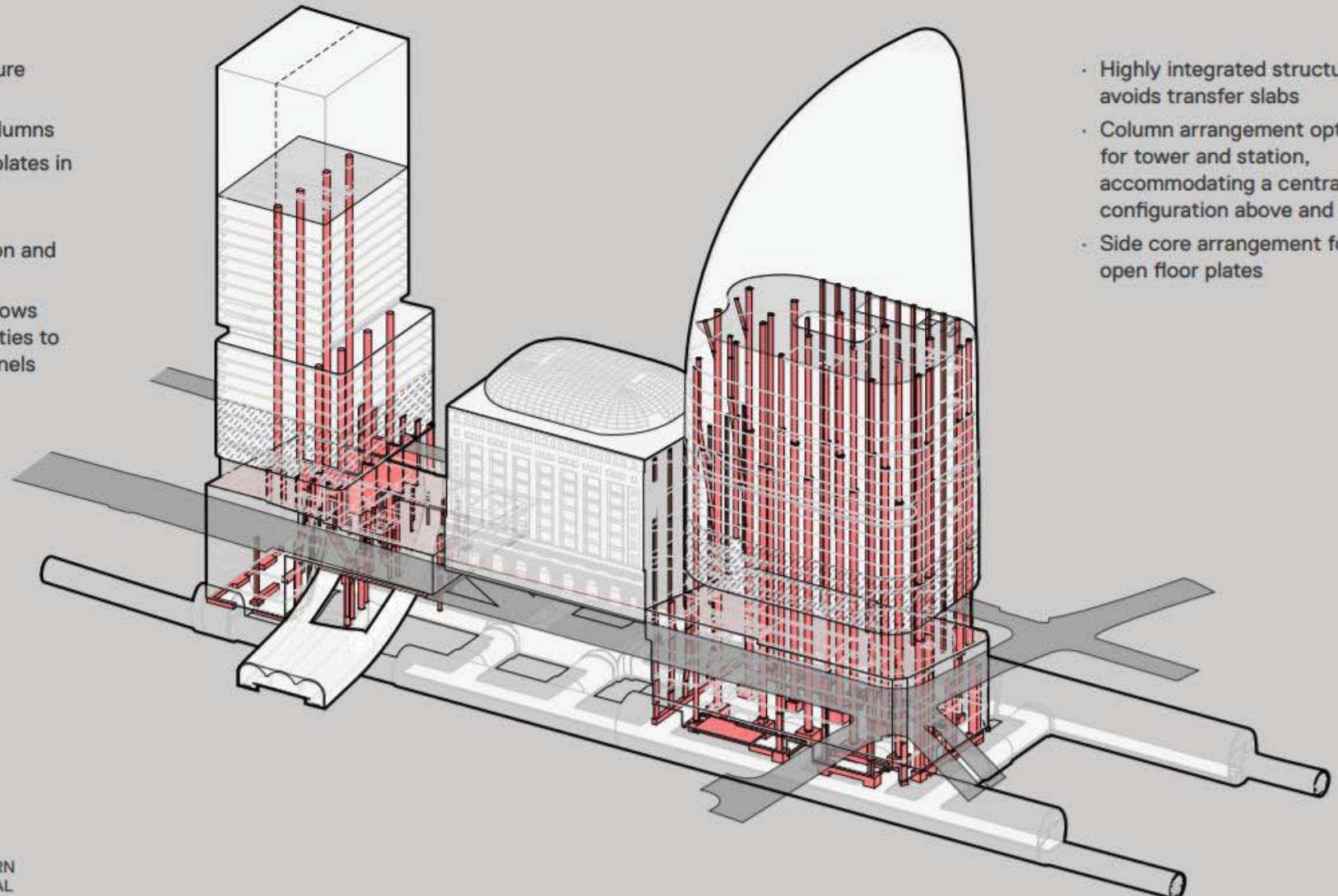
The design and safety assurance process is a mandated gateway system where the station design must pass through Configuration Control Board 'gates'. The intricate processes involved with the CSSI impose obligations on the design of the OSD.



Design Constraints

Structural integration

- Highly integrated structure avoids transfer slabs
- Minimised number of columns
- Large, clear, open floor plates in the south
- Rear core arrangement, optimised for both station and tower
- Structural integration allows more efficient opportunities to transfer around ESL tunnels



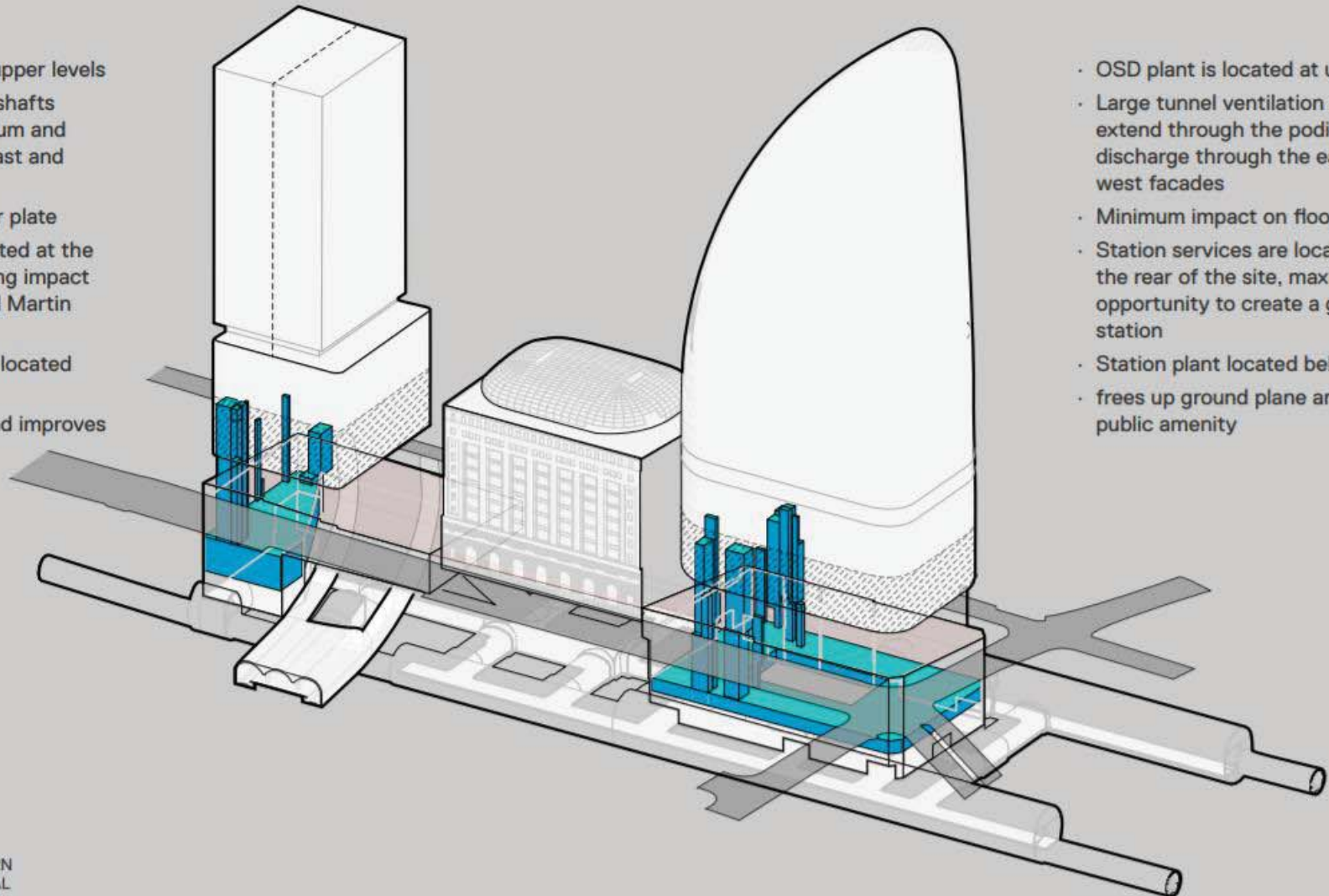
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- Side core arrangement for clear open floor plates

NOTE: SOUTH TOWER NORTHERN
SETBACK SUBJECT TO APPROVAL

Design Constraints

Station services integration

- OSD plant is located at upper levels
- Large tunnel ventilation shafts extend through the podium and discharge through the east and west facades
- Minimum impact on floor plate
- Station services are located at the rear of the site, minimising impact on station entrances and Martin Place.
- Majority of station plant located below ground
- frees up ground plane and improves public amenity



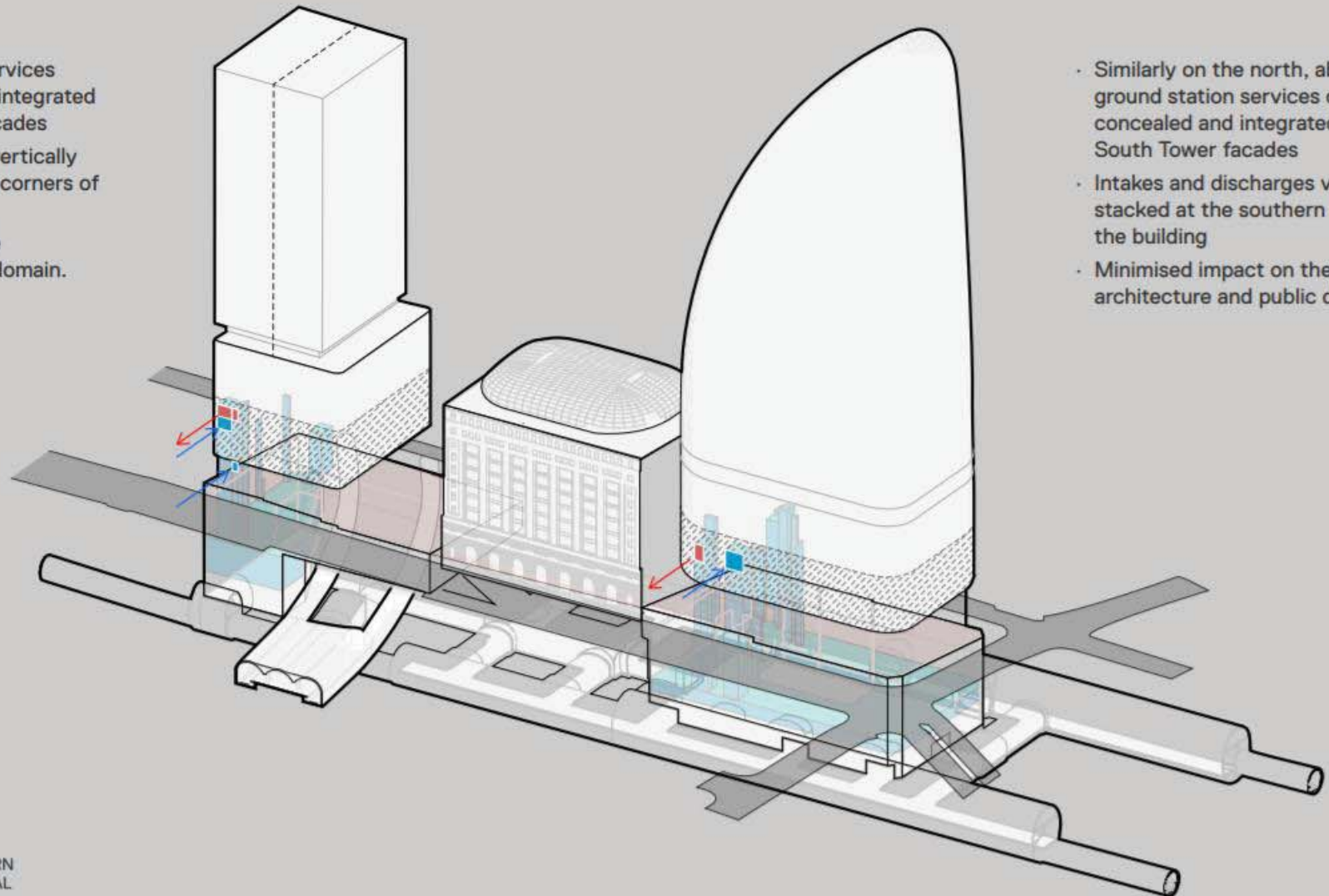
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NOTE: SOUTH TOWER NORTHERN
SETBACK SUBJECT TO APPROVAL

Design Constraints

Facade integration

- Above ground station services carefully concealed and integrated into the South Tower facades
- Intakes and discharges vertically stacked at the southern corners of the building
- Minimised impact on the architecture and public domain.



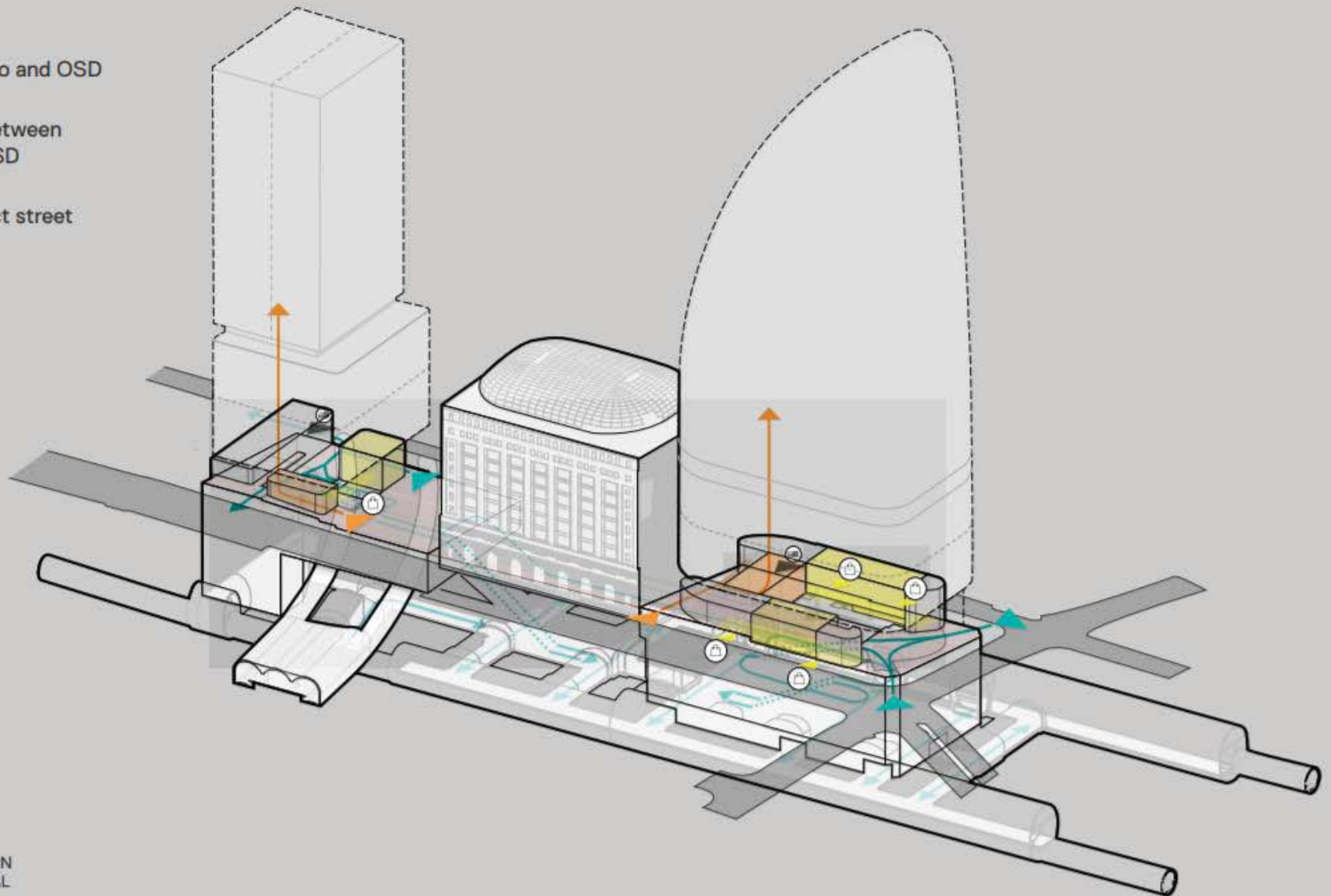
- Similarly on the north, above ground station services carefully concealed and integrated into the South Tower facades
- Intakes and discharges vertically stacked at the southern corners of the building
- Minimised impact on the architecture and public domain.

NOTE: SOUTH TOWER NORTHERN
SETBACK SUBJECT TO APPROVAL

Design Constraints

Pedestrian flow integration

- Clear separation of Metro and OSD entrances
- Minimising cross-flow between Metro customers and OSD occupants
- OSD lobbies have distinct street addresses



NOTE: SOUTH TOWER NORTHERN
SETBACK SUBJECT TO APPROVAL

Sydney Metro Critical State Significant Infrastructure

Station Design and Precinct Plan is required as part of the CSSI Consent and is the responsibility of the Sydney Metro DRP

Note: Grimshaw presentation for Martin Place Station under separate cover

GRIMSHAW

DRP 1

Station Overview

—
Metro Martin Place

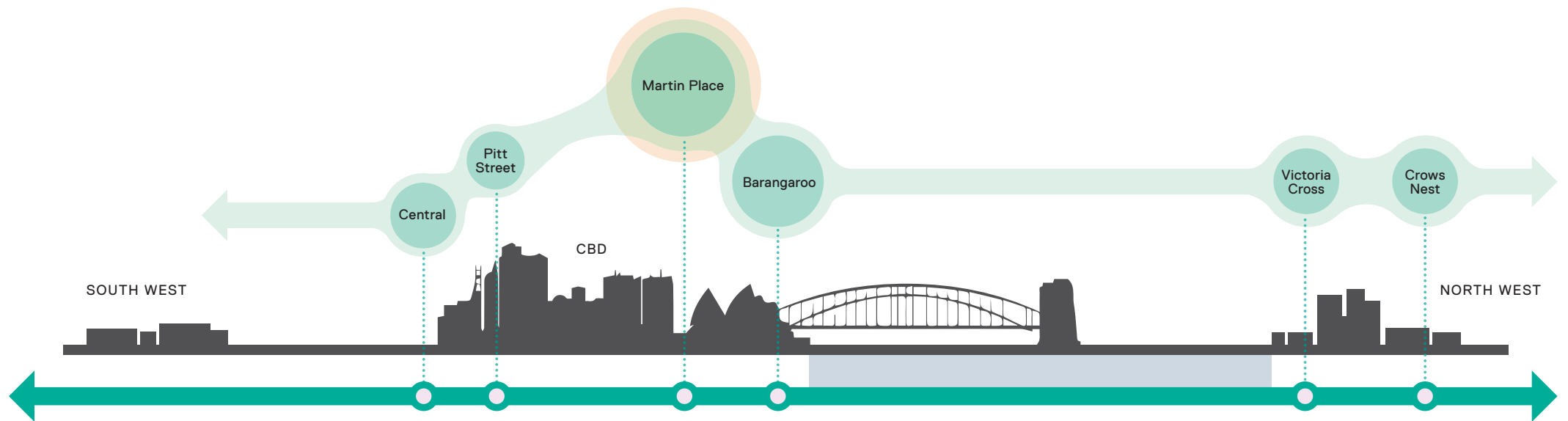
May 2018

Station

- ♦ Setting the scene
- ♦ Where we are today
- ♦ How does it work?
- ♦ Customer experience
- ♦ Next steps

A Flagship Station

A once in a generation opportunity



A connected precinct

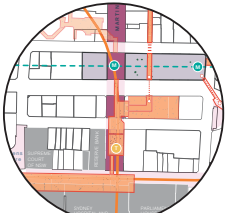
Connecting major public spaces



Barangaroo



Wynyard



Martin Place



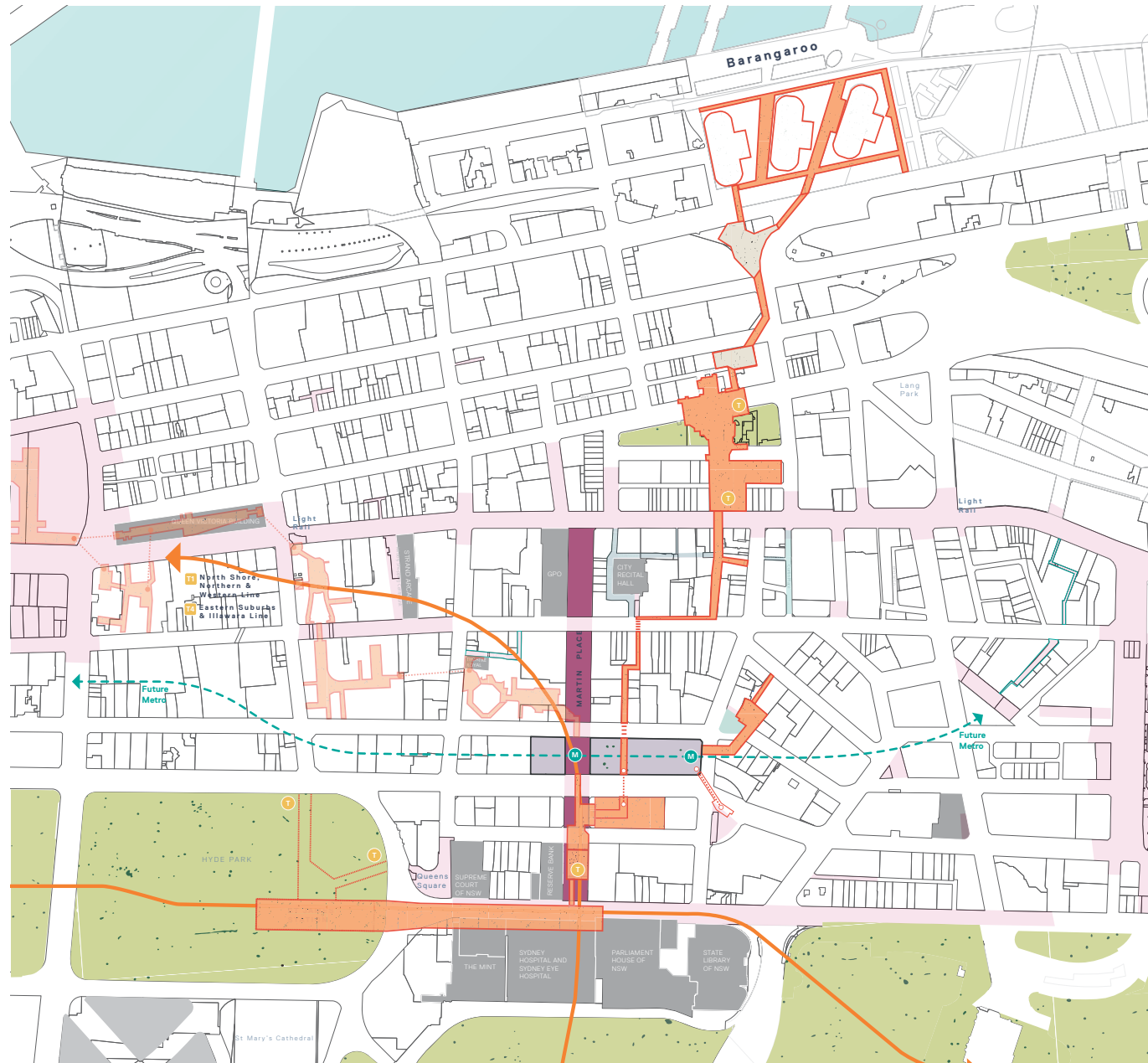
St James Station



Pitt Street Mall



Bligh Street



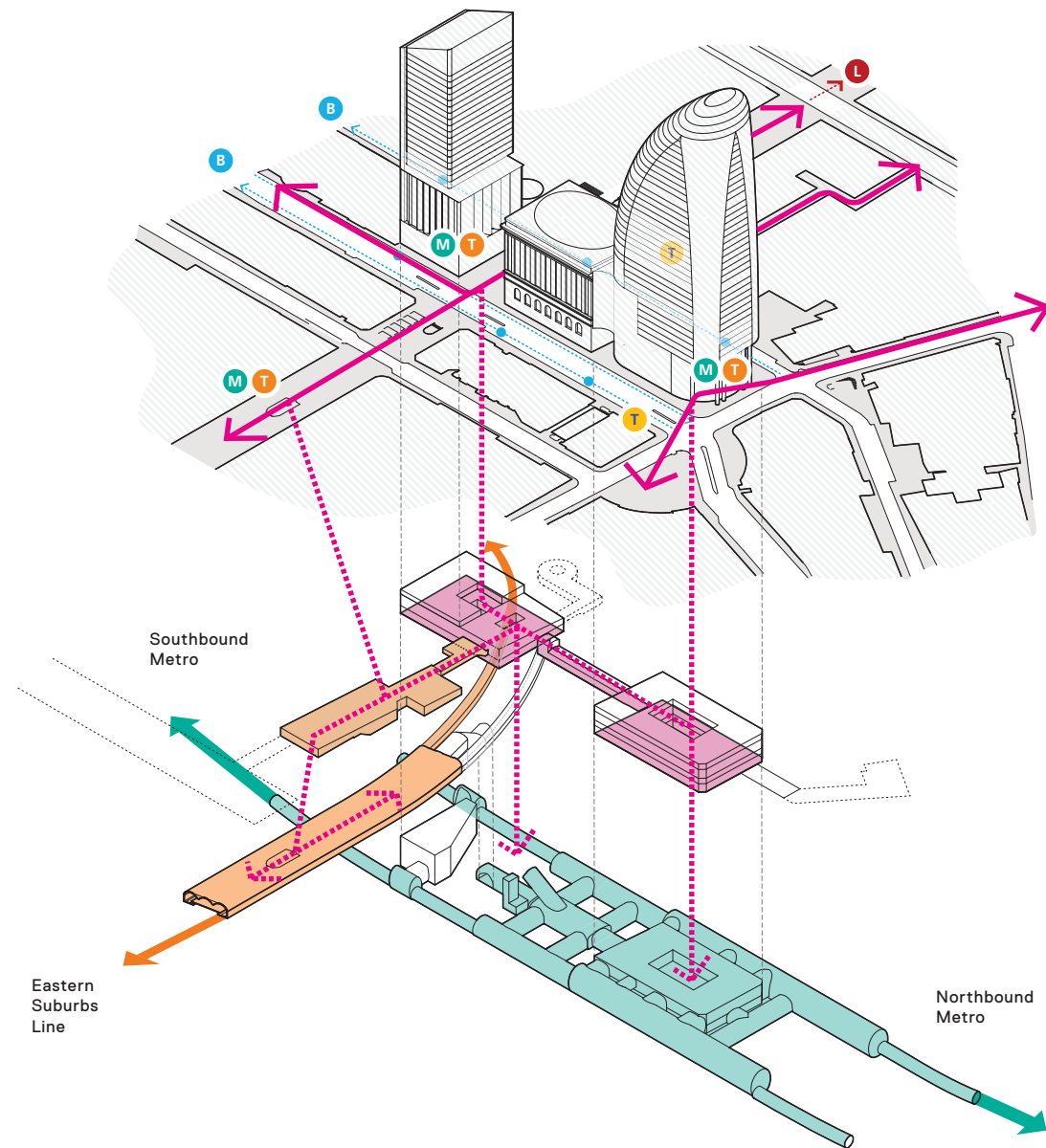
A connected station

The pedestrian link enables connections locally and far beyond

Redefining a civic destination

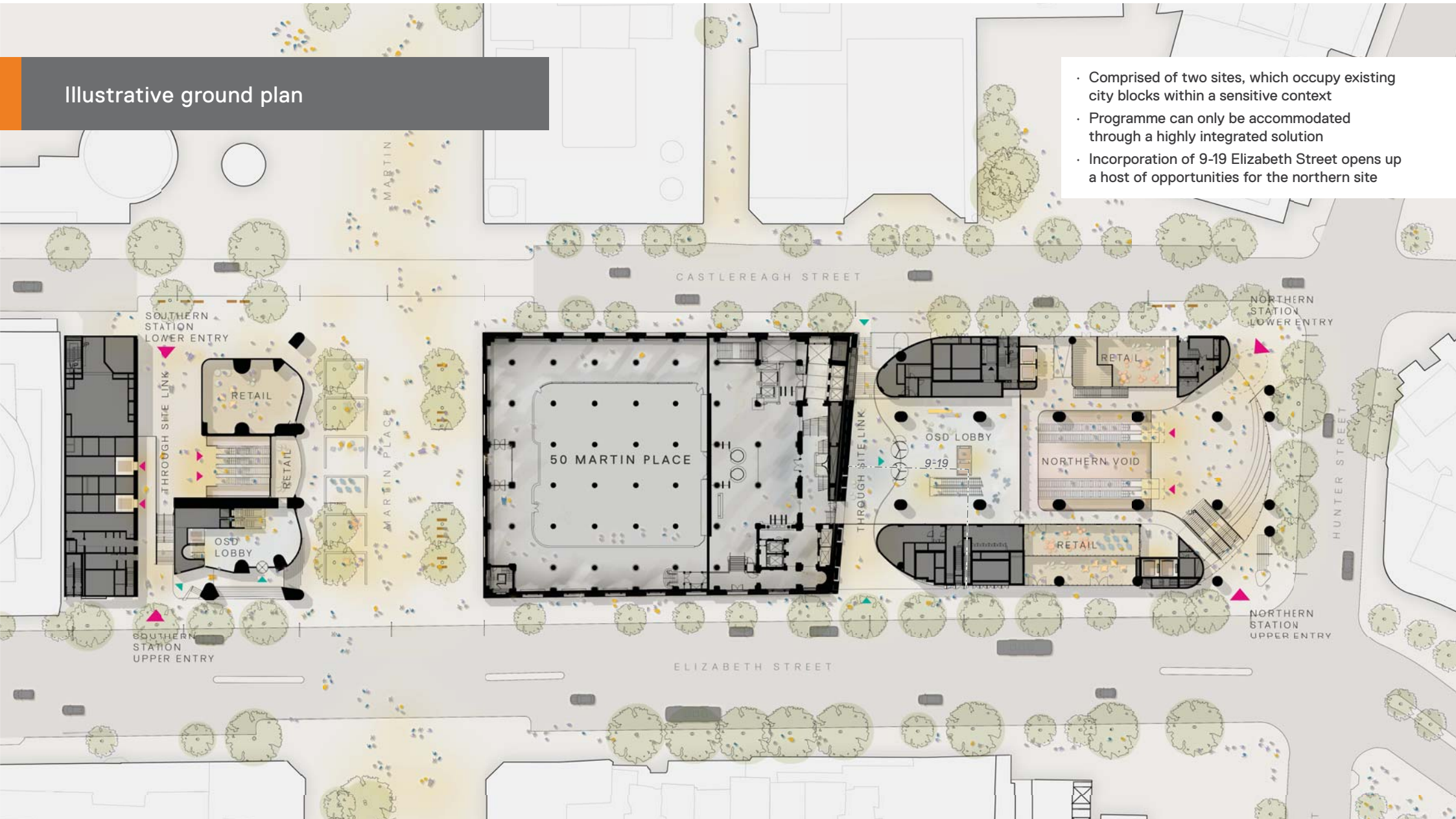
Facilitating cross precinct communication

Providing a gateway to the heart of Sydney



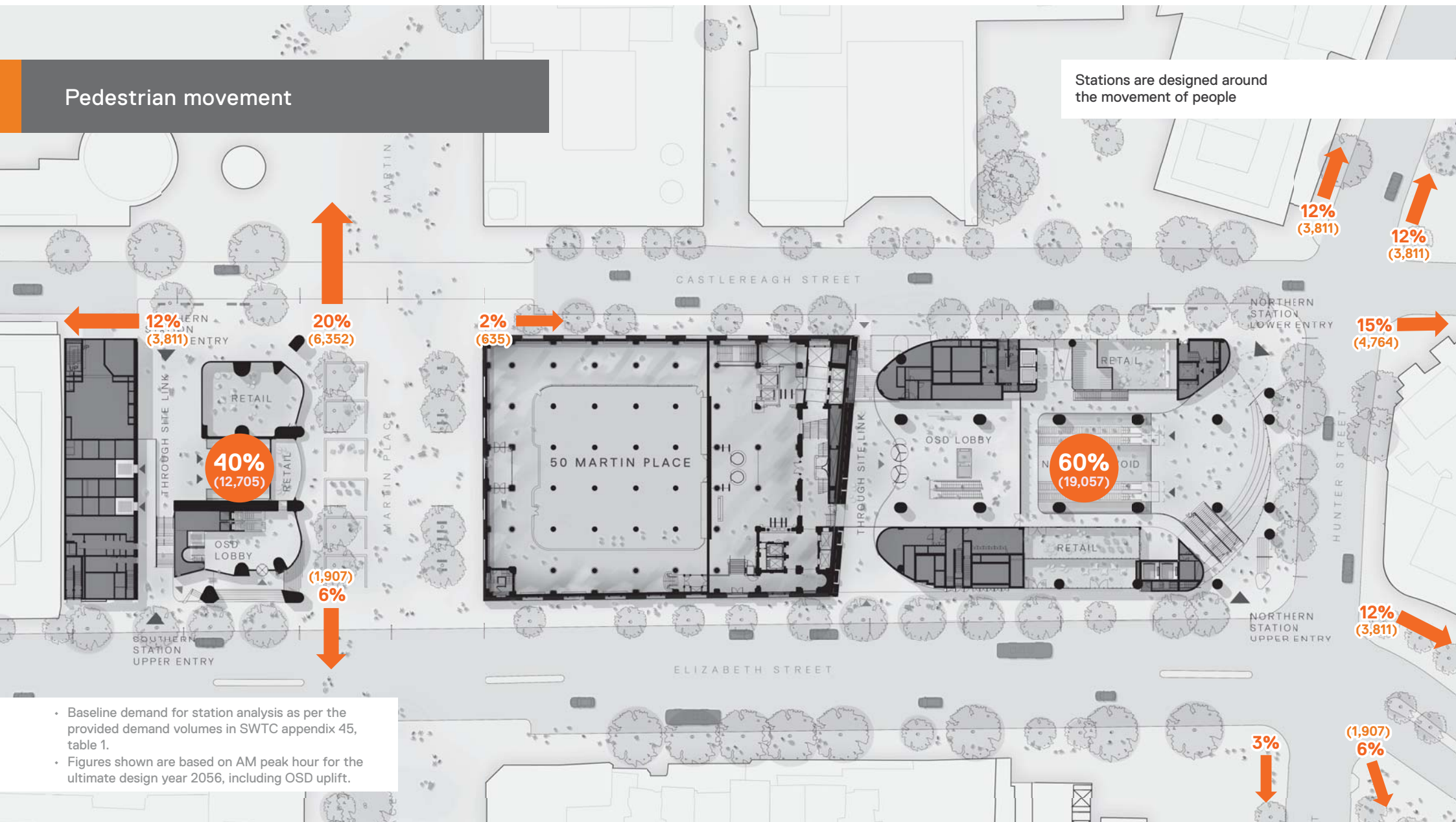
Illustrative ground plan

- Comprised of two sites, which occupy existing city blocks within a sensitive context
- Programme can only be accommodated through a highly integrated solution
- Incorporation of 9-19 Elizabeth Street opens up a host of opportunities for the northern site



Pedestrian movement

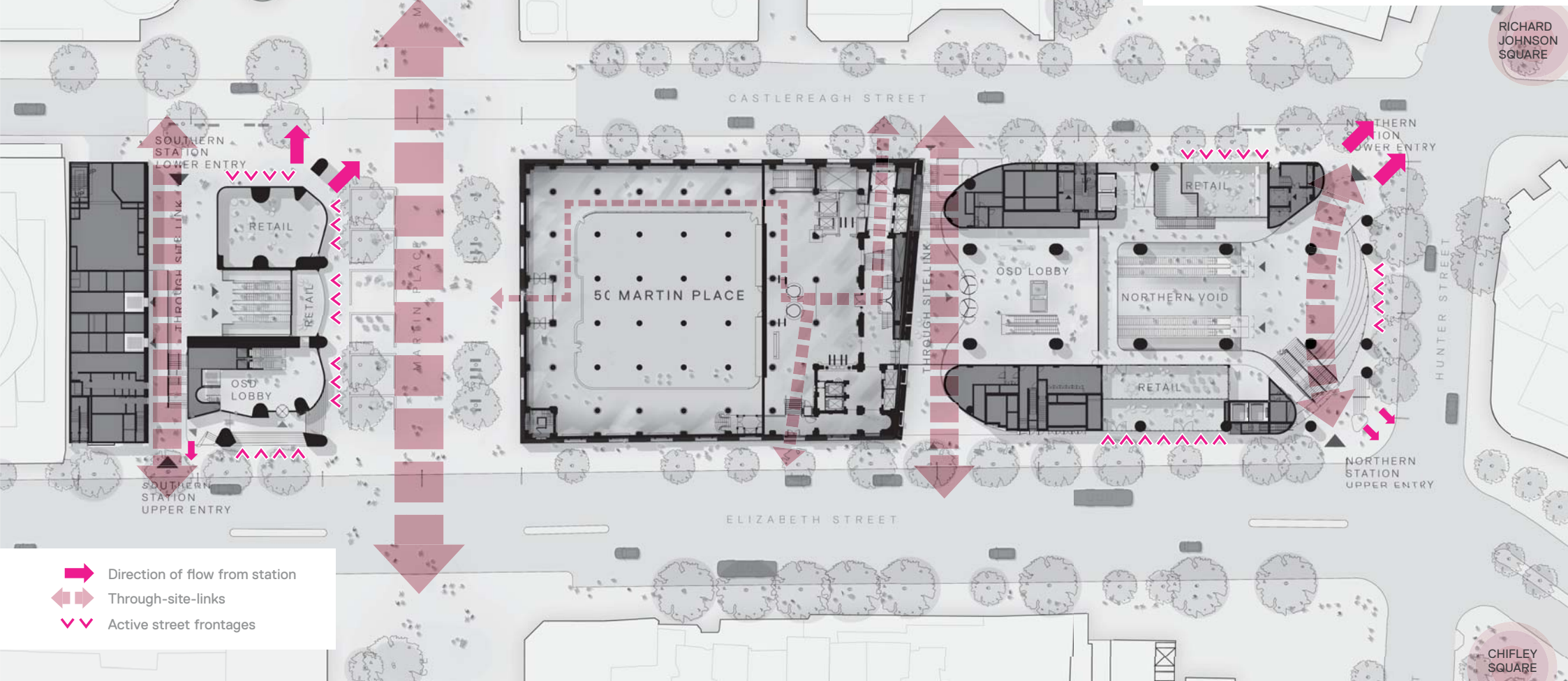
Stations are designed around the movement of people



- Baseline demand for station analysis as per the provided demand volumes in SWTC appendix 45, table 1.
- Figures shown are based on AM peak hour for the ultimate design year 2056, including OSD uplift.

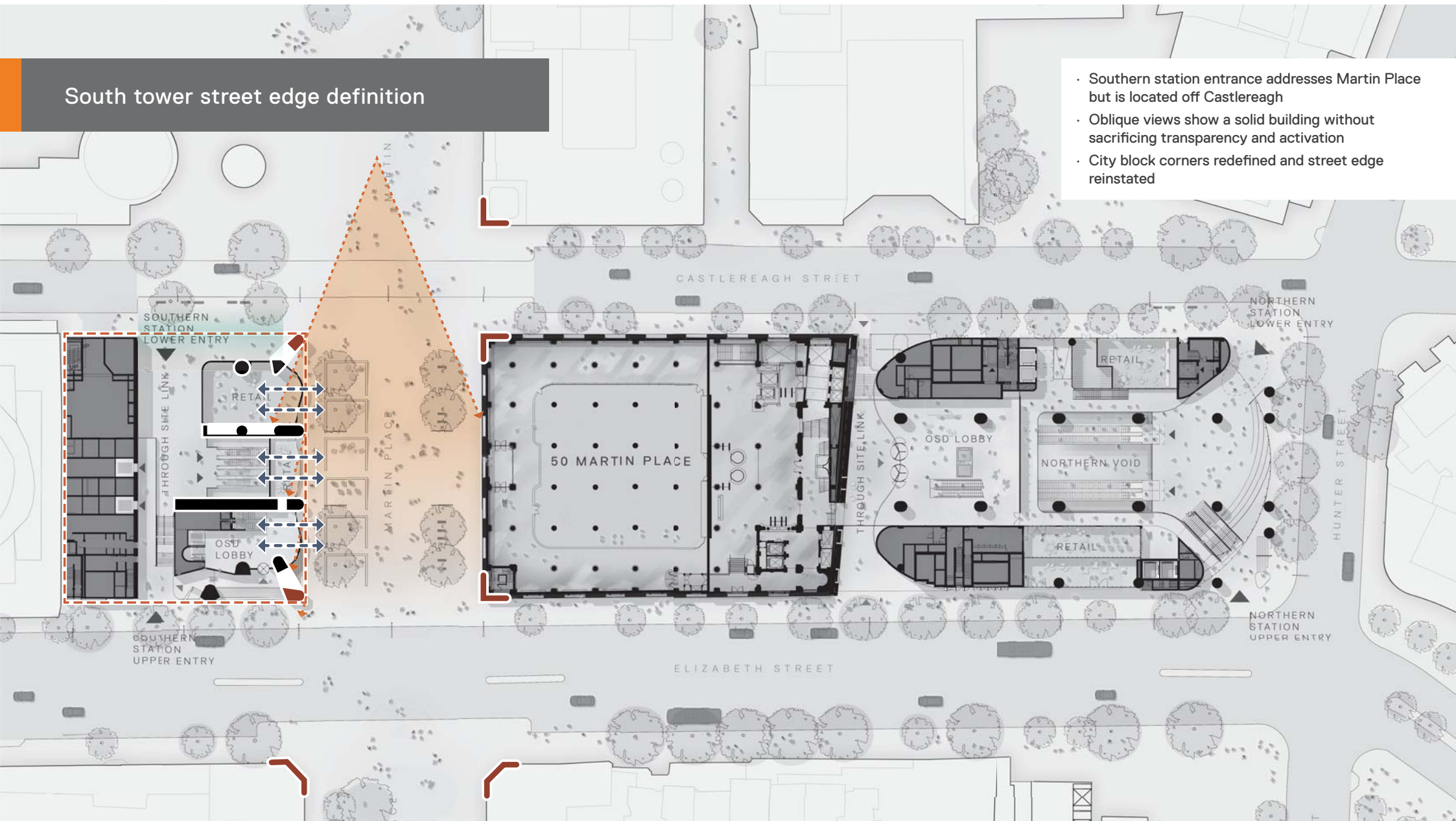
Public domain interface

- Creation of east-west connections along long north-south blocks
- Resolution of topographic barriers between Castlereagh and Elizabeth Street
- Primary station entrances on north-west corners
- Maximised active street frontages



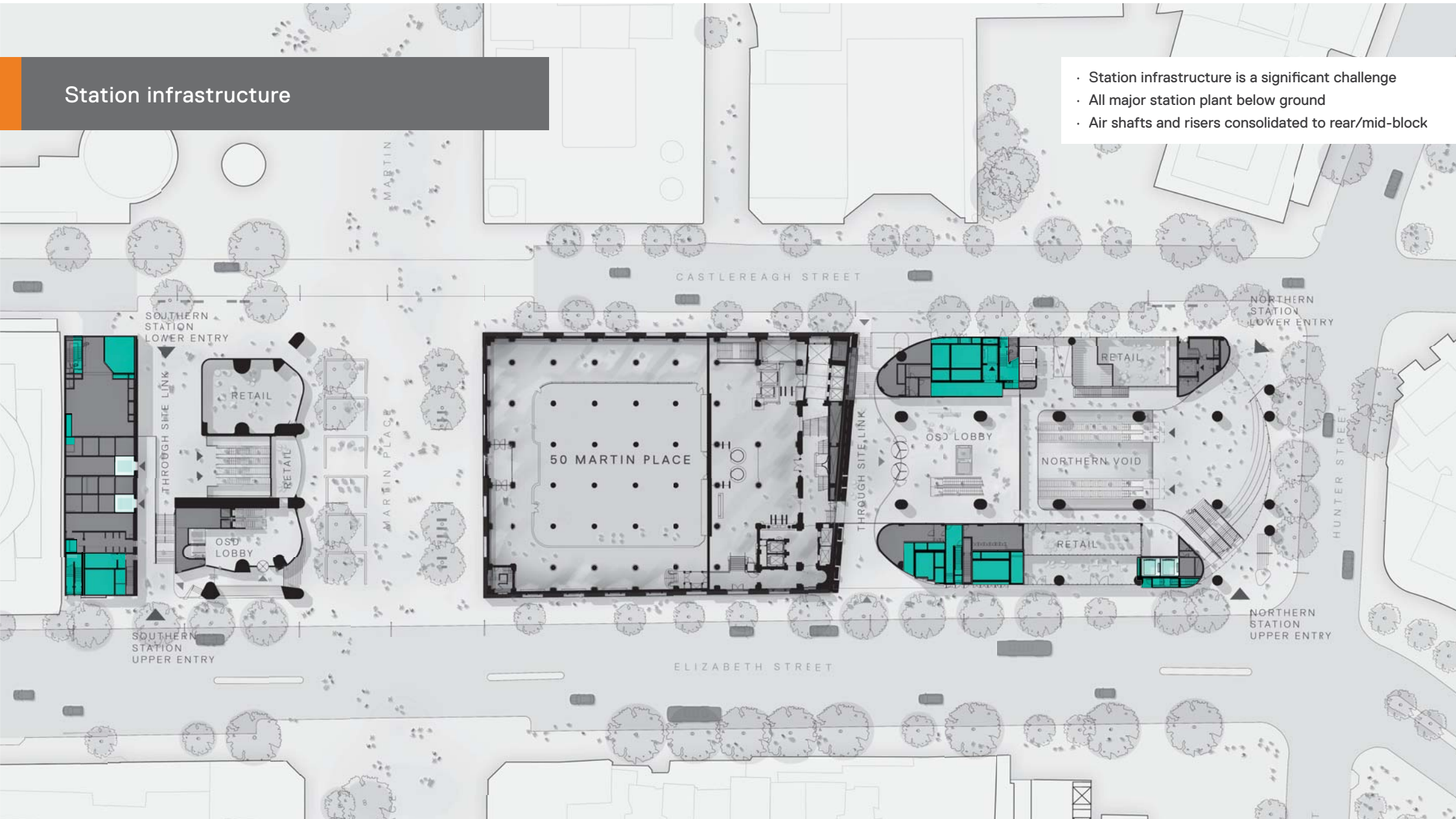
South tower street edge definition

- Southern station entrance addresses Martin Place but is located off Castlereagh
- Oblique views show a solid building without sacrificing transparency and activation
- City block corners redefined and street edge reinstated



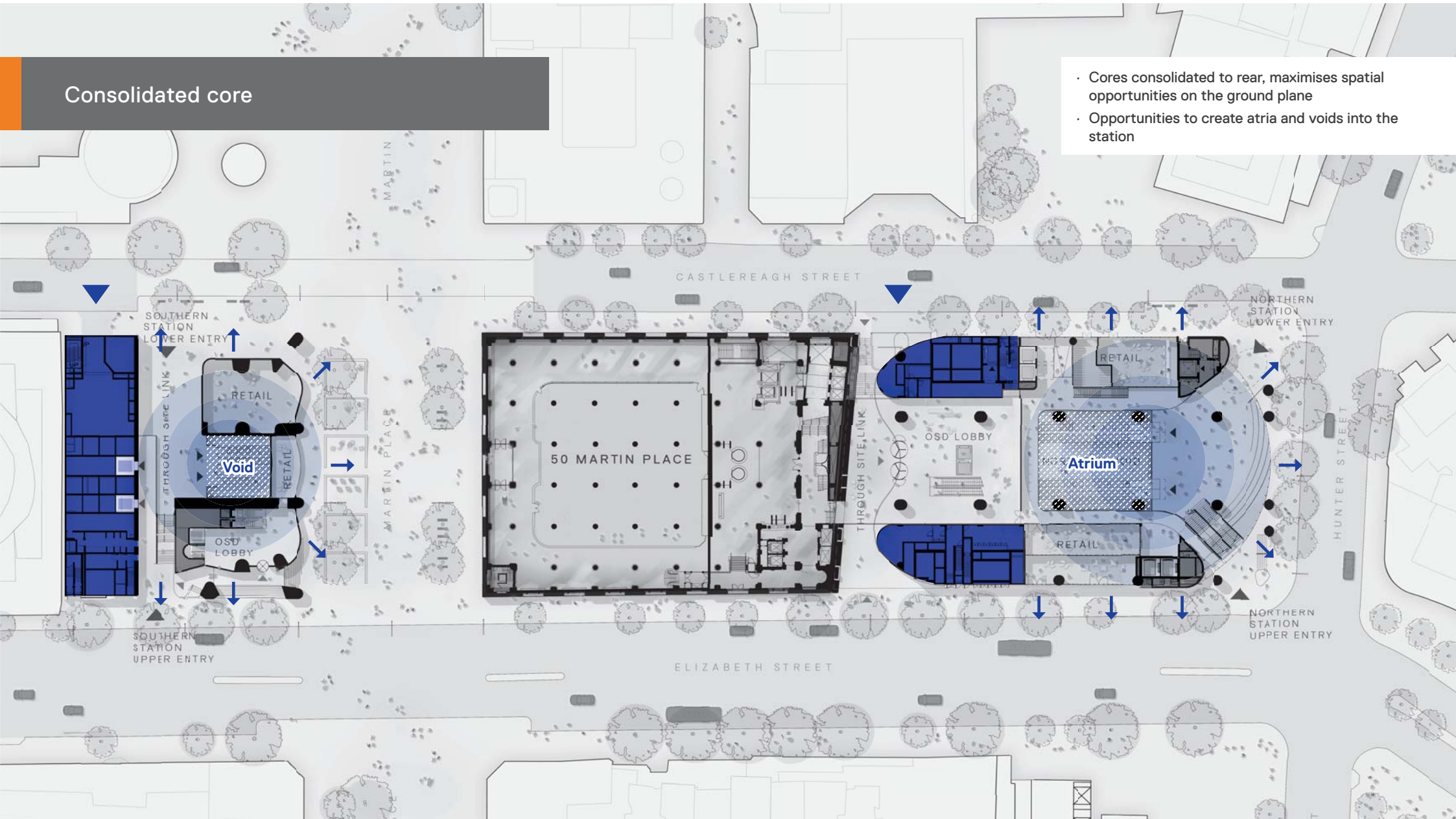
Station infrastructure

- Station infrastructure is a significant challenge
- All major station plant below ground
- Air shafts and risers consolidated to rear/mid-block



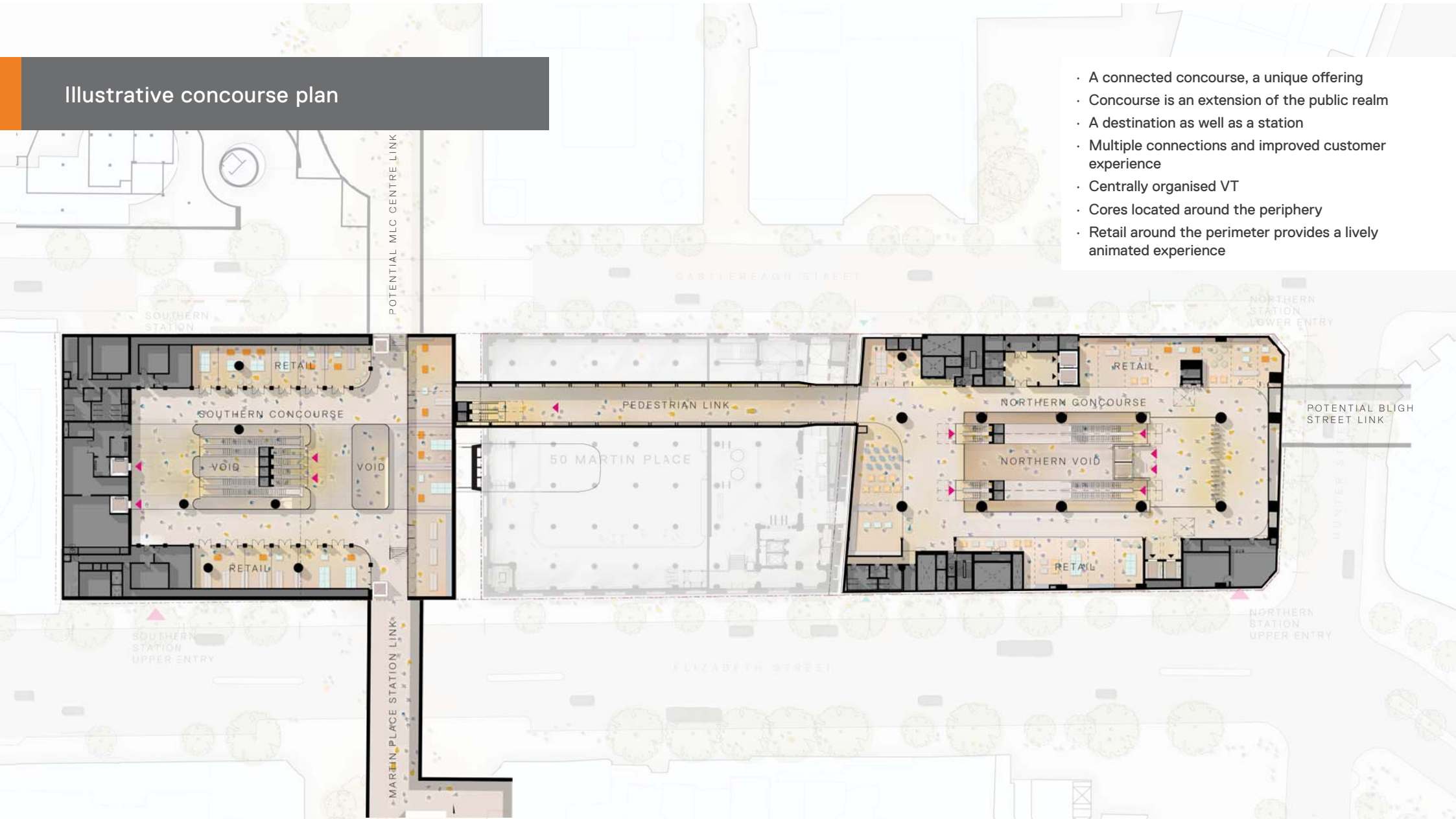
Consolidated core

- Cores consolidated to rear, maximises spatial opportunities on the ground plane
- Opportunities to create atria and voids into the station



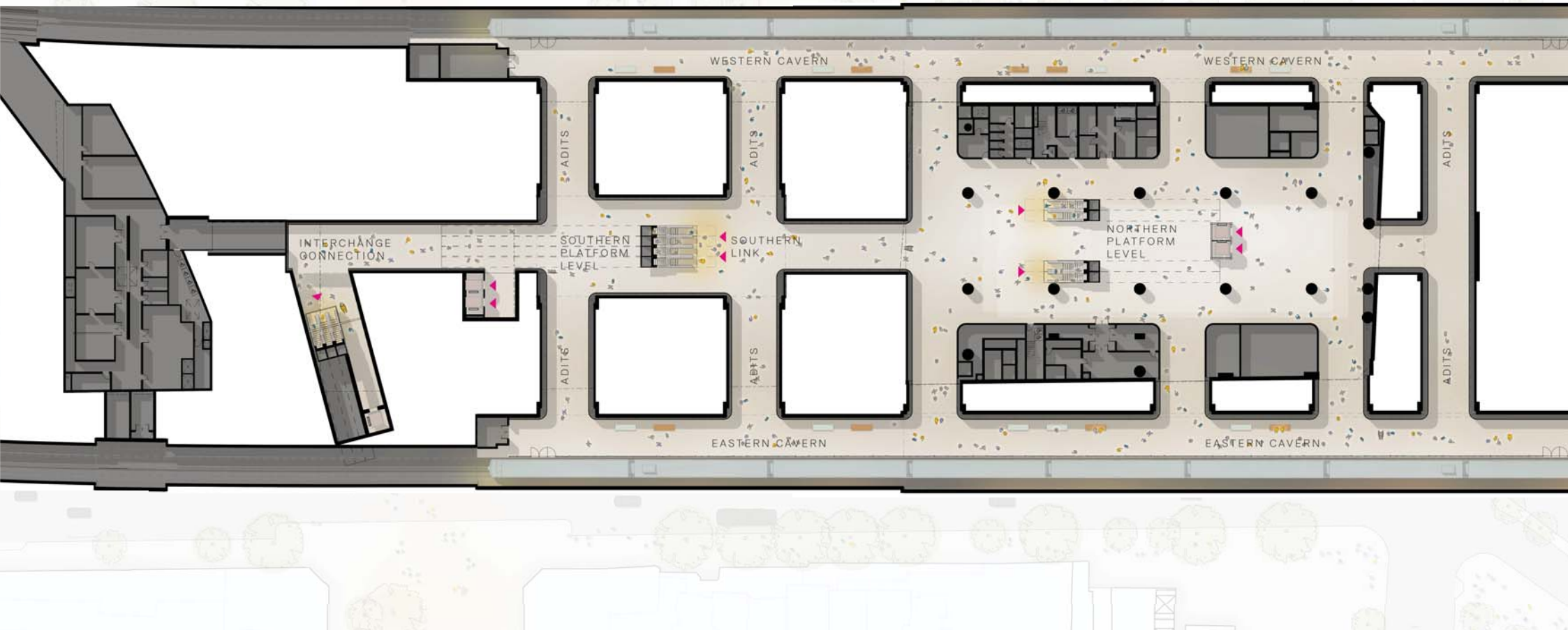
Illustrative concourse plan

- A connected concourse, a unique offering
- Concourse is an extension of the public realm
- A destination as well as a station
- Multiple connections and improved customer experience
- Centrally organised VT
- Cores located around the periphery
- Retail around the perimeter provides a lively animated experience



Illustrative platform plan

- Permeable platform level
- Central adit configuration ties all circulation together
- Visual clarity and intuitive wayfinding
- Cross-adits evenly distributed along platform

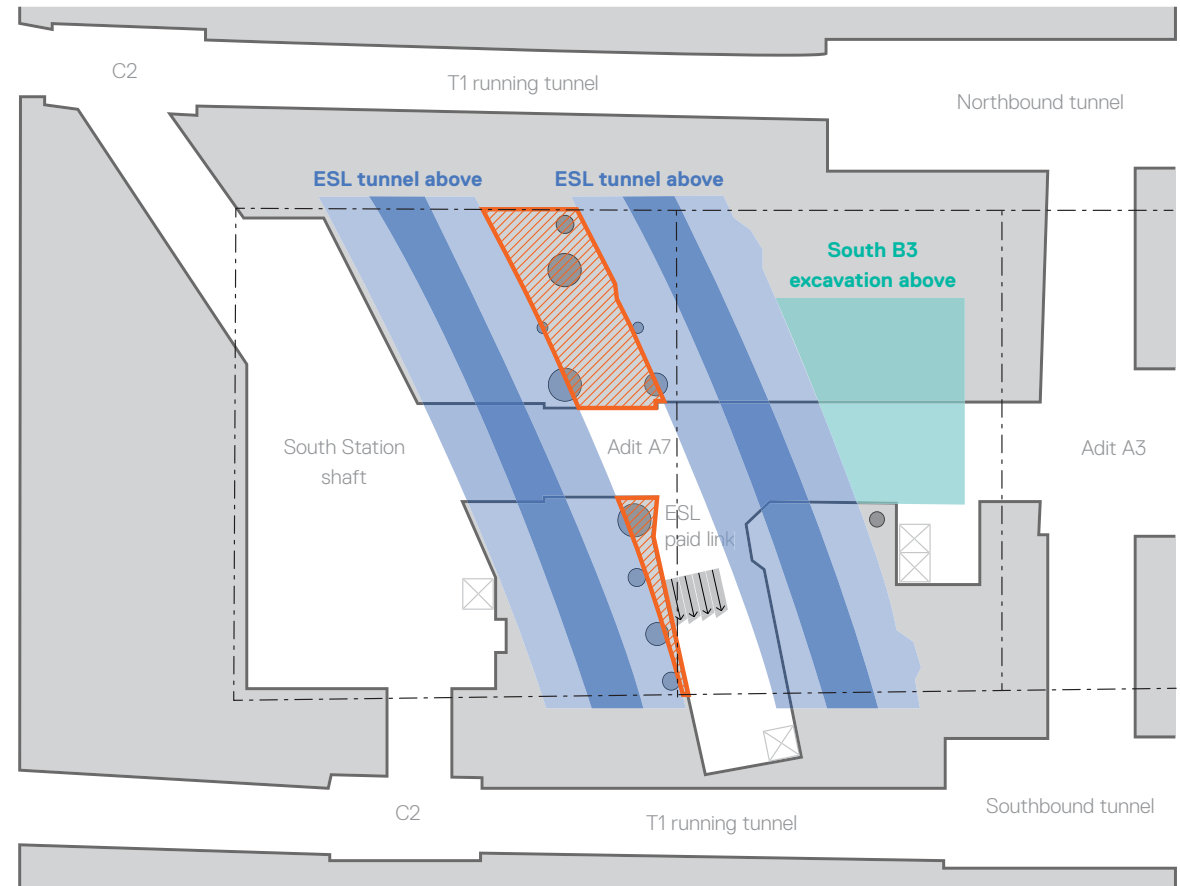


Structural constraints

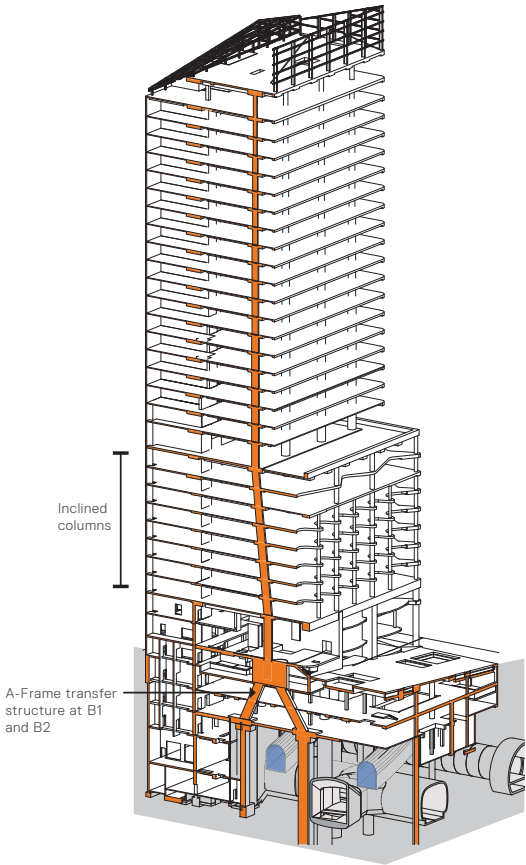
South Shaft excavation and ESL tunnels

- Significant structural constraints affect the south site
- ESL tunnels traverse the site imposing considerable constraints on pile foundations and footing locations
- Limited opportunities to drop structure
- Necessitates various transfer solutions

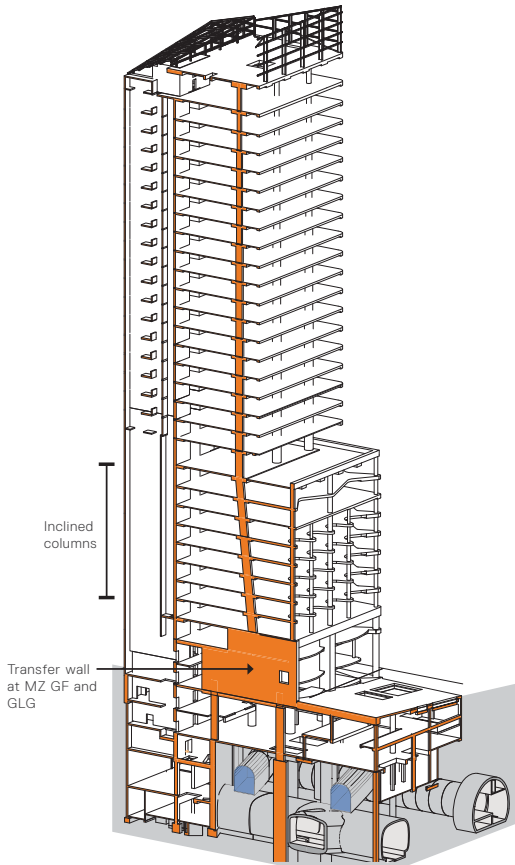
 Available zones for structural landing point opportunities



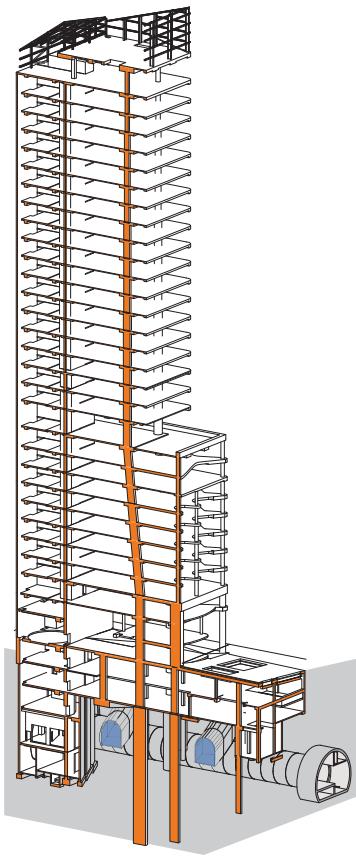
South site structural strategy



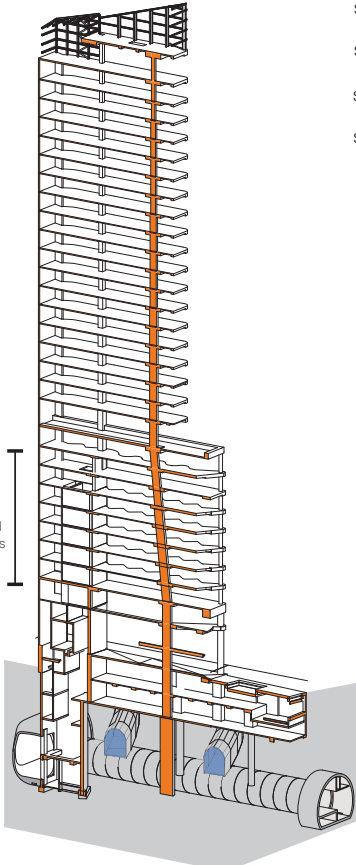
Transfer at grid sD



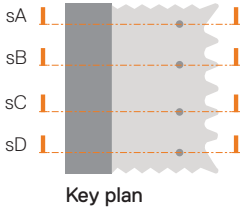
Transfer at grid sC



Transfer at grid sB

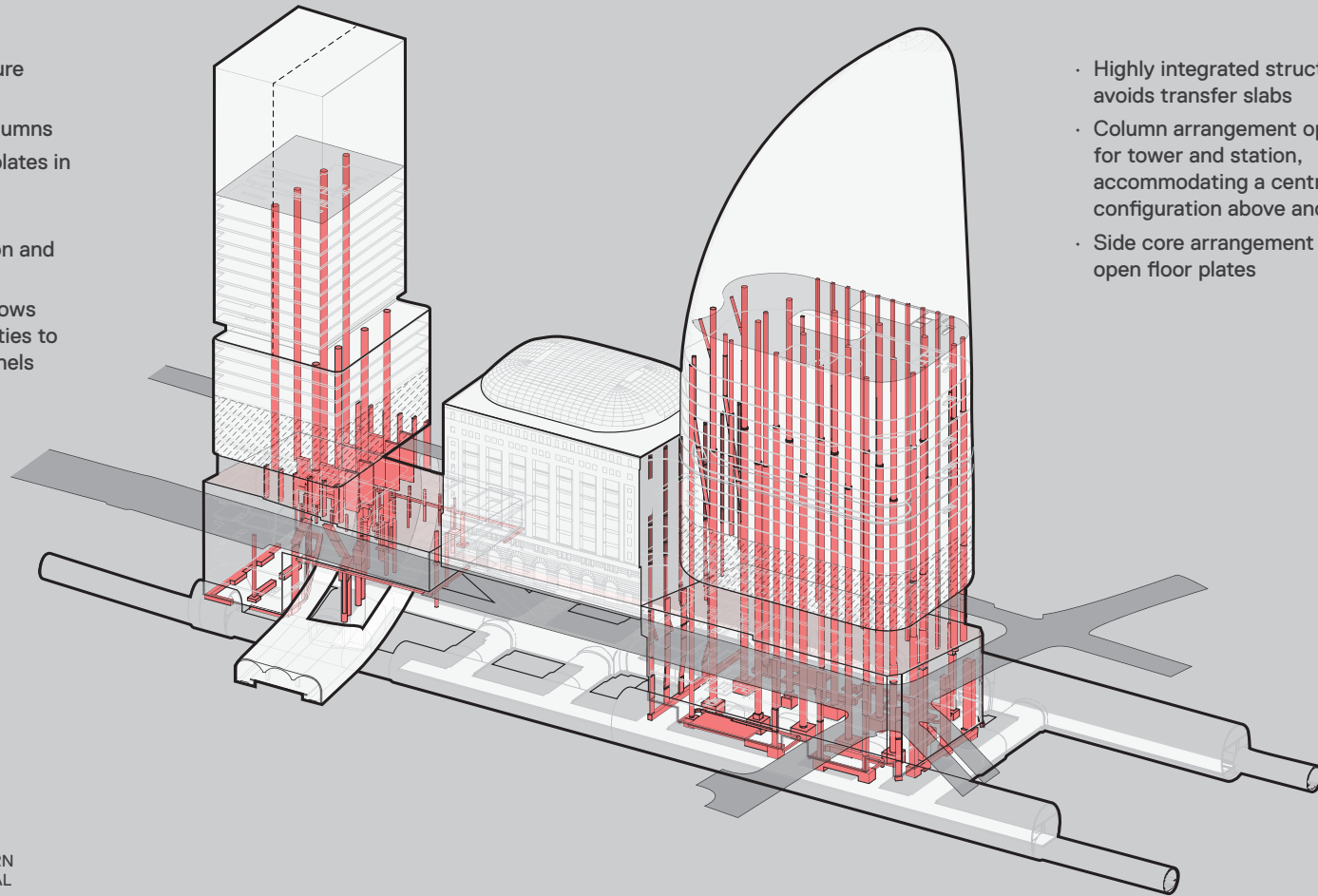


Transfer at grid sA



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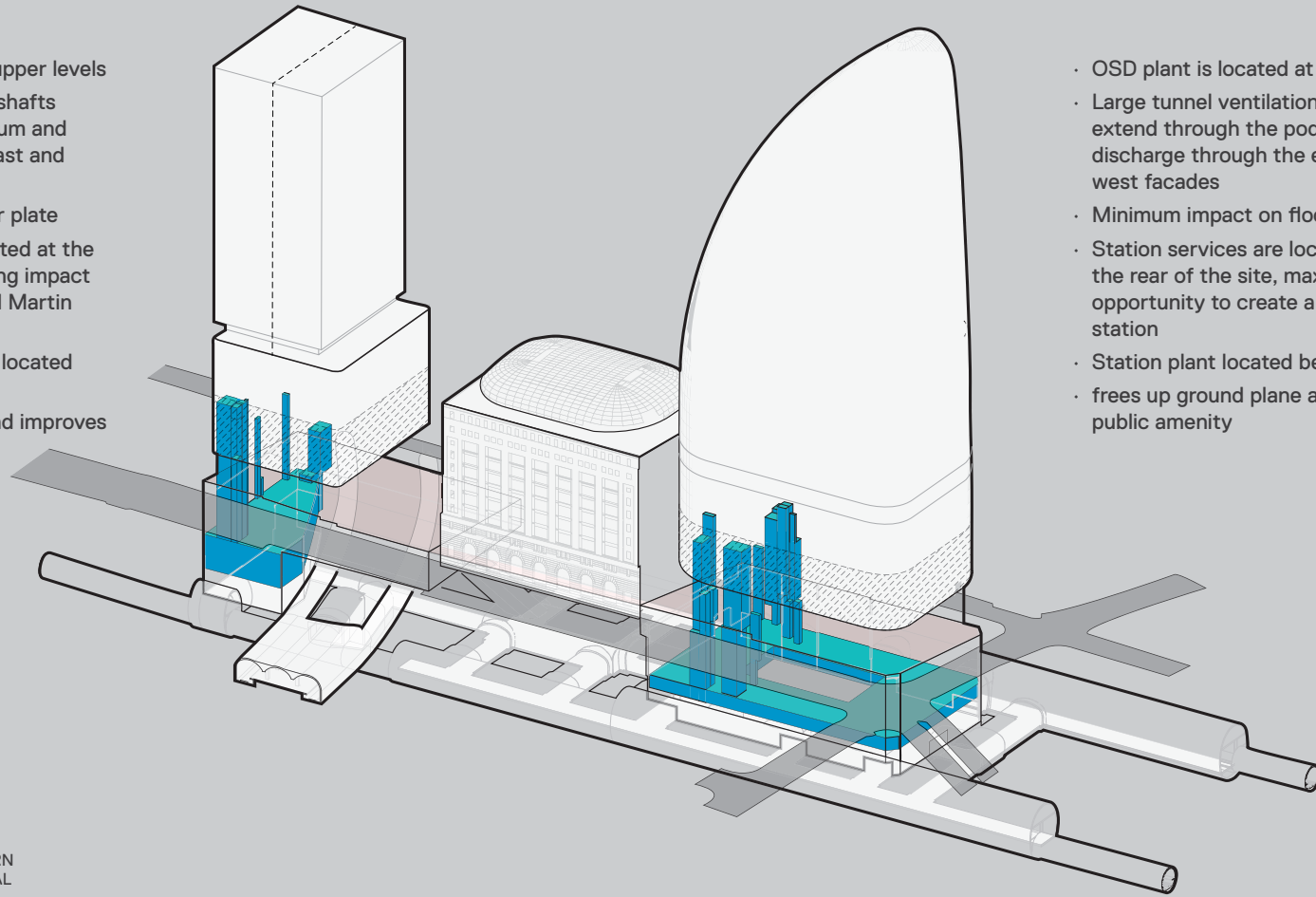


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