CONSTRUCTION MANAGEMENT STATEMENT

APPENDIX Z

Sydney Metro City & Southwest

Pitt Street South Over Station Development:

Preliminary Construction Management Statement

Applicable to:	Sydney Metro City & Southwest
Author:	Sydney Metro
Owner	Sydney Metro
Status:	Final
Version:	4
Date of issue:	August 2018

Revision	Revision date	Status	Brief reason for update	Name/ position/ company	Author/ Reviewer/ Approver	Signature
0	12/06/2018	Draft		SMDO		
1	18/07/2018	Final	OSD team changes	SMDO	Program Manager Transport Planning	

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Executive Summary

Statement Purpose

This document has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) for a concept State Significant Development Application (concept SSD Application) proposing over station development (OSD) above the Pitt Street South Metro Station. The SEARs calls for the preparation of preliminary construction management statement (the Statement) addressing how future construction stages will manage impacts to pedestrians, rail users, bus services and taxis.

OSD Overview

The concept SSD Application seeks approval for the following:

- Option 1 – a residential tower comprising 161 dwellings, or
- Option 2 – a commercial office tower comprising 19,031m^2 GFA

The residential development would have 34 on street car spaces, while the commercial office building would have 11 on site spaces, both excluding service vehicle spaces and associated loading dock facilities accessed via Pitt Street.

Pedestrian access to the Metro station will be via Bathurst Street and the access for the OSD will be via Pitt Street.

OSD Construction Traffic Management Principles

Construction would occur generally in accordance with the following:

- Metro contract requirements and relevant standards.
- Construction Traffic Haulage Routes (as provided for in the Environmental Impact Statement (EIS) and Critical State Significant Infrastructure (CSSI) approval)
- Construction Traffic Management Framework (CTMF): The document provides the overall strategy and approach for construction traffic management for the Metro project, and an outline of the traffic management requirements and processes that will also apply to OSD construction at the Pitt Street OSD sites.
- Relevant traffic management methodologies and procedures approved previously for the site. (Note that these did not take account of the possibility of concurrent Metro station and OSD construction as outlined below).

OSD Construction Scenarios

Construction planning is proceeding on the basis of three possible staging scenarios:

- *Scenario 1:* OSD constructed while Metro construction is underway.
- *Scenario 2:* OSD construction may still be occurring after commencement of Metro station operation.
- *Scenario 3:* OSD construction starts after the Metro station is operational.

The anticipated construction timeline for each staging scenario is as follows:

- *Scenario 1:* Station work complete and station operational in 2024. OSD start: 2022. OSD completed by 2024.
- *Scenario 2:* Station work complete and station operational in 2024. OSD start: after 2023 with completion post 2024.
- Scenario 3: Station work completed and station operational in 2024. OSD start: after 2024.

The developer awarded the OSD development rights will determine the timeframe of the OSD construction and communicate these in a Construction Traffic Management Plan (CTMP). Further details confirming the construction methodology and associated impact assessment and mitigation measures will be provided with the future detailed SSD Application.

OSD Construction Impacts & Mitigation

A number of measures have been identified to minimise and mitigate construction impacts having regard to the three construction staging scenarios identified above. Mitigation strategies have also been developed to ensure that impacts on pedestrians, rail users, bus services and taxis are manageable for all three staging scenarios.

1.0 Purpose of this report

1.1 Background

This report supports a concept State Significant Development Application (concept SSD Application) submitted to the Department of Planning and Environment (DPE) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The concept SSD Application is made in accordance with Section 4.22 of the EP&A Act.

Sydney Metro is seeking to secure concept approval for a building envelope above the southern portal of Pitt Street Station, otherwise known as the over station development (OSD). The concept SSD Application seeks consent for a building envelope, maximum building height, land use options, pedestrian and vehicular access, circulation arrangements and associated car parking as well as the strategies and design parameters for the future detailed design of development.

Sydney Metro proposes to procure the construction of the OSD as part of an integrated station development package, which would result in the combined delivery of the station, OSD and public domain improvements. The station and public domain elements form part of a separate planning approval for Critical State Significant Infrastructure (CSSI) approved by DPE on 9 January 2017.

As the development is associated with railway infrastructure and is for residential or commercial premises with a Capital Investment Value of more than $30 million, the project is a State Significant Development (SSD) pursuant to Schedule 1, Clause 19(2)(a) of the *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP). The full extent of the proposed development can also be considered to be SSD by virtue of Clause 8(2) of the SRD SEPP.

This report has been prepared to specifically respond to the Secretary's Environmental Assessment Requirements (SEARs) issued for the concept SSD Application for Pitt Street South on 30th November 2017 which state that the Environmental Impact Statement (EIS) is to address the following requirements:

Preliminary Construction Management Statement

1.2 Overview of the Sydney Metro in its context

The New South Wales (NSW) Government is implementing *Sydney's Rail Future*, a plan to transform and modernise Sydney's rail network so that it can grow with the city's population and meet the needs of customers in the future. Sydney Metro is a new standalone rail network identified in *Sydney's Rail Future*.

Sydney Metro is Australia's biggest public transport project, consisting of Sydney Metro Northwest, which is due for completion in 2019 and Sydney Metro City & Southwest, which is due for completion in 2024.

Sydney Metro West is expected to be operational in the late 2020s (refer to **Figure 1**).

Figure 1: Sydney Metro alignment map

Sydney Metro City & Southwest includes the construction and operation of a new metro rail line from Chatswood, under Sydney Harbour through Sydney's Central Business District (CBD) to Sydenham and on to Bankstown through the conversion of the existing line to metro standards.

The project also involves the delivery of seven new metro stations, including at Pitt Street. Once completed, Sydney Metro will have capacity for 30 trains an hour (one every two minutes) through the CBD in each direction - a level of service never seen before in Sydney.

On 9 January 2017, the Minister for Planning approved the Sydney Metro City & Southwest - Chatswood to Sydenham application lodged as a Critical State Significant Infrastructure project (reference SSI 15_7400), hereafter referred to as the CSSI Approval.

The CSSI Approval includes all physical work required to construct the CSSI, including the demolition of existing buildings and structures on each site. Importantly, the CSSI Approval also includes provision for the construction of below and above-ground structures and other components of the future integrated station development (including building infrastructure and space for future lift cores, plant rooms, access, parking and building services, as relevant to each site). The rationale for this delivery approach, as identified within the CSSI Application, is to enable the integrated station development to be more efficiently built and appropriately integrated into the metro station structure.

The EIS for the Chatswood to Sydenham component of the Sydney Metro City & Southwest project identified that the OSD would be subject to a separate assessment process.

Since the CSSI Approval was issued, Sydney Metro has lodged four modification applications to amend the CSSI Approval as outlined below:

- Modification 1- Victoria Cross and Artarmon Substation which involves relocation of the Victoria Cross northern services building from 194-196A Miller Street to 50 McLaren Street together with inclusion of a new station entrance at this location referred to as Victoria Cross North. 52 McLaren Street would also be used to support construction of these works. The modification also involves the relocation of the substation at Artarmon from Butchers Lane to 98 – 104 Reserve Road. This modification application was approved on 18 October 2017.
- Modification 2- Central Walk which involves additional works at Central Railway Station including construction of a new eastern concourse, a new eastern entry, and upgrades to suburban platforms. This modification application was approved on 21 December 2017.
- Modification 3 - Martin Place Station which involves changes to the Sydney Metro Martin Place Station to align with the Unsolicited Proposal by Macquarie Group Limited (Macquarie) for the development of the station precinct. The proposed modification involves a larger reconfigured station layout, provision of a new unpaid concourse link and retention of the existing MLC pedestrian link and works to connect into the Sydney Metro Martin Place Station. This modification application was approved on 22 March 2018.
- Modification 4 - Sydenham Station and Sydney Metro Trains Facility South which incorporated Sydenham Station and precinct works, the Sydney Metro Trains Facility South, works to Sydney Water's Sydenham Pit and Drainage Pumping Station and ancillary infrastructure and track and signalling works into the approved project. This modification application was approved on 13 December 2017.

Given the modifications, the CSSI Approval is now approved to operate to Sydenham Station and also includes the upgrade of Sydenham Station.

The remainder of the City & Southwest project (Sydenham to Bankstown) proposes the conversion of the existing heavy rail line and the upgrade of the existing railway stations along this alignment to metro standards. This portion of the project, referred to as the Sydenham to Bankstown Upgrade, is the subject of a separate CSSI Application (No. SSI 17_8256) for which an Environmental Impact Statement was exhibited between September and November 2017 and a Response to Submissions and Preferred Infrastructure Report was submitted to the NSW Department of Planning & Environment (DPE) in June 2018 for further exhibition and assessment.

1.3 Planning relationship between Pitt Street Station and the OSD

While the southern portal of Pitt Street Station and the OSD will form an integrated station development, the planning pathways under the *Environmental Planning and Assessment Act 1979* involve separate approval for each component of the development. In this regard, the approved station works (CSSI Approval) are subject to the provisions of Part 5.1 of the EP&A Act (now referred to as Division 5.2) and the OSD component is subject to the provisions of Part 4 of the EP&A Act.

For clarity, the approved station works under the CSSI Approval included the construction of below and above ground structures necessary for delivering the station and also enabling construction of the integrated OSD. This included but is not limited to:

- demolition of existing development
- excavation
- station structure including concourse and platforms
- lobbies
- retail spaces within the station building
- public domain improvements
- station portal link (between the northern and southern portals of Pitt Street Station)
- access arrangements including vertical transport such as escalators and lifts
- structural and service elements and the relevant space provisioning necessary for constructing OSD, such as columns and beams, space for lift cores, plant rooms, access, parking, retail and building services.

The vertical extent of the approved station works above ground level is defined by the ‘transfer slab’ level (which for Pitt Street South is defined by RL 58.25), above which would sit the OSD. This delineation is illustrated in **Figure 2** below.

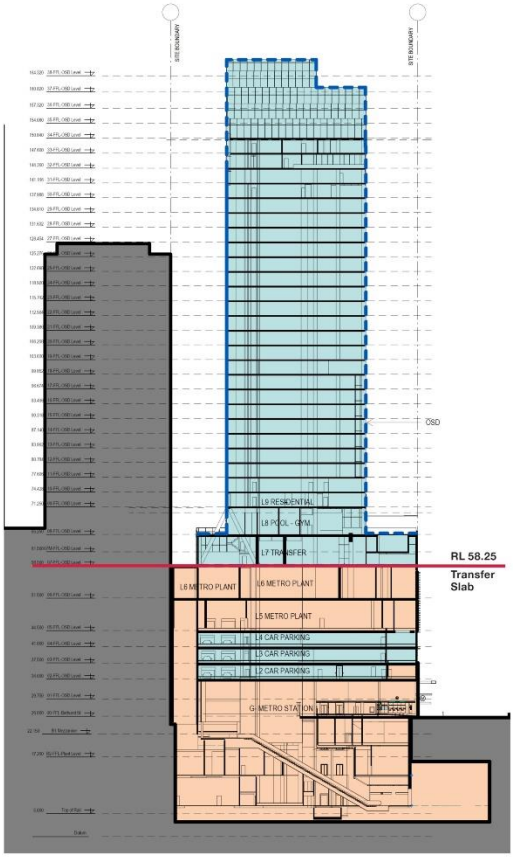

Figure 2: Delineation between station and OSD

The CSSI Approval also establishes the general concept for the ground plane of Pitt Street Station including access strategies for commuters and pedestrians. In this regard, pedestrian access to the station would be from Bathurst Street and the OSD lobby would be accessed from Pitt Street.

Since the issue of the CSSI Approval, Sydney Metro has undertaken sufficient design work to determine the space planning and general layout for the station and identification of those spaces within the station area that would be available for the OSD. In addition, design work has been undertaken to determine the technical requirements for the structural integration of the OSD with the station. This level of design work has informed the concept proposal for the OSD. It is noted that ongoing design development of the works to be delivered under the CSSI Approval would continue with a view to developing an Interchange Access Plan (IAP) and Station Design Precinct Plan (SDPP) for Pitt Street Station to satisfy Conditions E92 and E101 of the CSSI Approval.

The public domain improvement works around the site would be delivered as part of the CSSI Approval.

1.4 The Site

The Pitt Street South OSD site is located near the corner of Pitt Street and Bathurst Street, comprising four individual allotments but excluding the Edinburgh Castle Hotel, above the southern portal of the future Pitt Street Station. The context of the site is demonstrated at **Figure 3** below.

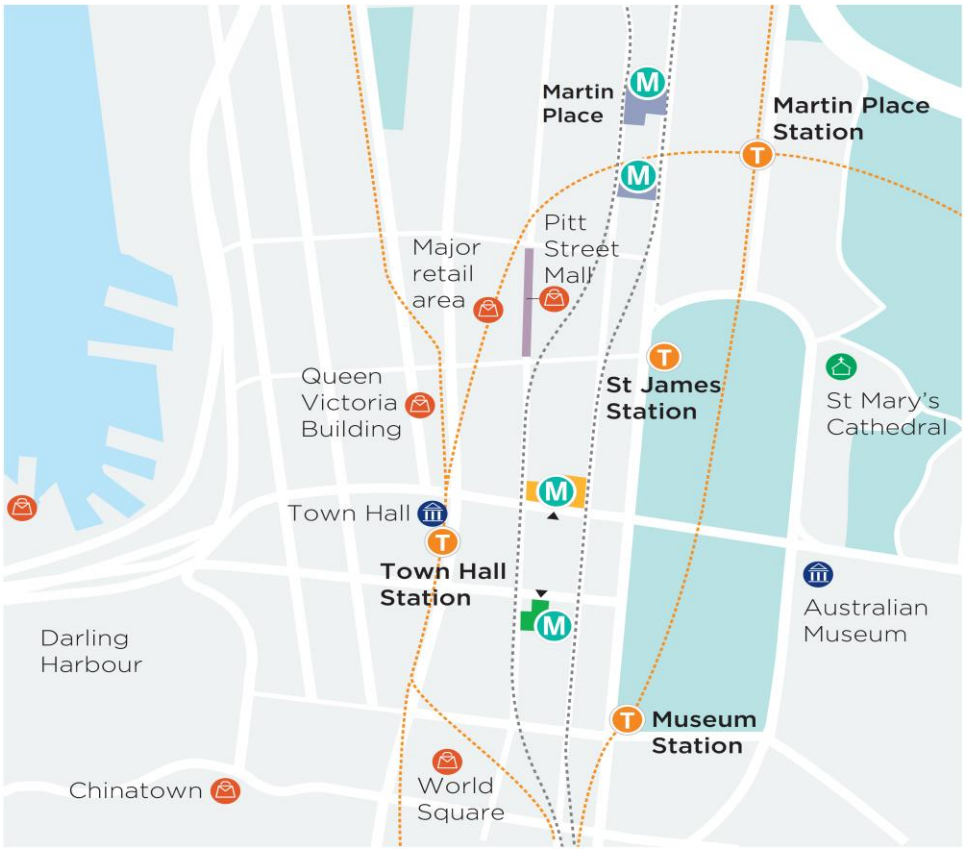

Figure 3: Pitt Street Station location plan

The site is located in the City of Sydney Local Government Area. The site (refer to **Figure 4** below) is irregular in shape, has a total area of approximately 1,708 square metres and has street frontages of approximately 32 metres to Pitt Street and 24 metres to Bathurst Street.

The Pitt Street South site comprises a number of individual properties which front Bathurst Street and Pitt Street. Specifically, the site comprises the following:

- 125-129 Bathurst Street, Sydney (Lot 1 in DP60293)
- 131-135 Bathurst Street, Sydney (Lot 1 in DP59101)
- 296-300 Pitt Street, Sydney (Lot 1 in DP436359)
- 302 Pitt Street, Sydney (Lot 1 in DP62668)

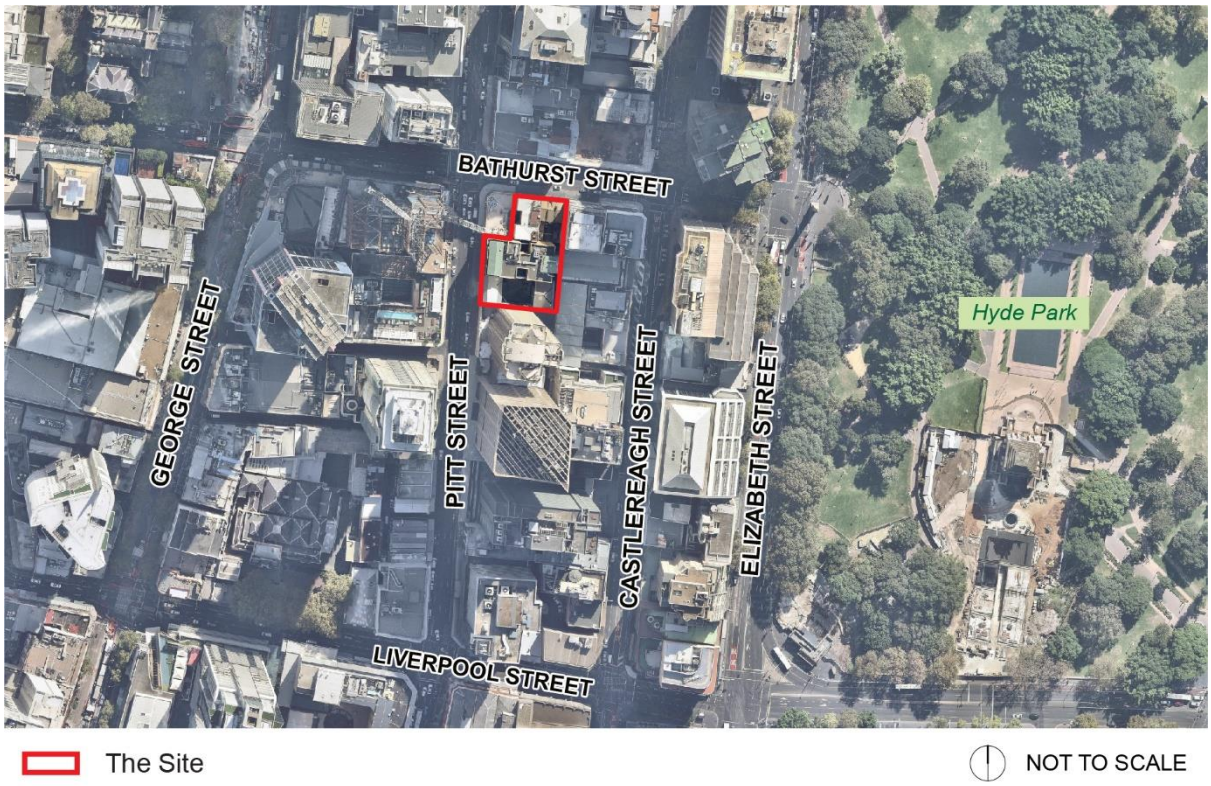

Figure 4: Aerial photo of Pitt Street South

1.5 Overview of the proposed development

This concept SSD Application comprises the first stage of the Pitt Street South OSD project. It will be followed by a detailed SSD Application for the design and construction of the OSD to be lodged by the successful contractor who is awarded the contract to deliver the integrated station development.

This concept SSD Application seeks approval for the planning and development framework and strategies to inform the future detailed design of the OSD. It specifically seeks approval for the following:

- a building envelope
- a maximum envelope height of Relative Level (RL 171.6) which equates to approximately 35 storeys, including the podium height of RL 71.0 which equates to approximately 8 storeys above ground
- use for the OSD component of the development for uses, subject to further detailed applications, which could include:
    - residential accommodation; or
    - commercial premises
    - use of the conceptual OSD space provisioning within the footprint of the CSSI Approval (both above and below ground), including the OSD lobby areas, podium car parking, storage facilities, services and back-of-house facilities

- car parking for a maximum of 34 spaces located across three levels of the podium
- loading, vehicular and pedestrian access arrangements from Pitt Street
- strategies for utilities and service provision
- strategies for the management of stormwater and drainage
- a strategy for the achievement of ecologically sustainable development
- indicative future signage
- a strategy for public art
- a design excellence framework
- the future subdivision of parts of the OSD footprint (if required)

As this concept SSD Application is a staged development pursuant to section 4.22 of the EP&A Act, future approval would be sought for detailed design and construction of the OSD. Concept indicative designs showing potential residential and commercial building form outcomes at the site have been provided as part of this concept SSD Application at Appendix E and Appendix F, respectively.

Pitt Street Station is to be a key station on the future Sydney Metro network, providing access to the Sydney CBD. The proposal combines the metro station with an OSD component. The OSD would assist in strengthening the role of Central Sydney as the key centre of business in Australia and would contribute to the diversity, amenity and sustainability of the CBD.

It is noted that Pitt Street Station northern portal OSD is subject to a separate application and does not form part of this concept SSD Application.

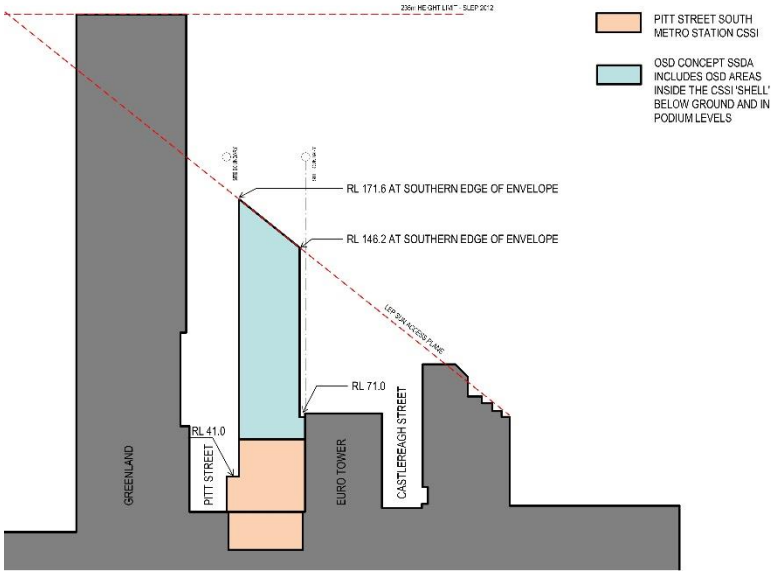

Figure 5: Pitt Street South OSD envelope, including OSD components (Blue) and station box (Orange)

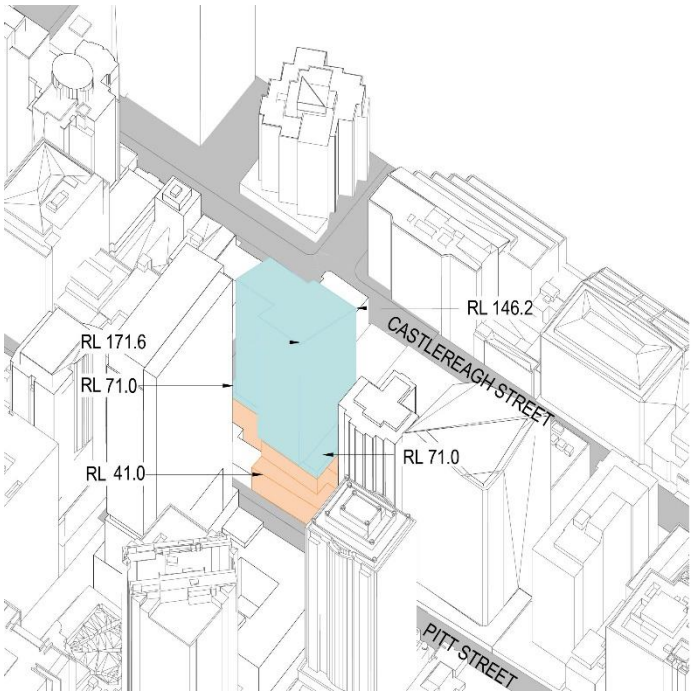

Figure 6: Pitt Street South OSD axonometric diagram, as seen from the south-west

1.6 Staging and framework for managing environmental impacts

Sydney Metro proposes to procure the delivery of the Pitt Street South integrated station development in one single package, which would entail the following works:

- station structure
- station fit-out, including mechanical and electrical
- OSD structure
- OSD fit-out, including mechanical and electrical.

Separate delivery packages are also proposed by Sydney Metro to deliver the excavation of the station boxes/shafts ahead of the integrated station development delivery package, and line-wide systems (e.g. track, power, ventilation) and operational readiness works prior to the Sydney Metro City & Southwest metro system being able to operate.

Three possible staging scenarios have been identified for delivery of the integrated station development:

1. Scenario 1 – the station and OSD are constructed concurrently by constructing the transfer slab first and then building in both directions. Both the station and OSD would be completed in 2024.
2. Scenario 2 – the station is constructed first and ready for operation in 2024. OSD construction may still be incomplete or soon ready to commence after station construction is completed. This means that some or all OSD construction is likely to still be underway upon opening of the station in 2024.
3. Scenario 3 – the station is constructed first and ready for operation in 2024. The OSD is built at a later stage, with timing yet to be determined. This creates two distinct construction periods for the station and OSD.

Scenario 1 represents Sydney Metro's preferred option as it would provide for completion of the full integrated station development and therefore the optimum public benefit at the site at the earliest date possible (i.e. on or near 2024 when the station is operational). However, given the delivery of the OSD could be influenced by property market forces, Scenarios 2 or 3 could also occur, where there is a lag between completion of the station component of the integrated station development (station open and operational), and a subsequent development.

The final staging for the delivery of the OSD would be resolved as part of the detailed SSD Application(s).

For the purposes of providing a high level assessment of the potential environmental impacts associated with construction, the following have been considered:

- Impacts directly associated with the OSD, the subject of this SSD Application
- Cumulative impacts of the construction of the OSD at the same time as the station works (subject of the CSSI Approval)

Given the integration of the delivery of the Sydney Metro City & Southwest metro station with an OSD development, Sydney Metro proposes the framework detailed in **Figure 7** to manage the design and environmental impacts, consistent with the framework adopted for the CSSI Approval.

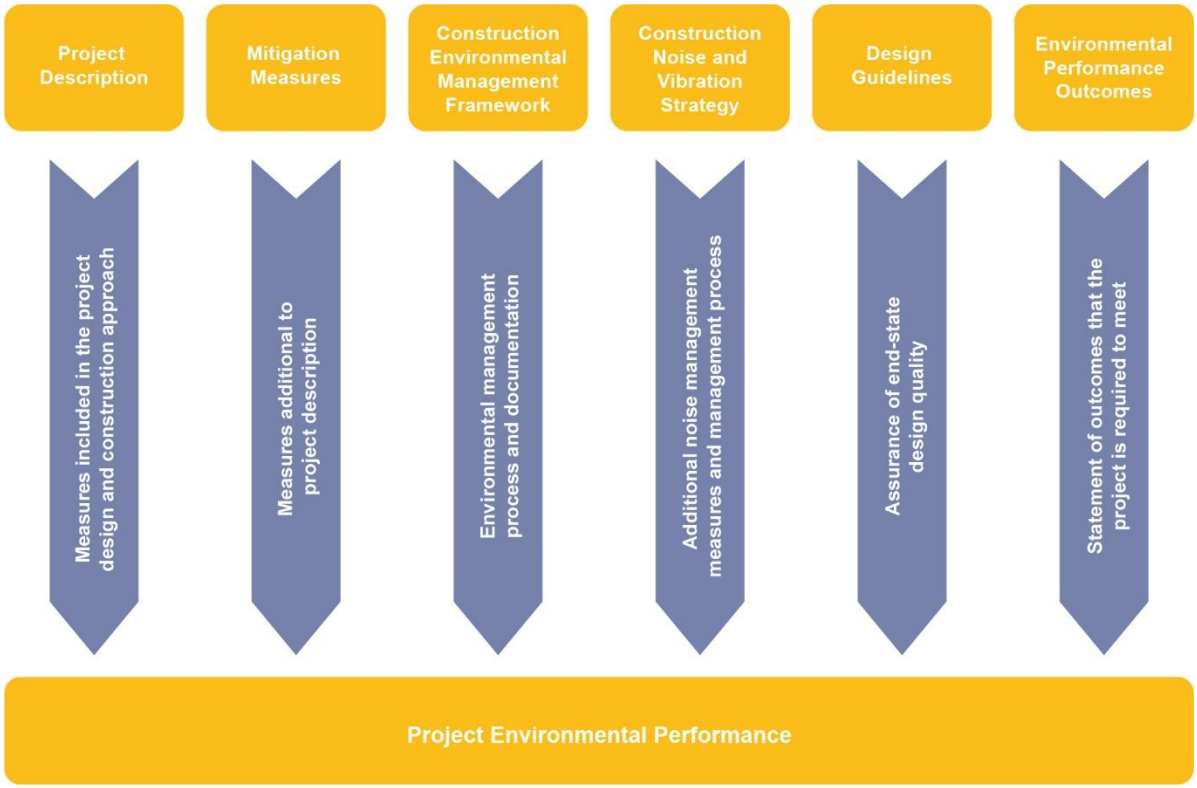

Figure 7: Project approach to environmental mitigation and management

Sydney Metro proposes to implement a similar environmental management framework where the integrated delivery of the CSSI station works and the OSD occur concurrently. This would ensure a consistent approach to management of design interface and construction-related issues.

Sydney Metro proposes this environmental management framework would apply to the OSD until completion of the station and public domain components of the integrated station development delivery contract (i.e. those works under the CSSI Approval). Should the OSD be constructed beyond the practical completion and opening of the station, standard practices for managing construction related environmental impacts would apply in accordance with the relevant guidelines and Conditions of Approval for the detailed SSD Application(s).

2.0 Construction Traffic Management Principles

2.1 CSSI EIS & CSSI Approval Conditions

Condition A4 of Schedule 2 of the CSSI Approval states that except to the extent described in the EIS or Preferred Infrastructure Report (PIR), any OSD, including associated future uses, does not form part of this CSSI and will be subject to the relevant assessment pathway prescribed by the EP&A Act. Notwithstanding, the construction haulage routes identified within the CSSI EIS (refer to **Figure 8**) are those that would generally apply to any OSD construction on the site whilst OSD works are undertaken concurrently with works approved by the CSSI, subject to the Construction Traffic Management Plan (CTMP) preparation and road authority views.

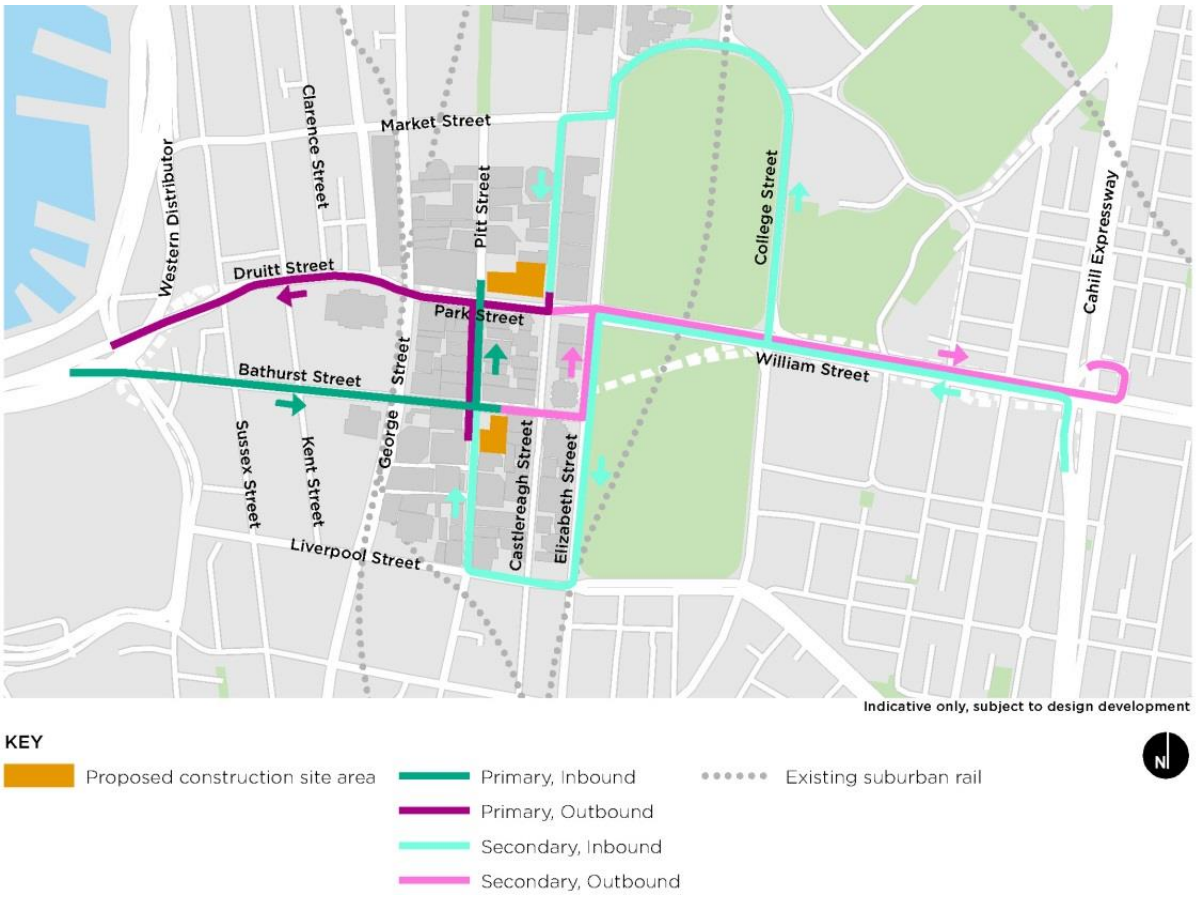

Figure 8: CSSI construction haulage routes, Pitt Street

2.2 Construction Traffic Management Framework

The OSD does not form part of the Sydney Metro CSSI Approval dated 9 January 2017. The Construction Traffic Management Framework (CSSI CTMF) prepared by the Sydney Metro Delivery Office in accordance with Condition E81 of the CSSI Approval provides the overall strategy and approach for construction traffic management for the Metro project, and an outline of the traffic management requirements and processes that will be common to each of the proposed work sites. It establishes the traffic management processes and acceptable

criteria to be considered and followed in managing roads and footpaths adjacent to Project worksites. The principles and procedures outlined in the CSSI CTMF are proposed to apply to OSD construction where there is concurrent station and OSD construction, notwithstanding Clause A4, Schedule 2 of the CSSI Approval. However, the Sydney Co-Ordination Office (SCO) and the Roads and Maritime Services (RMS) may require that additional OSD specific requirements are placed on any approval. The CSSI CTMF identifies a number of issues at the Pitt Street sites that CSSI CTMPs will need to address and mitigate for all staging scenarios. These include:

- Heavy pedestrian activity in Pitt Street, Castlereagh Street, Bathurst Street and Park Street, particularly during weekday AM, weekday lunch, weekday PM and special events.
- Pedestrian and cyclist safety.
- Community/resident amenity.
- Impact on bus stops and bus operations in Park Street.
- Special events.
- Impact on service vehicle parking.
- Cumulative construction traffic from other developments.
- Not precluding service vehicle access to and from the Edinburgh Castle hotel.

Additionally, Appendix C of the CTMF identifies a number of RMS and SCO site specific access and routing operational imperatives as follows:

- RMS and SCO do not endorse the use of truck and dogs during the day. RMS and SCO have no objection to the use of truck and dogs as follows: Sunday to Wednesday 8:00pm to 6:00am, Thursday 10:00pm to 6:00am, Saturday 3:00am to 9:00am, Sunday from 3:00am. Single trucks (tippers) for the whole day Saturday and Sunday. RMS and SCO do not support their use during special events.
- RMS and SCO raise no objection to a maximum number of truck movements (4 per hour) within morning and evening peak periods provided single unit trucks (tippers) are used.
- SCO does not support the use of on-street parking zones by trucks, without prior approval.

The CTMP will also need to address the contractors approach to the management of active transport activities and the general public.

2.3 Other Recently Approved CTMPs for the Site

In May 2018 the Metro Pitt Street South Site – Demolition Works Amendment 1 CTMP was prepared by the TSE Contractor and approved by RMS. The Plan applies to TSE demolition works during the May – August 2018 period and provides for the following:

- Short term (right in / right out) entry and exit via the Pitt Street frontage to the site.

- Construction of a second driveway on the Pitt Street frontage to the site for short term use only.
- Roll over kerb driveways which maintain a level footpath for pedestrians.

The OSD contractor may need vehicular access to and from the kerbside lanes in Pitt and Bathurst Streets, possibly designated as work zones. If required, this would only be implemented following SCO endorsement and RMS approval.

2.4 Other OSD Construction Considerations

2.4.1. Approvals

Sydney Metro contractors would be required to secure all required statutory approvals prior to the commencement of works. Refer to Section 6 of the CTMF (prepared by Sydney Metro) for traffic management related approvals.

2.4.2. Hoardings

Hoardings would need to be placed around the perimeter of the site in accordance with relevant standards and having regard to Section 9.2 of the CTMF.

2.4.3. Vulnerable Road Users

The OSD Contractor would be required to adopt applicable vulnerable road user safety measures, as outlined in the CTMF and in accordance with the Sydney Metro Principal Contractor Health and Safety Standard.

3.0 OSD Construction Methodologies

3.1 Construction Staging Scenarios

Construction planning is proceeding on the basis of three possible staging scenarios:

- *Scenario 1:* OSD constructed while Metro construction is underway.
- *Scenario 2:* OSD construction may still be occurring after commencement of Metro station operation.
- *Scenario 3:* OSD construction starts after commencement of Metro station operation.

These staging scenarios are illustrated in **Figure 9** below.

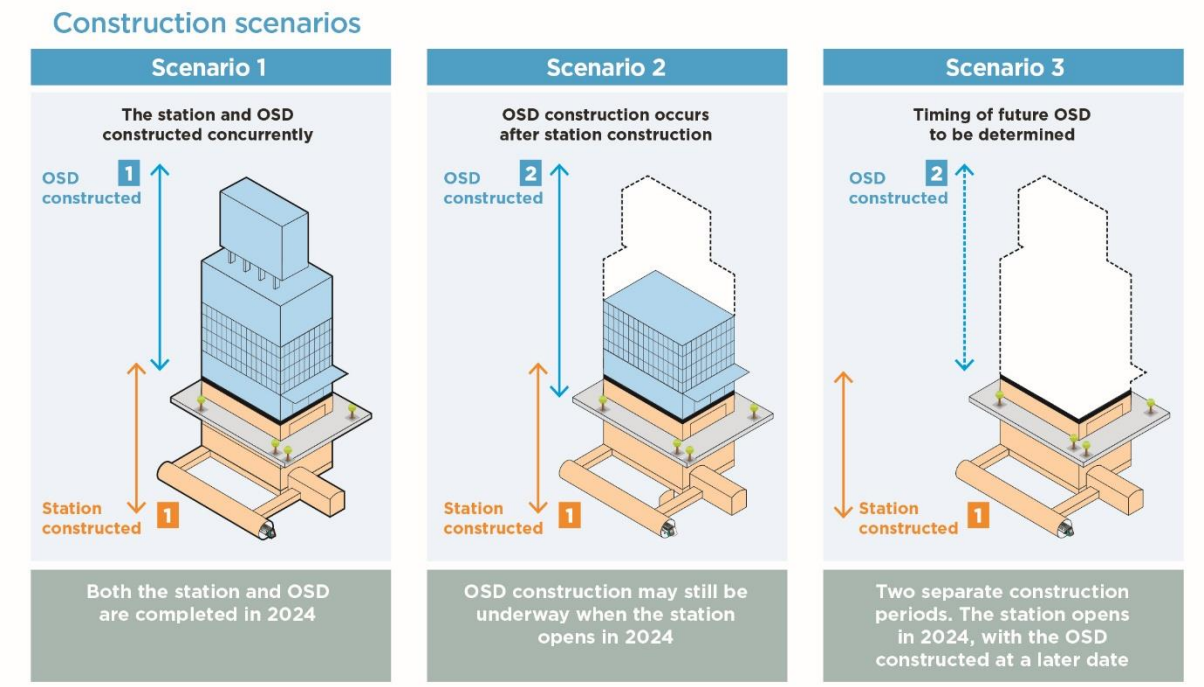

Figure 9: Pitt Street South OSD Construction Staging Scenarios, Sydney

Anticipated construction timelines for each staging scenario are as follows:

- *Scenario 1:* Station work complete and station operational in 2024. OSD start: 2022. OSD completed by 2024.
- *Scenario 2:* Station work complete and station operational in 2024. OSD start: after 2023.
- *Scenario 3:* Station work complete and station operational in 2024. OSD start: after 2024.

3.2 Scenario 1 - Concurrent Metro & OSD Construction

Metro station construction and OSD construction coincide. Vehicular access via Pitt Street and Bathurst Street will be required for OSD construction. Shared use of the loading dock facilities (in Pitt Street) will be required. If the OSD and Station works are delivered by separate contractors (not preferred) shared use of site accesses would be required. If accesses cannot be shared for contractual reasons, the extent of kerbside impacts along Pitt and Bathurst Streets will be increased. One, and possibly two, tower cranes will be operational at the site during Metro and OSD construction. The OSD construction methodology assumes vehicular access to ground levels for the shared loading dock facilities would be required during construction of the OSD.

3.3 Scenario 2 - OSD Construction continues after Metro Opening

The assumption is that Metro construction works have ceased and OSD construction continues after the Metro station commences operations. While shared construction accesses is unlikely to be an issue, the operational Metro station may restrict construction vehicle access to the Pitt Street loading docks which may require the OSD contractor to seek approval for loading or works zones on the street frontages. At least one OSD tower crane will be required. The construction methodology assumes vehicular access to ground levels for the shared loading dock facilities may be required at some points during construction of the OSD. The operating Metro station and other tenants will also require access to these dock facilities.

3.4 Scenario 3 - OSD Construction starts after Metro Opening

The assumption is that Metro construction works have ceased, the Metro station is operational and OSD construction begins after the Metro station commences operations. Metro construction activities are not assumed to coincide with OSD construction. The impacts and risks associated with two separate Metro station and OSD construction periods are similar to Scenario 2. That is, OSD construction activities occurring above and around an operating Metro station.

4.0 Indicative Construction Traffic Generation

Indicative estimates of traffic generation associated with the Metro station fitout and the OSD works are provided below in **Table 1**.

Table 1: Indicative Traffic Generation Estimates

Period / Vehicle Type												
	Peak Hour[1]			Non Peak Hour[2]			Evening[3]			Night[4]		
	Light	HV	Total	Light	HV	Total	Light	HV	Total	Light	HV	Total
Metro Station [5]	2	6	8	10	22	32	2	6	8	2	6	8
OSD[6]	2	3	5	8	12	20	2	4	6	2	4	6
Total	4	9	13	18	34	52	4	10	14	4	10	14

1. AM peak hour x 1 and PM peak hour x 1 (7-8am / 5-6pm)
2. 9 hours (8-5pm)
3. 4 hours (6-10pm)
4. 9 hours (10pm-7am)
5. Sourced from Sydney Metro Chatswood to Sydenham EIS, May 2016
6. SMDO Estimates

The EIS intersection analyses concluded that intersection performance is maintained at all intersections during the construction phase of the project except for the Bathurst Street / Day Street intersection in the PM peak where the Level of service (LOS) deteriorates from LOS C to LOS D. Level of Service A is free flow conditions with minimal delay while Level of Service F is congested flow with extended delays. This is likely due to the fact that the intersection is currently operating close to its theoretical capacity (degree of saturation 0.93). The average delay deteriorates from 41 to 46 seconds per vehicle and the degree of saturation deteriorates from 0.93 to 0.95. It is therefore considered that the impact of the Metro station construction traffic on the operational performance of this intersection would be relatively minor when compared to its current operation. The impact from the additional Metro station construction traffic generated by the Pitt Street sites would be minimal.

The EIS assessment did not include an assessment of concurrent Metro Station fitout and OSD traffic (Scenario 1). The EIS analysis suggests that key intersections are likely to have the capacity to accommodate minor increases in peak hour traffic, with the possible exception of the Bathurst Street / Day Street intersection in the PM peak. SCO and RMS, however, may still require that restrictions be placed on peak hour OSD heavy vehicle traffic generation in order to maintain road network efficiency.

5.0 Impacts and Preliminary Mitigation Proposals

The key impacts and possible mitigations for each staging scenario are considered separately below.

5.1 Scenario 1 - Concurrent Metro & OSD Construction

Pedestrians – the number of construction driveways along Pitt and Bathurst Streets should be minimised to reduce the likelihood of pedestrian – vehicular conflict. The risk to pedestrians in Scenario 1 is high because OSD construction would be occurring at the same time as Metro construction. Specific pedestrian management measures would need to be put in place by the contractor to manage pedestrians on all frontages to the site. This may include a restriction on heavy vehicle access into and out of the site during the AM and PM peak periods.

Metro customers – The Metro station has yet to open and therefore Metro customers would not be moving into and out of the station. This mitigates risk compared to Scenario 2.

Buses and bus customers – OSD and Metro works are ongoing which means that there is a low to moderate risk that construction vehicle activity may adversely impact bus operations nearby. At present there are no regular scheduled bus services operating along the Pitt and Bathurst Street frontages to the site. Bus interchange post Metro opening is planned to continue in Park and Castlereagh Streets at the Pitt Street north sites.

Taxis – there are no taxi zones on the Pitt and Bathurst Street frontages to the site.

5.2 Scenario 2 - OSD Construction continues after Metro Opening

Pedestrians – the risk to pedestrians is high because OSD construction is occurring after the Metro station has opened. Specific pedestrian management measures would need to be put in place to manage pedestrians on all frontages to the site. This may include a restriction on heavy vehicle access into and out of the site during the AM and PM peak periods. Preparation of a site specific Pedestrian Management Plan in accordance with the Principal's General Specifications G10 – Traffic & Transport Management may also be required.

Metro customers – the Pitt Street South Metro Station contractor works have been completed, the Metro station is open and OSD contractor works are ongoing. This increases risks for Metro customers and pedestrians generally, if construction activities are not clearly segregated.

Buses and bus customers – OSD construction vehicle activity and higher Metro generated bus activity will not occur at the site as bus interchange will continue to be focussed on Park Street at the Pitt Street North site.

Taxis – as per Scenario 1.

Traffic and access - The OSD contractor may require vehicular access to ground levels for the shared loading dock facilities during construction. The operating Metro station will also require access to these dock facilities. This would require careful management of pedestrian and vehicular conflicts along Pitt Street where the loading dock facilities are proposed to be located and accessed. Appendix C of the CTMF states that the SCO does not support the use of on-street parking zones by trucks, without prior approval. Any proposal to lift material to and from heavy vehicles located in the kerbside lanes to the site would need to be done in accordance with relevant standards and only after SCO endorsement and RMS approval of the CTMP. Materials lifts are expected to be required along the Pitt and Bathurst Street frontages to the site.

5.3 Scenario 3 - OSD Construction starts after Metro Opening

Pedestrians – the risk to pedestrians is similar to Scenario 2 because OSD construction is occurring after the Metro station has opened. As would be the case for Scenario 2, specific pedestrian management measures would need to be put in place by the contractor to manage pedestrians on all frontages to the site.

Metro customers – As would be the case for Scenario 2, OSD contractor works occur after the Metro station is operational. Construction management procedures and risk mitigations would be similar to those adopted for Scenario 2.

Buses and bus customers – As with Scenario 2, OSD construction vehicle activity and higher Metro generated bus activity would not coincide. Construction management procedures and risk mitigations would be similar to those adopted for Scenario 2.

Taxis – Depending on the timing of the start of OSD construction and any impact it may have on the kerbside taxi arrangements in place on or around 2024, replacement taxi space(s) may need to be provided in the immediate vicinity of the site to mitigate this displacement. Presently there are no taxi zones on the street frontages adjacent to the site.

6.0 Conclusions

Three possible construction staging scenarios have been considered for the delivery of the integrated station development package:

- *Scenario 1:* OSD constructed while Metro construction is underway.
- *Scenario 2:* OSD construction may still be occurring after commencement of Metro station operation.
- *Scenario 3:* OSD construction starts after the Metro station is operational.

The preferred approach is for the Metro station, OSD and public domain works to be constructed via a single integrated station development package. This would mitigate many of the identified impacts associated with delivery of the works in the core of the Sydney CBD.

Whilst not yet approved, and irrespective of the staging scenario adopted, the construction traffic management principles outlined in the City and Southwest Metro CTMF are those that will apply to integrated station development construction. The principles and mitigation strategies outlined in the CTMF and in this Statement will ensure that impacts on pedestrians, rail users, bus services and taxis are manageable for all three staging scenarios.