#### Item 6.1 - Traffic - 16/10/20



#### NORTH SYDNEY COUNCIL

#### To the General Manager

Attach: 1. Lendlease works overview

**SUBJECT:** (6.1) Sydney Metro Victoria Cross Station Construction - Lendlease Early

Works

**AUTHOR:** Report of Manager Traffic & Transport Operations, Michaela Kemp

#### DESCRIPTION/SUBJECT MATTER:

Consent for the Sydney Metro City & South-West Chatswood to Sydenham (Metro) project was granted by the Department of Planning and Environment on 9 January 2017 (CSSI 7400). The consent can be viewed in full at <a href="https://www.majorprojects.planning.nsw.gov.au">www.majorprojects.planning.nsw.gov.au</a>

The project will deliver new railway infrastructure for Sydney, including two new Metro stations within the North Sydney Local Government Area - at Crows Nest and Victoria Cross (North Sydney Centre). Construction of the line began in 2017, with train operations scheduled to commence by 2024.

In accordance with the various conditions of consent, a Traffic and Transport Liaison Group (TTLG) and Traffic Control Group (TCG) has been established to inform traffic and transport measures during construction and operation of the project. The TTLG and TCG are chaired by the Sydney Coordination Office (SCO) and comprise representatives from the relevant Road Authorities, which includes North Sydney Council. The TTLG meets monthly and the (TCG) meets fortnightly to discuss impending construction-related traffic management matters.

The Construction Traffic Management Plans (CTMPs) must be developed in consultation with the TTLG. The RMS is the approval authority for the CTMPs, following endorsement by the SCO.

Lendlease is contracted to undertake the Victoria Cross Station construction works and commenced early works from October 2020. Lendlease has requested to present to the Traffic Committee on their upcoming works during November 2020 to March 2021.

Relates to ECM No: N/A

Standard or Guideline Used: N/A Signs & Lines Priority: N/A

Precinct and Ward: CBD/ Stanton, Wollstonecraft

**Impact on Bicycles:** Cycle access will be maintained and managed under traffic control **Impact on Pedestrians:** Pedestrian access will be maintained and managed under traffic

control

**Impact on Parking:** On-street parking around the site will be impacted to allow for work zones and traffic management

#### **RECOMMENDATION:**

**1. THAT** the information concerning Sydney Metro Victoria Cross Station Construction – Lendlease Early Works be received.



### **City & Southwest**



Victoria Cross Integrated Station Development

**Local Area Traffic Committee Meeting** 

16<sup>th</sup> October 2020



# **Acknowledgement of Country**

I would like to acknowledge Aboriginal peoples as the traditional owners and custodians of the land on which we meet today.

I would also like to pay my respects to Elders past, present and future, extending this respect to all Aboriginal people here today, no matter where you come from.



# **Project Overview**

# **Sydney Metro – Victoria Cross**

Lendlease will Deliver the Sydney Metro Victoria cross integrated station development

#### Key features:

- Two station entrances including a northern entrance opening to Miller and McLaren streets, and a southern entrance with pedestrian access to Miller and Denison streets
- A commercial building above the station's southern entrance (SSD To be addressed in Future)
- Station concourse and platforms beneath Miller Street
- Sustainable, high-quality commercial and retail hub in the heart of North Sydney
- Enhancement of pedestrian infrastructure around the station, as well as new bike parking at the northern entrance, and new kiss and ride bays on McLaren Street
- Improvements to the public domain.

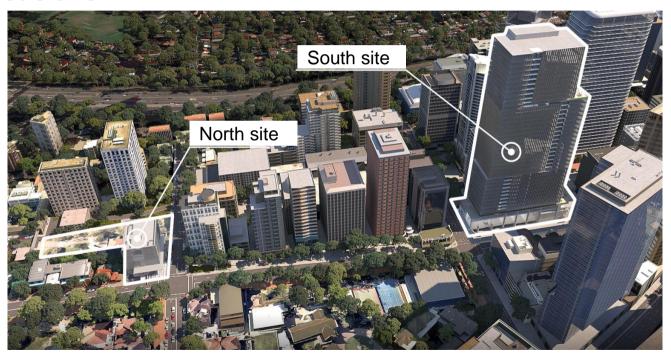




Artist's impression of Victoria Cross Station and Over Station Development

### **Construction overview**

### **Site locations**







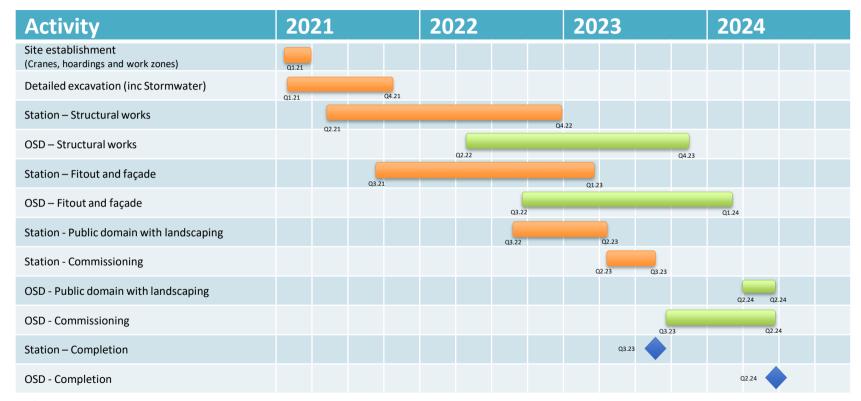
### **Construction overview - North site**







### **Construction overview - South site**





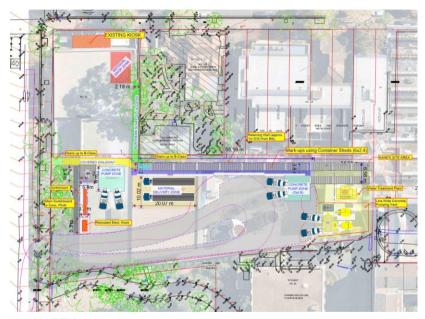






# **Project Staging Incl. Work Zones**

## **Proposed Detailed Staging Plans**

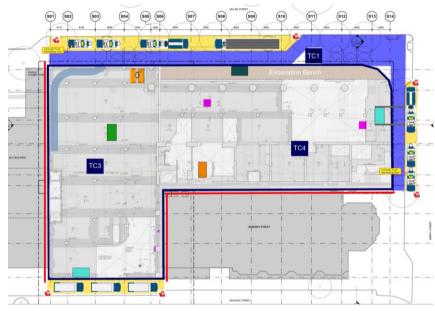


#### **NORTH:**

- · All Construction traffic enter/ exit via Driveway on McLaren St
- Tower Crane supporting Station construction
- Site Accommodation established along Northern boundary
- Site protected by A-Class Hoarding



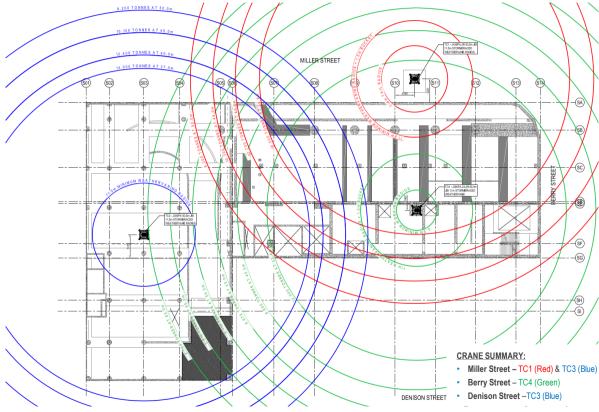




#### **SOUTH:**

- Work Zones established along Miller, Berry & Denison St
- 3x Tower Cranes supporting Station construction
- Site protected by B-Class Hoarding along Miller & Berry St
- · Site Accommodation erected atop B-Class Hoarding
- Pedestrian Access maintain around the site and protected by B-Class Hoarding (Miller & Berry St)

### **South Site - Tower Crane Radii across Work Zones**



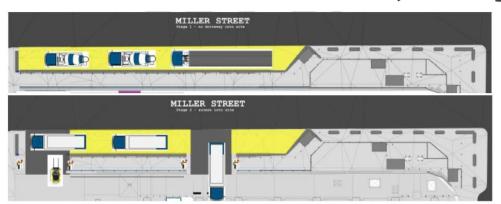




FIQURE: Tower Crane Radius Plan (South site)

· Work Zones efficiently overlap with Tower Crane working radii to optimise unloading times and mitigate queuing.

### **Work Zones - Miller St, Berry St and Denison St**



#### MILLER STREET

- · Roll Kerb/ Loading Zone along Miller Street to take construction vehicles off main road
- Pedestrian Access around the site is maintained with full overhead protection (B-Class hoarding)
- Traffic Controllers to manage safe flow of Construction vehicles across all work zones
- · Stage 2 works allows vehicles to enter site once the Structure has reached street level.
  - · Pedestrians will be managed using concertina gates and traffic controllers.
- Work Zone to extend approximately 70Lm along the Western side of Miller Street.

#### **DENISON STREET**

- · Work Zone to extend approximately 30Lm along the Eastern side of Denison Street.
- Stage 2 works allows vehicles to enter site once the Structure has reached street level.
  - · Pedestrians will be managed utilising concertina gates and traffic controllers.







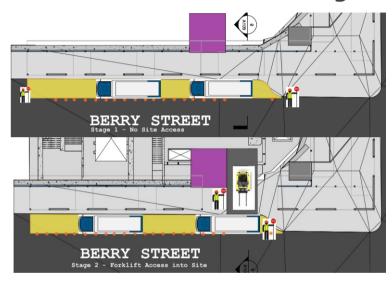
Figure: Proposed Miller Street Work Zone



NOTE: Denison St. Work Zone to be introduced following stormwater works



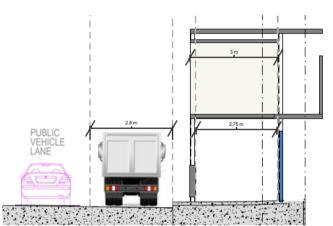
# **Work Zones – Berry Street**



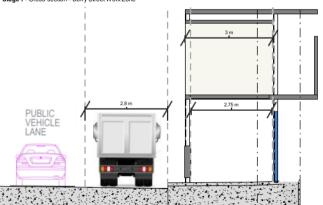
- Pedestrian Access around the site is maintained with full overhead protection (B-Class hoarding)
- Traffic Controllers to manage safe flow of Construction vehicles across all work zones
- · Stage 2 works incorporates a construction opening within the hoarding to allow Forklifts to receive deliveries from the Berry Street Work Zone.
  - · Pedestrians will be managed utilising concertina gates and traffic controllers.
  - · Cycle time less than 2mins for Forklifts with approx. 6x movements/ hour.
  - Traffic Cont.1 to monitor Berry Street, Traffic Cont.2 to monitor peds...
- Work Zones along Miller & Berry Street will be closely managed to ensure smooth operation of corresponding 'Clearways' during peak traffic periods.







Stage 1 - Cross-section - Berry Street Work Zone



Stage 2 - Cross-section - Berry Street Work Zone





### **Site Establishment**

### Miller Street - Site Establishment

- Proposed <u>Miller Street road closure</u> (Southbound lanes) to establish a mobile crane for Site Establishment activities including:
  - Mobilisation of Excavators/ other machinery
  - Erection of Tower Crane.

NOTE: Denison Street is not feasible for this Scope of Works due to noise and access impacts to Residents and neighboring businesses. Furthermore, Tower Crane works must be carried out from Miller Street due to crane reach.

- Works proposed for <u>Weeknights after 8pm</u> and Weekend closures from 9pm on Friday
  - Excavator Mobilisation will be carried out using 250T Mobile Crane (Weeknights)
  - Tower Crane erection will be carried out using 250 350T Mobile Crane (Weekends)
- Refer following slides for initial TCP and traffic/pedestrian management.





# **Miller Street - Site Establishment Pedestrians** diverted to Western side of footpath **Detour to Pacific** Highway as (Opt.A) **Detour Via** Walker Street as



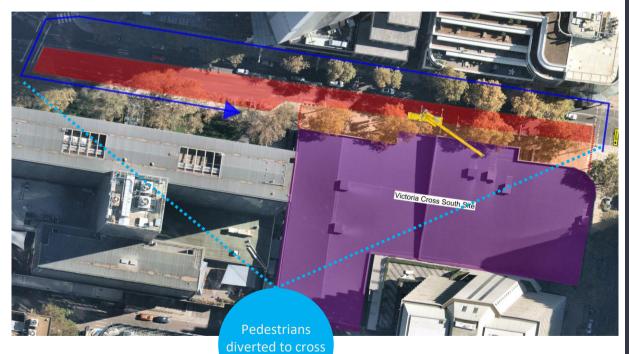


(Opt.B)

# **Miller Street - Footpath Closure**



- Footpath closure from Miller/ Berry St intersection to Miller/ Pacific Hwy intersection with pedestrians diverted at each signalized crossings.
- Pedestrian access to neighboring site boundary maintained
- Traffic control managing crossing locations throughout setup.
- Proposed Hours of Operations:21:00 05:00



at lights





# **Typical Night Shift - Weekday**

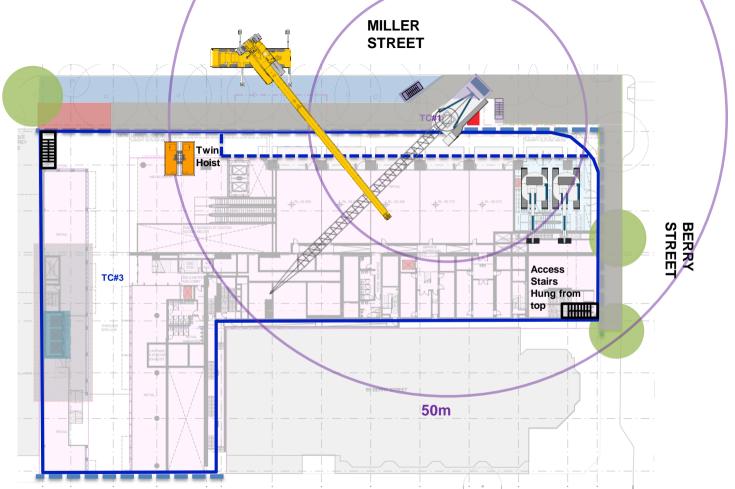
Activity	20:00	21:00	22:00	23:00	00:00	01:00	02:00	03:00	04:00	05:00
Prepare Traffic Control - Ped. Diversion + Signage										
Crane Arrival (150 – 350T) within Miller Street Parking Spaces - Crane + Truck Arrivals w Traffic Control										
Road Closure – Full Traffic Control *										
Crane Setup - Counter-weights, Outriggers, etc										
Machine Deliveries (Low-Bed Trailers)										
Machine 1 – Lifting (Incl. All Rigging, etc.)										
Machine 2 – Lifting (Incl. All Rigging, etc.)										
Machine 3 – Lifting (Incl. All Rigging, etc.)										
Machine 4 – Lifting (Incl. All Rigging, etc.)										
Crane Demobilisation - Counter-weights, Outriggers, etc.										
Crane + Truck Leave Site										
Lane Closure – Removal Traffic Diversion									04:3	0



# **Typical Shift - Weekend**

Activity	FRII	DAY	SATURDAY							SUNDAY									MONDAY		
	21:00	0:00	3:00	00:9	9:00	12:00	15:00	18:00	21:00	0:00	3:00	9:00	9:00	12:00	15:00	18:00	21:00	0:00	3:00	9:00	
Full Road Closure																					
Mobile Crane – Setup																					
Material Deliveries																					
Tower Crane – Erection				Contingency																	
Tower Crane –Testing & Commissioning																					
Mobile Crane – Demobilisation																					
Road Closure - Removal																				4AM _atest	











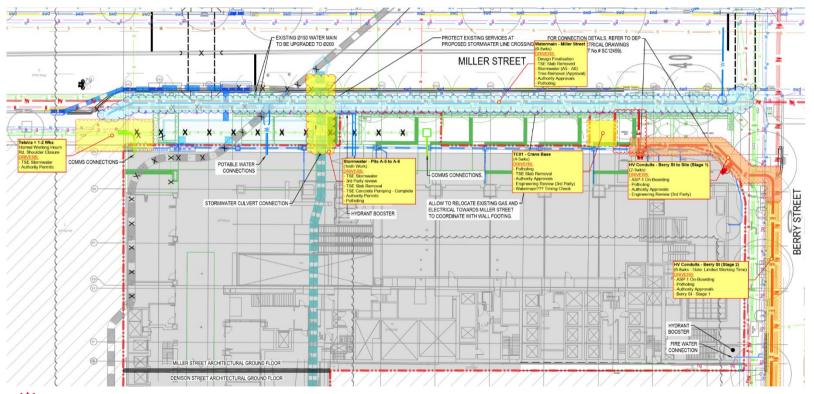


# Early Works Incl. Utility Upgrades

# **Early Works – Overview**

Activity	Oc	tob	ober			November				December				January				February		
Potholing Works – Berry and Miller Street Night works with parking lane closures																				
Watermain Works – Berry Street Day works within partial closure of Kerbside Lane																				
Utility Works (Telstra) – Miller Street (Footpath) Day works with intermittent lane closures				Opt.	.1		Op	ot.2												
<b>Site Establishment - Tower Crane Base Installation</b> Day works with pedestrian diversions.																				
Preparation of Miller St Work zone Slab Tree removal, ground preparation, concrete pouring																				
Watermain Upgrade Works – Miller Street Day works with frequent lane closures (nights and/or out of clearway hours)																				
Stormwater Works – Miller Street Day works with frequent lane closures (nights and/or out of clearway hours)																				
Station Works – TSE Handover 25 <sup>th</sup> January 2021															,					
Site Mobilisation - Machinery/ Tower Cranes Full Lane Closures (nights and weekend closures)																1	2	3		
Site Mobilisation – Hoarding/ Site Accom. Installation Partial Lane Closures (Night Works) maintaining thru traffic																				

# **Miller Street - Early Works**







- Proposed Miller Street partial footpath closures and kerbside lane closures (Southbound lane) to undertake utility installation works (Stormwater, Comms and the like) and prepare for site establishment.
- Works generally split into:
  - Footpath works undertaken during the day (<u>pedestrian access maintained</u>) with intermittent lane closures/night works to facilitate works and;
  - Kerbside lane works (or working immediately behind kerb) requiring lane closures undertaken at <u>night or out of clearway hours</u>.
- Works subject to access and coordination with TSE Contractor to minimize compounding of work activities in the same area at the same time
- Planned for to commence late August (subject to access)
- Refer following slides for initial TCP and traffic/pedestrian management.



Pedestrians diverted to Western side of footpath

MILLER STREET TRAFFIC MANAGEMENT NOTES: NOT ALL DIMENSIONS SHOWN ARE TO SCALE.

Work area established on Eastern side of footpath



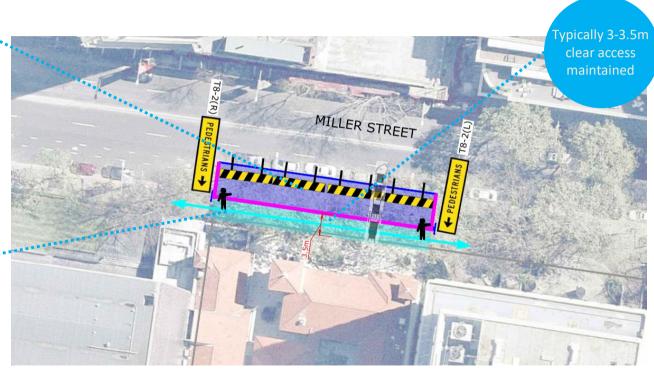


Typically 3-3.5m clear access

AUSTRALIAN STANDARDS AS1742.3:2009 MANUAL OF UNIFOR THIS TRAFFIC CONTROL PLAN MUST BE SETUP BY A PERSON

Work area established on Western side of footpath

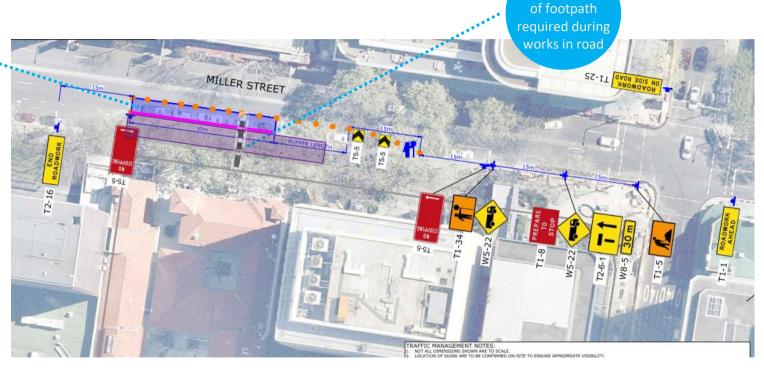
Pedestrians diverted to Eastern side of footpath







Kerbside lane occupied\*



Minor occupation

\*Lane closures proposed for nights, weekends or out of clearway hours





# **Questions and answers**





