



Integrated Management System

Planning Approval Consistency Assessment Form

SM ES-FT-414

Sydney Metro Integrated Management System (IMS)

Assessment Name:	Radio mast at Sydenham
Prepared by:	Sydney Metro
Prepared for:	Sydney Metro
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Table of Contents

1.0 Existing Approved Project	3
2.0 Description of proposed development/activity/works.....	4
3.0 Timeframe.....	6
4.0 Site description	6
5.0 Site Environmental Characteristics	8
6.0 Justification for the proposed works.....	8
7.0 Environmental Benefit	8
8.0 Control Measures.....	8
9.0 Climate Change Impacts.....	8
10.0 Impact Assessment – Construction.....	9
11.0 Impact Assessment – Operation	13
12.0 Consistency with the Approved Project	17
13.0 Other Environmental Approvals	18
Author certification	19
Environmental Representative Review.....	19

The Planning Approval Consistency Assessment Form should be completed in accordance with the Sydney Metro Planning Approval Consistency Assessment Procedure (SM ES-PW-314) and Sydney Metro Environmental Planning and Approval Manual (SM ES-ST-216)

1.0 Existing Approved Project

Planning approval reference details (Application/Document No. (including modifications)):

SSI_7400 Sydney Metro City & Southwest – Chatswood to Sydenham, as modified.

Modification 1 – Relocation of Victoria Cross northern services building, additional station entry and relocation of Artarmon Substation

Modification 2 – Central Walk

Modification 3 – Martin Place Metro Station

Modification 4 – Sydenham Station and Sydney Metro Trains Facility South

Modification 5 – Blues Point acoustic shed

Modification 6 – Administrative Changes

Modification 7 – Modify condition E100/E46

Modification 8 – Blues Point Access Site

Date of determination:

SSI 15_7400 – 9 January 2017

Mod 1 – 18 October 2017

Mod 2 – 21 December 2017

Mod 3 – 22 March 2018

Mod 4 – 13 December 2017

Mod 5 – 2 November 2018

Mod 6 – 21 February 2019

Mod 7 – 29 June 2020

Mod 8 – 25 November 2020

Type of planning approval: Critical State Significant Infrastructure

Description of existing Approved Project you are assessing for consistency:

Construction and operation of a metro rail line, approximately 15.5 kilometre long from Chatswood, under Sydney Harbour and through Sydney’s CBD onto Sydenham. It also includes seven new metro stations at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street and Waterloo, as well as new underground metro platforms at Central Station and associated ancillary infrastructure. The works include station works, track and rail system facility works and other works to support metro operations. The project would include communications equipment and equipment for radio communications, housed in services areas at each station. Telecommunication masts would be positioned along the rail corridor between 180 and 250 metre intervals. The height of these masts would be approximately seven metres high and would consist of concrete or steel poles or a square steel pole.

Relevant background information (including EA, REF, Submissions Report, Director General’s Report, MCoA):

Chatswood to Sydenham Environmental Impact Statement (EIS) – May 2016

Chatswood to Sydenham Submissions and Preferred Infrastructure Report (SPIR) – October 2016

Chatswood to Sydenham MOD 4 – Sydenham Station and Metro Facility South (determined 13 December 2017)

Chatswood to Sydenham Modified Conditions of Approval – 29 June 2020

All proposed works identified in the assessment would be undertaken in accordance with the mitigation measures identified in the EIS, SPIR, Modifications and the modified conditions of approval.

2.0 Description of proposed development/activity/works

This Consistency Assessment relates to the installation of one 20 metre high radio mast at Sydenham within the rail corridor to support the communication system for the metro rail line.

The proposed location of the radio mast is shown below, noting that the exact location (within a few metres) will be confirmed on site to ensure that site constraints such as overhead wiring and other services are not affected as a result of the works.

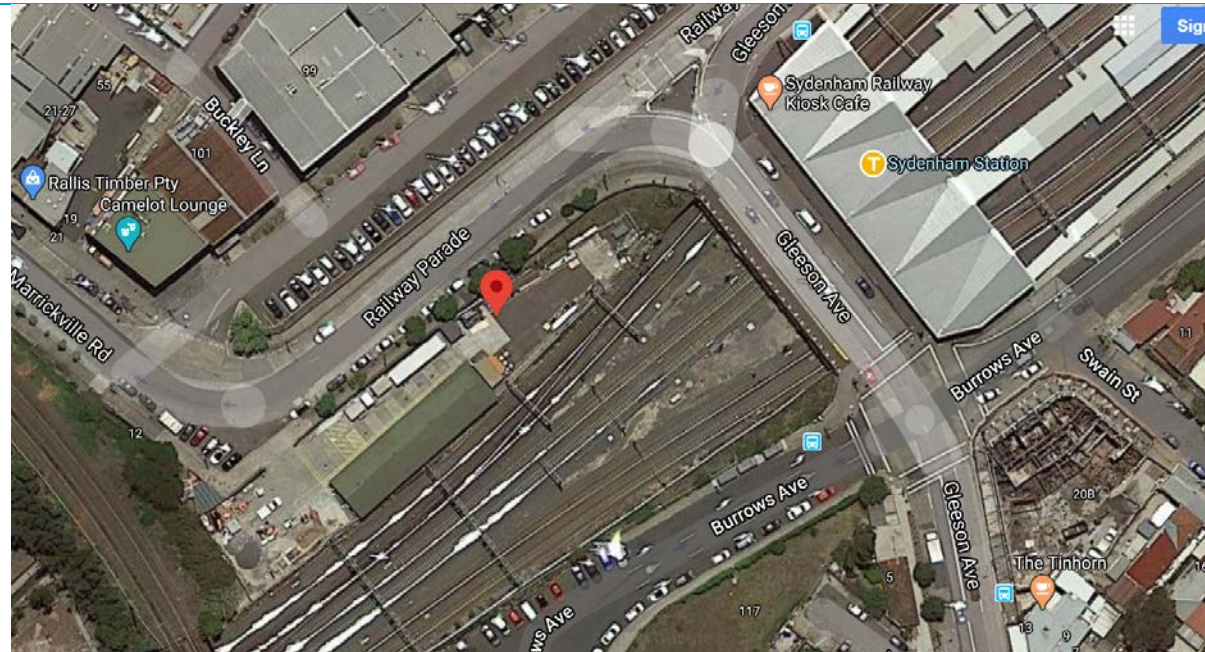


Figure 1- Approximate location of the radio mast at Sydenham shown on the red point

The proposed work would involve the following works:

- Installation of new radio mast pole and associated panel antenna
- Installation of aboveground cabinets, installed on concrete slab (around 2-3m by 3m) in close proximity to the proposed mast
- Installation of feeder cables for both power and fibre
- Other associated and necessary activities to ensure the proper functioning of the radio mast including earthing, safe access, signage, bollards for vehicle protection etc.

Construction works would comprise:

- Site establishments
- Excavation of foundations for the proposed mast and delivery and pouring of concrete
- Installation of concrete slab for proposed cabinets
- Excavation of trenches for feeder cables, installation of conduit and cables and backfilling of trenches

- Transport, installation and assembly of proposed radio mast including antennas
- Connection of cables and installation and commissioning of radio and other communication equipment.

The proposed radio mast would be installed on the ground with a low height Franna crane to assemble the components and hinge lift the mast into place using a hydraulic ram.

The work would be completed using the same materials, equipment, hours of work and workforce as identified in the planning approval documents.

3.0 Timeframe

Construction of the bases to support the proposed radio mast would commence from early 2021, with installation of the poles to follow.

4.0 Site description

The proposed radio mast would be located within the rail corridor at Sydenham, which is within the footprint of the Sydney Metro Chatswood to Sydenham project. The proposed location of the mast is shown in Figure 1. An example of a typical radio mast is shown in the figure below.

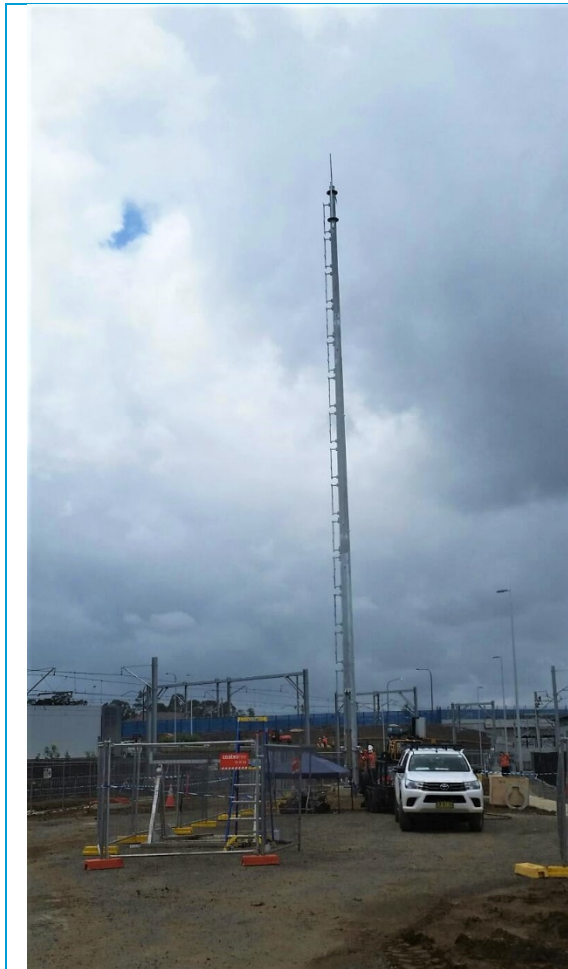


Figure 2: Indicative example of radio pole

5.0 Site Environmental Characteristics

The proposed radio mast would be located within the rail corridor and footprint of the Chatswood to Sydenham project – refer to the Environmental Impact Statement for a description of the existing environment.

6.0 Justification for the proposed works

The proposed radio mast is required as part of the communications system for the City & Southwest metro line. The increase in height of this radio mast over that identified in the Environmental Impact Statement is due to the low radio frequency strength along sections of the rail corridor – an additional higher mast is required to allow for optimised frequencies. Detailed design and radio frequency modelling has shown that without the increased height in the radio mast, there would be low levels of in-train radio coverage due to the alignment of the corridor, topology, as well as encroachment of some buildings adjacent to the rail corridor. Not providing a higher radio mast could result in the in-train communications systems being non-compliant or compromised in areas of concern.

7.0 Environmental Benefit

Identify whether there are environmental benefits associated with the proposed works. N/A

8.0 Control Measures

Will a project and site specific EMP be prepared? Are appropriate control measures already identified in an existing EMP?
Construction and installation of the proposed radio mast would be undertaken in accordance with an approved CEMP prepared by the contractor.

9.0 Climate Change Impacts

Is the site likely to be adversely affected by the impacts of climate change? N/A

10.0 Impact Assessment – Construction

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Flora and fauna	No change from Approved Project.	No additional measures required.	Y	Y	
Water	No change from Approved Project.	No additional measures required.	Y	Y	
Air quality	The proposed works would require some excavation and therefore a potential for localised air quality (dust) impacts however this is considered to be negligible relative to the Approved Project.	No additional measures required.	Y	Y	
Noise vibration	The construction methodology for the radio mast would remain similar to the Approved Project. As such any additional noise and vibration impacts during construction as a result of the proposed works would be negligible relative to the Approved Project.	No additional measures required.	Y	Y	
Aboriginal heritage	<p>Previous assessments found that the Sydenham area has a moderate to high potential for Aboriginal archaeology and the significance of any deposits in this area would be potentially high.</p> <p>The proposed works would be undertaken in accordance with the relevant mitigation measures and Conditions of Approval.</p> <p>The construction methodology for the radio mast would remain similar to the Approved Project, as such no additional impact is anticipated compared with the Approved Project.</p>	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Non-indigenous heritage	The radio pole location is outside of the State heritage listed Sydenham Railway Station Group. No additional direct impacts are anticipated to any heritage items or archaeology as a result of the proposed works relative to the Approved Project.	No additional measures required.	Y	Y	
Community and stakeholder	The construction of the proposed works would be similar in nature to the telecommunication masts proposed within the Approved Project. The proposed works would be undertaken in accordance with the relevant mitigation measures outlined within the EIS. As such, community and stakeholder impacts are anticipated to be negligible as a result of the proposed works relative to the Approved Project.	No additional measures required.	Y	Y	
Traffic	Due to the size of the radio pole structure, the delivery to site may be required out of standard hours as required by the relevant road authorities and in accordance with the project condition of approvals. This impact is considered negligible relative to the Approved Project.	No additional measures required.	Y	Y	
Waste	No change from Approved Project.	No additional measures required.	Y	Y	
Social	No change from Approved Project.	No additional measures required.	Y	Y	
Economic	No change from Approved Project.	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Visual	The construction works would hydraulically hinge lift the mast into place which would not require high or obtrusive visual elements during construction. As such, visual impacts are anticipated to remain as assessed within Sydenham Station and Metro Facility South (MOD 4) Modification Report as minor adverse landscape character and minor to negligible visual impact within the rail corridor.	No additional measures required.	Y	Y	
Urban design	No change from Approved Project.	No additional measures required.	Y	Y	
Geotechnical	No change from Approved Project.	No additional measures required.	Y	Y	
Land use	No change from Approved Project.	No additional measures required.	Y	Y	
Climate Change	No change from Approved Project.	No additional measures required.	Y	Y	
Risk- Obstacle limitation surface (OLS)	As the mast would be hydraulically hinge lifted into place, the construction would not require a large crane triggering an approval from the Civil Aviation Safety Authority (CASA) to complete the installation of the radio mast. As such, an additional control measure has been included. No additional risks have been identified relative to the Approved Project.	1. If required, an additional CASA application for approval would be sought for any temporary structures or equipment (e.g. a large crane) greater than 15.24 metres above existing ground height.	Y	Y	
Other	No change from Approved Project.	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Management and mitigation measures	The relevant project-specific mitigation measures identified in the approval documentation would continue to apply to the Proposed activity. These mitigation measures would adequately address the construction impacts.	One additional mitigation measure has been identified as outlined above.	Y	Y	

11.0 Impact Assessment – Operation

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Flora and fauna	No change from Approved Project.	No additional measures required.	Y	Y	
Water	No change from Approved Project.	No additional measures required.	Y	Y	
Air quality	No change from Approved Project.	No additional measures required.	Y	Y	
Noise vibration	No change from Approved Project.	No additional measures required.	Y	Y	
Indigenous heritage	No change from Approved Project.	No additional measures required.	Y	Y	
Non-indigenous heritage	<p>The radio mast is proposed adjacent to the State heritage listed Sydenham Station Group curtilage.</p> <p>Modification 4 (Sydenham Station and Metro Facility South) identified the visual impact of the Approved Project on the setting of Sydenham Station and on significant views was moderate.</p> <p>A radio mast would rise higher than previously assessed in this location increasing from seven metres to 20 metres. The increase in height of this radio mast is anticipated to have a minor impact to the heritage setting, however this is consistent with the assessment of the visual impacts at the station, which would remain a moderate visual impact to the heritage item.</p>	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Community and stakeholder	<p>There would be a minor increase in community and stakeholder impacts due to the increased visual impacts as outlined below.</p> <p>The proposed works would be undertaken in accordance with the relevant mitigation measures outlined within the EIS. As such, community and stakeholder impacts are anticipated to be negligible as a result of the proposed works relative to the Approved Project.</p>	No additional measures required.	Y	Y	
Traffic	No change from Approved Project.	No additional measures required.	Y	Y	
Waste	No change from Approved Project.	No additional measures required.	Y	Y	
Social	No change from Approved Project.	No additional measures required.	Y	Y	
Economic	No change from Approved Project.	No additional measures required.	Y	Y	
Visual	<p>The Approved Project identified Sydenham Station is a State heritage listed item, increasing its sensitivity as a visual feature and contributor to the character of the local area. The landscape and views in this area are of neighbourhood and local sensitivity.</p> <p>There are residential areas to the southeast of the corridor along Railway Road and Burrows Avenue. A number of these properties have views over the rail corridor.</p> <p>The Approved Project assessed radio masts seven metres high within the Modification Report (MOD 4).</p> <p>As a result of the intensification of rail corridor elements including new overhead wiring and support structures, new signalling equipment telecommunication masts, segregation fencing, and other operational infrastructure,</p>	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
	<p>to the north and south of the rail corridor, the Modification 4- landscape and visual assessment assessed these elements as a negligible visual impacts, during operation. The location of the proposed radio mast is within the rail corridor, and would be in close proximity to other existing and approved railway infrastructure which would contribute to the visual setting.</p> <p>On the southern side of the rail corridor there are some residential dwellings which would have views to the proposed radio mast. The northern side of the rail corridor is commercial which would have a reduced sensitivity to the proposed works.</p> <p>The proposed 20 metre high radio mast would be higher than masts previously assessed at approximately seven metres. There would be no perceivable change in visual amenity to nearby residential sensitive receivers given the radio mast would be located along an active rail corridor which is subject to intensification of rail infrastructure elements as a result of the Approved Project. As such the visual impact would remain as assessed as a negligible visual impact.</p> <p>The revised visual impact is considered to be consistent within the context of the Approved Project.</p> <p>The proposed works would be undertaken in accordance with the relevant mitigation measures and conditions of approval.</p>				
Urban design	No change from Approved Project.	No additional measures required.	Y	Y	
Geotechnical	No change from Approved Project.	No additional measures required.	Y	Y	
Land use	No change from Approved Project.	No additional measures required.	Y	Y	

(Uncontrolled when printed)

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Climate Change	No change from Approved Project.	No additional measures required.	Y	Y	
Risk- Electromagnetic energy	No change from Approved Project.	No additional measures required.	Y	Y	
Risk- Obstacle limitation surface (OLS)	An approval from the Civil Aviation Safety Authority (CASA) to complete the installation of the radio mast has been sought and approved. There are no conditions identified as a result of this approval. As such, no additional risks have been identified relative to the Approved Project.	No additional measures required.	Y	Y	
Other	No change from Approved Project.	No additional measures required.	Y	Y	
Management and mitigation measures	The relevant project-specific mitigation measures identified in the approval documentation would continue to apply to the Proposed activity. These mitigation measures would adequately address the operation impacts.	No additional measures required.	Y	Y	

12.0 Consistency with the Approved Project

<p>Based on a review and understanding of the existing Approved Project and the proposed modifications, is there a transformation of the Project?</p>	<p>No. The proposed works would not transform the project. The project would continue to provide a metro rail line between Chatswood and Sydenham.</p>
<p>Is the project as modified consistent with the objectives and functions of the Approved Project as a whole?</p>	<p>Yes. The proposed works would be consistent with the objectives and functions of the Approved Project.</p>
<p>Is the project as modified consistent with the objectives and functions of elements of the Approved Project?</p>	<p>Yes. The changes identified in this assessment are consistent with the objectives and functions of the Approved Project.</p>
<p>Are there any new environmental impacts as a result of the proposed works/modifications?</p>	<p>No new environmental impacts have been identified, with visual impacts as a result of the communications system remaining a negligible as assessed for the Approved Project.</p>
<p>Is the project as modified consistent with the conditions of approval?</p>	<p>Yes. The proposed works would be consistent with the conditions of approval.</p>
<p>Are the impacts of the proposed activity/works known and understood?</p>	<p>Yes. The impacts of the proposed works are understood.</p>
<p>Are the impacts of the proposed activity/works able to be managed so as not to have an adverse impact?</p>	<p>Yes. The impacts of the proposed works can be managed so as to avoid an adverse impact.</p>

13.0 Other Environmental Approvals

Identify all other approvals required for the project:

An approval from the Civil Aviation Safety Authority (CASA) to complete the installation of the radio mast has been sought and approved. There are no conditions identified as a result of this approval. If required, an additional CASA application for approval would be sought for any temporary structures or equipment (e.g. a large crane) greater than 15.24 metres above existing ground height.

Author certification

To be completed by person preparing checklist.

I certify that to the best of my knowledge this Consistency Checklist:

- Examines and takes into account the fullest extent possible all matters affecting or likely to affect the environment as a result of activities associated with the Proposed Revision; and
- Examines the consistency of the Proposed Revision with the Approved Project; is accurate in all material respects and does not omit any material information.

Name:	Katie Mackenzie	Signature:	
Title:	Manager Planning Approvals		
Company:	Sydney Metro	Date:	14/01/2021

Environmental Representative Review

(Additional step for City & Southwest projects only – if this is a CA against a Northwest Project or REF delete this table)

As an approved ER for the Sydney Metro City & Southwest project, I have reviewed the information provided in this assessment. I am satisfied that mitigation measures are adequate to minimise the impact of the proposed work.

Name:	Jo Heltborg	Signature:	
Title:	Environmental Representative	Date:	15/01/2021

This section is for Sydney Metro only.

Application supported and submitted by

Name:	Yvette Buchli	Date:	19/01/2021
Title:	Associate Director Planning Approvals	Comments:	N/A
Signature:			

Based on the above assessment, are the impacts and scope of the proposed activity/modification consistent with the existing Approved Project?

Yes The proposed activity/works are consistent and no further assessment is required.

No The proposed works/activity is not consistent with the Approved Project. A modification or a new activity approval/ consent is required. Advise Project Manager of appropriate alternative planning approvals pathway to be undertaken.

Endorsed by			
Name:	Fil Cerone	Date:	25 January 2021
Title:	Director City & Southwest, Environment, Sustainability & Planning	Comments:	
Signature:			