



Integrated
Management
System

City and Southwest Chatswood to Sydenham Out of Hours Work Protocol

SM ES-PW-317

Sydney Metro Integrated Management System (IMS)

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1. Introduction

This protocol outlines the process for preparing, assessing, managing and approving work on the Chatswood to Sydenham portion of the City & Southwest project that is undertaken outside of standard construction hours (i.e. Out of Hours).

1.1. Purpose

This protocol has been developed to comply with Condition E47 Out of Hours Work Protocol of the City & Southwest Chatswood to Sydenham planning approval. This condition (and other conditions that relate to Out of Hours work) is addressed in accordance with Table 1.

Table 1: Chatswood to Sydenham Out of Hours Work Planning Approval Conditions

Condition Number	Condition	Where this condition is addressed
A27(g)i.	The approved AA must in conjunction with the ER... consider requests for out of hours construction activities and determine whether to endorse the proposed activities in accordance with Condition E47.	Section 3.1.2.4 and Figure 1.
E36	Construction, except as allowed by Condition E48 (excluding cut and cover tunnelling), must only be undertaken during the following standard construction hours: (a) 7:00am to 6:00pm Mondays to Fridays, inclusive; (b) 8:00am to 1:00pm Saturdays; and (c) at no time on Sundays or public holidays.	Section 2.
E37	The Proponent must identify all receivers at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street and Central likely to experience internal noise levels greater than $L_{eq(15\text{ minute})}$ 60 dB(A) inclusive of a 5 dB penalty, if rock breaking or any other annoying activity likely to result in regenerated (ground-borne) noise or a perceptible level of vibration is planned (including works associated with utility adjustments), between 7am – 8pm.	Construction Noise and Vibration Impact Statements.
E38	The Proponent must consult with all receivers identified in accordance with Condition E37 with the objective of determining appropriate hours of respite so that construction noise (including ground-borne noise), does not exceed internal noise levels of: (a) $L_{eq(15\text{ minute})}$ 60 dB(A) inclusive of a 5 dB penalty if rock breaking or any other annoying activity likely to result in ground-borne noise or a perceptible level of vibration is planned between 7am – 8pm for more than 50 percent of the time; and (b) $L_{eq(15\text{ minute})}$ 55 dB(A) inclusive of a 5 dB penalty if rock breaking or any other annoying activity likely to result in ground-borne noise or a perceptible level of vibration is planned between 7am – 8pm for more than 25 percent of the time, unless an agreement is reached with those receivers. This condition does not apply to noise associated with the cutting surface of a TBM [Tunnel Boring Machine] as it passes under receivers. <i>Note this condition requires that noise levels be less than $L_{eq(15\text{ minute})}$ 60 dB(A) for at least 6.5 hours between 7am and 8pm, of which at least 3.25 hours must be below $L_{aeq(15\text{ minute})}$ 55 dB(A). Noise equal to or above $L_{eq(15\text{ minutes})}$ 60 dB(A) is allowed for the remaining 6.5 hours between 7am and 8pm.</i>	Construction Noise and Vibration Management Plans and each OOH application as relevant (supported by a Construction Noise and Vibration Impact Statement or other type of quantitative impact assessment).

Condition Number	Condition	Where this condition is addressed
E41	The Proponent must ensure that residential receivers, located in non-residential zones, likely to experience an internal noise level exceeding $L_{eq(15\text{ minute})}$ 60 dB between 8pm and 9pm or $L_{eq(15\text{ minute})}$ 45 dB between 9pm and 7am (inclusive of a 5 dB penalty if rock breaking or any other annoying activity likely to result in regenerated noise, or a perceptible level of vibration is planned (including works associated with utility adjustments)) must be offered additional mitigation in accordance with the <i>Sydney Metro City and South West Noise and Vibration Strategy</i> referenced in Condition E32.	Construction Noise and Vibration Management Plans and each OOH application as relevant (supported by a Construction Noise and Vibration Impact Statement or other type of quantitative impact assessment).
E42	The Proponent must ensure that residential receivers in residential zones likely to experience an internal noise level of $L_{eq(15\text{ minute})}$ 45 dB or greater between 8pm and 7am (inclusive of a 5 dB penalty if rock breaking or any other annoying activity likely to result in ground-borne noise, or a perceptible level of vibration is planned (including works associated with utility adjustments)) must be offered additional mitigation in accordance with the <i>Sydney Metro City and South West Noise and Vibration Strategy</i> referenced in Condition E32.	Construction Noise and Vibration Management Plans and each OOH application as relevant (supported by a Construction Noise and Vibration Impact Statement or other type of quantitative impact assessment).

Condition Number	Condition	Where this condition is addressed
E44	<p>Notwithstanding Condition E36 construction associated with the CSSI [Critical State Significant Infrastructure] may be undertaken outside the hours specified under those conditions in the following circumstances:</p> <ul style="list-style-type: none"> (a) for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or (b) where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm; or (c) where different construction hours are permitted or required under an EPL in force in respect of the construction; or (d) construction that causes $L_{Aeq(15\text{ minute})}$ noise levels: <ul style="list-style-type: none"> i. no more than 5 dB(A) above the rating background level at any residence in accordance with the <i>Interim Construction Noise Guideline</i> (DECC, 2009), and ii. no more than the noise management levels specified in Table 3 of the <i>Interim Construction Noise Guideline</i> (DECC, 2009) at other sensitive land uses, and iii. continuous or impulsive vibration values, measured at the most affected residence are no more than those for human exposure to vibration, specified in Table 2.2 of <i>Assessing Vibration: a technical guideline</i> (DEC, 2006), and iv. intermittent vibration values measured at the most affected residence are no more than those for human exposure to vibration, specified in Table 2.4 of <i>Assessing Vibration: a technical guideline</i> (DEC, 2006); or (e) where a negotiated agreement has been reached with a substantial majority of sensitive receivers who are within the vicinity of and may be potentially affected by the particular construction, and the noise management levels and/or limits for ground-borne noise and vibration (human comfort) cannot be achieved. All agreements must be in writing and a copy forwarded to the Secretary at least one (1) week before the works commencing; or (f) construction approved through an Out of Hours Work Protocol referred to in Condition E47, provided the relevant council, local residents and other affected stakeholders and sensitive receivers are informed of the timing and duration at least five (5) days and no more than 14 days before the commencement of the works. 	<p>Sections 1.5.3, 2, 3.1, 3.2.1 and 3.3.</p>
E45	<p>On becoming aware of the need for emergency construction in accordance with Condition E44(b), the Proponent must notify the AA, the ER and the EPA (if an EPL applies) of the need for those activities or work. The Proponent must also use best endeavours to notify all affected sensitive receivers of the likely impact and duration of those works.</p>	<p>Section 3.3 and Figure 2.</p>
E46	<p>Notwithstanding Conditions E44 and E48, rock breaking and other particularly annoying activities are not permitted outside of standard construction hours, except at Central, unless the noise management level derived from the <i>Interim Construction Noise Guideline</i> can be achieved at sensitive receivers.</p>	<p>Section 2 and each OOH application as relevant (supported by a Construction Noise and Vibration Impact Statement or other type of quantitative impact assessment).</p>

Condition Number	Condition	Where this condition is addressed
E47	<p>An Out of Hours Work Protocol for the assessment, management and approval of work outside of standard construction hours, as defined in Condition E36 of this approval, must be prepared in consultation with the EPA [NSW Environment Protection Authority] and submitted to the Secretary [of the NSW Department of Planning and Environment] for approval before construction commences for works not subject to an EPL [Environment Protection Licence]. The protocol must include:</p> <ul style="list-style-type: none"> (a) the identification of low and high risk construction activities; (b) a risk assessment process in which the AA [Acoustic Advisor] reviews all proposed out of hours activities and identifies their risk levels; (c) a process for the endorsement of out of hours activities by the AA and approval by the ER [Environmental Representative] for construction activities deemed to be of: <ul style="list-style-type: none"> i. low environmental risk; or ii. high risk where all construction works cease by 9pm. <p>All other high risk out of hours construction must be submitted to the Secretary for approval unless otherwise approved through an EPL.</p> <p>The protocol must detail standard assessment, mitigation and notification requirements for high and low risk out of hours works, and detail a standard protocol for referring applications to the Secretary.</p>	<p>This document; particularly Sections 1.2, 3.1.2.3 and 3.1.2.4, Figure 1 and the Out of Hours Work Application Forms.</p>
E48	<p>Notwithstanding Condition E36 of this approval and subject to Condition E47, the following activities may be undertaken 24 hours per day, seven (7) days per week:</p> <ul style="list-style-type: none"> (a) tunnelling and associated support activities (excluding cut and cover tunnelling); (b) excavation within an acoustic enclosure; (c) excavation at Central without an acoustic enclosure; (d) station and tunnel fit out; and (e) haulage and delivery of spoil and materials. 	<p>Section 2 and each OOH application as relevant (supported by a Construction Noise and Vibration Impact Statement or other type of quantitative impact assessment).</p>

1.2. Protocol Consultation, Endorsement and Approval

In accordance with Condition E47 of the Chatswood to Sydenham planning approval, this protocol must be prepared in consultation with the NSW Environment Protection Authority (EPA) and approved by the Secretary of the NSW Department of Planning and Environment (the Secretary).

The protocol is also required to receive endorsement from the Environmental Representative and the Acoustic Advisor in accordance with Conditions A24(d) and A27(d) respectively, prior to submission to the Secretary.

1.2.1. Consultation

A draft version of this protocol was provided to the EPA for consultation and comment on 7 March 2017. Given that the protocol (and Condition E47) is aimed at addressing work that is 'not subject to an EPL', the EPA responded on 21 March 2017 to state that "the EPA does not have comments on this protocol".

In the event that the protocol is revised to address work that is subject to an Environment Protection Licence (EPL), TfNSW will re-consult with the EPA.

1.2.2. Endorsement

Both the Environmental Representative and the Acoustic Advisor have reviewed and left comments on drafts of this protocol. All comments have been satisfactorily addressed in this final OOH Work Protocol.

Appendix A provides endorsements of this OOH Work Protocol from the Environmental Representative and the Acoustic Advisor.

1.2.3. Approval

Appendix B provides approval of this OOH Work Protocol by the Secretary.

Construction activities on the Chatswood to Sydenham portion of the City & Southwest project will not be undertaken outside of standard construction hours for works that are not subject to an EPL until this protocol has been approved by the Secretary. Following approval from the Secretary, all works on the Chatswood to Sydenham portion of the City & Southwest project that are not subject to an EPL (irrespective of whether the works are defined as 'construction' in accordance with the Chatswood to Sydenham planning approval) will be subject to this protocol.

1.3. Accountabilities

The Principal Manager, Sustainability, Environment & Planning, City & Southwest is accountable for this protocol. Accountability includes authorising the document, monitoring its effectiveness and performing a formal document review.

Roles reporting to the Principal Manager are accountable for ensuring the requirements of this document are implemented within their area of responsibility. The roles that are accountable for specific projects/programs are accountable for ensuring associated contractors comply with the requirements of this document.

1.4. Definitions and Acronyms

All terminology in this Protocol is taken to mean the generally accepted or dictionary definition, unless stated otherwise in accordance with the Definitions section of the Chatswood to Sydenham planning approval or the *Sydney Metro Integrated Management System Glossary*.

Acronyms and terminology specifically used throughout this Protocol are listed below.

	Definitions
AA	Acoustics Advisor
BMP	Business Management Plan
CEMF	Construction Environmental Management Framework (for the City & Southwest project)
CNVIS	Construction Noise and Vibration Impact Statement
CNVS	Construction Noise and Vibration Strategy (for the City & Southwest project)
CSSI	Critical State Significant Infrastructure
EPA	Environment Protection Authority (of New South Wales)
EPL	Environment Protection Licence
ER	Environmental Representative
ICNG	<i>Interim Construction Noise Guideline</i> (DECC, 2009)
OOH	Out of Hours (i.e. outside of the standard construction hours stipulated in planning approval conditions)
POEO Act	<i>Protection of the Environment Operations Act 1997</i> (NSW)
Secretary	The Secretary of the New South Wales Department of Planning and Environment
SPIR	Submissions and Preferred Infrastructure Report

1.5. Governance

This OOH Work Protocol should be used in conjunction with the Sydney Metro *Construction Environment Management Framework*, the *City & Southwest Construction Noise and Vibration Strategy* and any applicable Environment Protection Licences. These documents establish minimum requirements for managing noise and vibration impacts on the City & Southwest project.

1.5.1. Construction Environment Management Framework

The Chatswood to Sydenham Submissions and Preferred Infrastructure Report (SPIR) contains the *Sydney Metro Construction Environmental Management Framework* (CEMF) as Appendix B. The CEMF represents Sydney Metro's minimum requirements for environmental management and specifies a standard framework that each contractor must establish and document in their Construction Environmental Management Plan and sub-plans. These requirements include those relating to construction noise and vibration management as specified in Chapter 9.

1.5.2. Construction Noise and Vibration Strategy

Sydney Metro has developed a *Construction Noise and Vibration Strategy* (CNVS) for the City & Southwest project. The strategy:

- Establishes a framework for managing construction noise and vibration impacts and adopting appropriate mitigation measures (including minimum requirements),
- Forms Appendix C of the Chatswood to Sydenham SPIR,
- Forms part of the contract requirements that contractors must comply with, and
- Sets minimum requirements for all OOH work, including the need for and development of Construction Noise and Vibration Impact Statements.

1.5.2.1. Construction Noise and Vibration Impact Statements

A Construction Noise and Vibration Impact Statement (CNVIS) is a report that assesses and documents the anticipated noise and vibration impacts at sensitive receivers of proposed construction activities. In accordance with Condition E33 of the Chatswood to Sydenham planning approval, a CNVIS is to be prepared for each construction site before construction noise and vibration impacts commence and include specific mitigation measures identified through consultation with affected sensitive receivers.

1.5.3. Environment Protection Licence

An Environment Protection Licence (EPL) is a regulatory approval issued to strategically control the localised, cumulative and acute impacts of pollution. The NSW Environment Protection Authority (EPA) is responsible for issuing EPLs for 'scheduled activities' under the *Protection of the Environment Operations (POEO) Act 1997* (NSW).

Some aspects of the City & Southwest construction and operation works will constitute 'scheduled activities' under the POEO Act and therefore need to be subject to an EPL. City & Southwest contractors are required to obtain and comply with any EPLs as applicable to their scope of works.

The process for approving OOH work outside of those already permitted in accordance with an EPL, is governed by the conditions of the EPL. In order for these types of OOH work to be approved, an application to vary the EPL is to be prepared and submitted to the EPA for approval. The application is to be in accordance with the CNVIS and EPL requirements.

OOH work that is subject to an EPL do not require approval in accordance with Condition E47 of the Chatswood to Sydenham planning approval (i.e. this protocol).

1.6. Roles and Responsibilities

1.6.1. TfNSW Place Manager

A TfNSW Place Manager will be allocated to each site on the Chatswood to Sydenham portion of the City & Southwest project. The Place Manager is responsible for ensuring that all project communication requirements with the surrounding community are being complied with.

1.6.2. TfNSW Environment Manager

A TfNSW Environment Manager will be allocated to each contract package on the Chatswood to Sydenham portion of the City & Southwest project. The Environment Manager is responsible for ensuring that all environmental management requirements associated with their contract package are being complied with.

1.6.3. Independent Environmental Representative

Condition A22 of the Chatswood to Sydenham planning approval requires an Environmental Representative (ER) to be appointed to the project to represent the NSW Department of Planning and Environment. The ER is to act as the Secretary's independent point of contact for all environmental and planning approval compliance matters. Refer to Condition A24 of the Chatswood to Sydenham planning approval for a comprehensive list of the ER's responsibilities.

Sections 3.1.2.3 and 3.1.2.4 include descriptions of the ER's responsibilities with respect to reviewing and approving OOH work.

1.6.4. Acoustic Advisor

Condition A25 of the Chatswood to Sydenham planning approval requires an Acoustic Advisor (AA) to be appointed to the project. The AA is to act as the Secretary's independent point of contact for all noise and vibration matters on the project. Refer to Conditions A25 and A27 for a comprehensive description of the AA's responsibilities.

Sections 3.1.2.3 and 3.1.2.4 include descriptions of the AA's responsibilities with respect to reviewing, identifying risk level, endorsing and deferring OOH work.

2. Standard Hours

Condition E36 of the Chatswood to Sydenham planning approval defines standard construction hours as:

- (a) 7:00am to 6:00pm Mondays to Fridays, inclusive;
- (b) 8:00am to 1:00pm Saturdays; and
- (c) at no time on Sundays or public holidays.

These hours are consistent with:

- The EPA's *Interim Construction Noise Guideline* (ICNG) 2009 'recommended standard hours' for construction in NSW, and
- The *City & Southwest Construction Noise and Vibration Strategy* (CNVS) 'standard daytime construction hours' (which were adopted by TfNSW as recommended by the ICNG).

Unless undertaken in accordance with Conditions E44, E46 or E48 of the Chatswood to Sydenham planning approval, construction is only permitted to be undertaken during standard construction hours.

If OOH work is to be undertaken in accordance with one or more of these conditions at the Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street or Central sites, the work must also comply with the specific requirements of Conditions E37 and E38 of the Chatswood to Sydenham planning approval. It should be noted however that the intent of Conditions E37 and E38 is to support certain types of work at these sites between 7am and 8pm. This should be considered when identifying risk levels for OOH work applications (refer to Section 3.1.2.3).

3. OOH Work

Out of hours (OOH) work is defined as any work that is undertaken outside of standard construction hours.

Some OOH work is permitted to be undertaken on the City & Southwest project in accordance with Conditions E44, E46 and E48 of the Chatswood to Sydenham planning approval. These works include:

- Delivery of materials as required by an authority for safety reasons,
- Emergency works,
- Works that are subject to different construction hours as permitted (or required) under an EPL,
- Low noise impact works,
- Works that are subject to a negotiated agreement with the substantial majority of affected sensitive receivers,
- Works undertaken in accordance with an Out of Hours Work Protocol approval and are the subject of a notification to the relevant council, local residents and other affected stakeholders and receivers at least five days prior to the works commencing and no more than 14 days prior to the works commencing.
- Rock breaking and other particularly annoying activities at the Central Station Site or, provided that the noise management level can be achieved at sensitive receivers, at any other site,
- 24 hour construction works in accordance with Condition E48, comprising:
 - Tunnelling and associated support activities (excluding cut and cover tunnelling),
 - Excavation within an acoustic enclosure,
 - Excavation at the Central Station Site without an acoustic enclosure,
 - Station and tunnel fit out, and
 - Haulage and delivery of spoil and materials,

In accordance with Condition E47 of the Chatswood to Sydenham planning approval and with the exception of OOH work that is subject to an EPL, all OOH work requires endorsement by the AA and approval by either the ER, or in the case of 'high risk' works undertaken after 9pm, the Secretary. This includes all work subject to Conditions E37, E38 and E48 of the Chatswood to Sydenham planning approval. The requirements of these conditions are to be specifically addressed in each OOH application (refer to Section 3.1.2) as relevant.

3.1. OOH Work Approval Process

Figure 1 provides the OOH work approval process for the Chatswood to Sydenham portion of the City & Southwest project. This includes a requirement to prepare an application that covers the assessment of noise and vibration impacts, mitigation measures (including community notification requirements), review and approval for all proposed OOH work.

All OOH work applications that are not subject to an EPL will be submitted to the TfNSW Place Manager, TfNSW Environment Manager, AA and ER for review and comment. These reviews will take into consideration a range of aspects, including reviewer experience and expert understanding, local knowledge of the area, current understanding of sensitive receiver requirements and other relevant documents (for example, the applicable Business Management Plan detailing predicted impacts to affected businesses, key issues and appropriate mitigation measures for implementation). This review process is further explained in section 3.1.2.3.

3.1.1. OOH Work subject to an EPL

For OOH work that is subject to an EPL, the EPL conditions will dictate the approval process. As a minimum however, for proposed OOH work that is not approved in the EPL and a variation is required, the contractor is expected to:

- Prepare an application to the EPA in accordance with the CNVS and EPL requirements,
- Submit the revised application to the EPA for approval and submit the application to the TfNSW Place Manager, TfNSW Environment Manager, AA and ER for information,
- Notify TfNSW, the AA and ER upon receiving EPA approval, and
- Ensure any required community notifications have been issued (by either TfNSW or the contractor directly) at least seven days prior to the works commencing.

3.1.2. OOH Work not subject to an EPL

For OOH work that is not subject to an EPL, the approval process is dictated by the requirements of Condition E47 of the Chatswood to Sydenham planning approval.

Contractors are required to prepare an OOH application using:

- A form consistent with the Sydney Metro *City & Southwest OOH Work Application Form* for proposed OOH work that is within the scope of a CNVIS, or
- A form consistent with the Sydney Metro *OOH Work Application Form* for proposed OOH work that is not within the scope of a CNVIS (or is within the scope of a CNVIS that is yet to be prepared).

Both of these forms require a noise and vibration impact assessment to be undertaken and contain a consolidated and conservative version of Table 14 from the CNVS. This facilitates simpler consideration of applicable additional noise and vibration mitigation measures to implement. The forms also require demonstration of how additional noise and vibration mitigation measures have been considered for implementation (including community notifications) in accordance with the CNVS.

3.1.2.1. OOH Work within the Scope of a CNVIS

The majority of OOH applications subject to this protocol are anticipated to be undertaken within the scope of a CNVIS.

For proposed OOH work that is within the scope of a CNVIS, the OOH application will outline the associated noise and vibration impacts of the proposed OOH work, based on the outcomes of the CNVIS. The applicable sections of the CNVIS are required to be appended to the OOH application.

The associated noise and vibration impacts will guide the consideration of standard and additional mitigation measures to implement, in accordance with the CNVIS.

3.1.2.2. OOH Work not within the scope of a CNVIS

In some circumstances, OOH work may be required that is not within the scope of a CNVIS. Examples of these situations include OOH works that:

- Are not defined as 'construction' under the Chatswood to Sydenham planning approval,
- Are not confined to a 'construction site' (e.g. power supply works, in-tunnel works, etc.), and
- Were not anticipated in a CNVIS at the time it was prepared.

For proposed OOH work that is not within the scope of a CNVIS (or is within the scope of a CNVIS that is yet to be prepared), the noise and vibration impacts of the proposed OOH work will generally have less certainty than those that are within the scope of a CNVIS. Therefore, greater due diligence is required in completing the OOH application form.

To ensure an adequate level of due diligence is applied to reviewing proposed OOH work that is not within the scope of a CNVIS, a form consistent with the generic Sydney Metro *OOH Work Application Form* is to be used. This form has been developed by TfNSW to ensure consistency with the *Interim Construction Noise Guideline* (DECC, 2009) and requires applicants to:

- Provide justification for the works to be undertaken OOH,
- Adequately assess the noise and vibration impacts at nearest sensitive receivers,
- Consider standard and additional noise and vibration mitigation measures to implement in accordance with the CNVIS, and
- Request formal review, endorsement and approval for the proposed OOH work prior to their commencement.

Furthermore, the Sydney Metro *OOH Work Application Form* requires a preliminary quantitative noise assessment to be undertaken in accordance with the *Interim Construction Noise Guideline* (ICNG) as a minimum. For assessments indicating that noise exceedance levels are greater than 10 dBA for more than 10 occasions at the same sensitive receiver, the need to undertake a detailed quantitative noise assessment will be considered by TfNSW, the contractor, the AA and the ER collectively. The term 'occasion' is defined in the *OOH Work Application Form*.

3.1.2.3. Review, TfNSW Endorsement and Identification of Risk Level

Review

Once the contractor has prepared an OOH work application, the application is submitted to the TfNSW Place Manager, TfNSW Environment Manager, AA and ER for review. Following their reviews, TfNSW, the AA and the ER may provide comments on the application, which need to be adequately addressed by the contractor in a resubmitted application to the satisfaction of the comment provider(s).

Prior to the TfNSW Principal Manager (Stakeholder & Community Liaison) indicating their endorsement (or otherwise) on the application, reference will be made to the applicable Business Management Plan (BMP) in accordance with Condition E64 of the Chatswood to Sydenham planning approval. The BMP will:

- Identify business stakeholders that may be affected by the project works and the issues specific to each business,
- Detail the strategies and activities to be used to facilitate open communication and engagement with businesses,
- Explain mitigation measures for identified business-related impacts, and
- Define roles and tools to enable TfNSW Place Managers to implement the BMP.

TfNSW Endorsement and Identification of Default Risk Level

Following endorsement from the TfNSW Principal Manager (Stakeholder & Community Liaison), the AA is required to identify a risk level for the proposed OOH work in accordance with Condition E47 of the Chatswood to Sydenham planning approval. This risk level will be categorised as either 'Low risk' or 'High risk'.

As a default risk level, the AA will identify OOH work as 'high risk' if all of the following three criteria apply:

- The type and sensitivity of the affected noise sensitive receivers is categorised as either Moderate Impact receivers (e.g. standard residential / typical density) or High Impact receivers (e.g. elderly / high density / persistent complainers / residents experiencing construction noise fatigue), and
- The predicted noise level of the OOH work has a likelihood for potential sleep disturbance (i.e. Rating Background Level + 15 dB or more), and
- The type of and intensity of noise emitted from the OOH work is categorised as High Impact (e.g. prolonged high noise and/or vibration intensive activities).

These criteria are based on Section 6.4 General Assessment Procedure of the CNVS.

For non-residential receivers the AA may consider OOH work as 'high risk' if undertaken during trading hours and in close proximity to their place of business (for example, during Saturday afternoon trading hours). Since each non-residential receiver has different business needs, it is imperative that the AA discusses each OOH work application with the TfNSW Place Manager to better understand how the proposed OOH works would impact the business.

Modification of Default Risk Level

Using the default risk level as a ‘starting point’, the AA will consider all other relevant factors in order to identify a final risk level. These relevant factors include:

- Those identified on Pages 24 and 25 in Section 6.4 of the CNVS (noting that the reference to ‘impact levels’ is independent of the ‘risk rating’ identified by the AA for the purposes of complying with Condition E47(c) of the Chatswood to Sydenham planning approval),
- Those listed in Table 2, and
- Any other factors the AA considers relevant in its professional opinion.

These factors may be cause for the AA to modify the default risk rating from either ‘high risk’ to ‘low risk’, or ‘low risk’ to ‘high risk’, as the AA deems appropriate in its professional opinion.

Table 2: Risk Level Considerations

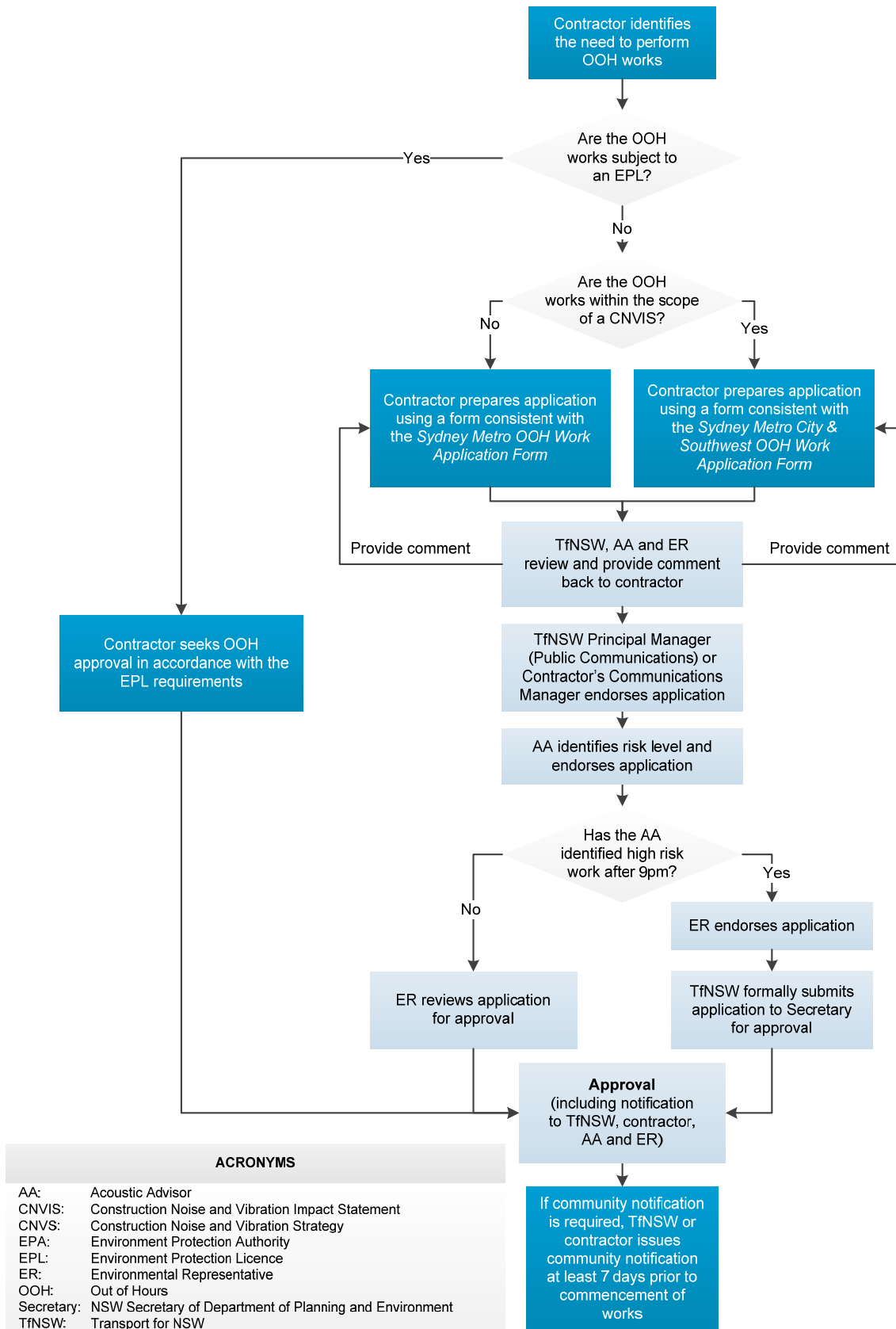
	Risk Level Considerations
Predicted Noise Exceedance	Degree of predicted noise level exceedance above the Rating Background Level or Noise Management Level as appropriate
Specific Scope of Work	Works that are not subject to Conditions E37 and E38
5 dBA Penalty	If 5 dBA penalty is required in accordance with Conditions E37, E38, E41 and E42
Certainty	Rating background levels, noise management levels or predicted noise impacts are not well understood
Past Experience	Nature of works are new, in a new location or have not been undertaken by the contractor on the project already
Negotiated Agreement with Sensitive Receivers	No negotiated agreement with sensitive receivers has been obtained in accordance with Condition E44(e)
Potential Sleep Disturbance	Likely to generate potential sleep disturbance (RBL + 15dB or greater)
Non-Residential Receivers	Impacted non-residential receivers operate during same period of proposed OOH works
Special Events	The timing and location of special events in the area of the proposed OOH works may be scheduled at the same time or immediately before or after the special event (e.g. festivals, public gatherings, etc.)
TfNSW Place Manager Feedback	Feedback from the Place Manager for the area will provide the AA an understanding of the types and requirements of surrounding sensitive receivers.
Sensitive Receivers	Moderate impact sensitive receivers (e.g. standard residential, medium density receivers) or high impact sensitive receivers (e.g. residential home for the elderly, high density unit blocks, persistent complainers, residents deemed to have ‘construction noise fatigue’)
High Impact Works	Prolonged high noise or vibration intensive activities
Other Impacts	Impacts other than noise and vibration impacts are likely to be generated (e.g. lighting, traffic, etc.)

Once the AA has identified a final risk level for the OOH work application, the AA indicates the risk level on the application (including any risk identification commentary), as well as whether the application includes works after 9pm, and signs and dates the application.

3.1.2.4. Endorsement and Approval

Figure 1 includes a process for the endorsement and approval of OOH work.

Following the identification of risk level by the AA, the AA endorses the OOH work application and provides any conditions or comments. If the AA identifies that the OOH work application is high risk and includes works after 9pm, the application is forwarded to the ER for endorsement only. Following the ER's endorsement, the application is then formally submitted by TfNSW via email to the Secretary for approval in accordance with Condition E47 of the Chatswood to Sydenham planning approval. For all other applications, the ER indicates their approval (or otherwise) on the application, including any conditions or comments, and forwards directly to TfNSW, the contractor and AA.



ACRONYMS	
AA:	Acoustic Advisor
CNVIS:	Construction Noise and Vibration Impact Statement
CNVS:	Construction Noise and Vibration Strategy
EPA:	Environment Protection Authority
EPL:	Environment Protection Licence
ER:	Environmental Representative
OOH:	Out of Hours
Secretary:	NSW Secretary of Department of Planning and Environment
TfNSW:	Transport for NSW

Figure 1: OOH Work Approval Process

3.2. Community Notifications

Community notifications can be used as a mitigation measure for receivers of noise and vibration impacts from OOH work.

Community notifications usually comprise of letterbox-dropped or hand-distributed notification letters to identified stakeholders prior to the commencement of works. Communities are more likely to understand and accept the impacts from noise and vibration if they are provided with honest detailed information and commitments on mitigation measures to be implemented that are adhered to by the project prior to the works commencing.

Community notification requirements are included in the CNVS and outlined in the *Community Communications Strategy* for the City & Southwest project in accordance with Condition B1 of the Chatswood to Sydenham planning approval.

Community notification is an example of an additional mitigation measure that may be considered for implementation in accordance with the CNVS and the additional mitigation measure tables contained in the OOH Work Application Forms. In the event that community notification is required as a mitigation measure prior to OOH work commencing, community notification is to be undertaken at least seven days prior to the works commencing.

3.2.1. Negotiated Agreements with Sensitive Receivers

Occasionally, a negotiated agreement for particular OOH work will be formed with the potentially affected sensitive receivers in accordance with Condition E44(e) of the Chatswood to Sydenham planning approval. These negotiated agreements would be undertaken and documented by either the contractor or TfNSW as part of an OOH application.

The negotiated agreement needs to reach a minimum 65% acceptance rate of those sensitive receivers that are contactable. 'Contactable' is defined as having received correspondence (either verbal or written) from receivers within a two week timeframe. The CNVIS process and the TfNSW Place Manager will advise of potentially affected sensitive receivers to be contacted.

Upon ER approval of any OOH applications containing negotiated agreements, TfNSW will forward the negotiated agreement documentation to the Secretary for information at least one week prior to the OOH work commencing. In the event that community notification is required as a mitigation measure prior to the OOH work commencing, this would be undertaken at the same time (i.e. at least seven days prior to the works commencing).

3.3. Emergency Works

Occasionally there may be a need to undertake emergency works outside of standard work hours. In this situation, the works are permitted to proceed without prior approval, provided that the works were:

- Unforeseen, and
- Required to avoid the loss of life, damage to property or prevent environmental harm.

Figure 2 outlines the emergency work process.

On becoming aware of the need to undertake emergency works in accordance with Condition E44(b) of the Chatswood to Sydenham planning approval, contractors must notify TfNSW, the AA, the ER and the EPA (if it is required under an EPL if relevant) of the need to undertake the works. This notification should be in the form of a written email or text message to TfNSW, the AA and the ER. The requirements for notifying the EPA will be dictated in the conditions of the EPL if relevant.

As a form of mitigation, community notification is to be undertaken within two hours of the commencement of emergency works. These notifications will generally be prepared by the contractor using a small hand-completed Sydney Metro card template for distribution to the immediate surrounding community. These cards will include the following details as a minimum:

- Scope,
- Location,
- Hours,
- Duration,
- Types of equipment to be used, and
- Likely impacts.

The day after any emergency works, the applicant is to provide a written emergency works report to TfNSW. The emergency works report is to include as a minimum:

- Date, time, duration and cause of the emergency,
- Description of emergency works undertaken,
- Mitigation measures implemented to address the impacts of the emergency works, and
- Actions/Measures taken or to be taken to prevent or mitigate recurrence of the emergency. If there are no appropriate actions/measures to be taken, explanation is to be provided as to why.

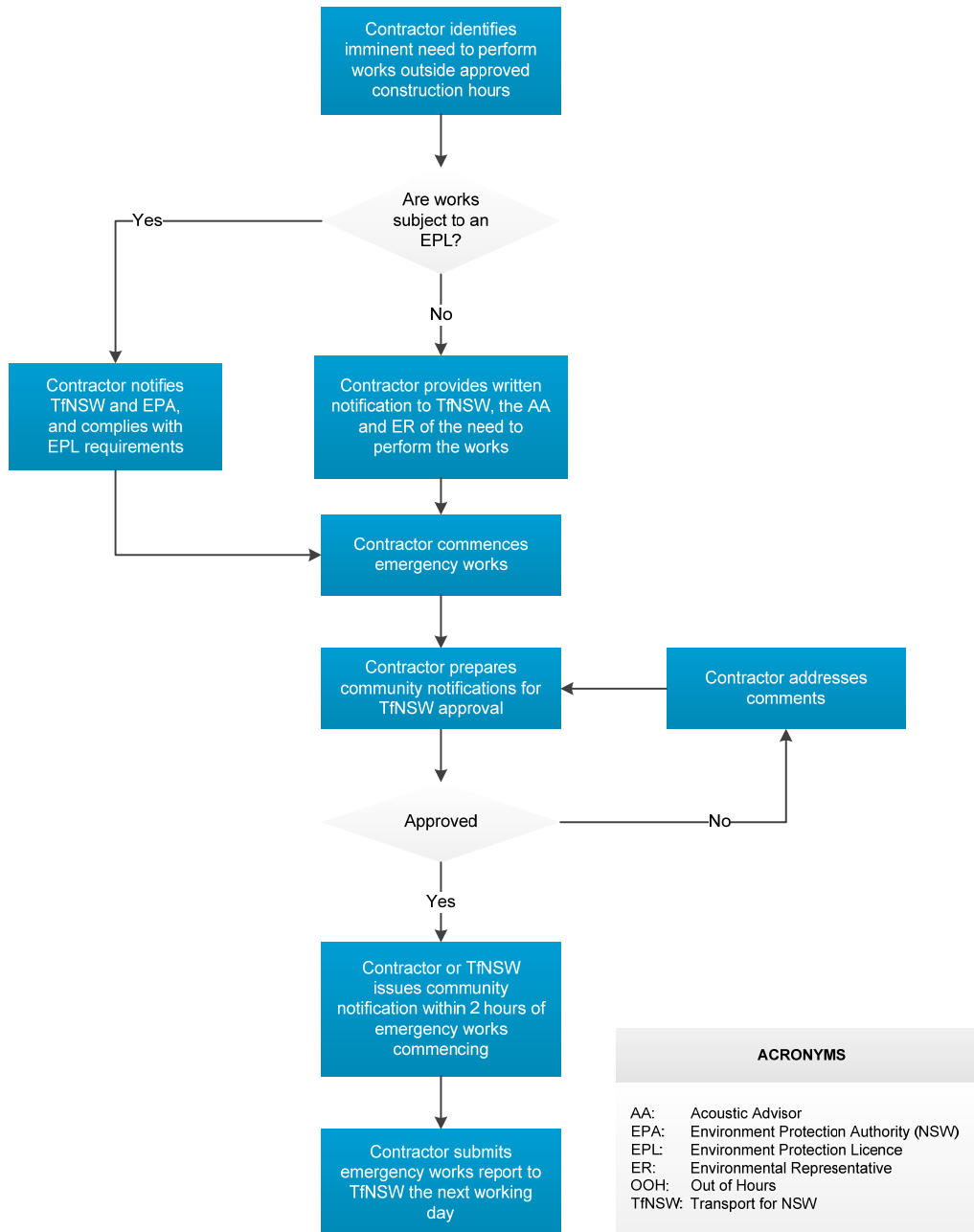


Figure 2: Emergency Work Process

4. Related Documents and References

Related Documents and References

- [SM ES-MM-101 Environment & Sustainability Management Manual](#)
- [SM ES-ST-204 Construction Environment Management Framework](#)
- [SM ES-ST-210 City & Southwest Construction Noise and Vibration Strategy](#)
- [SM ES-FT-443 City & Southwest Out of Hours Work Application Form](#)
- [SM ES-FT-419 Out of Hours Work Application Form](#)
- [SM SC-ST-202 Overarching Community Communications Strategy](#)
- [SM QM-FT-435 Integrated Management System \(IMS\) Glossary](#)
- [EPA Interim Construction Noise Guideline](#)

5. Superseded Documents

Superseded Documents

There are no documents superseded as a result of this document.

6. Document History

Version	Date of approval	Summary of change
1.0	28/3/2015	New document
2.0	14/7/2017	Edits to address DP&E comments

Appendix A: OOH Work Protocol Endorsements

Mr Stuart Hodgson
Principal Manager,
Program Sustainability Environment & Planning
Sydney Metro
Transport for NSW
PO Box 588
NORTH RYDE BC NSW 1670

28 March 2017

Ref:170108_OOHW Protocol

Dear Stuart

RE: Endorsement of Sydney Metro City & Southwest Out of Hours Work Protocol

Thank you for providing the following document for Environmental Representative (ER) review and endorsement as required by the Condition of Approval A24 (d) of the Sydney Metro City & Southwest project (SSI – 15_7400 January 9 2017).

- Sydney Metro City & Southwest City & Southwest Out of Hours Work Protocol (SM ES-PW-317/1.0)

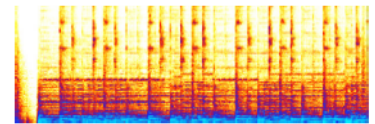
As an approved ER for the Sydney Metro City & Southwest project, I have reviewed and provided comment on these documents. As required under A27 (d), the Acoustic Advisor has also been involved in this process and has provided separate endorsement.

I now consider this Protocol appropriate for submission to the Secretary notwithstanding that the required Specific Out of hours Works Application Forms will continue to be developed, reviewed by Acoustic Advisor, endorsed by the ER, and submitted to the Secretary for approval as required.

Yours sincerely



Jo Robertson
Environmental Representative – Sydney Metro – City and South West



**ENDORSEMENT
CITY & SOUTHWEST ACOUSTIC ADVISOR (Interim)**

Review of	Out of Hours Work Protocol	Document reference:	Sydney Metro City & Southwest City & Southwest Out of Hours Work Protocol Document number SM ES-PW-317, version 1.0, 28 March 2017
Prepared by:	Dave Anderson		
Date of issue:	28 March 2017		

As approved (interim) Acoustic Advisor for the Sydney Metro City & Southwest project, I have reviewed and provided comment on the Out of Hours Work Protocol, as required under A27 (d) of the project approval conditions.

I consider that this Protocol is appropriate for submission to the Secretary, noting that the required Specific Out of hours Works Application Forms will continue to be developed, including review by the Acoustic Advisor and endorsement by the ER.



Dave Anderson, interim City & Southwest Acoustic Advisor

Appendix B: OOH Work Protocol Approval from the Secretary



Contact: Jacqui McLeod
Phone: 9274 6454
Email: Jacqui.mcleod@planning.nsw.gov.au

Mr Stephen Jones
Executive Director
Safety, Sustainability and Environment
Sydney Metro, Transport for NSW
PO Box 588
North Ryde BC NSW 1670

Our ref: SSI 15_7400

Dear Mr Jones

Sydney Metro City & Southwest Chatswood to Sydenham (SSI 15_7400): Approval of the Out of Hours Work Protocol under condition E47.

Thank you for your correspondence dated 30 March 2017, submitting the Out of Hours Work Protocol in accordance with Condition E47 for the Secretary's approval. I also note further revisions to this document, responding to the Department's detailed comments and requirements. The Department has reviewed the updated Out of Hours Work Protocol (Rev 1.3 dated 4 July 2017) and considers that it satisfactorily addresses the requirements of Condition E47. Therefore, in accordance with Condition E47, I approve the Out of Hours Work Protocol (Rev 1.3 dated 4 July 2017).

Please note that under condition E47, all out of hours construction that is not subject to an EPL, that the Acoustic Advisor deems to be "High Risk", and that occurs after 9pm must be submitted to the Secretary for approval.

If you have any further queries or require clarification on this matter, please contact me on 9274 6454 or by email jacqui.mcleod@planning.nsw.gov.au.

Yours sincerely

Jacqui McLeod 14/7/17

Jacqui McLeod
Acting Director Infrastructure Management
as delegate of the Secretary