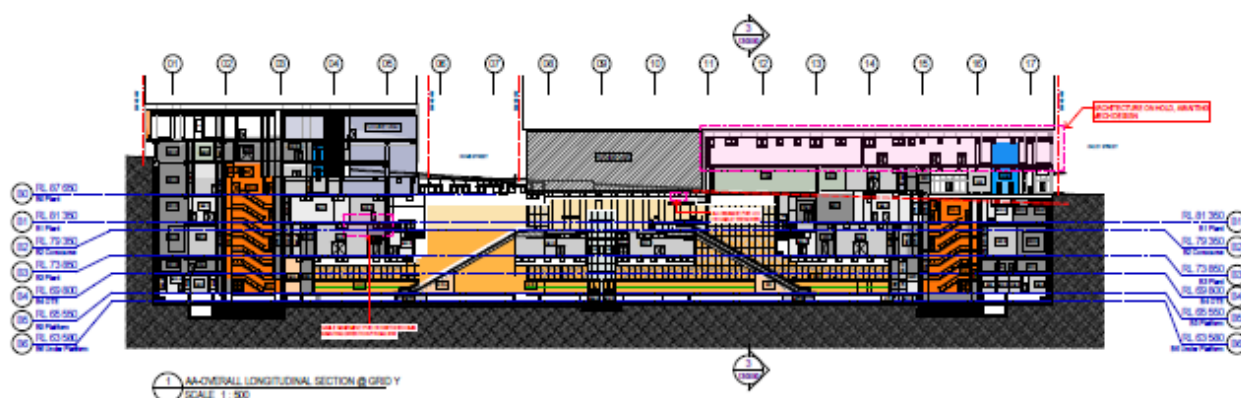


# INDEPENDENT ENVIRONMENTAL AUDIT REPORT



<b>Proponent:</b>	Sydney Metro
<b>Project:</b>	City & South West, Chatswood to Sydenham
<b>Scope:</b>	Crows Nest Integrated Station Design Approvals
<b>Works / Process:</b>	ISD (Integrated Station Design)
<b>Auditee:</b>	SMEC
<b>Location:</b>	Level 5/20 Berry St, North Sydney

<b>Audit Organisation:</b>	QEM Consulting Pty Ltd
<b>Auditor:</b>	Larry Weiss
<b>Registration</b>	Exemplar Global EMS Auditor Accreditation no. 12355
<b>Audit References:</b>	QEM 1803-A18
<b>Audit date:</b>	10 October 2019
<b>Report date:</b>	20 November 2019

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## 1.0 AUDIT DETAILS

### 1.1 Purpose

The purpose of this Independent Environmental Audit was to assess SMEC's application of the City & Southwest (C&SW) Infrastructure Project Planning Approval and Sydney Metro Design Guidelines in the Crows Nest Integrated Station Development (ISD) design.

### 1.2 Context

Planning Approvals issued by the Department of Planning & Environment require Sydney Metro to develop an Environmental Audit Program for independent annual environmental auditing against the terms the City & Southwest (C&SW) Critical State Significant Infrastructure (CSSI) Project Approvals.

QEM Consulting Pty Ltd have been engaged by Sydney Metro Delivery Office (SMDO) Safety, Sustainability & Environment (SSE) to deliver a program of Independent Environmental Audits. As required by C&SW Planning Approval CSSI 15\_7400 (A39) and the associated Environmental Audit Program, an Independent Environmental Audit was undertaken to assess compliance with Planning Approvals requirements relating to the ISD design.

As context, the SMEC professional service design contract continues from the ISD Stage 1 design completed by Metron. The ISD comprises the underground station, ground level precinct and integration with a proposed Overhead Station Development (OSD) high-rise complex, the physical interface being a transfer slab. Output from the design was specified as including Tender and 'For Construction' documentation to enable Sydney Metro to tender the construction of the Crows Nest Station. The design aim was also to ensure that future OSD construction and use did not disrupt the operating station.

### 1.3 Audit Objectives & Focus

The Audit Objective was to ensure that design reviews, records and outputs were both readily available and reflective of design requirements inputs including the EIS and/or Sydney Metro Strategies, Guidelines and Objectives. The audit focussed on Customer experience and accessibility; Crime Prevention, Lighting & Security and compliance with Flooding, Heritage and Constructability requirements.

### 1.4 Audit Scope

The Scope included progress of Stage 2 Design Packages, associated reviews and development of the Station Design & Precinct Plan.

The scope excluded prior Stage 1 compliance as well as impacts and/or required outcomes of the OSD.

### 1.5 Audit Criteria

City & Southwest Project Environmental Planning Approval CSSI 15\_7400 including

- MCoAs A1, A3, A7, E8, E9, E21, E75, E78, E101, E102, E104 & E105.

Revised Environmental Mitigation Measures relating to:

- Heritage and Flooding, NAH8, AH1, AH4, FH9 & FH10

Sydney Metro Design Guidelines, and EIS Technical Chapters.

## 1.6 Audit Process and Methodology

The audit comprised an off-site desktop review, preparation of an Audit Checklist, a Design Contractor audit and a post audit assessment of documentation and records.

The audit process including scoping and planning was undertaken in accordance with the principals of ISO 19011:2018 – Guidelines for Auditing Management Systems. Refer to Appendix 2 to this report for further details on Auditor credentials, independence and audit disclaimer.

## 1.7 Auditees and Participation

Refer to full Audit Attendance list in Appendix 3.

## 1.8 Audit Definitions & Abbreviations

The following abbreviations and definitions apply throughout this report:

Item	Explanation
ARI	<i>Average Recurrence Interval (flood level)</i>
C&SW	<i>City &amp; Southwest</i>
CEMF	<i>Construction Environmental Management Framework</i>
CNDC	<i>Crows Nest Design Consortium</i>
CPTED	<i>Crime Prevention through Environmental Design</i>
CSSI	<i>Critical State Significant Infrastructure</i>
HIP	<i>Heritage Interpretation Plan</i>
SMDG	<i>Sydney Metro Design Guideline (for C&amp;SW)</i>
PMF	<i>Probable Maximum Flood</i>
IEA	<i>Independent Environmental Audit(or)</i>
MCoA	<i>Minister's Conditions of Approval</i>
REMM	<i>Revised Environmental Management Measure</i>
SDPP	<i>Station Design and Precinct Plan</i>
SM	<i>Sydney Metro</i>
SWTC	<i>Scope of Works &amp; Technical Criteria</i>
Non-compliant	<i>Refer Section 2.1 overleaf</i>
Observation	
Improvement Opportunity	
Compliant	
Notable Practice	

## 2.0 AUDIT FINDINGS

### 2.1 Overall Compliance Summary

This table provides a summary of compliance against audit criteria and area of focus, indicating the number of actions required:

Focus Area	Key Criteria	Number of Findings			
		Compliant (note 1)			Non-Compliant
		NP	IO	OBS	NC
Compliance with Design Approval, Guideline & Objectives	EIS Chapters 8, 9 & 16 & Technical Paper 6 SM Design Guideline MCoA A1, A3, A7 & A30	2	2	1	0
Customer Centric Design incl. Transport & Access	Design Guideline MCoA E75 & E78	0	0	0	0
Station Design & Precinct Plan incl. Urban Design & Landscaping	MCoA E101, E102	0	0	0	Note 2
Crime Prevention, Lighting & Security	DG 3.1.5 CEMF MCoA E104, E105	0	0	0	0
Flooding prevention	MCoA E8, E9 FH9, FH10	0	0	0	0
Heritage Interpretation Plan & heritage values	MCoA E15, E21 REMM NAH2, NAH6, NAH7, NAH8, AH1, AH4	0	0	0	Note 2

Note 1: Compliance is limited to demonstrated evidence referenced in Appendix 1 and/or Audit Checklist notations.

Note2: Key deliverables such as SDPP and HIP were not available at time of the IEA and/or Design stage to assess compliance or otherwise

Audit Findings are classified as follows:

Status	Explanation
<b>Notable Practice (NP)</b>	Outstanding positive observation about a system, process or practice, for recognition and/or sharing purposes.
<b>Improvement Opportunity (IO)</b>	A suggestion or opportunity to implement a good or better practice to improve efficiency, further reduce exposure to risk or improve information management. When specifically stated as a Recommendation, this requires a formal response as to a considered action, alternative action or management decision in the negative.
<b>Observation (OBS)</b>	Documented requirement and/or implementation issue which may not strictly affect required performance or compliance outcomes. Also termed a non-conformance (as opposed to non-compliance) in the industry, observations could be an early indication of potential non-compliance and/or an adverse performance outcome.
<b>Non-compliant (NC)</b>	The intent of one or more specific requirements of a condition or obligation have not been met, based on insufficient objective evidence to demonstrate required outcomes or deliverables being achieved and/or complied with.

*Note: 'Compliant' or "C" status is determined where sufficient verifiable evidence demonstrates that intent, specific requirements or elements of a condition / obligation have been met within the scope of the Independent Audit. As a result, no actions may be required this, or, actions commensurate with an Improvement or Observation status above will be needed.*

## 2.2 Summary of Environmental performance

The following provides a brief summary of the project environmental performance being a MCoA A39 Independent Environmental Audit requirement. Limitations to this assessment include scope, methodology, duration and the disclaimer noted elsewhere in this report.

### 2.2.1 CSSI performance & effects on surrounding environment (MCoA 39a & d)

At time of audit, the design was not at a stage to enable demonstration of actual and/or potential effects on community and local surrounding environment. Once complete, the Station Design and Precinct Plan is required to demonstrate a "minor benefit" as defined in the EIS, failing which a "negligible" visual impact rating must be achieved to be compliant with Planning Approval MCoA E102.

### 2.2.2 Project Approvals compliance (MCoA 39b)

At time of audit, the design stage was not sufficiently progressed to enable definitive demonstration of all Project Approval compliance obligations. Design Reports supplied post the day of the actual Independent Environmental Audit appeared to evidence compliance. There was a good awareness and focus on Planning Approvals though, with obligations assessable at the time of audit evidencing compliance.

Three (3) Audit Findings were raised however relating to implementing formal Consistency Assessments (Observation), use of Compliance Registers relating to key reports (Improvement Opportunity) and need for enhanced stakeholder consultation during Stage 3 design (Improvement Opportunity).

It should be noted that at least 2 of these Audit Findings may result in a non-compliant status if not addressed in Design Stage 3.

### 2.2.3 Documentation adequacy (MCoA 39c & d)

The draft Station Design and Precinct Plan was not completed at time of audit, but reportedly was submitted to Sydney Metro mid-November 2019. Components hereof including Urban Design & Landscaping plus opportunities for public art appeared to address the intent of Planning Approval MCoA E101 however.

Likewise, historical research and archaeological find considerations intended to inform the Heritage Interpretation Plan of MCoA E21 appeared to address the intent of Planning Approval, this deliverable still being drafted at the time of the IEA.

Whilst design work and inputs developed for key documents evidenced compliance with Project Planning Approvals, it should be noted that the following were not sighted or available to assess adequacy per MCoA 39 c):

- Station Design and Precinct Plan
- Heritage Interpretation Plan

Consequently, no recommendations could be made per MCoA 39 d) regarding documents required by CSSI Planning Approvals.

## 2.3 Detailed Audit Findings & Action Plan

Ref	Audit Finding	Status	Priority	Agreed Action Plan
	<p>Notable practices and innovative approaches included:</p> <ul style="list-style-type: none"> <li>Customer testing of a virtual reality station experience, including mobility and wayfinding;</li> <li>Design constructability solution to enable fast tracking of underground structural and station footprint in narrow station box, requiring access by other C&amp;SW contractors.</li> </ul>	NP		NFA, positive note
1.	<p>With respect to project consistency required by MCoA A1, A7 et al, a formal consistency assessment process had not been implemented for the current design stage.</p> <p><i>It was observed that some inputs and alternative design concepts required formal consideration of potential EIS and/or SM Design Guide implications, including but not limited to:</i></p> <p><i>a) Moving station entry points away from building corners;</i>  <i>b) Decreasing station built form and changing visual aspects resulting from proposed OSD related building.</i></p> <p><b>Post Audit Note</b></p> <ul style="list-style-type: none"> <li>➤ Prior to completion of <u>this</u> IEA Report, SMEC provided a draft (undated) "Environment Report" SMCSWSCN-SMC-SCN-EM-REP-000007 detailing EIS related design changes to date and reasons for these;</li> <li>➤ The draft Report alluded to a MCoA and REMM compliance register, but the EIS / PIR and related information such as Chapters 8, 9, 16 and Technical Papers did not appear to be considered for consistency implications;</li> <li>➤ Whilst the report summarises design changes and reasons for change, <b>assessment of consistency (or otherwise)</b> with the MCoAs, REMMS, EIS / PIR, Technical Chapters and SM Design Guide principles and objectives were not articulated.</li> </ul>	OBS	HIGH	<p><b>Action to be taken by SMEC:</b></p> <p>a) Clearly articulate consistency assessment against required CSSI and C&amp;SW Project objectives;</p> <p>b) Finalise the initial draft of the Consistency Report ("Environment Report") showing assessments undertaken to date and submit to Sydney Metro and the IEA for comment on acceptability;</p> <p>c) Maintain the Consistency Report to reflect future assessment of changes, as input into the routine contractor compliance tracking program.</p> <p><b>Responsible person:</b> Principal Environmental Planner - Environment &amp; Waste</p> <p><b>Due dates:</b></p> <p>a) and b) 20 December 2019 c) ongoing</p>

Ref	Audit Finding	Status	Priority	Agreed Action Plan
2.	<p>Whilst an Approvals Compliance Spreadsheet as component of Statutory Planning Report SMCSWSCN-SMC-SCN-EM-REP-000007 was being maintained, this was not always evident as input/output of key relevant documents and/or used by other disciplines and external sub-consultants.</p> <p><i>For example:</i></p> <ul style="list-style-type: none"> <li>➤ <i>Compliance Register Appendix K for initial design packages was not populated or included in Design Reports provided;</i></li> <li>➤ <i>The Compliance Spreadsheet was only referenced in the Consistency Report ("Environment Report") and as a result clear linkages to requirement / objective to proposal / change was not readily traceable to the consistency decision.</i></li> </ul>	IO	Medium	<p><b>Improvement Action to be taken by SMEC:</b></p> <p>Ensure that CSSI Planning Approval Compliance Spreadsheet including required CSSI and C&amp;SW Project objectives is better used or evidenced in key design documents.</p> <p><b>Responsible person:</b> Principal Environmental Planner - Environment &amp; Waste</p> <p><b>Target date:</b> 20 December 2019</p>
3.	<p>Consultation with stakeholders (other than North Sydney Council) required by Planning Approvals had not occurred at the current stage of design.</p> <p><i>It was observed that SMEC and Sydney Metro were progressing an updated allocation of consultation responsibilities, recognising efficiency and consistency by Sydney Metro being a conduit for engaging with certain stakeholders from a proponent/project wide perspective.</i></p> <p><b>Post Audit Note</b></p> <p>Prior to completion of <u>this</u> IEA Report, SMEC provided a draft "Environmental Consultation Requirements" document SMCSWSCN-SMC-SCN-PLREP-000001 rev 1 dated 12/9/2019 proposing "Consultation Lead" responsibilities.</p>	IO	Medium	<p><b>Improvement Action to be taken by SMEC:</b></p> <p>Agree and finalise "Environmental Consultation Requirements" documents prior to advancing Stage 3 designs, and establish enabling mechanisms to receive accurate and timely information.</p> <p><b>Responsible person:</b> Principal Environmental Planner - Environment &amp; Waste</p> <p><b>Target date:</b> 29 November 2019</p>



## Appendix 1: Review & Assessment information

This section provides commentary on plans, reports, drawings, models, registers other formal information assessed to determine compliance with the EIS, Sydney Metro Design Guideline and relevant Planning Approvals and Revised Environmental Mitigation Measures (REMMs).

### Compliance with Design Approvals, Strategies, Guidelines & Objectives:

A project specific Technical Management Plan (TMP) had been specifically developed to articulate the SMEC Design Consortiums' delivery of Crows Nest Station Stage 2 & 3 designs. An appended Design Workflow reflected a final internal review stage prior to submission of Stage 2 deliverables to stakeholders such as Sydney Metro and independent Design Review Panel

At the time of the onsite component of this audit, SMEC were nearing completion of the Stage 2 design, with final gateway internal reviews still to be completed. Ongoing design progress reviews included weekly meetings, presentations/workshops and a BIN360 issues register though.

Two completed Stage 2 Design Reports evidenced in the table below were supplied post-audit and prior to completion of this IEA report. These Design Reports consolidated inputs, outputs and evidenced multidisciplinary reviews, as well as referencing key information and deliverables. Both Design Reports indicated Planning Approvals and SMDG as general design inputs and considerations, as well as articulating a few specific Planning Approvals e.g. tree retention in the Landscape & Urban Design Report (MCoA E6) and flooding prevention in the Civil Design Report (REMMs FH9). Heritage obligations in the Landscape & Urban Design Report were not referenced however, but were evident in the body of the text and other outputs such as drawings and plans.

Inputs to the design were driven by Sydney Metro Scope of Works & Technical Criteria (SWTCs), many of which incorporated Planning Conditions and related Strategies, Guidelines and Project Objectives. A SMEC Requirements Analysis & Allocation Traceability Matrix (RAATM) database identified detailed obligations including SWTCs and MCoAs.

With respect to project consistency with CSSI Planning Approvals such as MCoA A1, A7 et al, a formal consistency assessment process had not been implemented for the current design stage. It was observed that some inputs and alternative concepts required more formal consideration including but not limited to:

- a) Moving station entry points from building corners as indicated in the EIS (carried forward from Stage 1 designer Metron) and reduction in the size of the Pacific Highway entrance, with small retail tenancy added;
- b) Visual gap between high-rise A and B, exposing eventual OSD related building C, i.e. reduction in footprint of station built form of site A, to increase space for future OSD developer (appearing to be a Sydney Metro directive)
- c) EIS related information such as Chapters 8, 9, 16 et al, plus Technical Papers.

Prior to completion of this IEA Report, SMEC provided a draft (undated) "Environment Report" SMCSWSCN-SMC-SCN-EM-REP-000007. The 20 page document explained a) and b) above, noting design changes and reasons e.g. adding security bollards. The report read more like a design change summary though, not an assessment of consistency or otherwise - an **IEA Audit Observation**.

A Compliance Tracking Register (Revision "J") was being maintained to track Planning Approval compliance and provide reference to evidence and/or deliverables. Notations evidenced awareness of Planning Approval obligations and demonstrated compliance hereof to the extent applicable at the time.

The Register was supported by an ARC Reader with Environment GIS overlays which provided linkages to design inputs and constraints. Design Reports were supposed to include the Compliance Register at Appendix K entitled Environment & Sustainability – not yet done, being an [IEA Audit Improvement Opportunity](#).

With respect to consultation required by several Planning Approvals, it was evident that this had been extensively undertaken with North Sydney Council. A process had not been established as yet for other stakeholders, and discussion between SMEC and SM were underway for the latter to become more involved - an [IEA Audit Improvement Opportunity](#).

Further to documented information above, key information assessed and/or sighted included:

Technical Management Plan	SMCSWSCN-SMC-SCN-SA-PLN-000001 rev C	9 Sept' 19
Civil Design Report, DP08	SMCSWSCN-SMC-SCN-CE-REP-000001 rev A	21 Oct'19
Landscape & Urban Design Report, DP09	SMCSWSCN-SMC-SCN-UD-REP-000001 rev A	21 Oct'19
Architecture Arrangement Plans and drawing package	SMCSWSCN-SMC-SCN-AT-DWG-120001 series, IDC review stage.	25 Sept' 19

Otherwise, a number of design outputs such as plans, models, reports drawings and specifications were sighted as mentioned below.

#### Customer Centric Design incl. Transport & Access

A draft Customer Centred Design (CCD) report included detailed analysis of virtual reality engagement testing conducted between May and July 2019 of some 30 targeted customer types, soliciting feedback on customer experience, human factors, wayfaring/signage, connectivity, accessibility etc. and resulting in 6 key recommendations for improvement.

In accordance with MCoAs E75 & E78 a number of interactions and studies had taken place evidenced through documentation such as a Pedestrian Report, Transport Report and amended OSD report, the latter considering some additional 2,000 human movements and related interactions. Examples of customer access options included recognition of planned cycle paths and provision of some 50 bicycle parking spots.

Further to documented information above, key information assessed and/or sighted included:

Transport Planning assumptions & methodology report	SMCSWSCN-SMC-SCN- TI-REP-000001 rev A	15 April'19
CNOSD-EIS update to Transport traffic & parking assessment report	Letter	2 Sept'19

Station Design & Precinct Plan incl. Urban Design & Landscaping

Information relating to the Architecture Design Package DP01 was evidenced including Urban Design Report draft revision B dated 26/7/2019, Landscape Architecture UD-DWG (drawing) 9/9/2019 package and Landscape Technical Specification dated 9/9/2019 per MCoA E101 e), prepared by the sub consultant Oculus.

The Urban Design Report included MCoA E101 SDPP inputs such as Sydney Metro Design Guidelines, Council LEPs, Project Objectives (e.g. connectivity and place), with outputs including Oxley Street recognised as a green connector, and respect for local character and functional requirements for a transport Interchange. Opportunities for Public Art per MCoA E101 b) appeared to be addressed through the selection of 3 artists to submit designs. SMEC indicated that an initial draft SDPP addressing MCoA E101 requirements and incorporating the above would be available together with Stage 2 design milestone deliverables. Similarly a Design Review Panel workshop was still to take place to address MCoA E102 requirements to achieve a minimal visual impact rating of at least a "minor benefit" stipulated in the EIS.

Documentation around tree preservation was sighted, including the protection of tree roots by a North Sydney Council required root barrier. It was noted that provision of security bollards and services in the narrow pavement footprint was challenging to achieve from a Planning Approval compliance perspective.

Further to documented information above, key information assessed and/or sighted included:

Landscape & Urban Design Report, DP09	SMCSWSCN-SMC-SCN-UD-REP-000001 rev A	21 Oct'19
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Crime Prevention, Lighting & Security

In accordance with the Sydney Metro Design Guideline and the Security Management Strategy, the principles of CPTED were sighted as embedded in Crows Station Design Stage 2 & 3 CPTED Report. Inputs including crime and terrorism trends had been solicited from stakeholders and experts including a subject matter expert / consultant from the UK, plus Sydney Metro, North Sydney Council, NSW Police plus structural and façade engineers.

DP07, Electrical & Lighting, was a key Design Package, with the Sydney Metro SWTC for external lighting indicated as being of a higher standard to that specified by MCoA E104. CCTV provision per MCoA E105 was indicated as being within TSOM scope however this would be decided towards the end of Stage 3 design, with due consideration of related risk assessments.

Further to documented information above, key information assessed and/or sighted included:

Crime Prevention through Environmental Design Report	SMCSWSCN-SMC-SCN-SC-REP-000003 rev A	4 Oct'19
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### Flooding prevention

As required by Chapter 11 of the PIR, contractual SWTC's and Planning Approvals such as MCoA E8 and E9, detailed in-house modelling had been undertaken by competent AEO individuals to "maintain and improve flood characteristics", including climate change increases to Australian Rainfall Run-off data. Inputs had included Floodplain Risk Management Guides (incorporating Climate Change practicalities), PMF / 100 years ARI's, surrounding stormwater conduits and Disability Discrimination Act considerations pertaining to wheelchair access and related incline grades.

Demonstration of REMM FH9 included consideration of flow paths (influenced surrounding curb and gutter design and freeboard to entrance/exits to underground station), hydraulics of existing and amplified stormwater run-off. Additionally, redistribution of initial run-off was to be addressed by stormwater detention tanks. REMM FH10 deliberations around station entrances being above 500 mm PMF versus SWTC required 300 mm freeboard was sighted in the form of Design Request for Information to SM dated 28/6/19, plus a 3D Clarke Street Level Entry schematic plus Pacific Highway / Clarke Street Entry sections (exaggerated).

Flooding related reports were referenced in the Civil Design Report, as mentioned earlier in [this](#) report.

### Heritage

Heritage Consultants, Urbis, had been engaged and were progressing information towards the MCoA E21 Heritage Interpretation Plan being drafted at the time ([unsighted](#)).

Urbis Report presentation of 12 September 2019 evidenced historical themes such as early subdivision, transport (trams), North Sydney Shopping village etc. plus key notes from interviews with local historians. Fragments of late Victorian tiling had been salvaged from archaeological work, this proposed as a concept design for station paver layout. This, and proposals to incorporate 20<sup>th</sup> century motor vehicle imagery into the concourse design demonstrated the intent of sympathetic reuse/integrated displays per MCoA E15, acknowledging the limited archaeology discovered during excavation works.

Aboriginal participation per REMM AH1 had proven difficult, but a subcontract consultant had been engaged to solicit one-on-one interpretations per REMM AH4.

## Appendix 2: Audit Credentials

### Audit process

This Independent Environment Audit comprised an off-site desktop review, an onsite and office audit and a post audit assessment of documentation and records. The audit assignment was undertaken by the identified QEM Consulting Pty Ltd Auditor below, with the second Auditor not directly involved in the audit conducting a peer review of the report prior to finalising.

The audit process including scoping and planning was undertaken in accordance with the principals of AS / NZS / ISO 19011:2018 – Guidelines for Auditing Management Systems.

### Auditor information

<b>Audit Organisation:</b>	QEM Consulting Pty Ltd
<b>Auditor &amp; Report Author:</b>	<a href="#">Larry Weiss</a>
<b>Auditor Qualification:</b>	Exemplar Global EMS Auditor Accreditation no. 12355
<b>Affiliations:</b>	Member, Engineers Australia 938517
<b>Report Reviewer:</b>	Julie Dickson
<b>Auditor Qualification:</b>	Exemplar Global EMS Auditor Accreditation no. 13573
<b>Affiliations:</b>	EIANZ Certified Environmental Practitioner, no. 221

### Audit disclaimer

It should be noted that this report is a snapshot in time, based on selected and supplied documentation, as well as observations on the day only, and does not purport to be a definitive confirmation of overall or potential compliance or vice-versa.

### Auditor certification

The abovementioned Auditor certifies as having personally undertaken this Independent Audit and preparing the contents of this Independent Audit Report; and that the findings of the audit are reported truthfully, accurately and completely; and that he / she has exercised due diligence and professional judgement in conducting the audit. The signed Statement of Interests and Association in our services agreement with Sydney Metro confirm our Auditor's independence and absence of pecuniary interest in the audited project.

### Report Author (& Auditor):

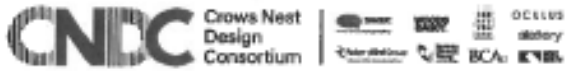
[L J Weiss](#)

**Larry Weiss**

## Appendix 3: Audit Attendance Registers

Name	Organisation	Role	Briefing Meeting	Opening Meeting	Audit	Closing meeting
Willem van Ede	SMEC	Engineering Manager		Y	Y	
Sav dell'Aquila	SMEC	Project Manager	Y	Y	Y	Y
Michelle Quinn	SMEC	Senior Associate Engineer - Environment & Waste	Y	Y	Y	Y
Morgan Wigley	SMEC	Environmental Engineer	Y	Y		
Lucian Gormley	SMEC	Consultant			Y	
Joel Spencer	SMEC	Consultant			Y	
Dawood Saqib	SMEC	Lighting Consultant			Y	
Colin Henson	SMEC	Traffic Consultant			Y	
Madeline Harty	SMEC	Flood Modelling Consultant			Y	
Pulith Vidanapathirana	SMEC	Flood Modelling Consultant			Y	
Avishaal Chandra	SMEC	Utilities Consultant			Y	
Fiona Binns	Urbis	Specialist Heritage Consultant			Y	
Keith Stead	Oculus	Specialist Urban Design Consultant			Y	
David Luck	NDY	Specialist N&V Consultant			Y	
Codee Ludbey	NDY	Specialist CPTED & Security Consultant			Y	
Vijay Rajendran	NDY	Specialist Security Consultant			Y	
Jody Cradock	RBG	Specialist Consultant			Y	
Ben Armstrong	Sydney Metro	Senior Manager Environment C&SW (Observer / facilitator)	Y	Y	**	Y

**P.T.O**



**F-HR11301 ATTENDANCE RECORD**

**Name:** CNDC External Environmental Audit      **Date:** 10 Oct '19  
**Chair:** Sov Dell'Aquila      SMEC Lead 5 Snowy

Name	Company Name	Signature
Willem van Ede	SMEC	Wf van Ede
MICHELLE QUINN	SMEC	Michelle Quinn
Ben Armstrong	SM	Ben Armstrong
Larry Weiser	QEM ISM	Larry Weiser
Morgan Wigley	SMEC	Morgan Wigley
Sov Dell'Aquila	SMEC	S. DA
JOEL SPENCER	PAUL NICHOLSON	J. Spencer
Codee Luasey	<del>PAUL NICHOLSON</del>	Codee Luasey
Keith Stood	OCELLUS	Keith Stood
Dawood Saqib	SMEC	Dawood Saqib
Madeline Harty	SMEC	Madeline Harty
ANISHAAL CHANDRA	SMEC	Anishaal Chandra
Pulith Vidanapathirana	SMEC	Pulith Vidanapathirana
Vijayaprakash	NOY	Vijayaprakash
CEVIN HENSON	SMEC	Cevin Henson
DAVID LOCK	NOY	David Lock
JODY CRADOCK	REG	Jody Craddock

----- END REPORT -----