

Stacy Warren  
Director Infrastructure

7 December 2017  
Ref: 170108-ER-DPE-TSE-Nov 17

Department of Planning and Environment  
GPO Box 39  
SYDNEY NSW 2001

Dear Stacy

**RE: Sydney Metro City & South West Chatswood to Sydenham CSSI 15\_7400 – ER Monthly Report for November 2017 – TSE Contract**

Healthy Buildings International (HBI) submits this report to the Secretary in accordance with:

- Condition A24 (I) of the Sydney Metro City & South West Chatswood to Sydenham CSSI 15\_7400 Approval (9 January 2017) and SSI 15\_7400 MOD1 (18 October 2017); and
- As required by the subsequent appointment as the approved Environmental Representative (17 February 2017);

The attached summary details the key activities undertaken by Environmental Representatives for Sydney Metro – City and South West Chatswood to Sydenham during the month of **November 2017**.

Yours sincerely



Michael Woolley  
Environmental Representative

Cc: Sydney Metro: Fil Cerone, Matt Marrinan, Ben Armstrong, Stuart Hodgson, Nicole Williams, Adam Koutsamanis, Nicole Vanella, Rob Muir (JHCPBG)  
DPE: Swati Sharma, Rob Sherry



Summary of Contract Packages	Environmental Representative/s
Demolition and Tunnel and Station Excavation (TSE)	Michael Woolley
Alternate	Jo Robertson / Annabelle Reyes

Key Construction Activities	
Demolition and TSE	<p>Works conducted in November 2017 at the following sites are summarised below:</p> <p><b>Chatswood:</b></p> <ul style="list-style-type: none"> <li>➤ Chatswood dive site (including the property boundary) <ul style="list-style-type: none"> <li>○ Utility, heritage and geotechnical investigations</li> <li>○ Installation of HV and communications cables across the site for relocation away from dive excavation</li> <li>○ Removal and mulching of trees</li> <li>○ Setting up offices and amenities including connecting services and fitting out existing buildings</li> <li>○ Construction of internal site roads and driveways</li> </ul> </li> <li>➤ Nelson Street <ul style="list-style-type: none"> <li>○ Preparation and notification for relocation of underground utility services and temporarily reinstating the works areas. Temporary footpath parking lane closures proposed from 4 December 2017.</li> </ul> </li> <li>➤ Out-of-hours works <ul style="list-style-type: none"> <li>○ Installation of temporary pedestrian diversions and traffic controls to ensure the safety of pedestrians and traffic during the works</li> <li>○ Delivery and unloading of plant and equipment and establishing the works areas</li> <li>○ Identification and inspection of underground utilities services and pits within the footpath and road</li> <li>○ Reinstating the excavated areas</li> <li>○ Trimming trees located within the site overhanging the footpath and Mowbray Road.</li> <li>○ Removal of one tree located on the footpath of Mowbray Road and one tree near the boundary of the site along Mowbray Road.</li> <li>○ Road condition inspections and testing carried out on Ellis Street, Gordon Avenue, Nelson Street, Mowbray Road, Hampden Road, Elizabeth Street and Brand Street before major construction works start at the Chatswood dive site</li> </ul> </li> </ul> <p><b>Artarmon:</b></p> <ul style="list-style-type: none"> <li>➤ Out of hours works - Road condition inspections and testing carried out on Reserve Road, Whiting Street, Dickson Avenue and Clarendon Street before major construction works start at the Artarmon substation site.</li> </ul> <p><b>Crows Nest:</b></p> <ul style="list-style-type: none"> <li>➤ Within and around the site <ul style="list-style-type: none"> <li>○ Completion of demolition of remaining buildings including 14 Clarke Street (Beaurepairs building)</li> <li>○ Demolition of building slabs and installing retention to adjacent buildings where required</li> <li>○ Dismantling scaffolding and installing hoarding around the site perimeter</li> <li>○ Continue identifying and relocating existing utility services such as power, gas, sewer and telecommunication lines around the perimeter of the Crows Nest Station site, along the Pacific Highway, Hume Street, Oxley Street and Willoughby Road</li> <li>○ Preparation for undertaking heritage investigations within the site</li> <li>○ Commenced site establishment for station excavation works</li> <li>○ Planning for removal of vegetation around the site perimeter on Oxley Street,</li> </ul> </li> </ul>



	<p>Pacific Highway and Hume Street</p> <ul style="list-style-type: none"><li>○ Continued surveys and geotechnical investigations around the site</li></ul> <p>➤ Out-of-hours works</p> <ul style="list-style-type: none"><li>○ Within the site - Delivery and removal of oversized equipment</li><li>○ Pacific Highway, Willoughby Road and Clarke Street - Continued investigation for relocation of utility services, involving potholing, saw cutting, trenching, installing cables and reinstating the works areas.</li><li>○ Corner Oxley Street and Clarke Lane - Continued utilities investigations including potholing and trenching.</li><li>○ Clarke Street - Completed bundling and commissioning of aerial cables between Pole Lane and Hume Street</li><li>○ Out-of-hours works will continue around the Crows Nest Station site in November and December. This includes surveying and utilities investigations, relocating utilities (including a high voltage cable), Ausgrid aerial cable bundling and tree removal.</li></ul> <p><b>Victoria Cross:</b></p> <ul style="list-style-type: none"><li>➤ Within and around the Victoria Cross South site<ul style="list-style-type: none"><li>○ Completed installation of scaffolding around the buildings to be demolished</li><li>○ Continued demolition of 181, 187, 189 and 155 Miller Street and loading out demolition materials</li><li>○ Removal of scaffolding from demolished buildings</li><li>○ Completed salvage of heritage items in 187 Miller Street</li><li>○ Continued identifying existing utility services around the site using a hand-held scanner and vacuum excavation truck</li><li>○ Continued relocation of services such as power, gas and sewer lines, which will involve potholing, saw cutting, trenching, installing cables and temporarily reinstating the works areas</li><li>○ Decommissioned substations on the eastern side of the site near Miller Street and on Denison Street</li><li>○ Continued surveys and geotechnical drilling in the roads around the site</li><li>○ Temporary traffic, parking and pedestrian changes as needed for the safety of workers and pedestrians</li><li>○ Removal of vegetation/trees on Miller Street</li></ul></li><li>➤ Corner of Miller Street and McLaren Street<ul style="list-style-type: none"><li>○ Continued surveys and soil and geotechnical investigations</li><li>○ Utilities investigations, including temporary lane and footpath closures</li></ul></li><li>➤ Out-of-hours works<ul style="list-style-type: none"><li>○ Within the site<ul style="list-style-type: none"><li>▪ Mobilisation and delivery/removal of oversized equipment</li><li>▪ Works to complete substation decommissioning</li></ul></li><li>○ Miller Street<ul style="list-style-type: none"><li>▪ Investigation and relocation services</li><li>▪ Utilities investigations including potholing and saw cutting the footpath near the site entry</li></ul></li><li>○ Denison Street<ul style="list-style-type: none"><li>▪ Continued the demolition of 155 Miller Street (Tower Square)</li><li>▪ Installation of additional support to wall of 65 Berry St car park entry</li><li>▪ Decommissioning the Denison Street substation</li></ul></li><li>○ Berry Street/Denison Street<ul style="list-style-type: none"><li>▪ Continued investigations and relocating services and utilities</li><li>▪ Lifting equipment to the roof of 189 Miller Street by crane</li></ul></li><li>○ Road condition inspections and testing carried out on Miller Street, McLaren Street, Walker Street, Denison Street, Spring Street and Little Spring Street</li></ul></li></ul>
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before major construction works start at the Victoria Cross sites.

**Barangaroo:**

- Set up of site sheds and amenities
- Out-of-hours works
  - Hickson Road
    - Delivery of temporary site amenities, including site offices
  - Hickson Road (between Munn Street overpass and High Steps)
    - Installation concrete road barriers and temporary fencing along the eastern side of Hickson Road
    - Marking of road lines along the western side of Hickson Road
    - Installation of new traffic signs
    - Utility investigations involving narrow trenching.
    - Removal of trees on the eastern side of Hickson Road and pedestrian crossing works near Munn Street overpass as well as removal of trees on western side of Hickson Road
    - Utility investigations involving narrow trenching.

**Martin Place:**

- Martin Place North site
  - Internal strip out of buildings on Hunter, Castlereagh and Elizabeth Streets
  - Installation of scaffolding and hoarding
  - Ongoing structural demolition works with all buildings at one level to allow for uniform demolition across all buildings; prioritising use of shears and pulverisers were possible; removing waste materials from site
- Hunter, Castlereagh, Elizabeth, Bligh and O'Connell Streets and Martin Place
  - Geotechnical investigations and soil testing involving a truck mounted drill rig
  - Identified existing utility services using a hand-held scanner and vacuum truck and accessing service pits on footpaths and within the road
- Out-of-hours works
  - Hunter, Castlereagh, Elizabeth, Bligh and O'Connell Streets and Martin Place
    - Geotechnical ground condition investigations and Ausgrid pit inspections around the Martin Place site
    - Works involved excavating and reinstating works areas, digging boreholes and trenches and checking ground conditions and the locations of utilities.

**Pitt Street:**

- Pitt Street North site
  - Installing scaffolding and waterproofing exposed walls
  - Ongoing structural demolition work and removal of material from site
  - Heritage, contamination, geotechnical and utilities searches
- Out-of-hours works
  - Pitt, Park and Castlereagh Streets
    - Installing hoarding around the site
    - Delivery of plant and equipment including oversized loads
    - Trenching and installing new ductwork and cabling in footpaths and roads
  - Pitt, Park, Bathurst and Castlereagh Streets
    - Utility and geotechnical investigations including potholing and trenching

**Waterloo:**

- Within and around the site
  - Continuing removal of internal walls and demolishing external walls and roofing
  - Removal of awning along Botany Road and Raglan Street



	<ul style="list-style-type: none"> <li>○ Installation of hoarding and scaffolding around the site</li> <li>○ Minor tree trimming along the boundary to install hoarding and scaffolding</li> <li>○ Moving plant and material to and from the site</li> <li>➤ Botany Road, Cope, Raglan and Wellington streets             <ul style="list-style-type: none"> <li>○ Utility investigations to locate underground utilities using hand held equipment, opening lids to underground pits and narrow trenching</li> </ul> </li> <li>➤ Out-of-hours works             <ul style="list-style-type: none"> <li>○ Within and around the site                 <ul style="list-style-type: none"> <li>▪ Moving plant and equipment to and from site using large vehicles and installing hoarding and scaffolding around the site over approximately 15 nights</li> </ul> </li> <li>○ Botany Road, Cope, Raglan and Wellington streets                 <ul style="list-style-type: none"> <li>▪ Installation of new power poles and overhead cable bundling</li> </ul> </li> </ul> </li> </ul> <p><b>Marrickville:</b></p> <ul style="list-style-type: none"> <li>➤ Marrickville dive site (including external property boundary activities)             <ul style="list-style-type: none"> <li>○ Deliveries of materials and construction equipment</li> <li>○ Establishing the tunnelling worksite and precast facility (where tunnel lining segments will be manufactured), including concrete footing works</li> <li>○ Tree and vegetation removal</li> <li>○ Geotechnical investigations and soil testing</li> </ul> </li> <li>➤ Lord Street, Edgeware, Edinburgh and Bedwin roads             <ul style="list-style-type: none"> <li>○ Investigations to locate underground utilities using hand held equipment and opening lids to underground pits</li> </ul> </li> <li>➤ Out-of-hours works             <ul style="list-style-type: none"> <li>○ Lord Street, Edgeware, Edinburgh and Bedwin roads                 <ul style="list-style-type: none"> <li>▪ Underground utility investigations, involving slit trenching</li> </ul> </li> <li>○ Road condition inspections and testing on Sydney Steel Road, Edinburgh Road, Fitzroy Street, Sydenham Road, Railway Parade, Railway Road, Gleeson Avenue, Bedwin Road and Campbell Street.</li> </ul> </li> </ul>
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<b>ER Inspections</b>	
Demolition and TSE	<p>Weekly inspections continued under the management of the TSE contractor for the demolition sites. It is anticipated that generally each site will be inspected every second week at this stage of the project.</p> <p>Sites inspected in November 2017 comprised:</p> <ul style="list-style-type: none"> <li>➤ Victoria Cross South – 7/11/17, 21/11/17</li> <li>➤ Chatswood – 7/11/17, 21/11/17</li> <li>➤ Crows Nest – 7/11/17, 21/11/17</li> <li>➤ Martin Place – 14/11/17, 28/11/17</li> <li>➤ Pitt Street – 14/11/17, 28/11/17</li> <li>➤ Waterloo – 14/11/17, 28/11/17</li> <li>➤ Marrickville – 14/11/17, 28/11/17</li> <li>➤ Barangaroo – 21/11/17</li> </ul> <p>ER Inspection reports have been prepared and issued to Sydney Metro and TSE Contractor. Actions identified during inspections were related to dust and erosion and sediment controls. These actions were assessed as low to moderate risk and have been closed out during subsequent inspections.</p>



Endorsed Document/s	
TSE	<p>The following TSE documents were reviewed, comments provided to the TSE Contractor and Sydney Metro where relevant, and endorsed by the ER with the assistance of alternate ERs during October 2017:</p> <ul style="list-style-type: none"><li>➤ Management Plans<ul style="list-style-type: none"><li>○ Re Issue TSE CAQMP ER endorsement</li><li>○ TSE Business Management Plan (review only)</li><li>○ CNVMP Revised endorsement to cover C9a</li><li>○ Metropolitan CNVMP (Rev 5)</li></ul></li> <li>➤ Construction Traffic Management Plan<ul style="list-style-type: none"><li>○ Pitt Street North Stage 2</li><li>○ Pitt Street South</li><li>○ Barangaroo Site</li><li>○ Chatswood Site</li></ul></li> <li>➤ CNVISs<ul style="list-style-type: none"><li>○ Revised Metropolitan CNVIS (Rev 4)</li><li>○ LAUWs CNVIS Waterloo</li><li>○ LAUWs CNVIS Marrickville</li><li>○ LAUWs CNVIS Barangaroo</li><li>○ LAUWs CNVIS for Chatswood</li><li>○ CNVIS Barangaroo Stage 2</li><li>○ LAUWs CNVIS Pitt Street</li><li>○ LAUWs CNVIS Bligh Street</li><li>○ Site Establishment (Rev 8) CNVIS</li><li>○ CN LAUWs and Tree Lopping CNVIS</li><li>○ Barangaroo LAUWs Rev 2 CNVIS</li></ul></li> <li>➤ Archaeological Method Statements (Draft Final and Final)<ul style="list-style-type: none"><li>○ Chatswood</li><li>○ Victoria Cross</li><li>○ Marrickville</li><li>○ Crows Nest</li></ul></li> <li>➤ Site Establishment Plans (SEPs)<ul style="list-style-type: none"><li>○ Chatswood Rev 02</li><li>○ Barangaroo Rev 01</li><li>○ Pitt Street Rev 02 Utility Investigations</li><li>○ Waterloo Rev 00 Potholing Investigations</li><li>○ Bligh Street Rev 00 Site Establishment</li><li>○ Barangaroo Rev 02 - Site Establishment (contamination only)</li><li>○ Barangaroo Rev 02 - Pre-CEMP site est</li><li>○ Barangaroo Rev 03</li><li>○ Chatswood Rev 03</li><li>○ Martin Place Rev 00</li><li>○ Victoria Cross North Rev 01</li><li>○ Crows Nest Rev 02</li><li>○ Marrickville SEP Rev 03 Tree removal</li><li>○ General SEP Road dilapidation testing</li><li>○ Barangaroo Tree removal and Pedestrian Access.</li></ul></li></ul>



	<ul style="list-style-type: none"><li>➤ Out of hours works approvals<ul style="list-style-type: none"><li>○ MP001 OOHWs extension of existing Application</li><li>○ PS005 extension of existing Application</li><li>○ OOHWs 008</li><li>○ OOHW-009 for Martin Place</li><li>○ VC 009 Block wall at 65 Berry Street</li><li>○ PS007 Location of utilities</li><li>○ WA 004 Poles - extension of WA 001</li><li>○ CH 008 Utilities survey</li><li>○ 008 Design Investigation O'Connell Street</li><li>○ Martin Place Design Investigation</li><li>○ Victoria Cross OOHWs Application VC003</li><li>○ Crows Nest Design Investigation works</li><li>○ CH OOHWs No. 011 Design Investigations</li><li>○ VC009 extension of existing Application</li><li>○ Sydney Park 012</li><li>○ Pitt Street Application PS006</li><li>○ MP006 - works in light well of Mac Bank Building</li><li>○ General OOHWs Road dilapidation testing</li><li>○ OOHWs 004 extension of existing Application</li><li>○ VC 003 extension of existing Application</li></ul></li> <li>➤ Consistency Assessments:<ul style="list-style-type: none"><li>○ Crows Nest Utilities Submission 2</li><li>○ Marrickville Utilities and Additional Land</li><li>○ Chatswood Utilities</li></ul></li> <li>➤ Tree Report<ul style="list-style-type: none"><li>○ Tree Report Rev K</li><li>○ Tree Report Rev M covering Barangaroo</li><li>○ Tree Report Rev N covering changes to Marrickville and addressed conditions of previous ER endorsement</li></ul></li> <li>➤ Risk Assessment<ul style="list-style-type: none"><li>○ Design Investigations Risk Assessment (RA) Rev 6</li><li>○ Site Establishment RA Rev 2 (includes VC North)</li><li>○ Initial Site Establishment Risk Assessment Rev 4</li><li>○ Initial Site Establishment Risk Assessment Rev 5</li><li>○ Design RA Rev 8 (covers changes to VC North)</li></ul></li> <li>➤ Others<ul style="list-style-type: none"><li>○ Early Heritage</li><li>○ CTR for TSE Q3 2017 for ER Review</li><li>○ Endorsement for Heritage Early Works Approval</li><li>○ CTR Q3 for Metropolitan</li><li>○ TSE Community Consultation Strategy (CCS)</li></ul></li></ul>
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<b>Non-compliance/ Incidents / Complaints</b>	
TSE	<p>The following complaints were received:</p> <ul style="list-style-type: none"> <li>➤ Chatswood dive site – 5/11/17 working hours; 21/11/17 construction hours and noise; 22/11/17 noise; 24/11/17 noise</li> <li>➤ Bligh Street – 8/11/17 noise</li> <li>➤ Waterloo – 8/11/17 noise</li> <li>➤ Martin Place – 8/11/17 noise</li> <li>➤ Pitt Street South - 16/11/17 noise</li> <li>➤ Crows Nest - 20/11/17 noise; 23/11/17 noise, 29/11/17 noise</li> <li>➤ Barangaroo 30/11/17 noise</li> </ul> <p>It is understood that Sydney Metro has been providing summaries of complaints to DPE on a fortnightly basis. Responses to each complaint have been noted in each complaint report, with follow up actions often defined in revised reports.</p> <p>There were no incidents related to TSE works as defined by the project approval definition for incidents reported or observed by the ER during the period or reported to DPE under condition A41.</p>
Demolition	<p>The following complaints were received at the following sites:</p> <ul style="list-style-type: none"> <li>➤ Crows Nest – 10/11/17 worker behaviour and safety, 15/11/17 property damage, 22/11/17 noise and vibration</li> <li>➤ Pitt Street North – 1/11/17 property damage, 2/11/17 noise and vibration, 15/11/17 noise and vibration property damage; 28/11/19 business impact; 29/11/17 noise and vibration</li> <li>➤ Waterloo – 1/11/17 Noise and dust, 2/11/17 Vibration, 6/11/17 vibration; 8/11/17 property damage and noise</li> <li>➤ Victoria Cross – 8/11/17 property damage safety, 29/11/17 property impact; 29/11/17 business impact due to noise;</li> </ul> <p>It is understood that Sydney Metro has been providing summaries of complaints to DPE on a fortnightly basis. Responses to each complaint have been noted in each complaint report, with follow up actions often defined in revised reports.</p> <p>There were no incidents related to demolition works as defined by the project approval definition for incidents reported or observed by the ER during the period or reported to DPE under condition A41.</p>
Sydney Metro	<p>There were no complaints received in relation to works undertaken directly by Sydney Metro.</p> <p>The Tree Report prepared to satisfy condition E 6 of the Infrastructure approval contains a comprehensive listing of all vegetation to be removed in relation to the project. Information about the trees to be retained and removed is shared across the Contractor/Sydney Metro interface. During the period, a tree identified incorrectly to be retained in Tree Report (Rev M) was removed at Chatswood. This tree was always intended for removal and the administrative oversight was corrected in the subsequent Tree Report endorsed on 4 December 2017. Sydney Metro and its contractors will continue to improve this interface to ensure that no future oversight occurs.</p> <p>There were no incidents related to Sydney Metro conducted works as defined by the project approval definition for incidents reported or observed by the ER during the period or reported to DPE under condition A41.</p>





<b>Audits</b>	
TSE	Nil
Demolition	An Independent Environmental Audit was conducted on demolition works in November 2017.
Sydney Metro	Nil

<b>Looking Forward</b>	
Demolition and TSE	<p>Core Focus Areas for the month of December are:</p> <ul style="list-style-type: none"><li>➤ Noise and vibration management for works at Crows Nest, Pitt Street, Martin Place and Victoria Cross demolition sites;</li><li>➤ Noise management for out of hours utility works at Chatswood, Crows Nest, and Victoria Cross TSE sites;</li><li>➤ Dust management during demolition works at Pitt Street, Martin Place and Victoria Cross demolition sites;</li><li>➤ Contamination and Heritage Investigations at Chatswood, Crows Nest and Marrickville as well as other sites as they are handed over to the TSE Contractors; and</li><li>➤ Heritage management during archaeological excavations as they commence.</li></ul>