



22nd January 2020

The Planning Secretary
Department of Planning, Industry & Environment
320 Pitt Street
Sydney, NSW 2000

Attention: Megan Fu
Project: Nihon University Newcastle Campus - SSD 9787
Re: Conditions of Consent C08

Dear Megan,

Reference is made to SSD 9787 Conditions of Consent C08 in relation to the Construction Environmental Management Plan Requirements for the development.

Please find attached a copy of the Construction Environmental Management Plan prepared by the contractor Built Pty Limited. The document addresses the construction environmental management of the development during the construction processes. A copy of the plan has been forwarded to the Certifier.

Should you require further clarification on document please feel free to contact either Katherine Daunt or Edward Clode at dwp Australia Pty.

Yours sincerely,

Edward Clode
Design Director
Registered Architect – NSW ARBN 4100
Email: edward.c@dwp.com
File: 17-0347_A-d01-20_let
Encl.: Built Nihon University CEMP Rev A



Construction Environmental Management Plan

Project Name:	Nihon University Newcastle Campus
Project Address:	9 Church Street, Newcastle NSW 2300
Project Number:	201229
Client:	Nihon University C/O AZUSA SEKKEI & DWP SUTERS
Revision:	Revision A
Revision Date:	20/01/2020

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Construction Environmental Management Plan

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0.0 Revision Schedule

Revision	Date	Changes Description	Author
A	20/01/2020	Revision A – For submission to Dept. Planning	Ben Moss

1.0 Introduction

The purpose of this Construction Environmental Management Plan (CEMP) is to provide project stakeholders with detailed construction methodology information relating to the new **Nihon University Australia Newcastle Campus**. The CEMP is to be read in conjunction with the Built HSE Plan and HSE Plan Appendix 11 Environmental Management Plan.

The information provided is for the reference of stakeholders to highlight all the documented strategies Built have considered to ensure that the activities occurring on site do not adversely affect the wider community where health, safety and amenity is concerned.

1.1 Contractor Details

Principal Contractor:	Built Pty Ltd – Newcastle & Hunter
Address:	Level 1, 155-157 Lambton Road, Broadmeadow NSW 2292
Telephone (Office):	(02) 4077 5900
Fax (Office):	(02) 4077 5909

1.2 Project Contacts

Construction Manager	Rob McLaughlin	0478 597 116
Project Manager	Ben Moss	0401 088 850
Site Manager (24 Hour Contact)	Leif Aleksic	0439 913 387
Design Manager	Sita Vasanthakumar	0414 228 818
Snr. Contract Admin	Slafco Gavriloski	0430 317 400

2.0 Project Overview

2.1 Project Details

The project consists of the complete demolition of 2 x existing 3 storey buildings, site remediation (including the management of any resultant contamination, mine workings or archaeological findings, the restoration and refurbishment of the retained and state heritage listed Newcastle Courthouse building and the construction of 2 x 4 storey buildings comprising student accommodation in the eastern building and teaching space\carpark in the western building.

The scope of works to be executed in relation to this project includes:

- Demolition of 2 x existing 3 storey buildings;
- Remediation of exposed ground conditions;
- Monitored excavation for items of archaeological significance (both Aboriginal & European);
- Temporary & permanent retaining structures & ground anchors to neighbouring structures;
- Bulk and detail excavation;
- Piling foundations;
- Reinforced concrete structure;
- Façade comprising painted & rendered concrete and CFC sheet with punch windows and attached aluminium louvres;
- Residential building to include ground floor cafeteria, commercial kitchen, laundry and associated common spaces with 3 levels of student accommodation above;
- Educational building to include ground floor car park with 3 levels of teaching space above;
- D&C scope for all services;
- 101 bedrooms in residential building within approx. 3200 m2 GFA.
- 21 teaching spaces in education building within approx. 1,800m2 GFA
- 20 car park spaces on ground floor of education building within approx. 800m2

2.2 Special / Unique Aspects of the Project

Following is a list of special requirements and/or unique aspects of this Project:

- Heritage component to both retained Courthouse building and perimeter retaining brick wall on southern (partial) and western boundaries.
- Possible site contamination, existing mine workings and archaeological significance (both Aboriginal & European) to remediate \ manage.
- Temporary \ permanent retaining required with ground anchors into neighbouring property (James Fletcher Hospital).
- Working on a site with effectively boundary to boundary construction and with sensitive neighbours i.e. Newcastle Police Station and James Fletcher Hospital either side and to the rear of the site (including operations call centres at both premises). There are also nearby residential properties and businesses, including Newcastle Grammar School and a Hotel in the immediate vicinity.
- The project is virtually adjacent to the track for the annual Newcastle Coates 500 Supercars event held on the 3rd week of November.

2.3 Project Location

The location of the Project is at Lot 1 DP1199904 - 9 Church Street, Newcastle NSW 2300.



Figure 0.1: Site Overview & Surrounding Area (SIX Maps)



Figure 0.2: Nihon University Highlighted in Yellow & Immediate Surrounds (SIX Maps)

3.0 Environmental Management System Overview

3.1 Built Environmental Management System

BUILT will be working under the Built Management System (BMS). The BMS provides an integrated HSEQ framework that manages legal compliance, risks and opportunities at all levels of the business consistently and effectively.

The system comprises of policy, planning, implementation and operation, and checking and review. Built maintains documented policies and procedures to ensure Built's aims, priorities and overall objectives are clearly communicated and understood at all levels of the organisation.

Built's Environmental Management System (EMS) is a component of the BMS. It is ISO 14001 certified and meets the requirements of the NSW Government Environmental Management Guidelines.

3.2 Environmental Policy & Procedures

Built's environmental policy describes Built's commitment to continual improvement in environmental performance and compliance with applicable legal requirements and has been developed in accordance with requirements outlined in Section 4.2 of ISO 14001.

The environmental policy is displayed at all time within induction rooms and the site office and communicated to staff and other interested parties via inductions and site meetings. A copy of the policy can be found in the Built HSE Plan Appendix 11 Environmental Management Plan.

3.3 CEMP

The primary purpose of this CEMP is to provide a project specific Construction Environmental Management Plan to be read in conjunction with the Built HSE Plan Appendix 11 Environmental Management Plan ensures compliance with SSD-9787 conditions of approval.

SSD Conditions of Approval for the Nihon University project required the following sub-plans:

- Construction Traffic & Pedestrian Management Plan
- Construction Noise & Vibration Management Plan
- Construction Waste Management Plan

An overview of Built's environmental management document system for the project is shown in Figure 3.1

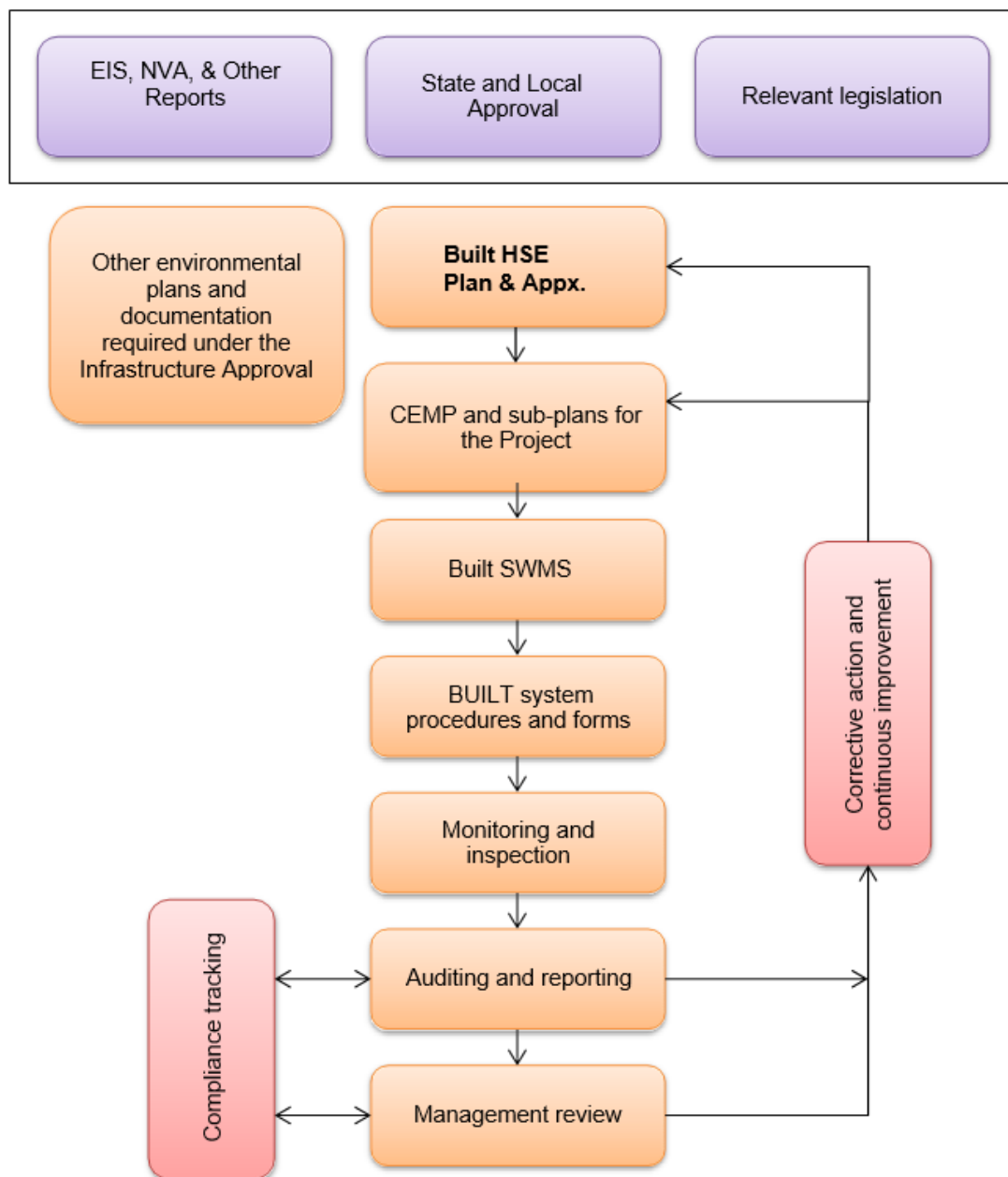


Figure 3.1 – Built environmental document system overview

4.0 Stakeholder Management

Due to several main project drivers, there are two main stakeholder groups each requiring varying degrees of management processes and strategies. These are identified in no particular order or limitation and the management strategies outlined in the section below. Further details (including contact details) can be found on the Project Contacts List.

4.1 Stakeholder Identification

4.1.1 Direct Project Stakeholders

- Nihon University
- Built NSW Pty Ltd
- Azusa Sekkei / dwp Australia Architects
- Project Consultants & Engineers
- Subcontractors
- Suppliers
- Dix Gardner (PCA)

4.1.2 Indirect Project Stakeholders

- NSW Department of Planning, Industry and Environment
- NSW Heritage Office
- The City of Newcastle
- Roads and Maritime Services
- Subsidence Advisory NSW
- GHD (Principle Environmental Consultant/Auditor)
- Service Providers
 - Ausgrid
 - Jemena
 - Hunter Water
 - National Broadband Network

4.1.3 External Stakeholders

- Registered Aboriginal Parties
- NSW Police Force (Newcastle Police Station)
- Hunter New England Health (James Fletcher Hospital)
- The Grand Hotel
- Newcastle Grammar School
- Neighbouring Properties (Owners / Occupiers)
- Public / Pedestrians

4.2 Stakeholder Management Strategies

Built will take care to ensure that the stakeholder management strategy for each stakeholder group identified above, and any newly identified after completion of this document, is implemented throughout the project lifecycle. This strategy will allow Built to effectively communicate with the various stakeholders to best deliver the project to their satisfaction and intent.

4.2.1 Project Stakeholder Management Strategy

Built will ensure that direct and indirect project stakeholders are regularly informed about construction activities and actively consult and collaborate with these parties through;

- Project & site meetings (formal & informal)
- Reporting
- Inspections & independent audits

4.2.2 External Stakeholder Management Strategy

Built understands the high-profile nature of this project and the increased awareness of potential impacts that any construction activity may have on the immediate community and external stakeholders surrounding the construction site. Built has established a Community Liaison Plan in accordance with SSD-9787 conditions of approval.

Stakeholders will be notified prior to commencement of the works and throughout the construction lifecycle as required by way of;

- Letter box drops
- Emails (nihon@built.com.au has been setup as the community liaison point of contact)
- Signage and notices
- Door knocking as required
- Phone calls
- Face to face discussions / meetings

All complaints received by Built will be actioned as soon as practical and responded to within one working day by the Project Manager. Any serious incidents or complaints will be forwarded to the Construction Manager for action and response as soon as reasonably practicable.

5.0 Legal Requirements

Built is required to adhere to all legal requirements and statutory obligations throughout the project with special consideration given to those regarding heritage and the environment due to the project being a State Significant Development. Listed below, though not limited to, are the main legal requirements of the project.

- SSD-9787 Conditions of Approval
- National Construction Code & Building Code of Australia 2019
- Contaminated Land Management Act 1997
- Coal Mine Subsidence Compensation Act 2017
- Conveyancing Act 1919
- Environmental Planning & Assessment Act 1979
- Environmental Planning & Assessment Regulation 2000
- Heritage Act 1977
- Hunter Water Act 1991

- Newcastle Development Control Plan 2012
- Newcastle Local Environmental Plan 2012
- NSW Health Code of Practice for the Control of Legionnaires' Disease
- Protection of the Environment Operations Act 1997
- Protection of the Environment Operations Regulation 2014
- Protection of the Environment Operations (Waste) Regulation 2014
- Public Health Act 2010
- Public Health Regulation 2012
- Roads Act 1993 (Section 138)
- State Environmental Planning Policy (SEPP) 55
- Work Health and Safety Act 2011
- Work Health & Safety Regulation 2017
- Australian Standards, Guidelines & Handbooks
- International Standards, Guidelines & Handbooks

It must be noted that there are many related International and National Standards, Guidelines & Handbooks referred to throughout the SSD conditions and Head Contract documents (including consultant reports). If additional information is required, please refer to these specific documents for information or seek further advice from Built Management.

5.1 Applications & Permits

Built has identified the following applications and permits will need to be submitted and received. Each application will have specific conditions (currently not known) to be satisfied prior to commencing their related element of works.

- State Significant Development (SSD) Consent (Planning Permit) for the development and use of the site
- Construction Certificates (Building Permit) for the construction work (issued by PCA)
 - Construction Certificate #1 – Piling, Grouting, and In-Ground Services
 - Construction Certificate #2 – Foundations and Level 1 Slabs
 - Construction Certificate #3 – Building Works (Internal & External)
- Hoarding Permit
- Road Occupancy Permit - Construction Zone (Full or Partial Closure)
- Road Occupancy Permit – Crane Application
- Section 138 (Type 1) – Driveway and/or a Road Opening Permit
- Section 138 (Type 2) - New Infrastructure on a Public Road/Footpath Permit
- Ausgrid Substation/Kiosk Upgrade
- Hunter Water Service Connection
- Jemena Gas Service Connection
- National Broadband Network (NBN) Services Connection

6.0 Unexpected Finds Procedures

Due to the heritage nature of the project site and early investigations completed to date, it is likely that unexpected finds will be discovered during the demolition and construction stages of the project. In compliance with SSD-9787, Built has prepared protocols and communication procedures for unexpected finds related to archaeological/heritage items and contamination.

6.1 Unexpected Archaeological Finds Procedure

The former Newcastle Court House is listed on the Newcastle LEP 2012 as having State heritage significance (Item 375). The Courthouse site is listed on the State Heritage Register under Listing Number 00796. All construction works are to be conducted in accordance with the State Significant Development 9787 Conditions of Consent issued by NSW Department of Planning, Industry and Environment. Built has engaged City Plan Heritage Section to undertake archival recording in accordance with these conditions.

All works associated with the heritage Courthouse Building will be carried out in accordance with;

- Heritage Building Scope of Works
- Conservation Management Plan
- Heritage Impact Statement
- NSW Environment & Heritage Guidelines
- The Burra Charter 2013 (Articles 3, 10, 15, 22, 27, 28)

AMAC will prepare and submit a Research Design & Excavation methodology/programme to NSW Department of Planning prior to excavations commencing and Archaeological monitoring during bulk and detailed excavation work will occur. At the completion of these works, AMAC will submit a final report to the Office of Environment and Heritage.

Procedure

Built will follow the below procedure for unexpected finds and inform all workers and personnel of this procedure and their responsibilities during the site-specific inductions and toolbox meetings.

1. Unexpected item discovered
2. Stop work, protect item(s) and inform Built site management immediately.
3. Built management to contact the Superintendent who will then contact the Planning Secretary.
4. Built to contact Project Archaeologist.
5. Complete preliminary assessment and recording of the item. **If item classified as non-heritage, return to work.**
6. Review CEMP and approval conditions
7. Resume work once given written approval to do so.

6.2 Unexpected Contamination Finds Procedure

Investigations and testing of the existing soil in accessible site areas is to be carried out prior to commencement of demolition to aid in detailed design development.

Following the completion of demolition works and prior to the commencement of Additional investigations are to be conducted post-demolition of the non-heritage structures and a final report submitted to the Independent Environmental Consultant/Auditor (GHD). Testing must include assessment of both the soil and groundwater profile and any remediation works must be in accordance with the remediation action plan approved by Auditor.

Procedure

The procedure listed below is to be followed in the case of unexpected contamination finds:

1. Works should cease in the area and the supervisor should be notified immediately
2. The area should be cordoned off to prevent access by other workers and public
3. A suitably qualified environmental consultant will be engaged to provide interim advice based on visual inspection on construction health and safety, material storage and material disposal to allow construction to proceed as soon as practical.
4. The suitably qualified environmental consultant will prepare a Remediation Action Plan in accordance with EPA guidelines on contaminated land management and this will be provided to the Planning Secretary.
5. Unexpected potentially contaminated material will be excavated and separately stockpiled in a secure location on strong impermeable plastic sheeting and covered top and sides with securely fitted plastic sheeting.
6. The stockpile will be protected by adequate sediment controls to collect runoff and prevent overland stormwater flow from affecting the base of the stockpile.
7. Potentially contaminated materials from different parts of the construction area will be segregated into separate stockpiles. The separate stockpiles should be signposted and the source location of the materials on site recorded.
8. When the potentially contaminated material has been removed, the area from which this material was excavated will also be isolated. Further excavation or other construction work will not occur in that area until advice from a suitably qualified environmental consultant is provided confirming that any contaminated material has been removed and that the area is suitable for further excavation or construction activity.
9. The location from which potentially contaminated materials is excavated and the location of the stockpile of excavated material will be recorded on a site plan. Records will include an outline of the area and depth of the potentially contaminated materials and the volume of material excavated.
10. A suitably qualified environmental consultant will assess the potentially contaminated material and prepare a report advising whether the material is contaminated at levels exceeding the NSW EPA endorsed guidelines for reuse on-site and/or whether the material needs to be disposed of off-site as waste, and the classification of that waste.

11. Where contaminated material is assessed as being unsuitable for reuse on site, the area where the material was excavated will require validation.

In the event that a person onsite identifies or disturbs suspected Asbestos Containing Materials (ACMs) that are not identified on the Asbestos Register, Built will follow all reporting and notification requirements and the following actions:

- Stop work in the area potentially impacted by ACM as soon as it is safe to do so and move to the upwind side of the area, or away from the area.
- Assess the potential immediate risk to human health posed by the unexpected find and assess if evacuation is necessary.
- Delineate an exclusion zone around the affected area using fencing and/or appropriate barriers and signage. Keeping soil damp will minimise the release of fibres to air.
- Contact the Environmental Scientist / Engineer for advice and request a site visit to undertake a risk assessment of the unexpected find and determine what further assessment and/or remediation works are required.
- Implement advice and validate outcomes are assessed by the Environmental Scientist / Engineer to be satisfactory. Document outcome, presenting recommendations to the Superintendent & Planning Secretary.
- Remove ACM from site and dispose to suitable licenced waste facility. Receive clearance certificate.
- The Planning Secretary to confirm that works may resume in the affected area.

The unexpected asbestos management procedure during Construction is as follows:

Where small fragments of ACM or suspected ACM are found, and provided that:

- The total number of fragments is < 20, or
- The total surface area of the fragment/piece is < 1 m², or
- The fragments are spread over an area of < 10 m², and
- The fragments are non-friable and located on ground surface or within the topsoil layer then the Contractor Environmental Scientist / Engineer will collect any fragments and place it in a 200 mm polythene bag for later disposal at an appropriate waste facility.
- A detailed visual inspection of the area will be carried out by the Contractor Environmental Scientist / Engineer, which will involve wet raking of the areas to a depth of 10 cm for any further fragments. If no further fragments are identified, works can continue.

If, during the visual inspection, the Contractor Environmental Scientist / Engineer determines that the criteria

described above are exceeded, or if suspected asbestos / ACM continues to be identified during excavation works and/or if it is thought that any uncovered material might be considered asbestos containing and friable, works will cease and the Environmental Scientist / Engineer will assess the situation and determine an appropriate course of action.

If required, the Built will engage an Environmental Scientist / Engineer to remove samples of the material for testing at a NATA-accredited laboratory and will monitor airborne dust levels. Following testing, the Environmental Scientist / Engineer will determine and report:

- if the asbestos is non-friable or friable
- the extent of the contamination
- options for the appropriate remediation of the area
- the requirement for a licenced asbestos removalist
- The requirement for health screening of workers on site.

7.0 Construction Environmental Management

7.1 Site Establishment

Site establishment will be completed in accordance with Built's Health, Safety, Environment & Quality (HSEQ) Management Plans, and site establishment & project start-up checklists prior to commencing construction activities onsite. These checklists provide a framework for the project teams during the site establishment phase and ensures each Built site is compliant with internal and external HSEQ requirements.

7.1.1 Site Layout, Access & Security

Access to site considers the pedestrian access requirements into and around the site, and the requirements for construction works. Site amenities including Built's site offices are located within the Heritage building. **Copies of the Site Plan & Office Layout is attached in Appendix A.**

The dedicated personnel access gate is located on Church Street (immediately in front of Courthouse building). The vehicle gates on Church Street at both the Residential building and existing driveway will be the main access for material deliveries, plant & equipment and rubbish removal. Appropriate signage and traffic management measures will be in place at all time at each gate.

Security is paramount in and around all **Built** construction sites. To ensure and maintain security both during and out of working hours, all gates and access points will be padlocked outside site operating hours. All covered walkways along pedestrian routes will be adequately lit after hours. Built has also installed CCTV and will provide security patrols once the project progresses.

7.1.2 Temporary Services

Built has engaged services contractors to install the following temporary services for the duration of the works.

Temporary Power & Lighting:

- 200A Main Electrical Switchboard
- Relocatable temporary switchboards throughout to provide power to trades
- Temporary lighting throughout site including external areas for security
- 550kVA Generator to operate the tower crane & materials hoists
- All temporary external construction lighting will be installed in compliance with **AS 4282-2019 Control of the obtrusive effects of outdoor lighting.**

Built understands that external lighting can have obtrusive effects on:

- Residents & building users

- Transport system users including drivers, cyclists, and pedestrians
- Transport signalling systems including signage

Built intends to install external temporary lighting to the B-Class Hoarding on Church Street, Vehicle & Pedestrian Gates, and Southern Boundary security lighting. All lighting will conform with AS 4282-2019 illuminance levels and positioning requirements.

To maintain compliance with AS 4282-2019, Built will assess temporary lighting locations in consultation with our electrical sub-contractor and adjacent properties as required, and continually monitor these locations throughout their use.

Temporary Hydraulics:

- Built will utilise the current site water supply
- Temporary piping and hose fittings will be installed throughout site

7.1.3 Protection of Existing Elements

Built will ensure that existing elements to be retained are always appropriately protected. These elements include all heritage items and structures, trees, adjoining properties, and public assets.

Heritage items and structures will be protected with materials (blankets, wraps, etc.) and physical barriers where the risk of damage is greatest. Signage will also be placed around site to alert workers of the heritage elements nearby.

Trees, adjoining properties, and public assets will also be protected using barriers as these are located close to construction zones and vehicle movement pathways.

Built will regularly complete inspections of the site and protection measures to ensure no damage has occurred and the measures are still in place.

7.1.4 Public Safety

Built will establish chain link fencing with mesh barrier around the Western and Southern perimeter adjoining James Fletcher Hospital.

Along the Church Street frontage, Built will erect a B-Class hoarding with an A-Class hoarding on the internal (site) edge. These hoardings will limit the ability for any unauthorised person/s to enter site, while providing overhead protection and safe pedestrian access along the footpath.

All tripping hazards will be removed from perimeter fencing and hoardings of nearby footpaths to prevent possible injuries and graffiti will be removed within 48 hours of discovery. All site hoarding/fences will be inspected daily.



Construction Environmental Management Plan

Hoardings, barriers and perimeter fencing will be lined to limit public viewing as a method to ensure pedestrian flow is not impeded and a Construction Traffic & Pedestrian Management Plan implemented.

All signage to be installed on hoardings in view of the general public will be configured in accordance with the regulatory requirements and Conditions of Consent. The general signage installed on the hoardings will include:

- Site safety regulations
- Pedestrian warnings
- Emergency Built staff contact names and numbers
- Site related advertisements
- Site security monitoring (to discourage bill posting and graffiti)
- Builders Signage

7.2 Operating Hours, Noise & Vibration Control

7.2.1 Operating Hours

Site Operating Hours:

Monday to Friday:	7:00am to 6:00pm
Saturday:	8:00am to 1:00pm
Sunday:	No work without approval of an Out of Hours Permit
Public Holidays:	No work without approval of an Out of Hours Permit

Rock breaking, rock hammering, sheet piling, pile driving, and similar activities may only be carried out between the following hours:

Monday to Friday:	9:00am to 12:00pm & 2:00pm to 5:00pm
Saturday:	9:00am to 12:00pm

Built aims to complete work within the operating hours, however due to unforeseen circumstances works may need to occur outside this period. If this is the case, approval will be sought from the City of Newcastle, Stakeholders and other parties immediately affected and an Out of Hours Permit will be submitted.

7.2.2 Noise & Vibration Control

Built has prepared a Construction Noise & Vibration Management Sub-Plan attached as **Appendix B.**

All construction noise and vibration levels will be maintained and monitored in accordance with the ***Interim Construction Noise Guideline 2009*** and ***Environmental Noise Management Assessing Vibration: A technical guideline 2006***.

Where there is a potential for exposure to noise in excess of 85 dB(A) continuously for eight hours, or where there is a potential for exposure to vibration to arms/ hands from tools for greater than 4 hours in a 24 hour period, or where there is a potential for whole body vibration in excess of exposure levels nominated for machinery or plant by the manufacturer, documented procedures outlining the control must be provided.

Where required, appropriate ear protection is to be worn by all site personnel. Where necessary, signage and restricted areas are to be utilized. Built will ensure subcontractor SWMS are developed to address the control of noise during their activities.

Built will ensure work practices to reduce noise complaints are implemented where required, such as acoustic barriers, construction vehicles not arriving at site outside of construction hours, and all plant/vehicles fitted with 'quackers' where possible to minimise noise impacts.

7.3 Air & Dust Management

7.3.1 Air Pollution

Built is committed to ensuring that the air quality in and around the construction site is maintained at acceptable levels throughout the construction period. This will be achieved by adopting the following where required:

- If odorous materials uncovered, re-cover immediately and notifying Built immediately. Built will then commence investigation and notify Authorities as required.
- By seeking advice from an Environmental Consultant regarding soil /materials management
- Ensuring purchased electrical products/whitegoods products comply with specification for CFCS & energy ratings
- Ensuring low solvent paints are used as a priority – low VOC
- Ensuring all trucks entering or leaving the site with loads have their loads covered
- Ensuring all construction plant and equipment with access to the site is properly maintained. Smokey plant is to be stopped until repair works are completed. Vehicle engines are to be turned off whilst not in use (no long periods of idling).
- Use of screens / barriers as required for containment during works involving spraying as required.

7.3.2 Dust Management

Dust control shall be managed such that minimal impact is caused to the public and adjoining owners by confinement to the site boundaries. The following strategies will be adopted where required:

- Trade contractors are to be notified that trucks transporting materials such as soil and sand are required to be covered and tailgates secured.
- All trucks must not track dirt onto public roads or footpaths. Any debris shall be cleaned immediately. Built will ensure a truck grid is installed at vehicle gates.
- Land stabilisation works carried out progressively to minimise exposed surfaces
- Ensuring all areas expelling dust is confined to within the site.
- Instruct all personnel that there will be no incineration or burning of waste materials on site and to take prompt action when extinguishing fires.
- Subcontractors will be required to control the dust created during their tasks in SWMS.
- Installing shade cloth on any localised containment fencing where required
- Vehicle corridors will be clearly identified and restricted to control vehicle access onsite - limit vehicle speed onsite to walking pace
- Reducing work activities /stop work during high wind velocity periods.

- Use of water suppression on exposed surfaces and covering of stockpiles as required

7.4 Stormwater & Sediment Control

Built is committed to ensuring all erosion and sediment control measures are implemented and maintained at or above capacity for the duration of construction works and until such time that all ground disturbed by the works has been stabilised and rehabilitated. All erosion and sediment control techniques will be in accordance with *Managing Urban Stormwater: Soils & Construction* (4th Edition, Landcom, 2004).

Built will implement these control measures in accordance with the Erosion & Sediment Control Plan (Drawing 8109007-CI-180). Measures include the use of surface inlet sediment traps, sediment barriers, silt fences, and a temporary construction vehicle exit. **This control plan is attached in Appendix C.**

7.5 Construction Waste Management

Nominated site personnel will oversee the daily management and disposal of construction waste. All waste collection will occur during the Site Operating Hours and in accordance with Built's **Construction Waste Management Plan attached in Appendix D.**

With specific reference to the Nihon University project, Built has engaged Central Waste Management Services to provide a waste removal service and undertake material separation at a their depot complete with the submission of a monthly waste management report.

7.5.1 Training

Waste management training will form part of the site induction program. This will ensure that contractors and site visitors are aware of the materials on site (including any hazardous waste) and waste disposal requirements. Waste management requirements will be stipulated in contracts with sub-contractors. This includes the use of recycled materials where possible and the need to recycle any trade waste. As part of **Built's** policy, re-use and recycling of materials is strongly encouraged.

7.5.2 Hazardous Waste

All waste deemed hazardous as specified in the Hygienist's report will be handled in accordance with State and Federal Legislation and will be disposed of as per SafeWork NSW requirements. Hazardous materials have been identified onsite during a pre-construction hazardous materials inspection and report issued by a certified hygienist.

All identified hazardous materials will be removed and a clearance certificate issued prior to demolition works commencing.

7.5.3 Waste Classification & Tracking

All waste materials will be classified onsite for either removal or re-use where appropriate. Classification will be conducted by Built and their consultants (e.g. Geotechnical Engineer) to confirm contamination status. The final geotechnical investigation will be completed post-demolition once additional areas are accessible and will aim to confirm if contamination is present onsite.

Materials that are exported off site will be tracked through the following methods:

- Records of total volumes and mass of waste sent offsite including truck weighing bridges and random visual truck inspections.
- The waste removal contractor shall provide monthly reports providing a breakup of waste recycled and waste going to landfill.

7.5.4 Prohibitions

No concrete waste and rinse water are to be disposed of on the site and must be prevented from entering any natural or artificial watercourse.

7.6 Construction Traffic & Pedestrian Management

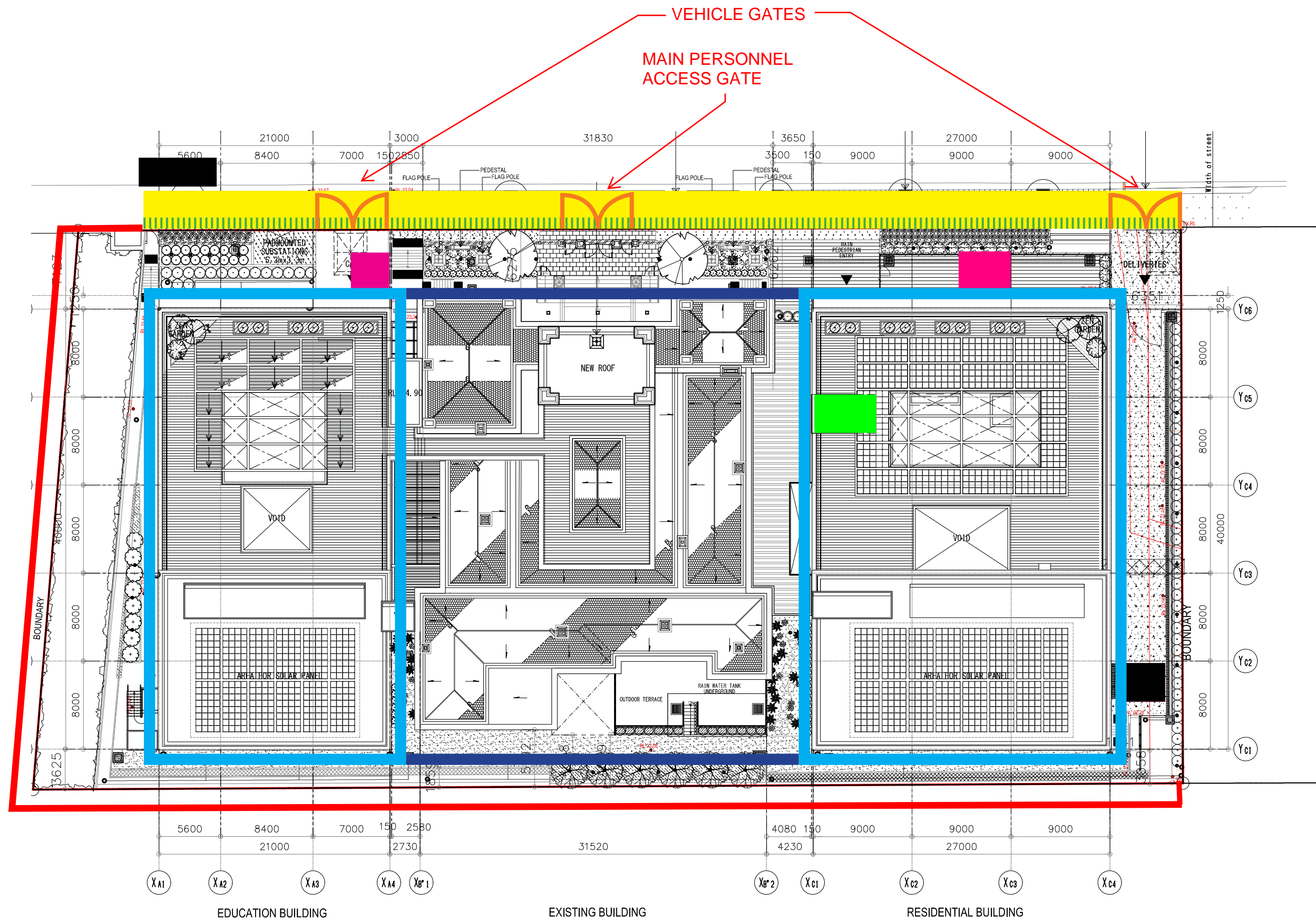
The construction traffic management plan will ensure that disruptions to the normal flow of traffic around the construction site are kept to a minimum. **Built** have engaged accredited Traffic Engineers to undertake a detailed assessment of the project and surrounding infrastructure for the preparation of the traffic plans incorporated into the **Construction Traffic & Pedestrian Management Plan** attached in **Appendix E**.



Construction Environmental Management Plan



Appendix A - Site Layout Plan



LEGEND

- HOIST
- A CLASS HOARDING / GATE
- B-CLASS HOARDING
- SCAFFOLD
- SCAFFOLD
- DOOR
- BIN
- PERIMETER FENCE
- CRANE

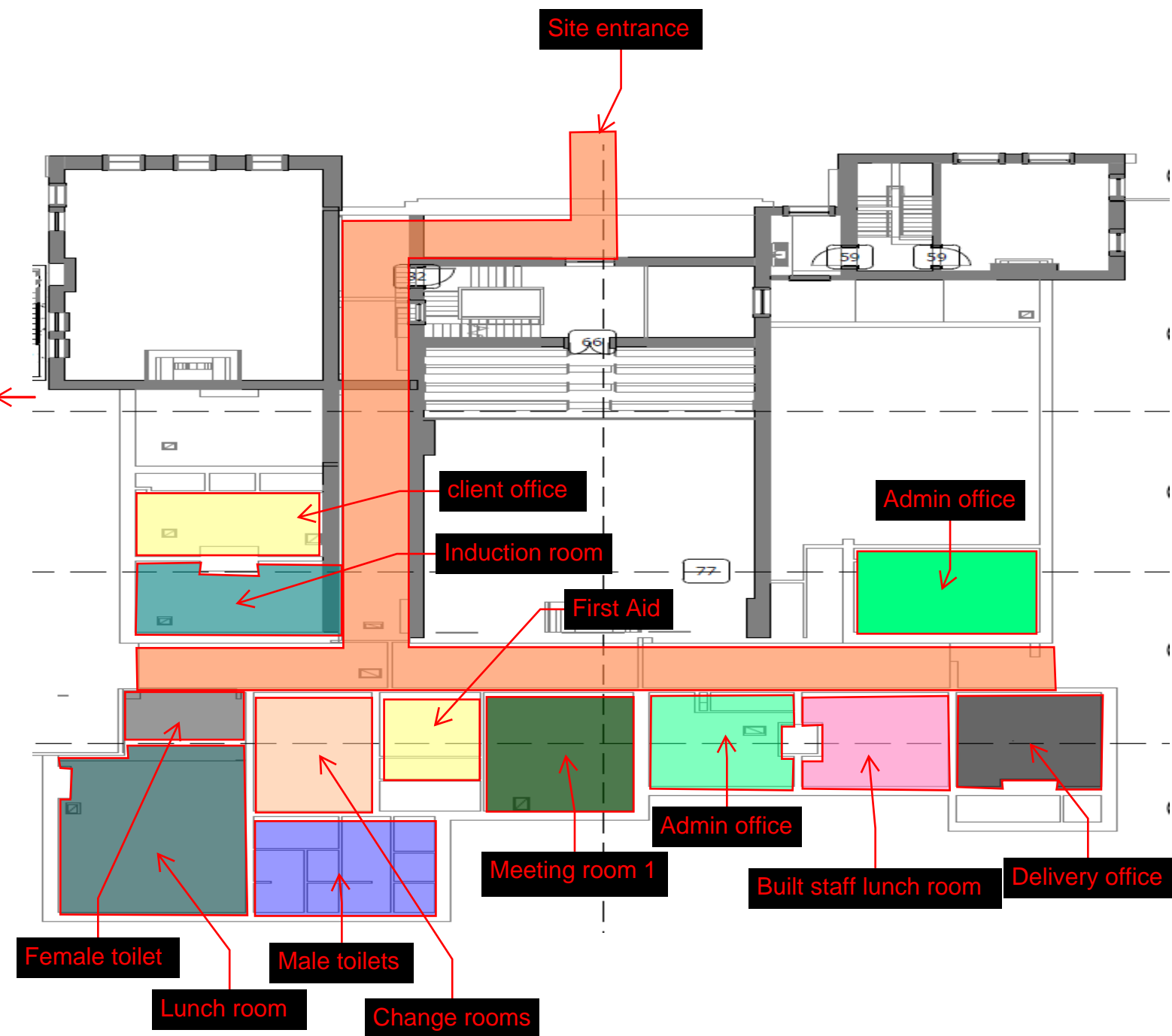
SK006

Revision No 1
18 September 2019

HOARDING & SCAFFOLD PLAN

Nihon University

Built.





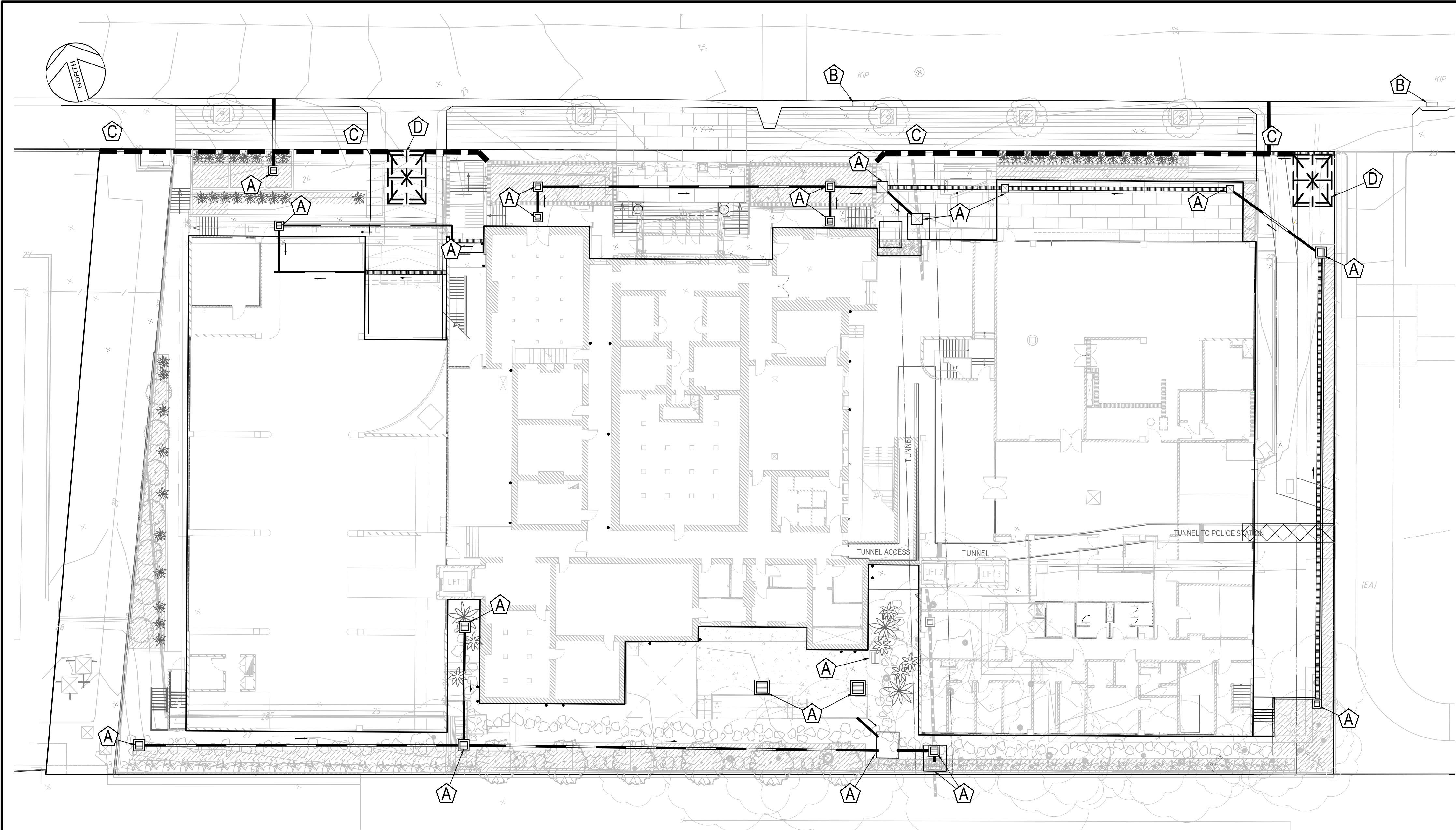
Appendix B – Construction Noise & Vibration Management Plan

SEE PLAN ATTACHED SEPARATELY

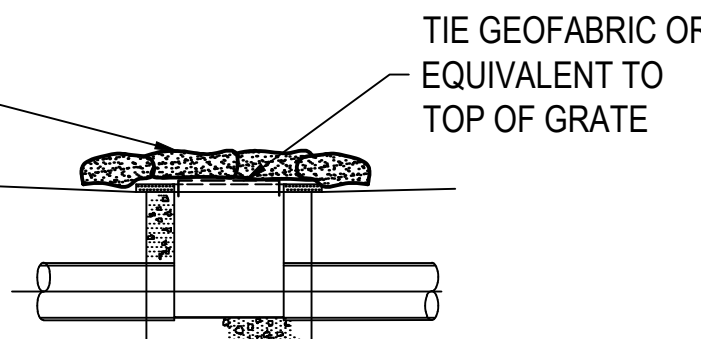


Appendix C – Erosion & Sediment Control Plan

CTB File: Gp_Cardno_Full.dwg Device Name: DWG To PDF.pc3
SAVE DATE: 1-Aug-19 7:17:07 PM BY: Jessica Jordan DATE PLOTTED: 6-Aug-19 11:56:14 AM BY: JESSICA JORDAN
XREFs: x81019007 Survey, x81019007 Civil, x81019007 A1Title, x81019007 Arch
CAD File: n:\Projects\805\Y19\81019007 Drawings\Buildings\81019007-CI-180_41 ESCP.dwg

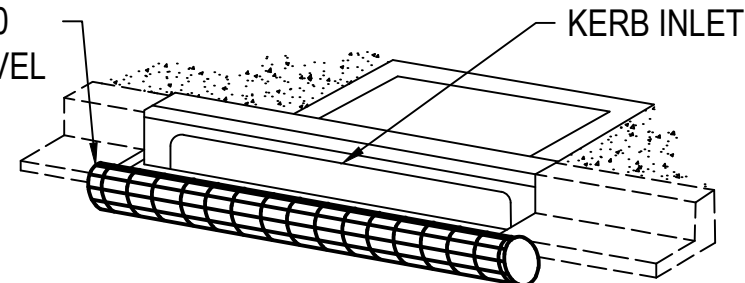


PLACE SANDBAGS
AROUND PERIMETER
OF GRATE TO LIMIT
SILTATION ON LID



**TEMPORARY SURFACE INLET SEDIMENT TRAP
OR GROSS POLLUTANT TRAP**
WHEN USED AS A GROSS POLLUTANT TRAP
STRUCTURE SHALL BE REGULARLY DESILTED

ROLL OF NETTING
FILLED WITH 50
TO 75mm GRAVEL



NOTE:
SEDIMENT BARRIERS TO BE USED ONLY WHERE
ROAD WIDTHS PERMITS AND WHERE SAFETY TO
PASSING TRAFFIC IS NOT AFFECTED

GEOFABRIC AND GRAVEL TO EXTEND
250mm MIN. PAST THE END OF THE
LINTEL OPENING TO ENSURE SEAL
WITH KERB. COVER GRATES WITH
GEOFABRIC AND FASTEN WIRE

SEDIMENT BARRIER FOR KERB INLET PITS

NTS



TIMBER SLEEPER OR METAL
GRID 100mm HIGH AND
SPACED AT 200mm CTS

CONSTRUCTION SITE

SINGLE LAYER HIGH
STRENGTH GEOFABRIC

BED 75mm AGGREGATE
MINIMUM 200mm THICK

MIN. LENGTH 5.0m

BERM 0.3m
MIN. HIGH

EXIT DIRECTION

EXIT FROM SITE

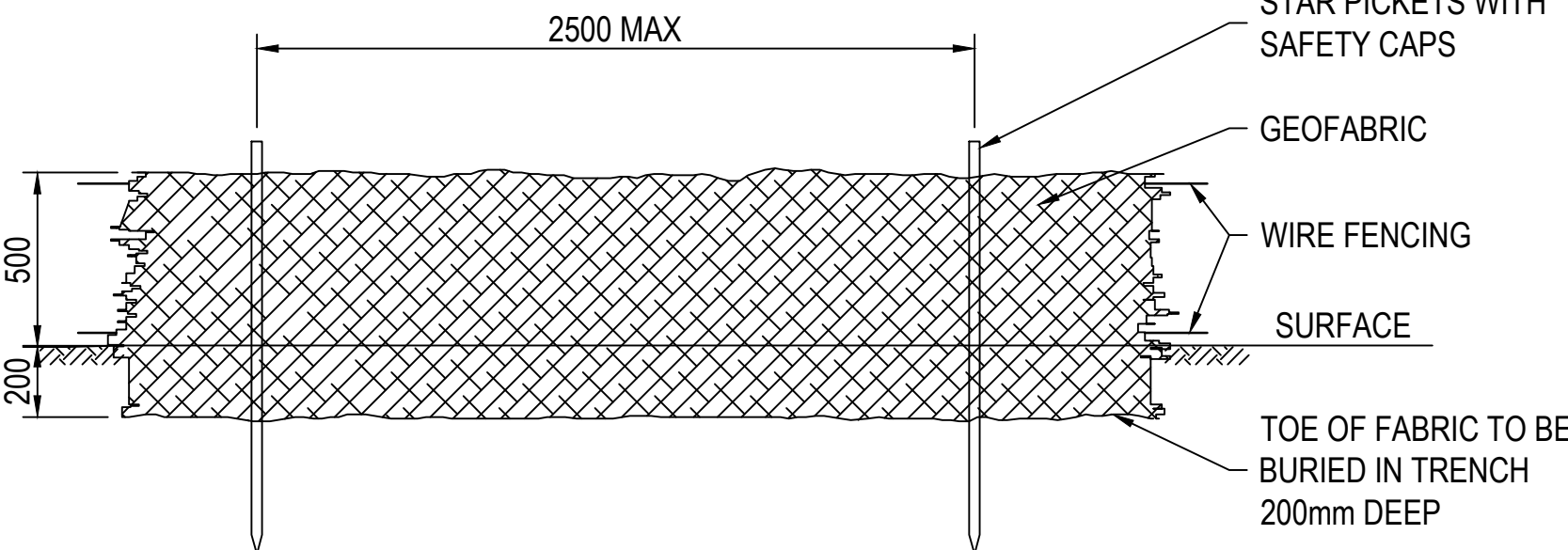
MIN. WIDTH 3m

TEMPORARY CONSTRUCTION VEHICLE EXIT

NTS



PLAN
SCALE 1:200



TYPICAL SILT FENCE DETAIL

NTS



LEGEND



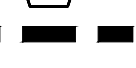
TEMPORARY SURFACE INLET SEDIMENT TRAP
OR GROSS POLLUTANT TRAP



SEDIMENT BARRIER FOR KERB INLET PITS

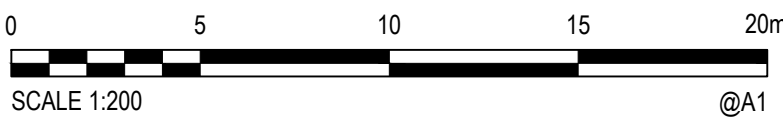


SILT FENCE



TEMPORARY CONSTRUCTION VEHICLE EXIT

Rev.	Date	Description	Des.	Verif.	Appd.
4	06/08/19	TENDER ISSUE	JK	SGB	SGB
3	14/06/19	50% DESIGN ISSUE	JK	SGB	-
2	18/12/18	ISSUED FOR DEVELOPMENT APPLICATION	JS	SGB	-
1	04/12/18	INITIAL ISSUE	JS	SGB	-



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Drawn	LDB	Date	DEC 2018	Client	AZUSA SEKKI
Checked	JS	Date	DEC 2018	Project	NIHON UNIVERSITY
Designed	JS	Date	DEC 2018		AUSTRALIA NEWCASTLE CAMPUS PROJECT
Verified	SGB	Date	DEC 2018		9 CHURCH STREET, NEWCASTLE
Approved		Date		Title	STORMWATER DESIGN
					EROSION AND SEDIMENT CONTROL PLAN

Status	FOR TENDER ONLY				
NOT TO BE USED FOR CONSTRUCTION PURPOSES					
Datum	AHD	Register	-	Scale	
Size	A1				
Drawing Number	81019007-CI-180				
Revision	4				



Appendix D – Construction Waste Management Plan

SEE PLAN ATTACHED SEPARATELY



Appendix E – Construction Traffic & Pedestrian Management Plan

SEE PLAN ATTACHED SEPARATELY