



21st 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 C05

Dear Megan,

Reference is made to SSD 9787 Conditions of Consent A05 in relation to the Demolition requirements for the project.

Please find attached a copy of the demolition work plans required by AS 2601-2001 accompanied by a written statement of compliance with AS2601-2001 by Drumberg Services Pty Ltd that the proposals contained in the work plan comply with the safety requirements of the Standard. The documents have been submitted to the Certifier.

Should you require further clarification on this demolition work plans and statement of compliance 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.: drumberg services demolition methodology - 15.01.2020
drumberg services statement of compliance - 17.01.2020

DEMOLITION METHODOLOGY

PROJECT:
NIHON UNIVERSITY

Specialised Demolition
and Remediation

“Over 30 years of international experience
adopting the latest technologies and creating
the safest workplaces.”

Unrestricted Demolition License: AD212145
Hazardous Materials; Class A: AD212584



AS/NZS 4801 - OHS MANAGEMENT
ISO 9001 - QUALITY MANAGEMENT
ISO 14001 - ENVIRONMENTAL MANAGEMENT

TABLE OF CONTENTS

1. PROJECT DETAILS	3
1.1. OVERVIEW	3
1.2. PROJECT OBJECTIVE	3
1.3. CODES AND STANDARDS	3
1.4. SITE DESCRIPTION	3
1.5. GENERAL WORKS SCOPE	4
2. DEMOLITION METHODOLOGY	4
2.1 PRELIMINARIES & DOCUMENTATION	4
2.2 SITE ESTABLISHMENT	4
2.3 SITE PRE-CLEAN	6
2.4 REMEDIATION OF HAZMAT	6
2.5 SOFT STRIP AND DEMOLITION	7
2.6 COMPLETION	10

REVISION REGISTER

REVISION No.	DATE	DETAILS
0	09/01/2020	INITIAL SUBMISSION
1	15/01/2020	DETAILED REVIEW

1. PROJECT DETAILS

1.1. OVERVIEW

Drumderg Services is to undertake the Demolition and associated hazmat removal works for the Nihon University project, located at the former Newcastle courthouse, on 9 Church St.

1.2. PROJECT OBJECTIVE

The complete down to ground demolition of existing courthouse Building A (Eastern building) and Building C (Western building), and the internal technical demolition and detailed soft strip of heritage court house building B (centre building), including associated works such as removal of hazardous materials where affected, complete strip of soft structure, separation and segregation of materials to achieve the high recycling rates.

1.3. CODES AND STANDARDS

Demolition and associated works within this package are to be carried out in accordance with the following legislation, codes and standards:

- Work Health and Safety Act 2011
- Work Health and Safety Regulations 2017 – Reg 270,141
- The Protection of the Environment Operations Act 1997
- National Parks and Wildlife Act 1974
- Australian Standard 2601-2001 – The Demolition of Structures.
- Australian Standard 2436-2010 Guide to noise control and demolition sites
- SafeWork NSW Code Of Practice Demolition Work 2019
- SafeWork NSW Code of Practice How to manage work Health and Safety Risks 2019
- SafeWork NSW Code of Practice How to Safely Remove Asbestos 2019
- SafeWork NSW Code of Practice Hazardous Manual Tasks 2019
- Code of Practice for the Management and Control of Asbestos in the Work Place 2019
- SafeWork NSW Code Of Practice Managing The Risks Of Plant In The Workplace 2019
- Australian Standards 2294 Operator Protective Devices
- SafeWork NSW Demolition Licencing
- SafeWork NSW Friable & Non-Friable Asbestos Removal Licencing

1.4. SITE DESCRIPTION



Fig. 1 – 9 Church St, Newcastle

Located at 9 Church St, Newcastle, the site's main access point for plant and equipment is located at the Eastern driveway accessing an open parking area behind building A & B, which will also serve as the main area of establishment.

1.5. GENERAL WORKS SCOPE

The general demolition works include:

- Removal of all trees on site by qualified arborist
- Hazardous material removal from building A & C
- Removal of hazardous material from affected demolition/soft strip areas of building B
- Complete soft strip of Building A and C
- Detailed soft strip of Building B, in accordance with heritage documentation
- Demolition of structures Infront of buildings A and C's front facades (ramp/stairs & entry building) to facilitate installation of scaffolding.
- Complete down to ground demolition of building A, including dismantling and separation of link building to B, and sectioned demolition of tunnel.
- Complete down to ground demolition of building C, including dismantling and separation of link building to B
- Technical demolition of internal areas of building B, including creating openings through masonry walls throughout, sectioned demolition of slabs.
- Separation of materials, removal, carting and recycling/disposal of all demolished materials.

2. DEMOLITION METHODOLOGY

2.1 PRELIMINARIES & DOCUMENTATION

1. Submittal of notifications to SafeWork NSW.
 - a. Demolition work under Drumderg Licence
 - b. Asbestos Removal Work under Drumderg Licence
2. Submittal of asbestos works notification to adjacent property owners.
3. Submittal of the following documents to client for review:
 - a. OHS, Environmental and Quality Management Plans
 - b. Safe Work Method Statements
 - c. Public protection/hoarding plan

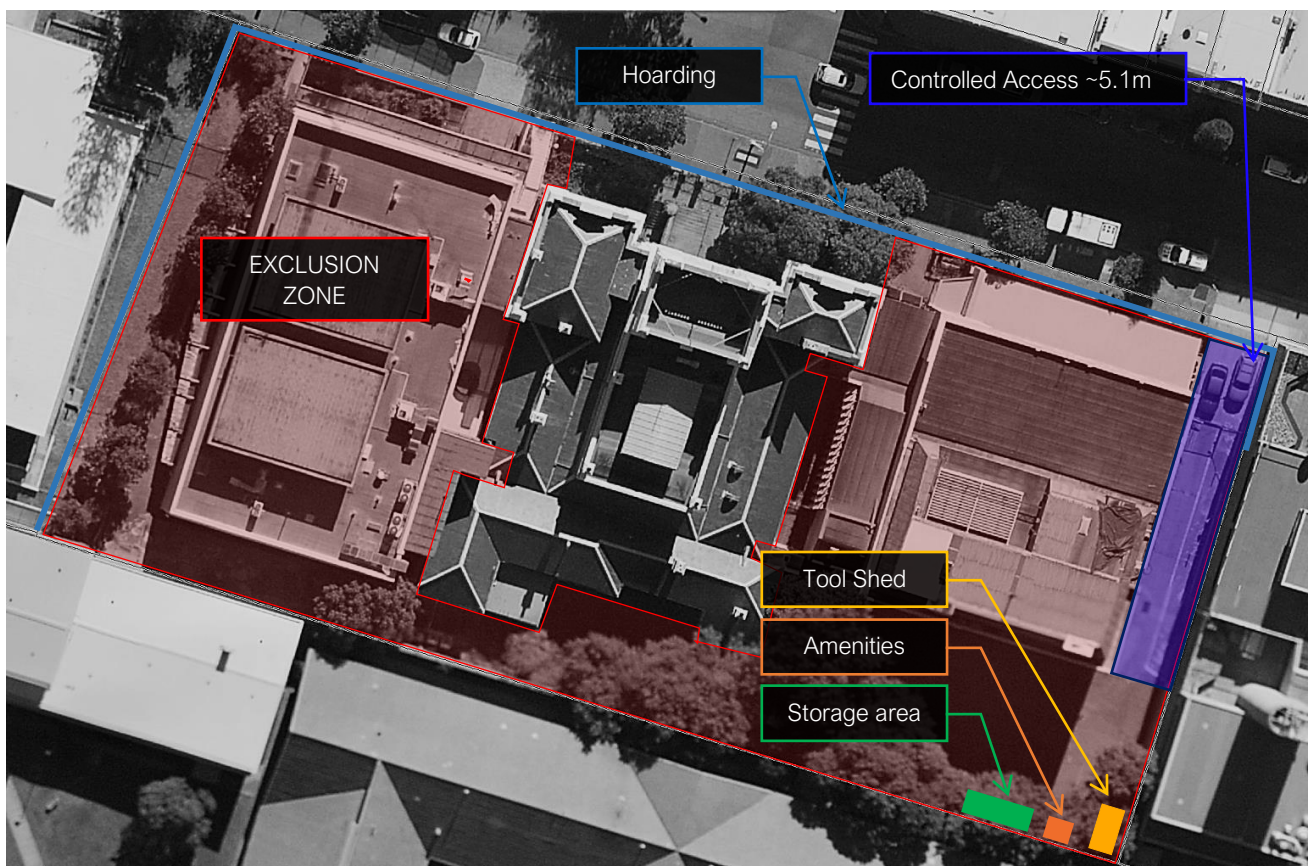
2.2 SITE ESTABLISHMENT

1. Inspection and allocation of:
 - a. Access points
 - i. Ensure access points provide appropriate clearance to mobilise plant and equipment.
 1. Existing Eastern access/egress driveway has an existing width clearance of approximately 6.37 metres (neighbouring wall to Building A wall).
 - a. Initial soft strip stage will have full clearance of the driveway.
 - b. Hard demolition stage's scaffolding width across this face of building A will occupy approximately 1.1 – 1.2m, with a remaining adequate clearance for truck access of 5 metres. With further clearance created as demolition of Building A progresses.
 - c. 1.23 metre wide lowered path and retaining wall adjacent to driveway to act as barrier to scaffold. Concrete barricades to be positioned at southern section where lowered path /retaining brick wall ends as to prevent scaffold damage from turning trucks/plant.
 - ii. Maintain appropriate traffic control measures during mobilisation as per traffic control plan.
 - b. Plant, equipment and works area allocation
 - c. Exclusion zones
 - d. Site Signage
 - e. Erosion and Dust controls
 - i. Dust Control - Booster pump to be connected to the ring main with static and mobile nozzle point to ensure dust is managed adequately
 - ii. Site and nearby kerb drains to be protected with combination of aggregate bags and geofabric to prevent ingress of excessive silt
 - iii. Installation of sediment fencing where ground level falls towards drain points/road.
 - f. Decommissioning/degassing of mechanical equipment
 - i. Drumderg to approach a qualified subcontractor to degas and dispose of ozone depleting substances in accordance with the Ozone Protection and Synthetic Greenhouse Gas Management Act of 1989, prior to mobilisation.
2. Creation and submission of dilapidation reports to affected parties and client.

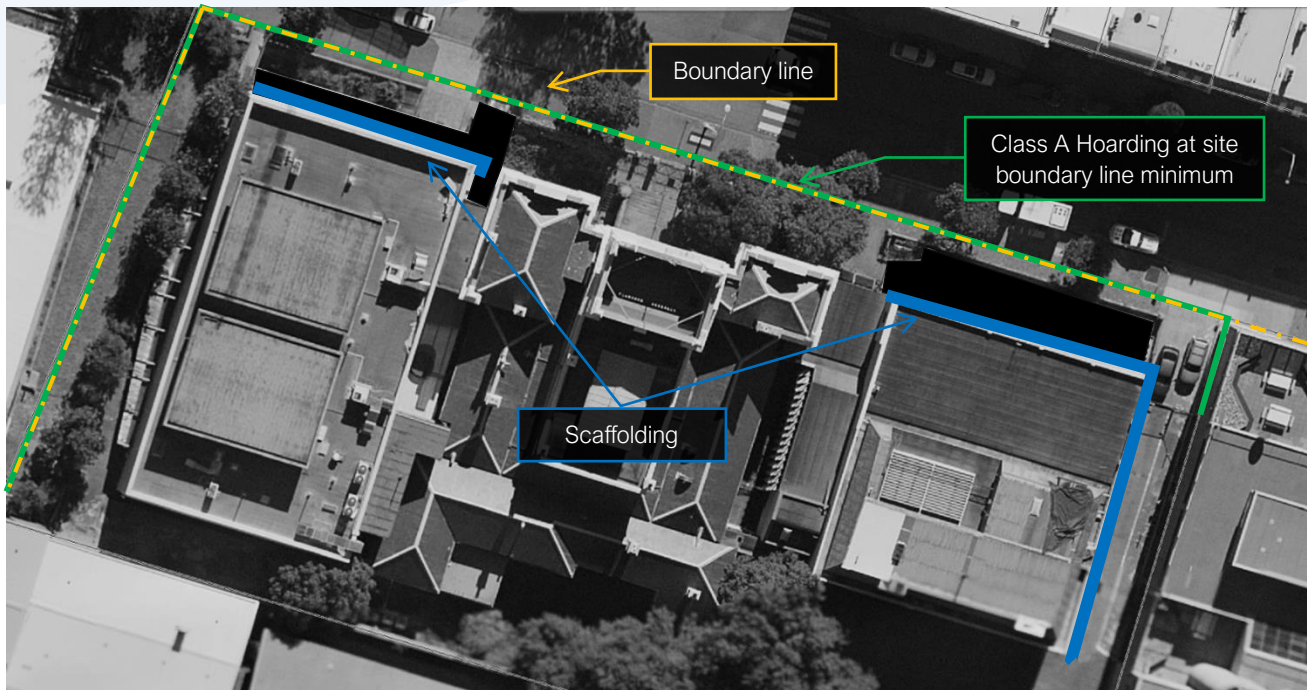
3. Mobilisation

- a. All trees and vegetation to be removed by a qualified arborist prior to mobilisation, as to create as much clearance as possible for establishment and plant/equipment movements on site.
- b. Drumderg Supervisor will ensure all staff are inducted, and briefed on this methodology, SWMS, Safety, Quality and Environmental management plans, and emergency plans with key staff holding responsibilities.
- c. Staff will then be issued PPE and verified before the pre-start briefing, and as per individual task requirements.
- d. Management personnel to set up and communicate exclusion zones with Built and other site sub-contractors, as to designate a controlled demolition area by preventing unauthorised access by physical means.
- e. Plant and equipment such as demolition excavators, attachments, posi-tracks, tool shed, etc. will then be brought onto site.
- f. Safety warning and information signage will then be displayed on the perimeter fencing and at the demolition zone entry points detailing hazard information and PPE requirements.
- g. The Site Supervisor to confirm all Service Isolation certificates per building provided by Built, and information of live services and ensure they are sufficiently protected or isolated prior to commencing soft strip and demolition.
- h. Erosion and sedimentation controls towards public areas to be implemented prior to disturbance of ground and building materials.

4. Site establishment as per the following plan:



5. Erection of scaffolding across building faces adjacent to public/neighbouring areas, as per Australian Standard 2601-2001 – The Demolition of Structures. Scaffold as per following illustrations.



2.3 SITE PRE-CLEAN

1. Any items to be retained or heritage items will be removed and/or protected and/or stored, as per their individual requirements, prior to commencement of demolition and remediation works.
2. The entirety of the site is to be completely cleared of any loose waste material and disposed of.
 - a. This is a requirement prior to the commencement of hazardous waste material removal, as to avoid cross-contamination.
3. All material will be separated, segregated, placed into hook-lift bins and transported to a local facility for recycling.
4. Any non-recyclable material or hazardous waste to be disposed of as per local regulations and transported to a licensed waste facility.
5. Disposal dockets for recycled material, landfill, and hazardous material will be retained and provided to the client.

2.4 REMEDIATION OF HAZMAT

Prior to any structure disruptive works, all hazardous materials, including asbestos, lead paints, etc., as per the Napier & Blakeley's Asbestos Materials Report, are to be removed and disposed of in accordance with local regulations, the NSW Work Health & Safety Act 2011, and SafeWork NSW.

Removal works will only start on approval of the asbestos removal notification by SafeWork (approximately 7 days from notification), and once council and neighbouring properties have been notified of the works 5 working days prior.

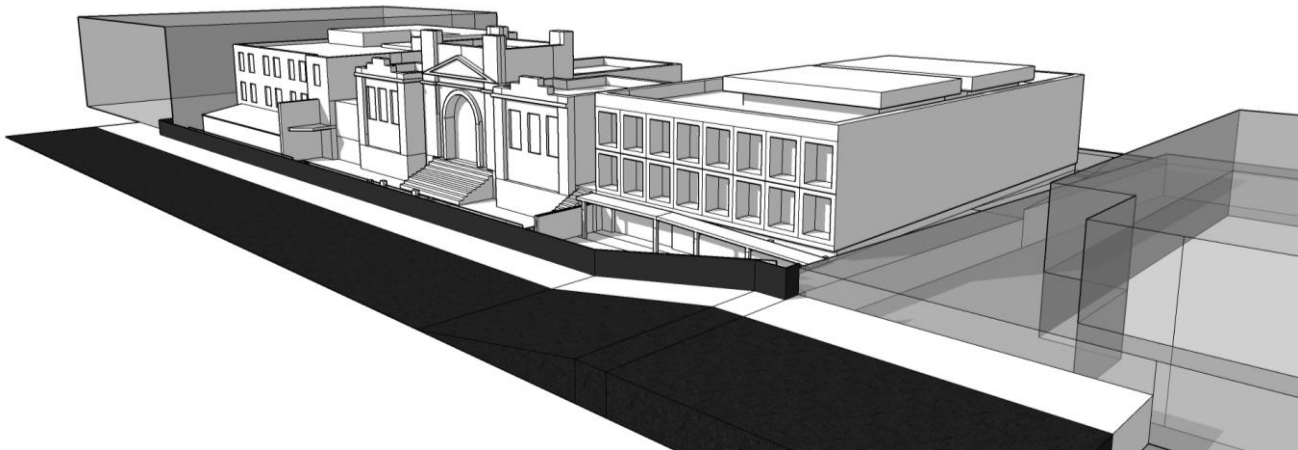
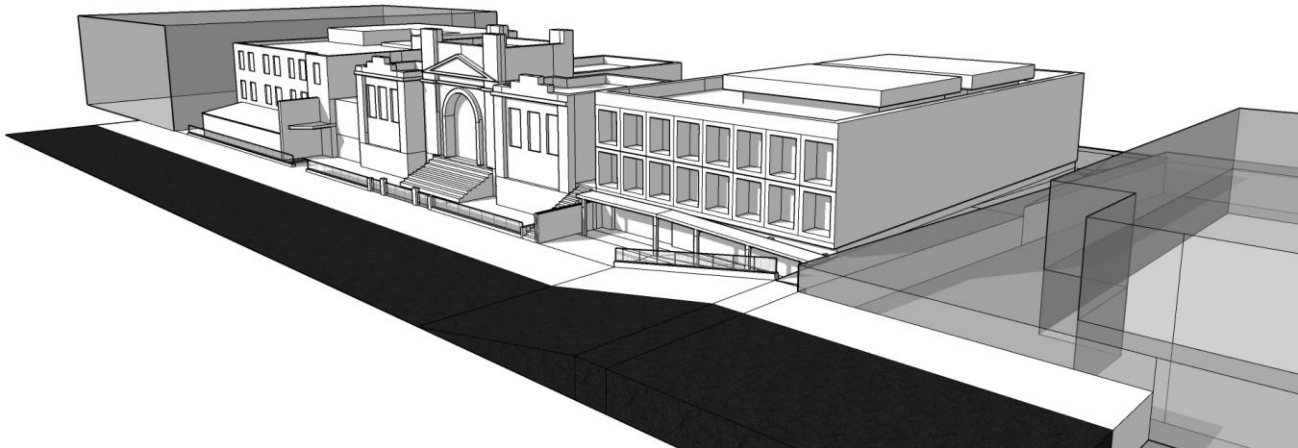
1. Management controls will be set in place during the asbestos removal works as well as throughout the project in the case of newly identified hazardous materials.
2. Once the surrounding areas have been entirely cleared, all hazardous material removal work areas will be delineated, barricaded and signed.
3. Air monitoring will be set up by the hygienist within the surrounding work areas for both asbestos and lead.
4. Once air monitoring is setup and both the supervisor and hygienist have cleared the commencement of removal, the hazardous materials will be removed in such way that the entirety of the item is kept as unbothered as possible.
5. The remediation crew will load out all asbestos material into double plastic lined (200 µm thick minimum) Hook Lift roll-on bins.
 - a. Bins to be placed as close as site access allows to the asbestos removal work area.
6. The ACM will be transported to the designated waste facility.
 - a. All hazardous material transportation and disposal is tracked as per EPA requirements. Consignments and disposal dockets will be kept for Drumderg's and Built's records.
7. At the completion of the hazardous waste removal, Drumderg will approach an independent Licenced Asbestos Assessor to inspect the site and issues a clearance report per building, ensuring the site has been completely cleared of such materials.

2.5 SOFT STRIP AND DEMOLITION

All demolition works will be performed in accordance with Australian Standard 2601:2001 – The Demolition of Structures and SafeWork NSW Demolition of Structures Code of Practice (2019).

- All plant operators and personnel will follow set out procedures to ensure all activities involving demolition are followed up as per Drumderg's and industry standards and practices.
- Hard demolition will follow a sequence where it facilitates for all hard material to be demolished within a safe area, as to prevent fall of material towards hoardings, public areas, or neighbouring properties.
- All high risk demolition areas, such as structures joined to heritage court building, are to be controlled by a high risk crew, including installation of protection systems and hand dismantling/demolition where required as to control such risks.
- **Acoustic protection to neighbouring properties** has been designed into demolition works methodology through the ruling out of vibrating and noisy works, such as the use of hammer excavator attachments, to the use of shears and pulverisers instead for breaking down of concrete structure, drastically minimising all noise and vibration.

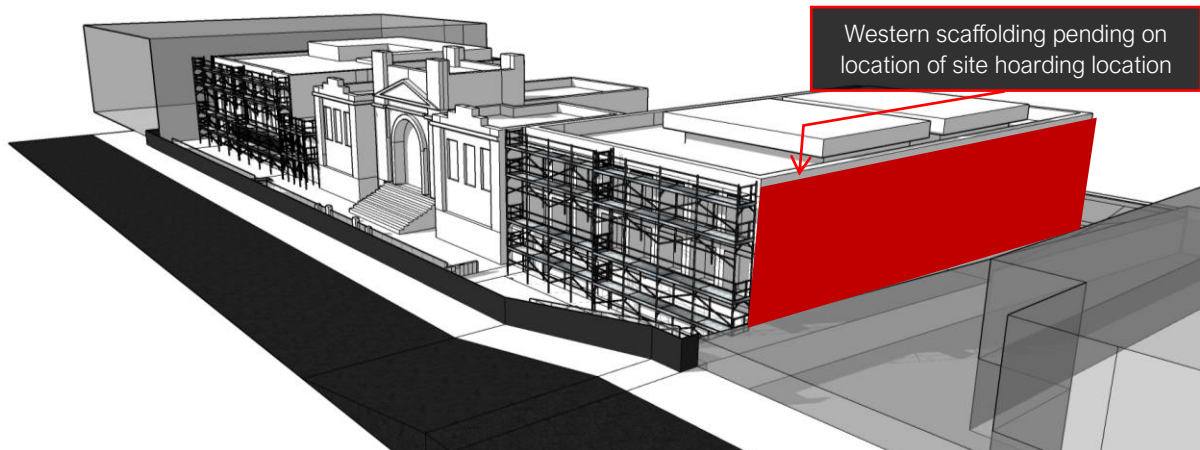
1. Class A hoarding installation (by others) prior to commencement.



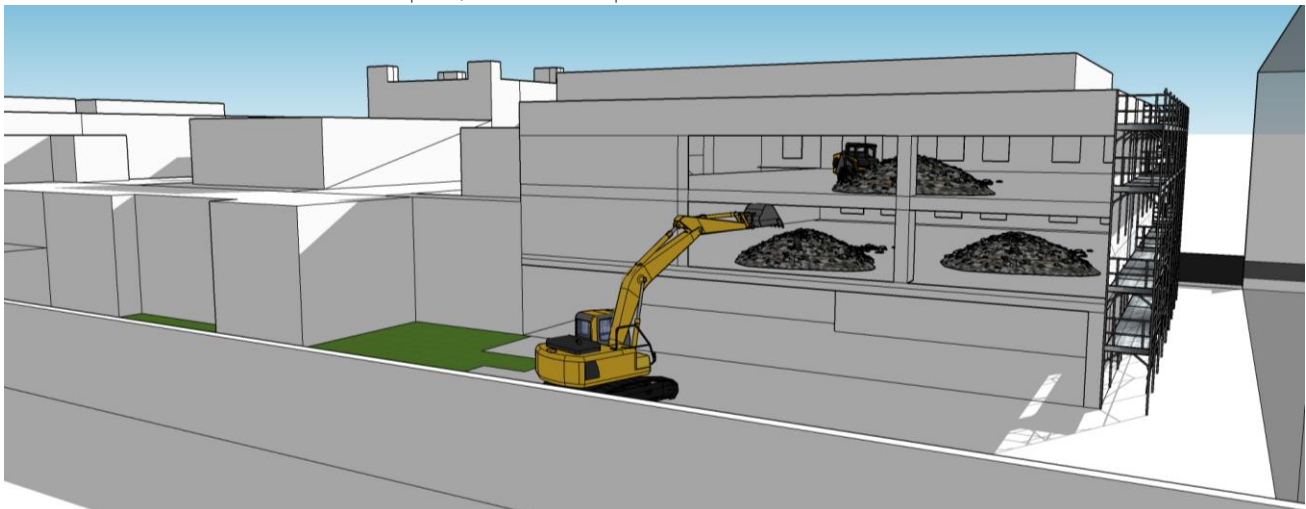
2. Once clearance has been given by the hygienist, Drumderg will proceed with the removal of non-structural materials from building A, B and C, in a top to bottom sequence that allows for best quality control practices.
 - a. Prioritisation of material separation to achieve maximum recycling efforts.
3. In concurrence with the internal strip-out of buildings, building A's 1 storey entrance area and building C's ramp are to be demolished initially, as to allow space for scaffolding across building front faces,



4. Installation of scaffolding on demolition and clearance of front structures. Soft Strip across building A & C buildings to continue throughout installation works.
 - a. Installation of scaffolding across Western face of Building C pending on fencing location by Built on this boundary to meet demolition scaffolding requirements as per AS2601.
 - i. Where site hoarding is installed across true site boundary line, located over adjacent property lawn, no scaffold will be required distanced clearance.
 - ii. Where site hoarding is installed across retaining wall line, scaffolding will be required.
 - iii. Refer to Public Protection / Hoarding Methodology provided for reference to AS2601 requirements. This document assumes hoarding will be located at retaining wall.



5. As to facilitate removal of material and maintain a continuous loadout method, all soft stripped material within building A to be pushed to the southern section of each floor, facilitated by posi-track where possible (pending on maximum slab load investigation and approval by structural engineer).
6. Infill brick walls located at the back of building A to be demolished by 25t excavator to facilitate a material 'drop-zone'. All material to be separated and placed directly into a combination of large hook bins and semi trailers.
 - a. Protection from live edge
 - i. An exclusion zone will be set in place and communicated across all site personnel during and after demolition of infill brick walls.
 - ii. A physical and visual boundary will be installed in place in the form of steel beams, made visible with fluorescent paint, across entire span between columns.



7. Soft strip of Building C to be carried out in concurrence with A.

HARD DEMOLITION WORKS TO COMMENCE

8. Link buildings and separation from Heritage
 - a. Building A Link
 - i. Heritage building walls adjoining link building to be protected with plywood across entirety of affected faces.
 - ii. Manual dismantling of window frames, steel louvres, ceilings, railings, etc.
 - iii. Attached structure such as roof, slabs and walls to be partially sawcut to facilitate ease of separation during excavator with shear attachment hard demolition works.

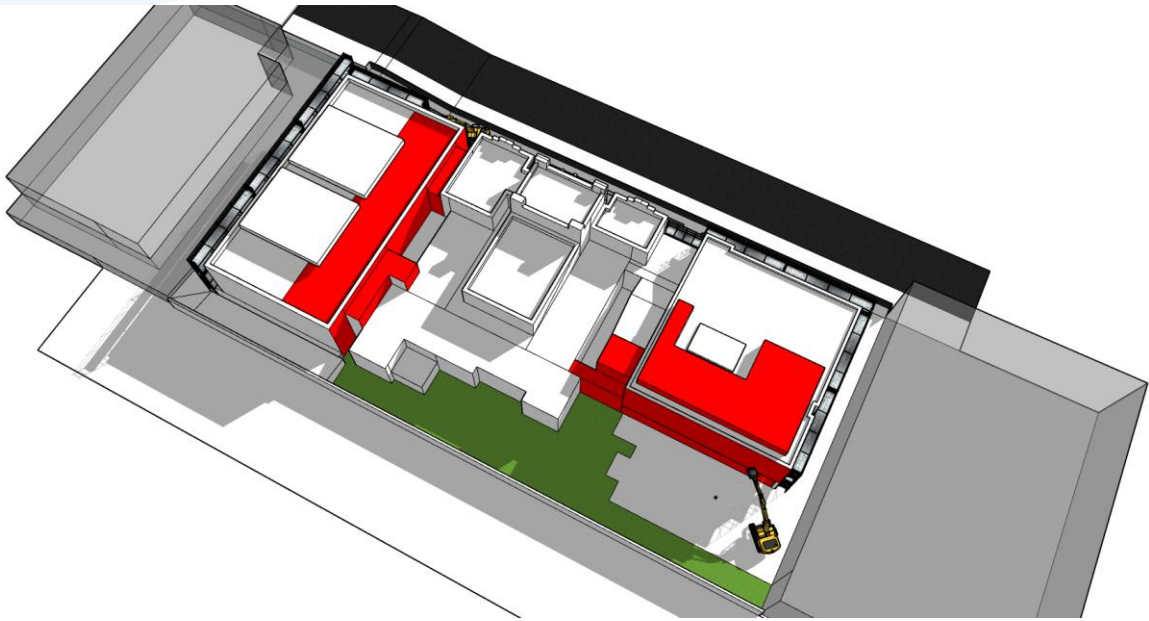
1. Further destructive investigation of roof and attached structure to Heritage building to be carried out during soft strip for comprehensive methodology. Drumderg to generate task specific methodology / Safe System of Work documentation prior to commencement of high risk tasks.
 - a. Generally: Erection of crash decks tight against suspended link walkways & roofs to control fall of material, manual hard demolition, until safe separation has been created, progressive removal of material from decks, excavator to demolish remaining structure from back of building sequenced away from high risk areas such as shared heritage building wall
 - iv. Excavator hard demolition to commence from the back of the link building as to create wide and safe separation between building A and heritage building
- b. Building B link
 - i. Heritage building walls adjoining link building to be protected with plywood across entirety of affected faces.
 - ii. Manual dismantling of window frames, ceilings, railings, etc.
 - iii. Erection of crash decks below tight against concrete roof, stairs and adjoining slabs, across high risk sections (represented in following illustrations) as to control breaking and fall of material away from heritage building.



iv. Concrete roof and slabs

9. **Demolition of building A** to commence from Southern elevation towards the front of the building with high reach 50t excavator along with shears, grabs, hammer, pulveriser attachments.
10. Concurrently, **Building C demolition** to commence from South-East corner with high reach 30t excavator along with shears, grabs, hammer, pulveriser attachments, buckets.
 - a. Excavator to create a ramp where existing retaining wall/stairs to the back of the building are currently located.
 - i. A delineated path of travel will be identified with an exclusion zone, preventing close proximity to heritage building and boundary wall. A spotter will be present at all times during these activities.
 - ii. Concrete barrier blocks will be used to delineate path across entire length and to prevent walls being encroached on.
 - b. Demolition/removal of Northern face pre cast panels to be confirmed. Pending on destructive investigation.
 - i. Investigation to consist of manual demolition of internal masonry wall.
 - ii. Drumderg to generate task specific methodology / Safe System of Work documentation on investigation finding and prior to disturbance of panels.
 - c. Opening for removal of soft stripped materials to be created at South-Eastern corner of building.
 - d. Excavator to commence demolition on structure nearest to the heritage building as to maintain a controlled demolition from high risk areas first, working towards the western side of the building.

- i. All hard rubble to be piled into below ground car park as to maintain a stable platform through demolition of above ground structure.
- ii. All hard rubble material to be loaded out once the structure has been demolished and enough access is created to load out material.



11. Internal strip of heritage building, including hard demolition of wall openings and slabs to be carried out on completion of demolition of both buildings as to create safe access for strip out and load out of materials.
 - a. ITPs to be carried out for each room as per each room soft strip and demolition requirements.
 - b. Crash decks to be erected against suspended slabs to be removed. Broken down manually.
 - i. Material to be progressively cleared towards access areas
 - c. Ground floor slabs to be saw cut and demolished by mini excavator where access allows.
 - d. Wall openings to be saw cut and propped as per engineered requirements
 - i. Cutting and propping methodology TBC on structural engineers confirmation per area.
 1. Drumderg to generate task specific methodology / Safe System of Work documentation prior to commencement works of each opening.
12. All waste to be placed onto its material specific assigned area and/or waste containers, while maintaining a clear work area for site movements and loadout works across the Eastern driveway.
13. Scaffolding to be dismantled in stages as demolition progresses
14. All waste to be separated to maximise recovery of resources.
15. Demolition to proceed from high risk sections to lower risk demolition areas, as to follow a sequence that allows complete clearance for movements and reach away from the heritage building during the bulk demolition of the buildings.
 - a. A technical demolition crew, including supervisor and engineer to monitor and control high risk areas.
16. Ground surfaces and to be removed in concurrence with building demolitions.
17. Excavation up to 1 metre across the whole site to be carried out on completion of demolition works.
18. All site paths and waste removal areas to be kept clear of any rubble, as to maintain a safe site.
19. A recyclability report will be created and provided on completion.
 - a. All other non-recyclable waste and hazardous materials will be transported to a local waste management/landfill facility.
 - b. Disposal dockets and documentation for recycled material, landfill, and hazardous material will be retained and provided to the client.

2.6 COMPLETION

1. Ensure all demolished materials have all been cleaned up and transported off-site to respective recycling/waste facility, and site left in adequate condition.
2. Ensure any stored items have been claimed by the client.
3. Ensure any arising issues have been resolved and closed.
4. Capture of photographic evidence of protected items / neighbouring structures near working areas.
5. Demobilise and remove all plant, equipment, amenities, offices and any other item brought to site by Drumderg

17 JANUARY 2020

BUILT (NSW) Pty Ltd

Dear Sir/Madam,

RE: NIHON UNIVERSITY – STATEMENT OF COMPLIANCE AS2601-2001.

Drumderg Services, along with assigned personnel and management team, confirms that all demolition works under subcontract for the aforementioned project and the provided demolition drawings and specification below, including all project documentation created by Drumderg, will be performed in accordance with the Australian Standard 2601:2001 – The Demolition of Structure, where applicable.

Demolition drawings and documentation:

- Demolition Specification – dwp -17-0347 - 0201 Demolition-01
- Heritage Building Schedule of Works – dwp - 17-0347 – 11/011/19
- Demolition Plan Site – dwp - A-030 Issue 2
- First Floor Demolition Plan – dwp - A-018 Issue 1
- Demolition Plan Court House Level 1 – dwp - A-041 Issue 1
- Demolition Plan Court House Level 2 – dwp - A-042 Issue 1
- Demolition Plan Court House Level 3 – dwp - A-043 Issue 1
- Demolition Plan Court House Level 4 – dwp - A-044 Issue 1
- Demolition RCP Court House Level 1 – dwp - A-051 Issue 1
- Demolition RCP Court House Level 2 – dwp - A-052 Issue 1
- RCP Court House Level 1 – dwp - A-361 Issue 3
- RCP Court House Level 1 – dwp - A-362 Issue 3

As per our set procedures, demolition license and ISO accreditation, Drumderg Services regularly endeavours to plan, monitor, control and regulate all works throughout all of our projects, while ensuring our team and subcontractors maintain current knowledge of all standards and local regulations through consistent training and support.

Yours Sincerely,



Steven Fam
Project Manager
DRUMDERG SERVICES PTY LTD

