

# ARCHITECTURAL DESIGN REPORT - ADDENDUM 01

Centre of Excellence in Agricultural Education

Richmond NSE

APPLICATION NO. SSD-1500146

## *Document Control*

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## 1 Executive Summary

This Architectural Design Report – Addendum 01 has been prepared in responding to agency recommendations for the proposed development and to provide an update on architectural design changes. This addendum must be read in conjunction to Appendix E - Architectural Design Report, Revision D dated May 2021 and the letters of recommendation issued by the following planning stakeholders / agencies:

- GANSW – letter issued on 16.09.21
- Hawkesbury City Council – letter issued on 27.09.21
- Public Authority – letter issued on 16.09.21
- Public response – issue date N/A
- Department Planning Industry & Environment – letter issued on 21.09.21
- EPA – letter issued on 27.09.21
- Planning Industry & Environment – letter issued on 13.09.21
- Penrith City Council – letter issued on 13.09.21
- NSW RFS – letter issued on 14.09.21
- Sydney Water – letter issued on 14.09.21
- DPIE – Biodiversity and Conservation – letter issued on 15.09.21
- DPIE – Land Use Planner – letter issued on 13.09.21
- Endeavour Energy – letter issued on 14.09.21

## 2 Agency Recommendations and Responses

The following table consists of Agency Recommendations and the associated response

AGENCY	ISSUE	AGENCY RECOMMENDATIONS	REPOSES
Heritage NSW	ACHAR	Consultation with the registered Aboriginal stakeholders should continue.	NBRS has been maintaining consultation with Centre of Excellence (COE) and COE appointed Aboriginal Representatives throughout the detailed design stage of the project.
GANSW	Connection With Country	Consultation with the AECG (Durag) is positive, but the submission has not demonstrated how this has informed any changes or the approach to Country.	<p>The architectural &amp; landscape design take cues from the local agricultural and historical narratives. Those narratives have influenced the design of the Aboriginal Enterprise area which includes a courtyard with native planting, a meeting point and an outdoor covered area that is suitable for teaching &amp; learning of the local indigenous history &amp; culture. The campus will also feature an Acknowledgement of Country statement on a boulder stone, indigenous 2D artwork and bilingual building naming..</p> <p>The above Designing with Country intent has been captured in the appended "DRAFT" Designing with Country Report. This report will be refined and finalised to ensure the ongoing commitment for integration of Indigenous Culture in both the physical and operational aspects of the project.</p>
		It has not been demonstrated how the Indigenous Culture and Heritage has been integrated with the architectural and landscape design strategy in a holistic way.	
	Connectivity & Access	There does not appear to be a viable option to provide a safe, accessible, and legible connection from the Centre to public transport. It is recommended that this be provided.	<p>Further consultation with WSU has resulted in amendments to the proposed access to and from the proposed development.</p> <p>Vines Drive will be widened and turnaround facilities provided to accommodate the safe movement of buses to and from the facility.</p> <p>Further detail in this regard is provided in the revised Transport Impact Assessment which accompanies the Response to Submissions.</p>
		The bicycle parking is not located in the vicinity of the entry and will not be visible from the public domain. It is recommended that this location be reviewed to ensure that it is in the vicinity of the entry, and is safe, accessible, and weather protected.	The fully secured bicycle parking facility is located an equal distance from Vines Drive entry & the vehicular entrance off Maintenance Lane. The bike park facility is designed to be used by students and staff. Visitors will be arriving to school by private vehicles or shuttle buses. The location of bike park enclosure, away from the Public Domain, prioritise convenience and security for both staff and students.

	Buildings	<p>The disconnection between the commercial kitchen in Block 'C' from the Dining and Hall in Block 'E' does not appear to have been reconsidered. The Architectural Design Statement states that this location 'works with the pedagogy of the school'. It is recommended that more information be provided to explain why these facilities couldn't be co-located.</p>	<p>It is important to understand that the Semi Commercial Food Technology Studio in block C and the Hall in block E must be able to operate independently at most of the time during the school hours.</p> <p>The Semi Commercial Food Technology Studio is an educational facility focusing on "Paddock to plate" teaching and learning philosophy. Thus, the Food Technology Studio if best located within a short distance to a kitchen garden and the indigenous planting garden.</p> <p>The Hall functions in conjunction with the accommodation building during and outside school hours. The Hall has a separate Canteen/ Kitchen which serve as canteen during school hours and as a prep kitchen to prepare food for visitors. Food will be catered in based on the daily order for students, staff &amp; visitors.</p>
PCC	Site Access & Egress	<p>The proposal should ensure there is clear way finding signage, well lit and direct routes for people walking and cycling to transport stops, clear crossing points, adequate lighting and surveillance for night time use.</p>	<p>The project's provision for wayfinding includes providing adequate signage within the COE campus as outlined on architectural drawing "20417-NBRS-A-SSDDA-8500"(Rev 1). Safety measures such as illuminated path &amp; carpark have been considered for night-time use of the facilities within the secured boundary of Centre of Excellence and especially between the Hall and the Accommodation building.</p> <p>Please note that wayfinding signage &amp; lighting allowance does not extend beyond the COE Lease boundary.</p>
Hawkesbury City Council	Other Items	<p>Maximum operating hours should be specified for the conference hall.</p>	<p>Maximum operating hours of the Hall outside school hours is between 8am to 11pm.</p>

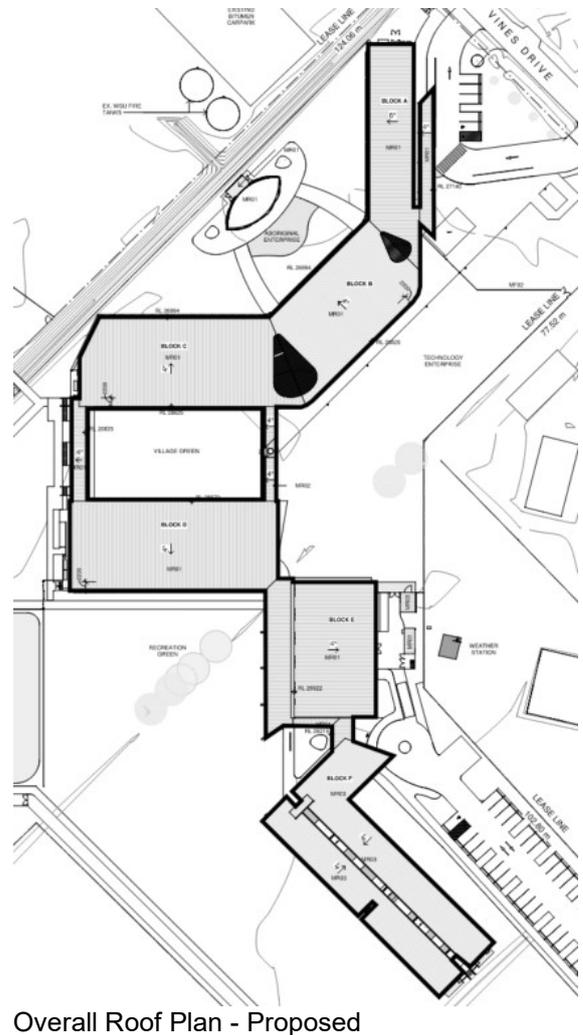
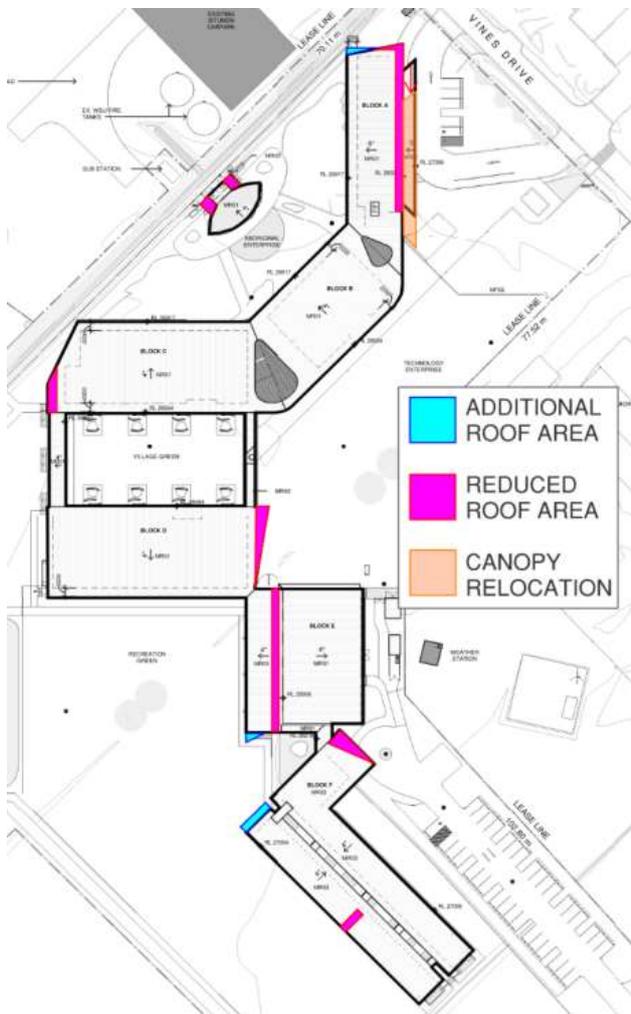
### 3 Architectural Design Changes

The project has progressed in Detailed Design since the SSDA was submitted. However, the overall design philosophy, general planning & aesthetic have been maintained throughout the design stages.

Design development has been undertaken with more details and early input on constructability from the contractor, Richard Crookes Construction. Which has resulted in a number of minor design changes as detailed in the following sections.

#### 3.1 Roof Form Adjustments.

The area highlighted on the following drawing illustrates the extent of additions and reductions of roof area. This design rationalisation provides structural design efficiency for a more economical solution. The Main Entry Canopy located on the East of the Administration Block, Building A has been shifted further south to provide covered Public Entry to the Administration Entry of Building A.

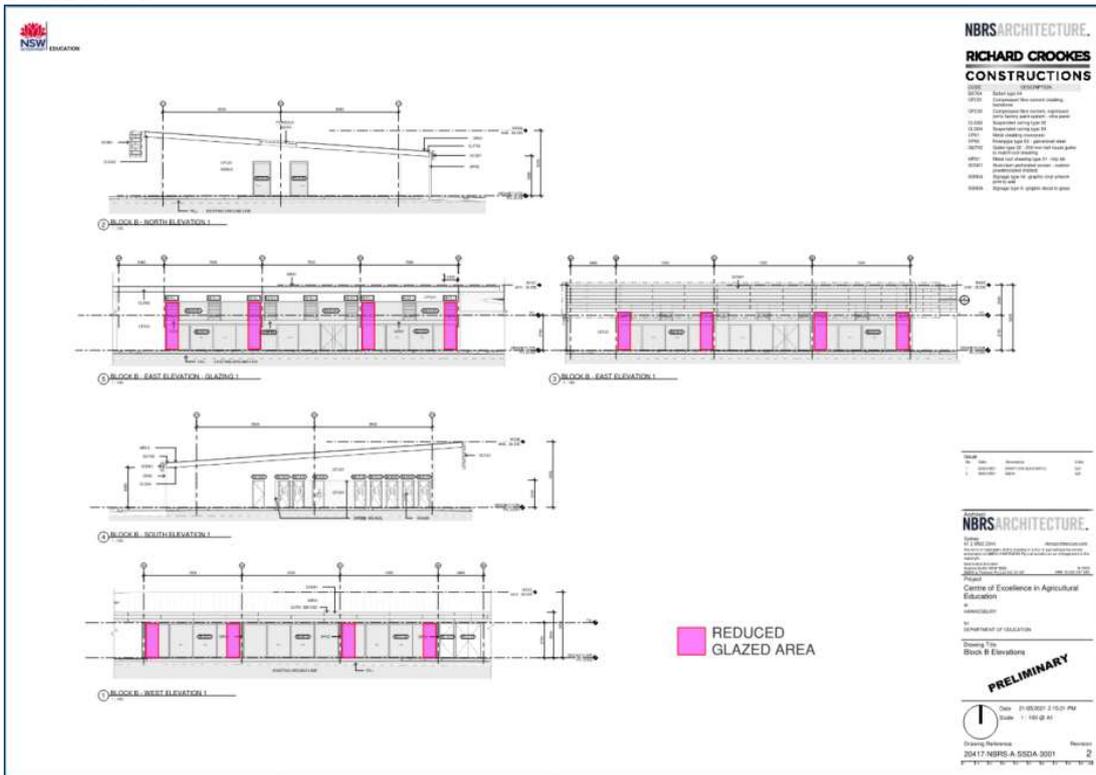


### 3.2 Reduction in Glazed Area.

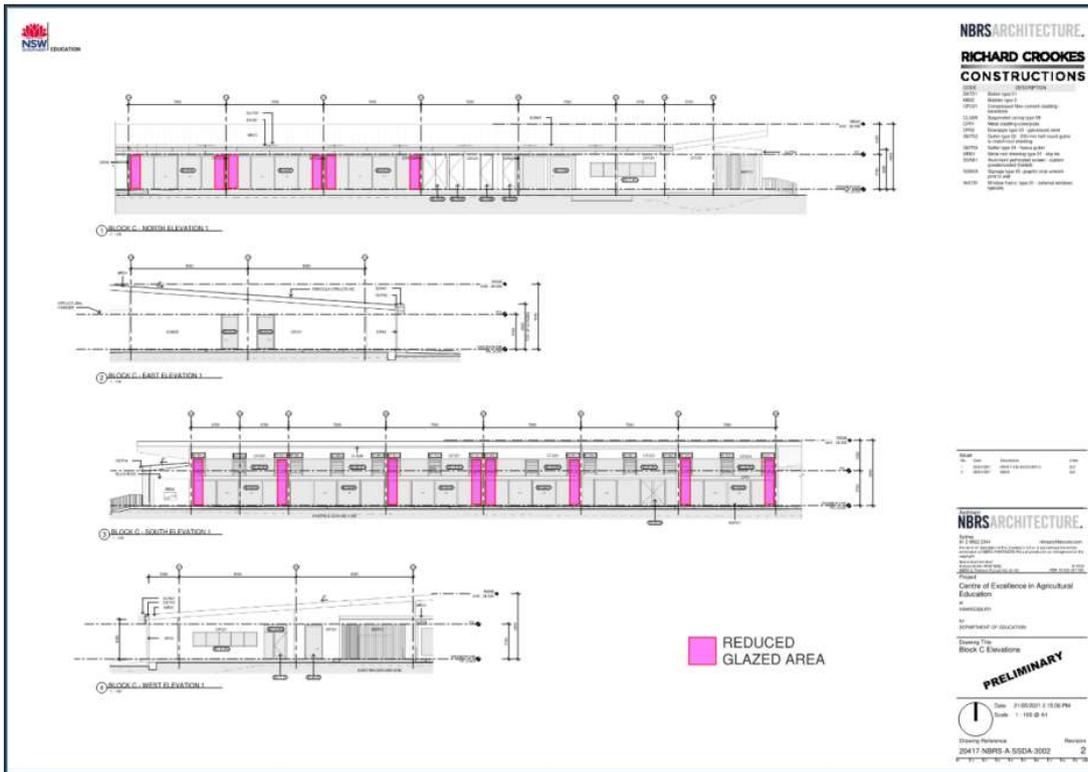
The three learning blocks, Building B, C and D, have received 15% reduction of the glazed area. This improves the overall structural design by providing additional structural support zones along the building facades. The following highlighted area of the building elevations illustrate the proportion of glazed façade that has been replaced with metal cladding with batt insulation.

It should be noted that the glazed area remains over and above the BCA requirement for daylight harvesting.

#### BUILDING B



BUILDING C



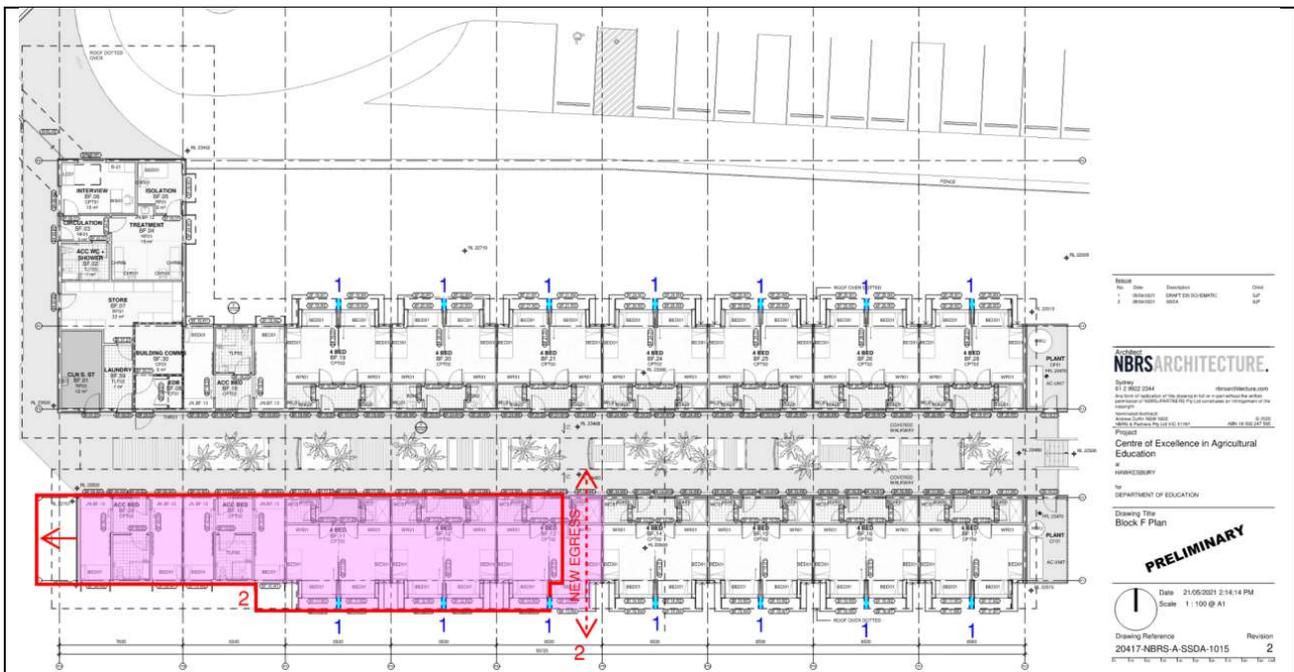
BUILDING D



### 3.3 Accommodation Block, Building E

The following plan highlights two design changes which have resulted in the minor adjustment to the North & South Elevation of the building.

1. Design change 1 – Remove external protrusion of the recessed retractable doors as highlighted in light blue on the following drawing.
2. Design change 2 – Create an additional egress at mid-point of the southern portion of the Accommodation Block as highlighted in red lines & hatch on the following drawing.



The benefits of the changes mentioned include:

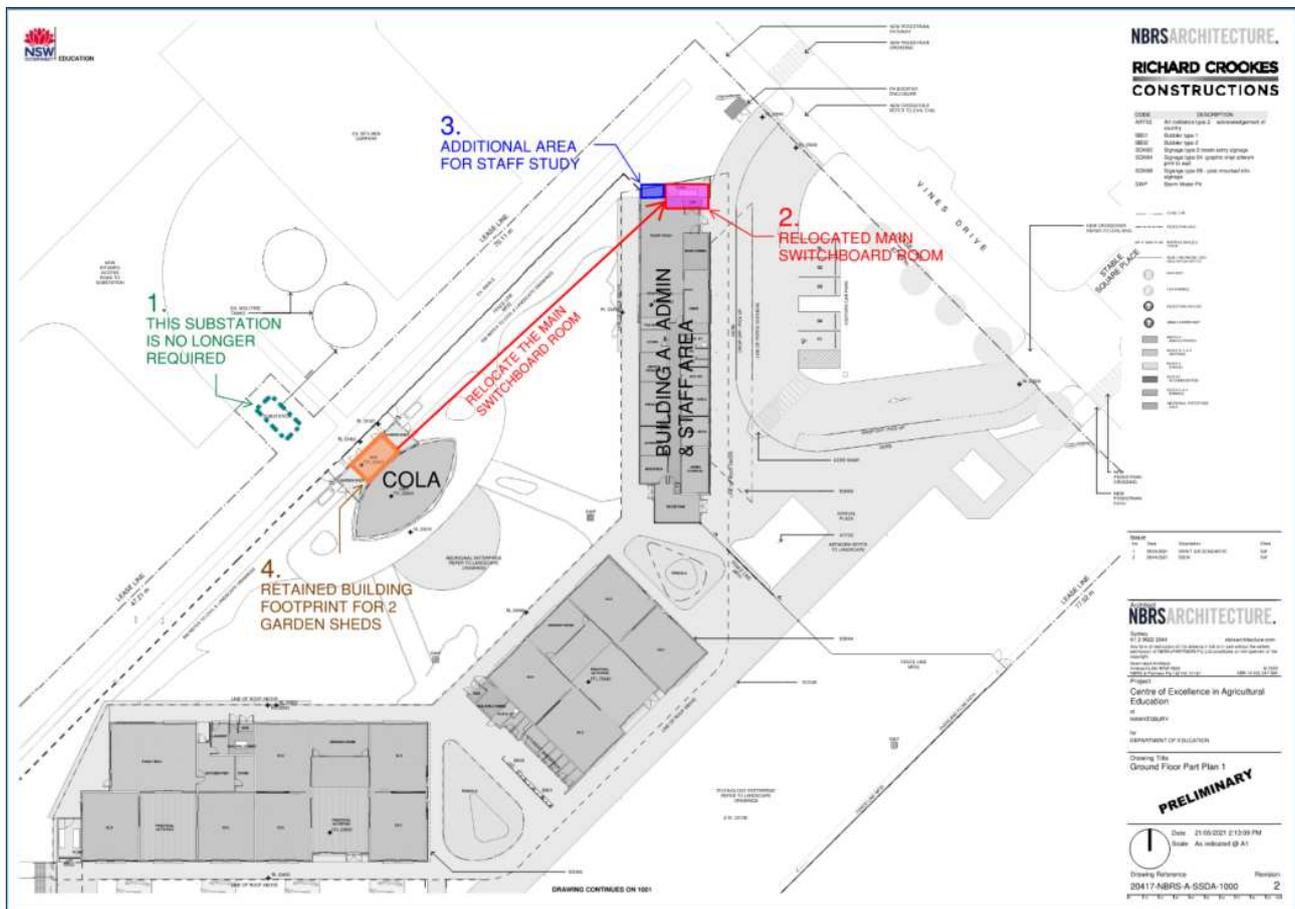
- The new egress reduces the travel route to an open area from mid point of the building.
- The new egress path enables a direct access from the accommodation building to the open field located to the south of this building.

### 3.4 Main Switchboard Relocation

In mid-August 2021, Western Sydney University & School Infrastructure NSW had reached an agreement for a shared use of the existing sub-station located in the WSU campus to power the proposed Centre of Excellence. This significant agreement necessitates the following planning changes:

1. The proposed new substation for sole use by COE is no longer required
2. Relocation of COE's Main Switchboard Room (MSR) to the northern end of Building A to be closer to the existing WSU's Substation.
3. A small additional area has been created for the Staff Study to compensate the loss of usable area as a result of the relocation of the main switchboard room.
4. The relocation of the MSR results in a smaller fully enclosed building footprint area as highlighted in orange on the following drawing.

The numbers on the following drawing corresponds with the items listed above.



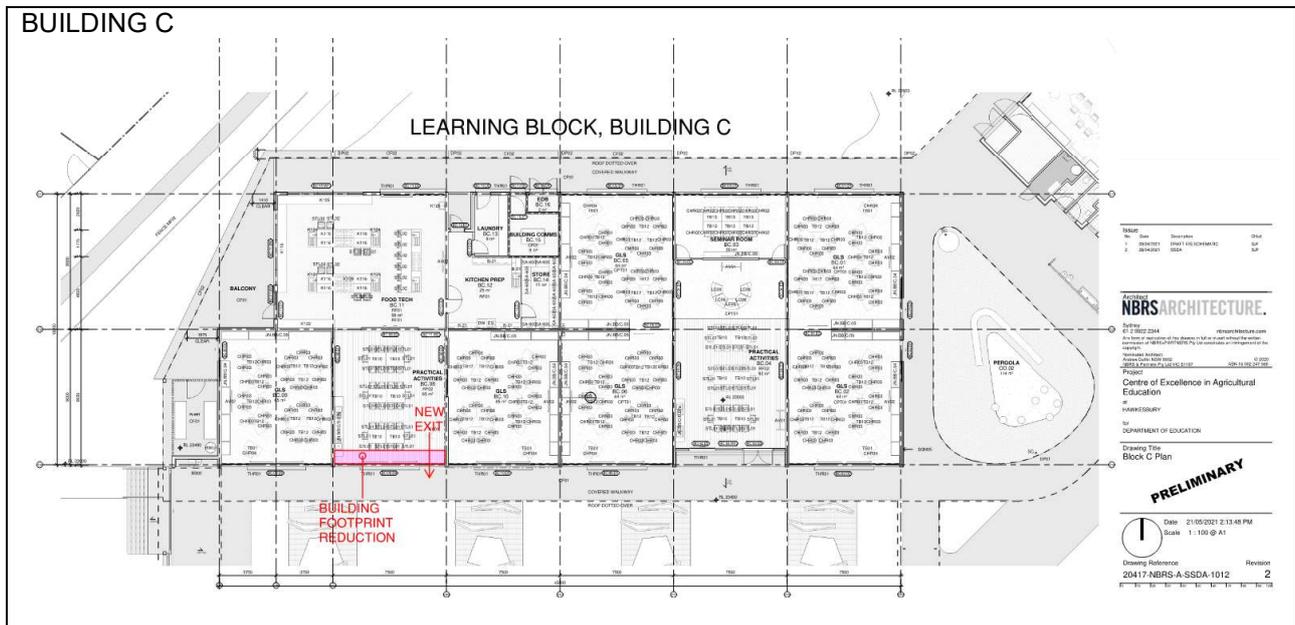
### 3.5 Minor Building Footprint Reduction - Building C & D

The following drawings illustrate the following minor changes to building C & D and how these changes improve the articulation of the respective building façade.

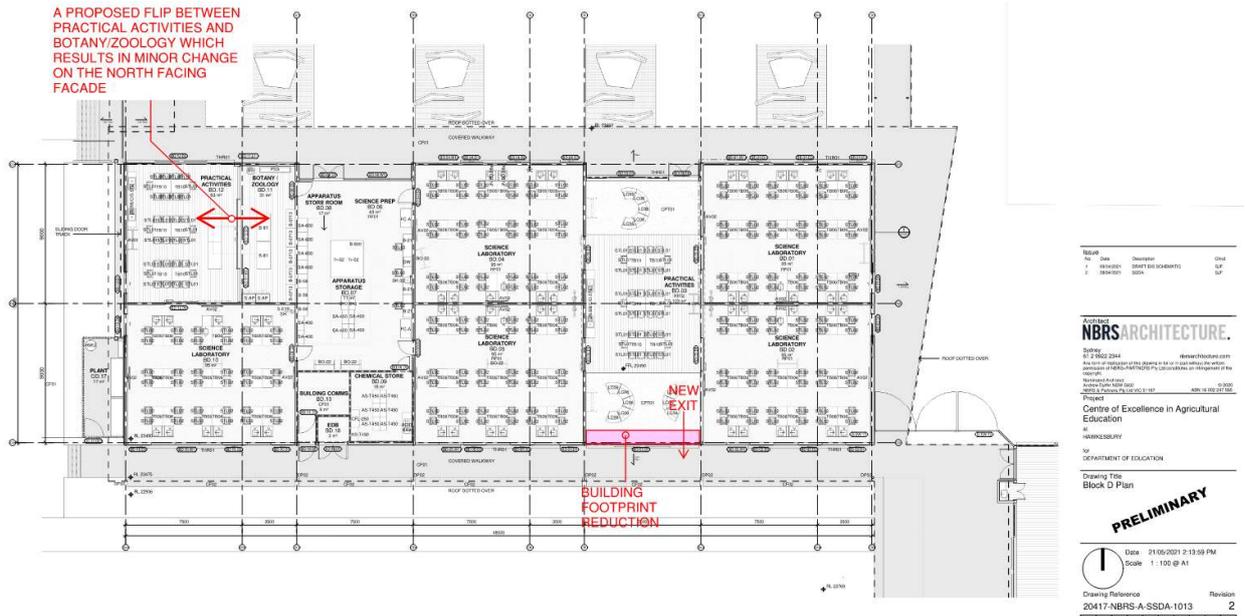
1. Additional recessed façade alters the south elevation of building C and south façade of building D
2. The functionality of the science area in building D will significantly improve by flipping the Botany/ Zoology with the neighbouring Practical Activity Area. This provides the opportunity for better daylight harvesting & ventilation into the Botany and Zoology.

The benefits of the above-mentioned architectural changes include:

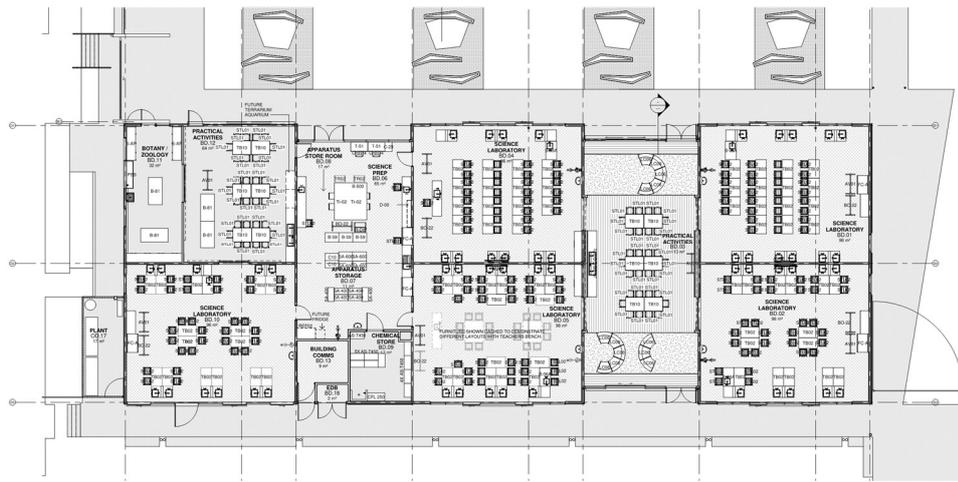
- The recessed entry facade provides shorter egress path from the adjacent classrooms
- The recessed portion of a long single story building provides deeper external Foyer to the building entrances which subsequently improves the articulation to the building elevation.



**BUILDING D BEFORE THE BOTANY/ ZOOLOGY & PAA SWITCH**



**BUILDING D POST THE BOTANY/ ZOOLOGY & PAA SWITCH**



### 3.6 Agricultural Buildings Minor Replanning

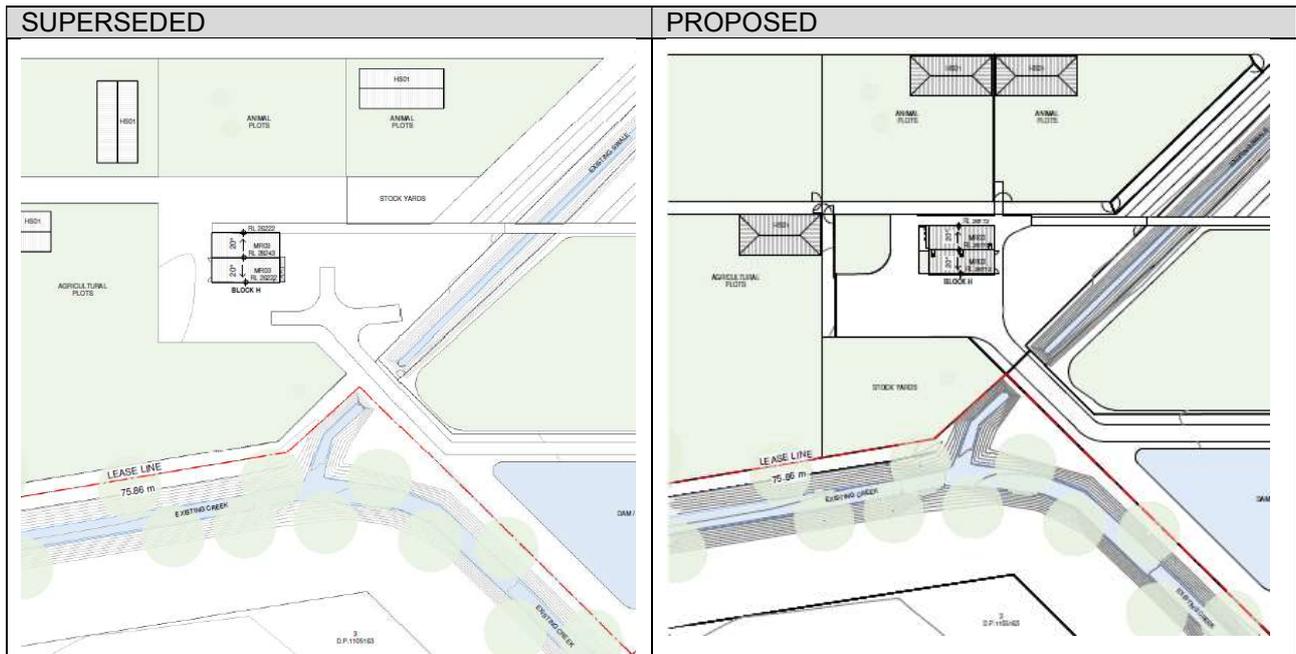
The proposed operation of agricultural buildings, Building G & Building H, triggers the following changes.

<p><b>Building G – Superseded layout</b></p> <p>ICT services to building G is being connected to the nearby learning block, Building D. Thus, the footprint of building G has reduced by the depth of the building comms room highlighted below.</p>	<p><b>Building G – Revised layout</b></p>
<p><b>Building H - Superseded layout</b></p> <p style="text-align: center;"> <span style="color: red; font-size: 2em;">↔</span>              Flip              Add A staff WC &amp; Shower         </p>	<p><b>Building H – Revised layout</b></p> <p>Building H is being flipped in East West direction to improve the connection and access from the main campus to the Covered Learning Area. Additionally, a dedicated staff WC &amp; shower have been added to building H for use by the Farm Manager.</p>

### 3.7 Agricultural Area

The following drawings illustrate the extent of planning amendments within the agricultural study areas. The following planning strategies have been considered:

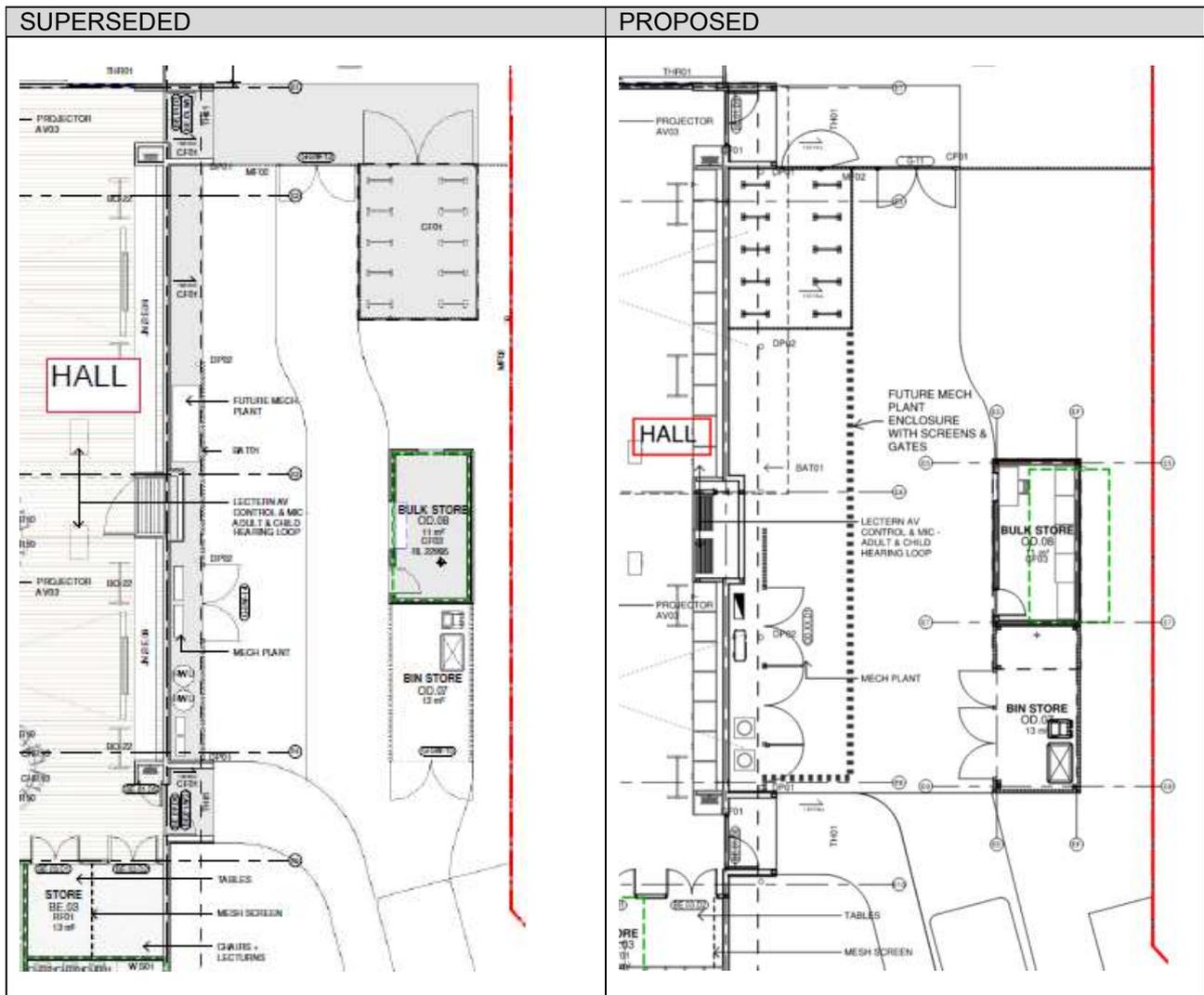
- Reconfiguration of material drop off area to the south of building H to increase safety of students by restricting their access to the loading area
- The design reduces hardscape surface area so to increase agricultural plot area.
- Consolidate the location of animal sheds for ease of access from the adjoining building, links & paths



### 3.8 Services Area Adjacent to Hall

The following planning changes affecting the services areas adjacent to the Hall have been carried out:

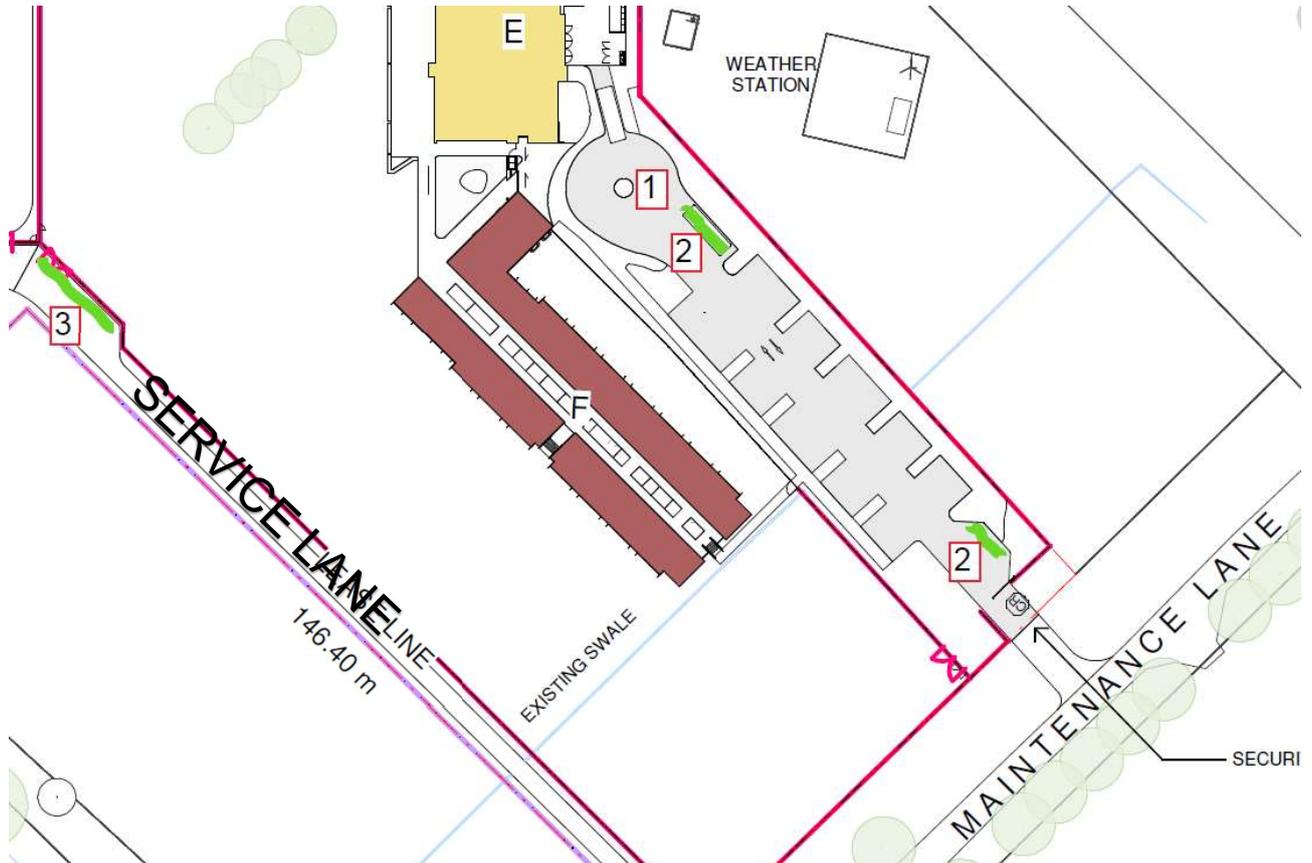
- Relocation of bike enclosure and removal of bike shed. The bike park will be secured inside a fenced compound.
- The propose plan shows a redefine the area allocated to future mechanical plant. Mechanical plant will be concealed inside a well screened plant enclosure to match the bin enclosure screen.
- Gates for the bin enclosure are located on the west façade of the bin compound.



### 3.9 Services Vehicle Access

The following improvements have been made to the carpark and services vehicle access:

1. Increase the radius of internal vehicle turning area to accommodate a mini bus turning circle
2. Provide 2 mini buses parking spots
3. Provide a slip lane to improve services vehicle and fire truck turning along Service Lane.



## Appendix A - Architectural Schematic Design package

The attached drawing set contains the updated drawings as highlighted on the following drawing list.

SSDA Sheet List			
Drawing No.	Drawing Name	Issue	Date
SSDA-0000	Cover Page	3	04/11/2021
SSDA-0001	Drawing List & Areas	3	04/11/2021
SSDA-0002	Heritage Diagram	6	28/04/2021
SSDA-0003	Educational Facilities Diagram	6	28/04/2021
SSDA-0004	Green Spaces Diagram	6	28/04/2021
SSDA-0005	Street Patterns Diagram	6	28/04/2021
SSDA-0006	Land Zoning Diagram	6	28/04/2021
SSDA-0007	Bushfire Diagram	6	28/04/2021
SSDA-0008	Flood Map Diagram	6	28/04/2021
SSDA-0009	Site Observations	6	28/04/2021
SSDA-0010	Sun Shadows	3	04/11/2021
SSDA-0050	Concept Sketch	6	28/04/2021
SSDA-0051	Design Observation	6	28/04/2021
SSDA-0100	Existing Site Plan	2	28/04/2021
SSDA-0101	Climate Analysis	2	28/04/2021
SSDA-0102	Proposed Site Plan	3	04/11/2021
SSDA-0103	Proposed Roof Plan	3	04/11/2021
SSDA-0104	Demolition Plan	3	28/06/2021
SSDA-0105	Site Circulation Plan	3	04/11/2021
SSDA-0106	Site Security & Fence Plan	3	04/11/2021
SSDA-1000	Ground Floor Part Plan 1	3	04/11/2021
SSDA-1001	Ground Floor Part Plan 2	3	04/11/2021
SSDA-1002	Ground Floor Part Plan 3	5	01/11/2021
SSDA-1010	Block A Plan	3	04/11/2021
SSDA-1011	Block B Plan	2	28/04/2021
SSDA-1012	Block C Plan	5	04/11/2021
SSDA-1013	Block D Plan	3	04/11/2021
SSDA-1014	Block E Plan	3	04/11/2021
SSDA-1015	Block F Plan	3	04/11/2021
SSDA-1016	Block G & H Plan	3	04/11/2021
SSDA-1017	Aboriginal Enterprise Plans, Elevations & Sections	2	04/11/2021
SSDA-1020	Block A Roof Plan	3	04/11/2021
SSDA-1021	Block B Roof Plan	3	04/11/2021
SSDA-1022	Block C Roof Plan	3	04/11/2021
SSDA-1023	Block D Roof Plan	3	04/11/2021
SSDA-1024	Block E Roof Plan	3	04/11/2021
SSDA-1025	Block F Roof Plan	3	04/11/2021
SSDA-3000	Block A Elevations	3	04/11/2021
SSDA-3001	Block B Elevations	3	04/11/2021
SSDA-3002	Block C Elevations	3	04/11/2021
SSDA-3003	Block D Elevations	3	04/11/2021
SSDA-3004	Block E Elevations	2	28/04/2021
SSDA-3005	Block F Elevations	2	28/04/2021
SSDA-3006	Block G & H Elevations	3	04/11/2021
SSDA-4000	Block A & B Sections	3	04/11/2021
SSDA-4001	Block C & D Sections	3	04/11/2021
SSDA-4002	Block E & F Sections	3	04/11/2021
SSDA-4003	Block G & H Sections	2	28/04/2021
SSDA-4500	Typical Wall Sections	2	28/04/2021
SSDA-8000	CoE Colour Palette	2	28/04/2021
SSDA-8001	External Finishes	2	28/04/2021
SSDA-8500	Signage	1	28/04/2021
SSDA-10000	Render	1	28/04/2021

## Appendix B - Designing with Country Report (DRAFT – ISSUED FOR INFORMATION ONLY)

The appended Designing with Country Report has been prepared in consultation with the School and the appointed Aboriginal Representatives. This DRAFT Designing with Country report will be refined and finalised to ensure the ongoing commitment for integration of Indigenous Culture in both the physical and operational aspects of the project.