

5a. Site Services & Infrastructure

The existing site services are deemed sufficient for this project.

All existing site services were newly constructed when the school was built in 2006 & are deemed sufficient for this project.

Please refer to commentary in the Engineering Rationale Statements enclosed within this report.

No services issues have been reported by the school; nonetheless the Services Consultants have inspected the existing infrastructure to ascertain whether any dilapidation has occurred since the last inspection.

Electricity

According to the previous Stage 1 Electrical Consultant's Rationale Statement, the existing main power supply to the school is provided via the electrical pillar at the substation that faces Reynolds Road. While the current power supply to the school is in a reasonably good condition, it is anticipated by the Electrical Engineer that power upgrades will be necessary to facilitate the proposed Stage 2 extensions.

Sewer

The existing sewer infrastructure appears to serve the school reasonably well & were newly constructed when the school was built in 2006. They were inspected prior to the commencement of Stage 1 works in 2017-18 & was reported to remain in good condition. No major issues have been flagged by the school; nonetheless the Hydraulic Consultant has inspected the existing infrastructure to ascertain if any dilapidation has occurred & what modifications will be necessary to facilitate the new buildings. Please refer to the Appendices 23: Site Investigations for all Services Consultant's Rationale Statements.

Water

Existing Pressure & Flow tests that were carried out on the 29th of February 2019 to the hydrants located South-East of the Aquatic Centre & South-West of the Junior Campus. Both hydrant tests indicated that the school has 500kPa of static pressure with a 10L discharge rate per second and 435kPa & 20L discharge rate per second at 400kPa for the one & two outlets respectively.

As these tests were carried out less than five years ago, no new Pressure & Flow tests will be proposed in this scope of works.

The existing Water Meter is located at the site's South-West corner & feeds both cold water & potentially the fire hose reels. Existing documentation is yet to be obtained by the Hydraulic Consultant, which will allow him / her to confirm pipe routes & connected services. The relevant water authority will also confirm whether the existing tapping & meter has adequate capacity to facilitate the new school's demand.

5b. Site Infrastructure

The site infrastructure at Barwon Valley School is extensive & is generally in a good condition. Due to the extremely reactive soils & clays on site, however, cracking & general movement has been identified in arterial pavement & fences. This necessitates ongoing maintenance by the school to ensure that no pavement trip hazards are created as a result of the soil reactivity. This maintenance would be deemed as top priority given the demographic this school accommodates.

The site is well serviced with an on-site carpark which is generally in good condition. The Design Consultants will need to be diligent in their proposed extensions to ensure that no proposed infrastructure encroaches the carpark design which is already notably congested in peak drop-off & pick-up times.

Barwon Valley School has been granted *entitlement* to improve the current bus drop-off zone shelter, as it has been identified as inadequate to protect students & staff from inclement weather. While the existing shelter is in relatively good condition from a structural & aesthetic perspective, its failure to protect occupants from the elements necessitate either a complete redesign or a significant modification on the overall shelter coverage.

6. Geotechnical Investigations

A Geotechnical investigation was carried out on site in October 2004.

The report was prepared by Y.J. Yttrup & Associates Pty. Ltd. & obtained the results using 16 mechanically augured borehole penetrations.

Extremely reactive soils with movement of in the order of 100mm was detected. This significant movement is evident across the school with concrete pavement and fencing being the most affected.

Due to this extreme movement, careful consideration will also have to be made for any new service connections; should it be deemed necessary. As an example, downpipes should be fitted with sliding sleeve fittings.

Hydraulic connections may be required in this project scope; if so, they will require to be equipped with flexible connections.

7. Hazardous Material Investigations

A Hazardous Material Assessment (HMA) Report was commissioned by the Victorian School Building Authority. This report was prepared by Coffey Environments Australia Pty. Ltd. on the 28th of January 2016.

While Asbestos-containing materials (ACM) was detected and/or suspected in only a couple of areas, these elements are no longer located on site & have either been removed or demolished following Stage 1 works. This alleviates the requirement of conducting a Division 6 Hazardous Materials Audit, as it is safe to assume ACM is no longer present on school grounds.

SchematicDesignProposal

8a. Site Context



Location Plan of Belmont

Source: Google Maps



Locality Plan of Barwon Valley School

Source: Google Maps

8b. Design Summary

The School currently has a Junior, Middle & Senior Campus with all three similar in floorplan layout & aesthetic appearance; generally a mix of cemental cladding, metal cladding & exposed masonry. The Middle & Senior buildings are located to the North of the site & the Junior is situated along Laura Avenue to the South.

The Administration / Office building bridges these Campuses together, running on a North-South axis up Reynolds Road on the site's West boundary. This is also where the existing Multi-Purpose space is located, situated to the site's North-West corner. North of the Multi-Purpose building is the Hydrotherapy Pool which is currently not in use.

A repurposing of the existing Multi-Purpose Room will prove to be a better utilisation of the space, as the current use as a gymnasium does not work given its irregular atrium-ceiling design. This space will be repurposed as a Performing Arts space which will include minor additions such as partitions, audio-visuals, ambient theatre lighting, fresh air supply & acoustic improvements to reduce sound reverberation. The active sports space will therefore require relocation, which we propose to extend this building northward towards the Hydrotherapy / Pool building, which will feature a reduced-scale multi-sport court & adequate storage.

The extension of the Middle School building to include a STEAM Hub will be visually accessible via the central play area & will aim to centralise the Art & Science classes into this new space. It will be responsive to the existing arterial pathways & aim to compliment the existing school infrastructure aesthetic.

The inclusion of a Therapy Hub extending off the Junior School building is aimed to be within proximity to the existing Administration building & aims to centralise the Sensory & Therapy spaces into a monocentric location, thus alleviating the current polycentric allocation of smaller Therapy / Sensory spaces throughout the school.

The proposed Learning Centre aims to remove the school's current reliance on Relocatable Classrooms. Located to the south of the site along Laura Avenue, this will be the Stage 2 cosmetic showpiece of the school's new facilities. Functionality between spaces & learning flexibility will be top priority in this new extension, which totals nine classrooms, individual learning / reflection spaces & a communal learning area. The 10th classroom, to which the school is entitled to, will be proposed closer to the Performing Arts space & will consist of a retrofit within the existing Middle School Campus.

These proposed extensions will be achieved through a prominent Architectural design & will not only foster a sense of pride and belonging within the school community but will also respond to increasing societal awareness & demands of Indigenous community input.

The school has a strong emphasis on achievement, wellbeing, engagement & community. With the inclusion of a Learning Centre along Laura Avenue, it will be designed & orientated to encourage visitors into the school grounds to which the new Canteen will be proposed; offering students the opportunity to engage with the broader community & general public.

9. Environmentally Sustainable Design

The proposed Schematic Design will incorporate ESD principles into the design. These ESD principles will be documented in further detail during the Issue for Construction Phase. Some key elements of the ESD strategies of the Design Development proposal include:

Architectural

- Where possible, the buildings are orientated to the to receive maximum natural light, yet minimisation of Northern light to reduce glare in accordance with BQSH requirements.
- Shading fins could be implemented strategically on building facades to reduce unwanted heat gain. Other windows throughout the new build that face inwards may also have sun shading devices installed to minimise both East & West solar gains.
- The use of clay brick, brick cladding, or other types of masonry will be a prominent external façade feature through the new infrastructure. The raw materials in clay brick do not cause indoor air pollution through off-gassing. Bricks do not need painting, therefore any VOCs that are contained within paints & varnishes will not be emitting into the atmosphere. Consideration for the use of recycled bricks to reduce embodied energy will also be made.
- Low VOC paints and finishes will be selected. E0 Laminate board will be specified for joinery.
- Joinery will be detailed to allow for disassembly where possible.
- Consideration will be given to specifying *Ecoblend* cement to reduce the embodied energy of the concrete structural and landscaping elements.
- Low maintenance and durable external finishes will be proposed.
- Double glazed windows to reduce unwanted heat gain in summer and reduce heat loss in winter.
- Where possible, the building envelope will be insulated beyond minimum NCC requirements.
- The specification will include the requirement for an Environmental Management Plan to ensure that waste from construction is appropriately sorted and recycled where possible.

- Specification of roof sheet to be light in colour, which will increase solar reflectance & thus reduce the reliance on mechanical heating & cooling measures.

Electrical

- Daylight has been maximised with large windows.
- Low energy LED lights are proposed. Occupancy sensors will ensure that lights are not left on when there are no occupants in the rooms.
- Retainment of the existing solar panel system to offset the electricity use of the school.

Mechanical

- Passive solar design and cross ventilation reduces the reliance for Mechanical heating and cooling.
- Equipment efficiency and operating costs will be considered in the selection of mechanical equipment.
- Electrical equipment will be preferred so that running costs can be offset by on site energy generation from the existing photovoltaic panels.
- Implementation of night purge ventilation and via motorised high-level windows
- Split system outdoor condenser units will be strategically located to be protected from North & West-facing sunlight to reduce overheating of unit, thus minimising work-rate of units.

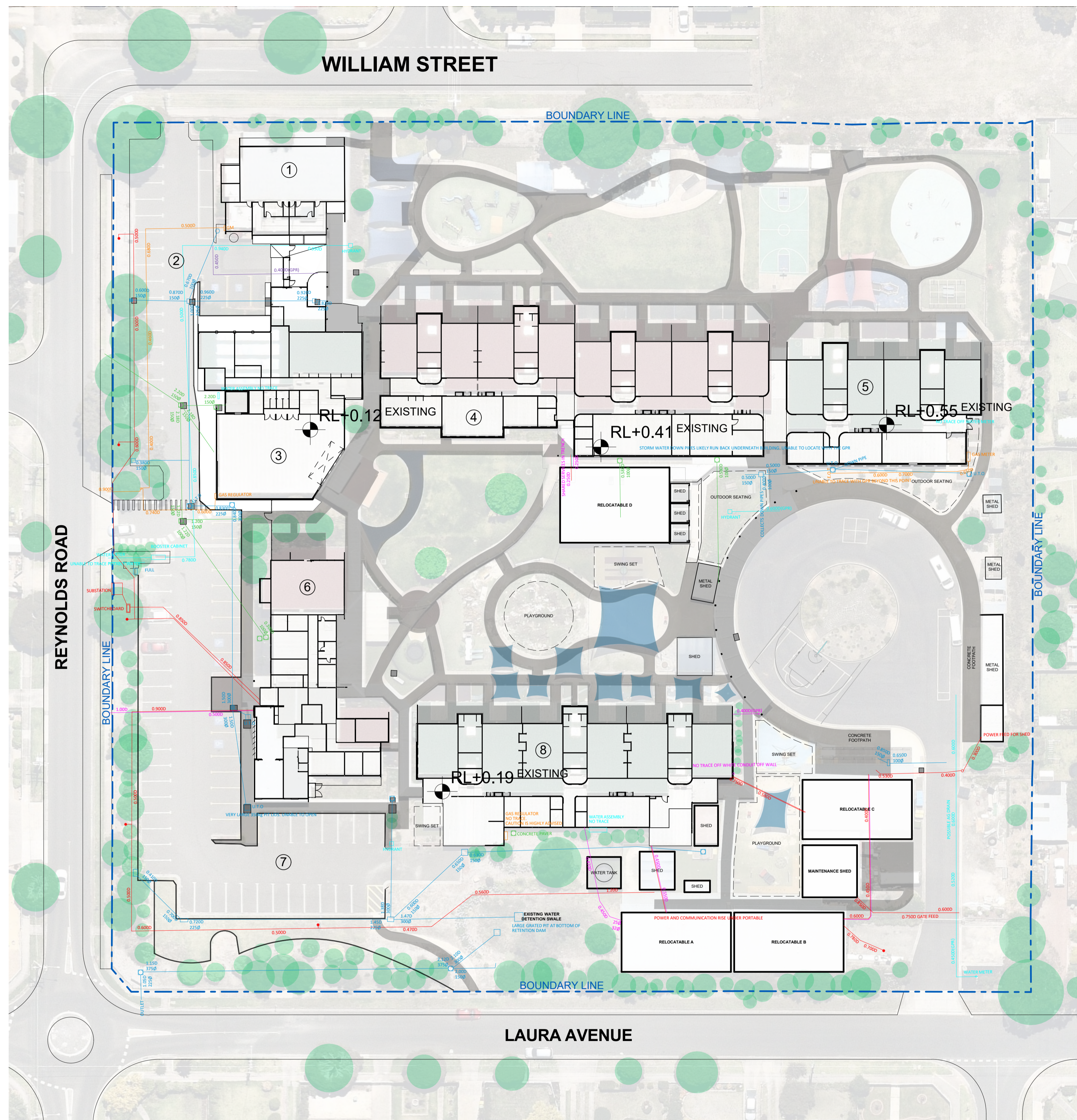
Hydraulic

- Water efficient tapware and fixtures will be selected.
- Integration & improvement of existing swale drain and landscaping to maximise catchment of stormwater runoff.

10. Site

Refer to the Existing Conditions Plan & Site Services Plan which reflect the results of investigations undertaken during the Schematic Design Stage.

Please also refer to the Site Survey Plan & Service Detection Report in Appendix 23. Site and floor levels in the proposed buildings zones are noted along with services locations.



EXISTING SCHOOL INFRASTRUCTURE

- 1 SWIMMING POOL
- 2 CARPARK (NORTH)
- 3 MULTI-PURPOSE BUILDING
- 4 MIDDLE LEARNING COMMUNITY BUILDING
- 5 SENIOR LEARNING COMMUNITY BUILDING
- 6 ADMINISTRATION BUILDING
- 7 CARPARK (SOUTH)
- 8 JUNIOR LEARNING COMMUNITY BUILDING
- 9 EXISTING BUS LOOP ROAD

NOTES

LEGEND

- EXISTING SHADE SAIL
- EXISTING TREE
- EXISTING PATHWAY
- PROPOSED PATHWAY
- EXISTING COMMS SERVICES
- EXISTING GAS SERVICES
- EXISTING POWER SERVICES
- EXISTING SEWER SERVICES
- EXISTING STORMWATER SERVICES
- EXISTING WATER SERVICE
- UNKNOWN TARGET - SERVICE

NOTES
EXISTING SITE SERVICES LOCATIONS INDICATIVELY SHOWN

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A	27/04/21	JM	DC	SD REPORT ISSUE

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TITLE
Existing Site Services Plan

SCALE	1:400 @ A1	
DRAWN	#Contact Full Name	
CHECKED	#Checked	
PLOT DATE	27/04/2021	

PROJECT	DWG NO.	REV
2105	SD.00.02	A

11. Landscape

Although a Landscape Architect has been assigned to the project, they are yet to be fully engaged, therefore no landscape discussions have taken place.

Discussions between the school staff & Architect have revealed a need to re-landscape some localised areas around the new infrastructure; whether it is due to dilapidation or through reconfiguration of arterial pathways.

Landscape discussions will take place in depth in the next design phase.

12. Architectural Designs

The following scope of works are proposed for BVS Stage 2:

- Performing Arts retrofit into existing “multi-purpose”.
- New Sports Court
- New STEAM Hub
- New Canteen
- New Therapy Hub
- New Learning Centre
- Localised retrofitting works of existing buildings & re-landscaping

Performing Arts retrofit & Gymnasium

The proposed works at the existing gymnasium / multi-purpose space includes an area increase of 145m², extending northward towards the Hydrotherapy building.

The proposed extension will consume the two existing Disabled parking bays (which will necessitate a relocation elsewhere), however will retain access to the existing Plant located to the new build’s North-East. The existing Paramedic Workshop & Therapy Offices will also be consumed by the new build.

The proposed Gymnasium extension responds to current pathway designs & pedestrian movement throughout the area while also ensuring that that no external access to the building do not create *bottlenecking*; a potential safety risk to the occupants in the event of emergency evacuation. The extension design also succeeds in organically linking the new sports court with the existing fitness room, WCs & multi-purpose spaces.

The proposal to facilitate the Gymnasium in the extension allows the *current* gymnasium space to be appropriately retrofitted into a Performing Arts hall. In its existing aesthetic & form, this space can very easily be repurposed at a minimal cost.

Minor changes will include attention to reverberation reduction & minor partitioning to allow for prop storage & a presentation stage.

The current use of multi-purpose space has indirectly resulted in making redundant the existing internal canteen; now used as a storage space. With the proposal to repurpose this multi-purpose space into a Performing Arts hall, it will reinstate this redundant canteen room & servery window to accommodate the culinary needs of the occupants using the new Performing Arts space.

STEAM Hub

A portion of the school’s Stage 2 entitlement has been allocated toward improving the school’s STEAM programme (science, technology, engineering, art & mathematics), to which the Architects will propose South of the existing Middle Campus.

The design will seek to respond to existing arterial pathways within the internal yard space & also functionally link with the existing campus. The existing Art Room within the Middle Campus – in its current form – lacks adequate storage space, cleaning stations (for brushes & other utensils), natural light & wheelchair-compliant workstations for students. It is proposed that this space shall be repurposed as an Art & Crafts Room (the existing location is within the Junior Campus) & will be retrofitted to ensure that:

- Adherence to relevant access codes are implemented
- User-friendly storage are proposed that alleviates the risk of trip hazards
- The retrofitted space organically correlates to the proposed STEAM extension wing.

The new Science Rooms that can be merged into one singular learning space which will enhance staff ability to maintain a flexible teaching environment. They will include outdoor learning opportunities & a visually-accessible enclosure for fauna, reptiles & a space for egg incubation. Storage will be adequately embedded within the space.

Therapy Hub

Staff at Barwon Valley School expressed disfavour for the current Therapy & Sensory system at the school. Therapy & Sensory spaces are scattered throughout the Campuses. This places a strain on the ability for staff to directly communicate with one another as they are physically separated throughout the school. The spaces lack adequate sizes for appropriate Sensory programmes, natural light in some existing spaces are minimal & there is a lack of diversity in the spaces which would allow staff to personalise or diversify the therapy administered to the students.

Through extensive collaboration between the Architect's & relevant staff personnel, the proposal to create a monocentric Therapy Hub amalgamates the programme into one responsive & flexible working space. The extension will have a First-Aid space including a Nurse Station & Accessible Restroom that will be easily accessible to the relevant staff as it directly links up with the Staff Centre & Staff Work spaces. Natural light will be maximised with the spatial configuration proposed & will be physically accessible via the Junior Campus.

As the existing Art & Crafts Room is being relocated to the aforementioned STEAM Hub, there is an opportunity to develop the vacated space into an additional therapy space, thus furthering the notion of centralising the therapy programme at the school into one location.

There is an opportunity to connect to the existing external landscaping as the new Therapy Hub will be proposed near Laura Avenue & adjacent to the existing water detention swale, which will itself receive a minor landscaping revamp to communicate with the new extensions. Throughout discussions & via feedback from staff, it is suggested that a tranquil recreation area for Junior students be proposed in this vacant space. Structural input will be required here as any decking will need to bridge over the existing swale in this area.

Learning Centre & Canteen

Barwon Valley School have been granted an entitlement of 10 classrooms for the Stage 2 works. Other entitlements include a Flexible Learning Space, Individual Learning Spaces, a Food / Materials Technology Hub & a new Canteen.

From a macro-perspective, the Learning Centre will be an Architectural showpiece for the school upgrade as its orientation runs parallel to that of Laura Avenue.

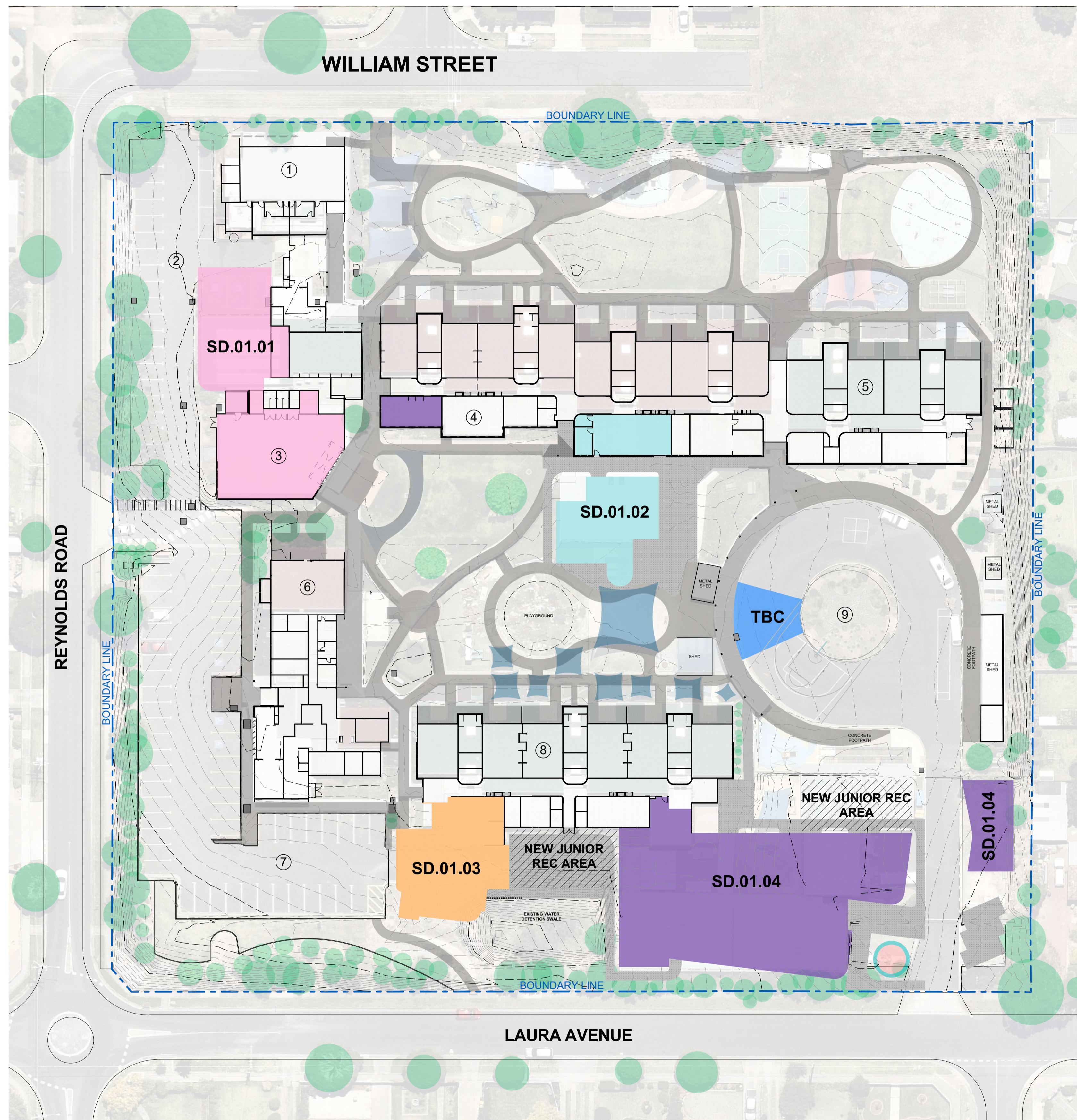
It will aim to influence the subconscious of visitors by acting as an *anchor*; something that will draw visitors into the school grounds due to its orientation, soft architectural style & welcoming architectural vernacular. An emphasis on natural light will be a top priority for the Architects, as will ensuring direct spatial harmony between all classrooms & the shared central learning space – the nucleus that will bind all classrooms into one unified space.

The Learning Centre will include a Food Technology space to the East which will also be used as a weekend culinary service to the public. Minor landscaping works will be proposed here, which will correlate with the existing pathways in the localised area & facilitate visitors intending to purchase food & drink outside of school hours; an initiative to strengthen the students ties with the general public, to validate themselves as contributors to society & to see themselves as rightfully equals.

The existing East boundary includes a work shed for groundskeeper maintenance & a vegetable garden. These will be removed to clear the way for a new Materials Technology hub that will directly link up with the school's maintenance personnel who operate in this area frequently. Both the Materials & Food Technology Hubs will be vehicularly accessible for deliveries via the existing Service Road.

The new Canteen will be proposed as an extension off the [Learning Centre](#).

To date, there have been no identified departures from the BQSH or any issues associated with compliance to any acts, regulations, standard & codes. Departures – if any – will be identified & addressed in the Design Development Stage.



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- 1 SWIMMING POOL
- 2 CARPARK (NORTH)
- 3 MULTI-PURPOSE BUILDING
- 4 MIDDLE LEARNING COMMUNITY BUILDING
- 5 SENIOR LEARNING COMMUNITY BUILDING
- 6 ADMINISTRATION BUILDING
- 7 CARPARK (SOUTH)
- 8 JUNIOR LEARNING COMMUNITY BUILDING
- 9 EXISTING BUS LOOP ROAD

PROPOSED NEW INFRASTRUCTURE

- PERFORMING ARTS BUILDING
- STEAM HUB
- THERAPY HUB
- LEARNING CENTRE
- BUS SHELTER EXTENSION (DESIGN TBC)

NOTES

- LEGEND**
- EXISTING SHADE SAIL
 - EXISTING TREE
 - EXISTING PATHWAY
 - PROPOSED PATHWAY

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A	27/04/21	JM	DC	SD REPORT ISSUE
B	30/04/21	JM	DC	SD REPORT REVISION

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TITLE
Stage 2 Masterplan

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- LEGEND**
- LEARNING BASE
 - RESOURCE INTENSIVE LEARNING
 - SCHOOL COMMUNITY HUB
 - LEARNING RESOURCE CENTRE
 - ADMINISTRATION
 - STAFF WORK
 - STUDENT & STAFF AMENITIES
 - CLEANING, MAINTENANCE & STORAGE
 - CIRCULATION
 - ▶ ACCESS POINT
 - DUAL-STOREY BUILDING
 - STUDENT CANTEEN MUSTER AREA
 - EX. STRUCTURAL CLASH
 - EXISTING (NOT PART OF SCOPE)

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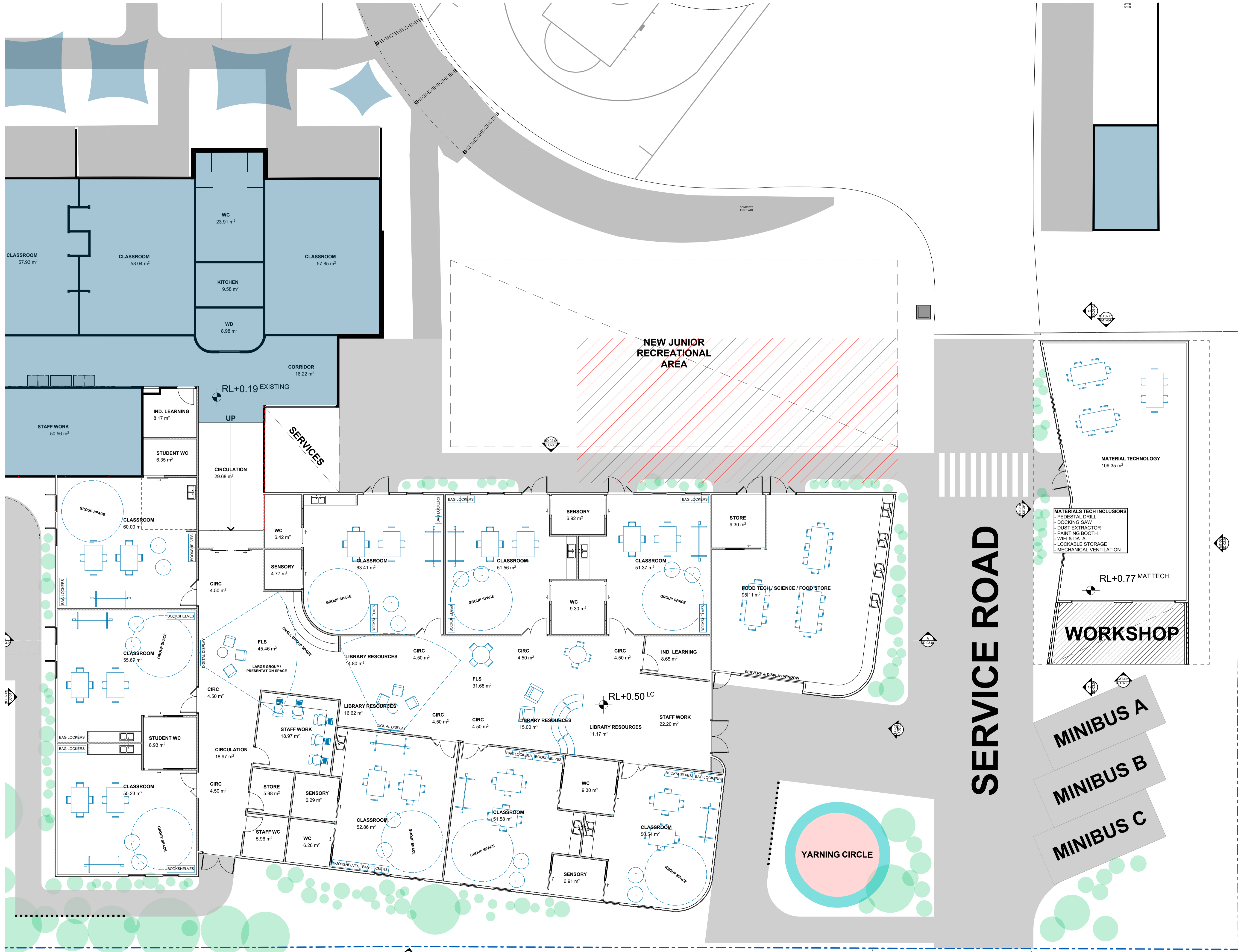
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TITLE
STEAM Hub Floor Plan

SCALE 1:1, 1:100 @ A1
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PLOT DATE 27/04/2021

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INCLUDED SCOPE
- PINBOARDS & WHITEBOARDS
- FLORA & REPTILE ENCLOSURE SPACE
- STORAGE FOR CHEMICAL & BIOLOGICAL
- EGG INCUBATION SPACE
- 3D PRINTERS
- ROBOTICS
- SCALED RULE PRINTED ON FLOOR



- LEGEND**
- LEARNING BASE
 - RESOURCE INTENSIVE LEARNING
 - SCHOOL COMMUNITY HUB
 - LEARNING RESOURCE CENTRE
 - ADMINISTRATION
 - STAFF WORK
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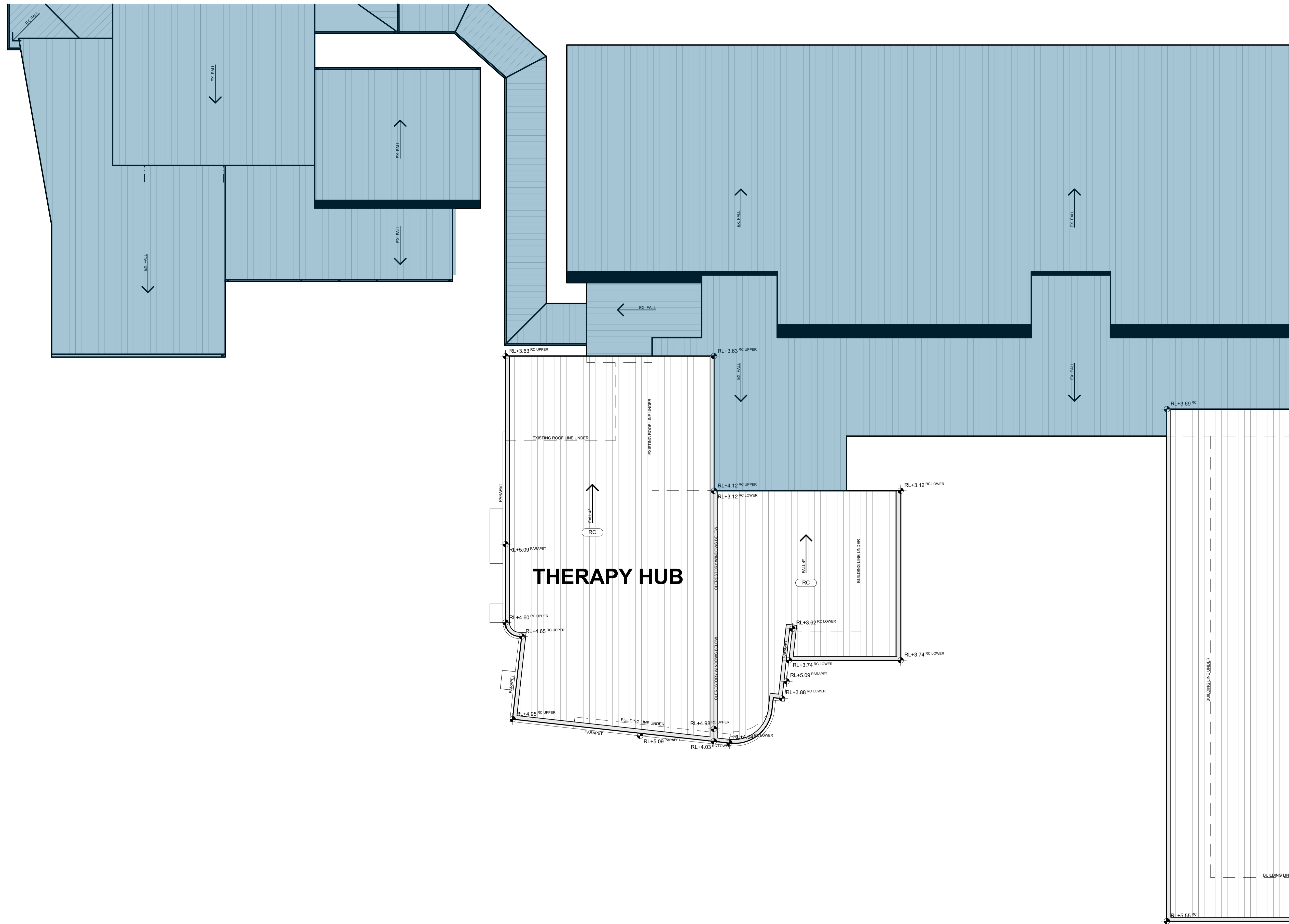
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PROJECT
Barwon Valley School - Stage 2

TITLE
Learning Centre & Mat Tech Floor Plan

SCALE 1:1, 1:100 @ A1
DRAWN #Contact Full Name
CHECKED #Checked
PLOT DATE 27/04/2021

PROJECT DWG NO. REV
2105 | SD.01.04 | A



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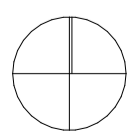
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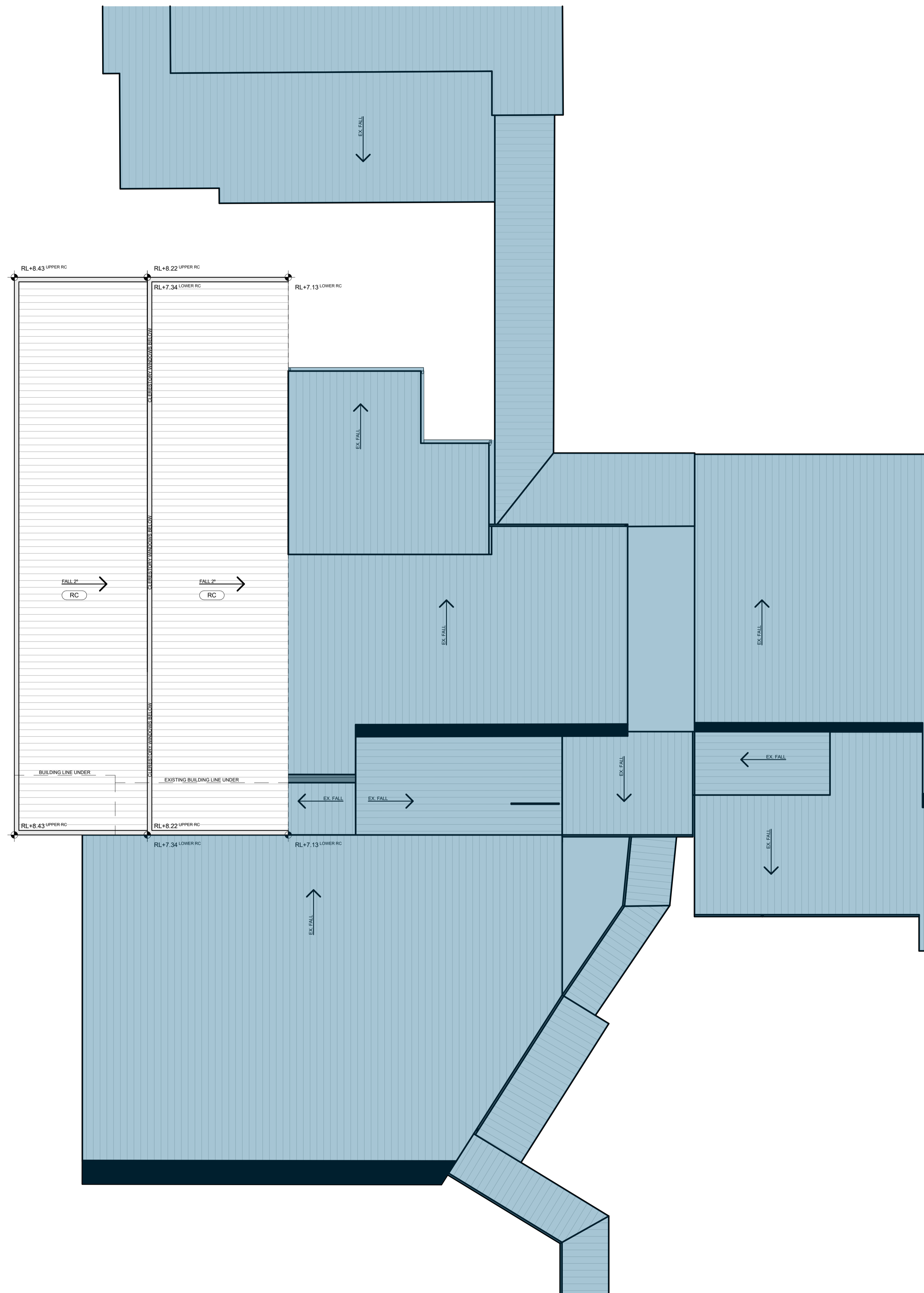
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TITLE
Therapy Hub Roof Plan

SCALE 1:1, 1:100 @ A1
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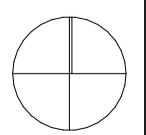
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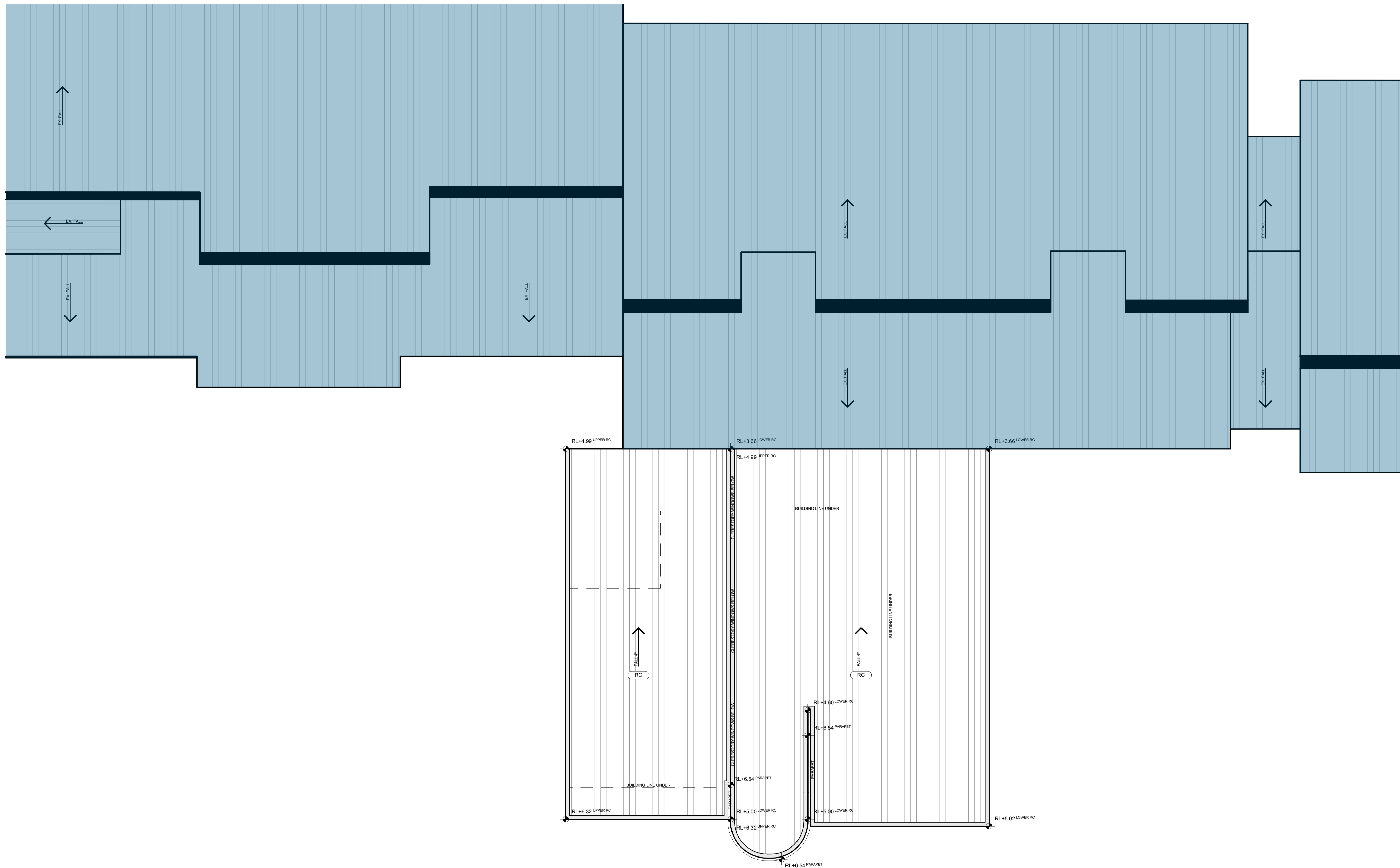
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 PROJECT
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TITLE
Performing Arts & Gymnasium Roof Plan

SCALE 1:1, 1:100 @ A1
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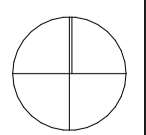
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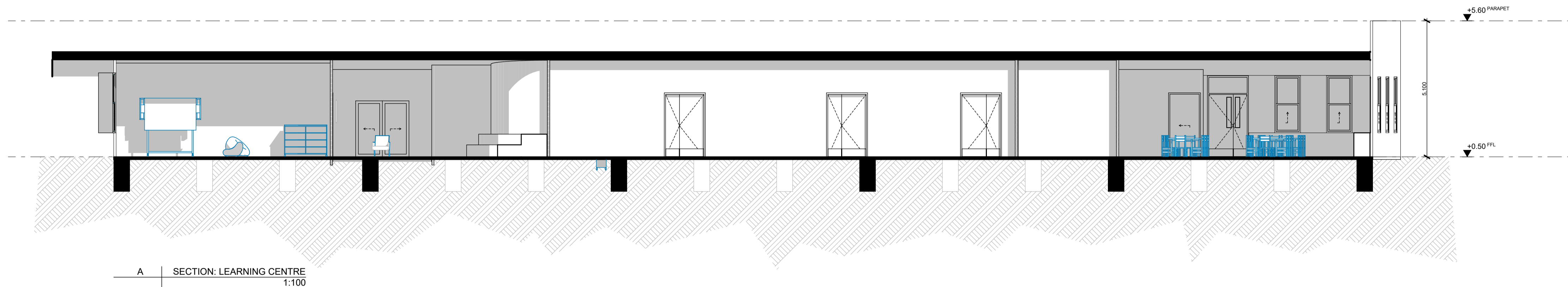
CAD FILE 2105 BVS Stage 2 - SD Master
 PROJECT
Barwon Valley School - Stage 2

TITLE
STEAM Hub Roof Plan

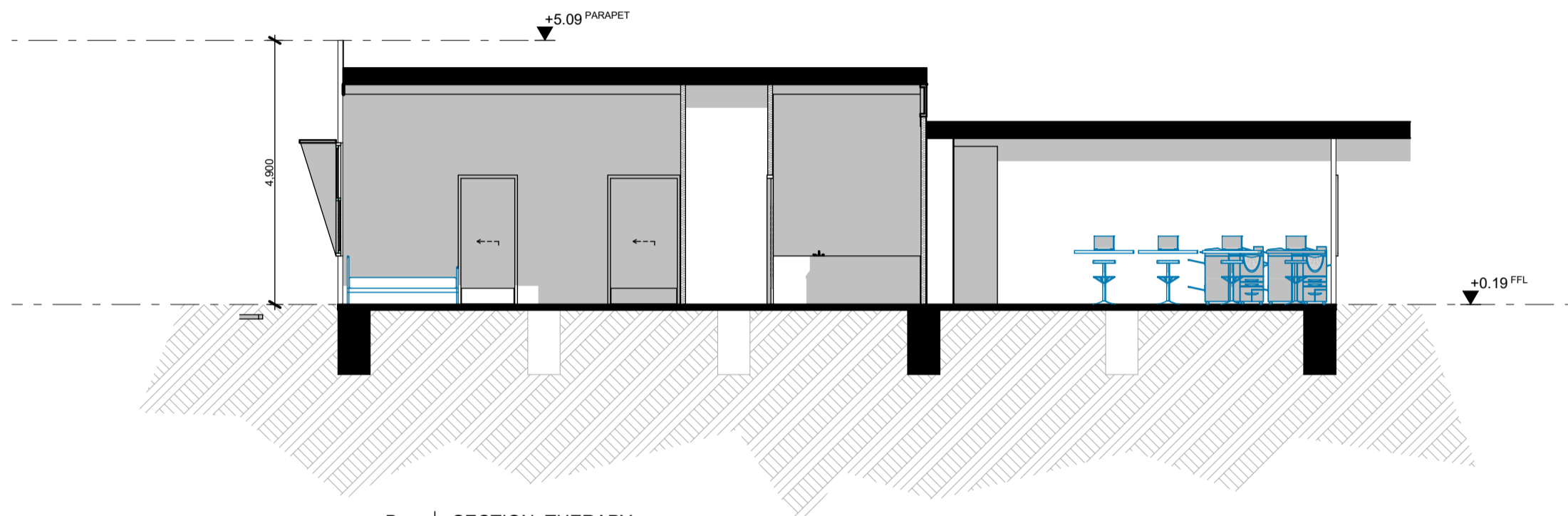
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PROJECT | DWG NO. | REV
2105 | SD.01.09 | A

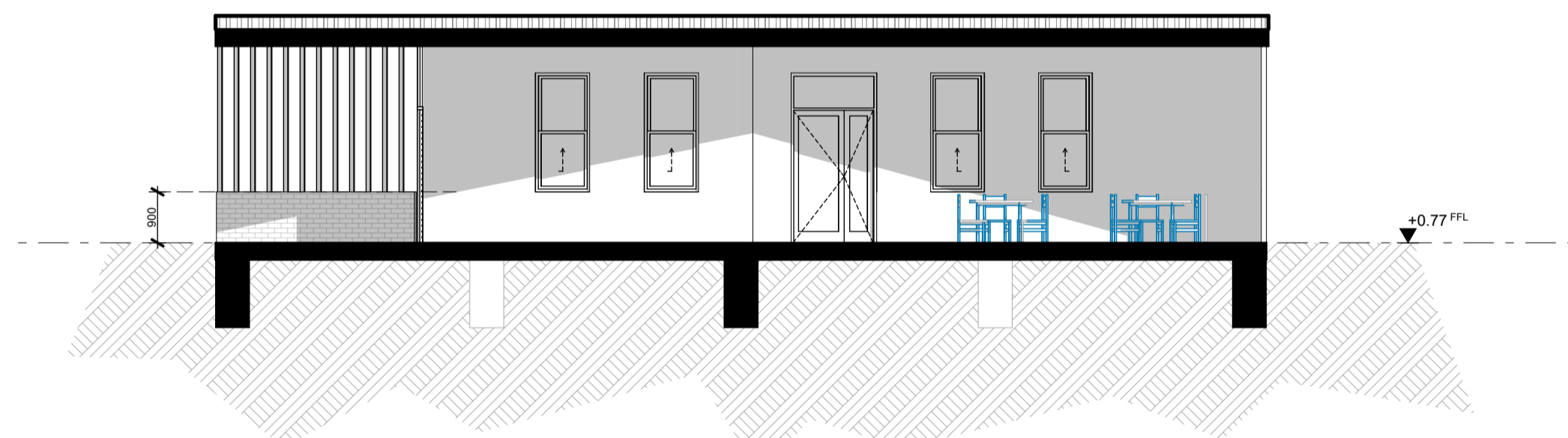




A SECTION: LEARNING CENTRE
1:100



B SECTION: THERAPY
1:100



C SECTION: MAT TECH
1:100

REV	DATE	BY	CHK	DESCRIPTION
A	27/04/21	JM	DC	SD REPORT ISSUE
B	30/04/21	JM	DC	SD REPORT REVISION

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FOR
Victorian School Building Authority

CAD FILE 2105 BVS Stage 2 - SD Master

PROJECT
Barwon Valley School - Stage 2

TITLE
Sections 01

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PLOT DATE	30/04/2021	

PROJECT	DWG NO.	REV
2105	SD.03.01	B

13. Area Analysis Schedule (as per Form 15) vs proposed (changes from AMP2)

The existing school facilities are generally under entitlement for the current enrolment band of 224.

The proposed Schematic Design aligns with the School Facility Area Schedule, with no variance in floor area (m²).

Refer to the *Appendices 28: Area Analysis Form 15* for further detail.

14. Area Analysis – funded area (as per PBE) vs. proposed area

The area of the proposed Schematic Design aligns with the areas of the PBE.

Please refer to the following area schedule tabular summary along with included Form 15 Area Schedule for more detail.

15. Engineering Rationale

Electrical

The Electrical Consultant visited the site in April & have identified / proposed the following:

Power Supply

- Existing power is limited to 400A and is required to be upgraded to suit the proposed building extensions. Stantec will submit the power application and liaise with the power authority to confirm the extent of the power upgrade

Electrical Distribution

- A new SMSB is proposed to be installed adjacent to the existing pillar. Contractor is to decommission and remove existing pillar once the new SMSB is energised. This SMSB will be the main load centre for the whole school. The Sub distribution boards in the existing buildings to remain.
- New Sub distribution boards will be provided in the new buildings / extensions (Performance Arts building, Therapy Hub and Learning Centre) and these will be connected to the external SMSB via underground conduits. New distribution board of STEAM building will be connected to existing DB-LM
- GPOs will be distributed throughout the new buildings. This will require collaboration between the Electrical Consultant, the Architects & the school to verify quantity per room & locations
- All GPOs circuits shall be RCD protected
- Power to mechanical, hydraulic and AV equipment will be provided. Stantec will coordinate and liaise with the relevant consultant as required

Metering

- An authority meter will be provided for the new school and digital meters will be provided for ESD requirements

Telephone & Communication Systems

- Existing main Comms racks and MDF in Admin Building to remain. Main Comms rack is to be modified to suit new connections
- Existing Comms racks in the Multipurpose Building & Middle Learning Community Building to remain and be modified to suit new connections.
- All new data outlets of new STEAM Building to be connected to the existing Comms rack in the Middle Learning Community Building
- Existing Comms racks installed at high level in the Junior Learning community building to remain and be modified to suit new connections. Both MP-04 and -05 data outlets to be connected to this rack
- A structured CAT 6A cabling system will be provided for the data and phone outlets
- The rack size and location are shown on the electrical sketches
- Passive communication equipment such as cabling, rack and patch panels etc to be provided as part of the electrical documentation. Active equipment such as modems, servers, switches etc. will be provided by the school

PABX

- The PABX system is to be provided by the school as part of the IT package

Public Access, Background Music

- Existing PA system head end equipment to remain and modified to suit new connections. All new PA system speakers to be connected to the existing head end equipment installed in the Admin Building

Lighting

- Stantec will liaise with the architect to determine the style of lighting required. Energy efficient LED lights will be used
- Lighting of internal service spaces (classrooms, foyer, corridors, cleaner's room, storerooms, etc.) is to be controlled by a combination of timeclocks, motion sensors and local switching. Most of the lights will incorporate organic response sensor
- External lighting will be provided and controlled by photoelectric cell and time clock
- Monitored emergency egress lighting and exit signage shall be provided in accordance with the Building Code of Australia and AS2293. The emergency lighting system shall incorporate flush mounted self-contained computer monitored fittings, each with its own batteries and charger

Security Intruder Detection System

- The security intruder detection system will be carried out by the specialist security contractor engaged by the Builder. The education department will provide the intruder detection specification. This will require the school to verify the SIDS specification

MATV

- A new MATV (free to air) system will be provided in the school. The school, with Architect's assistance, will need to review the preliminary electrical drawings & verify the location of each MATV outlet & its quantity in each space

Hearing Augmentation

- Hearing Augmentation will be provided as part of the AV documentation. Power and data outlets will be provided to the hearing augmentation equipment as required. Liaison with the AV Consultant will be required to ascertain the location & power quantity & data outlets

Audio Visual Systems

- Power and data outlets shall be provided for AV equipment. AV systems shall be supplied and installed as part of the AV documentation (by the AV consultant). Connection will also be provided from the AV system to PA system. The AV Consultant will need to provide input to ascertain quantity of power & data outlets as well as preferred locations

The Electrical Consultant has identified the following critical issues:

- Existing power is limited to 400A and is required to be upgraded to suit the proposed building extensions. Stantec will submit the power application and liaise with the power authority to confirm the extent of the power upgrade.
- A new SMSB is proposed to be installed adjacent to the existing pillar. Contractor to decommission and remove existing pillar once the new SMSB is energised.

Hydraulic

The Hydraulic Consultant visited the site in April & has identified / proposed the following:

- All buildings are proposed to be provided with the following hydraulic services as required for operation of the fixtures and equipment:
 - Cold water to all fixtures (except those supplied by treated rainwater)
 - Rainwater will be collected, treated and re-used for toilet flushing
 - Hot water by means of electric Heat pump hot water storage units. Client to confirm if solar hot water preheating is required.
 - Sewer connection to all fixtures.
 - Tradewaste services to meet the requirements of the local water authority. It is likely that canteen, cooking facilities and art classrooms will require tradewaste treatment devices.
 - Eaves gutters are proposed to be used throughout the school in line with BQSH requirements.
- Non-potable water supply will be used for supply of the irrigation system (by others). Landscape designer to provide information of irrigation system (required flow rate and pressure).
- The existing Sewer connects to an existing 150mm authority main pipe on Reynolds Road. This will be confirmed once existing drawings are provided.
- A new 150mm gravity connection to the existing sewer main in Reynolds Road subject to the condition & existing load of the sewer main

Sanitary Fixtures & Fittings

- Sanitary Fixtures & Fittings, including first grade commercial fixtures, fittings & appropriate tapware to the following areas:
 - Staff male / female toilet areas

- Cleaner's facility
- Student male / female & disabled toilet areas
- Kitchen / Café area
- Gymnasium change & toilet areas
- Laboratories
- Art rooms
- Drinking fountains
- Wet activities areas

Sanitary Waste & Drainage

- Sanitary waste & drainage, which includes collection of all domestic waste discharges from fixtures & fittings via PVC fixture & branch wastes & including:
 - WCs
 - Handbasins
 - Showers
 - Urinals
 - Dishwashers
 - Kitchen / tearoom sinks
 - Drinking fountains
 - Cleaner sink
 - Troughs
- Provision for collection of all trade waste discharges from laboratories, canteens, commercial laundries and food processing areas via HDPE pipework to trade waste apparatus for pre-treatment
- Provision for all required floor wastes and tundish wastes, maintenance access and inspection openings

- Provision for all required sanitary waste and drainage ventilation services terminating to atmosphere at roof level
- Provision for below ground PVC sanitary drainage services collecting waste discharges from waste stacks, fixture wastes, etc, with gravity connection to the sites sanitary drainage services infrastructure and incorporating all required maintenance and inspection openings
- Provision for below ground sewerage pump stations and macerators

Cold Water Services

- Provision for reticulated cold water supplies to all sanitary fixtures fittings & tapware
- Provision for domestic cold water back-up to the rainwater reuse systems & non-potable connections
- Provision for all required backflow-prevention devices to mechanical equipment, HWUs, hose taps & lab tapware, etc.

Rainwater Reuse

- The allowance of rainwater reuse to be used for toilet flushing (as per BQSH)
- Provision of up to one tank per building (above ground). Tanks is to be sized as 10L/m² as per BQSH.
- Provision of first-flush device in accordance with BQSH.
- Provision of rainwater system suitable for toilet flushing. System is proposed to consist of multistage filter and UV filtration. Client to confirm if additional treatment is required

Landscape Irrigation

- Provision of non-potable water supply to garden beds & planter boxes for irrigation

Hot Water Services

- Provision for hot water heating plant providing hot water to the following areas:
 - Staff male/female toilet areas.
 - Cleaner's facility.
 - Student male/female and disabled toilet areas.
 - Kitchen/Cafeteria areas
 - Gymnasium change and toilet areas
 - Classrooms
- Provision for reticulated hot water services with connections to specified fixtures and tapware and incorporating all required maintenance isolating valves and temperature control devices
- Provision for insulation to all reticulated hot water services as required.
- Temperature control devices
- Provision for all required backflow prevention devices and temperature relief valves
- Provision for hot water heating plant comprising the following:
 - Electric water heating plant complete with circulating pumps and solar pre-heat

Mechanical Plant Waste & Water

- Provision for the collection and disposal of all mechanical air conditioning plant condensate waste via all required floor drains, and tundish wastes, with connection to stormwater disposal system

The Hydraulic Consultant has identified several shortcomings in their site investigations; notably due to absence of existing drawings (which are pending submission by school representatives) & pending information from other Design Consultants or Authorities. These shortcomings include:

- Confirmation on whether the current pressure & flow information is acceptable by the Building Surveyor. This will be confirmed at a later date. To mitigate the risk of low supply pressure cold water storage tank, non-potable water storage tank and pump sets have been allowed for.
Developer/Authority to provide pressure and flow information if required
- Capacity of existing authority infrastructure not yet confirmed & will not be available until discussions with relevant Authorities take place. This will determine where infrastructure extensions or upgrades will be required
- Capacity of existing infrastructure has not been confirmed. Existing drawings are required to confirm size and reticulation of the existing services.
- Confirmation of appropriate trade waste treatment based on the proposed use of the rooms, notably:
 - The canteen
 - Art therapy
 - Science laboratories on site
- Whether water sub-metering is being provided; the client will confirm this
- Whether thermostatic mixing valves (TMVs) will be used to supply tempered water to all sinks

Fire

The Hydraulic Consultant has identified / proposed the following:

- Hydrant coverage shall generally be in line with provisions of the NCC or FRV requirements.

- External dual head attack fire hydrants are proposed to be used throughout
- Dual head hydrant outlets will be provided external to buildings within 50m from a hardstand. Any external hydrant located more than 50m from a hardstand would require dispensation from the local fire authority. Internal walkways for fire appliance access to hard stand areas internal to the site will be proposed. Such a proposal will require the Architect & Building Surveyor to discuss the matter & potentially arrange a submission to Fire Rescue Victoria (FRV) for a dispensation under Regulation 129
- It is possible that Hydrant shortfalls may occur in the current design. An additional hydrant hose length where required is to be proposed. This will be verified following FRV review & subsequent approval
- Fire Extinguishers are to be provided in accordance with relevant & current codes & shall be installed to serve all classroom, within proximity of major plant & other critical electrical items

The Hydraulic Consultant has identified the following critical issues:

- Available pressure and flow information from authority water mains is available & is at acceptable levels, however it is yet to be confirmed by the Building Surveyor as to whether a new test is to be carried out. Fire pump break tank and fire pump have been allowed for (it has been assumed that the water main has sufficient water supply capacity)
- Capacity and condition of existing inground services has not been confirmed. Existing drawings are required to confirm the size and reticulation of the existing services. Maintenance log and installation dates are required to confirm the condition of existing services
- Building surveyor to confirm required number of hydrants operating simultaneously
- Several dispensations from the fire authority will be required. Approval of these dispensation is not guaranteed and will need to be discussed with

building surveyor and Fire Rescue Victoria (FRV). A formal application for dispensations under Regulation 129 will need to be made by the Building Surveyor

- Buildings are proposed to be protected using external dual head attack fire hydrants using two hydrant hose lengths as required by the NCC and AS2419

Mechanical

The Mechanical Consultant visited the site in April & has identified / proposed the following:

- Air conditioning shall be provided to all learning areas, sized for both heating and cooling. Generally, classroom and areas will be provided with ceiling cassettes. Central open learning areas will have a ducted solution to better suit the RCP and volume of the space, while smaller meetings and admin rooms will be provided with wall mounted split systems to better coordinate with layouts and lighting
- Generally, natural ventilation will be provided to exterior-facing rooms, with internal rooms being provided with fresh air via ducted systems from rooftop intake cowls
- Comms rooms shall be provided with cooling-only split systems, while comms cupboards shall be provided with dedicated thermostatically controlled exhaust systems to discharge at roof level above
- Amenities areas are to be provided with ducted exhaust systems to rooftop discharges above. Make-up air via undercuts (individual cubicles) and transfer grilles to the wider learning spaces adjacent
- Confirmation of any speciality equipment to be installed (workshops, labs etc) is required. Generally, we have been informed that fume cupboards, welding and spray booths, dust extraction systems etc are not required the inclusive nature of the school and the usage this entails

Mechanical Services – Ventilation Systems

- Exhaust systems shall be provided to the toilets, cleaners rooms, food technology, canteen, change rooms, laboratories, workshop areas and other miscellaneous areas as per the code requirement at the flow rate stipulated in the design criteria above
- The rooms adjacent to the façade shall be naturally ventilated while the landlocked rooms shall have outside air mechanically provided into the space to flow rates listed above
- It is understood no specialist dust extraction units to the workshop, fume cupboards to science labs, commercial kitchen exhaust to Canteen etc are required due to the proposed uses of these spaces

Mechanical Services – Air Conditioning Systems

- The majority of the spaces are proposed to be provided with heating and cooling as per the VSBA Building handbook requirements for supportive inclusive areas.

It is understood that the VSBA has a preference for avoiding gas-fired heating to the buildings, therefore heating is to be provided by direct expansion (DX) split air conditioning systems. Each indoor unit is to be served from an outdoor condensing unit located in a central ground floor plant enclosure adjacent or rooftop platform above each building. Indoor A/C units shall be wall-mounted, ceiling cassette or concealed ducted units suitable for the room size. Generally these systems are supplied as reverse cycle capable of heating and cooling

Fire Mode

- All the mechanical ventilation and air-conditioning systems are to shut down in accordance with AS1668.1-2015 on General Fire Alarm initiation

- Kitchen exhausts, substation ventilation and fire pump room ventilation shall continue to operate

Gym Requirements

- It is proposed that the Gym is provided with natural ventilation via low-level louvres and roof mounted ventilators (Whirlybirds) to assist with removing the hotter air from the space. Louvre free area is required to be a minimum of 5% of the floor area to allow for natural ventilation
- If natural ventilation is not achievable, roof mounted exhaust fans shall be provided with make-up air via low-level louvres to flow rates listed above

Kitchen Exhaust

- Ducted kitchen exhaust shall be provided to serve the canteen kitchen. A vertical discharge fan shall be provided on the roof above. Make up air is to be provided via operable windows to the facade. The size of the ventilation system depends on the type of cooking and capacity of the cooking equipment installed in the kitchen. Kitchen consultant advice is required as for what allowance should be made or provide a capacity of the cooking equipment so an AS compliant provision can be made. The kitchen exhaust fans shall be interlocked with the gas shut off valve. The Architects will need to clarify the cooking equipment to this area with the school.

Through the site investigations, the Mechanical Consultant has identified the following critical issues:

- Final coordination of mechanical equipment and diffusion with most recent RCPs is still required. To be completed in DD and documentation phase
- Final confirmation of speciality equipment to be installed (workshops, labs etc) and their services requirements. This includes 3D printers, etc.

- Confirmation of kitchen exhaust provisions to food tech rooms and canteen & are to be developed as kitchen layouts and equipment are finalised
- DD phase will require finalisation of building fabric, glazing performance etc to allow accurate sizing of AC units

Structural

The Structural Engineer visited the site in April & has identified / proposed the following:

- Historic geotechnical information dating back to 2004 has been reviewed. Given the age of the report and subsequent development works, additional geotechnical investigation will be recommended.
- The new building development is proposed to broadly feature the following types of construction for all buildings:
 - Single Storey steel/timber framed buildings on concrete slab
 - Roof structure consists of timber trusses throughout supported on a combination of internal/external load bearing walls and beams. Design and specification of all elements to be further developed
 - The foundation systems noted will typically consist of domestic style raft slabs on ground. This is based on the current design of the grading and proposed building levels
 - Lateral stability of the structure will be achieved by a braced frame for all buildings using conventional framing.
 - Re-support of existing structure to suit proposed modifications may be required. If as-built conditions (concealed until soft-demo can proceed) differs from expectations adjustment to design may be required as construction proceeds
 - We confirm that the structural design generally does not depart from the requirements of the DoET BQSH for structure of this type

Design Strategy

- The proposed new building works at the existing school site are generally all to be modifications and additions to existing structures constructed around 2006
- The proposed new building structures will aim to maintain a similar construction typology to the existing structure to ensure that longer term structural performance is similar between new and existing structures
- Foundation structures will generally be designed on the basis of existing site conditions understood from limited review of existing documentation for the original school development
- Based on limited review of existing structural drawings, the following high level and general observations were made as to the existing structural conditions:
 - The original buildings were constructed over a generally sloping site which appears to have been filled to suit new construction
 - Foundations and slabs at ground level are all conventional shallow depth foundations. There didn't appear to be any piling in the original documentation. This suggests depths and type of placed fill was considered *engineered*
 - All buildings are single storey
 - General structural framing is a mix of timber framing (spanning roof elements, including trusses), steel (columns)
 - Wall framing was timber construction with conventional metal strap bracing to provide stability
- Proposed new building works will aim to adopt similar construction typology but will likely require use of structural steel elements as 'transfer' structures to suit re-support of existing timber framing where new works require. More information will be provided regarding this as part of this report

Structural Services – Design Response

- Based on the structural design and coordination efforts with architecture and other consultants to date, the following summary of the proposed structure for each zone of the proposed development is provided:
 - Ground bearing slab structure of anticipated stiffened raft type construction to suit geotechnical requirements
 - Braced timber frame for walls and roof structure where practical
 - Where timber is not a viable construction methodology, a braced steel frame featuring conventional rafter and column arrangements with bracing provided within the plane of the structure
 - Braced walls to resolve lateral loading (wind) and other stability considerations to ground. The wall bracing elements will typically be metal strap braced (domestic style construction) but may be supplemented with steel framed bracing elements where geometry or architecture requires
 - Where possible, the new works will aim to maintain all existing load paths and bracing systems without modification to ensure the original structure remains stable in its own right. Where this is not avoidable, new structure will make provision for additional bracing elements to suit

Geotechnical Conditions

- Project specific geotechnical advice is not currently available and given the extent of development, and type of use, it is unlikely that comprehensive investigation will be viable for this project. We will prepare a high level scope of work to invite proposals for a geotechnical consultant to undertake fieldwork and reporting to the extent possible. Ideally this field work would be informed by the geotechnical report adopted for original design purposes.

Structural Durability

- Structural Steel: conventional steel surface protection via painted systems or hot-dipped galvanising are anticipated to be suitable for this project
- Concrete: careful consideration of material selection and detailing will be sufficient to protect concrete structures from aggressive environments due to in-ground conditions, aquatic environment and non-conditioned spaces

The Structural Engineer has identified shortcomings in his / her investigations which are pending Building Surveyor input:

- Building Importance Level
- Fire Rating Periods for structural elements
- Fire Rating Periods for steel framing forming where required to support floor structures
- Any specific regulatory requirements to be incorporated in the building structure
- Determination of extent of refurbishment / modification and implications for potential upgrade to existing structure to achieve compliance with current codes and standards

Until verified by the Building Surveyor, it will be assumed that there is no fire-rating period required for roofs & supporting structure i.e. columns & walls. It will also be assumed that the Importance Level is 2.0 until otherwise noted

The Structural Engineer has also identified several critical issues:

- Building surveyor determination as to extent of modifications and need to upgrade existing structures to current codes/standards
- As-built conditions as compared to expected conditions are based on existing drawings and where structure is concealed

Civil

The Civil Engineer visited the site in April & has identified / proposed the following:

- Confirmation of existing site detention, treatment, and discharge requirements can be satisfactorily maintained and re-utilised
- Sections of the existing school stormwater drainage system shall require diverting to accommodate the proposed buildings. The extent of the diversions is to be confirmed following further coordination with the building layouts, however main diversions necessary at this stage are around the Performing Arts Building and Learning Centre
- There are no BQSH departure items for the civil design

Stormwater Design Requirements

- The proposed school development located on 76-94 Laura Avenue, Belmont VIC 3216 will require sub-surface stormwater drainage and minor grading pavement works. It is understood that any external infrastructure and works beyond the site boundaries will be undertaken by others
- The following items will be considered during the design:
 - Provide adequate drainage to ensure a free draining development
 - Vehicular pavement levels and drainage design to ensure ponding does not occur on subject site
 - The discharge volume, timing and velocity of stormwater runoff from the site has no adverse effect on any surrounding properties or receiving waters. This has high importance
 - The pollutant discharge from the site is minimised so that the environmental value of surrounding properties and receiving water courses are maintained
 - Major overland flow paths / systems are considered in the design

Stormwater Drainage & Existing Site Conditions

- The existing school drainage system shall be retained and utilised as far as possible, with diversions around the proposed building footprints where necessary. It is expected that the permissible site discharge and on-site detention requirements can be maintained

Existing Flood Conditions

- Information available from Land Victoria indicates that the site is partially subject to flooding from the local drainage system during a 100yr ARI event. Reference to Land Vic Planning Overlay mapping indicates that there is an SBO running along Reynolds Road to the north-west site boundary. However, this minor encroachment onto the site is not within the schools proposed developable works zone
- Drainage will be required to collect flow from all new downpipes and hard pavement areas surrounding all new buildings. Details of the proposed drainage strategy are still in development and will be coordinated closely with the architectural and hydraulic design

Legal Point of Discharge

- It is envisaged that the existing site LPOD will be retained and re-used without the need for any modification works

Stormwater Quality Management

- An appropriate WSUD Strategy will be incorporated within the stormwater design to meet best practice guidelines and to achieve an outcome which meets all WSUD requirements

Overland Flow Paths

- It is the Landscape Architects responsibility to ensure that the finished levels grade away from the proposed buildings and access points wherever

possible and ensure that any existing overland flow paths don't result in a flooding threat to the building

Stormwater Design Extent

- The extent of the stormwater design that Stantec will document comprises:
 - New roof and pavement catchments
 - Connection to the local drainage system via existing LPOD

The Civil Consultant has flagged several critical issues that need to be addressed:

- Coordination of necessary stormwater drainage diversions around new building footprints. Review of feasible diversion routes against existing system depths and alignment
- It is assumed that the existing base condition of the stormwater system is performing adequately, without the need for any upgrade or rectification works. Stantec shall make contact and confirm this assumption with the school operations manager

16. Construction & Decanting

The new buildings shall incorporate steel / timber framework on concrete slab. Roof structures shall consist of timber trusses throughout supported on a combination of internal / external load bearing walls & beams. This will be further developed in the next design phase.

The Engineer has also stressed the importance of lateral stability of the structure; achieved by a braced system using conventional framing methodology.

Due to the proposed locations for the new Gymnasium, Learning Centre & Therapy Hub, minor demolition works will be required to marry the proposed new building structurally & aesthetically with the existing infrastructure; both from a structural & aesthetic perspective.

Only the STEAM Hub & Materials Technology building are standalone buildings, however some minor demolition works of the localised landscape & arterial pathways will be necessary, including the relocation of some external storage & playground equipment to accommodate the new build.

This will mean a portion of the Cost of Works will have to be dedicated towards demolition works to facilitate the new infrastructure which, in accordance to the Structural Engineer's Rationale Statement, will require *re-support* of existing structural elements to suit the proposed modifications that will be required. The Structural Engineer has noted that should as-built structural conditions differ from the hypothesised structural makeup of the existing buildings, design adjustments may have to be carried out as the construction process proceeds. It is anticipated that no BQSH departures will take place.

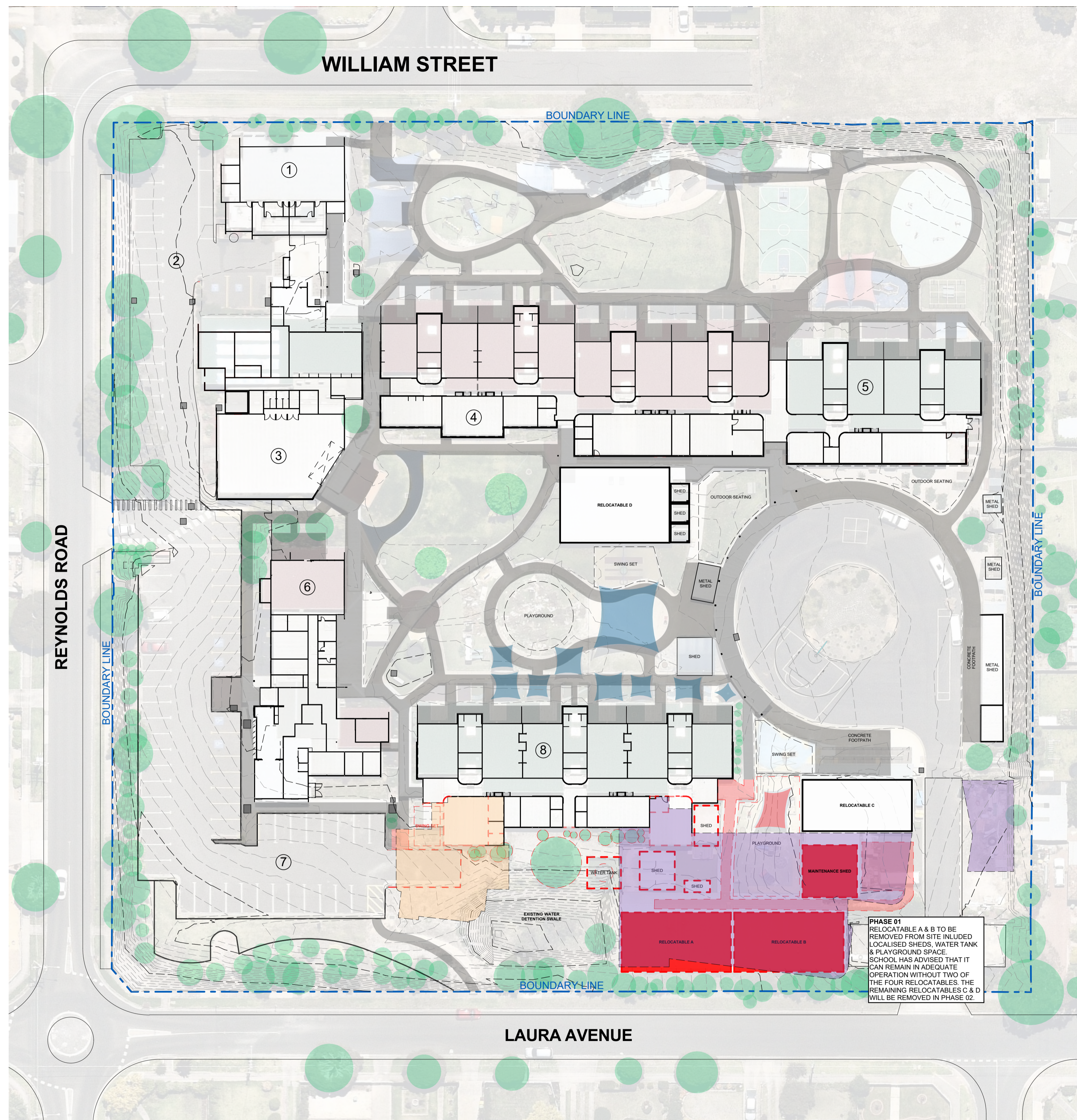
The school current has a total of four Relocatable Classrooms on site & has informed FMSA Architecture that they can adequately facilitate classes & the school curriculum as long as two Relocatables are retained at any given time during the Construction phase.

This will require the Architects to strategically position the new building footprints to alleviate any premature Relocatable removals until new classrooms are built to facilitate these classes. This takes place specifically where the Learning Centre footprint directly imposes over at least three Relocatables.

FMSA Architecture will propose to plot the Learning Centre to ensure that only two of the three localised Relocatables are removed which will allow the third to be retained

(Phase 01 Decanting). This retained Relocatable will then be removed in a Phase 02 Decanting process along with the Relocatable located further North-West of the site.

Further discussions will be carried out between Architect & school representatives in the Design Development phase. Refer to the following Construction & Decanting Plan.



EXISTING SCHOOL INFRASTRUCTURE

- 1 SWIMMING POOL
- 2 CARPARK (NORTH)
- 3 MULTI-PURPOSE BUILDING
- 4 MIDDLE LEARNING COMMUNITY BUILDING
- 5 SENIOR LEARNING COMMUNITY BUILDING
- 6 ADMINISTRATION BUILDING
- 7 CARPARK (SOUTH)
- 8 JUNIOR LEARNING COMMUNITY BUILDING
- 9 EXISTING BUS LOOP ROAD

NOTES

- LEGEND**
- EXISTING SHADE SAIL
 - EXISTING TREE
 - EXISTING PATHWAY
 - PROPOSED PATHWAY

NOTES
TREES & FLORA LOCATIONS SHOWN INDICATIVELY. REQUIRED REMOVALS TO BE FURTHER DEVELOPED IN DESIGN DEVELOPMENT STAGE

REV	DATE	BY	CHK	DESCRIPTION
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PROJECT
Barwon Valley School - Stage 2

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Construction & Decanting: Phase 01

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17. Safety in Design

Please refer to the Safety-In-Design Report & Register included in the Appendix 29 along with the completed Form 05. Specific safety items that were discussed and resolved with the school during the Schematic Design process are as follows:

- Elimination of nooks where possible to ensure clean lines of vision throughout the school premises & particularly for out-of-hours street view surveillance
- Increase of glazing to ensure maximum visual accessibility throughout the new facilities
- A lockdown management plan in the event of an emergency that necessitates staff & students to remain within the premises
- Accessibility control throughout the school grounds. Given the nature of the student's disabilities, staff have stressed the importance of channelling student movement throughout the school. This can be achieved using lockable fenced areas, security doors & minimisation of blind spots in the school yard
- Strategic elimination of corners in high trafficable areas to minimise clashes of perpendicular-running students / staff
- Inclusion of external undercover areas bridging between buildings to protect students from the inclement weather
- Ease of access from the carpark to the new Therapy Hub Nurse's Office. This space must also facilitate stretcher-bed compliance.
- Nurse's Office accessibility to both the Acc. WC & the First Aid Room.
- Appropriately designed Sensory Rooms which will accommodate the student's needs
- Appropriate colour palette internally that do not affect student wellbeing

18. Local Jobs First Policy Compliance (registration)

In accordance with the Local Jobs First Policy requirements, this project will be registered with ICN prior to proceeding to tender so that a Contestability Assessment can be prepared and included with the Tender documents.

The VSBA have confirmed that the project does not need to be registered as a design project with ICN prior to this to obtain an Interaction Reference Number.

CostPlanningManagement

19. Cost Plan B

The priority projects identified in the Asset Management Plan are:

1. New Learning Centre & Materials Technology; associated siteworks & landscaping; retrofitted classroom
2. New Therapy Hub; associated siteworks & landscaping
3. New Gymnasium & retrofitted Performing Arts space
4. New STEAM Hub; associated siteworks & landscaping; retrofitted Arts classroom

These works bring the Total Project Cost to Not Relevant which is Not Relevant above the advised budget of Not Relevant and is an increase of the budget deficit from AMP2 stage. It is noted that this cost includes a Not Relevant construction contingency (15%).

As such, we are comfortable that during the following design phases the scope of works will be more even more clearly defined.

As the project progresses through Design Development Phase and Tender Documentation phase, a constant review and refinement process will be made to ensure that the project is as cost effective as possible and therefore, provide the best possible outcomes from the available budget.

Please refer to the Cost Plan B, Form 16 and PBE included in the *Appendix 30* for more detail.

Tender Options in Cost Plan B are currently not shown & will be identified in the next phase and finalised in consultation with the school prior to proceeding to Tender.

20. Special Factors

The Cost Plan includes Special Factors:

1. Demolitions
2. Interfacing Works to new Build
3. Refurbishment Works to Existing Build
4. Decanting Works
5. Soil Remediation
6. Services Estimate as per Stantec dated 20th of April 2021
7. Adverse Soil Conditions

The total Special Factors equates to Not Relevant which include Builder's preliminaries, overheads & margin.

These special factors are considered to all be reasonable and required as part of the scope of works.

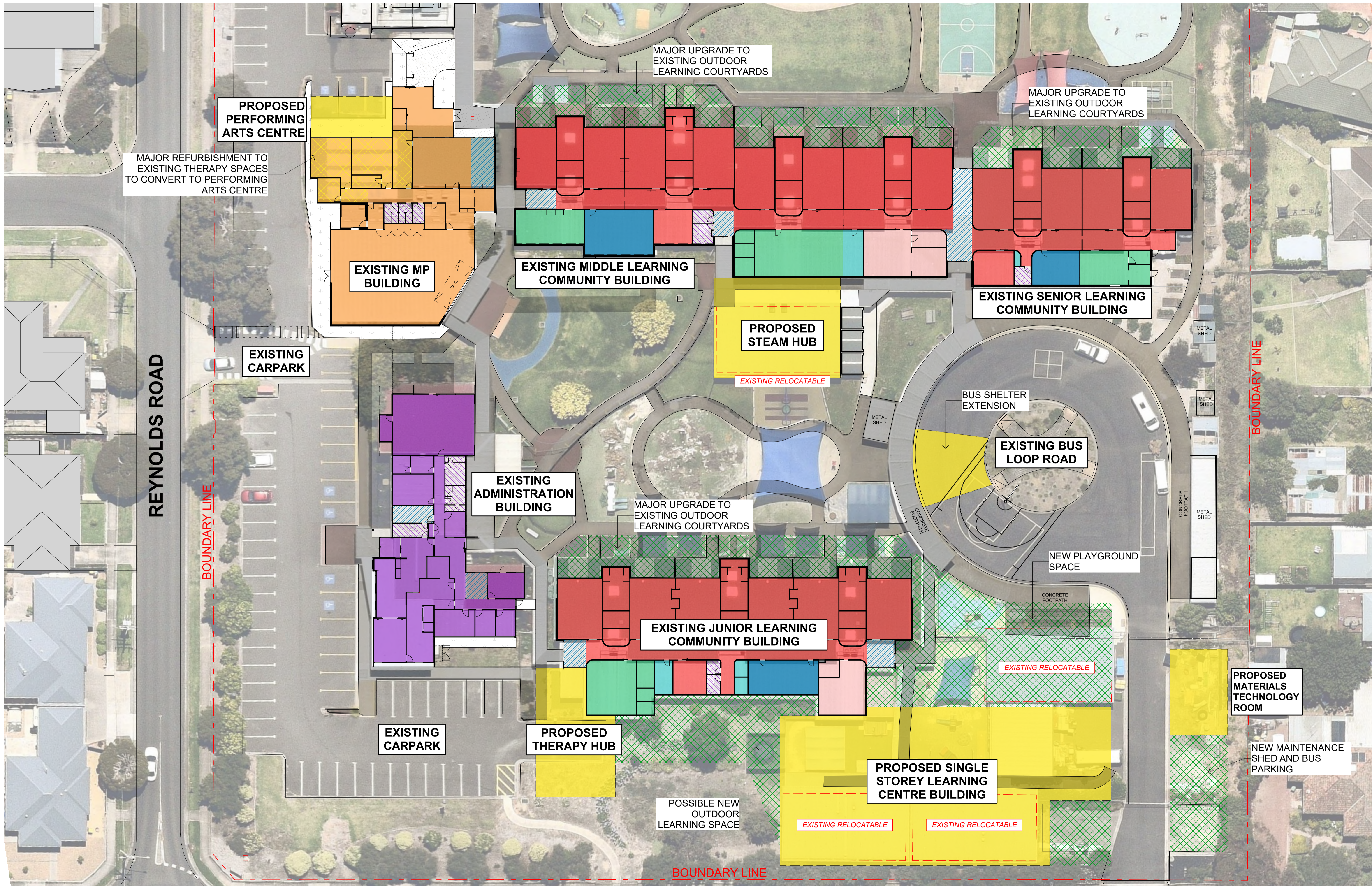
21. Third Party Contributors

At this stage, Third Party Contributors are not applicable.

Appendices

22. Approved Spatial Relationship Plan

Refer to the following approved Spatial Relationship Plan.



NOTES

■ LEARNING BASE (1,809m ²)	■ CLEANING, MAINTENANCE, STORAGE (187m ²)	■ EXISTING PAVEMENT / PATHWAYS
■ STAFF WORK (150m ²)	■ LEARNING RESOURCE CENTRE (132m ²)	■ STUDENT / STAFF AMENITIES (81m ²)
■ RESOURCE INTENSIVE LEARNING (281m ²)	■ ADMINISTRATION (455m ²)	■ CIRCULATION (147m ²)
■ SCHOOL COMMUNITY HUB (598m ²)	■ PROPOSED EXTENSION (1,659m ² + 96m ² BUS SHELTER)	- - - PROPOSED REMOVAL / DEMOLITION

REV	DATE	BY	CH	DESCRIPTION
01	16/02/2021	DC	DC	Master Plan Refresh Issue

REV	DATE	BY	CH	DESCRIPTION

MASTERPLAN
NOT FOR CONSTRUCTION

PROJECT ADDRESS
76-94 Laura Avenue, Belmont VIC 3216

FOR
Victorian School Building Authority

CAD FILE 2105 BVS_stage2 - Final MP Refresh pin

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PROJECT Barwon Valley School	TITLE Masterplan (Optional Single Storey Layout)	SCALE 1:250 @ A1	PROJECT DWG NO. REV
DRAWN FS	CHECKED DC	PLOT DATE 16/02/2021	2105 MP.00.02 01

23. Site Investigations

Please find the following existing conditions documentation:

- Asbestos Materials Assessment
- Hydrant Pressure & Flow Test
- Geotechnical Assessment
- Vehicle Pavement Investigation
- Ground CBR Assessment
- Underground Service Detection
- Dial-Before-You-Dig Report
 - Ausnet
 - Barwon Water
 - CitiPower
 - COGG
 - NBN
 - TPG

24. School Consultation

Please refer to the following Meeting Minutes between FMSA Architecture & Barwon Valley School.

25. Other Consultation

No additional consultation was conducted.

26. Building Surveyor's Statement

Refer to following Building Surveyor's Statement.

The minor compliance issues noted will be addressed in the future stages of the project.

27. Schematic Design Options

The following are alternate design options proposed to the school.

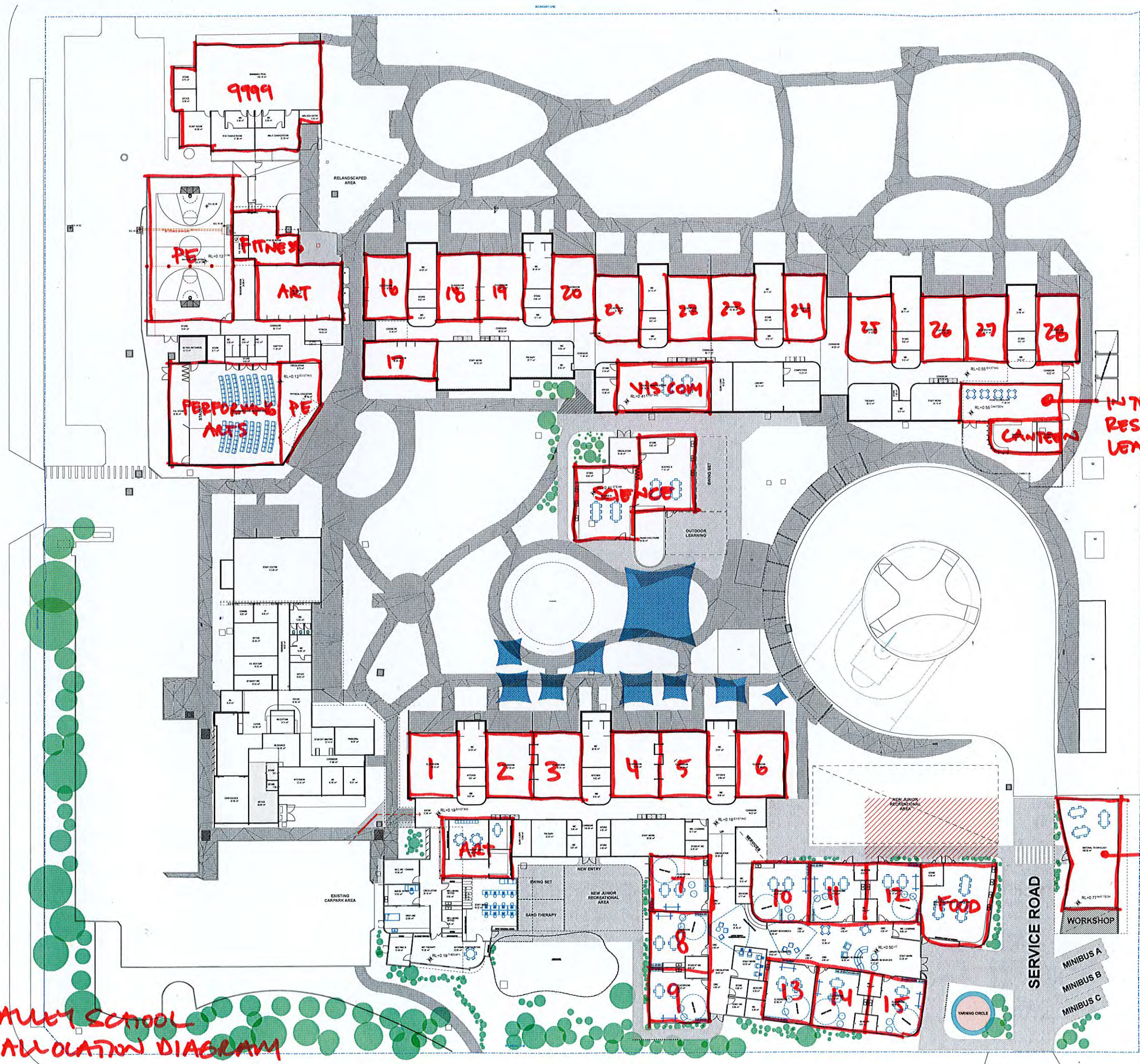
These were subsequently not approved & henceforth not proceeding.

28. Area Analysis

The proposed areas of the new build align with the School Facilities Area Schedule & thus shows that the school's Stage 2 proposed design is to entitlement albeit the Learning Base entitlements which are slightly over due to the size of the existing Amenities.

The outdoor circulation remains over-entitled as per existing conditions & the Hydrotherapy building has been allocated as no-entitlement space as agreed in principle during the AMP2 Refresh stage.

Please refer to the Excel spreadsheet file of the Form 15 provided separately.



INTEGRATED RESOURCE INTENSIVE LEARNING

MATERIALS TECHNOLOGY

2/10/21
 BARNON VALLEY SCHOOL
 FORM 15 ALLOCATION DIAGRAM

29. Safety in Design

Please refer to following Safety in Design Checklist along with a copy of *Form 05: School Occupational Health and Safety* Letter endorsed for and on behalf of the school council.

A copy of the Safety in Design Report & Register Appendix has also been included.

30. Cost Plan B

Please find following a copy of the summary page from the Cost Plan B spreadsheet prepared by the Quantity Surveyor along with the Schematic Design PBE prepared by the VSBA.

A full copy of the Cost Plan spreadsheet and Form 16 is provided separately.

31. VSBA Cost Plan Template

Refer to the following [Cost Plan Template](#).

32. Form 16: Cost Plan Summary Analysis in Excel format

Refer to the *Form 16: Cost Plan Summary Analysis*.

33. IMTD Consultation

No consultation with IMTD have taken place as it is deemed too primitive at this stage.

The Electrical Consultant has identified the necessity to expand the existing Comms Rooms with a modification to the relevant connections. This notion will be further explored & developed in the Design Development Stage.

34. School Endorsement

Please find following a copy of the School's endorsement of this Schematic Design Report.

35. Services & Maintainability Report

Please find following a copy of the Services & Maintainability Report from our Services Consultants of this Schematic Design Report.

PREP Meeting Minutes

Review Guide 10 – PREP Minutes Ver. 5 - Issued 06 August 2019

PRJ No.	5368_02	Meeting Time & Date	20 May'21
Project name	Barwon Valley School	Recorded by	Not Relevant
Meeting/subject	SD PREP Meeting	Reviewed by	N/A
Location:	Webex	Total Pages	2 + attach

ATTENDEES:

Not Relevant	
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Item	Topic	Action by	Action due
1	INTRODUCTION		
1.1	The meeting was opened by VSBA Project Officer.	Note	
2	SAFETY MOMENT		
2.1	Aurecon CPAS lead the safety moment discussion.	Note	
3	PROJECT SUMMARY AND CHANGES SINCE THE LAST REPORT (IF ANY)		
3.1	<p>The PDC provided an overview of the project to date as per the design report and the changes after original SD report submission. This included discussing the following pertinent matters:</p> <ul style="list-style-type: none"> ■ PDC noted funding letter scope indicated replacing relocatables and upgrading multipurpose. ■ PDC noted that SD is reasonably in line with master plan refresh but have some tweaks. ■ PDC noted that canteen extension has been removed from cost plan and scope of works as a result of original SD. VSBA noted that as a minimum need to complete Minister's letter scope so we have potential items to take out in DD and move into future stages. ■ PDC noted that bus shelter is not costed or within current scope ■ DET Region queried if on schedule. PDC noted that some toilets in learning base and excludes hydrotherapy pool. PDC also noted that SAM plan had issues with outdoor space being listed as outdoor cover but it's not. 	Note	

PREP Meeting Minutes

Review Guide 10 – PREP Minutes Ver. 5 - Issued 06 August 2019

Item	Topic	Action by	Action due
4	DISCUSSION OF REVIEW AND KEY ISSUES		
4.1	Refer attached Review Tracker.	Various	Various
4.2	DET Region noted that some rooms are under 60m2. School noted that plan to use the extension in the south east for prep and junior school. DET Region requested for PDC to review if can try to do 60m2. School noted that happy for reduced breakout spaces externally to reach 60m2. PDC noted will look into it.	PDC	DD
4.3	DET Region queried what the canteen works were due to cost. PDC believed around Not Relevant PDC noted it may be worthwhile reviewing some of the priorities in next phase (ie is tech staying versus canteen). PDC also noted if STEAM hub was removed form scope then may be able to complete all in stage 1. The School also noted that a lot of the students don't go to new ancillary spaces and materials etc are usually brought to them. DET Region queried calling it STEAM space. VSBA noted need to review early in DD including tender options and items needed to get to budget.	PDC	DD
5	PROJECT PERFORMANCE: PROJECT COSTS AND BUDGET		
5.1	The PDC provided an update on the budget. PDC noted that still 6 or 7% over budget so still have work to do in DD.	Note	
6	PROJECT PERFORMANCE: TENDER OPTIONS		
6.1	Discussed in Aurecon comments schedule.	Note	
7	PROJECT PERFORMANCE: CURRENT PROJECT FORECAST DATES		
7.1	The VSBA noted the project is slightly behind program. The PDC noted it will aim to hit DD date of the 13 th Jul'21 or make up delay at least for Tender Documentation submission by 5 th Oct'21. VSBA noted need to be mindful avoiding tender period going into Xmas.	Note	
7.2	Discussed PC date may be late 2022/early 2023. To be further reviewed however.	Note	
8	KEY PROJECT RISKS AND MITIGATION		
8.1	The below risks were discussed at the meeting: <ul style="list-style-type: none"> • Program – PDC reiterate need to meet design program to avoid xmas tender delays • Finalise site due diligence – PDC noted looking to finalise to reduce risk. • Escalation/Material shortage – PDC noted an initial concern here. PDC to work with QS on this in next phase • School operational considerations – PDC noted that given SDS school and tight site, risks to avoid operational issues need to be an ongoing consideration. 	PDC to manage	Ongoing
9	LESSONS LEARNED		
9.1	VSBA just noted aim for 5 lessons learned to be uploaded to iTWOcx by end of project.	Note	
10	QUESTIONS?		
10.1	School requested DET Region to get in touch with regard to need to insure hydrotherapy pool.	DET Region	DD

PREP Meeting Minutes

Review Guide 10 – PREP Minutes Ver. 5 - Issued 06 August 2019

Item	Topic	Action by	Action due
10.2	VSBA requested for any further comments. School had no comments but noted they will need to get back to staff that may not be able to do it all.	Note	
11	ENDORSEMENT		
11.1	The VSBA Project Officer endorsed the SD to proceed to DD.	Note	
12	NEXT STEPS SUMMARY		
12.1	No discussed. Refer actions within minutes.	Note	