Te Tāhuhu o te Mātauranga
Ministry of Education

Great Schools, Great Spaces

Introducing Standard Designs – sector webinar

Te Kāwanatanga o Aotearoa
New Zealand Government

Opening karakia – Pou Hiri

Pou hiri	*May clarity be yours*
Pou rama	*Through respect*
Pou o te whakairo	*May understanding be yours*
Pou o te tangata	*The virtues which bind us as one*
Pou o te aroha	*Through reflection*
Te pou e here nei i a tātou	*May we be filled with wellbeing,*
Mauri ora ki a tātou	*Through personal endeavour*
Hāumi ē! Hui ē! Tāiki ē!	*Draw together! Affirm*

The school property portfolio

Jared Kwok, School Property Delivery Team Manager

[IN-CONFIDENCE - RELEASE EXTERNAL]

Key stats

Size

- Around 2,100 state schools
- 8,000 ha of land
- Valued at approximately $33.5 billion – 2.1b allocated from B26
- Approximately 16,000 buildings and 37,500 classrooms
- NZ's second largest property developer.

Improved Value for Money

28% average reduction in classroom cost since standard designs introduced.

Age of our Portfolio

Many schools were built between the 1950s and 1970s.

Our buildings

About 90% of school buildings are of lightweight timber framed construction.

Primary schools

Make up approximately 75% of the portfolio.

B26 Standardisation projects

- 51 projects using Standard Designs through B26
- 37 single-storey builds; 14 multiple-storey
- 82 projects have/will go through Standard Planning
- Most are in pre-design – first ones out to tender soon.

Why standardise? The case for change

The 2024 Ministerial Inquiry found the school property system was not fit for purpose.

1. **Slow delivery and cost escalation**
   Projects were taking too long to move from need, through to planning, design and delivery

2. **High levels of design effort and inconsistency**
   The system became too reliant on bespoke design and project by project interpretation

3. **Fragmented roles and siloes**
   Demand forecasting, investment decision making, procurement, financing and delivery were not aligned.

Moving to a simpler, more streamlined system

- Standardisation is a single, streamlined system for managing all school property projects
- It’s the default approach for all school growth projects going forward
- Integrates the design, planning and delivery (including procurement) of projects to give better value for money, greater consistency and faster delivery
- Most projects will be led by us, working with schools, designers and builders
- Schools can opt to lead their own projects, subject to capacity and capability.

Standardisation and NZSPA

- On 1 October 2026, the New Zealand School Property Agency (NZSPA) is stood up as a Crown entity, separate from the Ministry of Education
- It will manage, plan, build, maintain and manage the education property portfolio
- It will provide improved property services, drive better value for money, give better service to schools and have greater transparency
- The way schools, suppliers, builders and designers engage with NZSPA will be largely the same
- Standardisation will continue to be embedded – with a focus on efficiency, value for money, equity, quality and consistency.

The evolution of Standard Design

Neil Wyatt, Principal Advisor, School Design

[IN-CONFIDENCE - RELEASE EXTERNAL]

What is Standard Design?

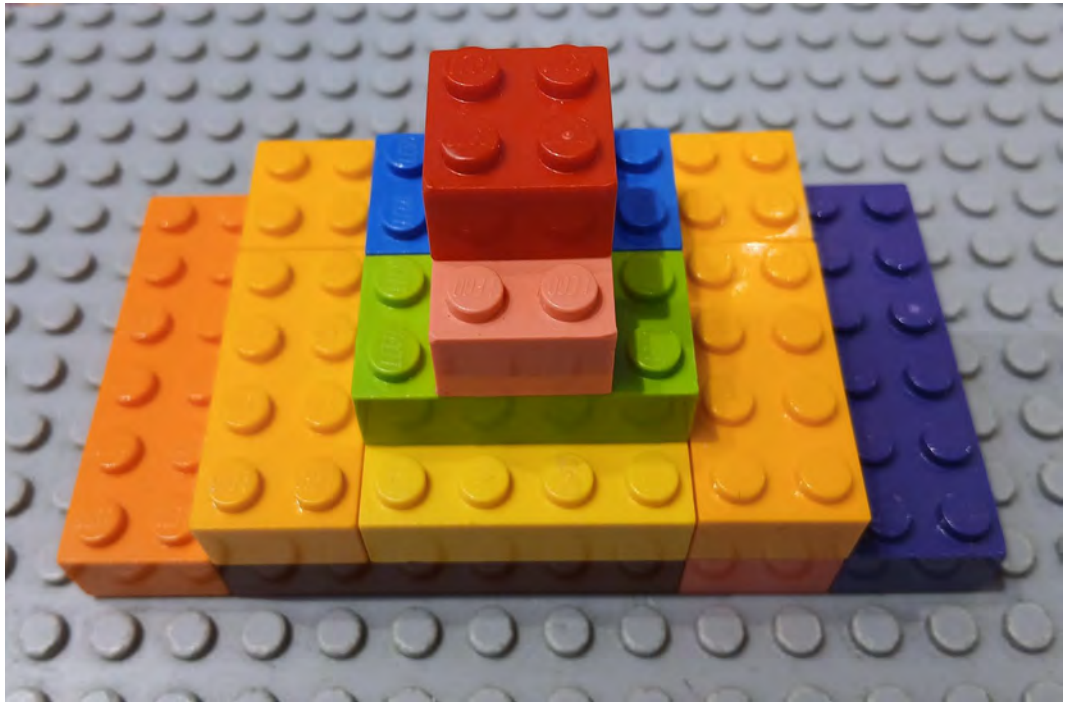
- Pre-fixed designs for the 6 most common building types that work for most schools
- Developed alongside educators, designers, suppliers and other experts
- Structure, core systems, safety and compliance, fire, acoustic and thermal requirements are locked in – but adaptable to fit existing school sites and features
- Schools have choices over colours, cladding, finishes, connections, materials etc to reflect their identity, culture and community
- Gives spaces that are versatile, scalable, and easier to build and maintain
- Guidance is available on our website: Standard designs for school buildings and layouts - Ministry of Education

The way things were…

- High cost, bespoke design solutions
- Multiple heating, ventilation and cooling solutions
- Ad-hoc delivery and procurement
- Extensive design assurance and governance of Ministry design standards
- Ongoing compliance oversight
- Project-by-project decisions.

Where we wanted to go…

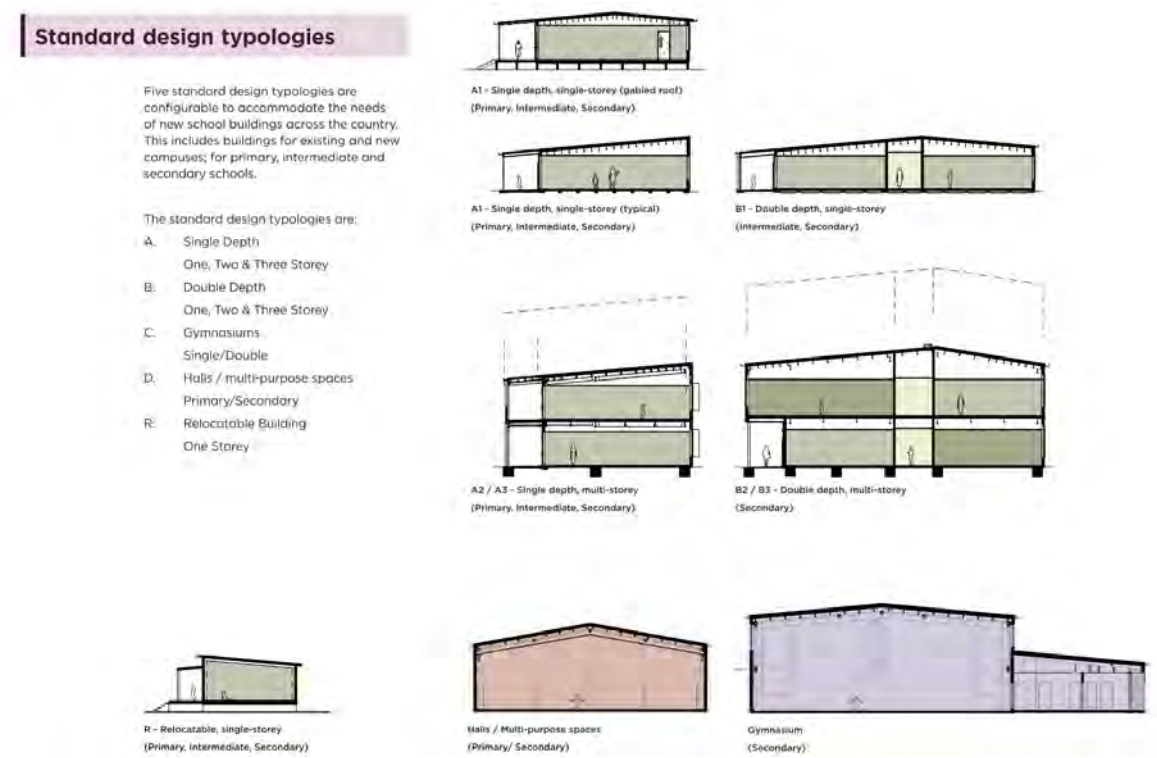
- Proven designs, safer and easier to construct = greater equity across the portfolio
- Repeatable typologies with consistent construction details, leading to reduced cost/m2 and per teaching space
- More efficient design and build process from start to finish (up to 40% less time than before)
- Not forcing design decisions onto schools and improving relationships
- Safe, warm and dry buildings that last and are easier to maintain.



Where we've landed…

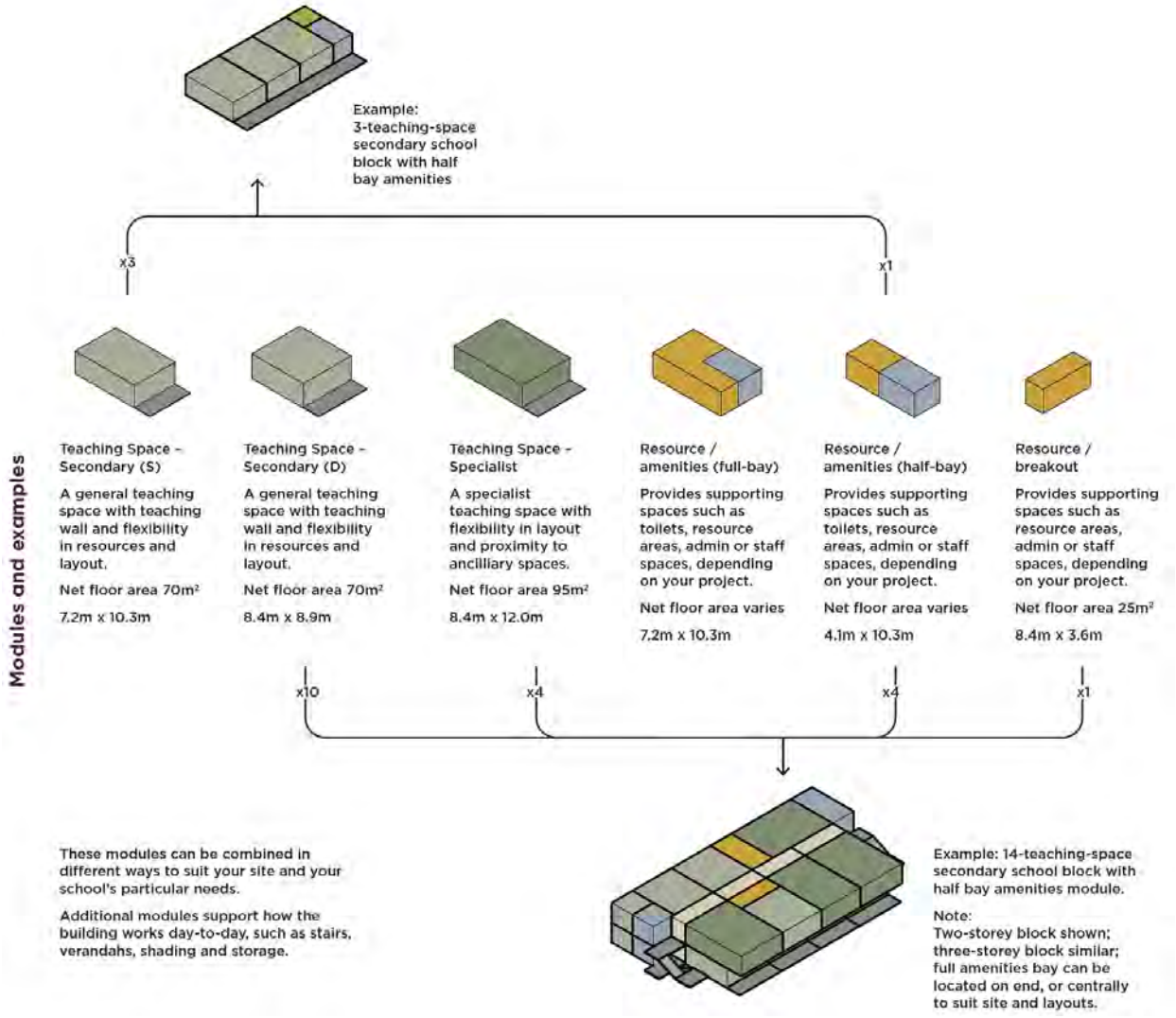
- Design solutions that are more consistent, affordable and efficient to deliver
- Designs that meet Ministry and NZBC requirements, make sense for most schools, and can be tailored to meet individual needs
- A smoother design and planning process for schools
- Time and cost-savings through better planning, design and standardised structures and materials.

Standard Design typologies

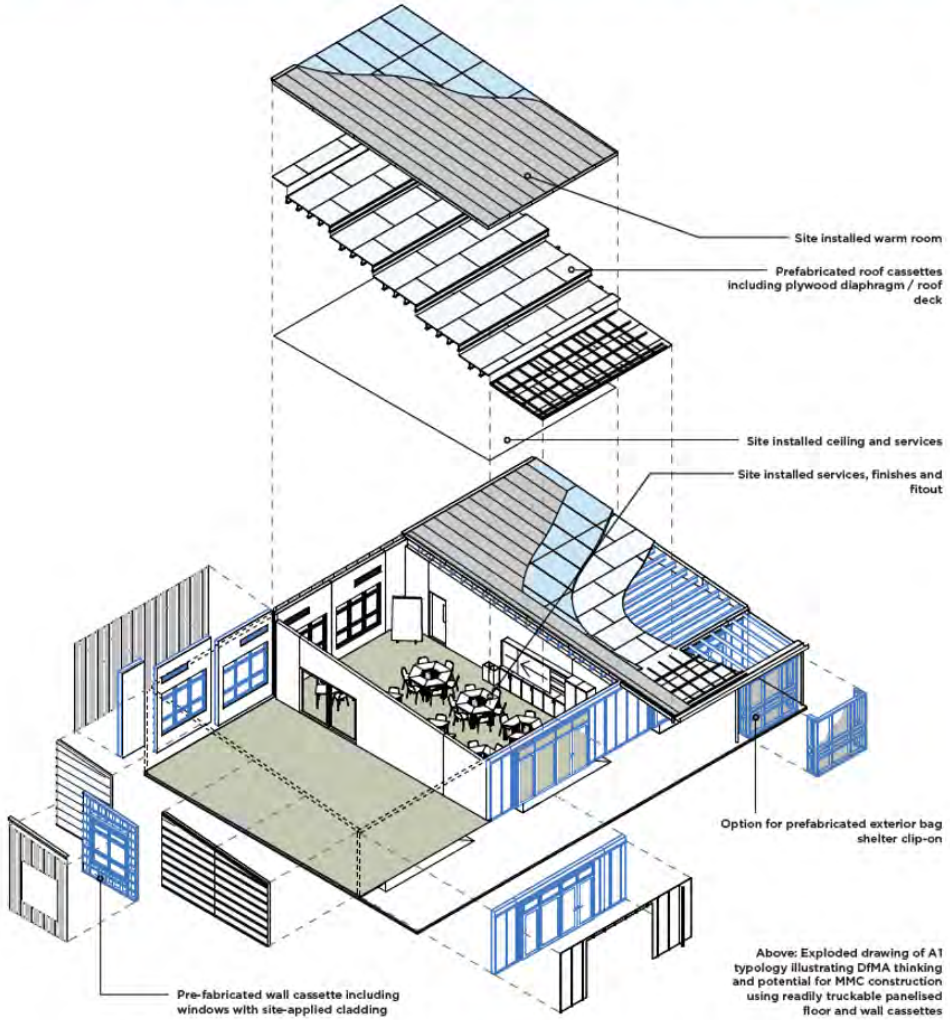


How our building modules work

- Teaching modules provide a full teaching space with some extra area for resources as needed
- Amenity modules can provide toilets, resources, admin/support spaces, depending on project scope and what's already on site
- Over time, we may develop more standard modules as needed
- Modules that fit within a pre-defined structural grid.

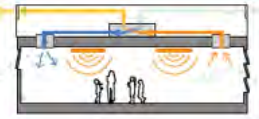
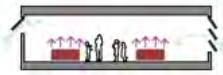
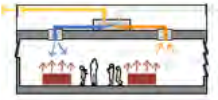
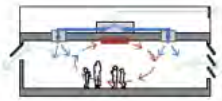


Standard Typologies- Kit of parts

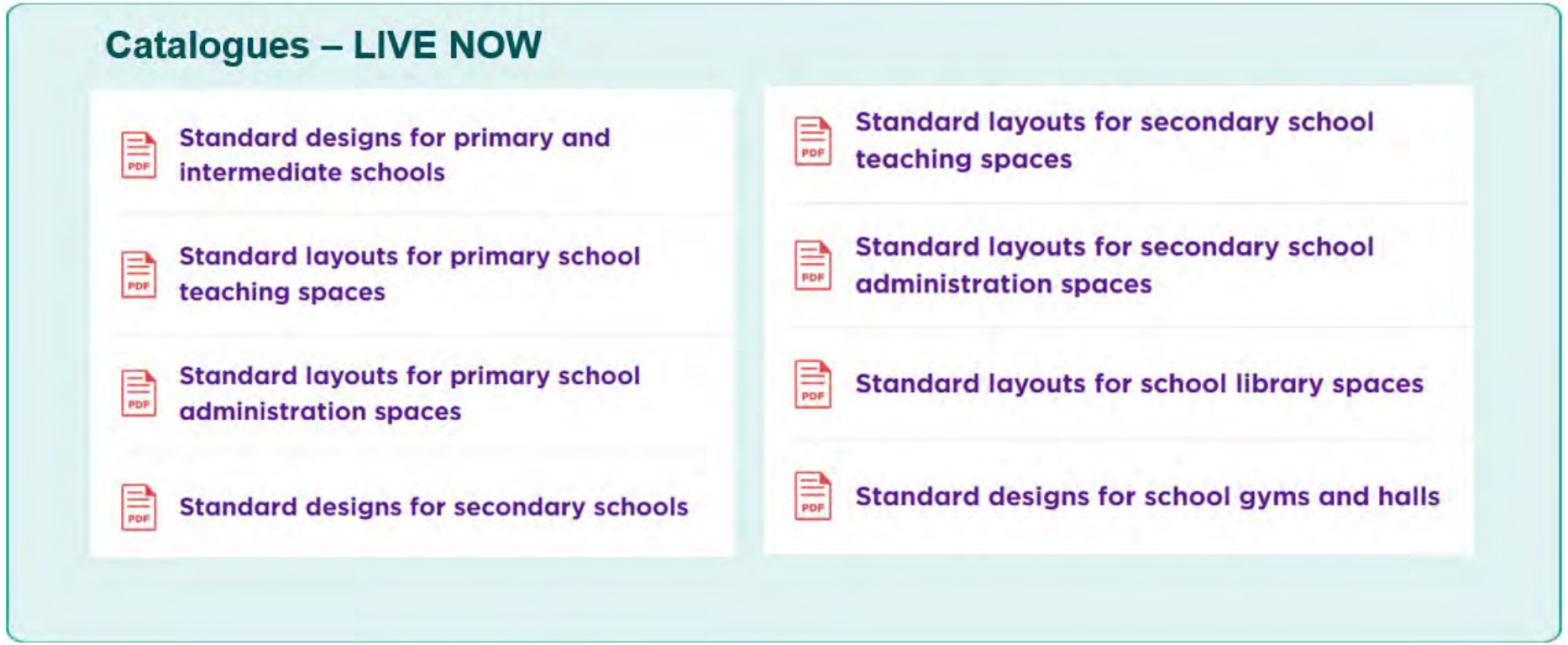


Above: Exploded drawing of A1 typology illustrating DfMA thinking and potential for MMC construction using readily truckable panelised floor and wall cassettes

Heating & ventilation

	NZBC climate zones 1, 2 & 3	NZBC climate zones 4, 5 & 6
Default This is the standard approach for most schools. It provides a simple, effective solution that works well in typical site and climate conditions and is the starting point for all projects.	 Electric ceiling radiators and natural ventilation.	 Electric ceiling radiators and ducted mechanical heat recovery. Natural ventilation during summer.
Alternative 01 This option may be used where site conditions require a different approach. Your project team will work with you to confirm whether this will work for your building and layout, and whether it is needed, based on site constraints, or existing infrastructure.	 Airsource heat pumps and wall radiators with natural ventilation.	 Airsource heat pumps, wall radiators and ducted mechanical heat recovery. Natural ventilation for summer.
Alternative 02 This option is used only in specific situations where other approaches are not suitable. Because of upfront and ongoing cost, this option should be supported by a clear reason as part of the project process.	 Heatpump VRF-AC cassettes and ducted outdoor air supply. Natural ventilation openings provided for optional use.	 Heatpump VRF-AC cassettes and ducted mechanical heat recovery unit. Natural ventilation openings for optional use.

Launch of Standard Design guidance



Download here: [Standard designs for school buildings and layouts - Ministry of Education]

Coming soon…

Standard Designs for Kura and Learning Support (October)

Alignment with Standard Planning

- Standard Design and Standard Planning work hand in hand – ensuring projects are feasible and buildable before any work starts
- Standard Planning ensures the project fits within the existing school site and features, and is fit for purpose to meet current and future needs
- Focuses on partnering with schools to develop the right plan for their school – taking a consistent and proactive approach to planning
- Includes workshops and planning discussions to develop a planning summary document to inform the business case and funding
- Participating in Standard Planning does not guarantee schools' funding – but it means the project is shovel-ready when funding is available.

What does Standardisation mean for you?

Jared Kwok, School Property Delivery Team Manager

[IN-CONFIDENCE - RELEASE EXTERNAL]

What Standardisation means in practice

What it IS

- A clearer way to plan, design and deliver new school builds.
- A consistent starting point, avoiding redesign and bespoke builds.
- Less redesign of known solutions
- More focus on site-specific risks and constraints
- A collaborative, inclusive and open process involving schools.
- Consistency with flexibility within clear guardrails.
- Evidence-based improvement, informed by feedback.

What it ISN'T

- A 'one-size-fits-all' approach.
- Removing school identity or expression.
- A rigid approach with no flexibility.
- Removing all choice for schools.
- A finished product – site-specific design will still be required.
- A replacement for good planning and open school engagement.

KEY MESSAGE:

Standardisation means schools get well-designed, proven building solutions that are faster to deliver, offer better value for money and still provide flexibility and choice.

Key changes

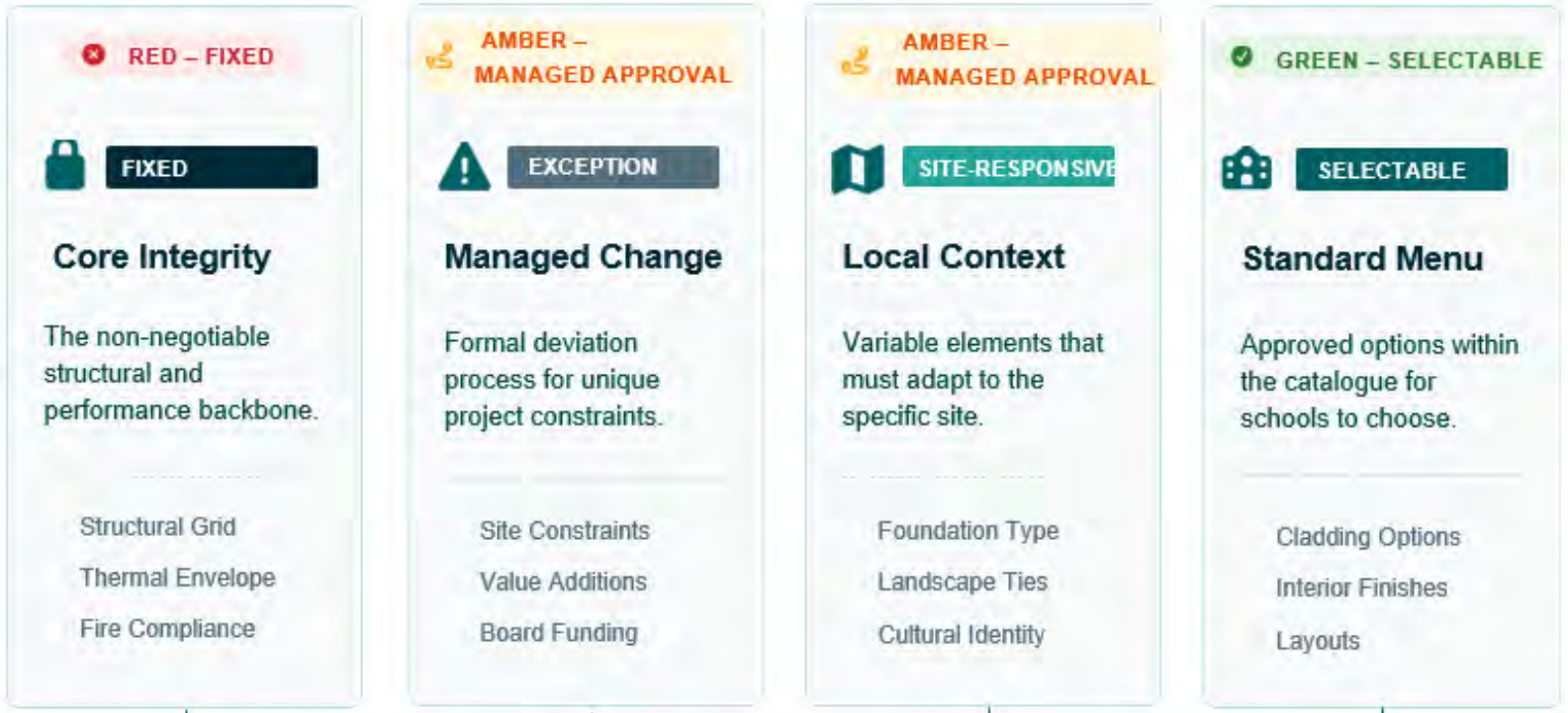
To support a more standardised delivery model, we are introducing new planning, design and governance documentation.

	Previous	New
Scoping Documents	Project Scoping Document	Project Scoping Document **Project Scope Summary**
Principal Requirements (PR's)	PR's	**Planning Summary** **Revised PR's**
Design Documentation		**Developed Designs** **Project Master Document** **(Document and Capture Design deviations)**
Guidance Documents		**Standardisation Guidelines** **Shortlisted Materials and Systems**

Guidelines

How it works

Flexibility is channeled through four distinct tiers to ensure technical compliance and value while responding to school and site needs.



KEY:
DFA – Delegated Financial Authority
SDT – School Design Team
PM - Project Manager
SME – Subject Matter Expert

Need guidance? Refer to the Standard Design Guide or seek advice from Design Assurance, Standardisation Team, Asset Management or relevant SMEs.

Applying Standard Design in the real world

Trevor Watt, Director, Athfield Architects Limited

[IN-CONFIDENCE - RELEASE EXTERNAL]

Case study: Adapting a standard building to a site

Vehicle for testing Standard Design solutions against:

- Ministry of Education Processes
- School Engagement
- Planning & Consenting Processes
- Site Specific integration (Detailed Design Completion)
- Contractor Engagement & Input
- Construction.

Providing feedback loop so iterative improvements to Standard Designs and processes can be considered for future projects.

Project process stages

Effectively three main stages:

Stage 1: Standardised Planning / Business Case (Ministry led)

Stage 2: Preliminary Design / Site Investigations (Consultant led)

Stage 3: Design Completion / Construction (Contractor led).

Stage 1: Standard Planning / business case

Undertaken directly by the Ministry:

- School engagement on their requirements
- Confirmed space requirements
- Confirmed Standard Design typology and size
- Confirmed the building location on site
- Undertook due diligence on background site & planning information

The project budget was set based on the above.

Standard Planning

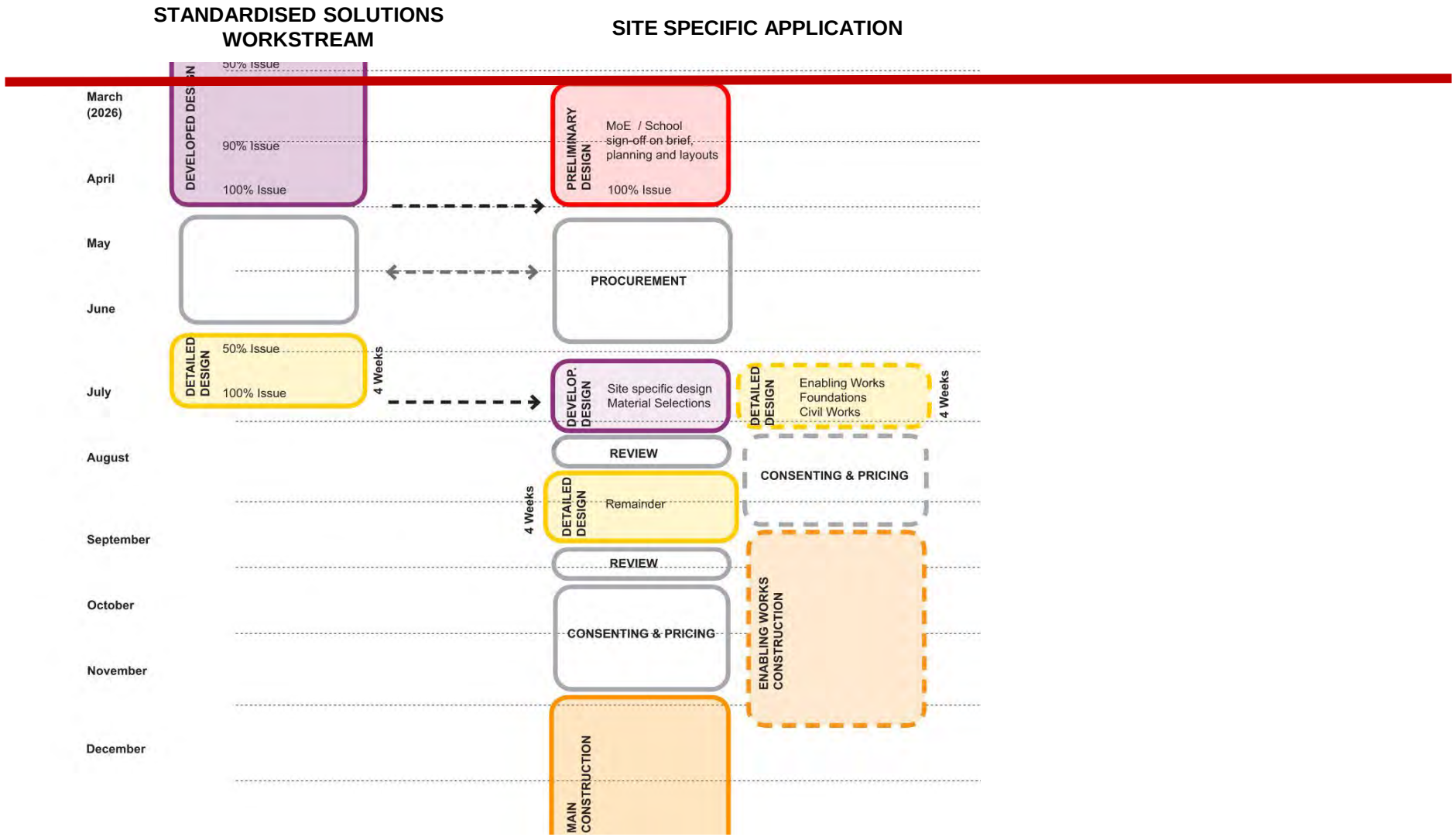
[IN-CONFIDENCE - RELEASE EXTERNAL]

Stage 2: Concept testing & investigations

Purpose:

- Test and confirm building location
- Finalise internal layouts with the school
- Identify and undertake key investigations (not completed in standard planning):
  - Geotechnical investigations (specific to the building location)
  - Electrical Infrastructure
  - Soil Contamination
  - Sewer Main Capacity & Condition
  - Transport & Planning
  - Topographical & U/g Services Survey
- Define project scope for procurement of next stage.

Programme

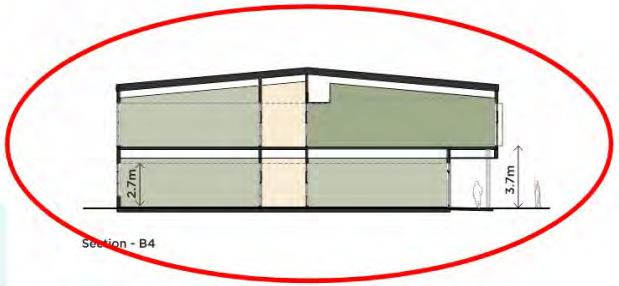


[IN-CONFIDENCE - RELEASE EXTERNAL]

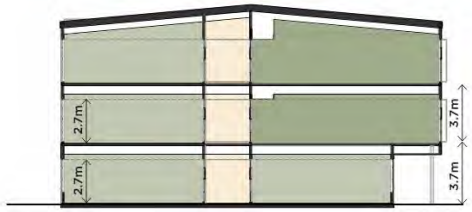
Brief

Type D2 **Double depth multi-storey II**

3-D Visualisation - B4



Section - B4



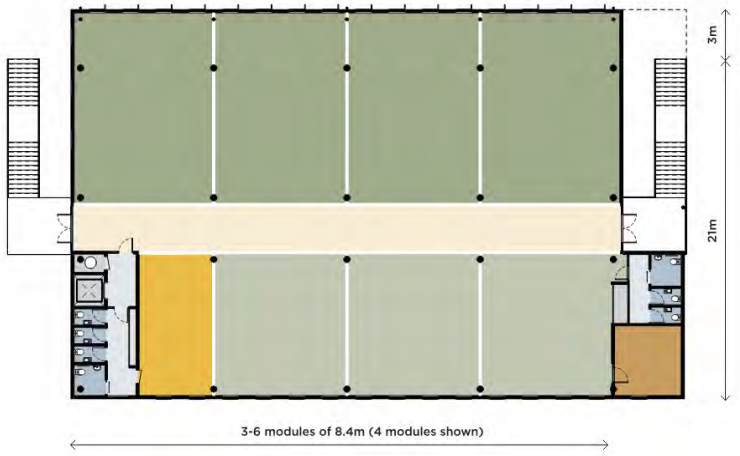
Section - B5

Multi-storey 24m deep plan for 13-33 teaching spaces

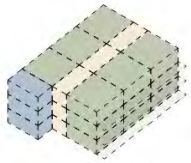
Standard 8.4m module (standard 72m² NFA) with deeper plan at upper levels for specialist spaces in portrait orientation (97m² NFA).

Colonnade at ground level. Suitable for learning, administration, and library spaces at secondary level.

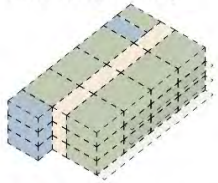
Steel moment frame structure with concrete mid-floors offering maximum flexibility.



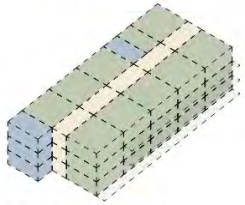
Upper Floor Plan - B4



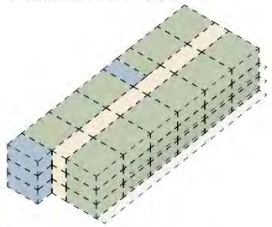
3 Module block; three-storey



4 Module block; three-storey



5 Module block; three-storey



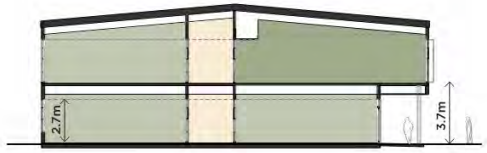
6 Module block; three-storey

Building location testing: Existing

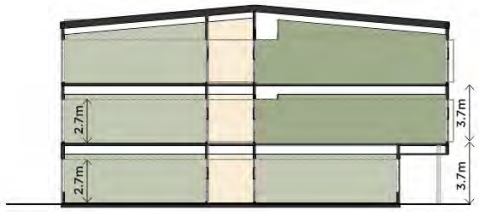
Building location testing: Proposed

Internal layout

3-D Visualisation - B4



Section - B4



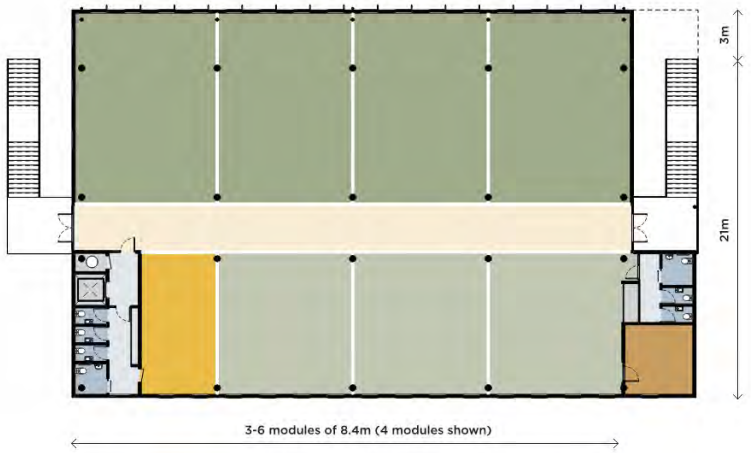
Section - B5

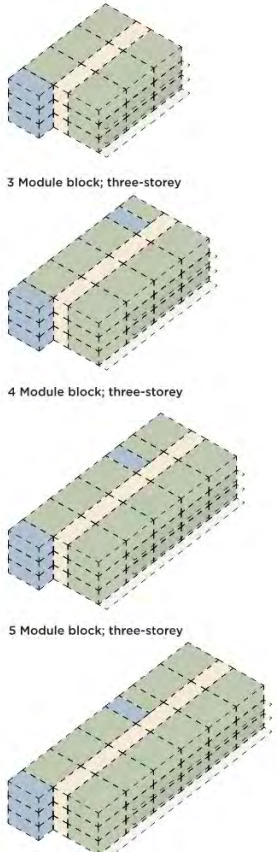
Multi-storey 24m deep plan for 13-33 teaching spaces

Standard 8.4m module (standard 72m² NFA) with deeper plan at upper levels for specialist spaces in portrait orientation (97m² NFA).

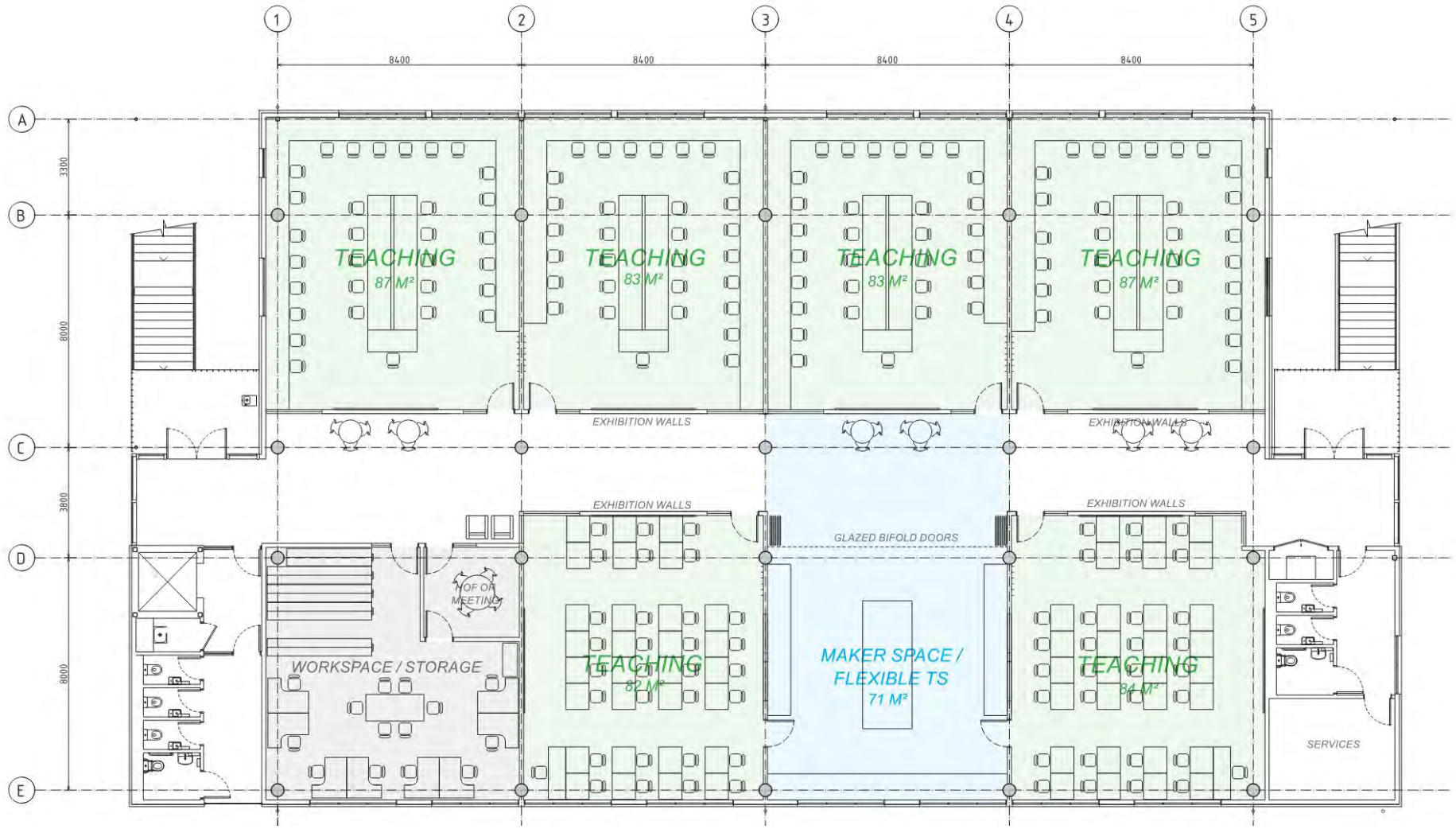
Colonnade at ground level. Suitable for learning, administration, and library spaces at secondary level.

Steel moment frame structure with concrete mid-floors offering maximum flexibility.





Internal layout: First floor

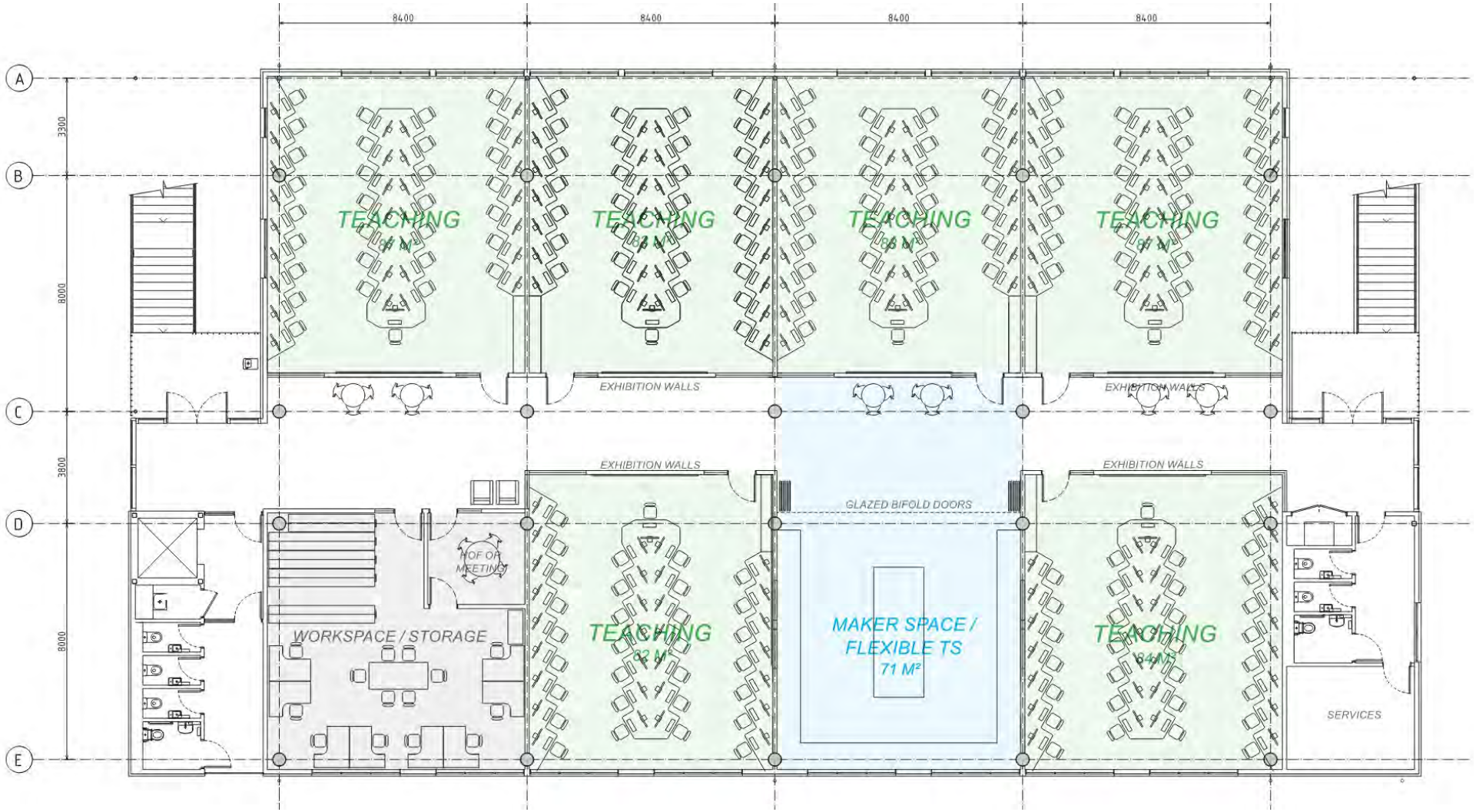


[IN-CONFIDENCE - RELEASE EXTERNAL]

Internal layout: First floor

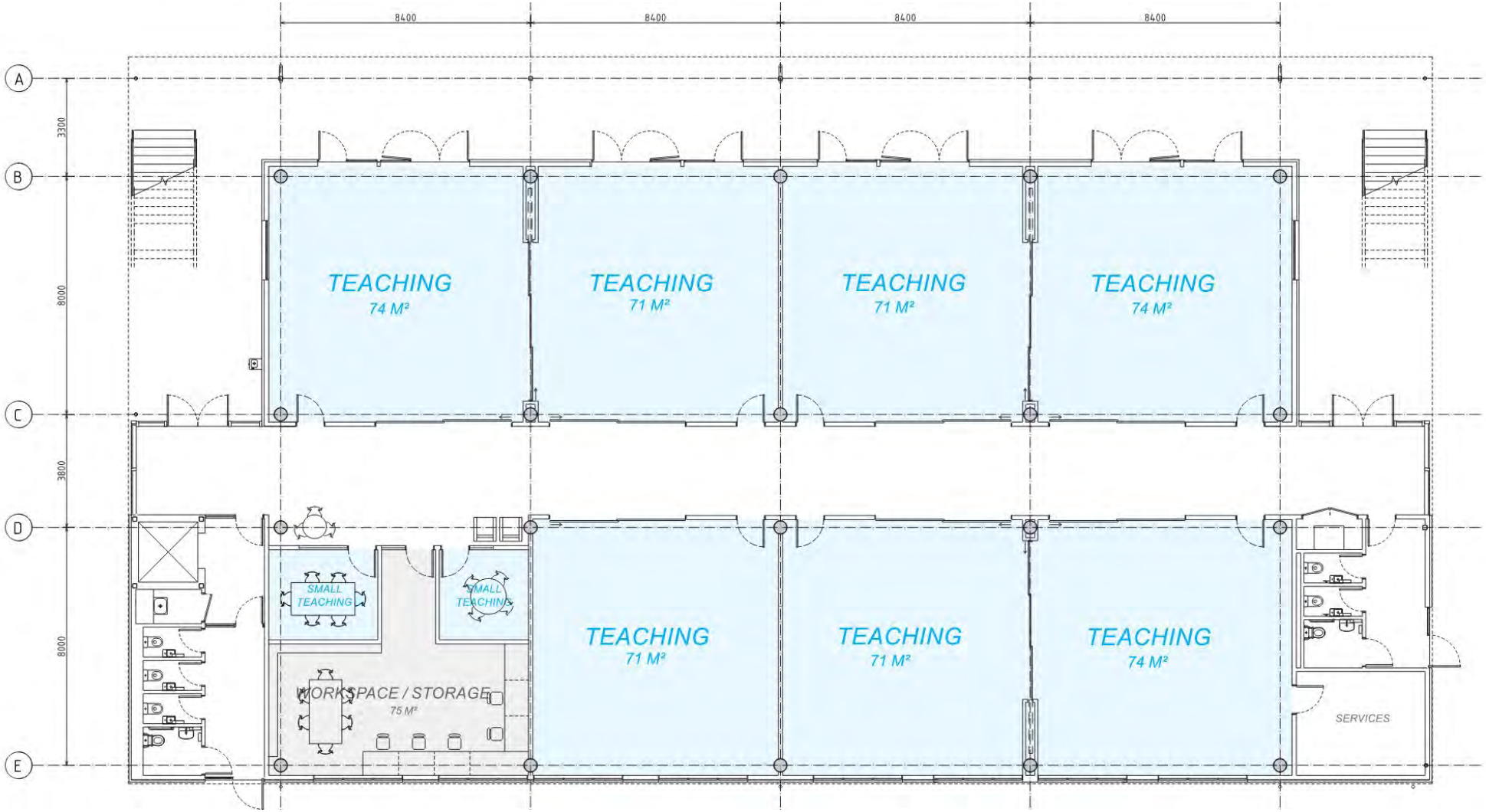
SIMILAR TO OPTION B: SCHOOL OF LANDSCAPE ARCHITECTURE
LINCOLN UNIVERSITY

First floor layout



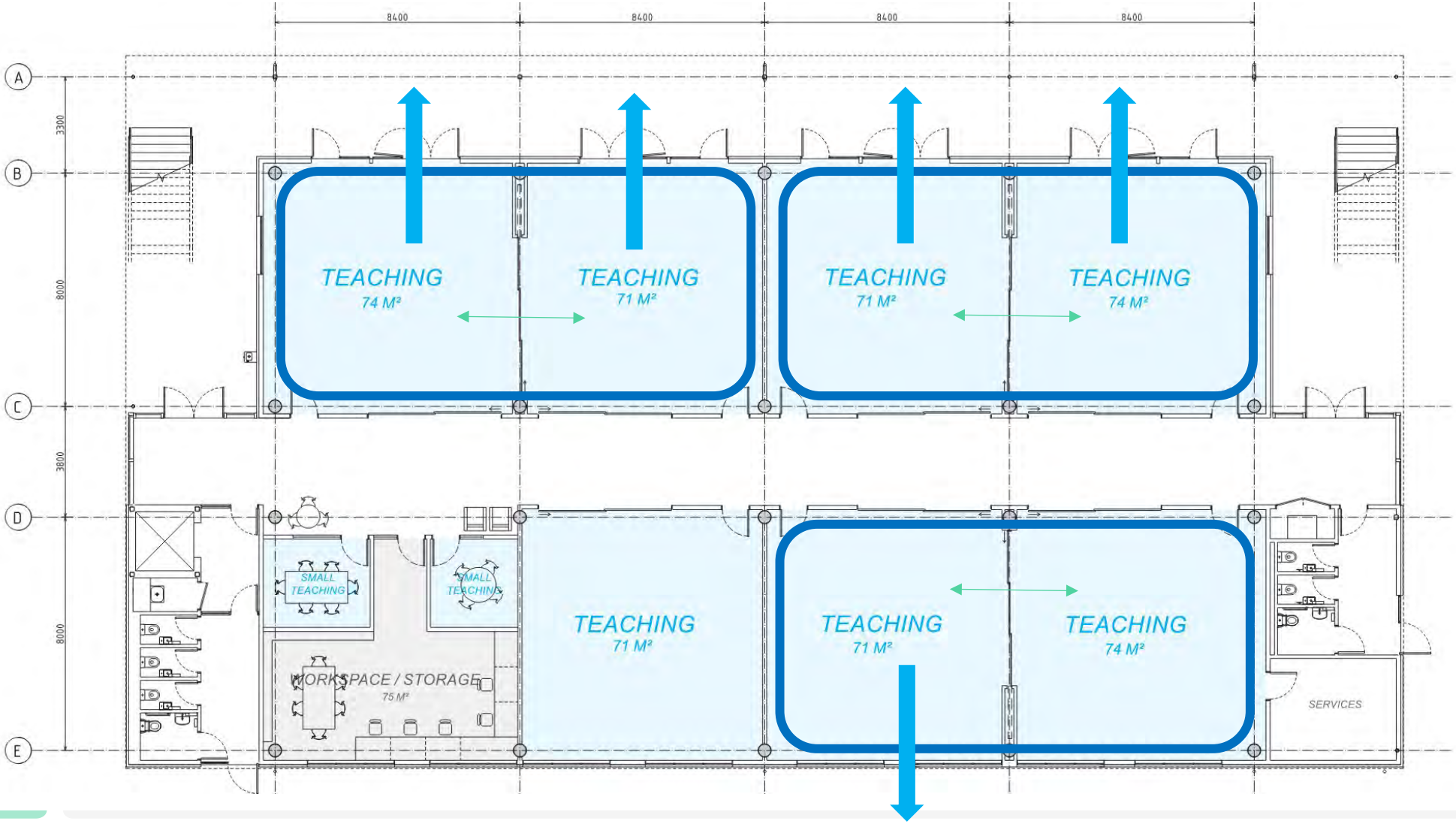
[IN-CONFIDENCE - RELEASE EXTERNAL]

Ground floor layout



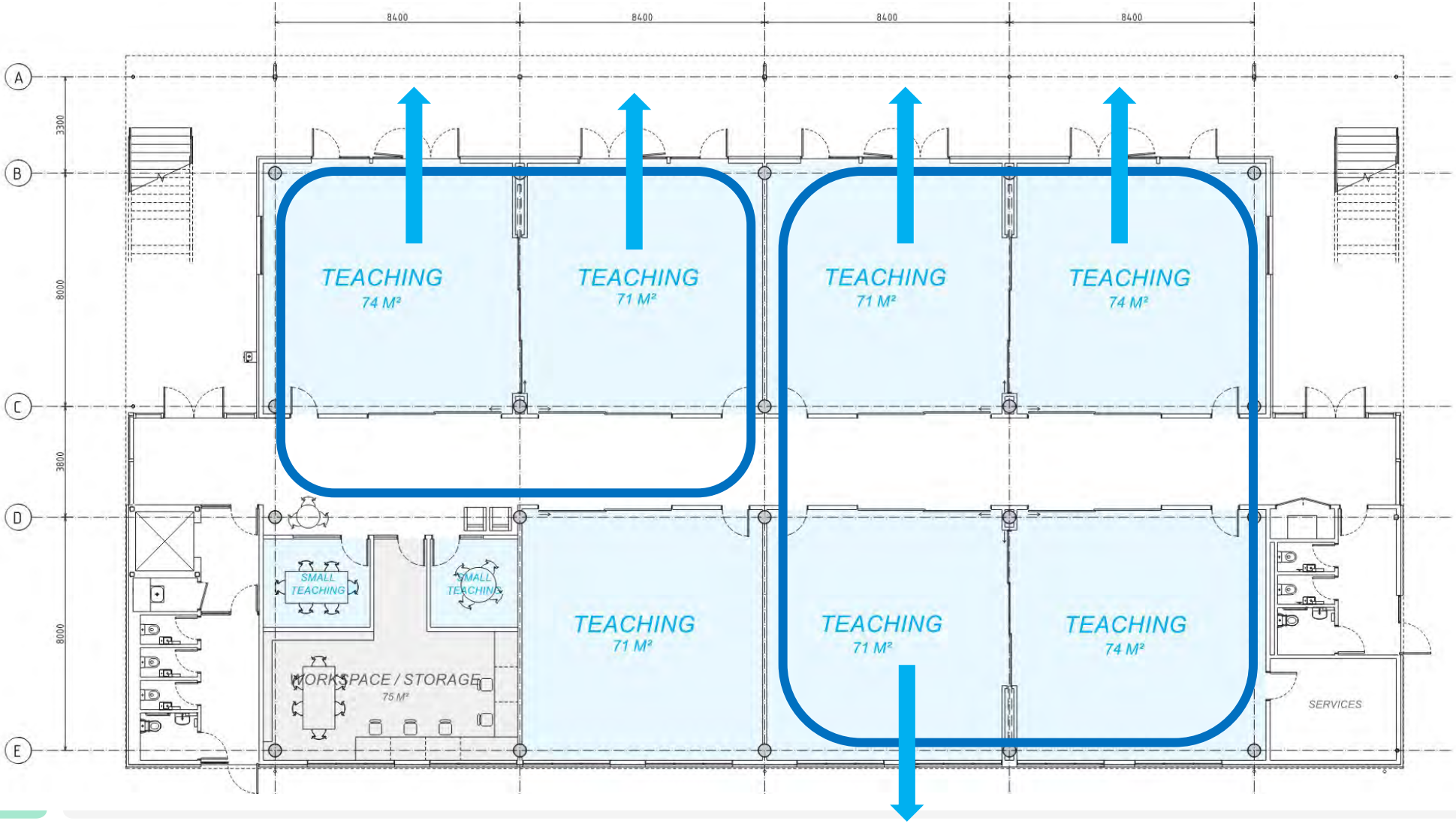
[IN-CONFIDENCE - RELEASE EXTERNAL]

Ground floor layout: Flexibility



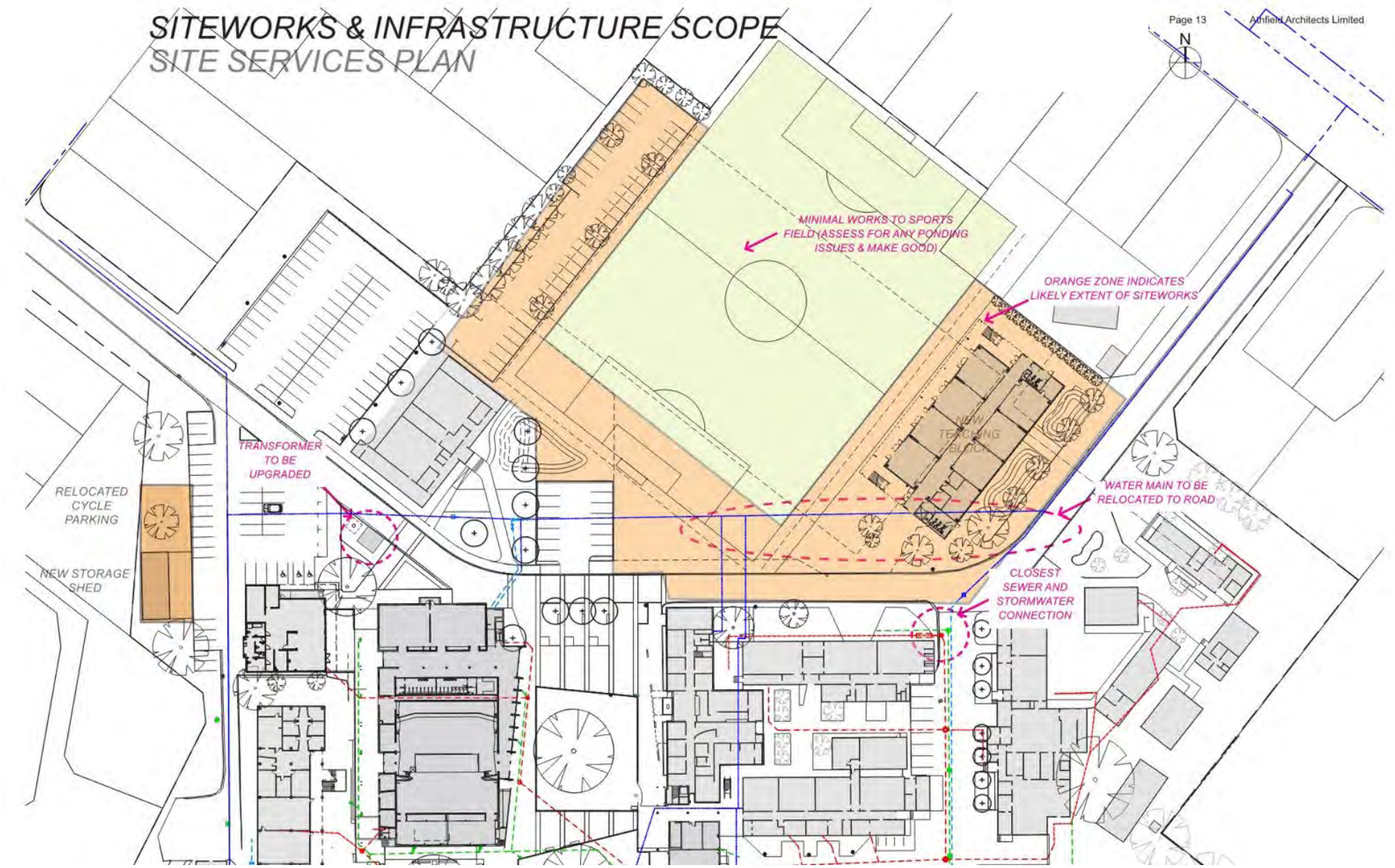
[IN-CONFIDENCE - RELEASE EXTERNAL]

Ground floor layout: Flexibility



[IN-CONFIDENCE - RELEASE EXTERNAL]

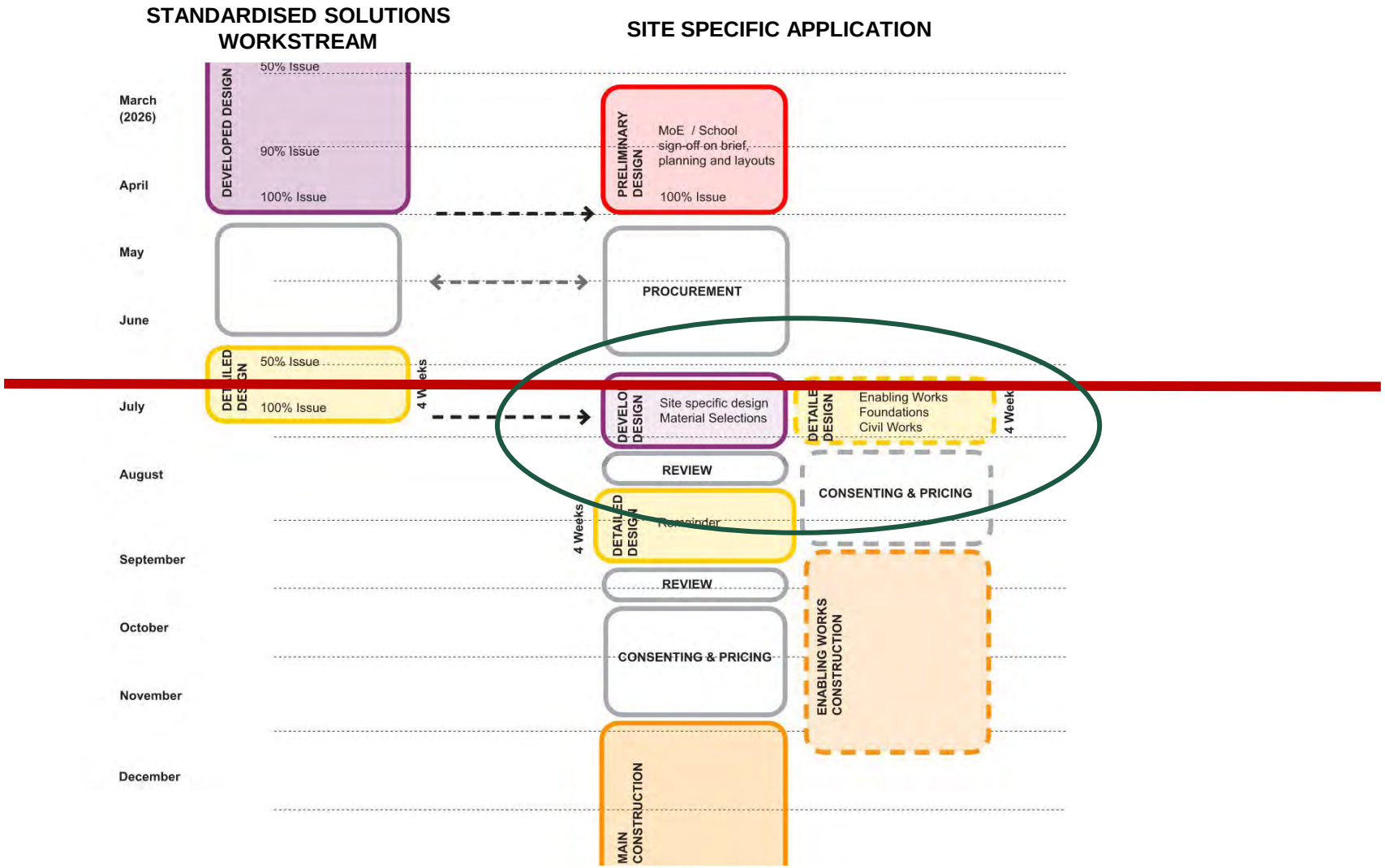
Sketch views


SITEWORKS & INFRASTRUCTURE SCOPE
SITE SERVICES PLAN
Page 13
Athfield Architects Limited
N
MINIMAL WORKS TO SPORTS FIELD (ASSESS FOR ANY PONDING ISSUES & MAKE GOOD)
ORANGE ZONE INDICATES LIKELY EXTENT OF SITEWORKS
NEW TEACHING BLOCK
TRANSFORMER TO BE UPGRADED
RELOCATED CYCLE PARKING
NEW STORAGE SHED
WATER MAIN TO BE RELOCATED TO ROAD
CLOSEST SEWER AND STORMWATER CONNECTION

Stage 3: Design completion

- Included developed design (4 weeks) / detailed design (4 weeks) / pricing / construction stages
- Developed design, enabling works and detailed design stages were undertaken concurrently and included:
  - Design Team input, especially into site-specific requirements
  - Finalising exact building location
  - Finalising internal layouts
  - Confirming internal and external finishes
  - Confirming final scope of joinery and siteworks within project scope
  - Undertaking final school review at 70% developed design.

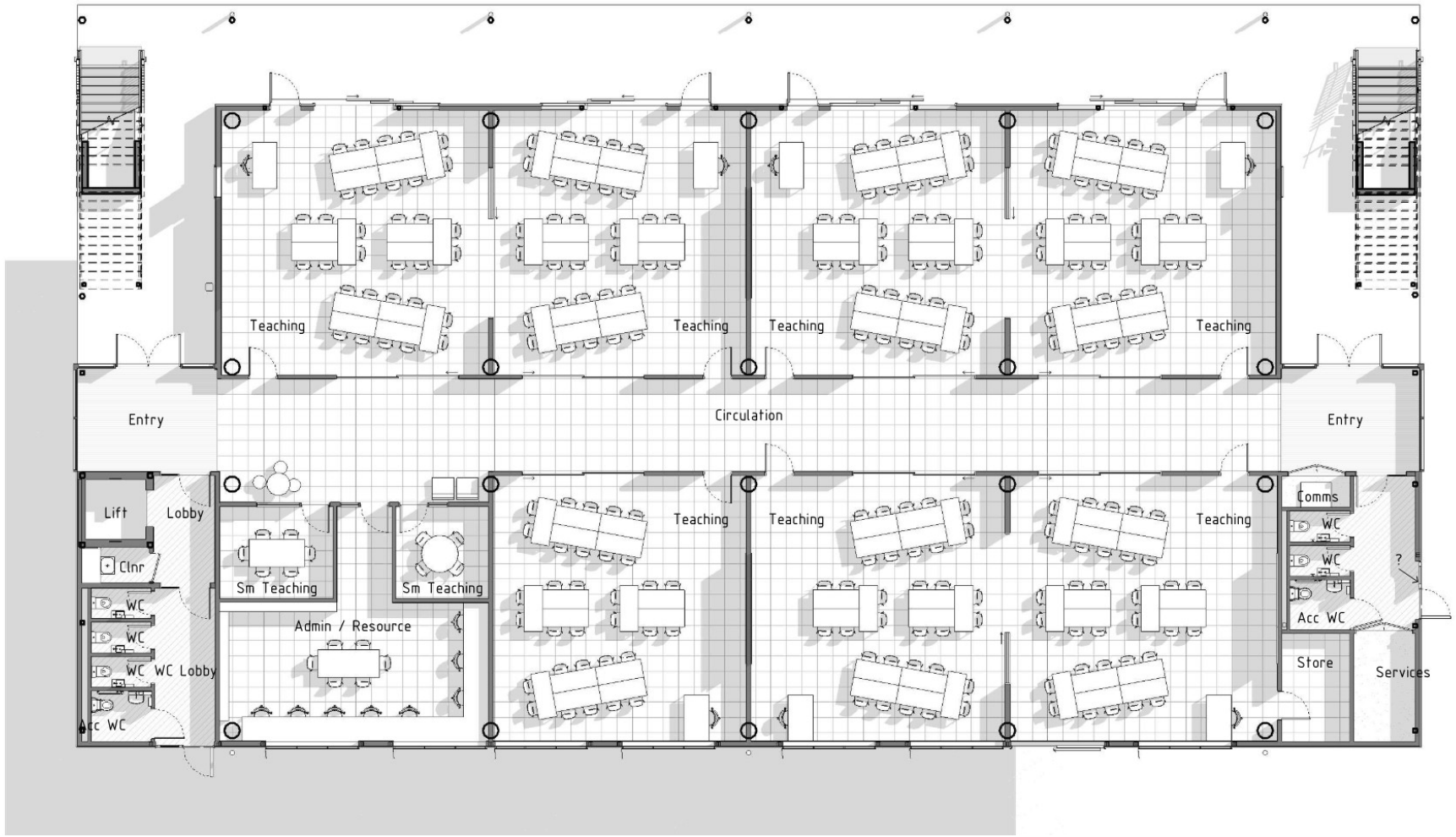
Developed design



[IN-CONFIDENCE - RELEASE EXTERNAL]

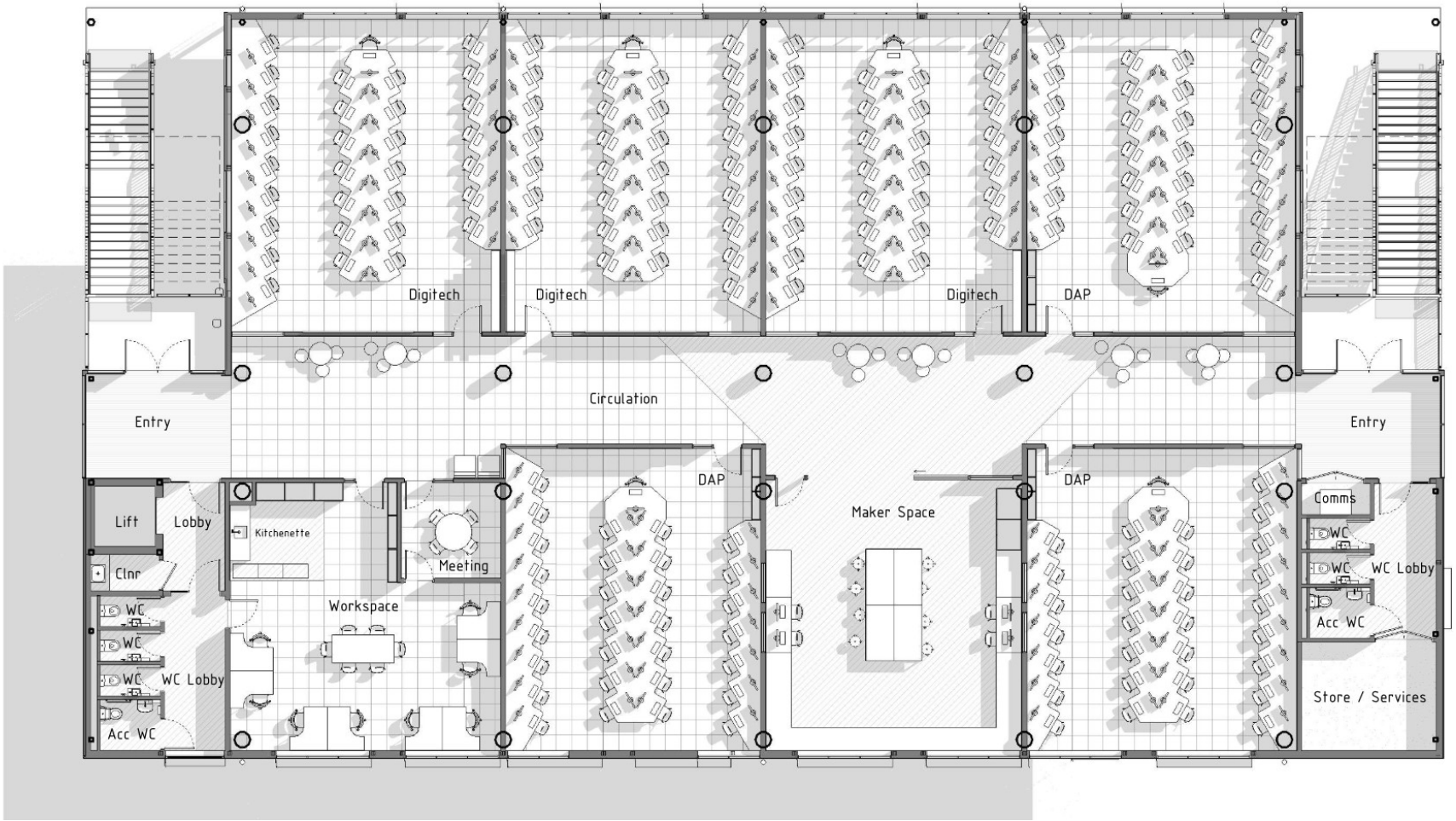
Developed design: 70% school review

Developed design: 70% school review



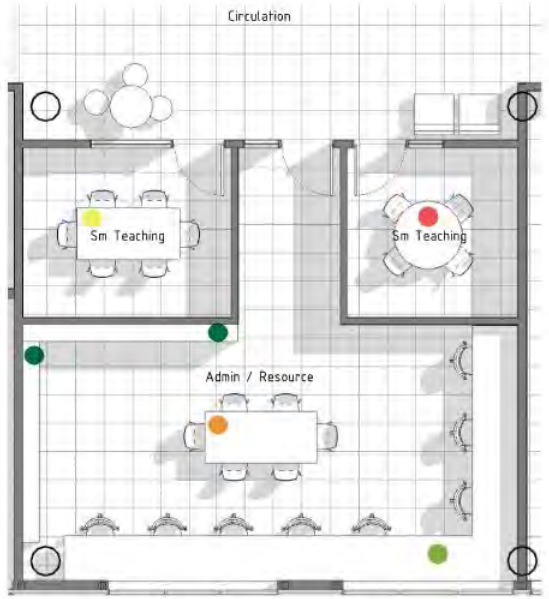
[IN-CONFIDENCE - RELEASE EXTERNAL]

Developed design: 70% school review



[IN-CONFIDENCE - RELEASE EXTERNAL]

Developed design: Confirming internal layouts



Detail Plan - Admin / Resource
1:50

Axonometric - Admin / Resource
Not to scale

Admin / Resource

Finishes:
Floor - Carpet tiles
Walls - Acoustic panels to 2200mm high, paint finish
Ceiling - Ceiling tiles

Joinery:
- Tall storage cupboards or shelving - 3500w x 300d x 2100h
- L shaped workbench - 8000 x 4500mm, 800d, 750h

Furniture:
- 1 x workroom table - 2000w x 900d x 750h
- 6 x chairs
- 8 x task chairs

Small Teaching

Furniture:
- 1 x meeting room table - 1800w x 900d x 750h
- 1 x round meeting room table - 1200dia x 750h
- 10 x chairs

Questions:

Equipment - sizes and power & data requirements
Storage - Cupboards or shelving?
Are a printer & paper bins required?
Is a whiteboard required?
Is a TV required in small teaching rooms?
Is furniture new or existing?

Developed design: Confirming interior finishes

CEILINGS

C01 - 1200x600 Suspended Ceiling tiles

EXTERIOR

Colorsteel, Ironsand

Soffit, Ayers Rock

WALLS

Autex Colour: Savoye

Autex Colour: Terrace

Autex Colour: Highland

Autex Colour: Gherkin

Autex Colour: Canyon

Precedent - Colour

Precedent - Bathroom Colour

WF30b: Vinyl Inzide Sphera Element, Brick

WF30c: Vinyl Inzide Sphera Element, Crocodile

WF30a: Vinyl Inzide Sphera Element, White

FLOORS

F01a: Carpet Tile Milliken Danxia Gorge, Quartz

F01b: Carpet Tile Milliken Danxia Gorge, Opal

Precedent - Carpet Pattern

F01c: Carpet Tile Milliken Colour Connect 2.0, Worn Leather

F01d: Carpet Tile Milliken Colour Connect 2.0, Tribal Vine

BATHROOMS

F05a: Vinyl Inzide Sphera Element, Brick

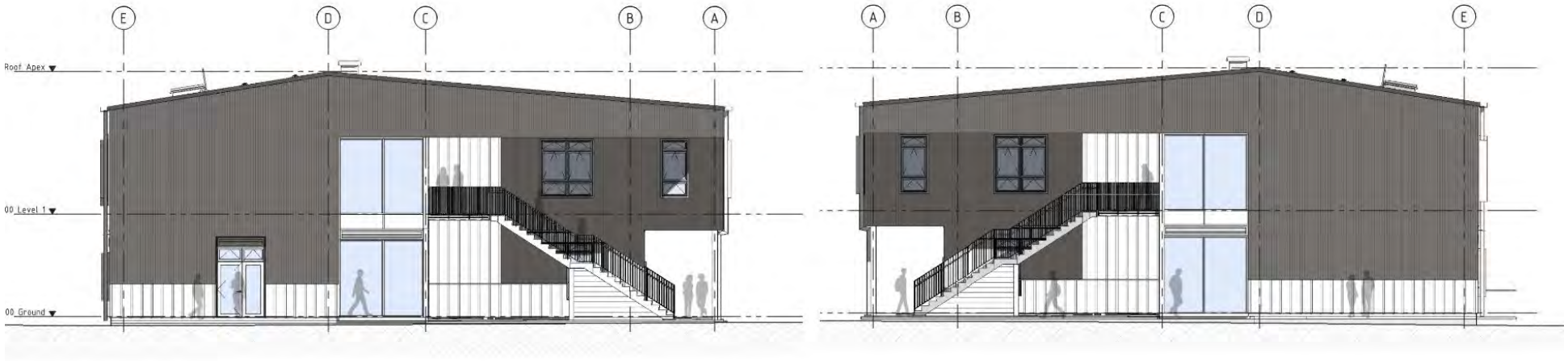
F05b: Vinyl Inzide Sphera Element, Crocodile

Developed design: Confirming external cladding

[IN-CONFIDENCE - RELEASE EXTERNAL]

External cladding: Context

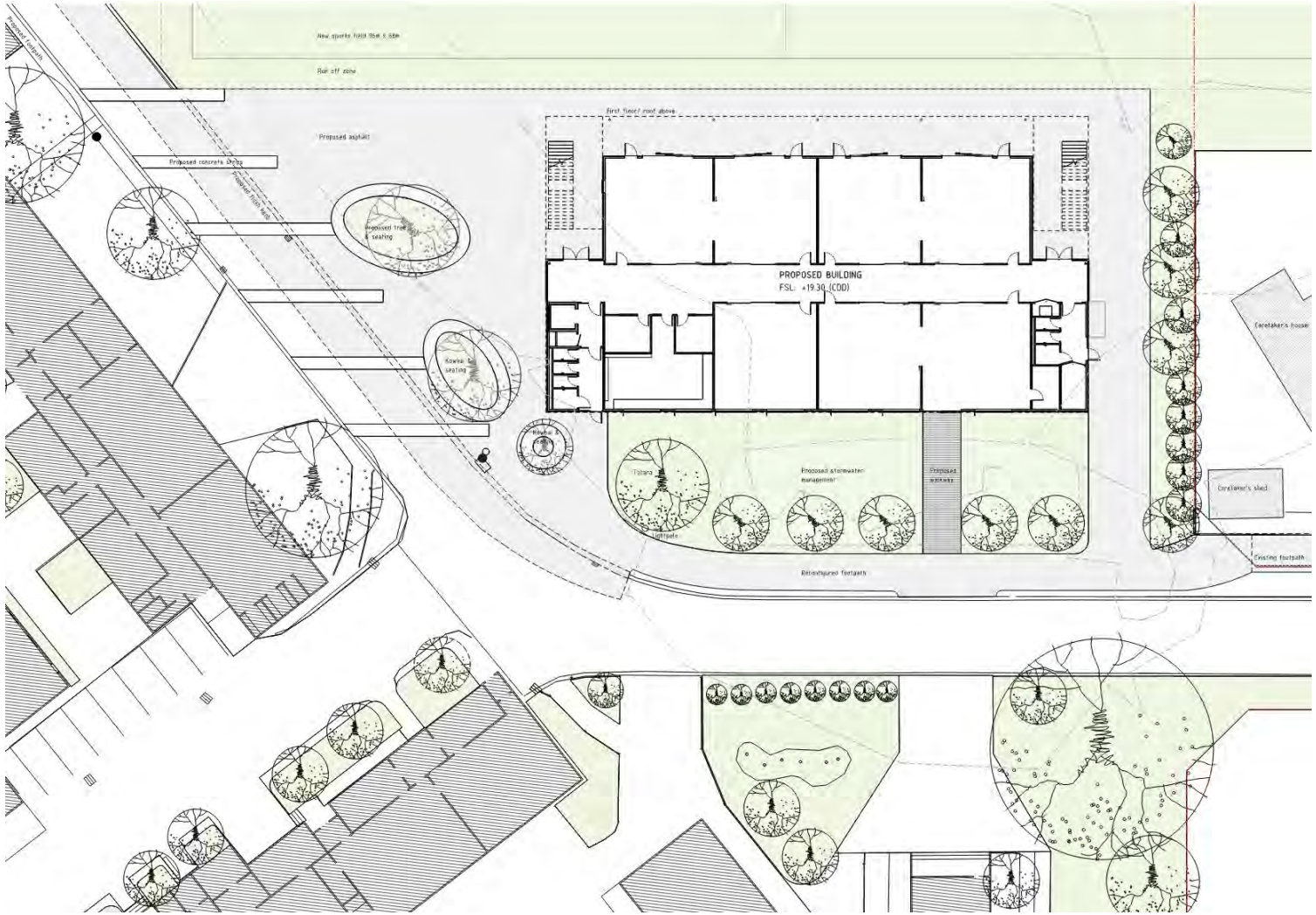
Developed design: External cladding



School review: Context (before)

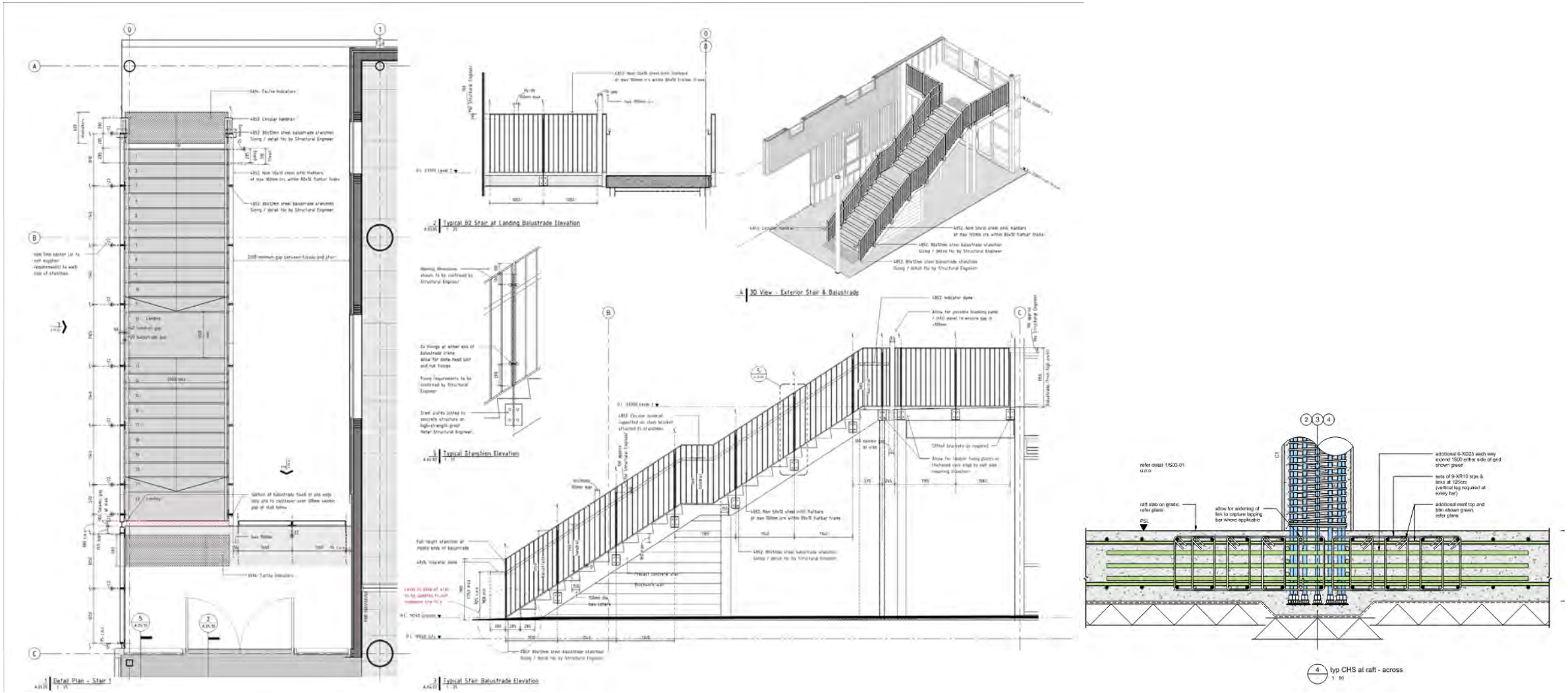
School review: Context (after)

Developed design: Confirming siteworks

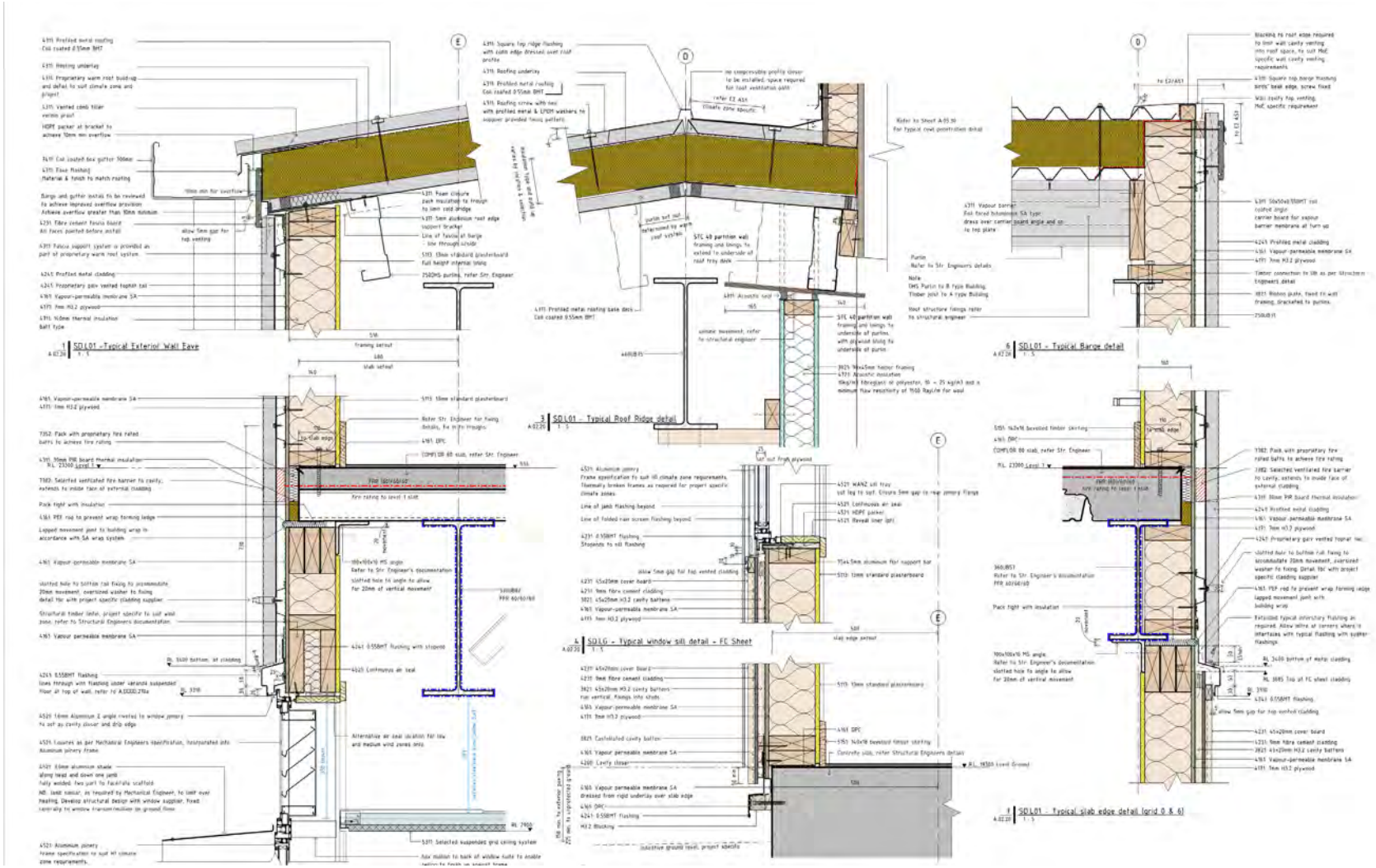


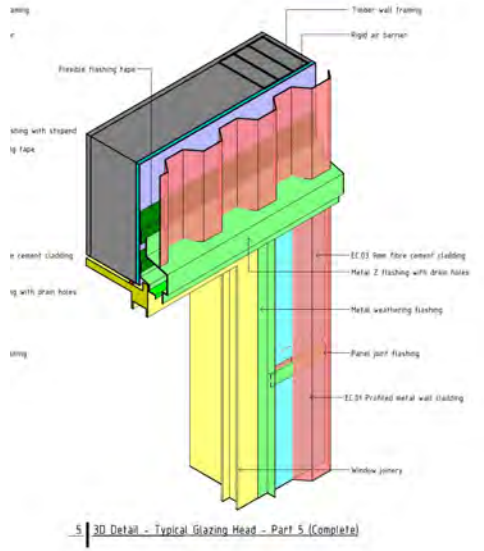
[IN-CONFIDENCE - RELEASE EXTERNAL]

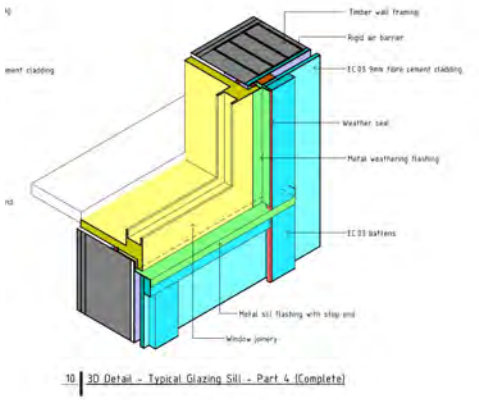
Developed design: Documentation



Developed design: Documentation

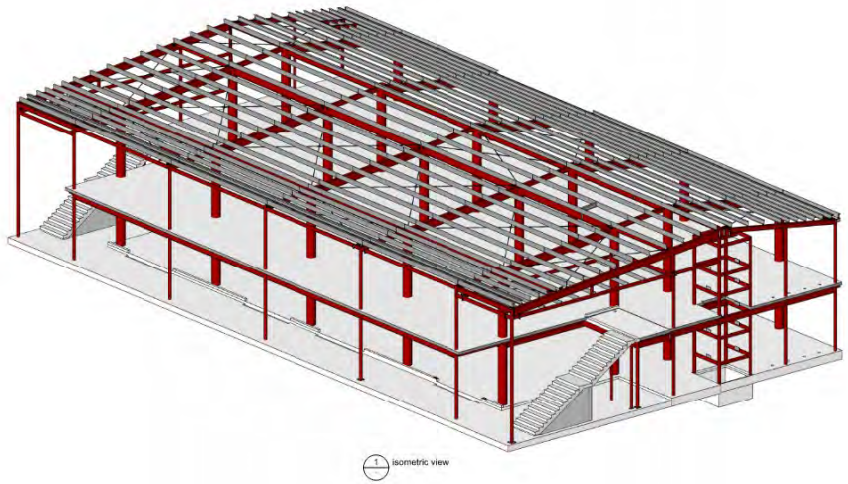






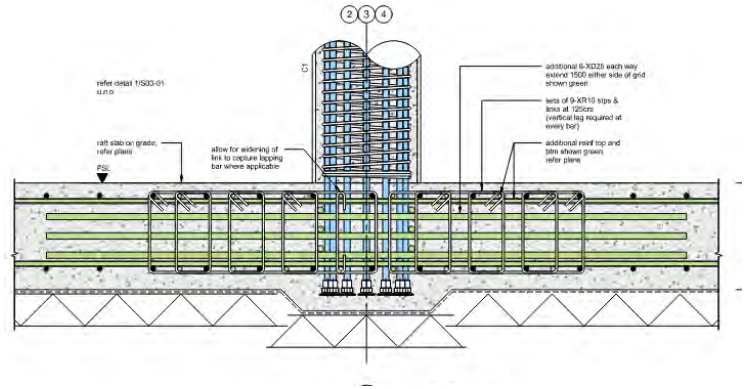
Structure: Site-specific application

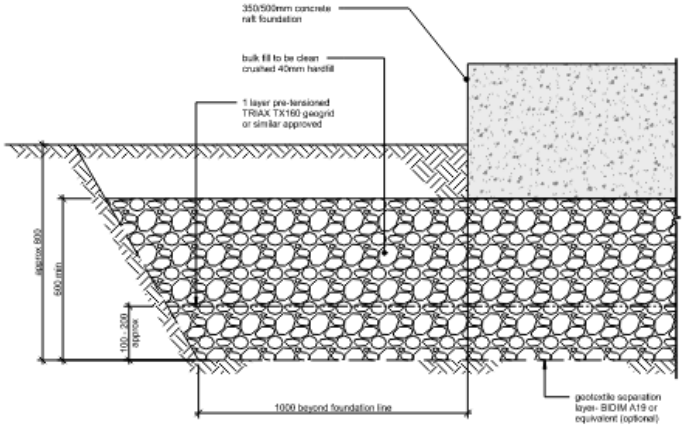
- Structure ‘grows’ with the building, giving confidence in scaling and placement on site
- Two-way steel moment frame structural system required no modifications to fit specialist spaces
- Defined services strategy means relatively easy integration into site (e.g. toilets located in fixed locations on end bays).



Structure: Foundation design

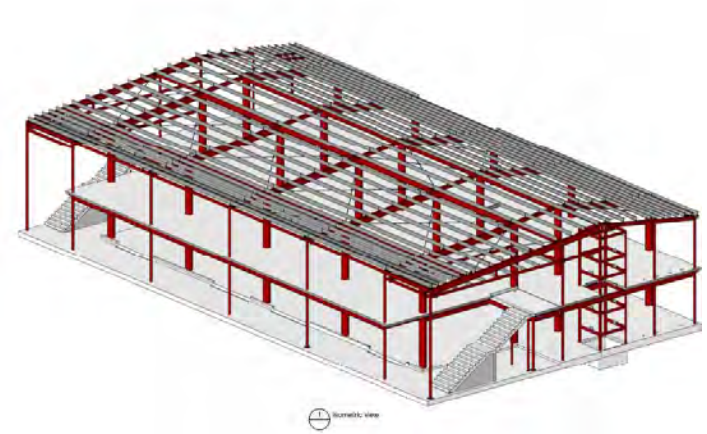
- Specific design element and not within Standard Design assumptions – weak, soft and liquifiable ground
- Standard solution still suitable as system is designed to maximise the sites it can apply to – just not tested to all sites
- Superstructure and sub-structure approach meant a reduction of 400mm of gravel raft
- Instead of a minimum 1200mm deep excavation with dewatering risk, we have 2/3 less excavation and fill and reduced temporary retention and dewatering risks.





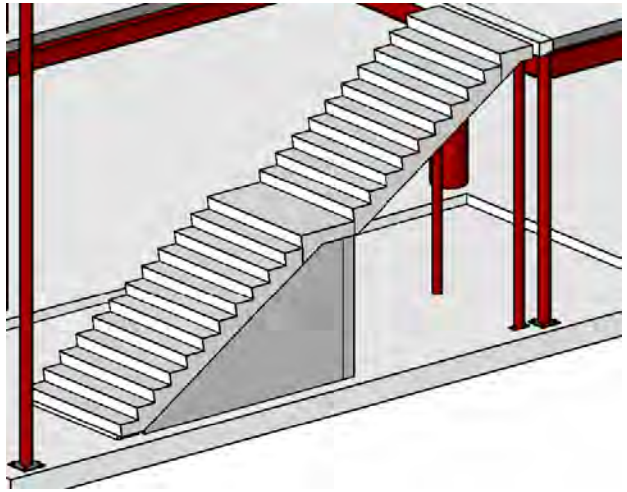
Programme

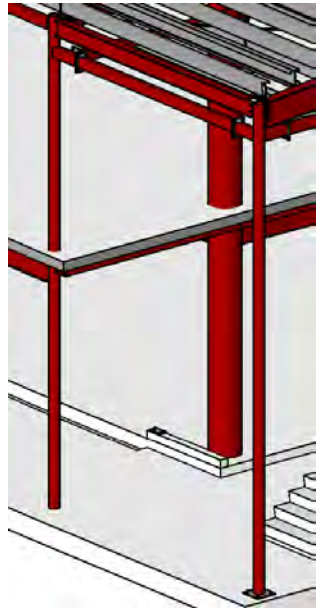
- From no site-specific structural involvement, to developed design (super-structure) and detailed design for consent (foundations) in 4 weeks
- Detailed design (super-structure) completed in a 4-week period
- Early site survey, geotechnical interpretive report and site services required to achieve the programme:
  - Geotechnical report should be structured to suit the standard foundation solutions to minimise iteration
  - Limited product selections or alternatives are challenging in a condensed programme to get market engagement.



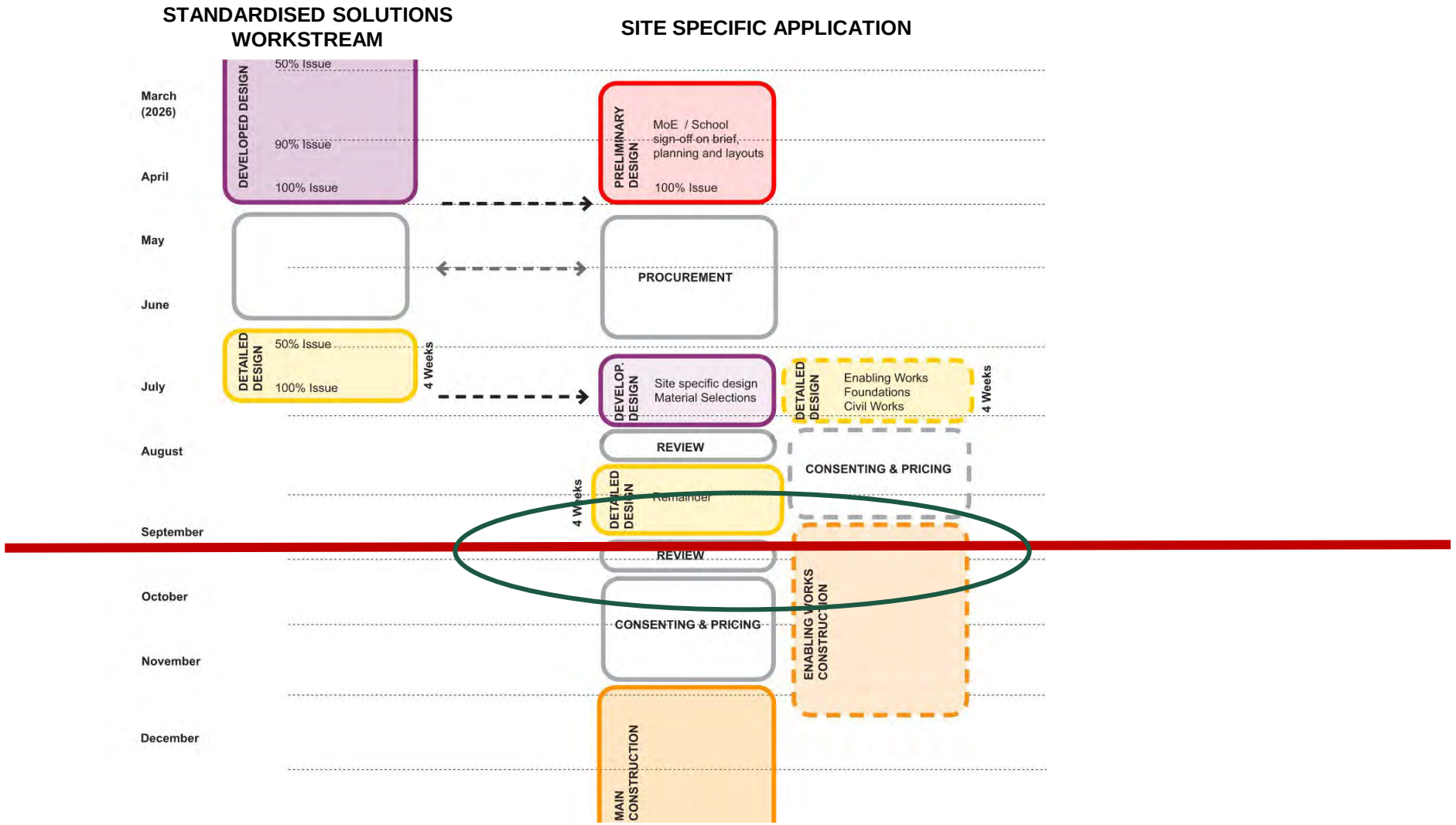
Modifications to Standard Design

- Minor lift dimensional adjustments
- Shopfront glazing coordination for slab edges
- Canopy post change
- Stair post removal
- SIPs exploration
- Window refinements
- Services/storage space resolution
- Toilet lobby door deleted.





Currently: Detailed design completion



[IN-CONFIDENCE - RELEASE EXTERNAL]

Lessons learned so far....

Generally, the process has been tracking well, especially with integration of Standard Design onto a specific site and accommodating the school's requirements.

However, some lessons learned include:

- Better alignment at business case stage with Standard Design, school brief and project budget.
- Capturing ancillary costs, e.g. replacement of displaced functions from new building positioning, within initial budget (or allowing contingencies for these unknowns)
- Developed design timeframe too condensed for contractor to test alternatives
- Guidelines around joinery and landscape integration into standardised projects
- Clearer process around dealing with keeping Standard Designs 'standard' and avoiding creep.

Questions?

Photo courtesy of Naylor-Love

Final thoughts

[IN-CONFIDENCE - RELEASE EXTERNAL]

Key takeaways

- Standardisation is a work in progress – B26 is a transition year
- We’re continuing to refine and improve the programme – your feedback is important
- The process for Budget 26-funded projects is unchanged and follows Government procurement rules – process for Budget 27 is TBC
- We’ll continue to work with you as before under NZSPA – it’s BAU for most
- We encourage EOIs in standardisation projects from across the sector – it’s not an exclusive process
- We’re here to help – contact us at: Property.Improvement@education.govt.nz
- THANK YOU ALL!

Closing karakia – Kua Hikitia

Kua hikitia te kaupapa	*We have come to an awareness*
Kua takoto te wero	*The challenge lies before us*
Me hoe tahi i runga i te whakaaro kotahi	*Let us work together as one*
Tiaki tō tāua oranga	*Stay well so that we have the ability to manage success*
Kia kaha ai mo te tuku taonga	*Behold, here is the pathway to enlightenment and well-being*
Kia tutuki ngā hiahia mō Ka Hikitia	*What a positive feeling!*
Tīhei mauri ora!	
Ki te whai ao!	
Ki te whai oranga e!	
Mauri ora!	

Te Tāhuhu o te Mātauranga
Ministry of Education

He mea tārai e mātou te mātauranga
kia rangatira ai, kia mana taurite ai ōna huanga.

We shape an education system that delivers
equitable and excellent outcomes.

Te Kāwanatanga o Aotearoa
New Zealand Government