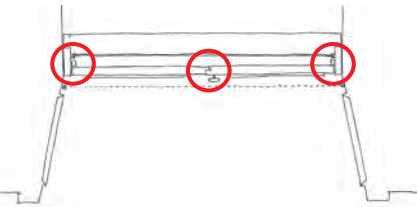


External joinery: doors

Acoustic seals and blinds



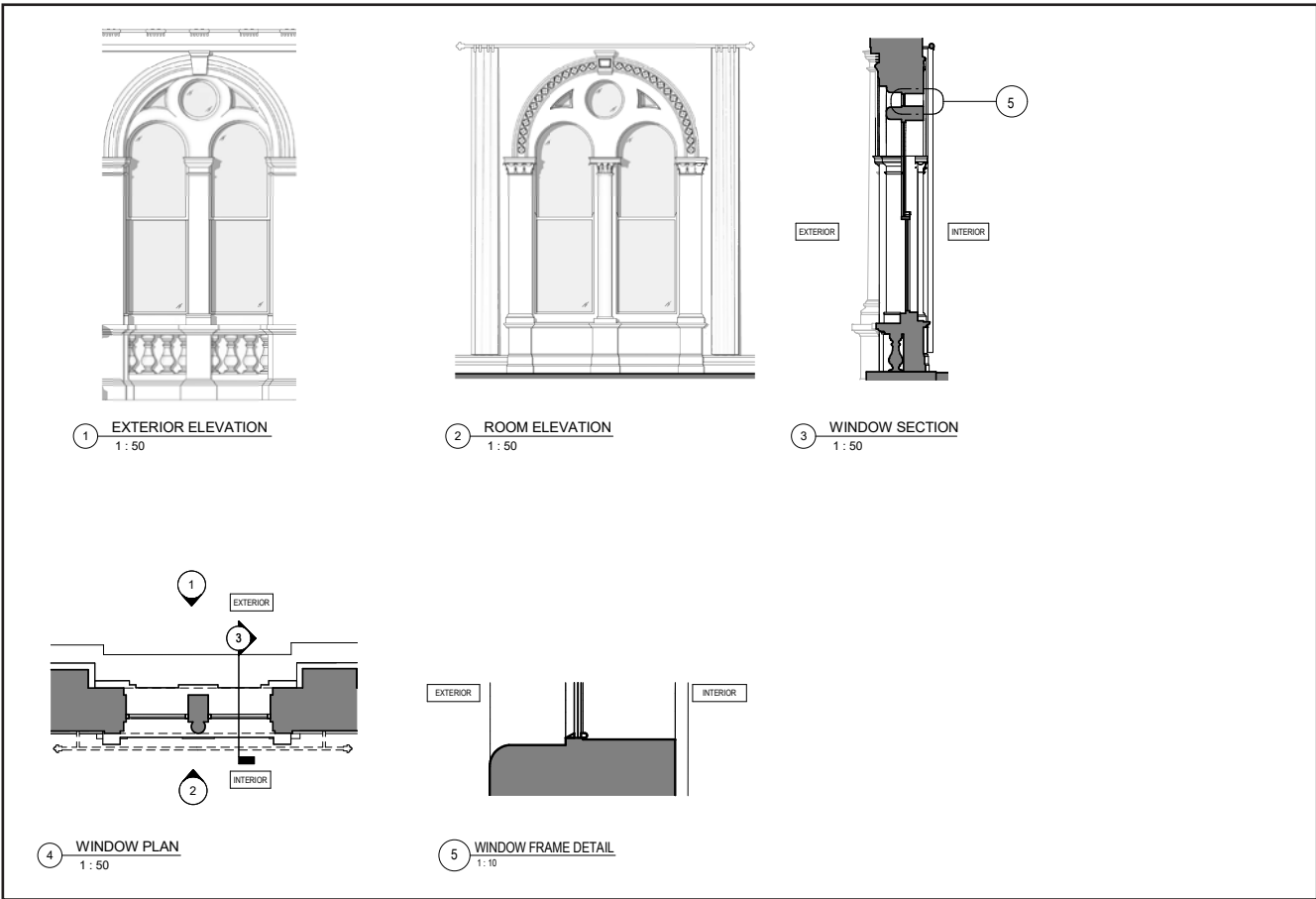
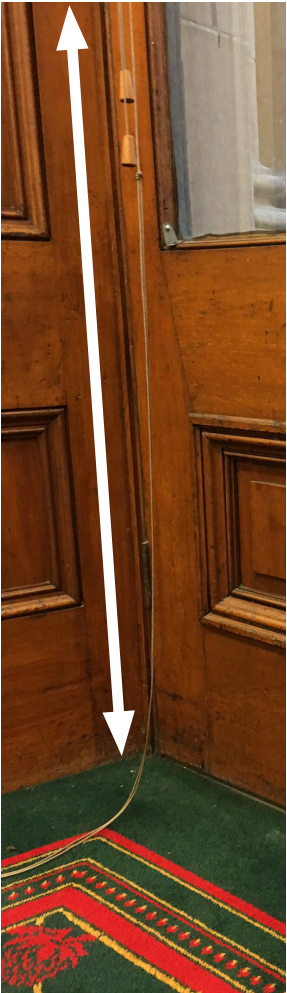
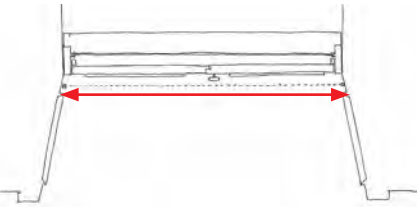
- Acoustic seals: door rebate**
- The existing rubber seal within the door meeting rebate will be renewed.
 - The door base will have an undercut acoustic bar that provides protection and addresses the space at the base of the doors.
 - Currently, daylight is visible where the doors have warped and pieces of the frames are missing.

- Acoustic seals: door frame**
- The external frame seal is currently held in place by a rather functional piece of untreated piece of hardwood.
 - This will be replaced with a new seal held in a piece of hardwood, painted to match the existing frames.

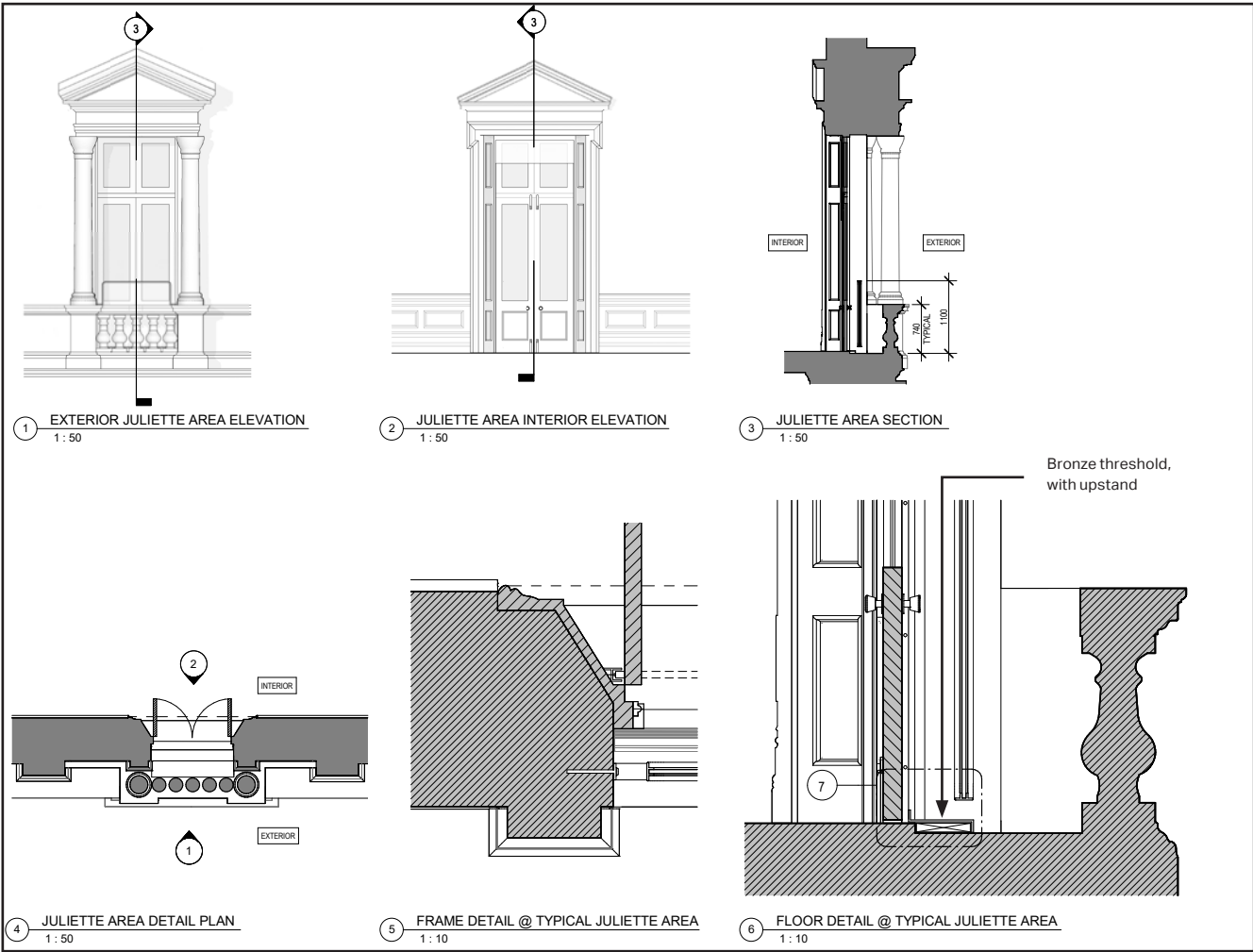


- Existing blinds**
- When the building was reglazed, a series of timber Venetian blinds were screwed into the door frames and fanlights.
 - These provide some protection from the sun and privacy but do not provide a black-out.

- Proposal**
- A black-out blind held in place with a track is proposed within the timber reveal.
 - Held away from the door furniture, the slim metal track will house all cables and wire and run the height of the entire window casement.
 - The frame and blind housing will be in as dark a finish as the existing ironmongery.



Lands Building sash window:
Proposed



Lands Building Juliette balcony window:
Proposed

Existing components

Internal doors



Existing

- The heavily modelled door reveals set up a distinctive rhythm and pace along the corridor.
- The doors present two distinct faces:
 1. To the corridor, the cedar door casements are recessed within tall arched deep openings- emphasising the proportions of the corridor as a grand hall.
 2. To the rooms, the doors lie flush with wall with wide cedar architraves tying into the wainscots and deep skirtings.

Proposals

- The existing door locations will be retained wherever possible for access to the rooms.
- Works will be required to upgrade the doors to required life safety and building codes.
- In their current condition they do not meet any code requirements, and would need to be changed if office use was continued.
- Any additional door locations are to be minimised, and will be considered with their impact on the existing rhythm.
- New doors will be of the same proportion, but in their detailing will be of clearly contemporary provenance.
- The door would be evidently constructed, rather than a flush panel or a panelled historical pastiche.



Hierarchy

Bent Street and first floor levels

- The lower levels have a more ornate degree of detailing in joinery and plasterwork.
- While the door joinery is consistent between the two floors and building phases, there are variations in the corridor plaster surround.
- The earlier, northern section has a lower curved vaulted ceiling interfacing with the door fanlights.
- The southern section has a taller shallow vault with a simpler flat detail.

Second floor level

- Due to the open-plan nature of the floor as originally conceived, there are only a limited number of original doors.
- Those remaining have flat door architraves to the corridor, with plasterwork limited to a low skirting and door surround.
- The door proportions and leafs are similar to the lower levels, but any joinery embellishments are omitted.



Internal doors

Strategy

Images from left to right:
Left: View of first floor corridor.
Middle: Precedent image from Sir John Soane's House in London.
Right near: Existing door panel detail with flush bead.
Right far: External door panel detail with projecting bead.



Overview

- The current doors do not meet contemporary standards – be they access, fire or acoustics – for office or any other use.
- The strategy seeks to:
 1. Retain the existing character of the doors and their impact on the halls and rooms;
 2. Repair and refurbish the doors to secure their structural and functional use;
 3. Upgrade the doors to provide equitable use;
 4. Address deficiencies in acoustic and fire performance; and
 5. Through upgrading safeguard the fabric for future uses.
- A sample door will be built to the same specification and characteristics of the original and tested for compliance, with necessary adjustments made.
- These tests will not take place on the heritage doors.

Option 1

Remove and replace doors with new ones

Rejected

- Remove and replace all the doors with new joinery items.
- This was the technique employed at the QT Hotel.
- While more cost-effective, this has been rejected in order to retain and upgrade the existing fabric, thus maintaining the character of the existing building.

Option 2

Apply internal panel to the whole door

Rejected

- Apply a new flush panel to the internal face of the door.
- This would be thick and heavy, requiring work to the hinges and the frame to allow the door to open.
- The internal face would be assimilable, obscuring the original cedar joinery, and for this reason was rejected.

Option 3

Retain and enhance performance

Preferred

- Limit works to the weak points that cause the joinery to fail.
- Maximise reuse of existing fabric.
- Retain the appearance and modelling from the corridor, with works limited to the internal face and frames.
- Retain the portions and form of the doors.

Fanlight

- The fanlight will be fixed shut.
- The frame will be fire and acoustic sealed.
- The outer glass has been painted on the outer surface, and will be replaced with a new double-glazed fire and acoustic rated panel.
- Both inner and outer panes will be mirrored to give the impression of space beyond.
- The later ropes will be removed.

Door frame

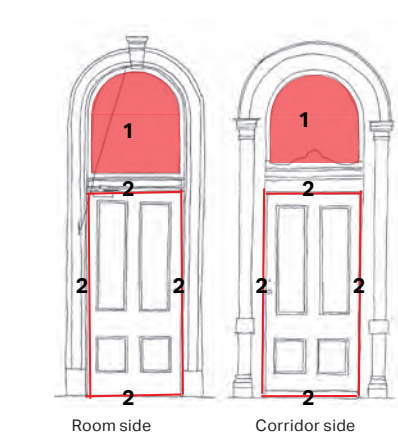
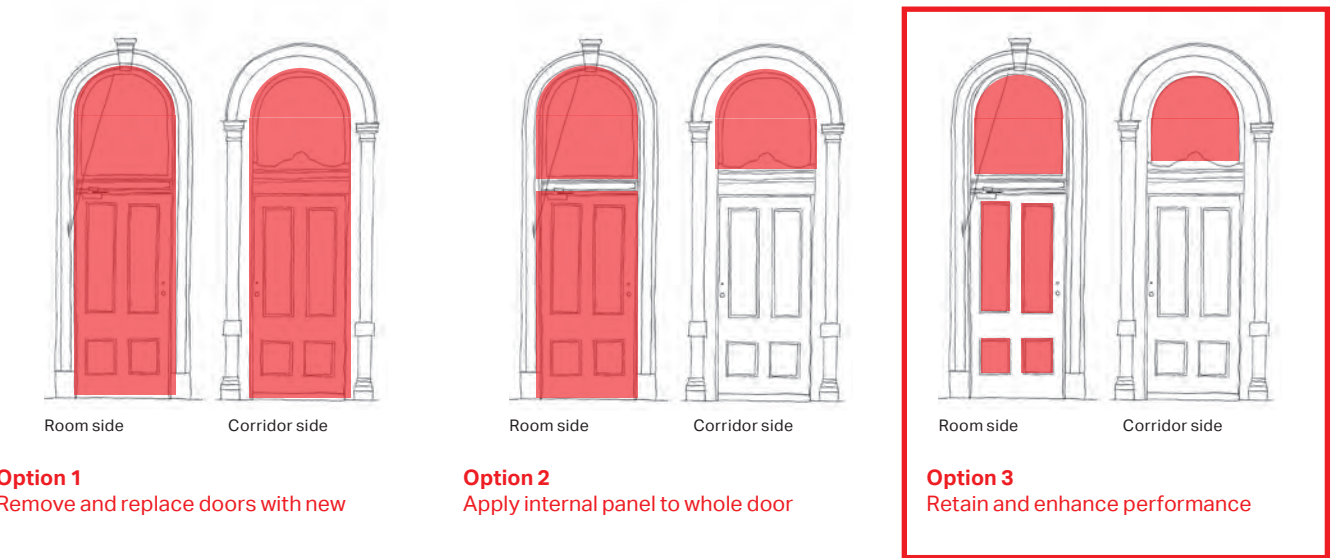
- Acoustic rubber seals in slim painted metal frame are applied to the rebate.
- Black intumescent fire seals are rebated into the frame.
- The base of the door has been amended to address the varying floor finishes and levels that have been altered over the years.
- The door base will have an undercut acoustic bar that provides protection and addresses the space at the base of the doors.

Fire and acoustic upgrade

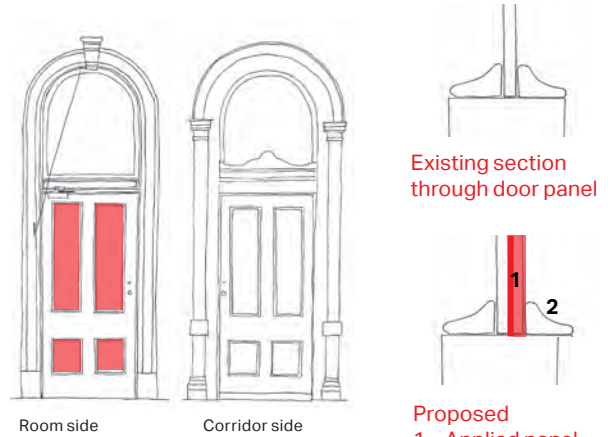
- The solid timber frame of the door is in excess of 40mm, and thus meets fire and acoustic criteria.
- The weak point is the thin recessed timber panel.
- The strategy is additive – retaining the existing door structure and upgrading the panels to meet standards.
- Should these increase or vary in years to come, this can be effected or reversed.
- The external hall side will be left unaltered.
- Internally the bead will be removed and a 2mm steel plate fixed to provide acoustic mass and fire protection to 60 minutes.
- A new timber panel will be fixed to the face of the steel plate and finished to match the frame.
- The bead will be refixed to provide a slightly projecting panel, a detail found in the external window panel.

Finishes

- The original joinery will be carefully treated and restored by a qualified craftsman.
- This will bring out the depth and lustre of the cedar.
- New infill panels will be French-polished to match the existing ones, rather than drawing attention to its difference.



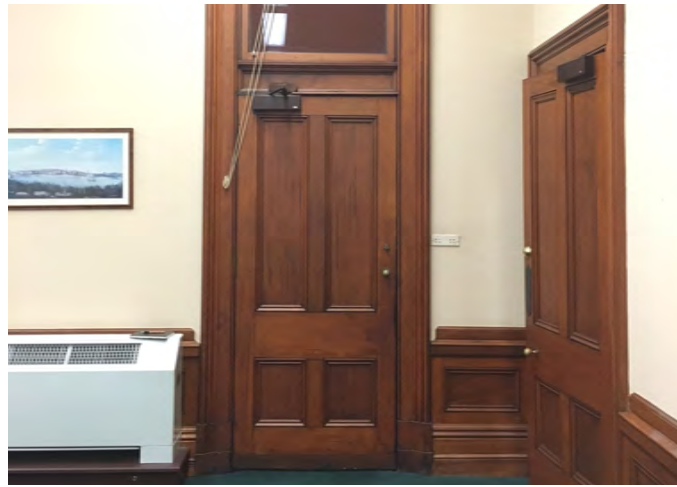
1 – Fanlight
2 – Seals



Location of local works to enhance door performance

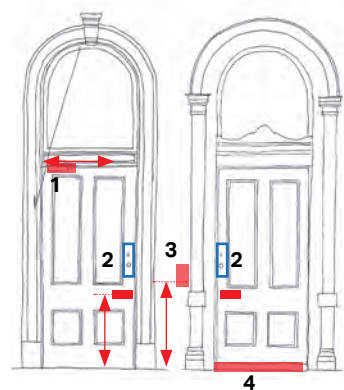
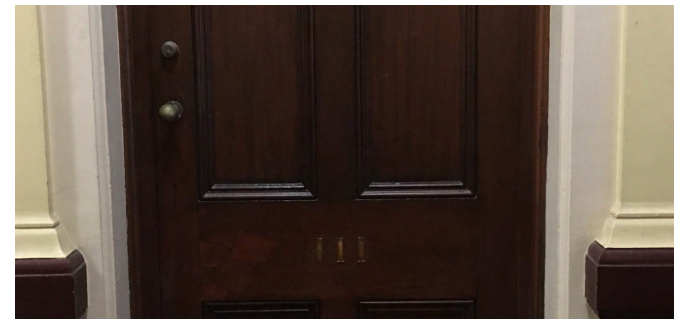
Existing section through door panel

Proposed
1 – Applied panel with 60-min fire rating
2 – Original bead, reapplied



Ironmongery and door furniture

- Existing door furniture does not meet equitable standards in form and height, and will need to be upgraded.
- The existing knob and lock will be fixed.
- Any later locks will be removed and the door leaf repaired.
- A new compliant lever handle will be fitted in the same finish as the existing, unfinished brass, at +900mm above FFL.
- The new key fob operation is to be located within a panel adjacent to door, set within the deep door reveal.
- This panel will house the room number, bells, do-not-disturb sign and fob reader in one location.
- The door closer will be replaced with a new face fixed closer and housing to match the ironmongery.
- The door frame and kick plate will be repaired.



Location of ironmongery

- New door closer and repairs to frame
- Existing furniture retained and fixed
- Door controls and indicator within consolidated wall panel
- Kick plate refurbished



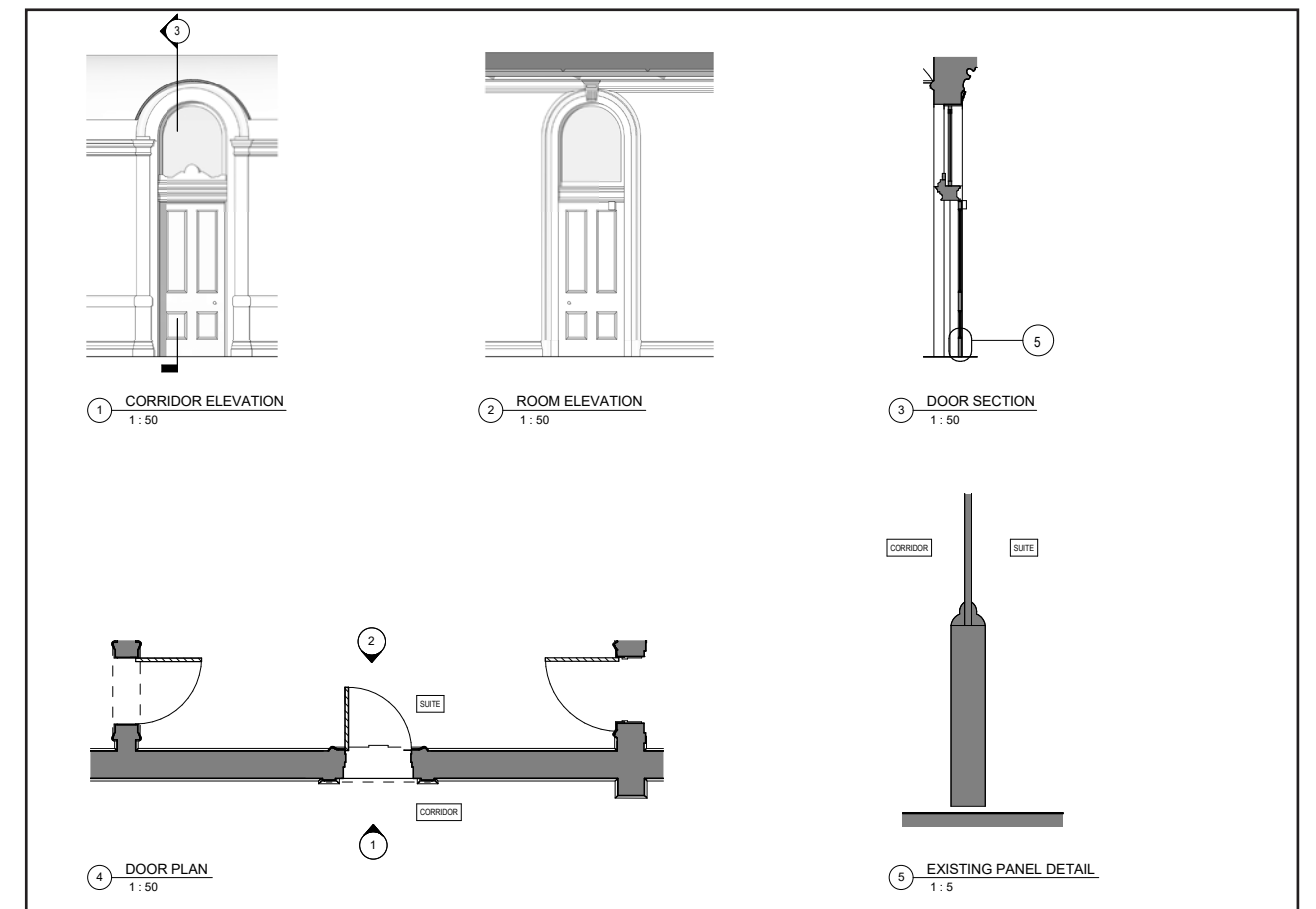
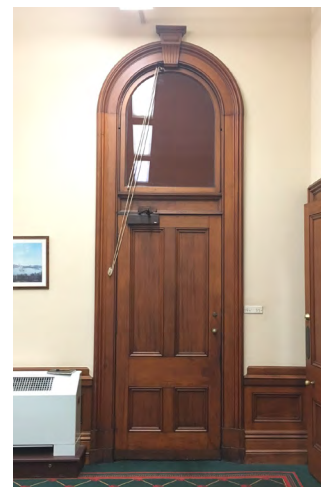
Fixed doors

Existing

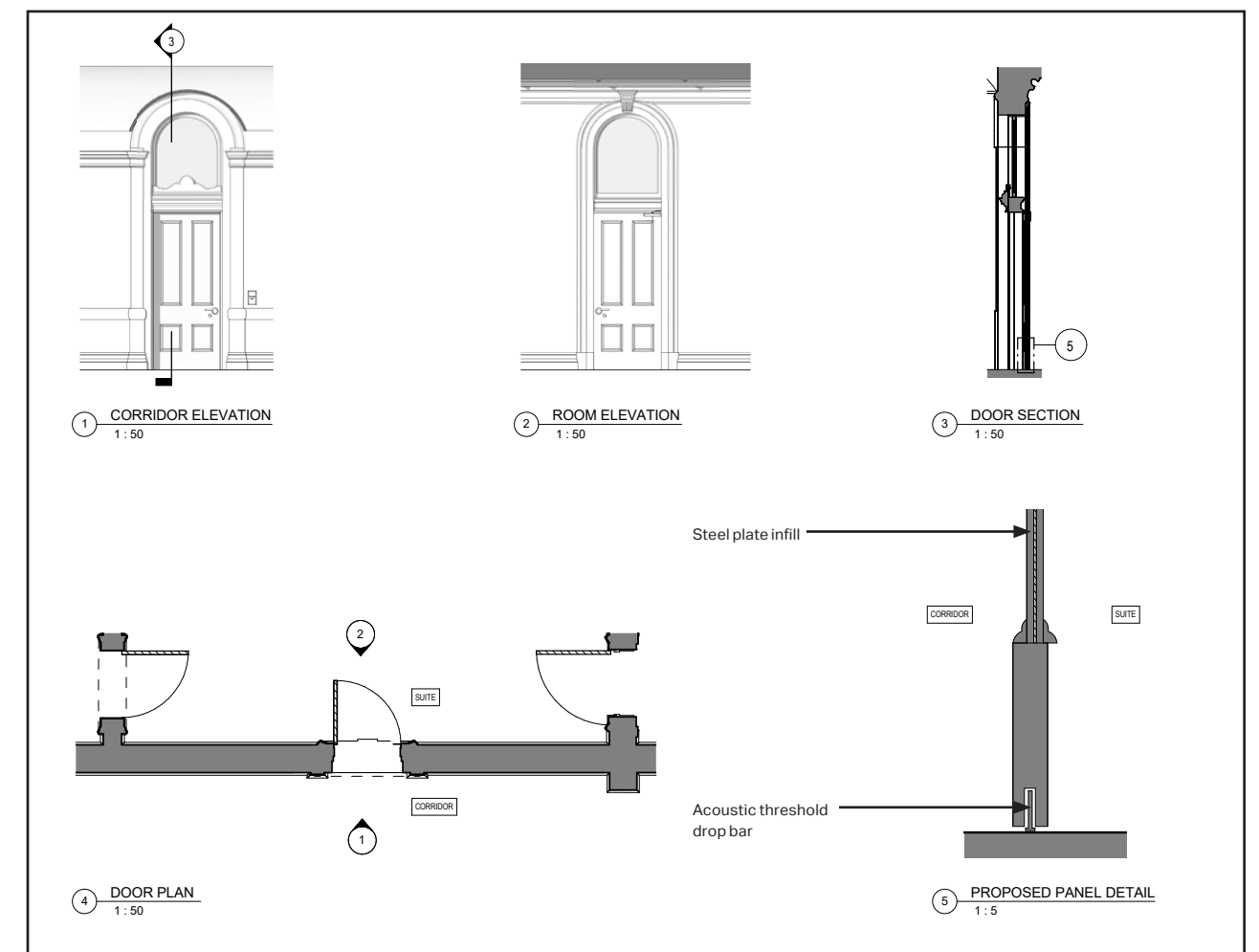
- A small number of the existing doors have been closed off but with the frame and door left in situ.
- The example above has had technical cupboards built into the niche, while the room door and frame have been boxed out.

Proposed

- All doors and frames will be retained in situ to maintain the integrity of the halls and rooms.
- Where not required, the doors will be locked off but will still require fire and acoustic treatment in line with the operable doors.
- From the hall, the door will read as before but with ironmongery removed and stored to improve legibility.
- Within the room the door frame will be retained to allow enjoyment of the scale and material, acting as a frame for expansive mirrors and cabinets.
- In each of these the fanlight will be restored and fixed in the same manner as the operable doors.



Lands Building internal corridor doors:
Existing condition



Lands Building internal corridor doors:
Proposed



The roofscape

Existing

Appearance

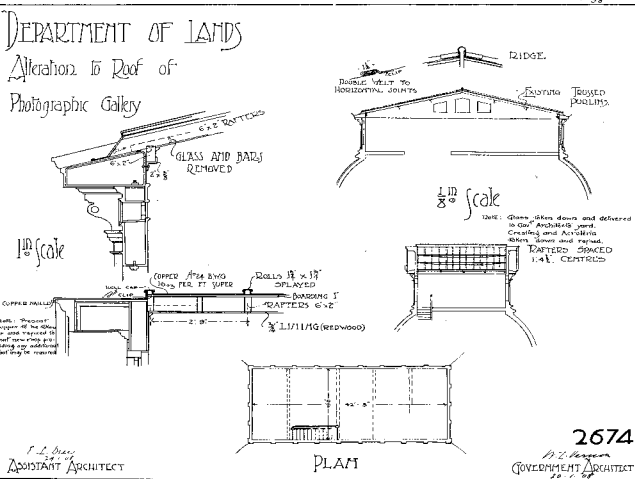
- Over and above the symbolic role of the building, the architectural design was founded on a strong, relatively low but well-proportioned and deeply articulated base.
- The civic presence was given form in the five large, expressive roof structures that dominate the contemporary skyline.

Materials

- The domes are clad in profiled copper.
- The original tempietto roofs are glazed to allow inspection of drawings, photographs and plans, while their external walls are painted to match the surrounding sandstone.
- The clock-tower is clad in sandstone, with painted render on the lower portion of the tower that are not visible from the street.
- The Strong Room and ancillary linking roof are clad in Welsh slate.

Services

- The building was originally heated by fires in each room. The related chimneys punctured the ancillary roof that infilled the spaces between the domes and towers.



This page
Images clock-wise from top
Top: Postcard view of Lands Building
Middle: View from north of Lands Building
Both images from the turn of the C20th.
Below: Construction detail of the glazed tempietto roofs
Below left: 'The Professor's Dream' 1849, Charles Robert Cockerell

Facing page
Top: View east along Spring Street
Below: View across existing roofscape, looking south towards clock-tower

Appearance from street

- The street level appreciation of the building has changed little from the original.
- The exception to this is the degradation of the roof cladding, addition of new lift enclosures, and replacement of chimneys with access ladders, bridges, plant dormers and vents.
- Due to the angle of view and prominence of the domes and tower, these later changes do not draw the eye from the street.

Appearance from above

- The negative fabric changes are most visible from above the 20th and 21st-century views of the building.
- The large plan areas of the ancillary roof do not make an appropriate setting for the series of domes and towers.
- In fact, they have the effect of dampening the whole composition and detracting from the undeniable quality.

Visual clutter and inconsistency

- The only significant change in materials has been to the ancillary roof, where Welsh slate has been substituted with copper decking and a cheaper metal deck system.
- To the western tempietto roof, the glazing has been replaced by a copper roof, presumably due to overheating.

Services

- With the chimneys removed, new plant enclosures and ventilation shafts have added to the roofscape.
- These new additions do not have the picturesque appeal of the original chimneys.
- The northern lift and stair shaft is a discordant addition to the composition, accentuated by the white render finish.
- To this assemblage, walkways and ladders are laid without any relation to the architectural composition surrounding them.



The roofscape

The clock tower

External form

- The outward display of the rooftop structures, whereby the appearance or impression of the building within the wider city was of greater importance than from within, is evidenced in the termination of the stone tower cladding when the base of the tower disappears from the street view.
- The tower itself has four zones:
 1. A lower slotted tall volume;
 2. A four-sided belvedere;
 3. The clock faces; and
 4. The oriental-inspired onion dome with trident atop.

Internal spaces

- The lower three spaces are currently accessible by steep stair only.
- Structural works will be required to seismically secure the tower.
- It is proposed to continue the lift structure up to these levels to act as a stiffening structural element, thereby removing the need to interface with the external walls, and also to provide access to these unique spaces.



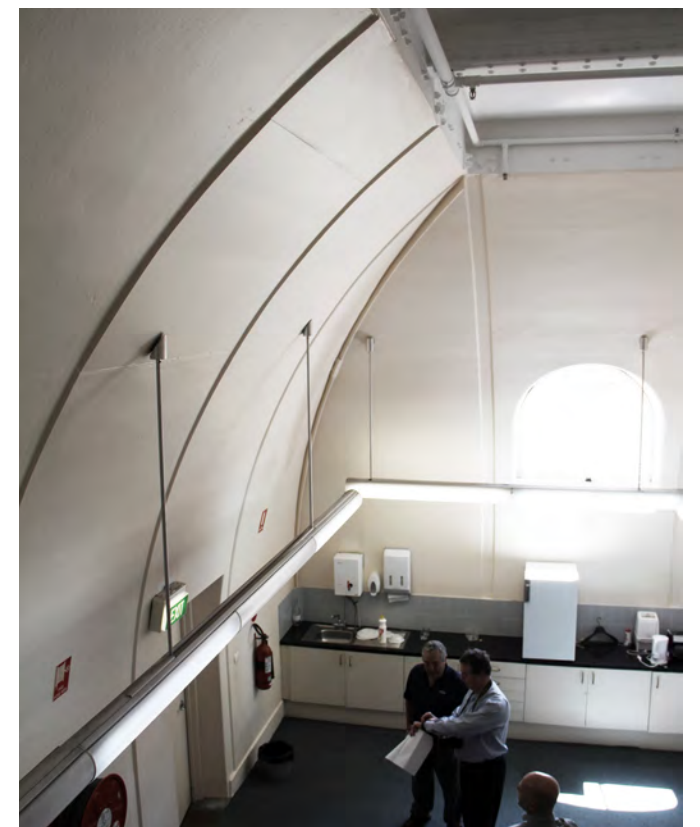
The domes and tempietti

Form

- The lower two-storey domes are clad in copper with higher-level dormer windows.
- These spaces have not found a successful modern day use, and have been divided as tea kitchens, stores and ad hoc meeting spaces.
- The crowning tempietto is made of solid masonry, and is given unique form by the oval windows and ornate roof decoration.
- The windows were reglazed in the 1980s, when the timber protecting bar was added.
- The tempietto in particular shows the architect and builder's joy of invention and the unexpected.
- Classical in execution, many of the interior architectural details appear to draw inspiration from nautical and progressive technology of the time.
- A riveted iron and concrete structure, rather than the expected timber, provides a robust weighty feel at odds with the rooftop location.

Colour

- Initial paint scrapes have shown that the current ochre colour is a recent innovation.
- The original colour matches the sandstone of the base to give the illusion that this too is constructed in stone.
- The same method is employed to the soffits of the loggia vaults to similar effect.
- The proposals seek to restore this original intent.



The roofscape

— The Strong Room

External form

- The Strong Room has the most simple and diminutive of the five principal structures, perhaps reflective of its comparative invisibility from the street rather than its importance as a space.
- The octagonal roof is clad with slate, which is also the material for the ancillary roof structures.

The lantern

- The windows of the lantern have been reglazed with opaque glass, but the somewhat industrial-looking copper dome and vent appear to be original.
- The proposals seek to reinstate the lantern's function and bring light into the Strong Room.



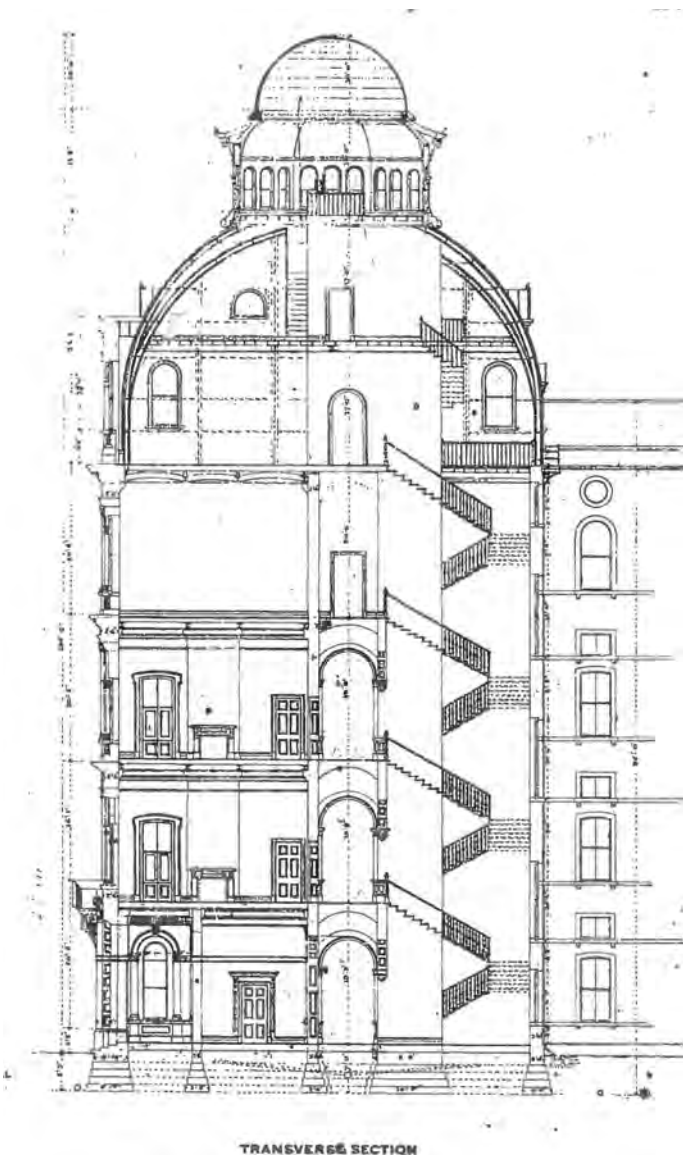
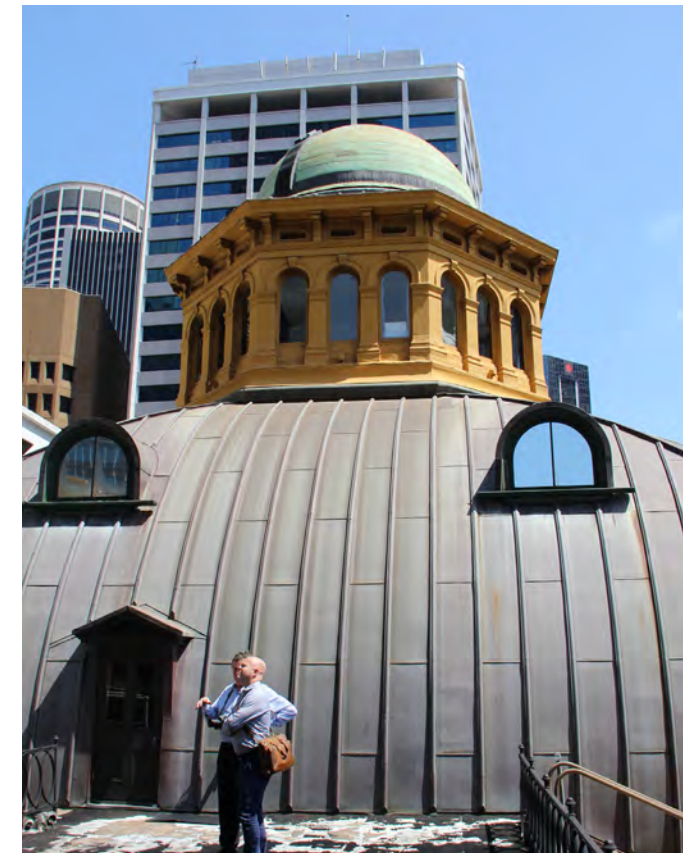
The northern dome

External form

- The tall Bridge Street dome was the dominant feature of the building's first phase and to this day remains an anchoring element along Bridge Street.
- It marks the main business entry.
- The dome is clad in copper, with high-level dormers in the similar manner to the east and west domes.
- Additional doors to access terraces that are obscured from the street are located somewhat informally within the dome.

Internal arrangement

- The dome is formed by a series of tapering ribs that run the entire height.
- These are obscured by later timber boarding.
- The original grand stair to the dome was removed in the 1950s.
- The replacement stair and lift arrangement have created an awkward access to the dome.





The roofscape

—

The Octagonal Room and observatory



The Octagonal Room

- The northern dome is topped by an octagonal room with views to the harbour and back to the building.
- Each face is glazed with three arched windows.
- The details recall the Victorian enthusiasm with progressive technology, which is evident throughout much of the building.
- Access is through a winding staircase from the upper mezzanine of the dome.

The observatory

- Though never used as planned, the copper dome has openings to take telescopes for viewing the sky and observing the port.
- The dome rotates, utilising cannonballs as ball bearings.
- The space is accessed by a narrow stair from the Octagonal Room below,



The roofscape

The staircase lanterns



Western stair, Gresham Street

- The western stair is topped with a rectangular lantern.
- Externally the form is functional in contrast to the plaster work internally.
- The windows have been reglazed in an inconsistent manner.
- The lantern's flat roof is accessed from a low door within the adjacent dome.



Eastern stair, Loftus Street

- The eastern stair is topped with a oval lantern set in a shallow dome.
- Externally, the form is functional, in contrast to the plaster work internally.
- The windows have been reglazed in an inconsistent manner.
- The lantern's curving domed roof is accessed from a low door within the adjacent dome.

The roofscape

The ancillary roof



Original role

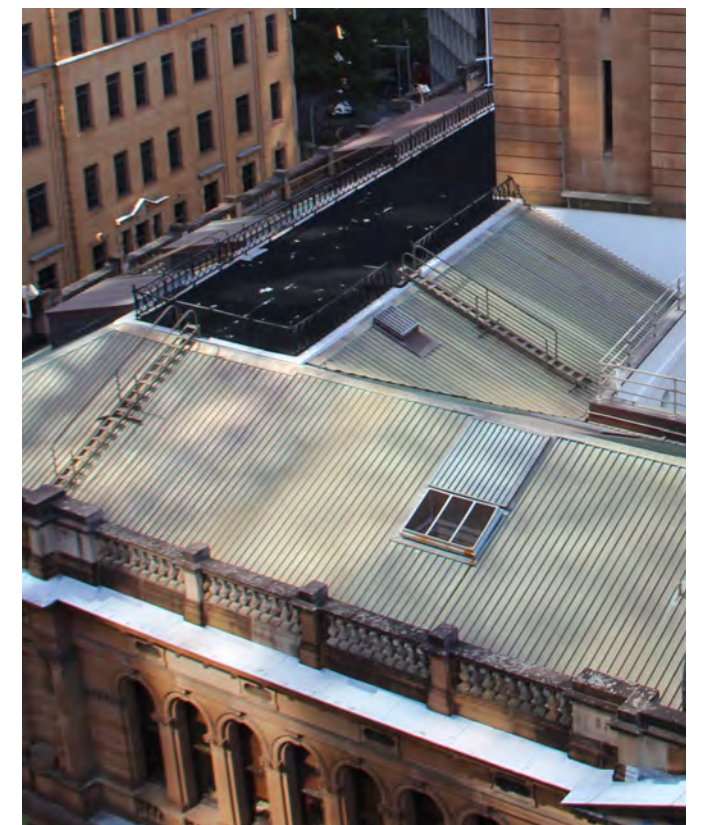
- Though larger in area, this component is seen only in profile from the street. The ancillary roof did not play a leading compositional role in the architectural design; rather it unified the composition, acting as a foil to the domes and towers.
- Its primary function was to weatherproof, and there was neither storage nor access ways.

Materials

- Externally, the roofs were clad in Welsh slate.
- Internally, a dense grid of delicate cast iron truss elements spanned the masonry vaults below.
- The layout of the truss members precluded any other uses.

Current condition

- The slate was replaced in the early 1970s with copper decking.
- The chimneys were removed at the same time.
- Plant and ducts were routed through and out of the space, augmented by a series of access ladders and gantries that criss-cross the roof.
- The flat roof now has a dark spongy bitumen-type roof finish.



The roofscape

—

The proposals



Preserve the tower, domes and lanterns

- The proposals seek to carefully repair and secure these unique and special structures for the enjoyment of future generations.



Secure the street level views

- The proposals seek to maintain the visual primacy of the roof structures from street level.
- They also resolve and consolidate the current ancillary roof.



Enhance the setting of the towers and domes by removing the clutter

- The 21st-century elevated view of the building has brought the deficiencies of the service ancillary roof into sharp relief.
- By replacing this ancillary roof, the project embraces the opportunity to review this degraded state and improve the setting of towers and domes.
- The proposals will enhance the building's fifth facade from the surrounding buildings.



Facilitate public access

- There is no equitable nor ready access to the roof spaces.
- The proposals embrace the reimagining of the ancillary roof to enable access to enjoy the roof.

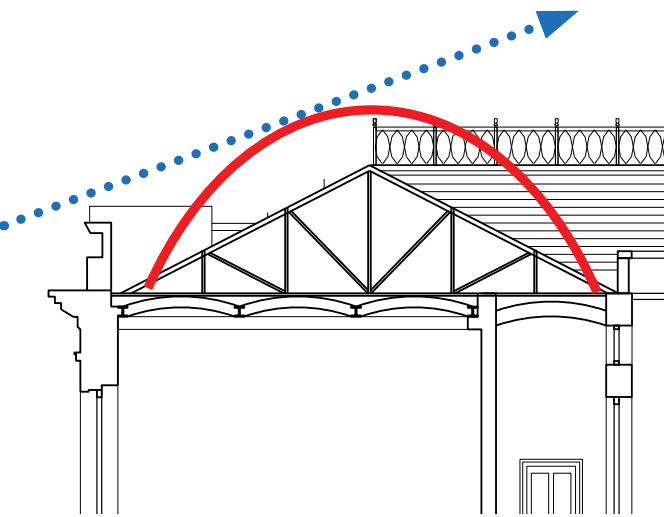
The roofscape

Concept approach

Above: Carriageworks, Redfern
An example of Victorian roof trusses

- Filigree with efficient structures
- Each element clearly expressed, with lightness and hierarchy
- Sense that they can be dismantled and reassembled
- Characteristic of Victorian roof structures in Sydney and Australia

Below: Overlay of section
New curved roof form played against the existing pitched roof



Dismantle the existing ancillary roof

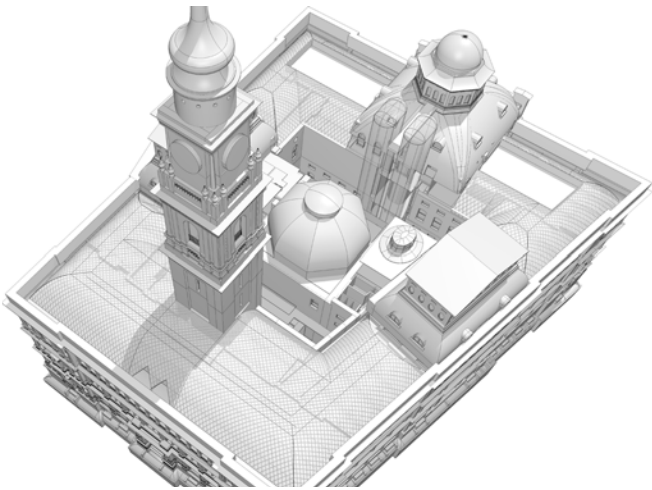
- Remove the recent profiled metal roof, plants, vents, and assorted access ladders and ad hoc structures.
- Dismantle the prefabricated steel truss.

Replace with new contemporary roof

- Use a curving form to address any visual impact from street while providing space and height to provide level access across roof.
- Draw on filigree and cast metal component aesthetic of the existing structure.
- Give a unified, harmonious setting to the existing domes, towers and lanterns.

View from above

- Seen from the surrounding building, the ancillary roof becomes an elegant base from which the domes and towers rise.
- Carefully crafted and engineered, the roof raises the architectural quality to meet that of the original Lands Building.

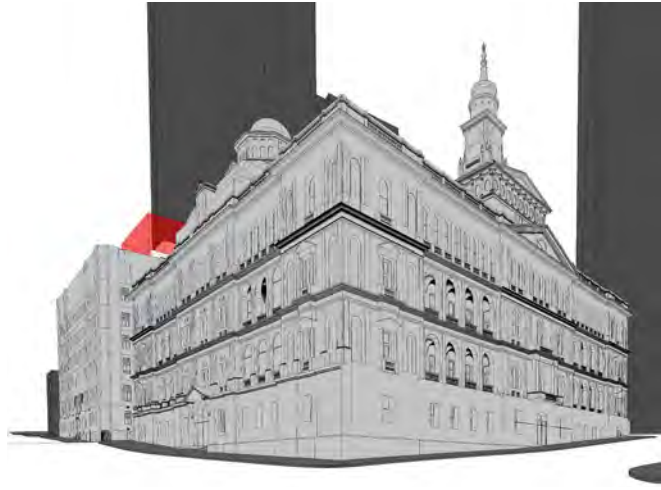


Unified composition

- The curving form will respect the existing opening and defer to existing roof forms.
- The domes, lanterns and tower will be given room to speak to each other, and the relation between them will be better appreciated.
- The scale of individual elements will respond to that of a person and the architecture.
- There will be the ability to grade glass and slate across the roof without undermining the curving form.

External appearance

- The topography and street alignment serve to restrict views of the roof so it is invisible or only partial slivers are seen.
- The most visible section is from the south-east, where the curving metal grid shell acts as a foil to the existing curving domes and towers, as illustrated in the view below.



View from ground level

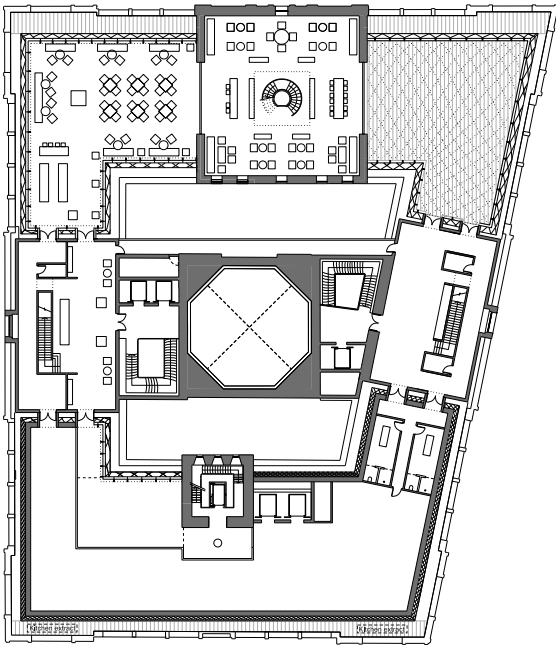
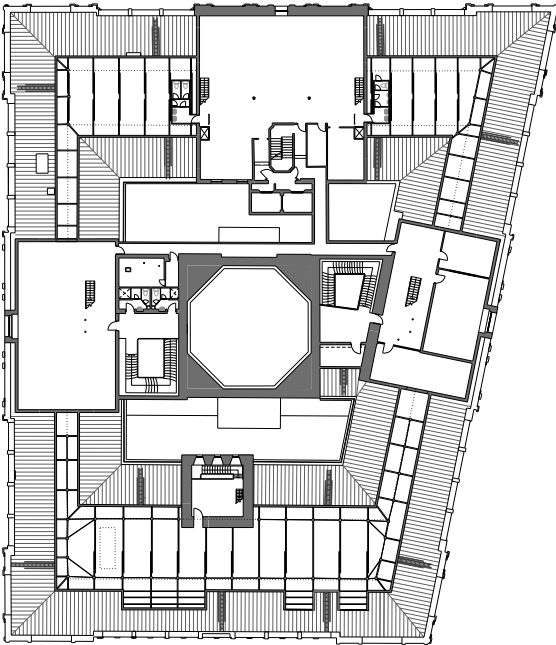
- The existing roof is visible in only a limited number of locations.
- This tradition will be continued with the new roof, the curving form of which pulls back away from the street and internal courtyard, and either:
 1. Disappears in views and is not seen behind the parapet; or
 2. Appears as a simple form or line from which the domes and towers spring.



Third floor level

Arrangement

Guest reception
Winter garden and terrace
Plant and back-of-house



Existing arrangement

- The central Strong Room is not accessible from this level.
- The four perimeter towers and domes are accessed from the four respective stairs, with only the northern dome enjoying lift access.
- There is an enclosed concrete shaft connecting this central core to the east and west domes.
- There is no level access to any of the spaces.
- The ancillary roof is formed of densely located trusses, preventing movement between the spaces.
- The rooms are used for office and meeting spaces.

Proposals

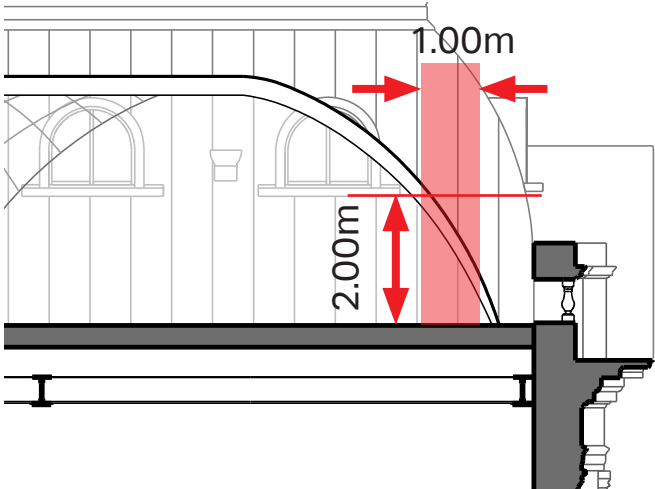
- The ancillary roof will be replaced by a new unifying roof that facilitates access around the third floor for the first time.
- The access will be level, legible and equitable.
- The floor will house the principal hotel guest facing functions.
- Back-of-house functions will be located to the south, with a solid facade.
- The north will house a new winter garden and external terrace.

Spatial characteristics

- The geometry of the roof has been set up to give a clearance of 2m below the structure and 1m from the perimeter.
- Internally, the space will comprise a series of finely crafted, human-scale components to give the sense of a lightweight shell canopy protecting the visitor.

Plant and lifts

- All plant and flues will be held within the new form, in contrast to the current ad hoc arrangement.
- The existing lifts core in the lightwell will be removed and new lifts built within the original building footprint.



The Lands Building

Roof structure



Materiality

- The quality of light in Sydney and unique views to the harbour, city and Lands Building roofscape need to be celebrated.
- The glass specification should allow the blues of the sky and sandstone detailing to be appreciated while actively managing heat loads.
- The solid sections will take their cue from the original slate roofs, with the following pages exploring options.
- The final detailed construction and materials will be the result of meticulous design development and prototypes on and off-site.

Heat load and climate in space

- Creating a place where people feel comfortable is paramount. It should not rely on complicated mechanical systems.
- Careful and ongoing desktop studies will continue to fine tune the design.
- The first move is to stop heat entering the north-western winter garden and then achieving comfort.



The gridshell

- The gridshell will derive its strength from its curvature, using the shell action to minimise bending forces.
- This structure is commonly constructed in steel or timber.
- The structure of each element will be clearly expressed, with a layering of components to create an efficient, elegant form without the need for additional cross-bracing members.

Precedent:
The Victorian Conservatory
Clarity of form, pushing technology and utilising repetition
Antecedent of the Modern movement with the desire to open up and let light in
Visually light but structurally robust – a complementary counterpoint to their often solid masonry bases
Images
Left: Chiddingston Castle, Architect Peter Hulbert and Engineer Buro Happold
Right: Palm House, Edinburgh Royal Botanic Gardens, by Robert Matheson



Aesthetic

- The design draws on the rich Victorian precedents to create a contemporary response.
- The delicate structure will sit atop a sandstone base and seek to accentuate the character of both.
- The simple, elegant form will act as a deferring foil to the copper roofs and domes.
- The delicate engineered structure will trace a clear line to the Victorian joy of invention and discovery that informs the Lands Building.
- The parallel has particular reference to the builder John Young, who was a superintendent on Crystal Palace under Paxton.

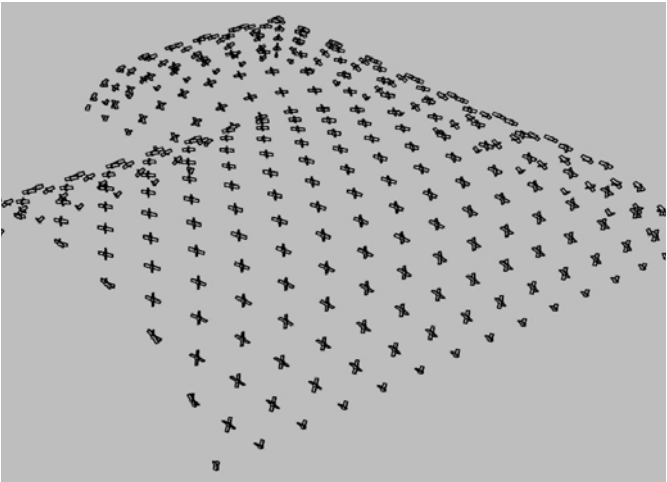
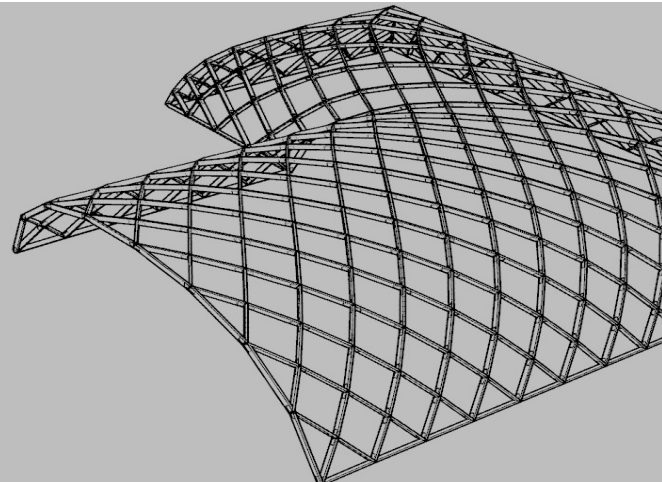
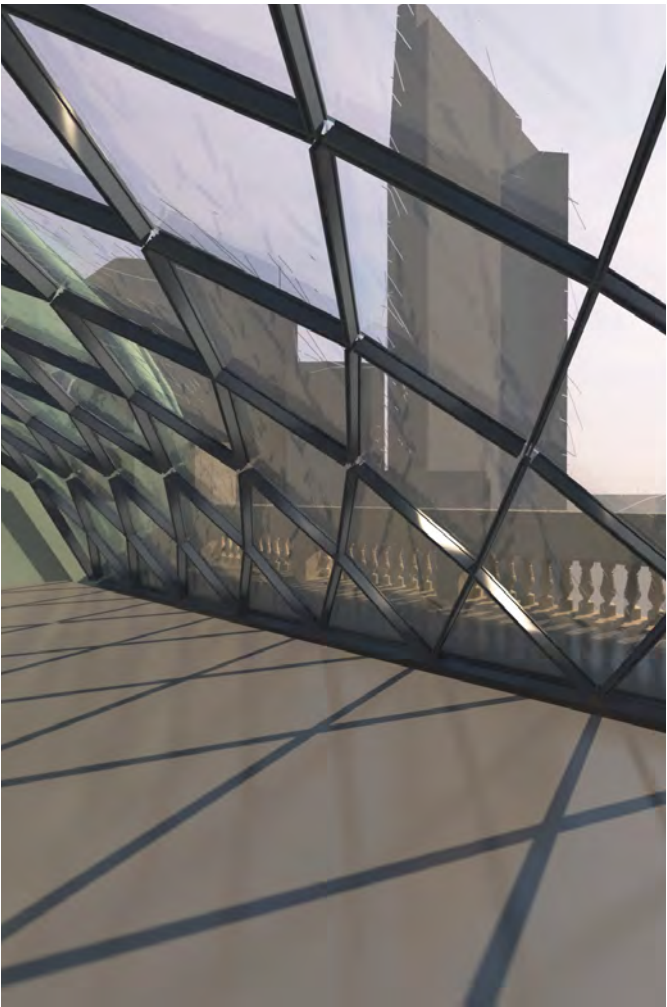


The Lands Building

Roof structure

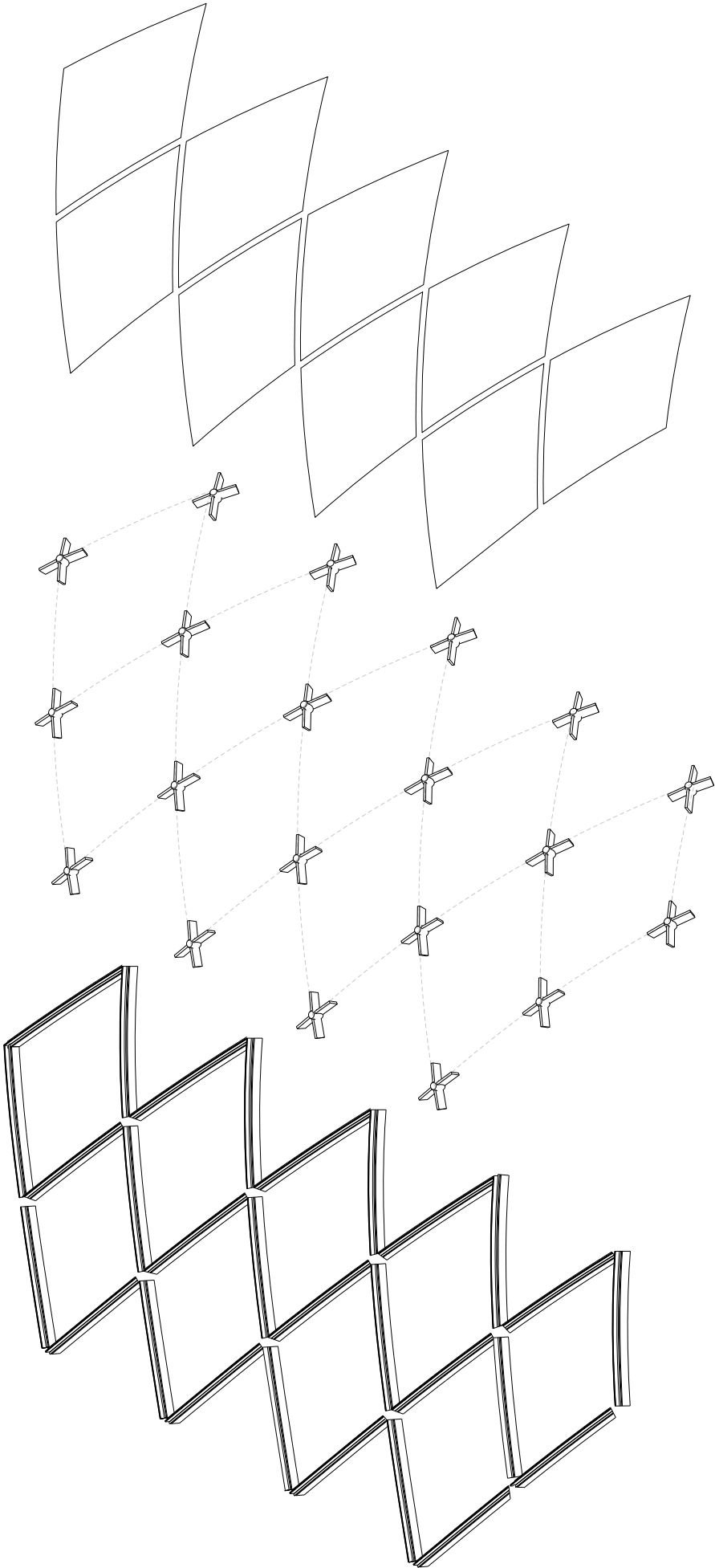
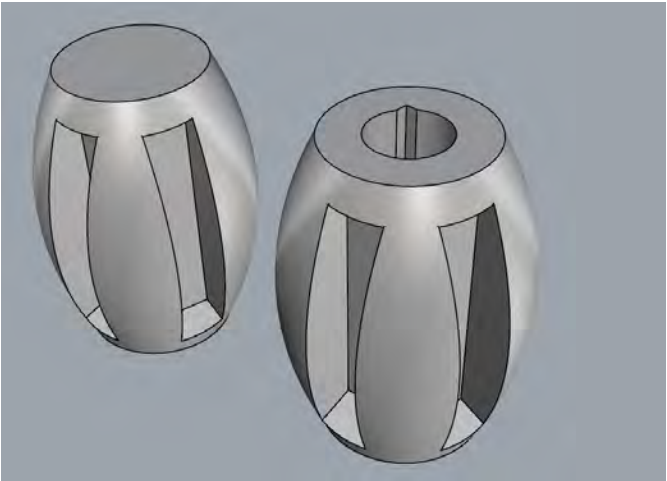
Components

- Eschewing a homogeneous flat structure, the submitted proposals express each element or component.
- A pair of 100mmx12mm flat plates, cut as segments of a curve, will connect cast steel nodes with four arms to create a stable double-curved base.
- The connection bolts are an important part of the overall aesthetic, and will create delicacy and legibility.



Node casting

- A single node casting will allow all the geometries to be addressed, with four slots to receive the spigot plates and the final cruciform shape.
- Using computer modelling, each of the four plates will be cut to size and welded in place prior to finishing.
- Each node will be machined as an internal tube or 'key' to assist with the CNC machining and to visually lighten the construction further.



Right: Exploded axonometric of the grid-shell components.
 Top- single curvature double glazed unit
 Middle- Node casting with spigot plates
 Bottom- Pairs of 100x12mm flat plates, fixed to the spigot plates.

- Below: Section through components
1. Double glazed single curvature panel, with
 2. Mullion to interior and no exterior capping;
 3. Spigot plate, connected to node casting; and,
 4. Pair of 100x 12mm flat plates.

