

Demolition

Heritage lanterns

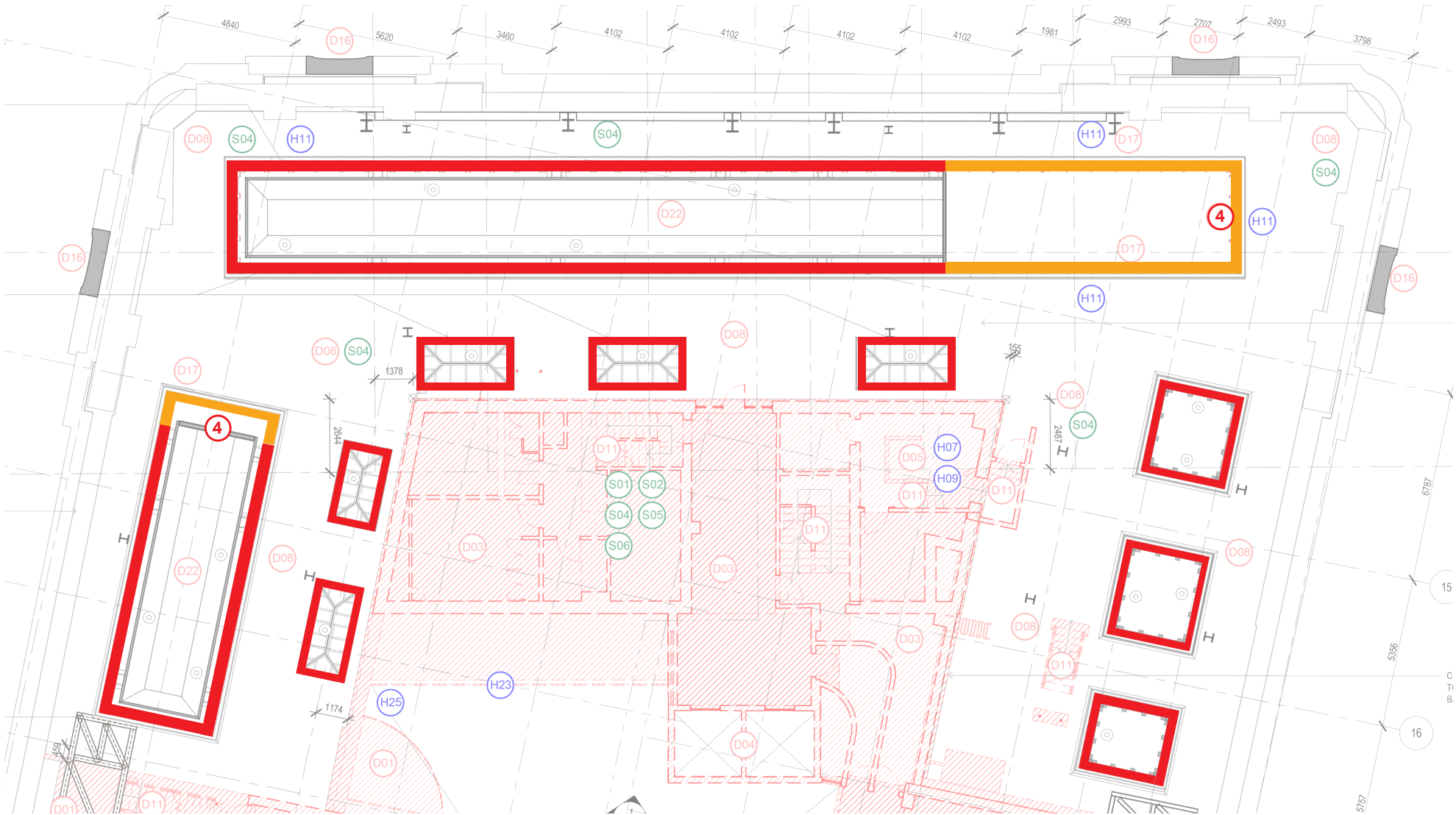
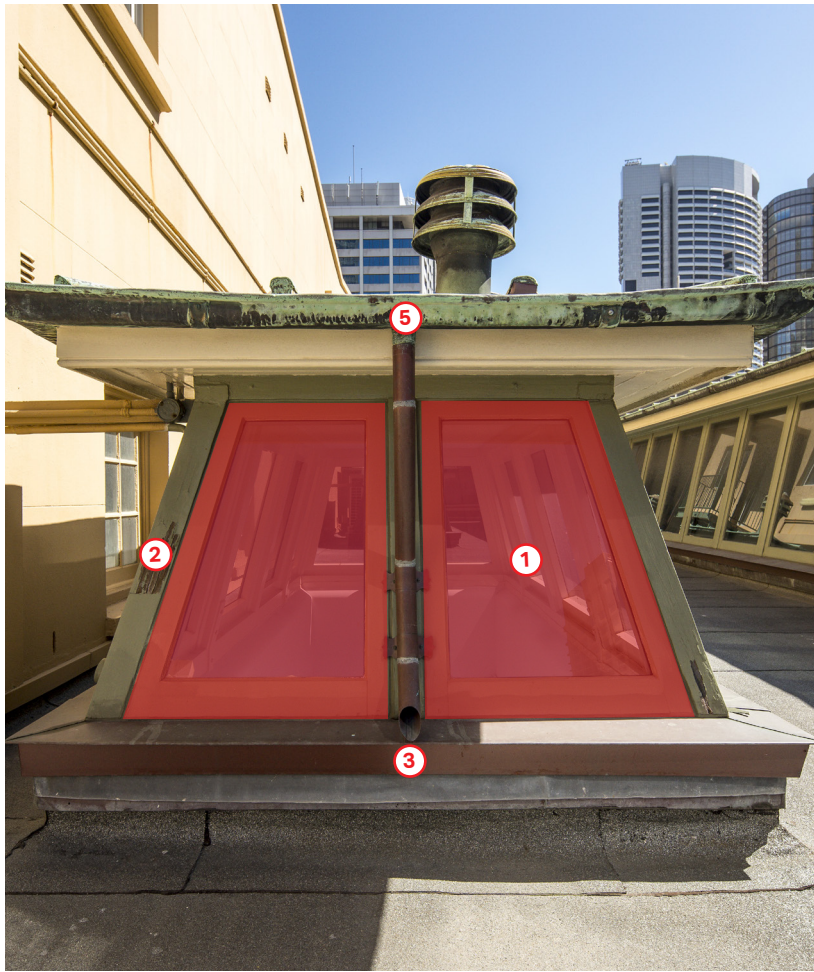
SP-AR-E-MAKE-SK0114 [A]

- At GMP TTW façades proposed to repair and upgrade all existing window frames and re-glaze with new double glazing. The nature of retrofitting existing windows, of which most are in poor condition, mean this will be an expensive exercise and could considerably weaken the existing frame.
- Following discussions with TTW façades, Built and Urbis, an alternative option has been proposed, which would instead replace all of the existing windows with new timber framed DGU's. The primary mullions would be retained.
- Producing new timber frames would likely be more cost effective while also achieving a warranty more easily

Notes

- Carefully remove existing western red cedar timber window frame and glass. To be replaced with new timber framed DGU, louvred panel or solid infill panel depending on location. Refer to following pages for more detail.
- Retain existing primary mullions. TTW have advised the primary mullions provide structural support to the lantern roof. TTW to advise on condition of primary mullions and if any need replacing. Refer to Timber inspections Report 1127-Nov-18 for more detail.
- Copper over flashing (Urbis advised the existing timber sill has been over clad with copper recently in the last 2-3 years). Facade consultant to further advise on detailing.
- Carefully remove existing solid infill panels, existing louvred panels and redundant services. To be replaced with louvred panel or solid infill panel depending on location. Refer to following pages for more detail.
- Retain all copper roofs and down pipes except those which need repair (as advised by Urbis/ TTW façades)

- Remove existing timber window frame and glass. Retain existing primary mullions.
- Remove existing solid infill panels and louvred panels. Retain existing primary mullions.



Proposed strategy

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Heritage lanterns

SP-AR-E-MAKE-SK0115 [A]

- TTW Façades’ recommendation is to install DGUs to all roof lanterns (Gym, pool and spa). Refer to Aconex correspondence TTWNSW-GCOR-000713 and TTWNSW-ADVICE-000185
- TTW Façades have advised the gym and spa areas should not have the same humidity as the pool so the risk of condensation on the glazing is reduced but not totally eliminated. TTW recommend the use of the same glazing and details for these areas as the pool.

- Proposed timber framed DGU's to replace existing (fixed glazing). Angle of window to match existing. Refer to next pages for more detail.
- Proposed location of timber infill panels to match existing. Angle of new panel to match existing. Built/ TTW façades to further advise on condition of existing and whether replacement is required
- Proposed location of timber louvred panels to accommodate mechanical requirements. Louvred panels to match existing. Angle of new panel to match existing
- Ⓐ Proposed location of access panels to provide access to mechanical plant room. Refer to proposed lantern elevations for more detail
- ◀ Outside air intake or exhaust air extract



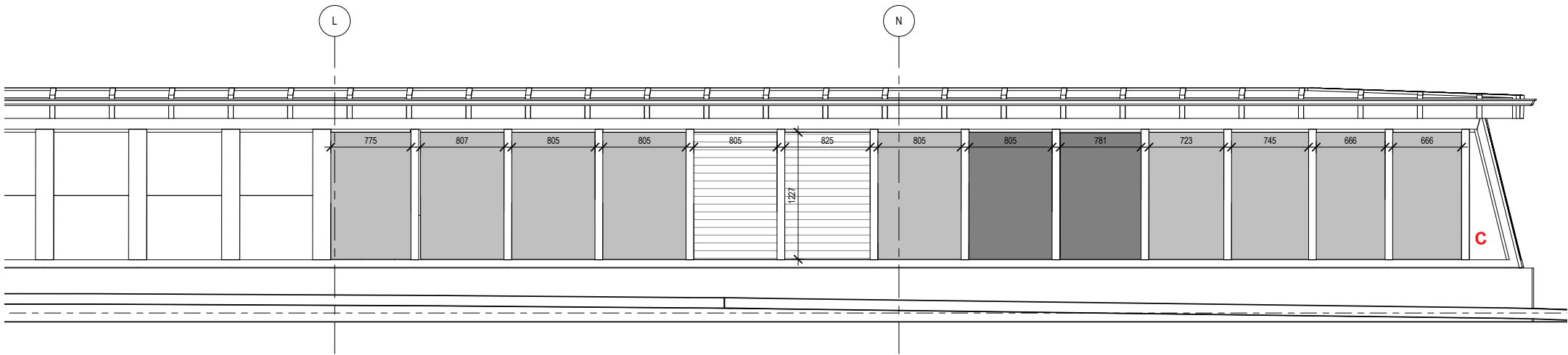
Pool plant room

Heritage lantern elevations

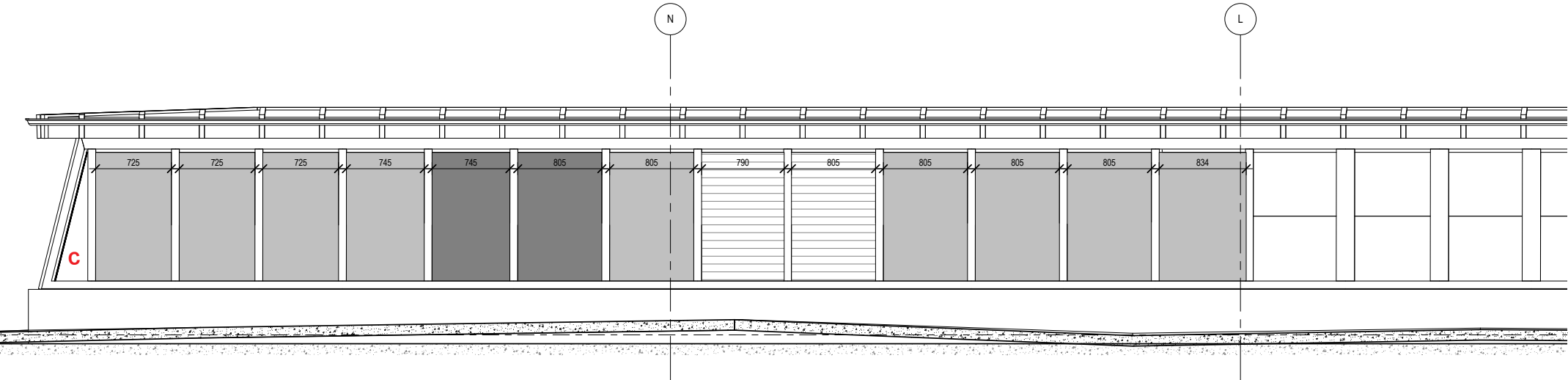
SP-AR-E-MAKE-SK0116 [A]

- Notes
- Proposed location of timber infill panels to match existing. Angle of new panel to match existing. Built/ TTW façades to further advise on condition of existing and whether replacement is required
 - Proposed location of timber louvred panels to accommodate mechanical requirements. Louvred panels to match existing. Angle of new panel to match existing
 - Proposed location of access panels to provide access to mechanical plant room. Refer to proposed lantern elevations for more detail. Final door hardware to be discreet and submitted to Make and Urbis for approval
 - Proposed timber framed DGU's to replace existing (fixed glazing)
 - C

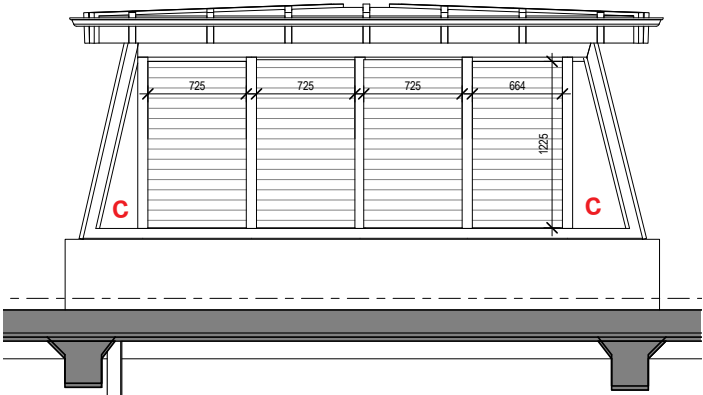
Existing copper cladding



Pool lantern: South elevation
Backgrounds taken from Ridley revit model



Pool lantern: North elevation
Backgrounds taken from Ridley revit model



Pool lantern: East elevation
Backgrounds taken from Ridley revit model

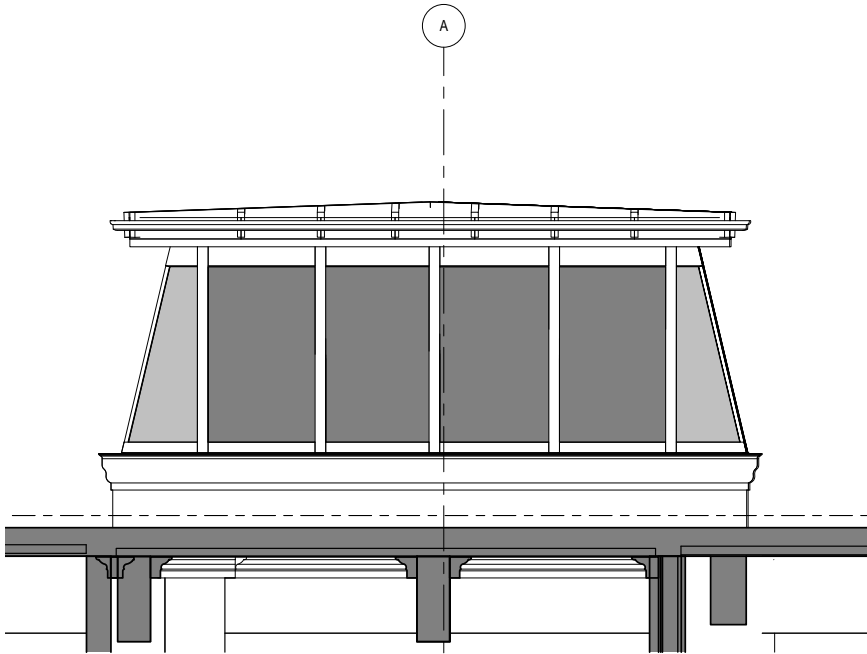
Gym plant room

Heritage lantern elevations

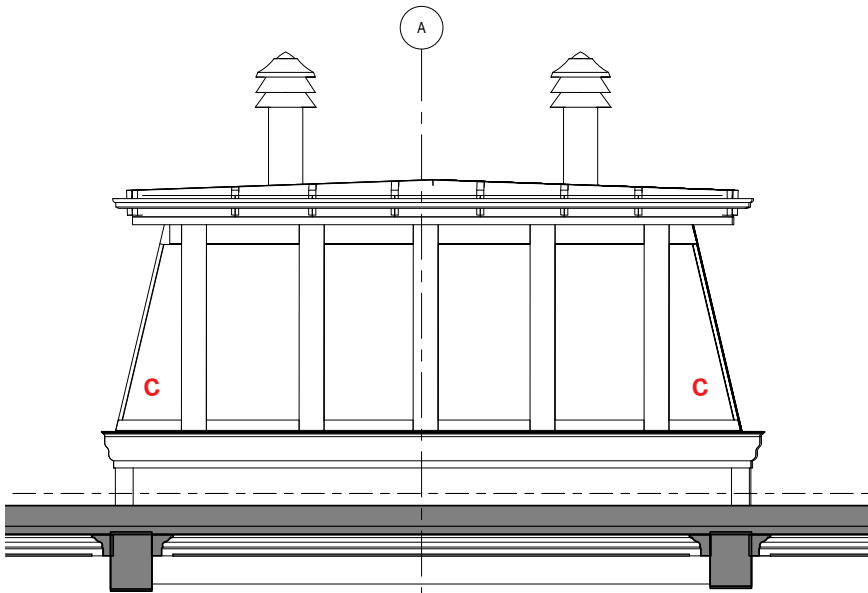
SP-AR-E-MAKE-SK0117 [A]

- Notes
- Proposed location of timber infill panels to match existing. Angle of new panel to match existing. Built/ TTW façades to further advise on condition of existing and whether replacement is required
 - Proposed location of timber louvred panels to accommodate mechanical requirements. Louvred panels to match existing. Angle of new panel to match existing
 - Proposed location of access panels to provide access to mechanical plant room. Refer to proposed lantern elevations for more detail. Final door hardware to be discreet and submitted to Make and Urbis for approval
 - Proposed timber framed DGU's to replace existing (fixed glazing)
 - C

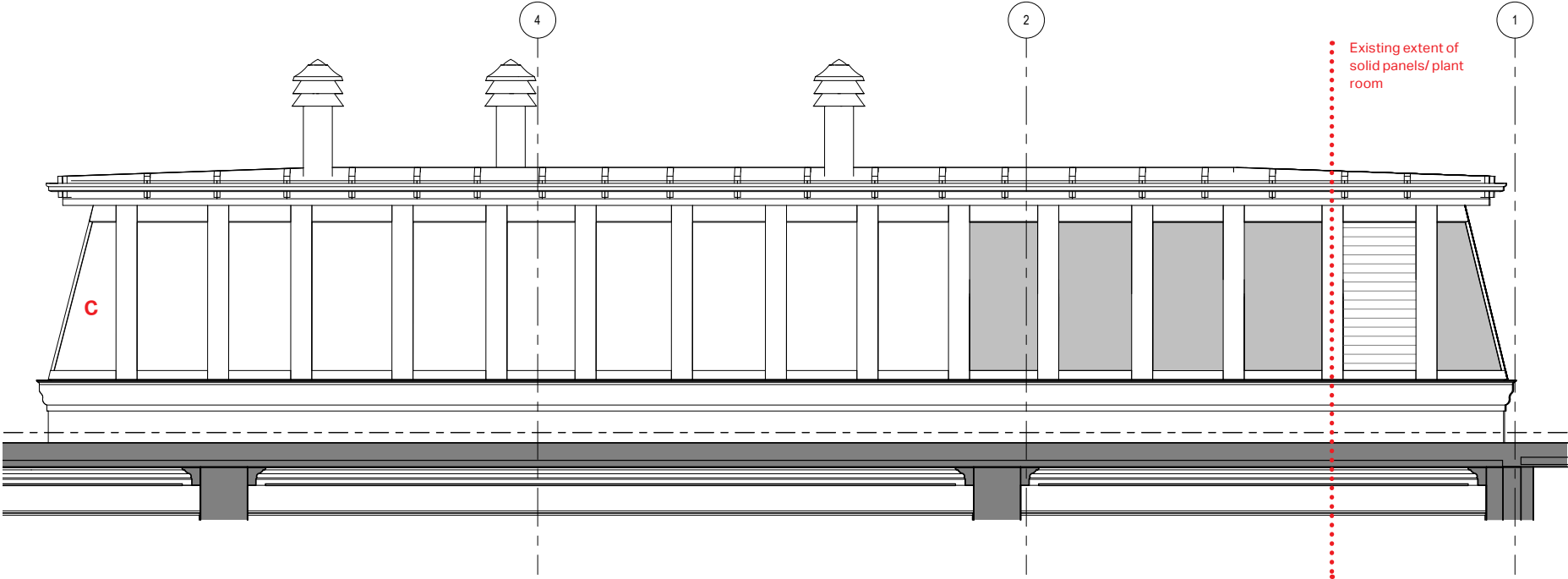
Existing copper cladding



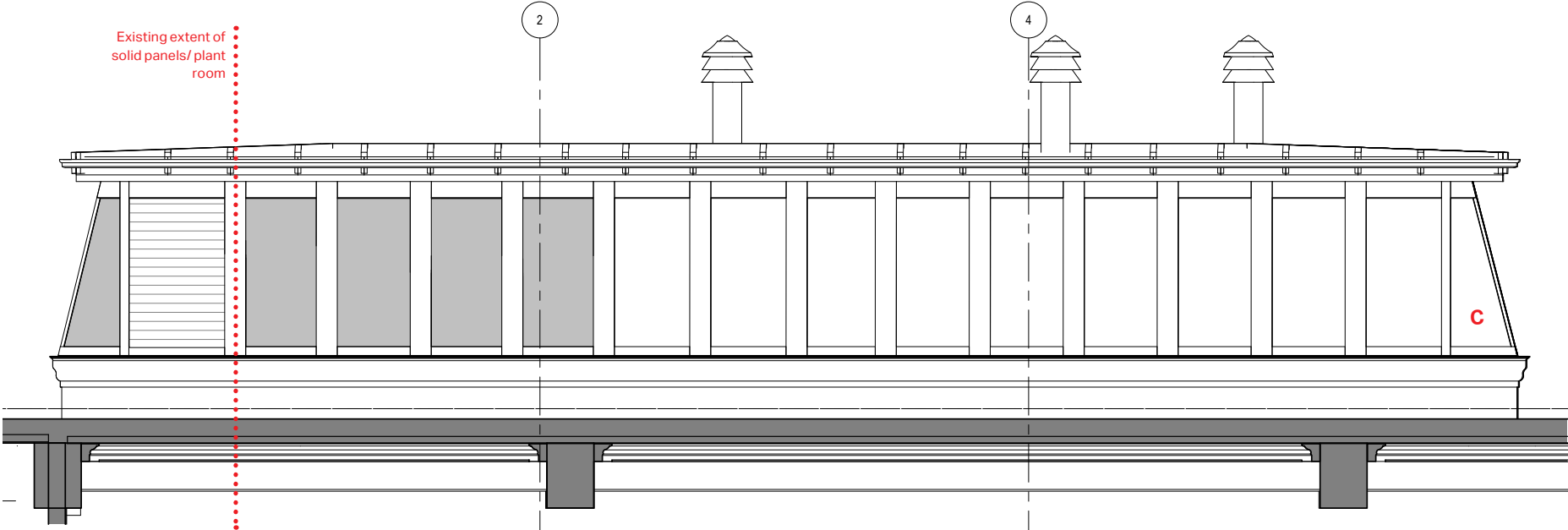
Gym lantern: North elevation
Backgrounds taken from Ridley revit model



Gym lantern: South elevation
Backgrounds taken from Ridley revit model



Gym lantern: East elevation
Backgrounds taken from Ridley revit model



Gym lantern: West elevation
Backgrounds taken from Ridley revit model

Proposed detail

Heritage lanterns

SP-AR-E-MAKE-SK0118 [A]

Work in progress detail coordinated with TTW façades, Built. Refer to Aconex mail correspondence MKRD-MM-000031. Detail of condensation gutter, sealed pipe drain out and waterproofing to be further developed with facade engineer.

Condensation

- TTW have recommended new DGU's to replace the existing pool windows due to the high humidity of the pool space below. Warm air is also provided by the mechanical systems to this glazing.
- TTW advised that the risk of condensation is mainly from midnight to 6am when temperatures are at their minimum (and mechanical systems are throttled back to save energy potentially resulting in lower internal and higher dew point temperatures). The proposed drip trays will catch any condensation running down the glass and divert it outside.
- TTW have advised that an aluminium sheet is required to cover the top and bottom section of each glazing panel. The high conductivity of the aluminium will allow heat to transfer from the metal to the glass, reducing the condensation risk.
- The DGU keeps the external cold outside, and the aluminium attracts heat from the internal environment.
- The gym and spa areas should not have the same humidity as the pool so the risk of condensation on the glazing is reduced but not totally eliminated. It will not be necessary to provide heating to the glazing as per the pool.

Timber species

- TTW have advised Timber inspections Report 1127-Nov-18 states that the original frames are western red cedar.
- TTW recommend that for durability, availability and heritage reasons, that western red cedar be used again for the new frames
- Western red cedar is corrosive to copper to a degree (corrodes out copper nails), therefore new timber should be primed as a minimum before installation, to isolate timber from copper sills

Structure

- The existing metal ties could be retained, however it may be difficult to paint without removing it entirely (including the turn-buckles). TTW to advise on the appropriate strategy if these are removed and replaced with new ties, or kept in place and carefully upgraded.

Maintenance

- New windows are not operable
- TTW and Built advised maintenance could be done from below, using a long pole from within the pool or surrounding edges, and that this is common practice in Australia.

