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09 February 2021

Mr Anthony Witherdin
Director - Key Sites Assessments
Department of Planning Industry and Environment

Via Major Projects Portal

Dear Mr Witherdin.

PITT STREET NORTH OSD REQUEST FOR ADDITIONAL INFORMATION STAGE 1 MODIFICATION (SSD 8875 MOD 1) & STAGE 2 (SSD 10375)

This letter responds to the request for additional information dated 4 February 2021 in relation to the above applications for the Pitt Street North Over Station Development (OSD).

1. REQUEST FOR INFORMATION

The Department has requested clarification of the proposed projections, specifically:

"Clarify the extent of the proposed projections beyond the approved building envelope. In particular, the extent (if any) of the proposed sunshades on the tower encroaching on the required minimum 6 metre setback along Castlereagh Street."

2. CONCEPT ENVELOPE PROTRUSION BY SUN SHADING DEVICES

The OSD tower has three principle types of façade, each of which requires a unique sun shading system to achieve internal comfort parameters and Ecologically Sustainable Development (ESD) targets.

- The east (Castlereagh Street) and west (Pitt Street) facades are designed to deal with the highest solar exposure from the rising and setting sun. Due to this large anticipated solar heat gain, horizontal sunhoods are proposed on these facades.
- The north facade is designed to allow daylight into the building from the north, while limiting the solar gain from the high angle north sunlight. By maximising the depth of the horizontal sunhoods on the tower facades facing north, there is no need to protrude beyond the building envelope to the north.
- The south (Park Street) facade has very little solar exposure, offering the best opportunity for visual transparency without the associated issues of solar gain. As a result, and in contrast to the other facades, no horizontal sunhoods have been provided on the southern façade. Vertical fins have been added to the southern façade to ensure the building receives low angled sun in the early morning and late afternoons.

The extent of proposed envelope protrusions by the sun shading elements on the varying building facades have been nominated and detailed within the Stage 1 Modification (MOD) and Stage 2 SSD



Environmental Impact Statement (EIS). However, the detail of the elements on the eastern (Castlereagh Street) tower façade has been unintendedly excluded. Notwithstanding, the sun shading elements have been identified within the impact assessment report detailing their visual and solar impact, and on architectural plans.

Table 1 below outlines the sun shading projections for both podium and OSD.

Table 1: Proposed building envelope projection extents

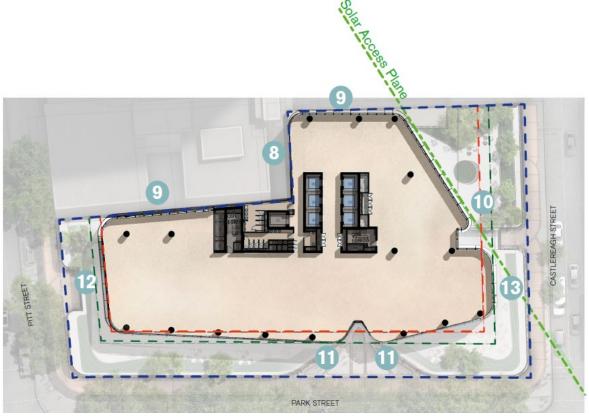
	North	East Castlereagh Street	South Park Street	West Pitt Street
Podium	0mm	210mm	410mm	210mm
Tower	0mm	460mm*	200mm	0mm

^{*} For the portion of the building parallel with the street

Figure 1 and **Figure 2**, illustrates the proposed tower sun shading projections in relation to the building envelope (6m setback line), weighted average setback and site boundary. No building elements (including sun shading devices) project beyond the solar access plane.

Figure 3 indicates the sun shading devices shown on the eastern tower elevations.

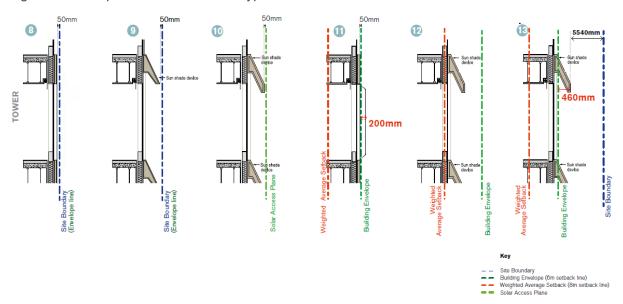
Figure 1: Envelope Protrusions - Typical Tower Levels



Source: Foster and Partners



Figure 2: Envelope Protrusion Detail - Typical Tower Levels



Source: Foster and Partners

Figure 3: South eastern façade view of sun shading elements



Source: Foster and Partners

3. PROPOSED UPDATE TO SSD 8875 MOD 1

Following receipt of the Departments Pitt Street North OSD Request for Additional Information request, it was identified that the projection to the south eastern tower facade (**Figure 1** and **Figure 2** Location 13) was excluded from Stage 1 MOD Report and Stage 2 SSD EIS (and accompanying Architectural Design Reports) in error.

Architectural plans and all other documentation accompanying both the Stage 1 SSD 8875 MOD 1 and Stage 2 SSD 10375 indicate all sun shading devices. The additional detail of the south eastern tower facade horizontal projection extent does not introduce a new element to the modification or proposed building but ensures all measurements are accurately depicted.

It is therefore requested that Stage 1 SSD 8875 MOD 1 be updated to accurately reflect the extent of protrusions contained in **Table 1** above. As such, wherever the detailed projection extents are quoted



in the Stage 1 MOD Report (sections 1.4 and 4.1.2), should instead include reference to the following details:

Lower and upper podium -

- A maximum 210mm projection from the eastern façade;
- A maximum 210mm projection from the western façade; and
- A maximum 410mm projection from the southern façade.

Tower -

- A maximum 460mm projection from the eastern façade; and
- A maximum 200mm projection from the southern façade.

Table 4 in Section 4.2 should be updated to reflect a protrusion extent of 210-460mm to the proposed Stage 1 Amended Building Envelope to allow for the proposed sun shading devices.

4. ASSESSMENT CONTAINED WITHIN SSD 8875 MOD AND SSD 10375

As documented within the Stage 1 MOD Report and Stage 2 SSD EIS, the accompanying built form impact assessment, architectural plans and modelling detailed the proposed sun shading elements Commentary on each of the relevant assessment requirements is provided below.

Weighted average setback

A weighted average setback has been applied around the entirety of the tower's street frontage with that portion of building set forward of the 8m setback line, offset with an equivalent amount of non-building area set back away from the setback line.

As noted in the Stage 1 MOD Report, the building façade sits wholly within the 6m building envelope setback (as proposed to be modified), with only minor projections for sun shading elements, planted elements and balustrades on the podium level terrace.

As the building façade will read as the building line from the public domain, and the sun shades are minor elements within the façade, these sun shading elements were excluded for the purpose of calculating the weighted average setback in the Stage 1 MOD Report. This has resulted in no change to the calculations provided within the Stage 1 MOD Report, Stage 2 SSD EIS and Response to Submissions (RTS) Report.

The overall massing of the building remains in line with the principles listed within the OSD North Design Guidelines and the minor modification to the weighted average setback guideline results in no additional overshadowing of key public spaces or view impacts. The building will reinforce its relationship with the heritage listed buildings further to the north along Castlereagh Street.

Solar Access

Foster + Partners has undertaken a Shadow Analysis of the proposed envelope modifications which demonstrates that the modified envelope does not result in any additional overshadowing of special areas in the vicinity of the site compared to that of the approved envelope, notably Sydney Town Hall Steps, Sydney Square and Hyde Park.



The model used within the solar access assessment included the sun shading elements and as such there is no change to the assessment undertaken within the Stage 1 MOD Report, Stage 2 SSD EIS and RTS Report.

Visual Impacts

The Visual Impact Assessment (VIA) carried out for the Stage 1 MOD and Stage 2 SSD accounted for the sun shading elements on the eastern façade of the tower. The VIA concluded that the proposed built form is unlikely to result in a significant change to the site's visual character, scenic quality, sensitivity of the view place, or viewer sensitivity. The OSD also does not interrupt any key public view corridors across the Sydney CBD.

Overall, the potential visual impacts of the proposed development on the public and private domain continue to be reasonable and acceptable.

Ecological Sustainable Development

Inclusion of the sun shading devices is integral to the achievement of ESD objectives, including achievement of the targeted ratings required by the Concept SSD DA. The project is targeting a 6 Star Green Star Design and As-Built v1.3 rating, and to exceed NABERS minimum compliance requirements for energy and water, including a 5.5 Star NABERS Energy Base Building rating; and 3.5 Star NABERS Water Whole Building rating.

5. CONCLUSION

In summary, details of the eastern tower façade sun shading devices were omitted from the Stage 1 MOD Report and Stage 2 SSD EIS (and accompanying Architectural Design Reports) in error. The MOD Report should have included more comprehensive details of the façade projections, including that of the eastern tower facade, as follows:

Lower and upper podium -

- A maximum 210mm projection from the eastern façade;
- A maximum 210mm projection from the western façade; and
- A maximum 410mm projection from the southern façade.

Tower -

- A maximum 460mm projection from the eastern façade; and
- A maximum 200mm projection from the southern façade.

It is requested that the Stage 1 MOD (SSD 8875 MOD 1) be updated to reflect the above details.

The sun shading devices were shown on the architectural plans and the models used to evaluate the impact of the proposal in relation to solar access, visual impact and ESD, for both SSD 8875 MOD 1 and SSD 10375. As such, the update to the modification report does not introduce any new building element or require any further impact assessment than that already provided within the application.

The conclusions drawn from these assessments remain valid and the body of the assessment does not change from that contained within these two applications.



Yours sincerely,

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