



1-9 Moreland Road, Coburg

Amendment C160 Panel Photomontage and Shadow Analysis Modelling – Assumptions & Explanatory Notes

21 October 2016

1. Urbis Pty Ltd has been requested by Planning & Property Partners Pty Ltd to prepare:
 - a. shadow diagrams which depict the potential overshadowing impacts of future development between 11am and 3pm at the equinox in response to Direction 14 c) of the Panel's Directions dated 6 October 2016; and
 - b. a series of block form photomontages when viewed from the surrounding area in response to Direction 14 i) of the Panel's Directions dated 6 October 2016.
2. The shadow diagrams and photomontages have been prepared under two scenarios, as follows:
 - a. Scenario 1 – DDO25 compliant massing, based on the draft DDO 25 referenced in Council's resolution of 14 September 2016; and
 - b. Scenario 2 – Alternative massing, being the Proponent's position in relation to the preferred form of DDO25.
3. Following a workshop with the project architect Daniel Galtieri (Architecton) and Mark Sheppard (David Lock Associates), a series of block form building envelopes were developed for the site, which are based on the following assumptions:
 - a. 18 metre residential building separation (compliant with the Moreland Apartment Design Code 2015);
 - b. maximum 20 metre building depth, where achievable;
 - c. a consistent setback to the property's southern boundary, in line with the existing (Administration) heritage building; and
 - d. an estimated eastern road level of 43m AHD (43.5m AHD at northern end).
4. The proposed building envelopes (Scenario 2) represent just one possible redevelopment scenario for the subject site, and the final form of any development proposal will need to be tested through the planning permit application process based on the final form of proposed DDO25.
5. The building envelopes were then massed to create the block form photomontages. The preparation of the photomontage and shadow analysis imagery involved the following:
 - a. 3D Model has been built upon a geo-referenced base, registered to datum GDA94 on projection MGA Zone 55, with all levels in AHD.
 - b. Primary data source for the model was based on the detailed feature survey dataset supplied by Hellier McFarland on Friday 26th May 2016. This covers the site and immediate context. This dataset was registered against a geo-referenced cadastral base.

- c. Additional supporting digital GIS data (terrain contours and cadastre) was obtained from PSMA Australia Limited. This includes 1m contours for areas outside the feature survey extent.
 - d. Aerial photography is geo-referenced and has been sourced via Nearmap.
 - e. All base photos used for photomontages have been taken using a Canon 6D SLR full frame camera, coupled with a 24-105mm F4L lens and Canon GP-E2 GPS unit.
 - f. All photos have been taken at 24mm (wide angle) to capture additional surrounding context.
 - g. 3D cameras replicating parameters of the original photo have been set up in the 3D model, with views matched based upon the feature survey set against existing photographic elements, prior to inserting the proposed scenarios.
 - h. Shadows analysis has been performed using sun location for 22 September 2016 for the hours between 11am-3pm.
6. A façade has been applied to all building block forms, noting that their application is not intended to represent any architectural response for the site but rather to fairly depict a rudimentary built form.
 7. As stated, a series of photographs have been used from surrounding areas. Given the significant size of the site, a 24mm wide angle view has been adopted to show the site in its context. This view is wider than human perspective.
 8. Existing vegetation, particularly within the Merri Creek Reserve, is included within the photomontages wherever possible. Where this is not possible (see Viewpoint D for example) representative trees have been modelled to provide an indication of potential impacts. No vegetation is proposed for removal in the Merri Creek or Campbell Reserves.
 9. The following images have been prepared at each location:
 - a. Existing conditions;
 - b. Photomontage showing Scenario 1 (modelled) and Scenario 2 (solid and dotted blue lines) with existing trees to be retained; and
 - c. Photomontage showing Scenario 1 (modelled) and Scenario 2 (solid and dotted blue lines) with existing trees to be retained and indicative future tree planting at 75% maturity (as shown on the landscape concept that formed the basis of the rezoning request).
Note: Vegetation between the edge of the existing car park and the top of the retaining wall has been retained for present purposes.
 10. The following assumptions apply to the indicative building massing prepared under Scenario 1 based on Council's resolution of 14 September 2016:
 - a. 12.5m setback from western boundary (Campbell Reserve) in accordance with Figure 3 of proposed DDO25;
 - b. 50m setback from the centreline of Merri Creek, or 12m from the eastern boundary, whichever is the greater;
 - c. 3m floor-to-floor levels for residential uses;
 - d. 3m floor-to-floor levels for commercial uses;
 - e. 6 storeys (18m) above 47m AHD for buildings fronting Campbell Reserve (i.e. 65m AHD to the parapet);
 - f. 4 storeys (12m) above the future road (assumed at 43m AHD) fronting Merri Creek (i.e. 55m AHD to the parapet);
 - g. 4 storeys (12m) above the level at the centre of the commercial building footprint fronting Moreland Road (41m AHD) (i.e. 53m AHD to the parapet);

- h. 4 storeys (12m) above the level at the eastern boundary of Moore Street (which is 45m AHD) for buildings fronting Moore Street (i.e. 57m AHD to the parapet); and
 - i. for a distance of 18m behind the heritage (Administration) building, building height is 4 storeys (12m) above Campbell Reserve (59m AHD).
11. In addition to the indicative building massing shown as part of Scenario 1, a blue dotted line represents Scenario 2, being the Proponent's position in relation to the preferred form of DDO25. Scenario 2 is based on the following assumptions:
- a. 8m setback from the western boundary (Campbell Reserve);
 - b. 12m setback from the eastern boundary for residential buildings fronting Merri Creek;
 - c. 8m setback from the eastern boundary for any commercial building fronting Moreland Road;
 - d. 4m floor-to-floor level for ground floors to allow commercial or elevated residential uses (above 47m AHD);
 - e. 3.2m floor-to-floor levels for residential uses above ground floor;
 - f. 4m floor-to-floor levels for commercial uses;
 - g. 0.8m parapet to all buildings
 - h. 6 storeys (20.8m) above 47m AHD for buildings fronting Campbell Reserve (i.e. 67.8m AHD to parapet);
 - i. 4 storeys (14.4m) above 47m AHD for buildings fronting Merri Creek (i.e. 61.4m AHD to the parapet);
 - j. 4 storeys (14.4m) above 47m AHD for buildings fronting Moore Street (i.e. 61.4m AHD to the parapet);
 - k. 3 commercial storeys (12.8m) above 47m AHD for buildings fronting Moreland Road (i.e. 59.8m AHD to the parapet).
12. Shadow diagrams have also been prepared for the proposed DDO25 compliant massing (Scenario 1), based on Council's resolution of 14 September 2016. The shadow diagrams have been prepared between the hours of 11am and 3pm in accordance with the proposed DDO25.
13. In addition to the shadow diagrams depicted for Scenario 1, a blue solid line depicts the Proponent's position regarding setbacks under Scenario 2, and a blue dotted line represents the additional shadow impact associated with Scenario 2, being the Proponent's position in relation to the preferred form of DDO25.