

Solar Impact Assessment Summary 100 Mount Street, North Sydney

Study Notes

LEP

The study is based upon North Sydney LEP with specific attention to Draft Amendment No 28 with relation to Solar Impact parameters.

Eastern Standard Time.

In accordance with the North Sydney LEP draft amendment 28 the study is based upon Eastern Standard Time only including in the period when Eastern Summer Time is operating

Solar Parameters

Typical solar parameters have been used. Whilst different international agencies have fairly consistent agreement with sun prediction angles such as altitude and azimuth angles there is marginal variation. This variation in angles creates significantly different predicted shadow results especially at the winter solstice. Angles used in this study are typical of most agencies.

Solar Impact Conclusion

New Shadow

Predicted new shadow from the proposed development is as portrayed in the accompanying shadow diagrams.

Upon Residential Areas

Using the abovementioned solar parameters there is a minor amount of overshadowing predicted as the time approaches 3 pm at Winter Solstice. This overshadowing on the western walls of the western most buildings in in Whaling Street does not cause these residential buildings to receive less than three hours of sunlight at Winter Solstice.

No other residential buildings are affected by the proposed development

Upon Designated Open Space

Using the abovementioned solar parameters there is no new overshadowing predicted over any Special Areas or designated open space within the North Sydney CBD

Assessment Parameters under existing LEP and Diagrammatic Comparative Study

Assessment parameters under the existing LEP have significant differences with those under the proposed Amendment 28 by which the solar study has been carried out. A comparative study showing predicted variations between the shadow created by the proposed building, the maximum envelope under the draft amendment 28 and the maximum height under the existing LEP have been shown on the enclosed comparative diagrams however it is important to note that the available envelope under the existing LEP is further reduced due to constraints imposed by the existing LEP which are not reflected in the comparative study.

Differences between Exist LEP and LEP under Amendment 28

Time Basis

The existing LEP relies upon Eastern Standard Time and Eastern Summer Time. Eastern Summer Time Reliance upon Eastern Summer Time significantly reduces the potential building envelope at 100 Mount St.

Special Area Time Window

Under the existing LEP the new shadow constraints are effective from 10am which significantly reduces the potential envelope. The existing LEP relies upon Eastern Standard Time and Eastern Summer Time. Eastern Summer Time the potential envelope.

Maximum Height or RL

Under the existing LEP the potential envelope is defined by maximum RL of 195. The envelope under Amendment 28 is controlled by maximum height of 138 metres.

Solar Impact Conclusion under Existing LEP

Upon Residential Areas

Using the abovementioned solar parameters there is a minor amount of overshadowing predicted as the time approaches 3 pm at Winter Solstice. This overshadowing on the western walls of the western most buildings in in Whaling Street does not cause these residential buildings to receive less than three hours of sunlight at Winter Solstice.

Upon Designated Open Space

Under the existing LEP the proposed development creates new shadow over Mount Street Plaza and Elizabeth Place.