



Subject: Star City Pirrama Road Extension - Wind Environment Statement

Date: Wednesday, 12 August 2009

To: Mr Tino Uchino, Brookfield Multiplex By email Pages: 1

From: Dr Nicholas Truong

This memo presents a summary of our assessment of the wind environment impacts the proposed alternative scheme for the Star City extension. Guidance is obtained from the wind tunnel results for the Scheme of October 2008. These wind tunnel results have been reported in the Pedestrian Wind Environment Report (Report Ref No: WA531-05F10(rev1)) dated July 8, 2009 and Seasonal Wind Comfort for the Unenclosed Gaming Areas Report (Report Ref No: WA531-05F09-(rev0)) dated June 30, 2009.

This memo is based on the architectural drawings from Fitzpatrick and Partners dated 10 August 2009 (Drawings DA-001, DA-005, DA-007 to 011 and DA-014) and a façade flag system designed by Brookfield Multiplex and Yuanda. In comparison to the design of October 2008, the following major changes are noted and their effect will be considered:

1. Re-arrangement of the walls on the ground level
2. Change in shape and curvature of the facade
3. Façade flags along the eastern perimeters of the proposed extension

The effect of the orientation of the subject development and the local building morphology is such the wind conditions will be governed by the north-easterly winds. Wind conditions on the Level B02 to Level 03 are discussed below.

Wind conditions on the light rail platform and bus stop may require amelioration by devices such as the inclusion of baffles screens. However, wind conditions can be verified and treated by the use of a wind tunnel study.

The pedestrian wind conditions at other nearby locations are expected to be similar to those present in the design of October 2008. Based on previous wind tunnel testing, we expect that the wind condition in these areas to be acceptable as main pedestrian thoroughfares with the effect of the existing street planting.

The proposed awning above the main entrance will enhance the wind condition nearby to the main entrance. The pedestrian wind conditions at other nearby locations are expected to be suitable as main pedestrian thoroughfares.

Wind conditions at the retail lobby will be similar or improved compared to the October 2008 design.

Wind conditions in the unenclosed areas associated with the central void will be improved with the automatic closure of the facade flags on the central part of the façade on windy days.

It is expected that with the addition of a façade flag design wind conditions in the unenclosed areas will be suitable for long duration activities for a greater percentage of the year than in the October 2008 design.

Wind conditions on the Level 03 roof are expected to be similar to that of the October 2008 design. However, wind tunnel testing of this area is recommended.

Sydney • Melbourne • Singapore • Dubai www.windtech.com.au

WINDTECH Consultants Pty Ltd: 19 Willis St, Wolli Creek NSW 2205 Australia ABN 72 050 574 037

T: (61.2) 9567 0722 **F:** (61.2) 9567 0733 **E:** reception@windtech.com.au