



TaylorThomsonWhitting

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141211

JBA Urban
Level 7
77 Berry Street
North Sydney NSW 2060

Attention: Kate Tudehope

WENONA ARCHIMEDES BUILDING STRUCTURAL STATEMENT

Dear Kate

Site

It is anticipated that there will be rock at maximum 3 metres below ground.

Shoring

We anticipate there will be contiguous piled wall on both the street boundaries and they will require temporary anchors.

Structure

The structure will be a prestress concrete frame. It will include transfer portals across the pools and the two upper two levels will hang from the roof beams to minimise the depth of the upper two floors.

Lateral Stability

The lateral earthquake loads will be taken by walls on the northern boundary and the stair cores.

The Existing Building

There is a structural joint between the new and the existing buildings. However the areas around the lift and stair cores which are being re-built will be connected to the new building. This is done to allow the cores to provide lateral stability to the new building.

Summary of Design Assumptions

The building will be designed in accordance with the following Australian Standards:

- AS3600 – Concrete Structures
- AS4100 – Steel Structures
- AS1170.0 – Structural Design Actions – General Principals
- AS1170.1 – Structural Design Actions – Permanent, Imposed and other Actions
- AS1170.2 – Structural Design Actions – Wind Actions
- AS1170.4 – Structural Design Actions – Earthquake Actions in Australia

Structural

Civil

Traffic

Facade

Engineers

TTW Group

Directors

RT Green BE Hons MEngSc FIE Aust
D Carolan BE Hons MEngSc MIEAust
R Mackellar BE Hons MIEAust
B Young BE Hons MIEAust
M Eddy BE Hons MIEAust
R McDougall BE MIEAust

Technical Directors

P Yannoulatos BE Hons Dip LGE MIEAust
D Genner BE Hons MIEAust
S Brain BE Hons MIEAust
D Jeffree BE MIEAust
N Burdon ME(Civil) MIPENZ MIEAust
H Nguyen BScEng MIEAust
R Pratikna BE MConstMgt MIEAust

Associate Directors

S Schuetze BE Hons MIEAust
M Rogers BSc Hons MIEAust
D Taylor BE Hons MIEAust
J Tropiano BE MIEAust
P Lambley BE MIEAust
J Haling BE Hons MIEAust
D Mayne MEng Hons MIEAust
K Berry BE Hons MIEAust
G Fowle BE Hons MIEAust
W Alexander BE Hons MIEAust
R Milsted MEng Hons MIEAust

Associates

S Nixon BE Hons MIEAust
N Biason BE MIEAust
N Hallam BE Hons BCom MIEAust
M King BE Hons MIEAust
J Miles BE Hons
G Petschack JP
M Raddatz

Manager Facade

N McClelland BSc BE Hons MBA MIEAust

- AS4678 – Earth-retaining Structures

Design Criteria for Classrooms and Offices

- Superimposed DL – 1.5kPa
- Live Load – 3kPa

Design Criteria for Corridors

- Superimposed DL – 1kPa
- Live Load – 4kPa

Design Criteria for Landscaped Areas

- Superimposed DL – 10.8kPa
- Live Load DL – 4kPa

Wind Loads

- $V_r = 46\text{m/s}$
- Region A2
- Terrain Category – 3

Earthquake Loads

- Design Category 2
- Site Sub-soil Class – Be

Yours faithfully

TAYLOR THOMSON WHITTING (NSW) PTY LTD



RICHARD GREEN

Director

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