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PLANS AND DOCUMENTS
referred to in the ULDA
APPROVAL dated 26/7/12

AMENDED IN RED
16 JUL 2012
By: PEITA MCCULLOCH (name)
of the ULDA

Project Waters Stage 1:

Balcony Report

Rev E
16/07/12

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1. Site: Context, Vision & Guidelines

Context

The development of land bounded by Water Street, Brunswick Street, Gregory Terrace and the RNA offers an opportunity for Brisbane to provide a connecting precinct that embraces the notion of high density living in an area that is close to transport and employment hubs, significant business and entertainment districts. The apartment mix within this project directly responds to the commercial requirement for compact affordable units with a range of living options. Affordability is the key focus in providing different apartment types with lower price points which is provided by the compact 'alfresco' style apartments which combine dining and balcony into one flexible space. There is a varied mix of apartments throughout the plates with a mix of 'alfresco' and balcony apartments providing an assortment of price points and a diverse mix in the resulting end population.

Vision

The economic imperative of providing affordable housing raises many challenges for design to balance economic, social and environmental design aspects. The need to question the established norms and standards is compelling in order to drive such an outcome. The Vision for this document is to propose an alternative to balcony and/or outdoor space that responds to these imperatives and provides a liveable and affordable solution.

Guidelines

The ULDA Development Scheme calls for:

- Building forms that contribute individually and collectively to a distinctive character
- Balconies or other private spaces are required to be sized proportionally to the unit size and must not be less than 9m2 with a minimum dimension of 3m
- National Rental Affordability Scheme (NRAS) to assist in providing affordable housing

2. Response

Historical Context

Our response is based on determining the practises and social functions of outdoor balcony and outdoor spaces in subtropical housing and to propose a relevant response for this project in the current economic climate. It is recognised that the covered deck with or without perimeter screen is the quintessential element that has evolved in Queensland in response to housing in this subtropical region. It provides a low maintenance space that functions for the user on many levels. Space to entertain, have a view, to have a few plants and have direct access to the breeze and sky are key elements of this space. The space must maintain safety and security and be private and comfortable. These are all expectations we have of our lifestyle in Queensland. The ability to open the dwelling space or unit up to the exterior is a very important social and environmental aspect to living in this climate.

Modern Interpretation

The role of the verandah and deck has changed over time where this space has become not just a physical but also a social part of the household. Its connection to living spaces means that it also provides a level of access to ventilation and light for inner spaces. In medium to high rise apartments this need for a social space 'connected with the outdoors' has evolved into a perceived 'need' within this user group to provide such spaces. We would propose that this need is a real response to the Queensland climate and social condition for users. The imperative of affordability demands that we explore alternatives to the deck or balcony to cater for this social and climatic need.

Economic Reality & Expression

The demand on living space and the challenges on affordability make a balcony a costly inclusion in an affordable market. Development companies argue that duplication of spaces, as in dining or living space, pushes up the sales price thereby greatly reducing the available market. Recent events in Sydney also address the expression of apartment buildings particularly in medium to high rise development. Planning decisions have already been taken to respond to the economic downturn and to assist in keeping affordable housing on the agenda. It has been recognised that providing varied price points will keep the developers interested and promote greater investment to meet the housing demand. Others have supported the use of 'Alfresco' flexible low cost apartments arguing that it will reduce the resultant grid appearance of residential towers that result from existing planning legislation.

"People are more interested in the aesthetic composition of the facade than they are in the mostly unused, quasi-amenity of a veranda that offers some free floor space by virtue of a gaping concession in the planning system. And those verandas inevitable give rise to those charmless ice tray facades,"

(Paul Keating, former Prime Minister of Australia,) Posted by archipae on 20/10/10 • Categorized as Urban Planning

Sydney Council Planning Legislation has already changed to allow 25% Alfresco's in developments and is seen as an opportunity to reduce the repetitive nature of balconies within the form of a building. Planning legislators are now struggling with the task of regulating this in a controlled manner that will provide good long term solutions.

The best way to achieve aesthetically pleasing developments is to get quality architects on board and give them freedom to innovate. "There is a danger of monochrome uniformity through this kind of over-regulation, which prevents imagination being exercised,"

(Aaron Gadiel, CEO of Urban Taskforce) Posted by archipae on 20/10/10 • Categorized as Urban Planning

3. Proposal

It is proposed that the contemporary apartment landscape of Brisbane requires new approaches to affordability through the provision of efficient use of space. In smaller apartments the additional cost of balconies can be disproportional to their value and impact on the user. This is particularly so when income and expenditure is a major social and behavioural driver.

The opportunity exists for an apartment design and development to cleverly address this social need in a way that ensures affordability and diversity in apartment design whilst addressing climate and liveability. We believe that, if properly considered and incorporated into a design, it is appropriate that a relatively large proportion of apartments in medium to high rise residential apartments would incorporate 'no balcony' or 'alfresco' apartments.

It is acknowledged that in the Queensland conditions this needs to be balanced with an appropriate climatic and social response together with external expression. It is proposed that affordable apartments could address this issue in the areas of **Commercially Affordable** and **Assisted Affordable** apartments. Benchmarks for the inclusions of apartments without balconies are proposed at:

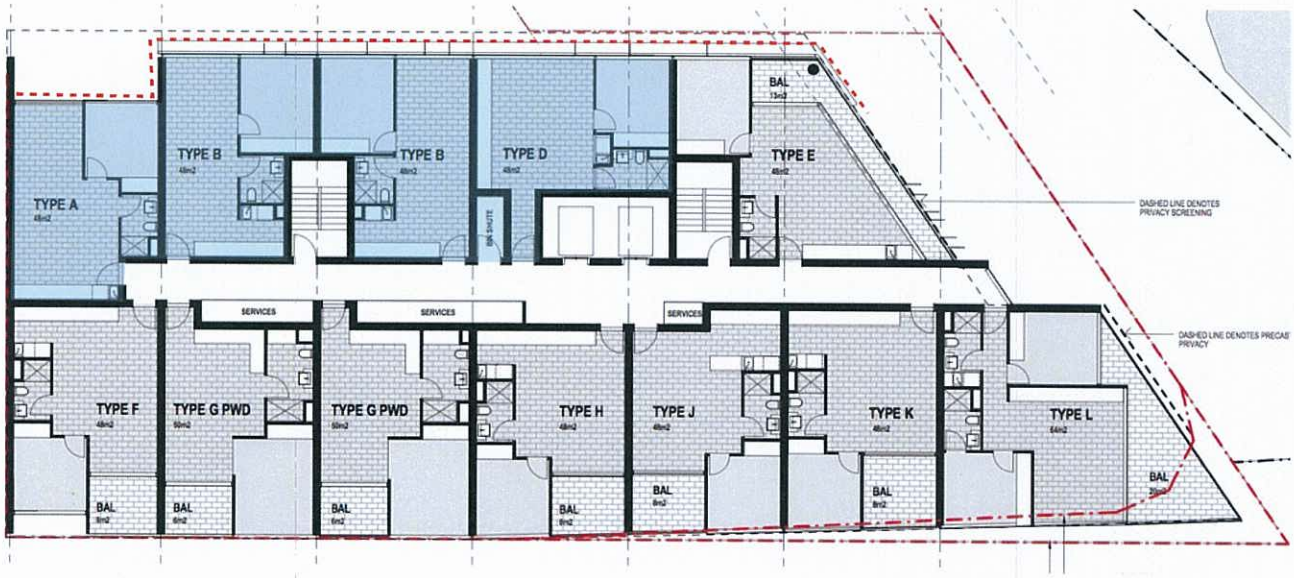
- Commercially affordable – 40%
- Assisted affordable – 60%

The following pages of this report propose an approach to provide 46% of the Water Street Apartments to be designed without a balcony and incorporating the following qualities:

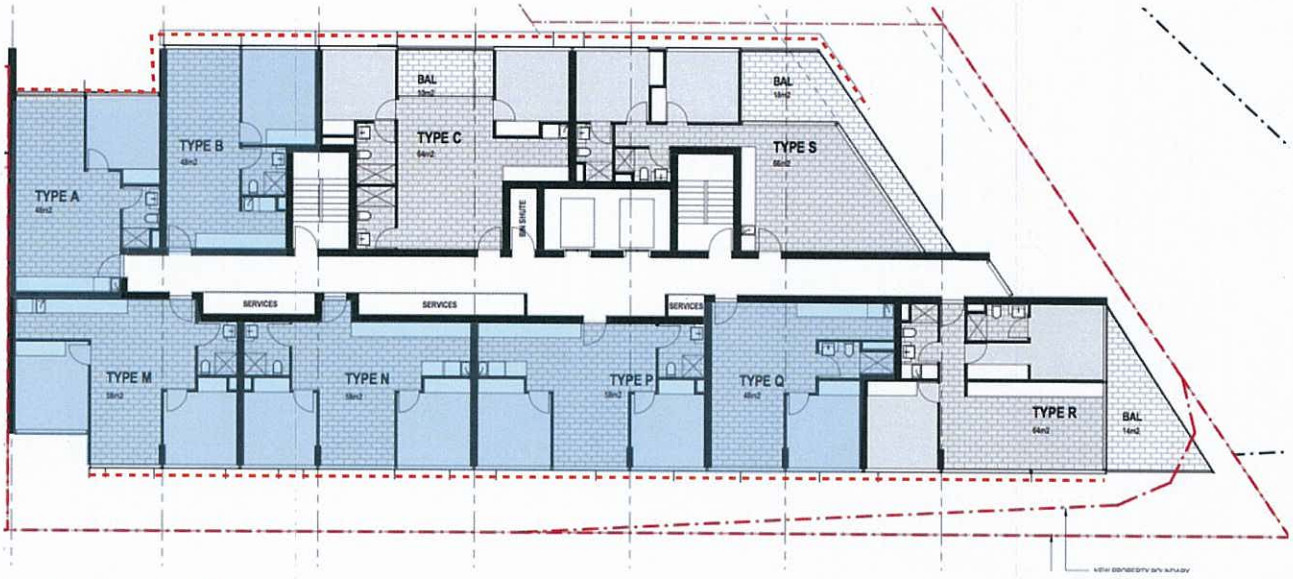
- Solar and rain protection to allow open-ability
- Surfaces that allow flexible use
- Maximised access to light and air

4. Orientation and Edges

The site faces onto Water Street with the curve of the building following and reinforcing the street edge. The Rear/Northern facade is treated differently with an edge defined by solar shading with slab extensions and horizontal and vertical screens providing solar protection and privacy to the three alfresco apartments along this edge. The street edge defined by the lower Water Street facing units all contain balconies providing articulation, activation and passive surveillance for the facade including larger balconies toward the corners. The upper Water Street facing facade reduces the buildings articulation to provide contrast in the built form as well as a glazed edge creating a lighter upper form. This edge contains vertical blades, slab extensions and 400mm horizontal screens to provide weather protection for the southern Water Street alfresco apartments. The 'Alfresco' apartments highlighted in blue comprise 46% of the apartments lowering the price entry point providing diversity within the final product.



LOWER PLATE - LEVELS 2-9



LOWER PLATE - LEVELS 10-16

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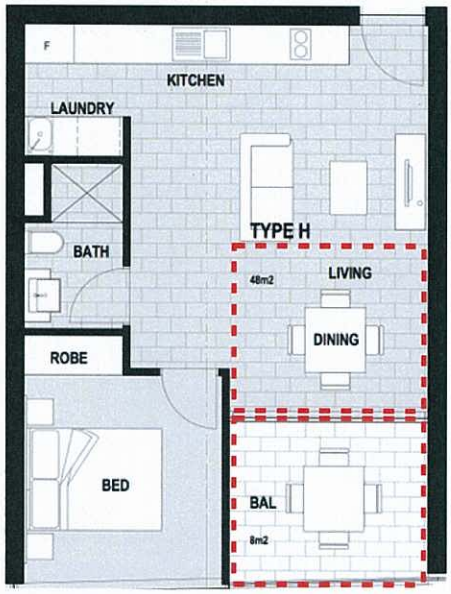
5. Apartment Options

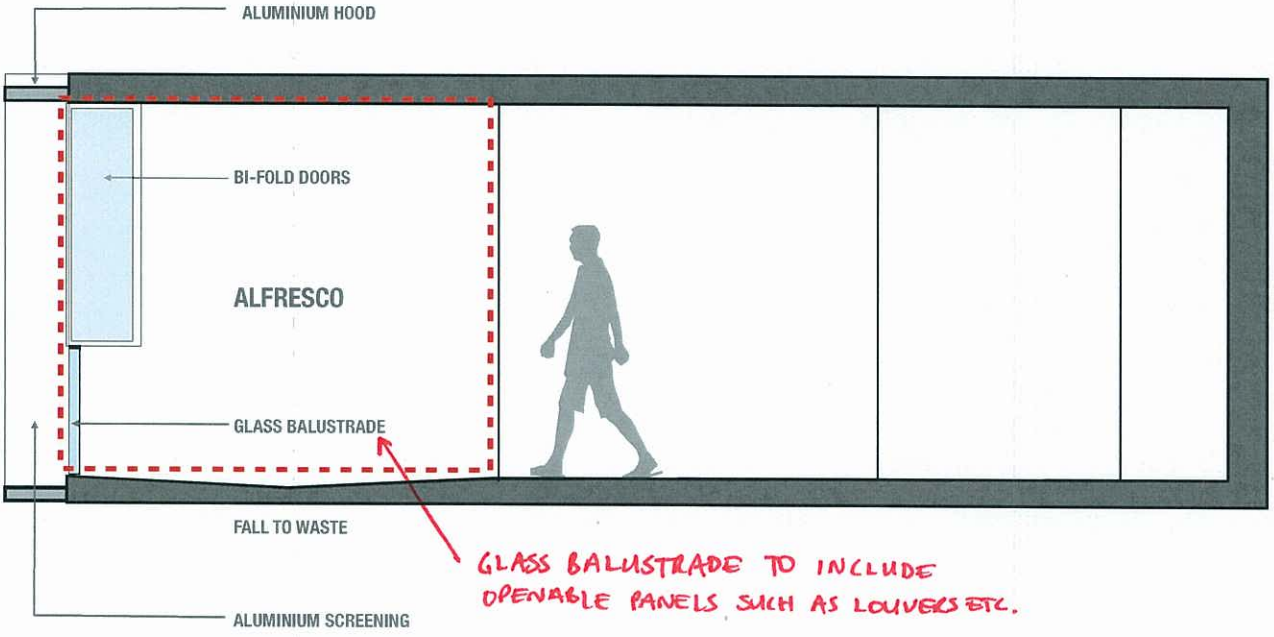
1. **Type 1:** External Balcony and Internal Dining. Market forces drive the need for a variety of compact living options, therefore it is not always an option to include a balcony due to greater build and final cost. In addition this typical response results in a duplication of the dining function as highlighted below.



2. **Type 2:** 'Alfresco' with a flexible internal/external dining space and reduced circulation area with full width bi-folding doors above a glazed balustrade to increase the external experience. Materials and a floor waste aid in highlighting the external nature and feel of the space.

6. Climate and Environment

Traditionally the use of deck/balcony space around a dwelling had the effect of setting up a thermal buffer to reduce solar gain. In this scheme it is proposed to use a horizontal metal hoods to increase the effective depth of the adjacent 'Alfreso' space to recreate this buffer. This will be further assisted by the vertical blades and/or horizontal or vertical solid wall panels. Additionally the hoods will provide weather protection from the bifold edge with the backup of a fall to waste in the 'Alfreso' space effectively creating a flexible balcony like zone.



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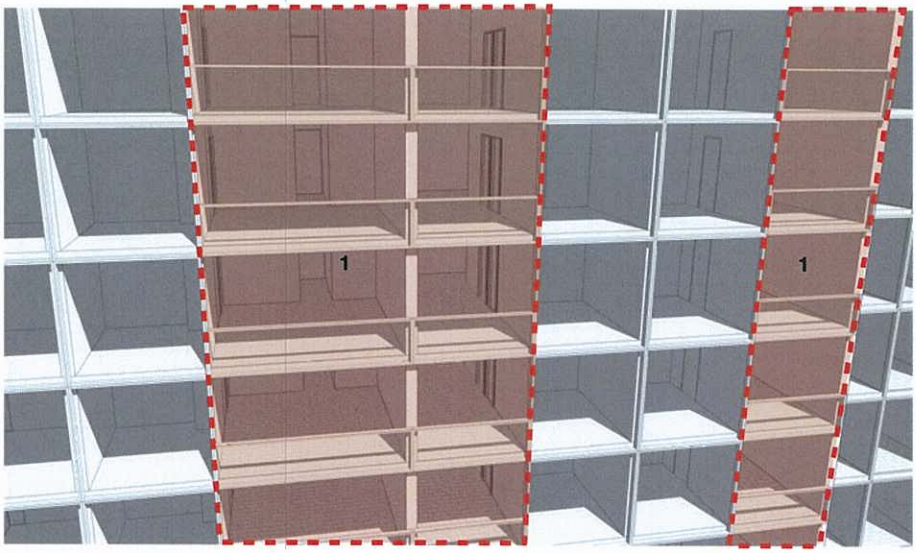
7. Materials

The careful selection of materials will affect the external feel / ambience within the 'Alfresco' space. Material selection must respond to the market and user preference as well the overall building performance. The material selection given is indicative options only and will need to be confirmed at a later date.

Floors:	External & Alfresco:	10mm Vitrified Tile Metal drainage outlets
	Internal:	Vinyl Flooring with Underlay or Carpet with underlay or 10mm Vitrified Tile
Walls:	External & Alfresco:	External Facade System Natural Finish Precast/Insitu Concrete
	Internal:	Painted Plasterboard wall lining
Windows/Bi-Fold:		Anodised / Powdercoated Aluminium Window System to manufacturers specification
Handrails:		Semi Frameless Glass Balustrade Framed Glass Balustrade (Alfresco)
Solar Control Blades:	**Northern Facade**	
	Vertical:	Aluminium Profile Fin
	Horizontal:	Aluminium Profile Hood, Concrete slab extensions
	Southern Facade	
	Solid:	Precast concrete Spandrels
	Vertical:	Aluminium Profile Fin
	Horizontal:	Concrete slab extensions

8. Shadow Analysis

The alfresco northern facade uses a range of shading and privacy elements to provide a liveable edge. The perspectives below describe the sun penetration into the alfresco living spaces as well as the adjacent bedrooms with and without screening elements to illustrate the activation of the living edge and the protection provided by these screening elements. The example below illustrates the value of the 600mm horizontal sun hoods in providing protection during the middle of the day as the sun becomes lower in the sky.



April 1st 1:00 pm

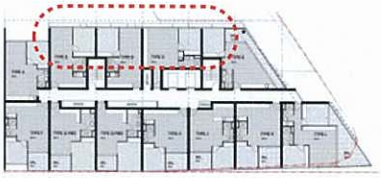
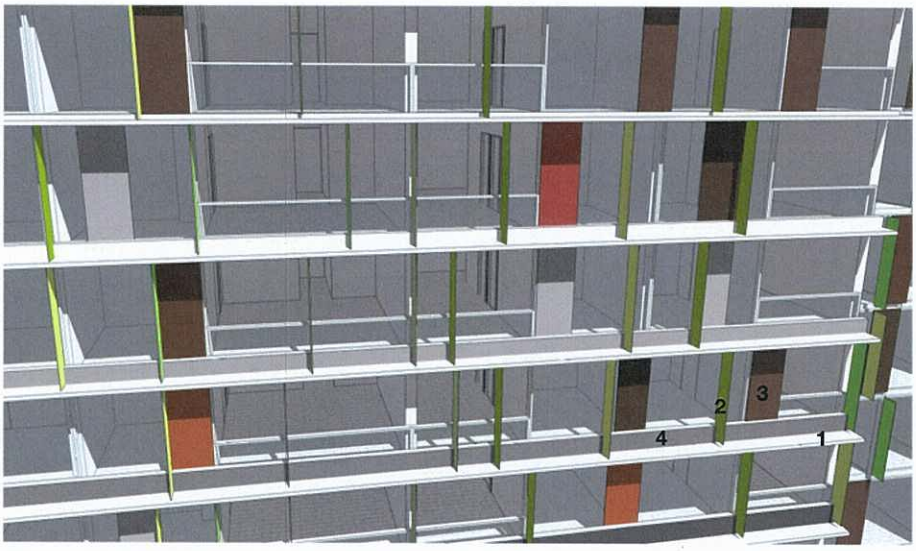


Image
Northern 'alfresco' elevation without any sunshade / protection devices.

1. Alfresco Living Spaces

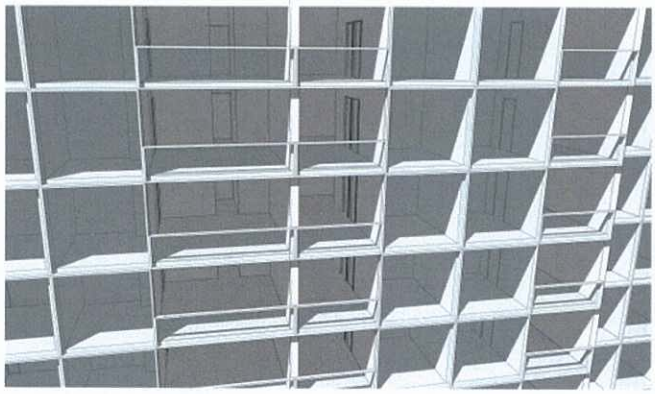


April 1st 1:00 pm

Image
Northern 'alfresco' elevation with a variety of sunshade / protection devices.

1. Horizontal 600mm sun hoods
2. Vertical 450mm sun blades
3. Solid panels to facade
4. Upstands

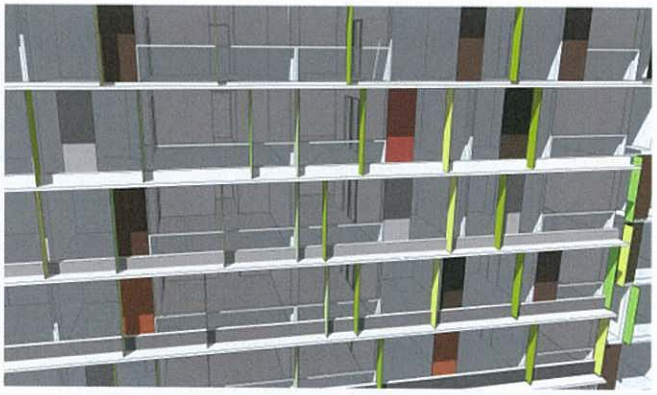
During the morning and afternoons as the sun becomes lower in the sky the vertical shading elements in conjunction with the facade panels work together to provide solar protection as well as angled privacy from the adjacent towers of the later stages. This effect is illustrated in the below perspectives which highlight the substantial reduction in sun penetration as a result of these shading and privacy devices.



April 1st 9:00 am

Image

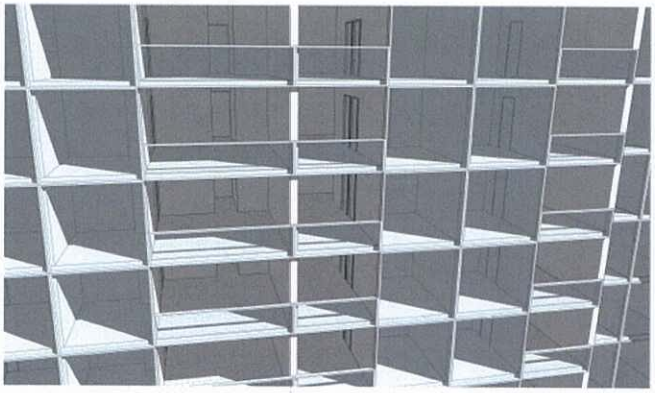
Northern 'alfresco' elevation without any sunshade / protection devices.



April 1st 9:00 am

Image

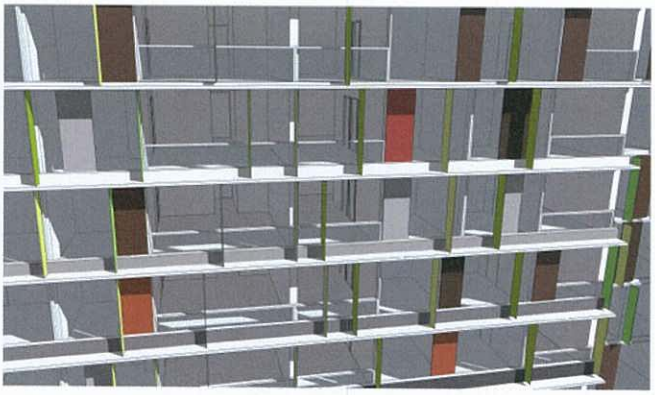
Northern 'alfresco' elevation with a variety of sunshade / protection devices.



April 1st 3:00 pm

Image

Northern 'alfresco' elevation without any sunshade / protection devices.



April 1st 3:00 pm

Image

Northern 'alfresco' elevation with a variety of sunshade / protection devices.