PTW DESIGN COMMENTS - Buildings 3, 4, 5 & 7

61 Mobbs Lane, Epping (rev 29.04.09)

1. CONTEXT

The design character for this proposal was established through reference to the Approved Concept Plan and Preferred Project Report for the site.

2. SCALE

The scale of the proposal complies with the envelope controls setup in the Approved Concept Plan for this site.

3. BUILT FORM

Built forms are consistent with the Approved Concept Plan and respond directly to the topography and context of the site, providing scale transitions on boundary interfaces, maximizing solar access and views and limiting overshadowing to neighbouring properties and to properties within the site. All building forms are articulated into smaller elements of a similar scale to the residential homes of the area and to accommodate the undulating topography of the site. Roof forms, angled balconies and the material palette provide a common theme for the buildings within the development and make reference to the existing homes and character of the area.

4. DENSITY

The proposed density is compliant with the current SEPP controls and the Approved Concept Plan for the site.

5. RESOURCE, ENERGY AND WATER EFFICIENCY

The proposed development will incorporate ESD initiatives as part of the design of these buildings. These will include rainwater tanks and water efficient appliances.

6. LANDSCAPE

The private landscape within these lot boundaries has good solar access and attractive aspects. Generally private open space is raised above the public domain and planted to provide privacy. Existing trees will be retained where practical.

7. AMENITY

The indicative layout shown on the plans has been designed to ensure that the intent of the Residential Flat Design Code (RFDC) amenity criteria will be achieved:

Building 4

67% of apartments have cross flow ventilation. Residential Flat Code requires 60%. COMPLIES

52% of apartments have natural light to 50% of their external open space for 2 hours in mid winter. Preferred Project Report requires 70%. Refer commentary below.

68% of apartments have natural light to internal living spaces for 3 hours between 9am and 3pm in mid winter. RFDC requires 70%. Refer commentary below.

Building 5

67% of apartments have cross flow ventilation. Residential Flat Code requires 60%. COMPLIES

95% of apartments have natural light to 50% of their external open space for 2 hours in mid winter. Preferred Project Report requires 70%. COMPLIES

68% of apartments have natural light to internal living spaces for 3 hours between 9am and 3pm in mid winter. RFC requires 70%. Refer commentary below.

Buildings 4 & 5 Commentary

Building 5 achieves a 95% compliance with the requirement for natural light to balconies and internal living spaces while Building 4 achieves 52%. This significant difference does not reflect the real difference in amenity that is the result of a relatively subtle change in plan.

Solar Access: Buildings 4 and 5 have been designed as a pair and are almost identical in plan. Due to site conditions and the SEPP zoning controls the buildings have a 10 degrees difference in orientation to North. The angled geometry reflects the shape of the site and results in the central garden area between the two buildings having a wedge shape wider to the south. In turning Building 4 slightly away from a north south alignment solar access to the southern side of the building has reduced, however this has been offset by significant gains in the amenity of the garden facing apartments particularly in terms of views and privacy.

Access to views: In orienting further to the South, Building 4 gains better access to the views both of the distant city and of the central garden area.

Privacy: The angled geometry means that the building occupants do not directly face each other.

Engagement with Village centre: The central garden area is one of the key public areas of the project and is linked by a network of roads, paths and vistas to the rest of the site. The wedge geometry of the central garden area links with the Town Centre to the south with its geometry and also visual connections. Its shape and relatively level topography allows the area to become an active area for residents and general public. The wedge shape also allows broader views into the site. Both buildings and many of the individual ground floor apartments in them have access directly to this inviting space.

Access to light: The Apartments on the garden side of Building 5 have large amounts of glass and shallow floor plans, generally less than 8m deep, this ensures access of diffuse natural light to the interiors of the apartments as well as a sunny outlook from within.

As such a subtle change in alignment has generated a significant difference in solar access between buildings 4 and 5; a small change in the position of the sun will also have a significant affect on solar access to the apartments. All calculations above are calculated to mid winter, June 21st, soon afterwards solar access to apartments will reach recommended levels and generally provide high quality amenity.

Building 7

71% of apartments have cross flow ventilation. RFDC requires 60%. COMPLIES

64% of apartments have natural light to 50% of their external open space for 2 hours in mid winter. Preferred Project Report requires 70%. Refer commentary below.

57% of apartments have natural light to internal living spaces for 3 hours between 9am and 3pm in mid winter. RFDC requires 70%. Refer commentary below.

Building 7 Commentary

The circulation space within the kitchens of the 2 bedroom corner apartments is between 7.7 and 8.8 metres from the glazing which it faces. This glazing is full height and provides ample light to the living space of which the kitchen is a part. The glazing also returns along the side of the living space so that the rear of the kitchen is 8 metres from the nearest window.

Solar access is provided to 64% of the private open spaces for at least 2 hours per day on June 21. Those apartments that do not receive the required direct light are either south facing one bedroom apartments or the south western 2 bedroom corner apartment.

The one bedroom apartments are shallow in depth so that all parts of the living spaces are within 8 metres of the extensively glazed facades therefore ensuring good indirect natural lighting. These apartments also enjoy expansive views to the south providing good amenity with a bright outlook.

The south-western 2 bedroom corner apartment, whilst not satisfying the design criteria for natural light, enjoys a dual aspect and has ample glazing to ensure good indirect natural lighting to the interior.

57% of apartments have solar access to living spaces for 3 hours between 9am and 3pm on June 21. The amenity of these south facing apartments is as described above.

8. APARTMENT SIZE, MIX, ACCESS TO OUTDOOR SPACE AND STORAGE

- All apartments will have a minimum size as set out in the RFDC
- A mix of apartment types is proposed.
- All apartments will be provided with outdoor space in the form of balconies, terraces or communal open spaces
- Storage is proposed as follows:

Building 4 & 5

Within apartments:	232 sqm = ca. 45 %
In Basement:	283 sqm = ca. 55 %
TOTAL:	515 = 100 %
Achieved:	Average 3.8 sqm/unit x 2.7 = 10.3 m cu/u

Building 7

Within apartments:	60 sqm = ca. 23%
In Basement:	262 sqm = ca. 77 %
TOTAL:	322 = 100 %
Achieved:	Average 3.8 sqm/unit x 2.7 =10.3 m cu/m

9. SAFETY AND SECURITY

Active residential uses in all buildings which are slightly elevated from the surrounding streets and footpaths provide a high degree of natural surveillance 24 hours a day. Further details of proposed security systems and access controls can be provided during the CC stage of approvals.

10. SOCIAL DIMENSIONS

The proposed housing mix will contribute to further diversity in the current mix in this area, reflecting current market needs and market conditions.

11. AESTHETICS

The buildings reference the rich architectural context of the area and use contemporary forms and construction methods to create leading edge composition of its time and place.

Max no of storey & boundary setbacks as per the concept plan

The design complies with the maximum number of storeys allowed and setbacks, however note comments below regarding setback variations and the measurement of the basement height.

Setbacks:

Northern boundary (6.6m required)

The visual bulk of the building (Building 7) that is the enclosed building mass maintains the 6.6m setback, balconies and some horizontal projections are marginally within the setback. The eaves line of the overhanging roof and some balconies to the typical floors project within the setback zone. At ground level the screen walls, planters and pergolas of the courtyard units extend within the setback zone and align with the fire stair egress.

Eastern boundary, (8.7m required)

These L-shaped Courtyard Homes (Building 3) are two storied towards the front, with a narrow single storey arm projecting to the rear. The building setback to the street boundary is 4.5m at ground level and 3.5m for upper level balconies and roof overhangs. This is partly to increase the setback from the new carriageway, which is located only 1m from the front boundary and from the street trees which are intended to be shade trees with robust canopies.

The dimension from the rear boundary to the double storey main body of the houses, with windows facing the rear, is generally 14m. The single storey portion of the homes is designed to face northwest towards its own contained side courtyard, with only incidental windows facing the properties to the rear, (east) at ground level. The single storey form has pergolas and roof overhangs shading the windows and softening views of the house from behind. The typical site width is 11m, and the single storey building width is typically only 4.7m, less than half of the possible building width. The dimension from the rear boundary to this narrow single storey building is 5.55m.

Further to above, the amenity of the neighbouring properties is of high quality relative to Houses 1 to 7, as the new houses are to be built on sites which are at lower levels than the existing ground levels. In most of these cases houses and gardens will be pushed down below the boundary level of the neighbouring gardens. This will further reduce the impact of the projecting narrow single storied buildings.

Houses 8 to 12 actively reduce potential impacts on neighbours by pushing the single storey floor levels below the level of the double storey forms (i.e. making new houses split level) again to reduce the impact of the narrow single storey buildings on neighbouring properties and vice versa.

The impact reduction is further enhanced through deep and layered landscape screening at the rear fence lines.

Battleaxe Block:

To the rear of House 5 and partially to the rear of House 6 is an existing single storey dwelling located very close to the site boundary on a battleaxe block configuration off Edenlee St. This house virtually turns its back towards the proposed house sites, and nestles down below its existing surrounding fence. Houses 5 and 6 are L-shaped terrace houses with double stories towards the front and with their narrow single storey arm projecting towards the rear battleaxe residence. The dimension from the rear boundary across the courtyard to the double storey is 14 m, to the single storey is 5.55m. The single storey family room and kitchen are designed to face northwest towards a self contained side courtyard. This single storey form has pergolas, small trees and roof overhangs shading the windows and softening views to or from the rear. The typical site width is 11m and of this, the single storey building is only 4.7m wide. The amenity of the battleaxe neighbouring property remains good relative to houses 5 and 6, as the new houses are part of the group to be built on sites which are at lower levels than the existing site ground levels. The new houses and gardens will be effectively screened by deep and layered landscape screening at their rear fence.

Southern Boundary (6m required)

Lot: The lot for House 1, nearest Mobbs Lane and the site entry point, is setback fully 4m from the site boundary, where an external garden wall to a height of max. 1.8m is proposed. This strip of land between the site boundary and the house lot measures 4m x 27m and is proposed to be heavily landscaped as a site access point signifier for the entire development. This is in addition to the approx. 9m width of landscaped verge to the carriageway itself. This 13m total depth of landscaping acts as a significant screen for the row of individual houses.

Building: The two storey front of House 1 is aligned with the row of houses, and as such is setback 5m from the angled site boundary at the very front facade of the house, at ground level. This rake of the gable wall quickly reaches a 6.4m setback at the single storey rear family room which runs parallel to the boundary. The upper level front balcony wraps around the side gable wall (to reduce the perceived scale of the gable wall) and at its most forward point is 4m from the boundary, sliding back to about 5m.

The lot length is 27.1m of which a small wedge of 6m in length of facade is encroaching into the 6m setback zone.

The building with a greater 6.4m setback is about 10m in length.

Balance solar access, aspect and cross ventilation

All buildings have been sited to maximize these requirements and incorporate a high proportion of cross ventilated well orientated apartments.

Respond to micro climate and topology of each location

Buildings are sited to optimize micro climate and topology. Building layouts are generally single sided east or west facing apartments or north facing through apartments. As discussed previously buildings are oriented to achieve a balance of solar, privacy and view access.

Setback buildings to create landscaped setting

Building setbacks as located as described in the concept plans. Setbacks respond to the surrounding context as well as to create defined and cohesive internal landscaped settings and spaces and suitable connections with the surrounding neighbourhoods.

Introduce views into the site to create permeability

Views into the site have been maintained as per the Master Plan which provides permeability throughout the major street frontage of Mobbs Lane and along the site boundaries. Buildings 4 & 5 are stepped buildings and located away from the street so as not to block views. Building 7 is at the northern boundary of the site adjacent to the TAFE and therefore does not impact on the main views into the site (and its permeability) which

are from the south and east. The northern boundary is already dominated by the adjoining TAFE buildings. View corridors into the site are aligned with the street network of the surrounding area.

Share views by stepping buildings down slopes

Buildings 4 & 5 form steps as described in the concept plan. These stepped building forms respond to the site topography and generally build in scale as the site rises to the north and east maximizing view opportunities for apartments in both directions: To the north and west towards distant district and hill views and to the south and east towards the city and harbour bridge views.

Diversify building forms to create diversity

Building forms are diverse however a common palette of materials, shapes and detailing has been used to create a cohesive aesthetic across the site.

Provide direct sunlight to at least 50% of the principal private open space in 70% of the dwellings for at least 2hrs per day on June 21st

Ref previous notes. North facing or east-west orientated apartment layouts that maximize solar access to principal private open space given the nature of the site constraints.

Minimize overshadowing of public open space

Where immediately adjacent to a public space taller buildings run north south to minimize overshadowing. Building 7 which runs east west casts a shadow to the street to its south.

Building forms minimize overshadowing of public spaces. This is achieved by building location and orientation relative to these spaces. East-West aligned buildings maximize solar access into central private open spaces. The stepped building forms reducing in height towards the south of the site also reduce building overshadowing.

Maintain privacy via distances from dwellings of habitable rooms to be a min of 12m apart or other appropriate design measures to be taken

Buildings maintain appropriate setback and achieve this minimum or greater in all cases. Also see building separation heading below.

Articulated buildings with interplay of planes, eaves, pitched roofs, deep shelved balconies and terraces

Building forms utilize a palette of pitched tile roofs, deep balconies and terraces

Interplay of self finishing and exposed materials such as brick and tiles

Buildings utilize a palette of self finishing materials such as face brick, stone walls, natural timber pergolas and roof tiles.

Design principles to be from local Californian Bungalow & Federation Housing

The palette of materials and forms has been derived from the traditional housing of the areas and whilst not directly copying them aims to create a distinct sense of this local area character. Building elements such as angled balcony forms, coloured roof tiles or weatherboard wall cladding help to form this connection and character.

Use of rendered masonry and exposed framework to outdoor areas

Ref drawings, variety of masonry and framed materials such as stone, render and bagged masonry, aluminium and natural timber framing.

Variations in colour and texture to evoke characteristics of local traditional housing

Ref above

Leading edge architectural design

The buildings have all been specifically designed to optimize site opportunities. Buildings use contemporary forms and construction methods to create leading edge architecture in harmony with traditional housing of the surrounding area.

Encourage broader community to use the open space and facilities via design of pedestrian network

The proposed master plan has a network of pedestrian / bicycle paths and roads integrated with a series of attractive open spaces which link into the development of this first stage of residential buildings and the surrounding open spaces. The visual permeability of this development further reinforces connections to surrounding areas.

Human scale in design of facade and spaces between buildings

The facade design utilizes a range of fine details, screens, pergolas, planters to bring the building to a human scale. Extensive paved and grassed areas, low scale planting, and rows of trees help to create an attractive ground level environment. Raised ground level courtyards clearly identify private outdoor spaces and provide privacy and separation from streets or paths. Recessed balconies with angled front edge forms on upper levels address view corridors and minimise cross overlooking between buildings.

Ceiling heights of the parking areas beneath the residential flat buildings not to exceed 1.2m above the finished ground level at any point in the periphery of the parking area apart form access

The building basements in a limited number of areas exceed the 1.2m maximum height. This is a result of the slopes across the site necessary to achieve overland flow and a balance of cut and fill. This is partly due to the levels of the adjacent topography of Mobbs Lane and neighbouring properties. This situation occurs mainly on the southerly ends of Buildings 4 and 5. There are different level differences for the car park extend and the building extend (blue and red circled on the attached sheets.)

- Bld 4 (6 storey part) is +1.26 m above finished GL
- Bld 4 (4 storey part) is +1.80 m above finished GL
- Bld 5 is +1.69 m above finished GL

These buildings are set well into the site and this height will have no impact on the adjacent properties. The current site levels are also to be significantly modified to meet these civil design requirements and due to the steep grades that are pre-existing, achieving absolute compliance with this control is not practical in this instance. Requirements for accessibility and the length of building forms also make this control hard to fully meet

Building Separation

The building separation achieved in this development is as set out in the Masterplan and complies with and provides greater separation that required in the RFDC guidelines.

Separation distances are generally as follows:

Building 4 & 5 to Building 2 & 1 – 24.0m

Building 3 to Building 4 – 19.0m

Building 4 to Building 5 – 37.0m Min increasing to 52.2m

Building 5 to Building 6 – 21.7m

Building 7 to Building 4 & 5 – 17.7m

Building Orientation

Buildings are orientated in accordance with the Approved Concept Plan to maximise opportunities created by the elevated nature of the site and the extensive views that are available. Visual permeability and solar access to public open space is also a further consideration. Buildings are aligned with views and vistas from the surrounding neighbourhood into the site. The steep site topography is a further factor in the orientation of buildings which generally follow the site contours.

In responding to these site conditions north orientated walls are not always achievable and alternative means of maximising solar access to the majority of units employed and discussed under other headings in this comments report.

Apartment layout

Generally

Apartment layouts have been designed to provide maximum efficiency in spatial planning and flexibility in use and offer a variety of layouts and aspects within this development.

Living spaces incorporate well proportioned glazed walls that are close to the main facade of the buildings and capturing views and maximise solar access to the primary living space. Balconies are semi recessed to create private and protected spaces that are sheltered from the weather whilst also extending and being angled to capture views and sun.