SEPP 65 Assessment

for Ku-ring-gai Council

DA 0738/12 AMENDED No 2 JRPP

5-11 and 15 Lamond Drive, Turramurra

Report Date: 04.09.2013

INTRODUCTION

This report has reviewed the second amended scheme in context of:

- changes from the previously amended DA to address issues raised by the JRPP; and
- addressing issues previously raised in SEPP 65 reviews that remained outstanding.

Additional information as requested by the JRPP has been submitted. Also further information clarifying number and mix of units and numbers of car parking has been submitted.

All previous SEPP 65 reviews have requested the applicant provide the following additional information required for a full review to be completed.

- additional traffic information specifically regarding swept paths for passing cars and for passing cars and garbage truck using the car park ramp. The scheme requires up to 7 levels of ramps to reach the lowest basement. It is, therefore, a requirement that the applicant demonstrates compliant and safe vehicle access and egress is achieved throughout the proposed ramps. It is noted this is the third request for this information which to date has not been forthcoming.
- Operable leaves of windows and doors are to be indicated on all elevations.
- Basements are to be shown dotted on elevations.
- Cross-sections should nominate Unit numbers through which the section is cut.

Accommodation mix has been amended as follows:

1 bedroom	39 units	47.0% representing a further increase of 2 units
1 bed + study space	2 units	2.4% representing an increase of 2 units
2 bedroom	38 units	45.8% representing a further decrease of 5 units
2 bed + study space	1 unit	1.2% representing an increase of 1 unit
3 bedroom	2 units	2.4% representing a decrease of 1 unit
3 bed + study space	1 unit	1.2% representing an increase of 1 unit

The site is spectacular, steeply sloping and offers vast city views to the south and south-west. Being a south-west facing site raises challenges for solar access. Similarly, the steep topography results in vehicle access to basements being from the high side of the site at Lamond Drive (RL177.0) via a spiral or winding ramp (beneath Block A) that descends to visitor parking and garbage storage at RL165.0 (some 4 storeys below). The remaining visitor and all residential parking is then

accommodated over a further three (3) storeys of basements split across 5 levels below Blocks B and C that are linked via a tunnelled ramp to RL156.00 - a total descent equivalent to 7 levels.

There has been a reduction in car parking from 112 spaces to 109 spaces (still complying with DCP 43) comprising 88 resident spaces and 21 visitor spaces that include provision of accessible parking. Parking bays for a small garbage truck and recycling trailer are also provided as well as bicycle storage for a total of 27 bikes.

Principle 1 - Context

SEPP 65 : *Good design responds and contributes to its context…….Responding to context involves identifying the desirable elements of a location's current character, or, in the case of precincts undergoing a transition, the desired future character as stated in planning and design policies.*

It is noted that the site has been subject to changes in development controls during the time this application has been considered. These changes have seen a significant reduction in permitted density from 1.3:1 under the KPSO to 0.85:1 under the Local Centres LEP 2012.

Where development controls have been subject to significant change, consideration of urban design outcomes is made under the controls under which the application has been lodged, in context of the existing and proposed character of the urban character, as well as considering urban outcomes that are intended under the newer controls. This is particularly relevant where there are significant increases to height or density (etc) which applicants are keen to exploit, or the corollary, being significant decreases to height or density (etc). The reduction to permitted density on this site is a statutory recognition of the site specific topographic and environmental conditions that acknowledges previous densities were inappropriate for this particular site. The application has been lodged under the KPSO planning controls which therefore prevail.

The Lamond Drive precinct is dominated by the dramatic steeply sloping topography that presents significant challenges (to solar amenity and vehicle access) as well as opportunities (such as a vertically articulated building form of stepped rooftops for sunny communal spaces and expansive views).

Surrounding context is of a precinct mid-way through the transition from a low-density to high-density urban character. The subject site now being between two large apartment developments with a single residential lot adjacent now isolated (though attempts have been made to negotiate with the owners). A separate development application has been lodged for the site to the north opposite in 4 Lamond Drive and at the top of the ridge.

Several site inspections over recent months have revealed that the large development of 60 recently constructed apartments on the neighbouring site at 17 Lamond Drive (1-3 Duff Street) is showing signs of premature weathering on parts of the painted finishes as well as brickwork. While difficult for Council to control with the proliferation of certification now being obtained from private certifiers,

developers and certifiers are urged to demand design detailing, materials selection and build-quality during construction that befits both the anticipated life expectancy of their large developments and the requirement that weathering and on-going maintenance of buildings be considered throughout the design and construction phases. Development for approximately 50 apartments to the north-west at 1 Lamond Drive (1444 Pacific Hwy) is nearing completion.

Surrounding character (the neighbouring site to the east) demonstrates minimal articulation of its western elevation that has resulted in a significant large-scaled wall element within 6 metres of the subject site boundary (which does not appear to comply with SEPP 65 building separations above 4 storeys) nor demonstrate any sensitivity to the topography of the adjoining subject site and potential impacts. This type of architectural massing and language is discouraged, as it does not contribute positively to creating a desirable high-density urban context. In this case, the impact to the subject site has been further exaggerated by the steeply falling topography between the two sites. Amendments to the subject DA have sought to address insufficient RFDC building separation requirements within the site for buildings above 4 storeys. The proposed setbacks along the eastern boundary (Block C) in combination with the proposed internal arrangement of units that minimises the number that are oriented to the neighbouring site is supported. The scheme proposes a significant amount of articulation along the eastern face of Block C that will also assist in lessening impacts of bulk to/from the subject site to the neighbouring site.

The subject site is intimately defined around the steep gully forming an amphitheatre-like setting that has the potential to deliver a considered interface between the built form and dramatic landscape as well as improve the health of flora and fauna if executed well. Due to the FSR provisions under the KPSO being significantly higher than current LEP Local Centres 2012 provisions, proposed residential building typology as discussed in Principle 2 has not been previously supported as providing a desirable context – Block B presents an excessively deep floor plate and the resulting number of basement levels required to achieve car parking is significant. This was identified in both previous schemes and has not been addressed by the applicant in the current amended scheme. Further comment is made on this issue throughout this review. A merit-based assessment will determine whether amendments have satisfied amenity across the site that would support the density being sought which is compliant with KPSO provisions under which this application is being considered but must also consider site constraints/challenges.

Landscape treatment such as the height and expression of walls and materials; balustrade type, height and materials; how screening is provided (predominantly planted so there is less reliance on solid screens); relationship of ground floor units to natural ground level are all paramount to the success of the project and providing a positive contribution to the surrounding context. Additional landscape information has been provided that generally satisfies these issues. It is noted not all retaining walls have indicated Top-of Wall levels as requested. Ground floor walls in the central courtyard areas are to indicate all ToW heights and heights and type of privacy screening.

The rooftop communal areas are supported (notwithstanding the requirement for very high quality waterproofing). However, in achieving these rooftop areas, the scheme proposes significant ground disturbance due to the extent of excavation to accommodate the large building footprints, units proposed below natural ground level and the number of basement levels required for car parking (all discussed elsewhere in this report). This is unacceptable as a future context and inconsistent with the urban design objectives of DCP 55 and the Local Centres DCP.

Our approach to precincts undergoing transition is that where compromised design, poor construction outcomes and/or insufficiently considered design detailing form part of the surrounding context, it cannot be deemed an acceptable expression of the new urban context for future applications. We have a responsibility to place a benchmark on the type of urban character that the community expects will result from significant construction projects.

It is suggested that Construction Certificate detail will be required to address issues of maintenance and weathering to satisfy the SEPP 65 requirement for contributing to a positive urban context and RFDC Maintenance (p95). Of particular note is that window/parapet/slab/roof edge detailing is to demonstrate control of water hitting the building. There are many instances of poorly considered details and construction of new apartments in the Ku-ring-gai LGA that are resulting in an unacceptable level of premature weathering of materials and finishes that contributes to the perception of a poor urban character for precincts undergoing the transition to high density living. This is particularly evident where large wall areas and parapets have rendered and painted finishes. Drip grooves, overhangs, window head and sill treatments, consideration of how each element is assembled as well as materials selection are important in developing a positive built environment that avoids tracking of mould and dirt down the face of buildings, bubbling and peeling of painted and rendered finishes, leaching of brickwork, etc. Current approval processes mean that, at DA stage, there is no requirement for detailed design resolution or indicative information to be submitted that would indicate these issues have been adequately considered. Development Conditions may be able to place more control in Council's hands to require specific detail be provided for CC to demonstrate how this has been considered.

The proponent also has the responsibility to deliver landscape outcomes that maximise communal amenity, outlook to/from apartments and promotes the regeneration of previously low quality or highly disturbed vegetation all of which are critical to achieving positive urban outcomes.

Therefore, while context in terms of land-use is consistent with surrounding context, the site's unique topographic and vegetative characteristics require a more sensitive design approach to built form. Poor urban outcomes on neighbouring sites cannot be accepted as providing the benchmark for acceptable context of proposed new development.

To achieve an acceptable urban context that would be expected of a development of the size proposed, it is considered that the proposal would benefit from a reduction to the number of proposed units, a reduction to proposed excavation, and slender building form that achieves RFDC provisions.

Principle 2 – Scale

SEPP 65 : *Good design provides an appropriate scale in terms of the bulk and height that suits the scale of the street and the surrounding buildings. Establishing an appropriate scale requires a considered response to the scale of existing development. In precincts undergoing transition proposed bulk and height needs to achieve the scale identified for the desired future character of the area.*

Elevations indicate that from Lamond Drive, the proposal will generally present as three-storeys. Street address to Lamond Drive will be characterised by the steeply sloping topography that sees the ground floor of Block A (North East Elevation) approximately 5 metres below street level (and 3 metres below natural ground level (NGL), Block C around 8 metres below street level (and approximately 2.5 metres below NGL).

The proposal seeks a variation to permitted height to allow an additional one-storey under the provisions of steeply sloping sites. However, the development in real terms has a component equating to 7 storeys due to the extent of excavation from NGL within the centre of the site. This was not addressed in the SEPP 1 application and required justification as it exceeds the additional height even allowing for steeply sloping sites. While the amenity of units on the top levels is high, supporting documentation has sought to justify how adequate amenity has been achieved for units being proposed below natural ground level. More detailed comments are made in Principle 4 Density, Principle 5 Resources and Energy, and Principle 7 Amenity that address this issue. It is agreed that impacts from height breaches are generally confined within the site. However, breaches *beyond the bonuses* offered under the higher provisions are not supported particularly as they are a result of pushing the boundaries of excavation.

It is acknowledged that topography is a significant challenge on this site. The expression of built form requires careful consideration to adequately address bulk due to the combination of steep slope and gully, the site being located near the top of a ridge, environmental sensitivities, and building type which, inherently, requires more site disturbance than similar types on a level site. This is made particularly challenging with the economic realities of maximising yield such that construction costs associated with the design solutions proposed and the specific topographic and environmental challenges are viable. Where the balance results in poor urban outcomes, such development cannot be supported. More comment is made on this in Principle 4 Density and elsewhere.

Additional supporting information has been provided in terms of solar access and cross ventilation. This information demonstrates the requirements under SEPP 65 RFDC provisions have been achieved. Albeit it is noted that a significant proportion of units achieving solar access are also single orientation units facing west-west-nor-west. This relates directly to questions of appropriateness of proposed scale and density.

Site arrangement sees 3-dimensional form expressed as two separate buildings one of which is clearly articulated into two distinct massings connected by a glazed walkway at the second and third storeys of Block A linking the fourth and fifth storeys of Block B. the decision to separate the buildings is supported in principle.

Internal elevations (South-East Elevation) for Blocks A + B demonstrate a significant proportion of Block A will equate to a height equivalent above 7 storeys (from proposed finished external ground levels). There remain no changes to proposed wall height of Block A to address the internal wall heights of approximately 21 metres above the communal area to the parapet or overall building height of 23 metres.

While dramatic, the quality of the limited ground level communal space does not justify the extensive excavation (of up to approximately 5 metres below NGL) required to achieve it (and two-storey tunnel structure below), nor the resultant tall retaining walls with fencing on top (generally not shown on architectural drawings particularly section and elevation drawings). Given that this area will achieve no solar access during the winter months as indicated by additional solar diagrams, the extent of site disturbance required to achieve this part of communal space is not justified.

Notwithstanding the challenging topography, the extent of excavation that has been required to accommodate car parking beneath the two separate buildings (due to there being a single access point to the site) and the number of ground floor units that are not demonstrating a positive internal/external ground relationship is not supported. While it is acknowledged that amendments to internal layout of some of these units and some retaining walls have improved on previous submissions, there has been no intent by the proponents to omit any of these units or directly change the amount of proposed excavation. Best practice urban design principles does not support implementation of excessive excavation to accommodate units below natural ground level particularly where breaches of bonus building height from proposed finished levels are proposed as a result.

Building depths of approximately 17 metres for Block A comfortably achieve adequate amenity. Block C proposes a depth of approximately 19 metres and relies on predominantly single orientation units oriented west-west-nor-west to achieve solar access.

Building depth for Block B is well outside the provisions of the RFDC (p27) that recommends 10-18 metres as necessary for achieving adequate amenity. Variations to this RoT need to demonstrate how amenity is otherwise achieved. Block B still proposes a depth of 26.5 metres with no change to building mass being proposed from the initial submission to address this.

The following block-by-block summary is helpful in understanding the impacts of massing to performance and demonstrates the impact of scale. Figures for performance across the site are to be found in Principle 7 Amenity.

Block A has required no amendments and remains within the RFDC RoT building depth and demonstrates that most units achieve *true* cross ventilation with dual aspect achieved for 9 of the 14 units (64%). A north-east aspect is achieved for the remaining 5 single orientation units (36%). The deeply articulated internal layout assists in achieving light sources from two aspects in living areas and generally a high level of amenity is afforded (Unit A01 the exception due to high retaining walls in close proximity). While actual unit depth of 10 metres for the single orientation units is above the recommended RoT depth of 8 metres to the rear wall (RFDC p69), Block A is generally satisfactory by providing access to the external face at approximately 6 metres from the rear wall when combined with the favourable north-east orientation, articulated layout, and street setback resulting in no impacts from adjacent buildings. Building height remains at issue due to the extent of excavation for the central courtyard area. The applicant argues that the breach is internal to the site and has no impacts outside the site, however, this is a breach above bonus height (DCP 55/KPSO Clause 25M); alternative design solutions are available that would remove this as an issue and it remains that excessive site disturbance has not been addressed.

Block B proposes both a variation to KPSO building height and exceeds the RFDC building depth by approximately 10 metres above the *maximum* recommended RoT (p26) (see also Local Centres DCP Vol A 7C.5). This presents an unacceptable building bulk across the site. Supporting documentation identifies that cross ventilation is now achieved in 22 of the 33 (51.5%)* units in this Block which includes 2 x two-storey single aspect units achieving a stack effect.

However, 6 of these units (18.2%) are essentially single aspect with a window located within a deep slot - B04, B10, B18, B25, B26 and B27 (plus C01). It is unclear from the supporting documentation how air movement will be achieved given the combined effect of their location downslope topographically, direction of prevailing breezes relative to the slot, dimensions of the slot such that air movement can be achieved, the locally opposing walls and building mass relative to the slot, all of which are potential barriers to air movement.

* Units B04, B10, B18, B25, B26 and B27 plus C01 are identified as achieving 'simple cross ventilation' (*Summary Expert Opinion*, Steve King, 17 July 2013) as they have *openings in two or more directions*. It is noted that openings for these units are located within a deep narrow slot and are positioned on opposing walls some within an undercroft situation. Should Council wish to pursue this further, specialised computer modelling and clarification of methodology would be necessary to demonstrate cross-ventilation has been achieved to those units thus affected. Without the benefit of such analysis, this represents the possible difference between only 53% of units across the development achieving SEPP 65 RFDC cross ventilation (using the RFDC pp86-87 as a guide to appropriate unit layouts) or 61.4% as indicated by the applicant as meeting the RFDC RoT.

Taking this further, brings in the context that would see the difference between 4 of the 83 units (4.5%) receiving *no solar access and no cross ventilation* or up to 10 units or 12% receiving *no solar access and no cross ventilation*. Council may want to consider whether further information is required or whether the current supporting documentation is adequate given there are no current planning controls that specifically deal with this issue but compliance may be questioned. It is suggested that future planning controls may be required to provide detail as to slot conditions that will achieve cross ventilation given this is a device being more frequently employed to demonstrate SEPP 65 RFDC requirements are being met.

Supporting documentation indicates 21 of the 33 units in Block B (63.7%) achieve adequate solar access to living areas and/or private open space.

However, 12 units or 36.3% of units in Block B (Units B03, B04, B09, B10, B11, B17, B18, B24, B25, B26, B27 and B31) receive ***no*** solar access during winter solstice. All these units are oriented within the SE-SW range which is attributed to excessive building depth leading to poor orientation combined with challenging site conditions.

Block C building depth is acceptable in terms of appropriate scale at approximately 19 metres and can be supported by 19 of the 36 (52.7% of units in Block C) units achieving cross ventilation and adequate overall amenity. However, the predominance of single orientation units oriented to west-west-nor-west is not supported. There are 17 units (47.2% of units in Block C accounting for 20.4% of total units) thus affected. RFDC Rot p84-85 requires that single orientation units be oriented to north or east and limited to 10% SE-SW range (with ***no*** single orientation units to west due to unacceptable heat loads and inadequate natural ventilation). A further 5 units (13.8% of Block C) are dual aspect but with living areas oriented to west-west-nor-west. This is to be considered in context of solar analysis that relies on these 22 units (26.5% across the site) to meet RFDC requirements for solar access. There are a further 4 units (11% of Block C) with the primary orientation within the SE-SW range that receive little to no solar access. A total of 8 units (22.2% of Block C representing 9% across the site) receive no solar access during the winter solstice period.

Extrapolating this information results in 26 of the 36 units (72.2%) in Block C with an orientation that is inconsistent with the performance criteria of the RFDC. This issue has been raised in all previous urban design reviews but has not been satisfactorily addressed by amended submissions. Attention to this issue is required given the challenging site conditions while it is acknowledged that addressing this issue in a meaningful way may affect overall yield.

Summary The issue of scale becomes relevant with levels of amenity being achieved. While it is accepted that analysis of cross ventilation and solar access has been submitted supporting the scheme*, there are other aspects of the RFDC that have not been satisfied. The impact of those units not achieving adequate performance criteria is considered to outweigh the number of units that have achieved adequate RFDC performance requirements as intended under SEPP 65.

Therefore, scale is not supported on the following grounds:

- site disturbance required to accommodate strategies implemented for required car parking
- breaches of height as a result of site disturbance and proposed new ground levels
- predominance of single orientation unit types with adverse orientation and
- subject to clarification of methodology and variables taken into account in analysis of cross ventilation of 7 units (as noted previous page*).

Principle 3 - Built Form

SEPP 65 : *Good design achieves an appropriate built form for a site and the buildings purpose, in terms of building alignments, proportions, building type and the manipulation of building elements…... The built form is a response to both the regulatory controls and the neighbouring built fabric.*

Site arrangement has sought to enable the regeneration of the degraded remnant BGHF and retained vegetation by arranging the buildings around the steeply sloping gully through the centre of the site. The arrangement of buildings is generally perpendicular to the contours creating an amplified, dramatic expression of the natural steep gully formation.

Setbacks have been amended above 4 storeys to Block C to achieve RFDC (p28-29) RoT that states a building separation of 18 metres between habitable rooms and balconies (this is in context of such separations not having been achieved on the neighbouring site) and is supported.

Variations to building height are proposed that exceed the provisions granted for steep sites. This is not supported on grounds of excessive building depth (Block B), the number of single orientation units across the site and predominance of those units with adverse orientation, and reliance upon very high retaining walls to achieve units below natural ground level while accepting that retaining walls will be required on this site.

The articulation of the single built form massing to create Blocks A and B is supported as is the secondary central articulation of the Block B entry slot. Block C has also seen amendments to the northern eastern façade massing that results in more deeply articulated form.

Composition of facades generally seeks to rationally group elements vertically. However, there is a lack of rigor demonstrated in the vertical expression of built form where internal layouts have not consistently related to internal layouts of floors above or below. Examples of this would be with location of external openings and articulation of balconies that appear unrelated vertically particularly Ground Floor to First Floor relationship, Block A alignment of main entry (which is the only entry providing a visual connection to the street) with Unit A01 below and a lack of cohesion of penthouse massings that bear little relationship to lower level layouts nor as an expression of cohesive massing its own merit. Building lines and articulation of penthouse massing are expressed as extrusions of floor plan rather than communicating a coordinated resolution of vertical and horizontal compositional relationships. The inconsistency with the alignments of built form results in elements such as balconies or fin walls being used to disguise the lack of vertical integration in a bid to ‘dress’ the buildings in lieu of a more considered cohesive three-dimensional form. The outcome is considered to miss opportunities for what is a unique site that had the potential for a rigorous dialogue between the internal planning and a well-composed three-dimensional form with the dramatic topography.

This lack of rigor in the expression of roof and penthouse elements is a particular consideration for this development due to the falling topography that results in the rooftop elements being fully visible from the street and thus forming the streetscape character upon approach to the development.

Arrangement of massing, selection of materials and architectural expression of rooftop elements, therefore, require sensitive consideration in this development that is not yet sufficiently demonstrated.

Block B continues the expression of the secondary entry at the first of the lower terrace levels as a vertical element that provides the definition between Blocks A and B. Block C has its main entry at this ground level but is not translated vertically resulting in a lost sense of entry to the building. A clear sense of entry could be achieved where amendments reduced the number of proposed units as a process of addressing other identified issues.
Architectural character of the proposal communicates a heavy-handed intervention upon the site. While amendments have been made to partially address some of these issues, they are considered insufficient to fully address identified deficiencies, therefore, Built Form remains unsatisfactory.

Principle 4 - Density

SEPP 65: *Good design has a density appropriate to its site and its context, in terms of floor space yields (or numbers of units or residents)…*

Consideration of density under SEPP 65 is in terms of site specific conditions and context and

> "Appropriate densities are sustainable and consistent with the existing density in an area or, in precincts undergoing a transition, are consistent with the stated desired future density…"

The current application has not provided specific information on density (previously submitted as 1.26:1) so is assumed FSR is close to this figure and within the limit permitted on the site under the KPSO.

The following have been considered in context of density:

- **relationship of floor level to natural ground**. The amended proposal achieves adequate solar amenity in only 5 of the 10 (50%) ground floor units across the development (as staggered over levels relative to contours). This is in part due to excessive excavation to locate units below NGL, partly due to overshadowing within the development, and orientation of units combined with the challenges of topography and site orientation. It is accepted that some internal planning amendments have helped to address this by rotating the orientation from 'upslope' to side to the slope. Topography provides a challenge but it is considered that fewer units, no units proposed below NGL that rely on waterproofing (resulting in a reduced amount of excavation), and reduced building bulk to Block B, would result in less reliance on high retaining walls, an improved relationship to ground, and overall amenity within the site particularly to the lower level units on a south facing steep site.
- **topography** - steeply sloping to the south-west. Topography is accepted as relevant to the height variations sought not withstanding comments on extent of excavation and above ground disturbance internal to the site. The challenges of topography must be viewed in context of the design response to the site and whether that response is appropriate given the

challenges being faced or whether a more optimal design response is available that achieves a more superior urban outcome than proposed.

- **variation to height -** of itself, permitted bonus height is justified on such a steeply sloping site where satisfactory levels of amenity are demonstrated, and site disturbance is minimised. The amended application has sought to address some (but not all) of the issues raised in the previous urban design review. Excessive excavation that exacerbates breaches of height beyond available bonuses is not supported.
- **variation to building depth** - Block B is significantly outside that recommended under SEPP 65 RFDC and is not supported. The applicant has made localised amendments to internal unit layout to address some of the issues raised but has not made any major amendments to address excessive building depth in any amended submissions. Proposed building depth of Block B is not supported in achieving desired density particularly with 12 of the 33 units (36.3%) in Block B achieving no solar access during winter solstice.
- **FSR** - is significantly more than that permitted under current development controls LEP (Local Centres) 2012 of 0.85:1 but is within 1.3:1 FSR provisions in KPSO under which the application is to be considered. The KPSO notes that FSR is "NOT the sole determinant of built form and density". FSR must be seen in light of specific site conditions. Under SEPP 65 density is in an urban context of the site-specific response taking into account environmental quality and site disturbance, sustainability and desired future urban character. On that basis, it is considered that site conditions limit the extent of density that is possible on this site. It is clear from the applications received that *permitted* FSR cannot be achieved in an acceptable form on this site. Consideration of all the issues identified during review of the proposal leads to the conclusion that a significant reduction to permitted density will achieve a development consistent with the expectations and intent of SEPP 65.
- **proportion of single orientation units as a type -** the reliance upon single orientation units as a unit type has been reduced from 42 (50.6%) to 33 units (39.7%) of the total 83 which is an improvement. This does not include the 7 units (8.4% in total) requiring clarification of cross ventilation as identified elsewhere in this review. Under RFDC provisions a *minimum* of 60% of units are required to be cross-ventilated which assumes a *maximum* of 40% may be single orientation. However, of the 33 single orientation units, 17 (51.5%) are oriented west-west-nor-west which is not acceptable under RFDC provisions.
- **Orientation within the SE-SW range** - It is further noted that 12 units (14.4%) are oriented within the SE-SW range which exceeds the maximum permitted RFDC p85 of 10% (it is noted that 3 of these units have secondary aspects that will provide light to living areas if not solar access).

For these reasons, proposed density is not supported in the amended proposal even though it complies with KPSO requirements.

Principle 5 - Resources, Energy and Water Efficiency

SEPP 65 : *Sustainability is integral to the design process. Aspects include…layouts and built form, passive solar design principle…..soil zones for vegetation and re-use of water.*

Additional information has been provided regarding re-use of water on the site that is supported. Also supported are proposed internal lobbies that have access to natural light and ventilation.

The extent of site disturbance requires detailed technical review by Council's landscape, environmental and engineering officers. It is noted that additional supporting hydraulic and ecological information has been provided in response to previous issues raised by Council and the JRPP.

The extent of proposed excavation is not supported for the following reasons:

- The extent of site disturbance to achieve two storeys of tunnels linking both buildings and basements on a steeply sloping site is not supported
- The extent of high retaining walls in the vicinity of ground floor units is not supported accepting that there will be cut and fill required on the site.
- deep excavation is being utilised to maximise the number of units which further increases the load on basement car parking leading to the resolution of a two-storey basement tunnel.
- excessive building footprints (Block B) increases the demand for excavation
- combined with site specific topographic and landscape conditions resulting in unacceptable levels of site disturbance when other design options are available.

Extent of building footprints and tunnel elements need to be considered in terms of disturbance to water flows (surface and ground water). Additional supporting information has been submitted regarding water flows, hydraulic pressures, gully erosion all of which are major factors for the proposal particularly during construction and on-going maintenance during rain/weather events that need to be considered by Council's engineers.

Control of sediment during construction will be difficult particularly as the site naturally drains to the centre gully, the vicinity of which is subject to much of the excavation activity.

It is accepted as a matter for the developer that the extent of resources required to construct the proposed development (given the number of basement levels) and the challenging topography will likely place unacceptable pressure on construction costs that are likely to affect build quality and yield. This pressure translates to a likely negative impact upon achieving a positive urban outcome.

It is acknowledged that the proposal has sought to optimise the opportunities to orientate units as close to north as possible given the preferred building mass, site arrangement, the boundary alignments and topography steeply sloping to the south-west. This strategy is generally supported. However, complex issues arise given the reliance on single orientation units particularly where the

dominant orientation is either to the west in combination with dual orientation units oriented between south-east to south west.

Air-conditioning of units will be required. There appears no provision indicated on drawings for location of A/C units which are resources and aesthetics issues. This needs to be addressed to avoid the situation that often occurs where A/C is an afterthought resulting in units being highly visible on balconies. The applicant has been requested to provide this information previously but has not been addressed in submitted amendments.

Principle 6 - Landscape

SEPP 65 : *Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both occupants and the adjoining public domain.*

Additional Landscape detail has been provided that indicates generous planting that would generally satisfy the requirement for a quality landscape.

Issues still to be clarified remain around the extent of excavation, relationship of finished floor levels to natural ground levels (NGL) and some retaining walls around units that have not included top of wall heights vicinity B03, B04, C06, C11 or heights of balustrading/privacy screens (if any) Units C01, C02, C03, C04 and C05.

The top of wall level nominated at RL169.00 in the vicinity of the car park ramp in the central courtyard space appears inadequate to retain natural ground indicated at RL171.5 (1.5m above the height of the wall) as the ground continues to rise to RL176.60 at Lamond Drive. This reinforces the extent of site disturbance required to accommodate Units B05 and B11 and has not addressed the relationship of NGL to floor level in this vicinity as has been requested in each of the application reviews. Ground stability in this vicinity is to be clarified as NGL rapidly rises to RL171.5 over a horizontal distance of only 6m and appears unrestrained.

It is noted that no accurate 3-d modelling of the site terrain with all retaining walls, terraces and required balustrades or privacy screens relative to built form have been submitted.

A retaining wall 4.5m high (including minimum balustrading height) is required adjacent to Unit B01 on the northern side further indicating the conflict between the natural ground level and unit floor level. Similarly Unit B05 has a retaining wall of 4.5m at its northern side, Unit A01 remains 2m below natural ground level at its north-eastern wall face requiring a 2m retaining wall that will also require a further minimum 1 metre balustrade not indicated on documentation. Units C04, C11 and C12 rely on significant waterproofing to external walls to accommodate them below NGL. Proposed amendments to address this issue have been to the internal layout of Units A01, C10 and providing an additional external wall leaf for the below ground component of units C05, C10, C11 and C12 which is acknowledged but considered to be an inadequate response.

From Lamond Drive, 6 levels of excavation are required beneath Block A and part Block B. Requiring a descent from street level the equivalent of 7 levels to the lowest basement levels.

Supporting documentation has demonstrated that the central communal area does not achieve adequate solar access during the winter solstice period given topography, orientation of the slope, overshadowing within the development, and extent of excavation. This further reinforces the view that proposed excavation is disproportionate to amenity achieved particularly where the provision of rooftop terraces as communal open space will achieve accessible areas with high levels of overall amenity and enable the expansive city views to be enjoyed by all residents. These are supported where attention to construction detailing and application of high quality waterproofing can be demonstrated to avoid breaches of moisture to units below.

The site falls outside a categorised riparian zone. However, an uncategorised riparian zone has been established on the site at the head of a gully that forms a categorised riparian zone. The management and regeneration of the site is supported. Additional information has been provided and is supported on urban design grounds but may have implications to ground water management to be reviewed by Council's landscape, environmental and engineering officers in context of additional information submitted.

As noted in previous reviews, the extent of building footprint for Block B is apparent on Vegetation Management Plan diagrams as is the lack of continuity between the upper BGHF and lower riparian zone due to impacts of excavation and extent of building footprints.

Connectivity between the upper BGHF regeneration and lower section adjacent to the riparian zone is desirable although it is accepted that updated ecological information supports the proposal.

Open space will be characterised by passive BGHF canopy setting, ground planting and slope stabilisation which has the potential to create a unique character for this site, setting it apart from surrounding development. It remains that the proposal is a heavy-handed response to the sensitivity and potential the site holds.

No amendments to the path of accessible travel from Lamond Drive to Block A are proposed as previously suggested. This is the main entry for the development and a 1:14 ramp at the minimum 1 metre clear width will appear lacking in generosity. It is suggested this path be increased to 1.2m and preferably 1.5 metres clear width. This is the only directly visible pedestrian entry (via a bridge) from the street into the entire development. The expression of this entry is not translated vertically which is not supported given the size of the proposal and this being the only visible entry to a building.

The existing stone pathway to Block C will be retained and disappears down the gully with no visible building entry from the street. While providing a lovely journey through the remnant BGHF vegetation,

the proposal misses opportunities to provide a street address for Block C possibly adapting the existing stone path. Main entry and disabled access to Block C is via an inclinator to the ground level common areas approximately 13m below street level. This seems counter intuitive for visitors of units at or above street level who will be required to descend the 13m to the building entry (or further if entering via basements) only to ascend 4 to 6 levels to visit a unit that could have been addressed more directly from the street.

The secondary entry to Block B is approximately 10.5 metres below street level and recessed approximately 8 metres from the building face or 12.5 metres if including balconies above. A bedroom window to Unit B04 also opens into this space that was not previously supported. This has been addressed in the amended proposal by including privacy screens and will be a highlight window. We adhere to the principle that where permanent, fixed privacy screens are proposed to openings, the level of amenity achieved by the opening is negated and indicates alternative design solutions should be sought.

The strategy for clear landscape management zones throughout the site is supported as promoting the regeneration and repatriation of native flora and fauna and thus to reduce the release of noxious weeds down-stream of the site. There are unique opportunities to create a really spectacular landscape setting for this site.

It was observed on the site visit that private courtyard screening of translucent infill to a height of approximately 1.8 metres on the neighbouring development at 17 Lamond Drive creates an unpleasant interface with communal landscape and misses opportunities for private outdoor spaces to engage with perimeter landscape that could have doubled as privacy screening. Similar devices will not be supported within this proposed development. Further information was required to clarify the extent of use of these screens but it appears amendments have not fully addressed this request. Privacy screens and balustrading are to be indicated on sections and elevations and plans.

While the orientation of balconies and courtyards for Block C will mostly avoid overlooking between developments, it is noted that a high level of engagement between the proposed development and site landscape needs to be achieved. The potential beauty of the site will be in the ability of the development to engage with the site landscape, to have a sensitive relationship to existing ground levels and to the tree canopy beyond the site. This scheme has provided additional landscape planting information that generally satisfies the quality of landscape, however, the relationship of ground floor units to the landscape remains problematic.

Additional ToW heights have been provided on landscape and architectural documents. However, all walls in the vicinity of units nominated at the beginning of this Principle are to have heights identified.

Further amendments are required to address the siting of the building relative to natural ground in order to fully support proposed landscape.

Principle 7 - Amenity

SEPP 65 : *Optimising amenity requires appropriate room dimensions and shapes, access to sunlight, natural ventilation, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts, and service areas, outlook and ease of access for all age groups and degrees of mobility.*

The following elements are supported:

- Lifts lobbies providing natural light and ventilation, and clear lines of sight to unit entries
- Balconies that allow for direct access both from the living room and bedroom
- Unit types achieving true dual and triple orientation
- Floor plans that make efficient use of space by minimising the need for hallways thus optimising space available to be utilised in habitable rooms
- The majority of kitchens that have access to windows.
- Amendments to above ground level windows Units C05, C11 and C12 are supported.

The following items have not been addressed adequately in any revisions and require amendments to satisfactorily address amenity:

- Eight units remain below ground level are not supported where excavation, excessive retaining walls, and excessive site disturbance are required. Those affected are A01, B01, B05, B11, C04, C05, C11 and C12. This is exacerbated by the site conditions being steeply sloping south to south-west. Previous urban design reviews have recommended that units identified as being significantly below NGL be replaced by car parking/mechanical plant thus reducing the amount of excavation on the site. The above 8 units representing 9.6% of the proposed total being significantly below natural ground level contrary to planning objectives and is considered unacceptable in achieving sound urban design outcomes.
- Units C04, C11 and C12 rely upon 100% waterproofing to address walls being between 1 and 1.5m below ground which is unacceptable.
- Bedrooms in C11 and C12 rely on permanent screening (inoperable?) that will achieve unacceptable internal amenity as previously identified.
- Kitchens in many 1-bedroom units provide no bench-top preparation areas and are unacceptable
- Galley style kitchens are not supported unless they provide sufficient preparation space
- RFDC p85 and p93 recommends a maximum of 10% of units may be oriented SE-SW. The development proposes up to 12 units (14.4%) oriented SE-SW which is unacceptable. While adverse site orientation has been considered, excessive building depth is seen as a contributing factor and not supported. Where units cannot achieve optimal orientation, they need to provide other amenity such as corner units receiving natural light from two orientations and achieving good cross ventilation This is achieved in 4 of the 12 above units leaving a total of 8 units adversely affected (10.8%) closer to the acceptable *maximum* number and considered satisfactory.
- B02, B08, B16, B23 were previously found to have a view from the front entry 10 metres down a hall straight into the kitchen sink. Rather than amending the kitchen layout, a sliding door to the kitchen has been proposed. While it is acknowledged this may provide residents with an

option to screen the kitchen, it would be preferable to solve such issues through design considerations such as moving the sink or kitchen location rather than implementing additional devices in order to avoid addressing the inherent design issue.

Solar Access: Amended solar analysis prepared by Steve King provided 3-dimensional 'Views from the sun' as requested showing the buildings on a site model. This clearly demonstrates solar access within the proposed development that is accepted although modelling of terrain and retaining walls was somewhat ambiguous as acknowledged in the report.

It is accepted that RFDC RoT for solar access is achieved for close to 70% of units for sun between 9am and 3pm when the provision for high density environments are taken into account (2hrs). However, of those not achieving adequate solar access, 14 of the 83 units (16.8%) receive *no* solar access during the winter solstice which is unsatisfactory.

Orientation of units: A total of 18 of 83 units (21.6%) of units are oriented to west (or just off west) far exceeding the RFDC (p84 & p93) that requires single orientation units be oriented to north or east and exceeds DCP 55 that not more than 15% or units be oriented to west. Amenity of these units is impacted and exacerbated by the type being predominately single-orientation.

As noted 12 units (14.4%) are oriented SE-SW exceeding the RFDC RoT. It is accepted that 4 of these units achieve cross ventilation and adequate light.

Single aspect SE-SW or west facing units totals 19 or 22.9% and is unsatisfactory.

RFDC p84-85 – maximum 10% of units oriented SE to SW; single aspect unit oriented to north or east
DCP 55 C-4 - no single orientation units to south and C-5 not more than 15% of units single aspect to west
DCP Local Centres – combined single aspect units oriented to south or west not more than 10%

Car park basement access ramp: this is also addressed in detail Principle 8. In terms of amenity, the topography results in access being from the highest section of the site requiring a descent of 7 levels to the lowest basement. It is considered excessive in the day-to-day living of residents who are expected to use this ramp possibly several times a day or if simply 'popping out for some milk' particularly as there is only one access point in and out of the basement. The number of units proposed on the site is considered to be contributing to the impracticality (and potential safety) of the basement configuration.

Principle 8 - Safety and Security

SEPP 65 : *good design optimises safety and security, both internal to the development and for the public domain. This is achieved by maximising activity on the streets, providing clear, safe access points, providing quality public spaces that cater for desired recreational uses, providing lighting appropriate to the location and desired activities, and clear definition between public and private spaces.*

A Traffic and Parking Assessment Report provided by Varga Traffic Planning provides one sentence stating the car park design will be to AS2890.1. This is both inadequate and unsatisfactory documentation for a development of this size, proposing a basement configuration that requires residents to descend up to 7 storeys, linked between buildings by a tunnel element.

Additional supporting information was requested in both previous applications as to the real functionality and safety of the spiralled/winding car park ramp. This goes to management in the event of a breakdown or other emergency and day-to-day safety and functionality. Information to be submitted to Council's engineers are kerb separations, swept paths demonstrating passing vehicles (cars/cars and cars/garbage truck), access to and from the single car spaces proposed within the ramp spiral having limited visibility. No information has been provided to date and is unacceptable.

From an urban design perspective, there is an excessive number of levels residents are expected to negotiate even for short trips to the shops that raises issues of safety, convenience and comfort in day-to-day use.

Visibility for cars using the single car space within the ramp spiral also requires detailed comments from Council's engineers. It is unclear how these can be safely used as the single ramp for the entire development is blocked each time these spaces are entered and exited.

Clear sightlines from building entries to lifts are achieved for Blocks A, B and C. Amendments have been made to Block B entry lift lobby that now achieves clearer sightlines for pedestrian entry. Building C has not addressed this as previously requested.

Topography makes furtive outdoor spaces difficult to avoid, but we are satisfied the level of passive surveillance that can be achieved over the site will assist in minimising opportunities for uninvited entry to the site.

Street address is minimal with the single visible entry point to Block A comprising a minimal width 1:14 ramp with single door at the end. There are no other visual cues denoting the entry such as a vertical expression of architectural elements or massing. Site arrangement reinforces the notion of street address as being subordinated to the internal focus of built form which does little to encourage pedestrian movement in and out of the site contributing to an active street engagement.

Much comment has been made on the quality of ground level communal spaces. The excessive amount of excavation required to achieve them, as well as heights of retaining walls and limited solar

access makes the proposed ground level communal spaces unlikely to be used other than for passive landscape and difficult to justify.

Principle 9 - Social dimensions

SEPP 65 : *Good design responds to the social context and needs of the local community in terms of lifestyles, affordability and access to social facilities. New developments should optimise the provision of housing to suit the social mix and needs in the neighbourhood, or, in the case of precincts undergoing transition, provide for the desired future community.*

Council will need to confirm whether projected social mix is achieved in this development. It is noted that a slight change has been made to unit mix that is acceptable. There is a variety of floor plan offered, and there have been some changes to apartment mix that sees an increase of 1-bedroom units, a decrease of 2-bedroom units and the inclusion of some 3-bedroom units.

The predominance of single orientation unit types is unsatisfactory particularly as an excessive number have adverse solar orientation even when considering the specific site characteristics.

Further consideration may be required to ascertain the possible influence of excavation and basement construction costs driving the unit mix as previously discussed. It is considered unsatisfactory to achieve a Development Approval that is used to on-sell if it is not able to be realised commercially – this can be the case where excessive excavation and resultant construction costs outweigh ability to deliver returns on unit price.

Small, incremental improvements have been made in each revised submission, but none have sought to address the bigger issues of building bulk, extent of excavation and units below NGL, site arrangement or significant internal layout that would address numbers of single orientation units and adverse orientation.

Impact of the development upon the site remains a heavy-handed solution. Opportunities for a more sympathetic relationship between the dramatic setting and ground floor units have not been satisfactorily explored.

Accessible and visitable units will achieve required amenity for residents and visitors.

In terms of social dimension, the proposal is likely to deliver an outcome that would not be out of place with surrounding context. The question remains as to whether the surrounding context provides an appropriate benchmark from where optimal urban outcomes should be compared.

Principle 10 - Aesthetics

SEPP 65 : *Quality aesthetics require the appropriate composition of building elements, textures, materials and colours and reflect the use, internal design and structure of the development. Aesthetics should respond to the environment and context, particularly to desirable elements of the existing streetscape or, in precincts undergoing transition, contribute to the desired future character of the area.*

The proposed aesthetic is consistent with similar developments within the precinct.

Selection of materials is consistent with similar developments as is the composition and use of those materials.

Materials selection and colour appear to be rationally applied to the architectural elements in elevations.

As observed elsewhere, the quality of construction and final detailing will play an important role in the successful resolution of built form particularly at the rooftop levels that are highly visible. There is no detail submitted (as a DA) that provides this information.

Streetscape character will read as articulated 3-storey residential flat buildings. Rational planning and alignments of materials between the middle levels and rooftop elements needs further consideration so a cohesive streetscape character is achieved. This remains unsatisfactory.

The reliance on overly high retaining walls around ground floor units is a poor aesthetic response regardless of the topographical challenges and alienates the internal/external landscape relationship.

Remaining issues are around shade and weather protection of windows, and architectural detailing sufficient to provide a positive future urban character and which addresses reasonable ongoing maintenance of the buildings. No weather protection of openings has been indicated on facades orientated to prevailing weather and solar conditions (if not protected by balconies above and eaves of penthouses). This has not been addressed in amended documents.

It is worth noting that many developments completed in recent years have been poorly received by the community due in part to issues of poor weathering, building performance (by a lack of care in construction) and a perceived lack of character that is often attributed to inadequate consideration being given to architectural detailing or changes to design during construction. Further information on drawings is required to address protection of openings. Fixed, inoperable louvred screens over windows will be unacceptable.

While there are examples of recent apartment developments in the Ku-ring-gai LGA that have not optimised urban outcomes, these should not be accepted as precedents for appropriate future development.

Conclusion

The proposal is not supported on urban design grounds because the following major design issues have been unsatisfactorily addressed during the revised proposals:

- insufficient traffic information provided that demonstrates required swept paths and clearances are achieved for passing vehicles in the car park ramp as it spirals.
- site disturbance considered excessive
- density on basis of identified issues of scale, amenity, resources and sustainability
- number of basements and excavation
- units proposed below natural ground level on a steeply sloping south to south-west site
- reliance on retaining walls and resultant balustrading above
- excessive building depth (Block B)
- reliance on single orientation units
- number of single orientation units with adverse orientation
- clarification of efficacy of cross ventilation to rooms with opening located in slots