78-90 OLD CANTERBURY ROAD LEWISHAM

PEER REVIEW OF REVISED ENVIRONMENTAL ASSESSMENT

(PREFERRED PROJECT RESPONSE)

Final revision 15/09.06.11

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1.0 INTRODUCTION

Simmons Architects have been engaged by Lewisham Estate to complete a Peer Review of the architectural merit of the concept plan for the LEWISHAM ESTATE at 78 – 90 Old Canterbury Road Lewisham. The concept plan was prepared by Tony Owens Partners.

Simmons Architects are currently involved in multiunit developments in various parts of the Sydney Metropolitan area, and as such are familiar with the issues inherent in the design development of mixed use multiunit schemes particularly under SEPP 65 and the Residential Flat Design Code.

Our firm is experienced in providing Peer reviews and is engaged by many differing stakeholders to complete them from time to time. We have included a link www.simmonsarchitects.com.au to our website for information on Simmons Architects Curriculum Vitae.

2.0 OBJECTIVE

The objective is to provide an informed independent opinion as to the Architectural Merit of the proposed scheme, taking into consideration the specific nature and peculiarities of the site.

3.0 EXECUTIVE SUMMARY

The concept plan proposal by Tony Owens Partners for 78-90 Old Canterbury Road Lewisham is an appropriate response to the redevelopment of 78-90 Old Canterbury Road Lewisham.

The proposal is generally in keeping with the intentions of the development planning controls prepared for the site by Marrickville Council, in particular the McGill Street Precinct Master Plan (MSPMP).This instrument envisages a marked increase in the FSR, bulk and scale on the site while responding to the existing site context and the foreseeable transition of development in the precinct.

It is also a suitable response to the guidelines under State Environmental Planning Policy 65 (SEPP 65), and the Residential Flat Design Code (RFDC).

In responding to the MSPMP the concept plan has adopted solutions which, in some cases, depart from the guidelines. It seeks to achieve the desired outcomes in a different way to that set out by the MSPMP.

This has been largely successful, and in these cases preferable, to following the original solutions as set out in the MSPMP.

As the documentation is at concept plan stage only, there are very minimal issues which remain unresolved. These are outlined in this review and are generally capable of resolution in the design development/ development application documentation phases.

We have set out below a peer review of the concept plan by Tony Owen Partners. This includes, where relevant, references to SEPP 65 guidelines and the RFDC. It also refers where appropriate to planning instruments prepared by Marrickville Council, in particular the McGill Street Precinct Master Plan (MSPMP).

4.0 STRUCTURE OF PEER REVIEW

The Peer Review has been structured to deal in broad terms including:

- Comparison between the McGill Precinct Master Plan prepared for Marrickville Council and proposed Preferred Planning Report planning submission scheme.
- Master Plan changes from 2010 EA Report
- SEPP 65 analysis
- Individual issues affecting the whole or part of the proposed revised scheme.
- SEPP 65/Residential Flat Design Code/ McGill Street Precinct Master Plan Compliance Table

5.0 COMPARISON BETWEEN THE MCGILL PRECINCT MASTER PLAN PREPARED FOR MARRICKVILLE COUNCIL AND THE PROPOSED PREFERRED PLANNING REPORT PLANNING SUBMISSION SCHEME.

This section outlines the major differences between the performance of the proposed Master Plan at Old Canterbury Road and Longport Street, Lewisham for submission as part of the PPR and the McGill Precinct Master Plan prepared for Marrickville Council.

Following successive changes to the proposed master plan design, there are on the surface very few differences in planning principles between the two plans.

Both plans include:

- A large central green space on the subject site.
- Buildings ranging from 4, 6 and 8 storeys, with a maximum height of 9 storeys above average ground floor level for the MSPMP, and 8-10 storeys above ground for the proposed Master Plan
- Buildings of similar depths which are used to define central green spaces in roughly the same locations.
- A 4 storey street wall to Canterbury Road
- A continuous wall of buildings along the greenways light rail frontage, set back approximately 10m behind an access road.
- Retail and home office uses along the northern perimeter of the green space, to activate this major circulation zone.
- A degree of permeability to the existing urban fabric and the proposed Greenways amenity

This comparison compares the scheme under the criteria of the Residential Flat Design Code under SEPP 65.These points are as follows:

5.1 Site Planning

Central Park
Following successive redesigns of the proposed master plan, both include a large central green space on the subject site.

McGill Precinct Master Plan
The McGill Precinct Master Plan (MSPMP) has a continuous wall of buildings on the northern perimeter of this park. As a result there will be significant overshadowing of this park and diminished value as a residential amenity.

Lewisham Estates Master Plan
The Lewisham Estates Master Plan (LEMP) orients the central building C north south. This has the

benefit of opening up the central park so it is addressed by the buildings on the north western precinct. This creates significantly more green space which is addressed by significantly more units. In addition this reduces the extent to which the central park is overshadowed by buildings to the north. The calculations show the LEMP has a greater amount of green space in the central park area and the whole site. The provision of a large plaza adjoining the light rail station creates a civic centre for the development and a gateway to the light rail for the community at large.

5.2 Buildings location

McGill Precinct Master Plan
The MSPMP is characterized by a tight configuration of buildings which define internal private green spaces. This results in a plan which is more closed off from the surrounding neighborhood with less public access to communal open space. The MSPMP has fewer buildings facing the Greenways, thus fewer units can benefit from this amenity.

Lewisham Estates Master Plan
The LEMP also uses buildings to define green space. However these spaces are less tightly enclosed, and some like the central space are linked directly to the central park, and are more readily accessible to the community. It appears that there is a higher proportion of open space that is for the private use of residents in the MSPMP as compared to the LEMP where there is a higher proportion of green space available to the community. As a result the LEMP has greater permeability. It creates better linkages between the site and the surrounding neighborhood and to the Greenways park and light rail. There are a greater number of through site linkages connecting the Greenways park and light rail to the surrounding neighborhood. It has been designed in consultation with Sydney Light Rail and NSW Rail to maximize the connectivity and linkage between the Lewisham train station and the light rail. This is enhanced with the provision of some retail and activation along this route. The LEMP has a greater proportion of units facing the Greenways and benefiting from this amenity.

5.3 Traffic and Circulation

The road networks for the 2 plans are quite similar and are designed to maximize the address points for all buildings and maximize the access to basement parking and loading.

McGill Street Precinct Plan
The MSPMP contains 2 roads in the central space. This creates 2 intersections in very close together on Old Canterbury Road. Discussions with the RTA suggest that this is an unsafe scenario and would not be permitted.

Lewisham Estates Master Plan
The LEMP has a single central road. This is still able to distribute cars to address all buildings and basement parking, however it results in a single intersection to Old Canterbury Road which is more likely to be permitted and more likely that it can be signalized thus helping to alleviate some of the traffic issues that characterize the current site conditions.

5.4 Building Separation

McGill Street Precinct Plan
The MSPMP appears not to have been designed according to SEPP 65 requirements; as a result it appears that building separations do not comply in a number of instances. In general building separations are smaller than for the LEMP.

Lewisham Estates Master Plan
The LEMP has been designed generally according to the requirements of SEPP 65. Lower buildings generally have a building separation of 12m between living areas. Buildings greater than 4 storey are to have a separation of 18m between living areas. Some buildings are closer when living areas face on to blank walls or non habitable spaces. Typically parks, streets and public open spaces are used to provide separation between buildings. The LEMP allows for private courtyards for ground floor units wheerever possible. It does not appear that the MMP provides for this.

5.5 Orientation and solar access

McGill Street Precinct Plan
The MSPMP appears not to have been designed according to SEPP 65 requirements. Whilst a thorough study has not been undertaken it appears that the site plan configuration will result in a higher proportion of units being overshadowed. Experience from our own elevation studies suggests this plan is unlikely to achieve minimum SEPP 65 requirements for solar access.

Lewisham Estates Master Plan
The LEMP has been designed according to the requirements of SEPP 65. Section 20.4 contains full solar elevation studies of all proposed buildings, and section 23; shadow diagrams. These studies demonstrate that a ratio of 73% of units can achieve required solar amenity.

5.6 Privacy and overlooking

In some areas the MSPMP seems to have less building separation and the tighter configuration results in more units facing each other and tighter corners. This will result in poor privacy and overlooking in some cases. Otherwise, however, both schemes allow for adequate privacy and minimize overlooking.

5.7 Pedestrian and Cycle Routes

Both schemes are designed such that they are capable of providing pedestrian and cycleway linkages to the surrounding streets.

5.8 Streetscape Activation

Both plans provide for streetscape activation fronting the central green space. However the LEMP has located shop top housing and home office along Old Canterbury Road which will help to activate the streetscape on this thoroughfare and maintain some of the commercial character that the site currently enjoys.

6.0 MASTER PLAN CHANGES FROM 2010 EA REPORT

The master plan as outlined in this Preferred Project Report represents some fundamental changes from the 2010 EA report. The changes reflect responses and feedback from the Department of Planning, various government agencies and local councils. The fundamental change is the removal of the large expanse of retail from the lower ground floor level and its replacement with residential units. The other major change is the relocation of the central green park wholly within the subject site ensuring it can be achieved as part of the master planning process.

The major changes to the master plan are as folllows:

6.1 Ground Level

- The road alignment has been relocated to the south to follow the alignment of the existing Brown Street. The central park has been moved north to adjoin the main buildings on the site. This creates a continuous green space linking to the public open space between buildings A and C. This allows the completed central park to occurr without relying on the amalgamation of other sites or lots.
- A central public civic plaza has been created in the south west corner linking the on site green spaces to the greenways and proposed light rail station.
- A café is located in this area to activate the public domain
- Car park access ramps are relocated to level B1

- The 'toe' element of building C has been removed to maximise public outdoor space.
- The number of retail spaces in building C are reduced.
- Dual use housing in Block E now directly addresses central green space
- The splayed cut back to block G has been lowered to level B1 to maintain communal outdoor space at ground level
- Outdoor private terrace spaces associated with individual ground floor units have been provided wherever possible.

6.2 Level B1

- All of the semi-basement retail space, public plaza and circulation, retail storage and loading has been removed.
- The ground levels have been restored to approximately natural ground levels, as a result additional residential units on ground have been located in the base of all buildings.
- The public and communal space has been largely lowered to this level. A gradual slope links these spaces to the central park as a continuous and seamless open space. This level links to adjoining properties via sloping ground in William Street and Brown Street according to existing natural ground level slopes.
- Storage areas have been provided for residential and shop top housing and ground floor commercial space which interconnect.
- Retail loading dock in south west corner has been deleted. Visitor parking adjoining the railway has been removed

6.3 Levels 1 – 3

- The 'toe' element of building C has been removed to maximise public outdoor space at ground.
- Building A has been further setback from southern green space and corner articulated as high quality design statement (to future design development).
- Splayed set back to Block G has been removed above ground level.
- Building separation between block A and B reduced from 6m to 4m.
- Some internal layouts reconfigured to provide minimum balcony standards.

6.4 Levels 4 – 5

- Southern portion of Block B removed as per DoP request.
- Building A has been further setback from southern green space and corner articulated as high quality design statement (to future design development).
- Splayed set back to Block G has been removed above ground level.
- Building separation between block A and B reduced from 6m to 4m.
- Some internal layouts reconfigured to provide minimum balcony standards.

6.5 Levels 6 – 7

- Southern portion of Block A stepped back as per DoP request.
- Northern alignment of Block B set back to created 4 storey expression to Longport Ave, as agreed with DoP in response to DoP request.

6.6 Level 8

- Southern portion of Block A further stepped back as per DoP request.

7.0 SEPP 65 ANALYSIS OF THE PROPOSED MASTER PLAN

This section outlines the performance of the proposed Master Plan at Old Canterbury Road and Longport Street, Lewisham according to the points as set out in the Residential Flat Design Code as referenced under SEPP 65.

7.1 Building Types

1. Building Heights, Massing and Scale

Performance:

The building heights have been determined through analysis of the site to be of a suitable scale in response to context, view analysis, shadow studies, solar access, surrounding bulk and scale, topography and consultation with local council planners. See master plan document for details building massing has been design with consideration of the surrounding urban fabric and the scale of public domain and urban spaces. For example, the buildings along Old Canterbury road are 4 storeys with a 2 storey setback to the street. Other buildings will include suitable setbacks at 4 storeys to create a predominant street wall podium at 4 storeys to define outdoor spaces and streets. The maximum height of 9 storeys corresponds to the McGill Precinct Master Plan prepared by Marrickville Council.

2. Building Depth

Performance:

The building blocks have been designed generally with a maximum of 18m internal width with additional balcony zone beyond to meet the requirements of the SEPP 65 guidelines. In some instances this dimension is 17m and in some instances it is greater than 18m. However, this only occurs where units are designed as cross-over cross ventilated units which therefore comply with the intent of the control to ensure units receive an acceptable level of natural ventilation and solar amenity.

3. Building Separation

Performance:

Generally the block massing has been designed in accordance within the SEPP 65 criteria. Buildings are generally 12m apart, greater than 4 storey are to have a separation of 18m between living areas. Some buildings are closer when living areas face onto blank walls or non habitable spaces. Lower buildings have a building separation of 12m between living areas with some building separations being 6m or less where non-habitable rooms or blank walls face each other. Typically parks, streets and public open spaces are used to provide separation between buildings.

Street Setbacks

Performance:

The criteria for the design or setbacks and streetscape is set out in section 20.3 of the master plan document. These sections set guidelines for setbacks to public realm, private realm and streetscape building articulation zones. (12.12)

7.2 Site Design

4. Open Space

Performance:

Following consultation with the local council and Department of Planning the master plan has been designed to incorporate substantial public open space and park land. These parks have been located

to maximise permeability and connectivity to the surrounding urban fabric and for maximum exposure for the unit blocks. This park is located wholly on the subject site. This allows the completed central park to occur in the first stage without relying on the amalgamation of other sites or lots.

The space is open to a further space oriented east -west ensuring that the central green space is addressed by the greatest number of units.

5. Orientation

Performance:

The master plan provides for a mixture of east-west and north-south facing unit blocks. This is in response to a range of urban design criteria including view sharing, solar access as well as to promote maximum connectivity of the surrounding urban fabric to the proposed greenways belt and public open space and connectivity to the existing street grid.

7.3 Unit Amenity

6. Natural Ventilation

Performance Criteria:

60% of units should be naturally cross ventilated.

Performance:

The block massing plan allows for blocks of a suitable size and orientation such that this criterion can be met with suitable detailed planning. The detailed conceptual planning as well as the SEPP 65 compliance analysis in section 20.1 demonstrate that a ratio of 77.2% of units can achieve natural ventilation.

7. Sun Penetration

Performance Criteria:

70% of apartment living rooms should receive direct sun penetration for minimum 2 hours per day between 9 am and 3pm. Maximum 10% of apartments to be south facing single aspect apartments.

Performance:

The master plan provides for a mixture of east-west and north-south facing unit blocks. This is to achieve a suitable urban design outcome. Detailed conceptual floor plans have been prepared in section 16. A detailed analysis of its performances against the requirements of SEPP 65 has been undertaken in section 20.2 as well as detailed elevational shadow studies (20.4). These studies demonstrate that a ratio of 73% of units can achieve required solar amenity.

8. Building Depth

Performance Criteria: Preferred maximum internal building depth should be 18m.

Performance: The building blocks have been designed generally with a maximum of 18m internal width with additional balcony zone beyond to meet the requirements of the SEPP 65 guidleines. (20.11) In some instances this dimension is 17m and in some instances it is greater than 18m. However, this only occurs where units are designed as cross-over cross ventilated units which therefore comply with the intent of the control to ensure units receive an acceptable level of natural ventilation and solar amenity.

9. Unit depth

Performance Criteria:

The maximum internal unit depth for single aspect units should be 8m.

Performance:

The detailed planning studies in section 16 show that single aspect units are 8m in depth. In some cases this increases to 10m. It is common that this block can be designed to ensure compliance with this control and therefore, it is assume that this criteria may be met.

10. Kitchens

Performance Criteria:

25% of kitchens to be naturally ventilated.The rear of kitchens to be maximum of 8m from glazing.

Performance:

It is accepted that this block can be designed to ensure compliance with this control and therefore, it is assumed that this criterion may be met with further study.

11. Unit sizes.

Performance:

It is assumed that the buildings will be designed to comply with minimum unit sizes. The density yield analysis has been calculated based on minimum unit areas.

12. Ceiling heights.

Performance Criteria:

The minimum ceiling height for living areas is 2700mm.

Performance:

It is assumed that the buildings will be designed to comply with minimum ceiling heights. The building heights have been determined based on minimum ceiling heights.

13. Units off Corridors.

Performance Criteria:

The recommended maximum number of units addressing a single corridor is 8.

Performance:

The buildings have generally been designed to be maximum of 40m in length. Typically this configuration ensures that the maximum number of units addressing a single corridor is 8. In some cases some corridors serve more than 8 units however, these are generally served by more than one care and with detailed development can be configured to ensure compliance with this control.

14. Balcony depth

Performance Criteria:

The minimum depth of balconies is 2m.

Performance:

The building massing and building setbacks and separations have been designed to allow for a minimum of 2m balconies within a balcony articulation zone.

15. Storage

Performance Criteria:

The minimum requirements for storage are set out in the design code.

Performance:

It is assumed that all units will be design to meet the criteria of the minimum unit storage areas.

8.0 SITE CONTEXT AND ANALYSIS

The subject site is set within a mixed context that is in transition both in terms of uses and scale and bulk of development.

On the external boundaries of the site the context is:

- to the **west** Greenway and the Summer Hills Flour Mills open space ranging to 10 levels
- future high density development to the **south** 4 and 6 levels at the boundary with subject site
- major road and railway to the **north**.
- **East** boundary on Old Canterbury Road- 4 levels envisaged by planning controls
- Brown Street-4 to 6 levels intended by master plan
- Brown Street internal-4 to 6 levels intended by master plan
- William Street 4 to 6 levels intended by master plan

The concept plan site layout has been posited on the solar access to the majority of units, together with the alignment with the existing and proposed street fronts.

The concept plan proposal adopts the desired future external character of the precinct, as outlined in the MSPMP, by the use of consistently aligned buildings to define public streets.

This includes the relationship to Old Canterbury Road, Longport Street, Brown Street and William Street.

Only in the relationship to the New Local Park has an alternative approach been used to that of building to a consistent line.

The New Local Park is defined for most of its length, but broken by the open space between Buildings A and C. Gaps in the continuity of the buildings are used to avoid consistent and undesirable overshadowing of the New Local Park, and to introduce northern light.

The New Local Park extends into the large landscaped areas in the centre of the subject site. The detailed landscape design is not provided at this stage but will be part of the design development or Development Application documentation.

Future landscaping design development will then have to demonstrate that the open space can function both as a whole, as well as allowing the New Local Park linear space and the open space between Blocks A and C, to also function as separate entities.

The location and orientation of the site facilitates the use of public transport, including easy access to Lewisham station, buses and future light rail services.

The proposal also facilitates pedestrian access through the site via the new local park to Summer Hill and to Lewisham Station via Jubilee and Victoria Streets.

The site is close to the local retail precinct, and will add to the range of retail available in the immediate area.

The future built form of the site and its precinct are in marked transition. To the south is the New Local Park and future development site, and to the west the Greenway zone and future light rail. As part of the higher intended density the east side of Old Canterbury Road is proposed 0.to be 4 stories in scale.

The site only in part resembles the natural original ground level. The concept plan proposal accommodates the changes in ground level by presenting a level to the surrounding streets with intermediate level changes between buildings grading to internal levels facing into the site.

The concept plan addresses the surrounding context by defining the street alignments,

However the relationship of ground floor units and retail to open space and street fronts will require final resolution at design development or Development Application stage.

8.1 Open space

The site area is 13,115 m2.

Communal open space should be 25-30 % of site area or more for large Brownfield sites such as this. The proposed communal and private open space is 5,322 m2 or 40 % of the site area.

This includes the private open space of 25m2 per unit at ground level which has been resolved to leave the major areas for communal use.

The revised total landscaped deep soil area is 3,648 m2 which represents 28% of site area and 69 % of total communal and private open space

The deep soil area therefore complies with the 25% of open space requirement.

The New Local Park is located wholly within the subject site with an area of 3,468m2. This allows the completed central park, together with its access road to occur in the first stage without relying on the amalgamation of other sites or lots.

The deep soil area within the New Local Park is 2,305m2 which is 66% of the New Local Park.

The major proposed landscaped areas are the New Local Park, the strip adjacent to the Greenway and in the setback areas between buildings which generally are exposed to northern light.

These zones are of sufficient width and size to allow a mix of permeable and impermeable surface uses

Due to the site configuration, buildings are proposed to be orientated in a North South direction also to provide sunshine over the day to the southern parts of the site.

It also allows for north oriented major landscaped areas

There is the capacity to provide the required amount of open deep soil space as well as shallower soil areas over the basement outline to add to the effective permeable area.

Storm water management provisions formed part of EA submission including the use of sustainability provisions-rain water storage for grey water and landscaping.

8.2 Safety and Security

Due to the entries being located within the site there is an inherent clash between private and public spaces. This includes visitors and those accessing the site in transition to other sites and the Greenway. The building entry lobbies are intended to be refined to enter the site from the street fronts to avoid these security issues.

The entry lobbies need to be marked with elements such as paving and awnings. However, as the entries will be from public space on street fronts, surveillance from retail and residential units and adequate lighting from street to lobbies will ensure security for residents and visitors.

There is also a need to separate residents parking from residents parking and with access to intercom and lifts which will be developed at design development stage.

8.3 Visual Privacy

Adequate building separation and advanced landscaping will ensure the necessary privacy for upper level units. Where active and non active building facades are adjacent to each other the privacy issues are also resolved.

Re entrant corners and the associated privacy issues have been avoided in the concept plan proposal.

9.0 SCALE

The concept plan proposal successfully responds to the existing scale, and likely outcome of transition to the desired future character of the area.

It proposes a range of heights similar to those set out in the McGill Street Precinct Master Plan. The building heights range from 4 storeys addressing Old Canterbury Road, via intermediate heights to the 8-10 level interface with the Greenway.

The detailed break up of building heights and context is set out below:

Boundary	**Existing or anticipated context**	**Proposed height of buildings**
To the **west** Greenway and the Summer Hills Flour Mills	10 storeys silos and open space for Greenway- similar scales to subject site up to 9 storeys	8 storeys with partial 10 storeys on buildings A and B
Future high density development to the **south**	4- 9 levels	4-6 levels
Major road and railway to the **north**	The context includes marking the entry of the Greenway, the relationship to the Summer Hill flour mills, and the future development on Longport Street and Old	8 levels

	Canterbury Road	
West boundary on Old Canterbury Road	Existing 1-2 storeys on the east side to be replaced by 4 storey scale	4 levels
Brown Street	Centre of site intermediate heights	6-8 levels
Brown Street internal	Centre of site intermediate heights	6-8 levels
William Street	Adjacent to future high density development to the north	4-6 levels

Only on the east boundary is the context low rise residential. To this interface with low rise residential, the proposal presents two 4 level scale relatively small buildings faceted with balconies and setbacks and with a central landscaped space breaking the scale down to the streetscape. The future proposed scale to the east side of Old Canterbury Road is 4 storeys.

There is no local building context to the north, the site facing on a major road and heavy rail lines. This 8 storey elevation together with the development of the adjacent site will have the necessary scale to mark the new precinct and new light rail in the Greenway.

10.0 BUILT FORM-SITE PLANNING

In proposed built form the proposal differs from the McGill Street Precinct Master Plan in several ways.

The principal difference is the use of a pattern of open north/south orientated residential buildings. This is proposed as an alternative to the enclosed courtyard pattern in the original Master Plan.

The original MSPMP has a very clear distinction between public and private open space achieved by means of creating relatively small courtyards in tightly arranged plans forming a doughnut building layout .However this also results in:

- Interaction between units
- South oriented units
- Insufficient building separation
- 75% of units with no visual access to the New Local Park
- Lack of permeability of the site due to inward planning of residential buildings
- Loss of the open space advantages that are commensurate with a large redevelopment site

The proposal seeks to avoid those issues with a different approach to internal site planning.

The proposed building locations align with the five road frontages identified above as well as following the alignment of the proposed light rail and the Greenway. The location of the New Local Park is different from the MGPMP so as to share it equally between the properties- the subject site and the development site to the south.

However, the site is equally or more permeable to site views and pedestrian entry as in the original Master Plan. The New Local Park is a major open space, its tapered plan form opening from Old Canterbury Road through to the Greenway, with associated retail and cafe associated with the light rail station.

The site utilization has also been improved in the revised proposal by the removal of the supermarket and associated retail. This has simplified the built form of the scheme and reduced its footprint.

Proposed building heights are generally in accord with the range envisaged in the MGPMP. Although higher in some locations than for the original Master Plan, they are an improvement on the original proposal in location of bulk and scale, and are accompanied by step downs on the southern ends to negate any resulting increase in overshadowing.

The concept plan employs an alternative range of building heights and locations which replace the original building height changes and junctions in the original MSPMP. The original proposals were arbitrary, and would result in awkward building massing and facades as the designs were developed.

In general the concept plan employs a better range of solutions to building orientation, massing and location than envisaged by the MSPMP.

11.0 BUILT FORM - BUILDINGS

The MSPMP proposed a universal use of hybrid row apartments and courtyards apartments resulting in central courtyards surrounded by varied building heights.

It sets out desired building envelopes generally as doughnut shaped buildings surrounding central courtyards, with building heights arbitrarily ranging from 4 to 9 levels around the building forms and across the site from Old Canterbury Road to the to light rail corridor.

This form does not lend itself to access to northern light and reduction in overshadowing

This solution results in overshadowing, interaction between units and a sense of enclosure which does not take advantage of the outlook and sense of space on such a large site as this.

It also results in a high number of south facing units.

The proposed concept plan scheme instead comprises separated stepped flat buildings. The stepped forms achieve building separation and minimize over shadowing of private and public open space.

The building form proposed achieves access to northern light and by the use of crossover apartments gaining north/ east and western light to these apartments
It incorporates a hybrid of residential flat building types- from clusters around lifts to cross over apartments accessed from corridors and lifts. The scheme uses a mix of units to achieve light and cross ventilation for buildings essentially oriented north/ south.

In general the concept plan built form is preferable to that adopted under the MGPMP.

However the lack of clear definition between access for residents and visitors will need to be resolved in the developed landscape design.

11.1 Building depth

The building depths are marginally greater than would be preferable for both cross over and single aspect units... The day lighting effects are largely resolved with 4.5 m widths of the cross over apartments, and single aspect units depth to width ratios. Daylight access is achieved to habitable areas with the non habitable rooms and internal staircases occupying the deeper sections.

Cross ventilation is facilitated by double aspects and double face units resulting in 77% of units achieving cross ventilation. This is well in excess of that required by the RFDC.

Whereas the general layout of units is successful and appropriate, there are-some issues which will require resolution at design development or DA stage.

These include:

- single aspect west facing units
- south facing units which are in excess of 10% of the units mix
- Shop top and dual use apartments will also require resolution in the design development stage to avoid internal habitable rooms. This may be able to be remedied in some cases by relocation of the internal staircases

11.2 Building separation

The concept plan complies in building separations including:

- habitable to habitable up to 4 levels 12m separation
- habitable to habitable 5 levels and above 18 m separation
- Habitable to blade wall 9-9.5m separation

In contrast the MSPMP appears not to have been designed according to SEPP 65 requirements. As a result it appears that building separations do not comply in a number of instances, both within individual blocks and between buildings. In general building separations are smaller than for the proposed scheme.

11.3 Site setbacks

These are consistent with the MSPMP with zero alignment to Old Canterbury Road, Longport and 10m to the Greenway. The street setbacks will be moderated by the final resolution of entry and façade zone on the ground level.

11.4 Development Mix

The apartments are of adequate size in keeping with those suggested in the RFDC requirements

The unit layouts are not indicated and will be developed at design development or DA documentation stage. However the indicated dimensions and shapes on the concept plans will permit a unit mix with sufficient variation in size and layout. Private open spaces are provided by balconies on upper levels and courtyard/entries on ground level

The opportunities of gaining maximum ventilation and day lighting are made possible by the use of cross over and corner apartments

The crossover units are 4.5m in width facilitating daylight penetration. The locations of kitchens and distance from windows and number with natural ventilation will be made clear at DA stage.

The layouts of the single aspect apartments will have to take into account the excess (>8m) depth in the maintenance of adequate daylight and where possible cross ventilation Internal storage part of unit plan.

Balconies are provided to all upper unit levels opening to the main living area. At design development/ DA stage Juliet balconies and secondary balconies to corner units could be considered.

11.5 Flexibility

The apartment mix proposed includes a variety of layouts and sizes. While the mix is based on current and anticipated market demand, the variety of layouts will build in adaptability to future demographic changes.

Shop top and crossover units give flexibility for alternative living options such as SOHO, Dual master bedroom units for 2 independent adults

11.6 Internal Circulation

The use of crossover apartments results in long access corridors to lift banks. Some in Building A have in excess of 8 apartments opening to a single corridor and lift lobby.

However, generally the entry doors to units can be arranged to avoid being directly opposite other unit entries. This is because single level apartments are opposed to double level. In layouts however the long corridors need to be articulated.

11.7 Storage

As required 50% of unit storage space should be able to be stored in the unit the remaining 50% located in the parking level.

11.8 Acoustic Privacy

To increase acoustic privacy the building layouts lend themselves to an a-b-b-a layout, each second unit being mirror reversed to locate the noisier rooms against each other in adjacent units.

The design therefore will group noisy areas together within a unit and to adjacent units

11.9 Orientation, daylight access and amenity

The MSPMP appears not to have been designed according to SEPP 65 requirements. Although a thorough study has not been undertaken, it appears that the site plan configuration will result in a higher proportion of units being overshadowed.
The living rooms and private open spaces in the Lewisham Estates proposal appear to comply with 70% of units attracting the required daylight access. However there are in excess of 10% of units south facing. Also there a number of single aspect, west facing units. These will be able to be refined at the design development stage.
The layouts facilitate the provision of cross ventilation and 77% of units are cross ventilated.

The scheme is not sufficiently detailed to include layouts. However it appears that at least 25% of kitchens will be located on outer walls to receive natural ventilation when the unit details are confirmed. The crossover apartments deeper than ideal, however the 4.5 m width and orientation will result in a workable solution.

The design of facades and roof design are not addressed in detail at the concept plan stage. at this stage. However the variation in layouts both between levels and along the length of facades, and between buildings lends itself to a varied and articulated scheme

12.0 DENSITY AND FLOOR SPACE RATIO

Appropriate building heights and footprints, and open space allocations have been used which demonstrate that the proposed FSR is achievable on the site.

The FSR and total building area have been achieved by adopting a different approach to that of the McGill Street Precinct Master Plan.

The proposed scheme has an FSR of 3.15:1 with a total floor area of 41,312 m2

This figure exceeds the McGill Street Precinct Master Plan which had an FSR of 1.85:1 and a total floor area of 24,282 m2.

The comparison is misleading to the extent that:

- The major retail area including the supermarket has been removed from the scheme.
- The remaining element of difference is the use in some areas of increased height.
  For example the south end of Building A has been reduced to 6 levels and the other buildings C and E facing the New Local Park have been reduced to 4 – 6 levels.

13.0 RESOURCE, ENERGY AND WATER EFFICIENCY

The available cross ventilation is increased by the percentage of cross over apartments with double aspects which have been reduced in depth.

Solar access will comply with the requirements of 2 hours between 9am and 3pm mid winter. This is especially so following the reduction of the building depths for Buildings D, F & C

There are several issues that will need resolution at design development and/or Development Application stage.

These include:

- 47 of 388 units have a single southern orientation i.e. greater than 10% of units are in excess of the recommendation in the RFDC.
- Many single orientation west facing units
- The units in Building E with central bedrooms need to be resolved including relocation of staircases.

Energy efficiency, maintenance, Waste management and Water conservation strategies to be confirmed at the DA Stage

14.0 LANDSCAPE

The landscape scheme will be prepared in detail at the Development Application stage.

The site layout with differing distances between buildings and/or street fronts will enable a variety of landscaped forms developing for the varied spaces- resulting in a series of spatial experiences while accessing the site

The site achieves the required 25% of deep soil planting.

15.0 AMENITY

The proposal employs a wide variety of unit types suited to occupants of different ages and mobility The reduction in depth of buildings A, B & C further increases the amenity of the preponderant 2 level 2 bedroom units. With a bedroom on each level and the stairs and bathrooms centrally located there will be good cross ventilation and daylight to habitable areas.

77% of units achieve cross ventilation.

The room layouts should be well proportioned based on the unit outlines indicated in the proposed master plan, with extended balcony divisions maintaining privacy and separation.

15.1 Pedestrian access

Due to the layout of the immediate precinct, the site is very accessible and equitable access will be able to be achieved. The site is pedestrian rather than vehicular access dominant.

The access includes major pedestrian links between various public transport modes- bus and train, and eventually light rail. This results in the public use of the site at all hours with the attendant security issues for both visitors and residents.

Ground floor apartments will have access from public areas rather than through the entry lobby and the ground level is further enlivened by retail uses

The resolution of the ground floor units entry courtyards and the public pathways will be important in maintaining surveillance of public areas from entry courtyards while maintaining the privacy of these courtyards.

Where there are only internal lobby access points from within the site lighting and design of public spaces will require careful resolution for security for both visitors and residents.

This will also raise identification issues and entry points from the street to the internal lobbies will need to be clearly identified and the paths to the lobbies clearly marked and well lit for security.

The proposal however will be revised at design development stage to achieve entry lobbies from the public street fronts.

15.2 Vehicular access

The vehicular and pedestrian entries are separated to avoid conflict and the location of the entry avoids backing up and queuing in the street.

The MSPMP proposes two roads in the central New Local Park area. This creates two intersections in very close together on Old Canterbury Road. Discussions with the RTA suggest that this is an unsafe scenario and would not be permitted.
The Lewisham Estates proposal has a single central road. This is still able to distribute cars to address all buildings and basement parking; however it results in a single intersection to Old Canterbury Road. This is more likely to be permitted and signalized. This will assist in alleviating some of the traffic issues that characterize the current site conditions.

Residents and visitors parking will be located on the basement level. Residents and visitors parking should be separated in the basement to maintain security for resident parking and access for visitors to intercom and lifts

Garbage collection will be from the basement

The parking basement level is proposed to be kept away from residential levels over to avoid exposure on the street fronts and other public areas

16.0 SOCIAL DIMENSIONS

The varied mix and sizes of units proposed should cater for a gradation of socioeconomic and age levels in the demographic mix on the site.

Ground floor units with courtyards are suited to families with small children or aged residents downsizing.

The location of the site brings access to bus, rail and future light rail services. It is also close to retail and will have a mix of service retail on site

Access to entries by vehicular transport and emergency services has been indicated to most blocks however in some cases access over the site or through the basement would be necessary.

17.0 AESTHETICS

The architectural character of the proposed buildings has not been developed at this concept plan stage. However, it is evident from the layout and scale of the buildings that a strong design approach has been adopted to contribute to the future appearance of an area in transition. Within the adopted building forms, a variety of building layouts and scales has been used in keeping with a large pivotal site. It responds in scale to future adjacent development of similar scales, the Greenway open space and the adoptions of a larger scale on the east side of Old Canterbury Road

The mix of units proposed results in articulation of building facades according to the size and location of units and balconies which differ along each block and between levels

18.0 COMPLIANCE TABLE

To draw the Peer Review commentary together we have included a Compliance Table to test the proposal against the principal relevant planning instruments.

The compliance table refers to:

- State Environmental Planning Policy 65 (SEPP 65)
- Residential Flat Design Code (RFDC)
- McGill Street Precinct Master Plan (MSPMP)

SEPP 65/RFDC/MSPMP item	Required for Compliance	Proposal compliance
Building Height	4 to 9 storeys across the site from Old Canterbury Road to the Greenway based on the MSPMP	4 to 10 storeys across the site from Old Canterbury Road to the Greenway
Building depth	10-18 m or with justification above 18 m	Up to 20-22 m justified by 4.5m width, orientation and cross over apartments
Building separation	For habitable to habitable room/ balcony 12 m up to 4 levels, 18	Complies For habitable to habitable room/ balcony 12 m

	m up to 8 levels , 9 levels and up 24 m	up to 4 levels, 18 m up to 8 levels , 9 levels and up 24 m
Street setbacks	Development to be aligned with street fronts in accordance with MSPMP with private open space zone	Complies
Side and rear setbacks	na	na
Floor space ratio	Advisory FSR in MSPMP	Higher FSR achieved with alternative building massing
Deep soil zone	Deep soil zone to be a minimum of 25% of site area	Complies
Open space	Communal open space to be at least 25-30 % of site. Minimum area of open space on ground level to be 25m2 with 4m preferred minimum dimension	Complies
Planting on structures	Varied soil depths to be used for building on structures	Proposal will confirm compliance at the design development stage
Site amenity – safety-building entries	Surveillance, privacy and safety issues associated with entry points and access to be complied with	Entry lobbies to be revised in general security assessment at design development stage
Visual privacy	Ground floor entry courts surveillance and privacy to be assessed. Otherwise rely on required building separation for levels above	Complies
Pedestrian access	Comply with disabled access with access to a minimum of 20% of units.	Due to site topography the proposal will demonstrate compliance with access requirements at design development stage
Parking and vehicular access	Separate from pedestrian entries and keep entry points remote from major existing roads Garbage and recycling to be collected within the basement on site	Complies
Apartment layout	Single aspect apartments and kitchens maximum 8m from window	Some single aspect units and kitchens exceed 8m however the apartment layouts achieve the required daylighting
	Width of cross over unit minimum 4. Minimum unit sizes Provide an apartment mix with a diversity of apartment types	Complies. Cross over units are all 4.5m in width Complies. Proposal exceeds minimum unit areas Complies
Balconies	Provide for every apartment above ground with 2m minimum dimension	Complies
Ceiling heights	3.3 m for retail/ commercial, 2.7 m for residential	Complies
Ground floor apartments	Provide street entries, entry courtyards where possible	Complies

Internal circulation	Maximum 8 apartments to be accessed from a single lift lobby	Generally complies. Building A does not comply on some levels due to a desirable visual articulation of the building facades
Storage	50% of required storage to be within apartment	Complies
Daylight access	70% of living rooms and private open spaces to have a minimum of 3 hours direct sunlight between 9am & 3 pm in mid winter	Complies
Building amenity	60% of units to support cross ventilation	Complies 77% of apartments support cross ventilation
	25% of kitchens to gave natural ventilation	Will comply when layouts confirmed in design development phase

19.0 CONCLUSION

This Peer Review has examined the concept plan prepared by Tony Owen Partners for the site at 78-90 Old Canterbury Road Lewisham. Issues covered by Marrickville Council planning documents, SEPP 65 and the Residential Flat Design Code have been referenced.

The concept plan departs from the McGill Street Precinct Master Plan in several places. Generally this has been an improvement on what has been proposed in that document.

The increased FSR is not of itself an issue as the site layout and building locations still permit access to sunlight and cross ventilation. The layout of buildings on north- south axes as opposed to enclosed courtyards is a marked improvement. The enclosed courtyard design in the MSPMP imposes amenity issues on the units and does not take advantage of the openness and vistas in such a large site which in turn opens onto the Greenway.

Generally the scheme complies with the SEPP 65 and RFDC controls, and where issues remain, these are capable of resolution in the design development.

As set out in this document, there are a number of issues which will require resolution or refinement at the design development or DA stage. Some are matters of further detail such as unit layouts. Others however such as ground floor private open space will affect other parts of the concept plan, in this case the communal open space.

Overall the concept plan is an apt response to the site, its constraints, and the various authorities' controls and guidelines that influence it

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Prepared by SIMMONS ARCHITECTS