

EXECUTIVE SUMMARY

The proposal is a modification to MP08_0244 MOD1 and primarily serves to incorporate an additional site, being part of the former Council car park site at 9 Havilah Lane. The FSR is effectively the same. The proposal has slightly increased in height along the Havilah Lane frontage as land falls away beneath the building whilst the previous roof/parapet heights have been maintained as the building has been extended. The basement car park levels have been extended and incorporate 37 additional car spaces. The commercial loading dock and goods lift has been relocated. The retail area has been increased by 341m², primarily to enlarge the major retail tenancy. 10 additional units have been added (2 per floor to the northern end of the Havilah Lane tower) and the mix has been altered by incorporating more 3 bedroom units (previously 1.7%, now 5.7%).

The proposal is not supported in its present form.

Areas of concern are presented in this submission with corresponding recommendations. Of key concern is the development's impact on its context, namely

- frontages to Lindfield Avenue and Havilah Lane;
- continued isolation of 2 Kochia lane and 39/41 Lindfield Avenue;
- unresolved vehicular access and parking layout and provision.

Council supports the development in principal, however in the interest of quality on site amenity; and equanimity to surrounding properties ensuring this development does not inhibit their ability to achieve their potential, Council recommends that

1. the proposal be amended to address the concerns raised in this submission and incorporate the recommendations within each section;
2. the proponent engage in discussion with adjoining land owners with a mind to acquiring those sites for incorporation into this development in the interest of avoiding isolated sites and as a means of improving the areas of concern raised in this submission.

DEVELOPMENT CONTRIBUTIONS

Development contributions under *Ku-ring-gai Contributions Plan 2010* apply to this proposed development. Any amendment to the size, configuration or distribution of business or residential floorspace and the unit numbers and unit mix, invoke a consequential amendment to the contributions applicable to this development. All development in Ku-ring-gai is expected to contribute its proportional fair share towards the cost of providing infrastructure to support the nett additional demand arising from the proposal development. Ku-ring-gai Council has an active programme of infrastructure delivery for Ku-ring-gai generally and Lindfield in particular.

With particular reference to the design and floorspace layout of some of the units, the attention of both the applicant and the Department is drawn to the Dictionary starting on page 193 of the Contributions Plan which specifies the meaning of such terms as: bedroom, bedsit or studio and loft apartment, including the treatment of units with few or no fixed walls, for the purposes of correctly applying the contributions plan.

Recommendation

It is recommended that Ku-ring-gai Council be given the opportunity to provide a new assessment of the development contributions applicable to this development to the latest inflation quarter active at the time of any consent to the proposed modification.

LINDFIELD AVENUE FRONTAGE

Similar amendments that were disputed and rectified in the approval of MOD 1 are again being included in this proposal with regards to the Lindfield Avenue frontage. This MOD2 documentation (drawing 1004C) shows that the ground floor retail to Lindfield Ave has been set back approximately 1.5m and ramp access has been incorporated leading from the corner of Kochia Lane to the main Lindfield Avenue building entrance. This ramp is considered to be obstructive and prevents direct interaction with the Lindfield Avenue footpath for approximately 21m of the 44m frontage (44%) (drawing 0002C). In addition, the slanted column at the Kochia Lane corner is an obstructive protrusion that does not allow free passage by pedestrians. Such building elements should be included within the building envelope to ensure clutter free frontages to the public domain and to avoid elements that obstruct visibility, creating pockets of entrapment.

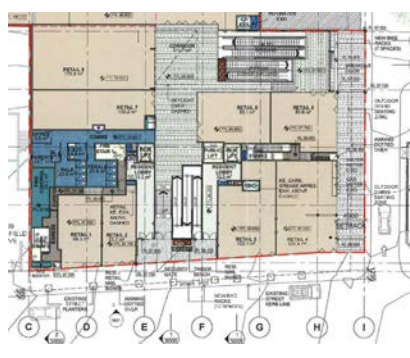
As previously stated and agreed by the Department in Council's submission to MOD 1, the location of this access ramp across the street frontage of Lindfield Avenue is unacceptable as it prohibits any connection of the footpath with those retail premises and the building

entry. The location of numerous stairs directly off the footpath is a poor and hazardous feature with the obvious issues of the merging of footpath traffic and traffic exiting the building. A suitable distance should be provided adjacent to the footpath to avoid conflict between the pedestrian flows.

Further, this proposal does not comply with the requirements of the street activation clauses in both the KLEP Local Centres 2012 (cl 6.6) and the Ku-ring-gai Local Centres DCP. It is again argued that all retail premises facing Lindfield Avenue and Kochia Lane are to demonstrate street activation measures by having shopfronts on the property boundary line with direct level access off the footpath to the individual premises. Any changes in level necessary to access the interior of the building should occur within the building itself as was done in the amended and approved MOD 1 proposal (see diagrams below).



MOD 1 APPLICATION-dwg 1003A



MOD 1 APPROVED PPR-dwg 1004B



MOD 2 APPLICATION-dwg 1004C

Recommendation

It is recommended that the previously Approved MOD 1 address to Lindfield Ave be reinstated to ensure street activation of Lindfield Avenue, and consistency with the existing and future street frontage developments that will be required to comply with street activation and access clauses in both the KLEP LC 2012 and the Local Centres DCP.

It is recommended that that the access ramp on the Lindfield Avenue frontage be deleted and relocated to a location within the building arcade area to enable the required active street frontage and interaction between the inside of the building and the external public areas.

It is recommended that the shopfronts Retail 3, Retail 4 and the residential lobby be brought forward to the street boundary line to keep the important street wall and immediate level access to entries consistent with other frontages to Lindfield Ave.

It is recommended that direct level access be provided from the street footpath to all

retail, commercial and building entrances including to the Retail 3, Retail 4 and the residential lobby to Lindfield Ave.

RELATIONSHIP OF PROPOSAL TO PROPERTY BOUNDARIES

Neighbouring properties which share a boundary with the subject site are 39-41 Lindfield Avenue, 43-47 Lindfield Avenue & part 9 Havilah Lane and 2 Kochia Lane. These sites are zoned B2 Local Centre under KLEP LC 2012. Mod 2 does not acknowledge that the local controls permit these properties to develop to a height of 26.5m as a party wall to the property boundary. A pre-DA has occurred for the site at 43-47 Lindfield Avenue & part 9 Havilah Lane with the DA likely to be submitted within the week.

The RFDC Rule of Thumb (p28 via p59) requires that buildings up to 4 storeys should provide 12m separation between habitable rooms/balconies, and buildings 5-8 storeys should provide 18m separation between habitable rooms/ balconies. In a scenario where neighbouring land owners agree to sharing this separation equitably across boundaries, a minimum building separation of 6m and 9m at respective levels would be required to be provided to the common boundary.

The MOD2 documentation shows that the proposed extension of the Havilah Lane tower is setback approximately 2m from the boundaries of these properties at all levels (see drawing 1006E along grid line 4). This lack of setback provides inadequate building separation which has the potential to impact on visual and acoustic privacy between properties, or in the alternative if the neighbouring sites are built to the boundaries as party walls, this will impact on the daylight and outlook for the proposed units.

As expressed in Council's previous submission, concern is raised regarding the window and balcony openings to boundary lines where there is a high possibility of a blank party wall being constructed on the boundary line in the development of the adjacent sites. This proposal should consider orientating openings and balconies away from the side boundaries to adjacent properties to ensure the amenity to their units is preserved when the adjacent sites develop.

Alternately, the Proponent could consider acquiring the adjacent sites and incorporate them into this development, thereby alleviating the consideration of treatment and preservation of the adjacent site potential and right to build to the property boundary.

Recommendation

It is recommended that the RFDC minimum building separation distances be employed at

the property boundary interface between the subject site and 39-41 Lindfield Avenue and 43-47 Lindfield Avenue & part 9 Havilah Lane.

It is recommended that the Proponent consider acquiring the sites to which it is presenting windows and balconies and include those sites in their proposal.

HIGH SILL WINDOWS TO END ELEVATIONS

The party walls to 2 Kochia Lane, 39-41 Lindfield Avenue and 43-47 Lindfield Avenue & part 9 Havilah Lane have been revised in MOD2 to include 'clerestory' (high sill) windows. These windows are not essential to the development as the rooms they serve all have alternative windows to other orientations. Also, they are no longer relied upon for solar access or cross ventilation. As adjacent sites redevelop, these windows will be built out and obstructed. This will mean that construction work will need to be undertaken to 'fill in' these windows at the time and cost to future residents.

Recommendation

It is recommended that the 'clerestory' windows be removed. The condition of approval related to these windows could also be removed.

COMMUNAL OPEN SPACE

The RFDC Rule of Thumb (p49) requires a communal open space to be at least between 25% and 30% of the site area. The proposed communal open space is 20% of the site area. The communal open space is identical to that shown in the MOD1 documentation and has not expanded to provide amenity for the 10 additional units proposed.

Recommendation

It is recommended that additional communal open space of at least 25% of the site area be provided in accordance with the RFDC including consideration of open space provision on the roof tops of the towers.

SOLAR ACCESS

The RFDC Rule of Thumb (p85) requires that living rooms and private open spaces for at least 70% of apartments should receive a minimum of 2 hours direct sunlight between 9am and 3pm in midwinter in dense urban areas.

The ESD Report (p10) states that 88 of 122 (72%) of apartments (including the additional apartments) achieve 2 hours solar access. However, the third column in the table at Appendix 1 (p19) shows that only 66 of 122 (54%) units achieve 2 hours solar access to

their living rooms. This figure appears to be accurate based on the solar access study diagrams (p10-13) and the 'sun view' model (p20). This does not meet the RFDC Rule of Thumb (which requires assessment of the development as a whole) and represents a significant shortfall of 19 units to achieve 70% (85 of 122) across the proposal. The fourth column in this table appears to be mis-titled and should probably be labelled 'private open space 2hrs'? An inspection of Unit 103A in the solar access study diagrams (p10-13) confirms that the living room does not achieve direct sunlight between 9am and 3pm at any point. Further, calculations do not consider the very likely development of adjoining sites and their impact on the calculations reliant on that orientation.

The previous approvals appear to be, at least partly, premised on a development on this site being able to achieve a level of solar access that is in line with the RFDC Rule of Thumb. The findings of the ESD Report appear to be seriously flawed in this respect.

Recommendation

It is recommended that this aspect is revisited and investigated by the Proponent. The implication is likely to be a significant redesign of the typical floor plates, however achievement of an adequate level of solar access is considered to be achievable through redesign.

It is recommended that a standard Condition along the lines of the following be added to the Project Approval: 'Future Development Applications are to demonstrate consistency with the provisions of the State Environmental Planning Policy 65 - Design Quality of Residential Flat Development (SEPP 65) and the accompanying Residential Flat Design Code 2002 (RFDC), except where modified by this Project Approval.'

KITCHEN DEPTH

The RFDC Rule of Thumb (p69) requires that the back of a kitchen should be no more than 8 metres from a window. 4 units which have been reconfigured in MOD2 (103B, 203B, 303B and 403B) have kitchens which are greater than 8m from a window. It is noted that the typical cross through apartments on all levels of both the Lindfield Avenue and Havilah Lane towers (103A, 106A, 105B, 108B) also have kitchens which are greater than 8m from a window.

Recommendation

It is recommended that the kitchen depths be revised to ensure that the back of these kitchens are no more than 8m from a window.

INTERNALISED ROOMS

11 units at the northern end of the Havilah Lane tower which are either new units incorporated under MOD2, or have been adjusted in plan to accommodate new units (101B, 102B, 103B, 201B, 202B, 203B, 301B, 302B, 303B, 401B and 501B) have internalised media rooms. These rooms are all habitable rooms without windows that are of sufficient dimension to be used as a bedroom. There is a high risk that these internal rooms will be used as additional bedrooms with associated sub-standard amenity that would not be allowed in a bedroom.

Recommendation

It is recommended that the unit plans be adjusted to remove the internalised media rooms.

INTERNALISED COMMON CIRCULATION

The residential lobbies of the Lindfield Avenue tower (levels 2-7) and the Havilah Lane tower (levels 2-5) are internalised and are not provided with natural light or air. These areas are substandard in amenity and serve 100 of 122 (82%) units in the development, including the additional apartments incorporated under MOD2. These areas will require artificial lighting and mechanical ventilation in perpetuity for their operation.

Recommendation

It is recommended that the internalised residential lobbies be provided with a window.

ADAPTABLE UNITS AND VISITABLE UNITS

Given the ageing population nationally and particularly in the Ku-ring-gai area, it is important that a proportion of residential flat units are adaptable for use by disabled residents. Equally important is that the majority of units be 'visitable' (allowing wheelchair access by disabled visitors to the living and bathroom areas). The Ku-ring-gai DCP Local Centres has a requirement of 1 in 10 or part thereof to be designed as adaptable units, and that at least 70% of all apartments in the development be visitable.

Recommendation

It is recommended that a total of 13 adaptable units be provided across the development (1 in 10 or part thereof of the total 122 units) and that the bathroom layout is that of the adaptable requirement to avoid future inconvenience and expense in re-plumbing and relocation of sanitary ware for adaptable purposes.

It is recommended that 86 units (70% of apartments of the total 122 units) are made visitable.

BCA STANDARDS

The BCA Capability Report requires 2 separate fire exits and stairs to be provided to each floor where the building exceeds 25m in height from the point of egress. The proposal only indicates 1 exit per floor. For safety purposes and to be compliant, the proposal requires redesign to include a second exit and stair from each floor.

Recommendation

It is recommended that the development be BCA compliant with regards to fire exit and stair provision.

WATER MANAGEMENT

The BASIX water commitments include a 32 486 litre rainwater tank, collecting runoff from 2 035 square metres of roof area, with re-use for irrigation of common garden areas and car washing.

The Stormwater Report correctly refers to Ku-ring-gai Local Centres DCP. The design has been prepared based on an impervious area of 100%. The rainwater tank provided in the basement will have a volume of 89 cubic metres, and the detention volume of 137 cubic metres comfortably exceeds the required volume of 105 cubic metres.

The Report contains a water balance calculation as well as the results of a MUSIC model to confirm that Council's water quality targets will be achieved by the Stormfilter system proposed.

Recommendation

The water management measures proposed for the development are satisfactory; however, the applicant has requested that *Condition C15* be amended to refer to the latest water management plans by Insync. Since these plans are to be listed in Condition A2, it is recommended that *Condition C15* be deleted. DCP 47 no longer applies to this site and the other requirements are already shown on the drawings and demonstrated in the Stormwater Drainage Report.

For the same reason as above, it is recommended that *Condition C29* also be deleted.

WASTE MANAGEMENT

Access for the 11 metre truck to the turntable will enable off-street collection of waste for the retail component. The area allocated to containers will dictate the number of days collection is required.

With regard to waste management for the residential component, the Waste Management Plan proposes compaction of waste and on-street collection.

Compaction will not be accepted by Council's Manager Waste Services (due to bin damage and difficulty in emptying the bins). On-street collection is contrary to Council's requirements of internal waste collection for residential flat developments and mixed use buildings, as outlined in Volume C Part 3.4 of Ku-ring-gai Local Centres DCP. There appears to be sufficient headroom for the small waste collection vehicle to collect from the residential garbage store on the lower ground floor, however there is not enough space for the number of containers required.

The applicant has not requested a variation to Conditions C16, C30, E18 or F10, all of which are based on internal collection of waste including residential waste.

The proposed modification to *Condition G5* is supported, since the residential waste storage is now on the Lower Ground Floor.

Recommendation

It is recommended that *Condition C16* be clarified by adding Council's requirements for internal waste collection and for space to be provided for the correct number of containers.

It is recommended that *Condition C16* be amended to add after the last sentence

"No compaction of waste will be approved. The number of containers to be accommodated for residential waste management is 43 x 240 litre for garbage, and 21 x 240 litre each for paper and mixed recycling (total 92 x 240 litre containers or equivalent 660 litre containers). Internal waste collection must take place on the lower ground floor."

It is recommended that *Condition F14* be amended to delete that the sentence "Ku-ring-gai Council's approval must be obtained for the operation of the recycled water supply system", since this system is no longer proposed on the BASIX Certificate.

It is recommended that for the same reason as above, *Condition E5* be deleted.

It is recommended that clarification be provided regarding location of an onsite loading area for residential waste collection.

ACCESS POINTS OFF HAVILAH LANE

The proposal shows 4 vehicular access points on Havilah Lane, which is an increase on the previous application (3). This is considered detrimental to the aspect and street frontage of Havilah Lane which is the primary frontage of residential development on the opposite side of this site. Council previously requested that the 3 entry points be consolidated to 2, one retail/residential and one service entry point. Council maintains this position as a means of limiting the impact on the residential frontages to Havilah Lane including the foyer and pedestrian entry points into this proposed development. The combined effect dominates the building facade and streetscape to Havilah Lane and does not support the shared use of the Lane with existing residential development. Further, the proposed residential lobbies on Havilah Lane are effectively sandwiched between four driveways resulting in poor amenity and outcomes for that laneway as an entry to the residential component of the development.

The access points off Havilah Lane are as follows:

- One of these is the access point to the residential basement car parking, which provides access to 172 spaces for residents, as well as staff for the retail component. The Local Centres DCP requires an access point width of 6m – 9m. At 7m wide, the proposed access point complies with the draft DCP.
- Two adjacent access points form 2-way entry/exit points to the retail car parking as well as provide access to the rear of 39 and 41 Lindfield Avenue via a right-of-way. These are proposed to be 6.0m wide, and these access points would service 49 car parking spaces. A 3.7m - 6m wide single access point would be adequate for this number of car spaces, therefore the proposed retail access point complies with the draft DCP.
- The northernmost access point is dedicated to service vehicles, to cater for vehicles up to 11m long large rigid trucks. Although not dimensioned on the plans, the access point appears to be approximately 6.5m wide. Combined with the 11m dia truck turntable and the supplied swept paths, the access point width appears to be adequate. There is concern, though, that logistics operations for supermarkets are such that large rigid trucks or articulated vehicles (semi-trailers) are typically employed for the distribution of groceries. If this occurs, this may result in trucks wanting to unload in the street, or not

being able to unload at all. A commitment is needed that vehicles larger than 11m long large rigid trucks will not be needed to service the site.

Separately, the various access points comply with the dimensional requirements of the Local Centres DCP. However, the Local Centres DCP also requires that all developments provide a shared vehicle entry / exit point for different uses (e.g. retail, commercial and residential). Any proposal seeking to provide separate vehicle entry / exit points on large developments must justify this variation by demonstrating the combined effect does not dominate the building facade or streetscape. Also, service vehicle access is to be combined with parking access, although separate access may be required in major retail/commercial developments.

This site is not considered to be of a scale to be considered a major retail commercial development, and the separate vehicle entry / exit points are such that conflict with pedestrians on Havilah Lane is increased. The attempt to maintain a right of way to 39 and 41 Lindfield Avenue and the absence of 2 Kochia Lane in the proposal clearly constrains the layout of the internal car park and has resulted in an inadequate parking provision for the retail component and the resulting excessive access points on the Havilah Lane frontage. Consideration should be given to incorporating 39 and 41 Lindfield Avenue and 2 Kochia Lane into the site so as to eliminate the need for a right of way and satisfactorily address the frontage to Havilah Lane, parking provision and car park layout.

Recommendation

It is recommended that a commitment be given that vehicles larger than 11m long medium rigid trucks will not be needed to service the site.

It is recommended that the vehicular access points off Havilah lane be consolidated to 2 access ways, one for retail/residential and the other for services. The Local Centres DCP requires that all developments provide a shared vehicle entry / exit point for different uses (e.g. retail, commercial and residential). Any proposal seeking to provide separate vehicle entry / exit points on large developments needs to justify this variation by demonstrating the combined effect does not dominate the building facade or streetscape. In this proposal it is clear that the 4 vehicle entry points dominate the Laneway and detracts from it as a frontage to residential development entrances on this site and on sites on the opposite side of the lane.

It is recommended that this proposal enable a shared vehicular access with 2 Kochia Lane. 2 Kochia Lane will be isolated by this proposed development and will not be able to provide

vehicular access into its basement for future development. Consideration should be given to provision of removable panels off the proposed vehicle entry/exit ramp adjacent to the Kochia Lane site to allow construction of a future shared access way with minimal disruption.

It is recommended that consideration be given to acquiring 2 Kochia Lane for incorporation into this development, thereby increasing the development's frontage to Havilah Lane and reducing the proportion of vehicle access points to the laneway.

It is recommended that consideration be given to acquiring 39/41 Lindfield Avenue for incorporation into this development, thereby removing the need to provide the right of way through the site to those properties. This would enable ease of consolidation of access points and enable a better interface to Havilah Lane for the residential components of this development as an improved outlook for the existing residential developments fronting Havilah Lane.

CAR PARKING LAYOUT AND DESIGN

Lower Ground Floor: The Vehicle Management Plan suggests that time limits will apply to parking in the lower ground level. However, it is unclear how spaces 34-49 are to be managed as they lie outside the cordon of the boom gates. In addition, there is very little detail on the extent and operation of the proposed boom gates.

There are an excessive (18 out of 49) number of 'small car' spaces, and with a high prevalence of SUVs in the Ku-ring-gai LGA, these spaces may not be efficiently utilised and result in an inadequate and unrealistic parking provision.

Basement 1: At grid reference F2, there is concern that there is insufficient manoeuvring space at the intersection of the ramp and aisle. The applicant should demonstrate compliance with Clause 2.5.2 (c).

Basement 2: At grid reference F2 and G6, there is concern that there is insufficient manoeuvring space at the intersection of the ramp and aisle. The applicant should demonstrate compliance with Clause 2.5.2 (c).

Basement 3: The bicycle parking located along the wall adjacent to the northern aisle is vulnerable to being impacted by manoeuvring vehicles. An alternative location should be found.

Recommendation

It is recommended that clarification and detail be given on the extent and operation of the proposed boom gates and how they will prevent commuters from parking all day within the development; and, how spaces such as 34-49 on the Lower Ground Floor are to be managed as they lie outside the cordon of the boom gates.

It is recommended that the excessive (18 out of 49) number of 'small car' spaces be reduced in number and redesigned to be replaced with standard size car spaces.

It is recommended that the insufficient manoeuvring space at grid reference F2 *Basement 1*, at the intersection of the ramp and aisle, demonstrate compliance with Clause 2.5.2 (c).

It is recommended that the insufficient manoeuvring space at grid reference grid reference F2 and G6 *Basement 2*, at the intersection of the ramp and aisle, demonstrate compliance with Clause 2.5.2 (c).

It is recommended that an alternative location be found for the bicycle parking located along the wall adjacent to the northern aisle as it is vulnerable to being impacted by manoeuvring vehicles.

CAR PARKING AND ACCESS

The following table outlines the car parking required for the proposal under the Ku-ring-gai Local Centres DCP (2013), and compares these requirements to the quantity of car parking actually proposed.

Land Use	Ku-ring-gai Local Centres DCP (2013) parking requirement	Proposed parking
Retail / shops , including restaurants and cafes (Supermarket and Specialty Retail) 2,721 sqm GFA	1 space/26m ² - 1 space/33m ² GFA = 83-105	62
Residential: 4 x Studio 56 x 1 bedroom 55 x 2 bedroom 7 x 3+ bedrooms (122 total)	0 (min) - 0.5 (max) = 0 – 2.0 0.6 (min) - 1 (max) = 33.6 - 56.0 1 (min) - 1.25 (max) = 55.0 - 68.8 2 per unit = 14 Total res. parking = 103 - 141	131
Residential: Visitor	1 space/6 units = 21	28
Total parking required	207 - 267	221

From the table above, the total parking provision that would be required under the Ku-ring-gai Local Centres DCP (2013) for this proposal would be 207-267 spaces. The parking ranges in the Ku-ring-gai Local Centres DCP are intended to encourage the use of public transport and local services, to support local services, and to reduce car use. Judgement is to be used such that sites located in very close proximity to regular public transport and core shops/services/facilities could provide parking closer to the lower end of the range.

As an additional comparison of the retail component, the *RTA Guide to Traffic Generating Developments* suggests parking rates for shopping centres be provided in accordance with the following:

$$\begin{aligned}
 & (24 \times \text{Slow Trade GLFA}) + (40 \times \text{Fast Trade GLFA}) + (42 \times \text{Supermarket GLFA}) + (45 \times \\
 & \text{Specialty Shops/Secondary Retail}) + (9 \times \text{Office/ Medical}) \text{ (per 1,000sqm GLFA)} \\
 & = [(42 \times 1,604\text{sqm})/1000] + [(45 \times 691\text{sqm})/1000] \\
 & = 99 \text{ spaces}
 \end{aligned}$$

These rates take into account a degree of “multi-purpose parking” which occurs when a number of retail/commercial uses are located on the one site, and suggests that the proposed retail provision of 62 spaces would be inadequate. The lowest provision in the Local Centres DCP for the retail component of mixed use development (i.e. 83 spaces) should be provided as a minimum. The attempt to maintaining a right of way to 39 and 41 Lindfield Avenue and the absence of 2 Kochia Lane in the proposal clearly constraints the layout of the internal car park and has resulted in an inadequate parking provision for the retail component.

Based on the RTA rate for high density residential flat buildings in metropolitan sub-regional centres, the parking requirement for the residential component would be 120 car parking spaces. Therefore the total parking provision required under the RTA Guide to Traffic Generating Developments would be 219 spaces.

Reliance should not be placed on the Council public car park off Tryon Road to assist with the site's parking needs, as this site is the subject of a proposal by Council to create a village square by undergrounding the existing at-grade car park. This Lindfield Village Green proposal is expected to incorporate reduced public parking (approximately 100 underground spaces, down from the current 138 at-grade spaces) on the basis that new developments would be providing for their own parking needs on site. Also, the occupancy surveys undertaken by the applicant were done at a time when vacancies in retail and

commercial tenancies in the Lindfield local centre were relatively high, and would not reflect the true demand for parking in the Lindfield centre if these tenancies were occupied.

Recommendation

It is recommended that the amount of retail parking be increased to a minimum of 83 spaces. The amount of residential parking which is at the higher end of provision could be reduced given close proximity to transport and services. It would be reasonable to reduce the amount of parking allocated to studio and some 1 bedroom units, which might also improve affordability and offer increased housing choice.

BICYCLE PARKING

The following table outlines the bicycle parking required for the proposal under the Ku-ring-gai Local Centres DCP (2013), and compares these requirements to the quantity of bicycle parking actually proposed.

Land Use	Ku-ring-gai Local Centres DCP (2013) parking requirement	Proposed parking
Retail / shops , including restaurants and cafes (Supermarket and Specialty Retail) 2,721 sqm GFA	1 secure bicycle locker per 600sqm GFA for staff = 5 1 bicycle parking space (in the form of a bicycle rail) per 2,500sqm GFA for visitors = 1	38
Residential: 122 units	1 space/5 units (within residential car park) = 25	127
Residential: Visitor	1 space/10 units (within visitor car park) = 13	
Total parking required	44	165

While the nominal quantity of bicycle parking spaces shown on the plan would satisfy the requirements of the Ku-ring-gai Local Centres DCP, there is still concern around the lack of bicycle parking detail in relation to the split between residential/visitor/shopper parking.

Bicycle parking for residents and employees should be located in secure areas, and should be fully enclosed individual lockers, to encourage their use; and clearly, shoppers and visitors bicycle parking should be located in visible and convenient spaces. Ideally, this would be bicycle rails or racks located in the public areas at ground floor level, and not in basement areas. AS2890.3 and relevant Austroads guidelines provide guidance on the configuration and location of effective bicycle parking. Note that bicycle rails should allow wheels and frame to be locked. The “toast-rack” style parking hold only one wheel, and would not be acceptable.

Seven bicycle parking spaces are shown adjacent to the breakout door on the Kochia Lane frontage. This breakout door is assumed to be a pedestrian access point into the site, and therefore an activated frontage. However, it is considered that these spaces should be located further away from the wall to improve casual surveillance. The suggested racks in the footpath area of the Lindfield Avenue frontage would be subject to Council approval. The awning over this footpath area should extend to at least the property boundary.

As with the previous application, concerns still remain regarding the lack of bicycle end of trip facilities (showers/lockers/change rooms etc) for the retail component.

Recommendation

It is recommended that clarification and detail on bicycle parking in relation to the split between residential/visitor/shopper parking be provided.

It is recommended that bicycle parking for residents and employees be located in secure areas and should be fully enclosed individual lockers.

It is recommended that shoppers' and visitors' bicycle parking be located in visible and convenient spaces such as bicycle rails/racks located in the public areas at ground floor level, and not be located in the basement areas.

It is recommended that configuration and location of effective bicycle parking follow AS2890.3 and relevant Austroads guidelines which provide guidance on the configuration and location of effective bicycle parking. Bicycle rails should avoid "toast-rack" style parking, which holds only one wheel, and instead allow both wheels and frame to be locked.

It is recommended that the seven bicycle parking spaces are shown adjacent to the breakout door on the Kochia Lane frontage be located further away from the wall to improve their casual surveillance, and the awning on this frontage extended further south to the boundary of the site.

It is recommended that bicycle end of trip facilities (showers/lockers/change rooms etc) be provided for the retail component.

TRAFFIC GENERATION AND WIDER TRAFFIC/TRANSPORT CONTEXT

The peak hour traffic generation of the site is anticipated to be slightly higher than the current site, due to lower floor areas dedicated to retail and commercial uses. It is estimated that the increase in traffic generation in the am peak would be approximately 30 trips, with an increase of approximately 22 trips during the pm peak. This is not a significant increase in traffic, with approximately 1 additional trip every 2 minutes during the morning peak hour and 1 additional trip every 3 minutes during the evening peak hour.

During the planning of the Lindfield town centre (which culminated in the gazettal of the Ku-ring-gai LEP (Town Centres) 2010), Council undertook an area-wide traffic study of the Lindfield town centre. This study examined the existing traffic situation, and considered the cumulative traffic generating impacts of redevelopment under the LEP. It also considered various traffic flow and intersection improvement options around the Lindfield town centre.

The 3 signalised intersections on Pacific Highway in Lindfield were found to be operating at capacity in the am and pm peak, with the intersection of Pacific Highway and Balfour Street/Havilah Road being the critical intersection. In particular, the Havilah Road leg of this intersection was identified as being a major constraint, due to the relatively low and narrow railway bridge and the close proximity to Lindfield Avenue. As a consequence, Havilah Road and Balfour Street experience significant delays, particularly during the pm peak.

While a number of opportunities were considered, the close proximity of Pacific Highway and the North Shore railway line combined with limited east-west crossing opportunities presented a major barrier to providing major access improvements.

The result of the traffic modelling indicated that traffic generation of the Lindfield town centre redevelopment would further deteriorate the performance of the 3 signalised intersections on Pacific Highway in Lindfield. Although limited opportunities became evident during the study (due to the constraints mentioned above), the following traffic improvement measures in the vicinity of the site were recommended:

- New traffic signals at intersection Lindfield Avenue and Tryon Road (and removal of existing pedestrian operated signals in Lindfield Avenue);
- New traffic signals at intersection of Pacific Highway and Strickland Avenue;
- Introduce one way conditions (eastbound) in Havilah Road, between Pacific Highway and Lindfield Avenue;

- Minor capacity improvements at intersection of Pacific Highway and Balfour Street/Havilah Road (lengthen right turn bay from Pacific Highway into Havilah Road, and extend parking restrictions in Balfour Street;
- Pedestrian link between Lindfield Avenue and Havilah Lane.

These works have been costed and scheduled in the *Ku-ring-gai Contributions Plan (2010)*. Further planning work being undertaken by Ku-ring-gai Council in Lindfield in 2013/2014 relates to the Lindfield Community Hub and Lindfield Village Green projects. This includes a nanosimulation network model of the transport network in Lindfield, which indicates that the above road upgrade projects are necessary.

It is considered that as a result of this development, new traffic signals could be installed at intersection Lindfield Avenue and Tryon Road, to manage traffic flows.