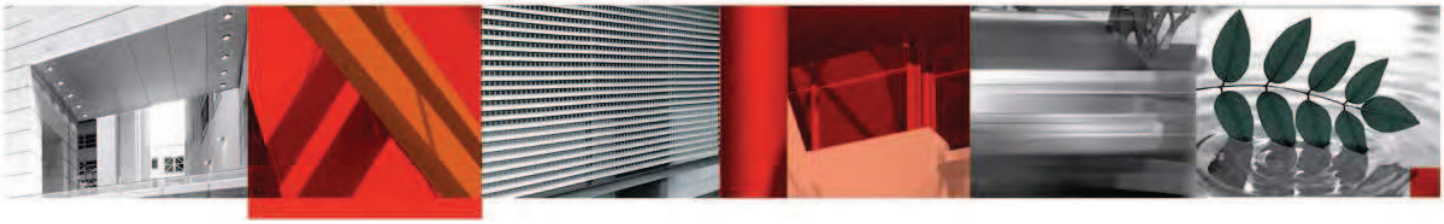
Development Application

Statement of Environmental Effects



2 - 2A Hepburn Avenue & 199 - 203 Carlingford Road, Carlingford

Residential Apartment Buildings

Submitted to Hornsby Shire Council
On Behalf of Hepburn Carlingford Pty Ltd

April 2016 ■ 15784

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JBA operates under a Quality Management System that has been certified as complying with ISO 9001:2008. This report has been prepared and reviewed in accordance with that system. If the report is not signed below, it is a preliminary draft.

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1.0 Introduction

This Statement of Environmental Effects (SEE) is submitted to Hornsby Shire Council in support of a Development Application (DA) for two residential apartment buildings at 2 - 2A Hepburn Avenue & 199 - 203 Carlingford Road, Carlingford. The proposal has been prepared in accordance with the Hornsby Local Environmental Plan 2013 and the Hornsby Development Control Plan 2013.

The DA seeks approval for:

- Demolition of six (6) existing dwelling houses;
- Amalgamation of six (6) sites;
- Construction and use of two (2) residential apartment buildings, comprising 63 dwellings;
- Excavation and provision of a common two (2) level basement carpark accessed from Hepburn Avenue, providing 99 spaces;
- Strata subdivision of the residential apartment buildings;
- Associated landscape works, fence and tree removal; and
- Extension and augmentation of physical infrastructure and utilities as required.

The SEE has been prepared by JBA on behalf of Hepburn Carlingford Pty Ltd and is based on the Architectural Drawings provided by SWA Architects (see **Appendix A**) and other supporting technical information appended to the report (see Table of Contents).

This report describes the site, its environs, the proposed development, and provides an assessment of the environmental impacts and identifies the steps to be taken to protect or lessen the potential impacts on the environment.

1.1 Background

A pre-DA meeting was held with Hornsby Shire Council on 30 November 2015 (reference PL/135/2015). A summary of the issues raised and the proponent's response are identified in **Table 1**. A copy of the pre-DA minutes are attached at **Appendix B**.

Table 1 – Pre-DA Issues

Matters for Consideration	Response
The following information/ matters were discussed at the meeting and are to be addressed as part of any Development Application lodged;	-
Hornsby Development Control Plan and the Apartment Design Guidelines	

Matters for Consideration	Response
The development proposes a side setback of 6m, reduced to 4m for 1/3 of the building width fronting Carlingford Road and a 10m setback reduced to 8m for 1/3 of the building width fronting Hepburn Avenue. This is to be amended to provide a front setback treatment to Carlingford Road. This is a busy road and an increased setback is required to provide increased amenity for future occupants. The setback would also be consistent with the adjoining properties and approved developments on Carlingford Road. The Hepburn Avenue frontage is also to be treated as a front setback. This would also provide increased amenity for occupants and provide an appropriate treatment of the streetscape adjoining Hepburn Avenue. This would be consistent with Part 3.4.5 – Corner Sites of the draft amended HDCP.	As discussed within **Section 4.3**, the proposed siting and orientation of Block A and Block B have given due consideration to the setback requirements contained within the HDCP to ensure the amenity for future residents is prioritised.
The proposal includes a mezzanine at the fifth level. The draft amended HDCP would require a 6m additional setback for exterior walls of the fifth storey measured from the walls of the lowest storey.	The mezzanine setback at the fifth level meets the requirements of the HDCP as demonstrated within **Section 4.3**.
The development includes a 7.5m separation between the two buildings. This is to be increased in 9m in compliance with HDCP.	The final design of the proposed development incorporates a 9m separation between Block A and Block B, consistent with the HDCP. Refer to **Section 4.1** for further detail.
The proposed floorplate length for both buildings A and B is approximately 41.5m. This exceeds the 35m requirement. The proposed floorplates are to be reduced in length to comply with HDCP.	The final design proposes a slightly larger floorplate in order to improve the internal amenity of apartments as well contribute to the articulation of the façade of the building. This is discussed in further detail at **Section 4.1**.
The proposal includes 2 x 3 bedroom units. In accordance with HDCP, 10% of each unit type is required. The number of 3 bedroom units is to be increased to meet this control.	The design provides for a range of housing choices, with the provision of 2 and 3 bedroom units exceeding 10%. 1 bedroom apartments have been provided consistent with the demographic profile of the area, as discussed at **Section 4.4**.
The application is to be supported by a landscape plan. The plan should provide for a deep soil landscaped area (7m x 7m) between the buildings to accommodate large canopy trees. The plan also needs to include detailed sections of the levels between the buildings and the treatment of the basement carpark wall which protrudes 1m above natural ground level.	A landscape plan has been prepared by Michael Siu Landscape Architects and is submitted with this report at **Appendix C** and proposes significant deep soil landscape area, as well as a number of canopy trees. Landscaping is also provided throughout the area between Block A and Block B in order to appropriately screen the part of the basement which protrudes.
Submit shadow diagrams, demonstrate cross flow ventilation for each dwelling and provide storage for each unit in the basement. To assist in the sunlight access analysis, a sunlight access analysis plan is required for each level of the proposed building, taking into account a compliant redevelopment scheme on adjacent sites.	Shadow diagrams are included in the Architectural Drawings at **Appendix A** and demonstrate that an appropriate level of amenity is achieved in relation to sunlight access and natural ventilation. The drawings also show that storage is provided in the basement.
The majority of the two bedroom units are undersized. As per Part 4D of the ADG, two bedroom units are to have a minimum area of 70m². Additional bathrooms increase the minimum internal area by 5m² each. Therefore, a two bedroom unit with two bathrooms should have a minimum area of 75m2.	The proposal meets the requirements of the ADG. Refer to **Section 4.6** for further detail.

Matters for Consideration	Response
It is also noted that the proposed ceiling heights are approximately 2.95m. Part 4C of the Apartment Design Guidelines (ADG) requires a ceiling height of 3.1m from finished floor level to finished floor level. The proposal is to be amended to comply with the ADG.	Part 4C of the ADG requires a minimum ceiling height of 2.7 metres from floor level to finished ceiling level. The proposed ceiling heights are approximately 2.95 metres and therefore exceed the requirement.
Daylight and natural ventilation is to be provided to the common corridors and circulation spaces. Windows should be located adjacent to the stair or lift core or at the ends of the corridors.	Windows are located at the end of all corridors and, where possible, generally adjacent to the stairs.
Engineering Comments	
Access	
The driveway ramp must be graded to permit sight distances along Hepburn Avenue. The ingress ramp from Hepburn Avenue should provide width for two-way movement of traffic. The first 6m of driveway within the property should be graded at not more than 5%. Basement level parking modules are designed generally in accordance with AS2890.1. Concern arises in regard to basement design when cycling between Basement Level 1 and Basement Level 2. To reduce risk of conflict between opposing vehicles, the intra-basement access ramp should be located far enough from the east side wall to ensure the swept out paths of opposing vehicles on Basement Level 1 do not collide. One vehicle must use the B85 swept out path and the other must use the B99 swept out path. Please indicate swept out locus of car paths on the architectural plans.	Access arrangements have been designed in accordance with the relevant standards and a swept path analysis has been conducted by Varga Traffic Engineers as detailed within. **Section 4.8** and at **Appendix D**.
A longitudinal section of the driveway ramp from the Hepburn Avenue access to the upper basement level should ensure ramp grades in accordance with AS2890.1 – Section 2.5.3 for cars and AS2890.1 – Section 3 for small rigid vehicles (SRVs). Where access for the SRV is required, separate standing/loading areas, turning and manoeuvring areas should be provided.	Ramp grades have been designed in accordance with the relevant Australian Standards and access is provided for small rigid vehicles, as detailed at **Section 4.8** and **Appendix D**.
On-Site Detention (OSD)	
OSD is required in accordance with Council's Policy. For the impervious cover indicated on the plans, the on-site detention volume is at least 55 m3 and permitted site discharge is maximum 55 L/s. The discharge from the system must be gravity drained directly to a Council-controlled drainage system such as street kerb or pipe.	OSD has been provided in accordance with Council's requirements and will drain to a Council-controlled drainage system. Full detail is provided at **Section 4.11** and **Appendix E**.
Water Quality Treatment Design	
The water quality treatment system shall be design in accordance with HDCP2013 Section 1C.1.2.i. A MUSIC model electronic .sqz file, treatment system plan and Report prepared by a suitably qualified person shall be submitted with the DA.	Water quality treatment systems have been designed in accordance with Council's requirements and a MUSIC model is provided in the stormwater concept design at **Appendix E**.
Flooding	

Matters for Consideration	Response
Preliminary studies by Council indicates 203 Carlingford Road among others is impacted by 100 year ARI storm flow. Council's Infrastructure and Recreation Division is currently in process of designing drainage work and an overland flow path through the impacted properties in accordance with Council's Design and Construction Specification 2005. The development shall incorporate any design requirements ascertained by Council studies and contribute to flood alleviation for the proposal as determined by any Council plan. Care shall be taken to ensure the design flooded extent of No. 203 Carlingford Road does not conflict with the proposed building and that habitable and lockable floor levels are set at least 0.5m above the design top water profile. In addition, flooding land with a resultant velocity x depth product of 0.4 m2/s must not be used as private open space, and generally must be fenced off using a pool type protective fence. Further consultation must be held with IRD prior to fixing the design of building works.	A 3 metre wide stormwater easement has been provided on the site's western boundary in accordance with Council's requirements. Further details are provided at **Section 3.7,** while information relating to the management of stormwater on the site is provided in the Stormwater Concept Plan at **Appendix E**.
Waste Management Comments	
Waste Management Plans	
Waste Management Plans covering the Demolition Stage, Construction Stage and Use and On-going Management as applicable, covering the scope of this project is required to be submitted to Council with the Development Application. The Waste Management Plans for the Demolition and Construction Stages are to include the following information: An estimate of the types and volumes of waste and recyclables to be generated; A site plan showing sorting and storage areas for demolition and construction waste and the vehicle access to these areas; How excavation, demolition and construction waste materials will be reused or recycled and where residual wastes will be disposed; The total percentage (by weight) of demolition and construction waste that will be reused or recycled. The Use and On-going Waste Management Plan will need to include information as outlined below.	A Waste Management Plan detailing estimated volumes of waste and proposed recycling methods proposed during construction is provided at **Appendix F**. Further detail is also included at **Section 4.9**. Ongoing waste management during resident occupation is further detailed within the attached WMP.
Bins and service frequency	
The site will need a sufficient number of bins to contain the volume of waste expected to be generated. The residential component will generate waste at a rate of 110 litres garbage per dwelling per week plus 50 litres recycling per dwelling per week. Garbage is collected twice per week and recycling is collected once per week. Residential bins are 660 litre for garbage and 240 litres for recycling. 240 L garbage bins are only offered if there are less than 50 dwellings on the site. For 50-100 dwellings there also needs to be one 1100 L paper/cardboard bin for flattened removalist boxes etc. For less than 50 dwellings, there needs to be one 660 L paper/cardboard bin (though 1100 L is an option – more convenient as less folding of flattened boxes is required). For convenience for the residents, there should be one paper/cardboard bin for each tower.	Residential bins have been provided in accordance with Council's requirements, as shown in the architectural plans at **Appendix A** and the Waste Management Plan at **Appendix F**.
Note that compaction does not change the number of bins required. Council does not allow compaction – to compensate garbage collection services are carried out twice per week. The number of bins must be rounded up.	Compaction is not proposed.

Matters for Consideration	Response
If there is more than one tower (whether conjoined or separate), it is best if the number of bins is calculated for each tower separately to avoid the need for the site care taker to transfer half full bins between each tower which is inconvenient and time consuming. There must be no less than 1 recycling bin for each residential level.	The number of bins has been calculated for each building.
Building A will require 3 of 660L garbage bins serviced twice weekly, 7 of 240L recycling bins serviced weekly, and one 660L paper/cardboard bin serviced weekly. Building B will require 4 of 660L garbage bins serviced twice weekly, 8 of 240L recycling bins serviced weekly, and one 660L paper/cardboard bin serviced weekly.	Bins have been provided in accordance with Council's requirements. Refer to **Appendix A** and **Appendix F** for further detail.
Waste Facilities on each residential level	
For residential buildings more than three storeys, there must be waste facilities (for example a garbage chute and recycling bin in a room or cupboard) on every residential level. The DCP states that "Where a required garbage chute is unable to be provided, an interim waste storage room is to be provided on each floor that is serviced by a goods lift to transfer the waste to the communal waste storage facility in the basement". (Note that if this option is chosen that there must also be bin capacity for at least 2 days garbage and recycling generation on each level).	As demonstrated in the Waste Management Plan at **Appendix F**, waste facilities in accordance with Council's requirements have been provided on each level.
The waste facility must be accessible by persons with a disability. Convenience and amenity must be considered in locating the waste facility on each level. For example, next to the lift or stairwell will have minimal impact on residents while maximising convenience. Having the waste facility in a room improves residents' amenity.	The Architectural Drawings at **Appendix A** show that the waste facilities are accessible by person with a disability and waste facilities have been designed to ensure that residential amenity is not adversely impacted. Refer to **Appendix A** for further details.
Each dwelling should be no more than 75 metres from the nearest waste facility (50 metres for aged persons or persons with a disability). A site caretaker/manager is required to transfer full bins from the waste facility on each level to the bin storage room. The plans need to be amended to show a waste facility on each floor as per the above requirements.	The building has been designed to ensure that each dwelling is no more than 75 metres from the nearest waste facility and adequately adjusted for aged persons and person with a disability. Refer to **Appendix A** for further detail.
Chute Service Room(s)	
There must be a room directly under the chute where the garbage drops into the bin. It may be within the bin storage room but can be separate.	The chute is located within the bin storage room, as shown at **Appendix A**.
There must be sufficient bin volume under the chute for 2 days waste generation, otherwise volume handling equipment (for example a carousel or linear) is required to automatically change the bin under the chute when it becomes full, thus providing at least 2 days bin capacity under the chute. Note that it is recommended that there be 3 days bin capacity under the chute so that the site caretaker is not required to attend the site on weekends. For 660 L bins, volume handling equipment will be required if more than 20 dwellings use the one chute. The chute service room must have adequate space to accommodate the automatic volume handling equipment and load/unload bins from it. Consultation with supplier(s) of volume handling equipment is required to determine the space requirements of this equipment.	There is adequate space provided in the chute service room to accommodate the projected amount of waste generation. Refer to **Appendix A** for further detail.
Note that a compactor is not required – garbage is collected twice per week to compensate for no compaction.	A compactor is not proposed.
For safety reasons, residents/unauthorised persons must not have access to the volume handling equipment. Lockable doors and caging for example, are acceptable means of achieving this.	Residents and unauthorised persons will not be able to access volume handling equipment. Refer to detail at **Appendix A**.

Matters for Consideration	Response
The location of the chute service room(s) should not compromise the amenity of residents in terms of noise, odour and aesthetic impact. The basement is an acceptable location.	The chute servicing room is located in the basement so as not to impact on residential amenity.
Chute service rooms are required at the basement level.	A chute service room is provided at the basement level, refer to **Appendix A**.
Bins storage room(s)	
Residential bins are most conveniently stored in the room where the garbage chute terminates, although may be stored elsewhere. For example, there may be more than one chute in this development so it is an acceptable option to store the bins in one location rather than in each chute service room, or a separate location altogether.	Residential bins are stored in the bin storage room for each apartment block, as shown at **Appendix A**.
The bin storage room(s) need to be of sufficient size to comfortably house the required number of bins and allow for aisle space (1.5 m wide is recommended) to access and manoeuvre the bins. If bins have to be rotated to manoeuvre them in or out then additional aisle space is required. Note that 660 L bins are 800 mm deep by 1400 mm wide. The 240 L bins are 750 mm deep by 600 mm wide. Allow 75 mm between bins for ease of placement, and to avoid the bins scraping walls.	The Architectural Drawings provided at **Appendix A** demonstrate that the bin storage rooms are designed to comply with the required size in order to house and manoeuvre the bins.
The bin storage room(s) must include water/hose for cleansing, graded floors with drainage to sewer, robust door(s), sealed/impervious surfaces, adequate lighting and ventilation.	The bin storage has been designed to accommodate these features and detail will be provided at the Construction Certificate stage.
Note that bin dimensions must be considered when selecting width of doorway openings to bin rooms (and waste facilities on each residential level). The widest possible doors are best. Note that 1100 L paper/cardboard bins are 1100 mm by 1400 mm.	Doorway widths have been designed in accordance with bin dimensions. Refer to **Appendix A** for further detail.
Bin storage space is required at the basement level.	Bin storage space is provided within the basement garbage room and at the temporary collection point, as shown on the architectural plans at **Appendix A**.
Waste collection point	
The waste collection point is where the bins are placed for collection/emptying. It need not be the bin storage room, but the bin storage room is the most convenient location for the waste collection point (as it does not require the caretaker to transfer bins between the storage room and collection point). Bins must not be placed along the kerb side for collection (due to unacceptable visual, amenity and public safety impacts).	A waste collection point has been provided to ensure that bins are not placed on the kerb side. Refer to **Appendix A** for further detail.
The collection point(s) must be of sufficient area to place all the required bins for collection/emptying and allow for aisle space to manoeuvre the bins. Bins on the volume handling equipment will not be serviced – full bins must be taken off the carousel or linear by the site caretaker and placed at the collection point. The collection point must be located within 6 metres of the waste collection vehicle parking location. That is, the waste collection point must be accessible by waste collection vehicles (see below for information on truck access requirements).	The collection point is adequately sized and appropriately located to ensure that garbage collection can take place in an orderly manner.
Although it is preferred that there is only one collection point for the site, it is acceptable to have more than one (for example, each bin storage room could be a collection point provided truck access can be achieved, or all the recycling bins at one location and all the garbage bins at another). The location of the waste collection point needs to have regard to odour and noise generation. A waste collection area for placing all the bins for servicing is required on site.	Only one collection point is proposed.

Matters for Consideration	Response
Bin transfers	
A site caretaker/manager must be employed and be responsible for all transfers of bins (moving bins to and from the waste facility on each level, chute service room(s), bin storage area(s) and the waste collection point, where applicable), washing bins and maintaining storage areas, ensuring the chute system and related devices are maintained in effective and efficient working order, managing the communal composting area, arranging the prompt removal of dumped rubbish, and ensuring all residents and any commercial tenants are informed of the waste management system.	Detail related to care taking will be provided at a later stage and any such care taker would be engaged to perform the tasks as required by Council.
It is highly recommended that there be a service lift to transfer bins from the residential levels to the bin storage room / bin collection point.	The need to transfer bins from residential levels to the bin storage room is negated by the provision of a waste chute. Bins will be transferred from the storage room to the collection point via the path shown on the Waste Management Plan at **Appendix F**.
Bins must not have to be carted over steps. Ramp(s) must be used between the different levels.	The location of bin storage and garbage collection points is designed to ensure that bins will not need to be carted over steps. Refer to **Appendix A** for further detail.
Bin carting routes should be direct, as short as possible and wholly within the property boundaries.	Bin carting routes have been designed to minimise the need to cart bins for a long distance and will not entail taking the bins off the property.
Occupational health and safety of bin transfers must be considered. The bin-transfer grade for 240 L bins should not exceed 1:14. The bin carting distance for 240L bins should not exceed 75 m.	The Waste Management Plan at **Appendix F** shows full detail relating to bin transfers.
The 660 litre or larger bins when full may weigh more than the person trying to move it, so should not have to be moved manually more than 10 metres and should only be moved along level or near level smooth hard surface.. Equipment (such as a motorised trolley, tug, cart or bin hoist) may be necessary depending on gradient and distance of bin transfers, and the number of bins to be moved. If such equipment is necessary, then provision for storage of this equipment needs to be provided.	The distance that bins need to be carted has been minimised and full detail is shown at **Appendix F**.
The waste management system for the site should be designed to minimise bin transfer requirements. For example, the chute service rooms for each building should be on the same basement level to avoid the need to cart bins up and down ramps.	The development has been designed to minimise the need to transfer bins. Refer to **Appendix A** for further detail.
Provide information on bin transfers to take place and any equipment required to transfer bins safely.	Refer to Waste Management Plan at **Appendix F** for full detail relating to bin transfers.
Bulky Waste Storage	
There needs to be an area on site for residents to place bulky unwanted items awaiting removal. Illegal dumping of bulky items (old furniture, white goods, household junk etc) on the footpath and elsewhere is a common problem in multi-unit housing. This problem is more easily managed if there is a space on site for residents to place unwanted items then either the site caretaker or the residents themselves can arrange for the items to be removed. Council does not offer a bulky item clean up service to high rise or mixed use unit blocks.	Bulky waste storage areas are provided in the basement as shown at **Appendix A**.
The bulky waste storage area needs to be at the basement level and options include (but are not limited to) a dedicated room or caged area, an area delineated using paint within the bin storage room.	Noted and included in final design.

Matters for Consideration	Response
The storage area must be readily accessible to all residents and must be accessible to removal vehicles. (The bulky waste removal vehicle does not have to be a small rigid vehicle or larger – it may be a utility car vehicle).	Noted and included in final design.
Ideally the area should be about the size of one car parking space, although a smaller area (minimum 8 m2) is acceptable. When designing the dimensions of the bulky waste storage area, consideration should be given to the size of large furniture items (e.g. lounge suite, table) that likely to be placed there and how such items are to be manoeuvred in and out.	The bulky waste storage area can sufficiently accommodate large furniture items and other waste, as shown at **Appendix A**.
Note that if the area has a door, it should open outwards or be a roller door – inward opening doors significantly reduce the storage space and there is a high risk of items falling behind the door preventing it being opened.	An inward opening door is not proposed.
A bulky waste storage area of at least 8 m^2 must be provided at the basement level.	A bulky waste storage of approximately 8m^2 is provided at the basement.
Truck access	
It must be demonstrated that waste and recycling collection vehicles are able to undertake collection services without risking traffic safety. The waste collection vehicle must park on site while servicing the bins. Council's Traffic Branch has advised that the waste collection vehicle must forward onto the site, turn around and forward out for traffic safety reasons. The waste collection vehicle is a small rigid vehicle (6.4 m long, 3.8 m wheel base, and 15.3 m diameter swept circle). The driveway/ramp/basement must be redesigned to allow for small rigid vehicle access for waste collection services. Vehicle turning paths must be provided.	Waste and recycling collection vehicles will be able to access the site, as demonstrated in the access analysis at **Appendix D**.
The sections of driveway / access way that will be used by waste collection vehicles will need to be designed for a small rigid vehicle in accordance with Australian Standard AS 2890.2 – 2002 Parking Facilities Part 2: Off-street commercial vehicle facilities. Note that the maximum gradient is 1:6.5 for forward movements and the minimum vertical clearance is 3.5 m.	Access points have been designed in accordance with the relevant standards as shown at **Appendix D**.

Matters for Consideration	Response
Construction Traffic Management Plan	
A Construction Traffic Management Plan (CTMP) is required at DA lodgement and should assess traffic impacts associated with construction works on public roads and must include: ▪ Site location ▪ Scope of works ▪ Order of construction works ▪ Identification of traffic hazards during all stages of works ▪ Identification of potential risks during all stages of works ▪ A map of the State and local roads in the proximity of the development ▪ A map of truck routes to and from the development site during all stages of works ▪ A map of existing parking restrictions in the proximity of the development ▪ Hours of operation ▪ Frequency of truck movements on a daily basis during all stages of works ▪ A map of the access arrangements onto the development site during all stages of works ▪ Swept path diagrams development site ▪ Consideration of mobile crane movements ▪ Location of temporary hoardings, fencing or awning ▪ Pedestrian and cyclist access and safety	A Construction Traffic Management Plan has been prepared by Michael Siu Landscape Architects and is submitted with this application at **Appendix G** and provides detail in accordance with Council's requirements.
Utility Services	
Please contact Ausgrid (formerly Energy Australia) prior to lodgement of the DA to ascertain whether upgrading of the existing service is required – details of location of any kiosk/substation would need to be indicated on the plans.	Noted.

1.2 Joint Regional Planning Panel

As the proposal is a class of development described in Schedule 4A – of the EP&A Act, being a development that has a capital investment value of more than $20 million, Part 4 of the State and Regional Development SEPP applies to the DA.

Given the proposal has a Capital Investment Value of over $20 Million, the application will be referred to the Joint Regional Planning Panel (JRPP) for determination. Under Part 4 of the SEPP the Council's consent function is exercised by the Sydney West JRPP.

2.0 Site Analysis

The following section provides a description of the site and the surrounding development.

2.1 Site Location and Context

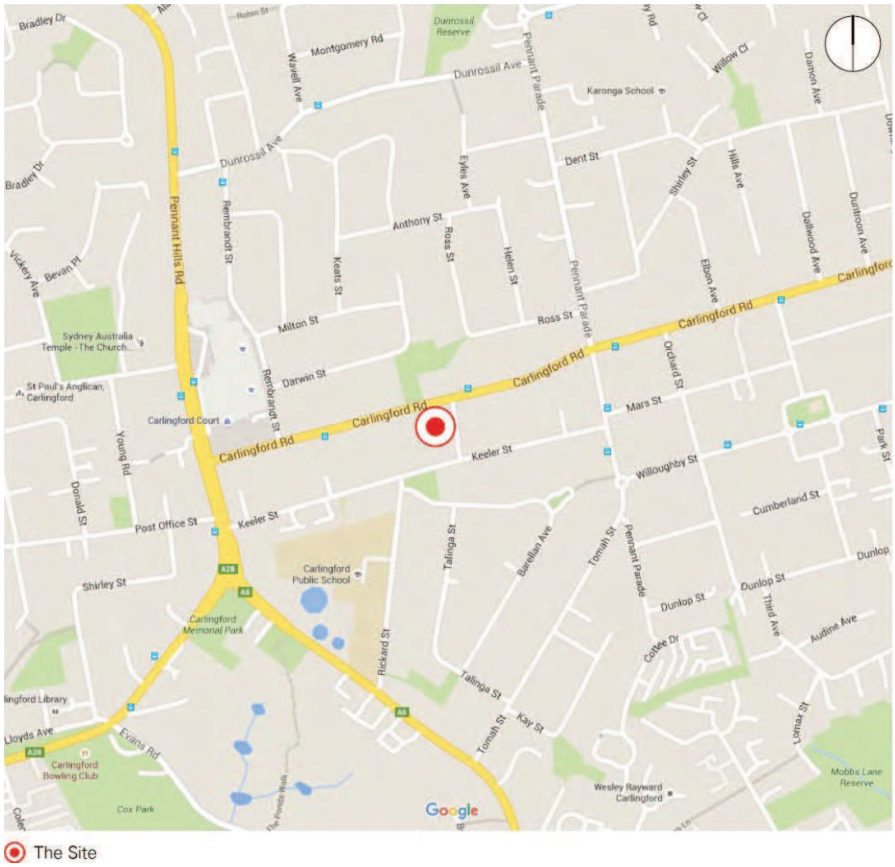
The Site is located at the corner of Hepburn Avenue and Carlingford Road, being 2 -2A and 199 – 203 Carlingford, Carlingford within the Hornsby Local Government Area (LGA).

Carlingford is approximately 22km north-west of the Sydney Central Business District and within the fast growing north-west district of Sydney. Its location ensures the Site has ample access to transport, commercial, residential and recreational destinations.

The Carlingford locality has recently experienced significant transition from low density single detached residential dwellings to high density residential apartment buildings.

Immediately adjoining the Site on the corner of Hepburn Avenue and Keeler Street is a 5 storey residential apartment building currently under construction (DA/1229/2013).

The site's locational context is shown at **Figure 1**.



The Site

Figure 1 – Context Map

2.2 Site Description

The legal description of the site is shown in **Table 2**.

Table 2 – Legal description of the site

Street Address	Legal Description
2A Hepburn Avenue	Lot 2 DP 845101
2 Hepburn Avenue	Lot 1 DP 845101
199 Carlingford Road	Lot 1 DP 879689
199A Carlingford Road	Lot 2 DP 879689
201 Carlingford Road	Lot 2 DP 30015
203 Carlingford Road	Lot 3 DP 419712

The site's area is 3,319.58m^2 and it is generally rectangular in shape. A survey plan is located at **Appendix H**.

Existing Development

The site currently accommodates six (6) dwelling houses, as shown at **Figure 4**.

Topography

The site slopes from a high point at the corner of Carlingford Road and Hepburn Avenue to be generally flat along Carlingford Road. Further detail can be found in the Survey Plan provided at **Appendix H**.

Vegetation

Vegetation on the site predominantly comprises garden planting as well as 21 trees which are shown on the Survey Plan at **Appendix H**.

Heritage and Archaeology

The site is not affected by any known heritage or archaeology constraints.

Access

The site can be accessed via Hepburn Avenue and Carlingford Road. Current residential properties have vehicle access via driveways at the front of the property, with the exception of 199A Carlingford Road, which is accessed via a gun-barrel driveway.

An aerial photo of the site is shown at **Figure 2**.

Public Transport

There is a bus stop directly out the front of the site on Carlingford Road, which is serviced by two bus routes which provide access between Blacktown and Macquarie Park as well as between Parramatta and Macquarie Park.

Carlingford Station is approximately 1.5km south west of the site and Epping Station is approximately 1km east of the site. Carlingford Court shopping centre is located approximately 500m west of the site at the end of Carlingford Road.

Figure 2 – Aerial Map

Figure 3 – Surrounding context

View looking east along Carlingford Road showing the corner of Carlingford Road and Hepburn Avenue

View of the 2 Hepburn Avenue boundary, viewed from Hepburn Avenue

View of 2 Hepburn Avenue (left) and 199 Carlingford Road (right) from Carlingford Road

2a Hepburn Avenue, viewed from Hepburn Avenue

199 Carlingford Road, viewed from Carlingford Road

201 (left) and 203 (right) Carlingford Road

Figure 4 – Existing Development

2.3 Surrounding Development

Development within the immediate vicinity of the Site is characterised by low density detached residential dwellings, however the character of the area is gradually changing with a number of residential apartment buildings completed or under construction west of the site.

Kilpack Park, a local park comprising open space and a playground, is also located opposite the Site fronting Carlingford Road.

Immediately to the south of the Site, a 5 storey residential apartment building is under construction at the corner of Hepburn Avenue and Keeler Street (DA/1299/2013).

To the west of the Site on Carlingford Road are two detached residential dwellings (which will be subject to a further DA as discussed at a Pre-DA meeting held with Hornsby Shire Council – reference PL/136/2015). Further to the west of the Site, there are a number of 5 storey residential apartment buildings along both Carlingford Road and Hepburn Avenue, which have been recently completed or are under construction.

Edwin Ross Reserve, an unimproved pocket park, is located south west of the Site with Carlingford Public School located approximately 400 metres further to the south west. Carlingford Court, a shopping centre that includes Coles, Woolworths, Target and other retailers, is located approximately 500 metres west of the Site along Carlingford Road.

Surrounding development is shown at **Figure 5**.

Development located directly opposite the Site on Hepburn Avenue, Carlingford

Residential building currently under construction at 4-6 Hepburn Avenue, Carlingford

Looking east down Keeler Street, Carlingford

Looking west down Keeler Street, Carlingford

Edwin Ross Reserve, viewed from Keeler Street, Carlingford

Edwin Ross Reserve, viewed from Keeler Street, Carlingford

Keeler Street, Carlingford, viewed from Keeler Street, Carlingford

Carlingford Public School, Viewed from Rickard Street, Carlingford

Figure 5 – Surrounding Development

3.0 Description of Proposed Development

This application seeks approval for the following development:

- Demolition of six (6) existing dwelling houses;
- Amalgamation of six (6) sites;
- Construction and use of two (2) residential apartment buildings, comprising 63 dwellings;
- Excavation and provision of a common two (2) level basement carpark accessed from Hepburn Avenue, providing 99 spaces;
- Strata subdivision of the residential apartment buildings;
- Associated landscape works, fence and tree removal; and
- Extension and augmentation of physical infrastructure and utilities as required.

Architectural drawings illustrating the proposed development are included at **Appendix A**. A photomontage of the proposed development is shown **at Figure 6**.

Figure 6 – Photomontage of the proposed development viewed from Carlingford Road
Source: SWA Group

3.1 Development/Urban Design Principles

The Hornsby DCP 2012 established the development and urban design principles for development within the Hornsby Local Governmental Area (LGA) and the transitioning neighbourhood of Carlingford. The increased height and density for targeted locations identifies a shift in the desired future character for the locality. Whilst recognising the desired growth it is understood that Council want to ensure that the growth is not at a cost. Ensuring high quality, aesthetically pleasing and functional development is a central priority for the proposal.

3.2 Demolition / Site Preparation / Bulk Earthworks / Remediation

The existing detached residential dwellings on the Site (2 – 2A Hepburn Avenue and 199 – 203 Carlingford Road) will be demolished to allow for the proposed development.

A demolition plan has been prepared for the proposed development and is included with the Architectural Plans at **Appendix A**.

3.3 Proposed Buildings

The proposal comprises of two residential apartment buildings within the site that will read as two individual but complementary buildings when viewed from the public domain.

The proposed building type is a rectangular block form. The building shape addresses Carlingford Rd (northern frontage elevation) and Hepburn Ave (eastern elevation). The building is highly articulated on all sides to reduce its apparent bulk whilst providing good levels of amenity to all of the residential units and presenting an expressive architectural form to the surrounding existing properties.

The applicable setbacks are:

- Front setbacks of 10 metres which can be reduced to 8 metre for 1/3 of the building, to Carlingford Road and Hepburn Avenue and;
- Side setbacks of 6 metres which can be reduced to 4 metres for 1/3 of the building to the remaining frontages;
- Top storey setback 6 metres additional from external walls of the lowest storey.

The proposal is seeking 8 metres setback to balcony lines and 10 metres to building lines in general to Carlingford Road which corresponds with existing built form along the street frontage.

To correspond to the existing adjacent development on Hepburn Avenue (No. 30-34 Keeler Street) which includes No. 4 Hepburn Ave, the proposal is seeking 6 metre setback which is increased to 8 metre (balcony line) and 10 metre (building line) as the building footprint closer to the corner of Hepburn Avenue and Carlingford Road.

Additionally, as part of the design consideration, high level windows, fixed and sliding privacy screens and are positioned strategically in the subject building which face any neighbouring property and ensure no apartment will look into another neighbouring apartment.

For the purposes of this report, the two separate residential apartment buildings will be identified as either 'Block A' or 'Block B' as identified in **Figure 7** below.

Figure 7 – Northern elevation identifying Block A and Block B
Source: SWA Group and JBA

The proposed development's residential northern units are setback averaging 8-10 metres from the street boundary (Carlingford Road), while the eastern units are setback averaging 6-10 metres (Hepburn Avenue) and further increased at top floors.

The setbacks reduces the perceived scale of the building and assists in maintaining sunlight into the building and to reduce the bulk look of the building itself.

The built form responds to the character of the locality through considered, distinctive architectural forms and a rich natural material palette. Furthermore the proposal has been designed to minimise the impacts on the amenity of the existing adjacent built forms.

Figure 8 – Proposed development as viewed from the corner of Hepburn Avenue and Carlingford Road
Source: SWA Group

The existing surrounding buildings range from one to six storeys in height. Recently completed buildings along Carlingford Rd to the west of the proposed development are six storeys in height and provide a comparable scale guide. The proposed development is consistent with desired objectives for high density residential buildings in the area as well as with surrounding developments.

The aesthetic of the proposed development has been carefully considered in the context of the surrounding natural and built environment. Material finishes such as cement render, cladding and a natural colour palate reflect the colours of the surrounding vegetation in the area. These materials are considered appropriate for the local climate and are consistent with high standard and contemporary development throughout the Hornsby Council.

3.4 Numerical Overview

The key numeric development information is summarised in **Table 3**.

Table 3 – Key development information

Component	Proposal
Site area	3,319.58m^2
GFA	5,729.42m^2
FSR	1.73:1
Maximum Height	17.5m
Boundary Setbacks	
▪ North (Carlingford Road)	Predominantly 10m – refer to **Section 4.3**.
▪ South	Predominantly 6m, reduced to 4m for less than 1/3 of the building.
▪ East (Hepburn Avenue)	Variable between 6 – 10m. Refer to **Section 4.3**.
▪ West	Predominantly 6m, reduced to 4m for a 1/3 or less of the building.
Apartment Mix	
▪ 1 bedroom	5 (7.9%) Refer to **Section 4.3**.
▪ 2 bedroom	49 (77.75)
▪ 3 bedroom	9 (14.2%)
Adaptable Units	19
Car space	86 residential spaces. 7 adaptable spaces. 13 visitor spaces. 99 total.
Deep Soil Area	16% of site area

3.5 Land Use & Floor Space by Level

Table 4 below details the distribution of the proposed uses within the building.

Table 4 – Land Use & Floor Space by Level

Level	Use	
	Shared Basement	
Basement Level 2	▪ 37 parking spaces	
Basement Level 1	▪ 51 parking spaces including 5 accessible spaces and 3 visitor spaces; ▪ A garbage room; and ▪ A bulky waste storage room;	
Upper Basement 1	▪ 11 parking spaces including 2 accessible spaces and 10 visitor spaces; ▪ A garbage room; ▪ A bulky waste storage area; ▪ A switch room; and ▪ A pump room.	
	Building A	Building B
Ground Level	(refer to Upper Basement 1)	▪ 1 x 1 bedroom unit ▪ 6 x 2 bedroom units ▪ Adaptable: BG01
Level 1	▪ 1 x 1 bedroom unit ▪ 3 x 2 bedroom units ▪ Adaptable: AG02 and AG03	▪ 7 x 2 bedroom units ▪ Adaptable: B101
Level 2	▪ 5 x 2 bedroom units ▪ 1 x 3 bedroom unit ▪ Adaptable: A101, A102, A103 and A105	▪ 7 x 2 bedroom units ▪ Adaptable: B201
Level 3	▪ 1 x 1 bedroom units ▪ 6 x 2 bedroom units ▪ Adaptable: A201, A202, A 203 and A205	▪ 7 x 2 bedroom units ▪ Adaptable: B301
Level 4	▪ 1 x 1 bedroom unit ▪ 6 x 2 bedroom units	▪ 2 x 2 bedroom units ▪ 4 x 3 bedroom units

	▪ Adaptable: A301, A302, A303 and A305	
Mezzanine Level (Block B)	▪ 4 x 3 bedroom units	▪ A bedroom and ensuite for each of the 2 bedroom units on Level 4 ▪ A bedroom, ensuite and study for B401 ▪ A bedroom, ensuite and kitchen, living and dining for B405 and B406
Mezzanine Level (Block A)	▪ A bedroom and ensuite for B401 ▪ A bedroom, ensuite and studio for B402, B403 and B404	Roof

3.6 External Materials and Finishes

As identified in the Architectural Plans at **Appendix A**, the external materials and finishes for the building comprise high quality materials and finishes in natural tones intended to complement the surrounding landscape, including:

- Paint finish and cement render;
- Feature wall tiles;
- Clear glass balustrades; and
- Aluminium composite cladding.

Refer to the samples in the Architectural Plans at **Appendix A**.

3.7 Landscaping and Public Domain

As indicated in the accompanying Arboricultural Report at prepared by Tree and Landscaping Consultants at **Appendix K**, the Site contains 21 trees. Of these 21 trees, three are a species indigenous to Hornsby Shire. There are no trees within the Site that have been identified as Heritage Items or on a significant tree register.

The proposed development necessitates the removal of all 21 trees across the Site. To offset the removal of the existing vegetation, replacement trees and planting are proposed throughout the Site. These trees for removal are shown identified in the Arboricultural Report and are identified in the Landscape Plans and Drawings at **Appendix C**.

The proposed landscaping is characterised by advanced vegetative planting throughout the building envelope where possible. Proposed landscape planting in each of the ground floor private courtyards of the proposed development demonstrates an integrated vegetated landscape which improves the local streetscape and locality of Carlingford.

Figure 9 – Concept Landscape Scheme viewed from Carlingford Road
Source: Michael Siu Landscape Architects

Additionally, proposed raised planting beds are positioned along with increased perimeter setback on level 4 integrated with podium design. This is also repeated on top floor apartments.

The landscaped courtyards add to the useable private open space in the proposed development. Additionally, the landscaped private courtyards both facing the streets and internally create an attractive outlook for the surrounding residents and in terms of environmental sustainable design; they all reduce the amount of hard surfaces in the building envelope.

The potential for native and feature plantings to spill over the edges of the building walls on the ground floor, level 5 garden planters to act to soften the bulk of the building and to provide an exemplar for future residential landscapes within the area.

Figure 10 – Concept Landscape Plan
Source: Michael Siu Landscape Architects

3.8 Vehicular Access and Parking

Vehicle Access

As detailed in the Architectural Drawings (**Appendix A**) and the Traffic and Parking Assessment Report prepared by Varga Traffic Planning (**Appendix D**) an access driveway will be constructed from Hepburn Avenue at the southern end of the Site. This will enable vehicles, including Council's waste collection vehicle, to access the basement car park and enter and exit the Site in a forward direction at all times.

Pedestrian Access

Three pedestrian entry points are provided, with two from Hepburn Avenue and one from Carlingford Road. An accessible entry point is included from Hepburn Avenue through the provision of a pedestrian ramp which connects to the main building entry. Two fire stairs from the basement also provide pedestrian access

to the communal open space area between the two buildings at ground level. These footpaths will be constructed as shown on the Architectural Plans at **Appendix A** and the Landscape Plans at **Appendix C**.

Servicing Access

Garbage storage rooms and a collection area has been allocated within the shared basement for each of the two (2) proposed apartment blocks. The basement has been designed to allow Council's waste collection truck to enter the basement car park, access collection area and exit the Site in a forward direction.

Vehicle Parking

The shared basement car park on Site will accommodate 99 vehicle parking spaces over three split levels. It is intended that three of these spaces on Upper Basement 1 and ten on Basement 1 will be dedicated to visitors (including one accessible space) and that the remaining 84 spaces including 6 accessible spaces will be dedicated to residents.

Bicycle Parking

Bicycle parking is provided in the shared basement and will accommodate 20 bicycles, comprising 13 spaces for residents and 7 for visitors.

3.9 Stormwater Easement

A 3 metre wide area for a Council-required stormwater easement has been provided at the western boundary of the Site in accordance with requirements communicated by Council.

3.10 Water Cycle Management

A Stormwater Concept Plan is provided at **Appendix E**, which details measures for addressing overland flow, stormwater harvesting, site discharge and improving water quality.

To ensure appropriate water management on the Site, it is proposed to install an on-site detention basin and rainwater tank.

3.11 Ecologically Sustainable Development

The proposed development has been designed taking into account ecologically sustainable principles (ESD). A BASIX Certificate has been prepared by Victor Lin & Associates and is located at **Appendix I**. It sets out the various ESD initiatives that are being incorporated into the development and confirms that the proposed development meets the relevant energy and water reduction targets as well as thermal comfort level.

3.12 Infrastructure and Services

The Site is currently served by water, electricity, gas and telecommunications. These existing utilities will be augmented and / or upgraded as required.

4.0 Assessment of Environmental Impacts

This section considers the planning issues relevant to the proposed development. It contains our assessment of the environmental impacts of the proposal and identifies the steps to be taken to prevent or mitigate the potential impacts on the environment.

4.1 Compliance with Relevant Strategic and Statutory Plans and Policies

The DA's consistency and compliance with the relevant statutory plans and policies is located in **Table 5** below.

Variations to, and non-compliance with, the key standards and guidelines highlighted in the table are discussed in the following sections of this environmental assessment.

Table 5 – Summary of consistency with key strategic and statutory plans and policies

Plan	Comments	
Strategic Plans Instruments		
Metropolitan Strategy: A Plan for Growing Sydney	The Metropolitan Strategy supersedes the Metropolitan Plan for Sydney 2036 and the Draft Metropolitan Strategy for Sydney 2031. The proposed development is consistent with the goals of the Strategy as it will: ▪ Facilitate residential development in close proximity to significant transport –and services that will strengthen Sydney's competitive economy; ▪ Provide a range of housing options that meet the needs and lifestyles of –Sydney's residents; ▪ Facilitate the delivery of the Carlingford that will create a great place to live –with a strong, healthy and well connected community; and ▪ Facilitate a sustainable development	
State Planning Instruments and Controls		
SEPP 55 (Remediation of Land)	Due to the historic use of the Site for residential purposes, it is considered acceptable that the Site is suitable for the proposed development.	
SEPP 65 (Design Quality of Residential Apartment Development)	A Design Verification Statement has been prepared by SWA Group that addresses the principles of SEPP 65 is included at **Appendix J**.	
SEPP (BASIX)	A BASIX Certificate is located at **Appendix I**.	
SEPP (State and Regional Development)	As the proposal is a class of development described in Schedule 4A of the EP&A Act, being a development that has a capital investment value of more than $20 million, Part 4 of the of the State and Regional Development SEPP applies to the DA. Under Part 4 of the SEPP the Council's consent function is exercised by the Sydney West Joint Regional Planning Panel (JRPP).	
Local Planning Instruments and Controls		
Hornsby Local Environmental Plan 2013	Clause 1.2 – Aims of Plan	The proposal supports the aims of the LEP through: – Providing housing opportunities in an orderly and sustainable manner in keeping with the desired future character of the locality to meet the needs of future generations; – Development has been undertaken in accordance with intended strategic direction and urban land use, providing a diverse range of housing options to the benefit of current and future population

Plan	Comments	
		in the area; – Providing high density residential dwellings in close proximity to public transport to provide a liveable and vibrant development to meet the needs of the community. – The proposed built form, in close proximity to the Carlingford Railway Station, has been designed to be compatible with the surrounding locality; in particular the cultural and natural heritage of the locality.
	Clause 2.1 – Zone	The site lies within the R4 High Density Residential Zone. The proposed development is defined as a residential apartment building and is therefore permissible with consent in the R4 High Density Residential Zone. The proposal supports the achievement of the zone objectives, in particular it: – Provides for the housing needs of the community in an high density residential environment; – Provides a variety of housing types within the locality. – Maximises public transport use and encourages walking and cycling;
	Clause 2.7 – Demolition requires development consent	The proposal seeks consent for the comprehensive redevelopment of the site with the demolition of the existing detached residential dwellings.
	Clause 4.1 – Minimum subdivision lot size	No control.
	Clause 4.3 – Height of Buildings	The proposal is generally compliant with the maximum building height of 17.5m, with the exception of a small proportion of Block A and Block B which exceed the maximum building height by approximately 300mm. A request to vary the development standard is located at **Section 5**.
	Clause 4.4 – Floor Space Ratio	No control.
	Clause 4.6 – Exceptions to development standards	Clause 4.6 of the Hornsby LEP allows an appropriate degree of flexibility in applying certain development standards to a particular development to achieve better outcomes for the development. The proposal seeks to varying the building height standard resulting in a marginal exceedance of 300mm. A request to vary the development standard in accordance with Clause 4.6 is located at **Section 5**.
	Clause 5.9 – Preservation of Trees or Vegetation	The development proposes the removal of trees. The trees to be removed are detailed in the Arboriculture Impact Appraisal (**Appendix K**) and in **Section 4.7**. The trees are proposed to be removed due to poor health and the need to accommodate the proposed development and landscaping scheme. New advanced tree species are proposed to be planted in accordance with DCP and will offset any loss of existing vegetation
	Clause 5.10 – Heritage Conservation	The site is not identified as a heritage item nor is it in close proximity to a heritage item. The proposed development will not result in any loss of heritage significance within the locality.

4.2 Hornsby Development Control Plan 2013

The proposed development is consistent with the aims of the DCP in that it:

- Encourages a high standard of aesthetically pleasing and functional residential apartment building developments that sympathetically relate to adjoining and nearby developments.
- Ensures that development will not detrimentally affect the environment of any adjoining lands and ensure that satisfactory measures are incorporated to ameliorate any impacts arising from the proposed development.
- Encourages innovative and imaginative designs with particular emphasis on the integration of buildings and landscaped areas that add to the character of the neighbourhood.
- Provides high levels of amenity and safety for future residents of any residential apartment building development.
- Ensures that residential apartment building developments incorporate the principles of Ecologically Sustainable Development.
- Will enhance the image for Carlingford through achieving a positive built form outcome;
- Will provide a high level of visual amenity and improve the existing environment whilst providing a high standard of residential amenity;
- Defines the Carlingford Road and provides a high quality design outcome that responds to the site context and streetscape;
- Considers and responds to the effect on adjoining properties and the character of the Carlingford Road;
- Provides accessible spaces and facilities for people with disabilities or restricted mobility;
- Provides a diverse range of housing including adaptable housing, that responds to the local demand;
- Provides transport, access and parking facilities that contribute to a convenient, safe and sustainable environment;
- Is a significant improvement on the current built form; and
- Will be notified in accordance with the specific requirements established in the DCP.

An assessment of the proposal against the relevant provisions of the Hornsby Development Control Plan 2013 is provided in **Appendix P**. The proposal is found to generally comply with the relevant criteria of the Hornsby DCP 2013.

4.3 Design Quality and Built Form

A Design Verification Statement and assessment against the design principles of SEPP 65 has been prepared by SWA Group for the proposed development and is provided at **Appendix J**.

The proposed development is generally compliant with the design quality objectives and principles of the Apartment Design Guide (ADG). An assessment of the proposal against the design criteria of the ADG is provided at **Section 4.6**.

4.4 Setbacks

Hepburn Avenue Setback

As identified during pre-DA discussion with Council, the Hepburn Avenue setback is to be treated as a front setback and the minimum setback requirements stipulated within the HDCP which states that for buildings with a corner frontage, front and rear boundary setbacks apply to the shorter street frontage. The control requires a 10m setback which can be reduced to 8m for a maximum of 1/3 of the building width.

The proposed setback treatment to Hepburn Avenue has been guided by the approved residential apartment building at 30 – 34 Keeler Street (DA/1229/2013) as demonstrated in **Figure 11** below.

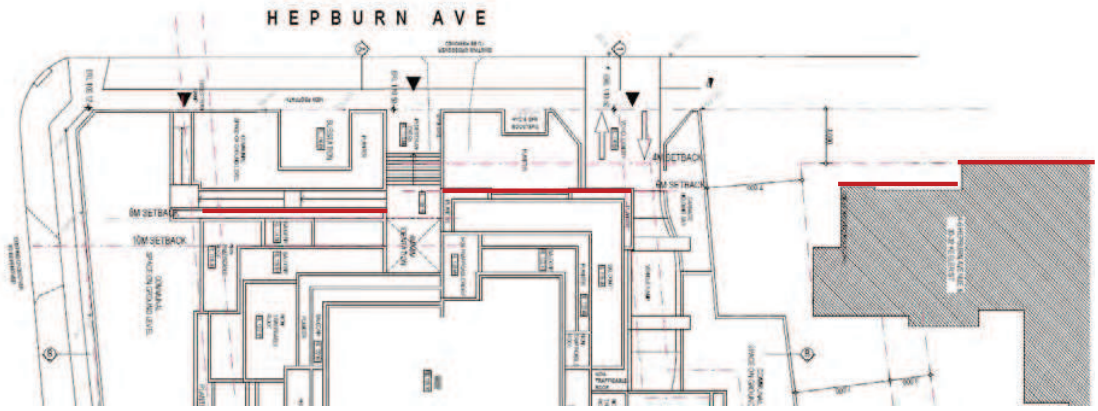


Figure 11 – Proposed Setback to Hepburn Avenue
Source: SWA Group

The proposed development incorporates a setback of 6metres at the south-eastern corner of the Site adjoining the development at 30-34 Keeler Street to maintain the built form alignment established under DA/1229/2013. The proposed setback increases to 10 metres towards the corner of Hepburn Avenue and Carlingford Road. The overall objective of the setback control is considered to be achieved, with the specific site context supporting a minor variation to the numeric control.

The proposed setback treatment to Hepburn Avenue will ensure a well articulate building form and the proposed landscape treatment proposed for the Hepburn Avenue development by Michael Siu Landscape Architects (**Appendix C**) and shown in **Figure 12** below will ensure the design incorporates landscaping and open space in accordance with the HDCP.

Figure 12 – Landscape treatment to Hepburn Avenue
Source: Michael Siu Landscape Architects

Carlingford Road Setback

In accordance with the DCP, a 6m setback applies to the longer street frontage on a corner Site, which can be reduced to 4m for a maximum of 1/3 of the building.

Consultation with Council at a pre-DA meeting identified that the subject site (as a corner block) would be subject to the front setback requirements to both Hepburn Avenue and Carlingford Road, to provide increased amenity for future occupants as well as for consistency with the adjoining properties and approved developments on Carlingford Road.

As shown in **Figure 13** below, the proposal largely meets the numeric setback requirement to Carlingford Road.

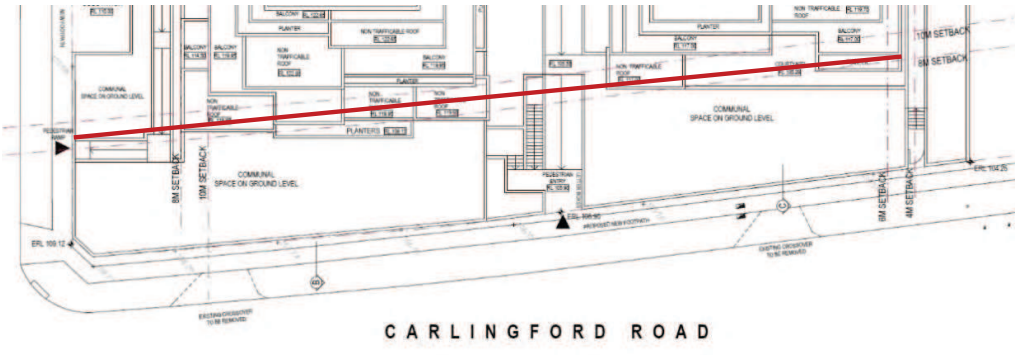


Figure 13 – Proposed setback to Carlingford Road
Source: SWA Group

A 10m setback is provided to Carlingford Road, with minor encroachments limited to less than 8m for less than 1/3 of the building in accordance with the HDCP.

As outlined within the HDCP, balconies are able to encroach to within 7 metres of the front and rear boundaries provided there is no impact on the achievement of daylight access, visual privacy, and acoustic privacy. The proposal seeks consent for a minor encroachment of two of the ground floor balconies beyond the 7 metre setback (AG03 and BG02) however this numeric non-compliance will not result in unacceptable impacts in relation to daylight access, visual privacy or acoustic privacy. Further, as shown in **Figure 14** below, the proposed landscape treatment to the Carlingford Road frontage incorporates extensive planting of mature trees to ensure unit amenity for all north facing units is maximised.

Figure 14 – Concept Landscape Scheme viewed from Carlingford Road
Source: Michael Siu Landscape Architects

Side setbacks

The proposed development is generally compliant with the required 6m side setback to the southern and western boundaries, which can be reduced to 4m for 1/3 of the building.

The proposal will result in a minor encroachment within the 4 metres at ground floor to allow for suitable courtyard area at units BG03 and BG06 however this marginal noncompliance will not result in loss of privacy or amenity to neighbouring properties due to the strong landscape treatment along the western and southern elevations as shown in **Figure 15** below.

Figure 15 – Concept Landscape Plan
Source: Michael Siu Landscape Architects

Top storey setback

The proposed development is consistent with both the current and draft controls, being that the fifth storey must be setback 3 metres from the lowest storey and the mezzanine must be setback 6m from the lowest storey. The proposed fifth storey and mezzanine are consistent with this requirement of the Hornsby DCP 2013.

4.5 Housing Choice

At least 10% of each dwelling type is provided, with the exception of 1 bedroom dwellings where 8% is provided. This is considered acceptable as it is consistent with Hornsby's demographic profile, where family households are the dominant type of household composition.[1]

[1] *Australian Bureau of Statistics. 2011. "2011 Census Quick Stats. Hornsby (A)". [Online]. [Viewed 18 March 2016].*

4.6 Impact on Adjoining Properties

4.6.1 Overshadowing

Shadow diagrams prepared by SWA Group (**Appendix A**) illustrate the shadows cast from the proposed development between 9am and 3pm on 22nd June (winter solstice).

As shown within these plans and documents the shadows cast by the proposed development will not have an unacceptable adverse impact on the surrounding properties.

Due to the siting of the buildings and frontage to Carlingford Road and Hepburn Avenue, shadowing from the proposed development will have a minor impact on the recently approved residential flat building to the south of the site however the majority of overshadowing impacts fall on communal open space rather than built form. The overshadowing impacts caused by the proposal are therefore considered to be acceptable. As the shadow moves throughout the day, the majority of dwellings within the adjoining development will still receive in excess of 3 hours of direct sunlight.

4.6.2 Privacy

It is essential that privacy is maintained for residents of the surrounding properties as well as future residents of the proposed development. In light of this, the proposed development has been designed to include landscaped setbacks which screen the proposed development as well as architectural elements that both protect privacy and prevent overlooking.

Privacy within the development itself is managed via careful design which ensures that there is adequate separation in accordance with the HDCP 2013 between habitable and non-habitable rooms, as well as the provision of architectural screening elements as shown in the architectural plans at **Appendix A**.

4.6.3 Visual Impact

The proposed development is located in an area that is transitioning from low density residential to high density residential, consistent with the R4 High Density Residential zoning of the area. The proposal is consistent with the desired future character of the area and will not have an adverse visual impact on the surrounding area.

The two buildings on the Site have been carefully sited and designed to respond to the characteristics of the locality and site, as well as to reduce any potential visual impacts. This has been effectively achieved through:

- Incorporating landscaping within setbacks to ensure that the development compliments the existing bushland character of the area and that the building is appropriately screened;
- Additional landscaping is provided throughout the Site to soften the edges of the buildings and reduce the visual impact when viewed from the public domain;
- Modulation and articulation of the building facades to break up the bulk and scale of the development, with deep indentations incorporated to partition the building floor plate; and
- Incorporating high quality material and finishes into the building design in a natural colour pallet.

Overall, the proposed development will result in a significant positive impact on the surrounding area through its careful design and associated landscaping.

4.7 Residential Amenity

The following assessment uses the 'Design Criteria' in the Apartment Design Guide (ADG), which are a means for measuring the amenity of an apartment. **Table 6** lists the relevant 'Design Criteria' and assesses the project's consistency with those standards.

The assessment demonstrates that the proposed development complies with the majority of the 'Design Criteria' and that all apartments within the proposed development will achieve a very high standard of internal amenity. Where variations are proposed to the Design Criteria' they are discussed in further detail below the table.

Table 6 – Assessment against Apartment Design Guide Design Criteria

<table>
<tr><th>Design Criteria</th><th>Proposal</th></tr>
<tr><td colspan="2">Part 3 Siting the Development</td></tr>
<tr><td colspan="2">3D Communal and Public Open Space</td></tr>
<tr><td>– Objective
An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping</td><td>✓</td></tr>
<tr><td>Design Criteria
– Communal open space has a minimum area equal to 25% of the site</td><td>✓
26.6%</td></tr>
<tr><td>– Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid winter)</td><td>✓</td></tr>
<tr><td colspan="2">3E Deep Soil Zones</td></tr>
<tr><td>– Objective
Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality.</td><td>✓</td></tr>
<tr><td>Design Criteria
– Deep soil zones are to meet the following minimum requirements:
<table>
<tr><th>Site Area</th><th>Minimum Dimensions</th><th>Deep Soil Zone (% of site area)</th></tr>
<tr><td>Less than 650m^2</td><td>-</td><td rowspan="4">7%</td></tr>
<tr><td>650m^2 – 1,500m^2</td><td>3m</td></tr>
<tr><td>Greater than 1,500m^2</td><td>6m</td></tr>
<tr><td>Greater than 1,500m^2 with significant existing tree cover</td><td>6m</td></tr>
</table></td><td>✓
16%</td></tr>
<tr><td colspan="2">3F Visual Privacy</td></tr>
<tr><td>– Objective
Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy.</td><td>✓</td></tr>
<tr><td>Design Criteria
– Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows:
<table>
<tr><th>Building Height</th><th>Habitable rooms and balconies</th><th>Non-habitable rooms</th></tr>
<tr><td>Up to 12m (4 storeys)</td><td>6m</td><td>3m</td></tr>
<tr><td>Up to 25m (5-8 storeys)</td><td>9m</td><td>4.5m</td></tr>
<tr><td>Over 25m (9+ storeys)</td><td>12m</td><td>6m</td></tr>
</table></td><td>×
Minor numeric non –compliance.

By incorporating a strong landscape response and privacy screening, privacy is maintained. Refer to Section 4.8.1.</td></tr>
<tr><td colspan="2">3K Bicycle and Car Parking</td></tr>
<tr><td>– Objective
Car Parking is provided based on proximity to public transport in metropolitan</td><td>✓</td></tr>
</table>

Design Criteria	Proposal
Sydney and centres in regional areas	
Design Criteria – For development in the following locations: ▪ on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or ▪ on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre – The minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less. The car parking needs for a development must be provided off street.	✓ 84 car parking spaces are provided. Car parking meets Hornsby DCP requirements.
Part 4 Designing the Buildings	
4A Solar and Daylight access	
Objective To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space	✓
Design Criteria – Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area.	✓ 73.02% achieved
– In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid winter.	N/A
– A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter.	× 26% of apartments receive no direct sunlight between 9am and 3pm at midwinter however the proposal has been designed that the affected units still maintain a strong level of amenity All apartments achieve a reasonable level of amenity. Refer to **Section 4.7** for further detail.
4B Natural Ventilation	
– *Objective* The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents	✓
Design Criteria – At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed.	✓ 63.49%

<table>
<tr><th>Design Criteria</th><th>Proposal</th></tr>
<tr><td>– Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.</td><td>×
Due to façade articulation, the overall building depth varies and exceeds 18 metres when measured from glass line to glass line however the proposal maintains strong natural ventilation (63.49%) and the minor exceedance does not result in over massing.

Refer to Architectural Drawings at Appendix A.</td></tr>
<tr><td colspan="2">4C Ceiling Height</td></tr>
<tr><td>– Objective
Ceiling height achieves sufficient natural ventilation and daylight access</td><td>✓</td></tr>
<tr><td>Design Criteria
– Measured from finished floor level to finished ceiling level, minimum ceiling heights are:
<table>
<tr><td>Minimum ceiling height</td><td></td></tr>
<tr><td>Habitable rooms</td><td>2.7m</td></tr>
<tr><td>Non-habitable</td><td>2.4m</td></tr>
<tr><td>For 2 storey apartments</td><td>2.7m for main living area floor
2.4m for second floor, where its area does not exceed 50% of the apartment area</td></tr>
<tr><td>Attic spaces</td><td>1.8m at edge of room with a 30 degree minimum ceiling slope</td></tr>
<tr><td>If located in mixed use areas</td><td>3.3m for ground and first floor to promote future flexibility of use</td></tr>
</table>
–
These minimums do not preclude higher ceilings if desired.</td><td>✓</td></tr>
<tr><td colspan="2">4D Apartment Size and Layout</td></tr>
<tr><td>Objective
The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity</td><td>✓</td></tr>
<tr><td>Design Criteria
– Apartments are required to have the following minimum internal areas:
<table>
<tr><th>Apartment Type</th><th>Minimum internal area</th></tr>
<tr><td>Studio</td><td>35m^2</td></tr>
<tr><td>1 bedroom</td><td>50m^2</td></tr>
<tr><td>2 bedroom</td><td>70m^2</td></tr>
<tr><td>3 bedroom</td><td>90m^2</td></tr>
</table>
The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m^2 each.
A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m^2 each.</td><td>1 BR - ✓
2 BR - ✓
3 BR - ✓</td></tr>
<tr><td>Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms.</td><td>✓</td></tr>
<tr><td>Objective
Environmental performance of the apartment is maximised</td><td>✓</td></tr>
<tr><td>Design Criteria
Habitable room depths are limited to a maximum of 2.5 x the ceiling height.</td><td>✓</td></tr>
<tr><td>In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window.</td><td>✓</td></tr>
<tr><td>Objective</td><td>✓</td></tr>
</table>

<table>
<tr><th>Design Criteria</th><th>Proposal</th></tr>
<tr><td>Apartment layouts are designed to accommodate a variety of household activities and needs</td><td></td></tr>
<tr><td>Design Criteria
– Master bedrooms have a minimum area of 10m^2 and other bedrooms 9m^2 (excluding wardrobe space).</td><td>✓</td></tr>
<tr><td>– Bedrooms have a minimum dimension of 3m (excluding wardrobe space).</td><td>✓</td></tr>
<tr><td>Living rooms or combined living/dining rooms have a minimum width of:
▪ 3.6m for studio and 1 bedroom apartments
▪ 4m for 2 and 3 bedroom apartments</td><td>✓</td></tr>
<tr><td>▪ The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts.</td><td>✓</td></tr>
<tr><td colspan="2">4E Private Open Space and Balconies</td></tr>
<tr><td>Objectives
Apartments provide appropriately sized private open space and balconies to enhance residential amenity</td><td>✓</td></tr>
<tr><td>– Design Criteria
– All apartments are required to have primary balconies as follows:
<table>
<tr><th>Dwelling Type</th><th>Minimum Area</th><th>Minimum internal area</th></tr>
<tr><td>Studio apartment</td><td>4m^2</td><td>-</td></tr>
<tr><td>1 bedroom apartment</td><td>8m^2</td><td>2m</td></tr>
<tr><td>2 bedroom apartment</td><td>10m^2</td><td>2m</td></tr>
<tr><td>3+ bedroom apartment</td><td>12m^2</td><td>2.4m</td></tr>
</table>
The minimum balcony depth to be counted as contributing to the balcony area is 1m.</td><td>1 BR – ✓
2BR – ✓
3BR - ✓</td></tr>
<tr><td>– For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m^2 and a minimum depth of 3m.</td><td>✓ / ×
All ground level apartments are compliant, with the exception of the 2-bedroom BG01 which falls 3m^2 short of the minimum.

As the apartment is located immediately adjacent to communal open space, this is considered acceptable.</td></tr>
<tr><td colspan="2">4F Common Circulation and Spaces</td></tr>
<tr><td>Objective
Common circulation spaces achieve good amenity and properly service the number of apartments</td><td>✓</td></tr>
<tr><td>– Design Criteria
– The maximum number of apartments off a circulation core on a single level is eight.</td><td>✓</td></tr>
<tr><td>– For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.</td><td>N/A</td></tr>
<tr><td colspan="2">4G Storage</td></tr>
<tr><td>Objective
Adequate, well designed storage is provided in each apartment</td><td>✓</td></tr>
<tr><td>– Design Criteria
– In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:
<table>
<tr><th>Dwelling Type</th><th>Minimum Area</th></tr>
<tr><td>Studio apartment</td><td>4m^2</td></tr>
<tr><td>1 bedroom apartment</td><td>6m^2</td></tr>
<tr><td>2 bedroom apartment</td><td>8m^2</td></tr>
<tr><td>3+ bedroom apartment</td><td>10m^2</td></tr>
</table>
–
At least 50% of the required storage is to be located within the apartment.</td><td>✓</td></tr>
</table>

4.7.1 Visual Privacy

In accordance with the design criteria under the ADG for visual privacy, adequate building separation distances are shared equitably between neighbouring sites to achieve reasonable levels of external and internal visual amenity. The separation distances between Block A and Block B, along with the neighbouring property boundaries are discussed in further detail below.

Separation between Block A and Block B

Within the same site, minimum separation should be shared equitably buildings and in accordance with the numeric controls under the ADG would require a 12 metre separation (habitable rooms and balconies) to four storeys and an 18 metre separation at the fifth storey.

The proposed separation distances between Block A and Block do not meet the numeric controls for buildings within the same site as outlined within the ADG however the proposal is consistent the Hornsby Development Control Plan 2013 and the Draft Hornsby DCP 2015 for large sites where the floorplate control requires more than one building, the proposal complies with the separation distance of a minimum of 9 metres. Furthermore, a 9 metre separation distance was required in the Pre-DA Minutes prepared by Hornsby Council (refer to **Section 1.1**).

Although this is a non-compliance with the ADG minimum separation controls, the proposal is consistent with the DCP and is considered to be acceptable due to the following:

- The proposed development has been internally arranged so as to primarily orient apartments to the north and south and away from the adjacent separation space between the two buildings.
- Where windows are provided that face towards the separation space, the proposed arrangement of windows and the inclusion of privacy screens allows for there to be little, if any overlooking between the windows, whilst still maintaining passive surveillance and visual interest to the communal open space between the buildings.
- At the ground floor, vegetation is provided which provides a further degree of separation between the buildings. Vegetation has been provided through the whole of the ground floor separation area, as demonstrated within the Landscape Plans provided at **Appendix C**; and
- A 9 metre separation distance between buildings on the same site is consistent with other approved developments in the Hornsby LGA (refer in particular to DA/358/2015).

Accordingly, the proposed separation between Block A and Block B is considered reasonable.

Separation to Adjoining Development to the Southern

The proposed setback to the southern boundary ranges between 4 and 6 metres in accordance with the requirements of the HDCP 2013.

The adjoining development to the south at 30 – 34 Keeler Street (DA/1299/2013) provides a setback to the boundary of the subject Site varying between approximately 2.5 and 7 metres.

The proposal results in a minor non-compliance at one portion of Block A however the applicable units (A105, A205 and A305) have been designed to orientate away from the southern boundary to minimise the potential for loss of

privacy to the adjoining development. Accordingly, the proposed separation between the neighbouring development is considered reasonable.

Separation to Adjoining Development to the West

A setback of between 4 and 6 metres has been provided to the western boundary. In consultation with Council the dedication of a stormwater easement on the adjoining property which will ensure that there is adequate separation distance between any future development of the adjoining site.

4.7.2 Solar and Daylight Access

In accordance with the design criteria contained within the ADG, a maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter.

As the proposed development must orientate towards two frontages as a corner site (Hepburn Avenue and Carlingford Road), this has resulted in a marginal non-compliance with the number of south facing apartments that receive no direct sunlight between 9am and 3pm at midwinter (17/63 units =27%) however given the units maintain a strong level of amenity, achieve natural ventilation and have been designed to highest quality, this minor numeric non-compliance of 7 units is considered acceptable.

4.8 Tree Removal and Landscaping

Tree Removal

An Arboricultural Assessment prepared by Tree and Landscape Consultants (**Appendix K**) has been prepared to assess the significance of the 21 existing trees on the Site and identify those for removal.

The report recommends that all 21 trees on the Site are removed and replaced with new trees, shrubs and groundcovers as part of the proposed development.

The report also notes that whilst trees 14, 15, 16 and 17 are potentially able to be retained, they are directly affected by the 3 metre wide stormwater easement at the Site's western boundary which was requested by Hornsby Shire Council.

Landscaping

A Landscape Plan has been prepared by Michael Siu Landscape Architects (**Appendix C**). The proposed landscaping is designed to be complementary to the surrounding natural environment and incorporates a mixture of native and exotic planting throughout the development Site. In particular, canopy trees have been planted within the northern, southern and eastern setback to ensure that the development has an appropriate interface with the street and adjoining properties.

4.9 Transport and Accessibility

A Traffic and Parking Assessment Report has been prepared by Varga Traffic Planning and is attached at **Appendix D**. The traffic assessment assesses the parking requirements and traffic impacts of the development, and discusses the access and internal design arrangements. The conclusions of the Traffic and Parking Assessment Report are summarised below.

4.9.1 Traffic Generation

An indication of the traffic generation potential of the development proposal is provided by reference to the Roads and Maritime Services publication *Guide to*

Traffic Generating Developments, Section 3 – Land use Traffic Generation (October 2002).

The RMS *Guidelines* are based on extensive surveys of a wide range of land uses and nominates the following traffic generation rates which are applicable to the development proposal:

- High Density Residential Apartment Buildings
  - 0.29 peak hour vehicle trips per dwelling.

Application of the above traffic generation rates to the 63 apartments proposed yields a traffic generation potential of approximately 5 peak hour vehicle trips.

As outlined within the Traffic and Parking Assessment Report, it is likely that the proposed development will result in an *increase* in the traffic generation potential of the site of approximately 13 vehicles per hour.

The projected increase in traffic activity as a consequence of the development is minimal, is consistent with the development objectives of the area and will not have an unacceptable traffic implication in terms of road network capacity or traffic-related environmental effects.

4.9.2 Car Parking

The development provides a total of 99 car parking spaces. The car parking requirements and the number of spaces provided for the development are outlined in **Table 7** below.

Table 7 – Car parking requirements

Component	Quantity	Applicable Rate	Min. Requirement
1 bedroom units	5	1 spaces per dwelling	5
2 bedroom units	49	1.25 space per dwelling	61.25
3 bedroom units	9	2 space per dwelling	18
Visitors	-	1 space per 5 dwellings	12.6
Total residential spaces required			96.85
Accessible	19	1 space for 1/3 of adaptable units *	6.3
Spaces provided			
Upper Basement	11	-	-
Basement 1	51	-	-
Basement 2	37	-	-
Total residential spaces provided	99	-	-

**NOTE: Cl. 3.5.11 specifies that "At least one third of adaptable units (ie: 10% of all units) are to be provided with a parking space designed for people with a disability", no control is provided for the number of visitor spaces that must be accessible.*

Accordingly, the proposed development on the site will have adequate on-site vehicle parking.

4.9.3 Access

As part of the Traffic and Parking Assessment, a swept path analysis was undertaken to ensure that small rigid trucks are able to manoeuvre into the building and exit in a forward direction.

The analysis undertaken by Varga Traffic Planning confirms that the site can be accessed by small rigid vehicles used by maintenance staff or Council's waste collection truck, and that the proposed parking and loading facilities satisfy the

relevant requirements specified by Council as well as the relevant Australian Standards. Further detail is provided at **Appendix D**.

4.9.4 Construction Traffic Management

A Construction Traffic Management Plan prepared by Varga Traffic Planning details arrangements for to be implemented during construction to prevent unreasonable impacts on the surrounding street network. This will be achieved through the following measures:

- Separate entry and exit points are provided to and from Carlingford Road;
- Vehicles will exit the site in a forward direction at all times;
- All materials are to be loaded and unloaded wholly within the site;
- Access to neighbouring properties will be maintained at all times and neighbours will be updated regularly;
- A route map for deliveries will be distributed to ensure vehicles correctly approach, enter and exit the site and light traffic roads will be avoided;
- Deliveries will be managed to ensure multiple vehicles are not attempting to access the site at one time;
- Heavy vehicle movements will be limited during school peak periods;
- Works zones would be time-limited and will not be for parking private vehicles associated with the site;
- Implementing a traffic control plan so that appropriate warning signs and alerts are visible; and
- Adequate on-site parking will be provided for employees associated with the development and staff will be encouraged to use public transport.

Further detail is provided at **Appendix G**.

4.10 Waste Management

A Waste Management Plan has been prepared for the site by SWA in accordance with Council's waste management principles (refer to **Appendix F**).

4.10.1 Demolition and Construction Waste

The type and estimated volume of demolition and construction waste is provided in the Waste Management Plan at **Appendix F**. Where possible, waste is to be reused on site and in the event that it cannot, it is proposed to dispose of the remaining waste at an appropriate recycling facility.

4.10.2 Use and on-going management

The type and estimated volume of waste relating to use and on-going management is provided in the Waste Management Plan at **Appendix F**. Details relating to the number of bins provided and the frequency of collection is also provided. Refer to **Appendix F** for further detail.

4.11 Crime Prevention

A Crime Prevention Through Environmental Design Report has been prepared by JBA and is provided at **Appendix L**. The report finds that the crime risk related to the propose development is low and recommends a number of strategies which can be incorporated into the development to ensure that safety is maintained. Further detail is provided at **Appendix L**.

4.12 Stormwater

Stormwater will be managed through a stormwater drainage system as detailed in the Stormwater Concept Design prepared by SGC Engineering (**Appendix E**). Stormwater on site will be appropriately managed through stormwater drains, rainwater reuse tank, and on site detention tank, before being discharged into the stormwater main on Carlingford Road. A new kerb inlet pit and new stormwater line under the kerb on Carlingford Road will be constructed to Council's specifications to connect to the existing stormwater system located outside of 205 Carlingford Road.

MUSIC modelling undertaken by SGC Engineering for the proposed development has demonstrated compliance with Council's standards for water quality. Further detail is provided at **Appendix E**.

4.13 Erosion and Sediment Control

An erosion and sediment control plan prepared by SGC Engineering is also included at **Appendix E** and outlines proposed methods for the management of erosion and sediment control, including:

- Sediment fencing throughout the site;
- Removing stormwater runoff from the site via pump trucks or treating stormwater runoff so that it may be discharged to the existing stormwater main; and
- Heavy duty grates and covers to be provided throughout the site.

Further detail relating to erosion and sediment control provisions is provided at **Appendix E**.

4.14 Noise & Vibration

An Acoustic and Vibration Assessment has been prepared by Acoustic Logic and is submitted with this report at **Appendix M**. In preparing the report, Acoustic Logic conducted an external noise impact assessment and identified potential noise sources generated by the site.

Provided that the treatments set out in the report are implemented, including glazing and acoustic seals, the effect of external noise impacts will comply with Hornsby Council's requirements.

In relation to noise emissions, it is found that any noise emissions generated by the site can be satisfactorily attenuated to levels complying with noise emission criteria stipulated by both Hornsby Council and the NSW EPA Industrial Noise Policy. It is proposed that detailed acoustic control measures for the plant service will be determined at the Construction Certificate stage.

Overall, provided that recommendations for acoustic treatments are adopted, compliance with the relevant controls will be achieved. Further detail is provided at **Appendix M**.

4.15 Accessibility

The proposed development has been assessed against the requirements for access by people with disabilities in accordance with the Building Code of Australia, Adaptable Housing Standards and the objectives of the Disability Discrimination Act 1992 in a report prepared by Independent Living Centre NSW (**Appendix N**). The assessment demonstrates that the accessible features and paths of travel to and within the proposed development will provide access for

persons with disabilities compliant with the relevant standards. Further detail is provided at **Appendix N.**

4.16 Environmentally Sustainable Development

The principles of ESD have been incorporated into the design, construction and intended operation of the proposed development. To support this, a BASIX Assessment Report and Certificate has been prepared by Victor Lin & Associates. The certificate demonstrates that the proposed development will achieve the targets for water and energy consumption as well as thermal comfort set by the BASIX scheme. Further detail is provided at **Appendix I**.

4.17 Social and Economic Impacts

Overall, the proposed development will have a positive social and economic impact on the surrounding area and local community. Specifically, it will:

- Deliver a new high quality residential apartment building that will improve the local building stock and contribute to enhancing the Carlingford Precinct;
- Provide residential development that compliments the surrounding area and which is in close proximity to public transport and local amenities;
- Contribute to increased passive surveillance of the surrounding area at all times to promote a safer environment;
- Realise the strategic potential and desired future built form of the site by increasing the density on an underutilised site; and
- Provide a future built form that complements the streetscape and will be compatible with the scale of future development in the locality.

4.18 Building Code Compliance

A BCA Report prepared by Newland Wood Certification Pty Ltd is provided at **Appendix O** and confirms that the proposed development is capable of achieving compliance with the requirements of the Building Code of Australia and other relevant codes and standards.

4.19 Site Suitability and the Public Interest

The proposed development involves the construction of two residential apartment buildings, to benefit the existing and future local community of Carlingford. The site is considered suitable for the following reasons:

- The site is located in an area zoned for high density residential development and is currently occupied by low density residential dwellings;
- In the context of recent DAs and activity in the area, it is considered that that there is demand for this type of housing in the area;
- The proposed development is generally consistent with the policies and controls in the HLEP and HDCP and other relevant legislation, strategies and planning instruments; and
- The site is not unreasonably constrained by any planning or environmental factors which would prevent the development of the site for the proposed use.

5.0 Request to Vary a Development Standard

Clause 4.6 of Hornsby LEP 2013 allows Council to grant consent for development even though the development contravenes a development standard imposed by the LEP. The clause aims to provide an appropriate degree of flexibility in applying certain development standards to achieve better outcomes for and from development.

5.1 Development Standard to be Varied

This Clause 4.6 variation request seeks to justify contravention of the height of buildings development standard set out in Clause 4.3 of the Hornsby LEP. Clause 4.3 provides that the maximum height of buildings in the Carlingford R4 High Density Residential zone is 17.5 metres.

The proposed development exceeds this maximum height by a maximum of approximately 350 millimetres at the western edge of Block A and Block B as shown in **Figure16**.

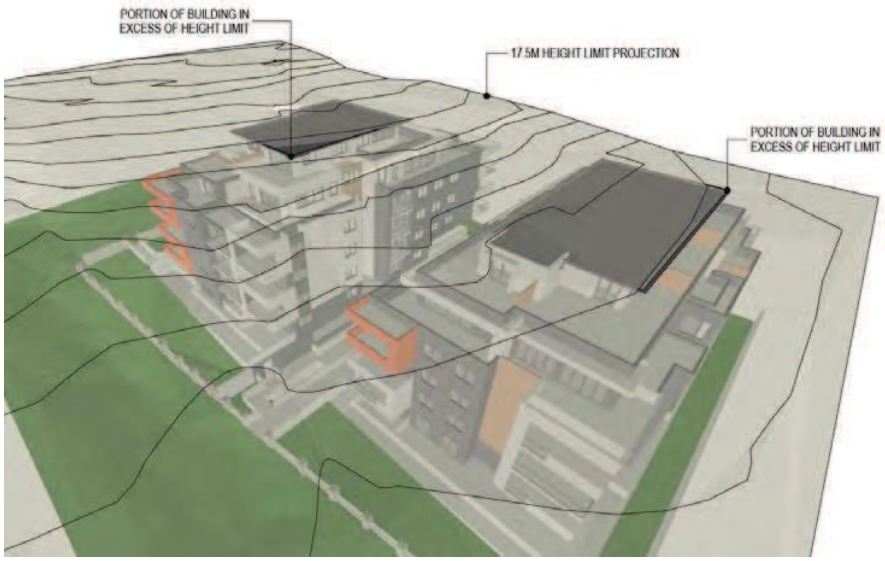


Figure 16 – Extent of height exceedance
Source: SWA

5.2 Justification for Contravention of the Development Standard

5.2.1 Clause 4.6(3)(a): Compliance with the development standard is unreasonable or unnecessary in the circumstances of the case

In *Wehbe v Pittwater Council* [2007] NSW LEC 827, Preston CJ of the Land and Environment Court provided relevant assistance by identifying five traditional ways in which a variation to a development standard had been shown as unreasonable or unnecessary.

While *Wehbe* related to objections made pursuant to *State Environmental Planning Policy No. 1 – Development Standards* (SEPP 1), the analysis can be of assistance to variations made under clause 4.6 (see *Four2Five Pty Ltd v Ashfield Council* [2015] NSWLEC 1009 at [61] and [62]).

The five methods outlined in *Wehbe* include:

1. The objectives of the standard are achieved notwithstanding non-compliance with the standard.
2. The underlying objective or purpose of the standard is not relevant to the development and therefore compliance is unnecessary.
3. The underlying object or purpose would be defeated or thwarted if compliance was required and therefore compliance is unreasonable.
4. The development standard has been virtually abandoned or destroyed by the Council's own actions in granting consents departing from the standard and hence compliance with the standard is unnecessary and unreasonable.
5. The zoning of the particular land is unreasonable or inappropriate so that a development standard appropriate for that zoning is also unreasonable and unnecessary as it applies to the land and compliance with the standard would be unreasonable or unnecessary. That is, the particular parcel of land should not have been included in the particular zone.

Of particular assistance in this matter, in establishing that compliance with a development standard is unreasonable or unnecessary is the first method.

The objectives of the development standard is to permit a height of buildings that is appropriate for the site constraints, development potential and infrastructure capacity of the locality.

Table 8 demonstrates that the proposed variation to the height control will still result in a development that achieves the objectives of the height of buildings development standard.

Table 8 – Assessment against the objectives of the height of buildings development standard

Objective	Proposal
1) to permit a height of buildings that is appropriate for the site constraints, development potential and infrastructure capacity of the locality.	The proposed building has been carefully designed around the existing site constraints whilst fulfilling the development potential of the site as intended by its R4 High Density Residential zoning. In accordance with this, the proposed development will deliver an outcome that is appropriate for the site and is compatible with the character of the Carlingford precinct. As the exceedance is minor in nature and arises due to the slope of the land, it is considered appropriate as it does not result in any additional yield. Therefore, the exceedance will have no impact on the infrastructure capacity of the locality.

5.2.2 Clause 4.6(3)(b): There are sufficient environmental planning grounds to justify contravening the development standard

There are considered to be sufficient environmental planning grounds to justify contravening the development standards, which are detailed as follows:

- The exceedance of the building height control will have a minimal impact on the streetscape;

- The impact on visual privacy and solar access of neighbouring developments will be minimal;
- The building is appropriate for the size and dimensions of the site;
- The building incorporates design consistent with the principles of residential amenity contained within the Apartment Design Guide;
- The proposed height variation will not result in a building form that is out of character with the surrounding area and does not result in any non-compliance with other controls;
- The site is located within an area undergoing transformation and transition and is compliant with Council's vision for the future character of the Carlingford precinct;
- The proposed development is consistent with the objectives of the height control as highlighted in **Table 8** above; and
- The overall proposed development will not result in any adverse impacts on the surrounding area;

5.2.3 Clause 4.6(4)(a)(ii): In the public interest because it is consistent with the objectives of the zone and development standard

The proposed development is consistent with the objectives of the zone and development standard, as demonstrated in **Section 5.2.1**. It is considered that the overall development is in the public interest as it will contribute to increased provision of housing in the area as well as increase activation of the Carlingford area. As the non-compliance with the height of building control is minor, it is considered that it will have minimal impact on the overall public benefit delivered as part of the development.

5.3 Other Matters for Consideration

Clause 4.6(5) of the Hornsby LEP requires the following additional matters to be considered.

5.3.1 Clause 4.6(5)(a): Whether contravention of the development standard raises any matter of significance for State or regional environmental planning

The proposed exceedance of the height of building control will not raise any matter of significance for State or regional planning.

5.3.2 Clause 4.6(5)(b): The public benefit of maintaining the development standard

Maintaining the development standard would not result in any public benefit in this situation. The minor exceedance of the height control will not increase the yield of the development or result in any negative environmental impacts and if the applicable height of building control were to be maintained, it would limit the site from achieving its full development potential and inhibit the orderly and economic use of the land.

5.3.3 Clause 5.6(5)(c): Any other matters required to be taken into consideration by the Director-General before granting concurrence.

The proposed variation will facilitate the orderly and economic development of a site identified for high density residential development that will contribute to the supply of housing in the Hornsby LGA and achieve the strategic objectives of *A Plan for Growing Sydney* and the Hornsby LEP 2013.

5.4 Summary

This section demonstrates Council can be satisfied that:

- That compliance with the development standard is unreasonable or unnecessary in the circumstances of the case because the exceedance is minor in nature and compliance would not materially alter the design of the development, and
- That there are sufficient environmental planning grounds to justify contravening the development standard as the building responds to Council's intention for development in the Carlingford precinct, delivers additional housing within the Hornsby LGA, provides an appropriate design response to the site and will maintain the level of amenity for surrounding and future residents.

It is therefore requested that Council grant development consent for the proposed development even though it contravenes the height of building development standard in the Hornsby LEP 2013.

6.0 Conclusion

Hepburn Carlingford Pty Ltd seek consent for the following development at 2 – 2A Hepburn Avenue and 199 – 203 Carlingford Road, Carlingford:

- Demolition of six (6) existing dwelling houses;
- Amalgamation of six (6) sites;
- Construction and use of two (2) residential apartment buildings, comprising 63 dwellings;
- Excavation and provision of a common two (2) level basement carpark accessed from Hepburn Avenue, providing 99 spaces;
- Strata subdivision of the residential apartment buildings;
- Associated landscape works, fence and tree removal; and
- Extension and augmentation of physical infrastructure and utilities as required.

This Statement of Environmental Effects has considered the key issues pertaining to the proposal and it is concluded that:

- The proposed development generally complies with the provisions of the *Hornsby LEP 2013* and the Hornsby Development Control Plan;
- The proposal will have public benefit as it provides additional housing choice and will contribute to improving housing affordability and the available housing stock;
- The proposal directly responds to the desired future character of the area;
- The proposal has responded to the constraints of the site by incorporating appropriate design solutions;
- The environmental impacts of the proposal upon the adjoining development, access and parking, tree removal, safety and security, stormwater, waste and the construction of the development can be appropriately managed through the adoption of recommendations made by sub consultants (refer to appendices); and
- The site is suitable for the proposed development.

In light of the above, it is considered that the proposed development will provide a significant social benefit to the local area. Accordingly we recommend that Council approve this application.