

Annexure D – Residential Flat Design Code – Rules of Thumb

Guidelines / Rules of thumb	Approved / Comment	Proposed / Comment
Local Context		
Primary Development Controls		
Building Height - Existing Floospace ratio. Existing Height Controls – number of storeys. Minimum Ceiling Heights	1.99 : 1 4 storeys 2.7m	2.196 : 1 4 storeys 2.8m
Building Depth – In general, an apartment depth of 10m – 18m is appropriate.	Dwelling depths range from 9.7m - 13m. Dwelling depths of 9.7m relate to the single aspect east facing dwellings. These non compliances are minor and reasonable in this context.	Dwelling depths range from 7.6m – 17.2m. Dwelling depths of 7.6m are limited to the three dwellings within the sites north eastern portion (dwellings 107, 207 and 304). These dwellings are dual aspect and the non compliance is reasonable in this regard.
Building Separation – The code recommends that building separation increase in proportion to building height. Suggested separation between adjoining sites for a 4 storey/12m high development are as follows: - 12m between habitable rooms/balconies - 9m between habitable rooms/balconies and non habitable rooms - 9m between non habitable rooms The code also allows a 0m building separation in appropriate contexts such as party walls.	The proposal provides for the following building separation: Separation of Ground Floor dwellings, Level 1 dwellings and Level 2 dwellings to 96 Glover Street : 4.2m – 10.9m Separation of Level 1 dwellings and Level 2 dwellings to 97 Cabramatta Road – 9.8m. Separation of Level 3 dwellings to 96 Glover Street – 11.4m – 12.6m Separation of Level 3 dwellings to 97 Cabramatta Road – 12.2m The proposal although not strictly complying with the codes building separation guidelines is suitably separated from neighbouring buildings in this urban context. The building separation achieved by Level 3 adequately increases in proportion to building height.	The modifications provide for the following revised building separation: Separation of Ground floor, Level 1 dwellings, Level 2 and Level 3 dwellings from 96 Glover Street: 4.2m – 8.8m. Separation of Ground floor dwellings from 97 Cabramatta Road – 10m. Separation of Level 1 and 2 dwellings from 97 Cabramatta Road – 9.4m. Separation of Level 3 dwellings from 97 Cabramatta Road – 11.8m. The modifications result in a development which provides for less separation between neighboring buildings to the east than that which was approved executing an existing non compliance. This non compliance is assessed as reasonable, in that adequate separation is still maintained.

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<p>Street Setbacks – Setbacks typically vary from none in city centres to 10m on suburban streets.</p>	<p>The street setback of the flat building from Glover Street at the ground floor level varies from 1.6m – 3.2m.</p> <p>The street setback of the flat building from Glover Street and Lindsay Lane at Level 1 and Level 2 varies from 0m – 300mm.</p> <p>The setbacks of the proposal are consistent with neighbouring development to the west. The setbacks allow for adequate passive surveillance and are satisfactory built form on Glover Street and Lindsay Lane.</p>	<p>The revised street setback of the flat building from Glover Street at the ground floor level varies from 1.5m – 3m.</p> <p>The street setback of the flat building from Lindsay Lane at the ground floor level varies from 1.7m – 2.4m</p> <p>The revised street setback of the flat building from Glover Street and Lindsay Lane at Level 1 and 2 varies from 0m – 300mm.</p> <p>With the exception of the additional dwellings provided within the approved building envelope adjacent to Lindsay Lane, the street setback is not significantly altered.</p>
<p>Side and Rear Setbacks</p>	<p>The existing nil western setback to the adjacent building at 102 Glover Street is maintained with the residential flat building.</p> <p>The side setback of the building from the eastern boundary is adequate in that reasonable privacy and solar access for neighbouring dwellings is maintained.</p> <p>The limited rear setback of the proposal is reasonable in that the siting of the building as viewed from Lindsay Lane is not inconsistent with neighbouring built form to the west and the rear setback is similar to existing.</p>	<p>The approved nil western setback is not altered as a result of the proposed modifications.</p> <p>As previously discussed the modifications involve a decreased eastern setback of the residential flat building. This is has been assessed as reasonable.</p> <p>The rear setback of the development from Lindsay Lane is not significantly altered.</p>
<p>Floorspace Ratio</p>	<p>The proposal complies with Councils floorspace ratio development standard</p>	<p>The modifications increase floor area resulting in a non compliance with the floor space ratio standard. This is assessed in Section 5.2.6 of this report.</p>

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Site Design			
Site Configuration			
<p>Deep Soil Zones - minimum of 25% of open space area of a site should be a deep soil zone. Exceptions may be made in urban areas where sites are built out, in which case stormwater treatment measures must be integrated with the design of the residential flat building.</p>	<p>The site is constrained by minimum soil depths due to the existing and proposed basement car parking.</p> <p>The proposal provides for a total of 214m² of landscaped area, representing 15.2% of the site area.</p> <p>The landscape area is assessed as reasonable in that the proposal increases landscaped area from existing. In addition stormwater will be captured by the proposed Rainwater tank system.</p>	<p>The site constraints, including soil depths due to the basement car parking remain unchanged.</p> <p>The proposal however increases landscaped area on site (such as a 60m² increase in communal open space)</p> <p>The modified increased amount of landscaped area is acceptable.</p>	
<p>Fences and Walls</p>	<p>The proposal entails fencing along the Glover Street frontage of up to 2.2m for the main entrance and up to 1.8m for the ground floor dwellings.</p> <p>A landscaped planter within the private open space of the ground floor street facing dwellings adequately softens the appearance of the fencing. In addition the fencing is open in style allowing for a reasonable streetscape relationship whilst clearly defining public and private domains.</p>	<p>The modifications involve revised fencing on Glover Street up to 1.6m and 2m on Lindsay Lane.</p> <p>Planters are also incorporated on the Lindsay Lane and Glover Street ground floor elevations adequately softening the open picket style fencing.</p> <p>These changes remain acceptable within the streetscape.</p>	
<p>Landscape Design</p>	<p>Landscaping design on site generally comprises planter boxes adjacent to the ground floor Glover Street facing dwellings. The proposal also incorporates a landscaped buffer adjacent to the eastern boundary with 96 Glover Street. This landscaped design is adequate in terms of creating a buffer area between the proposal and neighbouring development and is an improvement to the existing landscaping on site.</p>	<p>The modifications do not significantly alter the approved landscape design, it being noted that landscaped area is increased.</p>	

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<p>Open Space</p> <ul style="list-style-type: none"> - 25% - 30% of site area should be devoted to communal open space. - Ground level apartments should contain a minimum of 25m² of open space, with a minimum dimension in one direction of 4m. 	<p>206m² of communal landscaped area is accommodated in the scheme representing 14.7% of the site area.</p> <p>Ground floor dwellings 1, 2 and 3 (as nominated on the plans) contained limited deep soil open space, generally being serviced by limited planter boxes and a landscape buffer adjacent to the boundary.</p> <p>Ground floor dwellings 4, 5 and 6 (as nominated on the plans) each contain approximately 15.4m² of landscaped area with a minimum dimension of 2.4m in one direction.</p> <p>These deficiencies are assessed as reasonable in that built form is appropriately separated through the communal vegetated buffer from the neighbouring development to the east. In addition all dwellings contain reasonable amounts of private open space.</p>	<p>The modifications increase communal landscaped area providing for 272m² or 19% of the site area.</p> <p>The modifications maintain planter boxes for the street facing dwellings.</p> <p>Changes to the east facing ground floor dwellings involve the removal of landscaped area and its replacement with decking and planters (each of these dwellings have approximately 28m² of private open space with a minimum dimension of 3.3m in one direction)</p> <p>These changes are reasonable in that acceptable levels of private open space and communal open space is maintained.</p>
<p>Orientation</p>	<p>The orientation of the proposed flat building is assessed as reasonable it being noted that the site which runs in a north south direction is such that overshadowing impacts are minimised.</p>	<p>The approved orientation of the development is unchanged.</p>
<p>Planting on Structures – The applicable guidelines with regard to soil provision is provided below:</p> <ul style="list-style-type: none"> - Small Trees (4m canopy diameter at maturity) <ul style="list-style-type: none"> - minimum soil volume 9 cubic metres - minimum soil depth 800mm - approximate soil area 3.5m x 3.5m or equivalent 	<p>The plans submitted with the application do not nominate planting above the ground floor level.</p> <p>The sections submitted with the application nominate soil depths of approximately 800mm for the eastern landscaped buffer and 600mm for the ground floor private courtyards and central communal open space adjacent to the lift well. These soil depths and allocated planting spaces are assessed as adequate for the proposed trees and shrubs as indicated on the submitted landscaped plan.</p>	<p>The modifications do not involve material changes to soil depths above the basement car parking level.</p>

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Stormwater Management	Councils Development Engineer has reviewed the proposed stormwater management and has not raised objection, subject to recommended conditions.	Councils Development Engineer has reviewed the modifications including the revised storm water management and has not raised objection, subject to conditions.
Site Amenity		
Safety – Residential developments of more than 20 new dwellings require a formal crime risk assessment.	The applicant has provided Council with a formal crime risk analysis assessment and Crime Prevention Through Urban Design analysis.	A revised formal crime risk analysis assessment is not deemed necessary as the revised design is not likely to cause unreasonable safety concerns, it being noted that the addition of ground floor dwellings on Lindsay Lane increases passive surveillance.
Visual Privacy – Refer to Building Separation Minimum Standards	<p>The ground floor dwellings will not impact on the privacy of neighbouring buildings due to the proposed landscaping. Due to building separation and downward lines of sight, east facing dwellings will not materially impact the privacy of 96 Glover Street.</p> <p>The balconies of the south facing dwellings are further than 9m from 97 Cabramatta Road and no objection in relation to privacy has been received from 97 Cabramatta Road.</p>	<p>The modifications will result in acceptable privacy impacts on neighboring privacy to adjacent buildings.</p> <p>Landscaping, lines of sight and separation adequately ameliorate adverse overlooking to 96 Glover Street.</p> <p>The revised south facing balconies are located approximately 9m away from the neighbouring windows of 97 Cabramatta Road. This separation is assessed as adequate.</p>
Site Access		
Building Entry	The proposed entry to the building is satisfactory, it being noted that the internal lift and mail boxes are conveniently located and the foyer space is simple and safe in design. The three ground floor dwellings facing Glover Street also contain adequate separate entrances.	The revised entry remains satisfactory in relation to convenience of location and safe design. Six out of nine ground floor dwellings provide for separate ground floor access either from the street or via common areas.

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Parking	<p>The parking on site utilises the basement car parking associated with the existing commercial use.</p> <p>The visitor spaces are located at grade level accessed from Lindsay Lane and are located within the building envelope.</p>	<p>Changes to car parking include the deletion of the (8) visitor car parking spaces (to be replaced by three dwellings) accessed from Lindsay Lane and the incorporation of visitor spaces into the basement level.</p> <p>The access to these visitor spaces remains at the secondary frontage and is acceptable on this basis.</p> <p>Accessible bicycle parking is also maintained in the revised scheme.</p>
Pedestrian Access	<p>The proposal provides for good level access from the Glover Street, Lindsay Lane and from within the basement car parking to all residential dwellings.</p>	<p>Pedestrian access is not significantly altered as a result of the proposed modifications.</p>
Vehicle Access <ul style="list-style-type: none"> - Generally limit the width of driveways to a maximum of 6m. - Locate vehicle entries away from main pedestrian entries on Secondary frontages 	<p>Driveways for the basement car parking and the visitor spaces are approximately 6m in width.</p> <p>The vehicle entrance is located on Lindsay Lane away from the main pedestrian entry on Glover Street.</p>	<p>Changes to driveways involve the deletion of the driveway associated with the removed visitor spaces. This entrance is located on the Lindsay Lane frontage away from the main pedestrian entrance and is generally unaltered.</p>

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Building Design			
Building Configuration			
Apartment Layout - Single aspect apartments should be limited in depth to 8m from a window. - The back of a kitchen should be no more than 8m from a window. - The width of cross through apartments over 15m deep should be more than 4m. - Minimum Apartment size of 50m ² for one bedroom, 70m ² for two bedroom apartments and 95m ² for three bedroom apartments.	 - Single aspect dwellings range from a depth of 9.7m – 12.2m from windows. The apartments are deeper than the SEPP rule of thumb however the non complaint areas in relation to distance from windows primarily relate to secondary habitable areas such as bathrooms and hallways. Given that all primary living areas (living room, kitchen and bedrooms) are generally located within 8m of windows the apartment depths are reasonable. - Kitchens are generally located within 8m from a window. - No dwellings within this scheme are deeper than 15m. - All dwellings comply with the minimum apartment size rule of thumb.	 The revised single aspect dwellings generally range from depths of 10m – 10.7. This provides for an improvement from that which is approved. The revised east facing centrally located dwellings (units G04, G05, 104, 105, 204, 205, 302 and 303) provided for the rear of kitchens approximately 9.6m and 10.4m away from windows. The revised east facing centrally located dwellings (units G04, G05, 104, 105, 204, 205, 302 and 303) provide for depths of between 15.5m and 17.2m. This is acceptable in that the amenity of the dwellings is generally improved as a result of the revised design. All revised dwellings comply with the minimum apartment size rule of thumb.	
Apartment Mix – Provide a variety of apartment types for housing choice and equitable housing access.	The proposal provides for an apartment mix of one and two bedroom apartments. This apartment mix is assessed as reasonable due to surrounding densities, access to public transport and the relative lack of developments of this type with the Mosman Local Government Area.	The modifications provide for an increased dwelling mix of one, two and three bedroom dwellings.	

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<p>Balconies – Primary balconies should have a minimum depth of 2m.</p>	<p>All primary balconies are accessed from main living areas and are wider than the 2m rule of thumb.</p>	<p>The modifications provide for a minimum 1.5m depth for balconies in part for all balconies on level 1 and level 2 and the two east facing balconies on level 3.</p> <p>Whilst not strictly complying with the standard these balconies provided for amenable balcony depths of between 2.72m and 3m within other areas, which are capable of accommodating a table and chairs. In this context the changes to balconies are assessed as reasonable.</p>
<p>Ceiling Heights – 2.7m minimum for habitable rooms and 2.4m minimum for non habitable rooms.</p>	<p>The proposal provides for minimum floor to ceiling heights of 2.7m.</p>	<p>2.8m high ceiling heights are proposed in the modifications.</p>
<p>Flexibility – Apartments must be designed to afford flexible living arrangements and satisfactory working arrangements. Apartments must be adaptable.</p>	<p>The development provides for one (1) accessible unit which supports housing choice by providing accessibility.</p> <p>The proposal has sufficiently flexible floor plates to accommodate changing living circumstances.</p>	<p>Written submission from the applicant states that 3 adaptable units will be provided within the development at various levels.</p> <p>The floor plates remain able to accommodate changing living circumstances.</p>
<p>Ground Floor Apartments – Optimise the number of ground floor apartments with separate entries and provide ground floor apartments with access to private open space, preferably as a terrace or garden.</p>	<p>3 out of 6 ground floor dwellings provide for separate pedestrian entry.</p>	<p>The modifications provide for separate entry to six out of nine dwellings.</p>

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<p>Internal Circulation – The number of dwellings accessible from a single core/corridor should be limited to 8.</p>	<p>The ground floor level contains 6 dwellings and Level 3 contains 7 apartments accessed from a single corridor complying with the rule of thumb.</p> <p>Levels 1 and 2 each contain 11 dwellings accessed via a shared corridor. The internal circulation of Level 1 and 2 is assessed reasonable in that the light well adjacent to lift adequately creates appropriate ventilation and the location of the corridor does not negatively impact on dwelling layouts.</p>	<p>The revised internal circulation provides for a maximum of 5 dwellings being accessed from a single core/corridor.</p>
<p>Mixed Use</p>	<p>Multiple dwellings are permissible in the 3(a2) zone. The lack of a retail component will not have a material impact on the Cremorne Business zone due to the sites transitional nature.</p>	<p>The modifications do not involve material changes to the approved residential use of the development.</p>
<p>Storage</p> <ul style="list-style-type: none"> - one bedroom dwellings require 6m³ of storage area - two bedroom dwellings require 8m³ of storage area. -three bedroom dwellings require 10m³ of storage area. <p>The applicable section within the rules of thumb stipulates that 50% of the required storage is to be provided within each apartment for better design practice.</p>	<ul style="list-style-type: none"> - the one bedroom dwellings contain between 3.4m³ and 4.3m³ of storage within each apartment satisfying the 50% guideline for storage within dwellings. - the two bedroom dwellings contain between 4.6m³ and 9.2m³ of storage within each apartment satisfying the 50% requirement for storage within dwellings. <p>The plans submitted with the application nominate adequate basement level storage allocated to individual dwellings.</p>	<ul style="list-style-type: none"> - the modified one bedroom apartments contain between 4.4m³ and 8.74m³ of storage area in each dwelling satisfying the 50% guideline. - the modified two bedroom dwellings contain between 5.85m³ and 9.447m³ of storage area within each dwelling satisfying the 50% guideline. - the new three bedroom dwellings contain between 4.48m³ and 19.71m³ of storage area within each dwelling. 6 out of 12 apartments do not comply with the 50% guideline. This is deemed acceptable as the non compliances are minor and these dwellings contain adequate basement storage area providing for a total storage area in excess of requirements.

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Acoustic Privacy	The design of the dwellings appropriately sites bedrooms and living areas away from noise sources. Conditions of consent are included in the recommendation for appropriate acoustic privacy.	The modifications do not involve material changes to the approved and acceptable acoustic impacts of the proposal. Appropriate conditions remain within the recommendation.
Daylight Access - 70% of the living rooms and private open space of apartments should receive a minimum of two hours direct sunlight. - No more than 10 single aspect south facing apartments.	The plans submitted with the Development Application detail that 77.1% of apartments receive greater than 2 hours of direct sunlight on June 21. The plans submitted with the Development Application detail four south facing single aspect apartments.	Changes to the revised development result in 83% of dwellings receiving greater than 2 hours of direct sunlight on 21 June. The modified scheme results in two south facing single aspect dwellings.
Natural Ventilation - 60% of residential dwellings should be naturally cross ventilated. 25% of kitchens within a development should have access to natural ventilation.	The plans submitted with the Development Application detail that 71.4% of dwellings are naturally cross ventilated. Kitchens are generally within 8m of windows.	The revised development nominates that 79% of dwellings are naturally cross ventilated. Kitchens remain generally within 8m of windows.
Awnings and Signage	The plans submitted with the Development Application do not include any awnings or signage.	The modifications maintain no proposed awnings and signage.
Facades	The proposal contains a three storey street wall. The presentation of the street wall balances strong horizontal and vertical framing elements whilst defining the setback at the upper level. The façade is appropriately modulated with the incorporation of balconies and does not negatively impact on the streetscape.	The modifications maintain a three storey street wall with strong horizontal and vertical elements as well as a defined setback at the upper level. The materials and finishes are acceptable and the balconies maintain the modulation and articulation of the street facades.

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Roof Design	<p>The flat roof form of the residential flat building is appropriate within this local context which includes numerous examples of similar roof forms.</p> <p>The flat roof including the clerestory window above unit 35 is in excess of Councils 12m policy. The roofing associated with the apartments including the Clerestory window is assessed as a compatible roof scape in this instance.</p> <p>The lift over run is relatively discrete and will not be visible from the public domain.</p>	<p>Changes to the approved roof form primarily entail an enlarged extent of roofing. Subject to conditions, reducing the extent of roofing this new roof is assessed as acceptable.</p> <p>The revised location of plant equipment is sited relatively discretely on the roof and will cause unreasonable impacts on neighbouring amenity.</p>
Energy Efficiency	<p>The submitted BASIX Certificate demonstrates compliance with the required BASIX Commitments.</p>	<p>A revised BASIX certificate has been submitted.</p>
Maintenance	<p>The design of the building does not pose significant issues with relation to access for maintenance.</p>	<p>The revised design does not pose significant issues with regard to maintenance.</p>
Waste Management – Supply waste management plans as part of the Development Application Submission as per the NSW Waste Board.	<p>The applicant has submitted a waste management plan with the subject Development Application. Conditions of consent are included within the recommendation which ensure appropriate waste management.</p>	<p>The applicant has submitted a waste management plan with the subject application. Conditions of consent are included within the recommendation which ensure appropriate waste management.</p>
Water Conservation – Rainwater is not to be collected from roofs coated with lead – or bitumen based paints, or from asbestos – cement roofs. Normal guttering is sufficient for water collections provided that it is kept clear of leaves and debris.	<p>Documentation submitted with the application details a 4 star instantaneous hot water system.</p>	<p>Councils Development Engineer has reviewed the proposed development including the water conservation arrangements and has not raised objection, subject to conditions.</p>