3.3 INDICATIVE LAND USES AND TRAFFIC CIRCULATION

Indicative land uses

To provide renewed vitality and achieve a successful integration of the new development with the existing shopping centre and the local community, the proposed development proposes a mixed-use ground floor with residential development above to achieve the desired activation to the existing and proposed new public domain as well as a pedestrian-friendly environment. The proposed uses include:

- Commercial/retail uses and residential lobbies on the edges of the new plaza and at the intersection of Waterloo Road and Como Road to activate the public domain.
- Residential uses along Waterloo Road with private entries to respond to the adjacent residential streetscape character as well as provide activation and passive surveillance to the public domain.
- Podium car park sleeved by proposed active uses on ground and lower-ground level with direct access to the existing shopping centre.
- Residential development above the podium level to bring desired density to support a sustainable growth of the local centre as well as provide passive surveillance to the public domain throughout the day.
- Potential Child Care Centre with outdoor playground to activate the proposed formalised pedestrian link through Norfolk Reserve to the rear part of the shopping centre.
- Service, traffic and loading area to be integrated into the rear development, sleeved by ground level residential and potential child care centre.

Indicative traffic circulation

The proposed traffic circulation for the subject development includes:

- One-way service vehicle route entering from the southern end of the site only. It will accommodate all servicing needs for the commercial/retail and residential development across the site.
- New internal loop street entering from Waterloo Road to provide quick drop and easy access to the proposed civic space and ground level retail shops and business premises. This will further increase accessibility to the local centre.
- Two vehicle access points to the podium level and basement car park at both, the northern and southern ends of the site facing Waterloo Road.
- Potential pedestrian entries from the new loop street to the basement car park.
- Residential passenger vehicles only to access residential development at the south-east corner from Norfolk Road.

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**Figure 26. Indicative land uses - Ground floor plan and uses**

[Diagram showing land uses and circulation]

**Figure 27. Indicative traffic circulation**

[Diagram showing traffic circulation]

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GMU
Urban Design Architecture
3.4 BUILDING HEIGHT PLANE

The preferred built form envelope aims to revitalise the local centre by strategically concentrating development and height at the centre of podium areas to create large civic open spaces within the site.

The proposed master plan will maintain a maximum 3 storey street wall frontage with setback 4-storey elements along Waterloo Road, which respond to the lower scale along Waterloo Road but also identifies the new entry point to the shopping centre.

Taller built form has been concentrated towards the centre of the development and further away from the surrounding lower scale residential dwellings to the south of the site. According to the building height plane study (Figure 28), these taller forms will be approximately 1 to 3 storeys over the existing height plane.

The built form towards Waterloo Road that surpasses the height plane is presented as setback pop-ups at least 6m from the edge of level 3. The entry points to the civic plaza/drive are deliberately highlighted to create built form markers. These elements surpass the height plane by approximately 3m.

The taller building on Block A is approx. 12m from the plaza edge and 20m from the common boundary with the Islamic School. The taller building on Block B is approx. 2-3 storeys above the height plane; however, it is largely set back by approx. 50-55m from the southern boundary to the adjoining lower scale residential development. The taller development on Block C is located approx. 43m from the southern boundary (see Section 3.11 for detailed setbacks).

According to the Survey Plan by Veris, the existing minaret as a local landmark within the school is the tallest point within the area at RL 64.04m. The dome reaches a height of RL55.35m. The minaret and the dome are approx. 3 and 6 storeys over the height plane respectively.

Based on above study, it is GMU’s opinion that the proposed development provides a sympathetic response to the existing and desired streetscape character. The proposed building height is comparable with the existing local landmark. The concentration of the height at the centre of the site and the proposed scale transition will ensure minimal visual impacts to the neighbouring residential development.

Figure 28. Building Height Plane study
3.5 SECTION STUDY

These detailed sectional studies are cut along Waterloo Road and from Waterloo Road through the site to Norfolk Reserve.

The section diagrams (Figure 30 and 31) illustrate the proposed allocation of mixed uses and parking spaces within the proposed built form. They also show the intended scale transition to the neighbouring development within the area. This is achieved with ample separation distances ranging between 6-12m to the west boundary, 17-26m to the north boundary, 18-21m to the east, 15-43m to the rear south and 12-55m to the front south edge.

As shown in Figure 32, the proposed development aims to minimise the extent of excavation by encapsulating the majority of the required parking spaces in the podium design above ground level. The proposed basement level is at RL 31.26m at the lowest level to ensure a direct connection to the shopping centre and existing ALDI parking as well as providing a safe and secured residential parking area. The proposal plans to locate the residential parking at the lower ground and basement levels with commercial/retail parking above.

The proposed 3-storey street wall height along Waterloo Road reaches an RL level of 43.16m which is approx. 10m above the existing ground level, which ensures a sympathetic response to the existing and future streetscape character.

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**Figure 29. Key of Section study**

**Figure 30. Indicative Section AA along Waterloo Road**

**Figure 31. Indicative Section BB - from Waterloo Road through the site to Norfolk Reserve**

**Figure 32. Detailed section study showing the proposed connection through car park to the existing shopping centre level.**
3.6 VIEW ANALYSIS - PUBLIC DOMAIN

View 1 shows a continuous 3 storey street wall height with only segments of the recessed 4th storey being visible from oblique views. The upper levels of Block A are visible at the centre of the block, but due to the effects of perspective, these will be generally screened below the future canopy of mature large trees (13-18m).

View 2 shows that the predominant 3 storey street wall height with a deeply recessed 4th level provides an appropriate scale transition to adjoining residential dwellings which have an allowable height of up to 9m (2 storeys plus attic). The 4 storey markers located at the entry point to the plaza provide a clear way-finding and definition to the town centre precinct.

View 3 shows that the upper levels of Block B and C are 2-3 storey over the existing dwellings and 1-2 storeys higher than the potential future envelopes. These parts will be generally screened below the canopy of future mature trees (13-18m) proposed along the side boundary, on the roof top and within the green buffer area.

View 4 suggests that the majority of the proposed built form is invisible from Norfolk Road. If the residential dwellings on Norfolk Road develop to its full potential, the proposed additional height will be fully masked from the view.

The view analysis presented in this section concludes that the proposed master plan will have minimal visual impacts when viewed from the public domain.
3.7 PROPOSED PUBLIC AND COMMUNAL OPEN SPACES

The proposed development will provide generous communal and public open spaces on site (see Figure 35). They include:

**Communal open space**
- Approximately 3,000 sqm communal open space above podium on Block A.
- Approximately 2,100 sqm communal open space above podium on Block B.
- Approximately 600 sqm communal open space above podium on Block C.
- A total provision of communal open space is approximately 5,700 sqm.

**New civic space**
- Approximately 4,200 sqm for the proposed new civic area.

According to the Apartment Design Guide (ADG) - 3D Communal and public open space, “Some communal open space is accessible and usable by the general public” and “The useable part of the communal open space area may be supplemented by public land used for open space and vested in or under the control of a public authority”. It is GMU’s opinion that the proposed new civic space should be included as part of the total provision of communal open space, even though it will be under private ownership.

The subject site is largely occupied by an existing shopping centre that occupies approx. 40% of the site, totalling 23,500 sqm of land. This reduces the developable areas for Block A, B and C including the civic plaza to approx. 35,000 sqm. Therefore, the percentage of open space for the developable areas is 28%, which surpasses the minimum requirement as per the ADG.

The proposed development provides a 6m setback to the ground floor uses along Waterloo Road to facilitate new street tree planting and a wider pedestrian verge with improved amenity. It will provide landscaped setbacks to side boundaries to ensure a positive separation and a landscaped buffer for adjacent residential uses as well as providing increased opportunity for deep soil planting on site.

The proposal intends to embellish the existing playground to the south of Norfolk Reserve. It also attempts to enhance the site’s connectivity with the surrounding neighbourhoods through encouraging a formalised pedestrian link from Norfolk Road, through Norfolk Reserve from the rear residential to the existing shopping centre.

![Figure 35. Proposed public and communal open spaces](image-url)
3.8 THE PROPOSED PLAZA

To understand what makes a successful civic public space, GMU has studied a number of precedents including The Piazza at Wentworth Point, which informs the proposed new civic space on site.

The key design principles that will contribute to a well-utilised and functional civic space include:

- A reasonable level of solar access to the public space.
- Active ground floor plan activating the space.
- Human scale development defining the edge of the space.
- Well-proportioned space providing sufficient separation distance between buildings as well as allowing outlook to the public domain.
- Well landscaped areas with a high-quality amenity.
- Street-level car parking providing convenience and chance parking for a quick drop-by as well as providing needed visitors' parking for the ground floor commercial/retail.
- Large consolidated plaza for multipurpose uses.

Following the above principles and precedent, GMU has developed a 40m wide central space which will provide a direct visual and physical connection from Waterloo Road to the existing shopping centre located at the centre of the precinct. It can become a new community ‘heart’ as well as a new gathering destination.

The proposed new civic space with wider footpaths is to provide the opportunity for street trees and an improved pedestrian environment to encourage an increased level of footfall to the centre. Awnings are to be placed where the active frontages are. This is to ensure a safe and all-weather centre for the local community. Lighting, signage and public art will improve way-finding and provide a high-quality public domain for pedestrians.

The proposed "fine-grain" retail/commercial shop fronts will provide the desired activation to the plaza edges. Mixed use with an increased residential population in the centre intends to support the local night time economy with improved passive surveillance for the area.

The proposed new internal street with parallel street parking interspersed with street trees will provide convenience and chance parking as well as providing needed visitors’ parking for ground level commercial/retail.

The proposed large scale plaza would be able to accommodate large events such as Christmas Carols and other cultural events in the area.
3.9 PROPOSED ENTRANCE ROAD FROM NORFOLK ROAD

The proposed master plan intends to create a new access road through No. 87 Norfolk Road to the south-east residential development of the centre.

This new access road will be utilised for residential access only. Any future service vehicle for the south-east development would be restricted from Waterloo Road.

The characteristics of this new access road are:

- 6.5m wide carriageway.
- 1.2-1.3m footpath on both sides.
- 1.5m wide landscape verge with mature trees between the carriageway and footpath.
- 1.5m wide dense landscaping along the lot boundary, providing an additional buffering to neighbouring dwellings.
- High-quality acoustic barrier panels are to be integrated with the landscape design to mitigate potential acoustic issues arising from the subject development.

![Location Diagram](image)

![Artist’s impression of the proposed new residential access road viewing from Norfolk Road](image)

![Indicative Plan of the proposed new access road](image)

![Indicative section - proposed new residential entry through No.87 Norfolk Road](image)
3.10 SHADOW STUDY

The shadow analysis shows that the preferred master plan will provide an acceptable level of solar access to the proposed new plaza fronting the existing shopping centre. A minimum of 50% of the new plaza will receive a minimum of 3 hours solar access between 9am and 3pm in mid-winter.

Figure 43 shows that there are no overshadowing impacts to residential properties fronting Waterloo Road except No. 349-351 Waterloo Road. The proposed development will overshadow some of the residential properties to the south. Figure 42 shows that the proposal will generate some overshadowing to private open space, side walls and driveways of No. 349-351 Waterloo Road between 9 and 11am, but they receive direct solar access between 12-3pm for a total of 3 hours. The rear development Block C creates additional overshadowing to the rear portion of private open space of No. 85-93 Norfolk Road between 9-11am. However, these private open spaces will easily meet the DCP solar requirements of 2 hours. Overshadowing to Norfolk Reserve only occurs after 1:50pm to a small area (3%) of the south-western corner, which is not publicly accessible space.

Based on the above analysis, it is GMU’s opinion that the proposed built form will have limited impacts to the public domain and neighbouring residential properties.
3.11 URBAN DESIGN GUIDELINES

To guide the future development of the subject site, GMU has developed the following site specific guidelines to ensure design excellence and the desired future character are achieved.

### Maximum Building Height

**Objectives**

- To provide opportunities for medium scale mixed use development to facilitate the transformation of the stand-alone shopping centre into a vibrant local centre.
- To achieve an appropriate height transition to adjacent lower scale residential uses.
- To create a high-quality urban space with a pedestrian scale.
- To minimise any adverse overshadowing and visual impacts to the surrounding context.

**Controls**

- Proposed building heights should generally comply with Figure 44.
- Maximum 2 storey streetwall height fronting the proposed new plaza.
- Maximum 3 storey streetwall height along Waterloo Road and to the south-eastern corner with recessed 4th floor, except at the entry points to the plaza where 4 storey height markers are desired.
- Maximum 6 storeys at the centre of the site.

### Building setbacks and separation distances

**Objectives**

- To provide an improved streetscape, pedestrian experience and an inviting public domain to Waterloo Road.
- To provide sufficient setbacks to neighbouring residential uses to maintain a reasonable level of amenity and outlook.
- To provide an opportunity for landscape buffers to side and rear boundaries.
- To achieve appropriate separation distances between buildings on site.

**Controls**

- Building setbacks and separation distances should generally be provided in accordance with Figure 45.

**Setbacks to Waterloo Road**

- 6m front setback from Waterloo Road up to 3 storeys.
- Additional 6m setback from the main building alignment for the top level to Waterloo Road.
- Nil upper level setback required for 4-storey markers at the entry points to the plaza.

**Setbacks to Block A**

- Nil setback to the new civic space up to 2 storeys.
- Min. 3m setback from the main building alignment for levels above the street wall height.
- Additional 6m setback for the top level of 5-storey buildings to the north.
- Min. 12m setback from the plaza edge for taller buildings above the podium.

**Setbacks to Block B**

- Nil setback to the new civic space up to 2 storeys.
- Min. 3m setback from the main building alignment for levels above the street wall height.
- Min. 12m side setback for the podium levels to the south to accommodate a new access road and landscape buffer within the site.

**Setbacks to Block C**

- Min. 18m separation between building envelopes oriented in a north-south direction above the podium.
- 40m separation between buildings to the north and south of the new plaza.
Open Space and Landscape Areas

Objectives

- To achieve appropriate separation and landscape buffer between new development on site and neighbouring residential dwellings.
- To create a meeting place and a pedestrian-friendly environment on site.
- To provide adequate communal open space for future residents on site.
- To achieve mature landscaping to all sides to soften visual outlook of existing centre.
- To introduce improvements and upgrades to existing recreational areas in the vicinity of the site.

Controls

- The location of proposed open space and landscaped areas are to be generally in accordance with Figure 46.
- Provide a 40m-wide centralised civic space as a new congregation area for the local community and future residents.
- Provide landscape buffer to side boundaries to reduce the visual scale of any new development.
- Provide new street trees and paving to the existing Waterloo Road verge and within the 6m setback to achieve a high quality public domain for Waterloo Road.
- Provide landscaped spaces and communal open space on podium levels and lower building levels wherever possible to ensure a reasonable level of outlook and amenity for residents on site.

Active Frontages and Awnings

Objectives

- To achieve a high-quality vibrant and attractive streetscape and public domain for all weather conditions.
- To provide an active ground floor plane that well integrates the site with surrounding areas.
- To provide improved amenity of the public domain.
- To promote 'fine-grain' retail frontages.
- To contribute to a consistent and harmonious streetscape ensuring visual continuity.

Controls

- Active uses and awnings should be generally provided in accordance
with Figure 47.

- Active uses are to include commercial/retail uses in addition to building entries.
- Retail tenancies should be expressed as fine-grain shopfronts.
- Service areas, fire exits and blank walls are to be minimised and located along side boundaries only.
- Where blank walls are unavoidable, they are to be integrated into the facade design using high-quality materials.
- The design of awnings shall be integrated into the design of the shop fronts on ground floor.

### Vehicular circulation

**Objectives**
- To mitigate potential traffic impacts to Norfolk Road and surrounding neighbourhoods.
- To separate servicing, resident and retail patrons.

**Controls**
- Vehicle access and circulations should generally be provided in accordance with Figure 48.
- Service vehicle access points facing Waterloo Road are not permitted.
- Provide landscape buffering between any vehicle access points and adjacent residential development.

### Pedestrian links

**Objectives**
- To improve the site's accessibility and strengthen the connection with surrounding destinations and neighbourhoods.

**Controls**
- Pedestrian links should generally be provided in accordance with Figure 49.
- Provide an improved and direct pedestrian connection from Waterloo Road and Norfolk Reserve to the local centre.
- Provide a separated residential link from Norfolk Road to the rear residential development.

### Building facades

**Objectives**
- To respond to the existing residential 'fine-grain' character on the western side of Waterloo Road and surrounding neighbourhoods.
- To create and contribute to the evolving character of the local centre.

**Controls**
- The building facade shall be broken up by vertical elements reflecting the 'fine-grain' pattern of the existing neighbourhood and provide architectural interest to visible areas of the streetscape from the public domain.
- Facades shall be appropriately articulated along all boundaries to create visual interest from adjoining dwellings.
- A combination of high-quality materials and finishes are to be applied to inactive elevations wherever unavoidable.
- Blank/unarticulated facades are not permitted.
- Continuous elevations should be articulated every 10m with recesses and/or shadow lines.

![Example of facade treatment and articulation to shopping centre and podium car park](image-url)
4. CONCLUSION
4.1 PROPOSED STATUTORY CONTROLS

Based on the detailed built form testing and analysis presented in the previous chapters of this report, GMU recommends that the following statutory controls be amended:

Zoning

The site is currently zoned B2-Local Centre for No. 355 Waterloo Road and R2-Low Density Residential for No. 353 Waterloo Road and No. 87 Norfolk Road. The proposal seeks to amend the zoning control for No. 353 Waterloo Road to be B2-Local Centre and add ‘Residential Flat Building’ as a permissible use for the lot at No. 87 Norfolk Road for the purpose of access only (see Figure 50).

Height of Building

The current permissible height for the majority of the site (No. 355 Waterloo Road) is 11m and 9m for the remaining 2 residential lots. The proposal seeks to revise the height limit control to facilitate the proposed revitalisation of the centre (see Figure 51). The changes include:

- 14m to Waterloo Road and at the interface with lower scale residential development to the south.
- 20m to the remaining shopping centre site.
- No change proposed to No. 87 Norfolk Road.

FSR

The current permissible FSR for No. 355 Waterloo Road is 1:1 and 0.5:1 for the remaining 2 residential lots. The proposal seeks to amend the FSR control for No. 353 Waterloo Road from 0.5:1 to 1:1 being consistent with the controls for the rest of the centre.

Figure 50. Proposed Zoning Map

Figure 51. Proposed Height of Building Map

Figure 52. Proposed FSR Map
4.2 CONCLUSION

GMU and the project team have undertaken an extensive analysis of the existing and desired future character of the area and the role that the subject site will play in the revitalisation of Chullora local centre. The intent of the proposal is to create a vision for Chullora as a local centre rather than a stand-alone shopping centre.

The proposed planning proposal provides the opportunity to strengthen the centre’s identity with the introduction of the new civic space and improved public domain.

The subject site as a large amalgamated land parcel presents a unique opportunity to provide a holistic development that acts as a catalyst for the regeneration of what otherwise is an overlooked local centre by the current planning regime.

The proposal facilitates the much needed redefinition of the site from a once traditionally retail only precinct, which is an unsustainable business model in the long term. The proposal enhances the identity and vitality of the site through a proposed mixed-use development which will assist in securing the local retail offering in the long term and create a well-considered built form and scale without dominating the adjacent lower scale character.

Based on the above, GMU recommends the proposed amendments to the applicable statutory controls including the height of building and FSR controls.

Figure 53. Artist’s impression of the proposed new central place viewed from Waterloo Road
## APPENDIX A - ESTIMATED YIELD

### CHULLORA MARKETPLACE - ESTIMATED YIELD (INDICATIVE ONLY)

**Site Area - 57630 sqm**

### Building A

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<th>LG</th>
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**Gross Building Area:** 23528.8m²

- **Retail/Commercial GFA (85%)**: 900.8m²
- **Residential GFA (75%)**: 582.6m²

**Total GFA:**

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**Units (GFA/100m² per unit):** 168

### Building B

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**Gross Building Area:** 11214.4m²

- **Retail/Commercial GFA (85%)**: 896.2m²
- **Residential GFA (75%)**: 158.3m²

**Total GFA:**

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**Units (GFA/100m² per unit):** 76

### Building C (south-eastern corner)

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<td>775.0m²</td>
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**Gross Building Area:** 7584.2m²

- **Retail/commercial GFA (85%)**: 750.6m²
- **Residential GFA 75%**: 232.5m²

**Total GFA:**

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</table>

**Units (GFA/100m² per unit):** 43

### Existing retail/commercial GFA

- 24,605m²

### Retail/commercial removed (approx.)

- 3,700m²

### Proposed new retail/commercial GFA

- 3298.1m²

### Total retail/commercial GFA

- 24203.1m²

### Total residential GFA

- 28835.4m²

### TOTAL GFA

- 53038.5m²

### PROPOSED FSR

- 0.92:1

### Proposed parking spaces (indicative only)

- Proposed residential parking provision (as per the DCP): 436
- Proposed commercial parking provision (including the existing spaces on site): 858