

Table 1 contains an assessment of the proposed Child Care Centre against the provisions of **Development Control Plan No. 25 – Child Care Centres**.

Table 1 Development Control Plan No. 25 – Child Care Centres

Section	Provision	Compliance /Comment
1 Purpose	<p>For the purpose of this development control plan, child care centres, (as defined), principally provide care for:</p> <p>a) 0-5 year old pre school aged children; b) Out of School Hours care (OOSH) for school aged children; and/or c) Vacation care; whether on an occasional or long day care basis.</p>	<p>It is proposed to locate a 636m² (GFA) child care centre at the ground level of Building B (Lot 3) on the western part of the site. The child care centre includes an additional outdoor area of 643m².</p> <p>The proponent requests that the Minister determine that no further application assessment or report is required when giving approval to the child care centre and to determine this aspect of the project under Section 75P(1)(c) and approve under Section 75J. This will enable the child care centre to proceed directly to construction certificate application.</p>
1.2 Land to which this DCP Applies	<p>This DCP applies to all land in the City of Canterbury where child care centres are permissible under the relevant planning instrument.</p>	<p>Currently under the CPSO, child care centres are not permissible on the site. Clause 8O of the Environmental Planning and Assessment Regulations 2000 gives effect to apply for approval of a Concept Plan for a project even if any project or part of a project is prohibited under an Environmental Planning Instrument (EPI). The proposed project is the subject of an authorisation by the Minister to apply for approval of a Concept Plan pursuant to Section 75M of the Act as set out within the Department of Planning's letter dated 11 January 2008 see Appendix 1.</p>
1.3 Aims	<p>The aims of this Development Control Plan (DCP) are to:</p> <ul style="list-style-type: none"> Accommodate the increasing demand for child care places in the City through the provision of a variety of high quality children's services including child care centres and out of school hours care (OOSH). Integrate child care centres into the existing residential environment in terms of size, bulk, height, colour and the amount of landscaped area provided. Ensure the amenity of adjoining neighbours is retained and is not detrimentally affected by noise emissions from the site. Encourage the provision of child care places for 0-2 year olds in child care centres. Ensure child care centres are located with adequate, convenient and safe parking for visitors that does not impact on the neighbourhood. Achieve consistency with the requirements of the NSW Department of Community Services (DoCS). 	<p>The proposed child care centre will accommodate the increasing demand for child care places through the provision of placement for 75 children, with the following allocation of places:</p> <ul style="list-style-type: none"> 0-2 years of age = 20 places 2-3 years of age = 15 places 3-5 years of age = 20 spaces <p>The child care centre is 636m² and is designed over one storey with a similar sized area (643m²) of soft fall areas, turf and astroturf play surfaces -Refer to Architectural Plans at Appendix 30 and Landscape Plans at Appendix 13. The proposed bulk, height and landscaping is considered compatible with the scale of the surrounding area.</p> <p>Eight parking spaces are provided in the basement of the building for staff. Five on-street parallel parking spaces are proposed in Troy Street which provide direct, level access to the child care centre.</p> <p>The centre will be staffed by 15 persons and will operate from 7am -7pm Monday to Friday. The location and orientation of the play areas and proposed hours of operation will ensure that the amenity of adjoining neighbours is retained and is not detrimentally affected by noise emissions from the site.</p> <p>The design of the child care centre has regard to the Children Services Regulation (CSR) 2004 and a licence from DOCS will be sought at CC stage.</p>
1.6 How to	<p>A location analysis must be submitted with the development</p>	<p>A Location Analysis Map (Figure A –Appendix 37) has been prepared by Planning</p>

<p>Apply</p>	<p>application together with other requirements outlined in Council’s Development Application Guide. The location analysis is to be in the form of a map which indicates:</p> <ul style="list-style-type: none"> • All existing child care centres including the capacity of each centre • Schools • Parks • Community facilities <p>The map is to identify the above uses within a 750m radius. An analysis of the need for a centre in the proposed location must also support the application.</p>	<p>Workshop Australia and is submitted as part of this application. The plan indicates:</p> <ul style="list-style-type: none"> • All existing child care centres; • Schools; • Parks; and • Community facilities <p>within 750m radius of the site.</p> <p>Also see controls viii below.</p>										
<p>2.1 Location Requirements</p>	<p>a) To ensure that the relationship between the child care centre and adjoining land uses is favourable in terms of traffic, parking and noise impacts.</p>	<p>An Environmental Noise Assessment and Traffic and Parking Assessment accompany the Application.</p> <p>Table 2 of the Environmental Noise Assessment provides a summary of the assessment criteria applicable to the proposed long day childcare centre at the nearest potentially affected residential receiver (onsite). Table 2 is reproduced below</p> <table border="1" data-bbox="1099 699 2051 863"> <thead> <tr> <th>Location</th> <th>Time of Day</th> <th>Noise Level Objective dB(A) Leq Background + 5dB(A) - 10dB(A)¹</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Nearest Resident</td> <td>Day (7am – 6pm)</td> <td>47 to 52</td> </tr> <tr> <td>Evening (6pm- 10pm)</td> <td>43 to 48</td> </tr> <tr> <td>Night (10pm – 7am)</td> <td>N/A²</td> </tr> </tbody> </table> <p>¹ If noise emissions from the development will not exceed background + 5dB(A), no further management controls are required in order to preserve residential amenity. However, if noise emissions are predicted to exceed “background + 5dB(A)” and further acoustic treatments are not feasible, noise emissions of up to “background + 10dB(A)” are reasonable provided that management controls are used to limit the time period of use of the outdoor area.</p> <p>² The child care centre will no operate during night time hours.</p> <p>To ensure that the relationship between the child care centre and adjoining land uses is favourable in terms of noise impacts, the following mitigating measures are proposed in the Draft Statement of Commitments:</p> <ul style="list-style-type: none"> a) children will not be permitted access to the external play areas after 6pm; b) Continuous monitoring of children’s activities within the external play areas to minimise noise impacts and for safety purposes; c) Keep external façade closed and install upgraded single glazing with acoustic seals; and 	Location	Time of Day	Noise Level Objective dB(A) Leq Background + 5dB(A) - 10dB(A) ¹	Nearest Resident	Day (7am – 6pm)	47 to 52	Evening (6pm- 10pm)	43 to 48	Night (10pm – 7am)	N/A ²
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Furthermore it is considered that the hours of operation will have minimal impact on the amenity of adjoining land uses in particular, those land uses in Troy Street

In relation to traffic impacts, the **Traffic and Parking Assessment** provides:

"The 58 residential units will generate 22 veh/hr during both peak periods as assessed in the Concept Plan application, based on a trip rate of 0.36 trips/unit. This will involve 4 in and 18 out trips in the AM peak with these flows reversed in the PM peak. The child care centre will generate 28 veh/hr in the AM peak (14 in, 14 out) and 26 veh/hr in the PM peak (13 in, 13 out) as also assessed in the Concept Plan application.

Based on the above trips, the net increase in traffic generation over and above existing traffic levels in Troy Street is estimated to be as follows:

- 20 in, 28 out in the AM peak; and
- 25 in, 21 out in the PM peak"

The Assessment concludes that taking into account the child care centre and the residential use above the child care centre:

"The additional traffic equates to less than one additional movement through the intersection of Troy Street with Canterbury Road every minute. This can be readily accommodated and will create no impacts either in terms of the efficiency of this intersection; or the environmental amenity of Troy Street itself."

In relation to parking impacts, the **Traffic and Parking Assessment** provides:

"The set-down and pick-up activity associated with those parents who do not walk to the centre will relate to the 5 on-street spaces, with an average arrival rate of one vehicle every two minutes. With 75 children and assuming that 50% of children are driven, then the typical parent/carer demand of 1 space/8 children will reduce to 1 space/16 children. Hence, the 5 on-street spaces proposed would be adequate. Nevertheless, it is noted that there is extensive available on-street parking in Troy Street, so this could be relied upon if necessary. However, it is not recommended that more than 5 spaces be signposted for 10 minute parking at peak times as this would unduly impact on existing residents.

The 5 spaces proposed for set-down and pick-up are located parallel to the site frontage, with a realigned footpath. Hence, the available carriageway width is 14.5 metres and this is sufficient for a 'U'turn manoeuvre adjacent to the proposed road

		<i>closure. It is recommended however that 'No Stopping' restrictions be imposed within the dead-end section of roadway. This will be required in any event to allow general traffic to turn."</i>
	b) To ensure that a child care centre is located where it is safe for children and has minimal impact on traffic and amenity of nearby residents.	The proposed child care centre is not located on a main road or in a high traffic area. The design and layout of the child care centre has regard for the amenity of nearby residents as the significant outdoor play areas are screened from the residential properties to the north-west and west. Furthermore, the hours of operation will have minimal impact on traffic and amenity.
	c) To ensure that the clustering of child care centres and impacts associated with such clustering are avoided and to encourage and facilitate the provision of child care centres in the areas that are presently under supplied within the Local Government Area of Canterbury.	See Controls viii below
Controls	I. Preferred sites for child care centres are corner sites which have a longer street frontage for setting down and picking up of children. This also causes less interference for on street parking associated with adjoining residences.	The child care centre is proposed to be located on a corner site, on the corner of Troy Street and proposed New Troy Street. The northern side of Troy Street (in front of the child care centre) is proposed to be used as the drop off and pick up area, with five parallel car parking spaces allocated.
	II. The minimum site frontage width is 20m.	The site frontage along Troy Street is 40 metres. The built form fronting Troy Street relating to the child care centre is 20m
	III. n/a	
	IV. Child care centres should be located close to or adjacent to community focal points such as local town centres, community buildings, parkland, sports ground and schools.	The proposed centre is located approximately 500m from Canterbury Memorial hospital, Yatama Park and playground; 1km from Clemton Park Public School and 1.2km from Campsie town centre.
	V. Child care centres located on or adjoining industrial land may require additional environmental analysis and associated testing in order to determine any conflicting land uses.	A site investigation has been undertaken and a Contamination Report prepared – Refer to Contamination Report at Appendix 22. <i>"DECC have approved the RAP for the site prepared by URS which covers site investigations, remediation of the site, the methods to be used and the clean up criteria appropriate for a range of uses including commercial, industrial and residential. This covers the current and future uses of the site".</i>
	VI. A cul de-sac or dead end street is not an acceptable location for a child care centre due to poor traffic circulation, and limited on street parking opportunities.	The Traffic and Parking Assessment provides: <i>"The 5 spaces proposed for set-down and pick-up are located parallel to the site frontage, with a realigned footpath. Hence, the available carriageway width is 14.5 metres and this is sufficient for a 'U' turn manoeuvre adjacent to the proposed road closure. It is recommended however that 'No Stopping' restrictions be imposed within the dead-end section of roadway. This will be required in any event to allow general traffic to turn."</i>

	<p>VII. New Child Care centres are not to be located within a 400m walking distance from an existing child care centre.</p>	<p>The proposed location meets this requirement.</p>
	<p>VIII. In circumstances where a child care centre complies with the 400m walking distance requirement and the child care centre is located in close proximity to an existing centre, the following additional conditions apply:</p> <ul style="list-style-type: none"> • Applicants must be able to demonstrate that the concentration of such facilities will not have an adverse impact with respect to noise, loss of privacy, traffic generation and on street parking. • New child care centres are not to be located on land adjoining land on which a child care centre is located (see fig 1). • A demonstrated need for additional child care places, supported by demographic and statistical analysis, can be shown. • An analysis of existing child care centres and places available in the area is to be submitted with the application. 	<p>The Environmental Noise Assessment analysis concludes that <i>“noise associated with the operation of the proposed child care within the Clemtown Park development at the potentially worst affected residential properties would comply with recommended criteria with minimum acoustic treatments.”</i></p> <p>The location of the proposal in relation to the nearby residential premises provides adequate separation to ensure a reasonable acoustic environment. The design of the centre is such that the noisy activity is focused towards the front/street away from the adjoining residential uses. In addition Children’s play noise is proposed to be managed by limiting the hours of use for external play after 6pm.</p> <p>The proposed use of the subject space for a child care centre will not generate unreasonable additional traffic issues in this location. The development provides adequate car parking facilities on site as well as a designated pick up and drop off zone. Accordingly, the proposal is considered acceptable in regards to access and transport.</p> <p>A demographic analysis of schools, parks and existing child care centres within a 750m radius of the subject site is attached hereto. It shows only 1 childcare centre located within the immediate locality. This child care centre is more than 400m walking distance from the proposed new child care centre</p> <p>Children aged 4 years and younger include those from their infancy through to their pre-school years. In 2006, 7.3% of Canterbury Council's population was aged between 0 and 4 years. Of the 9,461 children aged 0 to 4 years in the Council, nearly 27.5% lived in the suburbs of:</p> <ul style="list-style-type: none"> • Campsie – Clemtown Park (1,454 persons) • Canterbury (351 persons) • Belmore (796 persons) <p>One-parent families have been the fastest growing family type in Australia. In 2006, Canterbury Council had 2,910 one-parent families with dependent children aged 15 years or younger, representing 8.6% of all families.</p> <p>Of the 2,910 one parent families (with children 15y and under), nearly 32.8% live in the suburbs of:</p> <ul style="list-style-type: none"> • Campsie –Clemtown Park (526 families)

		<ul style="list-style-type: none"> • Canterbury (117 families) • Belmore (311 families) <p>In Canterbury Council in 2006, there were 11,258 couple families with dependent children aged 15 years or younger. A total of 28% of couple families with children 15 years or younger reside in the catchment area.</p> <p>The above data demonstrates the high number of children (27.5%) aged 4 years and younger as well as 32.8% of one parent families residing in the catchment area of the new proposed child care centre. One-parent families rely on the availability of childcare facilities in close proximity to where they live. Moreover, the demographical data demonstrates the desperate need for childcare facilities in the area.</p> <p>In addition the community consultation responses to the question of whether a childcare centre is required identified a strong preference for incorporating a childcare centre in this location.</p>
	IX. Child Care Centres will not be permitted on major roads or within 30 metres of a major road.	The proposed child care centre is located over 200m from Canterbury Road (a major road).
2.2 Design	<p>Objectives</p> <ol style="list-style-type: none"> To ensure a child care centre is compatible with the scale and character of the surrounding area. To ensure that the appearance of the development is of a high visual quality and enhances the streetscape. To ensure signage does not detract from the visual amenity of the surrounding area. To design a Child Care Centre that serves the needs of both children, parents and staff. To ensure a child care centre maintains a high standard of amenity and safety for children and staff. 	<p>The proposed child care centre is one storey and is compatible with the scale and character of the surrounding area.</p> <p>The appearance of the child care centre is of a high visual quality and adds to the existing streetscape through the provision of a high level of landscaping. Varying heights and colours of plant and tree species are located within the garden beds as specified on the Landscape Plans</p> <p>Consent for signage for the child care centre will be sought under separate application</p> <p>A mix of soft fall areas, turf and Astroturf play surfaces is proposed. Refer to Landscape plan at Appendix 13.</p> <p>The child care centre has been designed to provide outdoor recreation areas, separated according to age groups which serves the developmental needs of the children. Play equipment is to be selected in consultation with the childcare provider.</p>
2.3 Traffic and Parking	<p>Objectives</p> <ol style="list-style-type: none"> To provide parking on site for staff. To provide adequate on street parking facilities for the dropping off/picking up of children that does not cause inconvenience to residents and congestion in nearby streets, or is detrimental to child safety. <p>Standards</p>	<p>Eight parking spaces are provided in the basement of the building for child care centre staff.</p> <p>Five on-street parallel parking spaces (for drop off and pick up) are proposed in Troy Street providing direct, level access to the child care centre.</p> <p>The Traffic Impact Assessment provides: <i>"The set-down and pick-up activity associated with those parents who do not walk to</i></p>

	<p>I. The minimum requirements for the provision, location and design of off street car parking and bicycle parking are contained in DCP 20 – Parking.</p> <p>II. Notwithstanding this, Council may reduce the number of spaces required for staff where the following conditions are met:</p> <ul style="list-style-type: none"> • The child care centre allocates a minimum of 25% of the places to 0-2 year olds. • The proposed variation is supported by a traffic and parking analysis prepared by a suitably qualified Traffic Consultant. <p>III. All parking and manoeuvring areas are to be suitably signposted, drained and line marked.</p> <p>A suitably signposted parking facility on the street immediately in front of the centre, and on the same side of the street as the centre for the dropping off and picking up of children be provided.</p>	<p><i>the centre will relate to the 5 on-street spaces, with an average arrival rate of one vehicle every two minutes. With 75 children and assuming that 50% of children are driven, then the typical parent/carer demand of 1 space/8 children will reduce to 1 space/16 children. Hence, the 5 on-street spaces proposed would be adequate. Nevertheless, it is noted that there is extensive available on-street parking in Troy Street, so this could be relied upon if necessary. However, it is not recommended that more than 5 spaces be signposted for 10 minute parking at peak times as this would unduly impact on existing residents”</i></p> <p>The 5 on-street car parking spaces proposed for drop-off and pick up on the northern side of Troy Street (immediately in front of the centre) will be line marked and signposted with 15minute time limits, Monday Friday 7:00am -7:00pm.</p> <p>No stopping signs will be erected as per the Civil Infrastructure Plans at Appendix 14 to ensure the efficient pick up and drop off of children and minimal impact on the amenity of the adjoining land uses.</p>
<p>2.4 Landscaping and Play Areas</p>	<p>Objective</p> <p>a) To provide external spaces which promote a variety of learning, play and other developmental experiences.</p> <p>Standards</p> <p>I. The CSR 2004 contains specific requirements for unencumbered indoor and outdoor play areas for each licensed child care centre. Compliance with these requirements must be demonstrated.</p> <p>II. Optimally, 10 sqm of useable outdoor play space should be provided per child. The minimum required under the CSR 2004 is 7sqm per child.</p> <p>III. The National Standards for Outside School Hours Care contains specific requirements for unencumbered indoor and out door play areas for each OOSH. Compliance with these requirements must be demonstrated.</p> <p>IV. Council’s Landscape DCP (DCP 45) contains specific requirements for child care centres. Compliance with these requirements is required.</p> <p>V. The outdoor play space must not be occupied by any motor vehicles during operating hours.</p> <p>VI. Direct access to toilets from both indoor and outdoor areas is to be available.</p>	<p>The internal child care space will be complemented by a total outdoor play area comprised of 643m². This includes the playground (529m²) and the deck (114m²). The play area is comprised of soft fall areas, turf and astroturf play surfaces.</p> <p>Activity zones such as bike tracks and play equipment zones are delineated on the Landscape Plans – Appendix 13</p> <p>50% of the outdoor play area will be shaded with lightweight sailcloth -Polyedge Shade Structures constructed as lightweight sailcloth.</p> <p>Design consideration was applied to the boundary fencing which is a minimum 1800mm high and is non-climbable.</p> <p>Varying heights and colours of plant and tree species are located within the garden beds as specified on the Landscape Plans. Plant species selection has been taken from Council’s DCP 45 -section “suitable plants for child care centres”</p> <p>The design incorporates several outdoor areas which provide opportunities for babies to be separated from older children. The location of the outdoor play spaces allow constant supervision at all times</p> <p>The child care centre has disability access to all areas.</p>

	<p>VII. Outdoor play areas should be of such a shape to allow constant supervision of and access to children.</p> <p>VIII. Outdoor play areas between the front alignment of the building and the street will not be permitted.</p> <p>IX. There should be opportunities for babies to be separated from older children with the outdoor area.</p> <p>X. The external spaces should utilise the site's natural features where appropriate.</p> <p>Attention should be given to the design and construction detailing to provide a variety of experiences.</p>	<p>Waste storage and handling facilities areas are provided -refer to Architectural Plans at Appendix 30 as well as the waste management plan prepared by DJ MacDonald at Appendix 35.</p>
<p>2.5 Visual and Acoustic Privacy</p>	<p>Objectives</p> <ol style="list-style-type: none"> a) To ensure children's play and sleep areas are not subjected to excessive traffic or other external noise. b) To maintain the visual and acoustic privacy of adjoining residences. <p>Standards</p> <ol style="list-style-type: none"> I. Centres should be designed so as to locate sleep rooms and play areas away from undesirable noise sources. The impacts of noise can be further reduced by barriers such as solid fencing and double glazing. II. Noise impacts on neighbouring properties can be minimised by: <ul style="list-style-type: none"> • Orientating the facility with regard to neighbouring property layout, including locating playgrounds and playroom windows and doorways away from neighbouring bedrooms. • Using double glazing where necessary. • Planting of hedges along fence lines to create a play ground buffer zone. • Fencing which minimises noise transmission and loss of privacy (e.g lapped and capped timber fencing, cement block, brick). <p>An acoustic report prepared by a suitably qualified acoustic consultant must be submitted with all development applications.</p>	<p>The proposed building is generally setback 7-17,5m from the north-western boundary whilst the child care center is setback approximately 29,5m from the nearest neighbour as a pedestrian pathway, Sunbeam Lane separates the site from the existing neighbouring dwellings. The generous setbacks mitigate the potential noise impact.</p> <p>Troy Street is proposed to be closed at its intersection with New Troy Street. This will maintain the amenity of residents in Troy Street and reduce conflicts at its intersection with New Alfred Street. It will also ensure that the children's play and sleep areas are not subjected to excessive traffic or other external noise. Traffic using Troy Street will primarily relate to existing residents in Troy Street, new residents in the residential flat building and patrons of the child care centre.</p> <p>The sleep rooms are located in the core of the building away from the street frontages. Similarly, the majority of play areas are located at the side of the building away from undesirable noise sources.</p> <p>An Environmental Noise Assessment has been prepared by Acoustic Logic Consultancy and is submitted as part of this application (Appendix 17).</p>
<p>2.6 Hours of Operation</p>	<p>Objectives</p> <ol style="list-style-type: none"> a) To ensure that a child care centre operate at times where they will have the least impact on the amenity of adjoining residences. 	<p>The proposed hours of operation for the child care centre are Monday – Friday 7:00am – 7:00pm</p>

	<p>Standards</p> <p>I. Where a child care centre is located in a residential zone, operating hours will be restricted to: - Monday – Friday 7.00am – 7.00pm (excluding public holidays)</p>	
<p>2.7 Accessibility</p>	<p>Objectives</p> <p>a) To ensure that child care centres can accommodate all children, parents and staff, including those with a physical disability.</p> <p>Standards</p> <p>I. The building must provide for access for people with a disability by a continuous path of travel from the street and or parking area into and within every room and outdoor area used by children and staff.</p> <p>II. Access should be designed in accordance with AS 1428.1 Design for access and Mobility and in all respects comply with Part D of the Building Code of Australia.</p>	<p>The child care centre provides access for all people with a disability by a continuous path of travel from the street and parking/drop-off/pick-up areas into the child care centre and within every room in the centre as well as all outdoor play areas.</p> <p>Access has been designed in accordance with AS 1428.1 Design for access and Mobility and in all respects complies with Part D of the Building Code of Australia.</p>

Table 2 contains an assessment of the proposed project against the requirements of **Development Control Plan No. 28 Flood Management and Flood Proofing**.

Table 2. Development Control Plan No. 28 Flood Management and Flood Proofing

	<p>The purpose of this part of the DCP is to set objectives and standards for development on flood liable land within the City. It applies to development on sites affected by the one in 100 years Flood Standard for Salt Pan Creek and the Cooks River, as well as sites within close proximity to this flood plain within the City of Canterbury.</p> <p>The objectives are to ensure that:</p> <ul style="list-style-type: none"> • Development in flood liable areas is designed and constructed to withstand the stresses of the highest probable flood; • Development will not increase the flood hazard or flood damage to other properties or adversely affect them in any way during times of flooding. 	<p>The stormwater modelling (discussed in section 3.2 of the Hyder report at Appendix 23) indicates that there is no increase in flows from the site discharging into the Cup and Saucer channel.</p> <p>With respect to storage volume balance to meet the requirement of the Sydney Water Feasibility Letter (26/09/2008) which states that <i>“reasonable care should be taken to ensure that local flooding storage is not unreasonably diminished”</i> Hyder proposed:</p> <p><i>“The New Harp Street is to be a fill formation within the current 100 year flood extent. The 100 year flooding storage volume (based on the Sydney Water 100 year ARI flood levels) is approximately 5400m³. Reshaping of the within site areas subject to this flooding provides a storage volume of approximately 6500 m³ (refer accompanying civil drawings) and is</i></p>
<p>Information required to be</p>	<p>1. For New Residential Development</p> <ul style="list-style-type: none"> • All applicants must submit a survey plan to Council showing 	

submitted to Council	<p>the relative levels to AHD, prepared by a registered practising surveyor.</p> <ul style="list-style-type: none"> • Flood levels of all habitable rooms should be 0.5 metres or more above the standard flood level. A certificate by a registered practising surveyor certifying the level of the completed building will be required. • Where Council considers a proposed development could be damaged by flooding, no work should be commenced until a certificate of structural adequacy with regard to stability as a result of flooding has been submitted by a qualified structural/civil engineer. 	<p><i>considered to comply with the Sydney Water flood storage requirement”.</i></p> <p>The key flood management requirements for redevelopment of the site as indicated by Hyder consulting at Appendix 23 include:</p> <ul style="list-style-type: none"> • <i>“habitable floor levels are to be a minimum of 0.5m above the Council’s ‘Standard Flood Level’ (typically 100 year ARI flood levels);</i> • <i>ensuring that the development does not increase the potential flood hazard or flood damage to other properties or adversely affect them in any way during times of flooding. This may require further investigation of the lot immediately adjacent to the stormwater channel as outlined in the Sydney Water Feasibility Letter;</i> • <i>development of a Flood Emergency and Evacuation Plan based on the final configuration of the proposed construction in the affected areas. A sample Plan is included as in Appendix F”.</i>
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Table 3 contains an assessment of the proposed Lot 1 and Lot 3 against the requirements of **Development Control Plan No. 9 Non Residential Buildings Adjoining Residential Zones**.

Table 3. Development Control Plan No. 9 Non Residential Buildings Adjoining Residential Zones

	<p>This Plan applies to all non-residential developments adjoining residential zones in the City of Canterbury. (This includes non-residential developments both within and adjoining residential zones.) The purpose of this Plan is to establish objectives and provide design requirements for non-residential buildings adjoining residential zones. The objectives of this Plan are:</p> <ul style="list-style-type: none"> • to minimise the impact of non-residential buildings on adjoining residential properties, and • to preserve the existing privacy, solar access, and general amenity of adjoining properties. 	<p>A Non Residential Building is proposed on Lot 1. The total floor space area is 30,367m²</p>
Design Requirements	<ol style="list-style-type: none"> 1. The non-residential component of buildings that adjoin residential zones should comply with the Building Height Plane. 2. The residential component of all buildings should comply with the setback requirements contained in Council’s DCP 13 – 	<p>The proposed Bulky Goods Centre on proposed Lot 1 complies with the Building Height Plane. The setbacks of the built form are as follows: 3.94m to Charlotte street 0.8m - 1.37m to Harp street</p>

	<p>Multiple Unit Development Code. Any area between the building and the property boundary should be landscaped to Council's satisfaction.</p> <p>3. Shadow diagrams must accompany all applications where this Plan applies. The shadow diagrams should indicate both mid-summer and mid-winter periods (ie. 22 December and 22 June) and indicate shadows at 9.30 a.m., 12 noon, and 3.30 p.m.</p> <p>4. Where the design requirements of this Plan do not adequately control the effect of over-shadowing, Council will determine the proposal on its merits and additional setback requirements may be required.</p>	<p>1.5m to new Alfred street 4.66m to new Troy street</p> <p>Shadow Diagrams have been prepared by Marchese + Partners for 21st March, 21st June, 21st September and 21st December at 9am, 12pm and 3pm.</p> <p>See Concept plan sections at Appendix 8 which demonstrate setbacks.</p>
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Table 4 contains an assessment of the proposed Residential Flat Building against the requirements of **Development Control Plan No. 13 Multiple Unit Development Code**.

Table 4. Development Control Plan No. 13 Multiple Unit Development Code

Section	Requirement	Compliance /Comment
1.1 Where does this code apply?	This code applies to all proposals for multiple unit development in residential zones where they are permissible. It also applies to townhouse and villa home development in multiple unit development zones.	<p>A Residential Flat Buildings is proposed on Lot 3 (above the child care centre) and includes construction of 58 units comprising:</p> <ul style="list-style-type: none"> • 11 one bedroom units; • 39 two bedroom units; and • 8 three bedroom units <p>Accordingly an assessment against DCP 13 has been undertaken.</p>
1.2 What is the purpose of the code?	<p>The purpose of this code is to set objectives and standards for multiple unit development and townhouse and villa home development within multiple unit development zones. These standards have been formulated so that:</p> <ul style="list-style-type: none"> • the amenity of residential areas is enhanced and protected; • the streetscape of a locality is preserved; • developments are of a high standard of design, which ensures privacy, sunlight penetration and air circulation are maximised with adequate provision for offstreet parking and private recreation space; • there exists a greater choice of accommodation for residents. 	<p>A SEPP 65 Design Statement has been prepared by Marchese + Partners which has consideration for the Objectives and Standards of the DCP 13 and addresses:</p> <ul style="list-style-type: none"> • Context; • Scale; • Built Form • Density; • Resource, Energy and Water Efficiency; • Landscape; • Amenity • Safety and Security • Social Dimensions and Housing Affordability; and Aesthetics.
3 Site	Minimum Frontage	The proposed multi unit development on Lot 3 has a site frontage over 25m

Requirements	<p>Objectives</p> <ol style="list-style-type: none"> I. To ensure sites are of sufficient size to accommodate dwellings and provide adequate access, open space and building orientation; II. To reduce the number of vehicle access points on major roads; and III. To avoid the physical and economic isolation of sites. <p>Standards</p> <ol style="list-style-type: none"> a) A minimum site frontage of 20 metres is required for multiple unit development in a local street; b) A minimum site frontage of 15 metres is required for townhouse and villa home development in a local street. c) A minimum site frontage of 27 metres is required for any development on a major road. 	<p>to New Troy Road.</p> <p>One vehicle access point from Troy Street is provided to basement level parking on Lot 3.</p>																
4 Density	<p>Objectives</p> <p>To provide density controls which:</p> <ol style="list-style-type: none"> I. ensure that the development has sufficient site area for space between the buildings (on-site and adjoining), landscaped open space and car access; II. provide a satisfactory balance of dwellings to site area; III. encourage building forms which will achieve the desired character of the residential environment; IV. enable Council to determine and plan the level of services required for an area; V. encourage the development of larger sites. 	<p>The setback, form and axis orientation is varied throughout the development, in order to avoid the creation of a wall of buildings effect. The landscaping and orientation of buildings, assists in reducing any density impact on the adjacent existing developments.</p>																
5 Open Space 5.1 Landscaped Open Space	<p>Objectives</p> <ol style="list-style-type: none"> I. To provide open space for recreation and use by the residents; II. To enhance the quality of the built environment by providing a satisfactory balance of open space to buildings; III. To integrate the landscaped area with the surroundings of the building; IV. To reduce the paved area on the site; V. To improve the visual amenity of the City 	<p>Canopy tree planting has been provided throughout the streetscape. The perimeter of ground floor apartments and terraces have been planted with shrubs for privacy. Deciduous trees have been incorporated into courtyards depending on solar orientation to improve solar access and microclimate.</p>																
5.2 Private Open Space	<p>Objectives</p> <ol style="list-style-type: none"> I. To provide outdoor living spaces as an extension of the dwelling; II. To ensure that recreation areas are of useable dimensions. <p>Standards</p> <ol style="list-style-type: none"> a) A minimum amount of private open space shall be provided for each dwelling in the form of a balcony, verandah or courtyard as per the following table: <table border="1" data-bbox="353 1378 983 1414"> <thead> <tr> <th>Dwelling Size</th> <th>Private Open Space Dwelling</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Dwelling Size	Private Open Space Dwelling			<p>The proposed private open space areas are as follows:</p> <table border="1" data-bbox="1256 1222 1834 1355"> <thead> <tr> <th></th> <th>Minimum Area</th> <th>Maximum Area</th> </tr> </thead> <tbody> <tr> <td>Small</td> <td>9m²</td> <td>25m²</td> </tr> <tr> <td>Medium</td> <td>9m²</td> <td>29m²</td> </tr> <tr> <td>Large</td> <td>9m²</td> <td>24m²</td> </tr> </tbody> </table> <p>Compliance with standards a) – d) is achieved.</p>		Minimum Area	Maximum Area	Small	9m ²	25m ²	Medium	9m ²	29m ²	Large	9m ²	24m ²
Dwelling Size	Private Open Space Dwelling																	
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	<table border="1"> <tr> <td>Small</td> <td>5 sqm</td> </tr> <tr> <td>Medium</td> <td>7 sqm</td> </tr> <tr> <td>Large</td> <td>9 sqm</td> </tr> </table> <p>b) The private open space is to have a minimum dimension of two metres;</p> <p>c) The private open space should, where possible, be directly accessible to the living areas of each dwelling;</p> <p>d) The private open space should be sited, where possible so as not to be overlooked from adjoining properties</p>	Small	5 sqm	Medium	7 sqm	Large	9 sqm	
Small	5 sqm							
Medium	7 sqm							
Large	9 sqm							
<p>6 Setbacks 6.1 Front Boundary Setbacks</p>	<p>Objectives</p> <ol style="list-style-type: none"> I. To retain and enhance the residential streetscape; II. To reduce the effect of traffic noise; III. To provide areas for open space/landscaping in front of buildings; IV. To minimise adverse impact on adjacent and adjoining properties; V. To permit flexibility in the siting of buildings. <p>Standards</p> <ol style="list-style-type: none"> a) The minimum front boundary setback for multiple unit development shall be: <ol style="list-style-type: none"> I. 7.5 metres for up to and including two storeys; and II. 8.5 metres for over two storeys. b) A walled/fenced courtyard may be permitted to occupy part of the area in front of a building by up to 50% (excluding driveways). 	<p>The following setbacks are proposed:</p> <p style="padding-left: 40px;">6.9m to Troy Street 3.5m to New Troy Street 8.1m to North Eastern property boundary</p> <p>to align with the existing streetscape building alignment</p>						
<p>6.2 Side and Rear Boundary Setbacks</p>	<p>Objectives</p> <ol style="list-style-type: none"> I. To provide reasonable privacy and reduce the effect of noise; II. To allow adequate solar access; III. To create spatial separation between buildings so as to break up the bulk and scale of buildings; IV. scale of buildings; V. To provide areas for open space; VI. To minimise overshadowing of adjoining properties; and VII. To permit flexibility in the siting of buildings. <p>Standards</p> <ol style="list-style-type: none"> a) All buildings shall be set back from side and rear boundaries in accordance with the following: <ol style="list-style-type: none"> I. Three metres for single storey (where the height of the wall is less than three metres); II. If the height of the building exceeds three metres, the setback shall be calculated by the following formula: 	<p>The setback from the rear boundary ranges from 7m- 17m from Level 1 to the roof (4 levels)</p> <p>To provide privacy for ground floor apartments fronting the park a streetscape appropriate screened wall height of 1.8m is proposed along these courtyard frontages.</p> <p>In addition to these measures the general recessing of the balcony spaces within the façade restricts site lines and further mitigates adverse effects of visual privacy.</p>						

	$S = \frac{3 \text{ metres} + H - 3 \text{ metres}}{4}$ <p>S = Setback from side or rear boundary H = Height of the building</p> <p>b) Council may consider an encroachment of 25% of the required side and rear setbacks to enable design flexibility, provided that:</p> <ol style="list-style-type: none"> I. The average required setback is maintained for the side of the building concerned; II. The encroachment is evenly distributed along the boundary; III. There is a minimum setback of 2.4 metres; IV. The encroachment does not have an adverse effect on the adjoining properties. <p>c) The projections permitted into setback areas include roof eaves, sun-hoods, gutters, downpipes, chimney flues, light fittings, electricity or gas meters, and aerials which may project 600 millimetres from the building;</p> <p>d) Balconies may encroach on the required setback distance provided:</p> <ol style="list-style-type: none"> I. In the case of side and rear boundary setbacks, a maximum distance of 1.5 metres or 25% of the required setback, whichever is the lesser; II. In the case of front boundary setbacks, 1 metre; III. The encroaching part of the balcony is generally of open type construction. 	
7 Height of Buildings	<p>Objectives</p> <ol style="list-style-type: none"> I. To ensure development has minimal impact on neighbouring properties in terms of building dominance, bulk, shadows, privacy and views. II. To provide development which is compatible to the surrounding residential character. <p>Standards</p> <p>a) The maximum height of a building at any point measured to the ceiling of the topmost floor above existing natural ground level shall not be greater than the following:</p> <ul style="list-style-type: none"> • single storey (built on the boundary) - 2.6 metres • two storey - 7.2 metres • three storey - 9 metres 	<p>The height of the proposed residential flat building is 13m and includes a child care centre on the southern part of the site, at ground level.</p> <p>The proposed height gives careful consideration to the relationship in scale to neighbouring sites. The height does not result in any significant overshadowing. The height optimises views and the amenity of residents in terms of solar access, natural ventilation and privacy.</p>
8 Landscaping and Site Design	<p>Objectives</p> <ol style="list-style-type: none"> I. To enhance the existing streetscape and landscape character; II. To enhance the setting of buildings to provide for privacy, shade 	<p>A detailed Landscape Plan and Landscape Report has been prepared by Habitation.</p>

	<p>and visual interest.</p> <p>Standards</p> <ul style="list-style-type: none"> a) Landscaping shall enhance the natural features of the site and adjoining areas. Existing landscape elements should, where possible, be preserved; b) Landscaping should relate to the streetscape and the landscaping of adjoining development. Where possible, landscaped areas should adjoin the landscaped areas of adjacent allotments; c) Particular attention in terms of landscaping treatment should be given to the front setback area; d) Developments involving ten or more dwellings are to provide a designated children's play area. The intention of such a play area is to cater for preschool and infant school children. Any play equipment that may be provided shall comply with the relevant Australian Standards; e) The application should be accompanied by a plan showing the broad intentions of the proposed landscaping of the site. The plan would be diagrammatic only and not necessarily indicate specific plant types but rather the height/bulk and position of planting envisaged. The intended use of the various areas within the site should be designated, eg screened children's play area, clothes drying area. The use of planting material to screen unpleasant views, provide privacy between dwellings, reduce the visual bulk of buildings, etc could also be illustrated; f) Council will require a detailed landscape plan prepared by a landscape architect or suitably qualified person, to be submitted for approval at the Construction Certificate stage. Building plans will not be released until the landscape plan has been approved by Council. Applicants should acquaint themselves with Council's Landscape Guidelines; 	<p>The Landscape Report provides: <i>"In general, various forms of landscape and screening have been implemented around the site boundaries where they form a visual impact to public roads and adjacent residential development. This provides effective screening of the scale of the proposed development and maintains the existing green skyline across the ridgeline of the site.</i></p> <p><i>Pathways and landscaping were designed to facilitate access within the site and to reinforce the safety of pedestrians and vehicular movements on site.</i></p> <p><i>Variety in the landscape has been provided through the use of deciduous and evergreen plants. Trees and shrubs have been selected to provide summer shade, to improve privacy and to screen undesirable views"</i></p> <p>Detailed Landscape Plans have been prepared for proposed Lot 1 and Lot 3 (Plan 08_062 L02 and Plan 08_062 L03). The Plans designate planting areas, active and passive areas for recreation, streetscape furniture, lighting and materials and finishes.</p> <p>An Indicative Plant Schedule is included on Plans 08_062 L05 and 08_062 L06.</p>
<p>9 Privacy</p>	<p>Objectives</p> <ul style="list-style-type: none"> I. To ensure privacy between dwellings; II. To avoid overlooking of living spaces in buildings and open space areas. <p>Standards</p> <ul style="list-style-type: none"> a) Visual privacy for adjoining properties and within developments can be achieved by: <ul style="list-style-type: none"> I. using windows which are narrow, translucent or obscured, or sill heights of 1.6 metres above floor level; II. ensuring that windows do not face directly onto the windows, balconies or courtyards of adjoining dwellings; 	<p>Private areas adjacent to the common areas are secured with fences and lockable gates.</p> <p>Glazing is provided to living spaces that open directly onto balconies.</p>

	<ul style="list-style-type: none"> III. screening opposing windows, balconies and courtyards. b) Where windows on balconies of dwellings are within 12 metres of windows or balconies of other dwellings, some form of screening or reduction in window areas shall be provided to ensure visual privacy. 	
<p>10 Building Design</p>	<p>Objectives</p> <ul style="list-style-type: none"> I. To ensure that design principles are taken into consideration at the initial design stage; II. To achieve developments which are of a high standard of design and construction from both an external and internal perspective. <p>Standards</p> <p>In assessing development applications, Council will be taking into consideration the following design principles:</p> <ul style="list-style-type: none"> a) Variety in the building form by stepping walls and roof lines of the development and avoiding long straight walls; b) The enclosure of carparking in a manner that screens the vehicles from the street, particularly where parking is provided at ground level under a building; c) Recessed garages along the facade of the building which adds variety to the appearance of the building rather than long lines of garages flush with the wall of the building; d) Designs which are in harmony in terms of form, mass, colour and structure with the existing and likely development in the street; e) Buildings which are orientated so that each dwelling obtains direct sunlight and avoids having all exterior walls and windows facing south; f) Buildings which contain dwellings with windows on opposite sides of a building rather than adjacent walls in order to allow flow through ventilation; g) Designs which take advantage of any open space or any public reserve; h) Provision of landscaping treatment to provide privacy for ground level dwellings; i) Living areas which are located in a northerly aspect. Bedrooms located away from walls adjoining lobbies and other common walls. Entrances to dwellings which are designed so as to restrict vision into opposite dwellings and into the dwellings themselves. j) Any structures which project outside the plan of the residential floors of a building should be integrated into the site design to ensure that they are visually acceptable and do not affect the amenity of adjoining properties. 	<p>Specifically the architect has provided design statements on the building design for Lot 3 (See Appendix 30)</p> <p>The proposed building is a simple composition of forms that break up the linear scale of the building whilst creating an impression of a building added to over time. In order to reduce the perception of scale the proposed building facades were carefully articulated so as not to dominate existing and new streetscapes by virtue of its bulk. In addition, landscaped plantings provide visual screening both to and from the site. The careful use of building materials, generous setbacks and landscaping will ensure an attractive non-dominating building within the street.</p> <p>Familiar palettes of materials, common to the area, such as face brick are proposed. Dividing the building into a number of linked elements with pitched roofs provides a transitional form from dwelling house to apartment building. Accordingly, building materials are reflective of place thereby ensuring that the proposal respects the character of the surrounding locality. The selection of materials and colour also reduces the visual bulk and improve articulation.</p>

11 Carparking and Vehicular Access

Objectives

- I. To provide sufficient off-street parking for residents and visitors' cars;
- II. To ensure parking is designed to allow for the adequate manoeuvring of vehicles so as to encourage its use.

Standards

- a) Off-street parking shall be provided as follows:
 - I. Small dwelling - 1 space
 - II. Medium dwelling - 1.2 spaces
 - III. Large dwelling - 2 spaces
(in case of a large dwelling, the spaces may be "stacked" ie in line, one behind the other);
- IV. One (1) space for visitors for each five (5) dwellings. Or, where a site is situated in a narrow road or cul-de-sac, one (1) space for visitors for each three (3) dwellings. A narrow road is less than eleven (11) metres in width;
- V. Council will accept two (2) stacked (ie in line, one behind the other) carspaces for each large and also medium dwellings;
- b) When the calculations for the number of carparking spaces results in a part or fraction of a carparking space, the actual number required shall be determined in the following manner:
 - I. Resident parking - to the nearest whole number;
 - II. Visitor parking - to the nearest whole number (minimum of one visitor space per development).
- c) The arrangement of parking spaces and driveways on site shall be such that any vehicle entering or leaving the site may do so in a forward direction;
- d) Visitor parking spaces must be clearly designated, signposted and readily accessible. They should be easily visible when entering the site;
- e) Visitor parking spaces located behind any security grilles or controlled access doors must make provision for an intercom to allow access;
- f) For geometric standards relating to carparking spaces, driveways, crossings, etc. see Council's "Guidelines to Off-Street Parking Requirements";
- g) Long straight driveways are to be avoided and the use of decorative paving, eg brick, is encouraged;
- h) In order to reduce the volume of rainwater run-off and increase the area of landscaping, the area paved for vehicular access should be minimised;

The proposal provides for, 93 spaces this is considered satisfactory as peak residential visitor demands will occur outside the times of the operation of the child care centre. Hence, residential visitors will have access to 5 dedicated visitor spaces during the day; and 13 spaces during the evening and on weekends, which exceeds the 'nominal' requirement for 12 visitor spaces.

A total of 6 disabled spaces are provided for residents associated with the adaptable units (not all of whom will require parking) as well as for occasional visitors.

Regular servicing of the residential component of the development will relate to Council's garbage services, which will occur on-street adjacent to Troy Street, using the temporary garbage storage area that is provided.

A car wash bay is provided within the basement. This will be bunded and drained to avoid discharge into Council's stormwater system.

	<p>i) A car washing bay of 7.6 metres x 3 metres shall be provided and suitably equipped with a tap, hose and adequate drainage for all developments having ten or more dwellings.</p>	
<p>12 Noise</p>	<p>Objectives</p> <p>a) To contain noise within dwellings or open space areas without unreasonable transmission to adjoining development;</p> <p>b) To design dwellings so that noise from outside sources when measured within habitable rooms and in open space areas, is kept to acceptable levels.</p> <p>Standards</p> <p>I. Private open space areas and vehicular driveways should be designed to minimise reflected noise;</p> <p>II. Operating plant or equipment should be located so that it does not disturb neighbours;</p> <p>III. The building is to be designed and constructed in accordance with the relevant provisions covering Noise Transmission;</p> <p>IV. Dwellings should be designed to create internal barriers between "quiet areas" and potential noise sources;</p> <p>V. In areas of high traffic noise (ie vehicular and train noise) Council may require a report prepared by a recognised acoustics consultant outlining the sound insulation measures incorporated into the proposal to minimise the noise impact.</p>	<p>In this respect it is noted that there is no specific noise emission objective for Child Care Centres set out in local council criteria. Generally the EPA guidelines, such as the Industrial Noise Policy and the Noise Control Manual can be used to determine noise emission objectives.</p> <p>The noise report prepared by Acoustic logic at Appendix 17 states "that the general guideline for assessing noise emissions at residential receivers in the Industrial Noise Policy is that noise emissions are not to exceed the background noise level by more than 5dB(A) Leq. The analysis showed that noise associated with the operation of the proposed child care within the Clemton Park development at the potentially worst affected residential properties would comply with recommended criteria with minimum acoustic treatments".</p> <p>The noise report also recommends management and acoustic treatment control strategies which will be required to control noise generation within the proposed child care centre to ensure compliance with the identified criteria and to ensure that amenity to surrounding properties are maintained. These are not limited, to the following:-</p> <ul style="list-style-type: none"> • Limit periods that children are allowed access to the external area. Time limits should be coordinated to ensure minimum impact on residence above, ie external area not in operation after 6pm. • Limitation of the number of children using the external area at any one time. • Continuous monitoring of children activities within the external play area. • Keep external façade closed and install upgraded single glazing with acoustic seals. • Install automatic door closers to external doors. <p>The report concludes that:</p> <p><i>"The potential impact of noise emissions has been assessed based on noise objectives determined using EPA and previously agreed noise criteria within the Land and Environment Court.</i></p> <p><i>Noise emissions from the proposed child care centre will comply with presented criteria provided acoustic treatments and</i></p>

		<p><i>management controls indicated in Section 5 of this report are adopted".</i></p>
<p>13 Drainage</p>	<p>Objectives To ensure satisfactory site drainage and protection for adjoining properties from run-off.</p> <p>Standards</p> <ol style="list-style-type: none"> a) Drainage of all roof and surface waters is to be carried out to all requirements of Council and where stormwater drainage systems are to be connected to Council's street gutters, Council may require that the work be carried out to a specification designed by Council's Director of City Works. The cost of such a stormwater connection is to be borne by the developer over and above any fees charged for a Construction Certificate application; b) The developer will be required to contribute towards the cost of construction and/or amplification of the existing drainage system in the locality. The amount of this contribution will be assessed by Council at a rate per square metre of the development site. Details are available upon enquiry from Council's Division of City Works; c) The developer will be required to provide on-site detention of stormwater for the total area of the site. The design of this facility will be in compliance with Council's requirements. Further information is available upon inquiring from Council's City Planning Division; d) The developer will be required to submit full details of stormwater system design for the site, carried out by a practising Civil Engineer, at the Construction Certificate stage. The building plans will not be released until the drainage plans have been approved. Details as to Council's requirements with respect to stormwater drainage can be obtained from Council's Customer Service Centre; e) The developer should give consideration to the effects of major overland stormwater flows on the proposed development and on adjacent existing developments; f) The developer should give consideration as to the methods to be used to control erosion and siltation during the construction stage of the development; g) The developer may also be required by Council to create any drainage easement. The full cost of providing such an easement shall be borne by the developer. 	<p>Existing drainage conditions, proposed design and relevant impacts associated with development are contained in the Civil Engineering Assessment prepared by Hyder Consulting at Appendix 23.</p> <p>Hyder has addressed the issues of stormwater management within the project application Lot 1. A proposed stormwater system (as shown on the accompanying civil drawings) including a pit and pipe network and detention storages, has been developed.</p>
<p>14 Road and Frontage</p>	<p>Objectives To ensure a satisfactory standard of road and footpath construction.</p>	<p>All internal roads have been designed by Hyder (See Appendix 14)</p>

<p>Works</p>	<p>Standards</p> <ul style="list-style-type: none"> a) All road and frontage works to be carried out by Council at the developer's cost. These works need to be applied for in advance. This is to enable sufficient lead time for the works to be organised; b) A heavy duty vehicular crossing will be required at each vehicular entrance exit to the development. c) Any redundant vehicular crossings adjacent to the development will be removed and the footpath and kerb and gutter made good; d) The developer should be aware that the boundary level may need to be fixed by Council. Boundary levels can be obtained, by the pre-payment of a fee, from Council's Division of City Works; e) The developer shall contribute towards the cost of constructing or repairing the road shoulder, kerb and gutter or footpath paving adjacent to the development site, where required by Council; f) The developer should be aware that the alteration or removal of any affected Public Utility Services in connection with the development (including frontage works) are the responsibility of the developer. Such alterations, where required, are to be arranged and paid for by the developer; g) The maximum slope of internal driveways shall be in accordance with AS 28901.1 1988 and to the satisfaction of Council's Director of City Works. 	
<p>15 Facilities</p>	<p>Objectives</p> <ul style="list-style-type: none"> I. To provide facilities for residents; II. To minimise the visual impact of facilities; III. To allow for the efficient operation of these facilities; IV. To provide adequate space for storage. <p>Clothes Drying – Standards</p> <ul style="list-style-type: none"> a) Adequate clothes drying facilities in the form of mechanical dryers and/or external clothes lines are to be provided for each dwelling; b) The drying and airing of clothes is not permitted from balconies and should not be visible from any public place. <p>Garbage/Waste Storage – Standards</p> <ul style="list-style-type: none"> a) Garbage receptacle holders of an approved design shall be constructed of brickwork with a lid constructed of either reinforced concrete or other approved material; such receptacle holder to provide for a minimum space of 660 millimetres in width x 760 millimetres in depth x 1450 millimetres in height, for each garbage receptacle; b) Landscape planting should screen receptacle holders where 	<p>A 2 star rated clothes dryer is to be provided to all dwellings.</p> <p>See BASIX Certificate number 216340M at Appendix 33</p>

	<p>practicable.</p> <p>c) Council may require in specific cases an alternative method of refuse storage and/or its disposal where considered desirable.</p> <p>Utility Services – Standards</p> <p>a) All public utility services with the development site shall be provided underground; and</p> <p>b) Where a sub-station is required to be located within the development site, it is to be suitably screened from public view.</p> <p>Letterboxes – Standards</p> <p>Letter boxes shall be provided in accordance with the requirements of Australia Post.</p> <p>TV Antennas – Standards</p> <p>A master antenna shall be provided for all developments.</p> <p>Domestic Storage – Standard</p> <p>Storage space of at least 5 m2 for each dwelling is to be provided attached to the parking area or in the basement. Consideration will be given to reducing this requirement if an alternative design can be provided that meets objective iv. of Clause 15.1.</p>	
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Table 5 contains an assessment of the proposal against the provisions of **Development Control Plan No. 45 Landscape**.

Table 5. Development Control Plan No. 45 Landscape

Section	Provision	Compliance/Comment
1.1 Purpose	The purpose of this Development Control Plan (DCP) is to provide a common set of landscape design, construction and management principles which ensure a high standard of landscape design and implementation for all development applications within the Canterbury local government area.	The Landscape Plan and Landscape Design Report prepared by Habitation address the provisions of DCP No. 45
1.3 Aims	<p>The aims of this Development Control Plan (DCP) are:</p> <ul style="list-style-type: none"> To incorporate the principles of Ecologically Sustainable Development (ESD). To encourage improved design and environmental management. To encourage design, construction and maintenance practices appropriate for each specific site. To ensure quality landscape works are produced for all developments. To maintain landscaping to a high standard for the life of the development. To incorporate the principles of biodiversity 	<p>Trees and shrubs have been selected to provide summer shade, to improve privacy and to screen undesirable views.</p> <p>Variety in the landscape has been provided through the use of deciduous and evergreen plants.</p>
3.1 Protection of the Environment	<p>Ecologically Sustainable Development (ESD)</p> <p>ESD aims to achieve development that will support the ecological and social needs of present and future generations.</p>	<p>The Landscape Design Report prepared by Habitation provides:</p> <ul style="list-style-type: none"> <i>“Maximize stormwater runoff collection.</i>

	<p>Council requires that all landscape designs promote best practice Environmentally Sustainable Design principles. Some of these measures include the following:</p> <ul style="list-style-type: none"> • Efficient solar access – a northerly aspect is the preferred aspect. • In order to conserve site soil – development should minimise earthworks (cut and fill). • Planting deciduous trees. These are best planted on northern and western aspects. This will allow the sun in during the winter and provide shelter from the sun in summer and eastern sun year round. • Low water / low maintenance plant selection – including indigenous plantings. • Promote ecological sustainability – choose plants that will not spread and become weeds in natural bushland by using local indigenous species. • Provision of native gardens and native species within planting schemes.(refer Appendix for appropriate species lists) • Use irrigation systems that utilise drip irrigation functions. • Use recycled and biodegradable products in landscape design. Such elements could include recycled soils and other hard paving features. • Allowing for composting, mulching and worm farms on site. • Using quality long lasting materials. • Using soils and mulches manufactured with recycled waste. • Reduced impervious surfaces – reduce hard paved areas of driveways, paved outdoor areas and patios etc. Increased water runoff changes flow rates in creeks and rivers an can result in a decline in water quality. 	<ul style="list-style-type: none"> • 75-100mm thick mulch used to conserve water • Drought tolerant planting • Minimize turf areas • Indigenous planting • deciduous tree have been planted where possible to shade building from summer sun and allow sun through winter months • irrigation system shall be drip and connected to rainwater tanks • Recycled materials shall be incorporated into the landscape as follows: <ul style="list-style-type: none"> - Soil additives(soils made from recycled materials and waste) - Mulch from chipping of fallen site trees - Re-used hardwood timbers -Concrete pavements - Sub-base preparation for pavers • Existing site topsoil re-used where possible • Minimal soil additives • Gypsum added to clay layer”
<p>3.2 Existing Site and Street Trees</p>	<p>Retaining Trees on Development Sites The principles used to determine whether trees should be retained are as follows:</p> <ul style="list-style-type: none"> • Tree location – is it reasonable to retain a tree in respect to the proposed development? • Is the tree sound in structure and stability – ie. structural defects, limb damage, rot etc? • Is the tree healthy? • Is the species invasive – exempt from the Tree Preservation Order (TPO)? • Is the tree significant for aesthetic, cultural or historical reasons and thus an asset to more than its immediate surrounding site? • Special consideration must be given if the tree is part of an Endangered Ecological Community as listed in the Threatened species Conservation Act. 	<p>The Landscape Design Report prepared by Habitation provides:</p> <p><i>“Refer to arborist report prepared by Tree Wise Men. Culturally significant street trees along Charlotte and Harp street have been retained where possible. All other trees are proposed to be removed as they are considered not significant, do not form part of a “green web” and are in positions that have negative impacts on good site planning practices.”</i></p>

3.3 Special Environment Considerations	<p>Special Environments Within Canterbury City a number of ecological communities have been identified. These include remnant indigenous vegetation and in many cases this vegetation is listed as endangered under the Threatened Species Conservation Act 1995. These include, but are not limited to:</p> <ul style="list-style-type: none"> • Sydney Turpentine Ironbark Forest (STIF) • Cumberland Plain Woodland • Cooks River/Castlereagh Ironbark Forest • Cooks River Clay Plain Scrub Forest 	<p>The Landscape Design Report prepared by Habitation provides:</p> <p><i>“The site contains no remnant indigenous vegetation or species listed under the Threatened Species Conservation Act 1995.”</i></p>
3.4 Community Safety Existing Site and Street Trees	<p>Community Safety All landscape design should promote the safety of the community through maximisation of natural surveillance and appropriate lighting.</p> <ul style="list-style-type: none"> • Vegetation should be used as barriers to deter unauthorised access • The locations of large trees/shrubs should be avoided in areas that could provide access to dwellings (near second storey windows or balconies) • Planting should maximise visibility and minimise concealment spaces in open space areas. <p>Council has a Development Control Plan (DCP No. 29 Crime Prevention Through Environmental Design which provides further detail on community safety.</p>	<p>The Landscape Design Report prepared by Habitation provides:</p> <ul style="list-style-type: none"> • <i>Where possible vegetation has been used as barriers between public and private space-in particular on ground floor units fronting the park and frontyards fronting the streetscape</i> • <i>Large trees and shrubs are not positioned near dwellings</i> • <i>Clear trunk Tree planting, low shrubs, groundcovers and turf have been utilized in the central open space to maximize visibility and minimize concealment spaces</i> • <i>In general, the design has considered DCP29 Crime Prevention Through Environmental Design.</i>
3.5 Maintenance	<p>Maintenance of Landscape Works All landscape works are to be maintained at all times to the Council’s satisfaction.</p> <ul style="list-style-type: none"> • Maintenance of all landscape works is to be undertaken to enable establishment of all plants. • A maintenance schedule of works is to be included in all landscape plans. 	<p>A Landscape Maintenance Program is detailed on 08_062 L01 and provides details regarding:</p> <ul style="list-style-type: none"> • General • Watering • Rubbish Removal • Replacements • Stakes and Ties • Pruning • Mulched Surfaces • Pest and Disease Control • Grass and Turf Areas • Weed Eradication and • Soil Subsidence <p>A summary maintenance schedule has been included with the DA submission. A detailed maintenance program shall form part of the operational requirements of the various stages of the project.</p>
3.6 Residential	Objectives	The Landscape Design Report prepared by Habitation provides:

Development

The following objectives apply to all forms of multiple dwelling residential development. This includes residential flat buildings, dual occupancies, townhouse and villa developments and housing for older persons, but does not include single dwellings. Landscape treatments should:

- Be an integral part of the design process.
- Integrate the development into the streetscape.
- Retain existing mature trees within development sites.
- Provide screening and filtering to ensure privacy and reduce overlooking.
- Provide vegetative links to habitat areas for wildlife movement.
- Enhance the residential living spaces.
- Promote resident safety
- Be designed for access and mobility

Design Controls

Planting

- Maximise the retention of existing trees / bushland / natural site features.
- Canopy tree planting to be provided, particularly within remaining deep soil areas.
- Tree and shrub planting to the perimeter of the development to provide privacy to adjoining developments. The perimeter of internal courtyards is also to be landscaped.
- In small private open spaces areas, such as courtyards, the use of deciduous trees is to be used to improve solar access and control of microclimate.
- New tree plantings should be within garden bed areas rather than turfed areas and specimen trees are to be of a minimum 75 litre pot size.

Edging

- Suitable brick or timber edges are to be provided to all garden bed areas to prevent lawn encroaching onto garden planting.
- Bush rock edging is not to be used. The use of natural bushrock in landscape construction results in habitat destruction from the areas where the rock was collected.

Site Stormwater Detention

- Detention basin areas are to be landscaped with suitable planting. Gravel mulch materials are to be used.
- The design and layout of the hydraulics system is to be coordinated with landscape elements, as this may affect planting layout.

Irrigation

- In multiple dwelling developments with communal open space, an

“Planting

- *Canopy tree planting has been provided throughout the proposed central park and through the streetscape*
- *The perimeter of ground floor apartments and terraces have been planted with shrubs for privacy*
- *Deciduous trees have been incorporated into courtyards depending on solar orientation to improve solar access and microclimate*
- *All tree specified are larger than 75Litre in pot size. Trees are planted within garden beds. Tree planting within turf areas is minimized*

Edging

- *Steel edging has been used to separate garden beds from turf area*

Site Stormwater Detention

- *Drainage swales are incorporated into garden beds and streetscape*
- *works*

Irrigation

- *A performance specification summary for irrigation has been included with the submission. This describes the use of an automatic drip system.*
- *Details of the irrigation system including backflow prevention devices, location of lines etc shall be detailed in the construction documentation stage*

Utility Areas

- *All garbage storage areas have been located in the basement and are detailed on the architectural documentation*

	<p>automatic watering system is to be installed. The system is to utilise water saving devices such as drip irrigation where possible.</p> <ul style="list-style-type: none"> • Details including backflow prevention device, location of irrigation lines and sprinklers, and control details are to be included on the landscape plan. The system is to be installed in accordance with the manufacturer’s specification. <p>Utility Areas</p> <ul style="list-style-type: none"> • Townhouse and villa developments on battle-axe allotments and all multi unit developments shall store garbage bins within a suitably constructed and screened garbage storage area or room. • The entrance to the bin storage area is to be located within 15m from the kerb and the path of travel is to be level. • The bin storage area is to have a minimum opening width of 1.4m. • The bin storage area should allow adequate room for manoeuvring of bins within the enclosure and avoid stacking arrangements. • Garbage bin storage areas are to be designed as part of the whole development. Materials should coordinate with those of the building. • Landscape planting is to be provided to screen the bin storage area. • Where garbage rooms on large developments are located further than 15m from the kerb, consultation with Council’s Waste Services is required. 	
<p>3.7 Mixed Use Development</p>	<p>Landscape treatments should:</p> <ul style="list-style-type: none"> • Ensure site landscaping complements the streetscape. • Enhance developments through adequate landscaping treatment. • Reduce the visual impact of vehicle parking, manoeuvring areas and large building masses. • Minimise overlooking and provide privacy. • Promote security. <p>Landscape Proposal</p> <p>New commercial and mixed use development should incorporate landscaping to improve the streetscape and provide privacy to occupants. This can be achieved by:</p> <ul style="list-style-type: none"> • Setting buildings back and creating public plaza areas. • Paving and tree planting in footpath areas. • Incorporating planter boxes on building levels above ground (eg. decks, balconies and podium levels). <p>Design Controls</p> <p>Planter Boxes</p> <p>Details of planter boxes are to be included on a landscape plan as follows;</p> <ul style="list-style-type: none"> • Minimum soil depth: 	<p>The Landscape Design Report prepared by Habitation provides:</p> <p>Planter Boxes</p> <ul style="list-style-type: none"> • <i>Planting depths over slabs on the current scheme are as follows: 400mm depth for turf and groundcovers</i> • <i>Planter Box walls will be masonry with a minimum wall thickness of 230mm.</i> • <i>All planting on slab will contain drainage. Refer to raised planter box detail on landscape drawing set and hydraulic consultants drawings</i> • <i>Waterproofing is shown on the relevant details as mentioned</i> <p>Privacy</p> <ul style="list-style-type: none"> • <i>Screening shrubs and trees have been strategically placed to provide privacy to adjoining properties where required and occupants of the proposed development</i> • <i>All screening shrubs on the boundary are a minimum 2m in height</i> <p>Show Room Visibility</p>

	<p>300 – 450mm for turf and groundcovers, 450 – 600mm for small shrubs 600 – 750mm for medium shrubs and 750 – 900mm for small trees</p> <ul style="list-style-type: none"> • Construction materials: planter box walls to be brick or masonry construction with a minimum width of 230mm. • Drainage: suitable drainage is to be provided for each planter box, details are to coordinate with hydraulics plan. • Waterproofing: Suitable waterproofing is to be provided to each planter box. <p>Privacy</p> <ul style="list-style-type: none"> • Strategic use of suitable screening shrubs, trees and planter boxes is to be included to provide privacy to both neighbouring properties and occupiers of the development. • Screening shrubs on boundaries are to be a minimum of 2 metres in height at maturity. <p>Show Room Visibility</p> <ul style="list-style-type: none"> • Consideration is to be given to plant selection in front of large windows and display areas. The mature size and maintenance requirements of the species are to be considered and appropriate selection made. • The use of large canopy trees and low planting to frame windows and display areas is encouraged to compliment this style of development. <p>Utility Areas</p> <ul style="list-style-type: none"> • Adequate waste storage and handling facilities to be provided with consideration given to their location and use. 	<ul style="list-style-type: none"> • <i>There are no show rooms in this development. Cafes that open out to plazas and the street are framed with low planting and clear trunk canopy trees</i> <p>Utility Areas</p> <ul style="list-style-type: none"> • <i>Refer architectural documentation. No waste services are located within the landscape at this stage</i>
<p>3.9 Child Care Centres</p>	<p>The following objectives apply to all Child Care Centre developments:</p> <ul style="list-style-type: none"> • To provide external spaces which promote a variety of learning, play and other developmental experiences. • To provide a safe, healthy and attractive environment. • To provide a visual quality to the development. • To screen activities to protect neighbour’s amenity. <p>Landscape Plan Requirements</p> <p>Applicant should ensure that the external areas are free from lead contamination. The plan is to include:</p> <ul style="list-style-type: none"> • Boundary security fencing to be non-climbable with a minimum height of 1.8m. • Covered verandah. • Disability access. 	<p>The Landscape Design Report prepared by Habitation provides:</p> <ul style="list-style-type: none"> • <i>boundary fencing is a minimum 1800mm high and is non-climbable</i> • <i>The child care centre has disability access</i> • <i>Outdoor recreation areas are separated according to age groups</i> • <i>Activity zones such as bike tracks and play equipment zones have been delineated</i> • <i>50% of the external areas is shaded by shade sails</i> • <i>Storage areas are provided. Refer to architectural documentation</i> • <i>Garden beds have been located on the landscape plans</i> • <i>Softfall surface materials have been indicated on the landscape plan</i>

	<ul style="list-style-type: none"> • Allocation of an outdoor area for babies, separated from older children. • Conceptual delineation of spaces into activity zones. • Sandpit and shade structure. • Access to sandpit for maintenance vehicles. • 50% of external ground area shaded. • Outdoor storage areas and shed size (where applicable). • Ease of access from outdoor areas to toilets. • Garden bed layout with planting details. • Surface materials, including softfall areas. • Water play areas and a tap. • Provision of waste storage and handling facilities. 	<ul style="list-style-type: none"> • Refer to architectural documentation for waste storage and handling facilities • Plant species selection has been taken from the DCP section "suitable plants for child care centres"
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Table 6 contains an assessment of the proposal against the provisions of **Development Control Plan No. 20 Carparking**.

Table 6: Development Control Plan No. 20 Carparking

Section	Provision	Compliance/Comment
1.3 Land to which this DCP applies	DCP No. 20 applies to all land within the Canterbury Local Government Area.	DCP No. 20 applies to the proposed development
1.5 Aims and Objectives	<p>The aims of this DCP are:</p> <ul style="list-style-type: none"> • To ensure that development provides adequate off-street parking, servicing areas and bicycle facilities for both occupants and visitors; and • To provide guidance on the parking requirements and related design criteria for the preparation of Development Applications (DA's). <p>The specific objectives of this DCP are:</p> <ul style="list-style-type: none"> • To ensure that an appropriate level of parking is provided on-site to support various land use activities and to minimise overflow of parking onto surrounding streets. • To ensure the provision of adequate visitor parking facilities for supporting business, retail, residential and mixed-use development. • To ensure the provision of adequate delivery and service areas, and the orderly and effective operation of loading and unloading activities within developments. • To ensure that the design of parking and service areas and their access are safe and compatible with contemporary standards. 	<p>Two Traffic Impact Assessments have been prepared by Traffix which separately address traffic and parking associated with the proposed developments on proposed Lot 1 and Lot 3.</p> <p>In relation to the proposed development on Lot 1, the Assessment concludes:</p> <p><i>"The proposed Project Application is consistent with the principles and level of intensity for Lot 1 as foreshadowed in the Preliminary Environmental Assessment report;</i></p> <ul style="list-style-type: none"> • <i>Traffic impacts have been assessed on the basis of the plans provided in appendix b and the land use components discussed in this report. The resulting traffic impacts can be accommodated by the new road system, which provides a superior level of accessibility and traffic distribution than occurs presently;</i> • <i>The cumulative impacts of traffic associated with Lot 1 as well as all other development within the Concept Plan area has been separately assessed in the Concept Plan application. This analysis has demonstrated that the traffic can be accommodated, subject to the improvements identified and the development of an internal</i>

- To encourage the use of bicycles as an alternative mode of transport for work and non-work related trips.
- To promote equal rights of people with disabilities to access buildings and places required to be accessible.
- To improve the built environment by incorporating appropriate landscaping requirements and built form controls in car parking design.

public road network. This has included conditions on weekdays, Saturdays and Sundays.

- *The overall parking provision for Lot 1 is generally in accordance with Council's DCP, with 701 spaces. This takes account of the fact that some uses will be patronised by residents and employees (who will walk), as well as the ability to share parking due to off-set times of peak demands;*
- *The access and internal design arrangements comply with the requirements of AS 2890.1 as well as Council's requirements;*

It is therefore concluded that the proposed development on Lot 1 is supportable on traffic planning grounds and will operate satisfactorily."

In relation to the proposed development on Lot 3, the Assessment concludes:

"The proposed Project Application is consistent with the principles and level of intensity for Lot 3 as foreshadowed in the Preliminary Environmental Assessment report;

- *Traffic impacts have been assessed on the basis of the plans provided in appendix b and the land use discussed in this report, which includes 58 units and a 75 place child care centre. The resulting traffic impacts can be readily accommodated within Troy Street in terms of both its capacity as well as its environmental amenity. Indeed, when consideration is given to the removal of the existing industrial uses with its attendant heavy truck activity, there is likely to be a net improvement in overall conditions;*
- *The cumulative impacts of traffic associated with Lot 3 as well as all other development within the Concept Plan area has been separately assessed in the Concept Plan application. This analysis has demonstrated that the traffic can be accommodated, subject to the improvements identified and the development of an internal public road network. This has included conditions on weekdays, Saturdays and Sundays.*
- *The child care centre will generate no traffic activity during the evenings or on weekends, so that impacts on Troy Street at these times will only relate to then 58 residential units, which will be minimal;*
- *The overall parking provision is in accordance with Council's DCP. Disabled parking is provided, together with bicycle storage and a car wash facility;*

		<ul style="list-style-type: none"> The access and internal design arrangements comply with the requirements of AS 2890.1 as well as Council's requirements; It is therefore concluded that the proposed development on Lot 3 is supportable on traffic planning grounds and will operate satisfactorily."
2.1.1 Plans	All car parking spaces, bicycle facilities, service areas and vehicle access must be clearly shown on the plans submitted with a DA.	All car parking spaces, bicycle facilities, services areas and vehicle access is shown on the Architectural Plans at Appendix 29 and 30 respectively as well as discussed within the Traffic Impact Assessments at Appendix 20
2.1.2 Statement of Environmental Effects	<p>Types, number and arrangement of parking facilities provided in the development, including:</p> <ul style="list-style-type: none"> Resident, staff, customer and visitor parking spaces Loading bays Car wash bays Bicycle facilities, such as rails, lockers, showers and etc. <p>Parking calculations.</p> <ul style="list-style-type: none"> Proposed access arrangements and their compliance with the design standards outlined in this DCP. These include information relating to the design and grade of vehicle access to a public road. Identification of any existing public transport services in the vicinity to the development. Identification of any potential conflicts between vehicles, pedestrians and cyclists. A succinct statement on the anticipated traffic generation, nature of impacts expected and proposed traffic management measures. 	<p>The Traffic Impact Assessments prepared by Traffix address the requirements of Section 2.1.1 of the DCP relating to:</p> <ul style="list-style-type: none"> Resident, staff, customer and visitor parking spaces; Loading bays; Car wash bays; Bicycle facilities; Access arrangements; Existing public transport services; Anticipated traffic generation; and Proposed traffic management measures.
2.1.3 Parking Assessment	For major traffic-generating proposals, Council may require a comprehensive Traffic Impact Study to accompany a DA, if it considers there would be significant impacts on the surrounding road, parking and / or public transport system. These assessments should be carried out by appropriately qualified transport consultants.	A parking assessment and traffic impact study is included in the Traffic Impact Assessment prepared by Traffix (See Appendix 20) .
2.1.4 Traffic Impact Study		

**Table 3a Guideline
Parking Rates**

Table 3(a) specifies a list of parking facilities to be provided with developments. The parking requirements are expressed in the form of a parking rate (Guideline Rate), which varies according to the type and scale of the development.

Table 4(i) specifies the types of service vehicles that need to be accommodated in various developments. The number of service bays required will be determined based on the merits of individual proposals.

VISITOR PARKING

Residential Development

Visitor parking for Town Houses, Villa Homes and Multiple Unit Development shall be provided at the following rates:

- 1 space per 5 dwellings

OR

- Where a site is situated in a narrow road (less than 11m in width) or cul-de-sac, 1 space per 3 dwellings

In any case, minimum 1 visitor space is required

Commercial and Retail Development

Visitor parking for Office Premises shall be provided at the following rate:

- Out of the total number of parking spaces required, 10% shall be allocated for visitor use.

(Note: Where the total number of parking spaces required is less than 10, at least 1 space shall be allocated for visitors.)

LAND USE

Residential Multi – Unit Development

Cars

- 1-bedroom or studio: 1 space per unit
- 2-bedroom: 1.2 space per unit (the 0.2 space to remain as common property)

VISITOR PARKING

Residential Development

It is proposed to locate 58 units in the residential flat building on Lot 3.

5 visitor car parking spaces are proposed at basement level. In this respect, the **Traffic Impact Assessment** combines the child care centre and residential flat building parking requirements and concludes:

“The development requires a total of 94 spaces as assessed above. In response, 93 spaces are provided and this is satisfactory as peak residential visitor demands will occur outside the times of the operation of the child care centre. Hence, residential visitors will have access to 5 dedicated visitor spaces during the day; and 13 spaces during the evening and on weekends, which exceeds the ‘nominal’ requirement for 12 visitor spaces.”

In addition, the creation of New Troy Street provides the opportunity for further on-street visitor parking with 10 on-street parking spaces on the western side of New troy Road and 7 spaces on the eastern side.

Commercial Development

5948m² or commercial use is proposed at Lot 1

Residential Multi- Unit Development and Child Care Centre

Cars - The development proposes:

- 11 one bedroom unit;
- 39 two bedroom units; and
- 8 three bedroom units.

- 3-bedroom or more: 2 spaces per unit

Bicycles

- Residents: Minimum 1 space per 5 units or part thereof
- Visitors: Minimum 1 space per 10 units or part thereof

Car Wash Bay

- Any development containing 10 dwellings or more shall provide a minimum of 1 car wash bay

Child Care Centre

Cars

- 1 space per 2 staff
- Minimum 2 spaces per Child Care Centre
- All parking must be provided behind the front building alignment

Bicycles

Staff: Minimum 1 space per 4 staff or part thereof

Commercial – Office Premises

Cars

- 1 space per 60m² for development in Zones 3(a), 3(e) and 4(d), or

Hence, the parking requirement is a total of 86 spaces as follows:

- 11 units @ 1.0/unit 11 spaces; plus
- 39 units @ 1.2/unit 47 spaces; plus
- 8 units @ 2.0/unit 16 spaces; plus
- 58 units @ 1/5 units 12 spaces

The child care centre will be staffed by 15 persons – accordingly 8 car parking spaces are provided.

Bicycles

With 58 units, the proposal requires 18 bicycle spaces (12 for residents and 6 for visitors). An additional 4 spaces are required for staff of the child care centre, resulting in a total requirement for 22 bicycle spaces.

16 spaces are proposed within the basement within a central storage area for use by staff and residents. The Traffic Impact Assessment provides: *“6 visitor spaces would be more appropriately located at ground level, which can be the subject of a condition.”*

Car Wash Bay

A car wash bay is provided within the basement. This will be bunded and drained to avoid discharge into Council’s stormwater system.

The following table summarises the car parking spaces allocated to the proposed development on proposed Lot 3 (residential flat building and child care centre):

Basement Parking Spaces	Car Parking Spaces Proposed
Residential Parking	74
Disabled Parking	6
Visitor Parking	5
SUBTOTAL (Residential)	85
Child Care Centre	8
TOTAL (Residential & Child Care)	93

Commercial –Office Development

It is proposed to locate commercial –office development on proposed Lot 1. The proposed development includes 2,974m² of commercial space on level 2 and 2,974m² of commercial spaces on level 3 of Lot 1. The combined floorspace is 5,948m². The gross lettable floor area (GLFA) is 5,884m².

- 1 space per 40m² for elsewhere

Service / Delivery

Minimum 1 courier parking space to be provided in a convenient and sign-posted location (provision of additional parking spaces for courier motorcycles is desirable) + Service requirements specified in other parts of this DCP

Bicycles

Staff: Minimum 1 space per 200m² or part thereof

Visitors: Minimum 1 space per 750m² over 1,000m² or part thereof

Bulky Goods

A parking assessment with survey of similar developments is required.

Retail

The relevant criteria to calculate the number of required car parking spaces is "1 space for 40m² of commercial floor space" in accordance with the DCP requirements.

The **Traffic Impact Assessment** provides:

"Council's DCP requires 1 space/40m² of floor area which is the same as the RTA's requirement. Adoption of this rate is considered appropriate to ensure that on-street parking does not occur, which would impact on the amenity of the locality, notably existing residents. With 5,948m² of commercial floor area, a need for 149 spaces results and 147 spaces are provided which is acceptable, particularly as commercial visitors will be able to share retail spaces if necessary."

147 car parking spaces are proposed for this use.

Bulky Goods

It is proposed to locate a total of **18,268m²** floor space for bulky goods as follows:

Upper Floor – 6,929m²

Level 1 - 11,339m²

The gross lettable floor area (GLFA) is 18,011m²

The **Traffic Impact Assessment** provides:

"Council's DCP does not provide a rate for this use but rather requires an assessment based approach. It is therefore instructive to review the RTA's Guidelines which has an average rate of 1.9 spaces/100m² GLFA, but with a significant range of 0.3 and 5.1 spaces/100m² GLFA. It is considered that reliance on the average rate of 1.9 spaces/100m² would be inappropriate for some tenants and adoption of a rate of 2.4 spaces/100m² will suppress car usage to a reasonable degree and is in line with surveys of similar developments. Accordingly, adoption of a rate of 2.4 spaces/100m² is recommended for this (car dependent) use, resulting in a need for 432 spaces."

432 car parking spaces are proposed for this use.

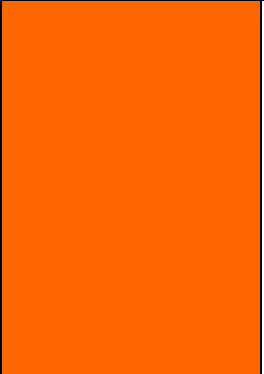
Retail

	<p>Cars</p> <ul style="list-style-type: none"> • 1 space per 40m² (< 120m²) • 1 space per 30m² (120m² – 1,000m²) • 1 space per 22m² (> 1,000m²) <p>Bicycles Staff: Minimum 1 space per 300m² or part thereof Patrons: Minimum 1 space per 500m² over 1,000m² or part thereof</p> <p>Bus Provide for adequate bus parking facility if the use of buses is expected</p> <p><u>Recreation Facility – gymnasium</u></p> <p>Cars A parking assessment with survey of similar facilities is required (see Section 2.1.3) As a guide, 7.5 spaces per 100m² are required</p> <p>Bicycles Staff: Minimum 1 space per 400m² or part thereof Visitors: Minimum 1 space per 200m² or part thereof</p>	<p>Lower Floor - 1,250m² The gross lettable floor area (GLFA) is 1,250m². 62 car parking spaces are proposed for this use (on Lot 1).</p> <p><u>Recreation Facility –gymnasium</u> Upper Floor - 1,253m² gym</p> <p>The Traffic Impact Assessment provides:</p> <p><i>“Council’s DCP recommends a rate of 7.5 spaces/100m² of floor area as a guide. With an area of 1,253m², this would result in a need for 94 spaces. This does not take account of the fact that the gym will serve the residents and employees in the locality to a significant extent, with these people walking to the gym. In these circumstance, adoption of a lower rate is recommended, particularly as the RTA’s Guidelines minimum rate is 4.5 spaces/100m². It is therefore proposed to provide 60 spaces, which equates to a rate of 4.8 spaces/100m². This approach is also in accordance with the objectives of the DCP as well as the Director General’s requirements.”</i></p> <p>60 car parking spaces are proposed for this use.</p> <p>The following table summarises the car parking spaces allocated to the proposed development on proposed Lot 1 (bulky good store, gym, speciality retail and commercial premises):</p> <p>Bulky Goods Centre (Proposed Lot 1)</p> <table border="1" data-bbox="1249 943 1910 1110"> <thead> <tr> <th></th> <th>Car Parking Spaces</th> </tr> </thead> <tbody> <tr> <td>Basement Level</td> <td>433</td> </tr> <tr> <td>Lower Floor</td> <td>268 (including 13 disabled spaces)</td> </tr> <tr> <td>Upper Floor</td> <td>Loading Dock</td> </tr> <tr> <td>TOTAL</td> <td>701 (including 13 disabled spaces)</td> </tr> </tbody> </table>		Car Parking Spaces	Basement Level	433	Lower Floor	268 (including 13 disabled spaces)	Upper Floor	Loading Dock	TOTAL	701 (including 13 disabled spaces)
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Upper Floor	Loading Dock											
TOTAL	701 (including 13 disabled spaces)											
<p>3.4 Departure from Guideline Rates</p>	<p>The Guideline Rates outline standards that would achieve the stated planning objectives in most circumstances. Council will only consider variations to the Guideline Rates in this DCP if the proposed changes are justified to produce a better planning outcome to the development site and relate to the objectives.</p>	<p>The overall parking provision accounts for the synergy between the uses and the ability to share parking where peak demands do not overlap. The level of provision is also intended to promote alternate travel modes and is responsive to the Director General’s requirements;</p>										

Table 7 contains an assessment of the proposal against the provisions of **Development Control Plan No. 48– Waste Management**.

Table 7: Development Control Plan No. 48– Waste Management

Section	Provision	Compliance /Comment
4 Mixed use development	<p>4.1 General Private/commercial contractors are permitted to service the commercial/industrial premises, where Council’s standard bin allocation is insufficient for the volume of waste generated. Each property title (including strata titles) is eligible for Council’s waste and recycling collection service either individually or on a shared basis (refer section 4.2)</p> <p>4.2 Waste Storage and Handling</p> <ul style="list-style-type: none"> Bin allocation: Single business + one residential unit = share - one x 240 litre rubbish bin and - one x 240 litre recycling bin <p>Each individual business unit (strata titled) one x 240 litre rubbish bin and one x 240 litre recycling bin</p> <p>For residential components (refer section 2).</p> <p>Note: Where more than one business occupies the premises as non strata titles then those businesses share only one standard Council service (refer section 3).</p> <p>Service frequency - weekly service rubbish and recycling – fortnightly for garden vegetation bins.</p> <p>Bin storage – all bins are to be stored on the premises. Rubbish and recycling bins are to be brought by the occupants for servicing to a presentation area on the premises, part of which area must be located within 15 metres of the street kerb (refer Appendix 4). Garden vegetation bins shall be presented on the nature strip by the occupants.</p>	<p>A Waste Management plan for Lot 1 and Lot 3 has been prepared by JD Macdonald at Appendix 35.</p> <p>Calculations have been made taking into account typical waste generation calculation information supplied in Canterbury City Council Development Control Plan No. 48. However, consideration also has been given to industry waste generation rates and previous experience due to the large size of the proposed development.</p> <p>Bulky Goods Centre & Gym The recycled waste will be stored via the use of 240L or 660ltr colour-coded receptacles as adopted by the “Australia and New Zealand Environment and Conservation Council” (ANZECC).</p> <p>Commercial Storage in-house of recyclable glass/plastic and paper/cardboard should be provided. It is expected that the majority of recyclable waste generated by these tenants will most likely be paper recyclable products such as cardboard boxes and paper products. Tenants will be required to transport all recyclable waste to the proposed recycling compactor unit and the other 240L co-mingled (plastic, glass etc) collection bins to an area located at the upper level loading dock where either council or a private contractor can provide collections. Due to the volumes generated by the development, general waste / recyclables will be collected more than likely by a private contractor, on nominated collection days, from the loading dock located on the Upper Level.</p> <p>Residential Every apartment level from Levels 1 to 4 will be provided with a waste cupboard space for storage of general waste until it is disposed of. The residents will transport daily waste volumes from storage cupboard via lift to the dedicated residential garbage room on Basement B1 Level.</p>



Wheel out - Wheel back service - Council's contractor will service Council's rubbish and recycling bins from the waste storage and recycling area/presentation area (whichever falls within the 15 metre limit) and return the bins to that place after servicing (refer Appendix 4). The contractor will return garden vegetation bins to a designated location on the premises after servicing. An area of a minimum of three square metres shall be provided for this purpose.

Child Care Facility

It is recommended that the Child Care tenant be responsible for their own in house storage of general waste. At the end of the day, staff from the "Child Care" tenancies will transport the waste to the retail/commercial garbage room located on Basement Level B1 and place it in the collection containers.

The waste management plan includes waste equipment recommendations which identifies the number of bins required. These requirements can easily be included as conditions of consent as sufficient areas are available on the architectural plans to meet the identified requirements.