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<b>Subject:</b>	<b>Exhibition of Environmental Assessment for Riverwood North Estate Renewal Project – Concept Plan</b>
<b>Property:</b>	<b>Lots 445, 446, 450, 559, 460, 464 and Part Lots 449 and 458 DP 243672 – Washington Avenue, Kentucky Road and Vermont Crescent, Riverwood</b>
<b>Reference Number:</b>	<b>MP10_0167</b>

I refer to your letter of 25 November 2010 regarding the exhibition of the Environmental Assessment for the Riverwood North Estate Renewal Project – Concept Plan for the abovementioned property. Please be advised that we have reviewed the plans of the proposal and the associated Environmental Assessment Report prepared on behalf of the proponent by Urbis which accompanied your letter. Please accept the following as our formal submission on the proposal for your consideration.

#### **GENERAL STATUTORY PLANNING CONSIDERATIONS**

We wish to make the following comments regarding the general statutory planning controls applying to the land:

**(a) Zoning/Permissibility**

The subject site is zoned Part Residential 2(c4) and Part Open Space Existing Recreation 6(a) under the Canterbury Planning Scheme Ordinance (CPSO). The proposal is defined under the CPSO as ‘multiple unit housing’ which is a permissible use of the land with development consent.

**(b) Integrated Development**

The subject site is also located in proximity of a natural watercourse. As a result, the proposal is likely to require separate approval from the NSW Office of Water for a ‘controlled activity’ under the relevant sections of the Water Management Act 2000. You are therefore advised to liaise directly with representatives of the NSW Office of Water regarding their General Terms of Approval.

(c) **State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Buildings**

The Environmental Assessment report states that the proposal will comply with the requirements of State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Buildings (SEPP65), although the report also recognises a non-compliance with the street setback and building separation controls of the SEPP. Appendix H of the report also notes in many instances that further details will need to be forwarded to confirm compliance with these controls.

Council is not convinced that the proposed reduced front setbacks to between 1 and 3 metres is appropriate for a suburban precinct and would not meet the objectives of the SEPP. The proposed front setbacks provide little opportunity for the provision of landscaping and areas of deep soil planting for enhanced privacy and streetscape quality.

As noted in our letter dated 4 November 2010 where we reviewed the draft Director-General's requirements for the project, we had some concern about overshadowing of private and communal open space areas and privacy relationships within the development. We remain concerned about these issues based on the level of information provided to date, particularly having regard to the reduced separation between buildings (in some instances) and the resulting relationship between windows and areas of private open space and likely amenity for future occupants of the development.

(d) **Canterbury Development Control Plan No. 13 – Multiple Unit Development Code**

As noted in the Environmental Assessment report, the proposed development will result in a number of non-compliances with the requirements of our Development Control Plan No. 13 – Multiple Unit Development Code, including density, landscaped open space, front setbacks and building height. The report concludes that many of these non-compliances are 'fully justified and considered appropriate'. While we would anticipate that having regard to the many positive attributes of the proposed development that strict compliance with the requirements of DCP 13 would be unreasonable, we remained concerned that the general level of amenity to be provided to future occupants of the development may be compromised particularly having regard to the extent of a number of these non-compliances.

(e) **Canterbury Development Control Plan No. 20 – Car Parking**

The Environmental Assessment report recognises that the proposed car parking provision will not meet the minimum requirements of Council's Development Control Plan No. 20. The rate of parking provided for the private component of the development is less than what is required by Council's DCP, however is

expected to satisfactorily cater for the development. With respect to the social housing component, while recognising that there will be reduced vehicle ownership for social housing, the proposed parking rate of one space per 10 dwellings is considered inadequate and should be reconsidered. A rate of one space per 5 dwellings is contained within State Environmental Planning Policy (Housing for Seniors and People with a Disability) and it is considered that this figure would be a more comparable figure to ensure that adequate parking is provided on site for this component of the development without excessive demand for on-street parking within the precinct.

**(f) Canterbury Section 94 Contributions Plan 2005**

The redevelopment of the site will require the payment of appropriate monetary contributions in accordance with the requirements of Council's Section 94 Contributions Plan 2005. It is acknowledged that negotiations are continuing with Council regarding the opportunity to relocate the existing Riverwood Library to a site immediately adjacent to this development site, which may also include the incorporation of other facilities for the benefit of the wider community.

Such an arrangement will require the proponent and Council to enter into a Voluntary Planning Agreement (VPA). It is acknowledged in the documentation supplied that a Section 94 Contribution in accordance with the requirements of Council's Section 94 Contributions Plan 2005 will be made or alternatively, an equivalent or greater figure under a VPA will be provided. This issue is on-going and will require further discussions between the relevant stakeholders.

**LAND SWAP WITH COUNCIL**

As part of the planning and design of this proposal, Housing NSW seeks to facilitate the integration of the development site with surrounding areas to improve connectivity of areas of Riverwood to the south of the site through to the Salt Pan Creek Reserve. In this regard, Housing NSW have approached Canterbury City Council to swap land that they own adjacent to Salt Pan Creek Reserve for land owned by Council located between Washington Avenue and Kentucky Road. Council has agreed in principle to the proposed land swap as set out in a letter to Housing NSW dated 13 December 2010. We have not yet received any further advice from Housing NSW on this matter. This issue is on-going and will require further discussions between the relevant stakeholders.

**DISABILITY ACCESS**

Our Disability Access Committee has reviewed the documentation provided and has recommended that a number of conditions be imposed as part of any development consent issued to improve disability access. These conditions are provided in the attached list of recommended conditions.

## **SAFETY AND SECURITY**

Our Community Safety Officer has assessed the documentation provided and made specific recommendations to improve access control, territorial reinforcement and natural surveillance of the development. These conditions are provided in the attached list of recommended conditions.

The scale of the development does however raise some concerns about the adequacy of lighting, sight lines and other security measures in and around the development and car parks. In this regard, further consideration needs to be given to specific environmental design measures to enhance the security and personal safety of residents and the adjacent community prior to the issue of any formal approval of the project.

Another specific concern will be the likely impact of the significant intensification of use on traffic, cyclist and pedestrian conditions in and around the estate. Detailed traffic management measures will be required particularly in relation to vehicle access to the site at Washington Avenue and Belmore Road North. This issue is discussed in greater detail in a later section of this submission.

## **SOCIAL IMPACT ASSESSMENT**

We wish to make the following comments in relation to the social impact assessment of the proposed redevelopment.

### **(a) Quality Housing**

The development appears to offer some advantages in offering wider housing choice and has potential to diversify the social mix of residents in the area. A key concern is the net loss of Social Housing in the community with the reduction in public housing stock from 176 to 150. No justification appears to have been given for the reduction in social housing stock and given the documented level of Housing Stress for residents of the Canterbury LGA and the large numbers of residents from Canterbury on social housing waiting lists, this represents a poor social outcome of the proposal.

The increase in affordable housing is a clear benefit of the proposal but this does not mitigate the loss of social housing amongst clients unlikely to be able to afford home purchase. It is important to remember that social housing clients and affordable housing consumers are likely to represent different socio-economic groups and as such their needs must be met via the provision of a range of housing options. The increase of affordable housing will not meet the needs of those social housing clients that are moved or displaced due to the overall loss of social housing in the area. While some clients may choose to relocate out of the Riverwood area, due to demand for social housing in the Canterbury LGA it is important to retain at least the same level of social housing stock.

Another related issue is the loss of three bedroom units in the locality. Our social profile highlights our unique position in accommodating a large number of families in two and three-bedroom units with five or greater number of household members. The loss of public housing with this capacity is a significant loss to the area and provides little housing choice to existing residents with large families or those on the social housing waiting list with larger families. A recent affordable housing study in the community highlighted an increased need for this type of accommodation as being a major issue for Canterbury's large families. As such, the loss of this housing stock is not supported.

We would argue that the social housing units should be contained across all of the blocks using the community provider to manage a more random allocation of units across all of the buildings, rather than providing all the units in one residential building. This would certainly provide a better social outcome and more closely align with the Department's goal of integrating social housing in the community and would mitigate potential divisions between social housing and private tenants.

The proposal will also substantially increase the residential density of the area. There is ample evidence that "high-rise living may be a catalyst for social exclusion...particularly public housing residents" (C Henderson-Wilson: Australian Housing Research Conference 2008). It argues that social connectedness can be strengthened through community development initiatives "such as community and roof-top gardens, cultural events and informal restaurant gatherings" and facilities which support these initiatives are expected to be enhanced through the development. The increased density will also put additional strain on a range of local community services. No provision is made in the documentation for offsetting this increase in demand for local services.

It is therefore appropriate that some consideration be given to sponsoring or resourcing a community development position or additional resourcing to local services to assist in the delivery of programs and projects for new and existing residents. These programs and projects would aim to integrate residents, build community spirit and link residents to services.

It should be noted that although Urbis SIA refers to the use of existing facilities locally to address this matter, there is some doubt as to whether these existing facilities can cope with increased demand from the expected additional 1500 residents brought in by the development.

Until the proposed Voluntary Planning Agreement (VPA) is presented it is not certain what new facilities will be provided nor is it possible to assess their adequacy to meet the demand. Further comment can only be made on this aspect once the details of the VPA have been received. Further, the addition of facilities

does not necessarily equate to an increase in the level of service provision for the area. An increase in service provision can only be facilitated by an increase in human resources for services. How an increase in staffing and program and project costs may be met is not canvassed in the SIA.

**(b) Economic Viability**

This is another area where some positive impacts are likely, particularly in the short-term construction phase. In the long-term, improving access to “social enterprise” activities should have a continuing benefit to residents, though the funding and resourcing of these activities is uncertain. The large increase in households and close proximity to the retail areas of Riverwood is likely to assist local retailers. From a regional perspective it also would improve the utilisation of the M5, public transport and other infrastructure and promote the objectives of urban consolidation. On a local level, the increase in traffic and congestion may be the cause of some concern for resident amenity as outlined below.

**(c) Sense of Place and Community Networks**

The development may result in the relocation of the library and seniors facility which serve a social purpose, but the details of this proposal and other facilities proposed to promote community networks cannot be reasonably assessed without the details of any Voluntary Planning Agreement. As stated above, this still does not address the required increase in the provision of staffing and other resources to activate the new facilities and meet increased demand for services.

The scale of the development will also create a significant landmark in the area. This may act to separate residents of the development from the adjoining community without ongoing resourcing and community development through organisations such as the Riverwood Community Centre. As noted previously, of particular concern is the separation of the social housing unit block in Stage One from the private units proposed in later stages. This aspect of the development is not supported on social principles as the separation isolates the “social housing” tenants from the rest of the development and acts contrary to the departments stated intention of promoting the integration of social housing with the private housing stock.

In order to integrate the development with the wider community and social landscape, wider public access to open areas is to be encouraged or contributions sought to provide for public open space and an adequate range of facilities under the Voluntary Planning Agreement. The documentation is unclear about access to common areas by residents of the wider general community. Given the likely imposition of the development, open public access to the recreation facilities provided in the development should be encouraged through appropriate signage,

the provision of clear pathways for access and promotion of facilities wherever possible in the design.

During the lengthy construction phase, it is also appropriate that consideration be given to establishing funds to support community development programs to promote community acceptance and social networks across the precinct. This will assist new residents to integrate into the area and will build community cohesion both internally on the development and with external community members and services.

**(d) Access to Facilities**

The addition of 474 households to the local community is likely to have a significant long term impact on the demand for local services and facilities. Depending on the demography of the occupants of the development, the demand for services and facilities could range from child care, aged support and personal care, libraries, youth activities, individual and family support and adult education. Many of these services are currently provided in the area by Council or through agencies operating in Council facilities such as Riverwood Community Centre.

It is expected that a monetary contribution under Section 94(2A) of the Environmental Planning and Assessment Act, 1979, as per the schedule in Council's Contributions Plan or a suitable Voluntary Planning Agreement will be undertaken to address these concerns. There will be significant increases in demand for services as well as facilities and as such solely providing an increase in hard infrastructure will not provide adequate levels of service to the increased number of residents.

As indicated in the Urbis SIA, the growth in population is likely to have a positive impact on primary school enrolments addressing excess capacity concerns locally. This is supported by the fact that one of the key markets for the private housing will be young families with children and young couples who may have children in the near future.

Given this projection, it also stands to reason that demands for services such as child care are likely to exceed current levels of provision. Although there are 233 child care places offered in the centres identified in the Urbis Social Impact Assessment (SIA), only four centres have minor vacancies and one centre has a waiting list of 54 children. The increase in the number of young families projected in the Urbis SIA will place significant pressure on existing facilities and the VPA should also consider the dedication of facilities and/or land to enable the development of one additional local child care centre into the future.

Existing library facilities are dated and inadequate for the existing demand, let alone the increased demand that will be experienced as the development grows. The library currently falls well below current standards. A contribution is therefore expected under Section 94(2A) of the Environmental Planning and Assessment Act, 1979, as per the schedule in Council's Contributions Plan or a suitable Voluntary Planning Agreement to address these concerns.

The site is expected to take in the current Senior Citizen's facility. The Urbis SIA foreshadows a replacement senior citizen's centre under the VPA and initial requests for space allocation may need to be upgraded in light of the assessed numbers of seniors anticipated for the site. Currently the existing senior citizens centre is fully booked on all mornings and most afternoons. Adding a significant number of additional seniors is likely to add to the pressure for multi-purpose use of the centre and space and design factors to promote shared use may need to take this into consideration. The ability for the space to be used as a multipurpose facility to accommodate some of the newer groups, for example, playgroups, will be essential.

**(e) Sustainable Environment**

The environmental assessment report indicates minimal overshadowing as a result of the proposed construction and an enhancement of the area through prominent, well-designed buildings. However, the matter of the privacy and visual imposition on adjoining properties is a matter that is likely to be of concern to residents.

Another significant issue related to the function of the project is the adequacy of proposed parking standards to be applied to the development and the differential standards that would be applied to social housing as distinct from the private housing. This results in a low level of parking provision which will require visitors to use the on-street road network.

**SIA Conclusion**

The Urbis SIA outlines a range of consultations that have been commenced as part of the development application process. However, public consultations on the proposal with the local community to date have been focussed by resident concerns about the impact of the construction phase on the relocation of existing occupiers, rather than the impact of the overall proposal on the community, both locally and in the wider Canterbury region.

These consultations do not appear to have gained significant input on the likely broad community impacts of the scale and function of the development and this assessment raises significant potential concerns that need to be addressed as conditions of consent or in the Voluntary Planning Agreement.



These impacts will be also need to be closely monitored during future phases of the development to identify suitable ameliorating measures that may assist reduce any overall negative impacts of the proposal and if these cannot be adequately identified at this stage funds should be sought under the Voluntary Planning Agreement to support community development activities including the provision of additional community access spaces and specific services such as child care, youth and aged recreation activities.

## **STORMWATER DRAINAGE**

The plans and associated documentation has been reviewed by our City Works Division who have indicated that insufficient information has been provided to undertake a full assessment of the proposal, with particular regard to the following matters:

### **(a) External On-site Detention**

The submitted stormwater report and plans indicate that there is an existing above ground detention basin on the northern side of the site adjacent to the constructed wetlands. This is incorrectly identified as most of the alleged storage area is in fact a major constructed overland flow path in the form of a constructed swale and creek which drain to Salt Pan Creek via the M5 corridor.

The proposed major aboveground on-site detention in the proposed open space, picnic area and playground, at the northern side of the site between Phase 02 Stage 02 and 03 and Phase 02 Stage 04 is not permissible. It is located in an overland flow path which cannot be constrained. In addition, the proposed levels of the detention indicate that the designed has not identified that the major constructed overland flow path swale on the northern side of the northern boundary will not provide containment for the proposed detention.

### **(b) Street/Trunk Drainage**

The submitted catchment definition appears to relate only to the scope of the works proposed. Additional areas to the south of the redevelopment zone drain through the site via both pipes and overland flow from public and private land along Arizona Place, Kentucky Road, Roosevelt Avenue and Virginia Place.

In the absence of full hydraulic details and modelling, it appears that the proposed site drainage system has reduced capacity compared to the existing street drainage system and will not be capable of serving the full catchment draining via the proposed development zone. It is not possible to determine whether the proposed system is designed to accommodate additional flow from beyond the southern boundary of the development site.

If the intention of the development is to hand over ownership of the street/trunk drainage system to Council on completion, the system shall be designed to satisfy the requirements of Council. Council requires that the street drainage system be

designed to cater for the 1 in 10 year design storm where there is a safe overland flow path within the road reserve or other public land, 1 in 20 year design storm where the overland flow path travels over private land, and 1 in 100 year design storm where the overland flow path causes potential hazards to private property or areas highly sensitive to inundation.

Detailed construction plans and calculations for the proposed street/trunk drainage are to be submitted for approval to Council's Director of City Works prior to the commencement of any construction works on the site. The plans are to include a long section drawing with a Hydraulic Gradeline Analysis for all pipe reaches.

A final Works-As-Executed plan, certification and details of any inspections undertaken during the course of the works are to be submitted to Council's Director of City Works for approval prior to a final inspection by Council and handover of the assets.

**(c) Overland Flow Paths**

Overland flow paths have not been adequately identified and documented on the submitted plans. The submitted stormwater report and plans fail to identify a major overland flow path from the proposed garden square and shared zone, through the centre of the group of buildings identified as Phase 02 Stage 02 and 03 towards the existing swale along the northern site boundary.

The submitted stormwater report and plans fail to identify the existing constructed major overland flow path and constructed swale on the northern boundary of the site between the site and the constructed wetlands.

Generally we have concerns regarding the overland flow from each lot and the road reserve, and the capacity and functionality of the street stormwater system and the receiving swale located along the northern site boundary.

**(d) Gross Pollutant Trap**

We generally endorse the provision of a Gross Pollutant Trap (GPT) upstream of the development discharge point at the proposed connection to the existing 900mm Council stormwater pipe located under the swale along the northern site boundary. However, the proposed location within the proposed public open space is not acceptable. The proposed GPT is to be relocated to a space adjacent to Vermont Crescent to ensure that appropriate vehicular and pedestrian access is maintained for cleaning and maintenance purposes. As the ongoing care and maintenance of the GPT would be the responsibility of Council following completion of the works, detailed design drawings and documentation are to be submitted to Council's Director of City Works prior to the commencement of any works.

**(e) Water Sensitive Urban Design**

The proposed bio-retention swales proposed within the road reserve are not supported. The concept included in the submitted plans fails to address the requirement of designing to minimise maintenance needs for the system. While the use of WSUD elements within the development is encouraged, careful consideration is to be given to the type, location, design and maintenance of these elements. The proposed bio-retention swales do not consider issues including removal of gross pollutants from the swales, diversion of flows greater than the design treatment flow, and maintenance requirements of swales within public land.

We are of the opinion that labour intensive water sensitive urban design elements should be relocated to within each residential development lot. Detailed design drawings, documentation and calculations for each water sensitive urban design element to be located on public land are to be submitted to Council's Director of City Works prior to the commencement of any works on the site.

**(f) Rainwater Tanks**

It is noted that the stormwater report alludes to the use of rainwater tanks within the development to capture roof water for reuse in toilet flushing and irrigation. Rainwater tanks are to be sized and configured in accordance with the requirements of any BASIX certificate obtained for this development.

Should any of the captured roof water be intended for use in irrigating public open spaces, additional treatments including disinfection will be required. Detailed plans of any proposed treatment and reuse scheme for use in public open spaces will require approval from Council's Director of City Works prior to the commencement of any works.

**(g) Internal Site Stormwater and On-site Detention**

All development lots within the site will require on-site stormwater detention (OSD). The OSD is to comply with the requirements of Council's Stormwater Management Manual ~ Specification 9 (SWMM~S9). Where a lot drains to an existing or proposed public road, storage is to be provided for the 1 in 10 year design storm. Where the drainage or overflow from a lot enters another lot, storage is to be provided for the 1 in 100 year design storm. Permissible site discharge for all lots is 150litres per second per hectare. While the SWMM~S9 allows for up to 25% of a site to bypass the detention, the bypass is to be accounted for in the discharge rate and storage volume of the detention system.

The submitted plans include a suggested site storage volume, depth and invert levels. These levels and storages indicate that conformity to existing site levels will not be achievable and that significant portions of each lot will bypass the

OSD. The proposed storages indicated on the plans will be located well below the existing receiving system, leading to incompatibility with the existing Council stormwater system adjacent to the Riverwood Wetland.

Detailed site specific stormwater plans and on-site detention calculations for each development lot are to be submitted to Council's Director of City Works prior to the commencement of any works on the site. The plans are to include the location, details, dimensions and levels of all pits, grates, pipes, tanks, basins, drains, orifice plates and control pits.

**(h) Roads and Road Related Infrastructure**

The recommendations of the submitted geotechnical report by Jeffery & Katauskas Pty Ltd are to be adopted in the design and construction of all roads and road related infrastructure. The construction of any new roads and road related areas proposed as part of this development is required. The design and construction of the new roads required as part of the development is to be undertaken at the applicant's cost.

The reconstruction of all existing roads onto which this proposal has frontage is required. All costs associated with the design and reconstruction of the existing roads is to be borne by the applicant. The reconstruction of all existing kerb & gutter within existing road reserves onto which this proposal has frontage is required. The reconstruction of all existing footpath within existing road reserves onto which this proposal has frontage is required.

**TRAFFIC CONSIDERATIONS**

The Traffic Study provided by Varga Traffic Planning Ltd has been reviewed for the re-development of the Riverwood Housing site and we can offer the following comments.

**(a) Traffic Generation**

The traffic statement indicates that the net increase in traffic generation is 114 vehicles per peak hour from the proposed development and therefore, would be more than twice of the existing traffic generation. The Consultant has analysed that the Level of Service for the intersections of Belmore Road/Hannans Road, Belmore Road/Washington Avenue and Belmore Road/Roosevelt Avenue will not be affected by the proposed development.

The analysis for the proposed and existing traffic for the intersection of Belmore Road/Washington Ave does not include the right-turning vehicles from Washington Avenue onto Belmore Road. The report suggests that access is difficult at this intersection and this particular movement (right-turn) is taking place at the intersection of Belmore Road/Roosevelt Avenue.

It should also be noted that our own data confirms that there is some accident history at these particular intersections. Our own investigation and observations in this locality during the morning and afternoon peak hour periods indicate the following:

- There are extensive delays for vehicles turning right from Washington Avenue onto Belmore Road.
- Southbound vehicles on Belmore Road turning right into Washington Avenue block the through traffic movements.
- Some drivers carry out dangerous traffic movements to egress from Washington Avenue to Belmore Road, with similar circumstances also applying at the intersection of Roosevelt Avenue and Belmore Road

The traffic assessment identifies these concerns and suggests that consideration be given to banning right-turn movements from Washington Avenue at Belmore Road and encourages drivers to use the intersection of Roosevelt Avenue/Belmore Road. We would in principle endorse this arrangement provided that traffic signals are installed at the intersection of Belmore Road and Roosevelt Avenue to provide a safer access to the precinct.

In light of the existing accident history in this location, our own experience with the traffic in this locality and that the proposed development will more than double the existing traffic generation in this precinct, we are of the view that further consideration needs to be given to further intersection treatments in this locality.

**(c) Pedestrians/Bus Stops**

No details have been provided in relation to pedestrian access from the proposed development to the street. It should be located so that it coincides with the existing pedestrian facility and bus stops. If new pedestrian linkages are proposed away from the existing pedestrian facilities, they must be installed in accordance with Roads and Traffic Authority Guidelines and the cost must be met by the applicant.

**(d) Proposed New Streets**

No details have been provided regarding any proposed carriageway and footpath widths. All new proposed streets shall be provided in accordance with the relevant Roads and Traffic Authority and AMCORD Guidelines.

**(e) Proposed 10 km/h Shared Zone for Kentucky Road**

Council does not have the authority to approve a 10 km/h Shared Zone. In this regard, you will be required to obtain separate approval/advice from the Roads and Traffic Authority.

## **LANDSCAPING**

Our Landscape Architect has reviewed the documentation provided and has recommended that a number of conditions be imposed as part of any development consent issued to improve disability access. These conditions are provided in the attached list of recommended conditions. The following specific comments are also made:

**(a) ESD Principles:**

We generally support the principles detailed in the document written by Windtech Consultants. The details provided are very broad and we would anticipate that such matters will be further addressed at individual project/development applications for individual future stages.

**(b) BASIX Commitments**

It is expected that each development will have to complete BASIX assessment and submit such documentation at individual project/development applications stages. This assessment should provide detail on whether there will be water commitments relating to the planting of indigenous or low water species throughout the developments. This information should also be reflected in the detailed Landscape Plan(s) which will be provided for the individual project/development applications for individual future stages.

**(c) Landscape Concept Plan**

The landscape concept plan forwarded with the documentation is generally acceptable. A detailed landscape plan is to be provided for the individual project/development applications drawn in accordance to the requirements of DCP 45 – Landscape. Such plans should also take into consideration the relevant comments as detailed elsewhere in this submission.

**(d) Tree Management Plan – Property Trees**

Concerns are raised that the aims to protect and retain the significant trees on this property may not be achieved. Of particular concern is the trees numbered in the range of 52-62 on the submitted Existing Tree Assessment plan – drawing EV1. This plan shows the retention of these significant trees, however other information provided shows the placement of a significant stormwater infrastructure within this area which would have a significant impact on the existing significant mature trees. Issues such as this must be clarified and in this regard, further details should be provided showing the tree protection fencing for each tree to be retained and protected during construction.

**(e) Street Trees**

All street trees are to be retained and protected except where detailed in specific landscape conditions provided in the attached documentation.

The submitted Landscape Masterplan, drawing number LA4 (drawn by Turf Landscape Architects and Urban Design) shows the replanting of street trees along Vermont Crescent. No further detail is provided for these new plantings. Further details of these plantings are to be provided at the individual project/development applications for individual future stages.

A suggested street tree planting species is *Tristania laurina* (common name Water Gum). This tree is currently being used as native street tree planting within the Canterbury LGA. In this regard, all new street tree plantings are to consider the existing street tree planting patterns for Canterbury LGA and the immediate surroundings of the proposed development. Consideration should also be given to the creation of successful 'avenues' of plantings and as such new street tree plantings should be considered in areas outside the noted scope of works. An example of this is the proposed street tree plantings shown on the Landscape Masterplan - LA4 for Washington Avenue. The proposed street tree plantings are only shown on the northern side of the Avenue and not on the southern side of the street. Consideration should be given to creating an avenue of plantings which are planted at the same time in a considered and designed manner.

**(f) Playground Accessibility**

The proposed playground in Central Park should be created as an inclusive playground fit for use by children of all abilities. The playground must focus on integrated play activities for all children rather than segregated play zones for disabled and able bodied children. Non-prescribed play activities should also be considered such as the use of nature, sensory and theatrical play opportunities. Further detail of this playground and its accessibility is to be provided at the individual project/development applications for individual future stages.

**(g) Park and Street Lighting**

No detail has been provided on the levels and types of lighting to be provided within the proposed development. Access paths are to be well lit. Other areas which people are not to be encouraged to be at in the evenings are to be lit at a different level. Further detail of the proposed lighting for the development should be provided at the individual project/development applications for individual future stages.

**(h) Garden Square – Shared zone**

The detail and resolution of the proposed 'informal road alignment' of this area, as noted on the Landscape Masterplan – LA4, is to be clarified. The clear delineation of pedestrian and pedestrian/vehicle zones is important for the safety of users. The use of varying surface materials and treatments is to be considered. Further detail for this area should be provided at the individual project / DAs for individual future stages.

**(i) Accessibility of all access paths**

Accessibility is to be considered for all proposed main thoroughfares and site connections.

**(j) Library Plaza**

There is some ambiguity in the scope of the projects works. The area around the existing Senior Citizens centre has been identified as having some landscape works and has been labeled as a Library on the submitted Landscape Masterplan – drawing LA4 and LA5. This area has not been marked as being within the scope of works on the Concept Plan – CP105. This ambiguity is to be clarified and further detail of the landscaping of Library Plaza and the surrounding area should be provided at the individual project/development applications for individual future stages.

**(k) OSD and through site connections**

The area identified as ‘Through Site Connections’ on the submitted Landscape Masterplan – drawing LA4, has previously been identified as a stormwater detention basin. This area has been marked to include seating and picnicking facilities. These facilities can not be provided directly in the OSD areas. This is to be clarified and further detail of this area should be provided at the individual project/development applications for individual future stages.

**(l) Site furniture**

No detail has been provided on site furniture to be provided within the proposed development. Consideration should be given to the placement of street furniture, appropriate for the character of the development, along the main access routes. Further detail of the site furniture should be provided at the individual project/development applications for individual future stages.

As requested, and further to the above comments, we also provide a list of recommended conditions of approval for this proposal for your information.

Submitted for your information and review and should you require any further information, please do not hesitate to contact Stephen Pratt in City Planning on 9789 9350.

Yours sincerely,

Greg Ritchie  
**ACTING DIRECTOR CITY PLANNING**  
4 January 2011



## **RECOMMENDED CONDITIONS OF CONSENT**

### **PRIOR TO THE ISSUE OF A CONSTRUCTION CERTIFICATE**

1. The following must be submitted to either Council or an Accredited Certifier prior to the issuing of a Construction Certificate:
  - 1.1. Details of:
    - Protection from termites
    - Structural Engineering Plan
    - Building Specifications
    - Fire Safety Schedule
    - Landscape Plan
    - Hydraulic Plan
    - Sydney Water Notice of Requirements
    - Soil and Waste Management Plan
  - 1.2. Payment of the Long Service Leave Levy to the Long Service Leave Corporation or to Council.
  - 1.3. Payment to Council of a Kerb and Gutter Damage Deposit, a Demolition Damage Deposit, Section 94 Contributions, Certificate Registration Fee and Long Service Levy as appropriate for each stage of the development.

### **BEFORE COMMENCING THE DEVELOPMENT**

2. Before the erection of any building in accordance with this Development Consent;
  - 2.1. detailed plans and specifications of the building must be endorsed with a Construction Certificate by the Council or an Accredited Certifier, and
  - 2.2. you must appoint a Principal Certifying Authority (either Canterbury City Council, or an Accredited Certifier) and notify the Council of the appointment (see Attachment – Notice of Commencement copy), and
  - 2.3. you must give the Council at least 2 days notice of your intention to commence erection of the building (see Attachment – Notice of Commencement copy).
  - 2.4. In the case of work which includes residential development, you must inform us in writing before the commencement of work of the following:
    - 2.4.1. The name and contractor or licence number of the licensee who has contracted to do or intends to do the work; or
    - 2.4.2. The name and permit number of the owner-builder who intends to do the work.

### **INSURANCE**

3. If it is intended to engage a builder or licensed contractor to do the work where it is valued over \$12,000 and is not a multi storey building then this person must take out home building insurance with a private insurer. The builder or person doing the work must also satisfy Council that they have taken out an insurance policy by producing evidence of the insurance certificate or other documentation. Further information on insurance requirements is available from the Department of Fair Trading (NSW Consumer Protection Agency) on 1800 802 055.

#### SITE SIGNAGE

4. A sign shall be erected at all times on your building site in a prominent position stating the following:
  - 4.1. The name, address and telephone number(s) of the principal certifying authority for the work, and
  - 4.2. The name of the person in charge of the work site and a telephone number at which that person may be contacted during and outside working hours, and
  - 4.3. That unauthorised entry to the work site is prohibited.

#### DEMOLITION

5. Demolition must be carried out in accordance with the following:
  - (a) Demolition of the building is to be carried out in accordance with applicable provisions of Australian Standard AS 2601-2001: The Demolition of Structures and the Construction Safety Act Regulations.
  - (b) The demolition of a structure or building involving the removal of dangerous or hazardous materials, including asbestos or materials containing asbestos must be carried out in accordance with the requirements of the Workcover Authority of New South Wales.
  - (c) Demolition being carried out in accordance with the requirements of the Occupational Health and Safety Regulation 2001.
  - (d) A hoarding or fence must be erected between the building or site of the building and the public place, if the public place or pedestrian or vehicular traffic is likely to be obstructed or rendered inconvenient because of the carrying out of the demolition work.
  - (e) Demolition of buildings is only permitted during the following hours:  
7.00 a.m. – 5.00 p.m. Mondays to Fridays  
7.00 a.m. – 12.00 noon Saturdays  
No demolition is to be carried out on Sundays or Public Holidays.
  - (f) Burning of demolished building materials is prohibited.
  - (g) Adequate care is to be taken during demolition to ensure that no damage is caused to adjoining properties.
  - (h) Soil and water management facilities must be installed and maintained during demolition in accordance with Council's Stormwater Management Manual. If you do not provide adequate erosion and sediment control measures and/or soil or other debris from the site enters Council's street gutter or road you may receive a \$1500 on-the-spot fine.
  - (i) Council's Soil and Water Management warning sign must be displayed on the most prominent point on the demolition site, visible to both the street and site workers. The sign must be displayed throughout demolition.
  - (j) The capacity and effectiveness of soil and water management devices must be maintained at all times.
  - (k) During the demolition or erection of a building, a sign must be provided in a prominent position stating that unauthorised entry to the premises is

prohibited and contain all relevant details of the responsible person/company including a contact number outside working hours.

- (l) A sign is not required where work is being carried out inside, or where the premises are occupied during the works (both during and outside working hours).
- (m) Toilet facilities must be provided to the work site in accordance with WorkCover's NSW "CODE OF PRACTICE" for Amenities for construction work and any relevant requirements of the BCA.
- (n) Removal, cleaning and disposal of lead-based paint conforming to the current NSW Environment Protection Authority's guidelines. Demolition of materials incorporating lead being conducted in strict accordance with sections 1.5, 1.6, 1.7, 3.1 and 3.9 of Australian Standard AS2601-2001: Demolition of Structure. Note: For further advice you may wish to contact the Global Lead Advice and Support Service on 9716 0132 or 1800 626 086 (freecall) or at [www.lead.org.au](http://www.lead.org.au).
- (o) Hazardous dust not being allowed to escape from the site. The use of fine mesh dust proof screens or other measures are recommended.
- (p) Any existing accumulations of dust (eg. ceiling voids and wall cavities) must be removed by the use of an industrial vacuum fitted with a high efficiency particulate air (HEPA) filter. All dusty surfaces and dust created from work is to be suppressed by a fine water spray. Water must not be allowed to enter the street and stormwater systems. Demolition is not to be performed during adverse winds, which may cause dust to spread beyond the site boundaries.

#### GENERAL

- 6. The development being carried out generally in accordance with the concept plan submission, specifications and details prepared by Turner and Associates, marked Job No. 09033, Revision A, dated 10 November 2010 as received by Council on 26 November 2010.
- 7. All materials must be stored wholly within the property boundaries and must not be placed on the footway or roadway.
- 8. All building operations for the erection or alteration of new buildings must be restricted to the hours of 7.00a.m.-5.00p.m. Monday to Saturday, except that on Saturday no mechanical building equipment can be used after 12.00 noon. No work is allowed on Sundays or Public Holidays.
- 9. Council's warning sign for Soil and Water Management must be displayed on the most prominent point on the building site, visible to both the street and site workers. The sign must be displayed throughout construction.
- 10. All building construction work must comply with the Building Code of Australia.
- 11. Under clause 97A(3) of the Environmental Planning and Assessment Regulation 2000, it is a condition of this development consent that all the commitments listed in each relevant BASIX Certificate for the development are fulfilled.

In this condition:

- a) relevant BASIX Certificate means:
    - i) a BASIX Certificate that was applicable to the development when this development consent was granted (or, if the development consent is modified under section 96 of the Act, A BASIX Certificate that is applicable to the development when this development consent is modified); or
    - ii) if a replacement BASIX Certificate accompanies any subsequent application for a construction certificate, the replacement BASIX Certificate; and
  - b) BASIX Certificate has the meaning given to that term in the Environmental Planning and Assessment Regulation 2000."
12. The applicant shall make a monetary contribution in accordance with Canterbury City Council's Section 94 Contributions Plan 2005 for each stage of the development of the site after identifying the likelihood that this development will require or increase the demand on public amenities, public services and public facilities in the area. The contribution payable will be adjusted, at the time of payment, to reflect Consumer Price Index increases which have taken place since the development application was determined. The contribution is to be paid to Council in full prior to the release of the Construction Certificate, (or for a development not involving building work, the contribution is to be paid to Council in full before the commencement of the activity on the site) in accordance with the requirements of the Contributions Plan. Alternatively, the applicant may negotiate with Council regarding the a Voluntary Planning Agreement for an equivalent or greater figure than that required by Council's Section 94 Contributions Plan 2005.

#### CAR PARKING

13. Off-street car spaces being provided in accordance with the submitted plans. This shall comprise:
- 1 space per 5 dwellings for each social housing dwelling
  - 1 space per 1 bedroom dwelling
  - 1.5 spaces per 2 bedroom dwelling
  - 2 spaces per 3 bedroom dwelling
  - 1 space per 5 visitor/common space(s).
14. The car space(s) being allocated and marked according to this requirement. If the development is to be strata subdivided, the carpark layout must respect the above allocation.
15. The minimum car park floor to ceiling height, clear of obstruction, shall be 2.2 metres.
16. Adequate lighting (to AS 1158.3.1:1999 standards) being provided and maintained in the carparks.

#### DISABILITY ACCESS – SOCIAL HOUSING

17. Level entry should be provided to all units to ensure that they are accessible to the older persons or people with people with disabilities and mobility issues.

18. Access should be provided to all common areas within the units blocks so that a person using a wheelchair can use common areas and common facilities e.g. recreation facilities, laundry facilities, garbage bays etc. (in accordance with the Disability Standards for Access to Premises to be adopted, May 2011).
19. All units should be capable of being modified so that they have wheelchair access by a continuous path of travel to all essential areas and facilities including a toilet, bathroom, bedroom and living area. Adaptable units should meet the performance criteria set out in clause 2.2 of Australian Standard 4299 Adaptable housing.
20. Communal open space areas are easily accessible to all residents and include adequate seating for older residents and people with disabilities.
21. Provide an accessible path of travel linking the site with public transport services or local facilities such as the library or senior citizens centre.
22. Lifts to comply with the requirements of Australian Standard 1735.12 Lifts escalators and moving walks: facilities for persons with disabilities.

#### DISABILITY ACCESS – PRIVATE HOUSING

23. Access for people with disabilities should be provided to all levels of the multiple unit residential buildings with lifts to comply with the disability access requirements contained in AS 1735.12.
24. At least 10% of units shall be adaptable dwellings to meet the performance requirements set out in Clause 2.2 of AS 4299.
25. Access should be provided to all common areas within the units blocks so that a person using a wheelchair can use common areas and common facilities e.g. recreation facilities, laundry facilities, garbage bays etc.

#### DISABILITY ACCESS – PUBLIC SPACE

26. Upgraded roads within the site area should provide firm, level footpath surfaces and kerb ramps that are compliant with Clause 10 of AS 1428.1. Tactile Ground Surface Indicators should be applied where appropriate in accordance with AS 1428.4.
27. Any bus stop / bus stop incorporating a bus shelter provided through this development should have access elements that are compliant with the Disability Standards for Accessible Public Transport (2002).
28. Additional public open space areas provided through this project should be accessible to older persons and people with disabilities. Pathways need to be wide enough to comply with standards for a passing clearance of two wheelchairs.
29. Path surfaces need to be firm and comply with Clause 7 of AS 1428.1 for slip resistance. Paths should be regularly swept clean of foliage from trees and plants dropping on them to reduce the risk of them becoming slippery.

#### CRIME PREVENTION

30. Access points to the building (including lifts and stairwells) shall be restricted to residents only through a security system. Visitors to the residential complex should be provided with access via the intercom.
31. Any proposed front fences for dwellings should be visually permeable and provide residents with confidence regarding the separation of the public sphere.

32. Mail boxes identifying street numbers should be clearly visible from the street. This measure will ensure the Police and other emergency services can readily identify the place of interest.

#### LANDSCAPING

33. All significant property trees that are of sound health and structure must be retained and protected. Any trees which are removed must be replaced. Any replacement trees should be provided in a minimum 75ltr container size in a suitable position within the development.
34. Any property tree which is to be removed and relocated is to be done so under the direct supervision of a minimum AQF 4 Arborist with previous experience in the relocation of mature trees. These trees are to be monitored and reviewed by the project arborist for a period of 12-24 months. During this time, if the tree is not considered to be successfully transplanted, it should be removed and replaced with a species suitable to the proposed landscape character of the area. Further detail of the individual trees to be relocated and the process to be undertaken should be provided.
35. The trees marked for retention are to be retained and protected during construction. A suitable protective barrier, in accordance with AS 4970 – 2009, must be erected around each tree's tree protection zone prior to construction. This barrier must be well maintained during construction. No building material or construction activity shall be allowed to encroach within this tree protection zone. The tree protection zone of each tree to be retained is to be determined and documented by the project arborist prior to the commencement of construction. The project arborist is to be oversee the erection and maintenance of the tree protection fencing.
36. The 1 x *Magnolia grandiflora* (common name large flowering Magnolia) growing on Vermont Crescent may be removed to accommodate construction. The removal of this tree is conditional on its replacement with 1 x 75ltr (container size) Australian native street tree to be located on the nature strip along Vermont Crescent.
37. The 4 x *Prunus* spp. (common name Plum) growing on Washington Avenue may be removed. These trees have been mapped as being in poor condition. The removal of these trees is conditional on their replacement with 75ltr (container size) Australian native street trees to be located on the nature strip of this street.
38. The submitted Landscape Masterplan, drawing number LA4 (drawn by Turf Landscape Architects and Urban Design) shows the replanting of street trees along Washington Avenue with an avenue of evergreen trees. Further details of these plantings are to be provided at the individual project/development applications for individual future stages.

#### HYDRAULICS - GENERAL

39. The recommendations of the submitted geotechnical report by Jeffery & Katauskas Pty Ltd are to be adopted in the design and construction of all roads and road related infrastructure.

40. Assets such as roads, drainage, footpaths, nature strips etc intended to be handed over to Council shall be designed and constructed in accordance with appropriate Natspec/Auspec Specifications, Australian Standards and RTA guidelines.
41. Should groundwater/seepage water be encountered within the depth of excavation any basements are to be suitably tanked and waterproofed. No subsoil drainage is to be discharged from the site. Provision is to be made to direct any subsurface flows around subterranean obstructions. All earth retaining structures are to be designed to withstand hydrostatic loading generated by subterranean water.

#### EXTERNAL ON-SITE DETENTION

42. The proposed major aboveground on-site detention in the proposed open space, picnic area and playground, at the northern side of the site between Phase 02 Stage 02 and 03 and Phase 02 Stage 04 is to be deleted from the plans.

#### STREET/TRUNK DRAINAGE

43. Detailed plans, calculations and documentation supporting the proposed street/trunk drainage configuration are to be submitted to Council's Director of City Works for approval prior to the commencement of any works on the site.
  - a) The street/trunk drainage system is to be designed to cater for the 1 in 10 year design storm where there is a safe overland flow path within the road reserve or other public land, 1 in 20 year design storm where the overland flow path travels over private land, and 1 in 100 year design storm where the overland flow path causes potential hazards to private property or areas highly sensitive to inundation.
  - b) The design and construction of the street/trunk drainage system is to satisfy the requirements of Australian Standard AS3500.3-2003 Stormwater Drainage, Natspec 0074 Stormwater Drainage (Design) and City of Canterbury's Stormwater Management Manual ~ Specification 9.
  - c) The capacity of the existing street/trunk drainage system within the site is to be maintained.
  - d) The street/trunk drainage system is to be designed to cater for the full catchment being served by system including public and private land to the south of the development site, bounded by Kentucky Road, Arizona Place, Virginia Place and Roosevelt Avenue.
  - e) Longsection drawings of each pipe reach including peak flow, hydraulic gradeline, surface and invert levels and slope.
44. A final Works-As-Executed plan, certification and details of any staged construction inspections undertaken during the course of the works, prepared by a suitably qualified and experienced engineer are to be submitted to Council's Director of City Works for approval prior to a final inspection by Council and handover of the assets.

#### OVERLAND FLOW PATHS

45. All overland flow paths are to be adequately identified and documented on all stormwater plans. Provision is to be made for adequate freeboard for all adjacent floor spaces above overland flow paths in accordance with the requirements of the

- City of Canterbury's Stormwater Management Manual ~ Specification 9 and the NSW Floodplain Management Manual.
46. The approved stormwater plans are to identify and control the overflow from each development lot stormwater system.
- GROSS POLLUTANT TRAP
47. The proposed GPT is to be relocated to a space adjacent to Vermont Crescent to ensure that appropriate vehicular and pedestrian access is maintained for cleaning and maintenance of the GPT.
  48. Detailed design drawings and documentation are to be submitted to Council's Director of City Works for approval prior to the commencement of any works.
- WATER SENSITIVE URBAN DESIGN
49. Detailed design drawings, documentation and calculations for each WSUD element to be located on public land are to be submitted for approval to Council's Director of City Works prior to the commencement of any works on the site.
  50. Design of the proposed bio-retention swales are to consider issues including removal of gross pollutants from the swales, diversion of flows greater than the design treatment flow, and maintenance requirements of swales within public land.
  51. All labour intensive Water Sensitive Urban Design elements are to be relocated to within each residential development lot.
- RAINWATER TANKS
52. Rainwater tanks are to be sized and configured in accordance with the requirements of any BASIX certificate obtained for this development.
  53. Where any of the captured roof water is intended for use in irrigating public open spaces, additional treatments including disinfection will be required.
  54. Detailed plans of any proposed treatment and reuse scheme for use in public open spaces are to be submitted for approval from Council's Director of City Works prior to the commencement of any works.
- INTERNAL SITE STORMWATER AND ON-SITE DETENTION
55. All development lots within the site will require on-site stormwater detention (OSD). The OSD is to comply with the requirements of Council's Stormwater Management Manual ~ Specification 9 (SWMM~S9). Where a lot drains to an existing or proposed public road, storage is to be provided for the 1 in 10 year design storm. Where the drainage or overflow from a lot enters another lot, storage is to be provided for the 1 in 100 year design storm. Permissible site discharge for all lots is 150litres per second per hectare. While the SWMM~S9 allows for up to 25% of a site to bypass the detention, the bypass is to be accounted for in the discharge rate and storage volume of the detention system.
  56. Detailed site specific stormwater plans and on-site detention calculations for each development lot are to be submitted for approval to Council's Director of City Works prior to the commencement of any works on the site. The plans are to include the location, details, dimensions and levels of all pits, grates, pipes, tanks, basins, drains, orifice plates and control pits. The plans are to be prepared by a suitably qualified and experienced engineer in accordance with the requirements



- of Council's Stormwater Management Manual ~ Specification 9, Natspec 0074 Stormwater Drainage (design) and Australian Standard AS 3500.3-2003 Stormwater Drainage.
57. A Works-as-Executed plan must be submitted to Canterbury City Council at the completion of the works, the plan must clearly illustrated dimensions and details of the site drainage and the OSD system. The plan shall be prepared by a registered surveyor or an engineer.
  58. A construction compliance certification must be provided prior to Occupation to verify, that the constructed stormwater system and associate works has been carried out in accordance with the approved plan(s), relevant codes and standards. The required certification must be issued by an accredited professional in accordance with the accreditation scheme of the Building Professional Board issued 1<sup>st</sup> March 2010.
  59. An appropriate instrument must be registered on the title of the property, concerning the presence and ongoing operation of the OSD system as specified in appendix 7.5 of Council's Stormwater Management Manual – Specification 9.

#### SERVICES

60. Where possible, all services are to be provided underground, including water and sewer supply, telecommunications, electricity, gas and the like, and are to be constructed in conjunction with the construction of the new streets and reconstruction of the existing streets. Service provision is to be in accordance with the requirements of each service authority. All work being carried out by an approved contractor, at the applicant's cost prior to occupation of the development.
61. Streetlight poles and fixtures are to be in accordance with the requirements of Energy Australia and City of Canterbury. All work being carried out by an approved contractor, at the applicant's cost prior to occupation of the development.
62. The applicant to arrange with the relevant public utility authority the alteration or removal of any affected services in connection with the development. Any such work being carried out at the applicant's cost.
63. The applicant shall consult Energy Australia to determine the need for an electricity substation prior to the commencement of works, and, if a site is required, it being situated adjacent to the street alignment with the size, location and area being in accordance with the requirements of Council and Energy Australia. The land required being dedicated without cost as a public roadway to enable Energy Australia to establish the substation.

#### CIVIL WORKS

64. Prior to the commencement of any works detailed designs and documentation are to be submitted for approval to Council's Director of City Works for the proposed road construction works. The design is to include the kerb and gutter, pavement, dish drains, footpath, pedestrian and cycle facilities required for each new street. The detailed design is to be undertaken in accordance with Natspec,

- AUSTROADS, Australian Standard HB 153:2002: Urban Road Design: A guide to the Geometric Design of Major Urban Roads and the RTA Road Design Guide.
65. All civil works are to be designed in accordance with NATSPEC 0160 Quality (Design)
66. All civil works for the proposed new roads, footpaths, kerb and gutter and traffic facilities are to be constructed in accordance with the following specifications NATSPEC:
- 0161 Quality (Construction),
  - 0271 Pavement base and subbase,
  - 0272 Asphaltic Concrete,
  - 0273 Sprayed bituminous surfacing,
  - 0274 Concrete pavement,
  - 0275 Segmental pavers – mortar bed,
  - 0276 Segmental pavers – sand bed,
  - 0277 Pavement ancillaries,
  - 0310 Concrete – combined,
  - 0310 Minor Concrete Works,
  - 0311 Concrete formwork,
  - 0312 Concrete reinforcement,
  - 0314 Concrete in situ,
  - 0315 Concrete finishes,
  - 1101 Control of Traffic,
  - 1102 Control of erosion and sedimentation,
  - 1112 Earthworks (roadways),
  - 1113 Stabilisation,
  - 1121 Open drains including kerb and channel gutter,
  - 1131 Rolled concrete subbase,
  - 1132 Mass concrete subbase,
  - 1133 Plain and reinforced concrete base,
  - 1134 steel fibre reinforced concrete base,
  - 1135 Continuously reinforced concrete base,
  - 1136 cold milling of asphalt and base course,
  - 1141 Flexible pavements,
  - 1142 Bituminous cold mix,
  - 1143 Sprayed bituminous surfacing,
  - 1144 Asphaltic concrete (roadways),
  - 1145 Segmental paving,
  - 1146 Bituminous microsurfacing,
  - 1171 subsurface drainage,
  - 1172 Subsoil and foundation drains,
  - 1173 Pavement drains,

- 1174 Drainage mats,
- 1191 Pavement markings,
- 1192 signposting,
- 1193 Guide posts,
- 1194 Non-rigid road safety barrier systems (Public domain),
- 1195 Boundary fences for road reserves and

City of Canterbury standard drawings:

- SD100 Standard Grated Gully Pit with Kerb Inlet
- SD101 Standard Surface Inlet Pit
- SD624 Standard Light Duty Vehicular Crossing
- SD625 Standard Heavy Duty & Extra Heavy Duty Vehicular Crossing
- SD627 Standard Kerb & Gutter, Dish Crossing & Gutter Profiles
- SD633 Standard Concrete Footpath Paving
- SD643 Standard Kerb Ramp Details
- SD645 Standard Raised Threshold.

All work being carried out by an approved contractor, at the applicant's cost.

67. Prior to occupation a final Works-As-Executed plan, certification and details of any staged construction inspections undertaken during the course of the works prepared by a suitably qualified and experienced engineer are to be submitted to Council's Director of City Works for approval prior to a final inspection by Council and handover of the assets.
68. A full width heavy duty vehicular crossing shall be provided at each vehicular entrance to the each development lot, with a minimum width of 3.0 metres and a maximum width of 6.0 metres at the boundary line. This work to be carried out by the applicant, at the applicant's cost. The work is to be carried out in accordance with Council's "Specification for the Construction by Private Contractors of: a) Vehicle Crossings, b) Concrete Footpath, c) Concrete Kerb & Gutter" and standard drawing SD625 Standard heavy duty & extra heavy duty crossing.
69. The levels of the street alignment are to be obtained by payment of the appropriate fee to Council. These levels are to be incorporated into the designs of the internal pavements, carparks, landscaping and stormwater drainage. Evidence must be provided that these levels have been adopted in the design. As a site inspection and survey by Council is required to obtain the necessary information, payment is required at least 14 days prior to the levels being required.
70. Where a basement driveway is proposed a driveway longsection scaled at 1:25 (both vertical & horizontal) is to be submitted indicating the appropriate grades, lengths, transitions and height clearances above the driveway. The existing street levels are to be included in the design of the driveway (The existing street levels include kerb & gutter, footpath and boundary line levels which cannot be altered). The driveway widths, grades, transitions, lengths and height clearances shall be in accordance with Australian Standard AS 2890.1 - 2004 "Off-street Parking Part 1 - Carparking Facilities".

71. Any filled area shall be compacted, stabilised and grassed. The work is to be carried out in accordance with NATSPEC #1 Specifications C213-Earthworks and C273-Landscaping.
72. The construction of the all kerb and gutter along both sides of all new/proposed roads is required. Work to be carried out by the applicant, at the applicant's cost. The work is to be carried out in accordance with Council's "Specification for the Construction by Private Contractors of: a) Vehicle Crossings, b) Concrete Footpath, c) Concrete Kerb & Gutter" and standard drawing SD627 Standard kerb & gutter, dish crossing. Detailed design and documentation is to be submitted for approval to Council's Director of City Works prior to commencement of works.
73. The reconstruction of all existing kerb & gutter within existing road reserves onto which this proposal has frontage is required. Work to be carried out by the applicant, at the applicant's cost. The work is to be carried out in accordance with Council's "Specification for the Construction by Private Contractors of: a) Vehicle Crossings, b) Concrete Footpath, c) Concrete Kerb & Gutter" and standard drawing SD627 Standard kerb & gutter, dish crossing. Detailed design and documentation is to be submitted for approval to Council's Director of City Works prior to commencement of works.
74. The reconstruction of the road shoulder along all public roads onto which the development has frontage is required. The design of these works is to be undertaken in accordance with Natspec/Auspec 0041 Geometric Road Layout, 0042 Pavement design, 0043 subsurface drainage (design), 0044 Pathways and cycleways, 11 Constructed Roadways. All costs associated with the design and reconstruction of the existing roads is to be borne by the applicant. Detailed design and documentation is to be submitted for approval to Council's Director of City Works prior to commencement of works.
75. The construction of all proposed public roads is required. The design of these works is to be undertaken in accordance with Natspec/Auspec 0041 Geometric Road Layout, 0042 Pavement design, 0043 subsurface drainage (design), 0044 Pathways and cycleways, 11 Constructed Roadways. All costs associated with the design and reconstruction of the existing roads is to be borne by the applicant. Detailed design and documentation is to be submitted for approval to Council's Director of City Works prior to commencement of works.
76. The reconstruction of all existing footpath within existing road reserves onto which this proposal has frontage is required. Work to be carried out by the applicant, at the applicant's cost. The work is to be carried out in accordance with Council's "Specification for the Construction by Private Contractors of: a) Vehicle Crossings, b) Concrete Footpath, c) Concrete Kerb & Gutter" and standard drawing SD633 Standard concrete footpath paving. Detailed design and documentation is to be submitted for approval to Council's Director of City Works prior to commencement of works.
77. The construction of footpath within proposed public road reserves onto which this proposal has frontage is required. Work to be carried out by the applicant, at the

- applicant's cost. The work is to be carried out in accordance with Council's "Specification for the Construction by Private Contractors of: a) Vehicle Crossings, b) Concrete Footpath, c) Concrete Kerb & Gutter" and standard drawing SD633 Standard concrete footpath paving. Detailed design and documentation is to be submitted for approval to Council's Director of City Works prior to commencement of works.
78. The nature strip outside each development lot shall be repaired as necessary. Work to be carried out by the applicant, at the applicant's cost. The work is to be carried out in accordance with NATSPEC #1 Specification C273-Landscaping.

#### EASEMENTS

79. An easement to drain water of suitable width, located over any proposed or existing street/trunk drainage being created in favour of Council. Documents relative to the creation of the easement to be lodged with the Land and Property Information NSW prior to the commencement of works, with Registration being effected prior to occupation. All costs associated with piping, relocation and creation of easements being borne by the applicant.
80. All proposed structure/s are to be located clear of any existing or proposed easements for drainage. A certificate from a Registered Surveyor is to be submitted to Council verifying the location of the structure/s after footings have been poured, and before the construction of any walls.
81. Special footings will be required where any structure is proposed adjacent to an easement for drainage. The footings shall be taken down to the invert level of the existing drainage structure or to solid rock, which ever is the lesser. The footing depth may decrease by 500mm for every 1000mm increment in distance the footing is from the easement boundary. The special footings referred to above shall be designed by a practising Structural Engineer and shall be located clear of the easement. Details to be submitted prior to commencement of works.
82. A Registered Surveyor shall certify that existing and/or proposed street/trunk drainage lines are constructed wholly within the easement(s).
83. All easements required for the subdivision being shown on and registered in conjunction with the subdivision plan.

#### TRAFFIC

84. Right-turn movements from the intersection of Belmore Road and Washington Avenue shall be denied with the installation of an appropriate traffic management device. In this regard, approval shall be sought from the Canterbury Local Traffic Committee and the Roads and Traffic Authority, including the submission of a Traffic Management Plan.
85. Traffic signals shall be installed at the intersection of Belmore Road and Roosevelt Avenue. In this regard, approval shall be sought from the Canterbury Local Traffic Committee and the Roads and Traffic Authority. All costs associated with the design and construction of the facility shall be borne by the proponent.

86. Pedestrian access and bus stops must be located to coincide with the existing facilities and any new proposed facilities must be approved by the Traffic Committee and the Roads and Traffic Authority and funded by the Applicant.
87. Width of carriageway and footpaths must conform with the Roads and Traffic Authority and AMCORD Guidelines and be approved by Council.
88. Any proposed 10 km/h Shared Traffic Zone in Kentucky Road shall be approved by the Roads and Traffic Authority.
89. Bus shelters conforming to Council's standard shelter (currently Adshel's Classic MkII ) shall be installed at appropriate locations adjacent to the development.

#### SYDNEY WATER REQUIREMENTS

90. A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained. Application must be made through an authorised Water Servicing Co-ordinator. Please refer to "Your Business" section of Sydney Water's web site at [www.sydneywater.com.au](http://www.sydneywater.com.au) then the "e-developer" icon or telephone 13 20 92. Following application, a "Notice of Requirements" will be forwarded detailing water and sewage extensions to be built and charges to be paid. Please make early contact with the Co-ordinator, since building of water/sewer extensions can be time consuming and may impact on other services and building, driveway or landscape design.  
The Section 73 Certificate must be submitted to the Principal Certifying Authority prior to occupation of the development/release of the final plan of subdivision.  
A copy of Sydney Water's Notice of Requirements must be submitted to the Principal Certifying Authority prior to the Construction Certificate being issued.

#### SUBDIVISION

91. The submission of one final plan of subdivision and five copies.
92. Registration of any necessary subdivision of the property with NSW Land and Property Information prior to the Construction Certificate being issued.

#### CRITICAL INSPECTIONS

93. Class 2, 3 or 4 Buildings
  - 93.1. at the commencement of the building work, and
  - 93.2. after excavation for, and prior to the placement of the first footing, and
  - 93.3. prior to covering of waterproofing in any wet areas, for a minimum of 10% of rooms with wet areas within the building, and
  - 93.4. prior to covering any stormwater drainage connections, and
  - 93.5. after the building work has been completed and prior to any occupation certificate being issued in relation to the building.
94. Section 81(A) of the EP&A Act 1979 requires that a person having the benefit of a development consent, if not carrying out the work as an owner-builder, **must notify the principal contractor for the building work of any critical stage inspections and other inspections that are to be carried out in respect of the building work**, as nominated in this development consent.  
To arrange an inspection by Council please phone 9789-9300 during normal office hours.

#### COMPLETION OF DEVELOPMENT

95. Obtain an Occupation Certificate/Interim Occupation Certificate from the Principal Certifying Authority before partial/entire occupation of the development.
96. Compliance with the requirements of Development Control Plan No. 37 - Energy Smart Homes Policy must be demonstrated by submitting to the Principal Certifying Authority relevant Certificates of Compliance (Hot water system, plumbing fittings, insulation, clothes dryer) before the issue of an Occupation Certificate. Copies of Certificates of Compliance may be found in the appendices of DCP 37 and must be completed by appropriately qualified persons.

**WE ALSO ADVISE**

97. This application has been assessed in accordance with the Building Code of Australia.
98. Where Council is appointed as the Principal Certifying Authority, you will be required to submit Compliance Certificates in respect of the following:
  - Structural engineering work
  - Protection from termites
  - Smoke alarms
  - BASIX completion
99. Any works to be carried out by Council at the applicant's cost need to be applied for in advance.
100. Australian Standards AS3500 Plumbing and Drainage and Part 5 Domestic Installations requires that eaves gutters are installed with continuous overflow measures that prevent water from overflowing gutters flowing back into the building.
101. Before you dig, call "Dial before you Dig" on 1100 (listen to the prompts) or facsimile 1300 652 077 (with your street no./name, side of street and distance from the nearest cross street) for underground utility services information for any excavation areas.