

5. ISSUES AND IMPACTS

This Chapter brings together previously identified planning issues associated with the proposed redevelopment and discusses possible associated impacts. It starts with the broader strategic considerations, proceeding then to an assessment of the proposed development against the DoP's recently published Centres Design Guidelines, which is an important and recently introduced tool for a planning analysis of a development such as that proposed. The Chapter then moves to an assessment of planning issues adopting a planning analysis more typical of a DA merits assessment under S79C of the Act, building on the previous chapter's assessment of applicable or potentially relevant planning controls, guidelines and policies, documented in the previous chapter.

5.1 Strategic Considerations

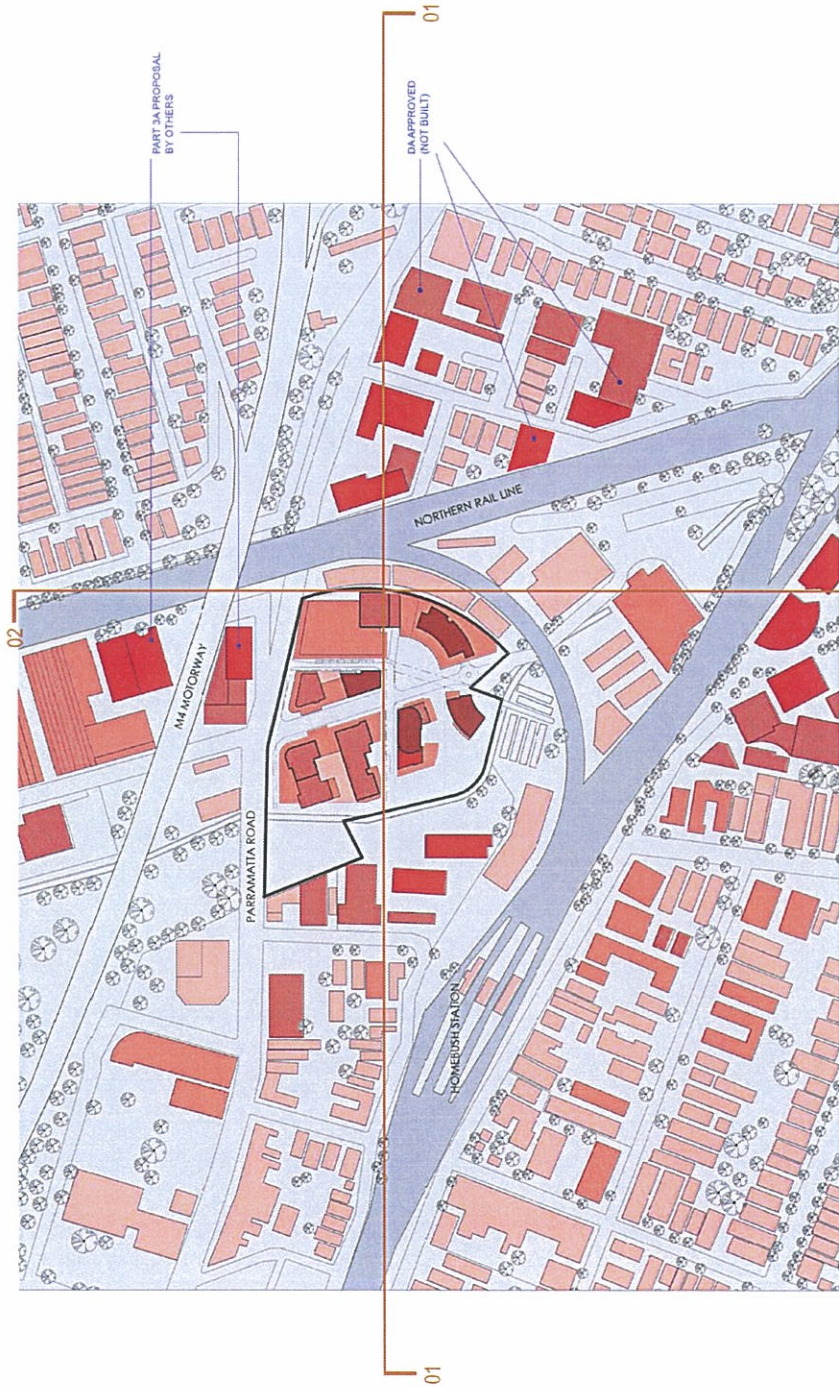
From the previous discussions, at the broad metropolitan planning level it is very clear that the location of Columbia Precinct lends itself to significant development. It is centrally located within the metropolitan region and very well served by road, bus and rail, giving it a very high level of accessibility. It is located on the Parramatta to Sydney Renewal Corridor, and is within a potential Enterprise Corridor. It is close to major centres and to Homebush Bay and Rhodes employment centres, and will provide much-needed support for commercial enterprises within the heritage Bakehouse Quarter to the north.

At the more localised level the Columbia Precinct land is within close walking distance of Homebush Station. It is an 'island' site which is capable of accommodating significant built form, which in turn has been arranged on the site to create good built form relationships as well as minimal impacts on neighbouring land-uses. See Figures following. Furthermore, its development as proposed will provide significant additional housing stock well-located to public transport which will reduce private travel demands and reduce the need for residential densification in more sensitive parts of Strathfield LGA. At the same time it will provide additional land for public use identified in the SPSO as reserved for open space, without the cost otherwise for Council acquisition, as well as much-needed affordable and adaptable housing.

FOR INFORMATION ONLY

LEGEND

- SITE PERIMETER
- 15 - 21 STOREY
- 9 - 14 STOREY
- 5 - 8 STOREY
- 3 - 4 STOREY
- 1 - 2 STOREY

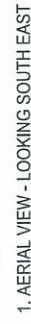
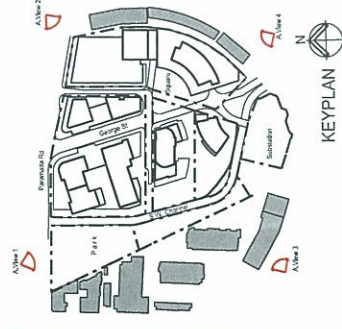


1. Comparative Building Height - PLAN

NTS

B	ENVIRONMENTAL ASSESSMENT ESSE	15-20-1
A	CONCEPT PLAN/AMT SUBMISSION	05-20-1
	Task	Assessment Description
	Date	

PD MAYOCH PTY LTD
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Chemical PH Dye TL II B

Drug No. A.804 Issue

5.2 Project Assessment Against DoP Centres Design Guidelines

Columbia Precinct is located adjacent to existing centres and in close proximity to public rail and bus passenger services. The Precinct's proposed redevelopment offers the opportunity to provide a new mixed use development that will complement and support those existing centres, in an urban built form which will function as a mixed use centre in its own right.

The Department's recently released draft Centres Design Guidelines provide a useful design and performance measure against which the proposed Columbia Precinct development can be relevantly assessed. The Guidelines and the Project Team's design commentary follow below.

- **Guideline:** *“Understand how the landform can inform the planning and design process and how new development can better respond to constraints and opportunities.” (p33);*

Comment: There is only limited fall across the site in any direction that might dictate constraints or opportunities for development form or building massing. These design decisions are informed by other contextual elements surrounding the site.

- **Guideline:** *“Protect natural features important to the local community which celebrate the local landscape character and integrate natural corridors into the design of centres.” (p34);*

Comment: There are no natural features to be found on site. The proposed development will re-create its own natural features, but they will not be original or existing.

- **Guideline:** *“Prepare for climate change and reduce the potential impact through environmental design of buildings and places.” (p35);*

Comment: The subject development is a redevelopment of an existing brownfields site in an urban environment. Factors pursued by the design and consistent with the stated principles under this guideline include proper stormwater management, flood investigation, locating residential uses above-ground, emphasis on vegetative plantings, adopting small average dwelling size, and targeting energy efficiency in building systems.

- **Guideline:** *“Understand the movement and role of water as a dynamic element in shaping the form and growth of centres.” (p37);*

Comment: It is intended to include a number of water features in public spaces within the Precinct, including fountains in public spaces as well as water quality ponding in the S-W corner of the land designed to treat run-off before it enters the stormwater canal. Discussions were also held with Sydney Water to explore the possibility of retaining water within that canal by the use of sluice gate or similar which could lift to allow passage of water in the event of rain. However Sydney Water expressed concerns regarding the impedance of the canal’s hydraulic function, the accumulation of rubbish and debris, and canal water quality issues from upstream that they considered would preclude such a measure.

- **Guideline:** *“Promote walkability to/from and within centres to improve health and wellbeing, reduce transport and infrastructure costs, and minimise environmental impacts.” (p38);*

Comment: This guideline has been a central principle of the design philosophy of the project. Strong pedestrian and cycle linkages are proposed within and beyond the Precinct, roads and other public spaces will be very pedestrian-friendly, and car usage will be discouraged by strong connection to public transport nearby and limited on-site parking provision.

- **Guideline:** *“Improve street connectivity with clear and identifiable routes for pedestrians, cyclists and vehicles.” (p39);*

Comment: Improved legibility and connectivity have been integral elements of maximising pedestrian and cyclist amenity flowing from the previous guideline.

- **Guideline:** *“Improve the design of major roads in centres through appropriate land use, buildings as buffers and street design.” (p40);*

Comment: The stated principles provided for this particular centres design guideline are well-reflected in the Concept Plan for this application, incorporating such measures as: commercial showrooms and storage at Highway frontages; designing for noise, vibration and air quality; focussing residential away from those sources; aligning buildings along roads for legibility and good urban form; planting trees where possible; adopting urban streetscape treatments to differentiate this Precinct from typical Parramatta Road appearance; controlling carparking location and design, etc.

- **Guideline:** *“Create a lively main street (or streets) with a range of uses and activities and a pleasant pedestrian experience.” (p41);*

Comment: As discussed above, the design treatment of main streets will provide a pleasing and attractive amenity for users and will encourage street and shop-level activity with pedestrian priority a pre-eminent consideration;

- **Guideline:** *“Ensure local streets are well designed to meet the needs of residents and other local users to encourage usability.” (p42);*

Comment: Columbia Precinct is predominantly an urban rather than suburban landscape, accordingly the images in the ‘Local Streets’ page of the Centres Design Guidelines are of limited relevance to this project. Attention has nevertheless been afforded the corresponding design principles against this guideline, to the extent achievable under the circumstances. Relevantly, the extension of George Street into the site allows for wide landscaped pedestrian footpath areas activated by business frontages and terminating in the proposed neighbourhood square, with views to the masonry rail bridge beyond.

- **Guideline:** *“Encourage the use of lanes to support the pedestrian network, provide access and loading areas and be places for a diversity of uses to enrich the centre.” (p43);*

Comment: Existing laneways have been retained, augmented and utilised in the manner suggested.

- **Guideline:** *“Align views and vistas to highlight the setting of a centre and to improve legibility and reinforce a sense of place.” (p44);*

Comment: It was considered important in the design phase to ‘open up’ views into and out of Columbia Precinct by way of a new main road access from a new southern leg of the highway/George Street intersection, and aligning that new southern road at the same angle as George Street north to enable visual continuity and urban-scape legibility. It was considered very important to incorporate a new civic square within Columbia Precinct toward the southern end of the new George Street south, and to place a focal element at its corner, to create a focal point of interest there and to complete the vista in, framed by the new trees proposed on either side of the ‘avenue’ entry road provided. In addition, the street layout and building placement draw pedestrians through the Precinct, and include setbacks to canal-side walkways and new embellished open space. The proposed alignment of the George Street extension also allows a terminating view of the existing rail overbridge (an attractive dual-arch brick structure) whilst avoiding direct views of the existing substation yard, both major urban design priorities.

- **Guideline:** *“Structure a system of landmarks or reference points that improve navigation within a centre, whilst reinforcing the identity of the place.” (p45);*

Comment: The new access ‘avenue’ with its strong N-S orientation will provide a very legible reference axis to facilitate movement into and around the Precinct, assisted by other public landmarks just described.

- **Guideline:** *“Co-locate a range of complementary uses such as residential, employment, retail, and community facilities supported by public transport and a network of well-designed streets and public spaces.” (p47);*

Comment: This philosophy represents the very essence of the Columbia Precinct Concept Plan, with strong complementarity and mix of a range of mutually

supportive uses, supported by high public transport accessibility and a legible and well-designed network of access roads.

- **Guideline:** *“Design distinctive parks, squares and spaces that are well-connected into the public domain network.” (p48);*

Comment: The Concept Plan incorporates several public places other than public roads. Notable is the large new public park proposed to be embellished and dedicated to Council on the western side of the stormwater canal, being the southern prolongation of the Powells Creek open space corridor extending north through to Mason Park and to Homebush Bay beyond. Other public spaces include the strongly defined urban civic square at the southern end of the new access avenue, the landscaped walkway beside the stormwater canal, the café footpath precinct along the avenue, and the more natural wetland type environment proposed in the S-W corner of the Precinct. These spaces will be well-designed with seating, sculptures, play areas, artworks and the like, and will cater for a range of uses and activities, contributing to a vibrant ground level environment.

- **Guideline:** *“Outdoor dining invites social activity onto the street and significantly adds to the quality and experience of public places.” (p50);*

Comment: The Concept Plan has been specifically designed to facilitate outdoor dining, and in a range of locations.

- **Guideline:** *“Maximise active street frontages to stimulate pedestrian activity and improve safety.” (p51);*

Comment: As noted, shopfront opportunities have been maximised, in all those locations on-site where they might be commercially supportable.

- **Guideline:** *“Centres should be active places beyond ‘9-to-5’ with a range of activities available in the evening, adding life and vibrancy to places.” (p52);*

Comment: This objective will certainly be achieved in Columbia Precinct.

- **Guideline:** *“Align arcades to support the pedestrian network and provide places for a mix of retail and business types.” (p53);*

Comment: The design has not set out to encourage the use of arcades, except in the N-W corner of the site where pedestrian activity and strong desire lines warrant the use of an arcade to facilitate movement and connectivity at levels projected to provide sufficient commercial support for retail, cafes and other relevant non-residential uses at ground level.

- **Guideline:** *“Integrate a mix of uses with shopping centres to support an attractive centre with good connections to surrounding streets.” (p54);*

Comment: Good pedestrian connectivity and high user amenity are central elements in the design. Further, the guideline principles under this heading are all incorporated in the Concept Plan.

- **Guideline:** *“Provide work places that are flexible in design to meet the changing demands of businesses.” (p56);*

Comment: The guideline principles of good land-use mix, ready access to services and transport, strong street level activity, flexible tenancy spaces, and integrated home-work arrangements, are all followed by the Concept Plan.

- **Guideline:** *“Ensure centres can offer a mix of housing types located in proximity to local transport and activities.” (p57);*

Comment: The site will accommodate a sensible mix of podium level and tower residential uses, with a range of accommodation, size and price, and will be AS accessible-compliant, catering for a range of clientele. Town houses and villa units would represent a significant under-realisation of true residential potential of this land in this location, and so are not proposed here.

- **Guideline:** *“Centres should be safe and accessible for children, with places to visit, engage and allow them to participate in community life.” (p58);*

Comment: The absence of through-traffic, the pedestrian-priority design, and the generous inclusion of a range of public spaces, play areas and cycle facilities, will ensure Columbia Precinct will be a safe environment for children, and hold considerable attraction for young families to achieve a good social mix.

- **Guidelines:** *“Design the built environment to make centres and public spaces safer and encourage user confidence.” (p59);*

Comment: CPTED principles have been adopted in the Concept Plan design, with good surveillance opportunities, effective sightlines, and safe public spaces.

- **Guideline:** *“Establish community gardens close to the residential areas of a centre for recreation, food source and education.” (p60);*

Comment: There will be good opportunity for community gardens to be created on top of podiums, of which there are a number proposed here.

- **Guideline:** *“Reveal the character and enhance community identity through the design and use of buildings and public spaces.” (p63);*

Comment: The Columbia Precinct Concept Plan is a comprehensive and integrated design of building and public spaces, that will create a new identity for this development, incorporating the various design elements mentioned throughout this report. The design does not seek to mimic or copy anything else in the area, and incremental degradation of the design values will be avoided by virtue of the approval process to be followed prior to commencement of work.

- **Guideline:** *“Conserve and protect items or areas of heritage value, but allow for sensitive infill development and adaptive reuse where appropriate.” (p64);*

Comment: There is no heritage item on the land. The Bakehouse Quarter and the nearby ‘Arnotts rail bridge’ are not impacted (see NBRSP heritage report).

- **Guideline:** *“Establish the scale and proportions of buildings relative to the local context and the desired built character.” (p66);*

Comment: Columbia Precinct is an island site, well-removed from sensitive receptors. Accordingly tower forms are appropriate to make use of the accessible location and the strong site potential, with podium levels beneath in order to achieve sensible human scale as well as activation of street fronts. Building siting and heights have been designed ‘*inter alia*’, to achieve effective and legible massing of form, and more-than-generous separation from existing buildings in order to achieve excellent performance in terms of overlooking, overshadowing and privacy. Buildings are oriented to achieve good solar access and optimised outlook, and building materials will be employed for their effective human scale and texture, particularly at lowest building levels. Resident use of podium-top spaces will be facilitated and encouraged.

- **Guideline:** “*Establish an appropriate scale for buildings to enclose and frame the street.*” (p68);

Comment: Considerable thought has been provided this design element, in order to achieve effective enclosure of public spaces and streets and effective delineation of public and private spaces. Solar access and wind effects are also important aspects here, and have been examined and reported in some detail as part of the EA documentation.

- **Guideline:** “*Maximise green cover on roofs, walls and within open spaces to improve environmental conditions and improve energy and water efficiency.*” (p70);

Comment: Achieved – see discussion through report.

- **Guideline:** “*Ensure the public domain is designed to meet the needs of everyone.*” (p72);

Comment: The needs of residents, workers, shoppers and visitors are addressed by the close attention to urban design of the public domain.

- **Guideline:** “*Prioritise pedestrians and cyclists within centres and integrate a range of traffic calming devices and cues for motorists.*” (p74);

Comment: Achieved – see discussion through report.

- **Guideline:** *“Provide generous footpaths in centres to cater for pedestrian traffic and other uses. Tighten kerb radii at intersections to prioritise the ease of movement for pedestrians.” (p76);*

Comment: Achieved, consistent with compliance with Australian Design standards given the needs of road users as well.

- **Guideline:** *“Choose a simple and robust pavement palette that is durable, easy to maintain and achieves good environmental outcomes.” (p77);*

Comment: A detail design issue, but one which would be expected to be met.

- **Guideline:** *“Provide street furniture that is well designed and integrated into the public domain.” (p78);*

Comment: As for the previous comment.

- **Guideline:** *“Provide awnings over the public footpath along main pedestrian thoroughfares to protect pedestrians from the weather elements.” (p79);*

Comment: Anticipated.

- **Guideline:** *“Maximise and promote opportunities for planting of street trees.” (p80);*

Comment: Achieved - refer to Landscape Plan and Report from Site Image P/L.

- **Guidelines:** *“Manage stormwater flows into waterways and encourage water re-use whilst improving the appearance of the public domain through Water Sensitive Urban Design.” (p81);*

Comment: Achieved – see accompanying SLR Consulting report.

- **Guideline:** *“Minimise the impact of vehicle access and loading areas on pedestrians through appropriate location and proportion.” (p83);*

Comment: Achieved.

- **Guideline:** *“Integrate cycle lanes on streets as an affordable and sustainable transport mode with multiple well-known benefits.” (p84);*

Comment: This will be done in addition to dedicated cycleways.

- **Guideline:** *“Accommodate bus lanes on streets close to employment, shopping streets and other key destinations to prioritise public transport users.” (p85);*

Comment: Buses will stop close by on Parramatta Road, but will not enter the Precinct lands.

- **Guideline:** *“Integrate well-designed public transport interchanges within the centre.” (p86);*

Comment: Not applicable – however, good access will be provided to both bus and rail facilities nearby.

- **Guideline:** *“Integrate on-street parking into the overall design of the street near a number of co-related uses to reduce multiple vehicle trips.” (p88);*

Comment: Achieved.

- **Guideline:** *“Minimise the visual impact of on-site parking by providing car parking in basements within the building footprint or ensure they are screened from view.” (p89);*

Comment: Also achieved.

- **Guideline:** *“Locate multi-storey car parks in strategic places to relieve centres of unnecessary through-traffic movements, and ensure they are well-designed and integrated within the urban fabric.” (p90);*

Comment: All parking will either be in basement or integrated into the building design, or some spaces on-street as parallel parking, and through-site traffic movement minimised. No open car parks are to be visible to the public domain.

5.3 Other Planning Issues

5.3.1 Social and Economic Impacts

There are considered to be no negative social or economic impacts created by the proposed development. Positive impacts will be as follows:-

- Increased on-site employment;
- Additional affordable and ESD-friendly housing for around 650 new households in a mix of sizes and cost;
- New investment of some \$300 million in construction, and construction employment of some 1500-2000 man-years;
- Additional public open space as a southward prolongation of the Powells Creek corridor, and pedestrian linkage by overbridge across Parramatta Road (both would be Section 94 offsets);
- Greater usage (and viability) of public transport.

5.3.2 Environmental Impacts

- (a) **Bulk and Scale** – Being an island site well separated from other residential uses in the vicinity, it has been designed to provide buildings of lesser height in the Parramatta Road environment, starting with a 2-3 storey element to the road alignment, stepping up behind, with the tallest buildings at the rear, well removed from major or sensitive public vantage points. The proposed arrangement of building mass on-site is respectful of its context, and will create a pleasing built form outcome both on the land and in its

relationship to its neighbours. SEPP65 recommended building separations will be well exceeded. See Webber, Mayoh and Lamb reports.

- (b) **Privacy and Overshadowing** - Again, SEPP 65 provisions have been central elements to the design development phase, and privacy and overshadowing criteria will be comfortably satisfied. Those aspects are addressed in detail in the architect's SEPP 65 report provided with this application. In addition, the overshadowing studies provided as part of this application indicate there will be negligible shadow impact on any existing residential buildings nearby.
- (c) **Public Domain** - The existing public domain will be protected, and substantial additional public domain will be created, with generous quality of environmental design. Pedestrian and cyclist connectivity will be important inputs in that regard, and will be greatly improved over existing conditions.
- (d) **Views** – Some cross-site distant views will be lost by high-rise residences to the west, but the design has sought to minimise the loss of such district views by the footprint spacing and orientation proposed. Views generally will be improved however, by virtue of the replacement of the existing unsightly brownfields site with the modern, well-landscaped development proposed here. See Webber and Lamb documents accompanying the application.
- (e) **Traffic and Transport** - The site's close proximity to rail and bus will ensure good opportunity for high public transport mode split and enable lower car ownership. The proposed realignment of the new George Street southern extension into the site will allow much better visual connection across to the Bakehouse Quarter. Parking provision, traffic generation and network impacts have been addressed in detail by CBHK Traffic accompanying this Environmental Assessment Report as Annexure 6.
- (f) **Acoustics and Vibration** – SLR Consulting (formerly Heggies) have been employed to undertake a noise and vibration impact study, having regard to the proximity of major road and rail infrastructure in the vicinity, to identify and examine potential impacts, and to recommend possible ameliorative

measures as appropriate to achieve conformity with applicable standards. Potential construction impacts will also be addressed.

- (g) **ESD** – Close attention will be given from early detailed DA design to the principles embodied in energy efficient buildings and spaces, environmentally friendly solutions, and ESD in its broadest sense. This design process will adopt the relevant guidelines provided by Section J of the BCA, BASIX, and NABHERS and Greenhouse Star rating methodology, as appropriate. Means of generating power on-site will be closely explored, and reduced car usage will be actively encouraged. Impacts are assessed as beneficial.
- (h) **Heritage** – There are no identified heritage issues on the subject land, nor proximate to the site. The relationship of the proposed Columbia Precinct development to the Bakehouse Quarter on George Street north of the M4, and the Arnott's railway bridge spanning Parramatta Road to the east of the site has been assessed and reported upon by Noel Bell Ridley-Smith+Partners (as required by the Director General's specifications for the Environmental Assessment Report under Part 3A of the Act), concluding that there are no unacceptable heritage impacts created.
- (i) **Services Infrastructure** – The location and capacity of existing services available to meet site demands has been addressed as part of this Part 3A Environmental Assessment work by SLR Consulting, and any necessary relocation or amplification identified. Stormwater requirements (including OSD) have also been studied and appropriate solutions identified (the land is understood not to be flood-prone). S.73 in-principle Certification has been sought from Sydney Water, and those results have now been incorporated in this final EA report.
- (j) **Flora and Fauna** – Neither of these is a negative issue for this development, given the 100% built-up condition of the existing site. Similarly, no riparian planting is necessary along the Sydney Water concrete stormwater canal abutting the land, given its dominant hydraulic function, although generous planting is proposed there. New landscaping will be

significant (see #3.11 and Annexure 8), compared with none at the present time.

- (k) **Economic Impacts** – Addressed by Leyshon Consulting (see their Annexure 7 report provided as part of this EA documentation), their findings are that:-

- the proposed retail floorspace is modest in scale, will essentially be local-serving (only 1300m² excluding showrooms and bulky goods), and will not have undue adverse impact on other centres;
- a similar conclusion is drawn with regard to the 3000m² of commercial office space (additional to Kennards' 1500m² office space) (see section #4.5 of Leyshon Report for detail, and
- any loss of employment lands is of no particular strategic significance, particularly in light of the fact that the subject land is a Mixed Use zone, not a straight employment zone, and in any event a much larger commercial office space component on the site would be problematic from several planning aspects (see discussion at #4.8 of this report).

- (l) **Consultation** - These requirements were set out in the Director General's Requirements in response to the earlier Preliminary Environmental Assessment Report. Such authority consultations included Sydney Water, Integral Energy/Transgrid, State Rail, Roads and Traffic Authority, and Strathfield Council. Results of those consultations are found in Attachment C4, and any expressed concerns have been accommodated in this Concept Plan. Further authority consultations during EA preparation are covered in Attachment D. In addition, a Project Web Page www.columbiaprecinct.com.au was created and public submissions invited, following a letterbox drop notification of some 2000 residences and businesses within the area shown on the map at Attachment E, where a summary of those public submissions may also be found. See web page for detail.

5.4 Summary of Impacts

This Concept Plan Assessment and the design development and analysis undertaken to date, indicate that any negative impacts are manageable and acceptable, while the potential beneficial impacts are significant, weighing strongly in favour of the proposal. Although there will be some loss of existing cross-site views, the net improvement to the site's present appearance will be a strong factor in the proposal's favour, and the generous building separations within and without the site will comfortably satisfy SEPP 65 Design Guidelines. Other SEPP65 criteria and rules-of-thumb are also positively addressed by the design. Environmental improvement will be significant indeed, and the site's appearance also much improved. On balance, it is concluded that the development's positive impacts will greatly outweigh any negative impacts, which are limited.