

JOINT REGIONAL PLANNING PANEL

JRPP No	2011SYE091
DA Number	LDA 2011/413
Local Government Area	Ryde
Proposed Development	Construction of a part 4 and part 5 storey building to be used as a data centre. The development involves car parking for 24 vehicles, 2.7m high fencing and installation of fuel tanks with a capacity of 140,000 litres
Street Address	4 Eden Park Drive, Macquarie Park
Applicant/Owner	Applicant: FDC Construction & Fitout P/L Owner: Next DC
Number of Submissions	3 submissions were received from: <ul style="list-style-type: none">• 1 Eden Park Drive• 4/6 Eden Park Drive and• 17-23 Talavera Road
Recommendation	Approval with Conditions
Report by	Sandra McCarry - Senior Town Planner – City of Ryde

Assessment Report and Recommendation

1. EXECUTIVE SUMMARY

The application proposes to construct a new part 4 part 5 storey building at 4 Eden Park Drive, Macquarie Park and commence use as a data centre. The building will be set back 19m to 20m from the western boundary to allow for the future provision of a 16.1m wide road, 3.05m from the eastern boundary, 10m to 11m from the rear boundary and a minimum front setback of 10.2m to 27m.

The building is being developed by NEXT DC, a data and information technology provider. The centre is to provide the following services:

- Private data suites or cages to customers with customised and larger space requirements or higher security requirements. Each suite or cage will have its own power distribution board.
- Pods and shared data suites.

- Interconnection rooms to provide an environment for communications companies, application providers and content providers to interconnect with each other, acting as hubs with close proximity to major fibre routes.

The equipment to be installed in connection to the proposed use will include a co-generation plant, generator, electricity substation, switching equipment, chillers, uninterrupted power supply systems, computers and office equipment.

The proposal will also include the installation 2 above ground diesel storage tanks with a total capacity of 140,000 litres within the ground floor level of the building and day tanks which will have a maximum storage capacity of 1000 litres associated with the 12 diesel generators installed on Level 1.

As the application has a capital investment value in excess of \$10 million, the development is of regional significance under the provisions of State Environmental Planning Policy (Major Developments 2005). The consent authority for the purposes of determining the subject application is the Sydney East Region Joint Regional Planning Panel.

The application was notified and advertised for a period of 14 days ending on 14 September 2011. During the notification period, one submission was received from the owner of 1 Eden Park Drive (commercial building located southwest of the proposed development – across the road from the site). Amendments were made which increased the setback along the western boundary to provide for the provision of the future road, which in turn reduced the setback along the eastern boundary. The amendments were renotified and two new submissions were received from 4/6 Eden Park Drive (commercial building located south east – across from the ROW) and 17- 23 Talavera Road, located over 500m away. Full discussion of the submissions is detailed further in the report.

The development generally complies with the planning requirements with the exception of the side setback control and is unlikely to result in any significant adverse impact on the amenity of the locality. The variations to the setback controls are supported by Council and are discussed in full later in the report.

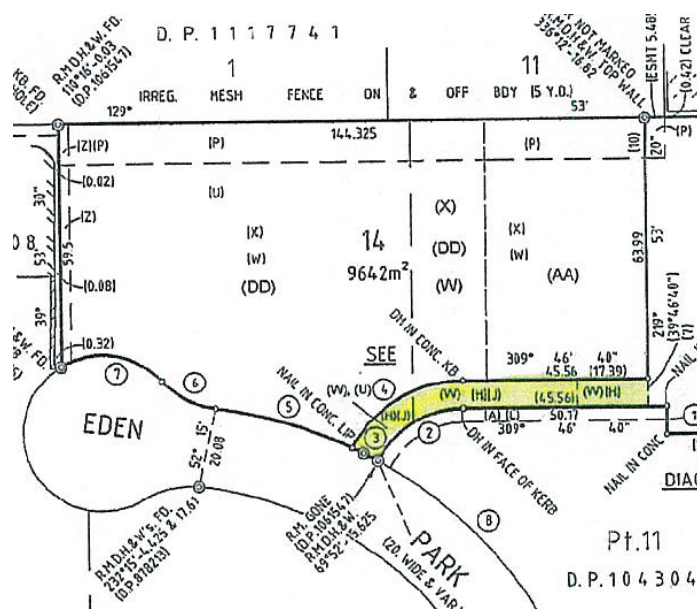
The development application is recommended for approval subject to appropriate conditions of consent.

2. SITE DESCRIPTION

The subject site is known as 4 Eden Park Drive, Macquarie Park and includes the land contained in Lot 14, Deposited Plan 1148612. The site has an area of 9642m², a frontage of some 77.5m and a depth of 63.99m. The site benefits from a 7m wide Right of Way and forms the carriageway on the southern boundary of the property. The location of the site and Right of Way is demonstrated in Figures 1 & 2.

The site is earmarked for part of the future fine grain road network as identified under Council's Development Control Plan 2010. The land is also affected by an overland flow path adjacent to the western boundary of the site. The site is

	Overland flow path
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3. PROPOSAL

Construct a new part 4, part 5 storey commercial building to be used as a data centre by NEXT DC including installation of fuel tanks with a total capacity of 140,000 litres of diesel.

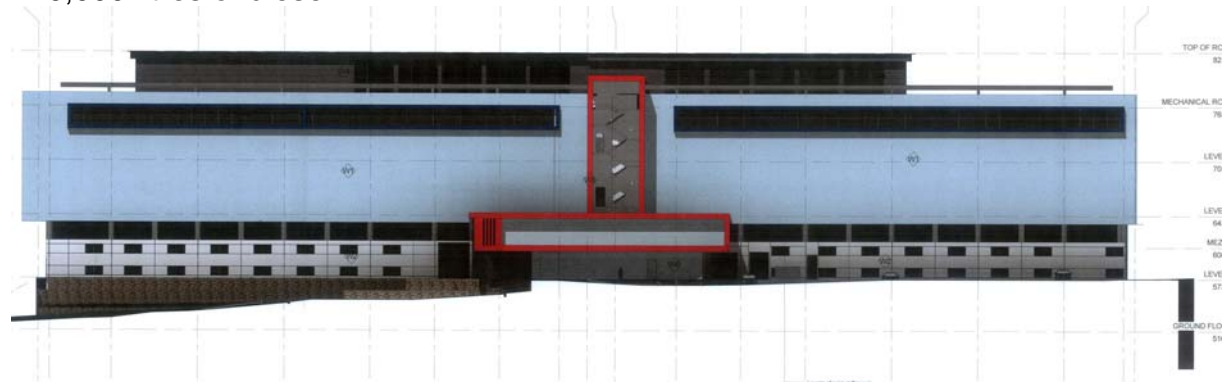


Figure 3 – Street elevation of the proposed development

The various levels of the building are to be used for the following purposes:

Level	Uses
Ground	<ul style="list-style-type: none"> • 11 off-street car parking spaces and an area for bicycle parking • a loading area • unpacking, storage and garbage rooms • staging rooms • telecommunication and security rooms • fuel tanks
Mezzanine	<ul style="list-style-type: none"> • offices • staff amenities
1	<ul style="list-style-type: none"> • HV switch rooms, substation, DRUPS (Diesel Rotary Uninterruptible Power supply), storage, spare plant rooms • offices, security room • staff amenities
2	<ul style="list-style-type: none"> • data halls • plant rooms
3	<ul style="list-style-type: none"> • data halls • plant rooms
Roof	<ul style="list-style-type: none"> • an enclosed mechanical plant room and water tank

All of the levels within the building are to be vertically connected by lifts with additional 14 off street parking at grade in the south eastern setback area of the building with access to these parking spaces via the ROW. The building will be setback 19 to 20m from the western boundary, 3.05m from the eastern boundary and 10 to 11m from the rear boundary with the site to be fenced with a 2.7m high palisade fence. The front fence will be located 5m off the front boundary with 'Dwarf Bottle Brush (1m high) and 'Mat Rush' (900mm high) plantings in front.

Hours of Operation:

The data centre is required to be operational 24 hours/day, 365 days a year and will involve three (3) working shifts between 6am and 2pm, 2pm and 10pm and 10pm and 6am.

Staffing Details:

In its normal operational mode the data centre will employ twelve (12) people.

4. BACKGROUND

- The Urban Design Review Panel and Pre-lodgement Meeting was held on 7 July 2011. At the meeting the UDR panel raised the following:
 - Relocate the office component closer to the street alignment so that human activity would be focused on Eden Park Drive.
 - Façade design is generally supported but encourages further refinement.
 - 16.1m road reserve is desired by Council along the western boundary of the site. A reduction in setback may be sought along the eastern and western boundaries – it is important that landscape design, including tree planting mediate between the scale and verticality of the building and the future streetscape.

The pre-lodgement notes raised the following:

- Zoning – data centres not separately defined – Statement of Environmental Effects should address the issue of permissibility and objectives of the zone.
- Building Design and function – building to be an attractive building that meets the other objectives of the planning controls for Macquarie Park in terms of activated streetscape and presence.
- Fine-grain Road and Access Network – The DCP shows a “type 3” street (16.1m wide) inside the western boundary and a type 3 street (Road 12) outside the northern boundary of the site. Due to the topography of the site and the existing easement Road 12 is best located wholly on the property to the north. The submitted proposal proposed an 8 metre wide area (identified as “future road provision”) with a 5 metre wide setback to the face of the building. The width of the “future road” has been taken as half of a “Type 3” carriageway shared equally between the subject site and No.3 Eden Park Drive. The proposed Data Centre does not require any floor space benefit and it is not proposed to construct the road (other than as a loading dock access) or dedicate the road as part of this application.

Council's preference is for the “future road” to be located as shown in the Structure Plan with the full width of the “Type 3” street and the 5 metre setback on the subject land.

- The application was lodged on 5 August 2011 and the proposal was notified and advertised between 29 August 2011 and 14 September 2011. Three (3) submissions were received.

- Council on 29 August 2011 wrote to the applicant advising that the proposed development in its current form would not be supported for the following reasons:
 - Street network: The plans submitted provided a setback for a half road width, this proposed setback along the western boundary is insufficient to provide for the future provision of a Type 3 Road (16.1m wide) plus the required building setback of 5m. The proposed building will be within the proposed road which does not allow for a fine grained access network and ultimately a road connection to Talavera Road.
 - Applicant to demonstrate that the use satisfies the aim and objectives of the LEP and DCP.
 - The current design provides for little modulation or architectural relief to the façade of the building
 - Additional details of landscaping and replacement trees along the Right of Way.

In addition, the applicant was also advised, via another letter dated 29 August 2011 of engineering requirements and the need for additional/ amendments to drainage plans.

- A meeting was held with the applicant, their architects and planning consultant on 2 September 2011. At this meeting the issues raised in Council's letter was discussed and Council advised that it was essential that the full road (16.1m) is provided to allow for the future provision of the road, the meeting also explored the possibility of "moving" the building to the east to provide the "future road provision" with the 5 metre setback to the eastern boundary and western building alignment being reduced to 3 metres, respectively.
- A further meeting was held on 14 September 2011 where the applicant discussed the possibility of increasing the size of the upper floor and reducing the length of the building so as to provide the 16.1m road provision, with a reduced 3m setback to the building and 3m setback to the other side boundary. Changes to the articulation included horizontal louvers to the front elevation and a corner design. Amended plans were received on 22 September 2011 and the amendments were renotified to adjoining properties.

5. APPLICABLE PLANNING CONTROLS

The following planning policies and controls are of relevance to the development:

- Environmental Planning and Assessment Act 1979;
- State Environmental Planning Policy (Major Developments) 2005;
- State Environmental Planning Policy No. 55 – Remediation of Land;
- State Environmental Planning Policy No 33 – Hazardous and Offensive Development;
- Deemed SEPP Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005;

- Ryde Local Environmental Plan 2010;
- Ryde Development Control Plan 2010.

6. PLANNING ASSESSMENT

6.1 State Environmental Planning Policy (Major Developments) 2005

This DA was submitted to Council on 5 August 2011, prior to changes to the EPA & A Act (which override the Major Development SEPP), which determines that regional development to which the JRPP is the determining authority applies to development over \$20million. Therefore, due to the date of lodgement, the provisions of the Major Development SEPP for regional development apply to this DA

The estimated cost of works of this DA is \$47,644.299. The proposed development is to be determined by the JRPP.

6.2 State Environmental Planning Policy No. 55 – Remediation of Land

The requirements of State Planning Policy No. 55 – Remediation of Land apply to the subject site. In accordance with Clause 7 of SEPP 55, Council must consider if the land is contaminated, if it is contaminated, is it suitable for the proposed use and if it is not suitable, can it be remediate to a standard such that it will be made suitable for the proposed use.

The proposal was referred to Council's Environmental Health Officer who advised that from the previous application for a 6 storey office development approved on the site a preliminary site assessment report was conducted. This site assessment report made the following conclusion:

The report prepared by Environmental Investigation Services (EIS) states that all potential contaminates were below Health Investigation Levels. Asbestos was detected in only one sample location – but no respirable fibres were detected. Conditions relating to further discovery during excavation & construction have been included in this assessment – including location and removal of any underground storage tanks.

Further analysis of samples will be required for off-site disposal of excess soil.

The Environmental Investigation Services (EIS) conclude *“Based on the scope of work undertaken for this assessment EIS consider that the site can be made suitable for the proposed development provided the recommendations made within the report are followed.”*

Condition 36 has been imposed requiring compliance with the recommendations made in the EIS report.

6.3 State Environmental Planning Policy No 33 – Hazardous and Offensive Development

The proposal involves the installation of 2 above ground diesel storage tanks having a total capacity of 140,000 litres within the ground floor level of the building and day tanks, each of which has a maximum storage capacity of 1000 litres associated with each of the 12 diesel generators to be installed at Level 1.

A Hazard Identification and Risk Assessment report by Moore Consulting and Engineering was submitted with the proposal and concludes:

“FDC is undertaking the development of 4 Eden Park Drive, Macquarie Park, New South Wales 2113 as a data storage centre. As part of the development diesel fuel (combustible liquid C1) will be stored on the site. This diesel will be used as fuel to diesel generators used for emergency back-up power generation in the event of power loss. Each diesel generator will have day tank available.

As part of the development diesel fuel (combustible liquid C1) will be stored on the site. This storage is nominated as above ground located under the building, with a total quantity of 140,000 litres to be stored in two [2] quantities of 70,000 litres. Day tanks will be used for the storage of diesel for each diesel generator. There will be twelve (12) day tanks each with a maximum storage quantity of 1,000 litres.

Small quantities of dangerous goods will be used for maintenance and cleaning activities. These include corrosive liquids, flammable liquids, aerosols and oils (combustible liquids C2)

There are no dangerous goods, for the proposed development, that are above the threshold values as described in SEPP 33. The proposed development is not a Potentially Hazardous Industry as described by SEPP 33 and does not require a Preliminary Hazard Analysis.

The hazard identification was undertaken for the unloading, storage, piping and indoor head tank storage for diesel and for the small quantities of dangerous goods that will be used in the proposed development.

The controls for these hazards associated with the storage and handling of diesel will include those described in Australian Standards. The primary standards for the control of hazards associated with the storage and handling of diesel are:

- *AS 1940 The storage and handling of flammable and combustible liquids;*
- *AS 1692 Tanks for Flammable & Combustible Liquids; and*
- *AS 4041 Pressure Piping.*

These standards will be implemented for the installation and operation of the unloading, storage, piping and indoor head tank storage for all diesel to be used at the proposed data centre development.

The hazards and the controls were evaluated in a risk assessment. It was found that risks were "As Low as Reasonable Practical" (ALARP) for the storage, and handling of diesel and for the small quantities of dangerous

goods to be used at the proposed data centre development located at 4 Eden Park Drive, Macquarie Park, New South Wales 2113.”

Council’s Environmental Health Officer agrees with the report and advised that diesel fuel is not considered to be “hazardous” material regardless of the volume and subject to conditions to comply with the design elements contained in the report by Moore Consulting & Engineering, no objections are raised to the proposed works (See **Condition 36**). Council’s Environmental Health Officer has also imposed **Conditions 19 & 55** to ensure that the construction tank bunds are designed and constructed in accordance with certain requirements so they do not provide a hazard to the use or surrounding properties.

6.4 Deemed SEPP Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

Deemed SEPP Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 applies to the subject site and has been considered in this assessment.

The site is located within the designated hydrological catchment of Sydney Harbour and therefore is subject to the provisions of the above planning instrument. However, the site is not located on the foreshore or adjacent to the waterway and it is not a heritage item and therefore, with the exception of the objective of improved water quality, the objectives of the planning instrument are not applicable to the proposed development. The objective of improved water quality is satisfied through compliance with the provisions of Part 8.2 of DCP 2010. The proposed development raises no other issues and otherwise satisfies the aims and objectives of the planning instrument.

6.5 Ryde Local Environmental Plan 2010

The following is an assessment of the proposed development against the applicable provisions of the Ryde Local Environmental Plan 2010.

Zoning

The subject site is zoned – B3 Commercial Core under the provisions of the LEP2010.

State Environmental Planning Policy (Standard Instrument) 2011 came into force on the 13 July 2011, which has the effect of changing clauses, the land use table, and definitions within LEP 2010.

Under the amended LEP 2010, Data centre falls into the definition of “high technology industry” which is defined as:

high technology industry means a building or place predominantly used to carry out an industrial activity that involves any of the following:

- (a) electronic or micro-electronic systems, goods or components,*
- (b) information technology (such as computer software or hardware),*

- (c) instrumentation or instruments of a scientific, industrial, technological, medical or similar nature,*
- (d) biological, pharmaceutical, medical or paramedical systems, goods or components,*
- (e) film, television or multi-media technologies, including any post production systems, goods or components,*
- (f) telecommunications systems, goods or components,*
- (g) sustainable energy technologies,*
- (h) any other goods, systems or components intended for use in a science or technology related field,*

but does not include a building or place used to carry out an industrial activity that presents a hazard or potential hazard to the neighbourhood or that, because of the scale and nature of the processes involved, interferes with the amenity of the neighbourhood.

Note. High technology industries are a type of light industry—see the definition of that term in this Dictionary.

The proposal does not involve hazardous or offensive industry (see discussion above under SEPP 33) and would not interfere with the amenity of the area from any of the abovementioned elements, as such fits into the definition of “light industry”, which is permissible within the zone.

The objectives of B3 Commercial zone are:

- To provide a wide range of retail, business, office, entertainment, community and other suitable land uses that serve the needs of the local and wider community.*
- To encourage appropriate employment opportunities in accessible locations.*
- To maximise public transport patronage and encourage walking and cycling.*
- To ensure the zone is characterised by high-quality well-designed buildings that enhance and encourage a safe environment.*
- To encourage industries involved in scientific research and development.*

The proposed data centre will provide a major point of presence for networks which provides highly resilient and high speed IT communication networks to research and education businesses, serving the local and wider community. The development will provide employment opportunity for 12 employees, whilst not generating a high number, will service the needs of the community. The proposal has been reviewed by Council’s Urban Planner who has recommended some changes to the façade of the building - colour of the louvers to match entrance cladding, roof line of the plant to be extended to overhang/ be in line with front and rear elevations, parapet on roof top to be deleted and the polycarbonate wall be extended by 500mm (see **Condition 35**). The design allows for passive surveillance as the mezzanine office area is provided with glass panels facing the street and slots windows along the side for security sightlines around the site. The proposal can satisfy the objectives of the zone.

Other Mandatory Requirements

Clause 4.3 (2): Height of Buildings

The height of any building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map. The Height of Buildings Map shows a maximum height of 30m for the subject site.

The maximum height of the building will not exceed 28.5m and therefore complies with the LEP.

Clause 4.4 (2)– Floor Space ratio

The maximum floor space ratio for a building on any land is not to exceed the floor space ratio shown for the land on the Floor Space Ratio Map. The maximum floor space ratio for the site is 2:1.

The site has an area of 9642m². A total of 10391m² gross floor area (excluding the floor area of substations, DRUPS, plant rooms etc) is proposed, this equates to a floor space ratio of 1.1:1, which is well under the maximum permitted. No issues are raised.

Clause 4.4B Macquarie Park Corridor – Floor Space ratio

The Consent Authority may consent to a development that results in a floor space ratio in excess of the floor space ratio shown for that land on the Floor Space Ratio Map, if:

- (a) the land contains part of the proposed access network shown on the Macquarie Park Corridor Proposed Access Network Map, and*
- (b) the excess floor space does not exceed the equivalent of the site area provided for the portion of the access network shown in relation to the land.*

The development does not seek a floor space ratio over the maximum permitted on the site.

Clause 4.5E(2) Off Street Parking

The maximum off-street parking for commercial and industrial development in the Macquarie Park Corridor are those shown on the Macquarie Park Corridor Parking Restrictions Map.

As per the Macquarie Park Corridor Parking Restrictions Map, parking cannot exceed the rate of 1 space per 80m² of gross floor area. Based on the gross floor area of 10391m², a maximum of 130 parking spaces can be provided on the site.

A total of 25 off street parking spaces and a cycle space are to be provided in two areas:

- 11 car spaces within the ground floor level of the building and one cycle space with access from the western driveway, and
- 14 spaces at the south west section of the site, including a disabled space, with access from the Right of Way.
- cycle space are provided within the ground floor level.
- Loading facilities are provided in the building at the western end of the ground floor level.

The proposal is well under the maximum parking spaces which can be provided on site and an Assessment of Traffic, Transport and Parking Implications report by Transport & Traffic Planning Associates was submitted with the proposal. The report concludes that due to the low number of employees (12), the proposed parking spaces are adequate and appropriate for the development.

Clause 4.6(6) Retail Activity in Commercial Core Zone

Development for the purposes of retail premises must not be carried out on land that is in Zone B3 Commercial Core in the Macquarie Park Corridor, unless the premises are located on the ground floor level of a building and do not exceed 2,000 square metres, or in the case of a pub, 250 square metres in floor space.

This Clause is not applicable as the proposal is not for retail use.

Clause 6.6 Objectives for Macquarie Park Corridor

- (1) This clause applies to land within the Macquarie Park Corridor.*
- (2) The objectives for the land to which this clause applies are as follows:*
 - (a) to promote the corridor as a premium location for globally competitive businesses with strong links to the Macquarie University and research institutions and an enhanced sense of identity,*
 - (b) to implement the State Government's strategic objectives of integrating land use and transport, reducing car dependency and creating opportunities for employment in areas supported by public transport,*
 - (c) to guide the quality of future development in the corridor,*
 - (d) to ensure that the corridor is characterised by a high-quality, well-designed and safe environment that reflects the natural setting, with three accessible and vibrant railway station areas providing focal points,*
 - (e) to ensure that residential and business areas are better integrated and an improved lifestyle is created for all those who live, work and study in the area.*
- (3) The consent authority must not grant consent for development on the land to which this clause applies unless it has considered whether the proposed development is consistent with the objectives stated in subclause (2).*

The proposed development is generally consistent with the above objectives. The applicant has indicated in the Statement of Environmental Effects that the data centre is *anticipated to be a major Point of Presence for networks such as AARNET, which provides highly resilient and high speed IT and communications networks to Australia education and research community, including Macquarie University.*

6.6 City of Ryde Development Control Plan 2010

The following sections of DCP 2010 are relevant to the proposed development:

Part 4.5 – Macquarie Park Corridor


This part of the DCP provides a framework to guide future development in the Macquarie Park Corridor, North Ryde. The DCP specifies built form controls for all development within the Corridor and sets in place urban design guidelines to

achieve the vision for Macquarie Park as a vibrant community, as a place to live, work and visit. The following compliance table indicates the proposal's compliance with this part:

Control	Comments	Comply
S3.0 – Structure Plan		
3.2 Street Network Provide new public streets as shown in the Street Network Structure Plan.	The Street Network Structure Plan requires new roads on the site. The requirement for the provision of road can only be imposed if the proponents claim bonus provisions under the LEP (as an incentive). In this instance, the proposal does not rely on the bonus provisions. The applicant has amended the plans to provide for future 16.1m wide road adjacent to the western boundary as shown in the street network structure plan. Type 3 streets – require 16.1m.	Yes
3.3 Open Space Network Provide public open space as shown in Figure 4.5.06 Open Space Network.	The site has not been earmarked for open space.	N/A
3.4 Built Form Network a. Buildings are to be designed in accordance with s6.0. b. Refer to City of Ryde LEP 2008 Amendment 1 for Building Height & Floor Space Ratio controls.	See Section 6 below. Compliance with building height and floor space ratio controls	See below Yes
S4.0 – Special Precinct		
Must comply with special precinct requirements	The site does not form part of any special precinct identified in the Macquarie Park Corridor.	N/A
S5.0 – Public Domain		
5.1.1 Introduction a. Buildings are not permitted on any proposed street identified in the Street Network Structure Plan section 3.	The Street Network Structure Plan requires a Type 3 Street (16.1m wide) adjacent to the western boundary. The applicant has amended the plans to provide for future 16.1m wide road adjacent to the western boundary as shown in the street network structure plan. No building will be constructed within the future road provision.	Yes
5.1.4 Type 3 Streets a. Varies, Typically 16.1m road reserve (to Council satisfaction.	Along the western boundary: 16.2m – provided.	Yes

<p>b. Existing Streets extend along existing alignment where possible.</p> <p>c. New streets: provide new Type 3 streets where shown in Figure 4.5.44 & 4.5.56 of the Plan.</p> <p>d. Streets are defined by minimum 5 Landscaped street setbacks.</p> <p>f. Cycle facilities are to be provided in accordance with Ryde Bicycle Strategy & Master Plan 2007.</p>	<p>Street not required to be provided as no bonus claimed.</p> <p>Street not required to be provided as no bonus claimed.</p> <p>3m side setback – see full discussion below under 6.1.4 – setbacks.</p> <p>Eden Park Drive is not identified as an existing or planned local bike route and existing bike routes will not be affected by the development.</p>	<p>N/A</p> <p>N/A</p> <p>No – see full discussion under 6.1.4</p> <p>Yes</p>
<p>5.3.1 Cycle Strategy</p> <p>a. Provide dedicated cycle access in accordance with Ryde Bicycle Strategy & Master Plan 2007.</p>	<p>The site fronts on to the Eden Park Drive. The bike routes will not be affected by the development. Cycle access and a bicycle storage area are located in the ground floor car park area.</p>	<p>Yes</p>
<p>5.3.2 Street Furniture</p> <p>a. Design and build streets in accordance with the details provided in the Macquarie Park Public Domain Technical Manual.</p>	<p>As mentioned earlier, roads will not be constructed as part of the current development. However, the development has been designed to ensure that the future type 3 road can be provided at some stage in the future. A condition of consent has been included to require the public domain along Eden Park Drive to be upgraded (See Condition 42).</p>	<p>N/A</p>
<p>5.3.3 Street Tree & Front Setback Tree Planting</p> <p>a. Street trees and front setback must be provided in accordance with the Street Tree Key Plan in the Macquarie Park Public Domain Technical Manual, and their health guaranteed for a minimum of 5 years.</p>	<p>The applicant will be required to provide street trees along Eden Park Drive in accordance with the Macquarie Park Public Domain Technical Manual (see Condition 42).</p>	<p>No details provided – will require by way of condition</p>
<p>5.3.4 Community Facilities</p> <p>a. Community facilities are to be provided as required by the Ryde City Council's Section</p>	<p>The issue of Section 94 has been discussed further in the report. The development will not generate the need for any increase in community facilities other than envisaged by the Section 94 Contributions Plan 2007.</p>	<p>N/A</p>

94 Plan.		
5.3.5 Public Art a. Public art must be included in all new development on sites over 15,000m ²	The subject site does not exceed a site area greater than 15,000m ² . This clause is not applicable to the development.	N/A
S6.0 – Site & Building Design		
6.1 – General Built Form Controls		
6.1.1 Height Controls a. Building heights are to comply with Ryde LEP.	The development complies with the height requirements under the LEP2010 as discussed earlier in this report.	Yes
6.1.2 Floor Space Ratio Controls a. Floor space ratios are to comply with the Ryde LEP 2010	The application proposes an FSR of 1.1:1 whereas a FSR of 2:1 is permitted on the site. The development complies with the floor space ratio requirements in the LEP 2010.	Yes
6.1.3 Site Planning & Staging a. Sites are to be planned to allow for the future provision of new streets and open spaces in accordance with Ryde LEP 2010. b. Buildings are to be sited to address existing and new frontages in the following order of precedence: i. Primary frontages: These are located along existing streets (typically Type 1 or 2 streets). ii. Secondary frontages: these are generally existing, or new Type 2 or 3 streets. c. Front door and street address is to be located on the primary frontage. Loading docks, vehicular access is not permitted to be located on the primary frontage unless it can be demonstrated that there is no alternative.	Building setback 16.2m from western boundary to allow for future provision of a type 3 road. Eden Park Drive and the type 3 road identified on the site are both identified as staged development frontages rather than a primary or secondary frontage. These are streets which are envisaged to take longer to deliver. In this instance the development will address Eden Park Drive. This siting is considered appropriate given the size of the frontage to this road. Front entrance facing Eden Park Drive, loading docks located at rear of building. Vehicular access is off access road (ROW)	Yes Yes Yes
6.1.4 Street Setbacks	The DCP identifies the setback to Eden Park Drive as	Yes

<p>& Built-To Lines</p> <p>a. Minimum setbacks and build-to lines must be provided as shown in Figure 4.5.83 of the DCP.</p>	<p>being a minimum of 5 metres. The development complies with this requirement as a minimum 10.2m front setback is provided at the south western corner of the building, with the rest of the building varying in the setback from 11.4m to 27m.</p>	
<p>6.1.5 Side & Rear Setbacks</p> <p>b. Buildings are to be set back 10m from a rear and 5m from a side site boundary.</p>	<p>Rear: 10 to 11m Eastern side: 3.05m Western side: 3m from proposed future road.</p> <p>The proposed development complies with the rear setback requirement however does the proposal does not comply with the side setback requirements as the building has been moved to the east so as to provide for a future road provision of 16.1m (as shown on the Fine-Grain road network) with the offset that the 5m setback to the eastern and western setback be reduced to 3m.</p> <p>It is considered that the reduced setback satisfies the objectives of the setback requirements in that:</p> <ul style="list-style-type: none"> Currently at 5 Eden Park Drive (the adjoining eastern property) the buildings on site are setback approximately 30m from the common boundary with car parking and loading dock adjacent to the common boundary. In this regard, the separation distance between new and existing would still be of the order of over 30 metres. The facing facades would not create any issues with privacy or overshadowing given the passive nature of the data Centre and the back-of-house character of No. 5 Eden Park Drive.  <ul style="list-style-type: none"> It is proposed provide a strip of planting comprising of 'NSW Christmas Bush' (mature height of 5m x 3m wide) along the eastern boundary, which will screen and soften the development from the adjoining property. The streetscape pattern as defined along Eden Park Drive will not be impacted as the reduced setback along the eastern elevation will not be apparent from Eden Park Drive and therefore is in keeping 	<p>No</p>

	<p>with the above objectives.</p> <ul style="list-style-type: none"> • Along the western boundary, the adjoining property at 3 Eden Park Drive, there is a side driveway and basement ramp between the current building and common boundary, therefore the building on 3 Eden Park Drive is setback approximately 13.5m from the common boundary. Whilst the proposal has a reduced setback from the future road to the building of 3m, nevertheless the setback from the common boundary to the new building will be in the order of 19m. The reduced setback of 3m from the future road to the proposed building will have minimal impact to 3 Eden Park Drive as there will be no overlooking or overshadowing concerns. • Along the western setback area landscaping is provided within both the reduced 3m setback and within the future road provision. The landscaping will comprise of several different types of shrubs and 'Flowering Gum' trees (mature height of 5m x 3m wide) within the 3m setback and the flowering Gum trees within the future road provision. • Given that the proposed variations will have minimal impacts in terms of visual, acoustic privacy, and streetscape impact and given Council's position for the full road, as shown on the street network structure plan to be provided the proposed variations to the setback can be supported. 	
6.1.6 Building Separation a. Provide a minimum 20m separation between buildings facing each other within a site.	<p>This requirement is only applicable where buildings face each other within the same site and its objective is to ensure adequate separation to allow for visual privacy and solar access to buildings.</p> <p>There will be a single building on the site with adequate setbacks, no issues are raised in relation to this matter.</p>	N/A
6.1.7 Building Bulk a. Building Bulk All buildings must comply with Section 6.1.15 of the DCP (Environmental Performance).	Discussed further in report.	N/A
6.1.8 Site Coverage & Deep Soil Areas a. A minimum 20% of a site must be provided as deep soil area.	<p>Require: 20% = 1928.4m² required.</p> <p>Proposed: 21.7% (1991m²). The development complies with this requirement.</p>	Yes
6.1.9 Building Articulation a. Facades are to be composed with an appropriate scale, rhythm and proportion, which	<p>Council's Urban Planner has reviewed the design of the building and has verbally advised that the proposed material of polycarbonate translucent panels will add architectural interests to the building, especially at night. Some minor changes, such as roof line to be extended, parapet deleted and colour matching is recommended (see Condition 35). The</p>	Yes

respond to the building use and the desired character.	amendments will add to the overall design of the building and subject to the proposed amendments the proposal is considered satisfactory.	
6.1.10 Ceiling Heights a. Maximum ceiling heights are to be provided as follows: Minimum dimensions are measured from finished floor level to finished ceiling level: <ul style="list-style-type: none"> • Ground level – 3.6m • Upper levels – 2.7m 	Ground floor – 3.6m Upper levels – 4.6m	Yes
6.1.11 Active Frontages a. Continuous ground level active uses must be provided where primary active frontages are shown in figure 4.5.94 of the DCP. b. Active ground level uses are encouraged where secondary active frontages are shown in figure 4.5.94.	The DCP does not identify Eden Park Drive as a primary or secondary active frontage. These controls are not applicable to the development.	N/A
6.1.12 Awnings & Canopies a. Continuous awnings must be provided where primary active frontages are shown in Figure 4.5.94 of the DCP.	As the site has not been identified as having a primary active frontage, there is no requirement for an awning or canopy. This control is not applicable to the development.	N/A
6.1.3 Topography & Building Interface. a. Natural ground level is to be retained for a zone of 4m from the side and rear property boundaries. Retaining walls, cut and fill are not permitted within this zone.	The development will involve excavation to the western section of the building within the building footprint. The excavation will be clear of the 4m zone from the side and rear boundaries. The development complies with the requirements of this clause.	Yes
6.1.14 Advertising Signage a. Signage shall comply with Part 9.1 of the DCP.	No signage is proposed as part of this application.	N/A

<p>6.1.15 Environmental Performance</p> <p>a. Commercial development is required to achieve a 4 Star Green Star Certified Rating.</p> <p>b. Additional floor space may be permitted within a development where the building can demonstrate design excellence and environmental sustainability.</p>	<p>Green star does not cover data centres, as such this clause is not applicable to the development. The application has however proposed various ecologically sustainable design strategies to reduce the environmental impact of the development. This includes: variable speed drives on pumps, fans, chillers, increased temperature difference and chilled water supply temperature, aisle containment and IT load management, waste heat utilization, water and air side economizers, energy monitoring and continuous improvement programme, continuous real-time monitoring of Power Usage Efficiency (PUE), efficient lighting design, fittings and controls, efficient water fittings and controls plus rainwater collection and reuse for landscape irrigation, toilet flushing, cooling tower make-up. Condition 36 has been imposed requiring compliance with the strategies contained in the Sustainability Management Plan by Cundall.</p>	<p>Yes</p>
<p>6.1.16 Wind Impact</p> <p>a. All applications for buildings over 5 storeys in height shall be accompanied with a wind environment statement.</p>	<p>The building is not over 5 storeys.</p>	<p>N/A</p>
<p>6.1.17 Noise & Vibration</p> <p>a. An Acoustic Impact Assessment report prepared by a suitably qualified acoustic consultant is required to be submitted with all development applications for commercial, industrial, retail and community buildings, with the exception of applications minor building alterations. Development is to comply with all relevant statutory regulations.</p>	<p>The applicant has submitted an acoustic report prepared by an appropriately qualified acoustic consultant (Cardno ITC P/L) The assessment included consideration of noise emissions from mechanical plants such as chillers, DRUPS, power transformers etc. Noise attenuation measures have been recommended to be included in the design to ensure that noise emitted from the development complies with the NSW Industrial Noise Policy</p> <p>There are no residential developments nearby. The nearest residential property is The Marriott Courtyard Hotel, located 200-250m away on the western side of Lane Cove Road.</p> <p>The report concludes that <i>“through design of specific noise control measures to mechanical plant and control of loading dock activities, the development would meet the Ryde City Council DCP acoustic requirements.”</i></p> <p>It is proposed to include conditions on the consent to ensure that the development will meet the acceptable levels as contained in this policy. This will ensure that the amenity of the locality will be maintained. (See Conditions 27,28, 36 & 95)</p>	<p>Yes</p>

6.2 – Private & Communal Open Space		
6.2.1 Landscaping & Communal Courtyards a. A minimum 30% of the developable area of the site is to be provided as Landscaped Area. b. Solar access to communal open spaces is to be maximised. Communal courtyards must receive a minimum of 3 hours direct sunlight between 9am and 3pm on 21 June. e. Landscaped areas are to incorporate trees, shrubs and ground covers endemic to the area where appropriate. f. Landscaping is to contribute to water efficiency and effective stormwater management.	<p>Require: 2892.6m² Proposed: 2956.9m² (32%)</p> <p>No designated communal open space shown on plans, however sufficient area is available for use in rear setback area with sufficient solar access.</p> <p>It is proposed to provide various trees, shrubs and ground cover, as listed on the Landscaping plant schedule. Some of the species named in the plant schedule are not endemic to the area and Condition 40 has been imposed requiring the Landscaping Plan to be amended to incorporate more trees, shrubs and ground covers that are endemic to the Ryde area. With the incorporation of more nature plants, this will contribute to water efficiency plus rainwater collection and reuse for landscape irrigation is proposed.</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p>
6.2.2 Pedestrian Through-Site Links: a. Pedestrian through-site links must be provided: i. where pedestrian access corridors are shown on RLEP 2010 ii. within special Precincts iii. as determined by Council	<p>No pedestrian access corridor is required to be provided as shown in RLEP 2010.</p> <p>The development site is not located within any Special precincts</p>	<p>N/A</p>
6.3 – Services & Site Management		
6.3.2 Stormwater Drainage a. Development shall comply with the requirements outlined in the Stormwater Drainage Section of the DCP & a stormwater drainage system in accordance with the “major/minor” system concept set	<p>Council’s Development Engineer has assessed the development application and raised no objections to the proposal, subject to conditions. (See Conditions 11 to 18, 46 to 54, 62 to 64 & 84 to 88)</p>	<p>Yes</p>

out in Australian Rainfall and Runoff.		
6.3.3 Waste Management a. All applications for demolition and development must be accompanied by a Waste Management Plan that specifies the type of waste to be produced and the proposed arrangements for ongoing waste management, collection and disposal.	A waste management plan was submitted with the development application. This has been reviewed by Council's Environmental Health Officer and no objections have been raised.	Yes
6.3.4 Soil Management b. Development is to be designed and constructed to integrate with the natural topography of the site.	Appropriate conditions of consent will be imposed to require the submission of an erosion and sediment control plan that meets the Council's requirements (Conditions 43, 62 & 63).	Yes
6.3.5 Site Contamination a. Prior to the submission of subdivision and development applications, a suitably qualified environmental engineer on behalf of the applicant is to assess whether the subject land is contaminated.	An environmental site assessment report by Environmental Investigation Services has been submitted with the application which concludes that that site is suitable for the proposed development subject to recommendations contained in the report. Condition 36 has been imposed requiring this. Council's Environmental Health Officer has reviewed the application and raised no objection to the proposal.	Yes
6.3.6 Site Facilities a. Adequate loading facilities to be provided	Adequate loading/unloading and access provisions have been provided.	Yes
6.3.7 Vehicular Access a. Vehicular access is not permitted along streets identified as 'Active Frontages'. b. Where practicable, vehicle access is to be from secondary streets. c. Potential	Eden Park Drive is not identified as an "active frontage". Access from Eden Park Drive.	Yes Yes

<p>pedest/vehicle conflict is to be minimised by:</p> <ul style="list-style-type: none"> i. Limiting the width and no. of vehicle access points. ii. Ensuring clear site lines at pedestrian and vehicle crossings. iii. Utilising traffic calming devices. iv. Separating and clearly distinguishing b/w pedestrian and vehicular accessways. <p>d. The appearance of car parking and service vehicle entries is to improved by:</p> <ul style="list-style-type: none"> i. Locating/ screen garbage collection, loading & service areas away from the street. ii. Setting back or recessing car park entries from the main façade line. iii. Avoiding black holes in the façade by providing security doors to car parking entries. 	<p>One way in and out for visitors and employees car parking.</p> <p>Clear sight lines.</p> <p>Not required.</p> <p>No separate accessways however sufficient width to cater for both pedestrian and vehicles.</p> <p>Loading and servicing area located at rear.</p> <p>Roller door provided.</p>	<p>Yes</p> <p>Yes</p> <p>N/A</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
<p>6.3.8 On site Parking</p> <ul style="list-style-type: none"> a. Safe and secure 24 hour access to car parking areas is to be provided for building users. b. Parking areas must not be located within the front, side or rear setbacks. c. Parking areas are to be screened from view from the st, public domain & communal open space areas, using site planning & appropriate screen 	<p>Parking at street level and in lower ground floor level.</p> <p>Street level parking located outside the front setback area and not visible from Eden Park Drive.</p> <p>Landscaping will screen the view of the car park area from access road.</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p>

planting or structures.		
d. Provide safe & direct access from parking areas to bldg entry points.	Direct access from parking area to building entry.	Yes
e. Provide appropriate mature vegetation b/w parking bays to provide shade and enhance visual impact.	Landscaping proposed.	Yes
f. Basement parking areas should be located directly under building footprints to maximise opportunities for deep soil areas unless the structure can be designed to support mature plants and deep root plants.	Ground floor parking area within building footprint.	Yes
g. Basement parking areas must not extend forward of the building line along the street.	Basement parking area does not extend forward of the building.	Yes
j. Ventilation grills or screening devices of car park openings are to be integrated into the overall façade and landscape design of the development.	Roller doors to be painted same colour as louvers.	Yes
6.3.9 Work Place Travel Plan (WPTP) b. A WPTP is required for all developments that exceed 15,000sqm floor space or 300 employees.	This clause is not applicable to the development.	N/A

Part 9.1 - Advertising Signs

No signage is proposed as part of this application. **Condition 10** has been imposed requiring a separation application to be submitted and approved prior to the erection of any signage.

Part 9.2 - Access for People with Disabilities

The applicant has submitted an Access Report by Accessibility Solutions which confirms that the development can comply with the accessibility requirements

under Council's DCP, the BCA and DDA. The architectural plans show an entrance ramp from the street to the building foyer and to the lift area with a disabled WC located on the mezzanine level.

6.7 Any Draft Planning Instruments

There are no draft Planning Instruments that affect this application.

6.8 Section 94 Development Contributions Plan 2007 (2010 Amendment)

The Section 94 Contributions Plan – 2007 allows Council to impose a monetary contribution on developments that will contribute to increased demand for services as a result of increased development density/ floor area.

The development proposes a *gross floor area* of 10391m² for the proposed building. This excludes all the plant, substations, DRUPs (Diesel Rotary Uninterruptible Power Supply) and the like.

The contributions that are payable with respect to the floor area (floor area for the purposes of S94 contribution excludes the plant rooms, substation, loading dock, DRUPs and the like) on the subject site (being for non-residential use inside Macquarie Park area – commercial) are as follows:

A	B
	\$118.75 per m² gross floor area
Community & Cultural Facilities	\$373,757.37
Open Space & Recreation Facilities	\$0
Civic & Urban Improvements	\$366,170.16
Roads & Traffic Management Facilities	\$385,079.81
Transport & Accessibility Facilities	\$0
Cycleways	\$50,542.45
Stormwater Management Facilities	\$44,822.87
Plan Administration	\$13,540.24

The total contribution is **\$1,233,912.91**

NOTE:

1. The above calculation has been reviewed by the Team Leader – Major Development Team. A copy of rates and calculation spreadsheet is on file.
2. The June 2011 rates have been applied to the development.
3. **Condition 30** requiring the payment of a Section 94 contribution of **\$1,233,912.91** has been included in the recommendation of this report.

7. LIKELY IMPACTS OF THE DEVELOPMENT

Built Form

The proposed development will not have any significant adverse impacts on the existing built environment or the amenity of the surrounding area.

The building is sited a minimum of 12m away from the Eden Park Drive and minimum 13m from the access road leading to 5 Eden Park Drive. The proposed landscaping plan shows the site to be well landscaped with varying shrubs and trees providing a tier canopy of planting so as to soften the development. Tree planting will be provided within the front setback area, including in front of the at grade parking along the south-eastern section of the site. Vehicular access to the front at grade parking is from the access road to 5 Eden Park Drive, which the subject site benefits from (ROW). Currently the access road is planted with mature trees on both sides of the road. The proposed entrance and exit driveway will have the potential to impact on these existing trees however replacement trees are provided within the car park area.

The height of this building is within the permitted height and Council's requests for additional articulation and improved finishing has been incorporated in the design to a large extent despite the primary focus for a secure building for use as a date centre. The applicant has shown a number of finishes and material samples in support of the application. These are supported by Council's Urban Design Planner. The proposal is well under the maximum 2:1 floor space ratio permitted on the site (proposal 1.1:1).

The proposed 2.7m fence will be palisade fence with landscaping in front. The proposed fence is required to make the site more secure and will be located 5m within the subject site.

Noise Impact

Any possible noise impact emanating from the site as a result of operating the plants have been addressed via Acoustic Assessment by Cardno ITC which recommended noise attenuation measures in the design. Appropriate conditions have been recommended to ensure the required measures recommended in the report are incorporated in the design. See **Conditions 36 & 37**, in addition, Environmental Health Officer has also imposed **Conditions 27, 28 & 95** to ensure noise impact is minimised.

Traffic Impact

Council's Traffic Engineer has reviewed the proposal and has advised that the traffic generated by the proposal is minimal (only 12 maximum traffic movements during normal peak traffic periods which is not considered significant.). The Traffic Impact statement by the applicant is considered satisfactory and further information is not considered warranted. A Traffic and Pedestrian Construction Management Plan will be submitted as part of Construction Certificate application. (See **Condition 60**).

Safety by Design

In assessing this development application Council must have regard for the "*Crime Prevention Guidelines to Section 79C of the Environmental Planning and Assessment Act, 1979*" issued by the Department of Planning in April 2001. These guidelines include 4 key areas for assessment:

1. Surveillance
2. Access Control
3. Territorial Reinforcement
4. Space Management

Generally, the proposed development is capable of addressing each of the above criteria in an acceptable manner.

Hours of Operation

The data centre is required to be operational 24 hours/day, 365 days a year. Given the nature of use it is unlikely to result in any significant adverse impact on the locality, no objection is raised. No conditions are recommended to restrict the hours of operation.

Substation

The applicant contacted Ausgrid to ascertain whether a substation kiosk or other utility service is required for the development. Via letter dated 16 June 2011, Ausgrid advised that:

Our system Planning Group completed their initial assessment and confirmed that your site, with the forecasted load growth you provided, will be supplied from Ausgrid's 11kV network in the Macquarie Park area. This will require you to construct, as contestable works, new dedicated feeders from our zone substation to your premises. Full design information will be provided upon submission of an Application for Connection (AFC)"

A HV switchroom has been provided within the building to accommodate the above and **Condition 44** has been imposed ensuring that any substation/kiosk is provided within the building footprint.

8. COMMENTS FROM COUNCIL DEPARTMENTS

Development Engineer: 14 October 2011: Development Engineer: Council's Development Engineer has made the following comments:

The revised architectural and drainage plans have been reviewed and apart from minor non compliances which can be conditioned, the proposal is considered to be satisfactory and in accordance with DCP 2010 part 8.2.

The application has also been referred to Public Works Division and they have raised no objections to the proposal, subject to conditions.

No objections are raised to the proposal, subject to engineering conditions.

Engineering conditions have been imposed as required.

Catchments & Assets Team: 9 September 2011:

I refer to the Concept Stormwater Drainage Plan by Northrop regarding the proposed overland flow path at 4 Eden Park Drive, Macquarie Park. The proposed overland flow path is acceptable and can be approved subject to the following conditions being included in any consent.

- *Overland flow path shall be provided generally in accordance with the Concept Stormwater Drainage Plan, job no 11128 – Revision 1 dated 5 August 2011 by Northrop;*
- *The proposed pollution control device shall be located outside the overland flow path;*
- *The basement car park area shall be protected from flooding including the Probable Maximum Flood (PMF) event.*
- *Prior to the issue of the Occupation Certificate, a suitably qualified floodplain engineer shall certify that overland flow paths were constructed in accordance with the Concept Stormwater Drainage Plan prepared by Northrop;*
- *Prior to the issue of the Construction Certificate, a suitably qualified engineer shall certify that all structures, storage areas and utility services below the 100 year ARI flood event plus 0.5m freeboard are flood compatible.*

The above **Conditions 15 to 18 & 50(b)** have been imposed.

Traffic Engineer: 12 October 2011: Council Traffic Engineer has advised, subject to conditions, raised no objections to the proposed development. These conditions have been included as part of the engineering conditions.

Environmental Health Officer: 22 August 2011:

No objection was raised from Council's Environmental Health Officer subject to standard environmental health conditions (**Conditions 19 to 29, 55 to 58, 74 to 83 & 89 to 99**).

9. EXTERNAL REFERRALS

Adjoining properties owners were notified of the proposal and NSW Transport Railcorp has responded back advising that there are no objections subject to conditions. **Conditions 38 & 39** has been imposed as required.

10. PUBLIC NOTIFICATION AND SUBMISSIONS

The application was advertised and notified between 31 August to 14 September 2011 and again on 23 September to 7 October 2011. One submission was received from the 1st round of notification from the land owner of 1 Eden Park Drive (a multi storey commercial building located south west of the proposed development). Two new submissions were received after the 2nd round of notification from 4/6 Eden Park Drive (a multi storey commercial building located south east of the proposed development) and 17-23 Talavera Road. Note: The submission from 4/6 Eden Park Drive did not object to the amendment to the side setbacks but raised concerns about the safety of the proposed use.

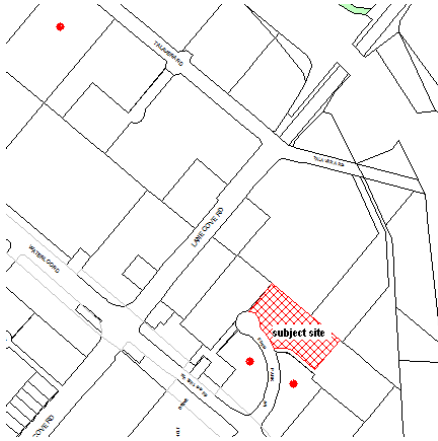


Figure 4 – Red dot denotes location of submission received.

The objections raised the following concerns:

1 Eden Park Drive

- *Operational details state only 12 employees – the rate of employment generation is not generally consistent with the zone objective to encourage employment opportunities. The objectives also make reference to the character of the area of high quality well designed buildings that enhance and encourage a safe environment. The proposed building design with minimal windows and articulation, while necessary for operational reasons, may impact on perceptions of security in the area due to lack of opportunities for passive surveillance. Further the low employment numbers will not aid the attainment of a safe environment. We also don't believe the proposed development could be considered "well designed".*

Comment:

The objectives is generally achieved as the operation of the data centre is anticipated to be a major point of presence for networks which provides highly resilient and high speed IT communication networks to research and education businesses. Furthermore, the proposed development is permissible within the B3 zoning and Council and the Joint Regional Planning Panel (JRPP) has approved similar development within the Macquarie Park Corridor. Whilst the development will provide employment opportunity for 12 employees, the use will service the needs of the local and wider community. With regards to passive surveillance a mezzanine office area is provided with glass panels facing the street and slots windows along the side for security sightlines around the site. The data centre is operational 24 hours/day, 365 days a year with staff on site 24 hours.

Council has requested the applicant to address the building façade to provide more articulation and architectural interest to the building. Amended plans have been submitted addressing this concern and Council's Urban Planner has advised that the proposal is considered satisfactory subject to the roof line being extended, parapet deleted and louvers to be the same colour as the staircase/entrance cladding.

- *Our view is that the most appropriate definition for the proposed data centre use is 'high technology industry'. We are of the view that the proposed*

development may present potential hazards by the use of the building. Reporting undertaken regarding electro-magnetic emissions, acoustic emissions and hazardous material storage (i.e. diesel tanks). Whether Council has sufficient expertise to analyse these reports or whether there has been/or will be a peer review of these reports to ensure adequate ongoing environmental, health and safety measures are proposed.

Comment:

The use falls under the definition of high technology industry but the proposal does not involve hazardous or offensive industry and is not considered to interfere with the amenity of the area from any of the abovementioned elements, as such fits into the definition of “light industry”, which is permissible within the zone.

Council's Senior Environmental Health Officer has reviewed the proposal and relevant reports and has no objections to the proposal. The report prepared by Environmental Investigation Service states that all potential contaminants were below Health Investigation Levels and **Condition 36** has been imposed requiring compliance with the recommendations contained in this report.

A Hazard Identification and Risk Assessment report by Moore Consulting and Engineering was submitted with the proposal and concludes: *There are no dangerous goods, for the proposed development, that are above the threshold values as described in SEPP 33. The proposed development is not a Potentially Hazardous Industry as described by SEPP 33 and does not require a Preliminary Hazard Analysis.*

Council's Environmental Health Officer agrees with the report and advised that diesel fuel is not considered to be “hazardous” material regardless of the volume and subject to conditions to comply with the design elements contained in the report by Moore Consulting & Engineering, no objections to the proposed works. **Condition 36** has been imposed requiring this and Council's Environmental Health has imposed **Conditions 19 & 55** to ensure that the construction of the tank bunds are designed and constructed so that they do not provide a hazard to the use or surrounding development.

The applicant has addressed electro-magnetic emissions by providing a letter from ARUP stating:

Due to the centralised nature of a data centre, e.g. 30 to 40 times the power density of a typical office, there is a corresponding increase in the number of substations. However, the Extra Low Frequency (ELF) Electro Magnetic Fields (EMF) from the 50Hz equipment are controlled through careful design and configuration of cabling - including shielding via the earthed casings of busduct such that they are largely cancelled out.

The building layout has also been configured such that the high current equipment (transformers and main switchboards) are located in the non occupied (both adjacent and above) areas of the building and cable routes are also carefully selected such that people in normally occupied spaces are not located directly adjacent.

It has been our experience, over twelve years and 1 20,000m2 of built data centres that ELF – EME has not been a concern to people or IT equipment and complied with standards.

Conditions 36 & 37 have been imposed requiring the comments and recommendations contained in the submission by ARUP are adhered to and certification of compliance.

The applicant has submitted an acoustic report prepared by an appropriately qualified acoustic consultant (Cardno ITC P/L). The assessment included consideration of noise emissions from mechanical plants such as chillers, DRUPS, power transformers etc. The operation of the diesel generator will be required to meet stringent acoustic requirement and noise attenuation measures have been recommended to be included in the design to ensure that noise emitted from the development complies with the NSW Industrial Noise Policy. The report also states: *it is not anticipated that vibration generated by bulldozers and the piling rig would significantly affect adjoining commercial properties during the construction of the facility. However all construction activity will be required to meet vibration OEH criteria outlined in Section 2.6.2 of this report.*

ARUP consultant has advised: *The generators will be mounted on spring isolators to limit the levels of vibration being transmitted into the surrounding or supporting structure. Vibration isolation will also be utilised for all attachments to the generators including structural mounts and the connection to piping, ductwork and the electrical system to mitigate residual vibration even when equipment is properly isolated.* **Condition 36** have been imposed ensuring compliance with the best practise measures with regards to the noise emission and vibration criteria contained in the reports prepared by Cardno P/L and ARUP.

Council's Environmental Health Officers have the skill and ability to assess these reports without the need for future experts. Furthermore conditions have been imposed to ensure compliance with the recommendations contained in each of the relevant reports, as such no objections have been raised to any of these reports subject to appropriate conditions of consent which have already been discussed.

- *We note that a 2.7m metal palisade fence will surround the site. As Eden Park Drive is part of a "business park" precinct, we are of the view that it is not in keeping with such a precinct.*

Comment:

Due to the nature of the development, security fencing is required. The fence is setback 5m in from the front boundary and will have landscaping in front to screen the fence. The fencing will not adversely impact on the amenity of the locality.

- *All of the above issues have the potential to severely impact the amenity, heath, safety and value of 1 Eden Park Drive. As such, further assessment of these issues should be addressed, in particular:*
 1. *shadow diagrams should be provided by the applicant*

2. *view analysis should be provided*
3. *further information regarding building finishes*
4. *what measures will be enforced by Council to ensure environmental, health and safety concerns are addressed*
5. *what measures will be enforced by Council to ensure acoustic concerns are addressed.*

Comment:

The proposal is for a part 4/part 5 commercial/industrial building complying with the height limit. Shadow diagrams are not required to be provided for commercial development in non residential zones, however the development is not considered to have such an adverse impact with regards to overshadowing to warrant refusal of the proposal.

With regards to view analysis, the proposal is under the permitted height control within this area and there are no significant iconic views within this area which warrant a view analysis of the area.

Council has requested details of the finishes for the proposed building, which will be polycarbonate translucent panels with metal cladding and sandstone retaining walls. Council's Urban Planner has advised that subject to imposition of **Condition 35** which will provide some architectural relief and interests to the building façade, the proposal is considered satisfactory.

Conditions 36 & 37 have been imposed ensuring compliance with the recommendations contained in each of the relevant reports and any non compliance with these conditions would be a breach of the development consent and Council could take appropriate action under the provisions of the Environmental Planning & Assessment Act, 1979.

4/6 Eden Park:

- *Electromagnetic radiation (EMR) Impacts. We already have a data centre located on the other side of the building, so we are concerned that the radiation levels maybe too high for our employees with additional radiation.*

Comment:

As mentioned above, ARUP has provided advised that Electro Magnetic fields from data centres are not a concern to people or IT equipment. A further letter dated 13 October 2011 reiterated that: *"Due to the high power density nature of a data centre there will be an increased amount of HV substations and associated switchgear. In our experience however, the Extra Low Frequency (ELF) and Electric Magnetic Fields (EMF) generated will typically be low and localised. Through careful design, equipment location, system configuration and shielding where required any potential EMF issues will be mitigated.*

The facility will meet with the recommendations set out by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) Exposure Limits for Electric & Magnetic field -)Hz to 3kHz (2007).

To confirm compliance with the above, a specialist consultant can be engaged during the detailed design development to ensure that there is not effect on the occupants within the centre and those within adjacent properties.

In addition, testing to confirm compliance with the recommendations of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) Exposure Limits for Electric & Magnetic field -)Hz to 3kHz (2007) can be undertaken at the completion of the project, including measuring at adjoining properties.

Conditions 36 & 37 have been imposed requiring the development to satisfy the comments and recommendations (which include standard from the Radiation Protection standard “Exposure Limits for Electric & Magnetic field – 0Hz to 3KHz”) and certification of compliance to be provided to the PCA. This will ensure that there is no effect on the occupants within the centre and the adjacent properties, including the child care centre.

- *Air pollution impacts.*

Comment:

The statement from ARUP advised:

Air pollution caused by the generator facilities will only be intermittent as they are intended to operate in standby mode. These facilities are not intended for continuous generator operation.

The exhaust emissions will be discharged by an exhaust flue system and will maintain separation distance from building openings, public accessible areas and property boundaries in accordance with Australian Standards AS1668.2.

Exhaust emissions will meet with requirements of set limits defined by local Environmental Protection Agency (EPA). Where required to meet with EPA limits, additional pollution filtration systems can be installed to control emission limits down to acceptable levels.

Council's Environmental Health Officer has raised no concerns about emissions from the proposed development and has imposed **Conditions 29 & 94** to ensure any discharge to the atmosphere comply with the requirements of the “Protection of the Environment Operations (Clean Air) Regulation 2002” and not cause nuisance or danger to health. **Condition 36** has been imposed to ensure compliance with the above requirements.

- *Acoustic and vibration impacts – considering the size and type of these power generations facilities are unknown, the noise and vibration impacts upon adjoining properties are unclear and is of particular concern given the immediate location of the child care centre in our building.*

Comment:

The concerns about noise and vibration have been discussed above.

17-23 Talavera Road

- *It is zoned “B3 Commercial Core under the terms of RLEP 2010. A zoning which we were advised was not suitable for construction of a Data Centre, as it contravened Council’s intentions under the plan for the reasons outlined in this submission and being very close proximity to a sensitive child care use, meant that the site was clearly unsuitable for a high power density Data Centre.*

Comment:

Under the amended LEP 2010, Data centre falls into the definition of “high technology industry” which is permissible within the B3 zone.

The proposal does not involve hazardous or offensive industry (see discussion above under SEPP 33) and the various reports relating to the high power usage and its impacts have not indicate that there will be potential adverse impacts to adjacent buildings. **Condition 36** has been imposed to ensure that the use will meet the relevant requirements in regards to EMR, air, noise and vibration pollution.

- *The applicant chose to head their application “Construction of a New Commercial Building” (Council’s online records). This disclosure does not serve the community interest as close neighbours were not given appropriate notification of the actual intended use. Had the community been made aware of the actual intended use as a large scale Data centre there would be far more community comment on the appropriateness of this development in that particular location*

Comment:

Adjoining properties were notified of the proposal with the description “Construction of a part 4 and part 5 storey building to be used as a data centre. The development involves car parking for 25 vehicles, 2.7m high fencing and the installation of fuel tanks with a capacity of 140,000 litres.” The proposal was also advertised in the Northern District Times on 31 August 2011 with the same description, which included the use as a Data Centre. After amendments were received, immediate adjoining properties were renotified of the proposal advising of the proposed amendments. The description included the use as a data centre, as such adjoining properties were properly notified in accordance with Council’s Notification DCP.

- *Suitability of the site – the site is zone B3 Commercial Core Zone, the objectives are to provide a wide range of retail, business and office land uses that encourages employment opportunities and encourages public transport patronage. The use has a substantially lower employment generation, no ground floor activation and is secured/fence from the public domain. The use does not positively contribute to the future redevelopment of the Macquarie Park. The shortage of employment would likely to be displaced elsewhere within the employment area further away from the commercial core, reducing pedestrian activity, reducing public transport patronage and adversely affecting retail outlets in the B3 zone.*

Comment:

As discussed above, the objectives are generally achieved as the operation of the data centre is anticipated to be a major point of presence for networks which provides highly resilient and high speed IT communication networks to research and education businesses. Furthermore, the proposed development is permissible within the B3 zoning and Council and the Joint Regional Planning Panel (JRPP) has approved similar development within the Macquarie Park Corridor. Whilst the development will provide employment opportunity for 12 employees in its normal operational mode, the use will service the needs of the local and wider community. The site is not identified in the DCP as a primary active frontage and fencing is required for security reasons. The fence is not considered to impact on the immediate area due to the fence being setback 5m from the front boundary with landscaping in front.

- *Electromagnetic radiation (EMR) impacts to close buildings and child care centre. The report did not include any comparable EMR testing, any commitment for future testing during operation or the inclusion of mitigation measures during operation. It did not include a combined assessment of the electromagnetic radiation from the co-generation plant, diesel power generation, power conditioning units and computer services. The size and quantity of the power conditioning units to be installed at this facility should be known. It is reasonable that an adequate EMR assessment be undertaken of all EMR emitting equipment proposed for the site. It is requested that Council include appropriate conditions that requires further testing and the requirement of including further EMR mitigation measures.*

Electricity generation – Given the substantial quantity of power generation facilities being proposed for the site, it is considered a reasonable request to understand the size, type and use of these facilities, especially given the close location of the site amongst an employment area and directly opposite a child care centre. It is requested that further detail be provided regarding the proposed power generation facilities and Council appropriately assess the noise, vibration, electromagnetic and air pollution impacts.

Comment:

The issues of electromagnetic, noise, vibration and air pollution impact have been addressed above and conditions have been imposed to ensure compliance with the recommendations set out in relevant standards. See **Conditions 36 & 37**.

Ausgrid has raised no specific concerns about the electricity generation and advised that *“the forecasted load growth can be supplied from Ausgrid’s 11kV network in Macquarie Park. This will require you to construct, as contestable works, new dedicated feeders from our zone substation to your premises.”*

A HV switchroom has been provided within the building to accommodate the above and **Condition 44** has been imposed ensuring that any substation/kiosk is provided within the building footprint.

- *Air pollution impact to close building and child care centre. Does not include any environmental assessment in terms of air pollution regarding the use of the DRUP and co-generation plant. The application does not include any details of any filtering system directly opposite a child care centre.*

Comment:

The issue of air pollution has been discussed above and **Conditions 29 & 36** have been imposed requiring the exhaust emission to meet the requirement of the EPA.

- *Acoustic and vibration impacts to close buildings and child care centre – the acoustic report fail to consider the acoustic and vibration of the combined use of the DRUPs and co-generation plant. It is requested that a revised acoustic and vibration report be prepared that accurately assesses the proposed facilities.*

Comment:

Acoustic noise and vibration impacts have been addressed above and appropriate conditions imposed to ensure compliance with the relevant standards.

- *Implication of the future adaptive re-use of the building within the B3 core zone. The application has not taken into consideration the future adaptive re-use of the building – better located within another adjoining zone where adaptive re-use is less critical. The proposal fails to provide adequate parking, ground floor activation and internal floor to ceiling heights. The building be designed to allow for the future adaptive reuse of the building with appropriate parking facilities.*

Comment:

The proposed building has been designed to meet the user specific demand and any reuse of the building will require submission of a new application to be submitted, which will be assessed at the time of application. The proposed number of parking spaces to be provided is sufficient to cater for the proposed use and number of employees.

Eden Park Drive is not identified as a street/road requiring active street frontage and the proposal complies with floor to ceiling height.

- *Overland flow path and land subsidence impacts – we note the land immediately adjoining the northern boundary is substantially lower than the subject site with a change in level of approx 6-8m. This level change raises overland flow path and land subsidence between the two properties. The plans fail to indicate how stormwater and soil subsidence impacts are proposed to be minimised.*

Comment:

No building works are proposed adjacent to the northern rear boundary (other than drainage works) with the building setback a minimum 10m from the rear boundary. Council's Officers have reviewed the proposal and has raised no objections to the proposed concept drainage plans with conditions for the proposal to comply with Council's DCP Part 8.2 in regards to Stormwater management.

- *Parking impacts – submitted parking report does not consider the parking demand for works generally associated with maintaining and upgrading the computer servers within the building. The parking report does not include any details of the expected number of staff required to undertake these take nor the expected vehicles size and frequency. The proposal also fails to consider the parking demand for any future adaptive reuse of the building for commercial purposes.*

Comment:

The proposed number of car parking is considered sufficient to cater for the normal operation of the site. The applicant has advised that a large percentage of systems upgrades by clients will normally occur outside business hours and there is a booking system in place to manage the number of visitors at the centre. The parking demand for any future adaptive reuse of the building will be considered at the time of the reuse of the building.

- *Future electricity supply and demand – applicant to demonstrate they will supplement the proposed electricity consumption and upgrade works to the local works will not sterilise the future redevelopment of the Macquarie Park.*

Comment:

Ausgrid has raised no concerns to the proposed supply and demand of electricity and has confirmed the following:

Our system Planning Group completed their initial assessment and confirmed that your site, with the forecasted load growth you provided, will be supplied from Ausgrid's 11kV network in the Macquarie Park area. This will require you to construct, as contestable works, new dedicated feeders from our zone substation to your premises. Full design information will be provided upon submission of an Application for Connection (AFC)

A HV switchroom has been provided within the building to accommodate the above and **Condition 44** has been imposed ensuring that any substation/kiosk is provided within the building footprint. With regards to any future increase/demand for electricity this matter will need to be addressed by Ausgrid.

- *Non compliance with Street network Structure Plan – we reinforce Council's request to ensure that there is provision made to allow a new road be constructed in the future, a size and type required by the DCP. We further request that any subsequent re-design of the building does not result in any reduction in side, rear and front setbacks of the building, as required by the DCP.*

Comment:

The proposal has been amended to comply with the Street Network Structure Plan by providing a setback of 16.1m for the future road, which in turn resulted in a reduced side setback of 3m from the future road to the proposed building and 3m setback to the eastern boundary. The variation in the side setback from the building line is supported by Council as the reduced setbacks are not considered to have such adverse impacts to the amenities of the immediate adjoining

properties as to warrant refusal. The justifications for supporting the variations are detailed in full in the above table.

11. CONCLUSION

The proposed development for data centre is permitted under Council's planning controls and the proposal has been amended to provide for the provision of a 16.1m wide future road, which is part of the Street Network Structure Plan. The provision of the future road provision is to ensure that the objectives of the LEP and DCP can be achieved.

The issues raised in the submissions have been dealt with by way of conditions and the proposal generally complies with Council's planning controls, albeit, the variation to the side setback which can be supported by Council. The design of the building has been amended in accordance with the recommendations by the Urban Design Review Panel (UDRP) to provide the office component closer to the street and the façade materials and design is considered satisfactory by Council's Urban Planner.

12. APPLICATION DETAILS

The applicant is: FDC Construction & Fitout P/L

The owner is: NEXT DC

The estimated value of works is \$47,644,299.26

No disclosures with respect to the Local Government and Planning Legislation Amendment (Political Donations) Act 2008 have been made.

13. RECOMMENDATION

- (a) That in accordance with Section 80 of the EP&A Act, 1979 the Sydney East Region Joint Regional Planning panel grant approval to the Development Application Number 2011/0413 for the proposed data centre at 4 Eden Park Drive, Macquarie Park subject to conditions of Consent contained in attachment 1 of this report.

Report Prepared By:

Sandra McCarry
Senior Town Planner

Report Approved By:

Sandra Bailey
Team Leader – Major Developments

Chris Young
Acting Manager Assessment

ATTACHMENT 1
PROPOSED CONDITIONS OF CONSENT (LDA2011/0413)

GENERAL CONDITIONS

1. Development is to be carried out in accordance with the following plans and support information submitted to Council, and as amended by the subsequent conditions and plans submitted under Part 1 of the Consent.

Plan Number	Title	Issue/ Version	Date
A003	Site Plan	H	03/08/2011 Amended 22/09/11
A100	Ground Floor Plan	K	03/08/2011 Amended 22/09/11
A101	Level 1	K	03/08/2011 Amended 22/09/11
A102	Level 1 Mezzanine	H	03/08/2011 Amended 22/09/11
A103	Level 2	H	03/08/2011 Amended 22/09/11
A104	Level 3	H	03/08/2011 Amended 22/09/11
A105	Mechanical Roof Plan	D	03/08/2011 Amended 22/09/11
A201	South & West elevations	D	03/08/2011 Amended 22/09/11
A202	North & East elevations	C	03/08/2011 Amended 22/09/11
A301	Section 1	F	03/08/2011 Amended 22/09/11
A600	Section through facade	A	03/08/2011 Amended 22/09/11
000	Cover Sheet	A	25/07/2011
101	Landscape Plan	B	19/09/2011
001B	Colour Landscape Plan	B	19/09/2011
	Waste Management Plan		
	Traffic, Transport & Parking Report		July 2011
ITCE1115	Acoustic Assessment by Cardno ITC		August 2011
	Sustainability Management Plan prepared by Cundall		27 July 2011
	Access Report prepared by Accessibility Solutions		3 August 2011

REF:E20616FK-RPT2	Stage 2 Environmental Site Assessment prepared by EIS		November 2006
11050-01	Hazard Identification & Risk Assessment prepared by MC& E • Design Requirements (Diesel Storage at a Data Centre)	02	25 July 2011
11050-05			21 July 2011
	ARUP letters dated 4 August and 13 October 2011.		
Job No. 11128 DA1.01	Concept Sediment Control Plan	2	22 September 2011
DA2.01	Concept Stormwater Drainage Plan Ground Floor	2	22 September 2011
DA2.02	Concept Stormwater Drainage Plan 1 st Floor	3	22 September 2011
DA2.03	Concept Stormwater Drainage Roof Plan	2	22 September 2011
DA3.01	OSD/Reuse Tank Detention	2	22 September 2011
DA4.01	Flood Level Sections	2	22 September 2011

2. **BCA:** All building works are required to be carried out in accordance with the provisions of the Building Code of Australia.
3. **Construction Certificate:** Prior to commencing any construction works, the following provisions of the Environmental Planning and Assessment Amendment Act, 1997 are to be complied with:
 - a) A Construction Certificate is to be obtained in accordance with Section 81A (2)(a) of the Act.
 - b) A Principal Certifying Authority is to be appointed and Council is to be notified of the appointment in accordance with Section 81A (2)(b) of the Act and Form 7 of Schedule 1 to the Regulations.
 - c) Council is to be notified at least two (2) days prior to the intention to commence building works, in accordance with Section 81A (2)(c) of the Act and Form 7 of Schedule 1 to the Regulations.
4. **Accredited Certifier:** The applicant may apply to the Council or an accredited certifier for the issuing of a Construction Certificate and to Council or an accredited certifier to monitor compliance with the approval and issue any relevant documentary evidence or certificate/s.

Council Officers can provide these services and further information can be obtained from Council by telephoning 9952 8222 (Customer Service).

5. **Excavations and backfilling:**

- a) All excavations and backfill associated with the erection or demolition of a building must be executed safely and in accordance with appropriate professional standards.
- b) All excavations associated with the erection or demolition of a building must be properly guarded and protected to prevent them from being dangerous to life or property.

6. **Retaining walls and drainage:**

If the soil conditions require it:

- a) retaining walls associated with the erection or demolition of a building or other approved methods of preventing movement of the soil must be provided.
- b) adequate provision must be made for drainage.

7. **Security Lighting:** Where security lighting is provided within the development, it should not illuminate observers or vantage points. Light should be projected outwards towards pathways and gates, not towards windows and doors. Passing motorists, police and pedestrians will be the likely observers.

8. **Surveillance Equipment:** Any surveillance equipment installed is to utilise digital or video technology to record images from the cameras. Any surveillance system should be manufactured and installed by a qualified/reputable installer and regularly function tested. If surveillance equipment is installed, it should meet the requirements of the Privacy legislation.

9. **Access for Waste Collection Vehicles** - Safe easy access must be provided for waste collection vehicles to service the waste containers. The driveways and manoeuvring areas must be designed for maximum legal dimensions and weights and allow collection vehicles to enter and leave the premises in a forward direction.

Additional clearances must be provided for overhead and side loading where appropriate.

10. **Signage:** This consent does not authorise the erection of any other signs or advertising structures on the site and any signage (other than exempt signs) may require prior approval of Council through a new development application.

GENERAL ENGINEERING CONDITIONS

11. **Design and Construction Standards.** All engineering plans and work shall be carried out in accordance with the requirements as outlined within Council's publication *Environmental Standards Development Criteria 1999 and City of Ryde Development Control Plan 2010 Section 8* except as amended by other conditions.

12. **Service Alterations.** All mains, services, poles, etc., which require alteration shall be altered at the applicant's expense.
13. **Restoration.** Public areas must be maintained in a safe condition at all times. Restoration of disturbed road and footway areas for the purpose of connection to public utilities will be carried out by Council following submission of a permit application and payment of appropriate fees. Repairs of damage to any public stormwater drainage facility will be carried out by Council following receipt of payment. Restoration of any disused gutter crossings will be carried out by Council following receipt of the relevant payment.
14. **Road Opening Permit.** The applicant shall apply for a road-opening permit where a new pipeline is proposed to be constructed within or across the footpath. Additional road opening permits and fees may be necessary where there are connections to public utility services (e.g. telephone, electricity, sewer, water or gas) are required within the road reserve. No drainage work shall be carried out on the footpath without this permit being paid and a copy kept on the site.
15. **Overland Flow:** Overland flow path shall be provided generally in accordance with the Concept Stormwater Drainage Plan, job no 11128 – Revision 1 dated 5 August 2011 by Northrop;
16. **Basement Carpark:** The basement car park area shall be protected from flooding including the Probable Maximum Flood (PMF) event.
17. **Certification of overland flow paths:** Prior to the issue of the Occupation Certificate, a suitably qualified floodplain engineer shall certify that overland flow paths were constructed in accordance with the Concept Stormwater Drainage Plan prepared by Northrop;
18. **Certification:** Prior to the issue of the Construction Certificate, a suitably qualified engineer shall certify that all structures, storage areas and utility services below the 100 year ARI flood event plus 0.5m freeboard are flood compatible.

GENERAL ENVIRONMENTAL HEALTH CONDITIONS

19. **Construction of tank bunds:** All tank bunds must be designed and constructed in accordance with the following requirements:
 - (a) The bund must have a capacity of at least 110% of the largest tank plus the volume displaced by any additional tanks within the bund area.
 - (b) The walls and floor of the bund must be constructed of materials impervious to the contents of any container within the bund and be structurally adequate to contain any liquid spilled within the bund.
 - (c) A collection sump must be provided in the floor of the bund to facilitate the removal of liquids and the floor of the bund graded to the sump.

- (d) Drain valves must not be provided in the bund.
 - (e) Pipework from the enclosed tanks and any associated pumps must pass over the bund walls.
 - (f) Hose couplings for tanks enclosed within the bund must be located so that leaks or spills are contained within the bund.
 - (g) The bund must be roofed where practicable to prevent the entry of rainwater.
20. **Provision of garbage room:** A garbage room must be provided in a convenient location on the premises for the storage of garbage and recyclable materials.
 21. **Ventilation of rooms:** Every habitable room, sanitary compartment or other room occupied by a person for any purpose must be provided with adequate natural ventilation or an approved system of mechanical ventilation.
 22. **Ventilation of carpark:** The basement carpark must be provided with an adequate system of permanent natural ventilation or an approved system of mechanical ventilation.
 23. **Regulated systems:** All air-handling and water systems regulated under the *Public Health Act 1991* must be installed, operated and maintained in accordance with the requirements of the *Public Health (Microbial Control) Regulation 2000*.
 24. **Access for maintenance purposes:** Safe easy access must be provided for the inspection and maintenance of all plant, equipment and components covered by Australian/New Zealand Standard AS/NZS 3666.2: 2002 *Air-handling and water systems of buildings - Microbial control - Operation and maintenance*.
 25. **Registration of water-cooling and warm water systems:** All water-cooling and warm water systems (including thermostatic mixing valves) regulated under the *Public Health Act 1991* must be registered with Council's Environmental Health Unit within one (1) month of installation.

Registration forms may be obtained from Council's Customer Service Centre on Tel. 9952 8222.
 26. **Plumbing and drainage work:** All plumbing and drainage work must be carried out in accordance with the requirements of Sydney Water Corporation.
 27. **Noise and vibration from plant and equipment:** Unless otherwise provided in this consent, the operation of any plant or equipment installed on the premises must not cause:
 - (a) The emission of noise that exceeds the background noise level by more than 5dBA when measured at, or computed for, the most affected point, on or within the boundary of the most affected receiver. Modifying factor corrections must be applied for tonal, impulsive, low

frequency or intermittent noise in accordance with the New South Wales Industrial Noise Policy (EPA, 2000).

- (b) An internal noise level in any adjoining occupancy that exceeds the recommended design sound levels specified in Australian/New Zealand Standard AS/NZS 2107:2000 *Acoustics – Recommended design sound levels and reverberation times for building interiors*.
- (c) The transmission of vibration to any place of different occupancy.

28. **Noise from emergency generator:** The noise emitted by the emergency generator must comply with the following criteria:

- (a) The L_{A10} noise level must not exceed the background noise level by more than 15 dBA and, in any case, a noise level of 65 dBA, when measured at the boundary of any affected industrial or commercial premises in the vicinity.
- (b) Between 7.00am and 10.00pm the L_{A10} noise level must not exceed the background noise level by more than 10 dBA and, in any case, a noise level of 55 dBA, when measured at the boundary of any affected residential premises in the vicinity.
- (c) Between 10.00pm and 7.00am the L_{A10} noise level must not exceed the background noise level by more than 5 dBA and, in any case, a noise level of 45 dBA, when measured at the boundary of any affected residential premises in the vicinity.

Modifying factor corrections must be applied for tonal, impulsive, low frequency or intermittent noise in accordance with the New South Wales Industrial Noise Policy (EPA, 2000).

29. **Standards of air impurities not to be exceeded:** Any discharge to atmosphere from the premises must comply with the requirements of the *Protection of the Environment Operations (Clean Air) Regulation 2002*.

PRIOR TO CONSTRUCTION CERTIFICATE

30. **Section 94 Contribution:** A contribution for the services in Column A and for the amount in Column B shall be made to Council prior to the issue of the Construction Certificate.

A	B
Community & Cultural Facilities	\$373,757.37
Open Space & Recreation Facilities	\$0
Civic & Urban Improvements	\$366,170.16
Roads & Traffic Management Facilities	\$385,079.81
Transport & Accessibility Facilities	\$0
Cycleways	\$50,542.45
Stormwater Management Facilities	\$44,822.87
Plan Administration	\$13,540.24

The total contribution is **\$1,233,912.91**

This contribution is a contribution under the provisions of Section 94 of the Environmental Planning and Assessment Act, 1979 as specified in Section

94 Development Contributions Plan 2007 adopted by City of Ryde on 11/12/2007 (2010 Amendments)

The above amount, if not paid within the quarter that the consent is granted, shall be adjusted for inflation by reference to the Consumer Price Index published by the Australian Bureau of Statistics (Catalogue No 5206.0) on the basis of the contribution rates that are applicable at time of payment.

31. **A security deposit:** (category: other buildings with delivery of bricks or concrete or machine excavation) is to be paid to Council (Public Works and Services Group) as well as the Infrastructure Restoration and Administration Fee. Please refer to Council's Management Plan for the current fee amounts.
32. **An Enforcement levy:** is to be paid to Council on lodgement of the Construction Certificate application in accordance with the requirements of Council's Management Plan (scheduled fees).
33. **Long Service Levy:** Documentary evidence of payment of the Long Service Levy under Section 34 of the Building and Construction Industry Long Service Payments Act 1986 is to be received prior to the issuing of the Construction Certificate.
34. **Documentary evidence of payments:** Documentary evidence of compliance with Conditions 30 to 33 to the satisfaction of Council or an accredited certifier is to be submitted to the Council prior to the issuing of the Construction Certificate.
35. **Architectural amendments:** The facade of the building is to be amended by the following redesign so as to add architectural interest and relief to the southern elevation facing Eden Park Drive:
 - The frame of the outside louvers (on level 3) to be the same colour as the staircase/entrance cladding;
 - The parapet on the roof top is to be deleted and the polycarbonate wall cladding be extended by 500mm so as to provide appropriate solid determination of the building, as marked in red on the elevation drawings;
 - The roof line of the plant room be extended to overhang/in line with front and rear (north and south) elevations, as shown marked in red on the side elevation drawings.

Details of the amendments to be submitted to the Principal Certifying Authority prior to the release of the Construction Certificate.

36. **Consultants Reports:** The comments and recommendations contained in the following reports are to be adhered to:
 - Acoustic Assessment prepared by Cardno ITC P/L dated August 2011 Ref: ITCE1115, including the Best practice measures
 - Sustainability Management Plan prepared by Cundall dated 27 July 2011.
 - Access Report prepared by Accessibility Solutions dated 3 August 2011

- Stage 2 Environmental Site Assessment prepared by Environmental Investigation Services
- Hazard Identification & Risk Assessment and Design and Diesel Storage prepared by Moore Consulting & Engineering dated 25 July 2011 and 21 July 2011, respectively.
- ARUP letter dated 4 August and 13 October 2011

37. **Compliance with Consultants Reports:** To confirm compliance with condition 36, specialist consultants are to be engaged in the detailed design to ensure that there are no adverse effect on the occupants within the centre and those within adjacent properties. Certifications from the relevant specialists are to be submitted to the Principal Certifying Authority certifying compliance with the relevant standards and recommendations.
38. **Railcorp:** An acoustic assessment is to be submitted to Council prior to the issue of a construction certificate demonstrating how the proposed development will comply with the Department of Planning's document title "development Near Rail Corridors and Busy Roads – Interim Guidelines.
39. **Railcorp:** Prior to the issue of a Construction Certificate the applicant is to engage an Electrolysis Expert to prepare a report on the Electrolysis Risk to the development from stray currents. The applicant must incorporate in the development all the measures recommended in the report to control that risk. A copy of the report is to be provided to the Principal Certifying Authority with the application for a Construction Certificate.
40. **The Landscaping Plan:** is to be amended to incorporate more trees, shrubs and ground covers that are endemic to the Ryde area. Details to be submitted to the Principal Certifying Authority prior to release of the Construction Certificate.
41. **Sydney Water Requirements:** A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from Sydney Water Corporation.

Application must be made through an authorised Water Servicing Coordinator. Please refer to the Building, Development and Plumbing section of the website at www.sydneywater.com.au then refer to "Water Servicing Coordinator" under "Developing Your Land" or telephone 13 20 92 for assistance.

Following application a "Notice of Requirements" will advise of water and sewer infrastructure to be built and charges to be paid. Please make early contact with the Coordinator, as it may take some time to build water/sewer pipes and this may impact on other services and building, driveway or landscape design.

A copy of Sydney Water's Notice of Requirements must be submitted to the Principal Certifying Authority prior to the Construction Certificate being issued.

The Section 73 Certificate must be submitted to the Principal Certifying Authority prior to occupation of the development / release of the plan of subdivision.

42. **Public Domain Works:** Public domain improvement works including footpath paving, street furniture, street lighting, street tree planting with suitable plant species along the Eden Park Drive fronting the subject site and the like shall be in accordance with the Macquarie Park Public Domain Technical Manual. Full details, including samples, schedules and plans are to be submitted and approved by Council prior to the construction of the development. Applicants must ensure that the health of the street trees are guaranteed for a minimum of 2 years to ensure the character and appearance of the streetscape is established and maintained. Any species that die within two years of planting must be replaced by the applicant with a specimen of a similar size and maturity.
43. **Site work Plan:** A site works plan indicating compliance with Council's DCP 2006, Part 8.1 – Construction Activities, in relation to:
- a) sedimentation and pollution controls;
 - b) tree preservation and protection measures;
 - c) security fencing;
 - d) builder's identification signage and demolition in progress signage; and
 - e) provision of site toilets
- to the satisfaction of Council or an accredited certifier is to be submitted to Council with the Construction Certificate.
44. **Substations:** All service infrastructure/utilities including electrical substations, fire hydrants, gas meters and the like shall be located within the building envelope. Details of all service infrastructure/utilities are to be approved prior to issue of the Construction Certificate.
45. **A "Fire Safety Schedule":** specifying the fire safety measures proposed or required to be implemented in the building premises as required by Clause 168 - Environmental Planning & Assessment Regulation 2000 are to be submitted and approved prior to the issue of the Construction Certificate.

ENGINEERING CONDITIONS PRIOR TO CONSTRUCTION CERTIFICATE

46. **Boundary Levels.** The levels of the street alignment shall be obtained from Council. These levels shall be incorporated into the design of the internal driveway, carparking areas, landscaping and stormwater drainage plans and must be obtained prior to the issue of the construction certificate.
47. **Driveway Grades:** The maximum grade of all internal driveways and vehicular ramps shall be 1 in 4 and in accordance with the relevant section of AS 2890.1. The maximum change of grade permitted is 1 in 8 (12.5%) for summit grade changes and 1 in 6.7 (15%) for sag grade changes. Any transition grades shall have a minimum length of 2.0m. The driveway design is to incorporate Council's issued footpath and gutter crossing levels where they are required as a condition of consent.

48. **Car Parking:** All internal driveways, vehicle turning areas, garage opening widths and parking space dimensions etc shall be designed to comply with relevant sections AS 2890. Accordingly, to facilitate safe sight distance and minimise traffic conflict the driveway access shall be modified as shown in red, including provision of convex mirrors and raised pavement markers located generally at locations as shown to manage conflict between vehicles exiting the loading dock and those vehicles turning right onto the driveway.
49. **External Drainage Works:** To facilitate access to the site the applicant shall submit detailed engineering plans including calculations to support the proposed adjustment and relocation of Council's existing stormwater pit affected by the proposed driveway access. The detailed design calculations shall clearly demonstrate any proposed inlet system will have adequate to capture all and piped runoff arriving at this low point for a minimum design recurrence interval of 1:20 year storm with any excess overflow occur at higher recurrence interval storms be managed by modification of the driveway design where necessary to ensure overflows will not enter the carpark and building areas. The design shall be submitted to Council for approval and be prepared by a chartered civil engineer with NPER registration with Engineers Australia and in accordance with DCP 2010 Part 8.2.

Engineering plans assessment including inspection fees associated with this work are payable in accordance with Council's Management Plan prior to approval being granted by Council.

50. **On-Site Stormwater Detention:** Stormwater runoff from the site shall be collected and piped by gravity flow to a suitable on-site detention system and rainwater tanks system in accordance with City of Ryde, Development Control Plan 2010: - Part 8.2; Stormwater Management. Accordingly, the revised design shall incorporate but not be limited to following:
- a. The pollution control device shall be designed to treat the first 5mm of contaminated runoff generated from driveways and carparking areas, accordingly, it shall be located to collect & treat flows before they are piped to the OSD tank.
 - b. The pollution control device shall be relocated outside the future road reserve and be located in a location where access to cleaning will be available and that obstruction to traffic flow will not occur during maintenance operation.

Detailed engineering plans including certification from a chartered civil engineer with NPER registration with Engineers Australia confirming compliance with this condition are to be submitted with the construction certificate application.

51. **Consent From Owners:** Consent from all beneficiaries of the existing 10m drainage easement located adjacent to the northern boundary of the site for the proposed location the On-site detention tank, including any other structures that may encroached onto this easement. Written evidence of

consent is to be submitted to Council prior to the issue of any Construction Certificate.

52. Dilapidation Report: Submit a dilapidation report on existing public infrastructure in the vicinity of the proposed development. The report is to include a description of the location and nature of any existing observable defects to the following infrastructure including a photographic record.

- a) Road pavement
- b) Kerb and gutter
- c) Constructed footpath.
- d) Drainage pits.
- e) Traffic signs
- f) Any other relevant infrastructure.

The report is also to be submitted to Ryde Council, prior to the issue of the construction certificate. The report shall be used by council as Roads Authority under the Roads Act to assess whether restoration works are required prior to the issue of the occupation certificate.

A second Dilapidation Report shall be prepared by a suitably qualified person at the completion of the works to ascertain if any structural damage has occurred to the items specified in the earlier report. A copy of the report shall be submitted to Ryde City Council

53. Water Tank First Flush: A first flush mechanism is to be designed and constructed with the water tank system. Details of the first flush system are to be submitted with the construction certificate application.

54. Soil and Water Management Plan: A *Soil and Water Management Plan* (SWMP) shall be prepared by a suitably qualified consultant in accordance with the guidelines set out in the manual *"Managing Urban Stormwater, Soils and Construction"* prepared by the Department of Housing. This is to be submitted to and approved by the Consent Authority prior to the release of the Construction Certificate. These devices shall be maintained during the construction works and replaced where considered necessary. Suitable erosion control management procedures are to be practiced during the construction period.

The following details are to be included in drawings accompanying the *Soil and Water Management Plan*:

- (a) Existing and final contours
- (b) The location of all earthworks, including roads, areas of cut and fill, and regrading.
- (c) Location of all impervious areas
- (d) Location and design criteria of erosion and sediment control structures including sediment collection basins
- (e) Location and description of existing vegetation
- (f) Site access point/s and means of limiting material leaving the site
- (g) Location of proposed vegetated buffer strips

- (h) Location of critical areas (drainage lines, water bodies and unstable slopes)
- (i) Location of stockpiles
- (j) Means of diversion of uncontaminated upper catchment around disturbed areas
- (k) Proposed techniques for re-grassing or otherwise permanently stabilising all disturbed ground.
- (l) Procedures for maintenance of erosion and sediment controls
- (m) Details for any staging of works
- (n) Details and procedures for dust control.

HEALTH CONDITION PRIOR TO CONSTRUCTION CERTIFICATE

55. **Bund details:** Details of the proposed tank bunds must be submitted to Council or an accredited private certifier for approval with the application for the Construction Certificate.
56. **Carpark ventilation details:** Details of the proposed method of ventilating the basement carpark must be submitted to Council or an accredited private certifier for approval with the application for the Construction Certificate.
57. **Mechanical ventilation details:** Details of all proposed mechanical ventilation systems must be submitted to Council or an accredited private certifier for approval with the application for the Construction Certificate. Such details must include:
- (a) Certified plans of the proposed work, with any alterations coloured to distinguish between new and existing work;
 - (b) A site survey plan showing the location of all proposed air intakes and exhaust outlets on the site, and any existing cooling towers, air intakes, exhaust outlets and natural ventilation openings in the vicinity;
 - (c) A Mechanical Services Design Certificate from a suitably qualified practising mechanical engineer certifying that the new/alterd mechanical ventilation system(s) will comply with the *Building Code of Australia*, the *Public Health Act 1991* and any relevant conditions of consent; and
 - (d) Documentary evidence in support of any departures from the deemed-to-satisfy provisions of the *Building Code of Australia*.
58. **Cooling tower details:** Details of any proposed water-cooling must be submitted to and approved by Council before the issue of a Construction Certificate. Such details must include:
- (a) Certified plans and specifications of the proposed water cooling system;
 - (b) A site survey plan showing the location of the proposed cooling tower and any air intakes, exhaust outlets and natural ventilation openings in the vicinity;
 - (c) Access details for inspection and maintenance purposes;
 - (d) Details of the proposed water treatment system; and

- (e) A Compliance Certificate from a suitably qualified person certifying that the design of the cooling tower(s) complies with Australian/New Zealand Standard AS/NZS 3666.1:2002 *Air-handling and water systems of buildings – Microbial Control – Design, installation and commissioning*.

PRIOR TO COMMENCEMENT

59. 'Dial 1100 Before You Dig':

Underground pipes and cables may exist in the area. In your own interest and for safety, telephone 1100 before excavating or erecting structures. Information on the location of underground pipes and cables can also be obtained by fax on 1300 652 077 or through the following website www.dialbeforeyoudig.com.au.

If alterations are required to the configuration, size, form or design of the development upon contacting the Dial Before You Dig service, an amendment to the Development Consent (or a new development application) may be necessary. Council's Assessment Officer should be consulted prior to the lodgment of an application for a Construction Certificate if this is the case.

- 60. Construction Traffic Management:** The TMP shall be prepared in accordance with the relevant sections of Australian Standard 1742 – "Manual of Uniform Traffic Control Devices", the RTA's Manual – "Traffic Control at Work Sites" and City of Ryde, Development Control Plan 2006: - Part 8.1; Construction Activities. The TMP is to address but not be limited to the loss of on-street parking, construction vehicles travel routes, safety of the public, materials storage, handling and deliveries including construction traffic parking

- 61. Construction Signage:** Signage is to be provided on the site as follows:
- a) During the entire construction phase signage shall be fixed on site identifying the PCA and principal contractor (the coordinator of the building work), and providing phone numbers.

ENGINEERING CONDITIONS TO BE COMPLIED WITH PRIOR TO COMMENCEMENT OF CONSTRUCTION

- 62. Sediment and Erosion Control:** The applicant shall install appropriate sediment control devices in accordance with an approved plan prior to any earthworks being carried out on the site. These devices shall be maintained during the construction period and replaced where considered necessary. Suitable erosion control management procedures shall be practiced. This condition is imposed in order to protect downstream properties, Council's drainage system and natural watercourses from sediment build-up transferred by stormwater runoff from the site.

- 63. Compliance Certificate:** A Compliance Certificate should be obtained confirming that the constructed erosion and sediment control measures comply with the construction plan and City of Ryde, Development Control Plan 2010: - Part 8.1; Construction Activities

64. **Vehicle Footpath Crossings:** Concrete footpath crossings shall be constructed at all locations where vehicles cross the footpath, to protect it from damage resulting from the vehicle traffic. The location, design and construction shall conform to the requirements of Council. Crossings are to be constructed in plain reinforced concrete and finished levels shall conform with property alignment levels issued by Council's Public Works Division. Kerbs shall not be returned to the alignment line. Bridge and pipe crossings will not be permitted.

DURING DEMOLITION AND CONSTRUCTION

65. **Security Fencing:** Security fencing shall be provided around the perimeter of the building/demolition site and precautionary measures taken to prevent unauthorized entries of the site at all times during demolition and construction.
66. **Construction Hours:** All demolition and all construction and associated work is to be restricted to between the hours of 7.00am and 7.00pm Monday to Friday (other than public holidays) and between 8.00am and 4.00pm on Saturday. No work is to be carried out on Sunday or public holidays.
67. **Dust Control:** Adequate precautions must be taken to control the emission of dust from the site during demolition and construction work. These precautions could include minimizing soil disturbance, use of water sprays, erecting screens and not carrying out dusty work during windy conditions.
68. **Inspections:** The occasions on which building work must be inspected are:
- a) after excavation for, and before the placement of, any footings.
 - b) prior to covering any stormwater drainage connections, and
 - c) after the building work has been completed and prior to any occupation certificate being issued in relation to the building.

Documentary evidence of compliance with Council's approval and relevant standards of construction is to be obtained prior to proceeding to the subsequent stages of construction and copies of the documentary evidence are to be maintained by the Principal Certifying Authority and be made available to Council officers upon request.

Prior to occupation of the building, an occupation certificate must be obtained. Prior to the issue of the occupation certificate, the critical stage inspections must be carried out.

69. **Inspections:** In addition to the abovestated inspections, the Principal Certifying Authority is required to ensure that adequate provisions are made for the following measures at each stage of construction, to ensure compliance with the approval and City of Ryde's DCP 2006, Part 8.1 - "Construction Activities":
- a. Sediment control measures.
 - b. Tree Preservation and protection measures.
 - c. Security fencing.
 - d. Materials or waste containers upon the footway or road.

- e. PCA and principal contractor (the coordinator of the building work) signage and site toilets.

- 70. **Noise Levels:** The L_{10} noise level measured for a period of not less than 15 minutes while demolition and construction work is in progress must not exceed the background noise level by more than 20 dB(A) at the nearest affected residential premises.
- 71. **Fill:** No fill is to be placed above the natural ground level beyond the footprint of the building except for the works authorised under this consent.
- 72. **Spoil:** No spoil, stockpiles, building or demolition material is to be placed on any public road, footpath, park or Council owned land.
- 73. **Site Toilets:** Site toilets shall be provided in accordance with the WorkCover Code of Practice entitled "Amenities for Construction Work".

HEALTH CONDITIONS DURING DEMOLITION AND BUILDING WORK

- 74. **Removal of underground storage tanks:** The removal of the underground storage tanks must be carried out in accordance with:
 - (a) Australian Institute of Petroleum Code of Practice CP22 - 1994 *The Removal and Disposal of Underground Petroleum Storage Tanks*; and
 - (b) the requirements of WorkCover New South Wales.
- 75. **Contaminated soil:** All potentially contaminated soil excavated during demolition work must be stockpiled in a secure area and be assessed and classified in accordance with the *Environmental Guidelines: Assessment, Classification & Management of Liquid & Non-Liquid Wastes* (EPA, 1999) before being transported from the site.
- 76. **Surplus excavated material:** All surplus excavated material must be disposed of at a licensed landfill facility, unless Council approves an alternative disposal site.
- 77. **Discovery of Additional Information:** Council and the Principal Certifying Authority (if Council is not the PCA) must be notified as soon as practicable if any information is discovered during demolition or construction work that has the potential to alter previous conclusions about site contamination.
- 78. **Further requirements:** If additional information is discovered about site contamination, the proponent must comply with any reasonable requirements of Council.

PRIOR TO OCCUPATION CERTIFICATE

- 79. **Occupation Certificate:** An Occupation Certificate must be obtained from the Principal Certifying Authority (PCA) and a copy furnished to Council in accordance with Clause 151 of the Environmental Planning and Assessment Regulation 2000 prior to commencement of occupation or use of the whole or

any part of a new building, an altered portion of, or an extension to an existing building.

80. **Fire Safety Certificate:** A Fire Safety Certificate/s from a suitably qualified person/s is to be submitted to Council or an accredited certifier (*and Council, if Council is not the PCA or an accredited certifier*) for all the essential services installed in the building in accordance with Clauses 170 and 171 of the Environmental Planning and Assessment Regulation 2000.
81. **Certification of mechanical ventilation work:** A Mechanical Services Completion and Performance Certificate (Form M2) must be submitted to the Principal Certifying Authority on completion and commissioning of all mechanical ventilation work approved under this consent and before the issue of an Occupation Certificate.
82. **Certification of cooling towers:** A Compliance Certificate must be submitted to the Principal Certifying Authority (and Council, if Council is not the PCA) on completion and commissioning of all cooling towers approved under this consent and before the issue of an Occupation Certificate.
83. **Certificate:** The certificate must be from a suitably qualified person and certify that the cooling towers have been installed in accordance with the approved plans and specifications and comply with Australian/New Zealand Standard AS/NZS 3666.1:2002 *Air-handling and water systems of buildings – Microbial control – Design, installation and commissioning*.

ENGINEERING CONDITIONS TO BE COMPLIED WITH PRIOR TO OCCUPATION CERTIFICATE

84. **Compliance Certificates:** Engineering. Compliance Certificates should be obtained for the following (If Council is appointed the Principal Certifying Authority [PCA] then the appropriate inspection fee is to be paid to Council) and submitted to the PCA:
- Confirming that all vehicular footway and gutter (layback) crossings are constructed in accordance with the construction plan requirements and Ryde City Council's *Environmental Standards Development Criteria – 1999 section 4*.
 - Confirming that the driveway is constructed in accordance with the construction plan requirements and Ryde City Development Control Plan 2010: - Part 8.3; Driveways.
 - Confirming that the constructed internal car park and associated drainage complies with AS 2890, the construction plan requirements and Ryde City Council's *Environmental Standards Development Criteria – 1999 section 4 and Development Control Plan 2010: - Part 8.2; Stormwater Management*
 - Confirming that the site drainage system (including the on-site detention storage system) servicing the development complies with the construction plan requirements and City of Ryde, Development Control Plan 2010: - Part 8.2; Stormwater Management
 - Confirming that after completion of all construction work and landscaping, all areas adjacent the site, the site drainage system (including the on-site detention system), and the trunk drainage system immediately

downstream of the subject site (next pit), have been cleaned of all sand, silt, old formwork, and other debris.

- Confirming that the connection of the site drainage system to the trunk drainage system complies with Section 4.7 of AS 3500.3 - 1990 (National Plumbing and Drainage Code).

85. **On-Site Stormwater Detention System - Marker Plate:** Each on-site detention system basin shall be indicated on the site by fixing a marker plate. This plate is to be of minimum size: 100mm x 75mm and is to be made from non-corrosive metal or 4mm thick laminated plastic. It is to be fixed in a prominent position to the nearest concrete or permanent surface or access grate. The wording on the marker plate is described in City of Ryde, Development Control Plan 2010: - Part 8.2; Stormwater Management. An approved plate may be purchased from Council's Customer Service Centre on presentation of a completed City of Ryde OSD certification form.
86. **Work-as-Executed Plan:** A Work-as-Executed plan signed by a Registered Surveyor clearly showing the surveyor's name and the date, the stormwater drainage, including the on-site stormwater detention system if one has been constructed and finished ground levels is to be submitted to the Principal Certifying Authority (PCA) and to Ryde City Council if Council is not the nominated PCA. If there are proposed interallotment drainage easements on the subject property, a Certificate from a Registered Surveyor is to be submitted to the PCA certifying that the subject drainage line/s and pits servicing those lines lie wholly within the proposed easements.
87. **Positive Covenant, OSD:** The creation of a Positive Covenant under Section 88 of the Conveyancing Act 1919, burdening the property with the requirement to maintain the stormwater detention system on the property. The terms of the instruments are to be generally in accordance with the Council's draft terms of Section 88E instrument for Maintenance of Stormwater Detention Systems and to the satisfaction of Council.
88. **Drainage Construction:** The stormwater drainage on the site is to be constructed in accordance with plan the Construction Certificate version of Job No. 11128, DRG No. DA1.01, DA2.01, DA2.03 and DA3.01 and DA4.01 Revision 2, DA2.02 Revision 3, 2 prepared by Northrop dated 21.9.11 as amended in red.

HEALTH CONDITIONS BEFORE ISSUE OF OCCUPATION CERTIFICATE

89. **Certification of mechanical ventilation work:** A Mechanical Services Completion and Performance Certificate from a suitably qualified practising mechanical engineer certifying that all new/altered mechanical ventilation systems have been installed in accordance with the approved plans and specifications and comply with the *Building Code of Australia*, the *Public Health Act 1991* and any relevant conditions of consent must be submitted to the Principal Certifying Authority before the issue of an Occupation Certificate.
90. **Certification of cooling towers:** A Compliance Certificate must be submitted to the Principal Certifying Authority (and Council, if Council is not the PCA) on

completion and commissioning of all cooling towers approved under this consent and before the issue of an Occupation Certificate.

The certificate must be from a suitably qualified person and certify that the cooling towers have been installed in accordance with the approved plans and specifications and comply with Australian/New Zealand Standard AS/NZS 3666.1:2002 *Air-handling and water systems of buildings – Microbial control – Design, installation and commissioning*.

OPERATIONAL REQUIREMENTS

91. **Activities to be carried out in a competent manner:** All activities must be carried out in a competent manner.
92. **Storage and disposal of wastes:** All wastes generated on the premises must be stored and disposed of in an environmentally acceptable manner.
93. **Waste containers:** An adequate number of suitable waste containers must be kept on the premises for the storage of garbage and trade waste.
94. **Air pollution:** The use of the premises, including any plant or equipment installed on the premises, must not cause the emission of smoke, soot, dust, solid particles, gases, fumes, vapours, mists, odours or other air impurities that are a nuisance or danger to health.
95. **Offensive noise:** The use of the premises must not cause the emission of 'offensive noise' as defined in the *Protection of the Environment Operations Act 1997*.
96. **Clean water only to stormwater system:** Only clean unpolluted water is permitted to enter Council's stormwater drainage system.
97. **Cleaning wastes and spills:** All cleaning wastes and spills must be collected and disposed of in an environmentally acceptable manner.
98. **Clean-up materials to be kept on premises:** An adequate supply of suitable clean up materials must be kept on the premises for cleaning up accidental spills.
99. **Duty to notify pollution incidents:** Pollution incidents causing or threatening harm to the environment must be reported to Council as soon as practicable on Tel. 9952 8222.

End of Consent