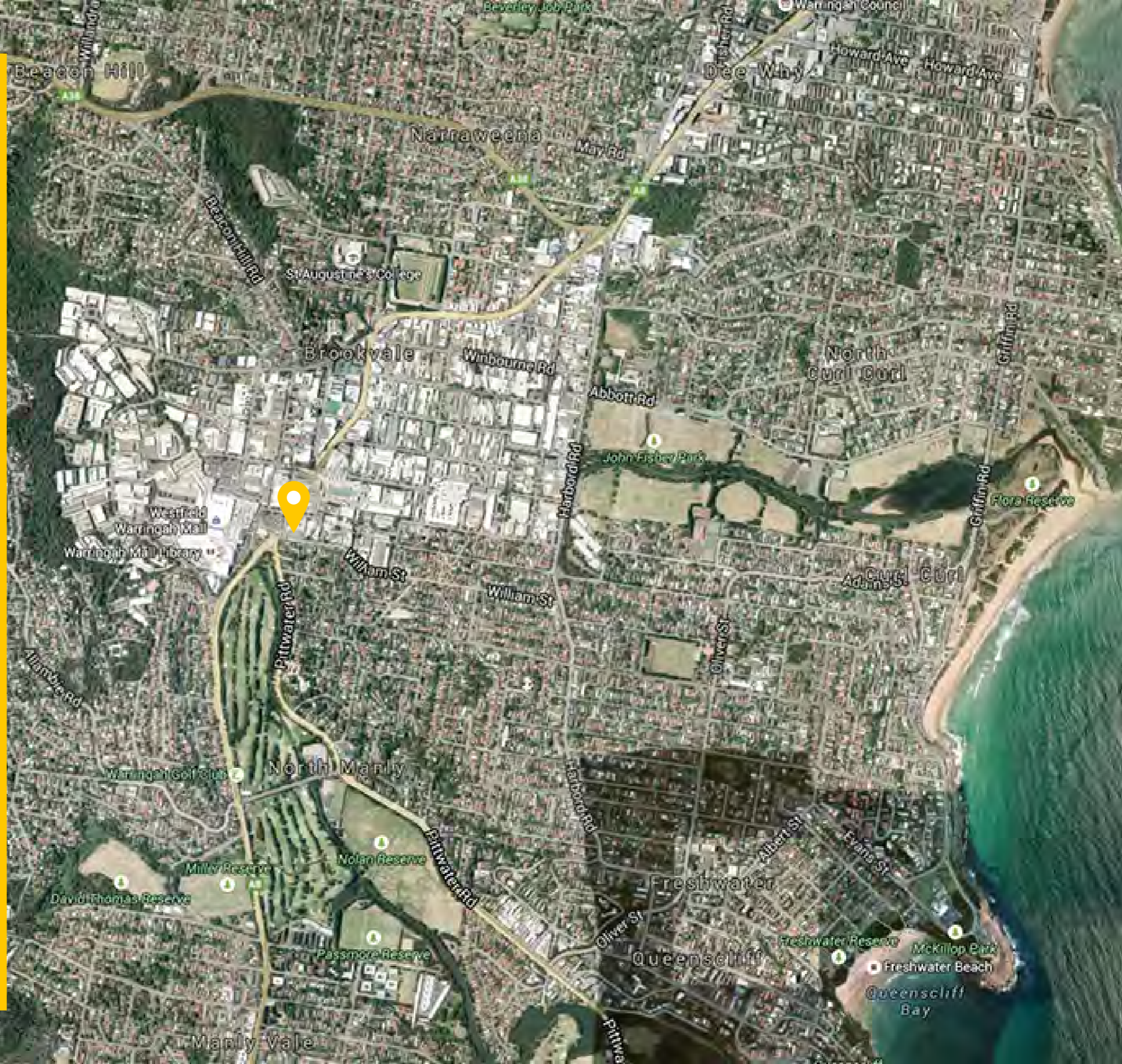


BROOKVALE COMMUNITY HEALTH CENTRE SSD DESIGN REPORT

Revision 1: 30th June 2015
Revision 2: 9th July 2015
Revision 3: 29th July 2015
Revision 4: 16th October 2015

Contact Us:
McConnel Smith & Johnson Pty Ltd
35 Richards Avenue
Surry Hills 2010 NSW
02 8353 8888
msjdesign@msjgroup.com.au



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Executive Summary

Executive Summary

Located in a “gateway” position, on the eastern corner of Pittwater Road and William St opposite the Warringah Mall Shopping Centre, the proposed five storeys high, Brookvale Community Health Centre (BCHC) will become the hub for a range of community health services. The 5,591 sq m building will also include many other diverse services ranging from Physiotherapy, Aged Care and Breast Screening to Oral Health.

A 403 space carpark for commuters, clients and staff, is proposed to be located on the deeper east side of the L-shaped site and will be visually screened by the BCHC from Pittwater Road.

Adjacent to an activated retail frontage on the Lower Ground Floor, the proposed building will incorporate recessed colonnades and awnings to provide a high degree of weather protection for pedestrians using the proposed Bus Interchange along the eastern side of Pittwater Road.

The interchange, which will include public seating and bus signage provided by Transport for NSW (TfNSW), will also give access to a public stair and lift connecting onto the proposed pedestrian bridge crossing Pittwater Road to north travelling buses and the Warringah Mall. The interchange will be clearly linked via a breezeway passing through the Lower Ground Floor to the carpark.

At street level, the corner site will be addressed with landscaped areas and stairs, allowing pedestrians to move from the Pittwater Road colonnade up the one storey level change along William Street to the Main Entry. Access to the Main Entry and Reception at the Upper Ground Floor will be provided by lift from the Lower Ground Floor. The prominence of the corner site will be marked by a sculpted off form concrete staircase articulated from the main body of the building and supported on a central blade. By allowing staff to move

between floors, glazed openings in the stair walls will provide views in and out and visually activate the stair. The building footprint responds to the kinked boundary line along Pittwater Road. By flanking the proposed pedestrian bridge and expressing the overall form as two “pavilions”, the apparent mass of the BCHC will be reduced. The southern “pavilion”, which faces due west and on the upper floors accommodates a fully glazed, open plan defined by south west facing, vertical sun control louvers. To reduce heat load, the contrasting northern pavilion is clad with a composition of discrete, punched windows.

The eastern elevation of the BCHC flanks the proposed access road that will serve the Main Entry drop off at the Upper Ground Floor and the proposed carpark. At the two upper levels the two “pavilions” are linked by wrapping the forms in a continuous, cladding of metal composite panel. The horizontal, timber finish of the panels will be gently curved to accommodate the kinked change in direction of the site and engage the northern and southern corners of the building.

While the apparent overall height of the BCHC will be reduced by stepping back the top floor from the north, south and west boundary the BCHC will screen the proposed seven storey high carpark on the eastern side of the site and the existing building at 2-4 William St.

The ground floor levels of the proposed BCHC and carpark have been established at RL 11.2 to address the predicted 100 Year Flood Level.

During the design process consultation has occurred with:

- Planning Department of Warringah Council
- Transport for NSW and working group with Architectus
- Roads and Maritime Services

The proposed Brookvale Community Health Centre in association with the proposed bus interchange, bridge and carpark will make an important contribution to the urban fabric at Brookvale for the local community, commuters and health workers.



Proposed BCHC Building: View Looking North

Introduction

1.1 Design Brief

The Brookvale Beaches Community Health Service Project comprises the reconfiguration and consolidation of community health services across the Northern Beaches Health Service (NBHS) through a combination of:

- Community centre-based services
- Drop-in/appointment services
- Home-based services
- Telephone advice and counselling services
- Technologically driven evidence based services.

The Northern Beaches Community Health Service Project has taken direction from current State and National policies, future strategic directions and priorities for the Northern Sydney Local Health District (NSLHD) and framed a service delivery model for Community Health on the Northern Beaches. This solution recommends the development of a Brookvale Community Health Centre, a consolidation of the Dalwood early childhood and family care campus and redevelopment on the Mona Vale Community Health campus using a hub and spoke model for the NBHS.

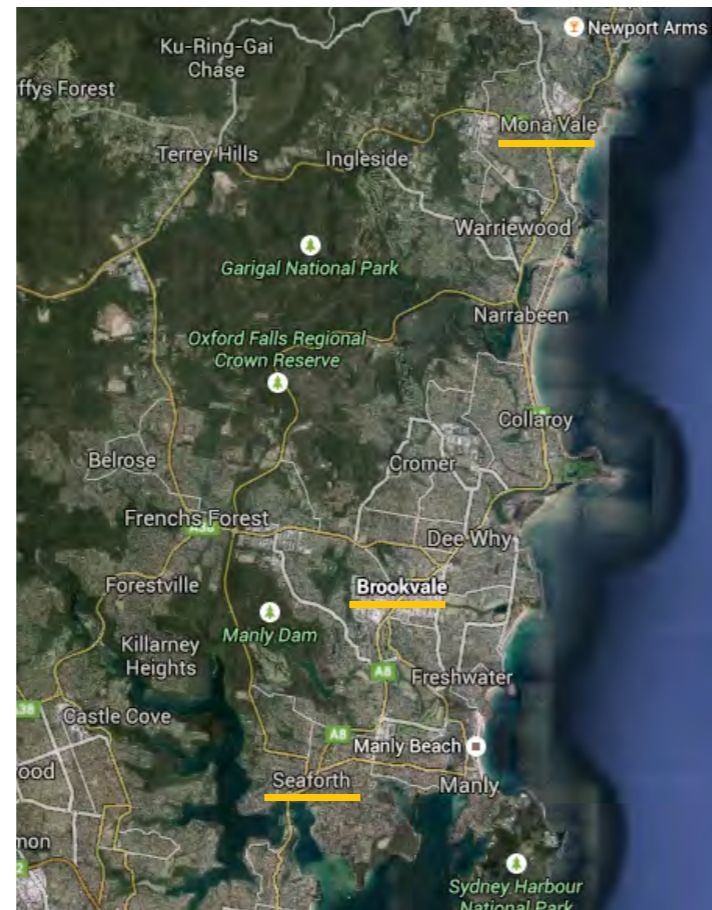
The Northern Beaches Community Health Project will therefore consist of three buildings on three separate sites:

1. Brookvale Community Health Centre – Located in Brookvale
2. Dalwood – Located in Seaforth
3. Mona Vale Community Health Centre – Located on the Mona Vale Hospital Campus

The consolidation and reconfiguration of the Community Health Services across the Northern Beaches is an important body of work that will

underpin the success of the overall Northern Beaches Community Health Service Project.

The new health infrastructure for the NBHS provides an opportunity to design an integrated health network, starting with robust models of ambulatory and community based care with services provided in purpose built infrastructure.



Northern Beaches Community Health Project Sites

1.2 The Project

The proposed Brookvale Community Health Centre (BCHC) will become the hub for Adult Mental Health Services and Drug and Alcohol Services. These services will be complimented with a range of other health services providing opportunities for improved integration and collaboration, along with a range of operational efficiencies.

The scope of health services to be provided at the Brookvale Community Health Centre includes:

- Adult Mental Health Services
- Breast Screen Services
- Child & Youth Mental Health Services
- Chronic Care Services
- Community Nursing and APAC (Acute & Post- Acute Care) Services
- Child & Family Services
- HIV & Aid Related Programs (HARP)
- Drug and Alcohol Services including an Opioid Clinic
- Rehabilitation & Aged Care Services
- Musculoskeletal Physiotherapy
- Oral Health Services
- Rehabilitation & Aged Care Services
- HIS (Health Information Service) & Support Services

These services will be supported by staff facilities including offices, meetings rooms and a range of utility support facilities, associated plant and car parking.

The BCHC will also accommodate a Bus Rapid Transit

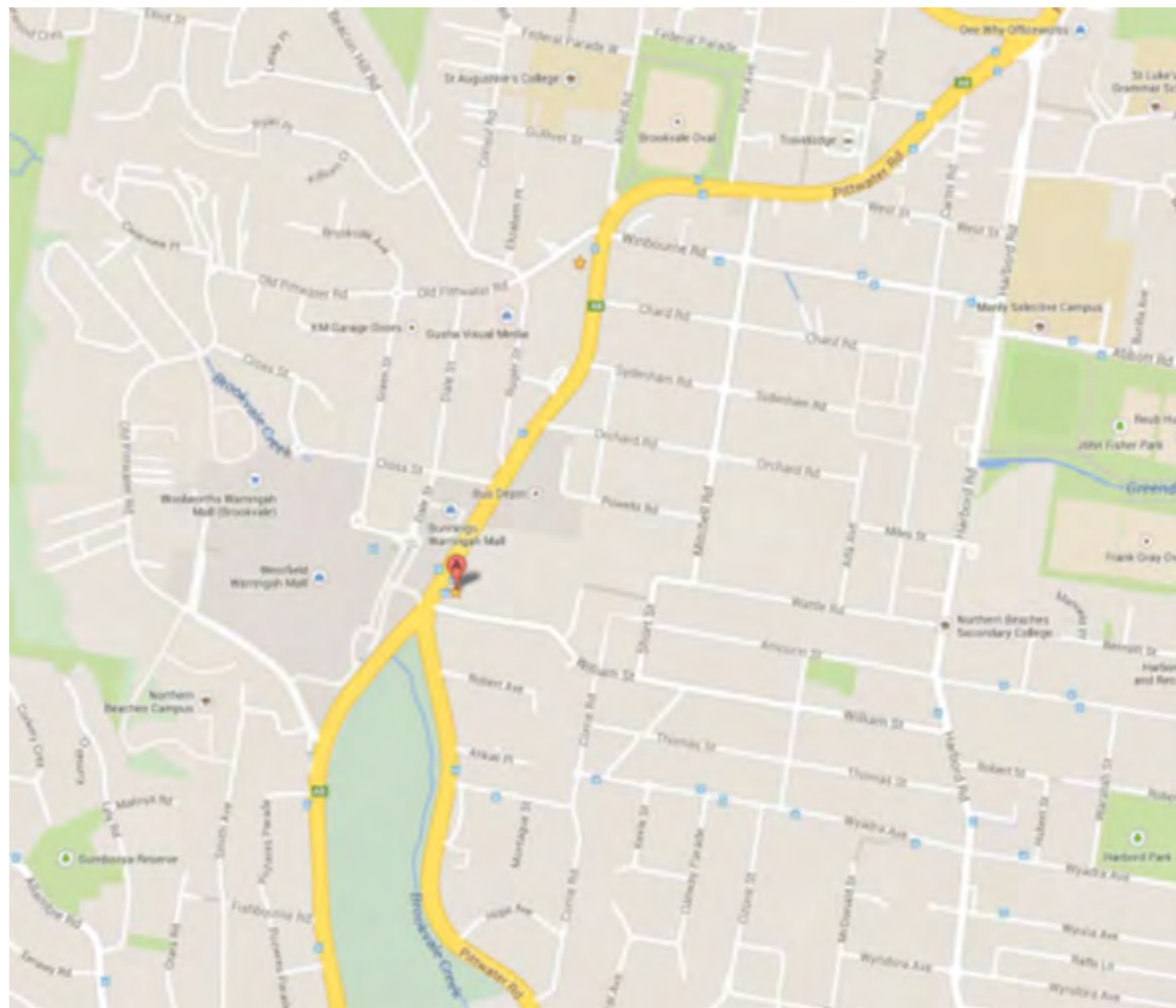
(BRT) interchange for Transport NSW (TfNSW) on the Pittwater Road frontage of the building and the car park will provide parking for clients, staff and BRT commuters. The BCHC proposal also includes a pedestrian bridge across Pittwater Road to provide safe crossing of clients, staff and commuters from the western side of Pittwater Road.

Site Analysis

2.1 Site Location

612-624 Pittwater Road, Brookvale ('the site') is located on the eastern side of Pittwater Road, at the intersection with William Street. Brookvale is a suburb of northern Sydney, in the state of New South Wales. Brookvale is located 16 kilometres north-east of the Sydney central business district, in the local government area of Warringah Council. It is part of the Northern Beaches region.

The site is located opposite Warringah Mall adjacent to the main bus interchange in Brookvale which provides good public transport opportunities. TfNSW are proposing to further develop the existing services into a major BRT interchange. Health Infrastructure (HI) is incorporating the requirements of TfNSW for the bus interchange. The corner location between Pittwater Road and William Street also provides two points of access to the site.



Site Location

2.2 Site Description

The L-shaped site addresses Pittwater Road on its western boundary and has a high visual and civic presence being on the main traffic convergence of Pittwater Road and Condamine Street and the entry to the suburb of Brookvale.

The site is a predominantly brownfield site containing a number of single storey industrial and commercial structures. Previously the site contained a petrol station on the corner of William Street which has since been demolished and the site remediated. Currently there is no major vegetation on the site and is predominantly hard paved throughout.

There is an approximately three metre rise in the contours across the site from the north up to the southern corner at Pittwater Road and William Street. The site also has a two metre steep rise from east to west along William Street.

The northern portion of the site is subject to flooding with a 100 Year Flood Planning Level (FPL) of 11.2 meters. A Sydney Water sewer service easement runs parallel to the northern boundary.

The corner location between Pittwater Road and William Street allows two points of access to the site. Vehicular access is restricted as there is no right hand turn travelling north from Pittwater Road into William Street, or from William Street travelling west into Pittwater Road. There is also no left hand turn travelling south from Pittwater Road into William Street.

Pedestrian access to the site is currently via a signalised pedestrian crossing from the western side of Pittwater Road and via the main bus interchange and footpath directly on the western boundary of the site. There is also a signalised pedestrian crossing north of Cross Street.

Site Analysis

2.3 Surrounding Development

The site is surrounded by a broad mix of building typology. The associated community and social activity is highly compatible with the functions of a Community Health facility.

Properties to the immediate north of the site, are predominantly double storey retail buildings, which consist mainly of car yards and showrooms and to the east, industrial use is dominant. To the west, on the opposite side of Pittwater Road is an on grade car park associated with the large shopping centre, Warringah Mall. Vehicular use dominates the streetscape with multiple bus stops on both sides of Pittwater Road.

To the south side of William Street are single and double storey residential buildings that are face brick and rendered concrete of various styles from the 1930's to recent times. William Street also contains some low rise light industrial and commercial building on its northern side.

To the east along William Street directly adjacent to the site, is a four storey brick and concrete frame commercial building in a poor state of repair. The building is of similar height to the proposed Community Health Centre and its driveway entry is off William Street, immediately adjacent to the Community Health Centre site.



Photographs of the site's surrounding development

2.4 View of Existing Site



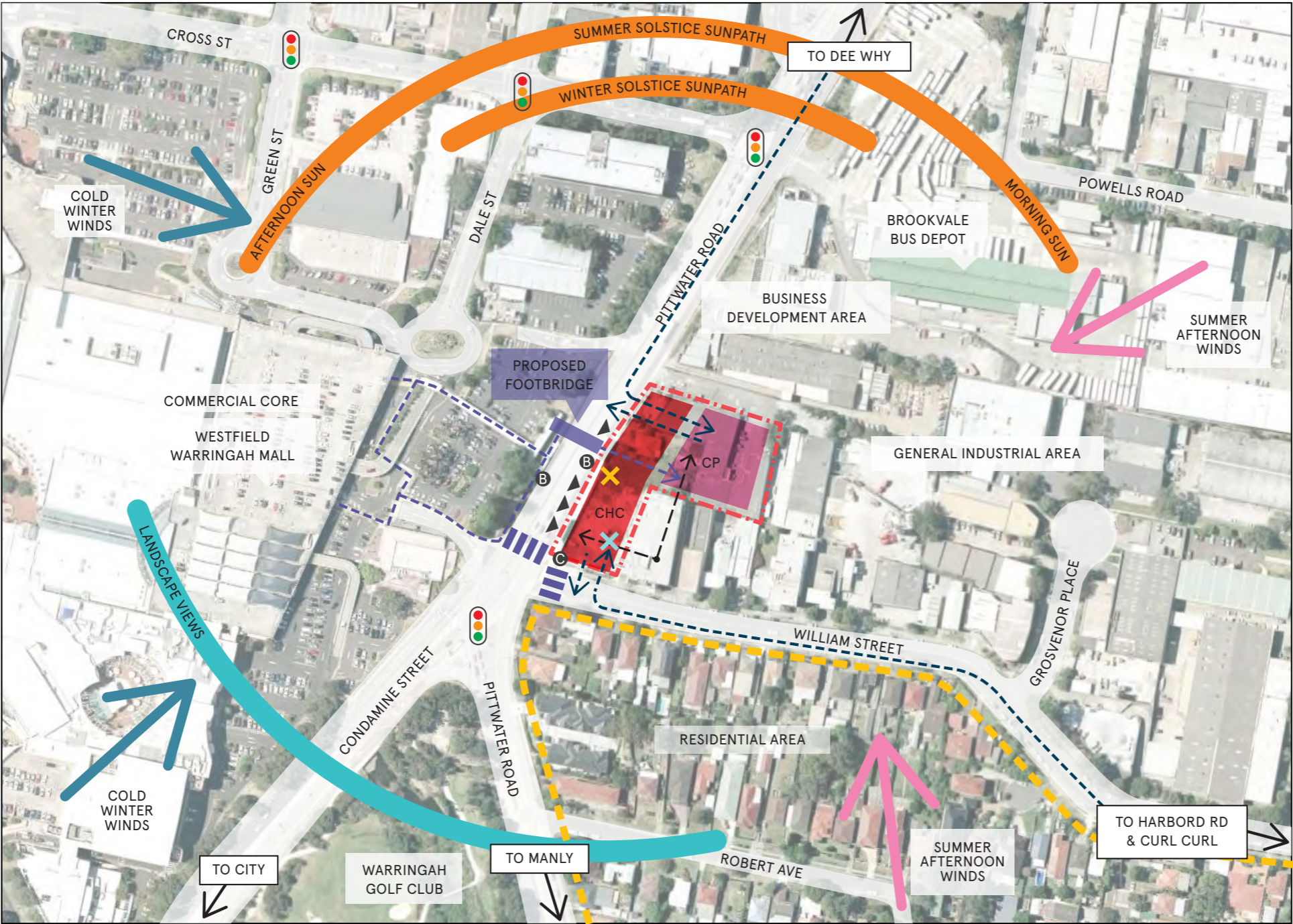
Above: View Looking South



Above: View Looking North

Site Analysis

2.5 Site Analysis



- LEGEND**
- SITE BOUNDARY
 - CHC NEW COMMUNITY HEALTH CENTRE BUILDING
 - CP NEW MULTIFLOOR COMMUTER & STAFF CARPARK
 - ✕ ENTRY AT LOWER GROUND FLOOR PITTWATER ROAD
 - ✕ MAIN ENTRY & DROP OFF UPPER GROUND FLOOR WILLIAM STREET
 - RESIDENTIAL STREET FRONTAGE
 - ← VEHICULAR ACCESS
 - ⇐ PEDESTRIAN ACCESS
 - EXISTING PEDESTRIAN CROSSING
 - PROPOSED FOOTBRIDGE TO NEW COMMUTER CARPARK
 - B BUS INTERCHANGE
 - C BICYCLE PARKING
 - 🚦 TRAFFIC LIGHT INTERSECTION
 - ← FALL OF SITE
 - ▲▲▲ TRAFFIC NOISE

Site Analysis

2.5 Overall Site Planning

The existing Northern Beaches Community Health Services are delivered from various sites throughout the Northern Beaches; this has led to poor patient experience and a lack of cohesion in service delivery. Key issues driving the requirement for the BCHC include:

- The physical spatial limitations of the existing buildings are preventing Community Health from delivering a contemporary model of care.
- Community services are delivered from multiple isolated locations and have high levels of inefficiency preventing the integration of services and resource sharing.

The current dispersion of services is not in line with NSW Health objectives which aims to:

- Promote client self-management and health independence.
- Provide ease of access with highly visible client drop-off areas both from parking and public transport.
- Consolidate services into the one location

The location of the BCHC has been selected in response to this criteria with the building fronting Pittwater Road to ensure:

- Co-location of services which enables Clients to receive treatment in a single location rather than having to visit a number of sites.
- Existing vehicular and public transport service links can be maintained, consolidated and enhanced.
- Compliant disabled access can be achieved from the bus stop on Pittwater Road to the front door of the facility on the lower ground level and via a drop-off area on the Upper Ground level.

The proposed building has been sited along of Pittwater Road to create a strong urban gateway entry to the suburb of Brookvale. The siting of the proposed Brookvale Community Health Centre will also allow for the integration of a new Bus Rapid Transit (BRT) interchange on the lower ground, Pittwater Road level with a covered pedestrian thoroughfare extending through the building to the associated client, commuter and staff car park.

The siting of the building provides an active street edge with a retail tenancy at this lower ground level for both pedestrians and commuters whilst screening the car park structure located behind. The siting of the building also allows for the inclusion of an overhead pedestrian bridge which provides safe pedestrian access across Pittwater Road for all pedestrians, clients and commuters.



Proposed BCHC Building

Urban Design & Built Form

3.1 Urban Design

The combination of the briefed requirements, site context, streetscape, address and neighbouring residential developments have been taken into consideration in the design of the new facility, resulting in a building with its central mass positioned along the western edge of the site along Pittwater Road. The building steps away at the top floor from the southern residential area of William Street and the low rise industrial developments on the north.

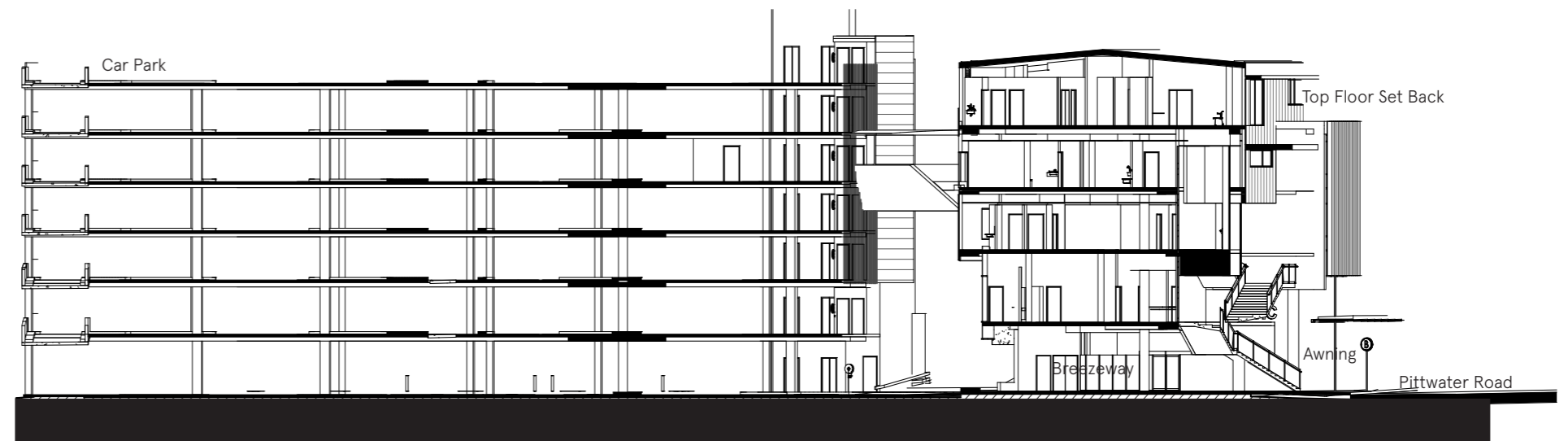
The street frontages of the BCHC will reflect the respective streetscapes. The William Street address will incorporate a covered entry and encourage pedestrian activity, while the Pittwater Road frontage will be more prominent with the bus interchange including wider footpaths to accommodate larger crowds of commuters and a retail tenancy.

The building will provide an active frontage in line with CPTED principles to the proposed BRT Interchange by including a Retail Tenancy space at the same BRT level overseeing and activating the area. The retail tenancy will also form the southern side of the covered area pedestrian colonnade to the car park.

The set back and form of the building at the lower ground BRT level will facilitate the bus activities with space for seating and the like along with provide a canopy for pedestrian shelter.

The external public stair and lift for the pedestrian bridge will direct clients and commuters to the lower ground/ footpath level buses or through to the carpark behind the Community Health Services Building

The existing council bicycle parking facilities located on the corner of Pittwater Road and William Street will be incorporated into the BCHC, with a new cohesive paving scheme including areas of soft landscaping proposed for the northern and southern ends of the site.



East / West Elevation

Urban Design & Built Form

3.2 Architectural Intent

A Community Health Centre needs to be planned and designed with the user's perception and understanding as paramount. It needs to be a client centred facility that optimises the experience for clients and carers, promoting client self-management and health independence.

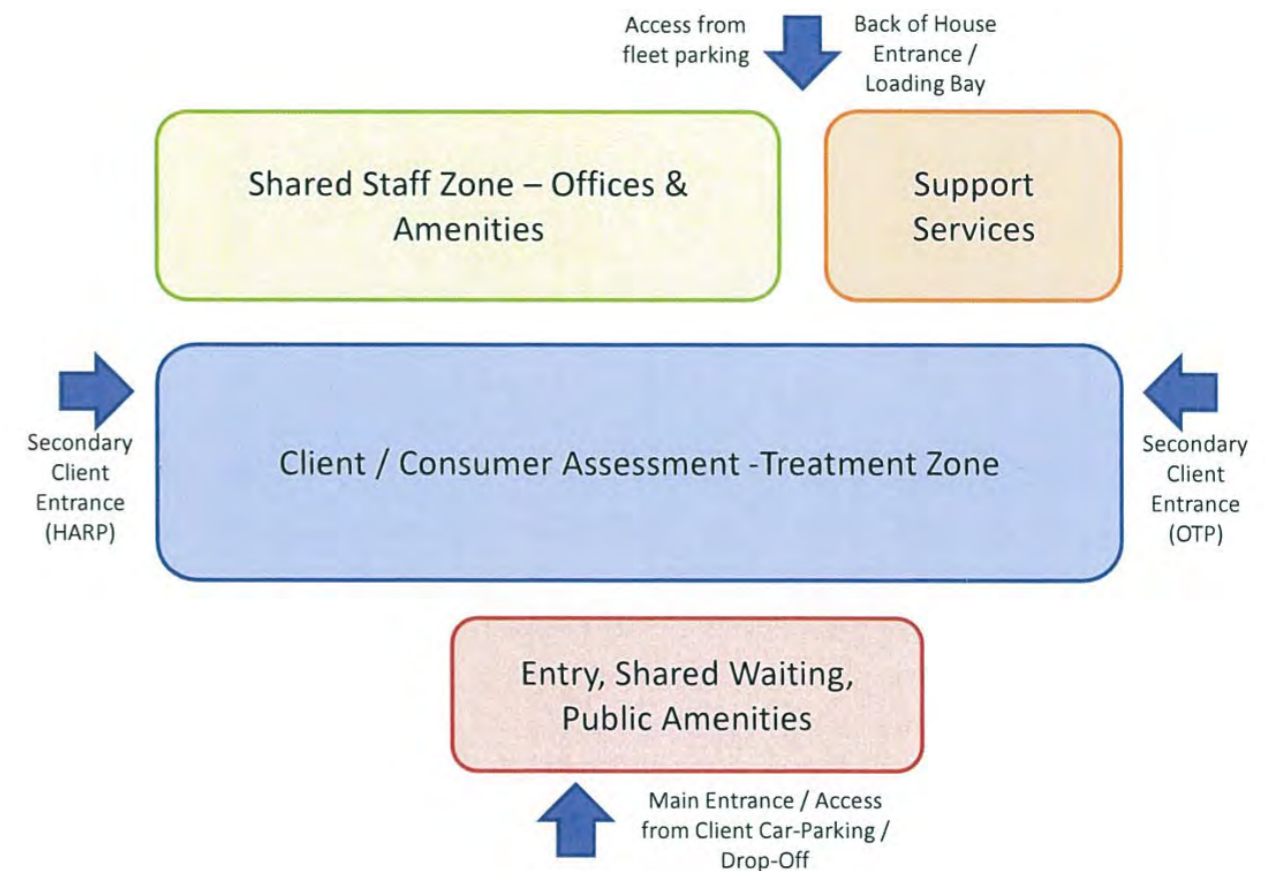
Community Health Centres should be considered by their community as places they effectively own and be integrated into the fabric of the community through this sense of ownership.

- The built form and aesthetics therefore need to provide an image that portrays the following:
- A non- institutional form while representing a welcoming environment for clients of all ages and their families.
- Is respectful of the scale form and materials of the surrounding built environment.
- Capitalises on the views and outlook beyond.
- A circulation system that allows ease of access.
- Setting a framework for future development with a purpose built facility designed for flexible use that can be easily adapted over time and with the ability to expand and contract service provision, e.g. shutting down areas after hours.

The BCHC has been designed to accommodate these needs. The building will provide a built form capable of providing a central point of focus and entry for patients and carers that converge over two levels. It also provides the opportunity for a pedestrian connection to the public transport facilities on the Warringah Mall site opposite.

The scheme has been designed to provide each community service with an outlook for the clients, and for staff to view the surrounding environment during

their work day. The design responds to the sun and view orientations while providing active sun shading and access to outdoor spaces where appropriate.



Urban Design & Built Form

3.3 Built Form

The built form proposed for the new facility is outlined in the attached drawings with this report.

Situated next to the confluence of the two main roads and at the prominent intersection of Condamine Street, Pittwater Road and William Street, it is proposed to mark the corner to form a “gateway” building on the southern approach into Brookvale.

The proposed BCHC development aims to;

- Provide a non-institutional, welcoming environment for patients and carers;
- Be five storeys high on Pittwater Road and four storeys high on William St;
- Address the 1 in 100 year flood planning level with a lower ground floor set at RL 11.2;
- Provide an average 7 metre setback from the boundary on the lower ground floor along Pittwater Road to establish a covered area and active colonnade for the bus interchange;
- Define the Pittwater Road street frontage by approximately following the boundary line kink on levels one and two of the Community Centre building (with a varying setback from the boundary between 125 and 600mm except at the location of the bridge lift, which is setback 65mm from the boundary at one corner);
- Be limited in height on the western boundary to RL 27.050
- Be setback on the top floor, 3.6 metres from the western boundary;
- Provide a commuter, visitor and staff car park adjacent to the existing commercial building on William Street, predominantly screened from the Pittwater Road by the Community Centre;

- Provide a weather protected, active edge along a pedestrian colonnade with retail opportunities, adjacent to the bus interchange;
- Provide visible public stairs and a lift as part of the Community Health Centre project for a pedestrian bridge spanning Pittwater Road;
- Provide a coherent elevation on Pittwater Road that can accommodate the pedestrian bridge;
- Address the proposed bus interchange along Pittwater Road by providing public amenity and weather protection with a notionally 3m to 4m high awning in response to kerbside levels that extends from the colonnade to an 800mm setback from the kerb line;
- Address the rise of one floor level across the site from the north to the south by providing:
 - Stairs within the colonnade at the corner of Pittwater Road and William St. (The significant change in level is too much to practically accommodate accessible ramps.); and
 - Lifts that provide access from the Lower Ground Floor to the Community Centre Reception on the Upper Ground Floor.
- Provide a main entry private vehicle drop off area accessed from William St at the Upper Ground Floor;
- Provide a pedestrian bridge across Pittwater Road for pedestrian and commuter amenity and safety;
- Provide discrete entry and exit for sensitive clinical services at the lower ground floor;
- Provide open public access to the car park via a breezeway on the lower ground floor;
- Provide direct staff access from the car park to the

Community Centre via a pedestrian bridge;

- Provide large vehicle access to the lower ground floor via an access way connecting William Street with Pittwater Road; and
- Provide views to the distant hills west behind Warringah Mall.



Proposed BCHC Building: View Looking North



Proposed BCHC Building: View Looking South

Urban Design & Built Form

3.4 Building Layout and GFA

The BCHC building is aligned along its length to Pittwater Road and the Gross Floor Area is 5,591m² over 5 levels with a central core. The Lower Ground Floor and Upper Ground Floor provide access to the two street frontages. Levels One and Two form the major floor plates each with approximately 1800m² in GFA. Level Three forms the smaller top floor and is setback from the Pittwater Road façade.

The Main Entrance is located on the Upper Ground Floor addressing the eastern side of the building. The Main Entrance, with an undercover drop off, will provide a welcoming sense of address and identity away from the busy main road, while promoting a friendly and inviting environment to encourage community use of the services and facilities provided. Public facilities will include waiting areas, toilets, baby change and feeding area with controlled access to beverage areas.

General waiting will include seating for clients with spaces for prams and wheelchairs. Along with the main waiting area on the Upper Ground Floor there are numerous sub-wait areas at different department locations to provide discrete waiting spaces which also cater for clients or visitors who may be pregnant, have mobility issues, or some form of chronic illness.

The front of house activities on the Upper Ground Floor also contains the Child and Family Service, the Child and Youth Mental Health Services and Health Information Services.

The building can also be accessed from the Lower Ground Floor fronting Pittwater Road via a lift lobby located in the breezeway. The Lower Ground Floor will contain two discrete services, the Opioid Clinic and HARP (HIV & Aid Related Programs) both of which have their own separate entries accessed from Pittwater Road. The Lower Ground Floor also provides service

areas for waste collection and plant.

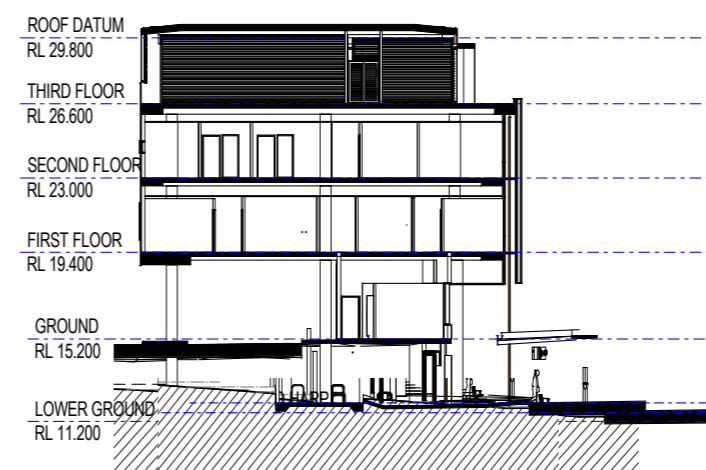
Level One contains the majority of the remaining community health services of Adult Mental Health, Drug & Alcohol, Breast Screening, Rehabilitation and Chronic Care and Community Nursing.

Level Two is a secure staff zone containing staff offices, workstations, meeting rooms, staff amenities and store rooms.

Level Three accommodates Oral Health with a shell space for further expansion and the main air handling plant. The shell space is envisaged to accommodate future community health accommodation or complimentary services.

Each department has its own access from centralised waiting areas. Department Layouts have been refined to achieve clarity of functional spaces. The sequence of room arrangements have been developed with reference to efficient service delivery, improved staff observation and acknowledge the patient journey through the facility.

Corridors throughout the facility are in accordance with Australian Health Facility Guidelines for Community Health. Where possible corridors are utilised as double sided to reduce circulation to room area ratio.



Section through UGF drop-off area

Site Area	5571m ²
<i>The GFA (gross floor area) of the building is as follows</i>	
Lower Ground Floor:	726
Ground Floor:	952
First Floor:	1675
Second Floor:	1687
Third Floor:	951
Total GFA:	5591

Urban Design & Built Form

3.5 External Materials and Finishes

The western facade is conceived as two “pavilions” in response to the kinked change in orientation of the western site boundary. The “pavilions” are separated by the central public stair and lift associated with the proposed pedestrian bridge. In contrast, the eastern façade addresses the access road to the car park and the intention is to provide a more human scale to the civic scale of the western elevation.

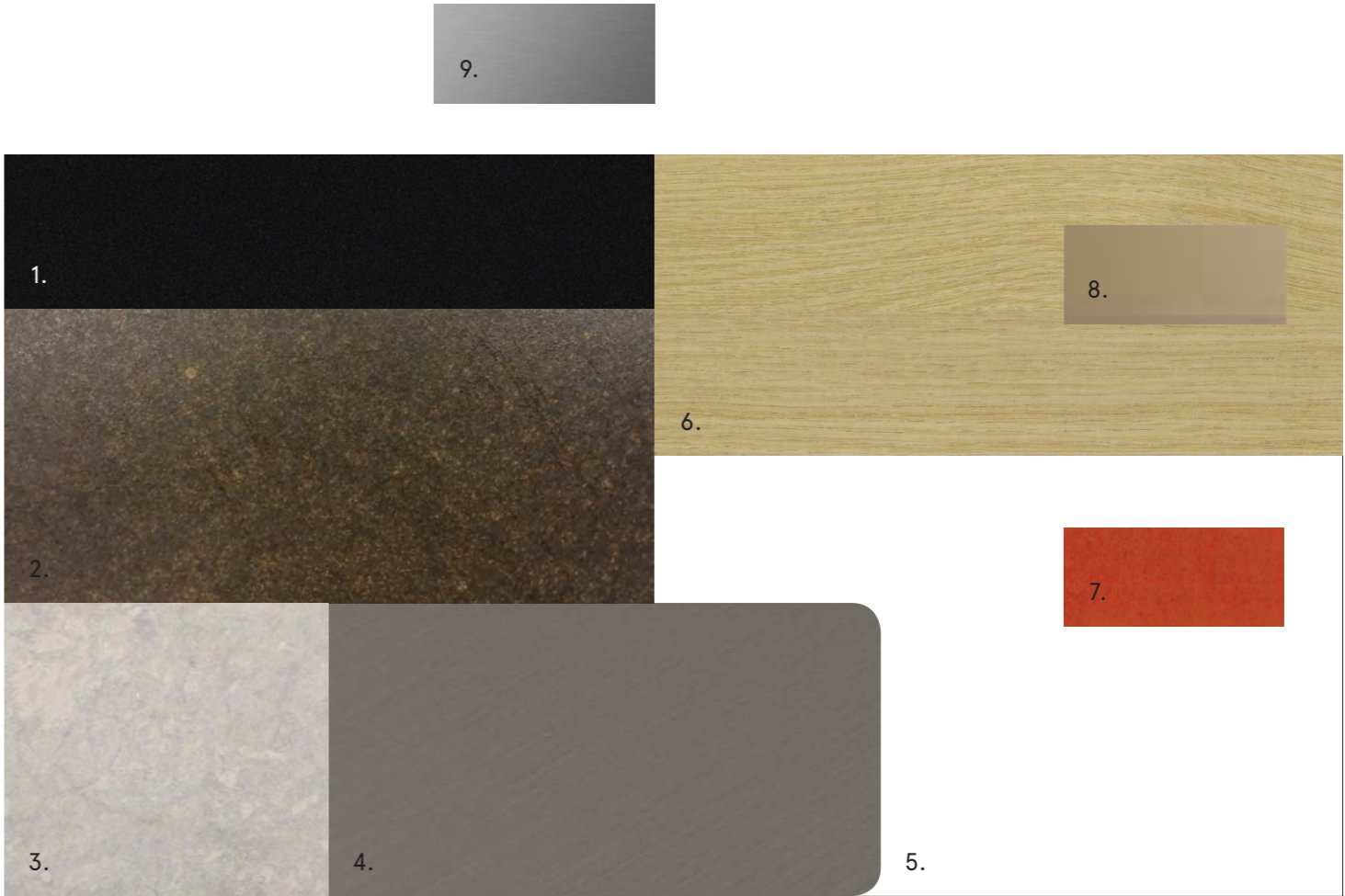
The cladding to the upper floors will comprise of lightweight aluminium cladding whilst durable masonry materials will be used at the lower pedestrian levels.

On the western façade, sun control, in the form of aluminium vertical blades, is proposed to screen the glazed curtain walls of Levels One and Two of the southern “pavilion” while on the northern “pavilion”, discrete window openings are composed to reduce and control sun penetration.

Colour, tone and texture will be used to articulate the form of the building.

Materials will be selected to provide the required level of durability, be of long life and low maintenance.

Refer to the elevations and perspectives attached with this report for further details.



- | | | | |
|----|--|----|---|
| 1. | Porcelain Panel Cladding System | 6. | Metal Composite Panel
Colour: Timber Oak |
| 2. | Porcelain Panel Cladding System | 7. | Structural Steel Columns Red Primer |
| 3. | Off Form Concrete | 8. | Medium Bronze Powdercoated Louvres |
| 4. | Metal Composite Panel
Colour: Zinc | 9. | Satin Stainless Steel Cladding |
| 5. | Metal Composite Panel
Colour: White | | |

Urban Design & Built Form

3.6 Vehicular Access and Parking

The proposed parking provisions for the BCHC consist of a seven storey car park structure behind the community health building which provides parking facilities for the following:

- A ground level car park for Community Health Clients directly off Pittwater Road with dedicated disabled car parking spaces, staff secure bicycle parking and undercover bicycle parking for BRT commuters.
- Commuter Car Parking on the mid-levels of the car park
- A dedicated secure staff fleet car park on the upper levels of the car park with a direct bridge connection to the dedicated secure staff level of the building at Level Two of the BCHC.
- A dedicated secure staff car park on the upper levels of the car park.
- Secure BRT bicycle parking is located on the northern end of the site accessed from Pittwater Road.
- All Council bicycle parking spaces from the corner of William Street relocated to the northern side of the site.

The building utilises the existing access roads into the site from both Pittwater Road and William Street and includes;

- A drop off area off William Street in close proximity to the main entrance.
- A lay by area adjacent to the car park for service vehicle parking and waste collection.

The adjacent plan shows the overall pedestrian, vehicles and service access paths through the site.

A detailed Transport and Accessibility Study has been undertaken, refer to TTW Report.



Pedestrian & Vehicular Access Diagram

Urban Design & Built Form

3.7 Streetscape and Landscape

The Pittwater Road streetscape will be defined and enhanced by the façade of the building providing a human scale at street level. The proposed building will be set back and provide an awning to reduce the scale of the building at street level as well as provide a pedestrian and commuter amenity.

The proposed building setback includes space for BRT commuter facilities and a human scaled open public space on Pittwater Road. New paving (including tactile indicators) and lighting along with BRT seating, ticketing and signage facilities will provide an improved street amenity for all pedestrians and commuters.

While the constrained site offers limited opportunities for soft landscaping; the development will consolidate the new BRT and existing council bicycle parking facilities within a new cohesive scheme. Existing council bicycle parking will be relocated from the corner of William Street to the northern edge of the site. Soft landscape at northern and southern end of the site will create areas of client and public seating under shade.



West Elevation



Legend

- Feature Paving
- Concrete Paving
- Road / Parking
- Landscape Planting
- Landscape Feature Planting
- Seating
- Boundary Line



Trees: Feature Trees and Landscape Trees

Name	Common Name	Size
Landscape Tree: Banksia Serrata	Old Man Banksia	4m high, 3m wide
Feature Tree: Backhousia Citriodora	Lemon Scented Myrtle	5m high, 4m wide

Shrubs: Landscape and Feature Planting

Name	Common Name	Size
Grevillea 'Moonlight'	Grevillea Moonlight	3m high, 3m wide
Westringia Wynyabbie Gem	Coast Rosemary	1m high, 1m wide
Banksia Birthday Candles	Birthday Candles Banksia	.5m high, .5m wide
Rosemarinus Huntington Carpet	Prostrate Rosemary	.3m high, varies

Urban Design & Built Form

3.8 Building Signage

Building signage will be selected to fulfil its function to comply with relevant Australian Standards and provide the required level of durability, be of long life and low maintenance whilst fulfilling design objectives.

The site is highly visible from Pittwater Road which provides the main address for the majority of transport modes that will be used to access the site. The main building signage is located on the north and south facades to provide good long distance identification of the building.

The main external signs will need to be visible at all times of day and early evening and will be illuminated. As the address of building is prominent, the external main building signs will be halo lit to limit unnecessary light spill whilst providing a high quality legible sign.

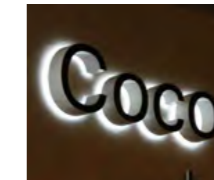
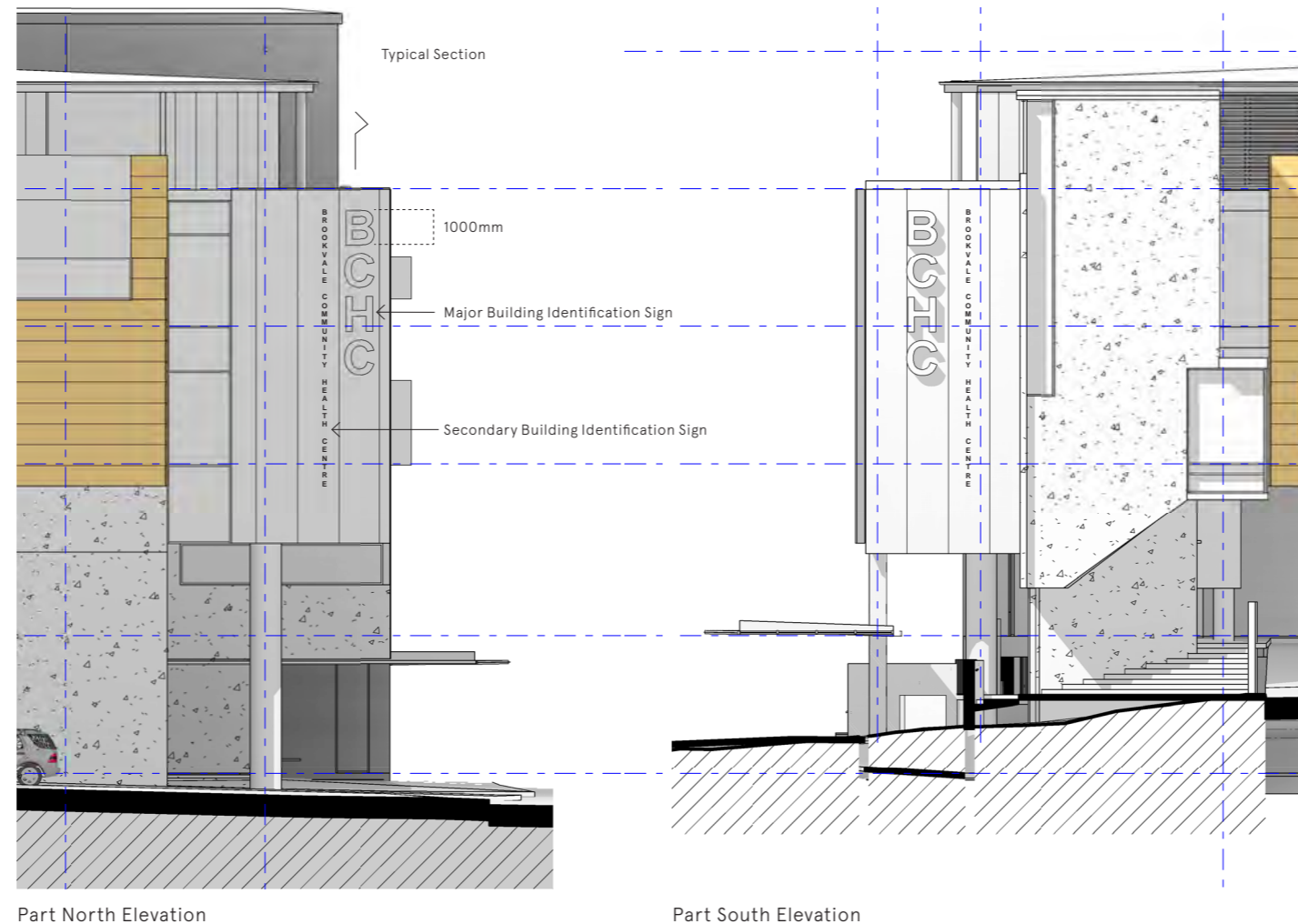
The use of halo lit letters means the face and sides of the letter are not illuminated but of a solid construction with the lighting facing backwards toward the wall. The light floods the wall behind the letter allowing the illumination to come out from behind and around the edges of the letters.

The other external signage will be located in well illuminated public areas of the building such as the Pittwater Road Lift Lobby, the pedestrian breezeway through the building to the car park and main entry drop off area off William Street. These other signs will be non-illuminated signs and contained within the site

Advertising plays an important social and economic role in today's society, with signs ranging from large billboards to small awing signs, and more recently, electronic signs becoming a common feature along transport corridors.

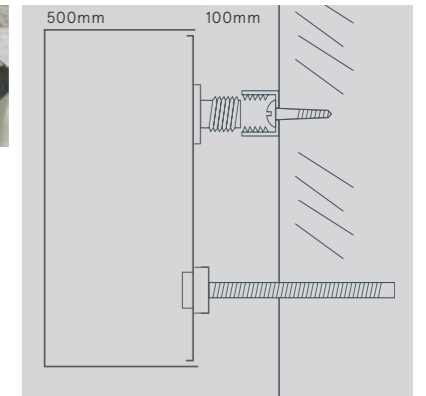
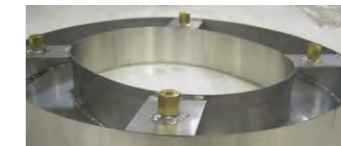
The pedestrian bridge proposal across Pittwater Rd will contain illuminated digital signage which will be designed in accordance with all the relevant authorities so that it does;

- not distract drivers from the driving task;
- not compete with traffic control devices for the road user's attention;
- result in visual clutter to the extent that traffic control devices cannot be easily seen and recognised by road users;
- obscure or interfere with a road user's view of other vehicles and pedestrians;
- encourage stopping, slowing down or turning
- where illuminated or reflective, 'dazzle' or cause discomfort to approaching road users;
- encourage stopping, slowing down or turning movements in inappropriate locations
- desensitise road users to the presence of signage, thereby undermining the impact and credibility of traffic control devices.
- The proposal digital sign would be 2m in height across the bottom the bridge.



Major Building Identification Sign – Wall Mounted

- Fabricated aluminium individual letters 1000mm high with 500mm returns.
- Internally illuminated with LED back lights mounted inside each letter.
- Fixed to façade with 100mm space off wall.



Typical Section NTS

Secondary Building Identification Sign – Wall Mounted

- Fabricated aluminium individual letters 2000mm high with 50mm returns.
- Fixed to façade with 50mm space off wall.



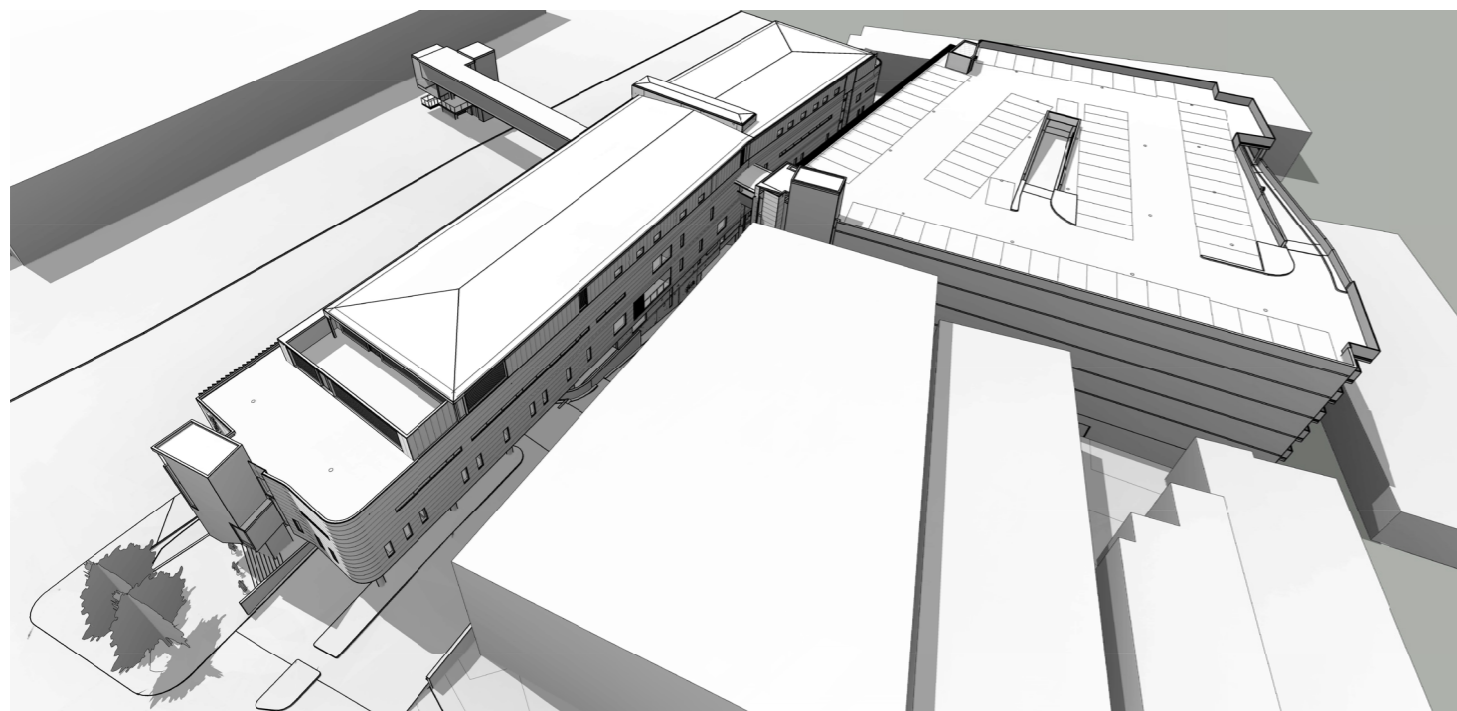
Urban Design & Built Form

3.9 Crime Prevention Through Environmental Design

The creation of safe built environments is a key principle in the internal and external design of the Community Health Services Building. The building has been designed to provide passive surveillance over the main public area.

Appropriate levels of external lighting will be carefully considered in conjunction with pedestrian paths of travel and way finding to provide predictable routes and avoid entrapment areas.

The external perimeter and car park of the building will be monitored by CCTV. The Opioid Clinic on the Lower Ground Floor will have an additional CCTV system to specifically monitor their clients to ensure that they have dispersed upon exiting the building.



Proposed BCHC Building: Aerial view of East Elevation

3.10 Services and Waste Management

Services:

In order to maximise the open pedestrian space on the lower ground level, the main building plant is located on the top level of the building. On this level the plant is set back all sides from the edge of the building minimising the overall height impact of the building.

The Substation and associated Main Switch Room require truck access and have been located on Lower Ground Floor. Other services such as Waste Collection and Medical Gas Storage which also require regular truck deliveries are located on the Lower Ground Floor in close proximity to the service vehicle lay by adjacent to the car park.

Waste Management:

Waste collected throughout the building is transferred to a Disposal Room on each level. From there it is collected and stored in a fully enclosed General and Recycled Garbage Room located in the Ground Level of the Car Park adjacent to the truck lay by. General and recycled garbage is collected regularly by a private contractor from this area.

Sharps, Clinical and Cytotoxic waste are also collected in a Disposal room on each level and then transferred to the Lower Ground Floor Dirty Dock. Separate private contractors individually collect each relevant waste product via external access to this room.

Clean and Dirty Instrument and Linen deliveries to Oral Health occur 2-3 times a day and from the truck lay by they are taken directly up to the Oral Health Department.

In all instances both all plant and waste activities are contained within the site and planned to ensure minimal impact on adjoining properties and residents.

3.11 Demolition and Sequencing of Work

The works are proposed to be undertaken in the following sequence. A series of Early Works determined under a REF will involve the establishment of a site fence where applicable for safety and the demolition of minor structures on the site including the clearing of vegetation and trees. There are two minor trees identified on the Bee & Lethbridge survey dated June 2014. These are both less than 5m canopy and proposed to be removed from the site. The existing concrete paving will be retained in to mitigate dust generation on site.

Following these initial works the construction of the main structures will occur. The project will consider the potential to construct the car park at an early stage to provide space for contractor's parking, storage facilities and sheds.

The final sequence of works will be subject to Detailed Design and the Contractor's Planning and Construction programme.

Urban Design & Built Form

3.12 Ecologically Sustainable Development

The project team has taken a considered approach to Ecologically Sustainable Development. The underlying goal being to achieve a holistic design response that finds the correct balance between the following key categories:

- Environmental: emissions, occupancy and user controls
- Health benefits: daylight, air quality, thermal, visual comfort and user control
- Flexibility: operational, layout & load adaptability and future expansion
- Operation: security, user interaction, training and education
- Cost: capital, maintenance, energy life cycle and related building costs
- Reliability: Ease of maintenance, resilience and proven technology

Health Infrastructure requires energy modelling and an independent commissioning agent for projects larger than \$10 million. The design commitment is for:

- Energy performance that achieves a minimum 10 percent improvement when compared with either the "stated value" or the deemed to satisfy reference building.
- All mechanical services and automated control systems to be commissioned to meet the required function with minimum energy use.

In addition Health Infrastructure will target a 4 Star Green rating, however will not be formally certified against this rating tool.

Other specific areas of consideration are as follows:

Siting

Environmental principles are maintained with the siting of the building in line with the site contours, reducing cut and fill and retaining walls to allow the natural hydrology of the site to be maintained.

Façade Shading

The 'southern pavilion' of the building faces west and the facade is shaded by louvres to reduce overall heat gain and energy requirements for cooling. The louvres also minimise glare to the internal occupants.

Natural Light

The use of natural light is maximised in all habitable areas to reduce the reliance on artificial lighting to achieve illumination levels and contribute to overall energy savings in the building.

Predominantly services, stores and the like located in internal areas.

Services/Building Management System (BMS)

A Building Management System (BMS) will control all building services (A/C and Lighting) shutting them down automatically after hours.

Other items being considered to control services are as follow:

- Split HVAC System allowing different A/C zoning and operation times
- Sensor lights and lighting on timers
- Separate after hours A/C activation

Water

- Water conserving WC suites and tap ware will be selected
- Time controlled taps in public amenities

Timber Policy

The proposal will adopt the following environmental policies:

- No rainforest timbers are to be used unless plantation grown.
- No timbers from high conservation forests are to be used.
- Use of recycled timber, engineered and glued timber composite products, timber from plantations or from sustainably managed regrowth forests.

Materials

The proposal will use materials and products which:

- Adequately and economically perform their intended functions, and also have lower adverse environmental impacts throughout their life cycle.
- Contain reduced or nil hazardous substances
- Are low VOC products
- Reduce the amount of PVC used throughout the building
- Reduce the demand for rare or non-renewable resources
- Are made from or contain recycled materials or can be recycled at the end of their useful life.

Pesticides

No chemical pesticides and termiticide are to be used. Preventive treatments are to be specified by physical means i.e. termimesh or gravel.

Environmental Amenity

4 Environmental Amenity

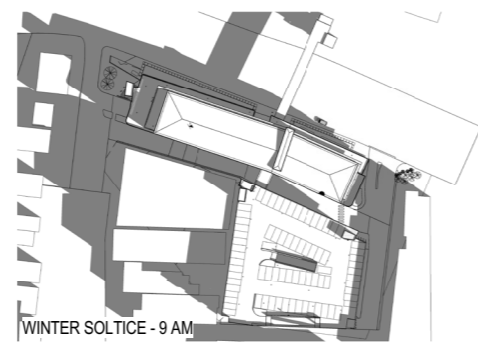
The new Community Health Centre Architectural response has aimed to minimise any impacts to the amenity of the surrounding context through the following design considerations:

4.1 Solar Access / Overshadowing

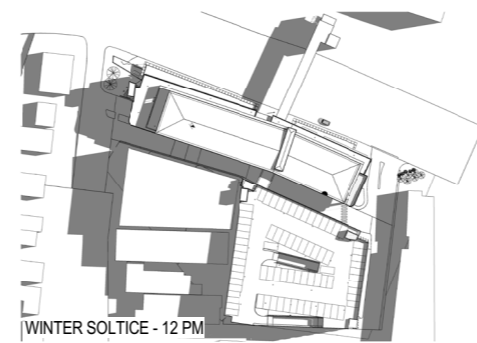
The proposed scheme design does not restrict the solar access or overshadow of any adjoining residential buildings. The building will partly overshadow the corner residence at 610 Pittwater Rd at the winter equinox from sunrise to 12pm.

The existing commercial building at 2-4 William Street overshadows a portion of the William Street residences and the overshadowing that will be created by the BCHC primarily sits in this zone. The proposed BCHC will reduce the solar access of 2-4 William Street, but will also screen the building from the western sun. The proposed car park structure will cause some minor overshadowing to the surrounding light industrial and commercial properties.

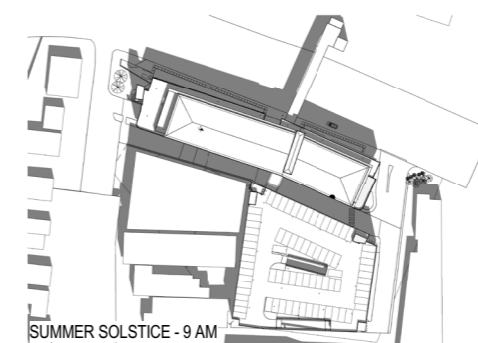
Refer to the large Site Shadow Diagrams for details located in the attached drawings.



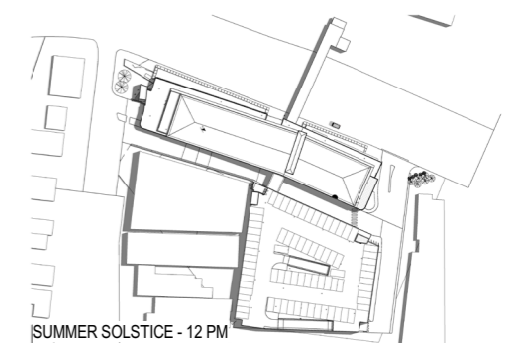
WINTER SOLTICE - 9 AM



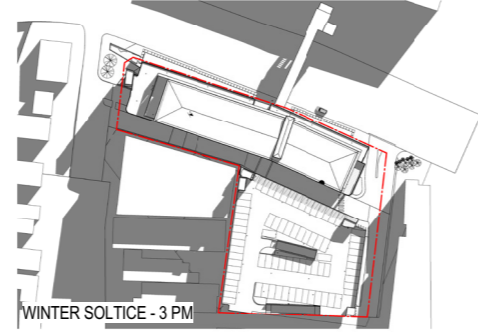
WINTER SOLTICE - 12 PM



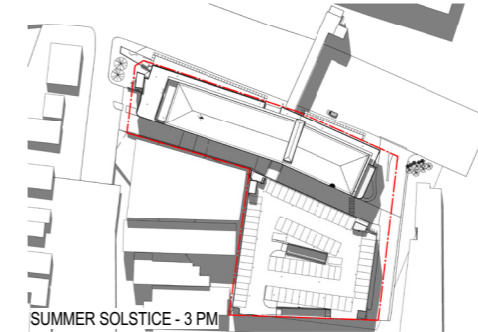
SUMMER SOLTICE - 9 AM



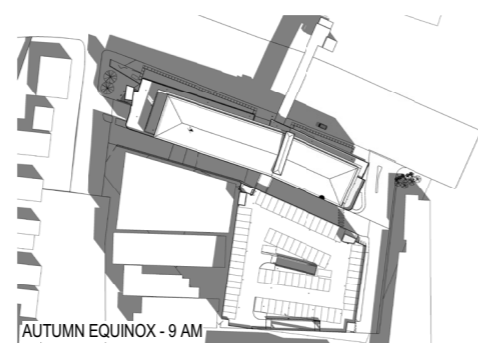
SUMMER SOLTICE - 12 PM



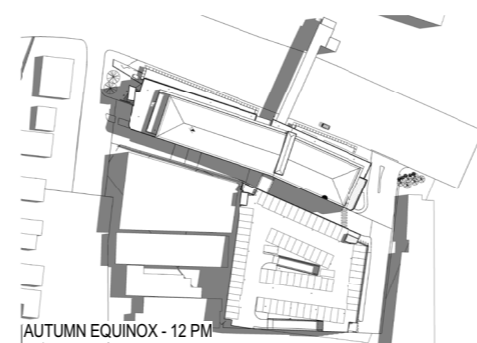
WINTER SOLTICE - 3 PM



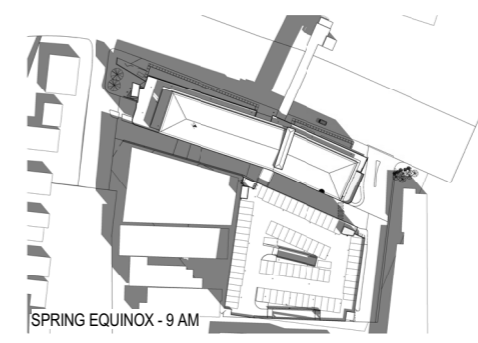
SUMMER SOLTICE - 3 PM



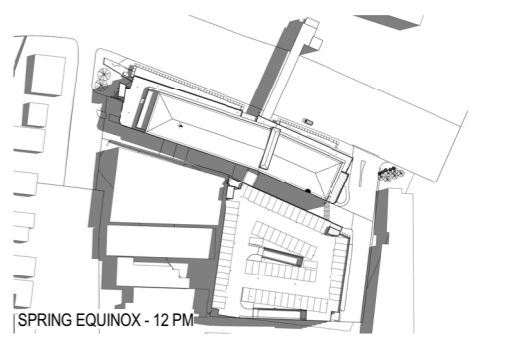
AUTUMN EQUINOX - 9 AM



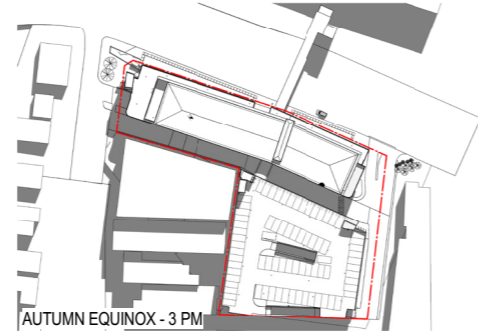
AUTUMN EQUINOX - 12 PM



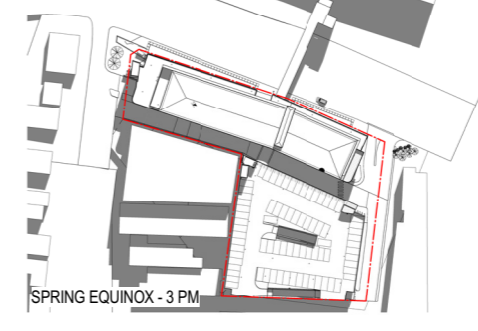
SPRING EQUINOX - 9 AM



SPRING EQUINOX - 12 PM



AUTUMN EQUINOX - 3 PM



SPRING EQUINOX - 3 PM

Solar Access / Overshadowing